WKE JULY 2023

PROJECT ID: 1100-45-70

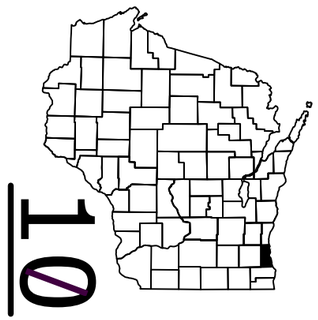
WITH: 1100-46-71

COUNTY: MILWAUKEE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
~~Section No.~~	~~5~~	~~Plan and Profile~~
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 916



N

DESIGN DESIGNATION IH 41/ 43/ 894

A.A.D.T.	2023	=	134,700
A.A.D.T.	2043	=	142,900
D.H.V.		=	5,839 / 5,610
D.D.		=	51% / 49%
T.		=	10.3%
DESIGN SPEED		=	60 MPH
ESALS		=	20,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-45-70	WISC 2023222	1

IH 41 AIRPORT FREEWAY

84TH ST TO 35TH ST (MAINLINE)

IH 41

MILWAUKEE COUNTY

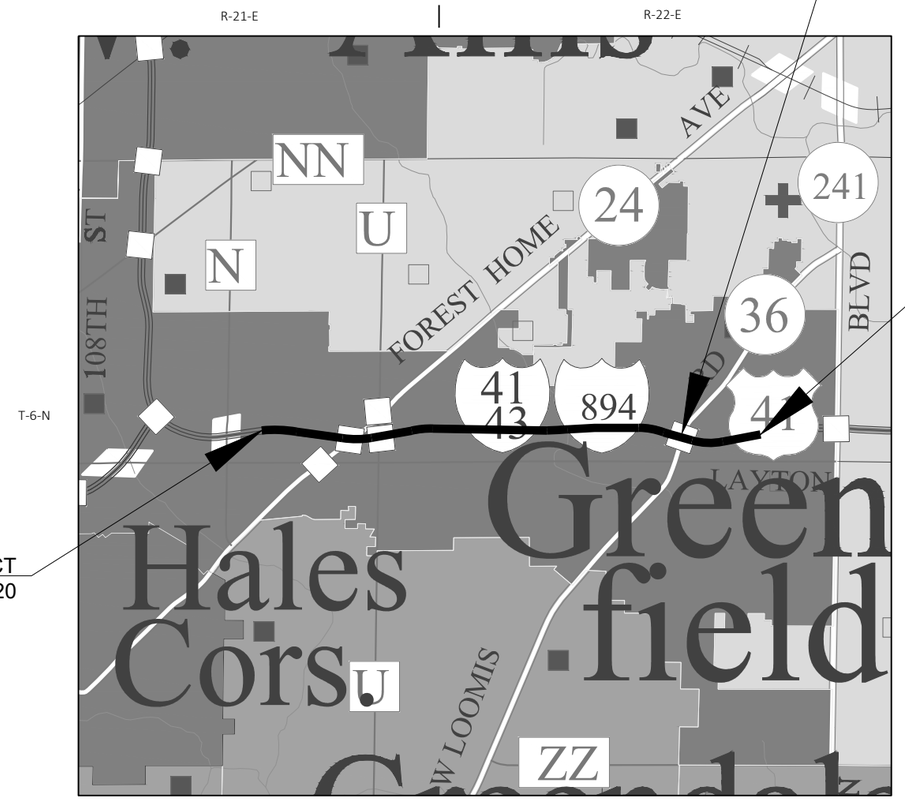
STATE PROJECT NUMBER

1100-45-70

229EWW+47.79 IH 41 NB/43 SB/894 WB =
229EW+47.79 IH 41/43/894
X = 590135.54
Y = 271530.73

STRUCTURES	NOISE WALLS	SIGN BRIDGES
B-40-191	N-40-009	S-40-410
B-40-192	N-40-010	S-40-413
B-40-196		S-40-801
B-40-197		S-40-834
B-40-200		S-40-869
B-40-201		S-40-870
B-40-321		S-40-3099
B-40-1002		S-40-3100
		S-40-3101
		S-40-3102

END PROJECT
STA 256EWW+37.10



BEGIN PROJECT
STA 81EW+29.20
X = 575,416.89
Y = 271,774.95

LAYTON

R-21-E R-22-E

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 3.316 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2007). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

Jacobs
1610 N. 2ND STREET #201
MILWAUKEE, WI 53212

WISCONSIN
WILLIAM T. STOECK
35921-006
MILWAUKEE, WI
PROFESSIONAL ENGINEER

5/1/2023 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	R.A. SMITH
Designer	JACOBS
Project Manager	CHRISTOPHER HAGER, PE
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	WILLIAM MOHR, PE

APPROVED FOR THE DEPARTMENT

DATE: 5/1/23 (Signature)

E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-010101-TI.DWG PLOT DATE : 10/30/2022 11:44 PM PLOT BY : SCHARLAU, DAVE PLOT NAME :

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PHONE: (262) 953-4289
CELL: (920) 912-1036
RMERRY@SEWRPC.ORG

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES
BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

GENERAL NOTES

ANY REINFORCEMENT LOCATED IN EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM, AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF TOPSOIL IS COMPUTED FROM MEASUREMENTS BETWEEN THE SUBGRADE SHOULDER POINTS AND THE SLOPE INTERCEPTS AS SHOWN ON THE CROSS SECTIONS PLUS 5 FEET FOR ROUNDING.

CONCRETE BARRIER TYPE S42 AND S42A AND CONCRETE BARRIER TYPE S56 AND S56A WILL NOT REQUIRE A CONCRETE BARRIER PAD AND CAN INSTEAD BE POURED DIRECTLY ON THE PROPOSED HMA PAVEMENT AS SHOWN ON THE PROPOSED TYPICAL SECTIONS. THESE BARRIERS WILL STILL REQUIRE END ANCHOR SECTIONS AS SHOWN IN THE STANDARD DETAIL DRAWINGS. ALL OTHER BARRIER TYPES SHOULD FOLLOW THE STANDARD DETAIL DRAWINGS OR CONSTRUCTION DETAILS AS SHOWN IN THE PLANS.

CURB HEIGHTS AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 0 TO 4 INCHES OR 0 TO 6 INCHES IN 6 FEET.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER.

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP MEDIUM.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH THROUGHOUT THE PROJECT.

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

FERTILIZER SHALL NOT BE USED WITHIN 100' OF NAVIGABLE WATERWAYS OR WETLANDS.

WHEN DEFINING THE PAVEMENT STRUCTURE, THE BOTTOM OF THE BASE AGGREGATE DENSE IS CONSIDERED THE SUBGRADE LINE. THE SELECT CRUSHED MATERIAL LAYER IS A SUBGRADE IMPROVEMENT.

CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS, CONTRACTOR IS TO NOTIFY ENGINEER.

THERE ARE NO RUMBLE STRIPS ALLOWED IN MILWAUKEE COUNTY. DIAGONAL PAVEMENT MARKING WILL BE USED ON SHOULDERS.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER.

THE REMOVAL OF RAISED PAVEMENT MARKERS IS INCIDENTAL TO REMOVING ASPHALTIC SURFACE MILLING. MILLING OF BASE PATCHES ARE INCIDENTAL TO MILLING.

ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

EXISTING RIGHT-OF-WAY IS APPROXIMATE AND IS BASED ON MILWAUKEE COUNTY GIS.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

ASPHALT MILLING AND ASPHALT OVERLAY OPERATIONS SHALL NOT RESULT IN STANDING WATER. POSITIVE DRAINAGE ALONG THE ROADWAY CROSS SLOPE MUST BE MAINTAINED AT ALL TIMES.

PROVIDE TEMPORARY POSITIVE DRAINAGE ON THE NEWLY INSTALLED STORM SEWER SYSTEM UNTIL IT IS ABLE TO EFFECTIVELY DRAIN TO ITS INTENDED OR PLANNED OUTFALL.

ALL INLETS IN DRIVING LANES DURING CONSTRUCTION MUST HAVE WELDED OR BOLTED COVERS.

CONSTRUCT HMA PAVEMENT WITH THE FOLLOWING LAYERS:

	PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION
A	4 SMA 58-28 V 3 HT 58-28 H	4"	1-3/4" UPPER LAYER 2-1/4" LOWER LAYER	12.5 MM 19.0 MM
B	4 SMA 58-28 S 3 HT 58-28 H 3 HT 58-28 H 3 HT 58-28 H	11-1/2"	1-3/4" UPPER LAYER 3-1/4" LOWER-UPPER LAYER 3-1/4" LOWER-MIDDLE LAYER 3-1/4" LOWER-LOWER LAYER	12.5 MM 19.0 MM 19.0 MM 19.0 MM
C	4 MT 58-28 S	2"	2" UPPER LAYER	12.5 MM
D	4 SMA 58-28 V	VARIES 2" - 4"	2" - 4" VARIABLE UPPER LAYER	12.5 MM

REFERENCE LINE CALLOUTS

EW - IH 41/ 43/ 894
EWW - IH 41 NB/ 43 SB/ 894 WB AT SPLIT
EWE - IH 41 SB/ 43 NB/ 894 EB AT SPLIT
TA - S. 84TH STREET
TAA - S. 84TH STREET EB OFF RAMP
TAB - S. 84TH STREET WB ON RAMP
FHA - W. FOREST HOME AVENUE EB ON RAMP
FHB - W. FOREST HOME AVENUE WB OFF RAMP
TBA - S. 76TH STREET EB ON RAMP
TBB - S. 76TH STREET WB OFF RAMP
TCA - S. 60TH STREET EB ON RAMP
TCB - S. 60TH STREET EB OFF RAMP
TCC - S. 60TH STREET WB ON RAMP
TCD - S. 60TH STREET WB OFF RAMP
LRA - W. LOOMIS ROAD EB ON RAMP
LRB - W. LOOMIS ROAD EB OFF RAMP
LRC - W. LOOMIS ROAD WB ON RAMP
LRD - W. LOOMIS ROAD WB OFF RAMP TO SB
LRE - W. LOOMIS ROAD WB OFF RAMP TO NB

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
STORM SEWER
EXISTING UTILITY PLANS
PERMANENT SIGNING
LIGHTING PLANS
SIGNAL PLANS
STAGE CONSTRUCTION
ALIGNMENT LAYOUT

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L OR ℄	CENTER LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
DISCH	DISCHARGE
Δ	DELTA
é	INTERSECTION ANGLE
EB	EASTBOUND
ENB	EXISTING NOISE BARRIER
EOP	EDGE OF PAVEMENT
FE	FIELD ENTRANCE
FL	FLOW LINE
FS	FULL SUPERELEVATION
HMA	HOT MIX ASPHALT
IE	INVERT ELEVATION
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PNB	PROPOSED NOISE BARRIER
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L OR ~	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQ'D	REQUIRED
RD	ROAD
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-020101-GN.DWG
LAYOUT NAME - 11004570-020101-GN - 02
PLOT DATE : 11/15/2022 12:49 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

2

CITY OF GREENFIELD

S. 92ND ST

S. 84TH ST

CTH U/S. 76TH

STH 24/W. FOREST HOME AVE

S. 68TH ST

S. 60TH ST

N

BEGIN PROJECT
STA 81EW+29.20

N-40-010
REPAIR NOISE BARRIER

END CONSTRUCTION
84TH STREET
STA 23TA+10.00

B-40-191
PPC OVERLAY
REPAIR CONCRETE SLOPES
JOINT REPLACEMENT

S-40-3011
EXISTING FULL SPAN
SIGN STRUCTURE
TO REMAIN

S-40-801
EXISTING FULL SPAN
SIGN STRUCTURE
REMOVE AND RELOCATE

S-40-413
EXISTING FULL SPAN
SIGN STRUCTURE
REMOVE AND RELOCATE
NEW DMS

N-40-009
REPAIR NOISE BARRIER

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S-40-3102

S-40-869
EXISTING MEDIAN
SIGN STRUCTURE
REMOVE AND RELOCATE

S-40-3101

B-40-1002 PROTECTIVE
SURFACE TREATMENT
RESEAL

B-40-192
PPC OVERLAY
REPAIR CONCRETE SLOPES
JOINT REPLACEMENT

BEGIN CONSTRUCTION
84TH STREET
STA 17TA+95.00

CTH Y/W. LAYTON AVE

CITY OF GREENFIELD

S. 51ST ST

STH 36/W. LOOMIS RD

S. 35TH ST

S. 27TH ST

S-40-410
EXISTING FULL SPAN
SIGN STRUCTURE
REMOVE AND RELOCATE
NEW DMS

S-40-3100

B-40-196
PPC OVERLAY
STRUCTURE PAINTING
REPAIR CONCRETE SLOPES
JOINT REPLACMENT

S-40-3099

END PROJECT
STA 256EWW+37.10

S-40-834
EXISTING FULL SPAN
SIGN STRUCTURE
MAINTENANCE

B-40-197
PPC OVERLAY
STRUCTURE PAINTING
REPAIR CONCRETE SLOPES
JOINT REPLACEMENT

S-40-812
EXISTING CANTILEVER
SIGN STRUCTURE
TO REMAIN

B-40-200
METHACRYLATE SEAL

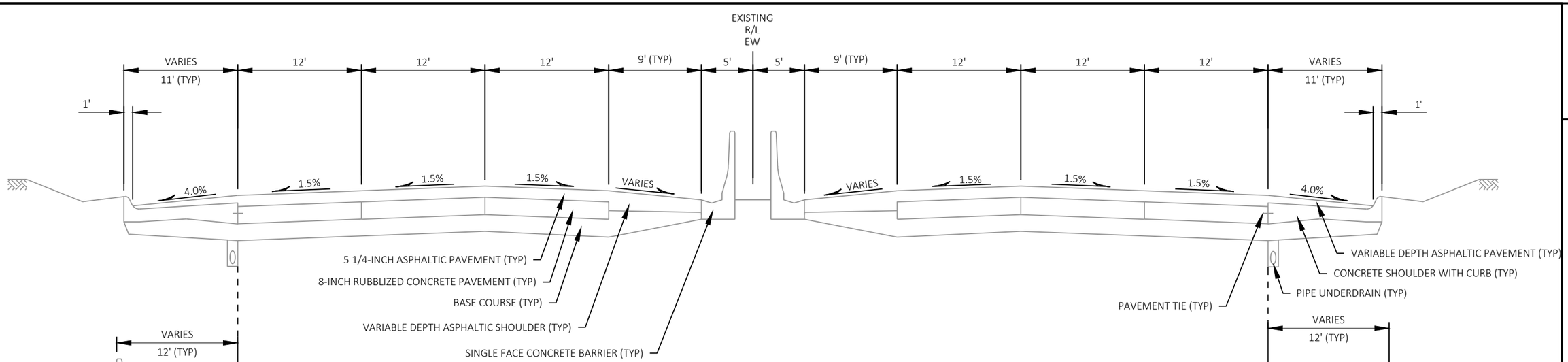
B-40-201 MAINTENANCE

B-40-321
REPAIR BOX CULVERT

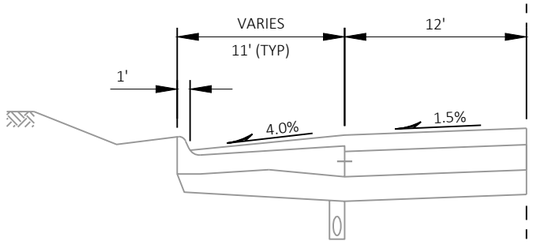
S-40-870
EXISTING MEDIAN
SIGN STRUCTURE
REMOVE AND RELOCATE

229EWW+47.79 IH 41 NB/43 SB/894 WB =
229EW+47.79 IH 41/43/894

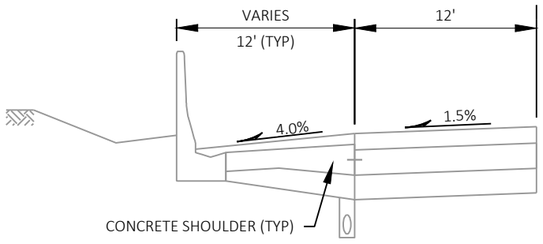
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E



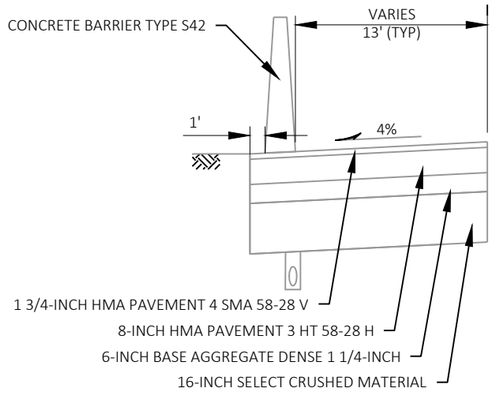
STA 94EW+93.88 TO STA 100EW+18.86
STA 122EW+22.63 TO STA 124EW+93.23
STA 148EW+98.22 TO STA 151EW+34.11
STA 175EW+62.32 TO STA 178EW+02.52
STA 199EW+82.94 TO STA 205EW+17.18



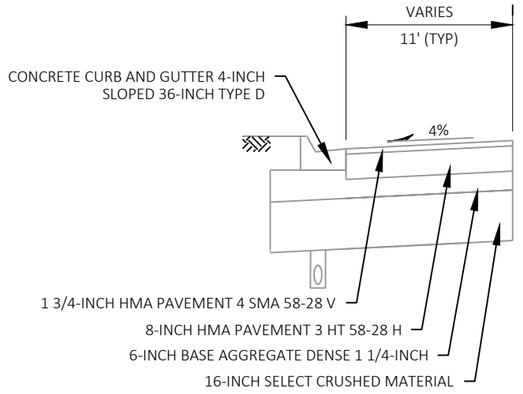
STA 227EW+56.47 TO STA 228EW+54.79



STA 228EW+54.79 TO STA 229EW+35.96



STA 100EW+18.86 TO STA 103EW+72.20



STA 103EW+72.20 TO STA 105EW+77.19

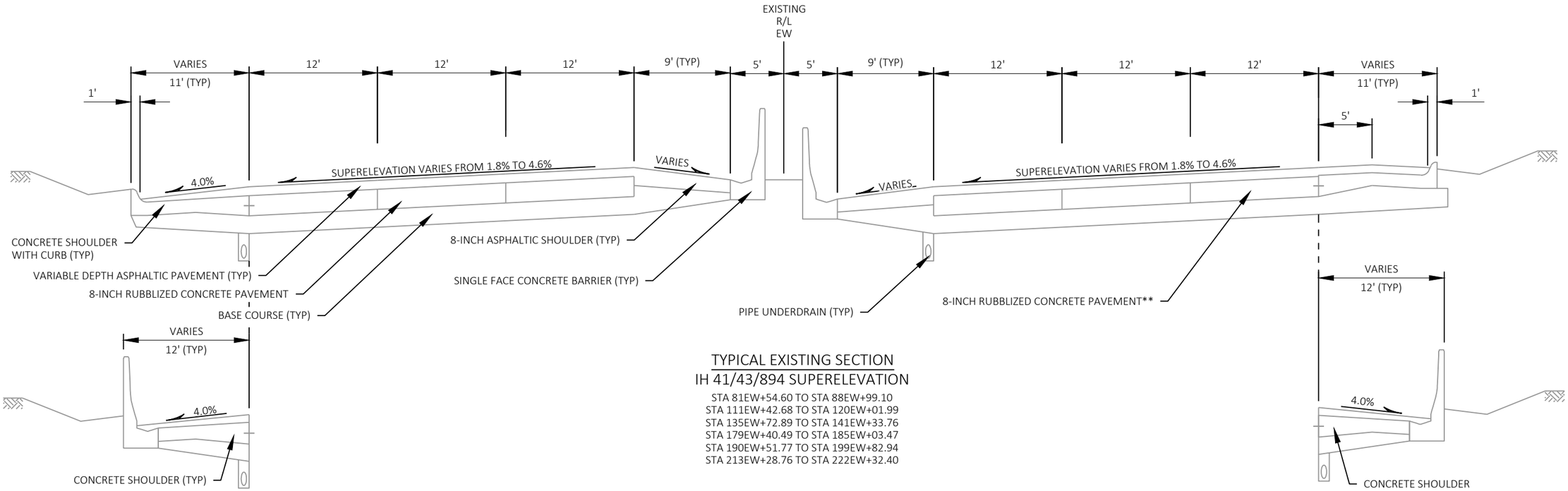
STA 92EW+99.36 TO STA 97EW+27.32
STA 109EW+52.04 TO STA 111EW+42.68
STA 120EW+68.92 TO STA 123EW+16.01
STA 147EW+70.60 TO STA 149EW+78.70
STA 174EW+10.28 TO STA 176EW+50.73
STA 200EW+39.98 TO STA 205EW+62.57
STA 226EW+18.39 TO STA 229EW+35.96

TYPICAL EXISTING SECTION
IH 41/43/894

STA 81EW+29.20 TO STA 81EW+54.60
STA 88EW+99.10 TO STA 95EW+15.96
STA 97EW+05.32 TO STA 111EW+42.68
STA 120EW+01.99 TO STA 135EW+72.89
STA 141EW+33.76 TO STA 179EW+40.49
STA 185EW+03.47 TO STA 190EW+51.77
STA 199EW+82.94 TO STA 202EW+06.41
STA 203EW+48.83 TO STA 213EW+28.76
STA 222EW+32.40 TO STA 229EW+47.79

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 5	E

2



STA 191EW+21.96 TO STA 199EW+82.94

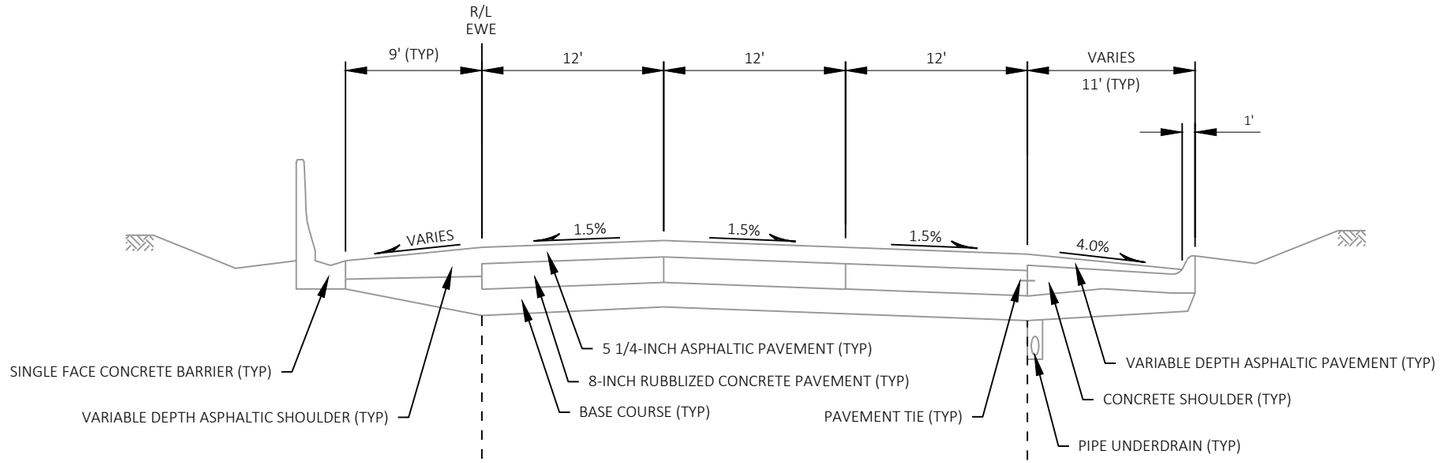
TYPICAL EXISTING SECTION
IH 41/43/894 SUPERELEVATION

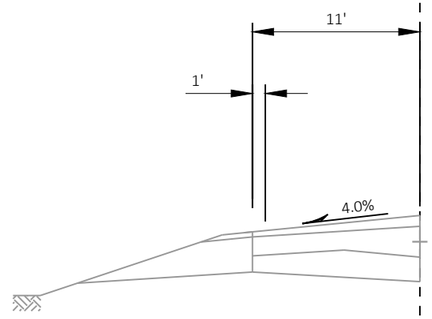
STA 81EW+54.60 TO STA 88EW+99.10
STA 111EW+42.68 TO STA 120EW+01.99
STA 135EW+72.89 TO STA 141EW+33.76
STA 179EW+40.49 TO STA 185EW+03.47
STA 190EW+51.77 TO STA 199EW+82.94
STA 213EW+28.76 TO STA 222EW+32.40

STA 111EW+42.68 TO STA 113EW+41.67

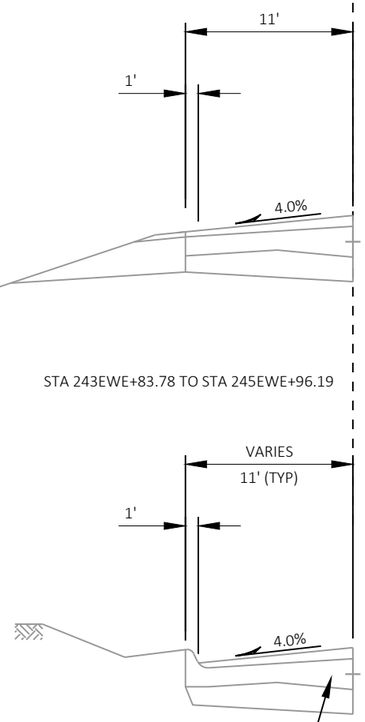
** 9-INCH REINFORCED CONCRETE FROM STA 213EW+28 TO STA 222EW+32.40

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

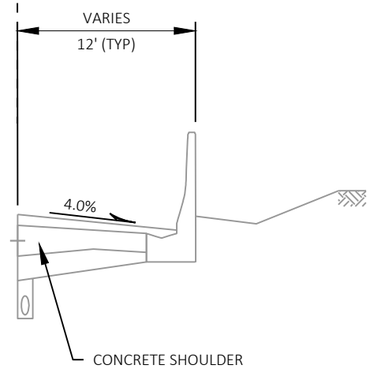




STA 243EWE+83.78 TO STA 245EWE+96.19



STA 245EWE+96.19 TO STA 255EWE+95.30

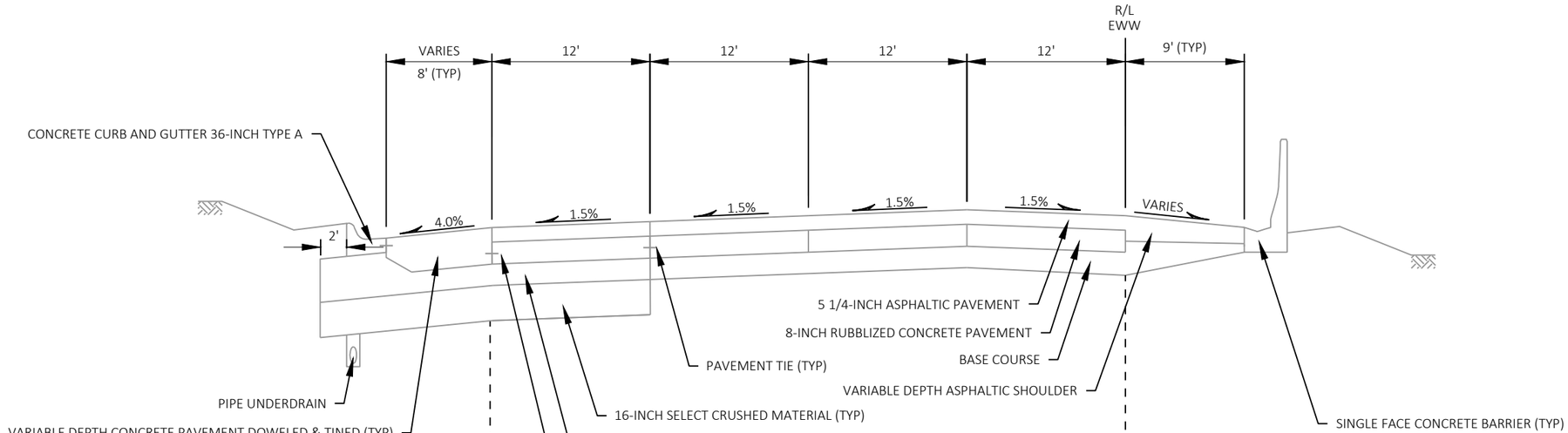


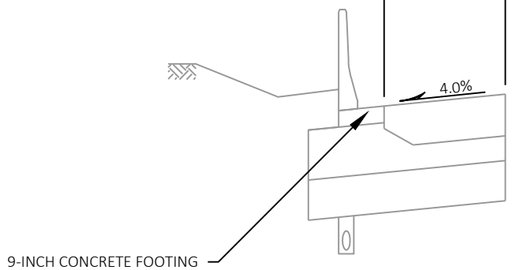
STA 229EWE+47.79 TO STA 229EWE+69.12
STA 254EWE+33.46 TO STA 255EWE+95.30

TYPICAL EXISTING SECTION
IH 41 SB/43 NB/894 EB

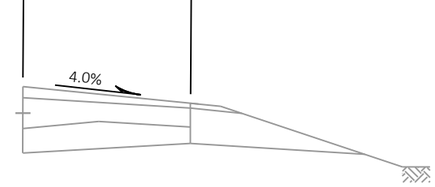
STA 229EWE+47.79 TO STA 234EWE+74.23
STA 243EWE+83.78 TO STA 255EWE+95.30

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E





STA 240EWW+88.48 TO STA 241EWW+05.71
STA 248EWW+98.52 TO STA 251EWW+97.51

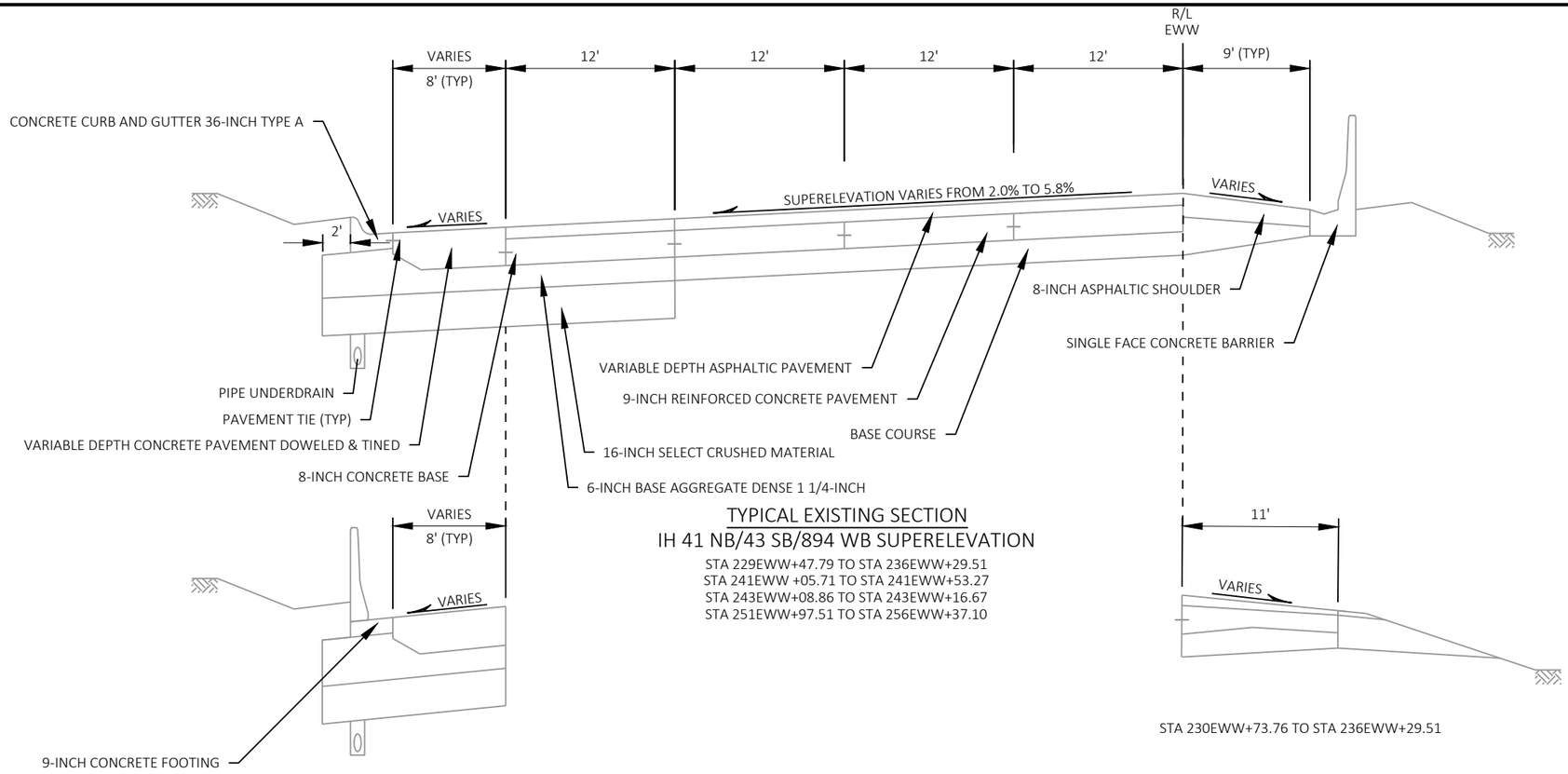


STA 236EWW+29.51 TO STA 240EWW+79.59

TYPICAL EXISTING SECTION
IH 41 NB/43 SB/894 WB

STA 236EWW+29.51 TO STA 241EWW+05.71
STA 243EWW+16.67 TO STA 251EWW+97.51

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 8	E

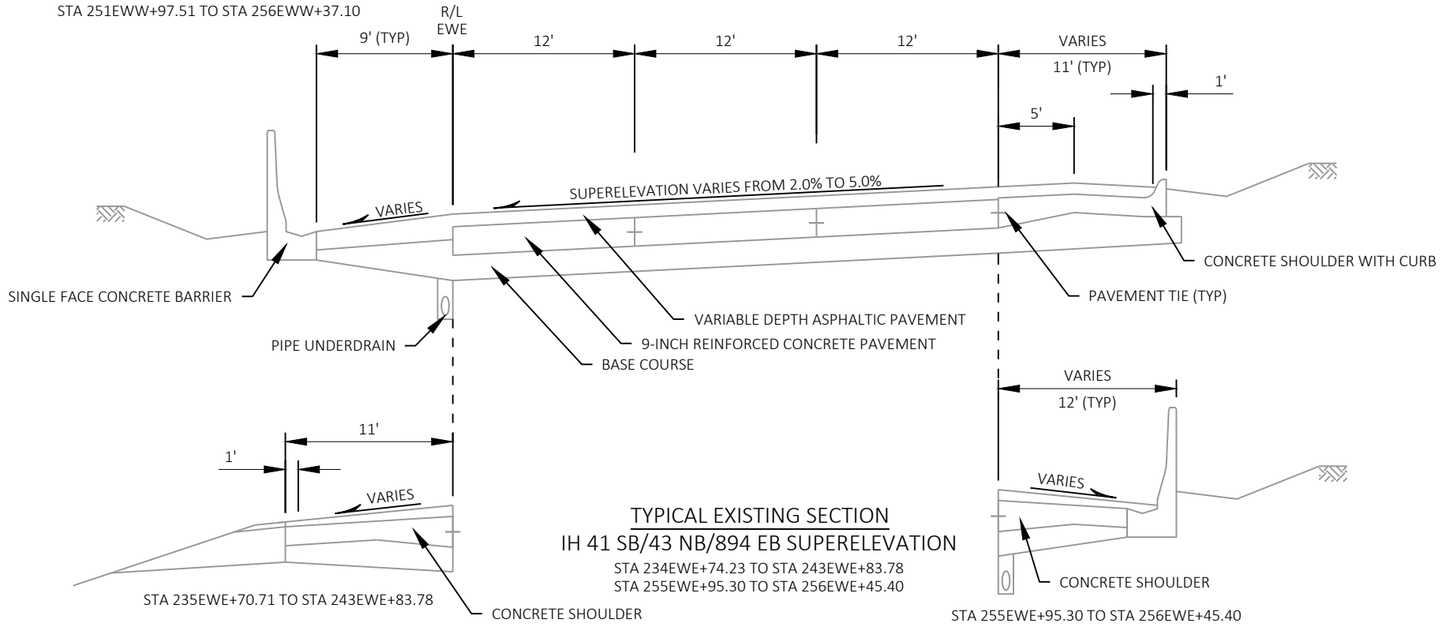


TYPICAL EXISTING SECTION
IH 41 NB/43 SB/894 WB SUPERELEVATION

STA 229EWW+47.79 TO STA 236EWW+29.51
STA 241EWW +05.71 TO STA 241EWW+53.27
STA 243EWW+08.86 TO STA 243EWW+16.67
STA 251EWW+97.51 TO STA 256EWW+37.10

STA 230EWW+73.76 TO STA 236EWW+29.51

STA 229EWW+47.79 TO STA 231EWW+29.72
STA 251EWW+97.51 TO STA 256EWW+37.10



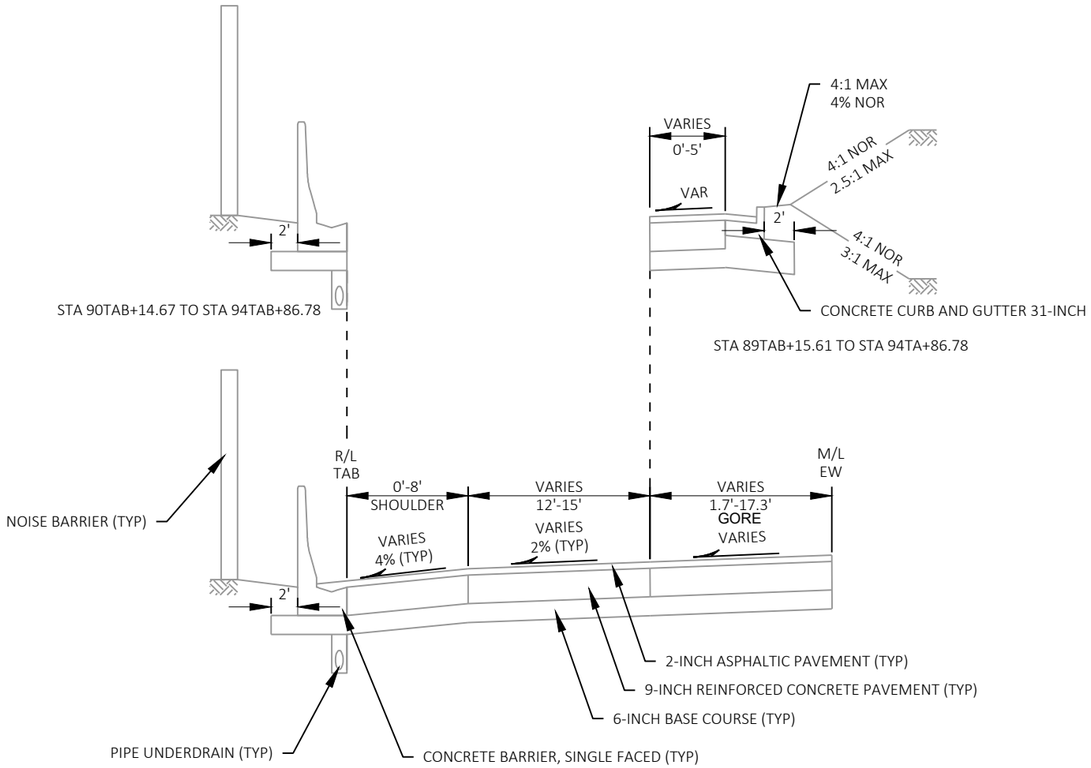
TYPICAL EXISTING SECTION
IH 41 SB/43 NB/894 EB SUPERELEVATION

STA 234EWE+74.23 TO STA 243EWE+83.78
STA 255EWE+95.30 TO STA 256EWE+45.40

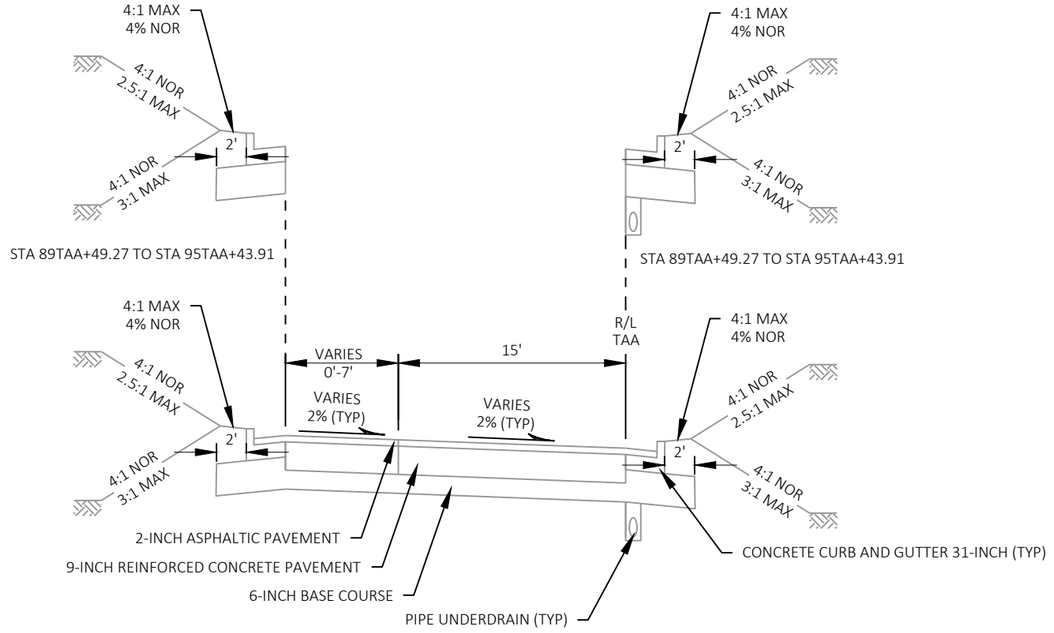
STA 235EWE+70.71 TO STA 243EWE+83.78

STA 255EWE+95.30 TO STA 256EWE+45.40

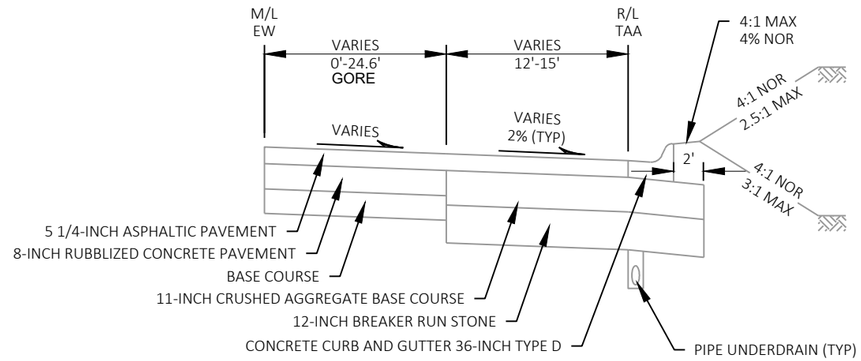
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 9	E



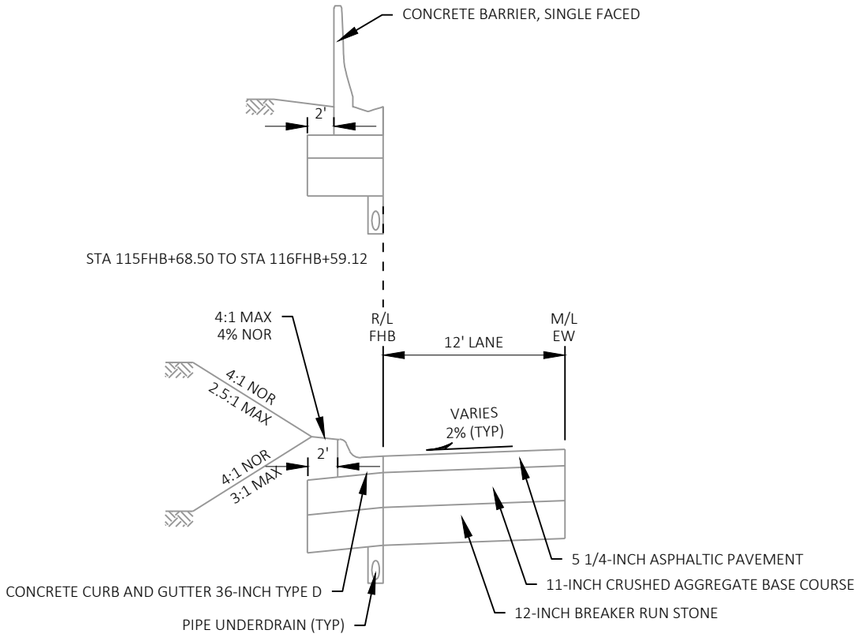
TYPICAL EXISTING SECTION
S. 84TH STREET WB ON RAMP
STA 82TAB+98.08 TO STA 94TAB+86.78



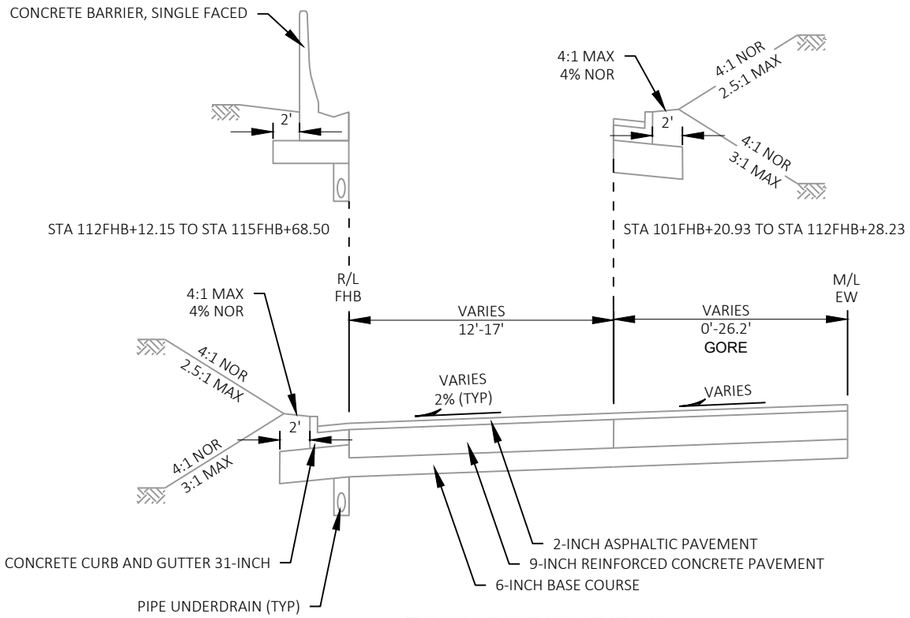
TYPICAL EXISTING SECTION
S. 84TH STREET EB OFF RAMP
STA 88TAA+75.43 TO STA 95TAA+43.91



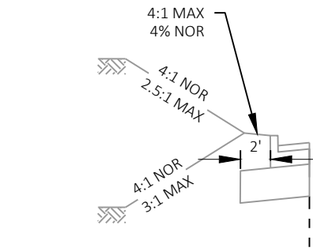
TYPICAL EXISTING SECTION
S. 84TH STREET EB OFF RAMP
STA 82TAA+94.87 TO STA 88TAA+75.43

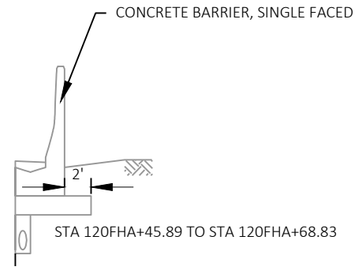


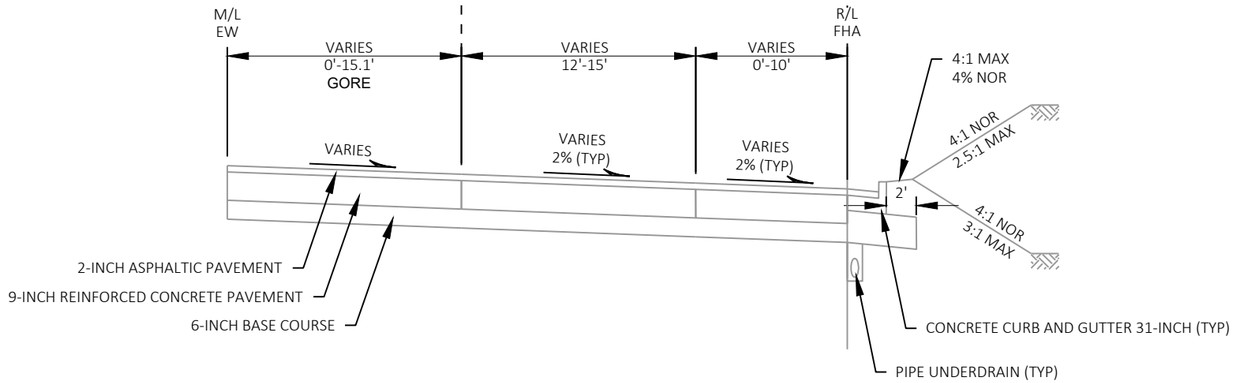
TYPICAL EXISTING SECTION
W. FOREST HOME AVENUE WB OFF RAMP
STA 115FHB+68.50 TO STA 121FHB+58.29



TYPICAL EXISTING SECTION
W. FOREST HOME AVENUE WB OFF RAMP
STA 97FHB+64.58 TO STA 115FHB+68.50

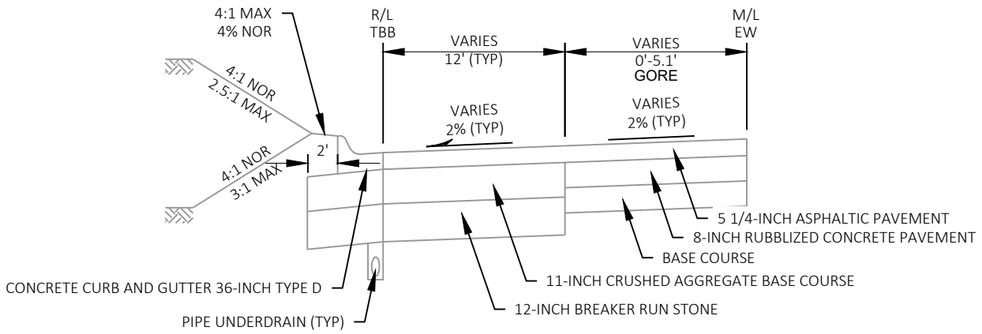




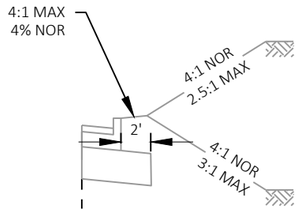


TYPICAL EXISTING SECTION
W. FOREST HOME AVENUE EB ON RAMP
STA 110FHA+67.19 TO STA 120FHA+68.83

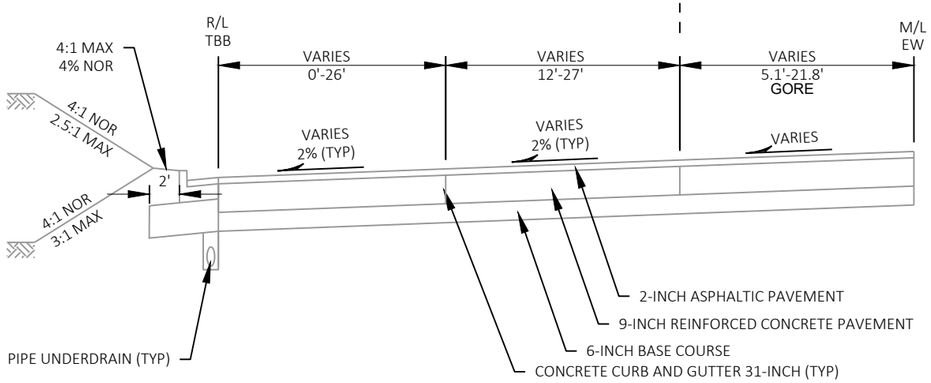
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 11	E



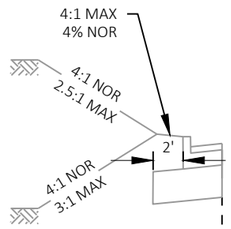
TYPICAL EXISTING SECTION
S. 76TH STREET WB OFF RAMP
STA 132TBB+80.96 TO STA 137TBB+87.19



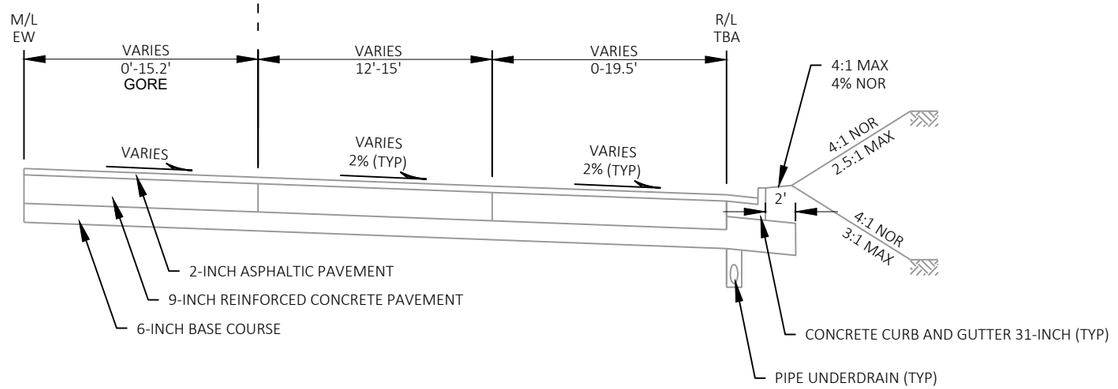
STA 123TBB+99.73 TO STA 130TBB+42.32



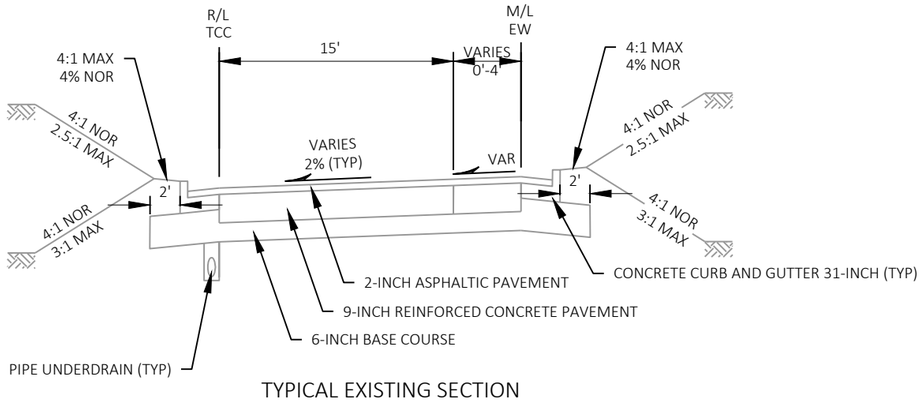
TYPICAL EXISTING SECTION
S. 76TH STREET WB OFF RAMP
STA 123TBB+99.73 TO STA 132TBB+80.96



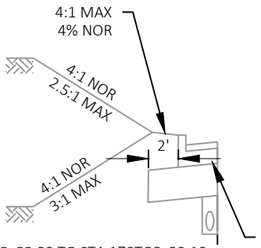
STA 122TBA+89.30 TO STA 127TBA+29.88



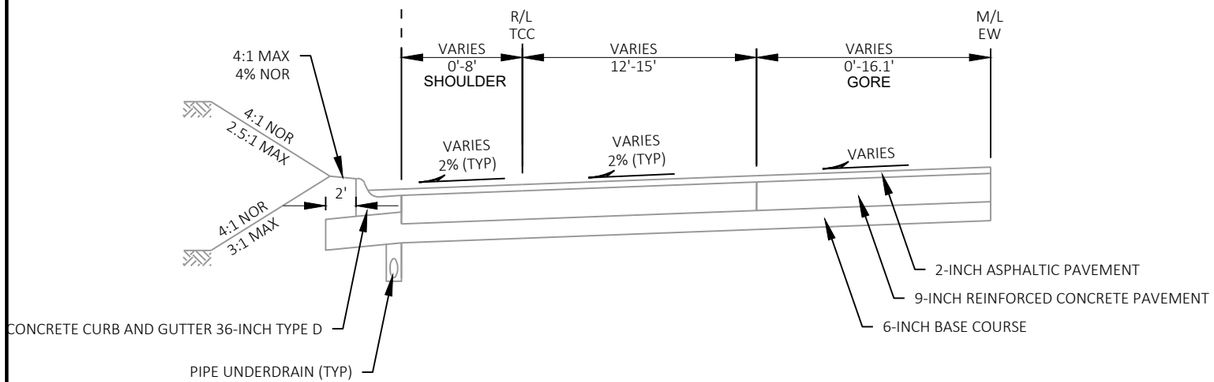
TYPICAL EXISTING SECTION
S. 76TH STREET EB ON RAMP
STA 122TBA+89.30 TO STA 134TBA+54.70



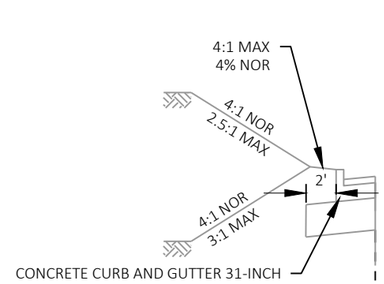
TYPICAL EXISTING SECTION
S. 60TH STREET WB ON RAMP
STA 170TCC+39.10 TO STA 173TCC+81.92



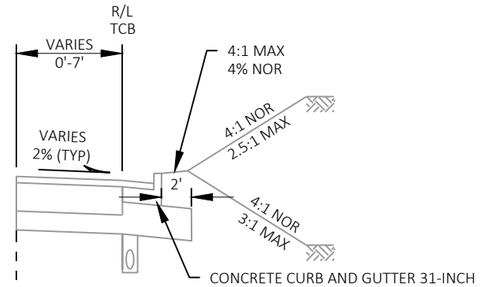
STA 165TCC+82.80 TO STA 170TCC+39.10



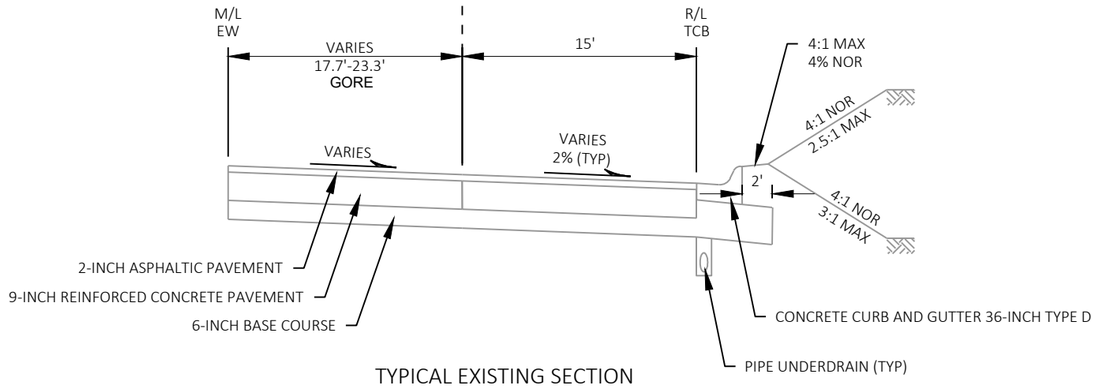
TYPICAL EXISTING SECTION
S. 60TH STREET WB ON RAMP
STA 162TCC+16.59 TO STA 170TCC+39.10



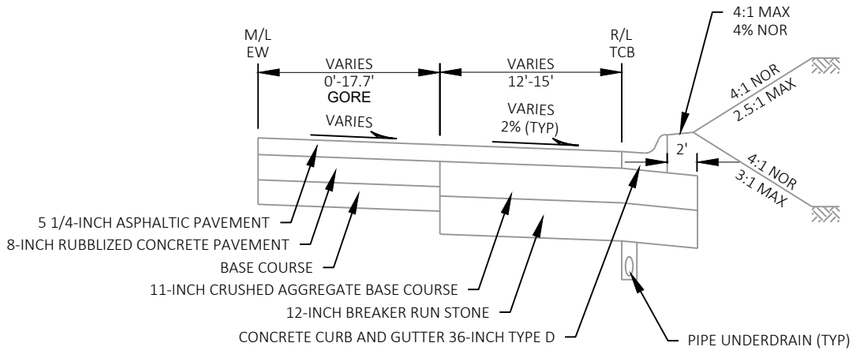
STA 169TCB+61.54 TO STA 174TCB+73.88



STA 172TCB+22.16 TO STA 174TCB+73.88



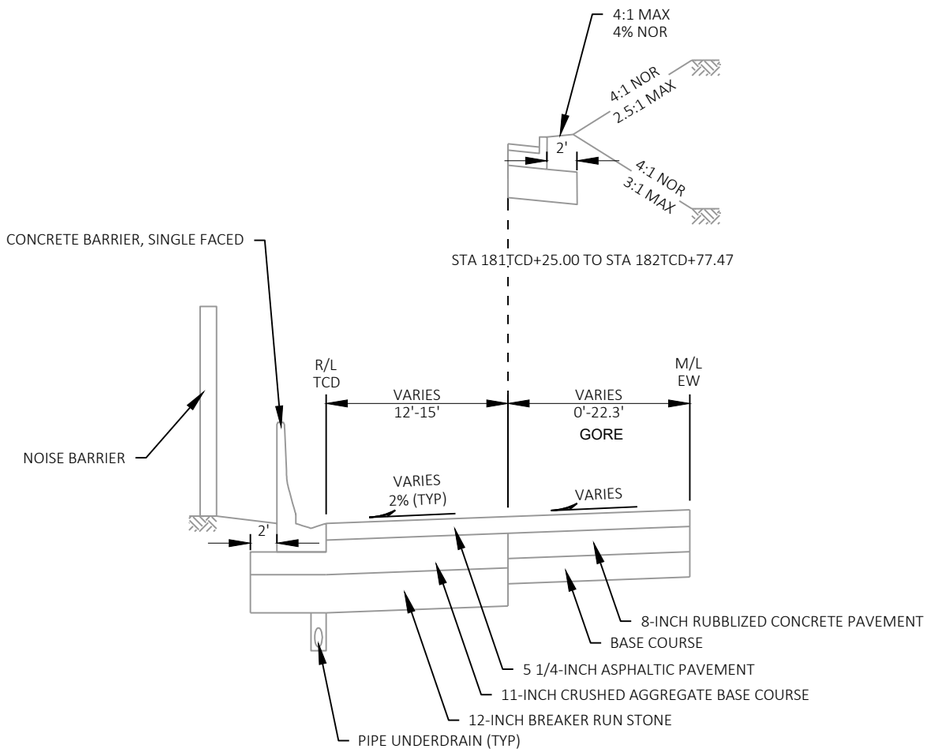
TYPICAL EXISTING SECTION
S. 60TH STREET EB OFF RAMP
STA 169TCB+25.60 TO STA 174TCB+73.88



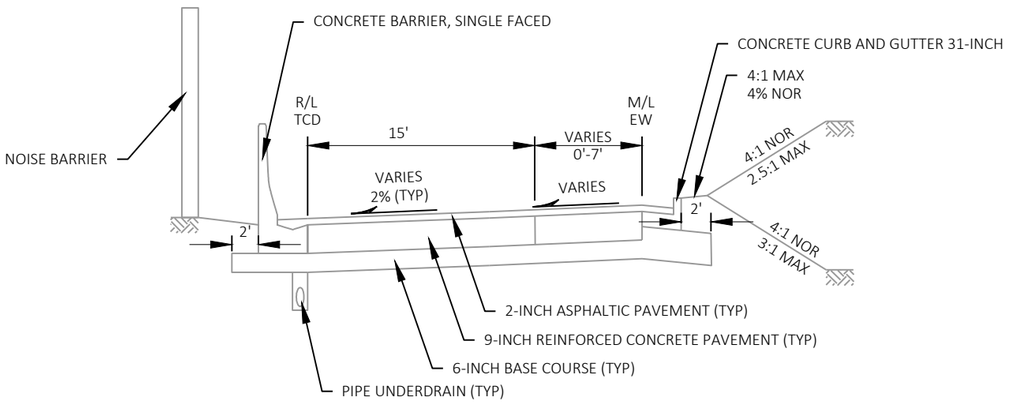
TYPICAL EXISTING SECTION
S. 60TH STREET EB OFF RAMP
STA 161TCB+34.31 TO STA 169TCB+25.60

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 13	E

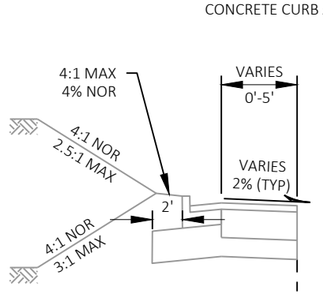
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-020301-TS.DWG
LAYOUT NAME - 09
PLOT DATE : 10/25/2022 9:56 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

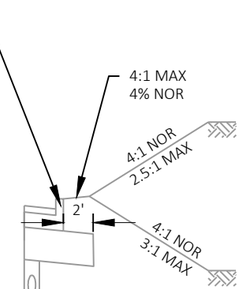


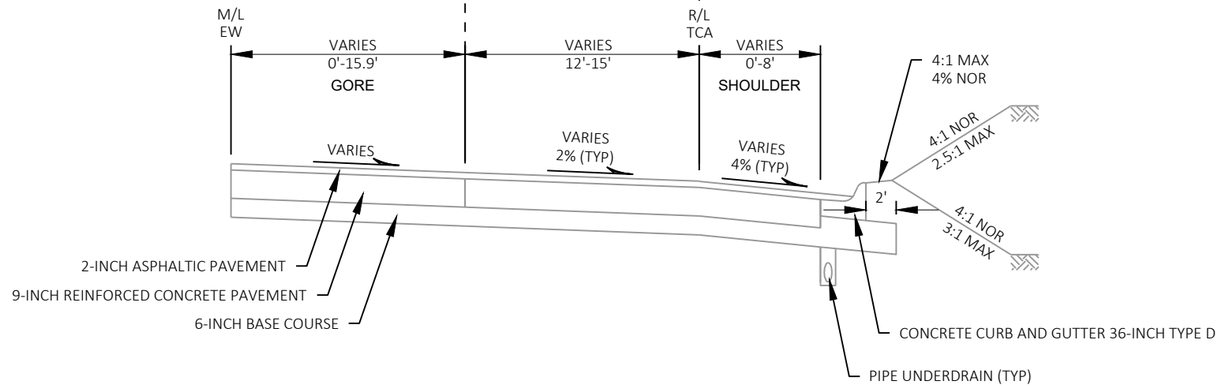
TYPICAL EXISTING SECTION
S. 60TH STREET WB OFF RAMP
STA 181TCD+25.00 TO STA 191TCD+20.97



TYPICAL EXISTING SECTION
S. 60TH STREET WB OFF RAMP
STA 178TCD+09.12 TO STA 181TCD+25.00

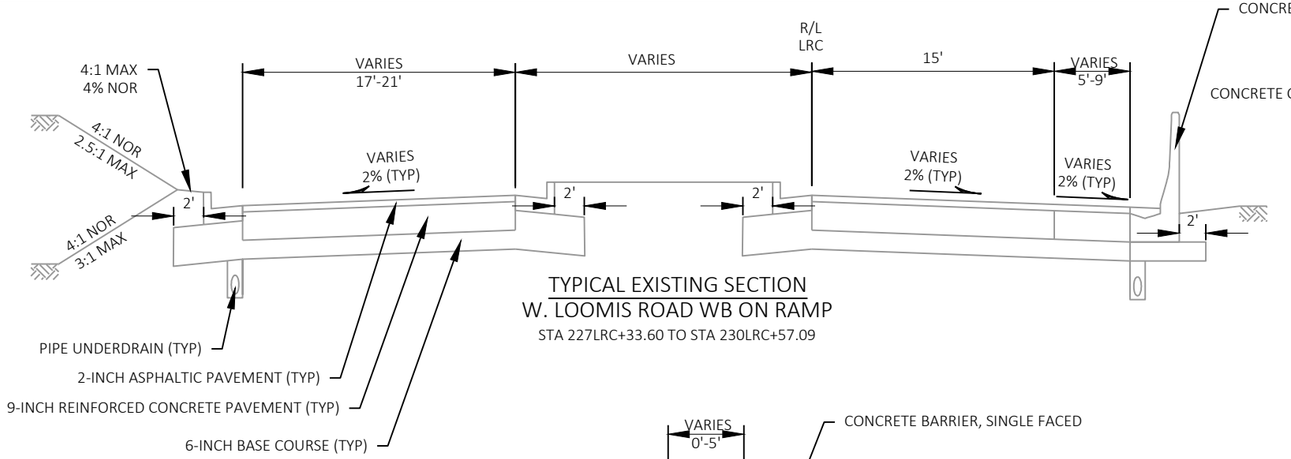




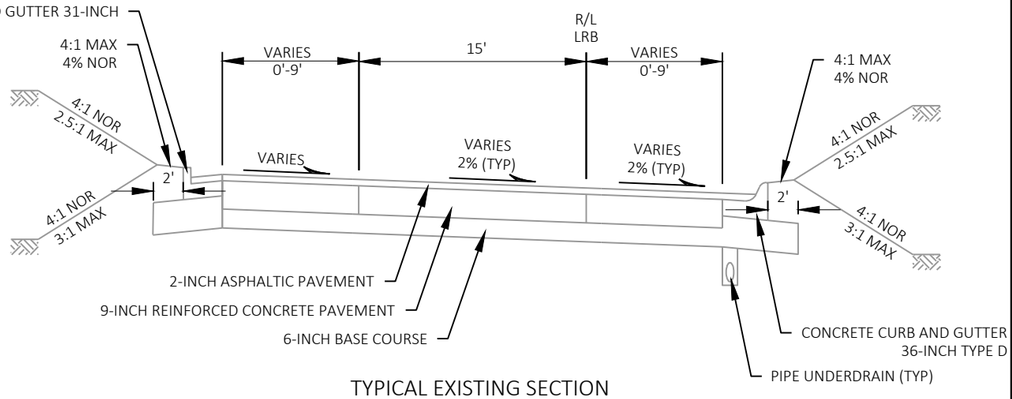


TYPICAL EXISTING SECTION
S. 60TH STREET EB ON RAMP
STA 177TCA+57.41 TO STA 188TCA+08.86

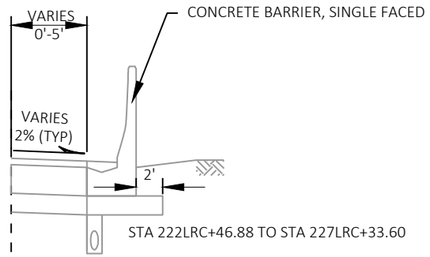
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 14	E



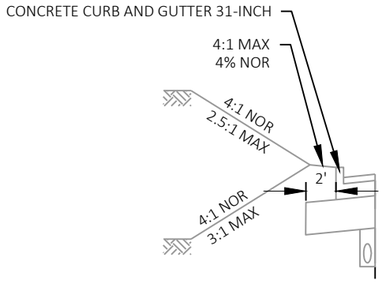
TYPICAL EXISTING SECTION
W. LOOMIS ROAD WB ON RAMP
STA 227LRC+33.60 TO STA 230LRC+57.09



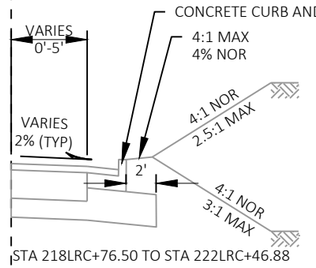
TYPICAL EXISTING SECTION
W. LOOMIS ROAD EB OFF RAMP
STA 221LRB+63.17 TO STA 228LRB+30.50



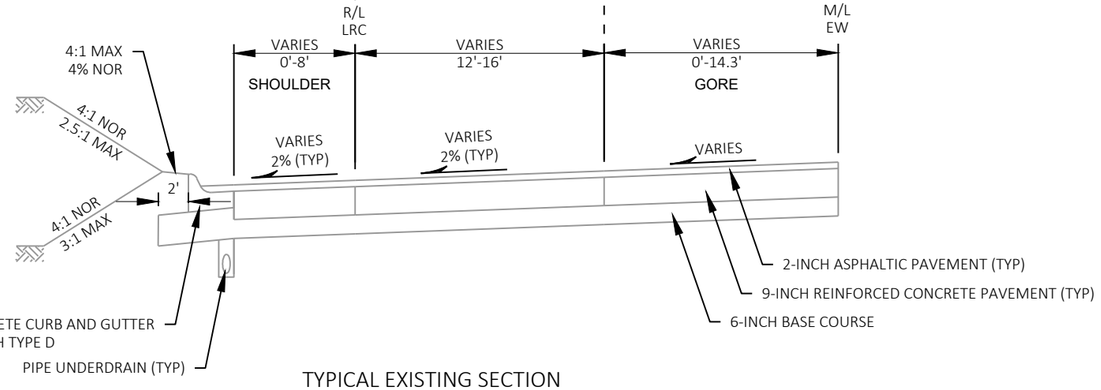
STA 222LRC+46.88 TO STA 227LRC+33.60



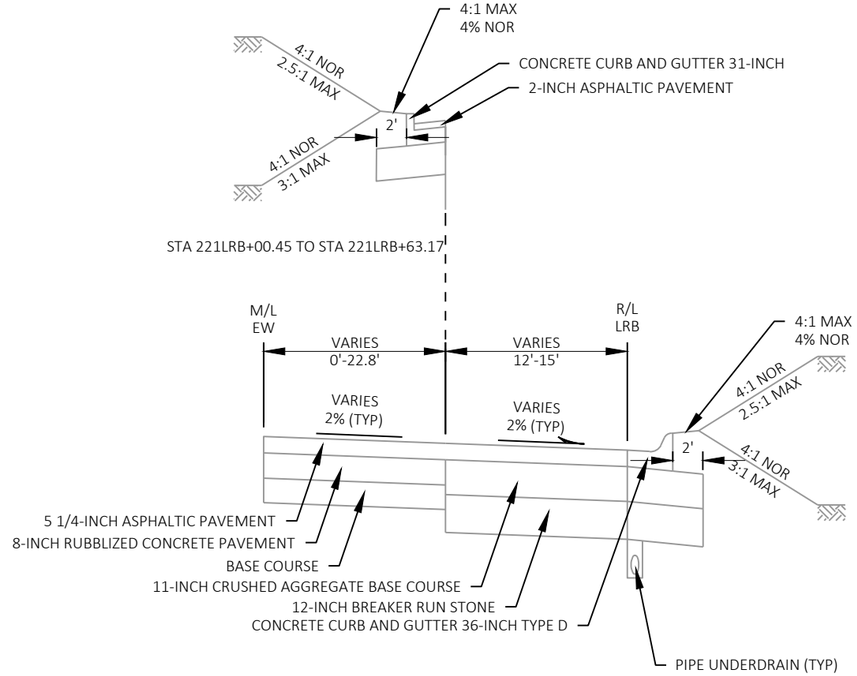
STA 214LRC+35.87 TO STA 227LRC+33.60



STA 218LRC+76.50 TO STA 222LRC+46.88



TYPICAL EXISTING SECTION
W. LOOMIS ROAD WB ON RAMP
STA 208LRC+61.55 TO STA 227LRC+33.60

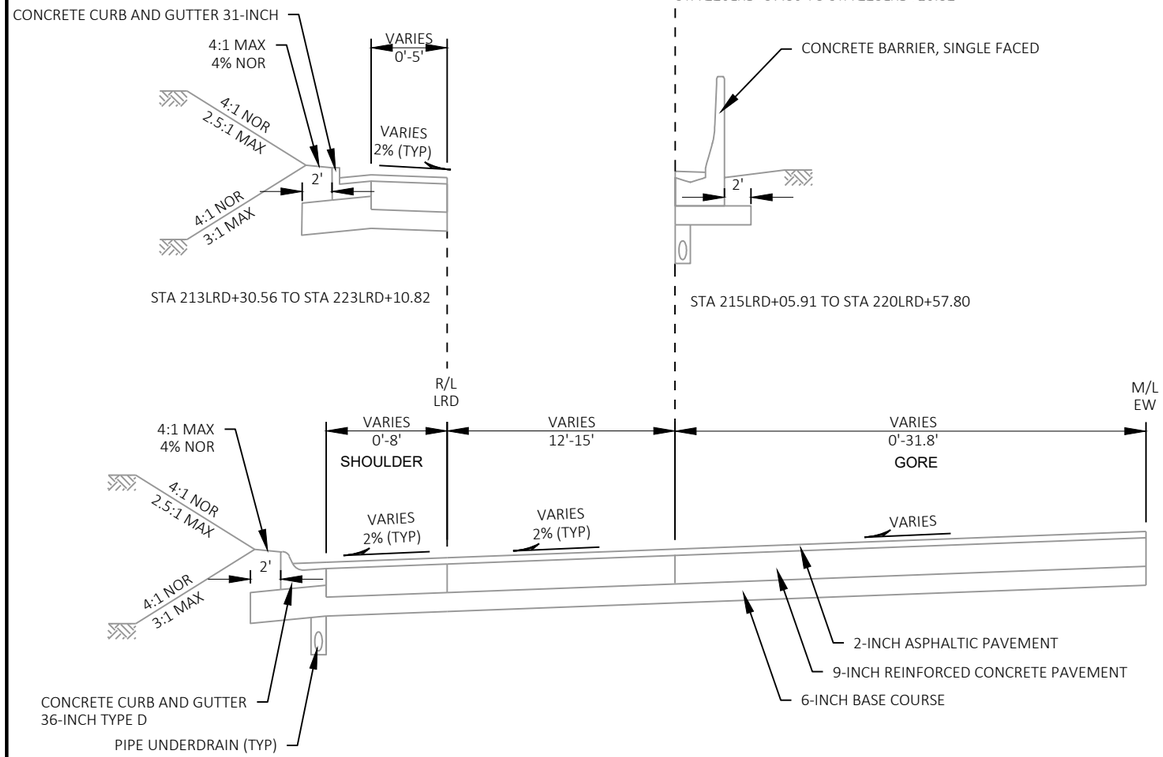


STA 221LRB+00.45 TO STA 221LRB+63.17

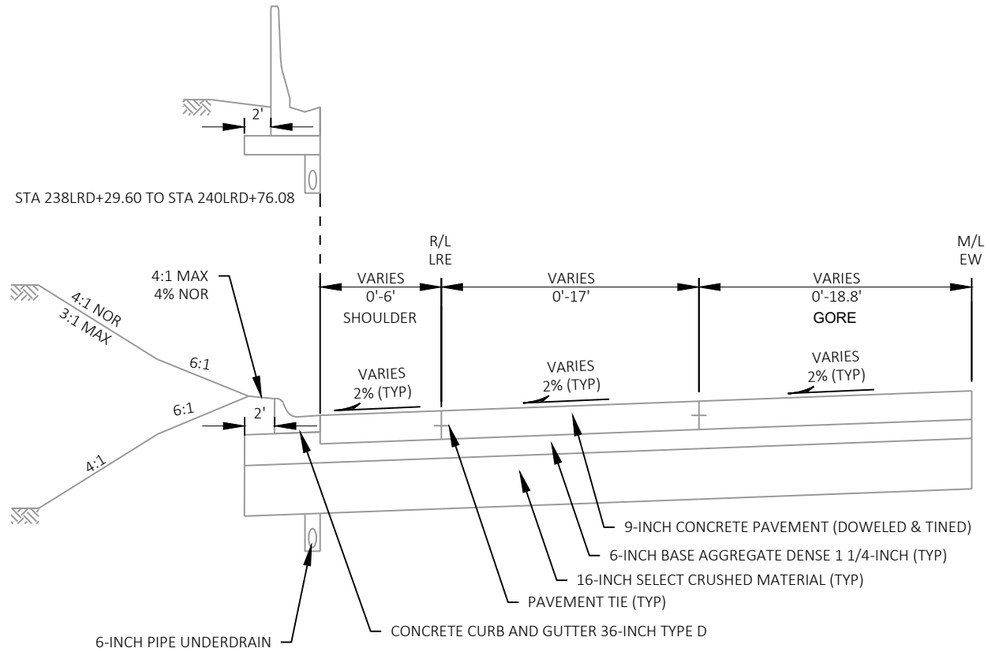
TYPICAL EXISTING SECTION
W. LOOMIS ROAD EB OFF RAMP
STA 212LRB+28.03 TO STA 221LRB+63.17

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 15	E

2

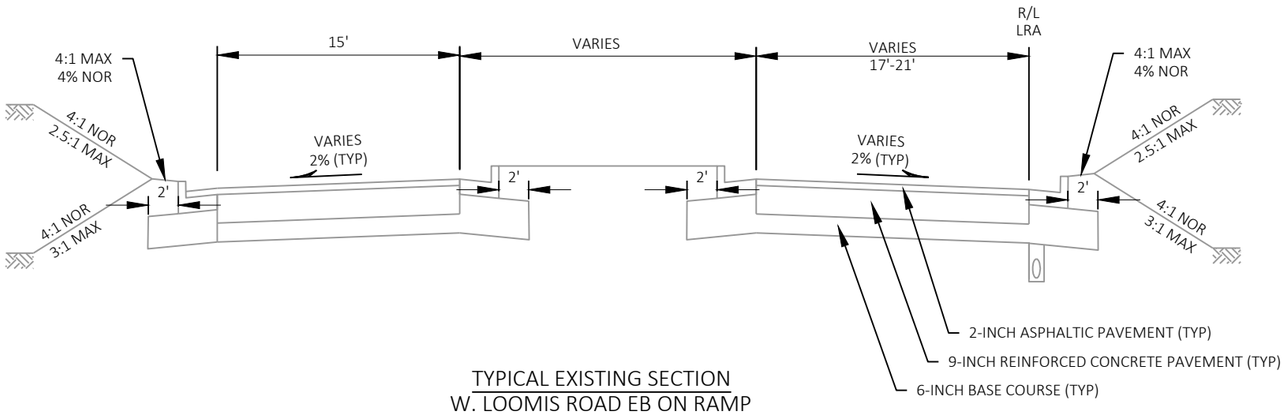


TYPICAL EXISTING SECTION
W. LOOMIS ROAD WB OFF RAMP TO SB
STA 213LRD+30.56 TO STA 227LRD+56.47

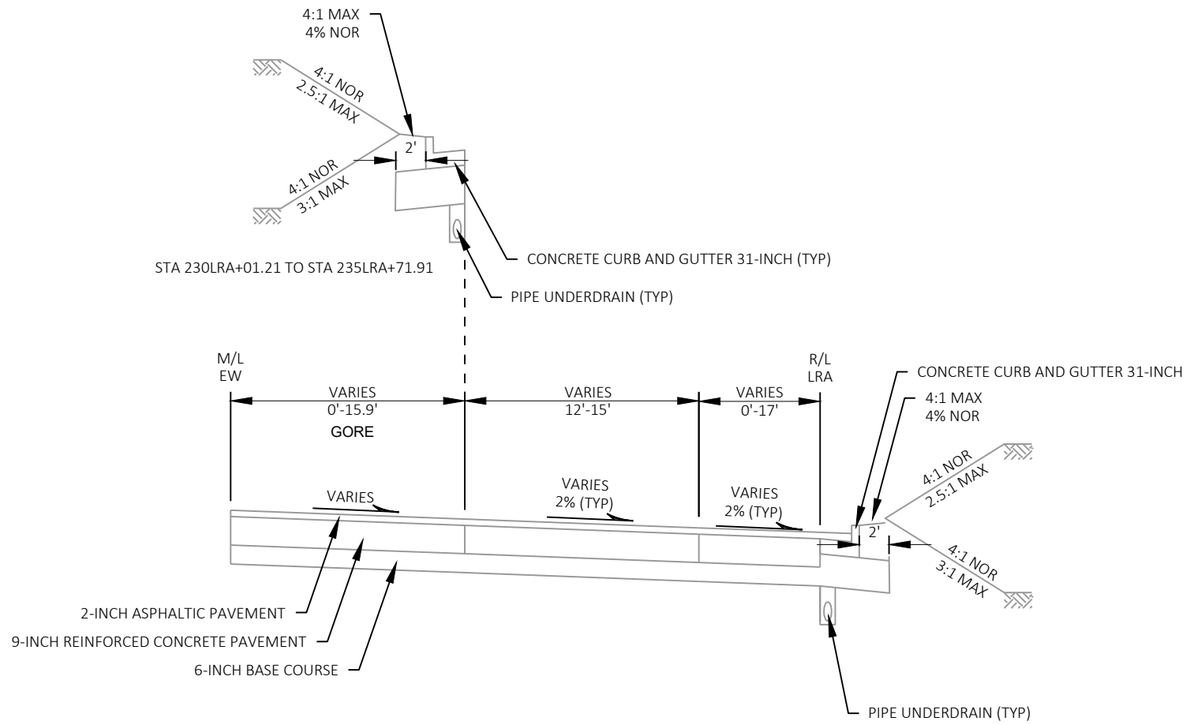


TYPICAL EXISTING SECTION
W. LOOMIS ROAD WB OFF RAMP TO NB
STA 236LRE+65.81 TO STA 240LRE+76.08

2

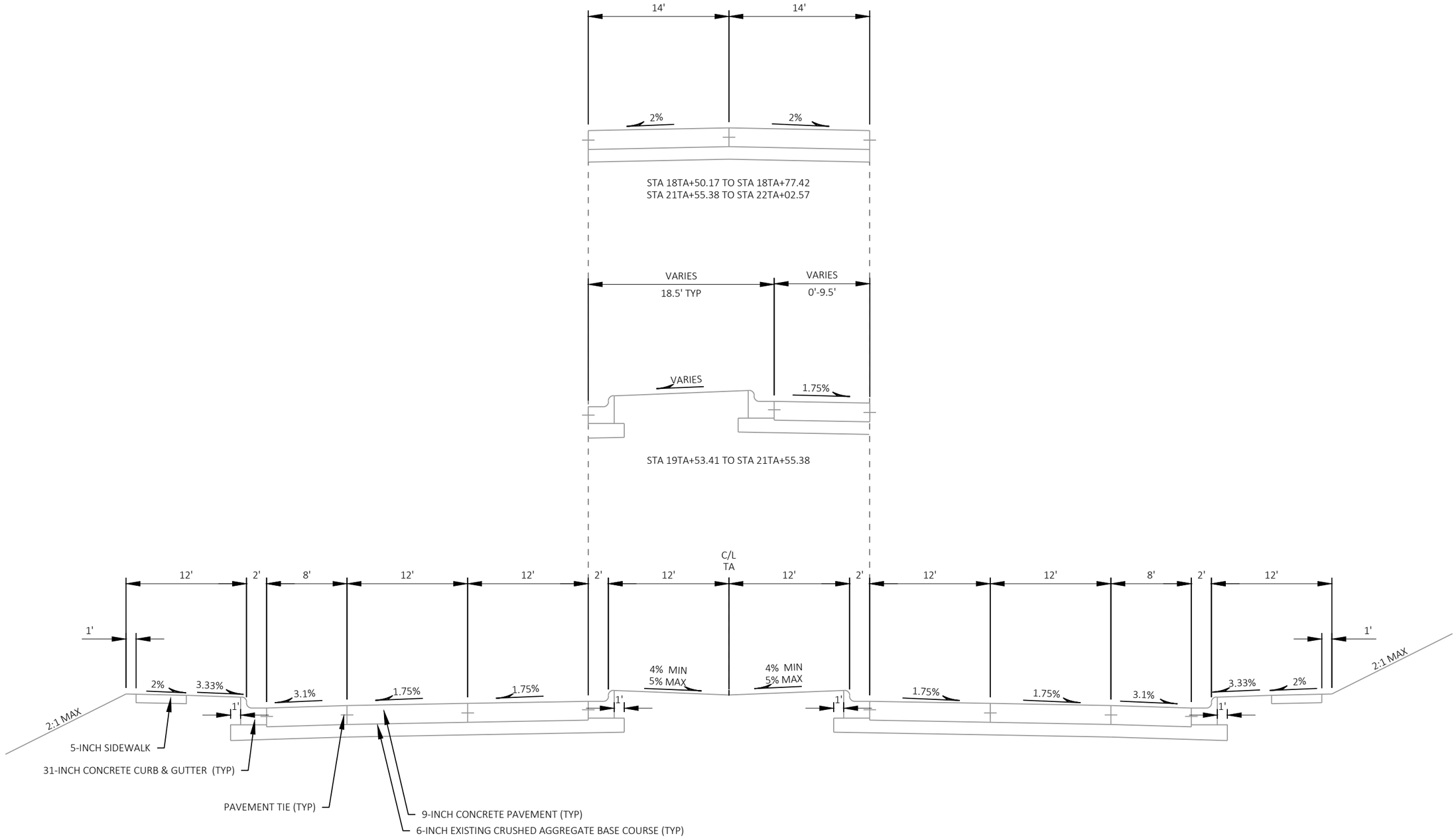


TYPICAL EXISTING SECTION
W. LOOMIS ROAD EB ON RAMP
STA 229LRA+24.54 TO STA 230LRA+01.21



TYPICAL EXISTING SECTION
W. LOOMIS ROAD EB ON RAMP
STA 230LRA+01.21 TO STA 242LRA+88.44

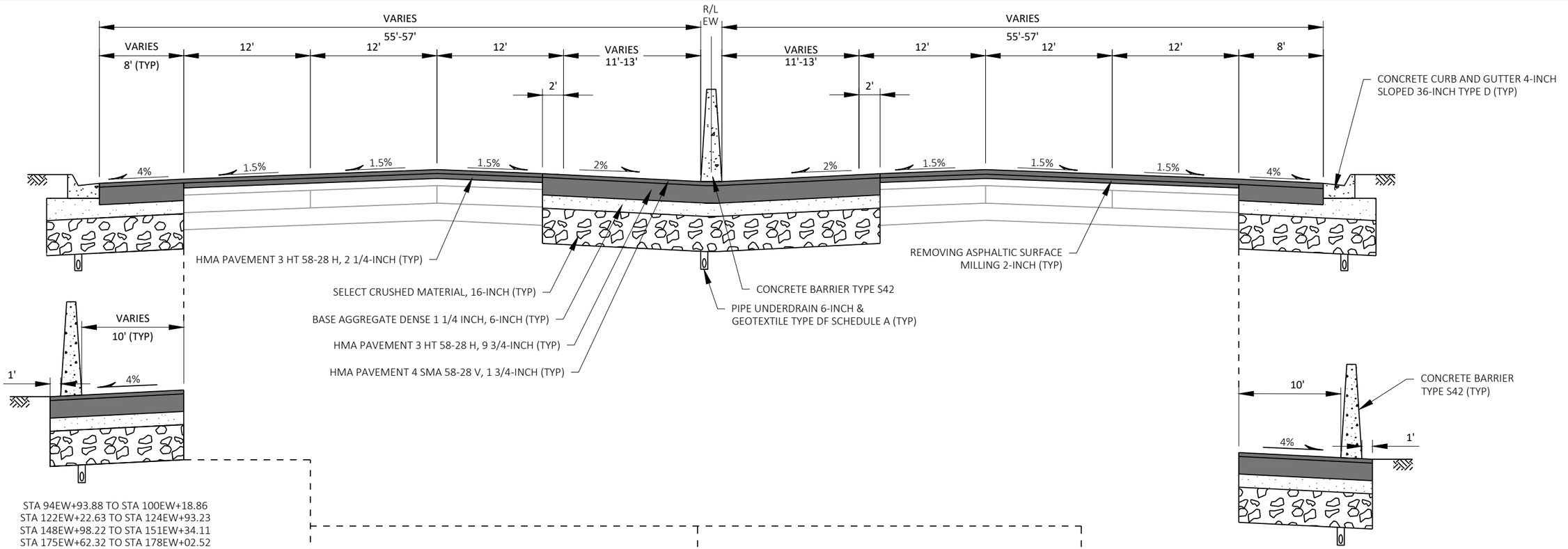
2



TYPICAL EXISTING SECTION
S. 84TH STREET
STA 15TA+50.35 TO STA 22TA+84.93

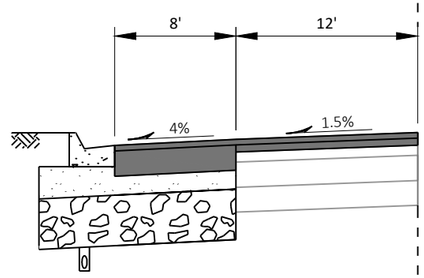
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 18	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-020301-TS.DWG
LAYOUT NAME - 14
PLOT DATE : 10/25/2022 9:56 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

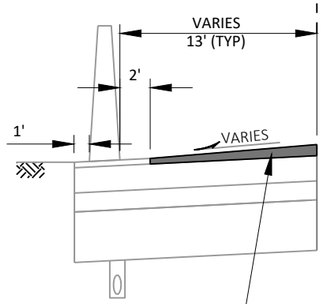


STA 94EW+93.88 TO STA 100EW+18.86
STA 122EW+22.63 TO STA 124EW+93.23
STA 148EW+98.22 TO STA 151EW+34.11
STA 175EW+62.32 TO STA 178EW+02.52
STA 199EW+82.94 TO STA 205EW+17.18

STA 92EW+99.36 TO STA 97EW+27.32
STA 109EW+52.04 TO STA 111EW+42.68
STA 120EW+68.92 TO STA 123EW+16.01
STA 147EW+70.60 TO STA 149EW+78.70
STA 174EW+10.28 TO STA 176EW+50.73
STA 200EW+39.98 TO STA 205EW+62.57
STA 226EW+18.39 TO STA 229EW+35.96

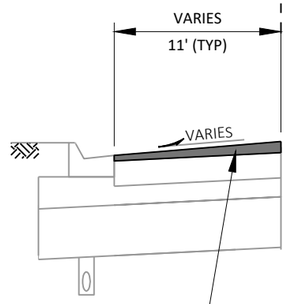


STA 227EW+56.47 TO STA 228EW+54.79



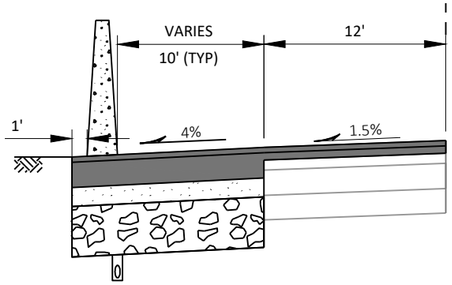
HMA PAVEMENT 4 SMA 58-28 S,
VARIES 2-INCH TO 4-INCH

STA 100EW+18.86 TO STA 103EW+72.20



HMA PAVEMENT 4 SMA 58-28 S,
VARIES 2-INCH TO 4-INCH

STA 103EW+72.20 TO STA 105EW+77.19

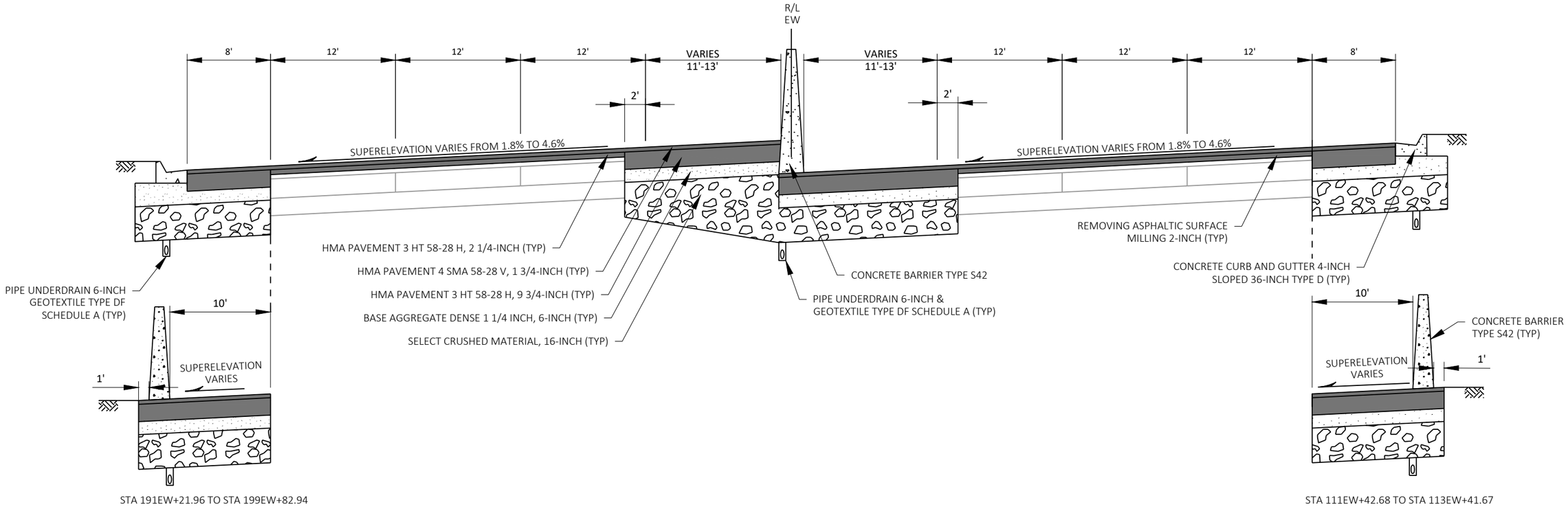


STA 228EW+54.79 TO STA 229EW+35.96

TYPICAL FINISHED SECTION
IH 41/43/894

STA 81EW+29.20 TO STA 81EW+54.60
STA 88EW+99.10 TO STA 95EW+15.96
STA 97EW+05.32 TO STA 111EW+42.68
STA 120EW+01.99 TO STA 135EW+72.89
STA 141EW+33.76 TO STA 179EW+40.49
STA 185EW+03.47 TO STA 190EW+51.77
STA 199EW+82.94 TO STA 202EW+06.41
STA 203EW+48.83 TO STA 213EW+28.76
STA 222EW+32.40 TO STA 229EW+47.79

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 19	E

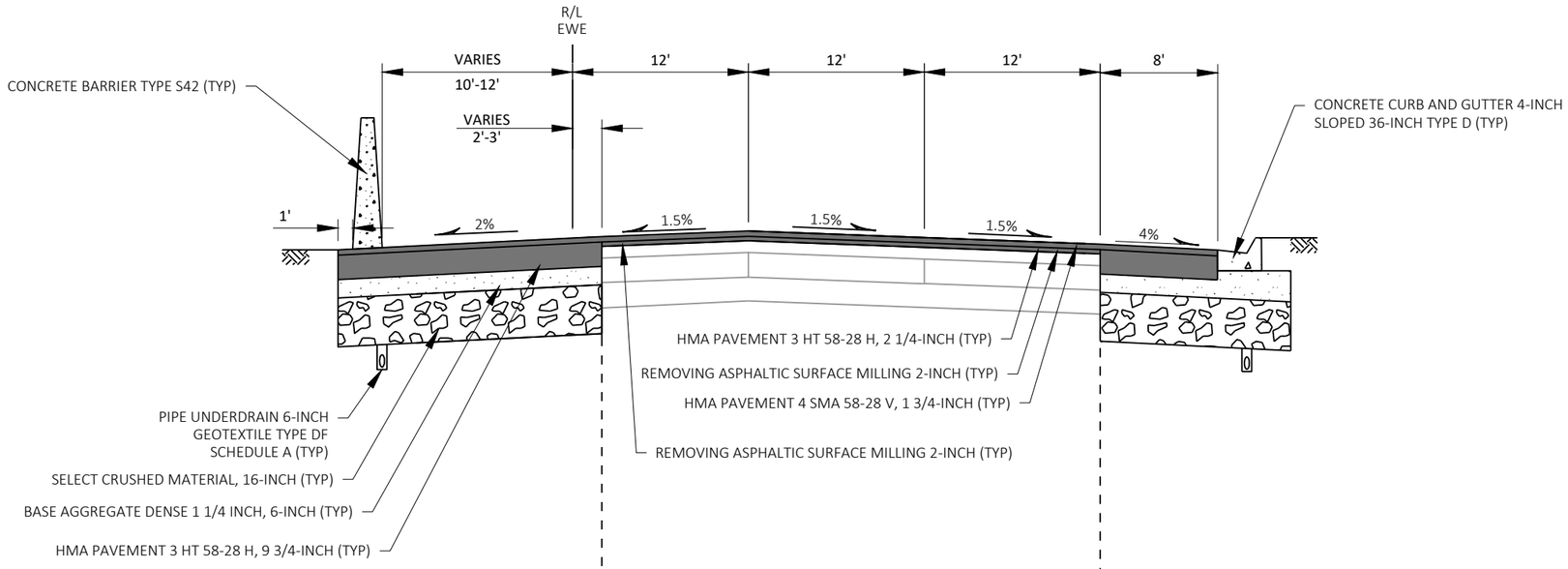


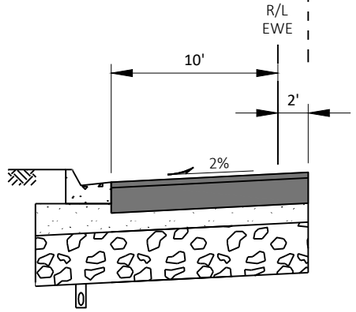
STA 191EW+21.96 TO STA 199EW+82.94

STA 111EW+42.68 TO STA 113EW+41.67

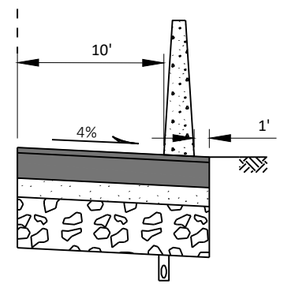
TYPICAL FINISHED SECTION
IH 41/43/894 SUPERELEVATION

STA 81EW+54.60 TO STA 88EW+99.10
STA 111EW+42.68 TO STA 120EW+01.99
STA 135EW+72.89 TO STA 141EW+33.76
STA 179EW+40.49 TO STA 185EW+03.47
STA 190EW+51.77 TO STA 199EW+82.94
STA 213EW+28.76 TO STA 222EW+32.40





STA 243EWE+83.78 TO STA 255EWE+95.30

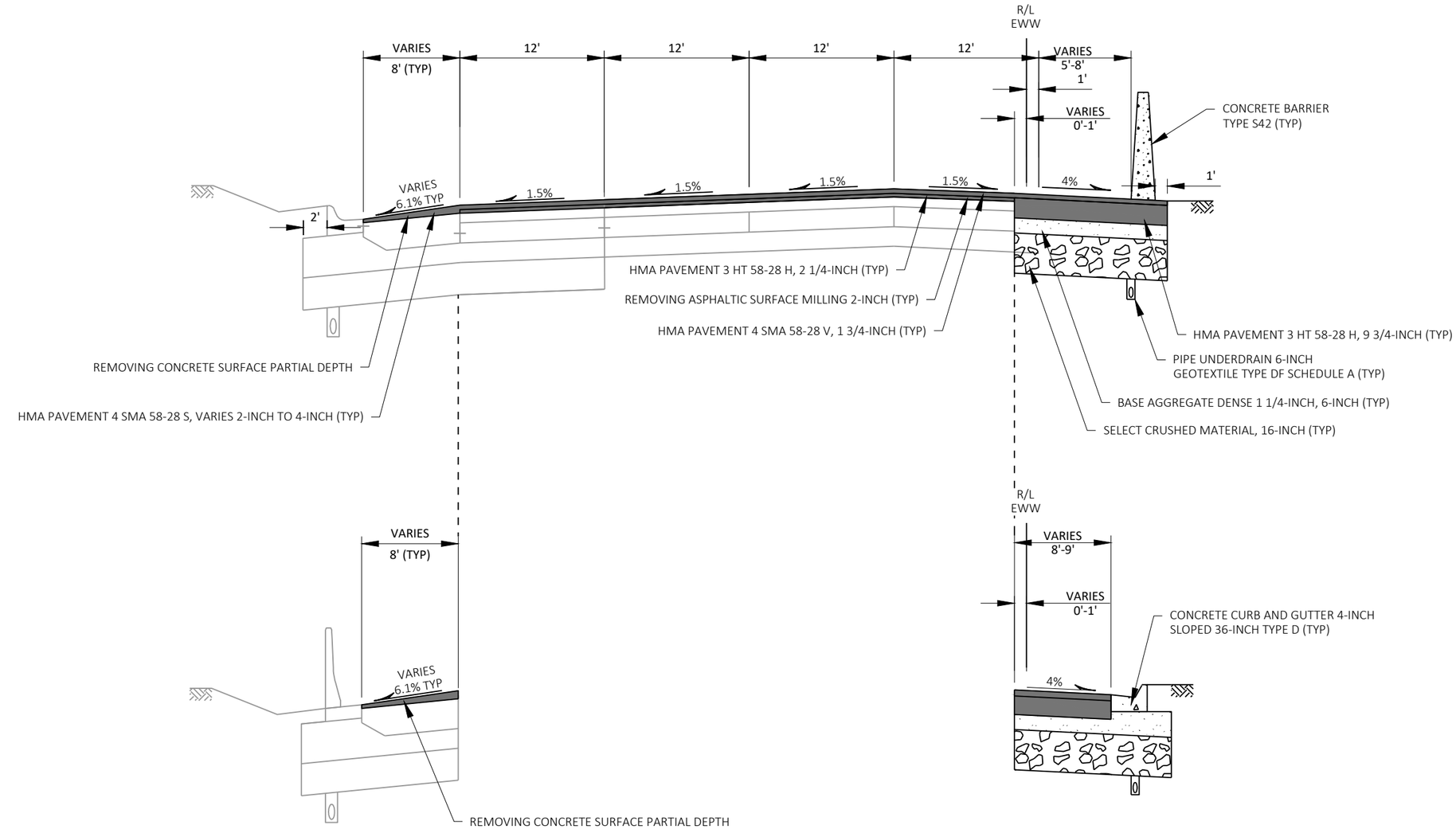


STA 229EWE+47.79 TO STA 229EWE+69.12
STA 254EWE+33.46 TO STA 255EWE+95.30

TYPICAL FINISHED SECTION
IH 41 SB/43 NB/894 EB

STA 229EWE+47.79 TO STA 234EWE+74.23
STA 243EWE+83.78 TO STA 255EWE+95.30

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 21	E



STA 240EWW+88.48 TO STA 241EWW+05.71
STA 248EWW+98.52 TO STA 251EWW+97.51

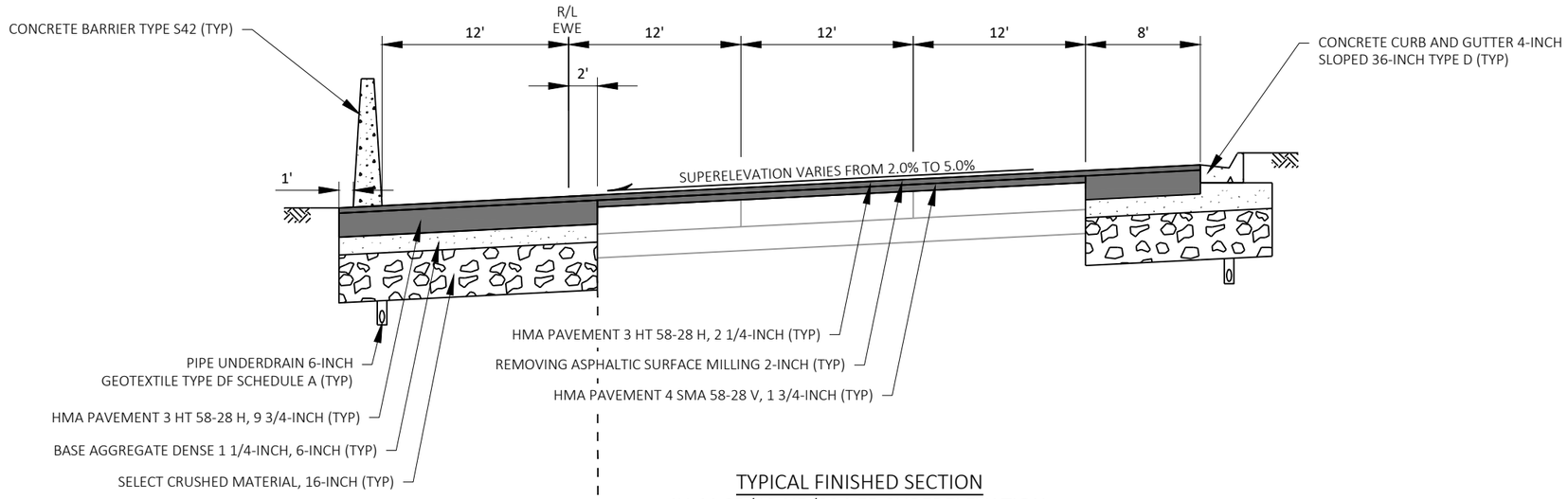
STA 236EWW+29.51 TO STA 240EWW+79.59

TYPICAL FINISHED SECTION
IH 41 NB/43 SB/894 WB

STA 236EWW+29.51 TO STA 241EWW+05.71
STA 243EWW+16.67 TO STA 251EWW+97.51

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 22	E

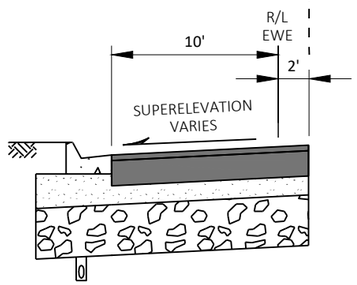
2



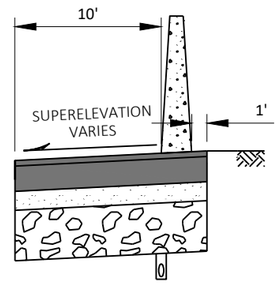
TYPICAL FINISHED SECTION

IH 41 SB/43 NB/894 EB SUPERELEVATION

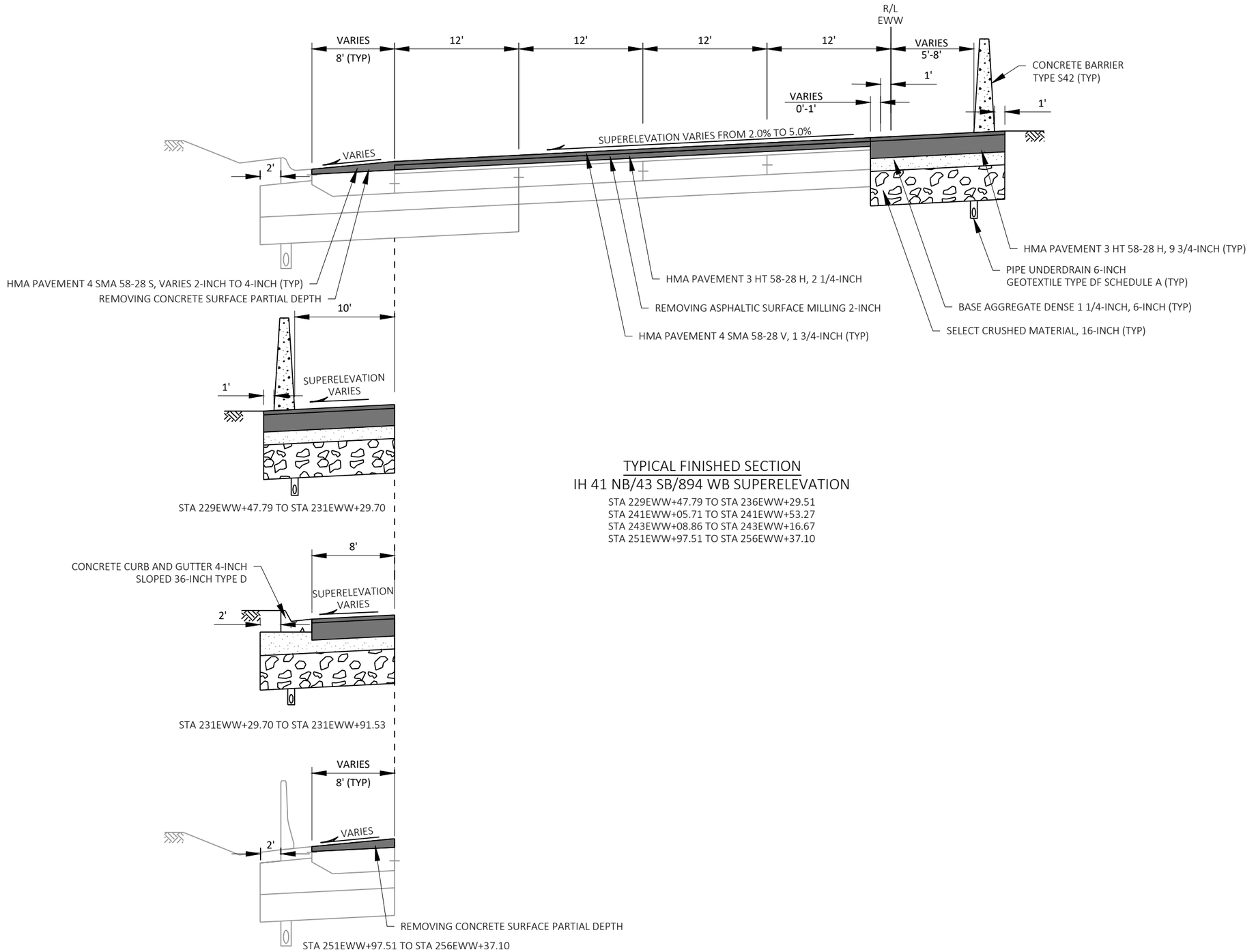
STA 234EWE+74.23 TO STA 243EWE+83.78
STA 255EWE+95.30 TO STA 256EWE+45.40



STA 235EWE+70.71 TO STA 243EWE+83.78

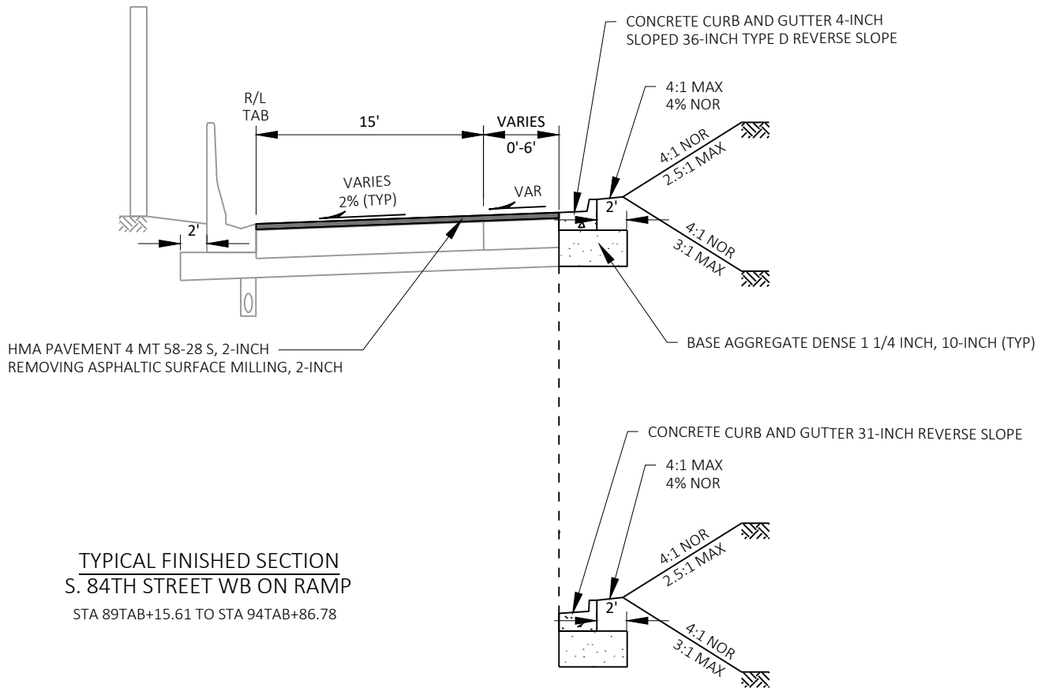


STA 255EWE+95.30 TO STA 256EWE+45.40



TYPICAL FINISHED SECTION
IH 41 NB/43 SB/894 WB SUPERELEVATION

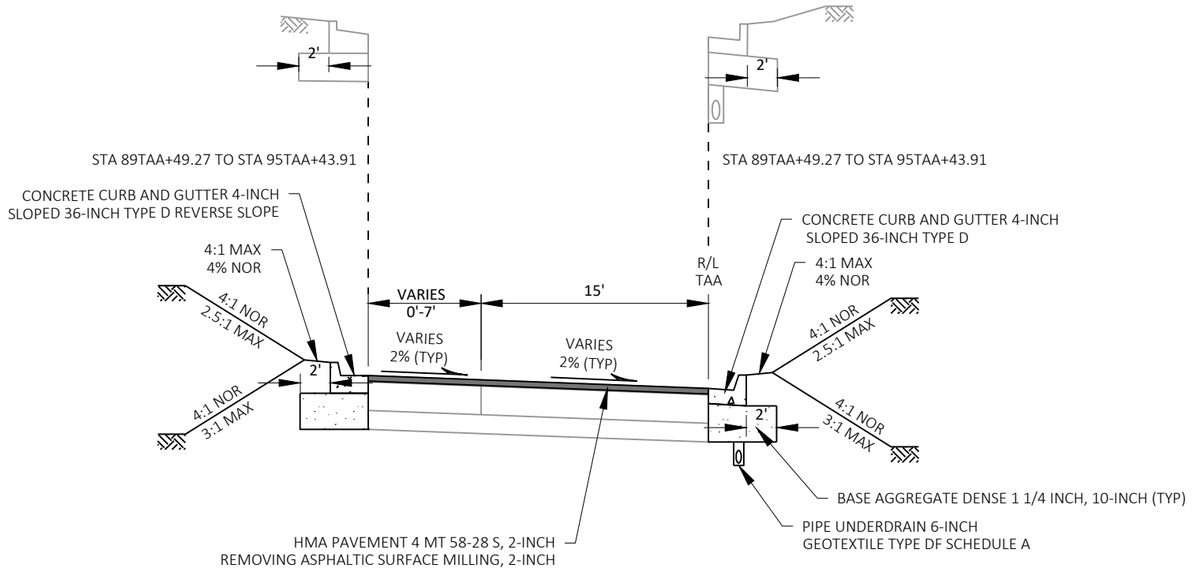
STA 229EWW+47.79 TO STA 236EWW+29.51
STA 241EWW+05.71 TO STA 241EWW+53.27
STA 243EWW+08.86 TO STA 243EWW+16.67
STA 251EWW+97.51 TO STA 256EWW+37.10



TYPICAL FINISHED SECTION
S. 84TH STREET WB ON RAMP

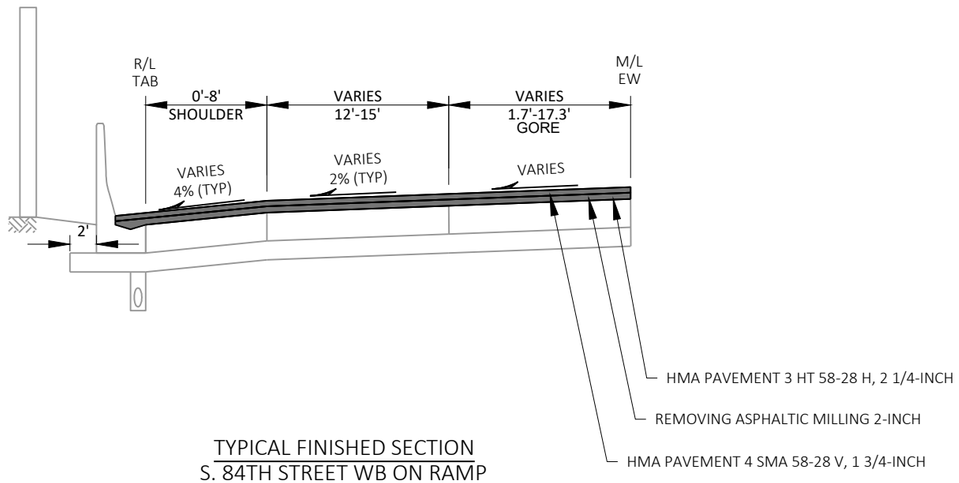
STA 89TAB+15.61 TO STA 94TAB+86.78

STA 90 TAB+75.38 TO STA 94TAA+86.78



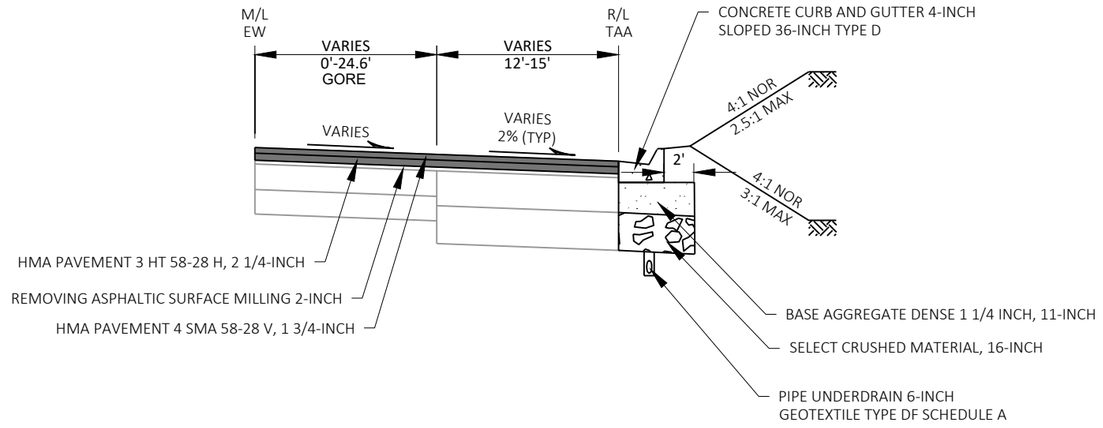
TYPICAL FINISHED SECTION
S. 84TH STREET EB OFF RAMP

STA 88TAA+75.43 TO STA 95TAA+43.91



TYPICAL FINISHED SECTION
S. 84TH STREET WB ON RAMP

STA 82TAB+98.08 TO STA 89TAB+15.61



TYPICAL FINISHED SECTION
S. 84TH STREET EB OFF RAMP

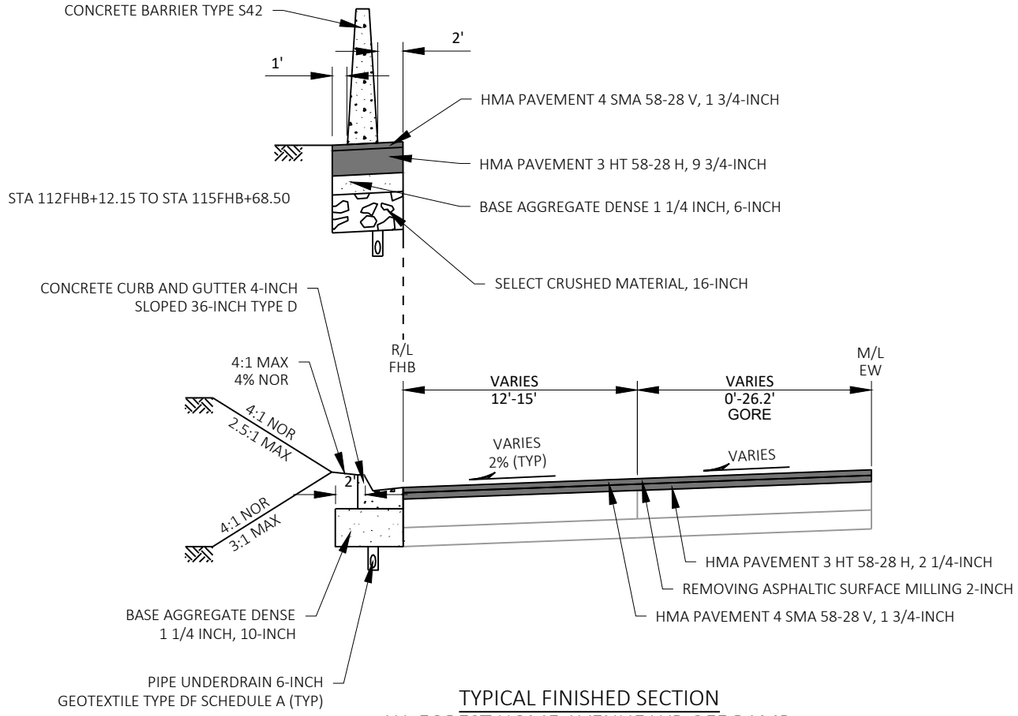
STA 82TAA+94.87 TO STA 88TAA+75.43

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 25	E

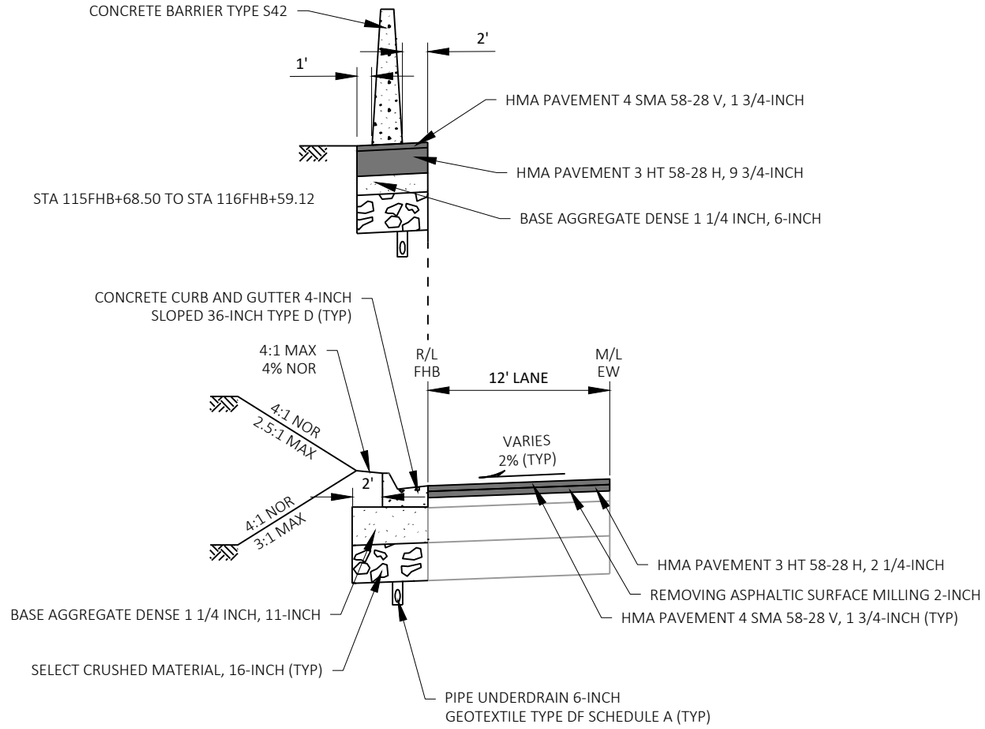
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-020401-TS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/28/2022 12:27 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

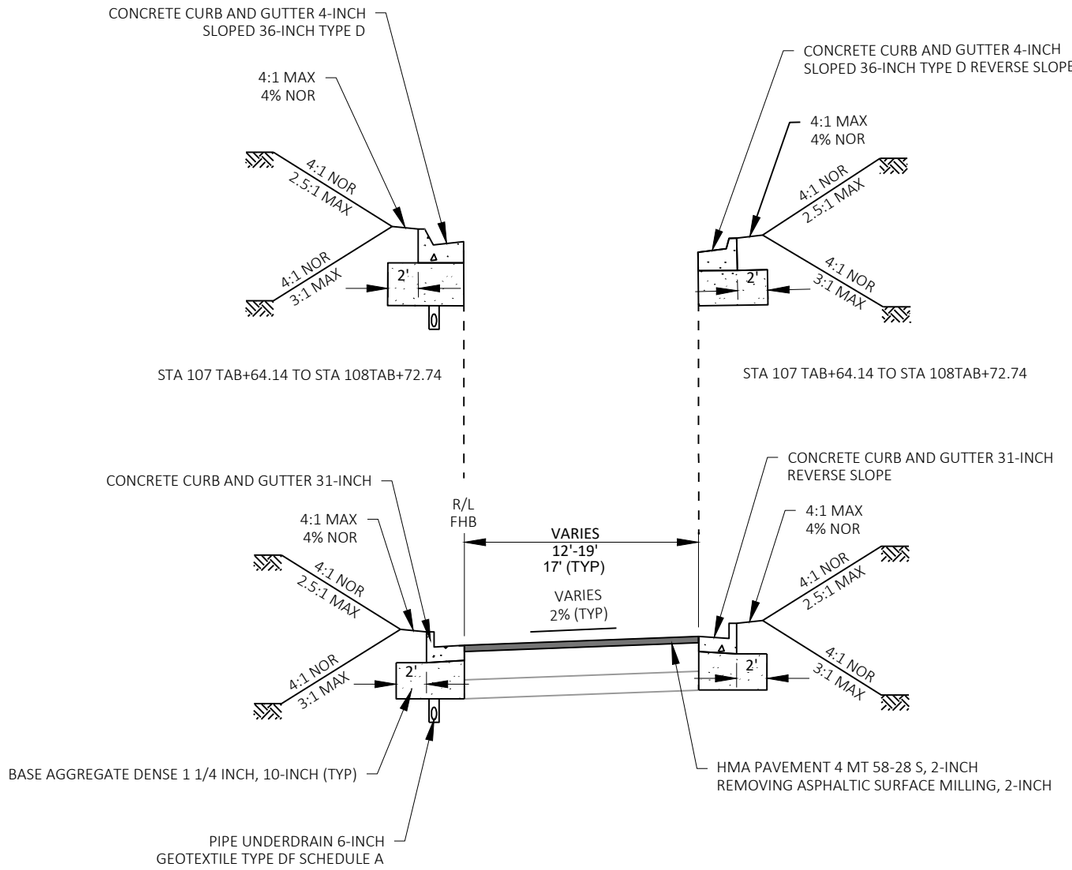


TYPICAL FINISHED SECTION
W. FOREST HOME AVENUE WB OFF RAMP
STA 108FHB+72.74 TO STA 115FHB+68.50



TYPICAL FINISHED SECTION
W. FOREST HOME AVENUE WB OFF RAMP
STA 115FHB+68.50 TO STA 121FHB+58.29

2

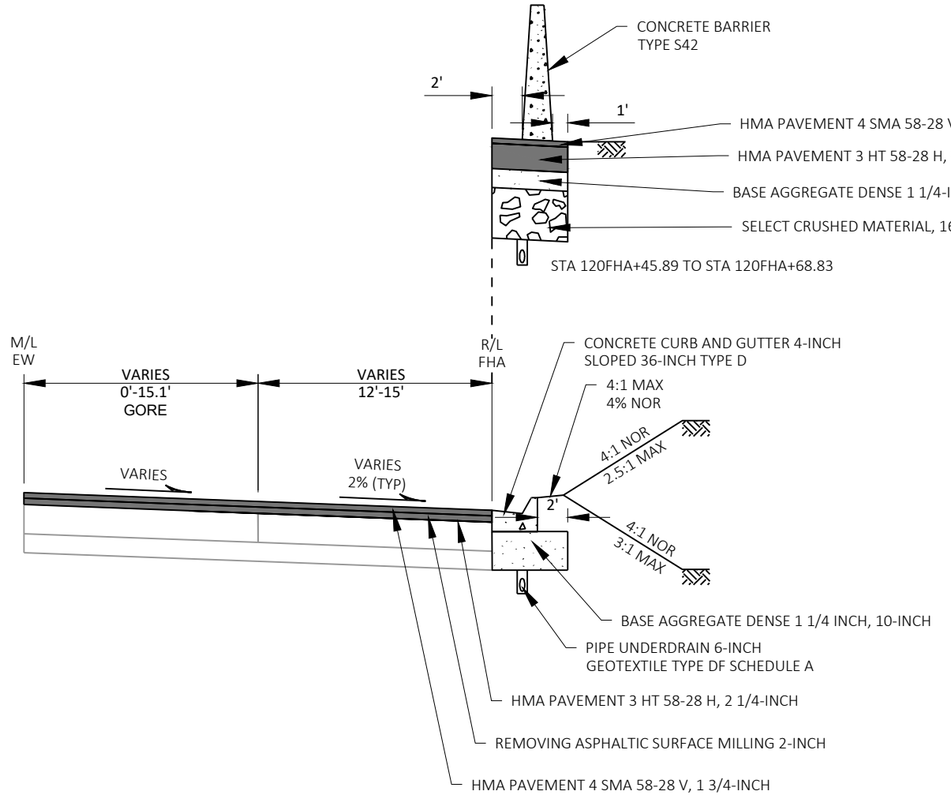


TYPICAL FINISHED SECTION

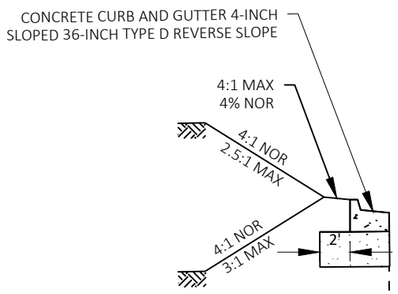
W. FOREST HOME AVENUE WB OFF RAMP

STA 97FHB+64.58 TO STA 108FHB+72.74

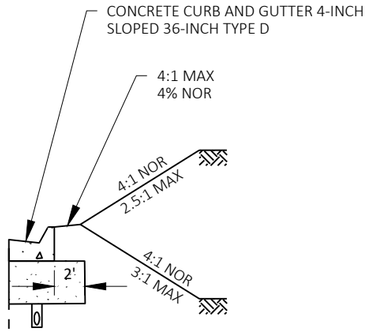
2



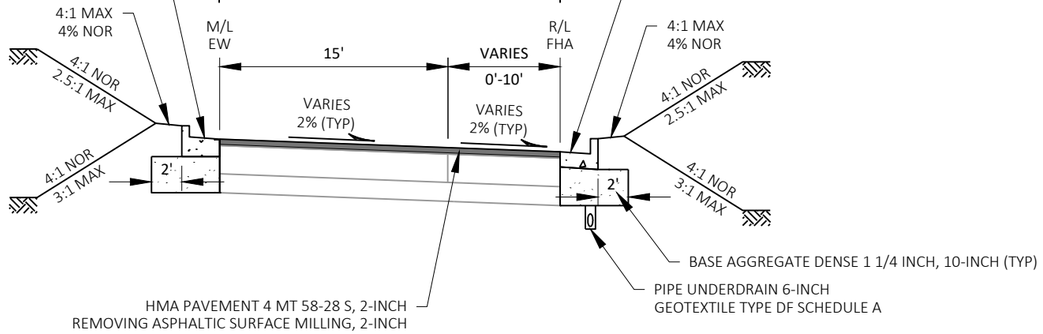
TYPICAL FINISHED SECTION
W. FOREST HOME AVENUE EB ON RAMP
STA 115FHA+88.12 TO STA 120FHA+68.83



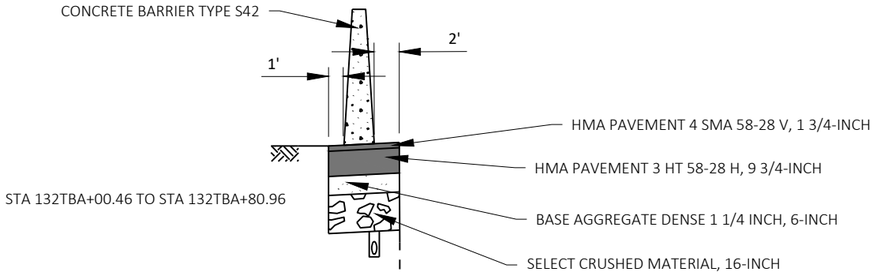
STA 110FHA+67.19 TO STA 112FHA+40.70

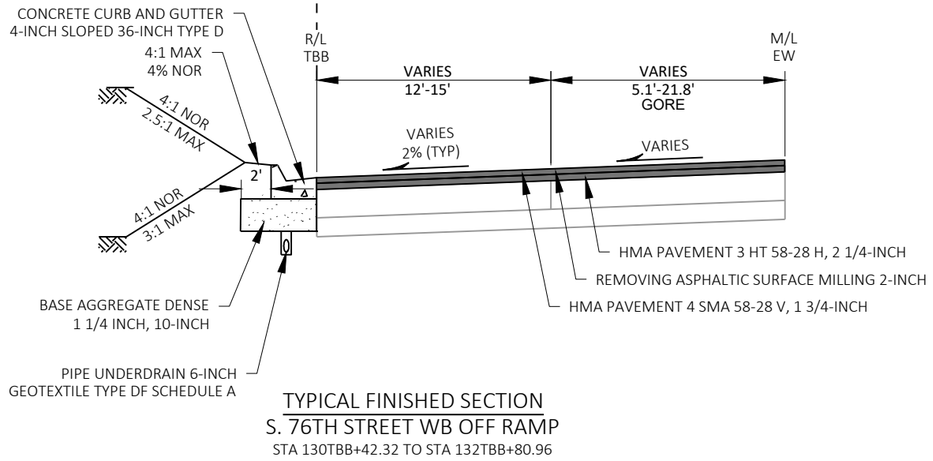


STA 110FHA+67.19 TO STA 112FHA+40.00

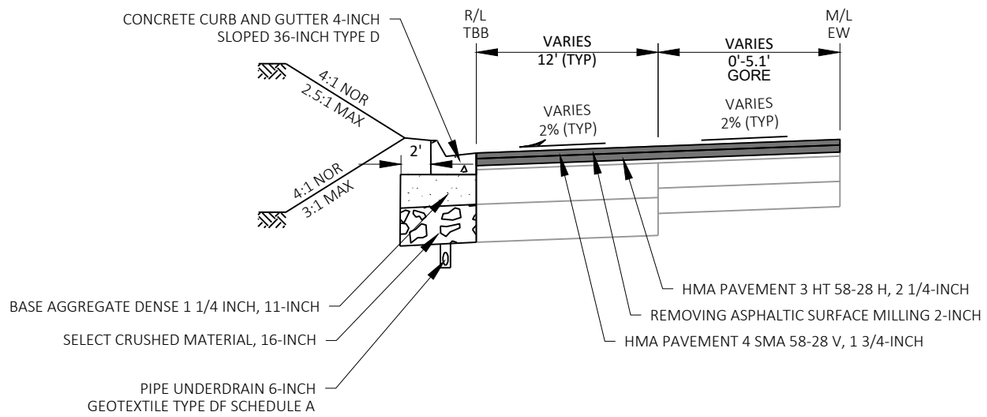


TYPICAL FINISHED SECTION
W. FOREST HOME AVENUE EB ON RAMP
STA 110FHA+67.19 TO STA 115FHA+88.12

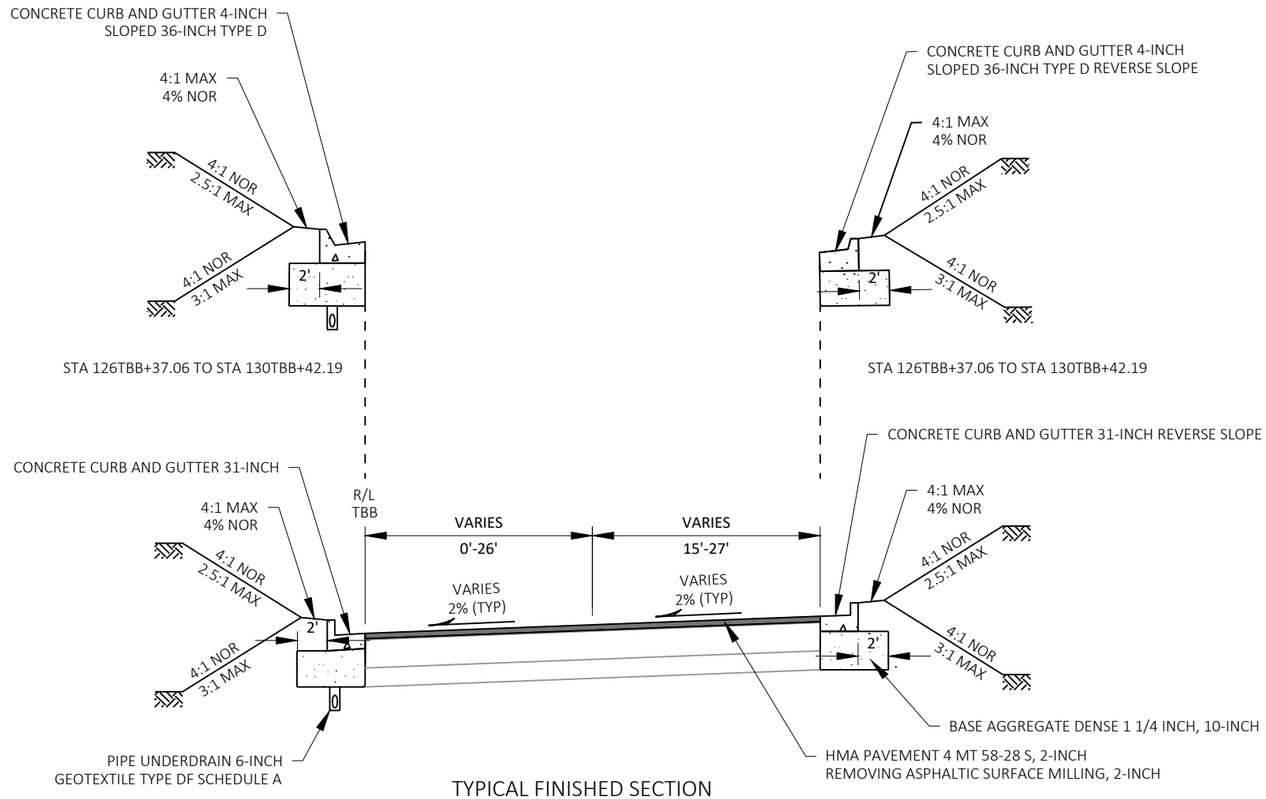




TYPICAL FINISHED SECTION
S. 76TH STREET WB OFF RAMP
STA 130TBB+42.32 TO STA 132TBB+80.96

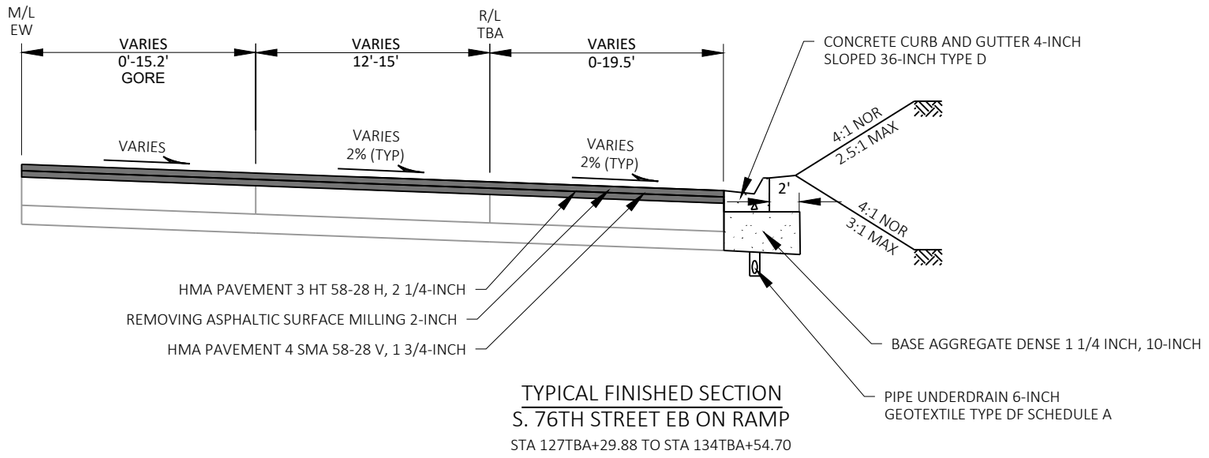


TYPICAL FINISHED SECTION
S. 76TH STREET WB OFF RAMP
STA 132TBB+80.96 TO STA 137TBB+87.19

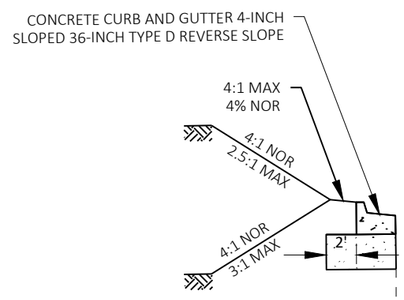


TYPICAL FINISHED SECTION
S. 76TH STREET WB OFF RAMP
STA 123TBB+99.73 TO STA 130TBB+42.32

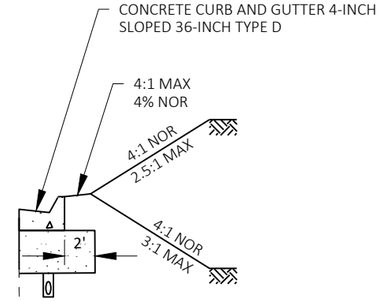
2



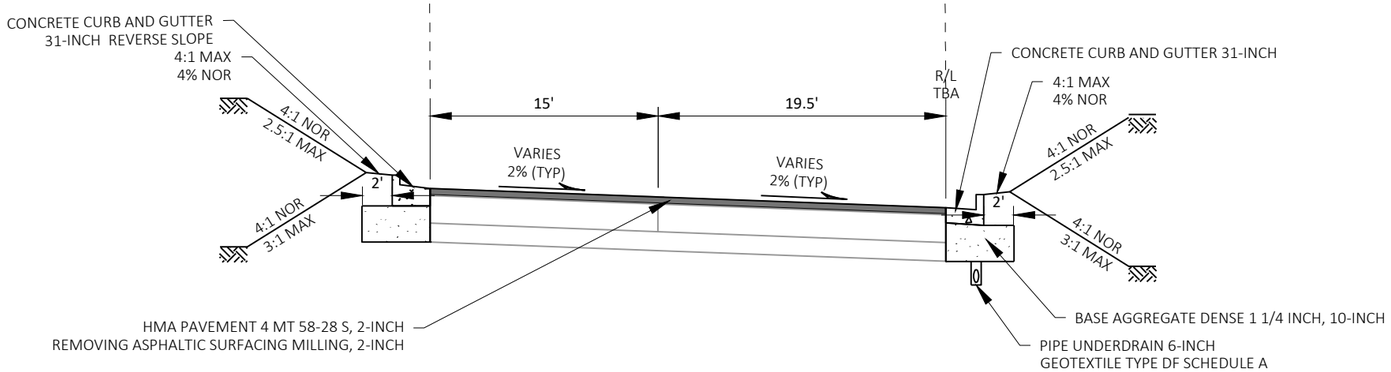
TYPICAL FINISHED SECTION
S. 76TH STREET EB ON RAMP
STA 127TBA+29.88 TO STA 134TBA+54.70



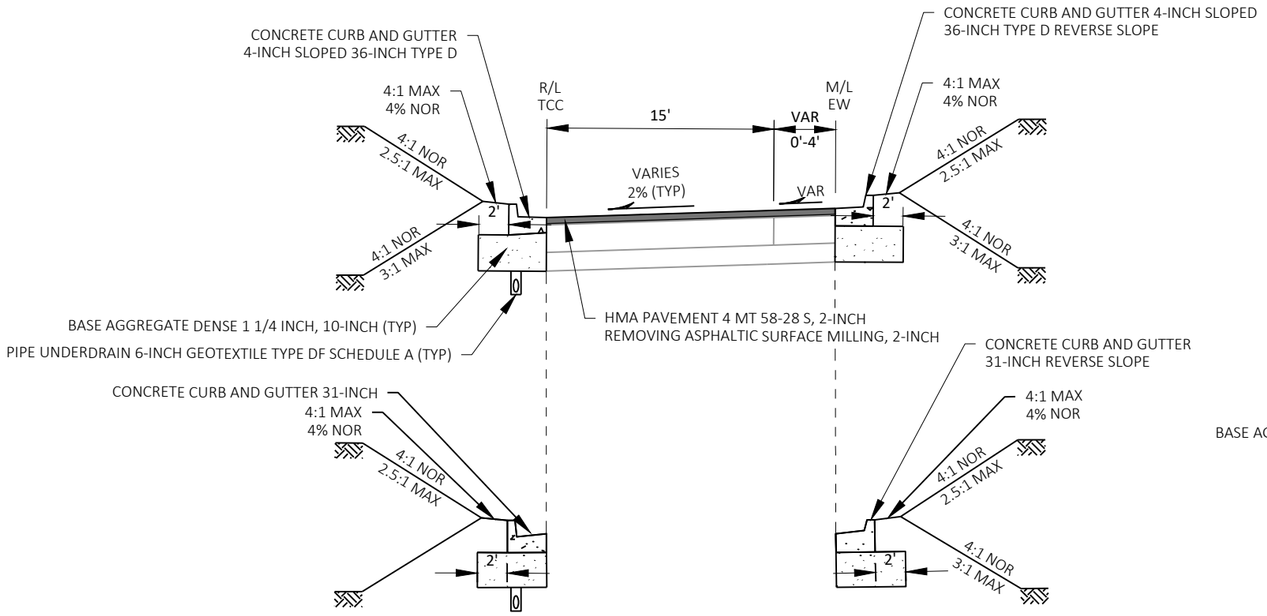
STA 124TBA+90.24 TO STA 127TBA+29.88



STA 124TBA+90.24 TO STA 127TBA+29.88



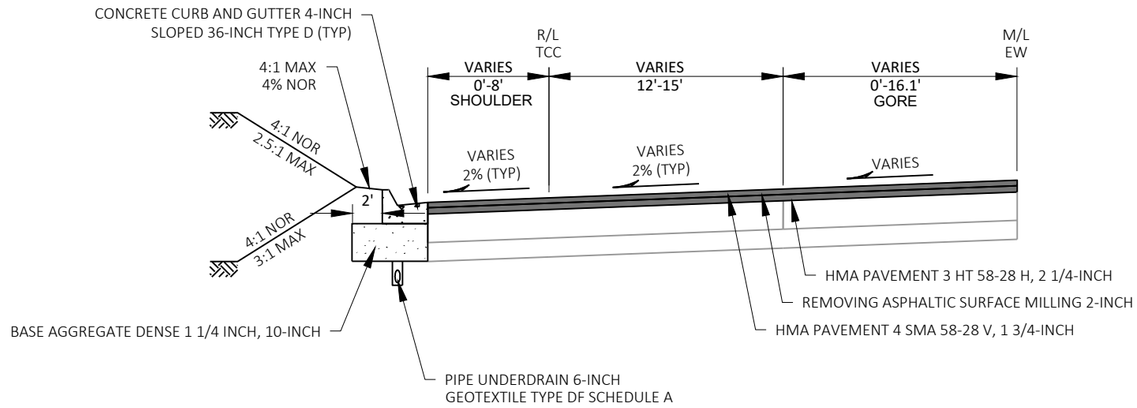
TYPICAL FINISHED SECTION
S. 76TH STREET EB ON RAMP
STA 122TBA+89.30 TO STA 127TBA+29.88



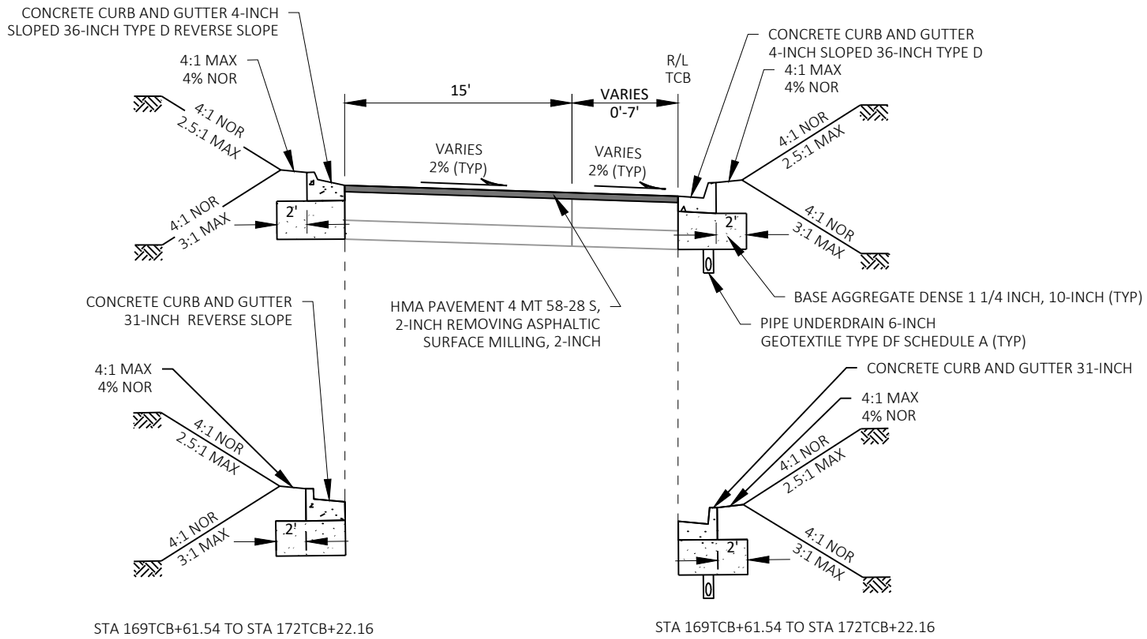
STA 170TCC+39.10 TO STA 171TCC+65.07

STA 170TCC+39.10 TO STA 171TCC+65.07

TYPICAL FINISHED SECTION
S. 60TH STREET WB ON RAMP
STA 170TCC+39.10 TO STA 173TCC+81.92



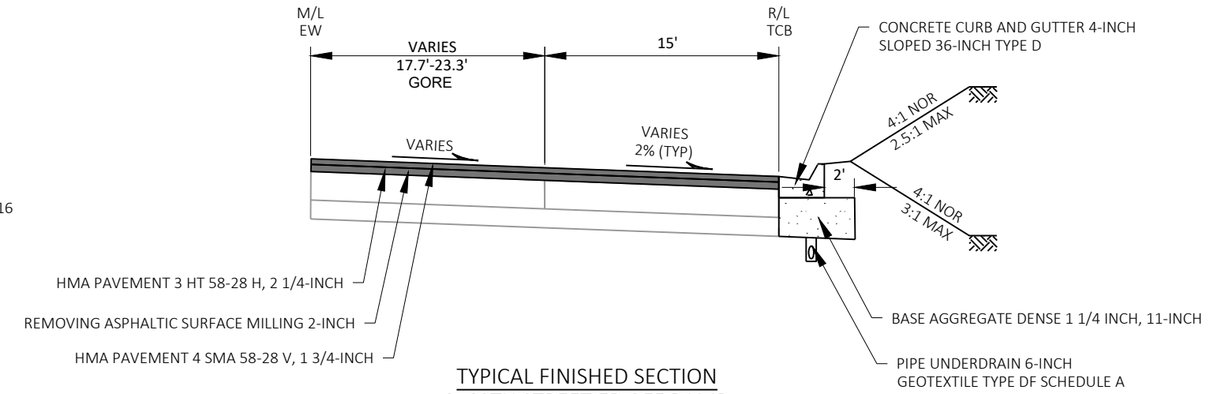
TYPICAL FINISHED SECTION
S. 60TH STREET WB ON RAMP
STA 162TCC+16.59 TO STA 170TCC+39.10



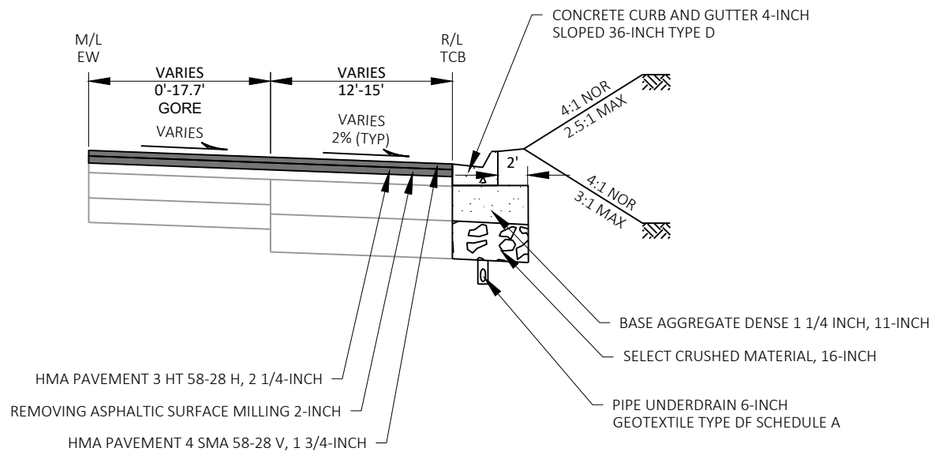
STA 169TCB+61.54 TO STA 172TCB+22.16

STA 169TCB+61.54 TO STA 172TCB+22.16

TYPICAL FINISHED SECTION
S. 60TH STREET EB OFF RAMP
STA 169TCB+61.54 TO STA 174TCB+73.88



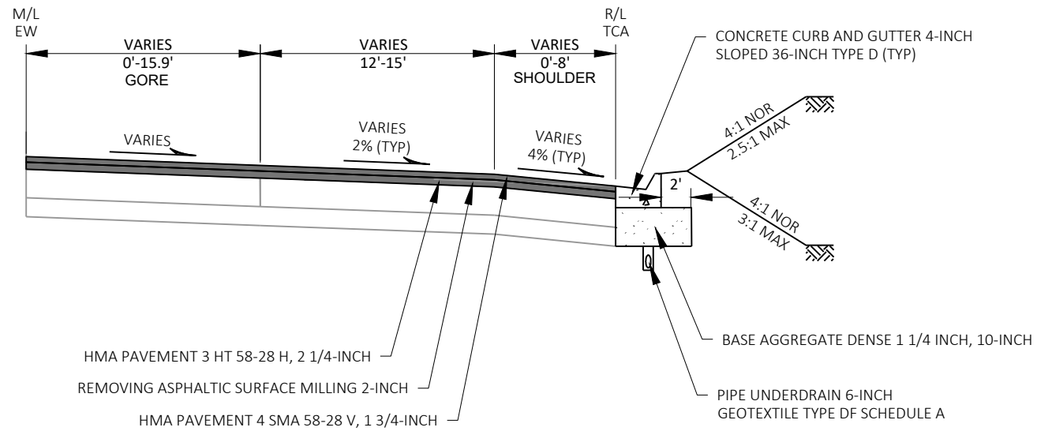
TYPICAL FINISHED SECTION
S. 60TH STREET EB OFF RAMP
STA 169TCB+25.60 TO STA 169TCB+61.54



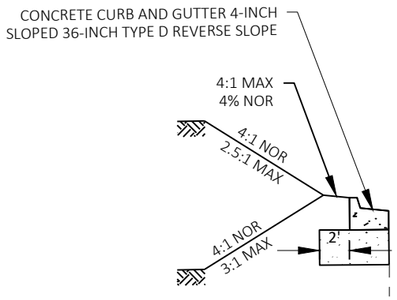
TYPICAL FINISHED SECTION
S. 60TH STREET EB OFF RAMP
STA 161TCB+34.31 TO STA 169TCB+25.60

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 32	E

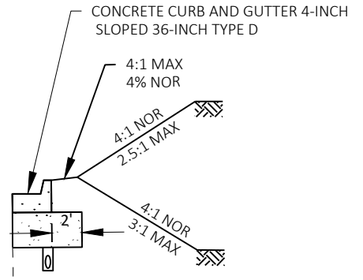
2



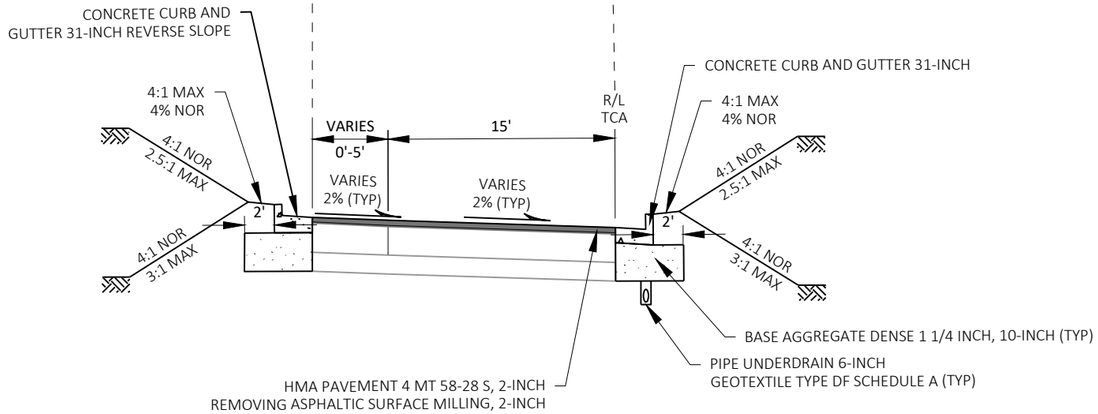
TYPICAL FINISHED SECTION
S. 60TH STREET EB ON RAMP
STA 181TCA+78.61 TO STA 188TCA+08.86



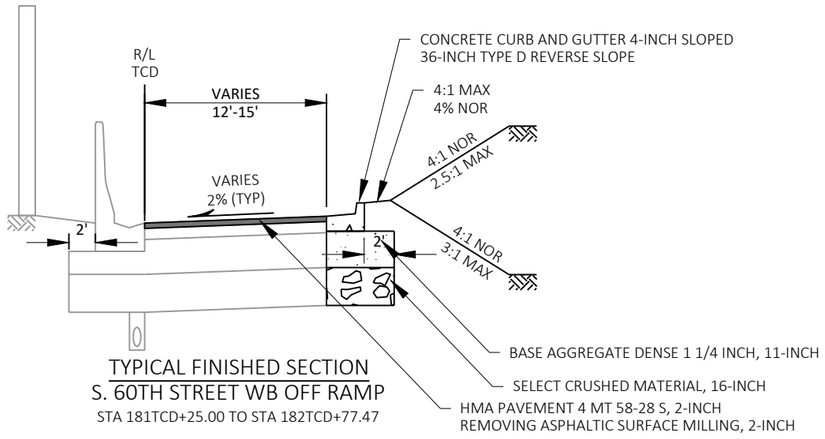
STA 180TCA+33.49 TO STA 181TCA+78.61



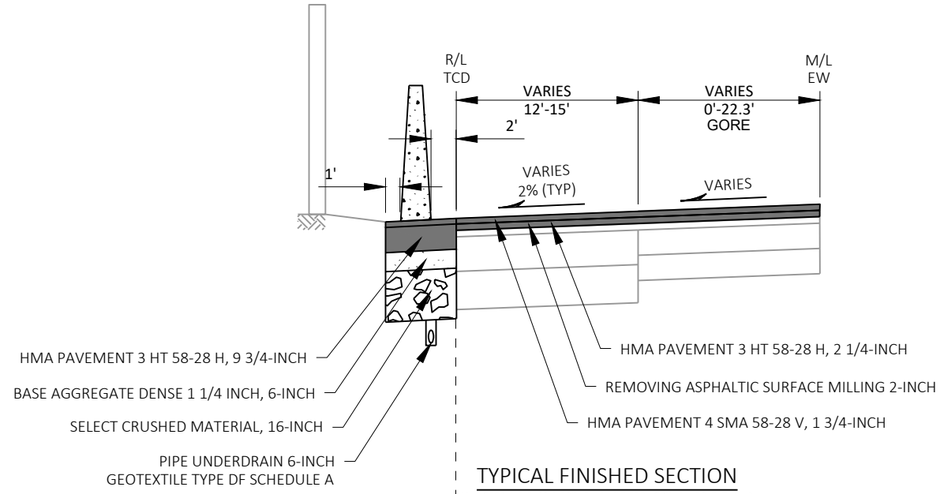
STA 180TCA+33.49 TO STA 181TCA+78.61



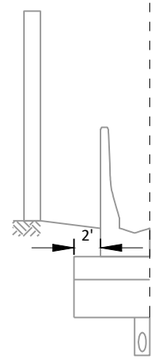
TYPICAL FINISHED SECTION
S. 60TH STREET EB ON RAMP
STA 177TCA+57.41 TO STA 181TCA+78.61



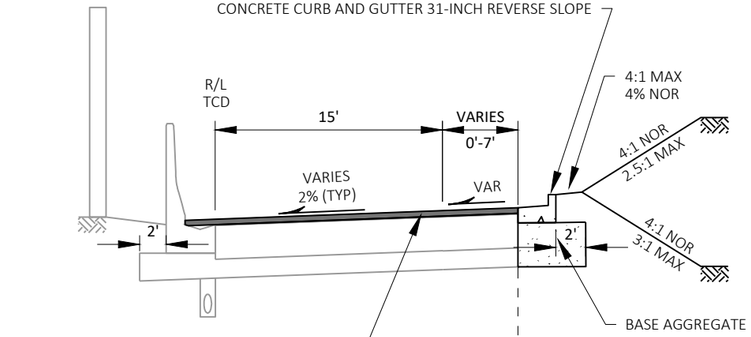
TYPICAL FINISHED SECTION
S. 60TH STREET WB OFF RAMP
STA 181TCD+25.00 TO STA 182TCD+77.47



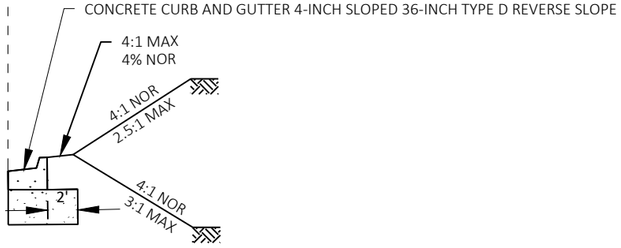
TYPICAL FINISHED SECTION
S. 60TH STREET WB OFF RAMP
STA 182TCD+77.47 TO STA 191TCD+20.97



STA 189TCD+97.99 TO STA 191TCD+20.97

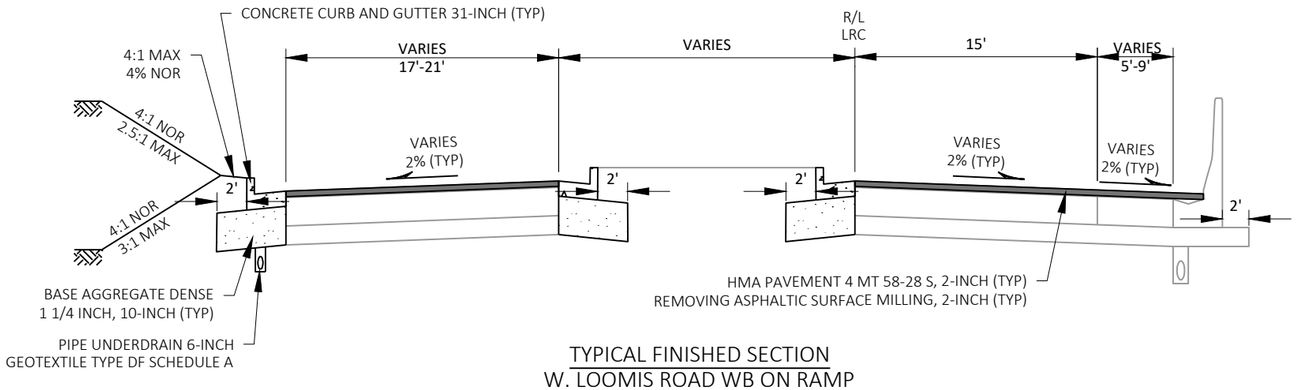


TYPICAL FINISHED SECTION
S. 60TH STREET WB OFF RAMP
STA 178TCD+09.12 TO STA 181TCD+25.00



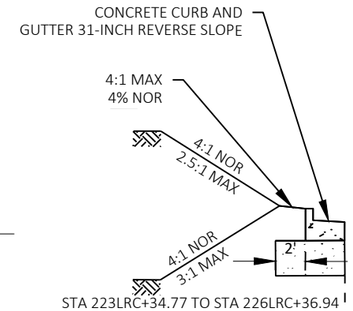
STA 183TCD+83.78 TO STA 181TCD+25.00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 34	E

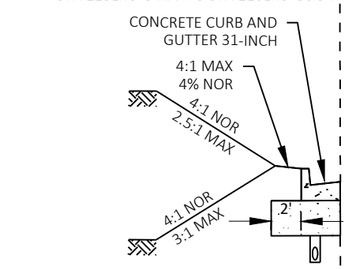


TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB ON RAMP
STA 227LRC+51.42 TO STA 229LRC+90.83

TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB ON RAMP
STA 208LRC+61.55 TO STA 218LRC+76.50

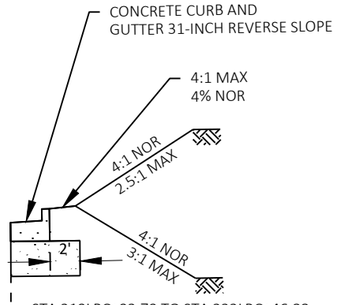


STA 223LRC+34.77 TO STA 226LRC+36.94

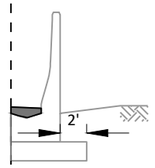


STA 221LRC+60.37 TO STA 223LRC+35.77
STA 226LRC+36.94 TO STA 227LRC+51.42

STA 219LRC+27.91 TO STA 221LRC+60.37

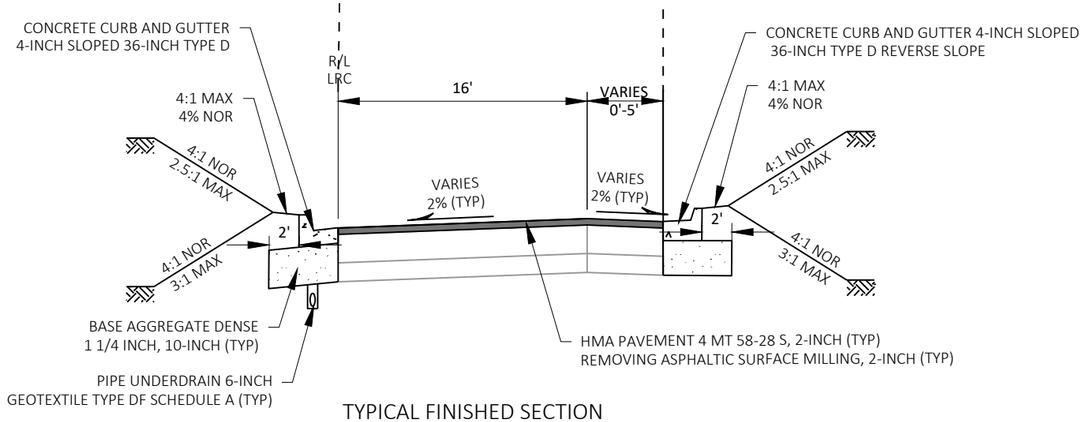


STA 219LRC+93.70 TO STA 222LRC+46.88

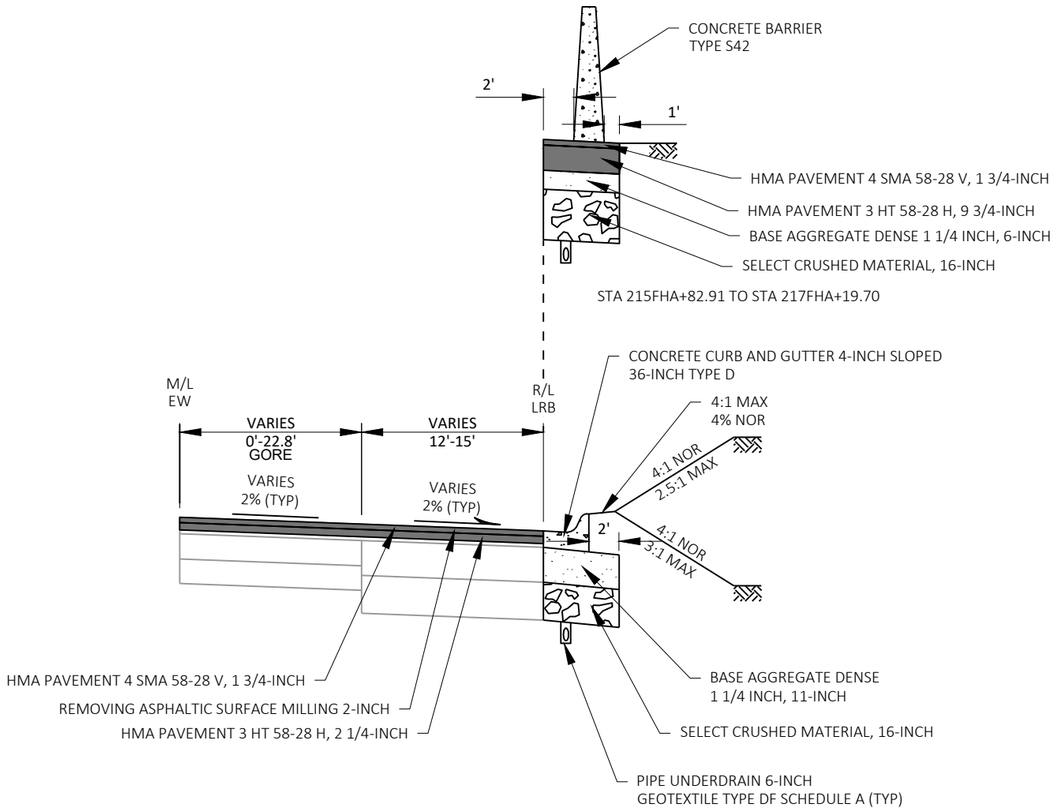


STA 222LRC+46.88 TO STA 227LRC+33.60

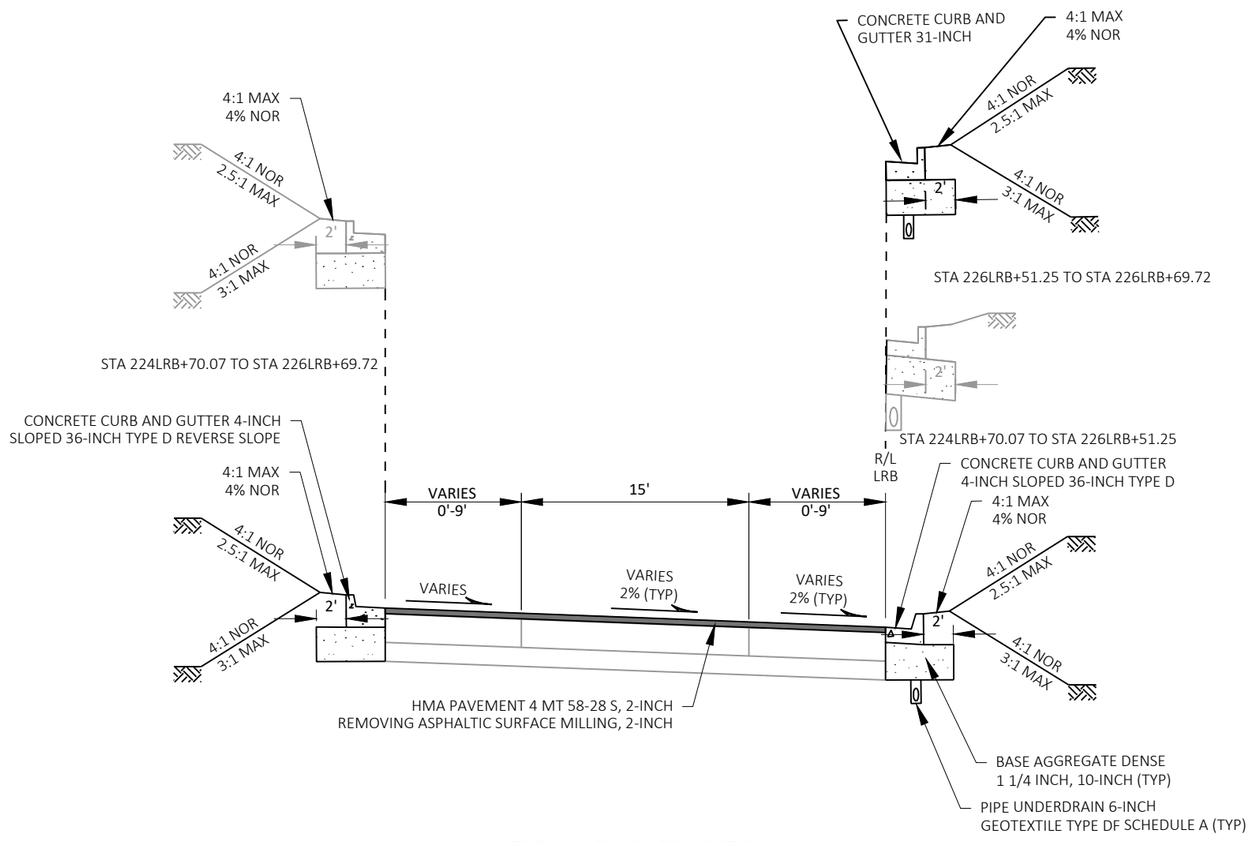
STA 219LRC+29.42 TO STA 219LRC+93.70



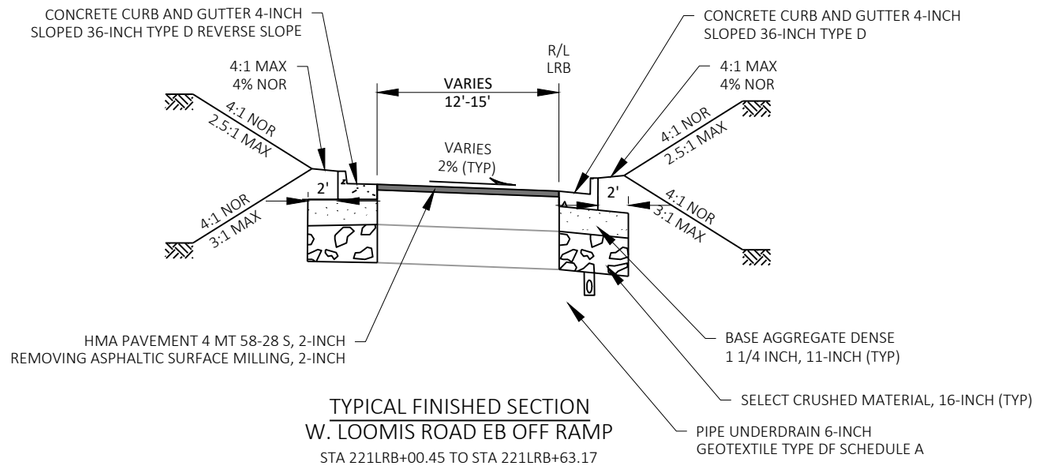
TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB ON RAMP
STA 218LRC+76.50 TO STA 227LRC+51.42



TYPICAL FINISHED SECTION
W. LOOMIS ROAD EB OFF RAMP
STA 212LRB+28.03 TO STA 221LRB+00.45

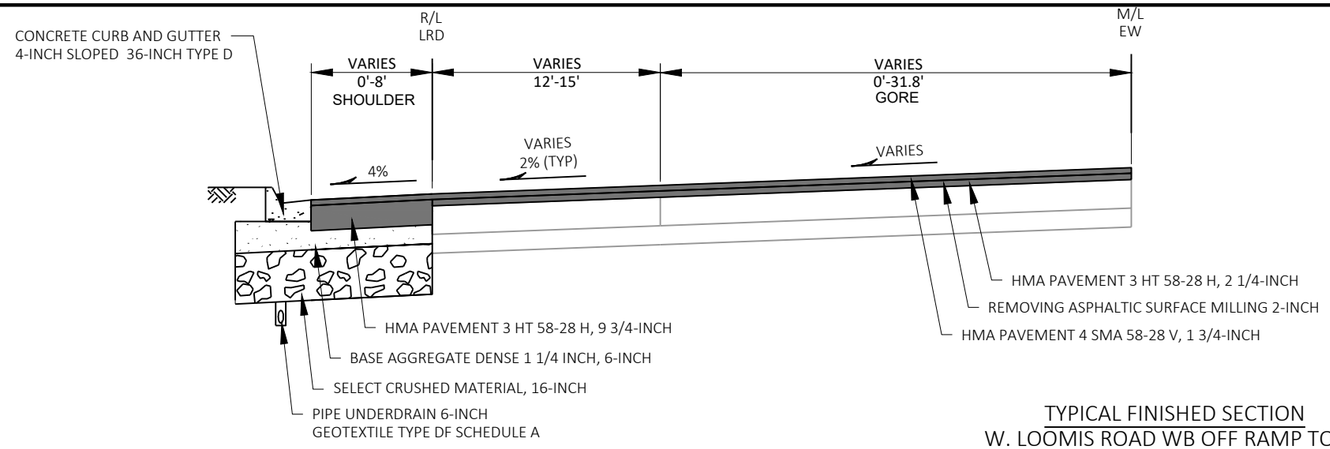


TYPICAL FINISHED SECTION
W. LOOMIS ROAD EB OFF RAMP
STA 221LRB+63.17 TO STA 226LRB+69.72



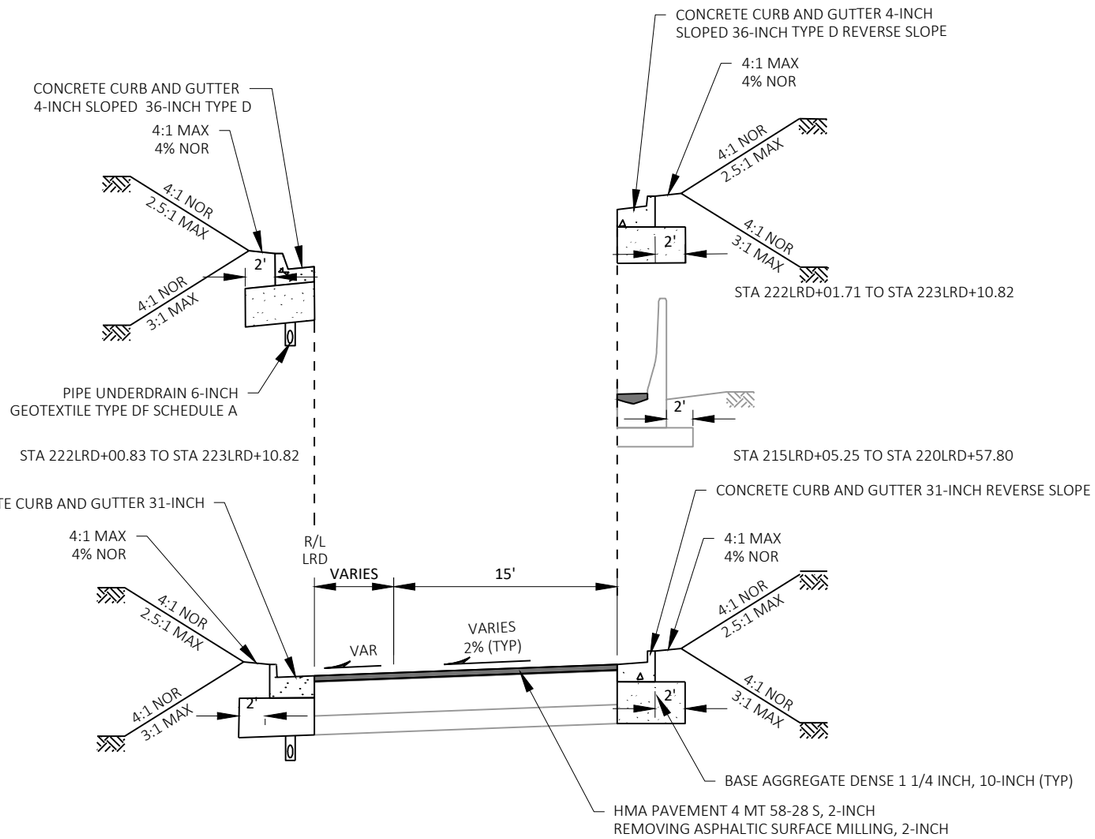
TYPICAL FINISHED SECTION
W. LOOMIS ROAD EB OFF RAMP
STA 221LRB+00.45 TO STA 221LRB+63.17

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 36	E



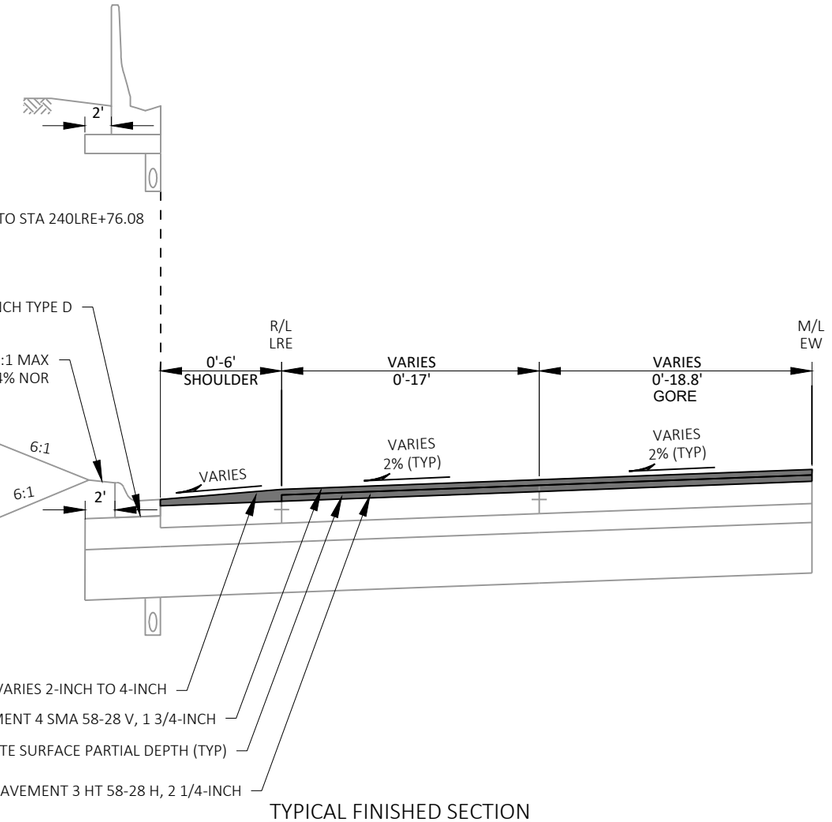
TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB OFF RAMP TO SB

STA 223LRD+10.82 TO STA 227LRD+56.47



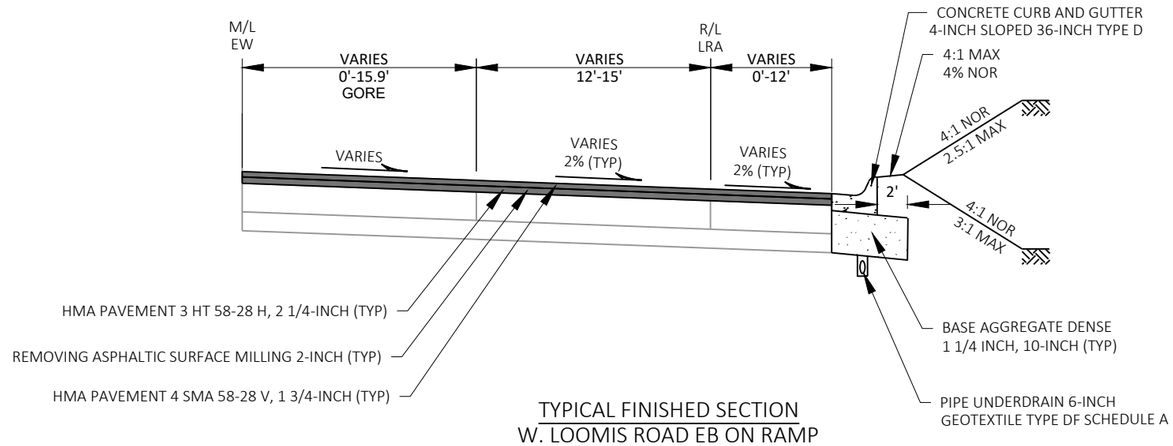
TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB OFF RAMP TO SB

STA 214LRD+96.37 TO STA 223LRD+10.82

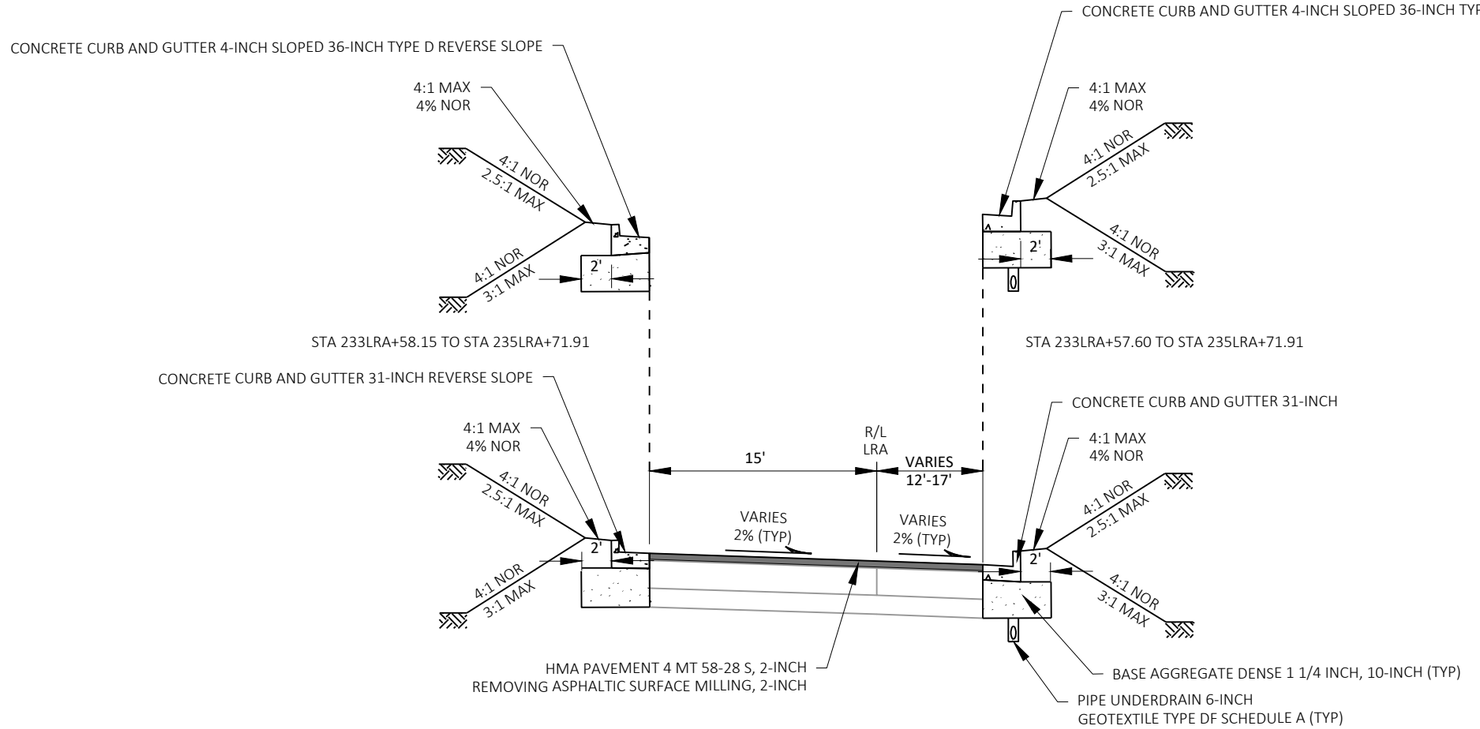


TYPICAL FINISHED SECTION
W. LOOMIS ROAD WB OFF RAMP TO NB

STA 236LRE+66.97 TO STA 240LRE+76.08

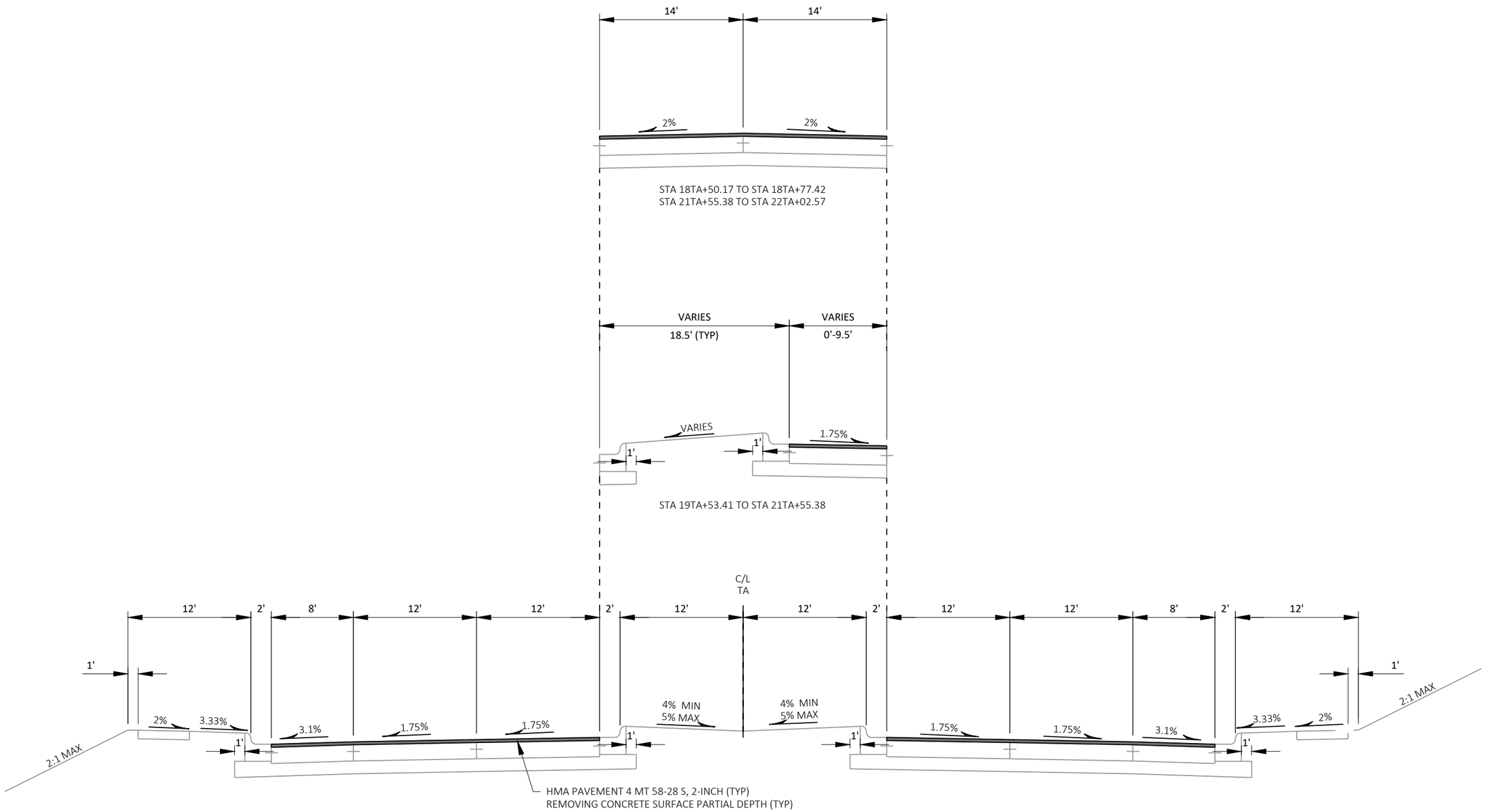


TYPICAL FINISHED SECTION
W. LOOMIS ROAD EB ON RAMP
STA 235LRA+71.91 TO STA 242LRA+88.44



TYPICAL FINISHED SECTION
W. LOOMIS ROAD EB ON RAMP
STA 231LRA+21.64 TO STA 235LRA+71.91

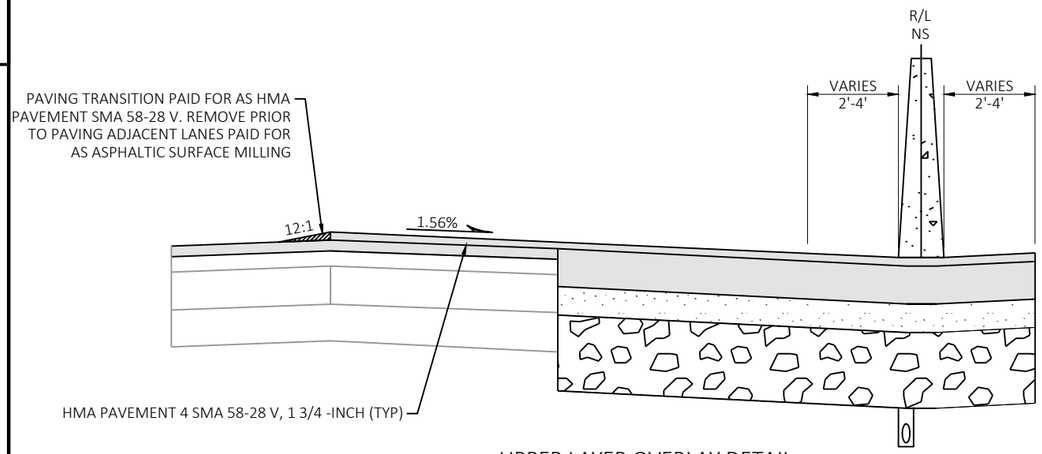
2



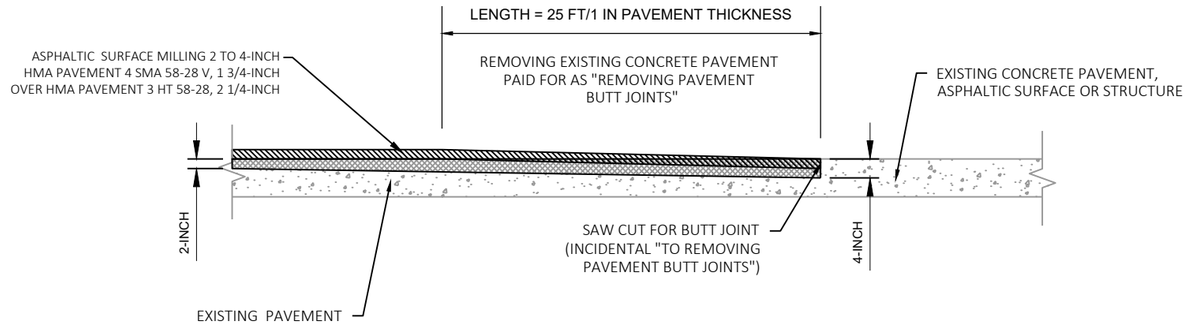
TYPICAL FINISHED SECTION
S. 84TH STREET
STA 17TA+95.00 TO STA 23TA+10.00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 39	E

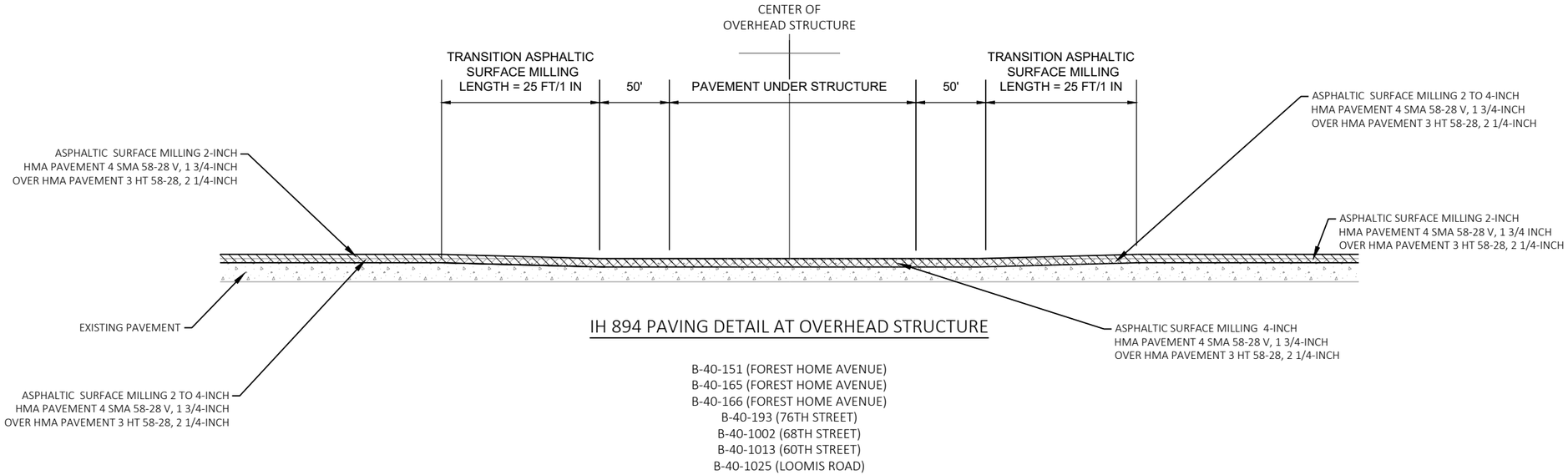
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-020401-TS.DWG
LAYOUT NAME - 21
PLOT DATE : 10/28/2022 12:27 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



UPPER LAYER OVERLAY DETAIL



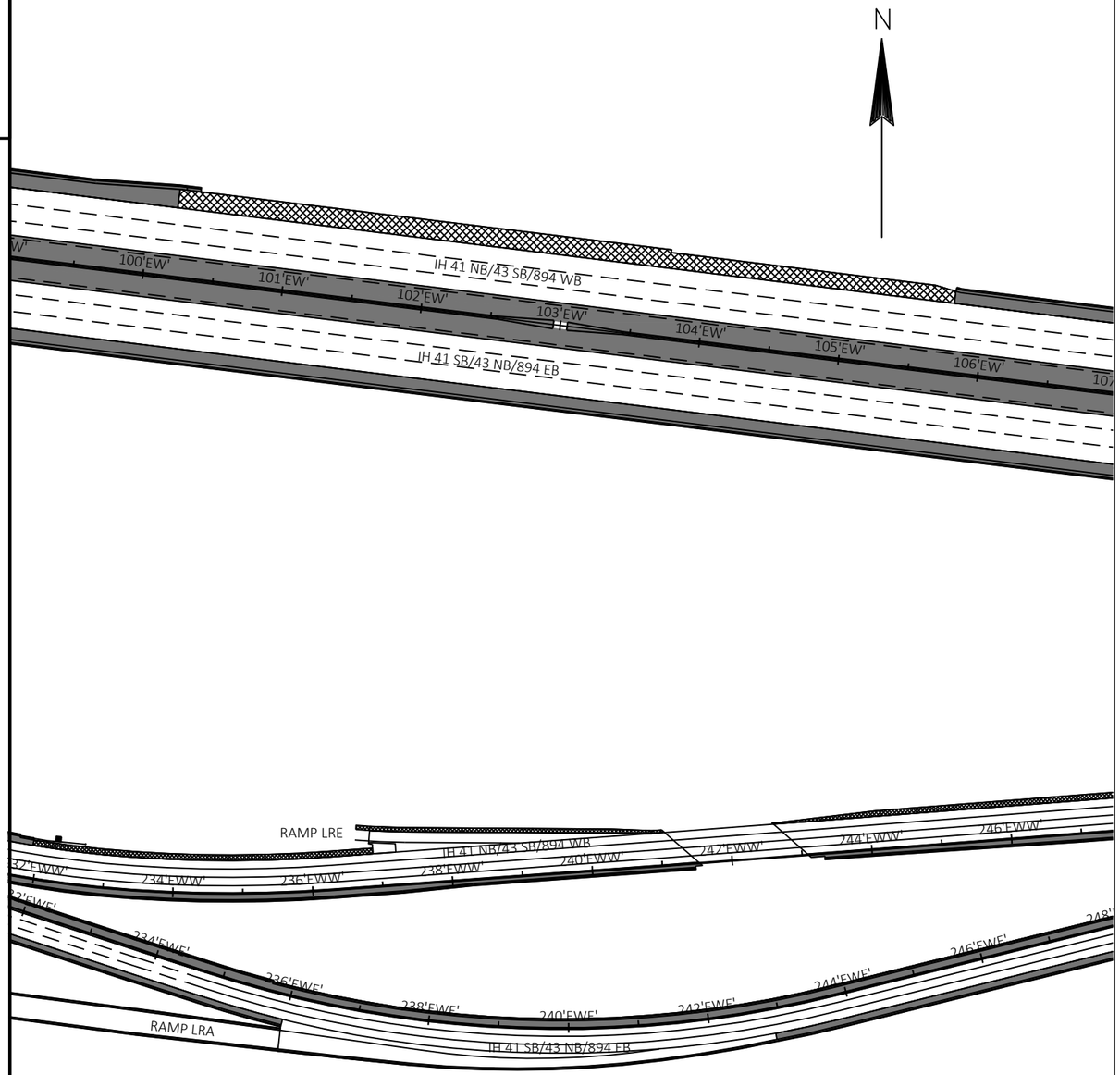
BUTT JOINT DETAIL



IH 894 PAVING DETAIL AT OVERHEAD STRUCTURE

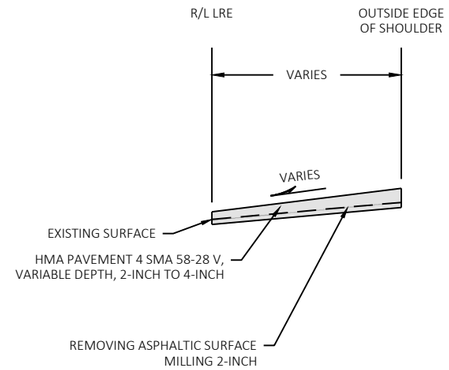
B-40-151 (FOREST HOME AVENUE)
B-40-165 (FOREST HOME AVENUE)
B-40-166 (FOREST HOME AVENUE)
B-40-193 (76TH STREET)
B-40-1002 (68TH STREET)
B-40-1013 (60TH STREET)
B-40-1025 (LOOMIS ROAD)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 40	E



ASPHALTIC PAVEMENT WEDGE LOCATIONS

ASPHALTIC PAVEMENT WEDGE



VARIABLE DEPTH OVERLAY

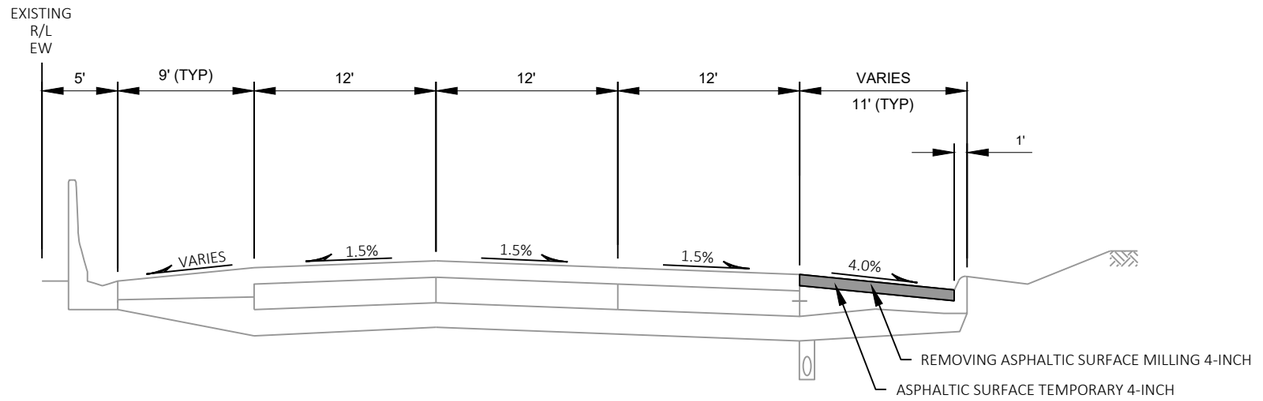
ASPHALTIC PAVEMENT WEDGE DETAIL

NOTE: SEE IH 41/43/894 AND RAMP LRD TYPICAL FINISHED SECTIONS

2

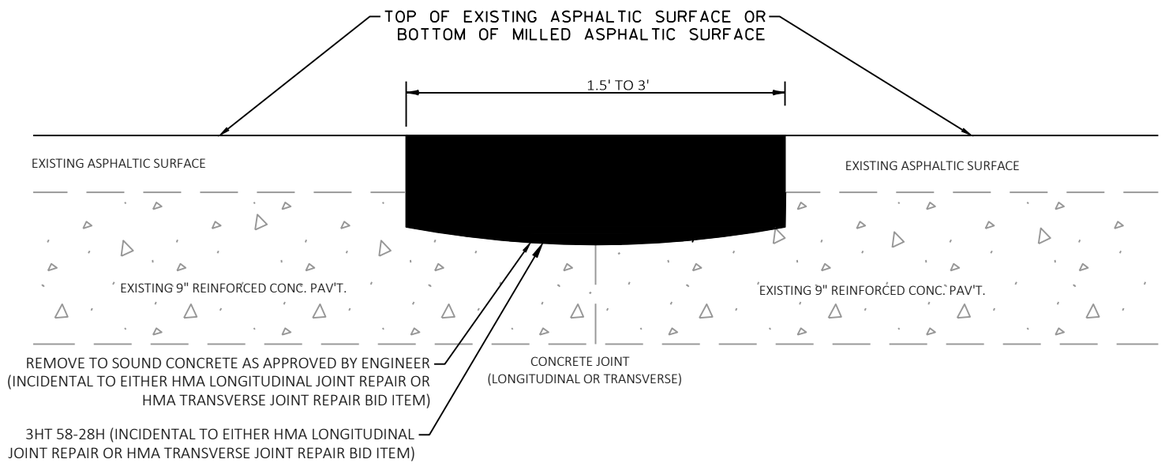
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 41	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 02
PLOT DATE : 11/1/2022 11:50 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



IH 41/43/894 OUTSIDE SHOULDER OVERLAY - STAGE 1

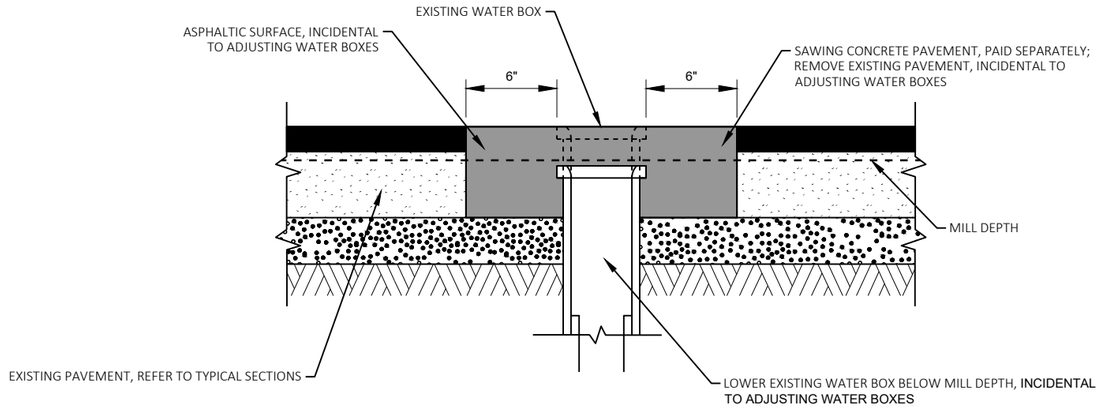
STA 88EW+91.23 TO STA 95EW+21.14 RT
STA 88EW+99.10 TO STA 95EW+10.78 LT
STA 97EW+00.09 TO STA 100EW+18.86 LT
STA 97EW+10.54 TO STA 115EW+95.86 RT
STA 105EW+77.24 TO STA 108EW+48.90 LT
STA 120EW+68.92 TO STA 127EW+20.93 RT
STA 121EW+58.14 TO STA 130EW+53.42 LT
STA 134EW+49.57 TO STA 161EW+34.06 RT
STA 137EW+91.71 TO STA 162EW+16.50 LT
STA 169EW+64.51 TO STA 181EW+80.39 RT
STA 170EW+40.83 TO STA 182EW+77.83 LT
STA 188EW+08.23 TO STA 202EW+05.82 RT
STA 191EW+21.96 TO STA 202EW+07.07 LT
STA 203EW+47.96 TO STA 212EW+27.81 RT
STA 203EW+49.69 TO STA 208EW+61.46 LT
STA 218EW+63.00 TO STA 223EW+02.49 LT
STA 221EW+17.27 TO STA 235EWE+96.52 RT
STA 242EWE+90.81 TO STA 256EWE+45.00 RT



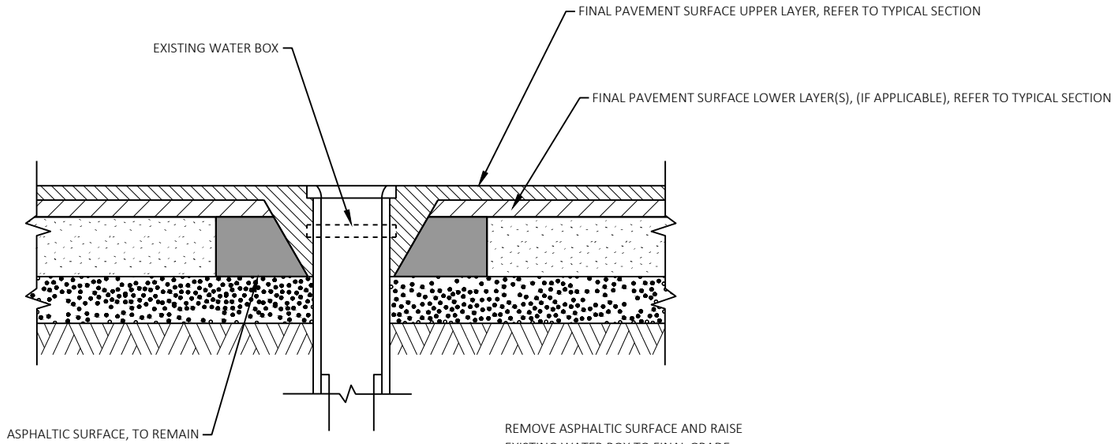
NOTE:

1) IN ALL AREAS OF JOINT REPAIR, REMOVE ASPHALTIC MATERIAL AND/OR LOOSE, DETERIORATED CONCRETE. CLEAN AND REPLACE WITH HMA PAVEMENT AS DIRECTED BY THE ENGINEER.
2) LOCATIONS FOR JOINT REPAIR TO BE APPROVED BY THE ENGINEER PRIOR TO THE START OF REPAIR WORK.
3) ACTUAL WIDTH TO BE DETERMINED BY THE ENGINEER.

HMA LONGITUDINAL JOINT REPAIR AND HMA TRANSVERSE JOINT REPAIR DETAIL

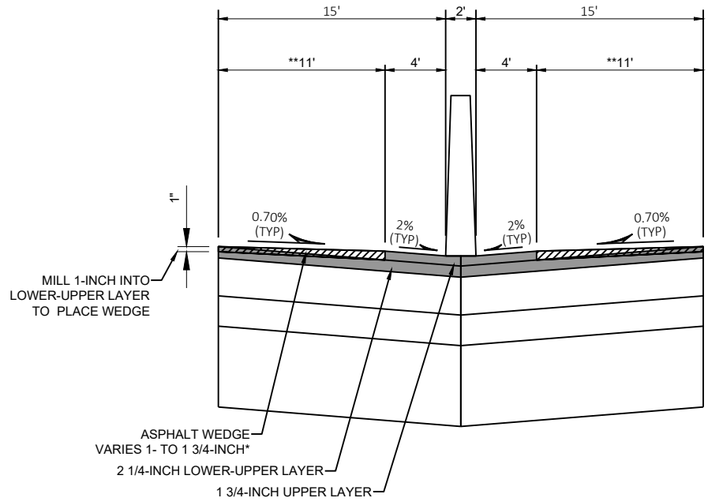


PRIOR TO MILLING



PRIOR TO PAVING UPPER LAYER

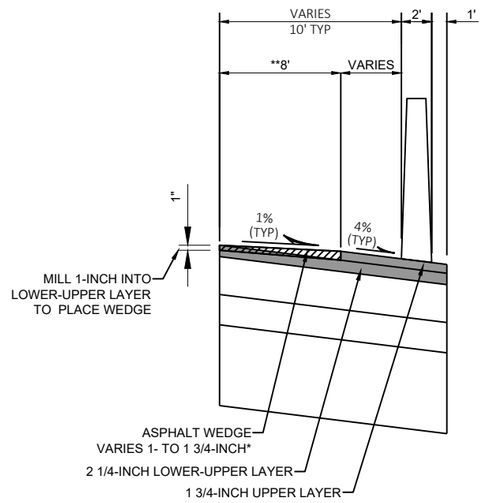
ADJUSTING WATER BOXES



* MILL WEDGE PRIOR TO PAVING FINAL UPPER LAYER IN STAGE 4
**11-FT TYPICAL WEDGE WIDTH TO PROVIDE POSITIVE DRAINAGE. WEDGE WIDTH CAN BE REDUCED IN SUPERELEVATED SECTIONS PROVIDED POSITIVE DRAINAGE IS MAINTAINED.

MEDIAN SURFACE LAYER PAVING (STAGE 2)

IH 41 NB/ 43 SB/ 894 WB
IH 43 SB/ 43 NB/ 894 EB

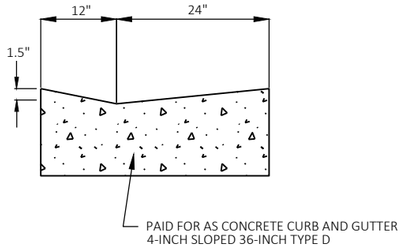


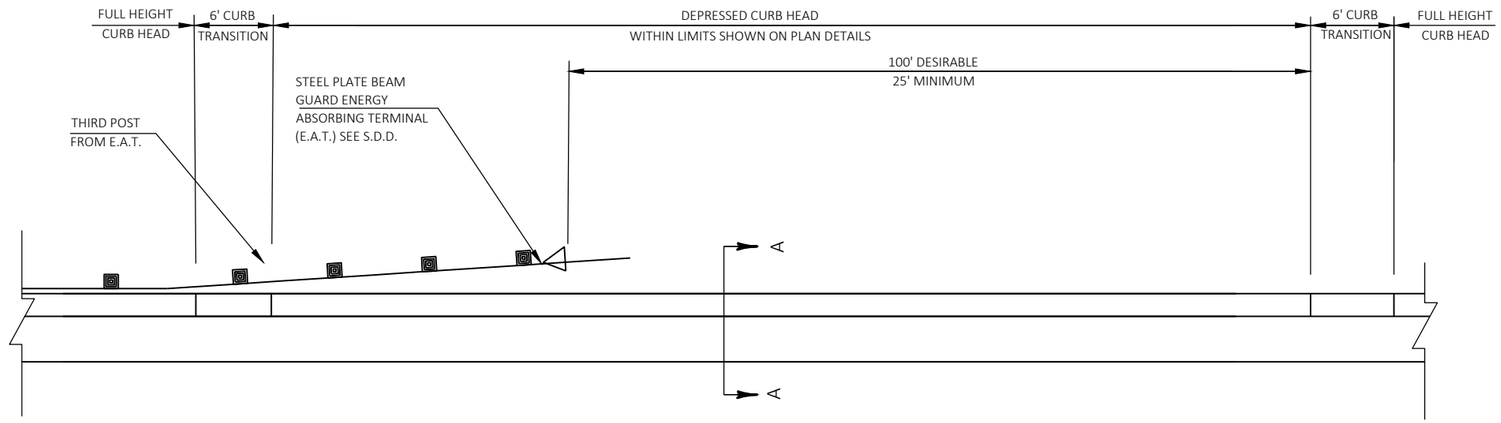
* MILL WEDGE PRIOR TO PAVING FINAL UPPER LAYER IN STAGE 4
**8-FT TYPICAL WEDGE WIDTH TO PROVIDE POSITIVE DRAINAGE. WEDGE WIDTH CAN BE REDUCED IN SUPERELEVATED SECTIONS PROVIDED POSITIVE DRAINAGE IS MAINTAINED.

SHOULDER SURFACE LAYER PAVING (STAGE 3)

IH 41 NB/ 43 SB/ 894 WB
IH 43 SB/ 43 NB/ 894 EB

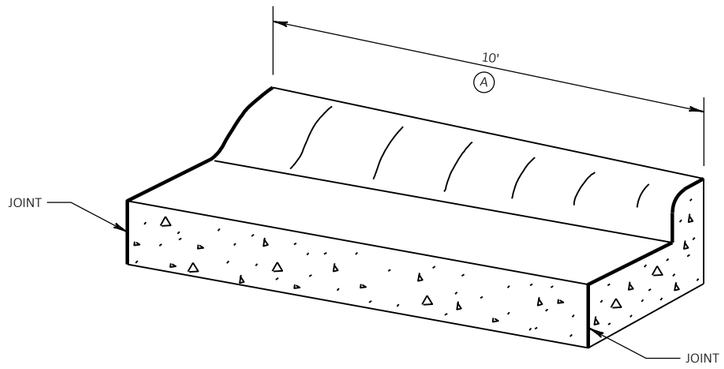
2





SECTION A-A
DEPRESSED CURB

DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL

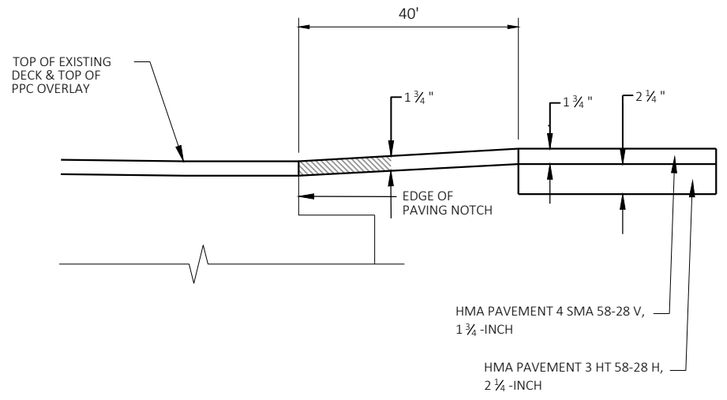


NOTE

(A) 36" CURB & GUTTER TO 31" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" TYPE A CURB & GUTTER)

CURB & GUTTER TRANSITION

SEE PLAN DETAILS FOR LOCATIONS



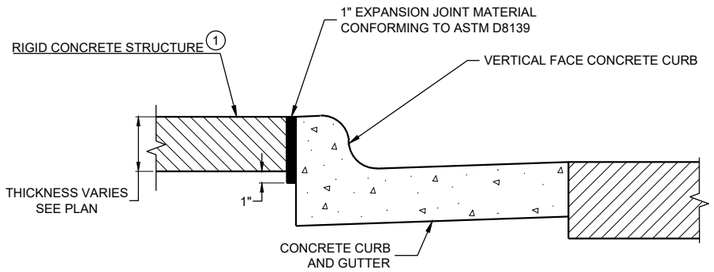
BUTTED JOINT AT BRIDGES

2

GENERAL NOTES

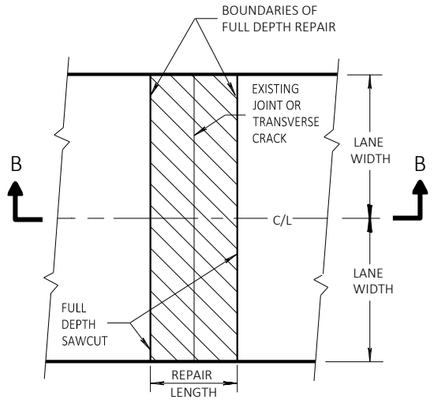
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

(1) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

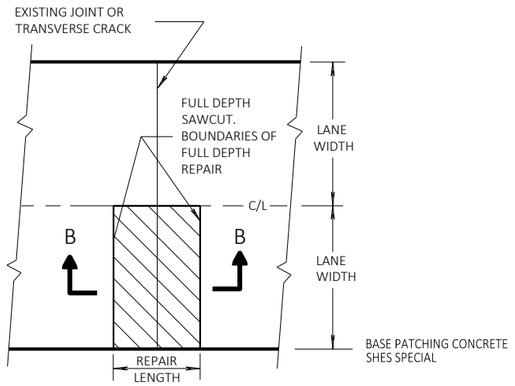


EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (1)

2

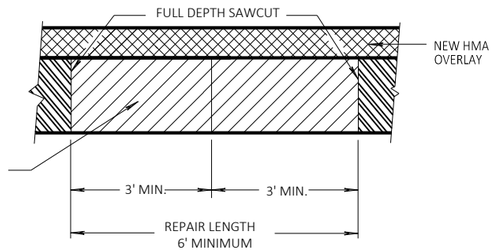


PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH REMOVAL OF EXISTING RUBBLIZED CONCRETE



SECTION B-B

RUBBLIZED CONCRETE REMOVAL

NOTES

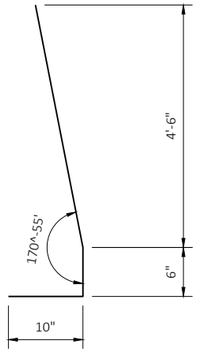
SAW CUT, DRILL, AND LIFT OUT EXISTING RUBBLIZED CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF RUBBLIZED CONCRETE PIECES.

PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

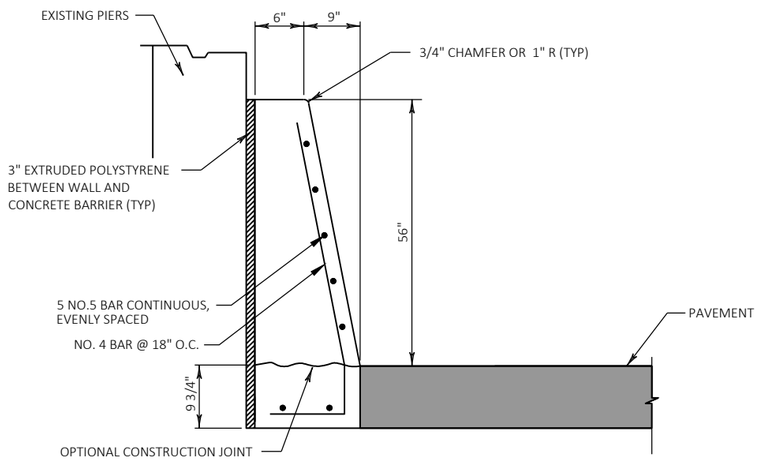
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING RUBBLIZED CONCRETE IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

TIE STEEL NOT REQUIRED TO TIE INTO AN EXISTING PAVEMENT

BASE PATCHING CONCRETE SPECIAL



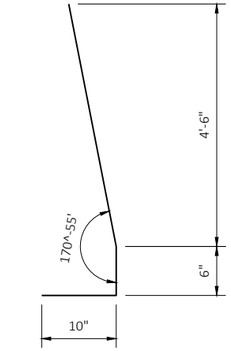
BAR BEND DETAIL



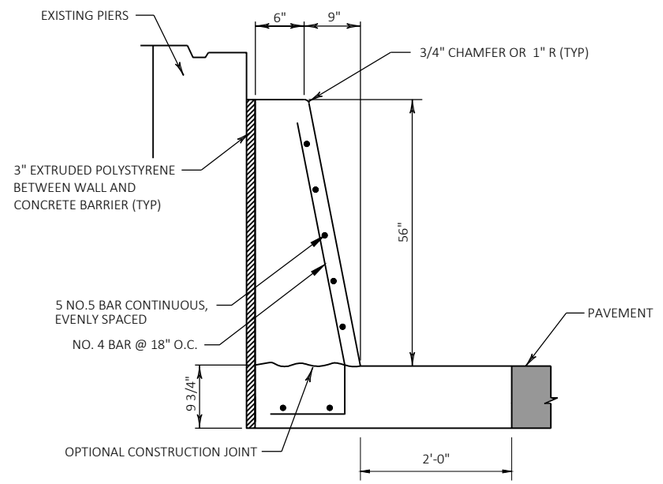
NOTES

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
2. SEE SDD SINGLE SLOPE CONCRETE BARRIER FOR DETAILS NOT SHOWN HERE.
3. PROVIDE SAWED CONTRACTION JOINT IN BARRIER FOOTING ONLY AT CORRESPONDING CONCRETE PAVEMENT CONTRACTION JOINTS. OTHER CONTRACTION JOINTS NOT REQUIRED.
4. 2" CLEAR COVER TYPICAL.
5. FOLLOW DELINEATOR SPACING TABLES ON "END ANCHOR SINGLE SLOPE CONCRETE BARRIER" CONSTRUCTION DETAIL WHEN PLACING DELINEATORS

CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED



BAR BEND DETAIL

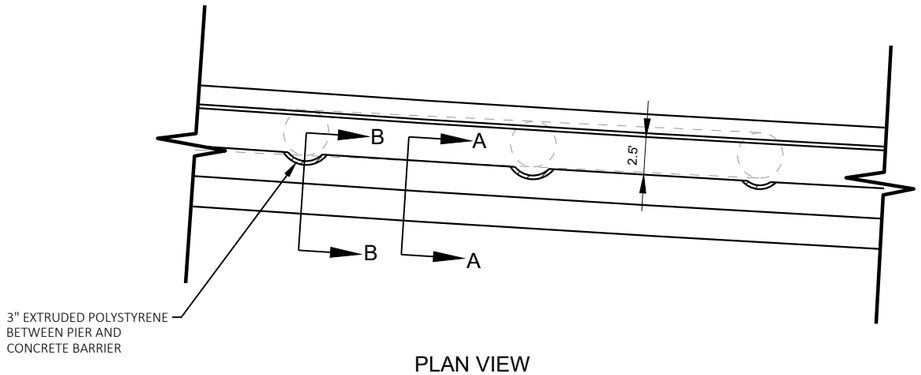


NOTES

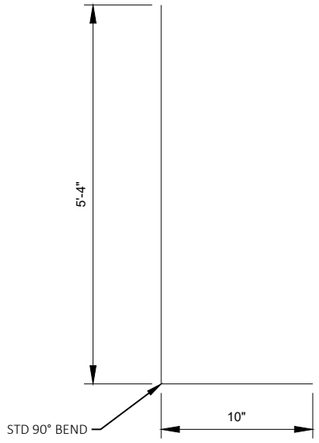
1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
2. SEE SDD SINGLE SLOPE CONCRETE BARRIER FOR DETAILS NOT SHOWN HERE.
3. PROVIDE SAWED CONTRACTION JOINT IN BARRIER FOOTING ONLY AT CORRESPONDING CONCRETE PAVEMENT CONTRACTION JOINTS. OTHER CONTRACTION JOINTS NOT REQUIRED.
4. 2" CLEAR COVER TYPICAL.
5. FOLLOW DELINEATOR SPACING TABLES ON "END ANCHOR SINGLE SLOPE CONCRETE BARRIER" CONSTRUCTION DETAIL WHEN PLACING DELINEATORS

CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED WITH 24 INCH PAN

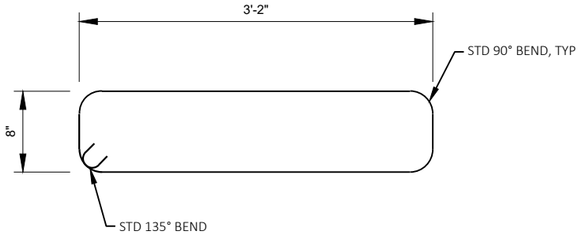
2



PLAN VIEW
(NOT TO SCALE)



MODIFIED V1 BAR



MODIFIED V3 BAR

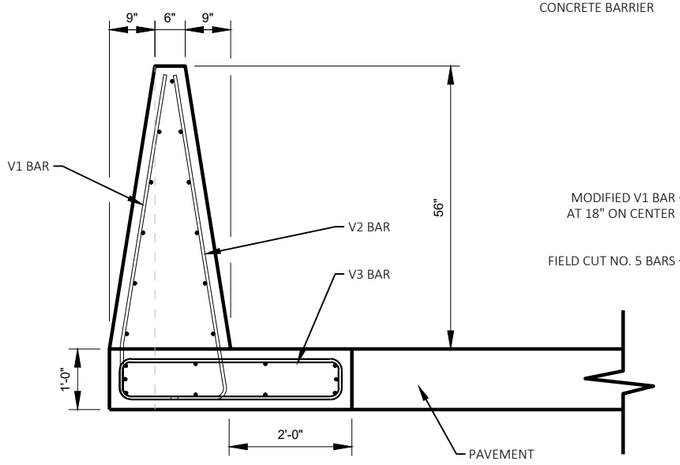
BAR BEND DETAILS

CONCRETE BARRIER TYPE S56C MODIFIED
(MODIFIED V1 AND MODIFIED V3 ARE NO. 5 BARS)

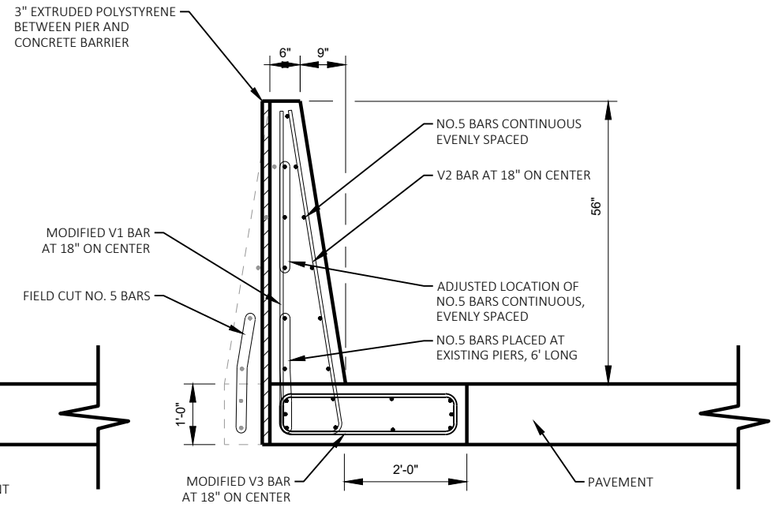
NOTES

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
2. SEE SDD "SINGLE SLOPE ROADSIDE RETAINING WALL" FOR DETAILS NOT SHOWN HERE.
3. 2" CLEAR COVER TYPICAL.

* PAID FOR AS CONCRETE BARRIER TYPE 56C.



SECTION A-A
CONCRETE BARRIER TYPE 56C

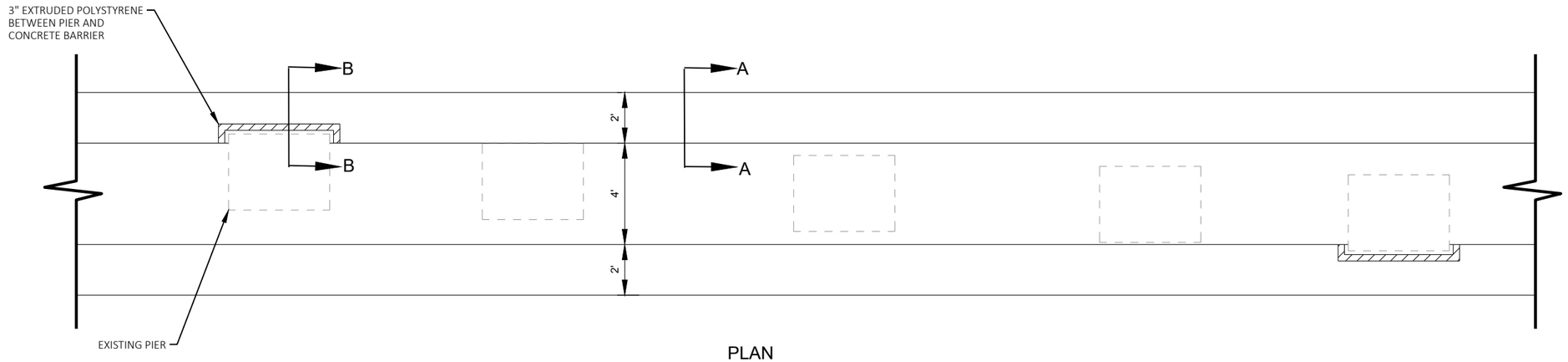


SECTION B-B
CONCRETE BARRIER TYPE 56C MODIFIED*

CONCRETE BARRIER TYPE S56C AT FOREST HOME AVENUE AND 76TH STREET BRIDGE MEDIAN PIERS

STA 111'EW'+46.63 TO STA 112'EW'+06.63
STA 112'EW'+76.91 TO STA 114'EW'+21.27
STA 122'EW'+06.46 TO STA 123'EW'+33.71

2

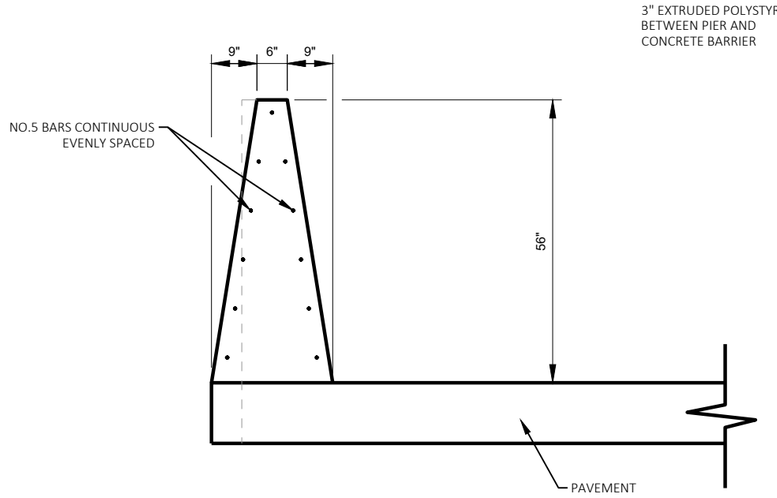


PLAN
(NOT TO SCALE)

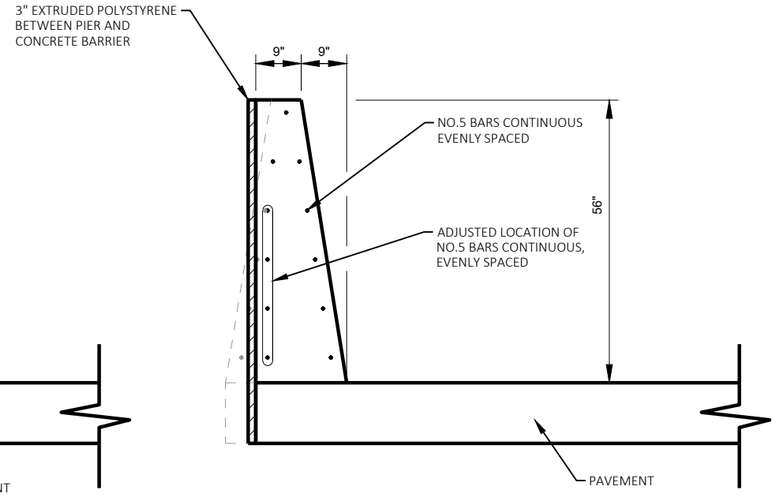
NOTES

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
2. SEE SDD "CONCRETE BARRIER SINGLE SLOPE (CBSS)" FOR DETAILS NOT SHOWN HERE.
3. 2" CLEAR COVER TYPICAL.

* PAID FOR AS CONCRETE BARRIER TYPE 56.



SECTION A-A
CONCRETE BARRIER TYPE 56



SECTION B-B
CONCRETE BARRIER TYPE 56 MODIFIED*

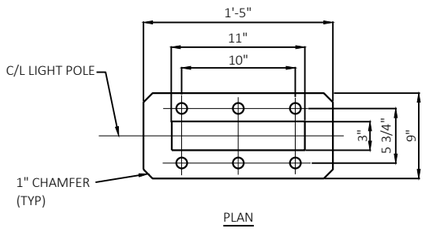
CONCRETE BARRIER TYPE S56 AT 60TH STREET BRIDGE MEDIAN PIERS

STA 175'EW'+50.00 TO STA 176'EW'+63.50

2

GENERAL NOTES

1. CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.
2. MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.
3. CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 2-INCHES, PRIOR TO INSTALLING END BELL.
4. ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE PLUGGED IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN PLUGGED.
5. BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.
6. A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR ALL BASES.
7. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES. THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS.
8. ANCHOR BOLTS SHALL BE THREADED 5-INCHES IN LENGTH ON EACH END OF THE BOLT unless otherwise noted. ANCHOR BOLTS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2 OF THE STANDARD SPECIFICATIONS CONFORMING TO ASTM F1554 (GRADE 105).
9. WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR BOLTS.
10. VERIFY COMPATIBILITY OF ANCHOR BOLT SIZE AND PATTERN PRIOR TO FORMING THE CONCRETE BASE.
11. ANCHOR BOLTS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL PER SECTION 5.17.5.3 AASHTO 2013 6TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS.
12. GALVANIZED STEEL MESH WITH ƒ" STAINLESS STEEL BANDING USED FOR RODENT SCREEN REQUIRED FOR ALL POLES. MESH AND BANDING SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM.
13. WELDING OF THE ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.
14. BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION). BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
15. THE DIMENSIONS OF THE CONCRETE BASES WILL VARY FROM WHAT IS SHOWN ON THIS DETAIL DEPENDING ON THE VERTICAL AND HORIZONTAL SEPARATION BETWEEN THE NORTHBOUND AND SOUTHBOUND TRAVEL LANES. THIS DETAIL PROVIDES TYPICAL DIMENSIONS FOR THE MAJORITY OF BASES. REINFORCEMENT WILL VARY IN TRANSITION SECTIONS. MAKE FIELD ADJUSTMENTS AS REQUIRED.
16. ADDITIONAL QUANTITIES AND STAKING REQUIRED IN TRANSITION SECTIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASE MEDIAN BARRIER BID ITEM.
17. THE CONCRETE SURFACE SHALL MATCH THE PROPOSED MEDIAN BARRIER WALL FINISH.
18. ALL STEEL CONDUIT SHALL BE GROUNDED. FURNISH AND INSTALL GROUNDING BUSHING WITH LAY-IN TYPE GROUND LUG AND COPPER GROUNDING JUMPER.



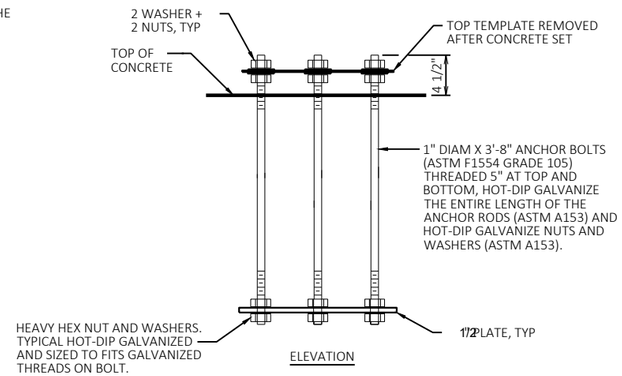
PLAN

FOUNDATION DATA

MINIMUM ASSUMED ALLOWABLE SOIL BEARING PRESSURE = 3000 PSF

TYPE S42A BASE STATIONS

STATION	△
81'EW'+80.00	1 13/16"
83'EW'+85.00	7 7/8"
85'EW'+85.00	8 5/8"
87'EW'+85.00	8 3/16"
89'EW'+81.00	3 3/4"
108'EW'+31.00	0 7/8"
110'EW'+39.00	21 1/16"
114'EW'+95.77	33 3/4"
117'EW'+04.00	34 3/8"
118'EW'+94.00	31 11/16"
120'EW'+81.00	24 15/16"
124'EW'+82.00	8 9/16"
135'EW'+03.00	6 1/16"
136'EW'+68.00	7 13/16"
138'EW'+86.00	9 3/8"
141'EW'+02.00	4 7/8"
143'EW'+03.00	1 3/16"
180'EW'+10.00	5 3/8"
182'EW'+06.00	5 3/16"
190'EW'+00.00	4 1/2"
192'EW'+00.00	9 7/16"
194'EW'+00.00	6 1/2"
196'EW'+00.00	5 13/16"
198'EW'+00.00	8 3/8"
200'EW'+00.00	4 3/4"
212'EW'+25.00	6 11/16"
214'EW'+00.00	20 5/16"
216'EW'+00.00	23 1/8"
218'EW'+00.00	23 3/8"
221'EW'+97.00	17 3/8"
223'EW'+95.00	7 1/4"



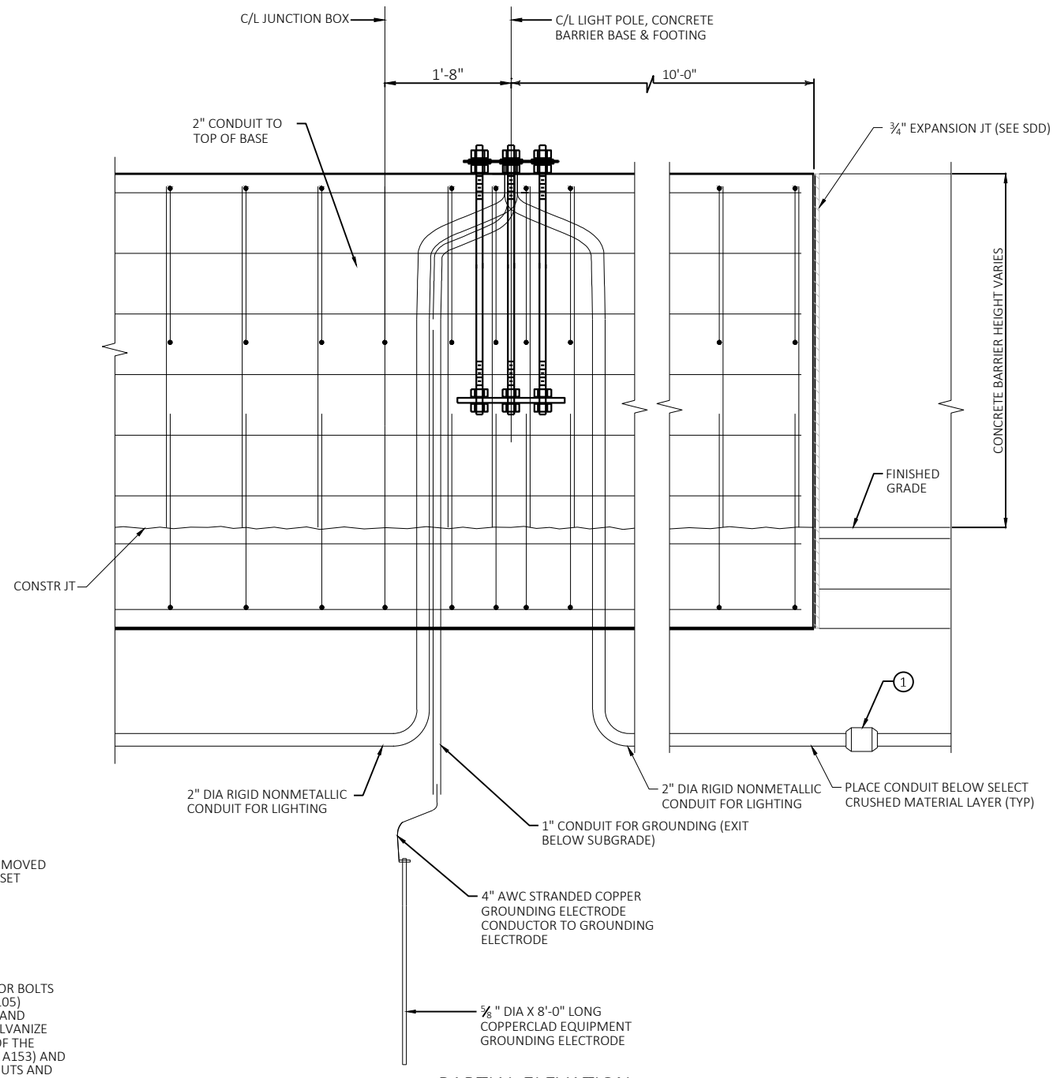
ELEVATION

6 BOLT ASSEMBLY

(TYPE F POLES)

ANCHOR ASSEMBLY LIGHT POLE STRUCTURES

CONCRETE BARRIER TYPE S42, S42A, S56, S56A LIGHT POLE BASE



PARTIAL ELEVATION

FOR REINFORCING CALLOUTS & SPACING, SEE PLAN VIEW & SECTION CUTS

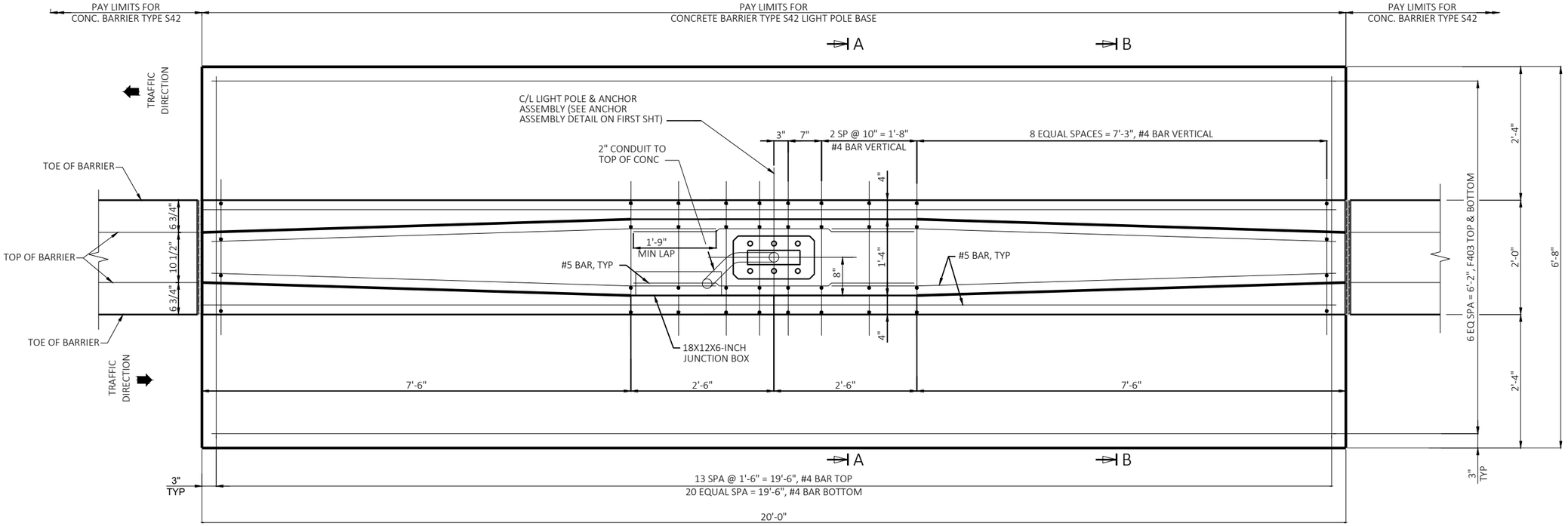
TYPE S56A BASE STATIONS

STATION	△
219'EW'+92.50	24 3/4"

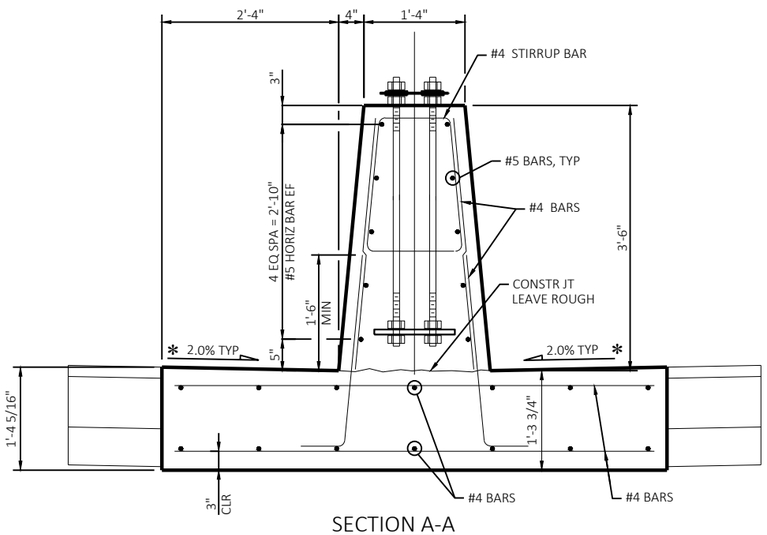
LEGEND

(1) NONMETALLIC EXPANSION FITTING 2". WRAP FITTING AND CONDUIT 9" ON BOTH SIDES OF EXPANSION JOINT. TWO WRAPS OF 1/2" SPONGE RUBBER WRAP, AASHTO M153, TYPE I OR EQUIVALENT. SECURE WITH PLASTIC TIE WRAPS. SET FITTING AT MIDPOINT OF ITS TRAVEL. FITTINGS AND WRAPS ARE INCIDENTAL TO CONDUIT. TWO EXPANSION FITTINGS PER BASE REQUIRED.

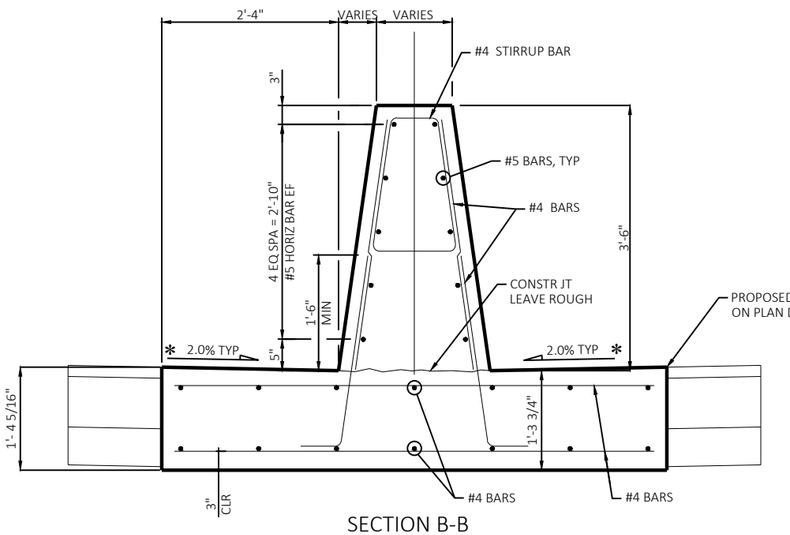
△ VERTICAL OFFSET BETWEEN ROADWAY SURFACES, SEE LIGHT POLE BASE SECTION CUTS FOR LOCATION. IF OFFSET IS NEGATIVE, SECTION CUTS SHOULD BE MIRRORED TO GET CORRECT ORIENTATION OF ROADWAY SURFACES.



CONCRETE BASE PLAN



SECTION A-A



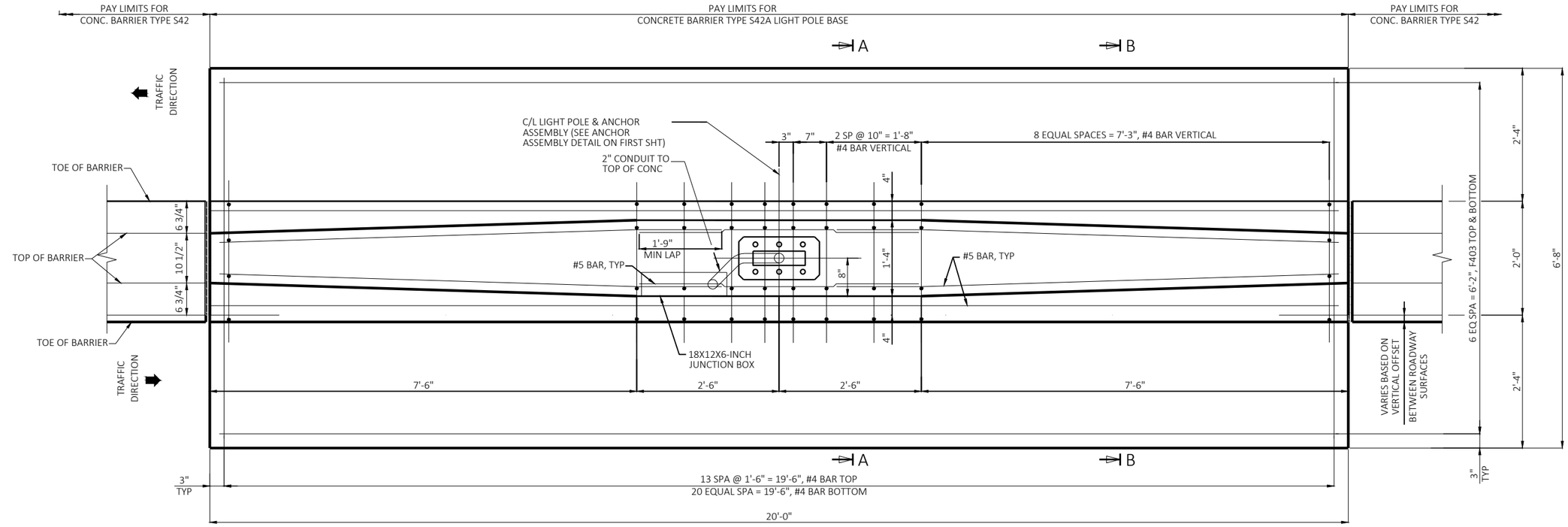
SECTION B-B

LEGEND

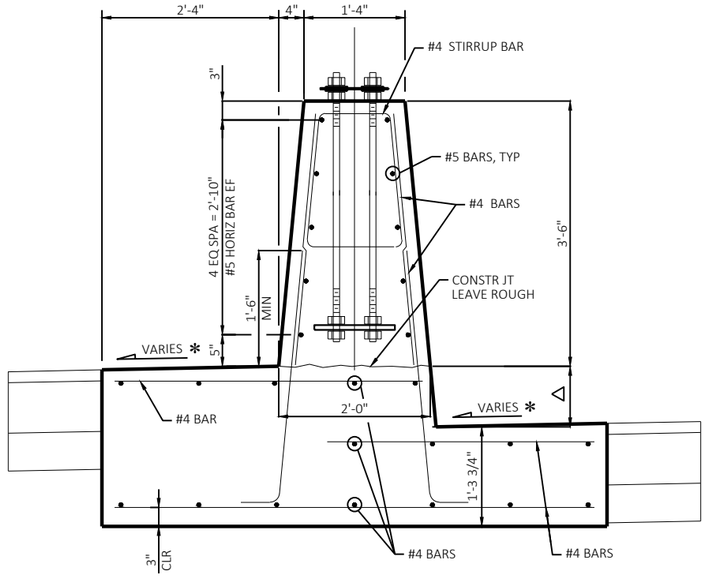
* MATCH ROADWAY CROSS SLOPE

CONCRETE BARRIER TYPE S42 LIGHT POLE BASE

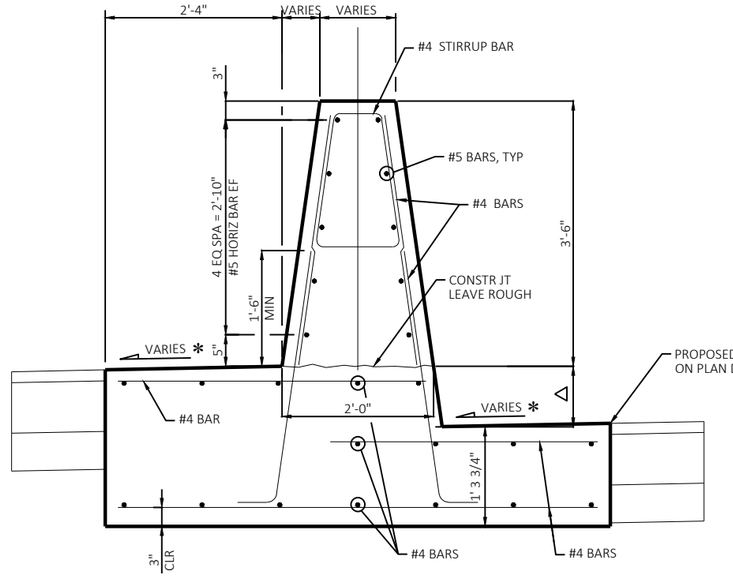
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 51	E



CONCRETE BASE PLAN



SECTION A-A



SECTION B-B

LEGEND

△ VERTICAL OFFSET BETWEEN ROADWAY SURFACES, SEE LIGHT BASE STATION TABLE ON THE FIRST SHEET

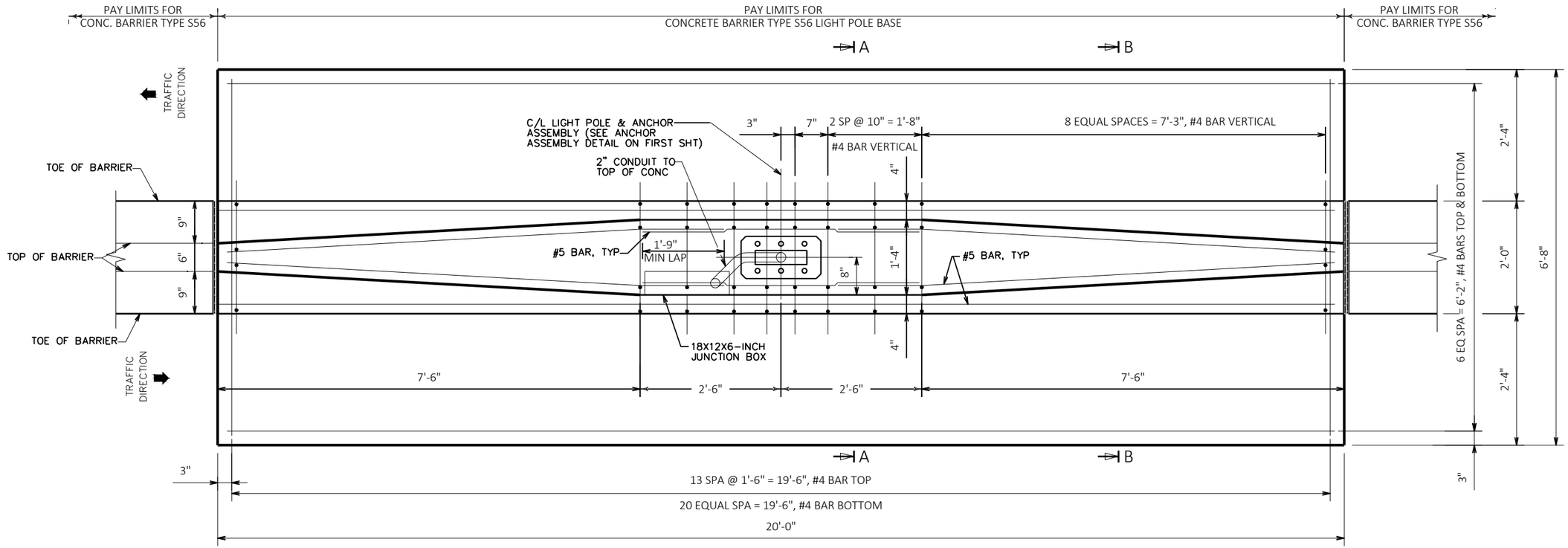
* MATCH ROADWAY SUPERELEVATION

CONCRETE BARRIER TYPE S42A LIGHT POLE BASE

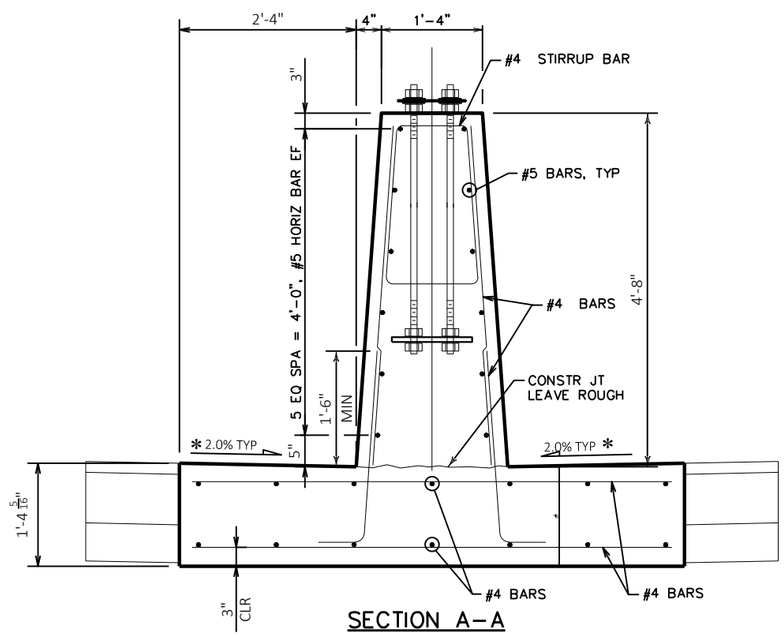
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 52	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 12

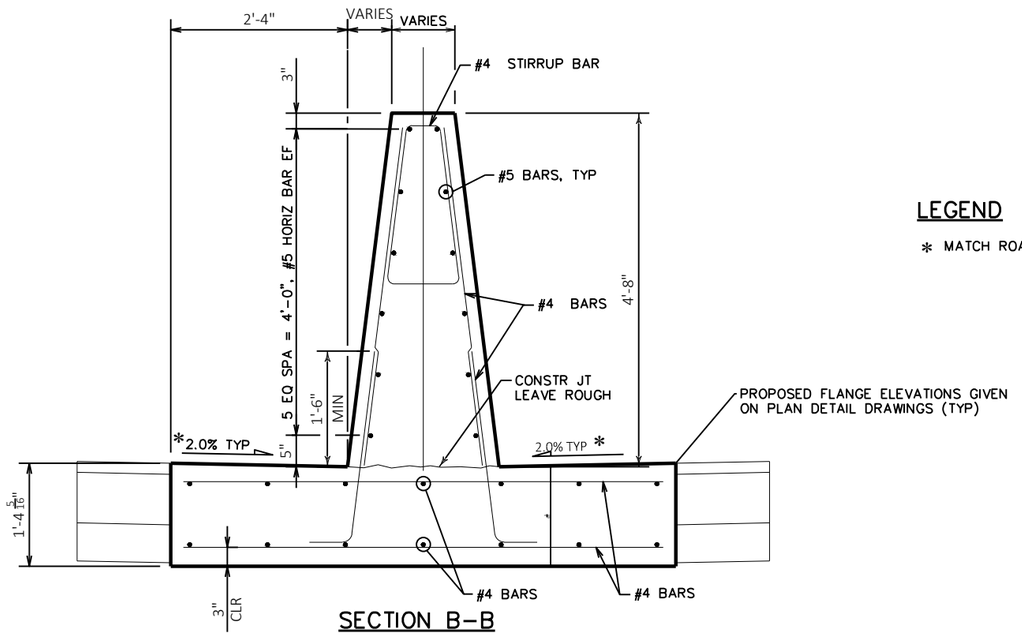
PLOT DATE : 11/1/2022 11:51 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:10 FT



CONCRETE BASE PLAN



SECTION A–A



SECTION B–B

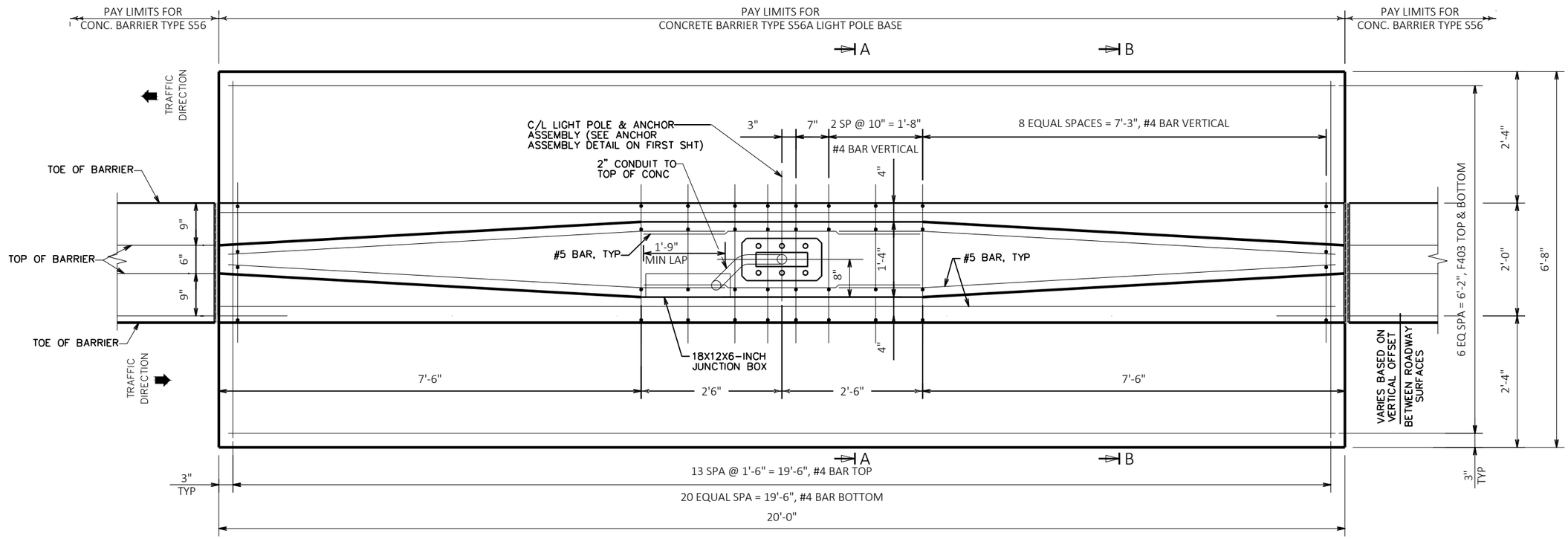
LEGEND

* MATCH ROADWAY CROSS SLOPE

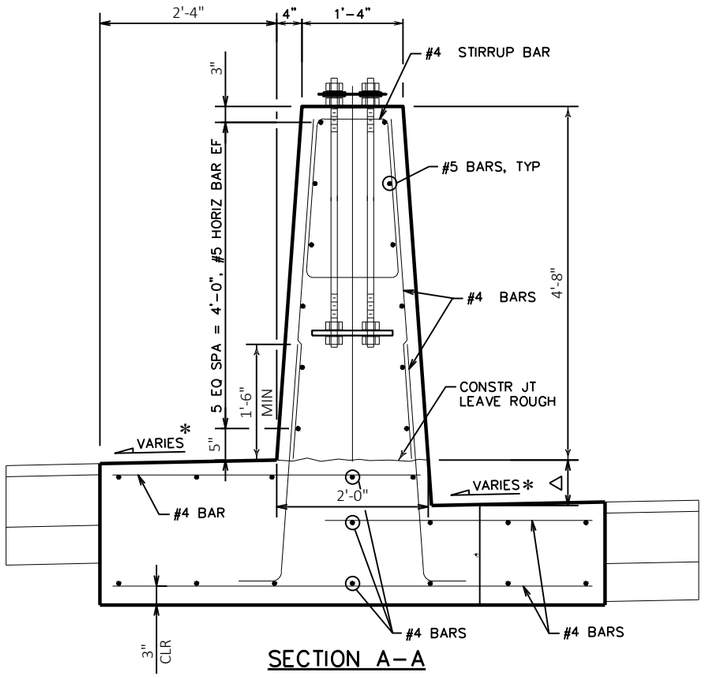
CONCRETE BARRIER TYPE S56 LIGHT POLE BASE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 53	E

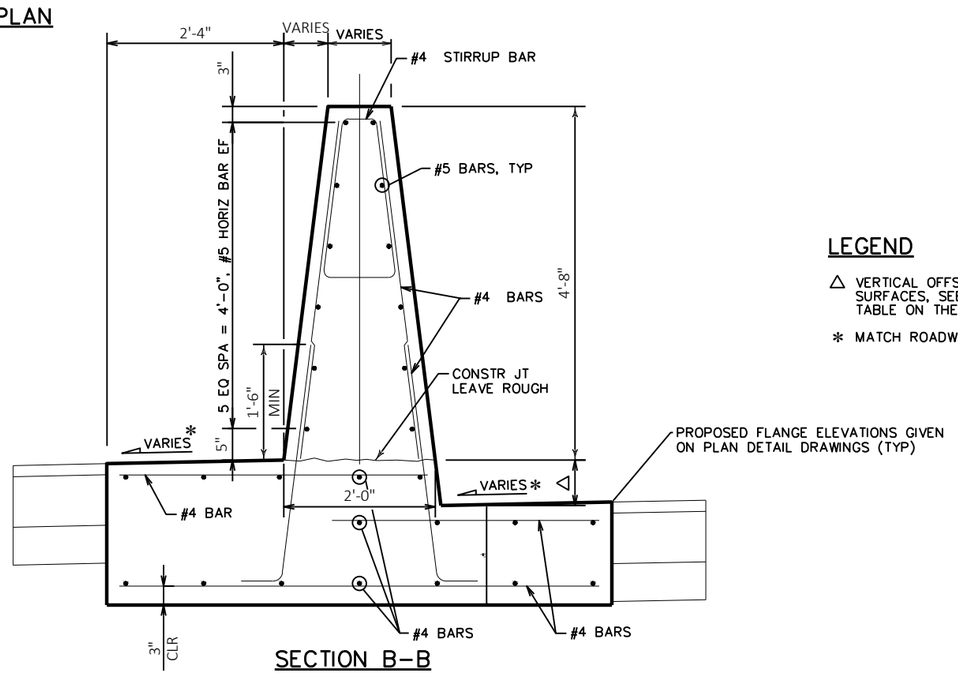
FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_CJOHNSO3\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 13
PLOT DATE : 4/27/2023 12:38 PM PLOT BY : JOHNSON, CHRISTOPHER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



CONCRETE BASE PLAN



SECTION A–A



SECTION B–B

LEGEND

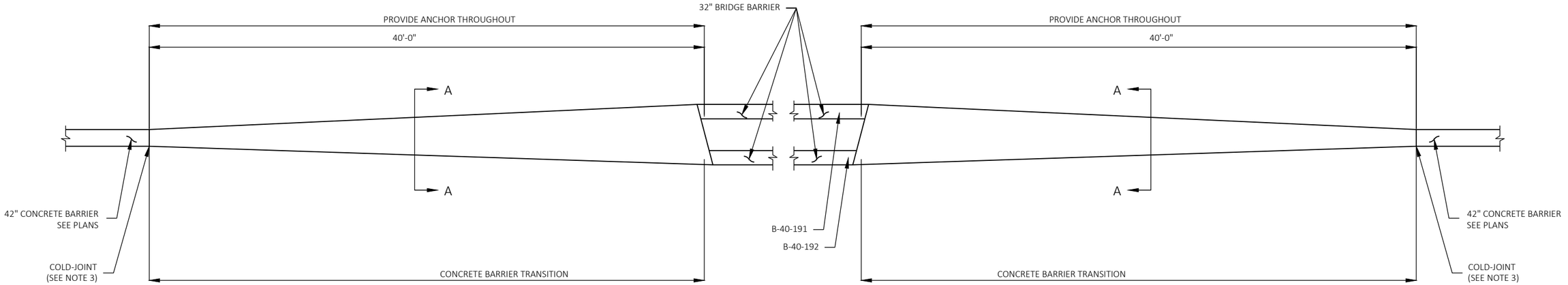
△ VERTICAL OFFSET BETWEEN ROADWAY SURFACES, SEE LIGHT BASE STATION TABLE ON THE FIRST SHEET

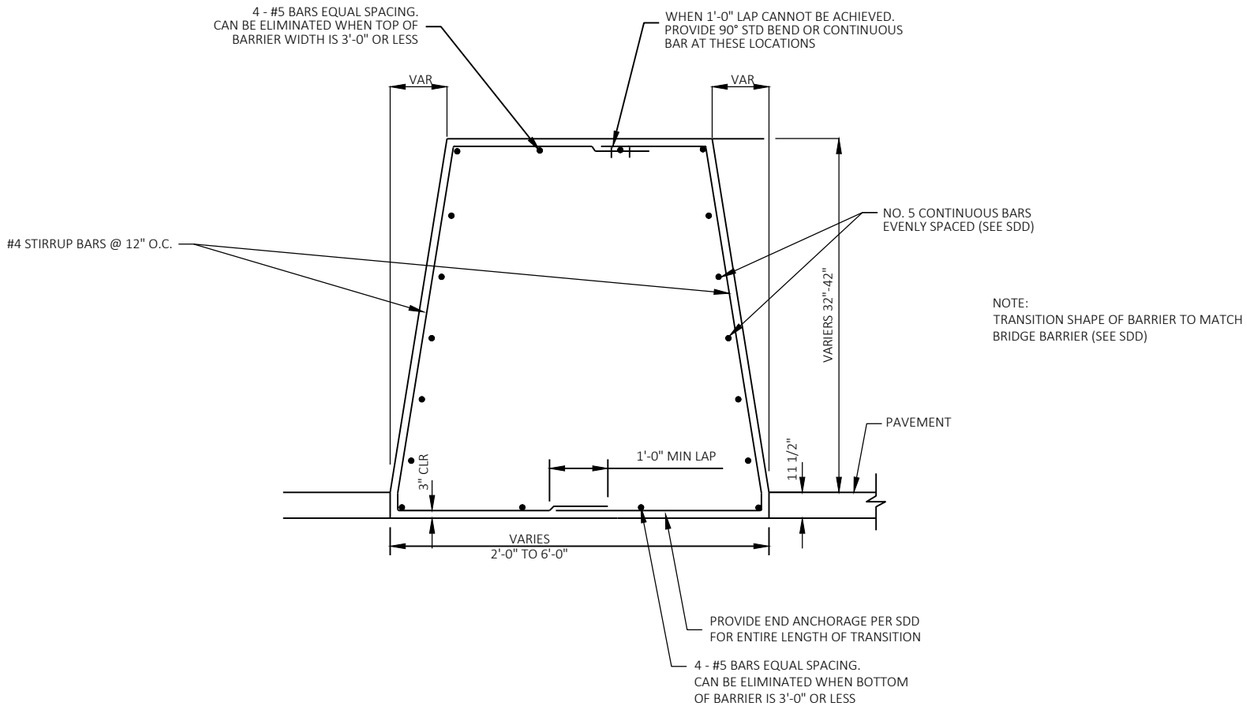
* MATCH ROADWAY SUPERELEVATION

CONCRETE BARRIER TYPE S56A LIGHT POLE BASE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 54	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_CJOHNSO3\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 14
PLOT DATE : 4/27/2023 12:38 PM PLOT BY : JOHNSON, CHRISTOPHER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42





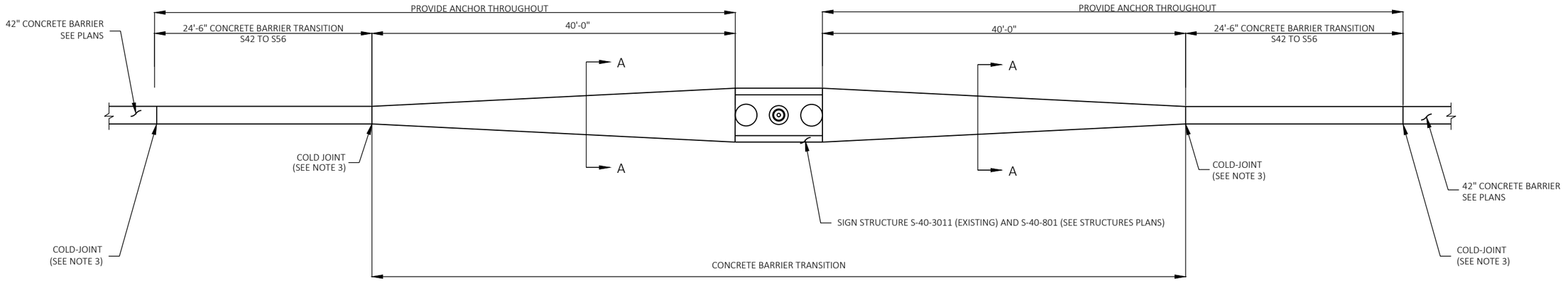
NOTE:
TRANSITION SHAPE OF BARRIER TO MATCH
BRIDGE BARRIER (SEE SDD)

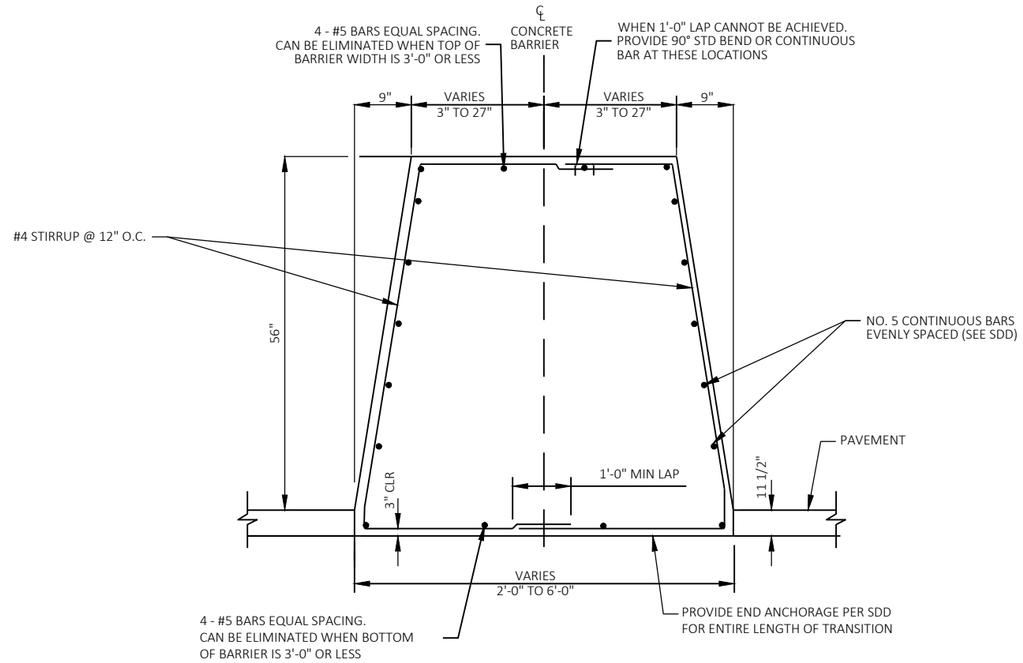
SECTION A-A

NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

CONCRETE BARRIER TRANSITION TYPE M1



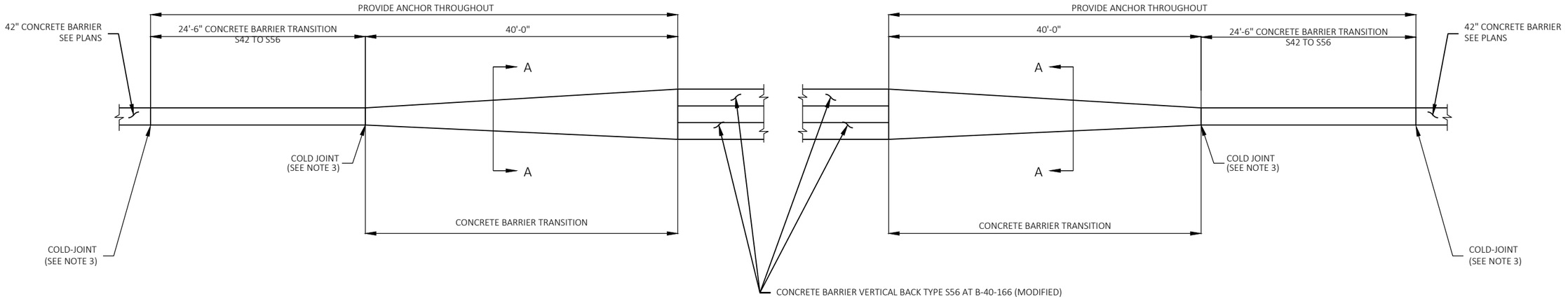


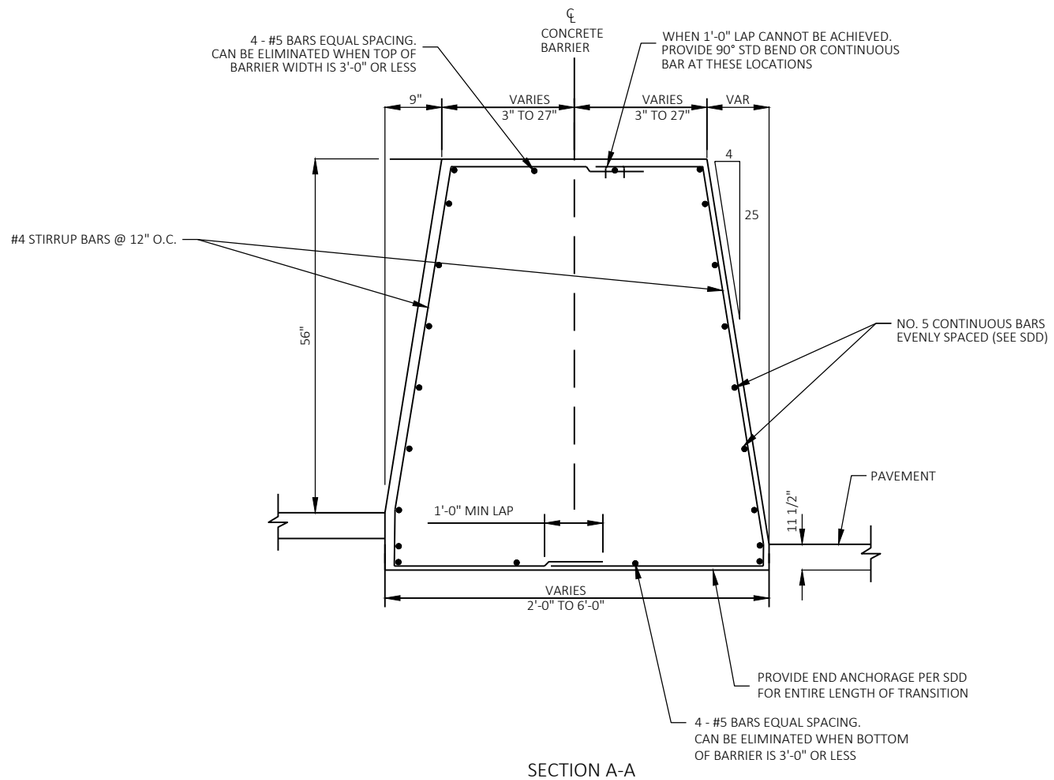
NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

SECTION A-A

CONCRETE BARRIER TRANSITION TYPE M2 AND M5



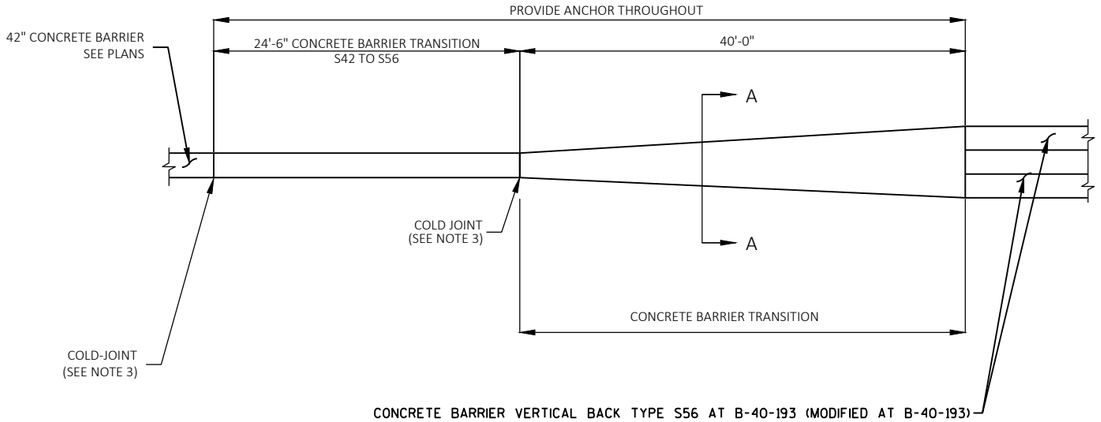


SECTION A-A

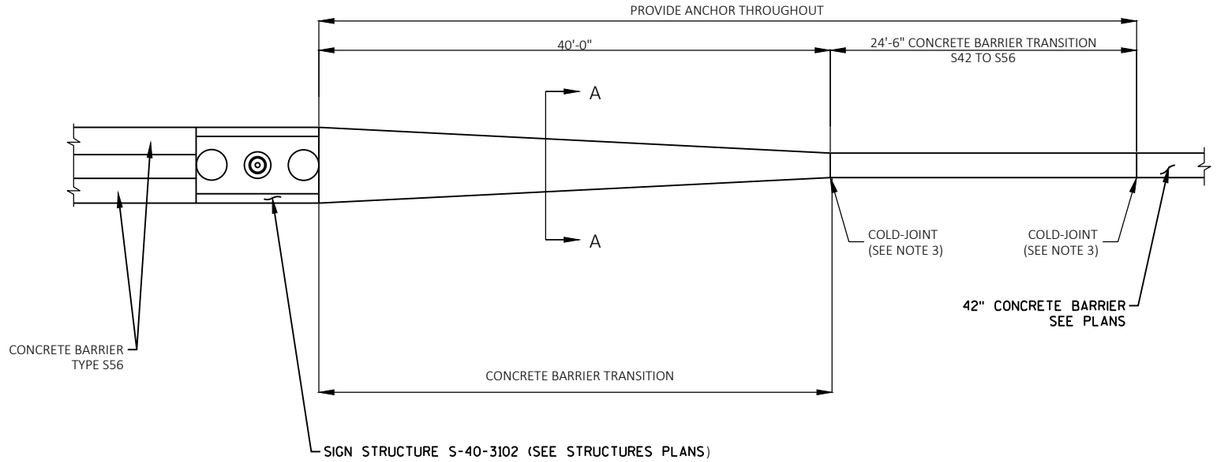
CONCRETE BARRIER TRANSITION TYPE M3

NOTES

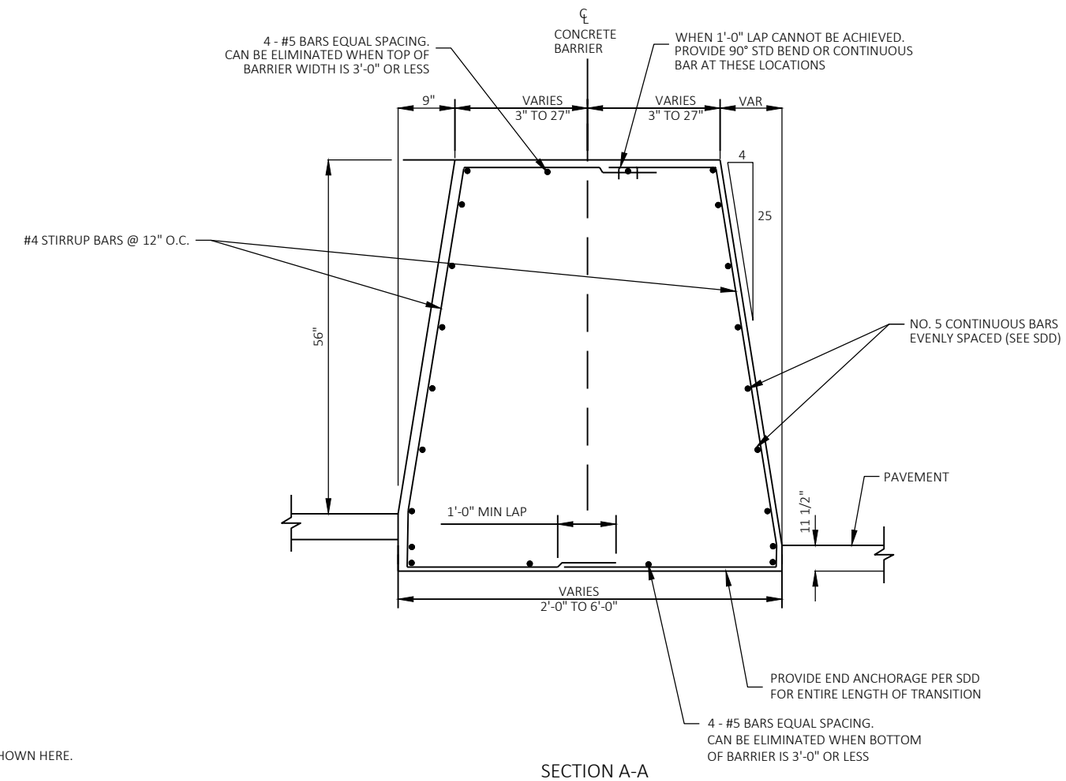
1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.



CONCRETE BARRIER VERTICAL BACK TYPE S56 AT B-40-193 (MODIFIED AT B-40-193)



SIGN STRUCTURE S-40-3102 (SEE STRUCTURES PLANS)



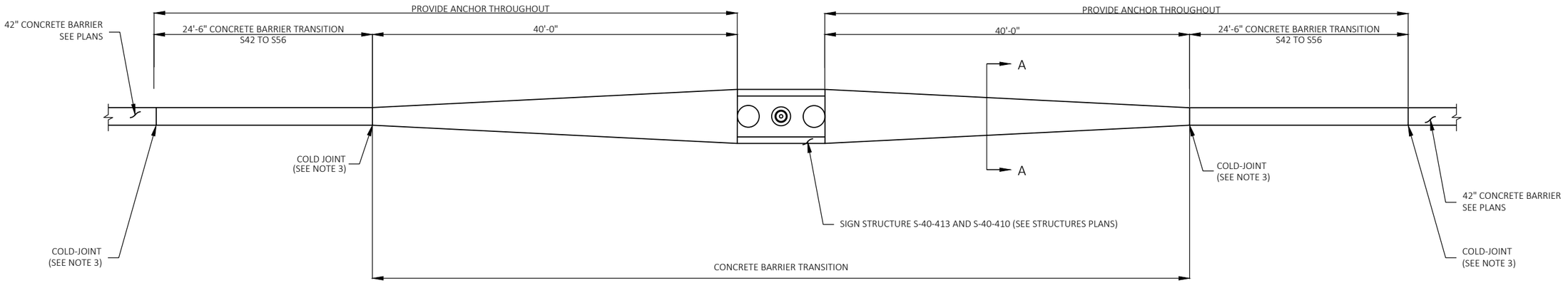
SECTION A-A

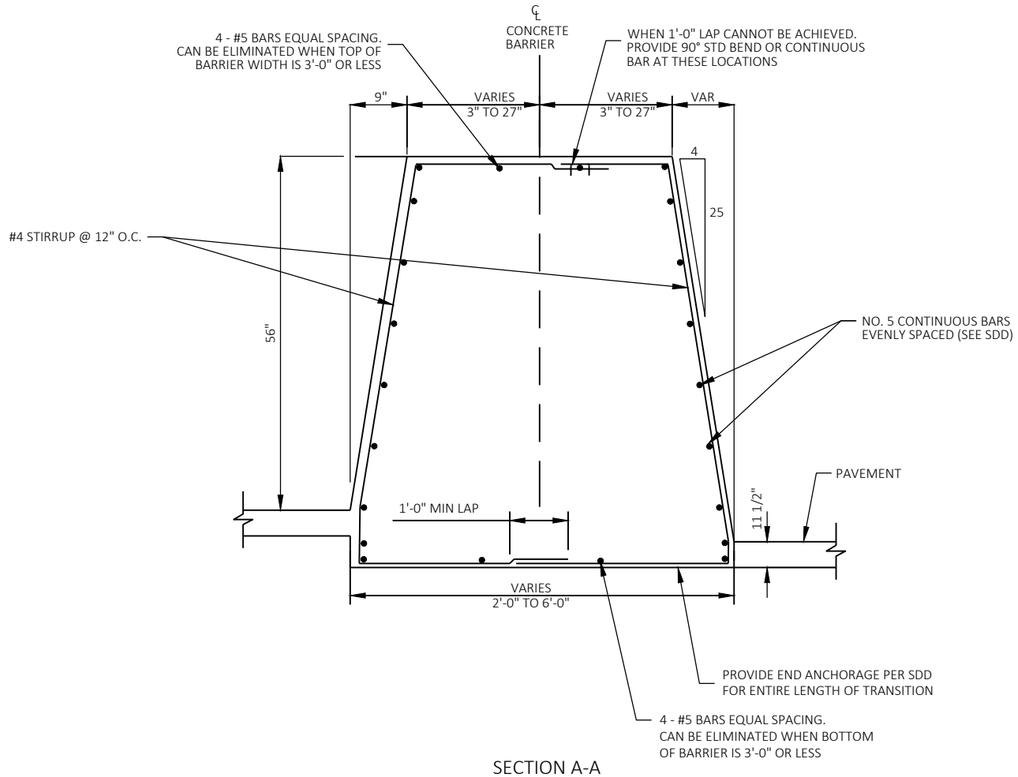
CONCRETE BARRIER TRANSITION TYPE M4

NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

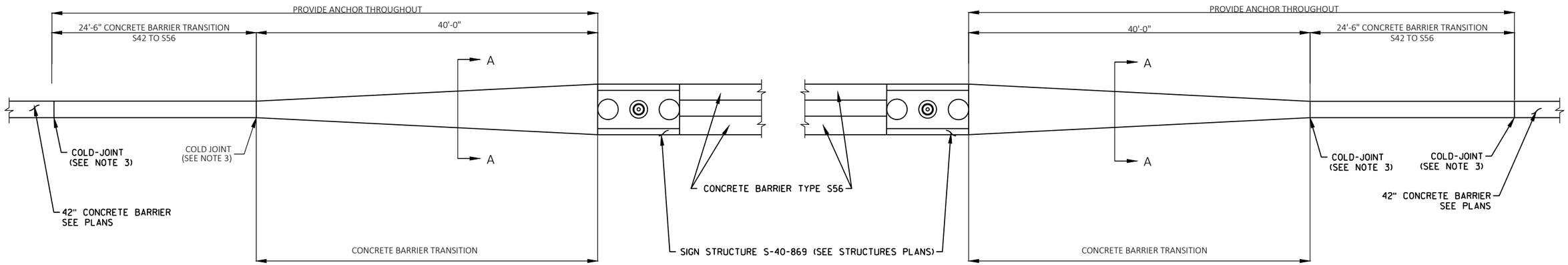
2

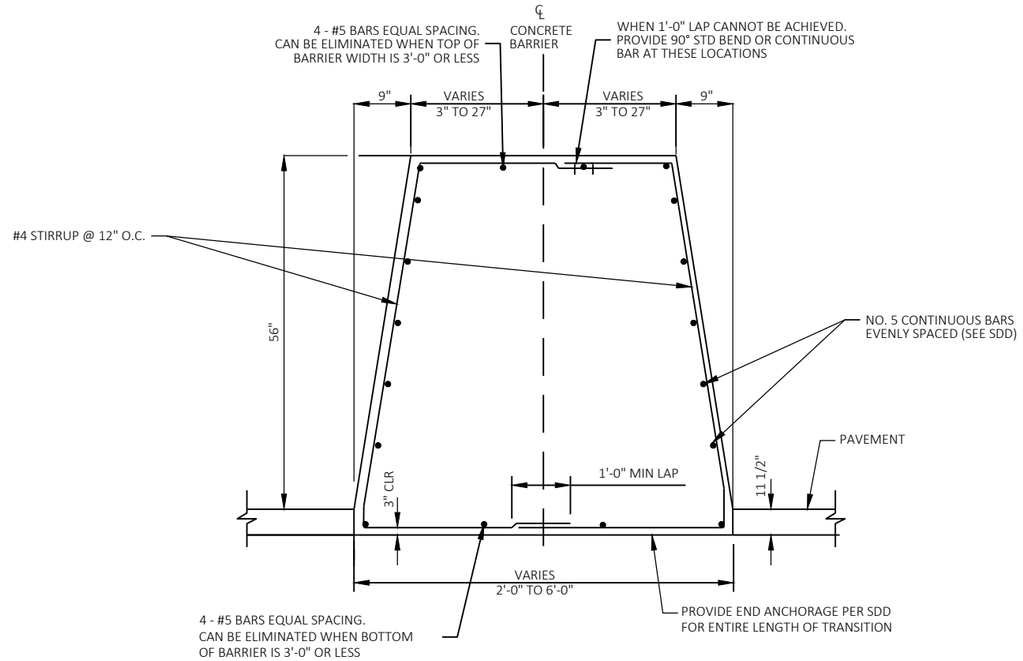




SECTION A-A

CONCRETE BARRIER TRANSITION TYPE M6 AND M11



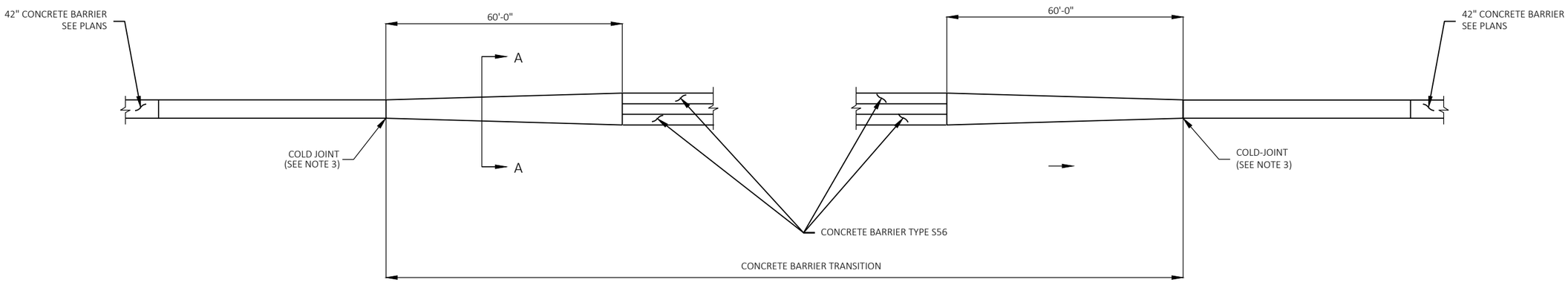


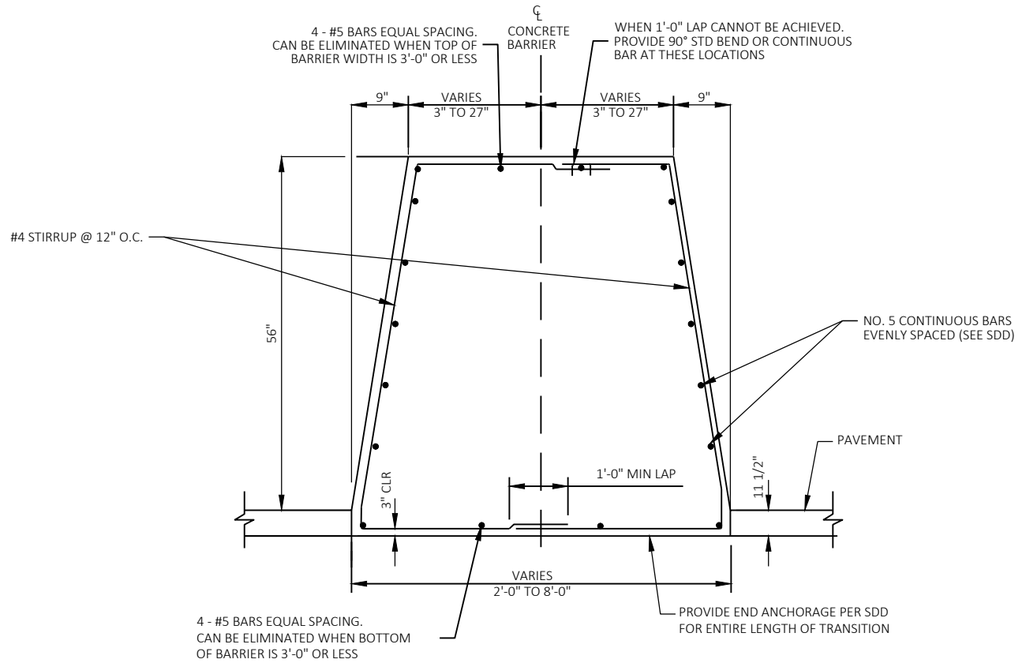
NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

SECTION A-A

CONCRETE BARRIER TRANSITION TYPE M7



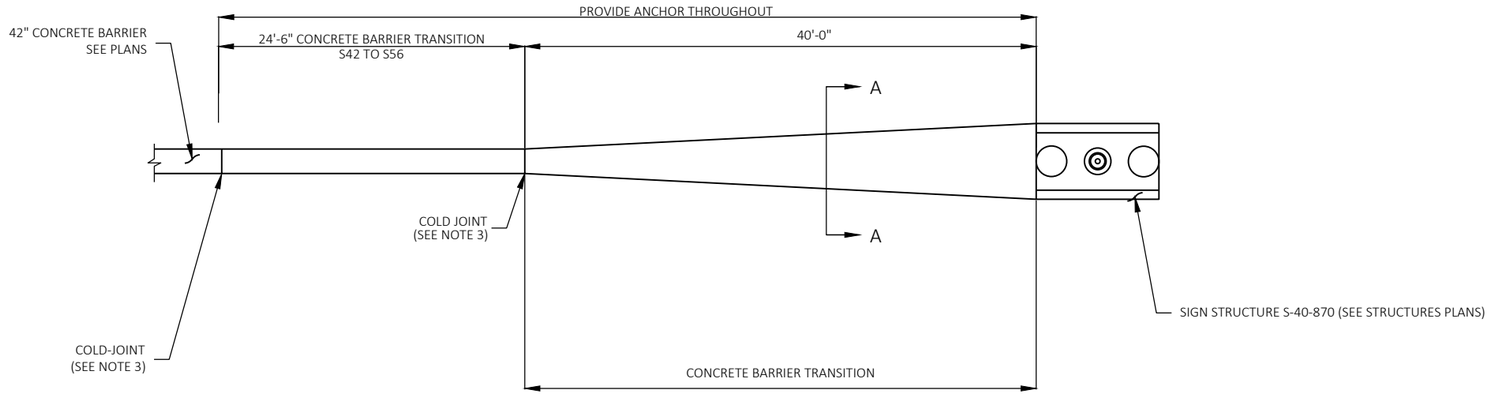


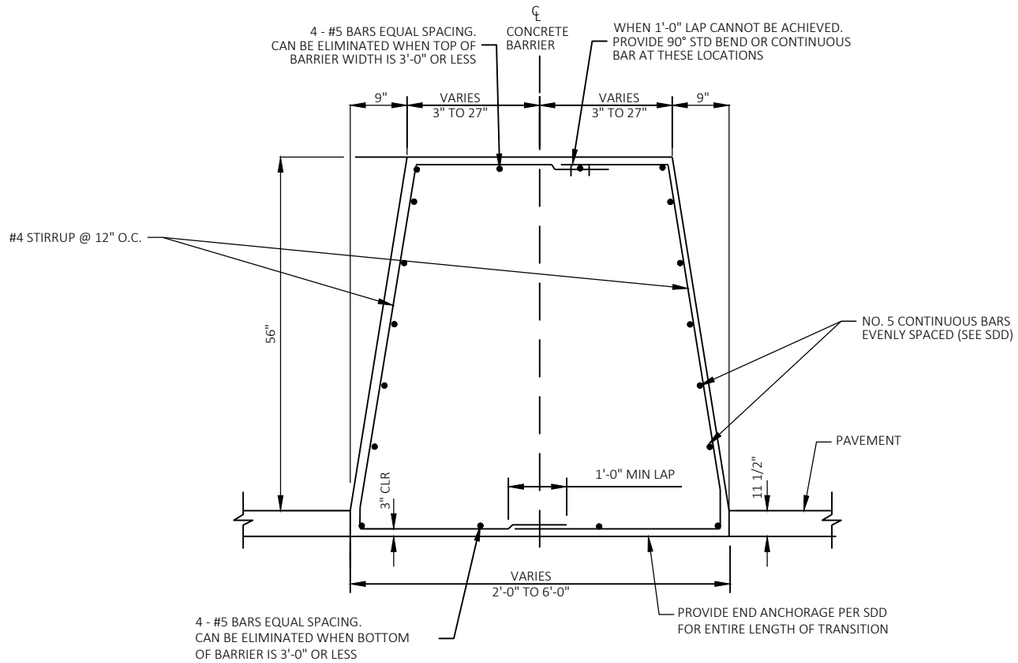
SECTION A-A

NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
3. WHEN SWITCHING BETWEEN SLIP FORM AND STANDARD FORM OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED, LAPS TO BE FIRMLY TIED.
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

CONCRETE BARRIER TRANSITION TYPE M8





NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
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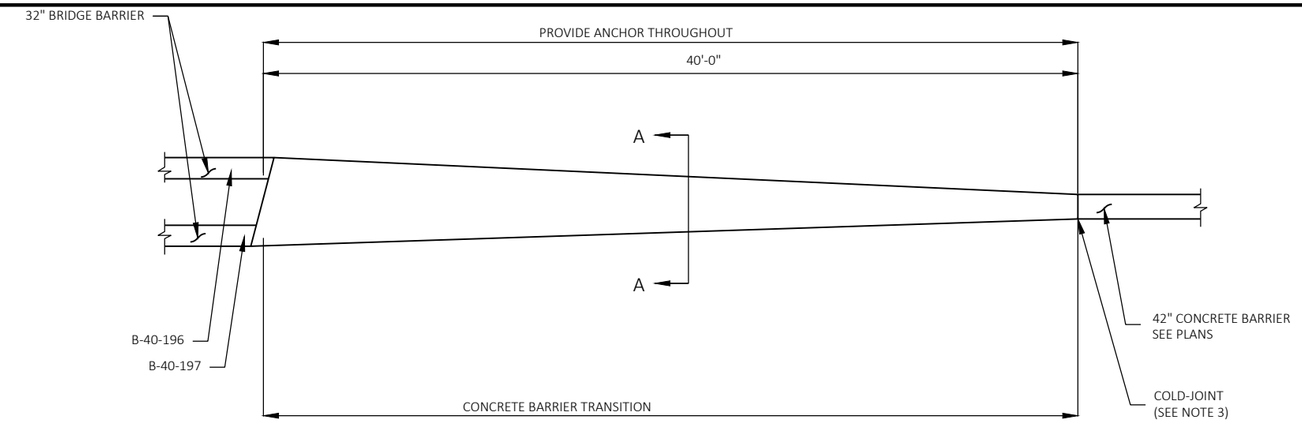
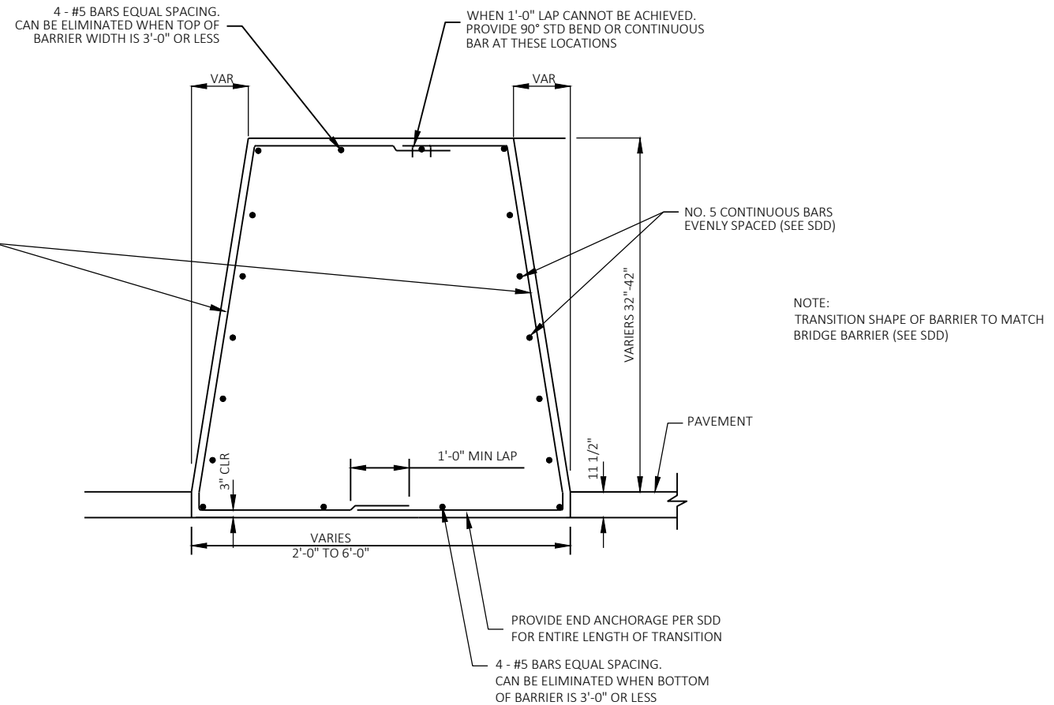
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

SECTION A-A

CONCRETE BARRIER TRANSITION TYPE M9





SECTION A-A

NOTE:
TRANSITION SHAPE OF BARRIER TO MATCH
BRIDGE BARRIER (SEE SDD)

NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
2. SEE PLANS FOR CONDUIT LOCATION, PROVIDE CONDUIT ONLY WHEN CALLED FOR IN THE PLANS.
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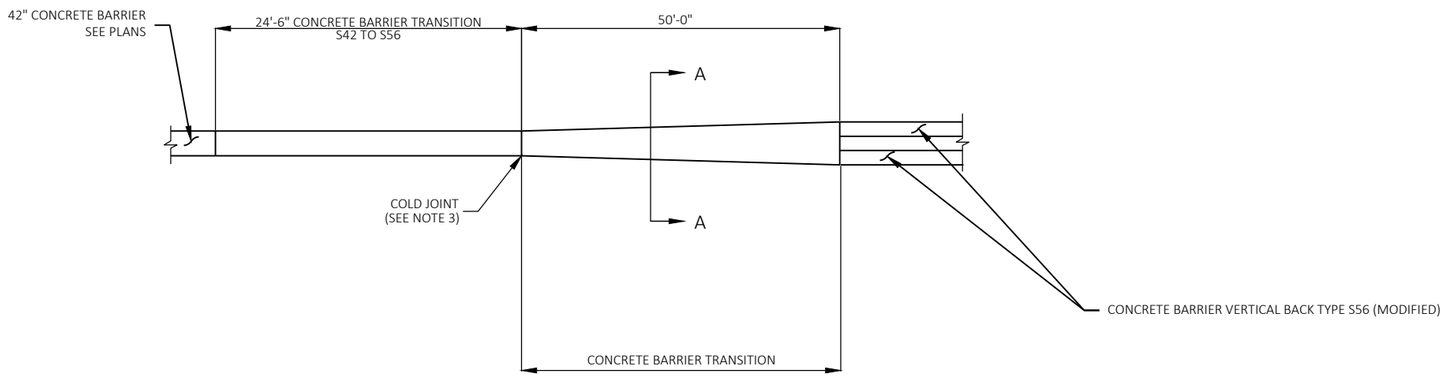
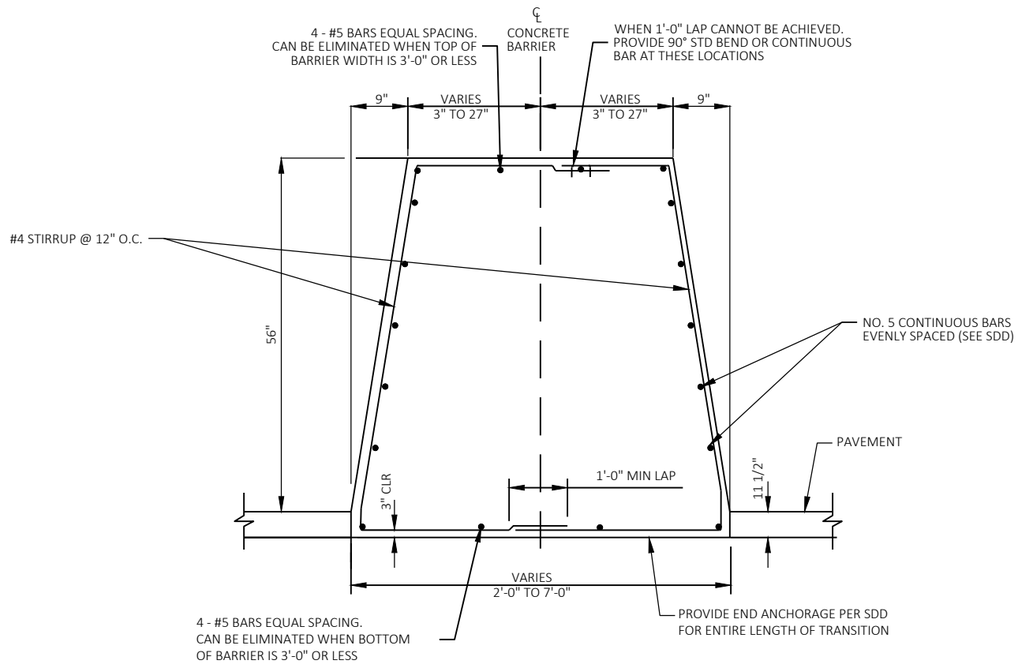
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

CONCRETE BARRIER TRANSITION TYPE M10





SECTION A-A

NOTES

1. SEE SDD SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL FOR DETAILS NOT SHOWN HERE.
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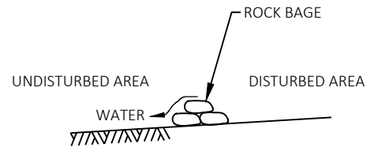
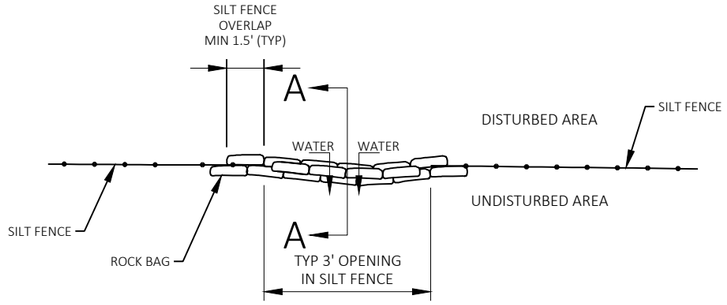
4. EMBED BAR STEEL REINFORCEMENT AT LEAST 2 INCHES UNLESS OTHERWISE SHOWN ON PLANS.
5. SAWING OF NEW ASPHALT IS INCIDENTAL TO CONSTRUCTION OF TRANSITION.

CONCRETE BARRIER TRANSITION TYPE M12



SECTION A-A

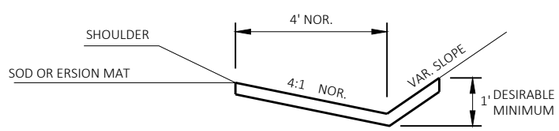


PLAN VIEW

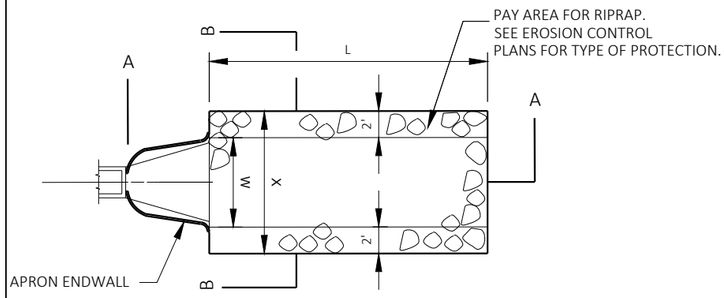
ROCK BAGS USED FOR SILT FENCE RELIEF POINT

1. DESIGNER SHALL PLACE SILT FENCE RELIEFS AS NECESSARY

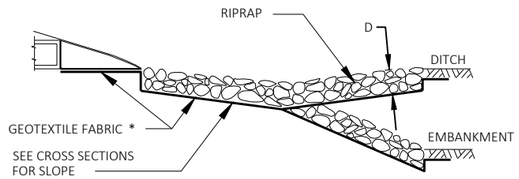
DESIGNER NOTE: PLACE SILT FENCE RELIEF AS NECESSARY
CONSULT SER EROSION CONTROL ENGINEER



SOD OR EROSION MAT DETAIL FOR DITCHES



PLAN VIEW



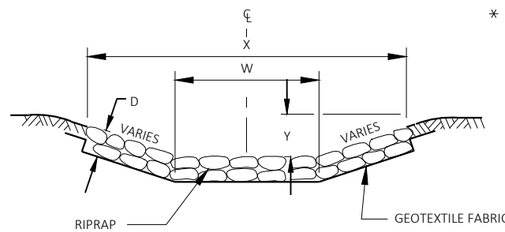
SECTION A-A

L = 3 x W (NOR) OR 10' MIN
OR AS INDICATED IN THE PLANS
OR AS DIRECTED BY THE ENGINEER

D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

X = W+4' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+6' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
6" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE



SECTION B-B

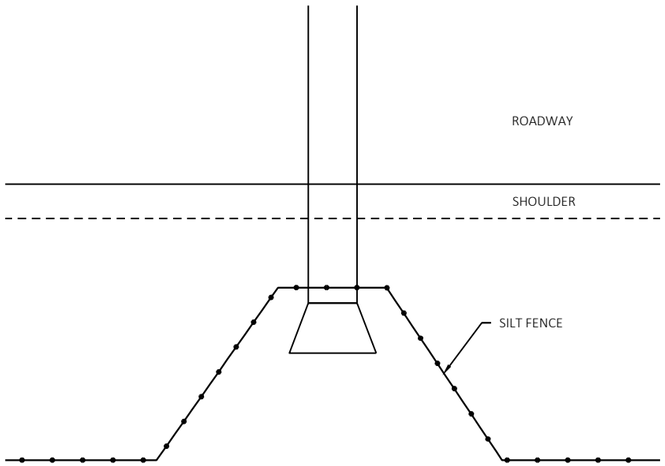
* TYPE R (FOR RIPRAP LIGHT ONLY)
TYPE HR (FOR RIPRAP HEAVY AND MEDIUM ONLY)

CONSTRUCTION NOTES:

1. GEOTEXTILE FABRIC SHALL EXTEND BENEATH THE ENTIRE LENGTH OF THE APRON ENDWALL SECTION. INSTALL ON PREPAVED FOUNDATION. GRADE PRIOR TO END WALL INSTALLATION.
2. COMPLETE GEOTEXTILE FABRIC AND RIPRAP SECTION INSTALLATION PRIOR TO STORM WATER FLOW.

RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

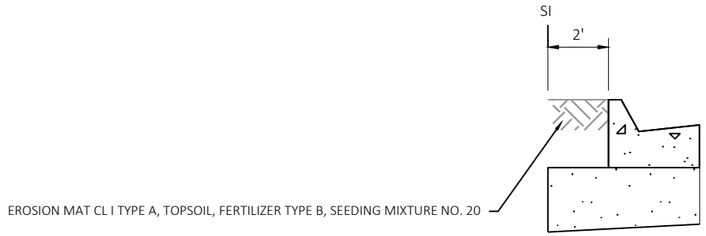
SEE EROSION CONTROL PLAN FOR LOCATIONS



NOTE

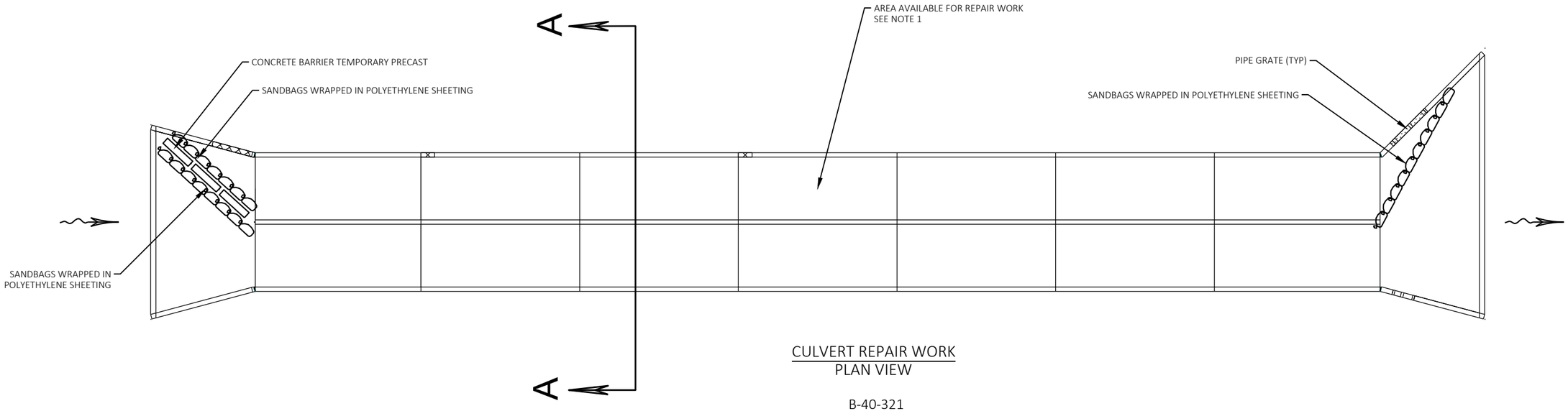
SEE SILT FENCE SDD FOR ADDITIONAL INFORMATION

TYPICAL SILT FENCE DETAIL AT PIPE INLET



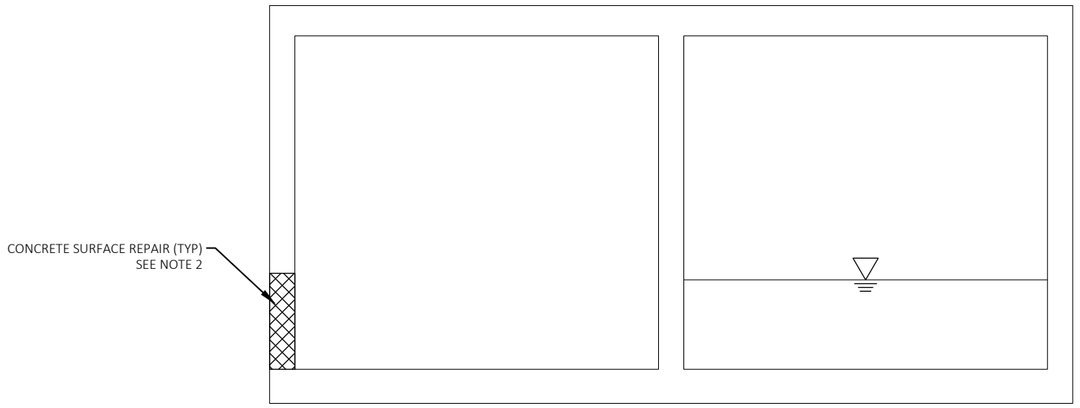
RESTORATION FOR SERVICE RAMP CURB & GUTTER RECONSTRUCTION

RAMP TAA
RAMP TAB
RAMP FHA
RAMP FHB
RAMP TBB
RAMP TBA
RAMP TCA
RAMP TCB
RAMP TCC
RAMP TCD
RAMP LRA
RAMP LRB
RAMP LRC
RAMP LRD



CULVERT REPAIR WORK
PLAN VIEW

B-40-321



CULVERT REPAIR WORK
SECTION A-A

B-40-321

NOTES

1. CLOSE ONE CELL OF TWO CELL CULVERT PIPE AT A TIME FOR REPAIR WORK
2. SEE B-40-321 STRUCTURE PLANS FOR SPECIFIC CULVERT REPAIR DETAILS

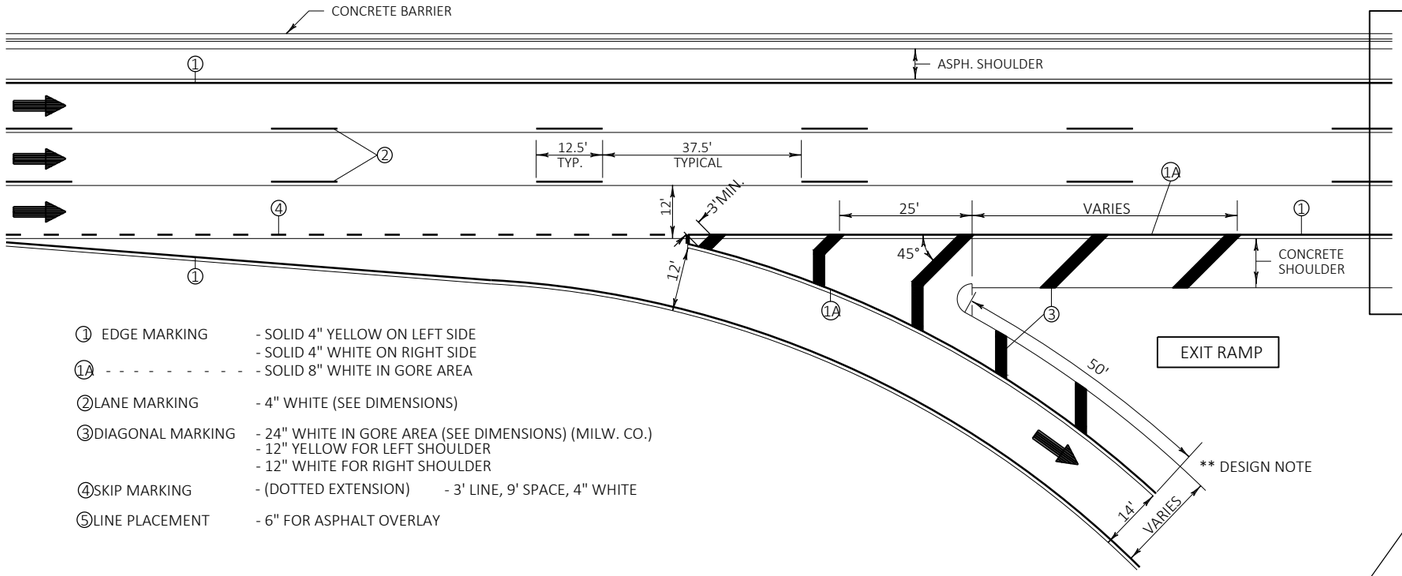
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 67	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 27

PLOT DATE : 11/1/2022 11:52 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

DETAIL 1



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

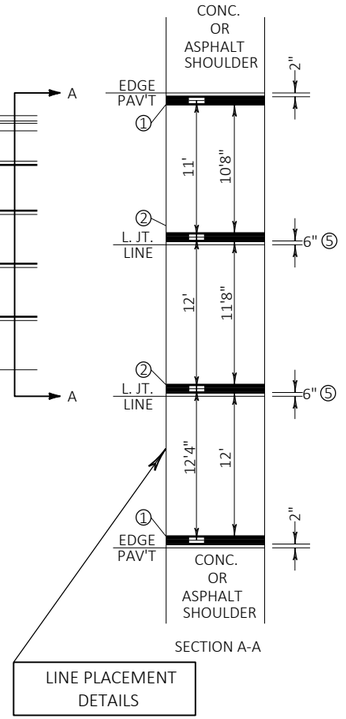
①A - - - - - - - - - - - - SOLID 8" WHITE IN GORE AREA

②LANE MARKING - 4" WHITE (SEE DIMENSIONS)

③DIAGONAL MARKING - 24" WHITE IN GORE AREA (SEE DIMENSIONS) (MILW. CO.)
- 12" YELLOW FOR LEFT SHOULDER
- 12" WHITE FOR RIGHT SHOULDER

④SKIP MARKING - (DOTTED EXTENSION) - 3' LINE, 9' SPACE, 4" WHITE

⑤LINE PLACEMENT - 6" FOR ASPHALT OVERLAY

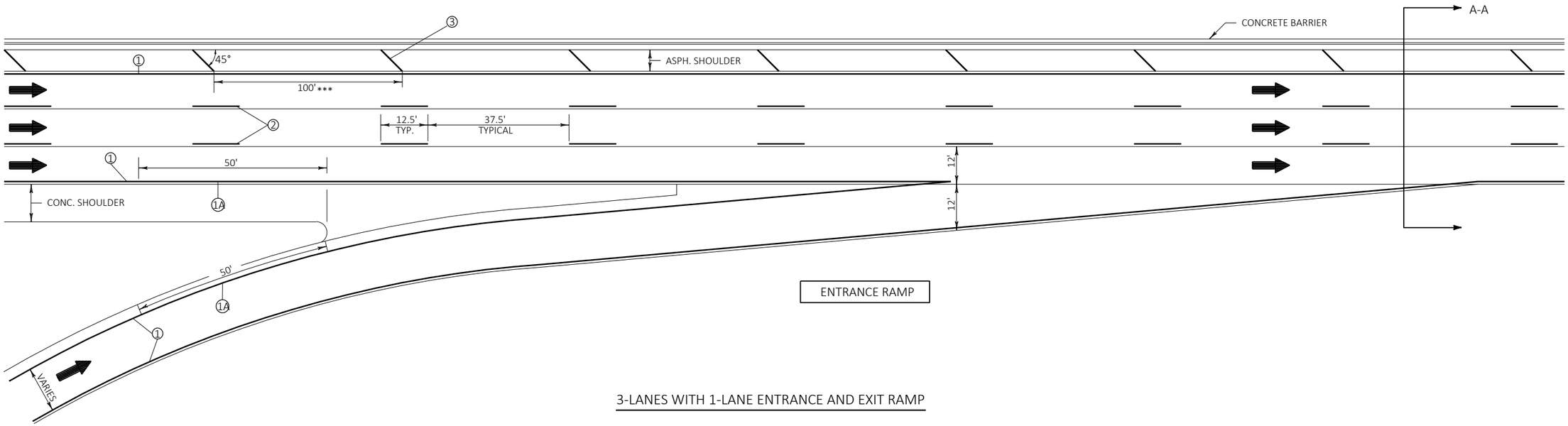


SECTION A-A

LINE PLACEMENT DETAILS

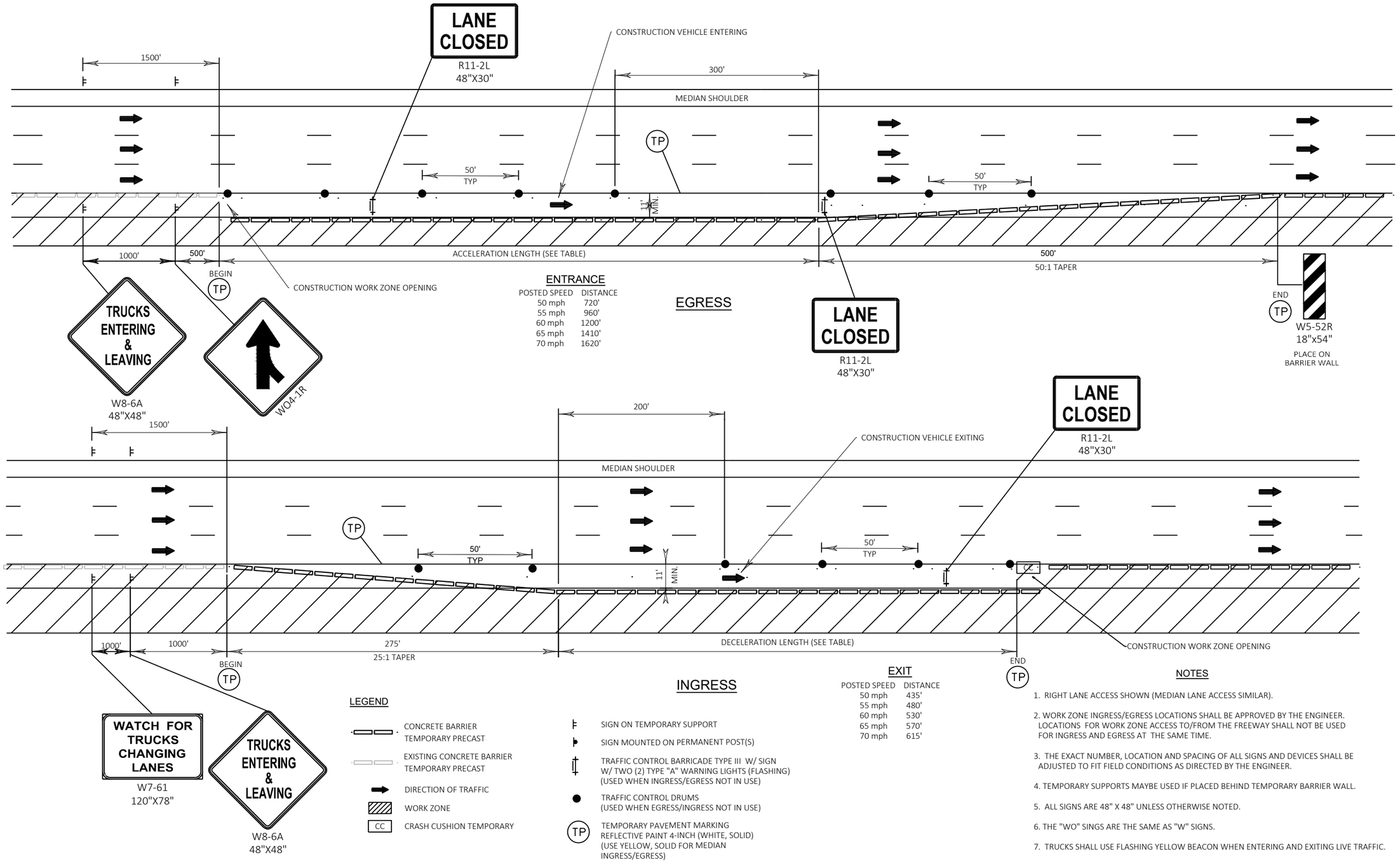
NOTES:

1. THE 12" WIDE DIAGONAL SHOULDER MARKING SHALL BE USED ONLY WHERE THE ASPHALTIC CONCRETE SHOULDER ABUTS ASPHALTIC CONC. PAV'T. IF THERE ARE CONTINUOUS RUMBLE STRIPS, DO NOT USE DIAGONAL SHOULDER MARKING.
2. WHERE THE DOTTED EXTENSION OF THE RIGHT EDGE LINE IS SHOWN ON THE PLAN, IT SHALL BE 4" WIDE, WITH A LINE SKIP PATTERN CONSISTING OF A 3' LONG LINE AND A 9' SKIP.
3. PAVEMENT LANE MARKINGS SHALL BE LOCATED 6" OFF THE LONGITUDINAL JOINT OF THE UNDERLYING CONC. PAVEMENT.
4. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
5. SPOTTING FOR PAVEMENT LANE MARKINGS AND EDGE LINES SHALL BE 4"x4" PIECES OF REFLECTORIZED PAV'T MARKING TAPE SPACED AT 50' INTERVALS, INCIDENTAL TO PAV'T MARKING.



3-LANES WITH 1-LANE ENTRANCE AND EXIT RAMP

2



ENTRANCE

POSTED SPEED	DISTANCE
50 mph	720'
55 mph	960'
60 mph	1200'
65 mph	1410'
70 mph	1620'

EGRESS

EXIT

POSTED SPEED	DISTANCE
50 mph	435'
55 mph	480'
60 mph	530'
65 mph	570'
70 mph	615'

INGRESS

LEGEND

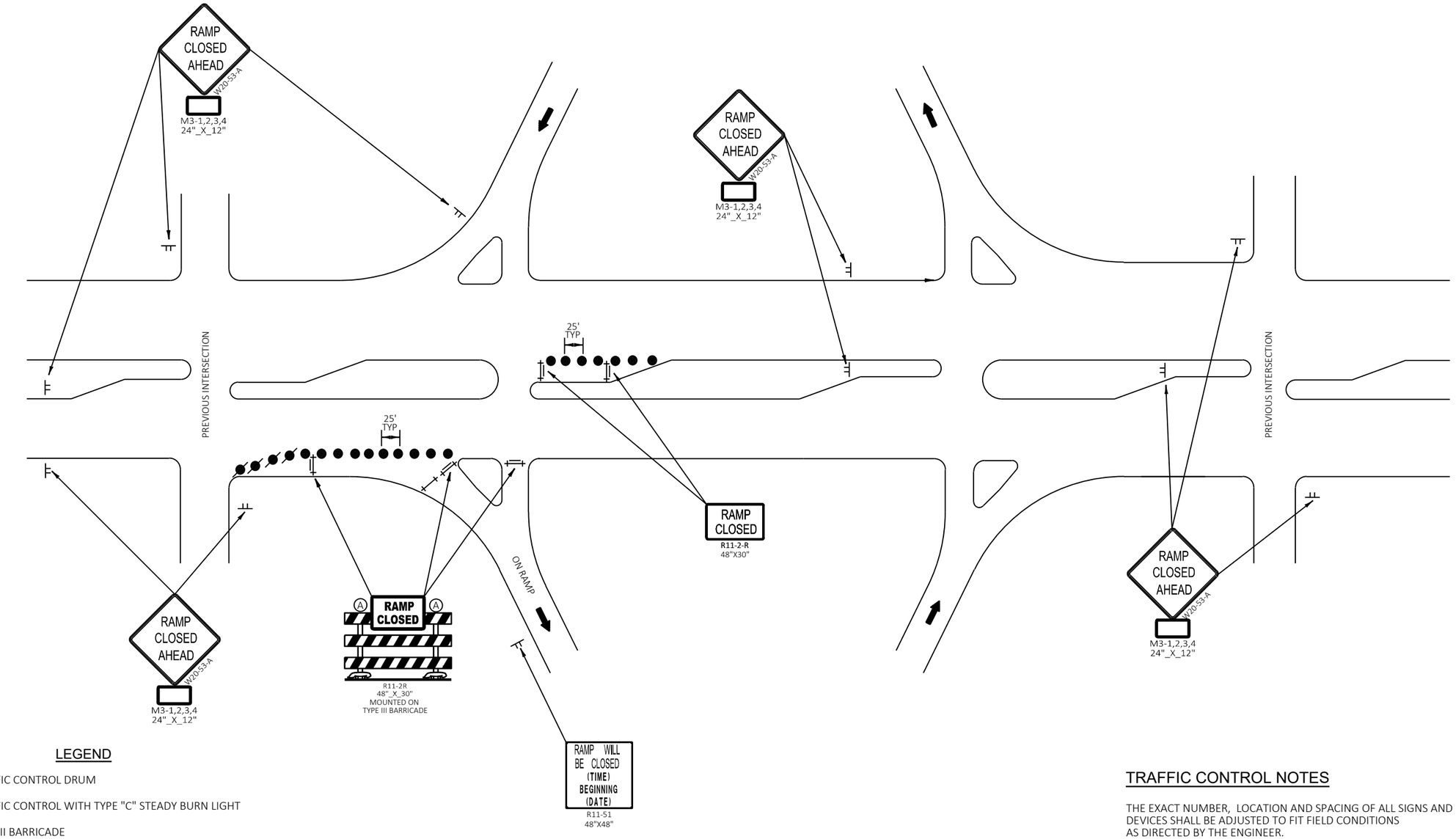
- CONCRETE BARRIER TEMPORARY PRECAST
- EXISTING CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK ZONE
- CC — CRASH CUSHION TEMPORARY
- SIGN ON TEMPORARY SUPPORT
- SIGN MOUNTED ON PERMANENT POST(S)
- TRAFFIC CONTROL BARRICADE TYPE III W/ SIGN W/ TWO (2) TYPE "A" WARNING LIGHTS (FLASHING) (USED WHEN INGRESS/EGRESS NOT IN USE)
- TRAFFIC CONTROL DRUMS (USED WHEN EGRESS/INGRESS NOT IN USE)
- TP — TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE, SOLID) (USE YELLOW, SOLID FOR MEDIAN INGRESS/EGRESS)

NOTES

1. RIGHT LANE ACCESS SHOWN (MEDIAN LANE ACCESS SIMILAR).
2. WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.
3. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
4. TEMPORARY SUPPORTS MAYBE USED IF PLACED BEHIND TEMPORARY BARRIER WALL.
5. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
6. THE "WO" SINGS ARE THE SAME AS "W" SIGNS.
7. TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.
8. FREE FLOW TRAFFIC LANES SHALL BE A MINIMUM WIDTH OF ELEVEN FEET AND ACCOMMODATE A ONE FOOT SHY DISTANCE FROM TRAFFIC CONTROL DEVICES.
9. ITEMS ON THIS SHEET TO BE PAID USING STANDARD BID ITEMS.

WORK ZONE INGRESS/EGRESS - 6 LANE

2



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH 2 TYPE "A" WARNING LIGHT (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
SHORT TERM ONLY

TRAFFIC CONTROL NOTES

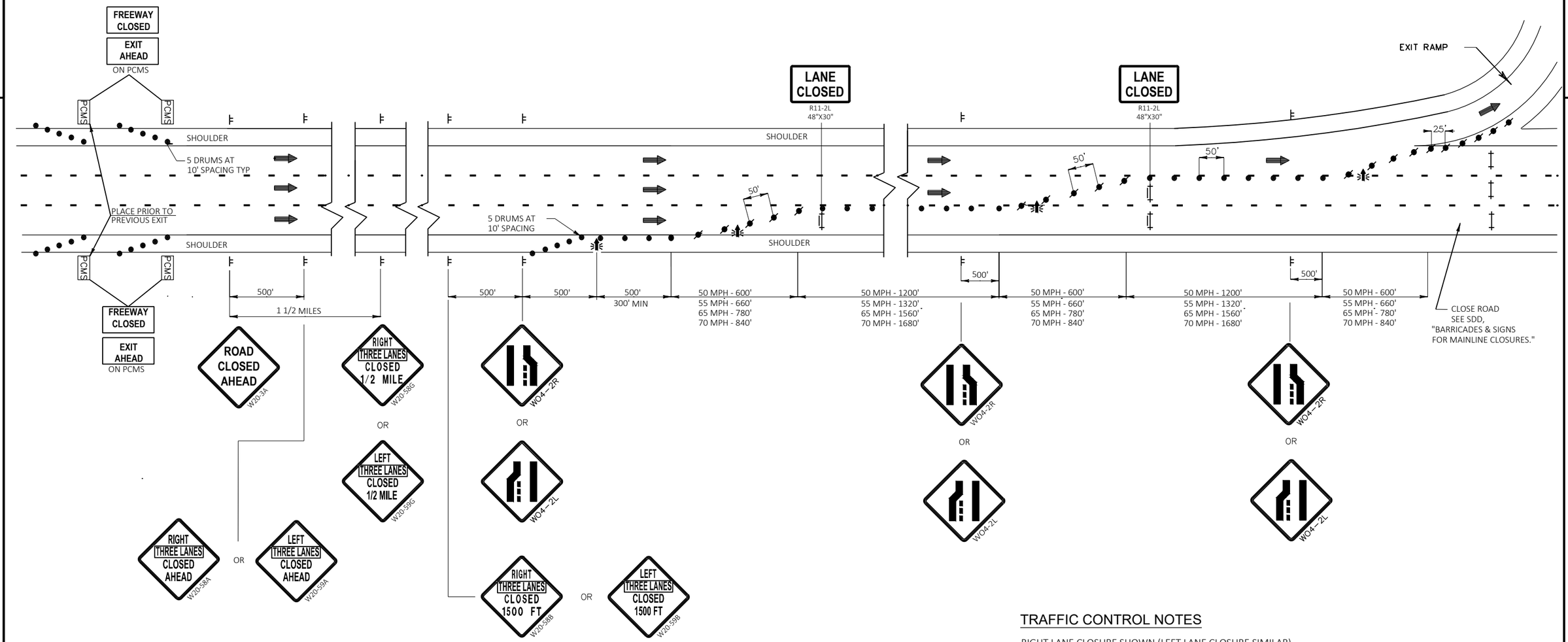
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SHORT TERM DEFINED AS 7 DAYS/NIGHTS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

THREE LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

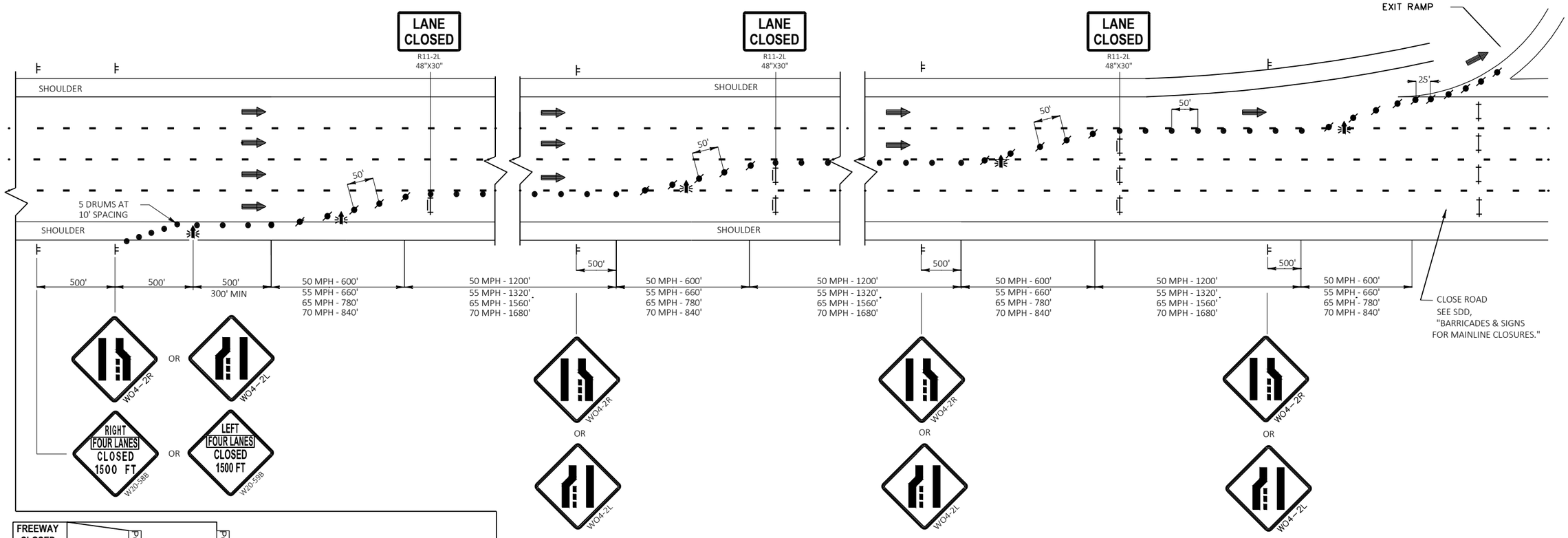
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

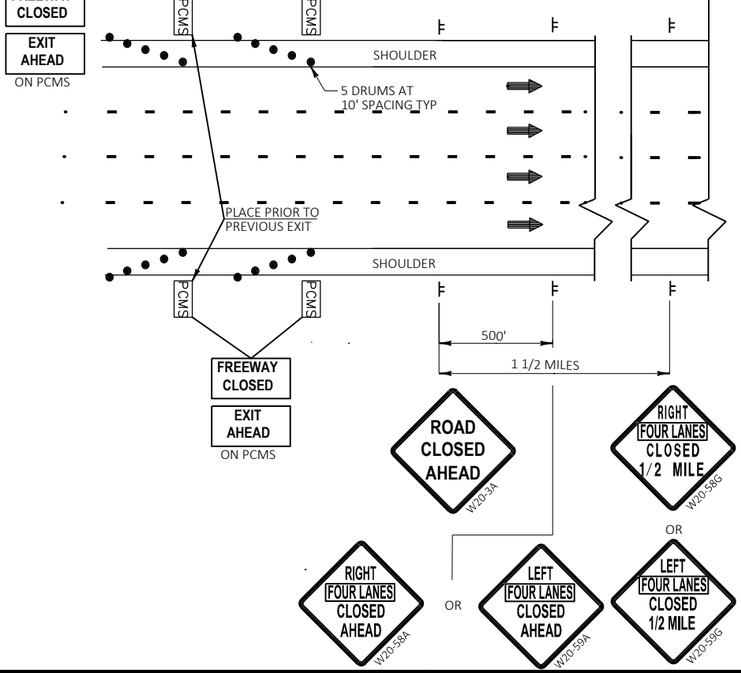
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.





LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- TYPE III BARRICADE WITH SIGN WITH TWO (2) TYPE "A" WARNING LIGHTS (FLASHING)
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

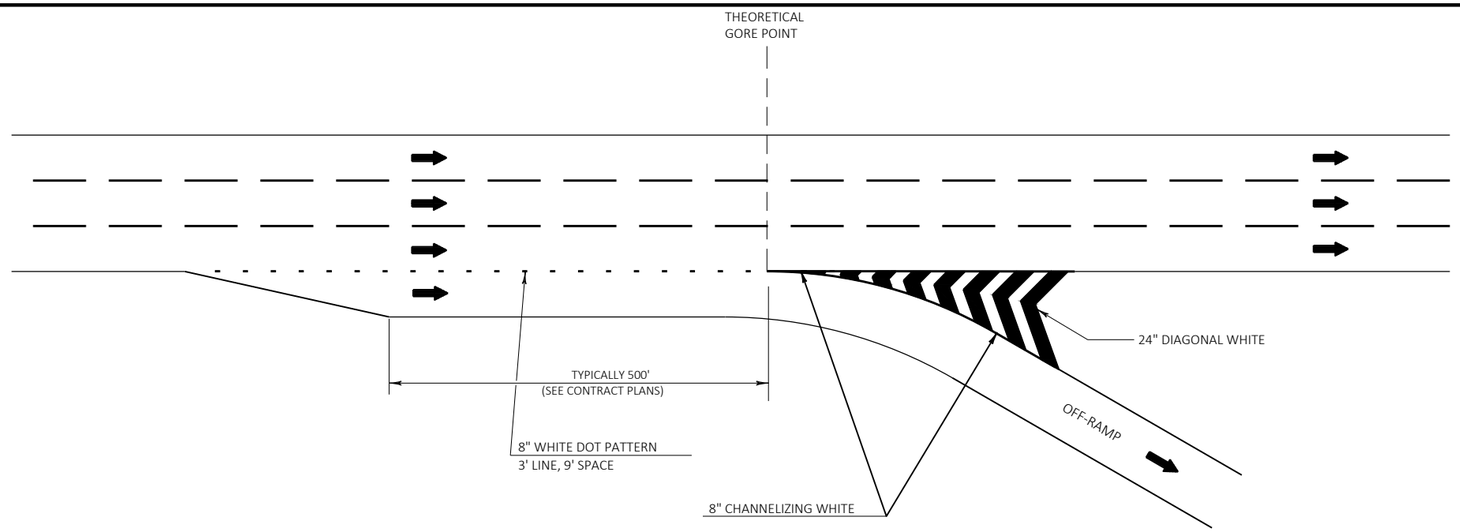
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.

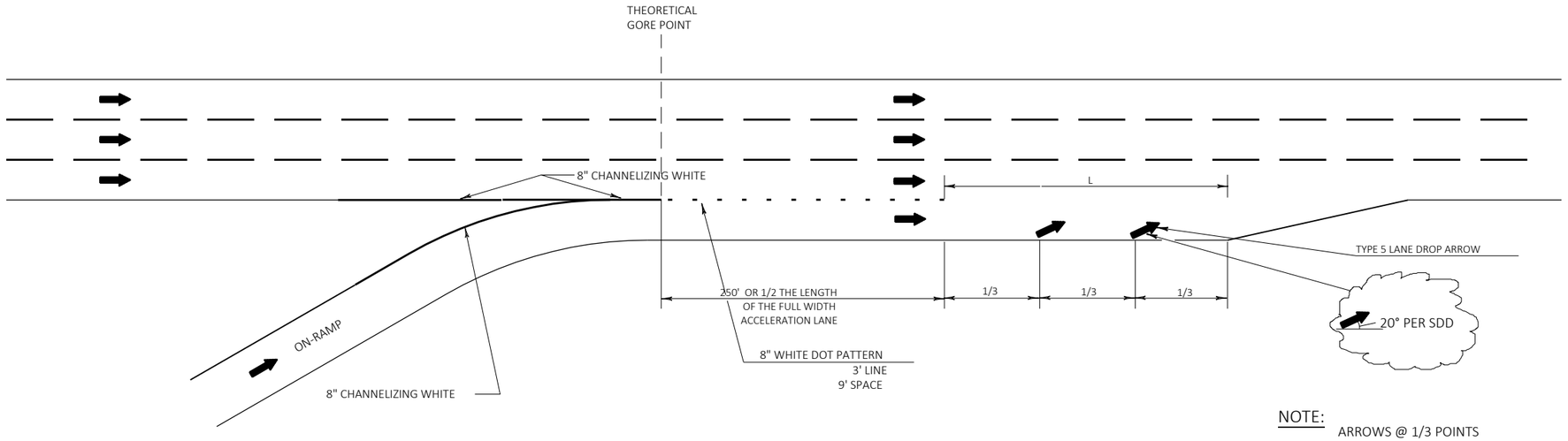
FOUR LANE FULL FREEWAY CLOSURE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 72	E

2

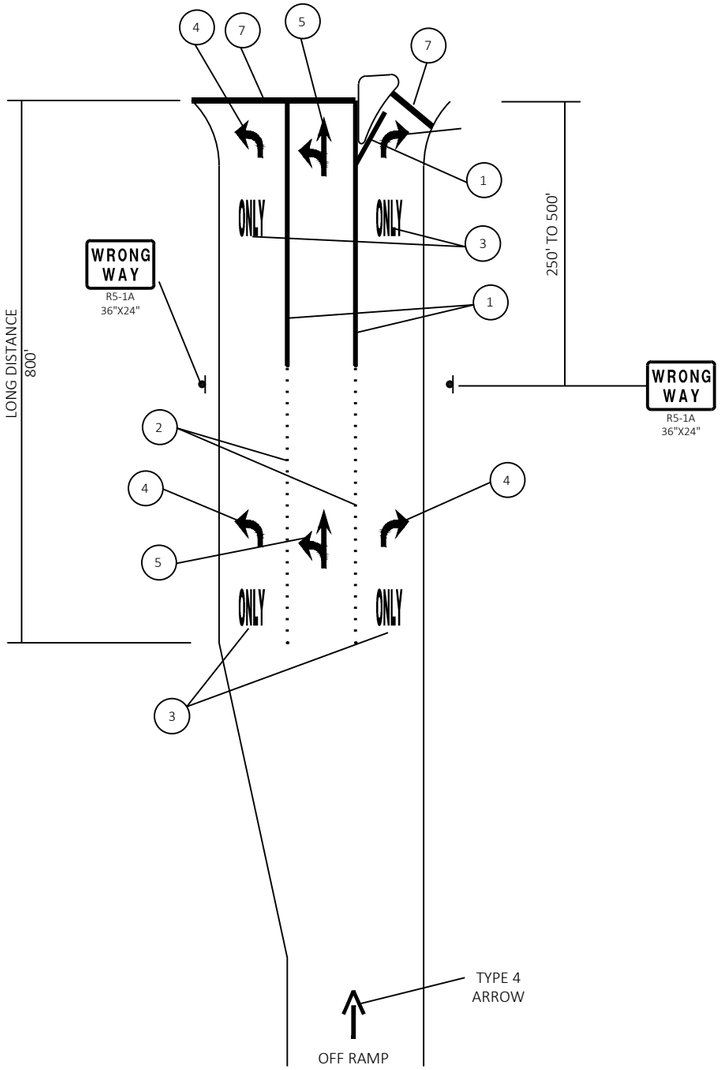


SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL OFF-RAMP

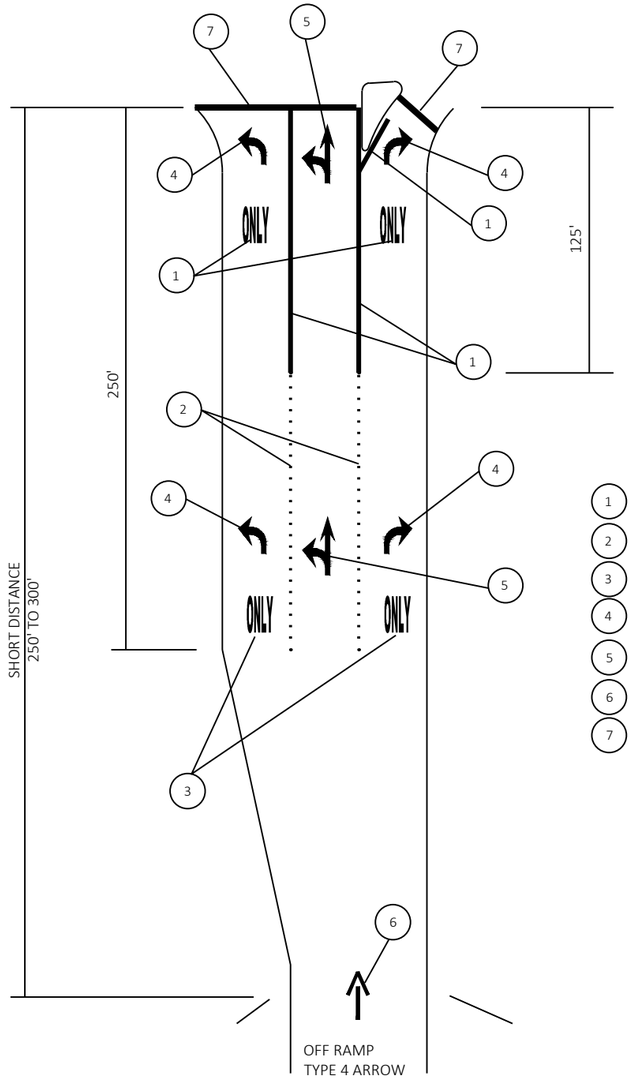


NOTE:
ARROWS @ 1/3 POINTS

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ON-RAMP



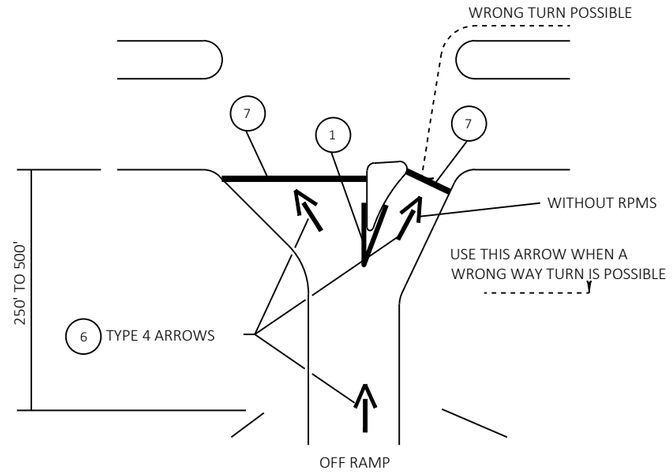
EXIT RAMP
LONG TURN LANES



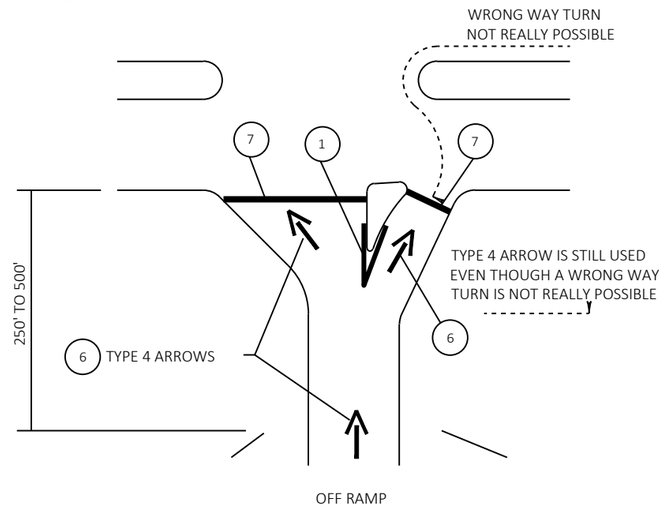
EXIT RAMP
250' OR SHORTER TURN LANES

LEGEND

1. PAVEMENT MARKING 8" CHANNELIZING WHITE
2. PAVEMENT MARKING 8" WHITE (3' LINE, 9' SPACE)
3. PAVEMENT MARKING WORDS
4. PAVEMENT MARKING TYPE 2 ARROW
5. PAVEMENT MARKING TYPE 3 ARROW
6. PAVEMENT MARKING TYPE 4 ARROW
7. 18" STOP BAR



EXIT RAMP
(SIMPLE)

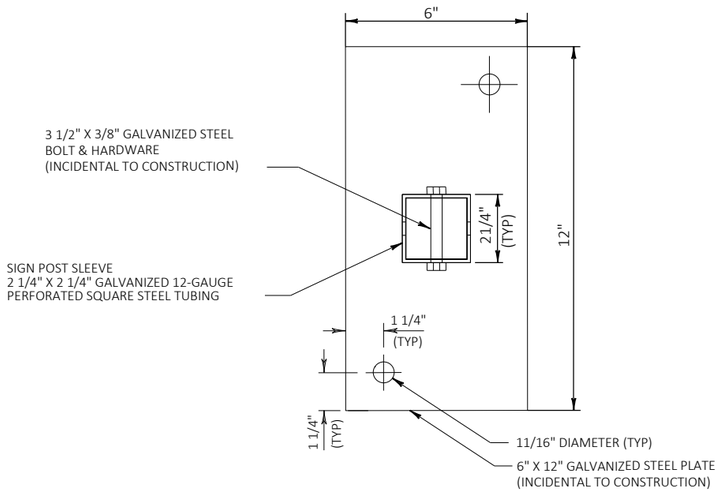


EXIT RAMP
(SIMPLE)

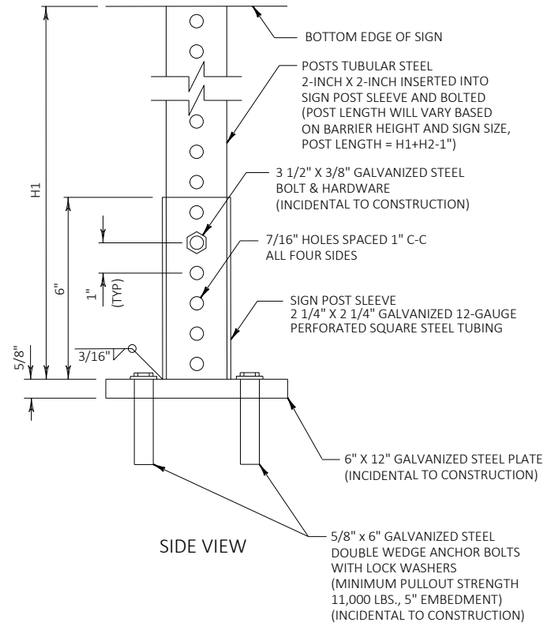
2

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 74	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 34
PLOT DATE : 11/1/2022 11:52 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

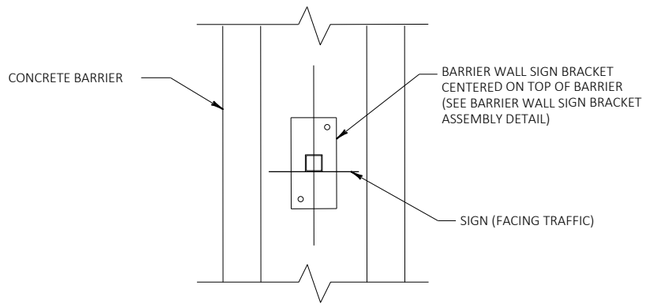


PLAN VIEW

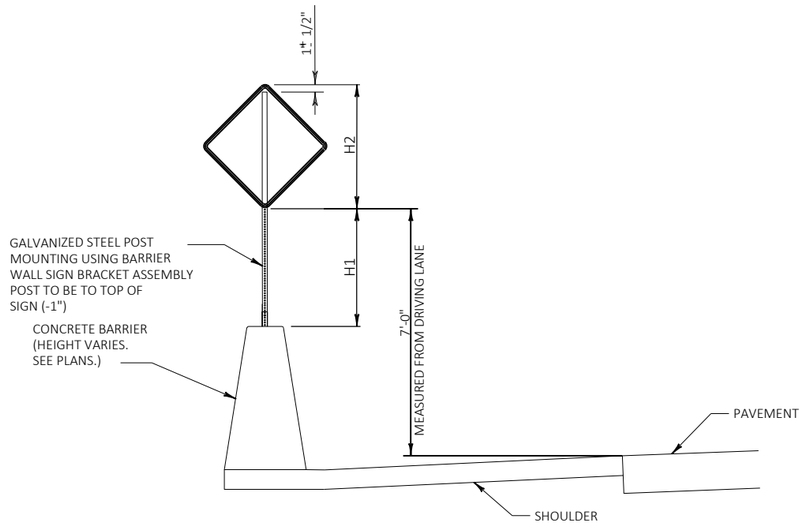


SIDE VIEW

BARRIER WALL SIGN BRACKET ASSEMBLY DETAIL



PLAN VIEW

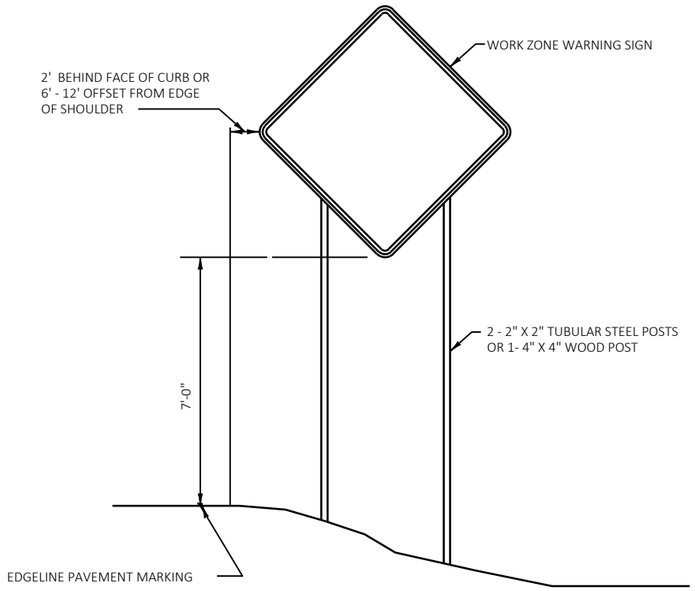


SIDE VIEW

MEDIAN BARRIER MOUNTING DETAIL

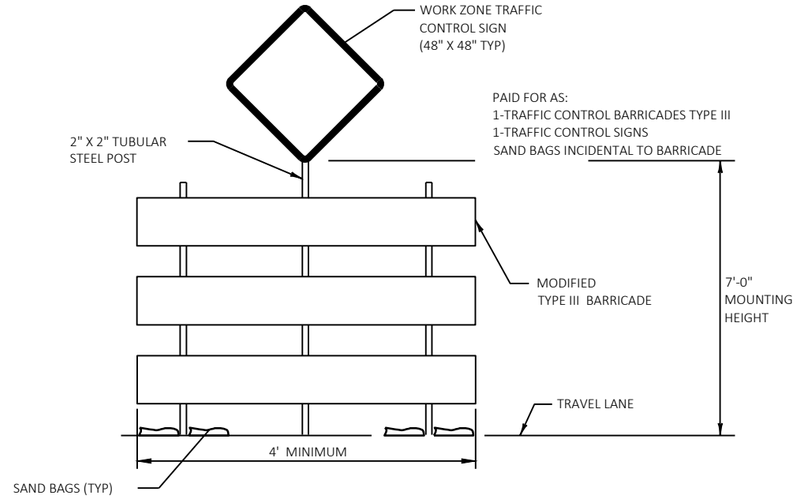
MOUNTING SIGNS TO MEDIAN BARRIER

NOT TO SCALE

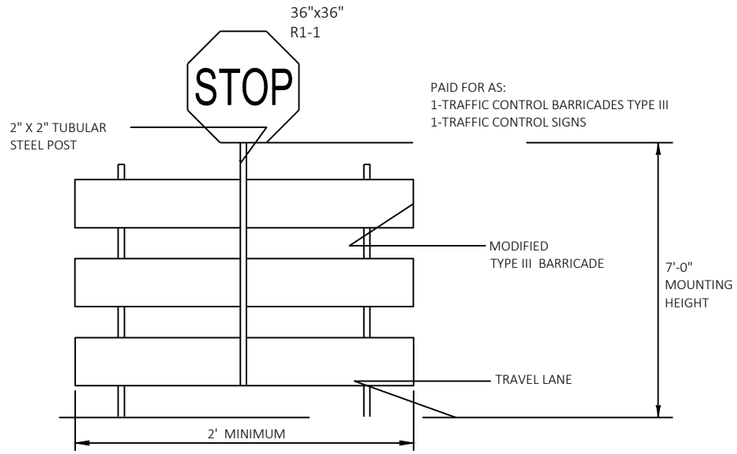


TYPICAL TEMPORARY TRAFFIC CONTROL SIGN
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE



TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON TEMPORARY SUPPORT



TEMPORARY STOP SIGN

GENERAL NOTES:

1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE PROJECT ENGINEER SHALL VERIFY EACH SIGN LOCATION.

2. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.

3. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."

4. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLUORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.
5. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   10" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C" - UNLESS OTHERWISE SHOWN

6. ALL SIGNS SHALL HAVE BORDER & RADIUS OF BORDERS AS FOLLOWS:

SIGN AREA	WIDTH OF BORDER
GREATER THAN 150 SQ FT	3"
60-150 SQ FT	2"
LESS THAN 60 SQ FT	1"

RADIUS SMALLEST OUTSIDE DIMENSION	CORNER RADIUS
> 8 FT	12"
> 6 FT	9"
> 4 FT	6"
LESS THAN 4 FT	3"

7. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.

8. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643 & 637.

9. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.

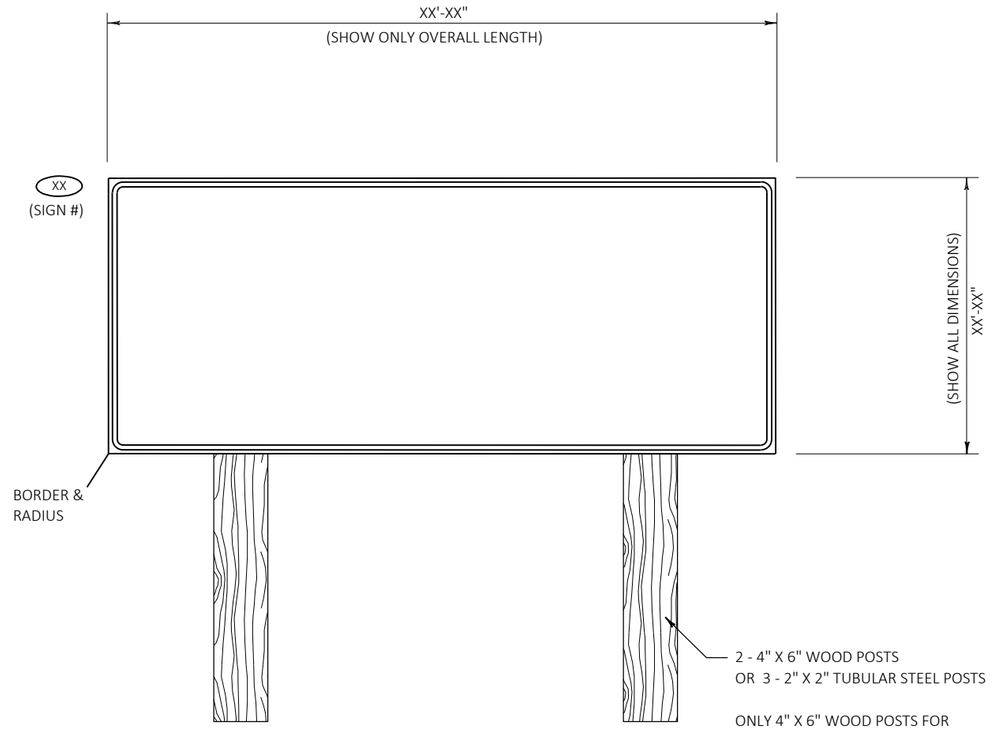
10. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.

11. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.

12. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.

LEGEND: FIXED MESSAGE SIGNS

- EXISTING GUIDE SIGN TO BE COVERED
- FIXED MESSAGE SIGN(S) ON WOOD POST SUPPORTS OR TUBULAR STEEL POSTS
- (XX) FIXED MESSAGE SIGN NUMBER
- (A1) CONTRACTOR SHALL COVER AS DIRECTED BY THE ENGINEER ALL ROUTE MARKINGS PERTAINING TO THE PROJECT. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
- [CMS] CHANGEABLE MESSAGE SIGN



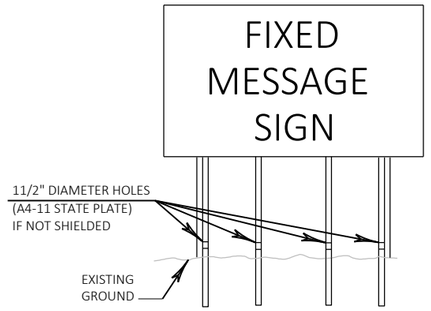
FIXED MESSAGE SIGN
SERIES C LETTERS - 6"
CONVENTIONAL HIGHWAYS UNLESS OTHERWISE SHOWN

OR

FIXED MESSAGE SIGN
SERIES D LETTERS - 12"
FREEWAYS/ EXPRESSWAYS

FIXED MESSAGE SIGN DETAIL

FIXED MESSAGE SIGNS



FRONT VIEW

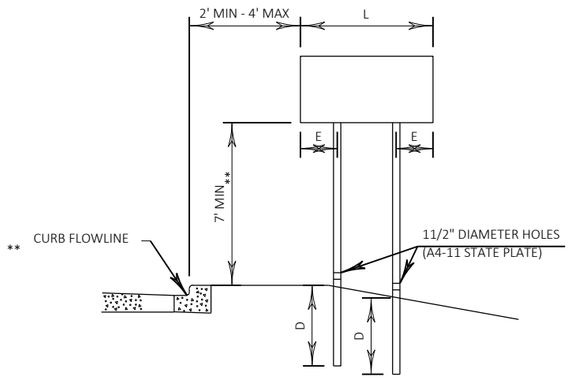
NOTES

1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

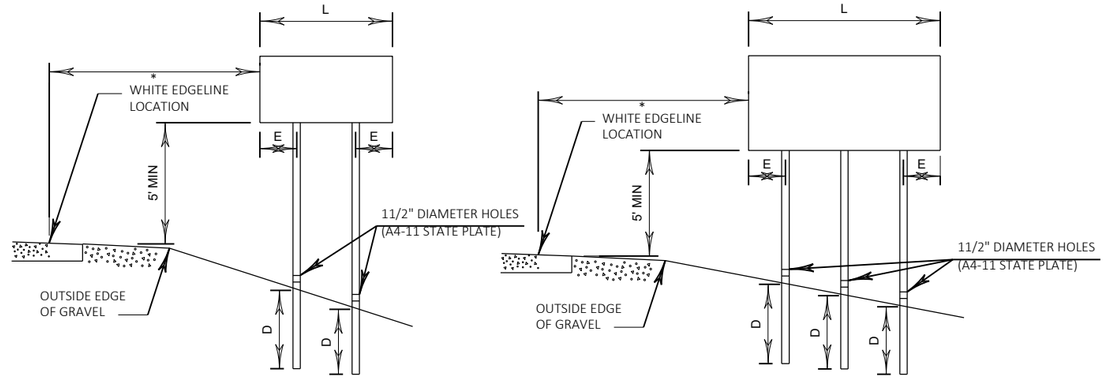
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

3. 4X6 WOOD POSTS SHALL HAVE TWO HOLES PER STATE PLATE A4-11



URBAN AREA



RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

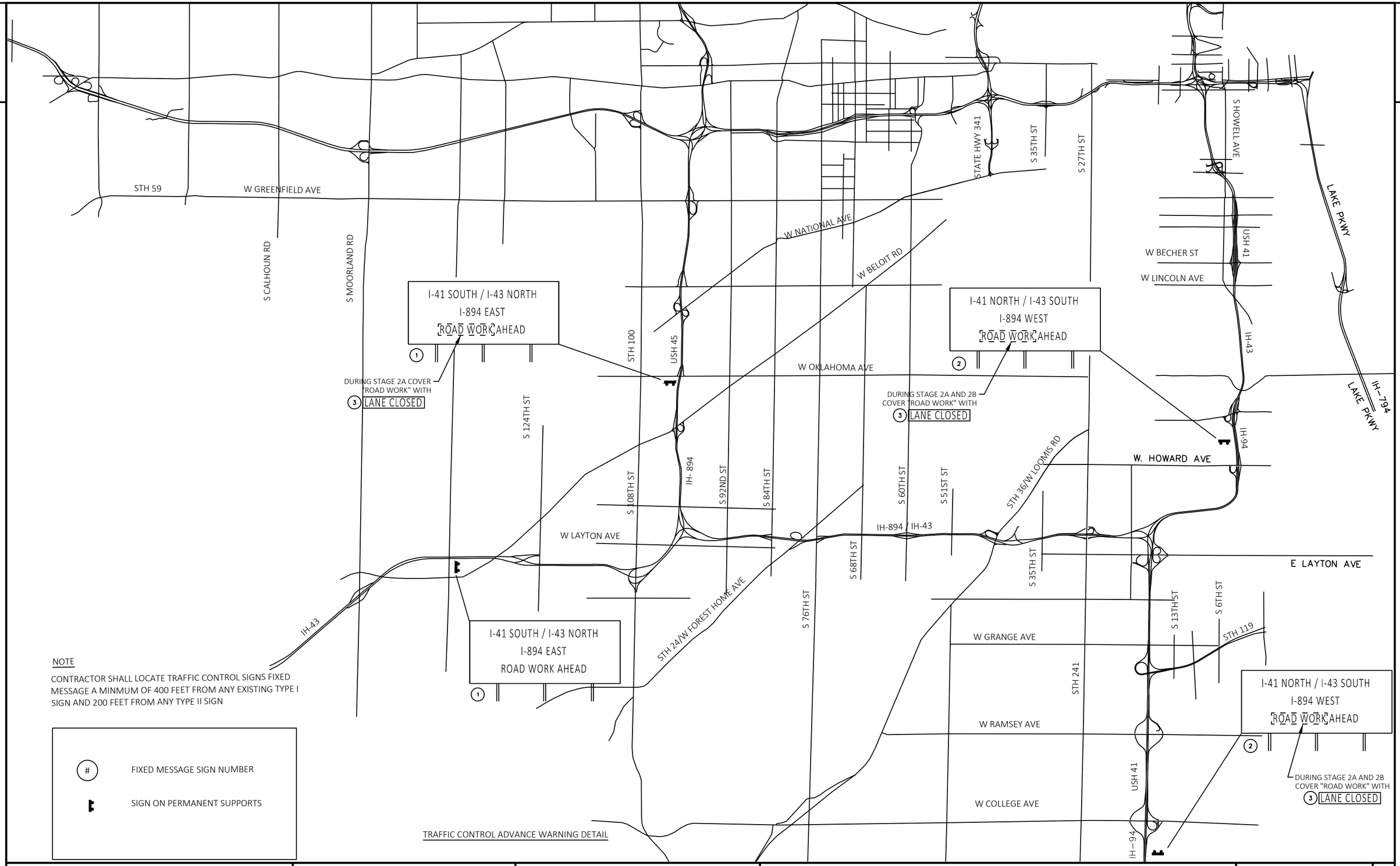
SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

2



NOTE

CONTRACTOR SHALL LOCATE TRAFFIC CONTROL SIGNS FIXED MESSAGE A MINMUM OF 400 FEET FROM ANY EXISTING TYPE I SIGN AND 200 FEET FROM ANY TYPE II SIGN

(#) FIXED MESSAGE SIGN NUMBER

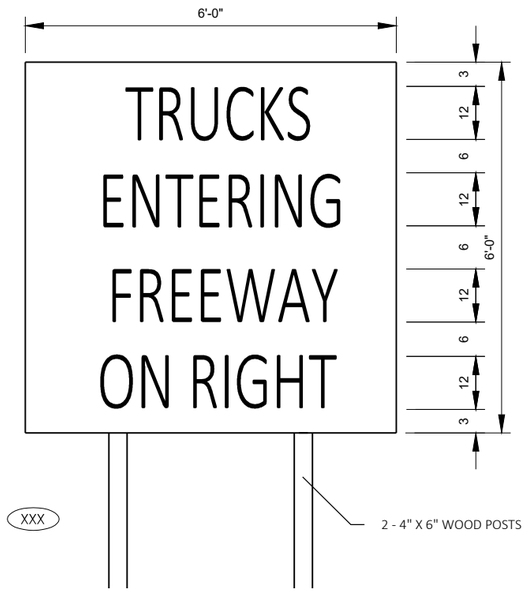
SIGN ON PERMANENT SUPPORTS

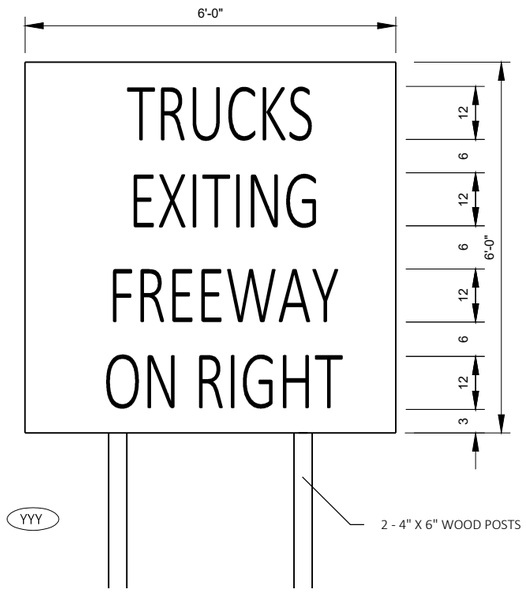
TRAFFIC CONTROL ADVANCE WARNING DETAIL

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 79	E

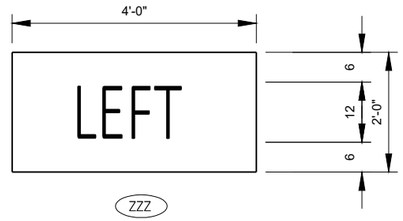
FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_CJOHNSO3\D0951536\11004570-021001-CD.DWG
LAYOUT NAME - 39
PLOT DATE : 4/26/2023 1:27 PM
PLOT BY : JOHNSON, CHRISTOPHER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

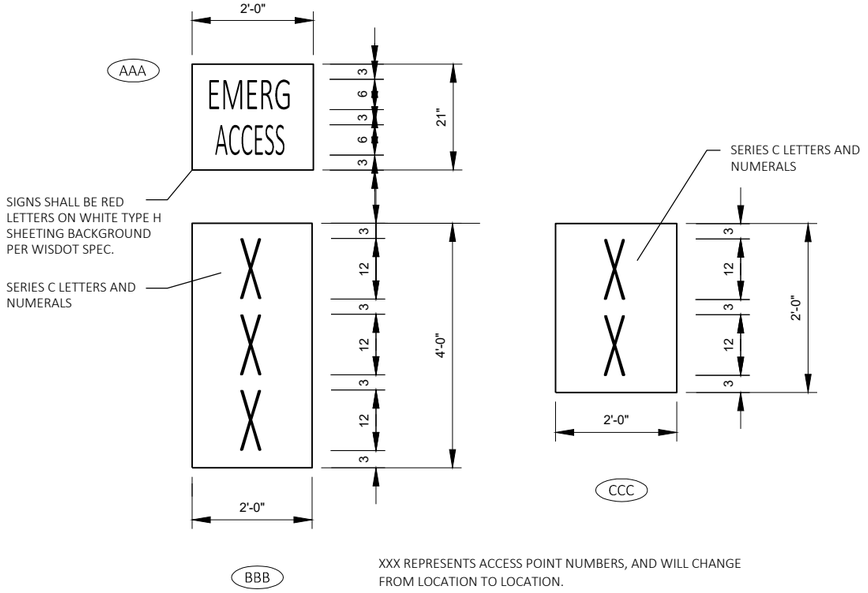
2





FIXED MESSAGE SIGNS





XXX REPRESENTS ACCESS POINT NUMBERS, AND WILL CHANGE FROM LOCATION TO LOCATION.

EMERGENCY ACCESS SIGNS

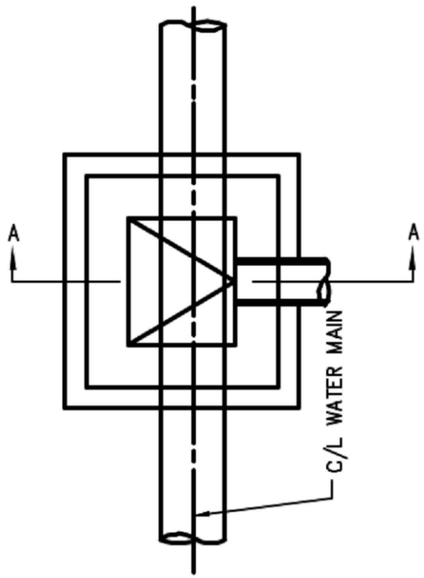
NOTES

1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
2. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS. FOR SIGNS MOUNTED ON POSTS, USE POSTS FROM FHWA LIST OF ACCEPTED BREAKAWAY SIGN SUPPORTS.
3. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
4. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE TYPE F REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS: 12" AND 8" CAPS SHALL BE SERIES "D", 6" CAPS SHALL BE SERIES "C" UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
7. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2..
8. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

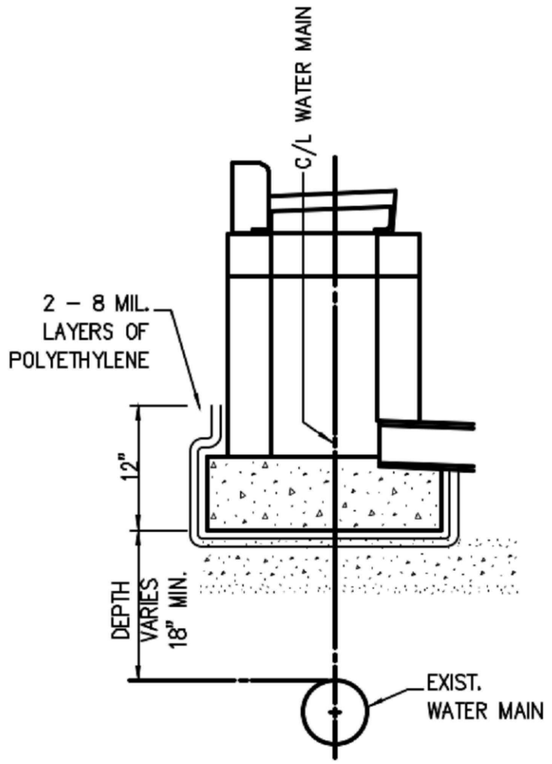
XXX = FIXED MESSAGE SIGN NUMBER

WORK ZONE INGRESS/EGRESS

2



PLAN VIEW



SECTION A–A

WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH
LESS THAN 24" HORIZONTAL OUT-TO-OUT
CLEARANCE FROM STRUCTURE TO WATER MAIN

2

N

EXISTING REVERSE SLOPE GUTTER

'TA'+66.69
70.29'LT
776.60F

'TA'+68.62
69.77'LT
776.66G

BEGIN FULL 6-INCH CURB HEIGHT

RAMP TAA

'TA'+64.59
62.57'LT
776.62F

'TA'+65.74
59.15'LT
776.60G

'TA'+63.81
59.68'LT
776.62F

'TA'+62.58
55.14'LT

'TA'+62.44
54.26'LT
776.61F

'TA'+64.43
54.06'LT
776.57G

'TA'+63.38
49.79'LT
776.45F

'TA'+67.09
61.89'LT
777.13

GRADED FLARE

CURB RAMP TYPE 2

'TA'+72.30
59.00'LT
776.75

'TA'+77.30
59.00'LT
776.68

'TA'+92.30
59.00'LT
776.48G

'TA'+72.30
54.00'LT
776.71

'TA'+77.30
54.00'LT
776.63

'TA'+92.30
54.00'LT
776.51E

GRADED FLARE

'TA'+69.90
48.00'LT
776.23G

'TA'+69.90
46.00'LT
776.30F

'TA'+65.63
51.06'LT
776.90

SAWCUT CONCRETE PAVEMENT

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+36.62
66.06'LT
776.43G

'TA'+38.18
64.81'LT
776.50F

GRADED FLARE

CURB RAMP TYPE 4B1

'TA'+30.96
60.93'LT
777.03

'TA'+84.85
58.63'LT
778.04E

'TA'+04.85
59.00'LT
777.23

'TA'+09.85
59.00'LT
777.16

'TA'+15.82
59.00'LT
776.78

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+32.69
59.01'LT
776.58F

'TA'+29.03
58.54'LT
776.60G

'TA'+30.26
56.97'LT
776.64F

'TA'+84.85
53.63'LT
777.97E

'TA'+04.85
54.00'LT
777.16

'TA'+09.85
54.00'LT
777.09

SAWCUT CONCRETE PAVEMENT

'TA'+21.06
53.48'LT
776.70G

'TA'+15.85
54.00'LT
776.74

'TA'+21.95
51.69'LT
776.74F

'TA'+11.02
49.80'LT
776.76G

'TA'+11.49
47.86'LT
776.79F

'TA'+18.07
52.74'LT
777.22

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+19.08
50.36'LT
776.74F

GRADED FLARE

S. 84TH ST

18'TA'

19'TA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 82	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021002-CD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2022 7:14 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

N

RAMP TAB

REVERSE SLOPE GUTTER

'TA'+78.12
68.98'LT
776.00F

'TA'+76.12
68.95'LT
776.02G

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+78.20
63.23'LT

'TA'+78.15
61.77'LT
775.96F

GRADED FLARE

CURB RAMP TYPE 2

'TA'+66.46
59.00'LT
776.08

'TA'+75.58
61.95'LT
776.44

'TA'+61.46
59.00'LT
776.15

'TA'+46.46
59.00'LT
776.25E

'TA'+75.61
58.84'LT
775.92G

'TA'+77.53
58.28'LT
775.96F

SAWCUT CONCRETE PAVEMENT

'TA'+46.46
54.00'LT
776.16E

'TA'+61.46
54.00'LT
776.08

'TA'+66.46
54.00'LT
776.01

'TA'+74.48
52.39'LT
775.86F

'TA'+72.92
53.64'LT
775.82G

GRADED FLARE

'TA'+72.00
49.87'LT
775.85F

'TA'+61.20
48.00'LT
775.68G

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+70.36
51.87'LT
776.31

'TA'+61.20
46.00'LT
775.71F

S. 84TH ST

21'TA'

22'TA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 83	E

2

RAMP TAB

N

'TA'+29.29
68.51'LT
775.98G

'TA'+27.98
67.00'LT
776.03F

'TA'+42.05
60.07'LT
776.60

CURB RAMP TYPE 4B1

GRADED FLARE

SAWCUT CONCRETE PAVEMENT

BEGIN FULL 6-INCH CURB HEIGHT

'TA'+40.77
57.82'LT
776.12F

'TA'+44.42
58.06'LT
776.13G

'TA'+43.47
56.30'LT
776.15F

'TA'+55.66
53.03'LT
776.38G

'TA'+54.98
51.15'LT
776.43F

'TA'+57.90
50.15'LT
776.50F

'TA'+58.70
52.61'LT
776.95

'TA'+61.86
58.58'LT
776.39

'TA'+67.86
58.58'LT
776.69

'TA'+72.86
58.58'LT
776.77

'TA'+82.89
58.58'LT
777.05

'TA'+07.82
58.52'LT
777.74E

'TA'+67.86
53.58'LT
776.62

'TA'+72.86
53.58'LT
776.69

'TA'+82.86
53.58'LT
776.96

'TA'+07.86
53.52'LT
777.64E

'TA'+61.86
53.58'LT
776.42

'TA'+63.08
50.72'LT
776.50G

'TA'+62.57
48.79'LT
776.54F

GRADED FLARE

BEGIN FULL 6-INCH CURB HEIGHT

1.5%
5.0%
1.5%
2.8%
2.8%
1.5%
3.3%
1.5%
2.7%
2.7%
5.5%
2.0%
2.0%
2.0%
1.5%
1.5%
1.5%
1.5%
1.9%E
1.5%
2.0%
2.0%
2.0%
R 86'

S. 84TH ST

22'TA'

23'TA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 84	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021002-CD.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2022 7:19 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:10 FT

GENERAL NOTES:

1) ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN IN LIGHTING PLAN.

2) ALL ITEMS ASSOCIATED WITH BRIDGE REMOVALS ARE SHOWN IN BRIDGE PLAN.

3) ALL ITEMS ASSOCIATED WITH FTMS REMOVALS ARE SHOWN IN FTMS PLAN.

4) ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVALS ARE SHOWN IN STORM SEWER PLANS.

5) ALL ITEMS ASSOCIATED WITH SIGN STRUCTURE REMOVALS ARE SHOWN IN STAGING PLANS.

6) ALL ITEMS ASSOCIATED WITH SIGN REMOVALS ARE SHOWN IN THE SIGNING PLANS.

7) CLEARING AND GRUBBING SHALL BE PAID BY THE STATION.

8) FOR ADDITIONAL UTILITY INFORMATION SEE EXISTING UTILITY PLAN.

9) THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN, INCLUDING BUILDING SERVICES AND LATERALS.

REMOVAL LEGEND

- OBLITERATING OLD ROAD
- CLEARING AND GRUBBING (STA.)
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- REMOVING CONCRETE PAVEMENT BUTT JOINTS
- REMOVING ASPHALTIC SURFACE BUTT JOINTS
- REMOVING ASPHALTIC SURFACE MILLING SPECIAL
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB AND GUTTER
- REMOVING CONCRETE BARRIER
- SLOPE INTERCEPT
- SAWING ASPHALT
- SAWING CONCRETE PAVEMENT
- REMOVING GUARDRAIL
- REMOVING FENCE

2

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 11004570-021101-RM - 00_NLEG
PLOT DATE : 11/11/2022 8:25 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 0.038328
WISDOT/CADDS SHEET 42

2

2

N

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

84'

82'TAB'

'EW'+95.00
74.83'LT

'EW'+45.00
73.06'LT

'EW'+29.21
13.89'LT

'EW'+69.20
3.33'LT

'EW'+29.20
0.00'RT

'EW'+95.00
16.00'LT

'EW'+45.00
16.00'LT

'EW'+29.21
13.46'RT

'EW'+69.20
3.33'RT

'EW'+95.00
16.00'RT

'EW'+45.00
16.00'RT

'EW'+45.00
62.66'RT

'EW'+95.00
62.53'RT

'TAA'+10.49
0.00'

MATCHLINE 84'EW'+00

RIPRAP

SIGN

OH

INL

FO

W

MH

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 86	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 01

PLOT DATE : 11/11/2022 10:13 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

DO NOT REMOVE EXISTING TREES IN FRONT OF NOISE BARRIER N-40-010

REMOVE ALL GROWTH OFF THE FRONT FACE OF EXISTING NOISE BARRIER PAID FOR AS CLEARING

RAMP TAB

RAMP TAA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S. 84TH ST

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

'TAB'+15.61
2.00'LT

'TAB'+65.42
2.00'LT

'TAB'+15.61
18.30'RT

'TAB'+65.83
16.93'RT

'EW'+99.10
60.00'LT

'EW'+99.10
50.00'LT

'TAA'+26.17
-18.99'LT

'TAA'+49.27
-15.00'LT

'TAA'+25.50
0.00'

'EW'+91.23
50.03'RT

'EW'+91.32
60.00'RT

'TAA'+75.43
19.50'LT

'TAA'+75.43
0.00'

'TAA'+49.27
0.00'

'TA'+10.00
14.11'LT

'TA'+10.00
46.00'LT

'TA'+62.61
48.78'LT

'TA'+56.42
47.71'LT

'TAB'+50.02
28.81'LT

'TAB'+47.38
21.02'RT

'TA'+10.00
4.04'RT

'TA'+10.00
46.00'RT

'TA'+83.56
73.50'RT

'TA'+57.83
73.50'RT

'EW'+09.68
60.00'LT

'EW'+10.78
50.00'LT

'EW'+93.67
62.00'LT

'EW'+70.78
50.00'LT

'TA'+61.20
46.00'LT

'EW'+14.30
16.00'LT

'EW'+15.61
3.33'LT

'EW'+16.06
3.33'RT

'EW'+77.62
16.00'RT

'EW'+17.61
16.00'RT

'EW'+77.62
50.00'RT

'EW'+08.14
63.02'RT

'EW'+21.10
50.00'RT

'EW'+22.17
60.00'RT

'TAA'+61.06
36.67'LT

'TAA'+48.57
22.32'LT

'TAA'+64.03
0.00'

'TAA'+96.22
0.00'

'TA'+95.00
45.96'LT

'TA'+95.00
14.05'LT

'TA'+95.00
46.00'RT

'TA'+95.00
14.00'RT

'EW'+99.05
60.00'LT

'EW'+00.09
50.00'LT

'EW'+14.52
62.00'LT

'EW'+43.65
50.00'LT

'EW'+43.65
16.00'LT

'EW'+03.65
16.00'LT

'EW'+04.97
3.33'LT

'EW'+05.67
3.33'RT

'EW'+50.54
16.06'RT

'EW'+50.54
50.00'RT

'EW'+27.53
61.45'RT

'EW'+10.54
49.95'RT

'EW'+11.59
60.00'RT

'EW'+07.00
16.06'RT

24'TA'

22'TA'

20'TA'

18'TA'

16'TA'

86'TAB'

88'TAB'

90'TAB'

92'TAB'

94'TAB'

86'EW'

88'EW'

90'EW'

92'EW'

94'EW'

96'EW'

98'EW'

86'TAA'

88'TAA'

90'TAA'

92'TAA'

94'TAA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 87	E

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

STH 24/W. FOREST HOME AVE

RAMP FHB

RAMP FHA

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

'EW'+18.86
50.00'LT

'EW'+18.97
-63.21'LT

'EW'+33.86
-65.21'LT

'EW'+72.16
-63.21'LT

'EW'+72.20
-61.21'LT

'EW'+77.70
61.58'LT

'EW'+77.19
58.63'LT

'EW'+77.24
50.00'LT

'EW'+62.19
61.21'LT

'EW'+48.90
60.00'LT

'EW'+48.90
50.00'LT

'FHB'+72.74
0.00'

'FHB'+72.76
21.03'RT

'FHB'+22.88
0.00'

'FHB'+22.88
19.03'RT

'EW'+97.99
61.63'LT

'FHB'+64.58
0.00'

'FHB'+64.58
12.00'RT

'FHB'+64.46
14.00'RT

'EW'+52.04
60.00'RT

'FHA'+70.65
29.03'LT

'FHA'+67.95
30.58'LT

'FHA'+67.19
0.00'

100'EW'
102'EW'
104'EW'
106'EW'
108'EW'
110'EW'
112'EW'

100'FHB'
102'FHB'
104'FHB'
106'FHB'
108'FHB'
110'FHB'
112'FHB'
114'FH

98'FHB'

110'FHA'
112'FHA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 88	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 03

PLOT DATE : 11/11/2022 8:33 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TBB

RAMP FHA

RAMP TBA

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

'EW'+51.98
62.74'LT

'EW'+58.15
61.33'LT

'FHB'+10.18
89.41'LT

'FHB'+16.01
-78.09'LT

'FHB'+22.41
3.31'LT

'EW'+58.11
50.00'LT

'TBB'+99.55
-1.93'LT

'TBB'+99.73
0.27'RT

'TBB'+99.73
25.95'RT

'TBB'+06.06
52.37'RT

'TBB'+06.63
54.26'RT

'EW'+93.20
-60.96'LT

'EW'+95.86
50.00'RT

'FHA'+88.12
0.00'

'FHA'+96.43
-15.00'LT

'FHA'+38.13
0.00'

'FHA'+88.12
15.00'LT

'FHA'+88.12
0.00'

'EW'+46.18
63.85'RT

'EW'+68.92
50.00'RT

'EW'+68.99
61.03'RT

'EW'+16.01
60.00'RT

'TBA'+05.09
40.09'LT

'TBA'+04.58
38.24'LT

'TBA'+89.30
0.00'LT

'TBA'+89.30
2.00'RT

'TBA'+29.93
60.00'RT

'TBA'+29.88
2.00'RT

'TBA'+29.93
32.98'LT

'TBA'+29.88
0.00'

'TBA'+79.89
0.00'

'TBA'+79.89
32.98'LT

116'FHB'
118'FHB'
120'FHB'
122'FHB'
124'FHB'
126'TBB'
128'TBB'

116'EW'
118'EW'
120'EW'
122'EW'
124'EW'
126'EW'
128'EW'

116'FHA'
118'FHA'
120'FHA'
122'FHA'
124'FHA'
126'TBA'
128'TBA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 89	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 04

PLOT DATE : 11/11/2022 8:36 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

'TBB'+92.32
17.29'RT

'TBB'+92.32
0.00'

'TBB'+42.32
2.00'LT

'TBB'+42.32
0.00'RT

'TBB'+42.07
19.29'RT

'EW'+53.42
61.00'LT

'EW'+53.42
50.00'LT

'EW'+91.71
64.11'LT

'EW'+91.71
50.00'LT

130'TBB'

132'TBB'

134'TBB'

136'TBB'

138'TBB'

140'TBB'

RAMP TBB

IH 43 SB/IH 894 WB

130'FW'

132'FW'

134'FW'

136'FW'

138'FW'

140'FW'

142'FW'

144

IH 43 NB/IH 894 EB

130'TBA'

132'TBA'

134'TBA'

136'TBA'

138'TBA'

'EW'+49.57
50.00'RT

'EW'+49.57
58.00'RT

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

FOOTBRIDGE

WALLS

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 90	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 05

PLOT DATE : 11/11/2022 8:38 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

REMOVE IN PAVEMENT LOOPS AND WIRING INCIDENTAL TO BASE PATCHING CONCRETE SHES

'EW'+34.11
61.00'LT

'EW'+22.03
3.33'LT

'EW'+81.98
3.33'LT

S. 68TH ST

158'TCC'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

'EW'+70.60
60.00'RT

'EW'+01.45
60.29'RT

'EW'+22.03
3.33'RT

'EW'+81.98
3.33'RT

REMOVING SUBSURFACE STUCTURE

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

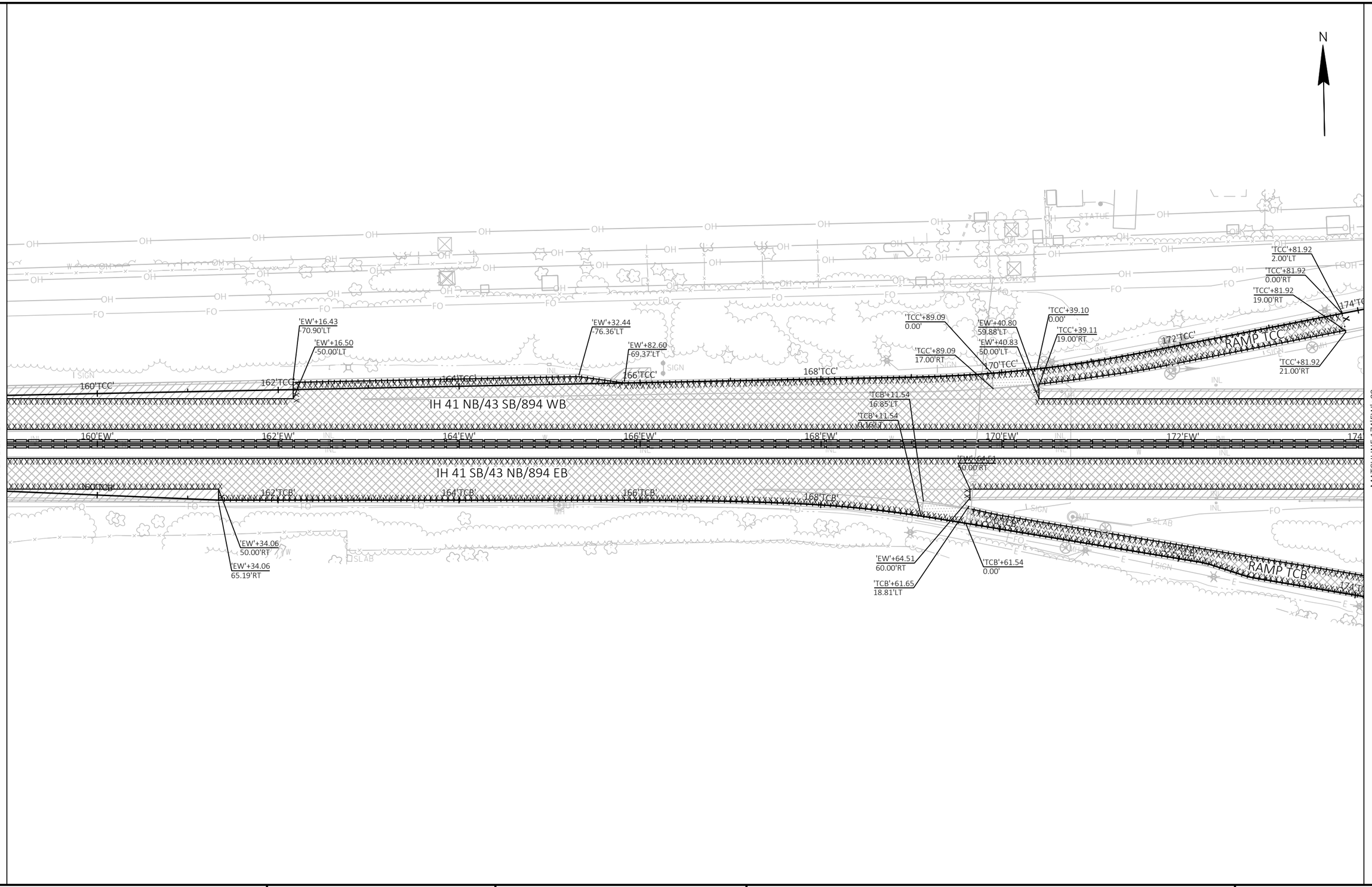
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 91	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 06

PLOT DATE : 11/11/2022 8:41 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 92	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 07

PLOT DATE : 11/11/2022 8:44 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

REMOVE ALL GROWTH OFF THE FRONT FACE OF EXISTING NOISE BARRIER PAID FOR AS CLEARING

RAMP TCC

S. 60TH ST

RAMP TCD

'TCD'+09.12
-2.00'LT

'TCD'+09.12
22.00'RT

'TCD'+09.12
24.00'RT

'TCD'+77.47
2.00'LT

'TCD'+77.47
16.00'RT

'EW'+77.83
60.00'LT

'EW'+77.83
50.00'LT

'TCD'+27.51
0.00'

'TCD'+27.51
16.00'RT

6' WIDE CLEAR PATH BEHIND NOISE BARRIER

178'TCD'

180'TCD'

182'TCD'

184'TCD'

186'TCD'

188'TCD'

MATCHLINE 174'EW'+00

MATCHLINE 189'EW'+00

'EW'+53.00

'EW'+60.00

MAINTAIN AND REMOVE CONCRETE BARRIER TEMPORARY PRECAST

176'EW'

178'EW'

180'EW'

182'EW'

184'EW'

186'EW'

188'EW'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

'TCA'+28.65
-16.00'LT

'TCA'+28.65
0.00'

182'TCA'

184'TCA'

186'TCA'

188'TCA'

'EW'+08.23
50.00'RT

'EW'+08.27
70.00'RT

'EW'+80.39
50.00'RT

'EW'+80.39
60.00'RT

'TCA'+78.62
17.98'LT

'TCA'+78.61
0.00'

'TCB'+73.84
-25.25'LT

'TCB'+73.85
-23.25'LT

'TCA'+57.41
22.00'LT

'TCA'+57.41
20.00'LT

RAMP TCA

178'TCA'

180'TCA'

'TCA'+57.41
0.00'

'TCA'+57.41
2.00'RT

RAMP TCB

'TCB'+73.88
0.00'

'TCB'+73.88
2.00'RT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 93	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 08

PLOT DATE : 11/18/2022 12:05 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

'EW'+93.51
60.00'LT

'EW'+67.01
50.00'LT

'EW'+67.01
16.00'LT

'EW'+65.82
16.00'RT

6' WIDE CLEAR PATH
BEHIND NOISE BARRIER

'EW'+21.97
61.79'LT

'EW'+21.96
50.00'LT

REMOVE ALL GROWTH OFF THE
FRONT FACE OF EXISTING NOISE
BARRIER PAID FOR AS CLEARING

REMOVE ALL GROWTH OFF THE
FRONT FACE OF EXISTING NOISE
BARRIER PAID FOR AS CLEARING

'EW'+07.08
-58.00'LT

'EW'+07.07
-50.00'LT

'EW'+07.01
-16.00'LT

'EW'+07.00
-3.00'LT

'EW'+05.80
3.00'RT

'EW'+05.82
16.00'RT

'EW'+84.42
49.97'LT

'EW'+64.41
60.00'LT

'EW'+49.69
58.00'LT

'EW'+49.69
50.00'LT

'EW'+83.26
16.00'LT

'EW'+49.69
16.00'LT

'EW'+49.73
3.33'LT

'EW'+47.96
3.00'RT

'EW'+47.96
16.00'RT

'EW'+87.99
16.00'RT

'EW'+47.96
50.00'RT

'EW'+47.97
58.00'RT

'EW'+63.04
58.00'RT

'EW'+63.04
62.00'RT

'EW'+81.01
62.00'RT

'EW'+50.48
61.00'RT

'EW'+65.82
50.20'RT

'EW'+91.00
62.00'RT

'EW'+05.82
50.00'RT

'EW'+05.82
58.00'RT

'EW'+00.02
63.62'LT

190'TCD'

192'TCD'

194'TCD'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

190'EW'

192'EW'

194'EW'

196'EW'

198'EW'

200'EW'

202'EW'

204

192'TCA'

190'TCA'

S. 51ST ST

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 94	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 09

PLOT DATE : 11/11/2022 8:49 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

'EW'+17.18
62.81'LT

'EW'+61.40
70.00'LT

'EW'+61.46
50.00'LT

'EW'+13.71
78.96'LT

'EW'+14.06
63.14'LT

'EW'+63.00
50.00'LT

'EW'+00.00
50.00'RT

'EW'+99.77
61.73'RT

'EW'+62.57
62.00'RT

206'LRC'
208'LRC'
210'LRC'
212'LRC'
214'LRC'
216'LRC'
218'LRC'

206'EW'
208'EW'
210'EW'
212'EW'
214'EW'
216'EW'
218'EW'

210'LRB'
212'LRB'
214'LRB'
216'LRB'
218'LRB'

IH 41 NB/43 SB/894 WB

RAMP LRC

IH 41 SB/43 NB/894 EB

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 95	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 10

PLOT DATE : 11/11/2022 8:52 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

226'LRC'

228'LRC'

224'LRC'

218'LRD'

216'LRD'

220'LRD'

222'LRD'

214'LRD'

'LRC'+44.77
2.00'LT

'LRC'+44.77
16.48'RT

'LRC'+70.03
17.56'RT

'LRC'+70.10
19.56'RT

'LRC'+90.19
34.07'RT

'LRC'+83.33
56.19'RT

'LRD'+04.96
19.43'RT

'LRD'+96.37
17.69'RT

'LRD'+96.37
1.68'LT

'LRD'+57.80
19.00'RT

'LRC'+46.88
24.00'RT

'LRC'+60.37
2.00'LT

'LRC'+31.21
18.78'RT

'EW'+18.60
61.06'LT

'LRC'+93.68
18.04'RT

220'LRC'

RAMP LRC

222'LRC'

'LRD'+10.90
21.98'RT

'LRD'+60.83
19.99'RT

'LRD'+10.83
0.00'

'LRD'+60.84
0.00'LT

RAMP LRD

'EW'+98.01
60.00'LT

'EW'+02.28
65.77'LT

'EW'+02.49
60.00'LT

'EW'+02.49
50.00'LT

224'LRD'

226'LRD'

228'LRD'

230'LRE'

232'LRE'

RAMP LRE

'EWW'+70.74
58.00'LT

'EWW'+91.54
59.51'LT

'EWW'+91.53
47.00'LT

IH 41 NB/43 SB/894 WB

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWW'

IH 41 SB/43 NB/894 EB

'LRB'+50.44
18.52'LT

'EW'+17.27
50.00'RT

'EW'+02.49
50.00'LT

230'EWE

232'EWE

234'EWE

220'LRB'

'LRB'+50.44
0.00'

'EW'+17.27
60.00'RT

'EW'+17.46
62.44'RT

'LRB'+00.45
18.52'LT

'LRB'+00.45
0.00'

'LRB'+70.07
-17.00'LT

'LRB'+70.07
2.00'RT

'LRB'+69.72
-24.44'LT

226'LRB'

RAMP LRB

228'LRB'

'LRB'+69.72
8.77'RT

'LRB'+69.72
10.77'RT

STH 36/W. LOOMIS RD

'LRA'+21.73
-34.00'LT

'LRA'+21.72
-31.86'LT

RAMP LRA

232'LRA'

230'LRA'

'LRA'+21.65
0.00'

'LRA'+21.65
2.01'RT

234'LE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 96	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 11

PLOT DATE : 11/11/2022 8:55 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

'LRE'+81.08
5.84'LT

'LRE'+81.08
17.00'RT

'LRE'+31.08
-6.00'LT

'EWW'+02.65
51.00'LT

'EWW'+88.60
51.00'LT

'EWW'+88.44
47.00'LT

'EWW'+60.70
-49.08'LT

'EWW'+73.25
-49.07'LT

'EWW'+73.25
-47.06'LT

'EWW'+47.87
-47.00'LT

236'LRE'

RAMP LRE

238'LRE'

240'LRE'

'LRE'+62.25
0.04'RT

IH 41 NB/43 SB/894 WB

236'EWW'

238'EWW'

240'EWW'

242'EWW'

244'EWW'

246'EWW'

248'EWW'

'EWW'+89.73
-60.51'LT

'EWW'+89.47
-55.00'LT

'LRE'+31.08
17.00'RT

'EWW'+66.53
1.09'LT

'EWW'+52.20
1.07'LT

'EWW'+58.85
5.64'RT

'EWW'+47.87
-1.00'LT

'EWW'+07.87
-1.02'LT

'EWW'+15.28
6.55'RT

'EWE'+96.52
36.00'RT

'EWE'+96.52
46.00'RT

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

RAMP LRA

236'LRA'

238'LRA'

240'LRA'

242'LRA'

246'LRA'

IH 41 SB/43 NB/894 EB

'LRA'+71.95
-29.00'LT

'LRA'+21.92
-26.98'LT

'LRA'+21.91
0.00'

'LRA'+71.91
0.00'

'EWE'+90.81
36.00'RT

'EWE'+90.96
47.37'RT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 97	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 12

PLOT DATE : 11/11/2022 8:57 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 249'EWW'+00

250'EWW'

252'EWW'

254'EWW'

256'EWW'

258'EWW'

260'EWW'

250'EWE'

252'EWE'

254'EWE'

256'EWE'

258'EWE'

260'EWE'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S. 35TH ST

'EWW'+87.05
57.92'LT

'EWW'+87.05
47.01'LT

'EWW'+78.21
58.96'LT

'EWW'+17.85
54.06'LT

'EWW'+36.78
48.55'LT

'EWW'+36.78
47.00'LT

'EWW'+87.05
1.01'LT

'EWW'+37.06
1.00'LT

'EWW'+25.33
6.06'RT

'EWE'+60.50
11.54'LT

'EWE'+60.51
8.31'LT

'EWE'+45.49
8.29'LT

'EWE'+45.38
2.00'RT

'EWE'+97.22
3.46'LT

'EWE'+95.41
2.00'RT

'EWE'+95.37
36.00'RT

'EWE'+33.46
47.36'RT

'EWE'+59.95
47.34'RT

'EWE'+45.00
36.00'RT

'EWE'+44.90
45.74'RT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS	SHEET 98	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-021101-RM.DWG
LAYOUT NAME - 13

PLOT DATE : 11/11/2022 9:00 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

RECONSTRUCT

LANE LINES

A — HMA PAVEMENT 4 SMA 58-28 V, 1 3/4-INCH OVER
HMA PAVEMENT 3 HT 58-28 H, 2 1/4-INCH

B — HMA PAVEMENT 4 SMA 58-28 V, 1 3/4-INCH OVER
HMA PAVEMENT 3 HT 58-28 H, 3 1/4-INCH OVER
HMA PAVEMENT 3 HT 58-28 H, 3 1/4-INCH OVER
HMA PAVEMENT 3 HT 58-28 H, 3 1/4-INCH

C — HMA PAVEMENT 4 MT 58-28 S, 2-INCH

D — HMA PAVEMENT 4 SMA 58-28 V, VARIES 2-INCH TO 4-INCH

CG03 — CURB RAMP TYPE 2

CG16 — CONCRETE CURB AND GUTTER 31-INCH

CG17 — CONCRETE CURB AND GUTTER 31-INCH REVERSE SLOPE

CG31 — CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D

CG43 — CURB RAMP TYPE 4B1

CG58 — CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D REVERSE SLOPE

CM02 — CONCRETE MEDIAN SLOPED NOSE TYPE 2

CM07 — CONCRETE SIDEWALK 5-INCH

BG16 — MGS THRIE BEAM TRANSITION

BG17 — MGS GUARDRAIL TERMINAL EAT

CB02 — CONCRETE BARRIER TYPE S42

CB03 — CONCRETE BARRIER TYPE S56

CB04 — CONCRETE BARRIER TYPE S42A

CB06 — CONCRETE BARRIER TYPE S42C

CB07 — CONCRETE BARRIER TYPE S56C

CB39 — CONCRETE BARRIER TRANSITION TYPE S32 TO S36

CB40 — CONCRETE BARRIER TRANSITION TYPE S36 TO S42

CB48 — END ANCHORAGE (INCIDENTAL TO SINGLE SLOPE CONCRETE BARRIER)

CB49 — CONCRETE BARRIER TRANSITION TYPE S42 TO S56

CB52 — CONCRETE BARRIER TYPE S56A

CB61 — CONCRETE BARRIER SINGLE SLOPE THRIE BEAM ANCHOR (INCIDENTAL TO SINGLE SLOPE CONCRETE BARRIER)

CB62 — CONCRETE BARRIER TYPE S42B

CB63 — CONCRETE BARRIER TRANSITION TYPE M1

CB64 — CONCRETE BARRIER TRANSITION TYPE M2

CB65 — CONCRETE BARRIER TRANSITION TYPE M3

CB72 — CONCRETE BARRIER TRANSITION TYPE NJ32SF TO S36

CB74 — CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED WITH 24-INCH PAN

CB75 — CONCRETE BARRIER TRANSITION TYPE M4

CB82 — CONCRETE BARRIER TRANSITION TYPE M5

CB85 — CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED

CB94 — CONCRETE BARRIER TRANSITION TYPE M6

CB97 — CONCRETE BARRIER TRANSITION TYPE M7

CB98 — CONCRETE BARRIER TYPE S56B

CB105 — CONCRETE BARRIER TRANSITION TYPE M8

CB106 — CONCRETE BARRIER TRANSITION TYPE M9

CB107 — CONCRETE BARRIER TRANSITION TYPE M10

CB108 — CONCRETE BARRIER TRANSITION TYPE M11

CB109 — CONCRETE BARRIER TRANSITION TYPE M12

CB112 — CONCRETE BARRIER TYPE S42 LIGHT POLE BASE

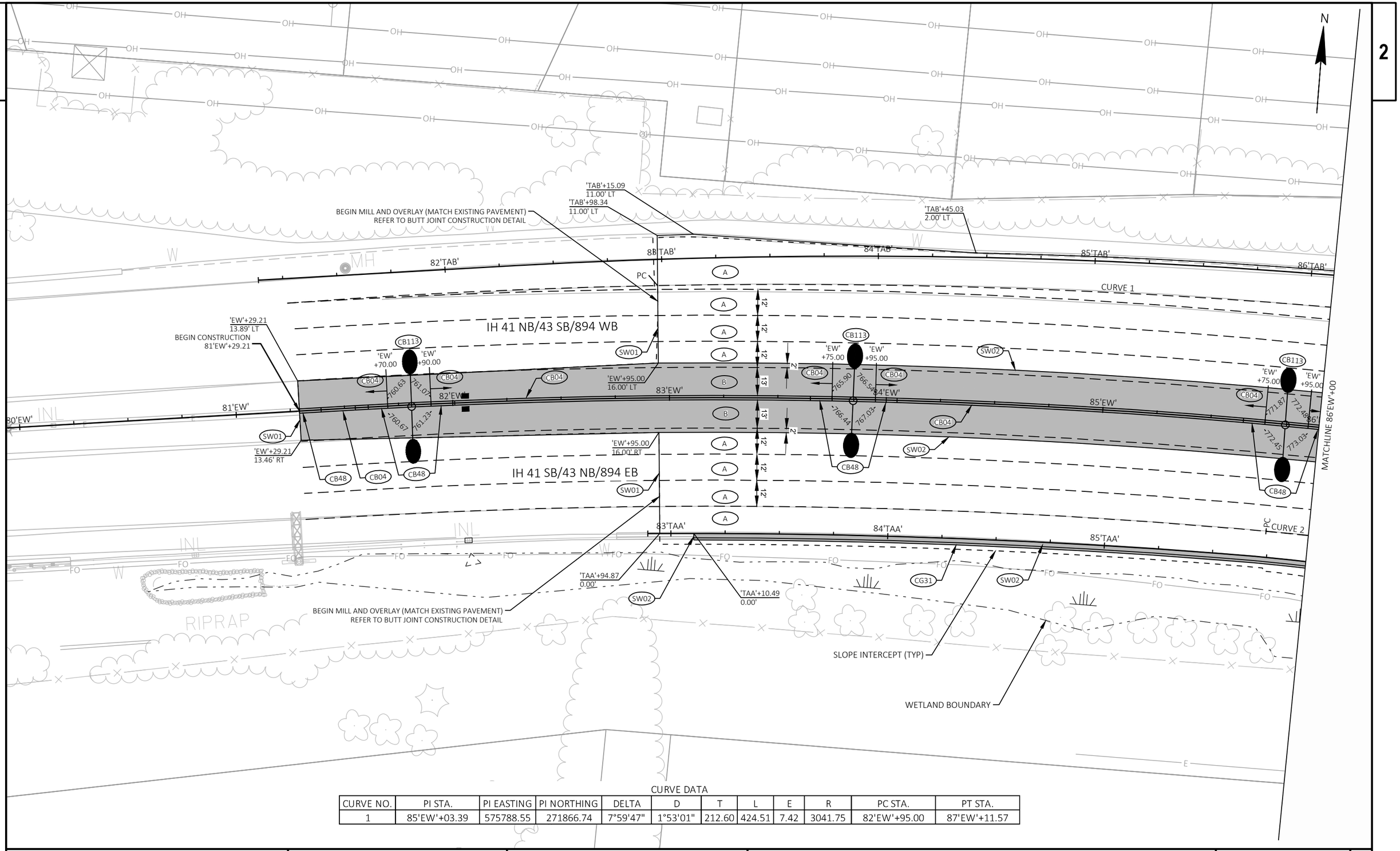
CB113 — CONCRETE BARRIER TYPE S42A LIGHT POLE BASE

CB114 — CONCRETE BARRIER TYPE S56 LIGHT POLE BASE

CB115 — CONCRETE BARRIER TYPE S56A LIGHT POLE BASE

SW01 — SAWING ASPHALT

SW02 — SAWING CONCRETE



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
1	85'EW'+03.39	575788.55	271866.74	7°59'47"	1°53'01"	212.60	424.51	7.42	3041.75	82'EW'+95.00	87'EW'+11.57

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 100	E

2

N

MATCHLINE 86'EW'+00

MATCHLINE 92'EW'+00

'TAB'+15.61
2.00' LT

'TAB'+14.67
2.00' LT

'TAB'+15.61
16.50' RT

'EW'+99.10
58.00' LT

'EW'+99.10
50.00' LT

'EW'+91.23
50.00' RT

'EW'+91.16
58.00' RT

'TAA'+75.43
0.00'

'TAA'+75.44
16.91' LT

'TAA'+49.27
15.00' LT

'TAA'+49.27
0.00'

'TAA'+35.95
15.00'LT

'TAA'+10.95
22.00'LT

87'TAB'
88'TAB'
89'TAB'
90'TAB'
91'TAB'
92'TAB'

86'TAA'
87'TAA'
88'TAA'
89'TAA'
90'TAA'
91'TAA'

CURVE 1
CURVE 2
CURVE 3
CURVE 4

PC
PT
PCC

RAMP TAB
RAMP TAA

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

RECONSTRUCT AT
EXISTING SHOULDER

CURB AND GUTTER TRANSITION

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY

CB04 CB48 CB112 CB113 CG17 CG31 CG58 SW02 MH

87'EW' 88'EW' 89'EW' 90'EW' 91'EW' 92'EW'

'EW' +75.00 'EW' +95.00 'EW' +71.00 'EW' +91.00 'EW' +80.00

277.94 278.67 778.49 779.17 783.80 784.42 784.07 784.68 789.97 790.63 790.14 790.75

12' 13' 2' 8'

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
2	86'EW'+66.00	575950.16	271753.99	8°41'17"	5°09'12"	84.46	168.59	3.20	1111.82	85'EW'+80.05	87'EW'+51.55
3	88'EW'+49.05	576127.74	271723.55	6°23'27"	3°20'31"	95.71	191.23	2.67	1714.41	87'EW'+51.55	89'EW'+44.68
4	88'EW'+70.41	576163.20	271851.48	0°54'29"	1°33'45"	29.05	58.11	0.12	3666.63	88'EW'+41.05	88'EW'+98.69

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 101	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 11/14/2022 6:34 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

WETLAND BOUNDARY

RAMP TAB

93'TAB'

94'TAB'

95'TAB'

S. 84TH ST

22'TA'

21'TA'

20'TA'

19'TA'

SLOPE INTERCEPT (TYP)

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

B-40-191

B-40-192

MATCH PAVEMENT REFER TO BUTTED JOINT AT BRIDGE CONSTRUCTION DETAIL

RECONSTRUCT AT EXISTING SHOULDER

MATCHLINE 92'EW'+00

MATCHLINE 98'EW'+00

92'EW'

93'EW'

94'EW'

95'EW'

96'EW'

97'EW'

98'EW'

'EW'+33.88 58.00' LT

'EW'+09.74 60.00' LT

'EW'+10.78 50.00' LT

'EW'+93.88 60.00' LT

'EW'+14.30 16.00' LT

'EW'+95.74

'EW'+17.61 16.00' RT

'EW'+14.52 60.00' LT

'EW'+29.52 62.00' LT

'EW'+89.52 60.00' LT

'EW'+99.05 60.00' LT

'EW'+00.09 50.00' LT

'EW'+03.65 15.94' LT

'EW'+25.53

'EW'+07.00 16.06' RT

'EW'+99.36 60.00' RT

'EW'+99.36 61.00' RT

'EW'+93.14 62.00' RT

'EW'+21.14 50.00' RT

'EW'+33.14 60.00' RT

'EW'+22.17 60.00' RT

'EW'+08.14 60.00' RT

'EW'+10.54 50.00' RT

'EW'+11.59 60.00' RT

'EW'+27.32 60.00' RT

'EW'+87.50 58,13' RT

794.88

795.13

794.82

795.10

792.41

792.09

92'TAA'

93'TAA'

94'TAA'

95'TAA'

RAMP TAA

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 102	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 03
PLOT DATE : 11/14/2022 6:37 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

WETLAND BOUNDARY

SIGN

EXISTING STRUCTURE
STA 103EW+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT
EXISTING SHOULDER

RECONSTRUCT AT
EXISTING SHOULDER

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY

MATCHLINE 98'EW'+00

MATCHLINE 104'EW'+00

99'EW'

100'EW'

101'EW'

102'EW'

103'EW'

104

CB02 CB48 CB112 SW02 CB49 CB62 CB64 CB03 CG31

'EW'+58.86 60.00' LT

'EW'+18.86 63.21' LT

'EW'+33.86 63.21' LT

'EW'+18.86 50.00' LT

'EW'+10.00

'EW'+90.00

'EW'+95.00 3.00' LT

'EW'+05.00 3.00' LT

'EW'+45.00 0.00'

'EW'+96.00

'EW'+55.00 0.00'

'EW'+95.00 3.00' RT

'EW'+05.00 3.00' RT

'EW'+30.50 0.00'

791.74

791.70

788.30

787.85

788.15

787.82

784.63

784.15

784.52

784.18

13' D

12' A

12' A

12' A

2'

13' B

2'

12' A

12' A

12' A

8' B

FO OH MP INL

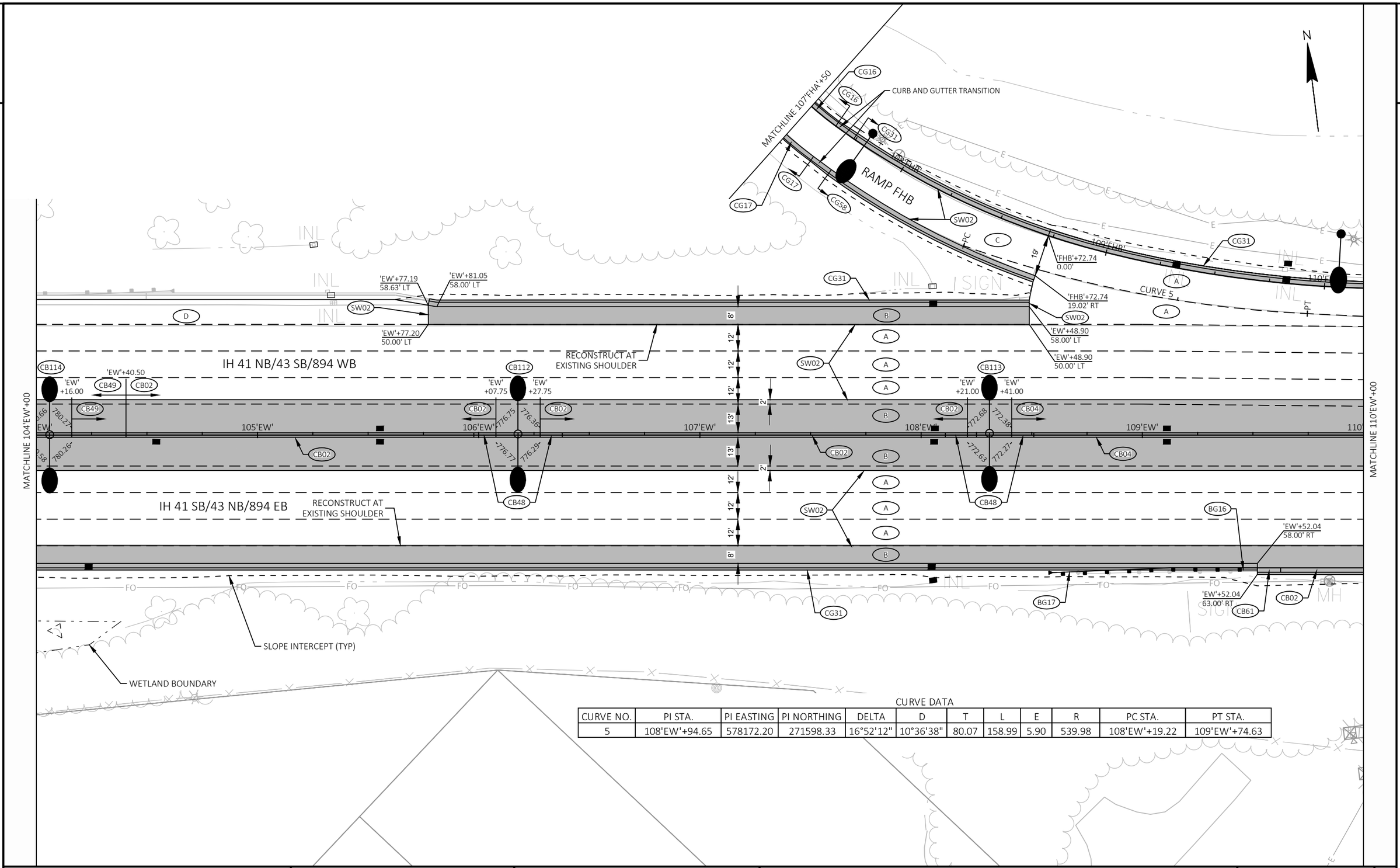
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 103	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 04

PLOT DATE : 11/14/2022 6:40 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
5	108'EW'+94.65	578172.20	271598.33	16°52'12"	10°36'38"	80.07	158.99	5.90	539.98	108'EW'+19.22	109'EW'+74.63

2

N

STH 24/W. FOREST HOME AVE

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT EXISTING SHOULDER

RAMP FHA 115'FHA'

CURVE 6

CURVE 7

MATCHLINE 110'EW'+00

MATCHLINE 116'EW'+00

MATCHLINE 114'FHB'+00

CG31

REFER TO IH 894 PAVING DETAIL AT OVERHEAD STRUCTURE CONSTRUCTION DETAIL

B-40-166

B-40-151 & B-40-165

SLOPE INTERCEPT (TYP)

'FHB'+14.43 3.50' LT

'FHB'+14.43 0.00'

'FHB'+63.99 5.00' LT

'FHB'+68.64 5.00' LT

'FHB'+07.64 5.00' LT

CB74 CB48 CB03 CB49 CB02 SW02 A

111'FHB' 112'FHB' 113'FHB' 114'FHB' 115'FHB' 116'FHB'

CB113 CB04 CB49 CB65 CB85 CB07 CB03 CB48 B C CM02

'EW' +29.00 'EW' +49.00 'EW' +05.77

771.25 771.36 769.67 769.54 774.45 775.07 774.74

111'EW' 112'EW' 113'EW' 114'EW' 115'EW' 116

'EW'+82.13 'EW'+06.63 'EW'+46.63 3.00' LT 'EW'+06.63 3.00' LT 'EW'+76.91 3.00' LT 'EW'+21.27 3.00' LT 'EW'+61.27 'EW'+85.77

*SEE NOTE 1

'EW'+46.63 3.00' RT 'EW'+06.63 3.00' RT 'EW'+76.99 3.00' RT 'EW'+21.27 3.00' RT

'EW'+42.03 58.00' RT

'EW'+95.86 50.00' RT 'EW'+95.86 58.00' RT 'FHA'+88.12 15.00' LT 'FHA'+88.12 0.00'

'EW'+05.57 63.00' RT 'EW'+53.21 63.00' RT 'EW'+15.61 63.00' RT 'EW'+42.03 61.50' RT

10' TRANSITION FROM REVERSE SLOPE TO STANDARD CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D

CG58 SW02 CG31

12' 12' 12' 12' 12' 12' 4' 11' 13' 2' 8' 15'

6'

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
6	113'FHA'+45.92	578626.31	271362.96	25°30'19"	6°05'02"	213.15	419.23	23.82	941.77	111'FHA'+37.27	115'FHA'+54.15

NOTES:
1. USE CONSTRUCTION DETAIL "CONCRETE BARRIER TYPE S56C AT FOREST HOME AVENUE AND 76TH STREET BRIDGE MEDIAN PIERS" FOR CONCRETE BARRIER TYPE S56C MODIFICATION AT EXISTING BRIDGE PIERS

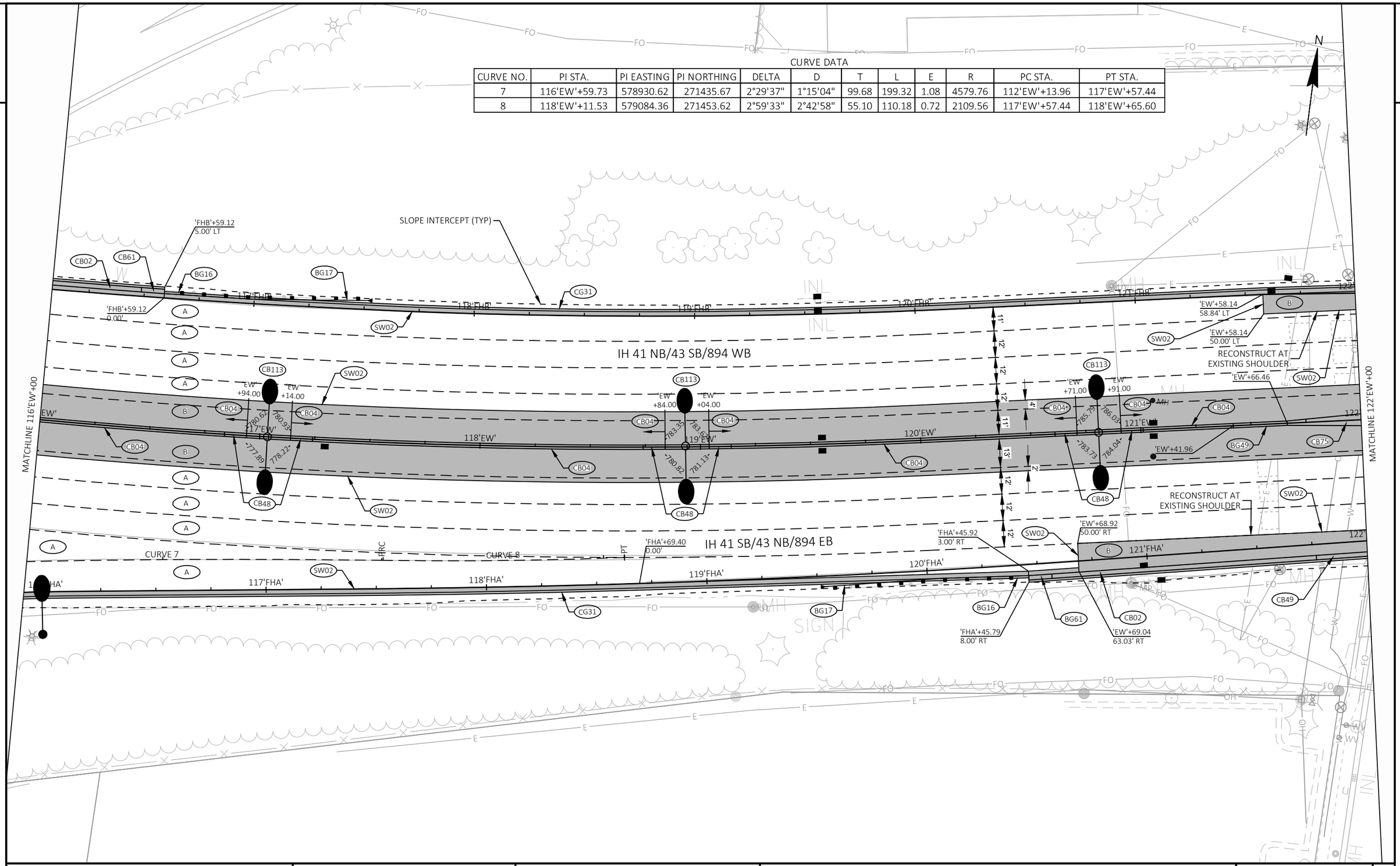
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 105	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 06
PLOT DATE : 11/14/2022 6:46 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
7	116'EW'+59.73	578930.62	271435.67	2°29'37"	1°15'04"	99.68	199.32	1.08	4579.76	112'EW'+13.96	117'EW'+57.44
8	118'EW'+11.53	579084.36	271453.62	2°59'33"	2°42'58"	55.10	110.18	0.72	2109.56	117'EW'+57.44	118'EW'+65.60

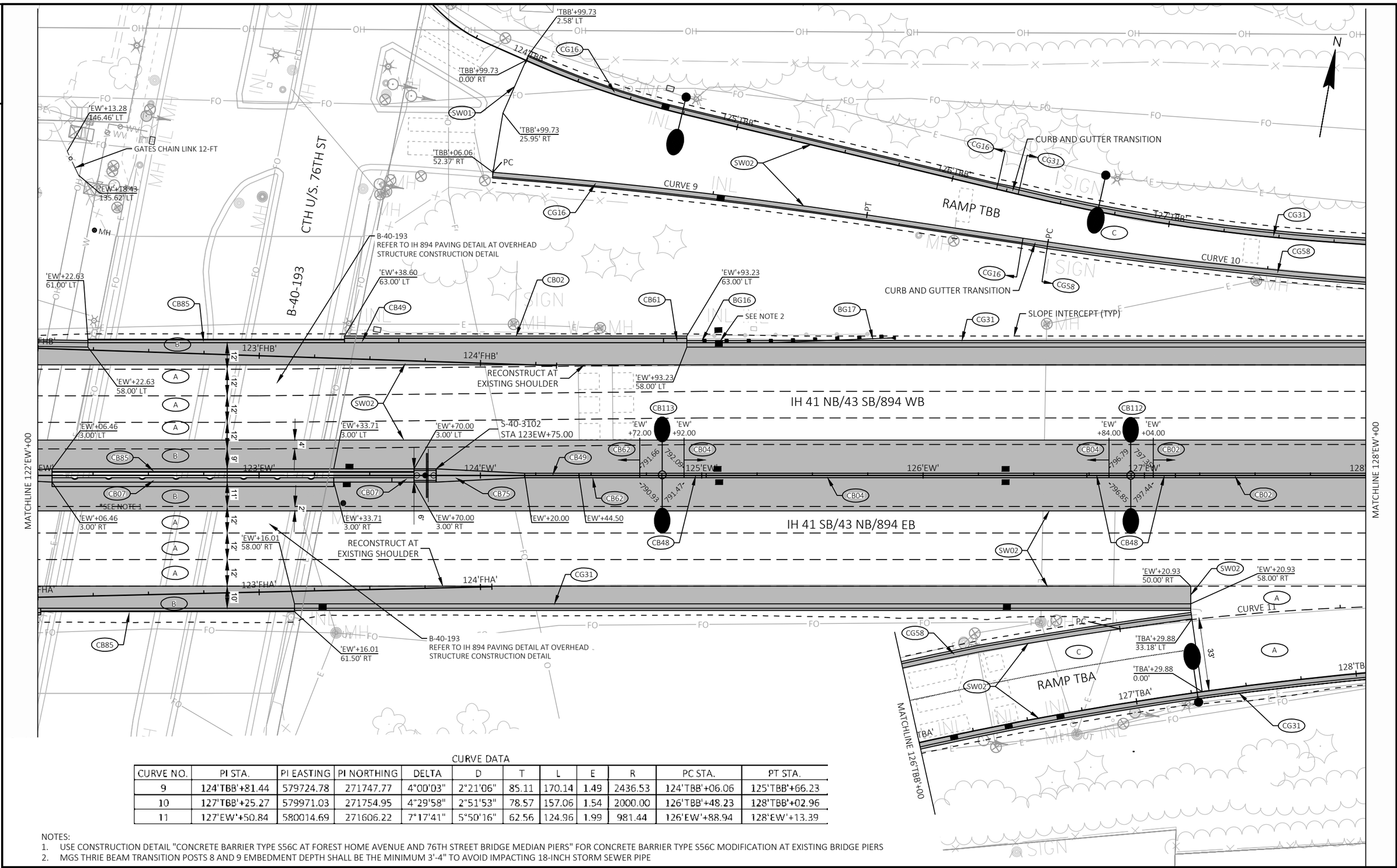


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 106	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 07

PLOT DATE : 11/14/2022 6:48 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
9	124'TBB'+81.44	579724.78	271747.77	4°00'03"	2°21'06"	85.11	170.14	1.49	2436.53	124'TBB'+06.06	125'TBB'+66.23
10	127'TBB'+25.27	579971.03	271754.95	4°29'58"	2°51'53"	78.57	157.06	1.54	2000.00	126'TBB'+48.23	128'TBB'+02.96
11	127'EW'+50.84	580014.69	271606.22	7°17'41"	5°50'16"	62.56	124.96	1.99	981.44	126'EW'+88.94	128'EW'+13.39

NOTES:
1. USE CONSTRUCTION DETAIL "CONCRETE BARRIER TYPE S56C AT FOREST HOME AVENUE AND 76TH STREET BRIDGE MEDIAN PIERS" FOR CONCRETE BARRIER TYPE S56C MODIFICATION AT EXISTING BRIDGE PIERS
2. MGS THRIE BEAM TRANSITION POSTS 8 AND 9 EMBEDMENT DEPTH SHALL BE THE MINIMUM 3'-4" TO AVOID IMPACTING 18-INCH STORM SEWER PIPE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 107	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 08
PLOT DATE : 11/17/2022 6:53 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

SLOPE INTERCEPT (TYP)

CG31 CG31 CG58 CG31

SW02 SW02 SW02 SW02 SW02

CB48 S-40-801 CB07 CB03

CB112 CB112 CB112

CB02 CB04 CB49 CB82

'TBB'+08.46 15.00' RT

'TBB'+42.32 0.00'

'TBB'+42.32 15.00' RT

'EW'+53.42 58.00' LT

'TBB'+42.03 19.87' RT

'EW'+53.42 50.00' LT

'TBB'+25.00 5.00'LT

'TBB'+25.00 0.00'

'EW'+05.28 71.02' LT

'EW'+75.00

'EW'+97.50

'EW'+42.50 3.00' LT

'EW'+57.50 3.00' LT

'EW'+78.00

'EW'+02.50

'EW'+42.50 3.00' RT

'EW'+57.50 3.00' RT

RECONSTRUCT AT EXISTING SHOULDER

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 128'EW'+00

MATCHLINE 134'EW'+00

129'EW' 130'EW' 131'EW' 132'EW' 133'EW' 134

129'TBA' 130'TBA' 131'TBA' 132'TBA' 133'TBA' 134'TBA'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 108	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 09
PLOT DATE : 11/14/2022 6:54 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

SLOPE INTERCEPT (TYP)

RECONSTRUCT AT EXISTING SHOULDER

RECONSTRUCT AT EXISTING SHOULDER

MATCHLINE 134'EW'+00

MATCHLINE 140'EW'+00

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
12	137'EW'+13.23	580943.90	271893.82	1°32'14"	0°57'31"	80.19	160.37	0.54	5977.62	136'EW'+34.75	137'EW'+91.71
13	138'EW'+99.52	581133.39	271911.17	3°30'07"	1°35'25"	110.13	220.20	1.68	3602.71	137'EW'+91.71	140'EW'+07.36

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 109	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 10

PLOT DATE : 11/14/2022 6:57 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

SLOPE INTERCEPT (TYP)

PT

TBB'

CG31

IH 41 NB/43 SB/894 WB

RECONSTRUCT AT
EXISTING SHOULDER

CB113 'EW' +92.00 'EW' +12.00

CB113 'EW' +93.00 'EW' +13.00

CB112 'EW' +13.00 'EW' +33.00

SW02

CB04

CB02

-799.50 -799.02 -799.90 -799.37 -794.32 -793.98 -794.47 -793.86 -788.90 -788.33 -788.70 -788.16

141'EW' 142'EW' 143'EW' 144'EW' 145'EW' 146

8' 12' 12' 12' 13' 2' 13' 12' 12' 12' 8'

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT
EXISTING SHOULDER

CB48

CG31

MATCHLINE 140'EW'+00

MATCHLINE 146'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 110	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 11

PLOT DATE : 11/14/2022 7:00 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

S. 68TH ST

B-40-1002

SLOPE INTERCEPT (TYP)

B-40-1002
REFER TO IH 894 PAVING DETAIL AT OVERHEAD
STRUCTURE CONSTRUCTION DETAIL

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT
EXISTING SHOULDER

B-40-1002
REFER TO IH 894 PAVING DETAIL AT OVERHEAD
STRUCTURE CONSTRUCTION DETAIL

MATCHLINE 146'EW'+00

MATCHLINE 152'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 111	E

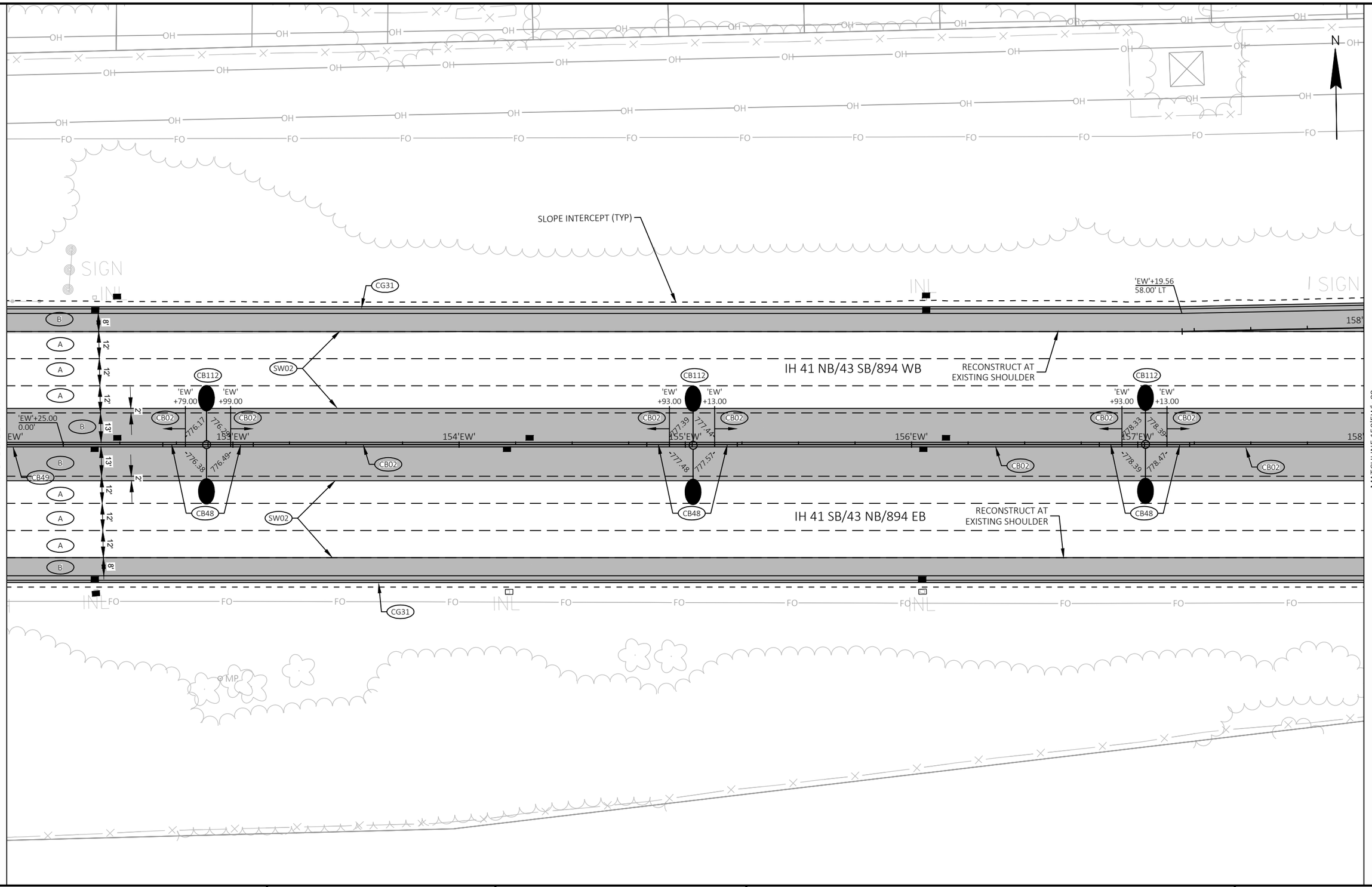
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 12

PLOT DATE : 11/14/2022 7:03 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 112	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 13

PLOT DATE : 11/14/2022 7:07 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY

CG31

'TCC'+16.39
8.00' LT

SW02

'EW'+16.50
50.00' LT

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 NB/43 SB/894 WB

'TCC'
159'TCC'
160'TCC'
161'TCC'
162'TCC'
163'TCC'
164'

CB112
'EW'
+93.75
+13.75
+93.00
+13.00
+94.00
+14.00

CB02

CB48

779.40
779.45
779.52
779.36
779.96
779.80
779.89
779.73
777.37
777.01
777.53
777.12

'EW'
159'EW'
160'EW'
161'EW'
162'EW'
163'EW'
164'

A 12'
A 12'
A 12'
B 13'
2'
B 13'
2'
A 12'
A 12'
A 12'
B 13'

MATCHLINE 158'EW'+00

MATCHLINE 164'EW'+00

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 SB/43 NB/894 EB

'EW'+34.06
50.00' RT

'EW'+34.06
62.30' RT

'EW'+52.72
58.00' RT

159'TCB'
160'TCB'
161'TCB'
162'TCB'
163'TCB'
164'

A
B

FO
SIGN
INL
SLAB

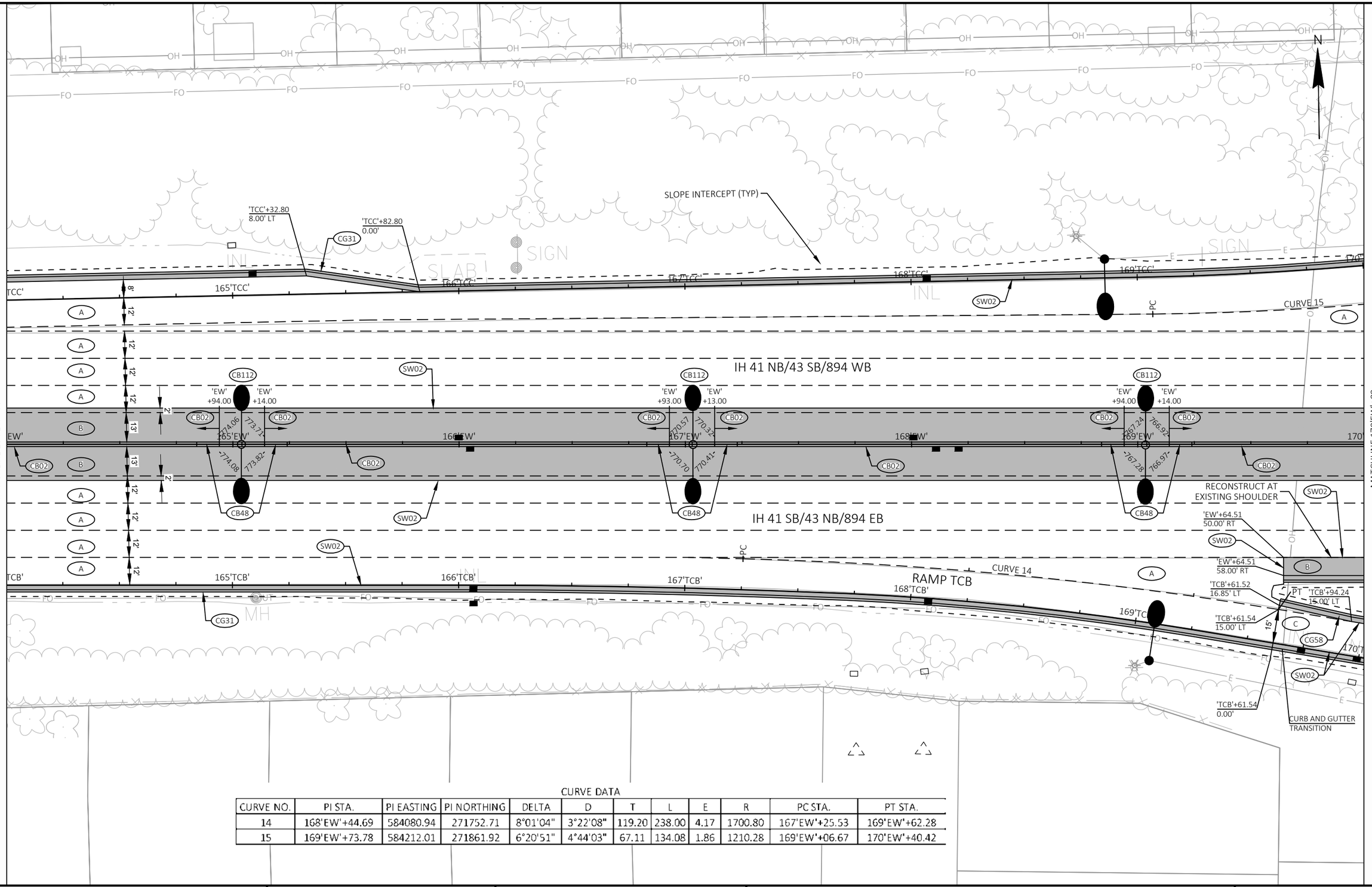
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 113	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 14

PLOT DATE : 11/14/2022 7:10 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
14	168'EW'+44.69	584080.94	271752.71	8°01'04"	3°22'08"	119.20	238.00	4.17	1700.80	167'EW'+25.53	169'EW'+62.28
15	169'EW'+73.78	584212.01	271861.92	6°20'51"	4°44'03"	67.11	134.08	1.86	1210.28	169'EW'+06.67	170'EW'+40.42

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 114	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 15
PLOT DATE : 11/14/2022 7:13 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

MATCHLINE 170'EW'+00

MATCHLINE 176'EW'+00

N

S. 60TH ST

'TCC'+81.92
0.00'

174'TCC'

175'TCC'

SW01

CG16

CURB AND GUTTER TRANSITION

'TCC'+39.10
0.00'

173'TCC'

RAMP TCC

SW02

'TCC'+81.91
19.00' RT

CG31

CG16

CG17

172'TCC'

171'TCC'

'TCC'+39.10
16.63' RT

'EW'+40.78
58.00' LT

PT

CG58

CG58

CURB AND GUTTER TRANSITION

CG17

CG31

SLOPE INTERCEPT (TYP)

B-40-1013
REFER TO IH 894 PAVING DETAIL AT OVERHEAD
STRUCTURE CONSTRUCTION DETAIL

SW02

'EW'+40.83
50.00' LT

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 NB/43 SB/894 WB

CB112

'EW'
+93.00

'EW'
+13.00

CB112

'EW'
+94.00

'EW'
+14.00

SW02

'EW'+65.50
1.00' LT

CB49

CB105

'EW'+50.00
4.00' LT

*SEE NOTE 1

CB03

CB02

CB02

CB02

CB02

CB02

CB02

CB02

CB02

171'EW'

172'EW'

173'EW'

174'EW'

175'EW'

763.81

763.49

760.51

760.25

763.83

763.50

760.63

760.33

CB48

CB48

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT
EXISTING SHOULDER

SW02

'EW'+65.50
1.00' RT

'EW'+50.00
4.00' RT

MH

CB03

CG31

CG58

CG58

CURB AND GUTTER TRANSITION

CG17

CG17

CG31

CG16

CG16

171'TCB'

172'TCB'

173'TCB'

174'TCB'

175'TCB'

RAMP TCB

SW02

'TCB'+73.85
23.25' LT

SW01

'TCB'+73.88
0.00'

54-INCH WATER MAIN INSIDE 84-INCH NEUTRAL
AXIS DIAMETER LINER PLATE TUNNEL

B-40-1013
REFER TO IH 894 PAVING DETAIL AT OVERHEAD
STRUCTURE CONSTRUCTION DETAIL

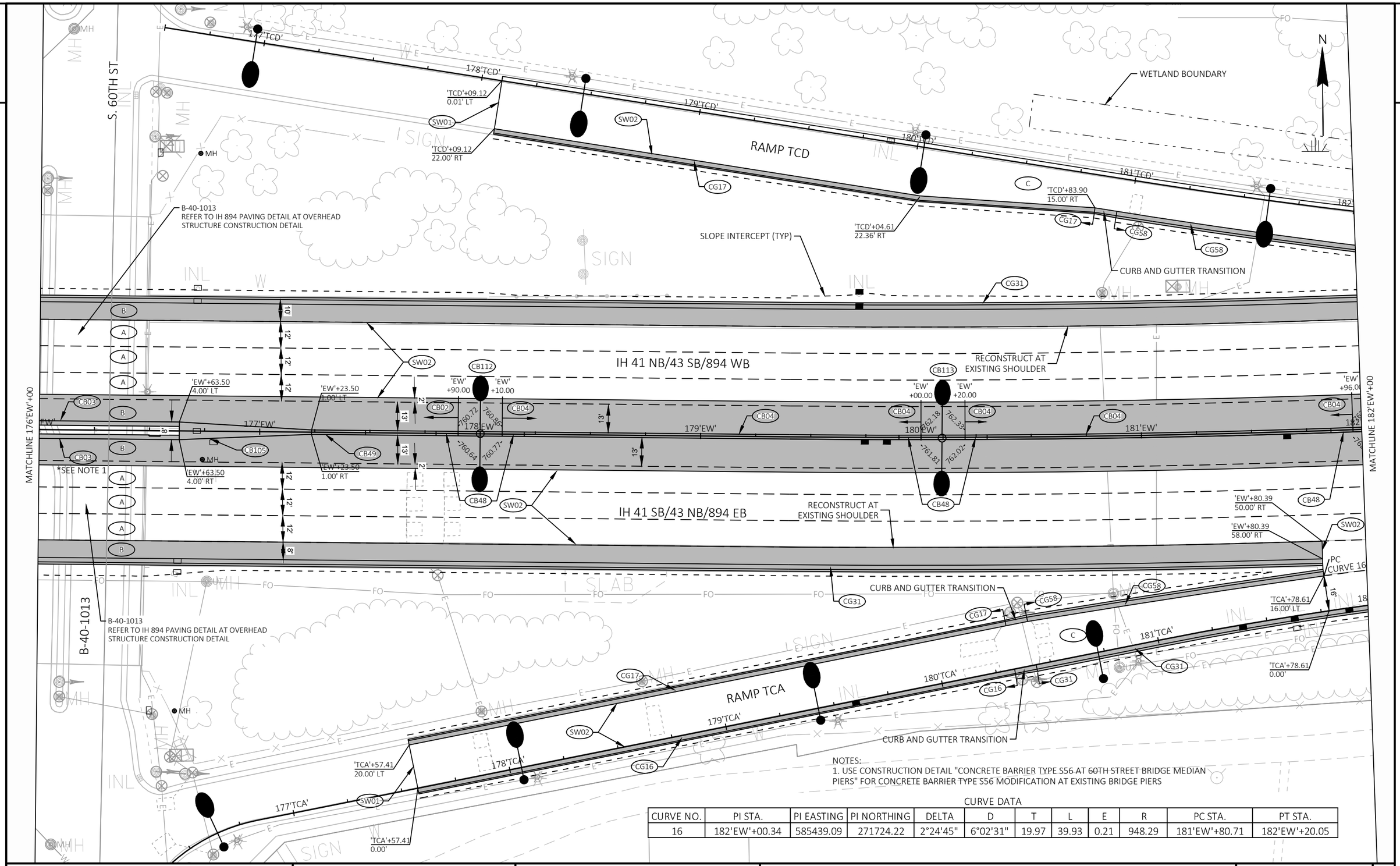
20-INCH WATER MAIN

B-40-1013

WETLAND BOUNDARY

NOTES:
1. USE CONSTRUCTION DETAIL "CONCRETE BARRIER TYPE S56 AT 60TH STREET BRIDGE MEDIAN PIERS" FOR CONCRETE BARRIER TYPE S56 MODIFICATION AT EXISTING BRIDGE PIERS

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 115	E



NOTES:
1. USE CONSTRUCTION DETAIL "CONCRETE BARRIER TYPE S56 AT 60TH STREET BRIDGE MEDIAN PIERS" FOR CONCRETE BARRIER TYPE S56 MODIFICATION AT EXISTING BRIDGE PIERS

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
16	182'EW'+00.34	585439.09	271724.22	2°24'45"	6°02'31"	19.97	39.93	0.21	948.29	181'EW'+80.71	182'EW'+20.05

2

2

WETLAND BOUNDARY

WETLAND BOUNDARY

MP

N

183'TCD'

184'TCD'

185'TCD'

186'TCD'

187'TCD'

'TCD'+77.47
16.00' RT

PC

CURVE 17

PT

'EW'+77.83
58.00' LT

'EW'+77.83
50.00' LT

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 182'EW'+00

MATCHLINE 188'EW'+00

183'EW'

184'EW'

185'EW'

186'EW'

187'EW'

CURVE 16

PT

183'TCA'

184'TCA'

185'TCA'

186'TCA'

187'TCA'

'TCA'+85.02
0.00'

'TCA'+32.50
8.00' RT

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
17	183'EW'+91.75	585625.27	271850.22	8°05'29"	3°29'08"	116.27	232.15	4.11	1643.86	182'EW'+75.61	185'EW'+08.96

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 117	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 18

PLOT DATE : 11/14/2022 7:22 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

WETLAND BOUNDARY

MH

MP

CB40

CB72

'EW'+00.03
66.62' LT

S-40-3100

SAN

PC

CURVE 18

CB02

189'TCD'

190'TCD'

191'TCD'

192'TCD'

193'TCD'

SW02

B

A

11'

12'

13'

'EW'+75.00

CB02

CB04

CB113

'EW'
+90.00

'EW'
+10.00

IH 41 NB/43 SB/894 WB

'EW'+21.96
50.00' LT

RECONSTRUCT AT
EXISTING SHOULDER

766.85

766.98

767.90

768.02

769.73

767.15

767.32

768.61

768.65

770.18

189'EW'

190'EW'

191'EW'

192'EW'

193'EW'

194'

MATCHLINE 188'EW'+00

MATCHLINE 194'EW'+00

CB48

'EW'+08.23
50.00' RT

RECONSTRUCT AT
EXISTING SHOULDER

IH 41 SB/43 NB/894 EB

MANHOLE CAPPED AT
APPROX. 16' UNDER GRADE
SEWER ACTIVE; NO LONGER
ACCESSIBLE
APPROX. CAP @ 751.1

189'TCA'

190'TCA'

191'TCA'

192'TCA'

'EW'+08.23
68.00' RT

CG31

'EW'+10.66
62.00' RT

CURVE 19

WETLAND BOUNDARY

B-40-321

SLOPE INTERCEPT (TYP)

SIGN

FO

OH

N

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
18	192'EW'+62.93	586493.26	271926.27	1°50'44"	0°39'03"	141.77	283.51	1.14	8802.36	191'EW'+21.96	194'EW'+03.90
19	193'EW'+95.50	586632.44	271812.13	2°53'00"	0°30'32"	283.34	566.57	3.56	11258.71	191'EW'+10.66	196'EW'+80.34

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 118	E

2

N

WETLAND BOUNDARY

MH

MP

SIGN

CB02

PT

TCD'

SW02

IH 41 NB/43 SB/894 WB

RECONSTRUCT AT EXISTING SHOULDER

CB113

'EW' +10.00

'EW' +90.00

CB04

CB48

195'EW'

196'EW'

197'EW'

198'EW'

199'EW'

200

-769.88-

-770.41-

-772.57-

-773.31-

-773.70-

-776.90-

-777.33-

-777.49-

-777.88-

-780.83-

-781.21-

MATCHLINE 194'EW'+00

MATCHLINE 200'EW'+00

A

B

10'

12'

2'

13'

8'

IH 41 SB/43 NB/894 EB

CURVE 19

CG31

PT

'EW'+80.34
62.00' RT

'EW'+18.29
58.00' RT

BG17

SLOPE INTERCEPT (TYP)

WETLAND BOUNDARY

ELECTRIC - 3-500CU 25KV

OH

FO

E

W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 119	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 20

PLOT DATE : 11/14/2022 7:28 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

MATCHLINE 200'EW'+00

MATCHLINE 206'EW'+00

WETLAND BOUNDARY

MH

S. 51ST ST

B-40-196 IH 41 NB/43 SB/894 WB

B-40-197 IH 41 SB/43 NB/894 EB

MATCH PAVEMENT REFER TO BUTTED JOINT AT BRIDGE CONSTRUCTION DETAIL

RECONSTRUCT AT EXISTING SHOULDER

SLOPE INTERCEPT (TYP)

S-40-870

201'EW'

202'EW'

203'EW'

204'EW'

205'EW'

205'LRC'

'EW'+64.39 63.00' LT

'EW'+64.39 58.00' LT

'EW'+49.69 58.00' LT

'EW'+17.12 65.81' LT

'EW'+17.20 60.81' LT

'EW'+82.84 63.00' LT

'EW'+93.51 63.00' LT

'EW'+07.08 57.99' LT

'EW'+93.51 58.00' LT

'EW'+80.00

'EW'+20.00 3.00' LT

'EW'+30.00 3.00' LT

'EW'+57.02 3.00' LT

'EW'+07.03 16.00' LT

'EW'+49.70 16.00' LT

'EW'+49.70 3.03' LT

'EW'+48.15 2.96' RT

'EW'+47.97 16.00' RT

'EW'+19.91 3.00' RT

'EW'+30.00 3.00' RT

'EW'+55.80 3.00' RT

'EW'+05.84 16.01' RT

'EW'+50.48 58.00' RT

'EW'+91.00 58.00' RT

'EW'+05.82 58.00' RT

'EW'+91.00 63.00' RT

'EW'+47.97 58.00' RT

'EW'+63.04 58.00' RT

'EW'+63.04 63.00' RT

'EW'+62.57 58.00' RT

'EW'+62.57 63.00' RT

'EW'+50.48 63.00' RT

'EW' +10.00

'EW' +88.83

'EW' +08.83

'EW' +90.00

'EW'+55.50

781.20

781.48

779.73

779.34

779.66

779.35

775.80

775.87

CB02 CB04 CB40 CB48 CB49 CB61 CB72 CB98 CB106 CB107 CB112 CB113 BG16 CG31 SW02

A B 10' 12' 13' 2' 6'

2

2

N

BG17

CG31

SLOPE INTERCEPT (TYP)

207'LRC'

208'LRC'

209'LRC'

210'LRC'

211'LRC'

212'

'EW'+61.46
68.00' LT

'EW'+61.47
50.00' LT

SW02

RECONSTRUCT AT
EXISTING SHOULDER

CB112

'EW'
+10.00

'EW'
+00.00

'EW'
+20.00

'EW'
+90.00

'EW'
+10.00

'EW'+25.00

CB02

CB04

IH 41 NB/43 SB/894 WB

207'EW'

208'EW'

209'EW'

210'EW'

771.51

771.10

771.45

771.11

768.00

767.76

768.10

767.84

775.34

775.40

MH

INL

SAN

SIGN

FO

OH

MP

MATCHLINE 206'EW'+00

MATCHLINE 212'EW'+00

A

B

12'

13'

8'

2'

CB48

IH 41 SB/43 NB/894 EB

ABANDON SANITARY MANHOLE BY OTHERS

210'LRB'

211'LRB'

212'

'EW'+22.64
61.00' RT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 121	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 22

PLOT DATE : 11/14/2022 7:35 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

SLOPE INTERCEPT (TYP)

'LRC'+84.57
8.00' LT

'LRC'+35.87
0.00'

CG31

213'LRC'

214'LRC'

215'LRC'

216'LRC'

217'LRC'

218'LRC'

PC

SW02

CURVE 20

IH 41 NB/43 SB/894 WB

CB113 'EW' +15.00

CB113 'EW' +35.00

CB113 'EW' +90.00

CB113 'EW' +10.00

CB113 'EW' +90.00

CB113 'EW' +90.00

CB04

766.92

767.07

768.89

769.21

771.76

771.98

772.68

213'EW'

214'EW'

215'EW'

216'EW'

217'EW'

218'EW'

767.36

767.71

770.43

770.77

773.51

773.63

774.44

CB48

IH 41 SB/43 NB/894 EB

'EW'+00.00
50.00' RT

'EW'+00.00
61.73' RT

'LRB'+82.92
0.00'

'LRB'+82.92
5.00' RT

'LRB'+19.72
0.00'

'LRB'+19.70
5.00' RT

213'LRB'

214'LRB'

215'LRB'

216'LRB'

217'LRB'

BG17

BG16

CB61

CB49

CB03

CB48

CG31

EXISTING SIGN S-40-812 TO REMAIN

ABANDON SANITARY MANHOLE BY OTHERS

RECONSTRUCT AT
EXISTING SHOULDER

MATCHLINE 212'EW'+00

MATCHLINE 218'EW'+00

A 12'

B 13'

2'

SAN

INL

MH

OH

FO

N

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
20	216'EW'+48.08	588888.48	271928.01	5°59'47"	1°22'00"	219.60	438.80	5.75	4192.71	214'EW'+33.13	218'EW'+62.90

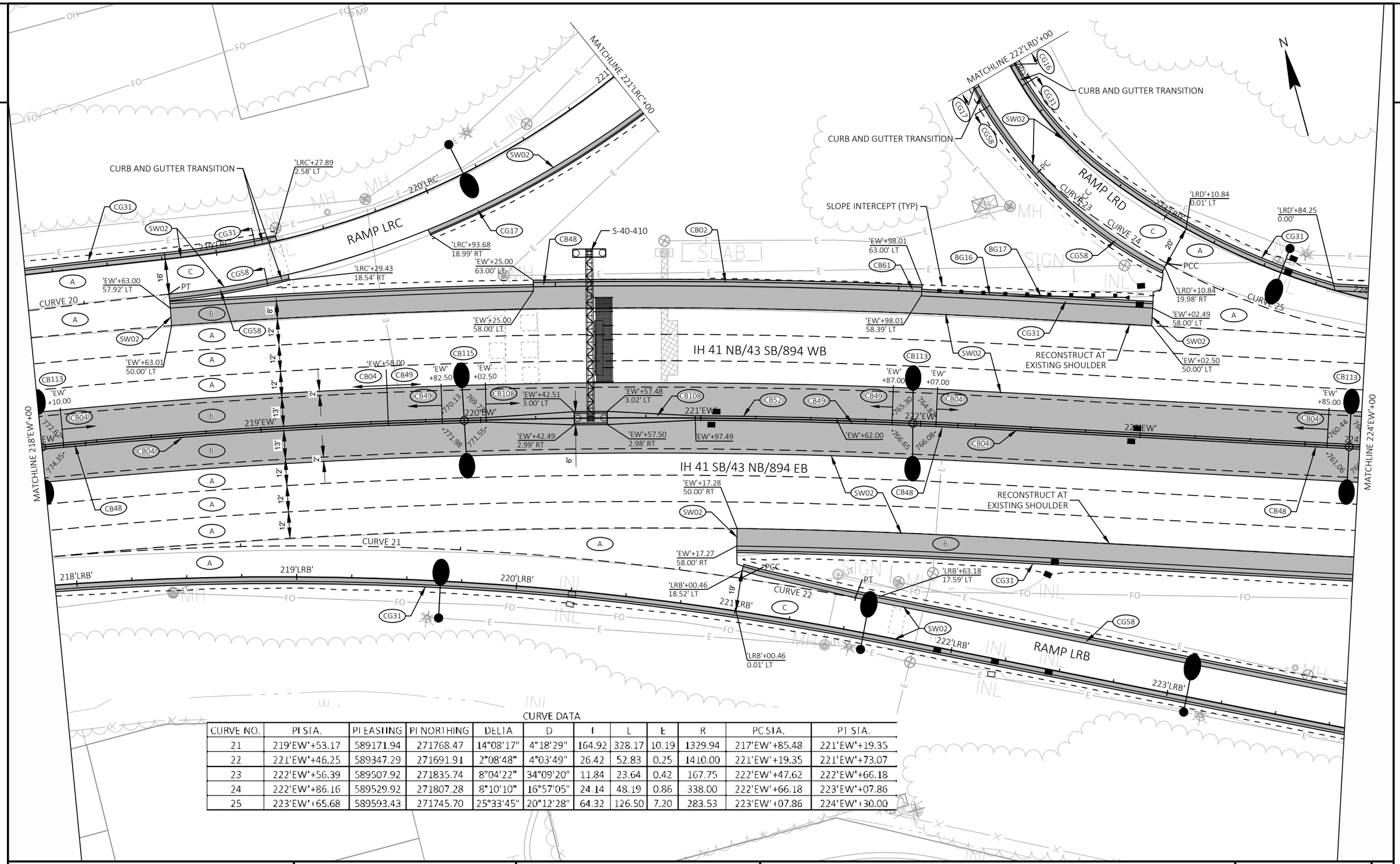
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 122	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 23

PLOT DATE : 11/14/2022 7:38 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PI STA.
21	219'EW'+53.17	589171.94	271768.47	14°08'17"	4°18'29"	164.92	328.17	10.19	1329.94	217'EW'+85.48	221'EW'+19.35
22	221'EW'+46.25	589347.29	271691.91	2°08'48"	4°03'49"	26.42	52.83	0.25	1410.00	221'EW'+19.35	221'EW'+73.07
23	222'EW'+56.39	589507.92	271835.74	8°04'22"	34°09'20"	11.84	23.64	0.42	167.75	222'EW'+47.62	222'EW'+66.18
24	222'EW'+86.16	589529.92	271807.28	8°10'10"	16°57'05"	24.14	48.19	0.86	338.00	222'EW'+66.18	223'EW'+07.86
25	223'EW'+65.68	589593.43	271745.70	25°33'45"	20°12'28"	64.32	126.50	7.20	283.53	223'EW'+07.86	224'EW'+30.00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 123	E

2

SLOPE INTERCEPT (TYP)

CG31

225'LRD' 226'LRD' 227'LRD' 228'LRD' 229'LRD'

CURVE 25 PT

IH 41 NB/43 SB/894 WB

RECONSTRUCT AT EXISTING SHOULDER

SW02

CB112

CB114

'EW' +05.00

'EW' +60.00

'EW' +80.00

'EW'+96.50

'EW' +21.00

'EW' +41.00

'EW'+32.00 3.50' LT

'EW'+82.00

'EW'+32.00 3.50' RT

'EWW'+96.08 12.25' RT

'EWE'+96.45 9.89' LT

CB49

CB85

CB02

CB03

CB48

CB109

MATCHLINE 224'EW'+00

MATCHLINE 230'EWW'+00

225'EW' 226'EW' 227'EW' 228'EW' 229'EW'

756.73 756.28 756.64 756.17 753.45 753.13 753.45 753.16

IH 41 SB/43 NB/894 EB

RECONSTRUCT AT EXISTING SHOULDER

CG31

PROPOSED BRIDGE B-40-1025
REFER TO IH 894 PAVING DETAIL
AT OVERHEAD STRUCTURE
CONSTRUCTION DETAIL

B-40-198

STH 36/W. LOOMIS RD

CURB AND GUTTER TRANSITION

CG58

'LRB'+70.07 15.00' LT

'LRB'+62.17 24.29' LT

224'LRB'

225'LRB'

226'LRB'

227'LRB'

228'LRB'

229'LRB'

RAMP LRB

SW01

CG16

'LRB'+70.06 0.00'

'LRB'+61.72 8.71' RT

'LRB'+51.25 8.77' RT

'LRB'+69.72 8.77' RT

CURB AND GUTTER TRANSITION

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 124	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 25

PLOT DATE : 11/14/2022 7:44 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

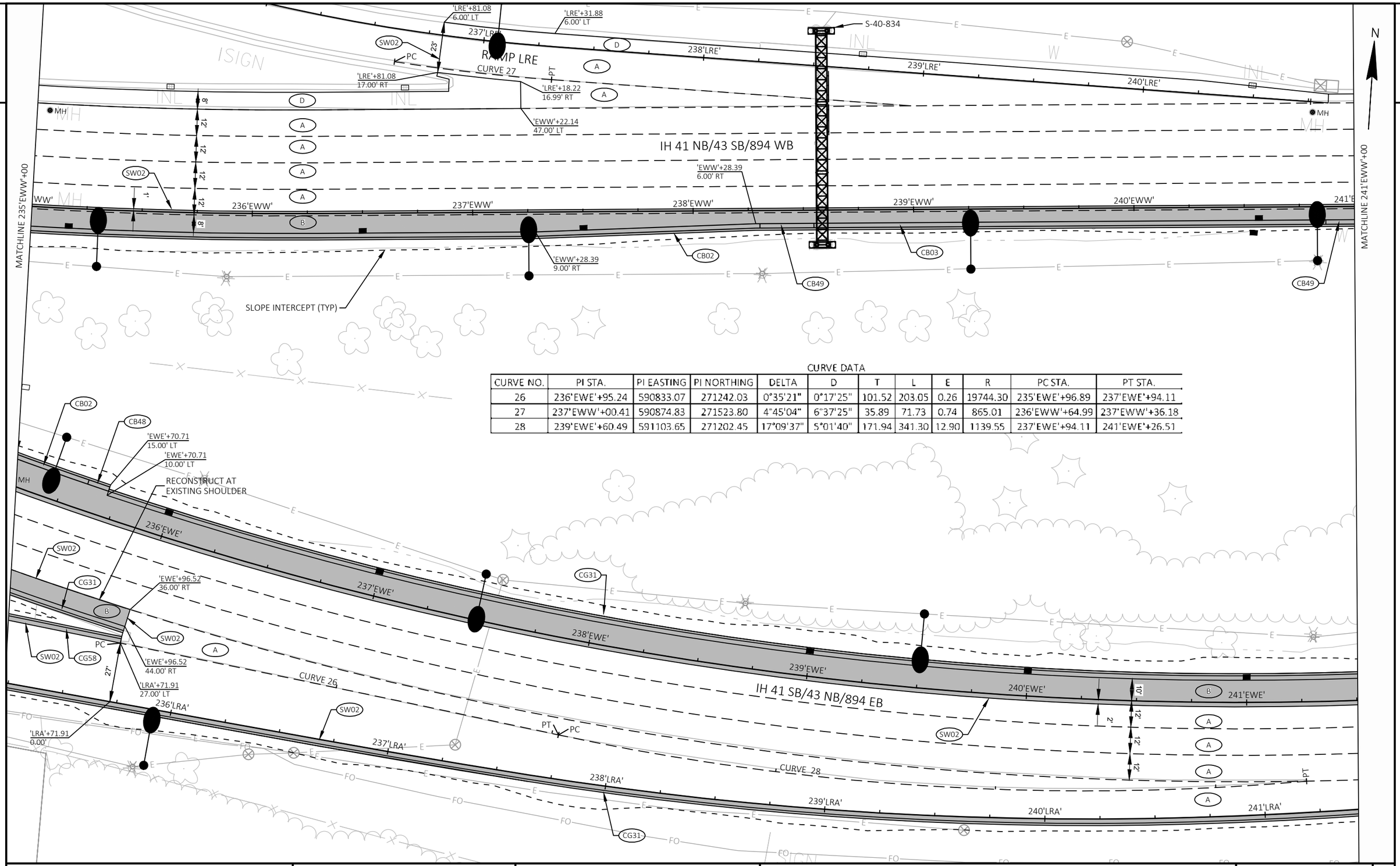
2

N

CB48
S-40-3099
RECONSTRUCT AT EXISTING SHOULDER
CB02
'EWW'+29.70 58.00' LT
CB61
'EWW'+70.74 60.00' LT
'EWW'+91.53 55.00' LT
BG16
BG17
SLOPE INTERCEPT (TYP)
'EWW'+29.70 57.00' LT
CG31
SW02
'EWW'+70.74 55.00' LT
'EWW'+91.53 47.00' LT
MATCHLINE 230'EWW'+00
CB49
'EWW'+97.48 9.00' RT
231'EWW'
IH 41 NB/43 SB/894 WB
232'EWW'
233'EWW'
234'EWW'
MATCHLINE 235'EWW'+00
'EWE'+96.51 11.39' LT
231'EWE'
'EWE'+39.42 11.39' LT
232'EWE'
IH 41 SB/43 NB/894 EB
233'EWE'
'EWE'+74.31 11.39' LT
'EWE'+74.23 2.61' RT
234'EWE'
'EWE'+74.29 12.61' RT
'EWE'+74.36 24.61' RT
235'EWE'
'EWE'+74.45 36.61' RT
'EWE'+74.50 47.61' RT
RECONSTRUCT AT EXISTING SHOULDER
CG17
CURB AND GUTTER TRANSITION
CG58
SW01
'LRA'+21.72 32.00' LT
'LRA'+21.65 0.00'
RAMP LRA
231'LRA'
232'LRA'
233'LRA'
235'LRA'
230'LRA'
229'LRA'
CG16
CURB AND GUTTER TRANSITION

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 125	E

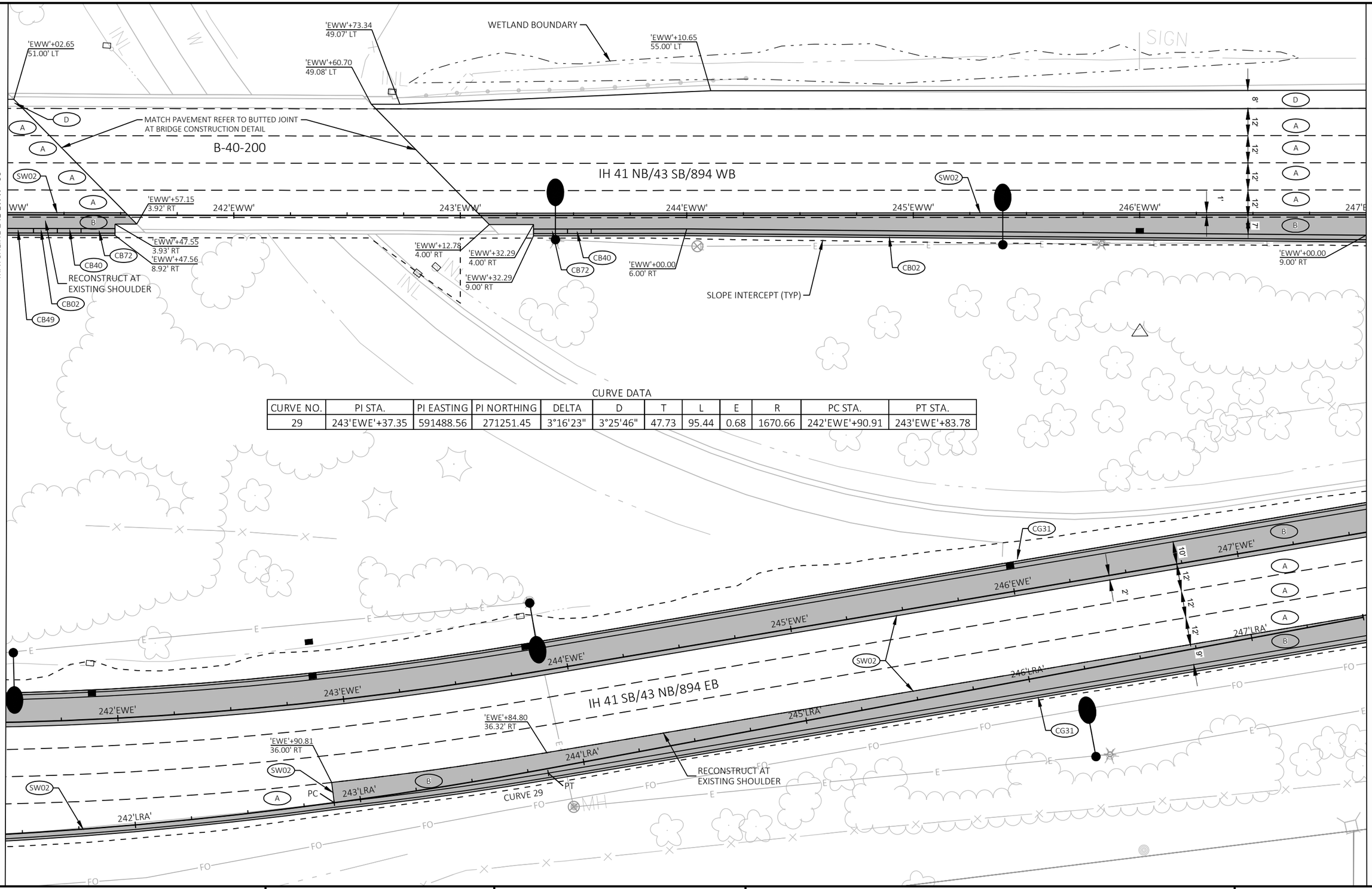
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 26
PLOT DATE : 11/14/2022 7:47 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
26	236'EWE'+95.24	590833.07	271242.03	0°35'21"	0°17'25"	101.52	203.05	0.26	19744.30	235'EWE'+96.89	237'EWE'+94.11
27	237'EWW'+00.41	590874.83	271523.80	4°45'04"	6°37'25"	35.89	71.73	0.74	865.01	236'EWW'+64.99	237'EWW'+36.18
28	239'EWE'+60.49	591103.65	271202.45	17°09'37"	5°01'40"	171.94	341.30	12.90	1139.55	237'EWE'+94.11	241'EWE'+26.51

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 126	E



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
29	243'EWE'+37.35	591488.56	271251.45	3°16'23"	3°25'46"	47.73	95.44	0.68	1670.66	242'EWE'+90.91	243'EWE'+83.78

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 127	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 28

PLOT DATE : 11/14/2022 7:53 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 247'EWW'+00

MATCHLINE 253'EWW'+00

WW'

248'EWW'

249'EWW'

250'EWW'

251'EWW'

252'EWW'

253'E

248'EWE'

249'EWE'

250'EWE'

251'EWE'

252'EWE'

253'EWE'

D 8'

A 12'

A 12'

A 12'

A 12'

B 8'

1'

B 10'

A 12'

A 12'

A 12'

B 9'

2'

12'

SW02

CB02

CB61

BG16

BG17

CG31

'EWE'+80.15
15.00' LT

'EWE'+80.15
10.00' LT

SLOPE INTERCEPT (TYP)

RECONSTRUCT AT
EXISTING SHOULDER

SIGN

SIGN

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 128	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 29

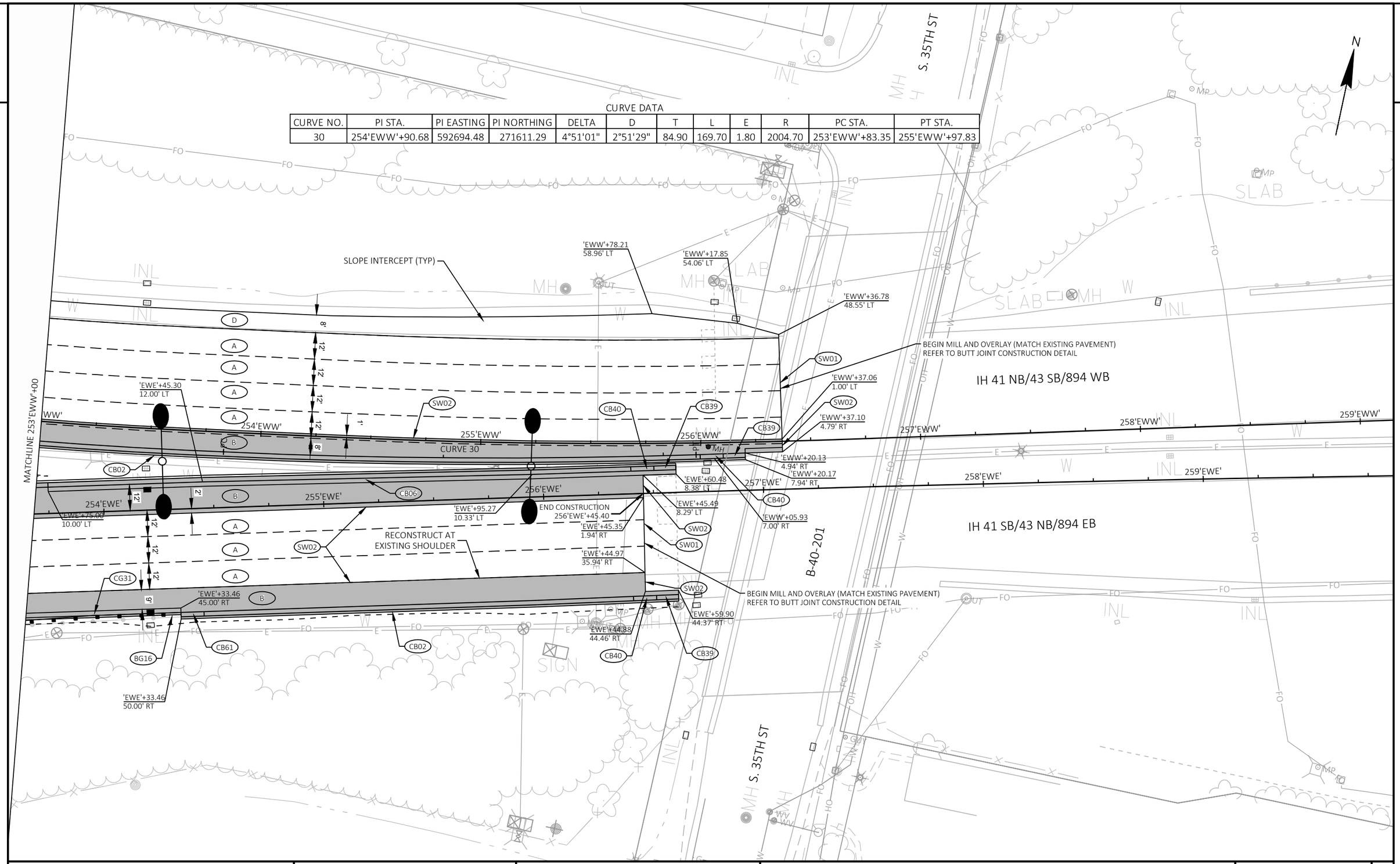
PLOT DATE : 11/14/2022 7:56 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
30	254'EWW'+90.68	592694.48	271611.29	4°51'01"	2°51'29"	84.90	169.70	1.80	2004.70	253'EWW'+83.35	255'EWW'+97.83



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 129	E

2

2

STH 24/W. FOREST HOME AVE

STH 24/W. FOREST HOME AVE

97TH BR

SW01

SW02

SW02

RAMP FHB

TOC FHB

17

CG16

C

CG17

TOC FHB

102' FHB

MATCHLINE 102'FHA+00

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 130	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 31

PLOT DATE : 11/14/2022 8:02 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

MATCHLINE 107'FHA+50

RAMP FHB

SW02

SW02

CG16

CG17

C

MATCHLINE 102'FHA+00

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 131	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 32

PLOT DATE : 11/14/2022 8:05 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

STH 24/W. FOREST HOME AVE

CURB AND GUTTER TRANSITION

CG17

CG58

SW01

SW02

RAMP FHA

25'

PC

108'FHA'

109'FHA'

110'FHA'

111'FHA'

112'FHA'

113'FHA'

CURVE 6

C

CG16

CG31

CURB AND GUTTER TRANSITION

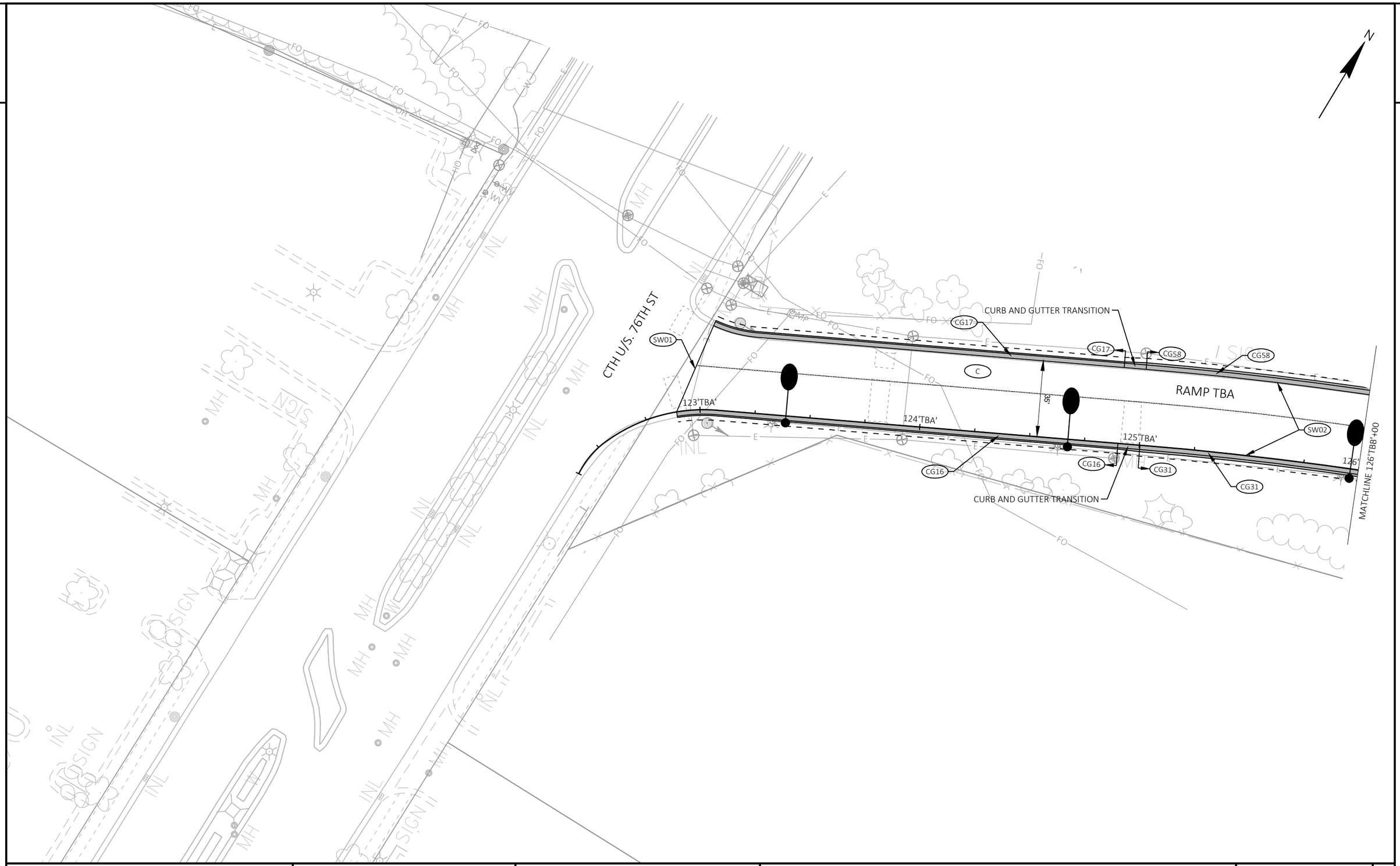
MATCHLINE 114'FHB'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 132	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 33

PLOT DATE : 11/14/2022 8:08 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 133	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 34

PLOT DATE : 11/14/2022 8:12 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

MATCHLINE 225'LRA'+00

'LRA'+00

RAMP LRD

'LRD'+57.80
20.93'RT

'LRD'+57.68
16.59'RT

'LRC'+46.88
22.06'RT

'LRC'+60.37
0.00'

RAMP LRC

22'

17'

CG16

CG17

SW02

MATCHLINE 221'LRA'+00

MATCHLINE 222'LRC'+00

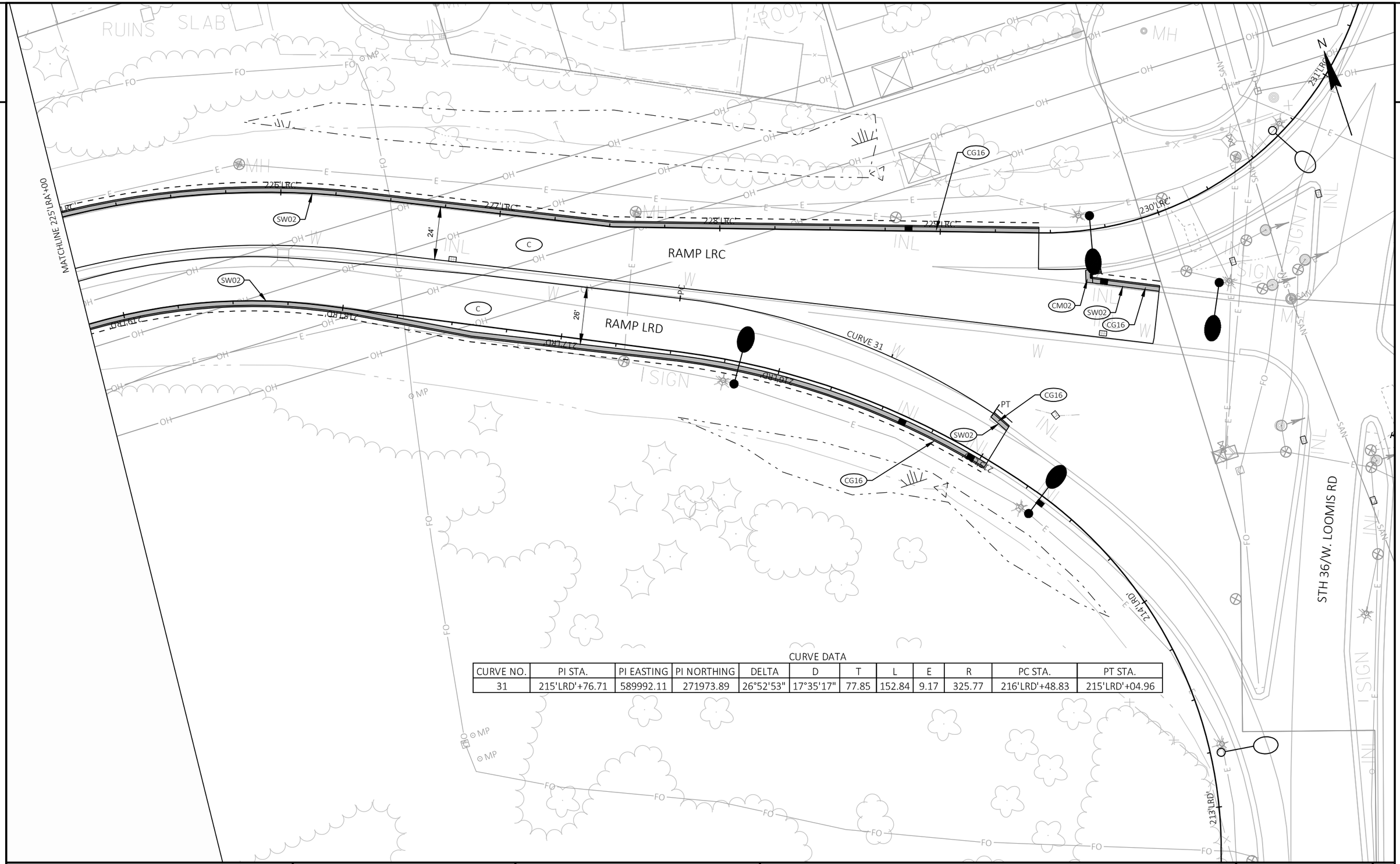
CURB AND G

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 134	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 35

PLOT DATE : 11/14/2022 8:15 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



CURVE DATA

CURVE NO.	PI STA.	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC STA.	PT STA.
31	215'LRD'+76.71	589992.11	271973.89	26°52'53"	17°35'17"	77.85	152.84	9.17	325.77	216'LRD'+48.83	215'LRD'+04.96

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 135	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 36
PLOT DATE : 11/14/2022 8:18 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

RAMP TAA

IH 41 SB/43 NB/894 EB

IH 41 NB/43 SB/894 WB

B-40-192

B-40-191

N

22'

95'TAA'

95'EW'

96'TAA'

96'EW'

97'EW'

98'EW'

32'

41.5'

CG43

CG03

CM07

SW02

CG16

C

*SEE NOTE 1

MH

15'TA'

16'TA'

17'TA'

18'TA'

19'TA'

20'TA'

21'TA'+00

MATCHLINE 21'TA'+00

S. 84TH ST

ADJUSTING WATER BOXES

NOTES:
1. BASE PATCHING CONCRETE SHES PRIOR TO HMA PAVEMENT 4 MT 58-28 S, 2-INCH OVERLAY

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 136	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-021200-PD.DWG
LAYOUT NAME - 37

PLOT DATE : 11/14/2022 8:21 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

RAMP TAB

*SEE NOTE 1

S. 84TH ST

32'

32'

MATCHLINE 21'TA'+00

21'TA'

22'TA'

23'TA'

24'TA'

25'TA'

26'TA'

27'TA'

ADJUSTING WATER BOXES

C

CM07

CG03

CG43

CG16

SW02

POOL

A/C

FLAG

MH

INL

NOTES:
1. BASE PATCHING CONCRETE SHES PRIOR TO HMA PAVEMENT 4 MT 58-28 S, 2-INCH OVERLAY

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 137	E

2

LEGEND

	PROPOSED	EXISTING
FTMS CONVENTIONAL SYMBOLS		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
24X42–INCH CSCP PULL BOX		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
COMMUNICATIONS VAULT, TYPE 1		
CONCRETE BASE, POLE, AND MICROWAVE DETECTOR		
MICROWAVE VEHICLE DETECTOR DETECTION ZONE		
SIGN BRIDGE AND DMS		
CCTV BASE, POLE, AND CAMERA	CAMERA ORIENTATION	
ITS FIELD CABINET AND CONCRETE BASE		
WIRELESS ETERHENT RADIO AND ANTENNA		
RAMP CONTROL SIGNAL ASSEMBLY		
CSCP PULL BOX		

FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
CCTV	CLOSED CIRCUIT TELEVISION SITE
CV	COMMUNICATIONS VAULT
PB	PULL BOX
EX	EXISTING
SDS	SYSTEM DETECTOR STATION
FOC	FIBER OPTIC CABLE
F.O.	FIBER OPTIC
MD	MICROWAVE DETECTOR
S–F	STATE–FURNISHED
DMS	DYNAMIC MESSAGE SIGN
RM	RAMP METER
SB	SIGNAL BASE
MH	MANHOLE

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.

6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

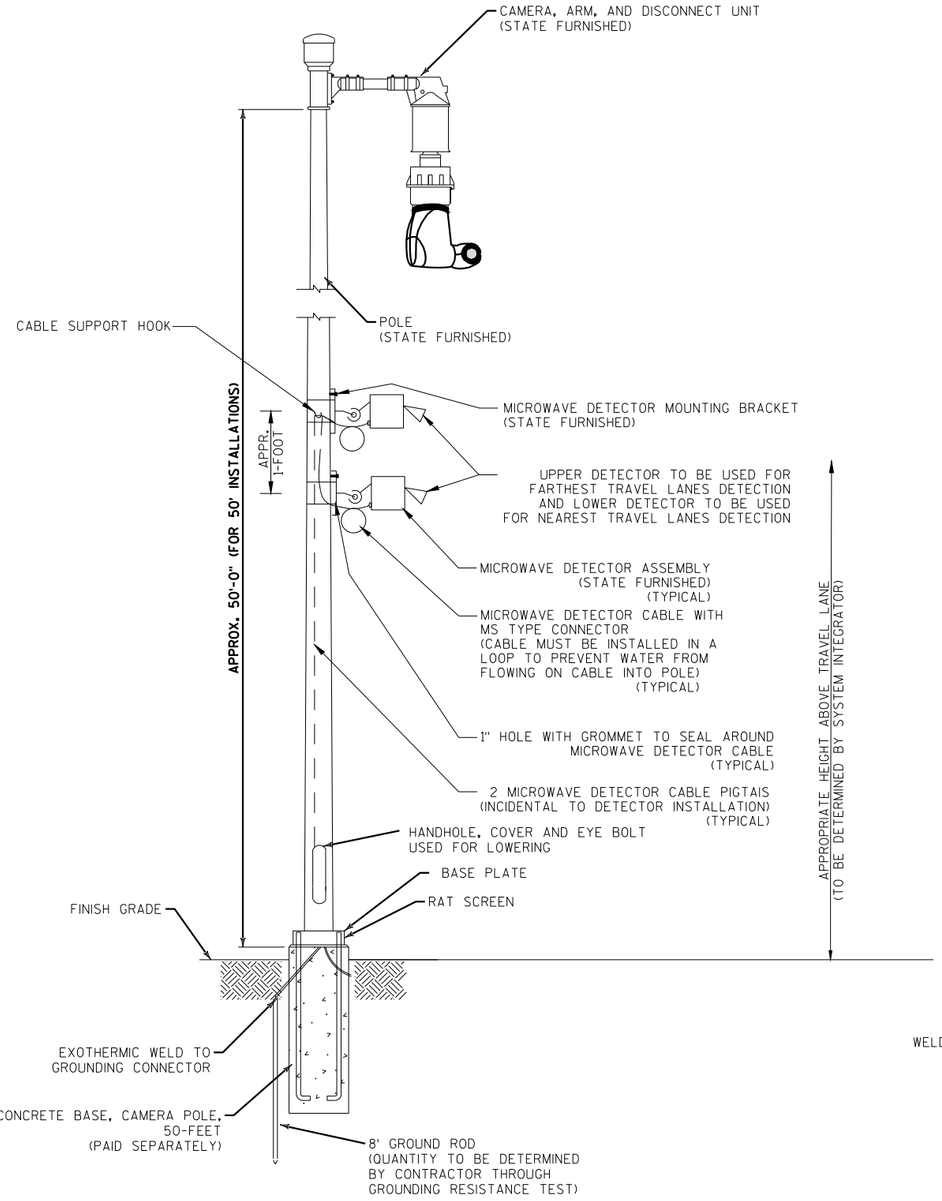
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414)227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.

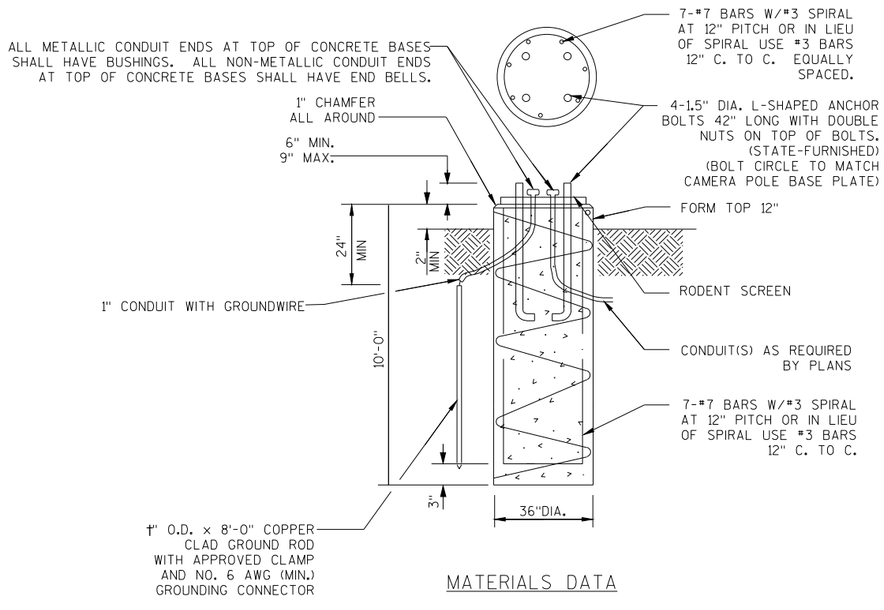
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.



CAMERA POLE WITH CAMERA LOWERING HARDWARE

WITHOUT POLE MOUNTED CABINET



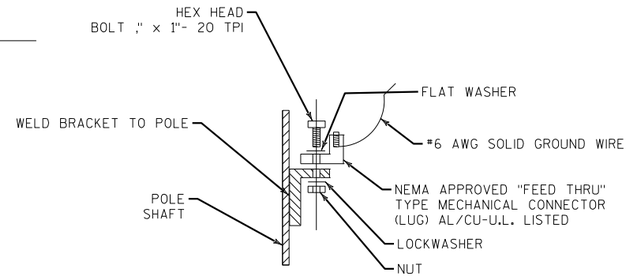
MATERIALS DATA

CONCRETE f'c=3,500 psi

HIGH STRENGTH BAR STEEL REINFORCEMENT fy = 60,000 psi

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE

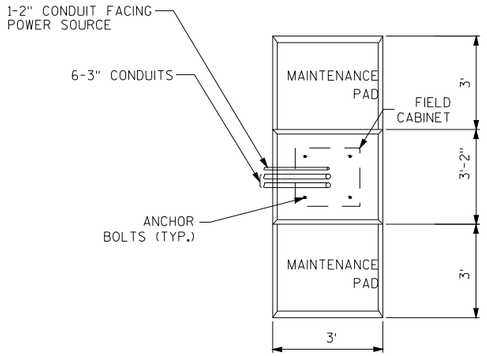


FIELD INSTALLED GROUNDING LUG

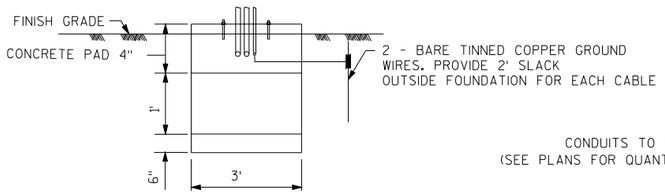
NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

2



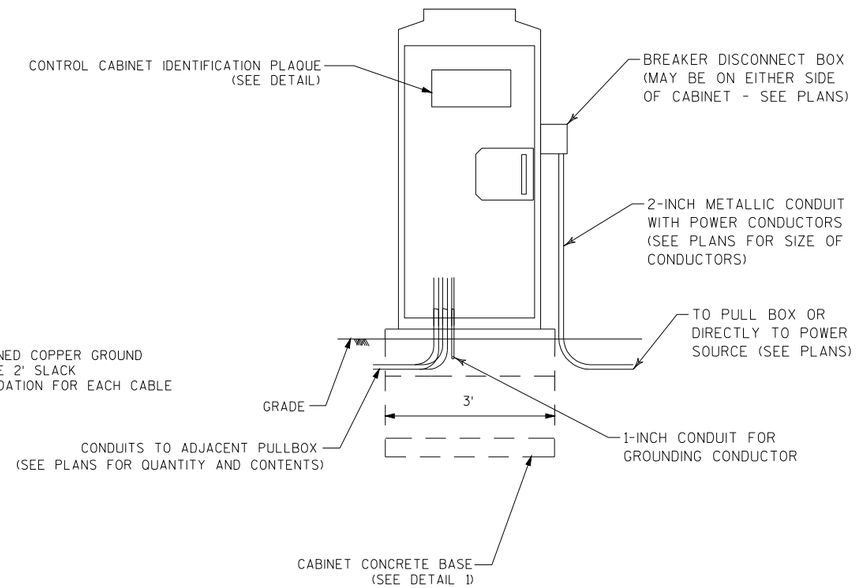
PLAN VIEW



FRONT VIEW

FTMS FIELD CABINET

STATE-FURNISHED FIELD CABINET



NOTES

1) DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2) WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
3) CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 3-INCHES.
4) DEPTH OF CONDUIT SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM.
5) ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
6) CONTROLLER CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED AND LEVEL PRIOR TO CABINET INSTALLATION. LEVELING OF TOP SURFACES AFTER CONCRETE BASE HAS CURED SHALL ONLY BE ACCOMPLISHED BY GRINDING.
7) MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
8) MINIMUM BENDING RADIUS OF CONDUIT SHALL BE SIX TIMES THE CONDUIT DIAMETER.
9) ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
10) CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
11) PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
12) ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS PLACED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
13) CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6-INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
14) ALL METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE BUSHINGS IF WIRE IS INSTALLED.
15) ALL NON METALLIC CONDUIT ENDS AT TOP OF CONCRETE BASES SHALL HAVE END BELLS IF WIRE IS INSTALLED.
16) ANCHOR BOLTS TO ANCHOR THE FIELD CABINETS TO THE CABINET BASE WILL BE STATE FURNISHED WITH THE FIELD CABINET.
17) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CABINET PRIOR TO CONSTRUCTION OF CONCRETE BASE.
18) THE CABINET SHALL BE SEALED WITH A SILICONE SEALANT AT THE INSIDE AND OUTSIDE JOINTS.
19) MAINTENANCE PADS SHALL BE INSTALLED ON BOTH SIDES OF THE CABINET.
20) STATE FURNISHED FIELD CABINETS WILL BE TYPE 334 CONTROLLER CABINETS.

ITS FIELD CABINET

CCTV-40-0025 STAGING NOTES:
NEW CCTV-40-0028 MUST BE COMPLETE AND OPERATIONAL BEFORE EX-CCTV-40-0028 MAY BE DISCONTINUED FOR REMOVAL.

COORDINATE WORK WITH FENCING REMOVAL AND NEW GATE INSTALLATION.

THERE MAY BE A MAXIMUM OF 24-HOURS WITH NEITHER EX-CCTV-40-0025 NOR NEW CCTV-40-0025 FUNCTIONING.

EXPB95

REMOVE CAMERA CABLE
INSTALL CAMERA CABLE IN CONDUIT
VACATED BY REMOVED CAMERA CABLE

EXPB94
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH CAMERA CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CCTV-40-0028
(1) 50-FOOT CAMERA POLE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)

EX-CCTV-40-0028
(1) REMOVE 50-FOOT CAMERA POLE
(1) REMOVE CONCRETE BASE

N

S 84TH ST

25"TA"

24"TA"

23"TA"

PC: 81+54.60

PT: 88+69.10

IH 41/43/894

81"EW" 82"EW" 83"EW" 84"EW" 85"EW" 86"EW" 87"EW" 88"EW" 89"EW" 90"EW" 91"EW" 92"EW" 93"EW" 94"EW" 95"EW"

RIPRAP

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 141	E

FILE NAME : I:\77532\BASE\MILWAUKEE\11004570_894_35-84_FTMS.DWG
LAYOUT NAME - Sheet - (1)

PLOT DATE : 10/24/2022 3:24 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

REMOVE CAMERA CABLE
INSTALL CAMERA CABLE IN CONDUIT
VACATED BY REMOVED CAMERA CABLE

EXPB122
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH CAMERA CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

CCTV-40-0027
(1) 50-FOOT CAMERA POLE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)

EXPB123

EX-CCTV-40-0027
(1) REMOVE 50-FOOT CAMERA POLE
(1) REMOVE CONCRETE BASE

N

CTH U/S 76TH ST

STH 24

IH 41/43/894

IH 41/43/894

PI: 111+42.68

PI: 120+01.99

111"EW" 112"EW" 113"EW" 114"EW" 115"EW" 116"EW" 117"EW" 118"EW" 119" 121"EW" 122"EW" 123"EW" 124"EW" 125"EW"

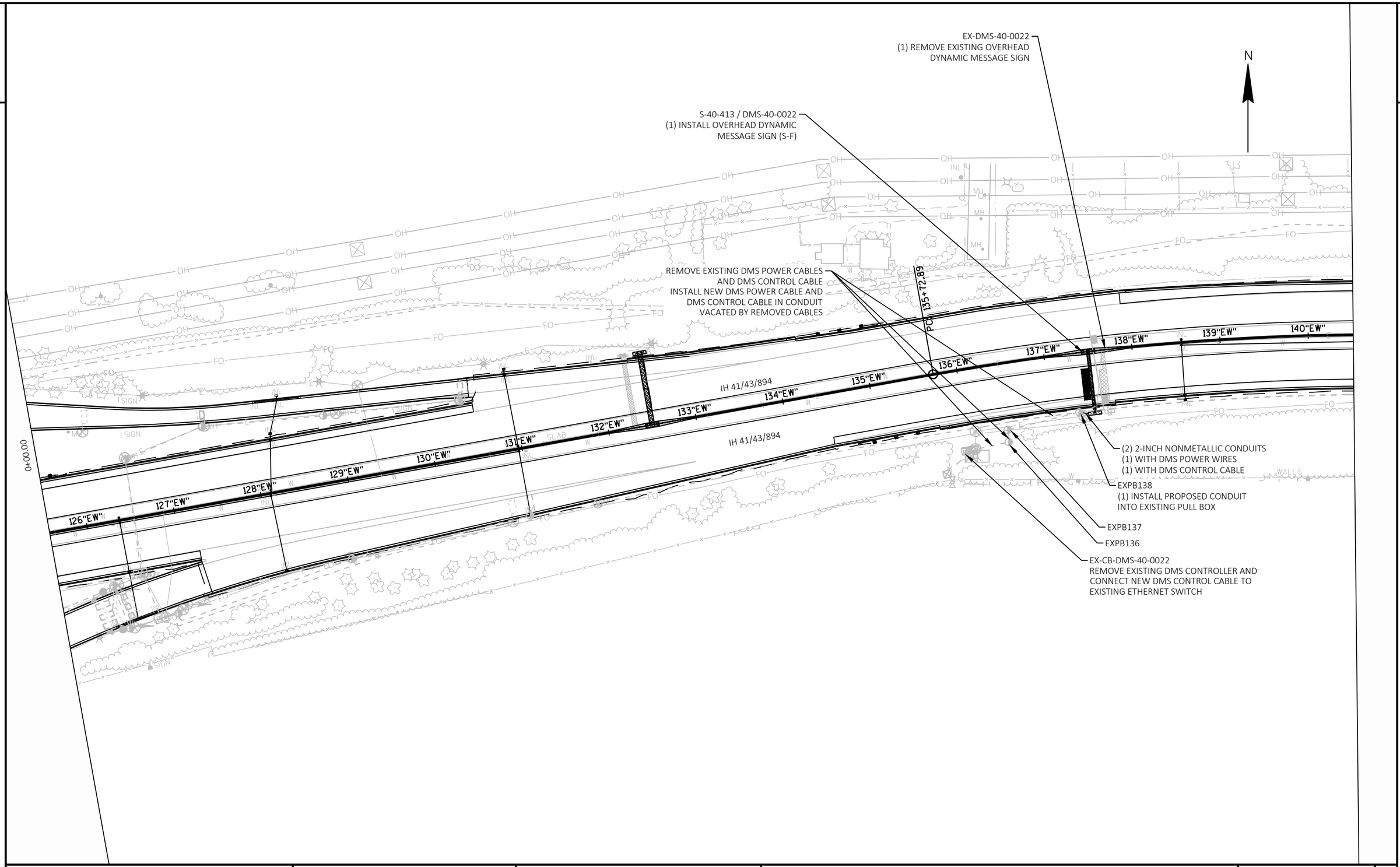
00+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 142	E

FILE NAME : I:\77532\BASE\MILWAUKEE\11004570_894_35-84_FTMS.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 10/24/2022 3:29 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 143	E

2

2

N

0+00.00

0+00.00

156"EW" 157"EW" 158"EW" 159"EW" 160"EW" 161"EW" 162"EW" 163"EW" 164"EW" 165"EW" 166"EW" 167"EW" 168"EW" 169"EW" 170"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 144	E

2

2

N

EX-CCTV-40-0223
(1) REMOVE CCTV CAMERA
(1) INSTALL CCTV CAMERA (S-F)
(2) INSTALL MICROWAVE VEHICLE DETECTORS (ETHERNET) (S-F)

EX-CB-CCTV-40-0223
(1) REMOVE RAMP METER CONTROLLER
(1) REMOVE MODEM

IH 41/43/894

IH 41/43/894

S 52ST ST

PC: 213+28.76

00+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 145	E

FILE NAME : I:\77532\BASE\MILWAUKEE\11004570_894_35-84_FTMS.DWG
LAYOUT NAME - Sheet - (9)

PLOT DATE : 10/24/2022 3:36 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH DMS POWER WIRES
(1) WITH DMS CONTROL CABLE

EXPB221
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

REMOVE EXISTING DMS POWER CABLES
AND DMS CONTROL CABLE
INSTALL NEW DMS POWER CABLE AND
DMS CONTROL CABLE IN CONDUIT
VACATED BY REMOVED CABLES

EXPB222

EX-CB-DMS-40-0017
REMOVE EXISTING DMS CONTROLLER AND
CONNECT NEW DMS CONTROL CABLE TO
EXISTING ETHERNET SWITCH

S-40-410 / DMS-40-0017
(1) INSTALL OVERHEAD DYNAMIC
MESSAGE SIGN (S-F)

EX-DMS-40-0017
(1) REMOVE EXISTING OVERHEAD
DYNAMIC MESSAGE SIGN

CCTV-40-0025
(1) 50-FOOT CAMERA POLE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)

EX-CCTV-40-0025
(1) REMOVE 50-FOOT CAMERA
(1) REMOVE CONCRETE BASE

REMOVE CAMERA CABLE
(1) REMOVE EXPB230
(1) REMOVE EX-CB-CCTV-40-0025 AND
(1) BASE

EX-CB-RM-0052

PB230

(2) 2-INCH NONMETALLIC CONDUITS
(1) CAMERA CABLE AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

EXPB231
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING PULL BOX

CCTV-40-0025 STAGING NOTES:
NEW CCTV-40-0025 MUST BE COMPLETE AND OPERATIONAL BEFORE EX-CCTV-40-0025 MAY BE DISCONTINUED AND REMOVED TO ELIMINATE CONFLICTS WITH BRIDGE DEMOLITION AND CONSTRUCTION.

COORDINATE WORK WITH FENCING REMOVAL, NEW GATE INSTALLATION, AND BRIDGE DEMOLITION AND CONSTRUCTION.

THERE MAY BE A MAXIMUM OF 24-HOURS WITH NEITHER EX-CCTV-40-0025 NOR NEW CCTV-40-0025 FUNCTIONING.

IH 41/43/894

STH 36/ LOOMIS RD

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	FTMS PLAN SHEETS	SHEET 146	E

2

LEGEND

EROSION MAT CLASS I TYPE A
& FERTILIZER TYPE B
(WITH SEEDING MIXTURE NO. 20)

EROSION MAT CLASS I TYPE B
& FERTILIZER TYPE B
(WITH SEEDING MIXTURE NO. 20)

EROSION MAT URBAN CLASS I TYPE B
(WITH SEEDING MIXTURE NO. 60)

A INLET PROTECTION TYPE A

B INLET PROTECTION TYPE B

C INLET PROTECTION TYPE C

D INLET PROTECTION TYPE D

INLET PROTECTION INSTALLED IN
PREVIOUS STAGE

RIP RAP MEDIUM (UNLESS NOTED OTHERWISE)

TEMPORARY DITCH CHECK

SILT FENCE

EROSION BALES

SURFACE WATER FLOW

SLOPE INTERCEPT

SAFETY FENCE

NOTES

PLACE INLET PROTECTION TYPE A AT ALL NEW INLET LOCATIONS DURING GRADING STAGES.

PLACE INLET PROTECTION TYPE B, C OR D UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT.

DO NOT STORE MATERIALS OR OPERATE EQUIPMENT WITHIN THE WETLAND LIMITS OUTSIDE THE SLOPE INTERCEPTS.

DO NOT APPLY FERTILIZER TO SATURATED SOILS, WETLANDS, SURFACE WATERS, FROZEN GROUND, OR IMPERVIOUS SURFACES.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATER BODY OR WETLAND.

DO NOT APPLY FERTILIZER WHEN A RUNOFF EVENT IS EXPECTED WITHIN 24 HOURS.

2

2

N

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

70'EW'
72'EW'
74'EW'
76'EW'
78'EW'
80'EW'
82'EW'
82'TAB'
84'

MATCHLINE 84'EW'+00

WETLAND BOUNDARY

RIPRAP
SIGN
INL
MH
W
B

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 148	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2022 10:40 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

S. 84TH ST

RAMP TAB

86'TAB'

88'TAB'

90'TAB'

92'TAB'

94'TAB'

IH 41 NB/43 SB/894 WB

86'EW'

88'EW'

90'EW'

92'EW'

94'EW'

96'EW'

98'EW'

IH 41 SB/43 NB/894 EB

86'TAA'

88'TAA'

90'TAA'

RAMP TAA

92'TAA'

94'TAA'

96'TAA'

WETLAND BOUNDARY (TYP)

24'TA'

22'TA'

20'TA'

18'TA'

16'TA'

POOL

SIGN

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 149	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2022 10:43 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHB

RAMP FHA

STH 24/W. FOREST HOME AVE

100'FHB'

102'FHB'

104'FHB'

106'FHB'

108'FHB'

110'FHB'

112'FHB'

114'FH

112'FHA'

110'FHA'

100'EW'

102'EW'

104'EW'

106'EW'

108'EW'

110'EW'

112'EW'

WETLAND BOUNDARY (TYP)

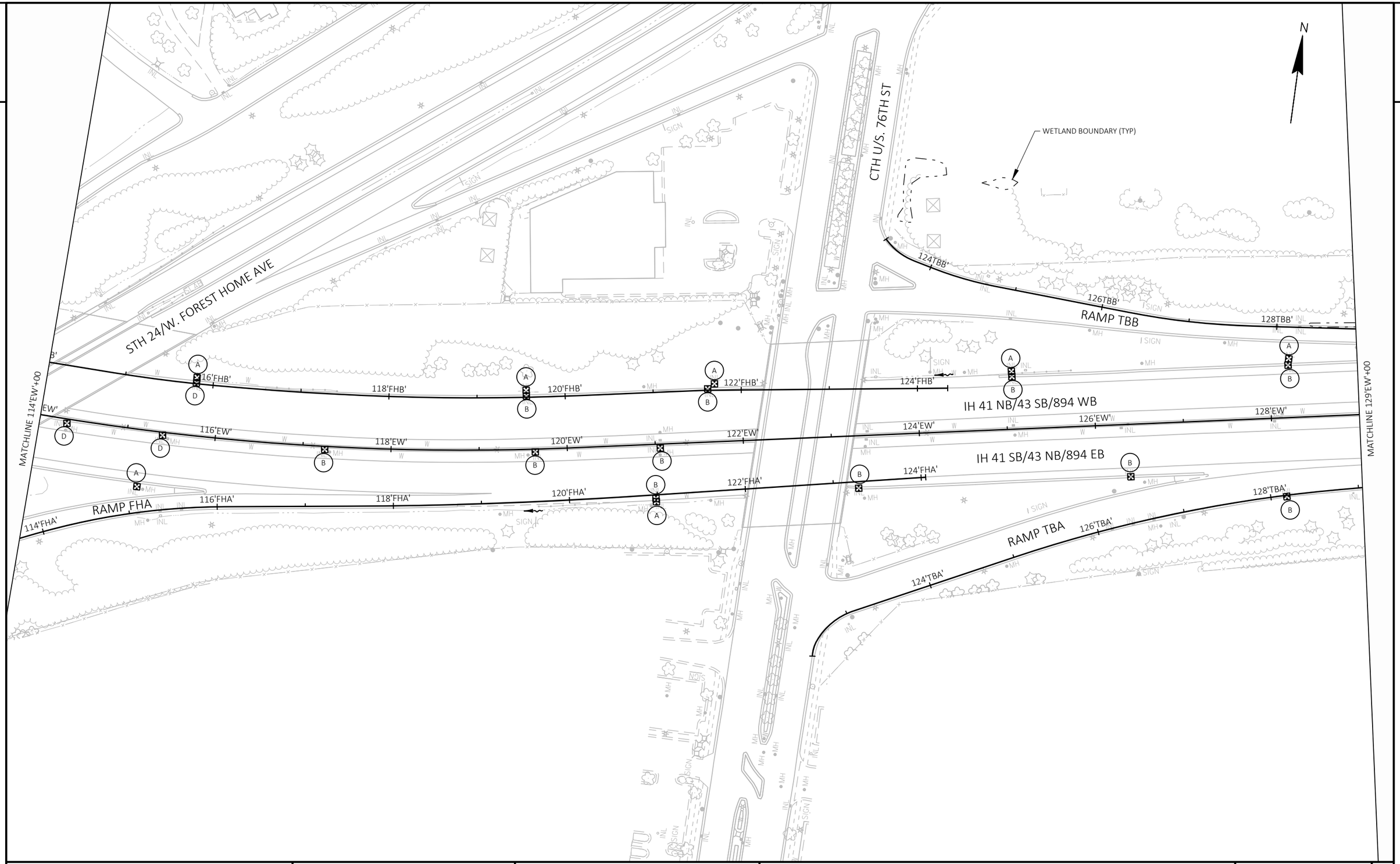
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 150	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2022 10:46 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 151	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 10/31/2022 10:49 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

WETLAND BOUNDARY

FOOTBRIDGE

MH

MH

MH

INL

W

W

W

W

130TBB'

RAMP TBB

132TBB'

SLAB

134TBB'

136TBB'

138TBB'

140TBB'

SIGN

MH

SIGN

A

B

A

A

A

B

B

B

IH 43 SB/IH 894 WB

130'EW'

INL

SLAB

132'EW'

134'EW'

136'EW'

138'EW'

140'EW'

142'EW'

144

W

W

W

W

W

W

W

W

INL

INL

INL

IH 43 NB/IH 894 EB

130'TBA'

132'TBA'

134'TBA'

136'TBA'

138'TBA'

MH

W

WALLS

B

A

B

A

B

A

B

A

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 152	E

2

2

N

S. 68TH ST

FOUND

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

158'TCC'

144'EW'+00

146'EW'

148'EW'

150'EW'

152'EW'

154'EW'

156'EW'

158'EW'

159'EW'+00

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 153 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 10/31/2022 10:54 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCC

RAMP TCB

WETLAND BOUNDARY (TYP)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 154 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2022 10:57 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

WETLAND BOUNDARY (TYP)

RAMP TCC

S. 60TH ST

RAMP TCD

178'TCD'

180'TCD'

182'TCD'

184'TCD'

186'TCD'

188'TCD'

IH 41 NB/43 SB/894 WB

MATCHLINE 174'EW'+00

176'EW'

178'EW'

180'EW'

182'EW'

184'EW'

186'EW'

188'EW'

MATCHLINE 189'EW'+00

IH 41 SB/43 NB/894 EB

188'TCA'

186'TCA'

184'TCA'

182'TCA'

180'TCA'

178'TCA'

RAMP TCA

RAMP TCB

SLAB

SIGN

MH

INL

WALLS

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 155	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2022 11:00 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

S. 51ST ST

SUBSTATION

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

190'TCD' 192'TCD' 194'TCD'

190'EW' 192'EW' 194'EW' 196'EW' 198'EW' 200'EW' 202'EW' 204

190'TCA' 192'TCA'

WETLAND BOUNDARY (TYP)

SIGN

MH

INL

W

B

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 156	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 09

PLOT DATE : 10/31/2022 11:03 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

RAMP LRC

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

206'LRC' 208'LRC' 210'LRC' 212'LRC' 214'LRC' 216'LRC' 218'LRC'

206'EW' 208'EW' 210'EW' 212'EW' 214'EW' 216'EW' 218'EW'

210'LRB' 212'LRB' 214'LRB' 216'LRB' 218'LRB'

FLAG SIGN SLAB MH INL W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 157	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 10

PLOT DATE : 10/31/2022 11:07 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

STH 36/W. LOOMIS RD

WETLAND BOUNDARY (TYP)

RAMP LRC

RAMP LRD

RAMP LRE

RAMP LRB

RAMP LRA

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

220'LRC'

222'LRC'

224'LRC'

226'LRC'

228'LRC'

230'LRC'

218'LRD'

216'LRD'

214'LRD'

220'LRD'

222'LRD'

224'LRD'

226'LRD'

228'LRD'

230'LRE'

232'LRE'

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWW'

230'EWE'

232'EWE'

234'EWE

220'LRB'

222'LRB'

224'LRB'

226'LRB'

228'LRB'

230'LRA'

232'LRA'

234'LR

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 158	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 11

PLOT DATE : 10/31/2022 11:10 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

WETLAND BOUNDARY

RAMP LRE

236'LRE'

238'LRE'

240'LRE'

IH 41 NB/43 SB/894 WB

236'EWW'

238'EWW'

240'EWW'

242'EWW'

244'EWW'

246'EWW'

248'EWW'

RAMP LRA

236'LRA'

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

IH 41 SB/43 NB/894 EB

RIPRAP

POOL

SIGN

INL

MH

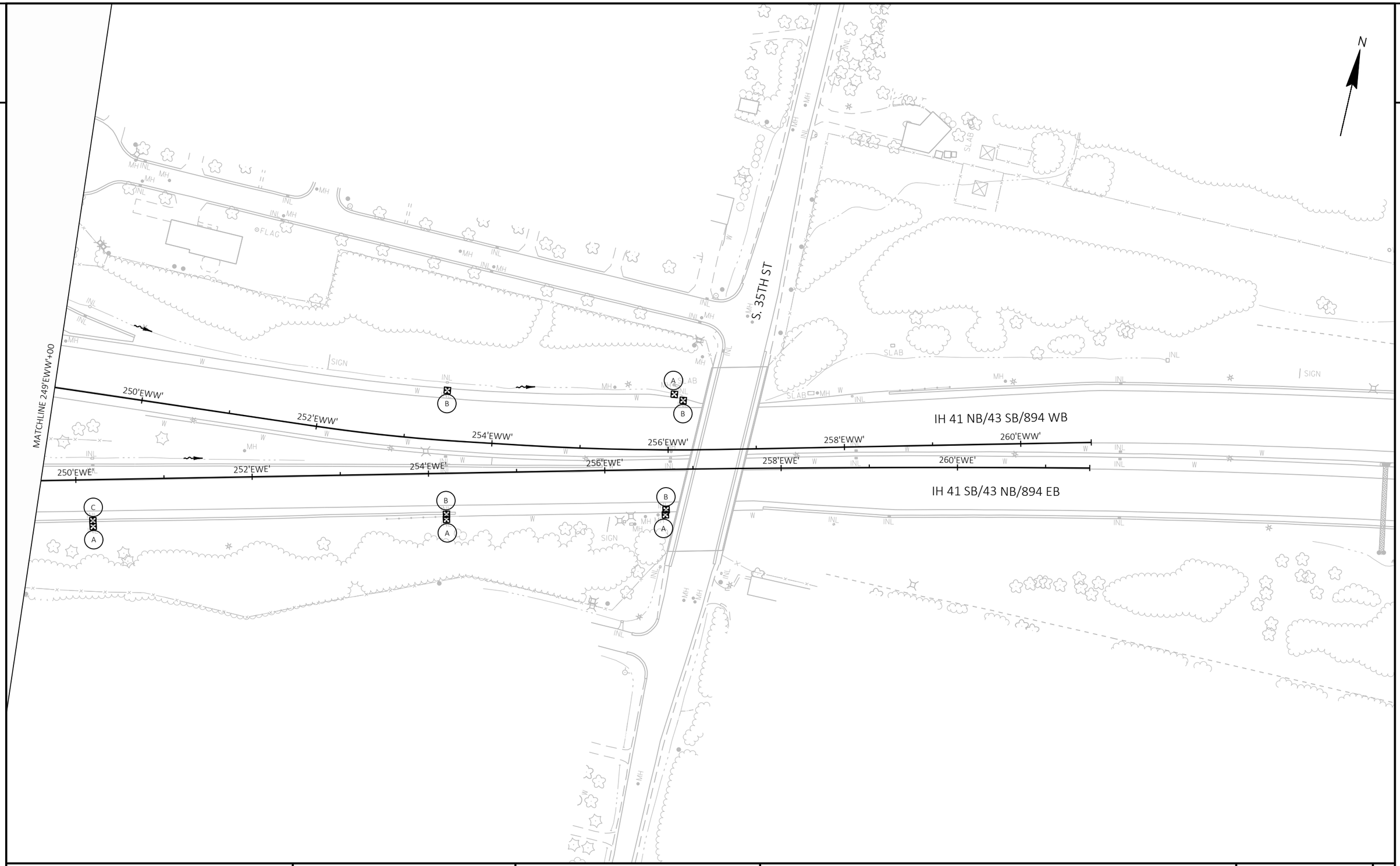
W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 159	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2022 11:13 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 160	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022001-EC.DWG
LAYOUT NAME - 13

PLOT DATE : 10/31/2022 11:16 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

82'TAB'

84'

84'

MATCHLINE 84'EW'+00

WETLAND BOUNDARY

SLOPE INTERCEPT

RIPRAP

RIPRAP

SIGN

SIGN

SIGN

SIGN

INL

MH

W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 161	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2022 11:20 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MOW A 10' SECTION IN FRONT OF NOISE BARRIER N-40-010 PRIOR TO STARTING NOISE BARRIER REPAIR WORK. MOWING IS INCIDENTAL TO CLEARING PLANT GROWTH OFF THE FACE OF N-40-010.

RAMP TAB

86'TAB'

88'TAB'

90'TAB'

92'TAB'

94'TAB'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

86'EW'

88'EW'

90'EW'

92'EW'

94'EW'

96'EW'

98'EW'

RAMP TAA

86'TAA'

88'TAA'

90'TAA'

92'TAA'

94'TAA'

96'TAA'

24'TA'

22'TA'

20'TA'

18'TA'

16'TA'

S. 84TH ST

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

WETLAND BOUNDARY (TYP)

SLOPE INTERCEPT

SLOPE INTERCEPT

SLOPE INTERCEPT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 162	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 11/15/2022 12:06 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHB

RAMP FHA

STH 24/W. FOREST HOME AVE

SLOPE INTERCEPT

SLOPE INTERCEPT

WETLAND BOUNDARY (TYP)

100'EW'

102'EW'

104'EW'

106'EW'

108'EW'

110'EW'

112'EW'

114'EW'

100'FHB'

102'FHB'

104'FHB'

106'FHB'

108'FHB'

110'FHB'

112'FHB'

98'FHB'

110'FHA'

112'FHA'

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 163	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 11/15/2022 12:08 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

WETLAND BOUNDARY (TYP)

CTH U/S. 76TH ST

STH 24/W. FOREST HOME AVE

SLOPE INTERCEPT

RAMP TBB

RAMP FHA

RAMP TBA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 164	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 11/15/2022 12:11 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

WETLAND BOUNDARY

SLOPE INTERCEPT

RAMP TBB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

130'TBB' 132'TBB' 134'TBB' 136'TBB' 138'TBB' 140'TBB'

130'EW' 132'EW' 134'EW' 136'EW' 138'EW' 140'EW' 142'EW' 144'

130'TBA' 132'TBA' 134'TBA' 136'TBA' 138'TBA'

SLOPE INTERCEPT

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

FOOTBRIDGE

WALLS

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 165	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2022 11:32 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

S. 68TH ST

SLOPE INTERCEPT

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

SLOPE INTERCEPT

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

146'EW'

148'EW'

150'EW'

152'EW'

154'EW'

156'EW'

158'EW'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 166	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 11/15/2022 12:13 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCC

RAMP TCB

SLOPE INTERCEPT

SLOPE INTERCEPT

WETLAND BOUNDARY (TYP)

STATUE

SIGN

MH

SLAB

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 167	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2022 11:38 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 174'EW'+00

MATCHLINE 189'EW'+00

RAMP TCC

S. 60TH ST

RAMP TCD

SLOPE INTERCEPT

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCB

RAMP TCA

WETLAND BOUNDARY (TYP)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 168	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2022 11:42 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

S. 51ST ST

SUBSTATION

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

190'EW'

192'EW'

194'EW'

196'EW'

198'EW'

200'EW'

202'EW'

204

190'TCA'

192'TCA'

192'TCD'

194'TCD'

SLOPE INTERCEPT

SLOPE INTERCEPT

WETLAND BOUNDARY (TYP)

SEE CONSTRUCTION DETAIL
"CULVERT REPAIR WORK" FOR
EROSION CONTROL MEASURES
AT B-40-321

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 169	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 09
PLOT DATE : 10/31/2022 11:45 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

SLOPE INTERCEPT

SLOPE INTERCEPT

RAMP LRC

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

206'LRC'

208'LRC'

210'LRC'

212'LRC'

214'LRC'

216'LRC'

218'LRC'

206'EW'

208'EW'

210'EW'

212'EW'

214'EW'

216'EW'

218'EW'

210'LRB'

212'LRB'

214'LRB'

216'LRB'

218'LRB'

FLAG

SIGN

SLAB

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 170	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 10

PLOT DATE : 10/31/2022 11:48 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

RAMP LRD

RAMP LRB

RAMP LRE

RAMP LRA

STH 36/W. LOOMIS RD

WETLAND BOUNDARY (TYP)

SLOPE INTERCEPT

SLOPE INTERCEPT

SLOPE INTERCEPT

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

220'LRC'

224'LRC'

226'LRC'

228'LRC'

230'LRC'

218'LRD'

216'LRD'

214'LRD'

222'LRD'

220'LRB'

222'LRB'

224'LRB'

226'LRB'

228'LRB'

230'LRE'

232'LRE'

230'LRA'

232'LRA'

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWW'

234'EWW'

232'EWE'

234'EWE'

234'LRE

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 171	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 11

PLOT DATE : 10/31/2022 11:51 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

RAMP LRE

236'LRE'

238'LRE'

240'LRE'

IH 41 NB/43 SB/894 WB

WETLAND BOUNDARY

236'EWW'

238'EWW'

240'EWW'

242'EWW'

244'EWW'

246'EWW'

248'EWW'

SLOPE INTERCEPT

RAMP LRA

236'LRA'

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

IH 41 SB/43 NB/894 EB

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

SLOPE INTERCEPT

SLOPE INTERCEPT

SLOPE INTERCEPT

RIPRAP

SIGN

POOL

MH

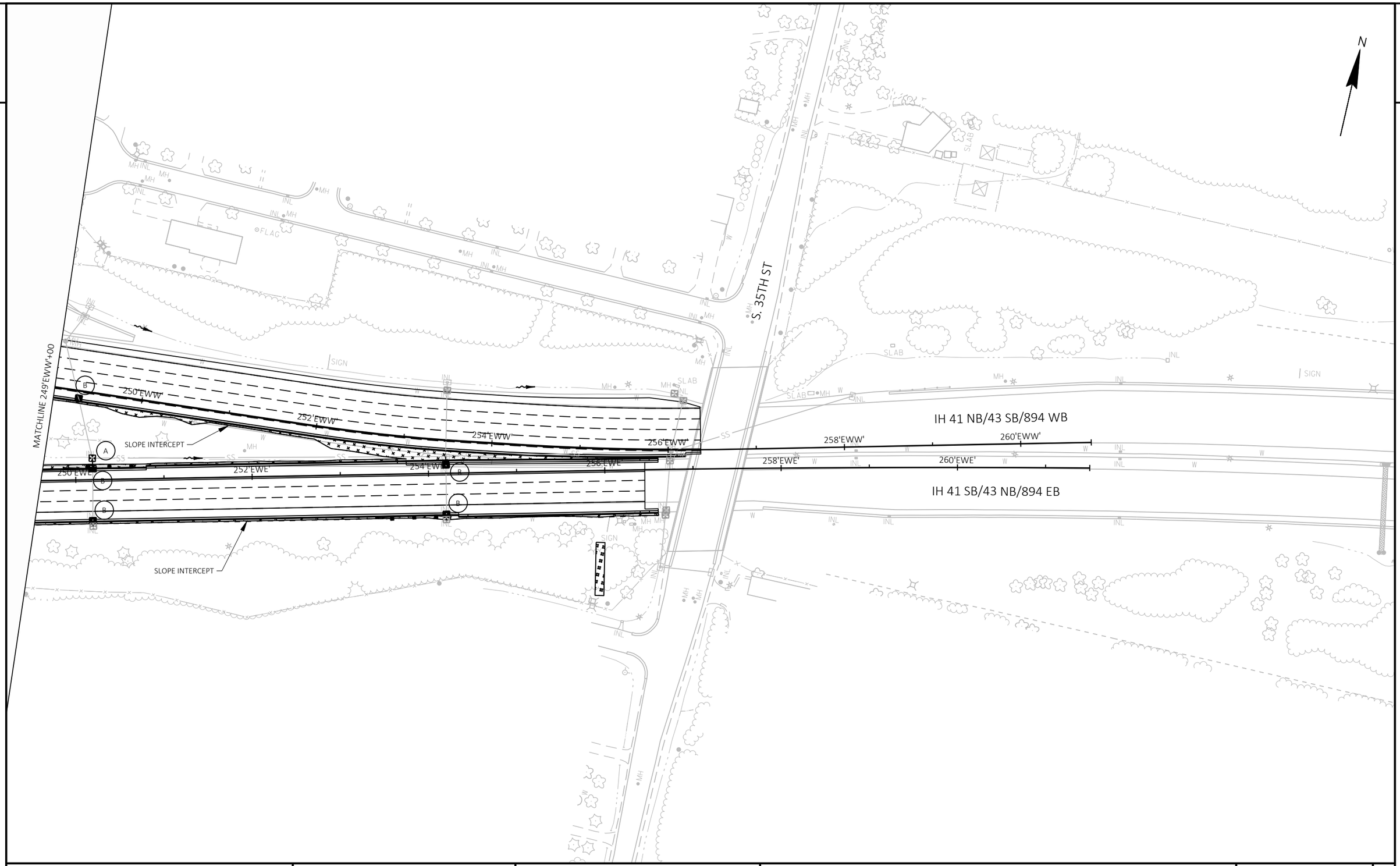
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 172	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2022 11:54 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - STAGES 2 & 3	SHEET 173	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-022002-EC.DWG
LAYOUT NAME - 13

PLOT DATE : 10/31/2022 11:56 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

GENERAL DRAINAGE NOTES

1. LOCATION OF STRUCTURES IN CURB AND GUTTER REFER TO CENTER OF STRUCTURES.
   LOCATION OF STRUCTURES IN BARRIER SECTION REFER TO CENTER OF CASTING.
   LOCATION OF STRUCTURES NOT IN CURB AND GUTTER OR BARRIER SECTION REFER TO CENTER OF STRUCTURE OR AS NOTED ON PLAN.

2. RIM ELEVATIONS ARE GIVEN AT CENTER OF CASTING. SEE STRUCTURE LOCATION DETAIL.

3. ADJUSTMENT RINGS MAY BE USED TO A COMBINED MAXIMUM THICKNESS OF 6-INCHES.

4. PLAN LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND IS USED FOR ESTIMATING QUANTITIES AND COMPUTING PIPE SLOPE.

5. INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

6. UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE, AND NOT ALL UTILITIES WERE FIELD LOCATED. LOCATIONS FOR UTILITIES THAT WERE NOT FIELD ARE DETERMINED FROM EXISTING RECORDS AND INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

7. COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. SHEETING MUST NOT GO THROUGH UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES MUST BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

8. VERIFY ALL STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

9. PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL PROJECT STAGES. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

10. SUPPORTING UTILITIES DURING STORM SEWER CONSTRUCTION IS INCIDENTAL TO STORM SEWER PIPE AND/OR STORM SEWER STRUCTURE.

11. COST OF BRIDGE DOWNSPOUT CONNECTION TO PROPOSED STORM SEWER STRUCTURE IS INCIDENTAL TO PROPOSED STORM SEWER STRUCTURE.

12. CONCRETE PIPE JOINT TIES SHALL CONNECT ALL CONCRETE APRON ENDWALLS AND THE LAST THREE PIPE SEGMENTS PRECEDING THE APRON ENDWALL. THE COST OF JOINT TIES SHALL BE INCIDENTAL TO THE STORM SEWER PIPE.

13. STORM SEWER PLAN & PROFILE NOTE:
    PLAN VIEW HIGHLIGHTS CORRESPOND TO PROFILES SHOWN IN PROFILE BELOW PLAN VIEW (SAME SHEET). STORM SEWER STRUCTURES AND PIPES LABELED IN PLAN VIEW WITHOUT HIGHLIGHT ARE SHOWN ON THE NEXT PROFILE ONLY SHEET(S).

2

STORM SEWER REMOVAL LEGEND

- REMOVING INLET
- REMOVING MANHOLE
- REMOVE AND CAP EXISTING STRUCTURE
- —— SS —— REMOVING STORM SEWER (SIZE AS NOTED ON PLANS)

STORM SEWER LEGEND

- HE##### EXISTING DRAINAGE STRUCTURE NUMBER
- H##### PROPOSED DRAINAGE STRUCTURE NUMBER
- PROPOSED MANHOLE
- PROPOSED INLET
- RECONSTRUCTING MANHOLE/INLET
- PROPOSED ENDWALL
- PE##### EXISTING STORM SEWER PIPE NUMBER
- P##### PROPOSED STORM SEWER PIPE NUMBER
- PROPOSED STORM SEWER PIPE (PLAN VIEW)
- SLOTTED DRAIN SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 15-INCH

STORM SEWER PLANS PREPARED BY

raSmith

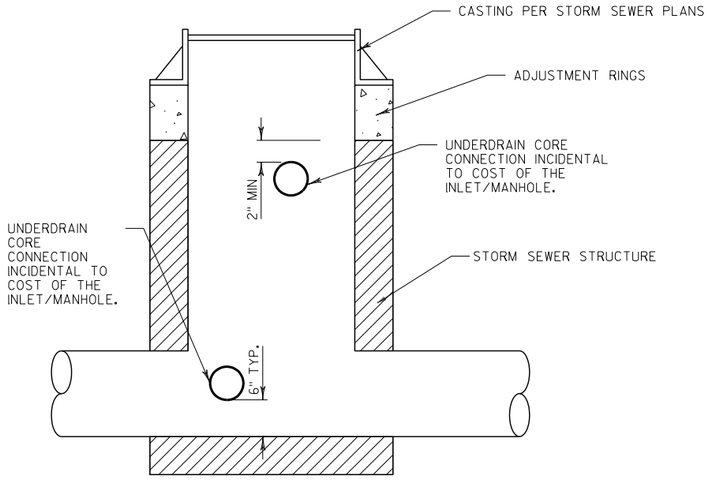
CREATIVITY BEYOND ENGINEERING

rasmith.com

WISCONSIN
RACHEL A. DeSOMBRE
E-36868
MILWAUKEE
WI
PROFESSIONAL ENGINEER

10/25/2022 (Date) (Signature)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER - CONSTRUCTION DETAILS	SHEET 174 E



SECTION A-A

MINIMUM AND MAXIMUM CORED PIPE UNDERDRAIN 6-INCH CORE LOCATIONS WITH CROSSPIPE.

NOTE

(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE REINFORCED CONCRETE STORM SEWER PIPE.

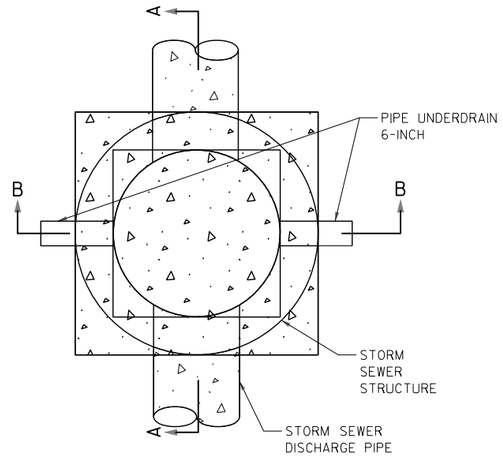
(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)

(3) PIPE UNDERDRAIN 6-INCH SHALL NOT BE ALLOWED IN THE RING OF THE STRUCTURE OF INLETS OR SEWER ACCESS STRUCTURES.

(4) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.

(5) CORE HOLES MAY HAVE 0" CLEARANCE FROM THE INSIDE WALL OF A STRUCTURE.

(6) DIMENSIONS GIVEN ARE FOR TYPICAL PERMANENT CONDITIONS. FOR TEMPORARY CONDITIONS OR WHEN INLET DEPTH IS SHALLOW PROVIDE POSITIVE DRAINAGE. TO BE COORDINATED WITH ENGINEER IN FIELD.



PLAN VIEW

PIPE UNDERDRAIN 6-INCH OUTFALL AT INLET/MANHOLE (ROUND OR SQUARE)

NOTES

1. CONNECTIONS TO INLETS OR MANHOLES SHALL EXTEND PIPE UNDERDRAIN 6-INCH TO THE INSIDE WALL OF STORM SEWER STRUCTURE.

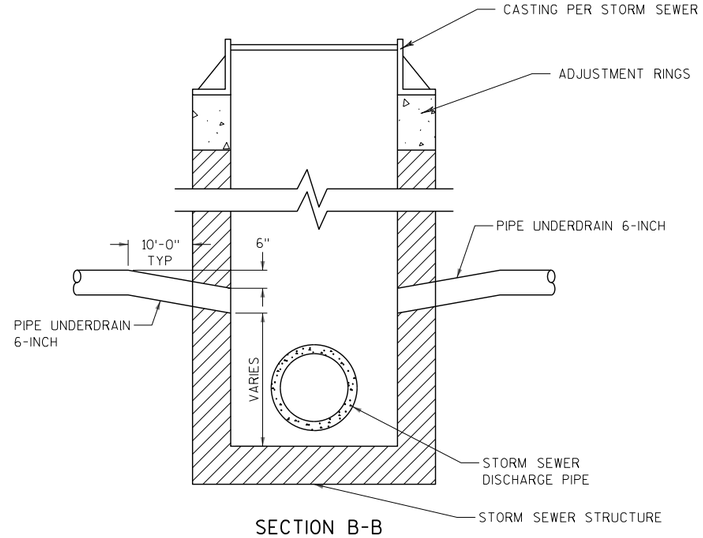
2. PROVIDE UNDERDRAIN PIPE CORED HOLES AT OR BETWEEN ELEVATIONS SHOWN IN SECTION A-A.

3. PROVIDE POSITIVE DRAINAGE (0.5% MINIMUM GRADE) THROUGH PIPE UNDERDRAIN 6-INCH AND CORE INTO STORM SEWER STRUCTURE.

4. WHEN INLET DEPTH IS SHALLOW, PIPE UNDERDRAIN 6-INCH MAY BE PLACED AT A DEPTH TO PROVIDE POSITIVE DRAINAGE TO BE COORDINATED WITH ENGINEER IN FIELD.

5. ATTACHMENT OF PIPE UNDERDRAIN 6-INCH TO REAR OF INLET IS SATISFACTORY IF REINFORCED CONCRETE STORM SEWER PIPE SIZE RESTRICTS SPACE FOR UNDERDRAIN CORE.

6. CONNECT PIPE UNDERDRAIN 6-INCH AT STORM SEWER STRUCTURES SUCH THAT ANY SINGLE RUN OF PIPE UNDERDRAIN DOES NOT EXCEED 800 FEET IN LENGTH.

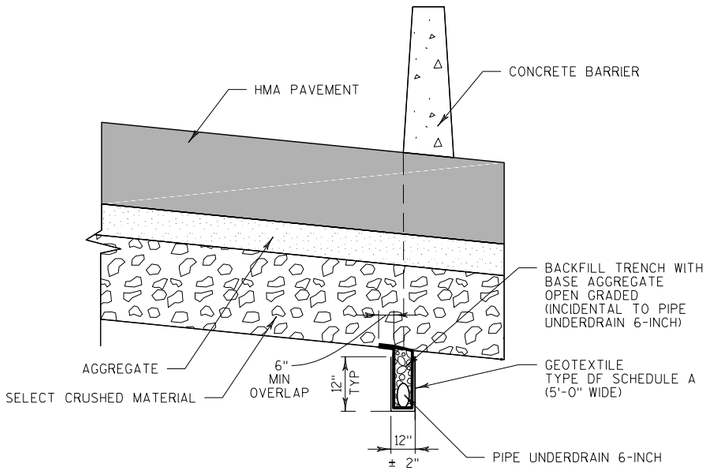


SECTION B-B

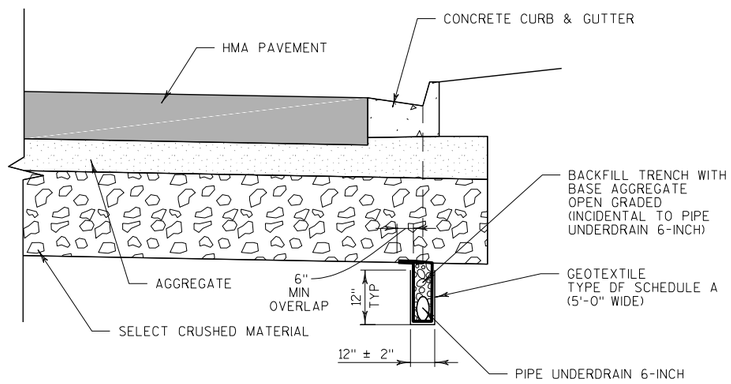
TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL

NOTE

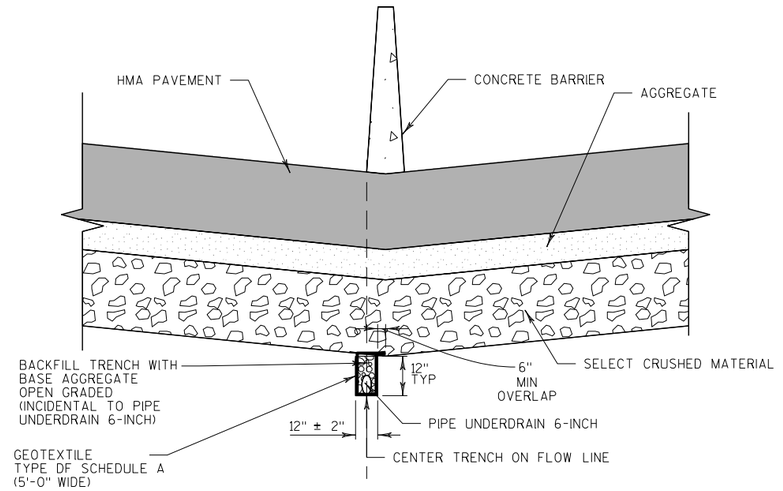
(1) TYPICAL ELEVATION OF PIPE UNDERDRAIN 6-INCH SHALL BE PLACED BELOW THE SELECT CRUSHED MATERIAL.



PIPE UNDERDRAIN 6-INCH TRENCH DETAIL - BARRIER SECTION



PIPE UNDERDRAIN 6-INCH TRENCH DETAIL - CURB AND GUTTER SECTION

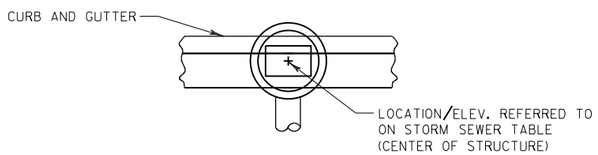


PIPE UNDERDRAIN 6-INCH TRENCH DETAIL - MEDIAN SECTION

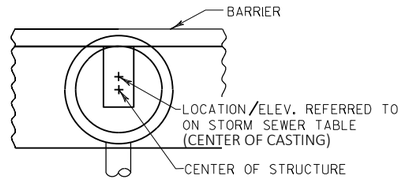
NOTE

1) LOCATION OF STRUCTURE MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

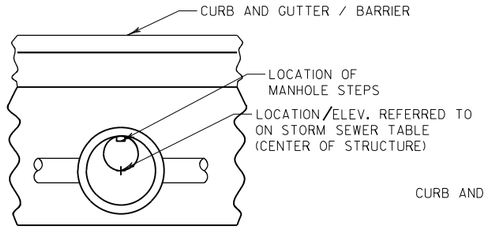
2) LOCATION AND SIZE OF STRUCTURE COVER OPENINGS DEPENDS ON TYPE OF CASTING. CASTING TYPES ARE SHOWN ON THE STORM SEWER TABLE.



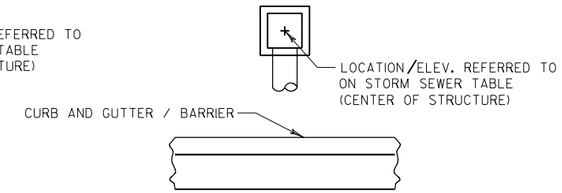
INLET OR MANHOLE IN CURB AND GUTTER



INLET OR MANHOLE AT BARRIER



MANHOLE NOT IN CURB AND GUTTER / NOT AT BARRIER



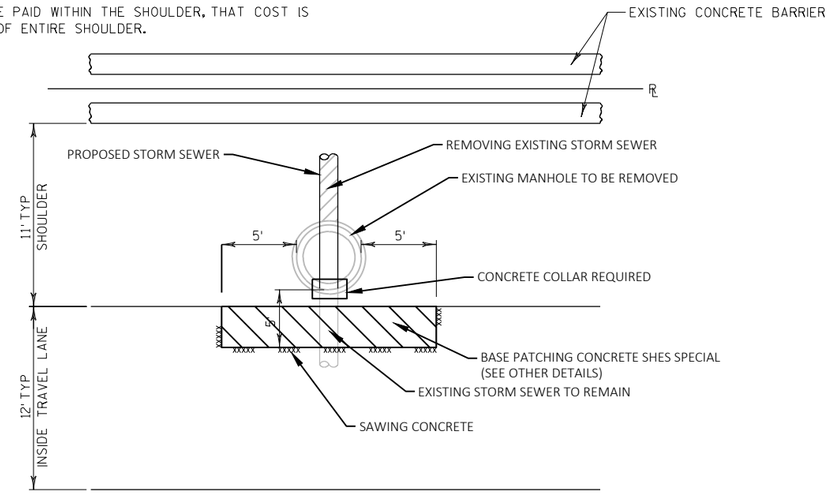
INLET OR MANHOLE NOT IN CURB AND GUTTER / NOT AT BARRIER

STRUCTURE LOCATION DETAIL

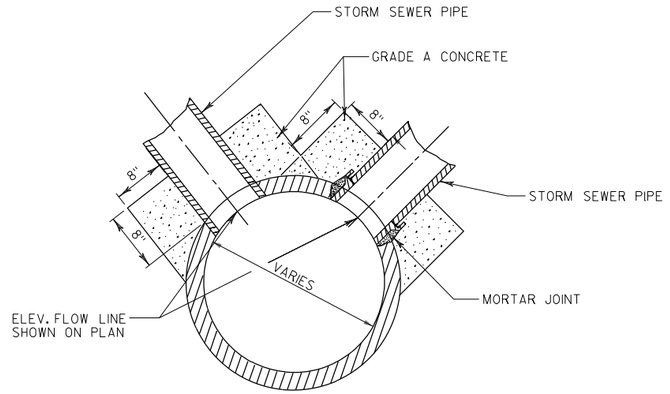
NOTE

1) SEE BACKFILL SLURRY DETAIL FOR STRUCTURES IN TRAVEL LANE. BACKFILL SLURRY TO SUBGRADE ELSEWHERE.

2) SAWING CONCRETE WILL NOT BE PAID WITHIN THE SHOULDER, THAT COST IS INCIDENTAL TO THE REMOVAL OF ENTIRE SHOULDER.

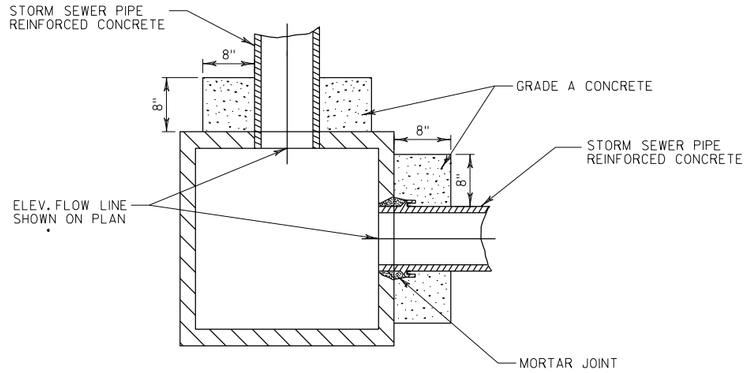


REMOVING MANHOLE IN SHOULDER



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS



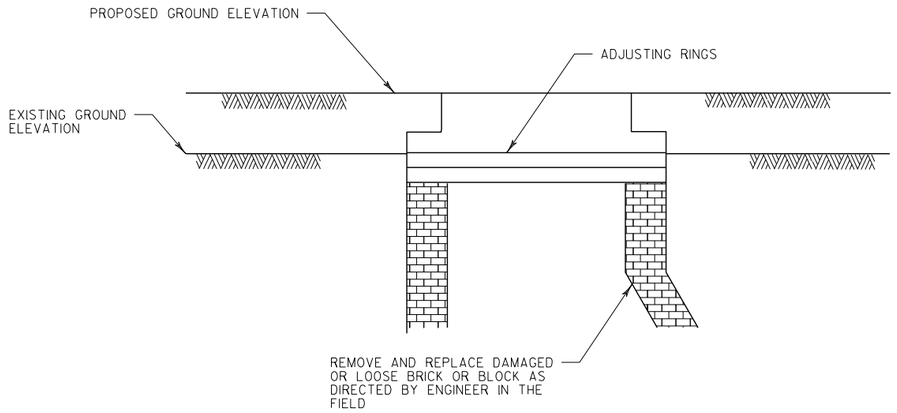
AT STORM SEWER INLET

NOTE

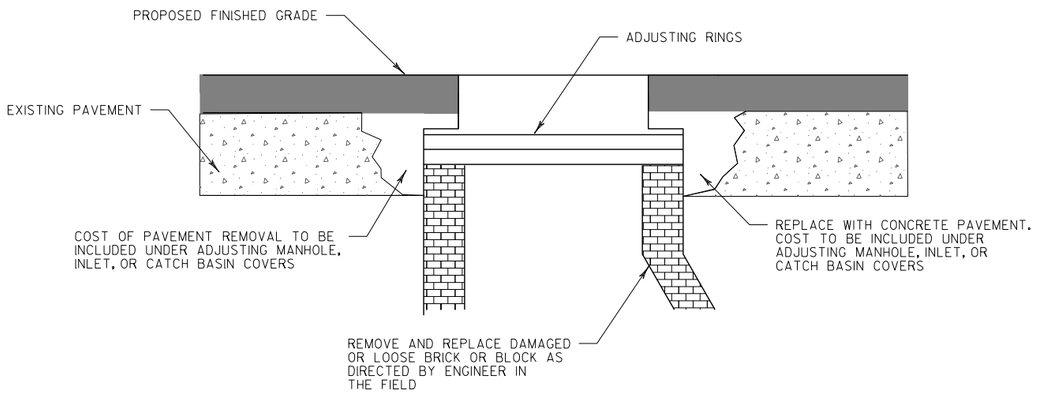
CONCRETE COLLAR TO BE PAID AS A BID ITEM WHEN CONNECTING AN EXISTING PIPE TO A NEW STRUCTURE.

CONCRETE COLLAR DETAIL

FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS



NON-PAVED LOCATION



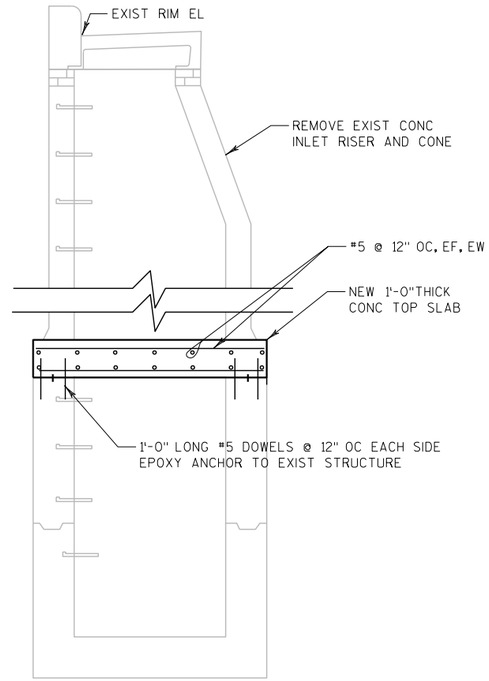
PAVED LOCATION

NOTES

1. ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE. BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVERS.

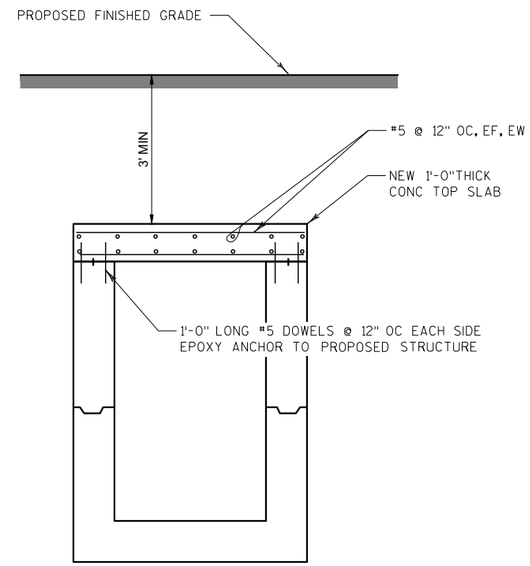
2. SAWING ASPHALT OR SAWING CONCRETE IS INCIDENTAL TO ADJUSTING MANHOLE OR INLET COVERS

ADJUSTING MANHOLE OR INLET COVERS



SECTION

REMOVE AND CAP EXISTING DRAINAGE STRUCTURE



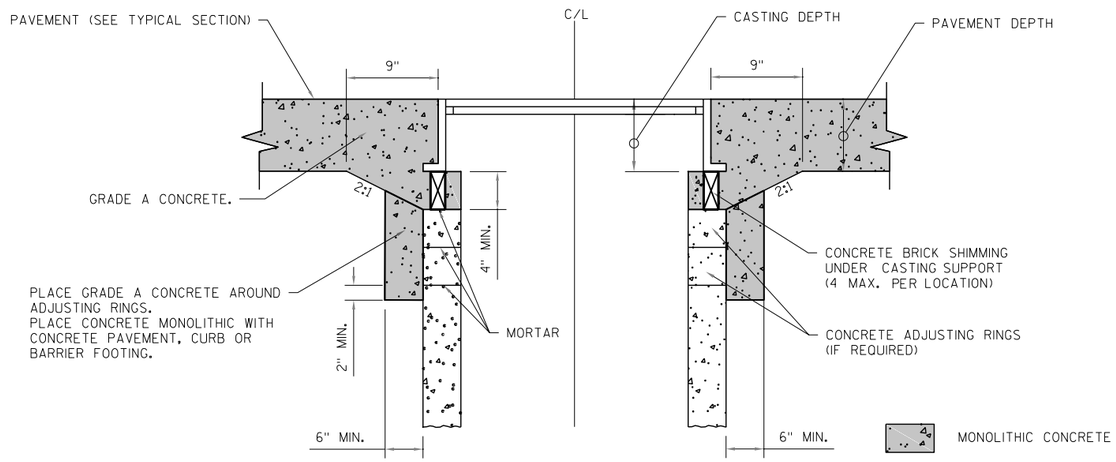
SECTION

CAP PROPOSED DRAINAGE STRUCTURE

NOTES

(1) PROVIDE MONOLITHIC CONCRETE SHIMMING FOR FINAL ADJUSTMENT OF DRAINAGE STRUCTURES LOCATED WITHIN THE CONCRETE CURB & GUTTER.

(2) ALL COSTS ASSOCIATED WITH THIS DETAIL SHALL BE INCIDENTAL TO THE STORM SEWER STRUCTURE.



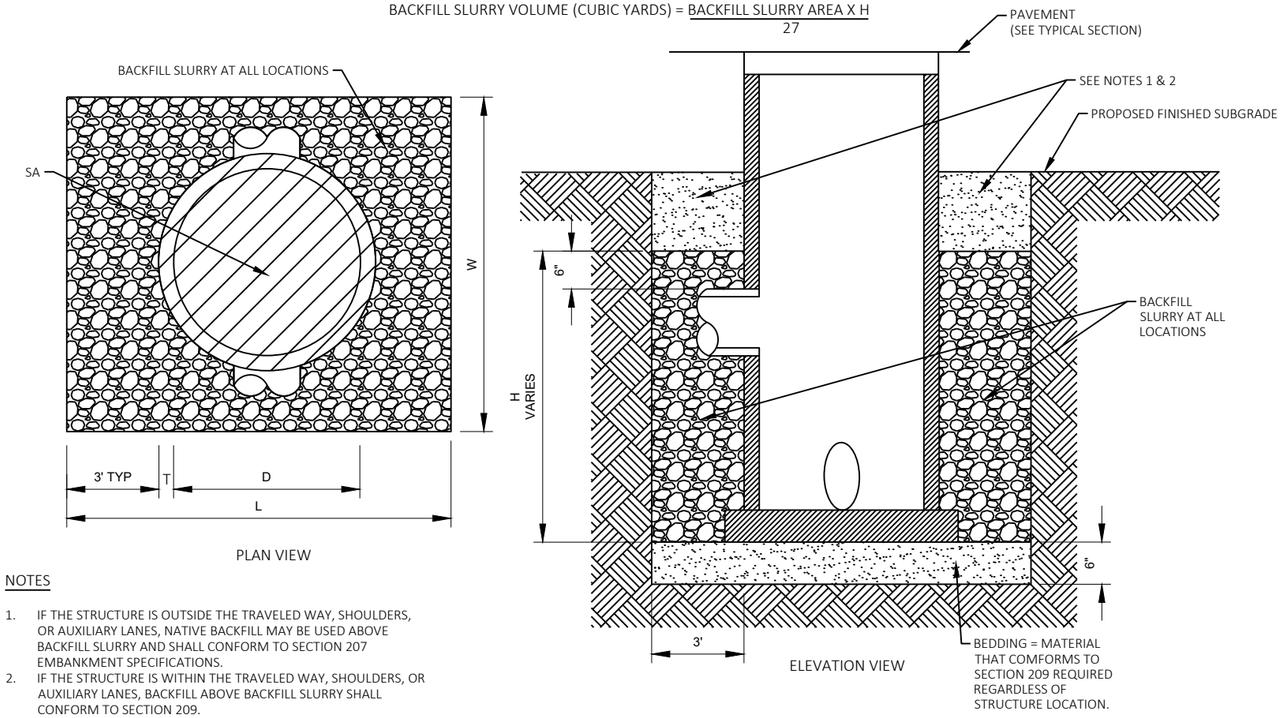
MONOLITHIC CONCRETE SHIMMING DETAIL

BACKFILL SLURRY STRUCTURES

DESCRIPTION	DIAMETER / STR LENGTH D FT	RECTANGULAR STR LENGTH RW FT	WALL THICKNESS T INCH	SLAB THICKNESS ST INCH	STRUCTURE EXCAVATION LENGTH L FT	STRUCTURE EXCAVATION WIDTH W FT	STRUCTURE EXCAVATION AREA SF	STRUCTURE AREA SA SF	BACKFILL SLURRY AREA SF
INLETS MEDIAN 1 GRATE	2.5	2.5	8	8	9.83	9.83	96.60	14.69	82.00
INLETS MEDIAN 2 GRATE	2.5	5.33	8	8	9.83	12.66	124.52	25.54	98.98
INLETS 2X3-FT	2	3	5	6	8.83	9.83	86.80	10.84	75.96
INLETS 4-FT DIAMETER	4	---	5	6	10.83	10.83	117.36	18.34	99.02
MANHOLES 4-FT DIAMETER	4	---	5	6	10.83	10.83	117.36	18.34	99.02
MANHOLES 5-FT DIAMETER	5	---	6	8	12.00	12.00	144.00	28.26	115.74
MANHOLES 6-FT DIAMETER	6	---	7	8	13.17	13.17	173.36	40.32	133.04
MANHOLES 7-FT DIAMETER	7	---	8	8	14.33	14.33	205.44	54.51	150.93
MANHOLES 8-FT DIAMETER	8	---	9	8	15.50	15.50	240.25	70.85	169.40

H = UP TO 6" ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{BACKFILL SLURRY AREA X H}}{27}$



PLAN VIEW

ELEVATION VIEW

NOTES

1. IF THE STRUCTURE IS OUTSIDE THE TRAVELED WAY, SHOULDERS, OR AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 207 EMBANKMENT SPECIFICATIONS.
2. IF THE STRUCTURE IS WITHIN THE TRAVELED WAY, SHOULDERS, OR AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.
3. WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED SUBGRADE. PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.
4. PAYMENT FOR BACKFILL SLURRY QUANTITY IS LIMITED TO THE DETAIL AS SHOWN. BACKFILL SLURRY QUANTITY FOR ANY OVER EXCAVATED AREA IS CONSIDERED PART OF CONSTRUCTION, AND NO ADDITIONAL PAYMENT WILL BE MADE.

BACKFILL SLURRY DETAIL - STORM SEWER STRUCTURES

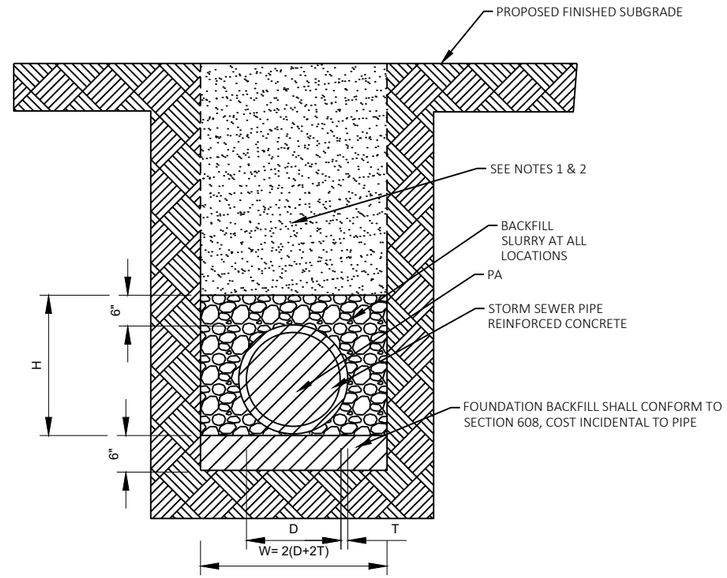
NOTES

1. IF THE PIPE IS OUTSIDE THE TRAVELED WAY OR SHOULDERS, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 207 EMBANKMENT SPECIFICATIONS.
2. IF THE PIPE IS WITHIN THE TRAVELED WAY OR SHOULDERS, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.
3. WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED SUBGRADE, PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.
4. PAYMENT FOR BACKFILL SLURRY QUANTITY IS LIMITED TO THE DETAIL AS SHOWN. BACKFILL SLURRY QUANTITY FOR ANY OVER EXCAVATED AREA IS CONSIDERED PART OF CONSTRUCTION, AND NO ADDITIONAL PAYMENT WILL BE MADE.

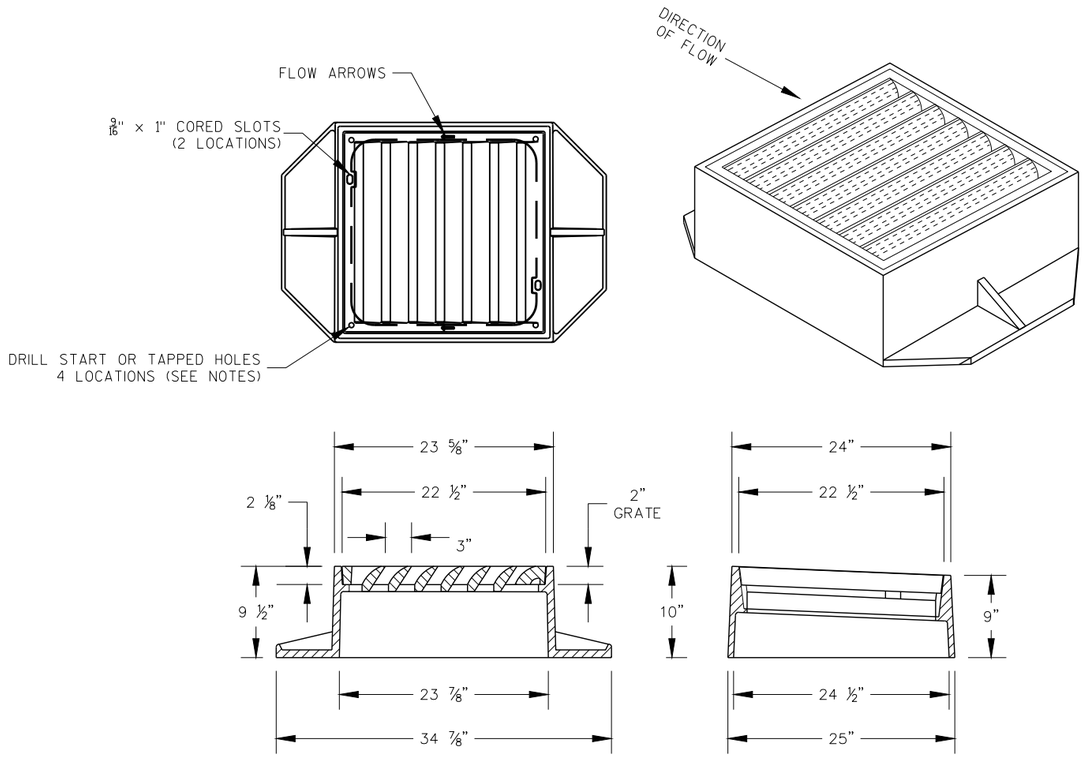
BACKFILL SLURRY PIPES

PIPE DIAMETER PW INCHES	WALL THICKNESS T INCHES	TRENCH WIDTH W FT	HEIGHT OF PIPE ZONE H (FROM PIPE BOTTOM TO 6" ABOVE TOP OF PIPE) FT	AREA OF PIPE ZONE SF	AREA OF PIPE PA SF	BACKFILL SLURRY AREA SF
12	2.00	2.67	1.83	4.89	1.40	3.49
15	2.25	3.25	2.13	6.91	2.07	4.83
18	2.50	3.83	2.42	9.26	2.89	6.38
21	2.75	4.42	2.71	11.96	3.83	8.13
24	3.00	5.00	3.00	15.00	4.91	10.09
27	3.25	5.58	3.29	18.36	6.12	12.24
30	3.50	6.17	3.58	22.10	7.47	14.63
36	4.00	7.33	4.17	30.56	10.56	20.00

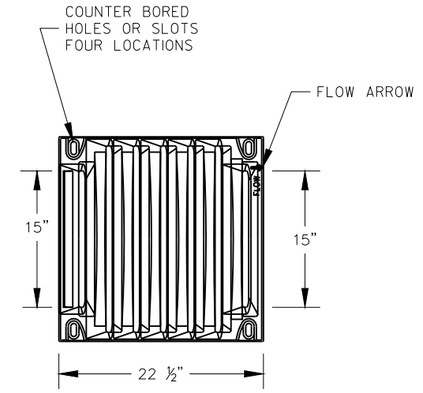
BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{(PIPE ZONE AREA - PIPE AREA) X PIPE PLAN LENGTH}}{27}$



BACKFILL SLURRY DETAIL - STORM SEWER TRENCH



INLET COVERS
TYPE V-S



HEAVY DUTY GRATE FOR
TYPE 'V-S' COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER
ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V SPECIAL (NOTED AS TYPE "V-S" ON DRAINAGE TABLE)
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B

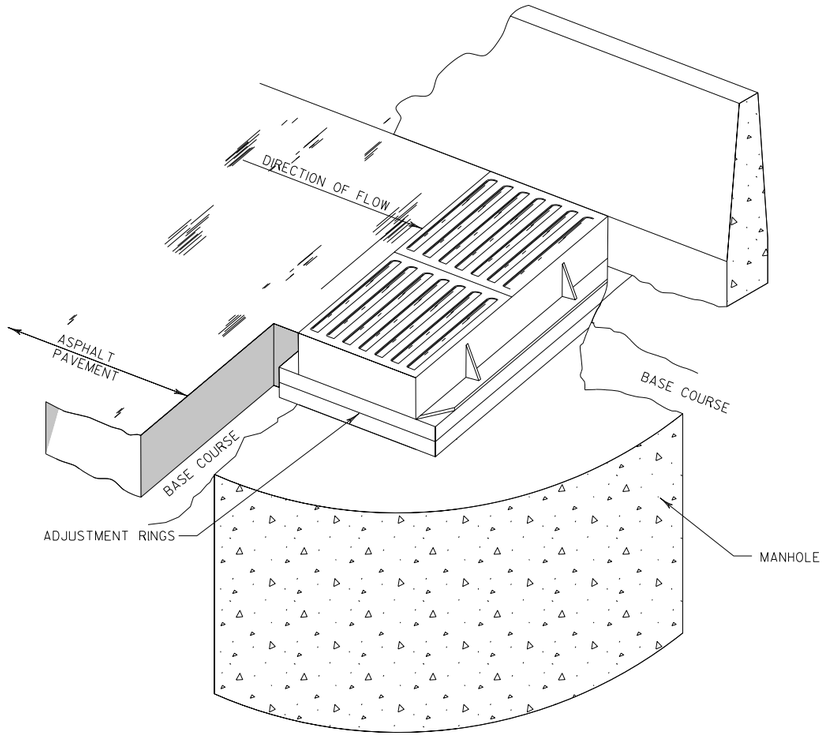
TYPE V-HD SPECIAL (NOTED AS TYPE "V-HD-S" ON DRAINAGE TABLE)
TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

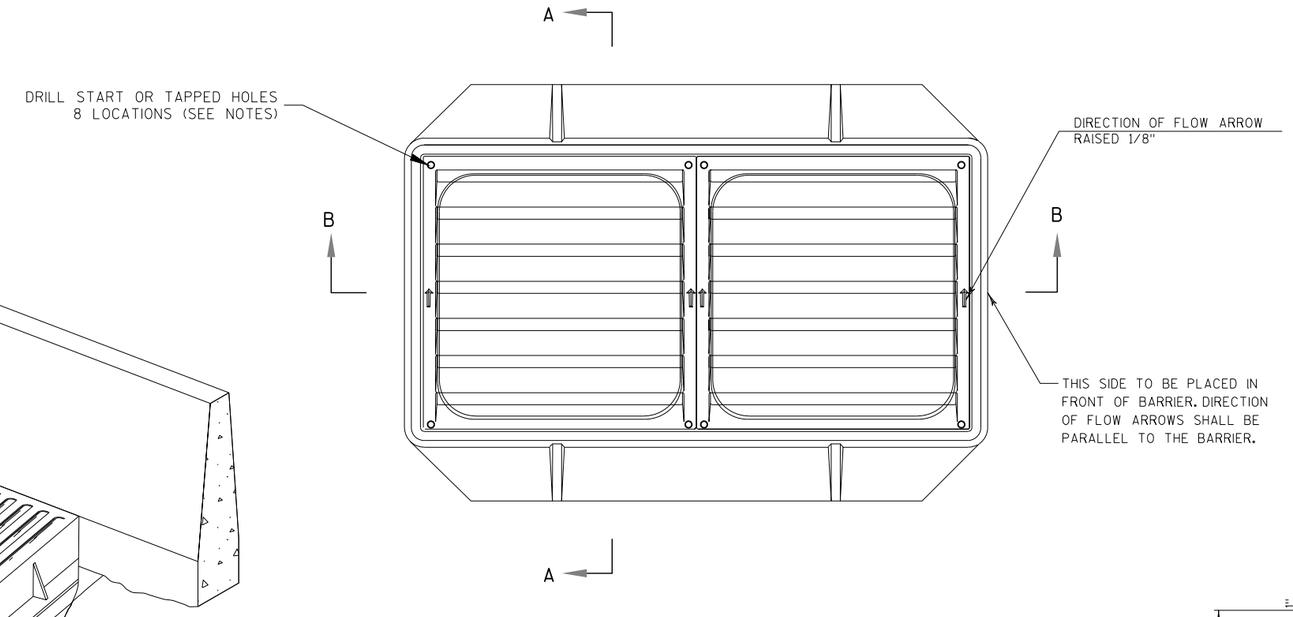
GENERAL NOTES

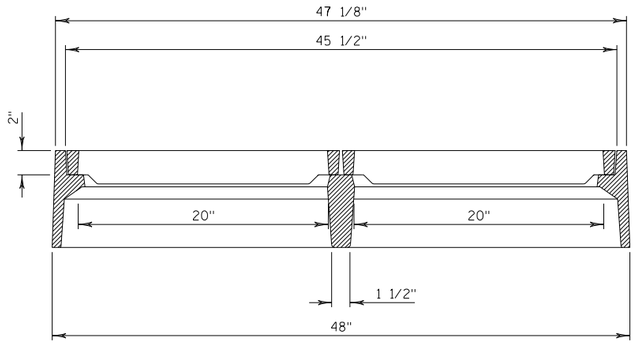
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

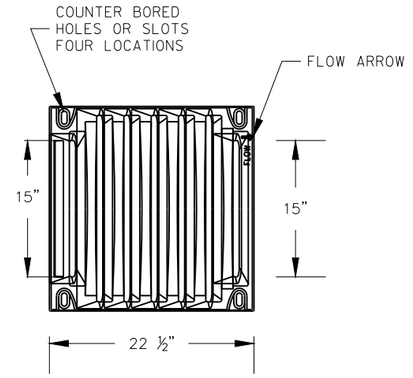
2





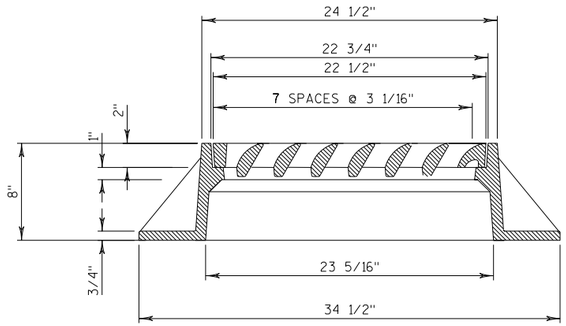


SECTION B-B



HEAVY DUTY GRATE FOR TYPE '27-M' COVER

(2 GRATES REQUIRED AT EACH COVER LOCATION)



SECTION A-A

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER
ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE 27-M-HEAVY DUTY (NOTED AS TYPE "27-M-HD" ON DRAINAGE TABLE)
TAP ½" -13 HOLES IN EIGHT LOCATIONS IN FRAME TO BOLT GRATES
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
GRATES - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - ½" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

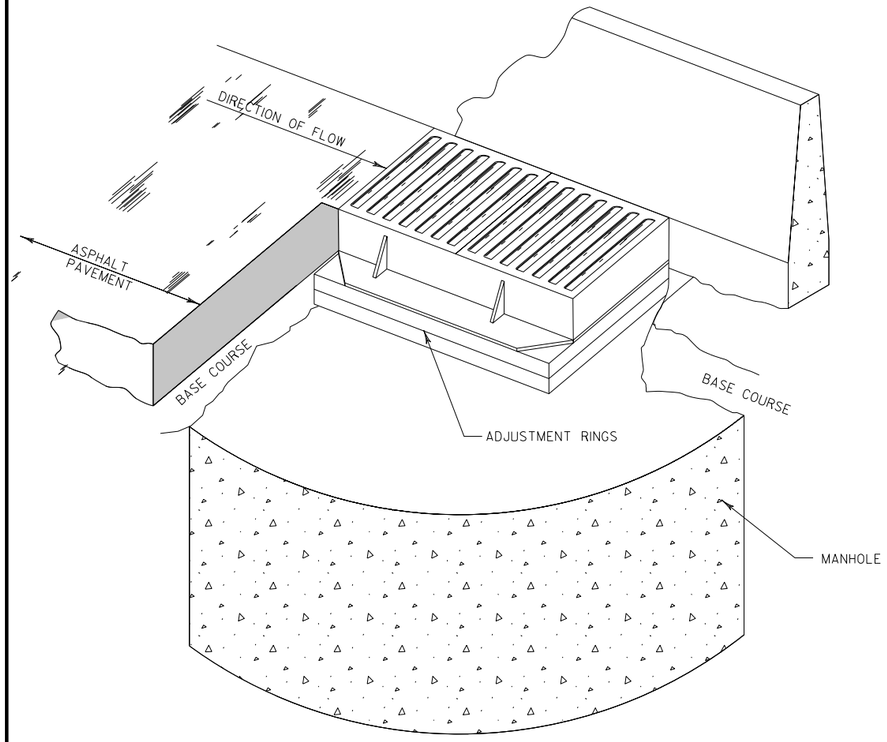
INLET COVERS TYPE 27-M-HD

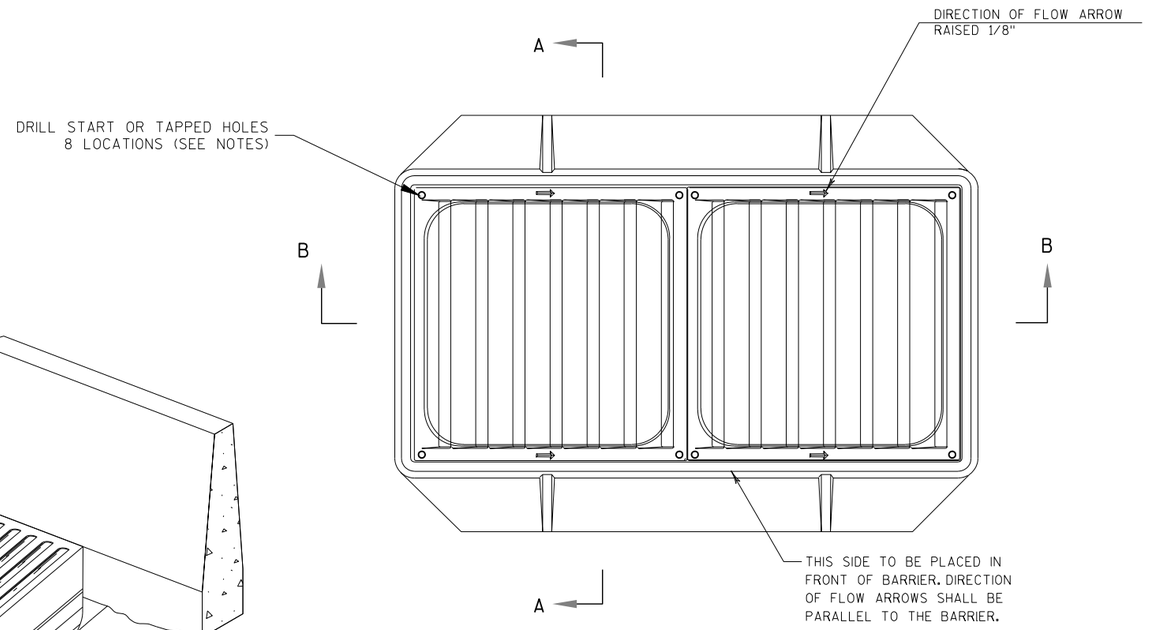
GENERAL NOTES

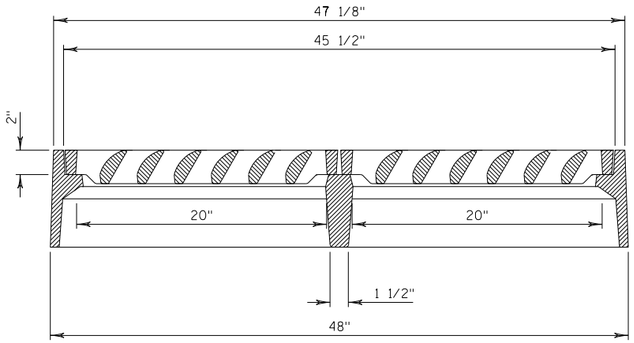
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

USE INLET COVER OPENING SIZE 2'X4'.

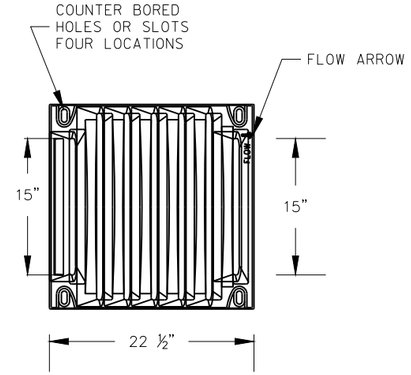






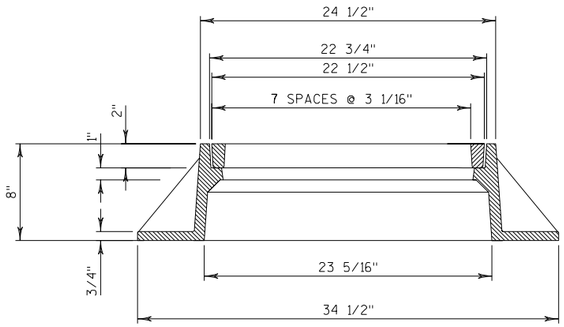
SECTION B-B

INLET COVERS TYPE 27-M-HD (ROTATED 90°)



HEAVY DUTY GRATE FOR TYPE '27-M' COVER

(2 GRATES REQUIRED AT EACH COVER LOCATION)



SECTION A-A

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER
ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

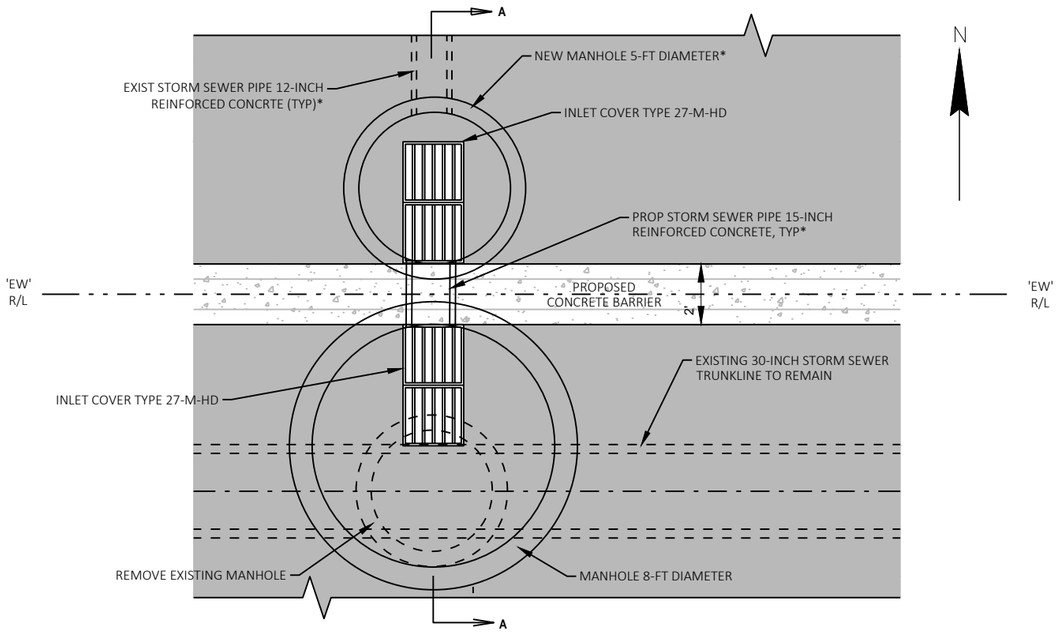
TYPE 27-M-HEAVY DUTY (NOTED AS TYPE "27-M-HD" ON DRAINAGE TABLE)
TAP ½" -13 HOLES IN EIGHT LOCATIONS IN FRAME TO BOLT GRATES
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
GRATES - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - ½" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

GENERAL NOTES

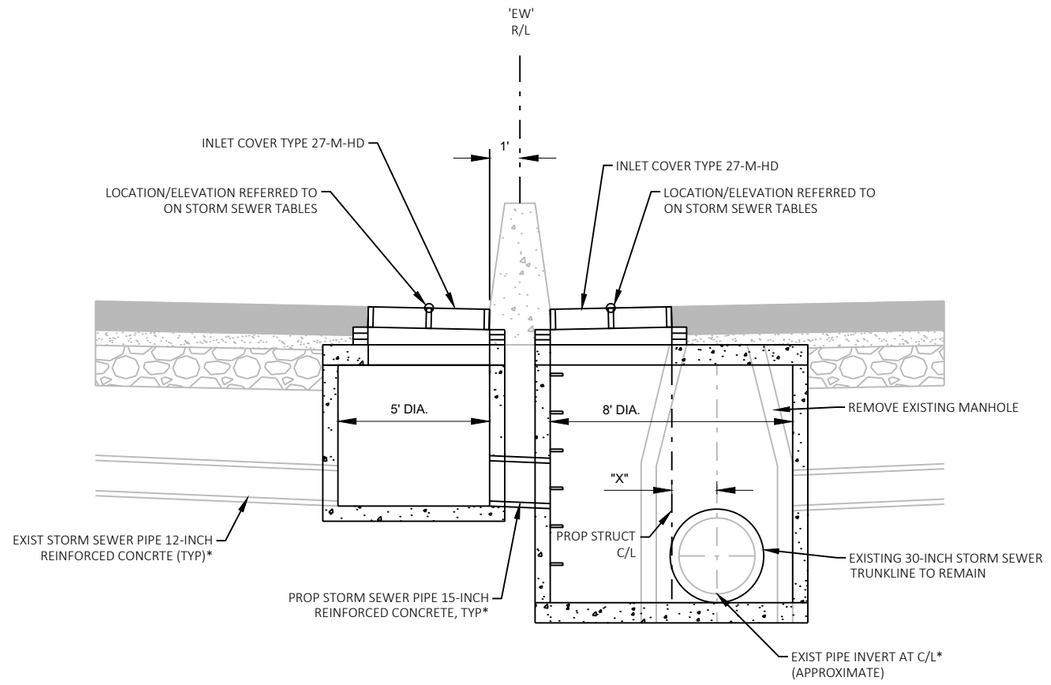
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

USE INLET COVER OPENING SIZE 2'X4'.



PLAN VIEW



SECTION A-A

NOTES

*LOCATIONS AND SIZES OF STRUCTURES AND PIPES VARY. SEE STORM SEWER PLANS AND MISCELLANEOUS QUANTITY STORM SEWER TABLES FOR SPECIFIC STRUCTURE INFORMATION.

DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DETAIL SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISDOT STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

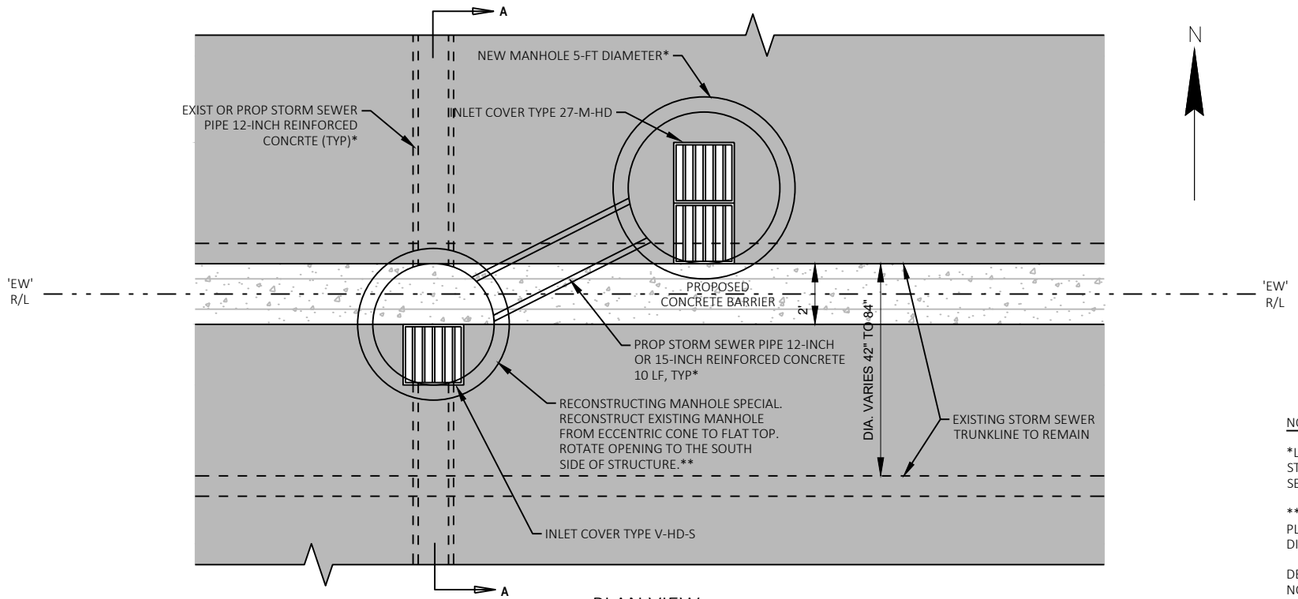
VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

STRUCTURE	X (APPROX. DISTANCE - PROP STRUCTURE C/L TO EXIST PIPE C/L)
H3650	1' 6"
H3660	1' 3"
H3680	1' 9"

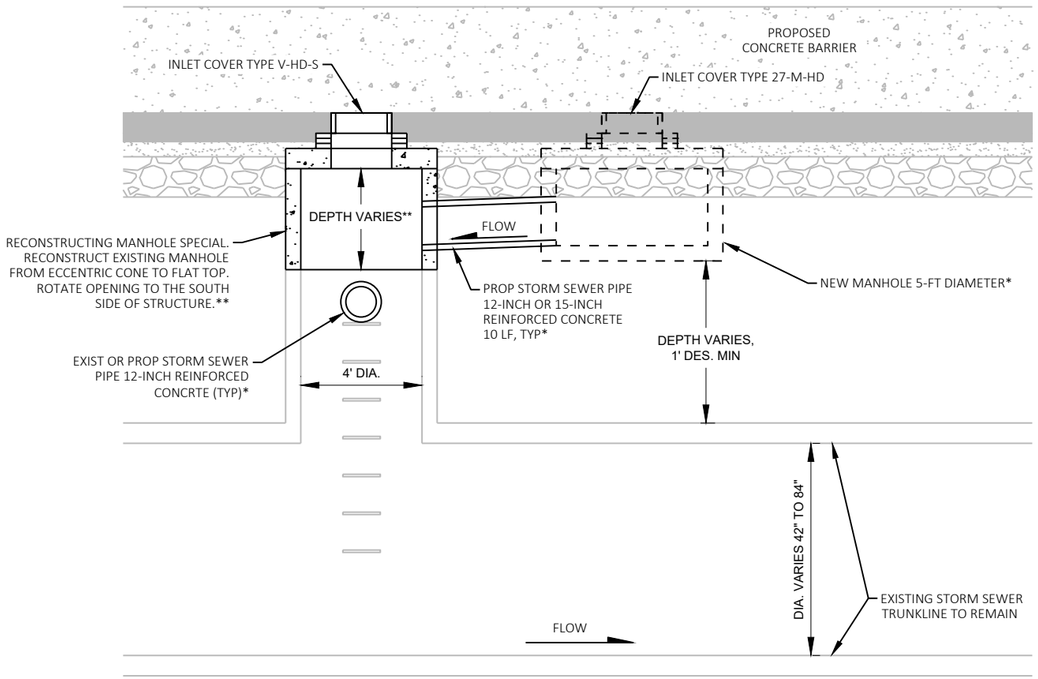
MANHOLES 8-FT DIAMETER (WITH OFFSET TRUNKLINE)

STRUCTURES

H3650
H3660
H3680



PLAN VIEW



PROFILE VIEW

MANHOLES OVER LARGE DIAMETER TRUNKLINE

STRUCTURES

H4100/H4100A	H4260/H4260A
H4120/H4120A	H4280/H4280A
H4130/H4130A	H4290/H4290A
H4150/H4150A	H4370/H4370A
H4170/H4170A	H4390
H4190/H4190A	H4400
H4210/H4198	H4410
H4230/H4230A/H4230B	H4420/H4420A

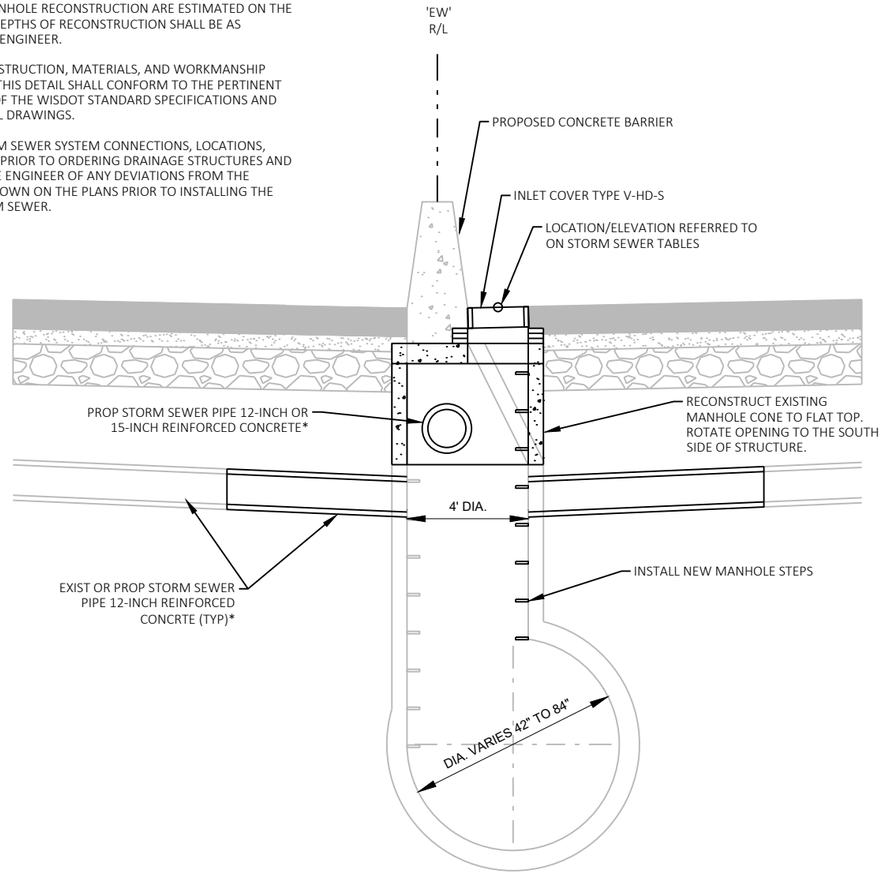
NOTES

*LOCATIONS AND SIZES OF STRUCTURES AND PIPES VARY. SEE STORM SEWER PLANS AND MISCELLANEOUS QUANTITY STORM SEWER TABLES FOR SPECIFIC STRUCTURE INFORMATION.

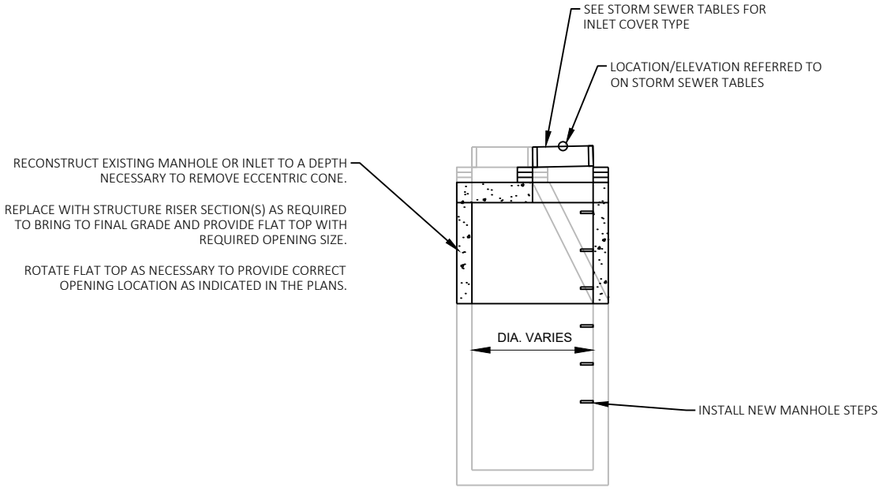
**DEPTHS OF MANHOLE RECONSTRUCTION ARE ESTIMATED ON THE PLANS. ACTUAL DEPTHS OF RECONSTRUCTION SHALL BE AS DIRECTED BY THE ENGINEER.

DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DETAIL SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISDOT STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.



SECTION A-A



NOTES

SEE STORM SEWER PLANS AND MISCELLANEOUS QUANTITY STORM SEWER TABLES FOR SPECIFIC STRUCTURE INFORMATION.

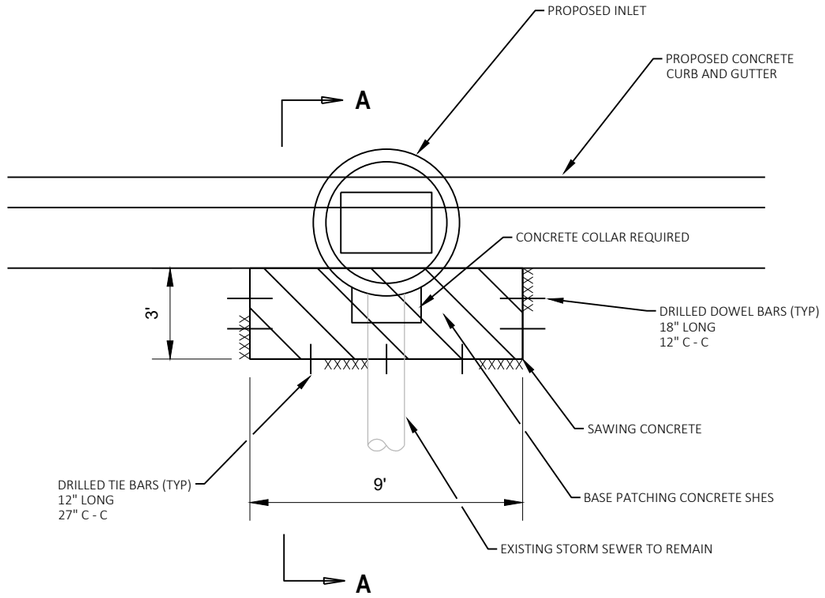
DEPTHS OF INLET/MANHOLE RECONSTRUCTION SHALL BE AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

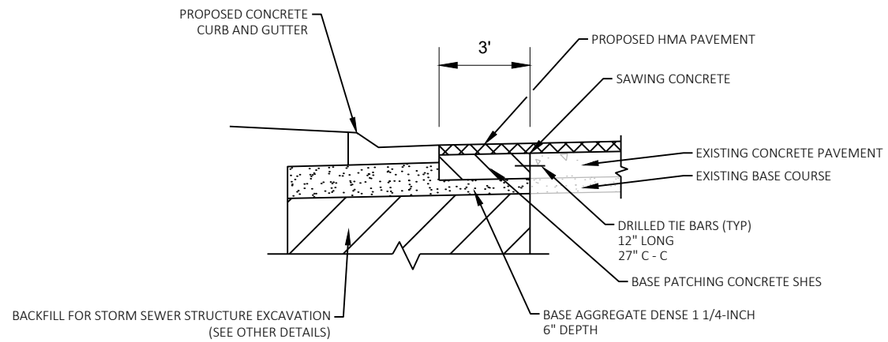
DETAILS FOR CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DETAIL SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE WISDOT STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

RECONSTRUCTING MANHOLE OR INLET SPECIAL

SEE STORM SEWER PLANS
FOR LOCATIONS





SECTION A-A

REMOVING INLET AT NTERCHANGE ON/OFF RAMP

SEE STORM SEWER PLANS
FOR LOCATIONS

2

2

N

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

74 76 78 80 82 84 86 88

RIPRAP

MATCHLINE STA 88+75

MATCHLINE STA 88+75

S. 84TH ST

RAMP TAB

RAMP TAA

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

REMOVE SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

REMOVE AND CAP MH STAGE 2

REMOVE SS 15" STAGE 3

REMOVE INLETS STAGE 3

REMOVE INLET STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVE SS 12-INCH STAGE 2

REMOVE MH STAGE 2 REMOVING INLETS STAGE 2

REMOVE INLET STAGE 3

REMOVE INLET STAGE 3

90 92 94 96 98 100 102

MATCHLINE STA 103+50

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 185	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 01

PLOT DATE : 11/14/2022 1:22 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 41

2

2

MATCHLINE STA 103+50

MATCHLINE STA 118+25

MATCHLINE STA 118+25

MATCHLINE STA 133+00

N

N

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

RAMP FHB

RAMP FHA

RAMP TBB

RAMP TBA

STH 24/W. FOREST HOME AVE

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

CTH U/S. 76TH ST

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 24" STAGE 2

REMOVE SS 18" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVE SS 24" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

REMOVE MH STAGE 2

REMOVE INLET STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 18" STAGE 3

REMOVE INLET STAGE 3

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE AND CAP MH STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 15" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 30" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 30" STAGE 2

REMOVE SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE INLETS STAGE 3

REMOVING SS 12" STAGE 3

REMOVE INLET STAGE 3

REMOVE INLETS STAGE 3

REMOVING SS 12" STAGE 3

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

REMOVE SS 30" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 36" STAGE 2

REMOVE SS 12" STAGE 2

REMOVING SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVING SS 12" STAGE 3

REMOVE INLET STAGE 3

REMOVING SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE INLET STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

REMOVE INLETS STAGE 2

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 3

REMOVE AND CAP MH STAGE 2

REMOVE SS 12" STAGE 3

REMOVE INLET STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 18" STAGE 3

REMOVE MH STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 18" STAGE 2

REMOVE SS 24" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 24" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 21" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE INLET STAGE 3

REMOVE SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE MH STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 12" STAGE 2

REMOVE SS 18" STAGE 2

REMOVE MH STAGE 2

104

106

108

110

112

114

116

118

120

122

124

126

128

130

132

55

55

SS

SS

SS

SS

SLAB

SLAB

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 186 E

2

MATCHLINE STA 133+00

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

134 136 138 140 144 146

REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3
REMOVE SS 15" STAGE 2
REMOVE SS 18" STAGE 2
REMOVE SS 21" STAGE 2
REMOVE INLET STAGE 3
REMOVE INLET STAGE 2

MATCHLINE STA 147+75

S. 68TH ST

148 150 152 154 156 158 160 162

REMOVE SS 21" STAGE 2
REMOVE AND CAP MH STAGE 2
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE AND CAP MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 3

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

MATCHLINE STA 162+25

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 187	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 03

PLOT DATE : 11/14/2022 1:25 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

MATCHLINE STA 162+25

REMOVE INLETS STAGE 3
REMOVE INLETS STAGE 3
REMOVE MH STAGE 2
REMOVE SS 18" STAGE 2
REMOVE INLETS STAGE 2
REMOVE INLET STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLET STAGE 2
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE SS 15" STAGE 2
REMOVE MH STAGE 3
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLET STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE AND CAP MH STAGE 2
REMOVE AND CAP MH STAGE 2
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 3

IH 43 SB/IH 894 WB
IH 43 NB/IH 894 EB
RAMP TCC
RAMP TCB
S. 60TH ST
S. 60TH ST

164 166 168 170 172 174 176

N

MATCHLINE STA 177+25

RAMP TCD
RAMP TCA

REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 3
REMOVE INLETS STAGE 2
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLET STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLET STAGE 2
REMOVE MH STAGE 2
REMOVE INLET STAGE 2
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLET STAGE 3
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE INLET STAGE 2

IH 43 SB/IH 894 WB
IH 43 NB/IH 894 EB

178 180 182 184 186 188 190

N

MATCHLINE STA 192+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 188	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 04
PLOT DATE : 11/14/2022 1:27 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

2

IH 43 SB/IH
894 WB

MATCHLINE STA 192+00

REMOVE INLET STAGE 3
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLET STAGE 2
REMOVE INLET STAGE 3
REMOVE INLET STAGE 3

IH 43 SB/IH 894 WB
IH 43 NB/IH 894 EB

S. 51ST ST

REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE INLET STAGE 3
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE MH STAGE 2
REMOVE INLET STAGE 3

IH 43 SB/IH 894 WB
IH 43 NB/IH 894 EB

S. 51ST ST

MATCHLINE STA 206+75

2

MATCHLINE STA 206+75

REMOVE SS 15" STAGE 3
REMOVE INLET STAGE 3
REMOVE SS 15" STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE INLET STAGE 3
REMOVE SS 18" STAGE 2
REMOVE MH STAGE 3
REMOVE SS 24" STAGE 2
REMOVE AND CAP MH STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE SS 15" STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE MH STAGE 2
REMOVE INLET STAGE 3
REMOVE SS 12" STAGE 3
REMOVE INLET STAGE 3
REMOVE SS 12" STAGE 3

IH 43 SB/IH 894 WB
IH 43 NB/IH 894 EB

RAMP LRC

REMOVE MH STAGE 2
REMOVE SS 12" STAGE 2
REMOVE INLETS STAGE 2
REMOVE INLETS STAGE 3
REMOVE SS 12" STAGE 3

MATCHLINE STA 221+50

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 189	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 05
PLOT DATE : 11/14/2022 1:29 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

2

2

MATCHLINE STA 221+50

RAMP LRD

REMOVE SS 15" STAGE 3

REMOVE INLETS STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 15" STAGE 3

REMOVE INLETS STAGE 3

REMOVE INLET STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 2

IH 43 SB/IH 894 WB

REMOVE AND CAP MH STAGE 2

REMOVE MH STAGE 2

REMOVE SS 15" STAGE 2

REMOVE SS 15" STAGE 3

REMOVE SS 18" STAGE 2

REMOVE INLETS STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE SS 12" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 30" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 30" STAGE 2

REMOVE INLETS STAGE 3

REMOVE SS 18" STAGE 3

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

REMOVE SS 15" STAGE 2

REMOVE MH STAGE 2

REMOVE SS 15" STAGE 3

REMOVE INLETS STAGE 3

REMOVE SS 12" STAGE 3

REMOVE INLETS STAGE 3

IH 43 NB/IH 894 EB

IH 43 NB/IH 894 EB

RAMP LRB

RAMP LRA

STH 36/W. LOOMIS RD

222

224

226

228

230

230

MATCHLINE STA 234'EWW'+00

N

MATCHLINE STA 234'EWW'+00

RAMP LRE

REMOVE AND CAP MH STAGE 3

REMOVE AND CAP MH STAGE 3

IH 43 SB/IH 894 WB

235

240

245

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

REMOVE SS 18" STAGE 2

REMOVE AND CAP MH STAGE 2

REMOVE SS 12" STAGE 2

REMOVE INLET STAGE 2

235

REMOVE SS 12" STAGE 2

240

245

IH 43 NB/IH 894 EB

MATCHLINE STA 248+81

N

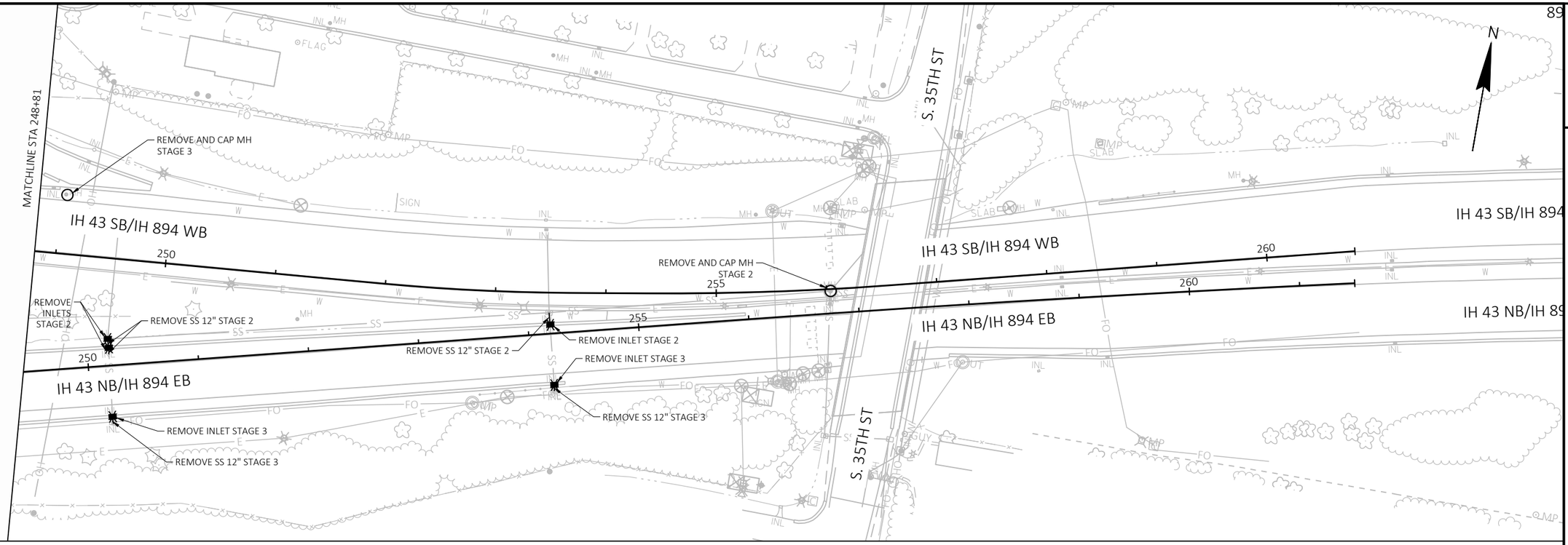
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 190	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 06

PLOT DATE : 11/14/2022 1:30 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : ##########

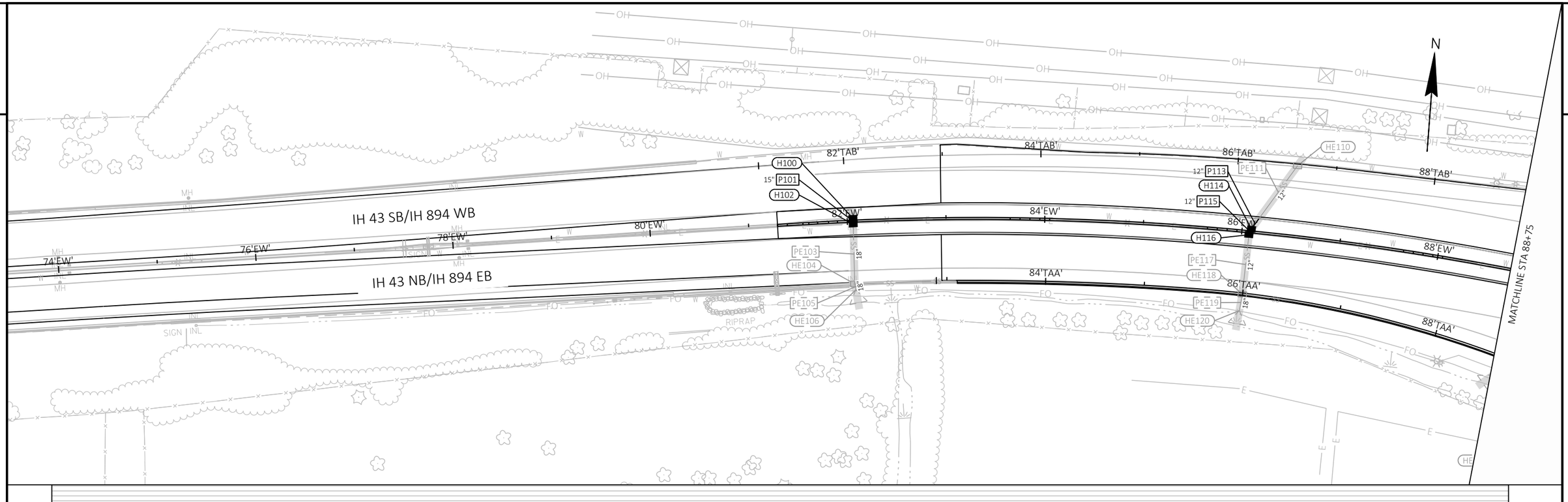
WISDOT/CADDS SHEET 41

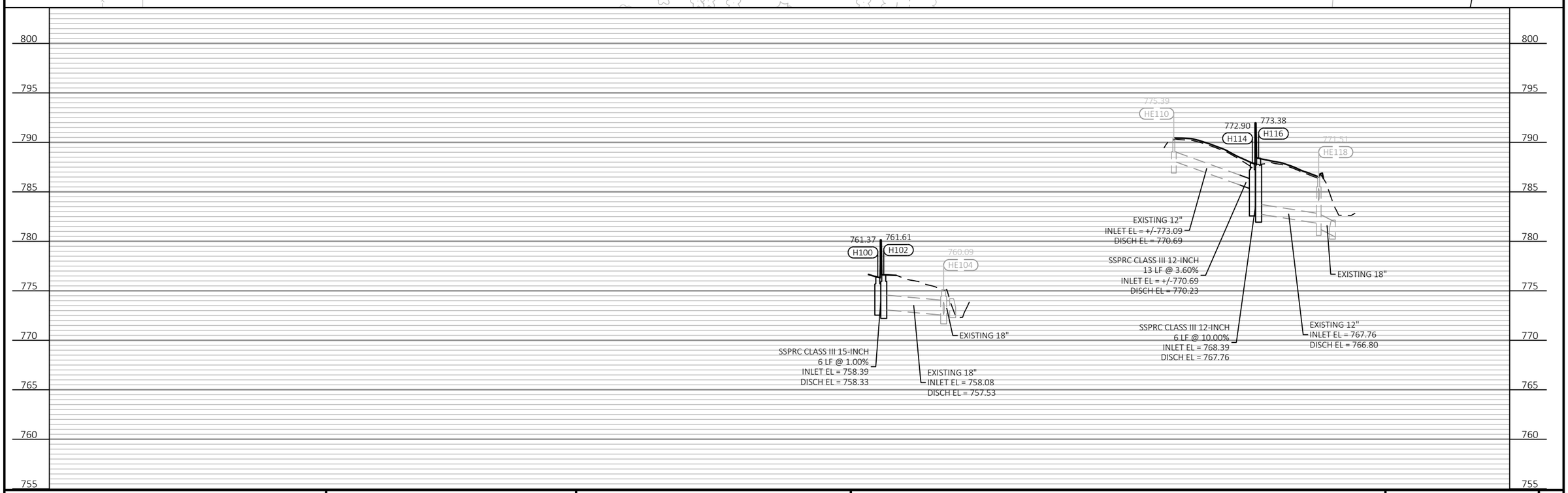
2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER REMOVALS	SHEET 191	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022401-SS.DWG
LAYOUT NAME - 07
PLOT DATE : 11/14/2022 1:31 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 41





PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 192	E

2

MATCHLINE STA 88+75

MATCHLINE STA 103+50

RAMP TAB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

RAMP TAA

S. 84TH ST

ADJUST MH COVER 776.11

ADJUST MH COVER 775.56

SLOTTED DRAIN

90'TAB' 92'TAB' 94'TAB'

90'EW' 92'EW' 94'EW' 96'EW' 98'EW' 100'EW' 102'EW'

90'TAA' 92'TAA' 94'TAA'

20'TA' 18'TA'

H130 P131 12" H132 P135 12" H136 P137 12" H138 P139 12" H142 P143 15" H144 H226 P227 H228 P225 12" H230 H224 H300 P301 15" H302 H304

HE134 HE140 HE210 HE211 HE212 PE213 HE214 HE215 HE216 PE217 HE220 PE221 HE222 PE223 HE226 PE227 HE228 PE229 HE230 PE231 HE232 PE233 HE234 PE235 HE240 HE241 PE243 HE244 PE245 HE246 PE247 HE248 PE249 HE250 PE251 HE260 PE303 PE305 HE306 HE3351 PE3352 HE3352A PE133 PE141 PE145 HE146

N

REMOVE & CAP MH HE134

REMOVE & CAP MH HE140

REMOVE & CAP MH HE232

REMOVE & CAP MH HE232

784.89 H136

785.09 H138

784.02 H132

783.28 H130

781.79 H142

779.76 H144

793.05 H228

792.88 H230

792.94 H226

793.03 H224

788.97 H300

789.07 H302

788.63 H304

SSPRC CLASS III 12-INCH 6 LF @ 0.50% INLET EL = 780.66 DISCH EL = 780.63

EXISTING 12" INLET EL = 780.63 DISCH EL = 780.34

SSPRC CLASS III 12-INCH 11 LF @ 5.60% INLET EL = 780.34 DISCH EL = 779.72

SSPRC CLASS III 12-INCH 6 LF @ 5.60% INLET EL = 779.72 DISCH EL = 779.39

SSPRC CLASS III 12-INCH 9 LF @ 5.51% INLET EL = 779.39 DISCH EL = 778.87

SLOTTED DRAIN CONNECTION

EXISTING 12" INLET EL = 778.87 DISCH EL = 775.30

SSPRC CLASS III 15-INCH 15 LF @ 0.78% INLET EL = 775.30 DISCH EL = 775.19

EXISTING 18" INLET EL = 774.90 DISCH EL = 773.62

EXISTING 12" INLET EL = 788.10 DISCH EL = 782.51

EXISTING 12" INLET EL = 788.22 DISCH EL = 782.71

SSPRC CLASS III 12-INCH 6 LF @ 5.00% INLET EL = 783.53 DISCH EL = 783.23

SSPRC CLASS III 12-INCH 10 LF @ 5.00% INLET EL = 783.23 DISCH EL = 782.71

EXISTING 12"

SSPRC CLASS III 15-INCH 6 LF @ 1.00% INLET EL = 783.34 DISCH EL = 783.28

EXISTING 18" INLET EL = 783.03 DISCH EL = 780.83

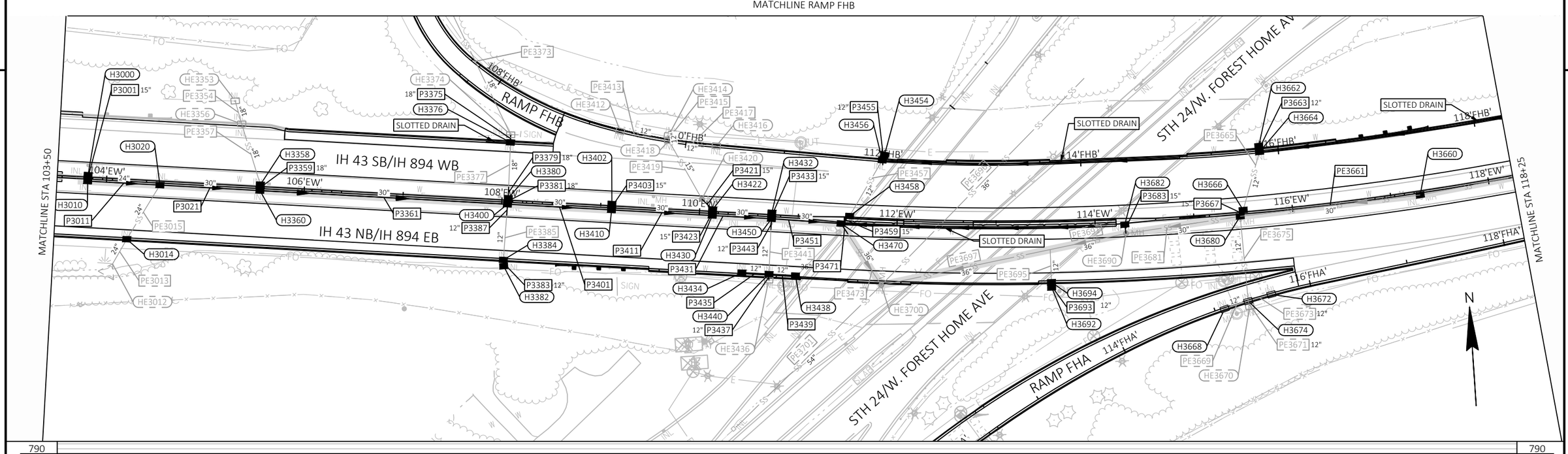
EXISTING 18" INLET EL = 780.70 DISCH EL = 773.86

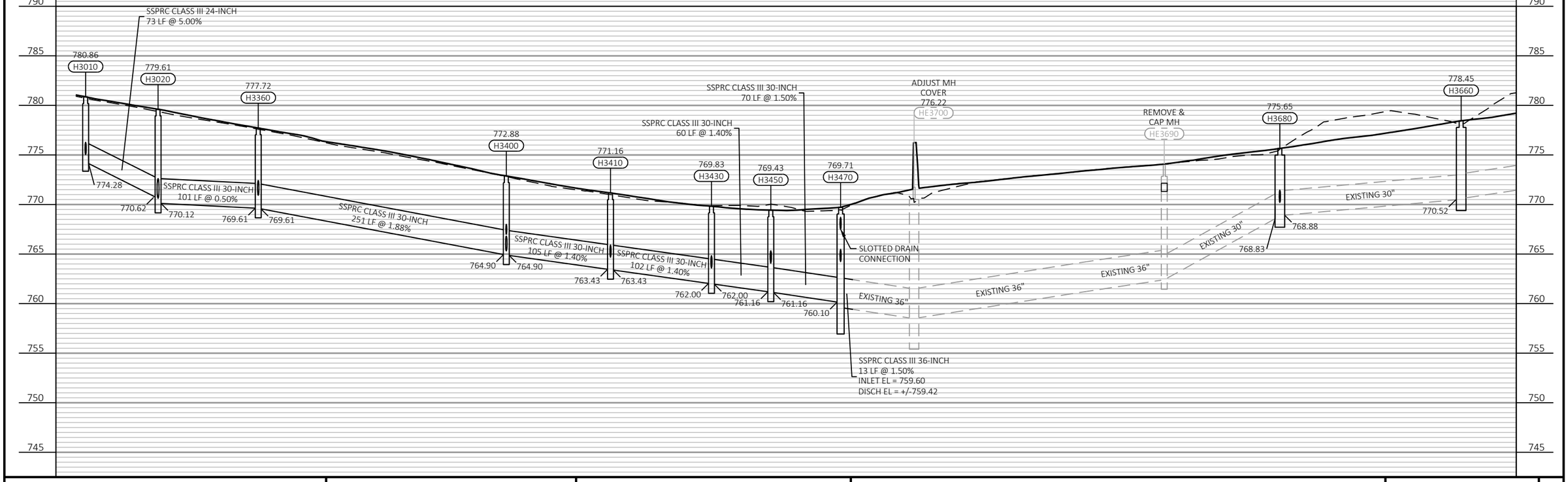
800 795 790 785 780 775 770 765 760

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 193	E

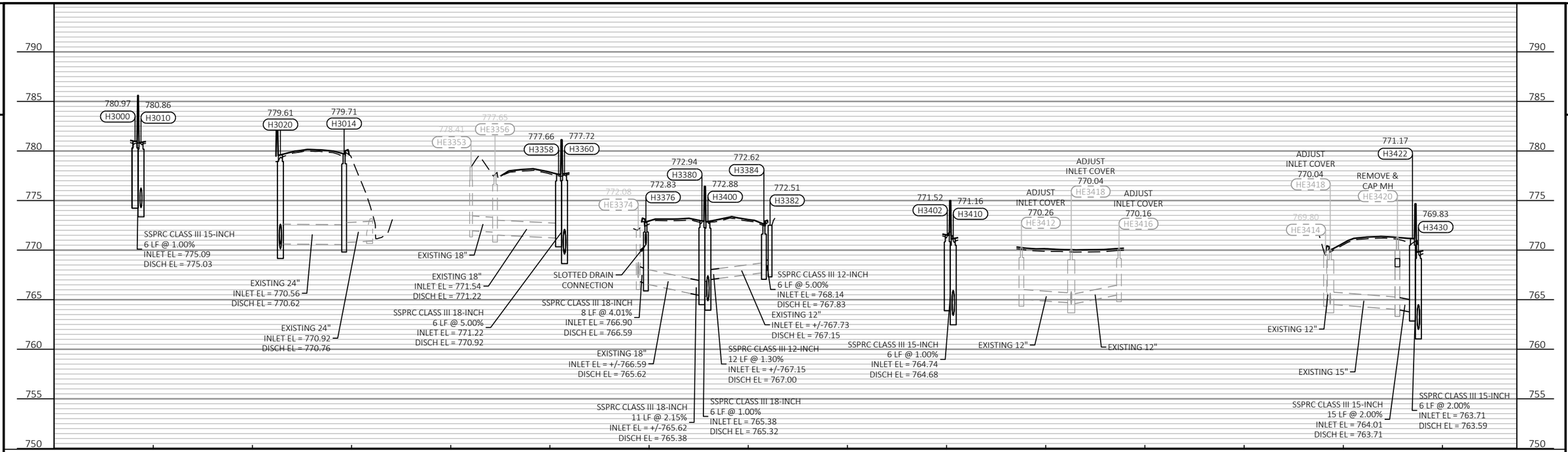
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (2)

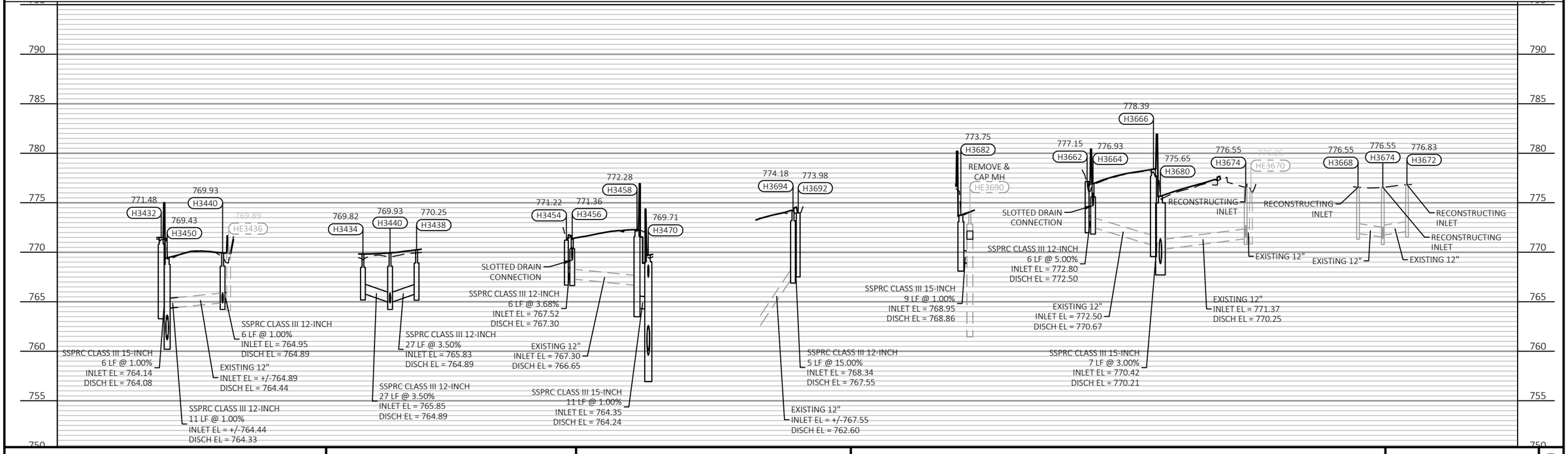
PLOT DATE : 11/14/2022 1:37 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT





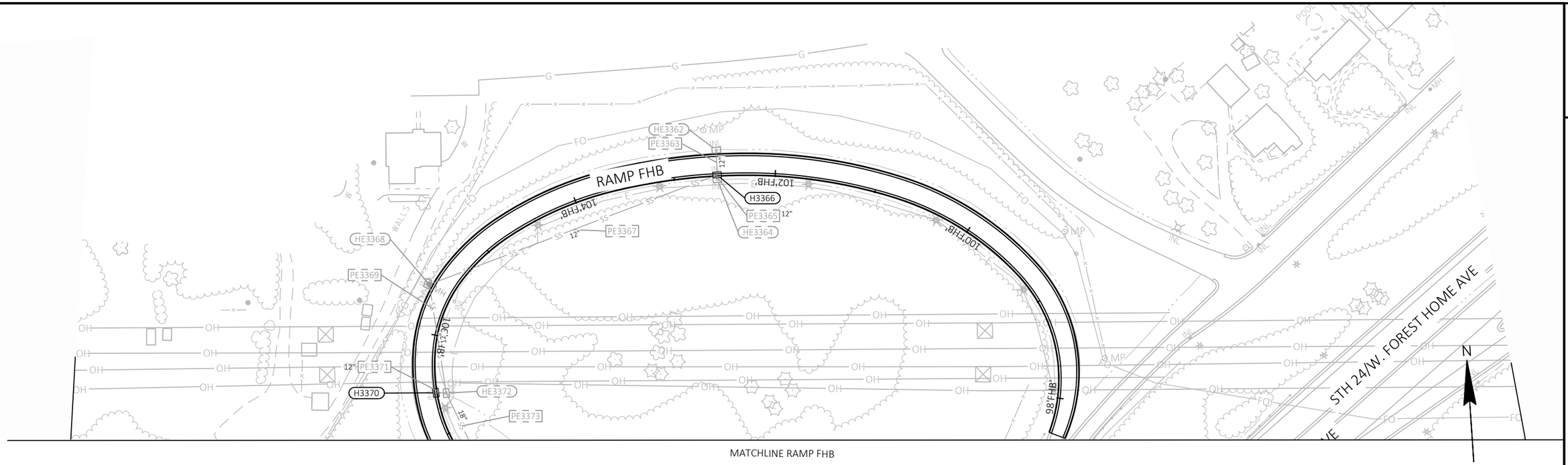
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 194	E





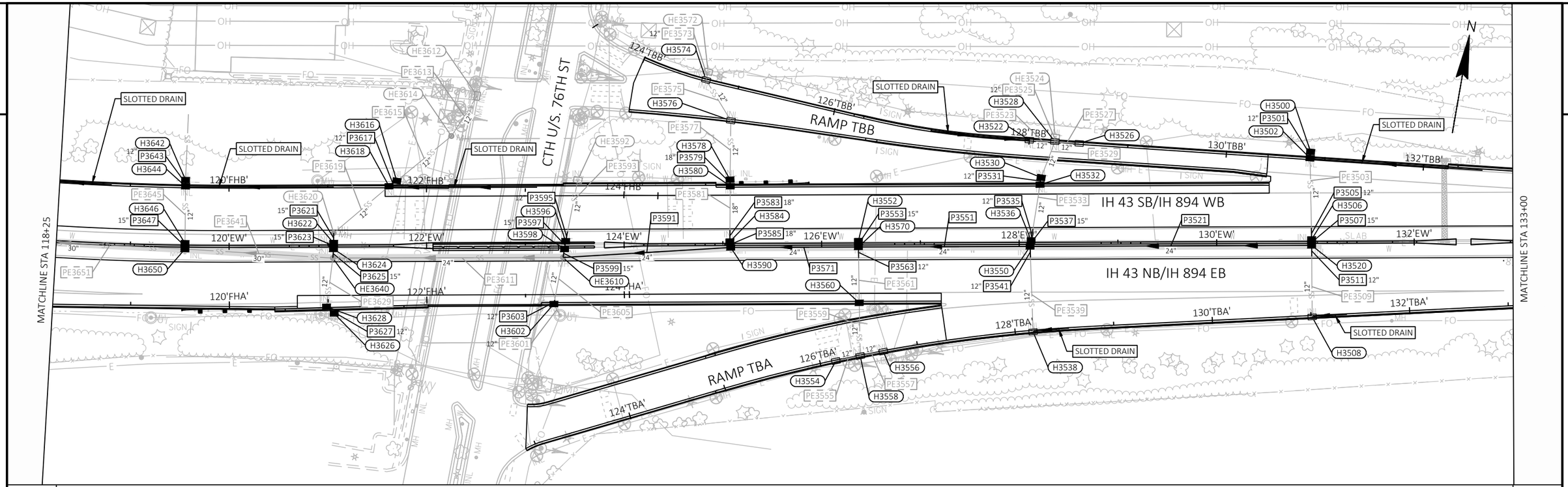
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 195	E

2

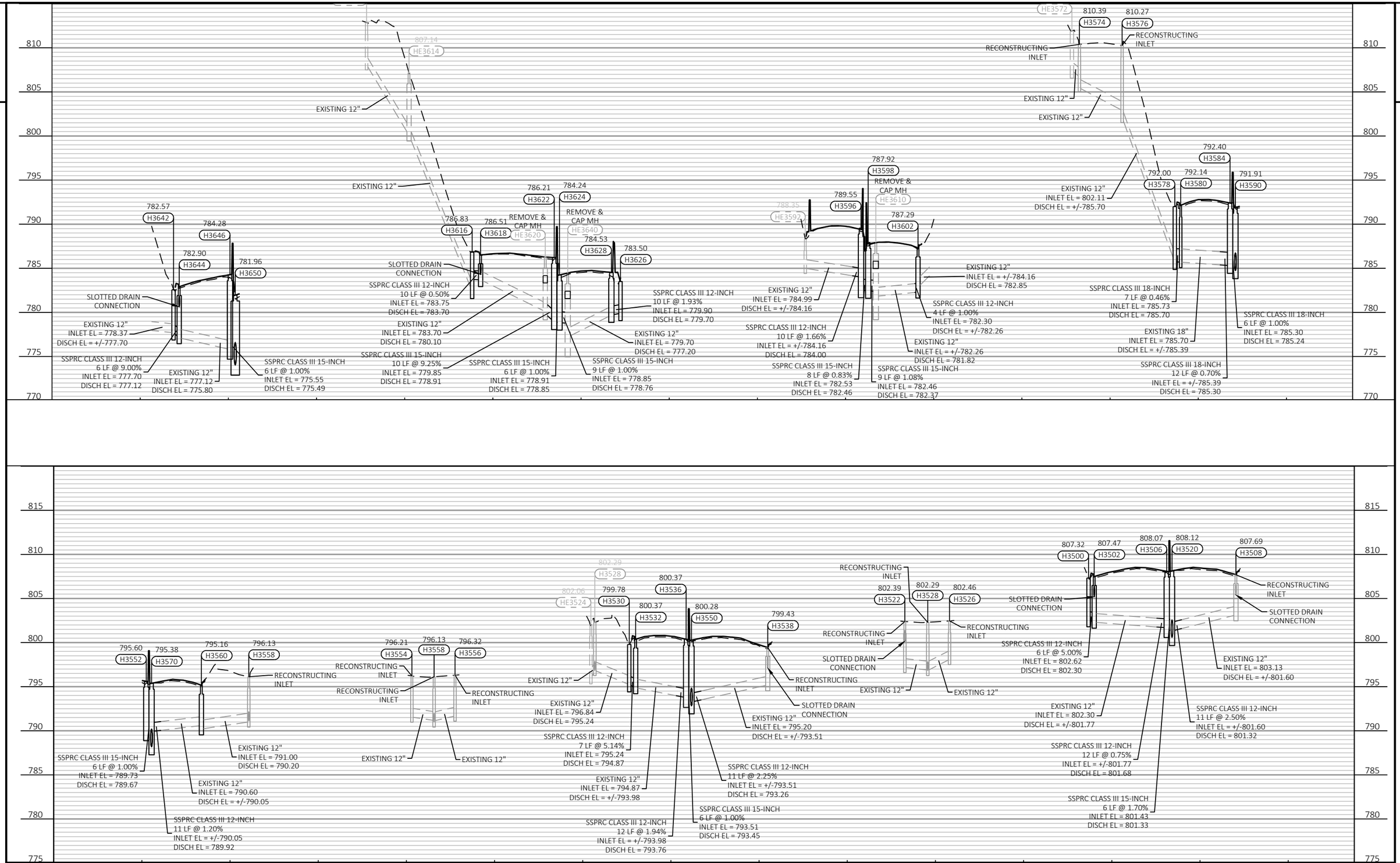


NO PROFILES - THIS SHEET

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 196	E

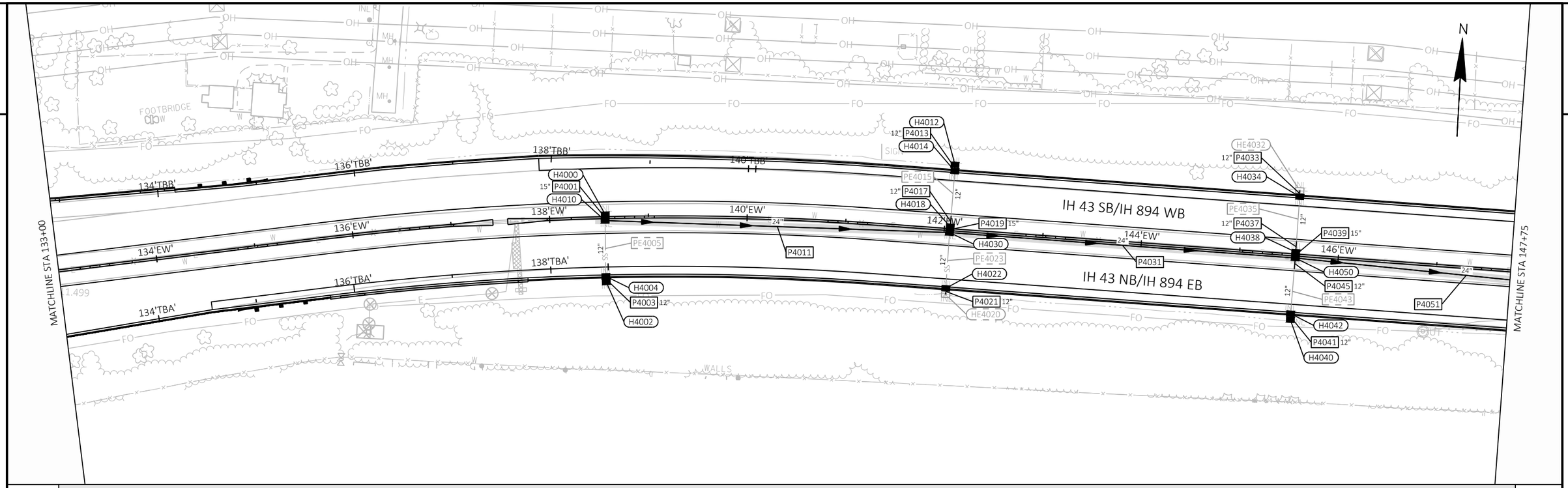


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 197	E



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 198	E

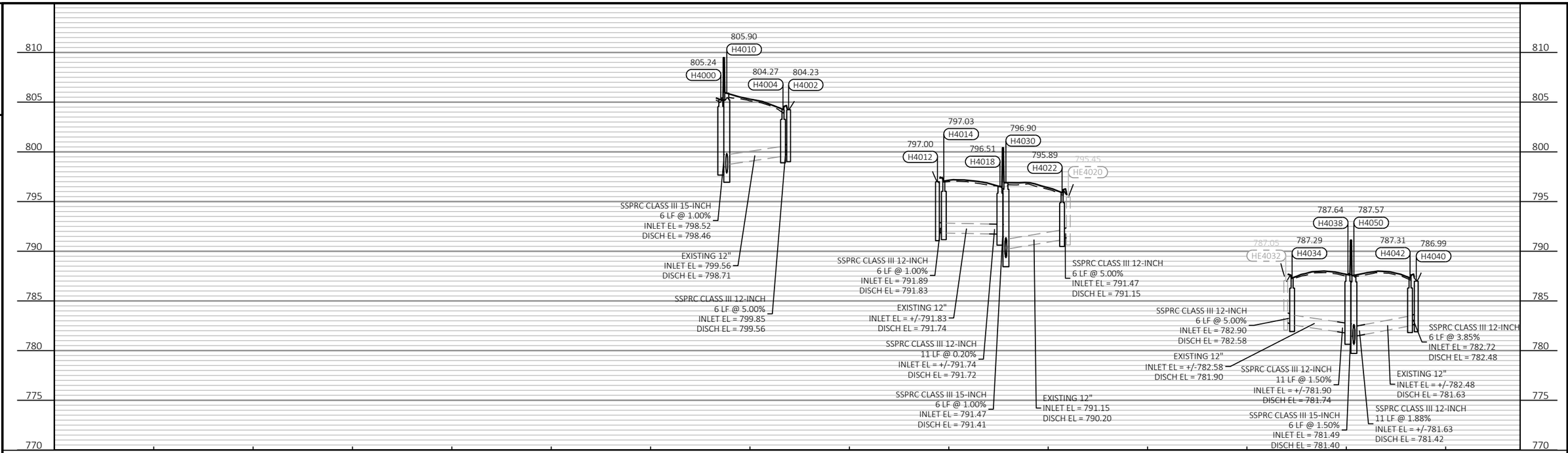
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (4A)
PLOT DATE : 11/14/2022 1:42 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 41



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 199	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (5)

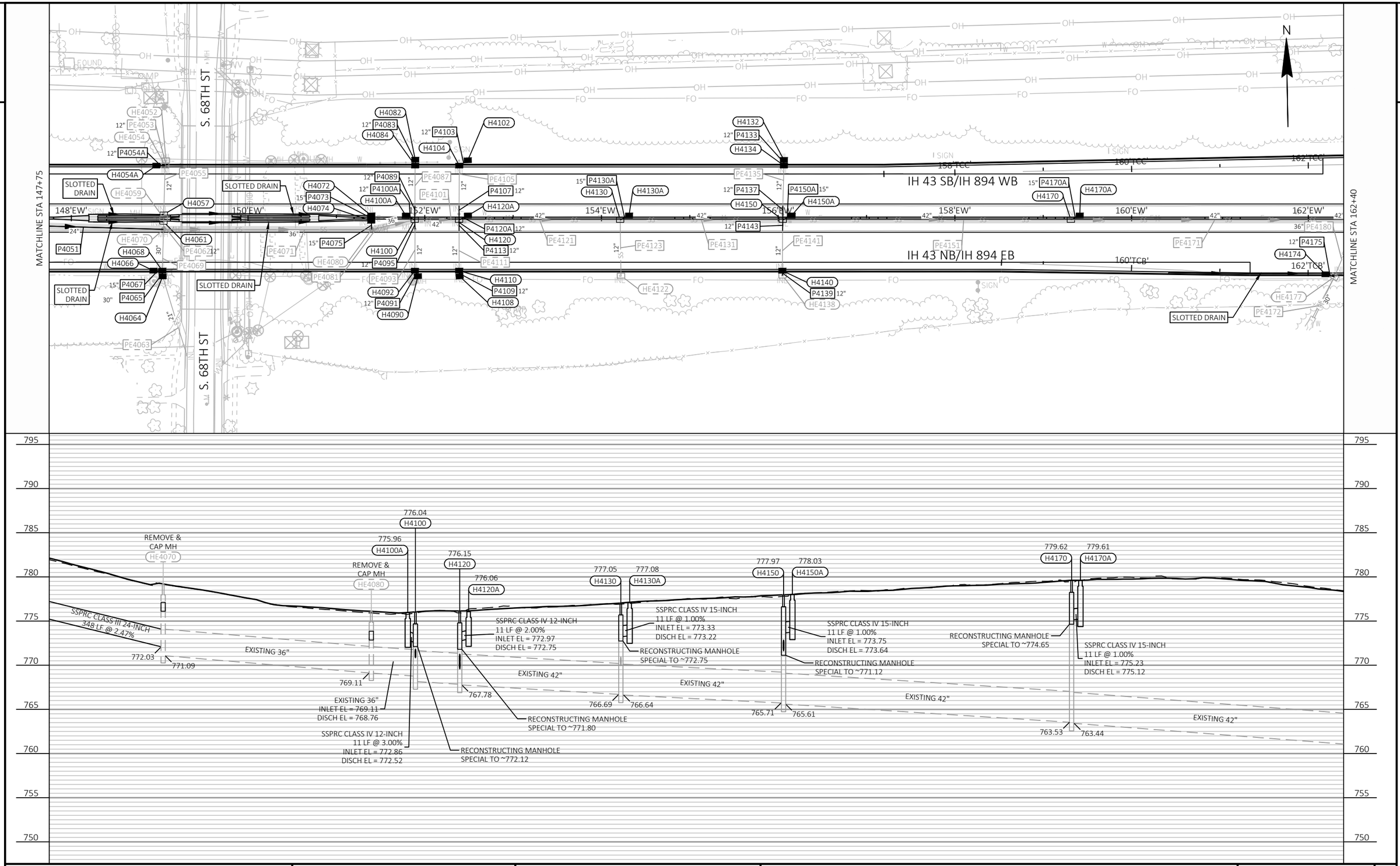
PLOT DATE : 11/14/2022 1:42 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT



2

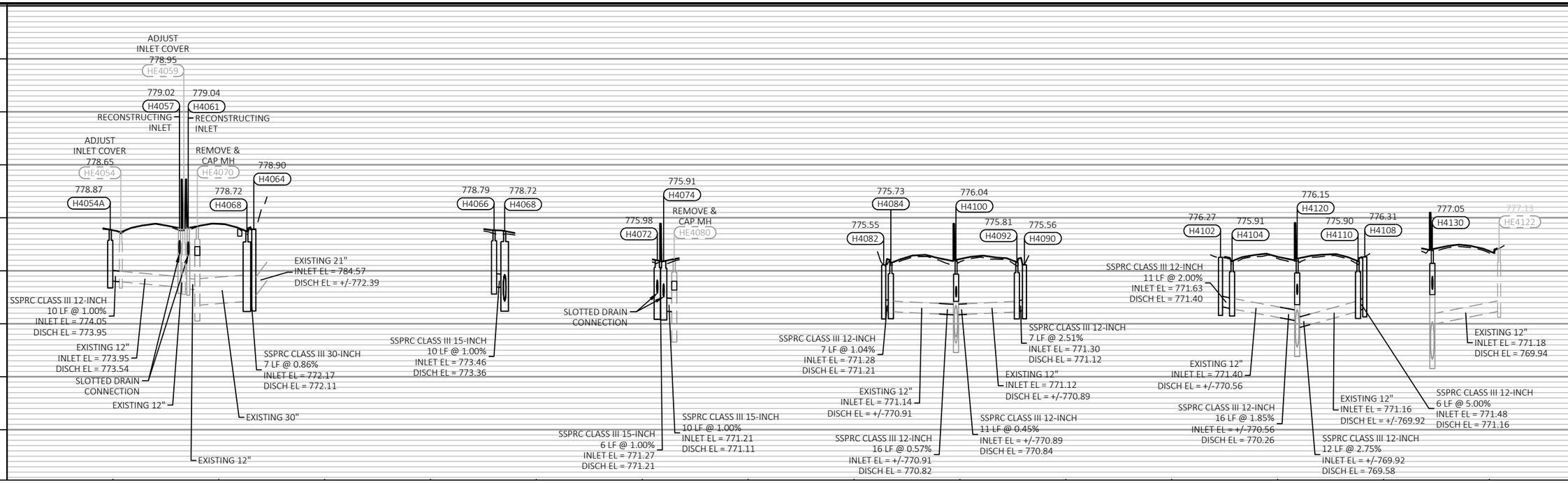
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 200	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (5A)
PLOT DATE : 11/14/2022 1:43 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 41

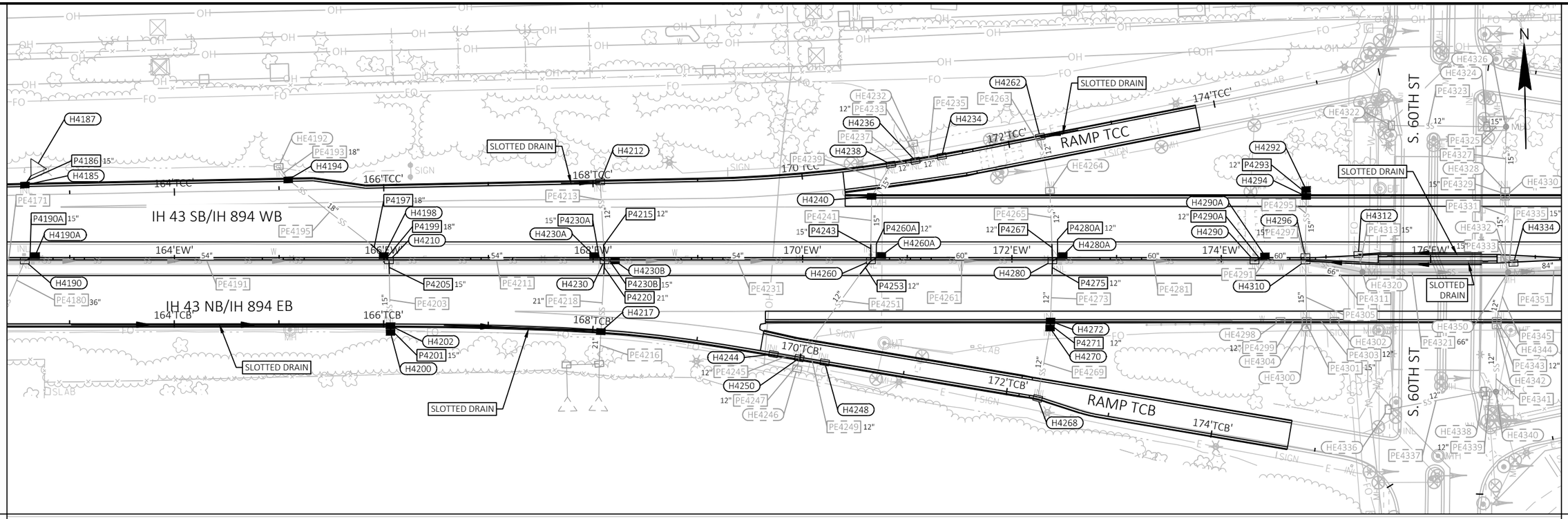


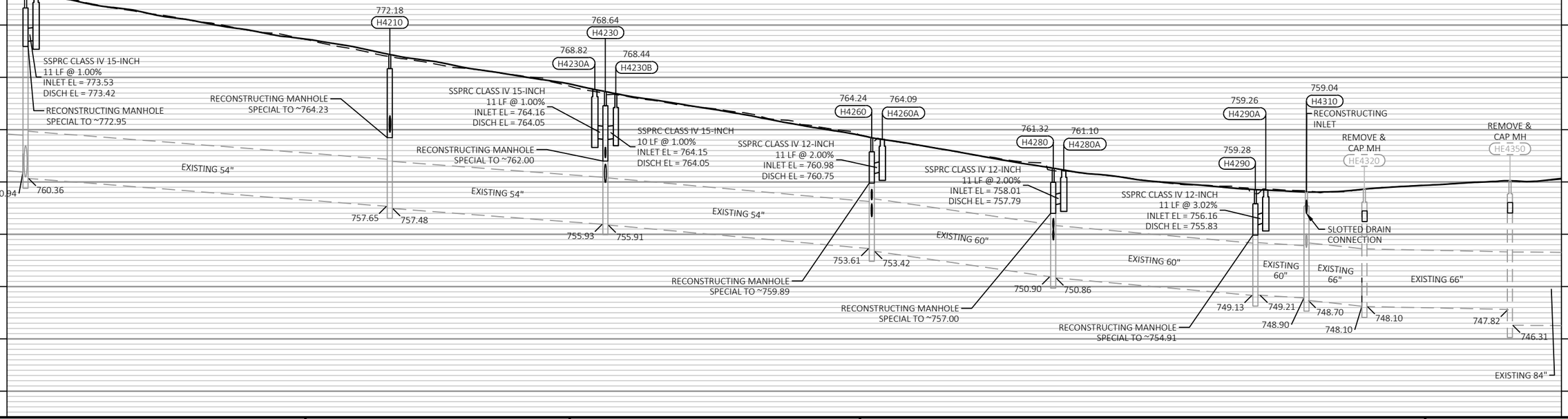
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 201	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 11/14/2022 1:44 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 202	E

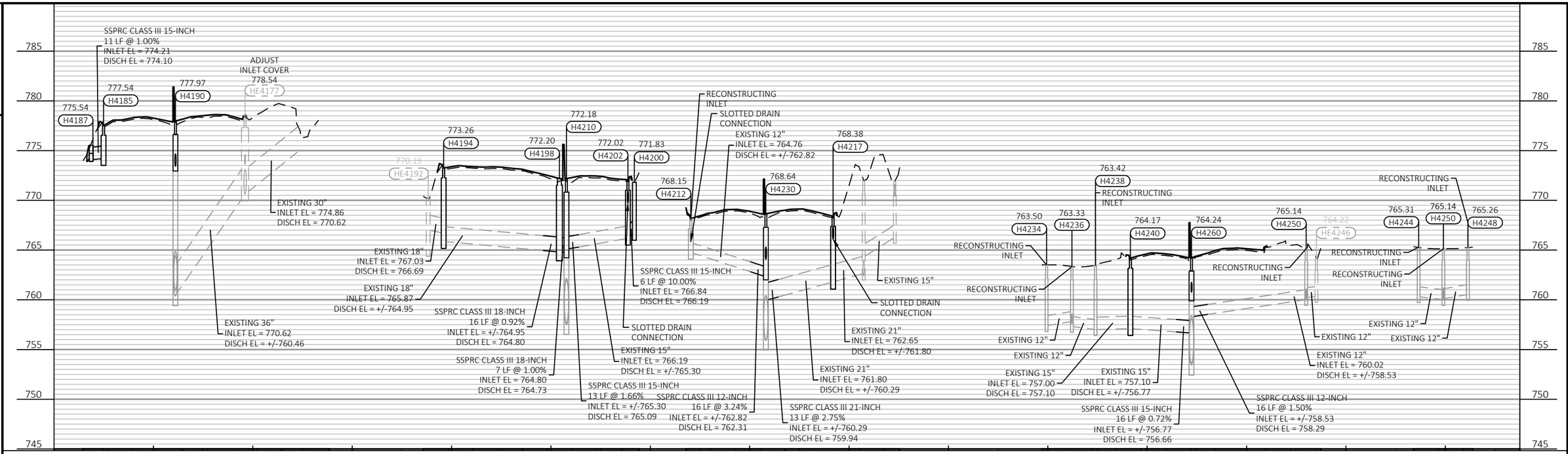


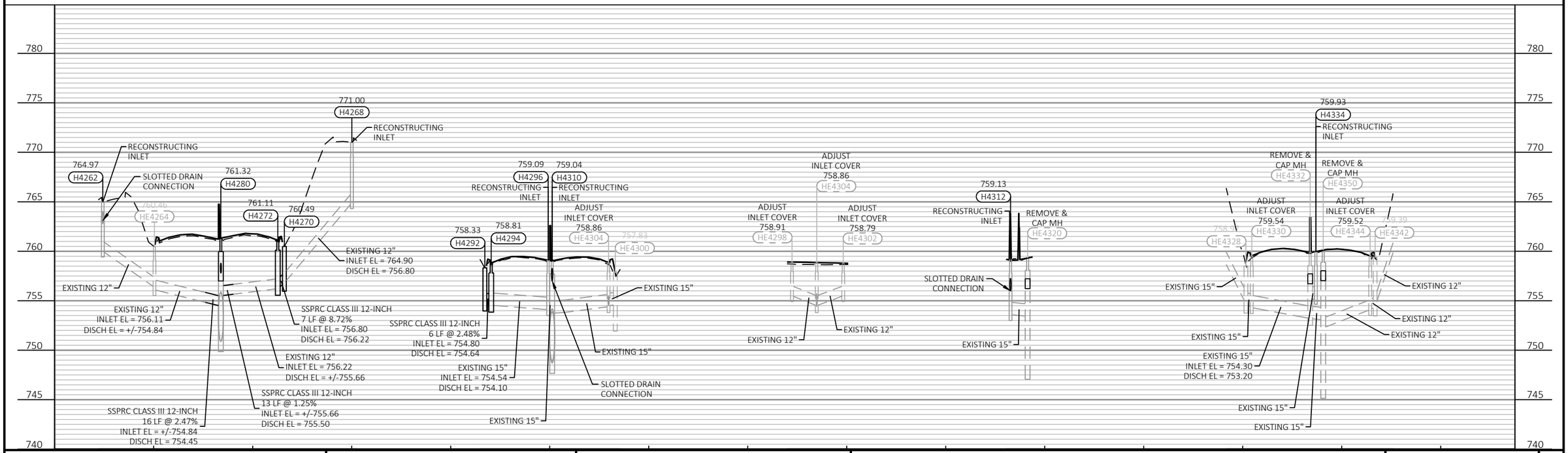


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 203	E

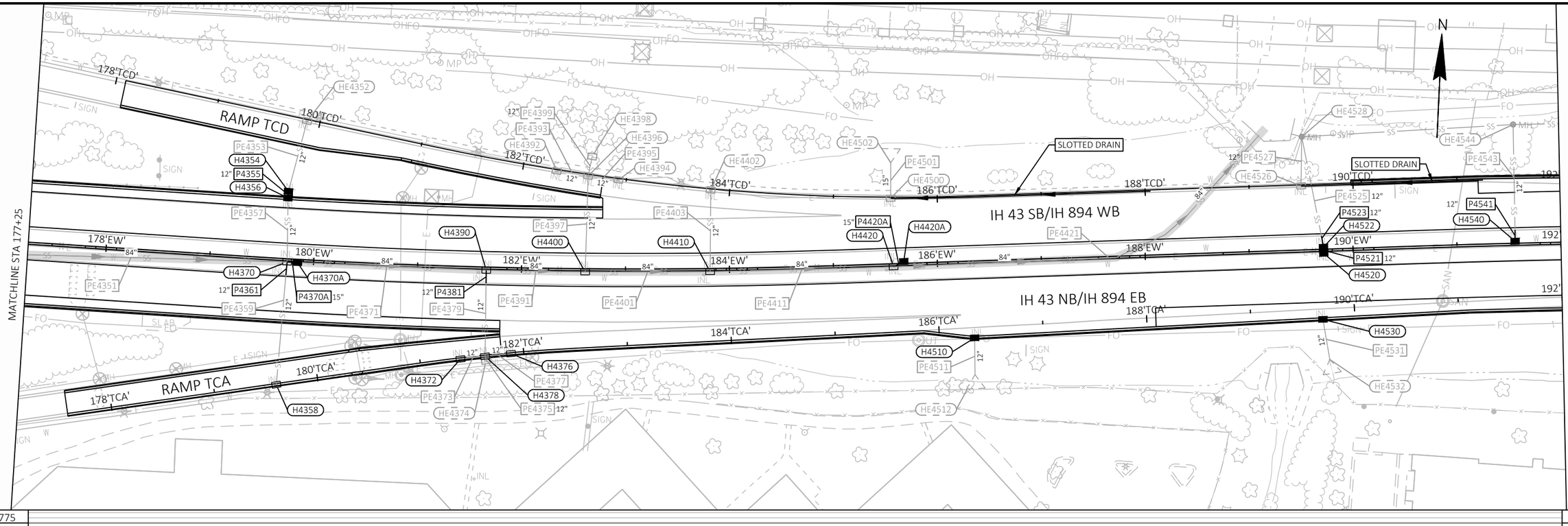
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (7)

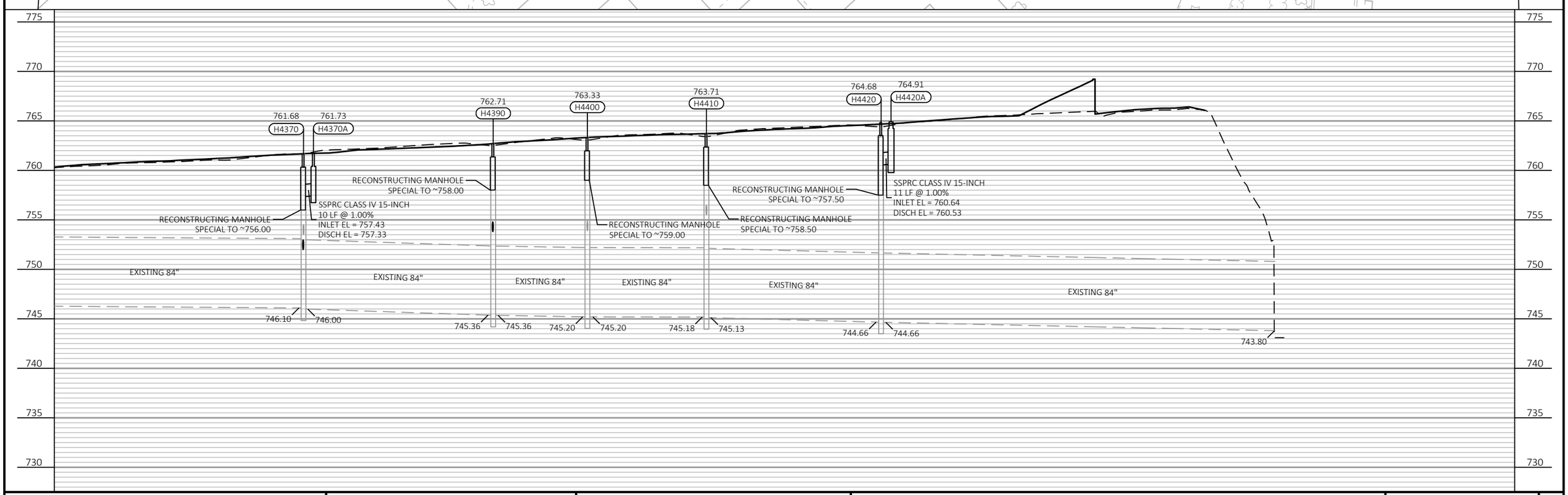
PLOT DATE : 11/14/2022 2:41 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT



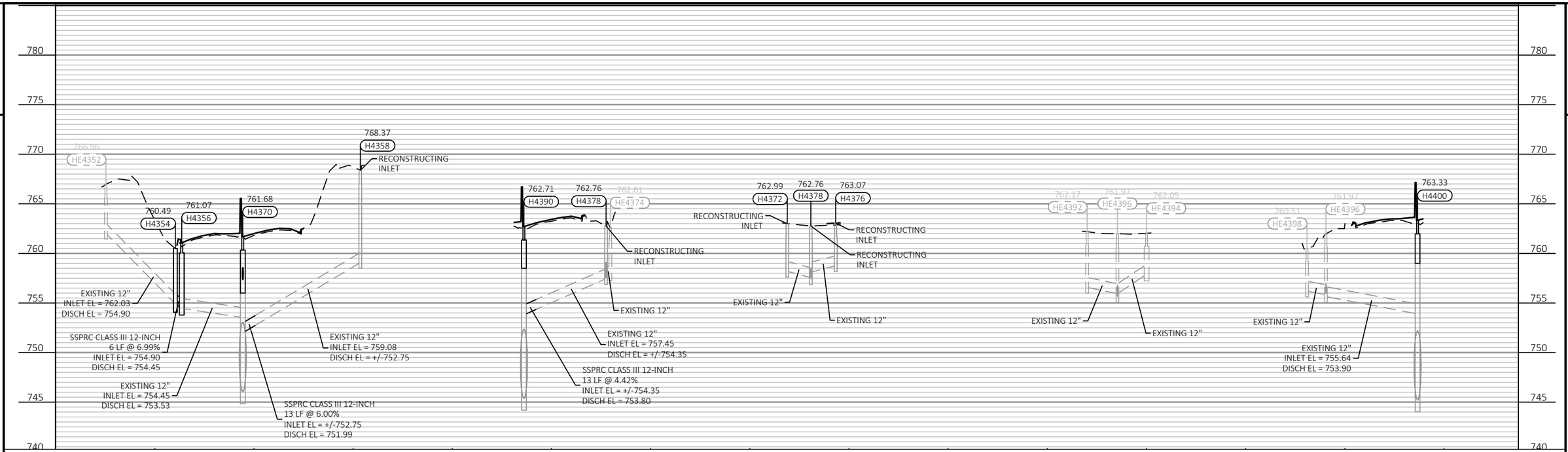


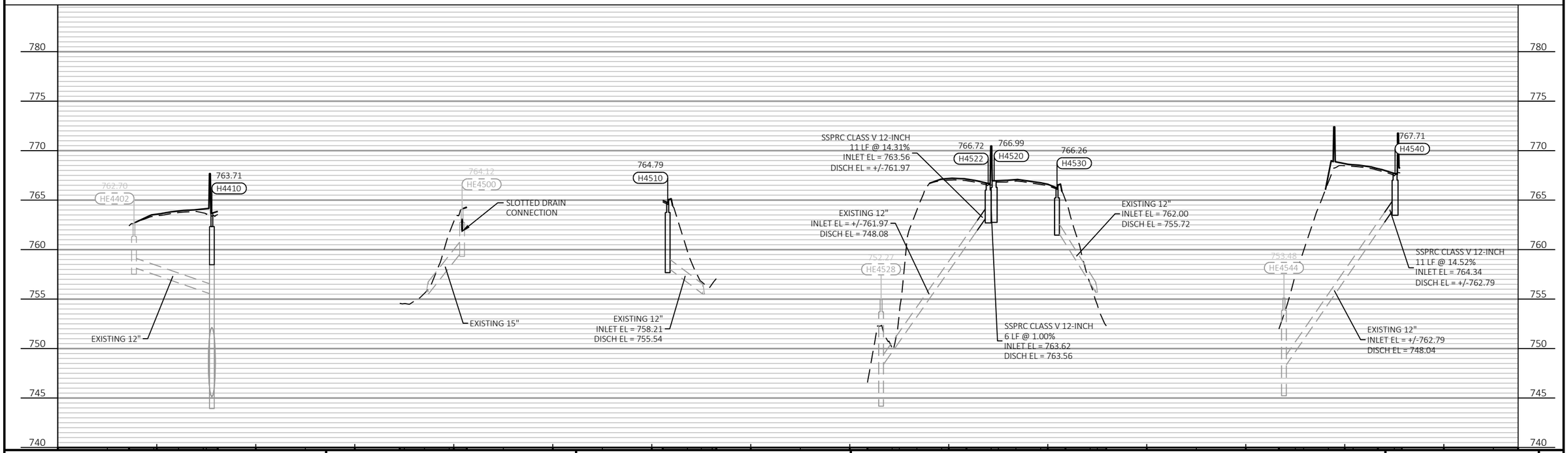
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 204	E



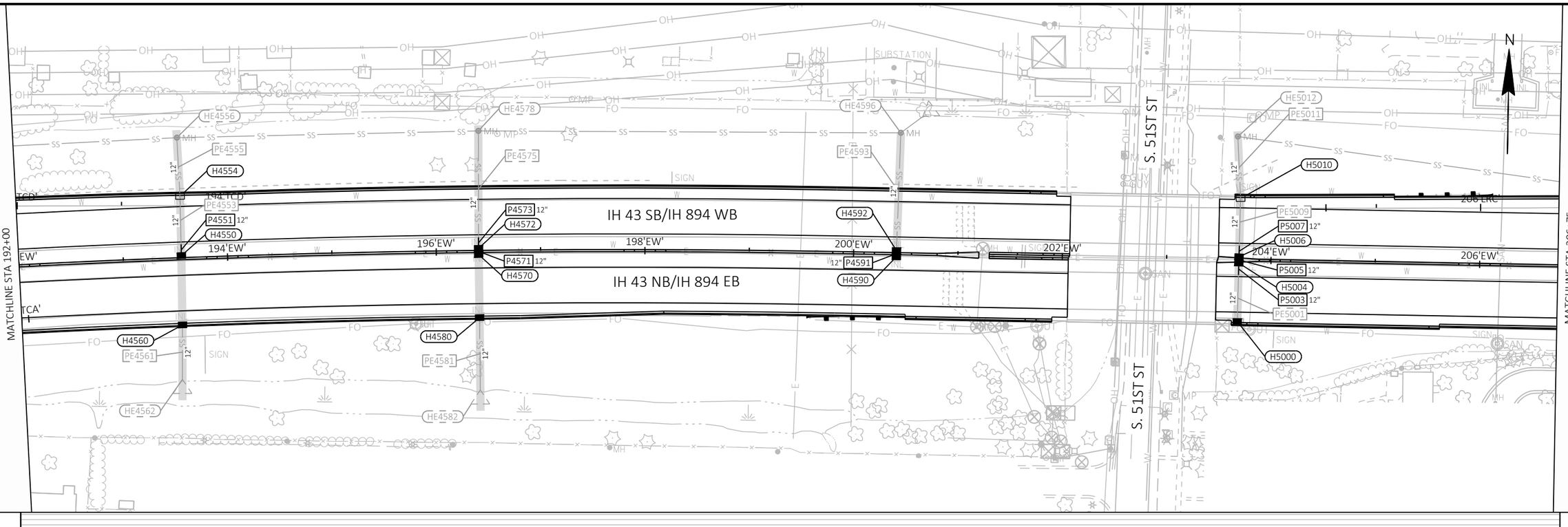


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 205	E



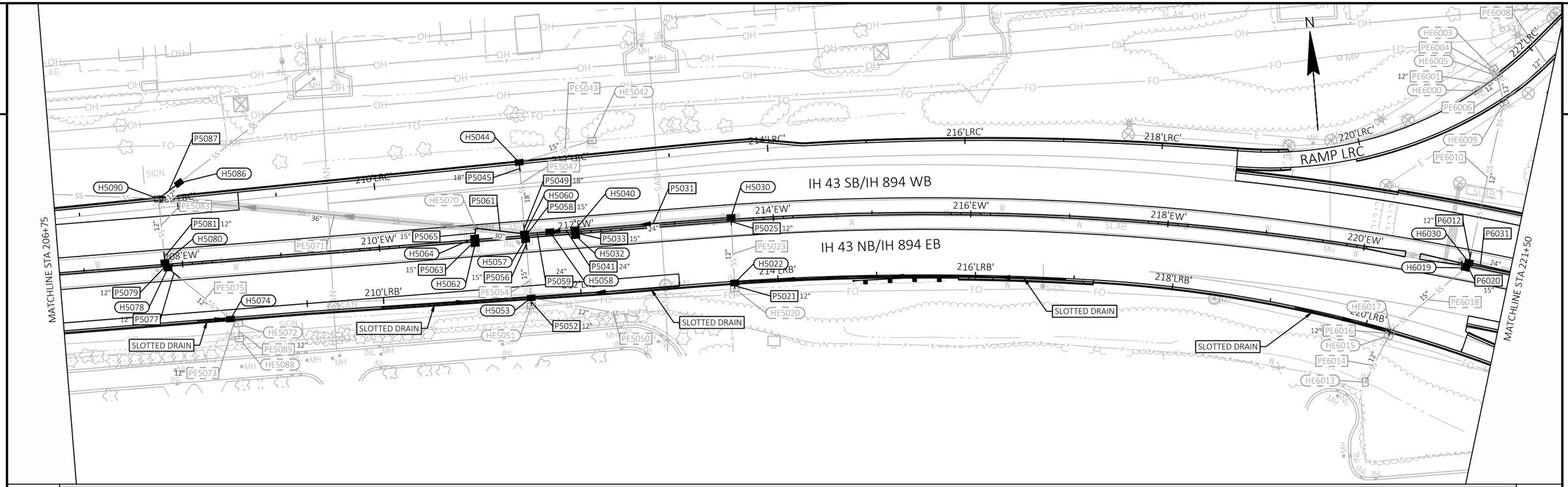


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 206	E



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 207	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (9)
PLOT DATE : 11/14/2022 1:49 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

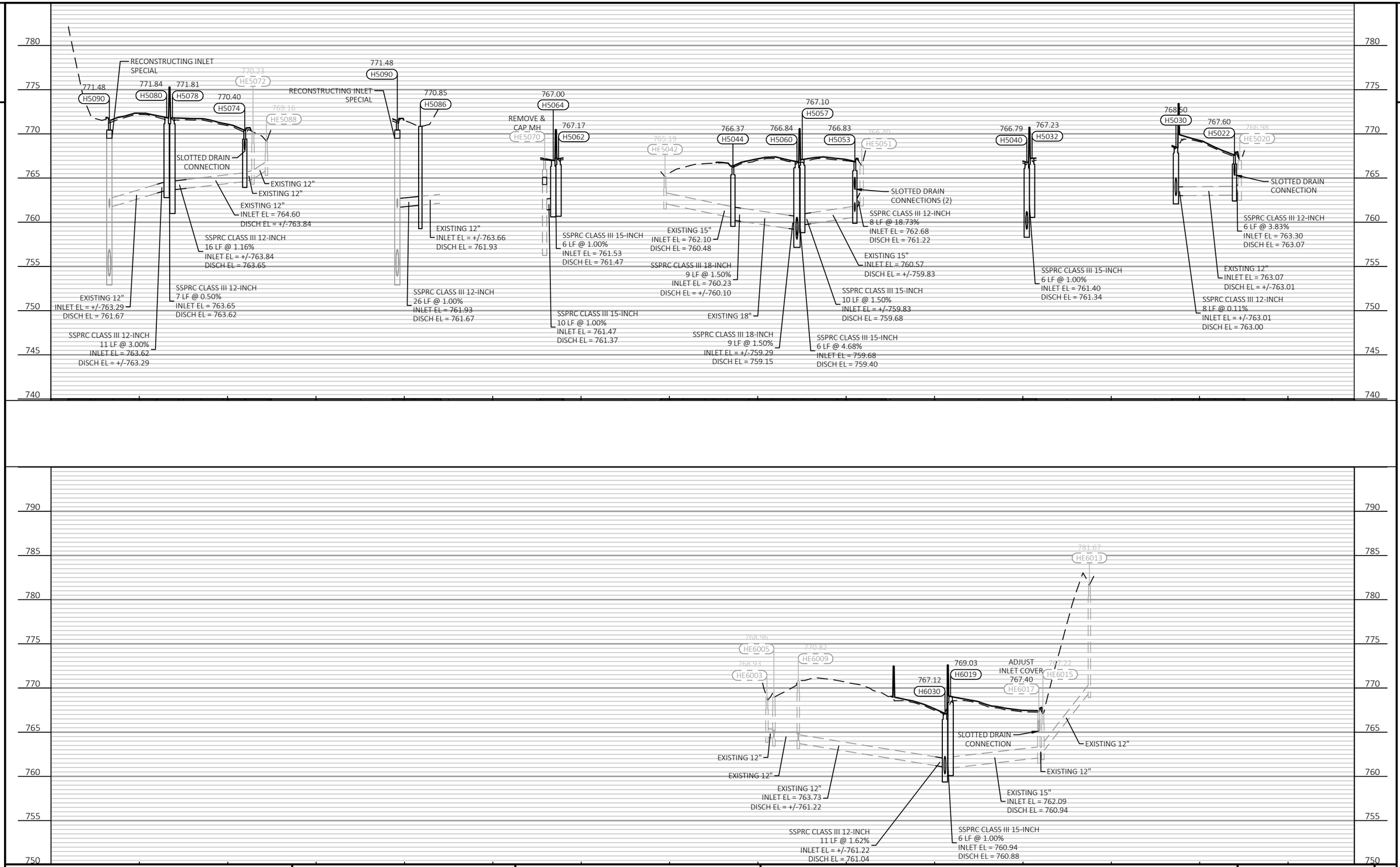


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 208	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (10)

PLOT DATE : 11/14/2022 1:50 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 41



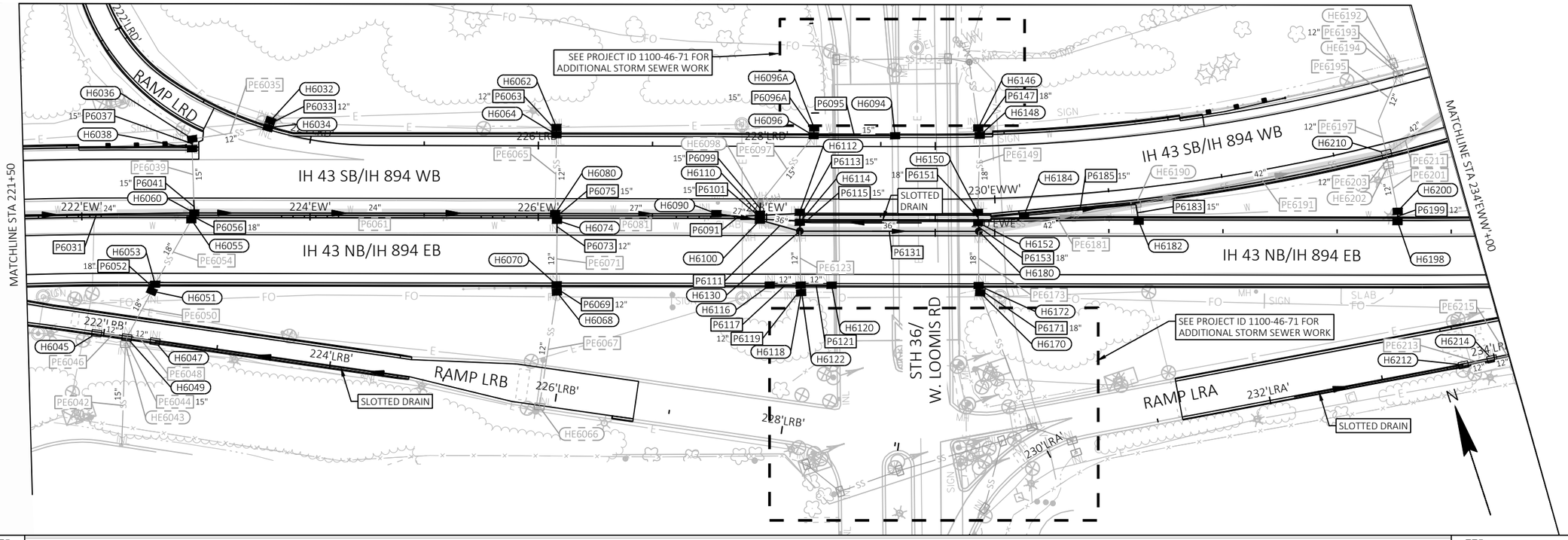
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 209	E

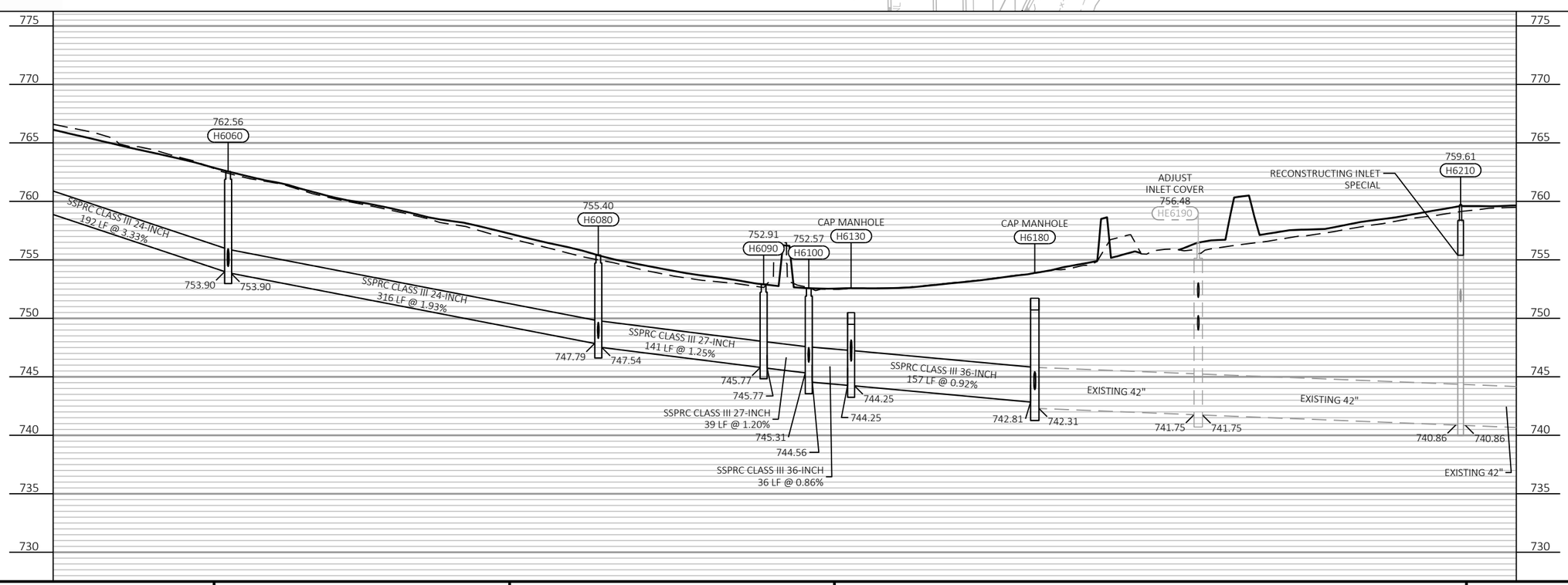
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (10A)

PLOT DATE : 11/14/2022 1:51 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : ############

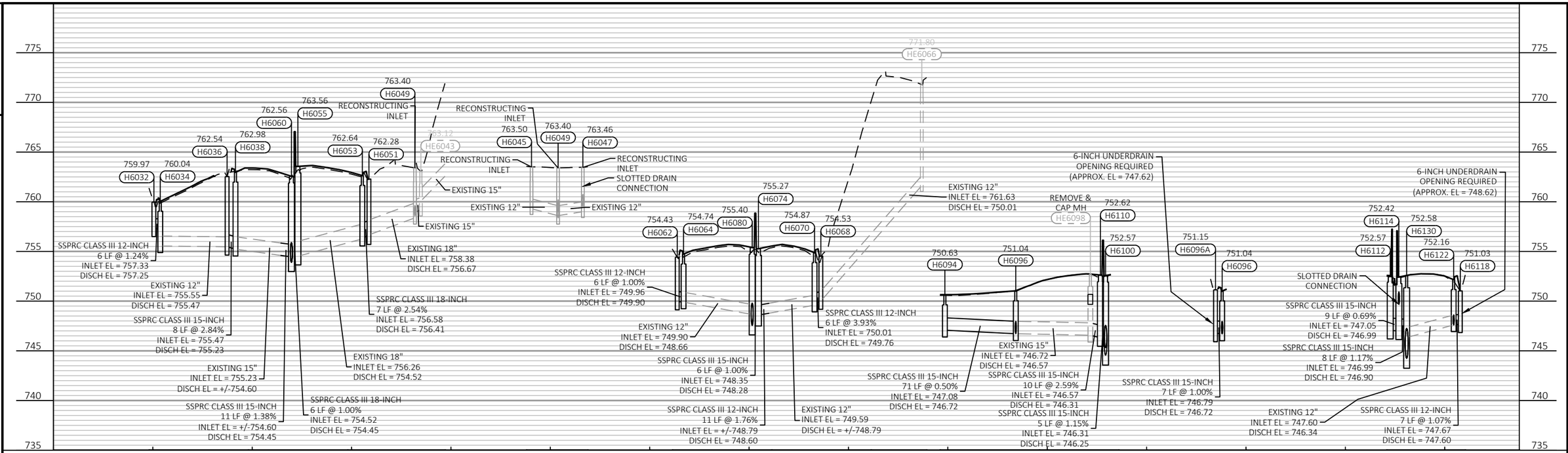
WISDOT/CADDS SHEET 41

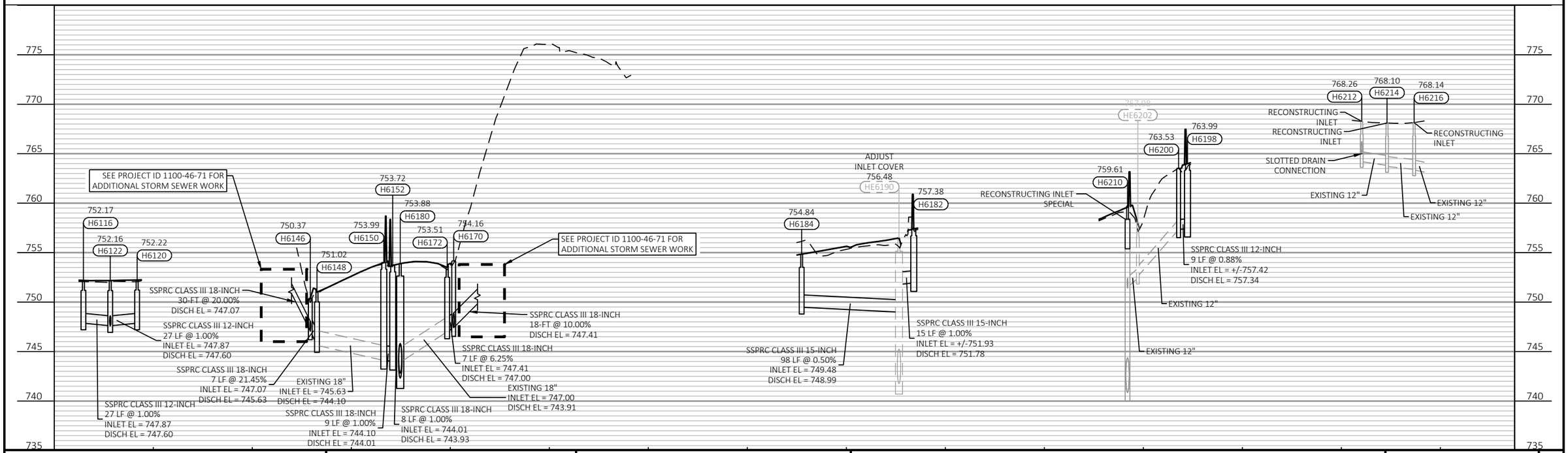
MATCHLINE RAMP LRD





PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 210	E

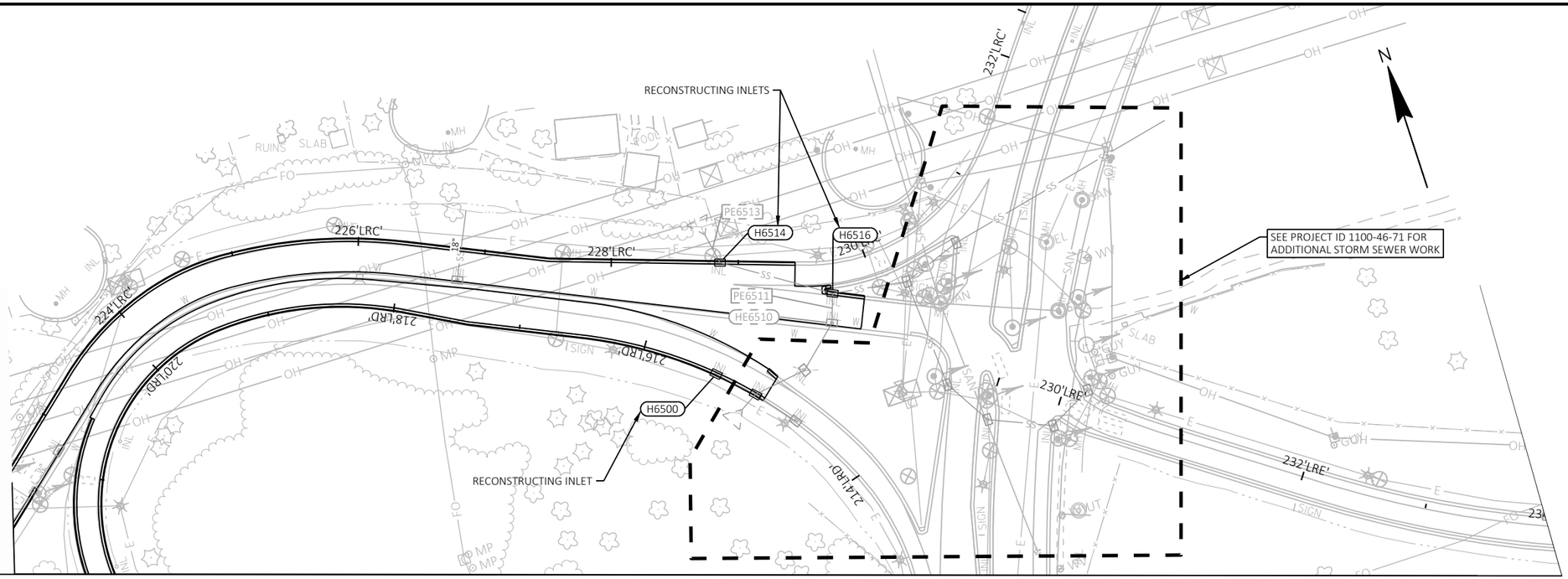




PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 211 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (11A)

PLOT DATE : 11/14/2022 1:53 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : ###########



NO PROFILES - THIS SHEET

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 212	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (11B)

PLOT DATE : 11/14/2022 1:54 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 41

2

REMOVE AND CAP MH

REMOVE AND CAP MH

RAMP LRE

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

MATCHLINE STA 234'EWW'+00

MATCHLINE STA 248+00

N

235'EWW'

240'EWW'

245'EWW'

235'EWE'

240'EWE'

245'EWE'

236'LRE'

238'LRE'

240'LRE'

236'LRA'

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

HE6250 HE6240 HE6238 HE6239 HE6251 HE6241 HE6211 HE6237 HE6235 HE6234 HE6233 HE6220 HE6221 HE6218 HE6217 HE6216

H6236 P6445 H6444 P6443 H6442 H6232 P6231 H6230 P6225 H6224 P6223 H6222

HE7038 PE7039 HE7040 PE7041 HE7050 PE7061 HE7060 HE7070 PE7051 PE7045 H7044 P7043 H7042

PE7037 HE7034 PE7035 HE7036 PE7033 HE7032 PE7031 HE7030 PE7013 HE7012 PE7021

H7000 P7001 H7002 P7003 H7004 P7005 P7011 H7010 H7020 P7015 H7014 P7023 H7022

H8050 P8051 H8052 P8023 H8024 H8022

PE7007 HE7006

769.45 H7000

767.51 H7002

765.02 H7004

762.64 H7010

759.79 HE7012

758.54 H7020

755.35 HE7030

759.66 HE6250

755.07 H8022

751.33 H8024

SSPRC CLASS III 15-INCH
99 LF @ 1.90%
INLET EL = 763.92
DISCH EL = 762.03

SSPRC CLASS III 15-INCH
99 LF @ 2.55%
INLET EL = 762.03
DISCH EL = 759.50

SSPRC CLASS III 15-INCH
89 LF @ 5.99%
INLET EL = 759.50
DISCH EL = 754.21

SSPRC CLASS III 15-INCH
13 LF @ 1.24%
INLET EL = 754.21
DISCH EL = 754.04

SSPRC CLASS III 15-INCH
97 LF @ 2.30%
INLET EL = 754.04
DISCH EL = 751.81

SSPRC CLASS III 15-INCH
94 LF @ 2.29%
INLET EL = 751.81
DISCH EL = 749.65

SSPRC CLASS III 15-INCH
200 LF @ 1.87%

SSPRC CLASS III 15-INCH
220 LF @ 2.29%

EXISTING 42"

EXISTING 42"

740.19

740.35

749.59

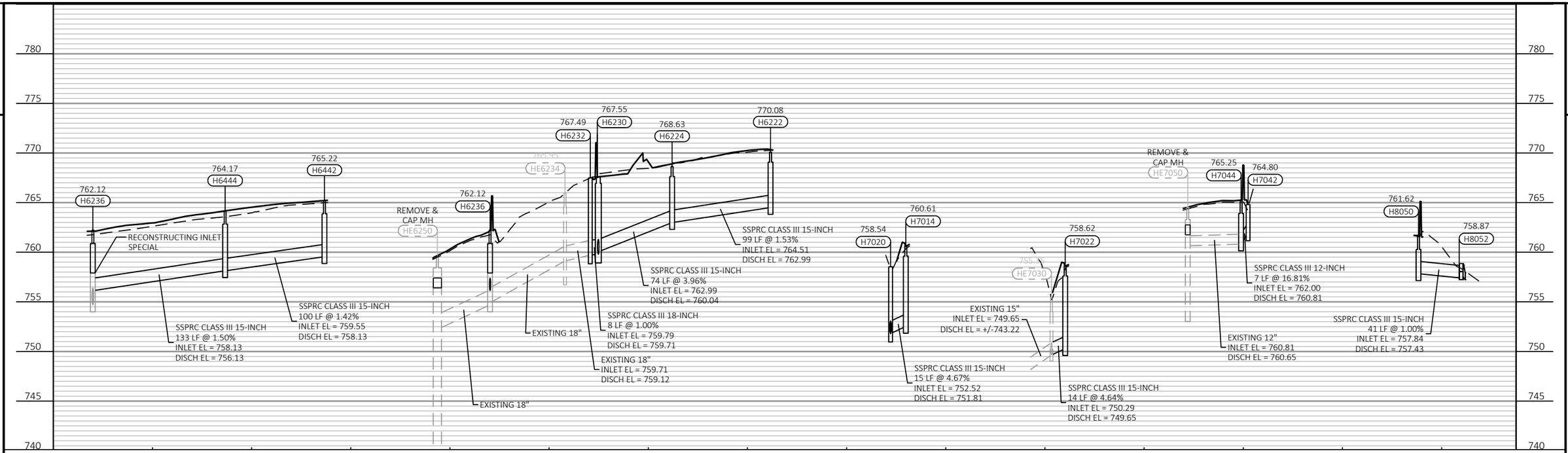
745.84

745.84

775 770 765 760 755 750 745 740 735 730

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 213	E

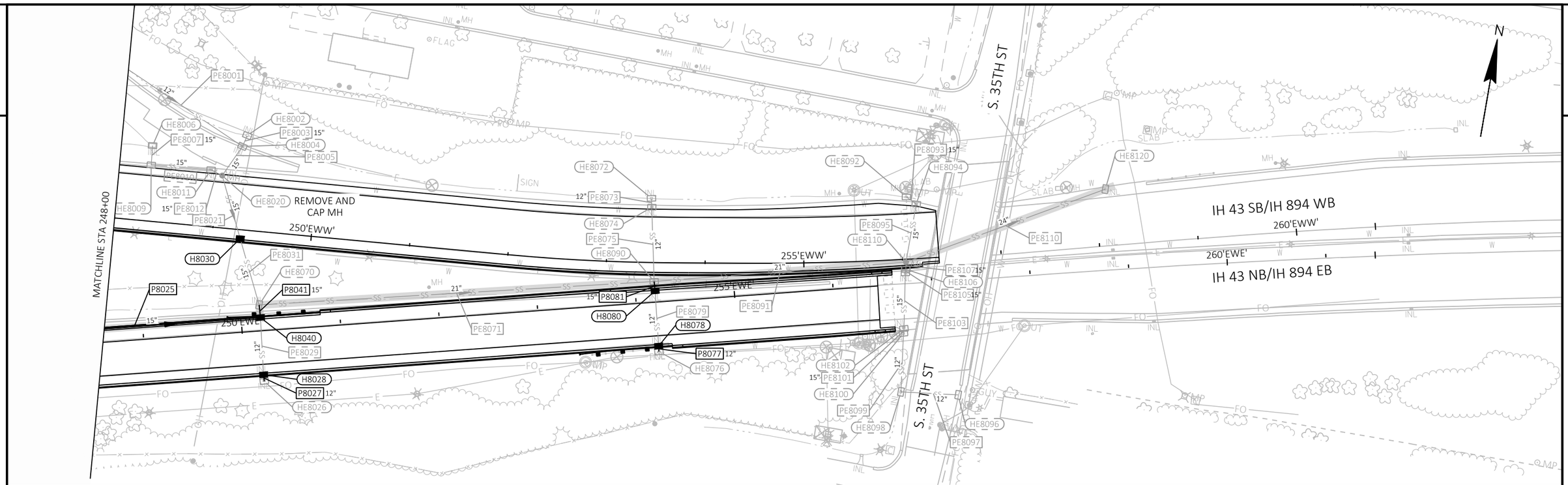
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (12)
PLOT DATE : 11/14/2022 1:54 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

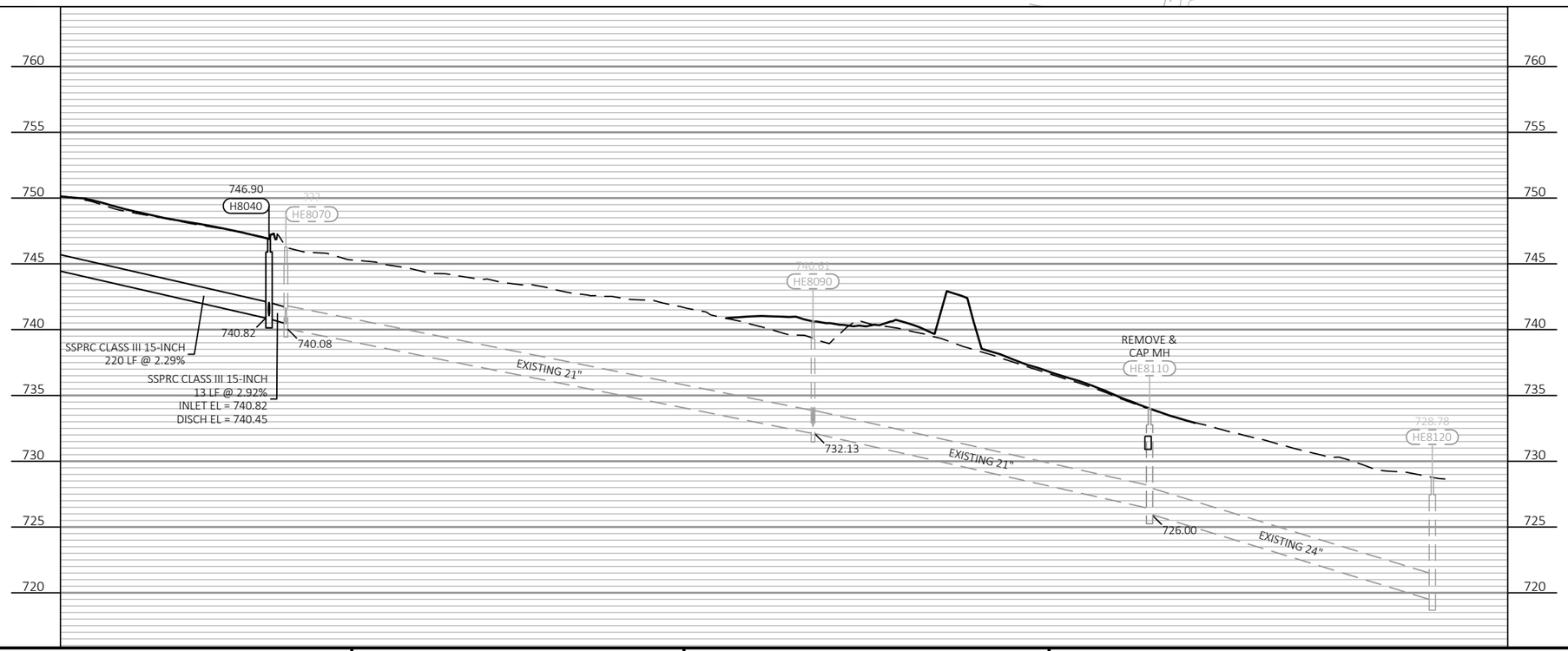


2

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 214	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (12A)
PLOT DATE : 11/14/2022 1:55 PM
PLOT BY : WHITEFOOT, DANIEL
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 41



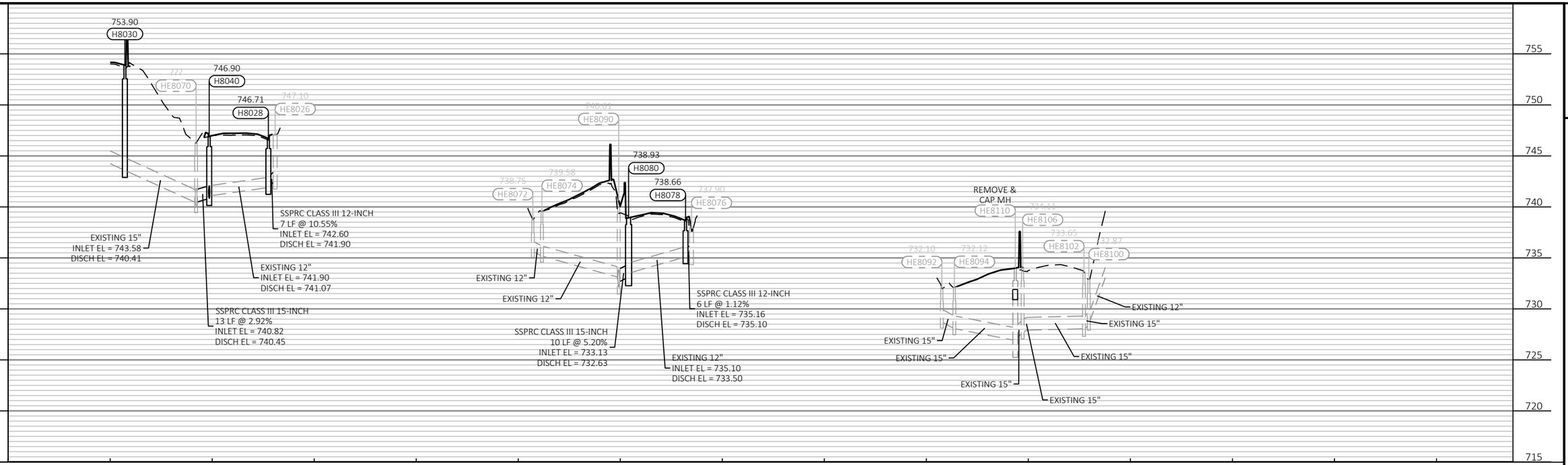


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 215	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_EX-WHITEFD\D0951536\11004570-022501-SS.DWG
LAYOUT NAME - Sheet - (13)

PLOT DATE : 11/14/2022 1:56 PM PLOT BY : WHITEFOOT, DANIEL PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 41



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 216	E

2

2

N

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

70'EW' 72'EW' 74'EW' 76'EW' 78'EW' 80'EW' 82'EW' 82'TAB'

FO FO FO FO FO

OH OH OH OH OH OH OH OH OH OH OH OH

MATCHLINE 84'EW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 217	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2022 9:51 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

RAMP TAB

RAMP TAA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S 84TH ST

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 218	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2022 9:53 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHB

STH 24/W. FOREST HOME AVE

RAMP FHA

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 219	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2022 9:54 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

RAMP TBB

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHA

RAMP TBA

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 220	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 04

PLOT DATE : 10/31/2022 9:57 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

RAMP TBB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

130'TBB' 132'TBB' 134'TBB' 136'TBB' 138'TBB' 140'TBB'

130'EW' 132'EW' 134'EW' 136'EW' 138'EW' 140'EW' 142'EW'

130'TBA' 132'TBA' 134'TBA' 136'TBA' 138'TBA'

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

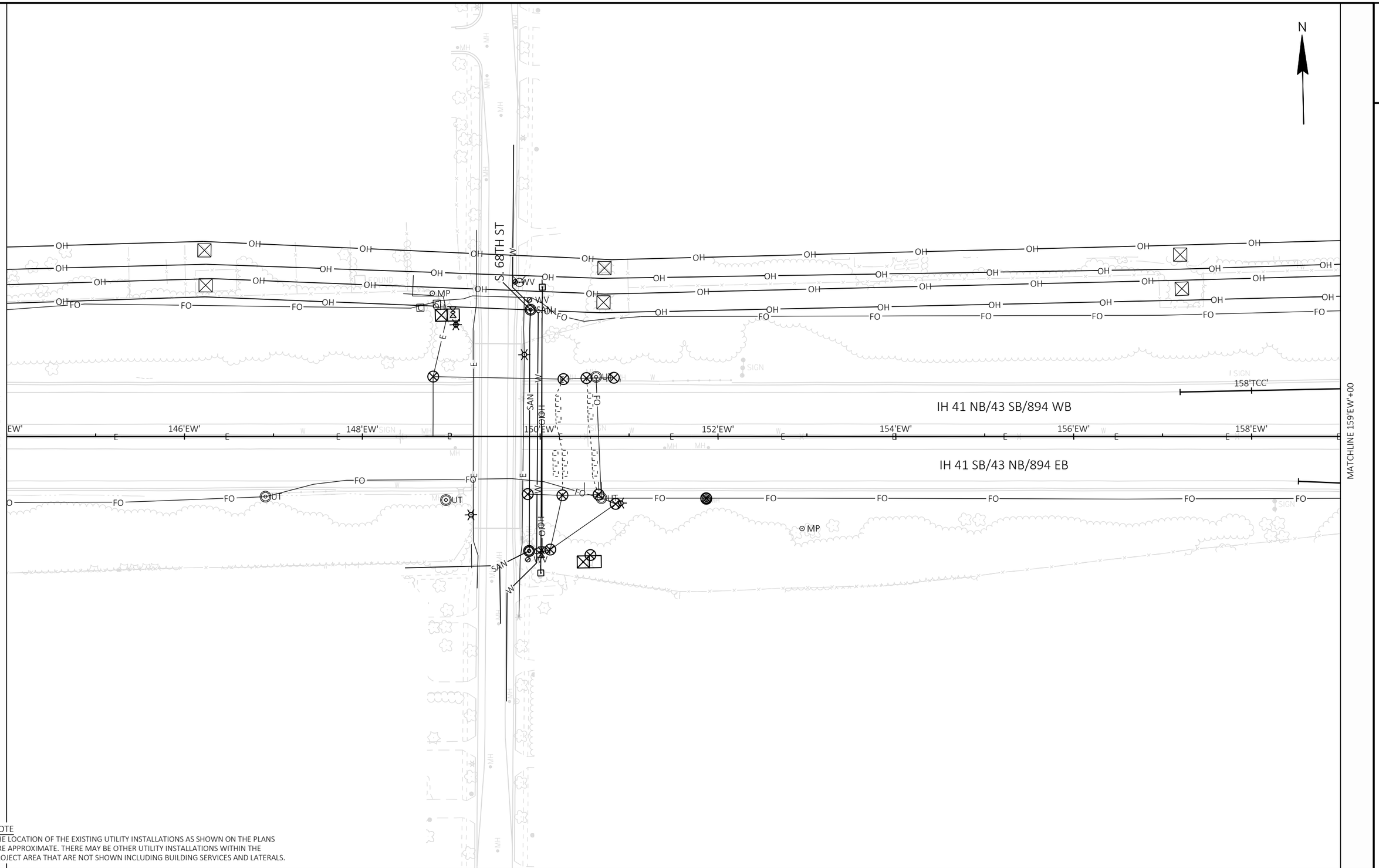
NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 221	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2022 9:59 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 222	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 06

PLOT DATE : 10/31/2022 10:02 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCC

RAMP TCB

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 223	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2022 10:05 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 174'EW'+00

MATCHLINE 189'EW'+00

RAMP TCC

RAMP TCD

RAMP TCB

RAMP TCA

S. 60TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 224	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2022 10:08 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

S. 51ST ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

190'TCD' 192'TCD' 194'TCD'

190'EW' 192'EW' 194'EW' 196'EW' 198'EW' 200'EW' 202'EW' 204

190'TCA' 192'TCA'

OH FO E W SAN UT MP GUY SIGN MH

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 225	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 09

PLOT DATE : 10/31/2022 10:11 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 226	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 10

PLOT DATE : 10/31/2022 10:14 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

RAMP LRD

RAMP LRB

RAMP LRE

RAMP LRA

STH 36/W. LOOMIS RD

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 227	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 11

PLOT DATE : 5/1/2023 2:57 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

OH OH OH OH

FO FO FO FO FO FO FO FO FO FO

GUY GUY

E 236'LRE' E 238'LRE' E 240'LRE'

RAMP LRE

IH 41 NB/43 SB/894 WB

236'EWW' 238'EWW' 240'EWW' 242'EWW' 244'EWW' 246'EWW' 248'EWW'

E E E E E E E E E E E E E E E E

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

236'EWE' 238'EWE' 240'EWE' 242'EWE' 244'EWE' 246'EWE' 248'EWE'

RAMP LRA

236'LRA' 238'LRA' 240'LRA' 242'LRA' 244'LRA' 246'LRA'

IH 41 SB/43 NB/894 EB

FO FO FO FO FO FO FO FO FO FO FO FO

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 228	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2022 10:20 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE 249'EWW'+00

S. 35TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

250'EWW' 252'EWW' 254'EWW' 256'EWW' 258'EWW' 260'EWW'

250'EWE' 252'EWE' 254'EWE' 256'EWE' 258'EWE' 260'EWE'

OH FO E MP FOE GUY UT FL SIGN MH SLAB

NOTE
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING UTILITY PLANS	SHEET 229	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-023001-UP.DWG
LAYOUT NAME - 13
PLOT DATE : 10/31/2022 10:23 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

45 ½
COUNTY T Beloit Rd 1½
National Ave 3

E8-1
ESTR
TYPE I
S-40-3007
MEDIAN
BUTTERFLY
SIGN STRUCTURE

WEST 43 894 MILE 5 .2
D10-5A
L.P.
ESTR

NORTH INTERSTATE 41 INTERSTATE 45
J4-1
ESTR

REMOVE
SOUTH INTERSTATE 43 WEST INTERSTATE 894 101
JV4-1(5)
L.P.

IH 41/43/894

83'TAB' 84'TABW 85'TAB' 86'TAB' 87'TAB' 88'TAB' TAB

83'TAA' 84'TAA' 85'TAA' 86'TAA' 87'TAA' 88'TAA' TAA

RIPRAP

EXISTING
S40-3008

SPEED LIMIT 55 (WB)
R2-1
ESTR

EAST 43 894 MILE 5 .2
D10-5A
ESTR
L.P.

EXIT 5 A-B
76 - 84 th St
EXIT ONLY
ESTR
TYPE I ON
SIGN STRUCTURE

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTIES	PHONE *
JENNY BUCKETT	MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
CHUCK SALDIVAR	RACINE, WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

LOCATE NO PASSING PENNANTS BASED ON ESTABLISHING NO PASSING ZONES PAY ITEM. PLACE SIGNS BASED ON WHERE THE PAVEMENT MARKING FOR NO PASSING ZONES BEGIN.

BOX OUT OR CORING OF CONCRETE FOR SIGN POSTS IS INCIDENTAL TO THE POST.

NOTE:
REPLACING TYPE II SIGNS
IN MEDIAN BARRIER WORK.

NOTE REPLACING TYPE II'S
ON RIGHT NOT / IMPACTED BY CONSTRUCTION
(COUNTY DOES THESE WITH HWY CORRIDOR.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 230	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 01
PLOT DATE : 12/5/2022 11:29 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

2

2

N

IH 41/43/894

S 84TH ST

RAMP TAB

RAMP TAA

REMOVE
WEST 43 894 MILE 5 .4
103
D10-5A(5) L.P.

W4-3R ESTR

REMOVE
WEST 43 894 MILE 5 .6
105
D10-5A(5) L.P.

84th St
M1-94 ESTR

EXIT 5A-B
E5-1A ESTR

84th St
M1-94 ESTR

REMOVE
EAST 43 894 MILE 5 .4
102
D10-5A(5) L.P.

REMOVE
EAST 43 894 MILE 5 .6
104
D10-5A(5) L.P.

SHEET 2 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 231 E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 02

PLOT DATE : 12/5/2022 11:30 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

LEFT
EXIT 4
SOUTH SOUTH
43 45
Beloit
1 MILE

(2018)
NORTH WEST NORTH
43 894 45
FOND DU LAC

S-40-3011
EXISTING SIGN STRUCTURE
NOT IMPACTED
SIGNS TO REMAIN

IH 41/43/894

RAMP FHB

EXIT 5A
E5-1A
ESTR

REMOVE
ALTERNATE EAST 94
108

J3-1(5)
L.P.

W FOREST HOME AVE

109
W FOREST HOME AVE
M1-94

STH 24

EXIT 25 MPH
W13-2B
ESTR

SLAB

W4-1R
ESTR

W FOREST HOME AVE
ESTR
ON BRIDGE

RAMP FHA

157
LEFT LANE
BUSES MOTORCYCLES AND 2 OR MORE OCCUPANT CAR POOLS ONLY
REMOVE

EAST 43 894 MILE 5 .8
REMOVE

106
EAST 43 894 MILE 5 .8
D10-5A(5)
L.P.

WEST 43 894 MILE 5 .8
REMOVE

107
WEST 43 894 MILE 5 .8
D10-5A(5)
L.P.

158 159
RESTRICTED LANE
RAMP LEFT LANE
REMOVE

EXIT 7
60 th Street
1 MILE
(2016)
ESTR
TYPE I SIGN
ON STEEL POSTS

SHEET 3 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 232 E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 03
PLOT DATE : 12/5/2022 11:32 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

EXIT 5 A
24 WEST
ForestHome Ave
(2016)
ESTR
TYPE I SIGN
ON STEEL
POSTS

76th St
M1-94
ESTR

EXIT
5B
E5-1A
ESTR

EXIT 5 A
24 WEST
ForestHome Ave
½ MILE
(2016)
MOVE TYPE I
SAME SIGN STRUCTURE
REUSE SIGN STRUCTURE
ADD NEW FOUNDATIONS

EXIT 5 B
COUNTY U
76 th St
EXIT ONLY
(2016)

24 ForestHome Ave 1/4
43 LEFT LANE 1½
COUNTY T Beloit Rd 2½
(WB)
8
EXISTING S-40-219
REPLACE WITH S-40-3102
STA 123EW+75

9
10

STA 132+50

IH 41/43/894

CTH U (S 76TH ST)

RAMP TBB

RAMP TBA

S-40-801

Historic
Downtown
Greendale
EXIT 7
REMOVE

76th St
M1-94
ESTR

11
(2000)
Historic
Downtown
Greendale
EXIT 7
TYPE I SIGN
ON STEEL POSTS
REUSE STEEL POSTS

W4-1R
MILE
6
D10-1
ESTR

110
EAST
43
894
MILE
6
.0
D10-5A

111
WEST
43
894
MILE
6
.0
D10-5A(5)

MOUNT ON UPRIGHT
S-40-3012

SHEET 4 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 233	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 04

PLOT DATE : 12/5/2022 11:34 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

EXIT 5 B
COUNTY U
76 th St

ESTR
TYPE I SIGN
ON STEEL POSTS
(2016)

116 EAST IH 43 IH 894 MILE 6 .4 D10-5A
117 WEST IH 43 IH 894 MILE 6 .4 D10-5A(5) L.P.

STA. 137+50

IH 41/43/894

112 EAST IH 43 IH 894 MILE 6 .2 D10-5A
113 WEST IH 43 IH 894 MILE 6 .2 D10-5A(5) L.P.

SOUTH INTERSTATE 41
NORTH INTERSTATE 43
EAST INTERSTATE 894
SOUTH INTERSTATE 41
J4-4
ESTR

SPEED LIMIT 55
REMOVE
114 SPEED LIMIT 55
R2-1(5) L.P.
(EB)

EXISTING DMS
S-40-413
SIGN STRUCTURE
REPLACE FOUNDATIONS

EMERGENCY STOPPING ONLY
REMOVE
115 EMERGENCY STOPPING ONLY
R8-7(5) L.P.

12
60 th St 1/4
36 Loomis Rd 1 1/4
241 27 th St 2 1/4
(2017)
MOVE TYPE I
(EB) SIGN
E8-1
ON EXISTING
S-40-869
REUSE STRUCTURE
PROVIDE NEW FOUNDATIONS
STA. 148+25

SHEET 5 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 234	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 05
PLOT DATE : 12/5/2022 11:35 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

76th St 1/4
Forest Home Ave 3/4
45 2

REMOVE

COUNTY U 76th St 1/4
24 Forest Home Ave 3/4
45 2

7 (WB)

LEFT
EXIT 4
SOUTH 43 45 Beloit LEFT
NORTH 41 894 45 RIGHT
2 MILES

TRAVEL INFO CALL 511
D12-5 ESTR

RIDESHARE INFO CALL 1-800-455-POOL
D12-2A ESTR

EMERGENCY STOPPING ONLY
REMOVE
EMERGENCY STOPPING ONLY
R8-7(5) L.P.

122 (WB)

119
68th St
M1-94(5)
FOUND

E8-1
TYPE I SIGN
(2016)
S-40-221 (EXISTING)
REPLACE WITH
S-40-3101
STA 150+75

TYPE I SIGNS
ON STEEL POSTS
ESTR
(2016)

S 68TH ST

IH 41/43/894

150 155 160

159'TCB' 160'TCB' 161'TCB' 162'TCB' 163'TCB'

158'TCE' 159'TCE' 160'TCE' 161'TCE' 162'TCE' 163'TCE'

SLAB

118
68th St
M1-94(5)

120 EAST 43 894 MILE 6 .6 D10-5A
121 WEST 43 894 MILE 6 .6 D10-5A(5) L.P.

EXIT 7
60 th St
ESTR

TYPE I SIGN
ON STEEL POSTS
(2016)

SHEET 6 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 235	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 06

PLOT DATE : 12/5/2022 11:37 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

Boerner Botanical Gardens EXIT 5A

REMOVE

Boerner Botanical Gardens EXIT 5A (13)

REMOVE SOUTH INTERSTATE 43 WEST INTERSTATE 894

REMOVE SOUTH INTERSTATE 43 WEST INTERSTATE 894 (126)

TYPE I SIGN ON STEEL POSTS REUSE STEEL POSTS

NORTH INTERSTATE 41 41 (127)

JV4-1(5) L.P.

REMOVE SPEED LIMIT 55 (125) (WB)

R2-1 L.P.

JV4-1 ON L.P.

W4-1R MILE 7 D10-1 ESTR

STATUE

60th St M1-94 ESTR ON BRIDGE

S 60TH ST

IH 41/43/894

RAMP TCD

RAMP TCB

RAMP TCA

SLAB

WEST INTERSTATE 43 894 MILE 6 .8 (123) D10-5A

EAST INTERSTATE 43 894 MILE 6 .8 (124) D10-5A (5) L.P.

EXIT 7 E5-1A ESTR

EAST INTERSTATE 43 894 MILE 7 .0 (128) D10-5A

WEST INTERSTATE 43 894 MILE 7 .0 (129) D10-5A (5) L.P.

MILE 7 D10-1 ESTR

EXIT 8 A

36 Loomis Rd ¾ MILE

ESTR (2016)

EXISTING TYPE I SIGN ON STEEL POSTS

60th St M1-94 ESTR ON BRIDGE

S 60TH ST

WALLS

SHEET 7 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 236	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 07

PLOT DATE : 12/5/2022 11:39 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

EXIT 5 A-B
24 COUNTY U
76th St
Forest Home Ave
1 MILE
REMOVE

EXIT 5 A-B (14)
24 COUNTY U (14A)
76th St
Forest Home Ave
1 MILE
TYPE I
SIGN ON STEEL POSTS
(REUSE STEEL POSTS)

EXIT 7
E5-1A
ESTR

EXIT 7
60 th St
EXIT ONLY
REMOVE

EXIT 7 (6)
60 th St (6A)
EXIT ONLY
REPLACE WITH
S-40-3100
STA 190+25

EXISTING OLD
STRUCTURE
S-40-9

RAMP TCD
178'TCD' 179'TCD' 180'TCD' 181'TCD' 182'TCD' 183'TCD' 184'TCD' 185'TCD' 186'TCD' 187'TCD' 188'TCD' 189'TCD' 190'TCD' 191'TCD' 192'TCD'

IH 41/43/894

RAMP TCA
178'TCA' 179'TCA' 180'TCA' 181'TCA' 182'TCA' 183'TCA' 184'TCA' 185'TCA' 186'TCA' 187'TCA' 188'TCA' 189'TCA' 190'TCA' 191'TCA' 192'TCA'

SLAB

W4-1R
ESTR

W4-2R
ESTR

(130) WEST 43 894 MILE 7 .2
(131) EAST 43 894 MILE 7 .2
D10-5A D10-5A (5)
L.P.

Park & Ride
EXIT 8A-B
REMOVE

(15) Park & Ride
EXIT 8A-B
D4-3
TYPE I ON STEEL POSTS
REUSE STEEL POSTS

(132) SOUTH INTERSTATE 43 EAST INTERSTATE 894 (EB)
J4-1 (5)
L.P.

TRAVEL
INFO
CALL 511
D12-5
ESTR

SPEED LIMIT 55
REMOVE
(133) SPEED LIMIT 55 (EB)
R2-1 (5)
L.P.

N

2

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 237	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 08
PLOT DATE : 12/5/2022 11:41 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

Historic Downtown Greendale EXIT 7

REMOVE

16

Historic Downtown Greendale EXIT 7

TYPE I SIGN
ON STEEL POSTS
REUSE STEEL POSTS
(2000)

60th St 1/4
76th St 1 1/4
Forest Home Ave 1 3/4

REMOVE

5

60th St 1/4
COUNTY U 76th St 1 1/4
24 Forest Home Ave 1 3/4

(WB)

E8-1
S-40-870
EXISTING SIGN STRUCTURE
REPLACE FOUNDATION

136 WEST 43 894 MILE 7 .4 D10-5A

137 EAST 43 894 MILE 7 .4 D10-5A (5)
L.P.

STA. 201+25

51st St
M1-94
ESTR

S 51ST ST

TH 41/43/894

IH 41/43/894

135 MH
SOUTH INTERSTATE 41 41
J4-1(5)

51st St
M1-94
ESTR

EMERGENCY STOPPING ONLY
REMOVE

134
EMERGENCY STOPPING ONLY
R8-7
L.P.

(EB)

LEFT EXIT 10B | EXIT 10A

INTERSTATE 41 SOUTH
INTERSTATE 94 EAST
Chicago
2 LEFT LANES

INTERSTATE 41 NORTH
INTERSTATE 94 WEST
Milwaukee
RIGHT

1½ MILES

(2020)

TYPE I ON
3 STEEL POSTS
ESTR

36 Loomis Rd 1/4
241 27th St 1 1/4
INTERSTATE 94 1 1/2

5A (EB)

E8-1
S-40-870
MOVE SIGN
REUSE SIGN

Alverno College
EXIT 5 A-B

REMOVE

21
Alverno College
EXIT 5 A-B

TYPE I ON STEEL POSTS
REUSE STEEL POSTS

138 WEST 43 894 MILE 7 .6 D10-5A

139 EAST 43 894 MILE 7 .6 D10-5A (5)
L.P.

SHEET 9 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 238 E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 09

PLOT DATE : 12/5/2022 11:42 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

(20XX) SIGN AGE

N

EXIT 7
60 th Street
½ MILE
(2016)
TYPE I SIGN ON STEEL POSTS
ESTR

EMERGENCY STOPPING ONLY
REMOVE
EMERGENCY STOPPING ONLY
141
(WB)
R8-7 (5)
L.P.

SPEED LIMIT 55
REMOVE
SPEED LIMIT 55
140
(WB)
R2-1
L.P.

NORTH 41 | SOUTH 43 | WEST 894 | NORTH 41
J4-4
ESTR

EXIT 8A
E5-1A
ESTR

DMS
S-40-410
EXISTING SIGN STRUCTURE
PLACE ON
NEW FOUNDATIONS
NEW LOCATION STA. 220+50

W4-1R
ESTR

DMS
SIGN BRIDGE

S-40-812
SIGN BRIDGE
TO REMAIN

IH 41/43/894

RAMP LRC

RAMP LRD

RAMP LRB

EXIT 8 A-B
36
Loomis Rd
REMOVE
EXIT 8 A-B
17A
17
36
Loomis Rd
TYPE I ON STEEL POSTS
REUSE STEEL POSTS

WEST 43 894 MILE 7 .8
EAST 43 894 MILE 7 .8
REMOVE
142
143
D10-5A D10-5A (5)
L.P.

EXIT 8 A-B
36
Loomis Rd
REMOVE
EXIT 8 A-B
1A
1
36
Loomis Rd
EXIT ONLY
TYPE I SIGN

SHEET 10 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 239	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 10

PLOT DATE : 12/5/2022 11:44 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

EXIT 8A
36 SOUTH
Loomis Rd
25 MPH
EXIT ONLY
REMOVE

EXIT 8A
36 SOUTH
Loomis Rd
25 MPH
EXIT ONLY
4A
4
TYPE I ON SIGN BRIDGE

EXIT 8B
E5-1A
ESTR

EXIT
25 MPH
W13-2B
ESTR

145 WEST 43 894 MILE 8 .0 D10-5A
146 EAST 43 894 MILE 8 .0 D10-5A(5)
L.P.

Loomis Rd
M1-94
ON BRIDGE
ESTR

S-40-109
EXISTING TO BE
REPLACED BY
S-40-3099
STA 230+25

148 WEST 43 894 MILE 8 .2 D10-5A(5)

149 EAST 43 894 MILE 8 .2 D10-5A(5)

IH 41/43/894

IH 41/843/894

STH 36 (W LOOMIS RD)

RAMP LRC
RAMP LRD
RAMP LRE
RAMP LRA
RAMP LRB

ALTERNATE EAST 94
REMOVE

ALTERNATE EAST 94 (EB)
144
J4-1(5)
L.P.

EXIT 9
18A
18
241
27 th Street
¾ MILE
TYPE I SIGN
ON STEEL POSTS
REUSE STEEL POSTS

REMOVE
27 th Street
¾ MILE

MOVE MILE 8 147
D10-1

Loomis Rd
M1-94
ON BRIDGE
ESTR

TUNNEL AHEAD
INTERSTATE 43 NORTH
(2011)
TYPE I ON STEEL POSTS
ESTR
EXCELLENT CONDITION

W4-1R
ESTR

SHEET 11 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 240	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 11
PLOT DATE : 12/5/2022 11:46 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

EXIT 8A
36 SOUTH
Loomis Rd
1/8 MILE

EXIT 8B
36 NORTH
Loomis Rd
EXIT ONLY

REMOVE

2A EXIT 8A
2
36 SOUTH
Loomis Rd
1/8 MILE

EXIT 8B 3A
36 NORTH
Loomis Rd
EXIT ONLY

TYPE I ON SIGN STRUCTURE

S-40-834
SIGN BRIDGE
EXISTING TO REMAIN

REMOVE
153
W5-52R(5)
4' HEIGHT

EXIT 8A-B
36
Loomis Rd
RIGHT LANE
EXIT ONLY
(2011)

TYPE I SIGN ON STEEL POSTS
SIGN IN GOOD SHAPE
ESTR

REMOVE
FLAG

20
Alverno College
EXIT 8B

TYPE I SIGN ON METAL POSTS
REUSE STEEL POSTS

IH 41/43/894

150
WEST 43 894
MILE 8 .4
D10-5A(5)
WOOD POST

151
EAST 43 894
MILE 8 .4
D10-5A(5)
WOOD POST

152
SPEED LIMIT 55
R2-1(5)

REMOVE
HOSPITAL
EXIT 9
To Gen Mitchell
Int'l Airport
EXIT 10 B

19
HOSPITAL
EXIT 9
To Gen Mitchell
Int'l Airport
EXIT 10 B

TYPE I SIGN
ON STEEL POSTS
REUSE STEEL POSTS

LEFT
EXIT 10B
41 SOUTH 94
Chicago
2 LEFT LANES

EXIT 10A
43 NORTH
94 WEST
Milwaukee
RIGHT
1 MILE

TYPE I
ESTR
(2019)

SHEET 12 OF 13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 241 E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 12

PLOT DATE : 12/5/2022 11:47 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN
- (20XX) SIGN AGE

N

EXIT 8A-B
36 SOUTH
Loomis Rd
EXIT ONLY

TYPE I SIGN ON SIGN BRIDGE
ESTR
SIGN IN GOOD SHAPE

EXISTING SIGN
STRUCTURE
S-40-837

REMOVE
155
WEST 43 894
MILE 8 .6
(WB)
D10-5A(5)
L.P.

REMOVE
156
NORTH 41 41
ON L.P.
J4-1(5)

W ARMOUR AVE

IH 41/43/894

252"EWW" 253"EWW" 254"EWW" 255"EWW" 256"EWW" 257"EWW" 258"EWW" 259"EWW" 260"EWW"

253"EWE" 254"EWE" 255"EWE" 256"EWE" 257"EWE" 258"EWE" 259"EWE" 260"EWE" 261"EWE"

S 35TH ST

DMS SIGN
ESTR
ON STEEL POSTS

35th St
M1-94
ON BRIDGE
ESTR

EXISTING
SIGN STRUCTURE
TO REMAIN

IH 41/43/894

RIPRAP

REMOVE
154
EAST 43 894
MILE 8 .6
(EB)
D10-5A(5)
L.P.

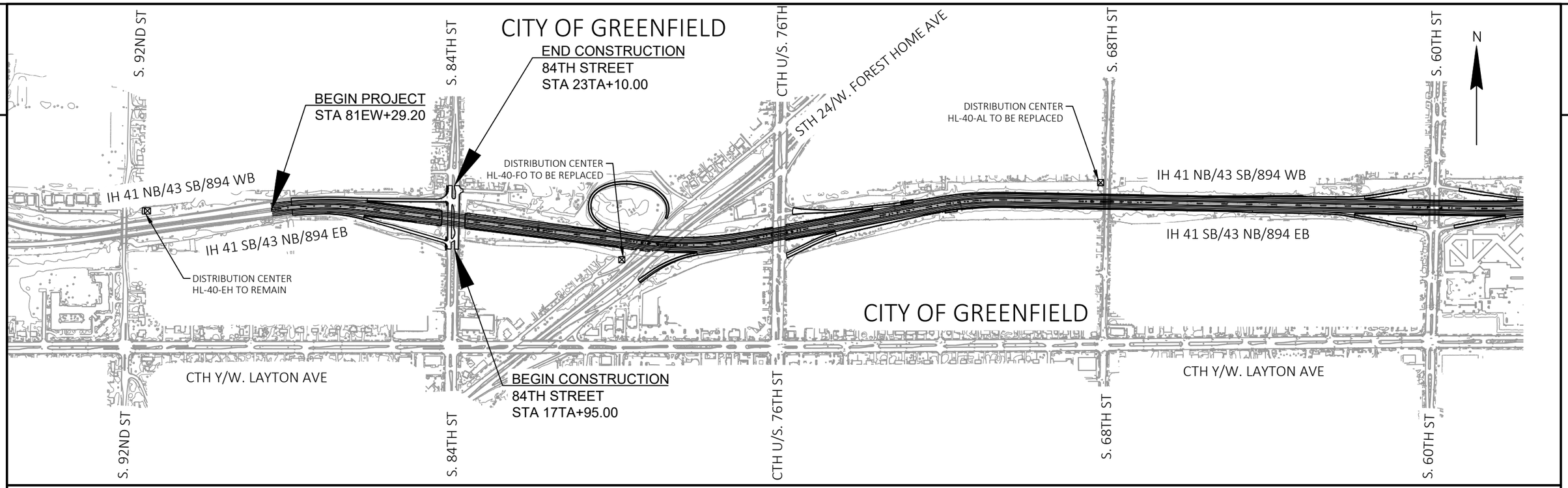
SHEET 13 OF 13

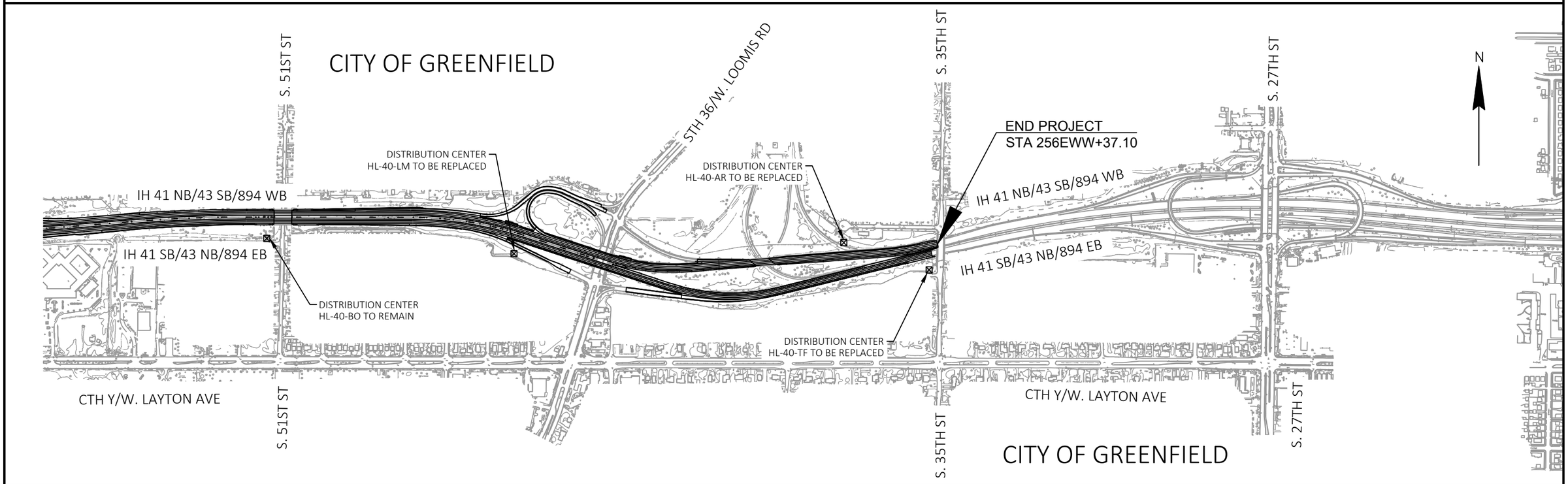
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 242	E

FILE NAME : N:\PDS\C3D\CAD\11004500\SIGN\023201_PS_18.DWG
LAYOUT NAME - 13

PLOT DATE : 12/5/2022 11:49 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42





PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PROJECT OVERVIEW - LIGHTING	SHEET 243	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023301-LP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/31/2022 4:13 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:800 FT

WISDOT/CADDS SHEET 44

2

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX–TO–PULL BOX OR JUNCTION BOX OR BASE–TO–BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8–INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS–BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE. TEMPORARY CONDUIT LATERALS SHALL BE DIRECTIONAL BORED UNDER PAVEMENT. PERMANENT LATERALS CAN BE TRENCHED UNTIL EDGE OF PAVEMENT, AND THEN DIRECTIONAL BORED UNDER ROADWAY. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING AT THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR FURTHER POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE CONDUCTOR(S) LEAVING THE LAST POLE THE PHASE WAS UTILIZED. REMOVE EXCESS CONDUCTOR(S) IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED CONDUIT SEALANT. PROVIDE A 1#2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	5–FT ONE WAY IN OR OUT
EMBEDDED JUNCTION BOXES:	3–FT
DISTRIBUTION CENTER/LOAD CENTER:	10–FT

STAGING NOTES

MAINTAIN LIGHTING AT ALL TIMES DURING CONSTRUCTION USING EXISTING LIGHTING, PROPOSED TEMPORARY, FINAL LIGHTING OR COMBINATIONS.

DO NOT REMOVE EXISTING LIGHTING UNTIL THE NEW OR TEMPORARY LIGHTING IS OPERATIONAL. REFER TO DRAWINGS FOR STAGING INFORMATION.

MAINTAINING SYSTEM CONTINUITY SHALL BE INCIDENTAL TO THE "REMOVE EXISTING STREET LIGHTS" BID ITEM.

DUE TO THE PHASING OF CONSTRUCTION SOME FINAL LIGHTING UNITS MAY BE ORPHANED UNTIL A LATER STAGE IS COMPLETE. IT IS AT THE DISCRETION OF THE CONTRACTOR TO SCHEDULE
THESE ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE PLACEMENT OF RACEWAY THAT SPANS TWO DIFFERENT PHASES OF CONSTRUCTION.

TEMPORARY OR FINAL LIGHTING MUST ILLUMINATE AN AREA BEFORE EXISTING LIGHTING UNITS IN AN AREA CAN BE REMOVED. THE SCHEDULING OF REMOVAL IS AT THE DISCRETION OF THE
CONTRACTOR WITH THE PROVISION THAT LIGHTING OF THE ROADWAY IS PROVIDED AT ALL TIMES.

COORDINATE POLE REMOVAL WITH TRAFFIC CONTROL.

LEGEND – LIGHTING REMOVALS

- CONDUIT – 2" UNLESS OTHERWISE SHOWN
- XX — DENOTES THE REMOVAL STAGE NUMBER
- XYYZ — EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
  X – CIRCUIT
  YY – DISTRIBUTION CENTER
  Z – POLE/LUMINAIRE ID NUMBER
- XYYZ / XYYZ — EXISTING TWIN ARM FREEWAY LIGHTING UNIT
  X – CIRCUIT
  YY – DISTRIBUTION CENTER
  Z – POLE/LUMINAIRE ID NUMBER
- XXYZ — EXISTING SINGLE ARM LOCAL LIGHTING UNIT
  XX – DISTRIBUTION CENTER
  Y – CIRCUIT (AS NOTED)
  Z – POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING UDL (UNDER DECK LIGHTING)
- PHOTOCELL
- X/Y/ZZ — HIGH MAST LIGHTS
  HML–40–W
  X/Y/ZZ
  X&Y–CKT
  ZZ–LIGHTING CABINET
  W–ID NUMBER

LEGEND – TEMPORARY LIGHTING

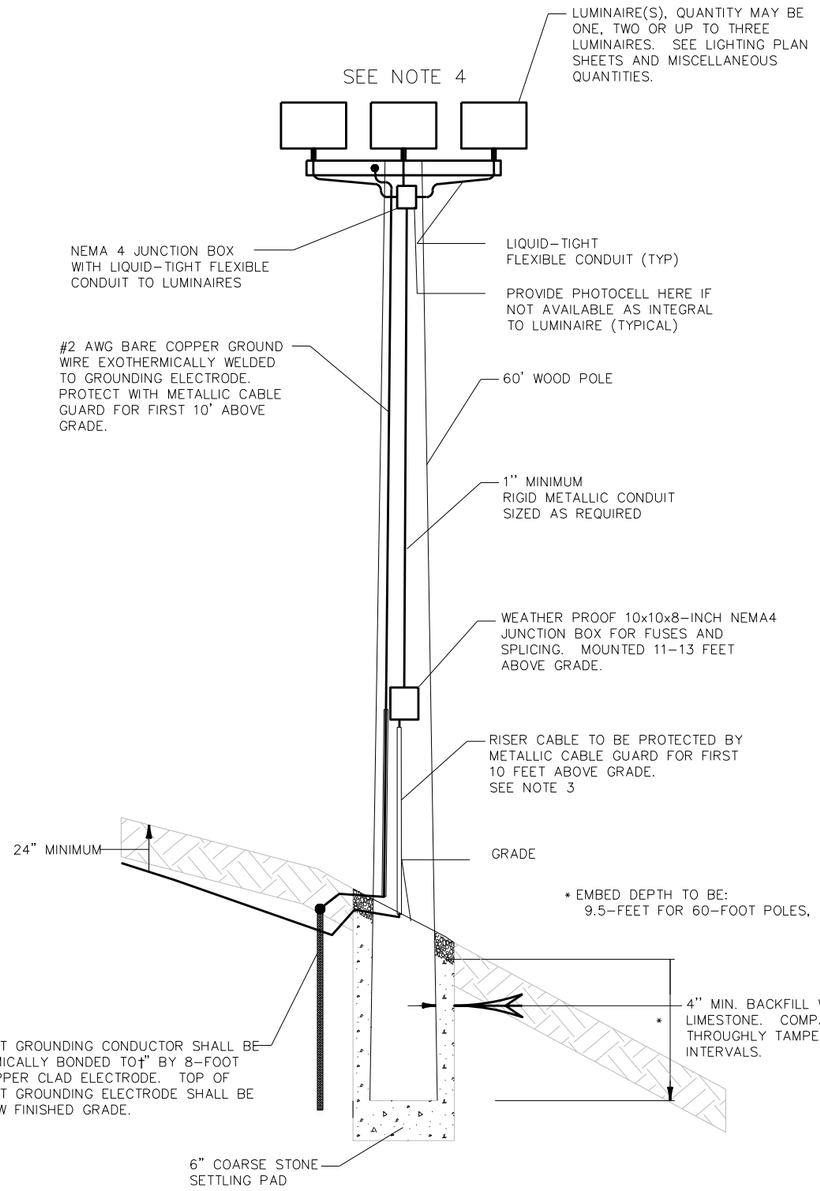
- LIGHTING CONTROL CABINET
- V, W / T–XYYZ — FLOOD LIGHT ON WOOD POLE
  V – STATION, W – OFFSET
  T – TEMPORARY LIGHTING
  X – CIRCUIT, YY – DISTRIBUTION CENTER,
  Z – POLE NUMBER
- V, W / WP–XX–Y — WOOD POLE
  V – STATION, W – OFFSET
  WP – WOOD POLE
  XX – DISTRIBUTION CENTER
  Y – POLE NUMBER
- V, W / T–PB–XX–YY — PULL BOX, 24" x 36"
  V – STATION, W – OFFSET
  T – TEMPORARY
  PB – PULLBOX
  XX – DISTRIBUTION CENTER
  YY – PULLBOX NUMBER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
- EXISTING TWIN ARM FREEWAY LIGHTING UNIT
- —OH— OVERHEAD CABLE (AERIAL ALUMINUM)
- CONDUIT, 2" UNLESS OTHERWISE NOTED
- X/Y DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION/REMOVAL
- E/Y EXISTING TO BE REMOVED IN STAGE "Y"

LEGEND – FINAL LIGHTING

- CID (CABLE IN DUCT)
- CABLE IN CONDUIT – SIZE AS NOTED
- PROPOSED SINGLE ARM FREEWAY LIGHTING UNIT
- PROPOSED TWIN ARM FREEWAY LIGHTING UNIT
- PROPOSED TWIN ARM FREEWAY LIGHTING UNIT, MOUNTED ON SIGN STRUCTURE
- EXISTING FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- PROBEAM LUMINAIRE WITH BASE & ARM
  STATION – OFFSET
  PRO – X YY Z
  - LUMINAIRE NUMBER
  - LIGHTING CONTROL CABINET
  - CIRCUIT

  } PLAQUE SEQUENCE INDENTIFICATION
- ELECTRIC METER SOCKET
- SM DENOTES STRUCTURE MOUNTED
- XX DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION
- STUBOUT
- LUMINAIRE IDENTIFICATION
  STATION – OFFSET (TWO CALLOUTS IF TWIN)
  LED–X–X(T)–4–XYYZ
  - LUMINAIRE NUMBER
  - LIGHTING CONTROL CABINET
  - CIRCUIT

  } PLAQUE SEQUENCE INDENTIFICATION
  - LUMINAIRE ARM LENGTH
  - POLE TYPE, (T) WITH TRANSFORMER BASE BREAKAWAY
  - LUMINAIRE UTILITY CATEGORY
  - LUMINAIRE TYPE SOURCE
- UNDERDECK LUMINAIRE

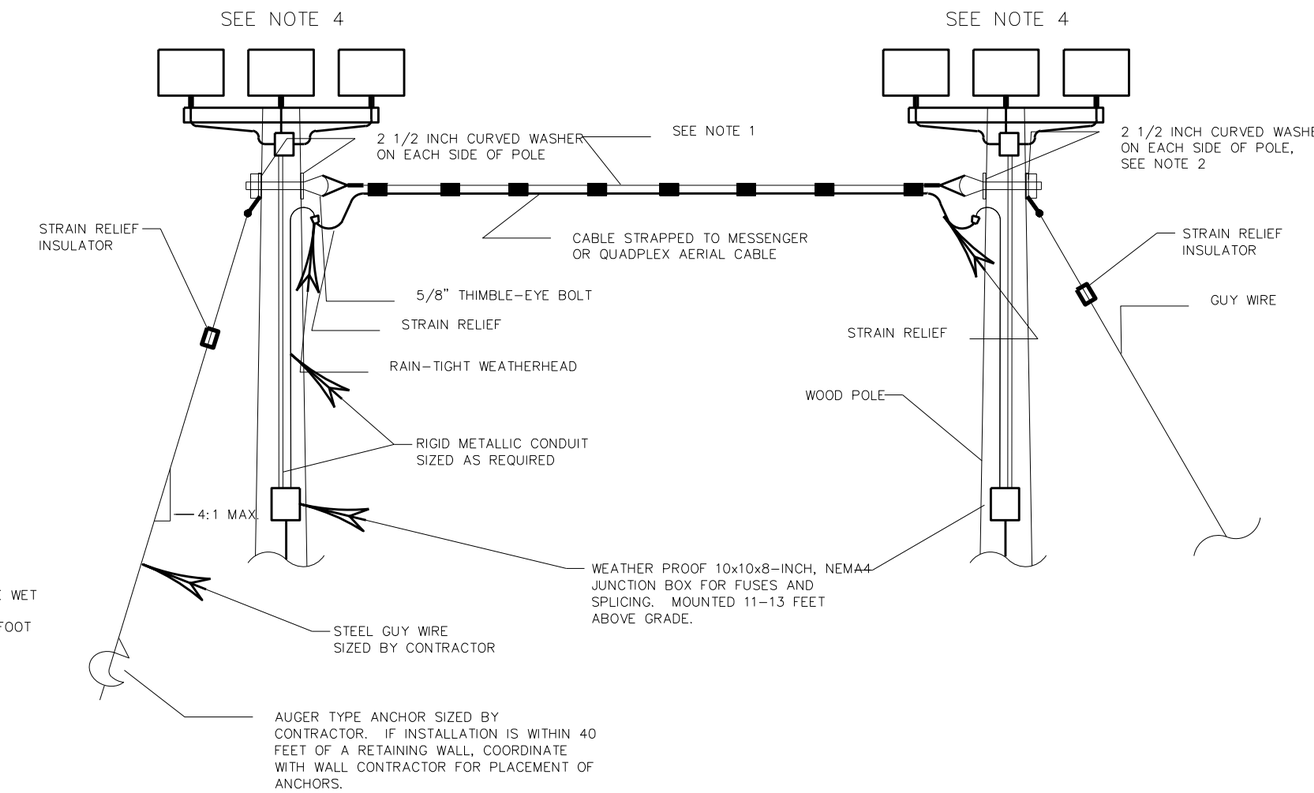


WOODEN POLE INSTALLATION DETAIL

SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
NTS

NOTES

1. MINIMUM CLEARANCE AT CENTER OF SPAN: 20-FT. ABOVE ROADWAY OR GRADE.
2. CONSTRUCT DEAD ENDS WITH SECONDARY RACK, CLEVISES, OR OTHER APPROVED METHOD.
3. SECURELY BAND OR CLAMP RISERS TO POLES. USE METALLIC CABLE GUARD TO PROTECT RISERS FOR 10-FEET ABOVE GRADE.
4. FOR CLARITY, LIGHTNING PROTECTION NOT SHOWN IN ITS ENTIRETY. PROVIDE AIR TERMINAL PROTRUDING 18" ABOVE HIGHEST FIXTURE WITH #2 AWG DOWN CONDUCTOR TO A 8-FOOT COPPER CLAD ELECTRODE FOR LIGHTNING PROTECTION. DOWN CONDUCTOR MAY TRAVEL ONLY IN A DOWNWARD DIRECTION UNTIL IT IS CONNECTED TO THE GROUNDING ELECTRODE. LIGHTNING PROTECTION GROUNDING ELECTRODE TO BE BONDED TO EQUIPMENT GROUNDING ELECTRODE WITH BARE, SOLID #2 COPPER CONDUCTOR; EXOTHERMIC WELD LOWER, MECHANICAL ON UPPER END.
5. LUMINAIRES AND AERIAL CABLES ARE SEPARATE BID ITEMS AND ARE NOT PART OF THE BID ITEM "WOOD POLE LIGHTING 60-FOOT. THE REMAINING ITEMS SHOWN ARE INCIDENTAL TO BID ITEM "WOOD POLES LIGHTING 60-FOOT.



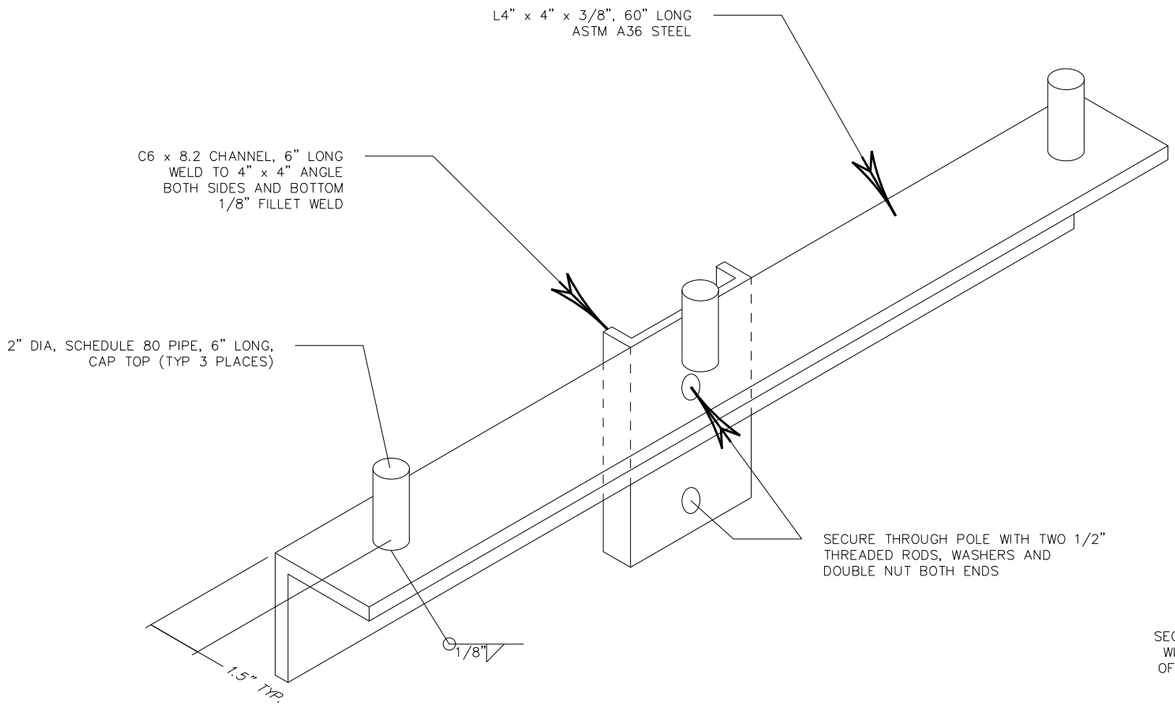
OVERHEAD WIRE DETAIL

SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
NTS

2

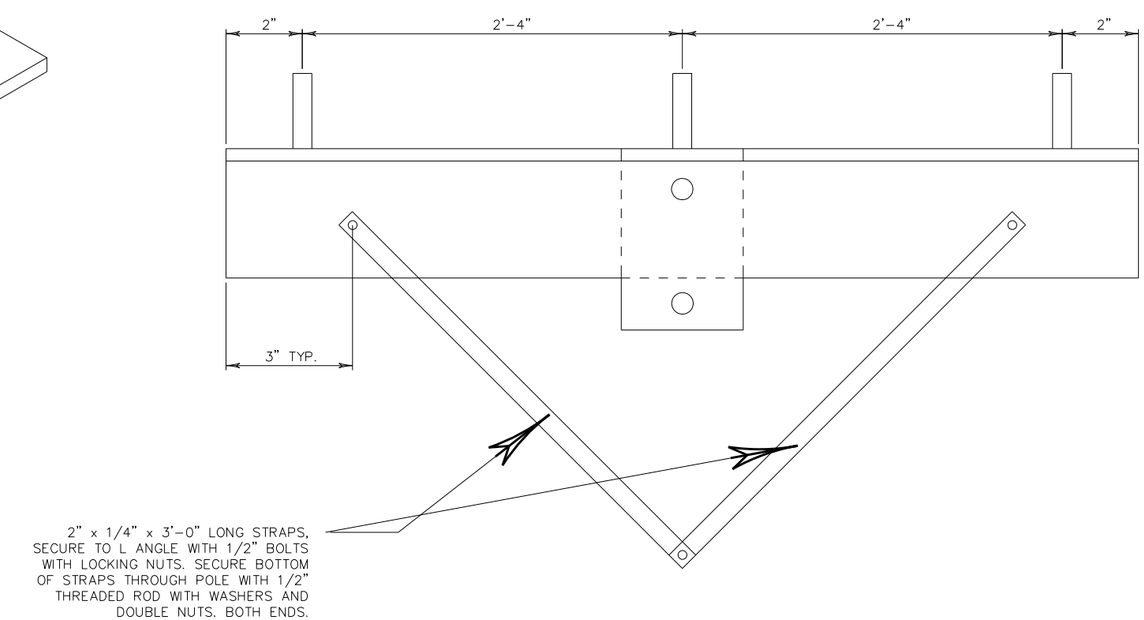
NOTES

1. HOT DIP GALVANIZE AFTER FABRICATION.
2. POLE WITH 2 OR 3 LUMINAIRES TO USE BRACKET AS SHOWN. PROVIDE ONLY THE CENTER PORTION WITH 4" L ANGLE, 6" LONG FOR A SINGLE FIXTURE.



ISOMETRIC VIEW

STRAPS NOT SHOWN FOR CLARITY



FRONT VIEW

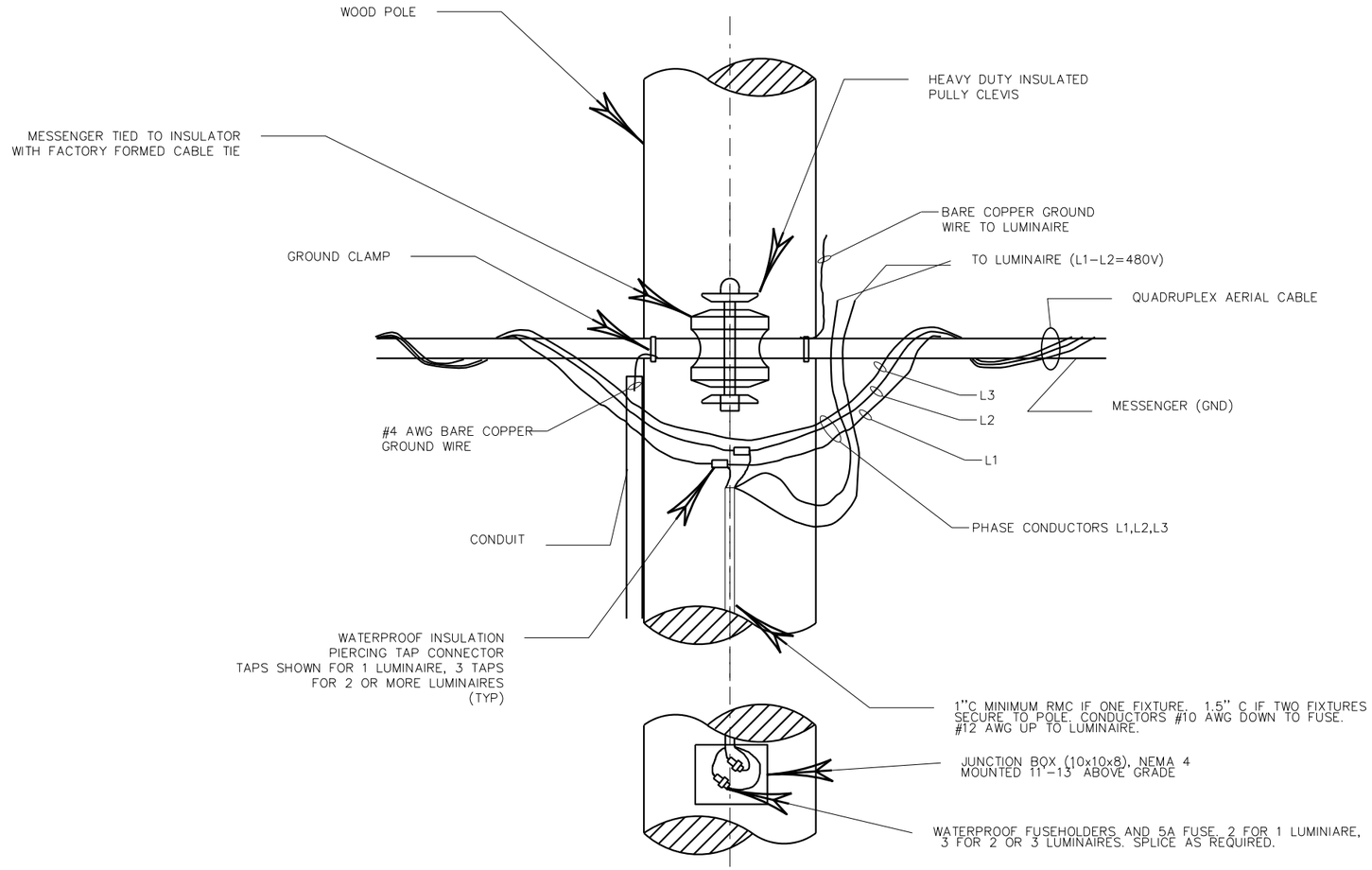
FLOODLIGHT MOUNTING BRACKET

NTS

2

NOTES

1. IF TWO OR MORE CABLES ON A POLE ARE FOR THE SAME CIRCUIT, CONNECT THE EQUIPMENT GROUNDING CONDUCTOR AND GROUNDED CONDUCTOR (NEUTRAL) AT EACH POLE.
2. TAPS, CONDUIT, JUNCTION BOX, INSULATIOR, CLEVIS FUSE HOLDERS, WIRING TO/FROM JUNCTION BOX AND TO LUMINAIRE ARE PART OF THE BID ITEM "WOOD POLE LIGHTING 60-FOOT".



OVERHEAD CABLE SPLICE AT WOOD POLE-TEMPORARY 480V FIXTURES WIRED PHASE-PHASE

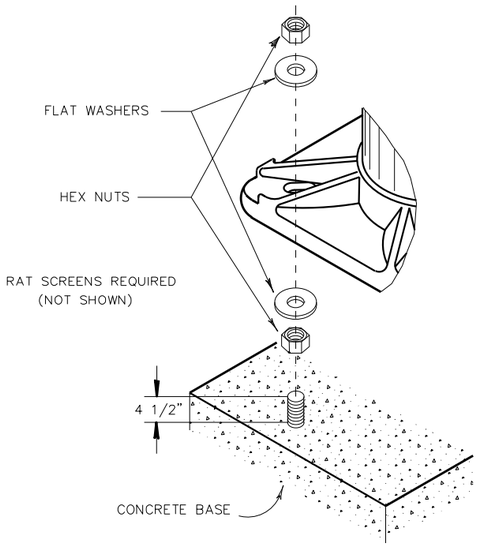
NTS

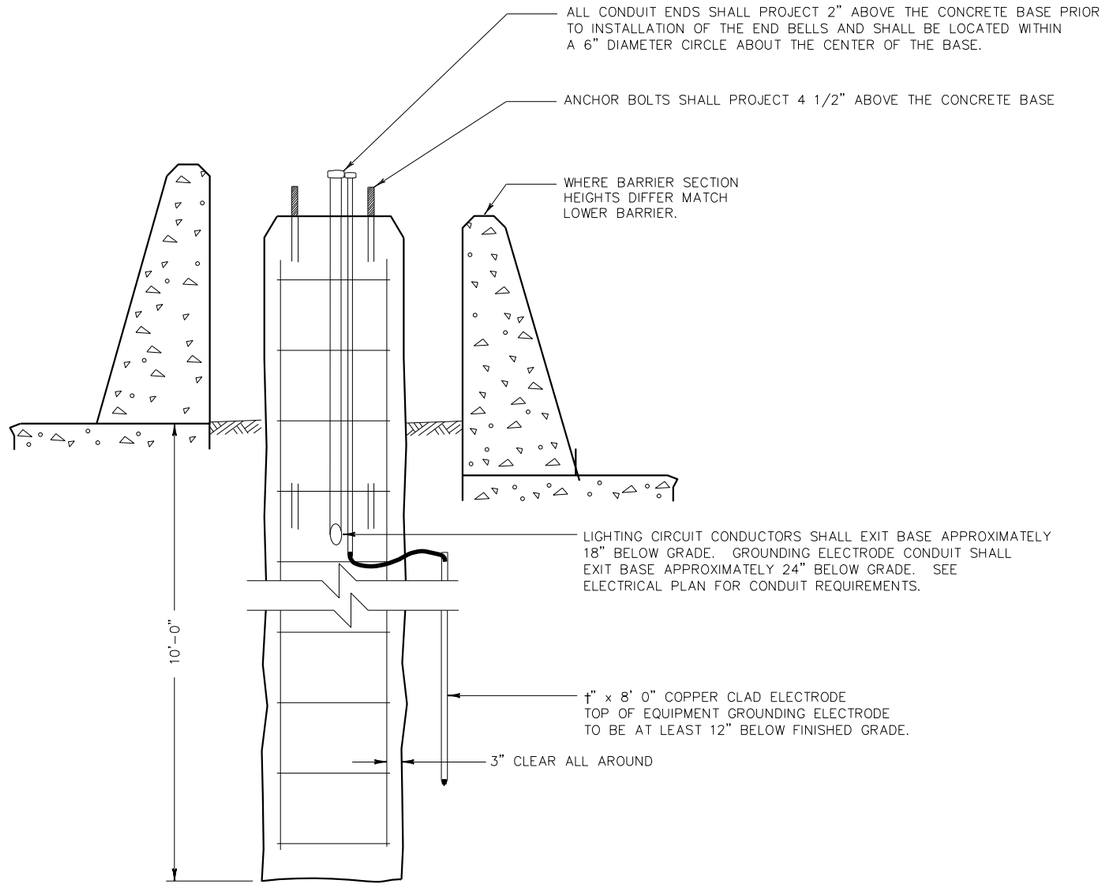
2

NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

DETAILS OF CONSTRUCTION WITH THE EXCEPTION OF HEIGHT ABOVE GRADE AND CONDUIT SIZE SHALL BE AS DEFINED IN THE STANDARD DETAIL FOR TYPE 8 BASE.

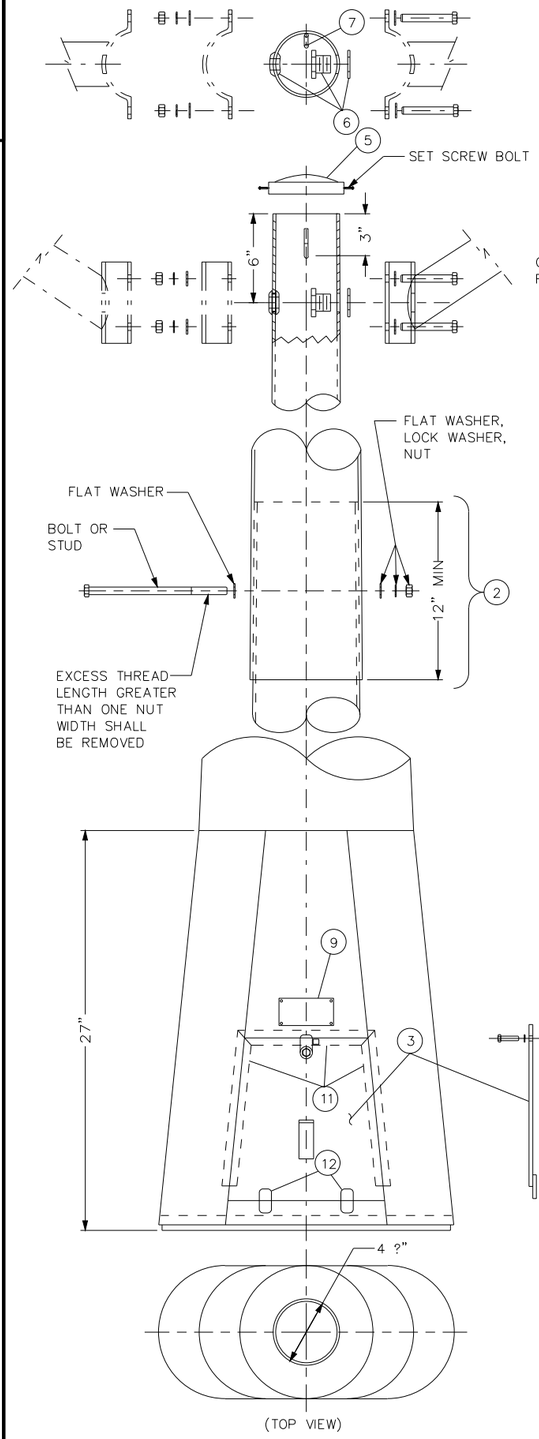


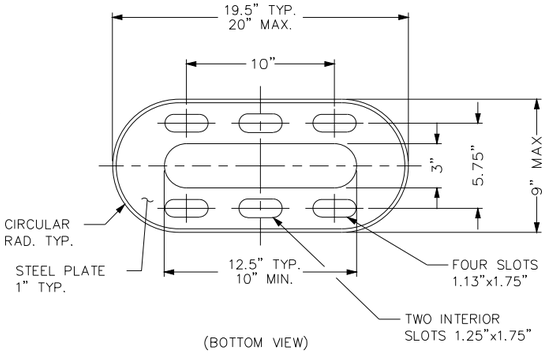


CONCRETE BASE, TYPE "B"

(1" ANCHOR RODS, 15" BOLT CIRCLE, 4 1/2" PROJECTION)

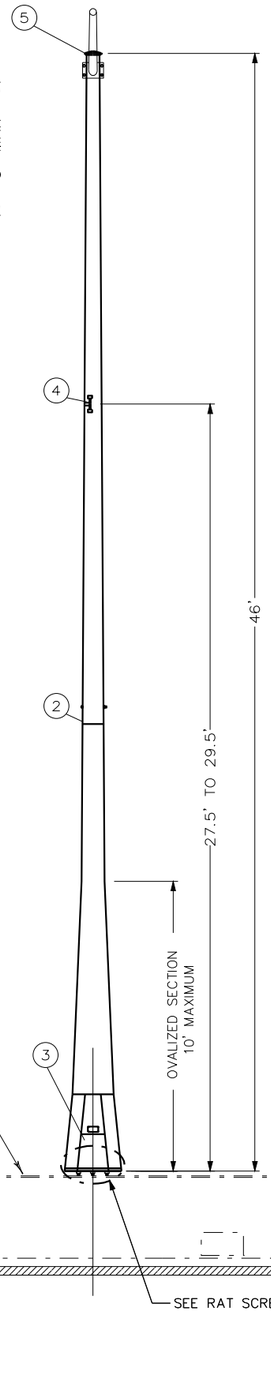
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING DETAILS	SHEET 248	E





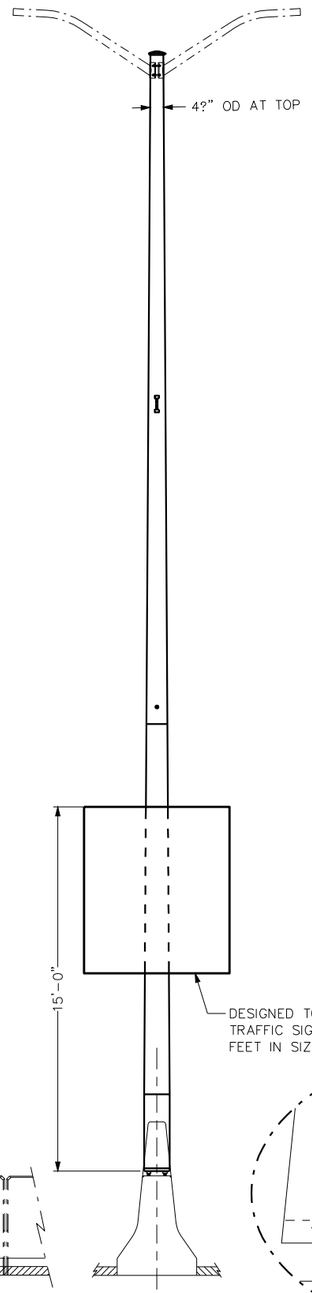
(BOTTOM VIEW)

MAX DIMENSIONS AND BOLT PATTERN REQ'D. OTHER DIMENSIONS AND SHAPES VARY. THIS VERSION SHOWN FOR ILLUSTRATIVE PURPOSES.



POLES, TYPE F

50' NOMINAL HEIGHT
POLE BASE DESIGNS VARY
THIS VERSION SHOWN FOR
ILLUSTRATIVE PURPOSES.



NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF SECTION 654 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS. POLES SHALL BE CONSTRUCTED OF HIGH STRENGTH STEEL, GALVANIZED PER ASTM A123.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

COLLAR-MOUNT LUMINAIRE ARMS AND CLAMP ASSEMBLIES, MEDIAN BARRIER, AND ANCHOR BOLT ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

POLES SHALL BE MOUNTED WITH ANCHOR BOLT ASSEMBLIES. ANCHOR BOLT ASSEMBLIES AND LEVELING PLATES ARE INCIDENTAL TO CONCRETE BASE OR STUCTURE ANCHORAGE ITEM. THE REQUIRED RAT SCREEN SHALL BE INCIDENTAL TO THE INSTALLATION OF THE POLE.

LUMINAIRE LOADING FOR DESIGN CALCULATIONS SHALL BE 50-LB, 1.5 SQ FEET EPA.

(1) GALVINIZED STEEL MESH (RAT SCREEN) AND 3/4" STAINLESS STEEL BANDING.

(2) OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 5/8"-11 UNC THROUGH BOLT OR STUD. THE OVERLAP OF THE UPPER AND LOWER SECTIONS SHALL BE NOT LESS THAN 12".

(3) HATCH COVER, SECURED BY 1/4"-20 UNC HEX HEAD BOLT. THE POLE SHALL BE INSTALLED SUCH THAT THE HATCH IS ON THE RIGHT SIDE OF THE BARRIER UNLESS OTHERWISE SHOWN IN THE PLANS.

(4) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER. MOUNT AT ELEVATION 27.5' TO 29.5' +/-.

(5) VENTILATED POLE CAP. SECURE WITH ONE OR MORE 1/4"-20 UNC SET SCREW BOLTS.

(6) HOLE (FACTORY DRILLED PRIOR TO GALVINIZING, 2 EACH) AND 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

(7) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

(8) FACTORY-WELDED L-CLIP FOR GROUNDING LUG, OPPOSITE HANDHOLE. PROVIDE HOLE IN L-CLIP FOR?"-20 UNC THROUGH BOLT.

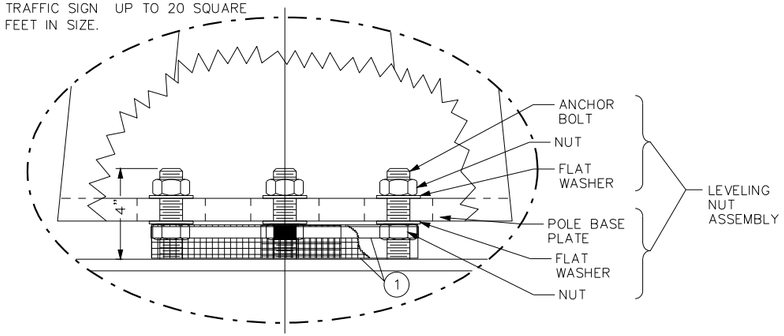
(9) MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

(10) HATCH COVER LOCKING CLIP *

(11) HATCH COVER BACKING STRAPS *

(12) HATCH COVER MOUNTING CLIPS, OR STRAP *

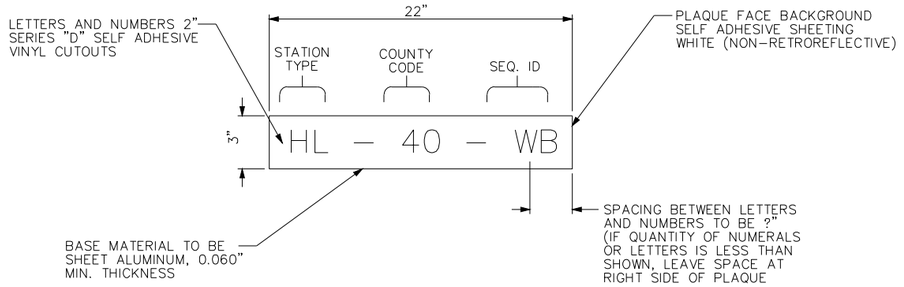
* ARRANGEMENTS VARY - SHOWN FOR ILLUSTRATIVE PURPOSES ONLY



RAT SCREEN DETAIL

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING DETAILS	SHEET 249	E

2



DISTRIBUTION CENTER
IDENTIFICATION PLAQUE

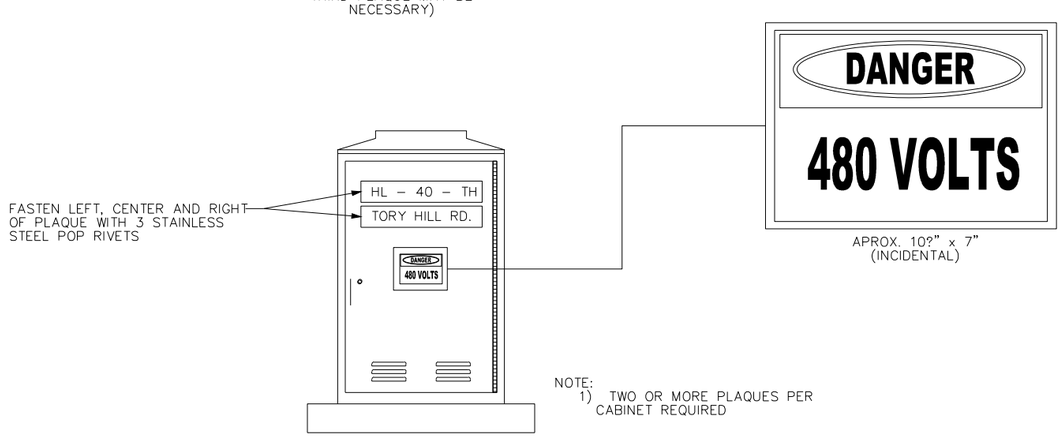
WISCONSIN AVE.

MNEMONIC

(SEE MISCELLANEOUS QUANTITIES)
(NUMBER OF CHARACTERS VARIES
THIRD PLAQUE MAY BE
NECESSARY)

GENERAL NOTE:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.



DISTRIBUTION CENTER IDENTIFICATION PLAQUE
REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)

2

N

S. 92ND ST

70+95
HL-40-EH
EXISTING
TO REMAIN

70+95
LPB-EH-1

70+95
LPB-EH-2

70+95
JB-EH-1

70+55
CEH1/DEH1

72+90
AEH1/BEH1

75+25
AEH2/BEH2

77+75
AEH3/BEH3

80+05
AEH4/BEH4

82+40
AEH5

82+40
BEH5

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

82'TAA'

84'TA

84'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

B-#4 A,B

MATCHLINE 84'EW'+00

RIPRAP

SIGN

OH

FO

W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 251	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/25/2022 5:41 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TAA

RAMP TAB

S. 84TH ST

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

84+90 AEH6 (2)
87+70 BEH7 (2)
88+60 AEH16 (3)
89+71 LPB-EH-5 (3)
89+57 LPB-EH-4 (3)
89+75 AEH8 (2)
90+77 BEH15 (3)
92+30 AEH15 (3)
93+71 BEH14 (3)
94+75 AEH10 (2)
95+28 AEH14 (3)
95+25 BEH9 (2)
97+37 AF01 (2)

86'TAA'
88'TAA'
90'TAA'
92'TAA'
94'TAA'

86'EW'
88'EW'
90'EW'
92'EW'
94'EW'
96'EW'
98'EW'

86'TAB'
88'TAB'
90'TAB'
92'TAB'
94'TAB'
96'TAB'

24'TA'
22'TA'
20'TA'
18'TA'
16'TA'

84+90 BEH6 (2)
87+30 AEH7 (2)
88+09 AEH11 (3)
89+58 LPB-EH-6 (3)
89+58 LPB-EH-7 (3)
89+58 LPB-EH-3 (2)
89+75 BEH8 (2)
89+89 BEH11 (3)
91+27 AEH12 (3)
92+70 BEH12 (3)
94+09 AEH13 (3)
94+52 LPB-EH-8 (2)
94+75 BEH10 (2)
95+25 AEH9 (2)
95+44 BEH13 (3)
97+37 BF01 (2)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 252	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/25/2022 5:43 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHA

STH 24/W. FOREST HOME AVE

RAMP FHB

99+55 BF02

101+74 AF03

103+95 BF04

106+15 AF05

108+35 BF06

110+44 CF011

99+55 AF02

101+74 BF03

103+95 AF04

106+15 BF05

#8 A,B,N

108+35 AF06

110+44 DF0711

109+55 LPB-FO-1

109+55 LPB-FO-2

109+92 HL-40-FO TO BE REPLACED

112+47 DF02

110+95 DF01

102'FHA'

104'FHA'

103+16 CF05

101+66 CF04

100+32 CF03

105'FHA'

104+45 CF06

99+18 CF02

106+78 CF08

98'FHA'

107+84 CF09

110+15 CF010

98+10 CF01

110'FHA'

112'FHA'

114'FH

100'EW'

102'EW'

104'EW'

106'EW'

108'EW'

110'EW'

112'EW'

112'FHB'

110'FHB'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 253	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 03

PLOT DATE : 10/25/2022 5:45 PM

PLOT BY : O'GORMAN, NICHOLAS

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHB

RAMP TBA

RAMP TBB

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

113+93 DF03

114+95 DF012

114+95 CF012

115+49 LPB-FO-3

115+93 DF04

116'FHA'

116'EW'

116'FHB'

117+11 DF013

117+11 CF013

118'FHA'

118'EW'

118'FHB'

119+21 CF014

119+21 DF014

120'FHA'

120'EW'

120'FHB'

121+36 DF015

121+36 CF015

122'FHA'

122'EW'

122'FHB'

123+58 CAL23

123+33 DAL12

124+09 DAL41

124+09 CAL41

124+62 DAL11

124+79 CAL22

124'FHA'

124'EW'

124'FHB'

124'TBA'

124'TBB'

125+93 DAL10

126+37 DAL40

126+73 CAL26

126+86 LPB-AL-5

126+37 CAL40

126+69 LPB-AL-6

126'EW'

126'TBA'

126'TBB'

127+22 DAL9

128+76 CAL27

128+83 CAL39

128'EW'

128'TBA'

128'TBB'

DAL39

#8 C,D,N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 254	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 04

PLOT DATE : 10/25/2022 5:47 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

129+17 LPB-AL-4 3
130+65 CAL28 3
132+55 CAL25 3
131+27 DAL38 2
133+76 CAL37 2
136+21 DAL36 2
138+67 CAL35 2
141+16 DAL34 2
143+57 CAL33 2

130TBA' 132TBA' 134TBA' 136TBA' 138TBA' 140TBA'

RAMP TBA

IH 43 SB/IH 894 WB

130'EW' 132'EW' 134'EW' 136'EW' 138'EW' 140'EW' 142'EW' 144'

IH 43 NB/IH 894 EB

130'TBB' 132'TBB' 134'TBB' 136'TBB' 138'TBB'

129+20 DAL13 3
129+39 LPB-AL-3 2
131+27 CAL38 2
133+76 DAL37 2
136+21 CAL36 2
138+67 DAL35 2
141+16 CAL34 2
143+57 DAL33 2

#4 C,D,N

FOOTBRIDGE

WALLS

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 255	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/25/2022 5:50 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

S. 68TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

144'EW'

146'EW'

148'EW'

150'EW'

152'EW'

154'EW'

156'EW'

158'EW'

158'TCA'

148+93
HL-40-AL
TO BE
REPLACED

148+76
LPB-AL-1

145+89
DAL32

148+76
LPB-AL-2

148+44
CAL31

148+44
DAL31

145+89
CAL32

150+52
BAL21

150+52
AAL21

152+94
AAL22

152+94
BAL22

155+39
BAL23

155+39
AAL23

157+84
AAL24

157+84
BAL24

#4 CDN

MP

SIGN

OUT

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 256	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 06

PLOT DATE : 10/25/2022 5:52 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCA

RAMP TCB

160'TCA' 162'TCA' 164'TCA' 166'TCA' 168'TCA' 170'TCA' 172'TCA' 174'TCA'

160'EW' 162'EW' 164'EW' 166'EW' 168'EW' 170'EW' 172'EW' 174'EW'

160'TCB' 162'TCB' 164'TCB' 166'TCB' 168'TCB' 170'TCB' 172'TCB'

160+29 BAL25

162+72 AAL26

165+12 BAL27

167+52 AAL28

168+74 BAL10

169+96 BAL29

172+06 BAL7

170+56 BAL6

170+62 LPB-AL-7

171+82 LPB-AL-8

173+64 BAL8

172+33 AAL30

160+29 AAL25

162+72 BAL26

165+12 AAL27

167+52 BAL28

169+02 AAL11

169+96 AAL29

170+09 LPB-AL-9

170+97 AAL7

172+42 AAL8

172+33 BAL30

174+07 AAL9

#2 C.D.N

SIGN

SLAB

FO

OH

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 257	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 07

PLOT DATE : 10/25/2022 5:54 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

MATCHLINE 174'EW'+00

MATCHLINE 189'EW'+00

RAMP TCA

RAMP TCB

RAMP TCC

RAMP TCD

S. 60TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

#2 C,D,N

175+30
BAL9

176+90
CB011

178+40
CB010

179+97
CB09

181+54
CB07

183+53
CB08

184+84
DB028

187+23
CB027

174+77
BAL31

177+57
CB031

179+97
DB030

182+37
CB029

174+77
AAL31

175+78
AAL10

176+70
DB010

177+57
DB031

178+11
DB09

179+50
DB08

179+97
CB030

181+07
LPB-BO-7

180+88
LPB-BO-6

180+89
DB06

182+37
DB029

182+79
DB07

184+84
CB028

187+23
DB027

176'EW'
178'EW'
180'EW'
182'EW'
184'EW'
186'EW'
188'EW'

178'TCC'
180'TCC'
182'TCC'
184'TCC'
186'TCC'
188'TCC'

178'TCD'
180'TCD'
182'TCD'
184'TCD'
186'TCD'
188'TCD'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 258	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/25/2022 5:56 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S. 51ST ST

189+62
DB026

190'TCC'

192+01
CB025

192'TCC'

194+41
DB024

194'TCC'

196+81
CB023

199+21
DB022

201+63
CB021

203+95
BB01

190'EW'

192'EW'

194'EW'

196'EW'

198'EW'

200'EW'

202'EW'

204

190'TCD'

192'TCD'

189+62
CB026

192+01
DB025

194+41
CB024

196+81
DB023

199+21
CB022

201+63
DB021

201+73
LPB-BO-2

201+24
LPB-BO-4

201+89
LPB-BO-1

201+38
LPB-BO-3

201+92
HL-40-BO
TO BE
REPLACED

203+95
AB01

#2 C.D.N.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 259	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 09

PLOT DATE : 10/25/2022 5:58 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

206+28
AB02

208+66
BB03

211+03
AB04

213+41
BB05

215+76
AB06

217+60
BLM20

218+19
BB07

206'LRA'

208'LRA'

210'LRA'

212'LRA'

214'LRA'

216'LRA'

218'LRA'

RAMP LRA

IH 41 NB/43 SB/894 WB

206'EW'

208'EW'

210'EW'

212'EW'

214'EW'

216'EW'

218'EW'

IH 41 SB/43 NB/894 EB

210'LRB'

212'LRB'

214'LRB'

216'LRB'

218'LRB'

206+28
BB02

208+66
AB03

211+03
BB04

#2 A.P.N

213+41
AB05

215+76
BB06

218+19
AB07

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 260	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 10

PLOT DATE : 10/25/2022 6:00 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWW'

234'E

230'EWE'

232'EWE'

234'EWE

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

STH 36/W. LOOMIS RD

RAMP LRA

220'LRA'

222'LRA'

224'LRA'

226'LRA'

228'LRA'

RAMP LRC

RAMP LRD

230'LRD'

232'LRD'

RAMP LRB

220'LRB'

222'LRB'

224'LRB'

226'LRB'

228'LRB'

RAMP LRE

230'LRE'

232'LRE'

#4 A,B,N

220+28 ALM20

222+00 BLM21

222+41 ALM22

222+12 LPB-LM-4

227+61 LPB-LM-7

228+06 BLM9

229+60 ALM9

230+32 ALM11

230+46 ALM10

230+16 LPB-LM-8

229+46 BLM10

228+51 BLM12

230+85 EAR31

232+52 FAR32

234+50 EAR33

219+72 LPB-LM-6

219+65 LPB-LM-5

220+50 ALM1

222+83 DLM1

223+75 BLM4

225+17 CLM2

225+98 BLM13

227+46 DLM3

231+01 CLM4

233+31 EAR15

221+83 LPB-LM-3

221+83 LPB-LM-2

221+54 ELM2

221+83 LPB-LM-1

221+83 HL-40-LM

222+83 CLM1

223+18 ELM3

224+85 ELM4

226+45 ELM5

228+12 ELM06

225+17 DLM2

227+46 CLM3

233+45 EAR7

231+01 DLM4

231+86 FAR21

233+92 FAR22

229+70 FAR20

219+60 ELM1

220+50 BLM1

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 261	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 11

PLOT DATE : 10/25/2022 6:02 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

RAMP LRD

RAMP LRE

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

235+88 FAR16

237+03 FAR34

238+32 EAR17

240+83 FAR18

245+83 CAR4

248+22 CAR3

248+71 HL-40-AR TO BE REPLACED

248+41 LPB-AR-1

243+42 CAR5

#8 E,F,N

#8 E,F,N

237+53 LPB-AR-6

243+88 FAR10

#4 E,F,N

235+89 FAR6

236+11 FAR8

237+30 LPB-AR-7

238+68 EAR9

241+28 EAR11

243+90 LPB-AR-5

246+30 FAR12

248+98 EAR13

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 262	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 12
PLOT DATE : 10/25/2022 6:04 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 249'EWW'+00

S. 35TH ST

249+86
LPB-AR-2
3

249+86
CAR30
3

250+00
LPB-AR-3
2

250+61
DAR2
2

252+85
DTF1
2

255+14
LPB-TF-2
3

255+07
CTF2
2

250'EWW'

252'EWW'

254'EWW'

256'EWW'

258'EWW'

260'EWW'

250'EWE'

252'EWE'

254'EWE'

258'EWE'

260'EWE'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

#8 E,F,N

252+85
CTF1
2

251+71
FAR14
3

250+73
LPB-AR-4
3

255+07
DTF2
2

255+90
LPB-TF-1
3

255+90
HL-40-TF
TO BE
REPLACED
3

257+46
ATF1/BTF1

259+94
ATF2/BTF2

262+58
ATF3/BTF3

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 263	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023501-LP.DWG
LAYOUT NAME - 13

PLOT DATE : 10/25/2022 6:06 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 69'EW'+00

INL

MH

W

SIGN

RIPRAP

FLAG

FO

OH

N

S. 92ND ST

MATCHLINE 69'EW'+00

MATCHLINE 84'EW'+00

70+97, 135' LT
HL-40-EH

72+90
AEH1/BEH1

75+25
AEH2/BEH2

77+75
AEH3/BEH3

80+05
AEH4/BEH4

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

82'TAB'

3"C, 4 #4, A,N,B,GND

70+55
CEH1/DEH1

80+02, 83' RT
SPB-T-EH1

81+84, 81' RT
T-AEH1

83+74, 83' RT
T-BEH1
2 LUMINAIRES

#4 AL QUADRUPLEX A,N,B,GND AERIAL

1/3

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 264	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 01
PLOT DATE : 10/25/2022 5:07 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

S. 84TH ST

22'TA'

20'TA'

96'TA'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

86'TAB'

88'TAB'

90'TAB'

92'TAB'

94'TAB'

RAMP TAB

3"C, 4 #4, A,N,B,GND

#4 AL QUADRUPLEX A,N,B,GND AERIAL

86'EW'

88'EW'

90'EW'

92'EW'

94'EW'

96'EW'

98'EW'

86'TAA'

88'TAA'

90'TAA'

92'TAA'

94'TAA'

RAMP TAA

85+45, 85' RT
T-AEH2

#4 AL QUADRUPLEX A,N,B,GND AERIAL

92+33, 71' RT
T-BEH2

3"C, 4 #4, A,N,B,GND

94+17, 79' RT
T-AEH3

92+00, 32' RT
WP-EH1

97+79, 91' RT
T-AF01

#6 AL QUADRUPLEX A,N,B,GND AERIAL

N

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

100'EW'

102'EW'

104'EW'

106'EW'

108'EW'

110'EW'

112'EW'

114'EW'

RAMP FHB

108'FHB'

110'FHB'

112'FHB'

114'FH

3"C, 4 #6, C,N,D,GND

110+50, 0' RT
JB-T-F01

SEE NOTE 1 (TYP.)

STH 24/W. FOREST HOME AVE

99+63, 84' RT
T-BF01

101+38, 81' RT
T-AF02

103+18, 82' RT
T-BF02

104+90, 83' RT
T-AF03

106+71, 83' RT
T-BF03

108+49, 89' RT
T-AF04

4 #6, A,N,B,GND
10 #6, C,N,D,GND

110+09, 147' RT
WP-F01

3"C, 7 #6, C,N,D,GND

110+36, 92' RT
T-BF04

1 #6 AL QUADRUPLEX A,N,B,GND AERIAL
3 #6 AL QUADRUPLEX C,N,D,GND AERIAL

110+10, 154' RT
HL-40-F0

113+72, 94' RT
T-CF01
2 LUMINAIRES

#6 AL QUADRUPLEX A,N,B,GND AERIAL

RAMP FHA

112'FHA'

NOTES:

1) INSTALL NEW CONDUIT AND CABLE INTO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 265	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/25/2022 5:11 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

RAMP FHA

RAMP TBB

RAMP TBA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

SEE NOTE 1

3"C, 4 #4, C,N,D,GND

#6 AL QUADRUPLEX C,N,D,GND AERIAL

#4 AL QUADRUPLEX C,N,D,GND AERIAL

118+42, 21' RT
T-DF01
2 LUMINAIRES

121+30, 24' RT
T-CF02

123+58, 28' RT
T-CAL1

125+36, 26' RT
T-DAL1

131+58, 17' RT
T-CAL2

133+37, 17' RT
T-DAL2

135+11, 22' RT
T-CAL3

136+91, 25' RT
T-DAL3

138+74, 28' RT
T-CAL4

140+75, 81' RT
T-DAL4

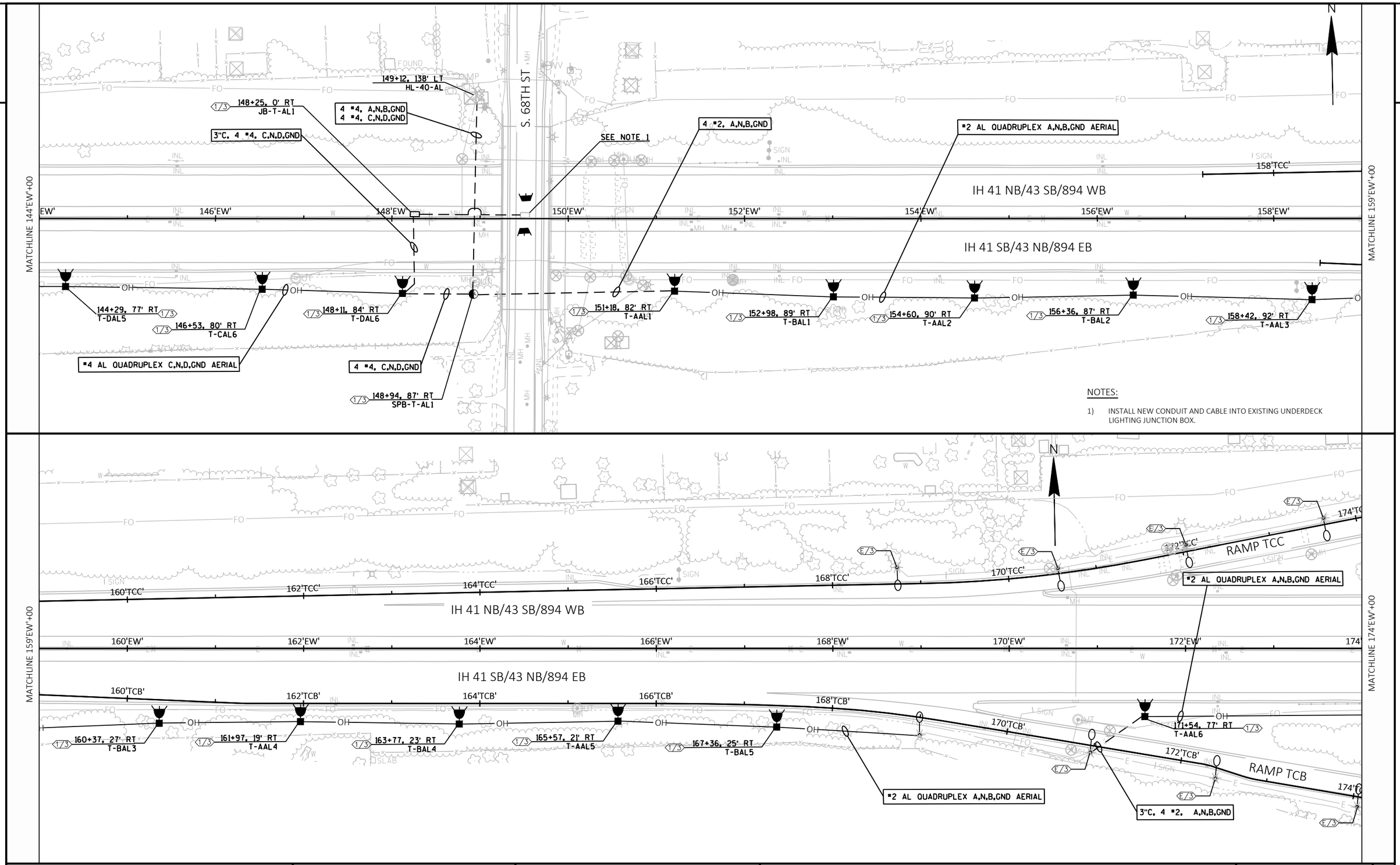
142+63, 78' RT
T-CAL5

NOTES:

1) INSTALL NEW CONDUIT AND CABLE INTO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

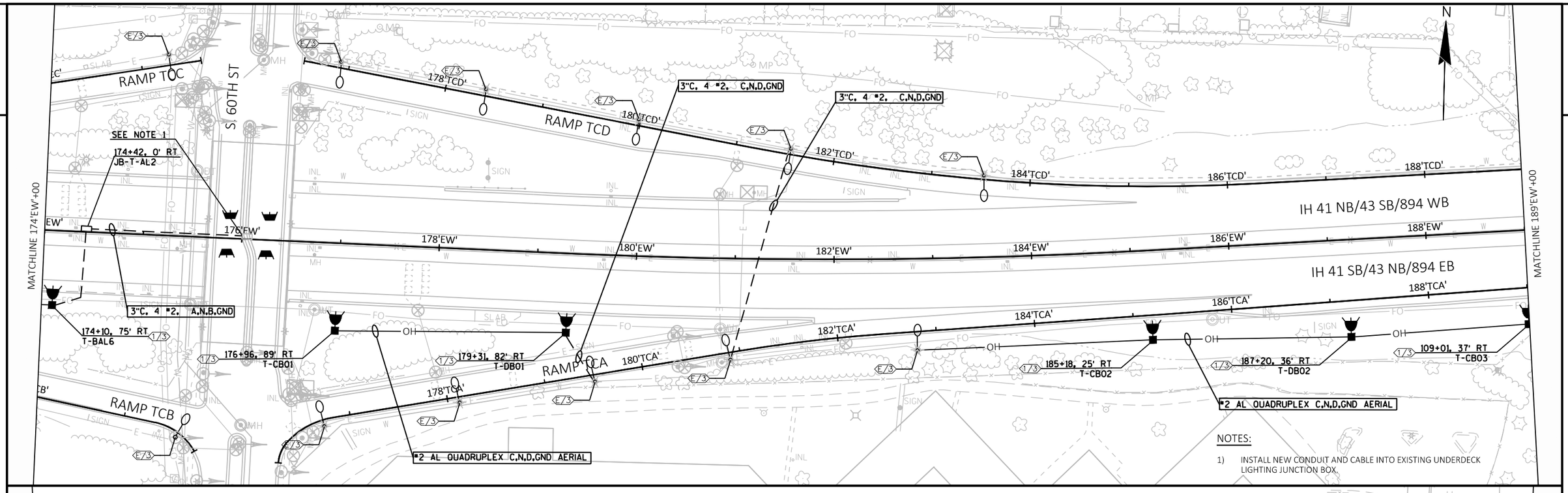
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 266	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 03
PLOT DATE : 10/25/2022 5:15 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



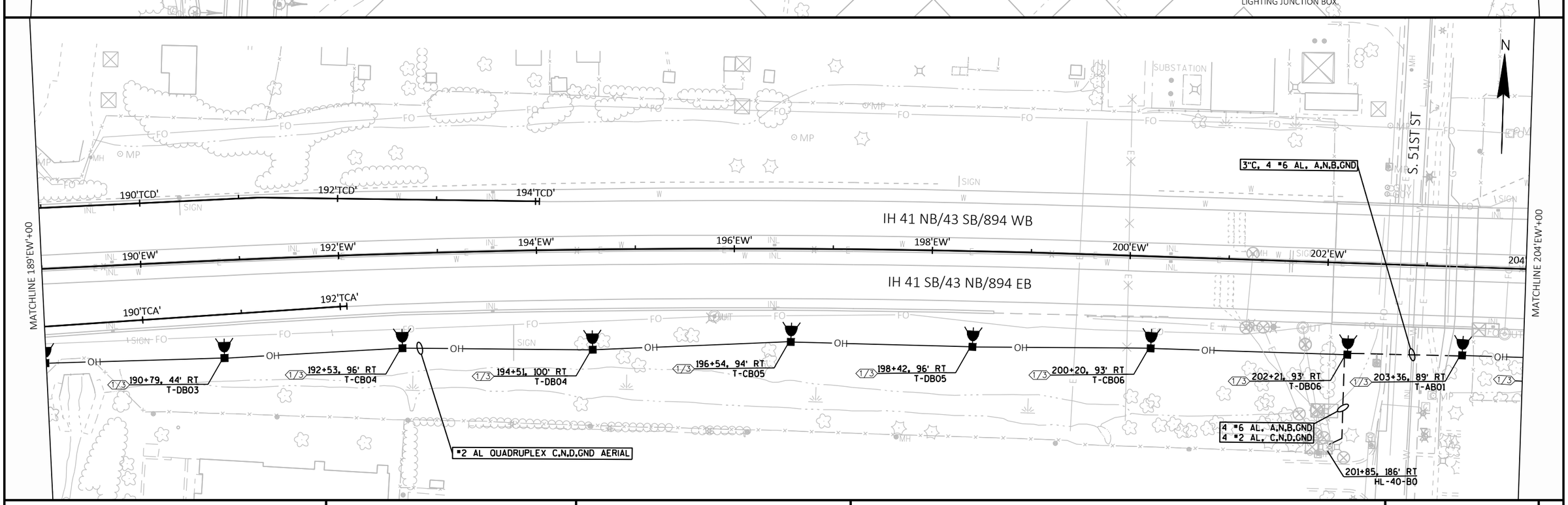
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 267	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 04
PLOT DATE : 10/25/2022 5:19 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



NOTES:

1) INSTALL NEW CONDUIT AND CABLE INTO EXISTING UNDERDECK LIGHTING JUNCTION BOX.



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 268	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 05
PLOT DATE : 10/25/2022 5:23 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

RAMP LRD

RAMP LRE

RAMP LRB

RAMP LRA

STH 36/W. LOOMIS RD

MATCHLINE 234'EWW'+00

206'LRC' 208'LRC' 210'LRC' 212'LRC' 214'LRC' 216'LRC' 218'LRC'

206'EW' 208'EW' 210'EW' 212'EW' 214'EW' 216'EW' 218'EW'

210'LRB' 212'LRB' 214'LRB' 216'LRB' 218'LRB'

205+03, 89' RT T-BB01

206+78, 77' RT T-AB02

208+69, 79' RT T-BB02

210+43, 24' RT T-AB03

212+42, 18' RT T-BB03

214+21, 34' RT T-AB04

216+11, 25' RT T-BB04

217+92, 26' RT T-AB05

*6 AL QUADRUPLEX A,N,B,GND AERIAL

219+50, 112' LT SPB-T-LM1

220'LRC'

220'EW' 222'EW' 224'EW' 226'EW' 228'EW'

220'LRB' 222'LRB' 224'LRB' 226'LRB' 228'LRB'

3"C, 4 *6 AL, A,N,B,GND

3"C, 4 *6 AL, C,N,D,GND

227+45, 0' RT JB-T-LM1

222+00, 80' RT T-DLM1

222+60, 125' RT SPB-T-LM2

225+17, 80' RT T-CLM1

227+33, 81' RT T-DLM2

221+89, 63' RT HL-40-LM

4 *6 AL, A,N,B,GND
4 *6 AL, C,N,D,GND

*6 AL QUADRUPLEX C,N,D,GND AERIAL

SEE NOTE 1

232+11, 78' LT T-CAR1

230'EWW' 232'EWW' 234'EWW'

230'EWE' 232'EWE' 234'EWE

230+49, 73' RT T-EAR1

*4 AL QUADRUPLEX E,N,F,GND AERIAL

233+26, 72' RT T-FAR1

230'LRA' 232'LRA' 234'LRA

3"C, 4 *4 AL, E,N,F,GND

NOTES:

1) INSTALL NEW CONDUIT AND CABLE INTO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 269	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 06

PLOT DATE : 10/25/2022 5:27 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

3"C. 4 #6 AL. C,N,D,GND

E/3

234+98, 68' LT
T-DAR1
1/3

236'LRE'

RAMP LRE

238'LRE'

239+87, 82' LT
T-CAR2
1/3

240'LRE'

#6 AL QUADRUPLEX C,N,D,GND AERIAL

242+85, 65' LT
T-DAR2
1/3

245+34, 78' LT
T-CAR3
1/3

247+87, 79' LT
T-DAR3
1/3

IH 41 NB/43 SB/894 WB

EWW'

236'EWW'

238'EWW'

240'EWW'

242'EWW'

244'EWW'

246'EWW'

248'EWW'

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

E'

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

RA'

RAMP LRA

236'LRA'

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

IH 41 SB/43 NB/894 EB

249+03, 70' RT
T-EAR4
1/3

246+43, 32' RT
T-FAR3
1/3

243+94, 27' RT
T-EAR3
1/3

238+47, 29' RT
T-EAR2
1/3

241+46, 28' RT
T-FAR2
1/3

#4 AL QUADRUPLEX E,N,F,GND AERIAL

249+15, 113' LT
HL-40-AR

3"C. 4 #4 AL. E,N,F,GND

#6 AL QUADRUPLEX C,N,D,GND AERIAL

252+46, 71' LT
T-CAR4
1/3

MATCHLINE STA 249'EWW'+00

S. 35TH ST

N

IH 41 NB/43 SB/894 WB

250'EWW'

252'EWW'

254'EWW'

256'EWW'

258'EWW'

260'EWW'

250'EWE'

252'EWE'

254'EWE'

256'EWE'

258'EWE'

260'EWE'

IH 41 SB/43 NB/894 EB

251+57, 72' RT
T-FAR4
1/3

254+74, 71' RT
T-EAR5
1/3

DISTRIBUTION
CENTER
HL-40-TF

255+97, 147' RT
HL-40-TF

258+04, 65' RT
T-DTF1
1/3

259+81, 66' RT
T-CTF1
1/3

261+38, 71' RT
T-DTF2
1/3

#6 AL QUADRUPLEX C,N,D,GND AERIAL

3"C. 4 #6 AL. C,N,D,GND

#4 AL QUADRUPLEX E,N,F,GND AERIAL

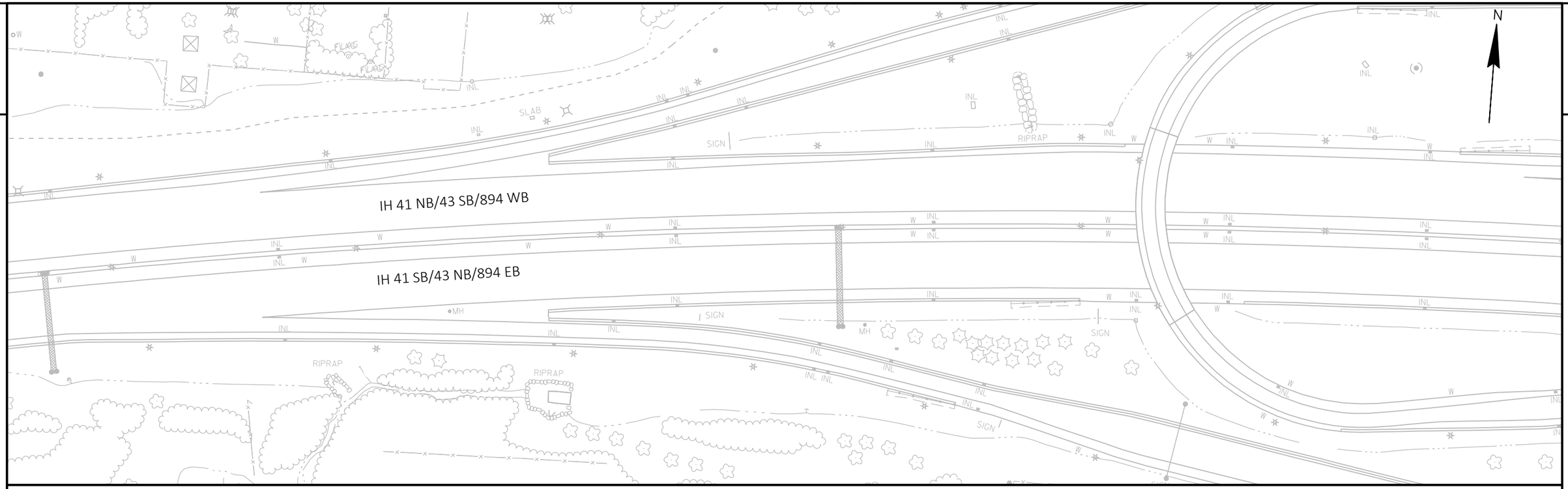
4 #4 AL. E,N,F,GND

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 270	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 07

PLOT DATE : 10/25/2022 5:31 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING TEMPORARY PLANS	SHEET 271	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023601-LP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/25/2022 5:33 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : ##########

2

2

N

S. 92ND ST

70+97 - 135' LT
HL-40-EH

70+55
CEH1/DEH1

72+90
AEH1/BEH1

75+25
AEH2/BEH2

77+75
AEH3/BEH3

80+05
AEH4/BEH4

83+85 - 0' LT
LED-D-F(A)-4-AEH6

81+80 - 0' LT
LED-D-F(A)-4-BEH5

83+85 - 0' RT
LED-D-F(A)-4-BEH6

81+80 - 0' RT
LED-D-F(A)-4-AEH5

#4 A,N,B
#8 GND

#4 A,N,B
#8 GND

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

70'EW'
72'EW'
74'EW'
76'EW'
78'EW'
80'EW'
82'EW'
82'TAB'
84'EW'
84'TAB'
84'

MATCHLINE 84'EW'+00

SIGN
RIPRAP
OH
FO
W

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 272	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/25/2022 4:22 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

85+85 - 0' LT
LED-D-F(A)-4-BEH7

88+02 - 0' RT
JB-EH-1

89+81 - 0' LT
LED-D-F(A)-4-BEH9

92+36 - 6' LT
LED-C-5(T)-6-AEH16

91+90 - 0' LT
LED-D-F(A)-4-AEH10

93+62 - 9' LT
LED-C-5(T)-6-BEH16

95+22 - 25' LT
LED-C-5(T)-6-AEH17

98+00 - 0' LT
LED-D-F(A)-4-AF01

*4 A,N,B
*8 GND

90+71 - 6' LT
LED-C-5(T)-6-BEH15

88+68 - 5' LT
LED-C-5(T)-6-AEH15

88+13 - 16' LT
SPB-EH-1

87+85 - 0' LT
LED-D-F(A)-4-AEH8

RAMP TAB

S. 84TH ST

SEE NOTE 1

94+00 - 0' LT
LED-D-F(A)-4-BEH11

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TAA

87+85 - 0' RT
LED-D-F(A)-4-BEH8

87+90 - 14' RT
SPB-EH-2

88+04 - 27' RT
LED-C-5(T)-6-AEH12

89+84 - 11' RT
LED-C-5(T)-6-BEH12

91+21 - 8' RT
LED-C-5(T)-6-AEH13

92+64 - 8' RT
LED-C-5(T)-6-BEH13

94+03 - 7' RT
LED-C-5(T)-6-AEH14

94+00 - 0' RT
LED-D-F(A)-4-AEH11

95+40 - 8' RT
LED-C-5(T)-6-BEH14

98+00 - 0' RT
LED-D-F(A)-4-BF01

*6 A,N,B
*8 GND

85+85 - 0' RT
LED-D-F(A)-4-AEH7

89+81 - 0' RT
LED-D-F(A)-4-AEH9

91+90 - 0' RT
LED-D-F(A)-4-BEH10

NOTES:

1. CONDUIT TO BE DIRECTIONALLY BORED.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 273	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2022 10:22 AM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

N

100+00 - 0' LT
LED-D-F(A)-4-BF02

102+00 - 0' LT
LED-D-F(A)-4-AF03

104+06 - 0' LT
LED-D-F(A)-4-BF04

106+18 - 0' LT
LED-D-F(A)-4-AF05

108+31 - 0' LT
LED-D-F(A)-4-BF06

110+39 - 0' LT
LED-D-F(A)-4-AF07

101+60 - 7' LT
LED-C-5(T)-6-CF04

100+27 - 8' LT
LED-C-5(T)-6-CF03

99+14 - 9' LT
LED-C-5(T)-6-CF02

98+13 - 9' LT
LED-C-5(T)-6-CF01

103+10 - 7' LT
LED-C-5(T)-6-CF05

104+39 - 7' LT
LED-C-5(T)-6-CF06

106+72 - 11' LT
LED-C-5(T)-6-CF07

107+81 - 7' LT
LED-C-5(T)-6-CF08

110+06 - 24' LT
LED-C-5(T)-6-CF09

110+65 - 12' LT
SPB-FO-1

*6 C,N
*8 GND

SEE NOTE 1 (TYP.)

RAMP FHB

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

100'EW'
102'EW'
104'EW'
106'EW'
108'EW'
110'EW'
112'EW'

*6 A,N,B
*8 GND

100+00 - 0' RT
LED-D-F(A)-4-AF02

102+00 - 0' RT
LED-D-F(A)-4-BF03

104+06 - 0' RT
LED-D-F(A)-4-AF04

106+18 - 0' RT
LED-D-F(A)-4-BF05

108+31 - 0' RT
LED-D-F(A)-4-AF06

110+39 - 0' RT
LED-D-F(A)-4-BF07

110+48 - 0' RT
JB-FO-1

110+10 - 153' RT
HL-40-FO

110+48 - 84' RT
SPB-FO-2

*6 A,N,B
*6 C,N,D
*8 GND

STH 24/W. FOREST HOME AVE

RAMP FHA

112+52 - 8' RT
LED-C-5(T)-6-DF02

*6 D,N
*8 GND

111+01 - 6' RT
LED-C-5(T)-6-DF01

NOTES:

1. INSTALL NEW CONDUIT AND CONNECT NEW CABLE TO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 274	E

2

N

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

RAMP TBB

RAMP TBA

RAMP FHA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

SEE NOTE 1

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

114+96 - 0' LT
LED-D-F(A)-4-CF010

117+04 - 0' LT
LED-D-F(A)-4-DF011

118+94 - 0' LT
LED-D-F(A)-4-CF012

120+81 - 0' LT
LED-D-F(A)-4-DF013

124+74 - 8' LT
LED-C-5(T)-6-CAL15

124+82 - 0' LT
LED-D-F(A)-4-CAL17

126+67 - 17' LT
LED-C-5(T)-6-CAL14

#4 C,N
#8 GND

126+94 - 0' LT
LED-D-F(A)-4-DAL16

128+70 - 16' LT
LED-C-5(T)-6-CAL13

#4 C,N,D
#8 GND

113+98 - 9' RT
LED-C-5(T)-6-DF03

#6 D,N
#8 GND

115+99 - 19' RT
LED-C-5(T)-6-DF04

114+96 - 0' RT
LED-D-F(A)-4-DF010

116+86 - 16' RT
SPB-FO-3

117+04 - 0' RT
LED-D-F(A)-4-CF011

#6 C,N,D
#8 GND

118+94 - 0' RT
LED-D-F(A)-4-DF012

120+81 - 0' RT
LED-D-F(A)-4-CF013

#4 D,N
#8 GND

124+68 - 3' RT
LED-C-5(T)-6-DAL14

123+39 - 3' RT
LED-C-5(T)-6-DAL15

124+82 - 0' RT
LED-D-F(A)-4-DAL17

125+96 - 4' RT
LED-C-5(T)-6-DAL13

127+28 - 5' RT
LED-C-5(T)-6-DAL12

126+94 - 0' RT
LED-D-F(A)-4-CAL16

NOTES:

1. INSTALL NEW CONDUIT AND CONNECT NEW CABLE TO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 275	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 04
PLOT DATE : 10/25/2022 4:29 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

129+03 - 0' LT
LED-D-F(A)-4-CAL10

131+23 - 10' LT
SPB-AL-3

130+58 - 16' LT
LED-C-5(T)-6-CAL12

131+22 - 0' LT
LED-D-F(A)-4-DAL9

#4 C,N
#8 GND

132+51 - 14' LT
LED-C-5(T)-6-CAL11

133+32 - 0' LT
LED-D-F(A)-4-CAL8

135+03 - 0' LT
LED-D-F(A)-4-DAL7

136+68 - 0' LT
LED-D-F(A)-4-CAL6

138+86 - 0' LT
LED-D-F(A)-4-DAL5

141+02 - 0' LT
LED-D-F(A)-4-CAL4

143+03 - 0' LT
LED-D-F(A)-4-DAL3

RAMP TBB

TH 43 SB/TH 894 WB

IH 43 NB/IH 894 EB

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

#4 C,N,D
#8 GND

#4 D,N
#8 GND

129+27 - 8' RT
LED-C-5(T)-6-DAL11

131+34 - 0' RT
JB-AL-1

131+37 - 16' RT
SPB-AL-2

131+22 - 0' RT
LED-D-F(A)-4-CAL9

129+03 - 0' RT
LED-D-F(A)-4-DAL10

133+32 - 0' RT
LED-D-F(A)-4-DAL8

135+03 - 0' RT
LED-D-F(A)-4-CAL7

136+68 - 0' RT
LED-D-F(A)-4-DAL6

138+86 - 0' RT
LED-D-F(A)-4-CAL5

141+02 - 0' RT
LED-D-F(A)-4-DAL4

143+03 - 0' RT
LED-D-F(A)-4-CAL3

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 276	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/25/2022 4:31 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

145+23 - 0' LT
LED-D-F(A)-4-CAL2

147+46 - 0' LT
LED-D-F(A)-4-DAL1

149+12 - 138' LT
HL-40-AL

#4 A,N,B
#4 C,N,D
#8 GND

S. 68TH ST

SEE NOTE 1

150+75 - 0' LT
LED-D-F(A)-4-AAL1
(ON SIGN STRUCTURE)

152+89 - 0' LT
LED-D-F(A)-4-BAL2

155+03 - 0' LT
LED-D-F(A)-4-AAL3

157+03 - 0' LT
LED-D-F(A)-4-BAL4

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

146'EW'

148'EW'

150'EW'

152'EW'

154'EW'

156'EW'

158'EW'

158'TEC'

159'

149+17 - 73' LT
SPB-AL-1

#4 A,N,B
#8 GND

#4 C,N,D
#8 GND

149+17 - 0' RT
JB-AL-2

145+23 - 0' RT
LED-D-F(A)-4-DAL2

147+46 - 0' RT
LED-D-F(A)-4-CAL1

150+75 - 0' RT
LED-D-F(A)-4-BAL1
(ON SIGN STRUCTURE)

152+89 - 0' RT
LED-D-F(A)-4-AAL2

155+03 - 0' RT
LED-D-F(A)-4-BAL3

157+03 - 0' RT
LED-D-F(A)-4-AAL4

NOTES:

1. INSTALL NEW CONDUIT AND CONNECT NEW CABLE TO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 277	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 06

PLOT DATE : 10/25/2022 4:33 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

159+04 - 0' LT
LED-D-F(A)-4-AAL5

161+03 - 0' LT
LED-D-F(A)-4-BAL6

163+04 - 0' LT
LED-D-F(A)-4-AAL7

165+04 - 0' LT
LED-D-F(A)-4-BAL8

167+03 - 0' LT
LED-D-F(A)-4-AAL9

169+04 - 0' LT
LED-D-F(A)-4-BAL10

171+03 - 0' LT
LED-D-F(A)-4-AAL11

#4 B,N
#8 GND

173+73 - 8' LT
LED-C-X(T)-6-BAL16

172+11 - 8' LT
LED-C-5(T)-6-BAL15

168+86 - 8' LT
LED-C-5(T)-6-BAL13

168+65 - 9' LT
SPB-AL-5

170+63 - 6' LT
LED-C-5(T)-6-BAL14

RAMP TCC

173+04 - 0' LT
LED-D-F(A)-4-BAL12

160'TCC' 161'TCC' 162'TCC' 163'TCC' 164'TCC' 165'TCC' 166'TCC' 167'TCC' 168'TCC' 169'TCC' 170'TCC' 171'TCC' 172'TCC' 173'TCC'

IH 41 NB/43 SB/894 WB

3"

160'EW' 162'EW' 164'EW' 166'EW' 168'EW' 170'EW' 172'EW'

IH 41 SB/43 NB/894 EB

3"

160'TCB' 161'TCB' 162'TCB' 163'TCB' 164'TCB' 165'TCB' 166'TCB' 167'TCB' 168'TCB' 169'TCB' 170'TCB' 171'TCB' 172'TCB' 173'TCB'

RAMP TCB

#4 A,N,B
#8 GND

168+65 - 0' RT
JB-AL-3

171+02 - 8' RT
LED-C-5(T)-6-AAL14

172+41 - 11' RT
LED-C-5(T)-6-AAL15

#4 A,N,B
#8 GND

#4 A,N
#8 GND

168+69 - 14' RT
SPB-AL-4

169+09 - 17' RT
LED-C-5(T)-6-AAL13

159+04 - 0' RT
LED-D-F(A)-4-BAL5

161+03 - 0' RT
LED-D-F(A)-4-AAL6

163+04 - 0' RT
LED-D-F(A)-4-BAL7

165+04 - 0' RT
LED-D-F(A)-4-AAL8

167+03 - 0' RT
LED-D-F(A)-4-BAL9

169+04 - 0' RT
LED-D-F(A)-4-AAL10

171+03 - 0' RT
LED-D-F(A)-4-BAL11

173+04 - 0' RT
LED-D-F(A)-4-AAL12

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 278	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 07

PLOT DATE : 10/25/2022 4:36 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

NOTES:

1. INSTALL NEW CONDUIT AND CONNECT NEW CABLE TO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

N

2

2

MATCHLINE 174'EW'+00

MATCHLINE 189'EW'+00

175+25 - 11' LT
LED-C-5(T)-6-BAL17

176+96 - 6' LT
LED-C-5(T)-6-CB017

178+00 - 0' LT
LED-D-F(A)-4-CB012

178+47 - 7' LT
LED-C-5(T)-6-CB016

180+03 - 6' LT
LED-C-5(T)-6-CB015

180+10 - 0' LT
LED-D-F(A)-4-DB011

181+62 - 5' LT
LED-C-5(T)-6-CB014

182+06 - 0' LT
LED-D-F(A)-4-CB010

183+65 - 3' LT
LED-C-5(T)-6-CB013

184+26 - 13' LT
SPB-BO-2

184+07 - 0' LT
LED-D-F(A)-4-DB09

186+00 - 0' LT
LED-D-F(A)-4-CB08

187+75 - 0' LT
LED-D-F(A)-4-DB07

#4 C,N
#8 GND

RAMP TCC

S. 60TH ST

SEE NOTE 1

RAMP TCD

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCA

RAMP TCB

175'TCC'

176'EW'

177'TCD'

178'TCD'

179'TCD'

180'TCD'

181'TCD'

182'TCD'

183'TCD'

184'TCD'

185'TCD'

186'TCD'

187'TCD'

188'TCD'

178'EW'

180'EW'

182'EW'

184'EW'

186'EW'

188'EW'

175'TCB'

177'TCA'

178'TCA'

179'TCA'

180'TCA'

181'TCA'

182'TCA'

183'TCA'

184'TCA'

185'TCA'

186'TCA'

187'TCA'

188'TCA'

174+15 - 11' RT
LED-C-5(T)-6-AAL16

178+05 - 6' RT
LED-C-5(T)-6-DB016

176+52 - 7' RT
LED-C-5(T)-6-DB017

179+43 - 5' RT
LED-C-5(T)-6-DB015

178+00 - 0' RT
LED-D-F(A)-4-DB012

180+73 - 13' RT
LED-C-5(T)-6-DB014

180+10 - 0' RT
LED-D-F(A)-4-CB011

182+70 - 14' RT
LED-C-5(T)-6-DB013

#4 D,N
#8 GND

182+06 - 0' RT
LED-D-F(A)-4-DB010

184+24 - 0' RT
JB-BO-1

184+07 - 0' RT
LED-D-F(A)-4-CB09

184+17 - 15' RT
SPB-BO-3

#4 C,N,D
#8 GND

187+75 - 0' RT
LED-D-F(A)-4-CB07

186+00 - 0' RT
LED-D-F(A)-4-DB08

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 279	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 08

PLOT DATE : 10/25/2022 4:38 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

190+00 - 0' LT
LED-D-F(A)-4-CB06

192+00 - 0' LT
LED-D-F(A)-4-DB05

194+00 - 0' LT
LED-D-F(A)-4-CB04

196+00 - 0' LT
LED-D-F(A)-4-DB03

198+00 - 0' LT
LED-D-F(A)-4-CB02

200+00 - 0' LT
LED-D-F(A)-4-DB01

203+99 - 0' LT
LED-D-F(A)-4-AB01

201+85 - 0' LT
JB-B0-2

S. 51ST ST

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

190'TCD' 191'TCD' 192'TCD' 193'TCD' 194'TCD'

IH 41 NB/43 SB/894 WB

190'EW' 192'EW' 194'EW' 196'EW' 198'EW' 200'EW' 202'EW'

IH 41 SB/43 NB/894 EB

190'TCA' 191'TCA' 192'TCA'

3"

6 A,N,B
4 C,N,D
8 GND

201+85 - 98' RT
SPB-B0-1

201+85 - 186' RT
HL-40-B0

4 C,N,D
8 GND

190+00 - 0' RT
LED-D-F(A)-4-DB06

192+00 - 0' RT
LED-D-F(A)-4-CB05

194+00 - 0' RT
LED-D-F(A)-4-DB04

196+00 - 0' RT
LED-D-F(A)-4-CB03

198+00 - 0' RT
LED-D-F(A)-4-DB02

200+00 - 0' RT
LED-D-F(A)-4-CB01

203+99 - 0' RT
LED-D-F(A)-4-BB01

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 280	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 09

PLOT DATE : 10/25/2022 4:40 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

206+00 - 0' LT
LED-D-F(A)-4-BB02

208+10 - 0' LT
LED-D-F(A)-4-AB03

210+00 - 0' LT
LED-D-F(A)-4-BB04

212+25 - 0' LT
LED-D-F(A)-4-AB05

214+00 - 0' LT
LED-D-F(A)-4-BB06

216+00 - 0' LT
LED-D-F(A)-4-AB07

218+00 - 0' LT
LED-D-F(A)-4-BB08

217+71 - 20' LT
LED-C-5(T)-6-ALM2

205'LRC' 206'LRC' 207'LRC' 208'LRC' 209'LRC' 210'LRC' 211'LRC' 212'LRC' 213'LRC' 214'LRC' 215'LRC' 216'LRC' 217'LRC' 218'LRC' 219'LRC'

206'EW' 208'EW' 210'EW' 212'EW' 214'EW' 216'EW' 218'EW'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

210'LRB' 211'LRB' 212'LRB' 213'LRB' 214'LRB' 215'LRB' 216'LRB' 217'LRB' 218'LRB'

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

#6 A,N,B
#8 GND

206+00 - 0' RT
LED-D-F(A)-4-AB02

208+10 - 0' RT
LED-D-F(A)-4-BB03

210+00 - 0' RT
LED-D-F(A)-4-AB04

212+25 - 0' RT
LED-D-F(A)-4-BB05

214+00 - 0' RT
LED-D-F(A)-4-AB06

216+00 - 0' RT
LED-D-F(A)-4-BB07

218+00 - 0' RT
LED-D-F(A)-4-AB08

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 281	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 10

PLOT DATE : 10/25/2022 4:43 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

ALM6
SEE NOTE 2

230+16 - 8' LT
SPB-LM-3

229+68 - 7' LT
LED-C-5(T)-6-ALM5

230+11 - 40' RT
LED-C-5(T)-6-ALM7

232+54 - 15' LT
LED-C-5(T)-6-FAR9

230+79 - 15' LT
LED-C-5(T)-6-FAR10

#4 F,N
#8 GND

221+17 - 20' RT
LED-C-5(T)-6-ALM4

#8 A,N,B,GND

216+19 - 11' RT
LED-C-5(T)-6-BLM5

#8 A,N,GND

214+68 - 10' RT
LED-C-5(T)-6-BLM6

219+93 - 0' LT
LED-D-F(A)-4-AB09

221+97 - 0' LT
LED-D-F(A)-4-ALM1

223+95 - 0' LT
LED-D-F(A)-4-CLM1

227+31 - 0' LT
LED-D-F(A)-4-CLM3

#8 A,N,B,GND

220+18 - 15' LT
LED-C-5(T)-6-ALM3

221+94 - 20' LT
LED-C-5(T)-6-BLM2

223+59 - 12' RT
LED-C-5(T)-6-BLM3

225+70 - 0' LT
LED-D-F(A)-4-DLM2

225+90 - 31' RT
LED-C-5(T)-6-BLM4

222+28 - 79' LT
SPB-LM-1

WARNING: PROPOSED 4-6" DUCT
WE UNDERGROUND ELECTRIC
CROSSING AT STA 231EWE+83

BLM7
SEE NOTE 2

231+35 - 21' RT
LED-D-F(A)-4-DLM4

233+32 - 30' RT
LED-D-E(T)-6-FAR11

#8 C,N,D,GND

SEE NOTE 1

RAMP LRC

RAMP LRD

RAMP LRE

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 219'EW'+00

MATCHLINE 234'EWW'+00

222+27 - 0' RT
JB-LM-1

225+65 - 13' RT
LED-C-5(T)-6-ELM5

#8 E,N,GND

222+09 - 19' RT
SPB-LM-2

223+09 - 7' RT
LED-C-5(T)-6-ELM3

RAMP LRB

STH 36/W. LOOMIS RD

RAMP LRA

221+59 - 8' RT
LED-C-5(T)-4-ELM2

221+89 - 63' RT
HL-40-LM

221+97 - 0' RT
LED-D-F(A)-4-BLM1

224+77 - 7' RT
LED-C-5(T)-6-ELM4

226+52 - 15' RT
LED-C-5(T)-6-ELM6

219+93 - 0' RT
LED-D-F(A)-4-BB09

223+95 - 0' RT
LED-D-F(A)-4-DLM1

225+70 - 0' RT
LED-D-F(A)-4-CLM2

219+66 - 17' RT
LED-C-5(T)-6-ELM1

ELM7
SEE NOTE 3

227+31 - 0' RT
LED-D-F(A)-4-DLM3

#4 E,N
#8 GND

231+35 - 21' LT
LED-D-F(A)-4-CLM4

231+93 - 14' RT
LED-C-5(T)-6-EAR10

233+97 - 17' RT
LED-C-5(T)-6-EAR9

229+77 - 14' RT
LED-C-5(T)-6-EAR11

233+39 - 23' LT
LED-D-E(T)-6-FAR12

#8 C,N,D,GND

NOTES:

1. CONNECT PROPOSED CONDUIT AND CABLE TO UNDERDECK LIGHTING JUNCTION BOX INSTALLED PER NEW LOOMIS ROAD BRIDGE DESIGN; PROJECT NO. 1100-46-71.
2. LIGHT POLE TO BE INSTALLED UNDER PROJECT NO. 1100-46-71.
3. LIGHT POLE TO BE INSTALLED ON TRAFFIC SIGNAL COMBINATION POLE UNDER PROJECT NO. 1100-46-71.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 282	E

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

234+54 - 15' LT
LED-C-5(T)-6-FAR8

237+06 - 19' LT
LED-C-5(T)-6-FAR7

*4 F,N
*8 GND

RAMP LRE

IH 41 NB/43 SB/894 WB

235'EWW' 236'EWW' 237'EWW' 238'EWW' 239'EWW' 240'EWW' 241'EWW' 242'EWW' 243'EWW' 244'EWW' 245'EWW' 246'EWW' 247'EWW' 248'EWW'

235+44 - 29' LT
LED-D-E(T)-6-FAR4

235+31 - 26' RT
LED-D-E(T)-6-EAR6

237+25 - 29' RT
LED-D-E(T)-6-FAR6

237+47 - 21' LT
LED-D-E(T)-6-EAR4

*4 E,N,F
*8 GND

239+25 - 27' RT
LED-D-E(T)-6-EAR5

239+51 - 34' LT
LED-D-E(T)-6-FAR3

240+83 - 25' RT
LED-D-E(T)-6-FAR5

241+55 - 31' LT
LED-D-E(T)-6-EAR3

243+42 - 11' RT
LED-D-E(T)-6-DAR4

243+89 - 30' LT
LED-D-E(T)-6-FAR2

*8 C,N,D,GND

245+39 - 13' RT
LED-D-E(T)-6-CAR4

247+35 - 12' RT
LED-D-E(T)-6-DAR3

244+38 - 28' LT
SPB-AR-5

*4 E,N,F
*8 GND

RAMP LRA

IH 41 SB/43 NB/894 EB

235'LRA' 236'LRA' 237'LRA' 238'LRA' 239'LRA' 240'LRA' 241'LRA' 242'LRA' 243'LRA' 244'LRA' 245'LRA' 246'LRA' 247'LRA'

*4 E,N
*8 GND

235+92 - 26' RT
LED-C-5(T)-6-EAR7

244+38 - 30' RT
SPB-AR-4

*4 E,N,F
*8 GND

246+22 - 39' RT
LED-C-5(T)-6-EAR2

248+92 - 76' RT
LED-C-5(T)-6-FAR1

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 283	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 12
PLOT DATE : 10/25/2022 4:48 PM
PLOT BY : O'GORMAN, NICHOLAS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

S. 35TH ST

MATCHLINE 249'EWW'+00

249+15 - 113' LT
HL-40-AR

249+93 - 81' LT
LED-C-5(T)-6-CAR2

249+91 - 97' LT
SPB-AR-1

*8 C,N,D,GND
*4 E,N,F

250+04 - 13' RT
SPB-AR-2

251+30 - 13' RT
LED-D-E(T)-6-DAR2

253+55 - 14' RT
LED-D-F(A)-4-CTF1

255+24 - 11' RT
LED-D-F(A)-4-DTF2

249+34 - 13' RT
LED-D-E(T)-6-CAR3

*8 C,N,D,GND

250'EWW' 251'EWW' 252'EWW' 253'EWW' 254'EWW' 255'EWW' 256'EWW' 257'EWW' 258'EWW' 259'EWW' 260'EWW'

250'EWE' 251'EWE' 252'EWE' 253'EWE' 254'EWE' 255'EWE' 256'EWE' 257'EWE' 258'EWE' 259'EWE' 260'EWE' 261'EWE'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

3"

3"

254+28 - 23' LT
LED-D-F(A)-4-DTF1

*8 C,N,D,GND

255+95 - 15' LT
LED-D-F(A)-4-CTF2

256+5 - 13' LT
SPB-TF-2

SEE NOTE 1

257+46
ATF1/BTF1

259+94
ATF2/BTF2

262+58
ATF3/BTF3

250+64 - 74' RT
SPB-AR-3

251+64 - 77' RT
LED-C-5(T)-6-EAR1

*4 E,N,F
*8 GND

*4 A,N,B
*8 C,N,D,GND

255+97 - 60' RT
SPB-TF-1

255+97 - 147' RT
HL-40-TF

NOTES:

1. INSTALL NEW CONDUIT AND CONNECT NEW CABLE TO EXISTING UNDERDECK LIGHTING JUNCTION BOX.

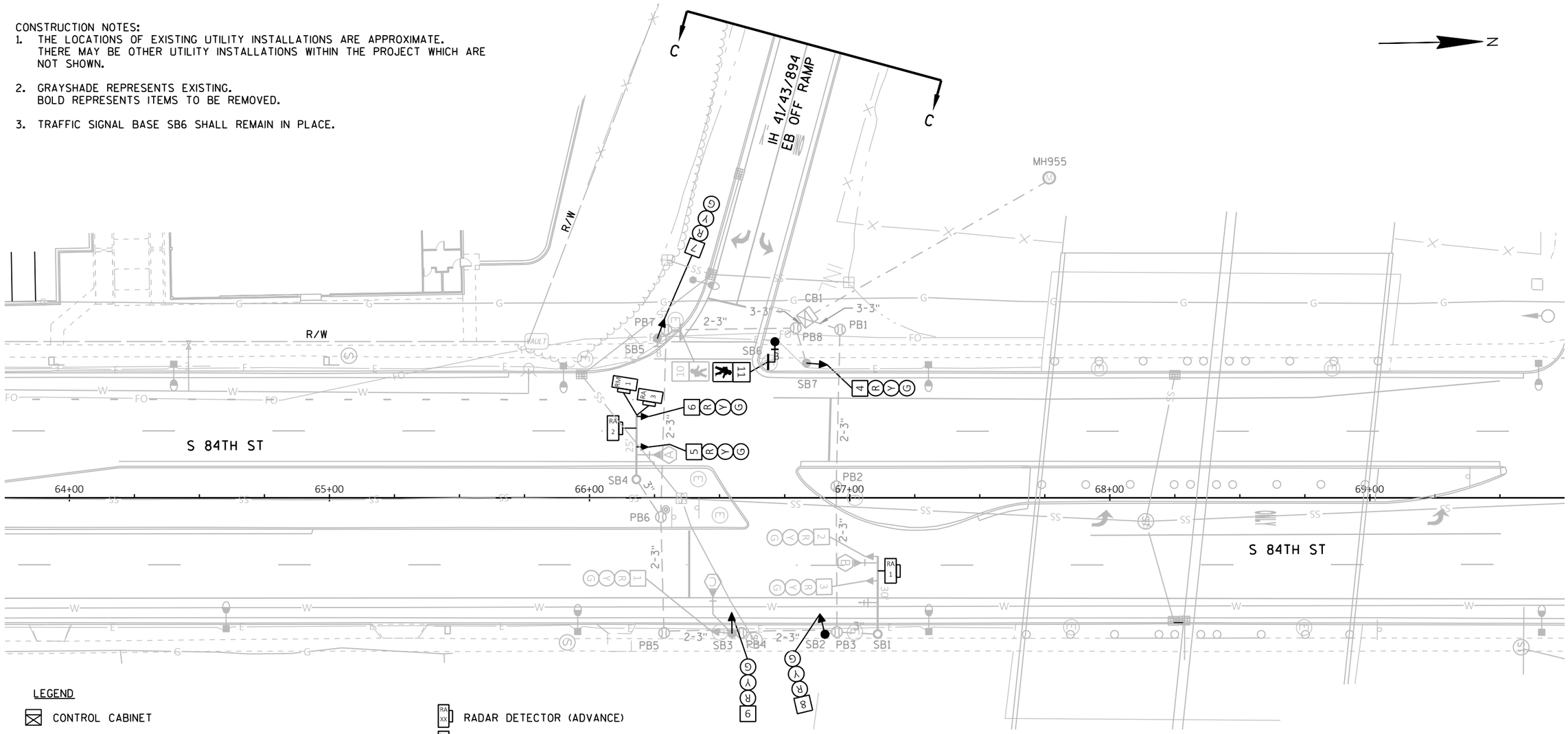
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PROPOSED PLANS	SHEET 284	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-023701-LP.DWG
LAYOUT NAME - 13

PLOT DATE : 10/25/2022 4:50 PM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:
1. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
3. TRAFFIC SIGNAL BASE SB6 SHALL REMAIN IN PLACE.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- FTMS MANHOLE
- RADAR DETECTOR (ADVANCE)
- RADAR DETECTOR (MATRIX)
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RADIO INTERCONNECT ANTENNA, 5.8 GHz

TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB & S 84TH ST
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1439

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: J. BRUGGEMAN

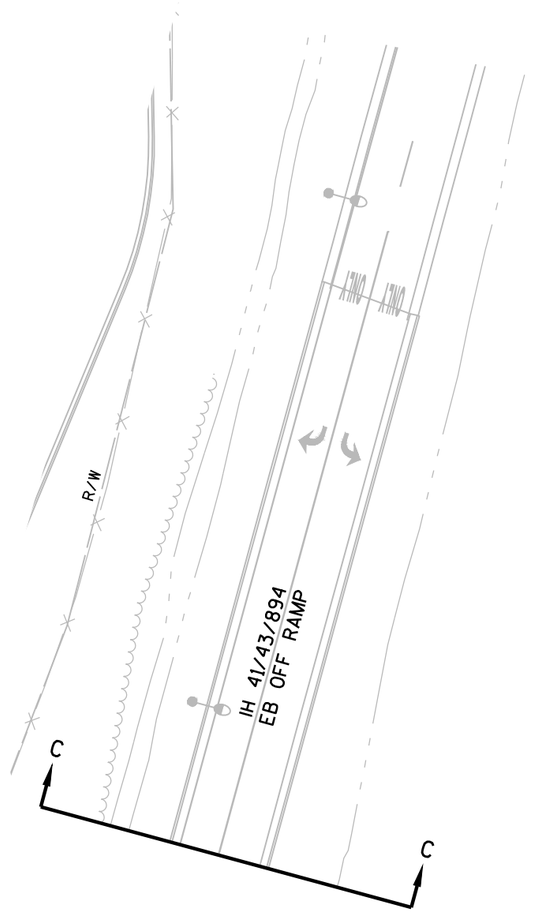
PAGE 1 OF 2

PROJECT NO: 1100-45-70	HWY: IH 41 / 43 / 894	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 285	E

FILE NAME : \\DOTWKEFILE1P\N3PUBLIC\PDS\C3D\CAD\11004500\SIG\S40-1439\S40-1439_REM.DWG
LAYOUT NAME - S40-1439_REM_pg1
PLOT DATE : 7/19/2022 2:48 PM
PLOT BY : BRUGGEMAN, JOHN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB OFF RAMP & S 84TH ST
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1439

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: J. BRUGGEMAN

PAGE 2 OF 2

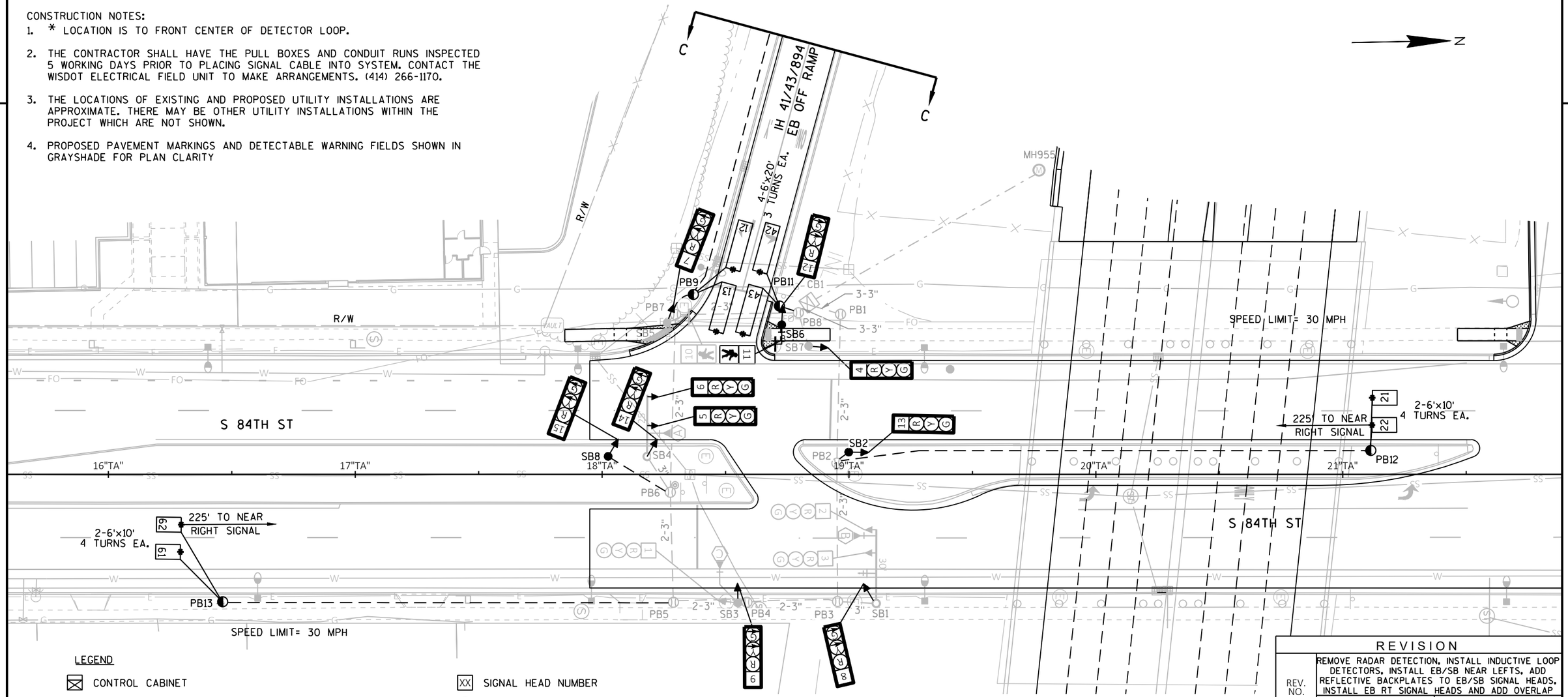
PROJECT NO: 1100-45-70	HWY: IH 41 / 43 / 894	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 286	E

FILE NAME : \\DOTWKEFILE1P\N3PUBLIC\PDS\C3D\CAD\11004500\SIG\S40-1439\S40-1439_REM.DWG
LAYOUT NAME - S40-1439_REM_pg2

PLOT DATE : 7/19/2022 2:48 PM PLOT BY : BRUGGEMAN, JOHN PLOT NAME : PLOT SCALE : ##########

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. PROPOSED PAVEMENT MARKINGS AND DETECTABLE WARNING FIELDS SHOWN IN GRAYSHADE FOR PLAN CLARITY



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- FTMS MANHOLE
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- RADIO INTERCONNECT ANTENNA, 5.8 GHz

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- SIGNAL HEAD WITH REFLECTIVE BACKPLATE

MONOTUBE STRUCTURE NUMBERS
SB1 = S-40-1686
SB4 = S-40-1687

INSTALL RADIO COMMUNICATIONS: AS-BUILT PER 0663-22-66; UPDATE RADAR ZONES 7/27/21

INITIAL INSTALLATION 9/29/16

REVISION

REV. NO.	REMOVE RADAR DETECTION, INSTALL INDUCTIVE LOOP DETECTORS, INSTALL EB/SB NEAR LEFTS, ADD REFLECTIVE BACKPLATES TO EB/SB SIGNAL HEADS, INSTALL EB RT SIGNAL HEADS AND ADD OVERLAP			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
2	DATE	BY	DATE	BY
	11-16-22	JMM	11-17-22	JBR

TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB OFF RAMP & S 84TH ST
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1439
CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 9/27/16 DAVID A. BRANTNER, P.E.
REGION TRAFFIC ENGINEER

APPROVED
DATE 9/29/16 JOANNA L. BUSH
STATE TRAFFIC ENGINEER

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: J. BRUGGEMAN

PAGE 1 OF 3

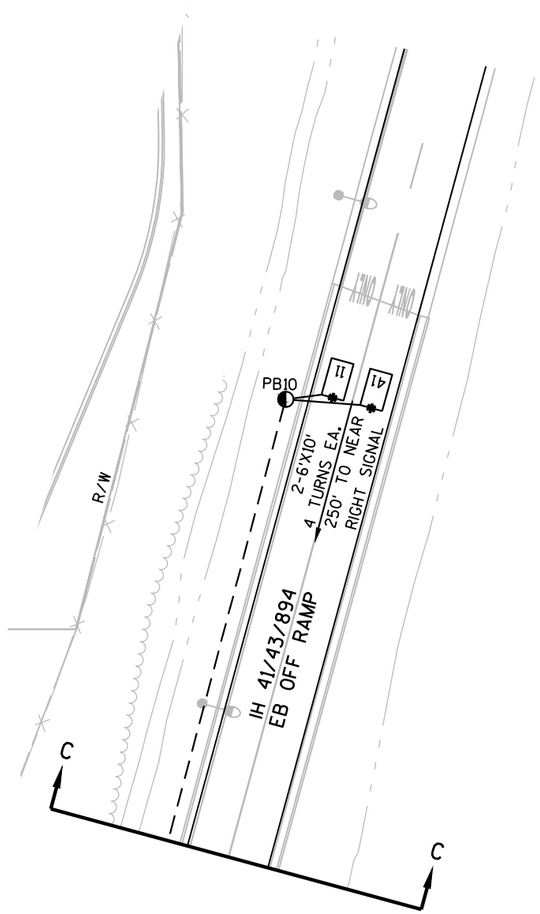
11-16-22 JPB

PROJECT NO: 1100-45-70	HWY: IH 41 / 43 / 894	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 287	E

FILE NAME : \\DOTWKEFILE1P\N3PUBLIC\PDS\C3D\CAD\11004500\SIG\S40-1439\S40-1439_R2_18.DWG
LAYOUT NAME - S40-1439_R1_pg1
PLOT DATE : 11/18/2022 12:38 PM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N



TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB OFF RAMP & S 84TH ST
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1439

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: J. BRUGGEMAN

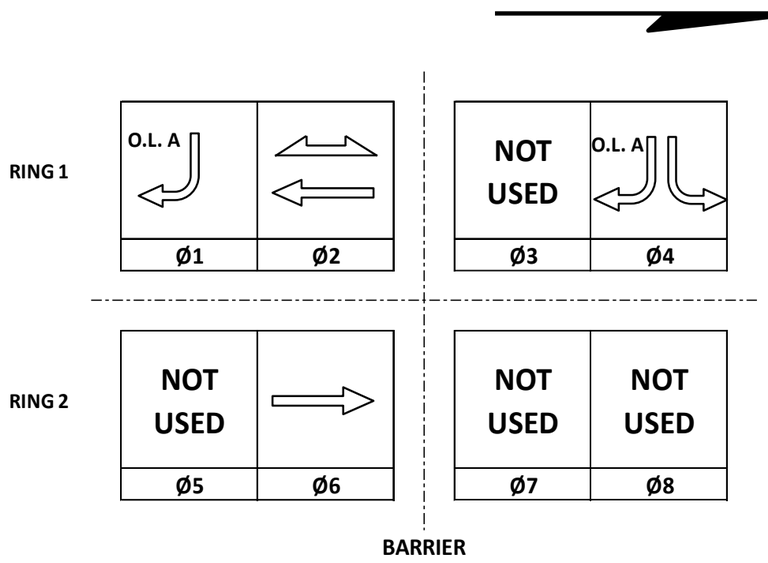
PROJECT NO: 1100-45-70	HWY: IH 41 / 43 / 894	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 288	E

FILE NAME : \\DOTWKEFILE1P\N3PUBLIC\PDS\C3D\CAD\11004500\SIG\S40-1439\S40-1439_R2_18.DWG
LAYOUT NAME - S40-1439_R1_pg2

PLOT DATE : 11/18/2022 12:38 PM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1	7,14,15	-
Ø2	4,5,6,13	R
Ø3		
Ø4	8,9,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P	10,11	
Ø4P		
Ø6P		
Ø8P		
OLA	7,14,15	R
OLE		
OLF		
OLG		
OLH		

N



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT	← →	← →	↓
PHASE	2+6	6+2	1+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASE 4.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	X
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	1	3	5	7	9	11	13	15
PLAN LOOP DETECTOR*(S)	11	13	21	41	43	61		
CALLED PHASE	1	1	2	4	4	6		
CALL OPTION		X	X		X	X		
DELAY TIME		X						
EXTENTION OPTION	X	X	X	X	X	X		
EXTEND TIME	X			X				
USE ADDED INITIAL			X			X		
CROSS SWITCH PHASE								

17	19	21	23	25	27	29	31	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	2	4	6	8	10	12	14	16
PLAN LOOP DETECTOR*(S)	12		22	42		62		
CALLED PHASE	1		2	4		6		
CALL OPTION	X		X	X		X		
DELAY TIME	X							
EXTENTION OPTION	X		X	X		X		
EXTEND TIME								
USE ADDED INITIAL			X			X		
CROSS SWITCH PHASE								

18	20	22	24	26	28	30	32	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

IH 41/43/894 EB OFF RAMP & S 84TH ST
CITY OF GREENFIELD
MILWAUKEE COUNTY
SIGNAL NO: S40-1439 CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE
DATE: NOVEMBER 2022 PAGE NUMBER: 3 OF 3

IH-41/43/894 EB OFF-RAMP & S. 84TH ST

2

PROJECT ID:	1100-45-70
INTERSECTION:	IH-41/43/894 EB RAMP & S. 84TH STREET

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

CB1 TO	AWG14 # OF CONDUCTORS	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	FUTURE APS
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	<FLASHING YELLOW>	D/WALK	WALK		
SB1	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		8	RED/BLK				ORG/BLK	GRN/BLK					
SB2	7	13	RED	ORG	GRN								
SB3	12	1	RED	ORG	GRN								
		9	RED/BLK				ORG/BLK	GRN/BLK					
SB4	12	5	RED	ORG	GRN								
		6	RED	ORG	GRN								
		14	RED/BLK				ORG/BLK	GRN/BLK					
SB5	12	7	RED				ORG	GRN					
		10								BLK	BLU		
		B										WHT/BLK	
SB6	12	11								BLK	BLU		
		12	RED				ORG	GRN					
		B										WHT/BLK	
SB7	7	4	RED	ORG	GRN								
SB8	7	15	RED				ORG	GRN					

Equipment Grounding Conductor 10 AWG Green XLP	
From	To
CB1	SB2
SB2	SB1
SB1	SB3
SB3	SB8
SB8	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	CB1

Pull Box Bonding Jumper 10 AWG Green XLP	
From	To
PB1	CB1
PB2	SB2
PB3	SB1
PB4	SB3
PB5	SB3
PB6	SB4
PB7	SB5
PB8	CB1

Emergency Vehicle Preemption	
From	To
CB1	HEAD A (SB4)
CB1	HEAD B (SB1)
CB1	HEAD C (SB3)

= EXISTING CABLING TO REMAIN

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

2

2

LEGEND

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 3 MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 4 MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- 5 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- 6 MARKING LINE EPOXY 8-INCH (WHITE)
- 7 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- 10 MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- 11 MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- 13 MARKING CHEVRON EPOXY 24-INCH (WHITE)
- 14 MARKING WORD EPOXY (WHITE)
- 16 MARKING ARROW EPOXY TYPE 2 (WHITE)
- 17 MARKING ARROW EPOXY TYPE 3 (WHITE)
- 18 MARKING ARROW EPOXY TYPE 4 (WHITE)
- 20 MARKING CURB EPOXY (YELLOW)
- 21 MARKING ISLAND NOSE EPOXY (YELLOW)
- 29 MARKING LINE GROOVED WET REF CONTRAST TAPE 8-INCH (WHITE)
- 30 MARKING LINE GROOVED WET REF CONTRAST TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 39 MARKING LINE GROOVED WET REF CONTRAST TAPE 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- 183 MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
- 184 MARKING LINE GROOVED WET REF EPOXY 4-INCH (YELLOW)
- 218 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 220 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP))
- 221 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE)
- 229 MARKING LINE CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- 231 PAVEMENT MARKING CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- 234 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 251 MARKING SYMBOL EPOXY (WHITE)

NOTES

REFER TO PLAN DETAILS FOR PAVEMENT MARKING ALIGNMENT DATA

CONTRAST EPOXY PAVEMENT MARKINGS TO BE USED ON AREAS WITH POLYMER OVERLAY OR HIGH FRICTION SURFACE TREAMENT APPLICATION

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 291	E

2

N

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

'EW'+00.00

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

'EW'+55.10

'EW'+26.46

'EW'+91.01

100' TYP

MATCHLINE 84'EW'+00

30

39

184

11

29

2

10

2

2

N

S. 84TH ST

RAMP TAB

RAMP TAA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 84'EW'+00

MATCHLINE 99'EW'+00

'TAB'+53.72
'TAB'+78.15
'TAB'+53.15
'TAB'+93.50
'TAB'+65.40
'EW'+28.46
'EW'+49.10
'EW'+41.37
'EW'+80.05
'EW'+12.02
'EW'+13.26
'EW'+01.35
'EW'+02.59
'EW'+18.65
'EW'+19.89
'EW'+07.98
'EW'+09.22
'TAA'+25.42
'TAA'+35.95
'TAA'+10.95
'TAA'+50.00
'TAA'+00.00
'TAA'+54.36
'TAA'+43.91
'TAA'+67.75

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 293	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 02

PLOT DATE : 10/31/2022 10:25 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 99'EW'+00

MATCHLINE 114'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHB

RAMP FHA

STH 24/W. FOREST HOME AVE

'FHB'+65.18

'FHB'+25.16

'FHB'+82.05

'FHB'+64.58

'FHB'+93.16

'EW'+98.90

'EW'+68.24

'EW'+17.81

'FHA'+25.40

'FHA'+37.37

'FHA'+67.07

100'EW'

102'EW'

104'EW'

106'EW'

108'EW'

110'EW'

112'EW'

102'FHB'

104'FHB'

106'FHB'

100'FHB'

108'FHB'

110'FHB'

112'FHB'

114'FH

110'FHA'

112'FHA'

100' TYP

25' TYP

17'

11'

39 10 184 183 11 30 1 2 13 29 2 39 183 7 221

2

2

N

CTH U/S. 76TH ST

STH 24/W. FOREST HOME AVE

RAMP TBB

RAMP FHA

RAMP TBA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

'TBB'+06.06

'TBB'+66.23

'TBB'+48.23

'TBB'+02.96

'EW'+34.38

'FHB'+58.00

'EW'+46.72

'FHA'+39.05

'FHA'+88.12

'FHA'+52.54

'FHA'+69.39

'EW'+65.60

'EW'+70.93

'TBA'+20.16

'TBA'+28.48

'TBA'+80.90

'TBA'+73.24

'TBA'+23.26

'TBA'+23.24

'TBA'+27.28

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 295	E

2

2

N

RAMP TBB

IH 43 SB/IH 894 WB

IH 43 NB/IH 894 EB

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

'EW'+01.40

'EW'+03.42

'EW'+95.77

'EW'+20.82

'EW'+70.82

'TBB'+95.80

'TBB'+84.83

'TBB'+26.83

'TBB'+87.19

'EW'+07.36

'TBA'+54.70

130'TBB'

132'TBB'

134'TBB'

136'TBB'

138'TBB'

140'TBB'

130'EW'

132'EW'

134'EW'

136'EW'

138'EW'

140'EW'

142'EW'

130'TBA'

132'TBA'

134'TBA'

136'TBA'

138'TBA'

25' TYP

100' TYP

15'

13'

12'

8'

1 2 13 29 183 39 183 30 184 10 11 183

29 2 183 11 30

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 296	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 05
PLOT DATE : 10/31/2022 10:26 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

S. 68TH ST

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

30 11 183 184 10

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

100' TYP

158'TCC'

'EW'+43.86

144'EW' 146'EW' 148'EW' 150'EW' 152'EW' 154'EW' 156'EW' 158'EW'

11' 12' 12' 12' 13' 12' 12' 12' 8' 8'

183 30 11

2

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 297	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 06

PLOT DATE : 10/31/2022 10:27 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCHLINE 159'EW'+00

MATCHLINE 174'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP TCC

RAMP TCB

160'TCC'

162'TCC'

164'TCC'

166'TCC'

168'TCC'

170'TCC'

172'TCC'

'TCC'+82.80

'TCC'+60.80

'TCC'+06.54

'TCC'+87.71

'TCC'+88.52

'TCC'+81.92

'EW'+15.87

'EW'+90.83

160'EW'

162'EW'

164'EW'

166'EW'

168'EW'

170'EW'

172'EW'

174

160'TCB'

162'TCB'

164'TCB'

166'TCB'

168'TCB'

170'TCB'

172'TCB'

'TCB'+34.31

'EW'+51.26

'EW'+01.26

'EW'+14.51

'TCB'+11.54

'TCB'+86.86

'TCB'+61.86

100' TYP

25' TYP

8'

12'

13'

11'

11 183 2 30 10 184 29 2 1 251 221 251 11 183

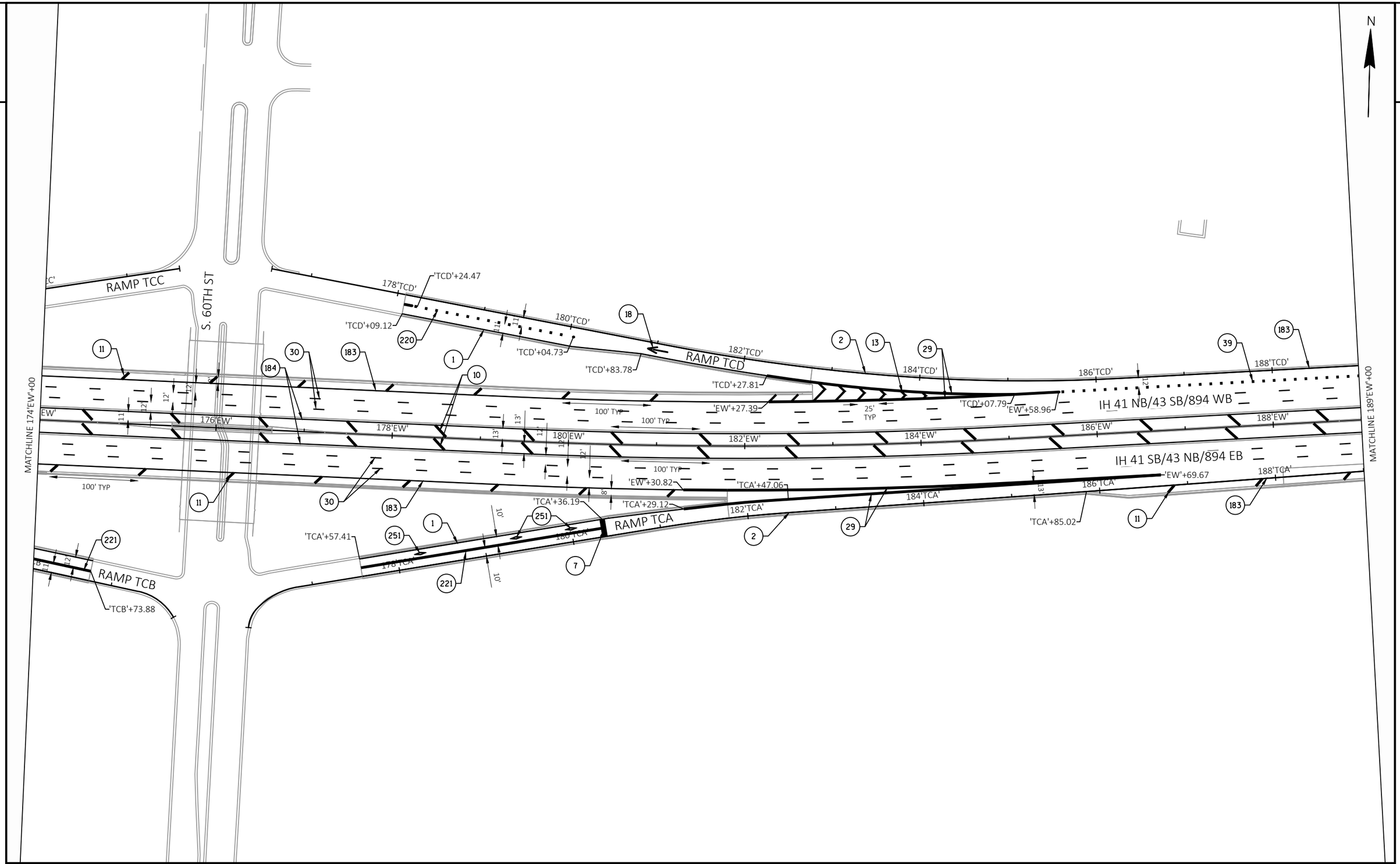
30 39 183 2 29 13 18 1 183 11 220 221

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 298	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 07

PLOT DATE : 10/31/2022 10:27 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 299	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 08

PLOT DATE : 10/31/2022 10:27 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

S. 51ST ST

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

'EW'+21.96

183 39

190'TCD'

192'TCD'

194'TCD'

'EW'+03.91

183

30

11

100' TYP

10 184

229

IH 41 NB/43 SB/894 WB

'EW'+07.10

'EW'+07.03

'EW'+49.69

'EW'+49.69

190'EW'

192'EW'

194'EW'

196'EW'

198'EW'

200'EW'

202'EW'

204

IH 41 SB/43 NB/894 EB

100' TYP

'EW'+05.82

'EW'+05.82

'EW'+47.96

'EW'+48.03

190'TCA'

192'TCA'

'EW'+42.76

183

11

100' TYP

30

229

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 300	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 09

PLOT DATE : 10/31/2022 10:28 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP LRC

206'LRC'

208'LRC'

210'LRC'

212'LRC'

214'LRC'

216'LRC'

218'LRC'

206'EW'

208'EW'

210'EW'

212'EW'

214'EW'

216'EW'

218'EW'

210'LRB'

212'LRB'

214'LRB'

216'LRB'

218'LRB'

'EW'+57.38

'LRC'+64.51

'LRC'+35.87

'LRC'+37.83

'EW'+22.62

'LRB'+28.03

'EW'+85.48

'EW'+34.60

100 TYP

100 TYP

100 TYP

10

30

184

11

183

2

29

2

183

30

11

183

39

2

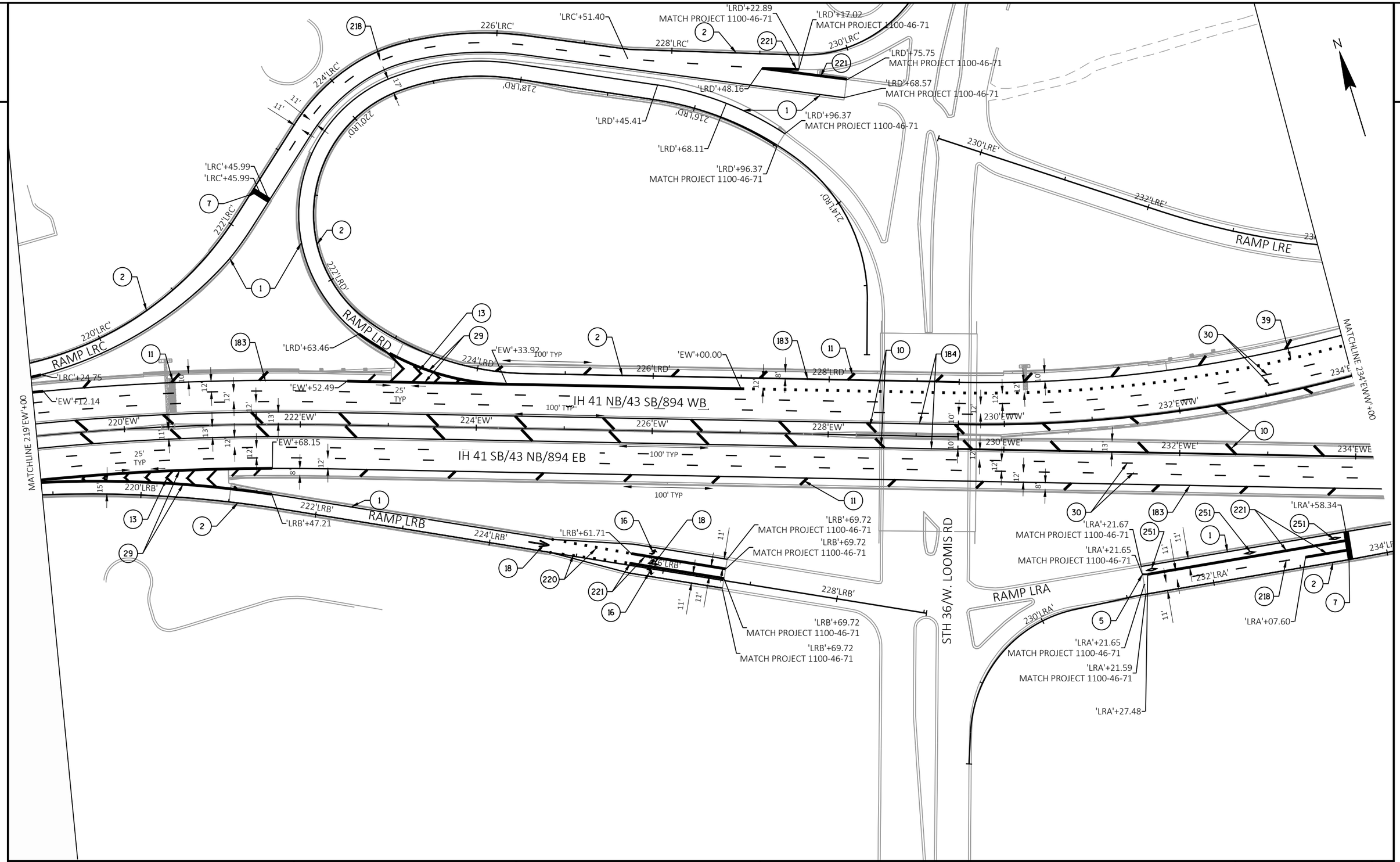
29

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 301	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 10

PLOT DATE : 10/31/2022 10:28 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 302	E

2

2

N

MATCHLINE 234'EWW'+00

MATCHLINE 249'EWW'+00

'LRE'+30.92

236'LRE'

'LRE'+37.21

'EWW'+99.29

238'LRE'

RAMP LRE

'EWW'+88.48

240'LRE'

'EWW'+18.52

'EWW'+30.42

'EWW'+42.30

'EWW'+74.47

'EWW'+86.26

'EWW'+98.05

IH 41 NB/43 SB/894 WB

'EWW'+39.47

236'EWW'

238'EWW'

240'EWW'

242'EWW'

244'EWW'

246'EWW'

248'EWW'

100' TYP

25' TYP

'EWE'+47.60

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

IH 41 SB/43 NB/894 EB

'LRA'+21.92

236'LRA'

RAMP LRA

'LRA'+75.42

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

'EWE'+26.51

15'

14'

9'

12'

8'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 303 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2022 10:28 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

S. 35TH ST

MATCHLINE 249'EWW'+00

'EWW'+83.71

183 39 30

250'EWW'

100' TYP

252'EWW'

254'EWW'

256'EWW'

258'EWW'

260'EWW'

'EWW'+36.79

'EWW'+31.78

'EWW'+90.98

'EWW'+91.18

'EWW'+91.39

'EWW'+91.59

'EWW'+91.79

IH 41 NB/43 SB/894 WB

184 10

250'EWE'

252'EWE'

254'EWE'

256'EWE'

258'EWE'

260'EWE'

100' TYP

'EWE'+45.42

IH 41 SB/43 NB/894 EB

'EWE'+50.00

183 11 30

'EWE'+70.52

'EWE'+20.95

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 304	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 13

PLOT DATE : 11/1/2022 1:00 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

IH 41 SB/43 NB/894 EB

IH 41 NB/43 SB/894 WB

92'TA'

92'EW'

94'TA'

94'EW'

96'TA'

96'EW'

98'EW'

100'EW'

S. 84TH ST

S. 84TH ST

12'TA' 14'TA' 16'TA' 18'TA' 20'TA' 22'TA' 24'TA' 26'TA'

12'

'TA'+95.00

'TA'+35.74

'TA'+20.52

'TA'+64.68

'TA'+61.17

'TA'+69.90

'TA'+93.10

'TA'+79.17

'TA'+77.03

'TA'+62.20

'TA'+61.69

'TA'+35.78

'TA'+43.82

'TA'+10.00

'TA'+55.38

'TA'+70.43

'TA'+38.44

'TA'+95.00

'TA'+95.00

'TA'+10.00

'TA'+30.78

'TA'+80.78

234 2 7 3 21 20 6 4

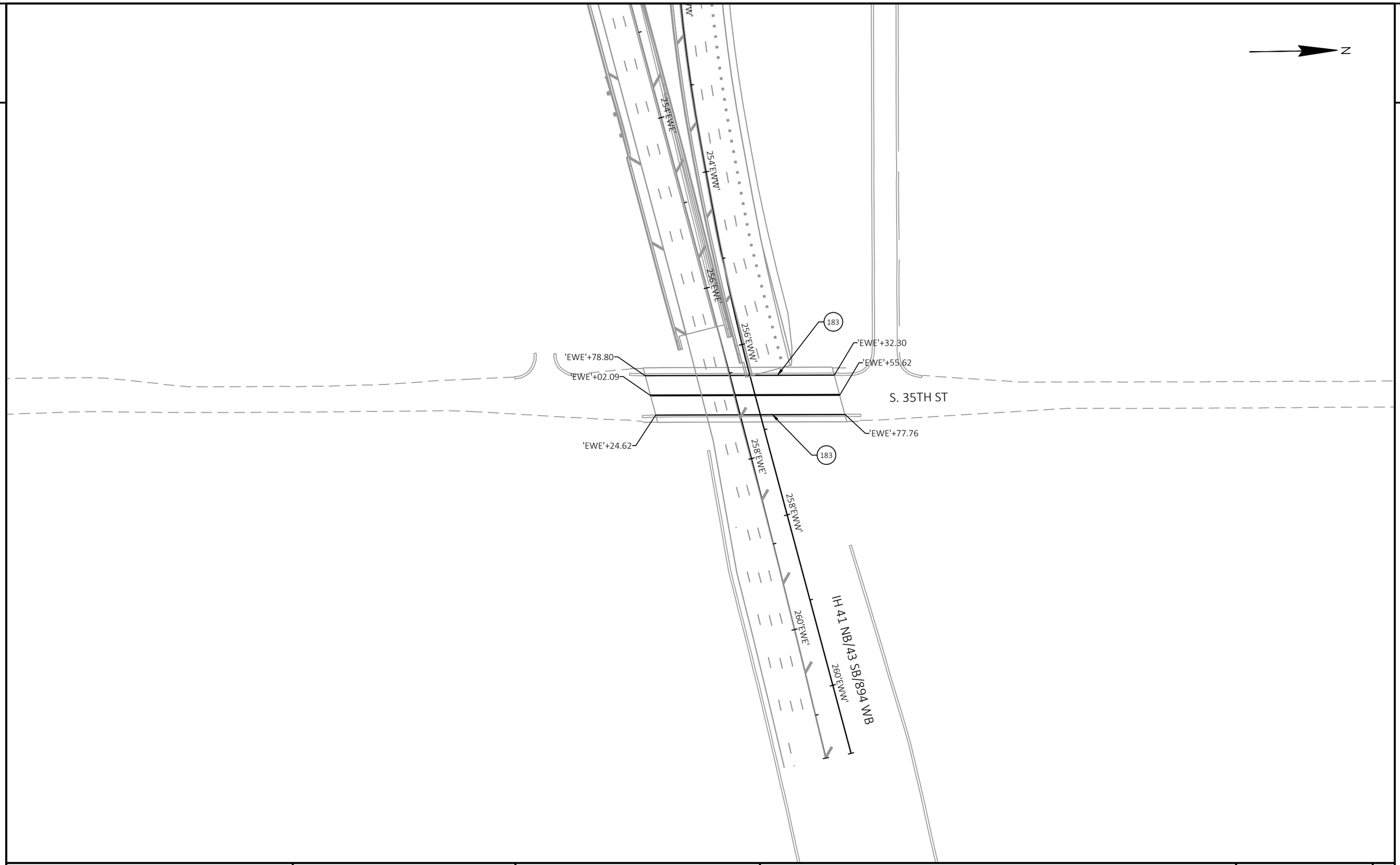
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 305	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 14

PLOT DATE : 10/31/2022 10:29 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 306	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-024501-PM.DWG
LAYOUT NAME - 15

PLOT DATE : 11/1/2022 1:16 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

GENERAL NOTES FOR TRAFFIC CONTROL

1) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER ADJACENT TO TRAFFIC. STATION CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER.

8) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

9) ALL TRAFFIC CONTROL SIGNS LOCATED IN MEDIANS SHALL BE MOUNTED ON CONCRETE BARRIER UNLESS OTHERWISE NOTED, SEE TRAFFIC CONTROL DETAILS.

10) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

11) TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

12) 16" X 16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

13) ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

TEMPORARY PAVEMENT MARKING LEGEND

1. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. TEMPORARY PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5. TEMPORARY PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. TEMPORARY PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- ◀ TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTOR)

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FIXED MESSAGE SIGN GROUND MOUNT
- CC CRASH CUSHION TEMPORARY
- TRAFFIC CONTROL DRUM WITH WITH LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CONCRETE BARRIER TEMPORARY PRECAST PLACED IN PRIOR STAGE
- TRAFFIC FLOW ARROW
- WORK ZONE THIS STAGE

2

5280' 2600' 1600' 1000'

ROAD WORK 2 MILES W20-1E

LEFT TWO LANES CLOSED 1 MILE W20-58F

LEFT TWO LANES CLOSED 1/2 MILE W20-58G

W20-2F

IH 894/USH 45

IH 41 NB

660' LANE CLOSURE

IH 41 SB

50' TYP

11'

12'

RIPRAP

SIGN

SLAB

USH 45

IH 41 SB/43 NB/894 EB

IH 43 SB

101st ST

MATCHLINE A

N

IH 43

IH 41 NB

LANE CLOSED

R11-2L 48"X30"

12'

11'

RIPRAP

50' TYP

IH 41 SB/43 NB/894 EB

IH 894/USH 45

IH 43 NB/894 EB

SEE NOTES 1 & 2

MATCHLINE B

NOTES

1. CLOSE I-43 NB SYSTEM RAMP TO THE WEST FOLLOWING SDD "TRAFFIC CONTROL, SYSTEM RAMP CLOSURE" AND DETOUR TRAFFIC PER "DETOUR - IH 43 NB RAMP"
2. CLOSE STH 100/ S. 108TH STREET ENTRANCE RAMP FOLLOWING CONSTRUCTION DETAIL "TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE - SHORT TERM ONLY"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME EB SINGLE LANE CONFIGURATION	SHEET 308	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025002_TC.DWG
LAYOUT NAME - 00

PLOT DATE : 2/2/2023 1:45 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

NOTES

1. CONTINUE TWO LANE CLOSURE THROUGH WORK ZONE.
2. INSTALL TWO BARRICADES WITH R11-2l 48"X30" SIGN PLATES IN CLOSED LANES EVERY 1000' THROUGH WORK ZONE.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME EB SINGLE LANE CONFIGURATION	SHEET 309	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025002_TC.DWG
LAYOUT NAME - 01

PLOT DATE : 2/2/2023 1:51 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

NOTES

1. CONTINUE TWO LANE CLOSURE THROUGH WORK ZONE. USE DETAIL "TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN" WHEN SHIFTING LANES LEFT TOWARDS MEDIAN IS REQUIRED.
2. INSTALL TWO BARRICADES WITH R11-2l 48"X30" SIGN PLATES IN CLOSED LANES EVERY 1000' THROUGH WORK ZONE.

LANE CLOSED
R11-2L
48"X30"

IH 41 NB/43 SB/894 WB

SEE NOTE 1

50' TYP

12'

SEE NOTE 1

IH 41 SB/43 NB/894 EB

MATCHLINE F

RAMP NW

RAMP SW

RAMP WS

RAMP WN

RAMP LA

RAMP SN

RAMP LD

RAMP NS

IH 94 EB

IH 94 WB

LANE CLOSED
R11-2L
48"X30"

MATCHLINE G

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 310	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025002_TC.DWG
LAYOUT NAME - 09
PLOT DATE : 2/2/2023 1:58 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2

2

RAMP LA

RAMP SN

RAMP SW

RAMP WS

RAMP LB

W. LAYTON AVE

IH 94 WB

IH 94 EB

IH 94/USH 41

50' TYP

LANE CLOSED

R11-2L
48"X30"

MATCHLINE G

MATCHLINE H

RIPRAP

N

RAMP LB

IH 41 NB

IH 94 WB

IH 94 EB

IH 41 SB

660' LANE DROP

12'

50' TYP

LANE CLOSED

R11-2L
48"X30"

MATCHLINE H

MATCHLINE J

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 311	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025002_TC.DWG
LAYOUT NAME - 10

PLOT DATE : 2/2/2023 2:05 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

MATCHLINE J

MATCHLINE K

LANE CLOSED
R11-2L
48"X30"

660' LANE DROP

50' TYP

50' TYP

W, EDGERTON AVE

IH 94/USH 41

IH 41 NB

IH 94 WB

IH 41 SB/94 EB

12'

12'

W04-2L

PLAYGROUND

BASKETBALL COURT

TENNIS COURT

POOL

POSTS

SIGN

MH

INL

N

MATCHLINE K

LANE CLOSED
R11-2L
48"X30"

660' LANE DROP

FOOTBRIDGE

1000'

1600'

2600'

5280'

W04-2L

LEFT TWO LANES CLOSED 1/2 MILE

W20-5aL

LEFT TWO LANES CLOSED 1 MILE

W20-5aL

ROAD WORK 2 MILES

W20-1L

12'

12'

IH 94/USH 41

GRANGE AVE

N

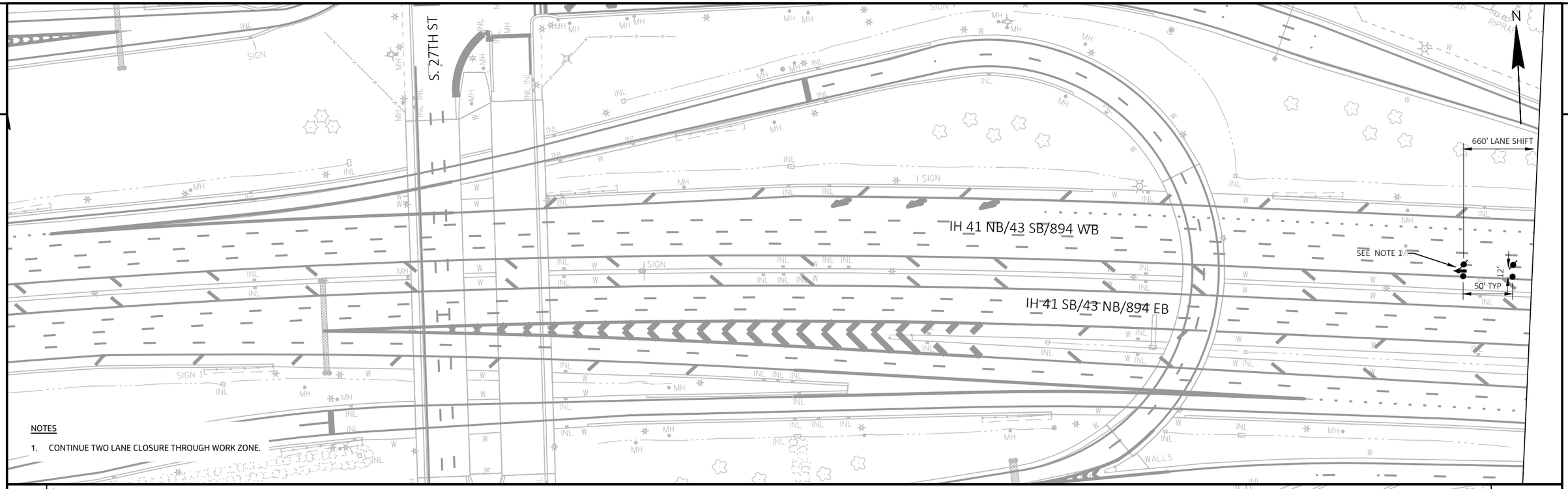
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 312	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025002_TC.DWG
LAYOUT NAME - 11

PLOT DATE : 2/2/2023 2:11 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2



NOTES

1. CONTINUE TWO LANE CLOSURE THROUGH WORK ZONE.

NOTES

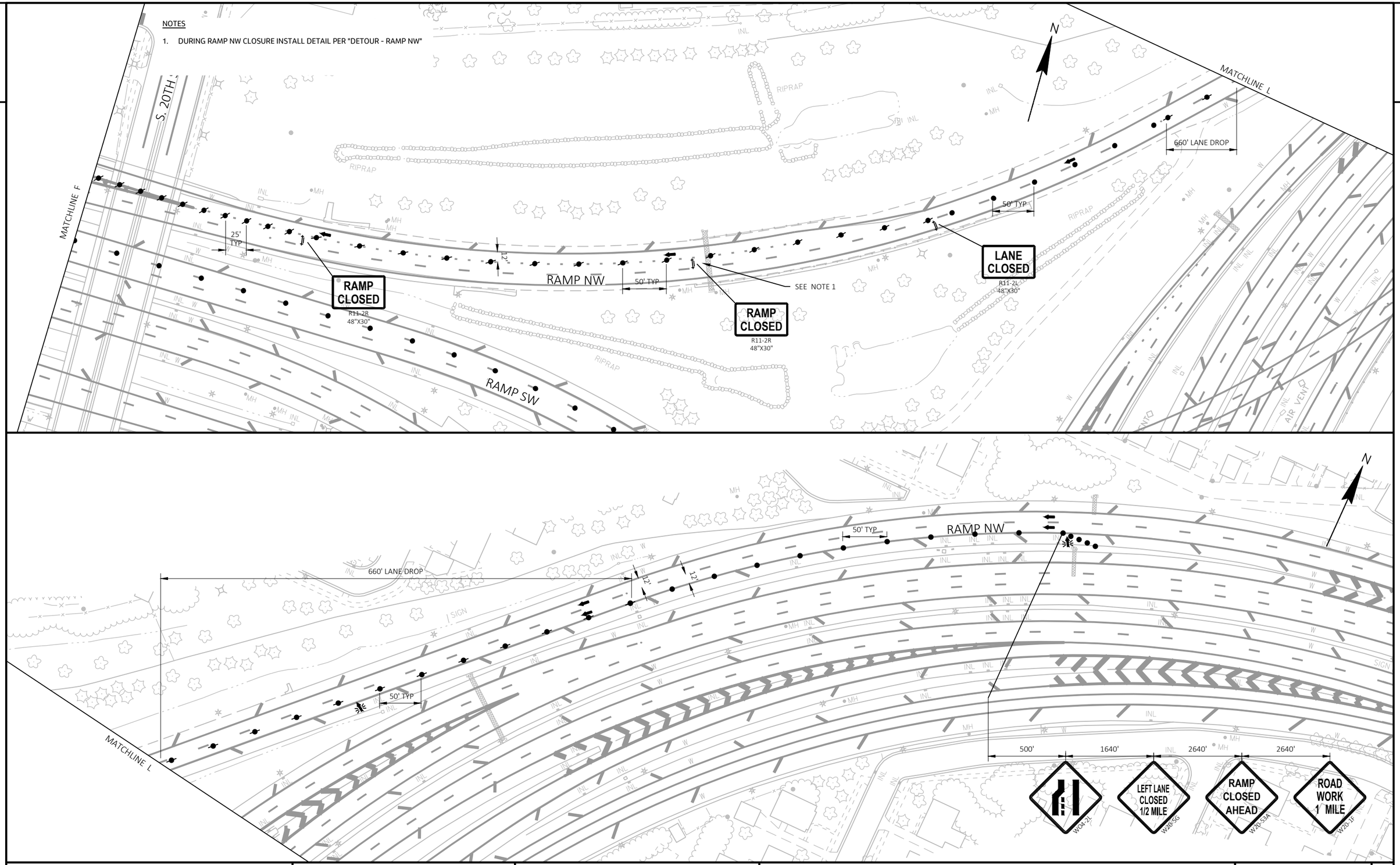
1. CLOSE TWO LEFT LANES SOUTH OF THE MITCHELL INTERCHANGE PER "TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION' DETAIL

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN	SHEET 313	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025004_TC.DWG
LAYOUT NAME - 09
PLOT DATE : 2/2/2023 4:41 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 44

NOTES

1. DURING RAMP NW CLOSURE INSTALL DETAIL PER "DETOUR - RAMP NW"



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN	SHEET 314	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-025004_TC.DWG
LAYOUT NAME - 12

PLOT DATE : 2/2/2023 5:02 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S. 68TH ST

S. 68TH ST

END
ROAD WORK
G20-2A
48"X24"

200' TRANSITION

25' TYP

50' TYP

LANE
CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

200' TRANSITION

200'

200'

WO1-4L

ROAD
WORK
AHEAD
W20-1A

TEMPORARY MARKING LINE
REMOVABLE TAPE DOUBLE
4-INCH YELLOW

B-40-1002

TEMPORARY MARKING LINE
REMOVABLE TAPE DOUBLE
4-INCH YELLOW

END
ROAD WORK
G20-2A
48"X24"

200'

200'

ROAD
WORK
AHEAD
W20-1A

WO1-4R

NOTES

MIRROR TRAFFIC CONTROL FOR
EAST HALF OF 68TH STREET
(B-40-1002) PROTECTIVE SURFACE
TREATMENT RESEAL

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - 68TH STREET	SHEET 315	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-025005_TC.DWG
LAYOUT NAME - 01

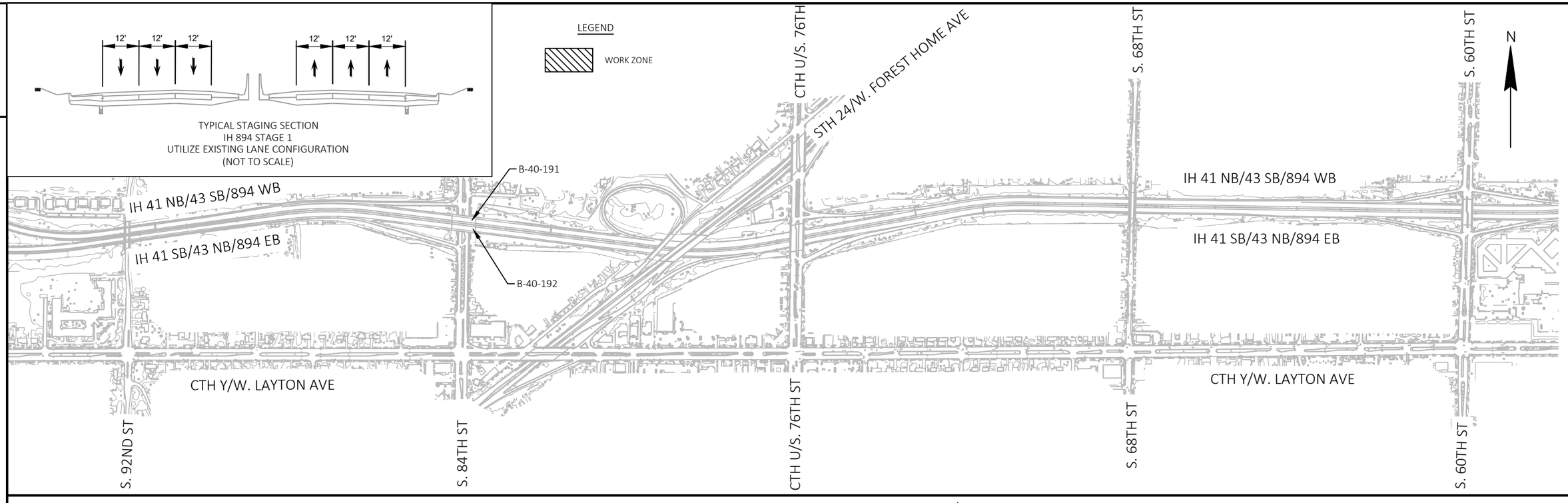
PLOT DATE : 4/27/2023 1:20 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME : PLOT SCALE : ##########

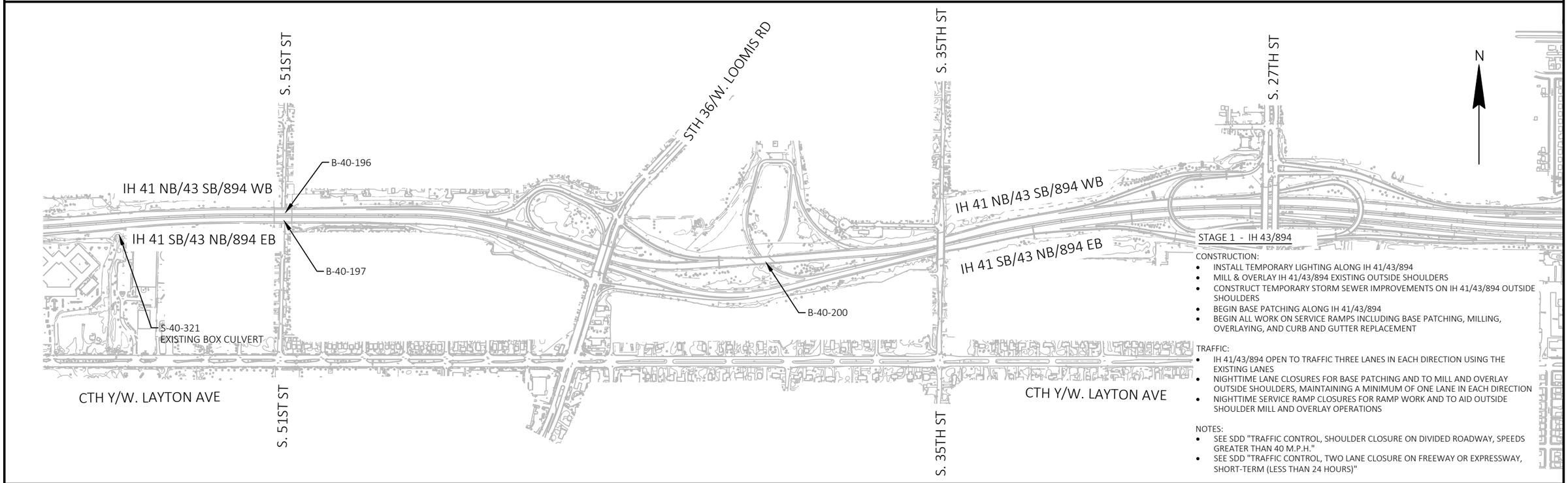
WISDOT/CADDS SHEET 42

TYPICAL STAGING SECTION
IH 894 STAGE 1
UTILIZE EXISTING LANE CONFIGURATION
(NOT TO SCALE)

LEGEND

WORK ZONE





STAGE 1 - IH 43/894

CONSTRUCTION:

- INSTALL TEMPORARY LIGHTING ALONG IH 41/43/894
- MILL & OVERLAY IH 41/43/894 EXISTING OUTSIDE SHOULDERS
- CONSTRUCT TEMPORARY STORM SEWER IMPROVEMENTS ON IH 41/43/894 OUTSIDE SHOULDERS
- BEGIN BASE PATCHING ALONG IH 41/43/894
- BEGIN ALL WORK ON SERVICE RAMPS INCLUDING BASE PATCHING, MILLING, OVERLAYING, AND CURB AND GUTTER REPLACEMENT

TRAFFIC:

- IH 41/43/894 OPEN TO TRAFFIC THREE LANES IN EACH DIRECTION USING THE EXISTING LANES
- NIGHTTIME LANE CLOSURES FOR BASE PATCHING AND TO MILL AND OVERLAY OUTSIDE SHOULDERS, MAINTAINING A MINIMUM OF ONE LANE IN EACH DIRECTION
- NIGHTTIME SERVICE RAMP CLOSURES FOR RAMP WORK AND TO AID OUTSIDE SHOULDER MILL AND OVERLAY OPERATIONS

NOTES:

- SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H."
- SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

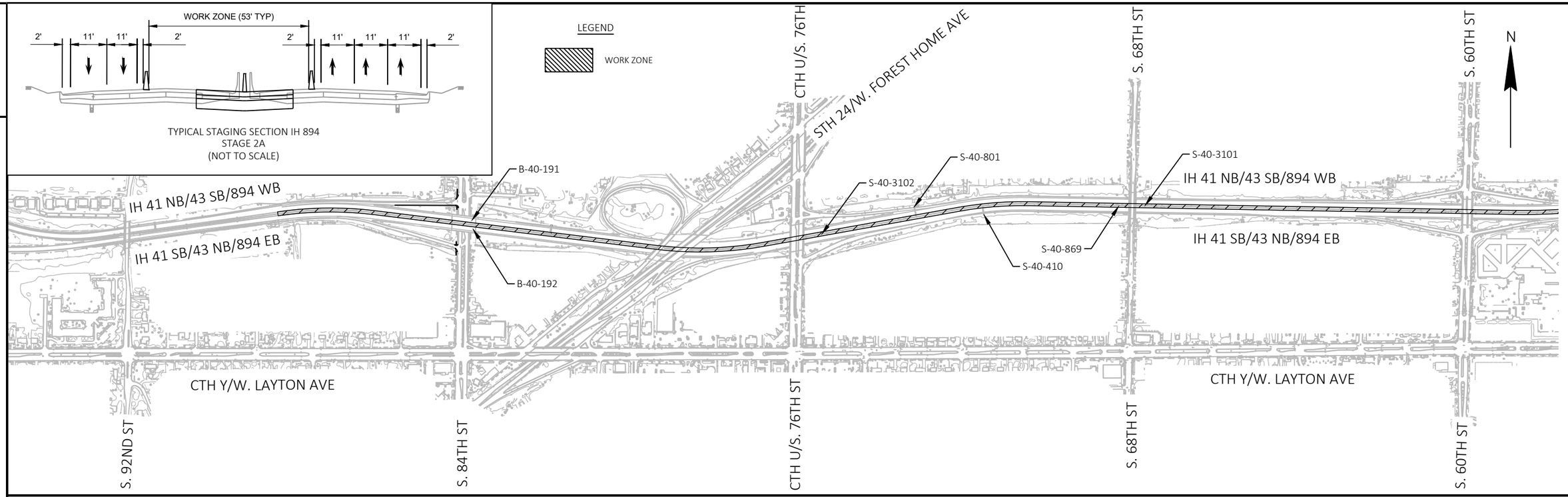
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 OVERVIEW	SHEET 316	E

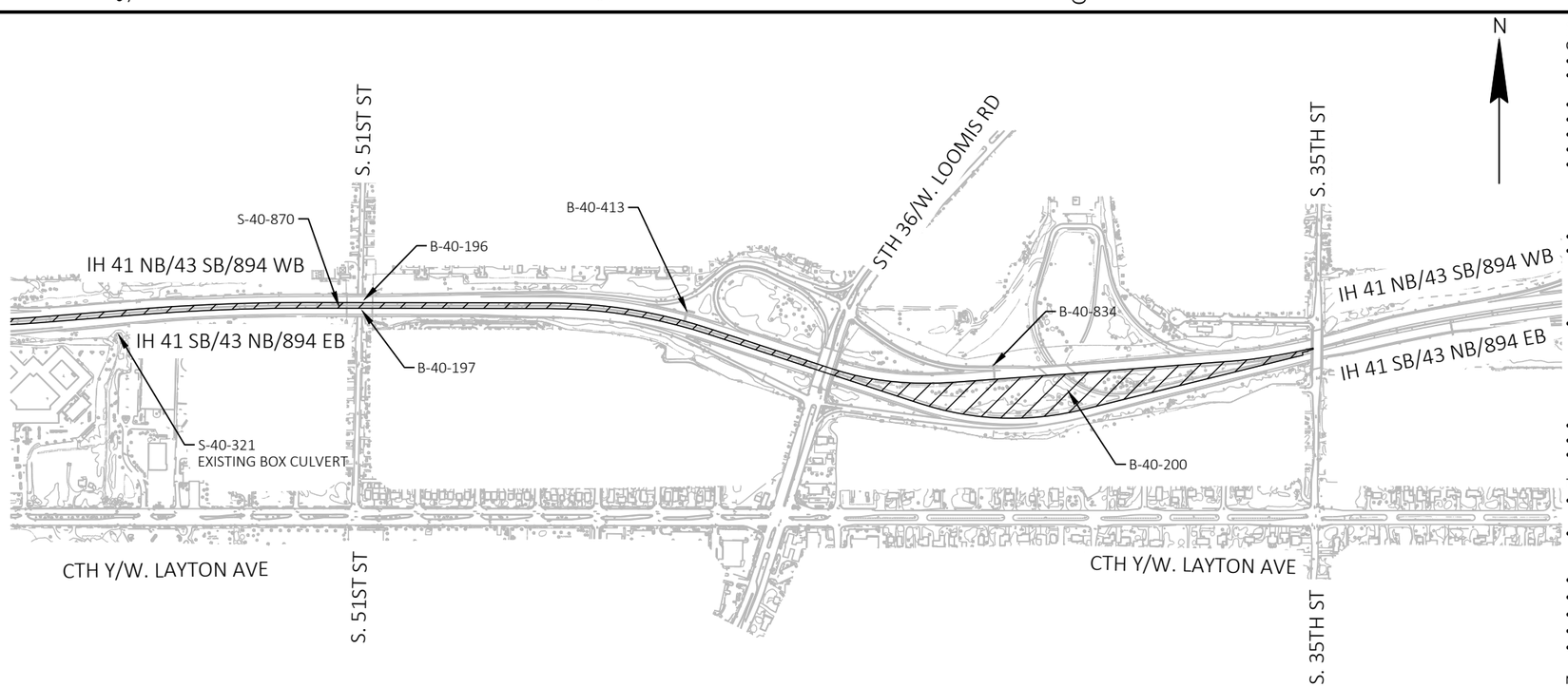
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026101-S1.DWG
LAYOUT NAME - 01
PLOT DATE : 10/26/2022 1:45 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:800 FT
WISDOT/CADDS SHEET 44

TYPICAL STAGING SECTION IH 894
STAGE 2A
(NOT TO SCALE)

LEGEND

WORK ZONE





STAGE 2A - IH 43/894

CONSTRUCTION:

- INSTALL TEMPORARY BARRIER WALL FOR INSIDE SHOULDER WORK ZONES ALONG IH 41/43/894
- REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH STAGE 2 TEMPORARY PAVEMENT MARKINGS AND PLACE STAGE 2 TEMPORARY PAVEMENT MARKING
- REMOVALS IN IH 41/43/894 MEDIAN
- CONSTRUCT MEDIAN SHOULDER AND BARRIER WALL ALONG IH 41/43/894
- CONSTRUCT MEDIAN STORM SEWER ALONG IH 41/43/894
- INSTALL PERMANENT MEDIAN LIGHTING ALONG IH 41/43/894
- CONSTRUCT MEDIAN SIGN STRUCTURE BASES FOR:
  S-40-410
  S-40-413
  S-40-801

- BEGIN MAINTENANCE WORK ON SIGN STRUCTURE S-40-834
- COMPLETE BUTTERFLY SIGN :
  S-40-869
  S-40-870
  S-40-3101
  S-40-3102
- COMPLETE IH 41/43/894 MAINLINE BRIDGE OVERLAYS (REMOVE MEDIAN TEMPORARY BARRIER WALL AT THE END OF STAGE 2 TO ALLOW FOR OVERLAY WORK ZONES):
  B-40-191
  B-40-192
  B-40-196
  B-40-197
  B-40-200
- CONTINUE BASE PATCHING ALONG IH 41/43/894
- COMPLETE ALL WORK ON FREEWAY SERVICE RAMPS
- COMPLETE ALL WORK ON 84TH STREET

TRAFFIC:

- IH 41 NB/ 43 SB/ 894 WB TWO LANES UTILIZING THE EXISTING OUTSIDE SHOULDER AND LANE (SHIFTED AWAY FROM WORK ZONE)
- IH 41 SB/ 43 NB / 894 EB THREE LANES UTILIZING THE EXISTING OUTSIDE SHOULDER, AND TWO OUTSIDE LANES (SHIFTED AWAY FROM WORK ZONE), BETWEEN 92ND STREET AND 84TH STREET THREE LANES ARE SHIFTED ONTO THE EXISTING RAMP TAA AUXILIARY LANE AND TWO OUTSIDE LANES.
- RAMP TAA OPEN TO TRAFFIC, AUXILIARY LANE RECONFIGURED AS A TAPER EXIT RAMP
- FULL FREEWAY CLOSURES ALONG IH 41/43/894 FOR EXISTING FULL SPAN SIGN STRUCTURE REMOVALS
- NIGHTTIME IH 41/43/894 LANE CLOSURES MAINTAINING A MINIMUM OF ONE LANE IN EACH DIRECTION
- NIGHTTIME SERVICE RAMP CLOSURES
- NIGHTTIME SINGLE LANE AND SHOULDER CLOSURES IN EACH DIRECTION ALONG 84TH STREET

NOTES:

- SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2A OVERVIEW	SHEET 317	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026201-S2A.DWG
LAYOUT NAME - 01

PLOT DATE : 11/1/2022 12:03 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:800 FT

WISDOT/CADDS SHEET 44

2

2580'

5280'

1000'

ROAD WORK 1 MILE
W20-1F

LEFT LANE CLOSED 1/2 MILE
W20-5G

W04-2L

IH 41 NB

IH 41 SB

50' TYP

100' TYP

1

IH 41 SB/43 NB/894 EB

IH 43 SB

MATCHLINE A

N

MATCHLINE A

W04-1R

LANE CLOSED
R11-2L
48"X30"

IH 41 SB/43 NB/894 EB

100' TYP

IH 41 NB

IH 43 NB/894 EB

MATCHLINE B

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 318	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 00

PLOT DATE : 11/1/2022 1:06 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCHLINE B

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 69'EW'+00

WO1-4C
48"X48"

100' TYP

SIGN

1

EXIT 5 A–B
76 -84 th St
1/2 MILE

COVER "EXIT ARROW ONLY"

N

S. 92ND ST

325' LANE SHIFT

250' LANE WIDTH TRANSITION

WO1-6
48"X24"

END
ROAD WORK
G20-2A
48"X24"

'EW'+54.94
18.00'LT

'EW'+54.60
54.02'LT

50' TYP

'EW'+79.21
57.98'LT

100' TYP

'EW'+83.52
31.90'LT

'TAB'+71.53
3.29'RT

82'TAB'

3844' R

200' LANE WIDTH TRANSITION

200' LANE SHIFT

70'EW'

72'EW'

74'EW'

76'EW'

78'EW'

80'EW'

82'EW'

'EW'+39.21
17.31'RT

'EW'+00.00
53.47'RT

'EW'+00.00
50.00'RT

'EW'+00.00
52.00'RT

WO1-6
48"X24"

RIGHT LANE
MUST EXIT

COVER EXISTING SIGN

LANE
CLOSED
R11-2L
48"X30"

EXIT 5 A–B
76 -84 th St
EXIT ONLY

COVER "ONLY"

MATCHLINE 84'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 319	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 01

PLOT DATE : 11/17/2022 4:51 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

NOTES

INSTALL TEMPORARY PEDESTRIAN SURFACE PLATE, TEMPORARY PEDESTRIAN CURB RAMP, TEMPORARY DETECTABLE WARNING FIELD, TEMPORARY PEDESTRIAN BARRICADE, SIGNS AND TRAFFIC CONTROL DRUMS PER SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" DETAIL J

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 320 E

2

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RAMP FHA

RAMP TBA

RAMP TBB

MATCHLINE 114'EW'+00

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

'EW'+48.06
58.00'RT

'FHA'+39.05
15.16'LT

'EW'+67.86
58.00'RT

'EW'+70.09
58.00'RT

'EW'+72.00
58.17'RT

'TBA'+29.88
33.18'LT

'TBB'+92.32
15.00'RT

'EW'+03.42
58.00'LT

'EW'+47.67
58.00'LT

'EW'+40.15
58.00'RT

'EW'+49.57
58.00'RT

S-40-3102

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

W20-1A

W03-2

R1-2
36"X31"

EXIT 5 B
COUNTY U
76 th St

MOVING SIGNS TYPE I EXISTING SIGN FROM S-40-801,
INSTALL ON POSTS WOOD 4X6-INCH X 22-FT

S-40-801
MEDIAN BASE

S-40-413
MEDIAN BASE

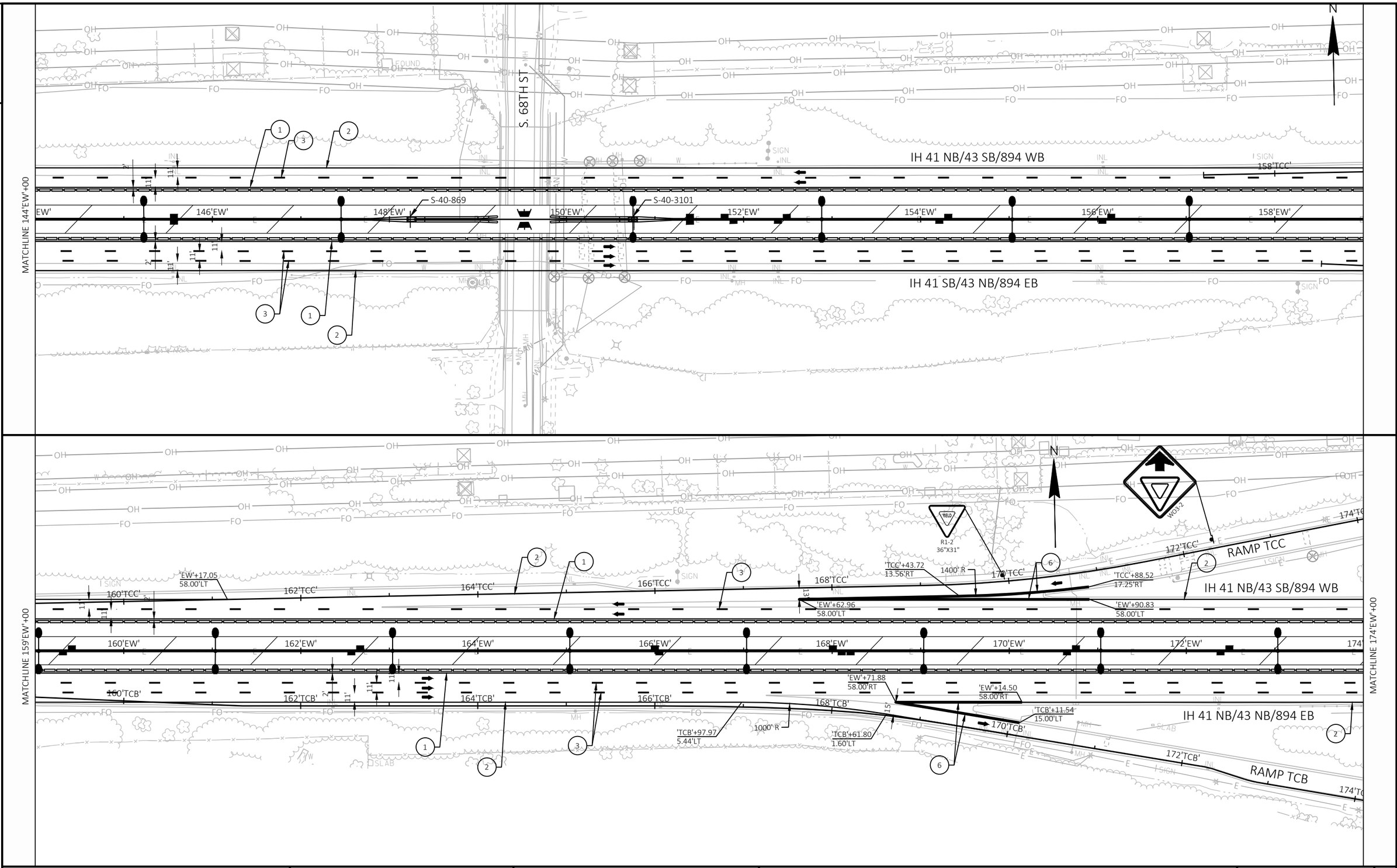
N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 321	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 03

PLOT DATE : 11/17/2022 5:03 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

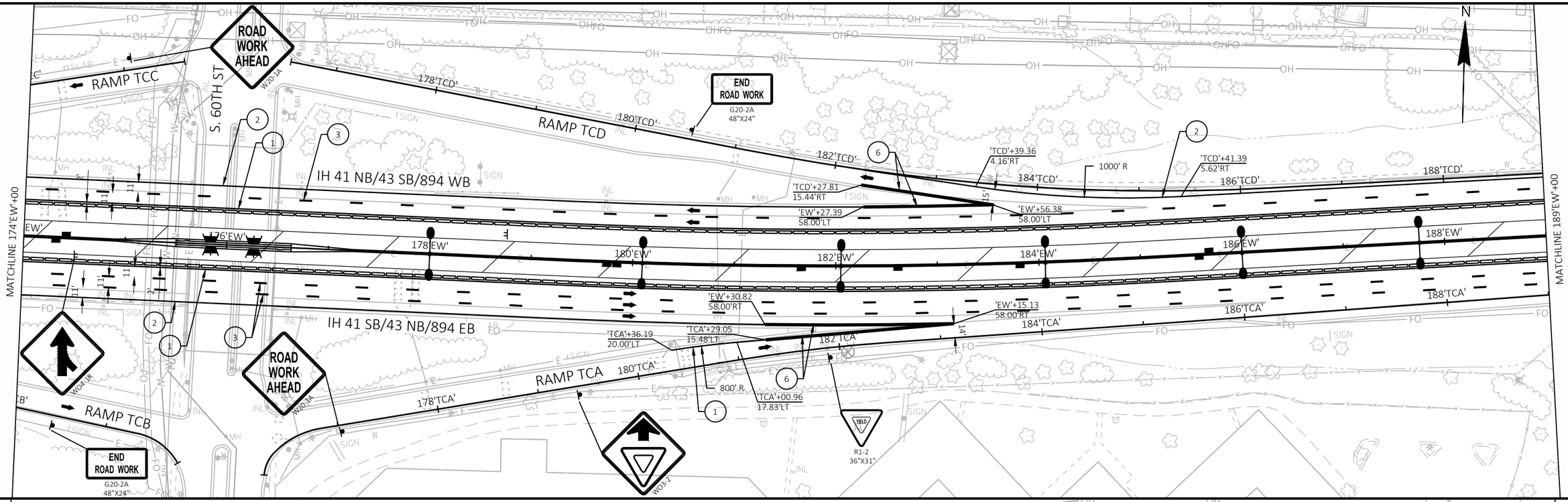


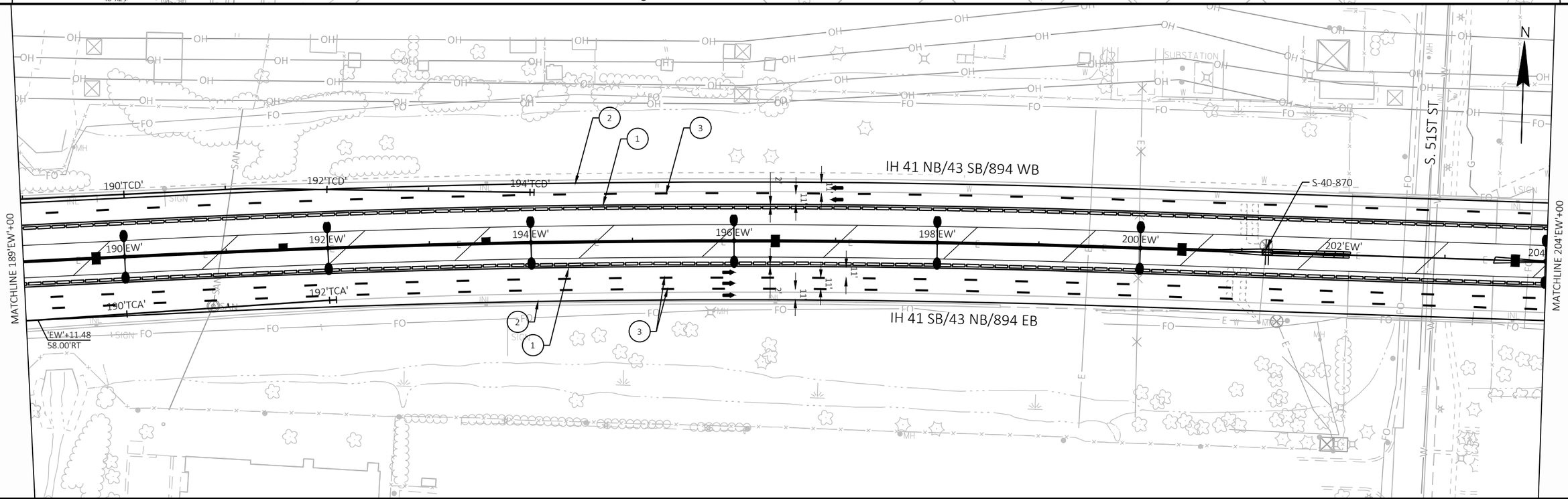
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 322	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 04

PLOT DATE : 11/17/2022 5:08 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2





PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 323	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 05

PLOT DATE : 11/17/2022 5:14 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

206'LRC'

208'LRC'

210'LRC'

212'LRC'

214'LRC'

216'LRC'

218'LRC'

206'EW'

208'EW'

210'EW'

212'EW'

214 EW'

216 EW'

218'EW'

210'LRB'

212'LRB'

214'LRB'

216'LRB'

218'LRB'

'EW'+65.83
58.00'LT

'EW'+09.24
58.00'LT

50' TYP

3059' R

R1-2
36"X31"

'LRC'+92.82
13.63'RT

'EW'+79.08
58.00'LT

2813' R

'LRB'+04.17
5.37'LT

2'

11'

13'

RAMP LRC

RAMP LRB

RAMP LRE

RAMP LRA

220'LRC'

222'LRD'

224'LRD'

226'LRD'

228'LRD'

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWW'

234'EWW'

230'EWE'

232'EWE'

234'EWE'

220'LRB'

222'LRB'

224'LRB'

226'LRB'

228'LRB'

230'LRA'

232'LRA'

234'LR

'LRC'+85.24
16.30'RT

350' R

S-40-410

'EW'+47.18
58.00'RT

'EW'+65.75
56.19'RT

'LRB'+63.17
15.00'LT

1000' R

'LRB'+84.65
1.92'LT

STH 36/W. LOOMIS RD

WO4-1R

ROAD
WORK
AHEAD
W20-1A

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 324	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 06

PLOT DATE : 11/17/2022 5:19 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

RIGHT LANE MUST EXIT
R3-33R
78"X36"

IH 41 NB/43 SB/894 WB

236'LRE'
RAMP LRE
'LRE'+31.88
15.00'RT
25' TYP
238'LRE'
240'LRE'
'EWW'+40.70
43.00'LT
'EWW'+40.69
36.00'LT
'EWW'+37.59
36.00'LT
'EWW'+37.67
36.00'LT
236'EWW'
238'EWW'
240'EWW'
242'EWW'
244'EWW'
246'EWW'
248'EWW'

MATCHLINE 234'EWW'+00

WO1-6
48"X24"

200' LANE SHIFT

236'EWE'
238'EWE'
240'EWE'
242'EWE'
244'EWE'
246'EWE'
248'EWE'

'EWE'+47.75
44.70'RT
RAMP LRA
'LRA'+21.92
28.17'LT
'LRA'+76.89
25.27'LT
'LRA'+92.82
18.29'LT
236'LRA'
238'LRA'
240'LRA'
242'LRA'
244'LRA'
246'LRA'
'EWE'+14.48
44.62'RT
'EWE'+15.17
54.35'RT
'EWE'+06.74
44.61'RT
1271' R

IH 41 SB/43 NB/894 EB

R1-2
36"X31"

WO1-4CL
48"X48"

MATCHLINE STA 249'EWW'+00

WO1-4CR
48"X48"

S. 35TH ST

IH 41 NB/43 SB/894 WB

250'EWW'
252'EWW'
254'EWW'
256'EWW'
258'EWW'
260'EWW'
'EWW'+27.00
10.97'LT
100' TYP

250'EWE'
252'EWE'
254'EWE'
256'EWE'
258'EWE'
260'EWE'
25' TYP

IH 41 SB/43 NB/894 EB

'EWE'+50.00
44.61'RT
'EWE'+50.42
44.61'RT
200' LANE WIDTH TRANSITION
250' LANE SHIFT

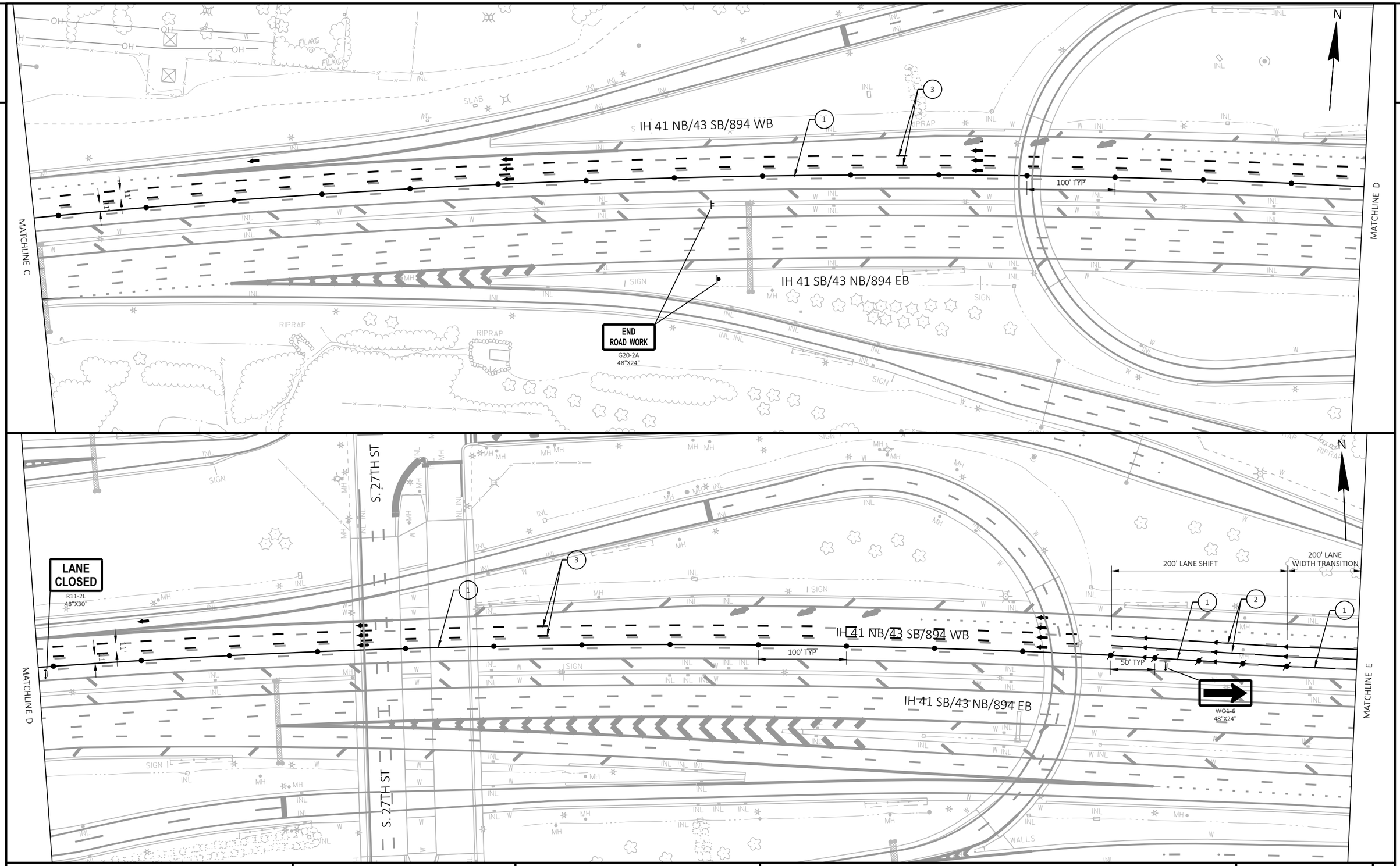
LANE CLOSED
R11-2L
48"X30"

MATCHLINE C

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 325	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 07
PLOT DATE : 11/17/2022 5:25 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44


IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB
END
ROAD WORK
G20-2A
48"X24"
100' TYP
MATCHLINE C
MATCHLINE D
MATCHLINE E
S. 27TH ST
LANE
CLOSED
R11-2L
48"X30"
200' LANE SHIFT
200' LANE
WIDTH TRANSITION
50' TYP
WO1-6
48"X24"
N

2

2

MATCHLINE E

MATCHLINE F

200' LANE
WIDTH TRANSITION

100' TYP

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

W01-4NR

RIPRAP

SIGN

N

RAMP NW

RAMP SW

RAMP WS

RAMP WN

AIR VENTS

LANE
CLOSED
R11-2L
48"X30"

RAMP LD

RAMP NS

IH 94 EB

IH 94 WB

RAMP LA

RAMP SN

MATCHLINE F

MATCHLINE G

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 327	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 09

PLOT DATE : 11/1/2022 2:08 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

2

RAMP LA

RAMP SN

RAMP SW

W. LAYTON AVE

RAMP LB

100' TYP

1

IH 94 WB

IH 94 EB

RAMP WS

LANE CLOSED

R11-2L
48"X30"

MATCHLINE G

MATCHLINE H

N

RAMP LB

660' LANE DROP

IH 41 NB

100' TYP

50' TYP

IH 94 WB

IH 94 EB

IH 41 SB

MATCHLINE H

MATCHLINE J

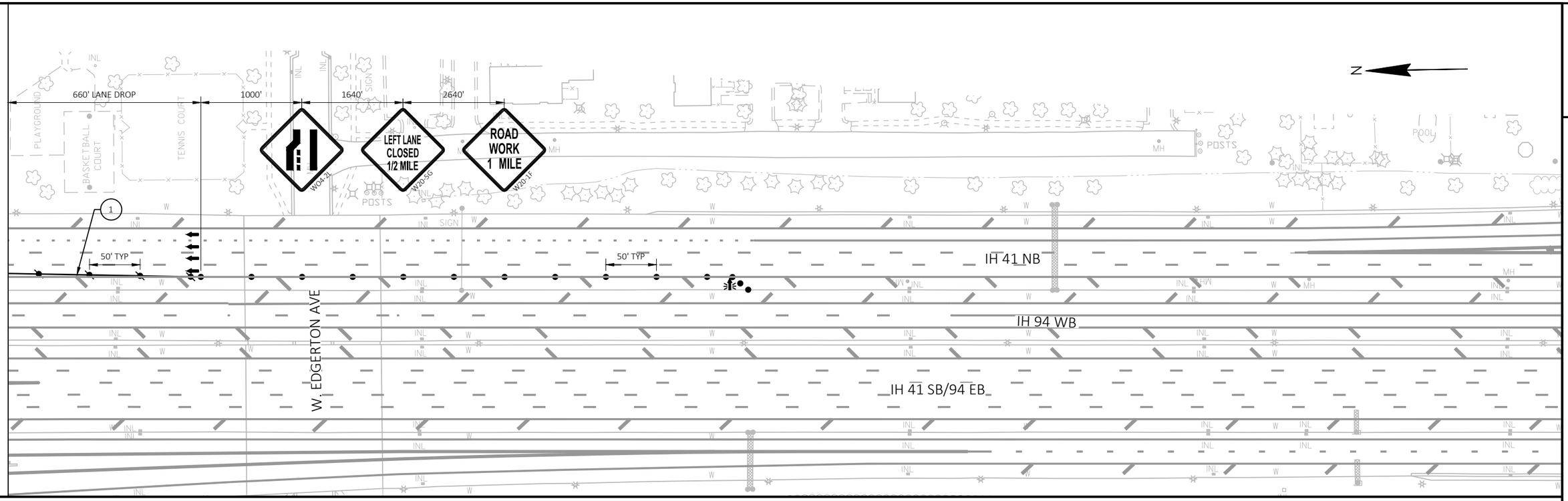
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 328	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 10

PLOT DATE : 11/1/2022 2:15 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : ############

WISDOT/CADDS SHEET 44

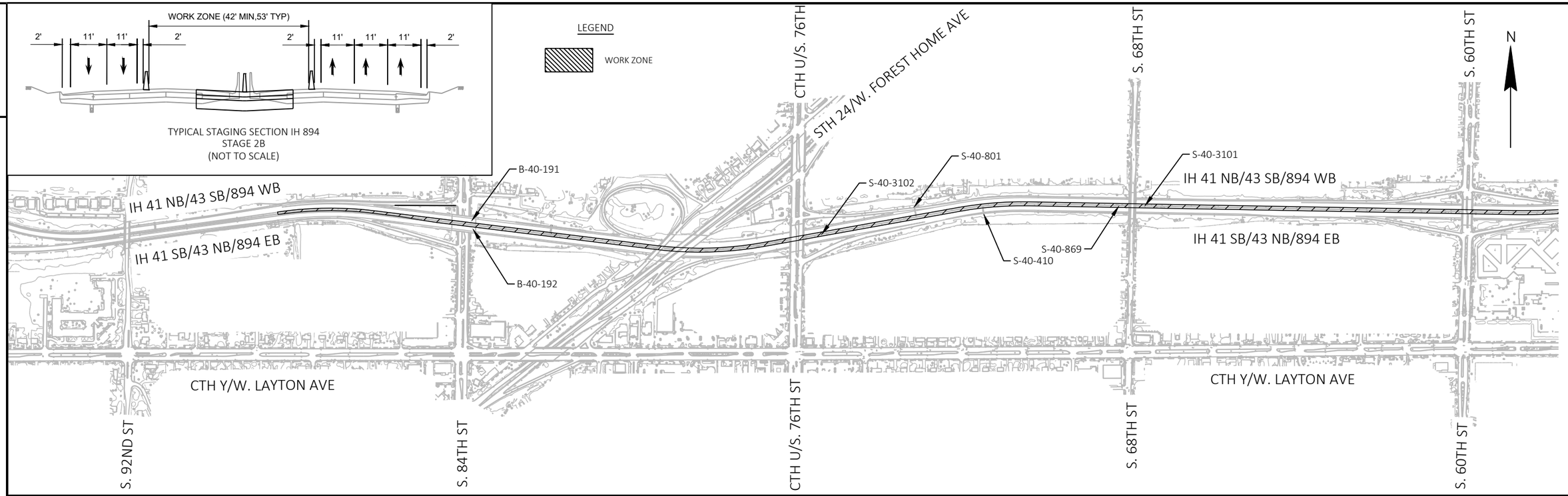
2

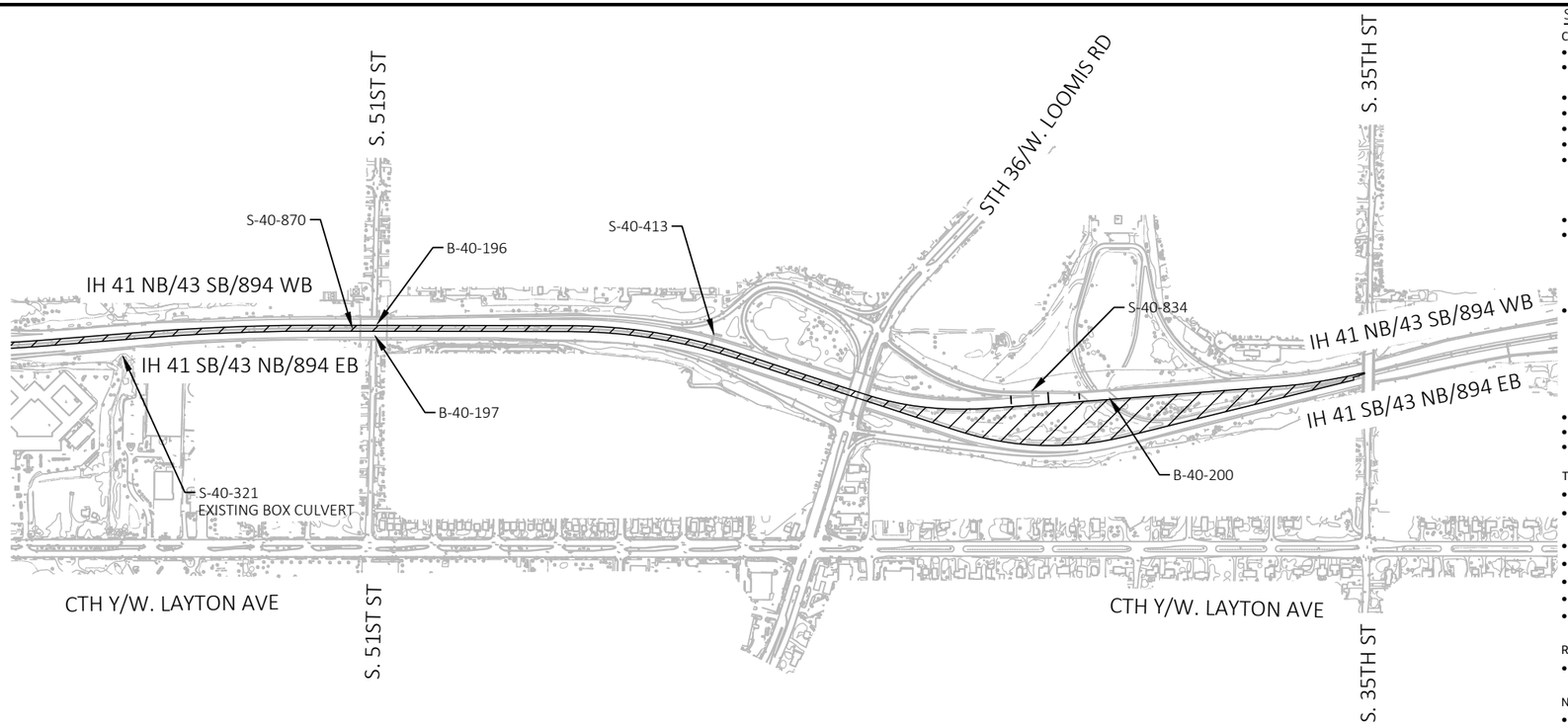


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2A	SHEET 329	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026202-S2A.DWG
LAYOUT NAME - 11
PLOT DATE : 11/1/2022 2:18 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

TYPICAL STAGING SECTION IH 894
STAGE 2B
(NOT TO SCALE)





STAGE 2B - IH 43/894

CONSTRUCTION:

- INSTALL TEMPORARY BARRIER WALL FOR INSIDE SHOULDER WORK ZONES ALONG IH 41/43/894
- REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH STAGE 2 TEMPORARY PAVEMENT MARKINGS AND PLACE STAGE 2 TEMPORARY PAVEMENT MARKING
- REMOVALS IN IH 41/43/894 MEDIAN
- CONSTRUCT MEDIAN SHOULDER AND BARRIER WALL ALONG IH 41/43/894
- CONSTRUCT MEDIAN STORM SEWER ALONG IH 41/43/894
- INSTALL PERMANENT MEDIAN LIGHTING ALONG IH 41/43/894
- CONSTRUCT MEDIAN SIGN STRUCTURE BASES FOR:
  S-40-410
  S-40-413
  S-40-801
- BEGIN MAINTENANCE WORK ON SIGN STRUCTURE S-40-834
- COMPLETE BUTTERFLY SIGN STRUCTURES:
  S-40-869
  S-40-870
  S-40-3101
  S-40-3102
- COMPLETE IH 41/43/894 MAINLINE BRIDGE OVERLAYS (REMOVE MEDIAN TEMPORARY BARRIER WALL AT THE END OF STAGE 2 TO ALLOW FOR OVERLAY WORK ZONES):
  B-40-191
  B-40-192
  B-40-196
  B-40-197
  B-40-200
- CONTINUE BASE PATCHING ALONG IH 41/43/894
- COMPLETE ALL WORK ON FREEWAY SERVICE RAMPS
- COMPLETE ALL WORK ON 84TH STREET

TRAFFIC:

- IH 41 NB/ 43 SB/ 894 WB TWO LANES UTILIZING THE EXISTING OUTSIDE SHOULDER AND LANE (SHIFTED AWAY FROM WORK ZONE)
- IH 41 SB/ 43 NB / 894 EB THREE LANES UTILIZING THE EXISTING OUTSIDE SHOULDER, AND TWO OUTSIDE LANES (SHIFTED AWAY FROM WORK ZONE), BETWEEN 92ND STREET AND RAMP TAA THREE LANES OPEN USING THE EXISTING LANES
- RAMP TAA AUXILIARY LANE OPENED, RECONFIGURED AS A PARALLEL EXIT RAMP
- FULL FREEWAY CLOSURES ALONG IH 41/43/894 FOR EXISTING FULL SPAN SIGN STRUCTURE REMOVALS
- NIGHTTIME IH 41/43/894LANE CLOSURES MAINTAINING A MINIMUM OF ONE LANE IN EACH DIRECTION
- NIGHTTIME SERVICE RAMP CLOSURES
- NIGHTTIME SINGLE LANE AND SHOULDER CLOSURES IN EACH DIRECTION ALONG 84TH STREET

RAMPS:

- VARIOUS NIGHTTIME SERVICE RAMP CLOSURES

NOTES:

- SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2B OVERVIEW	SHEET 330	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026203-S2B.DWG
LAYOUT NAME - 01
PLOT DATE : 11/1/2022 2:25 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:800 FT
WISDOT/CADDS SHEET 44

2

2

S. 92ND ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

RIPRAP

SIGN

EXIT 5 A–B
76 - 84 th St
1/2 MILE
EXIT ONLY

WO1-4C

N

WO1-6
48"X24"

70'EW'
72'EW'
74'EW'
50' TYP
76'EW'
78'EW'
80'EW'
82'EW'
82'TAB'

'EW'+91.20
52.00'RT

'EW'+91.10
50.43'RT

'EW'+91.20
52.00'RT

'EW'+39.21
6.31'RT

200' LANE WIDTH TRANSITION

200' LANE SHIFT

RIGHT LANE
MUST EXIT

EXIT 5 A–B
76 - 84 th St
EXIT ONLY

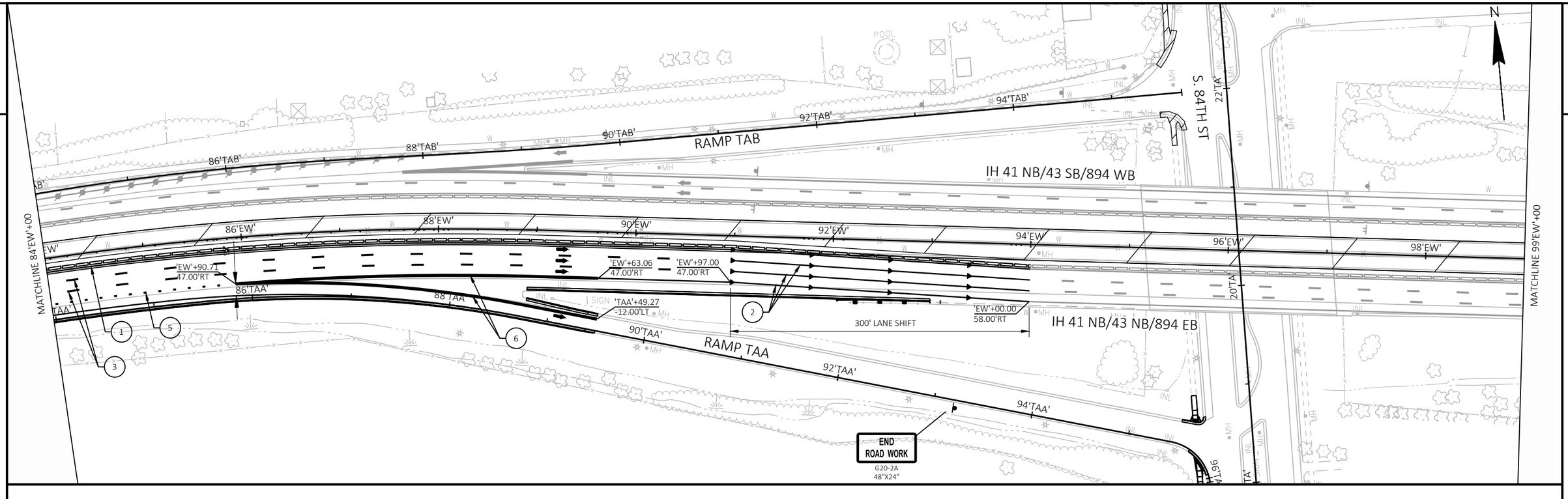
MATCHLINE 84'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2B	SHEET 331	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026204-S2B.DWG
LAYOUT NAME - 01

PLOT DATE : 11/1/2022 2:34 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



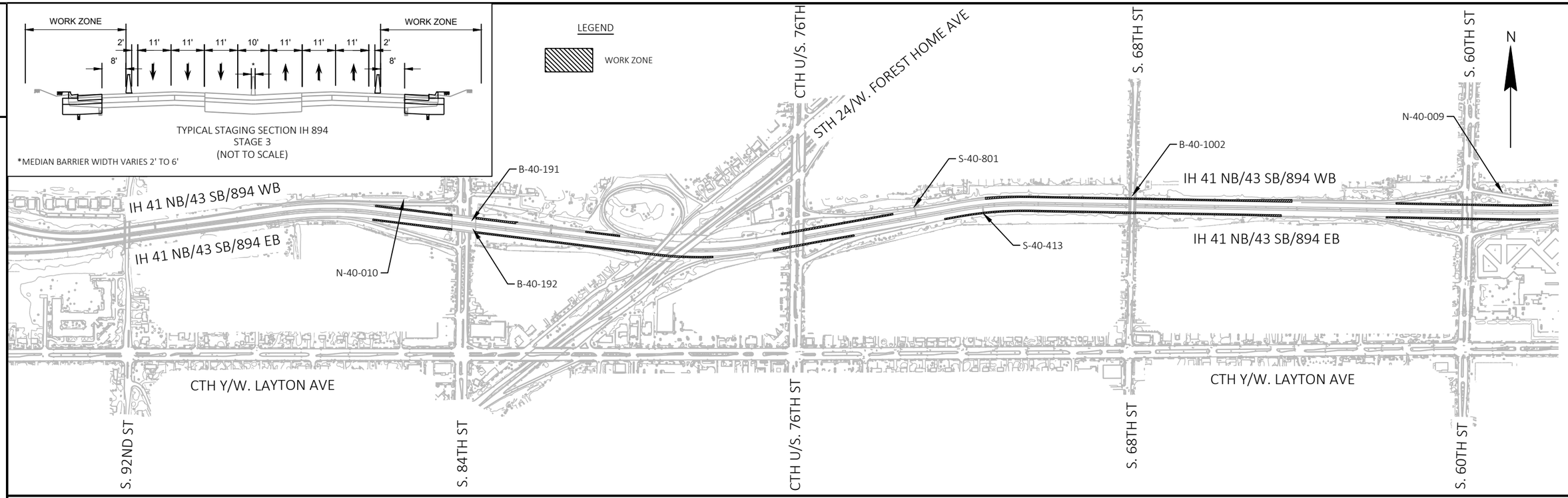
2

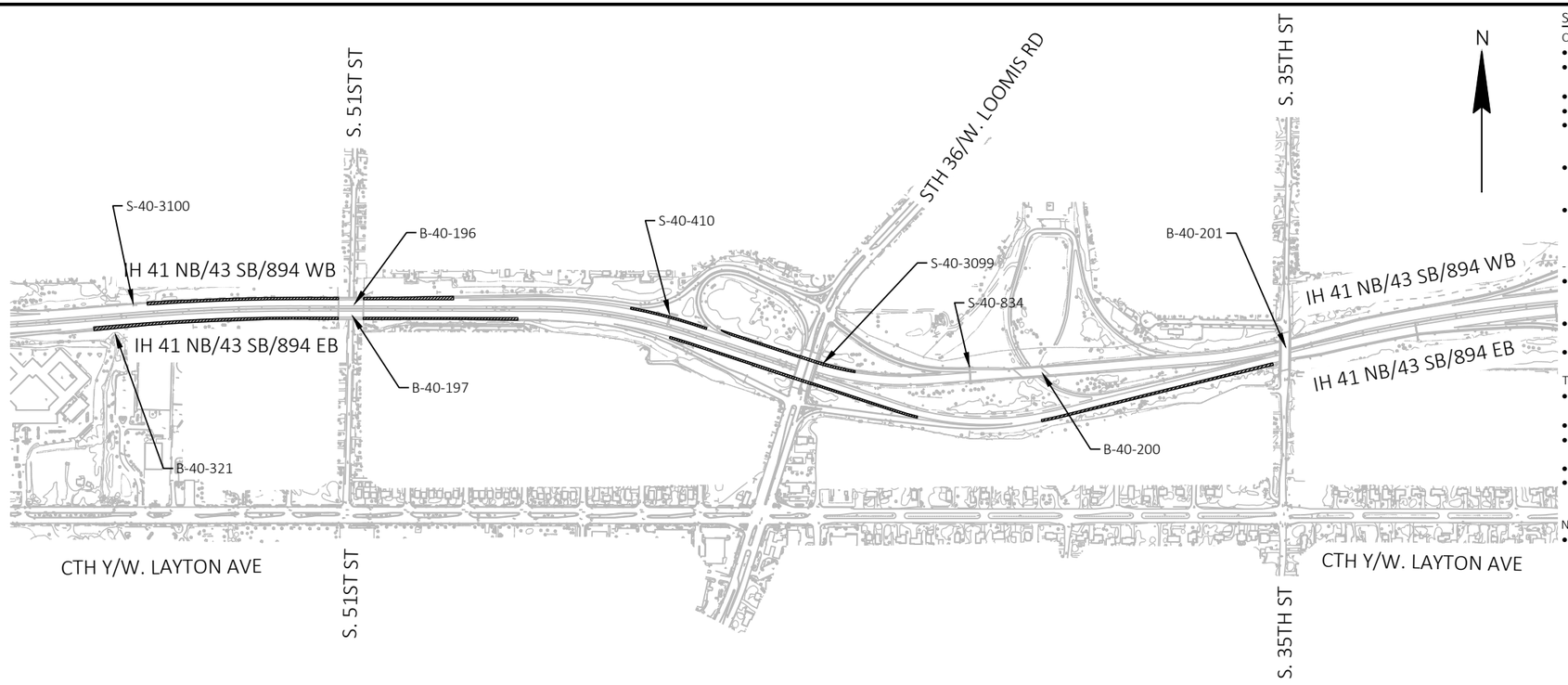
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 2B	SHEET 332	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026204-S2B.DWG
LAYOUT NAME - 02
PLOT DATE : 11/1/2022 2:37 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

TYPICAL STAGING SECTION IH 894
STAGE 3
(NOT TO SCALE)

*MEDIAN BARRIER WIDTH VARIES 2' TO 6'





STAGE 3 - IH 43/894

CONSTRUCTION:

- INSTALL TEMPORARY BARRIER WALL FOR OUTSIDE SHOULDER WORK ZONES ALONG IH 41/43/894
- REMOVE PAVEMENT MARKINGS FROM STAGE 2 IN CONFLICT WITH STAGE 3 TEMPORARY PAVEMENT MARKINGS AND PLACE STAGE 3 TEMPORARY PAVEMENT MARKINGS
- RECONSTRUCT OUTSIDE SHOULDER ALONG IH 41/43/894
- COMPLETE BASE PATCHING ALONG IH 41/43/894
- COMPLETE LOCAL ROAD BRIDGE OVERLAYS:
  B-40-201
  B-40-1002
- COMPLETE CANTILEVER SIGN STRUCTURES:
  S-40-3099
  S-40-3100
- COMPLETE FULL SPAN SIGN STRUCTURES:
  S-40-410
  S-40-413
  S-40-801
  FINISH MAINTENANCE WORK ON SIGN STRUCTURE S-40-834
- COMPLETE ALL NOISE BARRIER MAINTENANCE CONSTRUCTION:
  N-40-009
  N-40-010
- COMPLETE BOX CULVERT REPAIR:
  B-40-321
- INSTALL OUTSIDE PERMANENT LIGHTING ALONG IH 41/43/894

TRAFFIC:

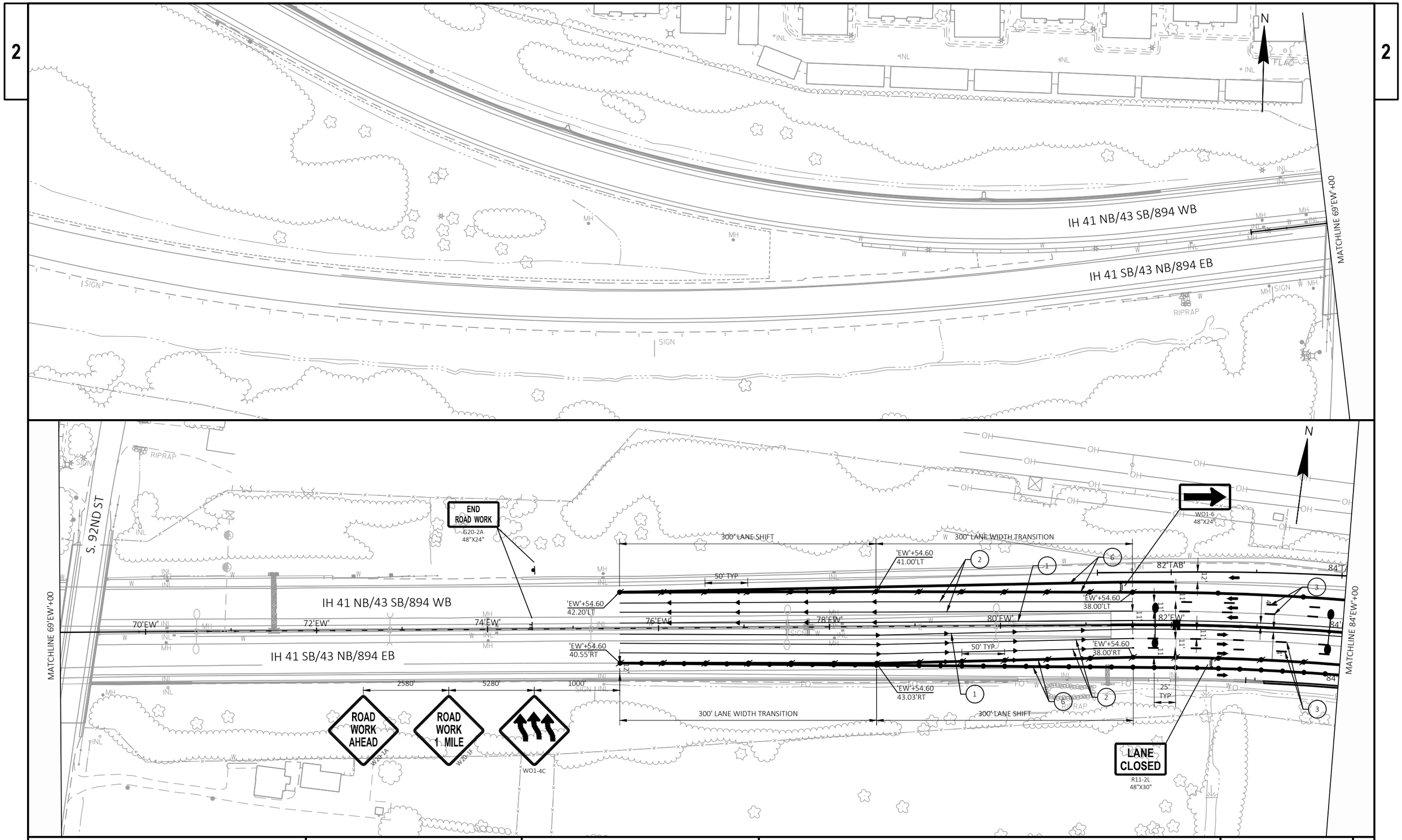
- THREE LANES OPEN ALONG IH 41/43/894 UTILIZING MEDIAN SHOULDER AND EXISTING TWO INSIDE LANES IN BOTH DIRECTIONS
- FULL FREEWAY CLOSURES ALONG IH 41/43/894 FOR FULL SPAN SIGN STRUCTURE INSTALLATION
- NIGHTTIME LANE CLOSURES ALONG IH 41/43/894 MAINTAINING A MINIMUM OF ONE LANE IN EACH DIRECTION
- NIGHTTIME SERVICE RAMP CLOSURES TO AID OUTSIDE SHOULDER RECONSTRUCTION OPERATIONS
- NIGHTTIME LOCAL ROAD CLOSURES TO COMPLETE BRIDGE OVERLAYS

NOTES:

- SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 3 OVERVIEW	SHEET 333	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026301-S3.DWG
LAYOUT NAME - 01
PLOT DATE : 11/1/2022 2:44 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:800 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 334	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 01

PLOT DATE : 11/17/2022 5:31 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LANE CLOSED
R11-2L
48"X30"

WO1-4C
48"X48"

RAMP TAB

86'TAB'
100' TYP
88'TAB'
90'TAB'
92'TAB'
94'TAB'

'EW'+49.10
38.00'LT
88'EW'
86'EW'
90'EW'
92'EW'
94'EW'
96'EW'
98'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

50' TYP
'EW'+89.45
50.00'RT
'EW'+99.10
38.00'RT

86'TAA'
88'TAA'
90'TAA'
92'TAA'
94'TAA'
25'
TYP
'TAA'+30.16
15.00'LT
RAMP TAA

WO5-52L
12"X36"

END
ROAD WORK
G20-2A
48"X24"

S. 84TH ST
22'TA'

WO4-1R

MATCHLINE 84'EW'+00

WO5-52L
12"X36"

RAMP FHB
'FHB'+03.03
'FHB'+99.22
14.16'RT
514' R
'FHB'+72.11
15.56'RT
100'FHB'
102'FHB'
104'FHB'
106'FHB'
108'FHB'
110'FHB'
112'FHB'
114'FHB'
25'
TYP
'FHB'+02.68
1.09'RT
'FHB'+21.22
9.93'RT
'FHB'+75.93
23.20'RT
100' TYP

'EW'+48.90
38.00'LT
'EW'+48.56
47.00'LT

EXIT
E5-1
72"X60"

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

100'EW'
102'EW'
104'EW'
106'EW'
108'EW'
110'EW'
112'EW'
114'EW'

WO4-1R

WO3-2

STH 24/W. FOREST HOME AVE
RAMP FHA
112'FHA'

MATCHLINE 99'EW'+00
MATCHLINE 114'EW'+00

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 335	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 02

PLOT DATE : 11/17/2022 5:37 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

STH 24/W. FOREST HOME AVE

CTH U/S. 76TH ST

MATCHLINE 114'EW'+00

RAMP FHA

RAMP TBB

RAMP TBA

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

'FHB'+58.35
9.05'RT

'EW'+58.14
38.00'LT

'EW'+95.86
38.00'RT

'FHA'+86.24
26.83'LT

'FHA'+88.12
15.00'LT

'EW'+68.92
38.00'RT

'EW'+70.34
49.48'RT

'FHA'+68.86
0.00'

'EW'+20.93
38.00'RT

'TBA'+97.72
33.50'LT

'TBA'+42.40
0.36'LT

'TBA'+27.74
0.00'

1963' R

END ROAD WORK
G20-2A
48"X24"

R1-2
36"X31"

WO5-52L
12"X36"

W04-1R

ROAD WORK AHEAD
W20-1A

W03-2

N

2

EXIT
E5-1
72"X60"

WO5-52L
12"X36"

S-40-801

S-40-413

2500' R

'TBB'+42.32
15.25'RT

'TBB'+71.66
12.93'RT

'TBB'+85.97
12.04'RT

'EW'+90.99
38.00'LT

'EW'+53.19
38.00'LT

'EW'+52.87
47.00'LT

'TBB'+41.36
34.90'RT

'TBA'+23.36
30.50'LT

'EW'+50.74
56.41'RT

'EW'+37.08
38.00'RT

'TBA'+43.06
9.41'LT

FOOTBRIDGE

WALLS

MATCHLINE 129'EW'+00

MATCHLINE 144'EW'+00

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 336	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 03

PLOT DATE : 11/17/2022 8:12 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

MATCHLINE 144'EW'+00

MATCHLINE 159'EW'+00

S. 68TH ST

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

146'EW' 148'EW' 150'EW' 152'EW' 154'EW' 156'EW' 158'EW'

RAMP TCC

RAMP TCB

160'TCC' 162'TCC' 164'TCC' 166'TCC' 168'TCC' 170'TCC' 172'TCC'

160'TCB' 162'TCB' 164'TCB' 166'TCB' 168'TCB' 170'TCB' 172'TCB'

'EW'+15.36 57.00'LT

'EW'+16.50 38.00'LT

'EW'+50.84 41.00'RT

'EW'+50.00 46.95'RT

'EW'+51.32 38.00'RT

'EW'+64.91 47.00'RT

'EW'+40.78 38.00'LT

'EW'+64.51 38.00'RT

'TCB'+15.84 165.11'LT

'TCB'+51.18 12.22'LT

'TCB'+28.76 12.25'LT

'TCB'+35.28 15.29'LT

2500' R

2515' R

100' TYP

50' TYP

25' TYP

WO5-52L 12"X36"

R1-2 36"X31"

WO5-2

WO4-1R

E5-1 72"X60"

EXIT

SIGN

SLAB

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 337	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 04

PLOT DATE : 11/17/2022 8:19 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

RAMP TCC

ROAD WORK AHEAD
W20-1A

S. 60TH ST

178'TCD'

RAMP TCD

180'TCD'

182'TCD'

END ROAD WORK
G20-2A
48"X24"

W05-52L
12"X36"

TCA'+81.39
145.70'LT

25' TYP

184'TCD'

EXIT
E5-1
72"X60"

2500' R

186'TCD'

'TCD'+33.15
11.71'RT

188'TCD'

IH 41 NB/43 SB/894 WB

'EW'+62.16
38.00'LT

100' TYP

188'EW'

186'EW'

'EW'+77.83
38.00'LT

182'EW'

180'EW'

178'EW'

176'EW'

184'EW'

'EW'+78.29
49.00'LT

'EW'+80.39
38.00'RT

50' TYP

50' TYP

'EW'+78.41
38.00'RT

25' TYP

IH 41 SB/43 NB/894 EB

'EW'+08.23
38.00'RT

188'TCA'

186'TCA'

'EW'+08.23
55.44'RT

184'TCA'

'TCA'+78.54
16.00'LT

182'TCA'

180'TCA'

178'TCA'

RAMP TCA

RAMP TCB

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

W03-2

YIELD
R1-2
36"X31"

W05-52L
12"X36"

N

MATCHLINE 174'EW'+00

'TCD'+21.34
11.65'RT

S-40-3100

190'TCD'

192'TCD'

194'TCD'

'TCD'+43.61
12.72'RT

'EW'+21.96
38.00'LT

TYP

190'EW'

192'EW'

194'EW'

196'EW'

198'EW'

200'EW'

202'EW'

204

190'TCA'

192'TCA'

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

S. 51ST ST

SUBSTATION

N

MATCHLINE 189'EW'+00

MATCHLINE 204'EW'+00

ACCESS B-40-321 FROM IH 41 SB/43 NB/ 894 EB OUTSIDE SHOULDER. AFTER HONEY CREEK - FLOW IS DIVERTED TO ONE CELL OF THE BOX USING EROSION CONTROL MEASURES SHOWN IN CONSTRUCTION DETAIL "CULVERT REPAIR WORK" ANY CONSTRUCTION MATERIALS AND EQUIPMENT MAY BE LOWERED INTO THE DRY CELL OF THE BOX CULVERT.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 338	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 05
PLOT DATE : 11/17/2022 5:53 PM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCHLINE 204'EW'+00

MATCHLINE 219'EW'+00

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

WO5-52L
12"X36"

'EW'+61.46
38.00'LT

'EW'+00.00
58.55'LT

'EW'+39.45
38.00'LT

'EW'+27.81
38.00'RT

'EW'+75.00
50.75'RT

'LRB'+25.59
11.90'LT

'LRB'+12.65
12.18'LT

'LRC'+76.51
16.00'RT

'EW'+63.00
36.00'LT

1500' R

25' TYP

50' TYP

206'EW'

208'EW'

210'EW'

212'EW'

214'EW'

216'EW'

218'EW'

206'LRC'

208'LRC'

210'LRC'

212'LRC'

214'LRC'

216'LRC'

218'LRC'

210'LRB'

212'LRB'

214'LRB'

216'LRB'

218'LRB'

RAMP LRC

RAMP LRD

RAMP LRE

RAMP LRB

RAMP LRA

220'LRC

222'LRD'

224'LRD'

226'LRD'

234'LRE'

220'EW'

222'EW'

224'EW'

226'EW'

228'EW'

230'EWW'

232'EWE'

234'EWE'

220'LRB'

222'LRB'

224'LRB'

226'LRB'

228'LRB'

230'LRA'

232'LRA'

'LRC'+15.00
0.65'RT

'EW'+81.30
38.00'LT

'EW'+00.45
38.00'RT

'EW'+16.07
50.00'RT

'EW'+17.27
38.00'RT

'LRB'+83.23
14.99'LT

'EWW'+81.53
28.99'LT

'LRA'+74.22
4.33'LT

'LRA'+71.29
31.69'LT

300' LANE SHIFT

100' TYP

S-40-3099

WO1-6
48"X24"

WO4-3R

WO4-1R

WO5-52L
12"X36"

E5-1
72"X60"

EXIT

ROAD WORK AHEAD
W20-1A

STH 36/W. LOOMIS RD

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 339	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 06

PLOT DATE : 11/17/2022 5:58 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

END ROAD WORK
G20-2A
48"X24"

WO6-5L
12"X36"

236'LRE'

RAMP LRD

'EWW'+00.00
42.99'LT

'LRE'+80.58
14.63'RT

CC

'EWW'+97.80
28.99'LT

234'EWW'

226'EWW'

238'LRE'

S-40-834

25'
TYP

EXIT

E5-1
72"X60"

240'LRE'

238'EWW'

100' TYP

240'EWW'

'EWW'+05.69
28.88'LT

'EWW'+61.06
40.76'LT

IH 41 NB/43 SB/894 WB

RIGHT LANE
MUST EXIT

R3-33R
78"X36"

242'EWW'

244'EWW'

246'EWW'

248'EWW'

'EWW'+00.00
40.99'LT

50' TYP

WO1-6
48"X24"

300' LANE SHIFT

MATCHLINE 249'EWW'+00

MATCHLINE 234'EWW'+00

'EWE'+96.52
24.00'RT

WO1-4C
48"X48"

236'EWE'

238'EWE'

240'EWE'

242'EWE'

244'EWE'

246'EWE'

248'EWE'

'LRA'

RAMP LRA

236'LRA'

238'LRA'

240'LRA'

242'LRA'

244'LRA'

246'LRA'

50' TYP

'EWE'+81.88
24.00'RT

25'
TYP

'EWE'+90.81
24.00'RT

IH 41 SB/43 NB/894 EB

'LRA'+09.16
1.08'LT

'LRA'+74.24
17.44'LT

930' R

1516' R

'EWE'+51.19
32.53'RT

R1-2
36"X31"

FLAG

1000'

5280'

2580'

ROAD WORK 1 MILE
W20-1F

ROAD WORK AHEAD
W20-1A

WO1-4C

S. 35TH ST

275' LANE WIDTH TRANSITION

50' TYP

'EWW'+76.96
44.29'LT

250'EWW'

252'EWW'

254'EWW'

256'EWW'

258'EWW'

260'EWW'

230'EWE'

232'EWE'

254'EWE'

256'EWE'

258'EWE'

260'EWE'

'EWE'+45.00
22.86'RT

IH 41 NB/43 SB/894 WB

WO1-6
48"X24"

IH 41 SB/43 NB/894 EB

255' LANE WIDTH TRANSITION

'EWE'+00.00
38.48'RT

250' LANE SHIFT

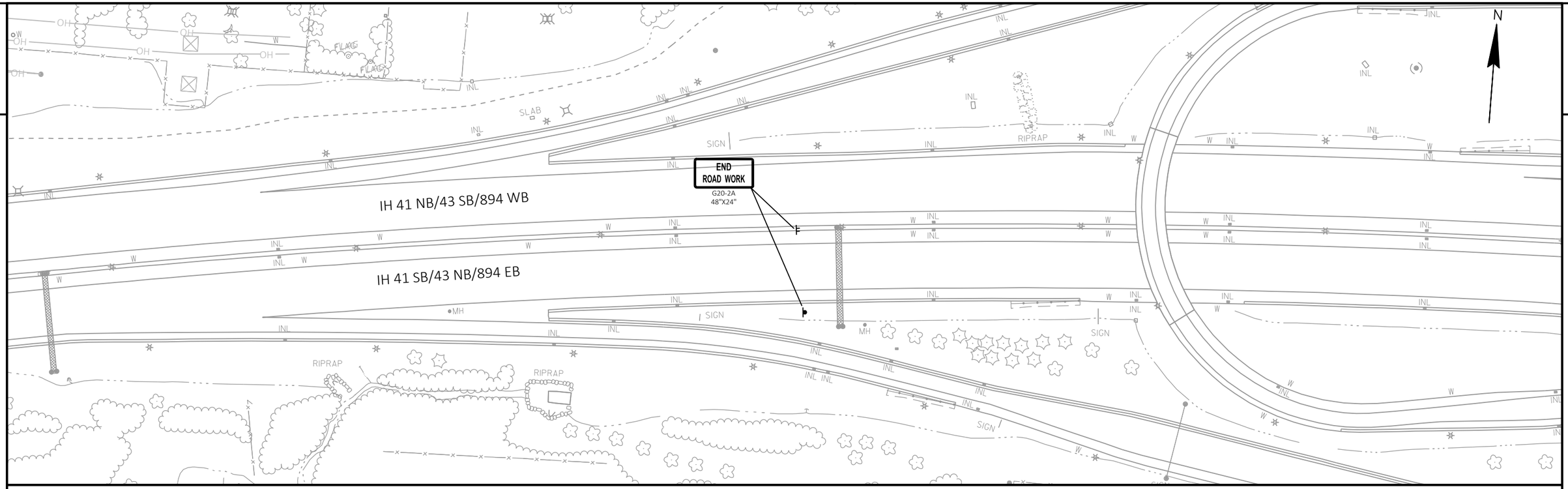
'EWE'+50.00
48.41'RT

N

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 340	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 07

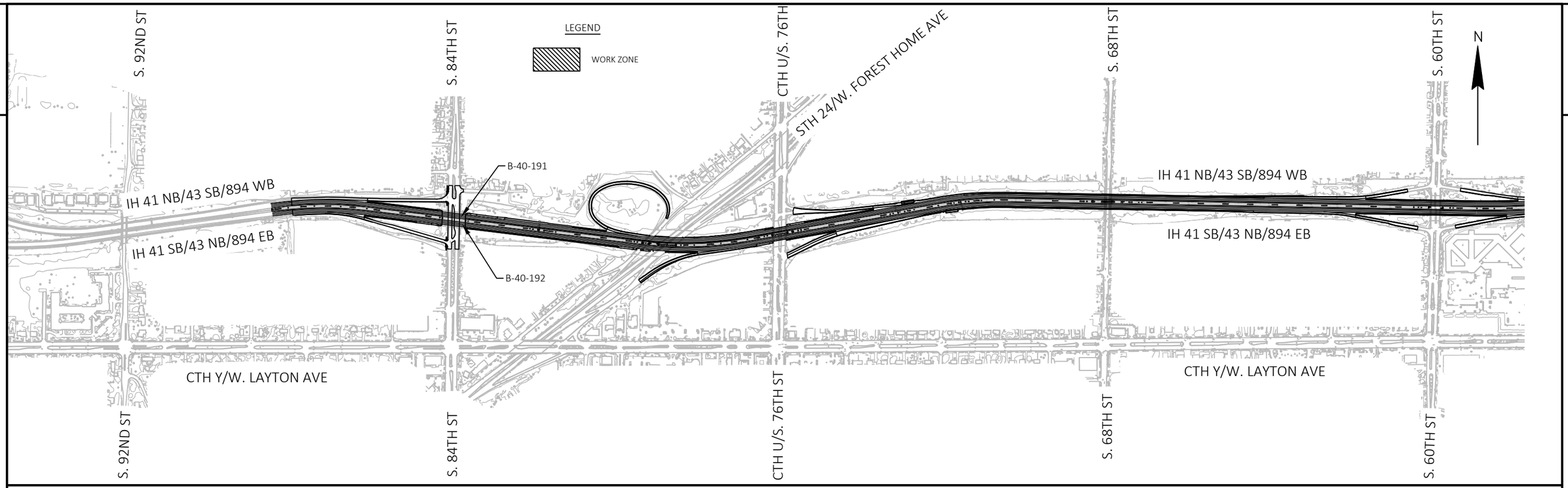
PLOT DATE : 11/17/2022 6:03 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:100 FT

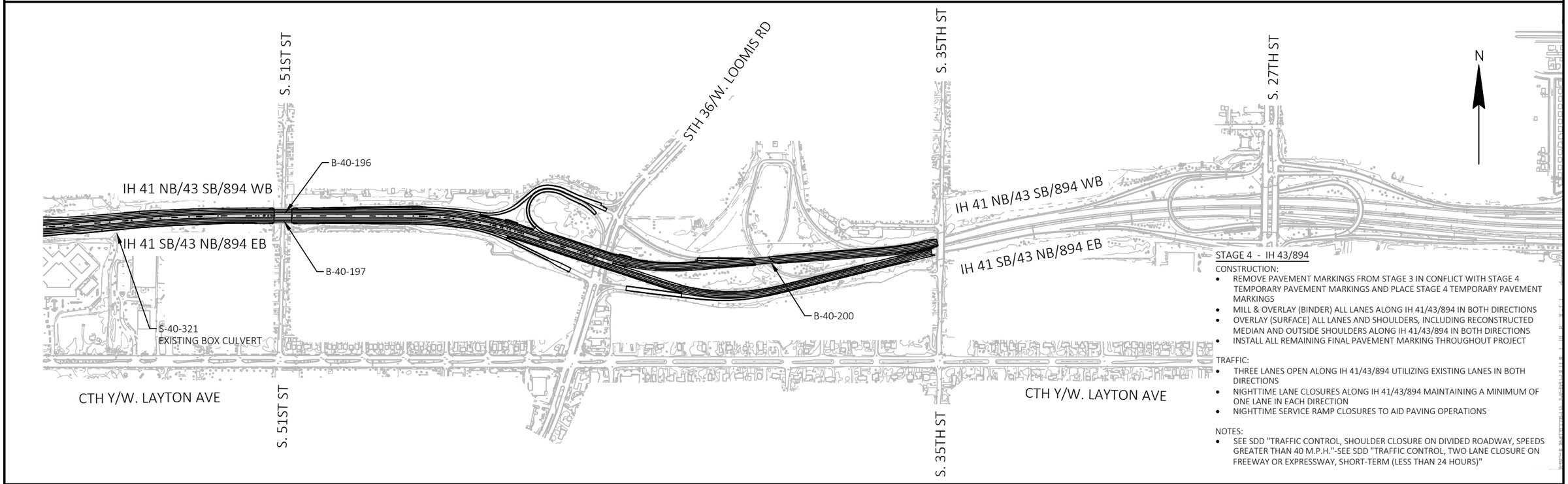


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	STAGE 3	SHEET 341	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_BIABEUM\D0951536\11004570-026302-S3.DWG
LAYOUT NAME - 08

PLOT DATE : 11/1/2022 5:29 PM PLOT BY : BIABEU, MARIE PAULE PLOT NAME : PLOT SCALE : ##########





STAGE 4 - IH 43/894

CONSTRUCTION:

- REMOVE PAVEMENT MARKINGS FROM STAGE 3 IN CONFLICT WITH STAGE 4 TEMPORARY PAVEMENT MARKINGS AND PLACE STAGE 4 TEMPORARY PAVEMENT MARKINGS
- MILL & OVERLAY (BINDER) ALL LANES ALONG IH 41/43/894 IN BOTH DIRECTIONS
- OVERLAY (SURFACE) ALL LANES AND SHOULDERS, INCLUDING RECONSTRUCTED MEDIAN AND OUTSIDE SHOULDERS ALONG IH 41/43/894 IN BOTH DIRECTIONS
- INSTALL ALL REMAINING FINAL PAVEMENT MARKING THROUGHOUT PROJECT

TRAFFIC:

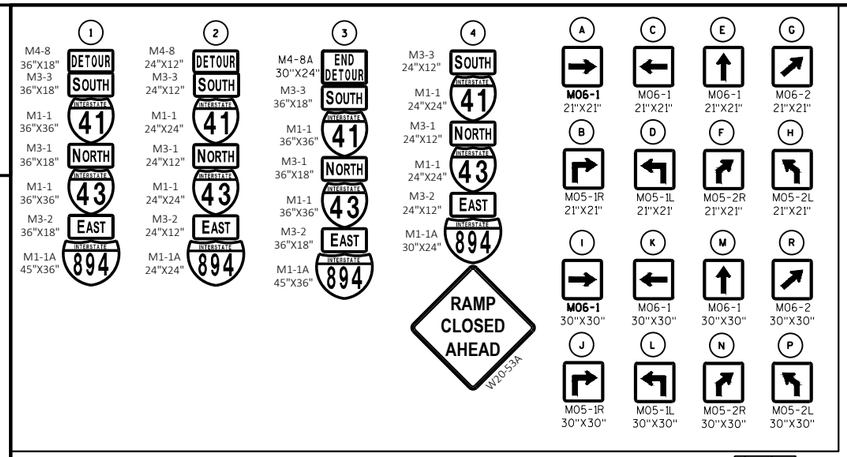
- THREE LANES OPEN ALONG IH 41/43/894 UTILIZING EXISTING LANES IN BOTH DIRECTIONS
- NIGHTTIME LANE CLOSURES ALONG IH 41/43/894 MAINTAINING A MINIMUM OF ONE LANE IN EACH DIRECTION
- NIGHTTIME SERVICE RAMP CLOSURES TO AID PAVING OPERATIONS

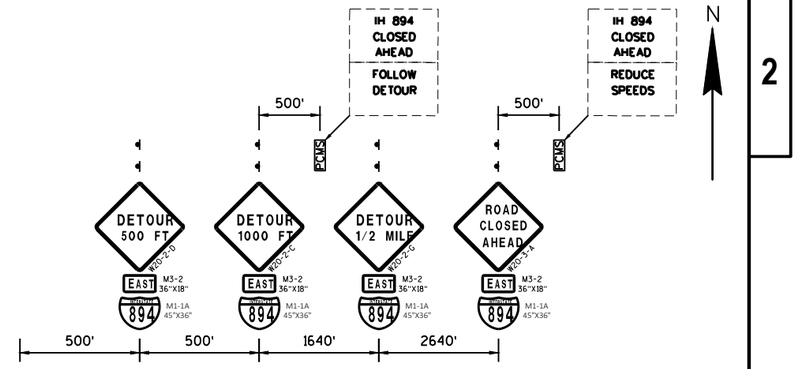
NOTES:

- SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H."-SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)"

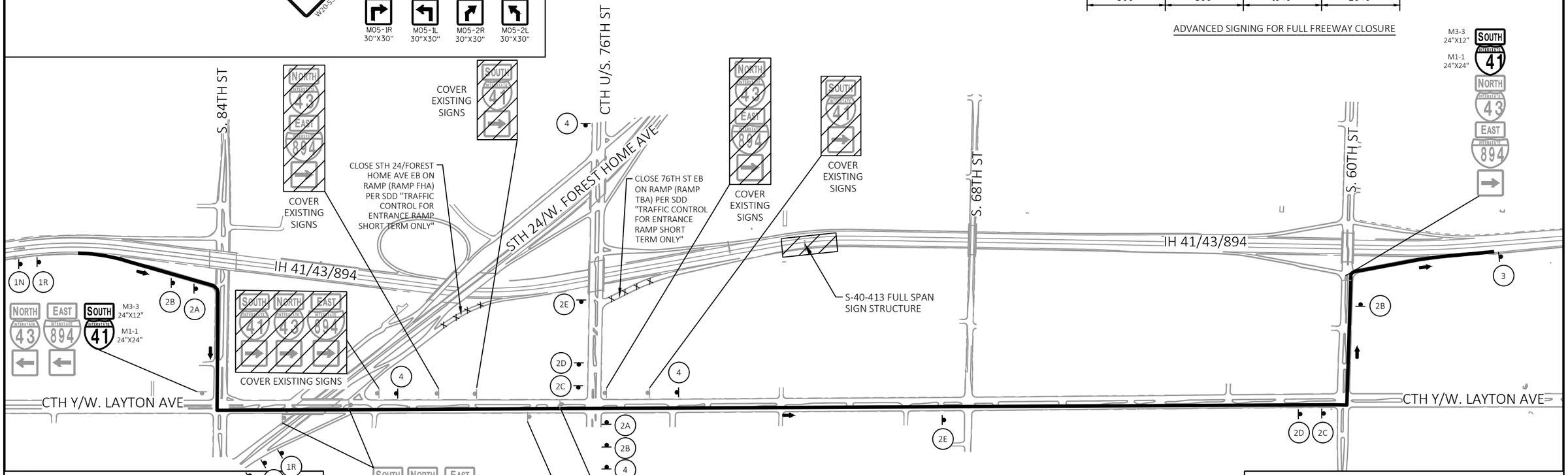
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 4 OVERVIEW	SHEET 342	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-026401-S4.DWG
LAYOUT NAME - 01
PLOT DATE : 10/26/2022 3:44 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:800 FT
WISDOT/CADDS SHEET 44





ADVANCED SIGNING FOR FULL FREEWAY CLOSURE



LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

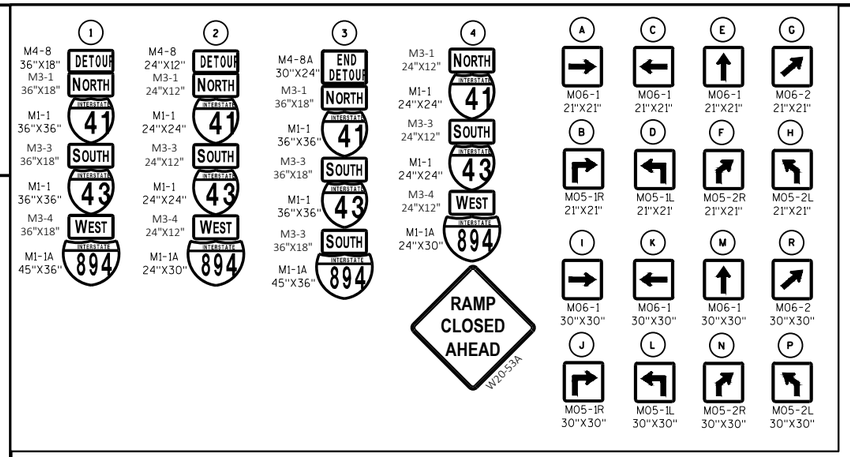
LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

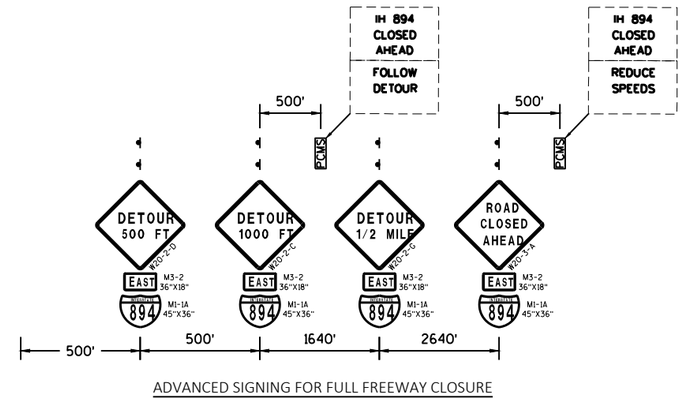
ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

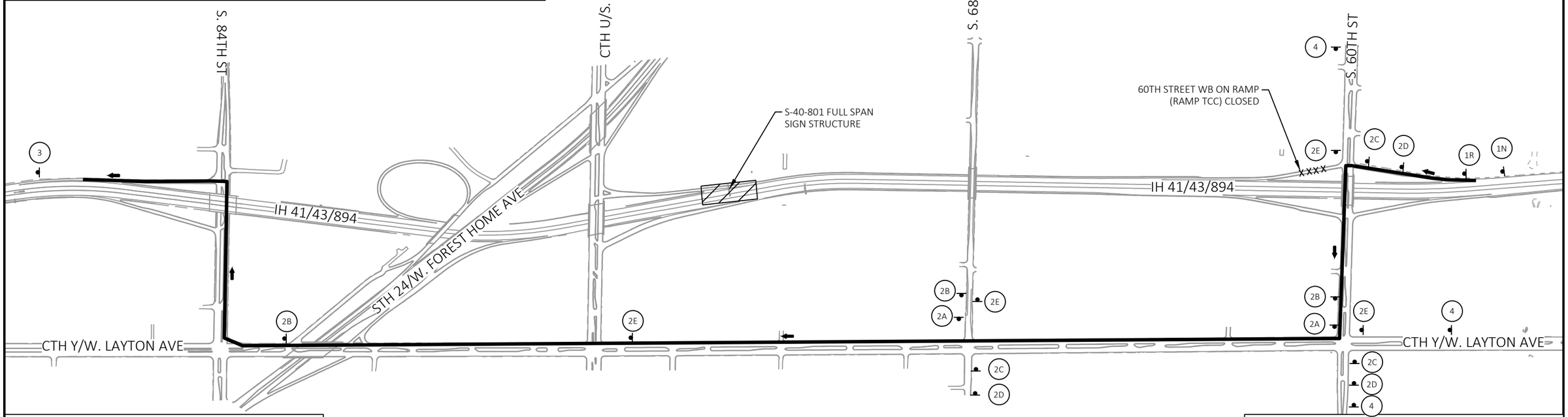
INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 41 SB/43 NB/894 EB (S-40-413)	SHEET 343	E





ADVANCED SIGNING FOR FULL FREEWAY CLOSURE



LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

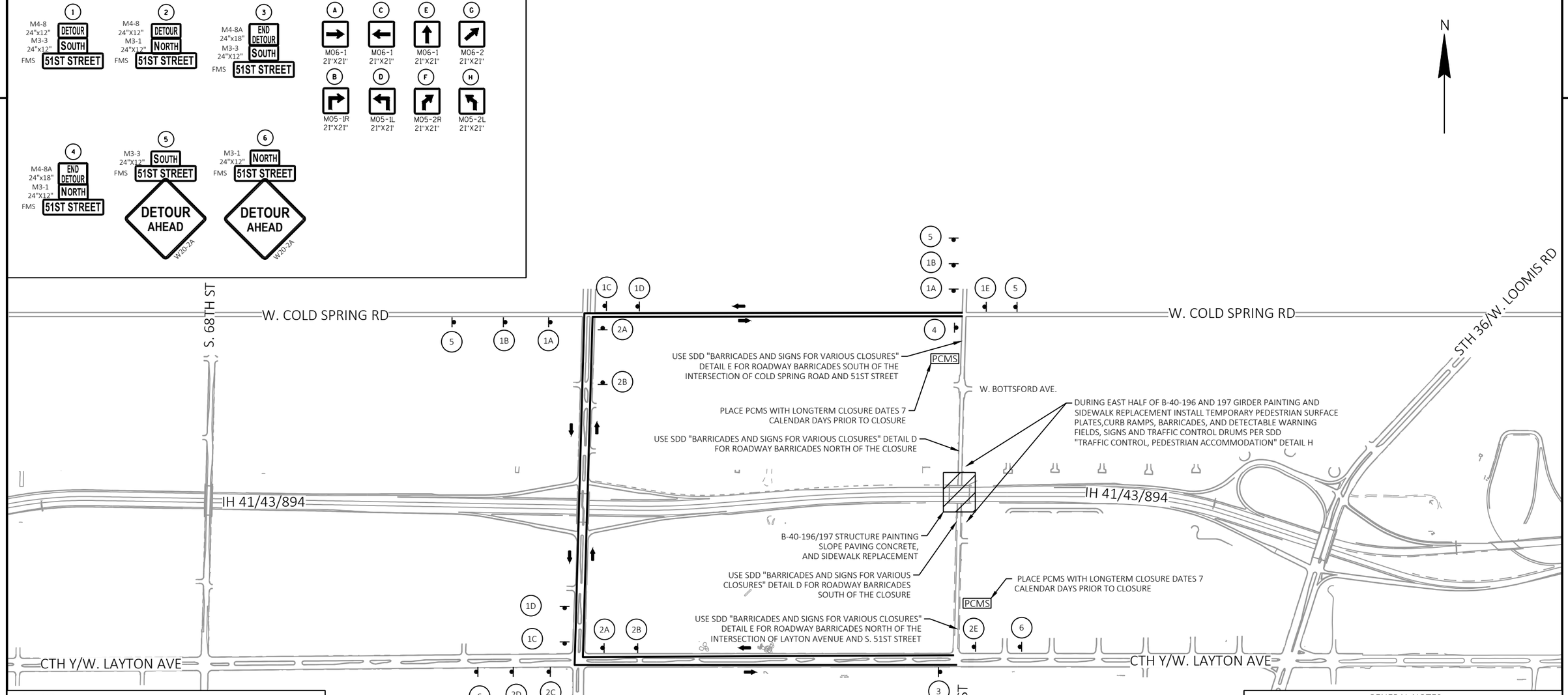
LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 41 NB/43 SB/894 WB (S-40-801)	SHEET 344	E



LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

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SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

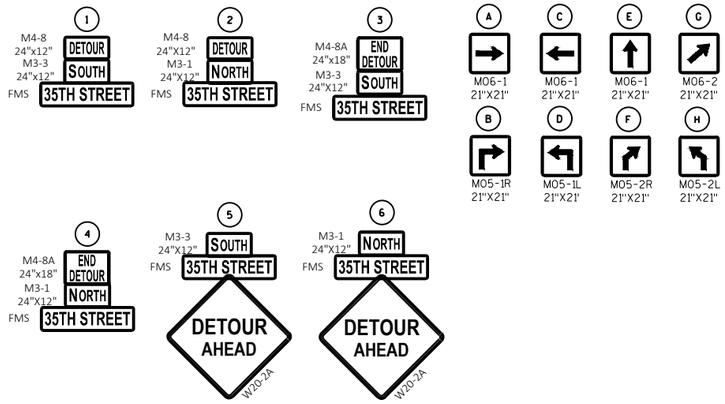
LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

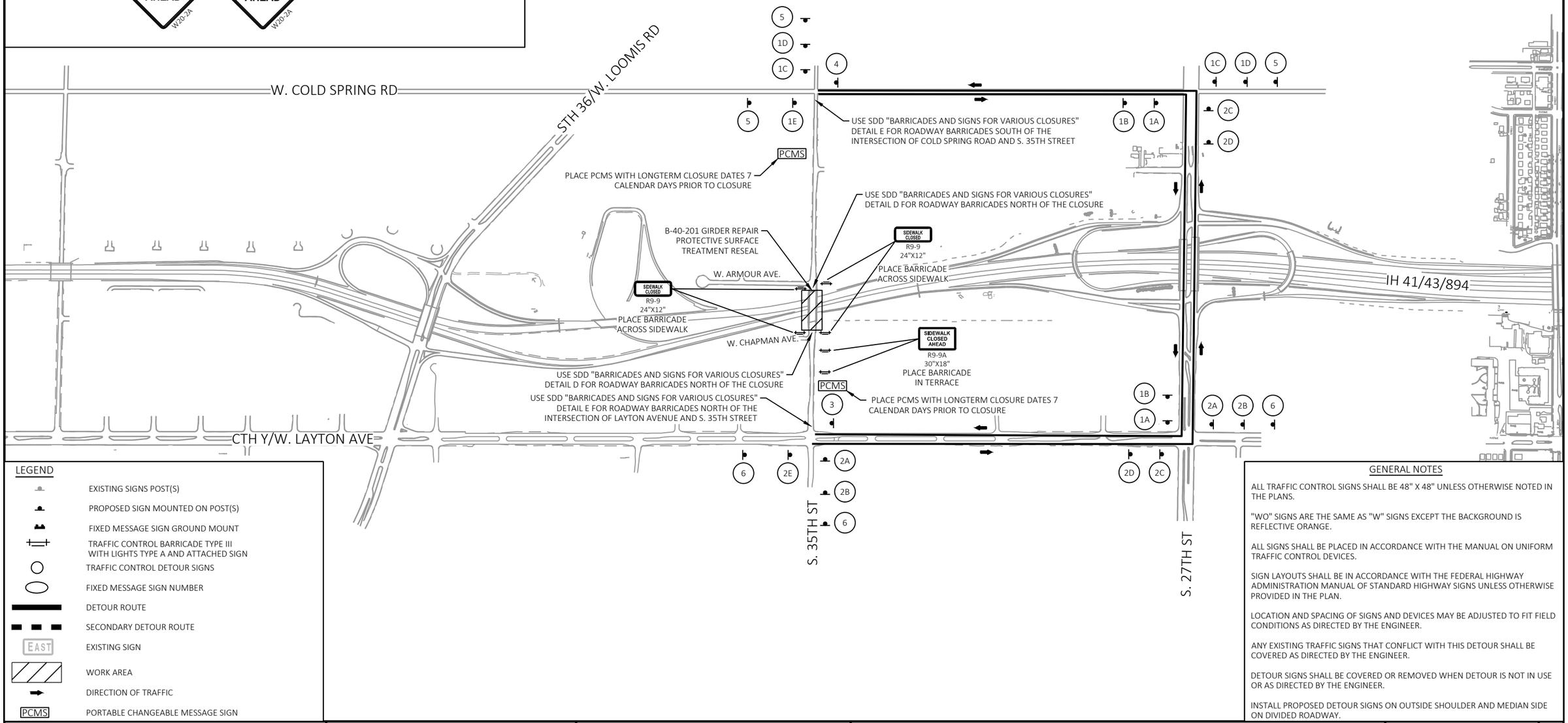
ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - 51ST STREET (B-40-196/197)	SHEET 345	E





LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

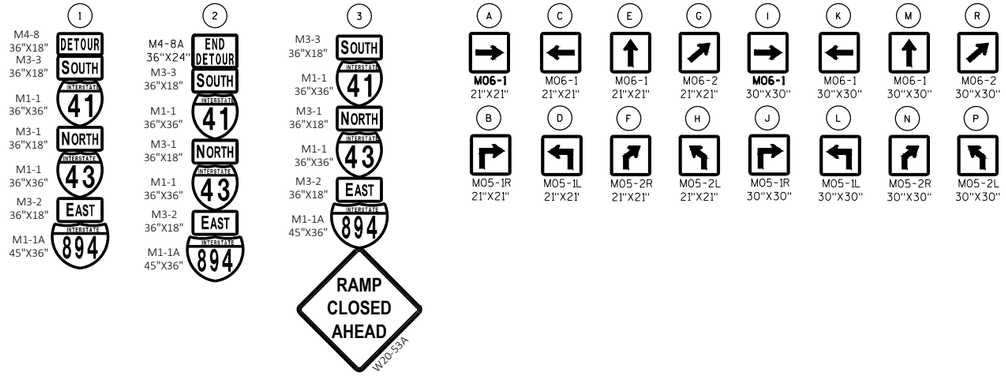
LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - 35TH STREET (B-40-201)	SHEET 346	E



GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

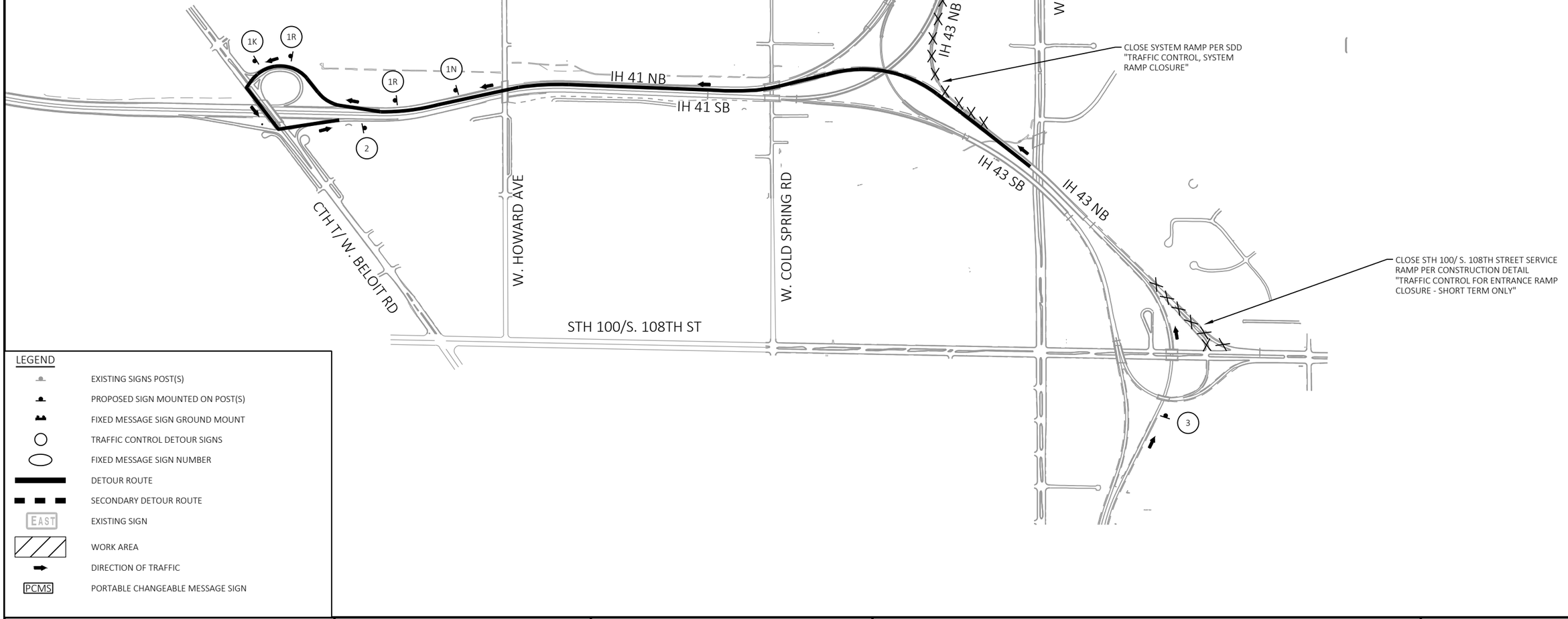
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

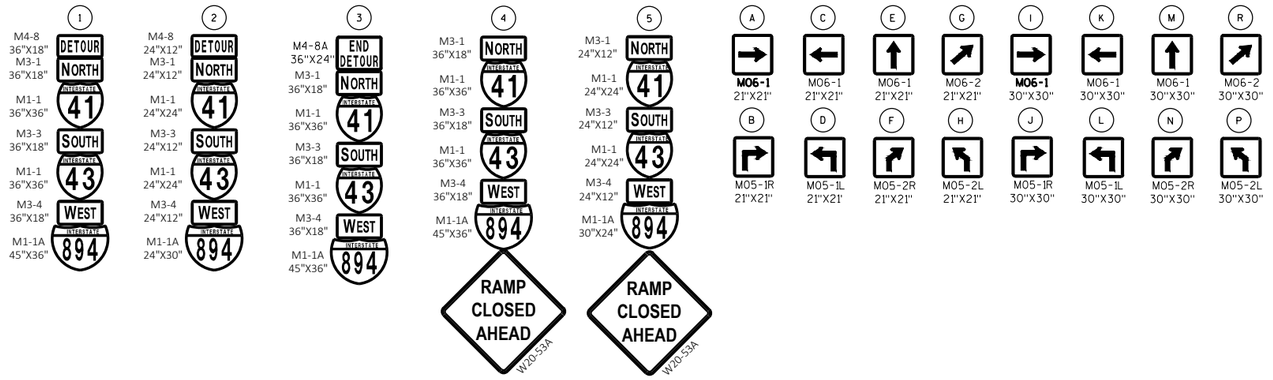
INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

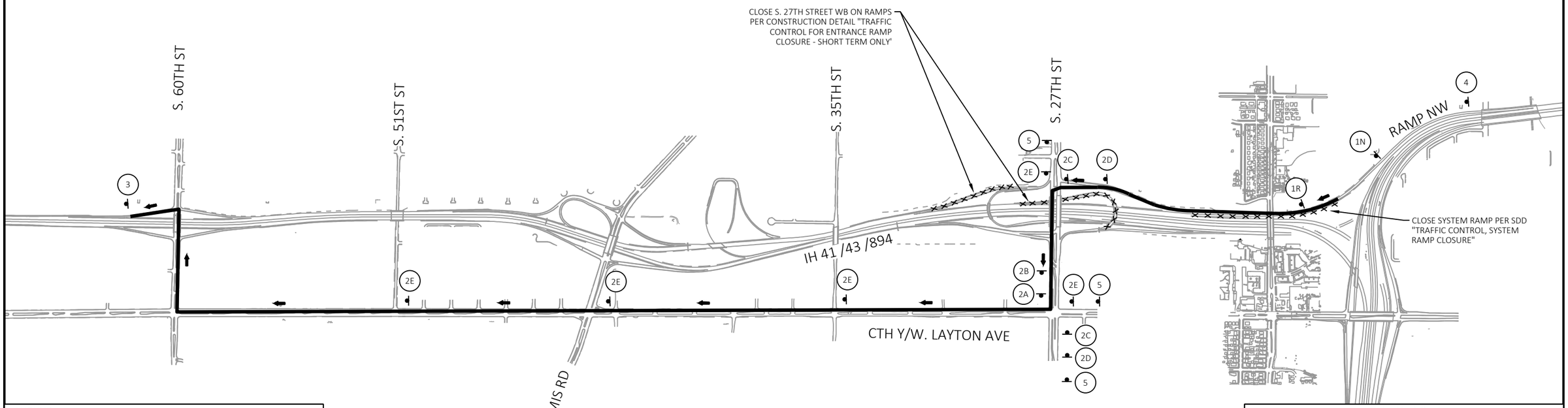


LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 43 NB RAMP	SHEET 347	E





LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

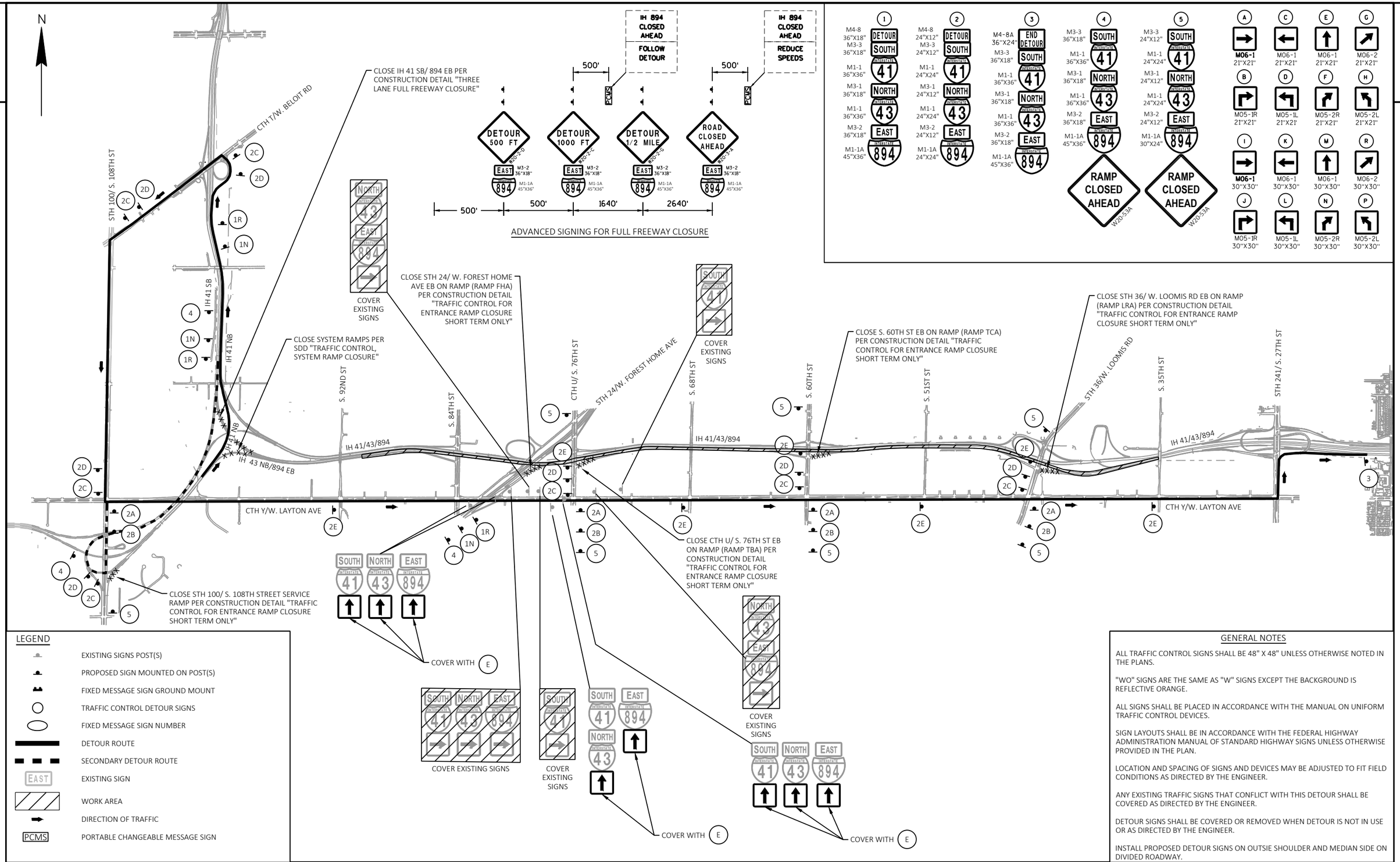
LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - RAMP NW	SHEET 348	E



LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

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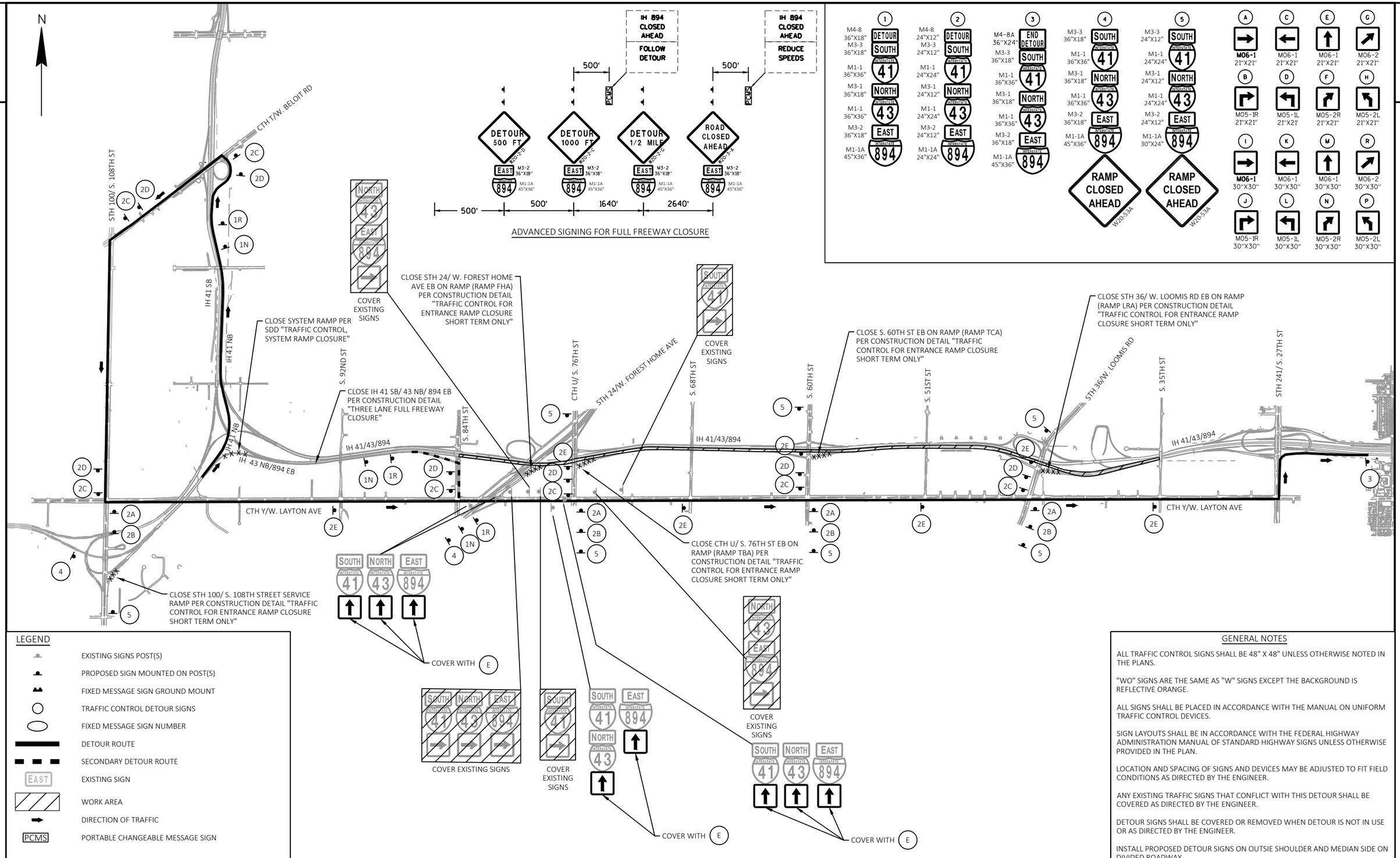
INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 41 SB/43 NB/894 EB FULL CLOSURE - HALE INTERCHANGE TO STH 241	SHEET 349	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-027007-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 5/3/2023 2:39 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42



LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
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GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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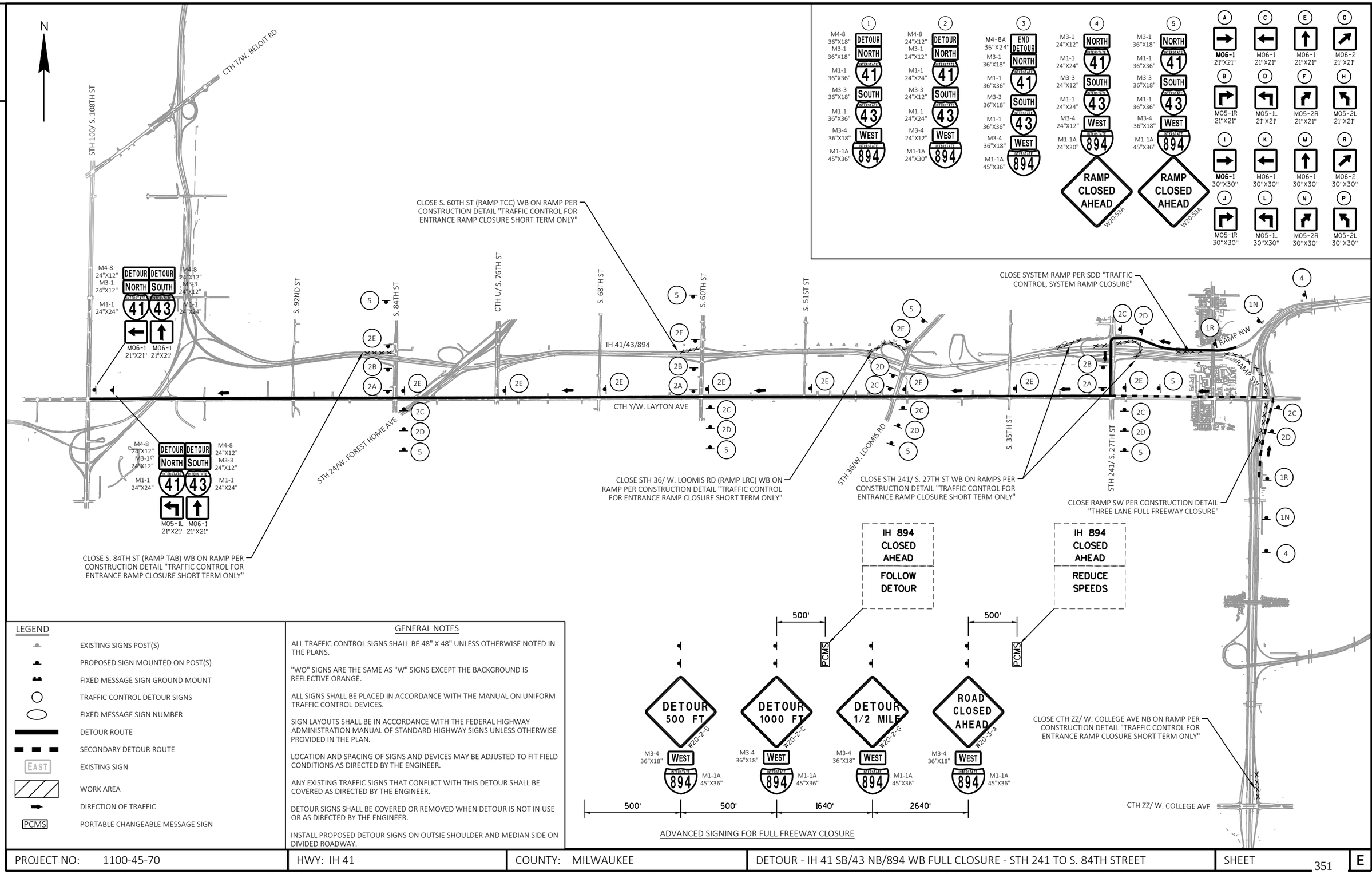
DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 41 SB/43 NB/894 EB FULL CLOSURE - S. 84TH STREET TO STH 241	SHEET 350	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-027008-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 5/3/2023 2:53 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42



ADVANCED SIGNING FOR FULL FREEWAY CLOSURE

LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

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ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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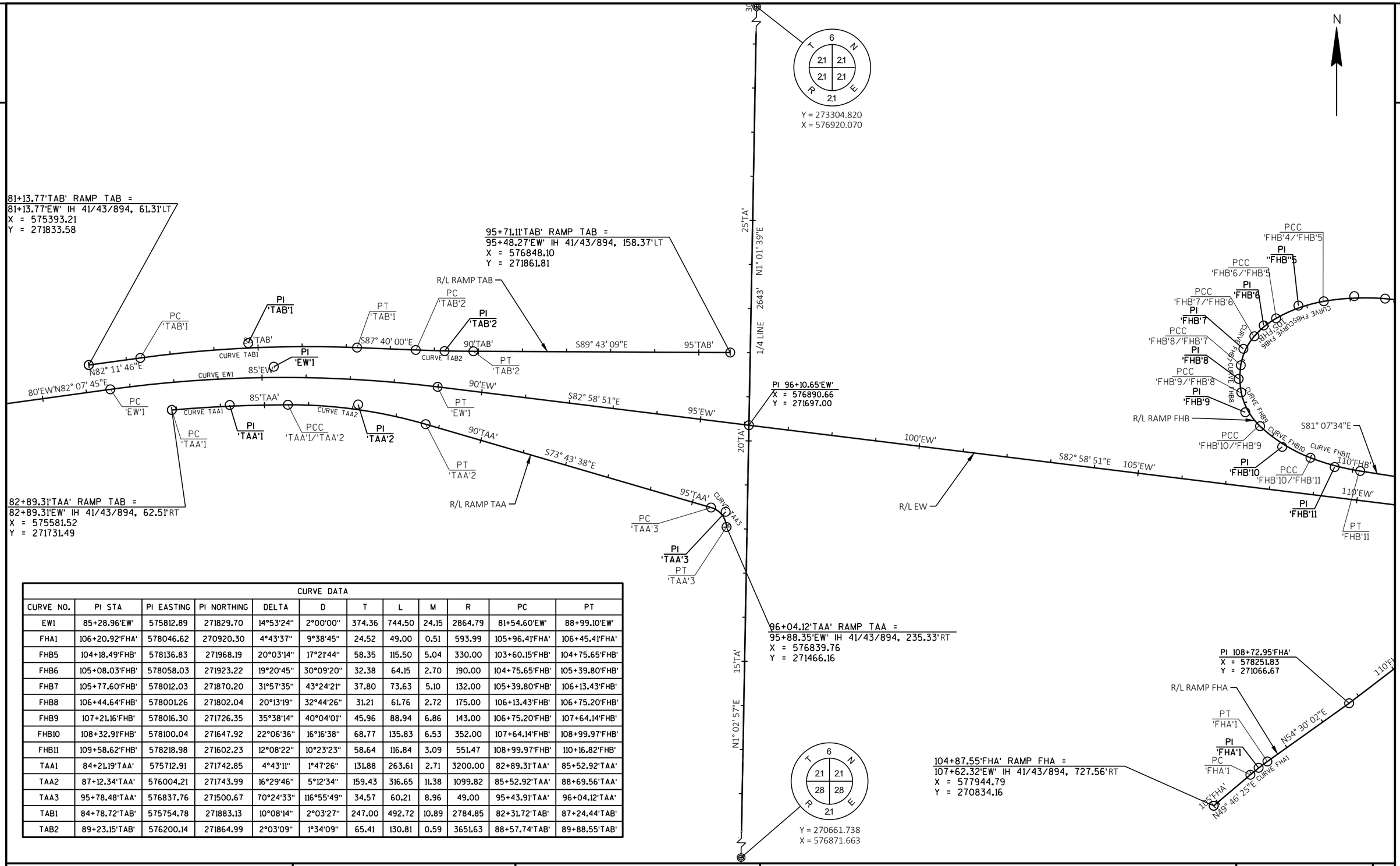
DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 41 SB/43 NB/894 WB FULL CLOSURE - STH 241 TO S. 84TH STREET	SHEET 351 E

2



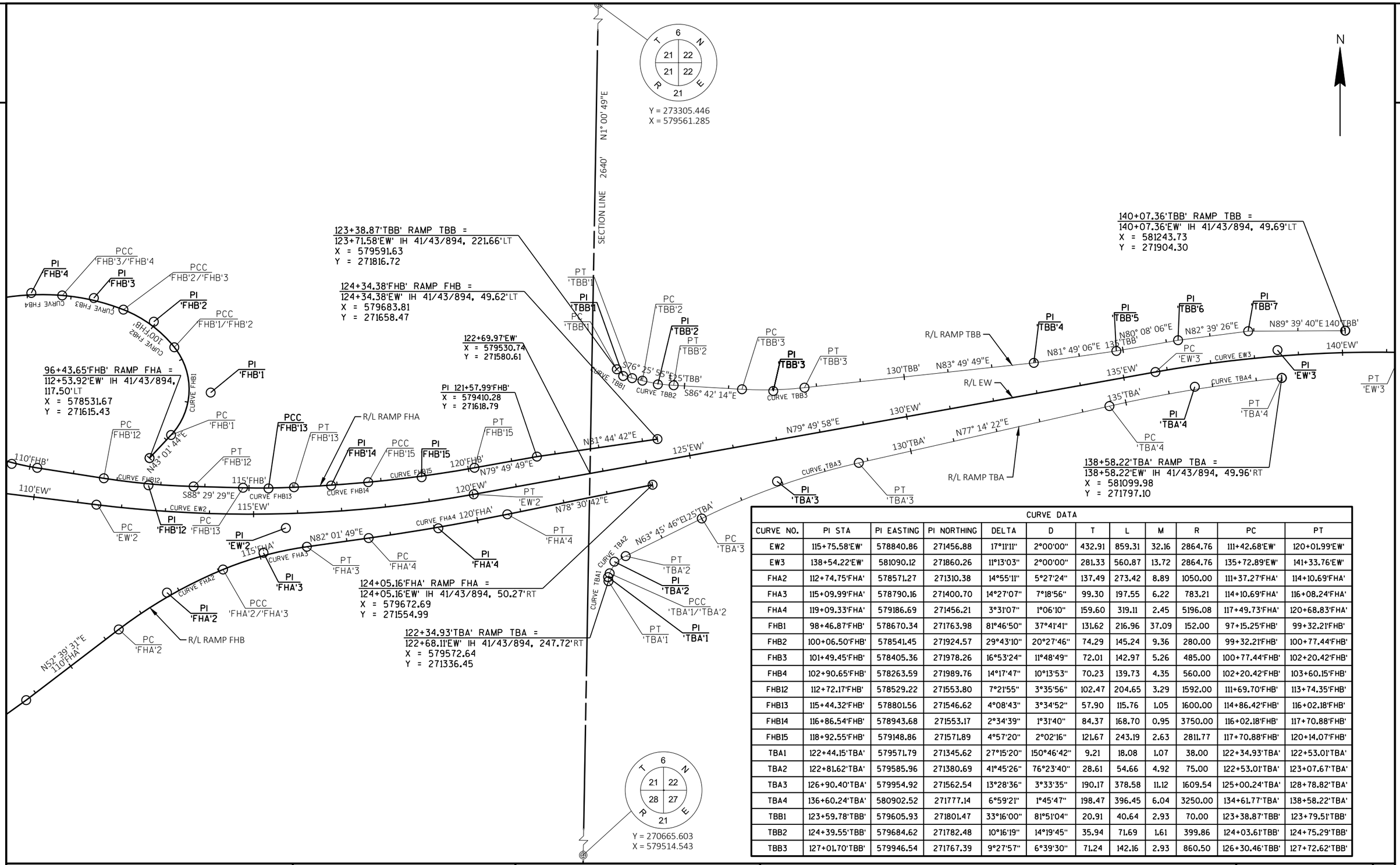
CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
EW1	85+28.96'EW'	575812.89	271829.70	14°53'24"	2°00'00"	374.36	744.50	24.15	2864.79	81+54.60'EW'	88+99.10'EW'
FHA1	106+20.92'FHA'	578046.62	270920.30	4°43'37"	9°38'45"	24.52	49.00	0.51	593.99	105+96.41'FHA'	106+45.41'FHA'
FHB5	104+18.49'FHB'	578136.83	271968.19	20°03'14"	17°21'44"	58.35	115.50	5.04	330.00	103+60.15'FHB'	104+75.65'FHB'
FHB6	105+08.03'FHB'	578058.03	271923.22	19°20'45"	30°09'20"	32.38	64.15	2.70	190.00	104+75.65'FHB'	105+39.80'FHB'
FHB7	105+77.60'FHB'	578012.03	271870.20	31°57'35"	43°24'21"	37.80	73.63	5.10	132.00	105+39.80'FHB'	106+13.43'FHB'
FHB8	106+44.64'FHB'	578001.26	271802.04	20°13'19"	32°44'26"	31.21	61.76	2.72	175.00	106+13.43'FHB'	106+75.20'FHB'
FHB9	107+21.16'FHB'	578016.30	271726.35	35°38'14"	40°04'01"	45.96	88.94	6.86	143.00	106+75.20'FHB'	107+64.14'FHB'
FHB10	108+32.91'FHB'	578100.04	271647.92	22°06'36"	16°16'38"	68.77	135.83	6.53	352.00	107+64.14'FHB'	108+99.97'FHB'
FHB11	109+58.62'FHB'	578218.98	271602.23	12°08'22"	10°23'23"	58.64	116.84	3.09	551.47	108+99.97'FHB'	110+16.82'FHB'
TAA1	84+21.19'TAA'	575712.91	271742.85	4°43'11"	1°47'26"	131.88	263.61	2.71	3200.00	82+89.31'TAA'	85+52.92'TAA'
TAA2	87+12.34'TAA'	576004.21	271743.99	16°29'46"	5°12'34"	159.43	316.65	11.38	1099.82	85+52.92'TAA'	88+69.56'TAA'
TAA3	95+78.48'TAA'	576837.76	271500.67	70°24'33"	116°55'49"	34.57	60.21	8.96	49.00	95+43.91'TAA'	96+04.12'TAA'
TAB1	84+78.72'TAB'	575754.78	271883.13	10°08'14"	2°03'27"	247.00	492.72	10.89	2784.85	82+31.72'TAB'	87+24.44'TAB'
TAB2	89+23.15'TAB'	576200.14	271864.99	2°03'09"	1°34'09"	65.41	130.81	0.59	3651.63	88+57.74'TAB'	89+88.55'TAB'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 352	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027201-AD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/26/2022 3:51 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:200 FT

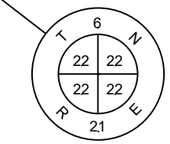
2



CURVE DATA

CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
EW2	115+75.58'EW'	578840.86	271456.88	17°11'11"	2°00'00"	432.91	859.31	32.16	2864.76	111+42.68'EW'	120+01.99'EW'
EW3	138+54.22'EW'	581090.12	271860.26	11°13'03"	2°00'00"	281.33	560.87	13.72	2864.76	135+72.89'EW'	141+33.76'EW'
FHA2	112+74.75'FHA'	578571.27	271310.38	14°55'11"	5°27'24"	137.49	273.42	8.89	1050.00	111+37.27'FHA'	114+10.69'FHA'
FHA3	115+09.99'FHA'	578790.16	271400.70	14°27'07"	7°18'56"	99.30	197.55	6.22	783.21	114+10.69'FHA'	116+08.24'FHA'
FHA4	119+09.33'FHA'	579186.69	271456.21	3°31'07"	1°06'10"	159.60	319.11	2.45	5196.08	117+49.73'FHA'	120+68.83'FHA'
FHB1	98+46.87'FHB'	578670.34	271763.98	81°46'50"	37°41'41"	131.62	216.96	37.09	152.00	97+15.25'FHB'	99+32.21'FHB'
FHB2	100+06.50'FHB'	578541.45	271924.57	29°43'10"	20°27'46"	74.29	145.24	9.36	280.00	99+32.21'FHB'	100+77.44'FHB'
FHB3	101+49.45'FHB'	578405.36	271978.26	16°53'24"	11°48'49"	72.01	142.97	5.26	485.00	100+77.44'FHB'	102+20.42'FHB'
FHB4	102+90.65'FHB'	578263.59	271989.76	14°17'47"	10°13'53"	70.23	139.73	4.35	560.00	102+20.42'FHB'	103+60.15'FHB'
FHB12	112+72.17'FHB'	578529.22	271553.80	7°21'55"	3°35'56"	102.47	204.65	3.29	1592.00	111+69.70'FHB'	113+74.35'FHB'
FHB13	115+44.32'FHB'	578801.56	271546.62	4°08'43"	3°34'52"	57.90	115.76	1.05	1600.00	114+86.42'FHB'	116+02.18'FHB'
FHB14	116+86.54'FHB'	578943.68	271553.17	2°34'39"	1°31'40"	84.37	168.70	0.95	3750.00	116+02.18'FHB'	117+70.88'FHB'
FHB15	118+92.55'FHB'	579148.86	271571.89	4°57'20"	2°02'16"	121.67	243.19	2.63	2811.77	117+70.88'FHB'	120+14.07'FHB'
TBA1	122+44.15'TBA'	579571.79	271345.62	27°15'20"	150°46'42"	9.21	18.08	1.07	38.00	122+34.93'TBA'	122+53.01'TBA'
TBA2	122+81.62'TBA'	579585.96	271380.69	41°45'26"	76°23'40"	28.61	54.66	4.92	75.00	122+53.01'TBA'	123+07.67'TBA'
TBA3	126+90.40'TBA'	579954.92	271562.54	13°28'36"	3°33'35"	190.17	378.58	11.12	1609.54	125+00.24'TBA'	128+78.82'TBA'
TBA4	136+60.24'TBA'	580902.52	271777.14	6°59'21"	1°45'47"	198.47	396.45	6.04	3250.00	134+61.77'TBA'	138+58.22'TBA'
TBB1	123+59.78'TBB'	579605.93	271801.47	33°16'00"	81°51'04"	20.91	40.64	2.93	70.00	123+38.87'TBB'	123+79.51'TBB'
TBB2	124+39.55'TBB'	579684.62	271782.48	10°16'19"	14°19'45"	35.94	71.69	1.61	399.86	124+03.61'TBB'	124+75.29'TBB'
TBB3	127+01.70'TBB'	579946.54	271767.39	9°27'57"	6°39'30"	71.24	142.16	2.93	860.50	126+30.46'TBB'	127+72.62'TBB'

2



Y = 273331.290
X = 582226.353

N

1/4 LINE 2650' N1° 14' 45"E

PI 149+52.01'EW'
X = 582189.52
Y = 271840.11

157+19.63'TCC' RAMP TCC =
157+19.63'TCC' IH 43/894, 50.00' LT
X = 582957.92
Y = 271876.34

R/L EW

R/L RAMP TCC

145'EW' S88° 56' 59"E 150'EW' 155'EW' 160'EW' S88° 58' 23"E 165'EW'

160'TCC' 165'TCC' 170'TCC'

CURVE TCC1

PC 'TCC'1 170'EW'

PT 'TCC'1

PI 'TCC'1

160'TCB' S86° 34' 05"E

S88° 57' 53"E 165'TCB'

CURVE TCB1

CURVE TCB2

170'TCB' S79° 33' 39"E

158+52.72'TCB' RAMP TCB =
158+52.72'EW' IH 41/43/894, 50.37'RT
X = 583089.18
Y = 271773.60

PI 161+34.31'TCB'
X = 583370.26
Y = 271756.75

R/L RAMP TCB

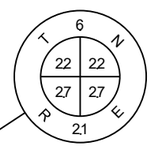
PC 'TCB'1

PI 'TCB'1

PCC 'TCB'1/'TCB'2

PT 'TCB'2

PI 'TCB'2



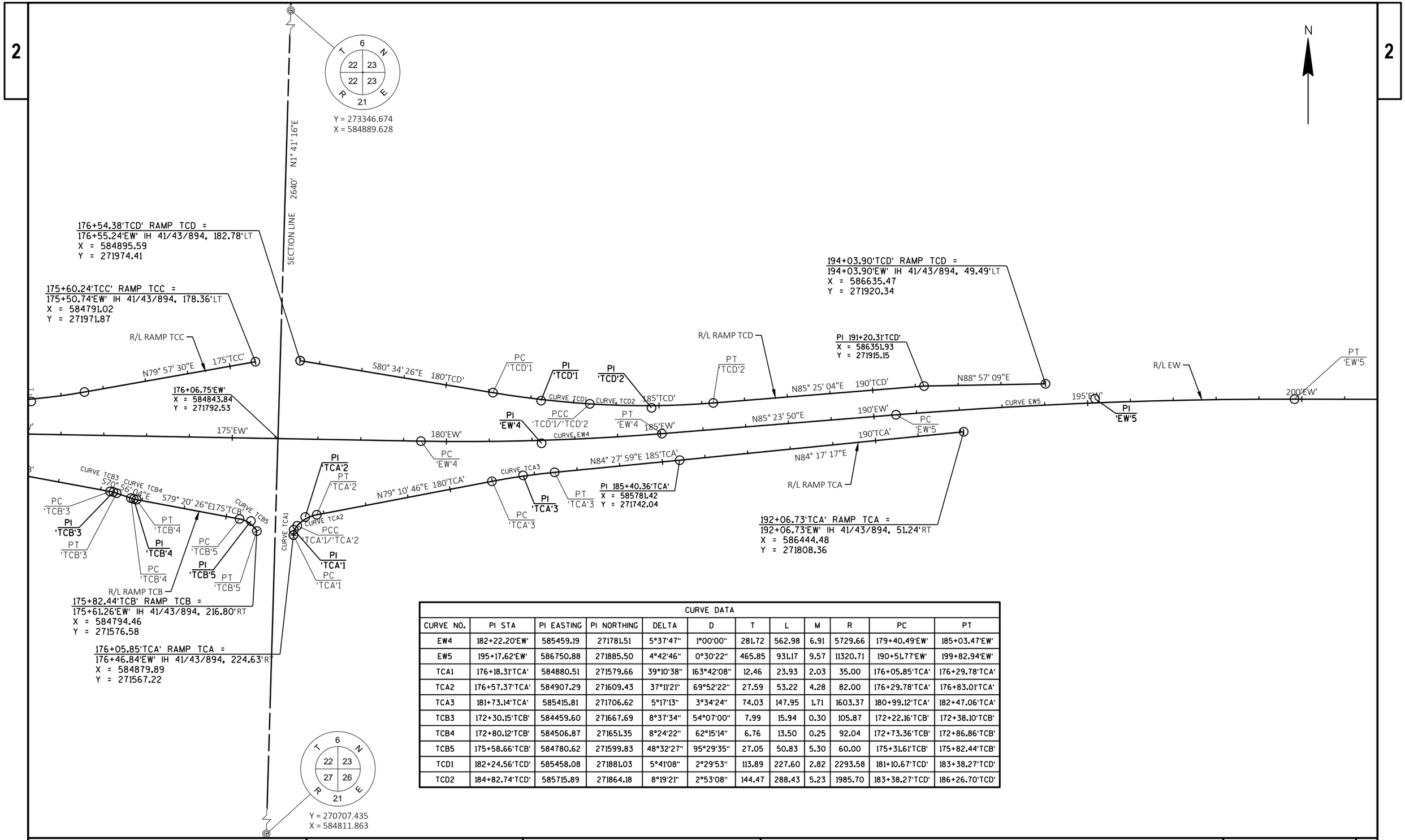
Y = 270682.501
X = 582160.926

CURVE DATA

CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
TCB1	166+87.10'TCB'	583922.96	271746.76	2°29'00"	1°28'09"	84.53	169.03	0.92	3900.00	166+02.57'TCB'	167+71.60'TCB'
TCB2	168+48.70'TCB'	584084.28	271736.84	6°55'14"	4°29'38"	77.10	154.00	2.32	1275.00	167+71.60'TCB'	169+25.60'TCB'
TCC1	170+29.58'TCC'	584267.88	271879.23	9°54'55"	3°56'27"	126.11	251.60	5.44	1453.87	169+03.47'TCC'	171+55.07'TCC'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 354	E

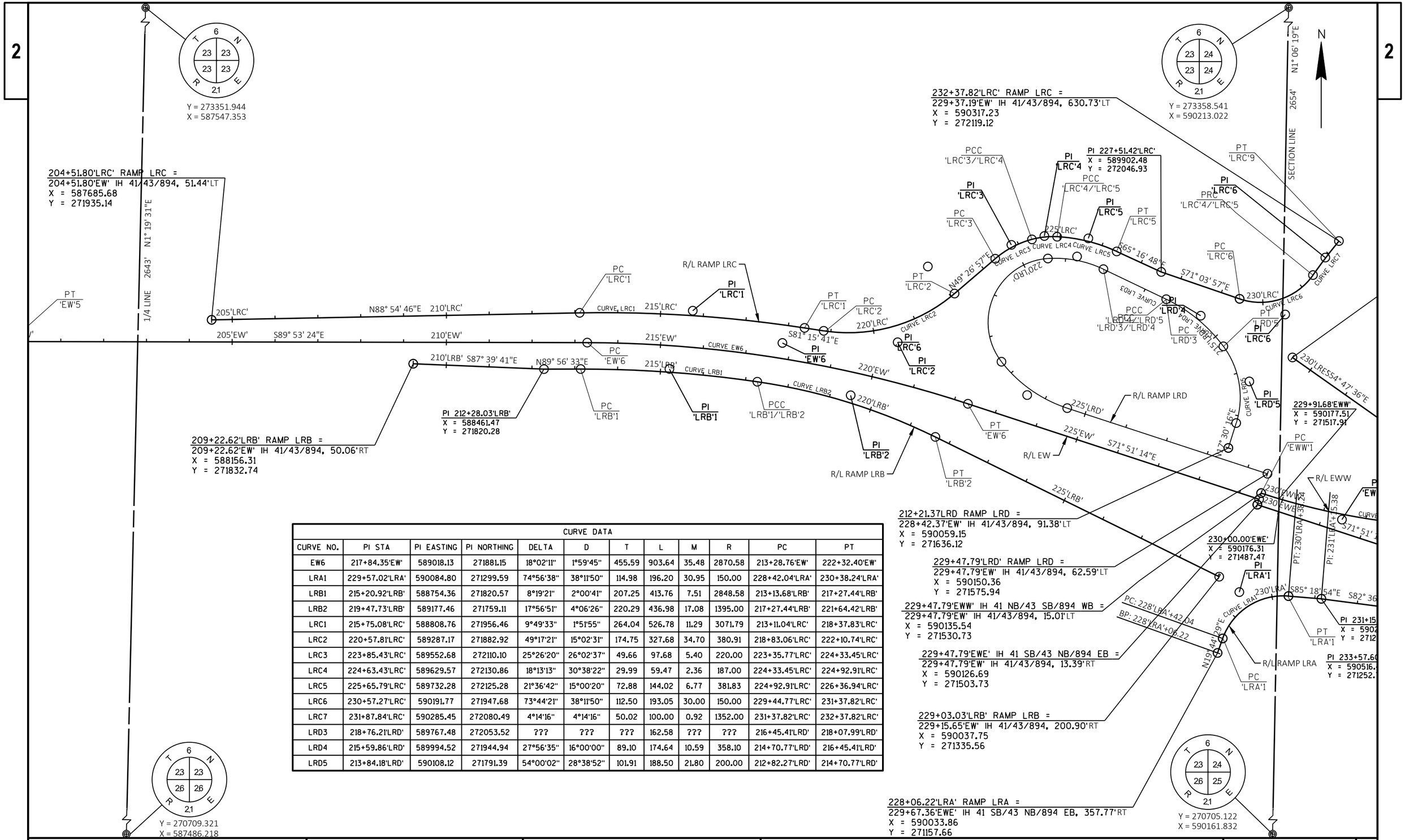
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027201-AD.DWG
LAYOUT NAME - 03
PLOT DATE : 10/26/2022 3:51 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
EW4	182+22.20'EW'	585459.19	271781.51	5°37'47"	1°00'00"	281.72	562.98	6.91	5729.66	179+40.49'EW'	185+03.47'EW'
EW5	195+17.62'EW'	586750.88	271885.50	4°42'46"	0°30'22"	465.85	931.17	9.57	11320.71	190+51.77'EW'	199+82.94'EW'
TCA1	176+18.31'TCA'	584880.51	271579.66	39°10'38"	163°42'08"	12.46	23.93	2.03	35.00	176+05.85'TCA'	176+29.78'TCA'
TCA2	176+57.37'TCA'	584907.29	271609.43	37°11'21"	69°52'22"	27.59	53.22	4.28	82.00	176+29.78'TCA'	176+83.01'TCA'
TCA3	181+73.14'TCA'	585415.81	271706.62	5°17'13"	3°34'24"	74.03	147.95	1.71	1603.37	180+99.12'TCA'	182+47.06'TCA'
TCB3	172+30.15'TCB'	584459.60	271667.69	8°37'34"	54°07'00"	7.99	15.94	0.30	105.87	172+22.16'TCB'	172+38.10'TCB'
TCB4	172+80.12'TCB'	584506.87	271651.35	8°24'22"	62°15'14"	6.76	13.50	0.25	92.04	172+73.36'TCB'	172+86.86'TCB'
TCB5	175+58.66'TCB'	584780.62	271599.83	48°32'27"	95°29'35"	27.05	50.83	5.30	60.00	175+31.61'TCB'	175+82.44'TCB'
TCD1	182+24.56'TCD'	585458.08	271881.03	5°41'08"	2°29'53"	113.89	227.60	2.82	2293.58	181+10.67'TCD'	183+38.27'TCD'
TCD2	184+82.74'TCD'	585715.89	271864.18	8°19'21"	2°53'08"	144.47	288.43	5.23	1985.70	183+38.27'TCD'	186+26.70'TCD'

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 355	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027201-AD.DWG
LAYOUT NAME - 04
PLOT DATE : 10/26/2022 3:51 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

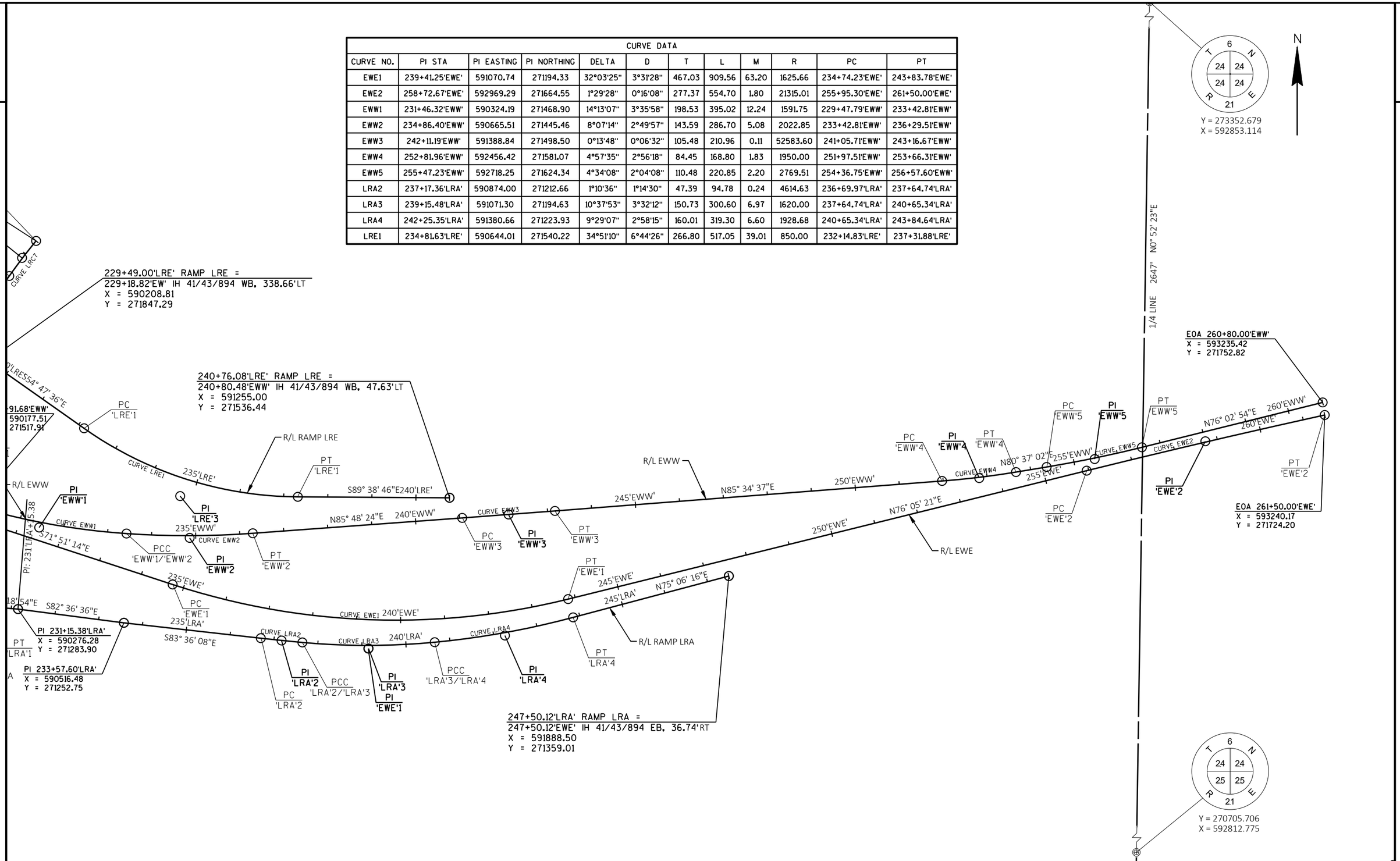


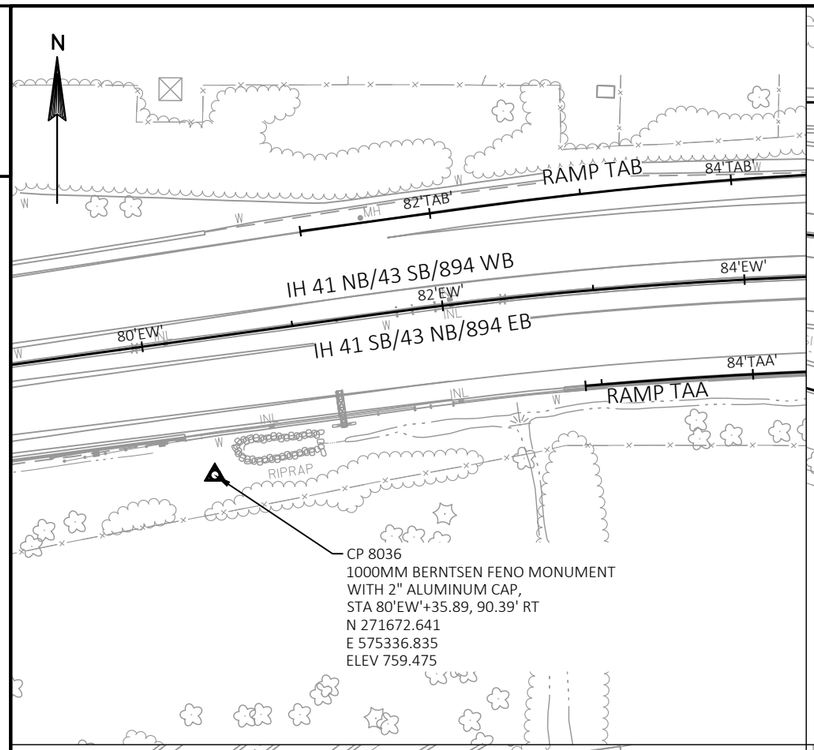
CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
EW6	217+84.35'EW'	589018.13	271881.15	18°02'11"	1°59'45"	455.59	903.64	35.48	2870.58	213+28.76'EW'	222+32.40'EW'
LRA1	229+57.02'LRA'	590084.80	271299.59	74°56'38"	38°11'50"	114.98	196.20	30.95	150.00	228+42.04'LRA'	230+38.24'LRA'
LRB1	215+20.92'LRB'	588754.36	271820.57	8°19'21"	2°00'41"	207.25	413.76	7.51	2848.58	213+13.68'LRB'	217+27.44'LRB'
LRB2	219+47.73'LRB'	589177.46	271759.11	17°56'51"	4°06'26"	220.29	436.98	17.08	1395.00	217+27.44'LRB'	221+64.42'LRB'
LRC1	215+75.08'LRC'	588808.76	271956.46	9°49'33"	1°51'55"	264.04	526.78	11.29	3071.79	213+11.04'LRC'	218+37.83'LRC'
LRC2	220+57.81'LRC'	589287.17	271882.92	49°17'21"	15°02'31"	174.75	327.68	34.70	380.91	218+83.06'LRC'	222+10.74'LRC'
LRC3	223+85.43'LRC'	589552.68	272110.10	25°26'20"	26°02'37"	49.66	97.68	5.40	220.00	223+35.77'LRC'	224+33.45'LRC'
LRC4	224+63.43'LRC'	589629.57	272130.86	18°13'13"	30°38'22"	29.99	59.47	2.36	187.00	224+33.45'LRC'	224+92.91'LRC'
LRC5	225+65.79'LRC'	589732.28	272125.28	21°36'42"	15°00'20"	72.88	144.02	6.77	381.83	224+92.91'LRC'	226+36.94'LRC'
LRC6	230+57.27'LRC'	590191.77	271947.68	73°44'21"	38°11'50"	112.50	193.05	30.00	150.00	229+44.77'LRC'	231+37.82'LRC'
LRC7	231+87.84'LRC'	590285.45	272080.49	4°14'16"	4°14'16"	50.02	100.00	0.92	1352.00	231+37.82'LRC'	232+37.82'LRC'
LRD3	218+76.21'LRD'	589767.48	272053.52	???	???	???	162.58	???	???	216+45.41'LRD'	218+07.99'LRD'
LRD4	215+59.86'LRD'	589994.52	271944.94	27°56'35"	16°00'00"	89.10	174.64	10.59	358.10	214+70.77'LRD'	216+45.41'LRD'
LRD5	213+84.18'LRD'	590108.12	271791.39	54°00'02"	28°38'52"	101.91	188.50	21.80	200.00	212+82.27'LRD'	214+70.77'LRD'

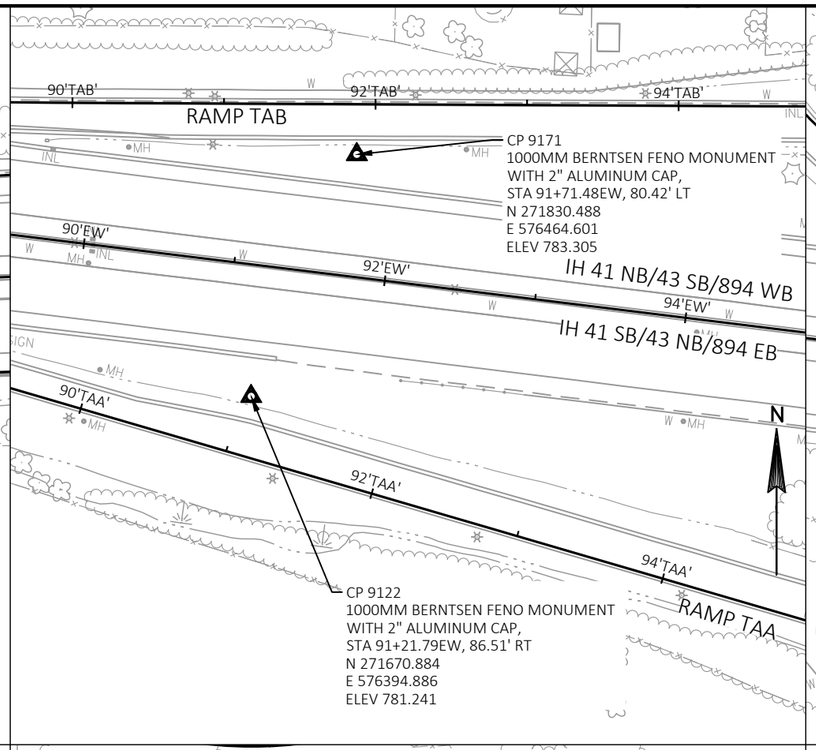
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 356	E

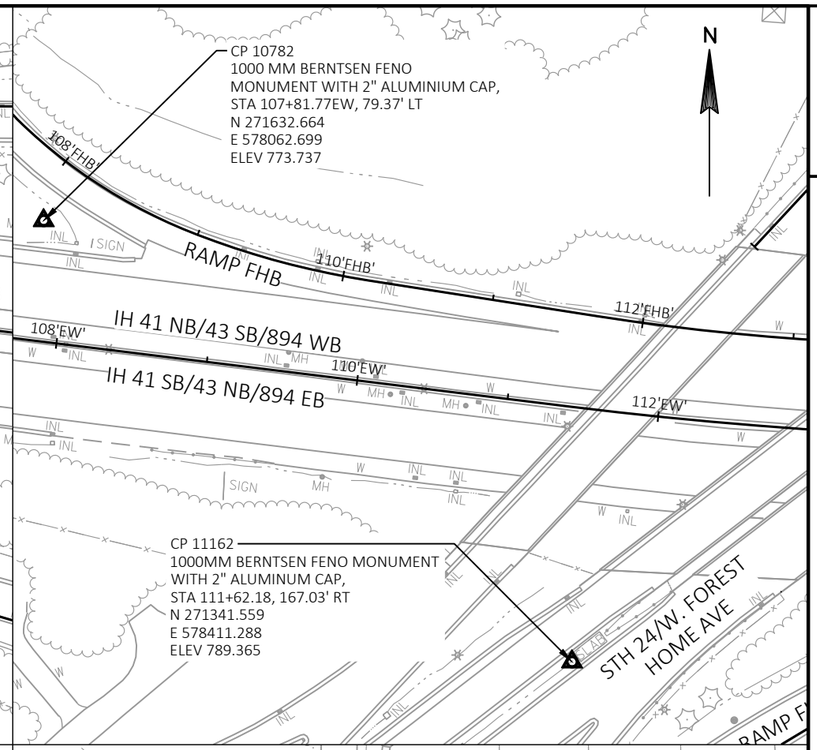
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027201-AD.DWG
LAYOUT NAME - 05
PLOT DATE : 10/26/2022 3:51 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

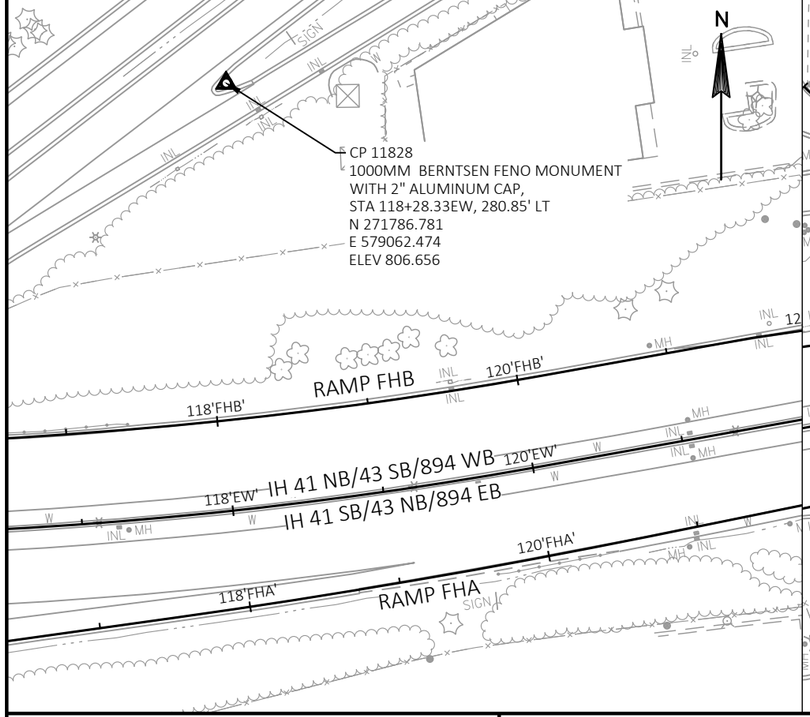
CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	M	R	PC	PT
EWE1	239+41.25'EWE'	591070.74	271194.33	32°03'25"	3°31'28"	467.03	909.56	63.20	1625.66	234+74.23'EWE'	243+83.78'EWE'
EWE2	258+72.67'EWE'	592969.29	271664.55	1°29'28"	0°16'08"	277.37	554.70	1.80	21315.01	255+95.30'EWE'	261+50.00'EWE'
EWW1	231+46.32'EWW'	590324.19	271468.90	14°13'07"	3°35'58"	198.53	395.02	12.24	1591.75	229+47.79'EWW'	233+42.81'EWW'
EWW2	234+86.40'EWW'	590665.51	271445.46	8°07'14"	2°49'57"	143.59	286.70	5.08	2022.85	233+42.81'EWW'	236+29.51'EWW'
EWW3	242+11.19'EWW'	591388.84	271498.50	0°13'48"	0°06'32"	105.48	210.96	0.11	52583.60	241+05.71'EWW'	243+16.67'EWW'
EWW4	252+81.96'EWW'	592456.42	271581.07	4°57'35"	2°56'18"	84.45	168.80	1.83	1950.00	251+97.51'EWW'	253+66.31'EWW'
EWW5	255+47.23'EWW'	592718.25	271624.34	4°34'08"	2°04'08"	110.48	220.85	2.20	2769.51	254+36.75'EWW'	256+57.60'EWW'
LRA2	237+17.36'LRA'	590874.00	271212.66	1°10'36"	1°14'30"	47.39	94.78	0.24	4614.63	236+69.97'LRA'	237+64.74'LRA'
LRA3	239+15.48'LRA'	591071.30	271194.63	10°37'53"	3°32'12"	150.73	300.60	6.97	1620.00	237+64.74'LRA'	240+65.34'LRA'
LRA4	242+25.35'LRA'	591380.66	271223.93	9°29'07"	2°58'15"	160.01	319.30	6.60	1928.68	240+65.34'LRA'	243+84.64'LRA'
LRE1	234+81.63'LRE'	590644.01	271540.22	34°51'10"	6°44'26"	266.80	517.05	39.01	850.00	232+14.83'LRE'	237+31.88'LRE'

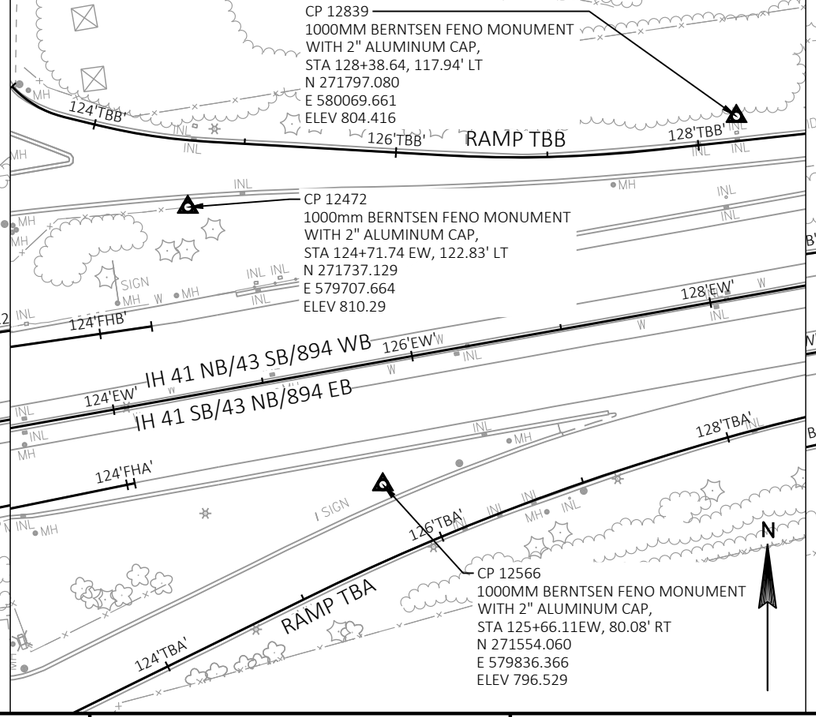


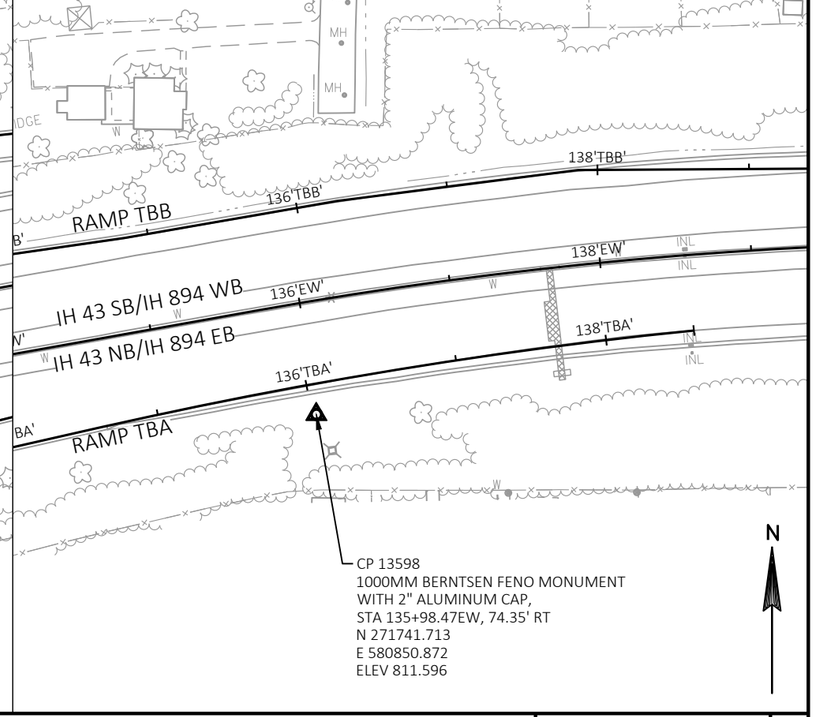












PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 358 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027209-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/26/2022 4:04 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

CP 14918
1000MM BERNTSEN FENO MONUMENY
WITH 2" ALUMINUM CAP,
STA 149+17.82EW, 130.69' LT
N 271971.406
E 582157.735
ELEV 798.990

S. 68TH ST

148'EW' 150'EW' 152'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

CP 17271
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 172+70.82EW, 82.84' LT
N 271881.382
E 584509.440
ELEV 763.619

170'TCC' 172'TCC' 174'TCC'

RAMP TCC

170'EW' 172'EW' 174'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

170'TCB' 172'TCB' 174'TCB'

RAMP TCB

CP 17136
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 171+36.21EW, 83.97' RT
N 271717.015
E 584371.867
ELEV 766.371

CP 18047
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 180+46.74, 86.78' LT
N 271872.417
E 585283.706
ELEV 763.797

178'TCD' 180'TCD' 182'TCD'

RAMP TCD

178'EW' 180'EW' 182'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

178'TCA' 180'TCA' 182'TCA'

RAMP TCA

CP 17964
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 179+64.29EW, 86.086' RT
N 271700.098
E 585200.130
ELEV 767.406

2

188'TCD' 190'TCD'

RAMP TCD

188'EW' 190'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

188'TCA' 190'TCA'

RAMP TCA

CP 18864
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 188+64.33EW, 86.91' RT
N 271746.441
E 586106.670
ELEV 762.900

198'EW' 200'EW' 202

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

CP 19943
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 199+42.66, 77.69' RT
N 271806.923
E 587176.573
ELEV 776.418

222'LRD' 224'LRD'

RAMP LRD

220'EW' 222'EW' 224'EW'

IH 41 NB/43 SB/894 WB
IH 41 SB/43 NB/894 EB

220'LRB' 222'LRB' 224'LRB'

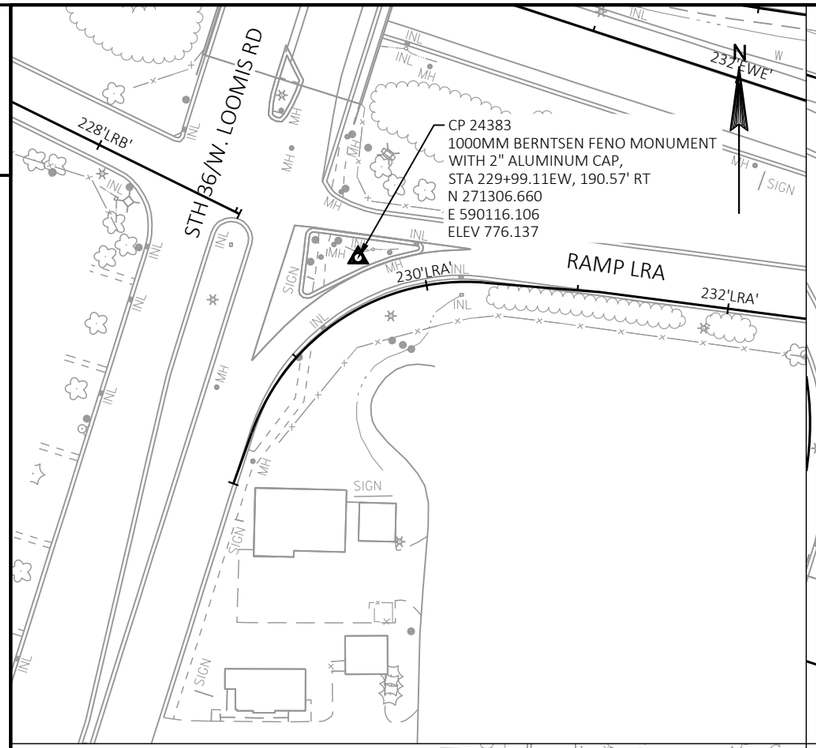
RAMP LRB

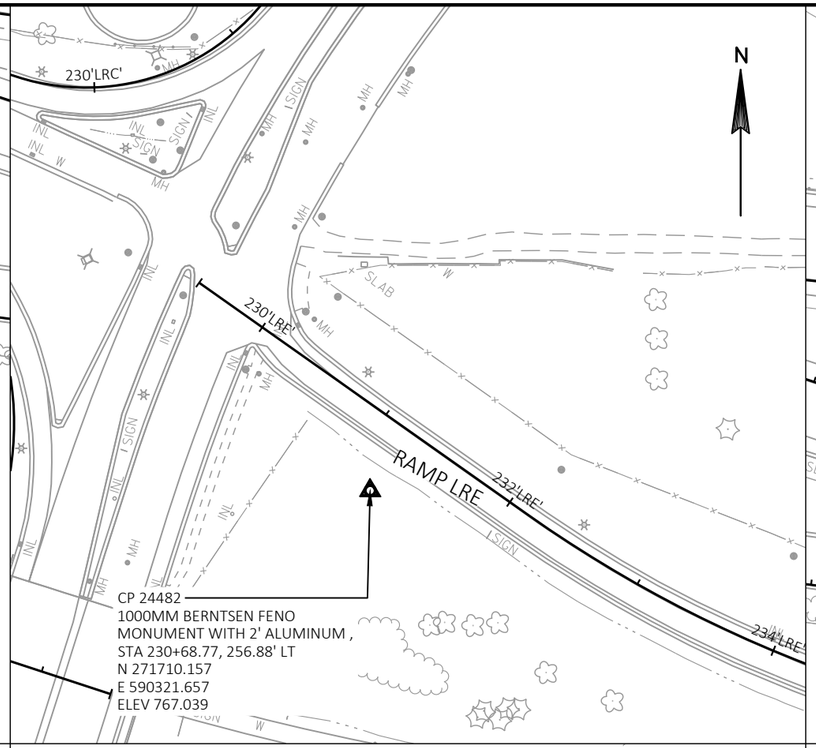
CP 22251
1000MM BERNTSEN FENO MONUMENT
WITH 2" ALUMINUM CAP,
STA 222+50.65, 76.76' RT
N 271660.633
E 589444.496
ELEV 763.594

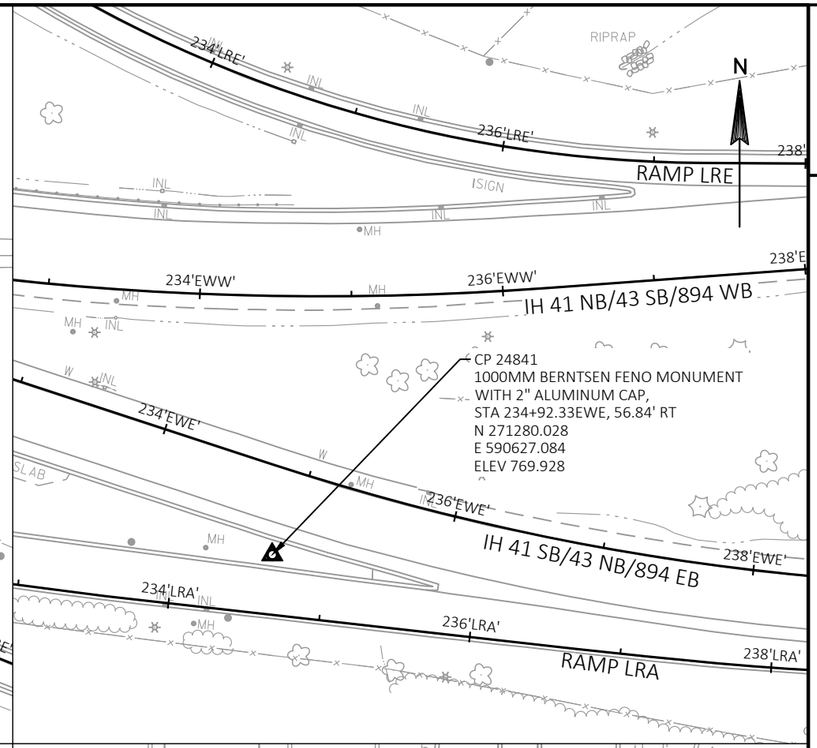
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 359	E

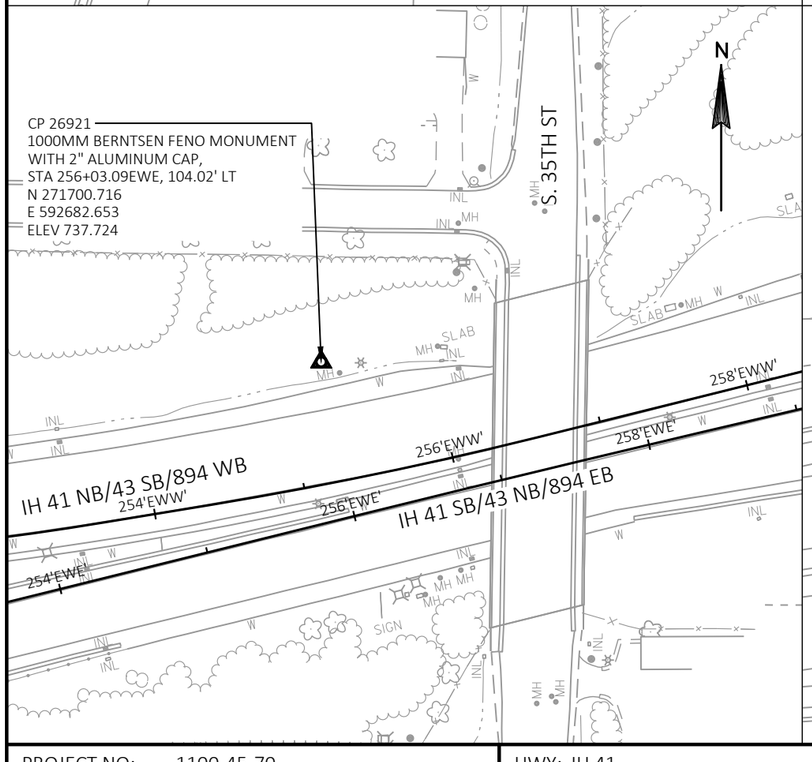
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027209-AD.DWG
LAYOUT NAME - 02
PLOT DATE : 10/26/2022 4:15 AM
PLOT BY : SCHARLAU, DAVE
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

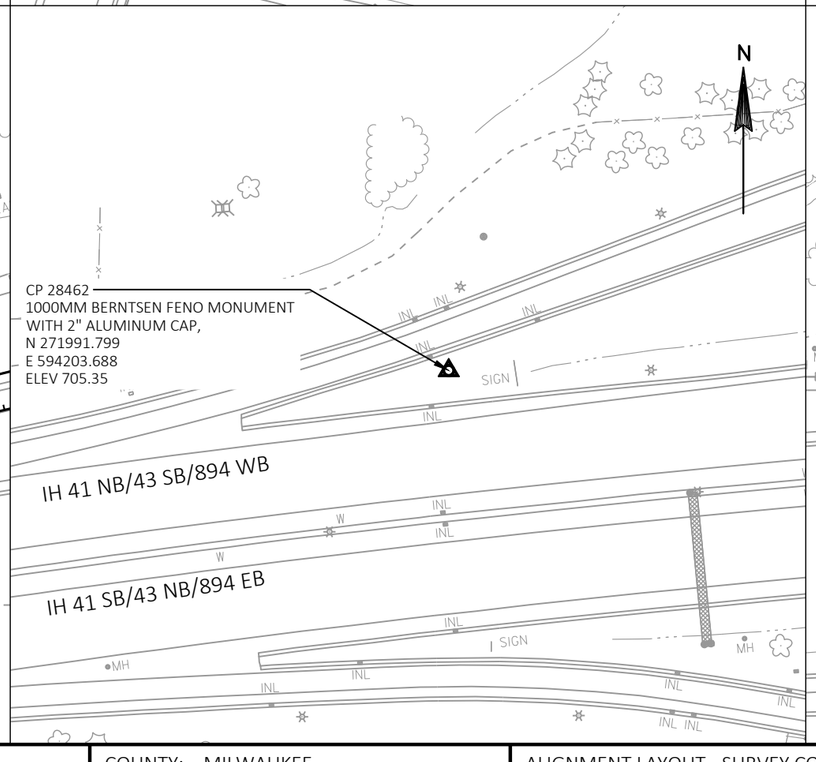
2

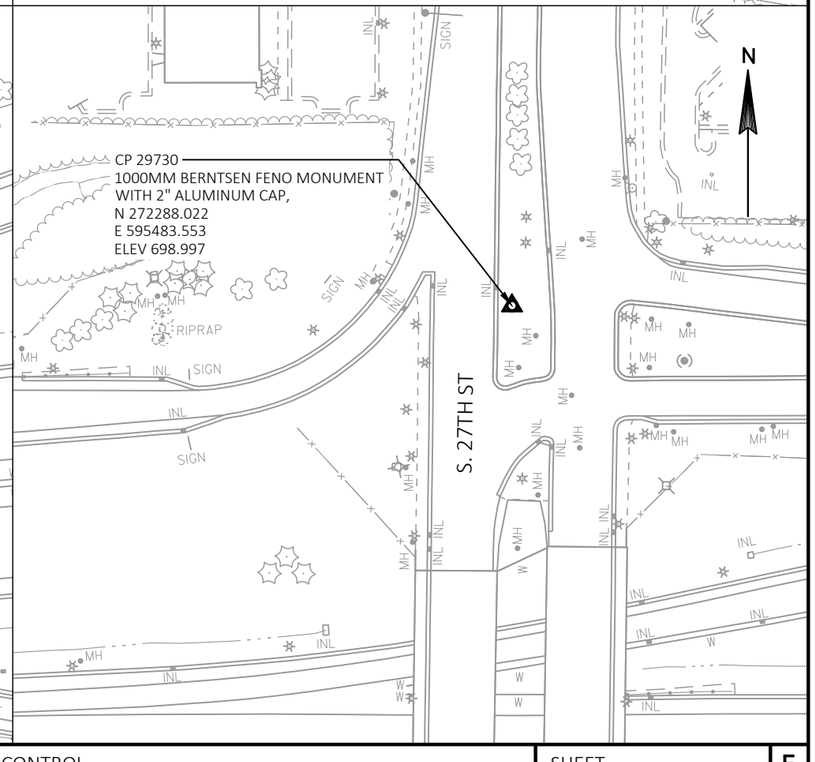










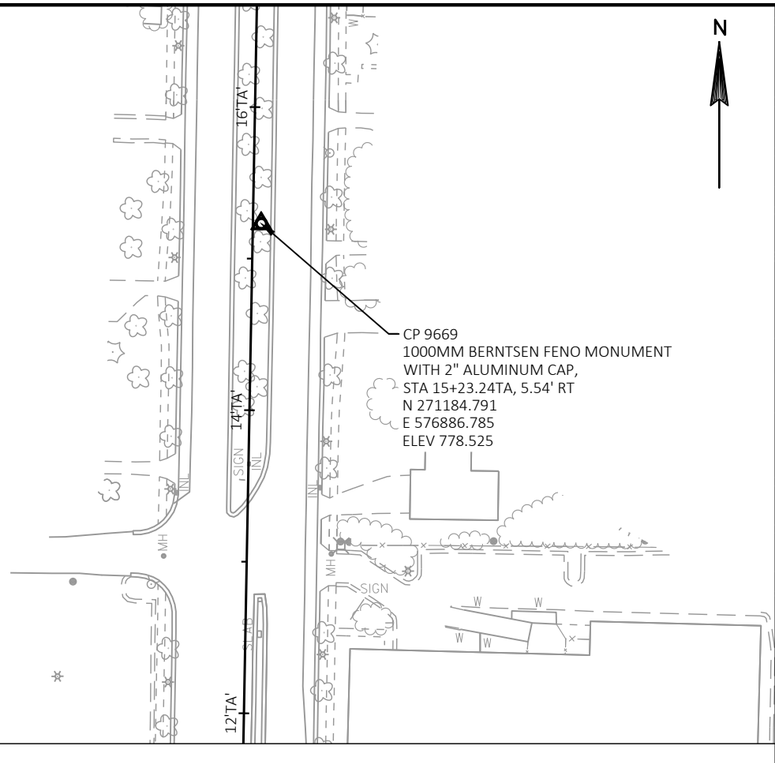


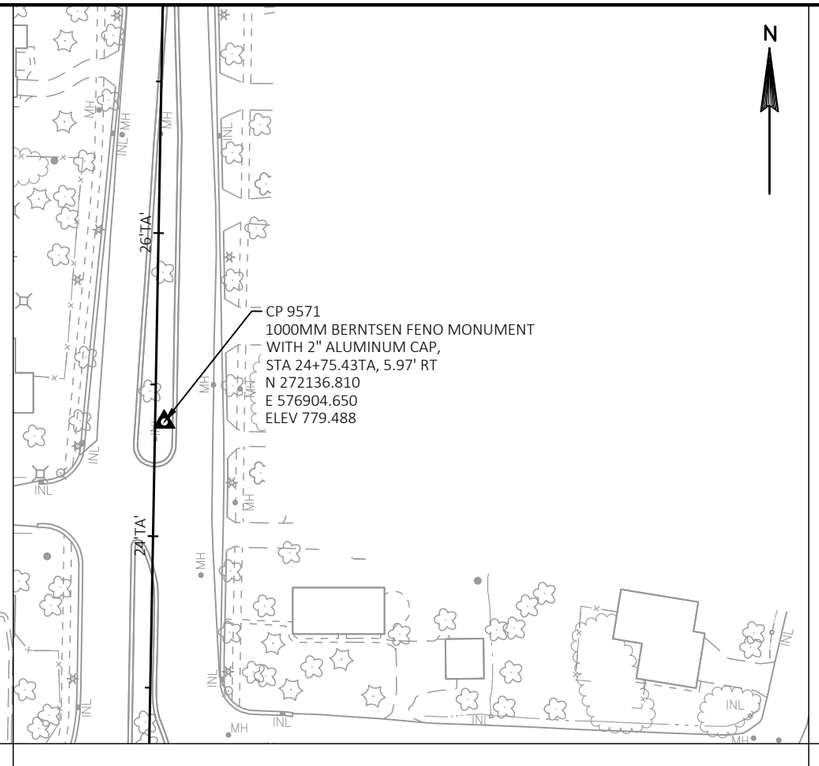
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 360	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D0951536\11004570-027209-AD.DWG
LAYOUT NAME - 03

PLOT DATE : 10/26/2022 4:27 AM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42





2

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 361	E

1100-45-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	22.000	22.000
0006	201.0205	Grubbing	STA	20.000	20.000
0014	203.0220	Removing Structure (structure) 401. B-40-321	EACH	1.000	1.000
0018	204.0100	Removing Concrete Pavement	SY	28,720.000	28,720.000
0020	204.0105	Removing Concrete Pavement Butt Joints	SY	168.000	168.000
0022	204.0109.S	Removing Concrete Surface Partial Depth	SF	60,519.000	60,519.000
0024	204.0110	Removing Asphaltic Surface	SY	1,000.000	1,000.000
0026	204.0115	Removing Asphaltic Surface Butt Joints	SY	4,432.000	4,432.000
0028	204.0120	Removing Asphaltic Surface Milling	SY	263,648.000	263,648.000
0030	204.0126.S	Removing Asphaltic Longitudinal Notched Wedge Joint Milling	LF	71,090.000	71,090.000
0032	204.0150	Removing Curb & Gutter	LF	22,034.000	22,034.000
0034	204.0155	Removing Concrete Sidewalk	SY	162.000	162.000
0036	204.0157	Removing Concrete Barrier	LF	36,094.000	36,094.000
0038	204.0165	Removing Guardrail	LF	1,487.000	1,487.000
0040	204.0170	Removing Fence	LF	12.000	12.000
0042	204.0175	Removing Concrete Slope Paving	SY	452.000	452.000
0044	204.0195	Removing Concrete Bases	EACH	67.000	67.000
0046	204.0210	Removing Manholes	EACH	67.000	67.000
0048	204.0220	Removing Inlets	EACH	207.000	207.000
0050	204.0245	Removing Storm Sewer (size) 801. 12-Inch	LF	1,551.000	1,551.000
0052	204.0245	Removing Storm Sewer (size) 802. 15-Inch	LF	758.000	758.000
0054	204.0245	Removing Storm Sewer (size) 803. 18-Inch	LF	755.000	755.000
0056	204.0245	Removing Storm Sewer (size) 804. 21-Inch	LF	528.000	528.000
0058	204.0245	Removing Storm Sewer (size) 805. 24-Inch	LF	783.000	783.000
0060	204.0245	Removing Storm Sewer (size) 806. 30-Inch	LF	534.000	534.000
0062	204.0245	Removing Storm Sewer (size) 807. 36-Inch	LF	9.000	9.000
0068	204.9060.S	Removing (item description) 002. Subsurface Structure	EACH	1.000	1.000
0072	204.9060.S	Removing (item description) 101. Distribution Center	EACH	6.000	6.000
0074	204.9060.S	Removing (item description) 102. Lighting Units	EACH	161.000	161.000
0076	204.9060.S	Removing (item description) 106. Poles Wood 60-FT and Floodlights	EACH	83.000	83.000
0078	204.9060.S	Removing (item description) 107. Poles Wood 35-FT	EACH	2.000	2.000
0080	204.9060.S	Removing (item description) 200. Overhead Freeway DMS	EACH	2.000	2.000
0090	204.9060.S	Removing (item description) 304. Traffic Signals I-894 EB Ramps & S 84TH St	EACH	1.000	1.000
0098	204.9060.S	Removing (item description) 480. Old Sign Structure S-40-109	EACH	1.000	1.000
0100	204.9060.S	Removing (item description) 485. Old Sign Structure S-40-009	EACH	1.000	1.000
0102	204.9060.S	Removing (item description) 490. Old Sign Structure S-40-221	EACH	1.000	1.000
0104	204.9060.S	Removing (item description) 495. Old Sign Structure S-40-219	EACH	1.000	1.000
0106	205.0100	Excavation Common	CY	82,367.000	82,367.000
0110	206.2001	Excavation for Structures Culverts (structure) 401. B-40-321	EACH	1.000	1.000
0114	210.2500	Backfill Structure Type B	TON	179.000	179.000
0116	213.0100	Finishing Roadway (project) 001. 1100-45-70	EACH	1.000	1.000
0120	214.0100	Obliterating Old Road	STA	6.000	6.000
0122	305.0110	Base Aggregate Dense 3/4-Inch	TON	47.000	47.000
0124	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	35,004.000	35,004.000
0126	312.0110	Select Crushed Material	TON	83,161.000	83,161.000
0128	390.0403	Base Patching Concrete Shes	SY	2,210.000	2,210.000
0140	416.0610	Drilled Tie Bars	EACH	10,200.000	10,200.000
0142	416.0620	Drilled Dowel Bars	EACH	4,314.000	4,314.000
0144	450.4000	HMA Cold Weather Paving	TON	9,761.000	9,761.000

1100-45-70

Line	Item	Item Description	Unit	Total	Qty
0146	455.0605	Tack Coat	GAL	51,271.000	51,271.000
0148	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0150	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0152	460.0115.S	HMA Pavement Test Strip Volumetrics	EACH	1.000	1.000
0154	460.0120.S	HMA Pavement Test Strip Density	EACH	1.000	1.000
0156	460.2000	Incentive Density HMA Pavement	DOL	1,850.000	1,850.000
0158	460.2005	Incentive Density PWL HMA Pavement	DOL	13,740.000	13,740.000
0160	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	25,960.000	25,960.000
0162	460.2010	Incentive Air Voids HMA Pavement	DOL	61,200.000	61,200.000
0164	460.6224	HMA Pavement 4 MT 58-28 S	TON	2,880.000	2,880.000
0166	460.7423	HMA Pavement 3 HT 58-28 H	TON	63,532.000	63,532.000
0168	460.8624	HMA Pavement 4 SMA 58-28 V	TON	26,445.000	26,445.000
0170	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000
0174	465.0125	Asphaltic Surface Temporary	TON	5,422.000	5,422.000
0176	495.1000.S	Cold patch	TON	1,060.000	1,060.000
0182	502.3205	Pigmented Surface Sealer Reseal	SY	7,806.000	7,806.000
0186	502.3215	Protective Surface Treatment Reseal	SY	3,426.000	3,426.000
0188	502.4205	Adhesive Anchors No. 5 Bar	EACH	7.000	7.000
0192	504.0100	Concrete Masonry Culverts	CY	1.000	1.000
0196	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	80.000	80.000
0204	509.0301	Preparation Decks Type 1	SY	28.000	28.000
0206	509.0302	Preparation Decks Type 2	SY	14.000	14.000
0208	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	286.000	286.000
0210	509.0500	Cleaning Decks	SY	4,354.000	4,354.000
0212	509.1200	Curb Repair	LF	8.000	8.000
0214	509.1500	Concrete Surface Repair	SF	836.000	836.000
0216	509.2000	Full-Depth Deck Repair	SY	3.000	3.000
0218	509.9020.S	Epoxy Crack Sealing	LF	320.000	320.000
0220	509.9025.S	Epoxy Injection Crack Repair	LF	15.000	15.000
0232	516.0500	Rubberized Membrane Waterproofing	SY	1.000	1.000
0234	517.1801.S	Structure Repainting Recycled Abrasive (structure) 400. B-40-196	EACH	1.000	1.000
0236	517.1801.S	Structure Repainting Recycled Abrasive (structure) 401. B-40-197	EACH	1.000	1.000
0238	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 400. B-40-196	EACH	1.000	1.000
0240	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 401. B-40-197	EACH	1.000	1.000
0242	517.6001.S	Portable Decontamination Facility	EACH	2.000	2.000
0244	520.8000	Concrete Collars for Pipe	EACH	153.000	153.000
0246	521.2005.S	Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 15-Inch	LF	4,795.000	4,795.000
0250	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0252	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	265.000	265.000
0254	531.1140	Steel Reinforcement HS Ancillary Structures Type NS	LB	22,605.000	22,605.000
0256	531.1160	Steel Reinforcement HS Coated Ancillary Structures Type NS	LB	13,460.000	13,460.000
0258	531.2024	Drilling Shaft 24-Inch	LF	20.000	20.000
0260	531.2036	Drilling Shaft 36-Inch	LF	214.000	214.000
0262	531.2042	Drilling Shaft 42-Inch	LF	184.000	184.000
0266	531.4050	Foundation Camera Pole 50-FT	EACH	3.000	3.000
0274	531.6010	Foundation Two-Shaft Type FC-I (structure) 480. S-40-3099	EACH	1.000	1.000
0276	531.6010	Foundation Two-Shaft Type FC-I (structure) 485. S-40-3100	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0278	531.8990	Anchor Assemblies Poles on Structures	EACH	12.000	12.000
0280	532.5020	Butterfly 2-Chord NS (structure) 490. S-40-3101	EACH	1.000	1.000
0282	532.5020	Butterfly 2-Chord NS (structure) 495. S-40-3102	EACH	1.000	1.000
0290	532.6000	Truss Cantilever 4-Chord Type NS (structure) 480. S-40-3099	EACH	1.000	1.000
0292	532.6000	Truss Cantilever 4-Chord Type NS (structure) 485. S-40-3100	EACH	1.000	1.000
0300	601.0331	Concrete Curb & Gutter 31-Inch	LF	8,427.000	8,427.000
0302	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	33,006.000	33,006.000
0306	602.0410	Concrete Sidewalk 5-Inch	SF	1,384.000	1,384.000
0308	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	20.000	20.000
0312	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	45.000	45.000
0320	603.1142	Concrete Barrier Type S42	LF	11,184.000	11,184.000
0322	603.1156	Concrete Barrier Type S56	LF	1,379.000	1,379.000
0324	603.1242	Concrete Barrier Type S42A	LF	5,368.000	5,368.000
0326	603.1342	Concrete Barrier Type S42B	LF	46.000	46.000
0328	603.1356	Concrete Barrier Type S56B	LF	53.000	53.000
0330	603.1442	Concrete Barrier Type S42C	LF	265.000	265.000
0332	603.1456	Concrete Barrier Type S56C	LF	740.000	740.000
0334	603.3113	Concrete Barrier Transition Type NJ32SF to S36	EACH	11.000	11.000
0336	603.3513	Concrete Barrier Transition Type S32 to S36	EACH	3.000	3.000
0338	603.3535	Concrete Barrier Transition Type S36 to S42	EACH	14.000	14.000
0340	603.3559	Concrete Barrier Transition Type S42 to S56	EACH	26.000	26.000
0342	603.8000	Concrete Barrier Temporary Precast Delivered	LF	62,975.000	62,975.000
0344	603.8125	Concrete Barrier Temporary Precast Installed	LF	64,563.000	64,563.000
0346	604.0400	Slope Paving Concrete	SY	452.000	452.000
0348	606.0200	Riprap Medium	CY	170.000	170.000
0350	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	844.000	844.000
0352	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	1,760.000	1,760.000
0354	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	149.000	149.000
0356	608.0321	Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	LF	13.000	13.000
0358	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	2,439.000	2,439.000
0360	608.0327	Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	LF	180.000	180.000
0362	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	746.000	746.000
0364	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	206.000	206.000
0366	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	72.000	72.000
0368	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	86.000	86.000
0372	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	158.000	158.000
0376	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	39.000	39.000
0388	611.0430	Reconstructing Inlets	EACH	58.000	58.000
0398	611.0627	Inlet Covers Type HM	EACH	72.000	72.000
0402	611.0642	Inlet Covers Type MS	EACH	44.000	44.000
0406	611.2005	Manholes 5-FT Diameter	EACH	98.000	98.000
0408	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000
0410	611.2008	Manholes 8-FT Diameter	EACH	3.000	3.000
0412	611.3004	Inlets 4-FT Diameter	EACH	82.000	82.000
0416	611.3225	Inlets 2x2.5-FT	EACH	1.000	1.000
0418	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0420	611.3901	Inlets Median 1 Grate	EACH	34.000	34.000
0422	611.3902	Inlets Median 2 Grate	EACH	5.000	5.000
0424	611.8110	Adjusting Manhole Covers	EACH	3.000	3.000

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Line	Item	Item Description	Unit	Total	Qty
0426	611.8115	Adjusting Inlet Covers	EACH	13.000	13.000
0428	611.8120.S	Cover Plates Temporary	EACH	50.000	50.000
0430	611.9850.S	Pipe Grates (size) 001. 42-Inch	EACH	1.000	1.000
0432	611.9850.S	Pipe Grates (size) 002. 84-Inch	EACH	1.000	1.000
0434	612.0106	Pipe Underdrain 6-Inch	LF	60,446.000	60,446.000
0440	614.0905	Crash Cushions Temporary	EACH	23.000	23.000
0442	614.2500	MGS Thrie Beam Transition	LF	560.000	560.000
0444	614.2610	MGS Guardrail Terminal EAT	EACH	14.000	14.000
0448	616.0329	Gates Chain Link (width) 001. 12-FT	EACH	1.000	1.000
0450	616.0700.S	Fence Safety	LF	350.000	350.000
0452	618.0100	Maintenance And Repair of Haul Roads (project) 001. 1100-45-70	EACH	1.000	1.000
0456	619.1000	Mobilization	EACH	0.800	0.800
0458	620.0300	Concrete Median Sloped Nose	SF	37.000	37.000
0460	623.0200	Dust Control Surface Treatment	SY	81,762.000	81,762.000
0462	624.0100	Water	MGAL	851.000	851.000
0464	625.0100	Topsoil	SY	48,475.000	48,475.000
0466	628.1504	Silt Fence	LF	9,469.000	9,469.000
0468	628.1520	Silt Fence Maintenance	LF	4,739.000	4,739.000
0470	628.1905	Mobilizations Erosion Control	EACH	17.000	17.000
0472	628.1910	Mobilizations Emergency Erosion Control	EACH	8.000	8.000
0474	628.2002	Erosion Mat Class I Type A	SY	14,586.000	14,586.000
0476	628.2004	Erosion Mat Class I Type B	SY	4,298.000	4,298.000
0478	628.2008	Erosion Mat Urban Class I Type B	SY	263.000	263.000
0482	628.7005	Inlet Protection Type A	EACH	152.000	152.000
0484	628.7010	Inlet Protection Type B	EACH	332.000	332.000
0486	628.7015	Inlet Protection Type C	EACH	32.000	32.000
0488	628.7020	Inlet Protection Type D	EACH	145.000	145.000
0490	628.7560	Tracking Pads	EACH	30.000	30.000
0492	628.7570	Rock Bags	EACH	200.000	200.000
0494	629.0210	Fertilizer Type B	CWT	39.000	39.000
0496	630.0120	Seeding Mixture No. 20	LB	163.000	163.000
0498	630.0160	Seeding Mixture No. 60	LB	0.500	0.500
0500	630.0200	Seeding Temporary	LB	94.000	94.000
0502	630.0500	Seed Water	MGAL	83.000	83.000
0508	633.1000	Delineators Barrier Wall	EACH	32.000	32.000
0512	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	18.000	18.000
0514	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	4.000	4.000
0516	634.0885	Posts Tubular Steel 2x2-Inch X 8.5-FT	EACH	4.000	4.000
0518	635.0200	Sign Supports Structural Steel HS	LB	2,000.000	2,000.000
0520	635.0300	Sign Supports Replacing Base Connection Bolts	EACH	19.000	19.000
0522	637.1220	Signs Type I Reflective SH	SF	2,851.500	2,851.500
0524	637.2210	Signs Type II Reflective H	SF	751.875	751.875
0528	637.2230	Signs Type II Reflective F	SF	6.750	6.750
0530	638.2101	Moving Signs Type I	EACH	7.000	7.000
0532	638.2102	Moving Signs Type II	EACH	1.000	1.000
0534	638.2601	Removing Signs Type I	EACH	16.000	16.000
0536	638.2602	Removing Signs Type II	EACH	28.000	28.000
0538	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0540	643.0300	Traffic Control Drums	DAY	262,142.000	262,142.000

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Line	Item	Item Description	Unit	Total	Qty
0542	643.0420	Traffic Control Barricades Type III	DAY	34,545.000	34,545.000
0544	643.0705	Traffic Control Warning Lights Type A	DAY	69,070.000	69,070.000
0546	643.0715	Traffic Control Warning Lights Type C	DAY	57,608.000	57,608.000
0548	643.0800	Traffic Control Arrow Boards	DAY	1,949.000	1,949.000
0550	643.0900	Traffic Control Signs	DAY	92,405.000	92,405.000
0554	643.0920	Traffic Control Covering Signs Type II	EACH	204.000	204.000
0556	643.1000	Traffic Control Signs Fixed Message	SF	500.000	500.000
0558	643.1050	Traffic Control Signs PCMS	DAY	2,840.000	2,840.000
0560	643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY	410.000	410.000
0562	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	343,912.000	343,912.000
0564	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	125,450.000	125,450.000
0566	643.3220	Temporary Marking Line Epoxy 8-Inch	LF	46,433.000	46,433.000
0568	643.3250	Temporary Marking Line Removable Tape 8-Inch	LF	22,948.000	22,948.000
0574	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	184.000	184.000
0576	643.4100	Traffic Control Interim Lane Closure	EACH	900.000	900.000
0578	643.5000	Traffic Control	EACH	0.800	0.800
0580	644.1430	Temporary Pedestrian Surface Plate	SF	460.000	460.000
0582	644.1601	Temporary Pedestrian Curb Ramp	DAY	38.000	38.000
0584	644.1605	Temporary Pedestrian Detectable Warning Field	SF	60.000	60.000
0586	644.1810	Temporary Pedestrian Barricade	LF	960.000	960.000
0588	645.0111	Geotextile Type DF Schedule A	SY	30,239.000	30,239.000
0590	645.0120	Geotextile Type HR	SY	14.000	14.000
0592	646.1020	Marking Line Epoxy 4-Inch	LF	26,359.000	26,359.000
0594	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	65,200.000	65,200.000
0596	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	234.000	234.000
0598	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	17,849.000	17,849.000
0600	646.3020	Marking Line Epoxy 8-Inch	LF	223.000	223.000
0602	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	2,621.000	2,621.000
0604	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	17,892.000	17,892.000
0606	646.5020	Marking Arrow Epoxy	EACH	12.000	12.000
0608	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0610	646.5220	Marking Symbol Epoxy	EACH	15.000	15.000
0612	646.6120	Marking Stop Line Epoxy 18-Inch	LF	243.000	243.000
0614	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	6,300.000	6,300.000
0616	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	700.000	700.000
0618	646.7120	Marking Diagonal Epoxy 12-Inch	LF	8,975.000	8,975.000
0620	646.7220	Marking Chevron Epoxy 24-Inch	LF	1,165.000	1,165.000
0622	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	203.000	203.000
0624	646.8120	Marking Curb Epoxy	LF	273.000	273.000
0626	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0628	646.9000	Marking Removal Line 4-Inch	LF	97,674.000	97,674.000
0630	646.9100	Marking Removal Line 8-Inch	LF	16,800.000	16,800.000
0632	646.9200	Marking Removal Line Wide	LF	9,963.000	9,963.000
0636	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	29,328.000	29,328.000
0638	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,320.000	2,320.000
0640	652.0605	Conduit Special 2-Inch	LF	403.000	403.000
0642	652.0615	Conduit Special 3-Inch	LF	5,683.000	5,683.000
0644	652.0700.S	Install Conduit into Existing Item	EACH	5.000	5.000
0646	652.0800	Conduit Loop Detector	LF	712.000	712.000

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Line	Item	Item Description	Unit	Total	Qty
0648	653.0135	Pull Boxes Steel 24x36-Inch	EACH	5.000	5.000
0650	653.0140	Pull Boxes Steel 24x42-Inch	EACH	28.000	28.000
0652	653.0222	Junction Boxes 18x12x6-Inch	EACH	12.000	12.000
0654	653.0905	Removing Pull Boxes	EACH	50.000	50.000
0656	654.0101	Concrete Bases Type 1	EACH	2.000	2.000
0660	654.0105	Concrete Bases Type 5	EACH	78.000	78.000
0662	654.0108	Concrete Bases Type 8	EACH	18.000	18.000
0672	654.0230	Concrete Control Cabinet Bases Type L30	EACH	6.000	6.000
0674	655.0230	Cable Traffic Signal 5-14 AWG	LF	96.000	96.000
0676	655.0235	Cable Traffic Signal 7-12 AWG	LF	281.000	281.000
0680	655.0260	Cable Traffic Signal 12-14 AWG	LF	367.000	367.000
0684	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	858.000	858.000
0686	655.0610	Electrical Wire Lighting 12 AWG	LF	36,468.000	36,468.000
0688	655.0615	Electrical Wire Lighting 10 AWG	LF	1,950.000	1,950.000
0690	655.0620	Electrical Wire Lighting 8 AWG	LF	46,221.000	46,221.000
0692	655.0625	Electrical Wire Lighting 6 AWG	LF	29,222.000	29,222.000
0694	655.0630	Electrical Wire Lighting 4 AWG	LF	64,565.000	64,565.000
0696	655.0635	Electrical Wire Lighting 2 AWG	LF	1,524.000	1,524.000
0698	655.0640	Electrical Wire Lighting 1 AWG	LF	108.000	108.000
0700	655.0700	Loop Detector Lead In Cable	LF	2,128.000	2,128.000
0702	655.0800	Loop Detector Wire	LF	1,824.000	1,824.000
0710	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 101. HL-40-FO	EACH	1.000	1.000
0712	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 102. HL-40-AL	EACH	1.000	1.000
0714	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 103. HL-40-BO	EACH	1.000	1.000
0716	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 104. HL-40-LM	EACH	1.000	1.000
0718	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 105. HL-40-AR	EACH	1.000	1.000
0720	656.0401	Electrical Service Main Lugs Only Meter Pedestal (location) 106. HL-40-TF	EACH	1.000	1.000
0722	657.0100	Pedestal Bases	EACH	3.000	3.000
0724	657.0210	Transformer Bases Breakaway 15-17 Inch Bolt Circle	EACH	18.000	18.000
0726	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	78.000	78.000
0730	657.0322	Poles Type 5-Aluminum	EACH	78.000	78.000
0732	657.0380	Poles Type E	EACH	18.000	18.000
0734	657.0381	Poles Type F	EACH	70.000	70.000
0736	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
0744	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	96.000	96.000
0750	658.0173	Traffic Signal Face 3S 12-Inch	EACH	10.000	10.000
0756	658.0416	Pedestrian Signal Face 16-Inch	EACH	1.000	1.000
0758	658.0500	Pedestrian Push Buttons	EACH	1.000	1.000
0764	658.5070	Signal Mounting Hardware (location) 302. I-894 EB Ramps & S 84TH St	EACH	1.000	1.000
0768	659.1125	Luminaires Utility LED C	EACH	78.000	78.000
0770	659.1130	Luminaires Utility LED D	EACH	158.000	158.000
0774	659.2230	Lighting Control Cabinets 240/480 30-Inch	EACH	6.000	6.000
0776	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	232.000	232.000
0786	670.0101	Field System Integrator 001. FTMS	EACH	1.000	1.000
0790	670.0201	ITS Documentation 001. FTMS	EACH	1.000	1.000
0794	671.0212	Conduit HDPE Directional Bore 1-Duct 2-Inch	LF	286.000	286.000
0798	674.0300	Remove Cable	LF	609.000	609.000
0802	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	2.000	2.000
0804	677.0150	Install Camera Pole 50-FT	EACH	3.000	3.000

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Line	Item	Item Description	Unit	Total	Qty
0806	677.0200	Install Camera Assembly	EACH	4.000	4.000
0808	677.9051.S	Removing 50-FT Camera Pole	EACH	3.000	3.000
0810	677.9200.S	Removing CCTV Camera	EACH	1.000	1.000
0816	678.0100.S	Install Overhead Freeway DMS Full Matrix	EACH	2.000	2.000
0826	690.0150	Sawing Asphalt	LF	40,194.000	40,194.000
0828	690.0250	Sawing Concrete	LF	144,537.000	144,537.000
0832	715.0603	Incentive Strength Concrete Barrier	DOL	13,808.000	13,808.000
0836	740.0440	Incentive IRI Ride	DOL	31,720.000	31,720.000
0842	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 002. 96'EW'+10	EACH	1.000	1.000
0844	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 003. 202'EW'+78	EACH	1.000	1.000
0846	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 004. 257'EWW'+30	EACH	1.000	1.000
0848	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	5,600.000	5,600.000
0850	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	14,400.000	14,400.000
0852	SPV.0035	Special 001. EBS Excavation	CY	8,237.000	8,237.000
0854	SPV.0035	Special 002. EBS Backfill	CY	8,237.000	8,237.000
0856	SPV.0035	Special 400. Rapid Set Deck Repair	CY	4.000	4.000
0858	SPV.0035	Special 801. Backfill Slurry	CY	6,660.000	6,660.000
0860	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.800	0.800
0862	SPV.0060	Special 002. Monthly CPM Progress Schedule Updates	EACH	7.000	7.000
0864	SPV.0060	Special 003. Concrete Barrier Transition Type M1	EACH	1.000	1.000
0866	SPV.0060	Special 004. Concrete Barrier Transition Type M2	EACH	1.000	1.000
0868	SPV.0060	Special 005. Concrete Barrier Transition Type M3	EACH	1.000	1.000
0870	SPV.0060	Special 006. Concrete Barrier Transition Type M4	EACH	1.000	1.000
0872	SPV.0060	Special 007. Concrete Barrier Transition Type M5	EACH	1.000	1.000
0874	SPV.0060	Special 008. Concrete Barrier Transition Type M6	EACH	1.000	1.000
0876	SPV.0060	Special 009. Concrete Barrier Transition Type M7	EACH	1.000	1.000
0878	SPV.0060	Special 010. Concrete Barrier Transition Type M8	EACH	1.000	1.000
0880	SPV.0060	Special 011. Concrete Barrier Transition Type M9	EACH	1.000	1.000
0882	SPV.0060	Special 012. Concrete Barrier Transition Type M10	EACH	1.000	1.000
0884	SPV.0060	Special 013. Concrete Barrier Transition Type M11	EACH	1.000	1.000
0886	SPV.0060	Special 014. Concrete Barrier Transition Type M12	EACH	1.000	1.000
0888	SPV.0060	Special 015. Concrete Barrier Type S42 Light Pole Base	EACH	31.000	31.000
0890	SPV.0060	Special 016. Concrete Barrier Type S42A Light Pole Base	EACH	31.000	31.000
0892	SPV.0060	Special 017. Concrete Barrier Type S56 Light Pole Base	EACH	2.000	2.000
0894	SPV.0060	Special 018. Concrete Barrier Type S56A Light Pole Base	EACH	1.000	1.000
0896	SPV.0060	Special 019. Curb Ramp Grading, Shaping and Finishing	EACH	4.000	4.000
0898	SPV.0060	Special 020. Field Facilities Office Space	EACH	0.800	0.800
0900	SPV.0060	Special 021. Mobilizations Emergency Pavement Repair	EACH	25.000	25.000
0902	SPV.0060	Special 022. Traffic Control Close-Open Freeway Entrance Ramp	EACH	560.000	560.000
0904	SPV.0060	Special 023. Traffic Control Full Freeway Closure	EACH	9.000	9.000
0906	SPV.0060	Special 024. Traffic Control Local Road Lane Closures	EACH	30.000	30.000
0908	SPV.0060	Special 025. Emergency Response to Traffic Involving Concrete Barrier Temporary	EACH	5.000	5.000
0910	SPV.0060	Special 026. Emergency Response to Traffic Involving Crash Cushion	EACH	5.000	5.000
0912	SPV.0060	Special 027. Sand Bags	EACH	690.000	690.000
0914	SPV.0060	Special 028. Exposing Existing Infrastructure Paved Area	EACH	10.000	10.000
0916	SPV.0060	Special 029. Exposing Existing Infrastructure Unpaved Area	EACH	10.000	10.000
0918	SPV.0060	Special 030. Survey Project 1100-45-70	EACH	1.000	1.000
0922	SPV.0060	Special 032. Traffic Control Close-Open Freeway to Freeway System Ramp	EACH	250.000	250.000
0924	SPV.0060	Special 101. Maintenance of Lighting Systems	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0926	SPV.0060	Special 102. Lighting System Integrator	EACH	1.000	1.000
0928	SPV.0060	Special 103. Lighting Systems Survey	EACH	1.000	1.000
0930	SPV.0060	Special 107. Luminaire Arms Single Member 4-Inch Clamp 4-FT	EACH	140.000	140.000
0932	SPV.0060	Special 108. Poles Wood 35-FT	EACH	2.000	2.000
0934	SPV.0060	Special 109. Wood Pole Lighting 60-FT	EACH	83.000	83.000
0936	SPV.0060	Special 110. Luminaire Utility LED Floodlight	EACH	86.000	86.000
0940	SPV.0060	Special 200. Removing Wireless Modem	EACH	1.000	1.000
0942	SPV.0060	Special 201. Removing Controller Cabinet	EACH	1.000	1.000
0944	SPV.0060	Special 202. Removing Controller Cabinet Base	EACH	1.000	1.000
0946	SPV.0060	Special 203. Removing Controller Ramp Meter Processor Assembly	EACH	1.000	1.000
0948	SPV.0060	Special 204. Ground Rod	EACH	5.000	5.000
0950	SPV.0060	Special 205. Refocus Vehicle Detector Assembly	EACH	20.000	20.000
0992	SPV.0060	Special 400. Girder Surface Repair	EACH	79.000	79.000
0994	SPV.0060	Special 401. Strapping B-40-321	EACH	3.000	3.000
0996	SPV.0060	Special 402. Sidewalk Cover Plate Resetting	EACH	1.000	1.000
0998	SPV.0060	Special 403. Concrete Channel Lining Repair	EACH	1.000	1.000
1000	SPV.0060	Special 404. Embedded Galvanic Anodes	EACH	72.000	72.000
1002	SPV.0060	Special 405. Cleaning and Sealing Concrete Girder Ends	EACH	32.000	32.000
1004	SPV.0060	Special 406. Cleaning and Painting Bearing	EACH	72.000	72.000
1006	SPV.0060	Special 450. Remove and Relocate Existing Sign Bridge S-40-410	EACH	1.000	1.000
1008	SPV.0060	Special 455. Remove and Relocate Existing Sign Bridge S-40-413	EACH	1.000	1.000
1010	SPV.0060	Special 460. Remove and Relocate Existing Sign Bridge S-40-801	EACH	1.000	1.000
1012	SPV.0060	Special 465. Tension Chord Splice Connections (S-40-834)	EACH	1.000	1.000
1014	SPV.0060	Special 470. Remove and Relocate Existing 2-Chord Butterfly Sign Structure S-40-869	EACH	1.000	1.000
1016	SPV.0060	Special 475. Remove and Relocate Existing 4-Chord Butterfly Sign Structure S-40-870	EACH	1.000	1.000
1018	SPV.0060	Special 499. Remove and Reinstall Existing Noise Barrier Panels	EACH	1.000	1.000
1022	SPV.0060	Special 501. Water Main Protection	EACH	10.000	10.000
1024	SPV.0060	Special 502. Adjusting Water Boxes	EACH	4.000	4.000
1028	SPV.0060	Special 801. Inlet Covers Type 27-M-HD	EACH	101.000	101.000
1030	SPV.0060	Special 802. Reconstructing Manhole Special	EACH	16.000	16.000
1032	SPV.0060	Special 803. Reconstructing Inlet Special	EACH	5.000	5.000
1034	SPV.0060	Special 804. Remove and Cap Existing Drainage Structure	EACH	20.000	20.000
1036	SPV.0060	Special 805. Cap Proposed Drainage Structure	EACH	2.000	2.000
1038	SPV.0060	Special 806. Pipe Connection to Existing Structure	EACH	15.000	15.000
1040	SPV.0060	Special 807. Welded Existing Inlet Covers	EACH	55.000	55.000
1042	SPV.0060	Special 808. Welded Proposed Inlet Covers	EACH	11.000	11.000
1044	SPV.0060	Special 809 Inlet Covers Type V-S	EACH	10.000	10.000
1046	SPV.0060	Special 810. Inlet Covers Type V-HD-S	EACH	31.000	31.000
1048	SPV.0075	Special 001. Pavement Cleanup Project 1100-45-70	HRS	200.000	200.000
1052	SPV.0090	Special 001. Concrete Barrier Vertical Back Type S56 Modified	LF	1,136.000	1,136.000
1054	SPV.0090	Special 002. Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan	LF	188.000	188.000
1056	SPV.0090	Special 003. Marking Line Contrast Epoxy 4-Inch	LF	362.000	362.000
1058	SPV.0090	Special 004. Marking Line Contrast Epoxy 8-Inch	LF	87.000	87.000
1060	SPV.0090	Special 005. Maintain and Remove Concrete Barrier Temporary Precast	LF	512.000	512.000
1062	SPV.0090	Special 006. Temporary Marking Crosswalk Removable Tape 6-Inch	LF	290.000	290.000
1064	SPV.0090	Special 103. Cable Aerial Aluminum 4 AWG Quadruplex	LF	7,472.000	7,472.000
1066	SPV.0090	Special 104. Cable Aerial Aluminum 2 AWG Quadruplex	LF	2,163.000	2,163.000
1068	SPV.0090	Special 105. Cable Aerial Aluminum 6 AWG Quadruplex	LF	6,018.000	6,018.000
1070	SPV.0090	Special 400. Expansion Joint Seal System	LF	468.000	468.000

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Line	Item	Item Description	Unit	Total	Qty
1072	SPV.0090	Special 801. Cleaning Storm Sewer	LF	725.000	725.000
1080	SPV.0165	Special 402. Fiber Wrap Reinforcing Non-Structural	SF	475.000	475.000
1082	SPV.0165	Special 403. Removing Loose Concrete	SF	100.000	100.000
1084	SPV.0165	Special 499. Concrete Surface Repair-Special	SF	240.000	240.000
1086	SPV.0180	Special 001. Base Patching Concrete SHES Special	SY	14,164.000	14,164.000
1088	SPV.0180	Special 002. Removing Asphaltic Surface Milling Special	SY	19,462.000	19,462.000
1092	SPV.0180	Special 401. Abutment Seat Cleaning and Sealing	SY	64.000	64.000
1094	SPV.0180	Special 402. Concrete Bridge Deck Methacrylate Flood Seal	SY	991.000	991.000
1096	SPV.0180	Special 403. Polyester Polymer Concrete Overlay	SY	4,354.000	4,354.000
1098	SPV.0195	Special 001. HMA Longitudinal Joint Repair	TON	2,600.000	2,600.000
1100	SPV.0195	Special 002. HMA Transverse Joint Repair	TON	2,400.000	2,400.000

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CLEARING AND GRUBBING

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			121'EW'+50	-	122'EW'+00	LT	1	1
			202'EW'+00	-	202'EW'+00	RT	1	1
			229'EWE'+50	-	230'EWE'+50	RT	1	1
			256'EWE'+00	-	256'EWE'+00	RT	1	1
		RAMPS						
		RAMP TAB						
			93'TAB'+50	-	95'TAB'+75	LT	3	1
		RAMP TCD						
			177TCD+00	-	191TCD+00	LT	14	14
		RAMP LRC						
			222'LRC'+00	-	222'LRC'+00	LT	1	1
STAGE 3 SUBTOTAL							22	20
TOTAL							22	20

REMOVING PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 204.0100 REMOVING CONCRETE PAVEMENT SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
		MAINLINE						
		IH 41 NB/43 SB/894 WB						
			246'EWE'+30	-	256'EWE'+01	LT	1,236	--
			230'EWW'+74	-	241'EWW'+54	RT	998	--
1000	2	**LOCAL ROADS**						
		S. 84TH STREET						
			17'TA'+95	-	23'TA'+10	LT/RT	--	38,788
			18'TA'+11	-	18'TA'+41	LT	19	--
			18'TA'+60	-	18'TA'+70	LT	18	--
			21'TA'+61	-	21'TA'+81	LT	19	--
			22'TA'+26	-	22'TA'+63	LT	24	--
		STAGE 2 SUBTOTAL					2,314	38,788
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			88'EW'+99	-	95'EW'+11	LT	737	--
			97'EW'+00	-	100'EW'+19	LT	465	--
			105'EW'+77	-	108'EW'+49	LT	335	--
			121'EW'+58	-	130'EW'+53	LT	1,046	--
			137'EW'+92	-	162'EW'+17	LT	3,242	--
			170'EW'+41	-	182'EW'+78	LT	1,402	--
			191'EW'+22	-	202'EW'+07	LT	1,292	--
			203'EW'+50	-	208'EW'+61	LT	832	--
			218'EW'+63	-	223'EW'+02	LT	602	--
			220'EW'+91	-	221'EW'+26	LT	33	--
			223'EW'+81		229'EW'+48	LT	614	
			229'EWW'+48	-	231'EWW'+92	LT	269	--
		IH 41 SB/43 NB/894 EB						
			88'EW'+91	-	95'EW'+21	RT	775	--
			97'EW'+11	-	115'EW'+96	RT	2,323	--
			118'EW'+76	-	127'EW'+21	RT	767	--
			133'EW'+88	-	161'EW'+34	RT	3,414	--
			169'EW'+65	-	181'EW'+80	RT	1,544	--
			188'EW'+08	-	202'EW'+06	RT	2,037	--
			203'EW'+48	-	213'EW'+00	RT	1,295	--
			221'EW'+17		229'EW'+48	RT	991	
			229'EWE'+48	-	235'EWE'+97	RT	792	--
			244'EWE'+12	-	256'EWE'+45	RT	1,511	--

REMOVING PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 204.0100 REMOVING CONCRETE PAVEMENT SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
1000	3	**RAMPS**						
		RAMP TBB						
			132'TBB'+28	-	132'TBB'+57	LT	31	--
		RAMP TCC						
			165'TCC'+68	-	166'TCC'+13	LT	57	--
		STAGE 3 SUBTOTAL					26,406	--
		MAINLINE						
1000	4	IH 41 NB/43 SB/894 WB						
			231'EWW'+92	-	240'EWW'+88	LT	--	11,388
			242'EWW'+73	-	256'EWW'+37	LT	--	10,343
		STAGE 4 SUBTOTAL					--	21,731
		TOTAL					28,720	60,519

*ADDITIONAL QUANTITIES ELSEWHERE

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REMOVING PAVEMENT BUTT JOINTS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0105 REMOVING CONCRETE PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
		MAINLINE						
1000	4	IH 41 NB/43 SB/894 WB						
			82'EW+95	-	83'EW+45	LT	--	329
			88'EW+49	-	88'EW+99	LT	--	104
			94'EW+71	-	95'EW+14	LT	--	158
			97'EW+00	-	97'EW+44	LT	--	158
			108'EW+52	-	109'EW+06	LT	--	108
			130'EW+51	-	131'EW+02	LT	--	96
			169'EW+89	-	170'EW+40	LT	--	95
			182'EW+76	-	183'EW+28	LT	--	100
			201'EW+67	-	202'EW+07	LT	--	151
			203'EW+50	-	203'EW+90	LT	--	151
			218'EW+14	-	218'EW+62	LT	--	89
			223'EW+07	-	223'EW+62	LT	--	114
			236'EWW+85	-	237'EWW+35	LT	129	--
			240'EWW+67	-	241'EWW+52	LT	--	328
			242'EWW+63	-	243'EWW+48	LT	--	323
			255'EWW+87	-	256'EWW+37	LT	39	252
		IH 41 SB/43 NB/894 EB						
			82'EW+95	-	83'EW+45	RT	--	255
			88'EW+37	-	88'EW+91	RT	--	108
			94'EW+78	-	95'EW+21	RT	--	158
			97'EW+07	-	97'EW+51	RT	--	158
			115'EW+96	-	116'EW+47	RT	--	84
			127'EW+21	-	127'EW+76	RT	--	186
			169'EW+11	-	169'EW+63	RT	--	94
			181'EW+81	-	182'EW+32	RT	--	89
			201'EW+66	-	202'EW+06	RT	--	151
			203'EW+48	-	203'EW+88	RT	--	151
			220'EW+66	-	221'EW+20	RT	--	104
			235'EWE+97	-	236'EWE+48	RT	--	150
			255'EWE+95	-	256'EWE+45	RT	--	188
STAGE 4 SUBTOTAL							168	4,432
TOTAL							168	4,432

REMOVING ASPHALTIC SURFACE MILLING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0126.S REMOVING ASPHALTIC LONGITUDINAL NOTCHED WEDGE JOINT MILLING LF	SPV.0180.002 REMOVING ASPHALTIC SURFACE MILLING SPECIAL SY
		MAINLINE							
1000	1	IH 41 NB/43 SB/894 WB							
			81'EW'+29	-	120'EW'+00	LT	--	--	1,090
			120'EW'+00	-	179'EW'+40	LT	--	--	4,082
			179'EW'+40	-	229'EW'+48	LT	--	--	2,479
		IH 41 SB/43 NB/894 EB							
			81'EW'+29	-	120'EW'+00	RT	--	--	2,321
			120'EW'+00	-	179'EW'+40	RT	--	--	3,964
			179'EW'+40	-	229'EW'+48	RT	--	--	3,584
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	--	1,942
		STAGE 1 SUBTOTAL					--	--	19,462
		RAMPS							
1000	2	RAMP TAA							
			88'TAA'+75	-	95'TAA'+93	LT	1,585	--	--
		RAMP TAB							
			89'TAB'+16	-	95'TAB'+71	RT	1,659	--	--
		RAMP FHA							
			110'FHA'+67	-	115'FHA'+88	LT	1,223	--	--
		RAMP FHB							
			97'FHB'+65	-	108'FHB'+73	RT	2,150	--	--
		RAMP TBA							
			123'TBA'+05	-	127'TBA'+30	LT	1,669	--	--
		RAMP TBB							
			124'TBB'+00	-	130'TBB'+42	RT	1,528	--	--

REMOVING ASPHALTIC SURFACE MILLING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0126.S REMOVING ASPHALTIC LONGITUDINAL NOTCHED WEDGE JOINT MILLING LF	SPV.0180.002 REMOVING ASPHALTIC SURFACE MILLING SPECIAL SY
1000	2	RAMP TCA							
			177'TCA'+57	-	181'TCA'+79	LT	901	--	--
		RAMP TCB							
			169'TCB'+62	-	174'TCB'+74	LT	1,047	--	--
		RAMP TCC							
			170'TCC'+39	-	173'TCC'+82	RT	707	--	--
		RAMP TCD							
			178'TCD'+09	-	182'TCD'+77	LT/RT	1,074	--	--
		RAMP LRA							
			231'LRA'+22	-	235'LRA'+72	RT	1,540	--	--
		RAMP LRB							
			221'LRB'+00	-	226'LRB'+70	RT	1,273	--	--
		RAMP LRC							
			218'LRC'+77	-	229'LRC'+90	RT	2,978	--	--
		RAMP LRD							
			214'LRD'+96	-	223'LRD'+11	RT	1,963	--	--
1000	2	**LOCAL ROADS**							
		S. 84TH STREET							
			17'TA'+95	-	23'TA'+10	LT/RT	--	1,030	--
		STAGE 2 SUBTOTAL					21,297	1,030	--

(CONTINUED ON THE NEXT SHEET)

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REMOVING ASPHALTIC SURFACE MILLING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0120 * REMOVING ASPHALTIC SURFACE MILLING SY	204.0126.S REMOVING ASPHALTIC LONGITUDINAL NOTCHED WEDGE JOINT MILLING LF	SPV.0180.002 REMOVING ASPHALTIC SURFACE MILLING SPECIAL SY
		MAINLINE							
1000	4	IH 41 NB/43 SB/894 WB							
			81'EW'+29	-	120'EW'+00		23,293	7,740	--
			120'EW'+00	-	179'EW'+40		38,742	11,880	--
			179'EW'+40	-	229'EW'+48		33,394	10,020	--
			229'EWW'+48		256'EWW'+37		16,233	5,380	--
		IH 41 SB/43 NB/894 EB							
			81'EW'+29	-	120'EW'+00		22,459	7,740	--
			120'EW'+00	-	179'EW'+40		38,507	11,880	--
			179'EW'+40	-	229'EW'+48		31,260	10,020	--
			229'EWE'+48	-	256'EWE'+46		27,763	5,400	--
		STAGE 4 SUBTOTAL					231,651	70,060	--
		TOTAL					252,948	71,090	19,462

*ADDITIONAL QUANTITIES ELSEWHERE

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\11004570-030201-MQ.DWG
LAYOUT NAME - 05
PLOT DATE : 5/10/2023 4:22 PM PLOT BY : GIBSON-MURPHY, NIKKI PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

REMOVING CURB & GUTTER

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0150 REMOVING CURB & GUTTER LF
		MAINLINE					
1000	2	IH 41 SB/43 NB/894 EB					
			246'EWE+82	LT/RT	255'EWE+97	LT/RT	916
		RAMPS					
		RAMP TAA					
			83'TAA'+10	RT	89'TAA'+49	RT	644
			88'TAA'+75	LT	89'TAA'+49	LT	74
		RAMP TAB					
			89TAB+16	RT	95TAB+71	RT	665
		RAMP FHA					
			110'FHA'+67	RT	118'FHA'+73	RT	805
			110'FHA'+71	LT	115'FHA'+88	LT	532
		RAMP FHB					
			97'FHB'+65	LT	112'FHB'+14	LT	1,448
			97'FHB'+66	RT	108'FHB'+73	RT	1,187
			116'FHB'+59	LT	121'FHB'+58	LT	499
		RAMP TBA					
			122'TBA'+89	RT	133'TBA'+93	RT	1,104
			123'TBA'+05	LT	127'TBA'+30	LT	399
		RAMP TBB					
			124'TBB'+00	LT	137'TBB'+87	LT	1,388
			124'TBB'+06	RT	130'TBB'+42	RT	649
		RAMP TCA					
			177'TCA'+57	LT	181'TCA'+79	LT	422
			177'TCA'+57	RT	188'TCA'+09	RT	1,052
		RAMP TCB					
			161'TCB'+34	RT	174'TCB'+74	RT	1,339
			169'TCB'+62	LT	174'TCB'+74	LT	512

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REMOVING CURB & GUTTER

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0150 REMOVING CURB & GUTTER LF
1000	2	RAMP TCC					
			162'TCC'+17	LT	173'TCC'+82	LT	1,166
			170'TCC'+39	RT	173'TCC'+82	RT	344
		RAMP TCD					
			178'TCD'+09	RT	182'TCD'+77	RT	470
		RAMP LRA					
			231'LRA'+22	LT	235'LRA'+72	LT	457
			231'LRA'+22	RT	242'LRA'+88	RT	1,166
		RAMP LRB					
			213'LRB'+00	RT	215'LRB'+83	RT	283
			217'LRB'+20	RT	224'LRB'+70	RT	750
			221'LRB'+00	LT	224'LRB'+70	LT	370
		RAMP LRC					
			208'LRC'+62	LT	219'LRC'+28	LT	1,067
			219'LRC'+94	RT	222'LRC'+47	RT	265
			218'LRC'+77	RT	219'LRC'+29	RT	63
			221'LRC'+60	LT	229'LRC'+43	LT	784
			229'LRC'+69	LT	230'LRC'+01	LT	39
		RAMP LRD					
			214'LRD'+97	LT	223'LRD'+84	LT	886
			214'LRD'+97	RT	215'LRD'+06	RT	9
			220'LRD'+58	RT	223'LRD'+11	RT	280
		STAGE 2 SUBTOTAL					22,034
		TOTAL					22,034

REMOVING CONCRETE BARRIER

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0157 REMOVING CONCRETE BARRIER LF	SPV.0090.005 MAINTAIN AND REMOVE CONCRETE BARRIER TEMPORARY PRECAST LF
		MAINLINE						
1000	2	IH 41 NB/43 SB/894 WB						
			81'EW+29	LT/RT	95'EW+16	LT	1,388	--
			97'EW+05	LT	149'EW+22	LT	5,218	--
			149'EW+82	LT	174'EW+78	LT	2,497	--
			174'EW+78	LT	177'EW+34	LT	--	256
			177'EW+34	LT	202'EW+06	LT	2,474	--
			203'EW+49	LT	229'EW+48	LT	2,600	--
			229'EWW+48	RT	232'EWW+35	RT	271	--
			240'EWW+80	RT	241'EWW+59	RT	68	--
			243'EWW+15	RT	256'EWW+20	RT	1,289	--
		IH 41 SB/43 NB/894 EB						
			81'EW+69	RT	95'EW+16	RT	1,388	--
			97'EW+99	RT	149'EW+22	RT	5,217	--
			149'EW+82	RT	174'EW+78	RT	2,471	--
			174'EW+78	RT	177'EW+34	RT	--	256
			177'EW+34	RT	202'EW+06	RT	2,474	--
			203'EW+49	RT	229'EW+48	RT	2,600	--
			229'EWE+48	LT	235'EWE+71	LT	602	--
			250'EWE+80	LT	256'EWE+61	LT	580	--
		STAGE 2 SUBTOTAL					31,137	512
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			97'EW+15	LT	100'EW+34	LT	319	--
			111'EW+98	LT	116'EW+53	LT	445	--
			122'EW+26	LT	124'EW+93	LT	270	--
			149'EW+23	LT	151'EW+34	LT	210	--
			190'EW+00	LT	201'EW+94	LT	1,198	--
			203'EW+64	LT	205'EW+17	LT	153	--
			228'EW+55	LT	231'EWW+30	LT	268	--

REMOVING CONCRETE BARRIER

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0157 REMOVING CONCRETE BARRIER LF	SPV.0090.005 MAINTAIN AND REMOVE CONCRETE BARRIER TEMPORARY PRECAST LF
1000	3	IH 41 SB/43 NB/894 EB						
			92'EW+99	RT	95'EW+08	RT	207	--
			97'EW+12	RT	97'EW+27	RT	15	--
			109'EW+52	RT	113'EW+42	RT	395	--
			120'EW+46	RT	123'EW+16	RT	268	--
			147'EW+70	RT	149'EW+01	RT	142	--
			200'EW+41	RT	201'EW+91	RT	150	--
			203'EW+63	RT	205'EW+63	RT	200	--
			215'EW+88	RT	217'EW+28	RT	137	--
			226'EW+15	RT	229'EWE+69	RT	354	--
			254'EWE+30	RT	256'EWE+60	RT	226	--
		STAGE 3 SUBTOTAL					4,957	--
		TOTAL					36,094	512

REMOVING CONCRETE SIDEWALK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
		LOCAL ROADS					
1000	2	S. 84TH STREET					
			17'TA'+85	-	18'TA'+29	LT	23
			18'TA'+65	-	18'TA'+92	LT	15
			21'TA'+46	-	21'TA'+75	LT	17
			22'TA'+42	-	23'TA'+08	LT	37
		STAGE 2 SUBTOTAL					92
	3	51ST STREET					
			203'EW+02	-	203'EW+09	LT/RT	70
		STAGE 3 SUBTOTAL					70
		TOTAL					162

REMOVING GUARDRAIL

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0165 REMOVING GUARDRAIL LF
		MAINLINE					
1000	2	IH 41 NB/43 SB/894 WB					
			238'EWW'+28	RT	239'EWW'+94	RT	166
		STAGE 2 SUBTOTAL					166
		MAINLINE					
1000	3	IH 41 NB/43 SB/894 WB					
			116'EW'+53	LT	117'EW'+37	LT	82
			124'EW'+93	LT	125'EW'+76	LT	83
			151'EW'+34	LT	152'EW'+15	LT	81
			205'EW'+17	LT	205'EW'+99	LT	82
			231'EWW'+30	LT	234'EWW'+61	LT	320
		IH 41 SB/43 NB/894 EB					
			92'EW'+17	RT	92'EW'+99	RT	82
			108'EW'+70	RT	109'EW'+52	RT	82
			119'EW'+65	RT	120'EW'+46	RT	82
			146'EW'+88	RT	147'EW'+71	RT	83
			199'EW'+58	RT	200'EW'+41	RT	83
			214'EW'+90	RT	215'EW'+88	RT	96
			225'EW'+33	RT	226'EW'+15	RT	82
			253'EWE'+51	RT	254'EWE'+33	RT	83
		STAGE 3 SUBTOTAL					1,321
		TOTAL					1,487

REMOVING FENCE

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF
		MAINLINE						
1000	3	IH 41 /43 /894						
			122'EW'+13	146.46' LT	-	122'EW'+18	135.62' LT	12
		STAGE 3 SUBTOTAL						12
		TOTAL						12

REMOVING SUBSURFACE STRUCTURE

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.9060.S.002 REMOVING SUBSURFACE STRUCTURE EACH
		MAINLINE					
1000	3	IH 41 /43 /894					
			149'EW'+25	-	149'EW'+80	LT/RT	1
		STAGE 3 SUBTOTAL					1
		TOTAL					1

OBLITERATING OLD ROAD

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	214.0100 OBLITERATING OLD ROAD STA
		MAINLINE					
1000	2	IH 41 NB/43 SB/894 WB					
			241'EWW'+32	-	246'EWW'+21	LT	6
		STAGE 2 SUBTOTAL					6
		TOTAL					6

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	SALVAGED/ UNUSABLE PAVEMENT MATERIAL (2)	AVAILABLE MATERIAL (3)	SPV.0035.001 EBS EXCAVATION (CY) (4) FACTOR 1.00	SPV.0035.002 EBS BACKFILL (CY) (5) FACTOR 1.00	UNEXPANDED FILL	EXPANDED FILL (6) FACTOR 1.25	MASS ORDINATE +/- (7)	WASTE	COMMENT
DIVISION 2												
MAINLINE	81'EW'+29 TO 229'EW'+47.79	IH 41/ 43/ 894	43,736	0	43,736	4,374	4,374	0	0	43,736	43,736	
	229'EWE'+47.79 TO 256'EWE'+45.40	IH 41 SB/ 43 NB/ 894 EB	4,209	172	4,037	421	421	112	140	3,897	3,897	
	229'EWW'+47.79 TO 256'EWW'+36.78	IH 41 NB/ 43 SB/ 894 WB	2,697	277	2,420	270	270	140	175	2,245	2,245	
RAMPS		TAA	14	0	14	1	1	0	0	14	14	
		TAB	57	0	57	6	6	0	0	57	57	
		FHA	94	0	94	9	9	0	0	94	94	
		FHB	197	0	197	20	20	0	0	197	197	
		TBA	78	0	78	8	8	0	0	78	78	
		TBB	113	0	113	11	11	0	0	113	113	
		TCA	74	0	74	7	7	0	0	74	74	
		TCB	91	0	91	9	9	0	0	91	91	
		TCC	60	0	60	6	6	0	0	60	60	
		TCD	41	0	41	4	4	0	0	41	41	
		LRA	80	0	80	8	8	0	0	80	80	
		LRB	70	0	70	7	7	0	0	70	70	
		LRC	175	0	175	17	17	0	0	175	175	
		LRD	95	0	95	10	10	0	0	95	95	
DIVISION 2 SUBTOTAL			51,881	449	51,432	5,188	5,188	252	315	51,117	51,117	
DIVISION 3												
MAINLINE	81'EW'+29 TO 229'EW'+47.79	IH 41 SB/ 43 NB/ 894 EB	14,939	3,651	11,288	1,494	1,494	232	290	10,998	10,998	
	81'EW'+29 TO 229'EW'+47.79	IH 41 NB/ 43 SB/ 894 WB	12,387	2,944	9,443	1,239	1,239	154	193	9,250	9,250	
	229'EWE'+47.79 TO 256'EWE'+45.40	IH 41 SB/ 43 NB/ 894 EB	2,884	640	2,244	288	288	8	10	2,234	2,234	
	229'EWW'+47.79 TO 256'EWW'+36.78	IH 41 NB/ 43 SB/ 894 WB	276	75	201	28	28	1	1	200	200	
DIVISION 3 SUBTOTAL			30,486	7,310	23,176	3,049	3,049	395	494	22,682	22,682	
GRAND TOTAL			82,367	7,759	74,608	8,237	8,237	647	809	73,799	73,799	
TOTAL COMMON EXC			82,367									

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(4) EBS EXCAVATION VOLUME ASSUMED AS 10% OF TOTAL COMMON EXCAVATION VOLUME. SPV.0035.001 (CY) TO BE BACKFILLED WITH EBS BACKFILL SPV.0035.002 (CY). ALL EBS EXCAVATION TO BE WATED OFFSITE.

(5) EBS BACKFILL FACTOR = 1.00.

(6) EXPANDED FILL FACTOR = 1.25

DEPENDING ON SELECTIONS:

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR

(7) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

SAW CUTTING ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF	REMARKS
		MAINLINE							
1000	2	IH 41 NB/43 SB/894 WB							
			81'EW'+29	LT	81'EW'+29	LT	13	--	MEDIAN WEST LIMITS
			81'EW'+29	LT	95'EW'+14	LT	--	1,390	MEDIAN LONGITUDINAL SAWCUT
			97'EW'+04	LT	202'EW'+07	LT	--	10,502	MEDIAN LONGITUDINAL SAWCUT
			203'EW'+50	LT	241'EW'+52	LT	--	3,808	MEDIAN LONGITUDINAL SAWCUT
			243'EWW'+08	LT	256'EWW'+37	LT/RT	--	1,355	MEDIAN LONGITUDINAL SAWCUT
		IH 41 SB/43 NB/894 EB							
			81'EW'+29	RT	81'EW'+29	RT	13	--	MEDIAN WEST LIMITS
			81'EW'+29	RT	95'EW'+18	RT	--	1,385	MEDIAN LONGITUDINAL SAWCUT
			97'EW'+07	RT	202'EW'+06	RT	--	10,501	MEDIAN LONGITUDINAL SAWCUT
			203'EW'+48	RT	256'EWE'+61	LT/RT	--	5,324	MEDIAN LONGITUDINAL SAWCUT
		RAMPS							
		RAMP TAA							
			88'TAA'+75	R/L	89'TAA'+49	R/L	--	74	ALONG EXISTING CURB & GUTTER
			88'TAA'+75	LT	89'TAA'+49	LT	--	74	ALONG EXISTING CURB & GUTTER
			89'TAA'+49	RT	89'TAA'+49	RT	--	3	CURB & GUTTER MATCH POINT
			89'TAA'+49	LT	89'TAA'+49	LT	--	3	CURB & GUTTER MATCH POINT
		RAMP TAB							
			89'TAB'+16	RT	95'TAB'+47	RT	--	633	ALONG EXISTING CURB & GUTTER
		RAMP FHA							
			110'FHA'+67	RT	110'FHA'+67	RT	--	3	CURB & GUTTER MATCH POINT
			110'FHA'+71	LT	110'FHA'+71	LT	31	3	MATCH POINT
			110'FHA'+67	R/L	115'FHA'+88	R/L	--	521	ALONG EXISTING CURB & GUTTER
			110'FHA'+71	LT	115'FHA'+88	LT	--	528	ALONG EXISTING CURB & GUTTER
		RAMP FHB							
			97'FHB'+65	RT	97'FHB'+65	RT	--	3	CURB & GUTTER MATCH POINT
			97'FHB'+65	LT	97'FHB'+65	LT	12	3	MATCH POINT
			97'FHB'+65	R/L	108'FHB'+73	R/L	--	1,109	ALONG EXISTING CURB & GUTTER
			97'FHB'+65	LT	108'FHB'+73	LT	--	1,187	ALONG EXISTING CURB & GUTTER
		RAMP TBA							
			122'TBA'+89	RT	122'TBA'+89	RT	--	3	CURB & GUTTER MATCH POINT
			123'TBA'+05	LT	123'TBA'+05	LT	43	3	MATCH POINT
			122'TBA'+89	R/L	127'TBA'+30	R/L	--	441	ALONG EXISTING CURB & GUTTER
			123'TBA'+05	LT	127'TBA'+30	LT	--	433	ALONG EXISTING CURB & GUTTER
		RAMP TBB							
			124'TBB'+00	LT	124'TBB'+00	LT	--	3	CURB & GUTTER MATCH POINT
			124'TBB'+06	RT	124'TBB'+06	RT	54	3	MATCH POINT
			124'TBB'+00	R/L	130'TBB'+42	R/L	--	643	ALONG EXISTING CURB & GUTTER
			124'TBB'+06	RT	130'TBB'+42	RT	--	650	ALONG EXISTING CURB & GUTTER

SAW CUTTING ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF	REMARKS
1000	2	RAMP TCA							
			177'TCA'+57	RT	177'TCA'+57	RT	--	3	CURB & GUTTER MATCH POINT
			177'TCA'+57	LT	177'TCA'+57	LT	20	3	MATCH POINT
			177'TCA'+57	R/L	181'TCA'+79	R/L	--	422	ALONG EXISTING CURB & GUTTER
			177'TCA'+57	LT	181'TCA'+79	LT	--	423	ALONG EXISTING CURB & GUTTER
		RAMP TCB							
			169'TCB'+62	R/L	174'TCB'+74	R/L	--	513	ALONG EXISTING CURB & GUTTER
			169'TCB'+62	LT	174'TCB'+74	LT	--	512	ALONG EXISTING CURB & GUTTER
			174'TCB'+74	RT	174'TCB'+74	RT	--	3	CURB & GUTTER MATCH POINT
			174'TCB'+74	LT	174'TCB'+74	LT	24	3	MATCH POINT
		RAMP TCC							
			170'TCC'+39	R/L	173'TCC'+82	R/L	--	343	ALONG EXISTING CURB & GUTTER
			170'TCC'+39	RT	173'TCC'+82	RT	--	345	ALONG EXISTING CURB & GUTTER
			173'TCC'+82	RT	173'TCC'+82	RT	--	3	CURB & GUTTER MATCH POINT
			173'TCC'+82	LT	173'TCC'+82	LT	19	3	MATCH POINT
		RAMP TCD							
			178'TCD'+09	RT	178'TCD'+09	RT	--	3	CURB & GUTTER MATCH POINT
			178'TCD'+09	LT	178'TCD'+09	LT	25	--	MATCH POINT
			178'TCD'+09	RT	182'TCD'+77	RT	--	470	ALONG EXISTING CURB & GUTTER
		RAMP LRA							
			231'LRA'+22	R/L	235'LRA'+72	R/L	--	451	ALONG EXISTING CURB & GUTTER
			231'LRA'+22	RT	235'LRA'+72	RT	--	450	ALONG EXISTING CURB & GUTTER
			231'LRA'+22	R/L	231'LRA'+22	LT	32	--	MATCH POINT
		RAMP LRB							
			221'LRB'+00	R/L	224'LRB'+70	R/L	--	370	ALONG EXISTING CURB & GUTTER
			221'LRB'+00	RT	224'LRB'+70	RT	--	371	ALONG EXISTING CURB & GUTTER
			226'LRB'+51	R/L	226'LRB'+70	R/L	--	19	ALONG EXISTING CURB & GUTTER
			226'LRB'+70	R/L	226'LRB'+70	R/L	34	--	MATCH POINT
		RAMP LRC							
			218'LRC'+77	R/L	219'LRC'+28	R/L	--	52	ALONG EXISTING CURB & GUTTER
			218'LRC'+77	RT	219'LRC'+29	RT	--	55	ALONG EXISTING CURB & GUTTER
			219'LRC'+94	RT	222'LRC'+47	RT	--	265	ALONG EXISTING CURB & GUTTER
			221'LRC'+60	R/L	229'LRC'+45	R/L	--	785	ALONG EXISTING CURB & GUTTER
			229'LRC'+45	R/L	229'LRC'+70	RT	45	--	RIGHT TURN MATCH POINT
			229'LRC'+65	RT	229'LRC'+90	RT	--	41	ALONG EXISTING CURB & GUTTER
			229'LRC'+90	RT	229'LRC'+90	RT	24	--	LEFT TURN MATCH POINT
		RAMP LRD							
			214'LRD'+96	R/L	223'LRD'+11	R/L	--	814	ALONG EXISTING CURB & GUTTER
			214'LRD'+96	RT	215'LRD'+05	RT	--	10	ALONG EXISTING CURB & GUTTER
			220'LRD'+58	RT	223'LRD'+11	RT	--	280	ALONG EXISTING CURB & GUTTER
			214'LRD'+96	R/L	214'LRD'+96	RT	18	--	MATCH POINT
		RAMP LRE							
			236'LRE'+81	LT	236'LRE'+81	LT	--	23	MATCH POINT

(CONTINUED ON THE NEXT SHEET)

SAW CUTTING ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF	REMARKS
1000	2	**LOCAL ROADS**							
		S. 84TH STREET							
			17'TA'+85	LT	17'TA'+85	LT	--	5	SIDEWALK MATCH POINT
			17'TA'+95	LT	17'TA'+95	LT	--	32	SB SOUTH MATCH POINT
			17'TA'+95	RT	17'TA'+95	RT	--	32	NB SOUTH MATCH POINT
			18'TA'+11	LT	18'TA'+41	LT	--	43	CURB RAMP PAVEMENT REMOVAL
			18'TA'+60	LT	18'TA'+69	LT	--	46	CURB RAMP PAVEMENT REMOVAL
			18'TA'+92	LT	18'TA'+92	LT	--	5	SIDEWALK MATCH POINT
			21'TA'+47	LT	21'TA'+47	LT	--	5	SIDEWALK MATCH POINT
			21'TA'+61	LT	21'TA'+81	LT	--	46	CURB RAMP PAVEMENT REMOVAL
			22'TA'+26	LT	22'TA'+63	LT	--	53	CURB RAMP PAVEMENT REMOVAL
			22'TA'+58	RT	22'TA'+84	RT	--	26	W. ALLERTON AVE. MATCH POINT
			23'TA'+08	LT	23'TA'+08	LT	--	5	SIDEWALK MATCH POINT
			23'TA'+10	LT	23'TA'+10	LT	--	32	SB NORTH MATCH POINT
			23'TA'+10	RT	23'TA'+10	RT	--	42	NB NORTH MATCH POINT
		STAGE 2 SUBTOTAL					407	47,995	
		MAINLINE							
1000	3	IH 41 NB/43 SB/894 WB							
			97'EW'+00	LT	100'EW'+34	LT	--	350	OUTSIDE SHOULDER SAWCUT
			105'EW'+77	LT	108'EW'+49	LT	--	295	OUTSIDE SHOULDER SAWCUT
			121'EW'+58	LT	130'EW'+53	LT	--	917	OUTSIDE SHOULDER SAWCUT
			137'EW'+92	LT	162'EW'+17	LT	--	2,462	OUTSIDE SHOULDER SAWCUT
			170'EW'+41	LT	182'EW'+78	LT	--	1,254	OUTSIDE SHOULDER SAWCUT
			191'EW'+22	LT	202'EW'+07	LT	--	1,226	OUTSIDE SHOULDER SAWCUT
			203'EW'+04	LT	203'EW'+09	LT	--	5	51ST STREET SIDEWALK - NORTH LIMITS
			203'EW'+50	LT	208'EW'+61	LT	--	530	OUTSIDE SHOULDER SAWCUT
			218'EW'+63	LT	223'EW'+02	LT	--	465	OUTSIDE SHOULDER SAWCUT
			223'EW'+85	LT	231'EWW'+92	LT	--	816	OUTSIDE SHOULDER SAWCUT
		IH 41 SB/43 NB/894 EB							
			88'EW'+91	RT	95'EW'+21	RT	--	643	OUTSIDE CURB & GUTTER SAWCUT
			97'EW'+11	RT	115'EW'+96	RT	--	1,908	OUTSIDE SHOULDER SAWCUT
			120'EW'+69	RT	127'EW'+21	RT	--	675	OUTSIDE SHOULDER SAWCUT
			134'EW'+50	RT	161'EW'+34	RT	--	2,757	OUTSIDE SHOULDER SAWCUT
			169'EW'+65	RT	181'EW'+80	RT	--	1,241	OUTSIDE SHOULDER SAWCUT
			188'EW'+08	RT	202'EW'+06	RT	--	1,412	OUTSIDE SHOULDER SAWCUT
			203'EW'+02	RT	203'EW'+08	RT	--	5	51ST STREET SIDEWALK - SOUTH LIMITS
			203'EW'+48	RT	213'EW'+00	RT	--	964	OUTSIDE SHOULDER SAWCUT
			221'EW'+17	RT	235EWE+97	RT	--	1,502	OUTSIDE SHOULDER SAWCUT
			242'EWE'+91	RT	256'EWE'+60	RT	--	1,394	OUTSIDE SHOULDER SAWCUT

SAW CUTTING ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF	REMARKS
1000	3	**RAMPS**							
		RAMP TAA							
			83'TAA'+10	RT	88'TAA'+75	RT	--	565	ALONG EXISTING CURB & GUTTER
		RAMP FHA							
			115'FHA'+88	RT	120'FHA'+69	RT	--	480	ALONG EXISTING C&G AND BARRIER
		RAMP FHB							
			108'FHB'+73	RT	121'FHB'+58	RT	--	1,286	ALONG EXISTING C&G AND BARRIER
		RAMP TBA							
			127'TBA'+30	RT	122'TBA'+89	RT	--	663	ALONG EXISTING CURB & GUTTER
		RAMP TBB							
			124'TBB'+00	LT	124'TBB'+00	LT	--	745	ALONG EXISTING CURB & GUTTER
		RAMP TCA							
			177'TCA'+57	RT	177'TCA'+57	RT	--	631	ALONG EXISTING CURB & GUTTER
		RAMP TCB							
			174'TCB'+74	RT	174'TCB'+74	RT	--	828	ALONG EXISTING CURB & GUTTER
		RAMP TCC							
			173'TCC'+82	RT	173'TCC'+82	RT	--	823	ALONG EXISTING CURB & GUTTER
		RAMP LRA							
			178'LRA'+09	RT	178'LRA'+09	RT	--	717	ALONG EXISTING CURB & GUTTER
		RAMP LRB							
			213'LRB'+00	RT	221'LRB'+00	RT	--	801	ALONG EXISTING C&G AND BARRIER
		RAMP LRC							
			178'LRC'+09	RT	178'LRC'+09	RT	--	1,016	ALONG EXISTING CURB & GUTTER
		RAMP LRD							
			236'LRD'+61	LT	236'LRD'+61	LT	--	74	OUTSIDE SHOULDER SAWCUT
		STAGE 3 SUBTOTAL					--	29,450	
		MAINLINE							
1000	4	IH 41 NB/43 SB/894 WB							
			82'EW'+95	LT	82'EW'+95	LT	59	--	WEST MATCH POINT
			256'EWW'+37	LT	256'EWW'+37	LT	47	--	EAST MATCH POINT
		IH 41 SB/43 NB/894 EB							
			82'EW'+95	RT	82'EW'+95	RT	47	--	WEST MATCH POINT
			256'EWE'+45	RT	256'EWE'+45	RT	34	--	EAST MATCH POINT
		STAGE 4 SUBTOTAL					187	--	
		CONTRACT TOTAL					594	77,445	

*ADDITIONAL QUANTITIES ELSEWHERE

BASE AGGREGATE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON
		MAINLINE							
1000	2	IH 41 NB/43 SB/894 WB							
			81'EW'+29	-	120'EW'+00	LT	--	2,181	5,524
			120'EW'+00	-	179'EW'+40	LT	--	3,493	8,849
			179'EW'+40	-	229'EW'+48	LT	--	2,884	7,305
			229'EWW'+48	-	256'EWW'+37	LT/RT	--	1,140	2,886
		IH 41 SB/43 NB/894 EB							
			81'EW'+29	-	120'EW'+00	RT	--	2,181	5,524
			120'EW'+00	-	179'EW'+40	RT	--	3,493	8,849
			179'EW'+40	-	229'EW'+48	RT	--	2,884	7,305
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	1,757	4,451
		RAMPS							
		RAMP TAA							
			82'TAA'+89	-	96'TAA'+04	LT	--	28	70
		RAMP TAB							
			81'TAB'+14	-	95'TAB'+71	RT	--	115	291
		RAMP FHA							
			104'FHA'+88	-	124'FHA'+05	LT	--	189	477
		RAMP FHB							
			96'FHB'+44	-	124'FHB'+34	RT	--	394	996
		RAMP TBA							
			122'TBA'+35	-	138'TBA'+58	LT	--	156	394
		RAMP TBB							
			123'TBB'+39	-	140'TBB'+07	RT	--	227	574
		RAMP TCA							
			176'TCA'+06	-	192'TCA'+07	LT	--	148	375
		RAMP TCB							
			158'TCB'+53	-	175'TCB'+82	LT	--	182	461
		RAMP TCC							
			157'TCC'+20	-	175'TCC'+60	RT	--	121	306

BASE AGGREGATE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON
1000	2	RAMP TCD							
			176'TCD'+54	-	194'TCD'+04	RT	--	83	210
		RAMP LRA							
			228'LRA'+40	-	247'LRA'+50	LT	--	160	404
		RAMP LRB							
			209'LRB'+23	-	228'LRB'+31	LT	--	141	355
		RAMP LRC							
			204'LRC'+52	-	230'LRC'+60	RT	--	350	887
		RAMP LRD							
			212'LRD'+41	-	229'LRD'+48	RT	--	191	482
		LOCAL ROADS							
		S. 84TH STREET							
			18'TA'+00	-	23'TA'+00	LT	30	17	--
		S. 51ST STREET							
			202'EW'+07	-	203'EW'+48	LT/RT	17	--	--
		STAGE 2 SUBTOTAL					47	22,515	56,975
		MAINLINE							
1000	3	IH 41 NB/43 SB/894 WB							
			81'EW'+29	-	120'EW'+00	LT	--	848	886
			120'EW'+00	-	179'EW'+40	LT	--	2,457	2,576
			179'EW'+40	-	229'EW'+48	LT	--	1,855	4,699
			229'EWW'+48	-	256'EWW'+37	LT/RT	--	101	255
		IH 41 SB/43 NB/894 EB							
			81'EW'+29	-	120'EW'+00	RT	--	1,397	3,538
			120'EW'+00	-	179'EW'+40	RT	--	2,386	6,043
			179'EW'+40	-	229'EW'+48	RT	--	2,202	5,578
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	1,031	2,611
		STAGE 3 SUBTOTAL					--	12,277	26,186
		TOTAL					47	34,792	83,161

*ADDITIONAL QUANTITIES ELSEWHERE

BASE PATCHING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 390.0403 BASE PATCHING CONCRETE SHES SY	* SPV.0180.001 BASE PATCHING CONCRETE SHES SPECIAL SY	* 416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	* 690.0250 SAWING CONCRETE LF
		RAMPS									
1000	1&2	RAMP TAA	88'TAA'+75	-	95'TAA'+75	LT	127	--	77	254	572
		RAMP TAB	89'TAB'+16	-	95'TAB'+71	RT	133	--	80	266	599
		RAMP FHA	110'FHA'+67	-	115'FHA'+88	LT	98	--	59	196	441
		RAMP FHB	97'FHB'+65	-	108'FHB'+73	RT	173	--	104	346	779
		RAMP TBA	122'TBA'+89	-	127'TBA'+30	LT	134	--	81	268	603
		RAMP TBB	124'TBB'+00	-	130'TBB'+42	RT	123	--	74	246	554
		RAMP TCA	177'TCA'+57	-	181'TCA'+79	LT	73	--	44	146	329
		RAMP TCB	169'TCB'+62	-	174'TCB'+74	LT	84	--	51	168	378
		RAMP TCC	170'TCC'+39	-	173'TCC'+82	RT	57	--	35	114	257
		RAMP TCD	178'TCD'+09	-	182'TCD'+77	RT	86	--	52	172	387
		RAMP LRA	231'LRA'+22	-	235'LRA'+72	LT	124	--	75	248	558
		RAMP LRB	221'LRB'+00	-	226'LRB'+70	LT	102	--	62	204	459

(CONTINUED ON THE NEXT SHEET)

BASE PATCHING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 390.0403 BASE PATCHING CONCRETE SHES SY	* SPV.0180.001 BASE PATCHING CONCRETE SHES SPECIAL SY	* 416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	* 690.0250 SAWING CONCRETE LF
1000	1&2	RAMP LRC									
			218'LRC'+77	-	229'LRC'+91	RT	239	--	144	478	1,076
		RAMP LRD									
			214'LRD'+96	-	223'LRD'+11	RT	157	--	95	314	707
		LOCAL ROADS									
1000	2	S. 84TH STREET									
			18'TA'+00	-	23'TA'+00	RT	424	--	255	848	1,908
			18'TA'+11	-	18'TA'+41	RT	9	--	18	--	--
			18'TA'+60	-	18'TA'+69	RT	10	--	19	--	--
			21'TA'+61	-	51'TA'+81	RT	11	--	19	--	--
			22'TA'+23	-	22'TA'+63	RT	13	--	22	--	--
		MAINLINE									
1000	ALL	IH 41 NB/43 SB/894 WB									
			81'EW'+29	-	95'EW'+16	LT	--	518	--	--	2,331
			97'EW'+06	-	120'EW'+00	LT	--	815	--	--	3,668
			120'EW'+00	-	179'EW'+40	LT	--	2,093	--	--	9,419
			179'EW'+40	-	202'EW'+07	LT	--	815	--	--	3,668
			203'EW'+48	-	229'EW'+48	LT	--	1,101	--	--	4,955
			229'EWW'+48	-	241'EWW'+53	LT/RT	--	526	--	--	2,367
			242'EWW'+62	-	256'EWW'+37	LT/RT	--	552	--	--	2,484
		IH 41 SB/43 NB/894 EB									
			81'EW'+29	-	95'EW'+16	RT	--	456	--	--	2,052
			97'EW'+06	-	120'EW'+00	RT	--	755	--	--	3,398
			120'EW'+00	-	179'EW'+40	RT	--	2,075	--	--	9,338
			179'EW'+40	-	202'EW'+07	RT	--	797	--	--	3,587
			203'EW'+48	-	229'EW'+48	RT	--	904	--	--	4,068
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	954	--	--	4,293
TOTAL							2,177	12,361	1,366	4,268	65,228

*ADDITIONAL QUANTITIES ELSEWHERE

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	416.0610 * DRILLED TIE BARS EACH	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 2 SF
		MAINLINE								
1000	2	IH 41 SB/43 NB/894 EB								
			229'EWE'+48	LT	256'EWE'+46	LT	--	--	1,503	--
		RAMPS								
		RAMP TAA								
			88'TAA'+75	RT	89'TAA'+49	RT	30	--	74	--
			88'TAA'+75	LT	89'TAA'+49	LT	30	--	74	--
		RAMP TAB								
			81'TAB'+14	RT	95'TAB'+71	RT	265	502	160	--
		RAMP FHA								
			110'FHA'+67	RT	115'FHA'+88	RT	208	173	347	--
			110'FHA'+71	LT	115'FHA'+88	LT	211	173	353	--
		RAMP FHB								
			97'FHB'+64	RT	108'FHB'+73	RT	479	1,082	115	--
			97'FHB'+65	LT	108'FHB'+73	LT	440	991	108	--
		RAMP TBA								
			122'TBA'+89	RT	127'TBA'+30	RT	176	200	239	--
			123'TBA'+05	LT	127'TBA'+30	LT	173	187	245	--
		RAMP TBB								
			124'TBB'+00	RT	130'TBB'+42	RT	260	410	239	--
			124'TBB'+07	LT	130'TBB'+42	LT	257	403	239	--
		RAMP TCA								
			177'TCA'+57	RT	18178.62=5	RT	169	276	145	--
			177'TCA'+57	LT	181'TCA'+79	LT	169	276	146	--
		RAMP TCB								
			169'TCB'+62	RT	174'TCB'+74	RT	206	252	261	--
			169'TCB'+62	LT	174'TCB'+74	LT	205	251	261	--
		RAMP TCC								
			170'TCA'+39	RT	173'TCA'+82	RT	138	217	128	--
			170'TCA'+39	LT	173'TCA'+82	LT	138	217	126	--
		RAMP TCD								
			178'TCD'+09	RT	182'TCD'+77	RT	188	275	195	--

(CONTINUED ON THE NEXT SHEET)

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	416.0610 * DRILLED TIE BARS EACH	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 2 SF
1000	2	RAMP LRA								
			231'LRA'+22	RT	235'LRA'+72	RT	180	236	214	--
			231'LRA'+22	LT	235'LRA'+72	LT	180	236	214	--
		RAMP LRB								
			221'LRB'+00	RT	226'LRB'+70	RT	156	18	370	--
			221'LRB'+01	LT	224'LRB'+70	LT	148	--	370	--
		RAMP LRC								
			218'LRC'+77	RT	222'LRC'+47	RT	143	301	55	18
			218'LRC'+77	LT	229'LRC'+45	LT	650	786	837	--
		RAMP LRD								
			214'LRD'+96	RT	223'LRD'+10	RT	117	171	121	--
			214'LRD'+96	LT	223'LRD'+11	LT	324	699	109	--
		LOCAL ROADS								
		S. 84TH STREET								
			18'TA'+00	LT	23'TA'+00	LT	59	95	--	--
		STAGE 2 SUBTOTAL					5,699	8,427	7,248	18
		MAINLINE								
1000	3	IH 41 NB/43 SB/894 WB								
			81'EW'+29	LT	120'EW'+00	LT	--	--	1,207	--
			120'EW'+00	LT	179'EW'+40	LT	--	--	4,484	--
			179'EW'+40	LT	229'EW'+48	LT	--	--	1,582	--
		IH 41 SB/43 NB/894 EB								
			81'EW'+29	RT	120'EW'+00	RT	--	--	1,889	--
			120'EW'+00	RT	179'EW'+40	RT	--	--	3,732	--
			179'EW'+40	RT	229'EW'+48	RT	--	--	3,980	--
			229'EWE'+48	RT	256'EWE'+46	RT	--	--	1,145	--

(CONTINUED ON THE NEXT SHEET)

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	416.0610* DRILLED TIE BARS EACH	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 2 SF
1000	3	**RAMPS**								
		RAMP TAA	88'TAA'+75	RT	89'TAA'+49	RT	226	--	564	--
		RAMP FHA	115'FHA'+88	RT	120'FHA'+46	RT	184	--	458	19
		RAMP FHB	108'FHB'+73	LT	112'FHB'+14	LT	137	--	341	--
			116'FHB'+59	LT	120'FHB'+00	LT	137	--	341	--
		RAMP TBA	127'TBA'+30	RT	135'TBA'+75	RT	338	--	845	--
		RAMP TBB	130'TBB'+42	RT	132'TBB'+25	RT	74	--	183	--
		RAMP TCA	176'TCA'+06	RT	192'TCA'+07	RT	253	--	631	--
		RAMP TCB	161'TCB'+34	RT	174'TCB'+74	RT	331	--	827	--
		RAMP TCC	162'TCC'+16	LT	170'TCA'+39	LT	330	--	823	--
		RAMP LRA	235'LRA'+72	RT	242'LRA'+88	RT	287	--	717	--
		RAMP LRB	217'LRB'+20	RT	221'LRB'+00	RT	152	--	380	--
		RAMP LRC	208'LRC'+61	LT	218'LRC'+77	LT	407	--	1,016	--
		RAMP LRD	223'LRD'+11	LT	229'LRD'+48	LT	246	--	613	--
STAGE 3 SUBTOTAL							3,102	--	25,758	19
TOTAL							8,801	8,427	33,006	37

*ADDITIONAL QUANTITIES ELSEWHERE

ASPHALTIC PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	* 455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.7423 HMA PAVEMENT 3 HT 58-28 H TON	460.8624 HMA PAVEMENT 4 SMA 58-28 V TON	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON
		MAINLINE										
1000	1	IH 41 NB/43 SB/894 WB										
			81'EW'+29	-	120'EW'+00	LT	--	77	--	--	--	245
			120'EW'+00	-	179'EW'+40	LT	--	286	--	--	--	915
			179'EW'+40	-	229'EW'+48	LT	--	174	--	--	--	556
		IH 41 SB/43 NB/894 EB										
			81'EW'+29	-	120'EW'+00	RT	--	163	--	--	--	520
			120'EW'+00	-	179'EW'+40	RT	--	278	--	--	--	888
			179'EW'+40	-	229'EW'+48	RT	--	251	--	--	--	803
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	136	--	--	--	435
		STAGE 1 SUBTOTAL					--	1,365	--	--	--	4,362
		MAINLINE										
1000	2	IH 41 NB/43 SB/894 WB										
			81'EW'+29	-	95'EW'+16	LT	--	690	--	1,344	205	--
			97'EW'+06	-	120'EW'+00	LT	--	1,112	--	2,147	341	
			120'EW'+00	-	179'EW'+40	LT	--	2,896	--	5,607	882	--
			179'EW'+40	-	202'EW'+07	LT	--	1,122	--	2,183	336	--
			203'EW'+48	-	229'EW'+48	LT	--	1,274	--	2,470	387	
			229'EWW'+48	-	241'EWW'+53	LT/RT	--	446	--	890	128	
			242'EWW'+62	-	256'EWW'+37	LT/RT	--	489	--	965	146	--
		IH 41 SB/43 NB/894 EB										
			81'EW'+29	-	95'EW'+16	RT	--	690	--	1,344	205	--
			97'EW'+06	-	120'EW'+00	RT	--	1,101	--	2,147	326	
			120'EW'+00	-	179'EW'+40	RT	--	2,886	--	5,607	868	--
			179'EW'+40	-	202'EW'+07	RT	--	1,120	--	2,183	334	
			203'EW'+48	-	229'EW'+48	RT	--	1,271	--	2,470	382	--
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	1,375	--	2,422	552	--
		RAMPS										
		RAMP TAA										
			82'TAA'+89	-	96'TAA'+04	LT	--	111	178	--	--	--
		RAMP TAB										
			81'TAB'+14	-	95'TAB'+71	RT	--	117	186	--	--	--
		RAMP FHA										
			104'FHA'+88	-	124'FHA'+05	LT	--	86	137	--	--	--
		RAMP FHB										
			96'FHB'+44	-	124'FHB'+34	RT	--	151	241	--	--	--
		RAMP TBA										
			122'TBA'+35	-	138'TBA'+58	LT	--	117	187	--	--	--
		RAMP TBB										
			123'TBB'+39	-	140'TBB'+07	RT	--	107	172	--	--	--

(CONTINUED ON THE NEXT SHEET)

ASPHALTIC PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	* 455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.7423 HMA PAVEMENT 3 HT 58-28 H TON	460.8624 HMA PAVEMENT 4 SMA 58-28 V TON	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON
1000	2	RAMP TCA	176'TCA'+06	-	192'TCA'+07	LT	--	64	101	--	--	--
		RAMP TCB	158'TCB'+53	-	175'TCB'+82	LT	--	74	118	--	--	--
		RAMP TCC	157'TCC'+20	-	175'TCC'+60	RT	--	50	80	--	--	--
		RAMP TCD	176'TCD'+54	-	194'TCD'+04	RT	--	76	121	--	--	--
		RAMP LRA	228'LRA'+40	-	247'LRA'+50	LT	--	108	173	--	--	--
		RAMP LRB	209'LRB'+23	-	228'LRB'+31	LT	--	90	143	--	--	--
		RAMP LRC	204'LRC'+52	-	230'LRC'+60	RT	--	209	334	--	--	--
		RAMP LRD	212'LRD'+41	-	229'LRD'+48	RT	--	137	219	--	--	--
		RAMP LRE	236'LRE'+61	-	238'LRE'+95	RT	--	--	--	--	--	--
		LOCAL ROADS										
		S. 84TH STREET	18'TA'+00	-	23'TA'+00	LT/RT	--	301	490	--	--	--
		STAGE 2 SUBTOTAL					--	18,270	2,880	31,779	5,092	--
		MAINLINE										
1000	3 Shoulders	IH 41 NB/43 SB/894 WB	81'EW'+29	-	95'EW'+16	LT	--	155	--	302	43	--
			97'EW'+06	-	120'EW'+00	LT	--	248		514	59	
			120'EW'+00	-	179'EW'+40	LT	--	1,202	--	2,359	333	--
			179'EW'+40	-	202'EW'+07	LT	--	555	--	1,090	162	--
			203'EW'+48	-	229'EW'+48	LT	--	500		974	147	
			229'EWW'+48	-	241'EWW'+53	LT/RT	--	85		164	25	
		IH 41 SB/43 NB/894 EB	81'EW'+29	-	95'EW'+16	RT	--	193	--	376	56	--
			97'EW'+06	-	120'EW'+00	RT	--	528		1,028	150	
			120'EW'+00	-	179'EW'+40	RT	--	1,161	--	2,268	323	--
			179'EW'+40	-	202'EW'+07	RT	--	576	--	1,123	171	--
			203'EW'+48	-	229'EW'+48	RT	--	499		969	142	
			229'EWE'+48	-	256'EWE'+46	LT/RT	--	576	--	1,123	163	--
		STAGE 3 SUBTOTAL					--	6,278	--	12,290	1,774	--

(CONTINUED ON THE NEXT SHEET)

ASPHALTIC PAVEMENT ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	* 455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.7423 HMA PAVEMENT 3 HT 58-28 H TON	460.8624 HMA PAVEMENT 4 SMA 58-28 V TON	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON
		MAINLINE										
1000	4	IH 41 NB/43 SB/894 WB										
	Overlay		81'EW'+29	-	95'EW'+16	LT	403	1,016	--	815	798	--
			97'EW'+06	-	120'EW'+00	LT	625	1,583	--	1,283	1,218	
			120'EW'+00	-	179'EW'+40	LT	1,684	4,290	--	3,295	3,442	--
			179'EW'+40	-	202'EW'+07	LT	646	1,641	--	1,283	1,299	--
			203'EW'+48	-	229'EW'+48	LT	806	2,029		1,734	1,491	
			229'EWW'+48	-	241'EWW'+53	LT/RT	348	862		828	563	
			242'EWW'+62	-	256'EWW'+37	LT/RT	430	1,070	--	868	850	--
		IH 41 SB/43 NB/894 EB										
			81'EW'+29	-	95'EW'+16	RT	358	907	--	718	712	--
			97'EW'+06	-	120'EW'+00	RT	636	1,630		1,188	1,357	
			120'EW'+00	-	179'EW'+40	RT	1,681	4,282	--	3,271	3,453	--
			179'EW'+40	-	202'EW'+07	RT	643	1,639	--	1,255	1,318	--
			203'EW'+48	-	229'EW'+48	RT	733	1,868		1,423	1,508	
			229'EWE'+48	-	256'EWE'+46	LT/RT	768	1,956	--	1,502	1,570	--
		STAGE 4 SUBTOTAL					9,761	24,773	--	19,463	19,579	--
		TOTAL					9,761	50,686	2,880	63,532	26,445	4,362

*ADDITIONAL QUANTITIES ELSEWHERE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
							MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
DRIVING LANE (MAINLINE)	97'EW'+06 TO 256'EWE'+45 (EB) 97'EW'+06 TO 229'EW'+48 (WB)	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 HT 58-28 H	13,740	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
OUTSIDE SHOULDERS (MAINLINE)	81'EW'+29 TO 256'EWE'+45 (EB) 81'EW'+29 TO 231'EWW'+92 (WB)	UPPER-MIDDLE LAYER LOWER-MIDDLE LAYER LOWER-LOWER LAYER	3 HT 58-28 H 3 HT 58-28 H MILLED EXISTING HMA SURFACE	3 HT 58-28 H	12,290	11.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
MEDIAN SHOULDERS (MAINLINE)	81'EW'+29 TO 256'EWE'+45 (EB) 81'EW'+29 TO 256'EWW'+37 (WB)	UPPER-MIDDLE LAYER LOWER-MIDDLE LAYER LOWER-LOWER LAYER	3 HT 58-28 H 3 HT 58-28 H MILLED EXISTING HMA SURFACE	3 HT 58-28 H	31,780	11.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
PARALLEL OFF RAMP DRIVING LANE	82'TAA'+95 TO 88'TAA'+75 81'TAB'+29 TO 89'TAB'+16 115'FHA+88 TO 120'FHA'+69 108'FHB'+73 TO 124'FHB'+34 127'TBA'+30 TO 134'TBA'+55 130'TBB'+42 TO 137'TBB'+87 161'TCB'+34 TO 169'TCB'+62 162'TCC'+17 TO 170'TCC'+39 181'TCA'+79 TO 188'TCA'+09 182'TCD'+77 TO 191'TCD'+20 213'LRB'+00 TO 221'LRB'+00 208'LRC'+62 TO 218'LRC'+77 223'LRD'+11 TO 241'EWW'+19 242'EWW'+74 TO 256'EWW'+37 235'LRA'+72 TO 242'LRA'+88	LOWER LAYER	MILLED EXISTING HMA SURFACE OR MILLED EXISTING CONCRETE SURFACE	3 HT 58-28 H	2,600	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
PARALLEL OFF RAMP SHOULDER	82'TAB'+98 TO 89'TAB'+16 118'FHA'+76 TO 120'FHA'+69 162'TCC'+17 TO 165'TCC'+83 182'TCD'+77 TO 189'TCD+98 185'TCA'+85 TO 188'TCA'+09 208'LRC'+62 TO 214'LRC'+36	LOWER LAYER	MILLED EXISTING HMA SURFACE OR MILLED EXISTING CONCRETE SURFACE	3 HT 58-28 H	790	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE OR DISINCENTIVE
DRIVING LANES (RAMPS)	88'TAA'+75 TO 95'TAA'+93 89'TAB'+16 TO 95'TAB'+71 110'FHA'+67 TO 115'FHA+88 97'FHB'+65 TO 108'FHB'+73 122'TBA'89 TO 127'TBA'+30 124'TBB'+00 TO 130'TBB'+42 169'TCB'+62 TO 174'TCB'+74 170'TCC'+39 TO 173'TCC'+82 177'TCA'+57 TO 181'TCA'+79 178'TCD'+09 TO 182'TCD'+77 221'LRB'+00 TO 226'LRB'+70 218'LRC'+77 TO 229'LRC'+90 214'LRD'+96 TO 223'LRD'+11 231'LRA'+22 TO 235'LRA'+72	UPPER LAYER	MILLED EXISTING HMA SURFACE OR MILLED EXISTING CONCRETE SURFACE	4 MT 58-28 S	2,310	2.00"	QMP AS PER SS 460	INCENTIVE DENSITY HMA PAVEMENT 460.2000
SHOULDERS (RAMPS)	89'TAB'+16 TO 95'TAB'+47 178'TCD'+09 TO 182'TCD'+77 222'LRC'+47 TO 229'LRC'+90 214'LRD'+96 TO 220'LRD'+58	UPPER LAYER	MILLED EXISTING HMA SURFACE OR MILLED EXISTING CONCRETE SURFACE	4 MT 58-28 S	80	2.00"	QMP AS PER SS 460	INCENTIVE DENSITY HMA PAVEMENT 460.2000
DRIVING LANES (84TH STREET)	17'TA'+95 TO 23'TA'+10 (SB) 17'TA'+95 TO 23'TA'+10 (NB)	UPPER LAYER	MILLED EXISTING CONCRETE SURFACE	4 MT 58-28 S	420	2.00"	QMP AS PER SS 460	INCENTIVE DENSITY HMA PAVEMENT 460.2000
8' SHOULDERS (84TH STREET)	18'TA'+70 TO 23'TA'+10 (SB) 17'TA'+95 TO 23'TA'+10 (NB)	UPPER LAYER	MILLED EXISTING CONCRETE SURFACE	4 MT 58-28 S	70	2.00"	QMP AS PER SS 460	INCENTIVE DENSITY HMA PAVEMENT 460.2000

HMA PAVEMENT PERCENT WITHIN LIMITS

CATEGORY	PROJECT	MIX TYPE	460.0105.S HMA PAVEMENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
1000	**1100-45-70**			
		3 HT 58-28 H	1	2
	TOTAL		1	2

SMA PAVEMENT

CATEGORY	PROJECT	MIX TYPE	460.0115.S HMA PAVEMENT TEST STRIP VOLUMETRICS EACH	460.0120.S HMA PAVEMENT TEST STRIP DENSITY EACH
1000	**1100-45-70**			
		4 SMA 58-28 V	1	1
	TOTAL		1	1

MATERIAL TRANSFER VEHICLE

CATEGORY	PROJECT	460.9000.S MATERIAL TRANSFER VEHICLE EACH
1000	**1100-45-70**	1
	TOTAL	1

SIDEWALK ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	SPV.0060.019 CURB RAMP GRADING, SHAPING AND FINISHING SF
1000	2	**LOCAL ROADS**								
		S. 84TH STREET								
			18'TA'+00	-	23'TA'+08	RT	761	20	45	4
		51ST STREET								
			202'EW'+07	-	203'EW'+48	LT/RT	623	--	--	--
		STAGE 3 SUBTOTAL					1,384	20	45	4
		TOTAL					1,384	20	45	4

CONCRETE BARRIER ITEMS

rea CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	603.1142 CONCRETE BARRIER TYPE S42 LF	603.1242 CONCRETE BARRIER TYPE S42A LF	603.1342 CONCRETE BARRIER TYPE S42B LF	603.1442 CONCRETE BARRIER TYPE S42C LF	603.1156 CONCRETE BARRIER TYPE S56 LF	603.1356 CONCRETE BARRIER TYPE S56B LF	603.1456 CONCRETE BARRIER TYPE S56C LF	SPV.0090.001 CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED LF	SPV.0090.002 CONCRETE BARRIER VERTICAL BACK TYPE S56 MODIFIED WITH 24-INCH PAN LF	633.1000 DELINEATORS BARRIER WALL WHITE EACH	633.1000 DELINEATORS BARRIER WALL YELLOW EACH
		MAINLINE															
1000	2	IH 41/43/894															
			81'EW'+29	LT/RT	120'EW'+00	LT/RT	1,061	1,601	46	--	121	--	275	204	--	3	14
			120'EW'+00	LT/RT	179'EW'+40	LT/RT	2,932	1,185	--	--	627	--	164	194	--	1	2
			179'EW'+40	LT/RT	229'EW'+48	LT/RT	1,172	2,582	--	--	41	53	64	232	--	3	4
		IH 41 NB/43 SB/894 WB															
			229'EWW'+48	RT	256'EWW'+37	RT	2,056	--	--	--	232	--	--	49	--	--	3
		IH 41 SB/43 NB/894 EB															
			229'EWE'+48	LT	256'EWE'+46	LT	834	--	--	265	--	--	--	49	--	--	2
		STAGE 2 SUBTOTAL					8,055	5,368	46	265	1,021	53	503	728	--	7	25
		MAINLINE															
1000	3	IH 41 NB/43 SB/894 WB															
			81'EW'+29	LT	120'EW'+00	LT	284	--	--	--	--	--	--	--	--	--	--
			120'EW'+00	LT	179'EW'+40	LT	130	--	--	--	--	--	--	116	--	--	--
			179'EW'+40	LT	229'EW'+48	LT	1,351	--	--	--	--	--	--	--	--	--	--
			229'EWW'+48	LT/RT	256'EWW'+37	LT/RT	165	--	--	--	--	--	--	--	--	--	--
		IH 41 SB/43 NB/894 EB															
			81'EW'+29	RT	120'EW'+00	RT	312	--	--	--	64	--	--	177	--	--	--
			120'EW'+00	RT	179'EW'+40	RT	130	--	--	--	--	--	--	115	--	--	--
			179'EW'+40	RT	229'EW'+48	RT	289	--	--	--	--	--	--	--	--	--	--
			229'EWE'+48	LT/RT	256'EWE'+46	LT/RT	206	--	--	--	--	--	--	--	--	--	--
		RAMPS															
		RAMP FHB															
			112'FHB'+14	LT	116FHB+59	LT	127	--	--	--	105	--	--	--	188	--	--
		RAMP TBA															
			135'TBA'+75	LT	137'TBA'+76	LT	11	--	--	--	--	--	166	--	--	--	--
		RAMP TBB															
			132'TBB'+25	LT	134'TBB'+17	LT	11	--	--	--	87	--	71	--	--	--	--
		RAMP TCD															
			98'TCD'+32	LT	98'TCD'+32	LT	102	--	--	--	--	--	--	--	--	--	--
		RAMP LRB															
			215'LRB'+83	RT	217'LRB'+20	RT	11	--	--	--	102	--	--	--	--	--	--
		STAGE 3 SUBTOTAL					3,129	--	--	--	358	--	237	408	188	--	--
		TOTAL					11,184	5,368	46	265	1,379	53	740	1,136	188	32	

(CONTINUED ON THE NEXT SHEET)

CONCRETE BARRIER TRANSITION ITEMS

CATEGORY	STAGE	ROADWAY	STATION		STATION	OFFSET	603.3113 CONCRETE BARRIER TRANSITION TYPE NJ32SF TO S36 EACH	603.3513 CONCRETE BARRIER TRANSITION TYPE S32 TO S36 EACH	603.3535 CONCRETE BARRIER TRANSITION TYPE S36 TO S42 EACH	603.3559 CONCRETE BARRIER TRANSITION TYPE S42 TO S56 EACH	SPV.0060.003 CONCRETE BARRIER TRANSITION TYPE M1 EACH	SPV.0060.004 CONCRETE BARRIER TRANSITION TYPE M2 EACH	SPV.0060.005 CONCRETE BARRIER TRANSITION TYPE M3 EACH
		MAINLINE											
1000	2	IH 41/43/894											
			81'EW+29	-	120'EW+00	LT/RT	--	--	--	4	1	1	1
			120'EW+00	-	179'EW+40	LT/RT	--	--	--	7	--	--	--
			179'EW+40	-	229'EW+48	LT/RT	2	--	2	6	--	--	--
		IH 41 NB/43 SB/894 WB											
			229'EWW+48	-	256'EWW+37	RT	2	1	3	3	--	--	--
		IH 41 SB/43 NB/894 EB											
			229'EWE+48	-	256'EWE+46	LT	--	1	1	1	--	--	--
		STAGE 2 SUBTOTAL					4	2	6	21	1	1	1
		MAINLINE											
1000	3	IH 41 NB/43 SB/894 WB											
			81'EW+29	-	120'EW+00	LT	1	--	1	1	--	--	--
			120'EW+00	-	179'EW+40	LT	--	--	--	1	--	--	--
			179'EW+40	-	229'EW+48	LT	3	--	3	--	--	--	--
			229'EWW+48	-	256'EWW+37	LT/RT	--	--	--	--	--	--	--
		IH 41 SB/43 NB/894 EB											
			81'EW+29	-	120'EW+00	RT	1	--	1	1	--	--	--
			120'EW+00	-	179'EW+40	RT	--	--	--	1	--	--	--
			179'EW+40	-	229'EW+48	RT	2	--	2	--	--	--	--
			229'EWE+48	-	256'EWE+46	LT/RT	--	1	1	--	--	--	--
		RAMPS											
		RAMP FHA											
			862'FHA'+00	-	862'FHA'+00	RT	--	--	--	--	--	--	--
		RAMP FHB											
			862'FHB'+00	-	862'FHB'+00	LT	--	--	--	--	--	--	--
		RAMP TBB											
			862'TBB'+00	-	862'TBB'+00	RT	--	--	--	1	--	--	--
		RAMP TCD											
			862'TCD'+00	-	862'TCD'+00	RT	--	--	--	--	--	--	--
		RAMP LRB											
			862'LRB'+00	-	862'LRB'+00	RT	--	--	--	--	--	--	--
		STAGE 3 SUBTOTAL					7	1	8	5	--	--	--
		TOTAL					11	3	14	26	1	1	1

(CONTINUED ON THE NEXT SHEET)

CONCRETE BARRIER TRANSITION ITEMS

CATEGORY	STAGE	ROADWAY	STATION		STATION	OFFSET	SPV.0060.006 CONCRETE BARRIER TRANSITION TYPE M4 EACH	SPV.0060.007 CONCRETE BARRIER TRANSITION TYPE M5 EACH	SPV.0060.008 CONCRETE BARRIER TRANSITION TYPE M6 EACH	SPV.0060.009 CONCRETE BARRIER TRANSITION TYPE M7 EACH	SPV.0060.010 CONCRETE BARRIER TRANSITION TYPE M8 EACH	SPV.0060.011 CONCRETE BARRIER TRANSITION TYPE M9 EACH	SPV.0060.012 CONCRETE BARRIER TRANSITION TYPE M10 EACH	SPV.0060.013 CONCRETE BARRIER TRANSITION TYPE M11 EACH	SPV.0060.014 CONCRETE BARRIER TRANSITION TYPE M12 EACH
		MAINLINE													
1000	2	IH 41/43/894													
			81'EW+29	-	120'EW+00	LT/RT	--	--	--	--	--	--	--	--	--
			120'EW+00	-	179'EW+40	LT/RT	1	1	1	1	1	--	--	--	--
			179'EW+40	-	229'EW+48	LT/RT	--	--	--	--	--	1	1	1	1
		IH 41 NB/43 SB/894 WB													
			229'EWW+48	-	256'EWW+37	RT	--	--	--	--	--	--	--	--	--
		IH 41 SB/43 NB/894 EB													
			229'EWE+48	-	256'EWE+46	LT	--	--	--	--	--	--	--	--	--
		STAGE 2 SUBTOTAL					1	1	1	1	1	1	1	1	1
		MAINLINE													
1000	3	IH 41 NB/43 SB/894 WB													
			81'EW+29	-	120'EW+00	LT	--	--	--	--	--	--	--	--	--
			120'EW+00	-	179'EW+40	LT	--	--	--	--	--	--	--	--	--
			179'EW+40	-	229'EW+48	LT	--	--	--	--	--	--	--	--	--
			229'EWW+48	-	256'EWW+37	LT/RT	--	--	--	--	--	--	--	--	--
		IH 41 SB/43 NB/894 EB													
			81'EW+29	-	120'EW+00	RT	--	--	--	--	--	--	--	--	--
			120'EW+00	-	179'EW+40	RT	--	--	--	--	--	--	--	--	--
			179'EW+40	-	229'EW+48	RT	--	--	--	--	--	--	--	--	--
			229'EWE+48	-	256'EWE+46	LT/RT	--	--	--	--	--	--	--	--	--
		RAMPS													
		RAMP FHA													
			862'FHA'+00	-	862'FHA'+00	RT	--	--	--	--	--	--	--	--	--
		RAMP FHB													
			862'FHB'+00	-	862'FHB'+00	LT	--	--	--	--	--	--	--	--	--
		RAMP TBB													
			862'TBB'+00	-	862'TBB'+00	RT	--	--	--	--	--	--	--	--	--
		RAMP TCD													
			862'TCD'+00	-	862'TCD'+00	RT	--	--	--	--	--	--	--	--	--
		RAMP LRB													
			862'LRB'+00	-	862'LRB'+00	RT	--	--	--	--	--	--	--	--	--
		STAGE 3 SUBTOTAL					--	--	--	--	--	--	--	--	--
		TOTAL					1	1	1	1	1	1	1	1	1

3

BACKFILL STRUCTURE

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	210.2500 * BACKFILL STRUCTURE TYPE B TON	NOTES
		MAINLINE						
1000	2	IH 41 /43 /894						
			111'EW+47	-	114'EW+21	RT	88	BEHIND MEDIAN CONCRETE BARRIER TYPE S56C
			122'EW+06	-	123'EW+34	RT	23	BEHIND MEDIAN CONCRETE BARRIER TYPE S56C
			132'EW+35	-	133'EW+05	LT	4	BEHIND CONCRETE BARRIER TYPE S56C AT S-40-801
			135'EW+70	-	137'EW+75	RT	20	BEHIND CONCRETE BARRIER TYPE S56C AT S-40-413
			253'EWE+75	-	256'EWE+61	LT	39	BEHIND MEDIAN CONCRETE BARRIER TYPE S42C
		STAGE 2 SUBTOTAL					174	
		TOTAL					174	

*ADDITIONAL QUANTITIES ELSEWHERE

CONCRETE BARRIER BASE ITEMS

CATEGORY	STAGE	ROADWAY	STATION		STATION	OFFSET	SPV.0060.015 CONCRETE BARRIER TYPE S42 LIGHT POLE BASE EACH	SPV.0060.016 CONCRETE BARRIER TYPE S42A LIGHT POLE BASE EACH	SPV.0060.017 CONCRETE BARRIER TYPE S56 LIGHT POLE BASE EACH	SPV.0060.018 CONCRETE BARRIER TYPE S56A LIGHT POLE BASE EACH
		MAINLINE								
1000	2	IH 41 NB/43 SB/894 WB								
			81'EW+29	-	120'EW+00	LT/RT	6	10	1	--
			120'EW+00	-	179'EW+40	LT/RT	18	6	--	--
			179'EW+40	-	229'EW+48	LT/RT	7	15	1	1
		STAGE 2 SUBTOTAL					31	31	2	1
		TOTAL					31	31	2	1

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FINISHING ROADWAY

CATEGORY	STAGE	LOCATION	213.0100.001 FINISHING ROADWAY PROJECT ID 1100-4570 EACH
1000	ALL	1100-45-70	1
		TOTAL	1

FENCE SAFETY

CATEGORY	STAGE	ROADWAY	OFFSET	616.0700.S FENCE SAFETY LF
1000	3	RAMP TAB	LT	200
		RAMP LRD	LT	150
		STAGE 3 SUBTOTAL		350
		TOTAL		350

GATES CHAIN LINK

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	616.0329.001 GATES CHAIN LINK 12-FT EACH
		MAINLINE						
1000	3	IH 41 /43 /894						
			122'EW+13	146.46' LT	-	122'EW+18	135.62' LT	1
		STAGE 3 SUBTOTAL						1
		TOTAL						1

PROTECTIVE SURFACE TREATMENT RESEAL

CATEGORY	LOCATION	LENGTH LF	PARAPETS SY	SIDEWALK SY	DECK SY	502.3215 PROTECTIVE SURFACE TREATMENT RESEAL SY
2070	B-40-1002	243	202	324	1187	1956
					TOTAL	1956

GUARDRAIL ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			116'EW+52	-	117'EW+48	LT	40	1
			124'EW+93	-	125'EW+88	LT	40	1
			134'EW+27		135'EW+19	LT	40	1
			205'EW+17	-	206'EW+11	LT	40	1
			221'EW+98	-	222'EW+92	LT	40	1
			231'EWW+71	-	232'EWW+69	LT	40	1
		IH 41 SB/43 NB/894 EB						
			92'EW+05	-	92'EW+99	RT	40	1
			108'EW+58	-	109'EW+52	RT	40	1
			119'EW+53	-	120'EW+46	RT	40	1
			134'EW+77		135'EW+70	RT	40	1
			199'EW+56	-	200'EW+50	RT	40	1
			214'EW+79	-	215'EW+88	RT	40	1
			249'EWE+88		250'EWE+80	LT	40	1
			253'EWE+39	-	254'EWE+33	RT	40	1
		STAGE 3 SUBTOTAL					560	14
		TOTAL					560	14

PIPE UNDERDRAIN ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
		MAINLINE						
1000	2	IH 41/43/894						
			81'EW'+29	-	95'EW'+16	C/L	1,387	694
			97'EW'+05	-	102'EW'+95	C/L	590	295
			103'EW'+05	-	149'EW'+22	C/L	4,617	2,309
			103'EW'+05	-	149'EW'+22	C/L	4,617	2,309
			149'EW'+82	-	174'EW'+79	C/L	2,497	1,249
			177'EW'+35	-	202'EW'+06	C/L	2,471	1,236
			203'EW'+48	-	229'EWE'+96	C/L	2,648	1,324
		IH 41 NB/43 SB/894 WB						
			229'EWW'+96	-	241'EWW'+48	RT	1,152	576
			243'EWW'+32	-	256'EWW'+20	RT	1,288	644
		IH 41 SB/43 NB/894 EB						
			229'EWE'+96	-	256'EWE'+61	LT	2,664	1,332
		RAMPS						
		RAMP TAA						
			88'TAA'+75	-	89'TAA'+49	RT	74	37
		RAMP FHA						
			110'FHA'+67	-	115'FHA'+88	RT	521	261
		RAMP FHB						
			97'FHB'+65	-	108'FHB'+73	LT	1,108	554
		RAMP TBA						
			122'TBA'+89	-	127'TBA'+30	RT	441	221
		RAMP TBB						
			124'TBB'+00	-	130'TBB'+42	LT	643	322
		RAMP TCA						
			177'TCA'+57	-	181'TCA'+79	RT	421	211
		RAMP TCB						
			169'TCB'+62	-	174'TCB'+74	RT	512	256
		RAMP TCC						
			170'TCC'+39	-	173'TCC'+82	LT	343	172
		RAMP TCD						
			178'TCD'+09	-	182'TCD'+77	LT	468	234

PIPE UNDERDRAIN ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
1000	2	RAMP LRA						
			231'LRA'+22	-	235'LRA'+72	RT	450	225
		RAMP LRB						
			221'LRB'+00	-	224'LRB'+70	RT	370	185
		RAMP LRC						
			218'LRC'+77	-	219'LRC'+28	LT	51	26
		RAMP LRD						
			214'LRD'+96	-	223'LRD'+11	LT	814	407
		STAGE 2 SUBTOTAL					30,147	15,079
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			88'EW'+99	-	94'EW'+94	LT	595	298
			97'EW'+15	-	100'EW'+34	LT	319	160
			105'EW'+77	-	108'EW'+49	LT	272	136
			121'EW'+58	-	130'EW'+53	LT	895	448
			137'EW'+92	-	162'EW'+17	LT	2,425	1,213
			170'EW'+41	-	182'EW'+78	LT	1,237	619
			191'EW'+22	-	201'EW'+94	LT	1,072	536
			203'EW'+64	-	208'EW'+61	LT	497	249
			218'EW'+63	-	223'EW'+02	LT	439	220
			229'EWW'+48	-	231'EWW'+92	LT	244	122
		IH 41 SB/43 NB/894 EB						
			88'EW'+91	-	95'EW'+08	RT	617	309
			97'EW'+28	-	115'EW'+96	RT	1,868	934
			120'EW'+69	-	127'EW'+21	RT	652	326
			134'EW'+50	-	161'EW'+34	RT	2,684	1,342
			169'EW'+65	-	181'EW'+80	RT	1,216	608
			188'EW'+08	-	201'EW'+91	RT	1,383	692
			203'EW'+63	-	212'EW'+28	RT	865	433
			221'EW'+17	-	229'EW'+48	RT	831	416
			229'EWE'+48	-	235'EWE'+97	RT	649	325
			242'EWE'+91	-	256'EWE'+60	RT	1,369	685

(CONTINUED ON THE NEXT SHEET)

PIPE UNDERDRAIN ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY
1000	3	**RAMPS**						
		RAMP TAA	83'TAA'+10	-	88'TAA'+75	RT	565	283
		RAMP FHA	115'FHA'+88	-	120'FHA'+69	RT	481	241
		RAMP FHB	108'FHB'+73	-	121'FHB'+58	LT	1,286	643
		RAMP TBA	127'TBA'+30	-	134'TBA'+55	RT	725	363
		RAMP TBB	130'TBB'+42	-	137'TBB'+88	LT	746	373
		RAMP TCA	181'TCA'+79	-	188'TCA'+09	RT	630	315
		RAMP TCB	161'TCB'+34	-	169'TCB'+62	RT	828	414
		RAMP TCC	162'TCC'+16	-	170'TCC'+39	LT	823	412
		RAMP TCD	182'TCD'+77	-	191'TCD'+21	LT	844	422
		RAMP LRA	235'LRA'+72	-	242'LRA'+88	RT	717	359
		RAMP LRB	212'LRB'+28	-	221'LRB'+00	RT	873	437
		RAMP LRC	208'LRC'+61	-	218'LRC'+77	LT	1,015	508
		RAMP LRD	223'LRD'+11	-	229'LRD'+48	LT	637	319
		STAGE 3 SUBTOTAL					30,299	15,160
		TOTAL					60,446	30,239

MOBILIZATION

CATEGORY	STAGE	LOCATION	619.1000 MOBILIZATION EACH
1000	ALL	1100-45-70	0.8
		TOTAL	0.8

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	STAGE	LOCATION	618.0100.001 MAINTENANCE AND REPAIR OF HAUL ROADS 1100-45-70 EACH
1000	ALL	1100-45-70	1
		TOTAL	1

DUST CONTROL SURFACE TREATMENT

CATEGORY	STAGE	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
1000	2 & 3	1100-45-70	81,762
		TOTAL	81,762

WATER ITEMS

CATEGORY	STAGE	LOCATION	624.0100 WATER MGAL
1000	2	PROJECT - BASE AGGREGATE	472
		PROJECT - EXCAVATION	101
	3	PROJECT - BASE AGGREGATE	217
		PROJECT - EXCAVATION	61
		TOTAL	851

BIRD DETERRENT SYSTEM

CATEGORY	STRUCTURE	999.2000.S.002 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM STATION 96'EW+10 EACH	999.2000.S.003 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM STATION 202'EW+78 EACH	999.2000.S.004 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM STATION 257'EWW+30 EACH
1000	B-40-191/192	1	--	--
	B-40-196/197	--	1	--
	B-40-201	--	--	1
	TOTAL	1	1	1

EMERGENCY PAVEMENT REPAIR

CATEGORY	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	* 455.0605 TACK COAT GAL	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON	495.1000.S COLD PATCH TON	611.8120.S COVER PLATES TEMPORARY EACH	646.6464 COLD WEATHER MARKING EPOXY 4-INCH LF	646.6468 COLD WEATHER MARKING EPOXY 8-INCH LF	* 690.015 SAWING ASPHALT LF	SPV.0060.021 MOBILIZATIONS EMERGENCY PAVEMENT REPAIR EACH	* SPV.0180.001 BASE PATCHING CONCRETE SHES SPECIAL SY	SPV.0195.001 HMA LONGITUDINAL JOINT REPAIR TON	SPV.0195.002 HMA TRANSVERSE JOINT REPAIR TON
1000	UNDISTRIBUTED	1,000	10,700	585	1,060	1,060	50	6,300	700	39,600	25	1,200	2,600	2,400
	TOTAL	1,000	10,700	585	1,060	1,060	50	6,300	700	39,600	25	1,200	2,600	2,400

*ADDITIONAL QUANTITIES ELSEWHERE

BASELINE CPM PROGRESS SCHEDULE

CATEGORY	PROJECT	SPV.0060.001 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.002 MONTHLY CPM PROGRESS SCHEDULE UPDATES EACH
1000	1100-45-70	0.8	7
	TOTAL	0.8	7

PAVEMENT CLEANUP

CATEGORY	LOCATION	SPV.0075.001 PAVEMENT CLEANUP PROJECT 1100-45-70 HRS
1000	1100-45-70	200
	TOTAL	200

FIELD OFFICE

CATEGORY	STAGE	LOCATION	SPV.0060.020 FIELD FACILITIES OFFICE SPACE EACH
1000	ALL	1100-45-70	0.8
		TOTAL	0.8

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0060.030 SURVEY PROJECT 1100-45-70 EACH
1000	1100-45-70	1
	CONTRACT TOTAL	1

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EXPOSING EXISTING UTILITY

CATEGORY	LOCATION	SPV.0060.028 EXPOSING EXISTING INFRASTRUCTURE PAVED AREA EACH	SPV.0060.029 EXPOSING EXISTING INFRASTRUCTURE UNPAVED AREA EACH
1000	UNDISTRIBUTED	10	10
	TOTAL	10	10

WATER MAIN PROTECTION

CATEGORY	LOCATION	SPV.0060.501 WATER MAIN PROTECTION EACH
7000	**UNDISTRIBUTED**	10
	TOTAL	10

ADJUSTING WATER BOXES

CATEGORY	STAGE	LOCATION	STATION	OFFSET	* 690.0250 SAWING CONCRETE LF	SPV.0060.502 ADJUSTING WATER BOXES EACH
7000	2	**84TH STREET**				
			18TA+52	45.0' RT	6	1
			22TA+85	60.2' RT	6	1
			23TA+00	46.2' RT	6	1
			23TA+03	42.6' RT	6	1
		SUBTOTAL STAGE 2			24	4
		TOTAL			24	4

*ADDITIONAL QUANTITIES ELSEWHERE

TRACKING PADS

CATEGORY	STAGE	LOCATION	628.7560 TRACKING PADS EACH
1000	ALL	UNDISTRIBUTED	30
		TOTAL	30

CULVERT REPAIR EROSION CONTROL

CATEGORY	STAGE	LOCATION	* 603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	* 603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	SPV.0060.027 SAND BAGS EACH
1000	3	B-40-321	25	50	690
		TOTAL	25	50	690

* ADDITIONAL QUANTITIES ELSEWHERE

RESTORATION ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
		MAINLINE									
1000	2	IH 41 NB/43 SB/894 WB									
			229EWW+48	-	256EWW+37	941	1	3	--	2	2
		IH 41 SB/43 NB/894 EB									
			229EWE+48	-	256EWE+46	1,398	1	5	--	3	2
		RAMPS									
		RAMP TAA									
			89'TAA'+00	-	95'TAA'+50	413	1	2	--	1	1
		RAMP TAB									
			94'TAB'+50	-	95'TAB'+50	1,227	1	4	--	2	2
		RAMP FHA									
			115'FHA'+00	-	116'FHA'+00	2,062	1	7	--	4	3
		RAMP FHB									
			102'FHB'+00	-	107'FHB'+00	4,572	1	14	--	7	6
		RAMP TBA									
			126'TBA'+00	-	127'TBA'+00	1,679	1	6	--	3	3
		RAMP TBB									
			124'TBB'+50	-	128'TBB'+50	2,581	1	8	--	4	4
		RAMP TCA									
			179'TCA'+50	-	181'TCA'+75	1,654	1	5	--	3	3
		RAMP TCB									
			169'TCB'+75	-	172'TCB'+50	2,094	1	7	--	4	3
		RAMP TCC									
			170'TCC'+50	-	172'TCC'+50	1,349	1	5	--	3	2
		RAMP TCD									
			179'TCD'+50	-	183'TCD'+00	941	1	3	--	2	2
		RAMP LRA									
			233'LRA'+50	-	234'LRA'+50	1,791	1	6	--	3	3
		RAMP LRB									
			221'LRB'+50	-	226'LRB'+00	1,534	1	5	--	3	2
		RAMP LRC									
			221'LRC'+00	-	230'LRC'+00	2,294	1	7	--	4	3
		RAMP LRD									
			215'LRD'+00	-	216'LRD'+00	2,212	1	7	--	4	3
		UNDISTRIBUTED				7,186	4	24	--	13	11
		STAGE 2 SUBTOTAL				35,927	20	118	--	65	55

(CONTINUED ON THE NEXT SHEET)

RESTORATION ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
		MAINLINE									
1000	3	IH 41 NB/43 SB/894 WB									
			88'EW'+99	-	95'EW'+10	208	1	1	--	1	1
			96'EW'+99	-	149'EW'+25	1,152	1	4	--	2	2
			149'EW'+79	-	175'EW'+66	811	1	3	--	2	2
			176'EW'+49	-	202'EW'+07	262	1	1	--	1	1
			203'EW'+64	-	229'EW'+16	647	1	2	--	1	1
			229'EWW'+68	-	231'EWW'+92	36	1	1	--	1	1
		IH 41 SB/43 NB/894 EB									
			81'EW'+29	-	95'EW'+23	513	1	2	--	1	1
			97'EW'+12	-	149'EW'+24	1,804	1	6	--	3	3
			149'EW'+78	-	175'EW'+64	659	1	2	--	1	1
			176'EW'+48	-	202'EW'+06	1,100	1	4	--	2	2
			203'EW'+47	-	228'EW'+60	746	1	3	--	2	1
			229'EWE'+69	-	256'EWE'+60	894	1	3	--	2	2
		Ramps									
		TAB									
			93+65	-	95+46	210	1	--	0.4	1	1
		TCD									
			176'TCD'+87	-	191'TCD'+20	979	1	3	--	2	2
		LRC									
			221'LRC'+87	-	221'LRC'+97	17	1	1	--	1	1
		UNDISTRIBUTED				2,510	4	9	0.1	6	6
		STAGE 3 SUBTOTAL				12,548	19	45	0.5	29	28
		TOTAL				48,475	39	163	0.5	94	83

EROSION CONTROL ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH	645.0120 GEOTEXTILE TYPE HR SY
1000	1	**MAINLINE**																	
		IH 41 NB/43 SB/894 WB																	
			82'EW'+05	-	228'EW'+57	--	--	--	--	--	--	--	--	19	32	--	9	--	--
			229'EWW'+85	-	256'EWW'+70	--	--	--	--	--	--	--	--	5	9	--	1	--	--
		IH 41 SB/43 NB/894 EB																	
			82'EW'+05	-	229'EW'+12	--	--	--	--	--	--	--	--	21	28	--	20	--	--
			229'EWE'+87	-	256'EWE'+75	--	--	--	--	--	--	--	--	5	2	1	1	--	--
		RAMPS																	
		RAMP TAA																	
			88'TAA'+50	-	95'TAA'+50	--	--	--	--	--	--	--	--	1	--	2	--	--	--
		RAMP TAB																	
			89'TAB'+00	-	95'TAB'+50	--	--	--	--	--	--	--	--	1	3	--	--	--	--
		RAMP FHB																	
			108'FHB'+00	-	111'FHB'+50	--	--	--	--	--	--	--	--	2	2	--	1	--	--
		RAMP TBA																	
			128'TBA'+00	-	131'TBA'+00	--	--	--	--	--	--	--	--	--	2	--	--	--	--
		RAMP TBB																	
			130'TBB'+00	-	132'TBB'+00	--	--	--	--	--	--	--	--	2	1	--	--	--	--
		RAMP TCC																	
			165'TCC'+00	-	168'TCC'+50	--	--	--	--	--	--	--	--	1	1	1	--	--	--
		RAMP TCD																	
			183'TCD'+00	-	184'TCD'+00	--	--	--	--	--	--	--	--	--	1	--	--	--	--
		RAMP LRB																	
			220'LRB'+00	-	221'LRB'+00	--	--	--	--	--	--	--	--	1	1	--	--	--	--
		RAMP LRC																	
			211'LRC'+00	-	212'LRC'+00	--	--	--	--	--	--	--	--	--	--	--	1	--	--
		RAMP LRD																	
			223'LRD'+00	-	224'LRD'+00	--	--	--	--	--	--	--	--	2	--	1	--	--	--
		UNDISTRIBUTED				--	--	--	1	1	--	--	--	15	21	2	9	--	--
		STAGE 2 SUBTOTAL				--	--	--	1	1	--	--	--	75	103	7	42	--	--

(CONTINUED ON THE NEXT SHEET)

EROSION CONTROL ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH	645.0120 GEOTEXTILE TYPE HR SY
1000	2	**MAINLINE**																	
		IH 41 NB/43 SB/894 WB																	
			82'EW'+05	-	228'EW'+57	--	--	--	--	--	--	--	--	--	39	--	18	--	--
			229'EWW'+85	-	255'EWW'+89	68	142	71	--	--	941	--	--	2	7	--	1	--	5
		IH 41 SB/43 NB/894 EB																	
			82'EW'+05	-	229'EW'+12	--	--	--	--	--	--	--	--	--	44	--	16	--	--
			229'EWE'+87	-	256'EWE'+61	--	273	137	--	--	1,398	--	--	6	16	--	1	--	--
		RAMPS																	
		RAMP TAA																	
			89'TAA'+00	-	95'TAA'+50	--	--	--	--	--	46	--	--	2	--	2	--	--	--
		RAMP TAB																	
			94'TAB'+50	-	95'TAB'+50	--	--	--	--	--	137	--	--	2	2	--	--	--	--
		RAMP FHA																	
			115'FHA'+00	-	116'FHA'+00	--	--	--	--	--	230	--	--	1	3	--	--	--	--
		RAMP FHB																	
			102'FHB'+00	-	107'FHB'+00	--	--	--	--	--	509	--	--	4	2	--	--	--	--
		RAMP TBA																	
			126'TBA'+00	-	127'TBA'+00	--	--	--	--	--	187	--	--	--	--	--	3	--	--
		RAMP TBB																	
			124'TBB'+50	-	128'TBB'+50	--	--	--	--	--	287	--	--	2	--	2	3	--	--
		RAMP TCA																	
			179'TCA'+50	-	181'TCA'+75	--	--	--	--	--	184	--	--	1	1	--	3	--	--
		RAMP TCB																	
			169'TCB'+75	-	172'TCB'+50	--	--	--	--	--	233	--	--	1	1	--	3	--	--
		RAMP TCC																	
			170'TCC'+50	-	172'TCC'+50	--	--	--	--	--	150	--	--	1	4	1	--	--	--
		RAMP TCD																	
			179'TCD'+50	-	183'TCD'+00	--	--	--	--	--	105	--	--	--	1	--	3	--	--

(CONTINUED ON THE NEXT SHEET)

EROSION CONTROL ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7570 ROCK BAGS EACH	645.0120 GEOTEXTILE TYPE HR SY
1000	2	RAMP LRA	233'LRA'+50	-	234'LRA'+50	--	--	--	--	--	199	--	--	--	--	--	3	--	--
		RAMP LRB	221'LRB'+50	-	226'LRB'+00	--	--	--	--	--	171	--	--	1	3	1	--	--	--
		RAMP LRC	221'LRC'+00	-	230'LRC'+00	--	--	--	--	--	255	--	--	2	3	4	--	--	--
		RAMP LRD	215'LRD'+00	-	216'LRD'+00	--	--	--	--	--	246	--	--	--	--	2	--	--	--
		LOCAL ROADS																	
		S. 84TH STREET	17'TA'+95	-	23'TA'+05	--	--	--	--	--	--	--	--	--	3	5	--	--	--
		UNDISTRIBUTED				17	104	52	10	4	1,320	--	--	7	33	5	14	100	2
		STAGE 2 SUBTOTAL				85	519	260	10	4	6,598	--	--	32	162	22	68	100	7
		MAINLINE																	
1000	3	IH 41 NB/43 SB/894 WB																	
			88'EW'+99	-	95'EW'+10	--	611	306	--	--	--	208	--	1	2	--	--	--	--
			96'EW'+99	-	149'EW'+25	--	337	169	--	--	977	175	--	10	11	--	4	--	--
			149'EW'+79	-	175'EW'+66	68	453	227	--	--	343	468	--	4	3	1	3	--	5
			176'EW'+49	-	202'EW'+07	--	352	176	--	--	187	75	--	1	4	--	1	--	--
			203'EW'+64	-	229'EW'+16	--	238	119	--	--	518	129	--	6	3	1	3	--	--
			229'EWW'+68	-	231'EWW'+92	--	--	--	--	--	36	--	--	1	--	--	1	--	--
		IH 41 SB/43 NB/894 EB																	
			81'EW'+29	-	95'EW'+23	--	1,244	622	--	--	447	66	--	--	2	--	--	--	--
			97'EW'+12	-	149'EW'+24	--	793	397	--	--	1,656	148	--	5	13	--	4	--	--
			149'EW'+78	-	175'EW'+64	--	--	--	--	--	465	194	--	4	5	--	5	--	--
			176'EW'+48	-	202'EW'+06	--	1,855	928	--	--	483	617	--	--	4	--	1	--	--
			203'EW'+47	-	228'EW'+60	--	505	253	--	--	622	124	--	3	4	--	5	--	--
			229'EWE'+69	-	256'EWE'+60	--	772	386	--	--	656	238	--	1	2	--	1	--	--
		Ramps																	
		TAB	93'TAB'+65	-	95'TAB'+46	--	--	--	--	--	--	--	210	--	--	--	--	--	--
		TCD	176'TCD'+87	-	190'TCD'+48	--	--	--	--	--	--	979	--	--	--	--	--	--	--
		LRC	221'LRC'+87	-	221'LRC'+97	--	--	--	--	--	--	17	--	--	--	--	--	--	--
		UNDISTRIBUTED				17	1,790	896	6	3	1,598	860	53	9	14	1	7	100	2
		STAGE 3 SUBTOTAL				85	8,950	4,479	6	3	7,988	4,298	263	45	67	3	35	100	7
		TOTAL				170	9,469	4,739	17	8	14,586	4,298	263	152	332	32	145	200	14

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REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	ROADWAY	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF
1000	2	IH 41 NB/43 SB/894 WB	18,848	--	1,174
		IH 41 SB/43 NB/894 EB	24,625		1,569
		RAMP TAA	650	1,317	170
		RAMP TAB	1,280	1,580	20
		RAMP FHA	125	525	--
		RAMP FHB	1,515	1,028	165
		RAMP TBA	405	1,200	--
		RAMP TBB	711	781	210
		RAMP TCA	430	1,085	--
		RAMP TCB	325	827	160
		RAMP TCC	--	1,550	--
		RAMP TCD	1,180	827	140
		RAMP LRA	1,160	1,229	--
		RAMP LRB	1,245	1,022	150
		RAMP LRC	115	1,835	--
		RAMP LRD	--	1,280	100
		RAMP LRE	540	415	--
		SUBTOTAL STAGE 2	53,154	16,500	3,858
	3	IH 41 NB/43 SB/894 WB	21,350	--	2,925
		IH 41 SB/43 NB/894 EB	18,385		3,180
		RAMP TAA	--	--	--
		RAMP TAB	--	--	--
		RAMP FHA	510	--	--
		RAMP FHB	--	--	--
		RAMP TBA	835	--	--
		RAMP TBB	255	200	--
		RAMP TCA	730	--	--
		RAMP TCB	--	--	--
		RAMP TCC	840	--	--
		RAMP TCD	--	--	--
		RAMP LRA	165	--	--
		RAMP LRB	--	--	--
		RAMP LRC	1,350	--	--
		RAMP LRD	--	--	--
		RAMP LRE	100	100	--
		SUBTOTAL STAGE 3	44,520	300	6,105
		TOTAL	97,674	16,800	9,963

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	646.1545 MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.3545 MARKING LINE GROOVED WET REFLECTIV CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3545 MARKING LINE GROOVED WET REFLECTIV CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF
	MAINLINE															
1000	IH 41 NB/43 SB/894 WB															
		81EW+29	-	120EW+00	--	--	--	--	4,448	2,666	1,638	--	--	--	846	--	--	--
		120EW+00		175EW+00	--	--	--	--	5,501	4,267	2,752		--	--	244	--	--	--
		175EW+00		229EW+48	--	--	--	--	5,452	3,722	2,658		--	--	274	--	--	--
		229EWW+48	-	256EWW+37	--	--	--	--	2,690	2,210	1,275	--	--	--	685	--	--	--
	IH 41 SB/43 NB/894 EB															
		81EW+29	-	120EW+00	--	1,387	--	--	5,103	2,752	2,458	--	--	--	348	--	--	--
		120EW+00		175EW+00	--	--	--	--	5,496	4,500	2,746		--	--	202	--	--	--
		175EW+00		229EW+48	--	--	--	--	5,444	4,464	2,649		--	--	202	--	--	--
		229EWE+48	-	256EWE+46	--	--	--	--	2,998	2,627	1,673	--	--	--	--	--	--	--
1000	**RAMPS**															
	RAMP TAA															
		82TAA+89	-	96TAA+04	635	1,279	--	--	--	--	--	--	--	995	--	--	244	38
	RAMP TAB															
		81TAB+14	-	95TAB+71	588	1,435	--	--	--	--	--	--	19	1,673	--	--	385	--
	RAMP FHA															
		104FHA+88	-	124FHA+05	481	796	--	--	--	--	--	--	--	650	--	--	160	--
	RAMP FHB															
		96FHB+44	-	124FHB+34	1,137	1,422	--	--	--	--	--	--	--	687	--	--	--	--
	RAMP TBA															
		122TBA+35	-	138TBA+58	383	1,013	--	--	--	--	--	--	13	1,250	--	26	460	--
	RAMP TBB															
		123TBB+39	-	140TBB+07	600	1,063	--	--	--	--	--	--	--	888	--	--	--	--
	RAMP TCA															
		176TCA+06	-	192TCA+07	373	914	--	--	--	--	--	--	--	1,085	--	--	279	--
	RAMP TCB															
		158TCB+53	-	175TCB+82	462	823	--	--	--	--	--	--	--	676	--	--	113	19
	RAMP TCC															
		157TCC+20	-	175TCC+60	295	1,067	--	--	--	--	--	--	--	1,550	--	--	195	--
	RAMP TCD															
		176TCD+54	-	194TCD+04	420	749	--	--	--	--	--	--	--	612	--	--	--	47

(CONTINUED ON THE NEXT SHEET)

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	646.5220 MARKING SYMBOL EPOXY WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 4 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 3 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 2 WHITE EACH	SPV.0090.003 MARKING LINE CONTRAST EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	SPV.0090.004 MARKING LINE CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.5120 MARKING WORD EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH
	MAINLINE																	
1000	IH 41 NB/43 SB/894 WB																	
		81EW+29	-	120EW+00	--	--	--	--	48	48	--	--	752	324	--	--	--	--
		120EW+00		175EW+00	--	--	--	--	--	--	--	--	981	439	--	--	--	--
		175EW+00		229EW+48	--	--	--	--	71	--	--	--	971	459	--	--	--	--
		229EWW+48	-	256EWW+37	--	--	--	--	78	39	--	--	271	80	--	--	--	--
	IH 41 SB/43 NB/894 EB																	
		81EW+29	-	120EW+00	--	--	--	--	95	--	--	--	822	387	--	--	--	--
		120EW+00		175EW+00	--	--	--	--	--	--	--	--	990	383	--	--	--	--
		175EW+00		229EW+48	--	--	--	--	71	--	--	--	967	482	--	--	--	--
		229EWE+48	-	256EWE+46	--	--	--	--	--	--	--	--	445	222	--	--	--	--
1000	**RAMPS**																	
	RAMP TAA																	
		82TAA+89	-	96TAA+04	--	1	--	4	--	--	2	22	--	--	180	--	--	--
	RAMP TAB																	
		81TAB+14	-	95TAB+71	4	--	--	--	--	--	--	20	--	--	--	--	--	--
	RAMP FHA																	
		104FHA+88	-	124FHA+05	--	--	--	--	--	--	--	24	--	--	--	--	--	--
	RAMP FHB																	
		96FHB+44	-	124FHB+34	--	--	--	--	--	--	--	--	--	--	129	--	--	--
	RAMP TBA																	
		122TBA+35	-	138TBA+58	3	--	--	--	--	--	--	35	--	--	--	--	--	--
	RAMP TBB																	
		123TBB+39	-	140TBB+07	--	1	--	--	--	--	--	--	--	--	199	--	--	--
	RAMP TCA																	
		176TCA+06	-	192TCA+07	3	--	--	--	--	--	--	20	--	--	--	--	--	--
	RAMP TCB																	
		158TCB+53	-	175TCB+82	--	1	--	--	--	--	--	--	--	--	147	--	--	--
	RAMP TCC																	
		157TCC+20	-	175TCC+60	2	--	--	--	--	--	--	19	--	--	--	--	--	--
	RAMP TCD																	
		176TCD+54	-	194TCD+04	--	1	--	--	--	--	--	--	--	--	139	--	--	--

(CONTINUED ON THE NEXT SHEET)

PAVEMENT MARKING ITEMS

ATEGORY	ROADWAY	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	646.1545 MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.3545 MARKING LINE GROOVED WET REFLECTIV CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.3545 MARKING LINE GROOVED WET REFLECTIV CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF
1000	RAMP LRA	228LRA+40	-	247LRA+50	400	998	--	--	--	--	--	--	6	1,187	--	46	280	--
	RAMP LRB	209LRB+23	-	228LRB+31	521	945	--	--	--	--	--	--	--	805	--	--	216	46
	RAMP LRC	204LRC+52	-	230LRC+60	1,066	1,988	--	--	--	--	--	--	--	1,932	--	162	139	--
	RAMP LRD	212LRD+41	-	229LRD+48	820	1,160	--	--	--	--	--	--	--	581	--	--	--	--
	RAMP LRE	230LRE+21	-	240LRE+76	--	447	--	--	--	--	--	--	--	520	--	--	--	--
1000	**LOCAL ROADS**																	
	S. 84TH STREET	17TA+95	-	23TA+10	--	679	258	13	--	--	--	185	--	--	--	--	--	--
	S. 35TH STREET				--	--	--	--	430	430	--	--	--	--	--	--	--	--
	SUBTOTAL				8,181	18,165	258	13	37,562	27,638	17,849	185	38	15,091	2,801	234	2,471	150
	TOTAL					26,359			65,200		17,849	223		17,892		234	2,621	

(CONTINUED ON THE NEXT SHEET)

3

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	646.5220 MARKING SYMBOL EPOXY WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 4 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 3 WHITE EACH	646.5020 MARKING ARROW EPOXY TYPE 2 WHITE EACH	SPV.0090.003 MARKING LINE CONTRAST EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	SPV.0090.004 MARKING LINE CONTRAST EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	646.5120 MARKING WORD EPOXY WHITE EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH
1000	RAMP LRA	228LRA+40	-	247LRA+50	3	--	--	--	--	--	--	33	--	--	--	--	--	--
	RAMP LRB	209LRB+23	-	228LRB+31	--	1	1	2	--	--	--	--	--	--	155	--	--	--
	RAMP LRC	204LRC+52	-	230LRC+60	--	--	--	--	--	--	--	22	--	--	--	--	18	--
	RAMP LRD	212LRD+41	-	229LRD+48	--	--	--	--	--	--	--	--	--	--	101	--	--	--
	RAMP LRE	230LRE+21	-	240LRE+76	--	--	--	--	--	--	--	--	--	--	115	--	--	--
1000	**LOCAL ROADS**																	
	S. 84TH STREET	17TA+95	-	23TA+10		--	--	--	--	--	--	48	--	--	--	203	255	1
	S. 35TH STREET					--	--	--	--	--	--	--	--	--	--	--	--	--
	SUBTOTAL				15	5	1	6	362	87	2	243	6,199	2,776	1,165	203	273	1
	TOTAL				15		12		362	87	2	243		8,975	1,165	203	273	1

3

FTMS EACH REMOVALS

CATEGORY	ROADWAY	ITEM ID.	204.0195* REMOVING CONCRETE BASES EACH	204.9060.S.200 REMOVING OVERHEAD FREEWAY DMS EACH	653.0905* REMOVING PULL BOXES EACH	677.9051.S REMOVING 50-FOOT CAMERA POLE EACH	677.9200.S REMOVING CCTV CAMERA EACH	SPV.0060.200 REMOVING WIRELESS MODEM EACH	SPV.0060.201 REMOVING CONTROLLER CABINET EACH	SPV.0060.202 REMOVING CONTROLLER CABINET BASE EACH	SPV.0060.203 REMOVING CONTROLLER RAMP METER PROCESSOR ASSEMBLY EACH
1300	IH 41										
		EX-CCTV-40-0028	1	--	--	1	--	--	--	--	--
		EX-CCTV-40-0027	1	--	--	1	--	--	--	--	--
		EX-DMS-40-0022	--	1	--	--	--	--	--	--	--
		EX-CCTV-40-0223	--	--	--	--	1	--	--	--	--
		EX-CB-CCTV-40-0223	--	--	--	--	--	1	--	--	1
		EX-DMS-40-0017	--	1	--	--	--	--	--	--	--
		EX-CCTV-40-0025	1	--	--	1	--	--	--	--	--
		EX-CB-CCTV-40-0025	--	--	--	--	--	--	1	1	--
		EXPB230	--	--	1	--	--	--	--	--	--
		TOTALS	3	2	1	3	1	1	1	1	1

* ADDITIONAL QUANTITIES ELSEWHERE

FTMS BASES AND POLES

CATEGORY	ROADWAY	ITEM ID.	LOCATION STATION	LOCATION OFFSET	531.2036 DRILLING SHAFT 36-INCH LF	531.4050 FOUNDATION CAMERA POLE 50-FT EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	677.0150 INSTALL CAMERA POLE 50-FT EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	678.0100.S INSTALL OVERHEAD FREEWAY DMS FULL MATRIX EACH	SPV.0060.204 GROUND ROD EACH	SPV.0060.205 REFOCUS VEHICLE DETECTOR ASSEMBLY EACH
1300	IH 41											
		CCTV-40-0028	94"EW"+62	70' LT	10	1	--	1	1	--	1	--
		CCTV-40-0027	121"EW"+54	134' LT	10	1	--	1	1	--	1	--
		DMS-40-0022	137"EW"+48		--	--	--	--	--	1	1	--
		EX-CCTV-40-0223	--		--	--	2	--	1	--	--	--
		DMS-40-0017	220"EW"+52		--	--	--	--	--	1	1	--
		CCTV-40-0025	230"EWE"+34	120' RT	10	1	--	1	1	--	1	--
			UNDISTRIBUTED		--	--	--	--	--	--	--	20
		TOTALS			30	3	2	3	4	2	5	20

FTMS PULL BOXES AND VAULTS

CATEGORY	ROADWAY	ITEM ID.	LOCATION STATION	LOCATION OFFSET	652.0700.S* INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0140 PULL BOXES STEEL 24 X 42 - INCH EACH
1300	IH 41					
		EXPB94	--		1	--
		EXPB122	--		1	--
		EXPB138	--		1	--
		EXPB221	--		1	--
		PB230	230"EWE"+44	119' RT	--	1
		EXPB231	--		1	--
		TOTALS			5	1

* ADDITIONAL QUANTITIES ELSEWHERE

MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0101 FIELD SYSTEM INTEGRATOR EACH	670.0201 ITS DOCUMENTATION EACH
1300	IH 41		
	PROJECT	1	1
	TOTALS	1	1

FTMS CABLE REMOVALS

CATEGORY	ROADWAY	ITEM ID	674.0300 REMOVE CABLE LF
1300	IH 41		
		EX-CCTV-40-0028 - EXPB94	15
		EXPB94 - EXPB95	101
		EXPB95 - EX-CB-CCTV-04-0028	10
		EX-CCTV-40-0027 - EXPB122	26
		EXPB122 - EXPB123	105
		EXPB123 - EX-CB-CCTV-04-0027	15
		EX-DMS-40-0222 - EXPB138	10
		EXPB138 - EXPB137	84
		EXPB137 - EXPB136	14
		EXPB136 - EX-CB-DMS-40-0222	44
		EX-DMS-40-0017 - EXPB221	11
		EXPB-221 - EXPB222	133
		EXPB222 - EX-CB-DMS-40-0017	20
		EX-CCTV-40-0025 - EXPB230	15
		EXPB230 - EX-CB-CCTV-40-0025	6
		TOTAL	609

FTMS CONDUIT AND WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
1300	IH 41				
		CCTV-40-0028 - EXPB94	14	28	14
		EXPB94 - EXPB95	101	--	101
		EXPB95 - EX-CB-CCTV-04-0028	10	--	10
		CCTV-40-0027 - EXPB122	13	26	13
		EXPB122 - EXPB123	105	--	105
		EXPB123 - EX-CB-CCTV-04-0027	15	--	15
		DMS-40-0022 - EXPB138	10	20	--
		EXPB138 - EXPB137	84	--	--
		EXPB137 - EXPB136	14	--	--
		EXPB136 - EX-CB-DMS-0022	44	--	--
		DMS-40-0017 - PB221	11	22	--
		EXPB221 - EXPB222	133	--	--
		EXPB222 - EX-CB-DMS-40-0017	20	--	--
		CCTV-40-0025 - PB230	10	20	10
		PB230 - EXPB231	99	198	99
		EXPB231 - EX--CB-RM-40-0052	6	--	--
		TOTALS		314	367

* ADDITIONAL QUANTITIES ELSEWHERE

3

REMOVING CONCRETE BASES

SIGNAL BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
SB2	1
TOTAL	1

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

REMOVING TRAFFIC SIGNALS

LOCATION	204.9060.S.304 REMOVING TRAFFIC SIGNALS EACH
I-894 EB RAMPS & S 84TH ST	1
TOTAL	1

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0605 CONDUIT SPECIAL 2-INCH L.F.
PB2	SB2	5	--
PB2	PB12	--	217
PB5	PB13	--	186
PB6	SB8	29	--
PB7	PB9	10	--
PB9	PB10	228	--
PB8	PB11	5	--
	TOTAL	277	403

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

PULL BOXES

PULL BOX NO.	LOCATION^	653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB9	18+37, 72.8' LT	1
PB10	18+99, 295.4' LT	1
PB11	18+72, 68.1' LT	1
PB12	21+11, 9.6' LT	1
PB13	16+31, 51.9' RT	1
	TOTAL	5

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

CONCRETE BASES

SIGNAL BASE NO.	LOCATION^	654.0101 CONCRETE BASES TYPE 1 EACH
SB2	19+00, 8.9' LT	1
SB8	18+02, 7.2' LT	1
	TOTAL	2

^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

SIGNAL MOUNTING HARDWARE

LOCATION	658.5070.302 SIGNAL MOUNTING HARDWARE EACH
I-894 EB RAMPS & S 84TH ST	1
TOTAL	1

IH 41/43/894 EB OFF-RAMP & S. 84TH STREET
CITY OF GREENFIELD
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 1500

3

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
CB1	SB1	--	172
CB1	SB2	97	--
CB1	SB4	--	174
CB1	SB6	--	21
CB1	SB8	184	--
	TOTAL	281	367

TRAFFIC SIGNAL CABLE AND WIRE (UNDERGROUND)

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.
CB1	SB2	97
SB2	SB1	108
SB1	SB3	76
SB3	SB8	137
SB8	SB4	56
PB2	SB2	17
	TOTAL	491

* ADDITIONAL QUANTITY SHOWN ELSEWHERE ON PLAN

TRAFFIC SIGNAL CABLE AND WIRE (ABOVE GROUND)

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.
SB1	HEAD 8	15
SB2	HEAD 13	15
SB4	HEAD 14	15
SB6	HEAD 11	15
SB6	HEAD 12	15
SB6	BUTTON	6
SB8	HEAD 15	15
	TOTAL	96

POLES (CONTRACTOR FURNISHED)

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH
SB2	1	1	--
SB6	1	1	1
SB8	1	1	--
TOTAL	3	3	1

ALL ITEMS CATEGORY 1500

IH 41/43/894 EB OFF-RAMP & S. 84TH STREET
CITY OF GREENFIELD
MILWAUKEE COUNTY

3

FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.		658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH^	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
4	SB7		1	--
5	SB4		1	--
6	SB4		1	--
7	SB5		1	--
8	SB1		1	--
9	SB3		1	--
11	SB6		--	1
12	SB6		1	--
13	SB2		1	--
14	SB4		1	--
15	SB8		1	--
		TOTAL	10	1

^ SIGNAL HOUSINGS FOR THIS ITEM SHALL HAVE REFLECTIVE BACKPLATES

LED MODULES SUMMARY*

SIGNAL HEAD NO.	SIGNAL BASE NO.		PEDESTRIAN SIGNAL FACE 16-INCH EACH	LED MODULES 12-INCH RED BALL EACH	LED MODULES 12-INCH YELLOW BALL EACH	LED MODULES 12-INCH GREEN BALL EACH	LED MODULES 12-INCH YELLOW ARROW EACH	LED MODULES 12-INCH GREEN ARROW EACH
4	SB7		--	1	1	1	--	--
5	SB4		--	1	1	1	--	--
6	SB4		--	1	1	1	--	--
7	SB5		--	1	--	--	1	1
8	SB1		--	1	--	--	1	1
9	SB3		--	1	--	--	1	1
11	SB6		1	--	--	--	--	--
12	SB6		--	1	--	--	1	1
13	SB2		--	1	1	1	--	--
14	SB4		--	1	--	--	1	1
15	SB8		--	1	--	--	1	1
		TOTAL	1	10	4	4	6	6

*ITEMS INCIDENTAL TO 658.0173 OR 658.0416

ALL ITEMS CATEGORY 1500

IH 41/43/894 EB OFF-RAMP & S. 84TH STREET
CITY OF GREENFIELD
MILWAUKEE COUNTY

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION** ^	SIZE (FT)x(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB10	19+11, 295.9' LT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	52	303	160
12	PB9	18+53, 82.9' LT	6' x 20'	3	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	86	73	202
13	PB9	18+46, 57.8' LT	6' x 20'	3	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	73	194
21	PB12	21+12, 31.0' LT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	68	295	176
22	PB12	21+12, 20.0' LT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	46	295	154
41	PB10	19+22, 293.1' LT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	303	180
42	PB11	18+64, 81.9' LT	6' x 20'	3	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	19	196
43	PB11	18+57, 56.8' LT	6' x 20'	3	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	19	188
61	PB13	16+29, 31.4' RT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	68	374	176
62	PB13	16+29, 20.4' RT	6' x 10'	4	ASPHALT	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WILL PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	374	198
						TOTAL	712	2128	1824

** LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
^ FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 16 INCH	1
TRAFFIC SIGNAL, THREE SECTION	6
TOTAL	7

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, LED MODULE EACH	TRAFFIC SIGNAL, THREE SECTION EACH
SB2	--	1
SB3	--	1
SB4	--	2
SB5	--	1
SB6	1	--
SB7	--	1
TOTAL	1	6

ALL ITEMS CATEGORY 1500

IH 41/43/894 EB OFF-RAMP & S. 84TH STREET
CITY OF GREENFIELD
MILWAUKEE COUNTY

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
2	IH 894 'EW'	82+05.34	4 LT	---	1	---	---	---	---	---	---	---
		82+05.54	12.5 LT	1	---	3	---	9	---	---	25	15
		82+05.81	0.3 RT	---	1	---	---	---	---	---	---	---
		86+07.34	0.1 RT	---	1	---	---	---	---	---	---	---
		86+09.96	4.4 LT	---	1	---	---	---	---	---	---	---
		86+15.83	14 LT	1	---	3	---	9	---	---	25	15
		90+05.53	4.1 LT	---	1	---	---	---	---	---	---	---
		90+06.02	3.9 RT	---	1	---	---	---	---	---	---	---
		90+06.07	0.3 LT	---	1	---	---	---	---	---	---	---
		99+43.72	12.9 LT	1	---	3	---	9	---	---	25	15
		99+44.84	0.4 LT	---	1	---	---	---	---	---	---	---
		99+45.34	4.4 LT	---	1	---	---	---	---	---	---	---
		99+45.93	3.6 RT	---	1	---	---	---	---	---	---	---
		103+79.87	12.9 LT	1	---	3	---	9	---	---	25	15
		103+79.95	13.3 RT	1	---	3	---	9	---	---	25	15
		103+80.39	3.6 RT	---	1	---	---	---	---	---	---	---
		103+80.51	4.5 LT	---	1	---	---	---	---	---	---	---
		104+55.96	0.4 LT	---	1	---	---	---	---	---	---	---
		105+56.35	0.5 LT	---	1	---	---	---	---	---	---	---
		105+56.51	3.6 RT	---	1	---	---	---	---	---	---	---
		105+64.07	4.7 LT	---	1	---	---	---	---	---	---	---
		107+97.57	4.5 LT	---	1	---	---	---	---	---	---	---
		108+05.39	13 RT	1	---	3	---	9	---	---	25	15
		108+05.99	3.6 RT	---	1	---	---	---	---	---	---	---
		108+06.04	12.3 LT	1	---	3	---	9	---	---	25	15
		108+06.16	0.9 LT	---	1	---	---	---	---	---	---	---
		109+52.60	4.4 LT	---	1	---	---	---	---	---	---	---
		109+52.93	13.1 LT	1	---	3	---	9	---	---	25	15
		110+12.03	4.4 LT	---	1	---	---	---	---	---	---	---
		110+22.83	6.8 RT	1	---	3	---	9	---	---	25	15
		110+30.45	4.1 RT	---	1	---	---	---	---	---	---	---
		110+72.81	14.1 RT	1	---	3	---	9	---	---	25	15
		110+73.03	7.8 RT	1	---	3	---	9	---	---	25	15
		110+81.31	4.2 RT	---	1	---	---	---	---	---	---	---
		111+37.44	4.3 RT	---	1	---	---	---	---	---	---	---
		111+46.62	6.2 RT	1	---	3	---	9	---	---	25	15
		114+30.06	4.3 RT	---	1	---	---	---	---	---	---	---
		115+39.09	3.7 RT	---	1	---	---	---	---	---	---	---
		115+46.50	6.8 RT	1	---	3	---	9	---	---	25	15
		117+24.28	3.6 RT	---	1	---	---	---	---	---	---	---

*SEE PROPOSED STORM SEWER TABLES FOR "REMOVE AND CAP EXISTING DRAINAGE STRUCTURE" QUANTITIES AND LOCATIONS.

**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

				204.0210	204.0220	305.0110**	390.0403**	SPV.0180.001**	416.0610**	416.0620**	690.0250**	SPV.0035.801**
				REMOVING MANHOLES	REMOVING INLETS	BASE AGGREGATE DENSE 1 1/4-INCH	BASE PATCHING CONCRETE SHES	BASE PATCHING CONCRETE SHES SPECIAL	DRILLED TIE BARS	DRILLED DOWEL BARS	SAWING CONCRETE	BACKFILL SLURRY
STAGE	ROADWAY	STATION	OFFSET	EACH	EACH	TON	SY	SY	EACH	EACH	LF	CY
2	IH 894 'EW'	117+30.51	6.1 RT	1	---	3	---	9	---	---	25	15
		117+30.51	13.4 RT	1	---	3	---	9	---	---	25	15
		119+55.60	6.2 RT	1	---	3	---	9	---	---	25	15
		119+62.80	3.4 RT	---	1	---	---	---	---	---	---	---
		121+05.79	3.9 RT	---	1	---	---	---	---	---	---	---
		121+05.86	4.6 LT	---	1	---	---	---	---	---	---	---
		123+39.59	4.2 RT	---	1	---	---	---	---	---	---	---
		123+40.99	5 LT	---	1	---	---	---	---	---	---	---
		123+42.85	13.9 LT	1	---	3	---	9	---	---	25	15
		125+06.89	15.4 LT	1	---	3	---	9	---	---	25	15
		125+07.27	4.2 LT	---	1	---	---	---	---	---	---	---
		125+08.35	6.8 RT	1	---	3	---	9	---	---	25	15
		126+29.39	3.3 RT	---	1	---	---	---	---	---	---	---
		126+37.18	14.1 RT	1	---	3	---	9	---	---	25	15
		126+37.37	0.6 LT	---	1	---	---	---	---	---	---	---
		128+03.51	3.1 RT	---	1	---	---	---	---	---	---	---
		128+10.43	0.5 LT	---	1	---	---	---	---	---	---	---
		128+11.44	14.4 RT	1	---	3	---	9	---	---	25	15
		128+12.46	4.9 LT	---	1	---	---	---	---	---	---	---
		130+95.92	14.6 LT	1	---	3	---	9	---	---	25	15
		130+96.07	0.5 LT	---	1	---	---	---	---	---	---	---
		130+96.24	4.6 LT	---	1	---	---	---	---	---	---	---
		130+96.64	12.8 RT	1	---	3	---	9	---	---	25	15
		131+04.10	3.5 RT	---	1	---	---	---	---	---	---	---
		138+56.24	0.4 RT	---	1	---	---	---	---	---	---	---
		138+56.53	13.9 LT	1	---	3	---	9	---	---	25	15
		138+56.57	4.3 LT	---	1	---	---	---	---	---	---	---
		142+05.91	0.5 RT	---	1	---	---	---	---	---	---	---
		142+05.93	13.7 LT	1	---	3	---	9	---	---	25	15
		142+06.00	4.2 LT	---	1	---	---	---	---	---	---	---
		145+48.34	3.5 RT	---	1	---	---	---	---	---	---	---
		145+56.13	14.1 RT	1	---	3	---	9	---	---	25	15
		145+56.64	13.7 LT	1	---	3	---	9	---	---	25	15
		145+56.64	4.6 LT	---	1	---	---	---	---	---	---	---
		145+56.72	0.1 LT	---	1	---	---	---	---	---	---	---
		151+39.00	13.7 LT	1	---	3	---	9	---	---	25	15
		151+39.37	4.9 LT	---	1	---	---	---	---	---	---	---
		151+39.57	3.3 RT	---	1	---	---	---	---	---	---	---
		151+88.73	14.2 LT	1	---	3	---	9	---	---	25	15
		151+88.80	4.7 LT	---	1	---	---	---	---	---	---	---

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ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
2	IH 894 'EW'	151+88.89	12.7 RT	1	---	3	---	9	---	---	25	15
		151+96.28	4.1 RT	---	1	---	---	---	---	---	---	---
		152+38.75	14 LT	1	---	3	---	9	---	---	25	15
		152+38.79	5 LT	---	1	---	---	---	---	---	---	---
		152+38.82	14.5 RT	1	---	3	---	9	---	---	25	15
		152+44.50	4 RT	---	1	---	---	---	---	---	---	---
		154+21.03	0.2 LT	---	1	---	---	---	---	---	---	---
		156+04.87	14.3 RT	1	---	3	---	9	---	---	25	15
		156+05.04	4.6 LT	---	1	---	---	---	---	---	---	---
		156+05.40	14.2 LT	1	---	3	---	9	---	---	25	15
		156+12.96	3.7 RT	---	1	---	---	---	---	---	---	---
		162+56.33	4.3 LT	---	1	---	---	---	---	---	---	---
		162+65.19	4 RT	---	1	---	---	---	---	---	---	---
		165+88.18	13.6 LT	1	---	3	---	9	---	---	25	15
		166+00.61	4.1 LT	---	1	---	---	---	---	---	---	---
		166+05.08	14.6 RT	1	---	3	---	9	---	---	25	15
		166+12.71	4.4 RT	---	1	---	---	---	---	---	---	---
		168+09.37	13.6 LT	1	---	3	---	9	---	---	25	15
		168+09.92	4.3 LT	---	1	---	---	---	---	---	---	---
		168+10.39	14.4 RT	1	---	3	---	9	---	---	25	15
		168+19.05	4.1 RT	---	1	---	---	---	---	---	---	---
		170+54.84	14.8 RT	1	---	3	---	9	---	---	25	15
		170+65.21	4.2 LT	---	1	---	---	---	---	---	---	---
		170+65.28	13.6 LT	1	---	3	---	9	---	---	25	15
		170+72.98	4.1 RT	---	1	---	---	---	---	---	---	---
		172+38.37	14.8 RT	1	---	3	---	9	---	---	25	15
		172+38.40	14.1 LT	1	---	3	---	9	---	---	25	15
		172+45.63	3.8 RT	---	1	---	---	---	---	---	---	---
		174+26.24	4.2 RT	---	1	---	---	---	---	---	---	---
		174+31.45	4.2 LT	---	1	---	---	---	---	---	---	---
		179+66.92	4.3 RT	---	1	---	---	---	---	---	---	---
		179+74.05	14.9 RT	1	---	3	---	9	---	---	25	15
		181+58.76	4.1 RT	---	1	---	---	---	---	---	---	---
		181+66.42	14.6 RT	1	---	3	---	9	---	---	25	15
		183+74.78	4.4 RT	---	1	---	---	---	---	---	---	---
		185+51.23	4 RT	---	1	---	---	---	---	---	---	---
		185+56.53	3.9 LT	---	1	---	---	---	---	---	---	---
		185+58.15	13.7 RT	1	---	3	---	9	---	---	25	15
		189+71.05	13.9 LT	1	---	3	---	9	---	---	25	15
		189+71.27	3.9 LT	---	1	---	---	---	---	---	---	---

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**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
2	IH 894 'EW'	189+71.31	0.2 RT	---	1	---	---	---	---	---	---	---
		191+56.05	4.1 LT	---	1	---	---	---	---	---	---	---
		191+57.04	13.8 LT	1	---	3	---	9	---	---	25	15
		193+55.96	4.3 LT	---	1	---	---	---	---	---	---	---
		193+56.06	14.1 LT	1	---	3	---	9	---	---	25	15
		196+40.71	13.7 LT	1	---	3	---	9	---	---	25	15
		196+40.72	0.5 RT	---	1	---	---	---	---	---	---	---
		196+40.74	4 LT	---	1	---	---	---	---	---	---	---
		200+41.08	3.8 LT	---	1	---	---	---	---	---	---	---
		200+41.10	4.4 RT	---	1	---	---	---	---	---	---	---
		203+69.35	14.1 RT	1	---	3	---	9	---	---	25	15
		203+69.42	13.8 LT	1	---	3	---	9	---	---	25	15
		207+73.90	3.9 RT	---	1	---	---	---	---	---	---	---
		207+81.72	13.9 LT	1	---	3	---	9	---	---	25	15
		207+82.23	0.8 RT	---	1	---	---	---	---	---	---	---
		207+88.03	4 LT	---	1	---	---	---	---	---	---	---
		207+96.27	13.9 RT	1	---	3	---	9	---	---	25	15
		210+97.54	4.1 LT	---	1	---	---	---	---	---	---	---
		210+99.10	3.9 RT	---	1	---	---	---	---	---	---	---
		210+99.16	14.2 RT	1	---	3	---	9	---	---	25	15
		211+39.97	3.9 RT	---	1	---	---	---	---	---	---	---
		211+46.69	0.2 RT	---	1	---	---	---	---	---	---	---
		211+47.55	12.3 LT	1	---	3	---	9	---	---	25	15
		211+48.53	13 RT	1	---	3	---	9	---	---	25	15
		211+53.54	4.2 LT	---	1	---	---	---	---	---	---	---
		211+98.62	11.9 LT	1	---	3	---	9	---	---	25	15
		211+98.77	0 LT	---	1	---	---	---	---	---	---	---
		212+06.45	4.3 LT	---	1	---	---	---	---	---	---	---
		213+57.13	0.3 LT	---	1	---	---	---	---	---	---	---
		213+63.18	4.2 LT	---	1	---	---	---	---	---	---	---
		220+97.82	4.5 LT	---	1	---	---	---	---	---	---	---
		221+07.08	0.4 LT	---	1	---	---	---	---	---	---	---
		221+07.58	14 LT	1	---	3	---	9	---	---	25	15
		222+90.59	4.3 LT	---	1	---	---	---	---	---	---	---
		222+98.11	14.2 LT	1	---	3	---	9	---	---	25	15
		222+98.47	0.4 RT	---	1	---	---	---	---	---	---	---
		226+15.01	0.3 LT	---	1	---	---	---	---	---	---	---
		226+16.51	13.9 RT	1	---	3	---	9	---	---	25	15
		226+16.55	4.1 RT	---	1	---	---	---	---	---	---	---
		227+56.13	4.2 LT	---	1	---	---	---	---	---	---	---

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**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
2	IH 894 'EW'	227+57.31	12.8 LT	1	---	3	---	9	---	---	25	15
		227+85.48	12.2 RT	1	---	3	---	9	---	---	25	15
		227+86.35	4.3 LT	---	1	---	---	---	---	---	---	---
		227+91.36	4.2 RT	---	1	---	---	---	---	---	---	---
		227+94.28	0.3 LT	---	1	---	---	---	---	---	---	---
		228+28.20	0 LT	---	1	---	---	---	---	---	---	---
		228+28.67	4.6 RT	---	1	---	---	---	---	---	---	---
		228+28.83	12.8 RT	1	---	3	---	9	---	---	25	15
		228+76.08	14.6 RT	1	---	3	---	9	---	---	25	15
2	IH 894 'EWE'	229+85.84	1 LT	1	---	3	---	9	---	---	25	15
		229+89.18	9.8 LT	---	1	---	---	---	---	---	---	---
		233+53.46	14 LT	---	1	---	---	---	---	---	---	---
		235+79.41	11.3 LT	---	1	---	---	---	---	---	---	---
		250+19.35	24.7 LT	---	1	---	---	---	---	---	---	---
		250+19.70	16.6 LT	---	1	---	---	---	---	---	---	---
		254+20.31	8.5 LT	---	1	---	---	---	---	---	---	---
2	IH 894 'EWW'	229+84.97	9.9 RT	---	1	---	---	---	---	---	---	---
		240+54.48	10.7 RT	---	1	---	---	---	---	---	---	---
STAGE 2 SUBTOTALS				65	113	195	0	585	0	0	1,625	975
3	IH 894 'EW'	89+17.26	68.5 RT	---	1	---	---	---	---	---	---	---
		89+28.95	58.9 RT	---	1	---	---	---	---	---	---	---
		89+67.29	65.2 LT	---	1	---	---	---	---	---	---	---
		89+71.77	59.1 LT	---	1	---	---	---	---	---	---	---
		97+18.60	61.3 LT	---	1	---	---	---	---	---	---	---
		97+32.57	60.4 RT	---	1	---	---	---	---	---	---	---
		99+45.96	59.3 RT	---	1	---	---	---	---	---	---	---
		104+23.75	59 RT	---	1	---	---	---	---	---	---	---
		108+04.85	59.2 RT	---	1	---	---	---	---	---	---	---
		108+05.60	59.9 LT	---	1	---	---	---	---	---	---	---
		108+05.72	65.7 RT	---	1	---	---	---	---	---	---	---
		110+45.90	58.8 RT	---	1	---	---	---	---	---	---	---
		110+72.94	58.7 RT	---	1	---	---	---	---	---	---	---
		111+00.64	59.7 RT	---	1	---	---	---	---	---	---	---
		111+82.56	62.4 LT	---	1	1	3	---	3	4	15	---
		111+84.15	66 LT	---	1	---	---	---	---	---	---	---
		113+54.82	64.5 RT	---	1	---	---	---	---	---	---	---
		115+72.40	60.5 LT	---	1	1	3	---	3	4	15	---
		115+74.16	64.2 LT	---	1	---	---	---	---	---	---	---
		119+55.16	65.8 LT	---	1	---	---	---	---	---	---	---

*SEE PROPOSED STORM SEWER TABLES FOR "REMOVE AND CAP EXISTING DRAINAGE STRUCTURE" QUANTITIES AND LOCATIONS.

**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
3	IH 894 'EW'	119+55.32	60.8 LT	---	1	1	3	---	3	4	15	---
		120+98.18	64.9 RT	---	1	---	---	---	---	---	---	---
		120+98.46	61 RT	---	1	---	---	---	---	---	---	---
		121+62.17	61.3 LT	---	1	---	---	---	---	---	---	---
		121+69.92	66.1 LT	---	1	---	---	---	---	---	---	---
		123+28.87	59.3 RT	---	1	---	---	---	---	---	---	---
		125+07.61	59.5 LT	---	1	---	---	---	---	---	---	---
		125+07.65	66.5 LT	---	1	---	---	---	---	---	---	---
		126+37.90	59.1 RT	---	1	---	---	---	---	---	---	---
		128+21.49	59.9 LT	---	1	---	---	---	---	---	---	---
		128+22.24	67 LT	---	1	---	---	---	---	---	---	---
		130+95.00	85 LT	---	1	---	---	---	---	---	---	---
		130+95.12	91 LT	---	1	1	3	---	3	4	15	---
		138+55.34	65.3 RT	---	1	---	---	---	---	---	---	---
		138+55.67	59.1 RT	---	1	---	---	---	---	---	---	---
		142+05.73	65.4 LT	---	1	---	---	---	---	---	---	---
		142+06.06	59.2 RT	---	1	---	---	---	---	---	---	---
		142+06.45	59.8 LT	---	1	---	---	---	---	---	---	---
		145+55.28	65 RT	---	1	---	---	---	---	---	---	---
		145+55.52	59.2 RT	---	1	---	---	---	---	---	---	---
		145+56.64	59.5 LT	---	1	---	---	---	---	---	---	---
		149+02.52	59.6' RT	---	1	---	---	---	---	---	---	---
		149+02.83	64.5' RT	---	1	---	---	---	---	---	---	---
		151+88.91	59.1 RT	---	1	---	---	---	---	---	---	---
		151+89.14	66 LT	---	1	---	---	---	---	---	---	---
		151+89.25	64.7 RT	---	1	---	---	---	---	---	---	---
		152+38.59	65.8 LT	---	1	---	---	---	---	---	---	---
		152+39.06	59.2 RT	---	1	---	---	---	---	---	---	---
		152+39.37	64.8 RT	---	1	---	---	---	---	---	---	---
		152+39.66	59.2 LT	---	1	---	---	---	---	---	---	---
		156+04.14	59.2 RT	---	1	---	---	---	---	---	---	---
		156+06.12	65.1 LT	---	1	---	---	---	---	---	---	---
		156+06.55	59.8 LT	---	1	---	---	---	---	---	---	---
		162+36.32	62.9 RT	---	1	1	3	---	3	4	15	---
		162+57.07	70.6 LT	---	1	1	3	---	3	4	15	---
		165+07.87	75.1 LT	---	1	1	3	---	3	4	15	---
		166+06.32	63.6 RT	---	1	1	3	---	3	4	15	---
		166+06.71	69.9 RT	---	1	---	---	---	---	---	---	---
		170+65.80	57.7 LT	1	---	3	---	9	---	---	25	15
		172+36.27	65 RT	---	1	---	---	---	---	---	---	---

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**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
3	IH 894 'EW'	172+37.06	59.7 RT	---	1	---	---	---	---	---	---	---
		174+81.32	59.8 LT	---	1	---	---	---	---	---	---	---
		174+81.56	65.4 LT	---	1	---	---	---	---	---	---	---
		179+71.61	65.8 LT	---	1	---	---	---	---	---	---	---
		179+71.84	59.8 LT	---	1	---	---	---	---	---	---	---
		186+32.59	71.9 RT	---	1	1	3	---	3	4	15	---
		189+68.61	66.3 RT	---	1	---	---	---	---	---	---	---
		193+54.62	60 RT	---	1	---	---	---	---	---	---	---
		193+57.47	60 LT	---	1	---	---	---	---	---	---	---
		196+40.90	60.4 RT	---	1	---	---	---	---	---	---	---
		203+68.81	59.4 RT	---	1	---	---	---	---	---	---	---
		203+69.63	58.6 LT	---	1	---	---	---	---	---	---	---
		207+81.08	68.2 LT	---	1	---	---	---	---	---	---	---
		208+43.96	59.7 RT	---	1	---	---	---	---	---	---	---
		211+48.17	66.6 LT	1	---	3	---	9	---	---	25	15
		211+49.12	62.1 RT	---	1	---	---	---	---	---	---	---
		211+49.72	75.1 LT	---	1	1	3	---	3	4	15	---
		213+56.35	62.9 RT	---	1	1	3	---	3	4	15	---
		220+39.83	84.4 RT	---	1	---	---	---	---	---	---	---
		220+40.81	79 RT	---	1	---	---	---	---	---	---	---
		222+61.47	65.1 RT	---	1	---	---	---	---	---	---	---
		222+64.43	59.1 RT	---	1	---	---	---	---	---	---	---
		222+96.46	68.5 LT	---	1	---	---	---	---	---	---	---
		222+96.48	64.1 LT	---	1	---	---	---	---	---	---	---
		223+63.28	78.1 LT	---	1	---	---	---	---	---	---	---
		223+63.99	82.8 LT	---	1	---	---	---	---	---	---	---
		226+15.88	72.2 LT	---	1	---	---	---	---	---	---	---
		226+16.04	65 RT	---	1	---	---	---	---	---	---	---
		226+16.19	59 RT	---	1	---	---	---	---	---	---	---
		226+16.64	77 LT	---	1	---	---	---	---	---	---	---
		228+02.95	59 RT	---	1	---	---	---	---	---	---	---
		228+29.89	65.4 RT	---	1	---	---	---	---	---	---	---
		228+30.05	59.3 RT	---	1	---	---	---	---	---	---	---
		228+40.74	71.4 LT	---	1	---	---	---	---	---	---	---
		228+45.42	78.4 LT	---	1	---	---	---	---	---	---	---
		228+57.05	59 RT	---	1	---	---	---	---	---	---	---
		229+20.99	72.7 LT	---	1	---	---	---	---	---	---	---

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ALL ITEMS ON THIS SHEET CATEGORY 1000

3

STORM SEWER STRUCTURE REMOVALS*

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	305.0110** BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0403** BASE PATCHING CONCRETE SHES SY	SPV.0180.001** BASE PATCHING CONCRETE SHES SPECIAL SY	416.0610** DRILLED TIE BARS EACH	416.0620** DRILLED DOWEL BARS EACH	690.0250** SAWING CONCRETE LF	SPV.0035.801** BACKFILL SLURRY CY
3	IH 894 'EWE'	229+86.10	45.7 RT	---	1	---	---	---	---	---	---	---
		229+86.31	49.7 RT	---	1	---	---	---	---	---	---	---
		250+18.67	46.1 RT	---	1	---	---	---	---	---	---	---
		254+19.99	46.3 RT	---	1	---	---	---	---	---	---	---
3	IH 894 'EWW'	229+87.10	63.8 LT	---	1	---	---	---	---	---	---	---
		229+88.23	58.3 LT	---	1	---	---	---	---	---	---	---
STAGE 3 SUBTOTALS				2	94	17	33	18	33	44	215	30
PROJECT TOTALS				67	207	212	33	603	33	44	1,840	1,005

3

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**ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

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STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
2	IH 894 'EW'	82+05	-	82+06	---	3	---	---	---	---	---	---
		82+06	-	82+06	RT	6	---	---	---	---	---	---
		86+07	-	86+07	RT	6	---	---	---	---	---	---
		86+07	-	86+09	---	4	---	---	---	---	---	---
		86+09	-	86+16	LT	13	---	---	---	---	---	---
		90+05	-	90+06	LT	10	---	---	---	---	---	---
		90+05	-	90+06	RT	8	---	---	---	---	---	---
		90+06	-	90+06	---	4	---	---	---	---	---	---
		90+06	-	90+06	RT	4	---	---	---	---	---	---
		99+44	-	99+45	LT	9	---	---	---	---	---	---
		99+45	-	99+46	LT	4	---	---	---	---	---	---
		99+46	-	99+46	---	6	---	---	---	---	---	---
		103+80	-	103+80	RT	10	---	---	---	---	---	---
		103+80	-	103+81	---	8	---	---	---	---	---	---
		103+81	-	103+81	LT	9	---	---	---	---	---	---
		103+81	-	104+57	LT	---	---	---	---	77	---	---
		104+53	-	104+56	---	---	---	---	---	7	---	---
		104+57	-	105+57	LT	---	---	---	---	100	---	---
		105+54	-	105+57	LT	---	---	5	---	---	---	---
		105+56	-	105+57	---	5	---	---	---	---	---	---
		105+57	-	105+64	LT	8	---	---	---	---	---	---
		105+57	-	108+06	LT	---	---	---	---	250	---	---
		108+06	-	108+06	LT	12	---	---	---	---	---	---
		108+06	-	108+06	RT	7	---	---	---	---	---	---
		108+06	-	108+06	RT	6	---	---	---	---	---	---
		108+06	-	110+23	---	---	---	---	---	---	217	---
		109+53	-	109+53	LT	9	---	---	---	---	---	---
		109+53	-	110+02	LT	49	---	---	---	---	---	---
		110+02	-	110+12	LT	---	14	---	---	---	---	---
		110+12	-	110+23	---	---	15	---	---	---	---	---
		110+23	-	110+73	RT	---	---	---	---	---	50	---
		110+73	-	110+73	RT	7	---	---	---	---	---	---
		110+73	-	110+81	RT	9	---	---	---	---	---	---
		110+73	-	111+46	RT	---	---	---	---	---	73	---
		111+38	-	111+47	RT	9	---	---	---	---	---	---
		111+46	-	111+53	---	15	---	---	---	---	---	---
		111+47	-	111+52	RT	---	---	---	---	---	---	9
		114+30	-	114+31	RT	8	---	---	---	---	---	---
		115+39	-	115+47	RT	8	---	---	---	---	---	---
		115+47	-	115+51	---	13	---	---	---	---	---	---

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
2	IH 894 'EW'	117+24	-	117+30	RT	7	---	---	---	---	---	---
		117+30	-	117+31	RT	7	---	---	---	---	---	---
		119+55	-	119+55	---	12	---	---	---	---	---	---
		119+55	-	119+62	RT	8	---	---	---	---	---	---
		121+04	-	121+06	RT	8	---	---	---	---	---	---
		121+05	-	121+06	---	9	---	---	---	---	---	---
		121+05	-	121+06	LT	9	---	---	---	---	---	---
		123+38	-	123+39	RT	8	---	---	---	---	---	---
		123+38	-	125+08	RT	---	---	---	---	170	---	---
		123+39	-	123+41	---	9	---	---	---	---	---	---
		123+41	-	123+43	LT	9	---	---	---	---	---	---
		125+07	-	125+07	LT	---	---	10	---	---	---	---
		125+07	-	125+09	---	---	---	11	---	---	---	---
		125+08	-	126+37	---	---	---	---	---	129	---	---
		126+29	-	126+37	---	9	---	---	---	---	---	---
		126+37	-	126+37	---	14	---	---	---	---	---	---
		126+37	-	128+11	---	---	---	---	174	---	---	---
		128+03	-	128+11	---	9	---	---	---	---	---	---
		128+11	-	128+12	LT	4	---	---	---	---	---	---
		128+11	-	130+96	LT	---	---	285	---	---	---	---
		128+12	-	128+14	LT	10	---	---	---	---	---	---
		130+96	-	130+96	---	14	---	---	---	---	---	---
		130+96	-	130+96	LT	10	---	---	---	---	---	---
		130+96	-	130+96	LT	4	---	---	---	---	---	---
		130+96	-	131+04	---	9	---	---	---	---	---	---
		138+56	-	138+56	RT	2	---	---	---	---	---	---
		138+56	-	138+57	---	5	---	---	---	---	---	---
		138+57	-	138+57	LT	10	---	---	---	---	---	---
		138+57	-	138+57	LT	2	---	---	---	---	---	---
		138+57	-	142+06	RT	---	349	---	---	---	---	---
		142+06	-	142+06	LT	10	---	---	---	---	---	---
		142+06	-	142+06	---	4	---	---	---	---	---	---
		142+06	-	145+57	RT	---	---	351	---	---	---	---
		145+49	-	145+57	RT	9	---	---	---	---	---	---
		145+56	-	145+57	RT	14	---	---	---	---	---	---
		145+57	-	145+57	---	3	---	---	---	---	---	---
		145+57	-	145+57	LT	11	---	---	---	---	---	---
		145+57	-	149+04	RT	---	---	---	348	---	---	---
		151+39	-	151+39	LT	10	---	---	---	---	---	---
		151+39	-	151+40	---	8	---	---	---	---	---	---

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
2	IH 894 'EW'	151+40	-	151+40	RT	9	---	---	---	---	---	---
		151+89	-	151+89	---	13	---	---	---	---	---	---
		151+89	-	151+89	LT	10	---	---	---	---	---	---
		151+89	-	151+89	LT	4	---	---	---	---	---	---
		151+89	-	151+96	RT	8	---	---	---	---	---	---
		152+39	-	152+39	---	6	---	---	---	---	---	---
		152+39	-	152+39	LT	8	---	---	---	---	---	---
		152+39	-	152+39	RT	14	---	---	---	---	---	---
		152+39	-	152+45	RT	7	---	---	---	---	---	---
		156+05	-	156+05	---	5	---	---	---	---	---	---
		156+05	-	156+05	LT	10	---	---	---	---	---	---
		156+05	-	156+05	RT	13	---	---	---	---	---	---
		162+57	-	162+57	---	6	---	---	---	---	---	---
		162+57	-	162+65	RT	9	---	---	---	---	---	---
		165+88	-	166+05	---	---	---	22	---	---	---	---
		166+05	-	166+05	RT	14	---	---	---	---	---	---
		166+05	-	166+13	RT	9	---	---	---	---	---	---
		168+09	-	168+09	LT	10	---	---	---	---	---	---
		168+09	-	168+11	---	4	---	---	---	---	---	---
		168+10	-	168+11	RT	15	---	---	---	---	---	---
		168+11	-	168+19	RT	9	---	---	---	---	---	---
		170+55	-	170+65	RT	---	18	---	---	---	---	---
		170+65	-	170+65	---	---	4	---	---	---	---	---
		170+65	-	170+65	LT	---	10	---	---	---	---	---
		170+65	-	170+73	RT	---	9	---	---	---	---	---
		172+38	-	172+39	---	15	---	---	---	---	---	---
		172+38	-	172+39	LT	14	---	---	---	---	---	---
		172+39	-	172+46	---	8	---	---	---	---	---	---
		174+26	-	174+32	RT	7	---	---	---	---	---	---
		174+32	-	174+32	---	4	---	---	---	---	---	---
		179+67	-	179+74	RT	8	---	---	---	---	---	---
		179+74	-	179+74	RT	16	---	---	---	---	---	---
		181+59	-	181+66	RT	8	---	---	---	---	---	---
		181+66	-	181+66	RT	14	---	---	---	---	---	---
		183+76	-	183+82	RT	7	---	---	---	---	---	---
		185+52	-	185+58	RT	7	---	---	---	---	---	---
		185+56	-	185+58	---	4	---	---	---	---	---	---
		185+58	-	185+58	RT	14	---	---	---	---	---	---
		189+71	-	189+72	---	4	---	---	---	---	---	---
		189+71	-	189+72	LT	10	---	---	---	---	---	---

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
2	IH 894 'EW'	191+56	-	191+56	LT	10	---	---	---	---	---	---
		193+56	-	193+56	LT	11	---	---	---	---	---	---
		196+41	-	196+41	---	4	---	---	---	---	---	---
		196+41	-	196+41	LT	10	---	---	---	---	---	---
		200+41	-	200+41	---	10	---	---	---	---	---	---
		203+69	-	203+69	---	27	---	---	---	---	---	---
		207+73	-	207+81	RT	9	---	---	---	---	---	---
		207+81	-	207+81	---	---	15	---	---	---	---	---
		207+81	-	207+82	RT	---	6	---	---	---	---	---
		207+81	-	207+89	---	8	---	---	---	---	---	---
		210+98	-	210+99	---	8	---	---	---	---	---	---
		210+98	-	210+99	LT	9	---	---	---	---	---	---
		210+99	-	211+47	LT	---	---	---	---	50	---	---
		211+39	-	211+47	---	9	---	---	---	---	---	---
		211+47	-	211+47	LT	---	---	12	---	---	---	---
		211+47	-	211+48	---	---	13	---	---	---	---	---
		211+47	-	211+54	LT	8	---	---	---	---	---	---
		211+47	-	211+99	LT	---	52	---	---	---	---	---
		211+99	-	211+99	LT	12	---	---	---	---	---	---
		211+99	-	212+07	LT	9	---	---	---	---	---	---
		211+99	-	213+57	---	---	158	---	---	---	---	---
		213+57	-	213+57	LT	5	---	---	---	---	---	---
		213+57	-	213+64	RT	8	---	---	---	---	---	---
		220+98	-	221+07	LT	9	---	---	---	---	---	---
		221+07	-	221+10	LT	14	---	---	---	---	---	---
		222+91	-	222+98	LT	8	---	---	---	---	---	---
		222+95	-	222+98	RT	---	---	6	---	---	---	---
		222+98	-	222+98	LT	---	15	---	---	---	---	---
		226+15	-	226+16	---	6	---	---	---	---	---	---
		226+16	-	226+16	RT	9	---	---	---	---	---	---
		227+56	-	227+57	LT	9	---	---	---	---	---	---
		227+57	-	227+94	LT	37	---	---	---	---	---	---
		227+85	-	227+90	RT	8	---	---	---	---	---	---
		227+86	-	227+94	LT	12	---	---	---	---	---	---
		227+90	-	227+94	RT	7	---	---	---	---	---	---
		227+94	-	227+94	LT	---	15	---	---	---	---	---
		227+94	-	228+29	RT	---	---	---	---	---	37	---
		228+28	-	228+28	RT	4	---	---	---	---	---	---
		228+28	-	228+29	RT	7	---	---	---	---	---	---
		228+29	-	229+86	RT	---	---	---	---	---	157	---

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
2	IH 894 'EWE'	229+86	-	229+89	LT	9	---	---	---	---	---	---
		229+85	-	229+86	LT	---	---	17	---	---	---	---
		233+53	-	233+54	LT	6	---	---	---	---	---	---
		235+22	-	235+28	LT	---	---	19	---	---	---	---
		235+28	-	235+79	LT	52	---	---	---	---	---	---
		241+89	-	241+90	LT	10	---	---	---	---	---	---
		250+19	-	250+20	LT	7	---	---	---	---	---	---
		250+19	-	250+20	LT	7	---	---	---	---	---	---
		254+20	-	254+20	LT	9	---	---	---	---	---	---
2	IH 894 'EWW'	240+54	-	240+58	RT	8	---	---	---	---	---	---
STAGE 2 SUBTOTALS						1,244	693	738	522	783	534	9

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
3	IH 894 'EW'	89+17	-	89+29	RT	---	15	---	---	---	---	---
		89+68	-	89+72	LT	7	---	---	---	---	---	---
		108+05	-	108+05	LT	---	---	8	---	---	---	---
		108+06	-	108+06	RT	5	---	---	---	---	---	---
		110+47	-	110+73	RT	27	---	---	---	---	---	---
		110+73	-	110+74	RT	5	---	---	---	---	---	---
		110+73	-	111+00	RT	27	---	---	---	---	---	---
		111+82	-	111+84	LT	4	---	---	---	---	---	---
		113+55	-	113+55	RT	8	---	---	---	---	---	---
		115+71	-	115+73	LT	4	---	---	---	---	---	---
		119+56	-	119+56	LT	10	---	---	---	---	---	---
		120+98	-	120+98	RT	3	---	---	---	---	---	---
		121+61	-	121+70	LT	12	---	---	---	---	---	---
		123+29	-	123+29	RT	3	---	---	---	---	---	---
		125+08	-	125+08	LT	---	---	6	---	---	---	---
		128+22	-	128+22	LT	5	---	---	---	---	---	---
		130+95	-	130+95	LT	5	---	---	---	---	---	---
		138+55	-	138+55	RT	5	---	---	---	---	---	---
		142+06	-	142+06	LT	4	---	---	---	---	---	---
		142+06	-	142+06	RT	6	---	---	---	---	---	---
		145+55	-	145+55	RT	4	---	---	---	---	---	---
		145+56	-	145+56	LT	6	---	---	---	---	---	---
		149+03	-	149+03	RT	---	---	---	6	---	---	---
		151+89	-	151+89	LT	8	---	---	---	---	---	---
		151+89	-	151+90	RT	5	---	---	---	---	---	---
		152+39	-	152+39	LT	6	---	---	---	---	---	---
		152+39	-	152+39	RT	5	---	---	---	---	---	---
		156+05	-	156+05	RT	5	---	---	---	---	---	---
		156+06	-	156+06	LT	4	---	---	---	---	---	---
		162+31	-	162+36	RT	6	---	---	---	---	---	---
		166+07	-	166+07	RT	5	---	---	---	---	---	---
		172+37	-	172+37	RT	4	---	---	---	---	---	---
		174+81	-	174+81	LT	5	---	---	---	---	---	---
		179+72	-	179+72	LT	5	---	---	---	---	---	---
		207+81	-	208+03	LT	---	26	---	---	---	---	---
		211+48	-	211+49	LT	6	---	---	---	---	---	---
		211+49	-	211+49	RT	6	---	---	---	---	---	---
		213+56	-	213+56	RT	5	---	---	---	---	---	---
		220+38	-	220+41	RT	5	---	---	---	---	---	---
		222+63	-	222+65	RT	---	5	---	---	---	---	---

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.805 REMOVING STORM SEWER 24-INCH LF	204.0245.806 REMOVING STORM SEWER 30-INCH LF	204.0245.807 REMOVING STORM SEWER 36-INCH LF
3	IH 894 'EW'	222+97	-	222+97	LT	---	3	---	---	---	---	---
		223+64	-	223+65	LT	---	3	---	---	---	---	---
		226+16	-	226+16	RT	6	---	---	---	---	---	---
		226+16	-	226+17	LT	4	---	---	---	---	---	---
		228+04	-	228+29	RT	25	---	---	---	---	---	---
		228+30	-	228+30	RT	5	---	---	---	---	---	---
		228+31	-	228+56	RT	25	---	---	---	---	---	---
		228+41	-	228+45	LT	---	7	---	---	---	---	---
3	IH 894 'EWE'	229+86	-	229+86	RT	---	---	3	---	---	---	---
		250+18	-	250+19	RT	6	---	---	---	---	---	---
		254+20	-	254+20	RT	6	---	---	---	---	---	---
3	IH 894 'EWW'	229+87	-	229+88	LT	---	6	---	---	---	---	---
STAGE 3 SUBTOTALS						307	65	17	6	0	0	0
PROJECT TOTALS						1,551	758	755	528	783	534	9

ALL ITEMS ON THIS SHEET CATEGORY 1000

3

SLOTTED DRAINS*

STAGE	ROADWAY	UPSTREAM END STATION	UPSTREAM END OFFSET	DOWNSTREAM END CONNECT TO STRUCTURE	521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 15-INCH LF
2	IH 894 'EW'	114+00	4' RT	H3470	255
		148+19	4' LT	H4057	85
		148+19	4' RT	H4061	85
		149+25	5' LT	H4072	215
		149+25	5' RT	H4074	215
		176+49	5.25' LT	H4312	120
		176+49	5.25' RT	H4310	170
		229+36	4.5' RT	H6114	110
STAGE 2 SUBTOTALS					1,255

SLOTTED DRAINS*

STAGE	ROADWAY	UPSTREAM END STATION	UPSTREAM END OFFSET	DOWNSTREAM END CONNECT TO STRUCTURE	521.2005.S SURFACE DRAIN PIPE CORRUGATED METAL SLOTTED 15-INCH LF
3	IH 894 'EW'	89+54	60' RT	H142	25
		107+80	60' LT	H3376	25
		208+19	60' RT	H5074	25
3	RAMP FHB	115+00	1' LT	H3456	300
		118+81	2' LT	H3664	300
		121+06	2' LT	H3644	150
		123+12	5.25' LT	H3618	150
3	RAMP TBA	128+43	2' RT	H3538	25
		131+26	2' RT	H3508	25
3	RAMP TBB	127+00	2' LT	H3522	100
		132+60	1' LT	H3502	175
3	RAMP TCB	160+42	4.5' RT	H4174	180
		163+02	2' RT	H4202	305
		166+58	2' RT	H4217	150
3	RAMP TCC	167+82	2' LT	H4212	25
		172+56	2' LT	H4262	25
3	RAMP TCD	188+05	1' LT	HE4500	250
		191+25	1' LT	HE4526	175
3	RAMP LRB	209+97	8' RT	H5053	155
		213+00	2' RT	H5053	155
		216+92	1' RT	H5022	340
		219+25	2' RT	HE6017	100
		224+70	2' RT	H6047	225
3	RAMP LRA	232+21	2' RT	H6212	155
STAGE 3 SUBTOTALS					3,540
PROJECT TOTALS					4,795

*ALL SLOTTED DRAINS SHALL HAVE THE 6" SPECIAL GRATE DEPTH, AS SHOWN ON S.D.D. "SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS"

STORM SEWER QUANTITIES GENERAL NOTES (APPLIES TO ALL STORM SEWER TABLES)

- EXISTING PIPE ELEVATIONS ARE DERIVED FROM A COMBINATION OF SURVEY MEASURE DOWNS AND AS-BUILT PLANS. EXISTING PIPE ELEVATIONS AT PROPOSED STRUCTURES ARE INTERPOLATED VALUES.
- VERIFY ALL STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.
- STATION/OFFSET OF STRUCTURES IN CURB AND GUTTER REFER TO CENTER OF STRUCTURES.
- STATION/OFFSET OF STRUCTURES IN BARRIER SECTION REFER TO CENTER OF CASTING.
- STATION/OFFSET OF STRUCTURES NOT IN CURB AND GUTTER OR BARRIER SECTION REFER TO CENTER OF STRUCTURE.
- RIM ELEVATIONS FOR ALL STRUCTURES ARE GIVEN AT THE CENTER OF STRUCTURE.
- DEPTH OF NEW STRUCTURES = RIM ELEV - INVERT ELEVATION - CASTING HEIGHT - ADJUSTMENT + LOWEST PIPE THICKNESS
- DEPTH OF RECONSTRUCTING STRUCTURE (IF SHOWN) = RIM ELEVATION - APPROXIMATE RECONSTRUCT LIMIT ELEVATION - CASTING HEIGHT - ADJUSTMENT
- RECONSTRUCTING INLETS ON INTERCHANGE RAMPS IS INTENDED FOR GENERAL REPAIR OF EXISTING STRUCTURE MASONRY BELOW EXISTING ADJUSTING RINGS, AS DIRECTED BY THE ENGINEER.

ADJUSTMENTS

INLETS, & MANHOLES = 6 INCHES, UNLESS OTHERWISE NOTED
MEDIAN INLETS = NO ADJUSTMENT

CASTING HEIGHTS

MANHOLE COVERS TYPE J-SPECIAL = 9 INCHES
INLET COVERS TYPE 27-M-HD = 8 INCHES
INLET COVERS TYPE V-S & V-HD-S = 9 INCHES
INLET COVERS TYPE HM = 6 INCHES
INLET COVERS TYPE MS = 0 INCHES

CONCRETE PIPE THICKNESSES

12-INCH DIA = 2 INCHES
15-INCH DIA = 2.25 INCHES
18-INCH DIA = 2.5 INCHES
21-INCH DIA = 2.75 INCHES
24-INCH DIA = 3 INCHES
27-INCH DIA = 3.25 INCHES
30-INCH DIA = 3.5 INCHES
36-INCH DIA = 4 INCHES
60-INCH DIA = 6 INCHES

ALL ITEMS ON THIS SHEET CATEGORY 1000

STORM SEWER STRUCTURES SUMMARY (1 OF 2)

522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	611.0627 INLET COVERS TYPE HM	611.0642 INLET COVERS TYPE MS	SPV.0060.809 INLET COVERS TYPE V-S	SPV.0060.810 INLET COVERS TYPE V-HD-S	SPV.0060.801 INLET COVERS TYPE 27-M-HD	611.2005 MANHOLES 5-FT DIAMETER	611.2006 MANHOLES 6-FT DIAMETER	611.2008 MANHOLES 8-FT DIAMETER	SPV.0060.802 RECONSTRUCTING MANHOLE SPECIAL	611.0430* RECONSTRUCTING INLETS	SPV.0060.803 RECONSTRUCTING INLET SPECIAL	SPV.0060.804 REMOVE AND CAP EXISTING DRAINAGE STRUCTURE
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
2	72	44	10	31	101	98	4	3	16	43	5	20

STORM SEWER STRUCTURES SUMMARY (2 OF 2)

SPV.0060.805 CAP PROPOSED DRAINAGE STRUCTURE	611.3004 INLETS 4-FT DIAMETER	611.3225 INLETS 2X2.5-FT	611.3230 INLETS 2X3-FT	611.3901 INLETS MEDIAN 1 GRATE	611.3902 INLETS MEDIAN 2 GRATE	611.8110 ADJUSTING MANHOLE COVERS	611.8115 ADJUSTING INLET COVERS
EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
2	82	1	1	34	5	3	13

STORM SEWER PIPES SUMMARY

608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	608.0321 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	608.0327 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 27-INCH	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	520.8000 CONCRETE COLLARS FOR PIPE
LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	EACH
844	1760	149	13	2439	180	746	206	72	86	158	39	153

ALL ITEMS ON THIS SHEET CATEGORY 1000

*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H100	2	82+05.85	3.00' LT	761.37	MANHOLES 5-FT DIA	27-M-HD	2.00	4	---	P101	2	H100	H102	758.39	758.33	1.00%	6	III	15	1	---	5
IH 894 'EW'	H102	2	82+05.85	3.00' RT	761.61	MANHOLES 5-FT DIA	27-M-HD	2.57	7	---	PE103	---	H102	HE104	758.08	757.53	---	---	---	---	---	CONC COLLAR REQ'D	7
---	---	---	---	---	---	---	---	---	---	---	P113	2	PE111	H114	770.69	770.23	3.60%	13	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H114	2	86+09.39	3.00' LT	772.90	MANHOLES 5-FT DIA	27-M-HD	3.51	11	---	P115	2	H114	H116	768.39	767.76	10.00%	6	III	12	1	---	12
IH 894 'EW'	H116	2	86+07.45	3.00' RT	773.38	MANHOLES 5-FT DIA	27-M-HD	4.62	16	---	PE117	---	H116	HE118	767.76	766.80	---	---	---	---	---	CONC COLLAR REQ'D	16
IH 894 'EW'	HE118	3	86+06.57	63.64' RT	771.51	---	---	---	---	---	PE119	---	HE118	HE120	766.30	765.43	---	---	---	---	---	---	---
IH 894 'EW'	H130	3	89+67.43	64.67' LT	783.28	INLETS MEDIAN 1 GRATE	MS	2.78	2	---	P131	3	H130	H132	780.66	780.63	0.50%	6	III	12	1	---	3
IH 894 'EW'	H132	3	89+71.36	59.50' LT	784.02	INLETS 4-FT DIA	HM	2.56	5	---	PE133	---	H132	HE134	780.63	780.34	---	---	---	---	---	CONC COLLAR REQ'D	5
IH 894 'EW'	HE134	2	90+05.47	14.04' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	P135	2	HE134	H136	780.34	779.72	5.60%	11	III	12	1	---	1
IH 894 'EW'	H136	2	90+05.44	3.00' LT	784.89	MANHOLES 5-FT DIA	27-M-HD	4.17	14	---	P137	2	H136	H138	779.72	779.39	5.60%	6	III	12	1	---	15
IH 894 'EW'	H138	2	90+05.43	3.00' RT	785.09	MANHOLES 5-FT DIA	27-M-HD	4.7	16	---	P139	2	H138	HE140	779.39	778.87	5.51%	9	III	12	1	---	17
IH 894 'EW'	HE140	2	90+04.42	12.36' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE141	---	HE140	H142	778.87	775.30	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H142	3	89+28.62	59.50' RT	781.79	INLETS 4-FT DIA	HM	5.66	16	---	P143	3	H142	H144	775.30	775.19	0.78%	15	III	15	3	---	19
IH 894 'EW'	H144	3	89+17.21	68.70' RT	779.76	INLETS MEDIAN 1 GRATE	MS	5.06	9	---	PE145	---	H144	HE146	774.90	773.62	---	---	---	---	---	CONC COLLAR REQ'D	9
RAMP TA	HE220	3	21+42.52	9.40' RT	776.11	---	---	---	---	ADJUSTING MH COVER	PE221	---	HE220	HE240	771.29	770.09	---	---	---	---	---	---	---
IH 894 'EW'	H224	2	97+35.00	3.00' RT	793.03	MANHOLES 5-FT DIA	27-M-HD	8.5	32	---	P225	2	H224	H226	783.53	783.23	5.00%	6	III	12	1	---	33
IH 894 'EW'	H226	2	97+35.00	3.00' LT	792.94	MANHOLES 5-FT DIA	27-M-HD	8.71	33	---	P227	2	H226	HE232	783.23	782.71	5.00%	10	III	12	1	---	34
IH 894 'EW'	H228	3	97+18.67	59.00' LT	793.05	INLETS 4-FT DIA	V-S	3.78	10	---	PE229	---	H228	HE232	788.10	782.51	---	---	---	---	---	CONC COLLAR REQ'D	10
IH 894 'EW'	H230	3	97+32.29	59.50' RT	792.88	INLETS 4-FT DIA	HM	3.83	9	---	PE231	---	H230	HE232	788.22	782.71	---	---	---	---	---	CONC COLLAR REQ'D	9
IH 894 'EW'	HE232	2	97+25.16	0.21' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE233	---	HE232	HE234	781.61	769.50	---	---	---	---	---	---	---
RAMP TA	HE240	3	20+13.92	9.27' RT	775.56	---	---	---	---	ADJUSTING MH COVER	PE241	---	HE240	HE260	757.50	756.96	---	---	---	---	---	---	---
IH 894 'EW'	H300	2	99+45.84	3.00' LT	788.97	MANHOLES 5-FT DIA	27-M-HD	4.65	16	---	P301	2	H300	H302	783.34	783.28	1.00%	6	III	15	1	---	17
IH 894 'EW'	H302	2	99+45.84	3.00' RT	789.07	MANHOLES 5-FT DIA	27-M-HD	5.08	17	---	PE303	---	H302	H304	783.03	780.83	---	---	---	---	---	CONC COLLARS REQ'D (2)	17
IH 894 'EW'	H304	3	99+45.82	59.50' RT	788.63	INLETS 4-FT DIA	HM	7.14	21	---	PE305	---	H304	HE306	780.70	773.86	---	---	---	---	---	CONC COLLAR REQ'D	21
IH 894 'EW'	H3000	2	103+81.00	3.00' LT	780.97	MANHOLES 5-FT DIA	27-M-HD	4.9	17	---	P3001	2	H3000	H3010	775.09	775.03	1.00%	6	III	15	1	---	18
IH 894 'EW'	H3010	2	103+81.00	3.00' RT	780.86	MANHOLES 5-FT DIA	27-M-HD	5.66	20	---	P3011	2	H3010	H3020	774.28	770.62	5.00%	73	III	24	27	---	47
IH 894 'EW'	H3014	3	104+23.61	59.50' RT	779.71	INLETS 4-FT DIA	HM	8.4	26	---	PE3015	---	H3014	H3020	770.62	770.56	---	---	---	---	---	CONC COLLARS REQ'D (2)	26
IH 894 'EW'	H3020	2	104+54.16	3.00' RT	779.61	MANHOLES 5-FT DIA	27-M-HD	8.61	32	---	P3021	2	H3020	H3360	770.12	769.61	0.50%	101	III	30	55	---	87
IH 894 'EW'	H3358	2	105+55.37	3.00' LT	777.66	MANHOLES 5-FT DIA	27-M-HD	5.48	19	---	P3359	2	H3358	H3360	771.22	770.92	5.00%	6	III	18	1	---	20
IH 894 'EW'	H3360	2	105+55.37	3.00' RT	777.72	MANHOLES 5-FT DIA	27-M-HD	7.23	26	---	P3361	2	H3360	H3400	769.61	764.90	1.88%	251	III	30	136	---	162
RAMP FHB	H3366	3	102+57.38	1.25' LT	793.51	---	---	---	---	RECONSTRUCTING INLET	PE3367	---	H3366	HE3368	788.32	777.50	---	---	---	---	---	---	---
RAMP FHB	H3370	3	106+57.37	1.25' LT	777.42	---	---	---	---	RECONSTRUCTING INLET	PE3371	---	H3370	HE3372	772.80	771.59	---	---	---	---	---	---	---
IH 894 'EW'	HE3374	3	108+05.18	67.22' LT	772.08	---	---	---	---	---	P3375	3	HE3374	H3376	766.90	766.59	4.01%	8	III	18	2	---	2
IH 894 'EW'	H3376	3	108+05.46	59.50' LT	772.83	INLETS 4-FT DIA	HM	5.45	15	---	PE3377	---	H3376	P3379	766.59	765.62	---	---	---	---	---	CONC COLLAR REQ'D	15
---	---	---	---	---	---	---	---	---	---	---	P3379	2	PE3377	H3380	765.62	765.38	2.15%	11	III	18	3	CONC COLLAR REQ'D	3

ALL ITEMS ON THIS SHEET CATEGORY 1000

*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H3380	2	108+06.25	3.00' LT	772.94	MANHOLES 5-FT DIA	27-M-HD	6.61	24	---	P3381	2	H3380	H3400	765.38	765.32	1.00%	6	III	18	1	---	25
IH 894 'EW'	H3382	3	108+05.44	65.62' RT	772.51	INLETS MEDIAN 1 GRATE	MS	4.54	7	---	P3383	3	H3382	H3384	768.14	767.83	5.00%	6	III	12	1	---	8
IH 894 'EW'	H3384	3	108+04.79	59.50' RT	772.62	INLETS 4-FT DIA	HM	4.06	10	---	PE3385	---	H3384	PE3387	767.73	767.15	---	---	---	---	---	CONC COLLAR REQ'D	10
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IH 894 'EW'	H3400	2	108+05.90	3.00' RT	772.88	MANHOLES 5-FT DIA	27-M-HD	7.1	26	---	P3401	2	H3400	H3410	764.90	763.43	1.40%	105	III	30	57	---	83
IH 894 'EW'	H3402	2	109+11.16	3.00' LT	771.52	MANHOLES 5-FT DIA	27-M-HD	5.8	21	---	P3403	2	H3402	H3410	764.74	764.68	1.00%	6	III	15	1	---	22
IH 894 'EW'	H3410	2	109+11.16	3.00' RT	771.16	MANHOLES 5-FT DIA	27-M-HD	6.86	25	---	P3411	2	H3410	H3430	763.43	762.00	1.40%	102	III	30	55	---	80
RAMP FHB	HE3412	3	109+32.21	1.50' LT	770.26	---	---	---	---	ADJUSTING INLET COVER	PE3413	---	HE3412	HE3418	765.03	764.68	---	---	---	---	---	---	---
RAMP FHB	HE3414	3	109+82.61	9.01' LT	769.55	---	---	---	---	---	PE3415	---	HE3414	HE3418	765.20	764.83	---	---	---	---	---	---	---
RAMP FHB	HE3416	3	110+30.85	1.50' LT	770.16	---	---	---	---	ADJUSTING INLET COVER	PE3417	---	HE3416	HE3418	765.50	764.53	---	---	---	---	---	---	---
IH 894 'EW'	HE3418	3	109+65.15	70.03' LT	770.04	---	---	---	---	ADJUSTING INLET COVER	PE3419	---	HE3418	HE3420	764.53	764.01	---	---	---	---	---	---	---
IH 894 'EW'	HE3420	2	110+01.69	12.96' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	P3421	2	HE3420	H3422	764.01	763.71	2.00%	15	III	15	3	---	3
IH 894 'EW'	H3422	2	110+13.13	3.00' LT	771.17	MANHOLES 5-FT DIA	27-M-HD	6.48	23	---	P3423	2	H3422	H3430	763.71	763.59	2.00%	6	III	15	1	---	24
IH 894 'EW'	H3430	2	110+13.13	3.00' RT	769.83	MANHOLES 5-FT DIA	27-M-HD	6.95	25	---	P3431	2	H3430	H3450	762.00	761.16	1.40%	60	III	30	33	---	58
IH 894 'EW'	H3432	2	110+73.05	3.00' LT	771.48	MANHOLES 5-FT DIA	27-M-HD	6.36	23	---	P3433	2	H3432	H3450	764.14	764.08	1.00%	6	III	15	1	---	24
IH 894 'EW'	H3434	3	110+46.16	59.00' RT	769.82	INLETS 4-FT DIA	V-S	2.8	7	---	P3435	3	H3434	H3440	765.85	764.89	3.50%	27	III	12	3	---	10
IH 894 'EW'	HE3436	3	110+73.62	65.07' RT	769.89	---	---	---	---	---	P3437	3	HE3436	H3440	764.95	764.89	1.00%	6	III	12	1	---	1
IH 894 'EW'	H3438	3	111+00.36	59.00' RT	770.25	INLETS 4-FT DIA	V-S	3.25	8	---	P3439	3	H3438	H3440	765.83	764.89	3.50%	27	III	12	3	---	11
IH 894 'EW'	H3440	3	110+73.58	59.00' RT	769.93	INLETS 4-FT DIA	V-S	3.87	11	---	PE3441	---	H3440	P3443	764.89	764.44	---	---	---	---	---	CONC COLLAR REQ'D	11
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IH 894 'EW'	H3450	2	110+73.05	3.00' RT	769.43	MANHOLES 5-FT DIA	27-M-HD	7.4	27	---	P3451	2	H3450	H3470	761.16	760.10	1.50%	70	III	30	38	---	65
IH 894 'EW'	H3454	3	111+84.51	67.48' LT	771.22	INLETS MEDIAN 1 GRATE	MS	3.87	5	---	P3455	3	H3454	H3456	767.52	767.30	3.68%	6	III	12	1	---	6
IH 894 'EW'	H3456	3	111+82.43	61.97' LT	771.36	INLETS 4-FT DIA	HM	3.23	7	---	PE3457	---	H3456	H3458	767.30	766.65	---	---	---	---	---	CONC COLLARS REQ'D (2)	7
IH 894 'EW'	H3458	2	111+51.67	4.00' LT	772.28	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	6.95	26	---	P3459	2	H3458	H3470	764.35	764.24	1.00%	11	III	15	2	---	28
IH 894 'EW'	H3470	2	111+43.54	4.00' RT	769.71	MANHOLES 6-FT DIA	27-M-HD (ROTATED 90)	10.94	50	---	P3471	2	H3470	PE3473	759.60	759.42	1.50%	13	III	36	10	CONC COLLAR REQ'D	60
RAMP TBB	H3500	3	130+85.01	7.93' LT	807.32	INLETS MEDIAN 1 GRATE	MS	4.87	8	---	P3501	3	H3500	H3502	802.62	802.30	5.00%	6	III	12	1	---	9
RAMP TBB	H3502	3	130+84.92	1.50' LT	807.47	INLETS 4-FT DIA	HM	4.34	11	---	PE3503	---	H3502	P3505	802.30	801.77	---	---	---	---	---	CONC COLLAR REQ'D	11
---	---	---	---	---	---	---	---	---	---	---	P3505	2	PE3503	H3506	801.77	801.68	0.75%	12	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H3506	2	130+96.12	3.00' LT	808.07	MANHOLES 5-FT DIA	27-M-HD	5.66	20	---	P3507	2	H3506	H3520	801.43	801.33	1.70%	6	III	15	1	---	21
RAMP TBA	H3508	3	131+01.11	1.50' RT	807.69	---	---	---	---	RECONSTRUCTING INLET	PE3509	---	H3508	P3511	803.13	801.60	---	---	---	---	---	---	---
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IH 894 'EW'	H3520	2	130+96.15	3.00' RT	808.12	MANHOLES 5-FT DIA	27-M-HD	6.63	24	---	P3521	2	H3520	H3550	800.58	792.84	2.72%	285	III	24	107	---	131
RAMP TBB	H3522	3	128+00.02	1.00' LT	802.39	---	---	---	---	RECONSTRUCTING INLET	PE3523	---	H3522	H3528	797.18	796.89	---	---	---	---	---	---	---
RAMP TBB	H3526	3	128+50.63	1.00' LT	802.46	---	---	---	---	RECONSTRUCTING INLET	PE3527	---	H3526	H3528	798.09	796.84	---	---	---	---	---	---	---
RAMP TBB	H3528	3	128+25.97	1.25' LT	802.29	---	---	---	---	RECONSTRUCTING INLET	PE3529	---	H3528	H3530	796.84	795.24	---	---	---	---	---	CONC COLLAR REQ'D	---

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*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H3530	3	128+22.50	66.62' LT	799.78	INLETS MEDIAN 1 GRATE	MS	4.71	8	---	P3531	3	H3530	H3532	795.24	794.87	5.14%	7	III	12	1	---	9
IH 894 'EW'	H3532	3	128+21.41	59.50' LT	800.37	INLETS 4-FT DIA	HM	4.67	12	---	PE3533	---	H3532	P3535	794.87	793.98	---	---	---	---	---	CONC COLLAR REQ'D	12
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IH 894 'EW'	H3536	2	128+12.12	3.00' LT	800.37	MANHOLES 5-FT DIA	27-M-HD	5.88	21	---	P3537	2	H3536	H3550	793.51	793.45	1.00%	6	III	15	1	---	22
RAMP TBA	H3538	3	128+18.05	1.50' RT	799.43	---	---	---	---	RECONSTRUCTING INLET	PE3539	---	H3538	P3541	795.20	793.51	---	---	---	---	---	---	---
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IH 894 'EW'	H3550	2	128+11.09	3.00' RT	800.28	MANHOLES 5-FT DIA	27-M-HD	6.52	23	---	P3551	2	H3550	H3570	792.84	788.20	2.67%	174	III	24	65	---	88
IH 894 'EW'	H3552	2	126+37.26	3.00' LT	795.60	MANHOLES 5-FT DIA	27-M-HD	4.89	17	---	P3553	2	H3552	H3570	789.73	789.67	1.00%	6	III	15	1	---	18
RAMP TBA	H3554	3	126+15.93	1.00' RT	796.21	---	---	---	---	RECONSTRUCTING INLET	PE3555	---	H3554	H3558	791.55	791.17	---	---	---	---	---	---	---
RAMP TBA	H3556	3	126+64.92	1.00' RT	796.32	---	---	---	---	RECONSTRUCTING INLET	PE3557	---	H3556	H3558	791.68	791.13	---	---	---	---	---	---	---
RAMP TBA	H3558	3	126+41.11	1.00' RT	796.13	---	---	---	---	RECONSTRUCTING INLET	PE3559	---	H3558	H3560	791.00	790.20	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H3560	3	126+37.84	59.50' RT	795.16	INLETS 4-FT DIA	HM	4.13	10	---	PE3561	---	H3560	P3563	790.60	790.05	---	---	---	---	---	CONC COLLAR REQ'D	10
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IH 894 'EW'	H3570	2	126+37.26	3.00' RT	795.38	MANHOLES 5-FT DIA	27-M-HD	6.26	22	---	P3571	2	H3570	H3590	788.20	784.74	2.67%	129	III	24	48	---	70
RAMP TBB	H3574	3	124+66.30	1.25' LT	810.39	---	---	---	---	RECONSTRUCTING INLET	PE3575	---	H3574	H3576	805.45	802.91	---	---	---	---	---	---	---
RAMP TBB	H3576	3	125+00.14	32.88' RT	810.27	---	---	---	---	RECONSTRUCTING INLET	PE3577	---	H3576	H3578	802.11	785.70	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H3578	3	125+07.47	65.68' LT	792.00	INLETS MEDIAN 1 GRATE	MS	6.47	13	---	P3579	3	H3578	H3580	785.73	785.70	0.46%	7	III	18	2	---	15
IH 894 'EW'	H3580	3	125+07.69	59.00' LT	792.15	INLETS 2X2.5-FT	V-S	5.32	---	---	PE3581	---	H3580	P3583	785.70	785.39	---	---	---	---	---	CONC COLLAR REQ'D	---
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IH 894 'EW'	H3584	2	125+07.09	3.00' LT	792.40	MANHOLES 5-FT DIA	27-M-HD	6.14	22	---	P3585	2	H3584	H3590	785.30	785.24	1.00%	6	III	18	1	---	23
IH 894 'EW'	H3590	2	125+07.85	3.00' RT	791.91	MANHOLES 5-FT DIA	27-M-HD	6.25	22	---	P3591	2	H3590	H3610	784.74	780.13	2.71%	170	III	24	64	CONC COLLAR REQ'D	86
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IH 894 'EW'	H3596	2	123+40.80	4.00' LT	789.55	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	6.04	22	---	P3597	2	H3596	H3598	782.53	782.46	0.83%	8	III	15	1	---	23
IH 894 'EW'	H3598	2	123+39.62	4.00' RT	787.92	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	4.48	15	---	P3599	2	H3598	H3610	782.46	782.37	1.08%	9	III	15	2	CONC COLLAR REQ'D	17
IH 894 'EW'	H3602	3	123+28.67	59.50' RT	787.29	INLETS 4-FT DIA	HM	4.16	10	---	P3603	3	H3602	PE3605	782.30	782.26	1.00%	4	III	12	1	CONC COLLAR REQ'D	11
IH 894 'EW'	HE3610	2	123+37.98	12.51' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE3611	---	HE3610	HE3640	780.13	775.90	---	---	---	---	---	---	---
IH 894 'EW'	H3616	3	121+70.06	65.67' LT	786.83	INLETS MEDIAN 1 GRATE	MS	4.6	7	---	P3617	3	H3616	H3618	783.75	783.70	0.50%	10	III	12	1	---	8
IH 894 'EW'	H3618	3	121+62.13	60.29' LT	786.51	INLETS 4-FT DIA	HM	1.97	2	---	PE3619	---	H3618	HE3620	783.70	780.10	---	---	---	---	---	CONC COLLAR REQ'D	2
IH 894 'EW'	HE3620	2	121+05.93	13.16' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	P3621	2	HE3620	H3622	779.85	778.91	9.25%	10	III	15	2	---	2
IH 894 'EW'	H3622	2	121+05.80	3.00' LT	786.21	MANHOLES 5-FT DIA	27-M-HD	6.33	23	---	P3623	2	H3622	H3624	778.91	778.85	1.00%	6	III	15	1	---	24
IH 894 'EW'	H3624	2	121+05.69	3.00' RT	784.24	MANHOLES 5-FT DIA	27-M-HD	4.41	15	---	P3625	2	H3624	H3640	778.85	778.76	1.00%	9	III	15	2	CONC COLLAR REQ'D	17
IH 894 'EW'	H3626	3	121+06.16	68.32' RT	783.50	INLETS MEDIAN 1 GRATE	MS	3.77	5	---	P3627	3	H3626	H3628	779.90	779.70	1.93%	10	III	12	1	---	6
IH 894 'EW'	H3628	3	120+98.47	61.35' RT	784.53	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	3.83	12	---	PE3629	---	H3628	H3640	779.70	777.20	---	---	---	---	---	CONC COLLARS REQ'D (2)	12
IH 894 'EW'	HE3640	2	121+05.01	12.27' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE3641	---	H3640	H3650	775.90	774.11	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H3642	3	119+55.09	67.01' LT	782.57	INLETS MEDIAN 1 GRATE	MS	5.04	9	---	P3643	3	H3642	H3644	777.70	777.12	9.00%	6	III	12	1	---	10

ALL ITEMS ON THIS SHEET CATEGORY 1000

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STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H3644	3	119+55.18	60.56' LT	782.90	INLETS 4-FT DIA	HM	4.95	13	---	PE3645	---	H3644	H3646	777.12	775.80	---	---	---	---	---	CONC COLLARS REQ'D (2)	13
IH 894 'EW'	H3646	2	119+55.27	3.00' LT	784.28	MANHOLES 5-FT DIA	27-M-HD	7.76	29	---	P3647	2	H3646	H3650	775.55	775.49	1.00%	6	III	15	1	---	30
IH 894 'EW'	H3650	2	119+55.28	2.97' RT	781.96	MANHOLES 8-FT DIAMETER	27-M-HD	7.07	37	---	PE3651	---	H3650	H3660	774.01	770.60	---	---	---	---	---	CONC COLLARS REQ'D (2)	37
IH 894 'EW'	H3660	2	117+29.66	3.00' RT	778.45	MANHOLES 8-FT DIAMETER	27-M-HD	7.05	37	---	PE3661	---	H3660	H3680	770.52	768.88	---	---	---	---	---	CONC COLLARS REQ'D (2)	37
IH 894 'EW'	H3662	3	115+72.11	66.01' LT	777.15	INLETS MEDIAN 1 GRATE	MS	4.52	7	---	P3663	3	H3662	H3664	772.80	772.50	5.00%	6	III	12	1	---	8
IH 894 'EW'	H3664	3	115+72.21	60.08' LT	776.93	INLETS 4-FT DIA	V-S	3.27	8	---	PE3665	---	H3664	H3666	772.50	770.67	---	---	---	---	---	CONC COLLARS REQ'D (2)	8
IH 894 'EW'	H3666	2	115+50.27	3.00' LT	778.39	MANHOLES 5-FT DIA	27-M-HD	6.99	26	---	P3667	2	H3666	H3680	770.42	770.21	3.00%	7	III	15	1	---	27
RAMP FHA	H3668	3	115+09.85	1.25' RT	776.55	---	---	---	---	RECONSTRUCTING INLET	PE3669	---	H3668	H3674	771.90	771.52	---	---	---	---	---	---	---
RAMP FHA	H3672	3	115+59.38	1.25' RT	776.83	---	---	---	---	RECONSTRUCTING INLET	PE3673	---	H3672	H3674	772.10	771.72	---	---	---	---	---	---	---
RAMP FHA	H3674	3	115+34.92	1.25' RT	776.55	---	---	---	---	RECONSTRUCTING INLET	PE3675	---	H3674	H3680	771.37	770.25	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H3680	2	115+46.70	3.04' RT	775.65	MANHOLES 8-FT DIAMETER	27-M-HD	5.95	30	---	PE3681	---	H3680	HE3690	768.83	762.41	---	---	---	---	---	CONC COLLAR REQ'D	30
IH 894 'EW'	H3682	2	114+29.93	3.72' RT	773.75	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	3.82	12	---	P3683	2	H3682	HE3690	768.95	768.86	1.00%	9	III	15	2	---	14
IH 894 'EW'	HE3690	2	114+30.67	12.83' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE3691	---	HE3690	HE3700	762.41	---	---	---	---	---	---	---	---
IH 894 'EW'	H3692	3	113+54.86	64.75' RT	773.98	INLETS MEDIAN 1 GRATE	MS	5.8	11	---	P3693	3	H3692	H3694	768.34	767.55	15.00%	5	III	12	1	---	12
IH 894 'EW'	H3694	3	113+54.76	59.50' RT	774.18	INLETS 4-FT DIA	HM	5.79	16	---	PE3695	---	H3694	BLIND	767.55	762.60	---	---	---	---	---	CONC COLLAR REQ'D	16
IH 894 'EW'	HE3700	3	111+86.47	64.23' RT	771.75	---	---	---	---	ADJUSTING MH COVER	PE3701	---	HE3700	OFFSITE	756.53	---	---	---	---	---	---	---	---
IH 894 'EW'	H4000	2	138+56.42	3.00' LT	805.24	MANHOLES 5-FT DIA	27-M-HD	5.74	20	---	P4001	2	H4000	H4010	798.52	798.46	1.00%	6	III	15	1	---	21
IH 894 'EW'	H4002	3	138+55.81	65.20' RT	804.23	INLETS MEDIAN 1 GRATE	MS	4.56	7	---	P4003	3	H4002	H4004	799.85	799.56	5.00%	6	III	12	1	---	8
IH 894 'EW'	H4004	3	138+55.52	59.50' RT	804.27	INLETS 4-FT DIA	HM	3.88	9	---	PE4005	---	H4004	H4010	799.56	798.71	---	---	---	---	---	CONC COLLARS REQ'D (2)	9
IH 894 'EW'	H4010	2	138+56.10	3.00' RT	805.90	MANHOLES 5-FT DIA	27-M-HD	7.13	26	---	P4011	2	H4010	H4030	797.85	789.36	2.43%	349	III	24	130	---	156
IH 894 'EW'	H4012	3	142+06.00	65.86' LT	797.00	INLETS MEDIAN 1 GRATE	MS	5.27	10	---	P4013	3	H4012	H4014	791.89	791.83	1.00%	6	III	12	1	---	11
IH 894 'EW'	H4014	3	142+06.38	59.50' LT	797.03	INLETS 4-FT DIA	HM	4.37	11	---	PE4015	---	H4014	P4017	791.83	791.74	---	---	---	---	---	CONC COLLAR REQ'D	11
---	---	---	---	---	---	---	---	---	---	---	P4017	2	PE4015	H4018	791.74	791.72	0.20%	11	III	12	1	CONC COLLAR REQ'D	1
IH 894 'EW'	H4018	2	142+05.78	3.00' LT	796.51	MANHOLES 5-FT DIA	27-M-HD	4.06	13	---	P4019	2	H4018	H4030	791.47	791.41	1.00%	6	III	15	1	---	14
IH 894 'EW'	HE4020	3	142+06.23	65.84' RT	795.45	---	---	---	---	---	P4021	3	HE4020	H4022	791.47	791.15	5.00%	6	III	12	1	---	1
IH 894 'EW'	H4022	3	142+05.94	59.50' RT	795.89	INLETS 4-FT DIA	HM	3.91	9	---	PE4023	---	H4022	H4030	791.15	790.20	---	---	---	---	---	CONC COLLARS REQ'D (2)	9
IH 894 'EW'	H4030	2	142+05.57	3.00' RT	796.90	MANHOLES 5-FT DIA	27-M-HD	6.62	24	---	P4031	2	H4030	H4050	789.36	780.63	2.49%	351	III	24	131	---	155
IH 894 'EW'	HE4032	3	145+56.02	65.55' LT	787.05	---	---	---	---	---	P4033	3	HE4032	H4034	782.90	782.58	5.00%	6	III	12	1	---	1
IH 894 'EW'	H4034	3	145+56.57	59.19' LT	787.29	INLETS 4-FT DIA	HM	3.88	9	---	PE4035	---	H4034	P4037	782.58	781.90	---	---	---	---	---	CONC COLLAR REQ'D	9
---	---	---	---	---	---	---	---	---	---	---	P4037	2	PE4035	H4038	781.90	781.74	1.50%	11	III	12	1	CONC COLLAR REQ'D	1
IH 894 'EW'	H4038	2	145+56.60	3.00' LT	787.64	MANHOLES 5-FT DIA	27-M-HD	5.18	18	---	P4039	2	H4038	H4050	781.49	781.40	1.50%	6	III	15	1	---	19
IH 894 'EW'	H4040	3	145+56.22	65.72' RT	786.99	INLETS MEDIAN 1 GRATE	MS	4.44	7	---	P4041	3	H4040	H4042	782.72	782.48	3.85%	6	III	12	1	---	8
IH 894 'EW'	H4042	3	145+55.96	59.50' RT	787.31	INLETS 4-FT DIA	HM	3.99	10	---	PE4043	---	H4042	P4045	782.48	781.63	---	---	---	---	---	CONC COLLAR REQ'D	10
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IH 894 'EW'	H4050	2	145+56.64	3.00' RT	787.57	MANHOLES 5-FT DIA	27-M-HD	6.02	21	---	P4051	2	H4050	HE4070	780.63	772.03	2.47%	348	III	24	130	---	151

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ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H4054A	3	149+06.21	59.50' LT	778.65	INLETS 4-FT DIA	HM	3.87	9	---	P4054A	3	H4054A	HE4054	774.05	773.95	1.00%	10	III	12	1	---	10
IH 894 'EW'	HE4054	3	148+96.21	59.50' LT	778.87	---	---	---	---	ADJUSTING INLET COVER	PE4055	---	HE4054	HE4057	773.95	773.43	---	---	---	---	---	---	---
IH 894 'EW'	H4057	2	149+04.61	4.13' LT	779.02	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4058	---	HE4057	HE4059	773.43	773.35	---	---	---	---	---	---	---
IH 894 'EW'	HE4059	2	149+04.43	0.00' RT	778.95	---	---	---	---	ADJUSTING INLET COVER	PE4060	---	HE4059	HE4061	773.35	773.27	---	---	---	---	---	---	---
IH 894 'EW'	H4061	2	149+04.28	4.11' RT	779.05	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4062	---	HE4061	HE4070	773.27	773.19	---	---	---	---	---	---	---
IH 894 'EW'	H4064	3	149+03.39	65.99' RT	778.90	INLETS MEDIAN 2 GRATE	MS (2 GRATE)	7.02	17	---	P4065	3	H4064	H4068	772.17	772.11	0.86%	7	III	30	4	---	21
IH 894 'EW'	H4066	3	148+93.02	59.48' RT	778.79	INLETS 4-FT DIA	HM	4.52	12	---	P4067	3	H4066	HE4068	773.46	773.36	1.00%	10	III	15	2	---	14
IH 894 'EW'	H4068	3	149+03.02	59.49' RT	778.72	MANHOLES 6-FT DIA	HM	5.9	23	---	PE4069	---	HE4068	HE4070	772.11	771.74	---	---	---	---	---	---	23
IH 894 'EW'	HE4070	2	149+04.38	12.70' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE4071	---	HE4070	HE4080	771.09	769.11	---	---	---	---	---	---	---
IH 894 'EW'	H4072	2	151+39.48	3.00' LT	775.98	MANHOLES 5-FT DIA	27-M-HD	3.73	12	---	P4073	2	H4072	H4074	771.27	771.21	1.00%	6	III	15	1	---	13
IH 894 'EW'	H4074	2	151+39.48	3.00' RT	775.91	MANHOLES 5-FT DIA	27-M-HD	3.72	12	---	P4075	2	H4074	HE4080	771.21	771.11	1.00%	10	III	15	2	---	14
IH 894 'EW'	HE4080	2	151+39.91	12.98' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE4081	---	HE4080	H4100	769.11	768.76	---	---	---	---	---	---	---
IH 894 'EW'	H4082	3	151+89.26	66.18' LT	775.55	INLETS MEDIAN 1 GRATE	MS	4.44	7	---	P4083	3	H4082	H4084	771.28	771.21	1.04%	7	III	12	1	---	8
IH 894 'EW'	H4084	3	151+89.13	59.50' LT	775.73	INLETS 2X3-FT	HM	3.76	7	---	PE4087	---	H4084	P4089	771.14	770.91	---	---	---	---	---	CONC COLLAR REQ'D	7
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IH 894 'EW'	H4090	3	151+92.23	65.79' RT	775.56	INLETS MEDIAN 1 GRATE	MS	4.42	7	---	P4091	3	H4090	H4092	771.30	771.12	2.51%	7	III	12	1	---	8
IH 894 'EW'	H4092	3	151+88.78	59.50' RT	775.81	INLETS 4-FT DIA	HM	3.86	9	---	PE4093	---	H4092	P4095	771.12	770.89	---	---	---	---	---	CONC COLLAR REQ'D	9
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IH 894 'EW'	H4100A	2	151+78.61	3.00' LT	775.96	MANHOLES 5-FT DIA	27-M-HD	2.1	5	---	P4100A	2	H4100A	H4100	772.86	772.52	3.00%	11	IV	12	1	---	6
IH 894 'EW'	H4100	2	151+88.63	2.00' RT	776.04	---	V-HD-S	---	5	RECONSTRUCTING MH SPECIAL	PE4101	---	H4100	H4120	768.16	767.84	---	---	---	---	---	---	5
IH 894 'EW'	H4102	3	152+48.72	65.45' LT	776.27	INLETS MEDIAN 1 GRATE	MS	4.81	8	---	P4103	3	H4102	H4104	771.63	771.40	2.00%	11	III	12	1	---	9
IH 894 'EW'	H4104	3	152+39.09	59.50' LT	775.91	INLETS 4-FT DIA	HM	3.67	9	---	PE4105	---	H4104	P4107	771.40	770.56	---	---	---	---	---	CONC COLLAR REQ'D	9
---	---	---	---	---	---	---	---	---	---	---	P4107	2	PE4105	H4120	770.56	770.26	1.85%	16	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H4108	3	152+39.41	65.85' RT	776.31	INLETS MEDIAN 1 GRATE	MS	5	9	---	P4109	3	H4108	H4110	771.48	771.16	5.00%	6	III	12	1	---	10
IH 894 'EW'	H4110	3	152+38.92	59.50' RT	775.90	INLETS 4-FT DIA	HM	3.91	9	---	PE4111	---	H4110	P4113	771.16	769.92	---	---	---	---	---	CONC COLLAR REQ'D	9
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IH 894 'EW'	H4120A	2	152+48.84	3.00' LT	776.06	MANHOLES 5-FT DIA	27-M-HD	2.09	5	---	P4120A	2	H4120A	H4120	772.97	772.75	2.00%	11	IV	12	1	---	6
IH 894 'EW'	H4120	2	152+38.84	2.00' RT	776.15	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4121	---	H4120	H4130	767.78	766.69	---	---	---	---	---	---	6
IH 894 'EW'	HE4122	3	154+22.09	65.13' RT	777.13	---	---	---	---	---	PE4123	---	HE4122	H4130	771.18	769.94	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H4130A	2	154+31.16	3.00' LT	777.08	MANHOLES 5-FT DIA	27-M-HD	2.77	8	---	P4130A	2	H4130A	H4130	773.33	773.22	1.00%	11	IV	15	2	---	10
IH 894 'EW'	H4130	2	154+21.14	2.00' RT	777.05	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4131	---	H4130	H4150	766.64	765.71	---	---	---	---	---	---	6
IH 894 'EW'	H4132	3	156+06.43	65.93' LT	777.64	INLETS MEDIAN 1 GRATE	MS	5.31	10	---	P4133	3	H4132	H4134	772.50	772.18	5.05%	6	III	12	1	---	11
IH 894 'EW'	H4134	3	156+06.49	59.50' LT	777.72	INLETS 4-FT DIA	HM	4.7	12	---	PE4135	---	H4134	P4137	772.18	771.94	---	---	---	---	---	CONC COLLAR REQ'D	12
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IH 894 'EW'	HE4138	3	156+04.90	65.04' RT	778.14	---	---	---	---	---	P4139	3	HE4138	H4140	772.46	772.14	5.77%	6	III	12	1	---	1

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ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H4140	3	156+04.72	59.50' RT	777.84	INLETS 4-FT DIA	HM	4.86	13	---	PE4141	---	H4140	P4143	772.14	771.73	---	---	---	---	---	CONC COLLAR REQ'D	13
---	---	---	---	---	---	---	---	---	---	---	P4143	2	PE4141	H4150	771.73	771.62	0.90%	12	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H4150A	2	156+15.25	3.00' LT	778.03	MANHOLES 5-FT DIA	27-M-HD	3.3	10	---	P4150A	2	H4150A	H4150	773.75	773.64	1.00%	11	IV	15	2	---	12
IH 894 'EW'	H4150	2	156+05.24	2.00' RT	777.97	---	V-HD-S	---	15	RECONSTRUCTING MH SPECIAL	PE4151	---	H4150	H4170	765.61	763.53	---	---	---	---	---	---	15
IH 894 'EW'	H4170A	2	159+41.27	3.00' LT	779.61	MANHOLES 5-FT DIA	27-M-HD	3.41	10	---	P4170A	2	H4170A	H4170	775.23	775.12	1.00%	11	IV	15	2	---	12
IH 894 'EW'	H4170	2	159+31.25	2.00' RT	779.62	---	V-HD-S	---	9	RECONSTRUCTING MH SPECIAL	PE4171	---	H4170	H4190	763.44	760.94	---	---	---	---	---	---	9
IH 894 'EW'	H4174	3	162+19.54	63.70' RT	778.33	MANHOLES 5-FT DIA	HM	3.75	11	---	P4175	3	H4174	HE4177	773.75	773.61	1.35%	10	III	12	1	---	12
IH 894 'EW'	HE4177	---	162+29.52	66.48' RT	778.54	---	---	---	---	ADJUSTING INLET COVER	PE4180	---	HE4177	H4190	770.62	760.46	---	---	---	---	---	---	---
IH 894 'EW'	H4185	3	162+57.04	70.32' LT	777.54	INLETS 4-FT DIA	HM	2.52	4	---	P4186	3	H4185	H4187	774.21	774.10	1.00%	11	III	15	2	---	6
IH 894 'EW'	H4187	3	162+62.88	79.28' LT	---	AEW 15-INCH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IH 894 'EW'	H4190A	2	162+66.93	3.00' LT	777.83	MANHOLES 5-FT DIA	27-M-HD	3.32	10	---	P4190A	2	H4190A	H4190	773.53	773.42	1.00%	11	IV	15	2	---	12
IH 894 'EW'	H4190	2	162+56.93	2.00' RT	777.97	---	V-HD-S	---	9	RECONSTRUCTING MH SPECIAL	PE4191	---	H4190	H4210	760.36	757.65	---	---	---	---	---	---	9
RAMP TCC	H4194	3	165+09.01	9.50' LT	773.26	INLETS 4-FT DIA	HM	6.6	19	---	PE4195	---	H4194	P4197	765.87	764.95	---	---	---	---	---	CONC COLLAR REQ'D	19
---	---	---	---	---	---	---	---	---	---	---	P4197	2	PE4195	H4198	764.95	764.80	0.92%	16	III	18	4	CONC COLLAR REQ'D	4
IH 894 'EW'	H4198	2	165+99.85	3.00' LT	772.20	MANHOLES 5-FT DIA	27-M-HD	6.44	23	---	P4199	2	H4198	H4210	764.80	764.73	1.00%	7	III	18	2	---	25
IH 894 'EW'	H4200	3	166+06.39	70.31' RT	771.83	INLETS MEDIAN 1 GRATE	MS	5.18	9	---	P4201	3	H4200	H4202	766.84	766.19	10.00%	6	III	15	1	---	10
IH 894 'EW'	H4202	3	166+06.27	63.85' RT	772.02	INLETS 4-FT DIA	HM	5.02	13	---	PE4203	---	H4202	P4205	766.19	765.30	---	---	---	---	---	CONC COLLAR REQ'D	13
---	---	---	---	---	---	---	---	---	---	---	P4205	2	PE4203	H4210	765.30	765.09	1.66%	13	III	15	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H4210	2	166+04.87	2.00' RT	772.18	---	V-HD-S	---	19	RECONSTRUCTING MH SPECIAL	PE4211	---	H4210	H4230	757.48	755.93	---	---	---	---	---	---	19
RAMP TCC	H4212	3	168+06.96	1.50' LT	768.15	---	---	---	---	RECONSTRUCTING INLET	PE4213	---	H4212	P4215	764.76	762.82	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	P4215	2	PE4213	H4230	762.82	762.31	3.24%	16	III	12	2	CONC COLLAR REQ'D	2
RAMP TCB	H4217	2	168+07.81	1.50' RT	768.38	INLETS 4-FT DIA	HM	5.8	16	---	PE4218	---	H4217	P4220	761.80	760.29	---	---	---	---	---	CONC COLLAR REQ'D	16
---	---	---	---	---	---	---	---	---	---	---	P4220	2	PE4218	H4230	760.29	759.94	2.75%	13	III	21	4	---	4
IH 894 'EW'	H4230A	2	168+00.85	3.00' LT	768.82	MANHOLES 5-FT DIA	27-M-HD	3.68	11	---	P4230A	2	H4230A	H4230	764.16	764.05	1.00%	11	IV	15	2	---	13
IH 894 'EW'	H4230B	2	168+20.85	2.00' RT	768.44	INLETS 4-FT DIA	V-HD-S	3.15	8	---	P4230B	2	H4230B	H4230	764.15	764.05	1.00%	10	IV	15	2	---	10
IH 894 'EW'	H4230	2	168+10.85	2.00' RT	768.64	---	V-HD-S	---	15	RECONSTRUCTING MH SPECIAL	PE4231	---	H4230	H4260	755.91	753.61	---	---	---	---	---	---	15
RAMP TCC	H4234	3	171+34.76	1.00' LT	763.50	---	---	---	---	RECONSTRUCTING INLET	PE4235	---	H4234	H4236	757.83	757.39	---	---	---	---	---	---	---
RAMP TCC	H4236	3	171+09.21	1.00' LT	763.33	---	---	---	---	RECONSTRUCTING INLET	PE4237	---	H4236	H4238	757.32	757.01	---	---	---	---	---	---	---
RAMP TCC	H4238	3	170+85.51	1.00' LT	763.42	---	---	---	---	RECONSTRUCTING INLET	PE4239	---	H4238	H4240	757.10	757.00	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H4240	3	170+66.01	59.50' LT	764.17	INLETS 4-FT DIA	HM	6.26	18	---	PE4241	---	H4240	P4243	757.10	756.77	---	---	---	---	---	CONC COLLAR REQ'D	18
---	---	---	---	---	---	---	---	---	---	---	P4243	2	PE4241	H4260	756.77	756.66	0.72%	16	III	15	3	CONC COLLAR REQ'D	3
RAMP TCB	H4244	3	169+74.33	1.25' RT	765.31	---	---	---	---	RECONSTRUCTING INLET	PE4245	---	H4244	H4250	760.30	760.02	---	---	---	---	---	---	---
RAMP TCB	H4248	3	170+23.87	1.00' RT	765.26	---	---	---	---	RECONSTRUCTING INLET	PE4249	---	H4248	H4250	760.54	760.10	---	---	---	---	---	---	---
RAMP TCB	H4250	3	169+99.26	1.00' RT	765.14	---	---	---	---	RECONSTRUCTING INLET	PE4251	---	H4250	P4253	760.02	758.53	---	---	---	---	---	---	---
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ALL ITEMS ON THIS SHEET CATEGORY 1000

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STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H4260A	2	170+75.43	3.08' LT	764.09	MANHOLES 5-FT DIA	27-M-HD	2.11	5	---	P4260A	2	H4260A	H4260	760.98	760.75	2.00%	11	IV	12	1	---	6
IH 894 'EW'	H4260	2	170+65.31	2.00' RT	764.24	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4261	---	H4260	H4280	753.42	750.90	---	---	---	---	---	---	6
RAMP TCC	H4262	3	172+30.65	1.25' LT	764.97	---	---	---	---	RECONSTRUCTING INLET	PE4263	---	H4262	HE4264	760.01	756.36	---	---	---	---	---	---	---
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RAMP TCB	H4268	3	172+30.36	1.25' RT	771.00	---	---	---	---	RECONSTRUCTING INLET	PE4269	---	H4268	H4270	764.90	756.80	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H4270	3	172+36.45	66.13' RT	760.49	INLETS MEDIAN 1 GRATE	MS	3.86	5	---	P4271	3	H4270	H4272	756.80	756.22	8.72%	7	III	12	1	---	6
IH 894 'EW'	H4272	3	172+36.93	59.50' RT	761.11	INLETS 4-FT DIA	HM	4.06	10	---	PE4273	---	H4272	P4275	756.22	755.66	---	---	---	---	---	CONC COLLAR REQ'D	10
---	---	---	---	---	---	---	---	---	---	---	P4275	2	PE4273	H4280	755.66	755.50	1.25%	13	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H4280A	2	172+48.79	3.00' LT	761.10	MANHOLES 5-FT DIA	27-M-HD	2.09	5	---	P4280A	2	H4280A	H4280	758.01	757.79	2.00%	11	IV	12	1	---	6
IH 894 'EW'	H4280	2	172+38.74	2.00' RT	761.32	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4281	---	H4280	H4290	750.86	749.13	---	---	---	---	---	---	6
IH 894 'EW'	H4290A	2	174+41.82	2.67' LT	759.26	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	2.1	5	---	P4290A	2	H4290A	H4290	756.16	755.83	3.02%	11	IV	12	1	---	6
IH 894 'EW'	H4290	2	174+31.82	2.17' RT	759.28	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4291	---	H4290	HE4310	749.21	748.90	---	---	---	---	---	---	6
IH 894 'EW'	H4292	3	174+81.11	65.95' LT	758.33	INLETS MEDIAN 1 GRATE	MS	3.7	5	---	P4293	3	H4292	H4294	754.80	754.64	2.48%	6	III	12	1	---	6
IH 894 'EW'	H4294	3	174+81.19	59.50' LT	758.81	INLETS 4-FT DIA	HM	3.46	8	---	PE4295	---	H4294	HE4296	754.54	754.10	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EW'	H4296	2	174+80.46	2.00' LT	759.09	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4297	---	HE4296	HE4310	754.10	753.80	---	---	---	---	---	---	---
IH 894 'EW'	HE4298	3	174+56.58	59.00' RT	758.91	---	---	---	---	ADJUSTING INLET COVER	PE4299	---	HE4298	HE4304	755.50	754.50	---	---	---	---	---	---	---
IH 894 'EW'	HE4302	3	175+08.33	59.00' RT	758.79	---	---	---	---	ADJUSTING INLET COVER	PE4303	---	HE4302	HE4304	755.50	754.50	---	---	---	---	---	---	---
IH 894 'EW'	HE4304	3	174+81.58	59.00' RT	758.86	---	---	---	---	ADJUSTING INLET COVER	PE4305	---	HE4304	HE4310	754.40	753.73	---	---	---	---	---	---	---
IH 894 'EW'	H4310	2	174+80.63	2.00' RT	759.04	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4311	---	HE4310	HE4320	748.70	748.10	---	---	---	---	---	---	---
IH 894 'EW'	H4312	2	175+31.02	4.05' LT	759.13	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4313	---	HE4312	HE4320	753.60	753.42	---	---	---	---	---	---	---
IH 894 'EW'	HE4320	2	175+34.93	12.79' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE4321	---	HE4320	HE4350	748.10	747.82	---	---	---	---	---	---	---
IH 894 'EW'	HE4330	3	176+71.25	59.00' LT	759.54	---	---	---	---	ADJUSTING INLET COVER	PE4331	---	HE4330	HE4332	754.30	753.20	---	---	---	---	---	---	---
IH 894 'EW'	HE4332	2	176+71.47	0.00' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE4333	---	HE4332	HE4350	753.20	753.07	---	---	---	---	---	---	---
IH 894 'EW'	H4334	2	176+79.24	4.27' RT	759.93	---	V-HD-S	---	---	RECONSTRUCTING INLET	PE4335	---	HE4334	HE4332	755.24	755.06	---	---	---	---	---	---	---
IH 894 'EW'	HE4344	3	176+63.27	59.03' RT	759.52	---	---	---	---	ADJUSTING INLET COVER	PE4345	---	HE4344	HE4350	754.10	752.25	---	---	---	---	---	---	---
IH 894 'EW'	HE4350	2	176+74.06	12.91' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE4351	---	HE4350	H4370	746.31	746.10	---	---	---	---	---	---	---
IH 894 'EW'	H4354	3	179+71.79	65.94' LT	760.49	INLETS MEDIAN 1 GRATE	MS	5.76	11	---	P4355	3	H4354	H4356	754.90	754.45	6.99%	6	III	12	1	---	12
IH 894 'EW'	H4356	3	179+71.76	59.50' LT	761.07	INLETS 4-FT DIA	HM	5.79	16	---	PE4357	---	H4356	H4370	754.45	753.53	---	---	---	---	---	CONC COLLAR REQ'D	16
RAMP TCA	H4358	3	179+59.96	1.00' RT	768.37	---	---	---	---	RECONSTRUCTING INLET	PE4359	---	H4358	P4361	759.08	752.75	---	---	---	---	---	---	---
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IH 894 'EW'	H4370A	2	179+84.54	2.01' RT	761.73	INLETS 4-FT DIA	V-HD-S	3.15	8	---	P4370A	2	H4370A	H4370	757.43	757.33	1.00%	10	IV	15	2	---	10
IH 894 'EW'	H4370	2	179+74.55	2.00' RT	761.68	---	V-HD-S	---	11	RECONSTRUCTING MH SPECIAL	PE4371	---	H4370	H4390	746.00	745.36	---	---	---	---	---	---	11
RAMP TCA	H4372	3	181+38.89	1.25' RT	762.99	---	---	---	---	RECONSTRUCTING INLET	PE4373	---	H4372	H4378	758.19	757.55	---	---	---	---	---	---	---
RAMP TCA	H4376	3	181+87.78	1.00' RT	763.07	---	---	---	---	RECONSTRUCTING INLET	PE4377	---	H4376	H4378	758.76	758.11	---	---	---	---	---	---	---
RAMP TCA	H4378	3	181+62.66	1.25' RT	762.76	---	---	---	---	RECONSTRUCTING INLET	PE4379	---	H4378	P4381	757.45	754.35	---	---	---	---	---	---	---

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STORM SEWER STRUCTURES											STORM SEWER PIPES											
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
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IH 894 'EW'	H4390	2	181+66.11	2.00' RT	762.71	---	V-HD-S	---	8	RECONSTRUCTING MH SPECIAL	PE4391	---	H4390	H4400	745.36	745.20	---	---	---	---	---	---	8
IH 894 'EW'	H4400	2	182+61.22	2.00' RT	763.33	---	V-HD-S	---	6	RECONSTRUCTING MH SPECIAL	PE4401	---	H4400	H4410	745.20	745.18	---	---	---	---	---	---	6
IH 894 'EW'	H4410	2	183+81.39	1.98' RT	763.71	---	V-HD-S	---	9	RECONSTRUCTING MH SPECIAL	PE4411	---	H4410	H4420	745.13	744.66	---	---	---	---	---	---	9
IH 894 'EW'	H4420A	2	185+67.79	3.00' LT	764.91	MANHOLES 5-FT DIA	27-M-HD	3.29	10	---	P4420A	2	H4420A	H4420	760.64	760.53	1.00%	11	IV	15	2	---	12
IH 894 'EW'	H4420	2	185+57.80	2.00' RT	764.68	---	V-HD-S	---	17	RECONSTRUCTING MH SPECIAL	PE4421	---	H4420	OFFSITE	744.66	744.08	---	---	---	---	---	---	17
RAMP TCA	H4510	3	186+33.77	9.51' RT	764.79	INLETS 4-FT DIA	HM	5.58	16	---	PE4511	---	H4510	HE4512	758.21	755.54	---	---	---	---	---	CONC COLLAR REQ'D	16
IH 894 'EW'	H4520	2	189+71.65	3.00' RT	766.99	MANHOLES 5-FT DIA	27-M-HD	2.37	6	---	P4521	2	H4520	H4522	763.62	763.56	1.00%	6	V	12	1	---	7
IH 894 'EW'	H4522	2	189+71.65	3.00' LT	766.72	MANHOLES 5-FT DIA	27-M-HD	2.16	5	---	P4523	2	H4522	PE4525	763.56	761.97	14.31%	11	V	12	1	---	6
IH 894 'EW'	HE4526	3	189+52.04	62.64' LT	766.46	---	---	---	---	---	PE4527	---	HE4526	HE4528	762.76	751.43	---	---	---	---	---	---	---
IH 894 'EW'	H4530	3	189+68.77	66.39' RT	766.26	INLETS 4-FT DIA	HM	3.27	8	---	PE4531	---	H4530	HE4532	762.00	755.72	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EW'	H4540	2	191+56.03	3.00' LT	767.71	MANHOLES 5-FT DIA	27-M-HD	2.38	6	---	P4541	2	H4540	PE4543	764.34	762.79	14.52%	11	V	12	1	CONC COLLAR REQ'D	7
IH 894 'EW'	H4550	2	193+55.79	3.00' LT	769.27	MANHOLES 5-FT DIA	27-M-HD	1.1	1	---	P4551	2	H4550	PE4553	767.17	767.06	1.00%	11	V	12	1	CONC COLLAR REQ'D	2
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IH 894 'EW'	H4554	3	193+56.56	59.78' LT	770.40	---	V-S	---	---	RECONSTRUCTING INLET SPECIAL	PE4555	---	H4554	HE4556	766.60	749.13	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H4560	3	193+54.40	63.50' RT	768.50	INLETS 4-FT DIA	HM	3.41	8	---	PE4561	---	H4560	HE4562	764.10	753.00	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EW'	H4570	2	196+40.58	3.00' RT	774.33	MANHOLES 5-FT DIA	27-M-HD	3.26	10	---	P4571	2	H4570	H4572	770.07	770.01	1.00%	6	IV	12	1	---	11
IH 894 'EW'	H4572	2	196+40.58	3.00' LT	773.87	MANHOLES 5-FT DIA	27-M-HD	2.85	8	---	P4573	2	H4572	PE4575	770.01	768.24	16.92%	11	IV	12	1	CONC COLLAR REQ'D	9
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IH 894 'EW'	H4580	3	196+40.78	63.50' RT	772.98	INLETS 4-FT DIA	HM	3.28	8	---	PE4581	---	H4580	HE4582	768.70	754.00	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EW'	H4590	2	200+41.04	3.00' RT	781.79	MANHOLES 5-FT DIA	27-M-HD	6.13	22	---	P4591	2	H4590	H4592	774.66	774.60	1.00%	6	III	12	1	---	23
IH 894 'EW'	H4592	2	200+41.04	3.00' LT	781.63	MANHOLES 5-FT DIA	27-M-HD	6.03	22	---	PE4593	---	H4592	H4596	774.60	766.16	---	---	---	---	---	CONC COLLARS REQ'D (2)	22
IH 894 'EW'	H5000	3	203+68.75	59.00' RT	779.97	INLETS 4-FT DIA	V-S	3.3	9	---	PE5001	---	H5000	P5003	775.50	775.28	---	---	---	---	---	CONC COLLAR REQ'D	9
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IH 894 'EW'	H5004	2	203+69.25	3.00' RT	780.03	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	3.81	12	---	P5005	2	H5004	H5006	775.22	775.19	0.50%	6	III	12	1	---	13
IH 894 'EW'	H5006	2	203+69.31	3.00' LT	780.06	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	3.87	12	---	P5007	2	H5006	PE5009	775.19	774.78	3.87%	11	III	12	1	CONC COLLAR REQ'D	13
---	---	---	---	---	---	---	---	---	---	---	PE5009	---	P5007	H5010	774.78	770.70	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H5010	3	203+69.81	59.00' LT	779.90	---	V-S	---	---	RECONSTRUCTING INLET SPECIAL	PE5011	---	H5010	HE5012	770.70	759.48	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	HE5020	3	213+55.94	69.24' RT	766.98	---	---	---	---	---	P5021	3	HE5020	H5022	763.30	763.07	3.83%	6	III	12	1	---	1
IH 894 'EW'	H5022	3	213+56.24	63.25' RT	767.60	INLETS 4-FT DIA	HM	3.69	9	---	PE5023	---	H5022	P5025	763.07	763.01	---	---	---	---	---	CONC COLLAR REQ'D	9
---	---	---	---	---	---	---	---	---	---	---	P5025	2	PE5023	H5030	763.01	763.00	0.11%	8	III	12	1	CONC COLLAR REQ'D	1
IH 894 'EW'	H5030	2	213+57.23	3.00' LT	768.50	MANHOLES 5-FT DIA	27-M-HD	4.5	15	---	P5031	2	H5030	H5040	763.00	759.21	2.39%	158	IV	24	59	---	74
IH 894 'EW'	H5032	2	211+98.98	3.00' RT	767.23	MANHOLES 5-FT DIA	27-M-HD	4.85	17	---	P5033	2	H5032	H5040	761.40	761.34	1.00%	6	III	15	1	---	18
IH 894 'EW'	H5040	2	211+98.98	3.00' LT	766.79	MANHOLES 5-FT DIA	27-M-HD	6.66	24	---	P5041	2	H5040	H5058	759.21	758.89	1.24%	26	III	24	10	---	34
RAMP LRC	H5044	3	211+48.29	9.50' LT	766.37	INLETS 4-FT DIA	HM	5.34	15	---	P5045	3	H5044	PE5047	760.23	760.10	1.50%	9	III	18	2	---	17

ALL ITEMS ON THIS SHEET CATEGORY 1000

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STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
---	---	---	---	---	---	---	---	---	---	---	PE5047	---	P5045	P5049	760.10	759.29	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	P5049	2	PE5047	H5060	759.29	759.15	1.50%	9	III	18	2	CONC COLLAR REQ'D	2
IH 894 'EW'	HE5051	3	211+48.72	70.21' RT	766.40	---	---	---	---	---	P5052	3	HE5051	H5053	762.68	761.22	18.73%	8	III	12	1	---	1
IH 894 'EW'	H5053	3	211+49.06	62.42' RT	766.83	INLETS 4-FT DIA	HM	5.45	15	---	PE5054	---	H5053	P5056	760.57	759.83	---	---	---	---	---	CONC COLLAR REQ'D	15
---	---	---	---	---	---	---	---	---	---	---	P5056	2	PE5054	H5057	759.83	759.68	1.50%	10	III	15	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H5057	2	211+48.15	3.00' RT	767.10	MANHOLES 5-FT DIA	27-M-HD	6.44	23	---	P5058	2	H5057	H5060	759.68	759.40	4.68%	6	III	15	1	---	24
IH 894 'EW'	H5058	2	211+73.24	3.00' LT	766.80	MANHOLES 5-FT DIA	27-M-HD	6.99	25	---	P5059	2	H5058	H5060	758.89	758.57	1.24%	26	III	24	10	---	35
IH 894 'EW'	H5060	2	211+47.48	3.00' LT	766.84	MANHOLES 6-FT DIA	27-M-HD	7.89	33	---	P5061	2	H5060	HE5070	758.07	757.57	1.00%	50	III	30	27	---	60
IH 894 'EW'	H5062	2	210+97.01	3.00' RT	767.17	MANHOLES 5-FT DIA	27-M-HD	4.66	16	---	P5063	2	H5062	H5064	761.53	761.47	1.00%	6	III	15	1	---	17
IH 894 'EW'	H5064	2	210+97.01	3.00' LT	767.00	MANHOLES 5-FT DIA	27-M-HD	4.55	15	---	P5065	2	H5064	HE5070	761.47	761.37	1.00%	10	III	15	2	---	17
IH 894 'EW'	HE5070	2	210+98.73	12.58' LT	---	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE5071	---	HE5070	H5090	757.07	753.90	---	---	---	---	---	---	---
IH 894 'EW'	H5074	3	208+44.00	59.50' RT	770.40	INLETS 4-FT DIA	HM	4.97	13	---	PE5075	---	H5074	P5077	764.60	763.84	---	---	---	---	---	CONC COLLAR REQ'D	13
---	---	---	---	---	---	---	---	---	---	---	P5077	2	PE5075	H5078	763.84	763.65	1.16%	16	III	12	2	CONC COLLAR REQ'D	2
IH 894 'EW'	H5078	2	207+84.81	3.00' RT	771.81	MANHOLES 5-FT DIA	27-M-HD	8.99	35	---	P5079	2	H5078	H5080	763.65	763.62	0.50%	7	III	12	1	---	36
IH 894 'EW'	H5080	2	207+82.27	3.00' LT	771.84	MANHOLES 5-FT DIA	27-M-HD	7.22	27	---	P5081	2	H5080	PE5083	763.62	763.29	3.00%	11	III	12	1	CONC COLLAR REQ'D	28
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IH 894 'EW'	H5086	3	208+02.86	82.07' LT	770.85	INLETS MEDIAN 1 GRATE	MS	10.91	27	---	P5087	3	H5086	H5090	761.93	761.67	1.00%	26	III	12	3	---	30
IH 894 'EW'	H5090	3	207+81.01	67.82' LT	771.48	---	HM	---	---	RECONSTRUCTING INLET SPECIAL	PE5091	---	H5090	HE5012	753.90	749.17	---	---	---	---	---	---	---
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RAMP LRB	HE6017	3	220+25.47	1.61' RT	767.40	---	---	---	---	ADJUSTING INLET COVER	PE6018	---	HE6017	H6019	762.09	760.94	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H6019	2	221+04.89	3.00' RT	769.03	MANHOLES 5-FT DIA	27-M-HD	7.11	26	---	P6020	2	H6019	H6030	760.94	760.88	1.00%	6	III	15	1	---	27
IH 894 'EW'	H6030	2	221+07.18	3.00' LT	767.12	MANHOLES 5-FT DIA	27-M-HD	5.93	21	---	P6031	2	H6030	H6060	760.28	753.90	3.33%	192	III	24	72	---	93
RAMP LRD	H6032	3	223+61.54	7.93' LT	759.97	INLETS MEDIAN 1 GRATE	MS	2.81	2	---	P6033	3	H6032	H6034	757.33	757.25	1.24%	6	III	12	1	---	3
RAMP LRD	H6034	3	223+61.35	1.50' LT	760.04	INLETS 4-FT DIA	HM	3.66	9	---	PE6035	---	H6034	H6036	755.55	755.47	---	---	---	---	---	CONC COLLARS REQ'D (2)	9
IH 894 'EW'	H6036	3	222+96.69	67.79' LT	762.54	INLETS MEDIAN 1 GRATE	MS	7.23	15	---	P6037	3	H6036	H6038	755.47	755.23	2.84%	8	III	15	1	---	16
IH 894 'EW'	H6038	3	222+96.52	59.35' LT	762.98	INLETS 4-FT DIA	HM	6.93	21	---	PE6039	---	H6038	P6041	755.23	754.60	---	---	---	---	---	CONC COLLAR REQ'D	21
---	---	---	---	---	---	---	---	---	---	---	P6041	2	PE6039	H6060	754.60	754.45	1.38%	11	III	15	2	CONC COLLAR REQ'D	2
RAMP LRB	H6045	3	221+93.68	1.22' RT	763.50	---	---	---	---	RECONSTRUCTING INLET	PE6046	---	H6045	H6049	759.30	758.60	---	---	---	---	---	---	---
RAMP LRB	H6047	3	222+45.33	1.18' RT	763.46	---	---	---	---	RECONSTRUCTING INLET	PE6048	---	H6047	H6049	759.00	758.60	---	---	---	---	---	---	---
RAMP LRB	H6049	3	222+20.43	1.20' RT	763.40	---	---	---	---	RECONSTRUCTING INLET	PE6050	---	H6049	H6051	758.38	756.67	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EW'	H6051	3	222+61.49	65.52' RT	762.28	INLETS MEDIAN 1 GRATE	MS	5.91	11	---	P6052	3	H6051	H6053	756.58	756.41	2.54%	7	III	18	2	---	13
IH 894 'EW'	H6053	3	222+64.38	59.50' RT	762.64	INLETS 4-FT DIA	HM	5.59	16	---	PE6054	---	H6053	H6055	756.26	754.52	---	---	---	---	---	CONC COLLARS REQ'D (2)	16
IH 894 'EW'	H6055	2	222+96.05	3.00' RT	763.56	MANHOLES 5-FT DIA	27-M-HD	8.08	30	---	P6056	2	H6055	H6060	754.52	754.45	1.00%	6	III	18	1	---	31
IH 894 'EW'	H6060	2	222+98.52	3.00' LT	762.56	MANHOLES 5-FT DIA	27-M-HD	7.75	29	---	P6061	2	H6060	H6080	753.90	747.79	1.93%	316	III	24	118	---	147
IH 894 'EW'	H6062	3	226+15.80	78.42' LT	754.43	INLETS MEDIAN 1 GRATE	MS	4.63	8	---	P6063	3	H6062	H6064	749.96	749.90	1.00%	6	III	12	1	---	9

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STORM SEWER STRUCTURES											STORM SEWER PIPES												
ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
IH 894 'EW'	H6064	3	226+15.83	72.02' LT	754.74	INLETS 4-FT DIA	HM	4	10	---	PE6065	---	H6064	H6080	749.90	748.66	---	---	---	---	---	CONC COLLARS REQ'D (2)	10
IH 894 'EW'	H6068	3	226+16.35	65.86' RT	754.53	INLETS MEDIAN 1 GRATE	MS	4.68	8	---	P6069	3	H6068	H6070	750.01	749.76	3.93%	6	III	12	1	---	9
IH 894 'EW'	H6070	3	226+16.12	59.50' RT	754.87	INLETS 4-FT DIA	HM	4.44	11	---	PE6071	---	H6070	P6073	749.59	748.79	---	---	---	---	---	CONC COLLAR REQ'D	11
---	---	---	---	---	---	---	---	---	---	---	P6073	2	PE6071	H6074	748.79	748.60	1.76%	11	III	12	1	CONC COLLAR REQ'D	1
IH 894 'EW'	H6074	2	226+16.44	3.00' RT	755.27	MANHOLES 5-FT DIA	27-M-HD	5.95	21	---	P6075	2	H6074	H6080	748.35	748.28	1.00%	6	III	15	1	---	22
IH 894 'EW'	H6080	2	226+14.75	3.00' LT	755.40	MANHOLES 5-FT DIA	27-M-HD	6.96	25	---	P6081	2	H6080	H6090	747.54	745.77	1.25%	141	III	27	64	---	89
IH 894 'EW'	H6090	2	227+56.02	2.99' LT	752.91	MANHOLES 5-FT DIA	27-M-HD	6.24	22	---	P6091	2	H6090	H6100	745.77	745.31	1.20%	39	III	27	18	---	40
IH 894 'EW'	H6094	3	229+12.49	71.50' LT	750.63	INLETS 4-FT DIA	HM	2.74	5	---	P6095	3	H6094	H6096	747.08	746.72	0.50%	71	III	15	13	---	18
IH 894 'EW'	H6096A	3	228+41.56	78.16' LT	751.15	INLETS MEDIAN 2 GRATE	MS (2 GRATE)	4.55	9	---	P6096A	3	H6096A	H6096	746.79	746.72	1.00%	7	III	15	1	---	10
IH 894 'EW'	H6096	3	228+41.21	71.50' LT	751.04	INLETS 4-FT DIA	HM	3.51	8	---	PE6097	---	H6096	HE6098	746.72	746.57	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EW'	HE6098	2	227+94.51	12.63' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	P6099	2	HE6098	H6110	746.57	746.31	2.59%	10	III	15	2	---	2
IH 894 'EW'	H6110	2	227+94.19	2.61' LT	752.62	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	5.33	19	---	P6101	2	H6110	H6100	746.31	746.25	1.15%	5	III	15	1	---	20
IH 894 'EW'	H6100	2	227+94.17	2.61' RT	752.57	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	7.18	26	---	P6111	2	H6100	H6130	744.56	744.25	0.86%	36	III	36	27	---	53
IH 894 'EW'	H6112	2	228+29.11	4.36' LT	752.57	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	4.54	15	---	P6113	2	H6112	H6114	747.05	746.99	0.69%	9	III	15	2	---	17
IH 894 'EW'	H6114	2	228+29.11	4.36' RT	752.42	MANHOLES 5-FT DIA	27-M-HD (ROTATED 90)	4.46	15	---	P6115	2	H6114	H6130	746.99	746.90	1.17%	8	III	15	1	---	16
IH 894 'EW'	H6116	3	228+02.89	59.50' RT	752.17	INLETS 4-FT DIA	HM	3.47	8	---	P6117	3	H6116	H6122	747.87	747.60	1.00%	27	III	12	3	---	11
IH 894 'EW'	H6118	3	228+30.44	66.12' RT	751.03	INLETS MEDIAN 2 GRATE	MS (2 GRATE)	3.53	5	---	P6119	3	H6118	H6122	747.67	747.60	1.07%	7	III	12	1	---	6
IH 894 'EW'	H6120	3	228+57.11	59.50' RT	752.22	INLETS 4-FT DIA	HM	3.51	8	---	P6121	3	H6120	H6122	747.87	747.60	1.00%	27	III	12	3	---	11
IH 894 'EW'	H6122	3	228+30.00	59.50' RT	752.16	INLETS 4-FT DIA	HM	3.73	9	---	PE6123	---	H6122	H6130	747.60	746.34	---	---	---	---	---	CONC COLLARS REQ'D (2)	9
IH 894 'EW'	H6130	2	228+29.12	12.19' RT	752.58	MANHOLES 5-FT DIA	---	7.58	27	CAP PROP STRUCTURE	P6131	2	H6130	H6180	744.25	742.81	0.92%	157	III	36	116	---	143
IH 894 'EWW'	H6146	3	229+86.96	63.11' LT	750.37	INLETS MEDIAN 2 GRATE	MS (2 GRATE)	3.47	5	---	P6147	3	H6146	H6148	747.07	745.63	21.45%	7	III	18	2	---	7
IH 894 'EWW'	H6148	3	229+88.16	56.50' LT	751.02	INLETS 4-FT DIA	HM	4.59	12	---	PE6149	---	H6148	H6150	745.63	744.10	---	---	---	---	---	CONC COLLARS REQ'D (2)	12
IH 894 'EWW'	H6150	2	229+85.00	10.95' RT	753.99	MANHOLES 5-FT DIA	27-M-HD	8.93	34	---	P6151	2	H6150	H6152	744.10	744.01	1.00%	9	III	18	2	---	36
IH 894 'EWE'	H6152	2	229+85.53	8.89' LT	753.72	MANHOLES 5-FT DIA	27-M-HD	8.75	33	---	P6153	2	H6152	H6180	744.01	743.93	1.00%	8	III	18	2	---	35
IH 894 'EWE'	H6170	3	229+87.35	52.49' RT	754.16	INLETS MEDIAN 2 GRATE	MS (2 GRATE)	6.96	17	---	P6171	3	H6170	H6172	747.41	747.00	6.25%	7	III	18	2	---	19
IH 894 'EWE'	H6172	3	229+85.95	46.11' RT	753.51	INLETS 4-FT DIA	HM	5.72	16	---	PE6173	---	H6172	H6180	747.00	743.91	---	---	---	---	---	CONC COLLARS REQ'D (2)	16
IH 894 'EWE'	H6180	2	229+86.01	1.29' LT	753.88	MANHOLES 6-FT DIA	---	10.78	47	CAP PROP STRUCTURE	PE6181	---	H6180	HE6190	742.31	741.75	---	---	---	---	---	CONC COLLAR REQ'D	47
IH 894 'EWE'	H6182	2	231+26.07	10.39' LT	757.38	MANHOLES 5-FT DIA	27-M-HD	4.47	15	---	P6183	2	H6182	HE6190	751.93	751.78	1.00%	15	III	15	3	---	18
IH 894 'EWW'	H6184	2	230+25.00	15.12' RT	754.84	INLETS 4-FT DIA	V-S	4.22	12	---	P6185	2	H6184	HE6190	749.48	748.99	5.00%	98	III	15	18	---	30
IH 894 'EWW'	HE6190	2	231+22.56	12.96' RT	756.48	---	---	---	---	ADJUSTING INLET COVER	PE6191	---	HE6190	H6210	741.75	740.86	---	---	---	---	---	---	---
IH 894 'EWE'	H6198	2	233+52.92	10.39' LT	763.99	MANHOLES 5-FT DIA	27-M-HD	5.57	20	---	P6199	2	H6198	H6200	757.42	757.34	0.88%	9	III	12	1	---	21
IH 894 'EWE'	H6200	2	233+52.96	19.35' LT	763.53	INLETS MEDIAN 1 GRATE	MS	6.35	13	---	PE6201	---	H6200	HE6202	757.34	752.61	---	---	---	---	---	CONC COLLAR REQ'D	13
IH 894 'EWW'	H6210	2	233+45.35	8.00' RT	759.61	---	V-HD-S	---	---	RECONSTRUCTING INLET SPECIAL	PE6211	---	H6210	HE6250	740.86	740.19	---	---	---	---	---	---	---
RAMP LRA	H6212	3	233+72.19	1.00' RT	768.26	---	---	---	---	RECONSTRUCTING INLET	PE6213	---	H6212	H6214	764.20	763.81	---	---	---	---	---	---	---
RAMP LRA	H6214	3	233+97.73	1.00' RT	768.10	---	---	---	---	RECONSTRUCTING INLET	PE6215	---	H6214	H6216	763.71	763.41	---	---	---	---	---	---	---

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ROADWAY	STRUCTURE ID	STAGE	STATION	OFFSET	RIM OR FLOW ELEV.	STRUCTURE TYPE	INLET/MANHOLE COVER TYPE	DEPTH (FT)	BACKFILL SLURRY (CY)	STRUCTURE COMMENTS	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE %	PIPE LENGTH (FT)	PIPE CLASS	PIPE SIZE	BACKFILL SLURRY (CY)	PIPE COMMENTS	SPV.0035.801* BACKFILL SLURRY (CY)
RAMP LRA	H6216	3	234+25.11	1.00' RT	768.14	---	---	---	---	RECONSTRUCTING INLET	PE6217	---	H6216	HE6220	763.36	760.61	---	---	---	---	---	---	---
IH 894 'EWW'	HE6220	3	234+98.80	123.97' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE6221	---	HE6220	H6230	760.06	759.79	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EWE'	H6222	2	237+00.00	11.50' LT	770.08	INLETS 4-FT DIA	HM	4.76	13	---	P6223	2	H6222	H6224	764.51	762.99	1.53%	99	III	15	18	---	31
IH 894 'EWE'	H6224	2	236+00.00	11.50' LT	768.63	INLETS 4-FT DIA	HM	4.83	13	---	P6225	2	H6224	H6230	762.99	760.04	3.96%	74	III	15	13	---	26
IH 894 'EWE'	H6230	2	235+25.06	11.00' LT	767.60	MANHOLES 5-FT DIA	27-M-HD	6.85	25	---	P6231	2	H6230	H6232	759.79	759.71	1.00%	8	III	18	2	---	27
IH 894 'EWE'	H6232	2	235+23.40	18.94' LT	767.49	INLETS MEDIAN 1 GRATE	MS	7.99	18	---	PE6233	---	H6232	HE6234	759.71	759.12	---	---	---	---	---	CONC COLLAR REQ'D	18
IH 894 'EWW'	H6236	2	235+17.06	8.00' RT	762.12	---	V-HD-S	---	---	RECONSTRUCTING INLET SPECIAL	PE6237	---	H6236	HE6250	754.70	752.22	---	---	---	---	---	---	---
IH 894 'EWW'	HE6250	3	235+05.83	43.93' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE6251	---	HE6250	OFFSITE	740.35	738.91	---	---	---	---	---	---	---
IH 894 'EWW'	H6442	2	237+50.21	7.35' RT	765.22	INLETS 4-FT DIA	V-HD-S	4.53	13	---	P6443	2	H6442	H6444	759.55	758.13	1.42%	100	III	15	18	---	31
IH 894 'EWW'	H6444	2	236+50.02	8.00' RT	764.17	INLETS 4-FT DIA	V-HD-S	4.89	14	---	P6445	2	H6444	H6236	758.13	756.13	1.50%	133	III	15	24	---	38
RAMP LRD	H6500	3	215+39.31	3.01' LT	765.03	---	---	---	---	RECONSTRUCTING INLET	PE6501	---	H6500	H6506	762.87	762.20	---	---	---	---	---	---	---
RAMP LRC	H6514	3	228+85.60	1.16' LT	765.41	---	---	---	---	RECONSTRUCTING INLET	PE6515	---	H6514	H6516	757.57	757.29	---	---	---	---	---	---	---
RAMP LRC	H6516	3	229+70.63	24.24' RT	764.95	---	---	---	---	RECONSTRUCTING INLET	PE6517	---	H6516	HE6518	757.04	756.86	---	---	---	---	---	---	---
IH 894 'EWE'	H7000	2	239+00.00	11.50' LT	769.45	INLETS 4-FT DIA	HM	4.72	12	---	P7001	2	H7000	H7002	763.92	762.03	1.90%	99	III	15	18	---	30
IH 894 'EWE'	H7002	2	240+00.00	11.50' LT	767.51	INLETS 4-FT DIA	HM	4.67	12	---	P7003	2	H7002	H7004	762.03	759.50	2.55%	99	III	15	18	---	30
IH 894 'EWE'	H7004	2	241+00.00	11.50' LT	765.02	INLETS 4-FT DIA	HM	4.71	12	---	P7005	2	H7004	H7010	759.50	754.21	5.99%	89	III	15	16	---	28
IH 894 'EWE'	H7010	2	241+89.06	11.50' LT	762.64	INLETS 4-FT DIA	HM	7.62	23	---	P7011	2	H7010	HE7012	754.21	754.04	1.24%	13	III	15	2	---	25
IH 894 'EWE'	H7014	2	242+87.51	11.50' LT	760.61	INLETS 4-FT DIA	HM	7.28	22	---	P7015	2	H7014	H7020	752.52	751.81	4.67%	15	III	15	3	---	25
IH 894 'EWE'	H7020	2	242+87.48	26.81' LT	758.54	INLETS MEDIAN 1 GRATE	MS	6.73	14	---	PE7021	---	H7020	HE7030	751.81	749.65	---	---	---	---	---	CONC COLLAR REQ'D	14
IH 894 'EWE'	H7022	2	243+83.06	11.50' LT	758.62	INLETS 4-FT DIA	HM	7.51	23	---	P7023	2	H7022	HE7030	750.29	749.65	4.64%	14	III	15	3	---	26
IH 894 'EWW'	H7042	2	240+54.26	11.62' RT	764.80	INLETS MEDIAN 1 GRATE	MS	2.97	2	---	P7043	2	H7042	H7044	762.00	760.81	16.81%	7	III	12	1	---	3
IH 894 'EWW'	H7044	2	240+56.63	5.00' RT	765.25	INLETS 4-FT DIA	V-HD-S	3.27	8	---	PE7045	---	H7044	HE7050	760.81	760.65	---	---	---	---	---	CONC COLLAR REQ'D	8
IH 894 'EWW'	HE7050	3	240+81.26	42.83' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE7051	---	HE7050	HE7060	753.75	737.71	---	---	---	---	---	---	---
IH 894 'EWW'	HE8020	3	249+04.44	53.82' LT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE8021	---	HE8020	H8030	746.59	743.58	---	---	---	---	---	CONC COLLAR REQ'D	---
IH 894 'EWE'	H8022	2	246+00.00	11.50' LT	755.07	INLETS 4-FT DIA	HM	4.67	12	---	P8023	2	H8022	H8024	749.59	745.84	1.88%	200	III	15	36	---	48
IH 894 'EWE'	H8024	2	248+00.00	11.50' LT	751.33	INLETS 4-FT DIA	HM	4.67	12	---	P8025	2	H8024	H8040	745.84	740.82	2.28%	220	III	15	39	---	51
IH 894 'EWE'	HE8026	3	250+18.75	53.13' RT	747.10	---	---	---	---	---	P8027	3	HE8026	H8028	742.60	741.90	10.55%	7	III	12	1	---	1
IH 894 'EWE'	H8028	3	250+18.54	46.50' RT	746.71	INLETS 4-FT DIA	HM	3.98	10	---	PE8029	---	H8028	H8040	741.90	741.07	---	---	---	---	---	CONC COLLARS REQ'D (2)	10
IH 894 'EWW'	H8030	2	249+28.54	8.00' RT	753.90	INLETS 4-FT DIA	V-HD-S	9.17	30	---	PE8031	---	H8030	HE8070	743.58	740.41	---	---	---	---	---	CONC COLLAR REQ'D	30
IH 894 'EWE'	H8040	2	250+19.54	11.50' LT	746.90	INLETS 4-FT DIA	HM	5.26	14	---	P8041	2	H8040	HE8070	740.82	740.45	2.92%	13	III	15	2	---	16
IH 894 'EWW'	H8050	2	246+00.00	7.00' RT	761.62	INLETS 4-FT DIA	V-HD-S	2.63	6	---	P8051	2	H8050	H8052	757.84	757.43	1.00%	41	III	15	7	---	13
IH 894 'EWW'	H8052	3	246+00.00	48.01' RT	---	AEW 15-INCH	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
IH 894 'EWE'	HE8076	3	254+19.47	52.32' RT	737.90	---	---	---	---	---	P8077	3	HE8076	H8078	735.16	735.10	1.12%	6	III	12	1	---	1
IH 894 'EWE'	H8078	3	254+19.61	46.50' RT	738.66	INLETS 4-FT DIA	HM	2.73	5	---	PE8079	---	H8078	H8080	735.10	733.50	---	---	---	---	---	CONC COLLARS REQ'D (2)	5
IH 894 'EWE'	H8080	2	254+20.07	9.33' LT	738.93	MANHOLES 5-FT DIA	27-M-HD	4.82	16	---	P8081	2	H8080	HE8090	733.13	732.63	5.20%	10	III	15	2	---	18
IH 894 'EWW'	HE8110	2	256+03.39	1.82' RT	----	---	---	---	---	REMOVE AND CAP EXIST STRUCTURE	PE8110	---	HE8110	HE8120	726.00	719.43	---	---	---	---	---	---	---

TOTAL*	5655

ALL ITEMS ON THIS SHEET CATEGORY 1000

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RECONSTRUCTING INLETS*

STAGE	ROADWAY	LOCATION	611.0430* RECONSTRUCTING INLETS EACH
1**	IH 894 'EW'	UNDISTRIBUTED	15
STAGE 1 SUBTOTALS			15
PROJECT TOTALS			15

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.
** UNDISTRUBUTED AMOUNT INCLUDED IN STAGE 1 TO RECONSTRUCT EXISTING INLETS ON OUTSIDE SHOULDERS PRIOR TO SHIFTING TRAFFIC TO STAGE 2. LOCATIONS TO BE DETERMINED BY THE ENGINEER.

PIPE CONNECTION TO EXISTING STRUCTURE

STAGE	ROADWAY	PIPE	CONNECT TO STRUCTURE	SPV.0060.806 PIPE CONNECTION TO EXISTING STRUCTURE EACH
2	IH 894 'EW'	P227	HE232	1
		SLOTTED DRAIN	H4057	1
		SLOTTED DRAIN	H4061	1
		SLOTTED DRAIN	H4310	1
		SLOTTED DRAIN	H4312	1
		P6183	HE6190	1
		P7011	HE7012	1
		P7023	HE7030	1
STAGE 2 SUBTOTALS				8
3	IH 894 'EW'	SLOTTED DRAIN	H3508	1
		SLOTTED DRAIN	H3538	1
		P4054A	HE4054	1
		SLOTTED DRAIN	H4212	1
		SLOTTED DRAIN	HE4500	1
		SLOTTED DRAIN	HE4526	1
		SLOTTED DRAIN	HE6017	1
STAGE 3 SUBTOTALS				7
PROJECT TOTALS				15

3

CLEANING STORM SEWER

STAGE	ROADWAY	PIPE	SPV.0090.801 CLEANING STORM SEWER LF
2	IH 894 'EW'	PE141	90
		PE303	60
STAGE 2 SUBTOTALS			150
3	IH 894 'EW'	PE145	55
		PE3013	30
		PE3015	65
		PE3414	50
		PE3527	25
		PE3539	80
		PE3561	50
		PE3619	75
		PE4015	50
		PE4245	25
		PE4269	70
STAGE 3 SUBTOTALS			575
PROJECT TOTALS			725

ALL ITEMS ON THIS SHEET CATEGORY 1000

WELDED INLET COVERS

STAGE	ROADWAY	STRUCTURE***	SPV.0060.807 WELDED EXISTING INLET COVERS EACH	SPV.0060.808 WELDED PROPOSED INLET COVERS EACH
1*	IH 894 'EW'	HE132	1	---
		HE142	1	---
		HE228	1	---
		HE230	1	---
		HE304	1	---
		HE3014	1	---
		HE3376	1	---
		HE3384	1	---
		HE3434	1	---
		HE3438	1	---
		HE3440	1	---
		HE3456	1	---
		HE3532	1	---
		HE3560	1	---
		HE3580	1	---
		HE3602	1	---
		HE3618	1	---
		HE3628	1	---
		HE3644	1	---
		HE3664	1	---
		HE3694	1	---
		HE4004	1	---
		HE4014	1	---
		HE4022	1	---
		HE4034	1	---
		HE4042	1	---
		HE4054	1	---
		HE4068	1	---
		HE4092	1	---
		HE4104	1	---
		HE4110	1	---
		HE4134	1	---
		HE4140	1	---
		HE4240	1	---
		HE4272	1	---
		HE4294	1	---
		HE4298	1	---
		HE4302	1	---
		HE4304	1	---
		HE4330	1	---

WELDED INLET COVERS

STAGE	ROADWAY	STRUCTURE***	SPV.0060.807 WELDED EXISTING INLET COVERS EACH	SPV.0060.808 WELDED PROPOSED INLET COVERS EACH
1*	IH 894 'EW'	HE4344	1	---
		HE4356	1	---
		HE4554	1	---
		HE4560	1	---
		HE4580	1	---
		HE5000	1	---
		HE5010	1	---
		HE6053	1	---
		HE6070	1	---
		HE6116	1	---
		HE6120	1	---
		HE6122	1	---
		HE6172	1	---
1*	IH 894 'EWE'	HE8028	1	---
		HE8078	1	---
		HE8102	1	---
STAGE 1 SUBTOTALS			55	0
2*	IH 894 'EWE'	H6222	---	1
		H6224	---	1
		H7000	---	1
		H7002	---	1
		H7004	---	1
		H7010	---	1
		H7014	---	1
		H7022	---	1
		H8022	---	1
		H8024	---	1
		H8040	---	1
STAGE 2 SUBTOTALS			0	11
PROJECT TOTALS			55	11

* EXISTING STRUCTURES ON OUTSIDE SHOULDERS SHALL BE WELDED IN STAGE 1, PRIOR TO THE TRAFFIC SHIFT IN STAGE 2.

** PROPOSED STRUCTURES ON INSIDE SHOULDERS SHALL BE WELDED IN STAGE 2, PRIOR TO THE TRAFFIC SHIFT IN STAGE 3. WELDS SHALL BE REMOVED AT THE END OF THE PROJECT.

*** EXISTING STRUCTURE NAMES ARE IN REFERENCE TO THE FINAL STRUCTURE NAME. EXAMPLE: FINAL STRUCTURE "H2000" IS SHOWN AS "HE2000" IN THIS TABLE.

TYPE I & II PERMANENT SIGNING 1100-45-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638-2602 REMOVING SIGNS TYPE II (EA)	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	634.0885 POSTS TUBULAR STEEL 2 X 2 INCH X 8.5 FT (EA)	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REMOVING SIGNS TYPE I (EA)	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	531.2024 DRILLING SHAFT 24-INCH (LF)	531.1140 (EST) STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	531.1100 (EST) CONCRETE MASONRY ANCILLIARY STRUCTURES TYPE NS	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS EST LBS
1	E6-1	36 LOOMIS RD											MOUNT ON SIGN STRUCTURE S-40-812 SHEET 10, I BEAMS INCIDENTAL	14 X 10	140.00		1					
		EXIT ONLY																				
1A	E1-5P	EXIT 8 A-B											MOUNT ON SIGN # 1	11 X 2.5	27.50							
2	E6-51	36 SOUTH											MOUNT ON SIGN STRUCTURE S-40-834, SHEET 12, I BEAMS INCIDENTAL	14 X 12	168.00		1					
		LOOMIS RD																				
		1/8 MILE																				
2A	E1-5P	EXIT 8A											MOUNT ON SIGN # 2	9 X 2.5	22.50							
3	E6-1	36 NORTH											MOUNT ON SIGN STRUCTURE S-40-834, SHEET 12, I BEAMS INCIDENTAL	14 X 10	140.00		1					
		LOOMIS RD																				
		EXIT ONLY																				
3A	E1-5P	EXIT 8B											MOUNT ON SIGN # 3	9 X 2.5	22.50							
4	E6-1	36 SOUTH											MOUNT ON SIGN STRUCTURE S-40-3099, SHEET 11 , I BEAMS INCIDENTAL	14 X 12.5	175.00		1					
		LOOMIS RD																				
		25 MPH																				
		EXIT ONLY																				
4A	E1-5P	EXIT 8A											MOUNT ON SIGN #4	9 X 2.5	22.50							
5	E8-1	60TH ST 1/4											MOUNT ON S-40-870 , SHEET 9, I BEAMS INCIDENTAL	25 X 8	200.00		1					
		U 76TH ST 1 1/4																				
		24 FOREST HOME AVE 1 3/4																				
5A	E8-1	36 LOOMIS RD 1/4											REINSTALL ON SIGN STRUCTURE S-40-870 AFTER NEW FOOTING AND STRUCTURE MOVED, SHEET 9			1						
		241 27TH ST 1 1/4																				
		94 1 1/2																				
6	E6-1	60TH ST											MOUNT ON S-40-3100, SHEET 8, I BEAMS INCIDENTAL	14 X 7	98.00		1					
		EXIT ONLY																				
6A	E1-5P	EXIT 7											MOUNT ON SIGN # 6	7 X 2.5	17.50							
7	E8-1	U 76TH ST											MOUNT ON S-40-3101 , SHEET 6, I BEAMS INCIDENTAL	24 X 8	192.00		1					
		24 FOREST HOME AV 3/4																				
		45 2																				
8	E8-1	24 FOREST HOME AVE 1/4											MOUNT ON SIGN STRUCTURE S-40-3102, SHEET 4 , I BEAMS INCIDENTAL	24 X 8	192.00		1					
		43 LEFT LANE 1 1/2																				
		T BELOIT RD 2 1/2																				
9	E1-1A	24 WEST FOREST HOME AVE											REINSTALL ON S-40-801 AFTER SIGN STRUCTURE REMOVED AND REINSTALLED DUE TO NEW FOOTING			1						
		1/2 MILE																				
10	E6-1	U 76TH ST EXIT ONLY											REINSTALL ON S-40-801 AFTER SIGN STRUCTURE REMOVED			1						
11	NONE	HISTORIC DOWNTOWN											REUSE I BEAMS	11 X 8.5	93.50		1	2				
		GREENDALE																				
		EXIT 7																				
12	E8-1	60TH ST 1/4											REINSTALL ON S-40-869 AFTER SIGN STRUCTURE REMOVED AND REINSTALLED DUE TO NEW FOOTING			1						
		36 LOOMIS RD 1 1/4																				
		241 27TH ST 2 1/4																				
13	NONE	BOERNER											REUSE STEEL POSTS, SHEET 7	18 X 7	126.00		1	2				
		BOTANICAL GARDENS , EXIT 5A																				
14	E1-1A	24 U											REUSE STEEL POSTS SHEET 8	25 X 13.5	337.50		1	3				
		76TH ST																				
		FOREST HOME AVE																				
		1 MILE																				
14A	E1-5P	EXIT 5 A-B											MOUNT ON SIGN 14	11 X 2.5	27.50							
15	D4-3	PARK AND RIDE, EXIT 8A-B											REUSE STEEL POSTS, SHEET 8	12 X 7.5	90.00		1	2				
16	NONE	HISTORIC DOWNTOWN											REUSE STEEL POSTS , SHEET 9	11 X 8.5	93.50			2				
		GREENDALE, EXIT 7																				
17	E4-1A	36 LOOMIS RD											MOUNT ON S-40-812, I BEAMS INCIDENTAL SHEET 10	19 X 8	152.00		1					
		ARROW RIGHT																				
17A	E1-5P	EXIT 8 A-B											MOUNT ON SIGN 17	11 X 2.5	27.50							
18	E1-1A	241, 27TH ST 3/4 MILE											REUSE STEEL POSTS	13 X 10.5	136.50		1	2				
18A	E1-5P	EXIT 9											MOUNT ON SIGN # 18	7 X 2.5	17.50							
19	NONE	HOSPITAL EXIT 9											REUSE STEEL POSTS	15 X 11.5	172.50			2				
		TO GEN MITCHELL INTL AIRPORT																				
		EXIT 10B																				
20	NONE	ALVERNO COLLEGE EXIT 8B											REUSE STEEL POSTS	16 X 5	80.00		1	2				
21	NONE	ALVERNO COLLEGE, EXIT 5 A-B											REUSE STEEL POSTS	16 X 5	80.00		1	2				

SHEET: 1 OF 3

TYPE I & II PERMANENT SIGNING 1100-45-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638-2602 REMOVING SIGNS TYPE II (EA)	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	634.0885 POSTS TUBULAR STEEL 2 X 2 INCH X 8.5 FT (EA)	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REMOVING SIGNS TYPE I (EA)	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	531.2024 DRILLING SHAFT 24-INCH (LF)	531.1140 (EST) STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	531.1100 (EST) CONCRETE MASONRY ANCILLIARY STRUCTURES TYPE NS	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS EST LBS
101	JV4-1(5)		45	X	108	33.750				1					MOUNT ON LIGHT POLE											
	MB3-3		36	X	18																					
	M1-1	IH 43	36	X	36																					
	MB3-4		36	X	18																					
	M1-1A	IH 894	45	X	36																					
102	D10-5A	EAST 43, 894 MILE 5/4	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
103	D10-5A	WEST 43, 894, MILE 5/4	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
104	D10-5A	EAST 43, 894 MILE 5/6	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
105	D10-5A	WEST 43, 894, MILE 5/6	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
106	D10-5A	EAST 43, 894 MILE 5/8	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
107	D10-5A	WEST 43, 894 MILE 5/8	21	X	72	10.500				1					MOUNT ON LIGHT POLE											
108	J3-1(5)		36	X	102	25.500				1					MOUNT ON LIGHT POLE											
109	M1-94	W FOREST HOME AVE	138	X	21	20.125					2															
110	D10-5A	EAST 43, 894 MILE 6/0	21	X	72	10.500									MOUNT ON LIGHT POLE											
111	D10-5A	WEST 43, 894 MILE 6/0	21	X	72	10.500									MOUNT ON LIGHT POLE											
112	D10-5A	EAST 43, 894 MILE 6/2	21	X	72	10.500									MOUNT ON LIGHT POLE											
113	D10-5A	WEST 43, 894 MILE 6/2	21	X	72	10.500									MOUNT ON LIGHT POLE											
114	R2-1(5)	SPEED LIMIT 55	48	X	60	20.000				1					MOUNT ON LIGHT POLE											
115	R8-7(5)		48	X	36	12.000				1					MOUNT ON LIGHT POLE											
116	D10-5A	EAST 43, 894 MILE 6/4	21	X	72	10.500									MOUNT ON LIGHT POLE											
117	D10-5A	WEST 43, 894 MILE 6/4	21	X	72	10.500									MOUNT ON LIGHT POLE											
118	M1-94	68TH ST	60	X	21	8.750					2															
119	M1-94	68TH ST	60	X	21	8.750					2															
120	D10-5A	EAST 43, 894 MILE 6/6	21	X	72	10.500									MOUNT ON LIGHT POLE											
121	D10-5A	WEST 43, 894 MILE 6/6	21	X	72	10.500									MOUNT ON LIGHT POLE											
122	R8-7(5)		48	X	36	12.000				1					MOUNT ON LIGHT POLE											
123	D10-5A	WEST 43, 894 MILE 6/8	21	X	72	10.500									MOUNT ON LIGHT POLE											
124	D10-5A	EAST 43, 894 MILE 6/8	21	X	72	10.500									MOUNT ON LIGHT POLE											
125	R2-1(5)	SPEED LIMIT 55	48	X	60	20.000				1					MOUNT ON LIGHT POLE											
126	JV4-1(5)		45	X	108	33.750				1																
	MB3-3		36	X	18																					
	M1-1	IH 43	36	X	36																					
	MB3-4		36	X	18																					
	M1-1A	IH 894	45	X	36																					
127	JV4-1(5)		36	X	90	22.500					1															
	MB3-1		36	X	18																					
	M1-1	IH 41	36	X	36																					
	M1-4	USH 41	36	X	36																					
128	D10-5A	EAST 43, 894, MILE 7/0	21	X	72	10.500									MOUNT ON LIGHT POLE											
129	D10-5A	WEST 43, 894, MILE 7/0	21	X	72	10.500									MOUNT ON LIGHT POLE											
130	D10-5A	WEST 43, 894 MILE 7/2	21	X	72	10.500									MOUNT ON LIGHT POLE											

SHEET: 2 of 3

TYPE I & II PERMANENT SIGNING 1100-45-70

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638-2602 REMOVING SIGNS TYPE II (EA)	634.0622 POSTS WOOD 4" X 6" X 22' [EA]	634.0814 POSTS TUBULAR STEEL 2 X 2 INCH X 14 FT (EA)	634.0885 POSTS TUBULAR STEEL 2 X 2 INCH X 8.5 FT (EA)	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REMOVING SIGNS TYPE I (EA)	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS (EA)	531.2024 DRILLING SHAFT 24-INCH (LF)	531.1140 (EST) STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	531.1100 (EST) CONCRETE MASONRY ANCILLIARY STRUCTURES TYPE NS	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS EST LBS
131	D10-5A	EAST 43, 894 MILE 7/2	21 X 72	10.500									MOUNT ON LIGHT POLE									
132	J4-1(5)		45 X 108	33.750				1					MOUNT ON LIGHT POLE									
	MB3-3		36 X 18																			
	M1-1	IH 43	36 X 36																			
	MB3-2		36 X 18																			
	M1-1A	IH 894	45 X 36																			
133	R2-1(5)	SPEED LIMIT 55	48 X 60	20.000				1					MOUNT ON LIGHT POLE									
134	R8-7(5)		48 X 36	12.000				1					MOUNT ON LIGHT POLE									
135	J4-1(5)		36 X 90	22.500					1													
	MB3-3		36 X 18																			
	M1-1	IH 41	36 X 36																			
	M1-4	USH 41	36 X 36																			
136	D10-5A	WEST 43, 894 MILE 7/4	21 X 72	10.500									MOUNT ON LIGHT POLE									
137	D10-5A	EAST 43, 894 MILE 7/4	21 X 72	10.500									MOUNT ON LIGHT POLE									
138	D10-5A	WEST 43, 894 MILE 7/6	21 X 72	10.500									MOUNT ON LIGHT POLE									
139	D10-5A	EAST 43, 894 MILE 7/6	21 X 72	10.500									MOUNT ON LIGHT POLE									
140	R2-1(5)	SPEED LIMIT 55	48 X 60	20.000				1					MOUNT ON LIGHT POLE									
141	R8-7(5)		48 X 36	12.000				1					MOUNT ON LIGHT POLE									
142	D10-5A	WEST 43, 894 MILE 7/8	21 X 72	10.500				1					MOUNT ON LIGHT POLE									
143	D10-5A	EAST 43, 894 MILE 7/8	21 X 72	10.500				1					MOUNT ON LIGHT POLE									
144	J4-1(5)		36 X 102	25.500				1					MOUNT ON LIGHT POLE									
	MB4-1		36 X 18																			
	MB3-2		36 X 18																			
	M1-1	IH 94	36 X 36																			
	MB6-1		30 X 30																			
145	D10-5A	WEST 43, 894 MILE 8/0	21 X 72	10.500									MOUNT ON LIGHT POLE									
146	D10-5A	EAST 43, 894 MILE 8/0	21 X 72	10.500									MOUNT ON LIGHT POLE									
147		MILE 8				1							MOUNT ON UPRIGHT OF STEEL POST									
148	D10-5A	WEST 43, 894 MILE 8/2	21 X 72	10.500					1													
149	D10-5A	EAST 43, 894 MILE 8/2	21 X 72	10.500					1													
150	D10-5A	WEST 43, 894 MILE 8/4	21 X 72	10.500					1													
151	D10-5A	EAST 43, 894 MILE 8/4							1													
152	R2-1(5)	SPEED LIMIT 55	48 X 60	20.000					1													
153	W5-52R(3)		18 X 54		6.750		1	1	1				4 FOOT HEIGHT									
154	D10-5A	EAST 43, 894 MILE 8/6	21 X 72	10.500				1					MOUNT ON LIGHT POLE									
155	D10-5A	WEST 43, 894 MILE 8/6	21 X 72	10.500				1					MOUNT ON LIGHT POLE									
156	J4-1(5)		36 X 90	22.500			1	1	1													
	MB3-1		36 X 18																			
	M1-1	IH 41	36 X 36																			
	M1-4	USH 41	36 X 36																			
157	NONE	LEFT LANE HOV					2	1					SHEET 3									
158	NONE	RESTRICTED LANE RAMP LEFT LANE					1	1					SHEET 3									
159	NONE	RESTRICTED LANE RAMP LEFT LANE					1	1					SHEET 3									
UNDISTRIBUTED										4	4					2			20	360	5	2000
TOTALS				751.875	6.750	1	6	28	15	4	4	--	--		2851.500	6	16	19	20	360	5	2000

SHEET: 3 of 3

PROJECT NO: 1100-45-70	HWY: IH 43 894	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET: 450	E

FILE NAME : N:\SPO\Operations\Signing\Miscellaneous Quantities\1100-45-70\030502_MQ.pptx PLOT DATE : 6/21/2022 PLOT BY : DOTTAH PLOT NAME : 030502_MQ.pdf PLOT SCALE : 1:1

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-EH	AEH5/BEH5	82EW+40	1	--	1	2	--	
	2	HL-40-EH	AEH6/BEH6	84EW+90	1	--	1	2	--	
	2	HL-40-EH	AEH7/BEH7	87EW+70	1	--	1	2	--	
	3	HL-40-EH	AEH11	88TAB+09	--	--	1	1	--	
	3	HL-40-EH	AEH16	88TAA+60	--	--	1	1	--	
	3	HL-40-EH	LPB-EH-5	89TAA+71	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-4	89EW+57	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-3	89EW+58	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-6	89EW+58	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-7	89EW+58	--	--	--	--	1	
	2	HL-40-EH	AEH8/BEH8	89EW+75	1	--	1	2	--	
	3	HL-40-EH	BEH11	89TAB+89	--	--	1	1	--	
	3	HL-40-EH	BEH15	90TAA+77	--	--	1	1	--	
	3	HL-40-EH	AEH12	91TAB+27	--	--	1	1	--	
	3	HL-40-EH	AEH15	92TAA+30	--	--	1	1	--	
	2	HL-40-EH	AEH9/BEH9	92EW+25	1	--	1	2	--	
	3	HL-40-EH	BEH12	92TAB+70	--	--	1	1	--	
	3	HL-40-EH	BEH14	93TAA+71	--	--	1	1	--	
	3	HL-40-EH	AEH13	94TAB+09	--	--	1	1	--	
	3	HL-40-EH	LPB-EH-8	94EW+52	--	--	--	--	1	
	2	HL-40-EH	AEH10/BEH10	94EW+75	1	--	1	2	--	
	3	HL-40-EH	AEH14	95TAA+28	--	--	1	1	--	
	3	HL-40-EH	BEH13	95TAB+44	--	--	1	1	--	
	2	HL-40-FO	AFO1/BFO1	97EW+37	1	--	1	2	--	
	2	HL-40-FO	AFO2/BFO2	99EW+55	1	--	1	2	--	
				SUBTOTAL	8	0	19	27	6	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-FO	AFO3/BFO3	101EW+74	1	--	1	2	--	
	2	HL-40-FO	AFO4/BFO4	103EW+95	1	--	1	2	--	
	2	HL-40-FO	AFO5/BFO5	106EW+15	1	--	1	2	--	
	2	HL-40-FO	AFO6/BFO6	108EW+35	1	--	1	2	--	
	3	HL-40-FO	LPB-FO-1	109EW+55	–	--	--	–	1	
	3	HL-40-FO	LPB-FO-2	109EW+55	–	--	--	–	1	
	3	HL-40-FO	HL-40-FO	109EW+92	–	1	--	–	--	
	2	HL-40-FO	CFO11/DFO11	110EW+44	1	--	1	2	--	
	3	HL-40-FO	CFO10	110FHA+15	–	--	1	1	--	
	3	HL-40-FO	CFO9	107FHA+84	–	--	1	1	--	
	3	HL-40-FO	CFO8	106FHA+78	–	--	1	1	--	
	3	HL-40-FO	CFO6	104FHA+45	–	--	1	1	--	
	3	HL-40-FO	CFO5	103FHA+16	–	--	1	1	--	
	3	HL-40-FO	CFO4	101FHA+66	–	--	1	1	--	
	3	HL-40-FO	CFO3	100FHA+32	–	--	1	1	--	
	3	HL-40-FO	CFO2	99FHA+18	–	--	1	1	--	
	3	HL-40-FO	CFO1	98FHA+10	–	--	1	1	--	
	3	HL-40-FO	DFO1	110FHB+95	–	--	1	1	--	
	3	HL-40-FO	DFO2	112FHB+47	–	--	1	1	--	
	3	HL-40-FO	DFO3	113FHB+93	–	--	1	1	--	
	2	HL-40-FO	CFO12/DFO12	114EW+95	1	--	1	2	--	
	3	HL-40-FO	LPB-FO-3	115EW+49	–	--	--	–	1	
	3	HL-40-FO	DFO4	115FHB+93	–	--	1	1	--	
	2	HL-40-FO	CFO13/DFO13	117EW+11	1	--	1	2	--	
	2	HL-40-FO	CFO14/DFO14	119EW+21	1	--	1	2	--	
				SUBTOTAL	8	1	21	29	3	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-FO	CFO15/DFO15	121EW+36	1	--	1	2	--	
	3	HL-40-AL	DAL12	123TBB+33	–	--	1	1	--	
	2	HL-40-AL	CAL41/DAL41	124EW+09	1	--	1	2	--	
	3	HL-40-AL	DAL11	124TBB+62	–	--	1	1	--	
	3	HL-40-AL	CAL22	124TBA+79	–	--	1	1	--	
	3	HL-40-AL	DAL10	125TBB+93	–	--	1	1	--	
	2	HL-40-AL	CAL40/DAL40	126EW+37	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-6	126TBB+69	–	--	--	–	1	
	3	HL-40-AL	CAL26	126TBA+73	–	--	1	1	--	
	3	HL-40-AL	LPB-AL-5	126EW+86	–	--	--	–	1	
	3	HL-40-AL	DAL9	127TBB+22	–	--	1	1	--	
	2	HL-40-AL	CAL39/DAL39	128EW+83	1	--	1	2	--	
	3	HL-40-AL	CAL27	128TBA+76	–	--	1	1	--	
	3	HL-40-AL	DAL13	129TBB+20	–	--	1	1	--	
	3	HL-40-AL	LPB-AL-4	129TBA+17	–	--	--	–	1	
	3	HL-40-AL	LPB-AL-3	129EW+39	–	--	--	–	1	
	3	HL-40-AL	CAL28	130TBA+65	–	--	1	1	--	
	2	HL-40-AL	CAL38/DAL38	131EW+27	1	--	1	2	--	
	3	HL-40-AL	CAL25	132TBA+55	–	--	1	1	--	
	2	HL-40-AL	CAL37/DAL37	133EW+76	1	--	1	2	--	
	2	HL-40-AL	CAL36/DAL36	136EW+21	1	--	1	2	--	
	2	HL-40-AL	CAL35/DAL35	138EW+67	1	--	1	2	--	
	2	HL-40-AL	CAL34/DAL34	141EW+16	1	--	1	2	--	
	2	HL-40-AL	CAL33/DAL33	143EW+57	1	--	1	2	--	
	2	HL-40-AL	CAL32/DAL32	145EW+89	1	--	1	2	--	
				SUBTOTAL	11	0	21	32	4	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AL	CAL31/DAL31	148EW+44	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-2	148EW+76	–	--	--	–	1	
	3	HL-40-AL	LPB-AL-1	148EW+76	–	--	--	–	1	
	3	HL-40-AL	HL-40-AL	148EW+93	–	1	--	–	--	
	2	HL-40-AL	AAL21/BAL21	150EW+52	1	--	1	2	--	
	2	HL-40-AL	AAL22/BAL22	152EW+94	1	--	1	2	--	
	2	HL-40-AL	AAL23/BAL23	155EW+39	1	--	1	2	--	
	2	HL-40-AL	AAL24/BAL24	157EW+84	1	--	1	2	--	
	2	HL-40-AL	AAL25/BAL25	160EW+29	1	--	1	2	--	
	2	HL-40-AL	AAL26/BAL26	162EW+72	1	--	1	2	--	
	2	HL-40-AL	AAL27/BAL27	165EW+12	1	--	1	2	--	
	2	HL-40-AL	AAL28/BAL28	167EW+52	1	--	1	2	--	
	3	HL-40-AL	BAL10	168TCA+7	–	--	1	1	--	
	3	HL-40-AL	AAL11	169TCB+02	–	--	1	1	--	
	2	HL-40-AL	AAL29/BAL29	169EW+96	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-9	170TCB+09	–	--	--	–	1	
	3	HL-40-AL	BAL6	170TCA+56	–	--	1	1	--	
	3	HL-40-AL	LPB-AL-7	170TCA+62	–	--	--	–	1	
	3	HL-40-AL	AAL7	170TCB+97	–	--	1	1	--	
	3	HL-40-AL	LPB-AL-8	171TCA+82	–	--	--	–	1	
	3	HL-40-AL	BAL7	172TCA+06	–	--	1	1	--	
	2	HL-40-AL	AAL30/BAL30	172EW+33	1	--	1	2	--	
	3	HL-40-AL	AAL8	172TCB+42	–	--	1	1	--	
	3	HL-40-AL	BAL8	173TCA+64	–	--	1	1	--	
	3	HL-40-AL	AAL9	174TCB+07	–	--	1	1	--	
				SUBTOTAL	11	1	19	30	5	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AL	AAL31/BAL31	174EW+77	1	--	1	2	--	
	3	HL-40-AL	BAL9	175TCA+30	–	--	1	1	--	
	3	HL-40-AL	AAL10	175TCB+78	–	--	1	1	--	
	3	HL-40-BO	DBO10	176TCD+70	–	--	1	1	--	
	3	HL-40-BO	CBO11	176TCC+90	–	--	1	1	--	
	2	HL-40-BO	CBO31/DBO31	177EW+57	1	--	1	2	--	
	3	HL-40-BO	DBO9	178TCD+11	–	--	1	1	--	
	3	HL-40-BO	CBO10	178TCC+40	–	--	1	1	--	
	3	HL-40-BO	DBO8	179TDB+50	–	--	1	1	--	
	3	HL-40-BO	CBO9	179TCC+97	–	--	1	1	--	
	2	HL-40-BO	CBO30/DBO30	179EW+97	1	--	1	2	--	
	3	HL-40-BO	LPB-BO-6	180EW+88	–	--	--	–	1	
	3	HL-40-BO	DBO6	180TCD+89	–	--	1	1	--	
	3	HL-40-BO	LPB-BO-7	181EW+07	–	--	--	–	1	
	3	HL-40-BO	CBO7	181TCC+54	–	--	1	1	--	
	2	HL-40-BO	CBO29/DBO29	182EW+37	1	--	1	2	--	
	3	HL-40-BO	DBO7	182TCD+79	–	--	1	1	--	
	3	HL-40-BO	CBO8	183TCC+53	–	--	1	1	--	
	2	HL-40-BO	CBO28/DBO28	184EW+84	1	--	1	2	--	
	2	HL-40-BO	CBO27/DBO27	187EW+23	1	--	1	2	--	
	2	HL-40-BO	CBO26/DBO26	189EW+62	1	--	1	2	--	
	2	HL-40-BO	CBO25/DBO25	192EW+01	1	--	1	2	--	
	2	HL-40-BO	CBO24/DBO24	194EW+41	1	--	1	2	--	
	2	HL-40-BO	CBO23/DBO23	196EW+81	1	--	1	2	--	
	2	HL-40-BO	CBO22/DBO22	199EW+21	1	--	1	2	--	
				SUBTOTAL	11	0	23	34	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-BO	LPB-BO-4	201EW+24	–	–	--	--	1	
	3	HL-40-BO	LPB-BO-3	201EW+38	–	–	--	--	1	
	2	HL-40-BO	CBO21/DBO21	201EW+63	1	–	1	2	--	
	3	HL-40-BO	LPB-BO-2	201EW+73	–	–	--	--	1	
	3	HL-40-BO	LPB-BO-1	201EW+89	–	–	--	--	1	
	3	HL-40-BO	HL-40-BO	201EW+92	–	1	--	--	--	
	2	HL-40-BO	ABO1/BBO1	203EW+95	1	–	1	2	--	
	2	HL-40-BO	ABO2/BBO2	206EW+28	1	–	1	2	--	
	2	HL-40-BO	ABO3/BBO3	208EW+66	1	–	1	2	--	
	2	HL-40-BO	ABO4/BBO4	211EW+03	1	–	1	2	--	
	2	HL-40-BO	ABO5/BBO5	213EW+41	1	–	1	2	--	
	2	HL-40-BO	ABO6/BBO6	215EW+76	1	–	1	2	--	
	3	HL-40-LM	BLM20	217LRA+60	–	–	1	1	--	
	2	HL-40-LM	ABO7/BBO7	218EW+19	1	–	1	2	--	
	3	HL-40-LM	LPB-LM-6	219LRA+72	–	–	--	--	1	
	3	HL-40-LM	LPB-LM-5	219EW+65	–	–	--	--	1	
	3	HL-40-LM	ELM1	219LRB+60	–	–	1	1	--	
	3	HL-40-LM	ALM20	220LRA+28	–	–	1	1	--	
	2	HL-40-LM	ALM1/BLM1	220EW+50	1	–	1	2	--	
	3	HL-40-LM	BLM21	222LRA+00	–	–	1	1	--	
	3	HL-40-LM	ELM2	221LRB+54	–	–	1	1	--	
	3	HL-40-LM	HL-40-LM	221LRB+83	–	1	--	--	--	
	3	HL-40-LM	LPB-LM-1	221LRB+83	–	–	--	--	1	
	3	HL-40-LM	LPB-LM2	221LRB+83	–	–	--	--	1	
	3	HL-40-LM	LPB-LM-3	221LRB+83	–	–	--	--	1	
				SUBTOTAL	9	2	14	23	9	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-LM	LPB-LM-4	222EW+12	–	–	--	--	1	
	3	HL-40-LM	ALM22	222EW+41	–	–	1	1	--	
	2	HL-40-LM	CLM1/DLM1	222EW+83	1	–	1	2	--	
	3	HL-40-LM	ELM3	223LRB+18	–	–	1	1	--	
	3	HL-40-LM	BLM4	223EW+75	–	–	1	1	--	
	3	HL-40-LM	ELM4	224LRB+85	–	–	1	1	--	
	2	HL-40-LM	CLM2/DLM2	225EW+17	1	–	1	2	--	
	3	HL-40-LM	LPB-LM-7	227LRA+61	–	–	--	--	1	
	3	HL-40-LM	BLM9	228LRA+06	–	–	1	1	--	
	3	HL-40-LM	BLM13	225EW+98	–	–	1	1	--	
	3	HL-40-LM	ELM5	226LRB+45	–	–	1	1	--	
	3	HL-40-LM	BLM10	229LRA+46	–	–	1	1	--	
	3	HL-40-LM	ALM9	229LRA+60	–	–	1	1	--	
	3	HL-40-LM	LPB-LM-8	230LRA+16	–	–	--	--	1	
	3	HL-40-LM	ALM11	230LRA+32	–	–	1	1	--	
	3	HL-40-LM	ALM10	230LRA+46	–	–	1	1	--	
	2	HL-40-LM	CLM3/DLM3	227EW+46	1	–	1	2	--	
	3	HL-40-LM	ELM6	228LRB+12	–	–	1	1	--	
	3	HL-40-LM	BLM12	228EW+51	–	–	1	1	--	
	3	HL-40-AR	FAR20	229LRE+70	–	–	1	1	--	
	3	HL-40-AR	EAR31	230LRD+85	–	–	1	1	--	
	2	HL-40-AR	CLM4/DLM4	231EWE+01	1	–	1	2	--	
	3	HL-40-AR	FAR32	232LRD+52	–	–	1	1	--	
	3	HL-40-AR	FAR21	231LRE+86	–	–	1	1	--	
	2	HL-40-AR	EAR15	233EWW+31	–	–	1	1	--	
				SUBTOTAL	4	0	22	26	3	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AR	EAR7	233EWE+45	–	–	1	1	--	
	3	HL-40-AR	FAR22	233LRE+92	–	–	1	1	--	
	3	HL-40-AR	EAR33	234LRD+50	–	–	1	1	--	
	3	HL-40-AR	FAR6	235LRE+89	–	–	1	1	--	
	2	HL-40-AR	FAR8	236EWE+11	–	–	1	1	--	
	2	HL-40-AR	FAR16	235EWW+88	–	–	1	1	--	
	3	HL-40-AR	FAR34	237LRD+03	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-7	237LRE+30	–	–	--	--	1	
	2	HL-40-AR	LPB-AR-6	237EWE+53	–	–	--	--	1	
	2	HL-40-AR	EAR9	238EWE+68	–	–	1	1	--	
	2	HL-40-AR	EAR17	238EWW+32	–	–	1	1	--	
	2	HL-40-AR	EAR11	241EWE+28	–	–	1	1	--	
	2	HL-40-AR	FAR18	240EWW+83	–	–	1	1	--	
	2	HL-40-AR	FAR10	243EWE+88	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-5	243LRE+90	–	–	--	--	1	
	2	HL-40-AR	CAR5	243EWW+42	–	–	1	1	--	
	3	HL-40-AR	FAR12	246LRE+30	–	–	1	1	--	
	2	HL-40-AR	CAR4	245EWW+83	–	–	1	1	--	
	2	HL-40-AR	CAR3	248EWW+22	–	–	1	1	--	
	3	HL-40-AR	EAR13	248EWE+98	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-1	248EWW+41	–	–	--	--	1	
	3	HL-40-AR	HL-40-AR	248EWW+71	–	1	--	--	--	
	3	HL-40-AR	LPB-AR-2	249EWW+86	–	–	--	--	1	
	3	HL-40-AR	CAR30	249EWW+86	–	–	1	1	--	
	2	HL-40-AR	LPB-AR-3	250EWW+00	–	–	--	--	1	
				SUBTOTAL	0	1	18	18	6	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AR	LPB-AR-4	250EWE+73	–	–	--	--	1	
	2	HL-40-AR	DAR2	250EWW+61	–	–	1	1	--	
	2	HL-40-AR	FAR14	251EWE+71	–	–	1	1	--	
	2	HL-40-TF	CTF1/DTF1	252EWW+85	–	–	1	2	--	
	2	HL-40-TF	CTF2/DTF2	255EWW+07	1	–	1	2	--	
	2	HL-40-TF	LPB-TF-2	255EWW+14	–	–	--	--	1	
	2	HL-40-TF	LPB-TF-1	255EWE+90	–	–	--	--	1	
	2	HL-40-TF	HL-40-TF	255EWE+90	–	1	--	--	--	
				SUBTOTAL	1	1	4	6	3	
				TOTAL	63	6	161	225	41	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - TEMPORARY ITEMS

204.9060.S.106	REMOVING POLES WOOD 60-FT AND FLOODLIGHTS
204.9060.S.107	REMOVING POLES WOOD 35-FT
SPV.0060.108	POLES WOOD 35-FT
SPV.0060.109	WOOD POLE LIGHTING 60-FT
SPV.0060.110	LUMINAIRE UTILITY LED FLOODLIGHT

CATEGORY	STAGE	SYSTEM	Description	LOCATION	OFFSET	204.9060.S.106 REMOVING POLES WOOD 60-FT AND FLOODLIGHTS	204.9060.S.107 REMOVING POLES WOOD 35-FT	SPV.0060.108 POLES WOOD 35-FT	SPV.0060.109 WOOD POLE LIGHTING 60-FT	SPV.0060.110 LUMINAIRE UTILITY LED FLOODLIGHT	COMMENTS
						EACH	EACH	EACH	EACH	EACH	
1100	STAGE 1/3	HL-40-EH	T-AEH1	81EW+84	81' RT	1	--	--	1	1	
		HL-40-EH	T-BEH1	83EW+74	83' RT	1	--	--	1	2	
		HL-40-EH	T-AEH2	85EW+45	85' RT	1	--	--	1	1	
		HL-40-EH	WP-EH1	92EW+00	32' RT	--	1	1	--	--	
		HL-40-EH	T-BEH2	92EW+93	71' RT	1	--	--	1	1	
		HL-40-EH	T-AEH3	94EW+17	79' RT	1	--	--	1	1	
		HL-40-FO	T-AFO1	97EW+79	91' RT	1	--	--	1	1	
		HL-40-FO	T-BFO1	99EW+63	84' RT	1	--	--	1	1	
		HL-40-FO	T-AFO2	101EW+38	81' RT	1	--	--	1	1	
		HL-40-FO	T-BFO2	103EW+18	82' RT	1	--	--	1	1	
		HL-40-FO	T-AFO3	104EW+90	83' RT	1	--	--	1	1	
		HL-40-FO	T-BFO3	106EW+71	83' RT	1	--	--	1	1	
		HL-40-FO	T-AFO4	108EW+49	89' RT	1	--	--	1	1	
		HL-40-FO	WP-FO1	110EW+09	147' RT	--	1	1	--	--	
		HL-40-FO	T-BFO4	110EW+36	92' RT	1	--	--	1	1	
		HL-40-FO	T-CFO1	113EW+72	94' RT	1	--	--	1	2	
		HL-40-FO	T-DFO1	118EW+42	21' RT	1	--	--	1	2	
		HL-40-FO	T-CFO2	121EW+30	24' RT	1	--	--	1	1	
		HL-40-AL	T-CAL1	123EW+58	28' RT	1	--	--	1	1	
		HL-40-AL	T-DAL1	125EW+36	26' RT	1	--	--	1	1	
		HL-40-AL	T-CAL2	131EW+58	17' RT	1	--	--	1	1	
		HL-40-AL	T-DAL2	133EW+37	17' RT	1	--	--	1	1	
		HL-40-AL	T-CAL3	135EW+11	22' RT	1	--	--	1	1	
		HL-40-AL	T-DAL3	136EW+91	25' RT	1	--	--	1	1	
		HL-40-AL	T-CAL4	138EW+74	28' RT	1	--	--	1	1	
		HL-40-AL	T-DAL4	140EW+75	81' RT	1	--	--	1	1	
		HL-40-AL	T-CAL5	142EW+63	78' RT	1	--	--	1	1	
					SUBTOTAL	25	2	2	25	28	

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LIGHTING - TEMPORARY ITEMS

204.9060.S.106	REMOVING POLES WOOD 60-FT AND FLOODLIGHTS
204.9060.S.107	REMOVING POLES WOOD 35-FT
SPV.0060.108	POLES WOOD 35-FT
SPV.0060.109	WOOD POLE LIGHTING 60-FT
SPV.0060.110	LUMINAIRE UTILITY LED FLOODLIGHT

CATEGORY	STAGE	SYSTEM		LOCATION	OFFSET	204.9060.S.106 REMOVING POLES WOOD 60-FT AND FLOODLIGHTS EACH	204.9060.S.107 REMOVING POLES WOOD 35-FT EACH	SPV.0060.108 POLES WOOD 35-FT EACH	SPV.0060.109 WOOD POLE LIGHTING 60-FT EACH	SPV.0060.110 LUMINAIRE UTILITY LED FLOODLIGHT EACH	COMMENTS
1100	STAGE 1/3	HL-40-AL	T-DAL5	144EW+29	77' RT	1	--	--	1	1	
		HL-40-AL	T-CAL6	146EW+53	80' RT	1	--	--	1	1	
		HL-40-AL	T-DAL6	148EW+11	84' RT	1	--	--	1	1	
		HL-40-AL	T-AAL1	151EW+18	82' RT	1	--	--	1	1	
		HL-40-AL	T-BAL1	152EW+98	89' RT	1	--	--	1	1	
		HL-40-AL	T-AAL2	154EW+60	90' RT	1	--	--	1	1	
		HL-40-AL	T-BAL2	156EW+36	87' RT	1	--	--	1	1	
		HL-40-AL	T-AAL3	158EW+42	92' RT	1	--	--	1	1	
		HL-40-AL	T-BAL3	160EW+37	27' RT	1	--	--	1	1	
		HL-40-AL	T-AAL4	161EW+97	19' RT	1	--	--	1	1	
		HL-40-AL	T-BAL4	163EW+77	23' RT	1	--	--	1	1	
		HL-40-AL	T-AAL5	165EW+57	21' RT	1	--	--	1	1	
		HL-40-AL	T-BAL5	167EW+36	25' RT	1	--	--	1	1	
		HL-40-AL	T-AAL6	171EW+54	77' RT	1	--	--	1	1	
		HL-40-AL	T-BAL6	174EW+10	75' RT	1	--	--	1	1	
		HL-40-BO	T-CBO1	176EW+96	89' RT	1	--	--	1	1	
		HL-40-BO	T-DBO1	179EW+31	82' RT	1	--	--	1	1	
		HL-40-BO	T-CBO2	185EW+18	25' RT	1	--	--	1	1	
		HL-40-BO	T-DBO2	187EW+20	36' RT	1	--	--	1	1	
		HL-40-BO	T-CBO3	189EW+01	37' RT	1	--	--	1	1	
		HL-40-BO	T-DBO3	190EW+79	44' RT	1	--	--	1	1	
		HL-40-BO	T-CBO4	192EW+53	96' RT	1	--	--	1	1	
		HL-40-BO	T-DBO4	194EW+51	100' RT	1	--	--	1	1	
		HL-40-BO	T-CBO5	196EW+54	94' RT	1	--	--	1	1	
		HL-40-BO	T-DBO5	198EW+42	96' RT	1	--	--	1	1	
					SUBTOTAL	25	0	0	25	25	

LIGHTING - TEMPORARY ITEMS

204.9060.S.106	REMOVING POLES WOOD 60-FT AND FLOODLIGHTS
204.9060.S.107	REMOVING POLES WOOD 35-FT
SPV.0060.108	POLES WOOD 35-FT
SPV.0060.109	WOOD POLE LIGHTING 60-FT
SPV.0060.110	LUMINAIRE UTILITY LED FLOODLIGHT

CATEGORY	STAGE	SYSTEM		LOCATION	OFFSET	204.9060.S.106 REMOVING POLES WOOD 60-FT AND FLOODLIGHTS	204.9060.S.107 REMOVING POLES WOOD 35-FT	SPV.0060.108 POLES WOOD 35-FT	SPV.0060.109 WOOD POLE LIGHTING 60-FT	SPV.0060.110 LUMINAIRE UTILITY LED FLOODLIGHT	COMMENTS
						EACH	EACH	EACH	EACH	EACH	
1100	STAGE 1/3	HL-40-BO	T-CBO6	200EW+20	93' RT	1	--	--	1	1	
		HL-40-BO	T-DBO6	202EW+21	93' RT	1	--	--	1	1	
		HL-40-BO	T-ABO1	203EW+36	89' RT	1	--	--	1	1	
		HL-40-BO	T-BBO1	205EW+03	89' RT	1	--	--	1	1	
		HL-40-BO	T-ABO2	206EW+78	77' RT	1	--	--	1	1	
		HL-40-BO	T-BB02	208EW+69	79' RT	1	--	--	1	1	
		HL-40-BO	T-ABO3	210EW+43	24' RT	1	--	--	1	1	
		HL-40-BO	T-BBO3	212EW+42	18' RT	1	--	--	1	1	
		HL-40-BO	T-ABO4	214EW+21	34' RT	1	--	--	1	1	
		HL-40-BO	T-BBO4	216EW+11	25' RT	1	--	--	1	1	
		HL-40-BO	T-ABO5	217EW+92	26' RT	1	--	--	1	1	
		HL-40-LM	T-DLM1	222EW+98	80' RT	1	--	--	1	1	
		HL-40-LM	T-CLM1	225EW+17	80' RT	1	--	--	1	1	
		HL-40-LM	T-DLM2	227EW+33	81' RT	1	--	--	1	1	
		HL-40-AR	T-EAR1	230EW+49	73' RT	1	--	--	1	1	
		HL-40-AR	T-FAR1	233EW+26	72' RT	1	--	--	1	1	
		HL-40-AR	T-CAR1	232EW+11	78' LT	1	--	--	1	1	
		HL-40-AR	T-DAR1	234EW+98	68' LT	1	--	--	1	1	
		HL-40-AR	T-EAR2	238EW+47	29' RT	1	--	--	1	1	
		HL-40-AR	T-CAR2	239EW+87	82' LT	1	--	--	1	1	
		HL-40-AR	T-FAR2	241EW+46	28' RT	1	--	--	1	1	
		HL-40-AR	T-DAR2	242EW+85	65' LT	1	--	--	1	1	
		HL-40-AR	T-EAR3	243EW+94	27' RT	1	--	--	1	1	
		HL-40-AR	T-CAR3	245EW+34	78' LT	1	--	--	1	1	
					SUBTOTAL	24	0	0	24	24	

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LIGHTING - TEMPORARY ITEMS

204.9060.S.106	REMOVING POLES WOOD 60-FT AND FLOODLIGHTS
204.9060.S.107	REMOVING POLES WOOD 35-FT
SPV.0060.108	POLES WOOD 35-FT
SPV.0060.109	WOOD POLE LIGHTING 60-FT
SPV.0060.110	LUMINAIRE UTILITY LED FLOODLIGHT

CATEGORY	STAGE	SYSTEM		LOCATION	OFFSET	204.9060.S.106 REMOVING POLES WOOD 60-FT AND FLOODLIGHTS	204.9060.S.107 REMOVING POLES WOOD 35-FT	SPV.0060.108 POLES WOOD 35-FT	SPV.0060.109 WOOD POLE LIGHTING 60-FT	SPV.0060.110 LUMINAIRE UTILITY LED FLOODLIGHT	COMMENTS
						EACH	EACH	EACH	EACH	EACH	
1100	STAGE 1/3	HL-40-AR	T-FAR3	246EW+43	32' RT	1	--	--	1	1	
		HL-40-AR	T-DAR3	247EW+87	79' LT	1	--	--	1	1	
		HL-40-AR	T-EAR4	249EW+03	70' RT	1	--	--	1	1	
		HL-40-AR	T-FAR4	251EW+57	72' RT	1	--	--	1	1	
		HL-40-AR	T-CAR4	252EW+46	71' LT	1	--	--	1	1	
		HL-40-AR	T-EAR5	254EW+74	71' RT	1	--	--	1	1	
		HL-40-TF	T-DTF1	258EW+04	65' RT	1	--	--	1	1	
		HL-40-TF	T-CTF1	259EW+81	66' RT	1	--	--	1	1	
		HL-40-TF	T-DTF2	261EW+38	71' RT	1	--	--	1	1	
					SUBTOTAL	9	0	0	9	9	
					TOTAL	83	2	2	83	86	

LIGHTING - TEMPORARY CONDUIT AND WIRES

652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG*
SPV.0090.103	CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX
SPV.0090.104	CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX
SPV.0090.105	CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.063* ELECTRICAL WIRE LIGHTING 4 AWG LF	655.0635* ELECTRICAL WIRE LIGHTING 2 AWG LF	SPV.0090.103 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX LF	SPV.0090.104 CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX LF	SPV.0090.105 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX LF	COMMENTS
1100	STAGE 1/3	HL-40-EH	AEH4	SPB-T-EH1	--	87	--	348	--	--	--	--	
		HL-40-EH	SPB-T-EH1	T-AEH1	184	--	--	736	--	--	--	--	
		HL-40-EH	T-AEH1	T-BEH1	--	--	--	--	--	175	--	--	
		HL-40-EH	T-BEH1	T-AEH2	--	--	--	--	--	172	--	--	
		HL-40-EH	T-AEH2	AEH11	--	--	--	--	--	266	--	--	
		HL-40-EH	AEH11	AEH16	--	195	--	780	--	--	--	--	
		HL-40-EH	AEH11	WP-EH1	--	--	--	--	--	385	--	--	
		HL-40-EH	WP-EH1	T-BEH2	--	110	--	440	--	--	--	--	
		HL-40-EH	T-BEH2	T-AEH3	--	--	--	--	--	190	--	--	
		HL-40-FO	TAFO-1	T-BFO1	--	--	--	--	--	--	--	182	
		HL-40-FO	T-BFO1	T-AFO2	--	--	--	--	--	--	--	179	
		HL-40-FO	T-AFO2	T-BFO2	--	--	--	--	--	--	--	182	
		HL-40-FO	T-BFO2	T-AFO3	--	--	--	--	--	--	--	172	
		HL-40-FO	T-AFO3	T-BFO3	--	--	--	--	--	--	--	184	
		HL-40-FO	T-BFO3	T-AFO4	--	--	--	--	--	--	--	173	
		HL-40-FO	T-AFO4	T-BFO4	--	--	--	--	--	--	--	181	
		HL-40-FO	WP-FO1	T-BFO4	--	--	--	--	--	--	--	180	
		HL-40-FO	HL-40-FO	WP-FO1	--	--	140	--	--	--	--	--	
		HL-40-FO	T-BFO4	JB-T-FO1	--	104	728	--	--	--	--	--	
		HL-40-FO	JB-T-FO1	CF010	--	100	400	--	--	--	--	--	
		HL-40-FO	JB-T-FO1	UDL JB	140	--	560	--	--	--	--	--	EXISTING UNDERDECK
		HL-40-FO	UDL JB	UDL JB	147	--	288	--	--	--	--	--	EXISTING UNDERDECK
		HL-40-FO	UDL JB	UDL JB	60	--	240	--	--	--	--	--	EXISTING UNDERDECK
		HL-40-FO	T-BFO4	T-CFO1	360	--	1,440	--	--	--	--	--	
		HL-40-FO	T-CFO1	DFO4	--	234	936	--	--	--	--	--	
		HL-40-FO	DFO4	T-DFO1	--	--	--	--	--	--	--	249	
		HL-40-FO	T-DFO1	T-CFO2	--	--	--	--	--	--	--	288	
				SUBTOTAL	891	830	4,732	2,304	0	1,188	0	1,970	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - TEMPORARY CONDUIT AND WIRES

652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG*
SPV.0090.103	CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX
SPV.0090.104	CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX
SPV.0090.105	CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.063* ELECTRICAL WIRE LIGHTING 4 AWG	655.0635* ELECTRICAL WIRE LIGHTING 2 AWG	SPV.0090.103 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX	SPV.0090.104 CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX	SPV.0090.105 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX	COMMENTS
					LF		LF	LF	LF	LF	LF	LF	
1100	STAGE 1/3	HL-40-AL	UDL JB	T-CAL1	--	107	--	428	--	--	--	--	EXISTING UNDERDECK
		HL-40-AL	T-CAL1	T-DAL1	--	--	--	--	--	184	--	--	
		HL-40-AL	T-DAL1	DAL10	--	75	--	300	--	--	--	--	
		HL-40-AL	DAL13	T-CAL2	--	--	--	--	--	235	--	--	
		HL-40-AL	T-CAL2	T-DAL2	--	--	--	--	--	179	--	--	
		HL-40-AL	T-DAL2	CAL25	--	193	--	772	--	--	--	--	
		HL-40-AL	T-DAL2	T-CAL3	--	--	--	--	--	175	--	--	
		HL-40-AL	T-CAL3	T-DAL3	--	--	--	--	--	182	--	--	
		HL-40-AL	T-DAL3	T-CAL4	--	--	--	--	--	183	--	--	
		HL-40-AL	T-CAL4	T-DAL4	--	--	--	--	--	195	--	--	
		HL-40-AL	T-DAL4	T-CAL5	--	--	--	--	--	184	--	--	
		HL-40-AL	T-CAL5	T-DAL5	--	--	--	--	--	165	--	--	
		HL-40-AL	T-DAL5	T-CAL6	--	--	--	--	--	224	--	--	
		HL-40-AL	T-CAL6	T-DAL6	--	--	--	--	--	160	--	--	
		HL-40-AL	T-DAL6	JB-T-AL1	--	92	--	368	--	--	--	--	
		HL-40-AL	JB-T-AL1	UDL JB	128	--	--	512	--	--	--	--	EXISTING UNDERDECK
		HL-40-AL	T-DAL6	SPB-T-AL1	85	--	--	340	--	--	--	--	
		HL-40-AL	SPB-T-AL1	HL-40-AL	--	224	--	1,792	--	--	--	--	
		HL-40-AL	SPT-T-AL1	T-AAL1	224	--	--	896	--	--	--	--	
		HL-40-AL	T-AAL1	T-BAL1	--	--	--	--	--	180	--	--	
		HL-40-AL	T-BAL1	T-AAL2	--	--	--	--	--	160	--	--	
		HL-40-AL	T-AAL2	T-BAL2	--	--	--	--	--	180	--	--	
		HL-40-AL	T-BAL2	T-AAL3	--	--	--	--	--	203	--	--	
		HL-40-AL	T-AAL3	T-BAL3	--	--	--	--	--	193	--	--	
		HL-40-AL	T-BAL3	T-AAL4	--	--	--	--	--	160	--	--	
		HL-40-AL	T-AAL4	T-BAL4	--	--	--	--	--	181	--	--	
				SUBTOTAL	437	691	0	5,408	0	3,323	0	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - TEMPORARY CONDUIT AND WIRES

652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG*
SPV.0090.103	CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX
SPV.0090.104	CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX
SPV.0090.105	CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.063* ELECTRICAL WIRE LIGHTING 4 AWG	655.0635* ELECTRICAL WIRE LIGHTING 2 AWG	SPV.0090.103 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX	SPV.0090.104 CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX	SPV.0090.105 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX	COMMENTS
					LF		LF	LF	LF	LF	LF	LF	
1100	STAGE 1/3	HL-40-AL	T-BAL4	T-AAL5	--	--	--	--	--	180	--	--	
		HL-40-AL	T-AAL5	T-BAL5	--	--	--	--	--	180	--	--	
		HL-40-AL	T-BAL5	AAL11	--	--	--	--	--	165	--	--	
		HL-40-AL	AAL7	T-AAL6	--	74	--	296	--	--	--	--	
		HL-40-AL	T-AAL6	T-BAL6	--	--	--	--	--	257	--	--	
		HL-40-AL	T-BAL6	JB-T-AL2	--	93	--	372	--	--	--	--	
		HL-40-AL	JB-T-AL2	UDL JB	164	--	--	656	--	--	--	--	EXISTING UNDERDECK
		HL-40-BO	T-CBO1	T-DBO1	--	--	--	--	--	--	231	--	
		HL-40-BO	T-DBO1	DBO8	--	55	--	--	220	--	--	--	
		HL-40-BO	DBO6	CBO7	--	220	--	--	880	--	--	--	
		HL-40-BO	DBO7	T-CBO2	--	--	--	--	--	--	235	--	
		HL-40-BO	T-CBO2	T-DBO2	--	--	--	--	--	--	200	--	
		HL-40-BO	T-DBO2	T-CBO3	--	--	--	--	--	--	180	--	
		HL-40-BO	T-CBO3	T-DBO3	--	--	--	--	--	--	181	--	
		HL-40-BO	T-DBO3	T-CBO4	--	--	--	--	--	--	180	--	
		HL-40-BO	T-CBO4	T-DBO4	--	--	--	--	--	--	193	--	
		HL-40-BO	T-DBO4	T-CBO5	--	--	--	--	--	--	200	--	
		HL-40-BO	T-CBO5	T-DBO5	--	--	--	--	--	--	184	--	
		HL-40-BO	T-DBO5	T-CBO6	--	--	--	--	--	--	180	--	
		HL-40-BO	T-CBO6	T-DBO6	--	--	--	--	--	--	199	--	
		HL-40-BO	T-DBO6	HL-40-BO	106	--	424	--	424	--	--	--	
		HL-40-BO	T-DBO6	T-ABO1	--	120	480	--	--	--	--	--	
		HL-40-BO	T-ABO1	T-BBO1	--	--	--	--	--	--	--	165	
		HL-40-BO	T-BBO1	T-ABO2	--	--	--	--	--	--	--	178	
		HL-40-BO	T-ABO2	T-BBO2	--	--	--	--	--	--	--	195	
		HL-40-BO	T-BBO2	T-ABO3	--	--	--	--	--	--	--	173	
				SUBTOTAL	270	562	904	1,324	1,524	782	2,163	711	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - TEMPORARY CONDUIT AND WIRES

652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG*
SPV.0090.103	CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX
SPV.0090.104	CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX
SPV.0090.105	CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.063* ELECTRICAL WIRE LIGHTING 4 AWG	655.0635* ELECTRICAL WIRE LIGHTING 2 AWG	SPV.0090.103 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX	SPV.0090.104 CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX	SPV.0090.105 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX	COMMENTS
					LF		LF	LF	LF	LF	LF	LF	
1100	STAGE 1/3	HL-40-BO	T-ABO3	T-BBO3	–	--	--	--	–	–	--	199	
		HL-40-BO	T-BBO3	T-ABO4	–	--	--	--	–	–	--	180	
		HL-40-BO	T-ABO4	T-BBO4	–	--	--	--	–	–	--	187	
		HL-40-BO	T-BBO4	T-ABO5	–	--	--	--	–	–	--	181	
		HL-40-LM	HL-40-LM	SPB-T-LM2	76	--	608	--	–	–	--	--	
		HL-40-LM	SPB-T-LM2	SPB-T-LM1	–	497	1,988	--	–	–	--	--	
		HL-40-LM	SPB-T-LM1	ALM20	58	--	232	--	–	–	--	--	
		HL-40-LM	SPB-T-LM2	T-DLM1	–	63	252	--	–	–	--	--	
		HL-40-LM	T-DLM1	T-CLM1	–	--	--	--	–	–	--	218	
		HL-40-LM	T-CLM1	T-DLM2	–	--	--	--	–	–	--	221	
		HL-40-LM	T-DLM2	JB-T-LM1	–	85	340	--	–	–	--	--	
		HL-40-LM	JB-T-LM1	UDL JB	175	--	700	--	–	–	--	--	EXISTING UNDERDECK
		HL-40-AR	T-EAR1	T-FAR1	–	--	--	--	–	276	--	--	
		HL-40-AR	T-FAR1	FAR21	–	131	--	524	–	–	--	--	
		HL-40-AR	FAR6	T-EAR2	–	--	--	--	–	261	--	--	
		HL-40-AR	FAR21	T-FAR2	–	--	--	--	–	304	--	--	
		HL-40-AR	T-EAR2	T-EAR3	–	--	--	--	–	252	--	--	
		HL-40-AR	T-FAR2	T-FAR3	–	--	--	--	–	251	--	--	
		HL-40-AR	T-EAR3	T-EAR4	–	--	--	--	–	260	--	--	
		HL-40-AR	T-FAR3	T-FAR4	–	--	--	--	–	255	--	--	
		HL-40-AR	T-EAR4	T-EAR5	–	--	--	--	–	320	--	--	
		HL-40-AR	T-FAR4	EX-SPB-AR6	–	--	--	168	–	–	--	--	
		HL-40-AR	T-CAR1	T-DAR1	–	--	--	--	–		--	275	
		HL-40-AR	T-DAR1	EAR33	–	90	360	--	–	–	--	--	
		HL-40-AR	FAR34	T-CAR2	–	--	--	--	–	–	--	278	
		HL-40-AR	T-CAR2	T-DAR2	–	--	--	--	–	–	--	301	
				SUBTOTAL	309	866	4,480	692	0	2,179	0	2,040	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING - TEMPORARY CONDUIT AND WIRES

652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
655.0635	ELECTRICAL WIRE LIGHTING 2 AWG*
SPV.0090.103	CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX
SPV.0090.104	CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX
SPV.0090.105	CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.063* ELECTRICAL WIRE LIGHTING 4 AWG	655.0635* ELECTRICAL WIRE LIGHTING 2 AWG	SPV.0090.103 CABLE AERIAL ALUMINUM 4 AWG QUADRUPLEX	SPV.0090.104 CABLE AERIAL ALUMINUM 2 AWG QUADRUPLEX	SPV.0090.105 CABLE AERIAL ALUMINUM 6 AWG QUADRUPLEX	COMMENTS
					LF		LF	LF	LF	LF	LF	LF	
1100	STAGE 1/3	HL-40-AR	T-DAR2	T-CAR3	--	--	–	–	--	--	--	253	
		HL-40-AR	T-CAR3	T-DAR3	--	--	–	–	--	--	--	255	
		HL-40-AR	T-DAR3	CAR30	--	--	–	–	--	--	--	207	
		HL-40-AR	CAR30	T-CAR4	--	--	–	–	--	--	--	249	
		HL-40-TF	HL-40-TF	T-DTF1	257	--	1,028	–	--	--	--	--	
		HL-40-TF	T-DTF1	T-CTF1	--	--	–	–	--	--	--	177	
		HL-40-TF	T-CTF1	T-DTF2	--	--	–	–	--	--	--	156	
	STAGE 1/3			**SUBTOTAL**	257	0	1,028	0	0	0	0	1,297	
1100				**TOTALS**	2,164	2,949	11,144	9,728	1,524	7,472	2,163	6,018	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING - TEMPORARY PULL BOXES AND JUNCTION BOXES

653.0140 PULL BOXES STEEL 24X42-INCH*
653.0222 JUNCTION BOXES 18X12X6-INCH*
655.0615 ELECTRICAL WIRE LIGHTING 10 AWG*
653.0905 REMOVING PULL BOXES*

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	653.014* PULL BOXES STEEL 24X42-INCH	653.0222* JUNCTION BOXES 18X12X6-INCH	653.0905* REMOVING PULL BOXES	655.0615* ELECTRICAL WIRE LIGHTING 10 AWG	COMMENTS
					EACH	EACH	EACH	LF	
1100	STAGE 1/3	SPB-T-EH1	80EW+02	83'RT	1	--	1	50	
		JB-T-FO1	110EW+50	C/L	--	1	1	50	
		JB-T-AL1	148EW+25	C/L	--	1	1	50	
		SPB-T-AL1	148EW+94	87'RT	1	--	1	50	
		JB-T-AL2	174EW+42	C/L	--	1	1	50	
		SPB-T-LM1	219EW+50	112'LT	1	--	1	50	
		SPB-T-LM2	222EW+60	125'RT	1	--	1	50	
		JB-T-LM1	227EW+45	C/L	--	1	1	50	
				SUBTOTAL	4	4	8	400	
				TOTAL	4	4	8	400	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PULL BOXES AND JUNCTION BOXES

653.0140 PULL BOXES STEEL 24X42-INCH*
653.0222 JUNCTION BOXES 18X12X6-INCH*
655.0615 ELECTRICAL WIRE LIGHTING 10 AWG*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	OFFSET	653.014* PULL BOXES STEEL 24X42-INCH	653.0222* JUNCTION BOXES 18X12X6-INCH	655.0615* ELECTRICAL WIRE LIGHTING 10 AWG	COMMENTS
						EACH	EACH	LF	
1100	STAGE 2	HL-40-EH	SPB-EH-2	87TAA+90	14' RT	1	--	50	
		HL-40-EH	JB-EH-1	88EW+02	C/L	--	1	50	
		HL-40-EH	SPB-EH-1	88TAB+13	16' LT	1	--	50	
		HL-40-FO	JB-FO-1	110EW+48	C/L	--	1	50	
		HL-40-FO	SPB-FO-1	110FHB+65	12'LT	1	--	50	
		HL-40-FO	SPB-FO-2	110EW+48	83' RT	1	--	50	
		HL-40-FO	SPB-FO-3	116FHA+86	16' RT	1	--	50	
		HL-40-AL	SPB-AL-3	131TBB+23	10' LT	1	--	50	
		HL-40-AL	JB-AL-1	131EW+34	C/L	--	1	50	
		HL-40-AL	SPB-AL-2	131TBA+37	16' RT	1	--	50	
		HL-40-AL	SPB-AL-1	149EW+17	73'LT	1	--	50	
		HL-40-AL	JB-AL-2	149EW+17	C/L	--	1	50	
		HL-40-AL	JB-AL-3	168EW+65	C/L	--	1	50	
		HL-40-AL	SPB-AL-5	168TCC+65	9' LT	1	--	50	
		HL-40-AL	SPB-AL-4	168TCB+89	14' RT	1	--	50	
		HL-40-BO	SPB-BO-3	184TCA+17	15'RT	1	--	50	
		HL-40-BO	JB-BO-1	184EW+24	C/L	--	1	50	
		HL-40-BO	SPB-BO-2	184TCD+26	13'LT	1	--	50	
		HL-40-BO	SPB-BO-1	201EW+85	98'RT	1	--	50	
		HL-40-BO	JB-BO-2	201EW+85	C/L	--	1	50	
		HL-40-LM	SPB-LM-2	222LRB+09	19' RT	1	--	50	
		HL-40-LM	JB-LM-1	222EW+27	C/L	--	1	50	
		HL-40-LM	SPB-LM-1	222EW+28	79' LT	1	--	50	
		HL-40-LM	SPB-LM-3	230LRC+16	8' LT	1	--	50	
		HL-40-AR	SPB-AR-5	244EWE+38	28' LT	1	--	50	
		HL-40-AR	SPB-AR-4	244LRA+38	30' RT	1	--	50	
		HL-40-AR	SPB-AR-1	249EWW+91	97' LT	1	--	50	
		HL-40-AR	SPB-AR-2	250EWW+04	13' RT	1	--	50	
		HL-40-AR	SPB-AR-3	250EWE+64	74' RT	1	--	50	
		HL-40-TF	SPB-TF-1	255EWE+97	60' RT	1	--	50	
		HL-40-TF	SPB-TF-2	256EWE+05	13'LT	1	--	50	
					SUBTOTAL	23	8	1550	
					TOTAL	23	8	1550	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - MAINLINE LUMINAIRE ARMS AND POLES

654.0108	CONCRETE BASES TYPE 8
655.0610	ELECTRICAL WIRE LIGHTING 12 AWG*
657.0210	TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0380	POLES TYPE E
657.0381	POLES TYPE F
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1130	LUMINAIRE UTILITY LED D
SPV.0060.107	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0108 CONCRETE BASES TYPE 8	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0380 POLES TYPE E	657.0381 POLES TYPE F	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1130 LUMINAIRE UTILITY LED D	SPV.0060.107 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	
1100	STAGE 2	AEH5/BEH5	81EW+80	C/L	--	342	--	--	1	–	2	2	
		AEH6/BEH6	83EW+85	C/L	--	342	--	--	1	–	2	2	
		AEH7/BEH7	85EW+85	C/L	--	342	--	--	1	–	2	2	
		AEH8/BEH8	87EW+85	C/L	--	342	--	--	1	–	2	2	
		AEH9/BEH9	89EW+81	C/L	--	342	--	--	1	–	2	2	
		AEH10/BEH10	91EW+90	C/L	--	342	--	--	1	–	2	2	
		AEH11/BEH11	94EW+00	C/L	--	342	--	--	1	–	2	2	
		AF01/BF01	98EW+00	C/L	--	342	--	--	1	–	2	2	
		AF02/BF02	100EW+00	C/L	--	342	--	--	1	–	2	2	
		AF03/BF03	102EW+00	C/L	--	342	--	--	1	–	2	2	
		AF04/BF04	104EW+06	C/L	--	342	--	--	1	–	2	2	
		AF05/BF05	106EW+18	C/L	--	342	--	--	1	–	2	2	
		AF06/BF06	108EW+31	C/L	--	342	--	--	1	–	2	2	
		AF07BF07	110EW+39	C/L	--	342	--	--	1	–	2	2	
		CF010/DF010	114EW+96	C/L	--	342	--	--	1	–	2	2	
		CF011/DF011	117EW+04	C/L	--	342	--	--	1	–	2	2	
		CF012/DF012	118EW+94	C/L	--	342	--	--	1	–	2	2	
		CF/013/DF013	120EW+81	C/L	--	342	--	--	1	–	2	2	
		CAL17/DAL17	124EW+82	C/L	--	342	--	--	1	–	2	2	
		CAL16/DAL15	126EW+94	C/L	--	342	--	--	1	–	2	2	
		CAL10/DAL10	129EW+03	C/L	--	342	--	--	1	–	2	2	
		CAL9/DAL9	131EW+22	C/L	--	342	--	--	1	–	2	2	
		CAL8/DAL8	133EW+32	C/L	--	342	--	--	1	–	2	2	
		CAL7/DAL7	135EW+03	C/L	--	342	--	--	1	–	2	2	
		CAL6/DAL6	136EW+68	C/L	--	342	--	--	1	–	2	2	
		CAL5/DAL5	138EW+86	C/L	--	342	--	--	1	–	2	2	
		CAL4/DAL4	141EW+02	C/L	--	342	--	--	1	–	2	2	
		SUBTOTAL			9,234	0	0	27	0	54	54		

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING - MAINLINE LUMINAIRE ARMS AND POLES

654.0108	CONCRETE BASES TYPE 8
655.0235	ELECTRICAL WIRE LIGHTING 12 AWG*
657.0210	TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0380	POLES TYPE E
657.0381	POLES TYPE F
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1130	LUMINAIRE UTILITY LED D
SPV.0060.107	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0108 CONCRETE BASES TYPE 8	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0380 POLES TYPE E	657.0381 POLES TYPE F	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1130 LUMINAIRE UTILITY LED D	SPV.0060.107 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	
1100	STAGE 2	CAL3/DAL3	143EW+03	C/L	–	342	--	–	1	--	2	2	
		CAL2/DAL2	145EW+23	C/L	–	342	--	–	1	--	2	2	
		CAL1/DAL1	147EW+46	C/L	–	342	--	–	1	--	2	2	
		AAL1/BAL1	150EW+75	C/L	–	342	--	–	1	--	2	2	
		AAL2/BAL2	152EW+89	C/L	–	342	--	–	1	--	2	2	
		AAL3/BAL3	155EW+03	C/L	–	342	--	–	1	--	2	2	
		AAL4/BAL4	157EW+03	C/L	–	342	--	–	1	--	2	2	
		AAL5/BAL5	159EW+04	C/L	–	342	--	–	1	--	2	2	
		AAL6/BAL6	161EW+03	C/L	–	342	--	–	1	--	2	2	
		AAL7/BAL7	163EW+04	C/L	–	342	--	–	1	--	2	2	
		AAL8/BAL8	165EW+04	C/L	–	342	--	–	1	--	2	2	
		AAL9/BAL9	167EW+03	C/L	–	342	--	–	1	--	2	2	
		AAL10/BAL10	169EW+04	C/L	–	342	--	–	1	--	2	2	
		AAL11/BAL11	171EW+03	C/L	–	342	--	–	1	--	2	2	
		AAL12/BAL12	173EW+04	C/L	–	342	--	–	1	--	2	2	
		CB012/DB012	178EW+00	C/L	–	342	--	–	1	--	2	2	
		CB011/DB011	180EW+10	C/L	–	342	--	–	1	--	2	2	
		CB010/DB010	182EW+06	C/L	–	342	--	–	1	--	2	2	
		CB09/DB09	184EW+07	C/L	–	342	--	–	1	--	2	2	
		CB08/DB08	186EW+00	C/L	–	342	--	–	1	--	2	2	
		CB07/DB07	187EW+75	C/L	–	342	--	–	1	--	2	2	
		CB06/DB06	190EW+00	C/L	–	342	--	–	1	--	2	2	
		CB05/DB05	192EW+00	C/L	–	342	--	–	1	--	2	2	
		CB04/DB04	194EW+00	C/L	–	342	--	–	1	--	2	2	
		CB04/DB03	196EW+00	C/L	–	342	--	–	1	--	2	2	
		CBD02/DB02	198EW+00	C/L	–	342	--	–	1	--	2	2	
		SUBTOTAL			8,892	0	0	26	0	52	52		

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - MAINLINE LUMINAIRE ARMS AND POLES

654.0108	CONCRETE BASES TYPE 8
655.0235	ELECTRICAL WIRE LIGHTING 12 AWG*
657.0210	TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0380	POLES TYPE E
657.0381	POLES TYPE F
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1130	LUMINAIRE UTILITY LED D
SPV.0060.107	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0108 CONCRETE BASES TYPE 8	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE	657.0380 POLES TYPE E	657.0381 POLES TYPE F	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1130 LUMINAIRE UTILITY LED D	SPV.0060.107 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	
1100	STAGE 2	CB01/DB01	200EW+00	C/L	--	342	--	--	1	–	2	2	
		AB01/BB01	203+99	C/L	--	342	--	--	1	–	2	2	
		AB02/BB02	206EW+00	C/L	--	342	--	--	1	–	2	2	
		AB03/BB03	208EW+10	C/L	--	342	--	--	1	–	2	2	
		AB04/BB04	210EW+00	C/L	--	342	--	--	1	–	2	2	
		AB05/BB05	212EW+25	C/L	--	342	--	--	1	–	2	2	
		AB06/BB06	214EW+00	C/L	--	342	--	--	1	–	2	2	
		AB07/BB07	216EW+00	C/L	--	342	--	--	1	–	2	2	
		AB08/BB08	218EW+00	C/L	--	342	--	--	1	–	2	2	
		AB09/BB09	219EW+93	C/L	--	342	--	--	1	–	2	2	
		ALM1/BLM1	221EW+97	C/L	--	342	--	--	1	–	2	2	
		CLM1/DLM1	223EW+95	C/L	--	342	--	--	1	–	2	2	
		CLM2/DLM2	225EW+70	C/L	--	342	--	--	1	–	2	2	
		CLM3/DLM3	227EW+31	C/L	--	342	--	--	1	–	2	2	
		CLM4/DLM4	231EW+35	C/L	--	342	--	--	1	–	2	2	
		FAR11	233EWW+32	30'RT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		FAR12	233EWE+39	23'LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		FAR4	235EWE+44	29' LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		EAR6	235EWW+31	26' RT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		EAR4	237EWE+47	21' LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		FAR3	239EWE+51	34' LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		EAR5	239EWW+25	27' RT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		FAR5	240EWW+83	25' RT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		EAR3	241EWE+55	31' LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
		FAR2	243EWE+89	30' LT	LRB+1	189	LRB+1	LRB+1	--	LRB+1	1	--	
				SUBTOTAL	10	7,020	10	10	15	10	40	30	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - MAINLINE LUMINAIRE ARMS AND POLES

654.0108	CONCRETE BASES TYPE 8
655.0235	ELECTRICAL WIRE LIGHTING 12 AWG*
657.0210	TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE
657.0380	POLES TYPE E
657.0381	POLES TYPE F
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1130	LUMINAIRE UTILITY LED D
SPV.0060.107	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0108 CONCRETE BASES TYPE 8 EACH	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17 INCH BOLT CIRCLE EACH	657.0380 POLES TYPE E EACH	657.0381 POLES TYPE F EACH	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	659.1130 LUMINAIRE UTILITY LED D EACH	SPV.0060.107 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 4-FT EACH	COMMENTS
1100	STAGE 2	DAR4	243EWW+42	11' RT	1	189	1	1	--	1	1	--	
		CAR4	245EWW+39	13' RT	1	189	1	1	--	1	1	--	
		EAR2	246LRA+22	39' RT	1	189	1	1	--	1	1	--	
		DAR3	247EWW+35	12' RT	1	189	1	1	--	1	1	--	
		FAR1	248EWE+92	76' RT	1	189	1	1	--	1	1	--	
		CAR3	249EWW+34	13' RT	1	189	1	1	--	1	1	--	
		EAR1	251EWE+64	77' RT	1	189	1	1	--	1	1	--	
		DAR2	251EWW+30	13' RT	1	189	1	1	--	1	1	--	
		CTF1/DTF1	253EWW+55	13' RT	--	342	--	--	1	--	2	2	
		CTF2/DTF2	255EWW+24	11' RT	--	342	--	--	1	--	2	2	
				SUBTOTAL	8	2,196	8	8	2	8	12	4	
				TOTAL	18	27,342	18	18	70	18	158	140	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - RAMPS LUMINAIRE ARMS AND POLES

654.0105	CONCRETE BASES TYPE 5
655.0610	ELECTRICAL WIRE LIGHTING 12 AWG*
657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
657.0322	POLES TYPE 5-ALUMINUM
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1125	LUMINAIRE UTILITY LED C

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0105 CONCRETE BASES TYPE 5	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	657.0322 POLES TYPE 5-ALUMINUM	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1125 LUMINAIRE UTILITY LED C	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	
1100	STAGE 2	AEH12	88TAA+04	27' RT	1	117	1	1	1	1	
		AEH15	88TAB+68	5' LT	1	117	1	1	1	1	
		BEH12	89TAA+84	11' RT	1	117	1	1	1	1	
		BEH15	90TAB+71	6' LT	1	117	1	1	1	1	
		AEH13	91TAA+21	8' RT	1	117	1	1	1	1	
		AEH16	92TAB+36	6' LT	1	117	1	1	1	1	
		BEH13	92TAA+64	8' RT	1	117	1	1	1	1	
		BEH16	93TAB+62	9' LT	1	117	1	1	1	1	
		AEH14	94TAA+03	7' RT	1	117	1	1	1	1	
		AEH17	95TAB+22	25' LT	1	117	1	1	1	1	
		BEH14	95TAA+40	8' RT	1	117	1	1	1	1	
		CFO1	98FHB+13	9' LT	1	117	1	1	1	1	
		CFO2	99FHB+14	9' LT	1	117	1	1	1	1	
		CFO3	100FHB+27	8' LT	1	117	1	1	1	1	
		CFO4	101FHB+60	7' LT	1	117	1	1	1	1	
		CFO5	103FHB+10	7' LT	1	117	1	1	1	1	
		CFO6	104FHB+39	7' LT	1	117	1	1	1	1	
		CFO7	106FHB+72	11' LT	1	117	1	1	1	1	
		CFO8	107FHB+81	7' LT	1	117	1	1	1	1	
		CFO9	110FHB+06	24' LT	1	117	1	1	1	1	
		DFO1	111FHA+01	6' RT	1	117	1	1	1	1	
		DFO2	112FHA+52	8' RT	1	117	1	1	1	1	
		DFO3	113FHA+98	9' RT	1	117	1	1	1	1	
		DFO4	115FHA+99	19' RT	1	117	1	1	1	1	
		DAL15	123TBA+39	3' RT	1	117	1	1	1	1	
		CAL15	124TBB+74	8' LT	1	117	1	1	1	1	
		DAL14	124TBA+68	3' RT	1	117	1	1	1	1	
				SUBTOTAL	27	3,159	27	27	27	27	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - RAMPS LUMINAIRE ARMS AND POLES

654.0105 CONCRETE BASES TYPE 5
655.0610 ELECTRICAL WIRE LIGHTING 12 AWG*
657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
657.0322 POLES TYPE 5-ALUMINUM
657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1125 LUMINAIRE UTILITY LED C

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0105 CONCRETE BASES TYPE 5	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	657.0322 POLES TYPE 5-ALUMINUM	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1125 LUMINAIRE UTILITY LED C	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	
1100	STAGE 2	CAL14	126TBB+67	17' LT	1	117	1	1	1	1	
		DAL13	125TBA+96	4'RT	1	117	1	1	1	1	
		DAL12	127TBA+28	5' RT	1	117	1	1	1	1	
		CAL13	128TBB+70	16' LT	1	117	1	1	1	1	
		DAL11	129TBA+27	8' RT	1	117	1	1	1	1	
		CAL12	130TBB+58	16' LT	1	117	1	1	1	1	
		CAL11	132TBB+51	14' LT	1	117	1	1	1	1	
		BAL13	168TCC+86	8' LT	1	117	1	1	1	1	
		AAL13	169TCB+09	17' RT	1	117	1	1	1	1	
		BAL14	170TCC+63	6' LT	1	117	1	1	1	1	
		AAL14	171TCB+02	8' RT	1	117	1	1	1	1	
		BAL15	172TCC+11	8' LT	1	117	1	1	1	1	
		AAL15	172TCB+41	11' RT	1	117	1	1	1	1	
		BAL16	173TCC+73	8' LT	1	117	1	1	1	1	
		AAL16	174TCB+15	11' RT	1	117	1	1	1	1	
		BAL17	175TCC+25	11' LT	1	117	1	1	1	1	
		DBO17	176TCA+52	7' RT	1	117	1	1	1	1	
		CBO17	176TCD+96	6' LT	1	117	1	1	1	1	
		DBO16	178TCA+05	6' RT	1	117	1	1	1	1	
		CBO16	178TCD+47	7' LT	1	117	1	1	1	1	
		DBO15	179TCA+43	5' RT	1	117	1	1	1	1	
		CBO15	180TCD+03	6' LT	1	117	1	1	1	1	
		DBO14	180TCA+73	13' RT	1	117	1	1	1	1	
		CBO14	181TCD+92	5' LT	1	117	1	1	1	1	
		DBO13	182TCA+70	14' RT	1	117	1	1	1	1	
		CBO13	183TCD+65	3' LT	1	117	1	1	1	1	
				SUBTOTAL	26	3,042	26	26	26	26	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING - RAMPS LUMINAIRE ARMS AND POLES

654.0105 CONCRETE BASES TYPE 5
655.0610 ELECTRICAL WIRE LIGHTING 12 AWG*
657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE
657.0322 POLES TYPE 5-ALUMINUM
657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT*
659.1125 LUMINAIRE UTILITY LED C

CATEGORY	STAGE	DESCRIPTION	LOCATION	OFFSET	654.0105 CONCRETE BASES TYPE 5	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	657.0322 POLES TYPE 5-ALUMINUM	657.0610* LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT	659.1125 LUMINAIRE UTILITY LED C	COMMENTS
					EACH	LF	EACH	EACH	EACH	EACH	
1100	STAGE 2	ALM2	217LRC+71	20' LT	1	117	1	1	1	1	
		ELM1	219LRB+66	17'RT	1	117	1	1	1	1	
		ELM2	221LRB+59	8'RT	1	117	1	1	1	1	
		ALM3	220LRC+18	15' LT	1	117	1	1	1	1	
		BLM2	221LRC+94	20' LT	1	117	1	1	1	1	
		ELM3	223LRB+09	7' RT	1	117	1	1	1	1	
		BLM4	225LRD+90	31' RT	1	117	1	1	1	1	
		BLM3	223LRD+59	12' RT	1	117	1	1	1	1	
		ALM4	221LRD+17	20' RT	1	117	1	1	1	1	
		BLM5	216LRD+19	11' RT	1	117	1	1	1	1	
		BLM6	214LRD+68	10' RT	1	117	1	1	1	1	
		ALM5	229LRC+68	7' LT	1	117	1	1	1	1	
		ALM7	230LRC+11	40' RT	1	117	1	1	1	1	
		ELM4	224LRB+77	7' RT	1	117	1	1	1	1	
		ELM5	225LRB+65	13' RT	1	117	1	1	1	1	
		ELM6	226LRB+52	15' RT	1	117	1	1	1	1	
		EAR11	229LRA+77	14' RT	1	117	1	1	1	1	
		FAR10	230LRE+79	15' LT	1	117	1	1	1	1	
		EAR10	231LRA+93	14' LT	1	117	1	1	1	1	
		FAR9	232LRE+54	15' LT	1	117	1	1	1	1	
		EAR9	233LRA+97	17' RT	1	117	1	1	1	1	
		FAR8	234LRE+54	15' LT	1	117	1	1	1	1	
		EAR7	235LRA+92	26' RT	1	117	1	1	1	1	
		FAR7	237LRE+06	19' LT	1	117	1	1	1	1	
		CAR2	249EWW+93	81' LT	1	117	1	1	1	1	
				SUBTOTAL	25	2,925	25	25	25	25	
				TOTAL	78	9,126	78	78	78	78	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH	COMMENTS
					LF	LF	LF	LF	LF	LF	LF	
1100	STAGE 2	HL-40-EH	AEH4 (EXISTING)	AEH5/BEH5	220	--	--	220	--	660	--	
		HL-40-EH	AEH5/BEH5	AEH6/BEH6	189	--	--	189	--	567	--	
		HL-40-EH	AEH6/BEH6	AEH7/BEH7	219	--	--	219	--	657	--	
		HL-40-EH	AEH7/BEH7	JB-EH-1	160	--	--	160	--	480	--	
		HL-40-EH	JB-EH-1	AEH8/BEH8	20	--	--	20	--	60	--	
		HL-40-EH	AEH8/BEH8	AEH9/BEH9	215	--	--	215	--	645	--	
		HL-40-EH	AEH9/BEH9	AEH10/BEH10	185	--	--	185	--	555	--	
		HL-40-EH	AEH10/BEH10	AEH11/BEH11	200	--	--	200	--	600	--	
		HL-40-EH	JB-EH-1	SPB-EH-2	--	--	87	87	--	174	--	
		HL-40-EH	SPB-EH-2	AEH12	38	--	--	38	--	76	--	
		HL-40-EH	AEH12	BEH12	178	--	--	178	--	356	--	
		HL-40-EH	BEH12	AEH13	139	--	--	139	--	278	--	
		HL-40-EH	AEH13	BEH13	145	--	--	145	--	290	--	
		HL-40-EH	BEH13	AEH14	139	--	--	139	--	278	--	
		HL-40-EH	AEH14	BEH14	141	--	--	141	--	282	--	
		HL-40-EH	JB-EH-1	SPB-EH-1	--	--	95	95	--	190	--	
		HL-40-EH	SPB-EH-1	AEH15	55	--	--	55	--	110	--	
		HL-40-EH	AEH15	BEH15	203	--	--	203	--	406	--	
		HL-40-EH	BEH15	AEH16	168	--	--	168	--	336	--	
		HL-40-EH	AEH16	BEH16	--	--	--	126	--	252	126	
		HL-40-EH	BEH16	AEH17	--	--	--	160	--	320	160	
		HL-40-FO	AFO1/BFO1	AFO2/BFO2	200	--	--	200	600	--	--	
		HL-40-FO	AFO2/BFO2	AFO3/BFO3	200	--	--	200	600	--	--	
		HL-40-FO	AFO3/BFO3	AFO4/BFO4	200	--	--	200	600	--	--	
		HL-40-FO	AFO4/BFO4	AFO5/BFO5	200	--	--	200	600	--	--	
		HL-40-FO	AFO5/BFO5	AFO6/BFO6	225	--	--	225	675	--	--	
		HL-40-FO	AFO6/BFO6	AFO7/BFO7	175	--	--	175	525	--	--	
				SUBTOTAL	3,814	0	182	4,282	3,600	7,572	286	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615	CONDUIT SPECIAL 3-INCH
655.0620	ELECTRICAL WIRE LIGHTING 8 AWG
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212	CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-FO	AFO7/BFO7	JB-FO-1	40	--	--	40	120	--	--	
		HL-40-FO	JB-FO-1	SPB-FO-2	--	--	83	83	498	--	--	
		HL-40-FO	SPB-FO-2	HL-40-FO	--	81	--	81	486	--	--	
		HL-40-FO	JB-FO-1	SPB-FO-1	--	--	84	84	252	--	--	
		HL-40-FO	SPB-FO-1	CFO9	47	--	--	47	94	--	--	
		HL-40-FO	CFO9	CFO8	215	--	--	215	430	--	--	
		HL-40-FO	CFO8	CFO7	103	--	--	103	206	--	--	
		HL-40-FO	CFO7	CFO6	233	--	--	233	466	--	--	
		HL-40-FO	CFO6	CFO5	129	--	--	129	258	--	--	
		HL-40-FO	CFO5	CFO4	150	--	--	150	300	--	--	
		HL-40-FO	CFO4	CFO3	133	--	--	133	266	--	--	
		HL-40-FO	CFO3	CFO2	113	--	--	113	226	--	--	
		HL-40-FO	CFO2	CFO1	101	--	--	101	202	--	--	
		HL-40-FO	JB-FO-1	UDL JB	138	--	--	138	414	--	--	**EXISTING UNDERDECK**
		HL-40-FO	UDL JB	UDL JB	135	--	--	135	405	--	--	**EXISTING UNDERDECK**
		HL-40-FO	UDL JB	UDL JB	60	--	--	60	180	--	--	**EXISTING UNDERDECK**
		HL-40-FO	UDL JB	CFO10/DFO10	140	--	--	140	420	--	--	
		HL-40-FO	CFO10/DFO10	CFO11/DFO11	192	--	--	192	576	--	--	
		HL-40-FO	CFO11/DFO11	CFO12/DFO12	200	--	--	200	600	--	--	
		HL-40-FO	CFO12/DFO12	CFO13/DFO13	222	--	--	222	666	--	--	
		HL-40-FO	CFO11/DFO11	SPB-FO-3	--	--	87	87	261	--	--	
		HL-40-FO	SPB-FO-3	DFO4	89	--	--	89	178	--	--	
		HL-40-FO	DFO4	DFO3	196	--	--	196	392	--	--	
		HL-40-FO	DFO3	DFO2	146	--	--	146	292	--	--	
		HL-40-FO	DFO2	DFO1	151	--	--	151	302	--	--	
		HL-40-AL	UDL JB	CAL17/DAL17	220	--	--	220	--	660	--	
		HL-40-AL	CAL17/DAL17	CAL16/DAL16	213	--	--	213	--	639	--	
				SUBTOTAL	3,366	81	254	3,701	8,490	1,299	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615	CONDUIT SPECIAL 3-INCH
655.0620	ELECTRICAL WIRE LIGHTING 8 AWG
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212	CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-AL	CAL16/DAL16	CAL10/DAL10	200	--	--	200	--	600	--	
		HL-40-AL	CAL10/DAL10	CAL9/DAL9	214	--	--	214	--	642	--	
		HL-40-AL	CAL9/DAL9	JB-AL-2	18	--	--	18	--	54	--	
		HL-40-AL	JB-AL-2	SPB-AL-1	--	--	91	91	--	182	--	
		HL-40-AL	SPB-AL-1	CAL11	128	--	--	128	--	256	--	
		HL-40-AL	SPB-AL-1	CAL12	63	--	--	63	--	126	--	
		HL-40-AL	CAL12	CAL13	188	--	--	188	--	376	--	
		HL-40-AL	CAL13	CAL14	201	--	--	201	--	402	--	
		HL-40-AL	CAL14	CAL15	193	--	--	193	--	386	--	
		HL-40-AL	JB-AL-2	SPB-AL-2	--	--	90	90	--	180	--	
		HL-40-AL	SPB-AL-2	DAL11	209	--	--	209	--	418	--	
		HL-40-AL	DAL11	DAL12	200	--	--	200	--	400	--	
		HL-40-AL	DAL12	DAL13	131	--	--	131	--	262	--	
		HL-40-AL	DAL13	DAL14	129	--	--	129	--	258	--	
		HL-40-AL	DAL14	DAL15	129	--	--	129	--	258	--	
		HL-40-AL	JB-AL-2	CAL8/DAL8	198	--	--	198	--	594	--	
		HL-40-AL	CAL8/DAL8	CAL7/DAL7	171	--	--	171	--	513	--	
		HL-40-AL	CAL7/DAL7	CAL6/DAL6	171	--	--	171	--	513	--	
		HL-40-AL	CAL6/DAL6	CAL5/DAL5	219	--	--	219	--	657	--	
		HL-40-AL	CAL5/DAL5	CAL4/DAL4	210	--	--	210	--	630	--	
		HL-40-AL	CAL4/DAL4	CAL3/DAL3	200	--	--	200	--	600	--	
		HL-40-AL	CAL3/DAL3	CAL2/DAL2	200	--	--	200	--	600	--	
		HL-40-AL	CAL2/DAL2	CAL1/DAL1	248	--	--	248	--	744	--	
		HL-40-AL	CAL1/DAL1	JB-AL-1	167	--	--	167	--	501	--	
		HL-40-AL	JB-AL-1	HL-40-AL	--	--	140	140	--	840	--	
		HL-40-AL	JB-AL-1	UDL JB	36	--	--	36	--	108	--	EXISTING UNDERDECK
		HL-40-AL	UDL JB	AAL1/BAL1	194	--	--	194	--	582	--	
				SUBTOTAL	4,017	0	321	4,338	0	11,682	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615* CONDUIT SPECIAL 3-INCH	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH	COMMENTS
					LF	LF	LF	LF	LF	LF	LF	
1100	STAGE 2	HL-40-AL	AAL1/BAL1	AAL2/BAL2	156	--	--	156	--	468	--	
		HL-40-AL	AAL2/BAL2	AAL3/BAL3	200	--	--	200	--	600	--	
		HL-40-AL	AAL3/BAL3	AAL4/BAL4	200	--	--	200	--	600	--	
		HL-40-AL	AAL4/BAL4	AAL5/BAL5	200	--	--	200	--	600	--	
		HL-40-AL	AAL5/BAL5	AAL6/BAL6	200	--	--	200	--	600	--	
		HL-40-AL	AAL6/BAL6	AAL7/BAL7	200	--	--	200	--	600	--	
		HL-40-AL	AAL7/BAL7	AAL8/BAL8	200	--	--	200	--	600	--	
		HL-40-AL	AAL8/BAL8	AAL9/BAL9	200	--	--	200	--	600	--	
		HL-40-AL	AAL9/BAL9	JB-AL-3	165	--	--	165	--	495	--	
		HL-40-AL	JB-AL-3	AAL10/BAL10	42	--	--	42	--	126	--	
		HL-40-AL	AAL10/BAL10	AAL11/BAL11	200	--	--	200	--	600	--	
		HL-40-AL	AAL11/BAL11	AAL12/BAL12	200	--	--	200	--	600	--	
		HL-40-AL	AAL12/BAL12	UDL JB	305	--	--	305	--	915	--	EXISTING UNDERDECK
		HL-40-AL	JB-AL-3	SPB-AL-3	--	--	83	83	--	166	--	
		HL-40-AL	SPB-AL-3	BAL13	21	--	--	21	--	42	--	
		HL-40-AL	BAL13	BAL14	175	--	--	175	--	350	--	
		HL-40-AL	BAL14	BAL15	148	--	--	148	--	296	--	
		HL-40-AL	BAL15	BAL16	162	--	--	162	--	324	--	
		HL-40-AL	BAL16	BAL17	155	--	--	155	--	310	--	
		HL-40-AL	JB-AL-3	SPB-AL-4	--	--	88	88	--	176	--	
		HL-40-AL	SPB-AL-4	AAL13	40	--	--	40	--	80	--	
		HL-40-AL	AAL13	AAL14	196	--	--	196	--	392	--	
		HL-40-AL	AAL14	AAL15	146	--	--	146	--	292	--	
		HL-40-AL	AAL15	AAL16	168	--	--	168	--	336	--	
		HL-40-BO	UDL JB	CBO12/DBO12	194	--	--	194	--	582	--	
		HL-40-BO	CBO12/DBO12	CBO11/DBO11	200	--	--	200	--	600	--	
		HL-40-BO	CBO11/DBO11	CBO10/DBO10	200	--	--	200	--	600	--	
				SUBTOTAL	4,273	0	171	4,444	0	11,950	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615	CONDUIT SPECIAL 3-INCH
655.0620	ELECTRICAL WIRE LIGHTING 8 AWG
655.0625	ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630	ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212	CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-BO	CBO10/DBO10	CBO9/DBO9	200	–	--	200	–	600	--	
		HL-40-BO	CBO9/DBO9	JB-BO-1	25	–	--	25	–	75	--	
		HL-40-BO	JB-BO-1	SPB-BO-1	--	–	87	87	–	174	--	
		HL-40-BO	SPB-BO-1	CBO13	62	–	--	62	–	124	--	
		HL-40-BO	CBO13	CBO14	204	–	--	204	–	408	--	
		HL-40-BO	CBO14	CBO15	159	–	--	159	–	318	--	
		HL-40-BO	CBO15	CBO16	157	–	--	157	–	314	--	
		HL-40-BO	CBO16	CBO17	149	–	--	149	–	298	--	
		HL-40-BO	JB-BO-1	SPB-BO-2	--	–	83	83	–	166	--	
		HL-40-BO	SPB-BO-2	DBO13	148	–	--	148	–	296	--	
		HL-40-BO	DBO13	DBO14	196	–	--	196	–	392	--	
		HL-40-BO	DBO14	DBO15	130	–	--	130	–	260	--	
		HL-40-BO	DBO15	DBO16	136	–	--	136	–	272	--	
		HL-40-BO	DBO16	DBO17	140	–	--	140	–	280	--	
		HL-40-BO	JB-BO-1	CBO8/DBO8	174	–	--	174	–	522	--	
		HL-40-BO	CBO8/DBO8	CBO7/DBO7	175	–	--	175	–	525	--	
		HL-40-BO	CBO7/DBO7	CBO6/DBO6	225	–	--	225	–	675	--	
		HL-40-BO	CBO6/DBO6	CBO5/DBO5	200	–	--	200	–	600	--	
		HL-40-BO	CBO5/DBO5	CBO4/DBO4	200	–	--	200	–	600	--	
		HL-40-BO	CBO4/DBO4	CBO3/CBO3	200	–	--	200	–	600	--	
		HL-40-BO	CBO3/CBO3	CBO2/DBO2	200	–	--	200	–	600	--	
		HL-40-BO	CBO2/DBO2	CBO1/DBO1	200	–	--	200	–	600	--	
		HL-40-BO	CBO1/DBO1	JB-BO-2	85	–	--	85	–	255	--	
		HL-40-BO	JB-BO-2	HL-40-BO	--	–	186	186	558	558	--	
		HL-40-BO	JB-BO-2	ABO1/BBO1	215	–	--	215	645	--	--	
		HL-40-BO	ABO1/BBO1	ABO2/BBO2	200	–	--	200	600	--	--	
		HL-40-BO	ABO2/BBO2	ABO3/BBO3	200	–	--	200	600	--	--	
				SUBTOTAL	3,980	0	356	4,336	2,403	9,512	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-BO	ABO3/BBO3	ABO4/BBO4	200	--	--	200	600	--	--	
		HL-40-BO	ABO4/BBO4	ABO5/BBO5	225	--	--	225	675	--	--	
		HL-40-BO	ABO5/BBO5	ABO6/BBO6	175	--	--	175	525	--	--	
		HL-40-BO	ABO6/BBO6	ABO7/BBO7	200	--	--	200	600	--	--	
		HL-40-BO	ABO7/BBO7	ABO8/BBO8	200	--	--	200	600	--	--	
		HL-40-BO	ABO8/BBO8	ABO9/BBO9	195	--	--	195	585	--	--	
		HL-40-LM	ALM1/BLM1	JB-LM-1	30	--	--	120	--	--	--	
		HL-40-LM	JB-LM-1	SPB-LM-2	--	--	125	750	--	--	--	
		HL-40-LM	SPB-LM-2	HL-40-LM	50	--	--	350	--	--	--	
		HL-40-LM	SPB-LM-2	ELM2	49	--		147	--	--	--	
		HL-40-LM	ELM2	ELM1	193	--	--	579	--	--	--	
		HL-40-LM	SPB-LM-2	ELM3	102	--	--	306	--	--	--	
		HL-40-LM	ELM3	ELM4	171	--	--	513	--	--	--	
		HL-40-LM	ELM4	ELM5	94	--	--	282	--	--	--	
		HL-40-LM	ELM5	ELM6	83	--	--	249	--	--	--	
		HL-40-LM	JB-LM-1	CLM1/DLM1	173	--	--	692	--	--	--	
		HL-40-LM	CLM1/DLM1	CLM2/DLM2	200	--	--	800	--	--	--	
		HL-40-LM	CLM2/DLM2	CLM3/DLM3	180	--	--	720	--	--	--	
		HL-40-LM	CLM3/DLM3	UDL JB	130	--	--	520	--	--	--	**EXISTING UNDERDECK**
		HL-40-LM	UDL JB	CLM4/DLM4	222	--	--	888	--	--	--	
		HL-40-LM	JB-LM-1	SPB-LM-1	--	--	78	312	--	--	--	
		HL-40-LM	SPB-LM-1	BLM3	--	--	137	548	--	--	--	
		HL-40-LM	BLM3	BLM4	228	--	--	684	--	--	--	
		HL-40-LM	BLM3	ALM4	214	--	--	856	--	--	--	
		HL-40-LM	ALM4	BLM2	--	--	132	528	--	--	--	
		HL-40-LM	BLM2	ALM3	170	--	--	510	--	--	--	
		HL-40-LM	ALM3	ALM2	239	--	--	717	--	--	--	
				SUBTOTAL	3,723	0	472	12,266	3,585	0	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-LM	ALM4	BLM5	365	–	--	1460	–	--	--	
		HL-40-LM	BLM5	BLM6	147	–	--	588	–	--	--	
		HL-40-LM	BLM6	ALM5	--	–	137	548	–	--	--	
		HL-40-LM	ALM5	SPB-LM-3	--	–	45	180	–	--	--	
		HL-40-LM	SPB-LM-3	ALM7	--	–	47	188	–	--	--	
		HL-40-LM	–	--	--	–	--	--	–	--	--	
		HL-40-LM	–	--	--	–	--	--	–	--	--	
		HL-40-AR	FAR11	EAR6	203	–	--	203	–	609	--	
		HL-40-AR	EAR6	FAR6	199	–	--	199	–	597	--	
		HL-40-AR	FAR6	FAR7	--	–	125	125	–	250	--	
		HL-40-AR	FAR7	FAR8	247	–	--	247	–	494	--	
		HL-40-AR	FAR8	FAR9	196	–	--	196	–	392	--	
		HL-40-AR	FAR9	FAR10	173	–	--	173	–	346	--	
		HL-40-AR	FAR6	EAR5	203	–	--	203	–	609	--	
		HL-40-AR	EAR5	FAR5	160	–	--	160	–	480	--	
		HL-40-AR	FAR5	EAR3	169	–	--	169	–	507	--	
		HL-40-AR	EAR3	FAR3	202	–	--	202	–	606	--	
		HL-40-AR	FAR3	EAR4	203	–	--	203	–	609	--	
		HL-40-AR	EAR4	FAR4	200	–	--	200	–	600	--	
		HL-40-AR	FAR4	FAR12	206	–	--	206	–	618	--	
		HL-40-AR	EAR4	EAR7	--	–	181	181	–	362	--	
		HL-40-AR	EAR7	EAR9	195	–	--	195	–	390	--	
		HL-40-AR	EAR9	EAR10	202	–	--	202	–	404	--	
		HL-40-AR	EAR10	EAR11	213	–	--	213	–	426	--	
		HL-40-AR	EAR3	FAR2	229	–	--	229	–	687	--	
		HL-40-AR	FAR2	SPB-AR-4	52	–	--	52	–	156	--	
		HL-40-AR	SPB-AR-5	SPB-AR-4	--	–	100	100	–	300	--	
				SUBTOTAL	3,764	0	635	6,622	0	9,442	0	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - PROPOSED CONDUIT AND WIRES

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH*
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH*
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0625 ELECTRICAL WIRE LIGHTING 6 AWG*
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG*
671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH

CATEGORY	STAGE	SYSTEM	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF	671.0212 CONDUIT HDPE DIRECTIONAL BORE 1-DUCT 2-INCH LF	COMMENTS
1100	STAGE 2	HL-40-AR	SPB-AR-2	EAR2	183	--	--	183	--	549	--	
		HL-40-AR	EAR2	FAR1	272	--	--	272	--	816	--	
		HL-40-AR	FAR1	SPB-AR-3	175	--	--	175	--	525	--	
		HL-40-AR	SPB-AR-3	EAR1	100	--	--	100	--	300	--	
		HL-40-AR	SPB-AR-3	SPB-AR-2	--	--	150	150	--	450	--	
		HL-40-AR	SPB-AR-2	SPB-AR-1	--	--	110	440	--	440	--	
		HL-40-AR	SPB-AR-1	HL-40-AR	--	75	--	300	--	300	--	
		HL-40-AR	SPB-AR-1	CAR2	18	--	--	72	--	--	--	
		HL-40-AR	SPB-AR-2	DAR2	130	--	--	520	--	--	--	
		HL-40-AR	SPB-AR-2	CAR3	73	--	--	292	--	--	--	
		HL-40-AR	CAR3	DAR3	199	--	--	796	--	--	--	
		HL-40-AR	DAR3	CAR4	197	--	--	788	--	--	--	
		HL-40-AR	CAR4	DAR4	196	--	--	784	--	--	--	
		HL-40-TF	CTF1/DTF1	CTF2/DTF2	172	--	--	688	--	--	--	
		HL-40-TF	CTF2/DTF2	SPB-TF-1	--	--	83	332	--	--	--	
		HL-40-TF	SPB-TF-1	HL-40-TF	85	--	--	340	--	--	--	
				SUBTOTAL	1,800	75	343	6,232	0	3,380	0	
				TOTAL	28,737	156	2,734	46,221	18,078	54,837	286	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - CONTROL AND SERVICES

654.0230	CONCRETE CONTROL CABINET BASES TYPE L30
655.0640	ELECTRICAL WIRE LIGHTING 1 AWG
656.0400.101	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-FO)
656.0400.102	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-AL)
656.0400.103	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-BO)
656.0400.104	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-LM)
656.0400.105	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-AR)
656.0400.106	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-TF)
659.2230	LIGHTING CONTROL CABINETS 240/480 30-INCH

CATEGORY	STAGE	DESCRIPTION	LOCATION	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG LF	656.0400.101 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-FO) LS	656.0400.102 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-AL) LS	656.0400.103 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-BO) LS	656.0400.104 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-LM) LS	656.0400.105 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-AR) LS	656.0400.106 ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (HL-40-TF) LS	659.2230 LIGHTING CONTROL CABINETS 240/480 30-INCH EACH	COMMENTS
1100	STAGE 3	HL-40-EH	S. 92ND STREET - EAST HALE	--	--	--	--	--	--	--	--	--	EXISTING CABINET TO REMAIN
		HL-40-FO	W. FOREST HOME AVE	1	18	1	--	--	--	--	--	1	
		HL-40-AL	S. 68TH STREET	1	18	--	1	--	--	--	--	1	
		HL-40-BO	S. 51ST STREET	1	18	--	--	1	--	--	--	1	
		HL-40-LM	W. LOOMIS ROAD	1	18	--	--	--	1	--	--	1	
		HL-40-AR	S. 35TH STREET/ARMOUR AVE	1	18	--	--	--	--	1	--	1	
		HL-40-TF	S. 35TH STREET	1	18	--	--	--	--	--	1	1	
	STAGE 3		**SUBTOTAL**	6	108	1	1	1	1	1	1	6	
	STAGE 3		**TOTAL**	6	108	1	1	1	1	1	1	6	

PLAQUE TEXT
HL-40-FO
W. FOREST HOME AVE
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

PLAQUE TEXT
HL-40-AL
S. 68TH STREET
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

PLAQUE TEXT
HL-40-BO
S. 51ST STREET
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

PLAQUE TEXT
HL-40-LM
W. LOOMIS ROAD
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

PLAQUE TEXT
HL-40-AR
S. 35TH STREET/ARMOUR AVE
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

PLAQUE TEXT
HL-40-TF
S. 35TH STREET
2 - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)

LIGHTING - LIGHTING SYSTEMS

SPV.0060.101 MAINTENANCE OF LIGHTING SYSTEMS

SPV.0060.102 LIGHTING SYSTEMS INTEGRATOR

SPV.0060.103 LIGHTING SYSTEMS SURVEY

CATEGORY	STAGE	DESCRIPTION	LOCATION	SPV.0060.101 MAINTENANCE OF LIGHTING SYSTEMS	SPV.0060.102 LIGHTING SYSTEMS INTEGRATOR	SPV.0060.103 LIGHTING SYSTEMS SURVEY	COMMENTS
				EACH	EACH	EACH	
1100	STAGE 1-3	PROJECT (110-34-70)	IH 894	1	1	1	
1100			TOTAL	1	1	1	

TEMPORARY BARRIER

CATEGORY	STAGE	ROADWAY	TO STATION	OFFSET	FROM STATION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
		MAINLINE						
1000	2A	IH 41 NB/43 SB/894 WB						
			79'EW+79	LT	259'EWW+27	RT	17,950	17,950
			223'EW+02	LT	237'EWW+41	LT	1,450	1,450
		IH 41 SB/43 NB/894 EB						
			78'EW+39	RT	259'EW+50	RT	18,113	18,113
		STAGE 2A SUBTOTAL					37,513	37,513
		MAINLINE						
1000	2B	IH 41 SB/43 NB/894 EB						
			78'EW+39	RT	94'EWE+00	RT	--	1,563
		STAGE 2B SUBTOTAL					--	1,563
		MAINLINE						
1000	3	IH 41 NB/43 SB/894 WB						
			88'EW+49	LT	109'EW+49	LT	2,100	2,100
			110'EW+85	LT	131'EW+53	LT	2,075	2,075
			137'EW+92	LT	163'EW+15	LT	2,525	2,525
			170'EW+41	LT	183'EW+78	LT	1,350	1,350
			191'EW+22	LT	213'EW+00	LT	2,188	2,188
			218'EW+63	LT	236'EWW+00	LT	1,738	1,738
		IH 41 SB/43 NB/894 EB						
			87'EW+89	RT	115'EW+96	RT	2,813	2,813
			119'EW+70	RT	127'EW+21	RT	763	763
			133'EW+50	RT	162'EW+50	RT	2,900	2,900
			168'EW+65	RT	181'EW+80	RT	1,325	1,325
			187'EW+09	RT	213'EW+75	RT	2,675	2,675
			220'EW+16	RT	235'EWE+97	RT	1,588	1,588
			242'EWE+51	RT	256'EWE+45	RT	1,400	1,400
		STAGE 3 SUBTOTAL					25,438	25,438
		TOTAL					62,950	64,513

* ADDITIONAL QUANTITIES ELSEWHERE

TEMPORARY CRASH CUSHION

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	* 614.0905 CRASH CUSHIONS TEMPORARY EACH
		MAINLINE			
1000	2A	IH 41 NB/43 SB/894 WB			
			237EW+41	LT	1
			259'EWW+27	LT	1
		IH 41 SB/43 NB/894 EB			
			78'EW+39	RT	1
		STAGE 2A SUBTOTAL			3
1000	2B	IH 41 SB/43 NB/894 EB			
			78'EW+39	RT	1
		STAGE 2A SUBTOTAL			1
		MAINLINE			
1000	3	IH 41 NB/43 SB/894 WB			
			109'EW+49	LT	1
			131'EW+53	LT	1
			163'EW+15	LT	1
			183'EW+78	LT	1
			209'EW+61	LT	1
			236'EWW+00	LT	1
		IH 41 SB/43 NB/894 EB			
			87'EW+89	RT	1
			119'EW+70	RT	1
			133'EW+50	RT	1
			168'EW+65	RT	1
			187'EW+09	RT	1
			220'EW+16	RT	1
			242'EWE+51	RT	1
		STAGE 3 SUBTOTAL			13
		TOTAL			16

* ADDITIONAL QUANTITIES ELSEWHERE

3

MOVING SIGNS

CATEGORY	STAGE	LOCATION	* 634.0622 POST WOODS 4X6-INCH X 22-FT EACH	* 638.2102 MOVING SIGNS TYPE I EACH
1000	2	RAMP TBB	3	1
	STAGE 2 SUBTOTAL		3	1
	TOTAL		3	1

* ADDITIONAL QUANTITIES ELSEWHERE

TRAFFIC CONTROL CLOSURE ITEMS

CATEGORY	STAGE	LOCATION	643.4100 TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	SPV.0060.022 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.024 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH	SPV.0060.023 TRAFFIC CONTROL FULL FREEWAY CLOSURE EACH	SPV.0060.032 TRAFFIC CONTROL CLOSE-OPEN FREEWAY TO FREEWAY SYSTEM RAMP EACH
1000	ALL	VARIOUS	900	560	30	9	250
	TOTAL		900	560	30	9	250

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	643.5000 TRAFFIC CONTROL EACH
1000	ALL	1100-45-70	0.8
	TOTAL		0.8

CATEGORY

CATEGORY	STAGE	ROADWAY	DETOUR DURATION DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY
1000	2,3 & 4	**FULL CLOSURE**																	
		IH 43 NB RAMP	200	130	26,000	12	2,400	24	4,800	84	16,800	--	--	95	19,000	--	--	1	200
		RAMP NW	50	80	4,000	5	250	10	500	50	2,500	2	100	133	6,650	--	--	1	50
1000	2 & 3	**FULL CLOSURE-SIGN STRUCTURES**	2																
		IH 41 NB/43 SB/894 WB		115	230	15	30	30	60	80	160	4	8	380	760	3	6	4	36
		IH 41 SB/43 NB/894 EB		115	230	15	30	30	60	80	160	4	8	310	620	--	--	4	36
1000	2 & 3	**FULL CLOSURE**	15																
		35TH STREET		115	1,725	16	240	32	480	--	--	--	--	156	2,340	--	--	2	44
1000	3	**FULL CLOSURE**	14																
		51ST STREET		--	--	10	140	20	280	--	--	--	--	134	1,876	--	--	2	42
1000	4	**DETOUR**	6																
		IH 41 SB/43 NB/894 EB FULL CLOSURE - HALE		310	1,860	39	234	78	468	138	828	4	24	501	3,006	25	150	10	130
		IH 41 SB/43 NB/894 WB FULL CLOSURE - STH		340	2,040	37	222	74	444	117	702	6	36	531	3,186	--	--	10	130
		UNDISTRIBUTED			219		44		88		32		2		560		1		16
		SUBTOTAL			36,304		3,590		7,180		21,182		178		37,998		157		684
		CONTRACT TOTAL			36,304		3,590		7,180		21,182		178		37,998		157		684

* ADDITIONAL QUANTITIES ELSEWHERE
** FOR INFORMATION ONLY
NOTES: PLACE PCMS SIGNS WITH CLOSURE DATES 7 DAYS PRIOR TO FULL CLOSURES

TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 1**	71																			
	IH 41 NB/43 SB/894 WB		--	180	12,780	10	710	20	1,420	15	1,065	2	142	22	1,562	--	--	1	78	1	71
	IH 41 SB/43 NB/894 EB		--	210	14,910	14	994	28	1,988	15	1,065	2	142	26	1,846	--	--	1	78	--	--
	UNDISTRIBUTED		--		2,769		171		341		213		29		341		--		16		8
	STAGE 1A SUBTOTAL		--		30,459		1,875		3,749		2,343		313		3,749		--		172		79
1000	**STAGE 2A/2B**	116																			
	IH 41 NB/43 SB/894 WB		3	360	41,760	58	6,728	116	13,456	50	5,800	3	348	80	9,280	--	--	1	123	1	116
	IH 41 SB/43 NB/894 EB		3	310	35,960	59	6,844	118	13,688	50	5,800	3	348	72	8,352	3	42	1	123	1	116
	RAMP TAA		--	--	--	--	--	--	--	--	--	--	--	1	116	--	--	--	--	--	--
	RAMP TAB		--	15	1,740	--	--	--	--	15	1,740	--	--	3	348	--	--	--	--	--	--
	RAMP FHA		--	--	--	--	--	--	--	--	--	--	--	2	232	--	--	--	--	--	--
	RAMP FHB		--	--	--	--	--	--	--	--	--	--	--	2	232	--	--	--	--	--	--
	RAMP TBA		--	12	1,392	1	116	2	232	--	--	--	--	4	464	--	--	--	--	--	--
	RAMP TBB		--	--	--	--	--	--	--	--	--	--	--	1	116	--	--	--	--	--	--
	RAMP TCA		--	--	--	--	--	--	--	--	--	--	--	3	348	--	--	--	--	--	--
	RAMP TCB		--	--	--	--	--	--	--	--	--	--	--	2	232	--	--	--	--	--	--
	RAMP TCC		--	--	--	--	--	--	--	--	--	--	--	3	348	--	--	--	--	--	--
	RAMP TCD		--	--	--	--	--	--	--	--	--	--	--	2	232	--	--	--	--	--	--
	RAMP LRA		--	--	--	1	116	2	232	--	--	--	--	2	232	--	--	--	--	--	--
	RAMP LRC		--	12	1,392	--	--	--	--	--	--	--	--	1	116	--	--	--	--	--	--
	RAMP LRE		--	12	1,392	--	--	--	--	--	--	--	--	1	116	--	--	--	--	--	--
	LOCAL ROADS	10																			
	84TH STREET		--	174	1,740	11	110	22	220	8	80	1	10	25	250	--	--	1	13	--	--
	NIGHTTIME CLOSURES	15																			
	RAMP TAA		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TAB		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TBA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TBB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	UNDISTRIBUTED		1		8,906		1,476		2,951		1,342		71		2,690		5		73		24
	STAGE 2 SUBTOTAL		7		97,957		16,230		32,459		14,762		777		29,584		47		794		256

TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 3**	34																			
	IH 41 NB/43 SB/894 WB		--	360	12,240	49	1,666	98	3,332	50	1,700	3	102	44	1,496	--	--	1	41	1	34
	IH 41 SB/43 NB/894 EB		--	310	10,540	50	1,700	100	3,400	50	1,700	3	102	36	1,224	--	--	1	41	1	34
	RAMP TAA		--	54	1,836	--	--	--	--	--	--	--	--	1	34	--	--	--	--	--	--
	RAMP TAB		--	--	--	--	--	--	--	--	--	--	--	1	34	--	--	--	--	--	--
	RAMP FHA		--	27	918	--	--	--	--	21	714	--	--	2	68	--	--	--	--	--	--
	RAMP FHB		--	14	476	--	--	--	--	14	476	--	--	2	68	--	--	--	--	--	--
	RAMP TBA		--	48	1,632	1	34	2	68	22	748	--	--	4	136	--	--	--	--	--	--
	RAMP TBB		--	17	578	--	--	--	--	9	306	--	--	2	68	--	--	--	--	--	--
	RAMP TCA		--	31	1,054	--	--	--	--	25	850	--	--	3	102	--	--	--	--	--	--
	RAMP TCB		--	18	612	--	--	--	--	9	306	--	--	2	68	--	--	--	--	--	--
	RAMP TCC		--	36	1,224	--	--	--	--	30	1,020	--	--	3	102	--	--	--	--	--	--
	RAMP TCD		--	20	680	--	--	--	--	12	408	--	--	2	68	--	--	--	--	--	--
	RAMP LRA		--	36	1,224	1	34	2	68	24	816	--	--	3	102	--	--	--	--	--	--
	RAMP LRB		--	17	578	--	--	--	--	9	306	--	--	--	--	--	--	--	--	--	--
	RAMP LRC		--	54	1,836	--	--	--	--	13	442	--	--	3	102	--	--	--	--	--	--
	RAMP LRE		--	17	578	--	--	--	--	24	816	--	--	3	102	--	--	--	--	--	--
	LOCAL ROADS	4																			
	68TH STREET		--	27	108	2	8	--	--	9	36	--	--	8	32	--	--	2	14	--	--
	35TH STREET		--	24	96	2	8	4	16	5	20	--	--	8	32	--	--	2	14	--	--
	NIGHTTIME CLOSURES	15																			
	RAMP TAA		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TAB		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TBA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TBB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	UNDISTRIBUTED		--		3,989		429		857		1,067		21		972		--		58		7
	STAGE 3 SUBTOTAL		--		43,874		4,719		9,421		11,731		225		10,690		--		630		75

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TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 4**	69																			
	IH 41 NB/43 SB/894 WB		--	360	24,840	49	3,381	98	6,762	50	3,450	3	207	44	3,036	--	--	1	76	--	--
	IH 41 SB/43 NB/894 EB		--	310	21,390	50	3,450	100	6,900	50	3,450	3	207	36	2,484	--	--	1	76	--	--
	NIGHTTIME CLOSURES	10																			
	RAMP TAA		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TAB		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP FHA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP FHB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TBA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TBB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TCA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TCB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TCC		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TCD		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP LRA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP LRB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP LRC		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP LRD		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	UNDISTRIBUTED		--		4,868		740		1,479		690		42		944		--		51		--
	STAGE 4 SUBTOTAL		--		53,548		8,131		16,261		7,590		456		10,384		--		560		--
	CONTRACT TOTAL		7		225,838		30,955		61,890		36,426		1,771		54,407		47		2,156		410

* ADDITIONAL QUANTITIES ELSEWHERE

** FOR INFORMATION ONLY

TEMPORARY MARKING ITEMS

CATEGORY	STAGE	ROADWAY	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	643.3220 TEMPORARY MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	643.3220 TEMPORARY MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	643.3760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I WHITE EACH	SPV.0090.006 TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH WHITE EACH
1000	2A	IH 41 NB/43 SB/894 WB	28,245	14,951	6,288	--	--	--	1,753	201	--	--	24	--
		IH 41 SB/43 NB/894 EB	23,917	17,111	9,275	--	--	--	1,558	--	--	--	24	--
		RAMP TAA	--	642	--	--	--	--	142	--	--	--	--	--
		RAMP TAB	--	670	--	--	--	--	155	--	--	--	--	--
		RAMP FHA	--	--	--	--	--	--	124	--	--	--	--	--
		RAMP FHB	--	218	--	--	--	--	117	--	--	--	--	--
		RAMP TBA	--	--	--	--	--	--	468	--	--	--	--	--
		RAMP TBB	--	497	--	--	--	--	247	--	--	--	--	--
		RAMP TCA	93	--	--	--	--	--	186	--	--	--	--	--
		RAMP TCB	--	314	--	--	--	--	142	--	--	--	--	--
		RAMP TCC	--	--	--	--	--	--	328	--	--	--	--	--
		RAMP TCD	--	315	--	--	--	--	131	--	--	--	--	--
		RAMP LRA	--	--	--	--	--	--	378	--	--	--	--	--
		RAMP LRB	--	376	--	--	--	--	136	--	--	--	--	--
		RAMP LRC	--	--	--	--	--	--	480	--	--	--	--	--
		RAMP LRE	--	1,102	--	--	--	--	303	--	--	--	--	--
		84TH STREET	--	679	258	--	679	258	185	50	185	50	--	264
		STAGE 2A SUBTOTAL	52,255	36,875	15,821	--	679	258	6,833	251	185	50	48	264
1000	2B	IH 41 SB/43 NB/894 EB	2,106	2,646	700	--	--	--	368	225	--	--	31	--
		RAMP TAA	--	1,257	--	--	--	--	369	--	--	--	--	--
		STAGE 2B SUBTOTAL	2,106	3,903	700	--	--	--	737	225	--	--	31	--
1000	3	IH 41 NB/43 SB/894 WB	17,627	14,043	8,075	--	--	--	3,355	--	--	--	52	--
		IH 41 SB/43 NB/894 EB	17,039	15,485	8,750	--	--	--	3,156	66	--	--	36	--
		RAMP TAA	--	--	--	--	--	--	1,378	--	--	--	--	--
		RAMP TAB	--	--	--	--	--	--	649	--	--	--	--	--
		RAMP FHA	--	509	--	--	--	--	199	--	--	--	--	--
		RAMP FHB	--	1,156	--	--	--	--	337	243	--	--	--	--
		RAMP TBA	--	829	--	--	--	--	467	--	--	--	--	--
		RAMP TBB	--	735	--	--	--	--	200	138	--	--	--	--
		RAMP TCA	--	625	--	--	--	--	302	--	--	--	--	--
		RAMP TCB	--	786	--	--	--	--	204	135	--	--	--	--
		RAMP TCC	--	735	--	--	--	--	301	--	--	--	--	--
		RAMP TCD	--	845	--	--	--	--	287	141	--	--	--	--
		RAMP LRA	--	1,316	--	--	--	--	593	--	--	--	--	--
		RAMP LRB	--	905	--	--	--	--	200	168	--	--	--	--
		RAMP LRC	--	1,060	--	--	--	--	330	--	--	--	--	--
		RAMP LRE	--	888	--	--	--	--	564	126	--	--	--	--
		68TH STREET	--	--	--	3,528	--	--	--	--	--	--	--	--
		STAGE 3 SUBTOTAL	34,666	39,917	16,825	3,528	--	--	12,522	1,017	--	--	88	--

TEMPORARY MARKING ITEMS

CATEGORY	STAGE	ROADWAY	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	643.3120 WHITE LF	643.3120 WHITE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	643.3150 WHITE LF	643.3150 WHITE LF	643.3220 TEMPORARY MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WHITE LF	643.3220 WHITE LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH 3' LINE 9' SKIP WHITE LF	643.3250 WHITE LF	643.3760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I WHITE EACH	SPV.0090.006 TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH WHITE EACH
1000	4	IH 41 NB/43 SB/894 WB	18,091	13,062	8,323	18,091	13,062	8,323	--	2,139	--	2,139	--	--
		IH 41 SB/43 NB/894 EB	19,041	15,896	9,526	19,041	15,896	9,526	--	752	--	752	--	--
		RAMP TAA	635	1,279	38	635	1,279	38	1,239	--	1,239	--	--	--
		RAMP TAB	588	1,435	--	588	1,435	--	2,058	19	2,058	19	--	--
		RAMP FHA	481	796	--	481	796	--	810	--	810	--	--	--
		RAMP FHB	1,137	1,422	--	1,137	1,422	--	687	--	687	--	--	--
		RAMP TBA	383	1,013	26	383	1,013	26	1,710	13	1,710	13	--	--
		RAMP TBB	600	1,063	--	600	1,063	--	888	--	888	--	--	--
		RAMP TCA	373	914	--	373	914	--	1,364	--	1,364	--	--	--
		RAMP TCB	462	823	19	462	823	19	789	--	789	--	--	--
		RAMP TCC	295	1,067	--	295	1,067	--	1,745	--	1,745	--	--	--
		RAMP TCD	420	749	46	420	749	46	612	--	612	--	--	--
		RAMP LRA	400	998	63	400	998	63	1,437	--	1,437	--	--	--
		RAMP LRB	521	945	27	521	945	27	914	--	914	--	--	--
		RAMP LRC	1,066	1,988	162	1,066	1,988	162	2,071	--	2,071	--	--	--
		RAMP LRD	820	1,203	--	820	1,203	--	625	--	625	--	--	--
		RAMP LRE	--	447	--	--	447	--	520	--	520	--	--	--
		84TH STREET	--	679	258	--	679	258	185	50	185	50	--	--
		STAGE 4 SUBTOTAL	45,313	45,779	18,488	45,313	45,779	18,488	17,654	2,973	17,654	2,973	--	--
		UNDISTRIBUTED	13,434	12,647	5,183	4,884	4,646	1,875	3,775	447	1,784	302	17	26
		CONTRACT TOTAL		343,912			125,450			46,433		22,948	184	290

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	STAGE	LOCATION	NUMBER REQUIRED	SIGN SIZE WIDTH FT X HEIGHT FT	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN NUMBER AND MESSAGE
		DETOUR				
1000	2 & 3	35TH STREET	38	3.5 X 1.0	133.0	4: 35TH STREET
	3	51ST STREET	35	3.0 X 1.0	105.0	5 : 51ST STREET
		TRAFFIC CONTROL				
1000	ALL	IH 41 SB/43 NB/ 984 EB ADVANCED WARNING	2	12.0 X 4.5	108.0	1 : I-41 SOUTH/ I-43 NORTH/ I-894 EAST ROAD WORK AHEAD
		IH 41 NB/43 SB/ 984 WB ADVANCED WARNING	2	12.0 X 4.5	108.0	2 : I-41 NORTH/ I-43 SOUTH/ I-894 WEST ROAD WORK AHEAD
		IH 41 SB/43 NB/ 984 EB ADVANCED WARNING	1	6.5 X 1.0	6.5	3 : LANE CLOSED
		IH 41 NB/43 SB/ 984 WB ADVANCED WARNING	2	6.5 X 1.0	13.0	3 : LANE CLOSED
		WORK ZONE INGRESS/EGRESS - EMERGENCY ACCESS	6	2.0 X 4.5	54.0	BBB AND CCC: EMERG ACCESS XXX, EMERG ACCESS XX
		UNDISTRIBUTED			105.5	
		SUBTOTAL			500.0	
		TOTAL			500.0	

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	STAGE	ROADWAY	DETOUR DURATION DAYS	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP EACH**	DAY	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
1000	2	**SIDEWALK CLOSURE**	5					
		84TH STREET		280	4	20	40	430
1000	3	**SIDEWALK CLOSURE**	7					
		51ST STREET		130	2	14	20	440
		UNDISTRIBUTED		50		4	--	90
		SUBTOTAL		460		38	60	960
		CONTRACT TOTAL		460		38	60	960

EMERGENCY RESPONSE ITEMS

CATEGORY	STAGE	LOCATION	SPV.0060.025 EMERGENCY RESPONSE TO TRAFFIC INVOLVING CONCRETE BARRIER TEMPORARY EACH	SPV.0060.026 EMERGENCY RESPONSE TO TRAFFIC INVOLVING CRASH CUSHION EACH
1000	ALL	UNDISTRIBUTED	5	5
		TOTAL	5	5

Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D13-02	SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C09-06	CONCRETE BASE, TYPE 8
09C10-03	TRANSFORMER BASE FOR 15" BOLT CIRCLE
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D05-02	L30 LIGHTING CONTROL CABINET 240/480 VOLT
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09H11-01	IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
10A01-04	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A03-03	CIRCUIT IDENTIFICATION PLAQUES SIGN BRIDGES
10A05-03	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A11-03	ELECTRICAL DETAILS MEDIAN MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
10A17-05C	POLES, TYPES E, ALUMINUM 49'-0" SHAFT
10A17-05D	POLE, TYPE F
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

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Standard Detail Drawing List

14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B32-10A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10F	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10G	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10H	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-02G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-02H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B34-02B	56" CONCRETE BARRIER SINGLE SLOPE CLASS B
14B34-02C	CONCRETE BARRIER SINGLE SLOPE CLASS B
14B35-02C	32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 36-INCH SSCB TRANSITION
14B35-02D	32-INCH SINGLE-FACED NJ SHAPE CONCRETE BARRIER TO 36-INCH SSCB TRANSITION
14B39-02B	36-INCH SSCB TO 42-INCH SSCB HEIGHT TRANSITION
14B39-02C	42-INCH SSCB TO 56-INCH SSCB HEIGHT TRANSITION
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A04-07B	BARRIER WALL DELINEATOR WITH REFLECTIVE SHEETING
15A04-07C	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-22D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-07B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-07C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C31-04A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-04C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D12-10E	TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM
15D14-05	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-06C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-05	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-08A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-08C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

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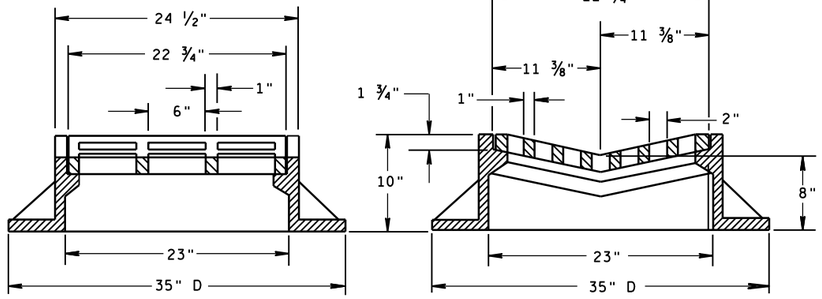
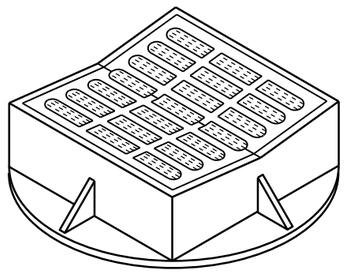
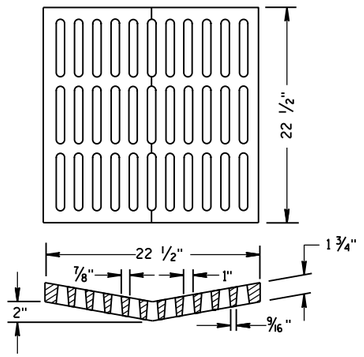
Standard Detail Drawing List

15D30-08D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-08I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D41-02	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D49-01	TRAFFIC CONTROL, SYSTEM RAMP CLOSURE



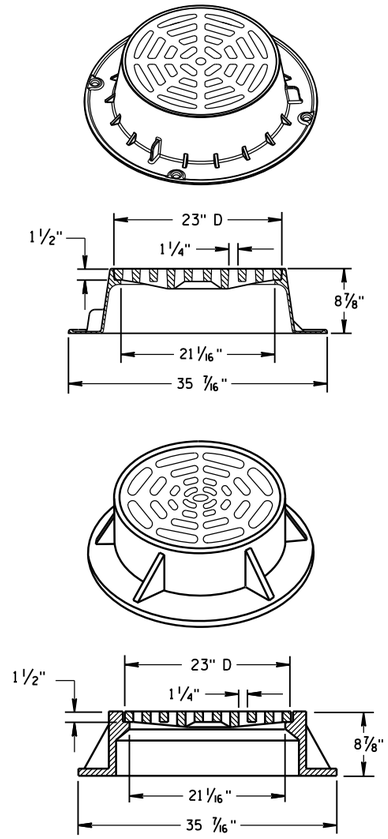


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

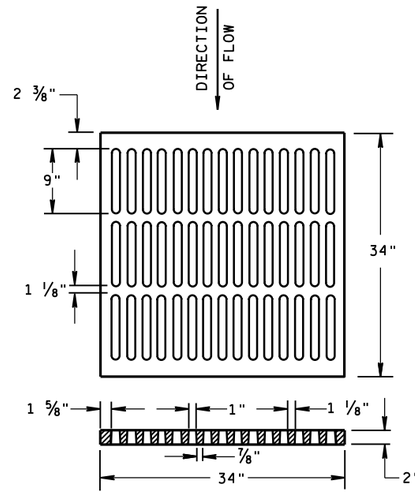
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

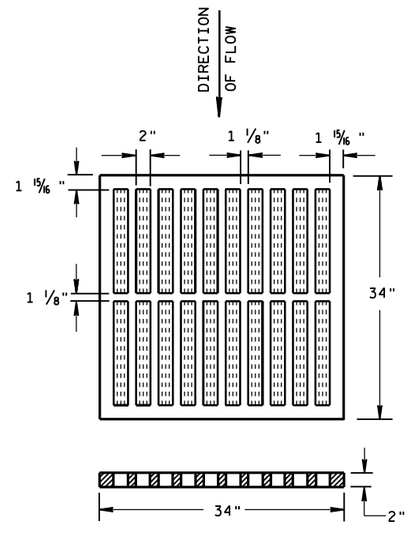
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



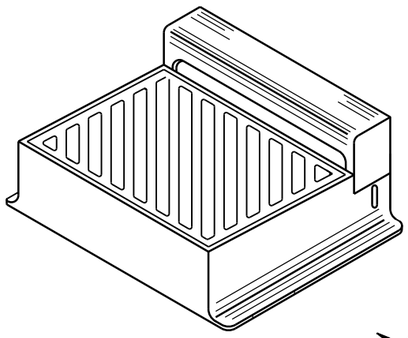
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

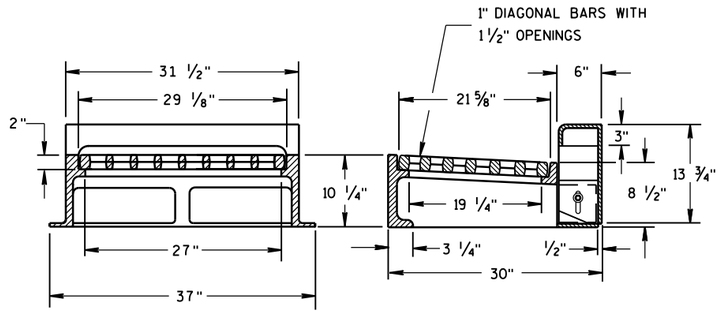


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

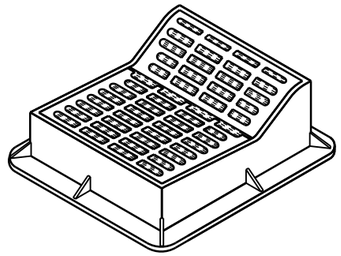
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

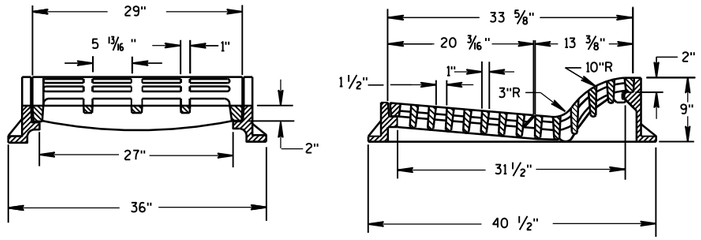
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

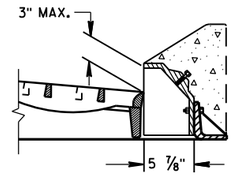
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

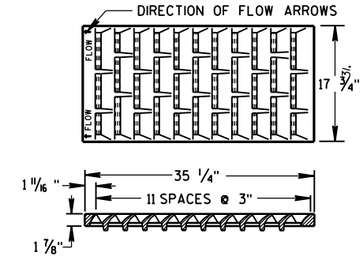
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

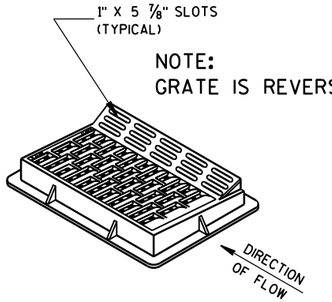
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

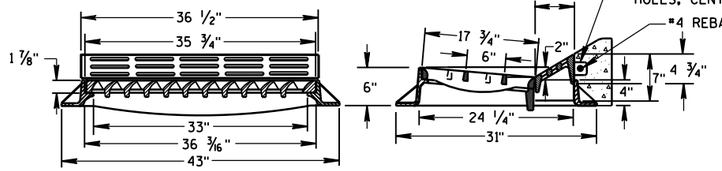
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



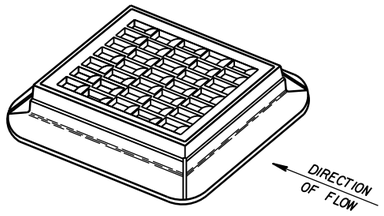


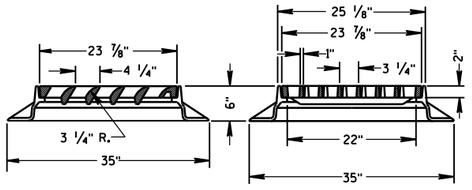


TYPE "HM"

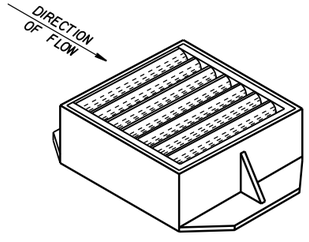
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

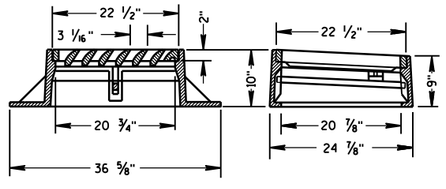
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



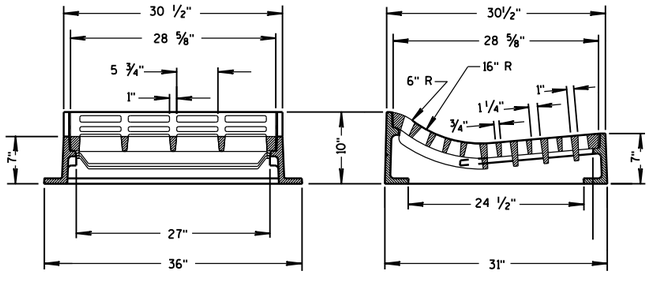


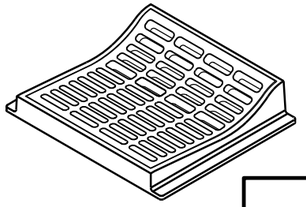
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

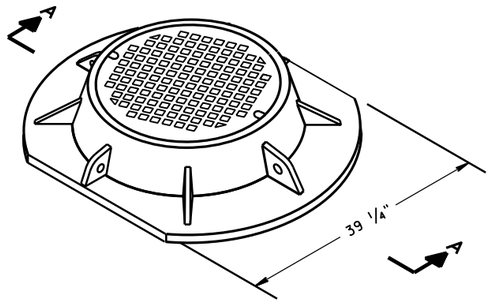
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

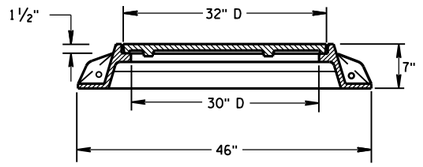
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

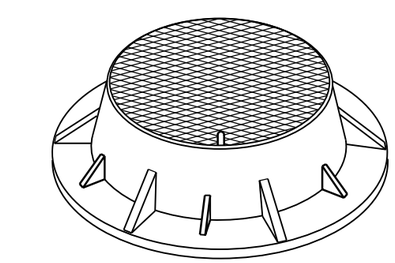
FHWA

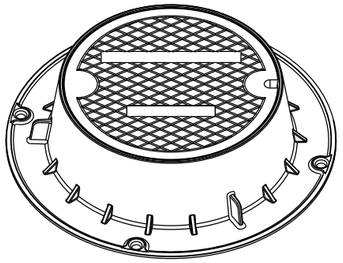
6
S.D.D. 8 A 5-19c

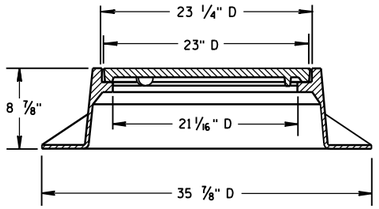


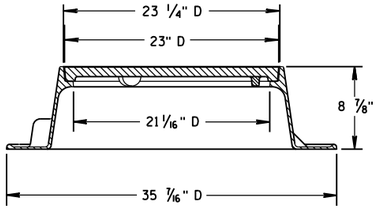


SECTION A-A
TYPE "K"









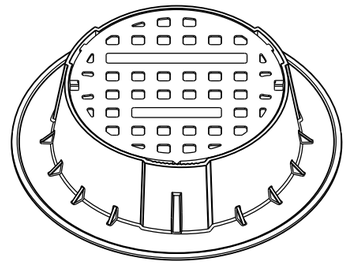
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

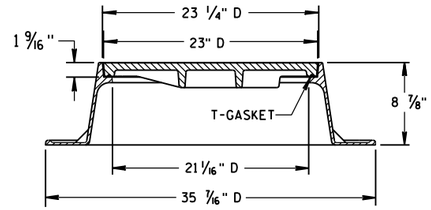
GENERAL NOTES

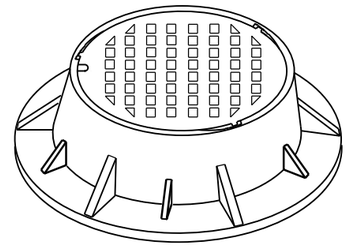
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

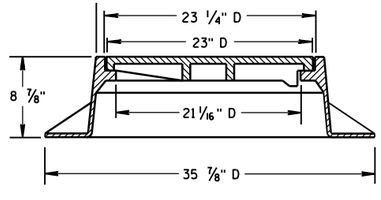
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

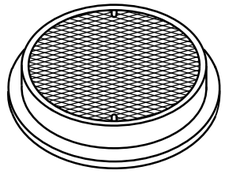


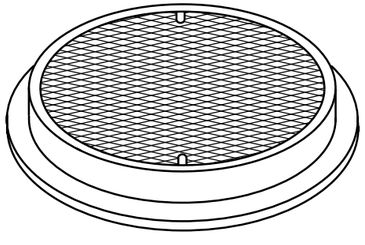


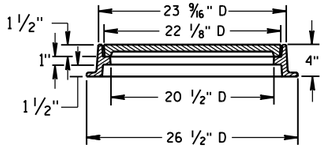




TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE







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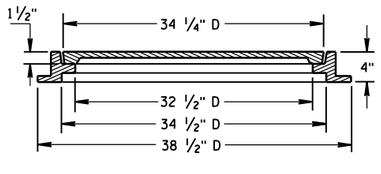

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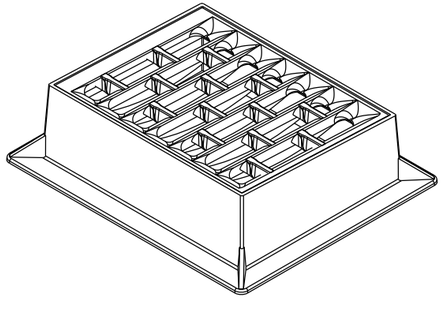
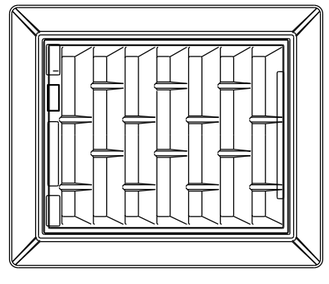
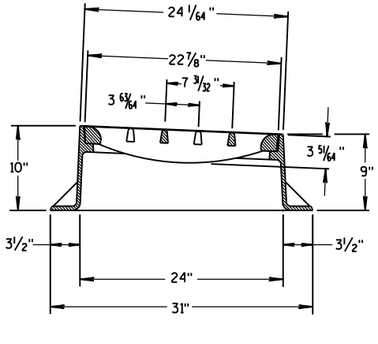
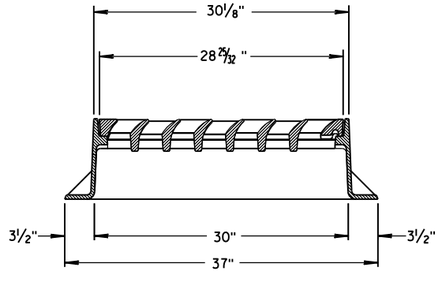








INLET COVER TYPE "BW"

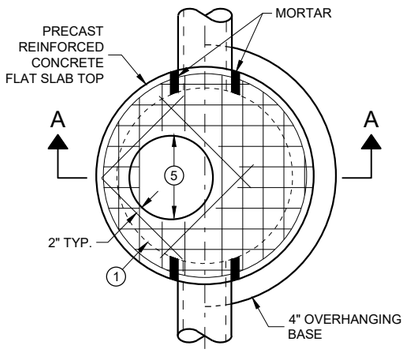
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

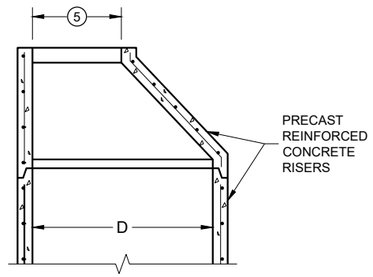
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

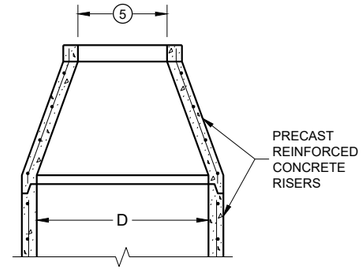
S.D.D. 8 A 5-19d



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

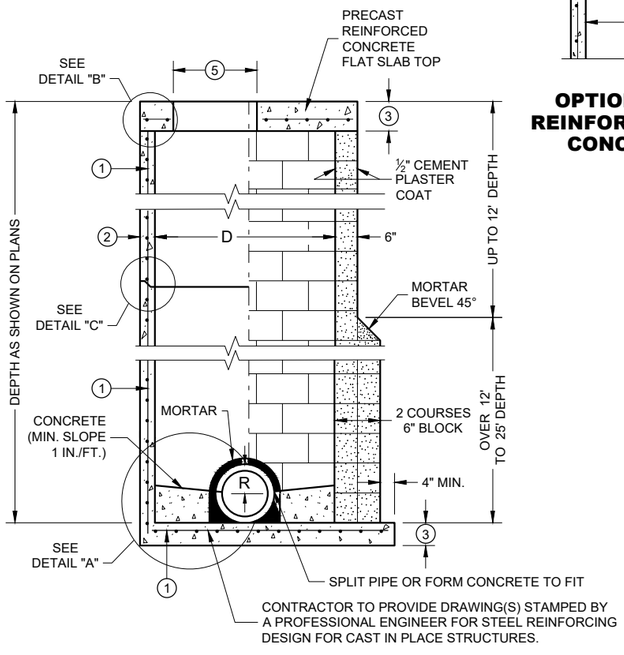
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

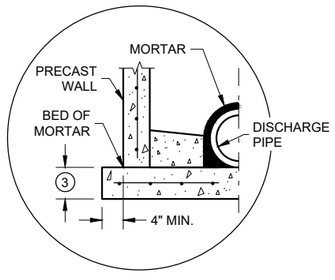
(5) SEE MANHOLE COVER OPENING MATRIX.



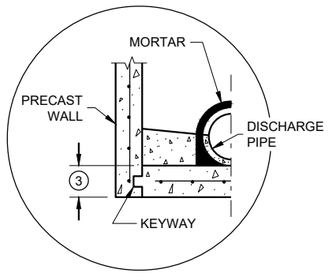
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

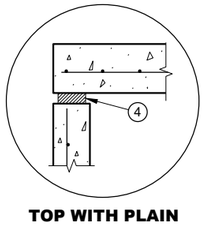


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

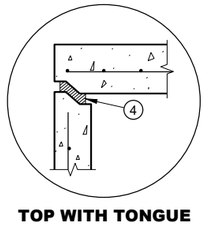


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

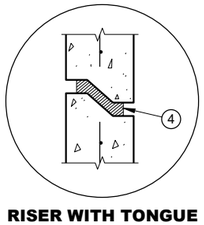


TOP WITH PLAIN END JOINT



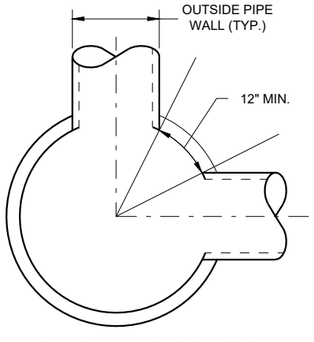
TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"



MINIMUM HORIZONTAL PIPE SEPARATION

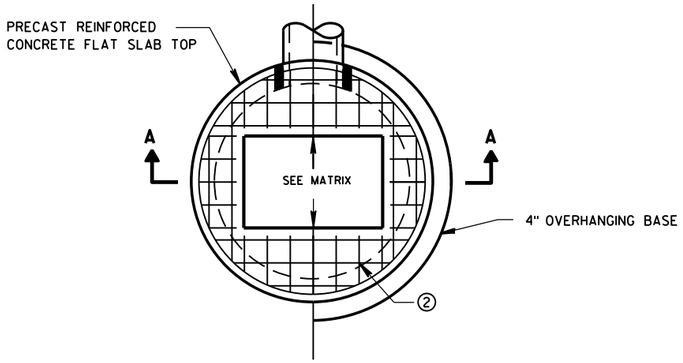
MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

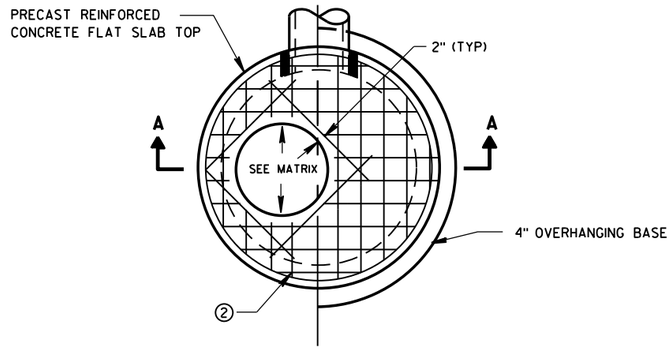
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

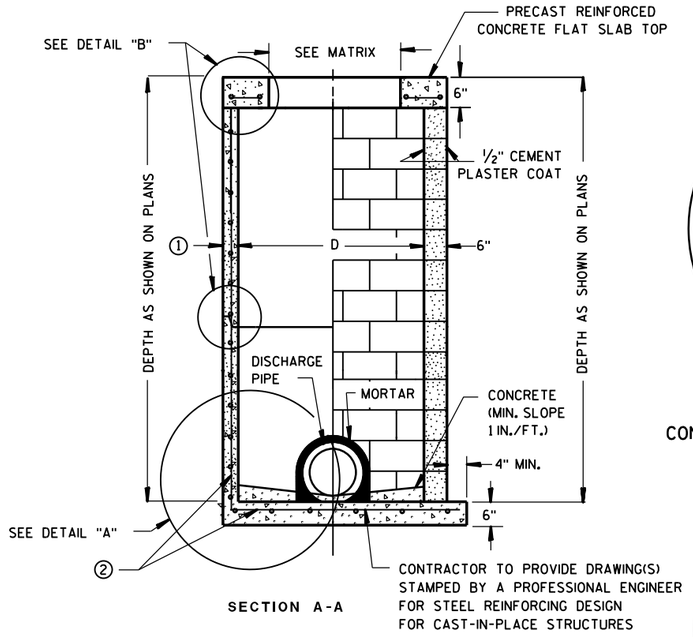
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

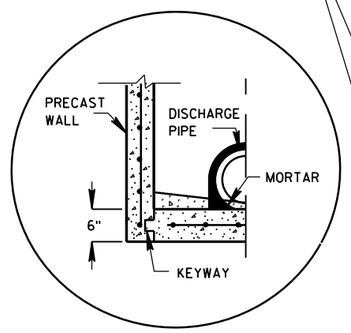


SECTION A-A

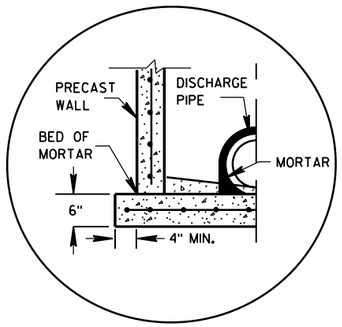
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

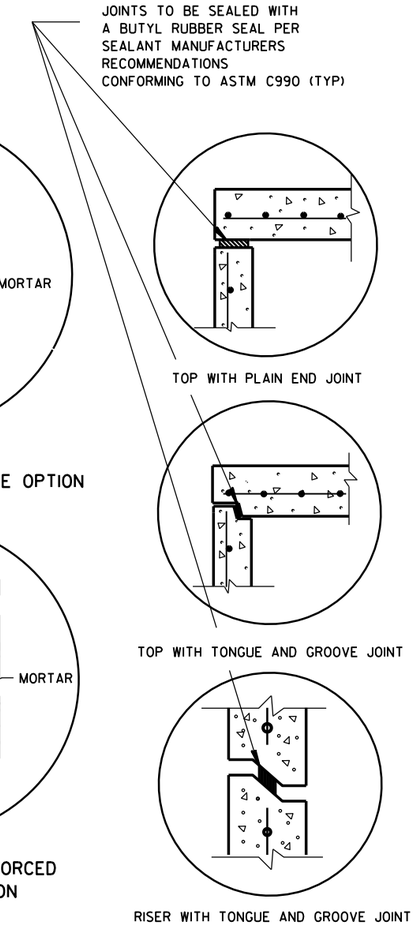


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

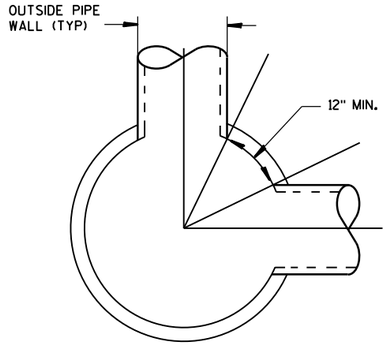
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

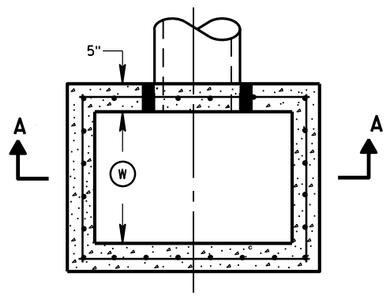
APPROVED
Sept.. 2016 — /S/ Rodney Taylor
DATE — ROADWAY STANDARDS | UNIT SUPERVI ENT
FHWA

6

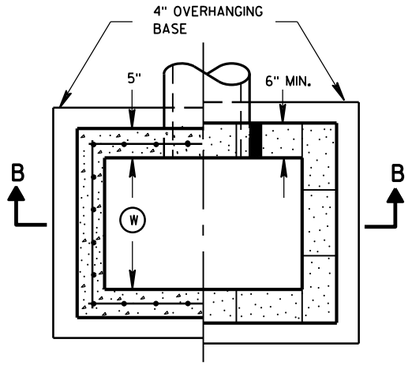
S.D.D. 8 C 6-2

6

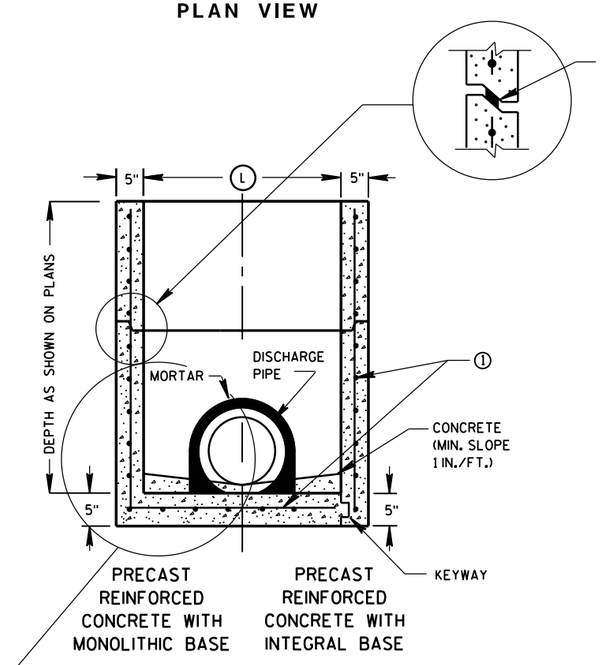
S.D.D. 8 C 6-2



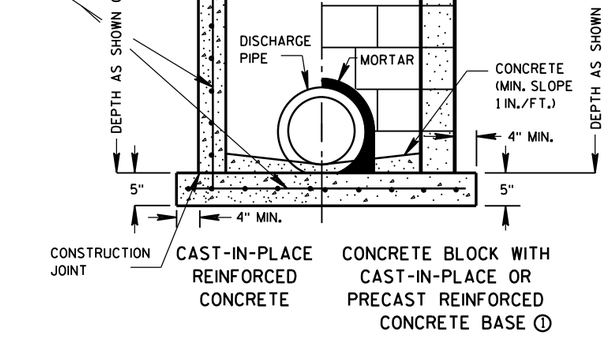
PLAN VIEW



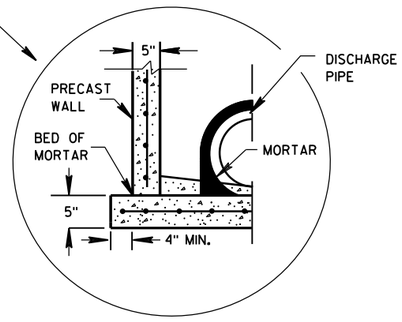
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

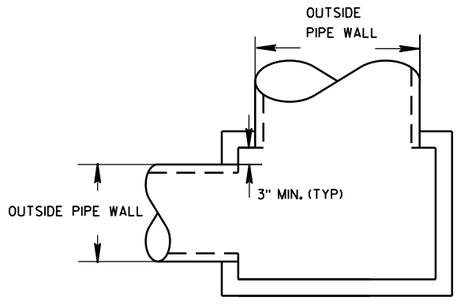
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH Ⓦ (FT)	LENGTH Ⓛ (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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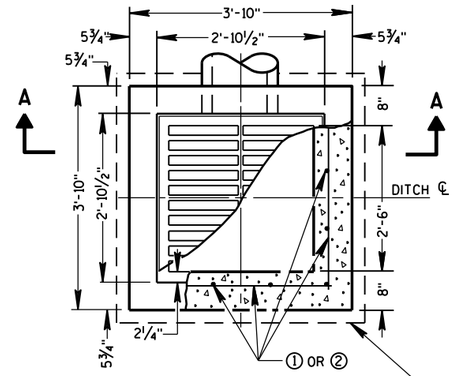
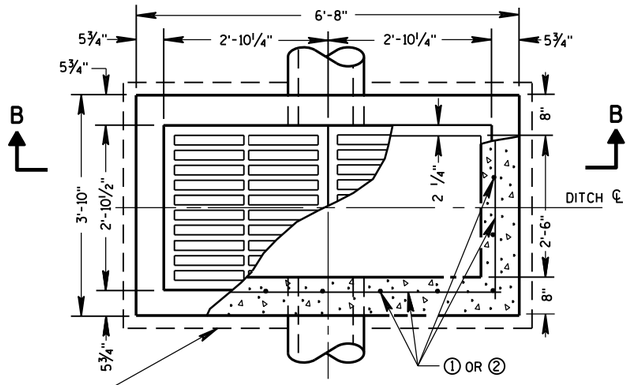
S.D.D. 8 C 7-2

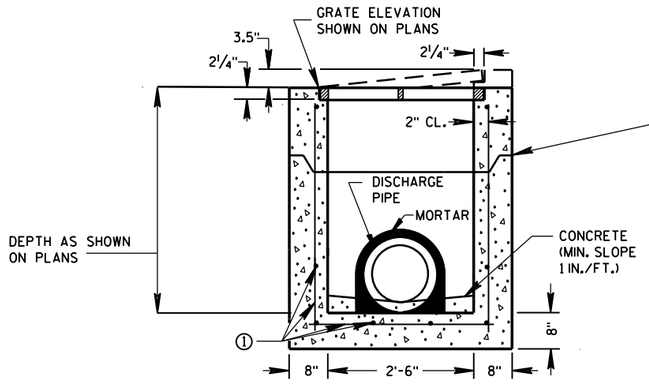


PLAN VIEW

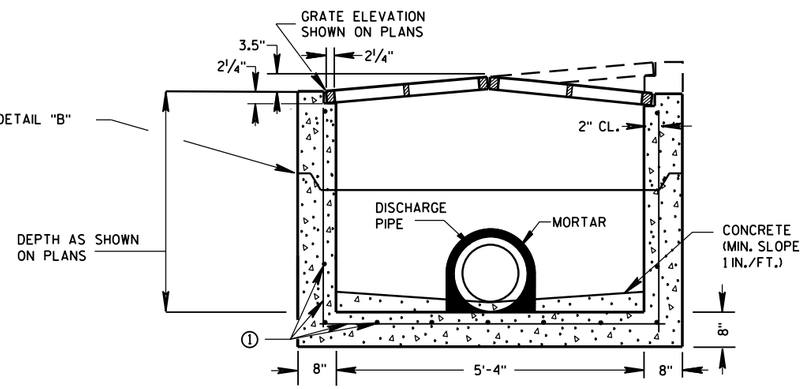


PLAN VIEW

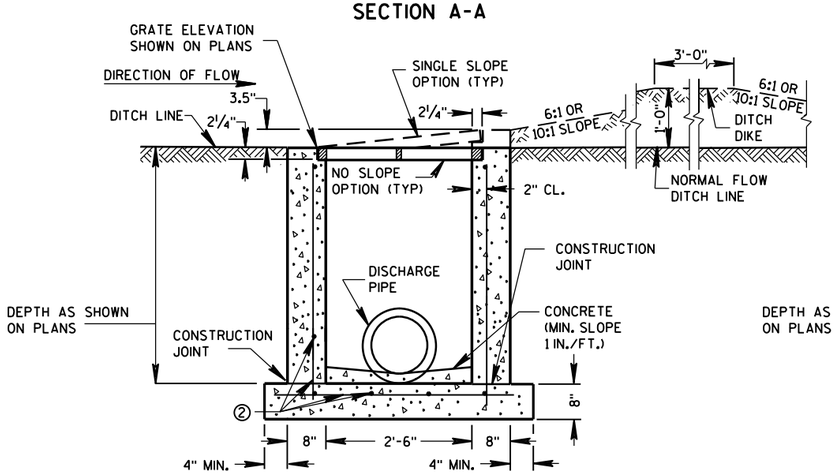
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

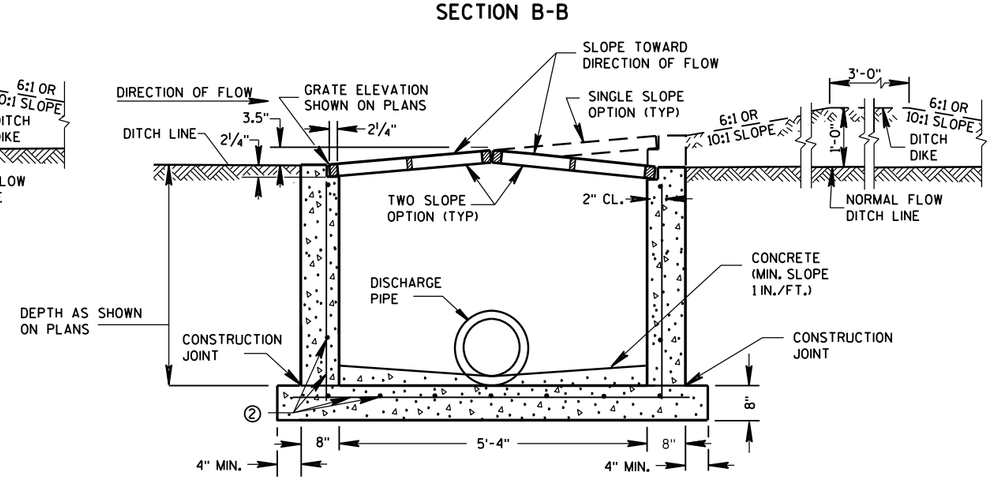


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

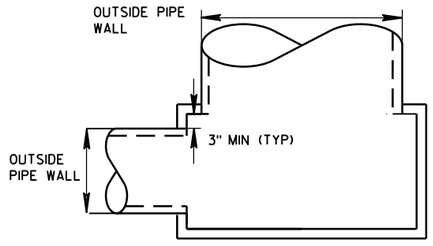
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

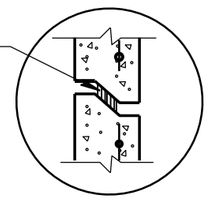
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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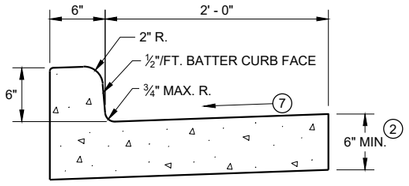
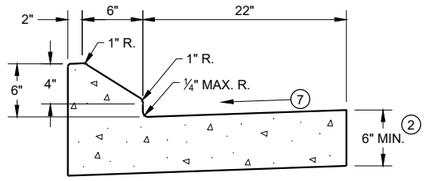
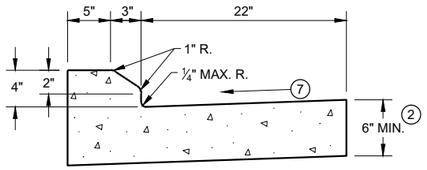


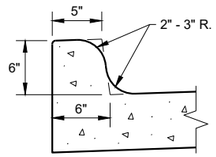
TYPES A (1) & D



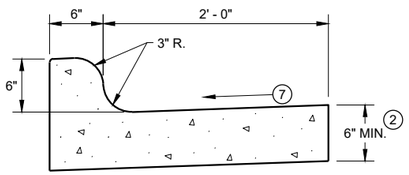
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

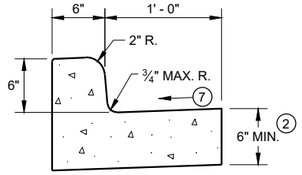


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



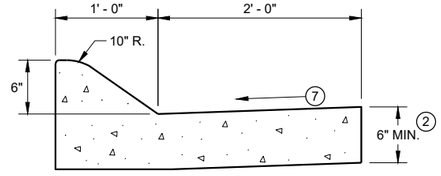
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

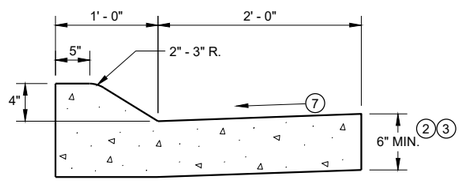


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

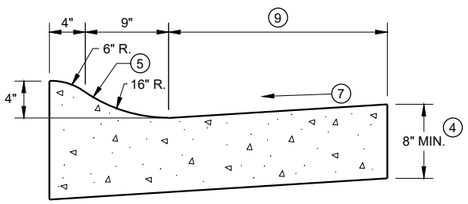


6" SLOPED CURB TYPES A (1) & D



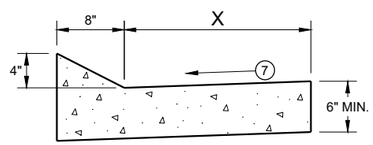
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

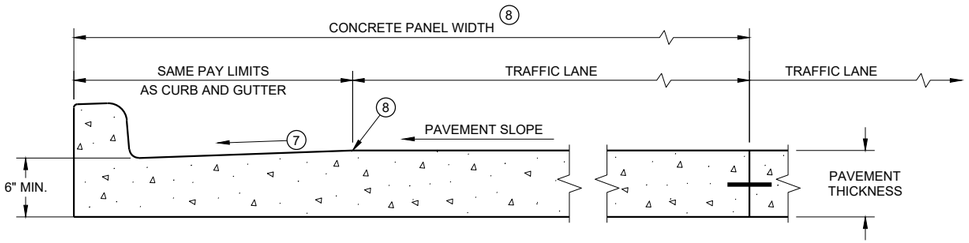


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

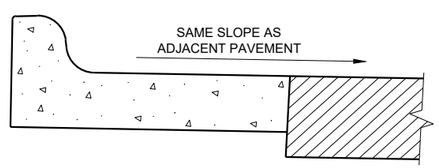
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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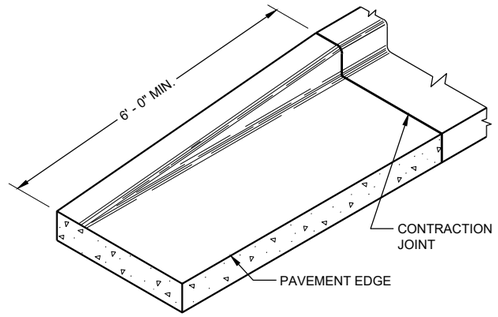
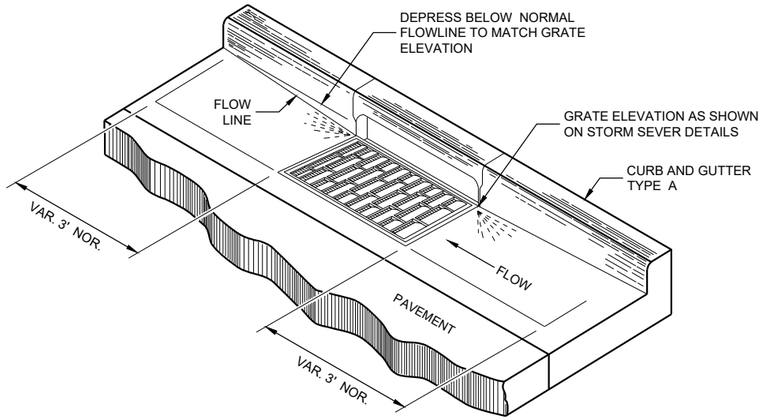
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

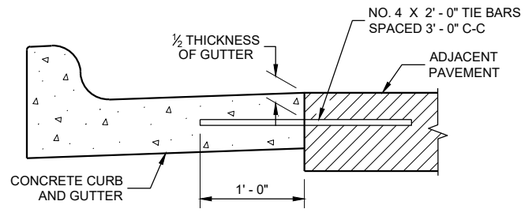
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

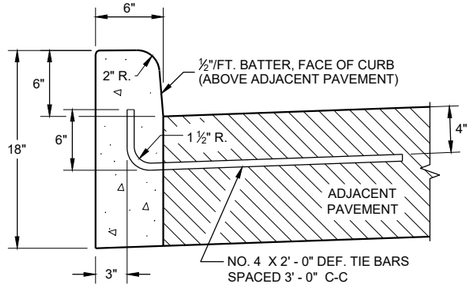
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

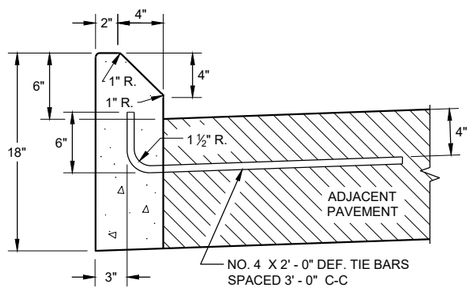
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

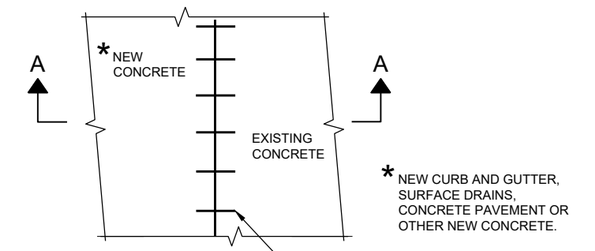


TYPES A (1) & D

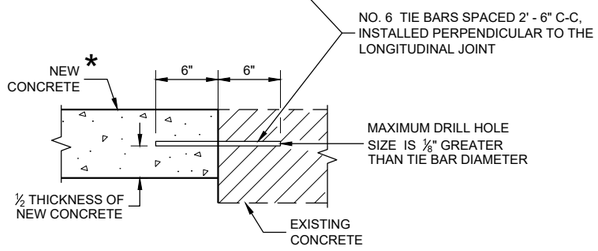


TYPES G (1) & J

CONCRETE CURB

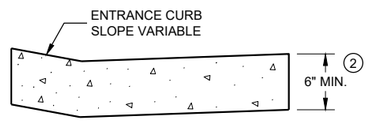


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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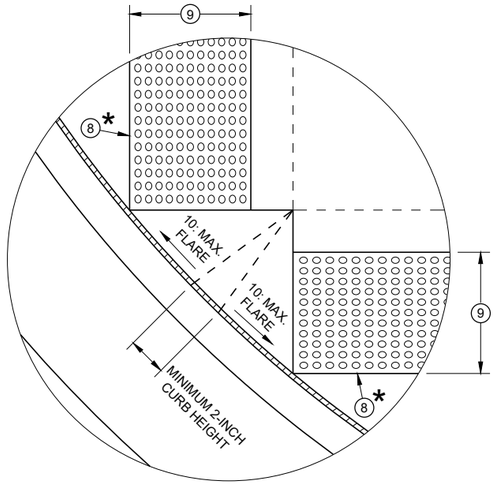
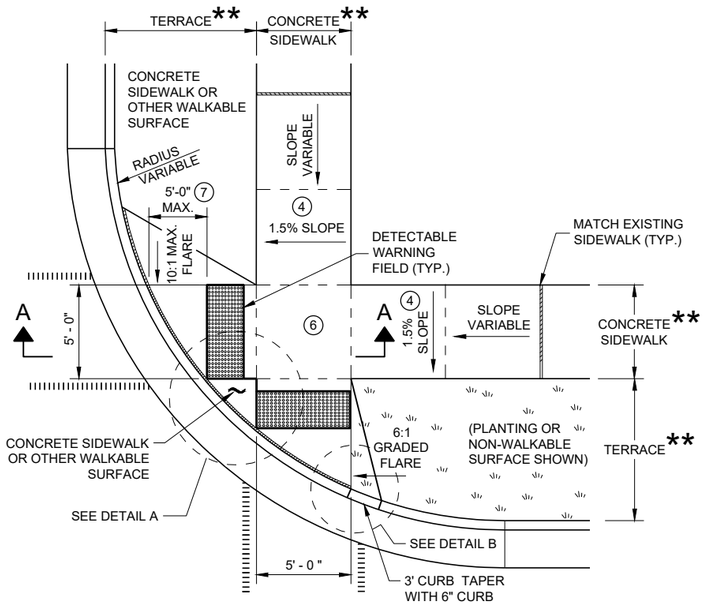
SDD08D01 - 22b



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

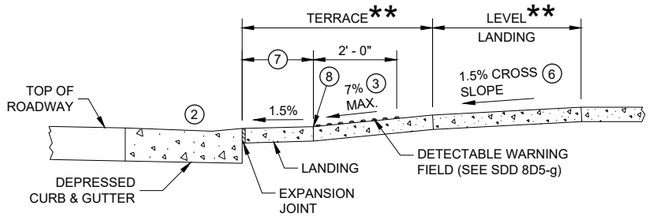
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

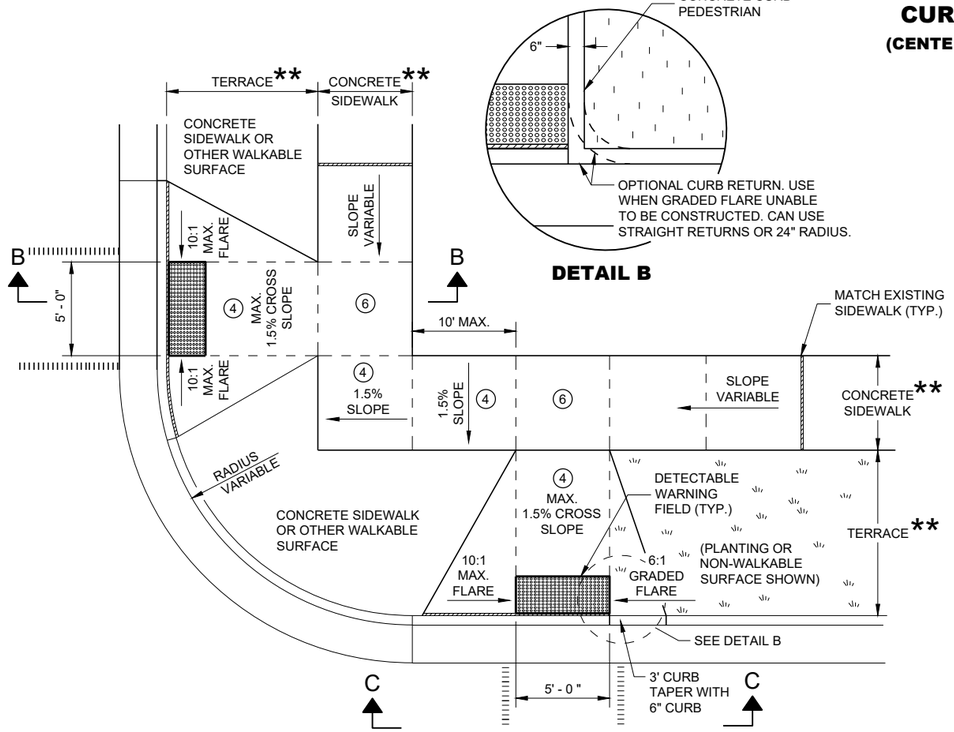
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

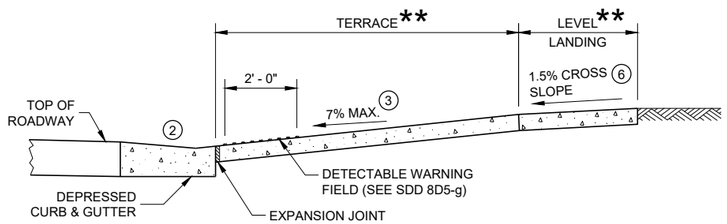
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

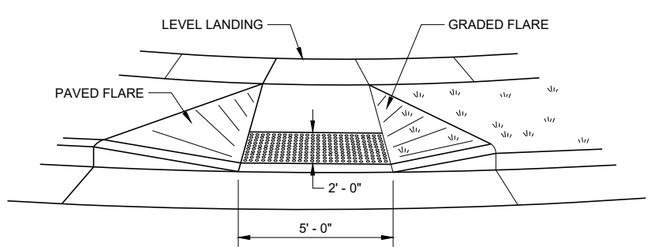


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

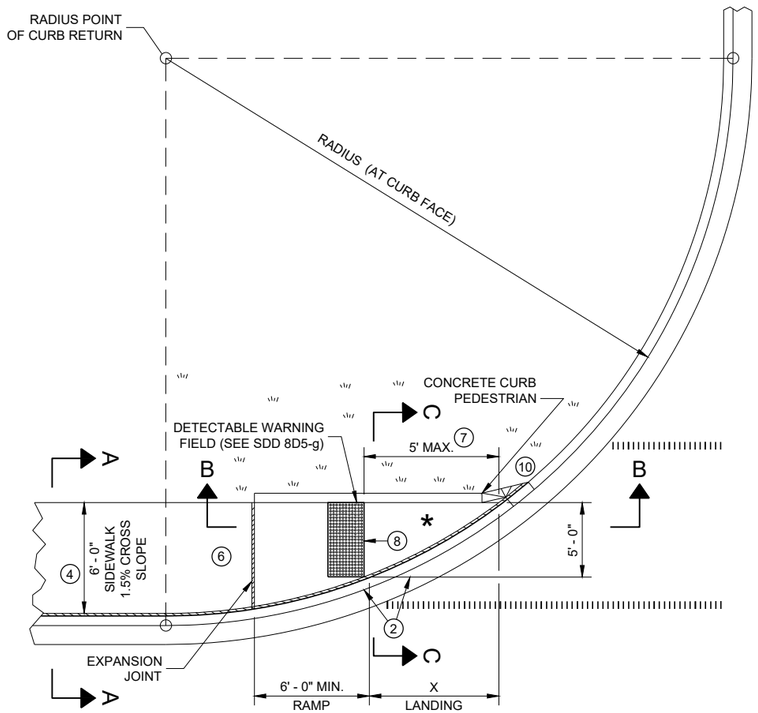
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

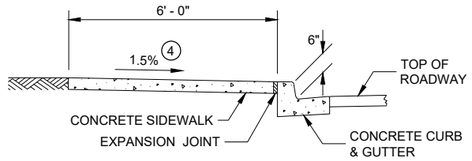


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

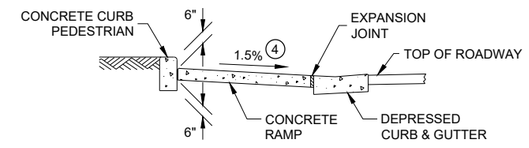
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

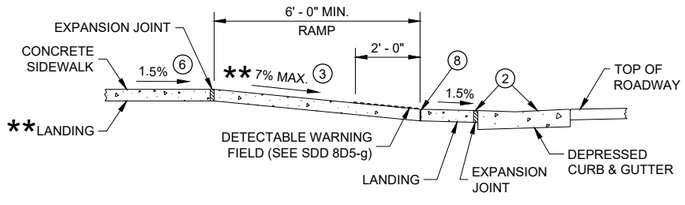
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



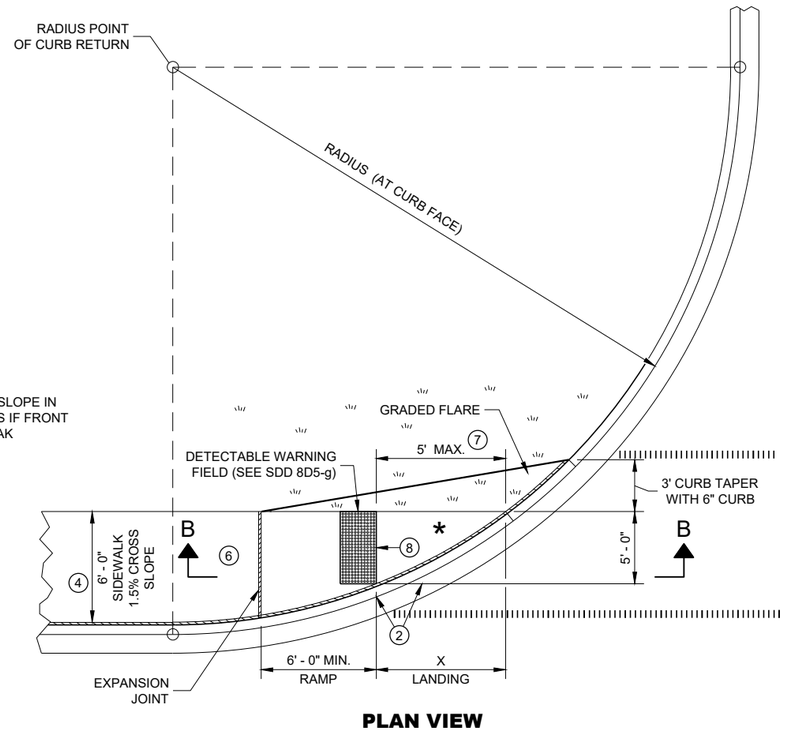
SECTION C - C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

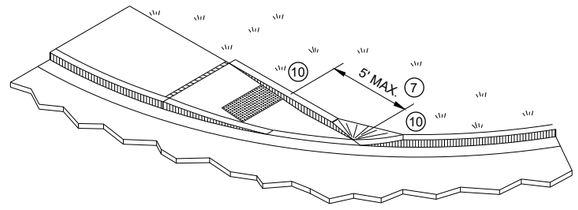
SECTION B - B FOR TYPE 4A AND TYPE 4A1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

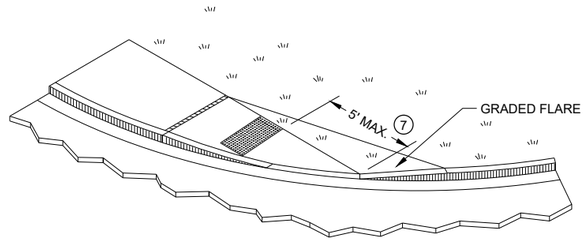


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



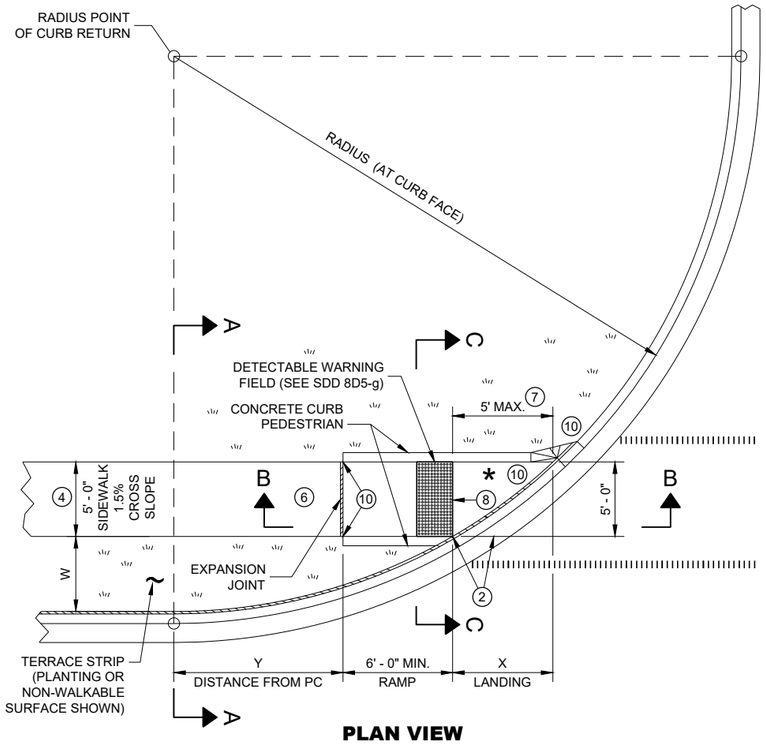
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

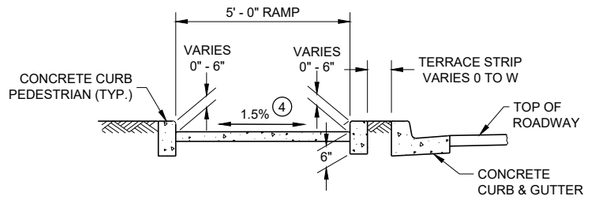


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

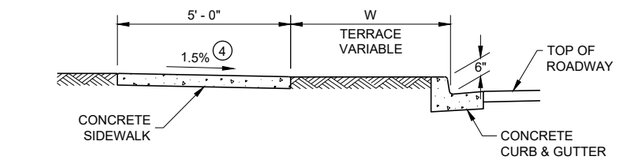
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

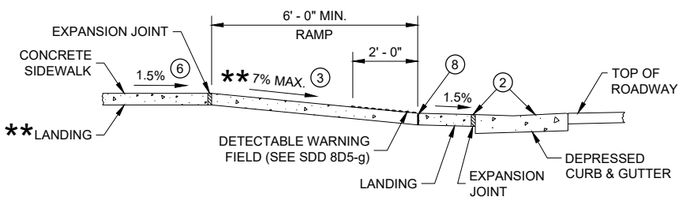
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



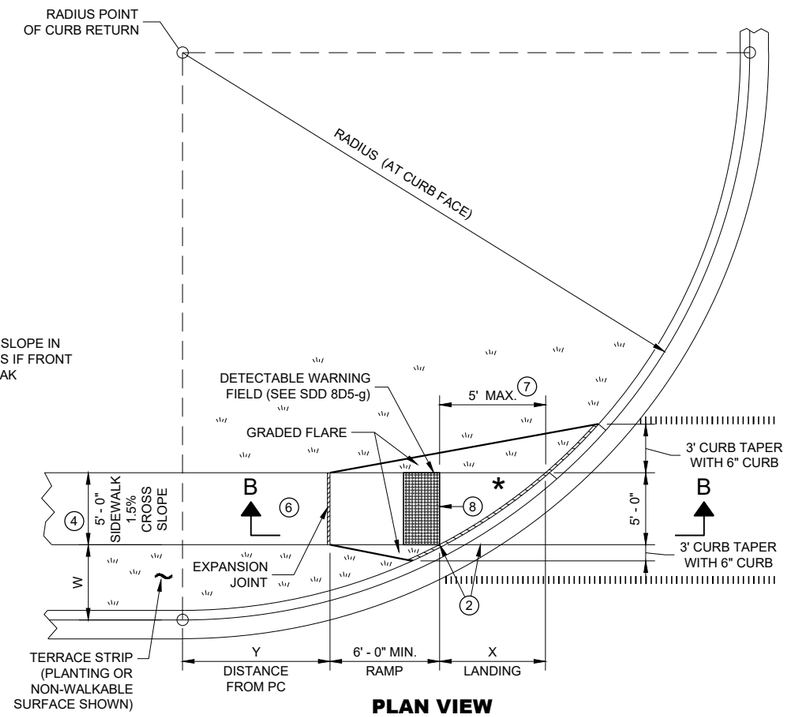
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

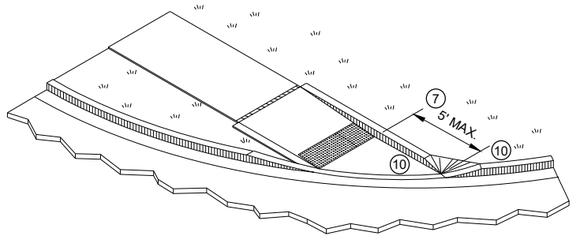
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

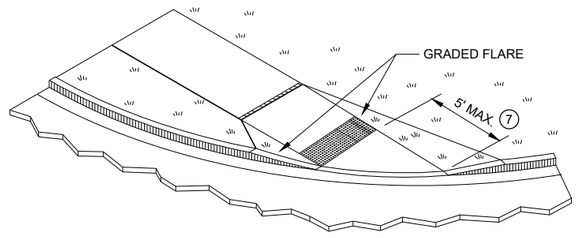


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



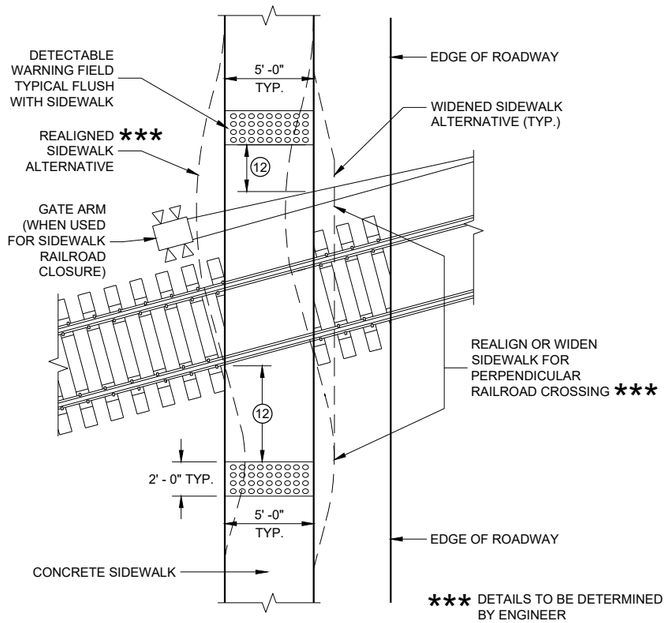
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

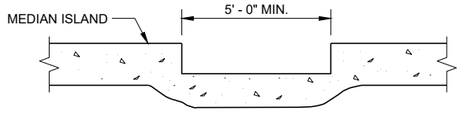
6

SDD 08D05 - 20d

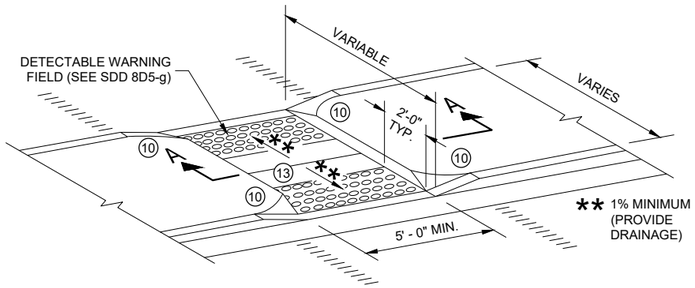


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

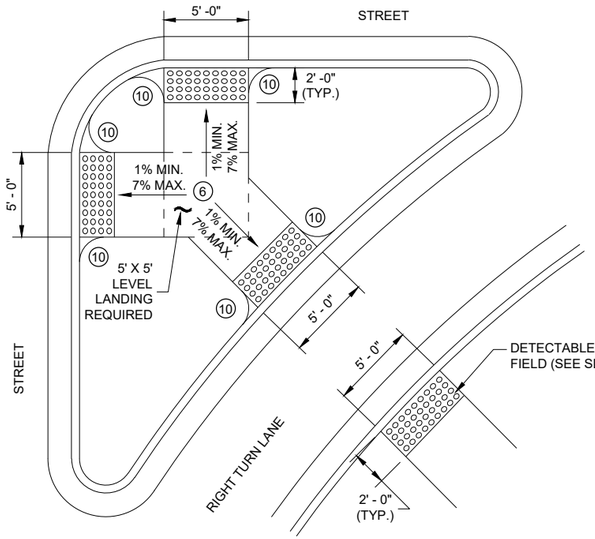
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

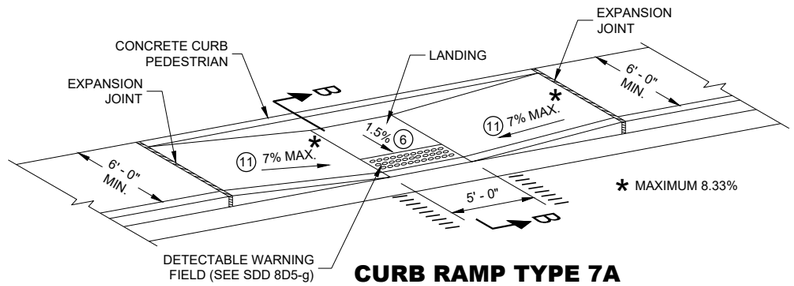
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

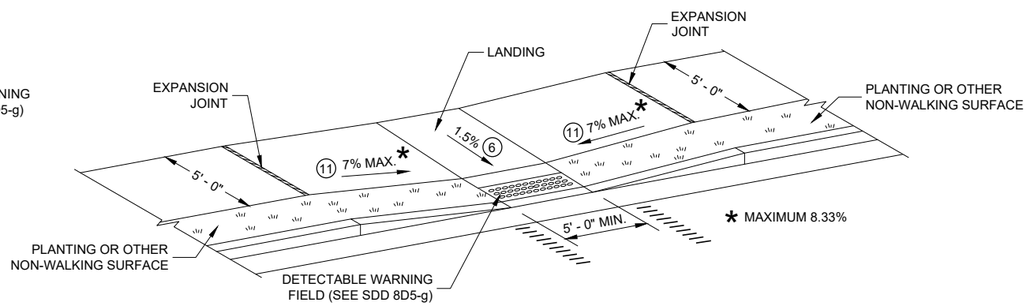
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7A

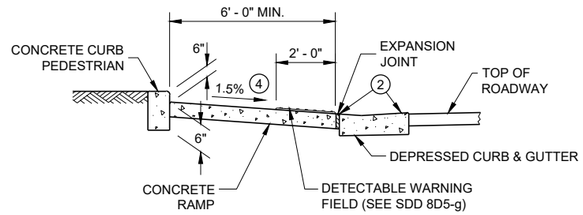
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



SECTION B - B FOR TYPE 7A

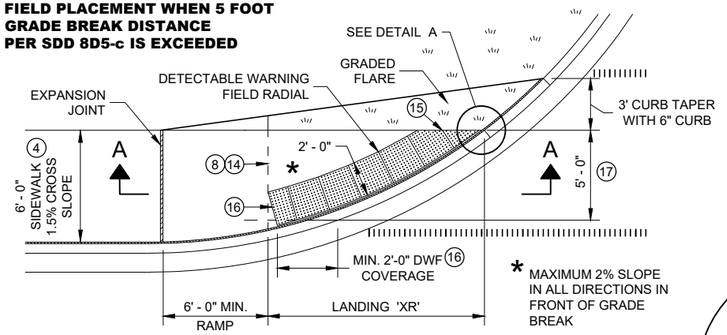
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

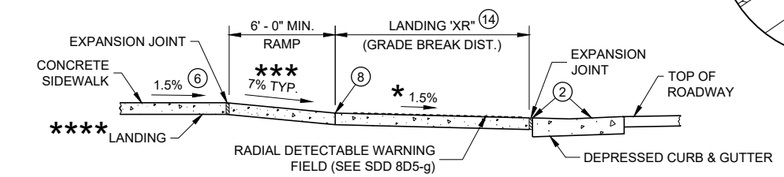
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

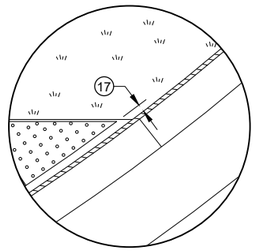
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

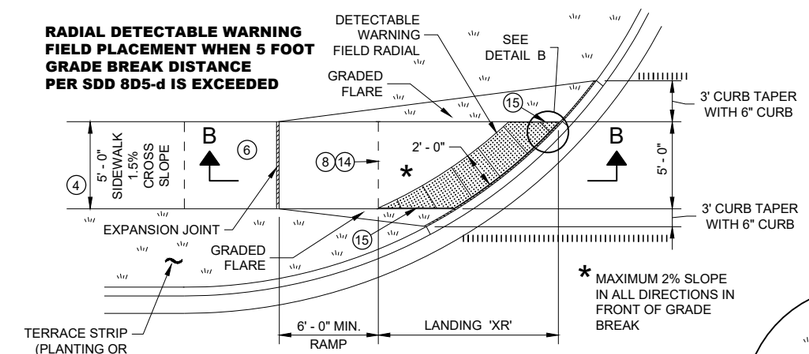
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

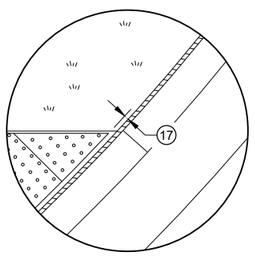
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



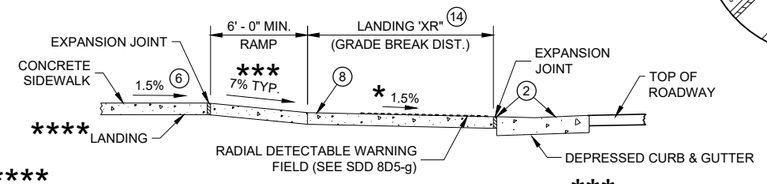
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

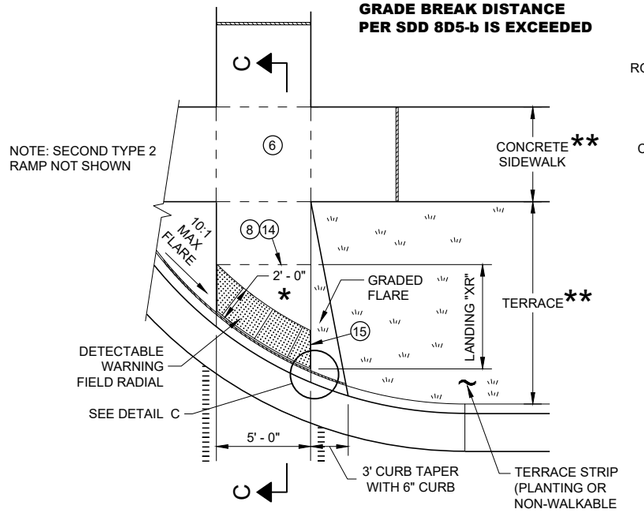


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

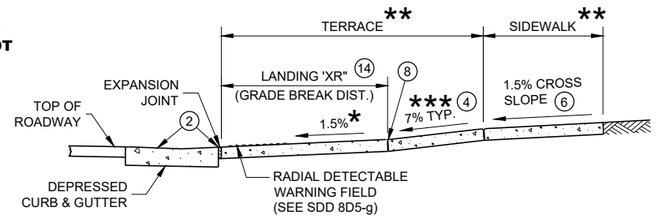


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

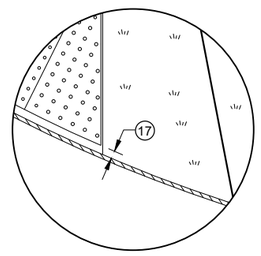


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20f

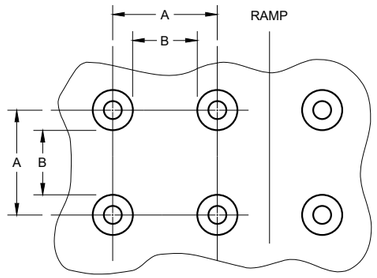
SDD 08D05 - 20f

6

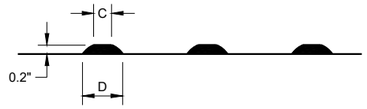
6

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

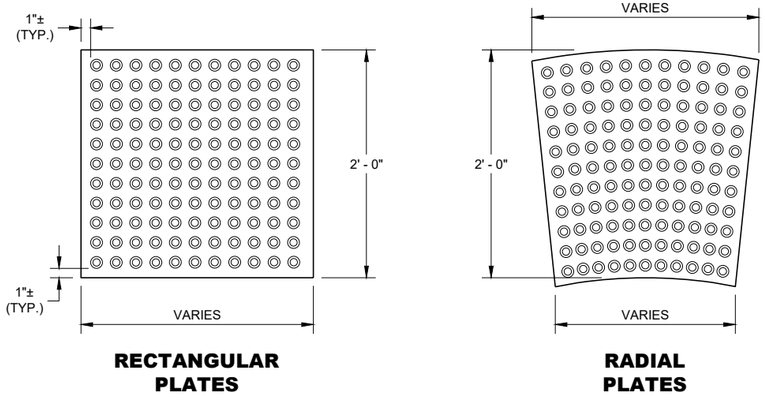


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

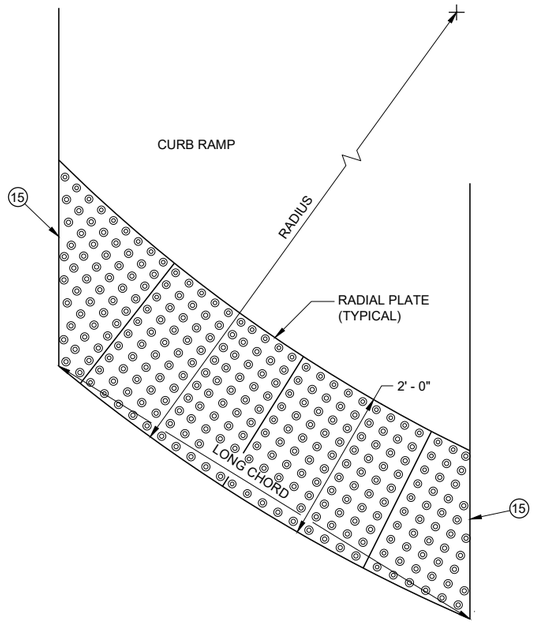
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

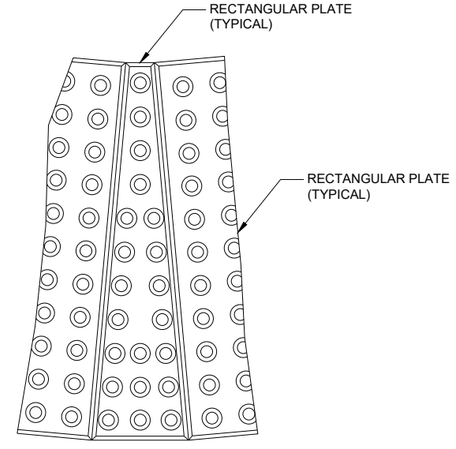
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

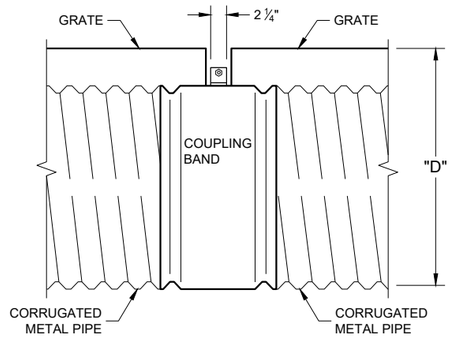
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

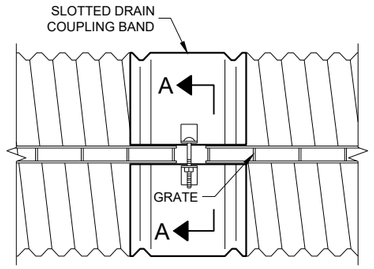
FHWA

6

SDD 08D05 - 20g



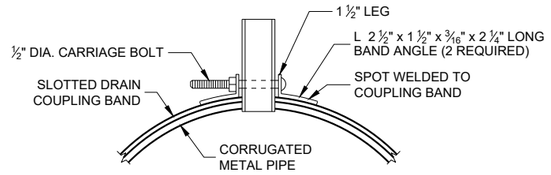
SIDE VIEW



PLAN VIEW

TYPICAL COUPLING BAND FOR SLOTTED DRAIN

(ALTERNATES PERMITTED AS APPROVED BY THE ENGINEER)



SECTION A - A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

THE PIPE FOR THE SLOTTED DRAIN SHALL MEET AASHTO DESIGNATION M-36, AND THE GRATE ASSEMBLIES SHALL BE MADE FROM STRUCTURAL STEEL SUITABLY WELDED TO FORM THE OPEN SLOT AND HOT-DIP GALVANIZED TO MEET THE PROVISIONS OF AASHTO DESIGNATION M-111.

NORMAL PIPE SIZES ARE 12-INCH THROUGH 24-INCH DIAMETER IN 0.064 INCH THICKNESS, AND 30-INCH DIAMETER PIPE IN 0.079 INCH THICKNESS.

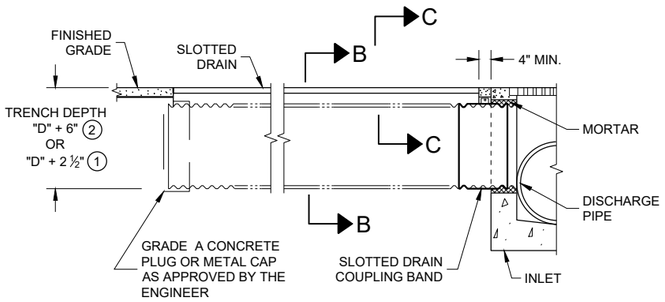
(1) 2 ½" NORMAL GRATE DEPTH

(2) 6" SPECIAL GRATE DEPTH, WHEN SPECIFIED ON THE PLANS.

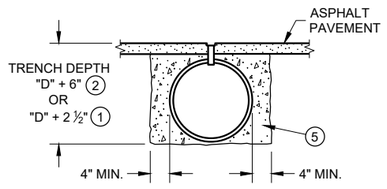
(3) FOR SCREEDING DIRECTLY OVER THE SLOTTED DRAIN WITH ASPHALT PAVER. FOR CONCRETE SURFACE USE 3" WIDE TAPE OVER THE SLOT TO KEEP MATERIAL OUT OF THE PIPE.

(4) WHEN THE SURFACE IS CONCRETE PAVEMENT THE GRADE AS SHOWN ON THE PLANS WILL BE FLUSH WITH THE TOP OF THE SLOTTED DRAIN.

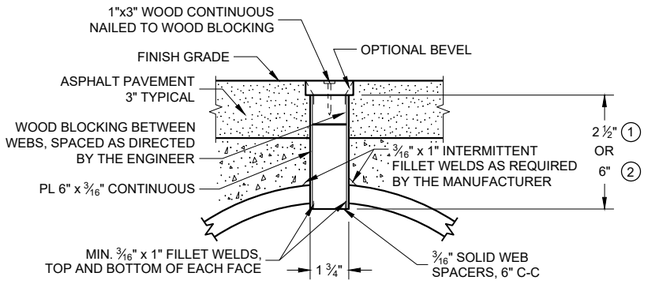
(5) ENCASE CORRUGATED METAL PIPE SURFACE DRAIN IN GRADE "A" CONCRETE CONFORMING TO STANDARD SPECIFICATION 501 AS MODIFIED IN STANDARD SPECIFICATION 716. PROVIDE QMP FOR CLASS III ANCILLARY CONCRETE PER STANDARD SPECIFICATION 716. UTILIZING HIGH EARLY STRENGTH (HES) CONCRETE CONFORMING TO STANDARD SPECIFICATION 710.4(5) IS ALLOWED AND MAY BE REQUIRED BY THE PLANS OR AS DIRECTED BY THE ENGINEER.



SLOTTED DRAIN INSTALLATION TYPE "A"

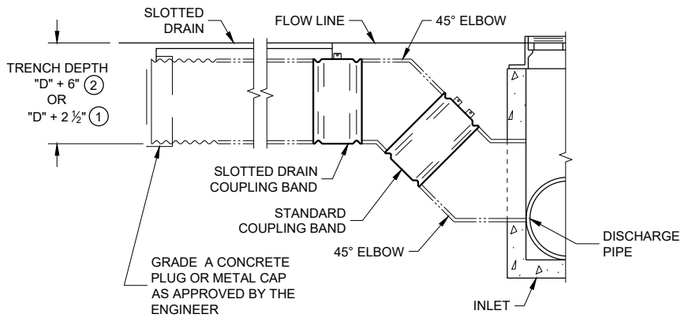


SECTION B - B

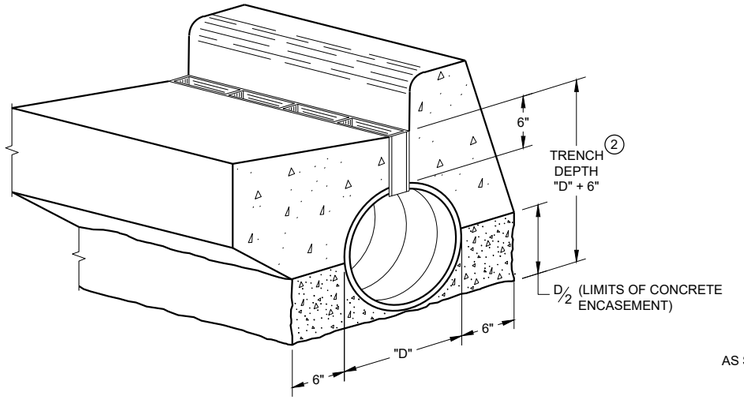


SECTION C - C
GRATE SLOT DETAIL

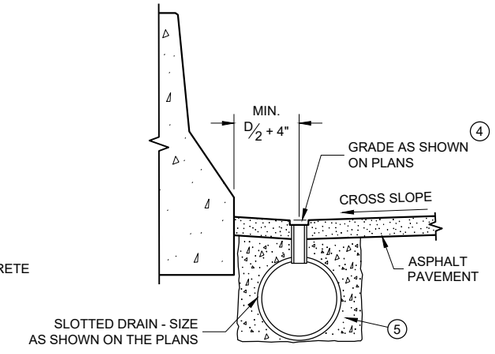
NOTE:
TO PREVENT "FLOATING" OF THE SLOTTED DRAIN DURING BACKFILL OPERATIONS, PROVIDE ADEQUATE WEDGES OR POUR THE LEAN GROUT ON TOP OF THE PLUGGED SLOT ALLOWING IT TO SLOUGH TO THE SIDES OF THE PIPE. THIS WILL PROVIDE ENOUGH WEIGHT ON TOP TO KEEP THE PIPE FROM FLOATING



SLOTTED DRAIN INSTALLATION TYPE "B"



SLOTTED DRAIN INSTALLATION IN FLOW LINE OF CURB AND GUTTER TYPE "C"



SLOTTED DRAIN INSTALLATION AT MEDIAN BARRIER TYPE "D"

SLOTTED CORRUGATED METAL PIPE SURFACE DRAINS

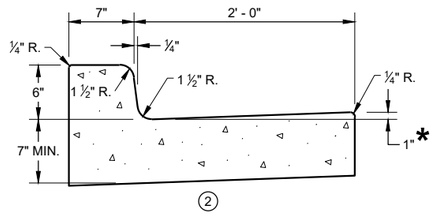
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

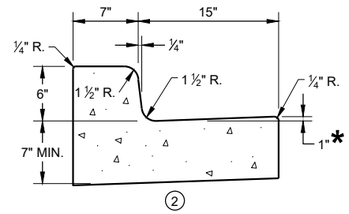
FHWA

SDD 08D13 - 02

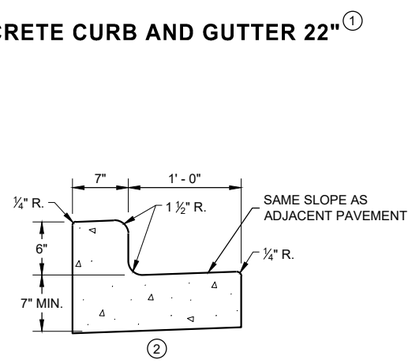


CONCRETE CURB AND GUTTER 31" ①

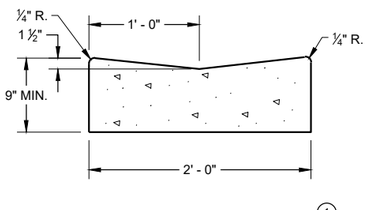
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



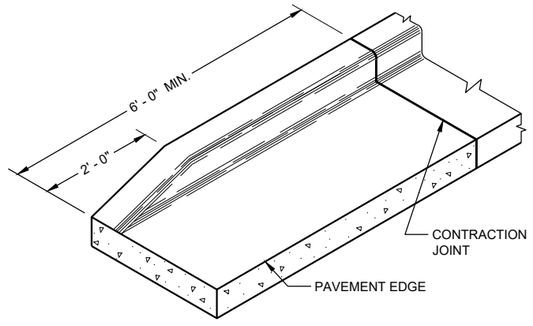
CONCRETE CURB AND GUTTER 22" ①



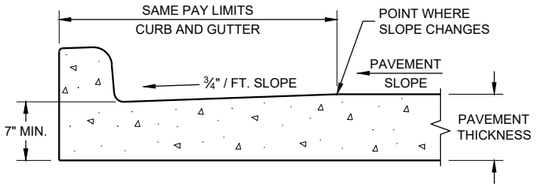
CONCRETE CURB AND GUTTER 19" ①



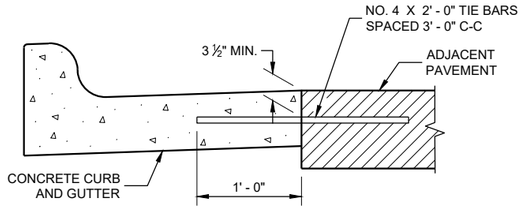
CONCRETE GUTTER 24" ①



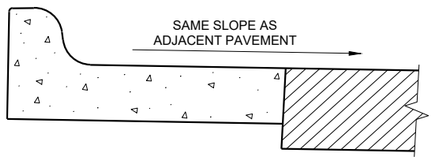
END SECTIONCURB AND GUTTER



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



TYPICAL TIE BAR LOCATION ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

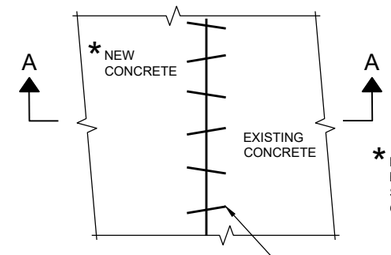
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

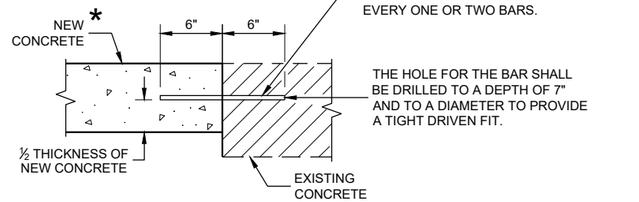
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

*EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

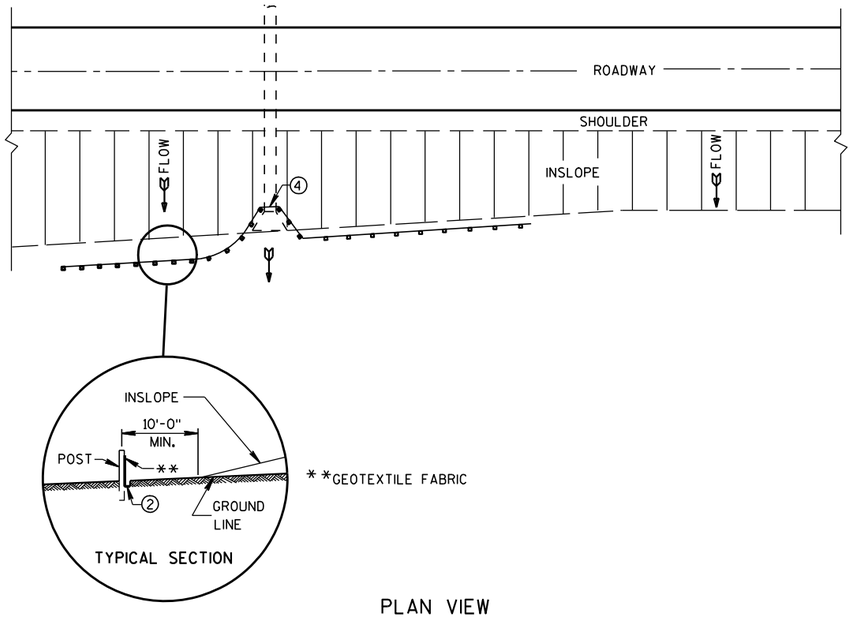
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

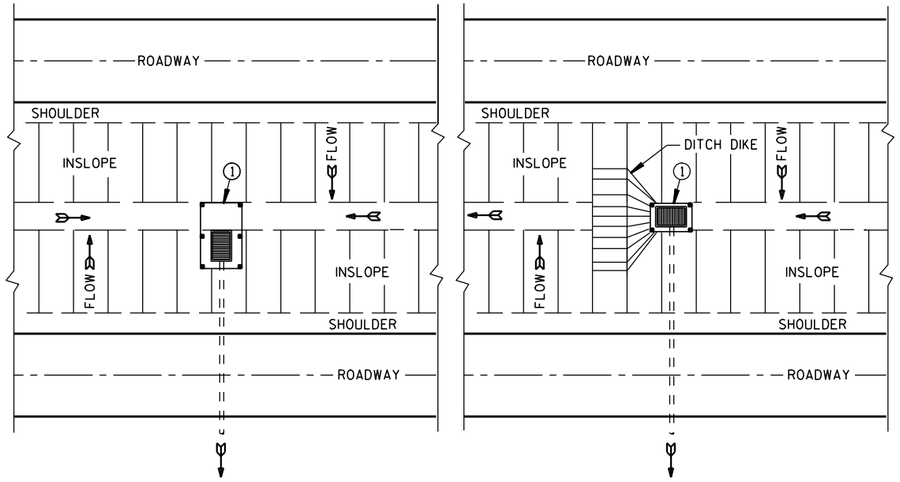
6

SDD 08D16 - 11
SDD 08D16 - 11



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

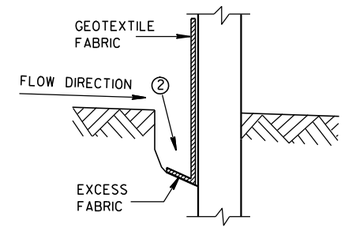
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

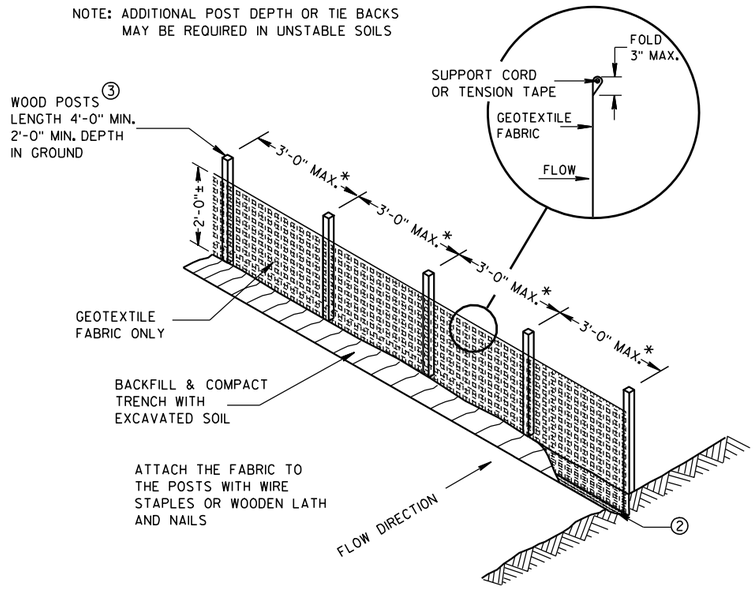
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

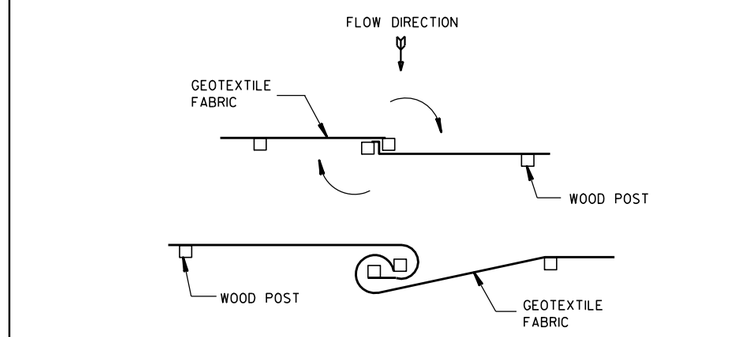


TRENCH DETAIL

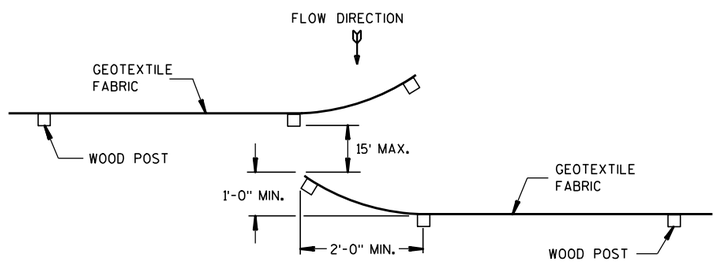


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

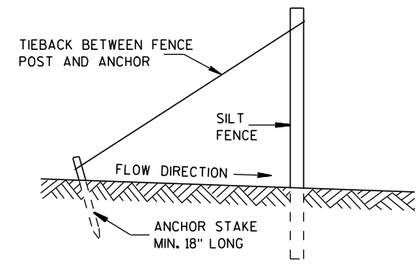


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

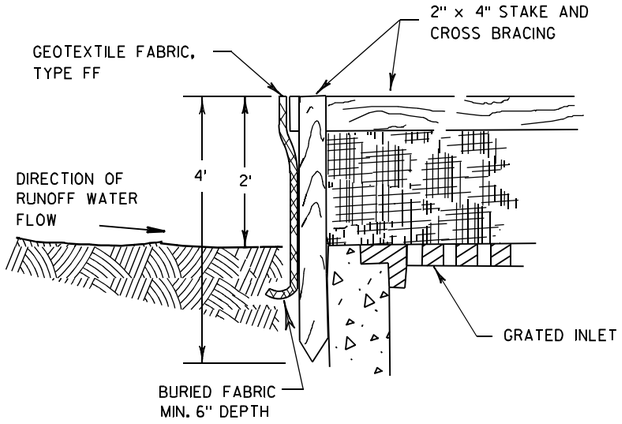
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

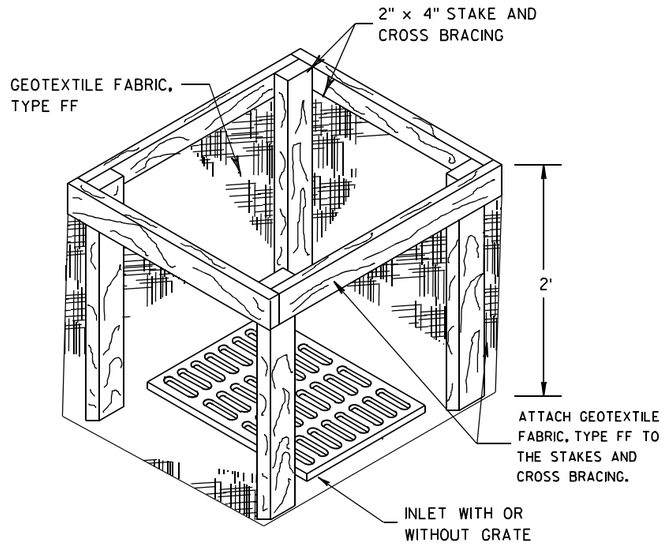
6

S.D.D. 8 E 9-6

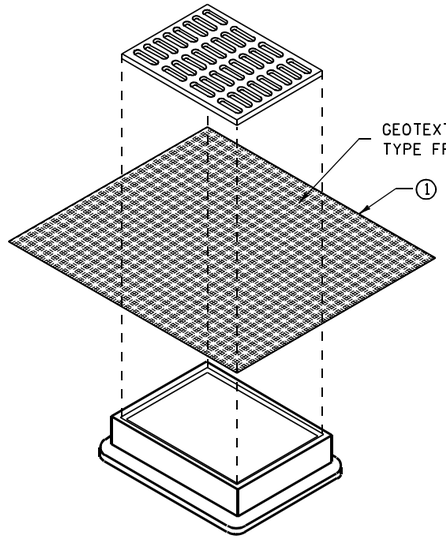
6

S.D.D. 8 E 9-6



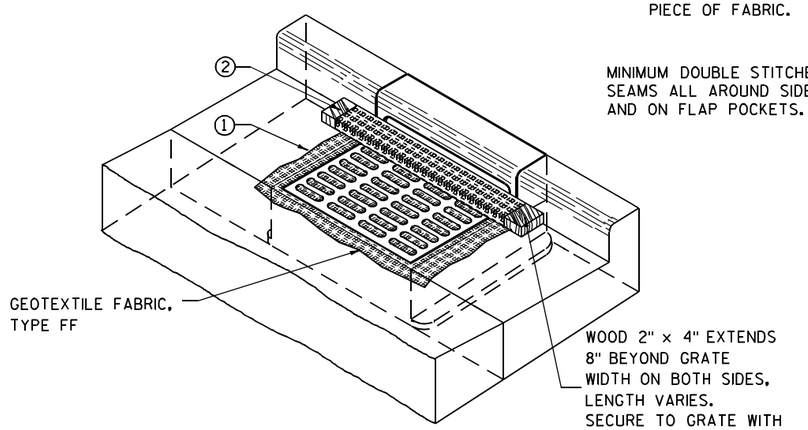


INLET PROTECTION, TYPE A

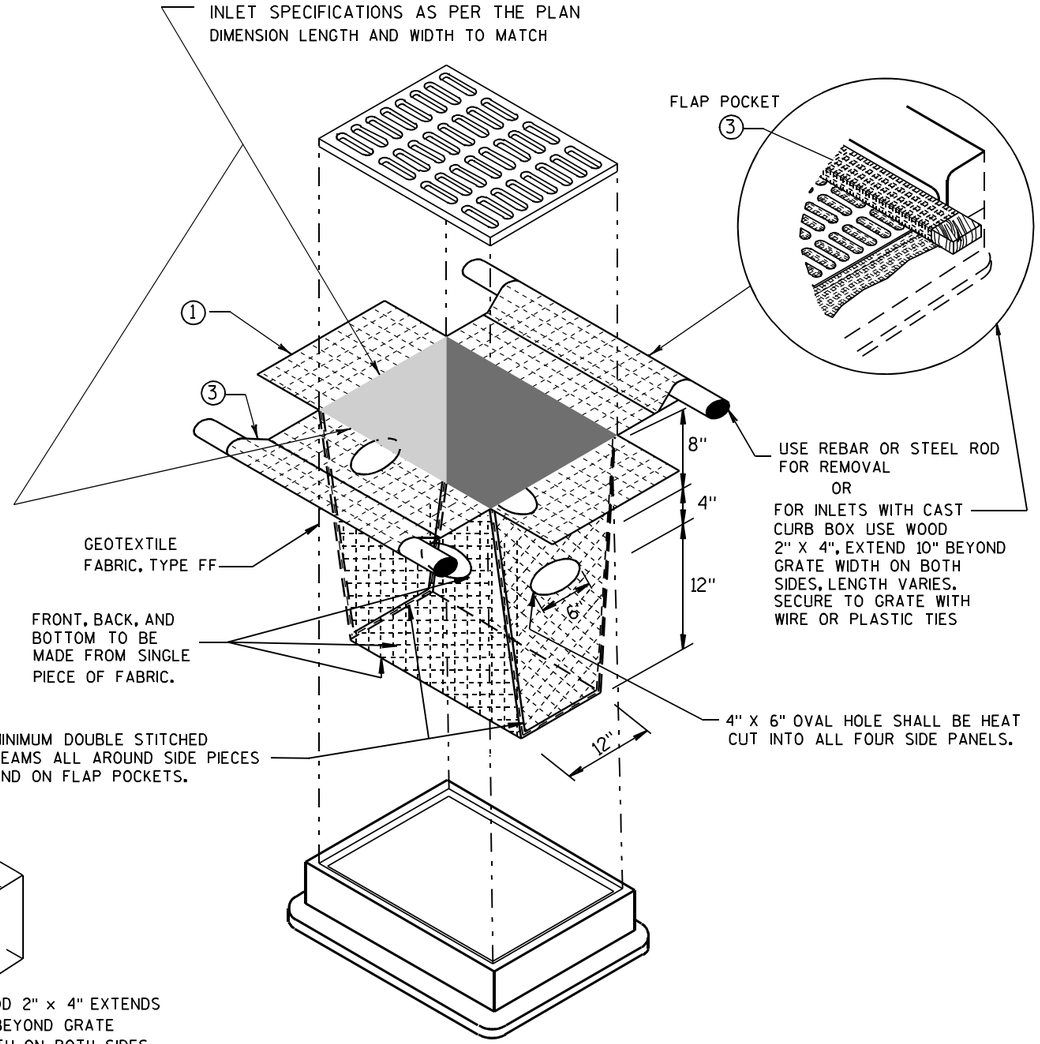


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

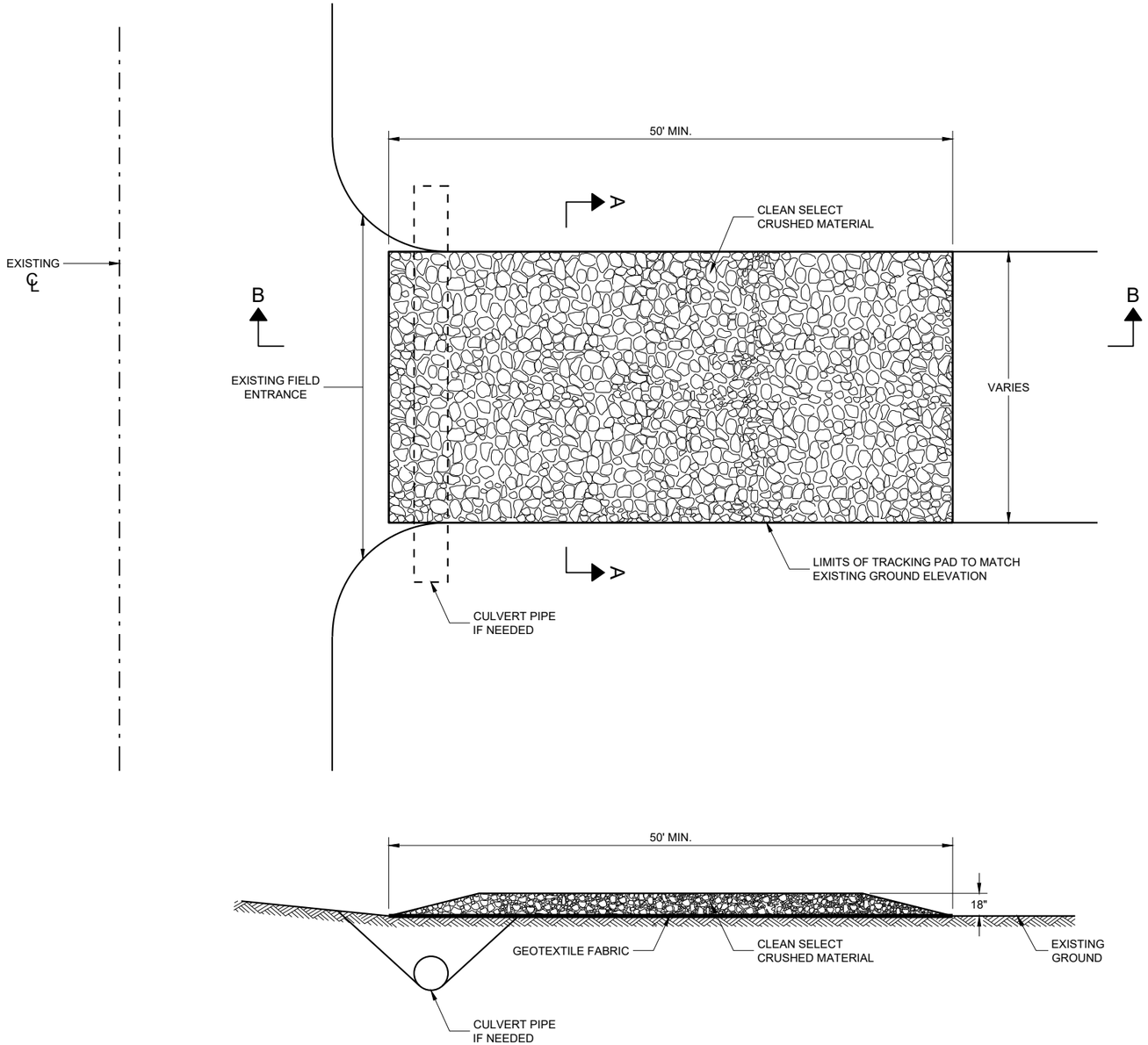
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

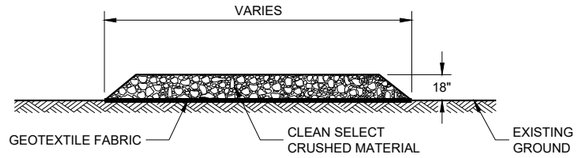
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 08E14 - 01

METAL APRON ENDWALLS

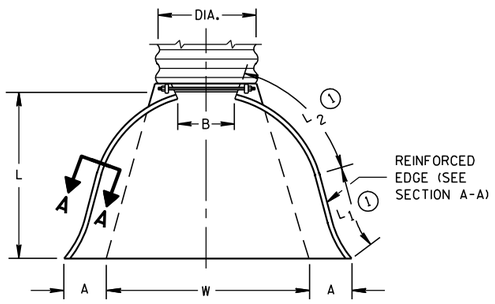
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

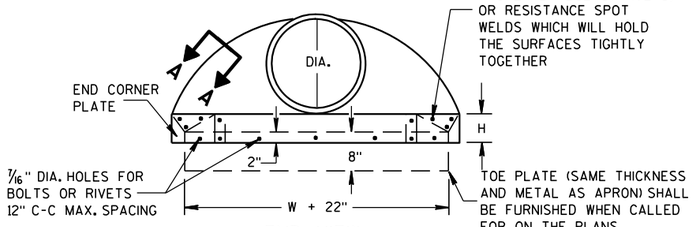
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

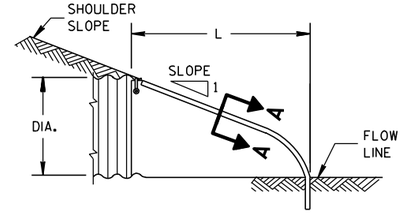
*MINIMUM
**MAXIMUM



PLAN VIEW

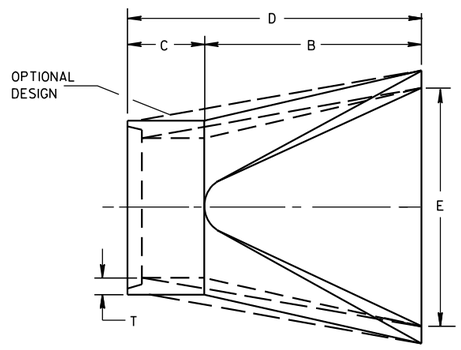


END VIEW

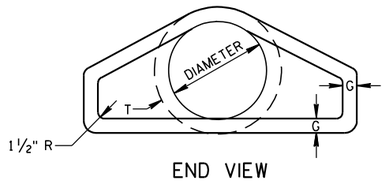


SIDE ELEVATION

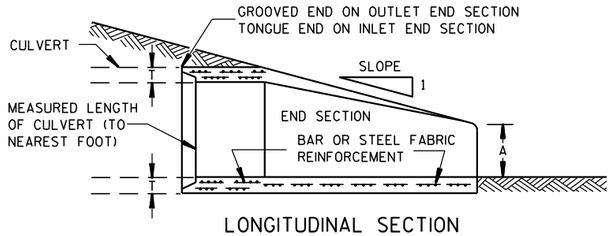
METAL ENDWALLS



PLAN

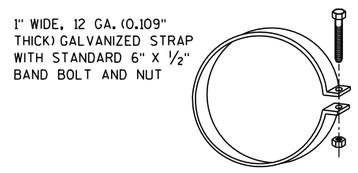


END VIEW



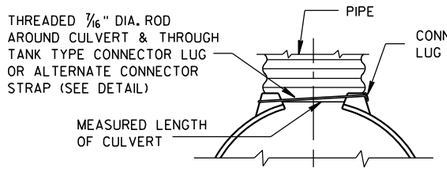
LONGITUDINAL SECTION

CONCRETE ENDWALLS

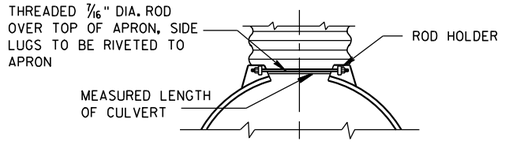


ALTERNATE FOR TYPE 1 CONNECTION

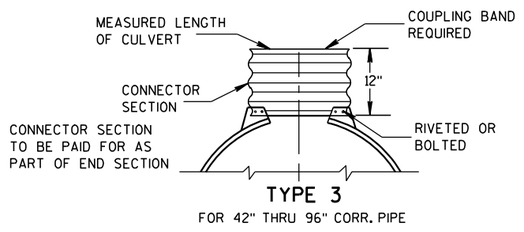
END SECTION CONNECTOR STRAP



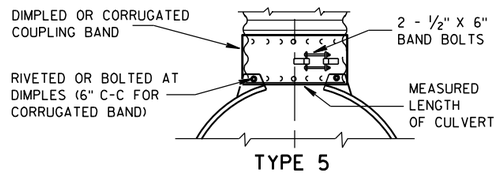
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

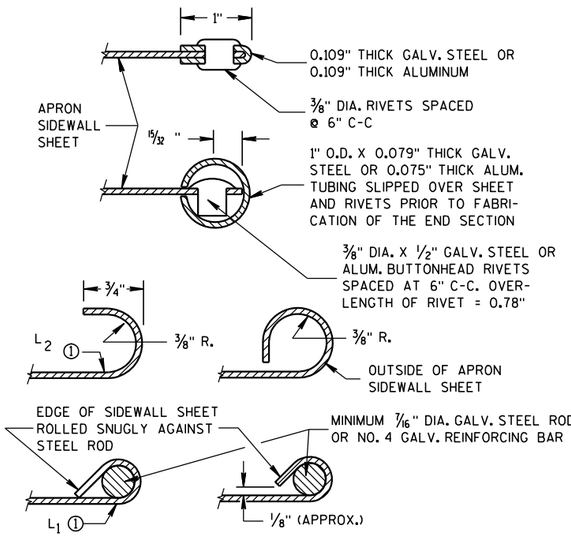
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

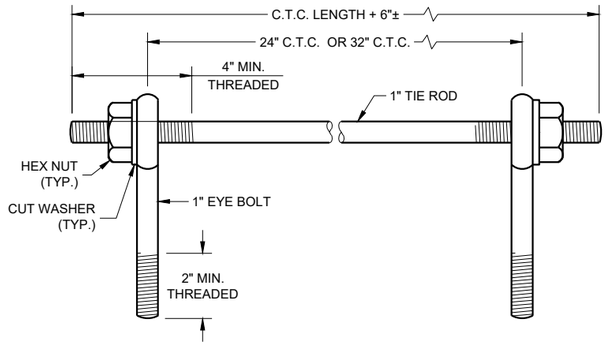
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

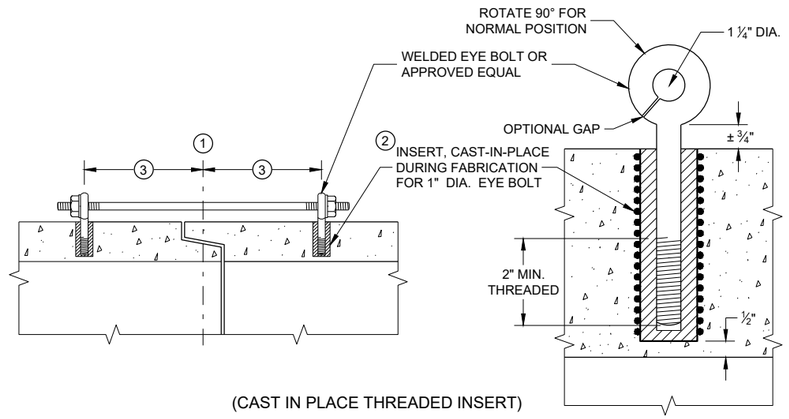
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

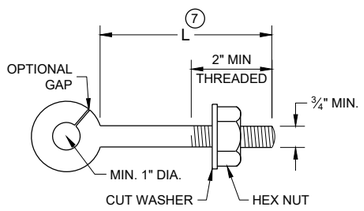
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

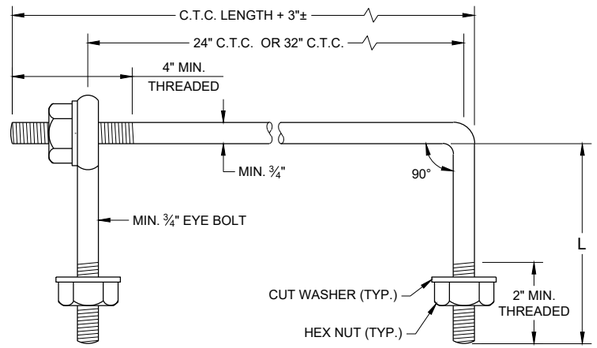
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

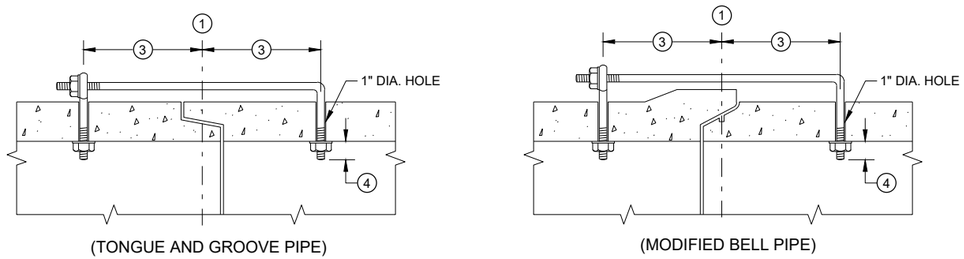


EYE BOLT (7)

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE) (MODIFIED BELL PIPE)

LONGITUDINAL SECTION

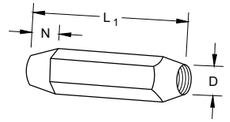
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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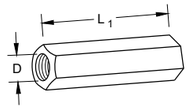
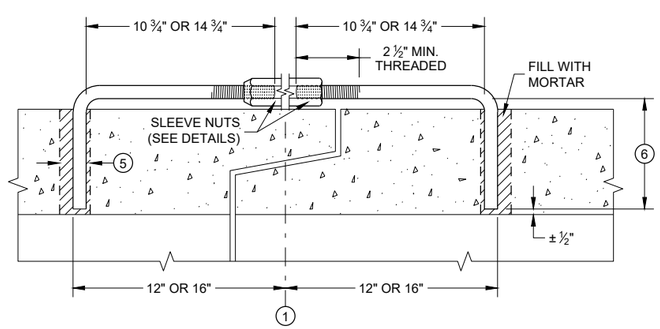


PLAIN

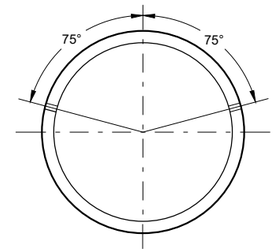
RIGHT AND LEFT THREADS

SLEEVE NUTS



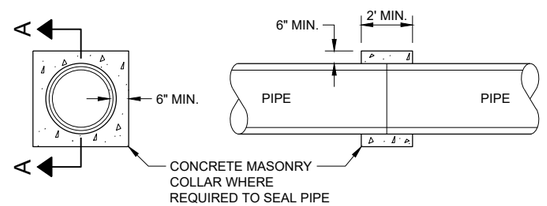
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

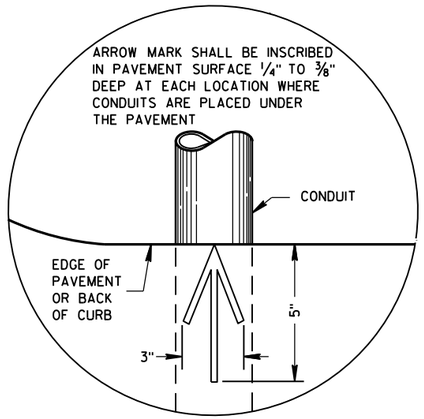
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

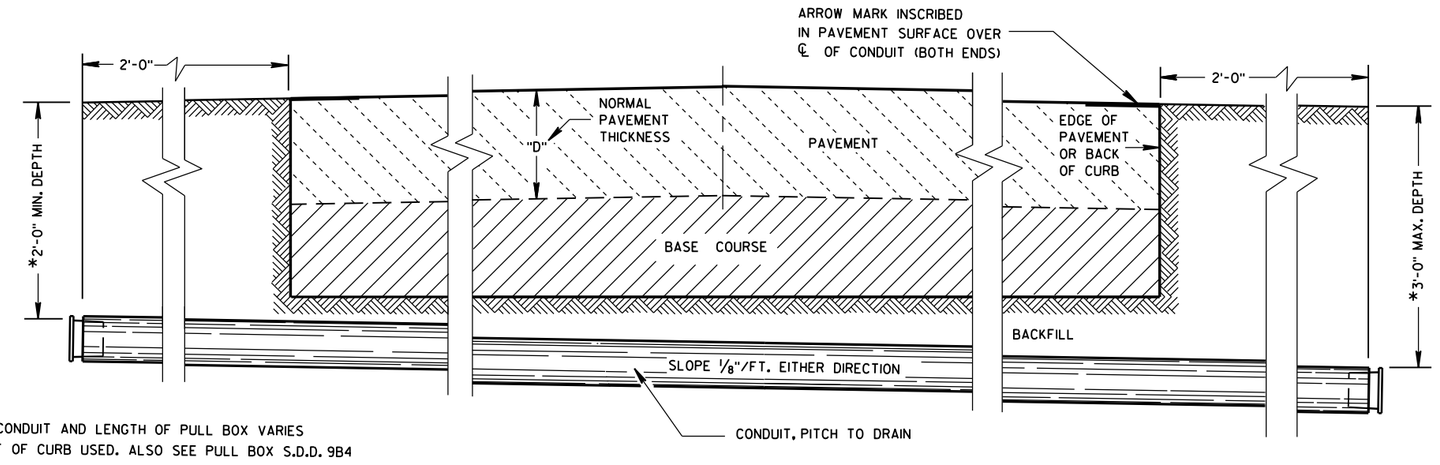
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

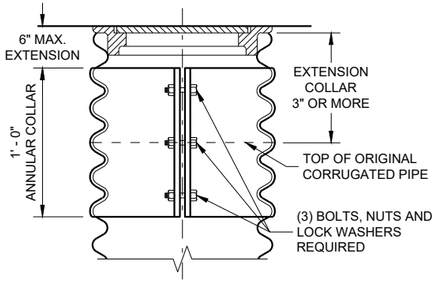
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

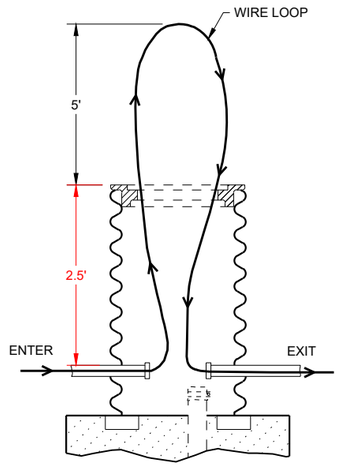
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

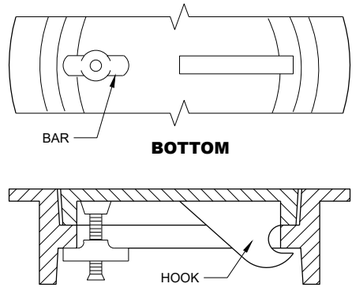
S.D.D. 9 B 2-10



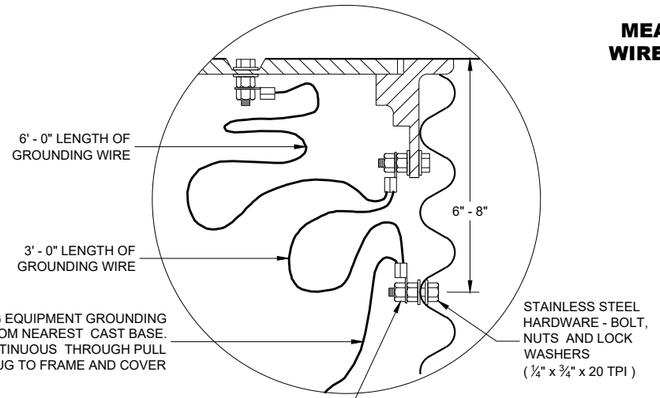
CORRUGATED PIPE EXTENDER



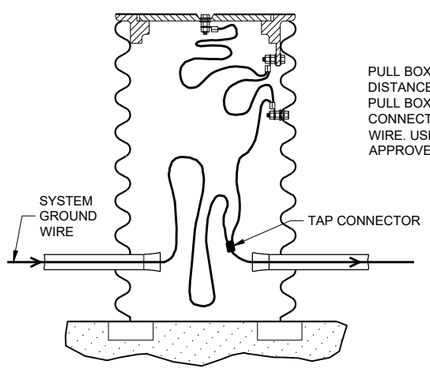
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

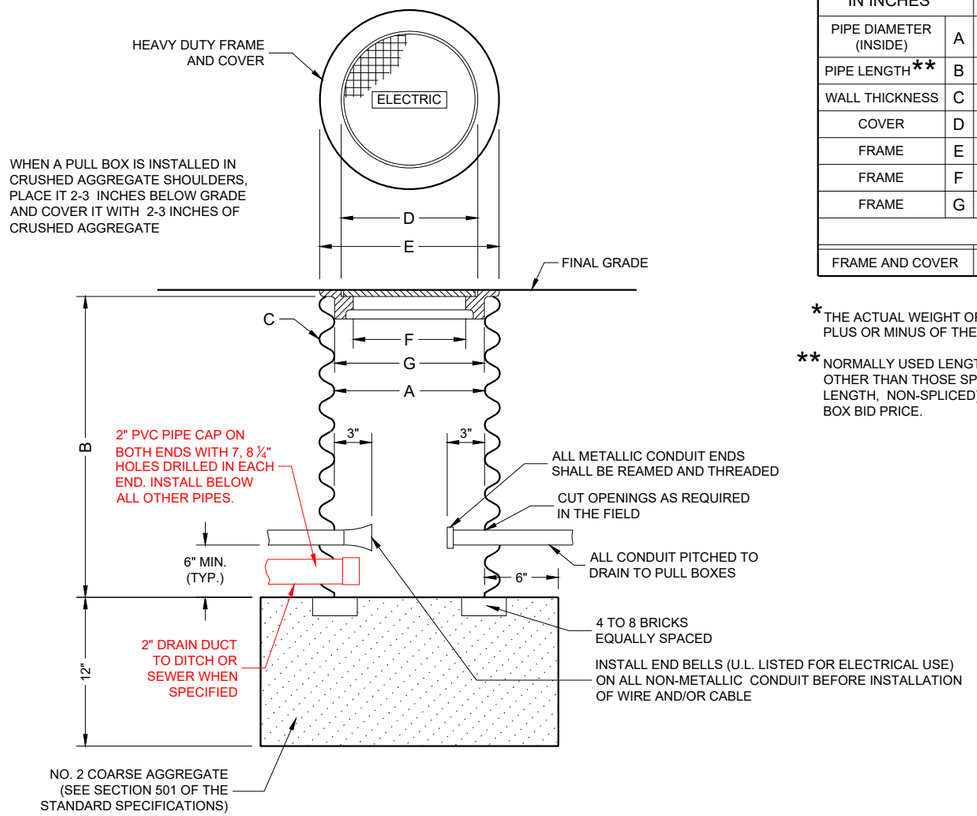


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 522

FHWA

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SDD 09B04 -12

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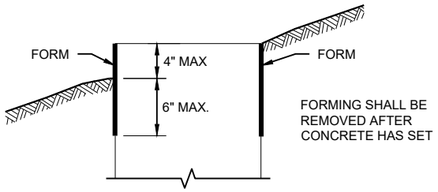
SDD 09B04 -12

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

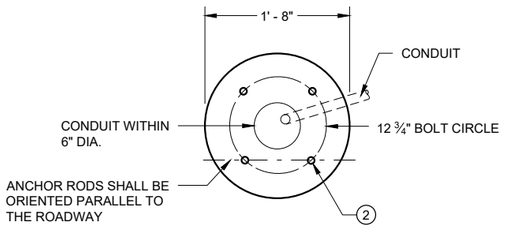
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

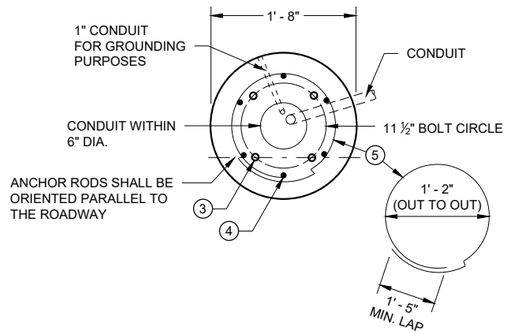
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

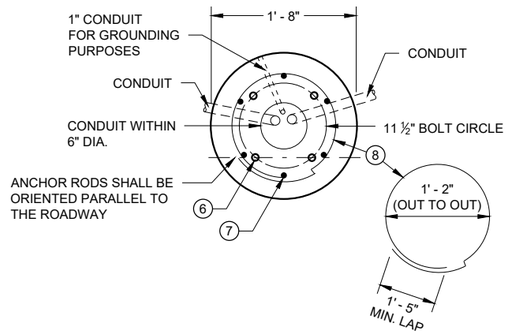
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

(2) (4) 1" DIA. X 3' - 6" ANCHOR RODS.

(3) (4) 1" DIA. X 5' - 0" ANCHOR RODS.

(4) (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

(5) (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

(6) (4) 1" DIA. X 3' - 6" ANCHOR RODS.

(7) (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

(9) EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

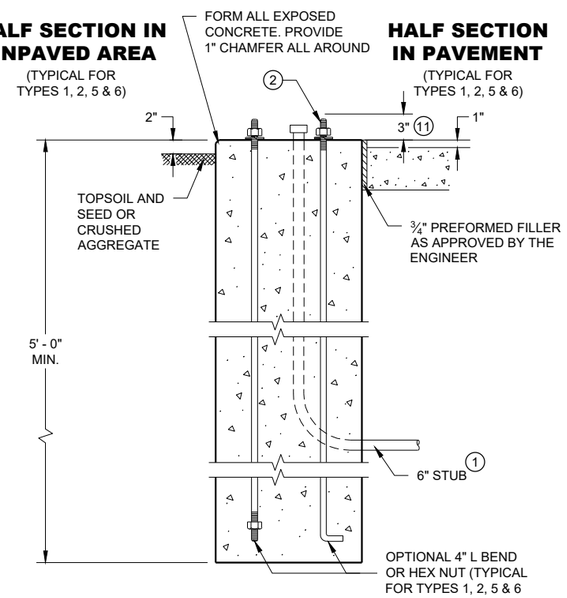
(10) ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

(11) ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

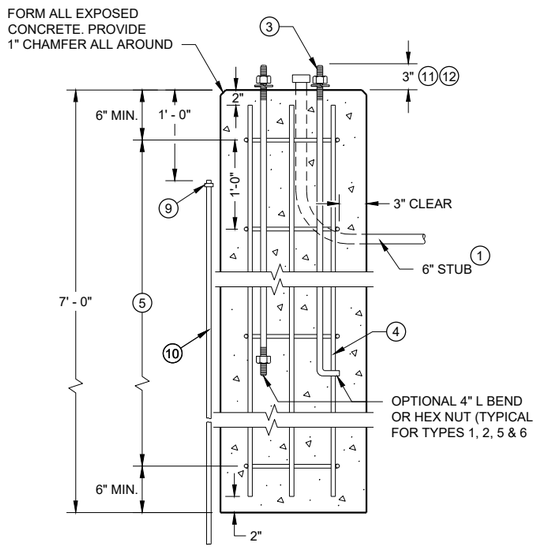
(12) FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



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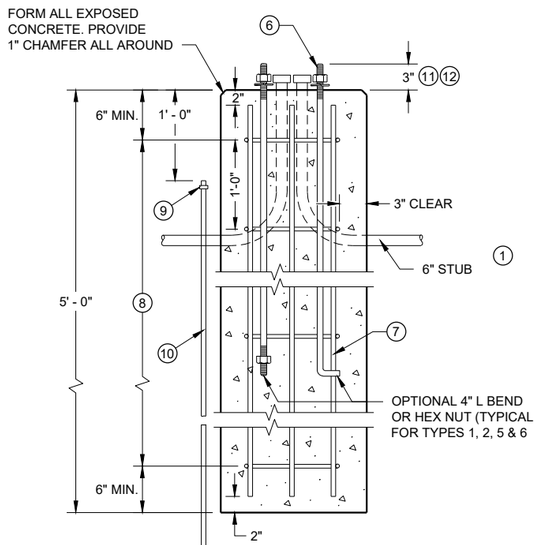


TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 523

FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

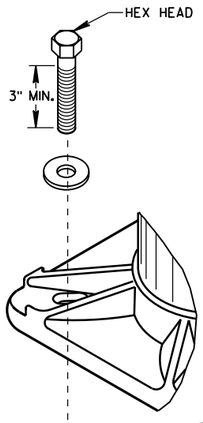
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

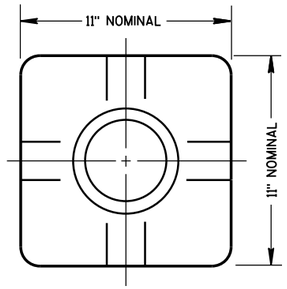
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

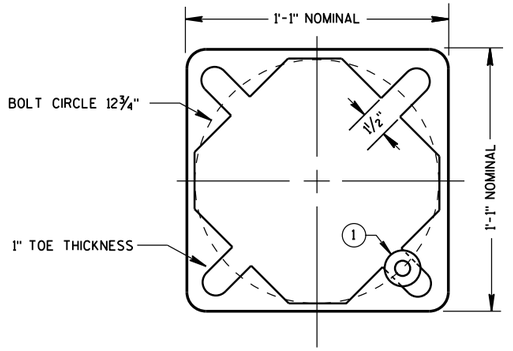
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

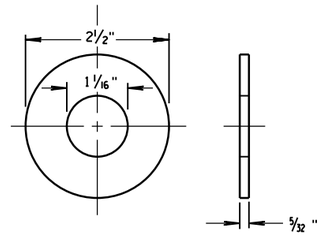




TOP VIEW
(PEDESTAL BASE)

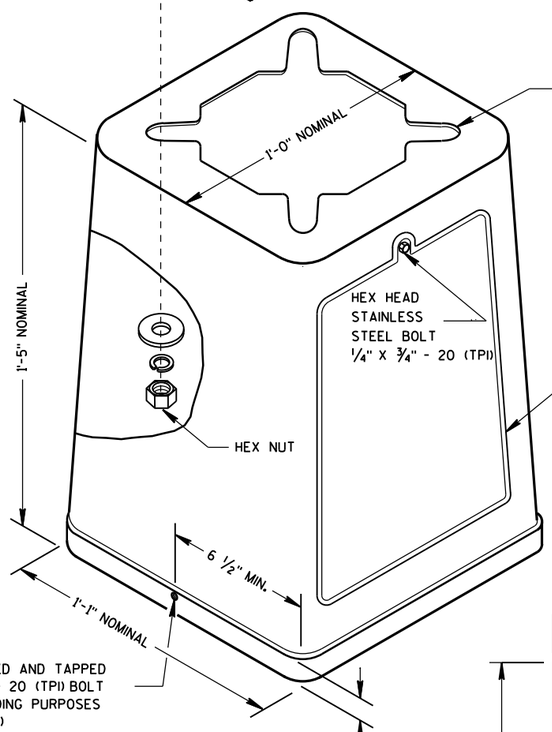


BOTTOM VIEW
(PEDESTAL BASE)

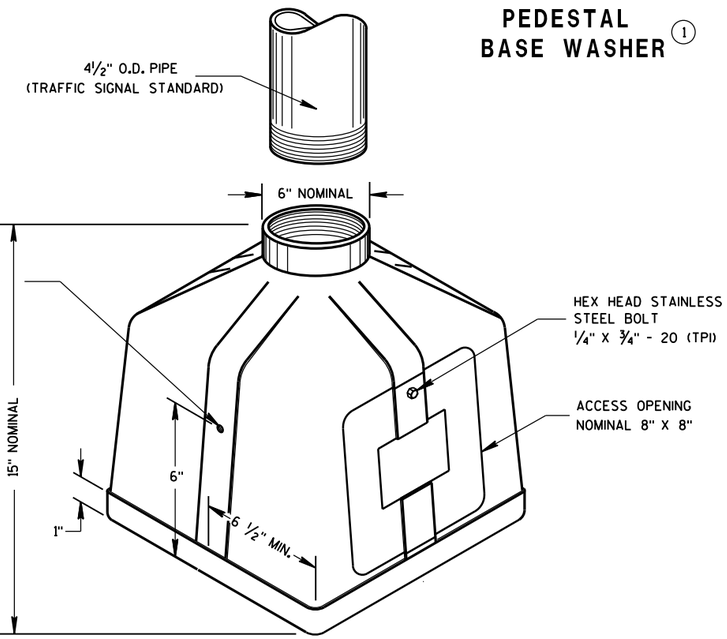


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

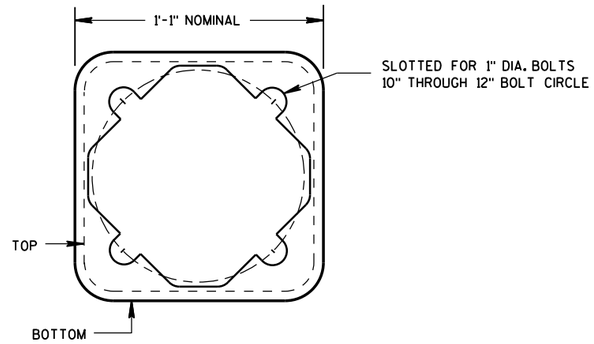


ISOMETRIC VIEW

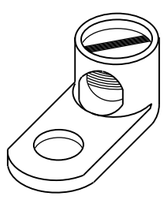


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

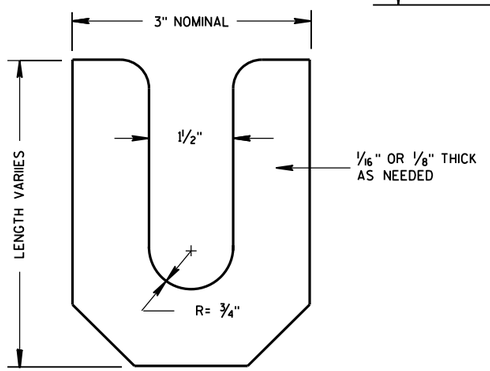


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
524
FHWA

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER.

IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2 OF THE STANDARD SPECIFICATIONS.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

ANCHOR RODS SHALL BE 1" X 60".

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1" INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

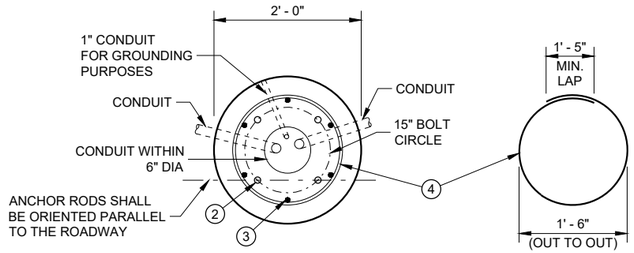
FOR USE WITH TYPE 8, TYPE A, AND TYPE E POLES.

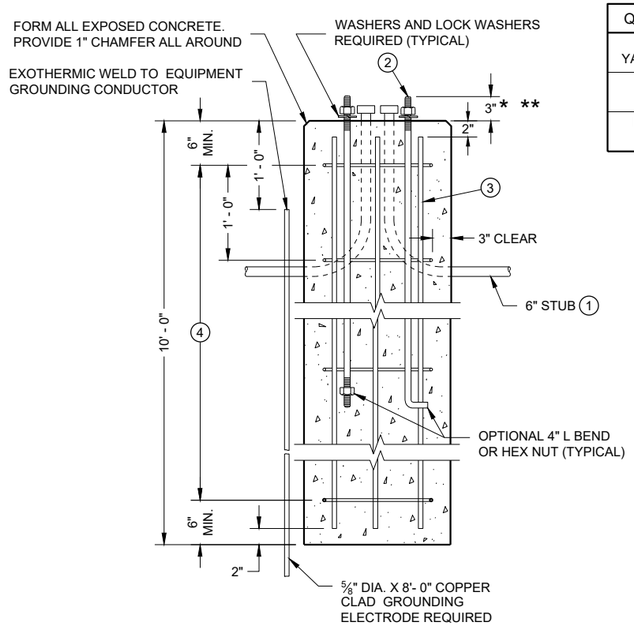
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

(3) (6) NO. 6 X 9'-8" BAR STEEL REINFORCEMENT.

(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

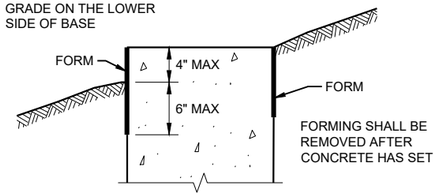




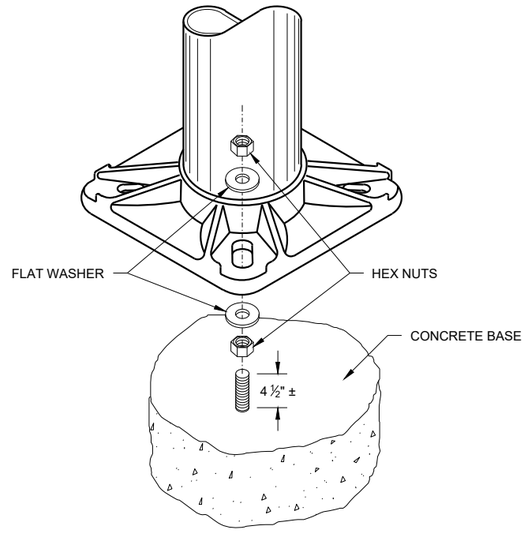
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	1.2
LBS. OF HOOP BAR STEEL	41
LBS. OF VERTICAL BAR STEEL	87

CONCRETE BASE, TYPE 8

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL



NON-BREAKAWAY INSTALLATION
(LEVELING NUT)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NON-BREAKAWAY INSTALLATIONS, 4 ½"± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASE TYPE 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE

/S/
WIND LOADED STRUCTU
PROGRAM LEADER

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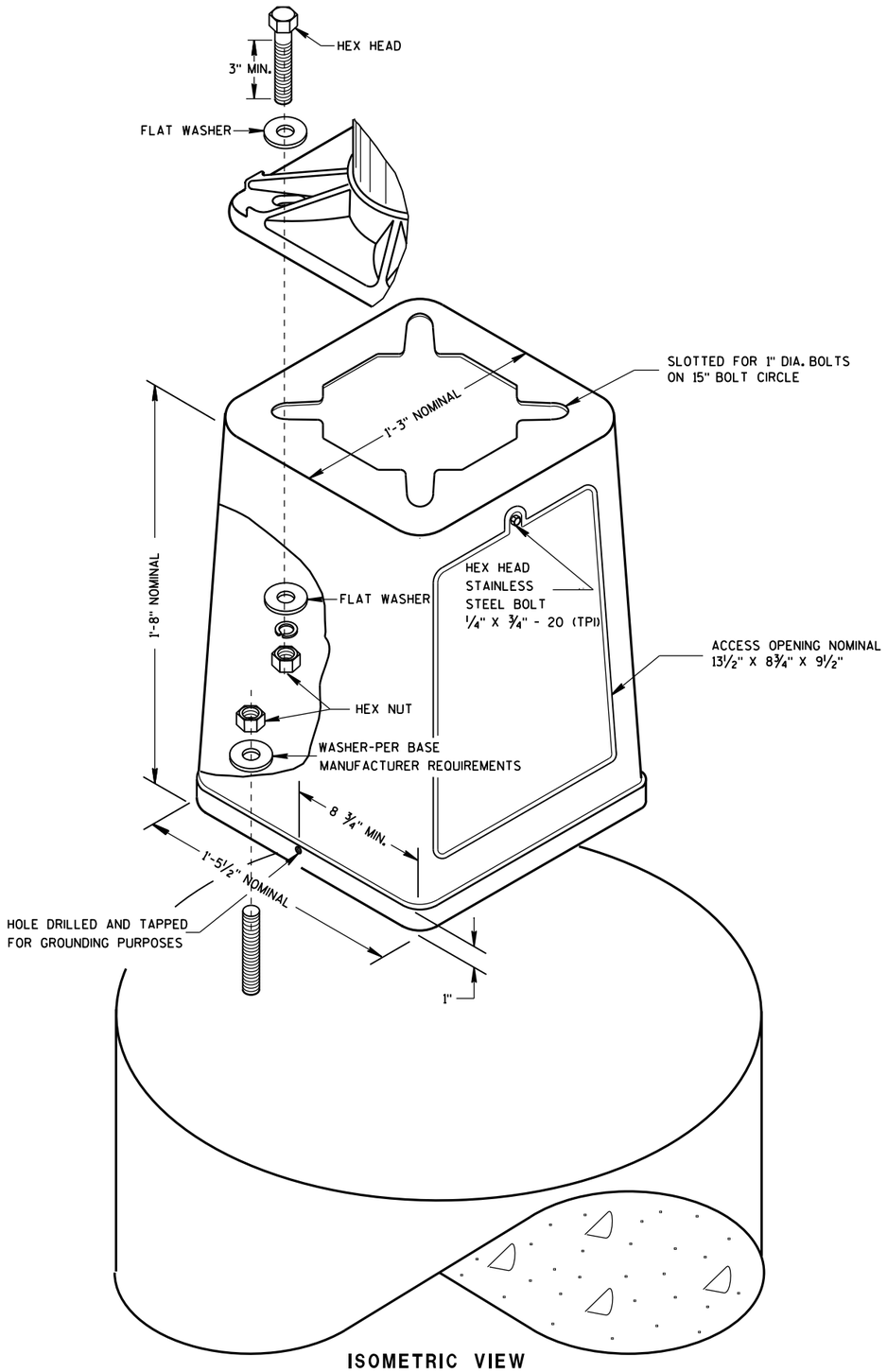
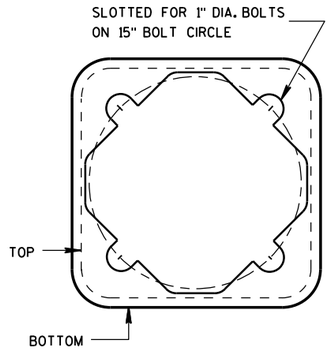


ISOMETRIC VIEW

TRANSFORMER BASE



BOTTOM VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BREAKAWAY BASES (WHERE REQUIRED) WILL BE MEASURED AND PAID AS SEPARATE ITEMS OF WORK IN ADDITION TO THE LIGHT POLE.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIMS SHALL BE SIZED TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

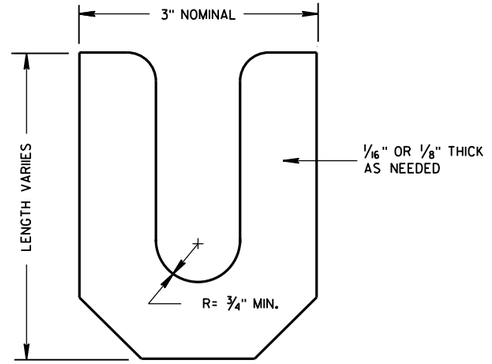
A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE TRANSFORMER BASE.

THE MECHANICAL CONNECTOR (GROUNDING LUG) SHALL BE INSTALLED USING THE TAPPED HOLE PROVIDED BY THE MANUFACTURER. THE MOUNTING BOLT HEXHEAD), NUT, WASHER AND LOCK WASHER SHALL BE STAINLESS STEEL, SIZED TO FIT THE THREADING AND HOLE SIZE, AND BE OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD A GROUNDING LUG MOUNTING HOLE NOT BE PROVIDED, THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" X 3/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE. IT SHALL BE MOUNTED IN THE SAME LOCATION AS IS SHOWN ON THE DRAWING.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, AND LOCK WASHERS, THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

THE ACCESS DOOR SHALL BE MANUFACTURED OF THE SAME MATERIAL AS THE BASE.



LEVELING SHIM

TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE FOR 15" BOLT CIRCLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 10-3

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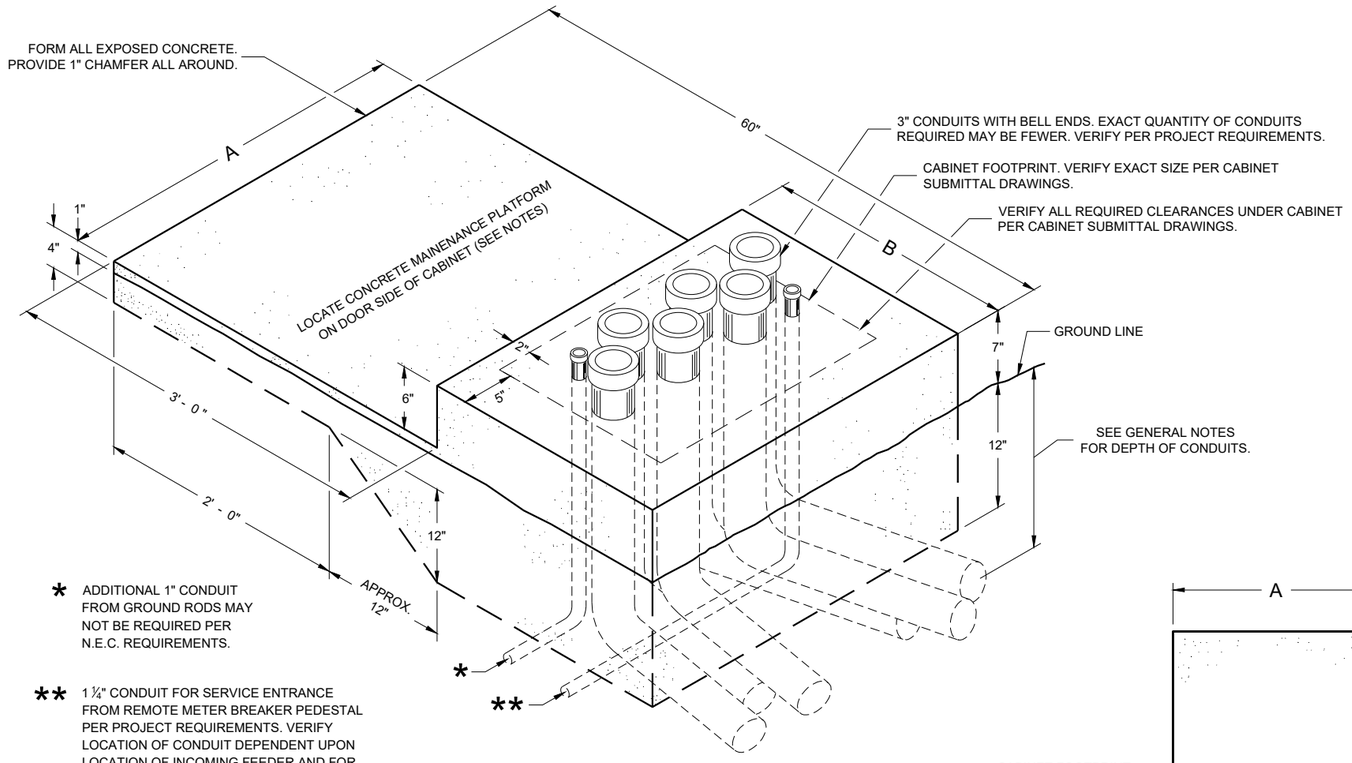


* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

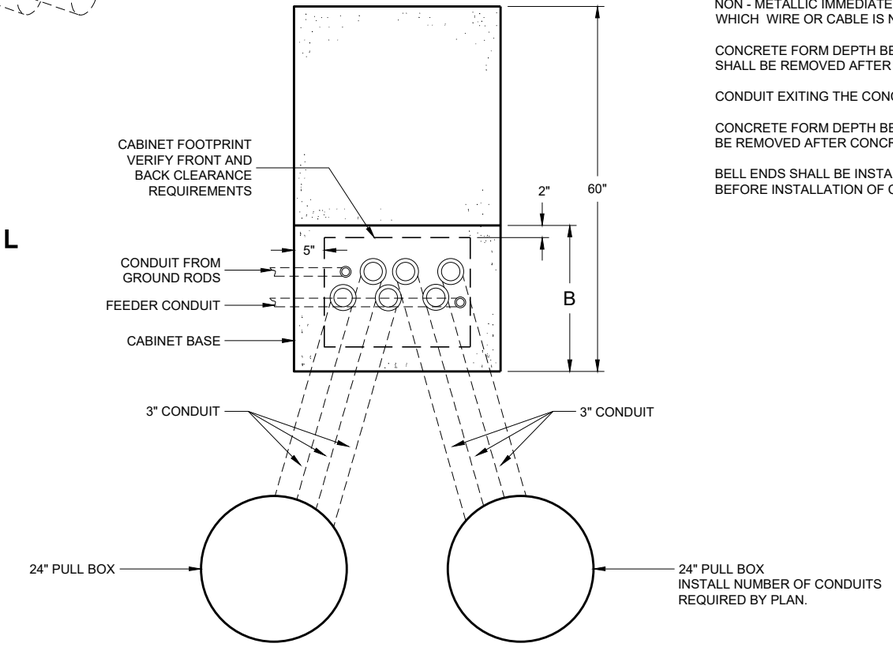
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 527

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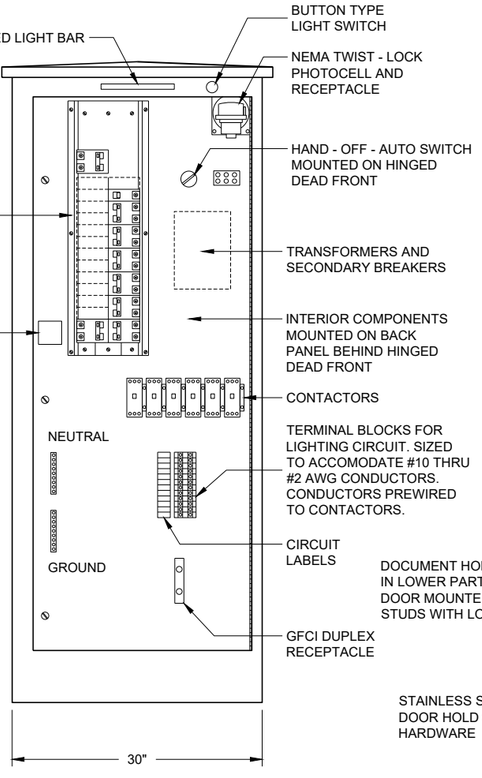
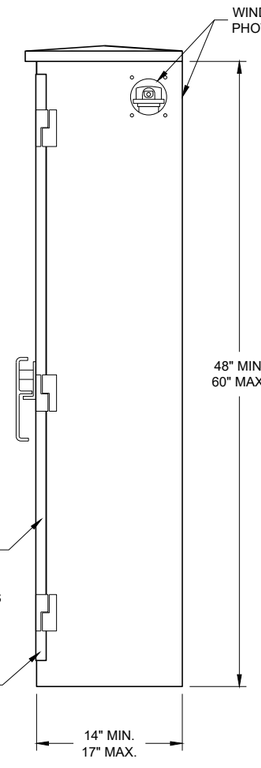
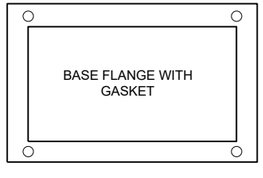
FRONT INTERIOR ELEVATION

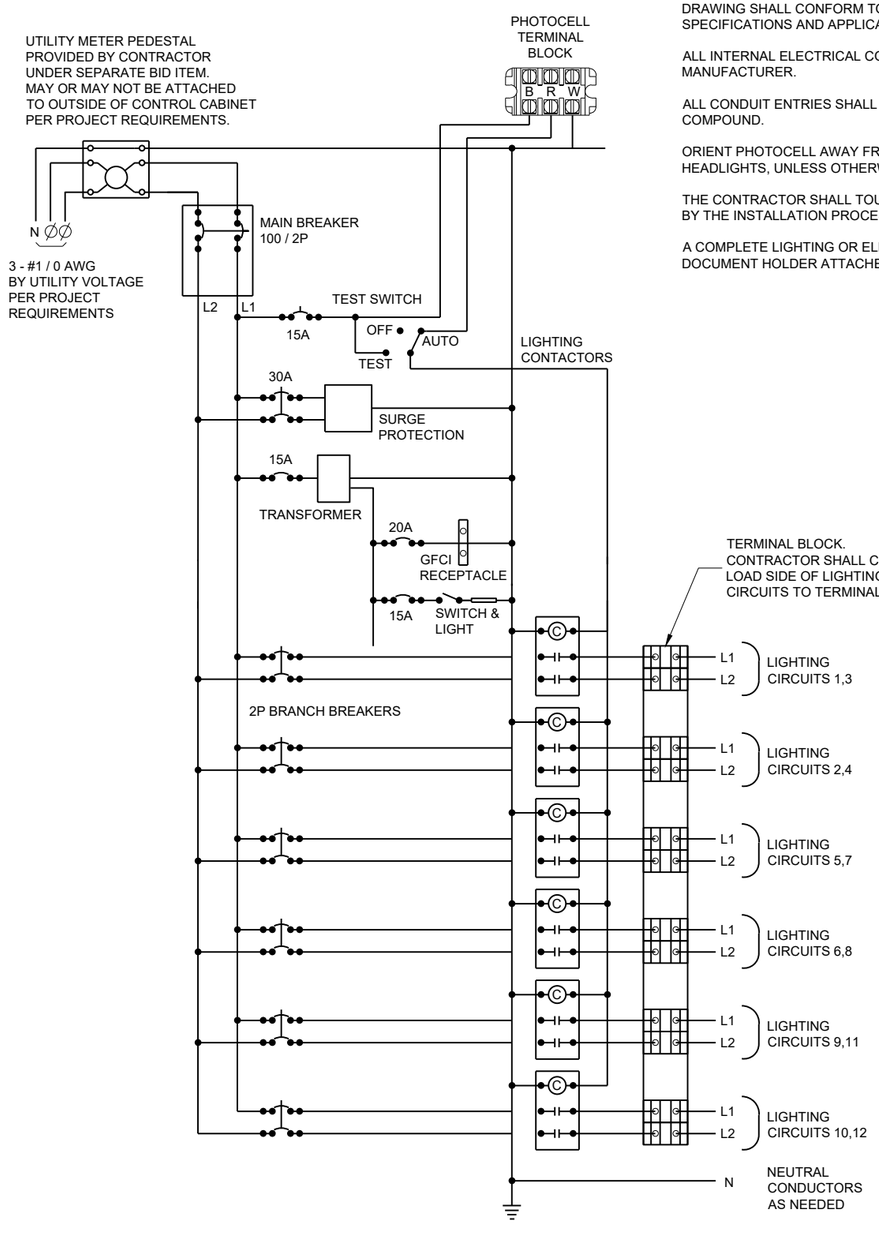


SIDE VIEW





LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

L30
LIGHTING CONTROL CABINET 240 / 480 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 528

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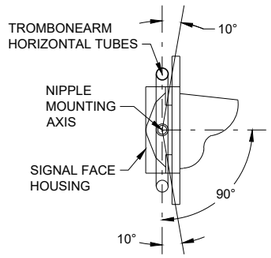
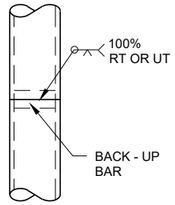


SECTION A-A

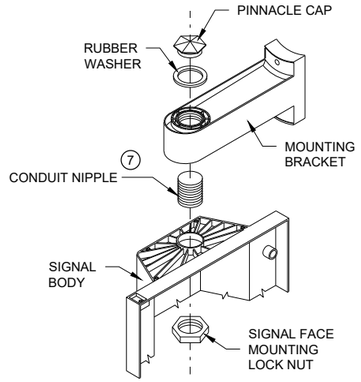
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THEPERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

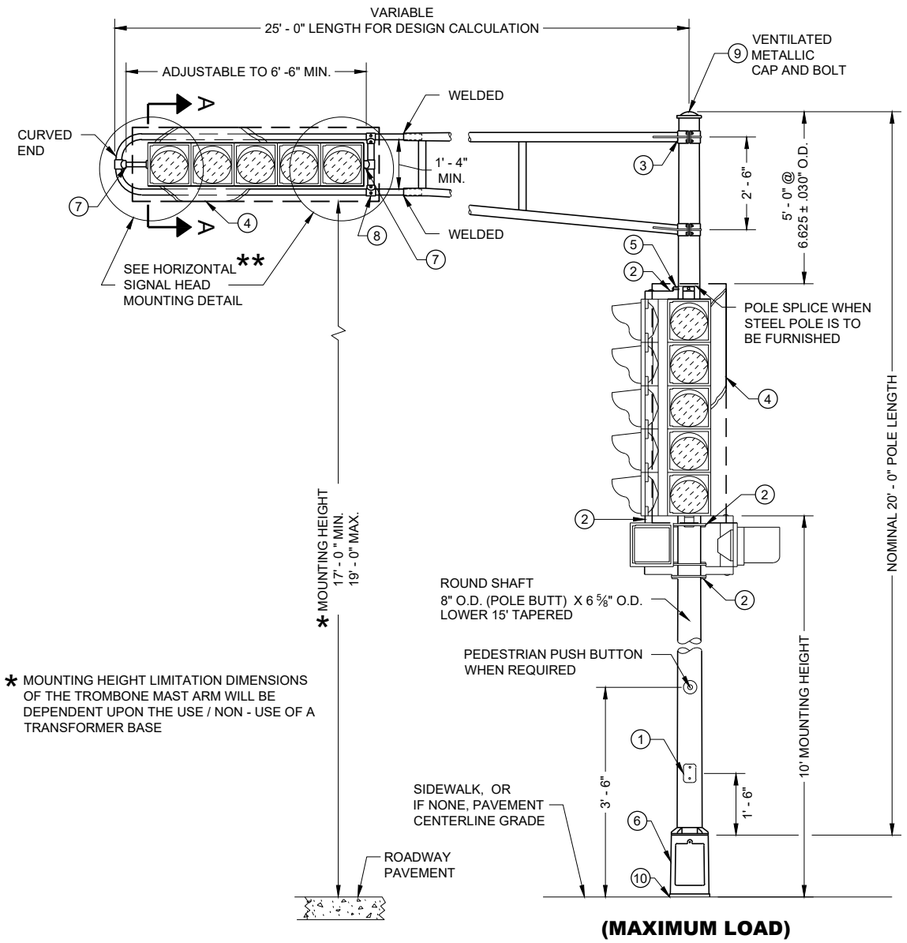
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

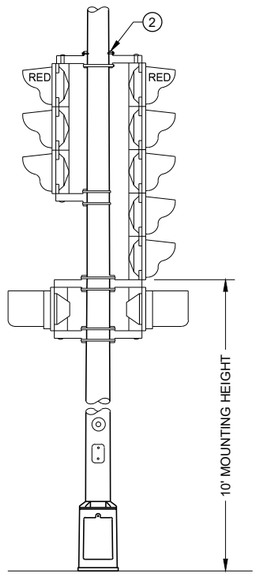
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

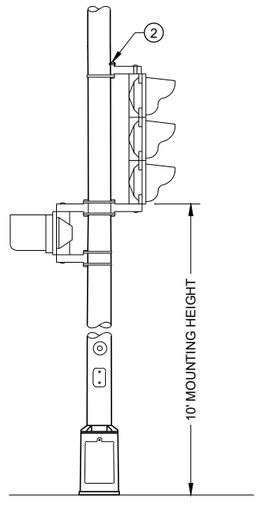


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

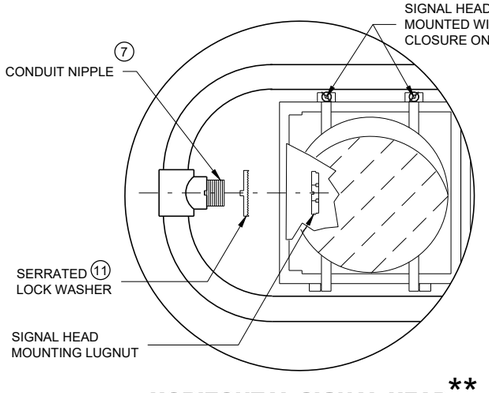
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

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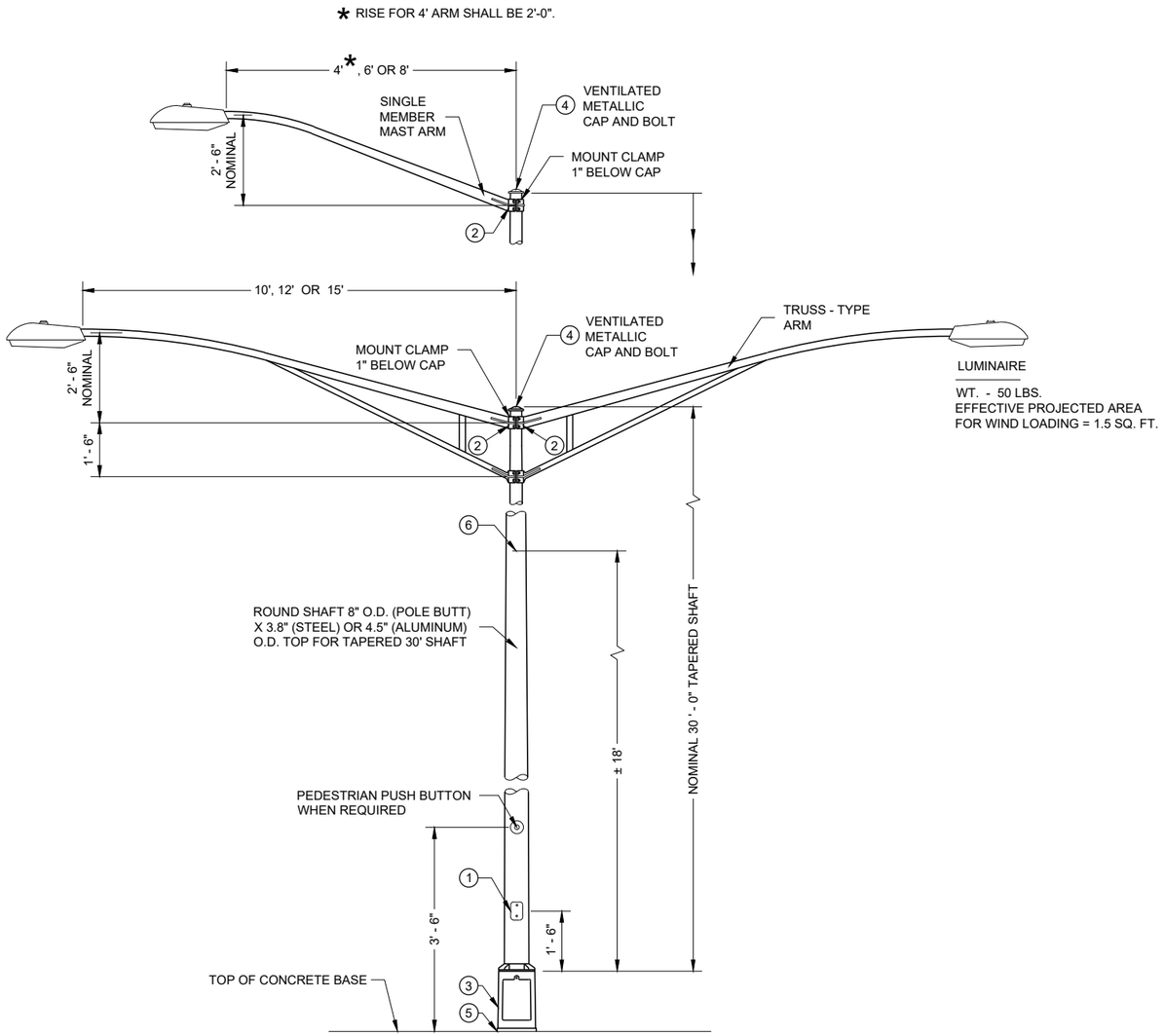


TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

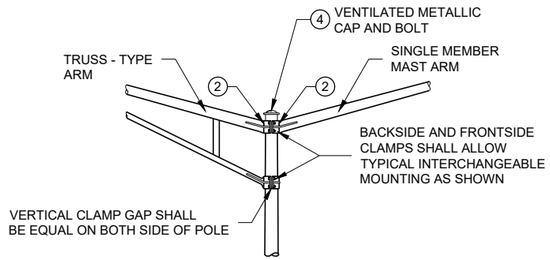
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

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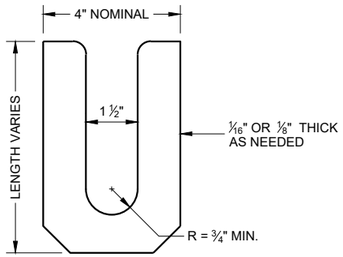
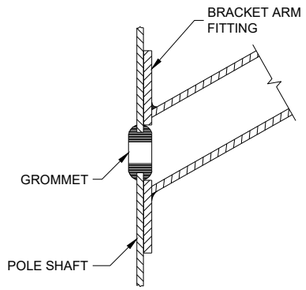
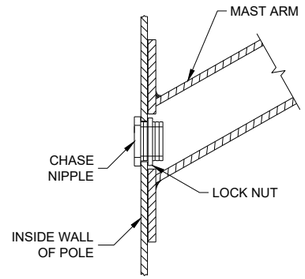


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

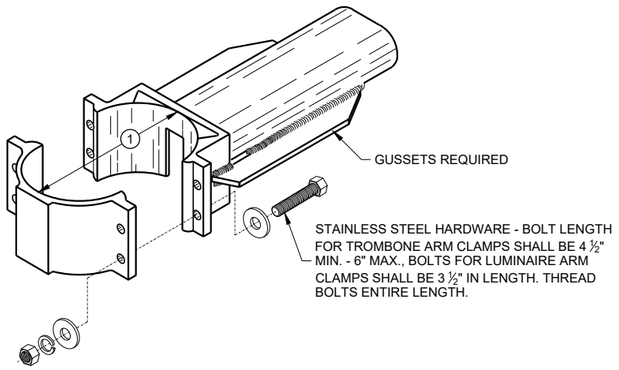
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

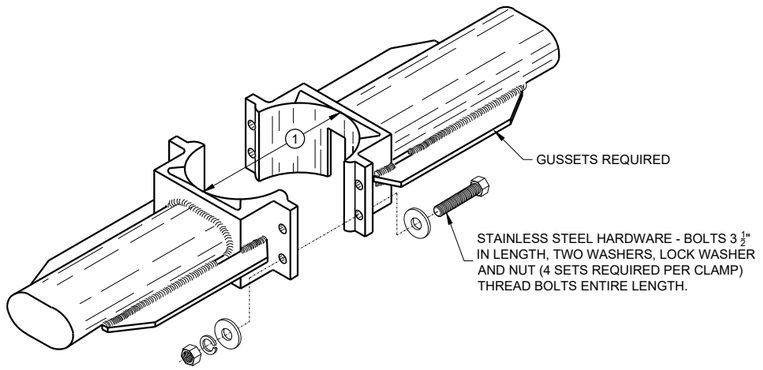
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

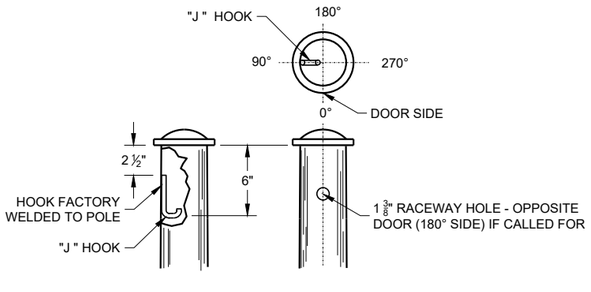
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



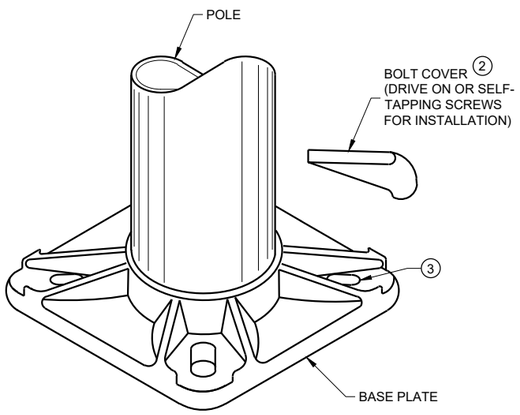
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



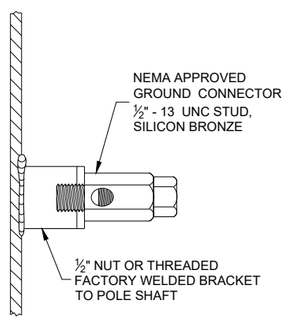
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

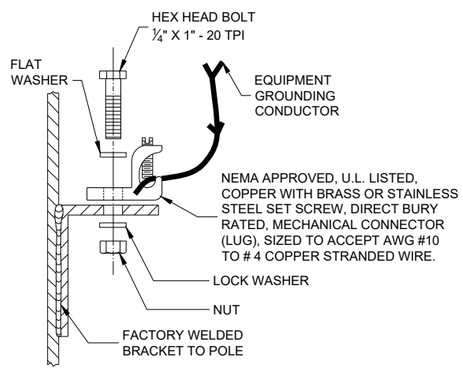


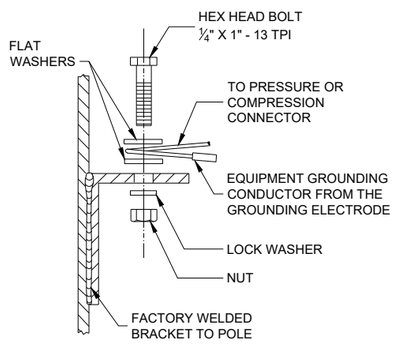
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 531

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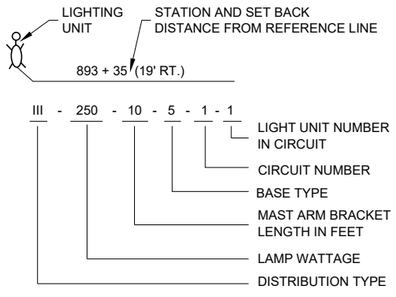
GENERAL NOTES

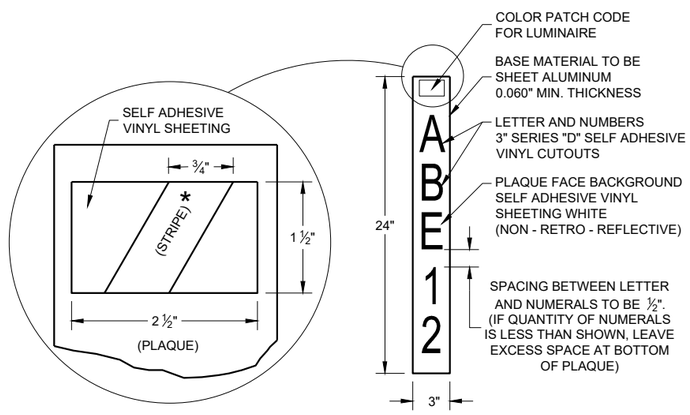
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



LIGHTING UNIT CODE
(TYPICAL)

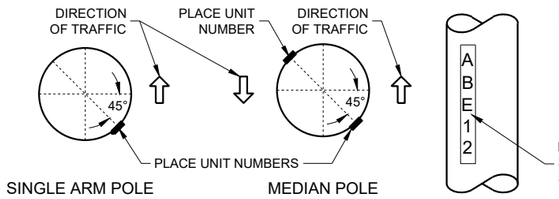


COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W / WHITE STRIPE *
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)
400 WATT - NO PATCH
250 WATT - YELLOW

IDENTIFICATION PLAQUE



NOTES

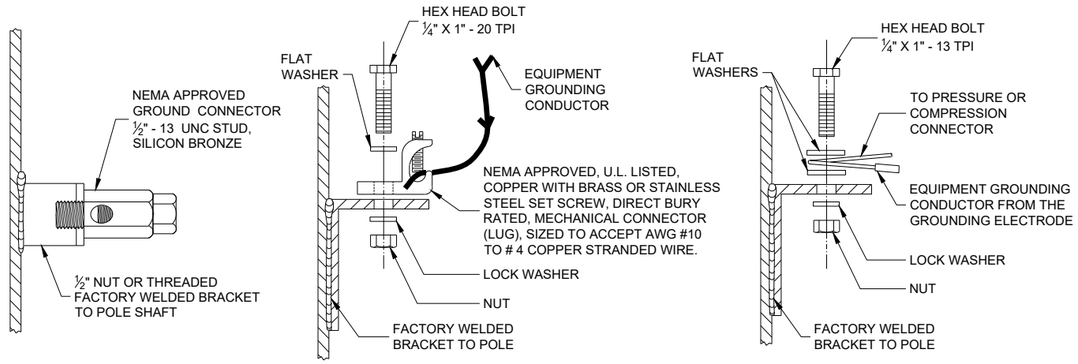
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

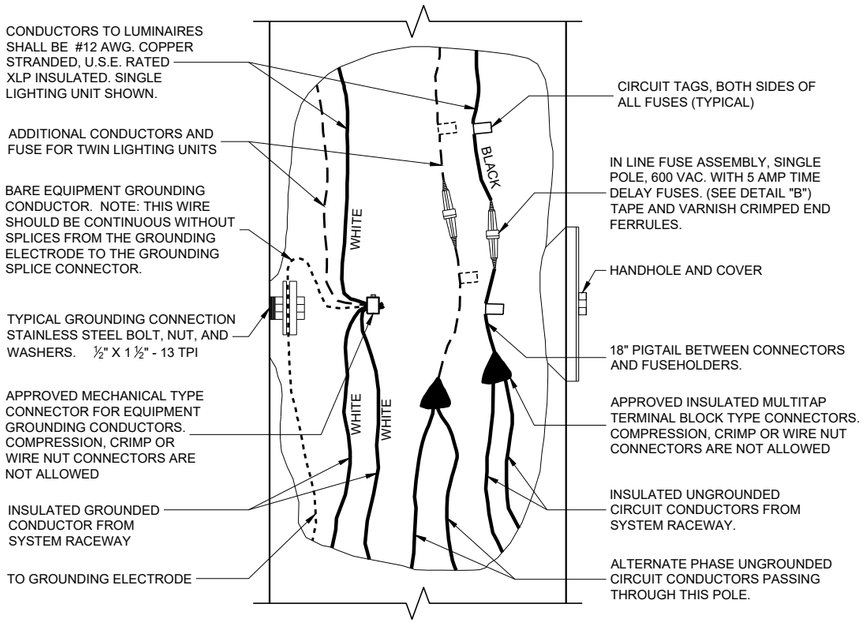
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

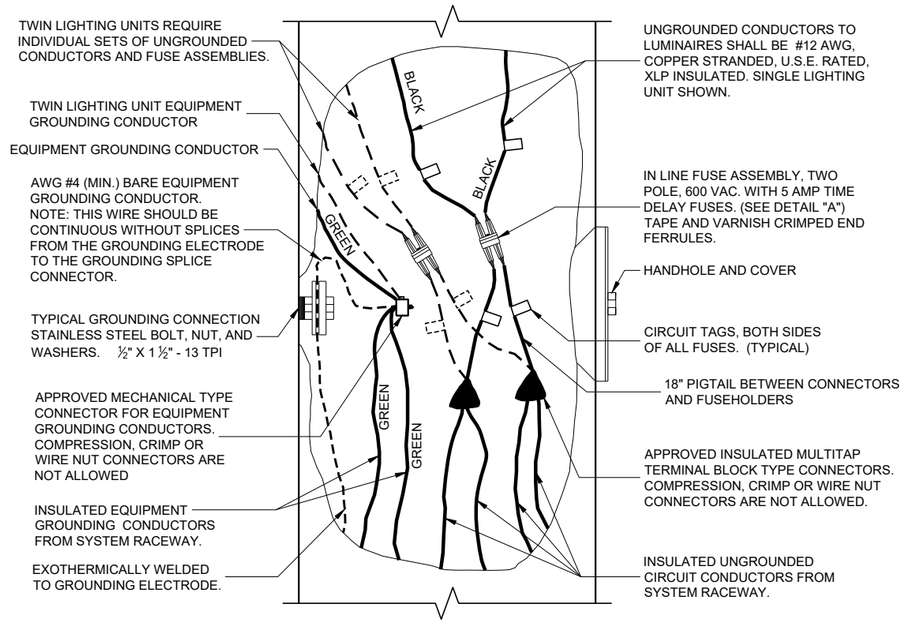


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

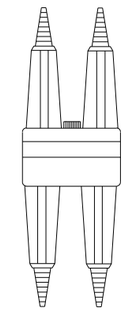
OLD EXISTING FREEWAY WIRING (SOME AREAS)



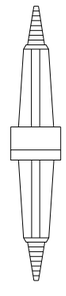
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 532

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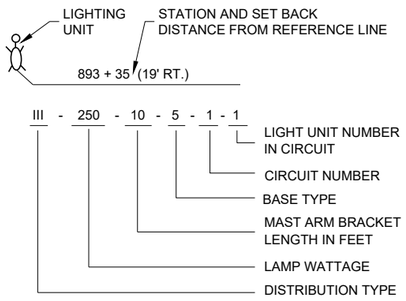
GENERAL NOTES

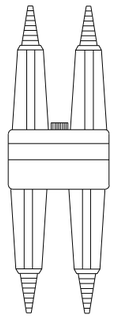
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

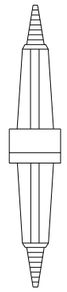
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



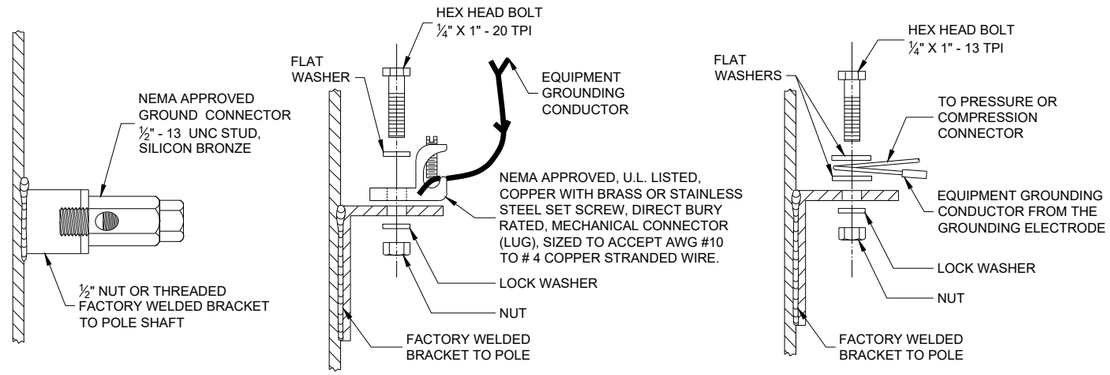
LIGHTING UNIT CODE
(TYPICAL)



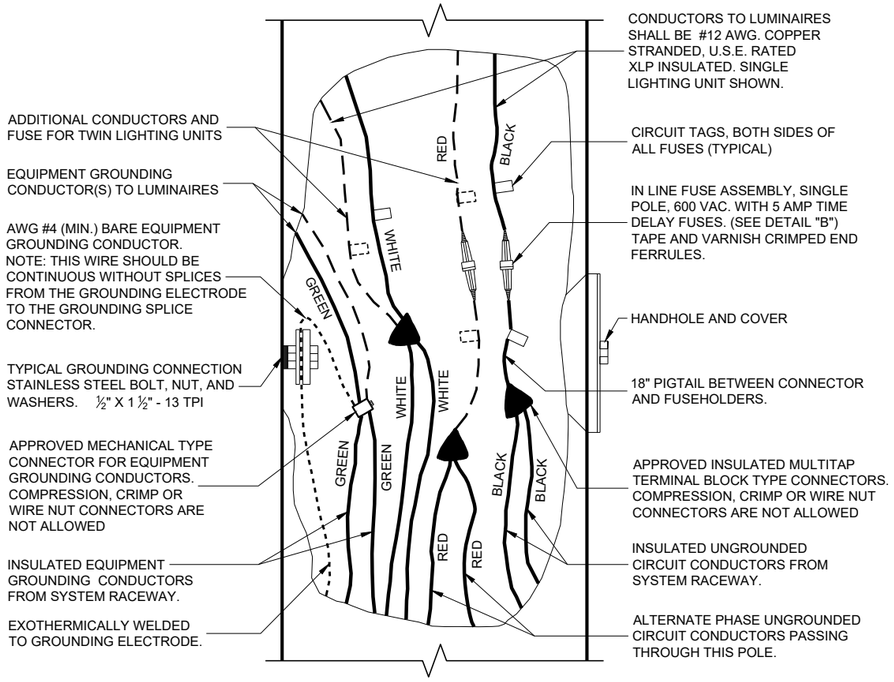
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



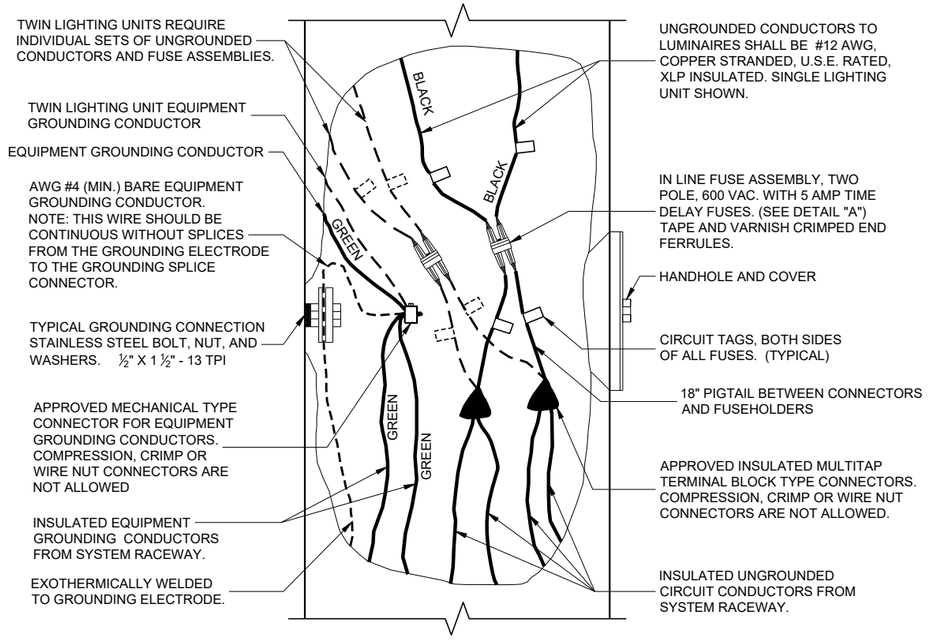
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
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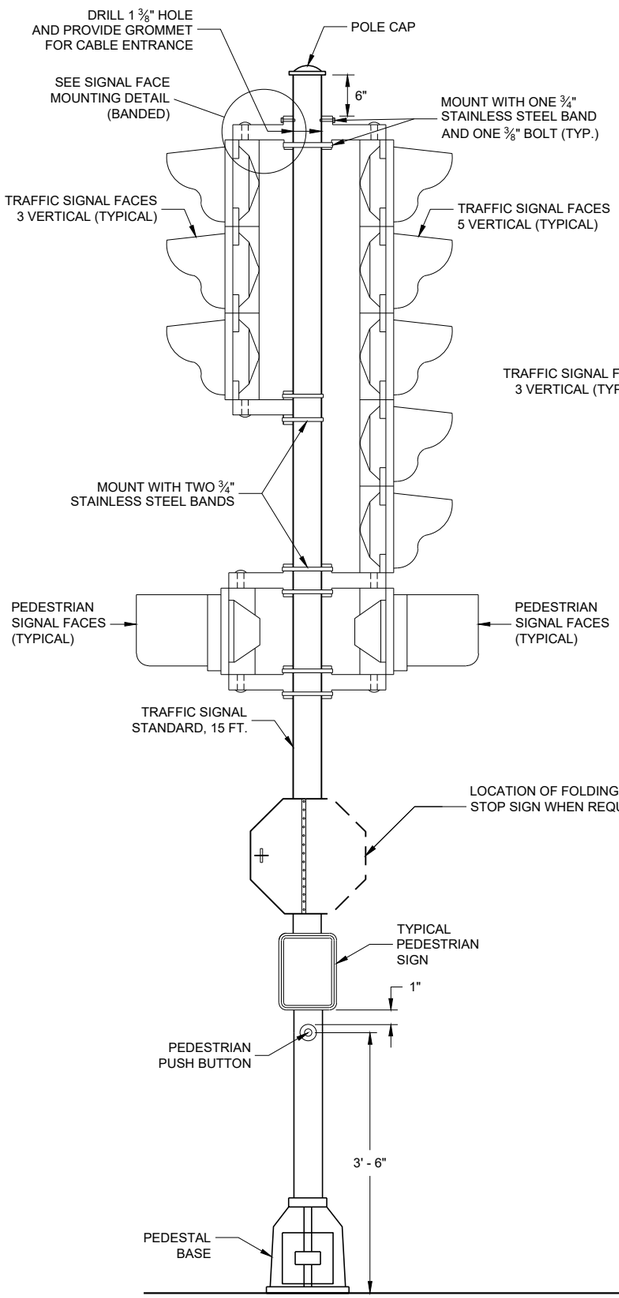
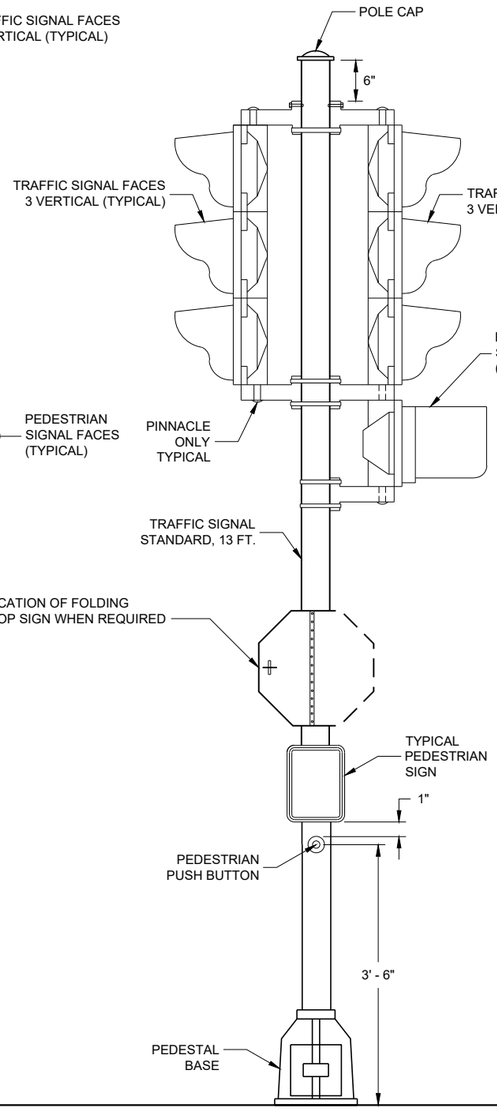
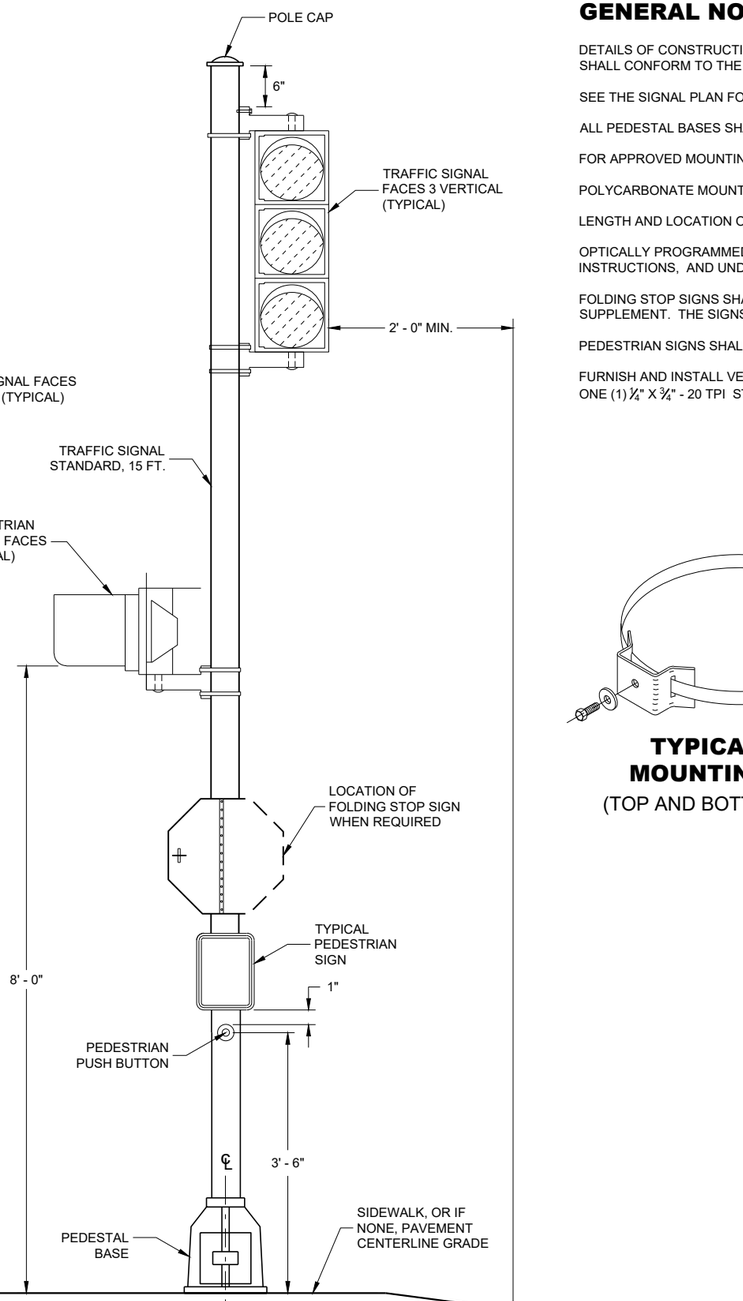


TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

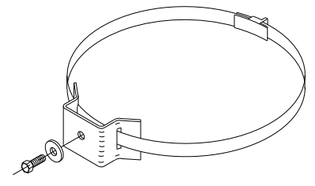
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

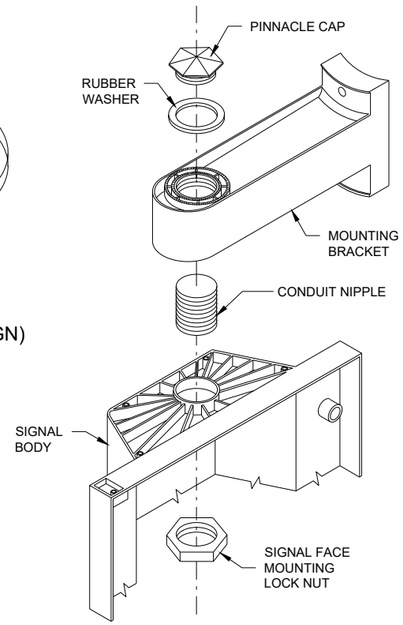
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
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2/28/2013
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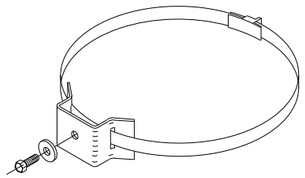
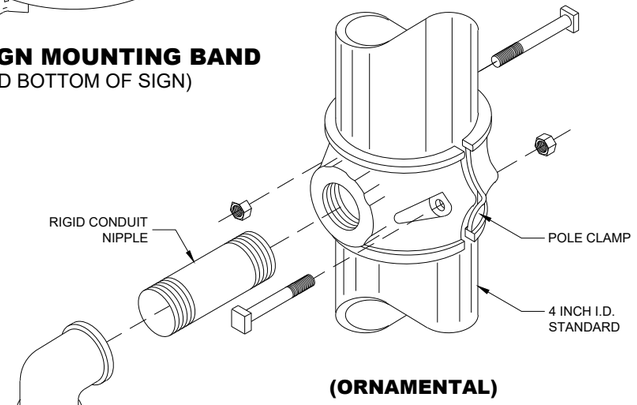
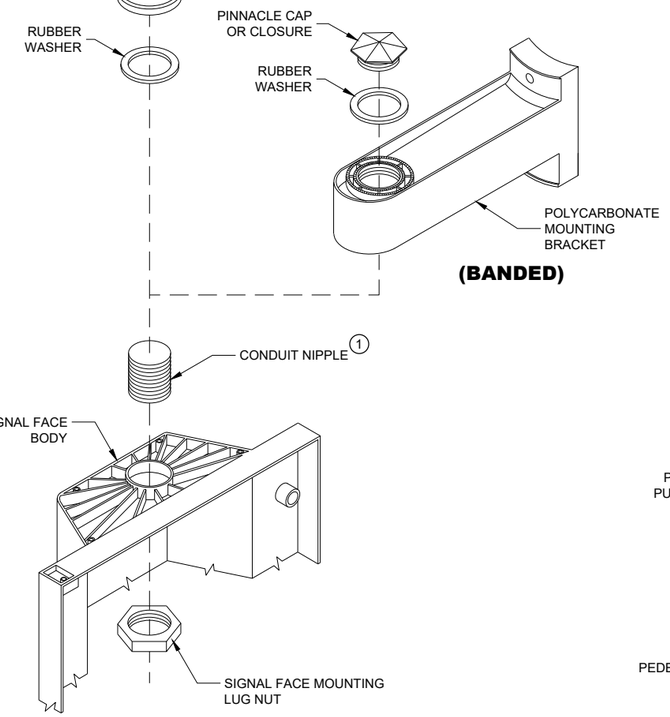


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

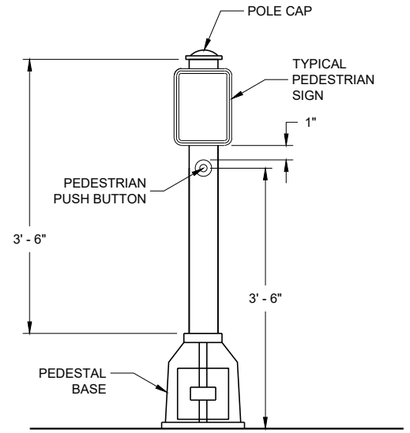


(ORNAMENTAL)



(BANDED)

SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

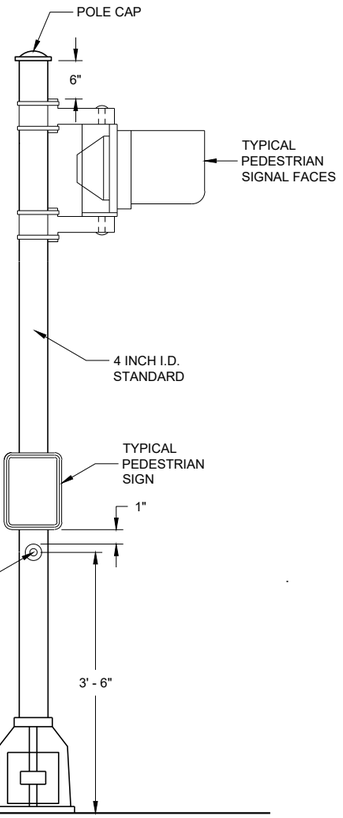
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

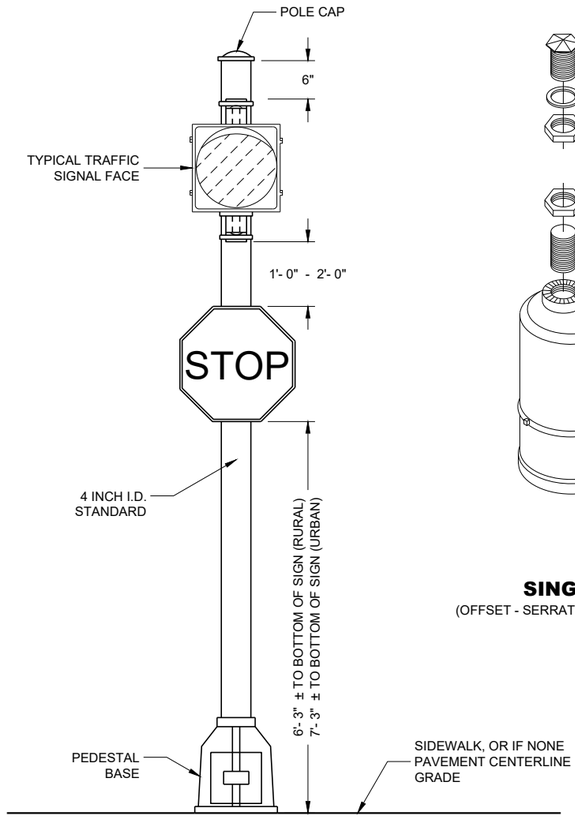
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

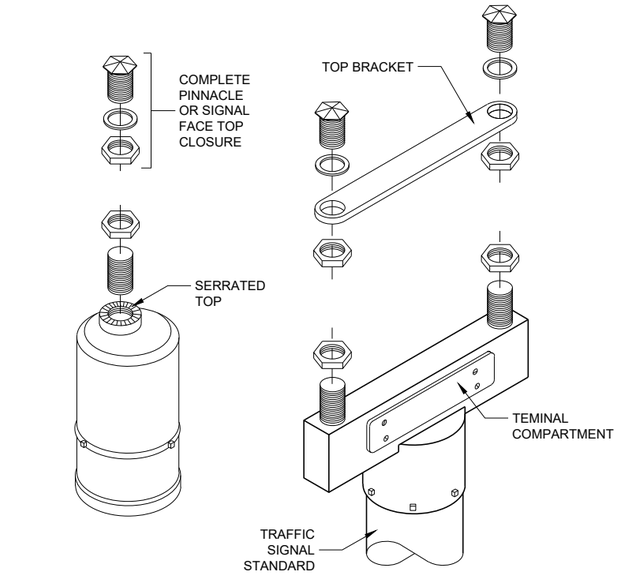
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
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APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 535

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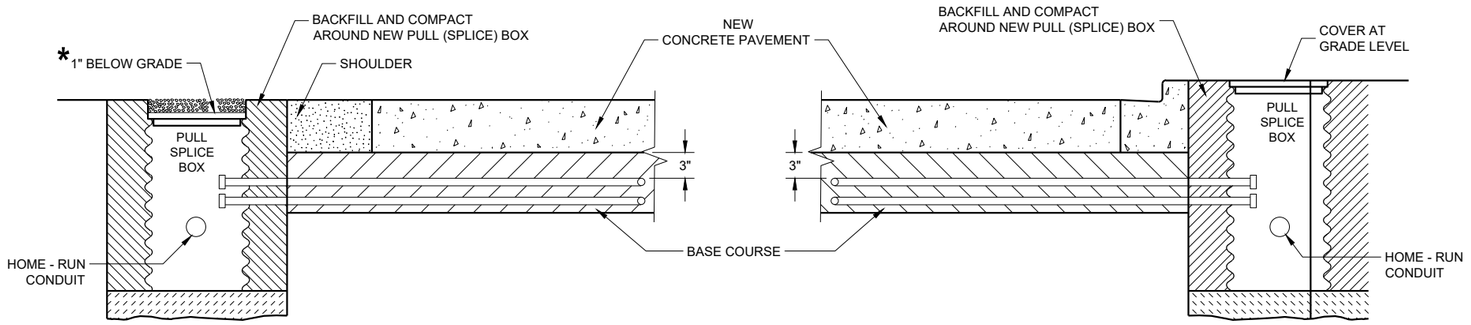


SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

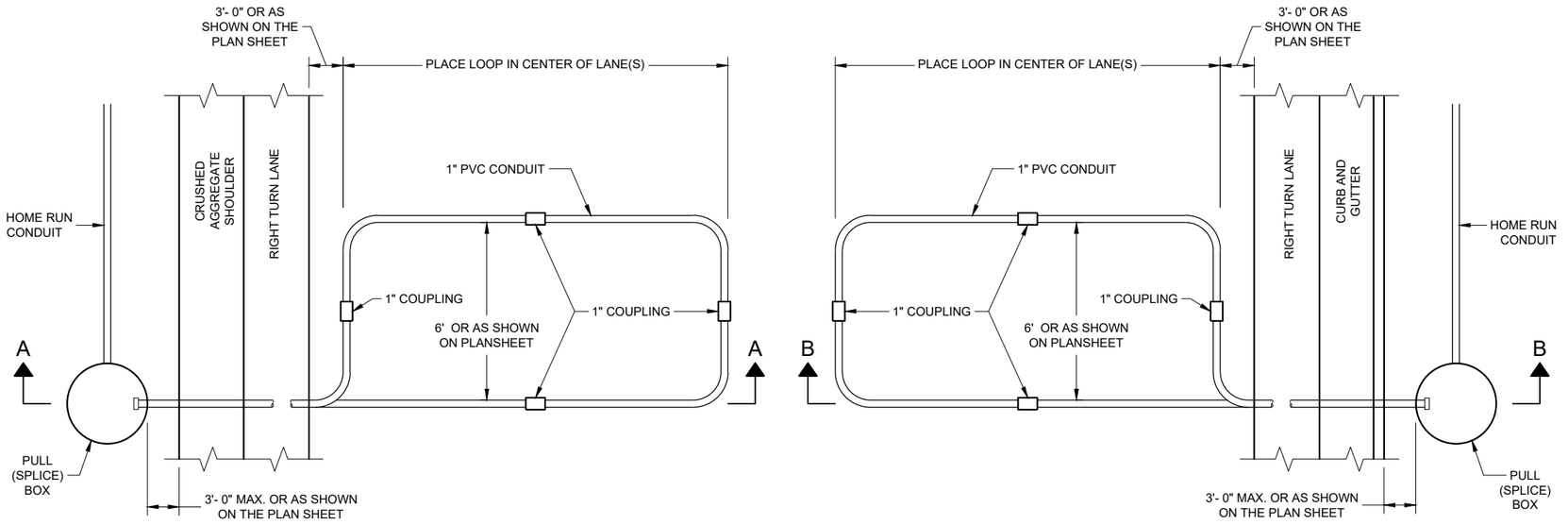
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

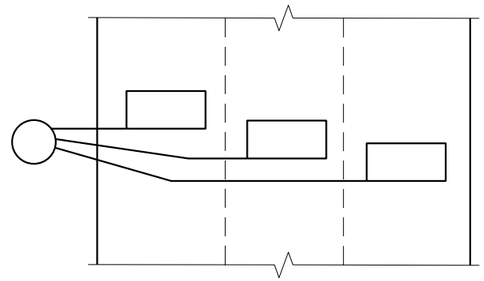
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
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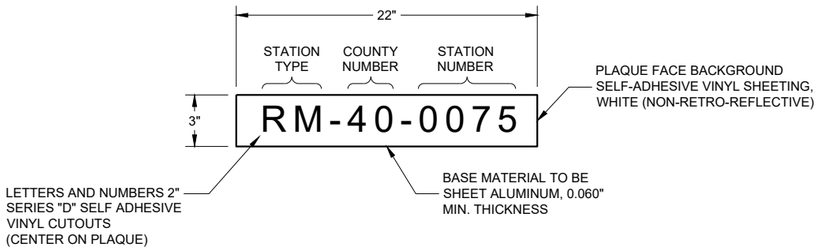
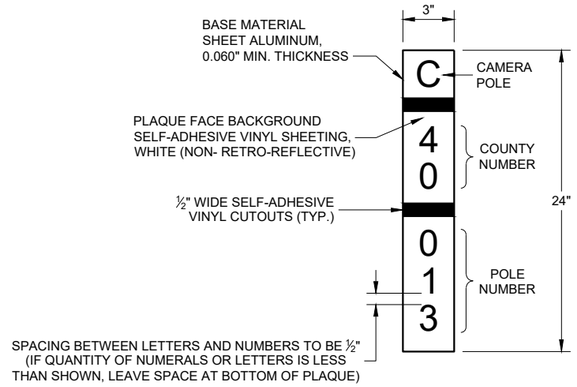


CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



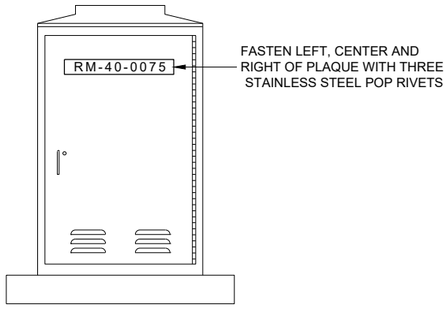
POLE IDENTIFICATION PLAQUE DETAIL

GENERAL NOTES

1. TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2. FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3. FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2 , FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4. COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

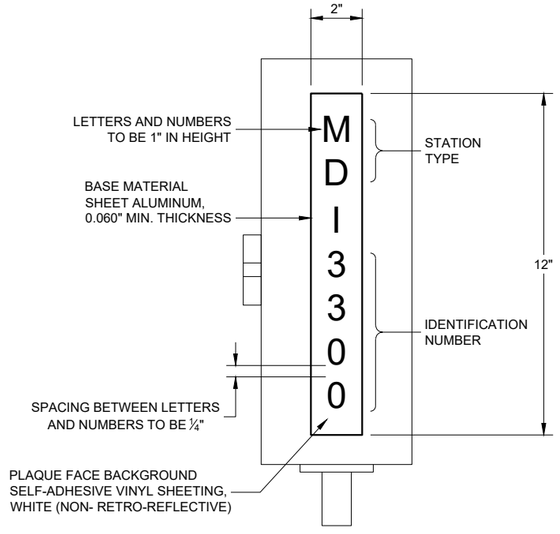
LEGEND STATION TYPE

RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR



CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)



MICROWAVE DETECTOR FIELD CABINET IDENTIFICATION PLAQUE DETAIL

IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

STATE OF WISCONSIN
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APPROVED
September 2014
DATE
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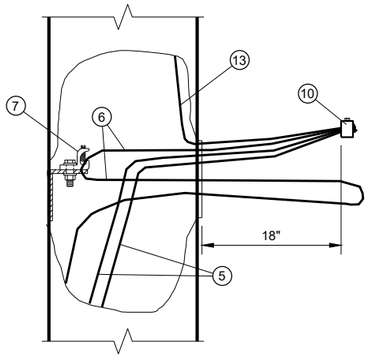
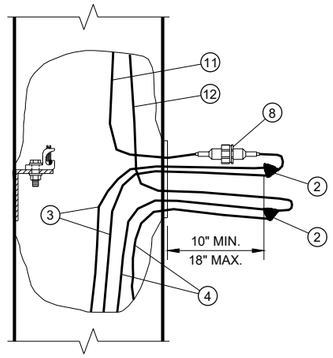
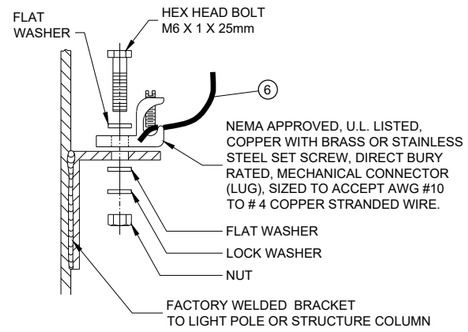


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



HANDHOLE GROUNDING LUG

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

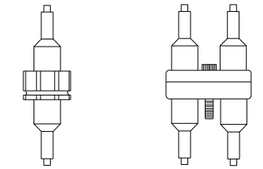
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



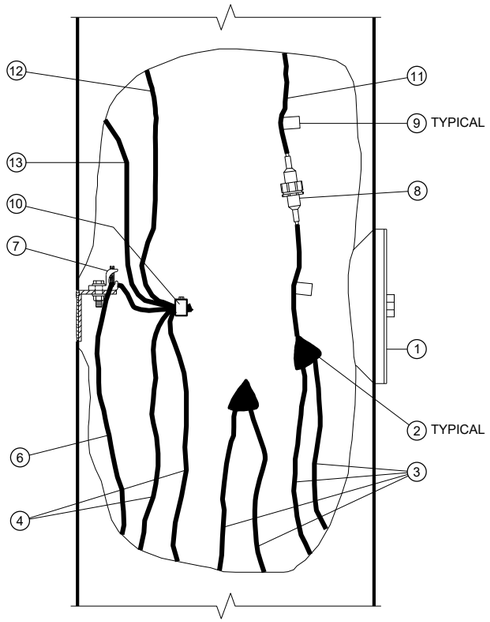
1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

CONDUCTOR COLOR CODES

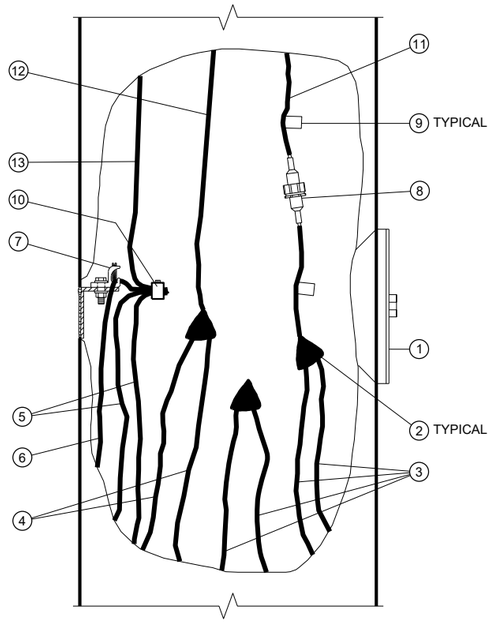
KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



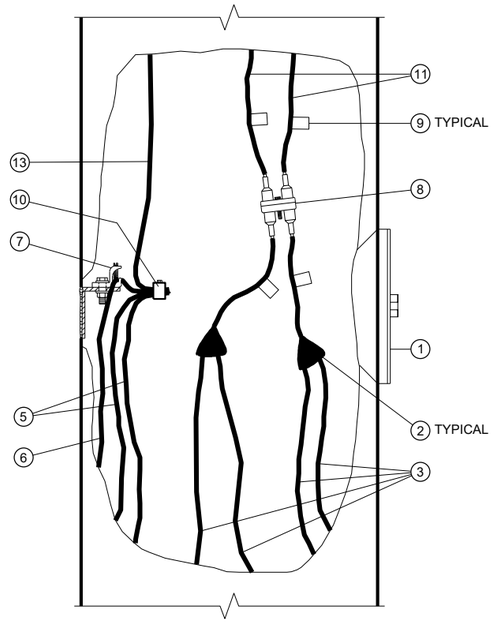
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-ϕ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-ϕ SHOWN; 3-ϕ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE TO PHASE SYSTEMS
1-ϕ SHOWN; 3-ϕ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 538

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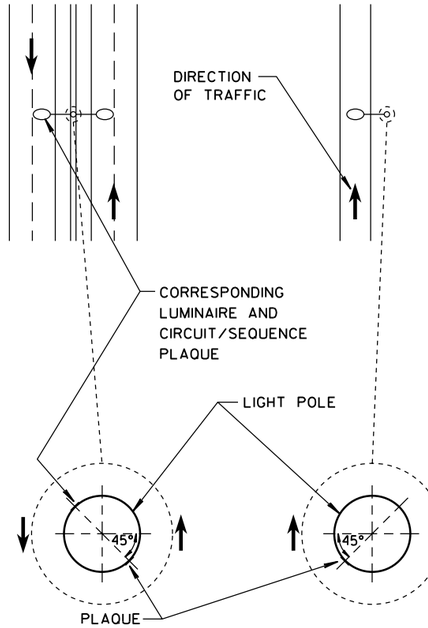


MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

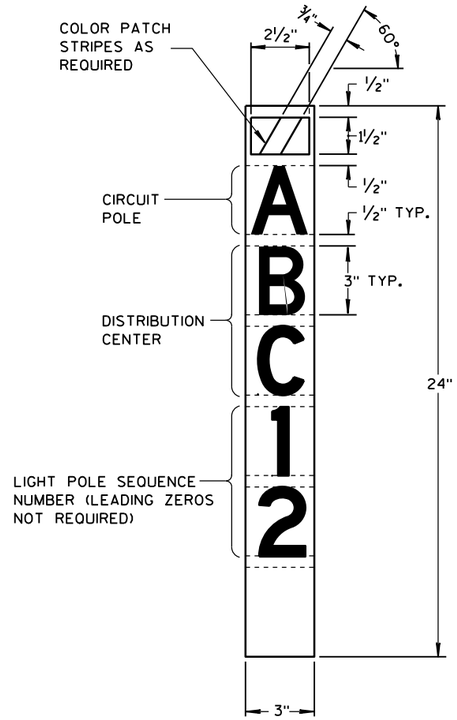
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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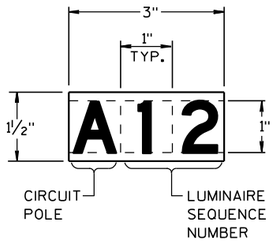
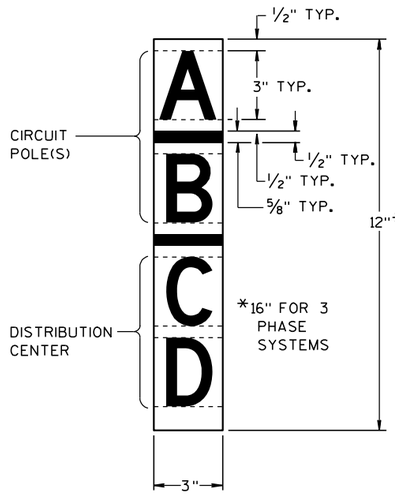


SEQUENCE DECAL

(MOUNT ON LUMINAIRE)



SIGN BRIDGE CIRCUIT PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM STRUCTURES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

ALL SIGN BRIDGE STRUCTURES MUST ALSO HAVE STRUCTURE ID PLAQUES AS SHOWN IN THE STRUCTURE DETAILS.

CIRCUIT PLAQUES SHALL BE MOUNTED IN THE STEM WHICH HAS THE ELECTRICAL CIRCUIT, FACING TRAFFIC.

CIRCUIT IDENTIFICATION PLAQUES SIGN BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010
DATE
/S/ John Corbin
STATE ELECTRICAL ENGI 540
HWYS
FHWA

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S.D.D. 10 A 3-3

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

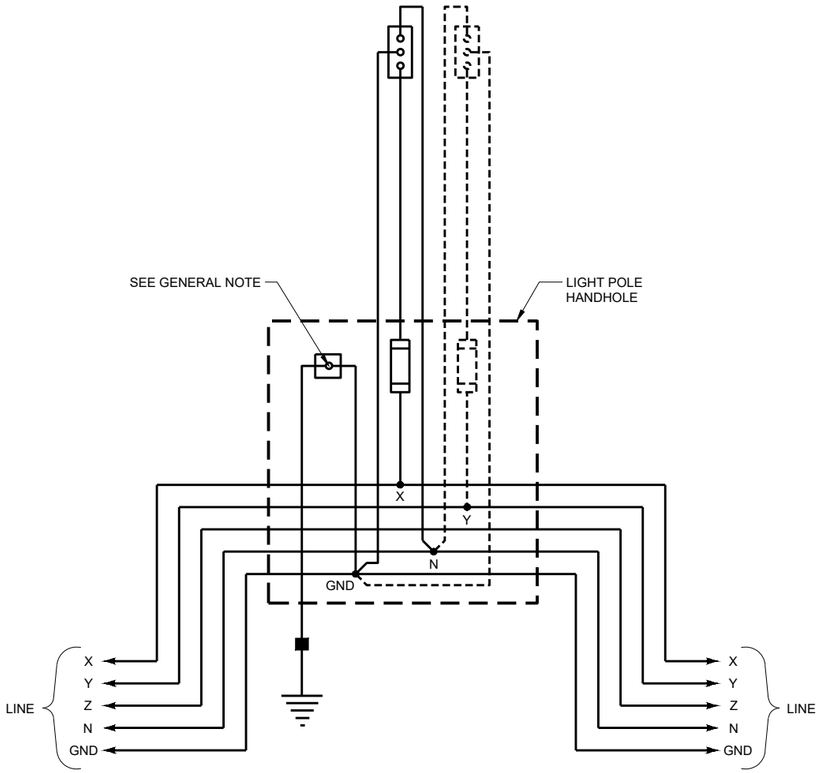
THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

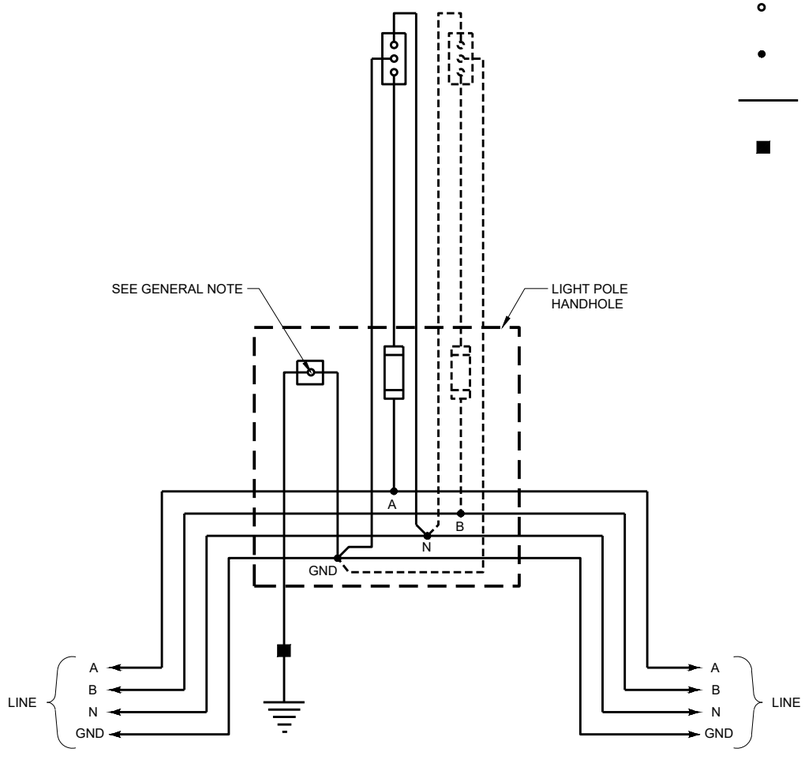
LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
3 - ϕ 208Y / 120VAC OR 480Y / 277VAC 4 WIRE



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
1 - ϕ 120 / 240VAC OR 240 / 480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 541

FHWA

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SDD 10A05 - 03

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SDD 10A05 - 03

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SDD10A01.

USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

THE GROUNDING ELECTROCDE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLD GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

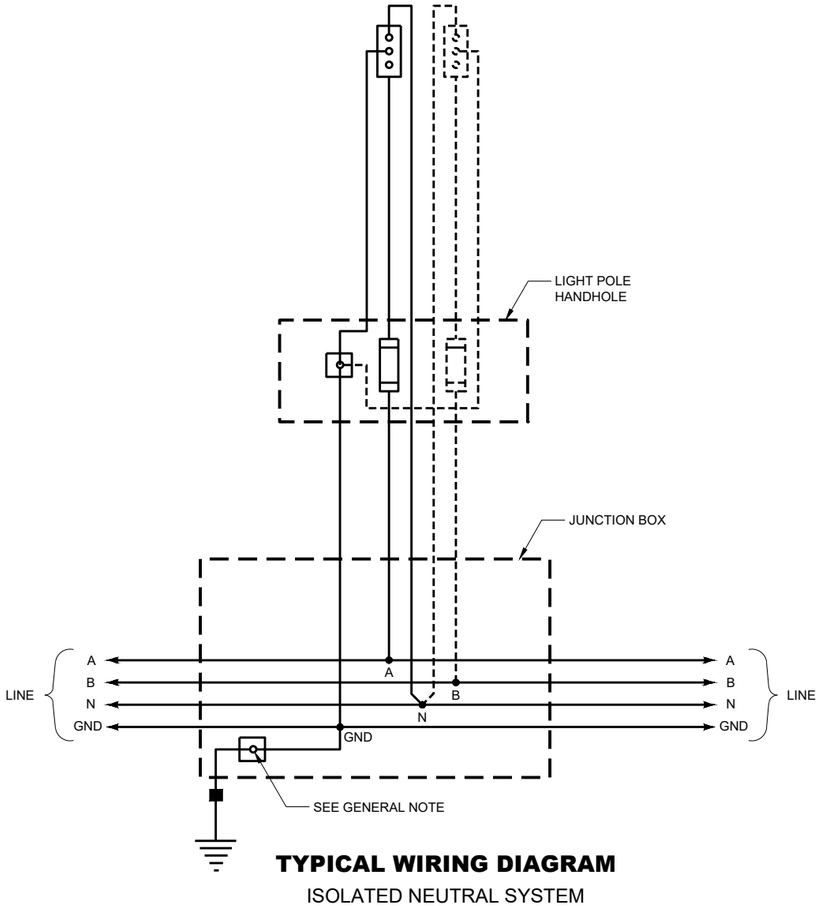
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

WIRE SIZE FROM THE JUNCTION BOX TO THE POLE HANDHOLE SHALL EQUAL THE SIZE OF THE POLE WIRE.

THE INTENT OF JUNCTION BOX SPLICES AS SHOWN IN THIS DETAIL IS FOR LIGHTING SYSTEMS WITH HEAVY LINE WIRE TOO LARGE TO PULL THROUGH THE CONDUIT INTO THE POLE HANDHOLE, DUE TO CONDUIT FILL REQUIREMENTS OF N.E.C. AND / OR THE STIFFNESS OF THE WIRE COMPARED TO THE NUMBER OF BENDS IN THE CONDUIT. IN CASES WHERE LINE WIRE IS LIGHTER, SUCH AS SMALL ER SYSTEMS OR TOWARD THE FURTHEST END OF A LARGER SYSTEM PULL THE LINE WIRE INTO THE POLE HANDHOLE FOR SPLICING.

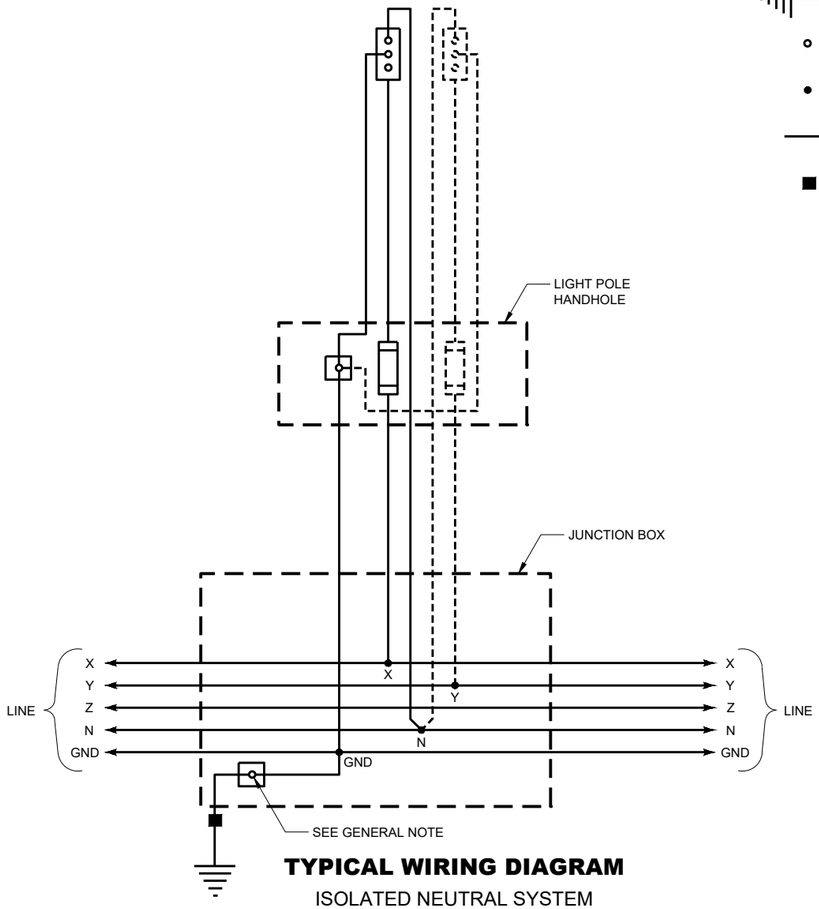
LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
1 - ϕ 240 / 480VAC 3 WIRE



TYPICAL WIRING DIAGRAM

ISOLATED NEUTRAL SYSTEM
3 - ϕ 480Y / 277VAC 4 WIRE

ELECTRICAL DETAILS
MEDIAN MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

542

FHWA

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SDD 10A11 - 03

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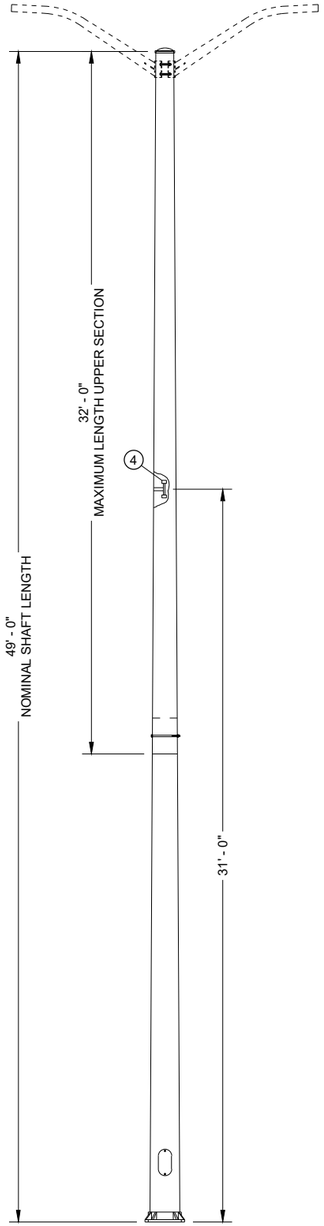
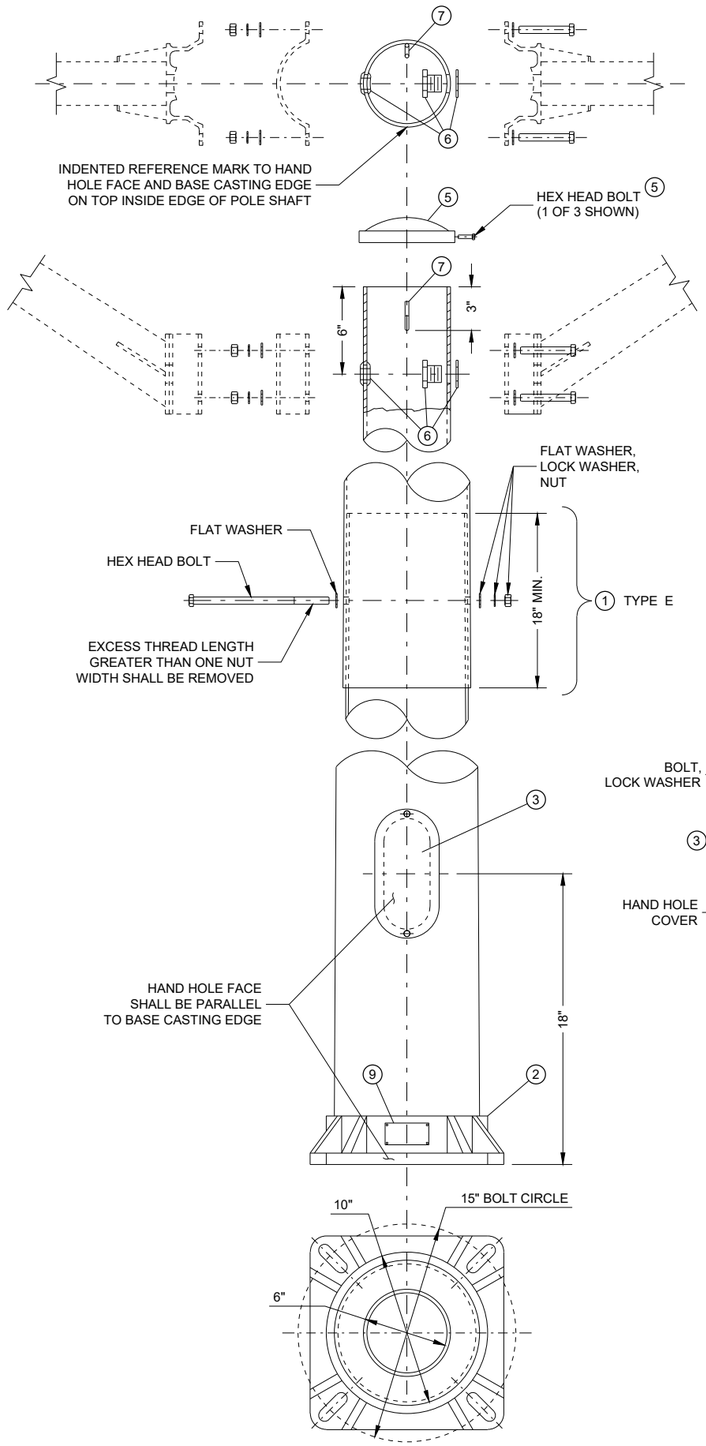
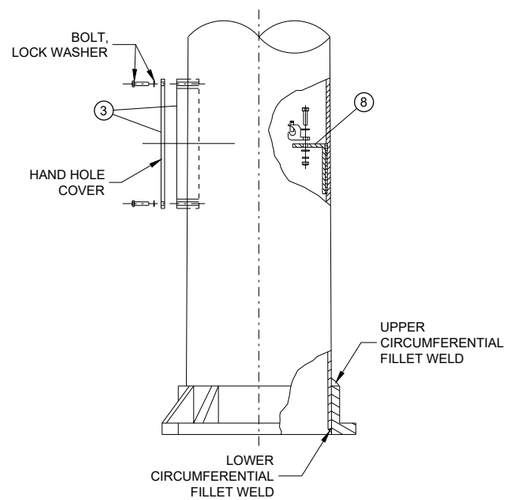
SDD 10A11 - 03



POLE, TYPE A



(TOP VIEW)



GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM, EXCEPT THAT BASE CASTINGS SHALL BE CONSTRUCTED OF 356-T6 ALUMINUM.

HEAT TREATMENT OF WELDMENTS IN STRUCTURAL AREAS (e.g. BASE CASTING, HAND HOLE, BRACKET FOR GROUNDING LUG) REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE ARMS AND CLAMP ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A.

(1) OPTIONAL TELESCOPING FIELD JOINT SECURED BY A ⅝" - 11 TPI THROUGH BOLT OR STUD.

(2) SHOE BASE.

(3) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY SECURED BY TWO (2) ¼" X ¾"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

HANDHOLE SHALL BE 90 DEGREES FROM LUMINAIRE ARMS OF TWIN LUMINAIRE POLES; 180 DEGREES FROM LUMINAIRE ARM OF SINGLE LUMINAIRE POLES; 0 DEGREES FROM LUMINAIRE ARM FOR STRUCTURE MOUNTED POLES.

(4) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

(5) FURNISH AND INSTALL CAST OR METALLIC (ALUMINUM ALLOY) POLE CAP. FASTEN CAP WITH THREE ¼" X ¾"- 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(6) 1 ⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEO- PRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

(7) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

(8) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR ¼" X ½" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(9) MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

POLE TYPE (NOM. SHAFT LENGTH)	TYPICAL APPLICATION	ARM & LUMINAIRE LOADS (MAX.)	ADDITIONAL (MAX.) LOADS
TYPE A, (49' - 0")	FREEWAY MEDIAN OR STRUCTURE MOUNT	SINGLE ARM, UP TO 20 FT., TRUSS TYPE OR TWIN ARMS UP TO 10' SINGLE MEMBER	UP TO 20 SQ. FT. OF TRAFFIC SIGNS, MOUNTED AS HIGH AS 15 FT. TO TOP OF SIGN.

POLES, TYPE E
ALUMINUM - 49' - 0" SHAFT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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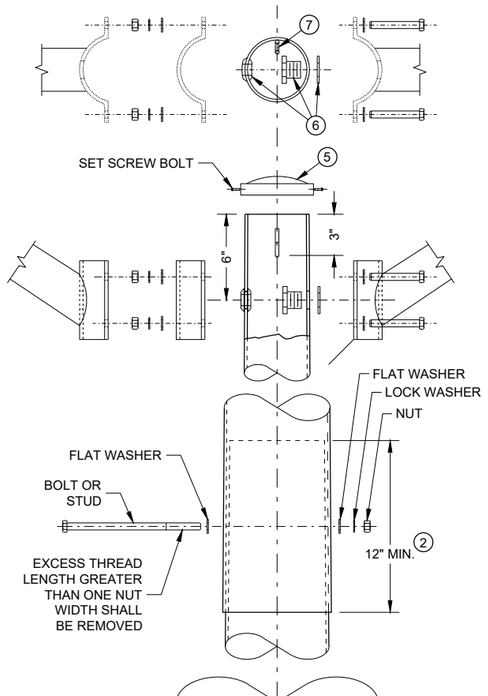
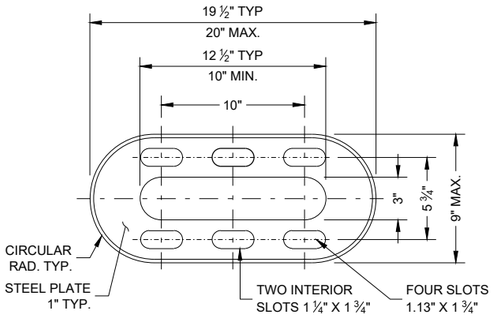
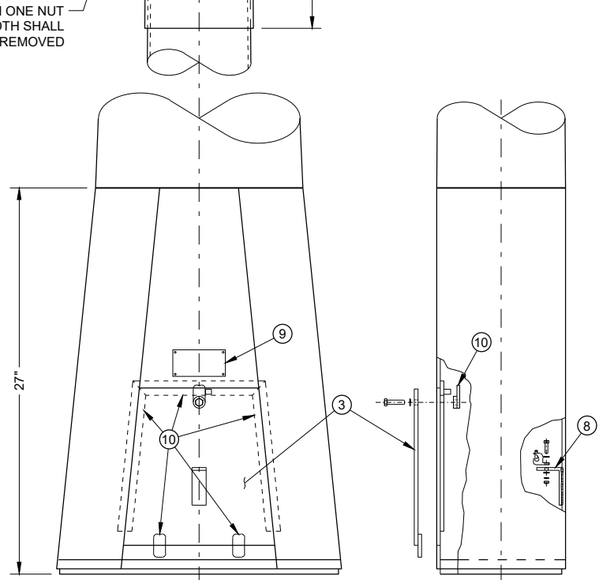


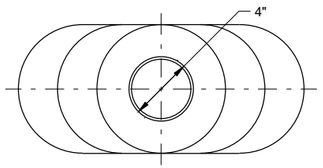


BOTTOM VIEW

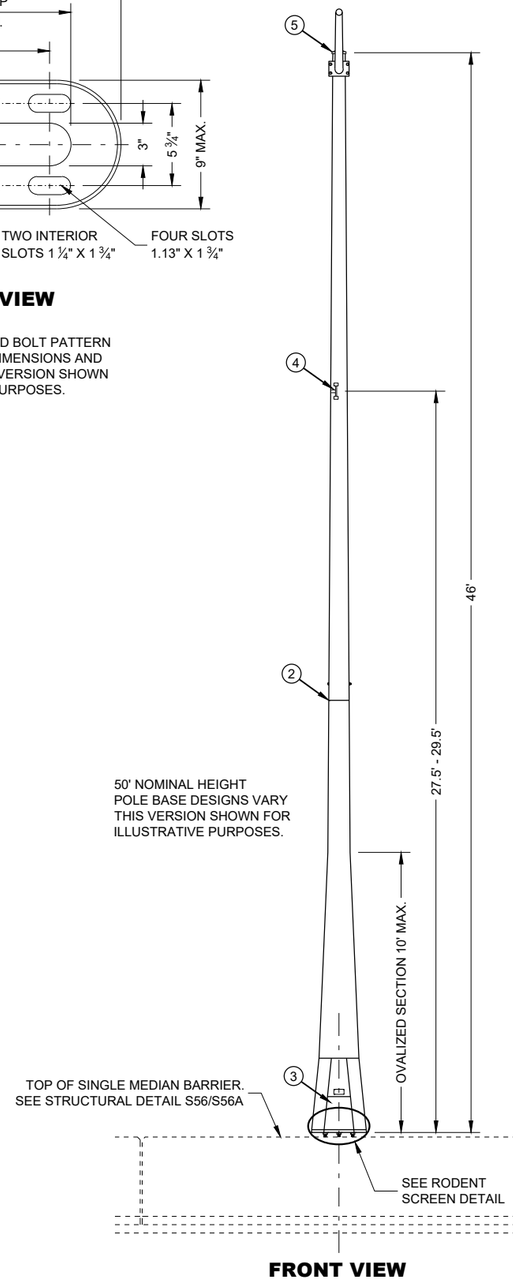
MAX DIMENSIONS AND BOLT PATTERN REQUIRED. OTHER DIMENSIONS AND SHAPES VARY. THIS VERSION SHOWN FOR ILLUSTRATIVE PURPOSES.



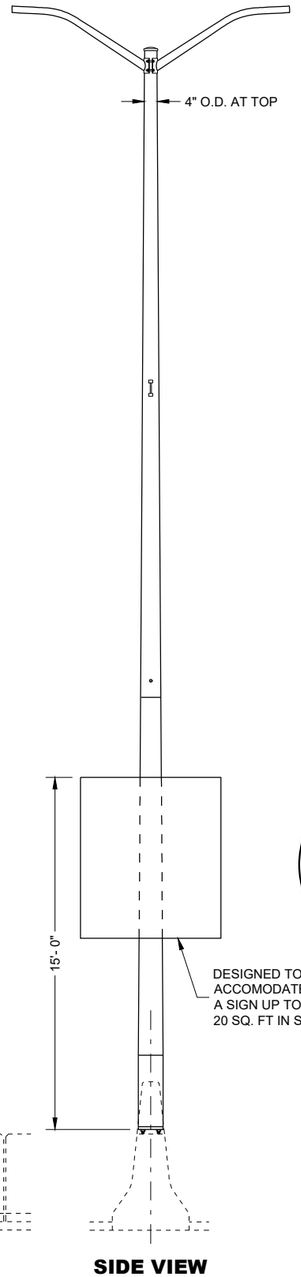
FRONT VIEW **SIDE VIEW**



BOTTOM VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

COLLAR-MOUNT LUMINAIRE ARMS AND CLAMP ASSEMBLIES, MEDIAN BARRIER, AND ANCHOR BOLT ASSEMBLIES SHOWN FOR INFORMATION ONLY (PAID SEPARATELY).

POLES SHALL BE MOUNTED WITH ANCHOR BOLT ASSEMBLIES. ANCHOR BOLT ASSEMBLIES AND LEVELING PLATES ARE INCIDENTAL TO CONCRETE BASE OR STRUCTURE ANCHORAGE ITEM. THE REQUIRED RODENT SCREEN SHALL BE INCIDENTAL TO THE INSTALLATION OF THE POLE.

LUMINAIRE LOADING FOR DESIGN CALCULATIONS SHALL BE 50-LB., 1.5 SQ. FT. EPA.

(1) GALVANIZED STEEL MESH (RODENT SCREEN) AND 3/4" STAINLESS STEEL BANDING.

(2) OPTIONAL TELESCOPING FIELD JOINT SECURED BY A 5/8"-11 UNC THROUGH BOLT OR STUD. THE OVERLAP OF THE UPPER AND LOWER SECTIONS SHALL BE NOT LESS THAN 12".

(3) HATCH COVER, SECURED BY ¼"- 20 UNC HEX HEAD BOLT. THE POLE SHALL BE INSTALLED SUCH THAT THE HATCH IS ON THE RIGHT SIDE OF THE BARRIER UNLESS OTHERWISE SHOWN IN THE PLANS.

(4) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER. MOUNT AT ELEVATION 27.5' TO 29.5' ±.

(5) VENTILATED POLE CAP. SECURE WITH ONE OR MORE 1/4"-20 UNC SET SCREW BOLTS.

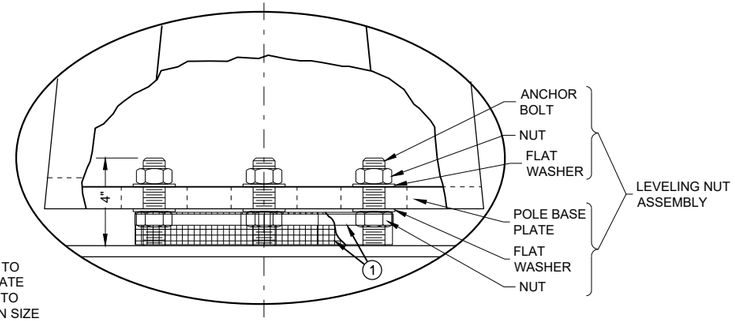
(6) HOLE (FACTORY DRILLED PRIOR TO GALVANIZING, 2 EACH) AND 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET), PER EACH REQUIRED LUMINAIRE ARM.

(7) FACTORY-WELDED "J" HOOK FOR POLE WIRE STRAIN RELIEF.

(8) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE. (LUG AND HARDWARE PAID UNDER SEPARATE ITEMS; SHOWN FOR INFORMATION ONLY). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(9) MANUFACTURER'S PLATE SHOWING WISDOT POLE TYPE, MANUFACTURER, AND DATE.

(10) HATCH COVER LOCKING CLIPS, BACKING STRAPS AND MOUNTING CLIPS VARY. SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.



RODENT SCREEN DETAIL

POLE, TYPE F

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 544

FHWA

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SDD 10A17 - 05d

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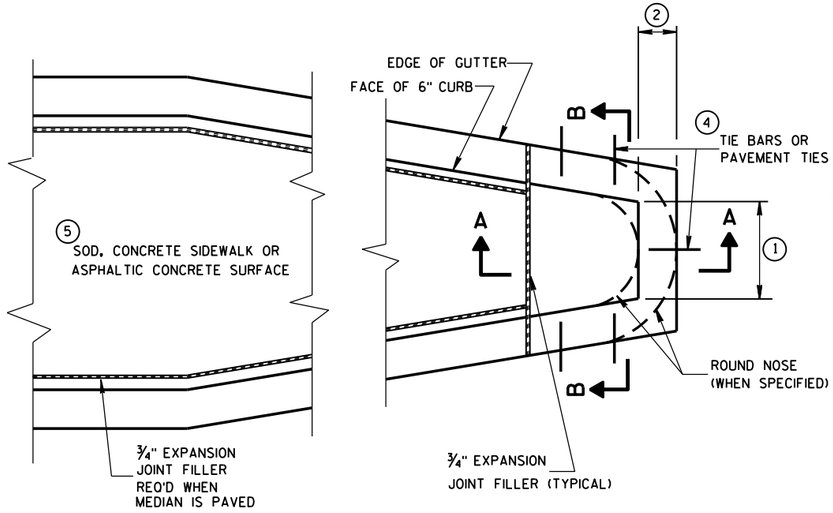
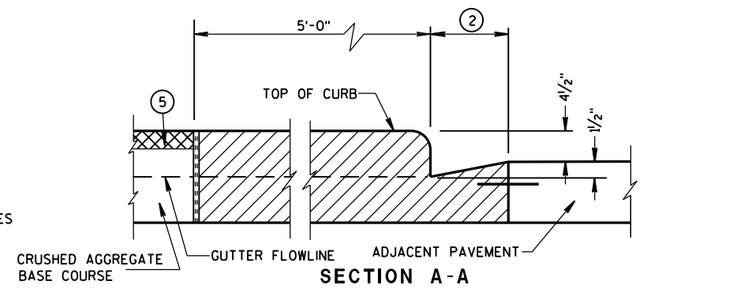
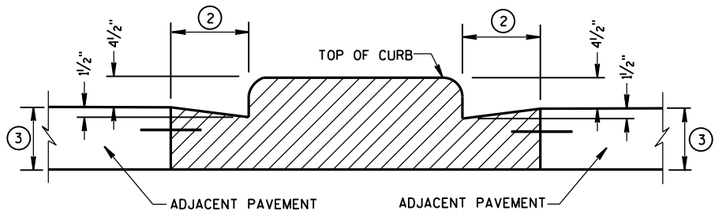


CONCRETE MEDIAN BLUNT NOSE DETAIL





GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

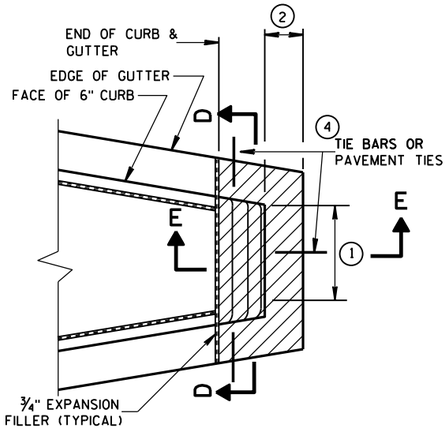
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

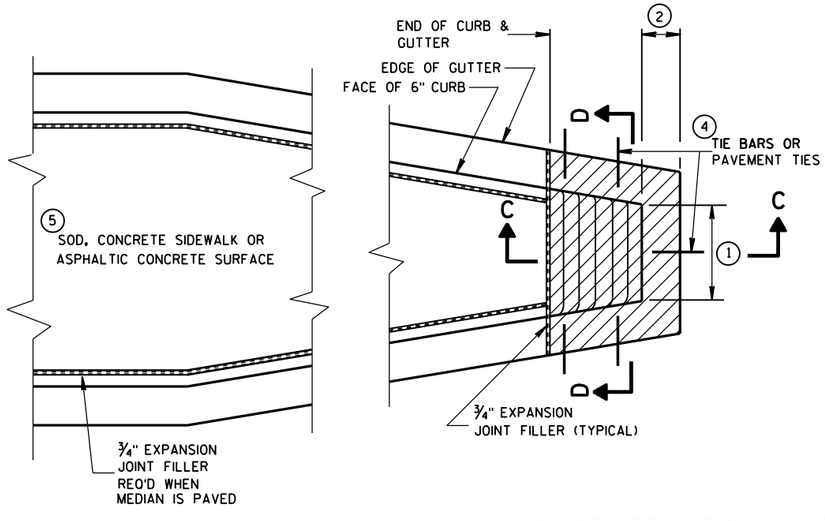
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

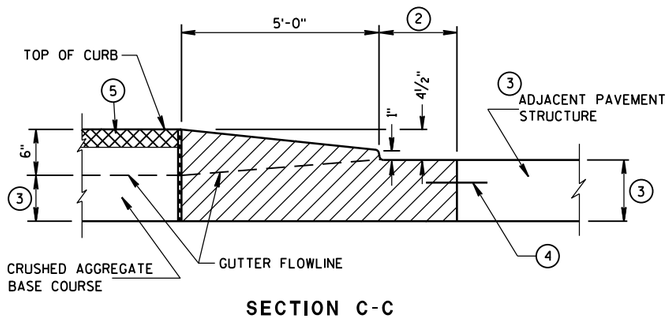
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

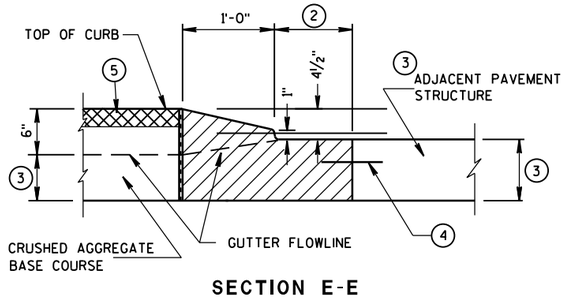
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



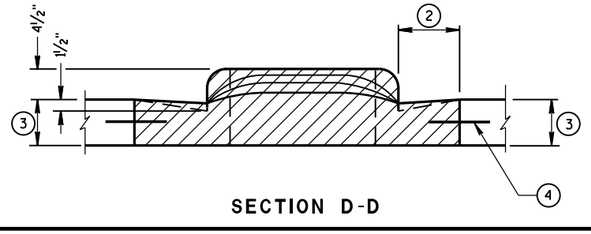


CONCRETE MEDIAN SLOPED NOSE TYPE 1





CONCRETE MEDIAN SLOPED NOSE TYPE 2



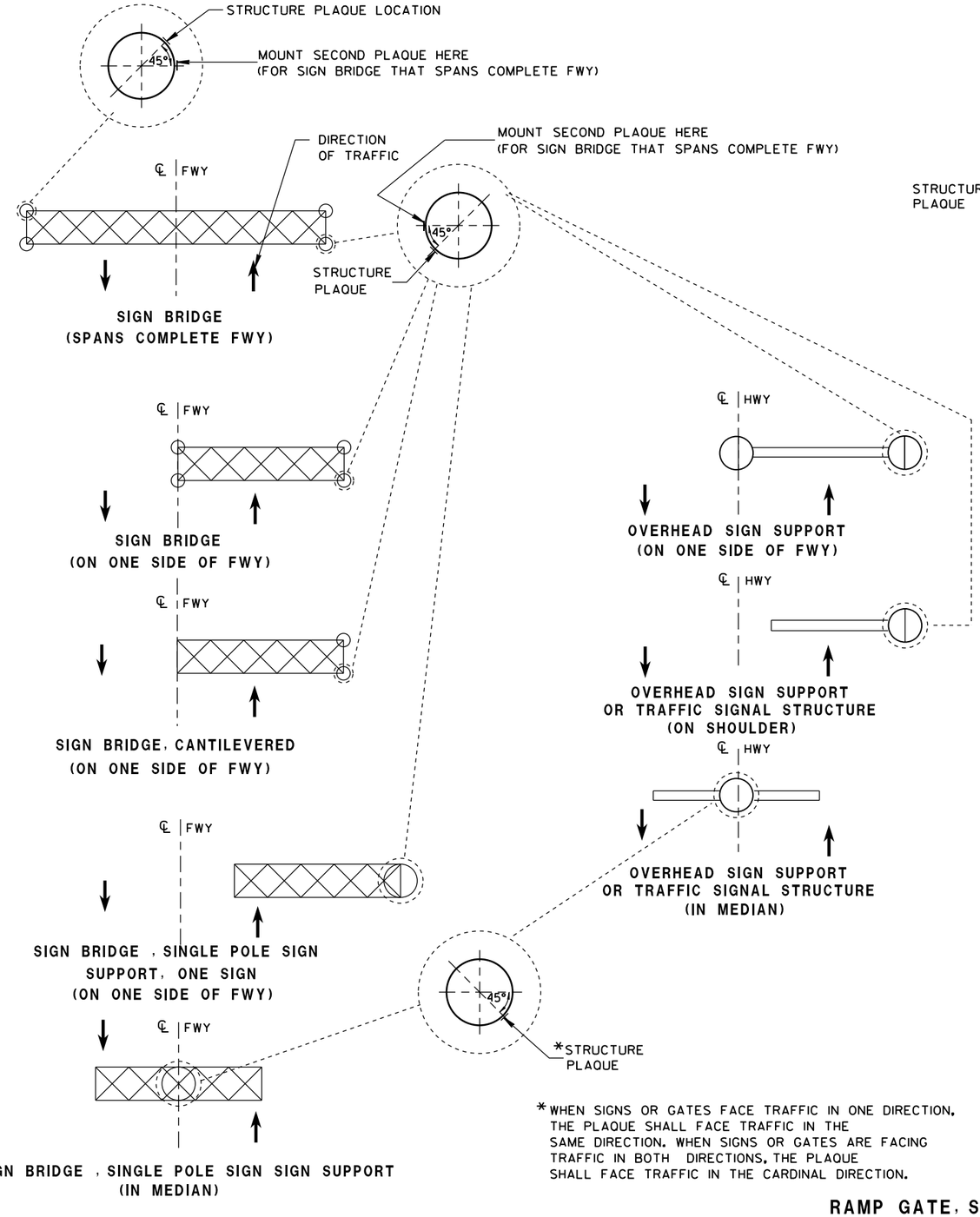
CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

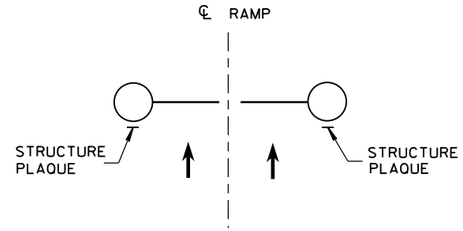
S.D.D. 11 B 2-2

S.D.D. 11 B 2-2

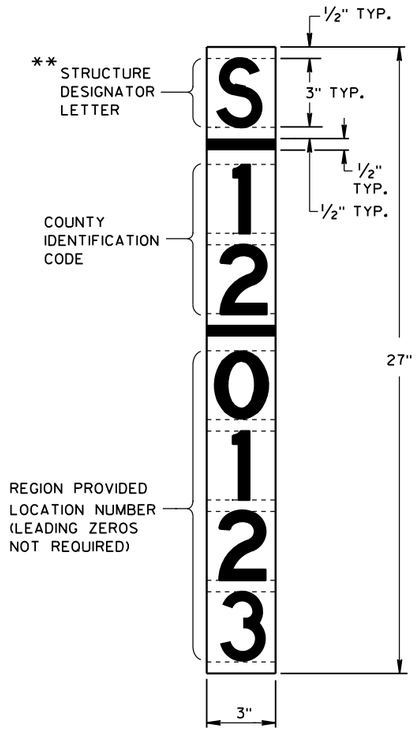


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE (ACROSS FWY ON-RAMP)



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

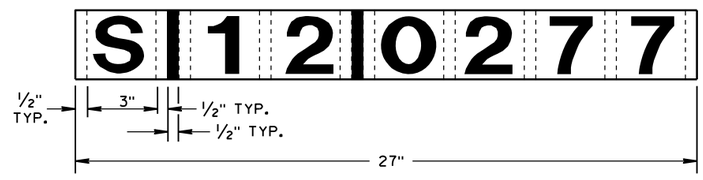
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA

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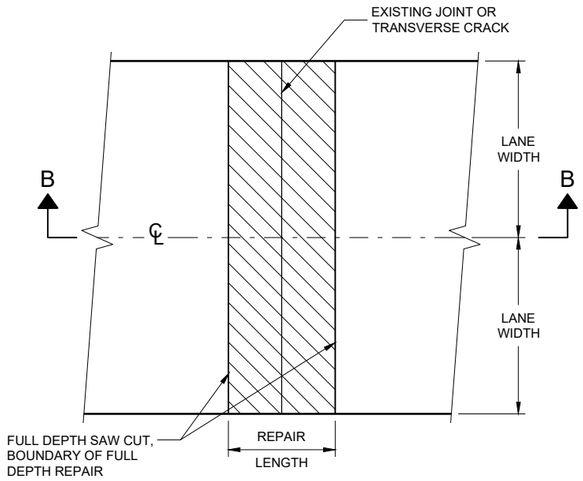
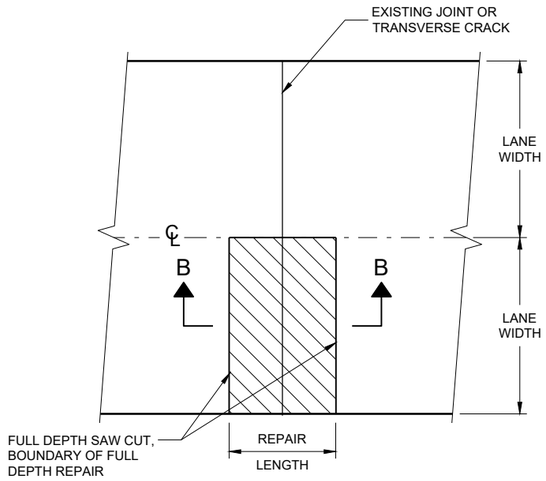
S.D.D. 12 A 4-3



PLAN VIEW
DOUBLE LANE REPAIR



PLAN VIEW
SINGLE LANE REPAIR

GENERAL NOTES

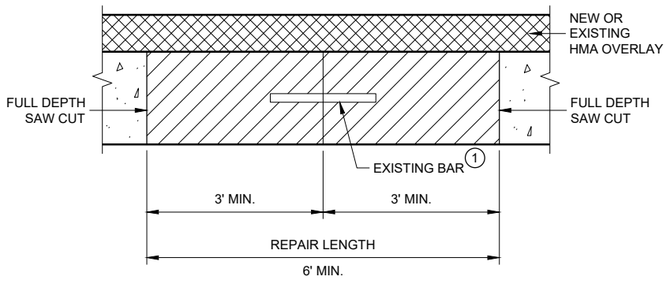
SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

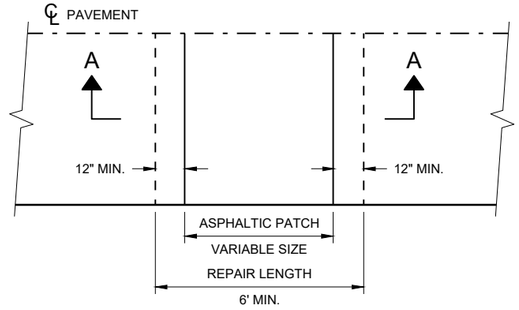
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.

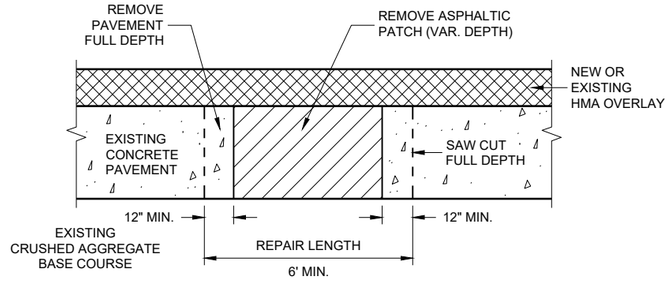
FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B
CONCRETE REMOVAL



PLAN VIEW



SECTION A - A

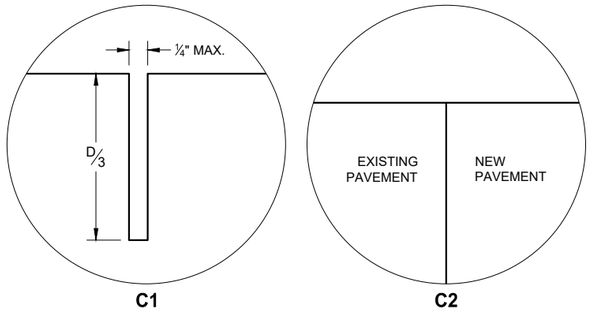
HMA PATCH REMOVAL

BASE PATCHING CONCRETE

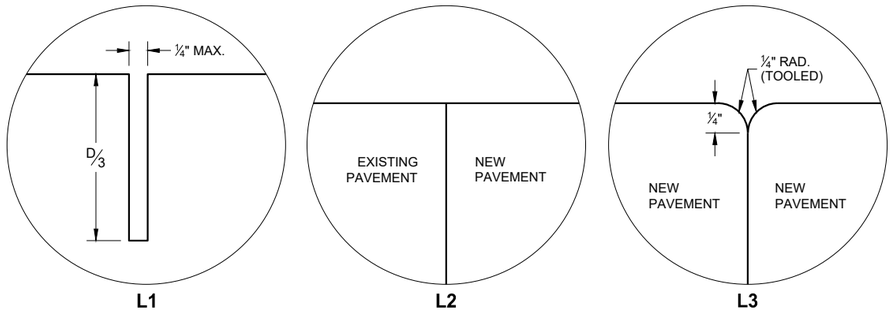
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 547

SDD 13C14 - 07a

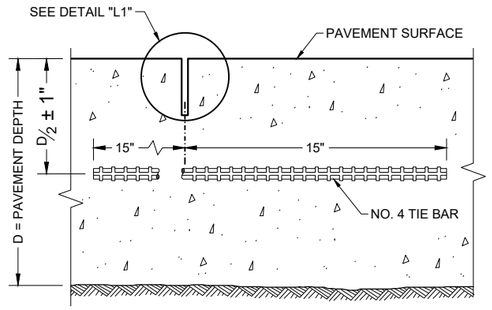
SDD 13C14 - 07a



TRANSVERSE JOINTS

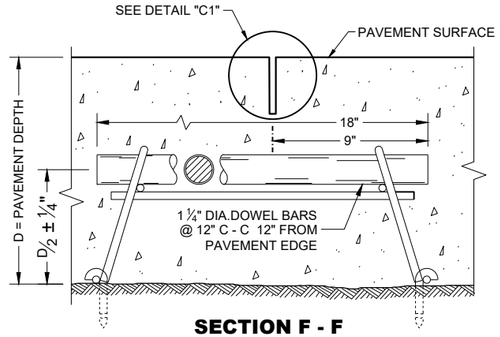


LONGITUDINAL JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

CONTRACTION JOINT

GENERAL NOTES

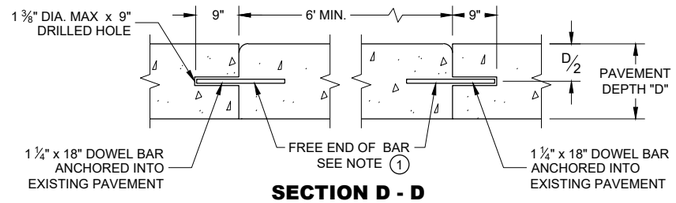
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

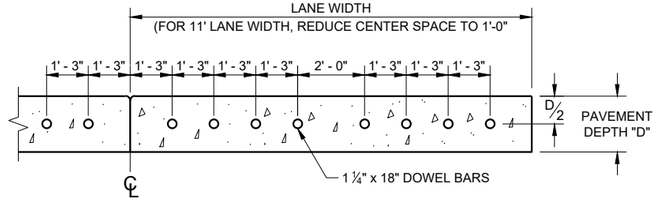
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT O EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

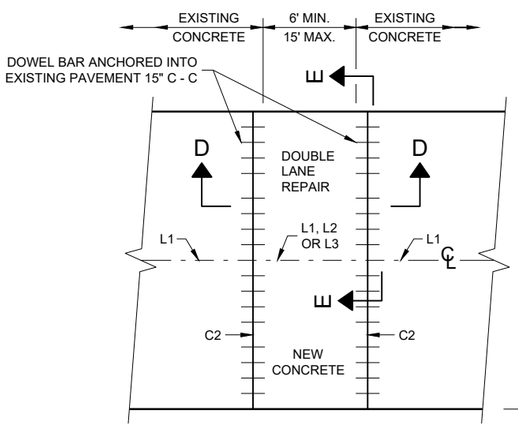


SECTION D - D



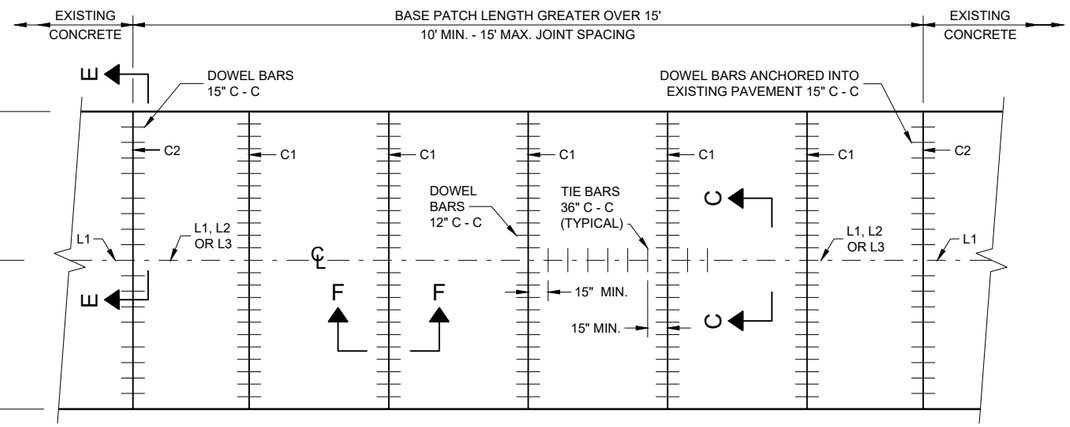
SECTION E - E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW

MULTILANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

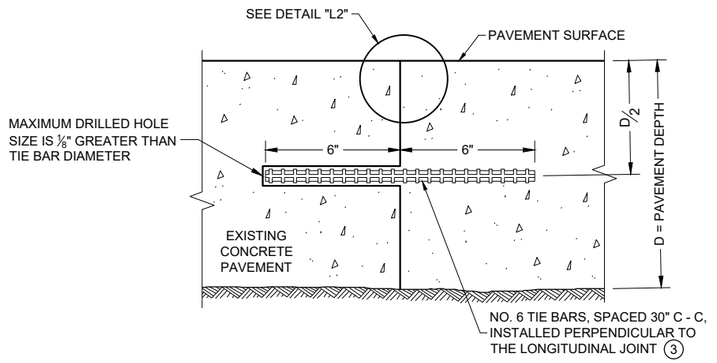
MULTILANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT 548

SDD 13C14 - 07b

SDD 13C14 - 07b

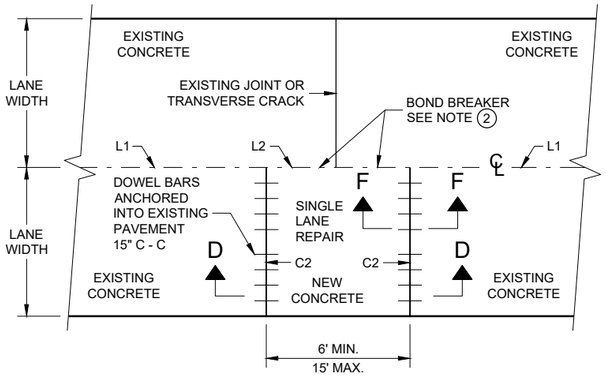


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

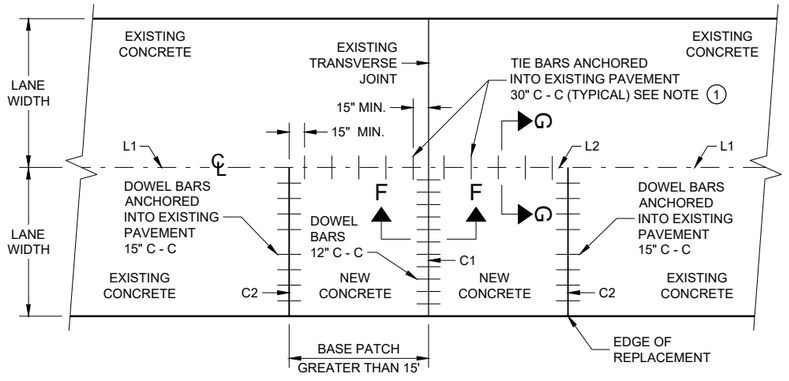
GENERAL NOTES

1. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
2. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
3. ANCHOR TIE BARS INTO DRILLED HOES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO

FHWA

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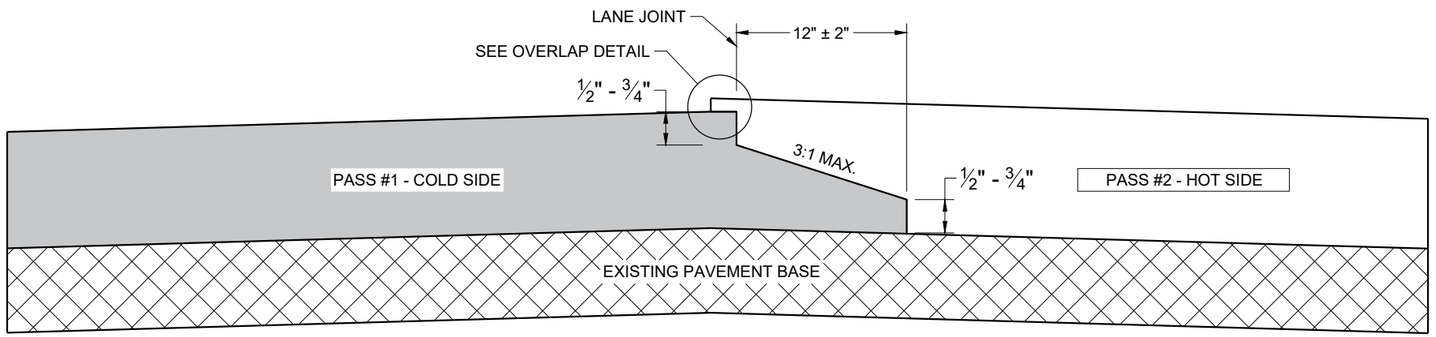
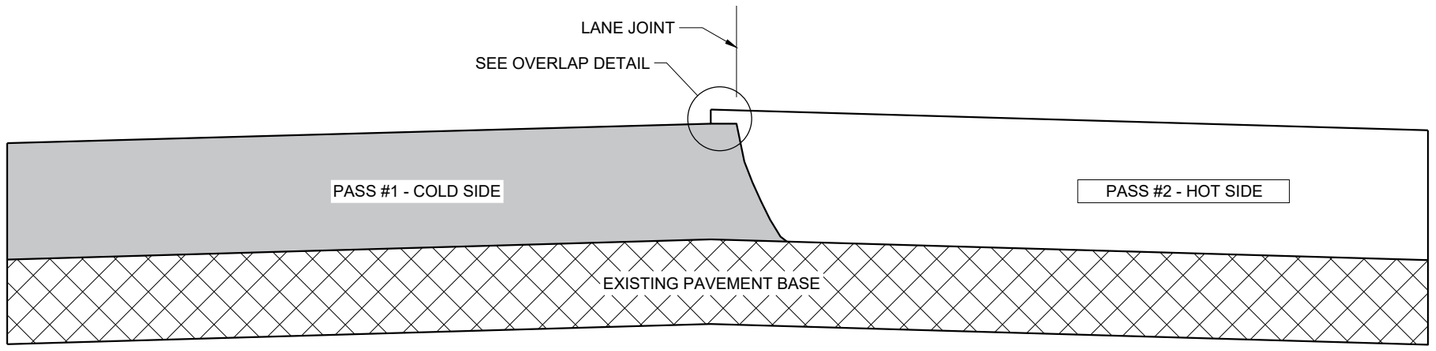
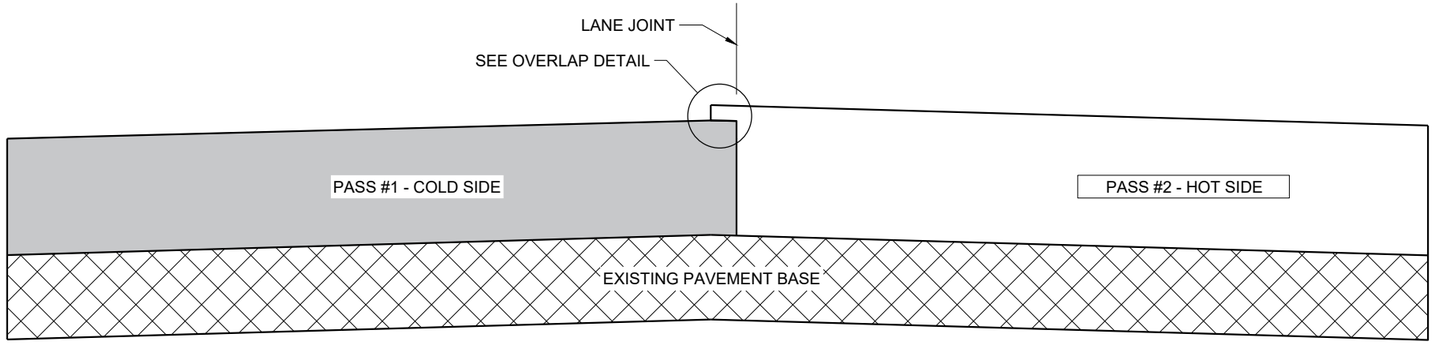
SDD 13C14 - 07c



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

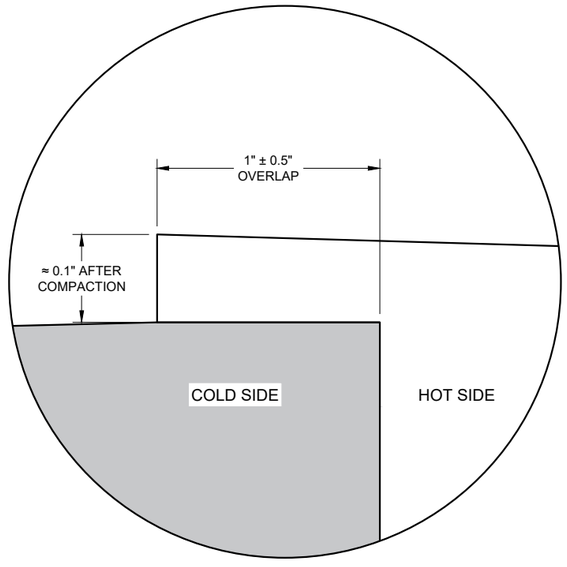
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGIN
FHWA	550

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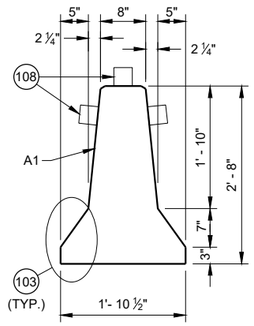
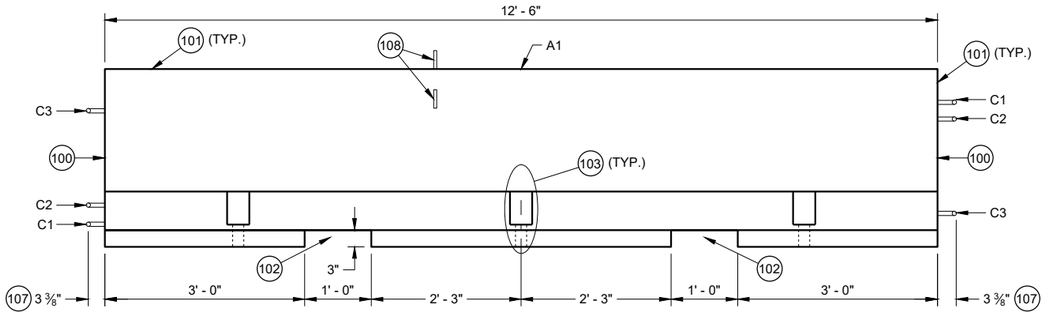
SDD 13C19 - 03

SDD 13C19 - 03



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

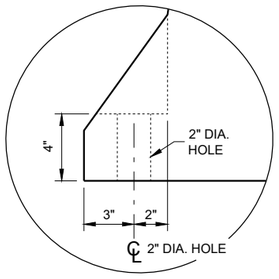
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

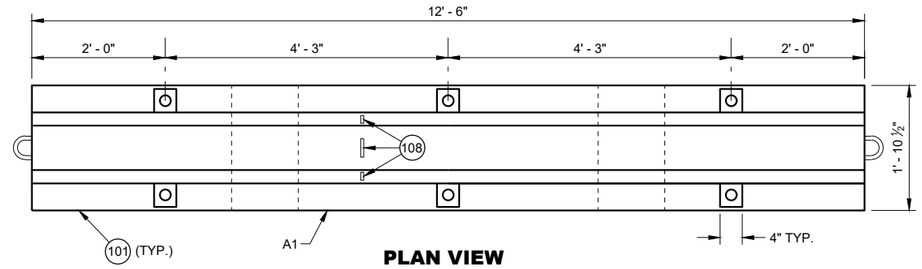
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

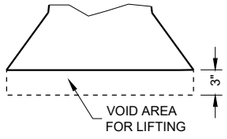


ANCHOR BLOCK DETAIL

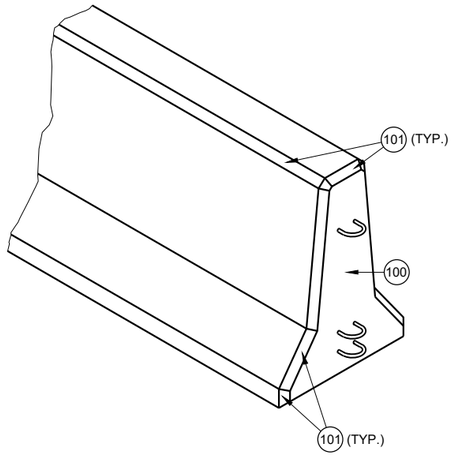


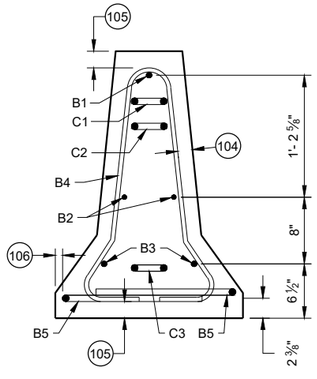
PLAN VIEW

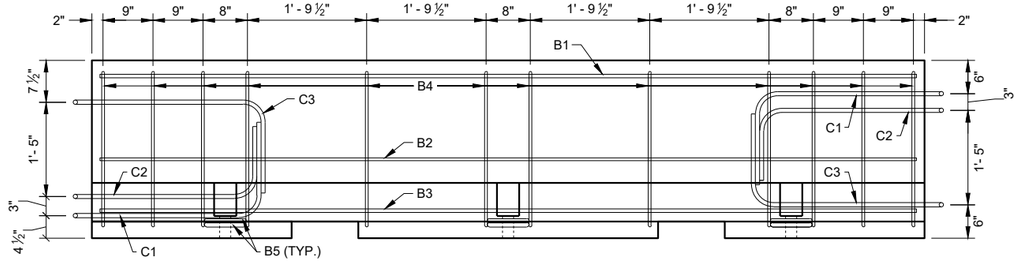
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 551

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SDD 14B07-16a

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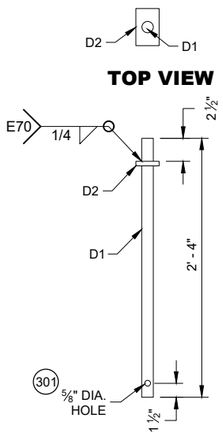
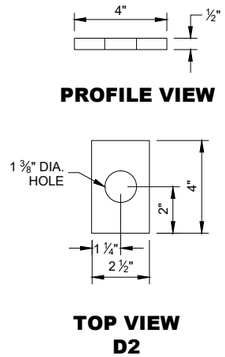
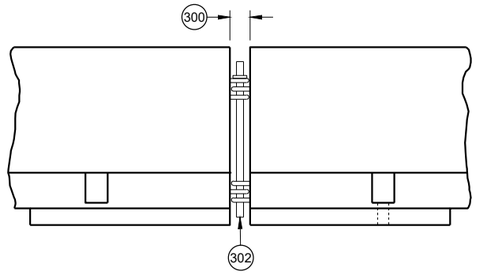
SDD 14B07-16a





CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

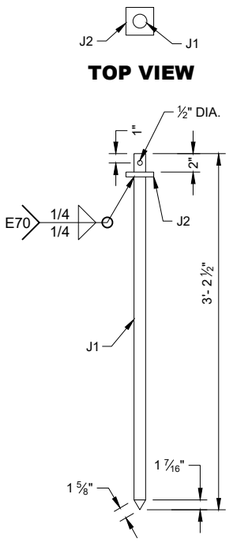
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

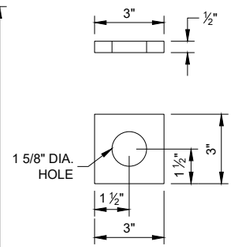
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

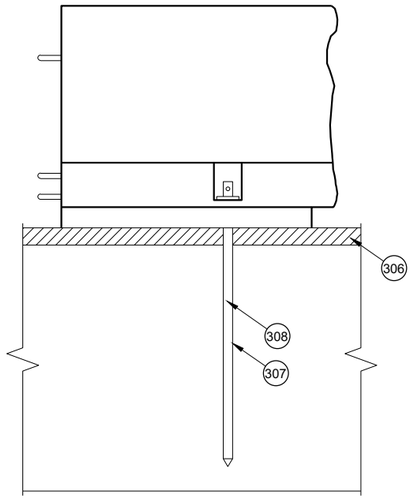
308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



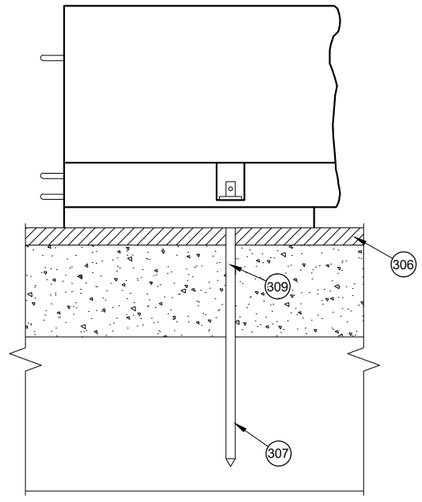


ASPHALT ANCHOR PIN ASSEMBLY



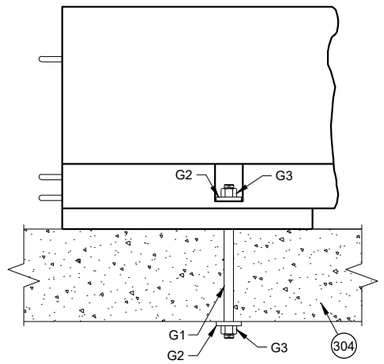
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



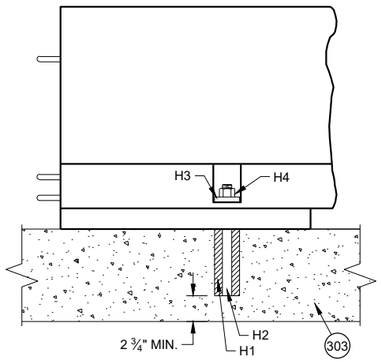
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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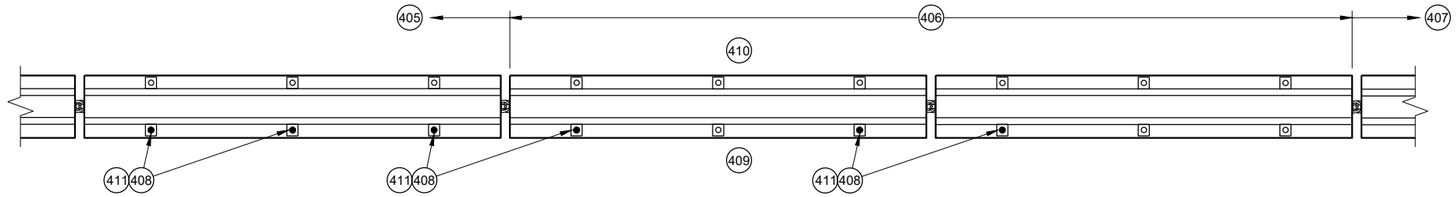
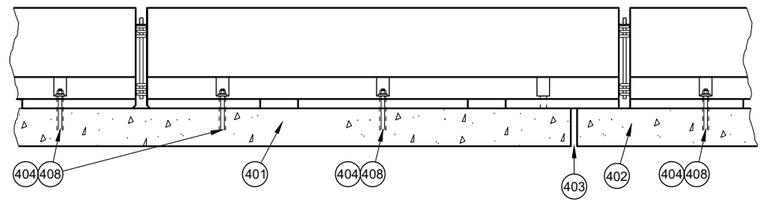
SDD 14B07-16c



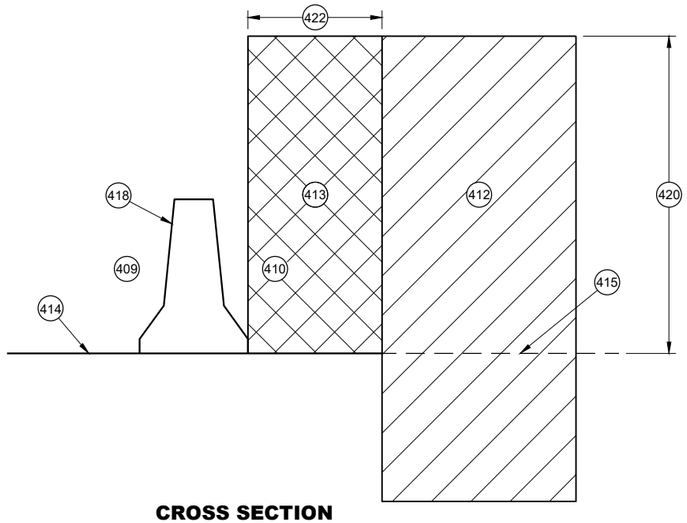
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



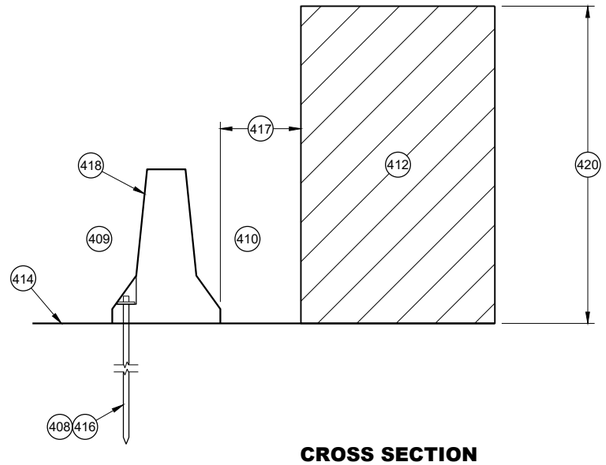
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



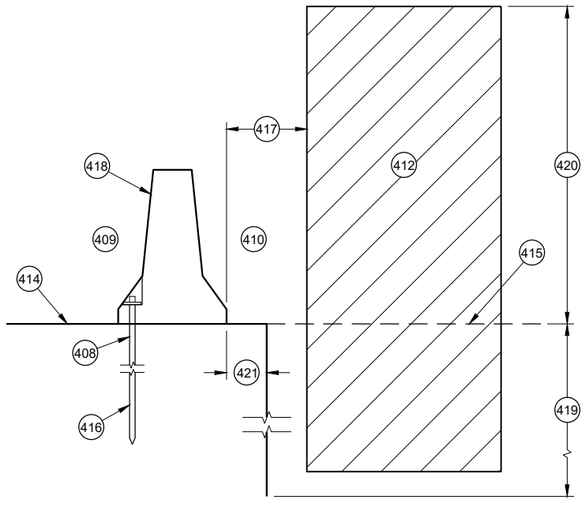
CROSS SECTION

FREE STANDING BARRIER



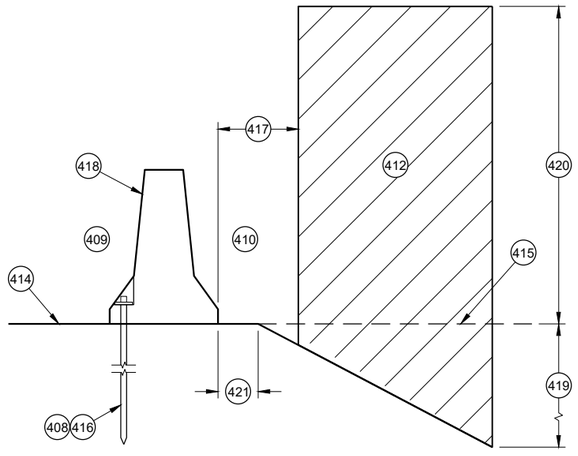
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

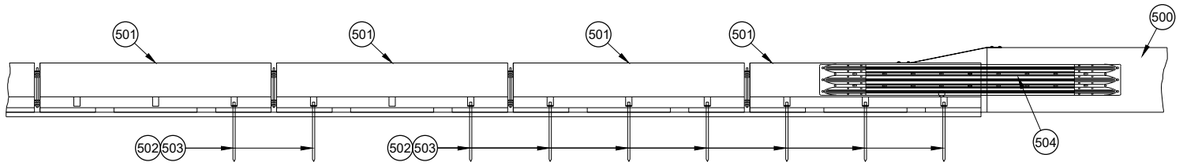
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

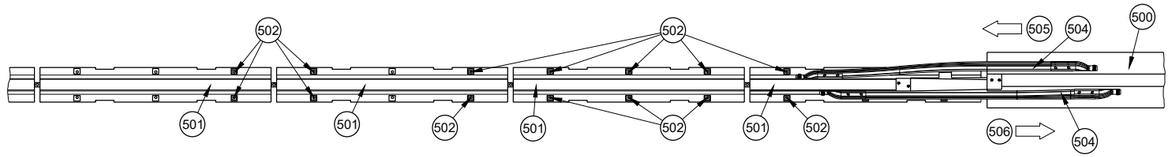
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

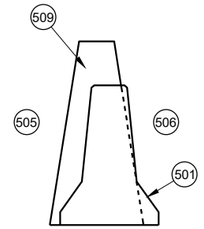
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



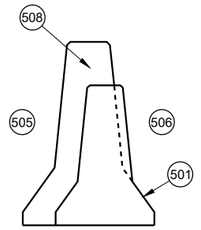
PROFILE VIEW



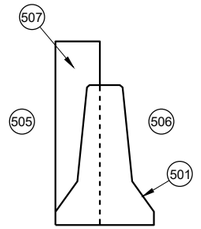
PLAN VIEW
TRANSITION TO RIGID BARRIER



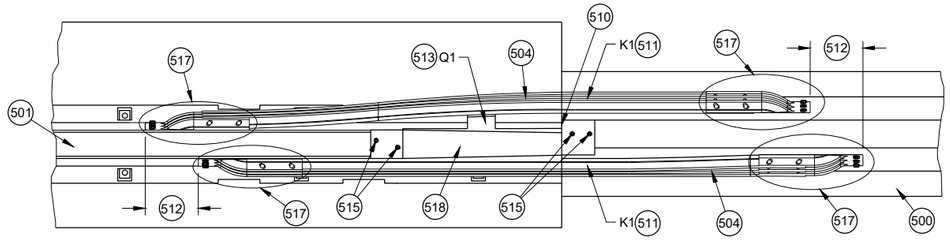
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



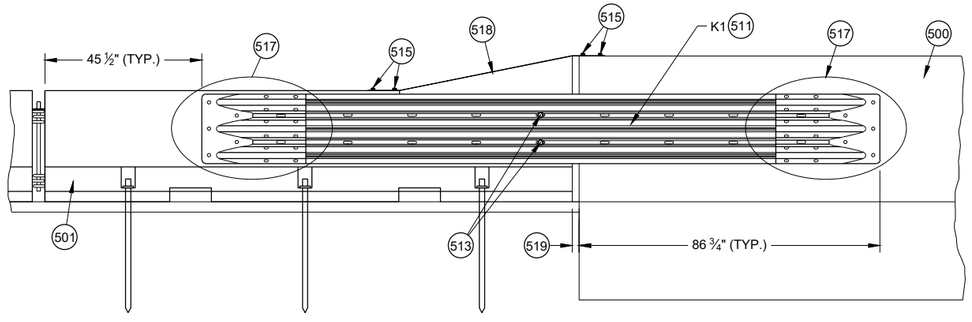
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



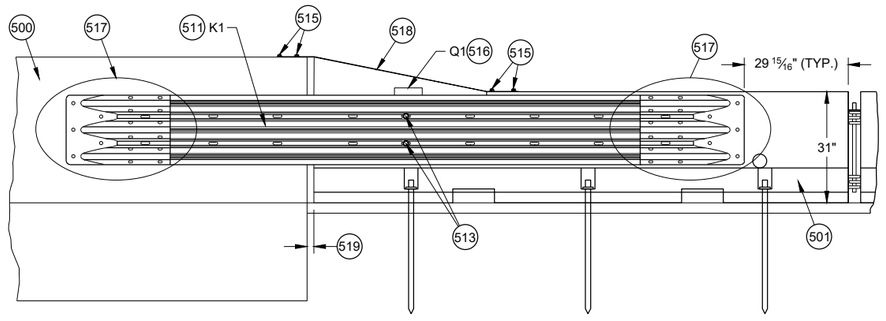
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



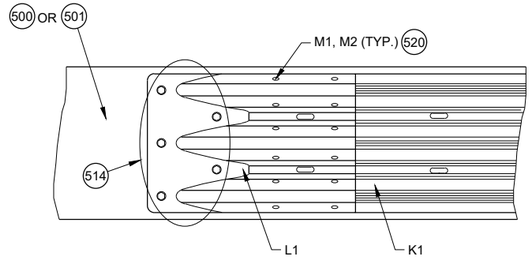
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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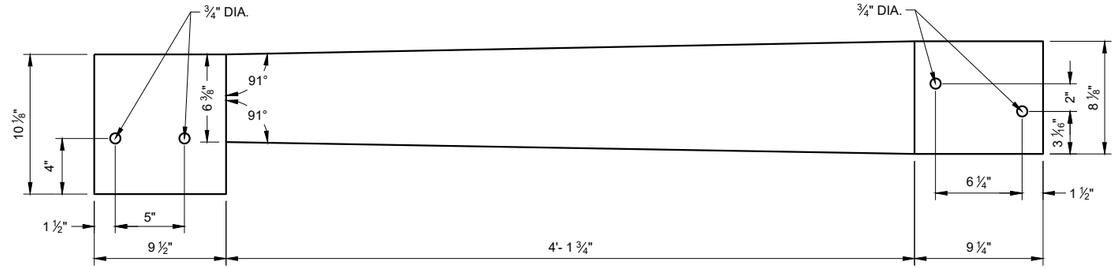
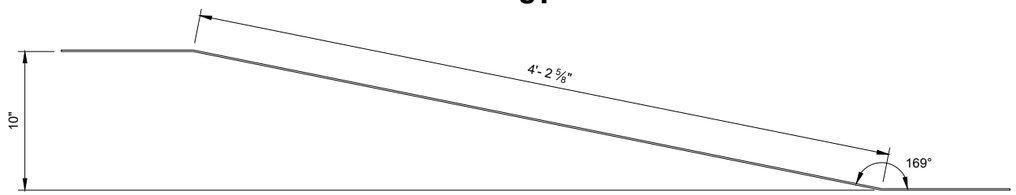
SDD 14B07-16e



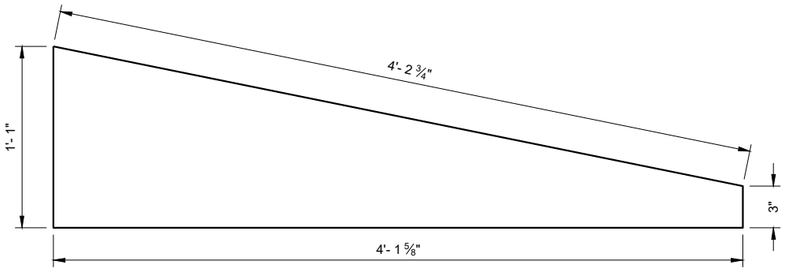
TOP VIEW

S1



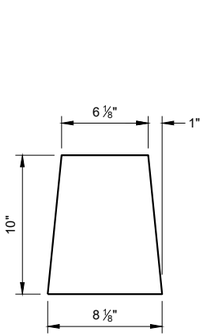
ELEVATION VIEW

S1

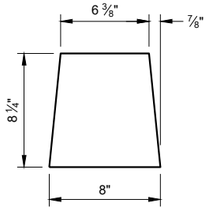


SIDE VIEW

S3



S2



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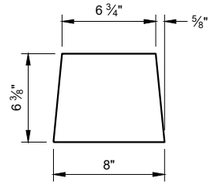
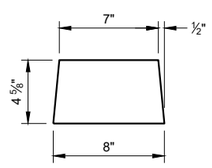
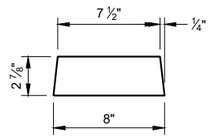


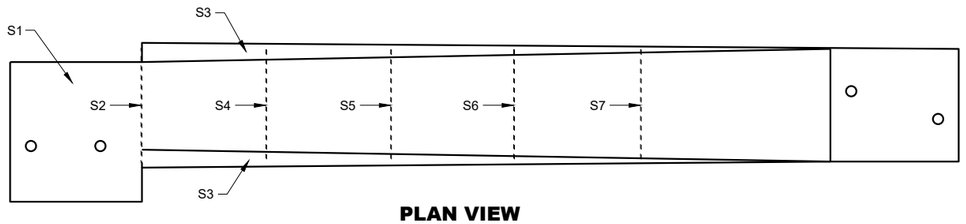
S5



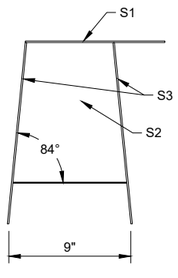
S6



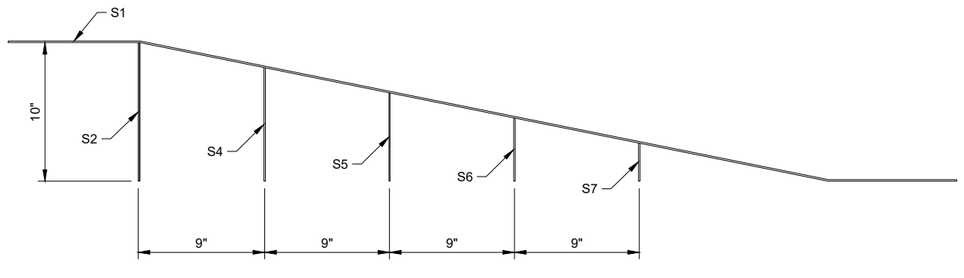
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 555

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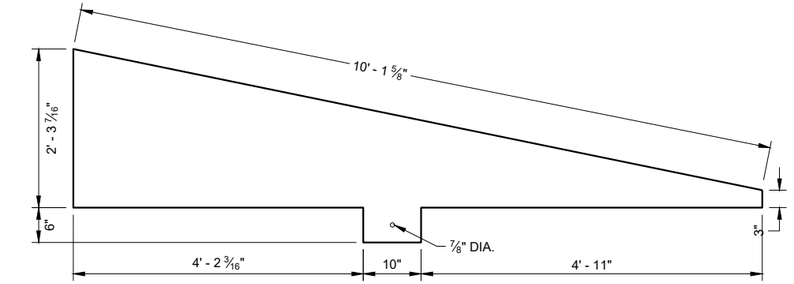
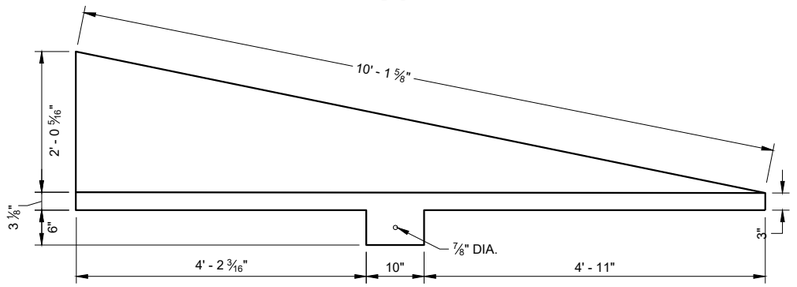
SDD 14B07-16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

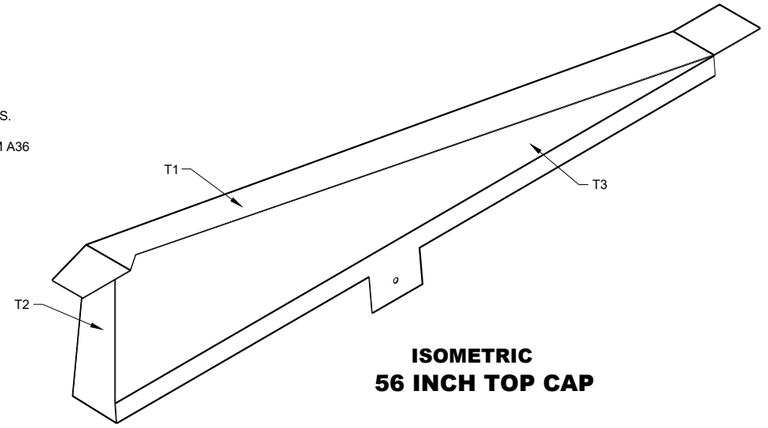
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

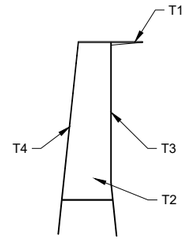
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

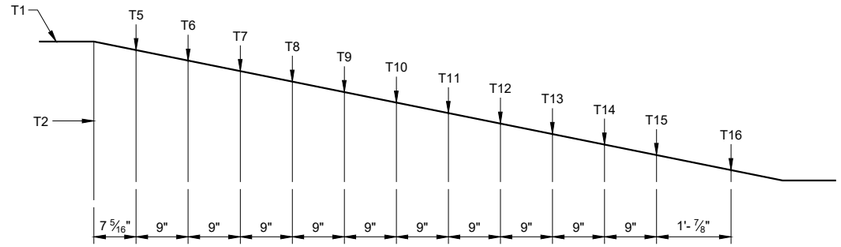
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



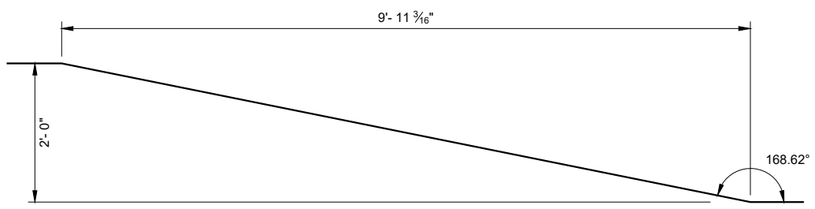
ISOMETRIC
56 INCH TOP CAP



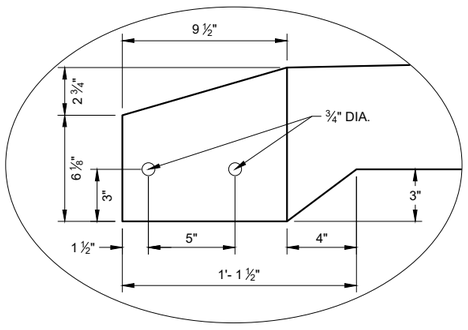
END VIEW
56 INCH TOP CAP



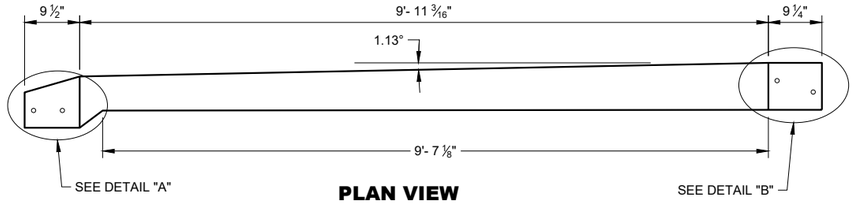
SIDE VIEW (700)
56 INCH TOP CAP



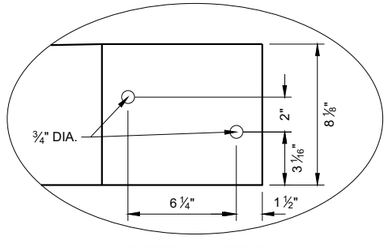
SIDE VIEW
TOP PLATE T1



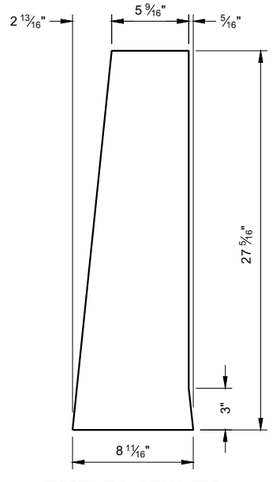
DETAIL "A"



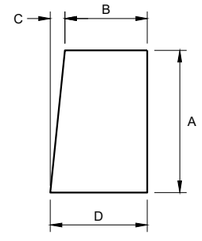
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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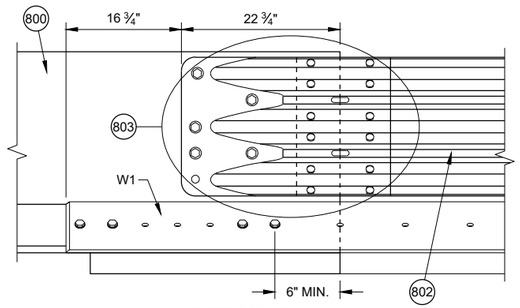
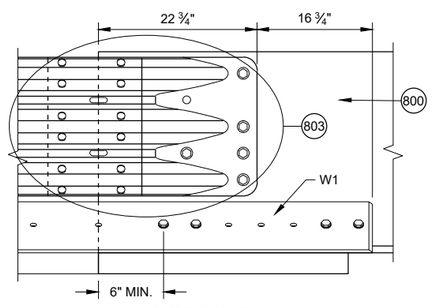
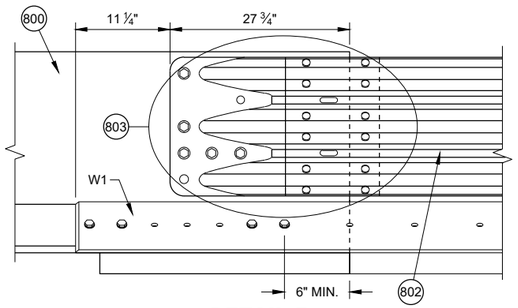
SDD 14B07-16g



DETAIL D



DETAIL E



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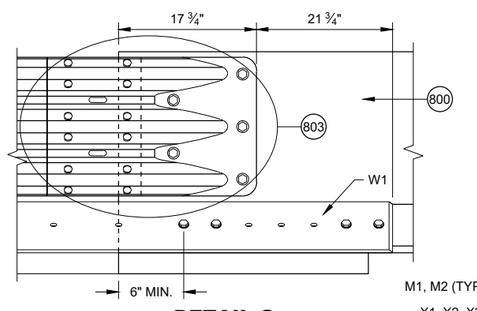
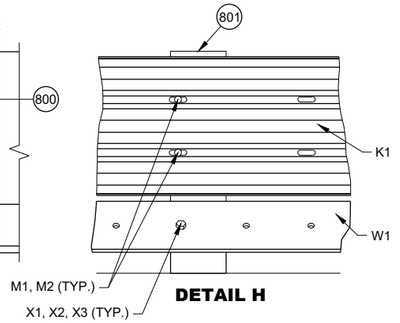
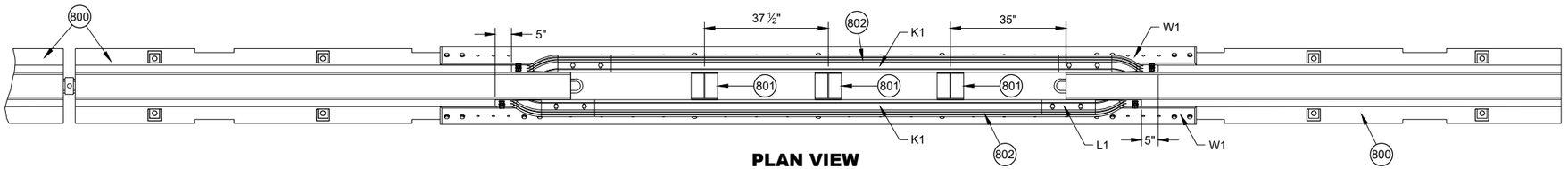


DETAIL G



DETAIL H



PLAN VIEW

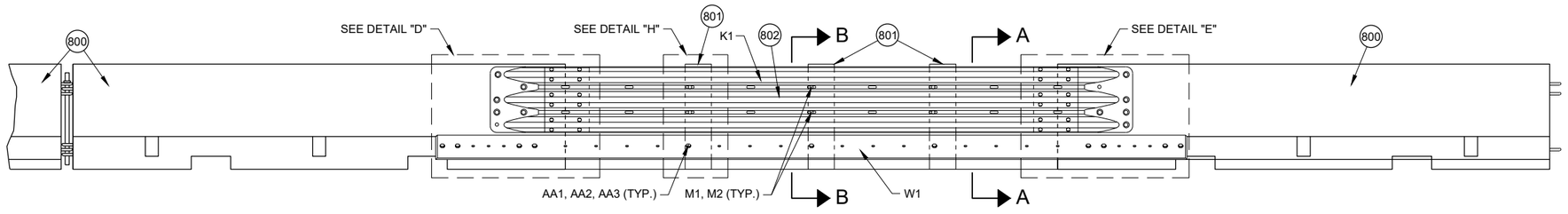
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

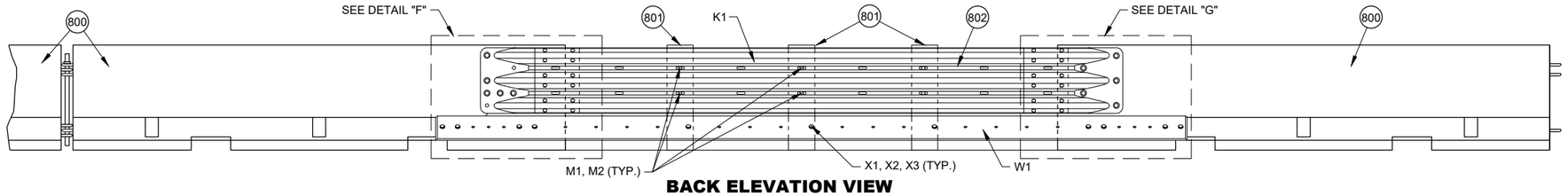
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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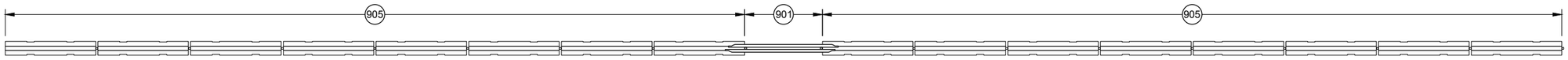
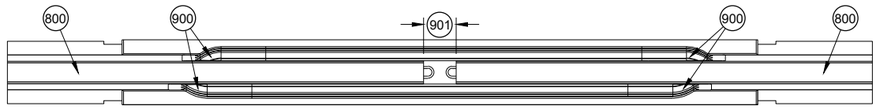


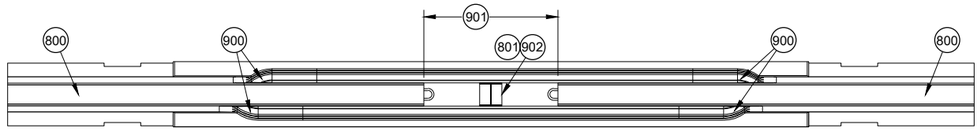
PLAN VIEW
GAP WITHIN SPACING



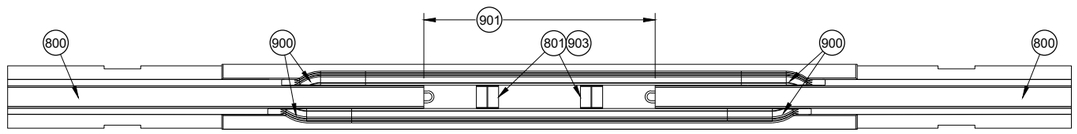
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

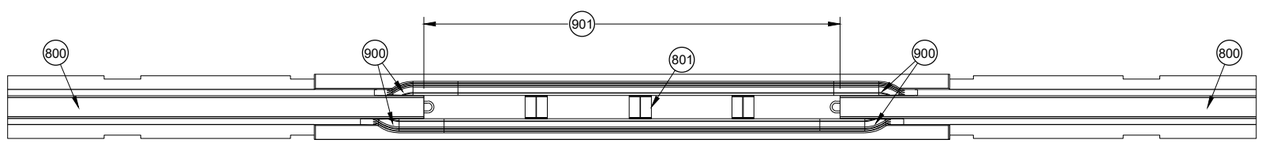
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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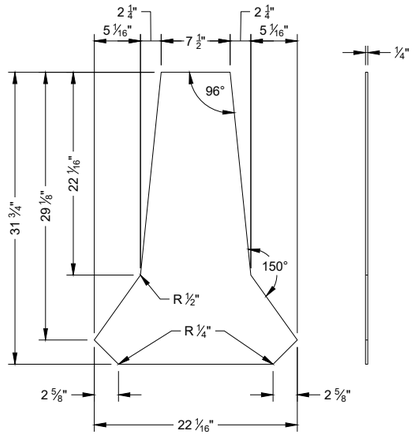
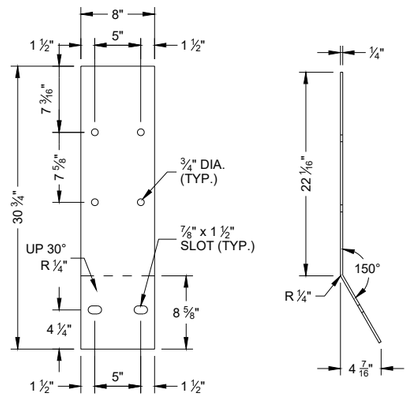
SDD 14B07-16i



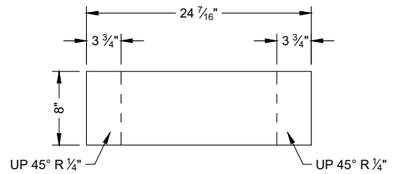
PROFILE VIEW **SIDE VIEW**

STIFFENER ASSEMBLY CENTER PANEL U1

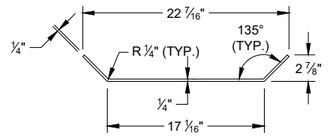


FLAT PATTERN **SIDE VIEW**

STIFFENER ASSEMBLY SIDE PANEL U2

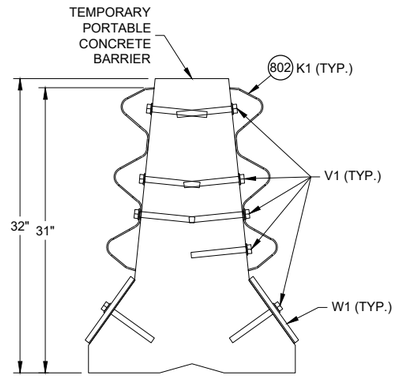


FLAT PATTERN

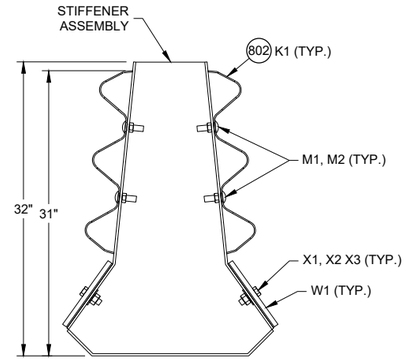


PROFILE VIEW

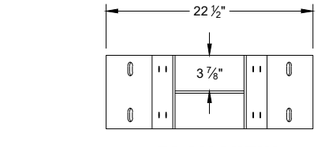
STIFFENER ASSEMBLY BOTTOM PANEL U3



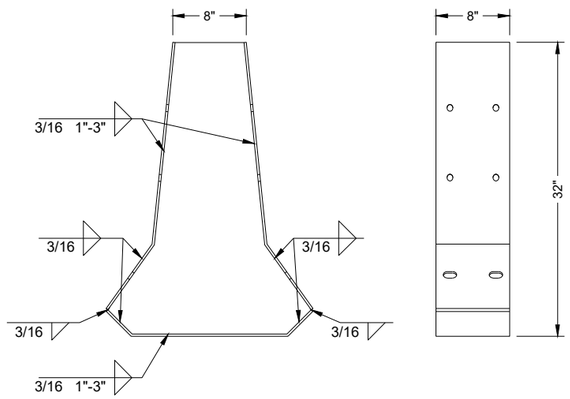
SECTION A - A



SECTION B - B

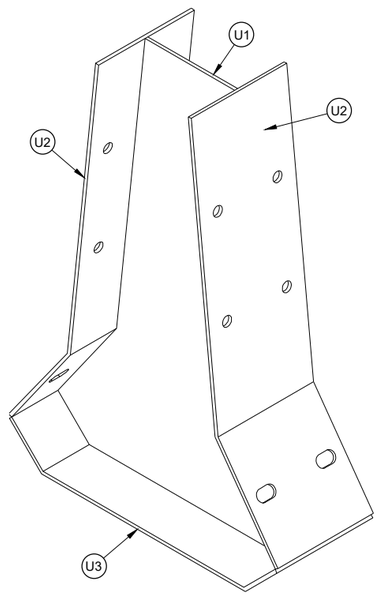


PLAN VIEW



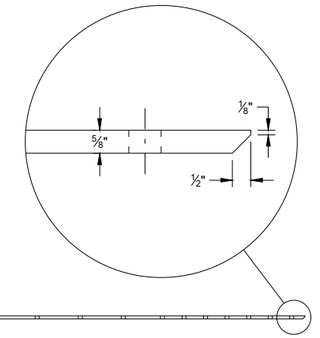
PROFILE VIEW

SIDE VIEW

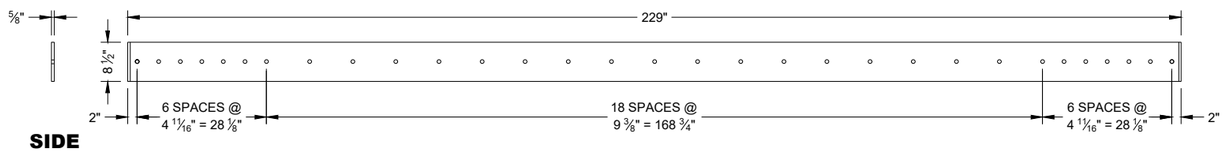


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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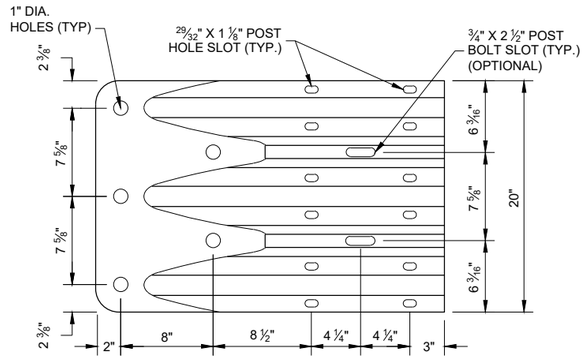
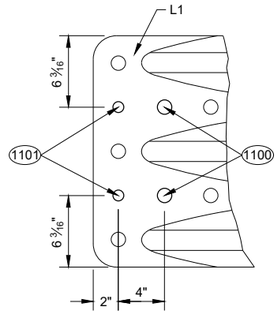
SDD 14B07-16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

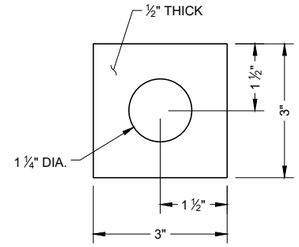


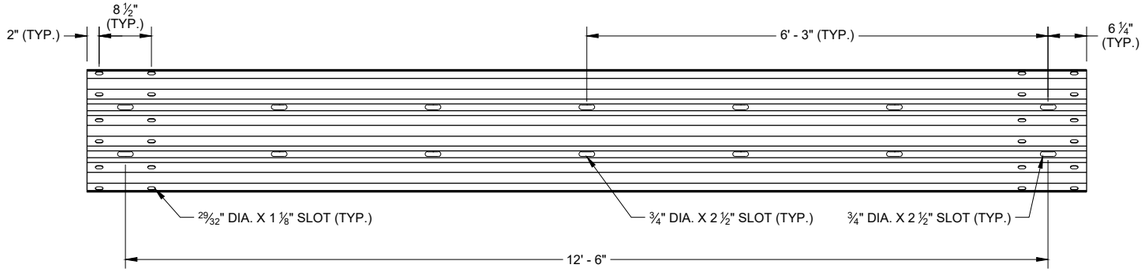
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

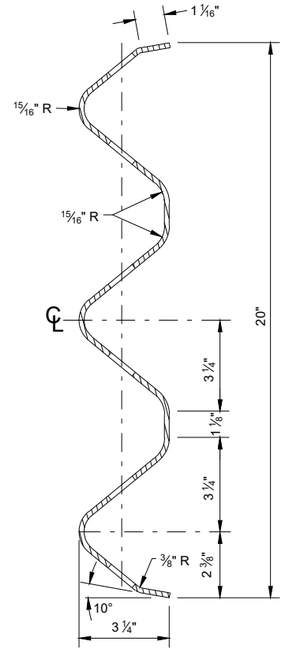
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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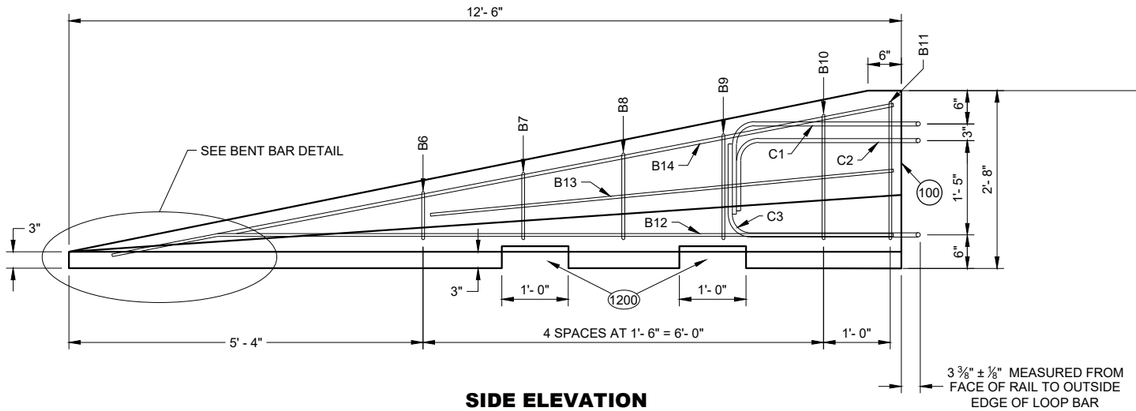
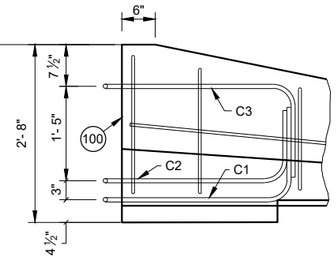


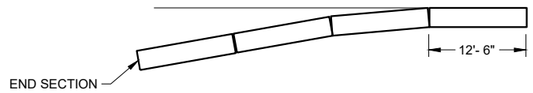
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

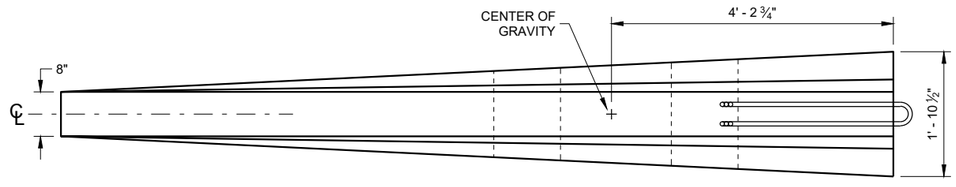
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

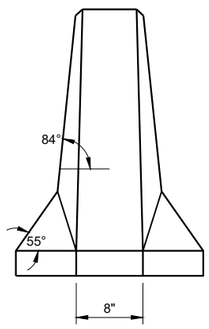


FLARE AT BARRIER END

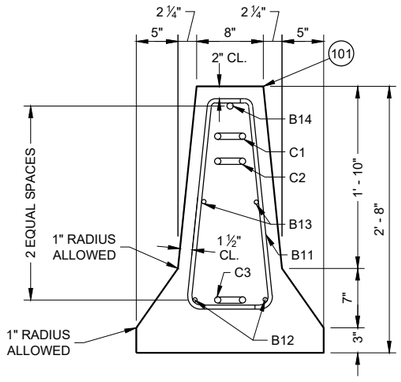
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



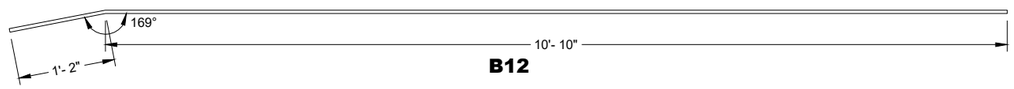
PLAN VIEW



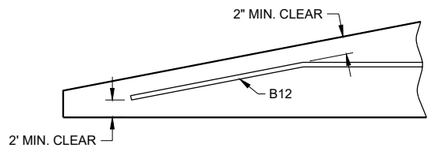
FRONT ELEVATION



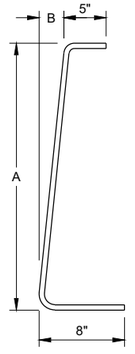
END SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

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SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

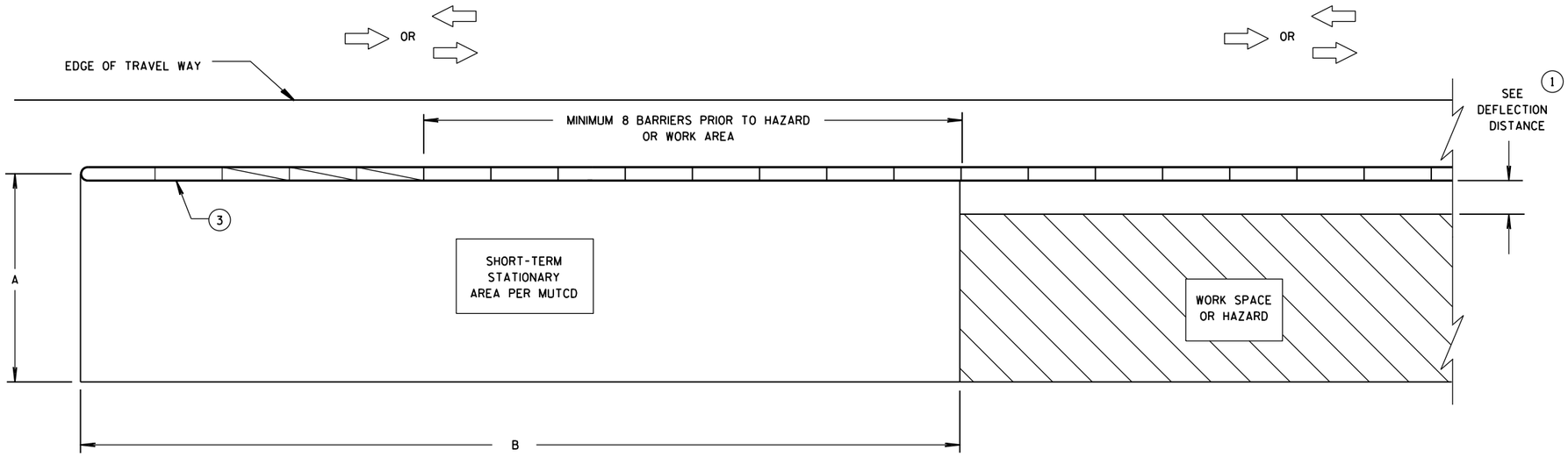
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n



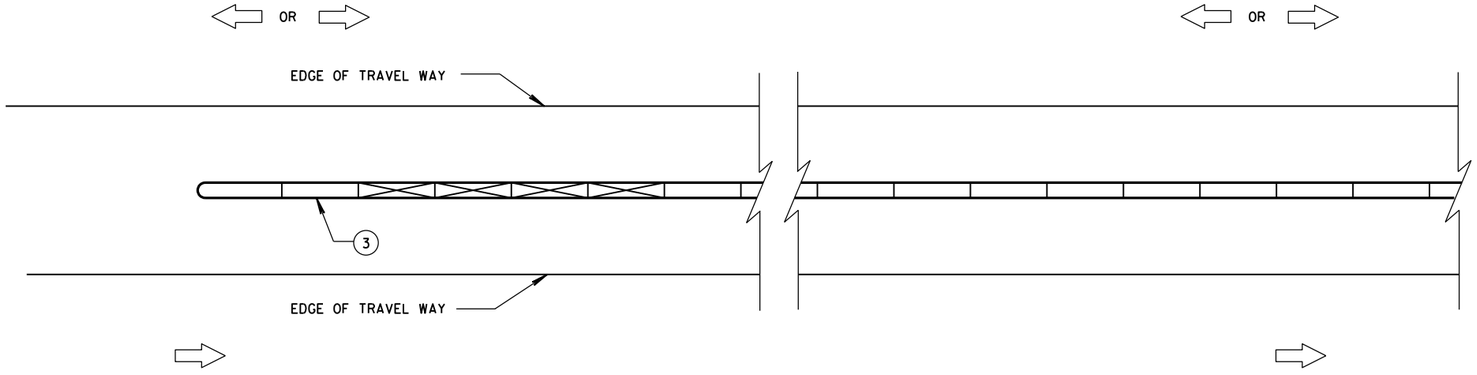
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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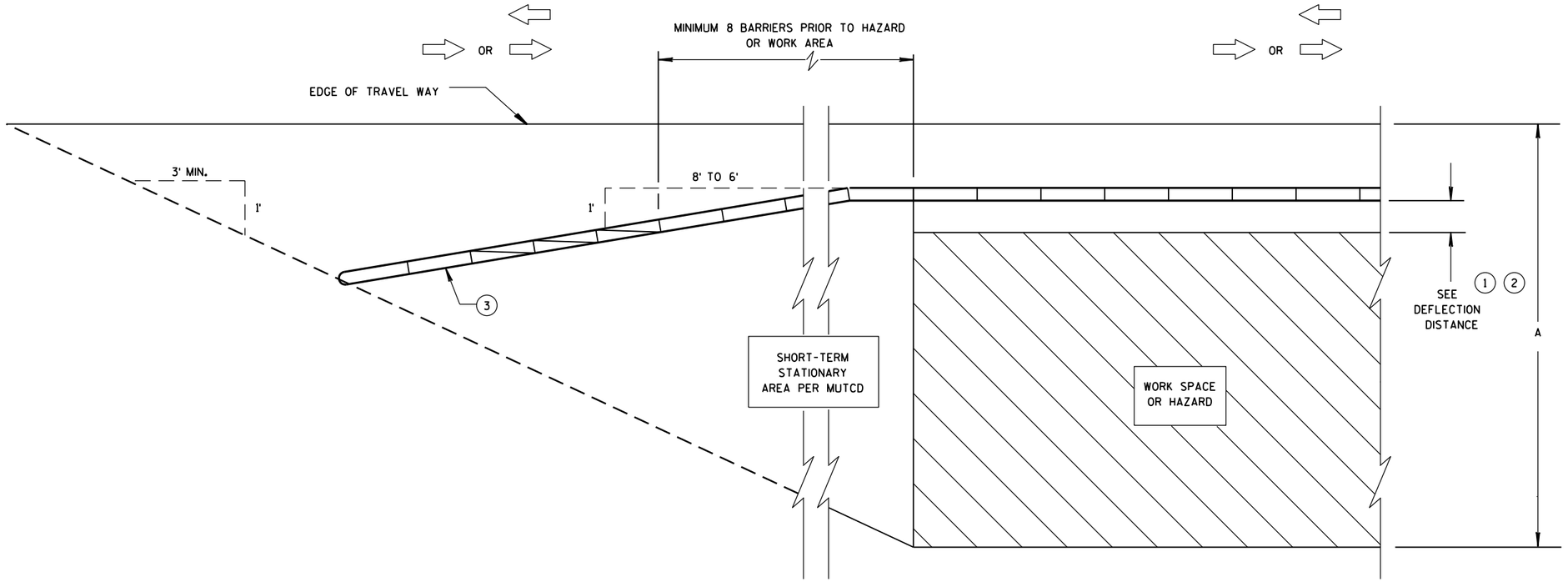
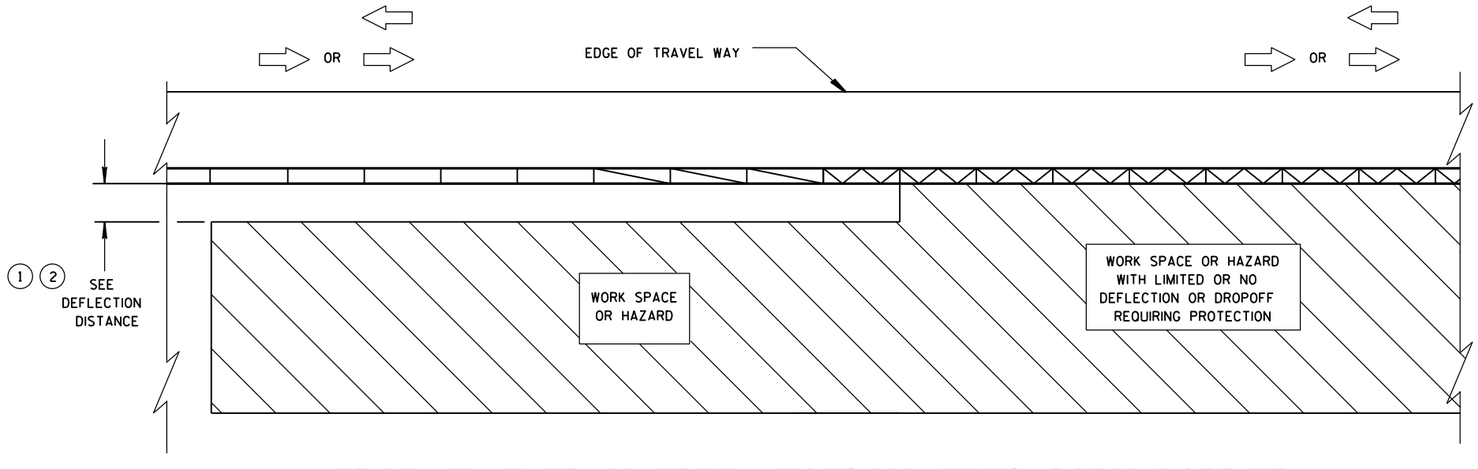
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2b

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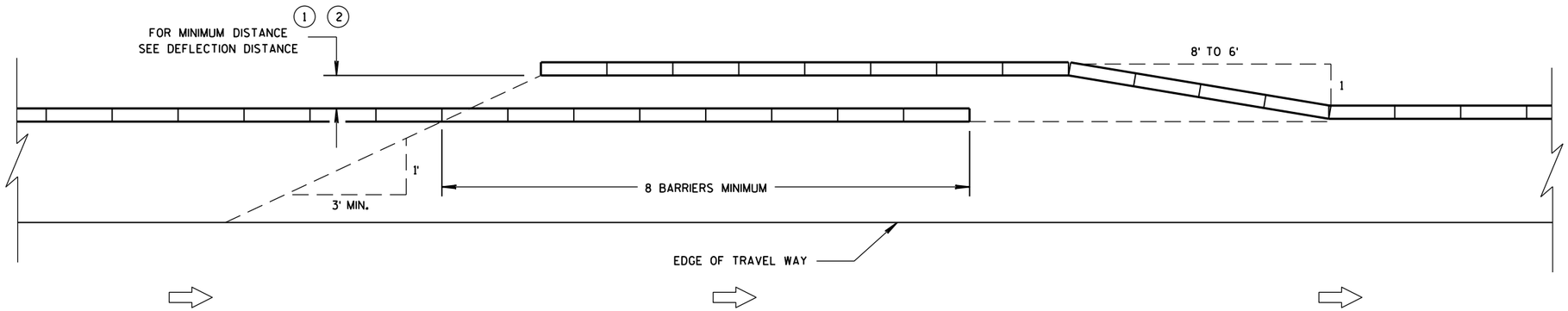
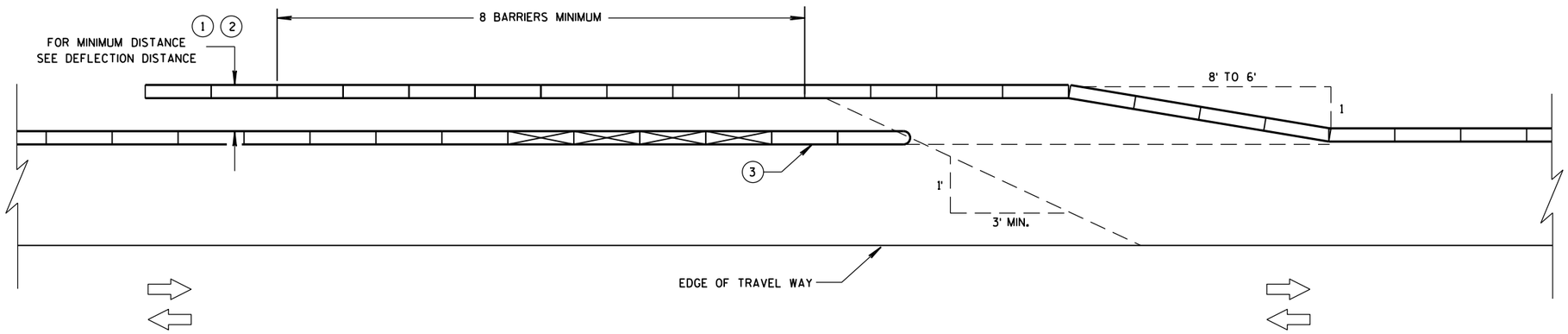
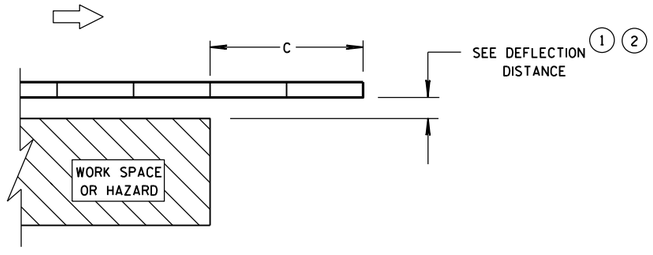
S.D.D. 14 B 8-2b



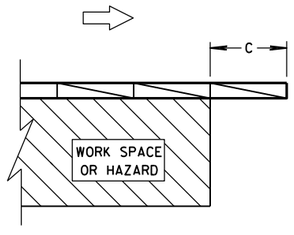
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

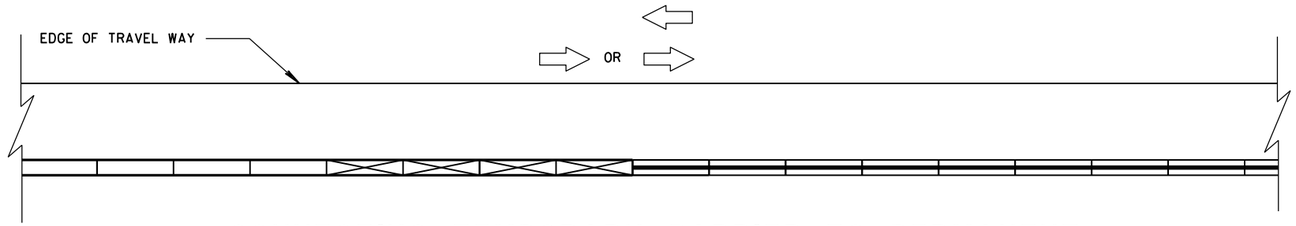
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

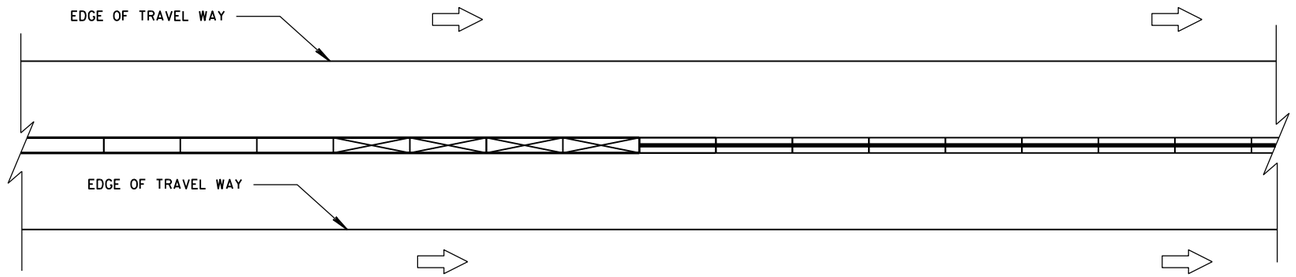
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

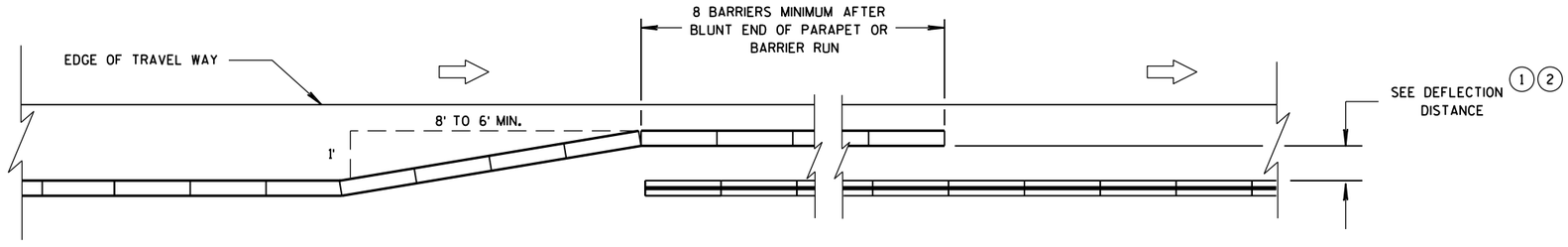
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

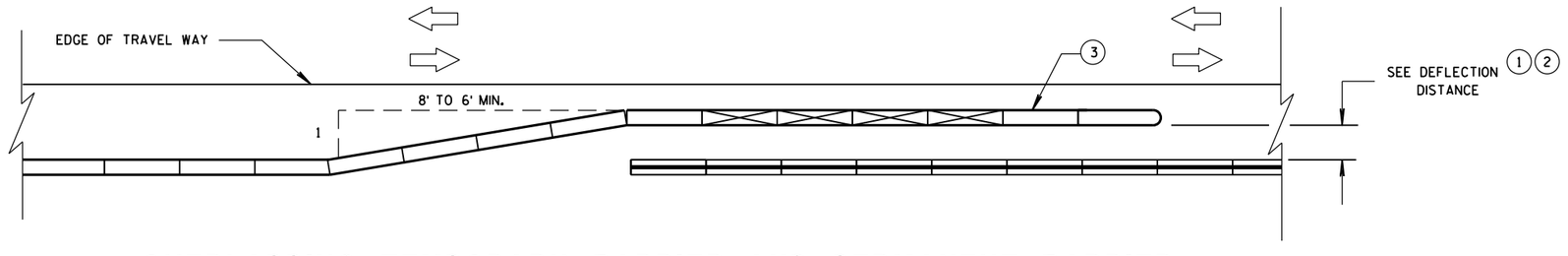
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

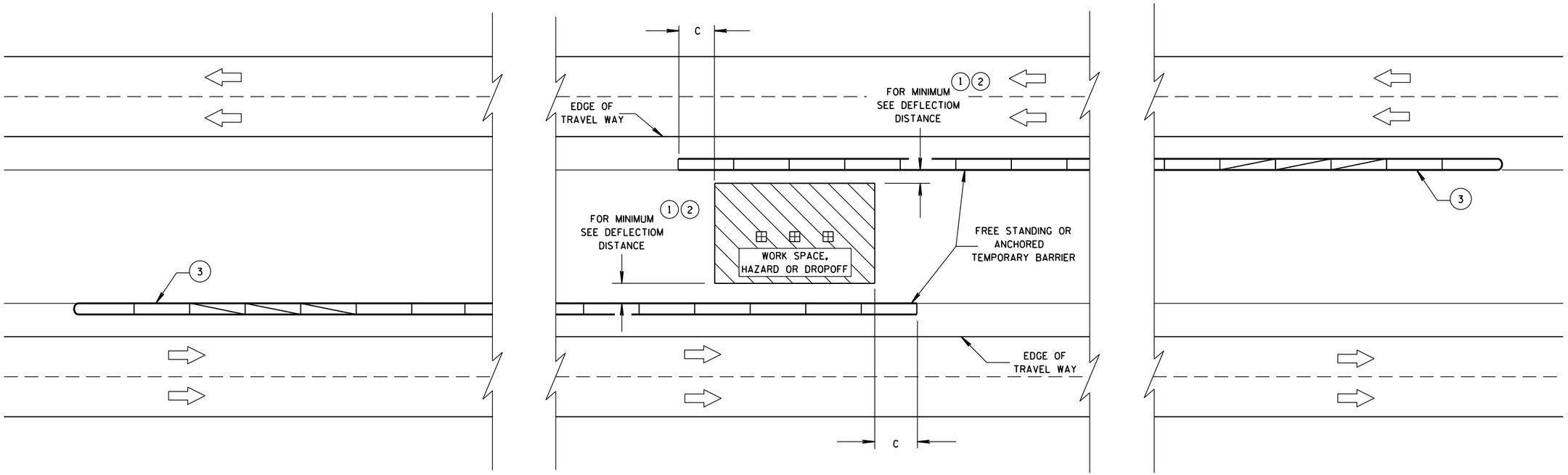
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

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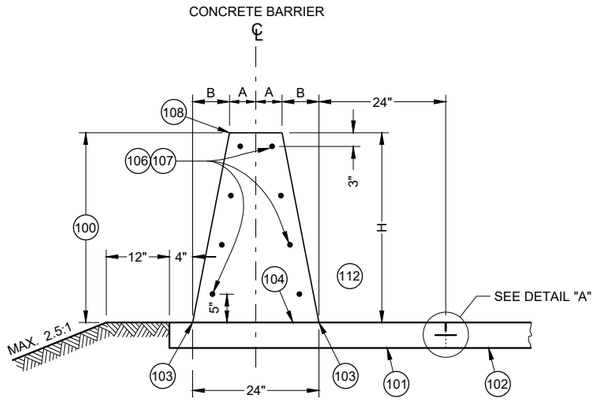
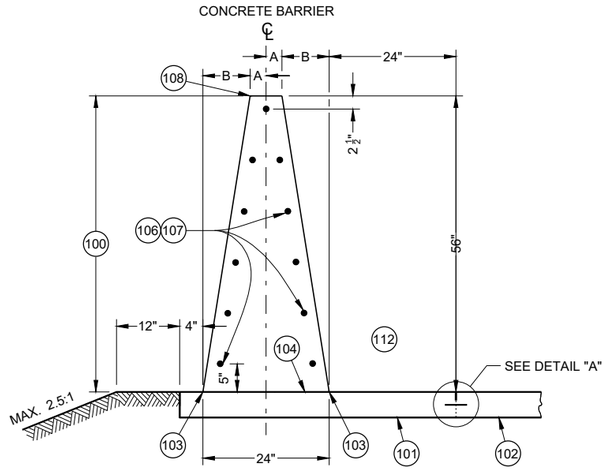
S.D.D. 14 B 8-2e



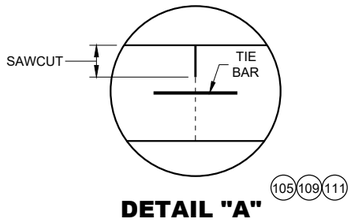
32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S32, TYPE S36, TYPE S42)



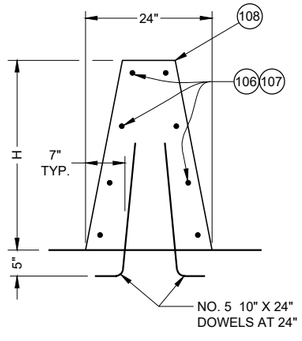
56 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S56)

TABLE "A"

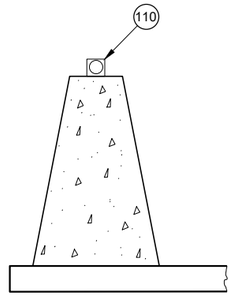
BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10
56	3	9	11



DETAIL "A"



SINGLE SLOPE CONCRETE BARRIER ON BRIDGE
(NON OUTER PARAPET APPLICATION)



DELINEATION

GENERAL NOTES

WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

LOCATE EXPANSION JOINTS IN CONCRETE BARRIER SHALL AT ALL DECK AND PRINCIPAL WALL JOINTS. FILL EXPANSION JOINT WITH EXPANSION JOINT MATERIAL. SEAL THE EXPANSION JOINT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.

2" CLEAR COVER TYPICAL

ANCHORS ARE REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN IN THIS SDD OR DETAIL SHOWN ON SDD 14B33. ANCHORS INCIDENTAL TO CBSS.

PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER PAD AND BARRIER. JOINT IS TO MATCH ADJACENT CONCRETE JOINTS. NO DOWEL BARS ARE REQUIRED FOR BARRIER PAD. IF ADJACENT TO ASPHALT, CONTRACTION JOINT IS REQUIRED EVERY 15'.

ALL REBAR SHALL BE EPOXY COATED M31 TYPE S. SEE STANDARD SPECIFICATION 505.

CONCRETE BARRIER, UPPER CONCRETE BARRIER, LOWER CONCRETE BARRIER, CONCRETE BARRIER PAD, AND FOOTINGS ARE TERMS USED TO DESCRIBE PARTS OF SINGLE SLOPE CONCRETE BARRIER BID ITEMS. THESE PARTS ARE INCIDENTAL TO THE SINGLE SLOPE CONCRETE BARRIER BID ITEMS.

(100) CONCRETE BARRIER

(101) CONCRETE BARRIER PAD

(102) PAVEMENT

(103) WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1 ½", USE TYPE A SINGLE SLOPE BARRIER.

(104) OPTIONAL CONSTRUCTION JOINT.

(105) CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAT 10'.

(106) STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL IS 2' BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.

(107) NO. 5 CONTINUOUS BARS EVENLY SPACED (SEE TABLE "A").

(108) USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

(109) CONCRETE BARRIER PAD UNDER CBSS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED ⅓ DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6", OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

(110) SEE SDD 15A04 FOR DELINEATOR DETAILS AND SPACING.

(111) SEE SDD 13C01 FOR DETAILS TYPING CONCRETE BARRIER TO ADJACENT CONCRETE

(112) TRAFFIC SIDE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
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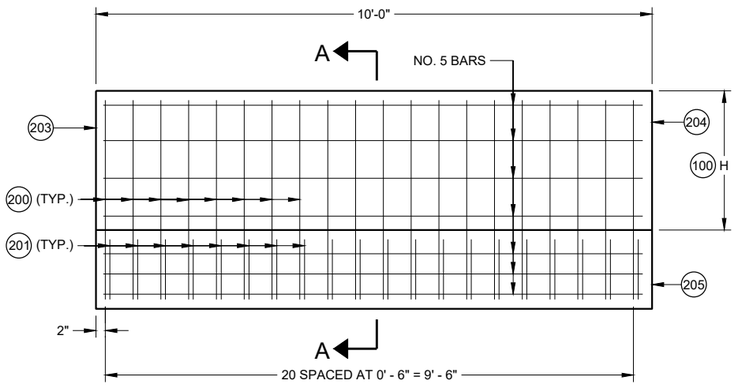
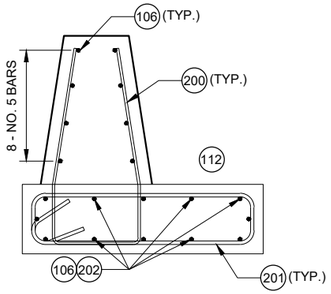
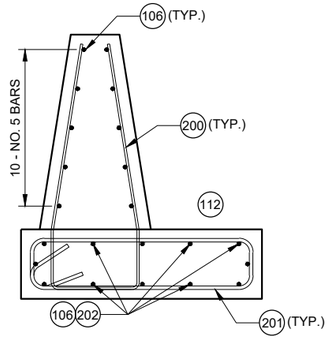
SDD 14B32 - 10a



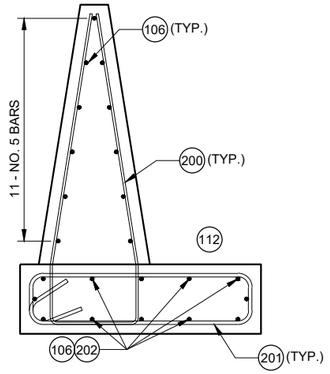
END ANCHOR SINGLE
SLOPE CONCRETE BARRIER



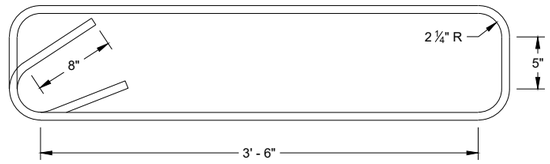
32" AND 36" CBSS



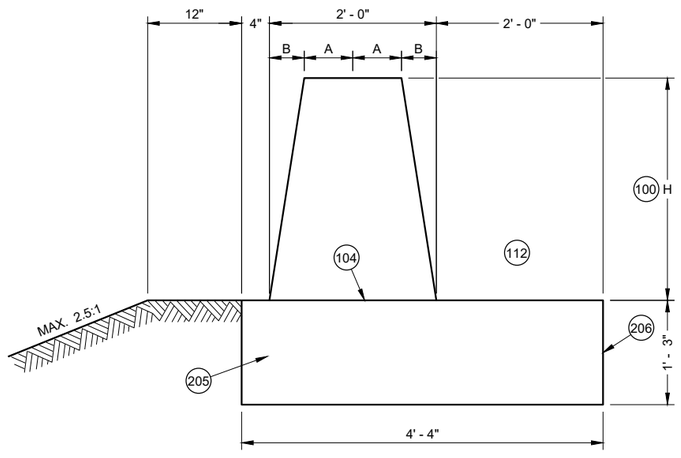
42" CBSS



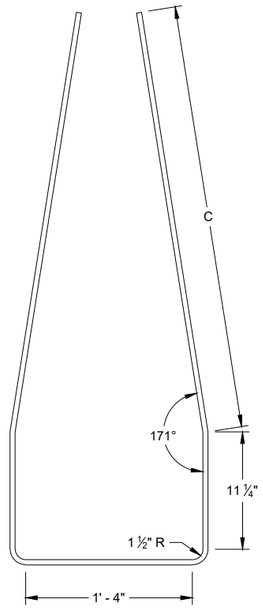
56" CBSS



STIRRUP BAR
BENDING DETAIL



SECTION A - A



V1 BAR
BENDING DETAIL

TABLE "B"

BARRIER HEIGHT H INCHES	C INCHES
32	2' - 6"
36	2' - 11"
42	3' - 4"
56	4' - 6 ½"

GENERAL NOTES

200 V1 BARS ARE NO. 5 BARS. (SEE BAR BENDING DETAIL)

201 STIRRUPS ARE NO. 6 BARS. (SEE BAR BENDING DETAIL)

202 TWELVE (12) NO. 5 BARS EVENLY SPACED

203 END OF INSTALLATION OR EXPANSION JOINT.

204 SEE COLD JOINT DETAIL TO CONNECT END ANCHOR SINGLE SLOPE CONCRETE BARRIER TO SINGLE SLOPE CONCRETE BARRIER.

205 FOOTING

206 DO NOT TIE TO FOOTING TO ADJACENT PAVEMENT.

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
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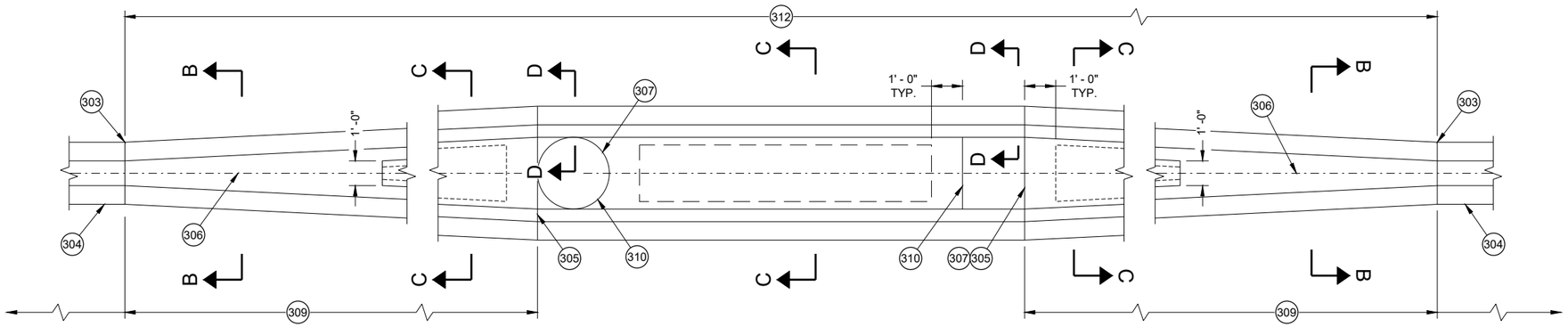
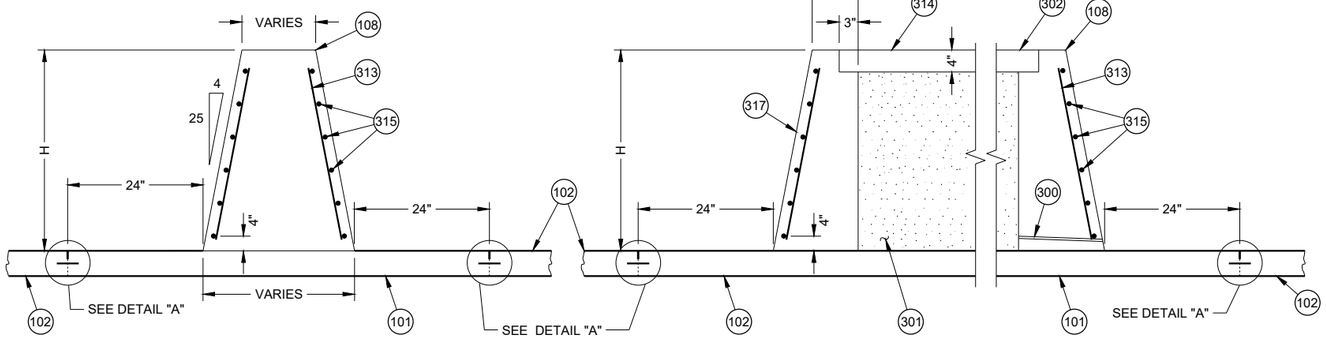
SDD 14B32 - 10b



LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

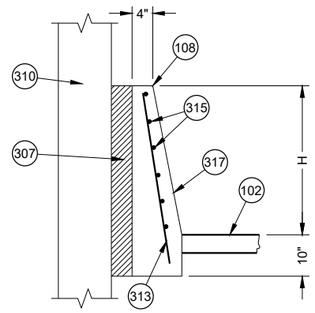
TABLE "C"

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	6

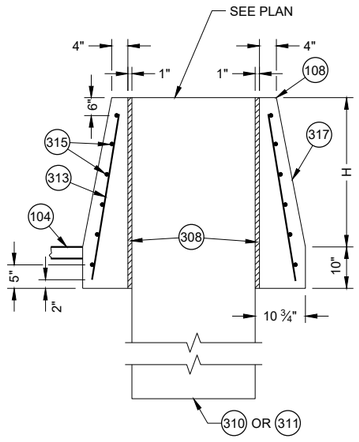


SECTION B - B

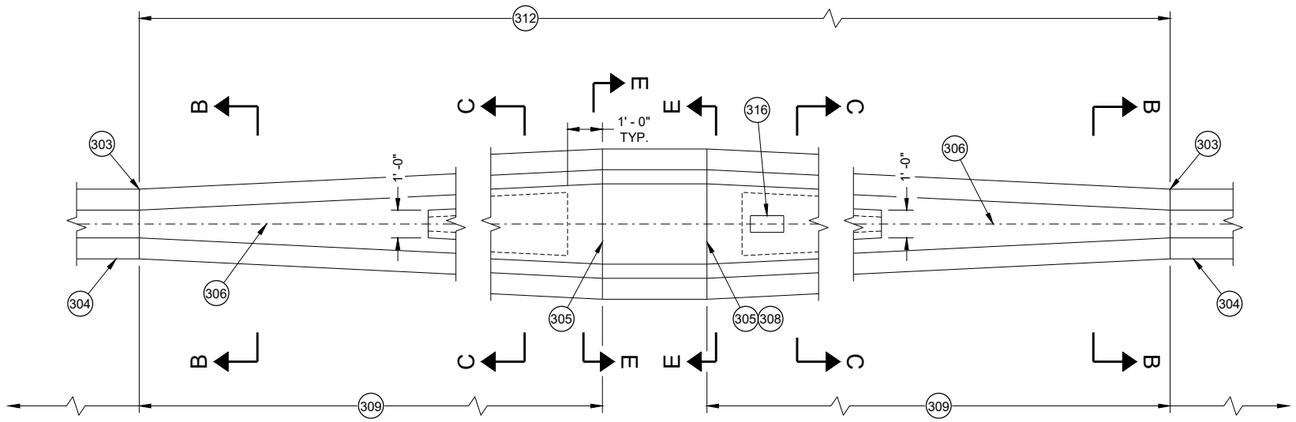
SECTION C - C



SECTION D - D



SECTION E - E



SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

GENERAL NOTES

(300) INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B -B. MINIMUM ONE DRAIN CAVITY.

(301) BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.

(302) LEVEL THE TOP OF CONCRETE BARRIER CAP ACROSS TOP OF BARRIER. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.

(303) USE COLD JOINTS BETWEEN FIXED OBJECT PROTECTION AND CONCRETE BARRIER ANCHOR.

(304) INSTALL END ANCHOR SINGLE SLOPE CONCRETE BARRIER.

(305) SEE COLD JOINT DETAIL

(306) CENTERLINE OF CONCRETE BARRIER.

(307) INSTALL 4" EXPANDED POLYSTYRENE BETWEEN COLUMN AND CONCRETE BARRIER.

(308) INSTALL 1" EXPANDED POLYSTYRENE BETWEEN PEDESTAL AND CONCRETE BARRIER.

(309) 20:1 MIN. TRANSITION.

(310) COLUMN

(311) PEDESTAL

(312) LIMITS OF PAYMENT FOR LARGE FIXED OBJECT PROTECTION (SEE PLAN)

(313) NO. 4 BARS SPACED 12" CENTER TO CENTER (TYP.)

(314) USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.

(315) SEE TABLE "C" FOR BAR INFORMATION

(316) ELECTRICAL PULL BOX FOR SIGN FLUSH WITH TOP OF CONCRETE BARRIER.

(317) VARIABLE SLOPE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

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SDD 14B32 - 10c

GENERAL NOTES

(400) END ANCHOR SINGLE SLOPE CONCRETE BARRIER.

(401) PARAPET, SIGN BRIDGE BASE, LIGHT POLE BASE OR OTHER OBJECT SINGLE SLOPE CONCRETE BARRIER CANNOT TIE INTO.

(402) JOINT SEAL CONFORMING TO STANDARD SPECIFICATION 415.2.6

(403) EXPANSION JOINT MATERIAL.

(404) INLET (SEE PLAN)

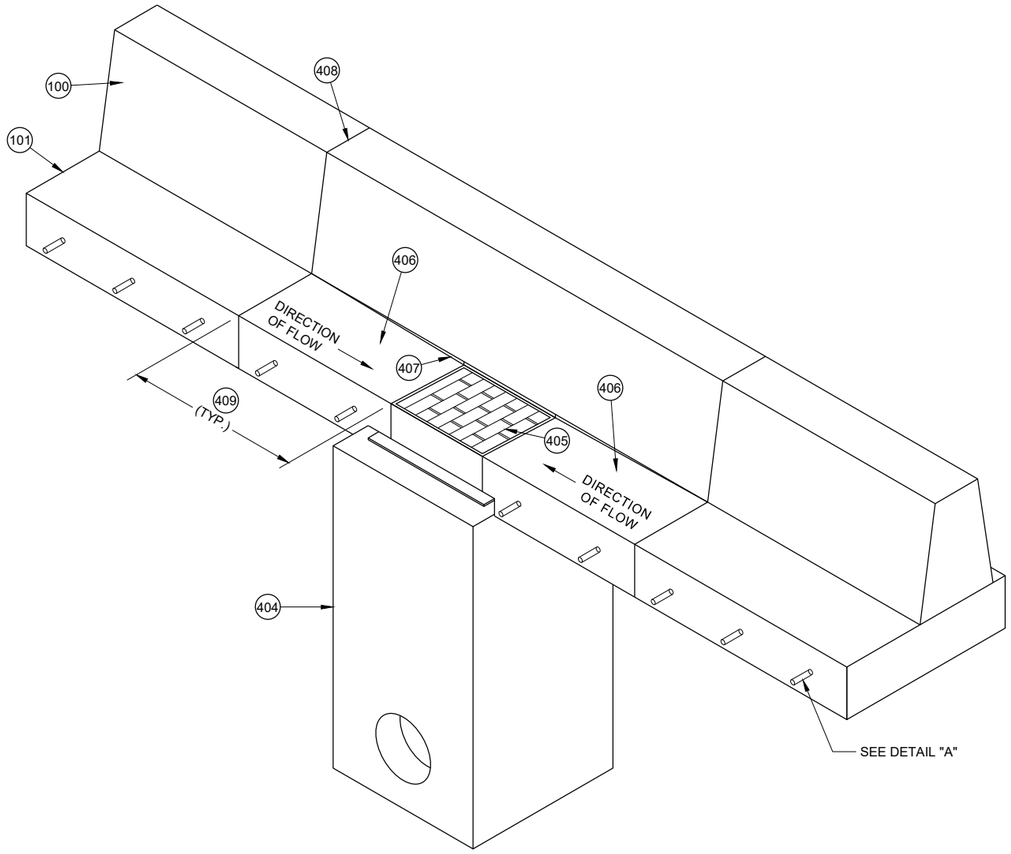
(405) INLET COVER BW (SEE PLAN)

(406) WARP PAN TO MATCH INLET COVER.

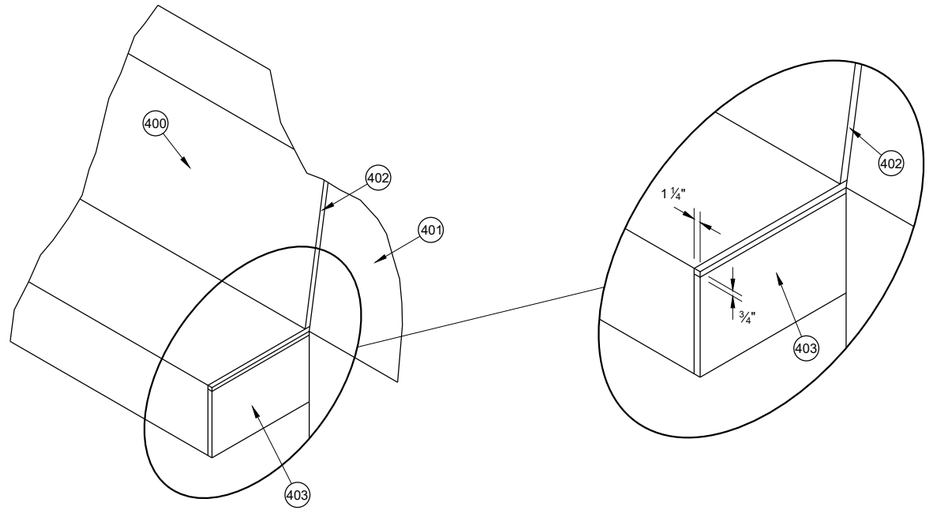
(407) EXTEND BARRIER SLOPE TO INLET. SEE PLAN FOR THE LENGTH OF EXTENSION.

(408) CONTRACTION JOINT.

(409) 3' (TYP.)



DRAINAGE DETAIL



EXPANSION JOINT DETAIL

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B32 - 10d

GENERAL NOTES

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

(500) SEE TABLE "A" FOR DIMENSIONS

(501) SEE TABLE "D"

(502) MULTIPLE HEIGHT TRANSITION MAY BE USED IN SEQUENCE TO GET APPROPRIATE HEIGHT.

(503) COLD JOINT

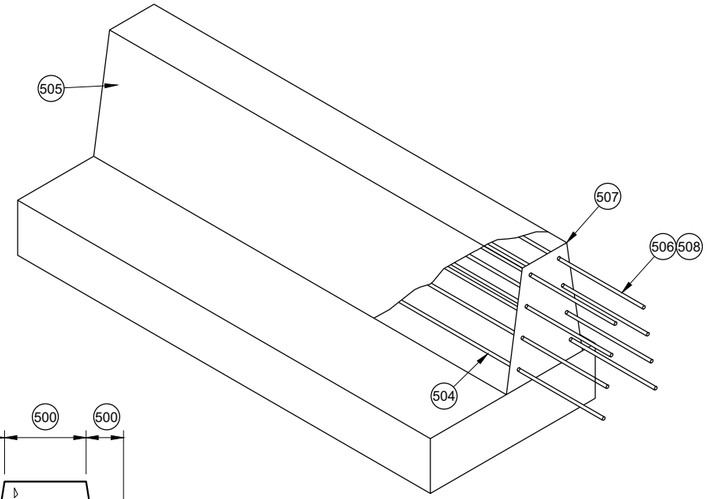
(504) BARRIER REBAR (SEE OTHER DETAILS FOR BAR SIZE, QUANTITY AND LOCATION).

(505) SINGLE SLOPE BARRIER SHOWN. SIMILAR DETAIL CAN BE USED FOR COLD JOINT IN END ANCHORS AND TRANSITIONS.

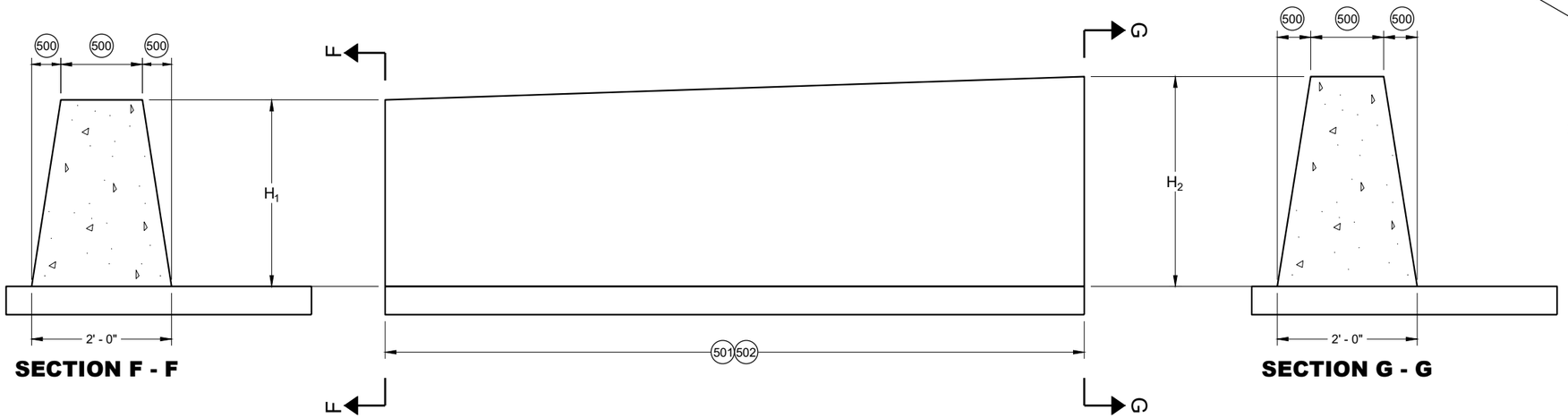
(506) NO. 5 REBAR FOR SPLICE. 3' OF SPLICE REBAR IS LAPPED AND TIED TO BARRIER REBAR. EXTEND 3' OF SPLICE REBAR BEYOND END OF POUR. ALL BARS ARE FIRMLY TIED OR CONNECTED. EVERY REBAR IN THE BARRIER SECTION REQUIRES A SPLICE BAR.

(507) END OF POUR.

(508) LAP AND TIE 3' OF NEXT POUR'S REBAR TO SPLICE REBAR.



COLD JOINT DETAIL



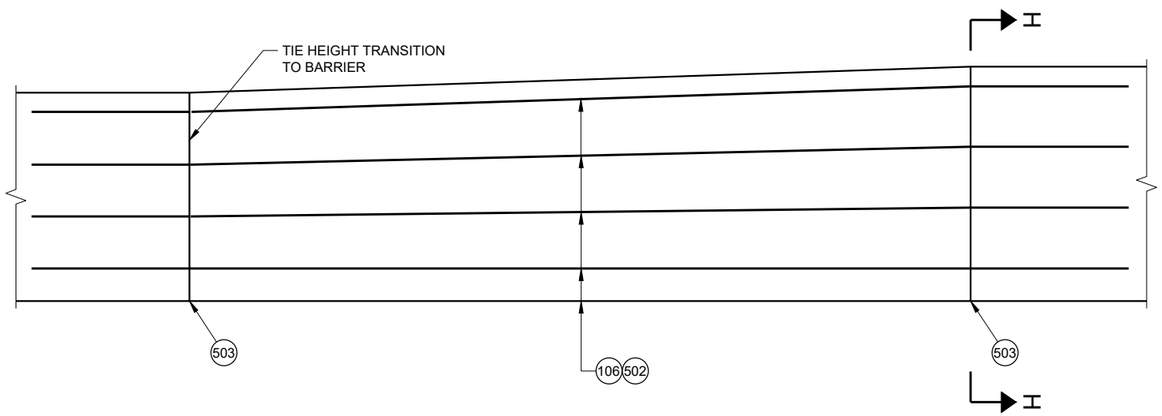
SECTION F - F

SECTION G - G

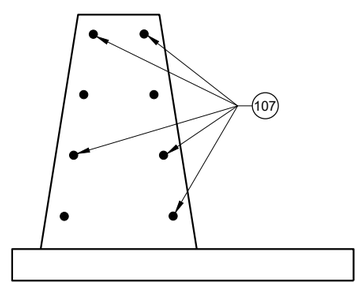
DOUBLE COLD JOINT HEIGHT TRANSITION

TABLE "D"

H_1	H_2	L	NUMBER OF NO. 5 BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11



STEEL REINFORCEMENT DETAIL



SECTION H - H

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
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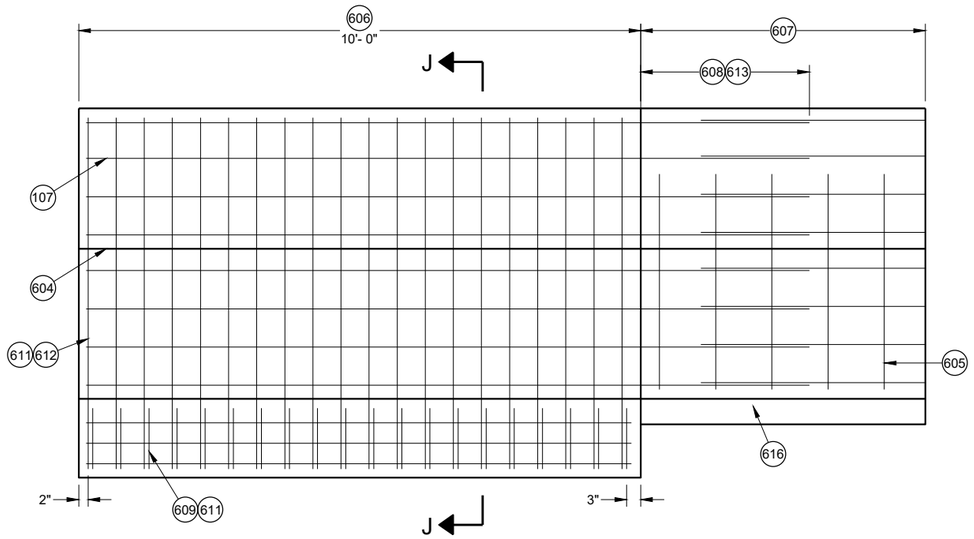
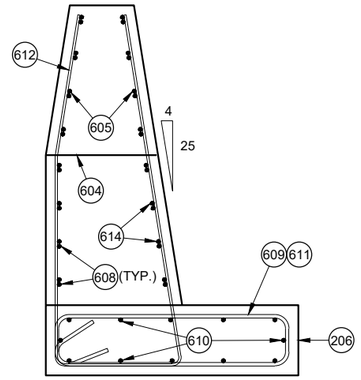
SDD 14B32 - 10e



END ANCHOR MEDIAN BARRIER AND RETAINING WALL



SECTION J - J
END ANCHOR AND MEDIAN WALL END ANCHOR REINFORCEMENT DETAIL

GENERAL NOTES

600 UPPER CONCRETE BARRIER

601 LOWER CONCRETE BARRIER

602 MAX HEIGHT 36".

603 VERTICAL OFFSET FROM TOP ROADWAY SURFACES

604 OPTIONAL CONSTRUCTION JOINT WHEN HEIGHT IS GREATER THAN 1 ½".

605 NO. 4 BARRIER LOOP BARS ARE NOT REQUIRED FOR ROADWAY OFFSETS ARE LESS THAN 1'- 0", EXCEPT WHEN USED IN ANCHORS. BARRIER LOOP BARS ARE SPACED 12" CENTER TO CENTER OUTSIDE OF MEDIAN BARRIER AND RETAINING WALL END ANCHOR.

606 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL ANCHOR

607 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (SEE OTHER DETAILS)

608 NO. 5 REBAR 3' OF LAP OF LONGITUDINAL STEEL.

609 NO. 6 REBAR END ANCHOR FOOTING LOOP

610 TWELVE (12) NO. 5 BARS EVENLY SPACED.

611 SS ANCHOR END LOOP AND END ANCHOR FOOTING LOOP ARE SPACED 6" CENTER TO CENTER.

612 END ANCHOR LOOP BAR IS NO. 5 REBAR.

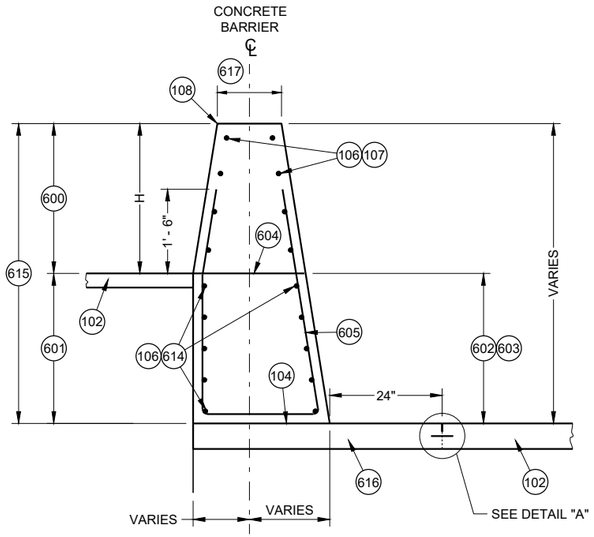
613 SEE COLD JOINT DETAIL.

614 SEE TABLE "E" FOR REQUIRED REBAR

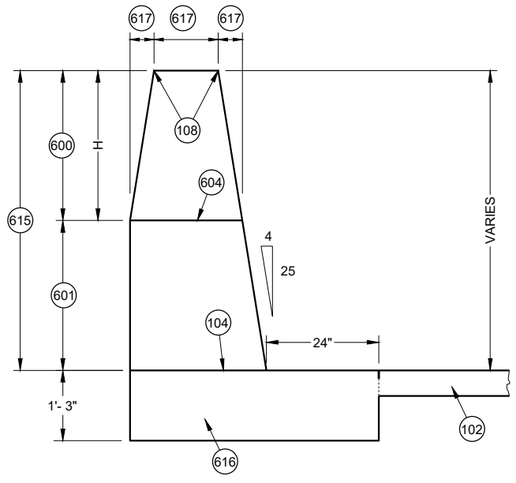
615 TOTAL BARRIER HEIGHT (SEE PLAN FOR HEIGHT)

616 FOR SOME LOCATIONS, NO PAN IS NEEDED. SEE OTHER DETAILS.

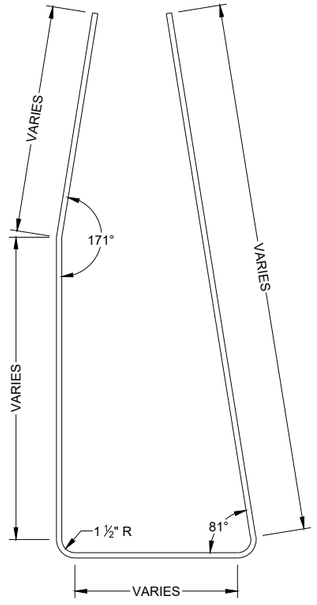
617 SEE TABLE "A" FOR DIMENSIONS



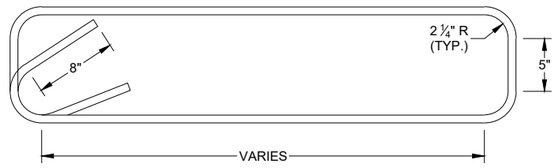
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)
(BETWEEN ADJACENT ROADWAYS)



SECTION J - J
MEDIAN BARRIER AND RETAINING WALL END ANCHOR DIMENSIONS



LOOP BAR BENDING DETAIL



END ANCHOR STIRRUP BAR BENDING DETAIL

TABLE "E"

HEIGHT BETWEEN ROADWAY	QUANTITY OF NO. 6 BARS
0 TO 3"	0
GREATER THAN 3" TO 8"	2
GREATER THAN 8" TO 12"	4
GREATER THAN 12" TO 36"	8

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

574

6

SDD 14B32 - 10f

6

SDD 14B32 - 10f

GENERAL NOTES

700 END ANCHOR SINGLE SLOPE CONCRETE BARRIER

701 SEE EXPANSION JOINT DETAIL

702 END ANCHOR SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

703 PAY LIMIT FOR SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

704 SEE COLD JOINT DETAIL

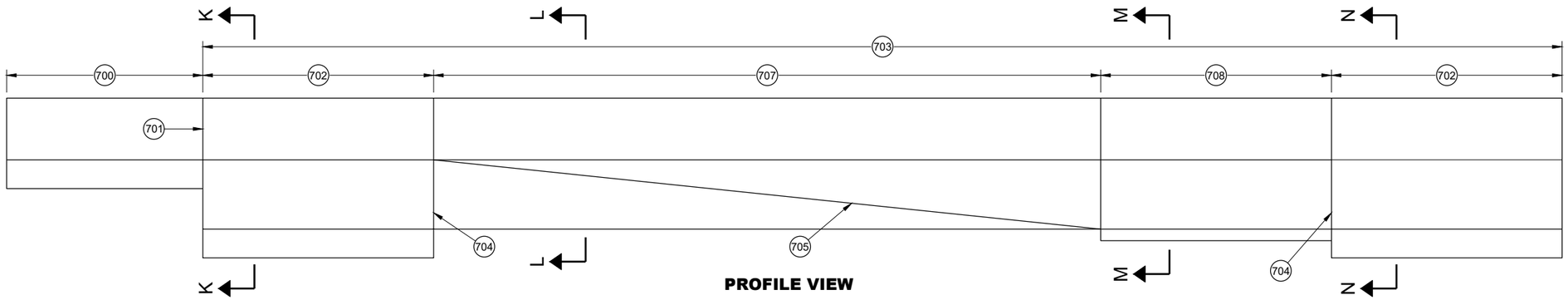
705 LOW SIDE SHOULDER

706 HIGH SIDE SHOULDER

707 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL INSTALLED WITHOUT A PAN.

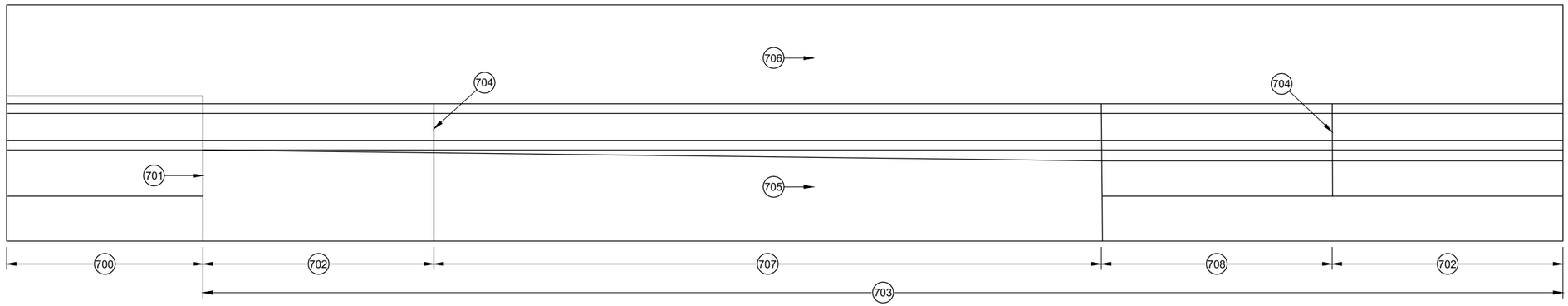
708 SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL INSTALLED WITH A PAN.

709 EXCAVATION AND COMPACTION



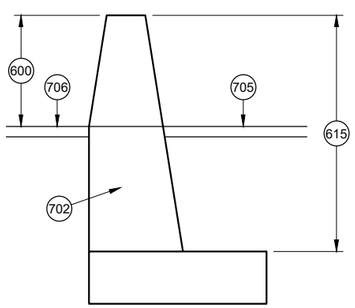
PROFILE VIEW

SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL

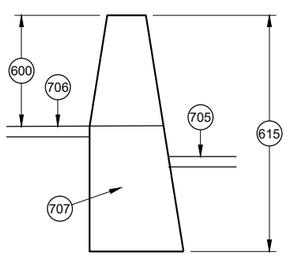


PLAN VIEW

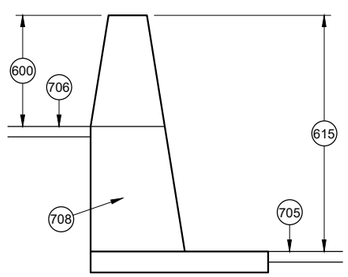
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL



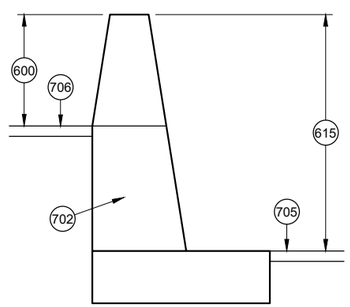
SECTION K - K



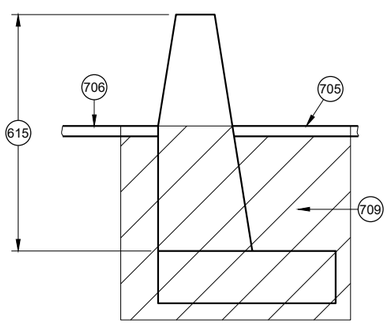
SECTION L - L



SECTION M - M



SECTION N - N



CONCRETE BARRIER
SINGLE SLOPE (CBSS)

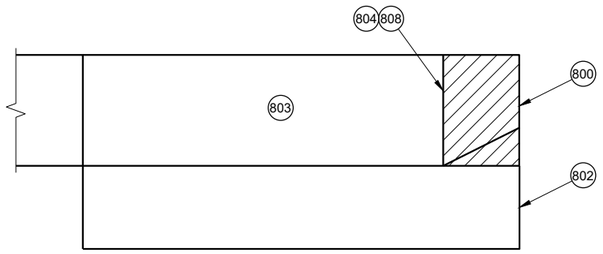
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 575

SDD 14B32 - 10g

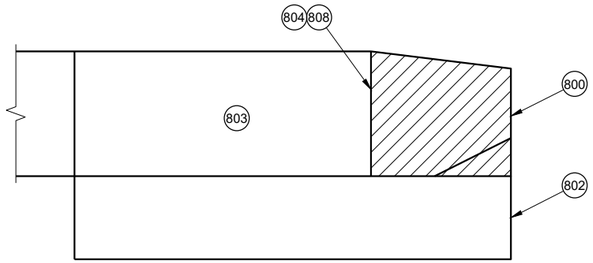
6

SDD 14B32 - 10g

6



REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



REMOVAL AREA OF CONCRETE THRIE BEAM ANCHORAGE WITH HEIGHT GREATER THAN 32"

GENERAL NOTES

END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.

REMOVE THRIE BEAM ANCHORAGE AS SHOWN.

800 AREA OF BARRIER REMOVAL AN NEW CONCRETE AND STEEL IS INSTALLED.

801 MINIMUM LENGTH OF REMOVAL IS 15'

802 FOOTING BELOW GROUND MAY REMAIN IN PLACE.

803 CONCRETE BARRIER SINGLE SLOPE THRIE BEAM ANCHOR TO REMAIN.

804 SAW CUT

805 NEW SINGLE SLOPE CONCRETE BARRIER.

806 CONCRETE BARRIE SINGLE SLOPE TO REMAIN.

807 SINGLE SLOPE CONCRETE BARRIER OR CONCRETE BARRIER SINGLE SLOPE THRIE BEAM ANCHOR TO REMAIN.

808 SEE CONNECTION DETAIL.

809 NO. 5 CONTINUOUS BAR.

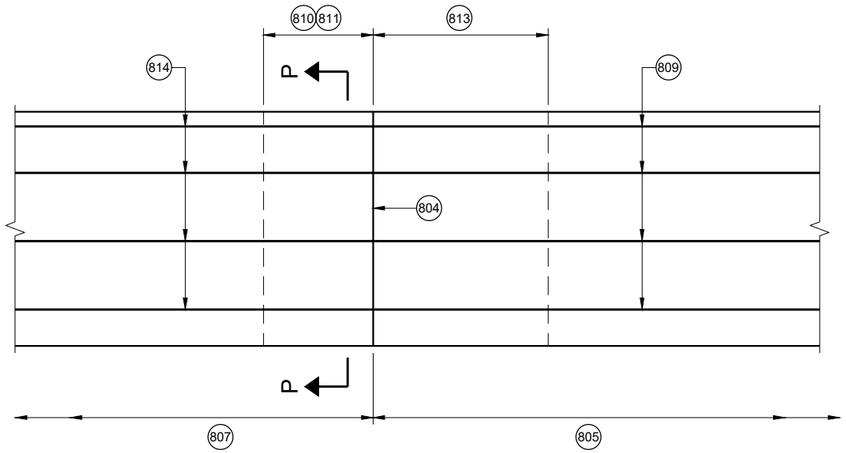
810 3' MIN. DRILL HOLES. USES NO. 5 ADHESIVE ANCHORS.

811 THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF HORIZONTAL REBAR IN BARRIER. DRILL HOLES ARE TO BE A MINIMUM OF 4" FROM EDGE OF CONCRETE.

812 EXISTING REBAR IN EXISTING BARRIER OR END ANCHOR.

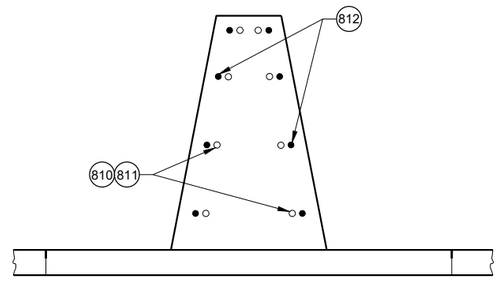
813 3' BAR OVERLAP

814 EXISTING REINFORCEMENT

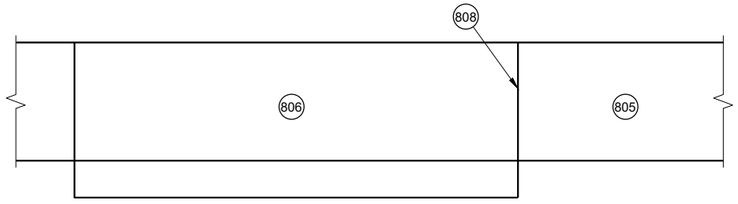


CONNECTION DETAIL

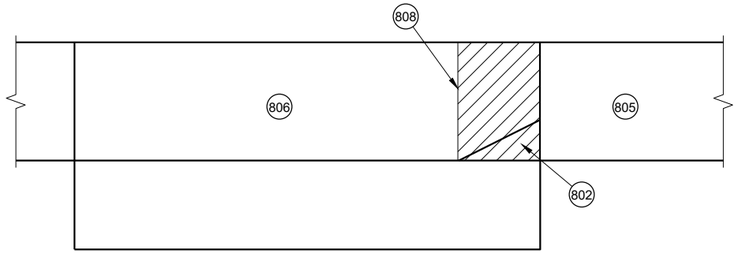
SINGLE SLOPE CONCRETE BARRIER TO NEW SINGLE SLOPE CONCRETE BARRIER



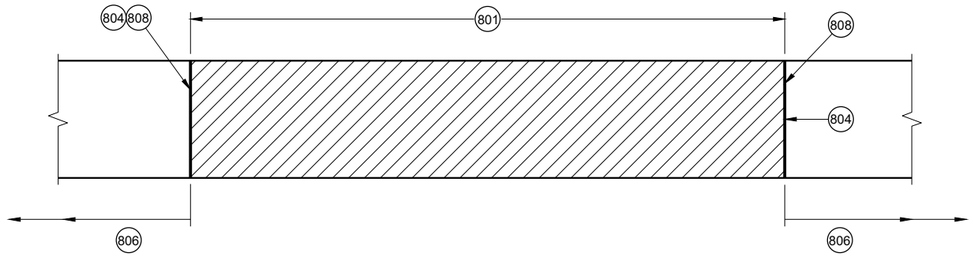
SECTION P - P



CONCRETE BARRIER EXTENSION NEAR END ANCHORAGE



CONCRETE BARRIER EXTENSION NEAR THRIE BEAM TERMINAL



BARRIER REMOVAL AND REPLACEMENT

RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

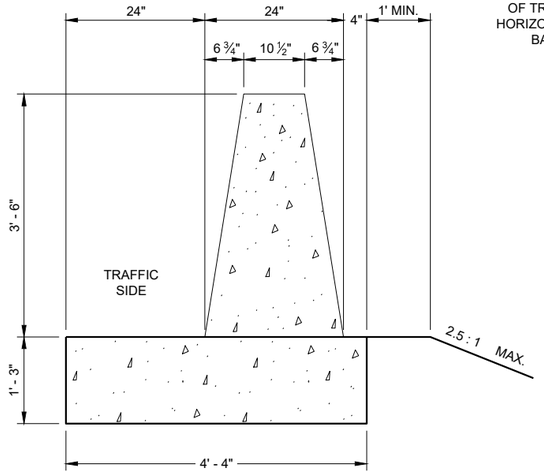
FHWA

6

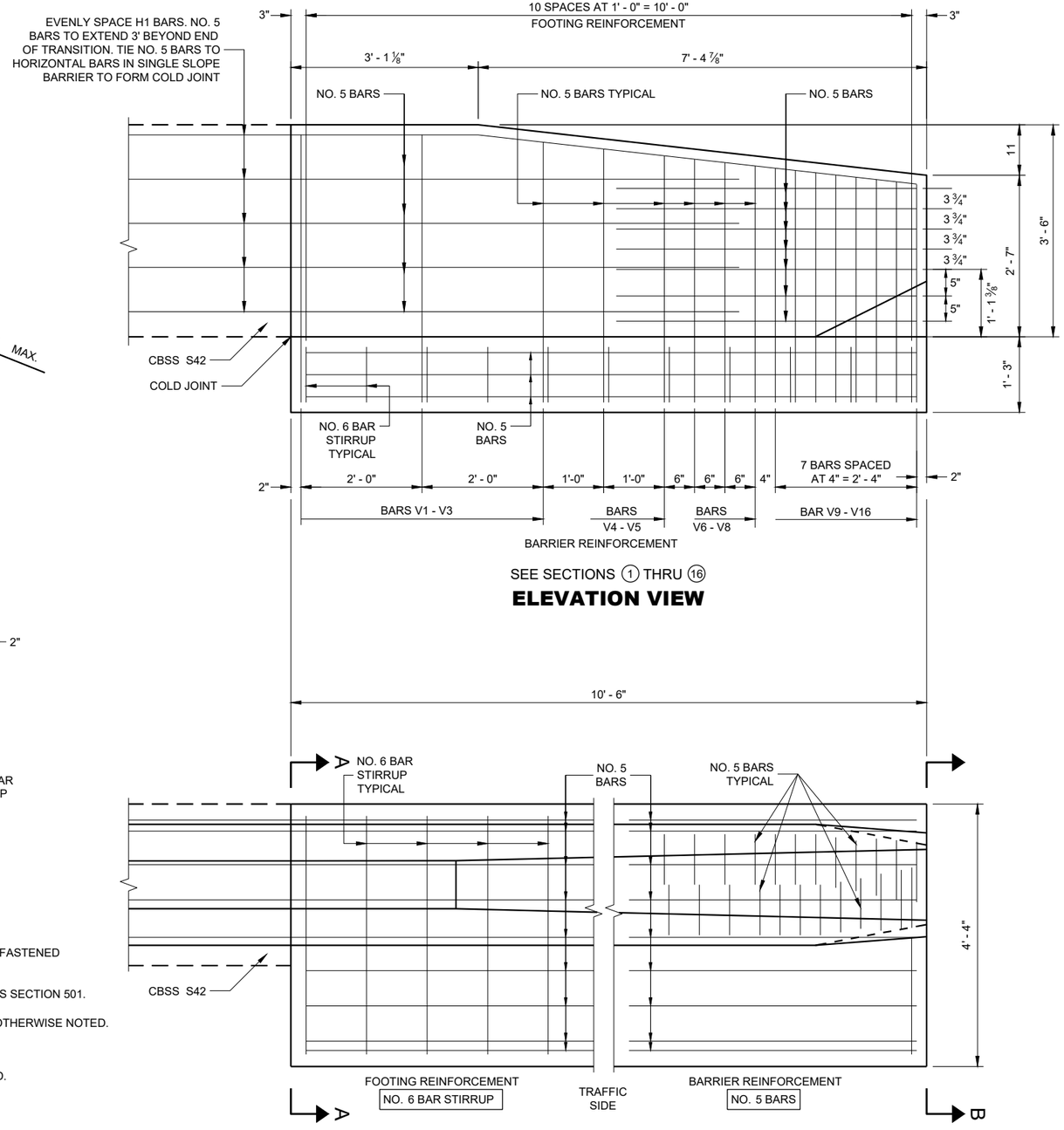
SDD14B32 - 10h

6

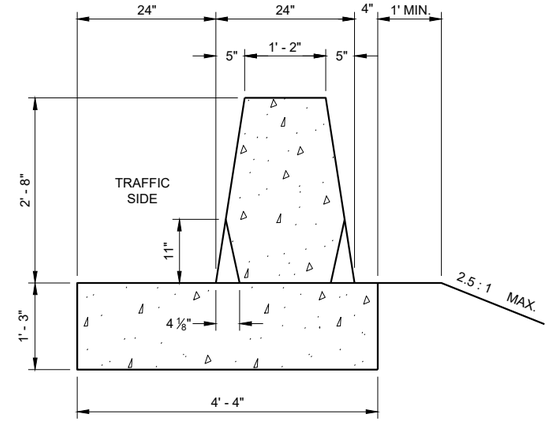
SDD14B32 - 10h



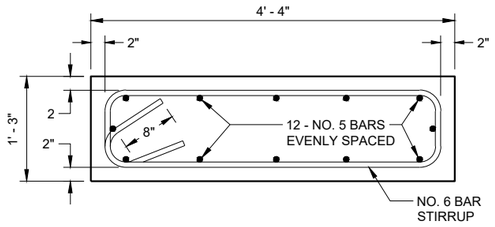
SECTION A - A



ELEVATION VIEW

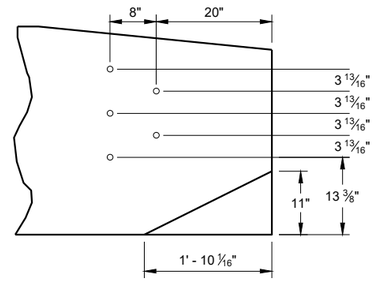


SECTION B - B



TYPICAL FOOTING

PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE OF BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

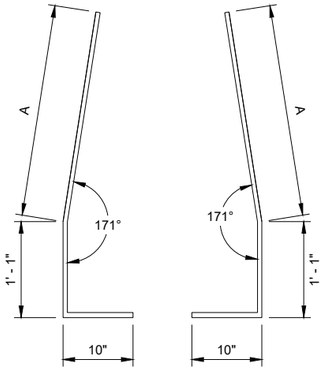
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B33 - 02g

BAR CHART
BAR POSITIONS
1 - 11

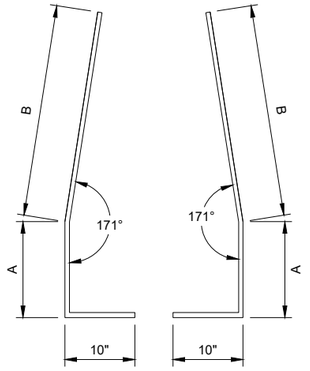
BAR	A
V1	3' - 4 ½"
V2	3' - 4 ½"
V3	3' - 2 ½"
V4	3' - 1"
V5	2' - 11 ½"
V6	2' - 11"
V7	2' - 10 ½"
V8	2' - 9 ½"
V9	2' - 9"
V10	2' - 8 ½"
V11	2' - 8"



BAR BENDING DETAIL
SECTIONS V1 - V4

BAR CHART
BAR POSITIONS
12 - 13

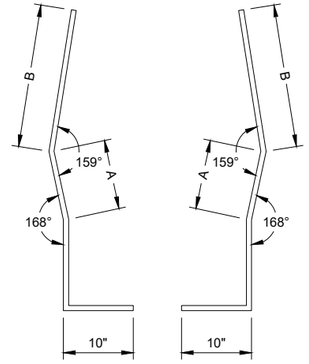
BAR	A	B
V12	1' - 3"	2' - 6"
V13	1' - 8"	2' - 1 ½"



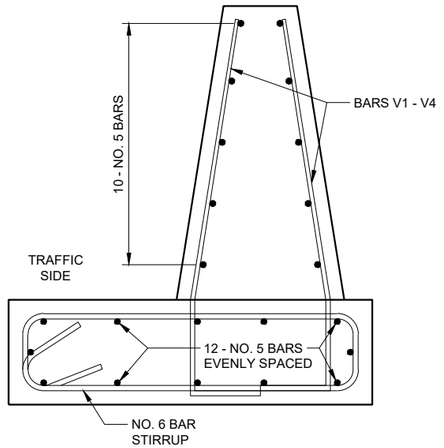
BAR BENDING DETAIL
SECTIONS V12 - V13

BAR CHART
BAR POSITIONS
14 - 16

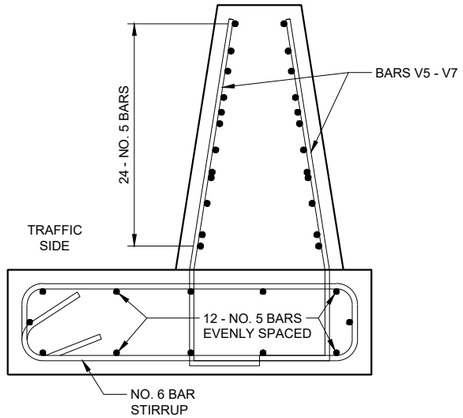
BAR	A	B
V14	6"	2' - 1"
V15	8"	1' - 11"
V16	10"	1' - 8 ½"



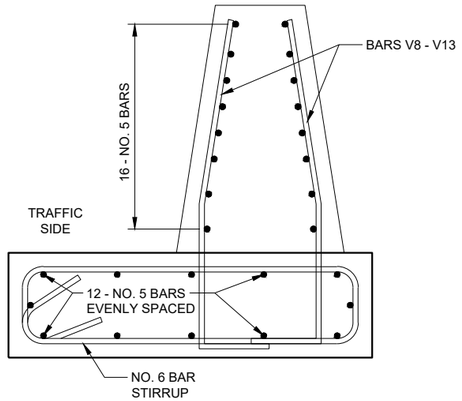
BAR BENDING DETAIL
SECTIONS V14 - V16



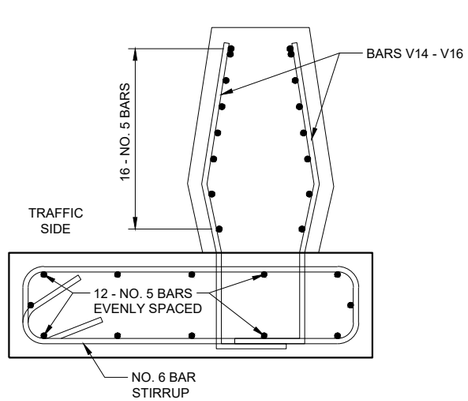
BAR DETAIL
SECTIONS 1 - 4



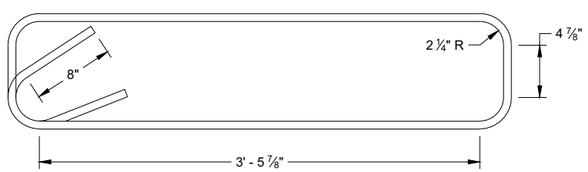
BAR DETAIL
SECTIONS 5 - 7



BAR DETAIL
SECTIONS 8 - 13



BAR DETAIL
SECTIONS 14 - 16



STIRRUP BAR
BENDING DETAIL

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

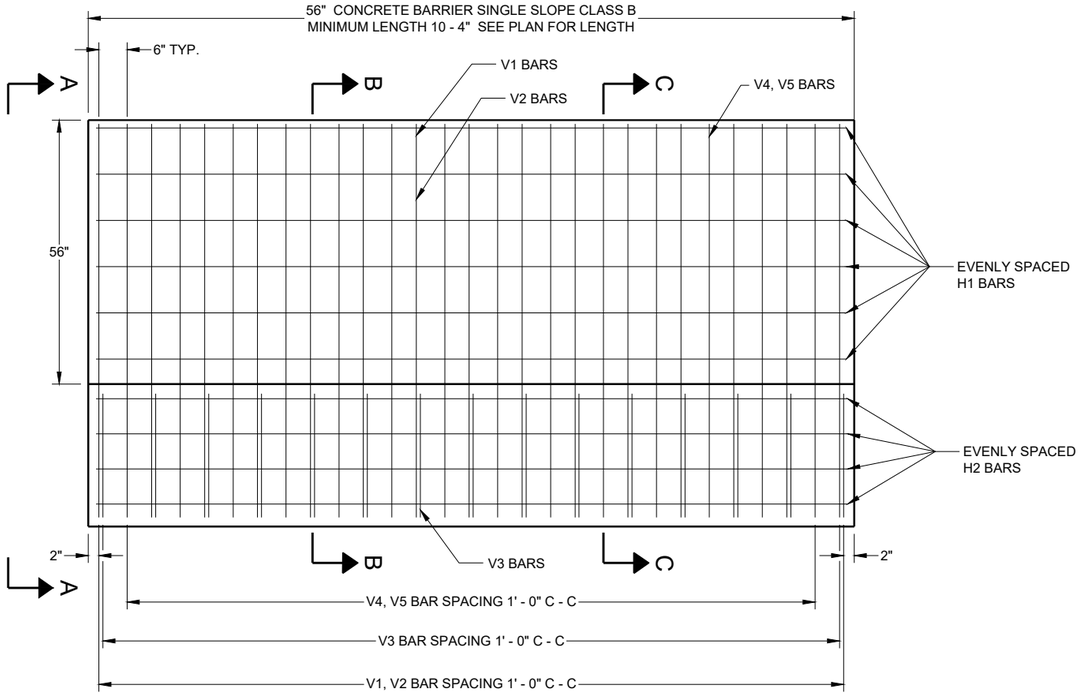
APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

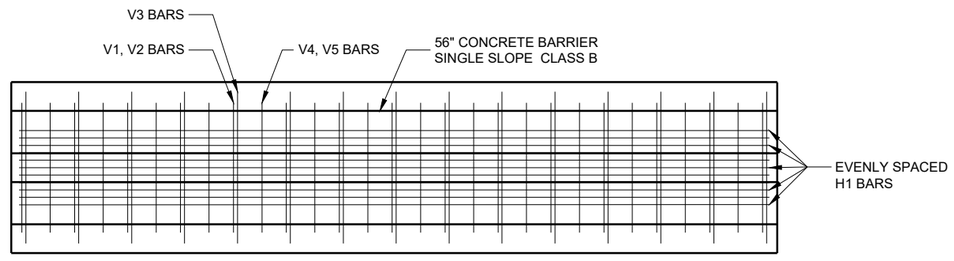
FHWA

6

SDD 14B33 - 02h

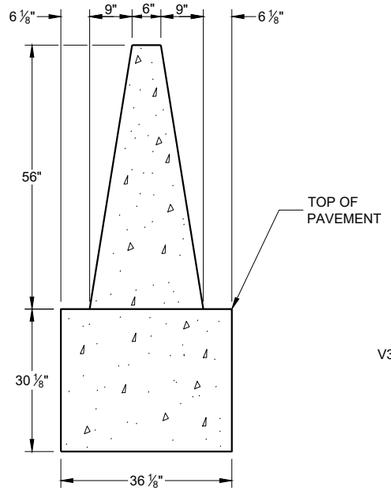


ELEVATION VIEW

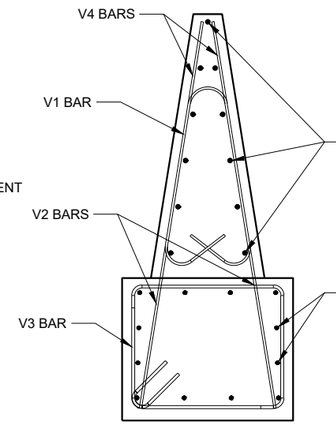


H2 BARS NOT SHOWN

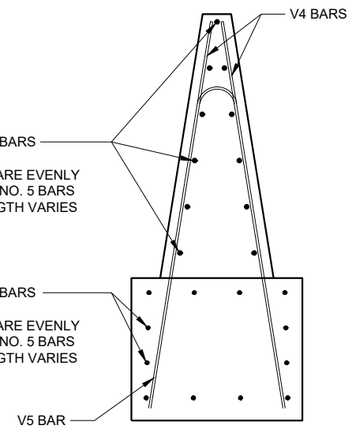
PLAN VIEW



SECTION A - A



SECTION B - B



SECTION C - C

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

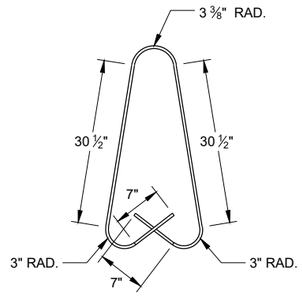
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

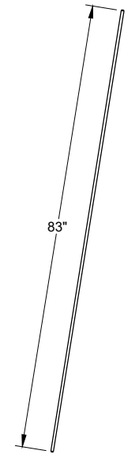
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



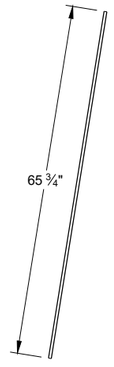
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



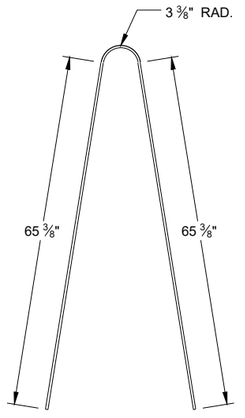
V2 BAR DETAIL

V2 BARS ARE NO. 5 BARS



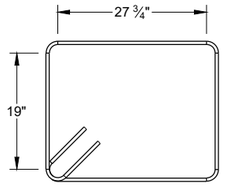
V4 BAR DETAIL

V4 BARS ARE NO. 5 BARS



V5 BAR BENDING DETAIL

V5 BARS ARE NO. 6 BARS



V3 BAR BENDING DETAIL

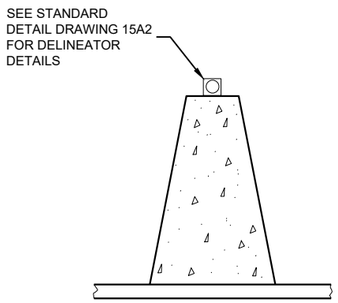
V3 BARS ARE NO. 6 BARS

56" CONCRETE BARRIER SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B34 - 02b



DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C - C 100' C - C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C - C 50' C - C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	50' C - C 100' C - C	2 2	6

6

6

SDD 14B34 - 02c

SDD 14B34 - 02c

CONCRETE BARRIER
SINGLE SLOPE CLASS B

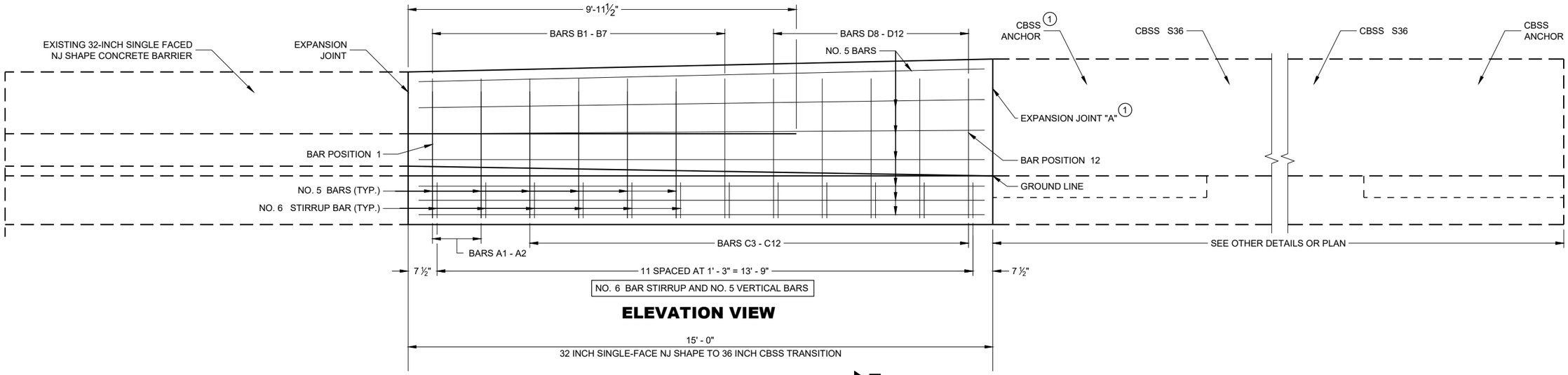
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

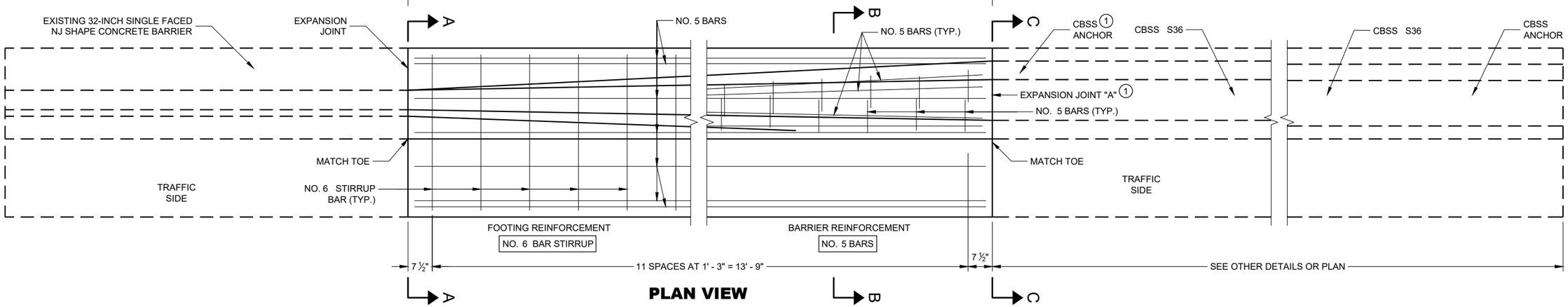
07/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

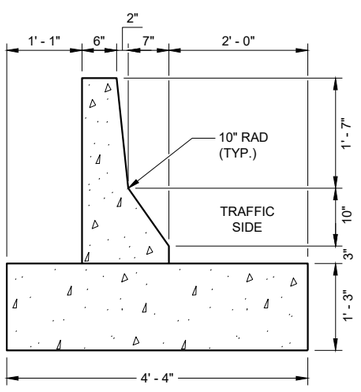
FHWA



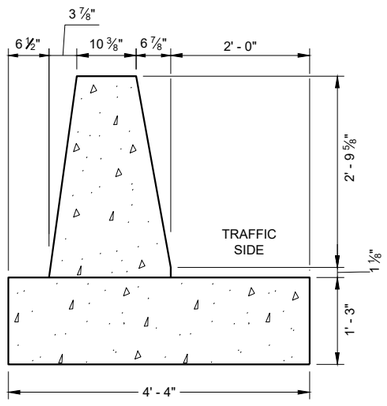
ELEVATION VIEW



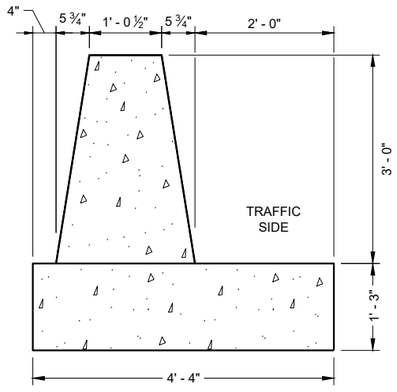
PLAN VIEW



SECTION A - A



SECTION B - B



SECTION C - C

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

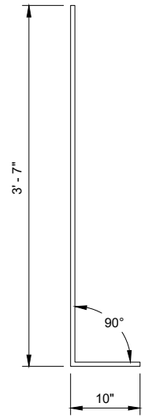
32 - INCH SINGLE FACED NJ SHAPE CONCRETE BARRER TO 36 - INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B35 - 02c
SDD 14B35 - 02c

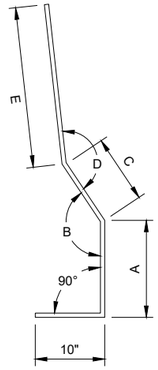
"A" BAR POSITIONS 1 - 2



"A" BAR BENDING DETAIL

"B" BAR CHART BAR POSITIONS 1 - 7

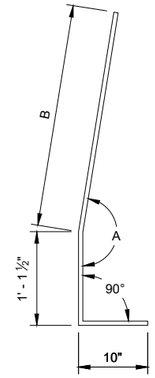
BAR	A	B	C	D	E
B1	1' - 2 ¼"	148°	1' - 1 ¼"	154°	1' - 5 ½
B2	1' - 2 ¼"	151°	1' - 1"	158°	1' - 6"
B3	1' - 2"	154°	1' - ¾"	161°	1' - 6 ½"
B4	1' - 2"	157°	1' - ½"	164°	1' - 7"
B5	1' -1 ½"	159°	1' - ¼"	168°	1' - 8"
B6	1' -1 ½"	162°	1' - ¼"	173°	1' - 8"
B7	1' -1 ½"	165°	1' - ¼"	176°	1' - 8"



"B" BAR BENDING DETAIL

"C" BAR CHART BAR POSITIONS 3 - 12

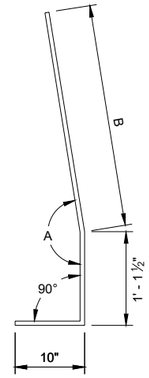
BAR	A	B
C3	178°	2' - 6"
C4	178°	2' - 6 ½"
C5	177°	2' - 7"
C6	176°	2' - 7 ½"
C7	174°	2' - 8"
C8	174°	2' - 8"
C9	174°	2' - 8 ½"
C10	173°	2' - 9"
C11	173°	2' - 9"
C12	172°	2' - 9 ½"



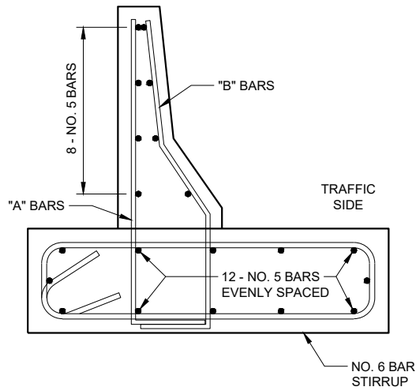
"C" BAR BENDING DETAIL

"D" BAR CHART BAR POSITIONS 8 - 12

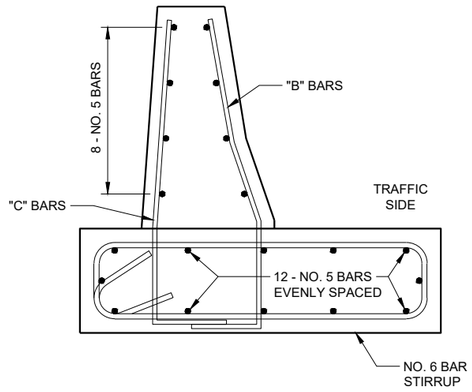
BAR	A	B
D8	169°	2' - 8"
D9	170°	2' - 8 ½"
D10	170°	2' - 9"
D11	171°	2' - 9"
D12	171°	2' - 9 ½"



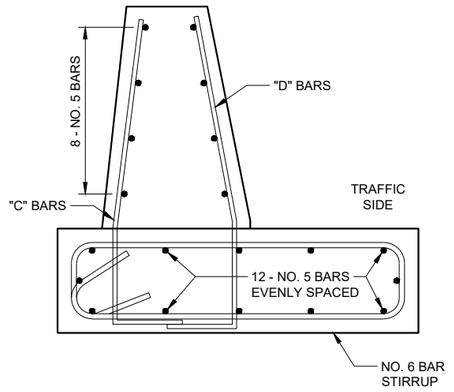
"D" BAR BENDING DETAIL



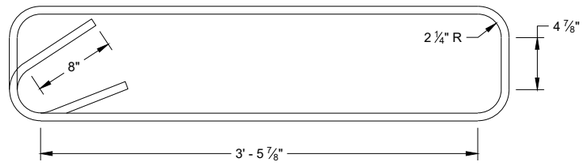
BAR DETAIL BAR POSITIONS 1 - 2



BAR DETAIL BAR POSITIONS 3 - 7



BAR DETAIL BAR POSITIONS 8 - 12



STIRRUP BAR BENDING DETAIL

32 - INCH SINGLE FACED NJ SHAPE CONCRETE BARRIER TO 36 - INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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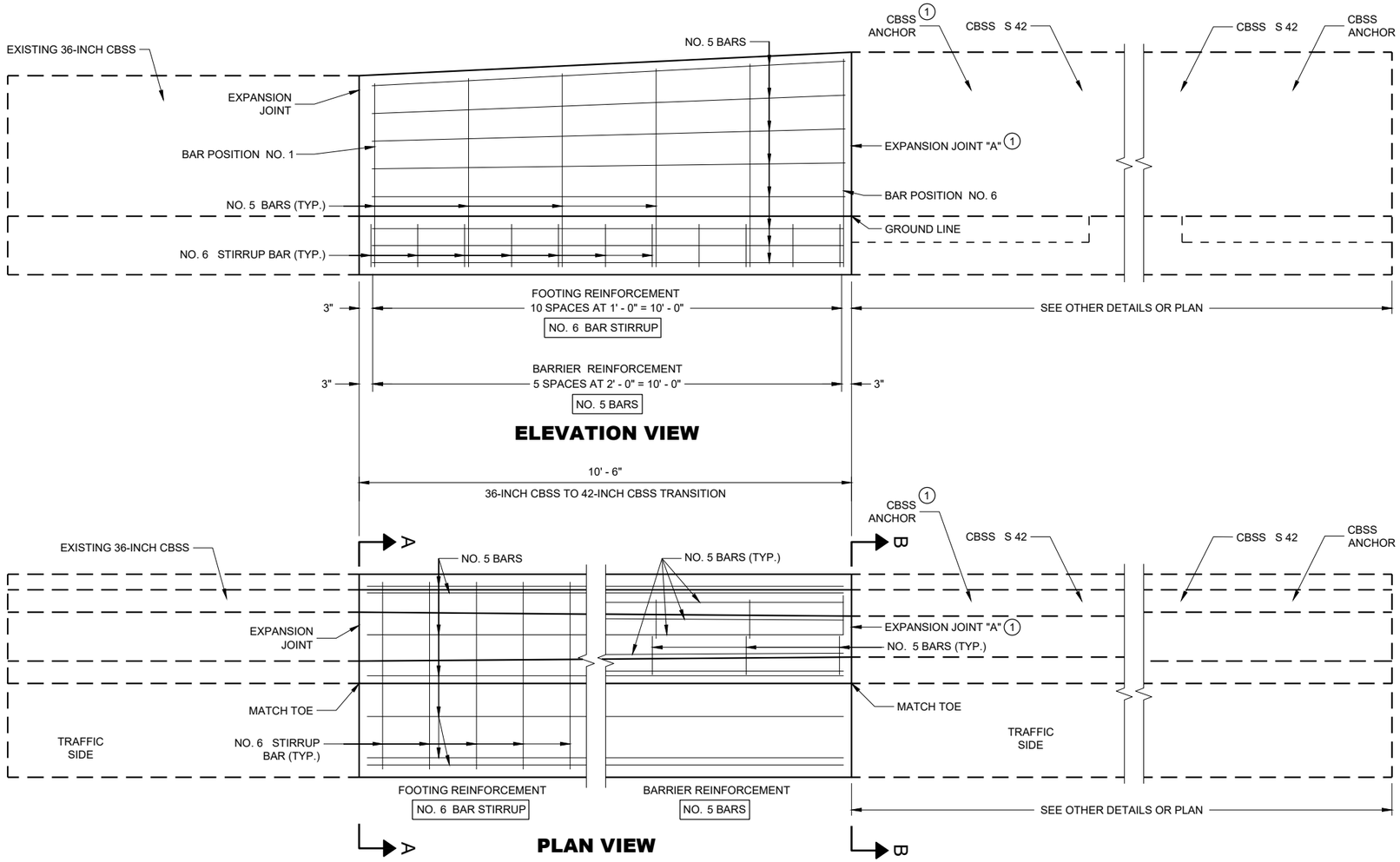
SDD 14B35 - 02d



ELEVATION VIEW

PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

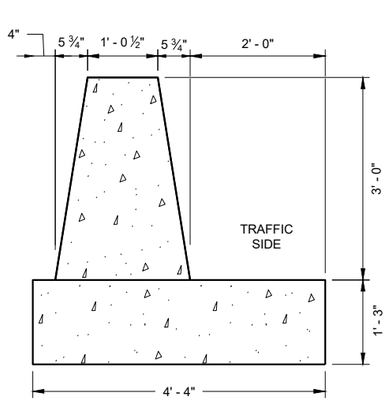
USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

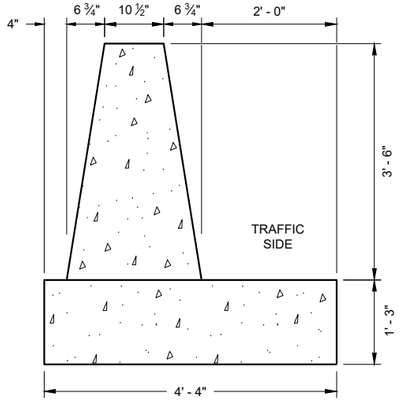
2" CLEAR COVER TYPICAL.

(1) EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

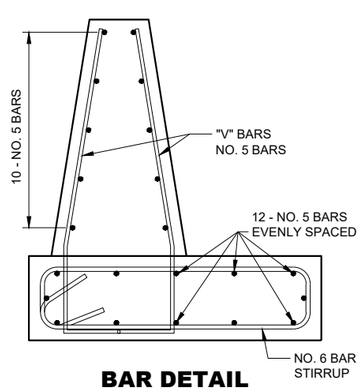
STIRRUP BAR BENDING DETAIL



SECTION A - A



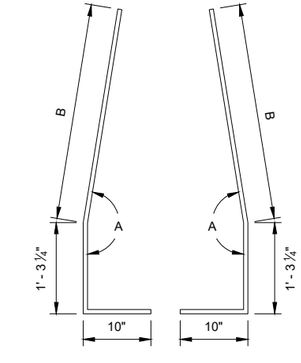
SECTION B - B



BAR DETAIL
BAR POSITIONS V1 - V6

BAR CHART
BAR POSITIONS
V1 - V6

BAR	A	B
V1	170°	2' - 7 ½"
V2	170°	2' - 9"
V3	170°	2' - 9 ¾"
V4	170°	2' - 11 ¼"
V5	170°	3' - 0 ½"
V6	170°	3' - 2"



BENDING DETAIL
FOR BARS V1 - V6

36" SINGLE SLOPE CONCRETE BARRIER TO 42" SINGLE SLOPE CONCRETE BARRIER HEIGHT TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

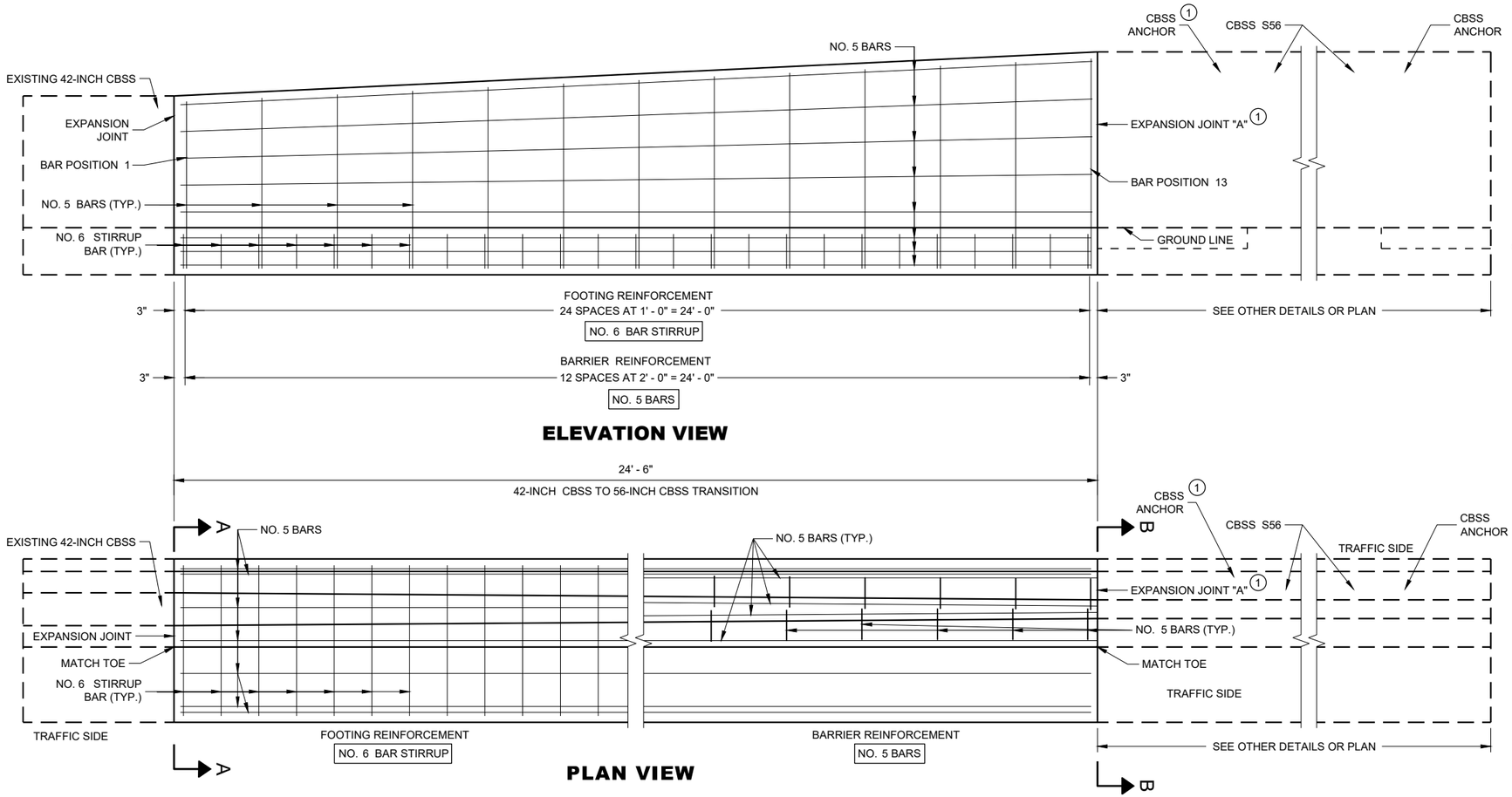
FHWA

6

SDD 14B39 - 02b

6

SDD 14B39 - 02b



ELEVATION VIEW

PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

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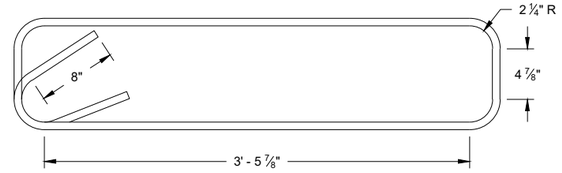
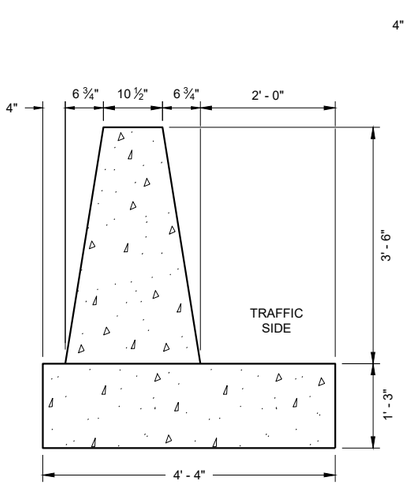
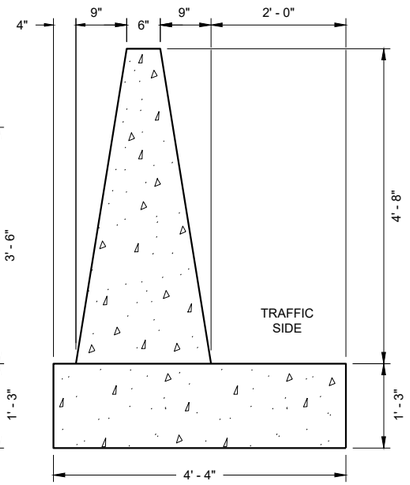


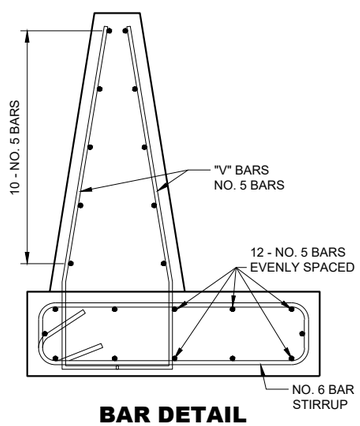
STIRRUP BAR BENDING DETAIL



SECTION A - A



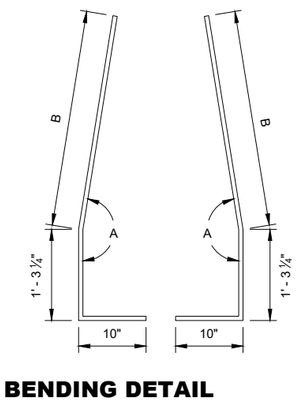
SECTION B - B



BAR DETAIL BAR POSITIONS V1 - V13

BAR CHART BAR POSTIONS V1 - V13

BAR	A	B
V1	170°	3' - 1 ½"
V2	170°	3' - 3"
V3	170°	3' - 4 ¼"
V4	170°	3' - 5 ½"
V5	170°	3' - 6 ½"
V6	170°	3' - 7 ¾"
V7	170°	3' - 9 ¼"
V8	170°	3' - 10"
V9	170°	3' - 11 ¼"
V10	170°	4' - 1 ¼"
V11	170°	4' - 1 ½"
V12	170°	4' - 2 ¼"
V12	170°	4' - 2 ½"



BENDING DETAIL FOR BARS V1 - V13

42" SINGLE SLOPE CONCRETE BARRIER TO 56" SINGLE SLOPE CONCRETE BARRIER HEIGHT TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
ENGINEER

FHWA

SDD 14B39 - 02c

SDD 14B39 - 02c

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

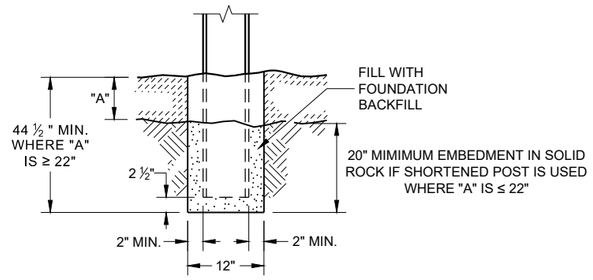
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

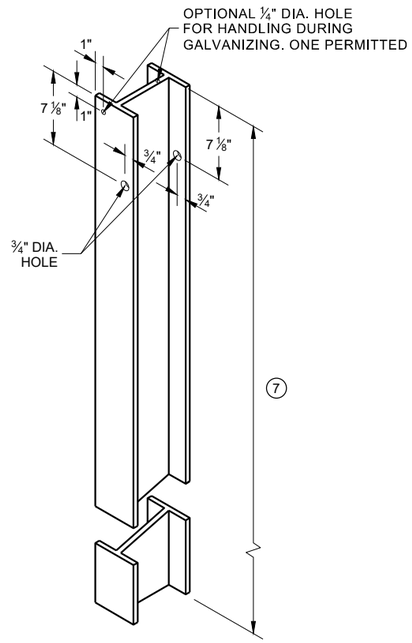
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

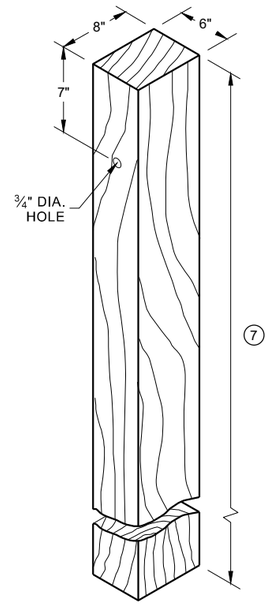
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



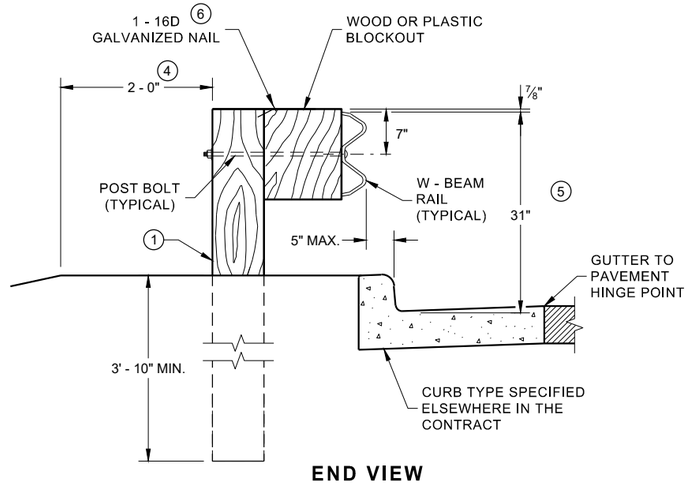
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



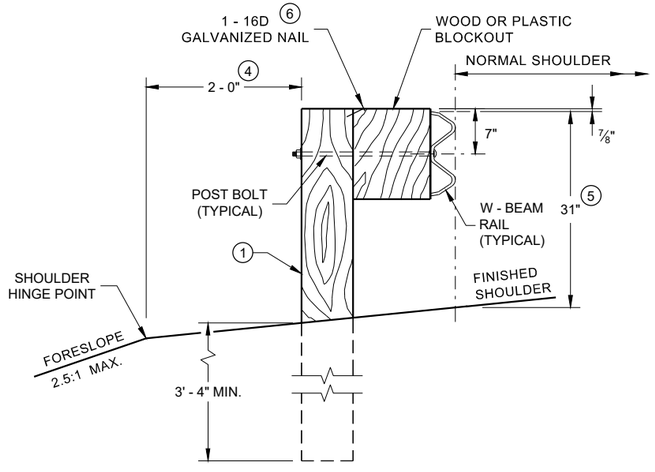
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



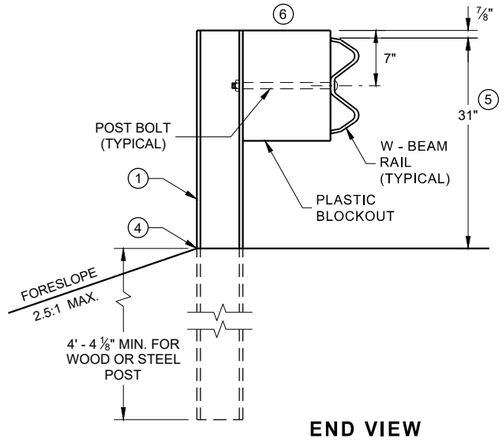
WOOD POST (6" X 8") NOMINAL (1)



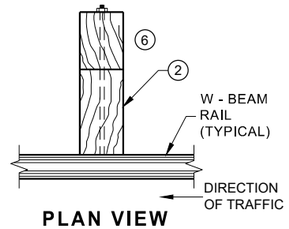
END VIEW
LOCATED ALONG A CURBED ROADWAY



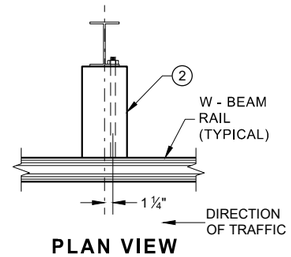
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



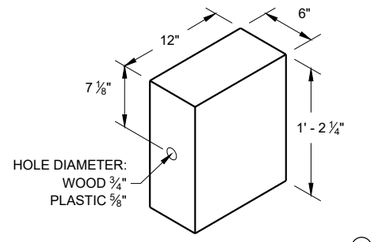
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

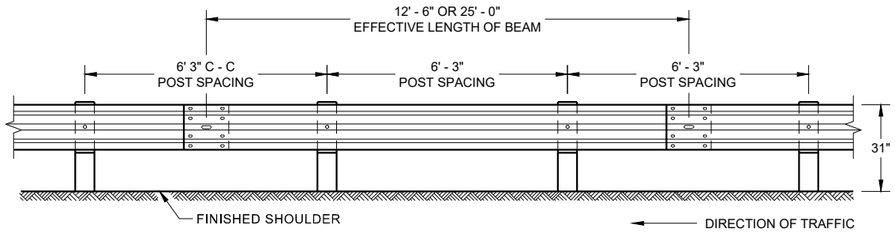
585

6

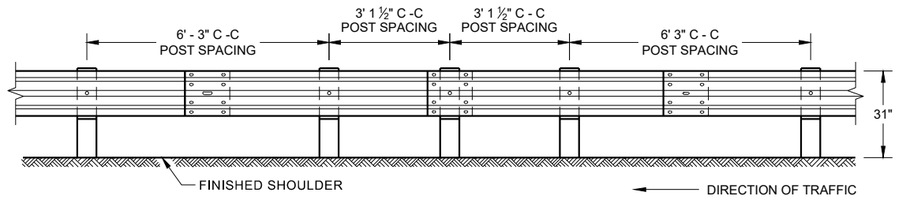
SDD 14B42 - 07a

6

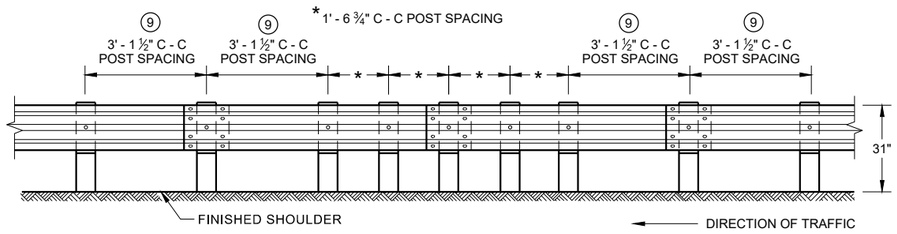
SDD 14B42 - 07a



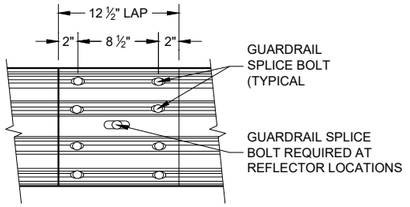
FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

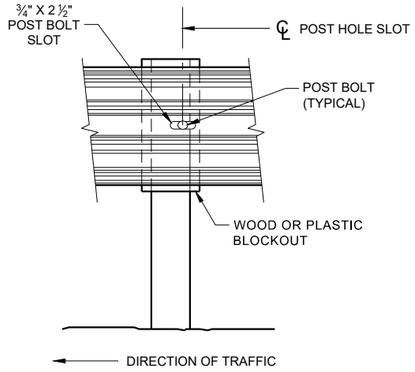
GENERAL NOTES

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

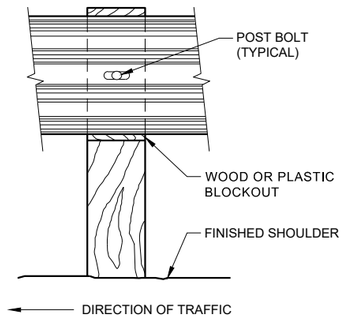
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

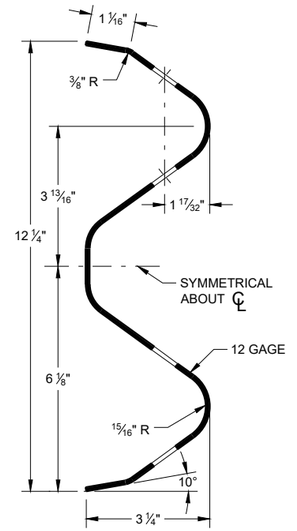
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



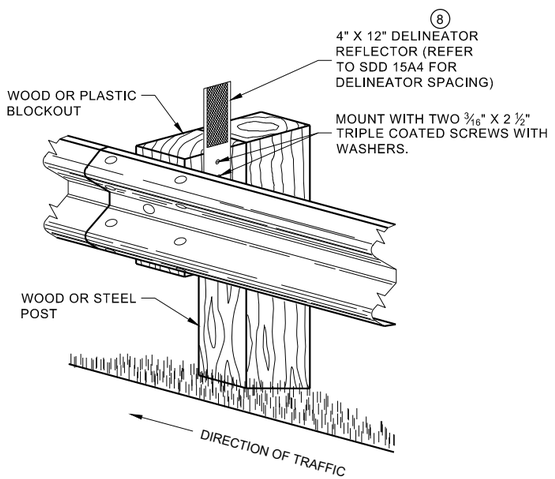
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



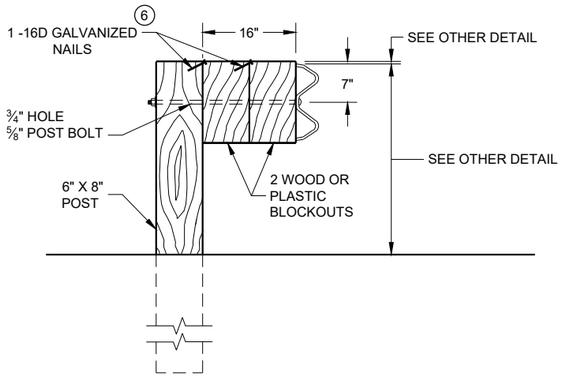
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

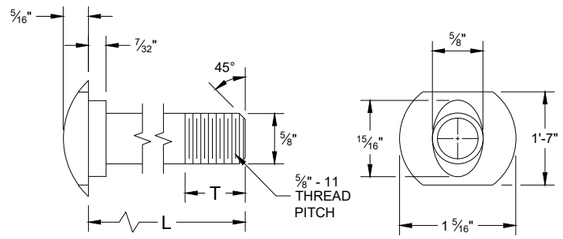


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

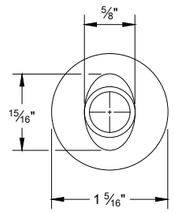
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

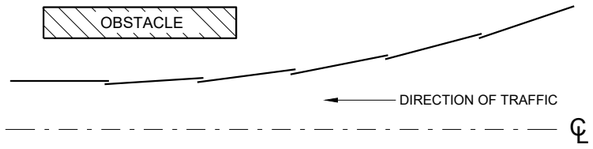


POST BOLT TABLE

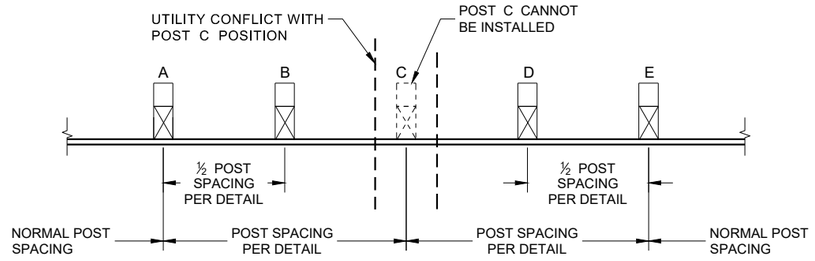
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



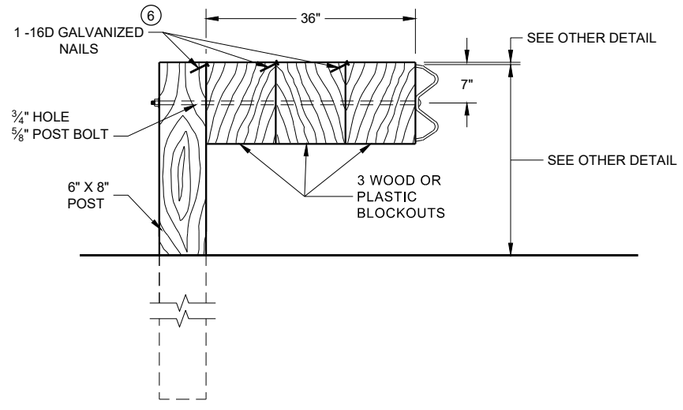
ALTERNATE BOLT HEAD



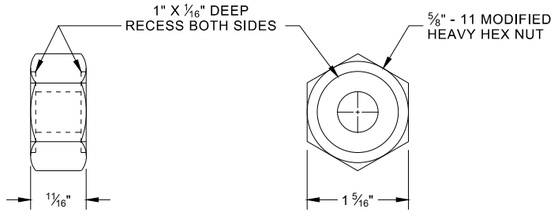
PLAN VIEW
BEAM LAPPING DETAIL



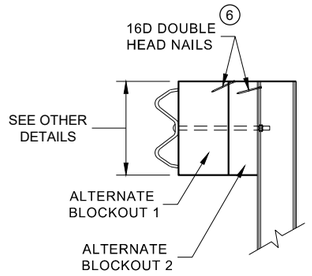
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



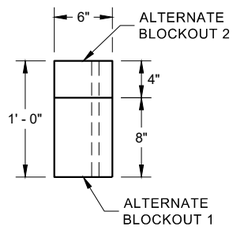
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

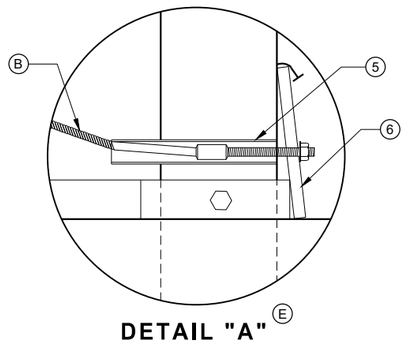
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

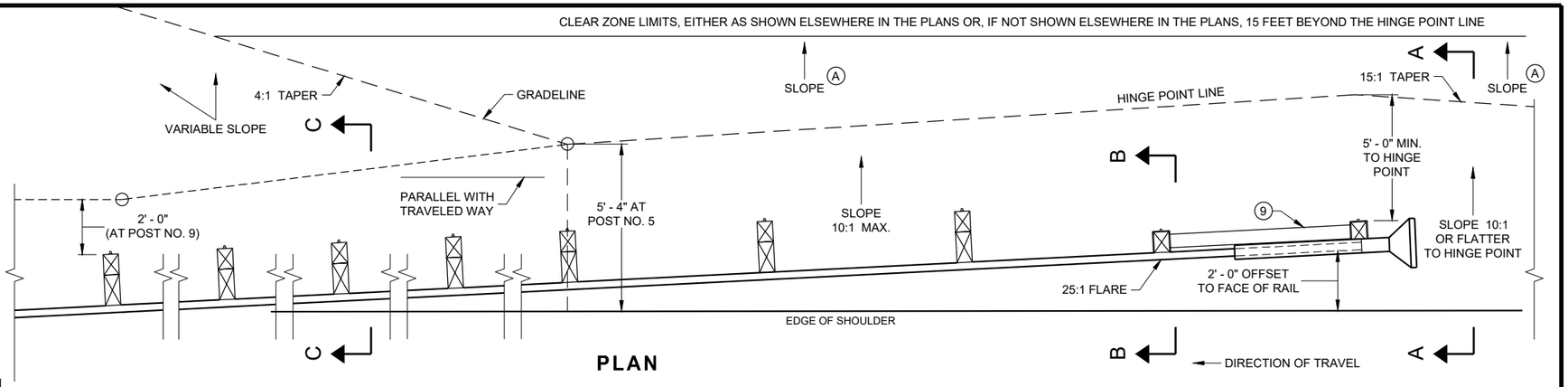
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

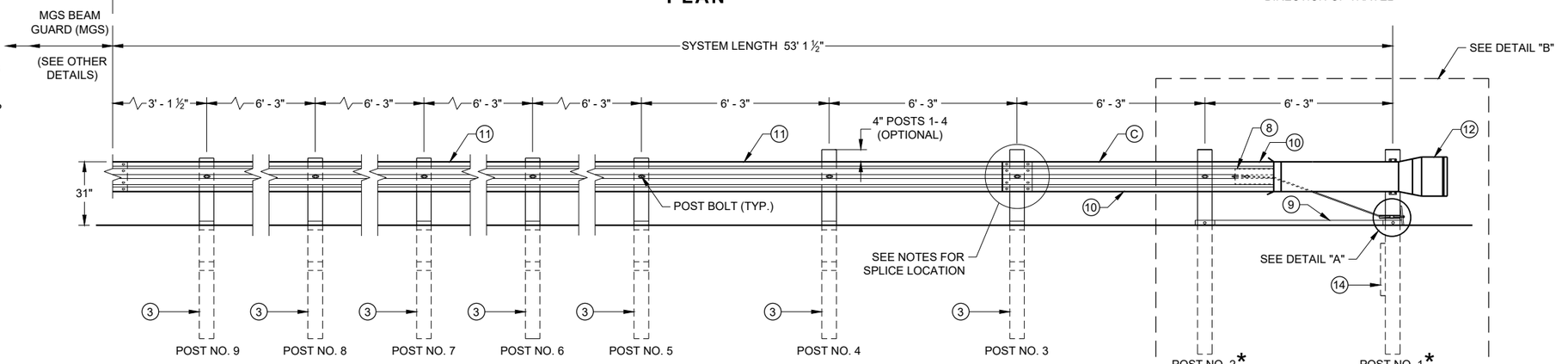
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



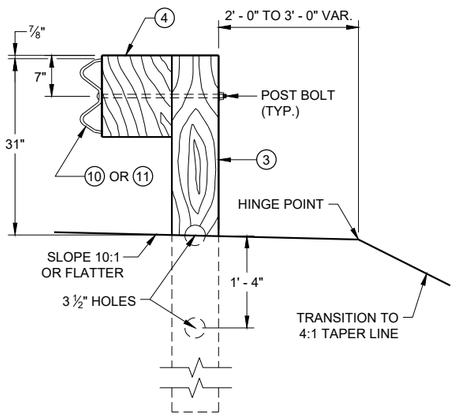
DETAIL "A" (E)



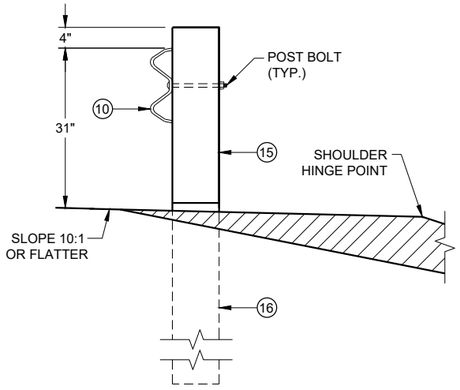
PLAN



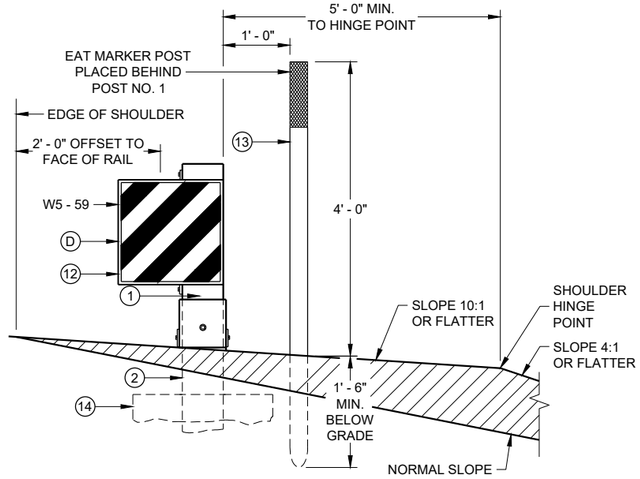
ELEVATION



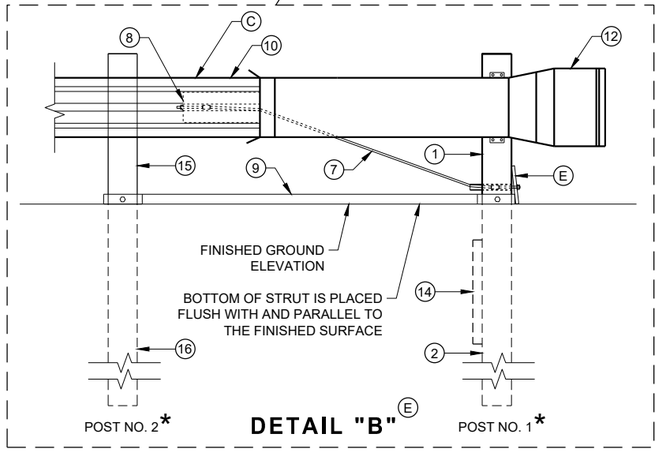
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



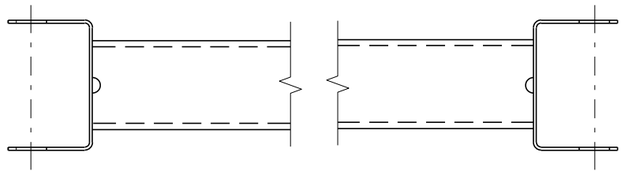
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

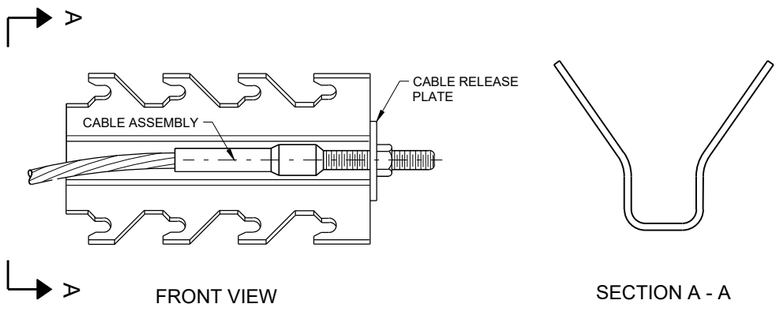
SDD 14B44 - 04a



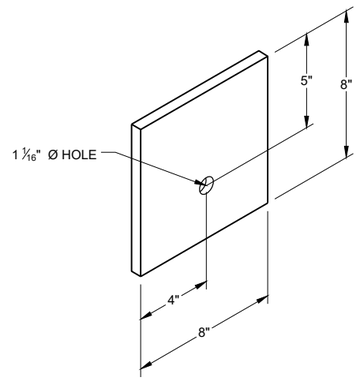
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

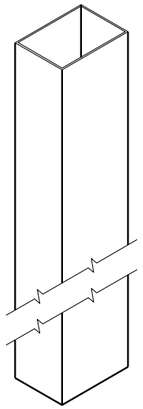
6

SDD 14B44 - 04b

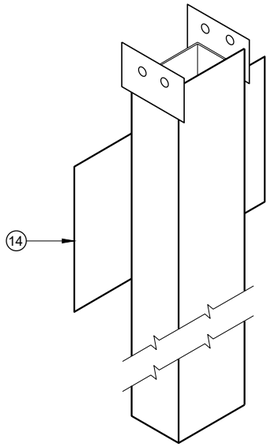
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

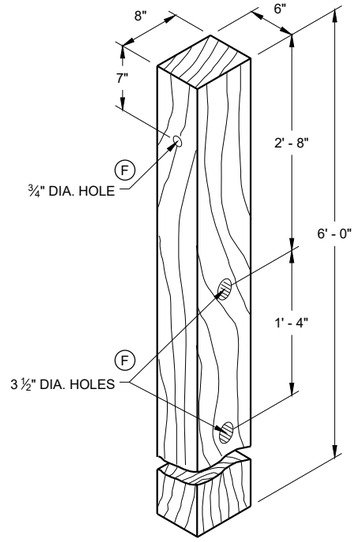
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



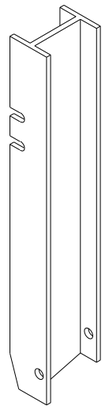
UPPER POST NO. 1 (1) (E)



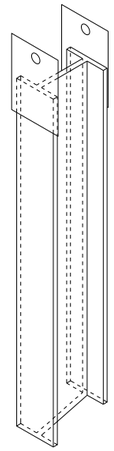
LOWER POST NO. 1 (2) (E)



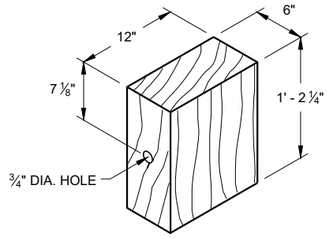
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



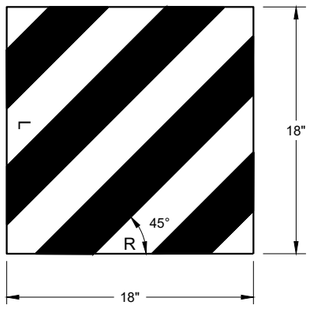
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

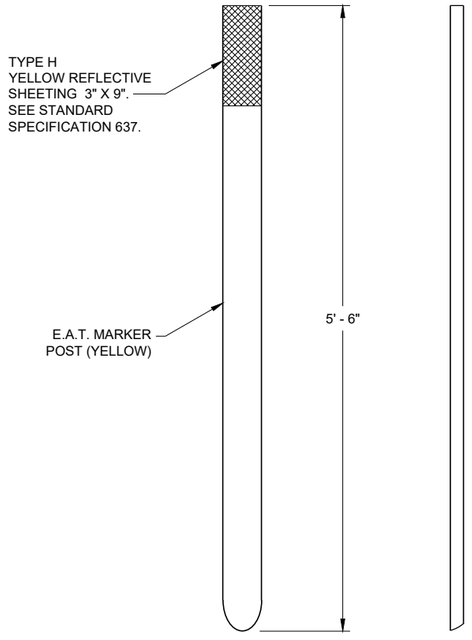


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



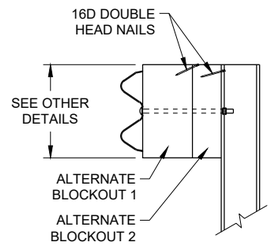
W5 - 59

REFLECTIVE SHEETING DETAIL (E)

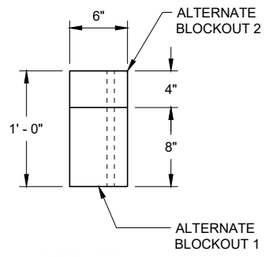


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

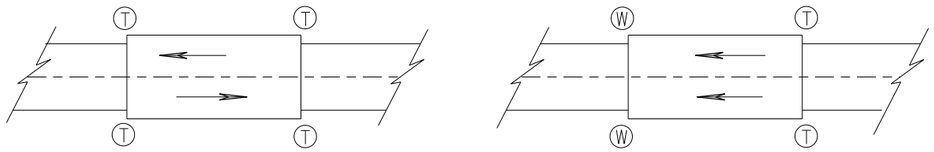
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

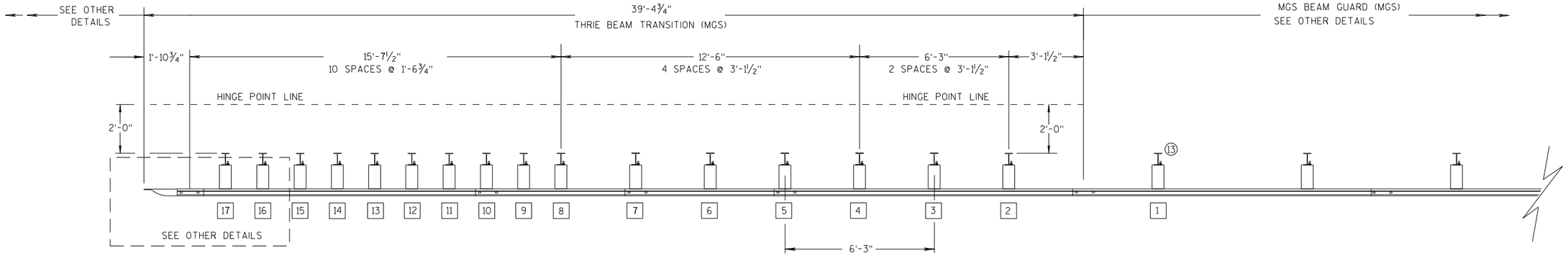
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

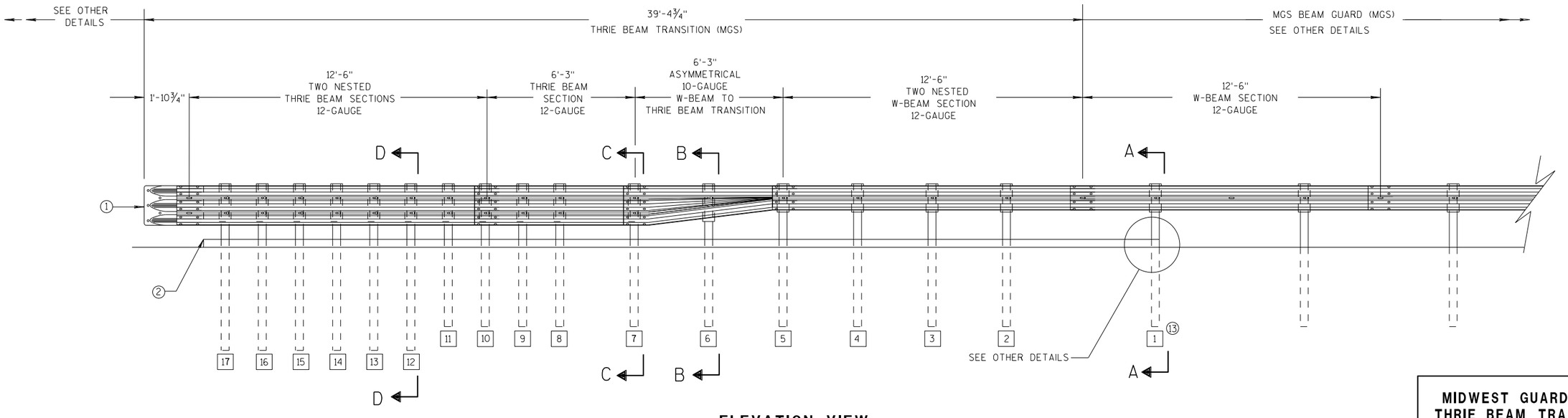
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 591

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

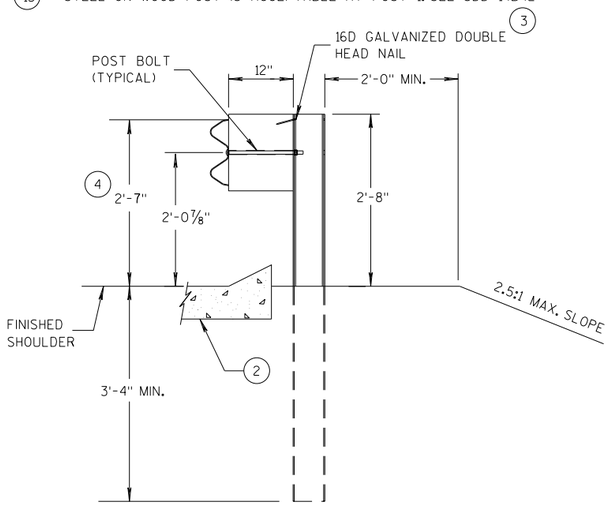
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

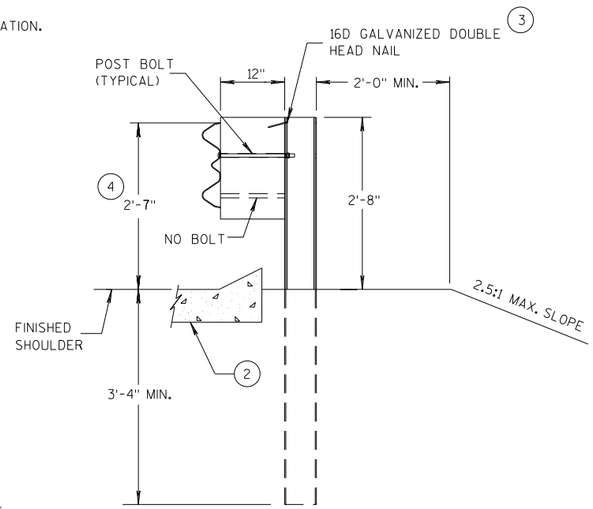
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



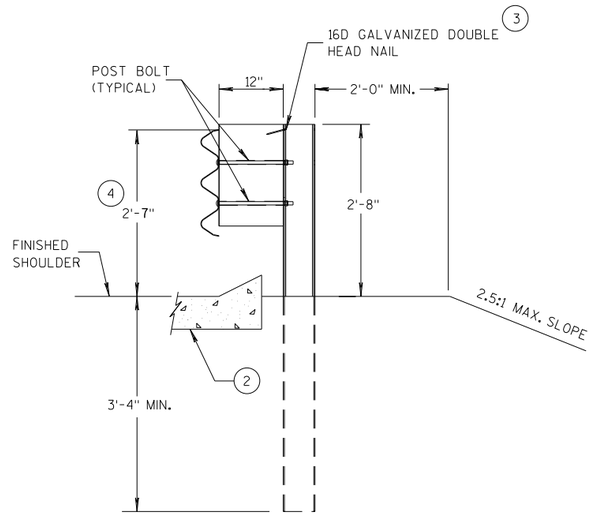
SECTION A-A (13)

POSTS 1-5



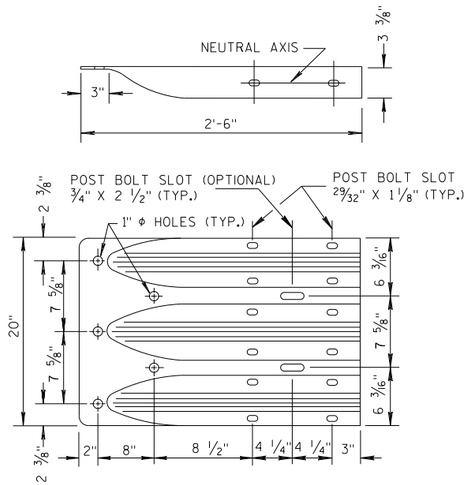
SECTION B-B

POST 6

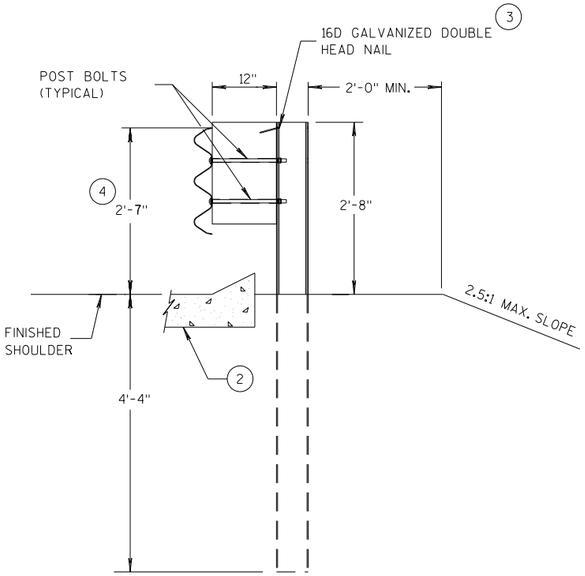


SECTION C-C

POSTS 7-11

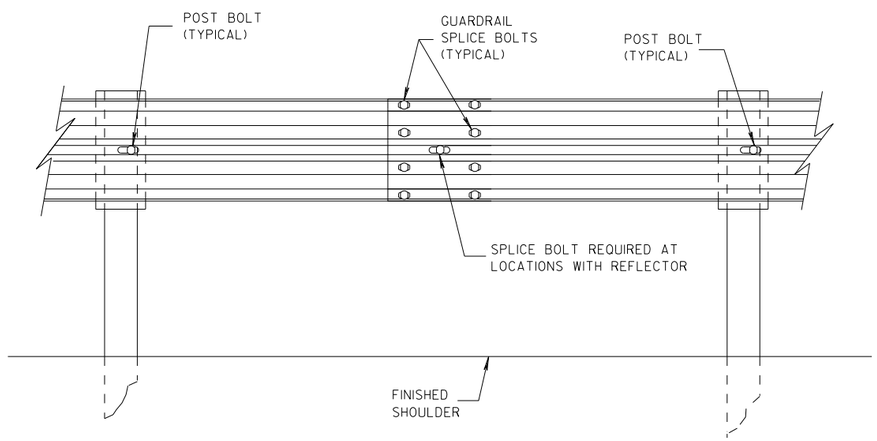


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

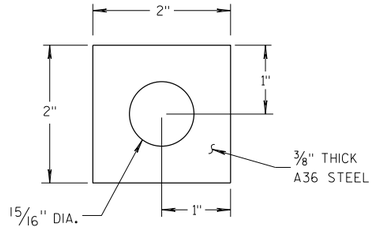
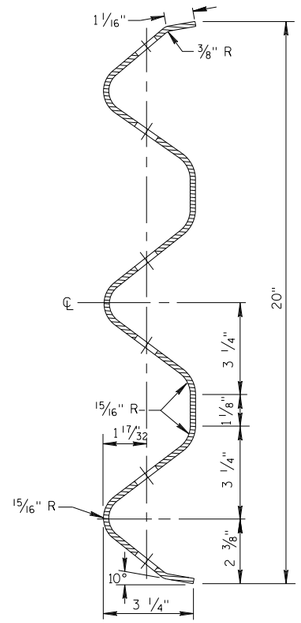


PLATE WASHER DETAIL



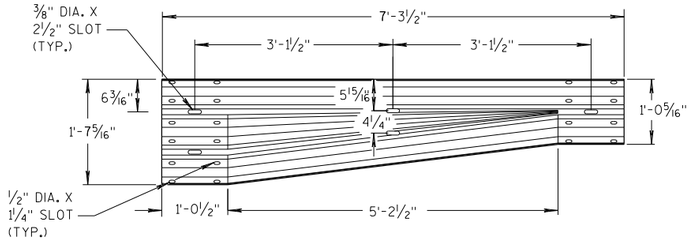
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

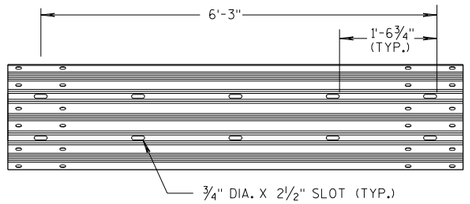
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

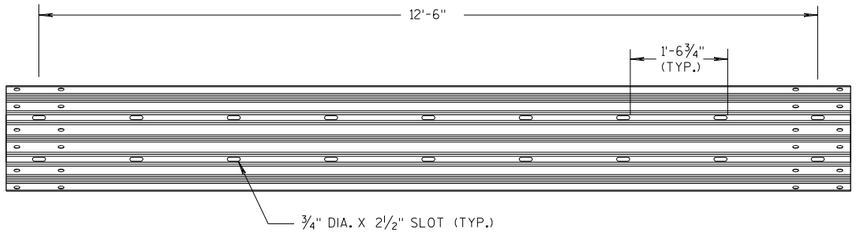
S.D.D. 14 B 45-5b



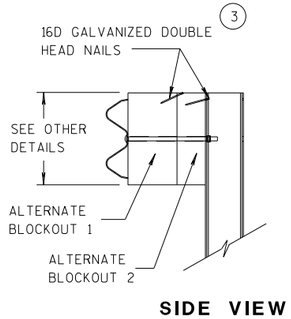
W-BEAM TO THRIE BEAM TRANSITION SECTION



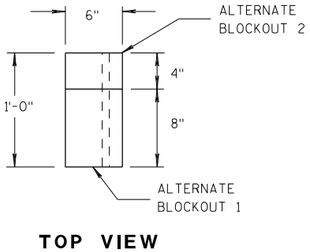
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

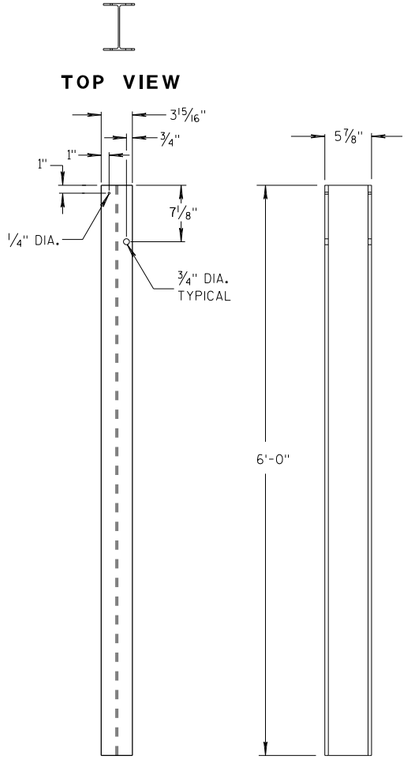


SIDE VIEW



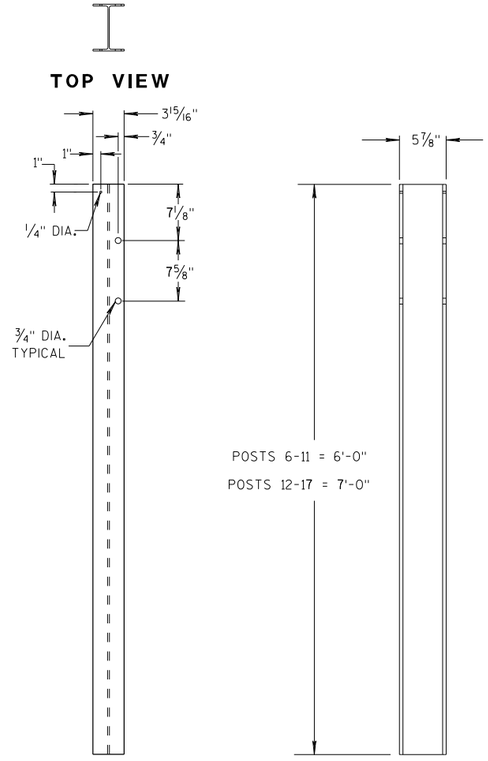
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



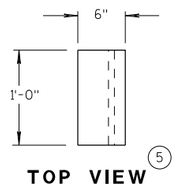
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

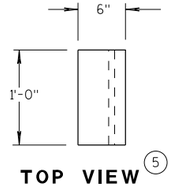


FRONT VIEW SIDE VIEW

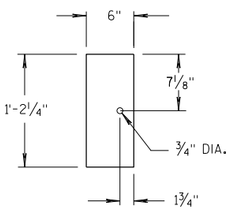
STEEL POSTS 6-17



TOP VIEW (5)

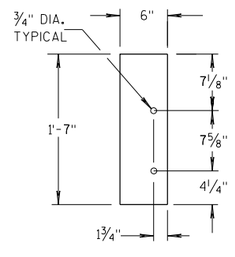


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

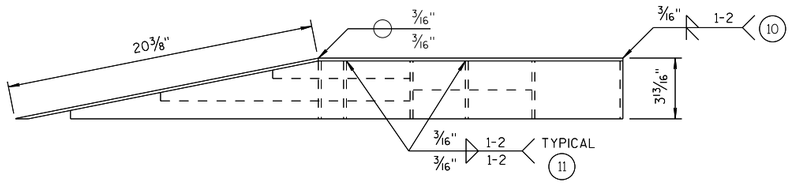
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 593

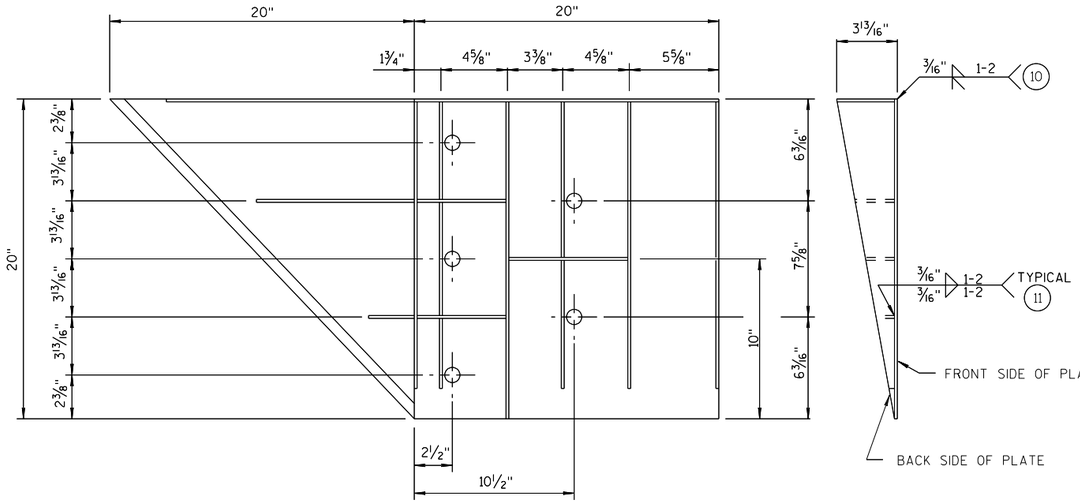
6

S.D.D. 14 B 45-5c

6

S.D.D. 14 B 45-5c





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

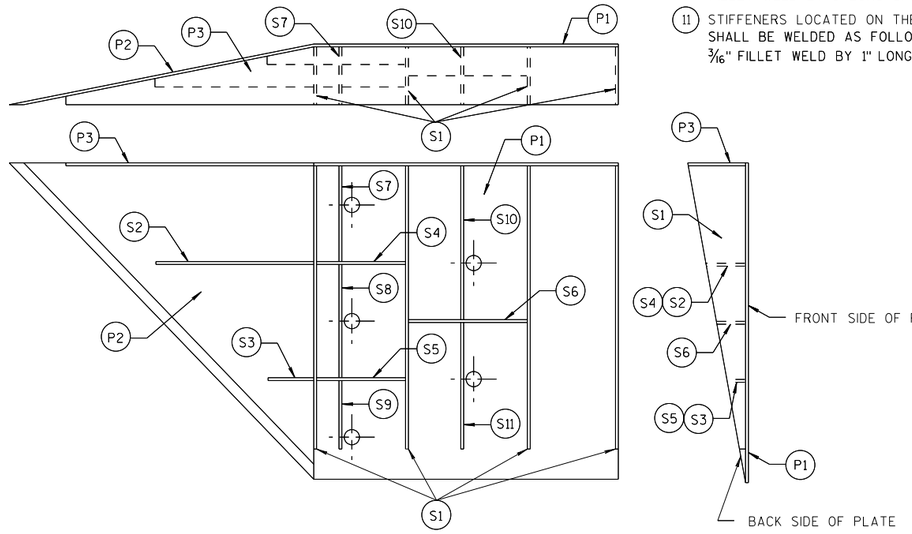


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

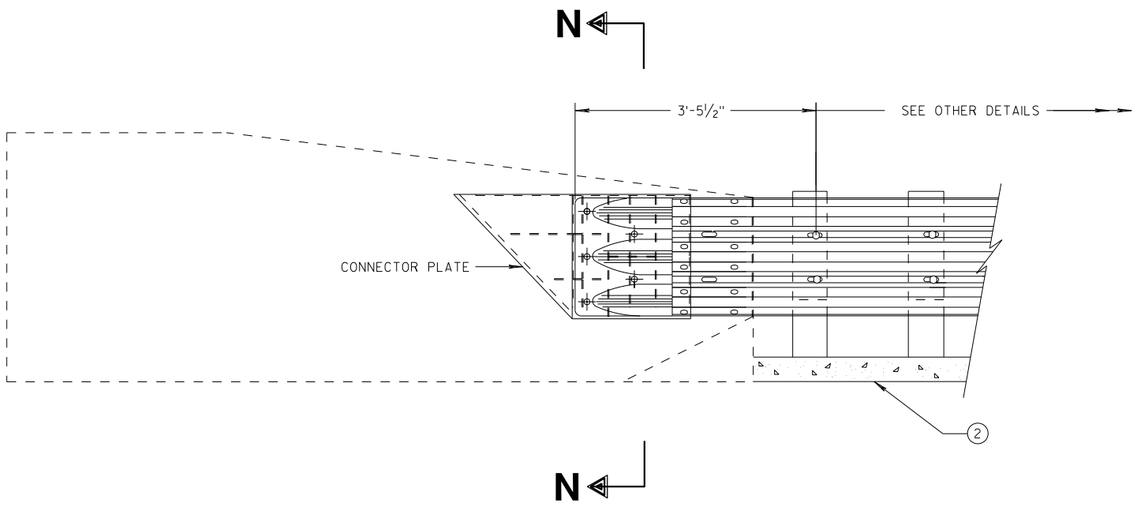
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

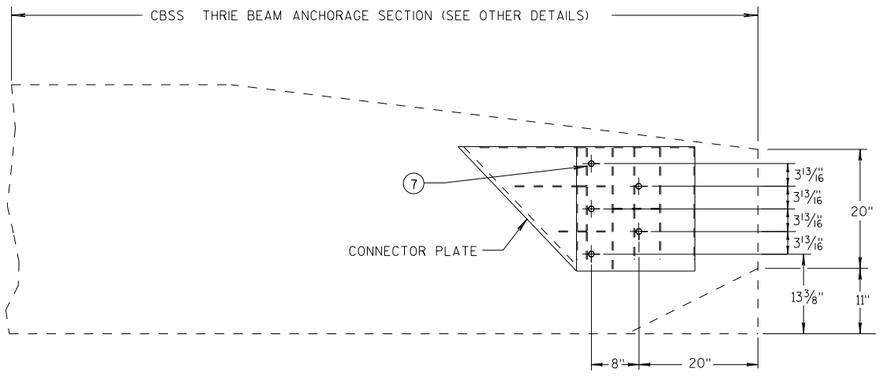
APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

6
S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



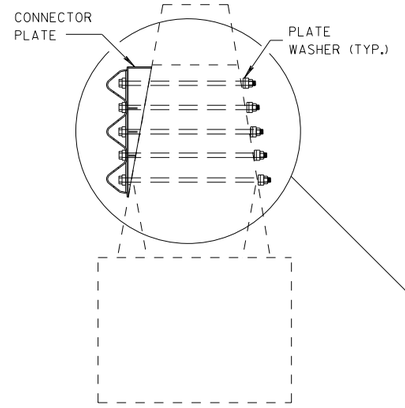
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

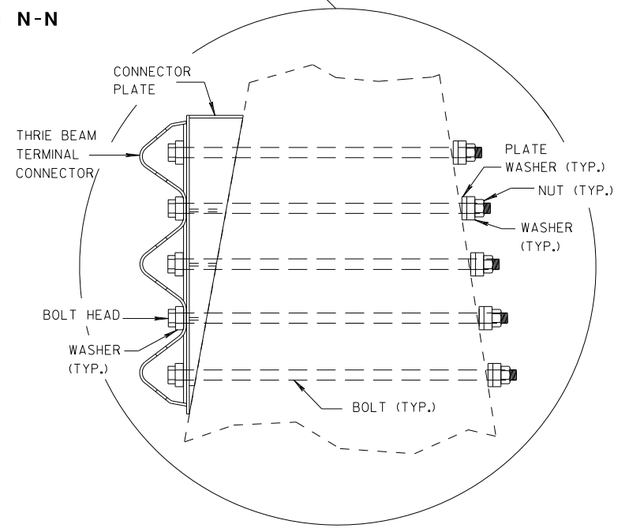
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

6

S.D.D. 14 B 45-5j

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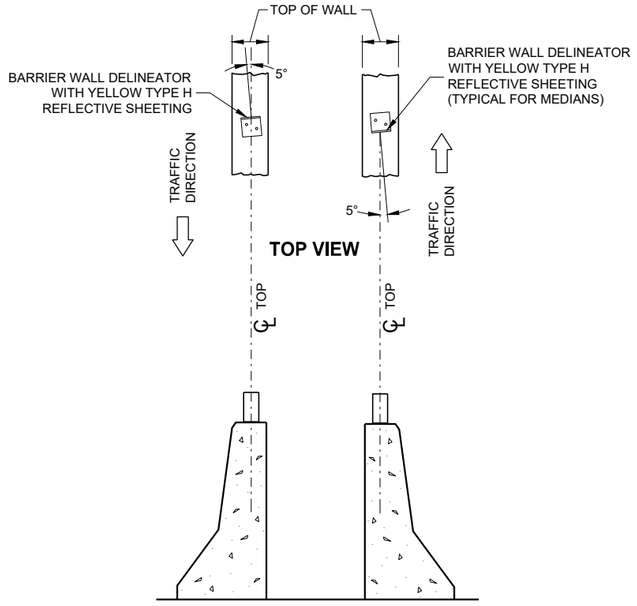
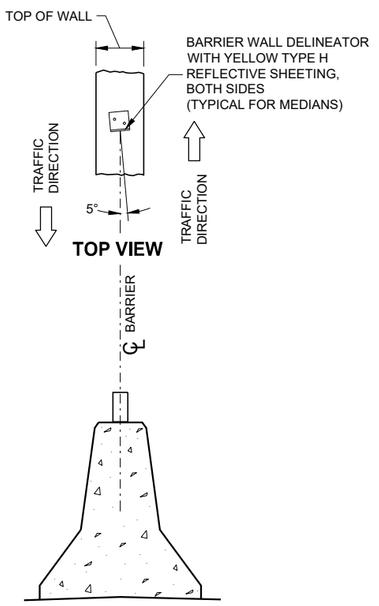
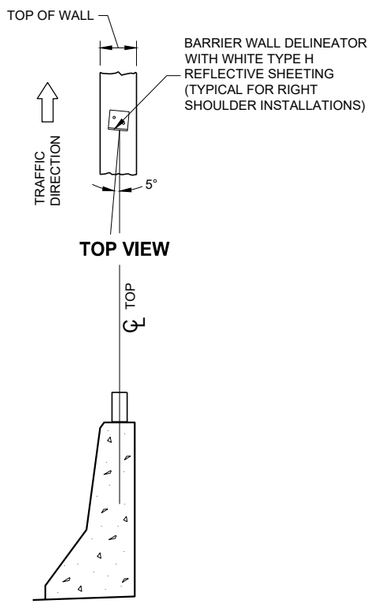
S.D.D. 14 B 45-5j



SIDE VIEW
DOUBLE BARRIERS IN MEDIAN

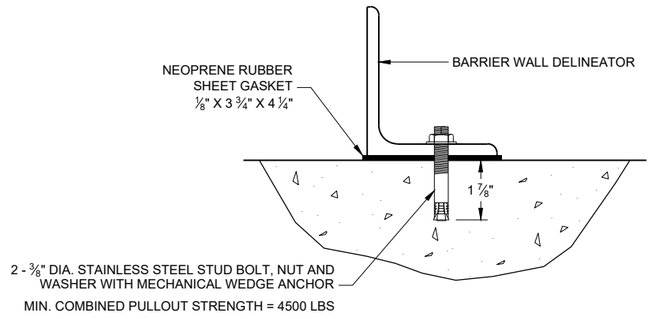


SIDE VIEW
MEDIAN BARRIER

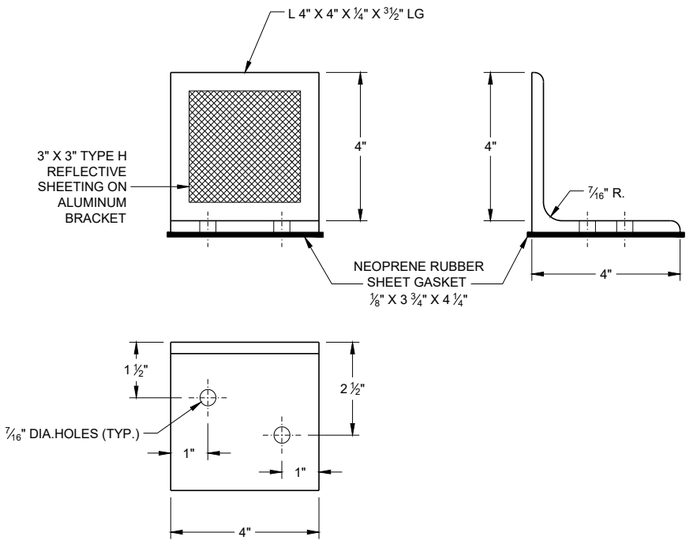


SIDE VIEW
TO RIGHT OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR BARRIER WALL DELINEATOR MOUNTED ON CONCRETE BARRIERS



BARRIER WALL DELINEATOR MOUNTING DETAIL



BARRIER WALL DELINEATOR

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

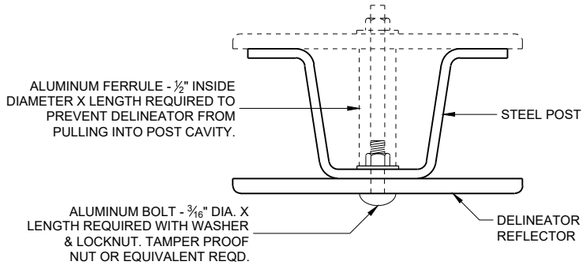
BARRIER WALL DELINEATOR WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

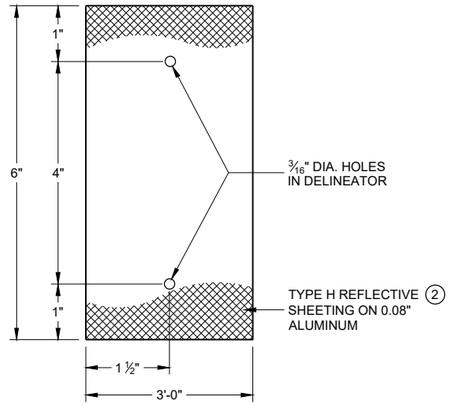
APPROVED
November 2021 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

6

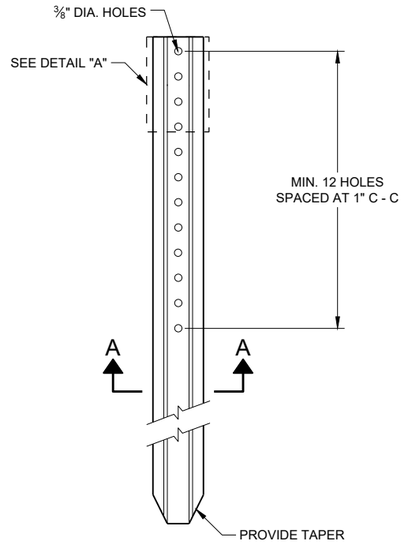
SDD 15A04 - 07b



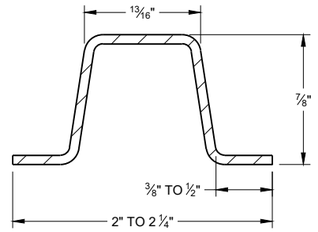
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



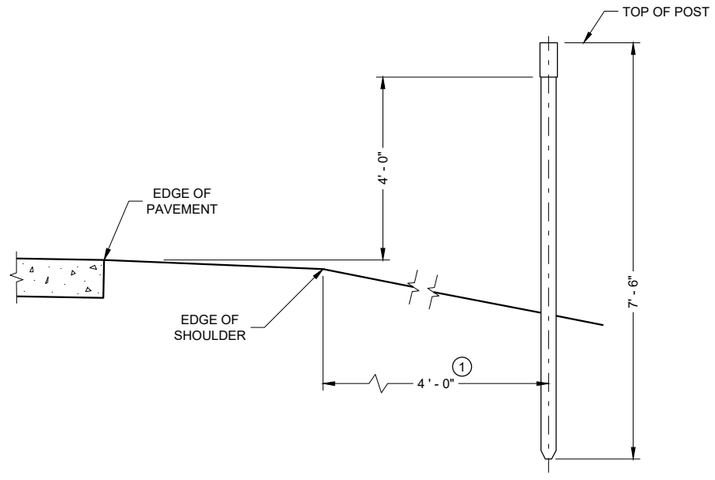
SECTION A - A

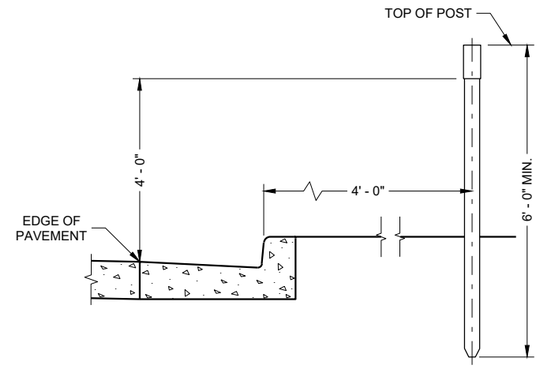
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

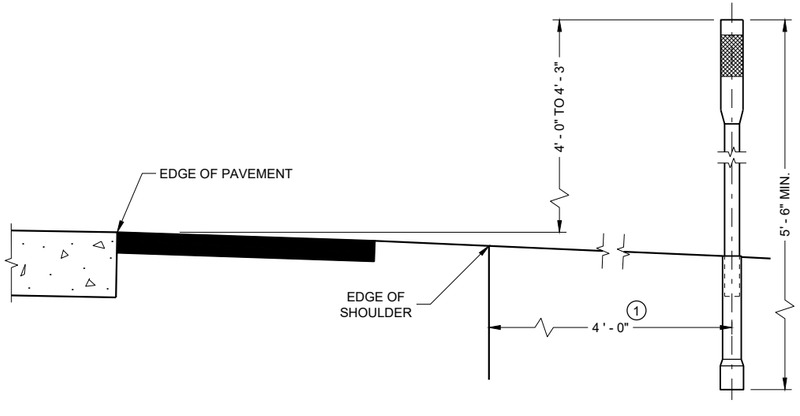
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

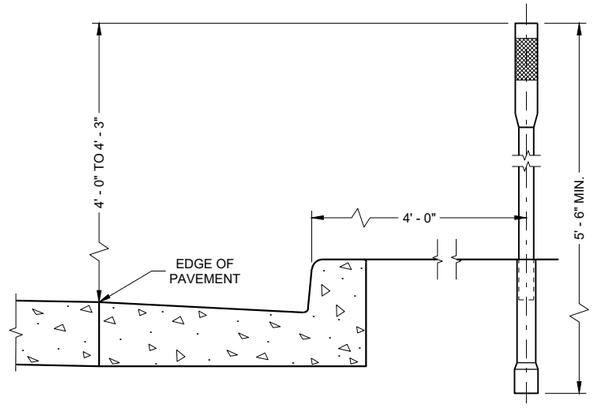
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF TEH STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

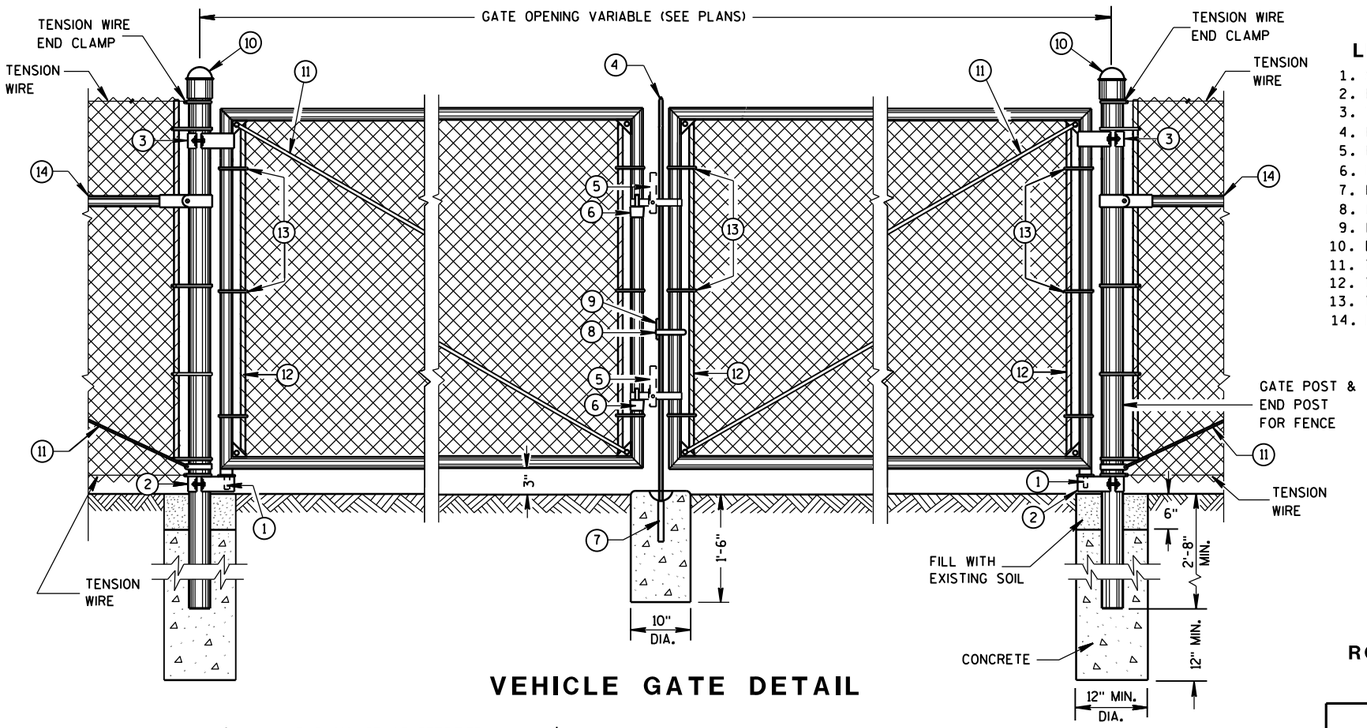
597

6

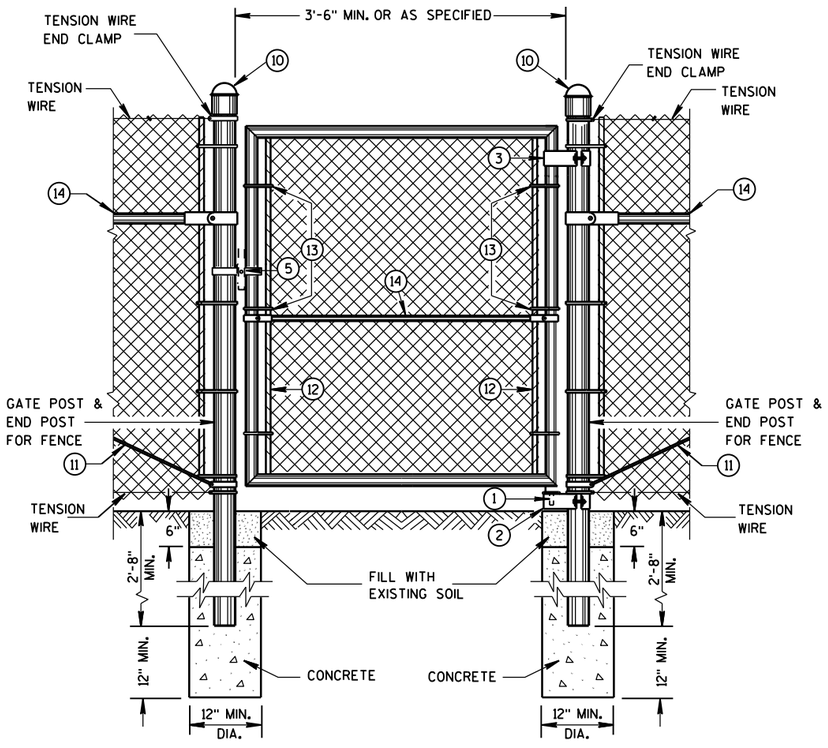
6

SDD 15A04 - 07c

SDD 15A04 - 07c



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

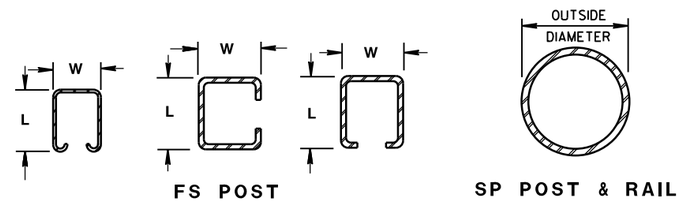
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

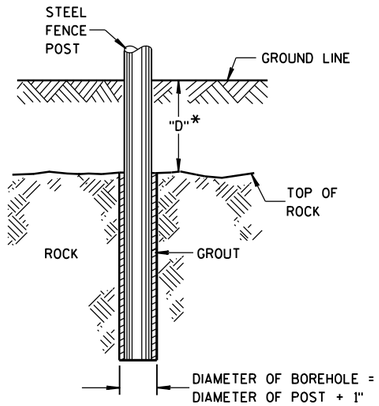
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

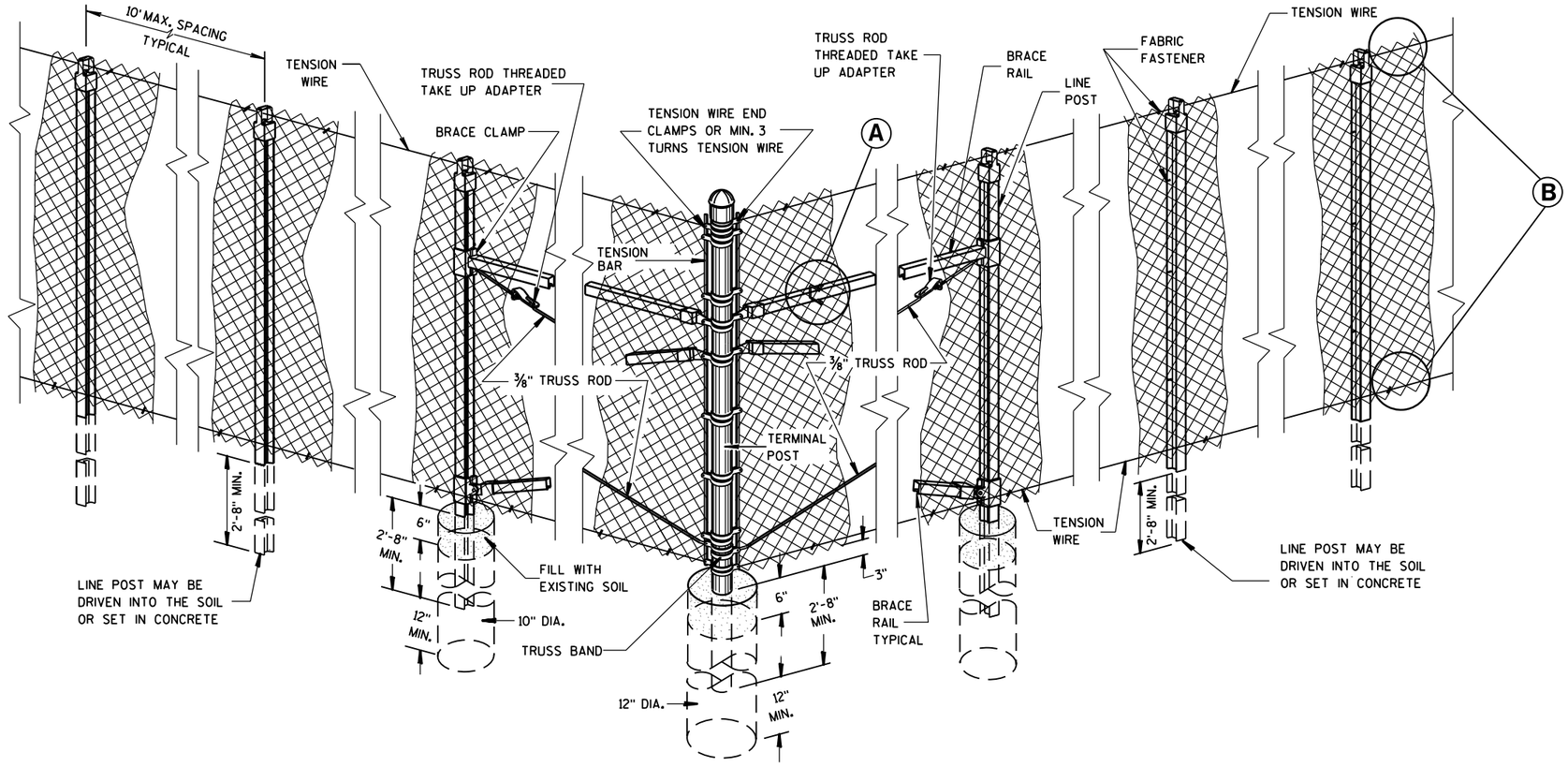
6

S.D.D. 15 B 3-15a

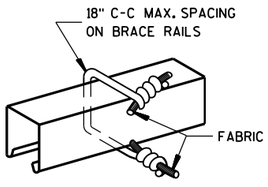


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



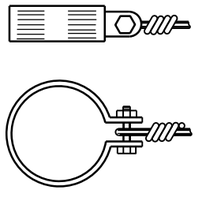
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



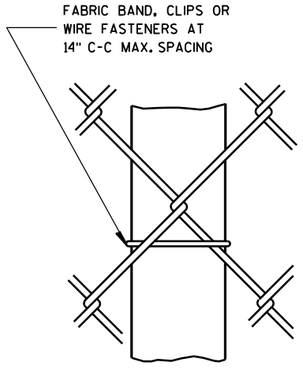
BRACE RAIL

FABRIC FASTENER

Ⓐ



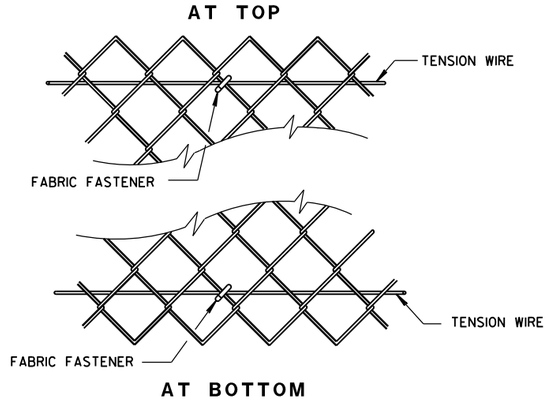
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

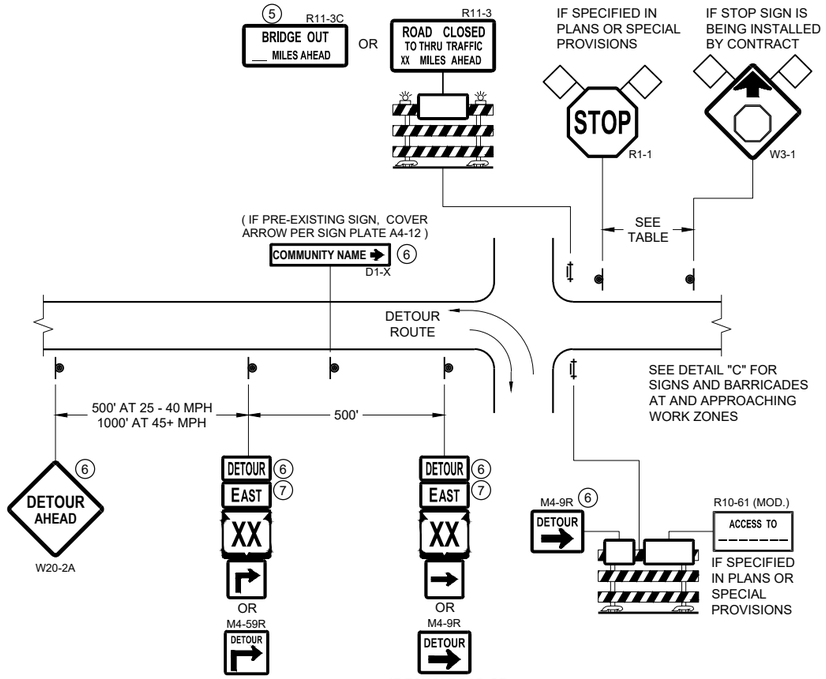
599

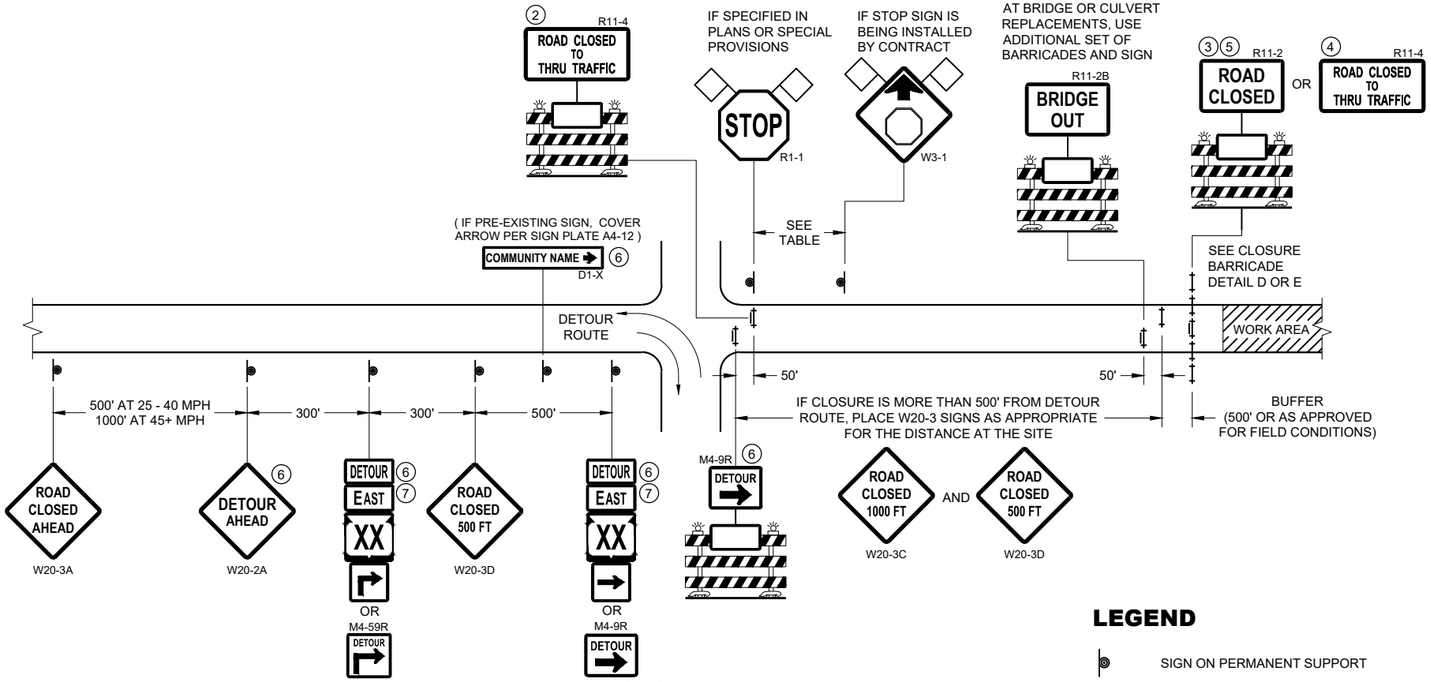
6

S.D.D. 15 B 3-15b

6

S.D.D. 15 B 3-15b





DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

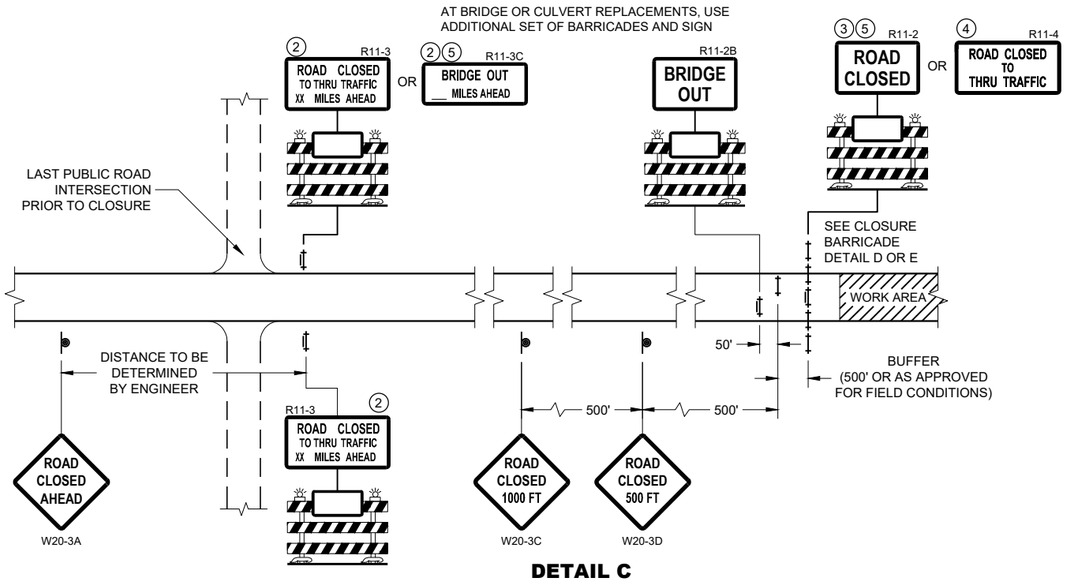
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

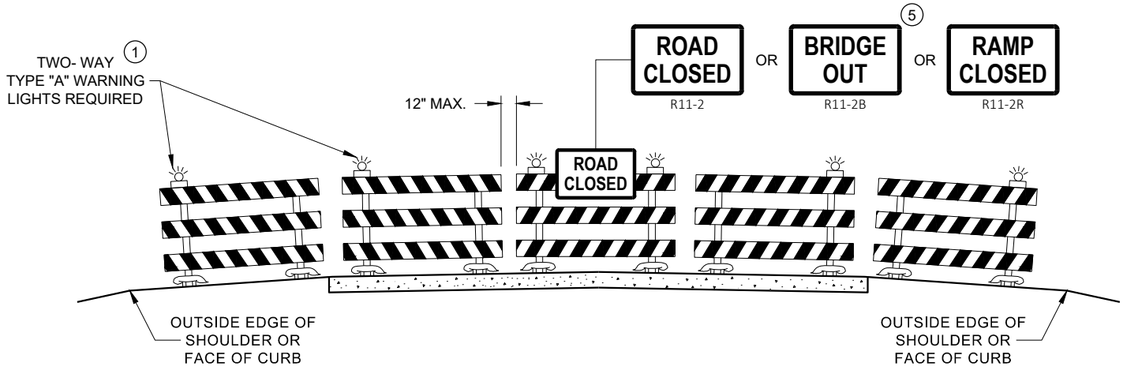
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

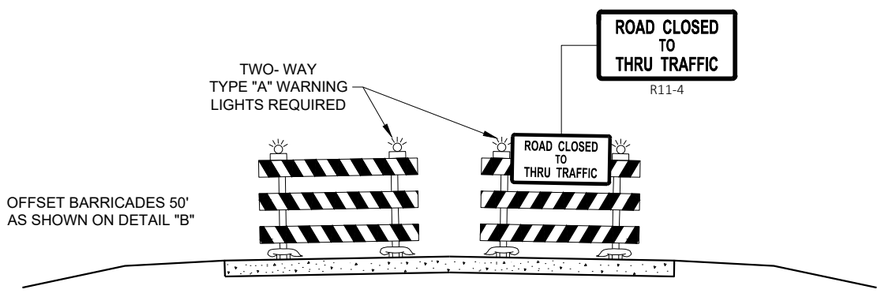
600

6

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE 601
FHWA

6
SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

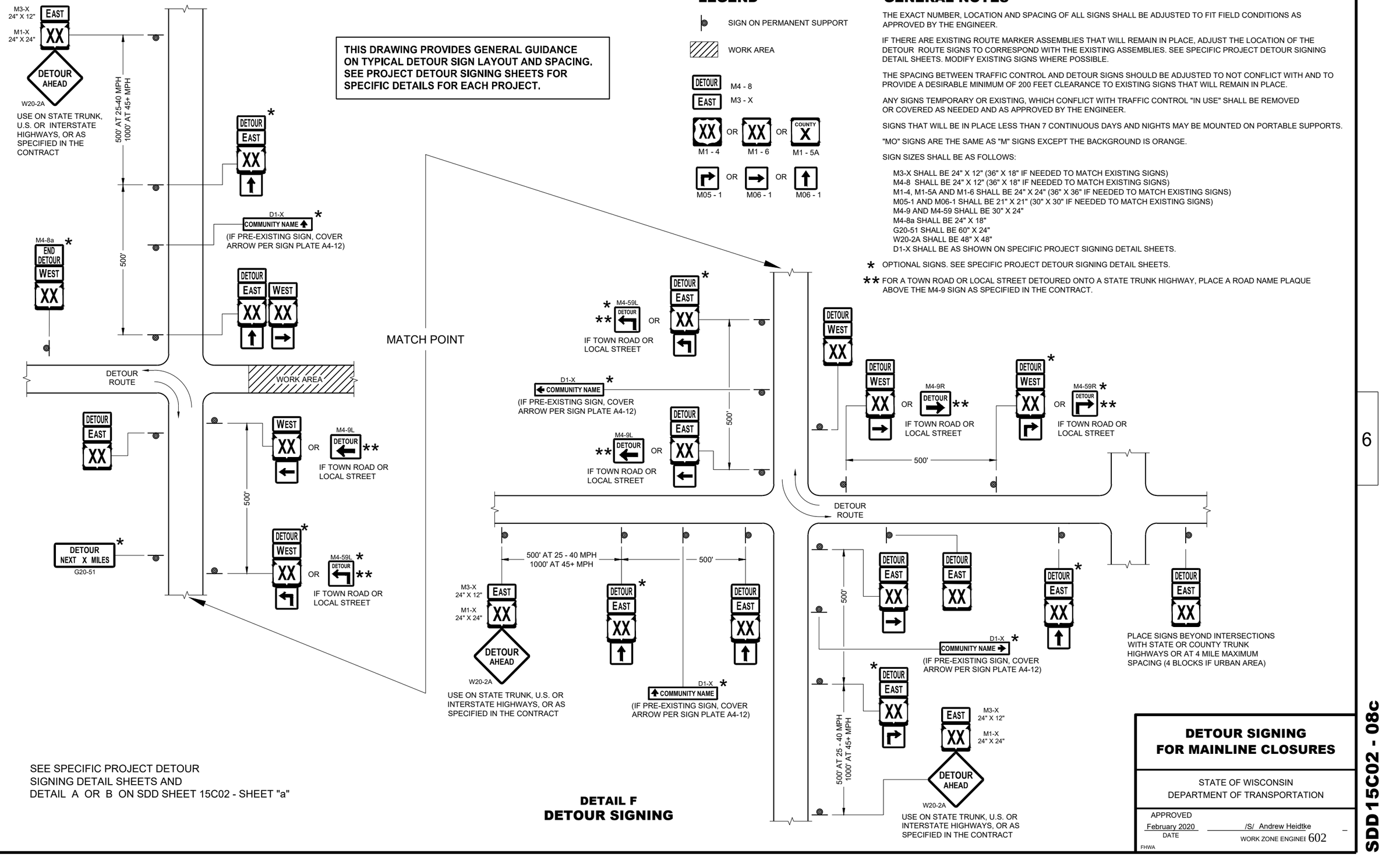
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

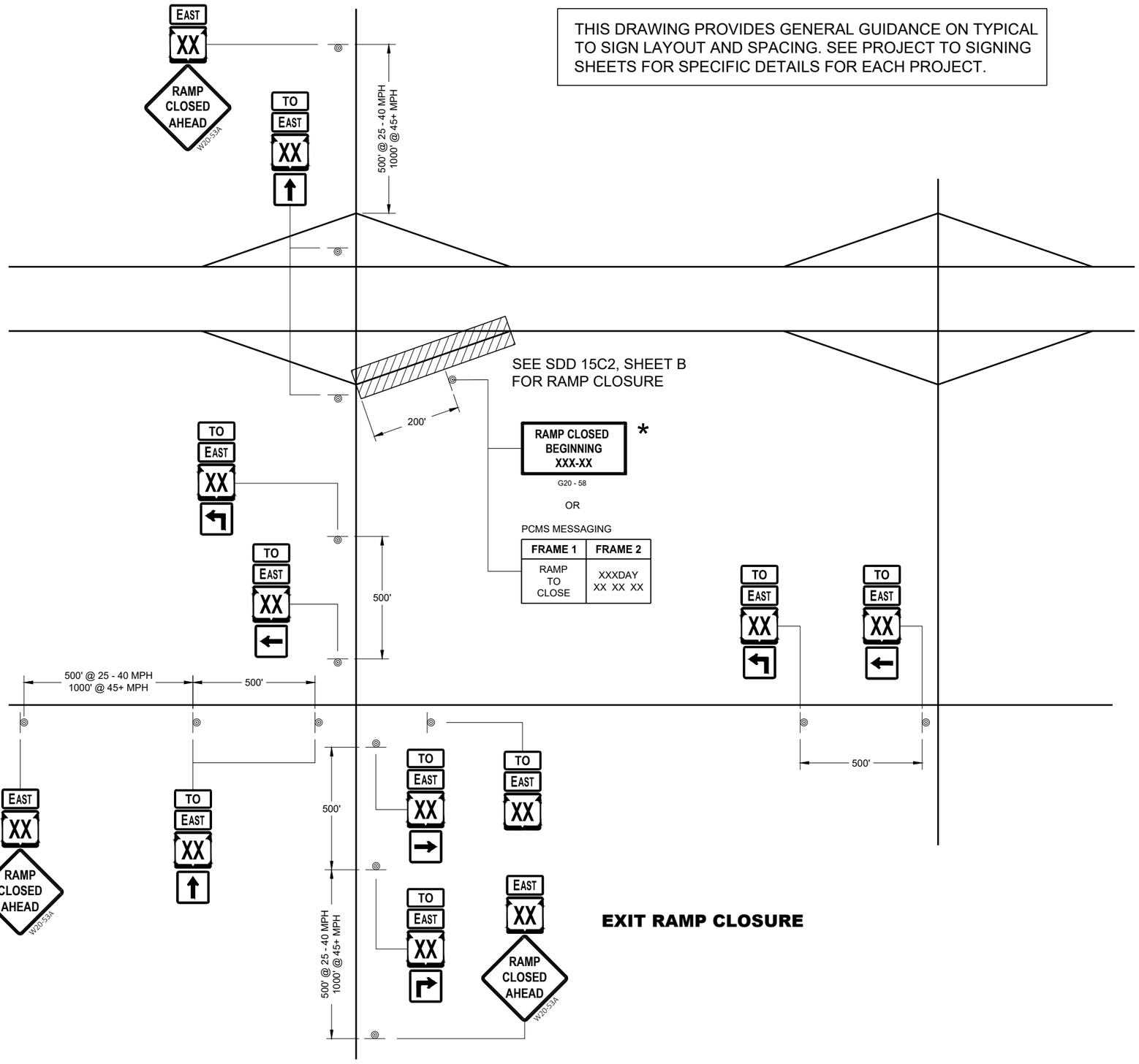
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

6



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

EXIT RAMP CLOSURE

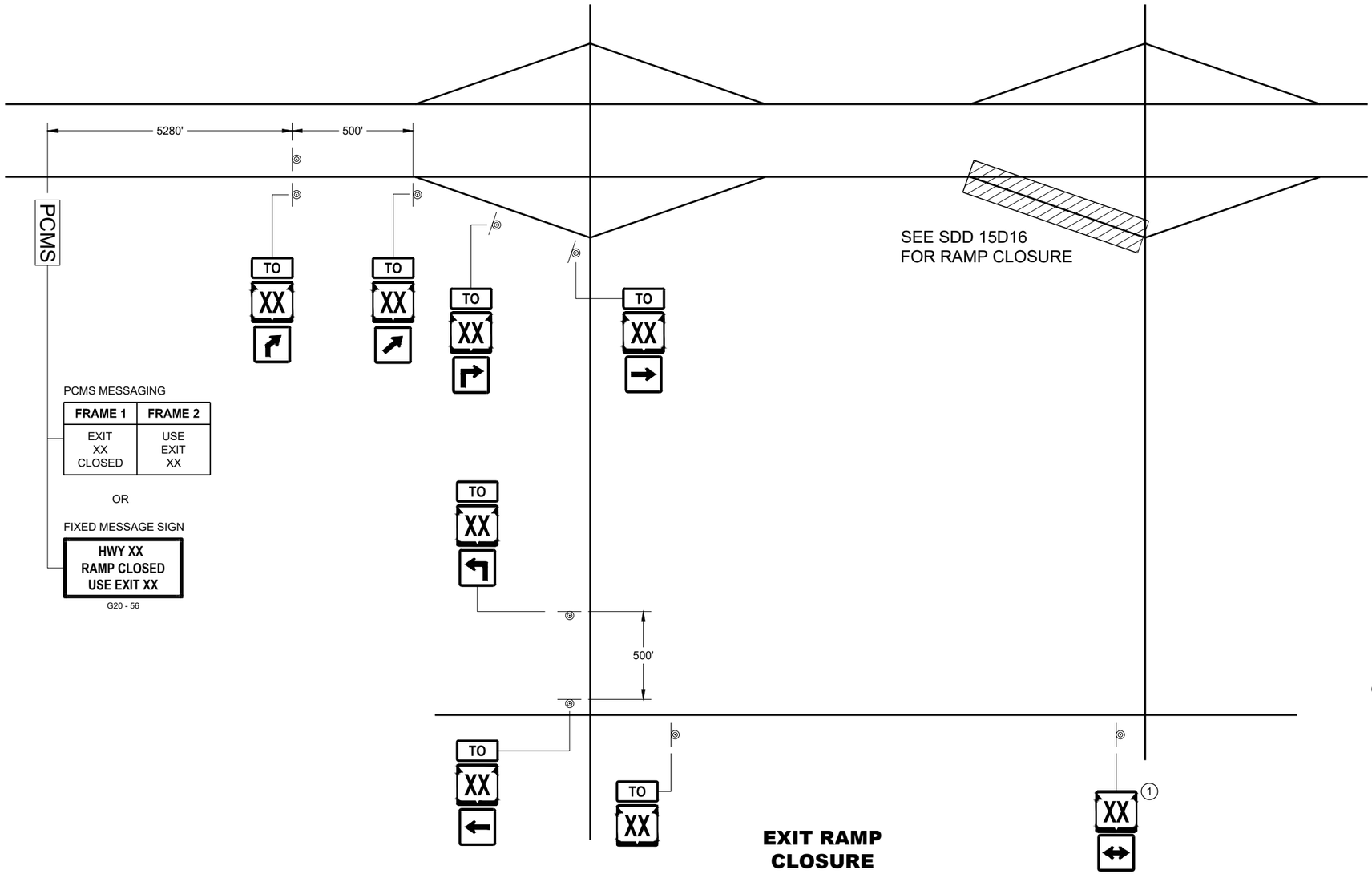
ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6
SDD 15C02 - 08d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

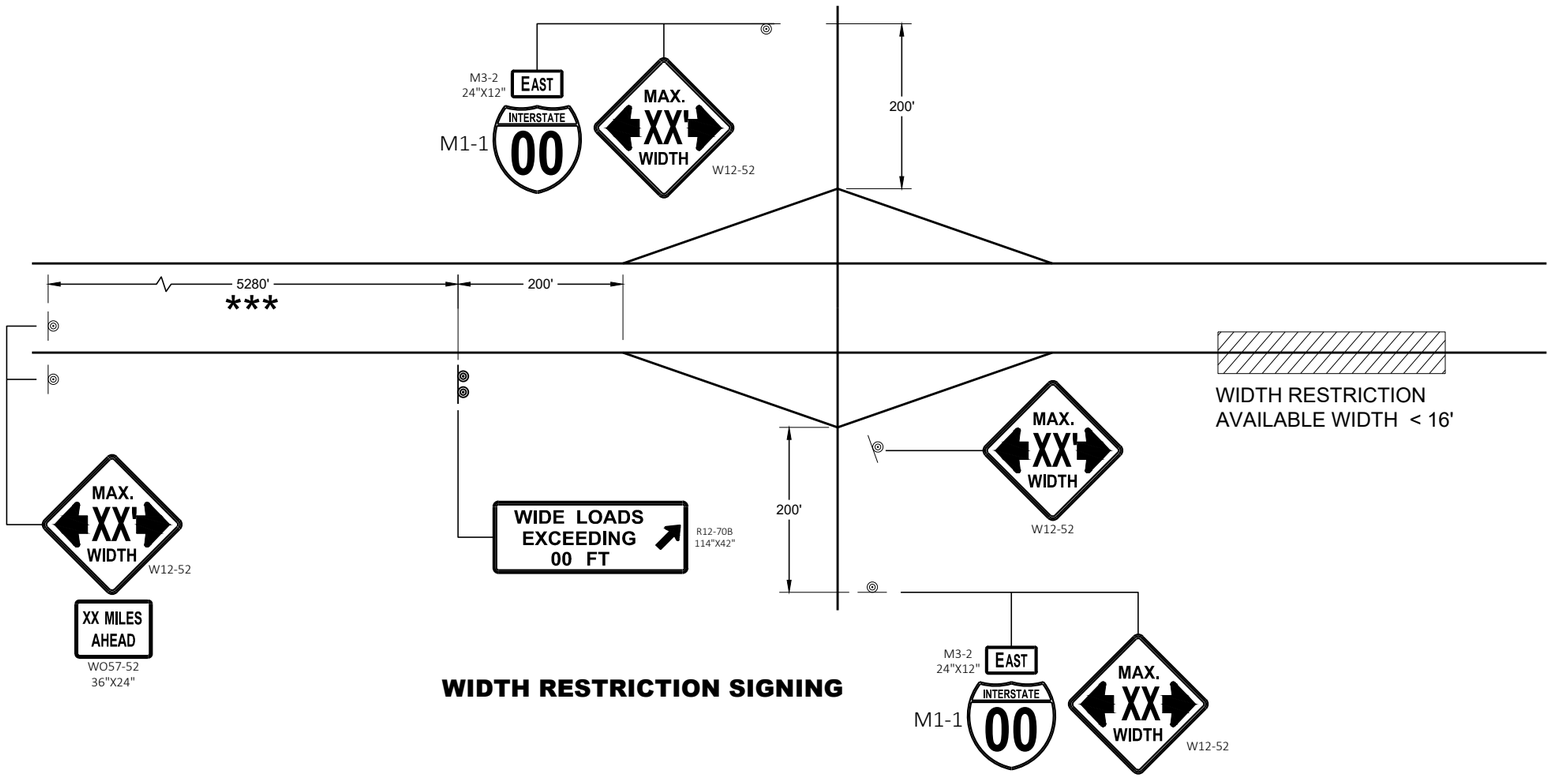
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08e



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

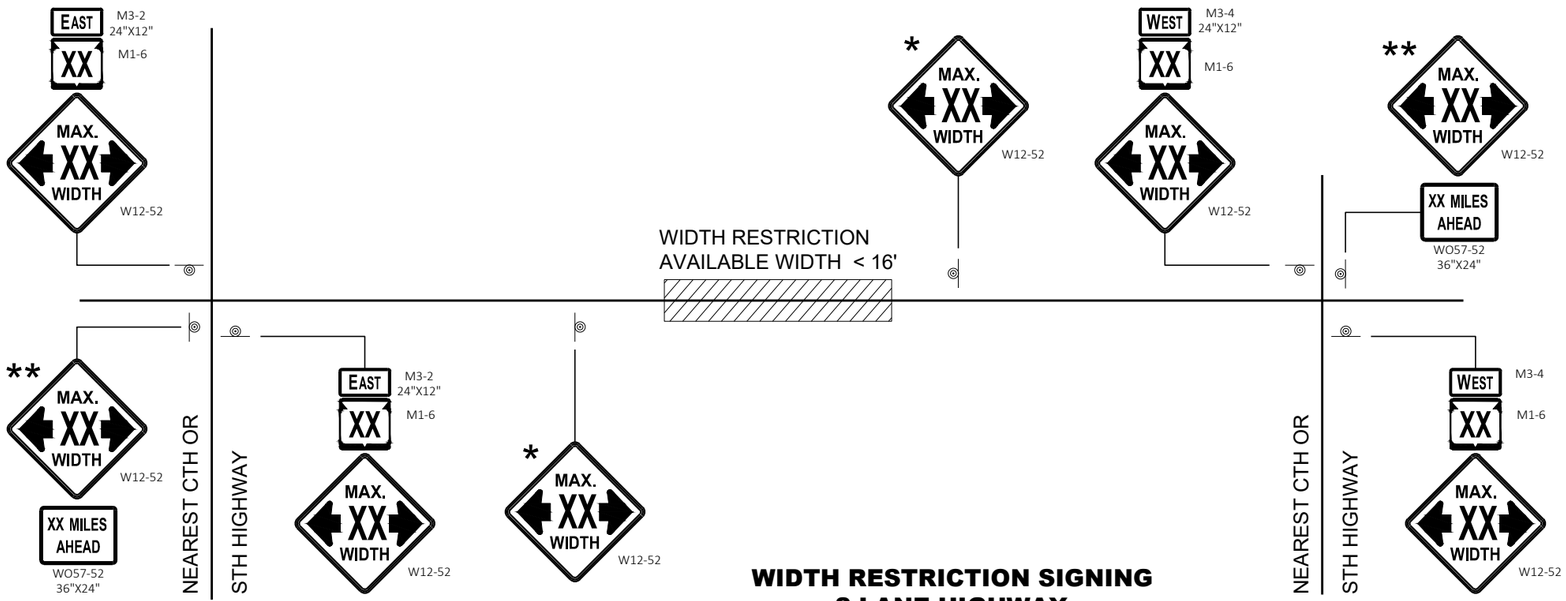
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 605

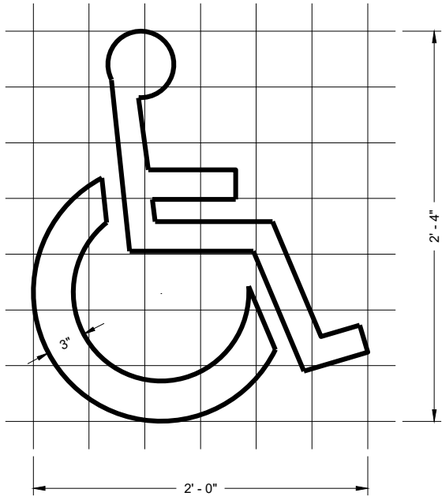
FHWA

6

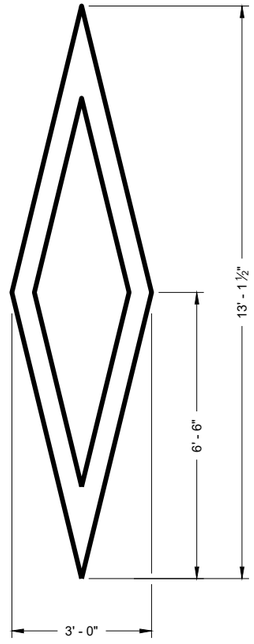
SDD 15C02 - 08f

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

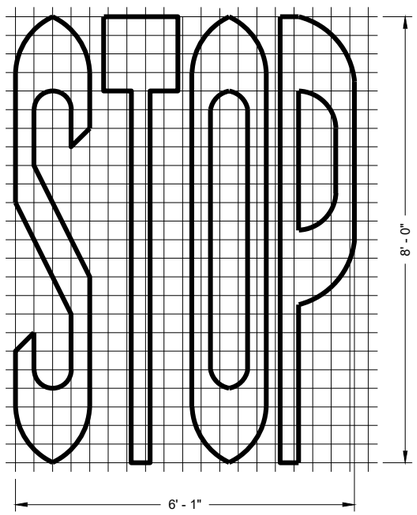
PAVEMENT MARKING SYMBOLS

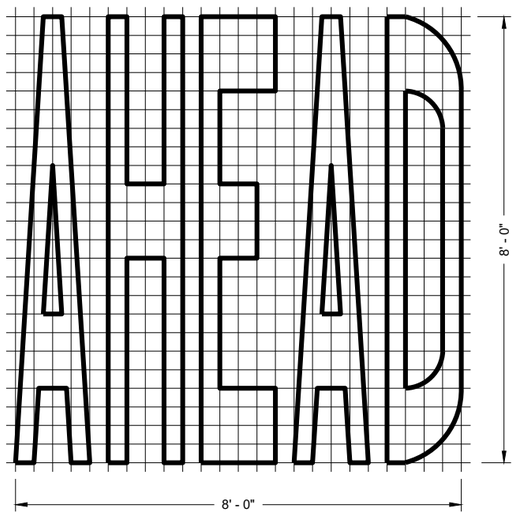
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

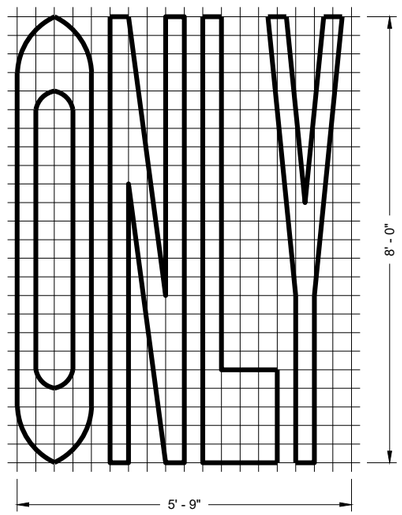
APPROVED
November 2019
DATE

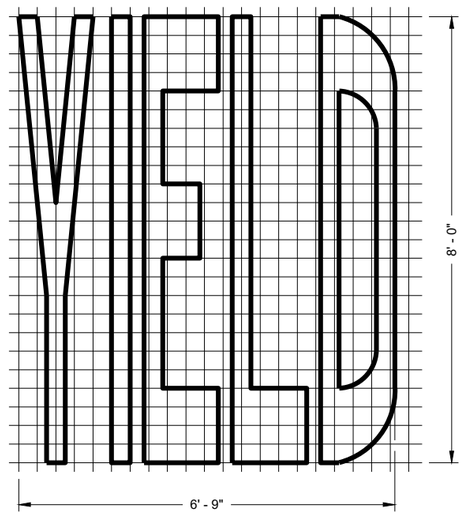
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

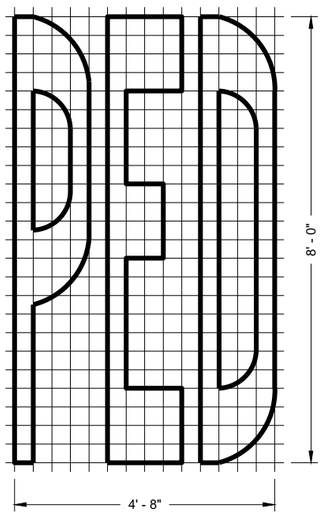
FHWA

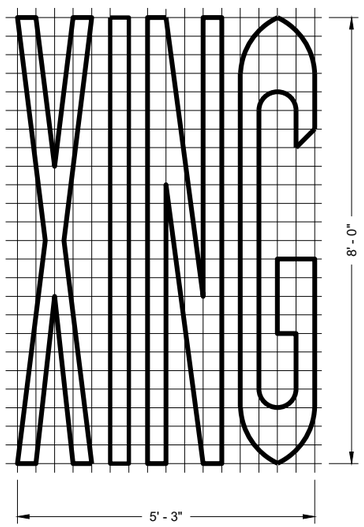


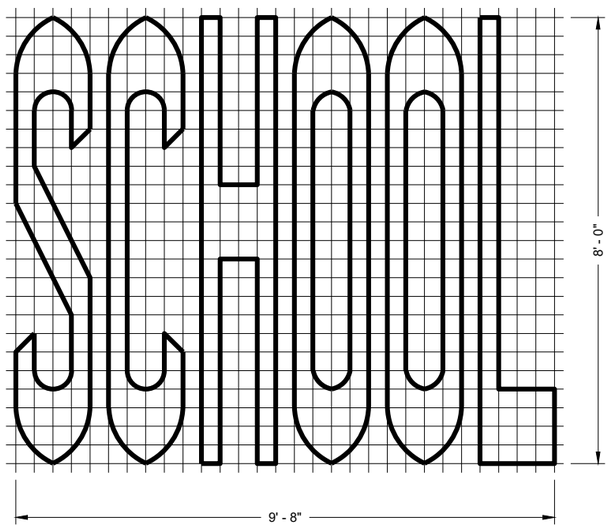




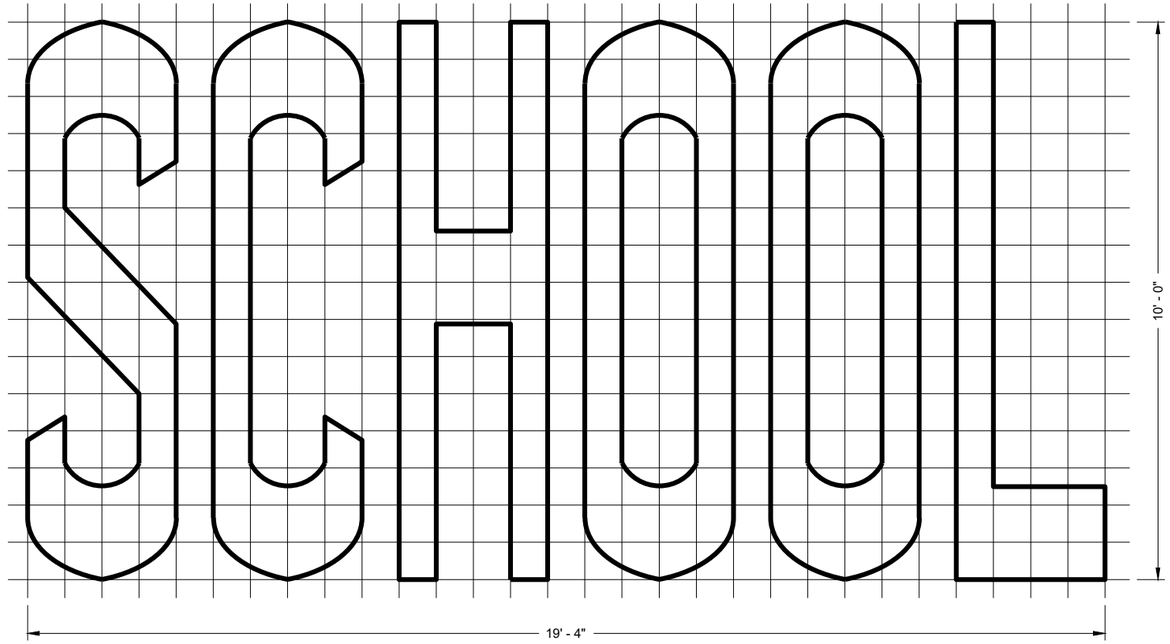








SINGLE LANE



TWO - LANE

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

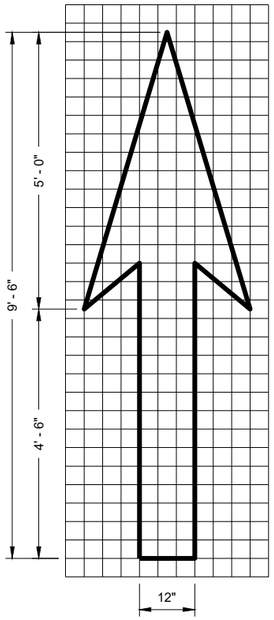
FHWA

6

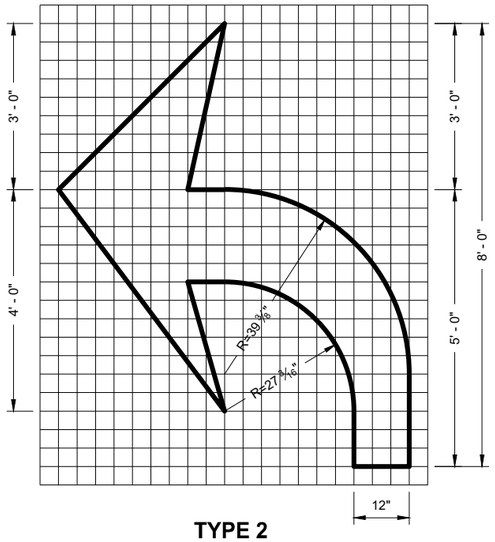
SDD 15C07 - 15b

GENERAL NOTES

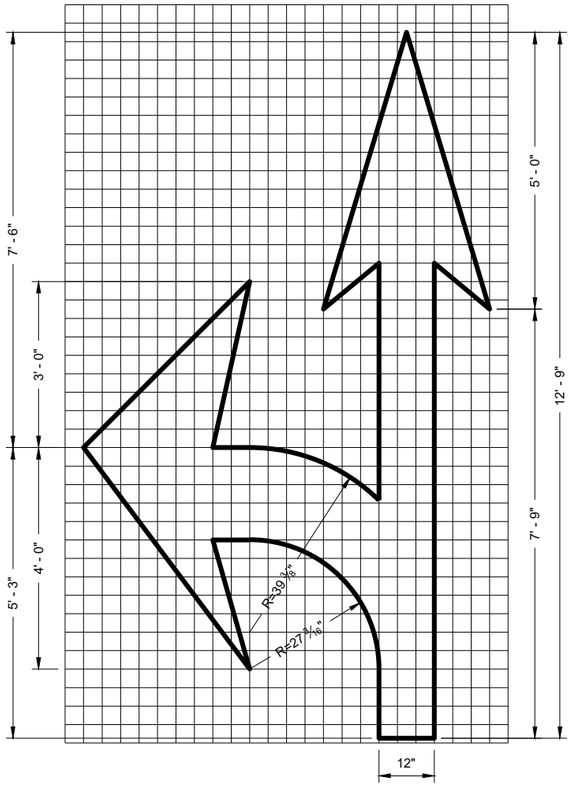
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 1



TYPE 2



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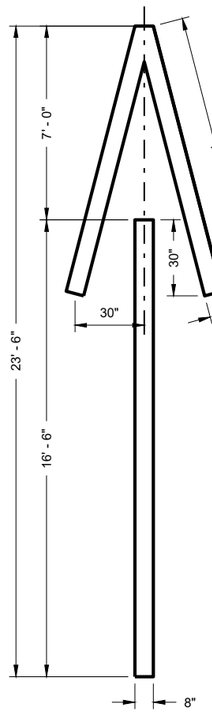
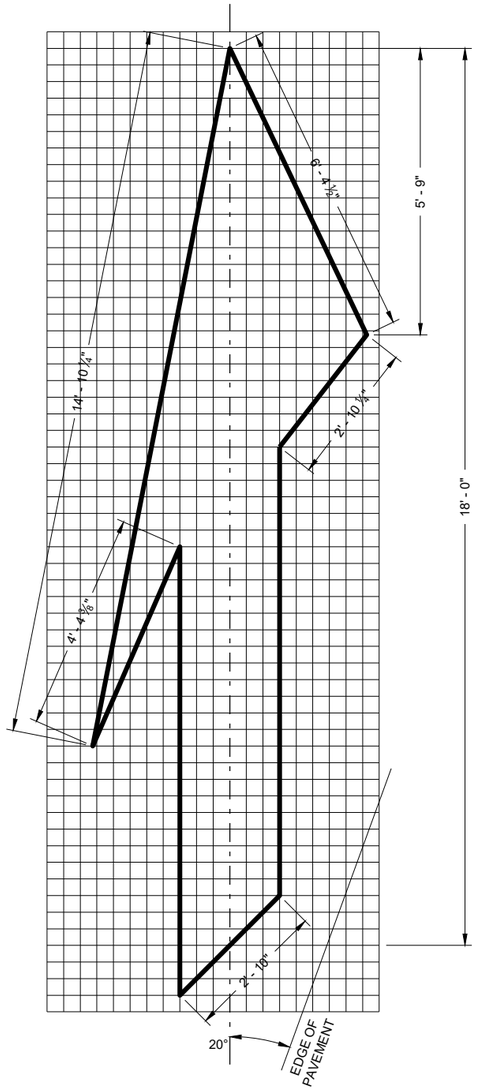
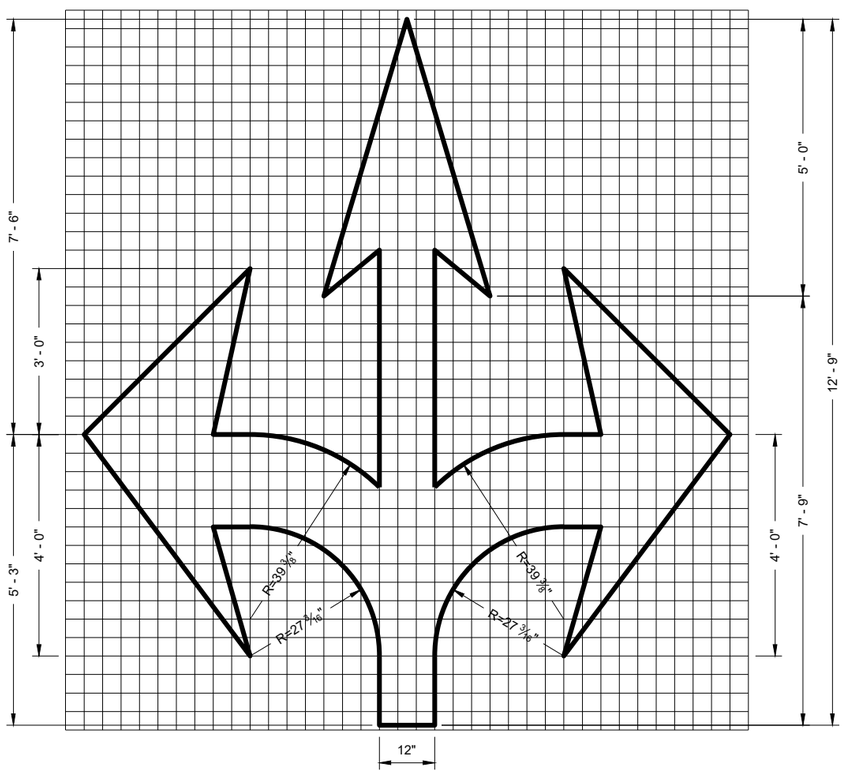


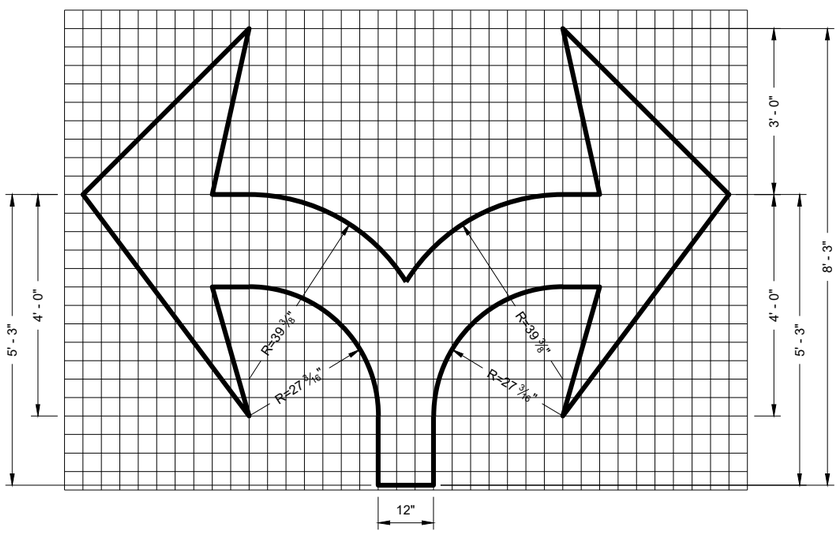
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
608

FHWA

6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

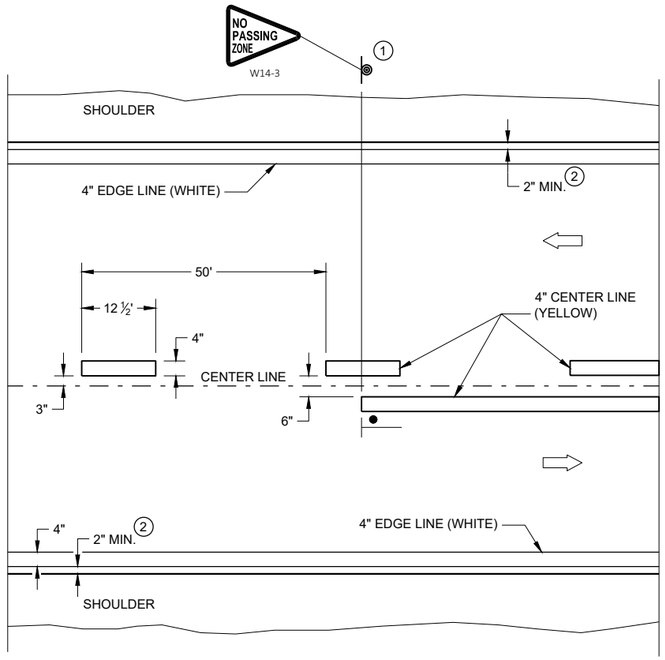
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

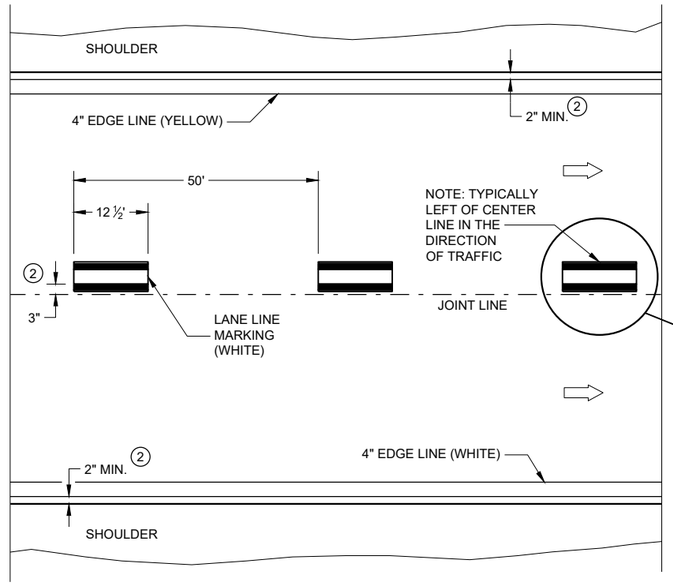
"T" MARKING

SIGN ON PERMANENT SUPPORT

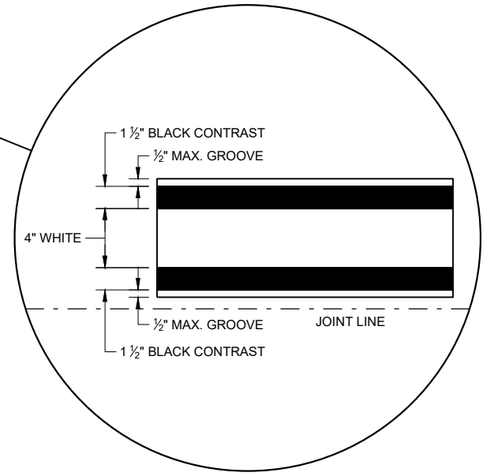
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

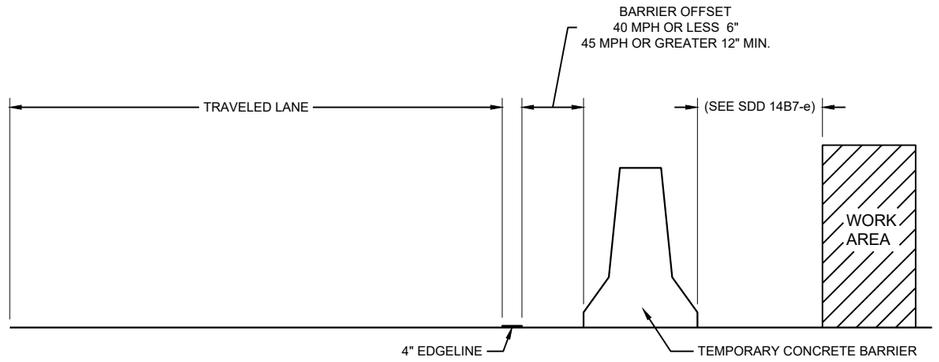
FHWA

6

SDD 15C08 - 22a

6

SDD 15C08 - 22a



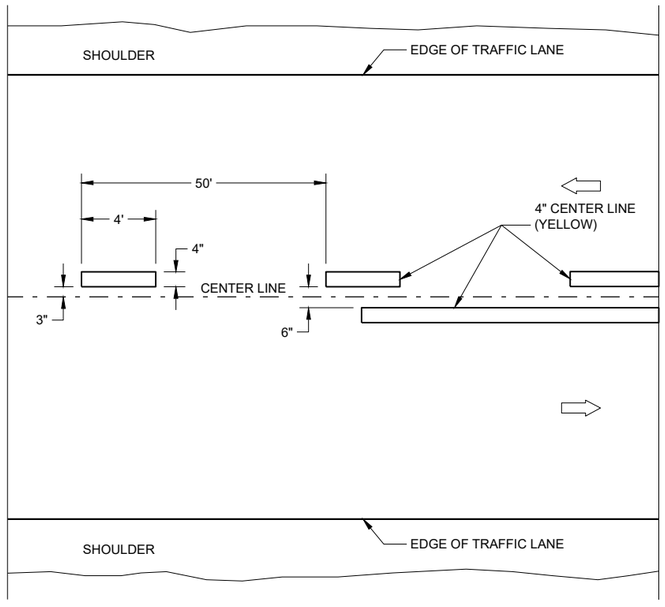
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

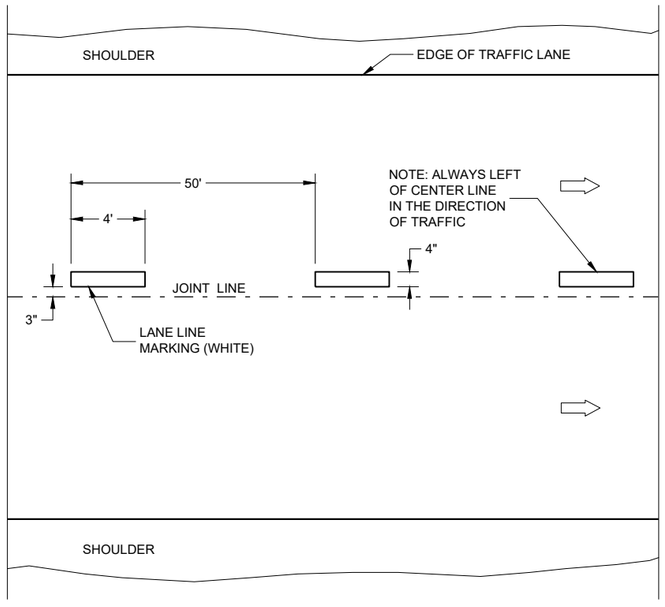
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

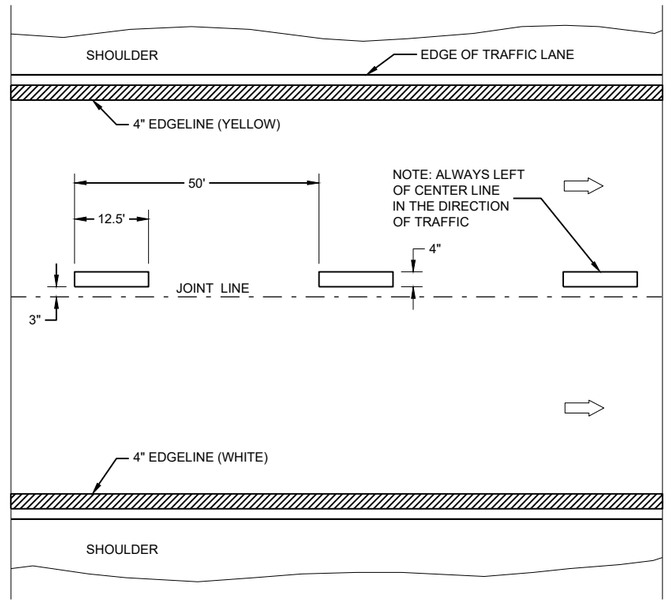
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

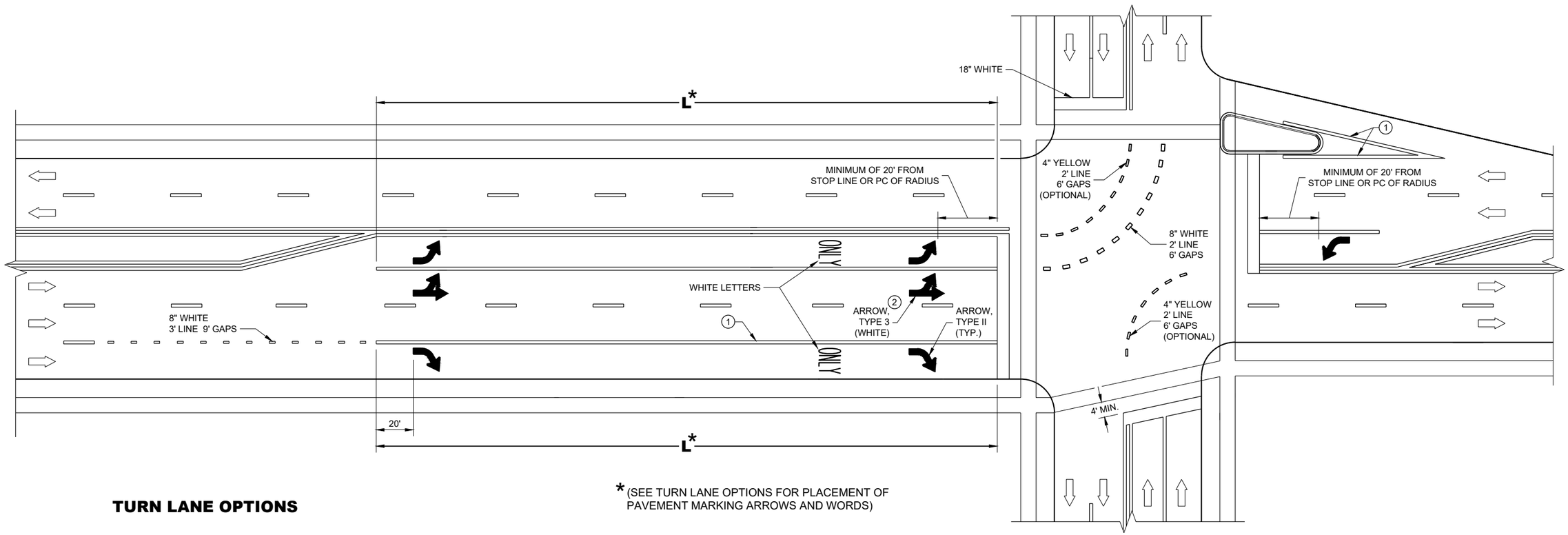
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M ENGINEER

FHWA

6

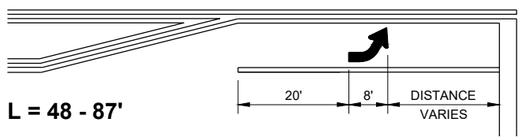
SDD 15C08 - 22b



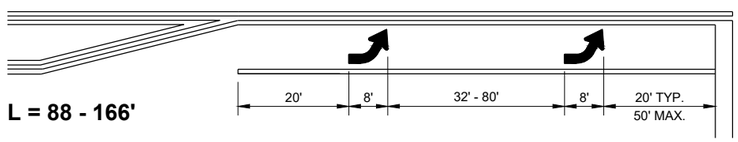
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

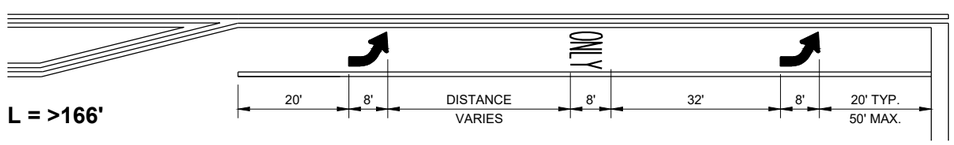
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

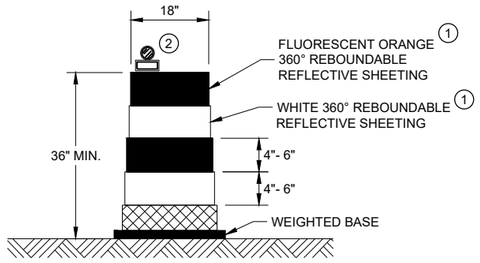
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 22d

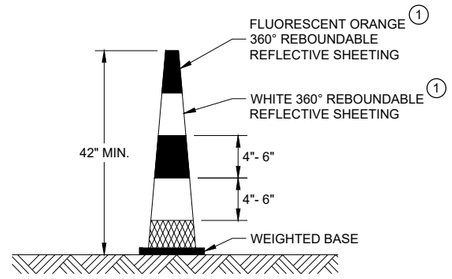
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

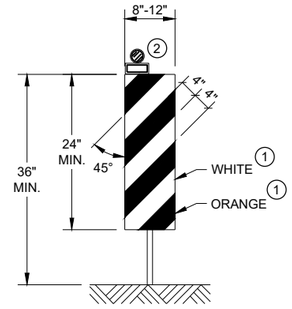
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

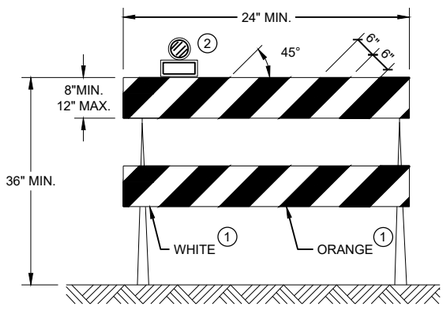
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



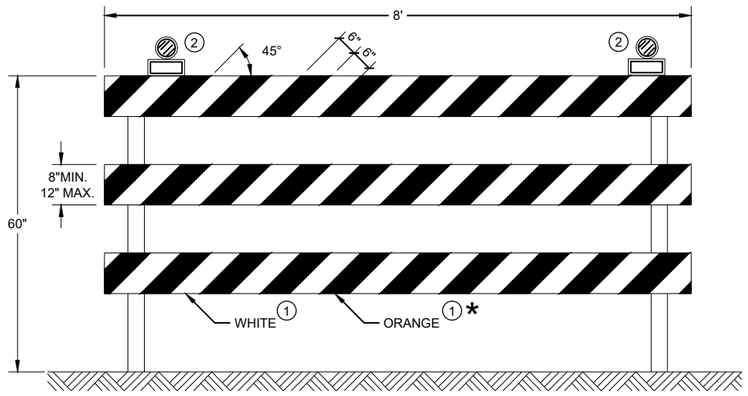
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

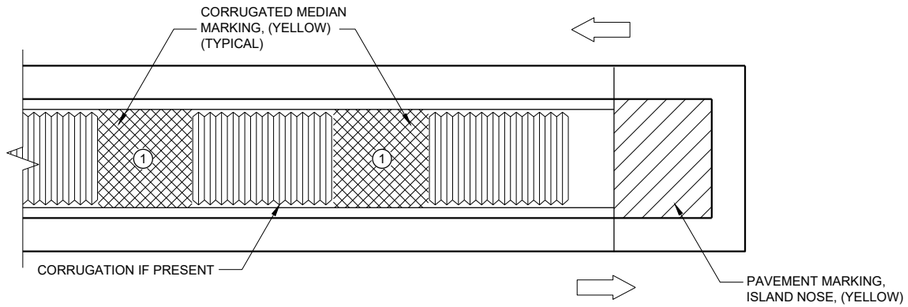
APPROVED
November 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
612
FHWA

6

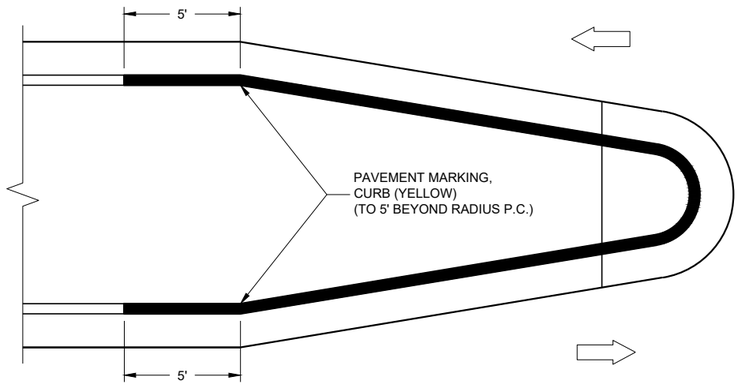
SDD 15C11 - 10b

6

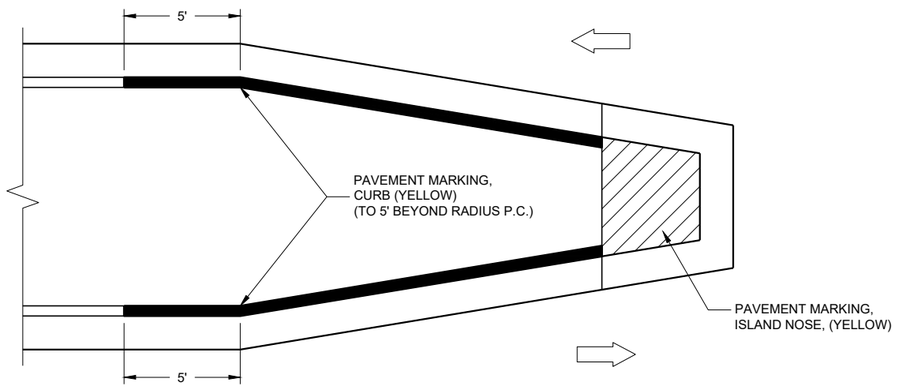
SDD 15C11 - 10b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA

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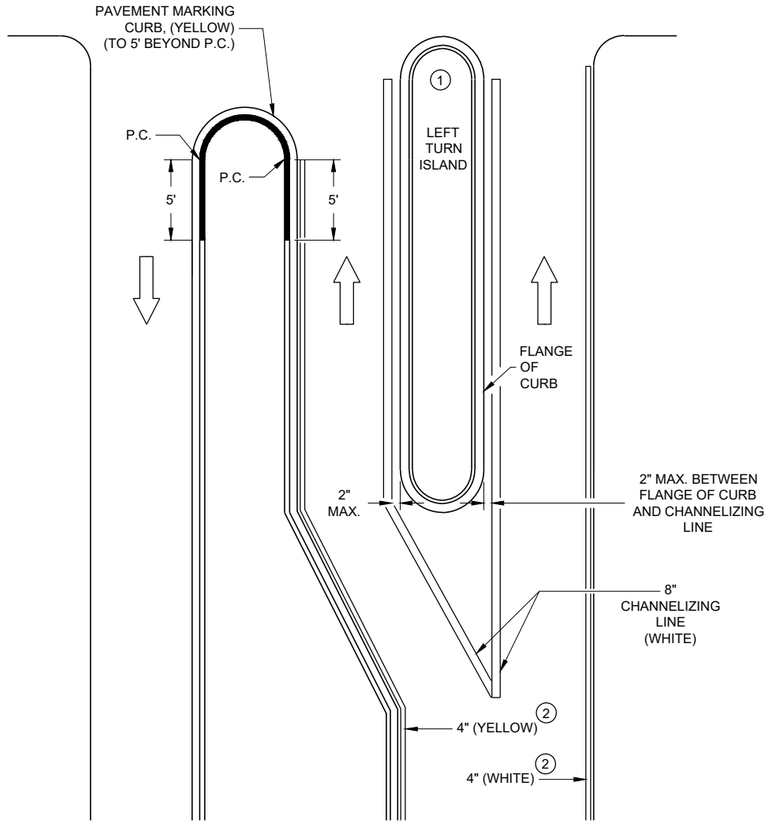
SDD 15C18 - 07b

6

SDD 15C18 - 07b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

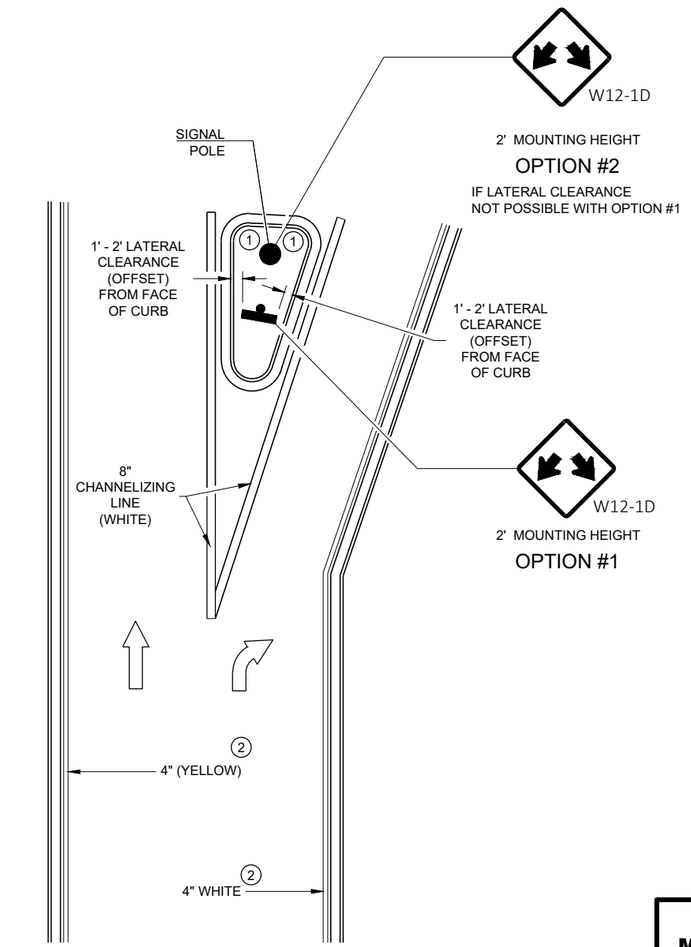
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAF ENGINEER

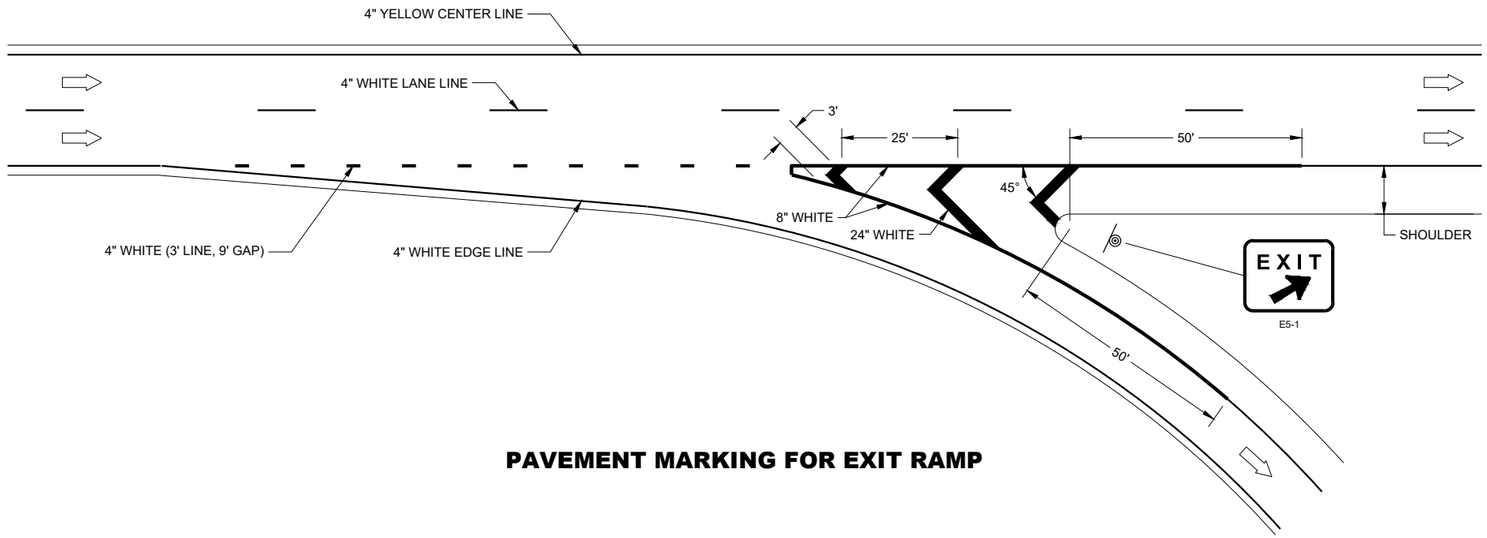
FHWA

6

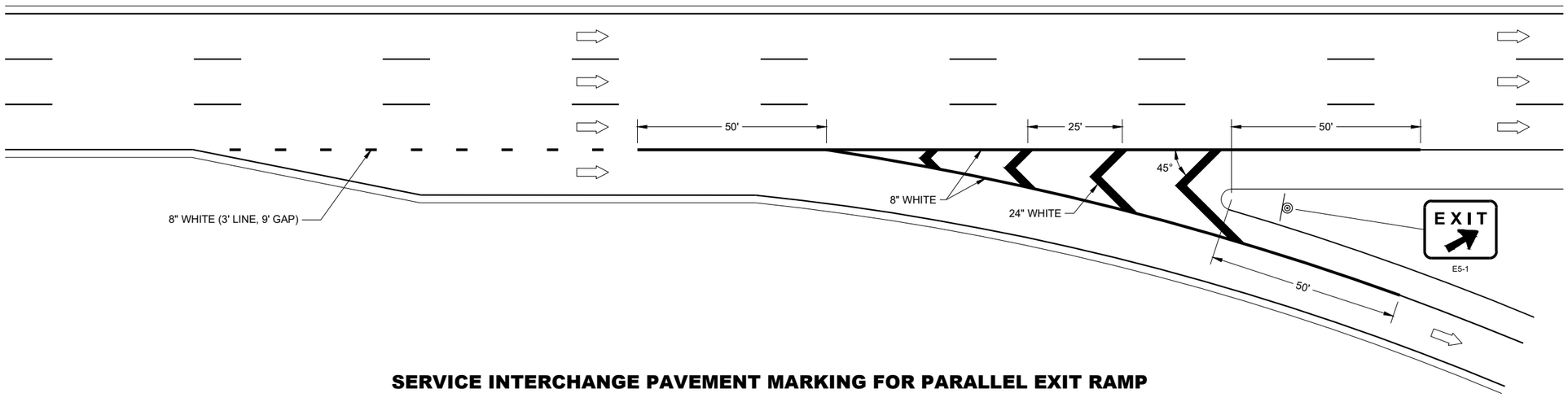
SDD 15C18 - 07c

6

SDD15C18 - 07c



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

6

SDD 15C31 - 04a

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 15C31 - 04a

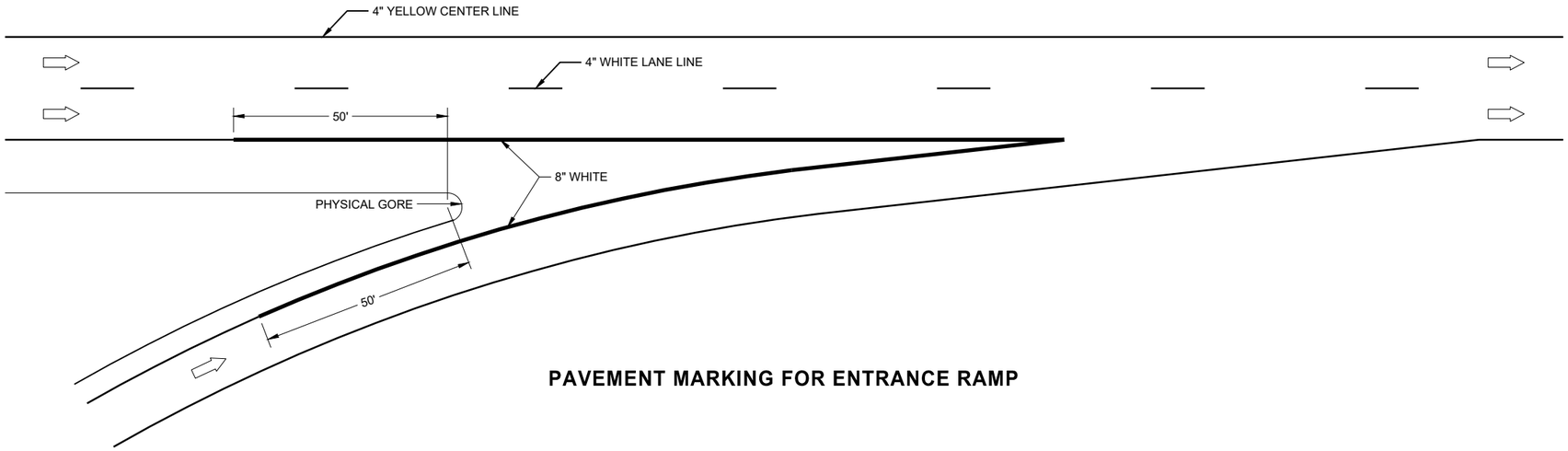
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

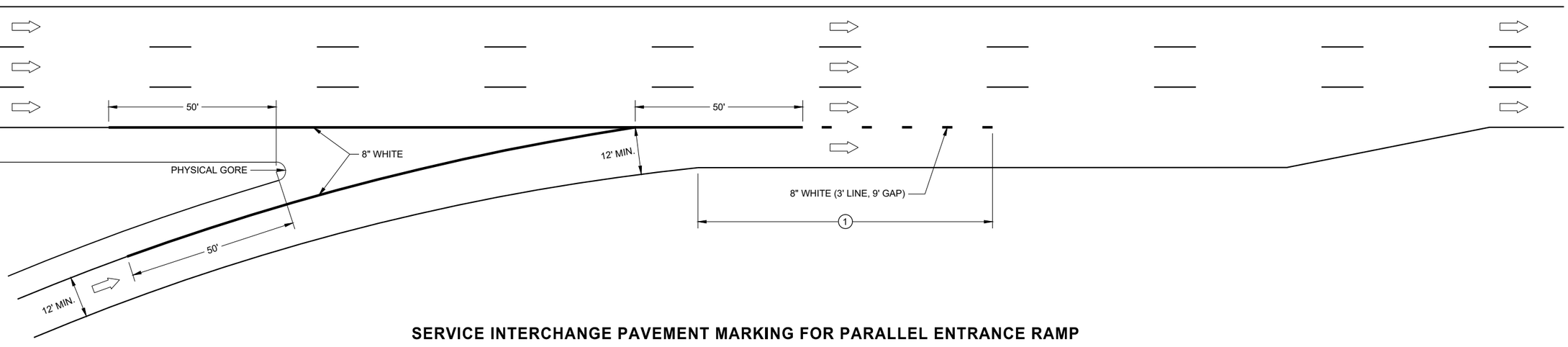
(1) ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

DIRECTION OF TRAVEL



PAVEMENT MARKING FOR ENTRANCE RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14C31 - 04c

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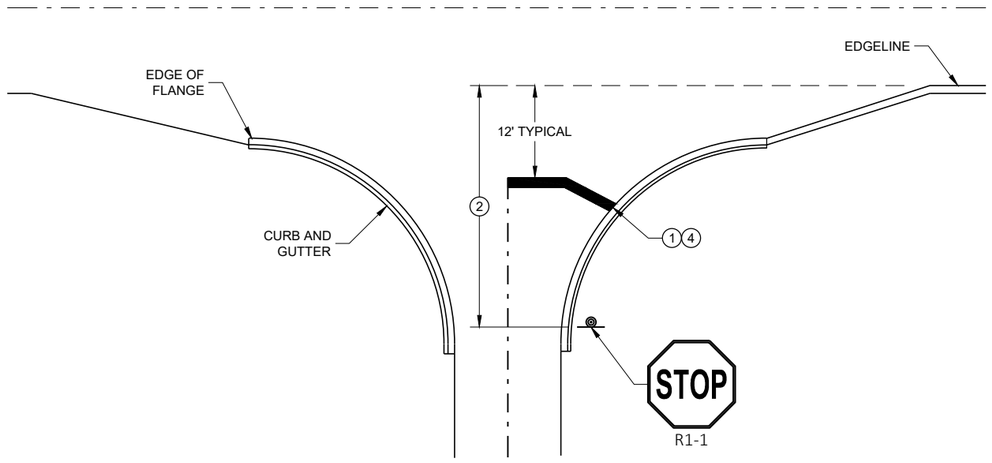
SDD 14C31 - 04c

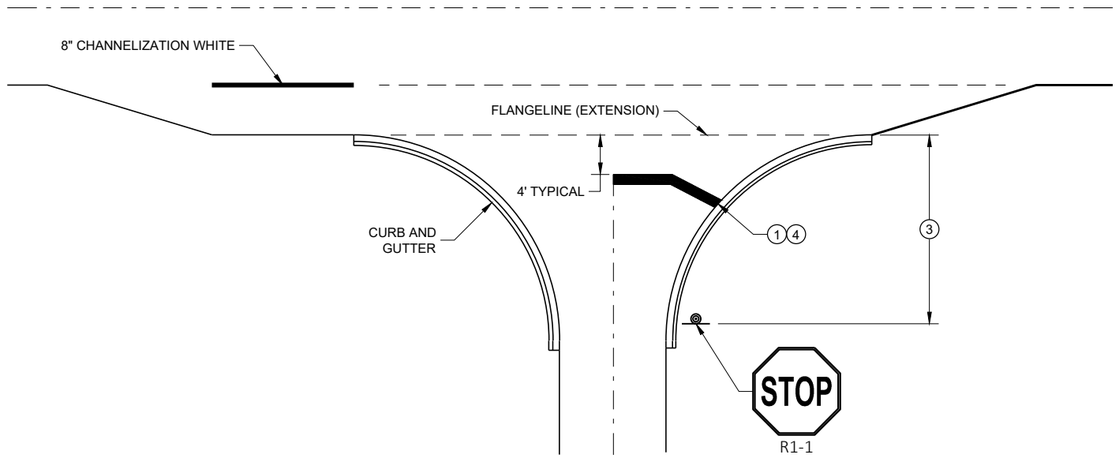
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

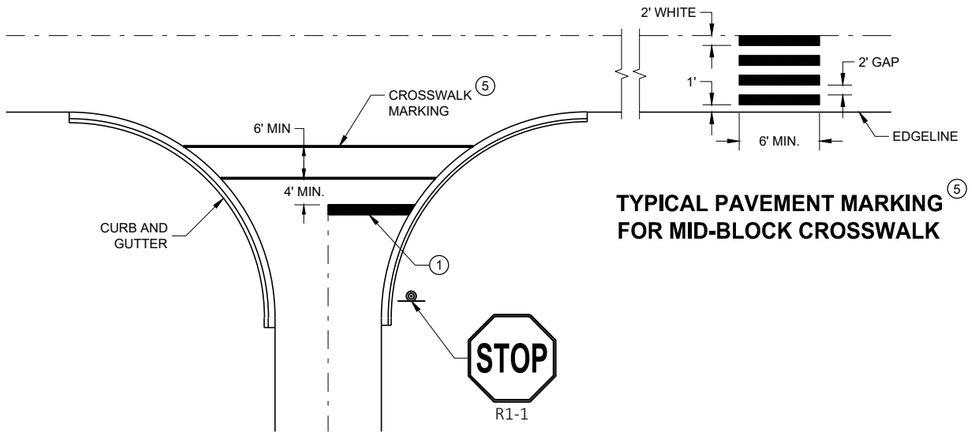
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

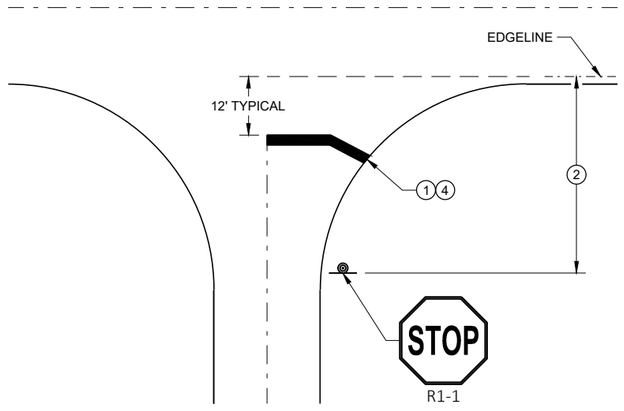


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6
SDD 15C33 - 04

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

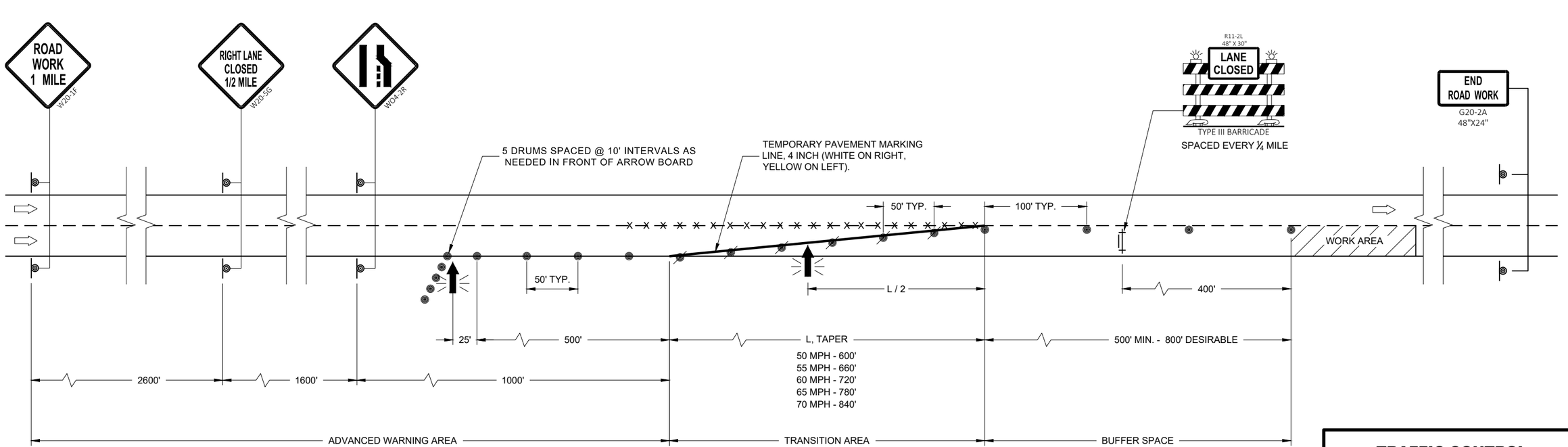
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 10a

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SDD 15D12 - 10a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- (S) — PORTABLE TRAFFIC SENSOR (PTS)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING FBS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

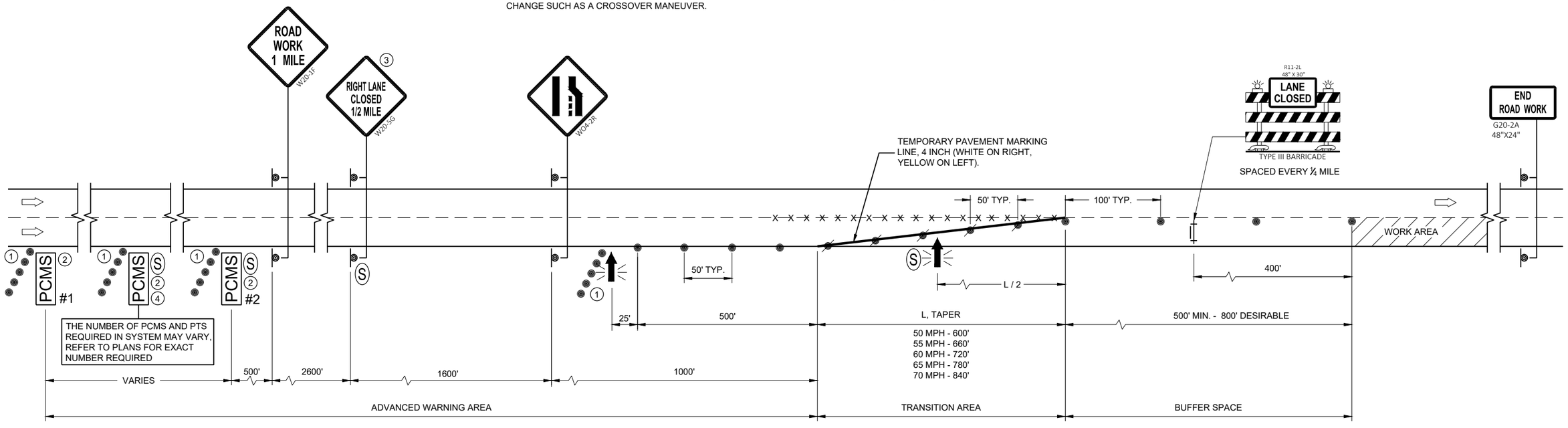
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON PCMS, ARROW BOARD OR OTHER TRAILER DEVICES.

1. 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.
2. IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE PCMS ON BOTH SIDES OF THE ROADWAY.
3. IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.
4. PLACE PCMS EVERY ONE MILE BETWEEN PCMS #1 AND PCMS #2, OR AS THE ENGINEER DIRECTS. THE NUMBER OF PCMS MAY BE MORE THAN SHOWN ON THIS DETAIL.
5. PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE OR FLASHING ARROW MERGE MODE.



(5) PCMS MESSAGING

SPEEDS 0 MPH TO 19 MPH		SPEEDS 20 MPH TO 39 MPH		SPEEDS 40 MPH AND GREATER
FRAME 1	FRAME 2	FRAME 1	FRAME 2	
STOPPED TRAFFIC AHEAD	EXPECT DELAYS	SLOW TRAFFIC AHEAD	PREPARE TO STOP	(FLASHING CAUTION MODE)

TRAFFIC CONTROL, LANE CLOSURE, TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 — DATE
/S/ Erin Schwark — WORK ZONE ENGINEER
FHWA

6

SDD 15D12 - 10e

SDD 15D12 - 10e

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

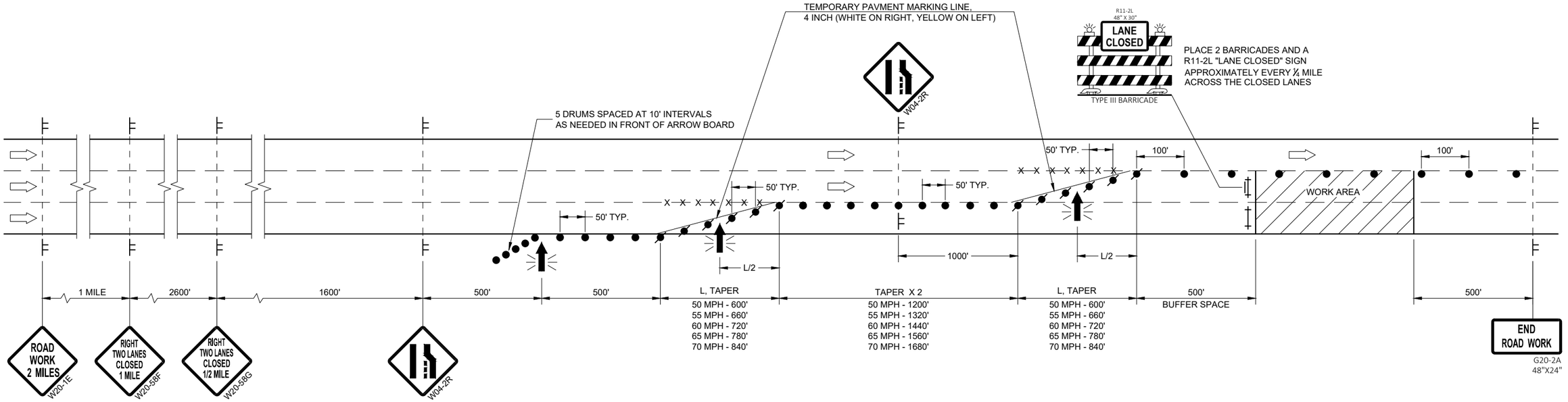
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

620

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SDD 15D14 - 05

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SDD 15D14 - 05

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

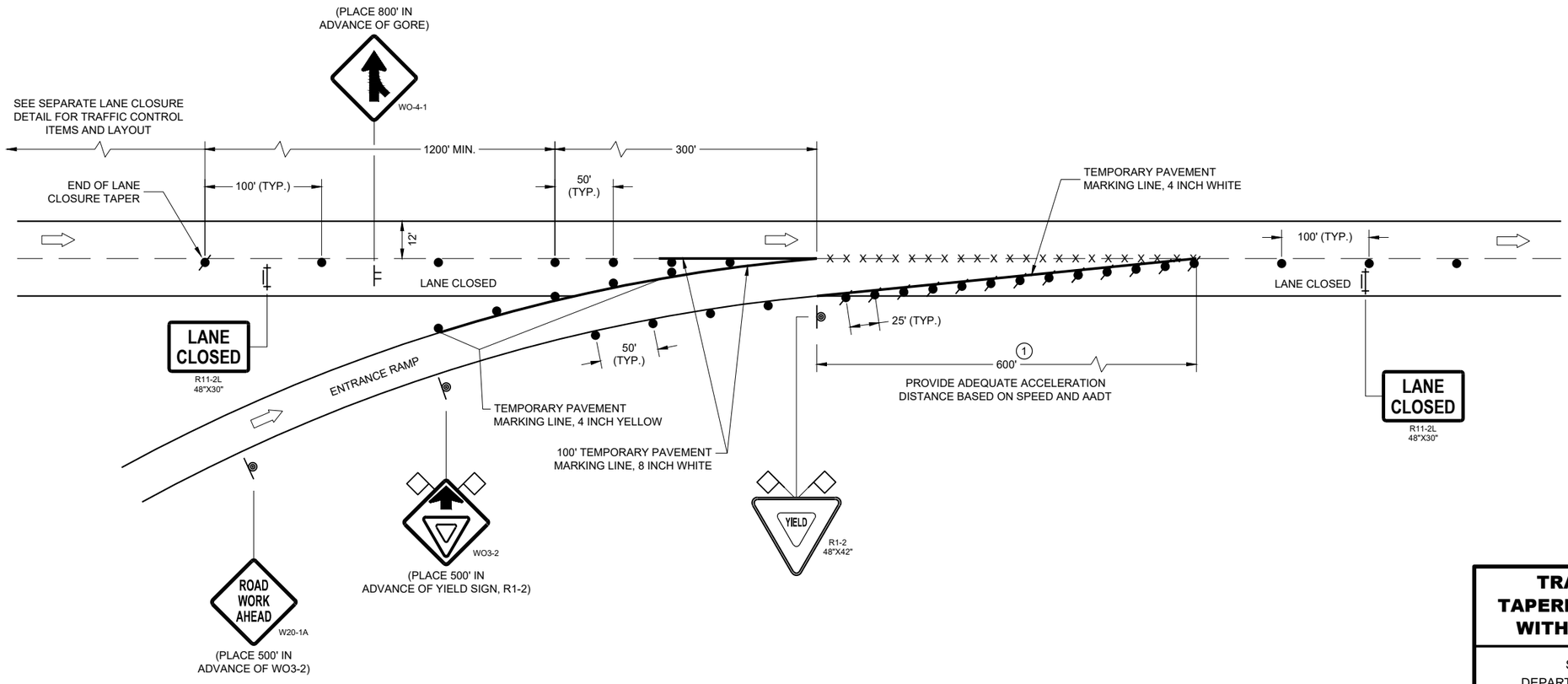
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06c

6

SDD 15D15 - 06c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

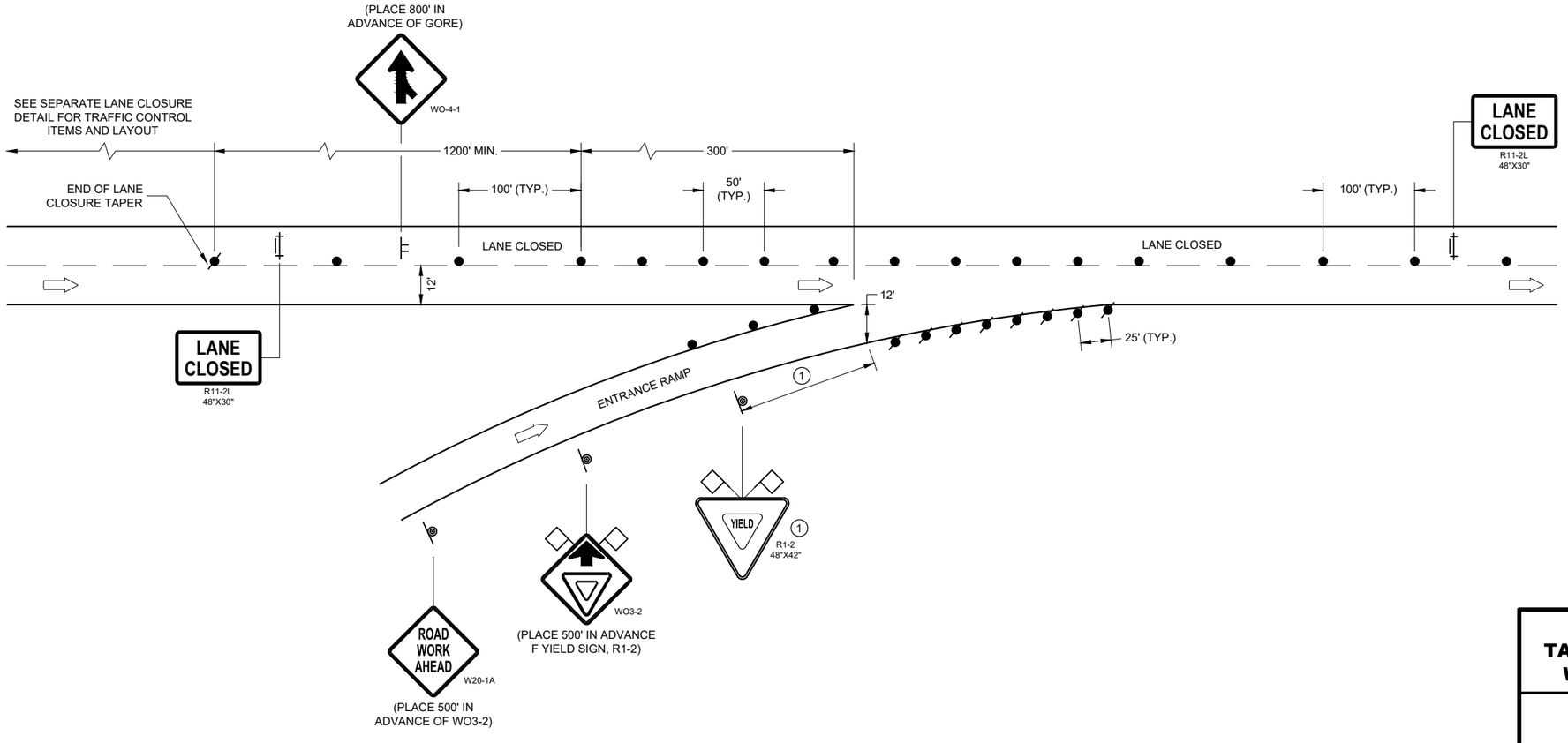
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06d

6

SDD15D15 - 06d

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

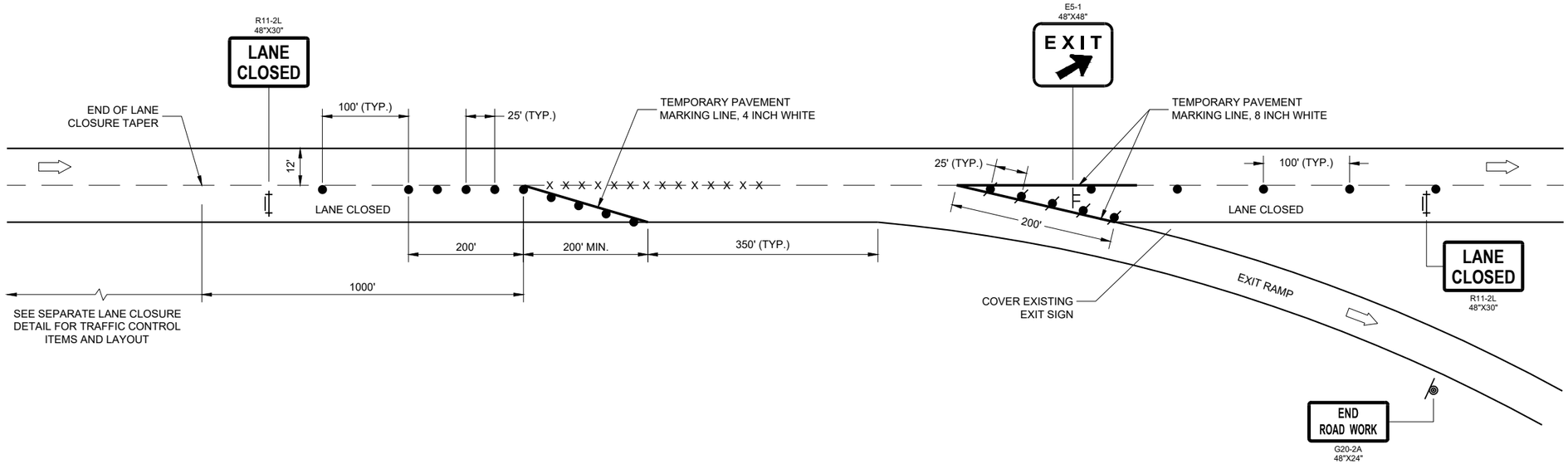
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



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TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

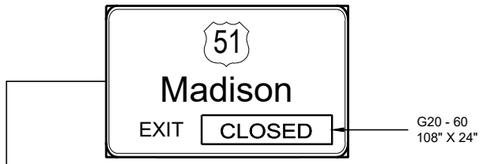
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

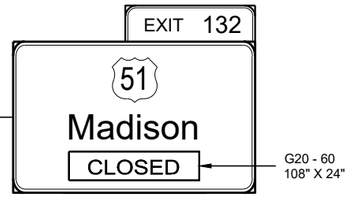
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



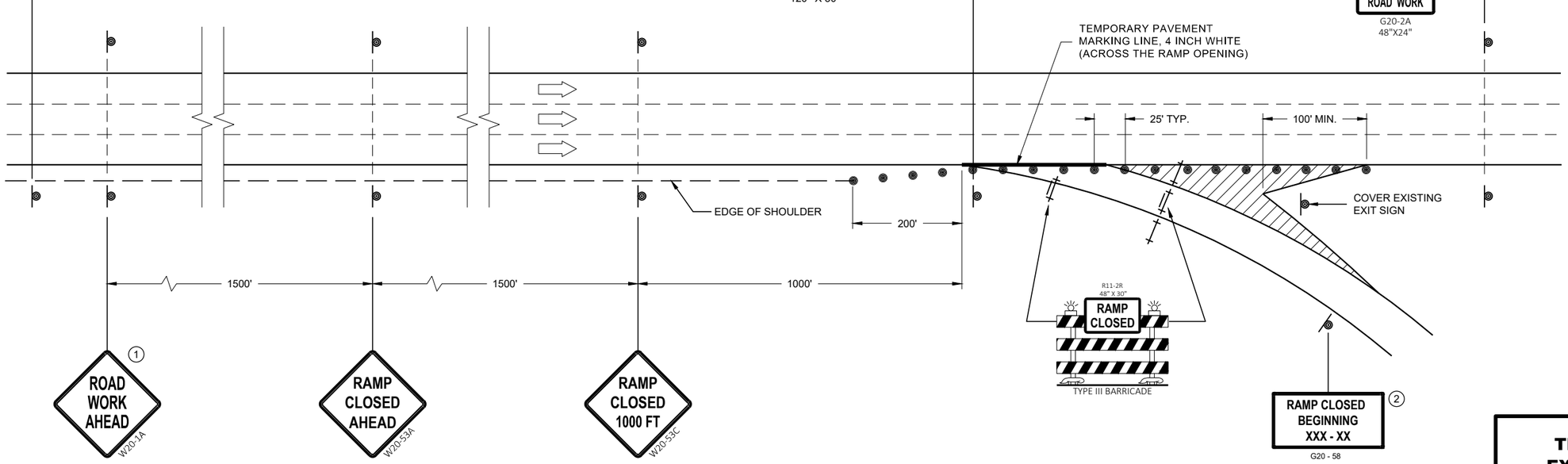
OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

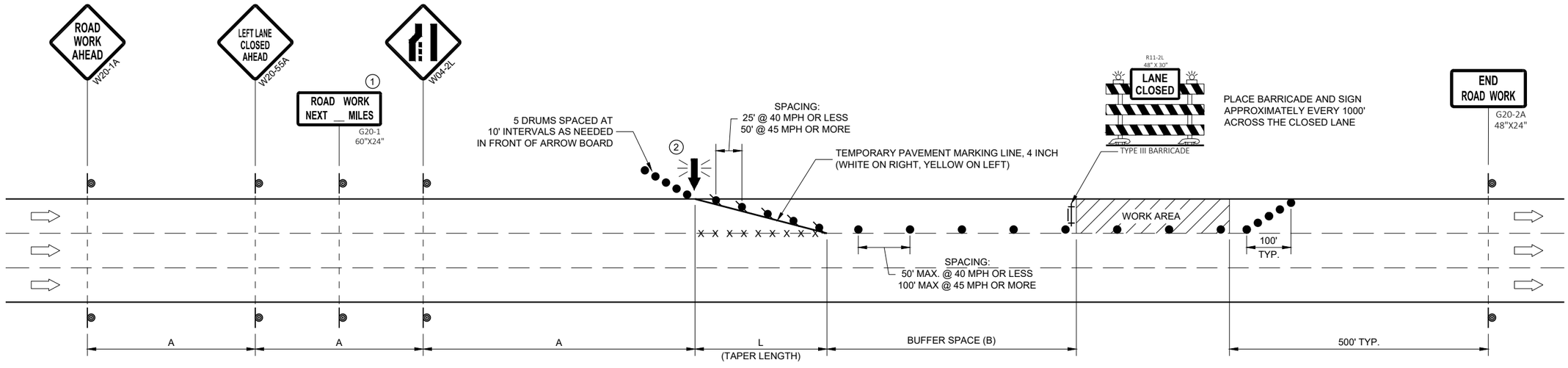
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 625

FHWA

6

SDD 15D20 - 06a

6

SDD15D20 - 06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

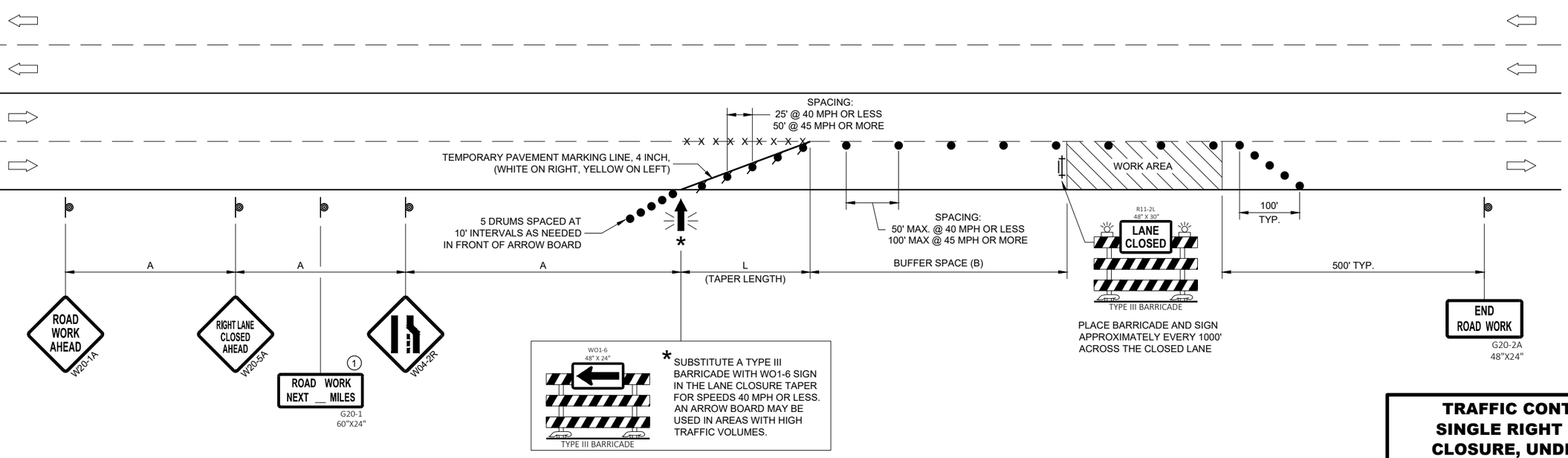
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

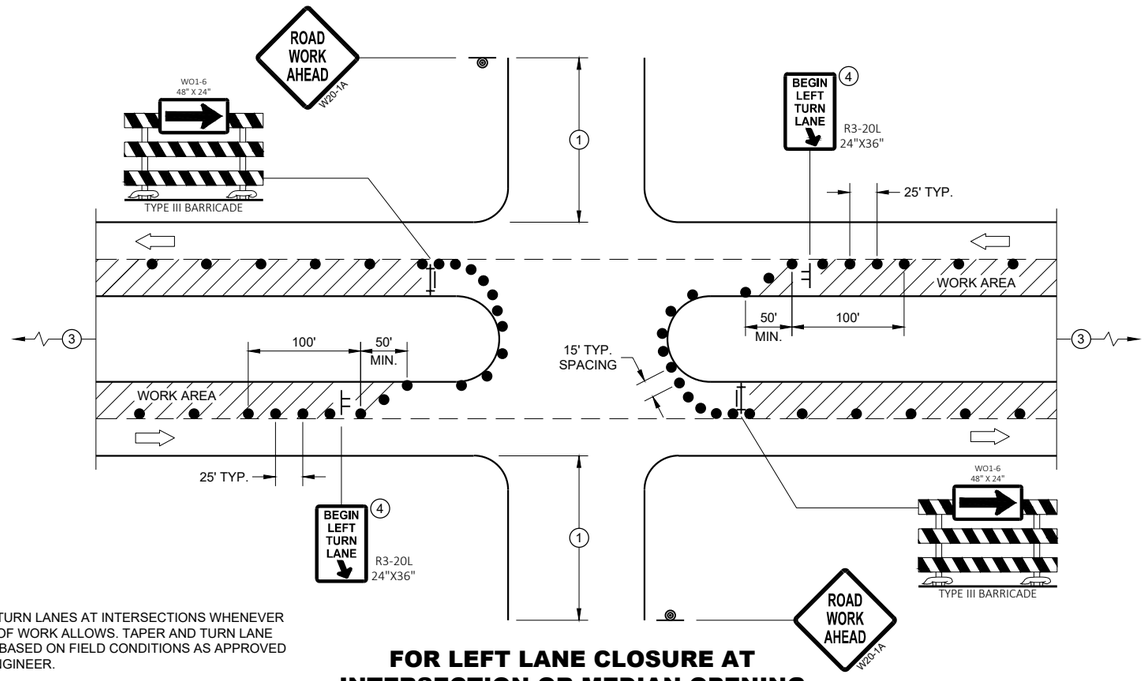
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D20 - 06b

SDD 15D20 - 06b



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

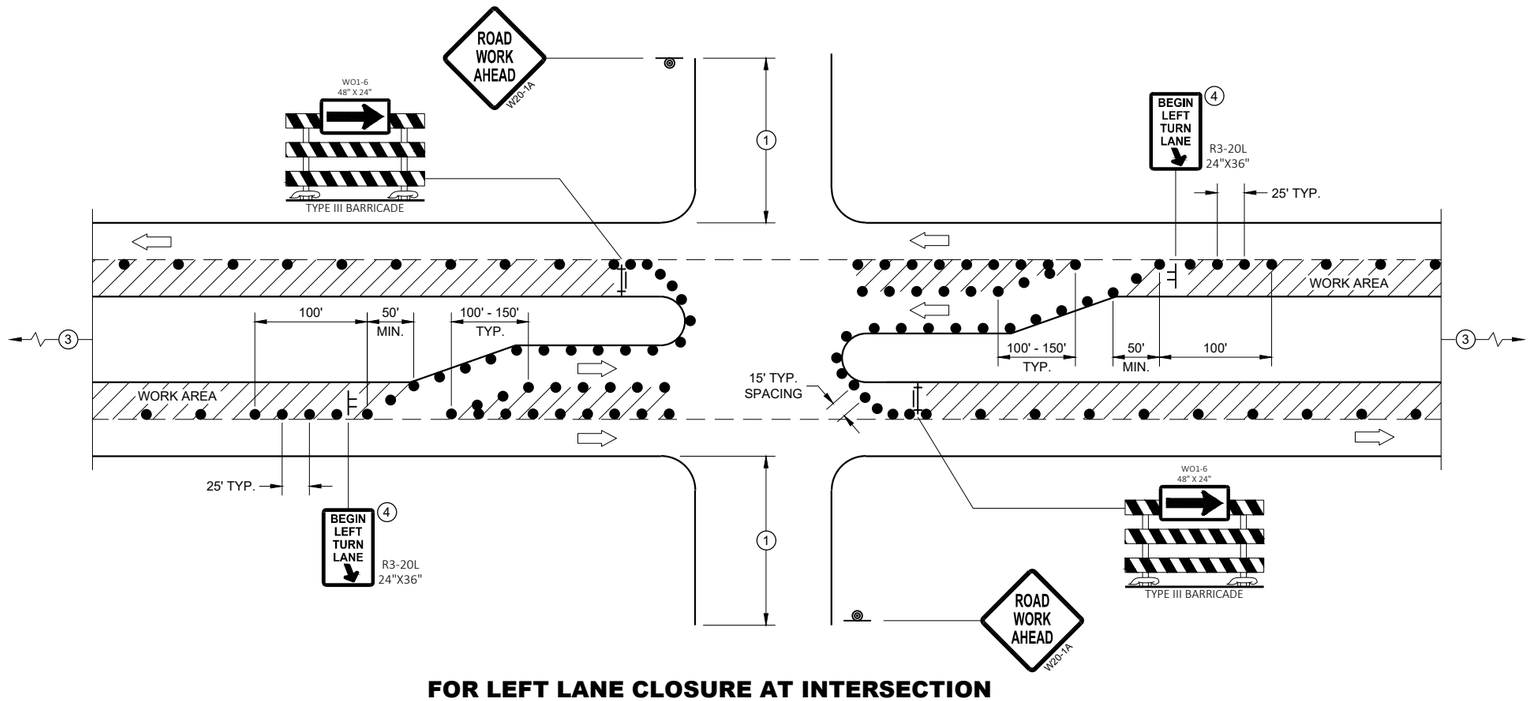
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

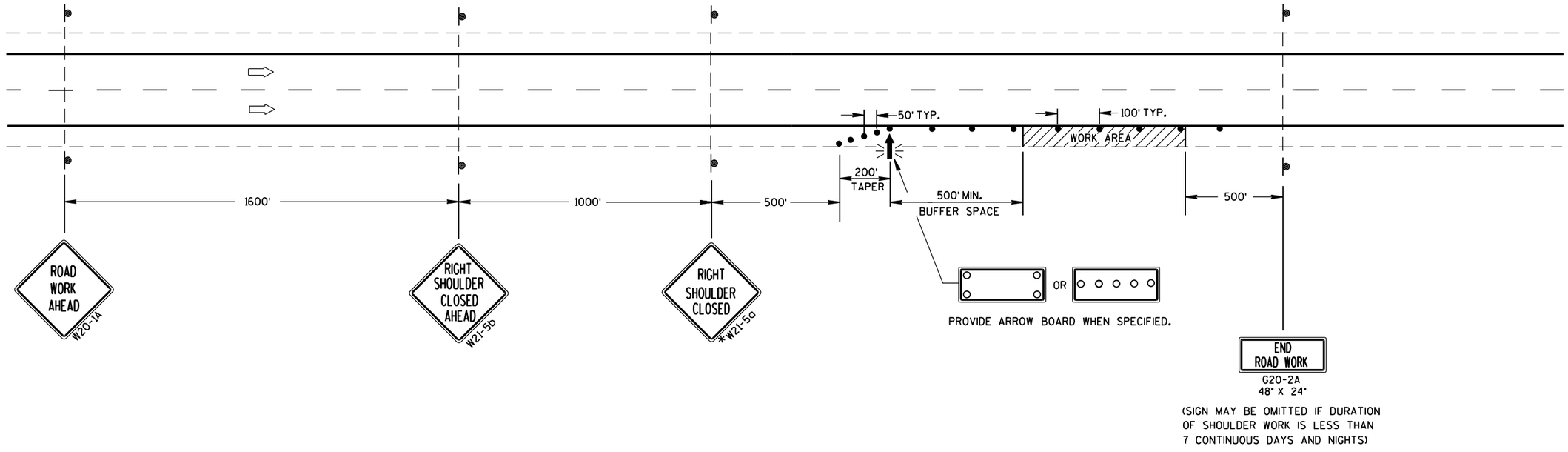
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... FIC

FHWA

6

S.D.D. 15 D 27-3

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

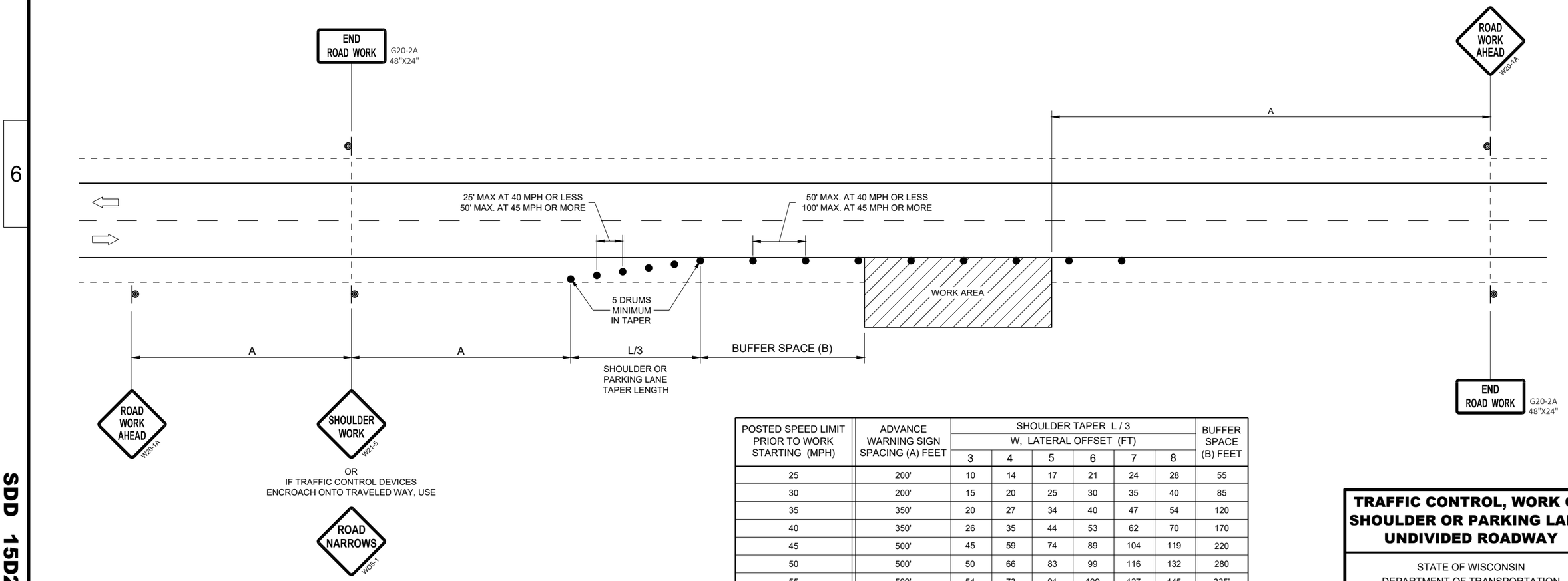
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

GENERAL NOTES

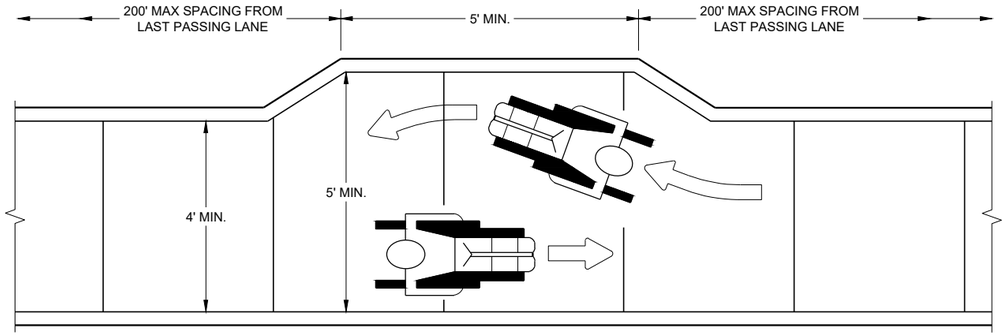
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

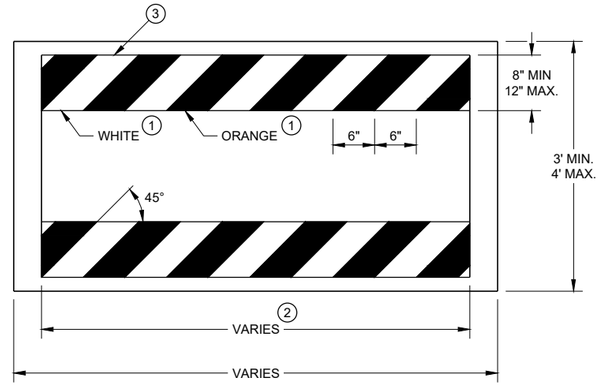
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

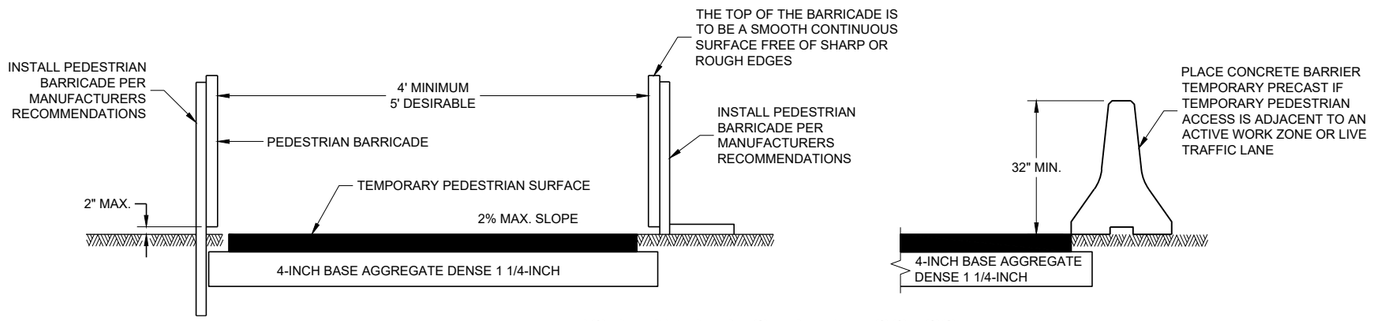
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

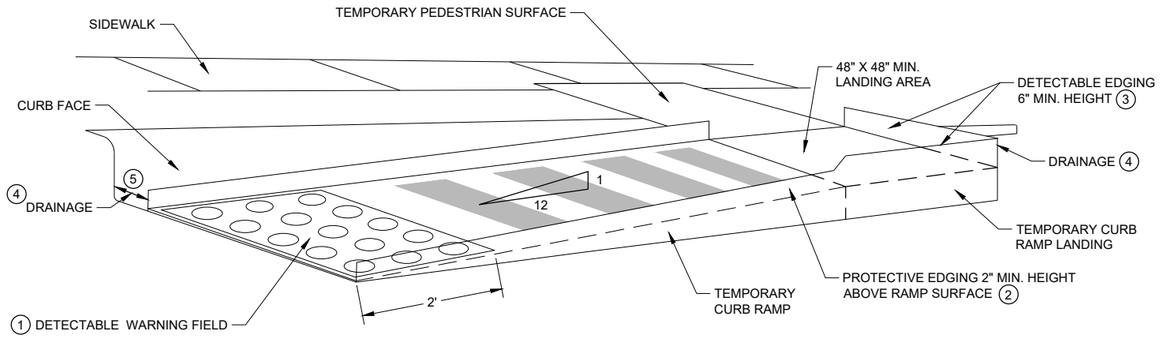
6

6

SDD 15D30 - 08a

SDD 15D30 - 08a

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

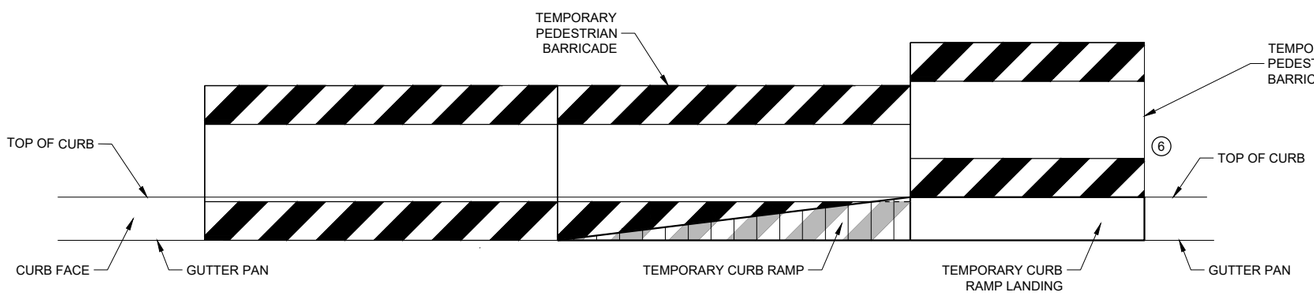
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

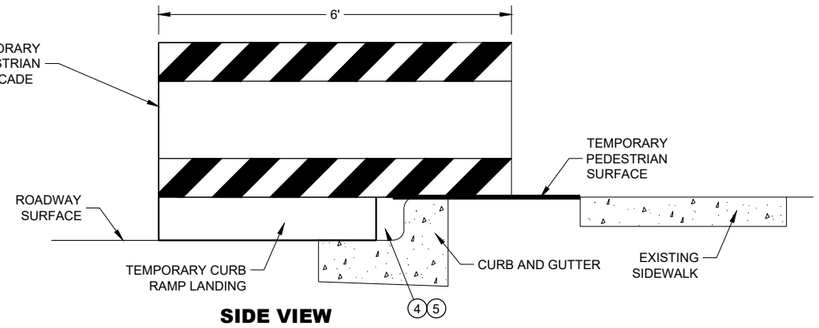
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

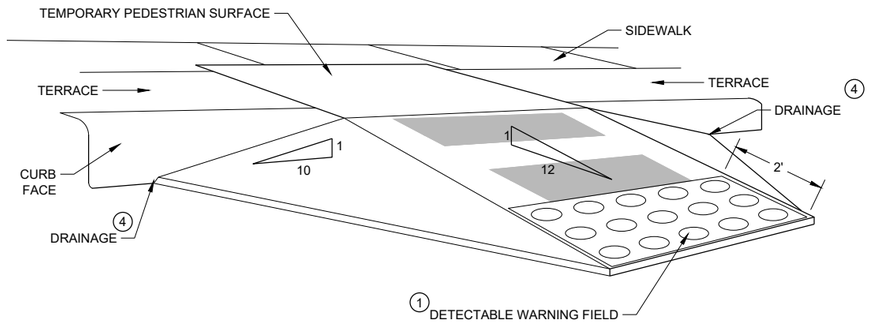
TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

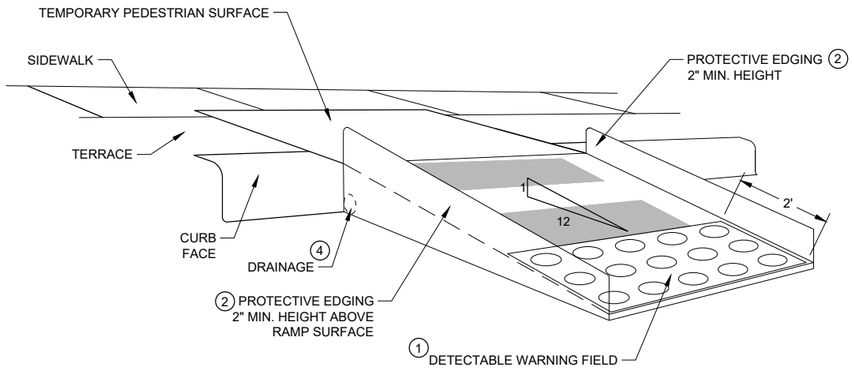
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 08b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

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SDD 15D30 - 08c

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

GENERAL NOTES

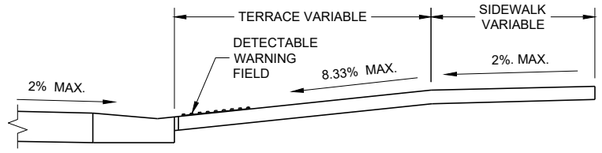
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

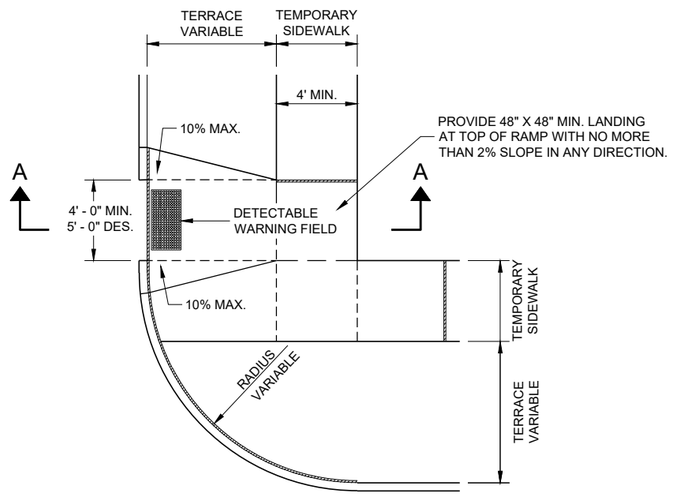
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D30-08d

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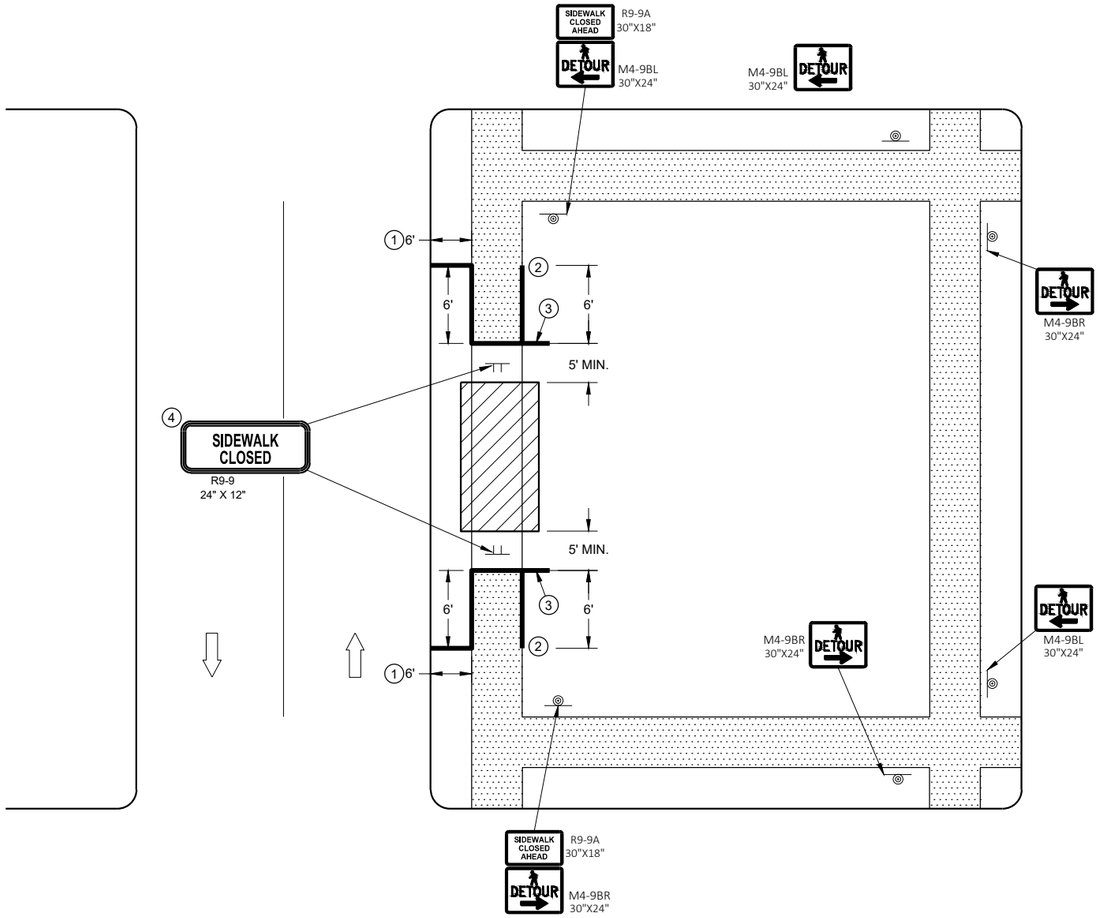
SDD 15D30-08d

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

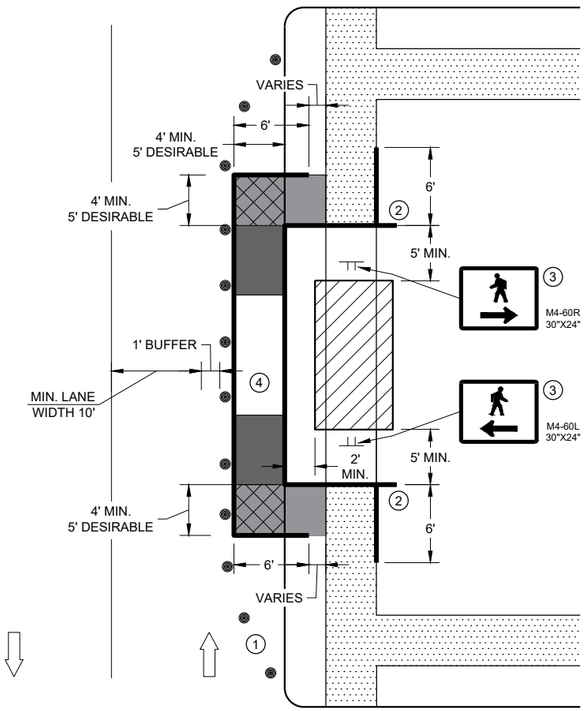
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 08h

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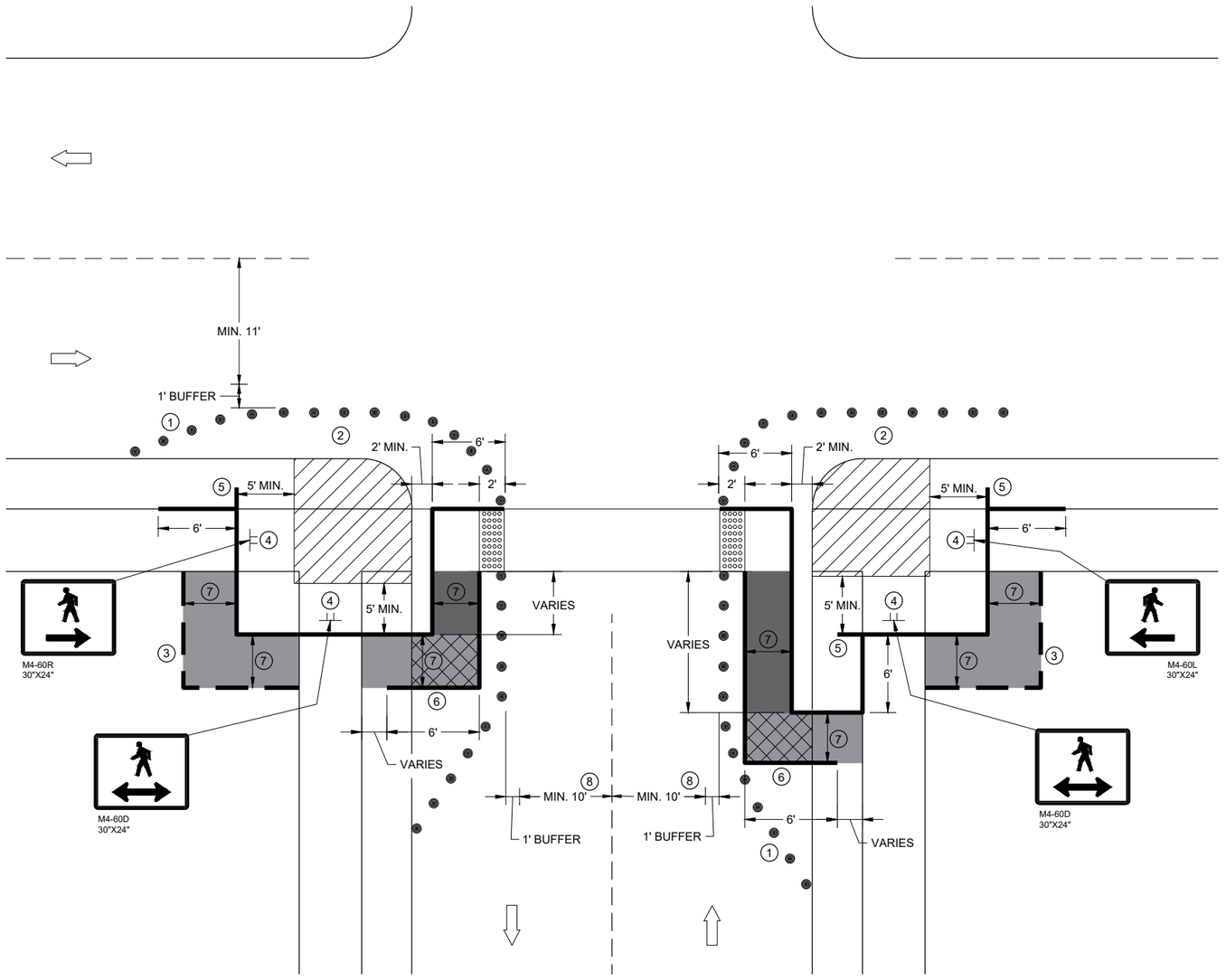
SDD 15D30 - 08h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120

OR

LOCATED 3000 FEET BEYOND THE "ROAD WORK 1 MILE" (W20-1F) SIGN

R2-1
48"X60"

OR

R2-1
48"X60"

(BLACK AND WHITE) LOCATED 700 FEET BEYOND THE W03-5 SIGN

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

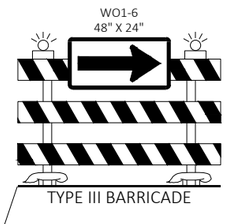
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

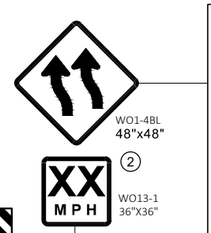
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

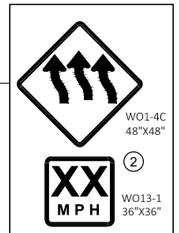
(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

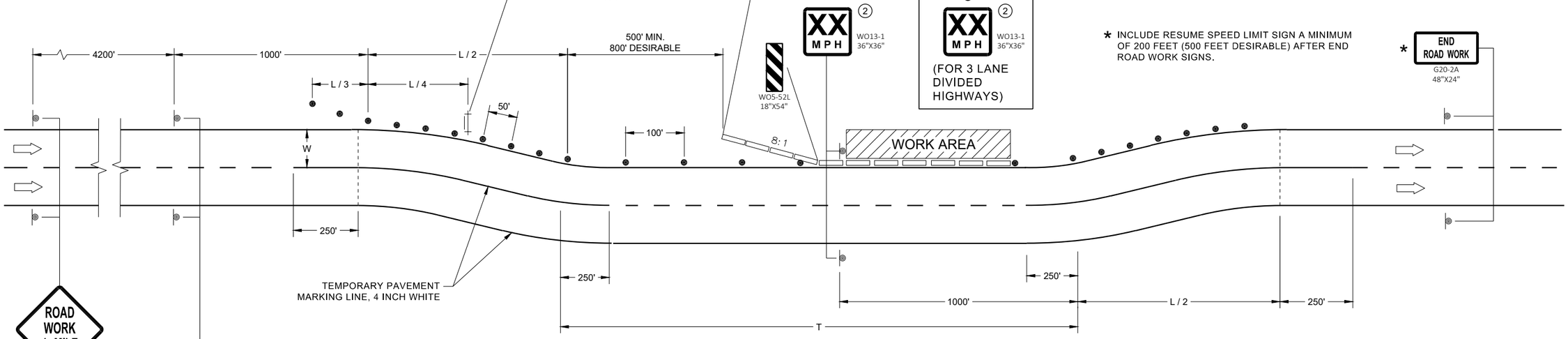


TAPER TO OUTSIDE EDGE OF WORK ZONE CLEAR ZONE, OTHERWISE PROVIDE CRASH CUSHION.





(FOR 3 LANE DIVIDED HIGHWAYS)



* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

* END ROAD WORK
G20-2A
48"X24"

TRAFFIC CONTROL
MULTIPLE LANE SHIFT
MULTILANE DIVIDED ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 637

FHWA

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SDD 15D41 - 02

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SDD 15D41 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

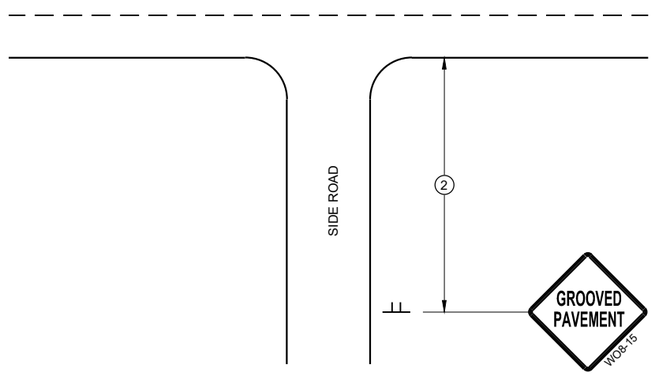
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

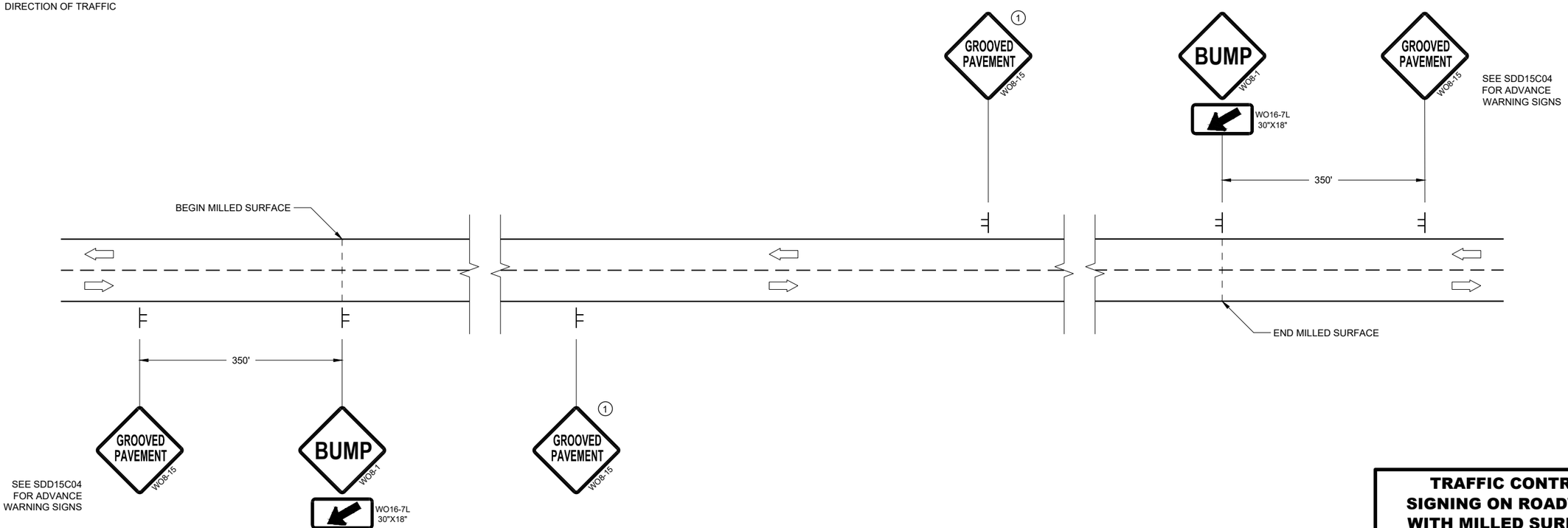
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D44 - 02

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING PCMS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

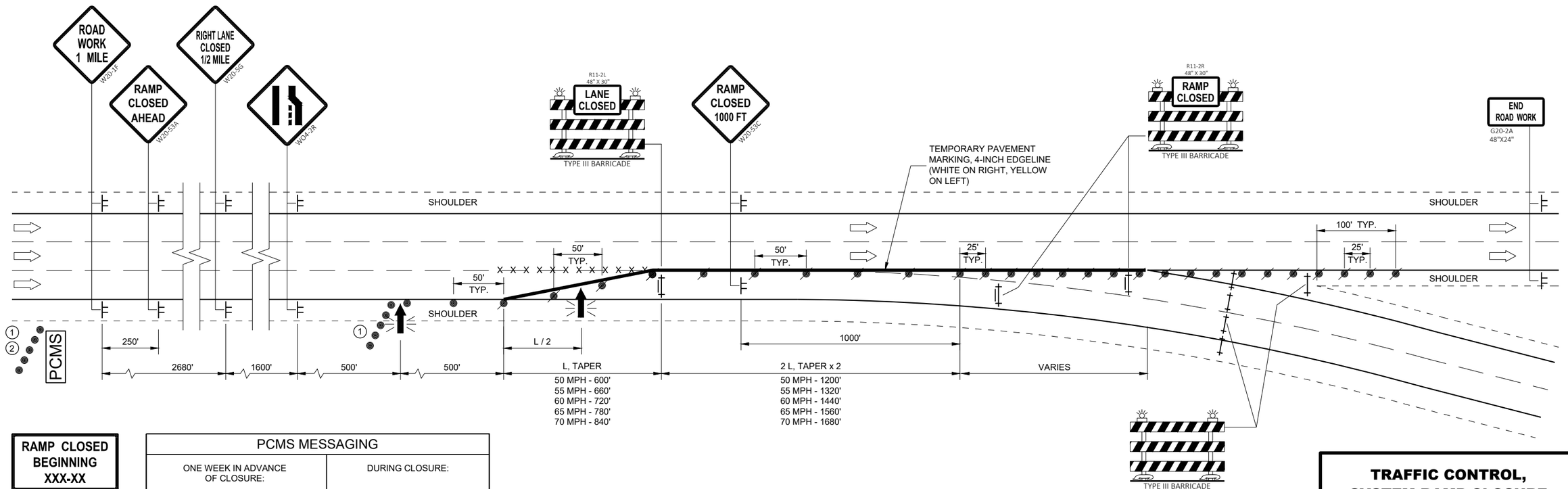
REMOVE ALL ARROW BOARDS AND DEVICES BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS.

REFER TO SDD 15C2 FOR SETTING DETOUR SIGNAGE.

ADD FREEWAY SHIELD AND DIRECTION IF APPLICABLE. COVER EXISTING RAMP AND LANE SIGNS IF APPLICABLE.

(1) 5 DRUMS SPACED AT 10 FOOT INTERVALS.

(2) DURING THE PRE-WARNING PERIOD, PLACE THE PCMS AT THE SYSTEM RAMP THAT IS TO BE CLOSED. DURING CLOSURE PERIOD, PLACE PCMS OR FMS AT LAST AVAILABLE EXIT IN ADVANCE OF SYSTEM RAMP CLOSURE. IF DYNAMIC MESSAGE SIGNS (DMS) ARE AVAILABLE, COORDINATE POTENTIAL SIGN MESSAGES WITH THE TRAFFIC MANAGEMENT CENTER (TMC).



SEE SDD 15C2 (SHEET "b"), DETAIL "D" "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" PLACE BARRICADES TO FULLY SEAL OFF ROAD

RAMP CLOSED BEGINNING XXX-XX
G20-58

PCMS MESSAGING

ONE WEEK IN ADVANCE OF CLOSURE:

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

DURING CLOSURE:

FRAME 1	FRAME 2
HWY XX RAMP CLOSED	USE ALT ROUTE

TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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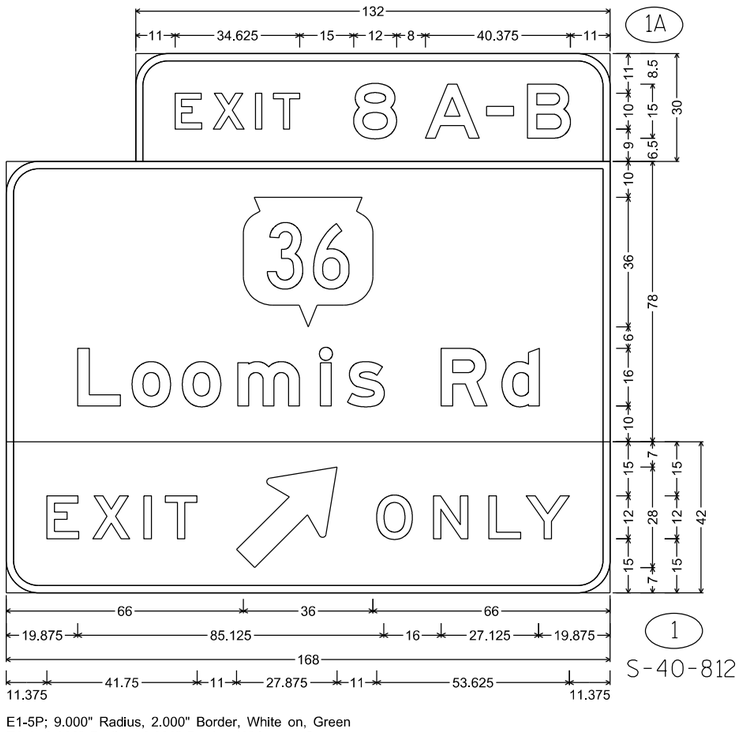
SDD 15D49 - 01

6

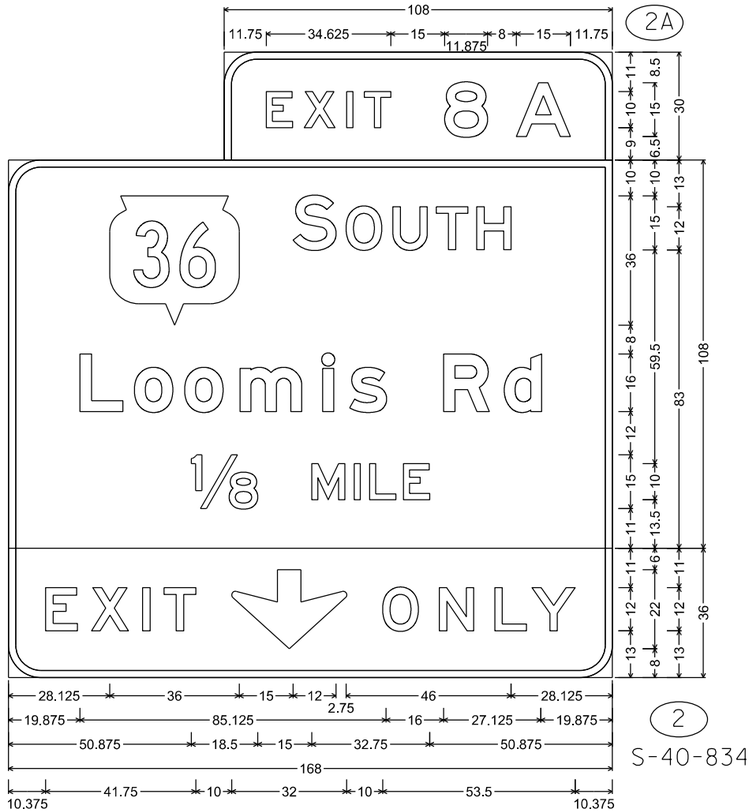
SDD 15D49 - 01

NOTES

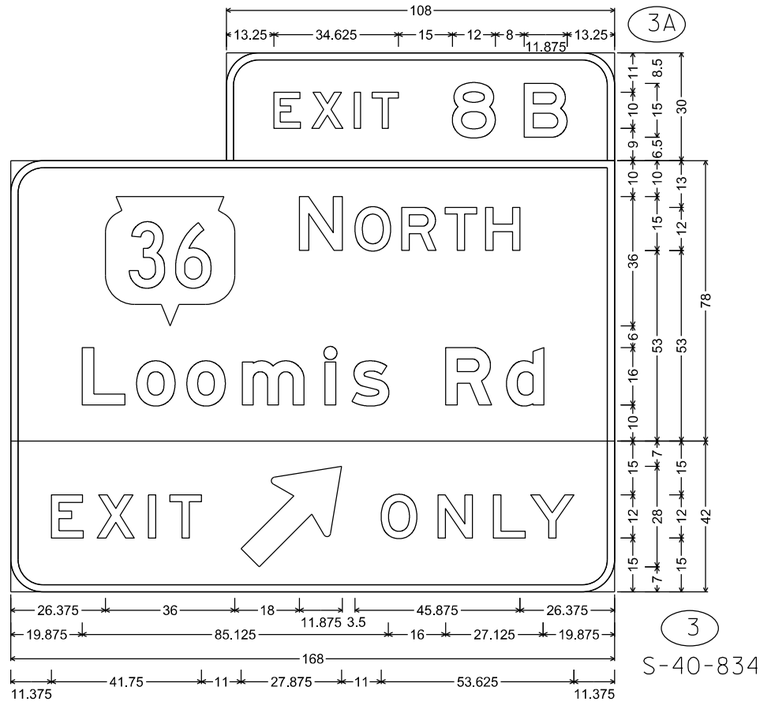
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all Cap Words Series E
4. Exit Only Panel background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



E1-5P; 9.000" Radius, 2.000" Border, White on, Green
E6-1; 9.000" Radius, 2.000" Border, White on, Green
E11-1D; 9.000" Radius, 2.000" Border, Black on, Yellow



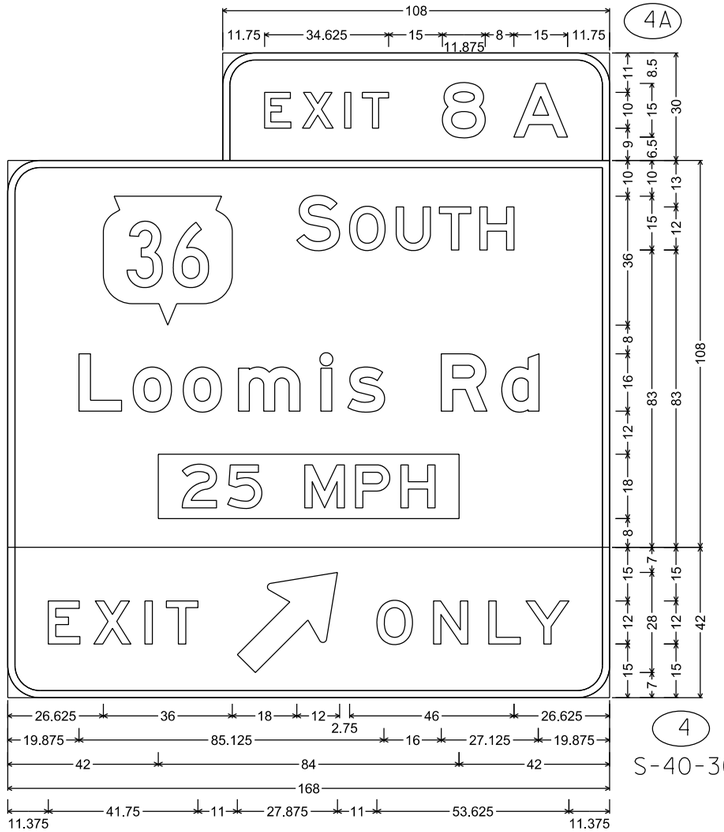
E1-5P; 9.000" Radius, 2.000" Border, White on, Green;
E6-51; 9.000" Radius, 2.000" Border, White on, Green;
E11-1; 9.000" Radius, 2.000" Border, Black on, Yellow



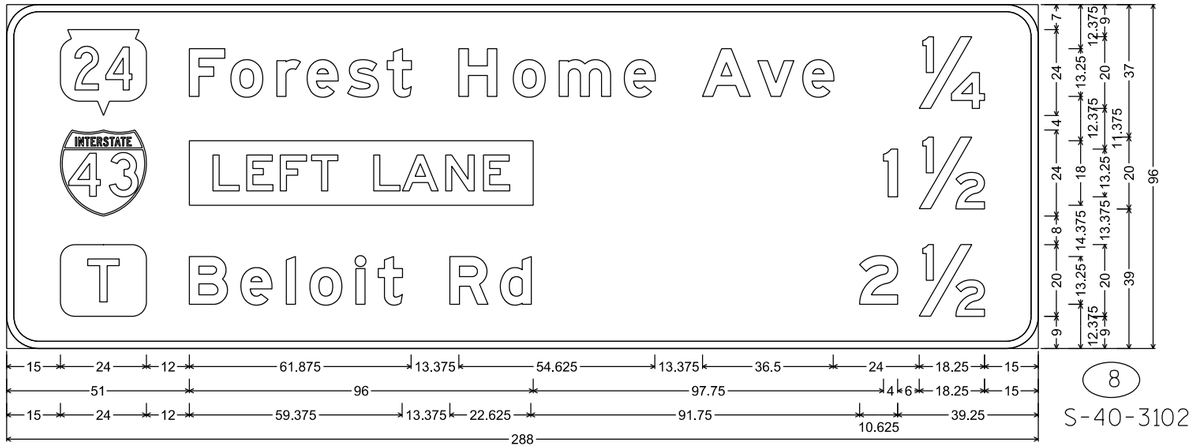
E1-5P; 9.000" Radius, 2.000" Border, White on, Green;
E6-1; 9.000" Radius, 2.000" Border, White on, Green;
E11-1D; 9.000" Radius, 2.000" Border, Black on, Yellow

NOTES

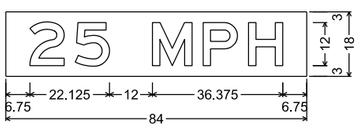
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all Cap Words Series E
4. Exit Only Panel, 25 MPH and Left Lane Plaque background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



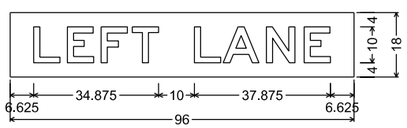
E1-5P; 9.000" Radius, 2.000" Border, White on, Green;
E6-1; 9.000" Radius, 2.000" Border, White on, Green;
E11-1D; 9.000" Radius, 2.000" Border, Black on, Yellow



E8-1; 9.000" Radius, 2.000" Border



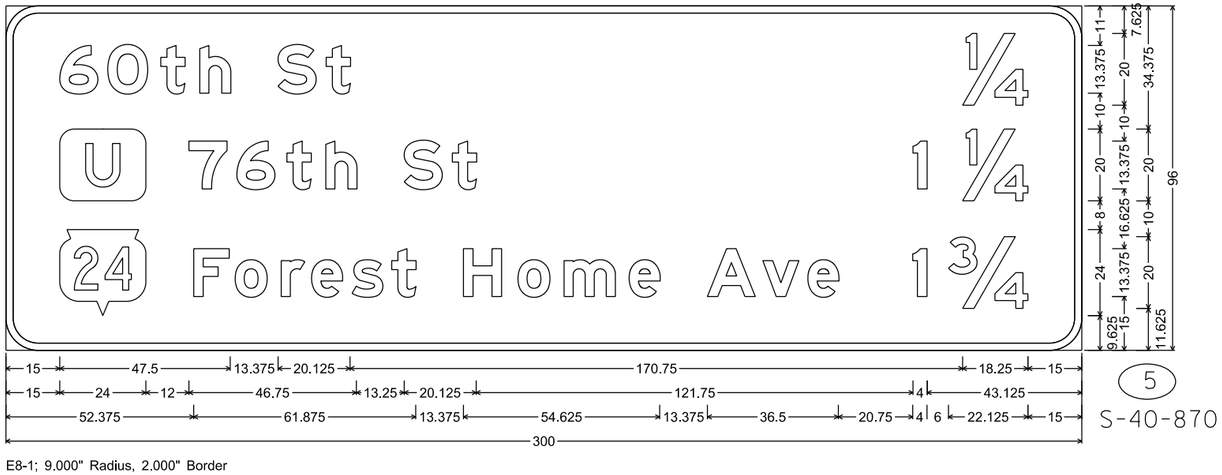
E11-1C;
No border, Black on, Yellow;
"25", E; "MPH", E;



No border, Black on, Yellow;
"LEFT", E; "LANE", E

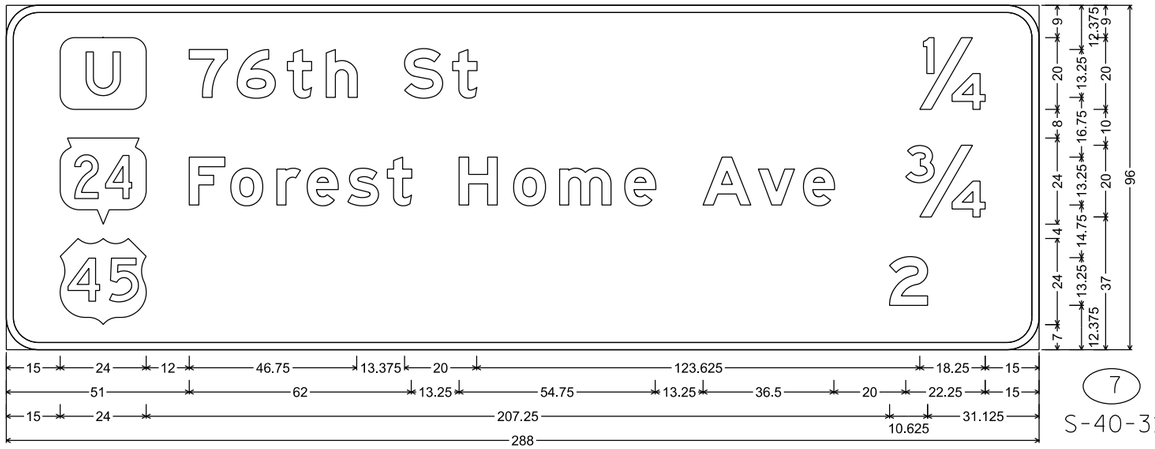
NOTES

1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all Cap Words Series E
4. Exit Only Panel background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



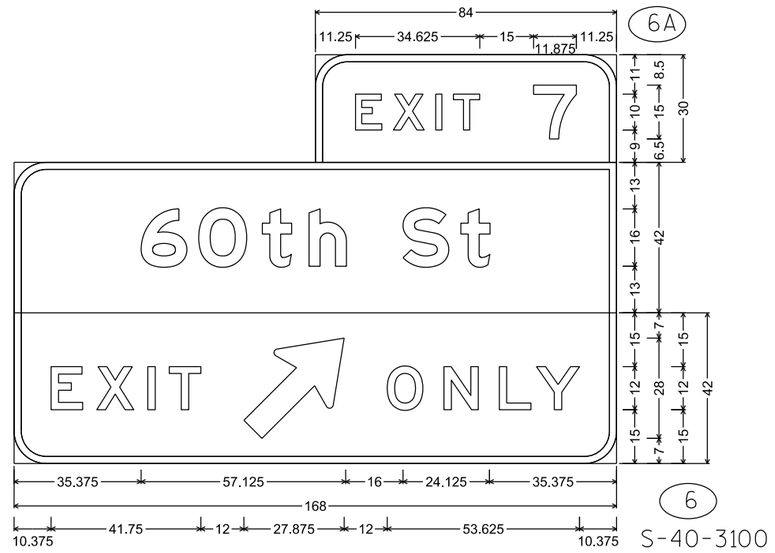
5
S-40-870

E8-1; 9.000" Radius, 2.000" Border



7
S-40-3101

E8-1; 9.000" Radius, 2.000" Border

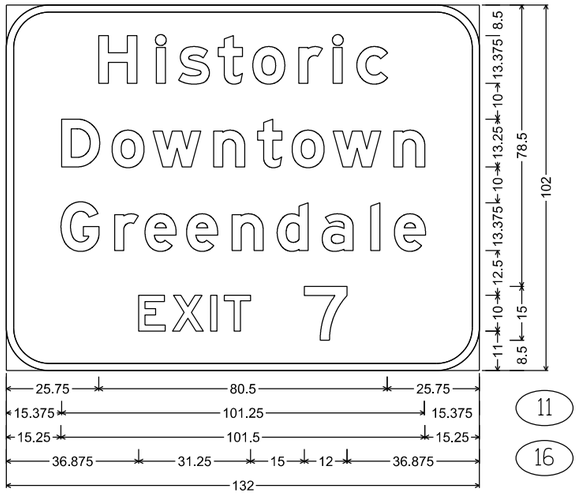


6
S-40-3100

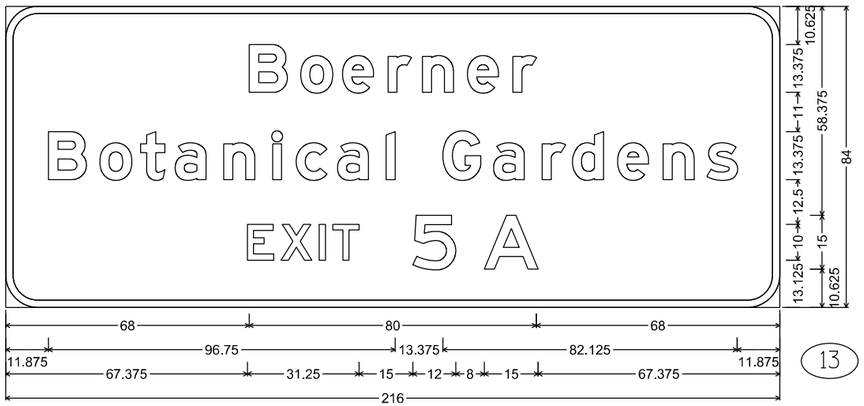
E1-5P; 9.000" Radius, 2.000" Border, White on, Green;
E6-1; 9.000" Radius, 2.000" Border, White on, Green;
E11-1D; 9.000" Radius, 2.000" Border, Black on, Yellow

NOTES

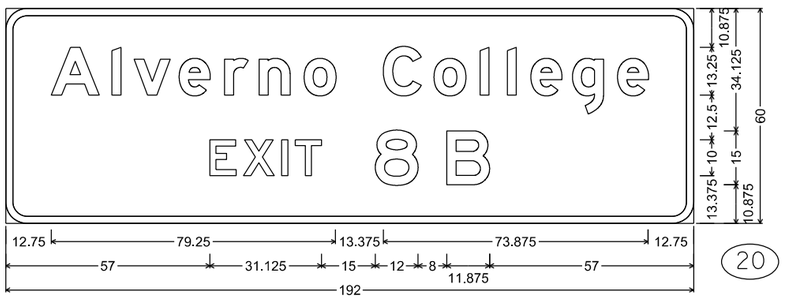
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except all Cap Words Series E



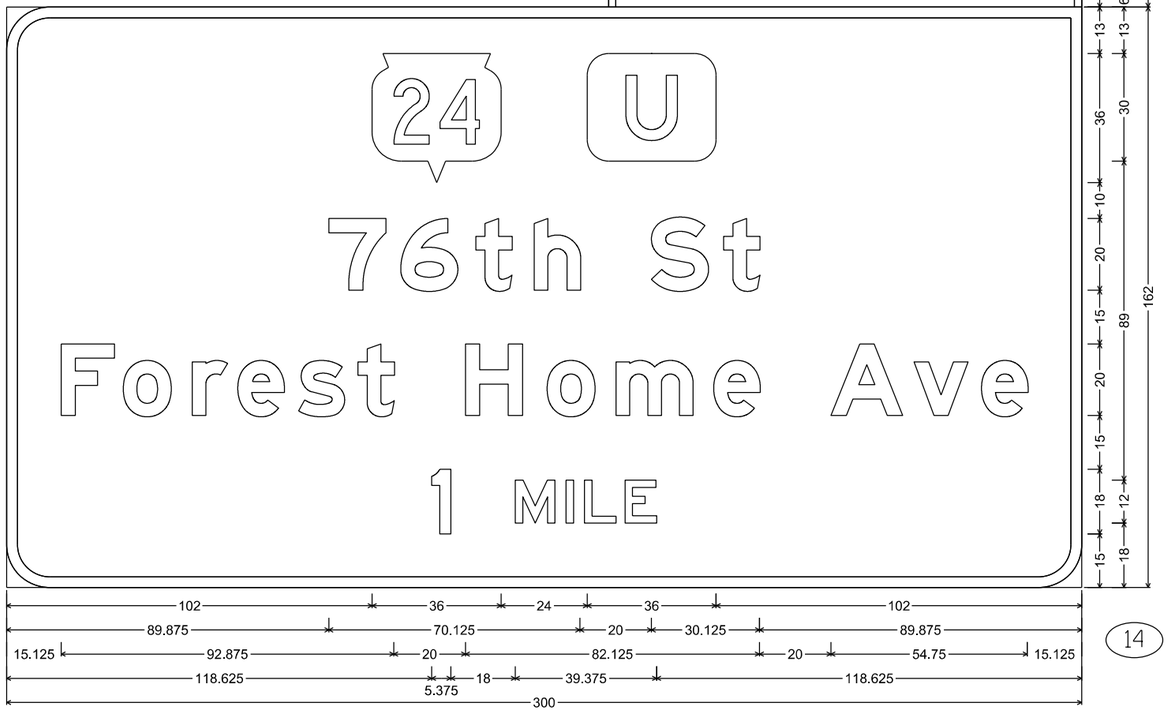
E3-1; 12.000" Radius, 2.000" Border, White on, Brown



E3-1; 9.000" Radius, 2.000" Border



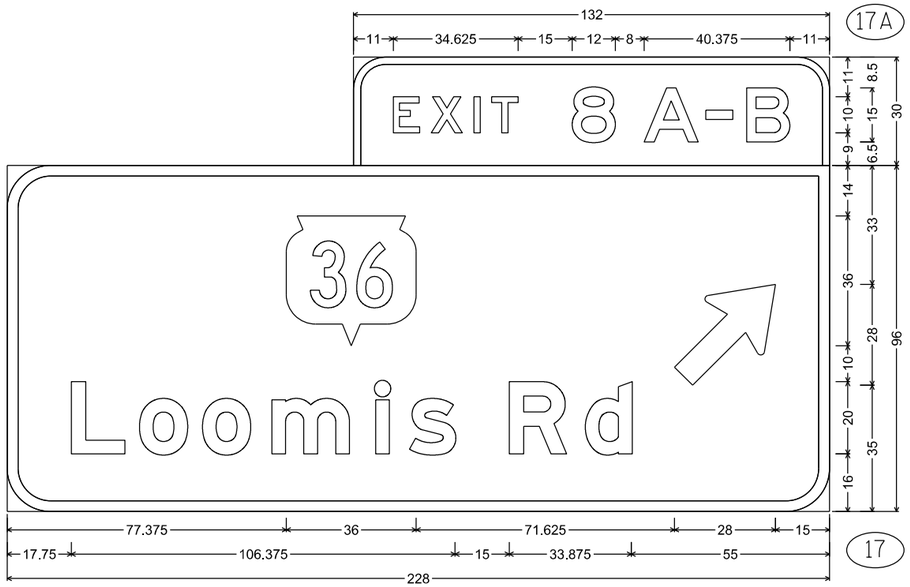
E3-1; 6.000" Radius, 2.000" Border



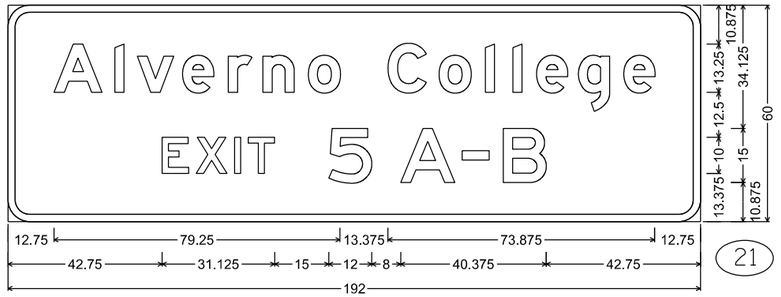
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 12.000" Radius, 3.000" Border

NOTES

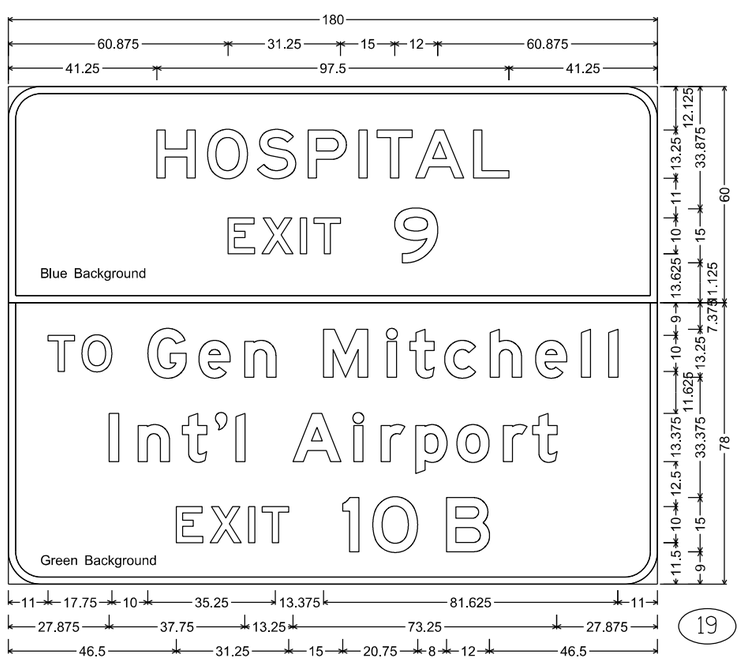
1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E Modified except all Cap Words Series E



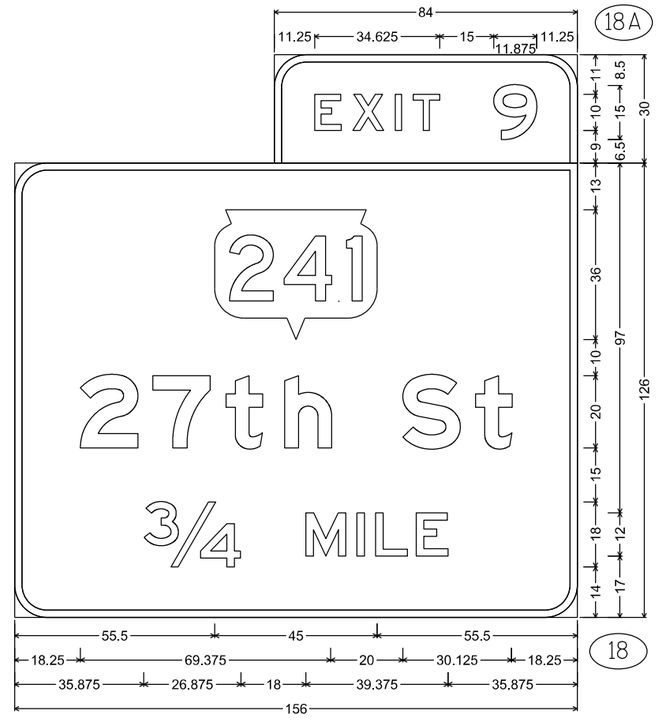
E1-5P; 9.000" Radius, 2.000" Border
E4-1A; 12.000" Radius, 3.000" Border



E3-1; 6.000" Radius, 2.000" Border



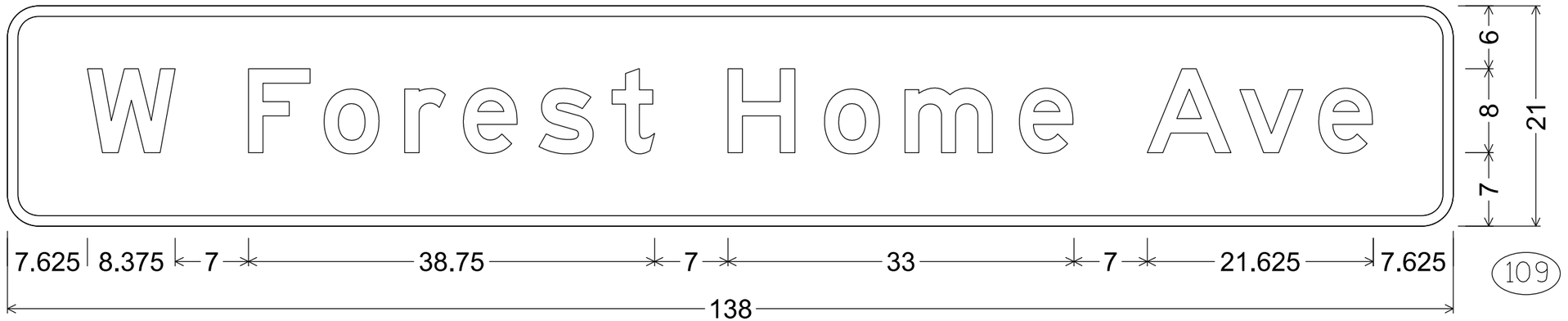
9.000" Radius, 2.000" Border, White on, Blue;
E3-1; 9.000" Radius, 2.000" Border, White on, Green



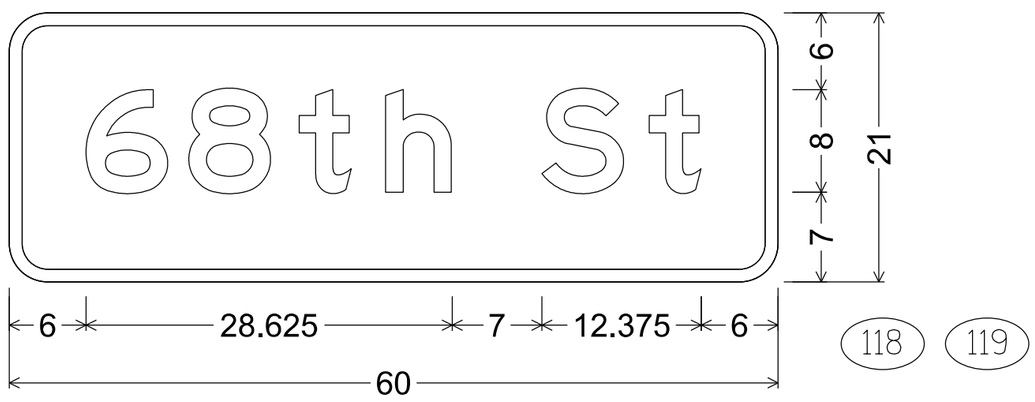
E1-5P; 9.000" Radius, 2.000" Border
E1-1A; 9.000" Radius, 2.000" Border

NOTES

1. Signs are Type II- Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



M1-94; 3.000" Radius, 1.000" Border

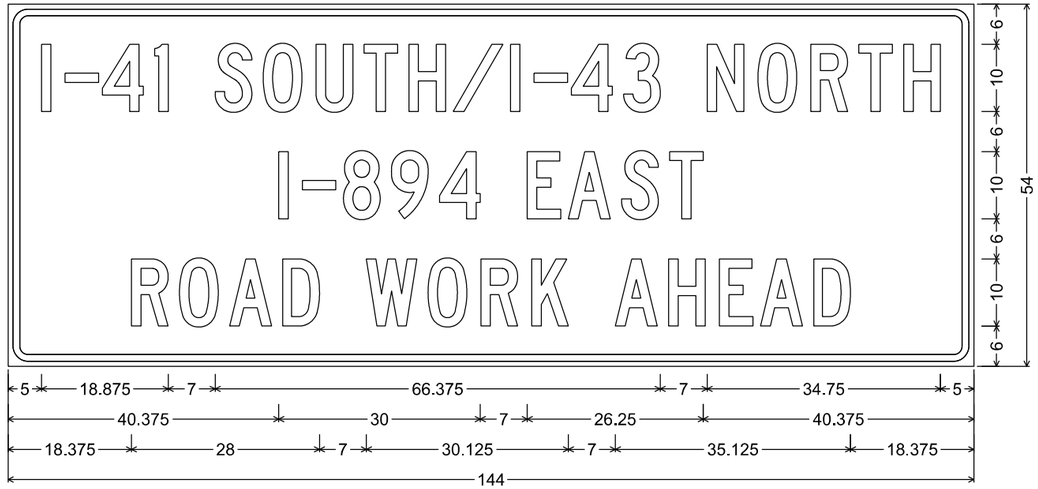


M1-94; 3.000" Radius, 1.000" Border

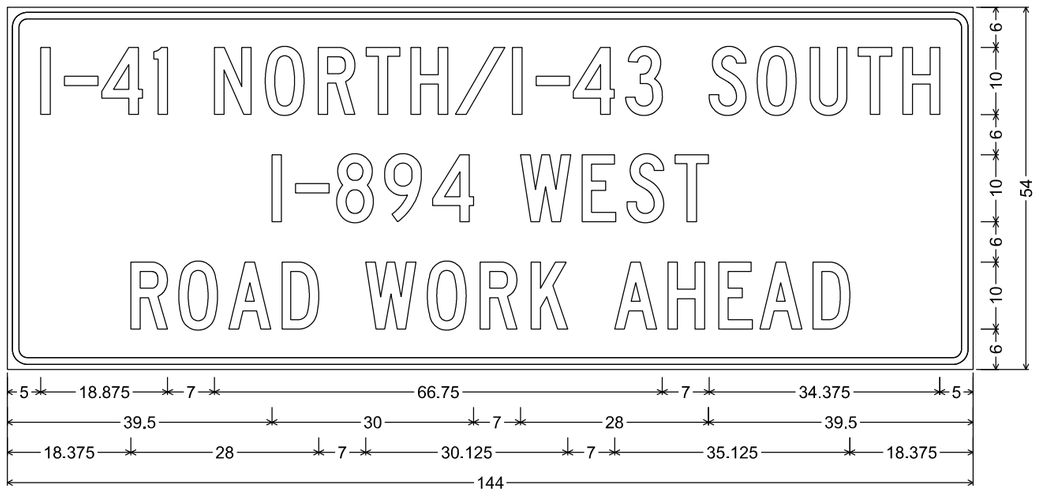
7

7

PROJECT NO: 1100-45-70	HWY: IH 43/894	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 645	E



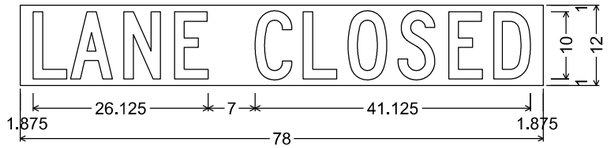
3.000" Radius, 1.000" Border, 0.750" Indent



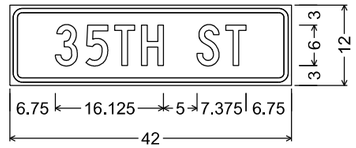
3.000" Radius, 1.000" Border, 0.750" Indent

NOTES

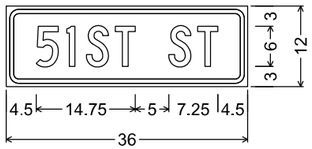
1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



No border, Black on, Fluorescent orange



1.875" Radius, 0.625" Border, 0.500" Indent



1.875" Radius, 0.625" Border, 0.500" Indent

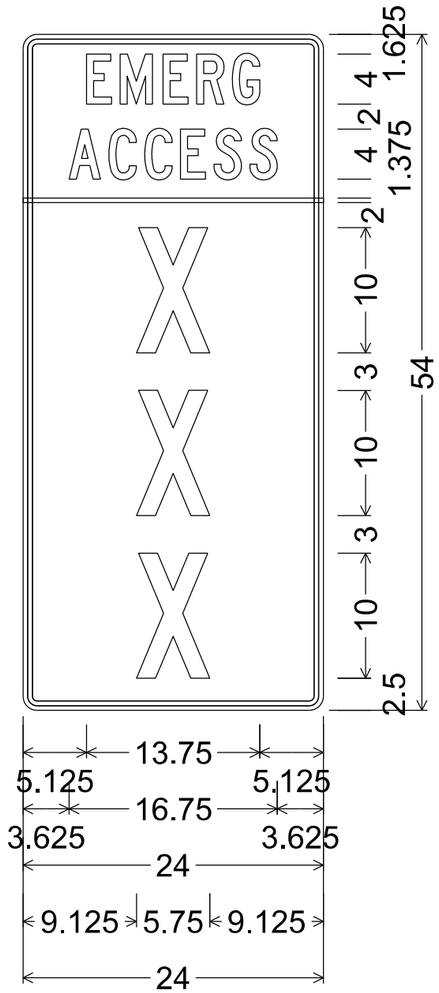
7

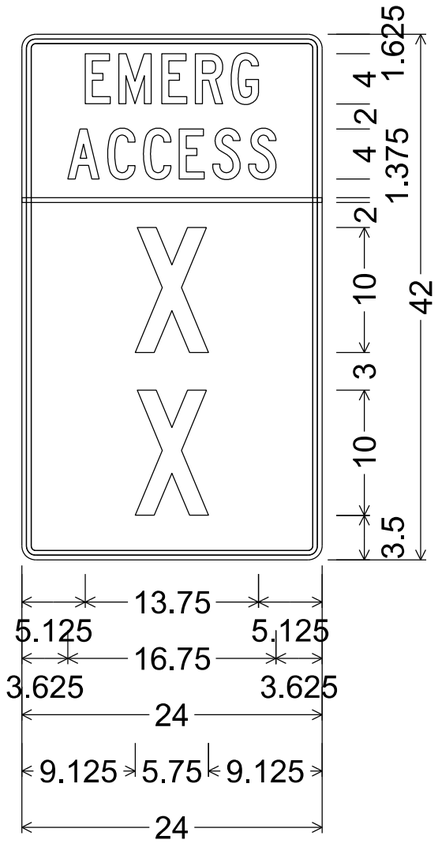
7

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 646	E

NOTES

1. Fixed Message Signs Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C



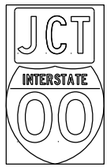


7

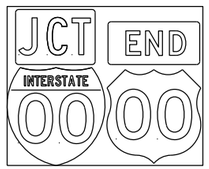
7

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 647	E

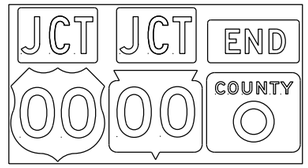
TYPICAL ASSEMBLIES



J1-1



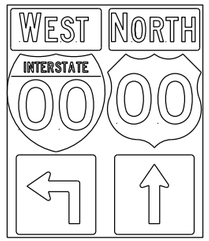
J1-2



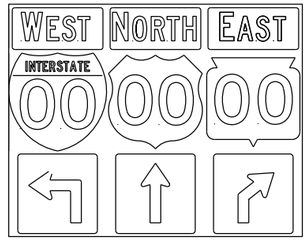
J1-3

JR1-1

J2-1

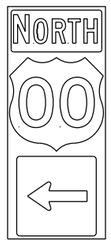


J2-2

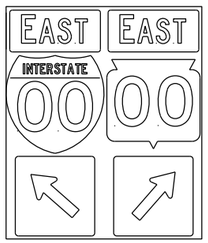


J2-3

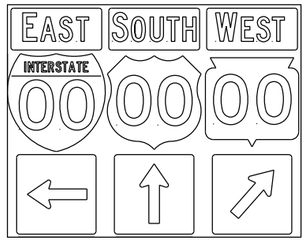
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



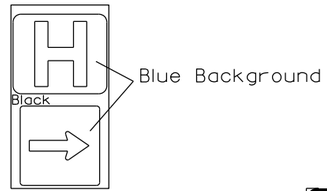
J3-1



J3-2

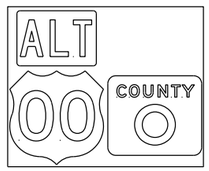


J3-3

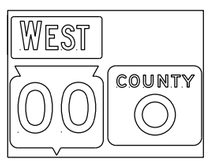


JH-1

J4-1

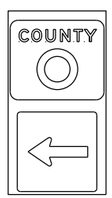


J4-2



J4-2

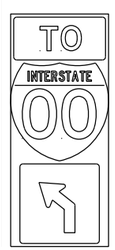
J12-1



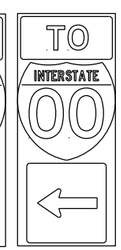
J13-1

J32-1

J33-1



J22-1

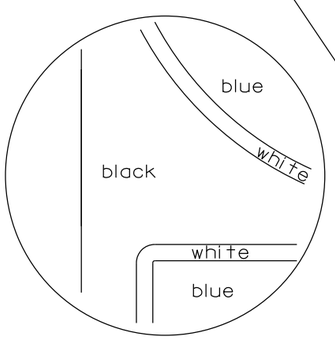


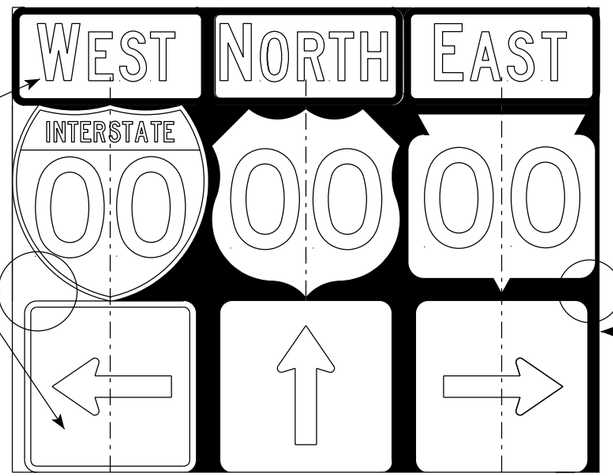
J23-1

JR13-1

JR23-1

JR99-1





NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

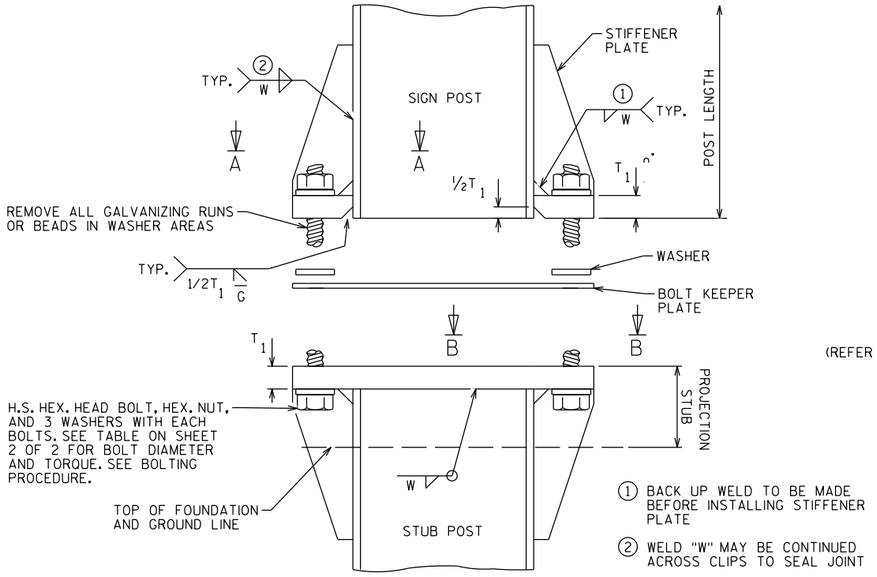
SHEET NO: 648 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate_A21S.dgn PLOT DATE : 18-MAR 2021 1:37 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

7

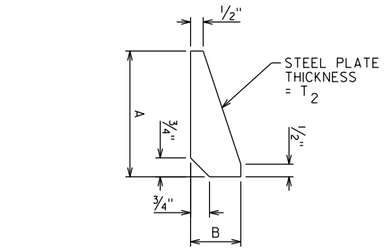
7



① BACK UP WELD TO BE MADE BEFORE INSTALLING STIFFENER PLATE

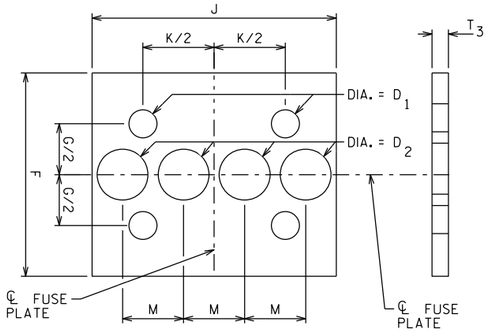
② WELD "W" MAY BE CONTINUED ACROSS CLIPS TO SEAL JOINT

SIGN POST & STUB POST ELEVATION



STIFFENER PLATE DETAIL

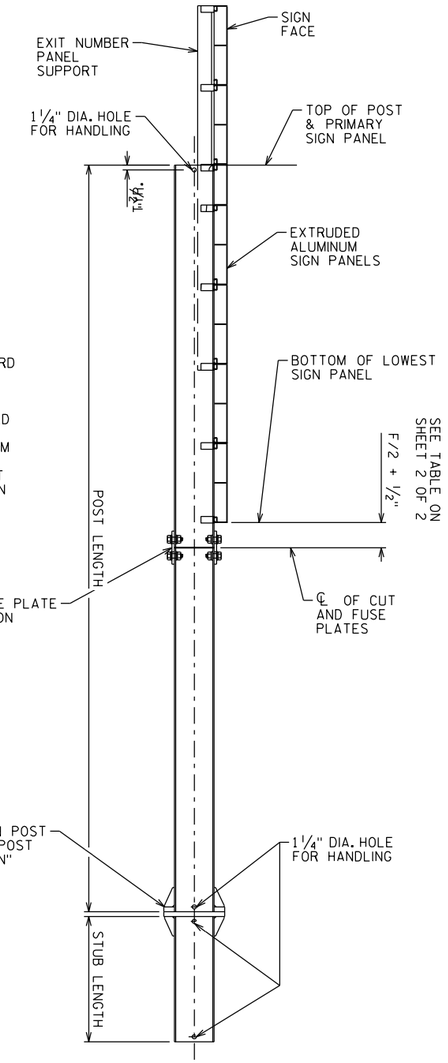
(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



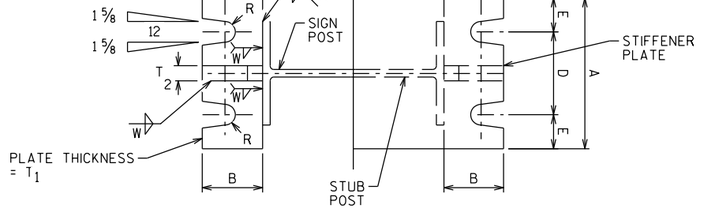
PERFORATED FUSE PLATE DETAIL

USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. INSTALL BOLTS PER THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 506.3.12.3.

ALL HOLES SHALL BE DRILLED, SUB-PUNCHED AND REAMED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36. ASTM A572 GRADE 50 OR ASTM A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. MILL TEST REPORTS SHALL BE SUBMITTED FOR FUSE PLATES. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.

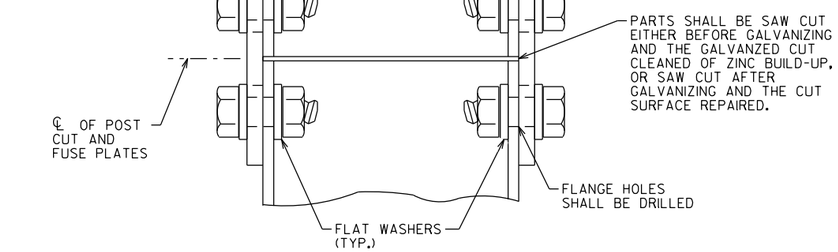


POST DETAIL

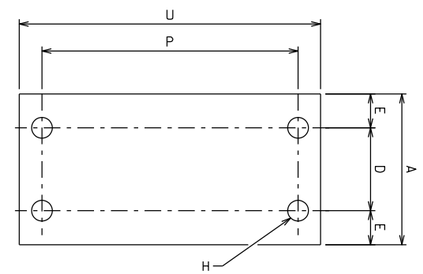


SECTION A-A

SECTION B-B



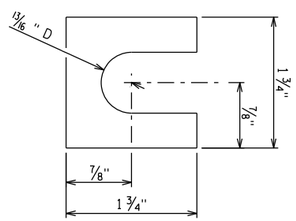
FUSE PLATE CONNECTION DETAIL



H = BOLT DIA. + ⅛"

BOLT KEEPER PLATE DETAIL

30 GA GALVANIZED SHEET STEEL



SHIM DETAIL

FURNISH TWO .012"± THICK AND TWO .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B36.

BOLTING PROCEDURE FOR BASE CONNECTION

1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING, LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

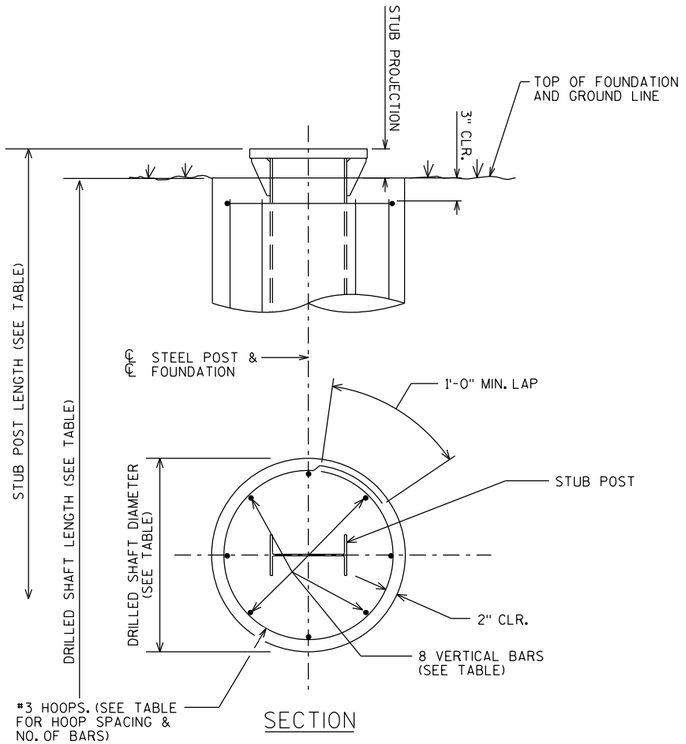
CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.20

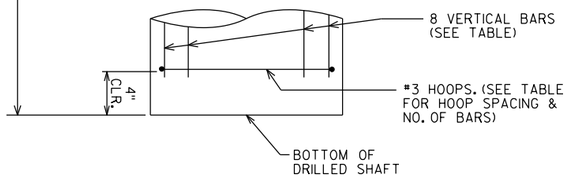
649

7

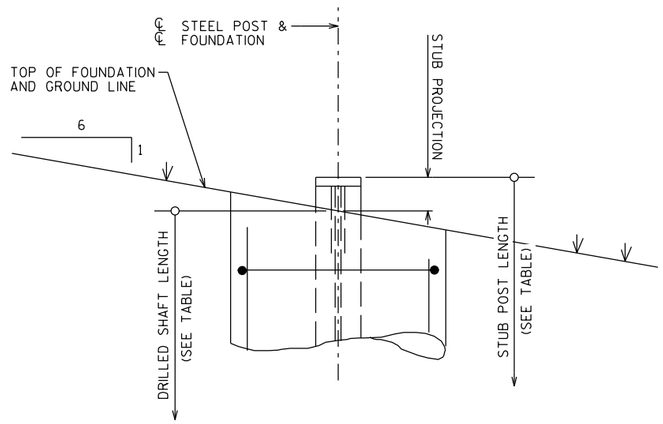
7



SECTION



FOUNDATION DETAIL



SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME ◆	TOTAL REINF. WEIGHT ◆
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA: BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	BOLT KEEPER PLATE DATA: P	U	PERFORATED FUSE PLATE DATA: F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V ◪
W6X15	15 LB	⅝" DIA. X 4" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	1¼"	½"	¼"	11/32"	8½"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2	73.0 LB
W8X18	18 LB											10⅝"	12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2	83.0 LB
W8X21	21 LB	¾" DIA. X 4¾" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1½"	¾"	5/16"	13/32"	11"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	124.0 LB
W10X22	22 LB											12⅞"	14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	134.0 LB
W12X26	26 LB											15"	16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	152.0 LB

◪ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST = V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST, FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.

H.S. BOLTS, WASHERS, & NUTS SHALL BE A325 GALVANIZED.

FOUNDATION MATERIAL PROPERTIES

CONCRETE MASONRY	F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60	FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRANCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE SAND) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 2 OF 2

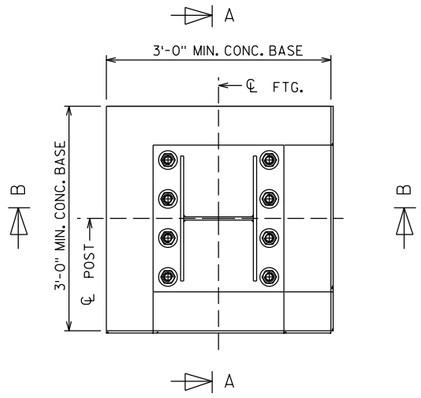
SHEET A3-1.20

650

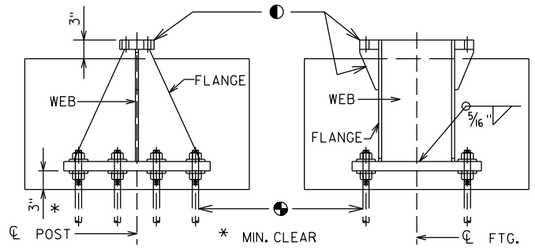
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 3-MAR-2020 PLOT BY : dotc4c

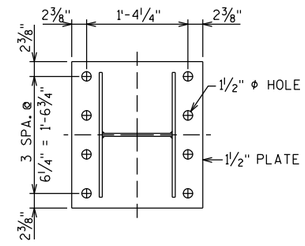
STUB AND ADHESIVE ANCHOR DETAILS



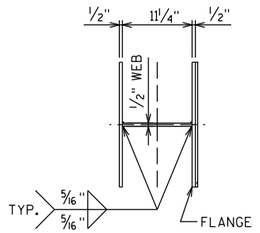
STUB SECTION



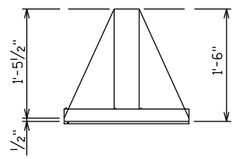
SECTION A-A SECTION B-B



BASE PLATE



STUB



FLANGE

◐ SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.

◔ ADHESIVE ANCHORS 1¼-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

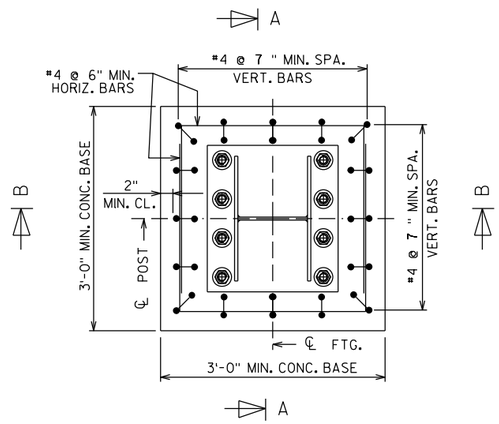
GENERAL NOTES:

QUANTITIES PER BASE:
REINFORCING STEEL = 62 LB
CONCRETE = 0.6 CY
STRUCTURAL STEEL = 335 LB

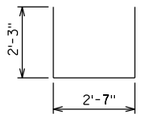
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

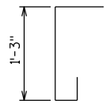
CONCRETE BASE DETAILS



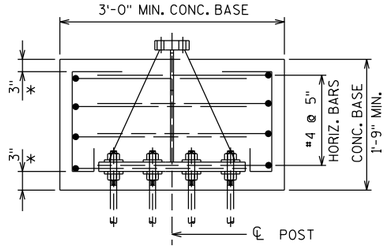
CONCRETE BASE PLAN



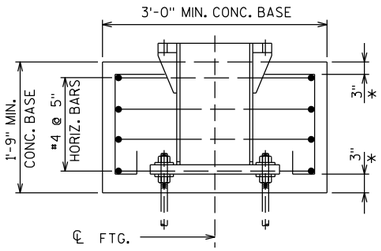
HORIZONTAL BAR
8 BARS @ 6'-11" LENGTH



VERTICAL BARS
16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A-A



SECTION B-B

* MIN. CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

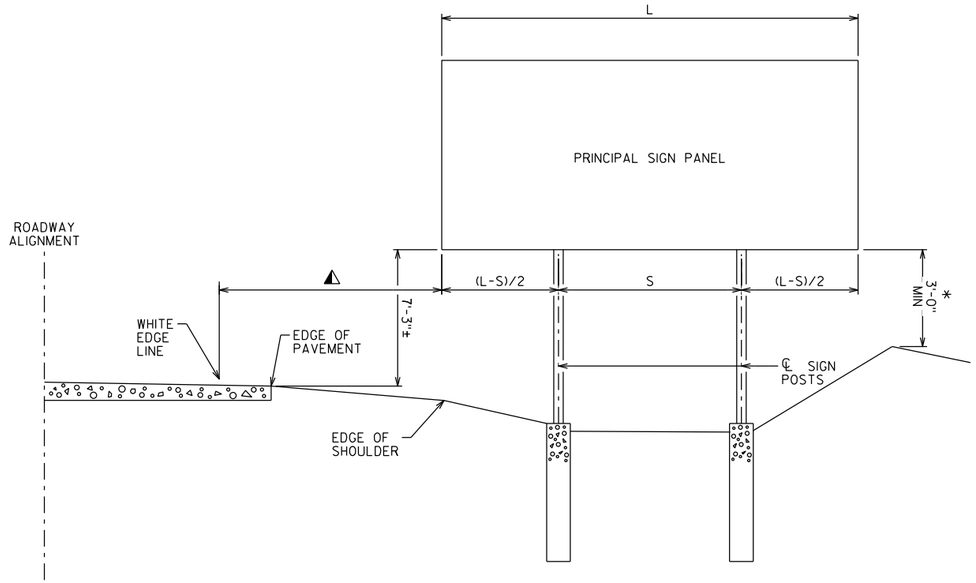
STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

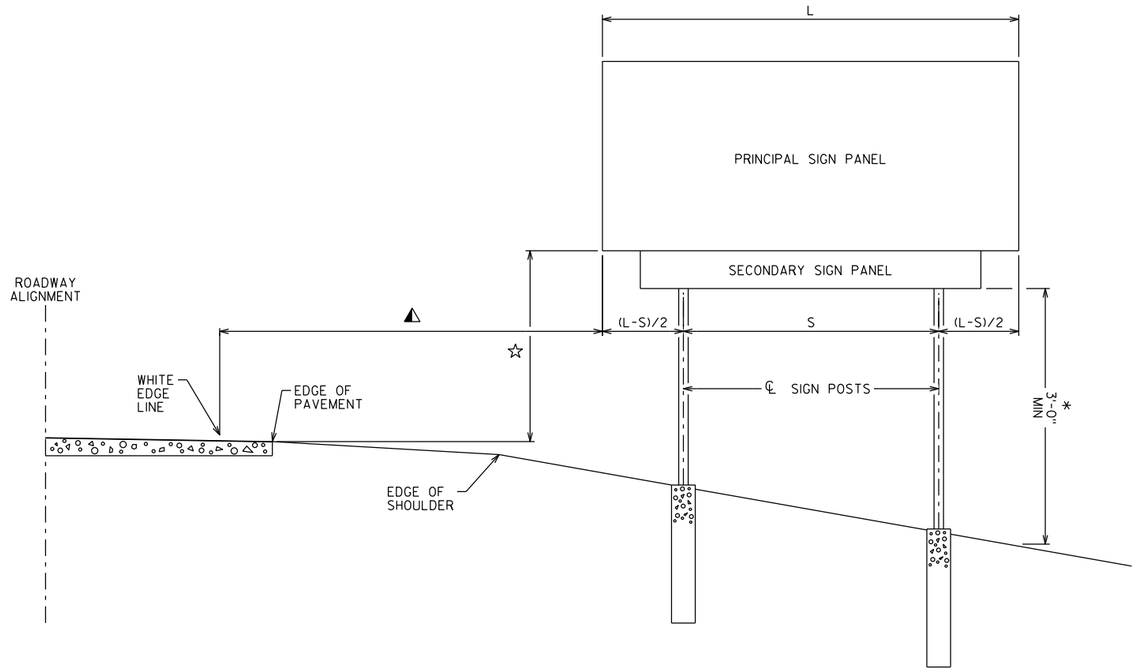
ALTERNATE BREAK-AWAY BASE ON ROCK

SHEET A3-1M.2

651



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

⚠ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

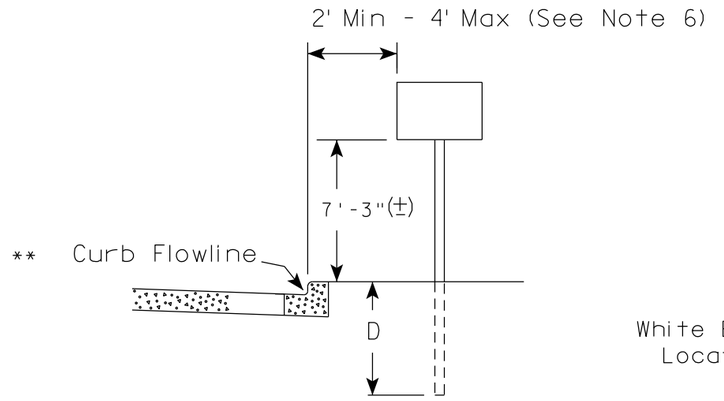
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

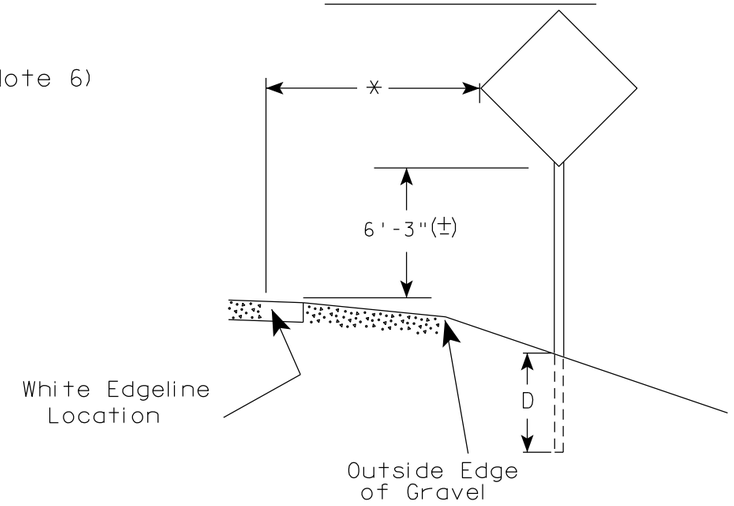
SHEET A4-1.10

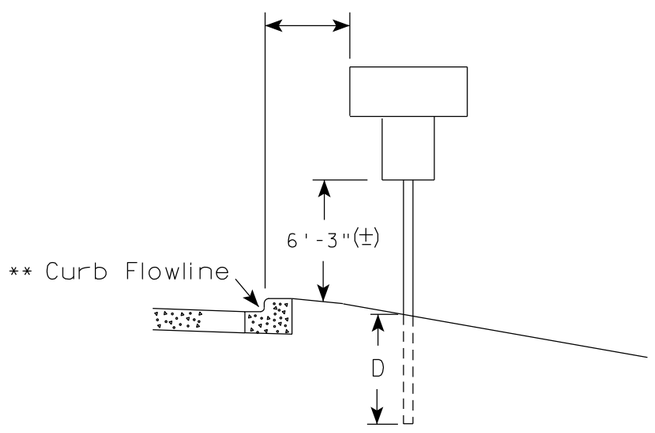
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 652 | E

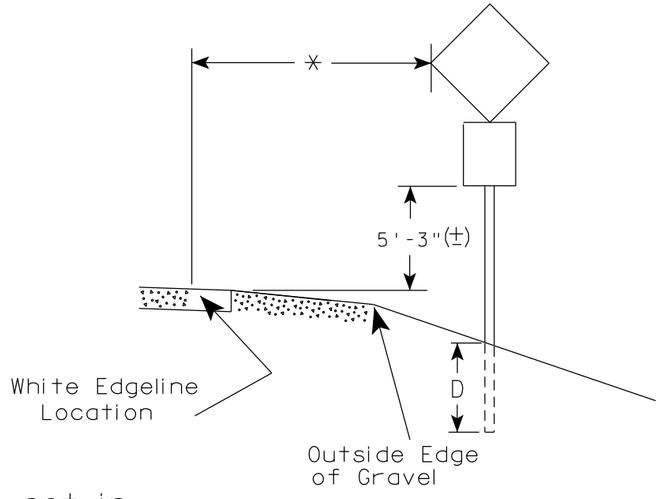
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

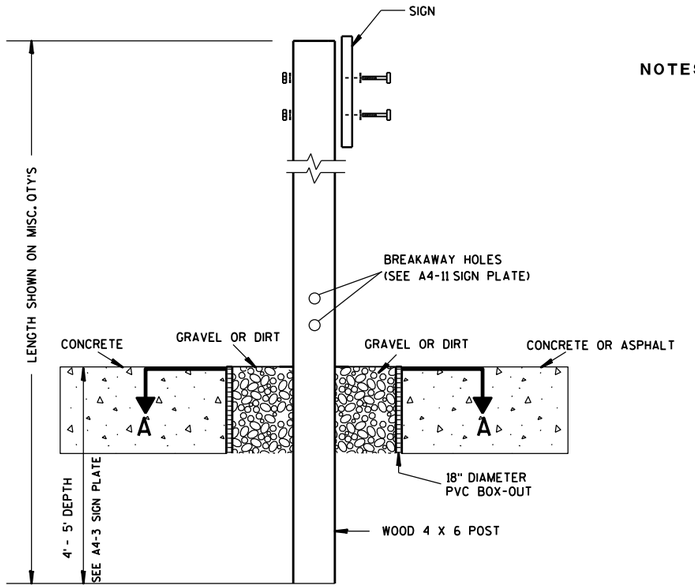
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

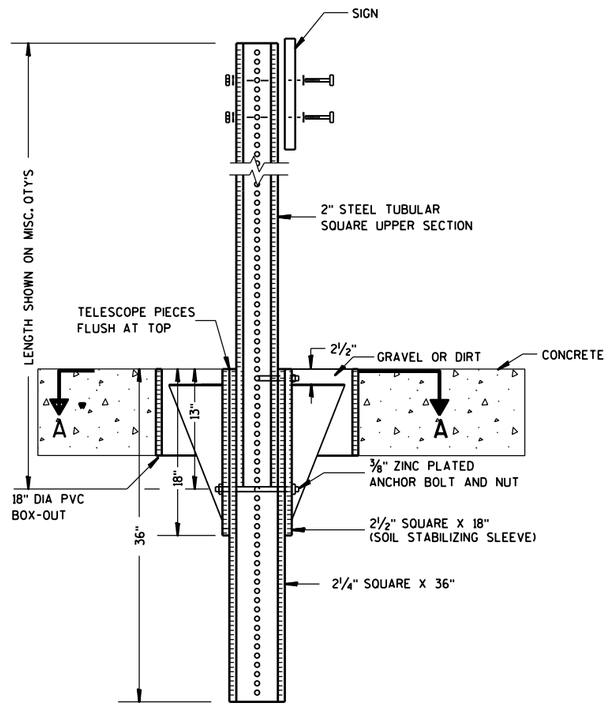
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 653	E



ELEVATION VIEW

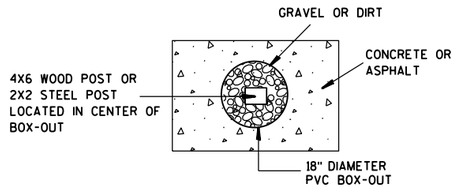
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

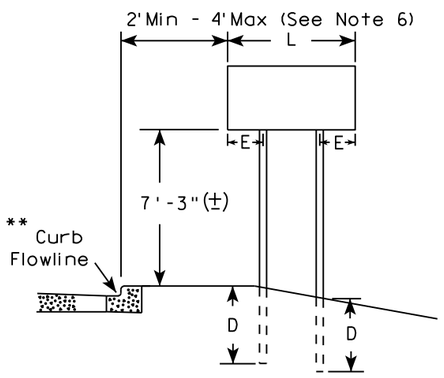
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

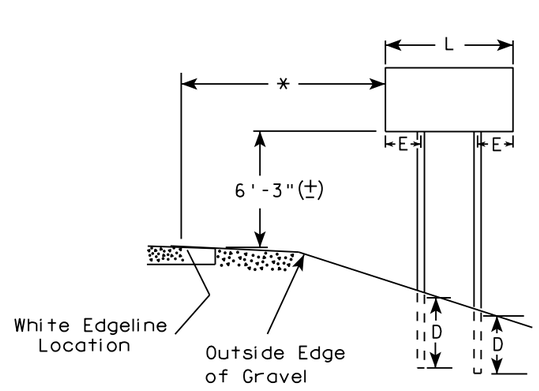
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

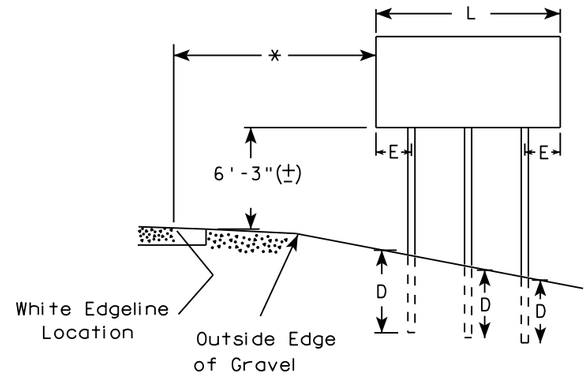
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

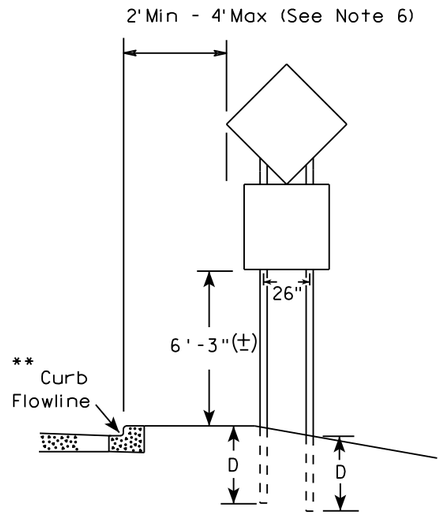
URBAN AREA



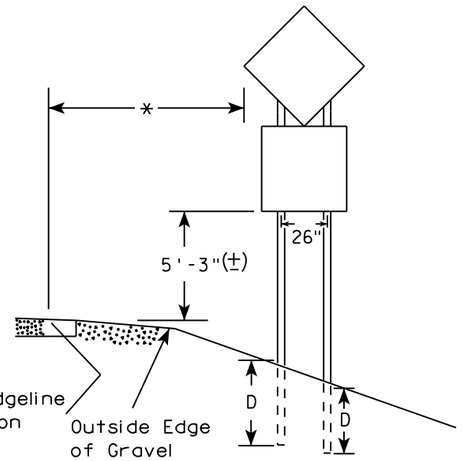
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

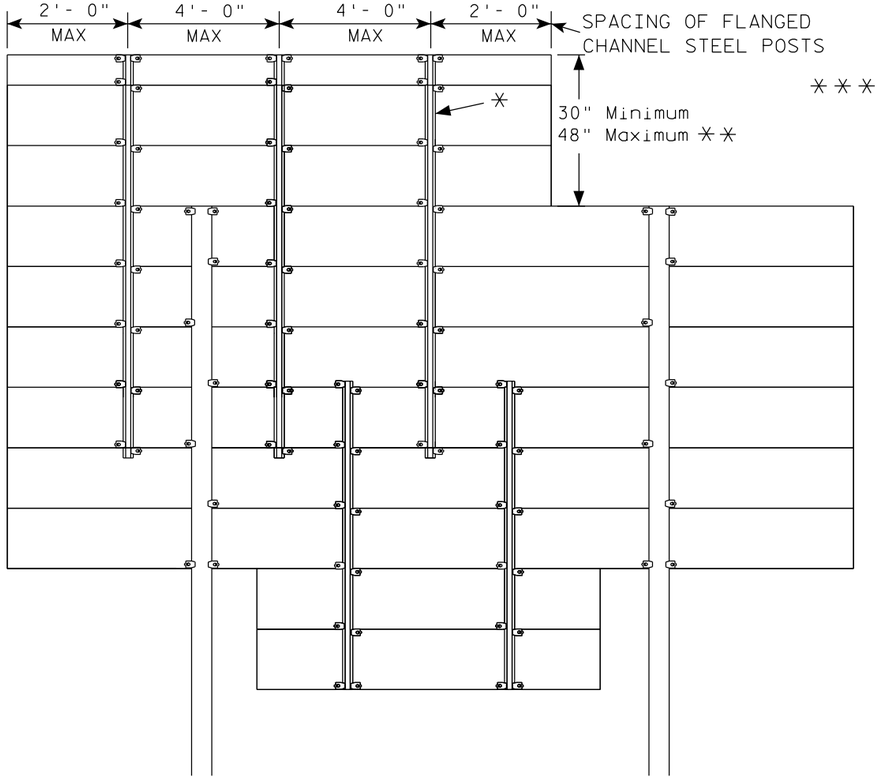
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 655	E

GROUND MOUNTED SIGN



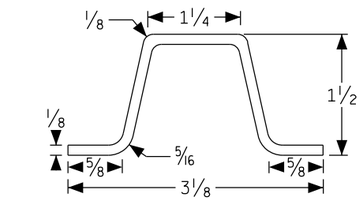
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

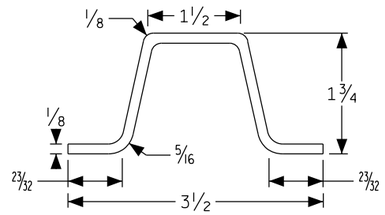
✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE

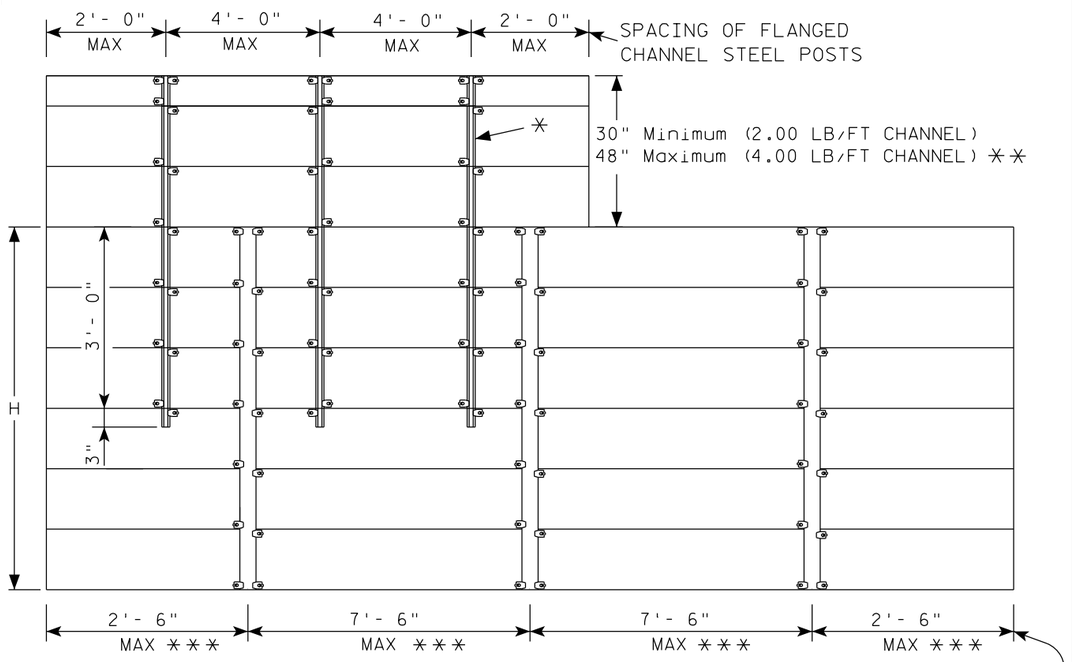


2.00 LB/FT CHANNEL



4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

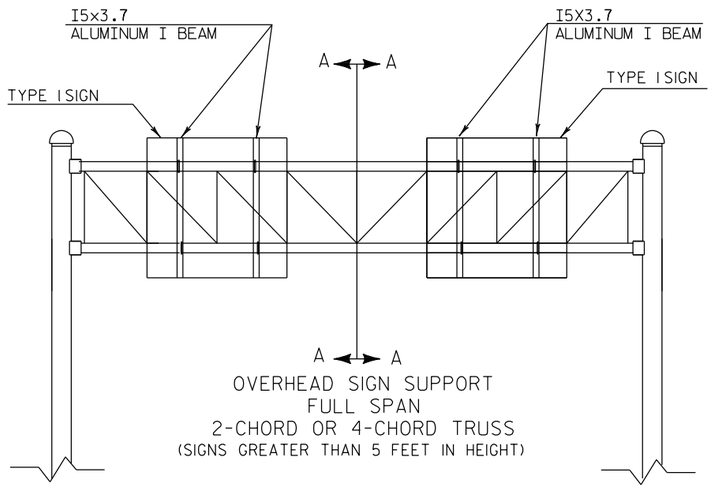
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

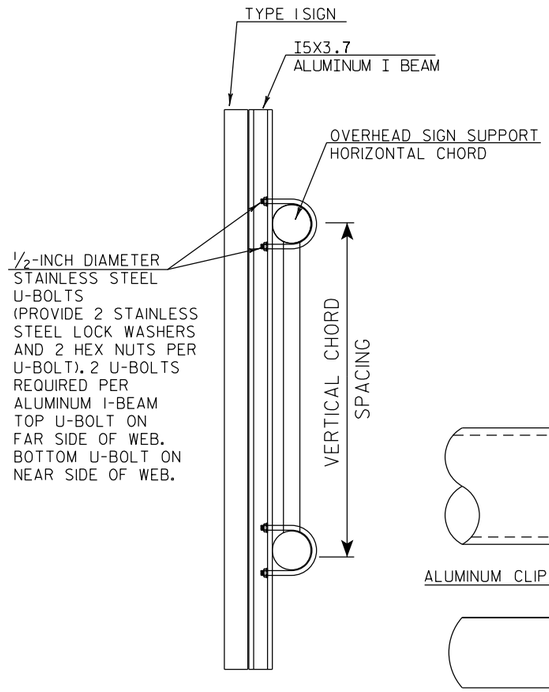
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

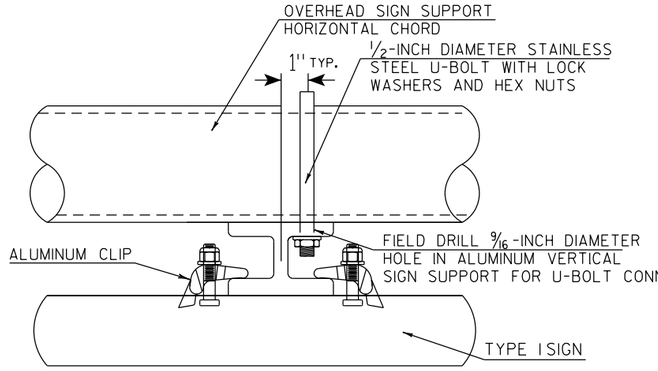
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



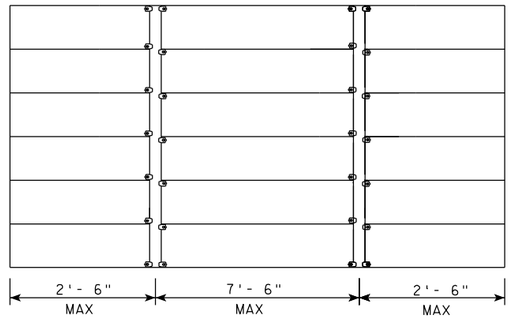
CUT SECTION A-A



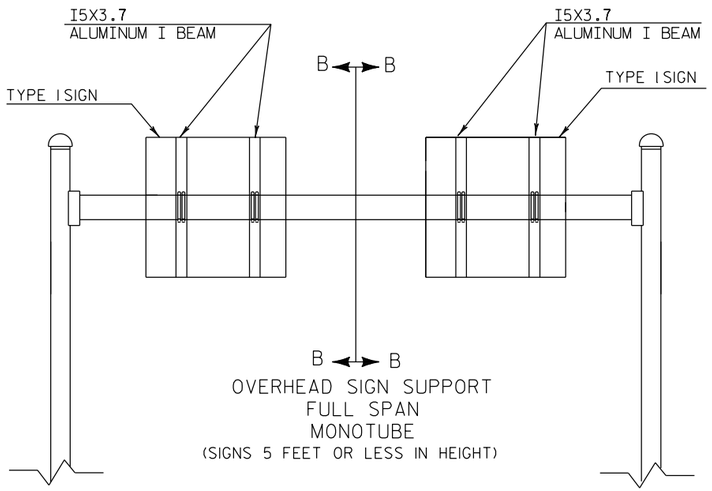
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

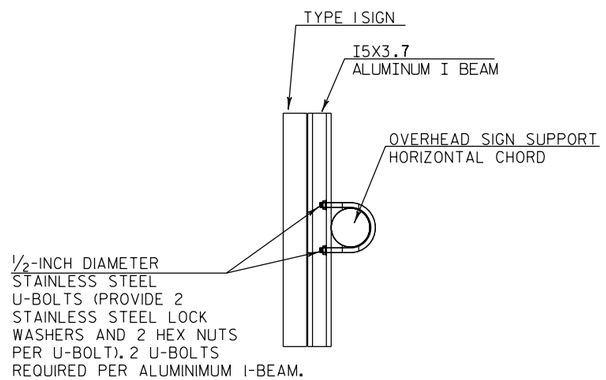
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



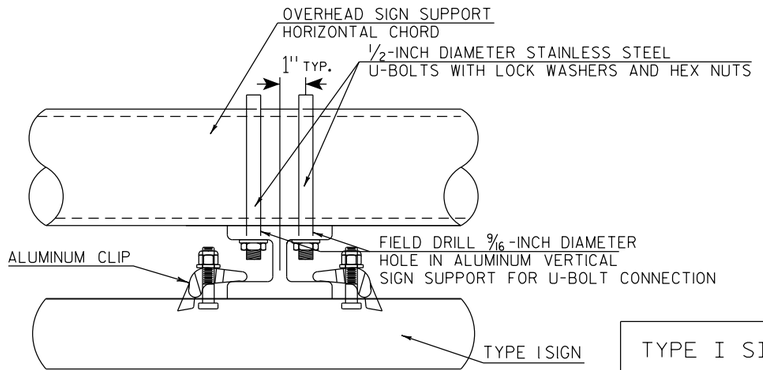
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

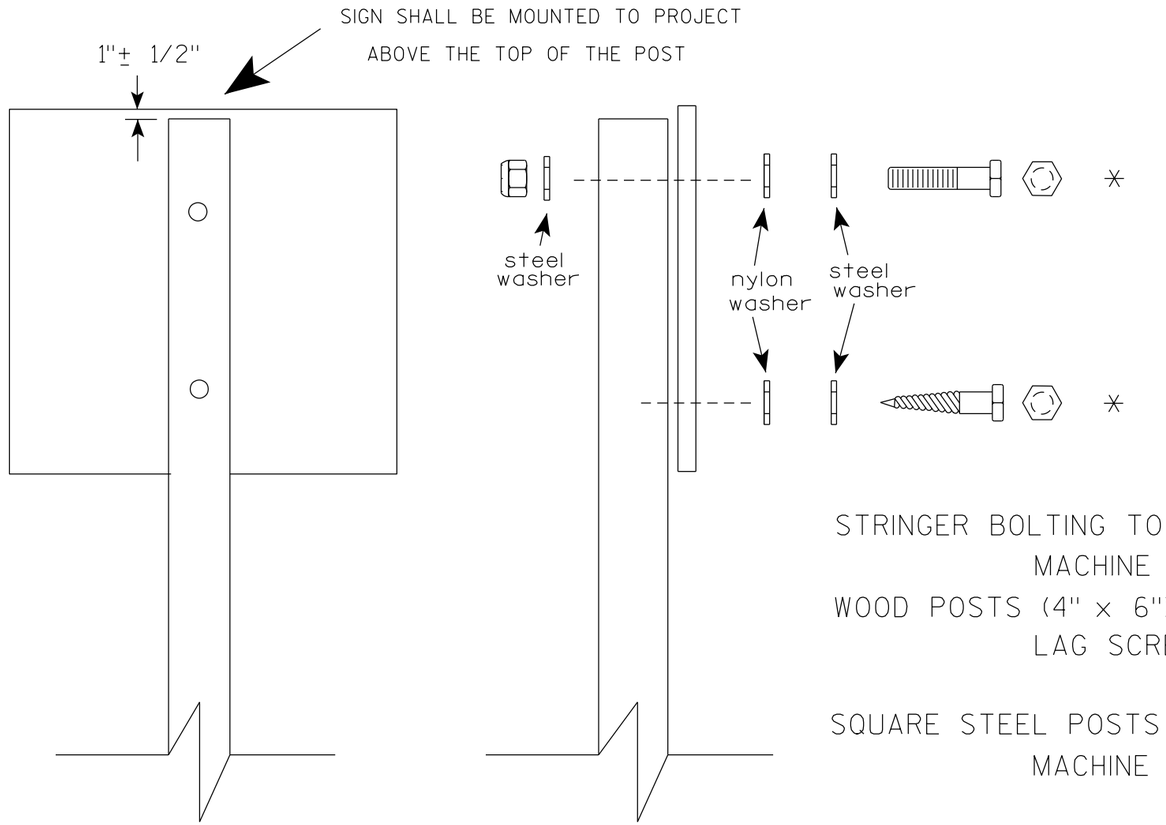
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 657	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

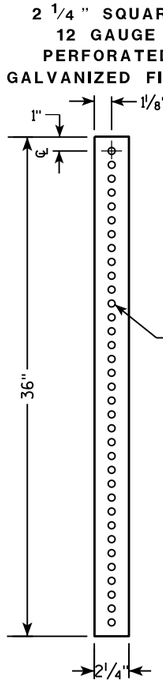
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

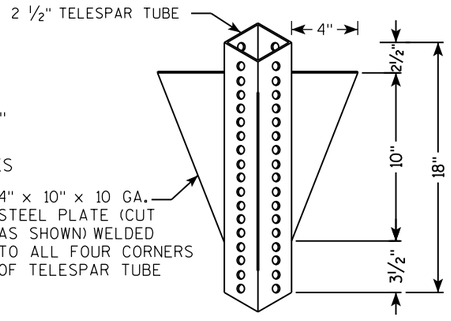
SHEET NO: 658 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

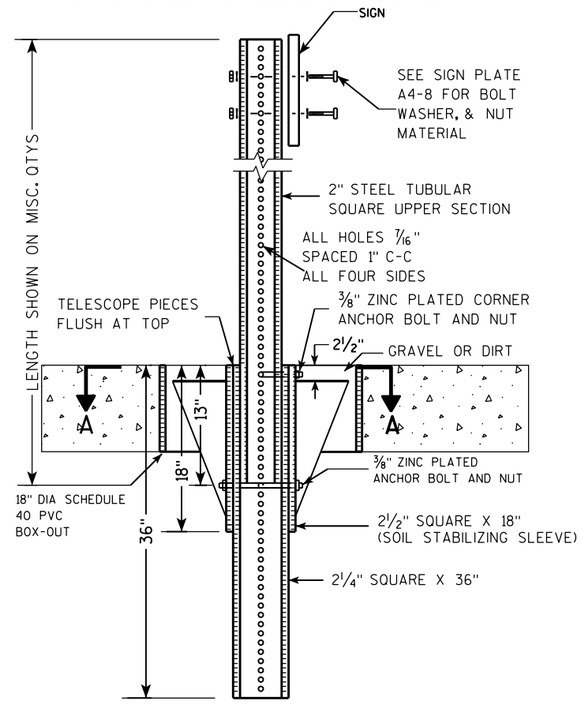
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



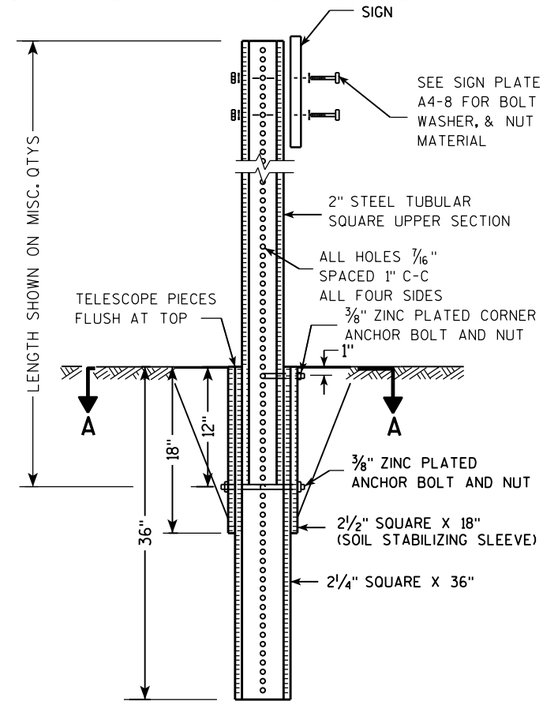
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

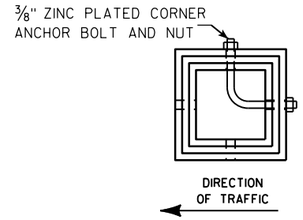


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

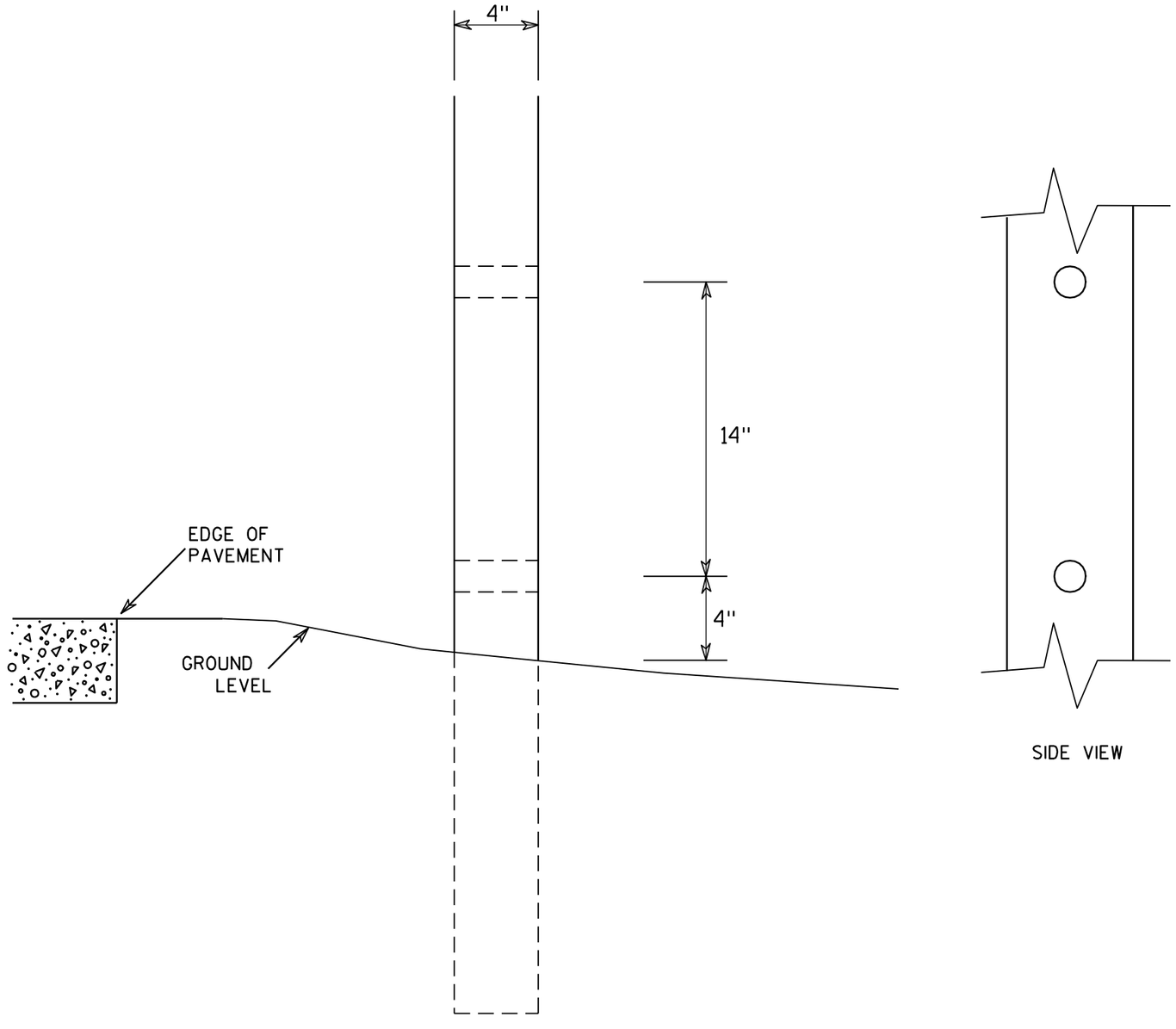
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 659 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

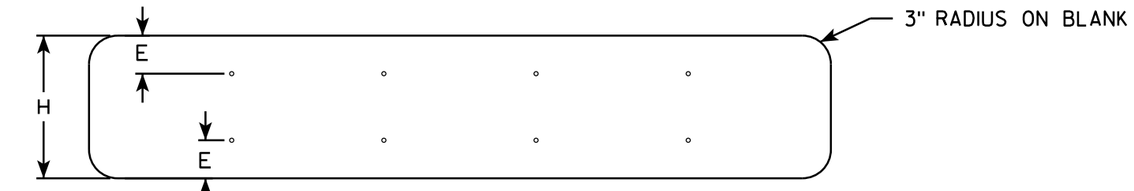
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

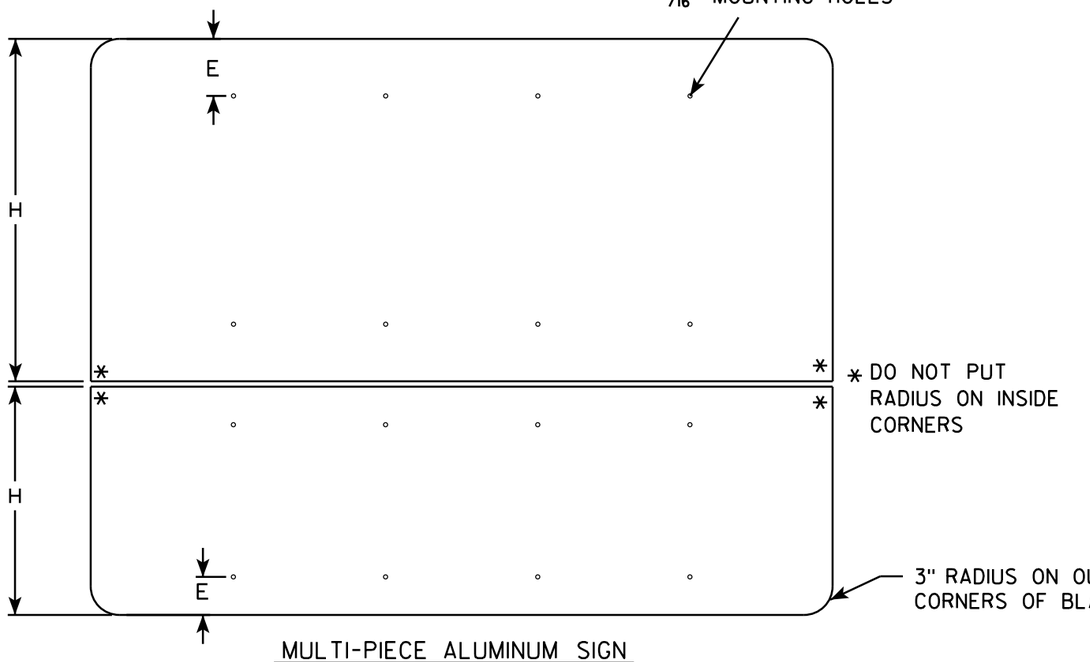
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 660	E



SINGLE PIECE ALUMINUM SIGN

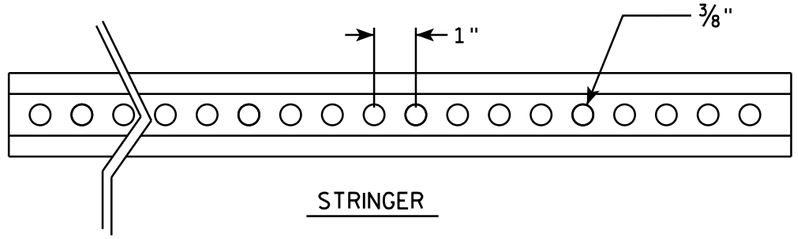


MULTI-PIECE ALUMINUM SIGN

GENERAL NOTES

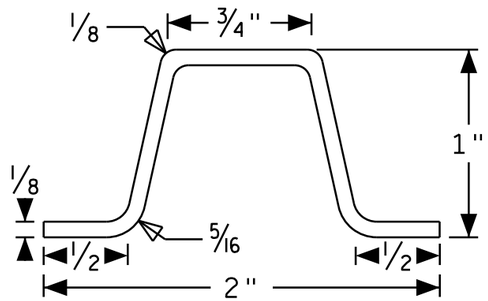
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

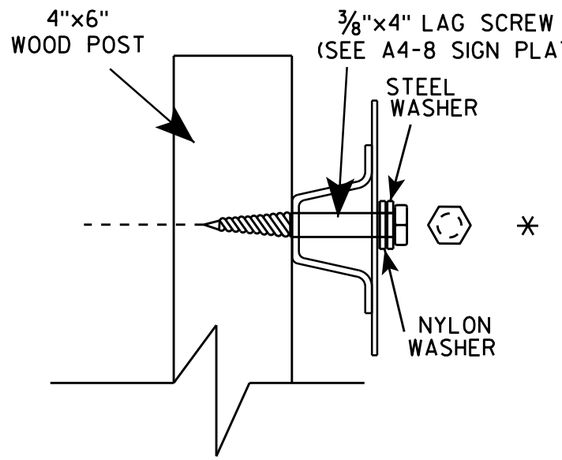


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

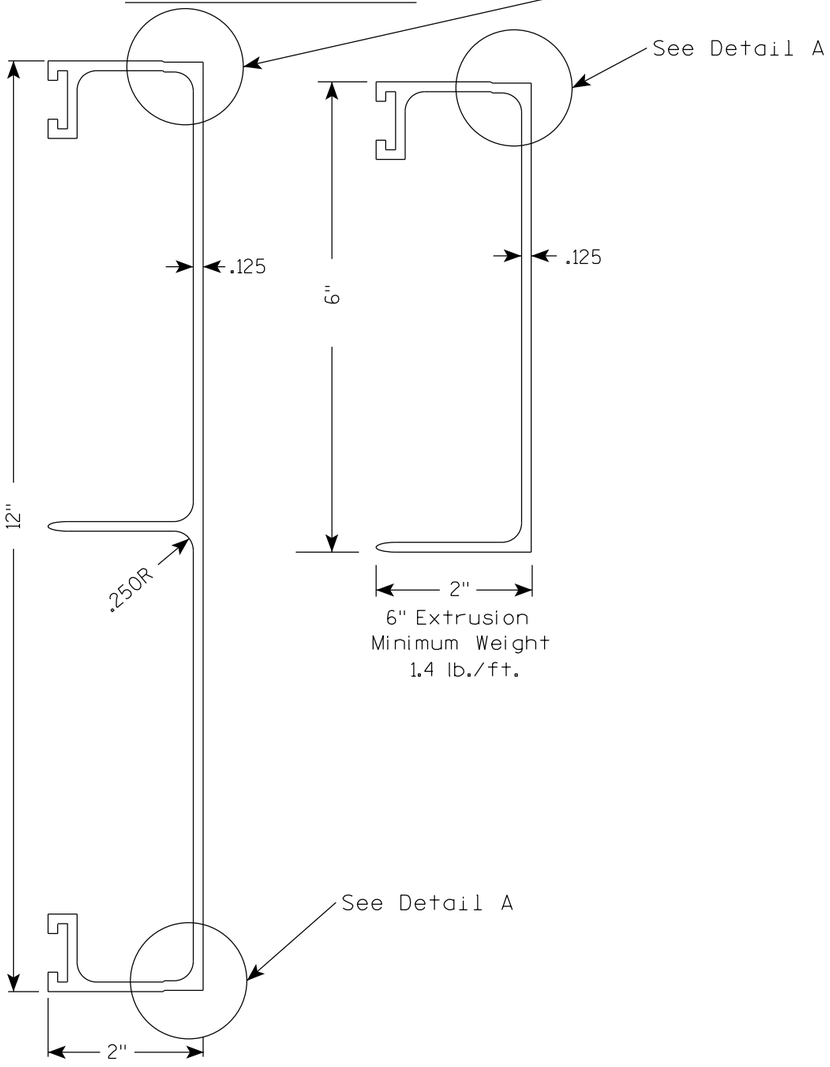
for State Traffic Engineer

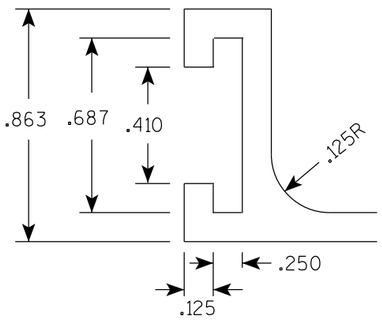
DATE 4/26/16 PLATE NO A4-18.1

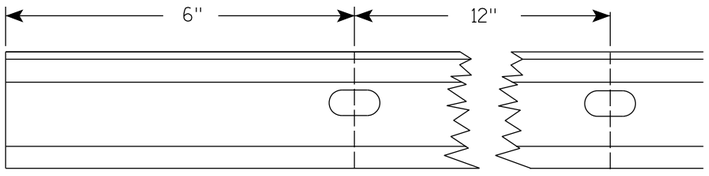
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







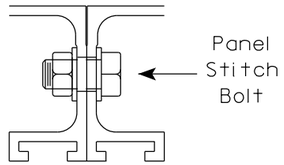
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

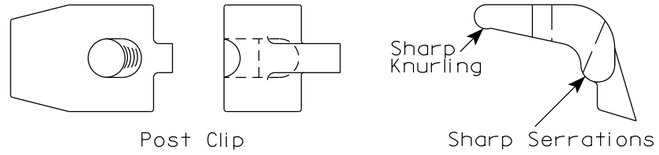
The hardware includes:

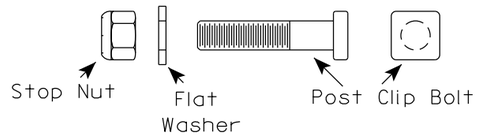
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

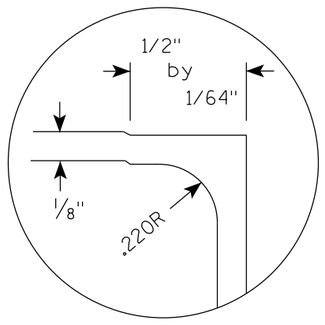
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

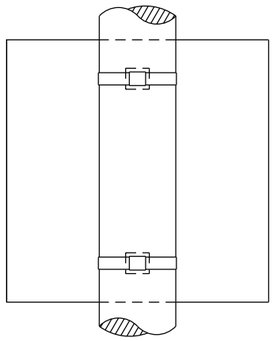
DATE 1/07/20 PLATE NO. A5-2.10

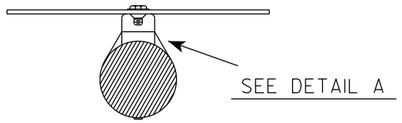
PROJECT NO:

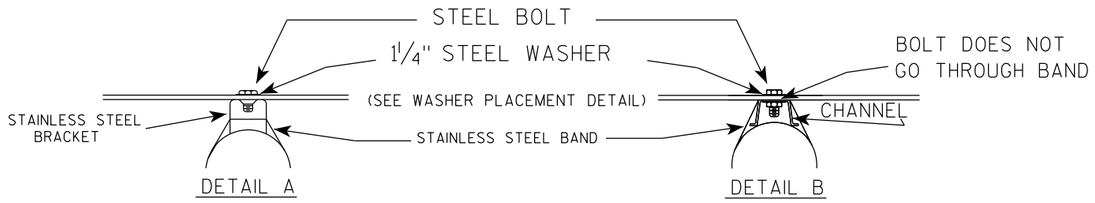
SHEET NO: 662 E

BANDING

SINGLE SIGN



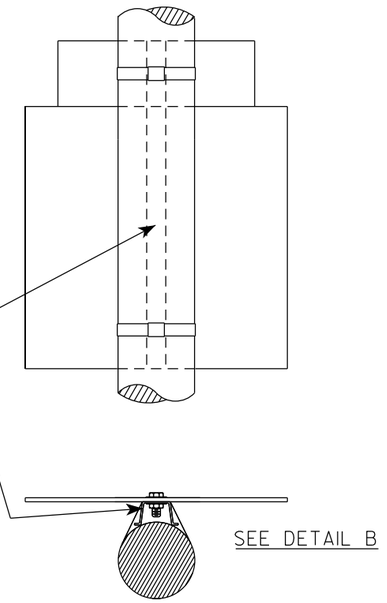




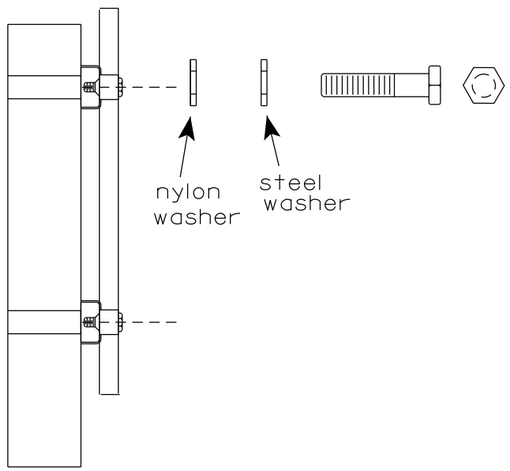
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

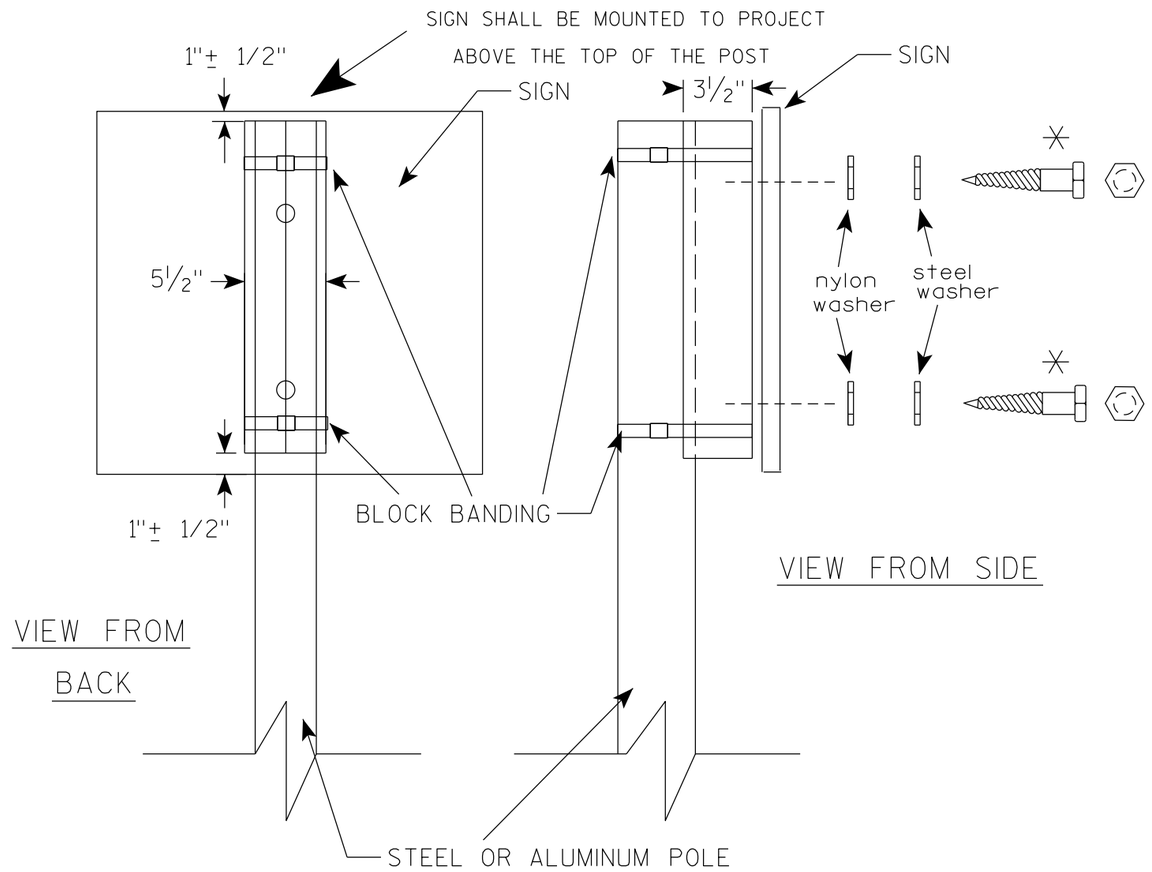
DATE 6/10/19 PLATE NO. A5-9.4

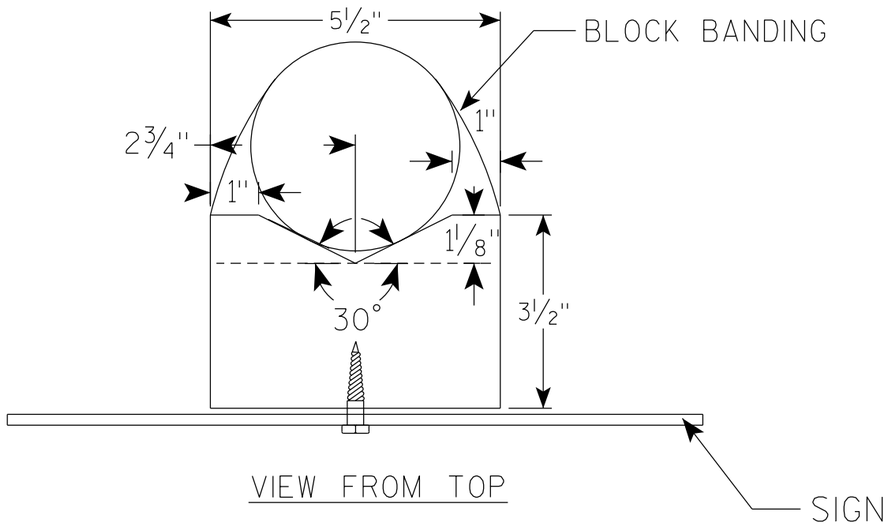
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 663	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

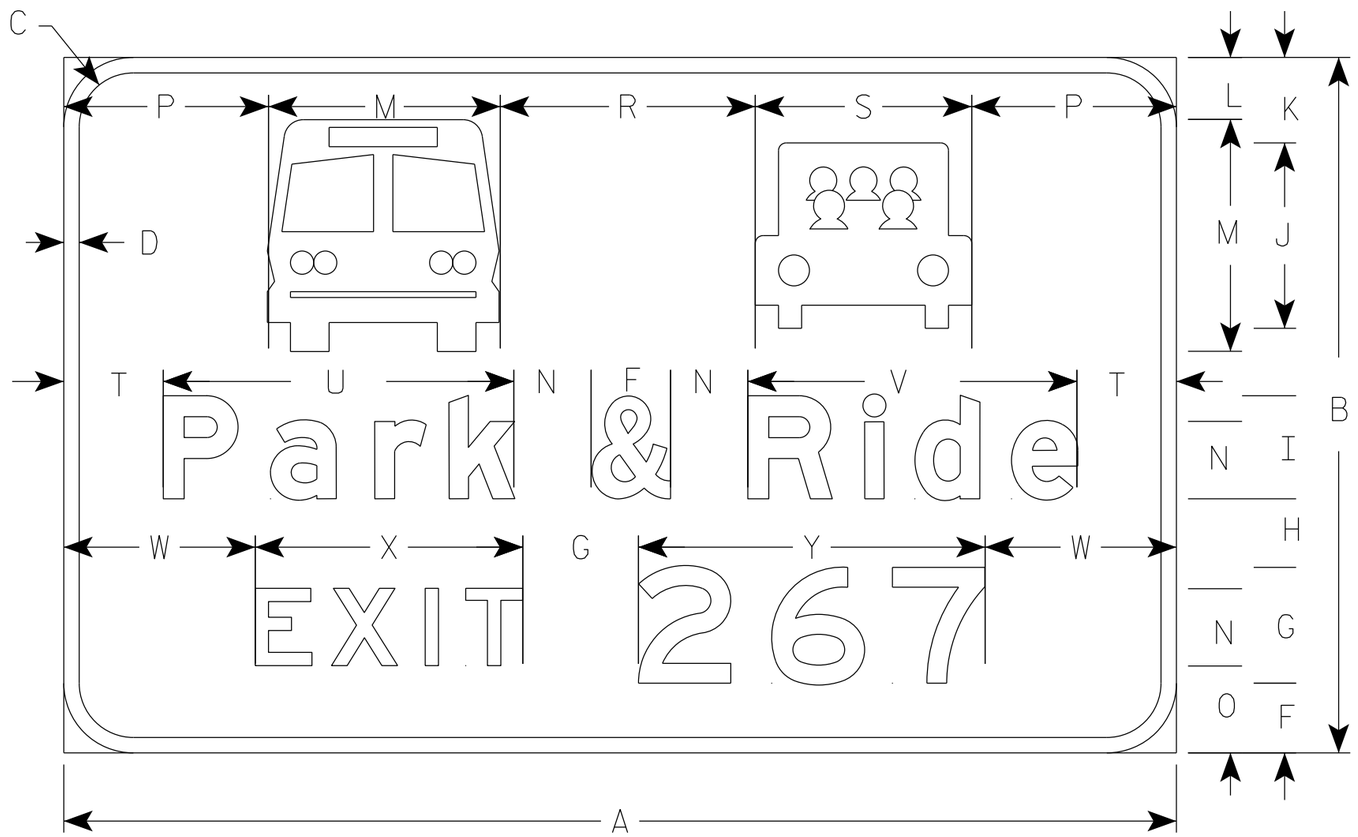
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 664 E



D4-3

NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	144	90	9	2		10 1/4	15	8 3/4	13 5/16	24	11	8	30	10	11 1/4	26 1/2		33	28	12 7/8	45 3/8	42 5/8	24 3/4	34 5/8	44 7/8		90.0
5	144	90	9	2		10 1/4	15	8 3/4	13 5/16	24	11	8	30	10	11 1/4	26 1/2		33	28	12 7/8	45 3/8	42 5/8	24 3/4	34 5/8	44 7/8		90.0

STANDARD SIGN
D4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/23/17 PLATE NO. D4-3.4

PROJECT NO:

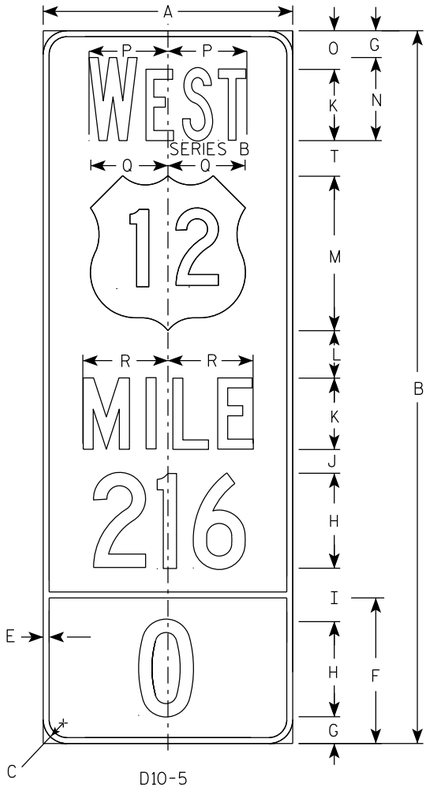
SHEET NO: 665 E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 42

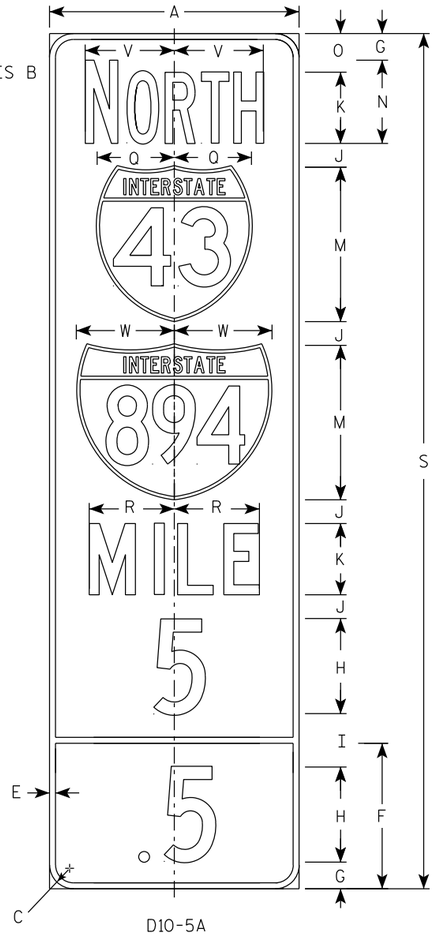
7

7

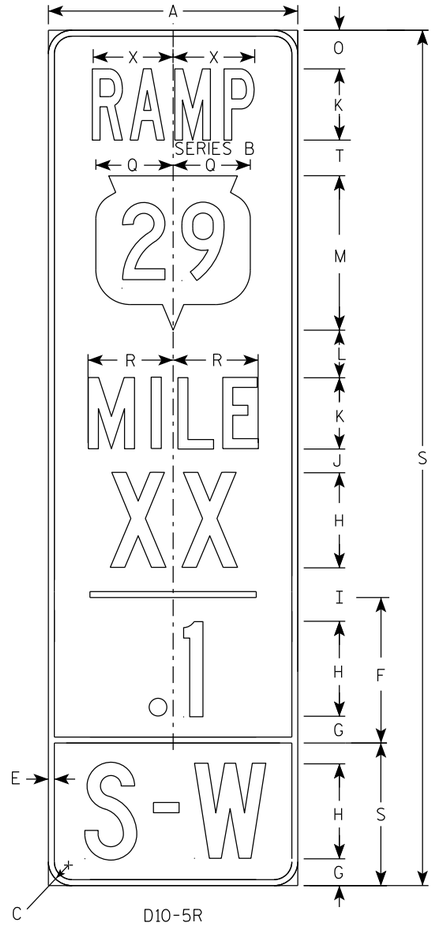


D10-5

SERIES B

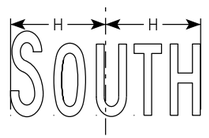


D10-5A



D10-5R

SERIES B



SERIES B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Interstate Shield Color
   Background - Top Red
   - Bottom Blue
   Message - White
4. Message Series - C or as noted on the Sign.
5. The decimal point is required for all digits except "0".
6. Optically adjust mileage numbers about the centerline of the sign to achieve proper balance.
7. Optically adjust Ramp direction letters about the centerline of the sign to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	D10-5 Area sq. ft.	D10-5A Area sq. ft.	D10-5R Area sq. ft.
1																													
2																													
3																													
4	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	6 ⅝	3 ¼	7	6 ½	7 ⅛	72	3		7 ½	8 ¼	6 ¾			8.75	10.5	10.5
5	21	60	1 ½		½	12 ¼	2 ¼	8	4 ½	2	6	4	13	6 ⅝	3 ¼	7	6 ½	7 ⅛	72	3		7 ½	8 ¼	6 ¾			8.75	10.5	10.5

STANDARD SIGN
D10-5

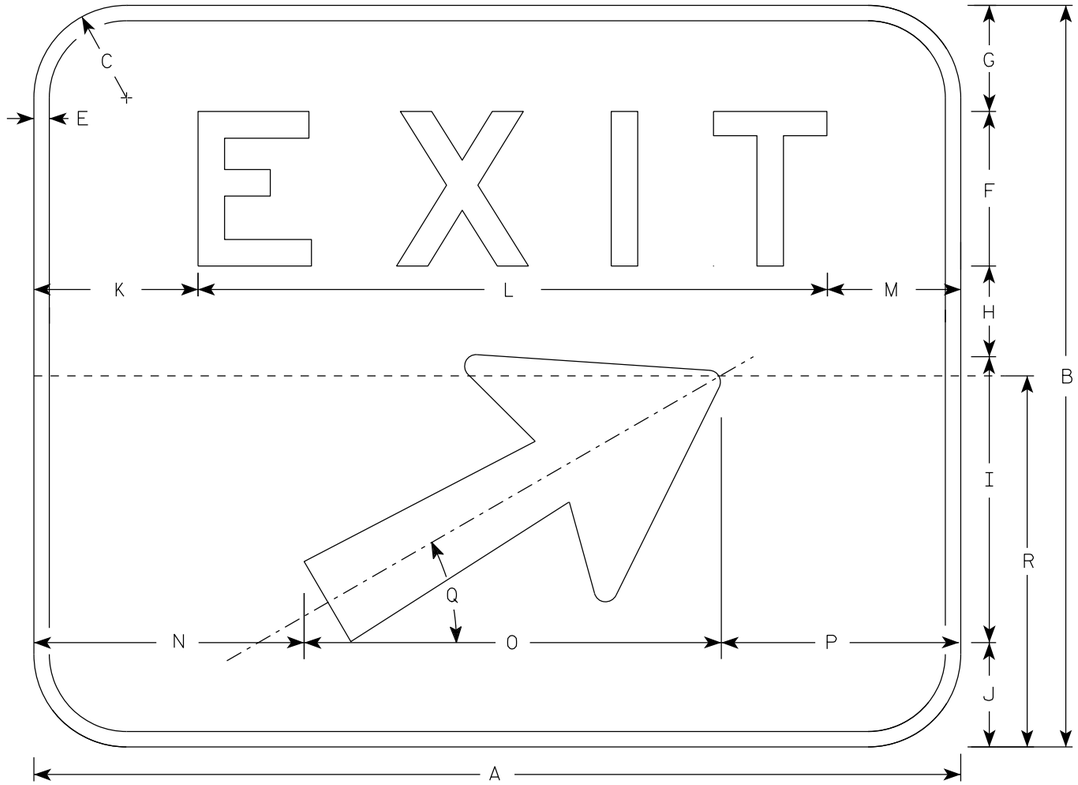
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/11/18 PLATE NO. D10-5.3

PROJECT NO:

SHEET NO: 666 **E**



E5-1

NOTES

1. Sign is Type II - Type H reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Sign shall be split into two seperate pieces as shown on the detail by the dashed line (----------) for sizes 4 & 5.
5. Arrow is Type "A" from sign plate A1-1.
6. As per the Standard Spec's, this sign shall not have a vertical joint.
7. Size 3 E5-1 shall only be used in a Work Zone application with a Temporary Sign Support

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	48	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	8 1/2	31 1/8	8 3/8	11 1/2	27	9 1/2	30°	30									16.0
4	60	48	6		1	10	6 7/8	5 7/8	18 1/2	6 3/4	10 5/8	40 3/4	8 5/8	17 1/2	27	15 1/2	30°	30									20.0
5	72	60	6		1	12	9 3/4	10	18 1/2	9 3/4	13 1/4	48 1/2	10 1/4	23 1/2	27	21 1/2	30°	30									30.0

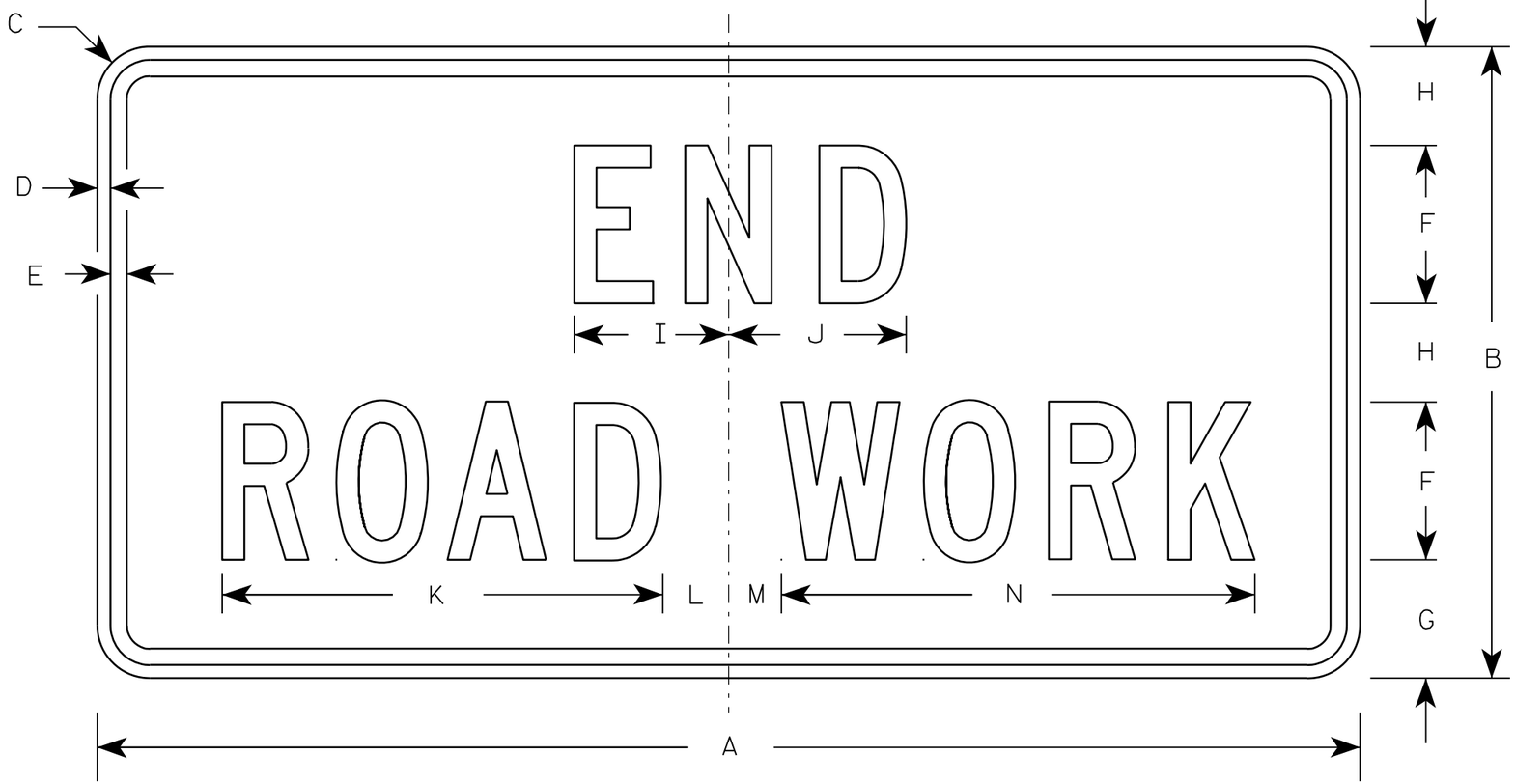
STANDARD SIGN
E5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2022 PLATE NO. E5-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 667 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

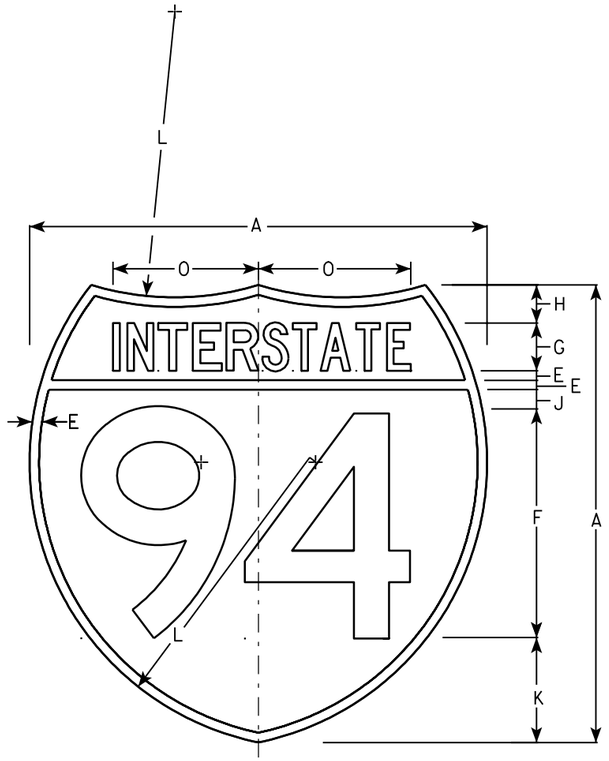
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

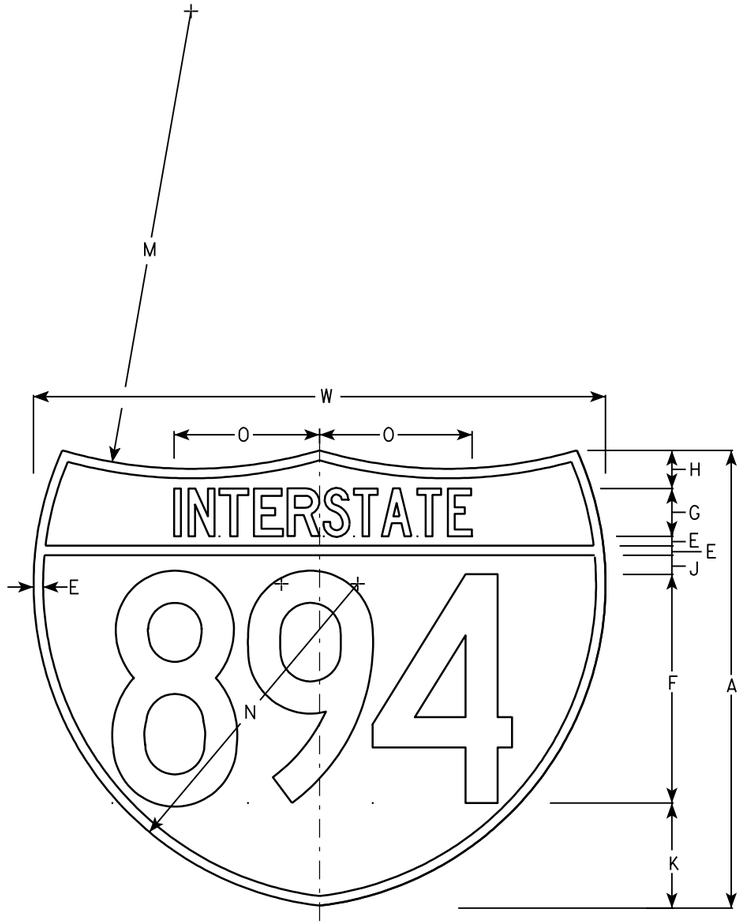
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 668	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

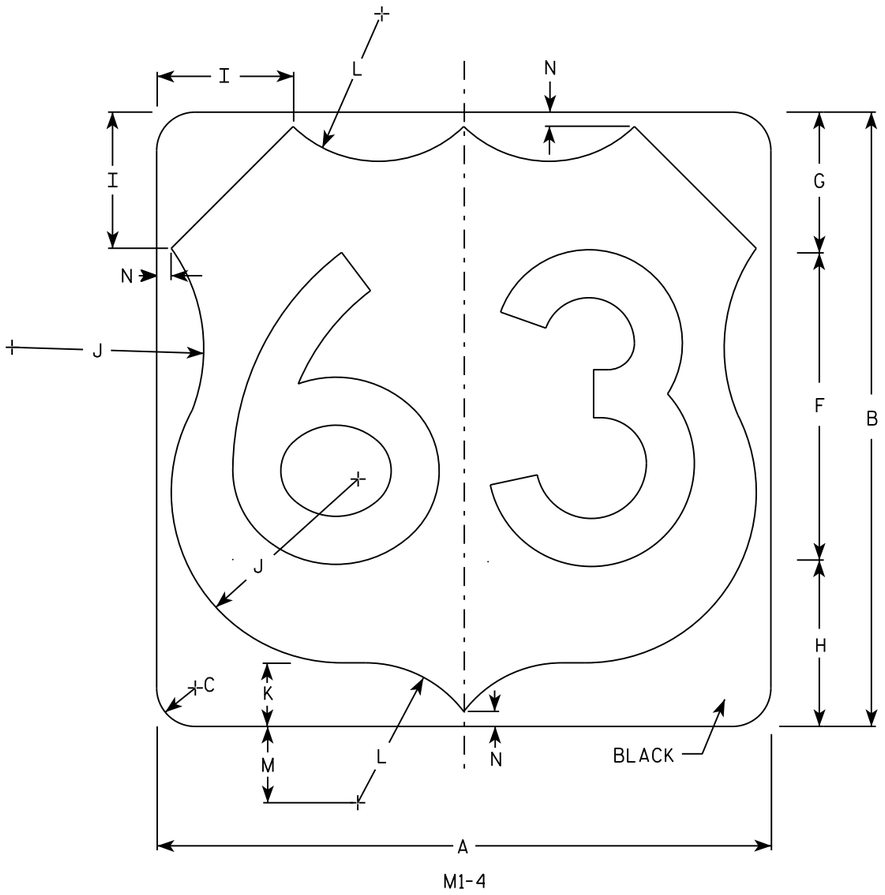
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

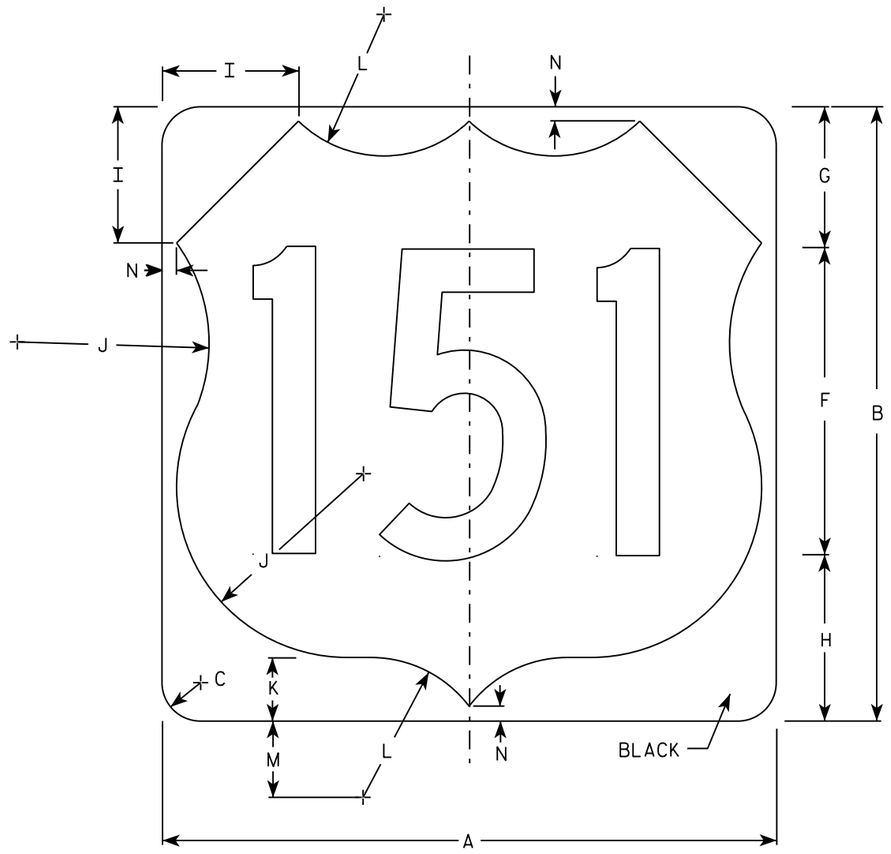
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 669	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M1-4



M1-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

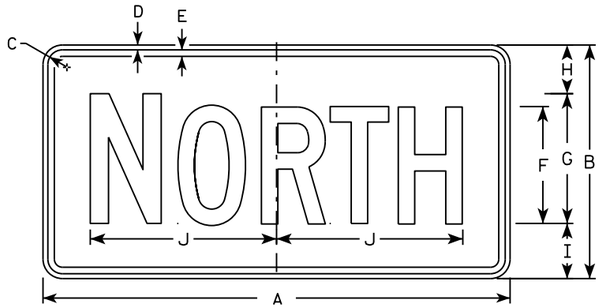
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

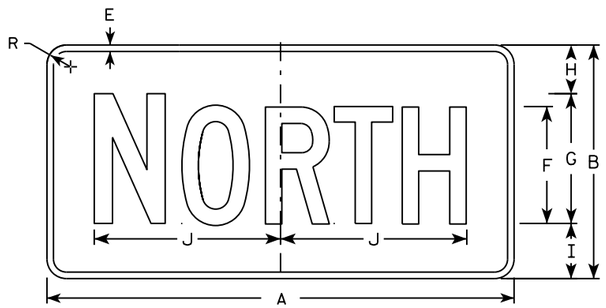
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 670	E



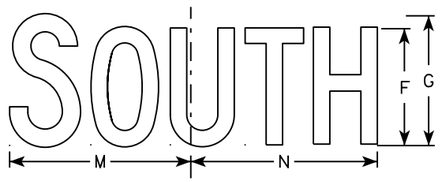
M3-1
MM3-1
MP3-1



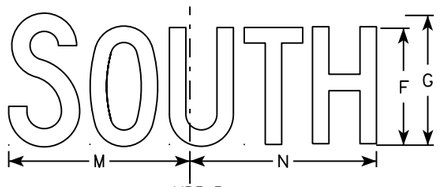
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

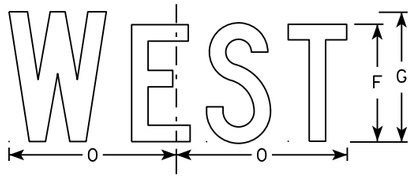
MB3-2
MK3-2
MN3-2



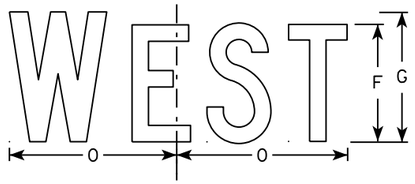
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

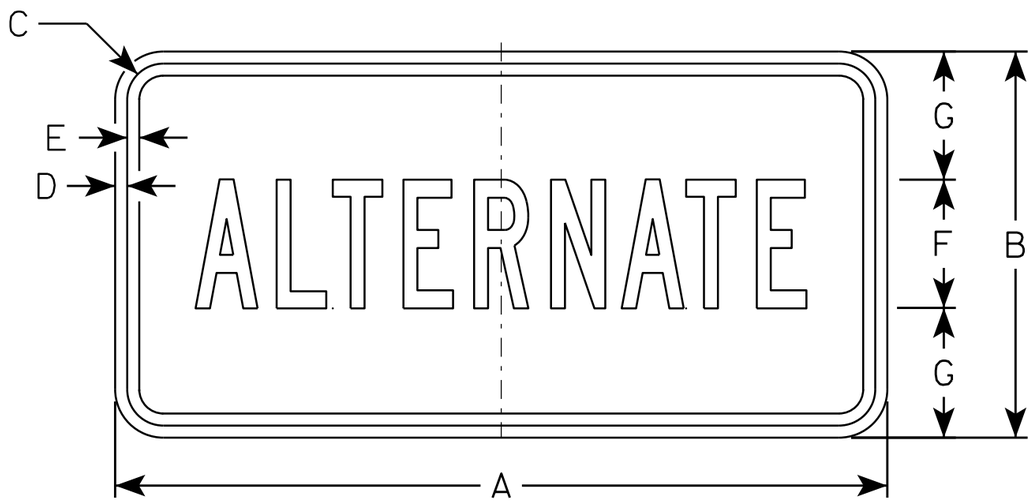
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

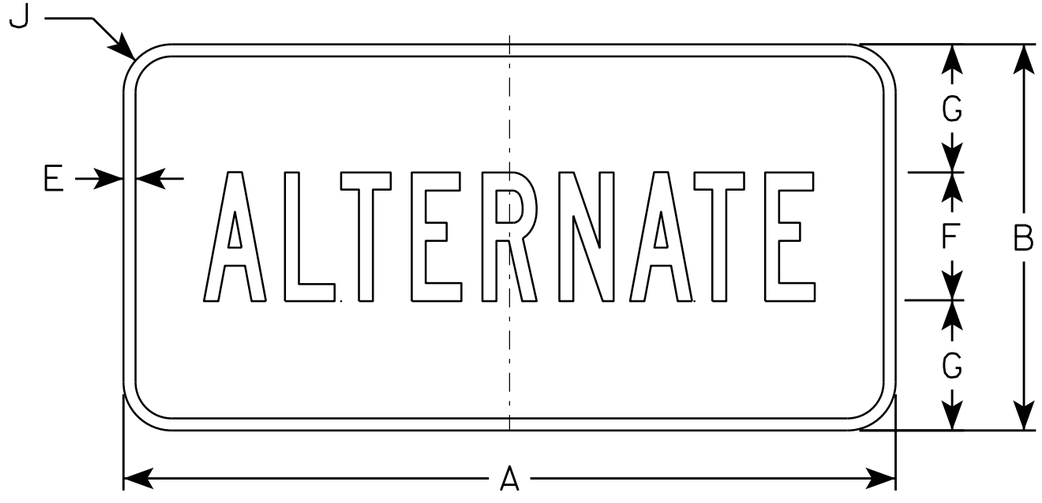
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-1
MO4-1



MB4-1

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White
   Message - Black

   MB4-1 Background - Blue
   Message - White

   MO4-1 Background - Orange - Type F
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

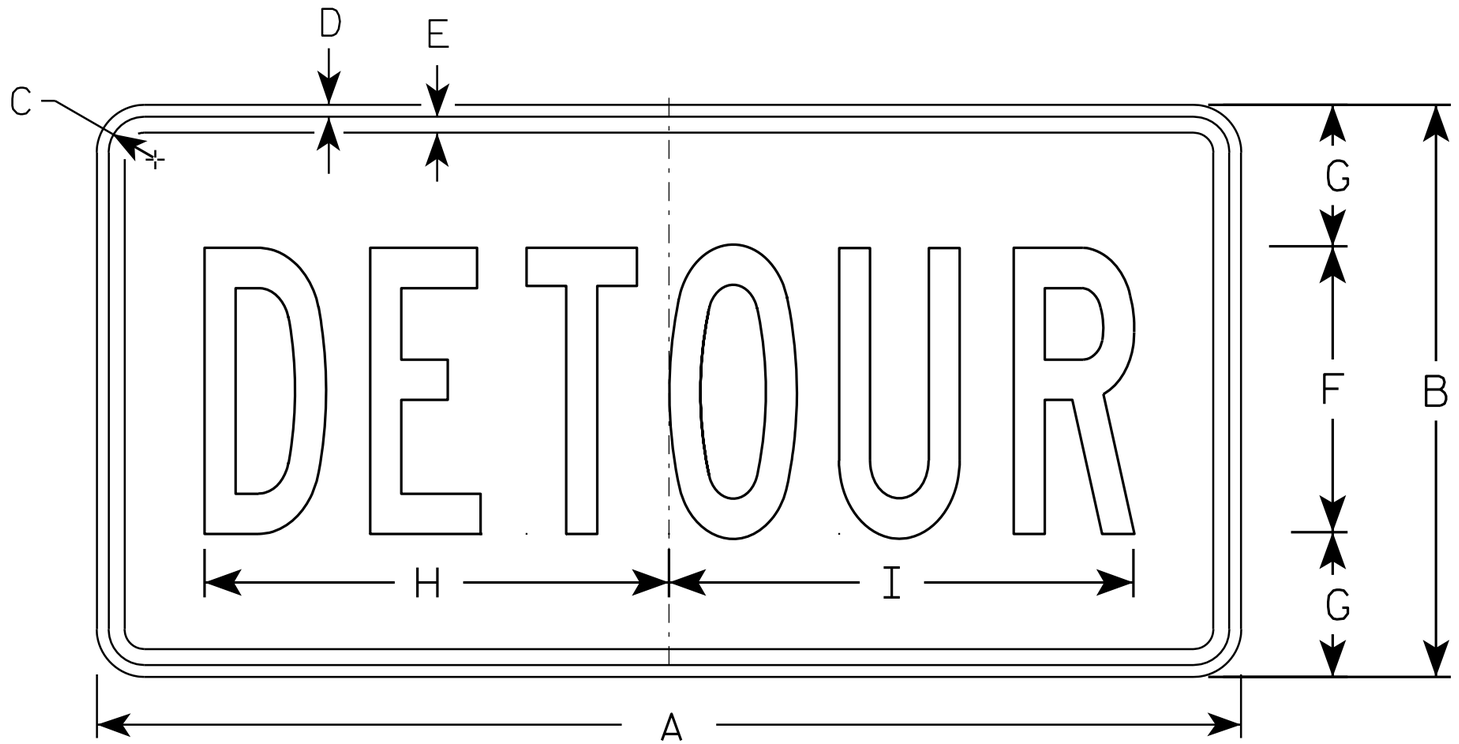
STANDARD SIGN
M4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 672 '14-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

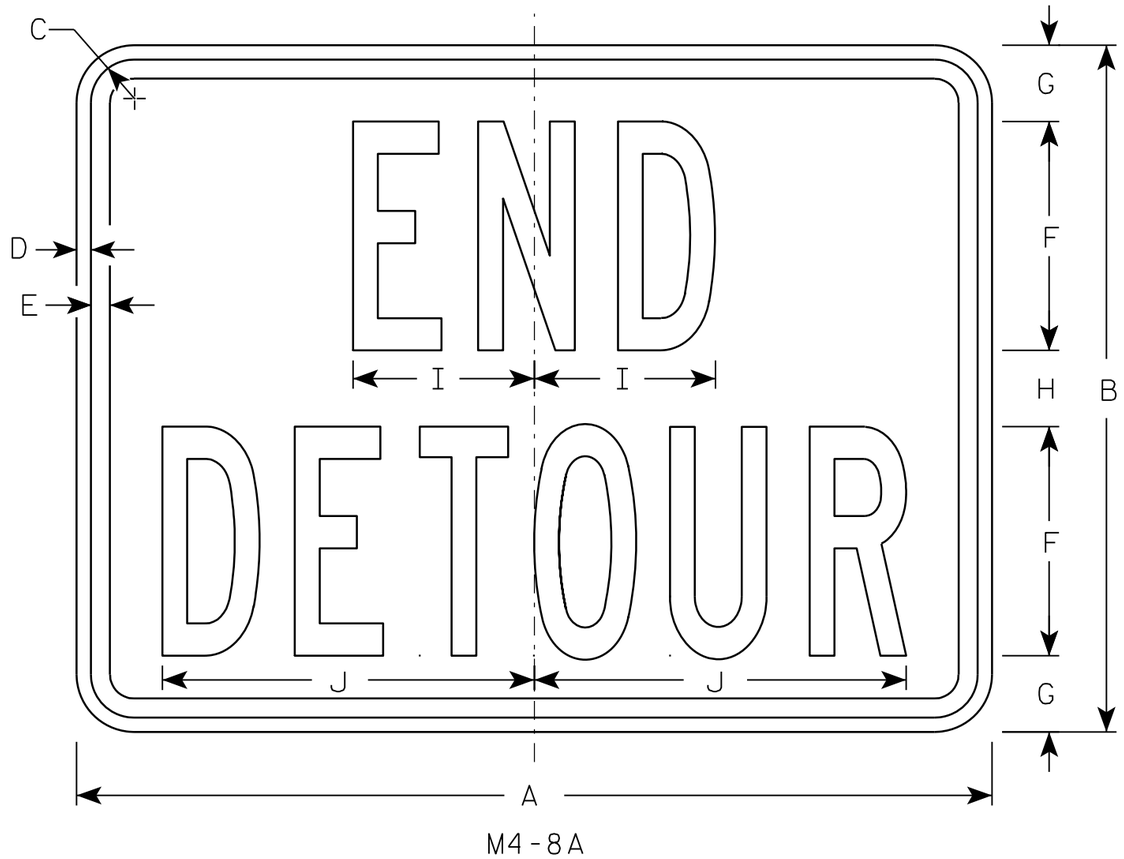
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 673	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M48.DGN PLOT DATE : 10-NOV-2010 13:18 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.767233:1.000000

WISDOT/CADDS SHEET 42

7

7



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

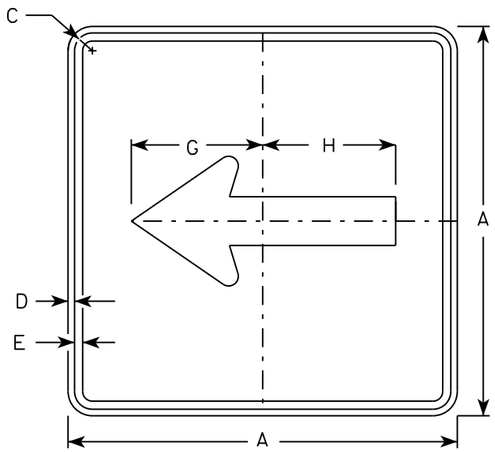
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

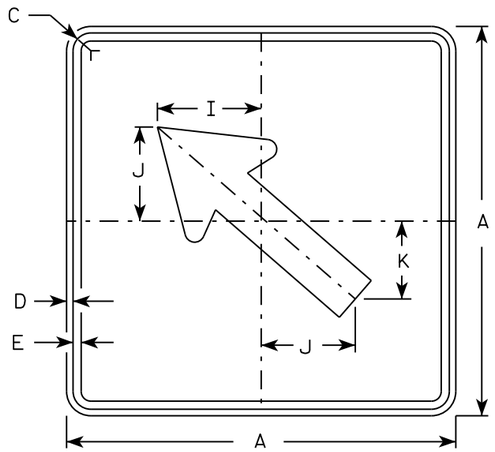
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 674	E



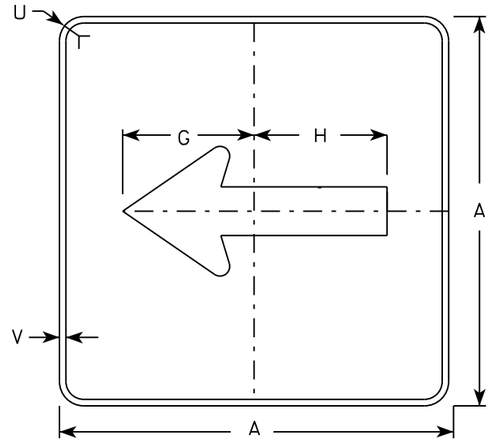
M6-1
MM6-1
MO6-1
MP6-1



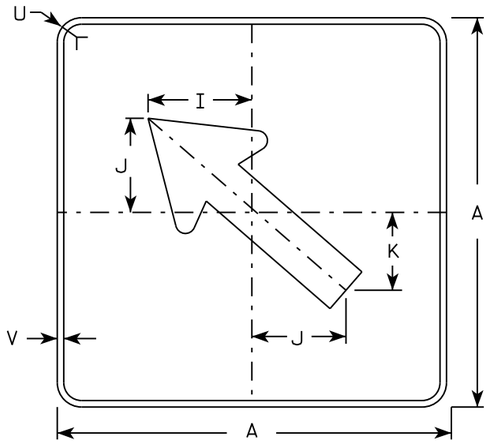
M6-2
MM6-2
MO6-2
MP6-2

NOTES

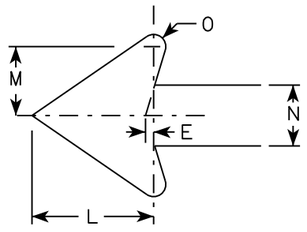
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

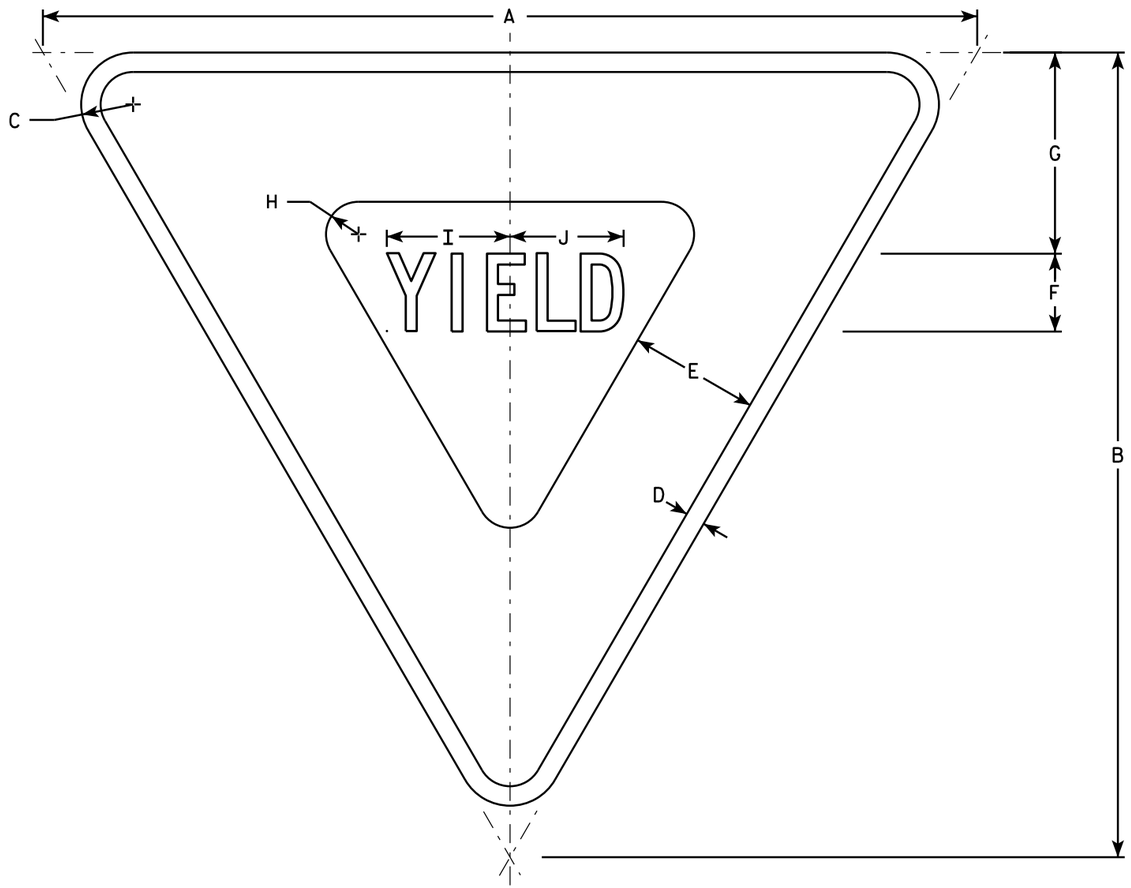
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 675 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

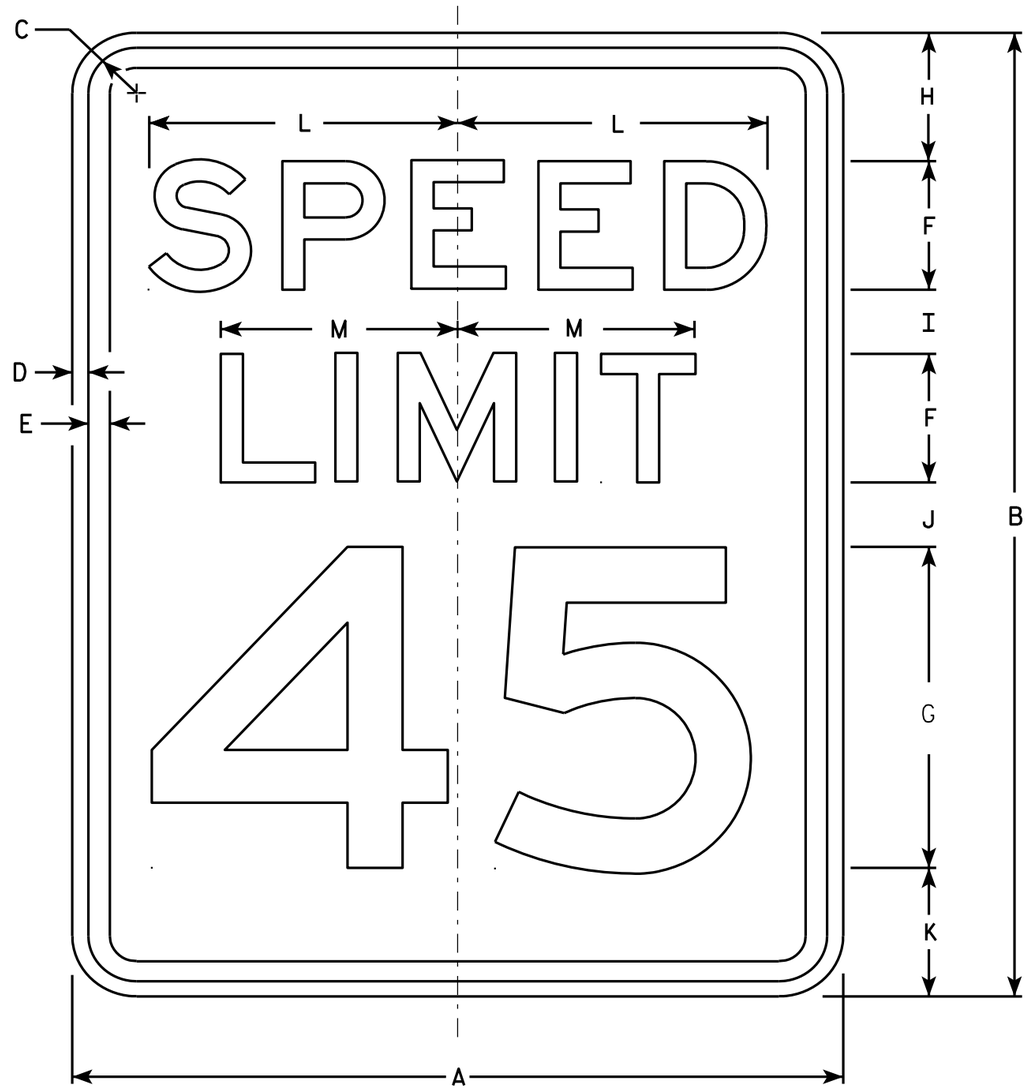
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

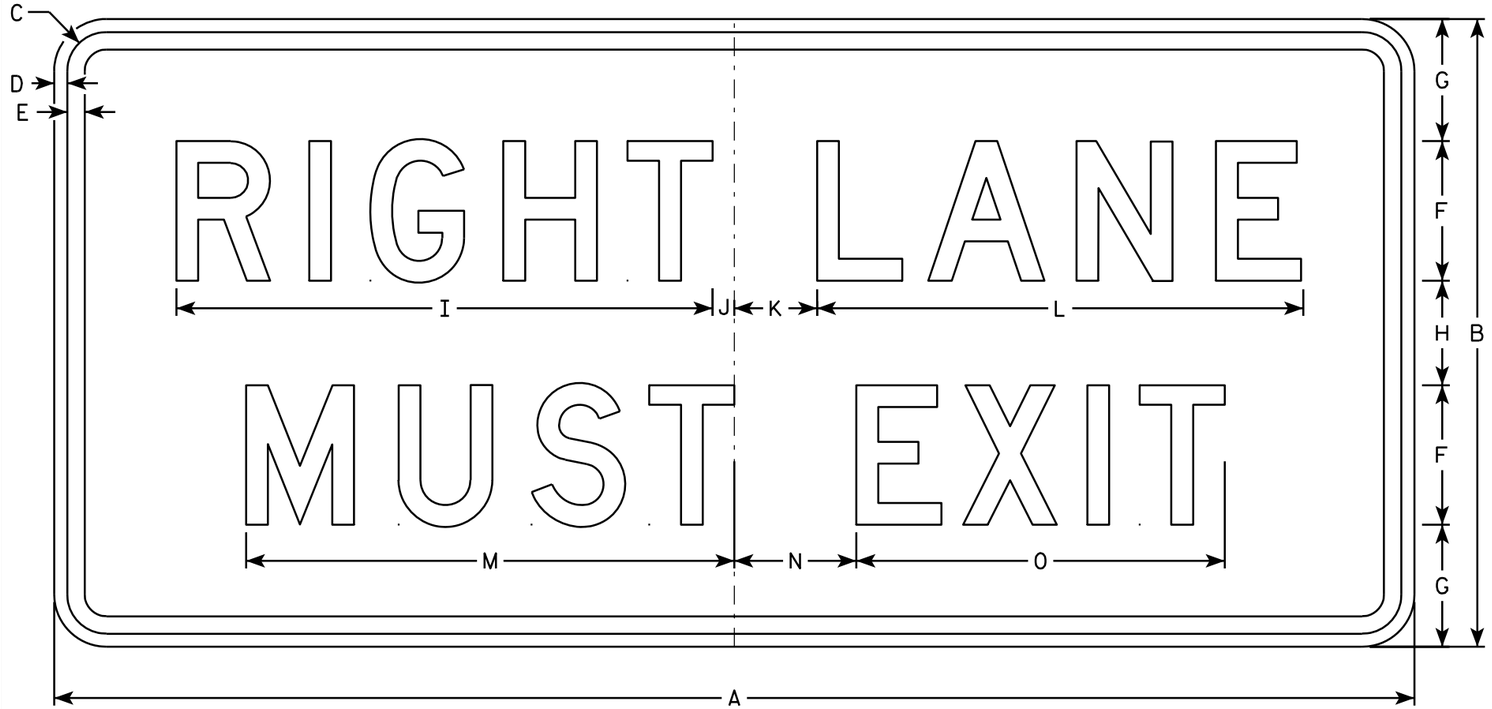
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

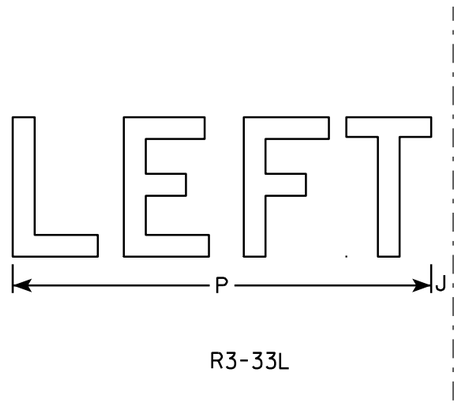
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 677	E



R3-33R



R3-33L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5
5	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5

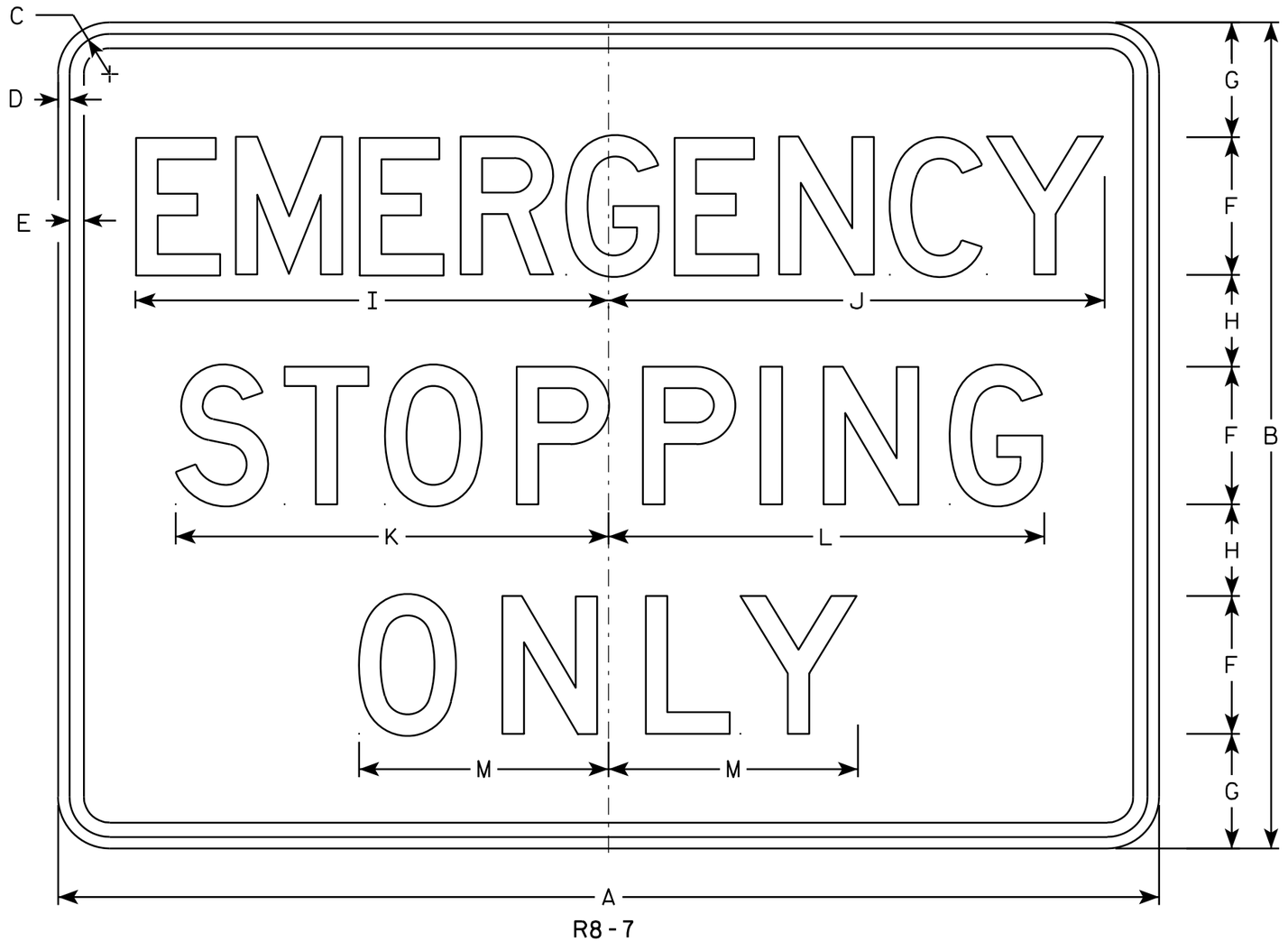
STANDARD SIGN
R3-33

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/7/10 PLATE NO. R3-33.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 678 | E



R8-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

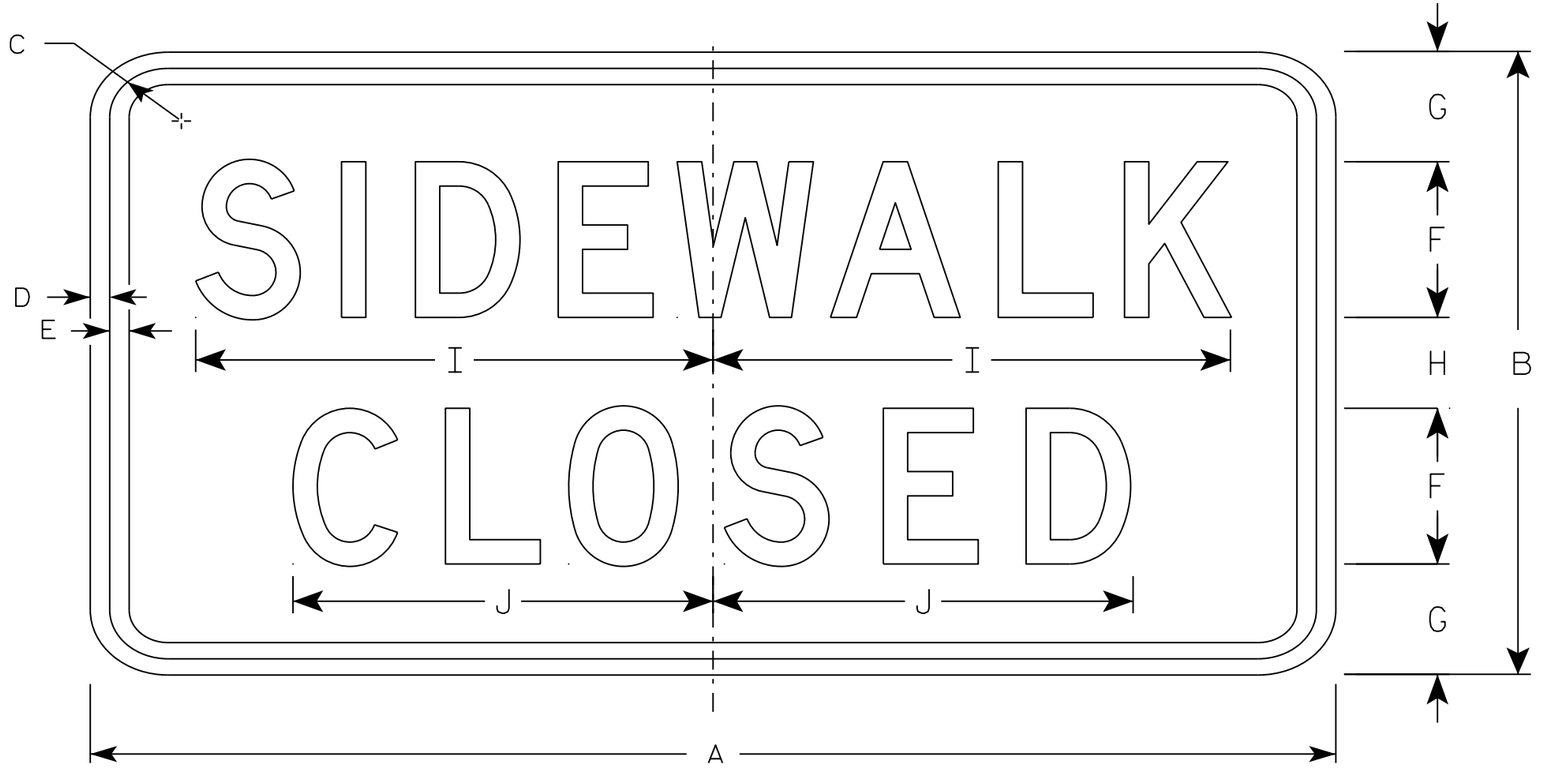
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 679 | E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

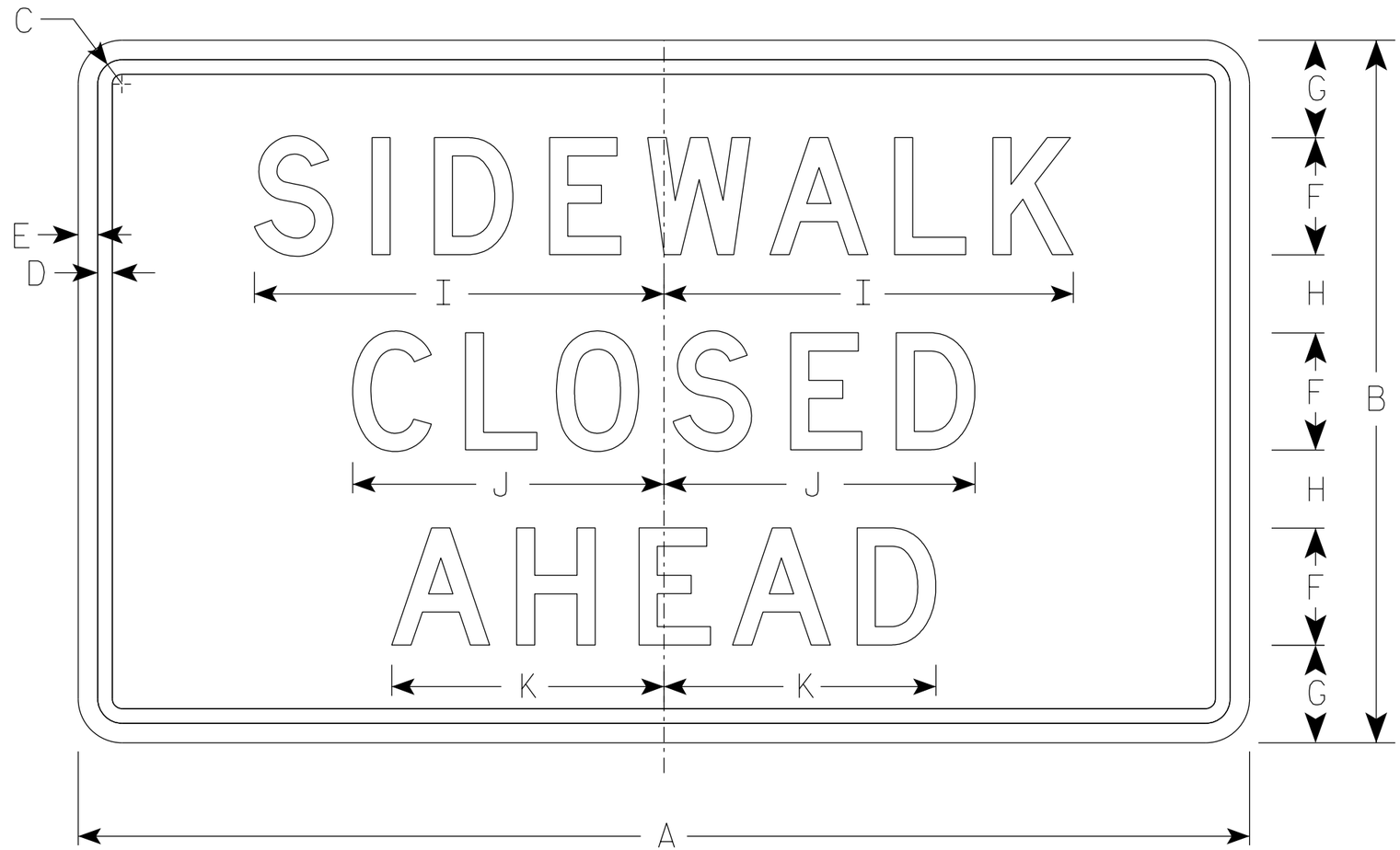
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 680 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-9A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

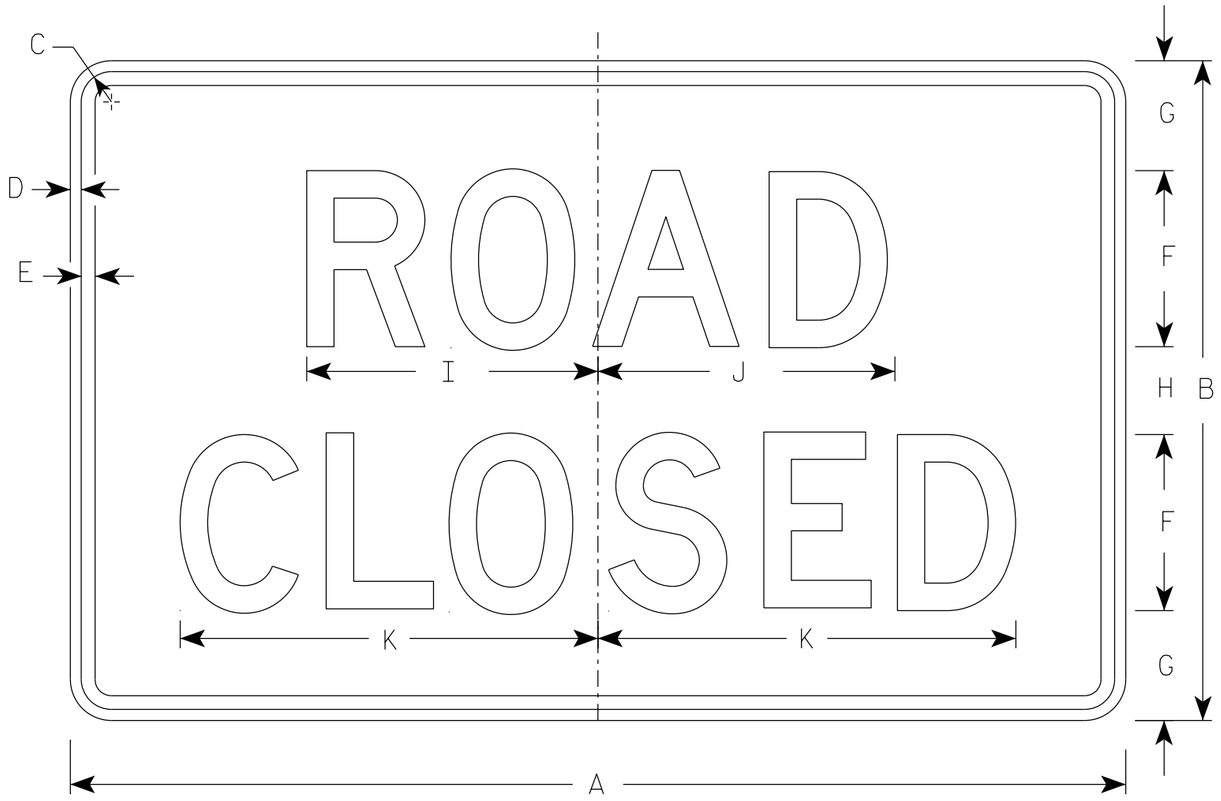
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 681 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R99A.DGN PLOT DATE : 31-AUG-2020 3:26 PLOT BY : dotc4c PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

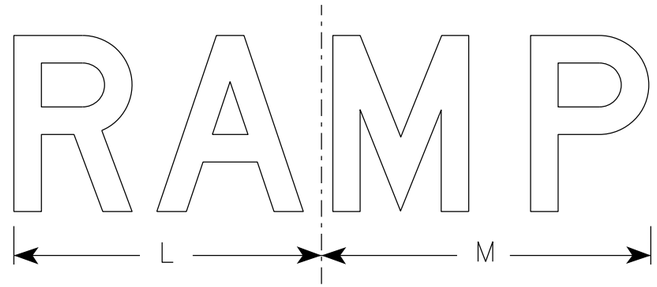
7 7



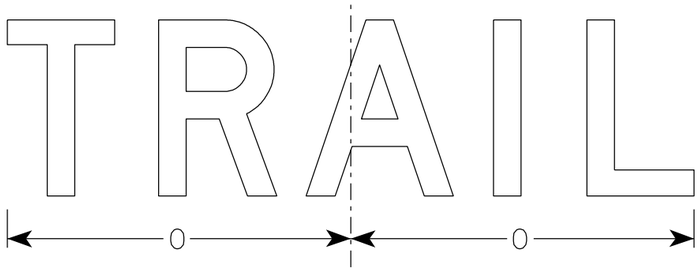
R11-2

NOTES

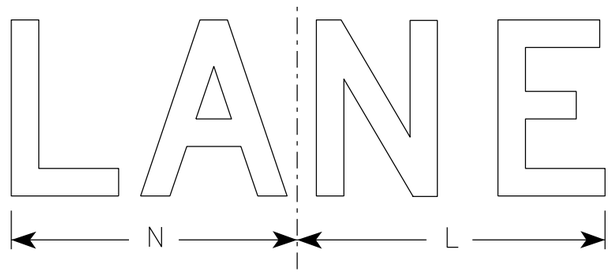
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

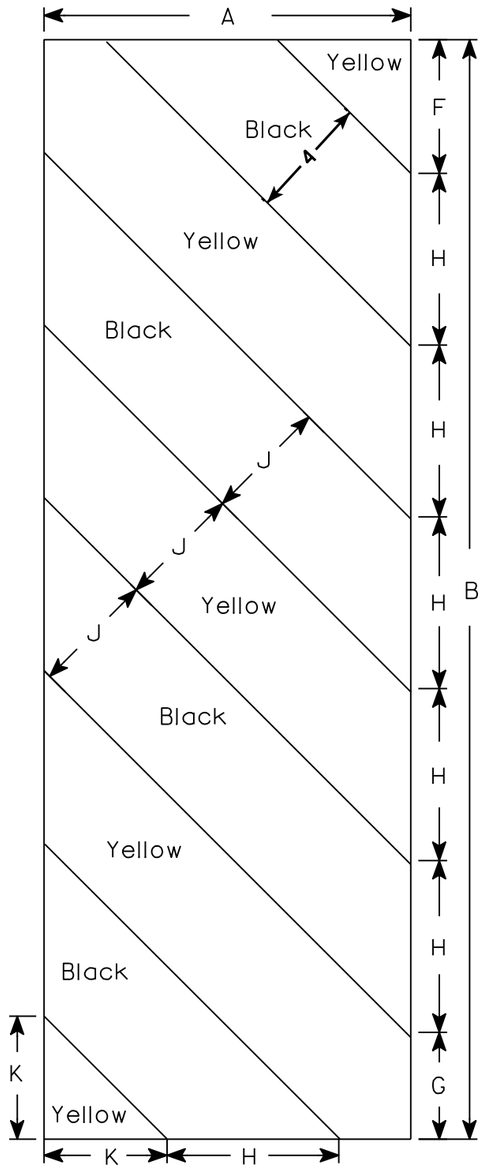
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

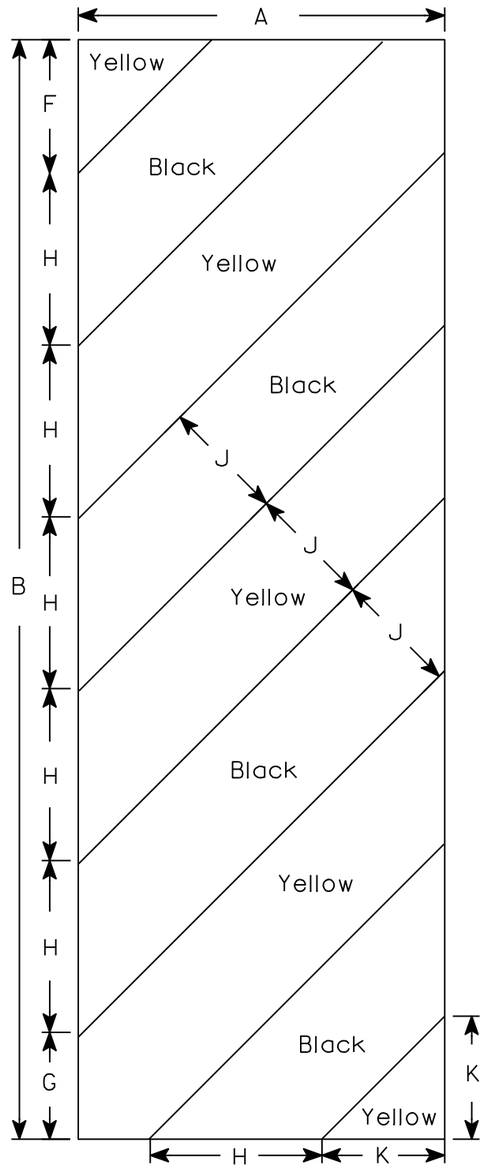
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 682 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

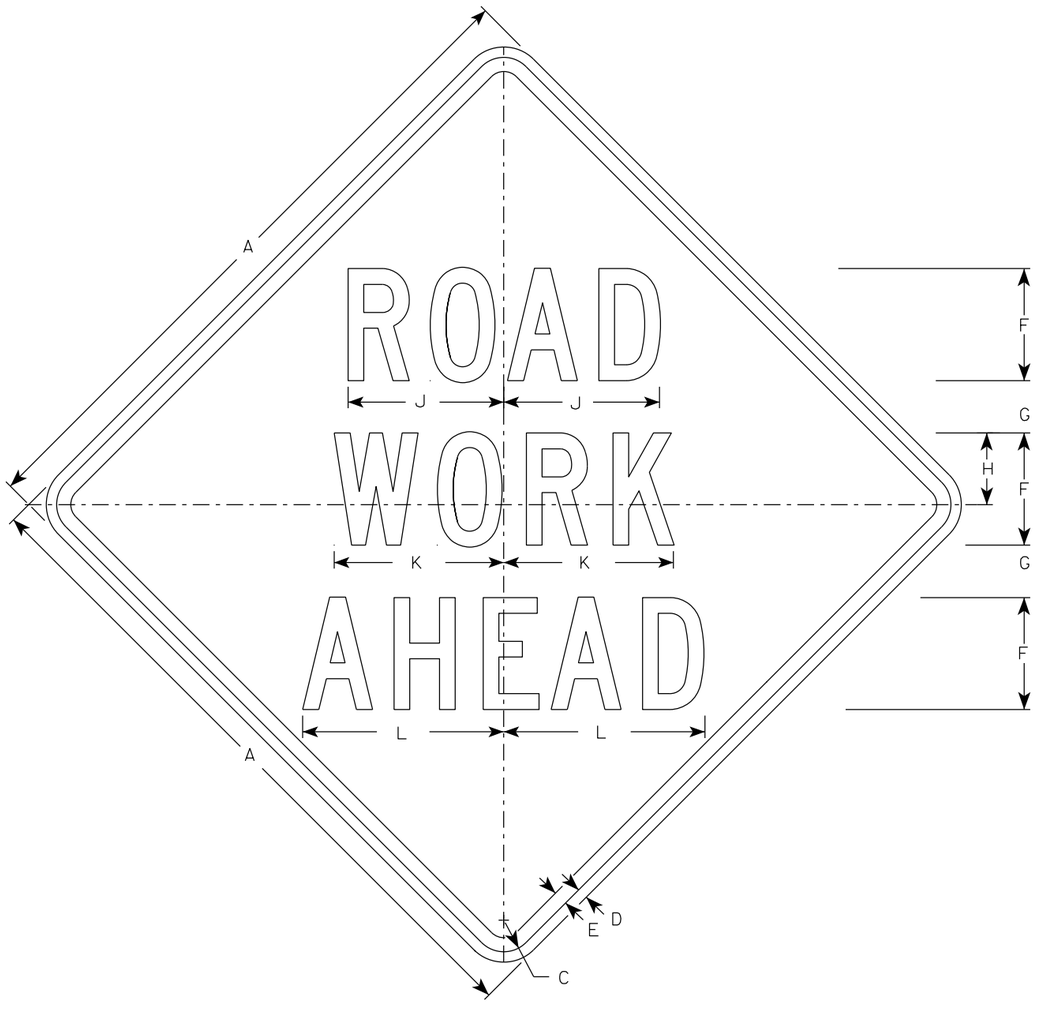
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

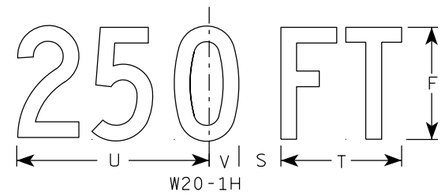
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

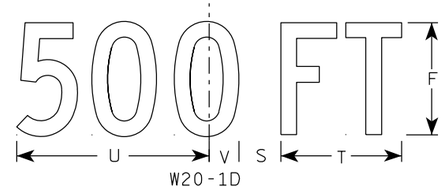
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 683	E



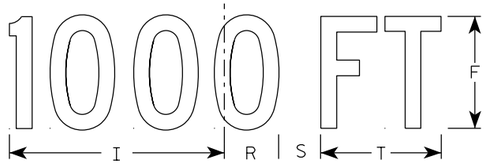
W20-1A



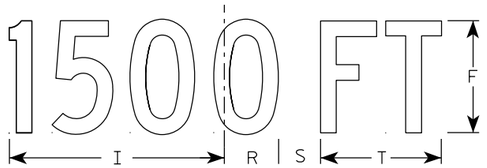
W20-1H



W20-1D



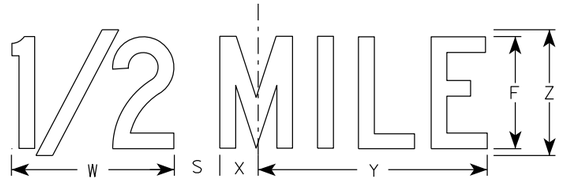
W20-1C



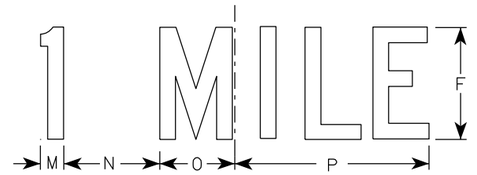
W20-1B

NOTES

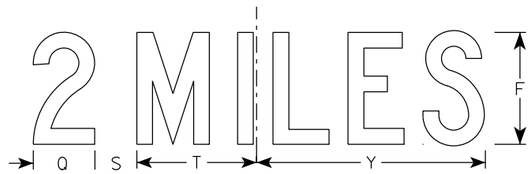
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

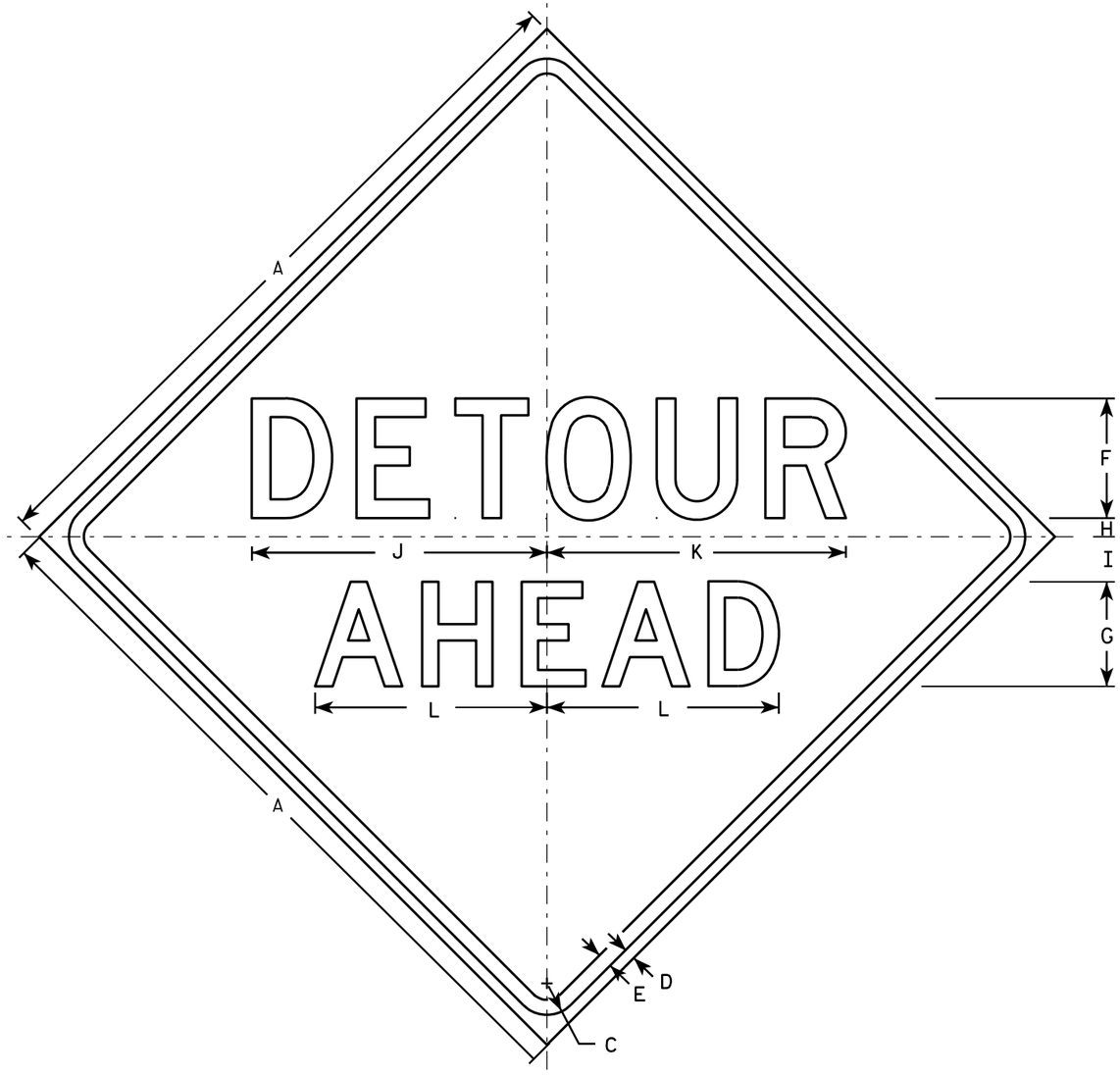
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

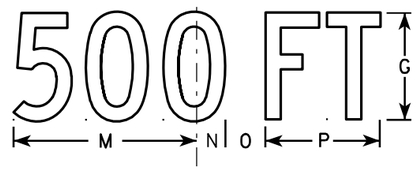
WISDOT/CADDS SHEET 42

7

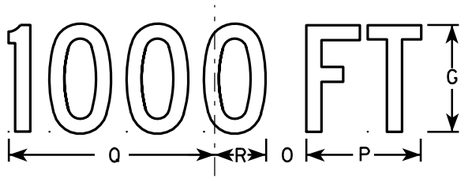
7



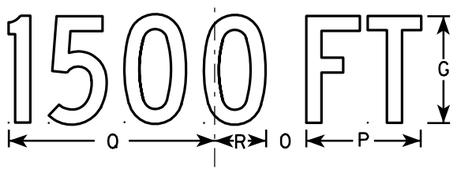
W20-2A



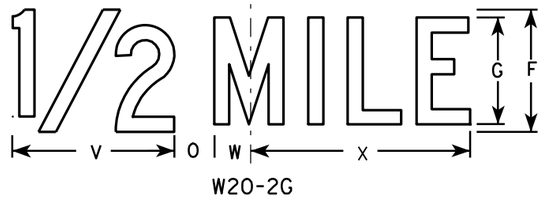
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

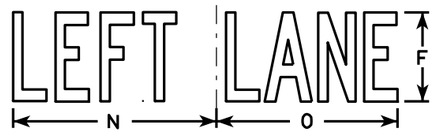
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

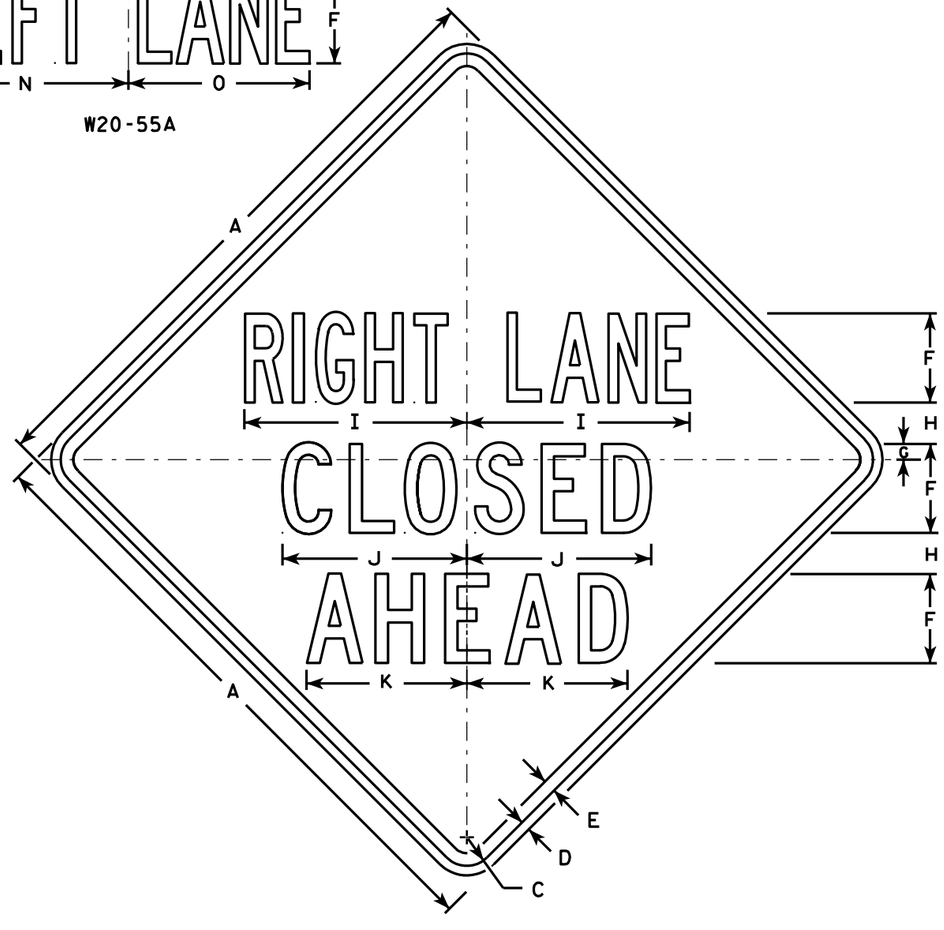
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 685 | E

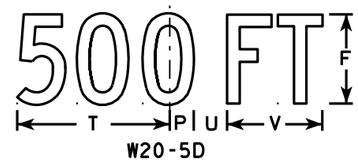
W20-56A



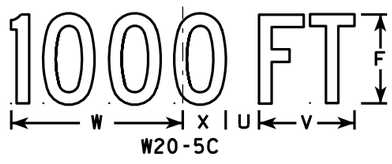
W20-55A



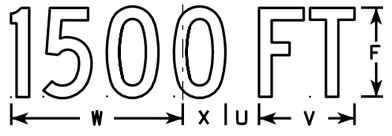
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

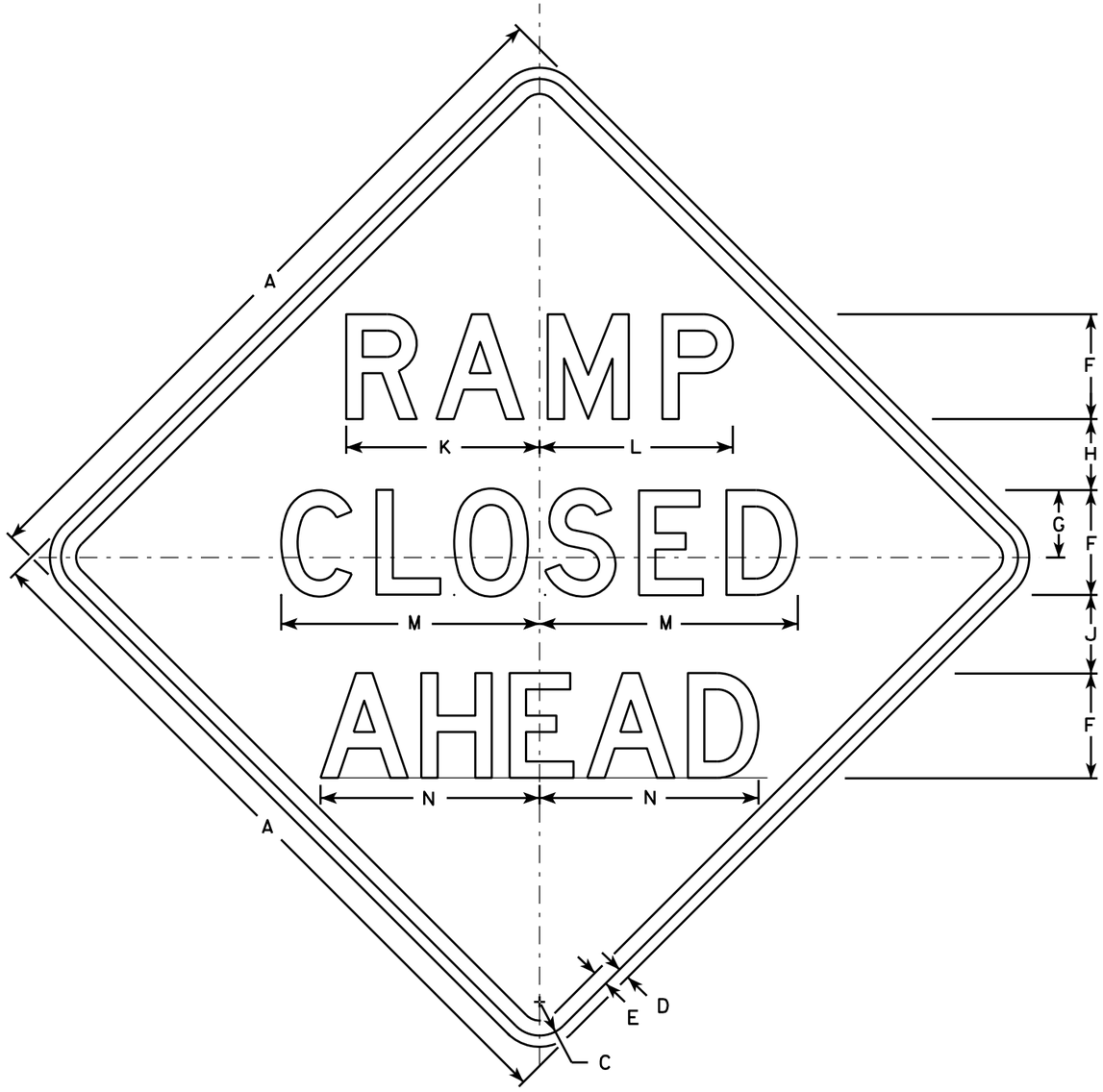
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

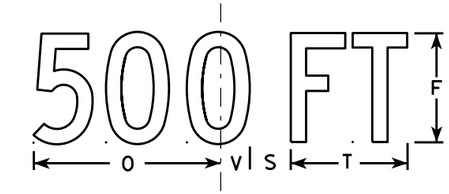
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 686	E

7

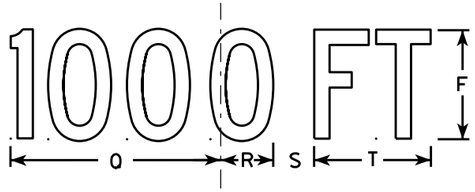
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



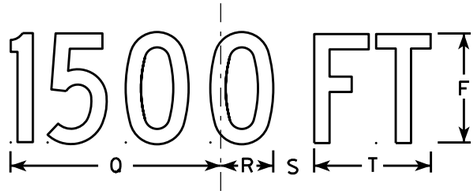
W20-53A



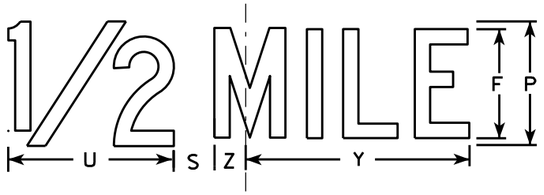
W20-53D



W20-53C



W20-53B



W20-53G

W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

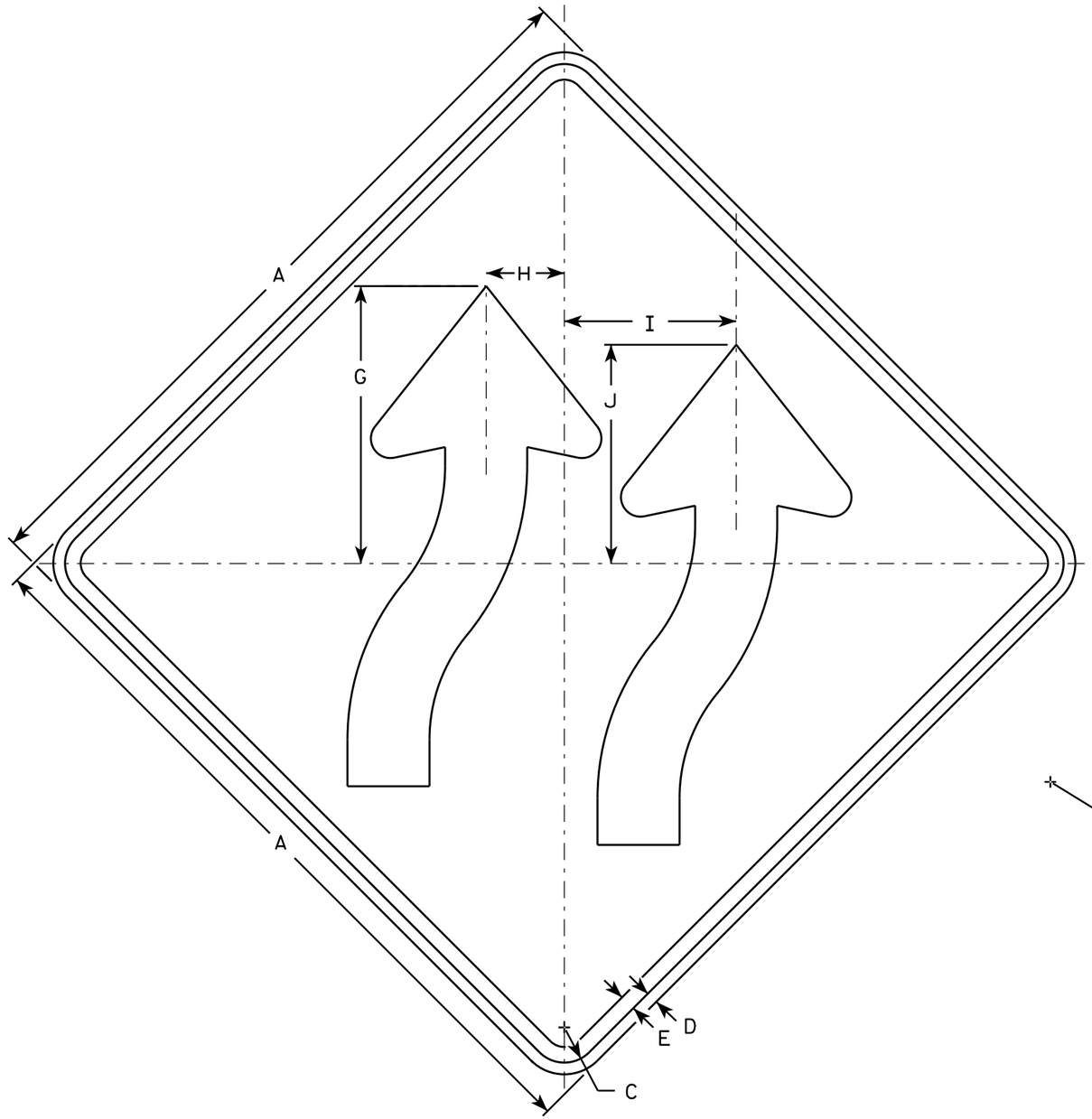
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

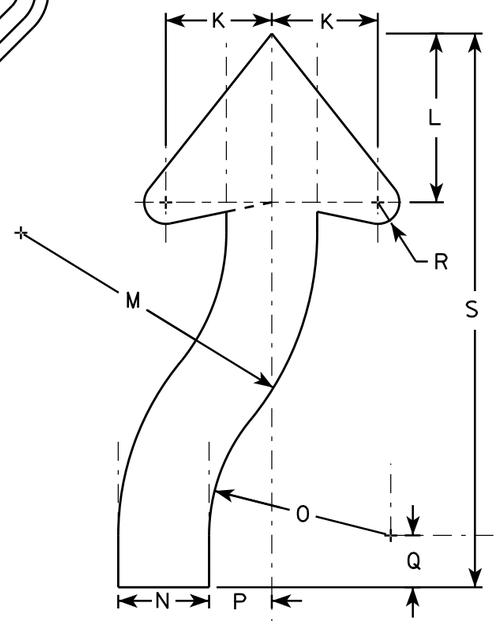
DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

STANDARD SIGN
W01-4b

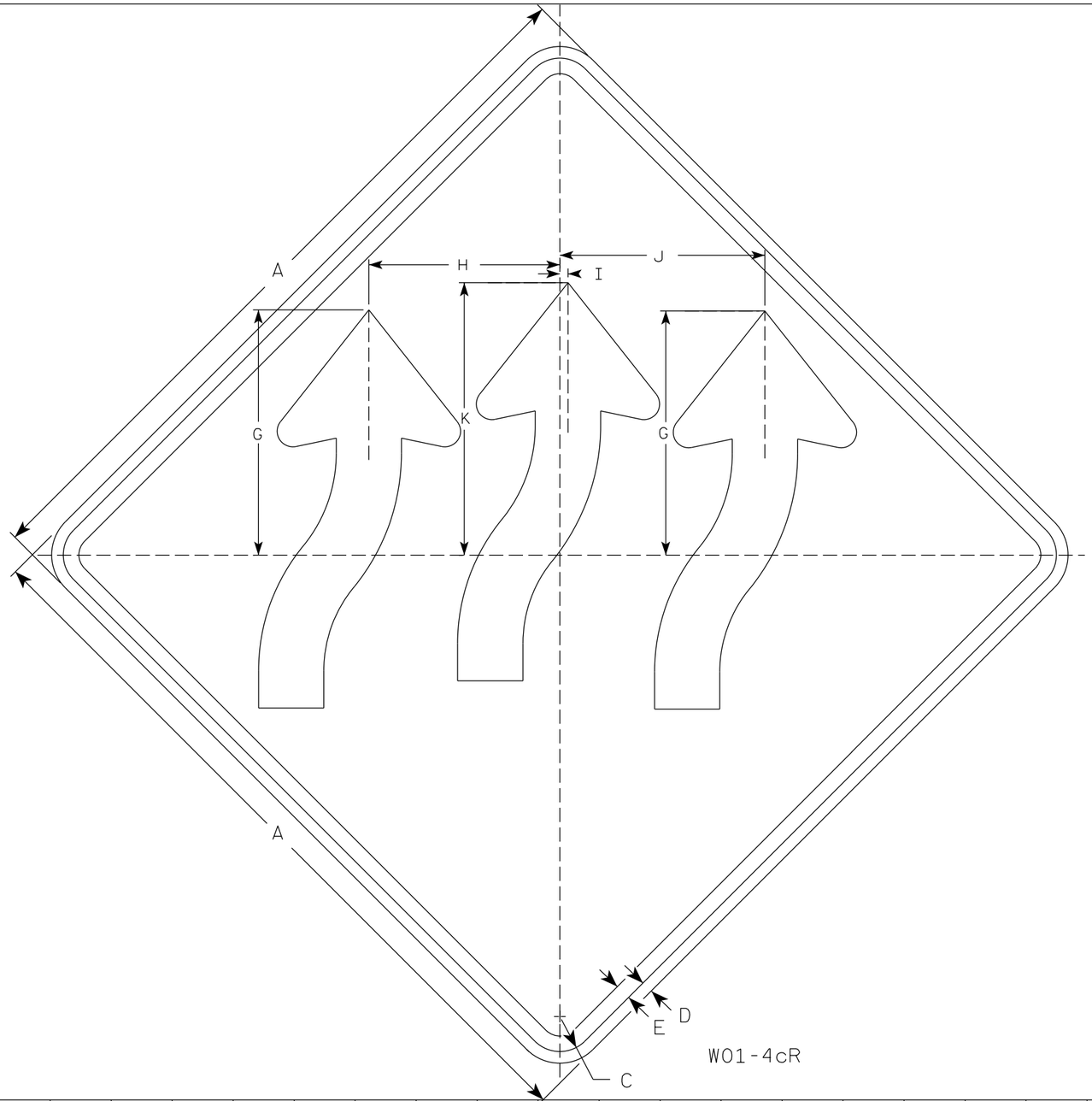
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

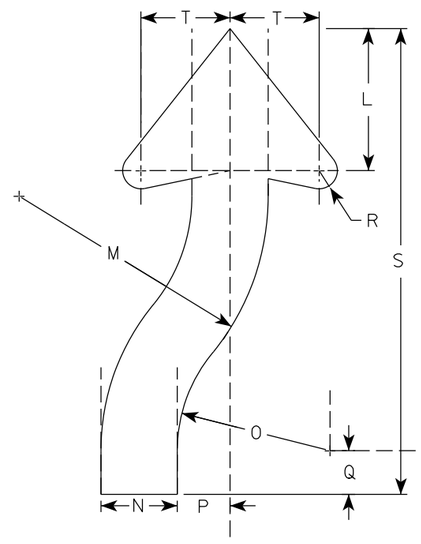
DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014B.DGN PLOT DATE : 28-FEB-2014 11:36 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.756290:1.000000
WISDOT/CADDS SHEET 42



W01-4cR



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4cL is the same as W01-4cR except arrows are reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		11 3/4	9 1/4	3/8	9 7/8	13 1/8	5 7/8	10 1/4	3 1/8	6 1/4	2 1/4	1 7/8	3/4	19 1/4	3 3/4							9.0
2S	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
2M	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
3	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
4	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
5	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0

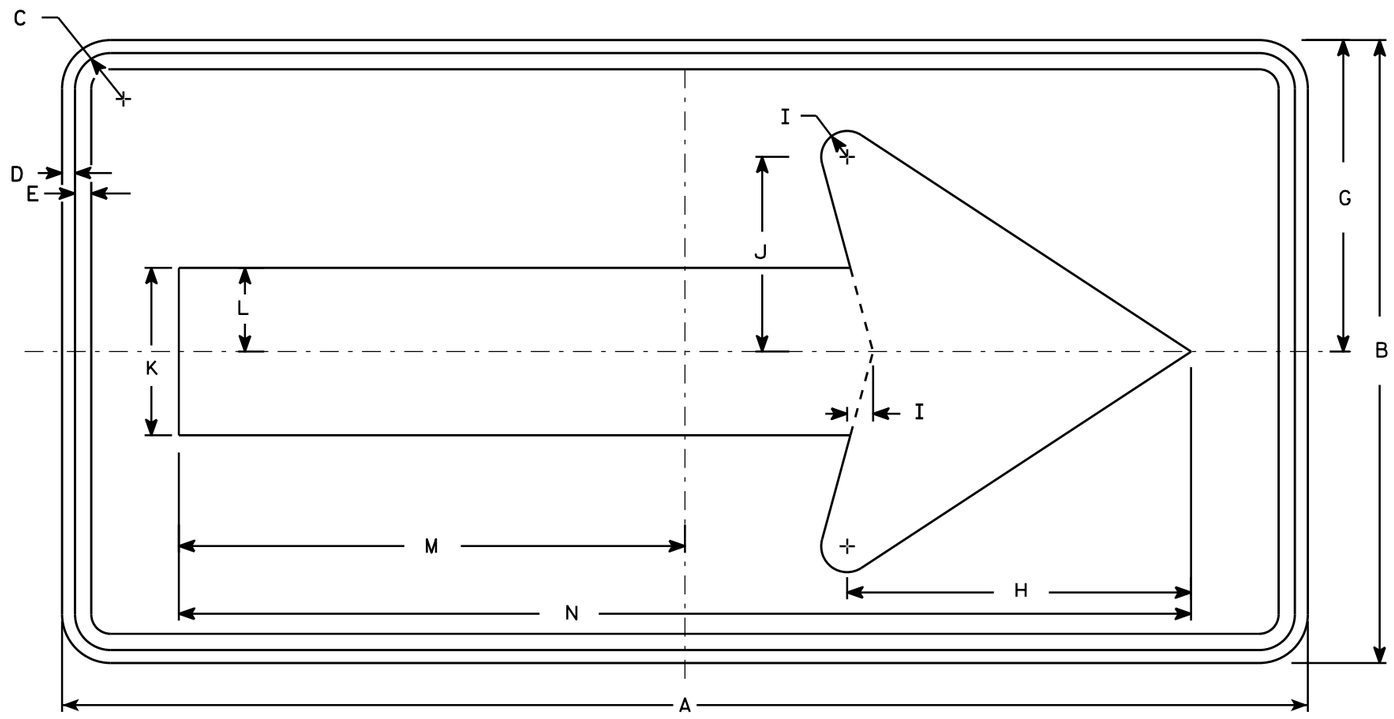
STANDARD SIGN
W01-4c

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/19 PLATE NO. W01-4c.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 689	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

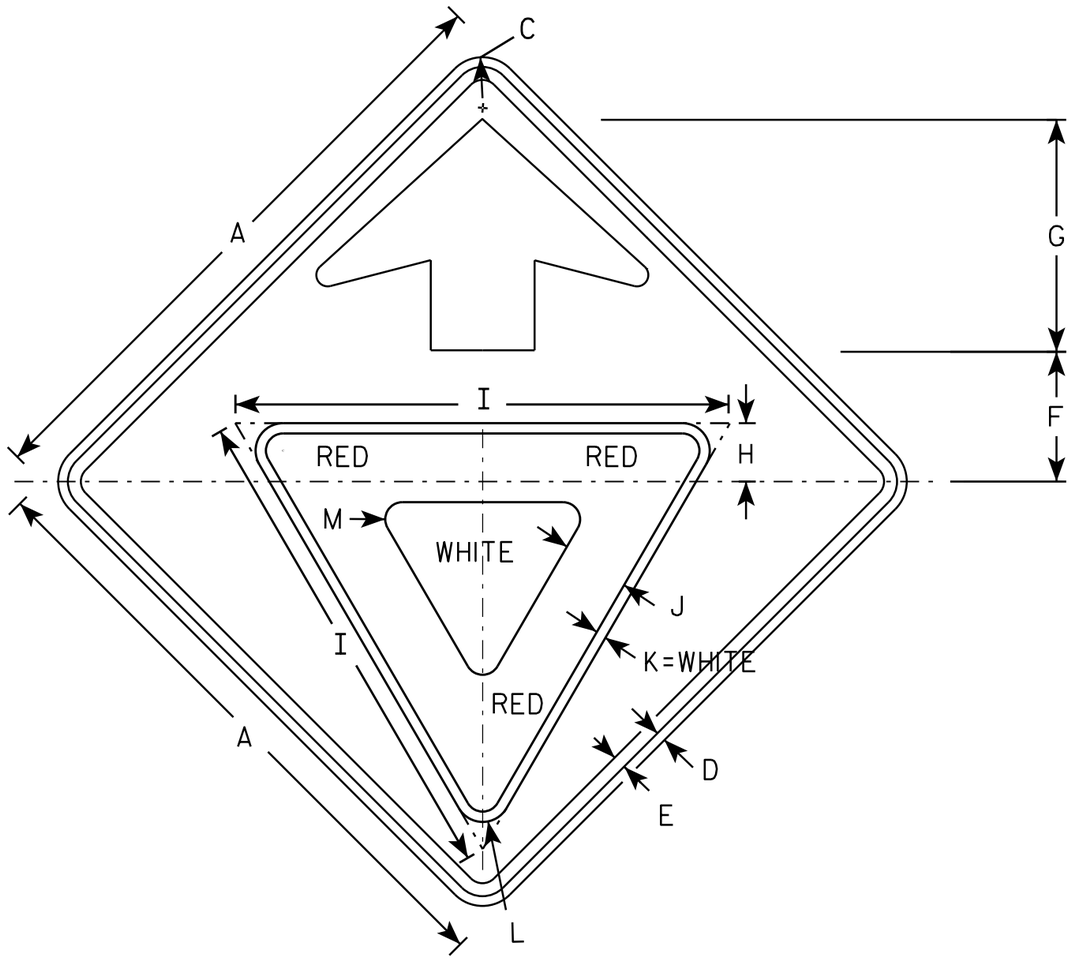
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

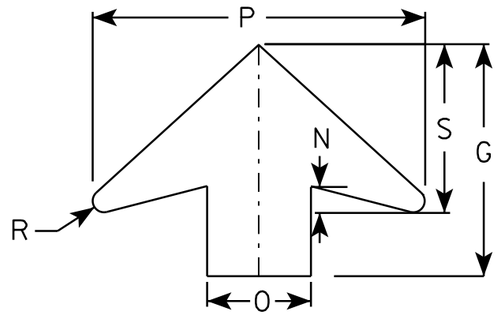
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

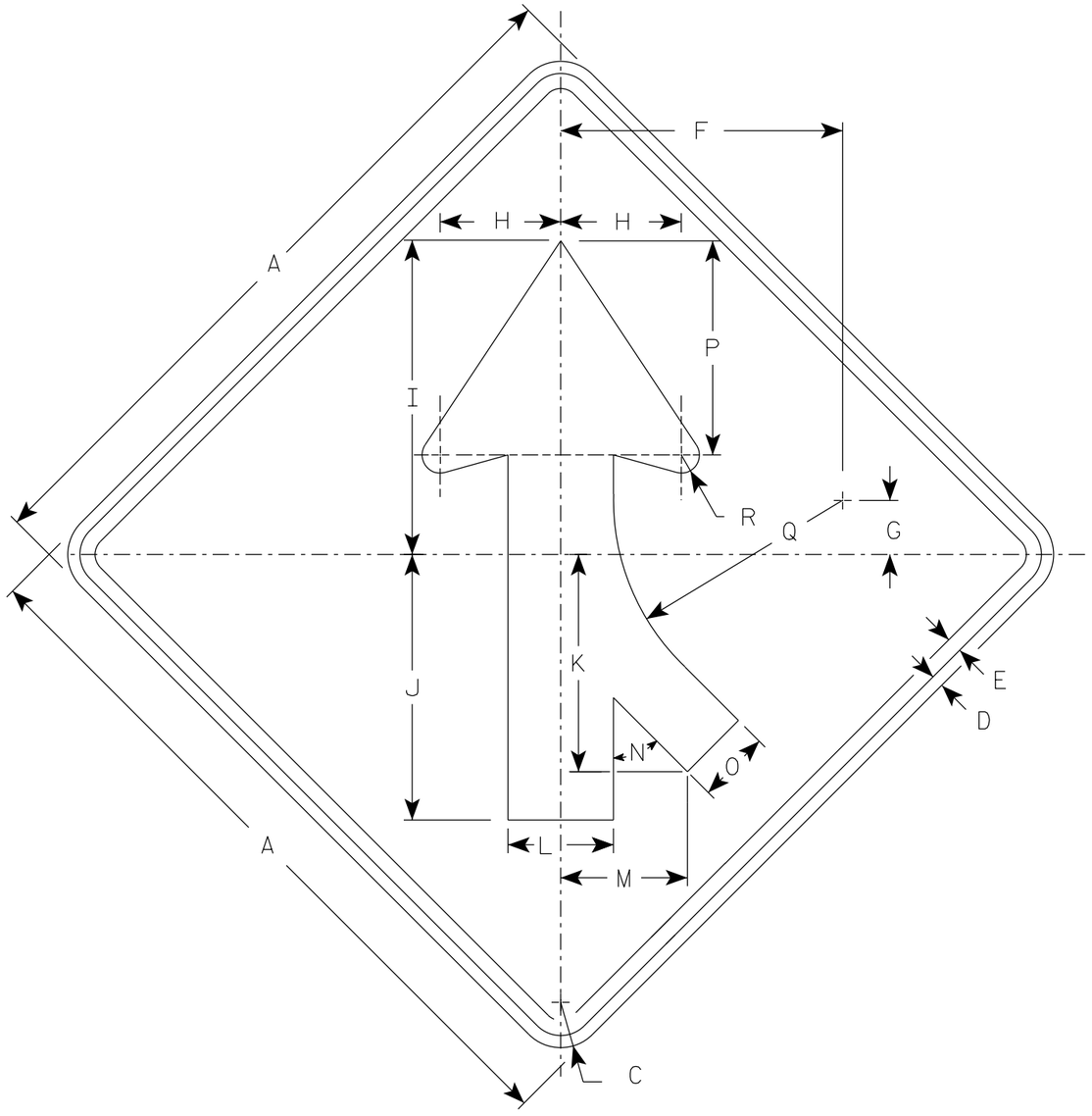
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-1L is the same as W04-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. W04-1.2

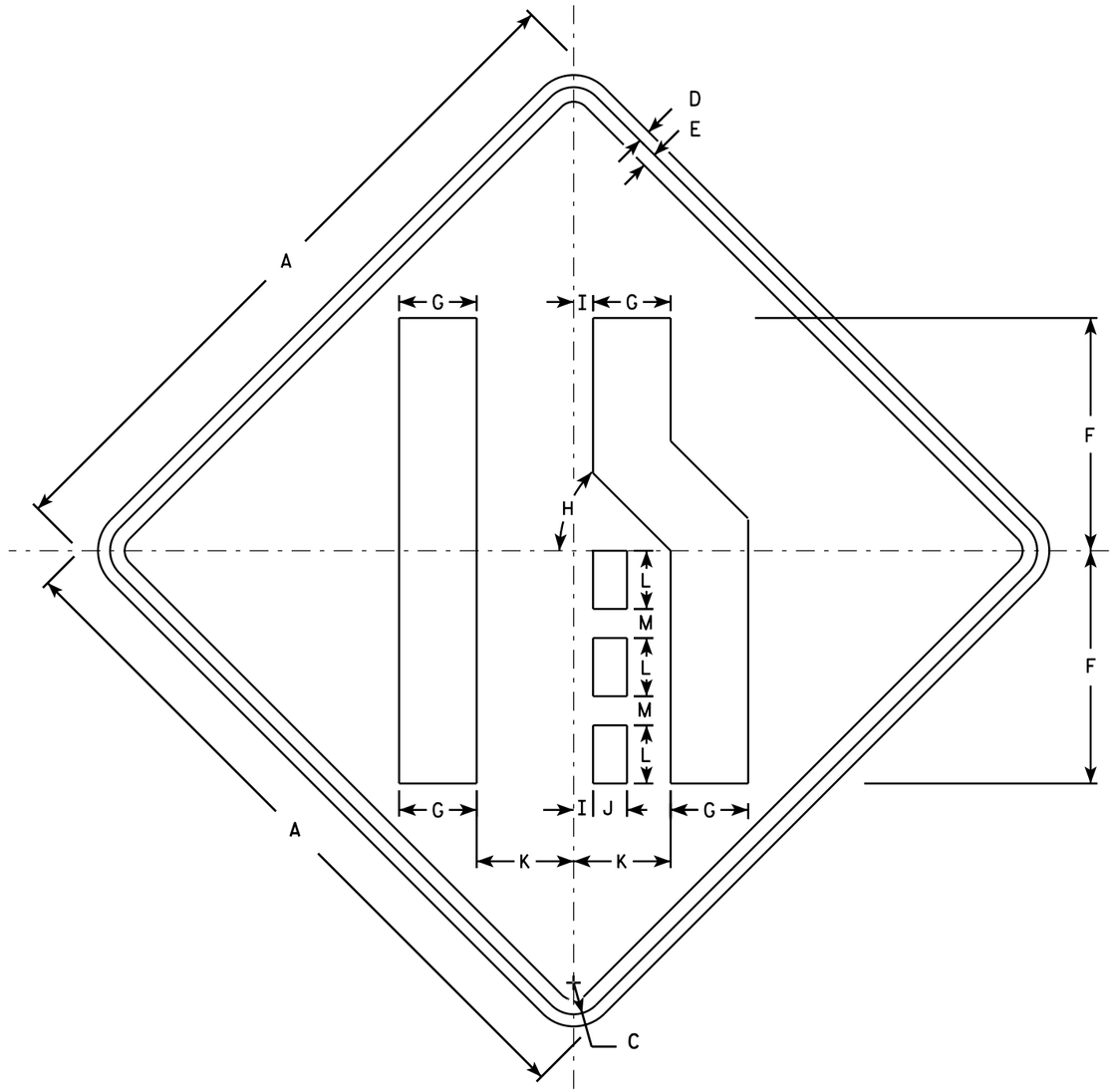
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W041.dgn PLOT DATE : 30-MAR 2021 8:25 PLOT BY : dotc4c PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

7

7



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

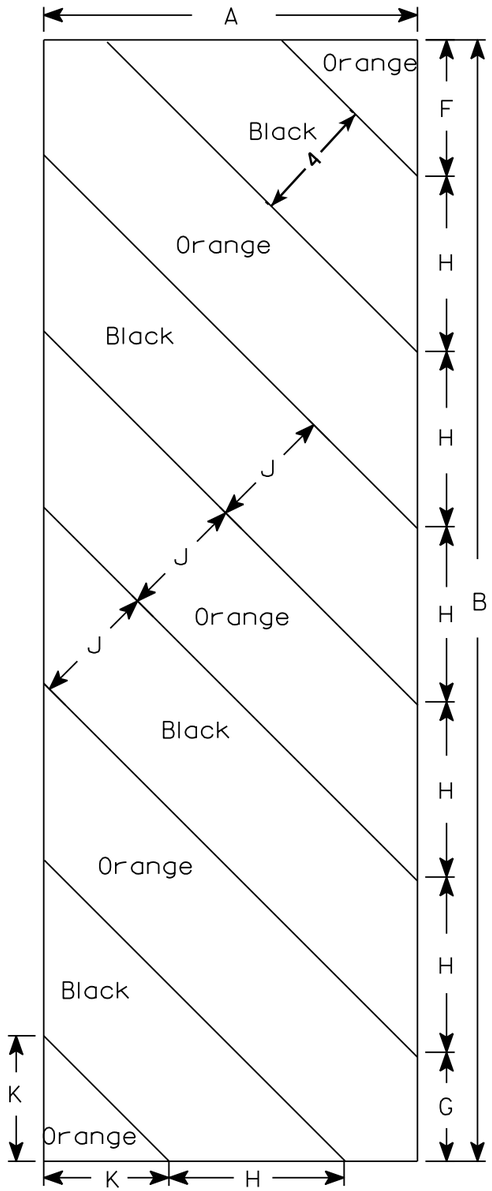
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

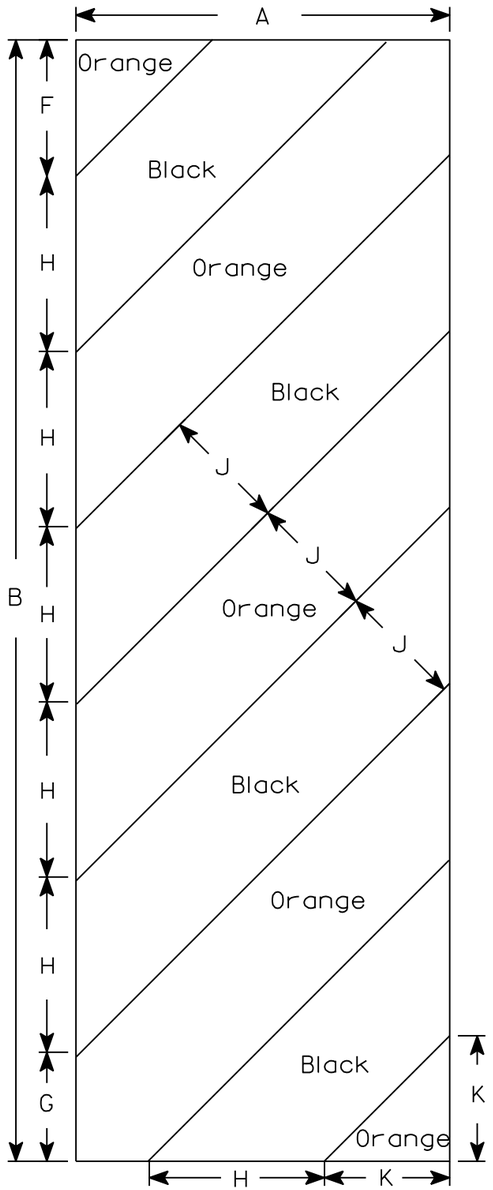
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 693 W04-2.1

PROJECT NO: | SHEET NO: E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

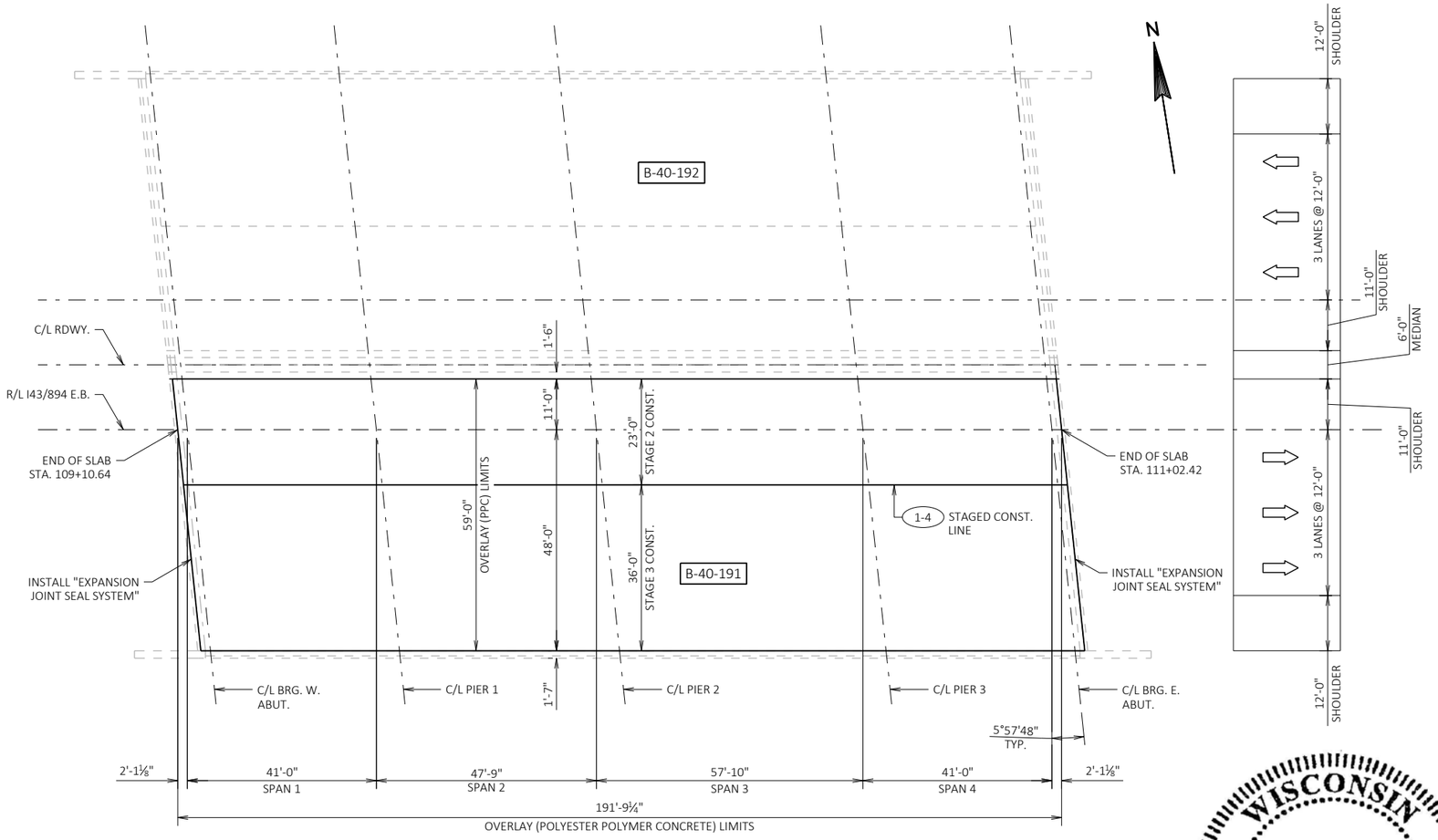
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

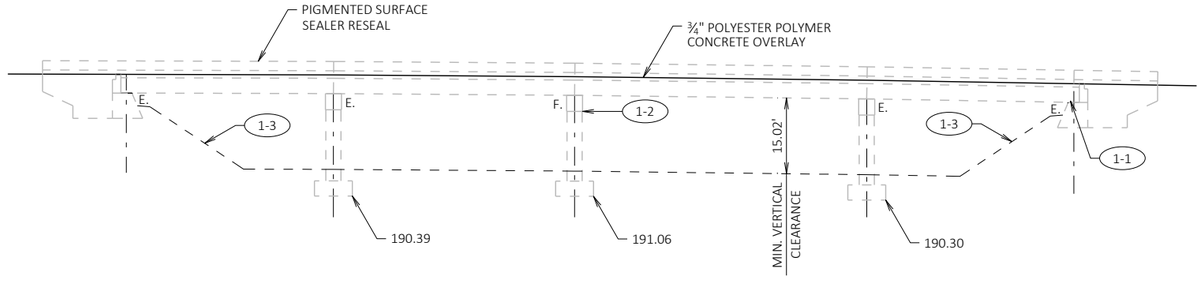
DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



PLAN

(POLYESTER POLYMER CONCRETE OVERLAY: 4-SPAN, 36-INCH PRESTRESSED GIRDER BRIDGE)



ELEVATION

(NORMAL TO 84TH STREET)
(EXISTING PILING NOT SHOWN)

STATE PROJECT NUMBER

1100-45-70

GENERAL NOTES

THE PROPOSED WORK INCLUDES PLACEMENT OF A POLYESTER POLYMER CONCRETE OVERLAY, SLOPE PAVING REPAIR, PLACING AN EXPANSION JOINT SEAL SYSTEM, CONCRETE SURFACE REPAIR, GIRDER REPAIRS, AND RESEALING PARAPETS.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS. CLEARANCE BASED ON INSPECTION REPORT.

THE EXISTING STRUCTURE B-40-191 IS A 4 SPAN PRESTRESSED GIRDER BRIDGE WITH AN OVERALL LENGTH OF 193'-1¼" AND OVERALL WIDTH OF 63'-6".

¾ -INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

AREAS OF "PREPARATION DECKS TYPE 1" SHALL BE DEFINED BY A SAW CUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "RAPID SET DECK REPAIR". POLYESTER POLYMER CONCRETE AND PORTLAND CEMENT BASED CONCRETE PATCHES MAY BE SUBSTITUTED AT NO EXTRA COST. PORTLAND AND CEMENT BASED CONCRETE PATCHES SHALL BE USED FOR FULL-DEPTH REPAIRS WITH A PLAN AREA LARGER THAN 4 SF, UNLESS APPROVED OTHERWISE BY THE STRUCTURES DESIGN SECTION.

DECK REPAIRS SHALL BE FILLED PRIOR TO OVERLAY PLACEMENT. DECK REPAIRS USING A PORTLAND CEMENT BASED CONCRETE REQUIRES A MINIMUM DRY TIME OF 28 DAYS PRIOR TO OVERLAY PLACEMENT.

SHOT BLASTING, OVERLAY PRIME COAT, DECK SURFACE PREPARATIONS, AND TRANSITIONAL AREAS ARE INCLUDED IN THE BID ITEM "POLYESTER POLYMER CONCRETE OVERLAY".

OVERLAY CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER. AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS. WHEN REQUIRED, PLACE LONGITUDINAL JOINTS AT LANE LINES OR IN THE MIDDLE OF THE LANE. WHEEL PATHS DURING TEMPORARY TRAFFIC STAGING NEED NOT BE CONSIDERED.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF ¾" PLACED ABOVE THE DECK SURFACE AFTER THE SURFACE PREPARATION. THE EXPECTED OVERLAY THICKNESS IS 1". IF EXPECTED OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ¼", CONTACT THE STRUCTURES DESIGN SECTION.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF THE UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

THE AVERAGE OVERLAY THICKNESS IS BASED ON THE MINIMUM OVERLAY THICKNESS PLUS ¼" TO ACCOUNT FOR VARIATIONS IN THE DECK SURFACE.

DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING	HS12
OPERATIONAL RATING	HS20
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	160 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUBSTRUCTURE	f'c = 3,500 PSI
SUPERSTRUCTURE & DECK REPAIR	f'c = 4,000 PSI

TRAFFIC DATA

I43/894:

ADT (2023) =	61,000
ADT (2043) =	64,800

S. 84TH STREET:

ADT (2012) =	18,700
ADT (2031) =	20,400

WISCONSIN
WILLIAM A. HOVE
E-33600
MADISON, WI
PROFESSIONAL ENGINEER

9/1/2022

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. GALVANIC ANODE DETAILS
4. CONCRETE GIRDER REPAIR DETAILS
5. DECK CONDITION SURVEY

LEGEND

(1-1) CLEANING AND SEALING CONCRETE GIRDER ENDS AT LOCATIONS DESIGNATED BY ENGINEER.

(1-2) CONCRETE SURFACE REPAIR AND REMOVING LOOSE CONCRETE AT LOCATIONS DIRECTED BY ENGINEER. INCLUDE CATHODIC PROTECTION AT LOCATIONS DIRECTED BY ENGINEER.

(1-3) SLOPE PAVING REPAIR REQUIRED AS DIRECTED BY ENGINEER.

(1-4) SEE ROADWAY PLAN FOR CONSTRUCTION STAGING INFORMATION.

BRIDGE OFFICE CONTACT
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TELEPHONE: (608) 261-0261

CONSULTANT CONTACT
BILL HOVE, P.E.
TELEPHONE: (262) 393-1260

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-191

I43/894 EB OVER S. 84TH STREET

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	GREENFIELD

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	PKF	BH

GENERAL PLAN

SHEET 1 OF 5

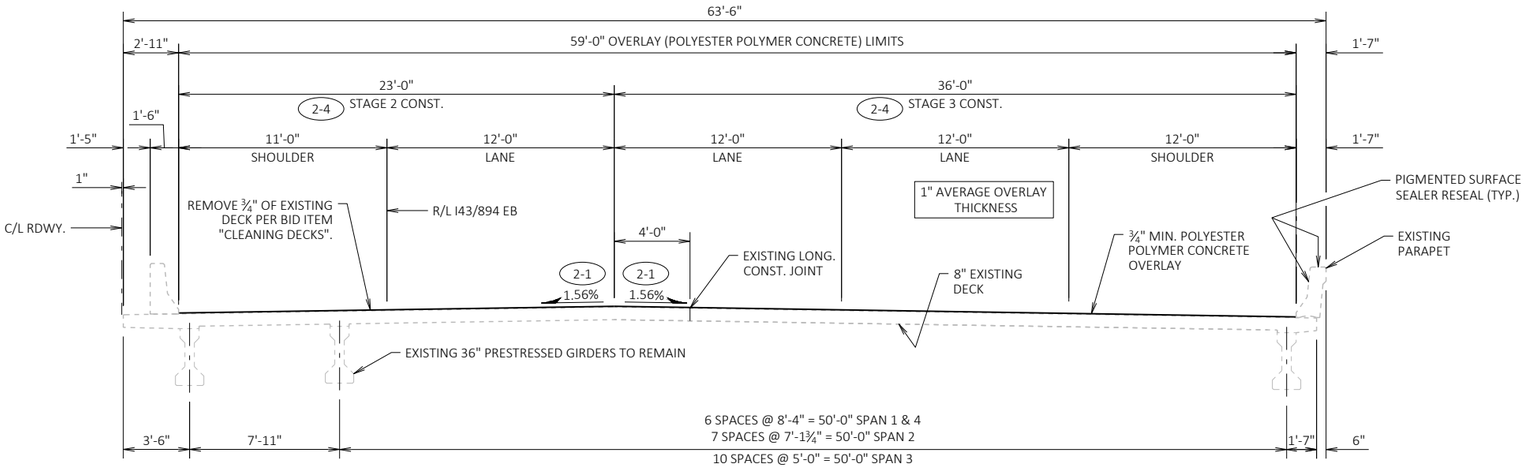
695

8

8

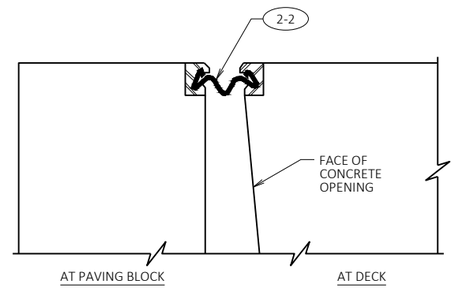
STATE PROJECT NUMBER

1100-45-70

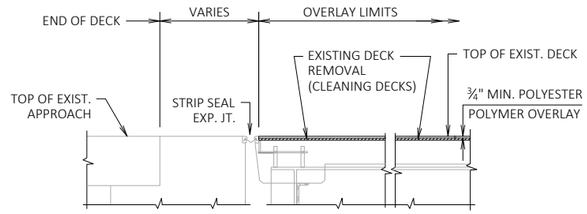


CROSS SECTION THRU RDWY.

LOOKING EAST



SECTION THRU JOINT AT ABUTMENTS (TYP)



SECTION THRU ABUTMENT AT EXPANSION JOINT

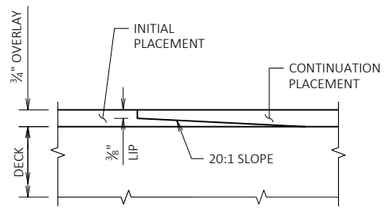
LEGEND

- (2-1) EXISTING AND PROPOSED CROSS SLOPE.
- (2-2) EXPANSION JOINT SEAL SYSTEM PER THE SPECIAL PROVISIONS AND AS APPROVED BY THE ENGINEER.
- (2-3) LOCATIONS OF CONCRETE SURFACE REPAIR, REMOVING LOOSE CONCRETE, & REMOVING CONCRETE SLOPE PAVING WILL BE DETERMINED BY THE FIELD ENGINEER. QUANTITY SHOWN IS APPROXIMATE. REMOVING LOOSE CONCRETE UTILIZED WHERE SPALLING & DELAMINATION DOESN'T EXTEND BEHIND THE REINFORCEMENT OR AT LOCATIONS WHERE PATCHES COULD FALL ON THE ROADWAY OR SIDEWALK BELOW, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
- (2-4) SEE ROADWAY PLAN FOR CONSTRUCTION STAGING DETAILS.

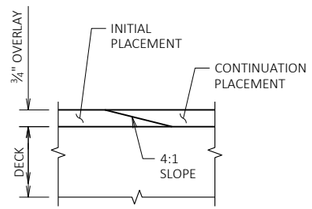
TOTAL ESTIMATED QUANTITIES

	ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	PIER 3	SUPER	TOTAL
(2-3)	204.0175	REMOVING CONCRETE SLOPE PAVING	SY	20	60	----	----	----	----	80
	502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	----	----	----	----	----	155	155
	509.0301	PREPARATION DECKS TYPE 1	SY	----	----	----	----	----	10	10
	509.0302	PREPARATION DECKS TYPE 2	SY	----	----	----	----	----	5	5
	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	----	----	----	----	----	40	40
	509.0500	CLEANING DECKS	SY	----	----	----	----	----	1,260	1,260
(2-3)	509.1500	CONCRETE SURFACE REPAIR	SF	20	30	10	10	10	30	110
	509.2000	FULL-DEPTH DECK REPAIR	SY	----	----	----	----	----	1	1
(2-3)	604.0400	SLOPE PAVING CONCRETE	SY	20	60	----	----	----	----	80
	SPV.0035.400	RAPID SET DECK REPAIR	CY	----	----	----	----	----	1	1
	SPV.0060.404	EMBEDDED GALVANIC ANODES	EACH	----	----	3	3	4	----	10
	SPV.0060.405	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	----	----	----	----	----	16	16
	SPV.0090.400	EXPANSION JOINT SEAL SYSTEM	LF	----	----	----	----	----	120	120
(2-3)	SPV.0165.403	REMOVING LOOSE CONCRETE	SF	----	----	----	----	----	50	50
	SPV.0180.401	ABUTMENT SEAT CLEANING AND SEALING	SY	16	16	----	----	----	----	32
	SPV.0180.403	POLYESTER POLYMER CONCRETE OVERLAY	SY	----	----	----	----	----	1260	1260

ALL BID ITEMS ARE CATEGORY 2000



TRANSVERSE JOINT



LONGITUDINAL JOINT

DETAIL REQUIRED WHEN OVERLAY IS NOT COMPLETED WITHIN THE WORK PERIOD OR IF STAGED CONSTRUCTION IS USED. OPTIONAL (CONTRACTOR) JOINTS TO BE APPROVED BY THE ENGINEER.

AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS (PLACE AT LANE LINES OR IN THE MIDDLE OF THE LANE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-191

DRAWN BY PKF | PLANS CK'D. BH

CROSS SECTION & QUANTITIES

SHEET 2 OF 5

696

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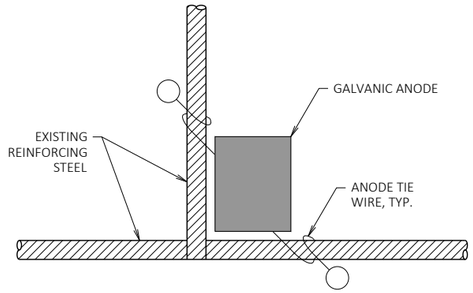
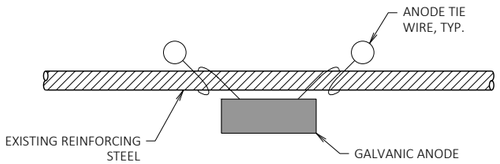
STATE PROJECT NUMBER

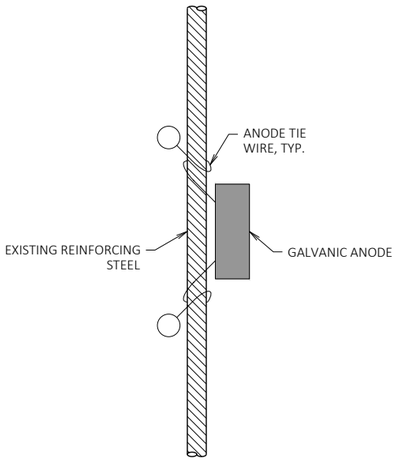
1100-45-70



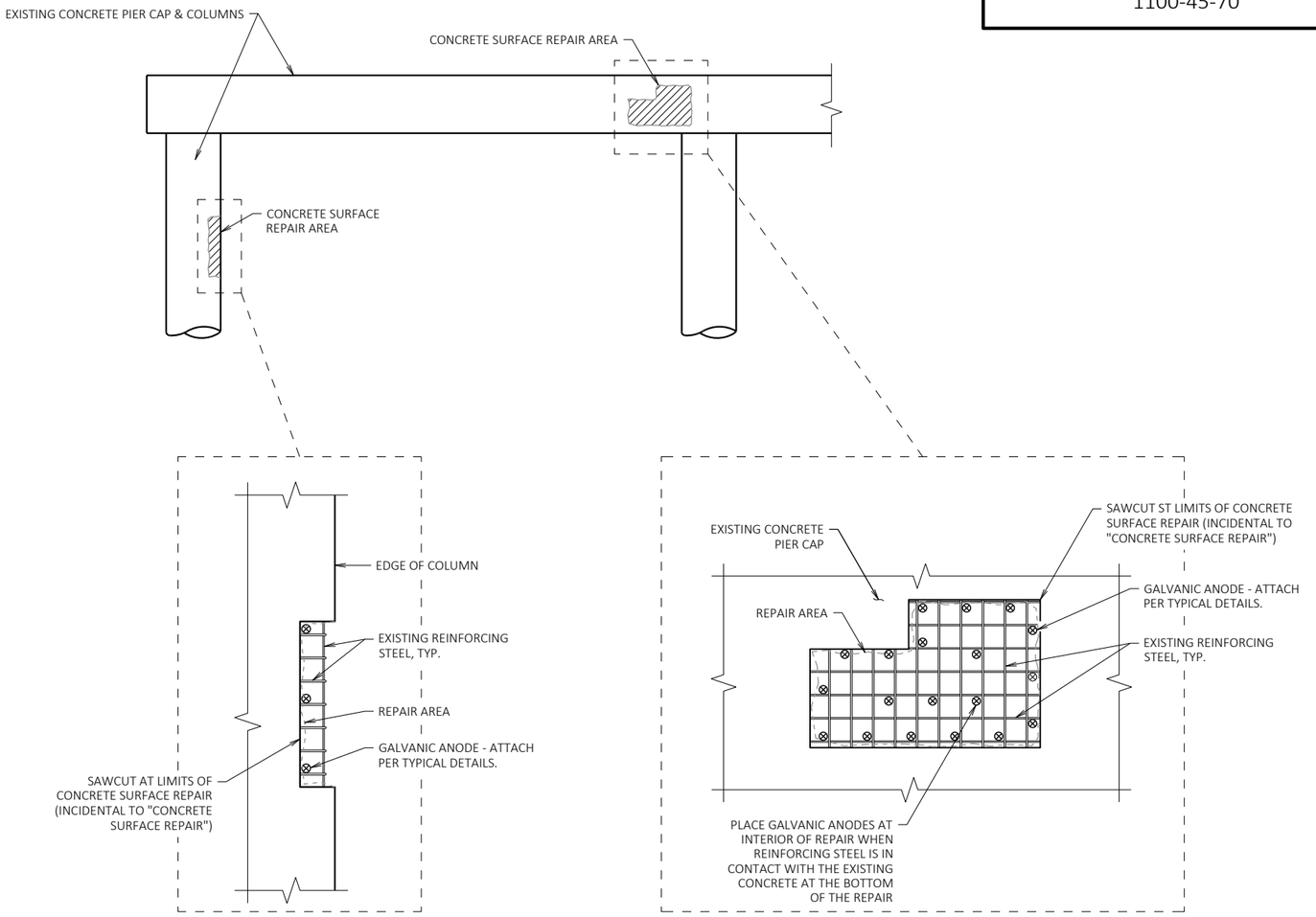
TYPICAL INSTALLATION AT BAR STEEL INTERSECTION



TYPICAL INSTALLATION FOR BAR STEEL
(HORIZONTAL)



TYPICAL INSTALLATION FOR BAR STEEL
(VERTICAL)



TYPICAL SUBSTRUCTURE REPAIR DETAIL

PIER SHOWN, ABUTMENT SIMILAR. SUPERSTRUCTURE OMITTED FOR CLARITY.
VERTICAL SURFACE REPAIR SHOWN, HORIZONTAL SURFACE REPAIR SIMILAR.

CATHODIC PROTECTION REPAIR NOTES

SURFACE REPAIR AREAS WITH CATHODIC PROTECTION ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. THE PLAN QUANTITY FOR THE BID ITEM "EMBEDDED GALVANIC ANODES" IS BASED ON A MAXIMUM SPACING OF 24-INCHES AROUND THE SURFACE REPAIR PERIMETER. THE ACTUAL QUANTITY SHALL BE BASED ON THE FIELD CONDITIONS AND AS RECOMMENDED BY THE GALVANIC ANODE SUPPLIER.

SURFACE REPAIRS SHALL BE FILLED WITH REPAIR MATERIALS COMPATIBLE WITH CATHODIC PROTECTION, AS RECOMMENDED BY THE ANODE SUPPLIER.

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL AND CONCRETE TO PROVIDE SUFFICIENT ELECTRICAL CONNECTION AND BOND. CATHODIC PROTECTION PREPARATIONS ARE INCLUDED IN THE BID ITEM "EMBEDDED GALVANIC ANODES".

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1 ½" AND A MINIMUM BOTTOM COVER OF ¾".

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-191

DRAWN BY PKF | PLANS CK'D. BH

GALVANIC ANODE DETAILS

SHEET 3 OF 5

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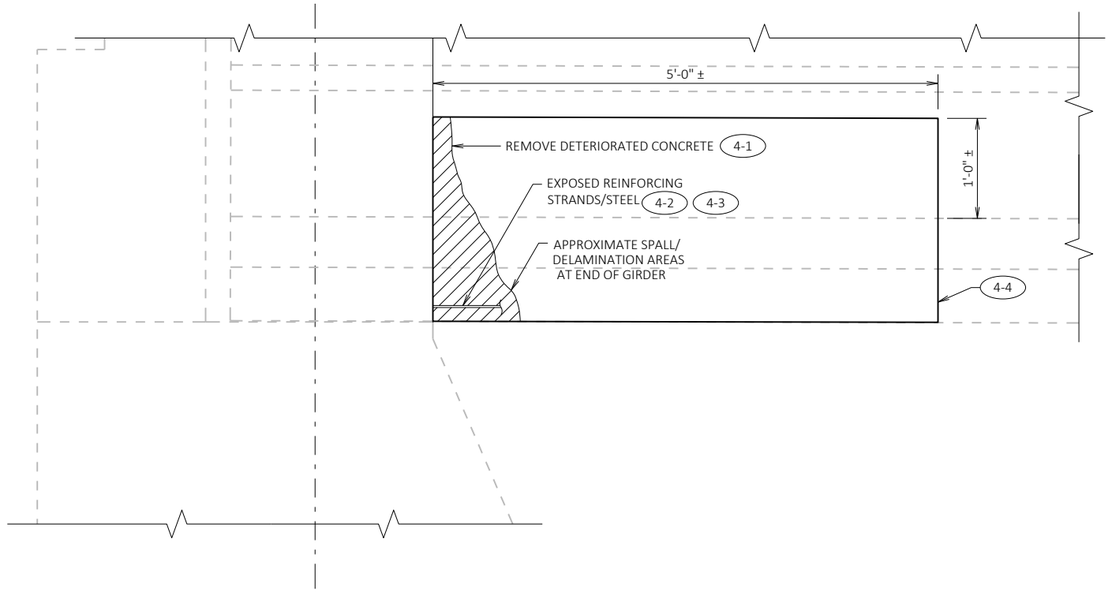
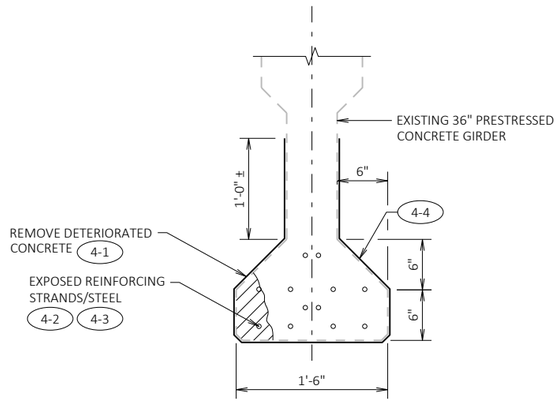
STATE PROJECT NUMBER

1100-45-70



CLEANING & SEALING CONCRETE GIRDER ENDS - ELEVATION VIEW



CLEANING & SEALING CONCRETE GIRDER ENDS - SECTION VIEW

LEGEND

4-1 REMOVE LOOSE, DELAMINATED, OR DETERIORATED CONCRETE AT THE ABUTMENT ENDS OF GIRDERS.

4-2 BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

4-3 BRUSH APPLY ORGANIC ZINC RICH PRIMER AND INTERMEDIATE COAT.

4-4 APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES

CLEAN AND SEAL GIRDER ENDS AS SHOWN ON THESE PLANS AND PER THE SPECIAL PROVISION "CLEANING AND SEALING CONCRETE GIRDER ENDS".

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT INTERMEDIATE COAT SHALL BE CONCRETE GRAY.

WORK AREAS ARE ANTICIPATED AT ALL GIRDERS AT THE ABUTMENTS. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-191

DRAWN BY PKF | PLANS CK'D. BH

CONCRETE GIRDER REPAIR DETAILS

SHEET 4 OF 5

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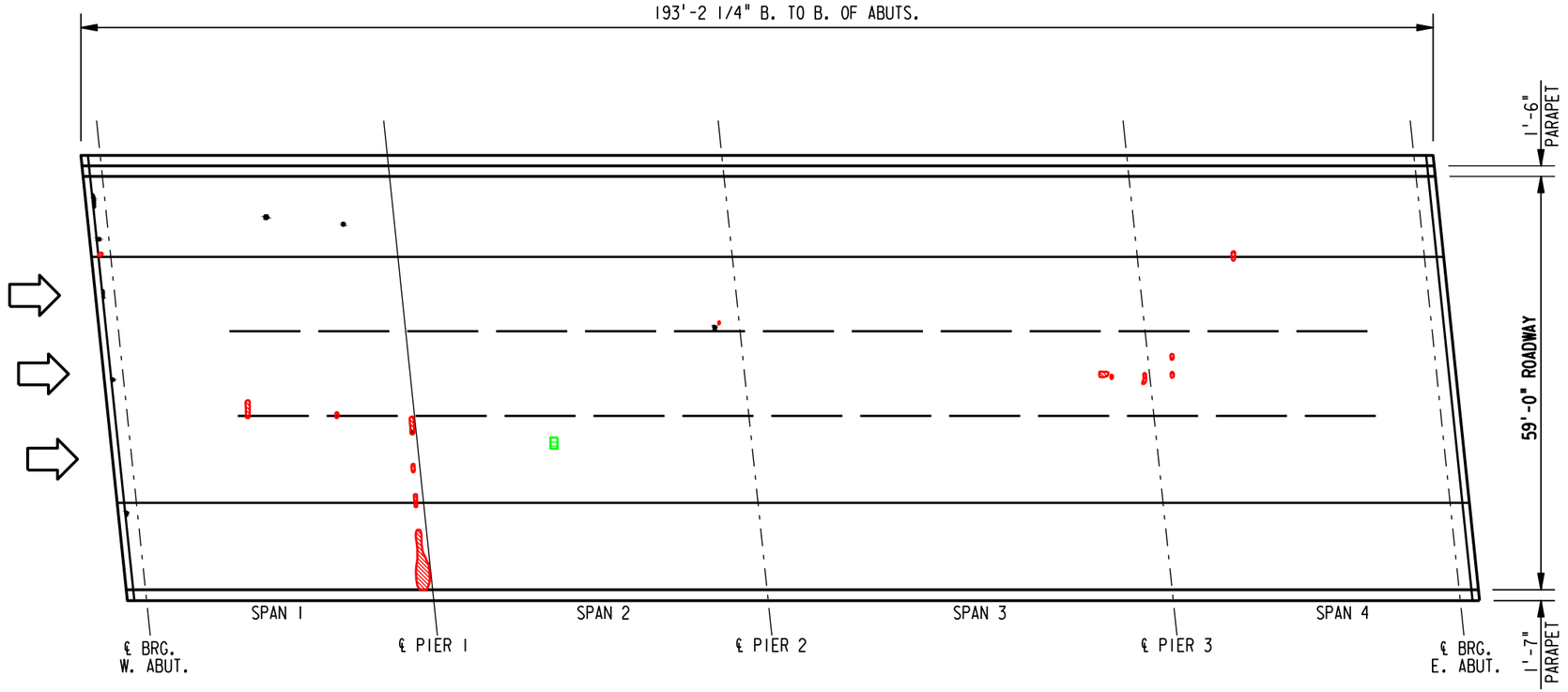
STATE PROJECT NUMBER
1100-45-70



PLAN

INFRARED THERMOGRAPHIC SURVEY RESULTS

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-40-191	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	11398	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	18	0.2
SPALL	ft^2	3	<0.1
DEBOND	ft^2	N/A	N/A
ASPHALT PATCH	ft^2	0	0
PCC PATCH	ft^2	2	<0.1

LEGEND

- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- PCC PATCH
- SHADE/DEBRIS

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 9/15/21

NOTES:

DECK CONDITION SURVEY PERFORMED BY AECOM ON 9/15/2021.

DEFECT AREAS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. THE FIELD ENGINEER WILL SOUND THE DECK AND MARK AREAS IN THE FIELD. RELATED QUANTITIES SHOWN ON SHEET 2 WERE INCREASED TO ACCOUNT FOR GROWTH AND VARIABILITY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-191

DRAWN BY PKF | PLANS CK'D. BH

DECK CONDITION SURVEY

SHEET 5 OF 5

699

8

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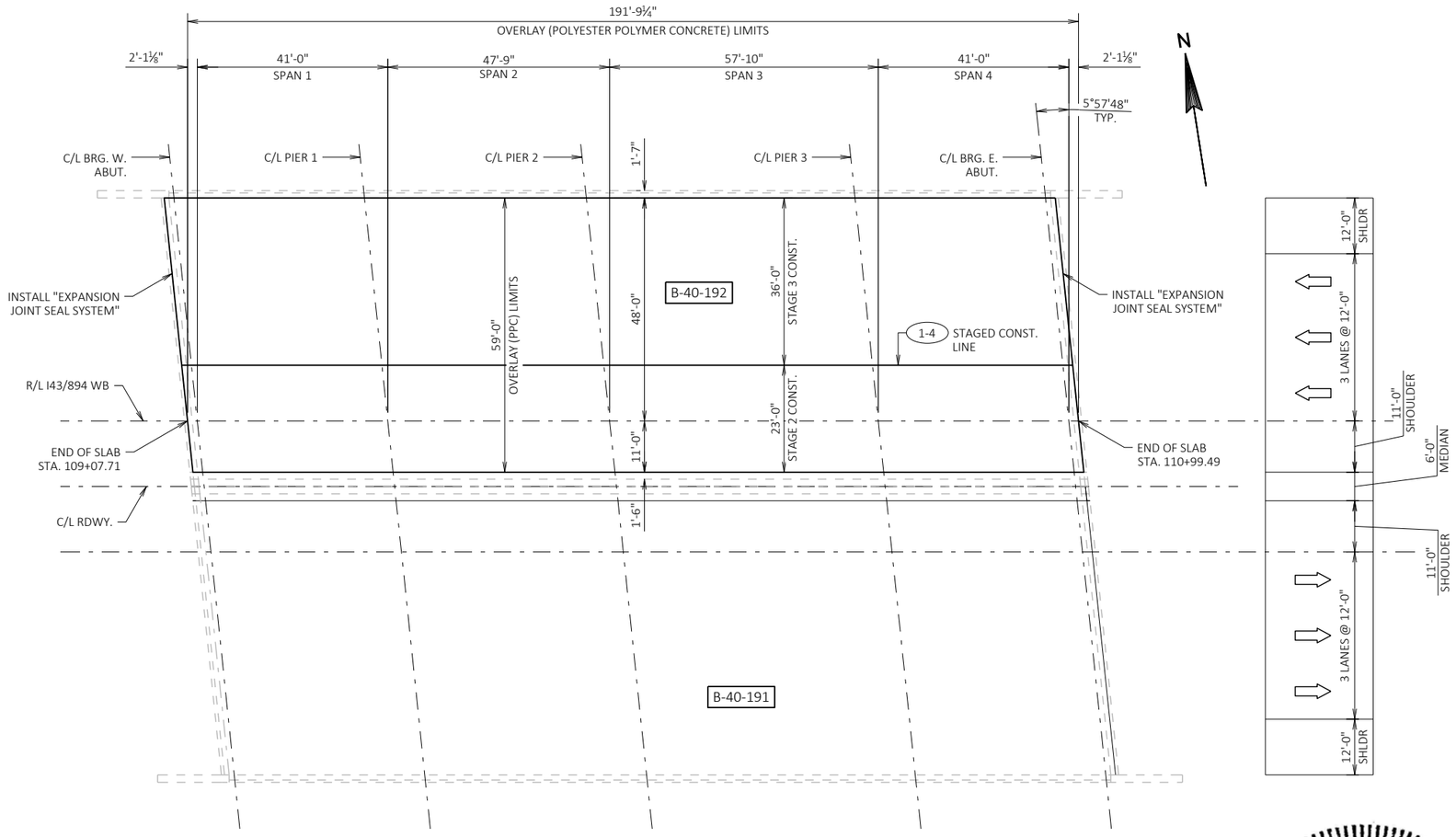
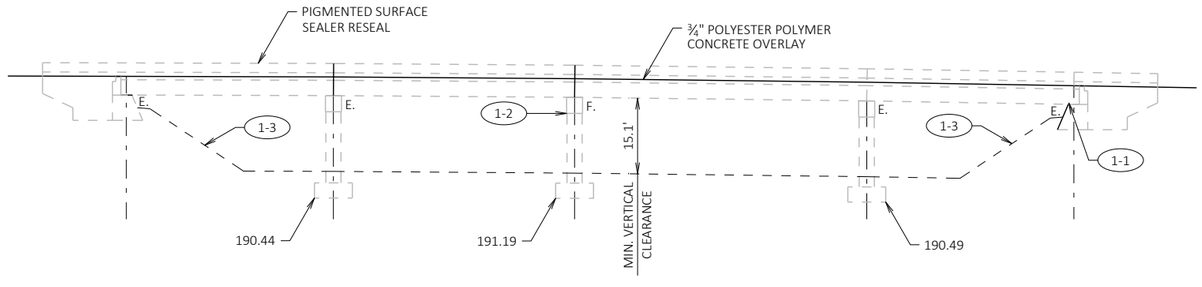


PLAN

(POLYESTER POLYMER CONCRETE OVERLAY: 4-SPAN, 36-INCH PRESTRESSED GIRDER BRIDGE)



ELEVATION

(NORMAL TO 84TH STREET)
(EXISTING PILING NOT SHOWN)

STATE PROJECT NUMBER

1100-45-70

GENERAL NOTES

THE PROPOSED WORK INCLUDES PLACEMENT OF A POLYESTER POLYMER CONCRETE OVERLAY, SLOPE PAVING REPAIR, PLACING AN EXPANSION JOINT SEAL SYSTEM, CONCRETE SURFACE REPAIR, GIRDER REPAIRS, AND RESEALING PARAPETS.

DRAWINGS SHALL NOT BE SCALED.

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DESIGN DATA

LIVE LOAD:

DESIGN LOADING	HS20
INVENTORY RATING	HS12
OPERATIONAL RATING	HS20
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	160 KIPS

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SUPERSTRUCTURE & DECK REPAIR	f'c = 4,000 PSI

TRAFFIC DATA

I43/894:		S. 84TH STREET:	
ADT (2023) =	59,800	ADT (2012) =	18,700
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WISCONSIN PROFESSIONAL ENGINEER
WILLIAM A. HOVE
E-33600
MADISON, WI

9/1/2022

LEGEND

(1-1) CLEANING AND SEALING CONCRETE GIRDER ENDS AT LOCATIONS DESIGNATED BY ENGINEER.

(1-2) CONCRETE SURFACE REPAIR AND REMOVING LOOSE CONCRETE AT LOCATIONS DIRECTED BY ENGINEER. INCLUDE CATHODIC PROTECTION AT LOCATIONS DIRECTED BY ENGINEER.

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(1-4) SEE ROADWAY PLAN FOR CONSTRUCTION STAGING INFORMATION.

LIST OF DRAWINGS

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BRIDGE OFFICE CONTACT
AARON BONK, P.E.
TELEPHONE: (608) 261-0261

CONSULTANT CONTACT
BILL HOVE, P.E.
TELEPHONE: (262) 393-1260

NO.	DATE	REVISION	BY

CORRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-192

I43/894 WB OVER S. 84TH STREET

COUNTY	TOWN/CITY/~~VILLAGE~~
MILWAUKEE	GREENFIELD

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BH	ETP	PKF	BH

GENERAL PLAN

SHEET 1 OF 5

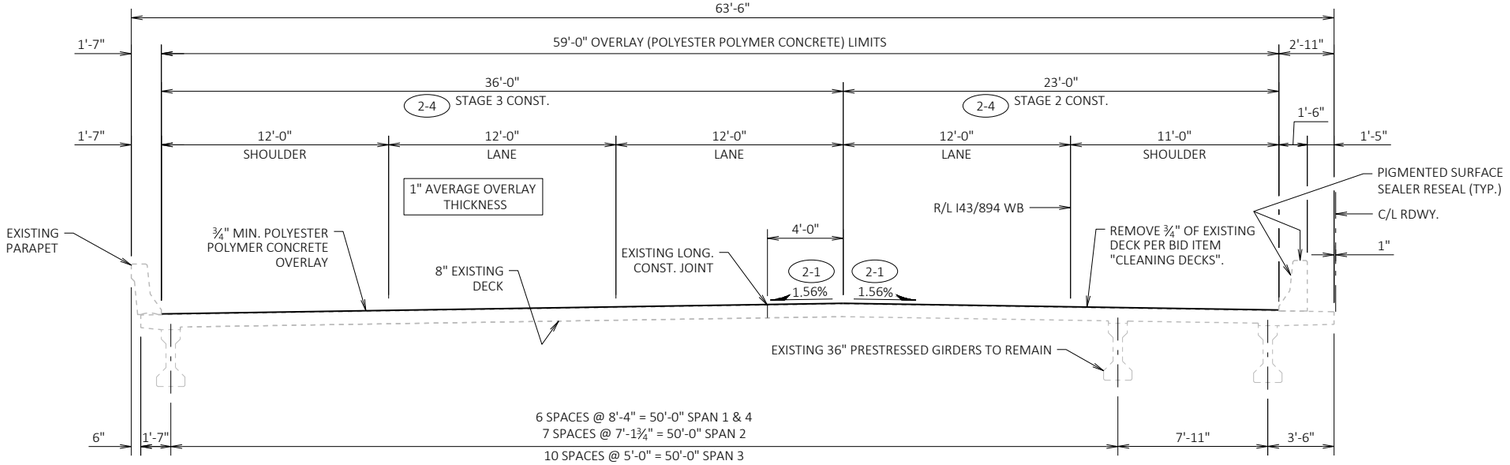
700

8

8

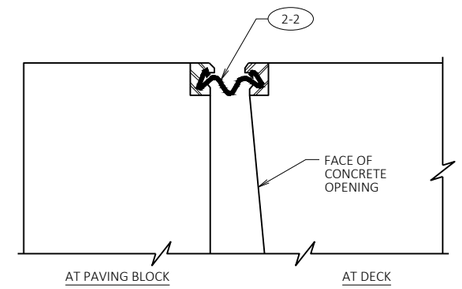
STATE PROJECT NUMBER

1100-45-70



CROSS SECTION THRU RDWY.

LOOKING EAST



SECTION THRU JOINT AT ABUTMENTS (TYP)

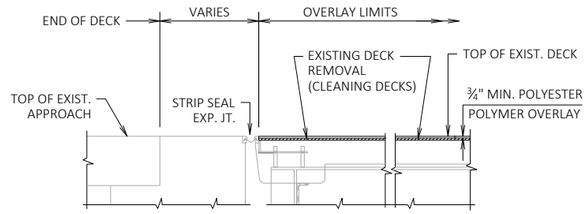
LEGEND

(2-1) EXISTING AND PROPOSED CROSS SLOPE.

(2-2) EXPANSION JOINT SEAL SYSTEM PER THE SPECIAL PROVISIONS AND AS APPROVED BY THE ENGINEER.

(2-3) LOCATIONS OF CONCRETE SURFACE REPAIR, REMOVING LOOSE CONCRETE, & REMOVING CONCRETE SLOPE PAVING WILL BE DETERMINED BY THE FIELD ENGINEER. QUANTITY SHOWN IS APPROXIMATE. REMOVING LOOSE CONCRETE UTILIZED WHERE SPALLING & DELAMINATION DOESN'T EXTEND BEHIND THE REINFORCEMENT OR AT LOCATIONS WHERE PATCHES COULD FALL ON THE ROADWAY OR SIDEWALK BELOW, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

(2-4) SEE ROADWAY PLAN FOR CONSTRUCTION STAGING DETAILS.

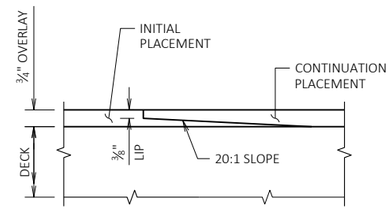


SECTION THRU ABUTMENT AT EXPANSION JOINT

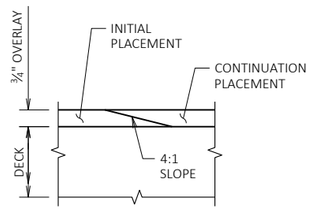
TOTAL ESTIMATED QUANTITIES

	ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	EAST ABUT.	PIER 1	PIER 2	PIER 3	SUPER	TOTAL
(2-3)	204.0175	REMOVING CONCRETE SLOPE PAVING	SY	20	50	----	----	----	----	70
	502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	----	----	----	----	----	155	155
	509.0301	PREPARATION DECKS TYPE 1	SY	----	----	----	----	----	10	10
	509.0302	PREPARATION DECKS TYPE 2	SY	----	----	----	----	----	5	5
	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	----	----	----	----	----	40	40
	509.0500	CLEANING DECKS	SY	----	----	----	----	----	1,260	1,260
(2-3)	509.1500	CONCRETE SURFACE REPAIR	SF	30	20	20	20	20	30	140
	509.2000	FULL-DEPTH DECK REPAIR	SY	----	----	----	----	----	1	1
(2-3)	604.0400	SLOPE PAVING CONCRETE	SY	20	50	----	----	----	----	70
	SPV.0035.400	RAPID SET DECK REPAIR	CY	----	----	----	----	----	1	1
	SPV.0060.404	EMBEDDED GALVANIC ANODES	EACH	----	----	5	5	5	----	15
	SPV.0060.405	CLEANING AND SEALING CONCRETE GIRDER ENDS	EACH	----	----	----	----	----	16	16
	SPV.0090.400	EXPANSION JOINT SEAL SYSTEM	LF	----	----	----	----	----	120	120
(2-3)	SPV.0165.403	REMOVING LOOSE CONCRETE	SF	----	----	----	----	----	50	50
	SPV.0180.401	ABUTMENT SEAT CLEANING AND SEALING	SY	16	16	----	----	----	----	32
	SPV.0180.403	POLYESTER POLYMER CONCRETE OVERLAY	SY	----	----	----	----	----	1260	1260

ALL BID ITEMS ARE CATEGORY 2010



TRANSVERSE JOINT



LONGITUDINAL JOINT

DETAIL REQUIRED WHEN OVERLAY IS NOT COMPLETED WITHIN THE WORK PERIOD OR IF STAGED CONSTRUCTION IS USED. OPTIONAL (CONTRACTOR) JOINTS TO BE APPROVED BY THE ENGINEER.

AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS (PLACE AT LANE LINES OR IN THE MIDDLE OF THE LANE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-192

DRAWN BY PKF | PLANS CK'D. BH

CROSS SECTION & QUANTITIES

SHEET 2 OF 5

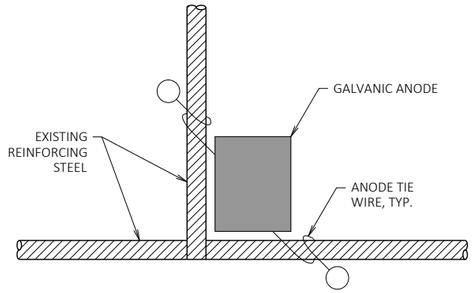
701

8

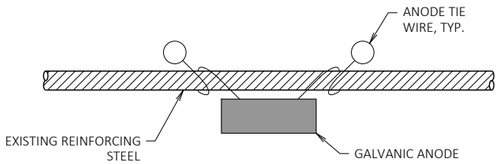
8

STATE PROJECT NUMBER

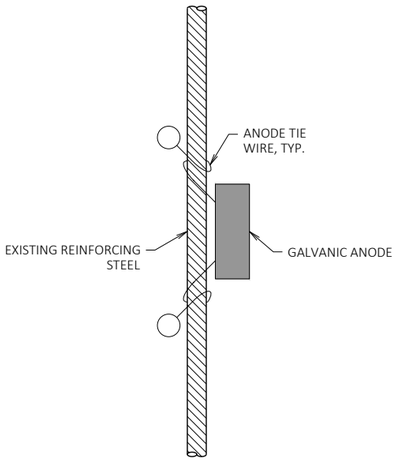
1100-45-70



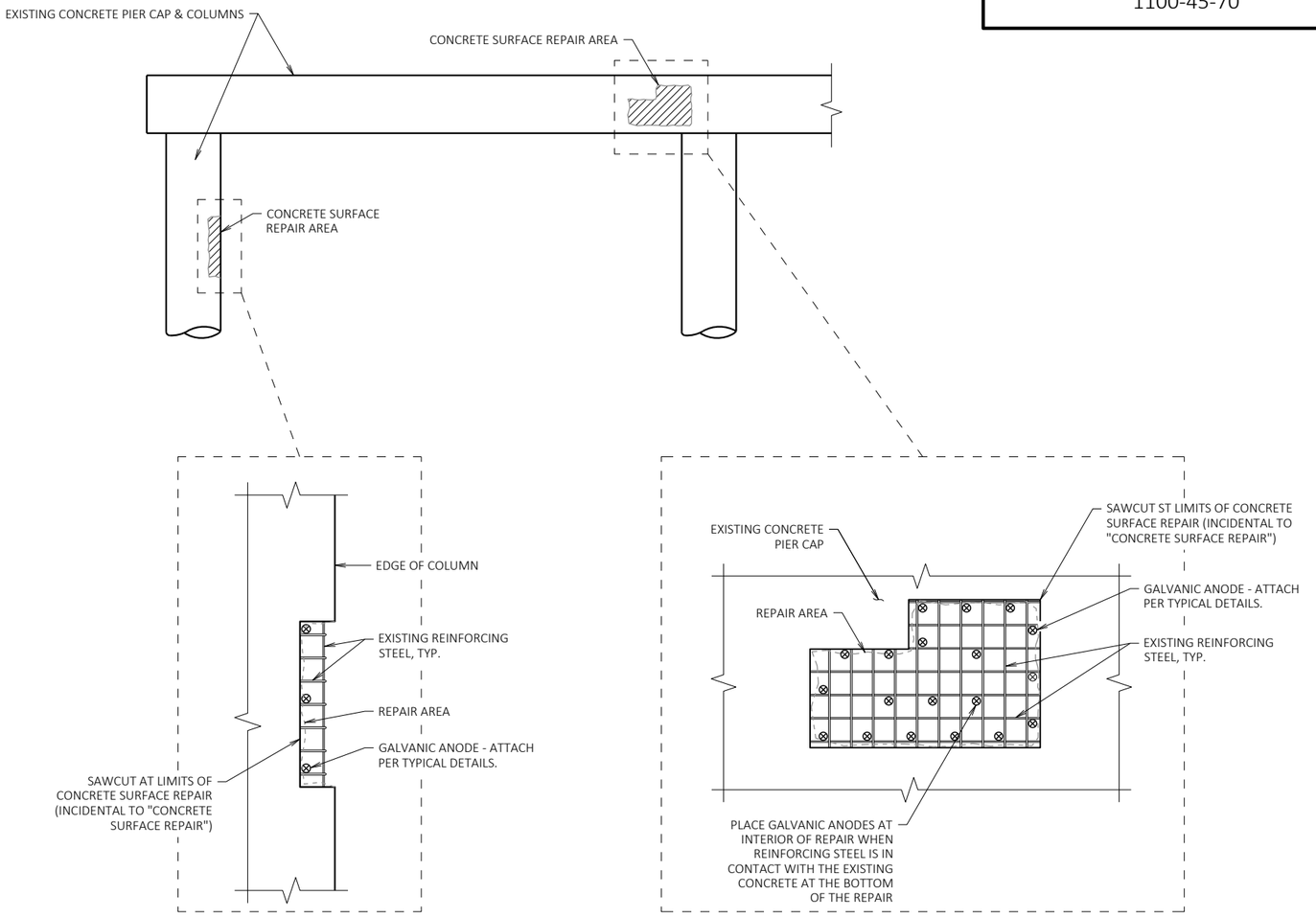
TYPICAL INSTALLATION AT BAR STEEL INTERSECTION



TYPICAL INSTALLATION FOR BAR STEEL
(HORIZONTAL)



TYPICAL INSTALLATION FOR BAR STEEL
(VERTICAL)



TYPICAL SUBSTRUCTURE REPAIR DETAIL

PIER SHOWN, ABUTMENT SIMILAR. SUPERSTRUCTURE OMITTED FOR CLARITY.
VERTICAL SURFACE REPAIR SHOWN, HORIZONTAL SURFACE REPAIR SIMILAR.

CATHODIC PROTECTION REPAIR NOTES

SURFACE REPAIR AREAS WITH CATHODIC PROTECTION ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. THE PLAN QUANTITY FOR THE BID ITEM "EMBEDDED GALVANIC ANODES" IS BASED ON A MAXIMUM SPACING OF 24-INCHES AROUND THE SURFACE REPAIR PERIMETER. THE ACTUAL QUANTITY SHALL BE BASED ON THE FIELD CONDITIONS AND AS RECOMMENDED BY THE GALVANIC ANODE SUPPLIER.

SURFACE REPAIRS SHALL BE FILLED WITH REPAIR MATERIALS COMPATIBLE WITH CATHODIC PROTECTION, AS RECOMMENDED BY THE ANODE SUPPLIER.

EXISTING REINFORCING STEEL TO BE COMPLETELY CLEANED OF CORRODED MATERIAL AND CONCRETE TO PROVIDE SUFFICIENT ELECTRICAL CONNECTION AND BOND. CATHODIC PROTECTION PREPARATIONS ARE INCLUDED IN THE BID ITEM "EMBEDDED GALVANIC ANODES".

ANODES NEAREST TO EDGE OF REPAIR TO BE WITHIN 6" OF EDGE.

AFTER PLACEMENT, GALVANIC ANODES SHOULD MAINTAIN A MINIMUM TOP COVER OF 1 ½" AND A MINIMUM BOTTOM COVER OF ¾".

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-192

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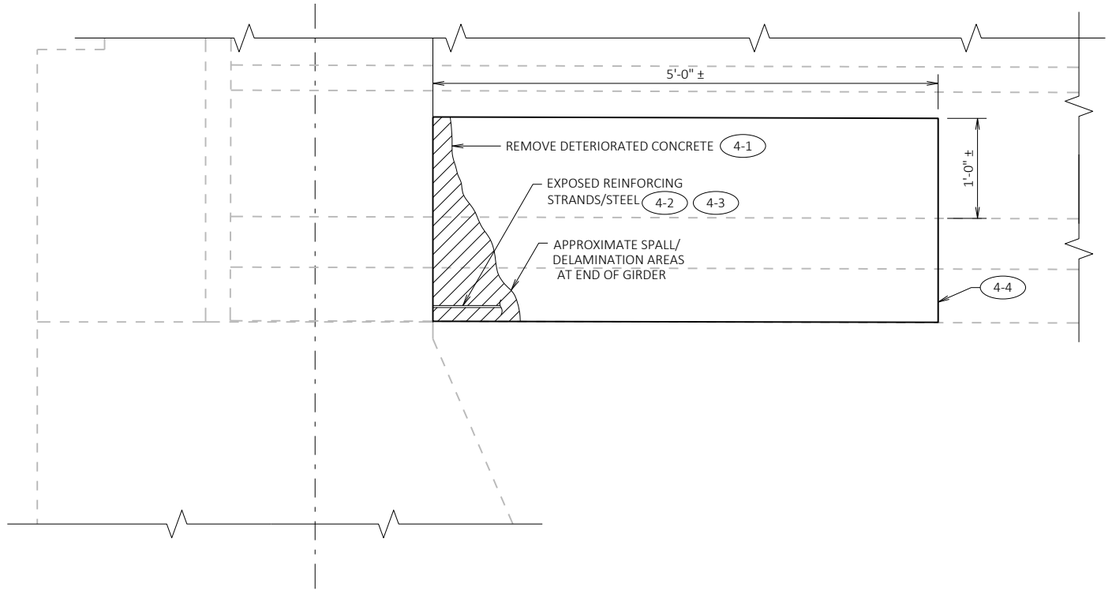
GALVANIC ANODE DETAILS

SHEET 3 OF 5

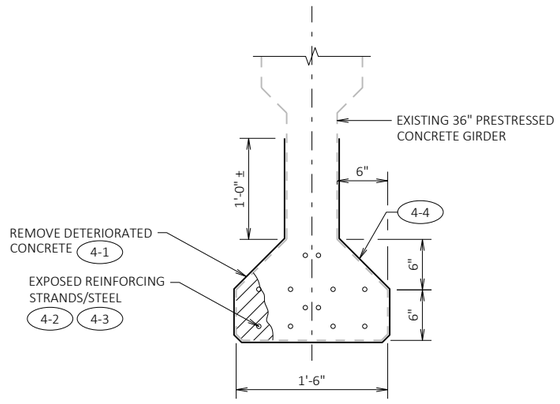
702

STATE PROJECT NUMBER

1100-45-70



CLEANING & SEALING CONCRETE GIRDER ENDS - ELEVATION VIEW



CLEANING & SEALING CONCRETE GIRDER ENDS - SECTION VIEW

LEGEND

4-1 REMOVE LOOSE, DELAMINATED, OR DETERIORATED CONCRETE AT THE ABUTMENT ENDS OF GIRDERS.

4-2 BLAST CLEAN ALL EXPOSED REINFORCEMENT/STRANDS TO REMOVE ALL RUST AND CORROSION.

4-3 BRUSH APPLY ORGANIC ZINC RICH PRIMER AND INTERMEDIATE COAT.

4-4 APPLY NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C.

NOTES

CLEAN AND SEAL GIRDER ENDS AS SHOWN ON THESE PLANS AND PER THE SPECIAL PROVISION "CLEANING AND SEALING CONCRETE GIRDER ENDS".

REMOVE DETERIORATED CONCRETE, TAKING NECESSARY PRECAUTIONS TO PRECLUDE DAMAGE TO REMAINING SOUND CONCRETE.

ALL EXPOSED REINFORCEMENT/STRANDS SHALL BE PRESERVED.

THE COLOR OF THE PAINT INTERMEDIATE COAT SHALL BE CONCRETE GRAY.

WORK AREAS ARE ANTICIPATED AT ALL GIRDERS AT THE ABUTMENTS. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE FIELD ENGINEER.

WORK TO BE PAID FOR UNDER 'CLEANING AND SEALING CONCRETE GIRDER ENDS' BID ITEM. SEE SPECIAL PROVISION FOR DETAILS.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-192

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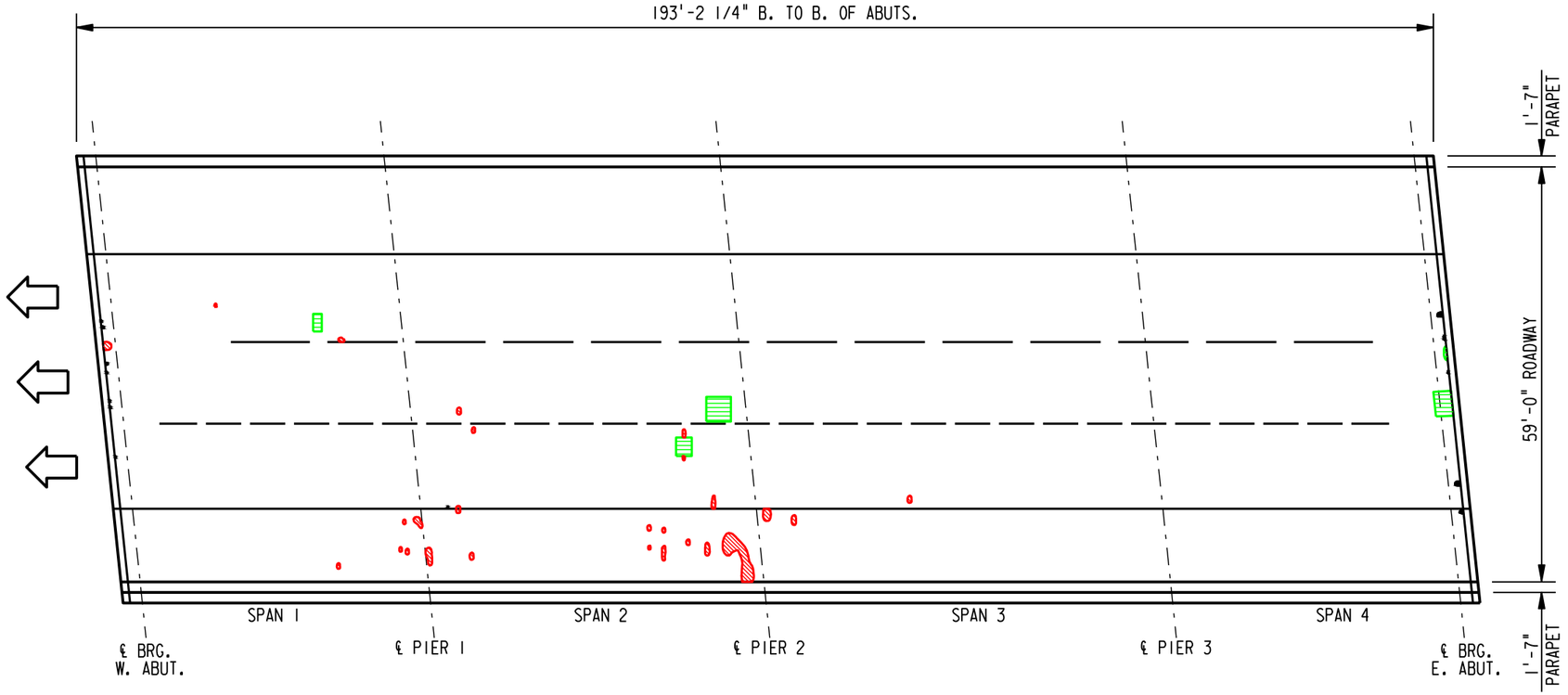
CONCRETE GIRDER REPAIR DETAILS

SHEET 4 OF 5

703

STATE PROJECT NUMBER

1100-45-70



PLAN

INFRARED THERMOGRAPHIC SURVEY RESULTS

N

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-40-192	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	11398	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	28	0.2
SPALL	ft^2	3	<0.1
DEBOND	ft^2	N/A	N/A
ASPHALT PATCH	ft^2	0	0
PCC PATCH	ft^2	31	0.3

LEGEND

- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- PCC PATCH
- SHADE/DEBRIS

SCALE 0' 5' 10' 20'

SURFACE TYPE: CONCRETE - NO OVERLAY

INFRARED INSPECTION DATE: 9/15/21

NOTES:

DECK CONDITION SURVEY PERFORMED BY AECOM ON 9/15/2021.

DEFECT AREAS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. THE FIELD ENGINEER WILL SOUND THE DECK AND MARK AREAS IN THE FIELD. RELATED QUANTITIES SHOWN ON SHEET 2 WERE INCREASED TO ACCOUNT FOR GROWTH AND VARIABILITY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-192

DRAWN BY PKF | PLANS CK'D. BH

DECK CONDITION SURVEY

SHEET 5 OF 5

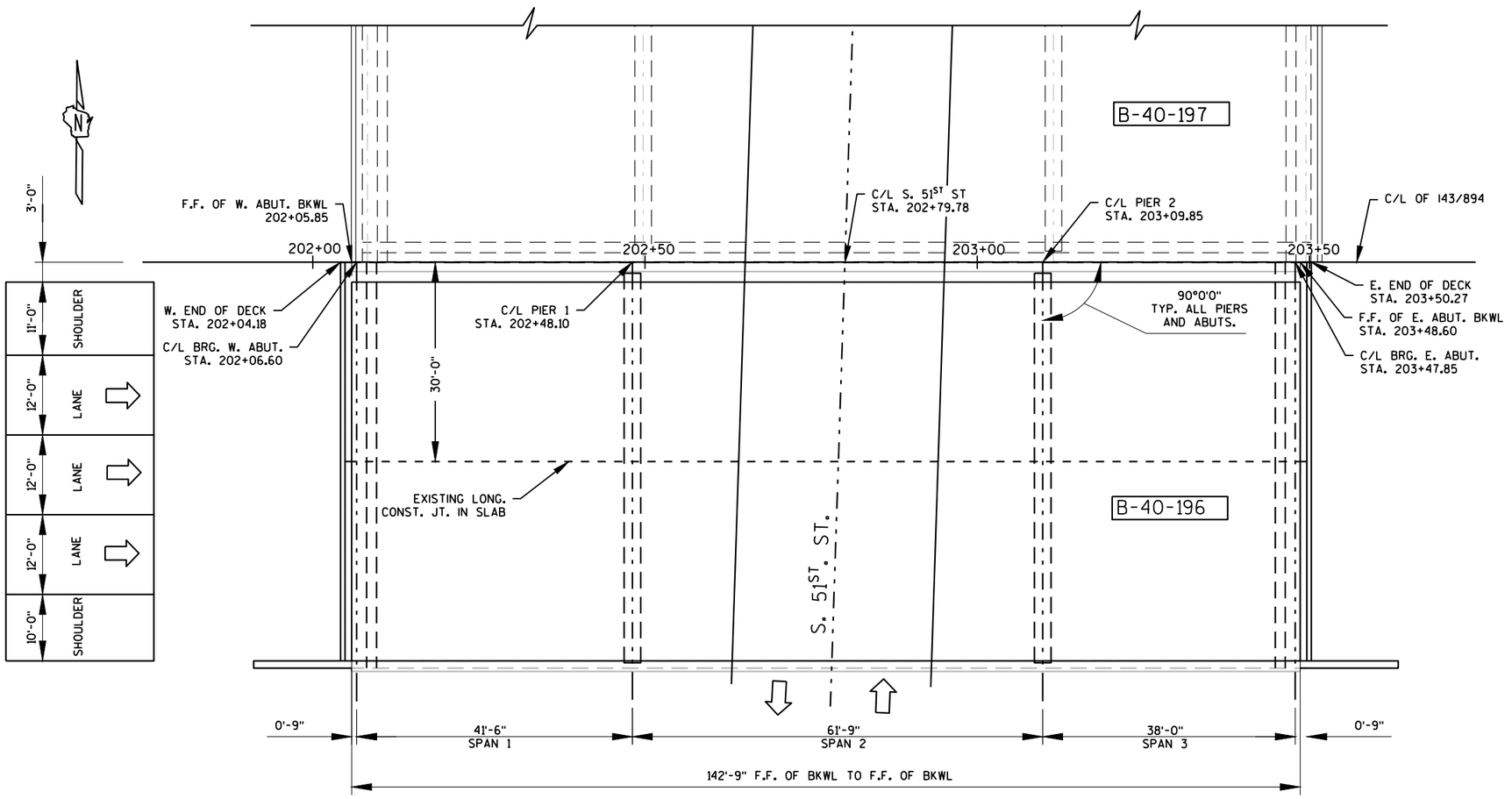
704

8

8

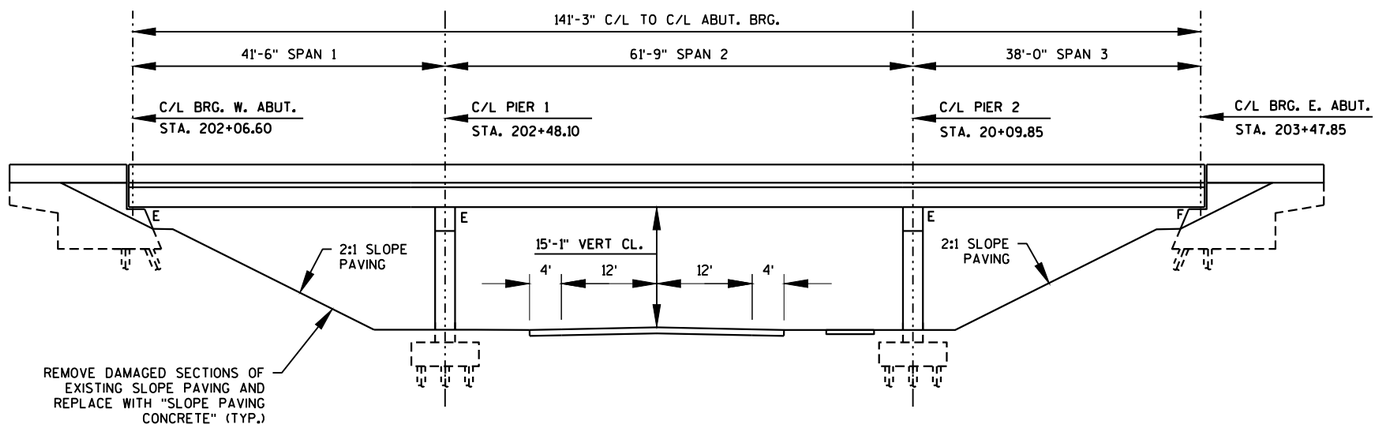
FILE NAME : C:\OD\CORRE, INC\PROJECTS - WI-SE REGION\1090-31-00_IH 43&894_MILWAUKEE CO_BR\500_CADD\503_STRUCTURES\502.4_FINAL\B-40-192\080401 GR 192.DWG PLOT DATE : 8/29/2022 2:36 PM PLOT BY : PAULETTE FENSKE

STATE PROJECT NUMBER
1100-45-70



PLAN B-40-196

(POLYESTER POLYMER CONCRETE OVERLAY, 3 SPAN, 30-INCH STEEL GIRDER BRIDGE)



ELEVATION B-40-196

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. CONSTRUCTION DETAILS
4. INFRARED SURVEY RESULTS

DESIGN DATA

LIVE LOAD:

INVENTORY RATING	HS-21
OPERATING RATING	HS-35
MAXIMUM STANDARD PERMIT VEHICLE LOAD	250 KIPS

MATERIAL PROPERTIES:

POLYESTER POLYMER CONCRETE OVERLAY	f'c = 5,000 PSI - 24 HOURS
SLOPE PAVING CONCRETE	f'c = 3,500 PSI
CONCRETE SURFACE REPAIR	f'c = 4,000 PSI
RAPID SET DECK REPAIR	f'c = 3,000 PSI - 3 HOURS

TRAFFIC DATA

IH-43/894
A.D.T. (2043) = 74,500

S. 51ST ST.
A.D.T. (2011) = 3,100

GENERAL NOTES

SEE SHEET 2 FOR GENERAL NOTES.

ESTIMATE OF QUANITIES

SEE SHEET 2 FOR ESTIMATE OF QUANTITIES.

WISCONSIN
MARK J. MUTZIGER
E-37119
MILWAUKEE
WISCONSIN
PROFESSIONAL ENGINEER
8/30/22

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-196

IH 41 SB/43 NB/894 EB over S 51ST ST

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	GREENFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MJH	MJM	JCG	MJM

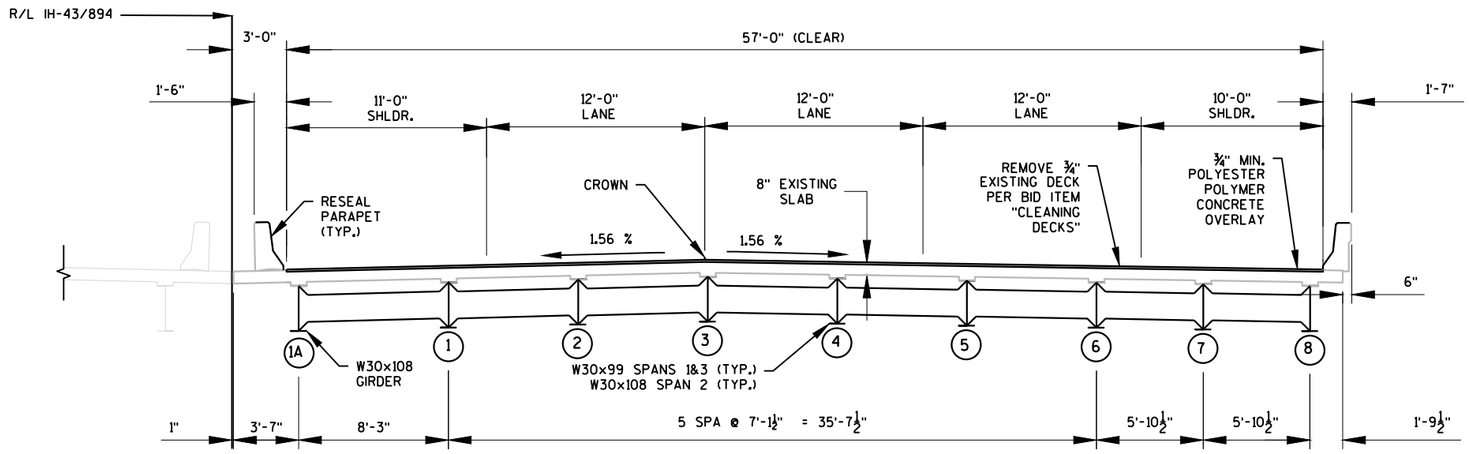
GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
705

8

8

FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-196\ELEVATION, PLAN B-40-196.DWG
PLOT DATE : 8/29/2022 3:44 PM PLOT BY : MORGAN GRUBER



B-40-197 B-40-196

CROSS SECTION THRU ROADWAY B-40-196
(LOOKING EAST)

GENERAL NOTES:

THE PROPOSED WORK INCLUDES CLEANING AND PAINTING OF STRUCTURAL STEEL, CLEANING AND PAINTING OF BEARINGS, CLEANING OF DECK, PLACEMENT OF A POLYESTER POLYMER CONCRETE OVERLAY, JOINT REPAIR, CONCRETE SURFACE REPAIR, AND SLOPE PAVING REPAIR.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND THE 1994 REHABILITATION PLANS.

ENTIRE DECK SURFACE SHALL BE PREPARED TO RECEIVE A POLYESTER POLYMER CONCRETE OVERLAY BY CLEANING DECK BID ITEM AND SHOTBLASTING TO THE DESIRED REQUIREMENTS. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS OF REQUIREMENTS FOR DECK PREPARATION. SHOTBLASTING DECK PREPARATIONS ARE INCIDENTAL TO THE POLYESTER POLYMER CONCRETE OVERLAY ITEM.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL DEPTH DECK REPAIRS SHALL BE FILLED WITH "RAPID SET DECK REPAIR". POLYESTER POLYMER CONCRETE AND PORTLAND CEMENT BASED CONCRETE PATCHES MAY BE SUBSTITUTED AT NO EXTRA COST. PORTLAND CEMENT BASED CONCRETE PATCHES SHALL BE USED FOR JOINT REPAIRS AND FULL-DEPTH REPAIRS WITH A PLAN AREA LARGER THAN 4 SF, UNLESS APPROVED OTHERWISE BY THE STRUCTURES DESIGN SECTION.

CLEAN AND PAINT ALL EXPOSED STEEL SUPERSTRUCTURE SURFACES UNDERNEATH THE BRIDGE DECK. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, CONNECTIONS AND BEARINGS. PAINT APPLICATION FOR BEARINGS SHALL BE BRUSHED ON.

PAINT COLOR TO MATCH EXISTING PAINT. SUBMIT PAINT COLOR SELECTION TO OWNER FOR VERIFICATION.

CLEAN, STRAIGHTEN AND EXTEND EXISTING BAR STEEL REINFORCEMENT 24 BAR DIAMETERS INTO NEW CONSTRUCTION WHERE APPLICABLE.

ENGINEER TO VERIFY CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED/STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

OVERLAY CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER. AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS. WHEN REQUIRED, PLACE LONGITUDINAL JOINTS AT LANE LINES OR IN THE MIDDLE OF THE LANE. WHEEL PATHS DURING TEMPORARY TRAFFIC STAGING NEED NOT BE CONSIDERED.

SEE ROADWAY PLANS FOR CONSTRUCTION STAGING.

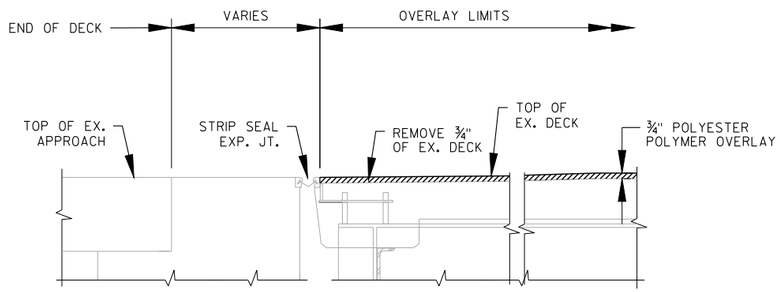
REMOVE AND REPLACE EXISTING STRIP SEAL GLAND AT EACH ABUTMENT. REPLACEMENT SHALL BE CONTINUOUS WITHOUT BREAK FOR ENTIRE LENGTH OF JOINT.

PROPOSED WORK ITEMS UNDER THE BRIDGE DECK MUST CONFORM TO TRAFFIC CONTROL RESTRICTIONS AND THE MUTCD.

ESTIMATE OF QUANITIES

	ITEM NO.	ITEM DESCRIPTION	UNIT	SUPER.	E. ABUT.	PIER 1	PIER 2	W. ABUT.	TOTAL
⦸	204.0175	REMOVING CONCRETE SLOPE PAVING	SY		63			95	158
	502.3205	PIGMENTED SEALER RESEAL	SY	58					58
⦸	509.0301	PREPARATION DECKS TYPE 1	SY	2					2
⦸	509.0302	PREPARATION DECKS TYPE 2	SY	1					1
⦸	509.0310.S	SAWING DECK PREPARATIONS AREAS	LF	72					72
	509.0500	CLEANING DECKS	SY	917					917
⦸	509.1500	CONCRETE SURFACE REPAIR	SF		48	19	15	51	133
	517.1801.S	STRUCTURE REPAINTING RECYCLED ABBRASIVE B-40-196	EACH	1					1
	517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS, B-40-196	EACH	1					1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1					1
⦸	604.0400	SLOPE PAVING CONCRETE	SY		63			95	158
⦸	SPV.0035.400	RAPID SET DECK REPAIR	CY	1					1
⦸	SPA.00600.404	EMBEDDED GALVANIC ANODES	EACH		8	6	3	9	26
	SPV.0060.406	CLEANING AND PAINTING BEARINGS	EACH		9	9	9	9	36
	SPV.0090.400	EXPANSION JOINT SEAL SYSTEM	LF	114					114
	SPV.0180.403	POLYESTER POLYMER CONCRETE OVERLAY	SY	917					917

⦸ QUANTITY SHOWN IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD.



SECTION THRU ABUTMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-196

DRAWN BY JCG | PLANS CK'D. MJM

CROSS SECTION AND QUANTITIES

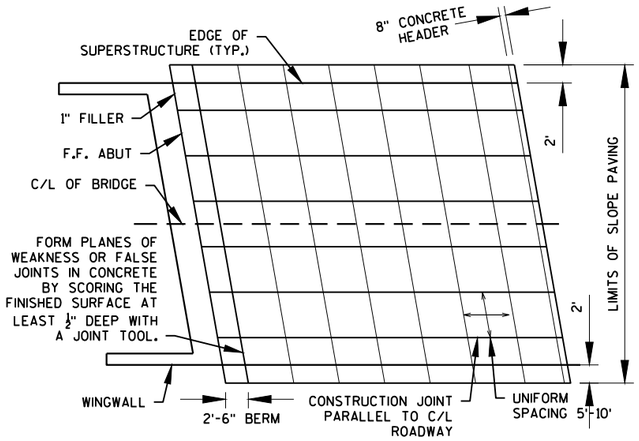
SHEET 2 OF 4
706

8

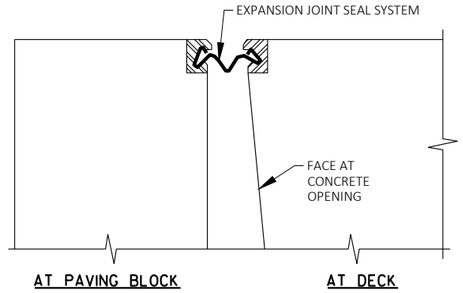
FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-196\ELEVATION, PLAN B-40-196.DWG
PLOT DATE : 8/29/2022 3:44 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

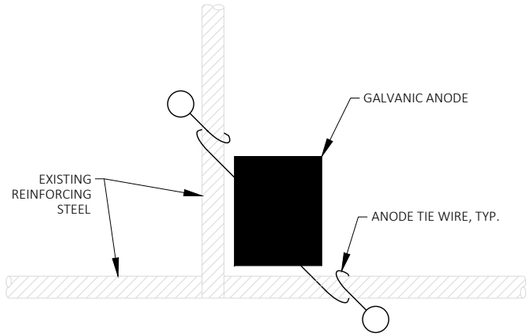
1100-45-70



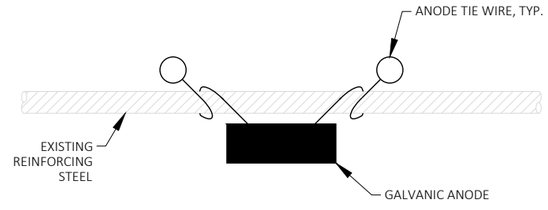
SLOPE PAVING DETAIL



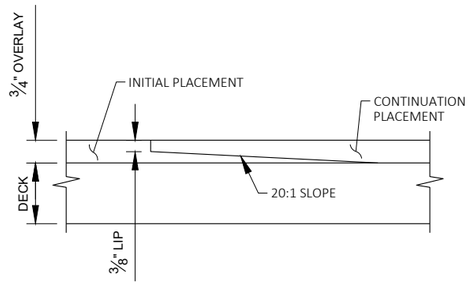
SECTION THRU JOINT
AT ABUTMENTS (TYP.)



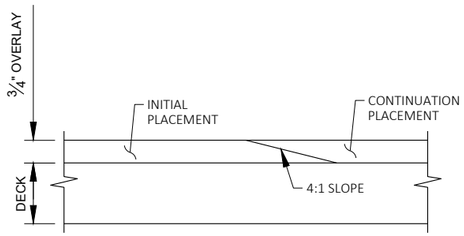
TYPICAL ANODE INSTALLATION
AT BAR STEEL INTERSECTION



TYPICAL ANODE INSTALLATION
FOR BAR STEEL



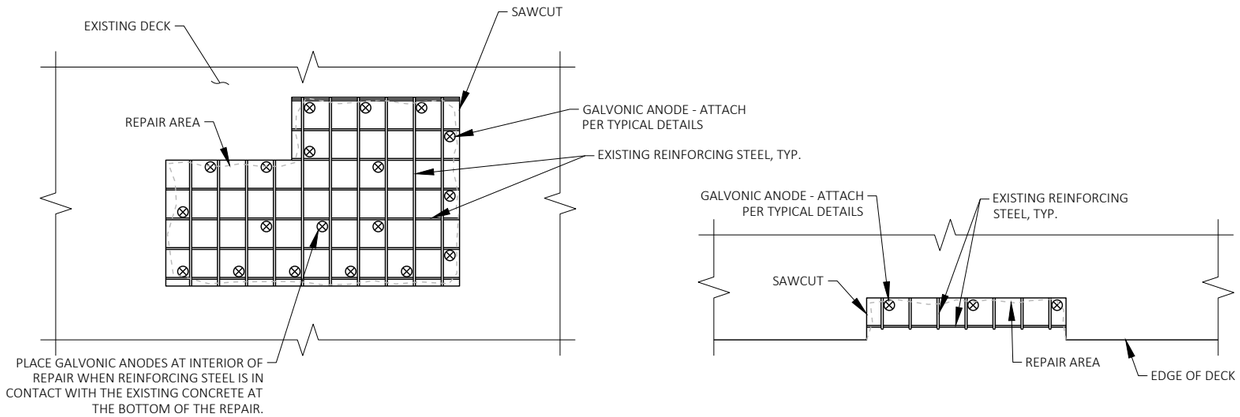
TRANSVERSE JOINT



LONGITUDINAL JOINT

DETAIL REQUIRED WHEN OVERLAY IS NOT COMPLETED WITHIN THE WORK PERIOD OR IF STAGED CONSTRUCTION IS USED. OPTIONAL (CONTRACTOR) JOINTS TO BE APPROVED BY THE ENGINEER.

AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS (PLACE AT LANE LINES OR IN THE MIDDLE OF LANE).



PART. PLAN TYPICAL REPAIR DETAIL

509.1500 CONCRETE SURFACE REPAIR
SPV.0060 EMBEDDED GALVONIC ANODE

8

8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-196

DRAWN BY JCG | PLANS CK'D. MJM

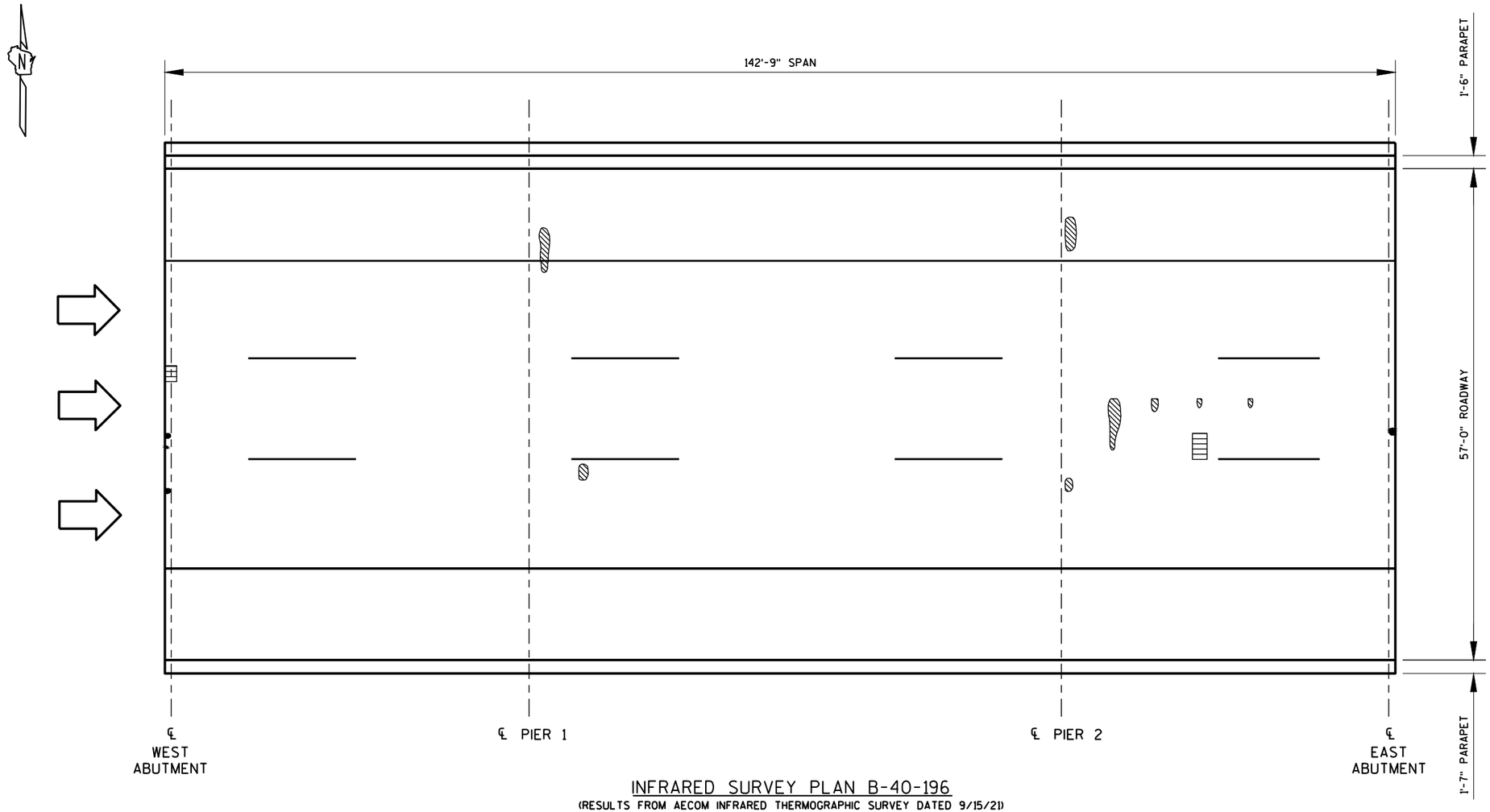
CONSTRUCTION DETAILS

SHEET 3 OF 4
707

FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-196\ELEVATION, PLAN B-40-196.DWG
PLOT DATE : 8/29/2022 3:44 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1100-45-70



INFRARED SURVEY PLAN B-40-196

(RESULTS FROM AECOM INFRARED THERMOGRAPHIC SURVEY DATED 9/15/21)

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-40-196	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	8137	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	20	0.2
SPALL	ft^2	1	<0.1
DEBOND	ft^2	N/A	N/A
ASPHALT PATCH	ft^2	0	0
PCC PATCH	ft^2	8	0.1

LEGEND

- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- PCC PATCH
- SHADE/DEBRIS

8

8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-196

DRAWN BY JCG | PLANS CK'D. MJM

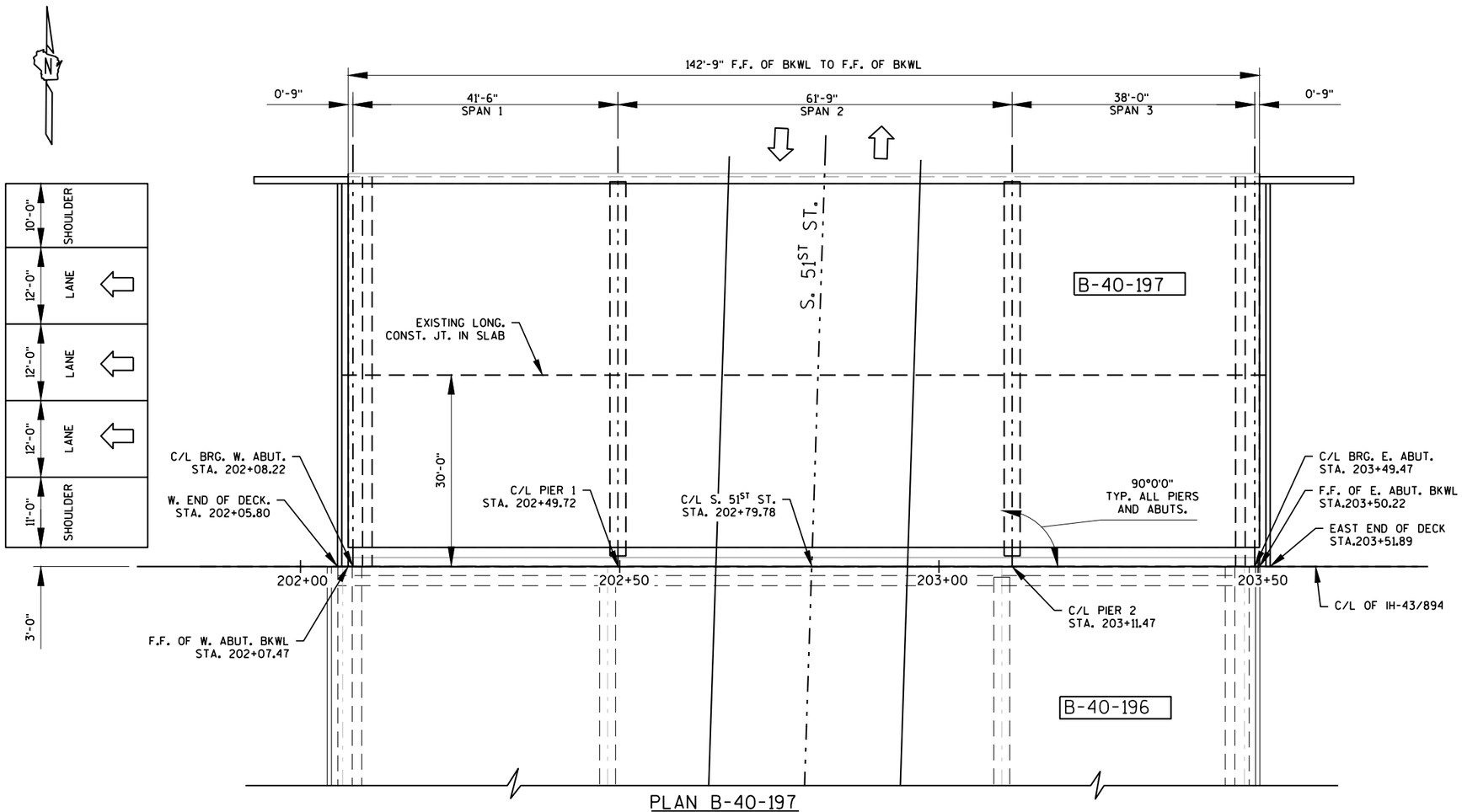
INFRARED SURVEY RESULTS

SHEET 4 OF 4

708

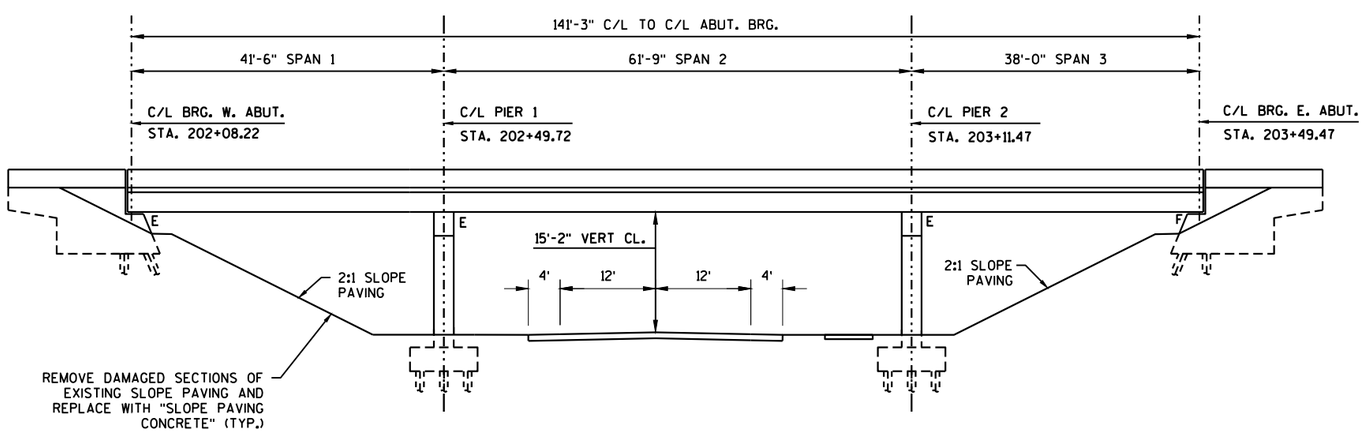
FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-196\ELEVATION, PLAN B-40-196.DWG
PLOT DATE : 8/29/2022 3:44 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1100-45-70



PLAN B-40-197

(POLYESTER POLYMER CONCRETE OVERLAY, 3 SPAN, 30-INCH STEEL GIRDER BRIDGE)



ELEVATION B-40-197

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. CONSTRUCTION DETAILS
4. INFRARED SURVEY RESULTS

DESIGN DATA

LIVE LOAD:

INVENTORY RATING	HS-20
OPERATING RATING	HS-34
MAXIMUM STANDARD PERMIT VEHICLE LOAD	250 KIPS

MATERIAL PROPERTIES:

POLYESTER POLYMER CONCRETE OVERLAY	f'c = 5,000 PSI - 24 HOURS
SLOPE PAVING CONCRETE	f'c = 3,500 PSI
CONCRETE SURFACE REPAIR	f'c = 4,000 PSI
RAPID SET DECK REPAIR	f'c = 3,000 PSI - 3 HOURS

TRAFFIC DATA

IH-43/894
A.D.T. (2043) = 75,000

S. 51ST ST.
A.D.T. (2011) = 3,100

GENERAL NOTES

SEE SHEET 2 FOR GENERAL NOTES.

ESTIMATE OF QUANTITIES

SEE SHEET 2 FOR ESTIMATE OF QUANTITIES.

WISCONSIN
MARK J. MUTZIGER E-37119 MILWAUKEE WISCONSIN
PROFESSIONAL ENGINEER
8/30/22

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

COLLINS ENGINEERS INC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-197

IH 41 NB/43 SB/894 WB over S 51ST ST

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	GREENFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MJH	MJM	JCG	MJM

GENERAL PLAN AND ELEVATION

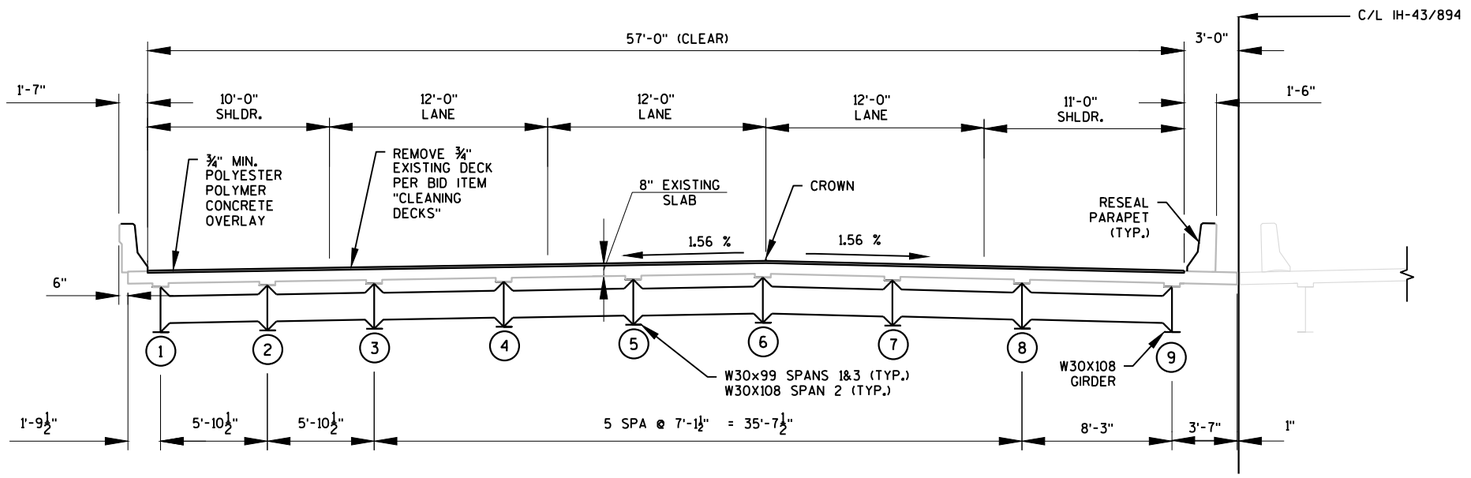
SHEET 1 OF 4
709

8

8

FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-197\ELEVATION, PLAN B-40-197.DWG
PLOT DATE : 8/29/2022 3:58 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1100-45-70



CROSS SECTION THRU ROADWAY B-40-197
(LOOKING EAST)

B-40-197 | B-40-196

GENERAL NOTES:

THE PROPOSED WORK INCLUDES CLEANING AND PAINTING OF STRUCTURAL STEEL, CLEANING AND PAINTING OF BEARINGS, CLEANING OF DECK, PLACEMENT OF A POLYESTER POLYMER CONCRETE OVERLAY, JOINT REPAIR, CONCRETE SURFACE REPAIR, AND SLOPE PAVING REPAIR.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND THE 1994 REHABILITATION PLANS.

ENTIRE DECK SURFACE SHALL BE PREPARED TO RECEIVE A POLYESTER POLYMER CONCRETE OVERLAY BY CLEANING DECK BID ITEM AND SHOTBLASTING TO THE DESIRED REQUIREMENTS. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS OF REQUIREMENTS FOR DECK PREPARATION. SHOTBLASTING DECK PREPARATIONS ARE INCIDENTAL TO THE POLYESTER POLYMER CONCRETE OVERLAY ITEM.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL DEPTH DECK REPAIRS SHALL BE FILLED WITH "RAPID SET DECK REPAIR". POLYESTER POLYMER CONCRETE AND PORTLAND CEMENT BASED CONCRETE PATCHES MAY BE SUBSTITUTED AT NO EXTRA COST. PORTLAND CEMENT BASED CONCRETE PATCHES SHALL BE USED FOR JOINT REPAIRS AND FULL-DEPTH REPAIRS WITH A PLAN AREA LARGER THAN 4 SF, UNLESS APPROVED OTHERWISE BY THE STRUCTURES DESIGN SECTION.

CLEAN AND PAINT ALL EXPOSED STEEL SUPERSTRUCTURE SURFACES UNDERNEATH THE BRIDGE DECK. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, CONNECTIONS AND BEARINGS. PAINT APPLICATION FOR BEARINGS SHALL BE BRUSHED ON.

PAINT COLOR TO MATCH EXISTING PAINT. SUBMIT PAINT COLOR SELECTION TO OWNER FOR VERIFICATION.

CLEAN, STRAIGHTEN AND EXTEND EXISTING BAR STEEL REINFORCEMENT 24 BAR DIAMETERS INTO NEW CONSTRUCTION WHERE APPLICABLE.

ENGINEER TO VERIFY CONCRETE SURFACE REPAIR AREAS. CONCRETE SURFACE REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED/STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

OVERLAY CONSTRUCTION JOINTS SHALL BE APPROVED BY THE ENGINEER. AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS. WHEN REQUIRED, PLACE LONGITUDINAL JOINTS AT LANE LINES OR IN THE MIDDLE OF THE LANE. WHEEL PATHS DURING TEMPORARY TRAFFIC STAGING NEED NOT BE CONSIDERED.

SEE ROADWAY PLANS FOR CONSTRUCTION STAGING.

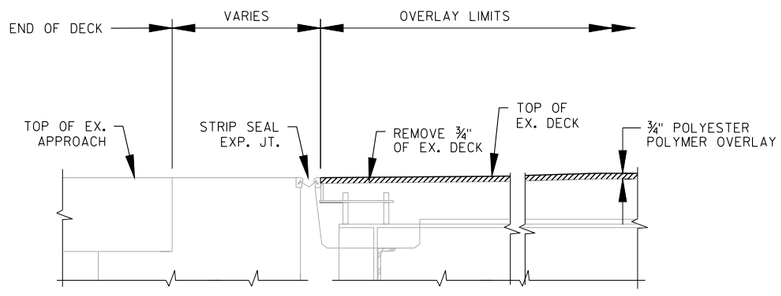
REMOVE AND REPLACE EXISTING STRIP SEAL GLAND AT EACH ABUTMENT. REPLACEMENT SHALL BE CONTINUOUS WITHOUT BREAK FOR ENTIRE LENGTH OF JOINT.

PROPOSED WORK ITEMS UNDER THE BRIDGE DECK MUST CONFORM TO TRAFFIC CONTROL RESTRICTIONS AND THE MUTCD.

ESTIMATE OF QUANITIES

	ITEM NO.	ITEM DESCRIPTION	UNIT	SUPER.	E. ABUT.	PIER 1	PIER 2	W. ABUT.	TOTAL
☒	204.0175	REMOVING CONCRETE SLOPE PAVING	SY		144			0	144
	502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	58					58
☒	509.0301	PREPARATION DECKS TYPE 1	SY	6					6
☒	509.0302	PREPARATION DECKS TYPE 2	SY	2					3
☒	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	134					134
	509.0500	CLEANING DECKS	SY	917					917
☒	509.1500	CONCRETE SURFACE REPAIR	SF		15	29	17	4	65
☒	509.2000	FULL-DEPTH DECK REPAIR	SY	1					1
	517.1801.S	STRUCTURE REPAINTING RECYCLED ABBRASIVE B-40-197	EACH						1
	517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIAL, B-40-197	EACH						1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH						1
☒	604.0400	SLOPE PAVING CONCRETE	SY		144			0	144
☒	SPV.0035.400	RAPID SET DECK REPAIR	CY	1					1
☒	SPV.0060.404	EMBEDDED GALVANIC ANODES	EACH		9	7	3	2	21
	SPV.0060.406	CLEANING AND PAINTING BEARINGS	EACH		9	9	9	9	36
	SPV.0090.400	EXPANSION JOINT SEAL SYSTEM	LF	114					114
	SPV.0180.403	POLYESTER POLYMER CONCRETE OVERLAY	SY	917					917

☒ QUANTITY SHOWN IS APPROXIMATE AND WILL BE DETERMINED IN THE FIELD.



SECTION THRU ABUTMENT

8

8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-197

DRAWN BY JCG | PLANS CK'D. MJM

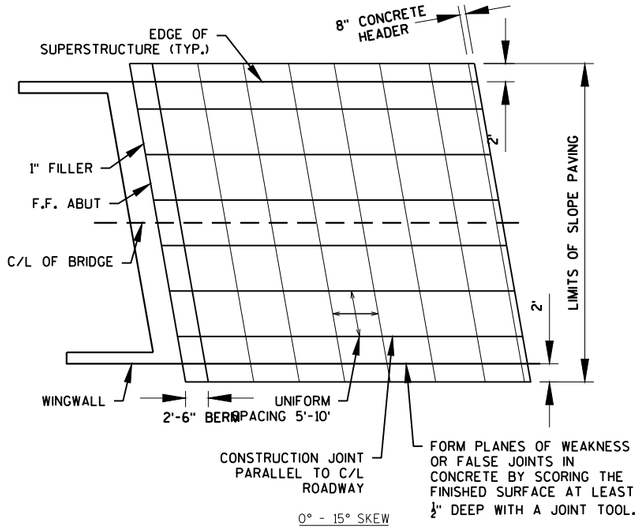
CROSS SECTION AND QUANTITIES

SHEET 2 OF 4
710

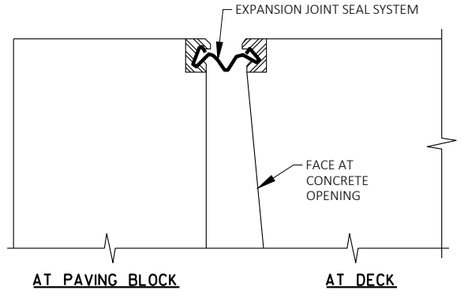
FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-197\ELEVATION, PLAN B-40-197.DWG
PLOT DATE : 8/29/2022 3:58 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

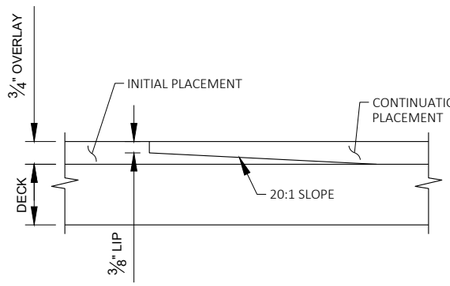
1100-45-70



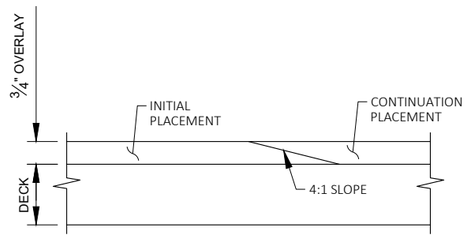
SLOPE PAVING DETAIL



SECTION THRU JOINT AT ABUTMENTS (TYP.)



TRANSVERSE JOINT



LONGITUDINAL JOINT

DETAIL REQUIRED WHEN OVERLAY IS NOT COMPLETED WITHIN THE WORK PERIOD OR IF STAGED CONSTRUCTION IS USED. OPTIONAL (CONTRACTOR) JOINTS TO BE APPROVED BY THE ENGINEER.

AVOID PLACING LONGITUDINAL JOINTS NEAR WHEEL PATHS (PLACE AT LANE LINES OR IN THE MIDDLE OF LANE).

TYPICAL ANODE INSTALLATION AT BAR STEEL INTERSECTION

TYPICAL ANODE INSTALLATION FOR BAR STEEL

PART. PLAN TYPICAL REPAIR DETAIL

509.1500 CONCRETE SURFACE REPAIR
SPV.0060 EMBEDDED GALVONIC ANODE

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-197

DRAWN BY JCG | PLANS CK'D. MJM

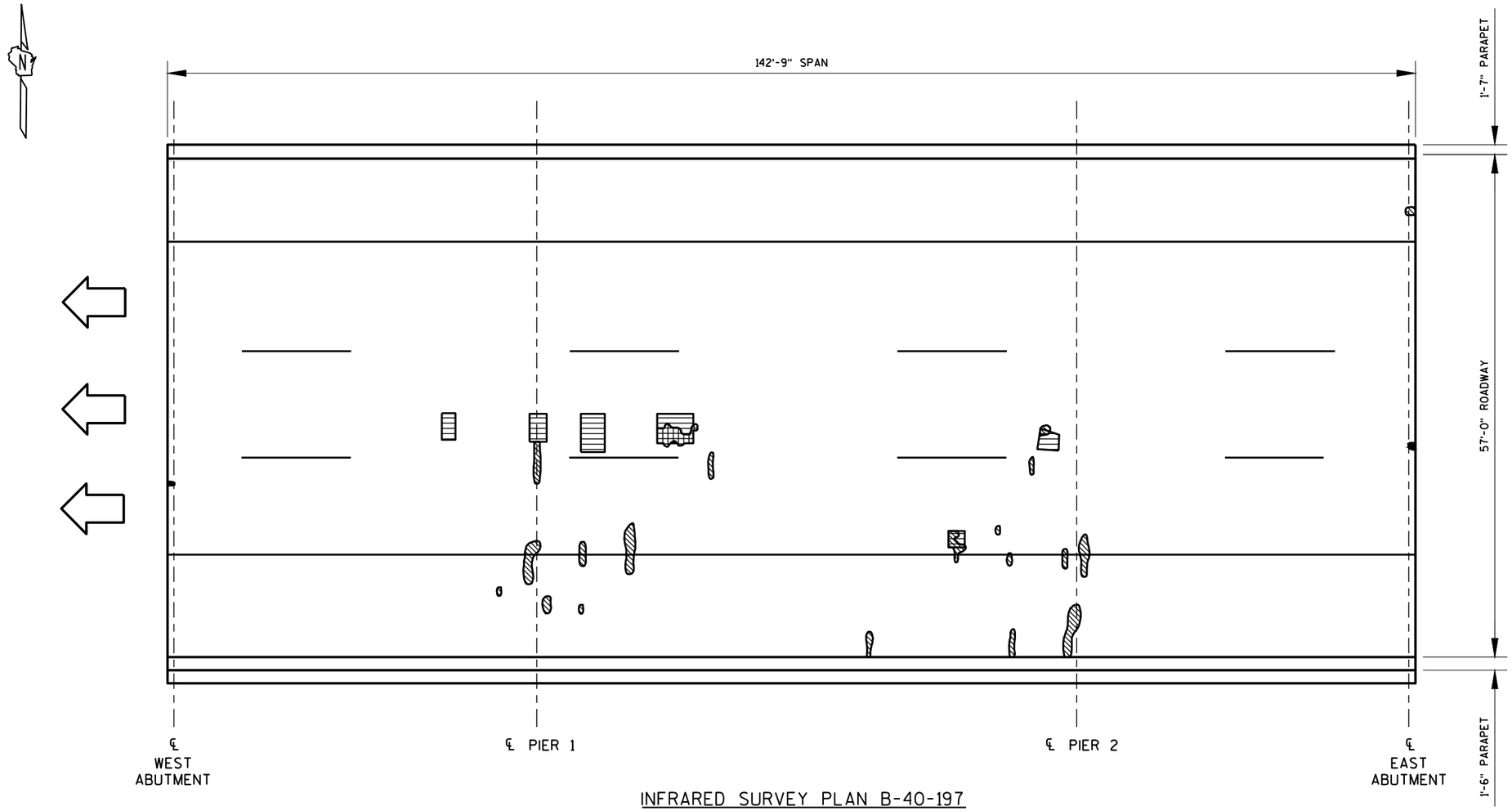
CONSTRUCTION DETAILS

SHEET 3 OF 4
711

FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-197\ELEVATION, PLAN B-40-197.DWG
PLOT DATE : 8/29/2022 3:58 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1100-45-70



INFRARED SURVEY PLAN B-40-197

(RESULTS FROM AECOM INFRARED THERMOGRAPHIC SURVEY DATED 9/15/21)

FIELD OBSERVATIONS SUMMARY		STRUCTURE NO. B-40-197	
ITEM	UNIT	QUANT.	%
TOTAL AREA	ft^2	8137	
SHADE/DEBRIS	ft^2	0	
DELAMINATION	ft^2	42	0.5
SPALL	ft^2	1	<0.1
DEBOND	ft^2	N/A	N/A
ASPHALT PATCH	ft^2	7	0.1
PCC PATCH	ft^2	39	0.5

LEGEND

- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- PCC PATCH
- SHADE/DEBRIS

8

8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-197

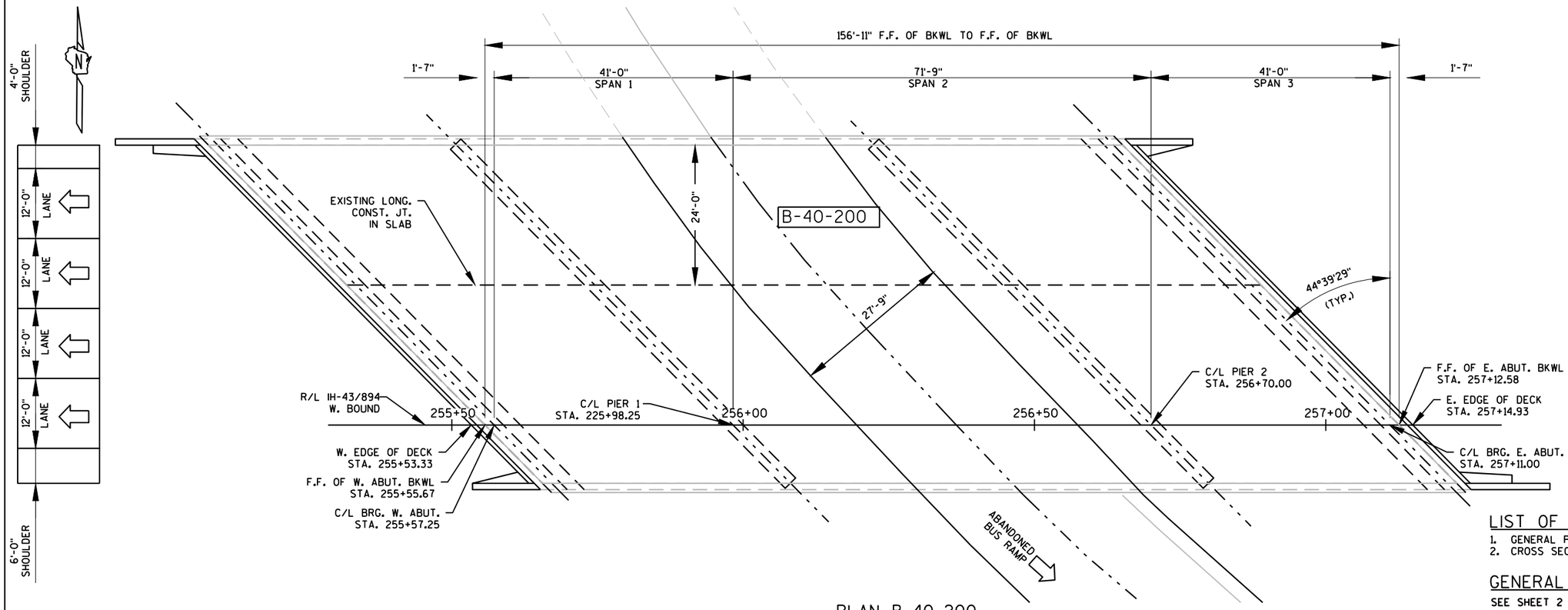
DRAWN BY JCG | PLANS CK'D. MJM

INFRARED SURVEY RESULTS

SHEET 712 OF 4

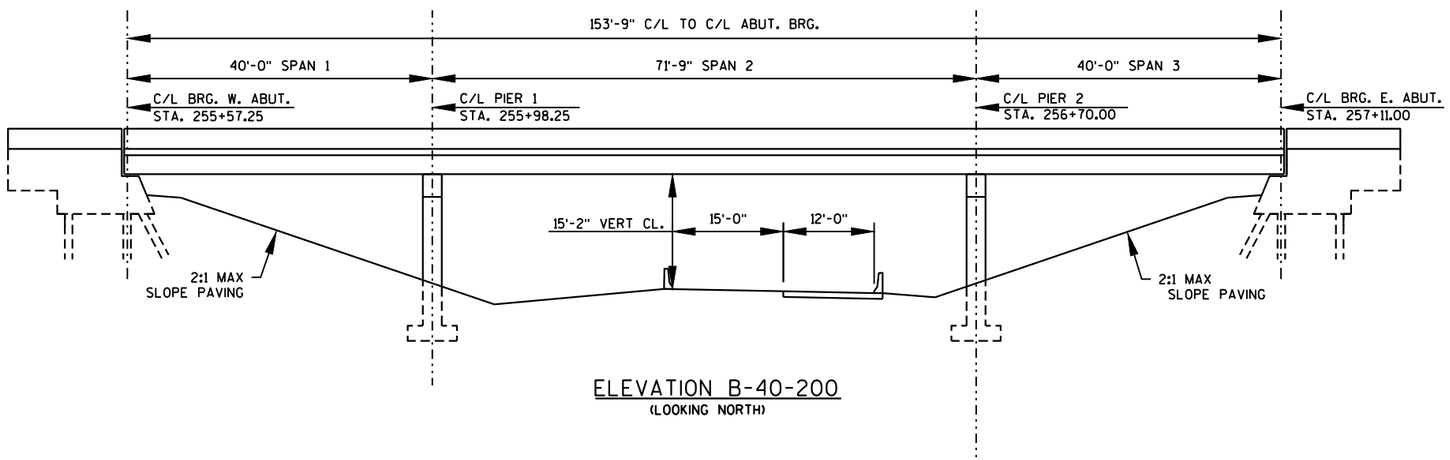
FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-197\ELEVATION, PLAN B-40-197.DWG
PLOT DATE : 8/29/2022 3:58 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1100-45-70



PLAN B-40-200

(CONCRETE BRIDGE DECK METHACRYLATE FLOOD SEAL, 3 SPAN, 30-INCH STEEL GIRDER BRIDGE)



ELEVATION B-40-200

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES

GENERAL NOTES

SEE SHEET 2 FOR GENERAL NOTES.

ESTIMATE OF QUANITIES

SEE SHEET 2 FOR ESTIMATE OF QUANTITIES.

DESIGN DATA

LIVE LOAD:

INVENTORY RATING	HS-20
OPERATING RATING	HS-34
MAXIMUM STANDARD PERMIT VEHICLE LOAD	250 KIPS

TRAFFIC DATA

IH-43/894
A.D.T. (2043) = 82,700
BUS RAMP
A.D.T.=0

WISCONSIN
MARK J. MUTZIGER
E-37119
MILWAUKEE
WISCONSIN
PROFESSIONAL ENGINEER
8/30/22

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261

CONSULTANT CONTACT:
MARK MUTZIGER (414) 282-6905

COLLINS ENGINEERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-200

IH 41 NB/43 SB/894 WB over PARKING LOT BUS RAMP

COUNTY: MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~: GREENFIELD		
DESIGN SPEC.: REHABILITATION N/A			
DESIGNED BY: MJH	DESIGN CK'D.: MJM	DRAWN BY: JCG	PLANS CK'D.: MJM

GENERAL PLAN AND ELEVATION

SHEET 1 OF 2
713

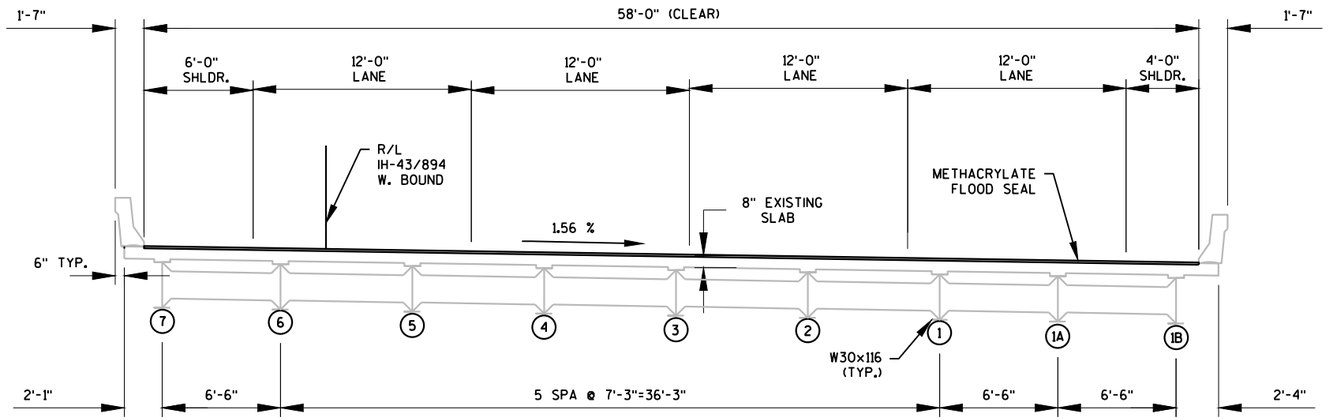
8

8

FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-200\ELEVATION, PLAN B-40-200.DWG
PLOT DATE : 8/29/2022 4:02 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER

1100-45-70



CROSS SECTION THRU ROADWAY

(LOOKING WEST)

GENERAL NOTES:

THE PROPOSED WORK INCLUDES A METHACRYLATE FLOOD SEAL TO THE TOP SURFACE OF THE BRIDGE DECK.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND THE 1994 REHABILITATION PLANS.

ENTIRE DECK SURFACE SHALL BE PREPARED TO RECEIVE A METHACRYLATE FLOOD SEAL TO THE DESIRED REQUIREMENTS. REFER TO THE PROJECT SPECIFICATIONS FOR DETAILS OF REQUIREMENTS FOR DECK PREPARATION. DECK PREPARATIONS ARE INCIDENTAL TO THE "CONCRETE BRIDGE DECK METHACRYLATE FLOOD SEAL" ITEM.

MATERIALS, EQUIPMENT, ETC. SHALL NOT BE STOCKPILED/STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

OPTIONAL CONSTRUCTION JOINTS IN THE OVERLAY MAY BE LOCATED AT THE LANE LINES, SHOULDER LINES, AND/OR STAGING LIMITS.

SEE ROADWAY PLANS FOR CONSTRUCTION STAGING.

ESTIMATE OF QUANITIES

ITEM NO.	ITEM DESCRIPTION	UNIT	SUPER.	E. ABUT.	PIER 1	PIER 2	W. ABUT.	TOTAL
SPV.0180.402	CONCRETE BRIDGE DECK METHACRYLATE FLOOD SEAL	SY	991					991

8

8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-200

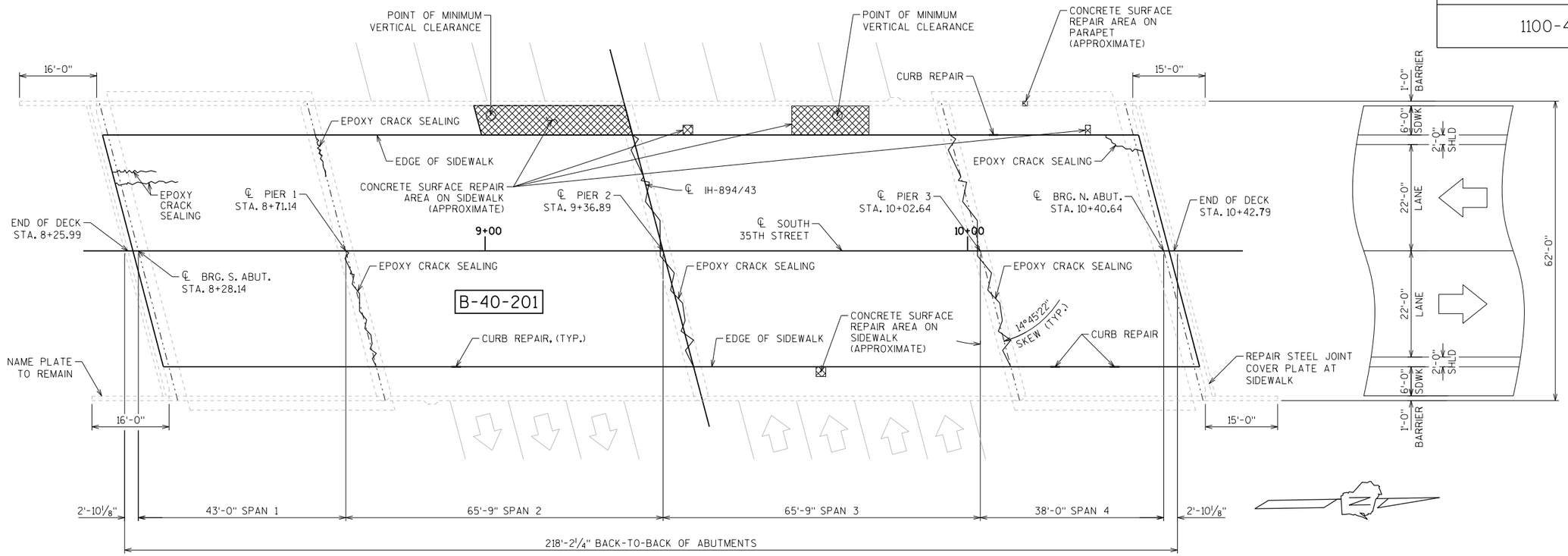
DRAWN BY JCG | PLANS CK'D. MJM

CROSS SECTION AND QUANTITIES

SHEET 2 OF 2
714

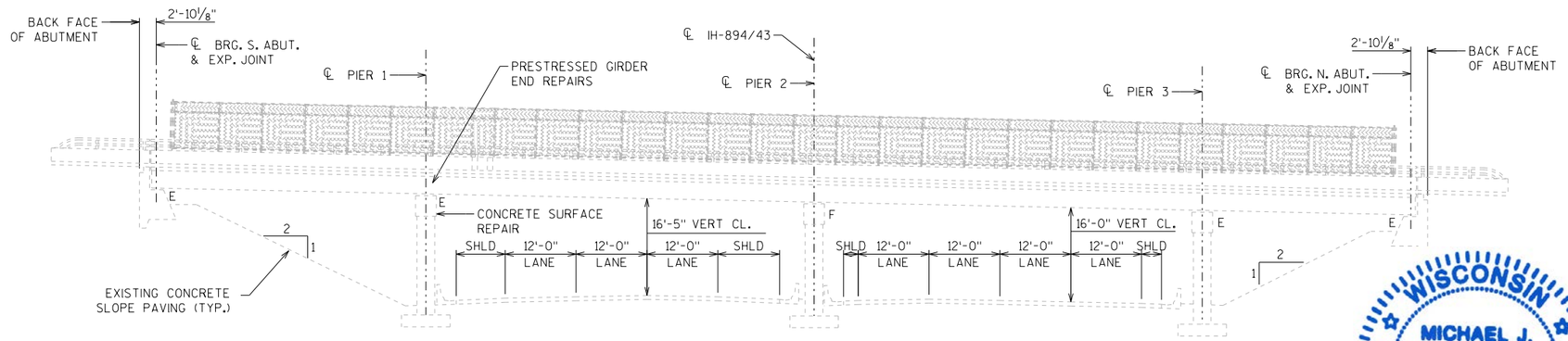
FILE NAME : G:\8691 - AIRPORT FREEWAYS\CAD\B-40-200\ELEVATION, PLAN B-40-200.DWG
PLOT DATE : 8/29/2022 4:03 PM PLOT BY : MORGAN GRUBER

STATE PROJECT NUMBER
1100-45-70



PLAN B-40-201

4-SPAN PRESTRESSED CONCRETE GIRDER BRIDGE



NOTE:
VERTICAL CLEARANCE BASED ON INSPECTION REPORT (08-17-2021).

ELEVATION

LOOKING WEST

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY	- SUPERSTRUCTURE AND DECK PATCHING	f'c = 4,000 P.S.I.
	- SUBSTRUCTURE	f'c = 3,500 P.S.I.

TRAFFIC DATA

S. 35TH STREET
A.D.T. = 3,500 (2023)
A.D.T. = 4,600 (2043)
R.D.S. = 30 MPH

IH-41/43/894
A.D.T. = 147,900 (2023)
A.D.T. = 149,500 (2043)
R.D.S. = 60 MPH

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
09/01/2022

STRUCTURES DESIGN CONTACTS:

SE REGION CONTACT - CHRIS HAGER (414) 750-1487
BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0621
CONSULTANT CONTACT - MICHAEL DELEMONT (414) 207-4157

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. TYPICAL SECTION AND QUANTITIES
3. GIRDER SURFACE REPAIR DETAILS
4. SIDEWALK PLATE REPAIR DETAILS

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-201

SOUTH 35TH STREET OVER I-894/43

COUNTY MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~ GREENFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY DNJ	DESIGN CK'D. MJA	DRAWN BY DNJ/GTS	PLANS CK'D. MJA

GENERAL PLAN AND ELEVATION

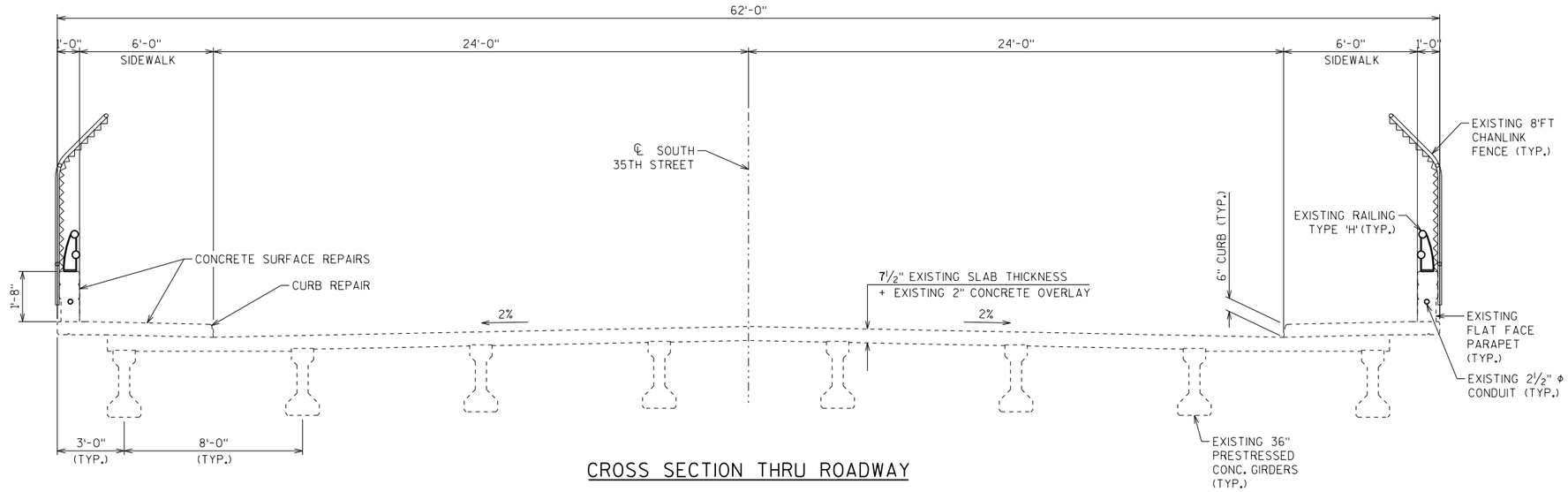
SHEET 1 OF 4
715

FILE= $FILE$
DATE: $DATE$
I.D.

8

8

STATE PROJECT NUMBER
1100-45-70



CROSS SECTION THRU ROADWAY

SPANS 1 & 4
LOOKING NORTH

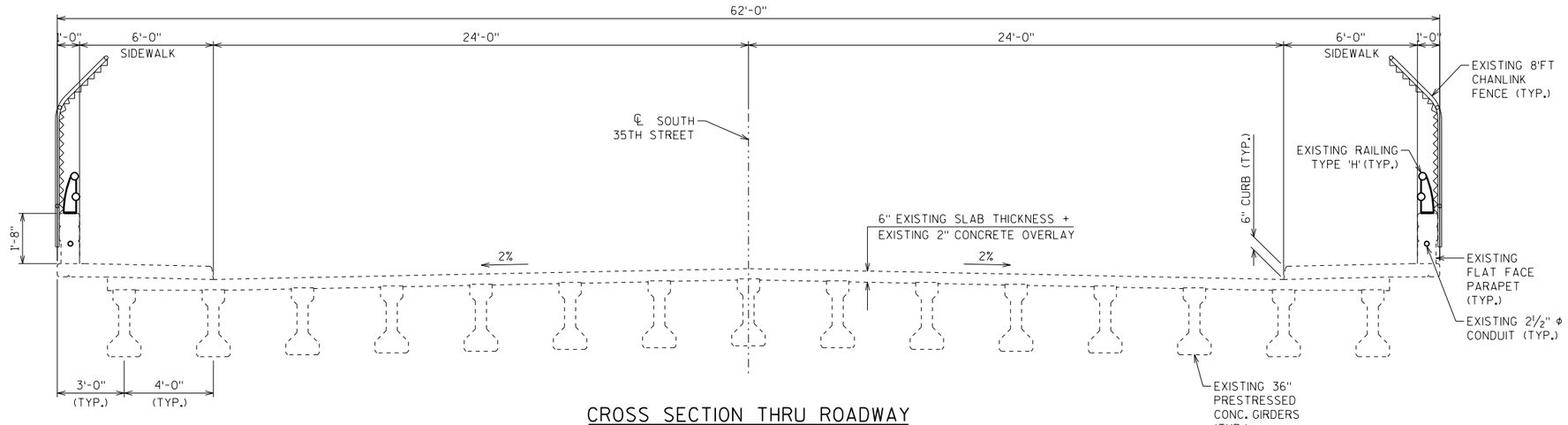
◑ SEE ROADWAY PLANS FOR COMPLETE PROJECT STAGING DETAILS.

GENERAL NOTES

THE PROPOSED WORK INCLUDES PROTECTIVE SURFACE TREATMENT RESEAL ON DECK, CURB FACE, AND SIDEWALK SURFACES, EPOXY CRACK SEALING, CONCRETE SURFACE REPAIR, AND PRESTRESSED GIRDER SURFACE REPAIRS.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.



CROSS SECTION THRU ROADWAY

SPANS 2 & 3
LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
	502.3215	PROTECTIVE SURFACE TREATMENT RESEAL	SY	1,470
*	509.1200	CURB REPAIR	LF	8
*	509.1500	CONCRETE SURFACE REPAIR	SF	320
*	509.9020.S	EPOXY CRACK SEALING	LF	165
*	SPV.0060.400	GIRDER SURFACE REPAIR	EACH	79
	SPV.0060.402	SIDEWALK COVER PLATE RESETTING	EACH	1
*	SPV.0165.402	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	475
		NON-BID ITEMS		
		FILLER	3/4" & 1"	
		EXPANDED POLYSTYRENE	1"	

*QUANTITIES GIVEN ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE FIELD ENGINEER. ALL ITEMS ARE CATEGORY 2050

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-201

DRAWN BY DNJ/GTS | PLANS CK'D. MJA

TYPICAL SECTION AND QUANTITIES

SHEET 2 OF 4
716

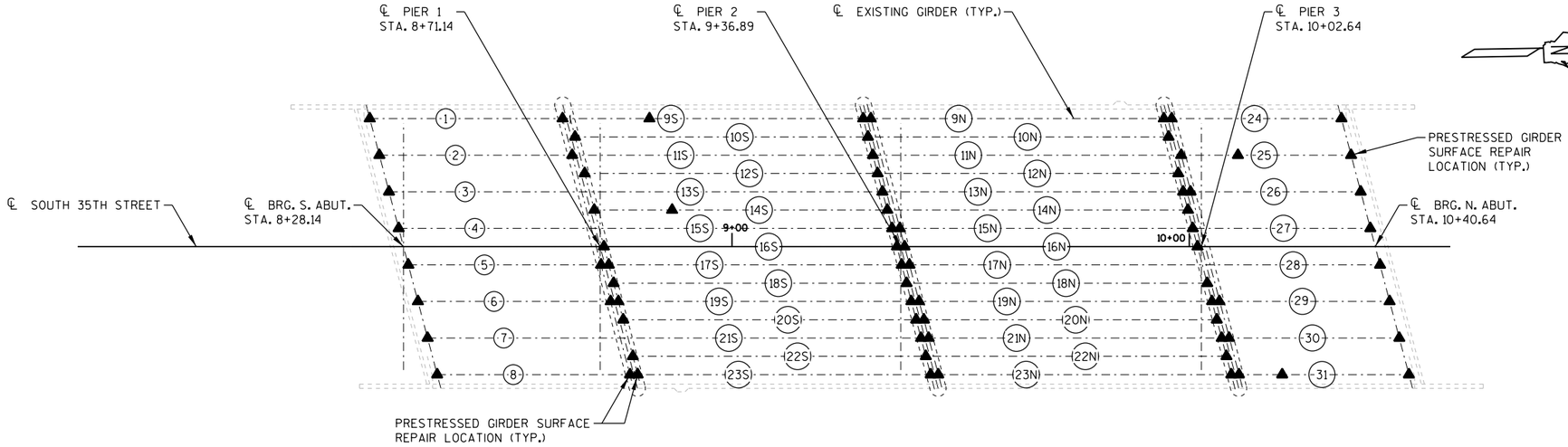
FILE= $FILE$
DATE: $DATE$
I.D.

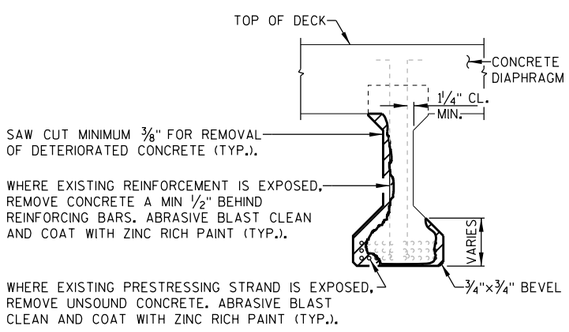
8

8

STATE PROJECT NUMBER

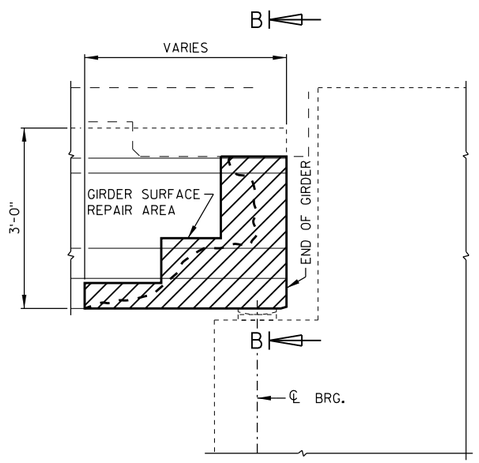
1100-45-70



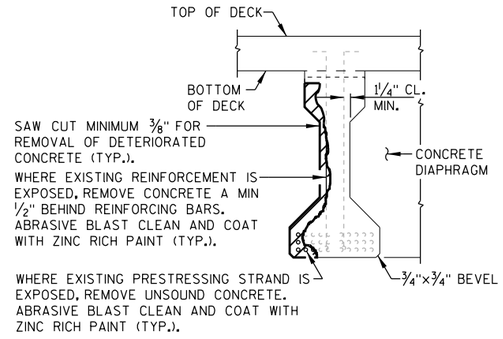


SECTION B-B

AT ABUTMENT

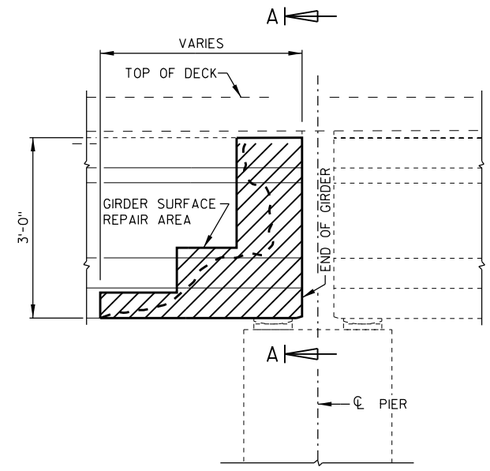


TYPICAL PRESTRESSED GIRDER SURFACE REPAIR AT ABUTMENT



SECTION A-A

AT PIER



TYPICAL PRESTRESSED GIRDER SURFACE REPAIR AT PIER

NOTES

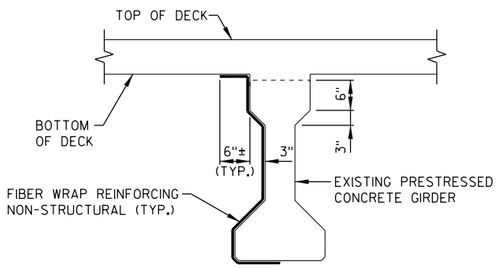
EACH GIRDER SURFACE REPAIR LOCATION IS PAID AS ONE "GIRDER SURFACE REPAIR." REPAIR LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND EXTENTS SHALL BE DETERMINED BY THE ENGINEER.

REMOVAL AREA SHOWN IS FOR REFERENCE ONLY. LIMITS OF "GIRDER SURFACE REPAIR" AT EACH LOCATION ARE TO BE COORDINATED WITH THE ENGINEER.

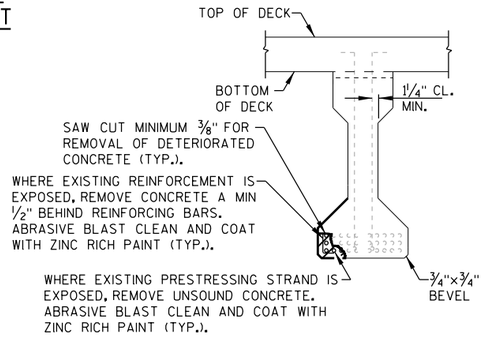
EXERCISE PROPER CARE WHEN SAWING AND REMOVING UNSOUND CONCRETE FROM THE GIRDERS TO NOT DAMAGE EMBEDDED REINFORCING STEEL OR PRESTRESSING STRANDS.

PROTECT THE EXISTING ELASTOMERIC BEARINGS DURING ABRASIVE BLAST CLEANING.

PROVIDE NON-STRUCTURAL PROTECTION OF THE GIRDER SURFACE REPAIRS WITH AN EXTERNALLY BONDED, HIGH STRENGTH FIBER REINFORCED POLYMER COMPOSITE/EPOXY SYSTEM AS SHOWN ON THESE PLANS AND PER THE SPECIAL PROVISION "SPV.0165.402 FIBER WRAP REINFORCING NON-STRUCTURAL."

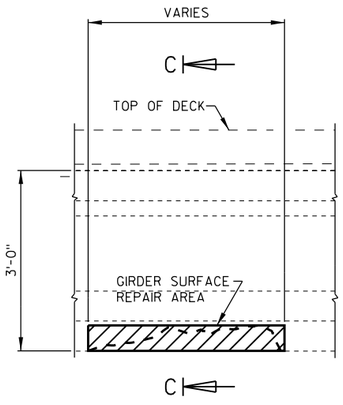


FIBER WRAP REINFORCING NON-STRUCTURAL SECTION VIEW



SECTION C-C

IN SPAN



TYPICAL PRESTRESSED GIRDER SURFACE REPAIR IN SPAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-201

DRAWN BY DNJ/GTS | PLANS CK'D. MJA

GIRDER SURFACE REPAIR DETAILS

SHEET 3 OF 4
717

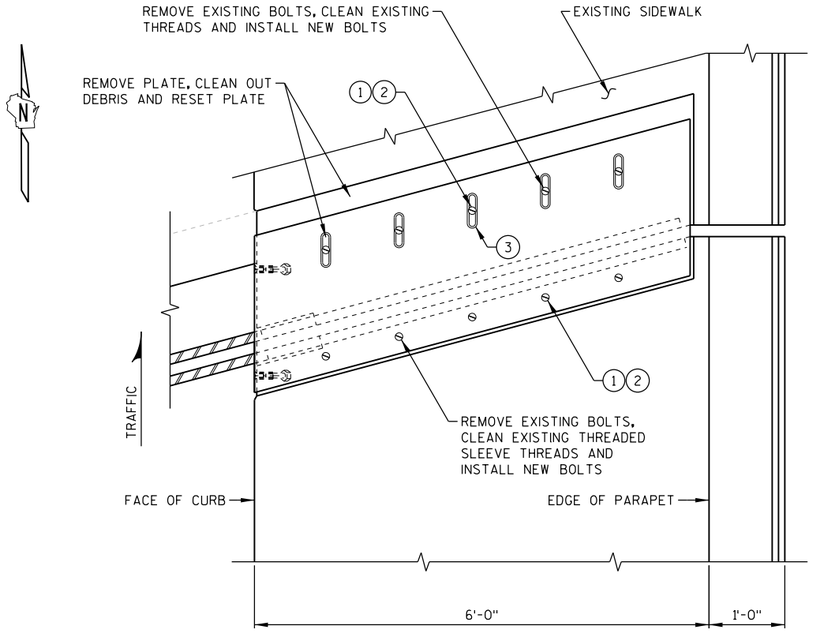
FILE= $FILE$
DATE: $DATE$
I.D.

8

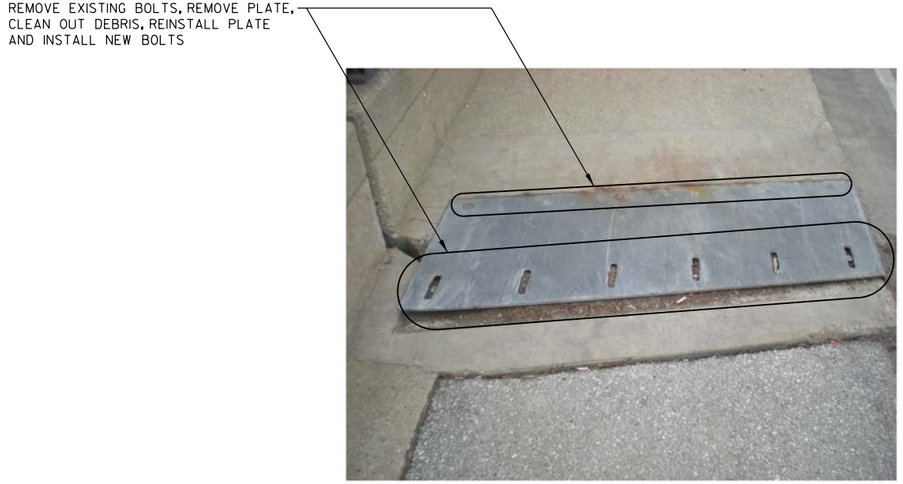
8

STATE PROJECT NUMBER

1100-45-70



PLAN - SIDEWALK PLATE REPAIR



NORTHEAST SIDEWALK PLATE

LEGEND

(1) $\frac{3}{4}$"Φ X $1\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.

(2) $\frac{3}{4}$"Φ X $2\frac{1}{4}$" GALVANIZED THREADED COUPLING.

(3) 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 1.

8

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FILE= $FILE$

DATE: $DATE$

I.D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-201

DRAWN BY DNJ/GTS | PLANS CK'D. MJA

SIDEWALK PLATE REPAIR DETAILS

SHEET 4 OF 4

718

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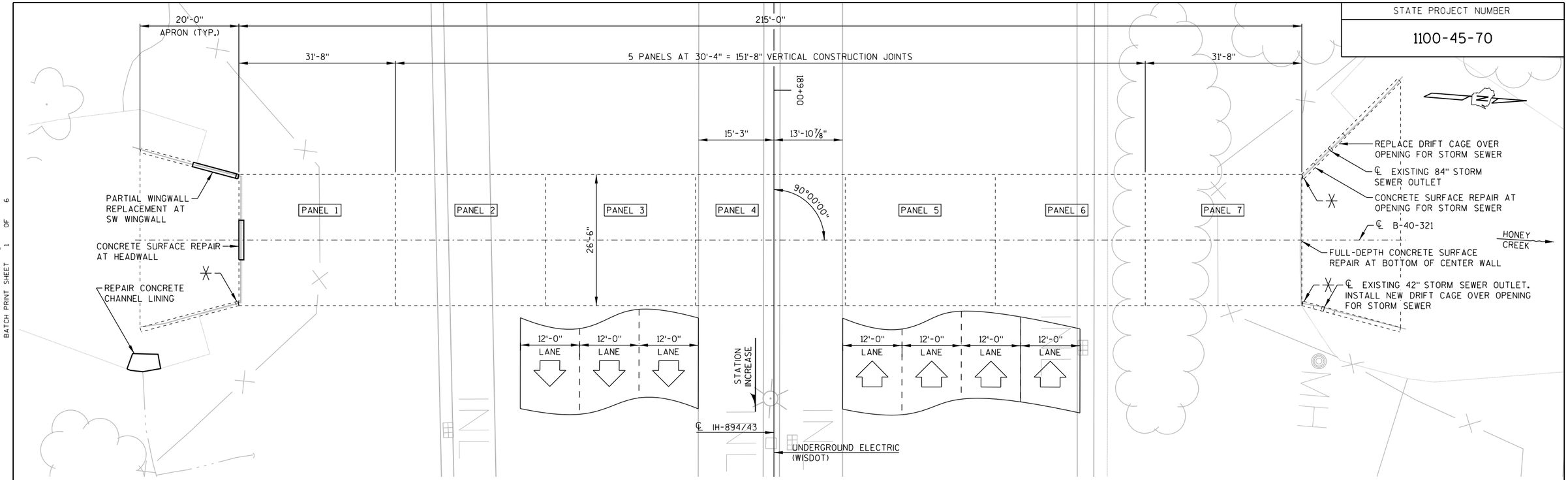
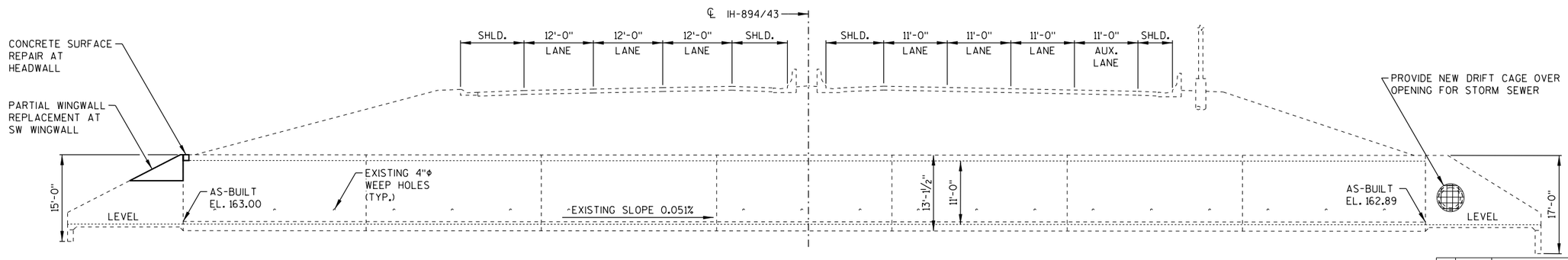
STATE PROJECT NUMBER

1100-45-70



PLAN

(TWIN CELL REINFORCED CONCRETE BOX CULVERT)



ELEVATION

(LOOKING WEST)

LEGEND

⅄ WING STRAPPING REQUIRED

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION AND QUANTITIES
3. WINGWALL REPAIR DETAILS
4. CULVERT CEILING REPAIRS
5. CULVERT WALL REPAIRS
6. WING STRAPPING

DESIGN DATA

MATERIAL PROPERTIES

CONCRETE MASONRY ——— f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT ——— fy = 60,000 P.S.I.

TRAFFIC DATA

IH 41/43/894

A.D.T. = 147,900 (2023)
A.D.T. = 149,500 (2043)
R.D.S. = 60 MPH

WISCONSIN
MICHAEL J. ARNOLD
E-41717
LUTZ
FL
PROFESSIONAL ENGINEER

04/18/2023

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 559-9885

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 04/19/23
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-321

IH-41/43/894 OVER HONEY CREEK

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	GREENFIELD

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DNJ	MJA	DNJ	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 6
719

8

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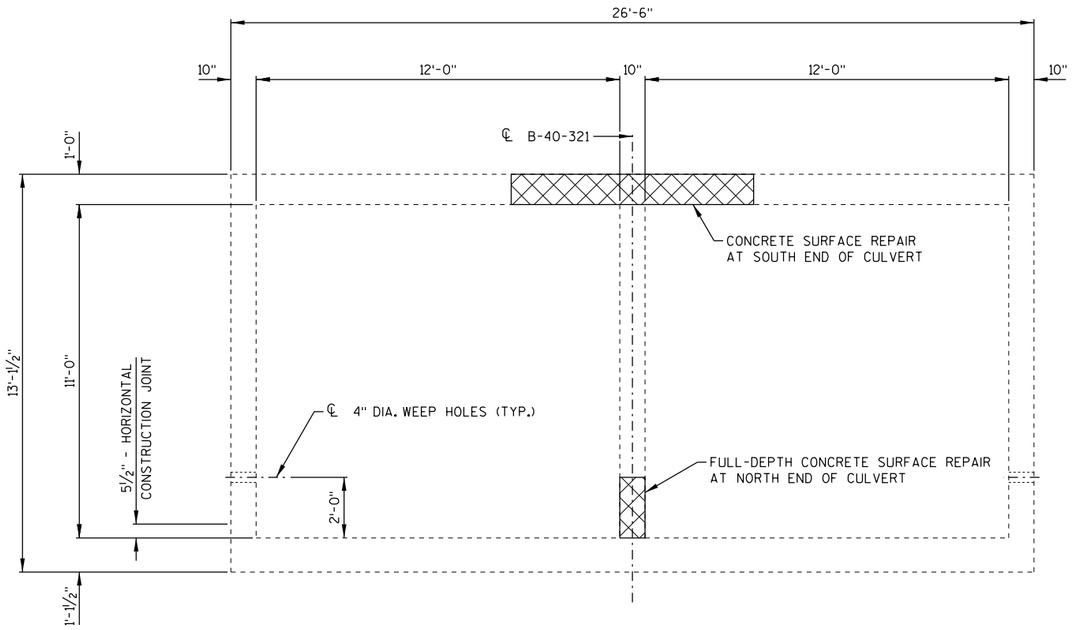
STATE PROJECT NUMBER

1100-45-70



TYPICAL CROSS SECTION THRU CULVERT

BILL OF BARS

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 80 LBS	
C501	7	3-10		Δ	SW WINGWALL - OUTSIDE FACE - ADHESIVE ANCHOR	VERT.
C502	2	1-9			SW WINGWALL - EACH FACE	HORIZ.
C503	2	4-9			SW WINGWALL - EACH FACE	HORIZ.
C504	2	7-9			SW WINGWALL - EACH FACE	HORIZ.
C505	2	9-4			SW WINGWALL - EACH FACE - TOP	HORIZ.

BAR SERIES

MARK	NO. REQ'D	LENGTH
C501	1 SET OF 7	2'-4" TO 5'-4"

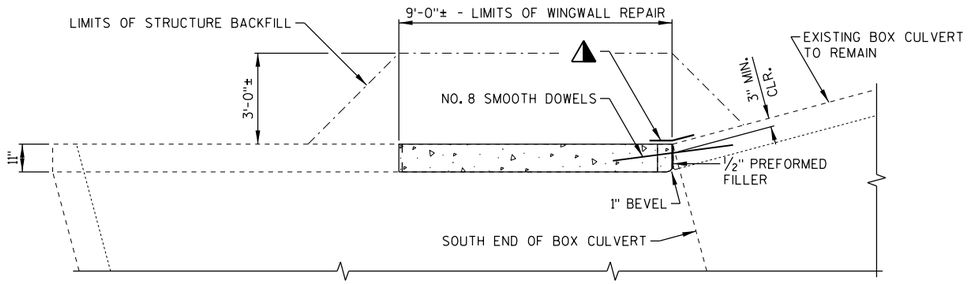
TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
*	203.0220.401	REMOVING STRUCTURE B-40-321	EACH	1
	206.2001.401	EXCAVATION FOR STRUCTURES CULVERTS B-40-321	EACH	1
	210.2500	BACKFILL STRUCTURE TYPE B	TON	5
	416.0620	DRILLED DOWEL BARS	EACH	2
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	7
	504.0100	CONCRETE MASONRY CULVERTS	CY	1
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	80
	509.1500	CONCRETE SURFACE REPAIR	SF	48
	509.9020.S	EPOXY CRACK SEALING	LF	155
	509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	15
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	1
	611.9850.S.001	PIPE GRATES, 42-INCH	EACH	1
	611.9850.S.002	PIPE GRATES, 84-INCH	EACH	1
	SPV.0060.401	STRAPPING B-40-321	EACH	3
	SPV.0060.403	CONCRETE CHANNEL LINING REPAIR	EACH	1
		NON-BID ITEMS		
		FILLER	SIZE	1/2"

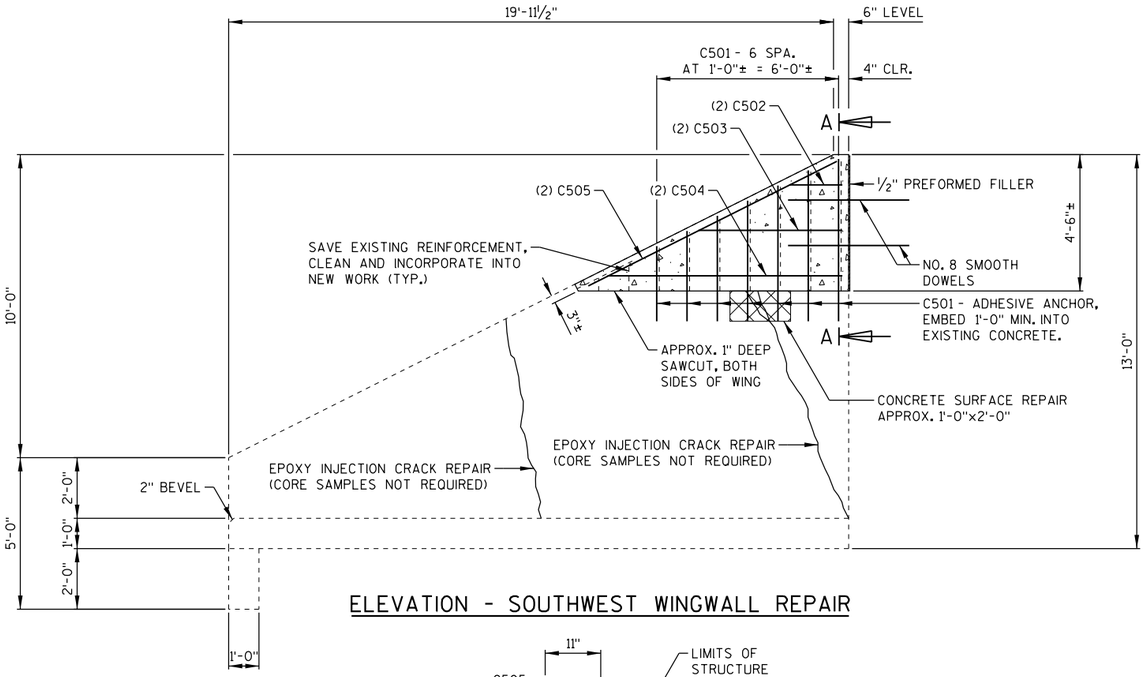
*THIS BID ITEM INCLUDES PAYMENT FOR PARTIAL REMOVAL AND DISPOSAL OF THE SOUTHWEST WINGWALL, INCLUDING SAW CUTTING, AND REMOVAL AND DISPOSAL OF THE DAMAGED PIPE GRATE AT THE NORTHWEST WINGWALL.

ALL ITEMS ARE CATEGORY 2060

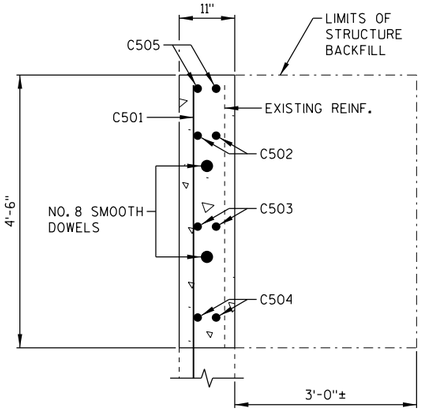
⚠ 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. EXTEND 1 FT. BELOW HORIZ. SAWCUT TO TOP OF WALL (FLUSH WITH TOP FACE OF CONCRETE).



PLAN - SOUTHWEST WINGWALL REPAIR



ELEVATION - SOUTHWEST WINGWALL REPAIR



SECTION A-A

GENERAL NOTES

THE PROPOSED WORK INCLUDES CONCRETE SURFACE REPAIRS, PARTIAL REPLACEMENT OF THE SOUTHWEST WINGWALL, WING STRAPPING, EPOXY CRACK SEALING, AND STORM SEWER PIPE GRATE REPLACEMENT.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED WITH 2" CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE TO MATCH THE EXISTING BEVELS, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

LOCATIONS OF "CONCRETE SURFACE REPAIR" AND "EPOXY CRACK SEALING" SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES SHOWN FOR THIS BID ITEM ARE APPROXIMATE.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF THE UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

DRAWN BY DNJ | PLANS CK'D. MJA

CROSS SECTION AND QUANTITIES

SHEET 2 OF 6
720

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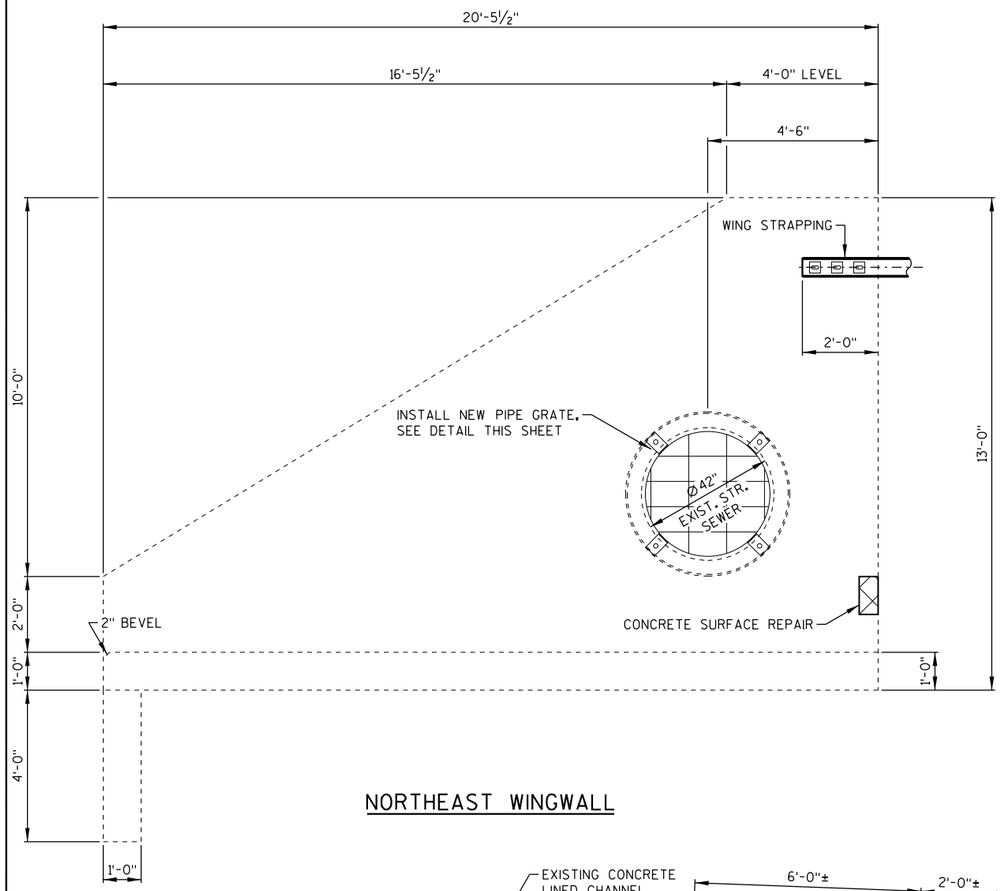
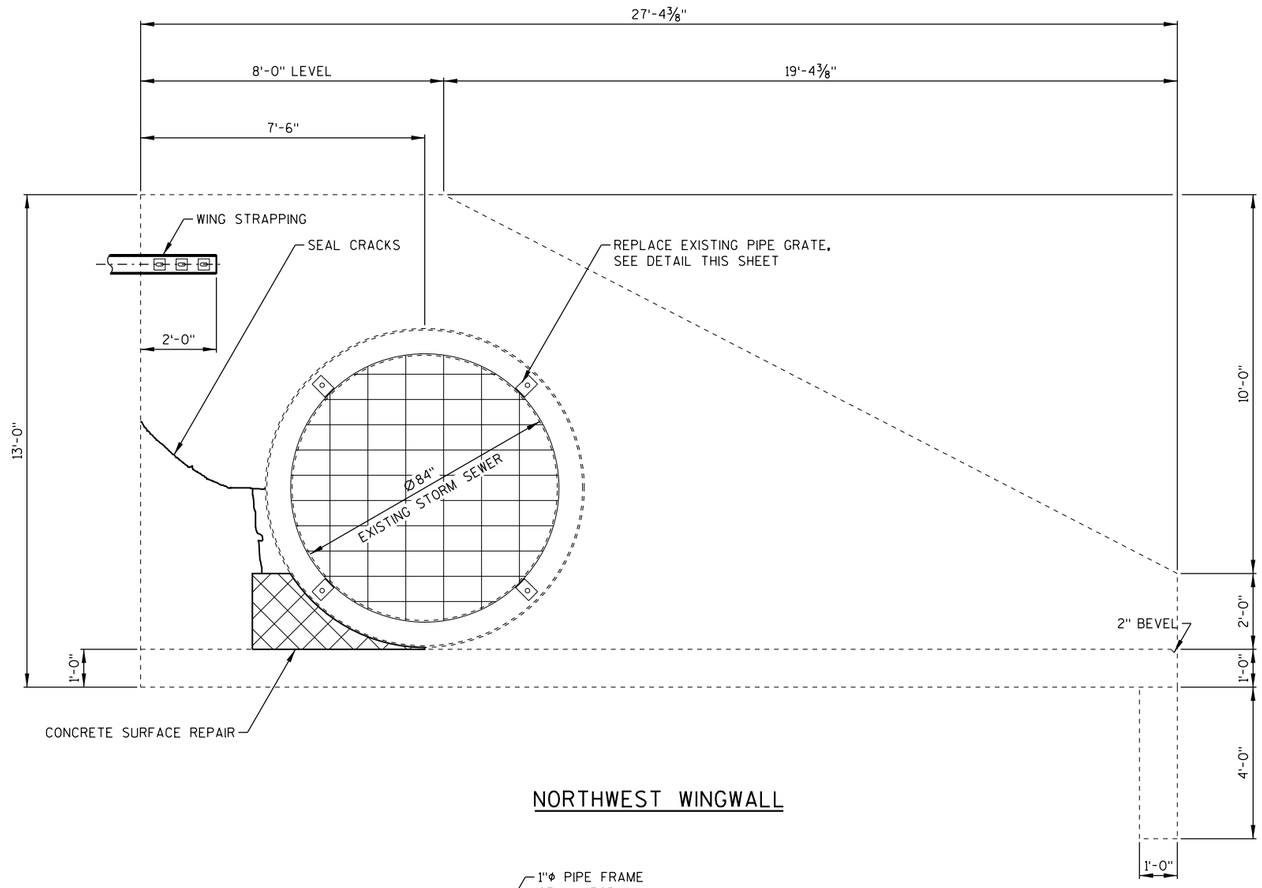
STATE PROJECT NUMBER

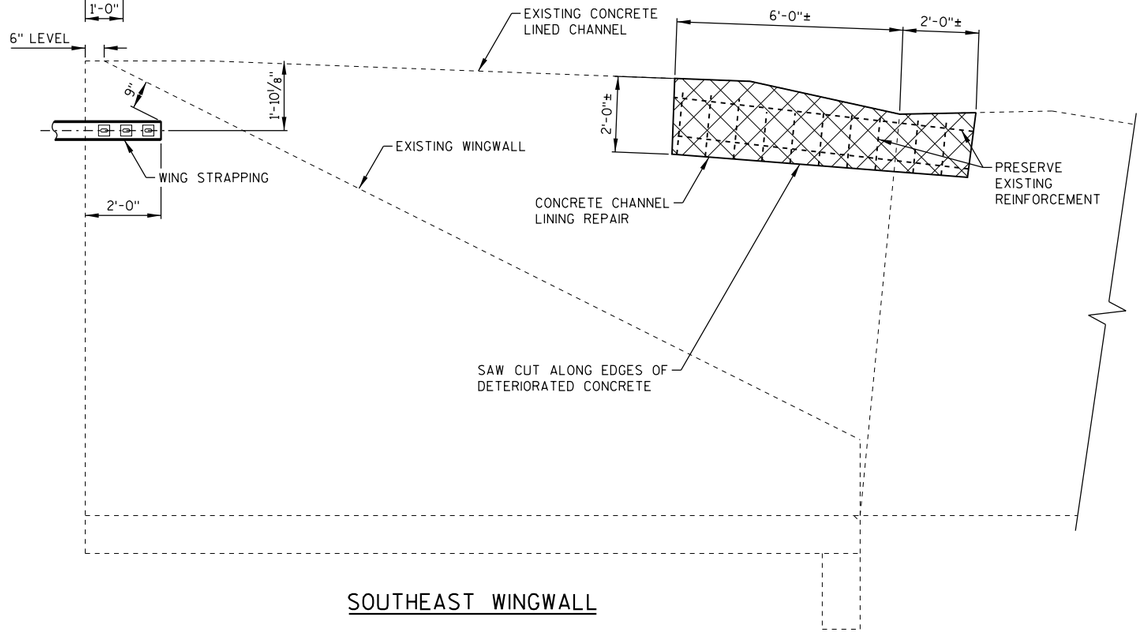
1100-45-70



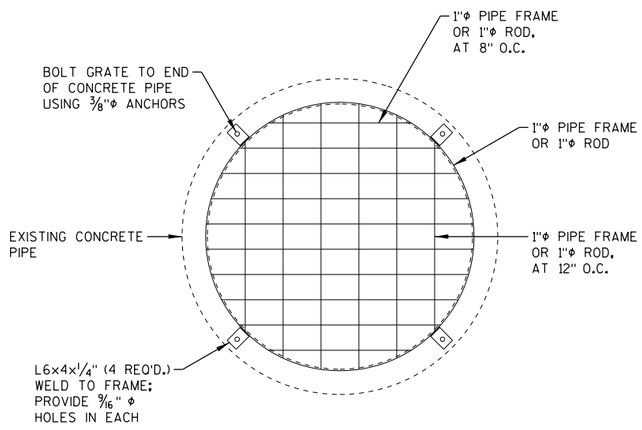
NORTHEAST WINGWALL



NORTHWEST WINGWALL



SOUTHEAST WINGWALL



PIPE GRATE DETAIL

LEGEND

CONCRETE SURFACE REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

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WINGWALL REPAIR DETAILS

SHEET 3 OF 6
721

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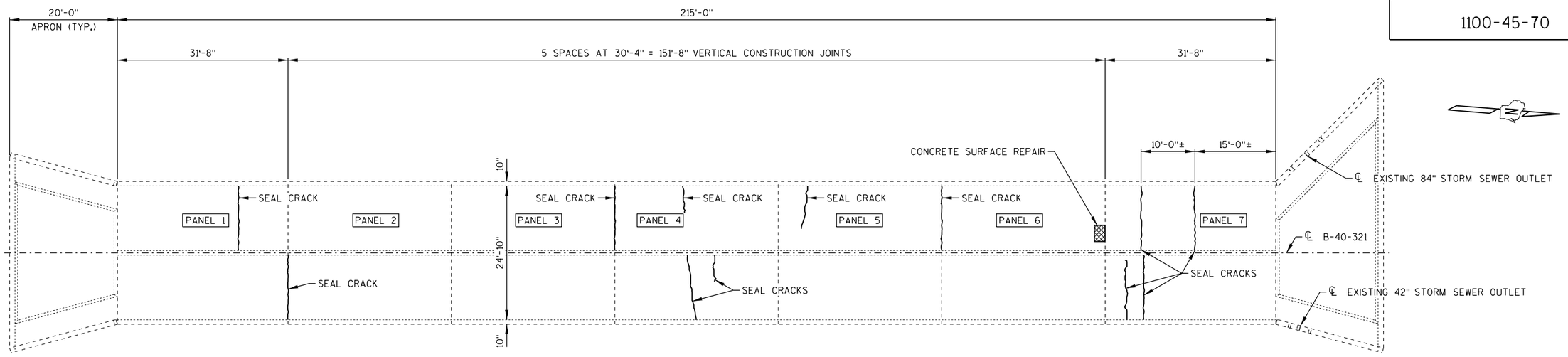

PLAN - TOP INSIDE OF CULVERT (CEILING)

LEGEND

CONCRETE SURFACE REPAIR

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

DRAWN BY DNJ | PLANS CK'D. MJA

CULVERT CEILING REPAIRS

SHEET 4 OF 6
722

BATCH PRINT SHEET 4 OF 6

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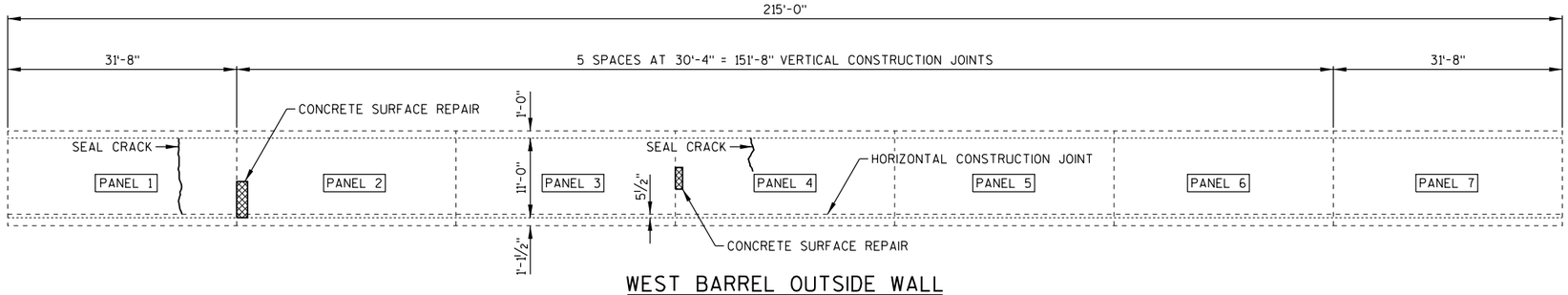
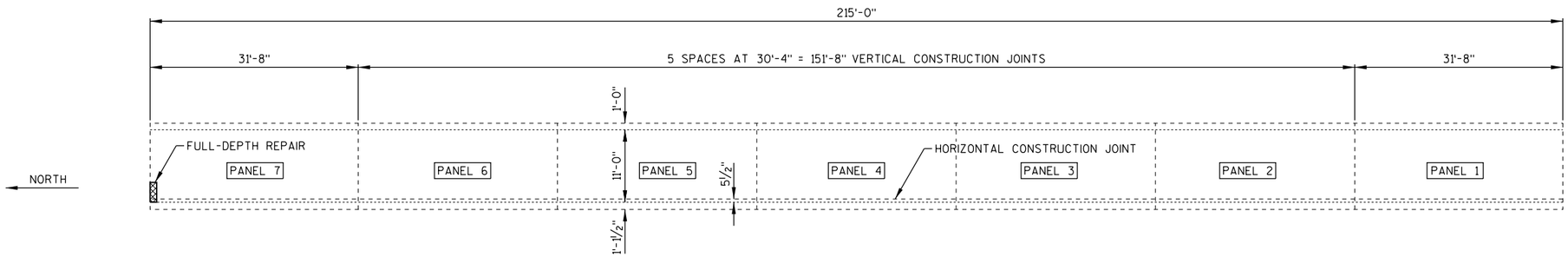
STATE PROJECT NUMBER
1100-45-70



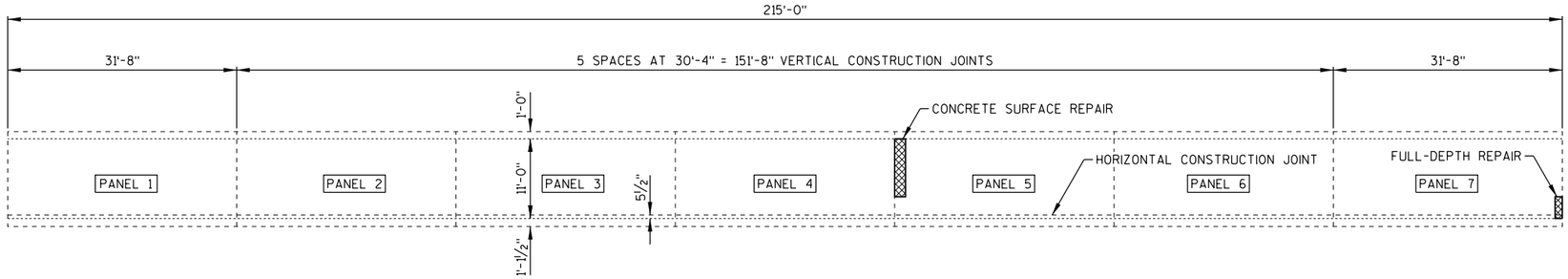
WEST BARREL OUTSIDE WALL

(LOOKING WEST)



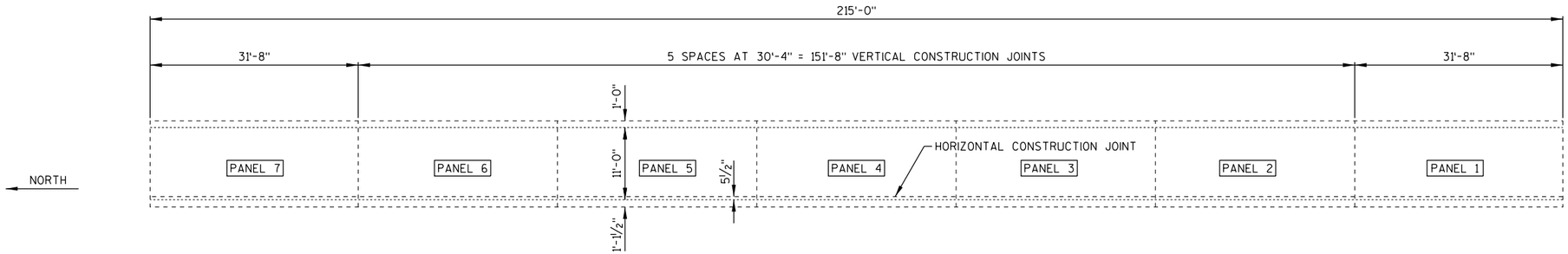
WEST BARREL CENTER WALL

(LOOKING EAST)



EAST BARREL CENTER WALL

(LOOKING WEST)



EAST BARREL OUTSIDE WALL

(LOOKING EAST)

LEGEND

CONCRETE SURFACE REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

DRAWN BY DNJ | PLANS CK'D. MJA

CULVERT WALL REPAIRS

SHEET 5 OF 6
723

8

8

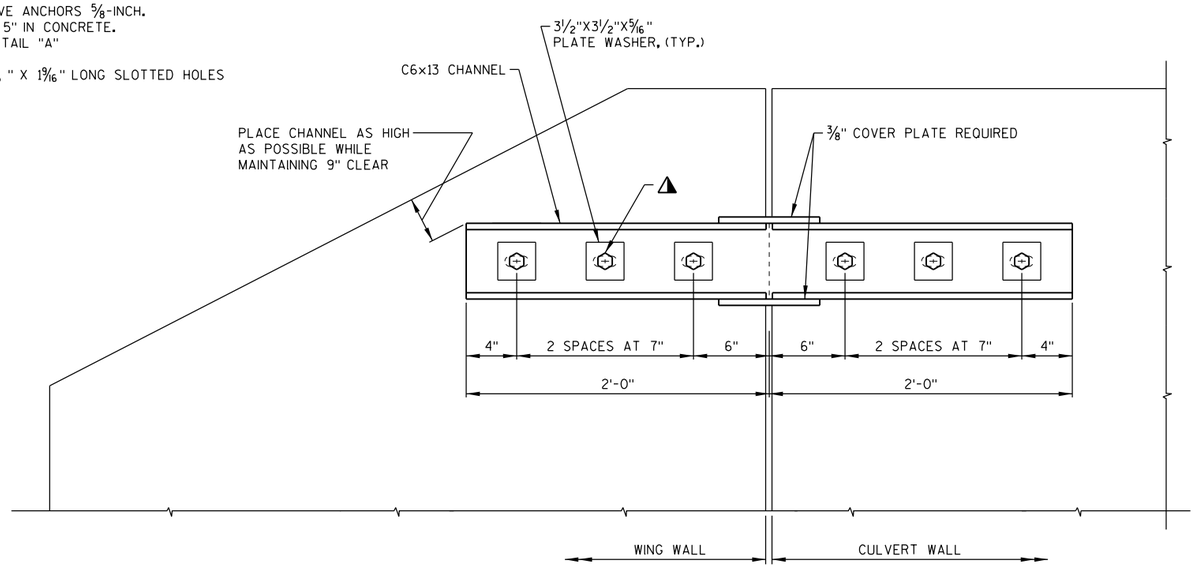
STATE PROJECT NUMBER

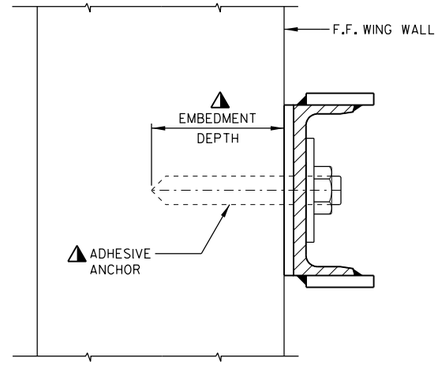
1100-45-70

LEGEND

⚠ ADHESIVE ANCHORS 5/8-INCH. EMBED 5" IN CONCRETE. SEE DETAIL "A"

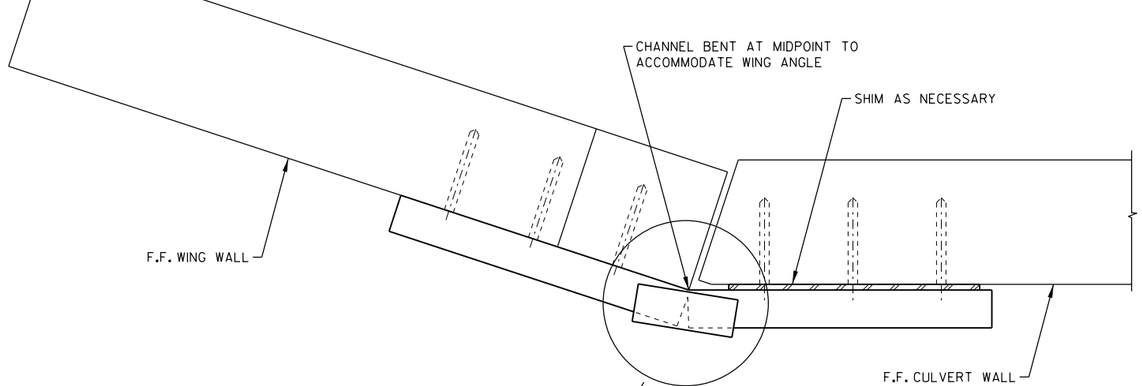
USE 11/16 " X 1 9/16" LONG SLOTTED HOLES



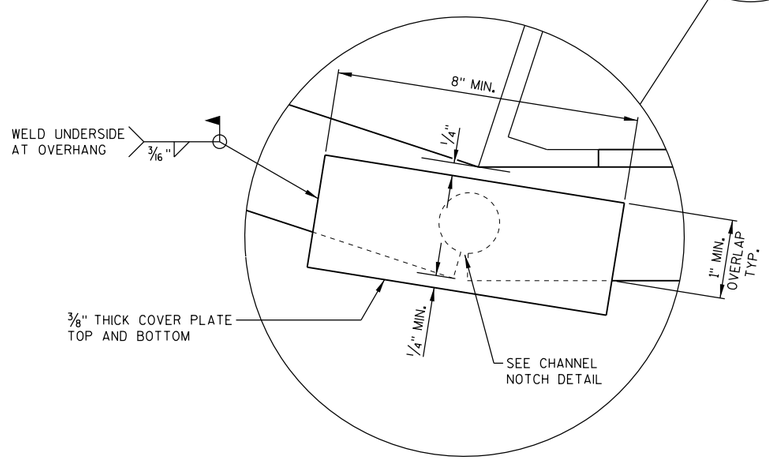


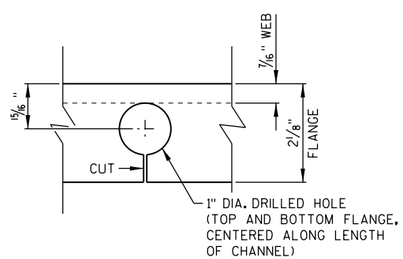
DETAIL "A"

SECTION THRU CHANNEL



PLAN





CHANNEL NOTCH DETAIL

NOTES

WING STRAPPING IS PAID FOR UNDER BID ITEM "STRAPPING B-40-321" WHICH INCLUDES ALL ITEMS SHOWN.

ALL PROVIDED STEEL MATERIAL SHALL CONFORM TO ASTM A36.

ALL STRUCTURAL STEEL SHOWN SHALL BE GALVANIZED. THREADED RODS, MASONRY ANCHORS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C.

CUTTING AND DRILLING OF CHANNEL SHALL BE DONE IN FABRICATION SHOP, PRIOR TO GALVANIZING.

IF WELDING COVER PLATE IN FIELD, PRIOR TO WELDING, REMOVE GALVANIZING FROM AREA TO BE WELDED. TOUCH UP WITH PAINT ALL AREAS LACKING GALVANIZING WHEN COMPLETE.

CAULK AROUND PERIMETER OF CHANNEL AND FILL PORTION OF HOLE AROUND ANCHOR BOLT AND SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

DRAWN BY DNJ | PLANS CK'D. MJA

WING STRAPPING

SHEET 6 OF 6

724

8

8

PRINTER DRIVER: A:\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBridgeVerA\Plotdrv\AE_PDF_11 x 17.plt
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PLOT DATE: 4/17/2023
PLOT TIME: 1:28:58 PM
BATCH PRINT SHEET 6 OF 6

STATE PROJECT NUMBER
1100-45-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

LOCATIONS OF THE FOLLOWING BIG ITEMS SHALL BE DETERMIEND IN THE FIELD BY THE PROJECT ENGINEER.
QUANTITIES SHOWN FOR THE FOLLOWING BID ITEMS ARE APPROXIMATE:
- CONCRETE SURFACE REPAIR
- CONCRETE SURFACE REPAIR-SPECIAL

"PIGMENTED SURFACE SEALER" SHALL BE APPLIED TO THE TRAFFIC FACE, TOP, AND ENDS OF THE EXISTING NOISE BARRIER.

MATERIAL PROPERTIES

CONCRETE MASONRY
CONCRETE SURFACE REPAIR ---------- f'c = 4,000 psi

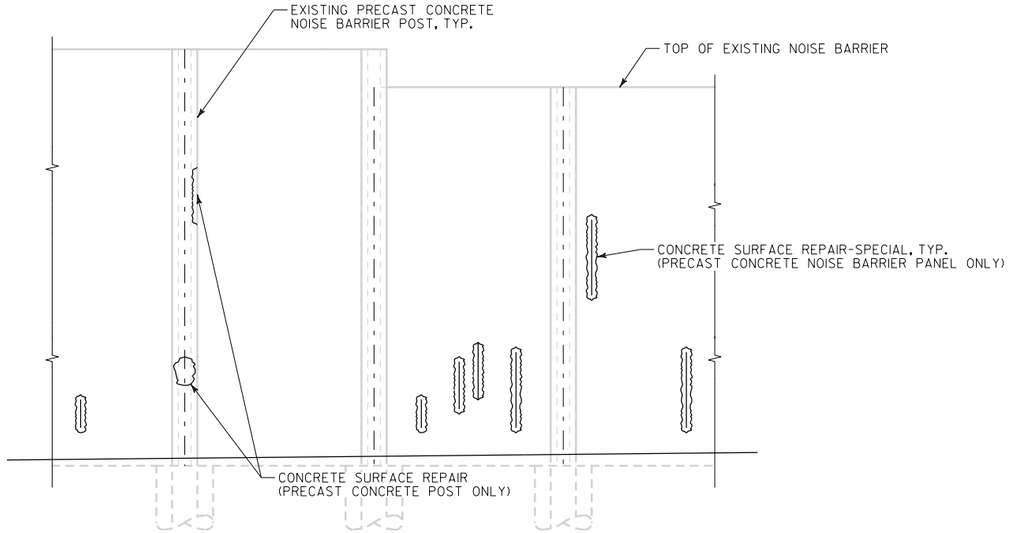
TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	N-40-009	N-40-010	TOTAL
502.3205	PIGMENTED SURFACE SEALER RESEAL	SY	4,200	3,180	7,380
509.1500	CONCRETE SURFACE REPAIR	SF	10	10	20
SPV.0060.499	REMOVE AND REINSTALL EXISTING NOISE BARRIER PANELS	EACH	1	---	1
SPV.0165.499	CONCRETE SURFACE REPAIR-SPECIAL	SF	220	20	240

ALL N-40-009 ITEMS ARE CATEGORY 9000
ALL N-40-010 ITEMS ARE CATEGORY 9010

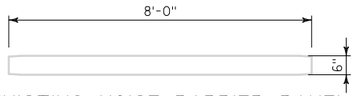
LEGEND

PROPOSED PANELS TO BE TEMPORARILY REMOVED FOR INSTALLATION OF THE S-40-3100 FOUNDATION, THEN REINSTALLED



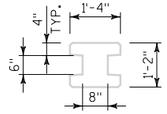
PARTIAL WALL ELEVATION

EXAMPLE "CONCRETE SURFACE REPAIR" AND "CONCRETE SURFACE REPAIR-SPECIAL" LOCATIONS SHOWN.
LOCATIONS TO BE DETERMINED IN THE FIELD BY PROJECT ENGINEER



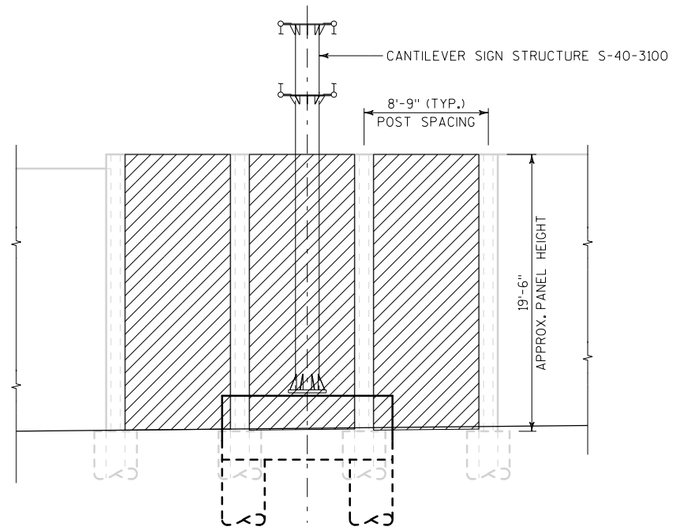
TYPICAL EXISTING NOISE BARRIER PANEL SECTION

DIMENSIONS ARE BASED UPON THE N-40-009 AS-BUILT PLANS



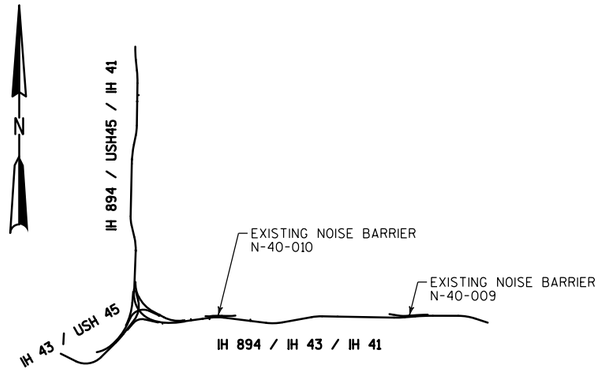
TYPICAL EXISTING NOISE BARRIER POST SECTION

DIMENSIONS ARE BASED UPON THE N-40-009 AS-BUILT PLANS



PARTIAL WALL ELEVATION

"REMOVE AND REINSTALL EXISTING NOISE BARRIER PANELS"
DIMENSIONS ARE BASED UPON THE N-40-009 AS-BUILT PLANS



LOCATION MAP

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
ED McCRIGHT (414) 272-2426

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Jacobs
MILWAUKEE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/17/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

N-40-009 & N-40-010

IH-894 / IH-43 - RESURFACING NOISE BARRIERS

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
N/A - REHABILITATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	SGM	TEK	EKM

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 1

FILE NAME : 080101_gn.dgn PLOT DATE : 15-NOV-2022 PLOT BY : emccrigh 080101_gn PLOT SCALE : 2:1

STATE PROJECT NUMBER
1100-45-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (1991).

COORDINATES ON THE PLANS ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (1997).

SIGN BRIDGE NAME PLATES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-XXX". LOCATE THE NAME PLATE ON THE SIDE OF THE SUPPORT COLUMN AS SHOWN IN THE PLAN VIEW ON SHEET 2. FABRICATE AND INSTALL THE NAME PLATE IN ACCORDANCE WITH S.D.D. 12 A 3-10.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

ALTERNATE DESIGNS ARE NOT ALLOWED.

ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS. PROJECT ENGINEER TO SEND SHOP DRAWINGS TO BUREAU OF STRUCTURES AND KAREN MARTENS, SE REGION TRAFFIC, FOR REVIEW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING IF USED SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

DESIGN DATA

STRUCTURE NO.	DESIGN SIGN AREA	MAX. SIGN DEPTH
S-40-410	DIGITAL MESSAGE SIGN	
S-40-413	DIGITAL MESSAGE SIGN	
S-40-801	329.50 SF	11'-6"
S-40-834	353.00 SF	14'-6"

DIGITAL MESSAGE SIGN:
SIGN AREA = 195 SF
SIGN WEIGHT = 3,400 LBS
BRACKET SUPPORTS = 12 LBS/FOOT

THE MEDIAN AND OUTSIDE SHOULDER FOUNDATIONS ARE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD:WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD:3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE:120 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (1700 YEAR MEAN RECURRENCE INTERVAL)

MEDIAN FOUNDATION DESIGNED PER WISDOT BRIDGE MANUAL 39.5.3 AND WISDOT BRIDGE MANUAL DESIGN EXAMPLE E39-1 "DESIGN OF FOUNDATION CAP BEAM / INTEGRAL BARRIER TL-5 LOADING".

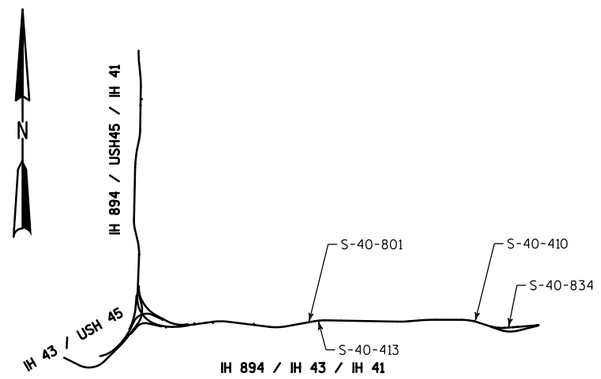
OUTSIDE SHOULDER FOUNDATIONS WERE SELECTED FROM WISDOT BRIDGE MANUAL LRFD STANDARDIZED OVERHEAD SIGN STRUCTURE PLANS, 4-CHORD TRUSS FULL SPAN - STANDARDS, BASED UPON STANDARD DESIGN TRUSS SPAN LENGTH AND ANCHORAGE ASSEMBLY SIZE.

THE EXISTING SIGN BRIDGE ANCHORAGE ASSEMBLIES, UPRIGHT SUPPORTS, AND TRUSSES WERE NOT ANALYZED.

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TrG (TRUCK INDUCED GUST VIBRATION)



LOCATION MAP

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36 -------- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C ------- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ---------- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL PLAN & ELEVATION S-40-410
3. GENERAL PLAN & ELEVATION S-40-413
4. GENERAL PLAN & ELEVATION S-40-801
5. GENERAL PLAN & ELEVATION S-40-834
6. MEDIAN CONCRETE FOOTING DETAILS S-40-410
7. MEDIAN CONCRETE FOOTING DETAILS S-40-413
8. MEDIAN CONCRETE FOOTING DETAILS S-40-801
9. SHOULDER CONCRETE FOOTING DETAILS S-40-410/413
10. SHOULDER CONCRETE FOOTING DETAILS S-40-801
11. SIGN CONNECTION DETAILS

WISCONSIN
EDWARD K. McCRIGHT
E31422
MILWAUKEE, WI
11/30/22
PROFESSIONAL ENGINEER

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
ED McCRIGHT (414) 272-2426

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Jacobs
MILWAUKEE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/01/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS FULL SPAN

IH-894 / IH-43 - RESURFACING SIGN STRUCTURES

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC. AASHTO LRFDLTS-1 W/INTERIMS

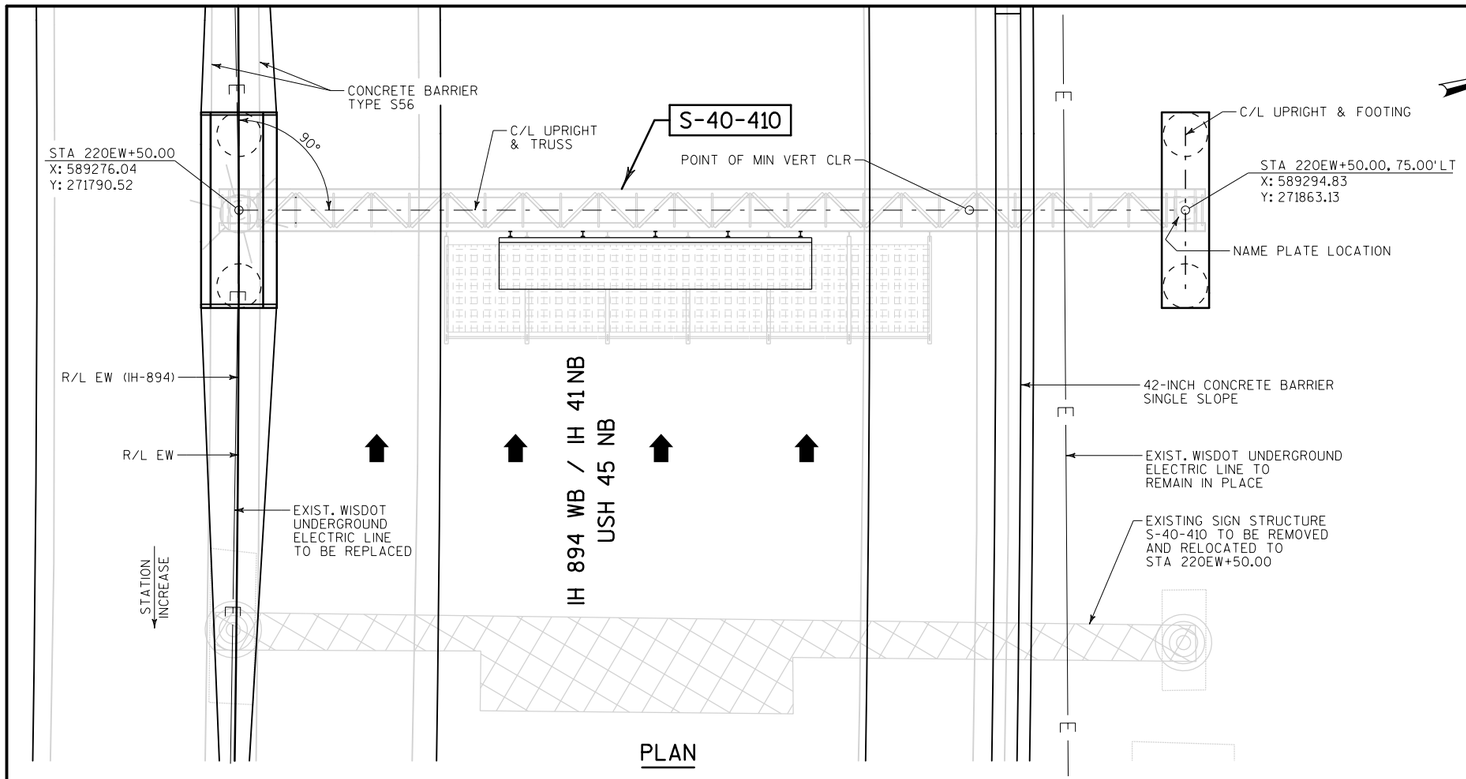
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	SGM	TEK	EKM

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 11

FILE NAME : 080103_gn.dgn PLOT DATE : 30-NOV-2022 PLOT BY : emccrigh 080103_gn PLOT SCALE : 2:1

STATE PROJECT NUMBER
1100-45-70



PLAN

TOTAL ESTIMATE OF QUANTITIES

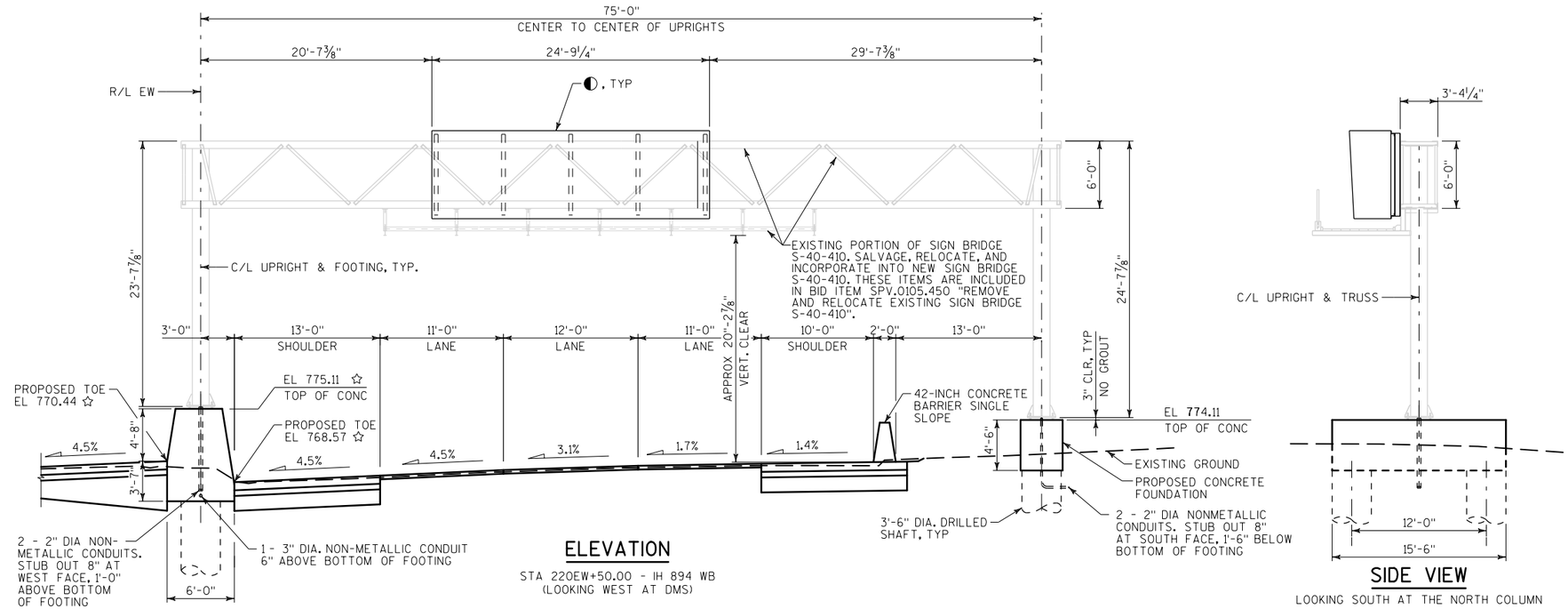
BID ITEM NO.	BID ITEM	UNIT	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	68
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	5,580
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	3,255
531.2042	DRILLING SHAFT (42-INCH)	LF	92
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	2
SPV.0060.450	REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-410	EACH	1

ALL ITEMS ARE CATEGORY 5000

LEGEND

◐ 7'-10⅛" x 3'-8½" DYNAMIC MESSAGE SIGN, CENTERED VERTICALLY ON TRUSS (NOT A STRUCTURE BID ITEM)

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHTS & TRUSS



ELEVATION

STA 220EW+50.00 - IH 894 WB
(LOOKING WEST AT DMS)

SIDE VIEW

LOOKING SOUTH AT THE NORTH COLUMN

NOTES

EXISTING SIGN BRIDGE IS LOCATED AT APPROXIMATE STA 220EW+85.00.

SALVAGE, RELOCATE, AND INCORPORATE EXISTING TRUSS CATWALK, AND UPRIGHT PORTION OF SIGN BRIDGE S-40-410 INTO NEW SIGN BRIDGE S-40-410. ERECT ON PROPOSED CONCRETE FOUNDATIONS. REPLACE ALL HIGH-STRENGTH BOLTS AND CONNECTING HARDWARE.

THE REMOVAL OF PORTIONS OF EXISTING S-40-869 THAT ARE NOT SALVAGED IS INCLUDED IN BID ITEM SPV.0105.450" REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-410".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-410

DRAWN BY TEK | PLANS CK'D. EKM

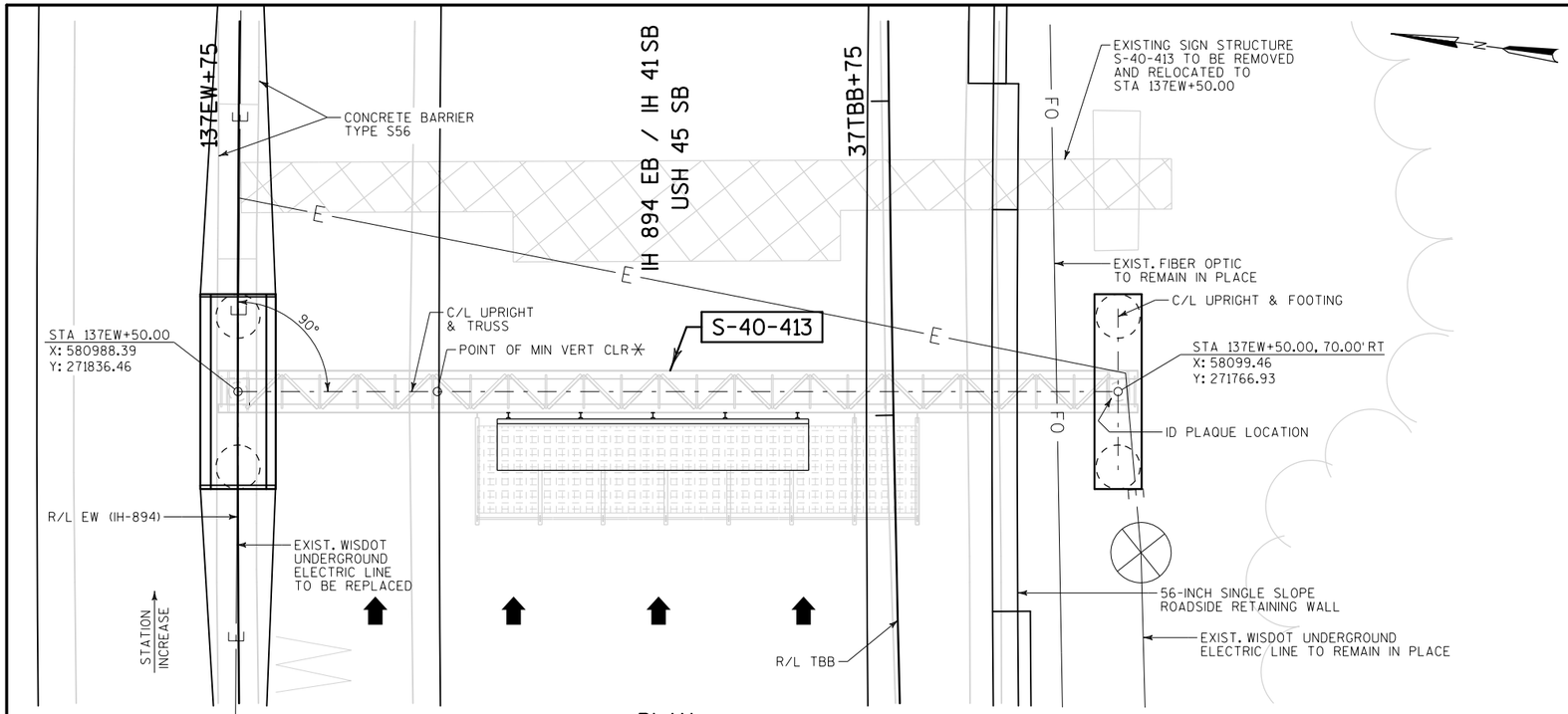
GENERAL PLAN & ELEVATION

SHEET 2 OF 11

727

FILE NAME : S40410_080102_gp.dgn PLOT DATE : 14-NOV-2022 PLOT BY : emccrigh S40410_080102_gp PLOT SCALE : 12:1

STATE PROJECT NUMBER
1100-45-70



PLAN

TOTAL ESTIMATE OF QUANTITIES

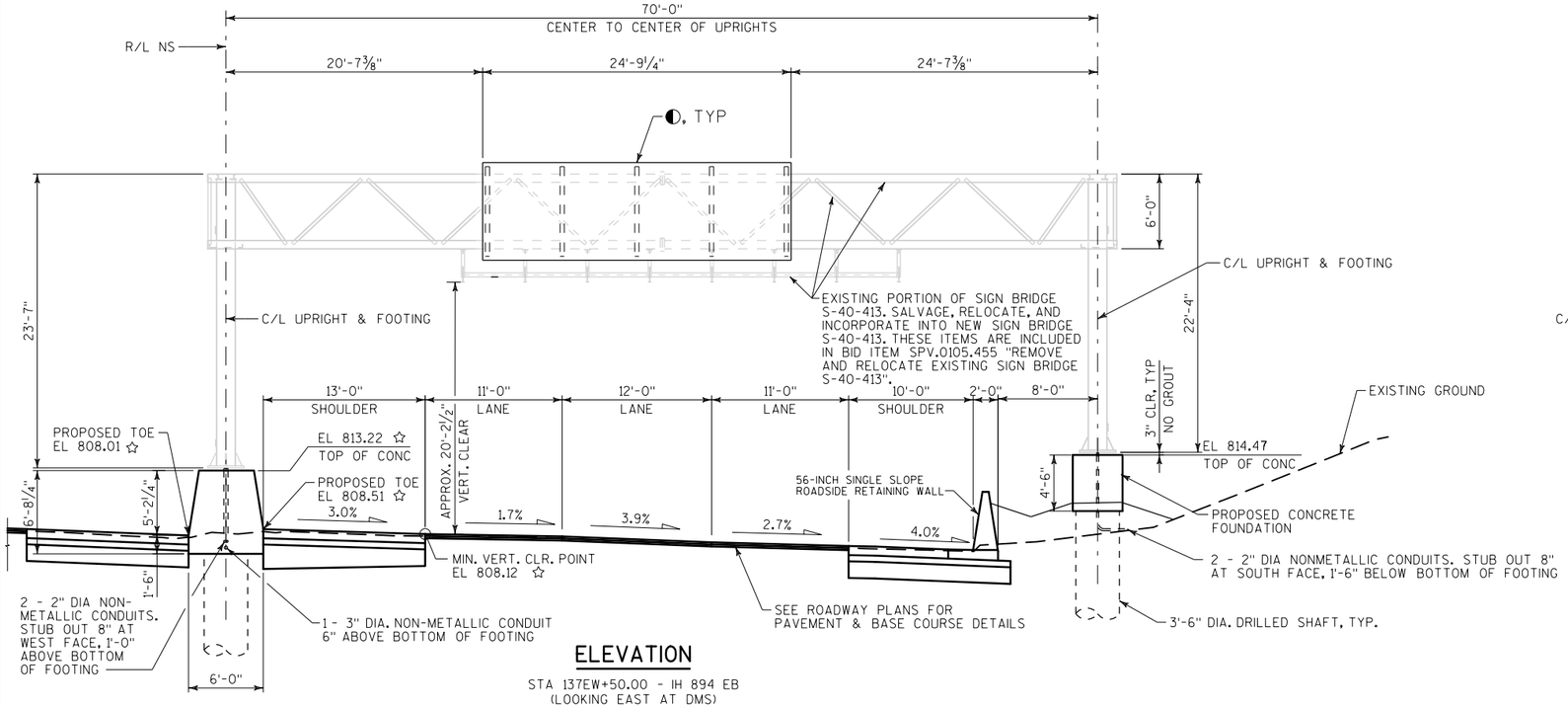
BID ITEM NO.	BID ITEM	UNIT	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	63
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	5,580
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	3,110
531.2042	DRILLING SHAFT (42-INCH)	LF	92
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	2
SPV.0060.455	REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-413	EACH	1

ALL ITEMS ARE CATEGORY 5010

LEGEND

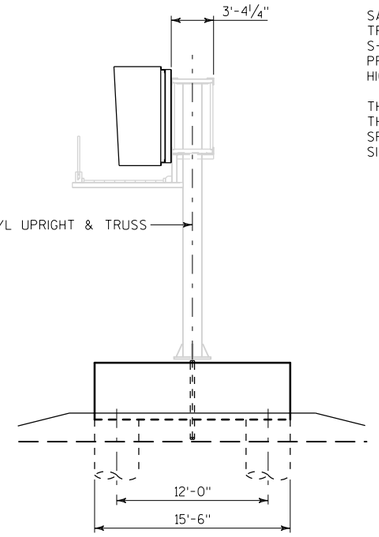
◐ 7'-10⅛" x 3'-8½" DYNAMIC MESSAGE SIGN, CENTERED VERTICALLY ON TRUSS (NOT A STRUCTURE BID ITEM)

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHTS & TRUSS



ELEVATION

STA 137EW+50.00 - IH 894 EB
(LOOKING EAST AT DMS)



SIDE VIEW

LOOKING NORTH AT THE SOUTH COLUMN

NOTES

EXISTING SIGN BRIDGE IS LOCATED AT APPROXIMATE STA 137EW+66.00.

SALVAGE, RELOCATE, AND INCORPORATE EXISTING TRUSS CATWALK, AND UPRIGHT PORTION OF SIGN BRIDGE S-40-413 INTO NEW SIGN BRIDGE S-40-413. ERECT ON PROPOSED CONCRETE FOUNDATIONS. REPLACE ALL HIGH-STRENGTH BOLTS AND CONNECTING HARDWARE.

THE REMOVAL OF PORTIONS OF EXISTING S-40-413 THAT ARE NOT SALVAGED IS INCLUDED IN BID ITEM SPV.0105.455" REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-413".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-413

DRAWN BY TEK | PLANS CK'D. EKM

GENERAL PLAN & ELEVATION

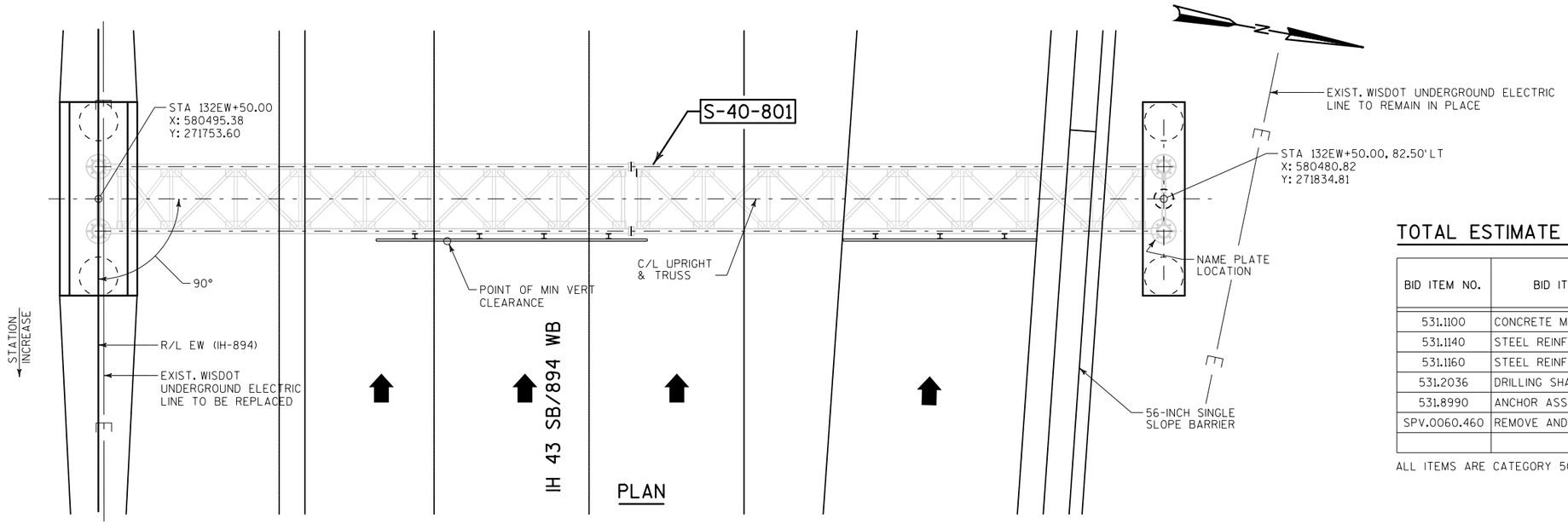
SHEET 3 OF 11

8

8

FILE NAME : S40413_080101_gp.dgn PLOT DATE : 14-NOV-2022 PLOT BY : emccrigh S40413_080101_gp PLOT SCALE : 12:1

STATE PROJECT NUMBER
1100-45-70



PLAN

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	50
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	4,845
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	2,825
531.2036	DRILLING SHAFT (36-INCH)	LF	88
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	4
SPV.0060.460	REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-801	EACH	1

ALL ITEMS ARE CATEGORY 5020

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT & TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

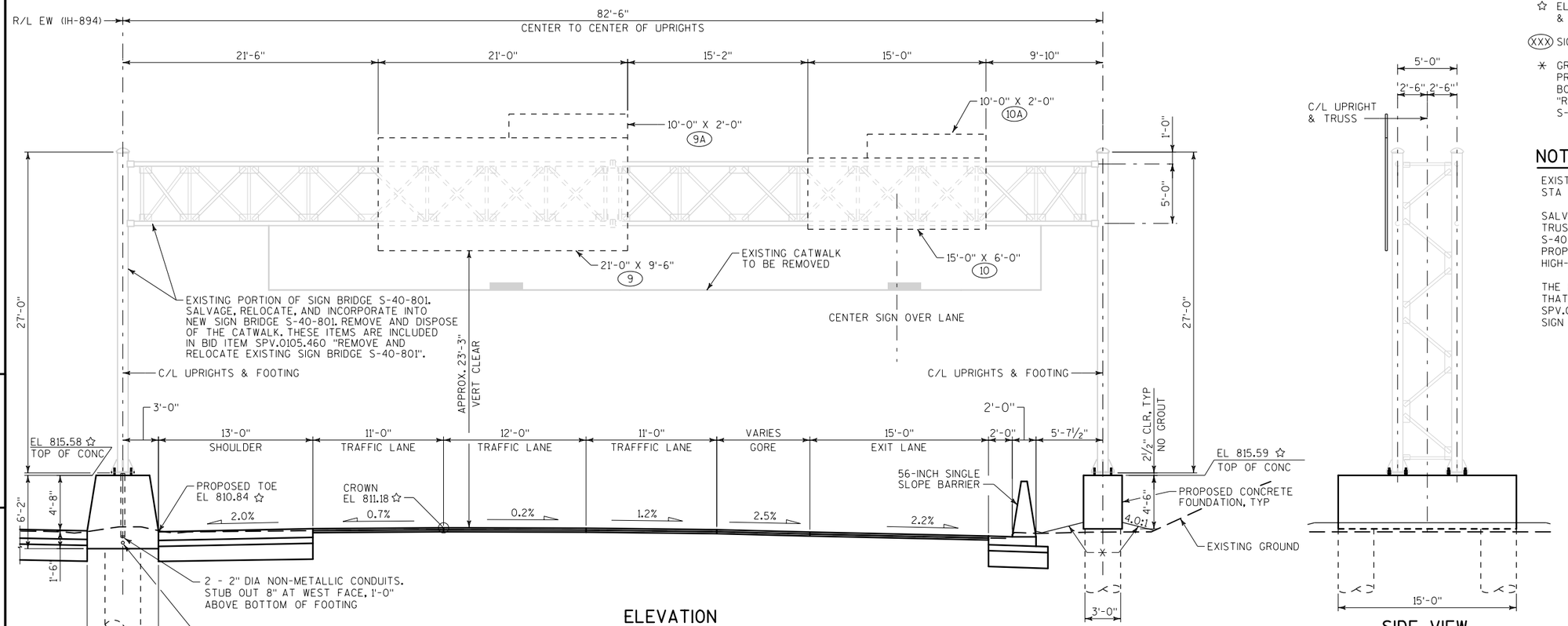
✳ GRADE AS REQUIRED AT SHOULDER FOUNDATION TO PROVIDE AT LEAST 6" EMBEDMENT OF FOUNDATION BOTTOM. GRADING WORK INCIDENTAL TO BID ITEM "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-801".

NOTES

EXISTING SIGN BRIDGE IS LOCATED AT APPROXIMATE STA 132EW+50.00.

SALVAGE, RELOCATE, AND INCORPORATE EXISTING TRUSS AND UPRIGHT PORTION OF SIGN BRIDGE S-40-801 INTO NEW SIGN BRIDGE S-40-801. ERECT ON PROPOSED CONCRETE FOUNDATIONS. REPLACE ALL HIGH-STRENGTH BOLTS AND CONNECTING HARDWARE.

THE REMOVAL OF PORTIONS OF EXISTING S-40-801 THAT ARE NOT SALVAGED IS INCLUDED IN BID ITEM SPV.0105.460 "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-801".



ELEVATION

STA 132EW+50.00 - IH-894 WB
(LOOKING WEST AT SIGN)

SIDE VIEW

LOOKING SOUTH AT NORTH UPRIGHTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-801

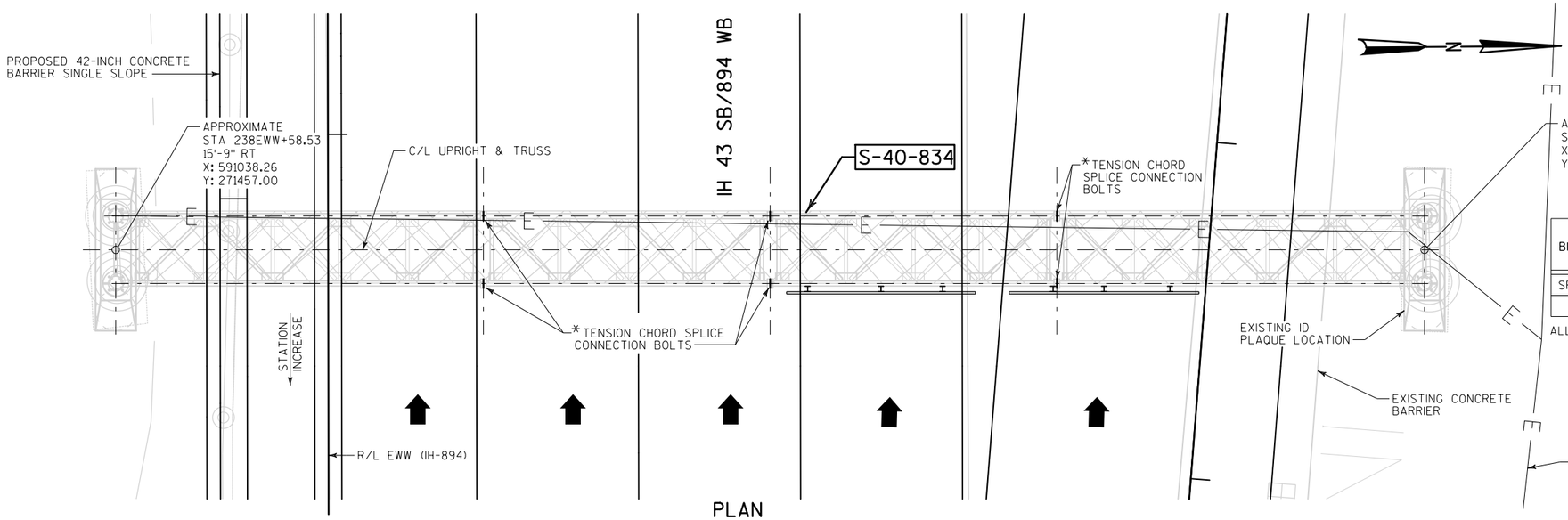
DRAWN BY TEK | PLANS CK'D. EKM

GENERAL PLAN & ELEVATION

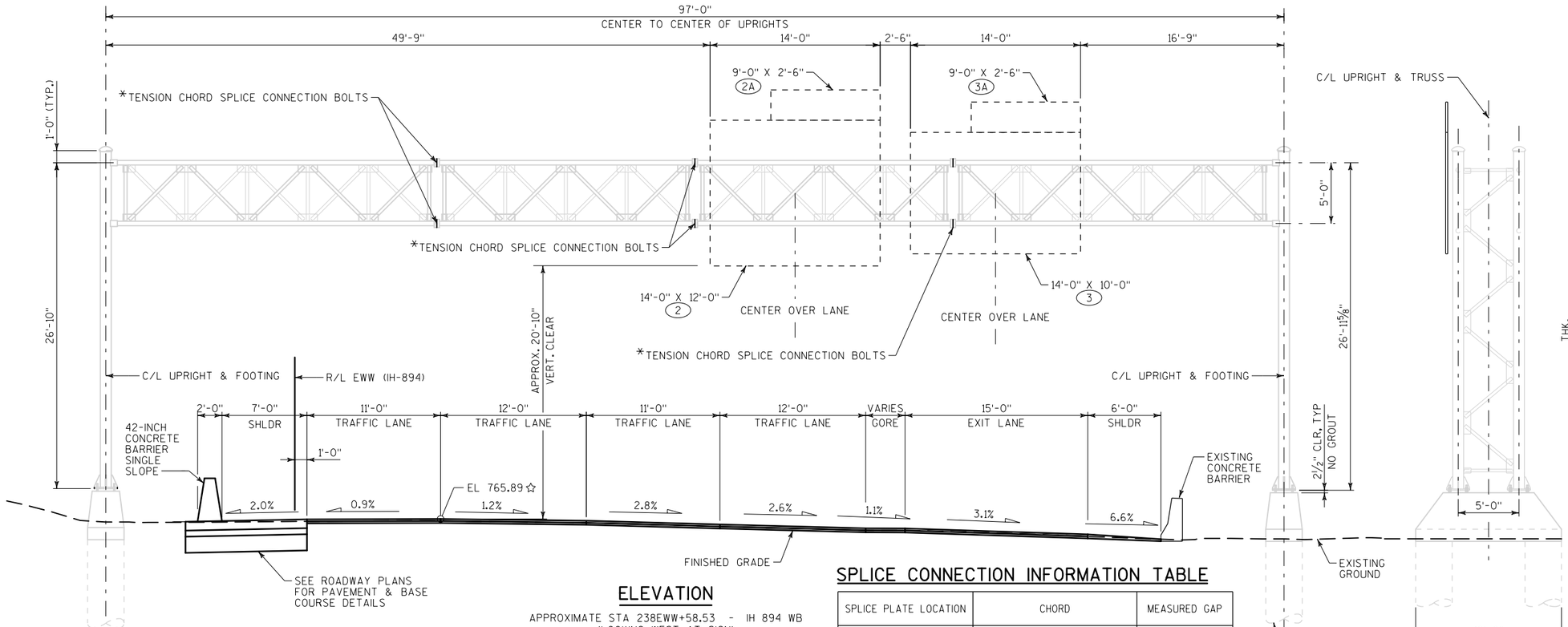
SHEET 4 OF 11

FILE NAME : S-40-0801_080101_gp.dgn PLOT DATE : 30-NOV-2022 PLOT BY : emccrigh S-40-0801_080101_gp PLOT SCALE : 10:1

STATE PROJECT NUMBER
1100-45-70

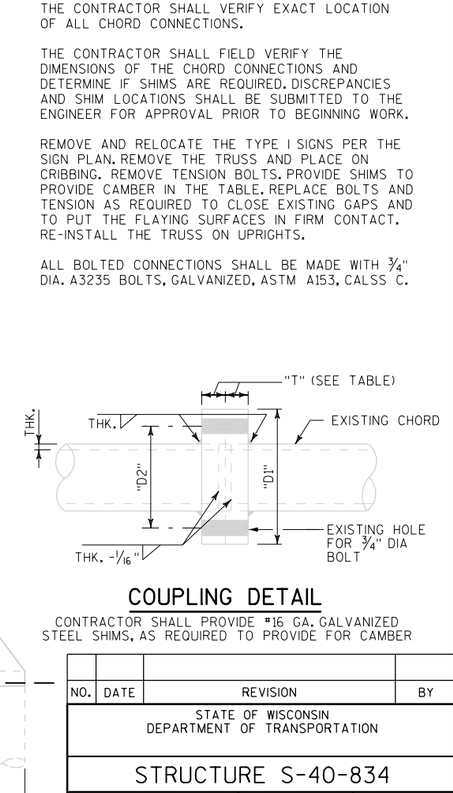


PLAN



ELEVATION

APPROXIMATE STA 238EWW+58.53 - IH 894 WB
(LOOKING WEST AT SIGN)



SIDE VIEW

LOOKING SOUTH AT NORTH COLUMN

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
SPV.0060.465	TENSION CHORD SPLICE CONNECTIONS (S-40-834)	EACH	1

ALL ITEMS ARE CATEGORY 5030

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT & TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

* CONTRACTOR TO PROVIDE #16 GA. METAL SHIMS, AS REQUIRED TO PROVIDE CAMBER AS SHOWN IN THE TABLE.

NOTES

THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF ALL CHORD CONNECTIONS.

THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS OF THE CHORD CONNECTIONS AND DETERMINE IF SHIMS ARE REQUIRED. DISCREPANCIES AND SHIM LOCATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK.

REMOVE AND RELOCATE THE TYPE I SIGNS PER THE SIGN PLAN. REMOVE THE TRUSS AND PLACE ON CRIBBING. REMOVE TENSION BOLTS. PROVIDE SHIMS TO PROVIDE CAMBER IN THE TABLE. REPLACE BOLTS AND TENSION AS REQUIRED TO CLOSE EXISTING GAPS AND TO PUT THE FLAYING SURFACES IN FIRM CONTACT. RE-INSTALL THE TRUSS ON UPRIGHTS.

ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA. A3235 BOLTS, GALVANIZED, ASTM A153, CALSS C.

COUPLING DETAIL

CONTRACTOR SHALL PROVIDE #16 GA. GALVANIZED STEEL SHIMS, AS REQUIRED TO PROVIDE FOR CAMBER

SIGN STRUCTURE INFORMATION TABLE

STRUCTURE	EXIST. CHORDS O.D. X THK.	EXIST. COUPLING PLATE "D1" & "T"	EXIST. BOLT CIRCLE DIA, "D2"	NO. OF BOLTS IN COUPLING	PROPOSED CAMBER
S-40-834	4.5" X 0.674"	11" DIA & 1"	8"	6	1¾"

SPLICE CONNECTION INFORMATION TABLE

SPLICE PLATE LOCATION	CHORD	MEASURED GAP
NORTH SPLICE PLATE	LOWER FRONT / LOWER BACK	1/16"
MIDDLE SPLICE PLATE	LOWER FRONT / LOWER BACK	1/16"
SOUTH SPLICE PLATE	LOWER FRONT / LOWER BACK	1/32"
SOUTH SPLICE PLATE	UPPER FRONT	1/32"

(LOOKING WEST AT FRONT FACE OF SIGN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-834

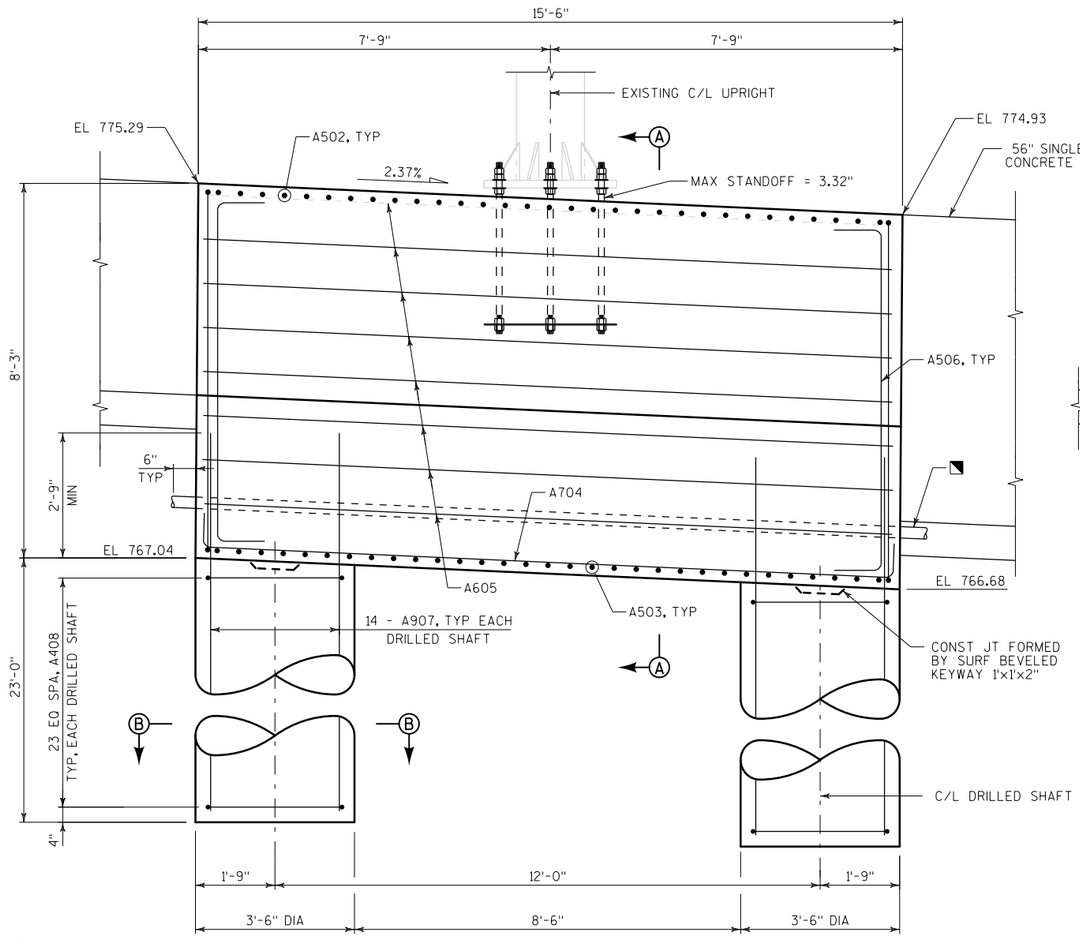
DRAWN BY TEK | PLANS CK'D. EKM

GENERAL PLAN & ELEVATION

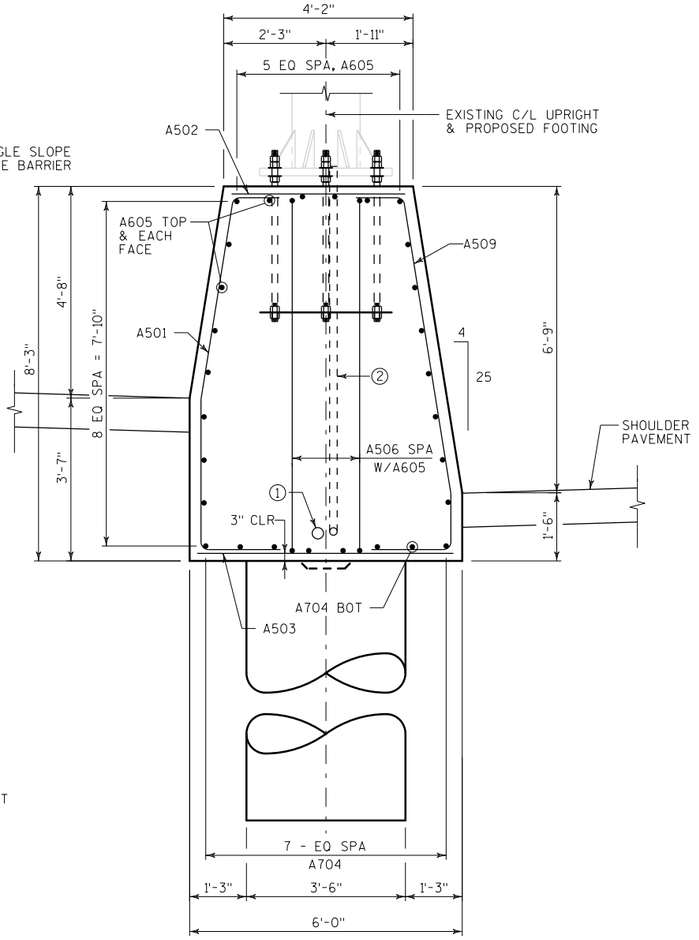
SHEET 5 OF 11

FILE NAME : S-40-0834_080101_gp_2.dgn PLOT DATE : 30-NOV-2022 PLOT BY : emccrigh S-40-0834_080101_gp_2 PLOT SCALE : 10:1

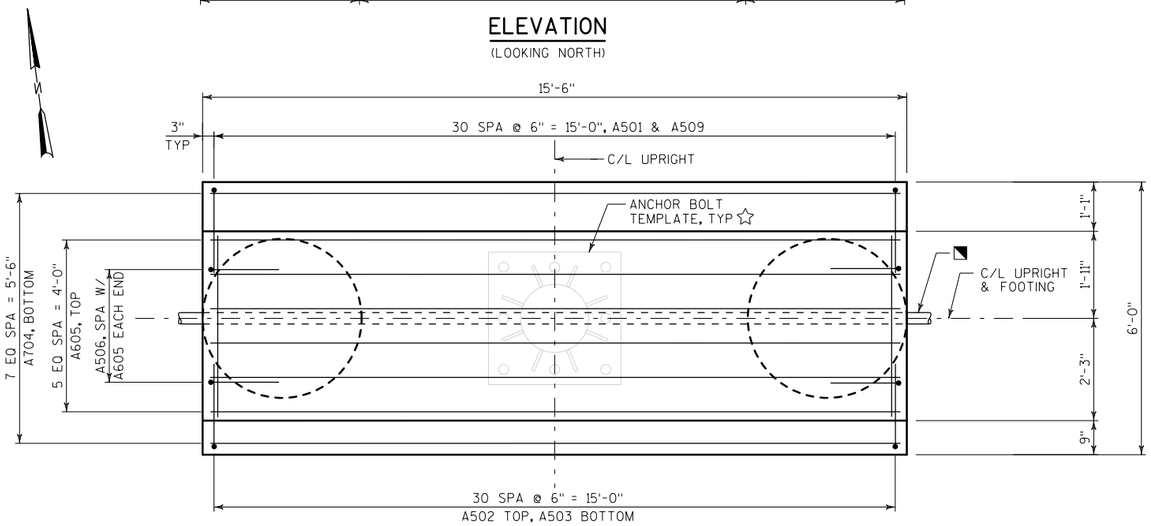
STATE PROJECT NUMBER
1100-45-00



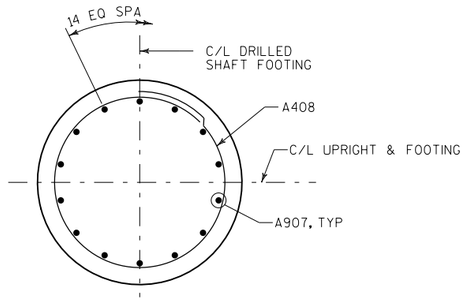
ELEVATION
(LOOKING NORTH)



SECTION A-A
(LOOKING WEST)



PLAN



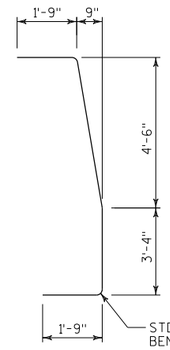
SECTION B-B
TYPICAL FOR EACH DRILLED SHAFT FOOTING

NOTES

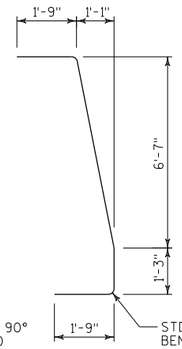
① 1 - 3" DIA NON-METALLIC CONDUIT PASSING THROUGH MEDIAN FOOTING. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

② 2" DIA NON-METALLIC CONDUIT. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

☆ SEE SHEET 9 FOR ANCHOR BOLT/TEMPLATE DETAILS.



A501



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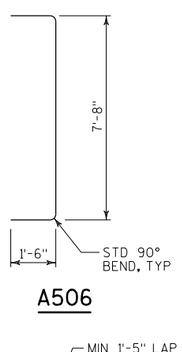

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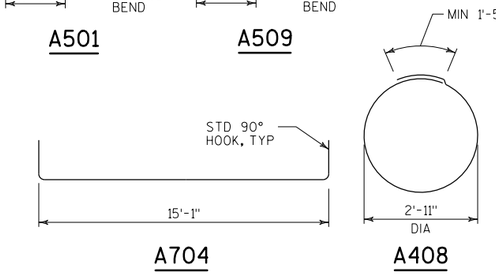


A704

A408

BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS
OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A501	X	31	11'-2"	X	FOOTING - TRANSVERSE - STIRRUP
A502	X	31	3'-10"		FOOTING - TRANSVERSE - TOP
A503	X	31	5'-6"		FOOTING - TRANSVERSE - BOTTOM
A704	X	8	17'-1"	X	FOOTING - LONGITUDINAL - BOTTOM
A605	X	20	15'-2"		FOOTING - LONGITUDINAL - TOP & SIDES
A506	X	8	10'-5"	X	FOOTING - VERTICAL - EACH END
A907		28	25'-9"		DRILLED FOOTING - VERTICAL
A408		48	10'-6"	X	DRILLED FOOTING - HORIZONTAL
A509	X	31	11'-2"	X	FOOTING - TRANSVERSE - STIRRUP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

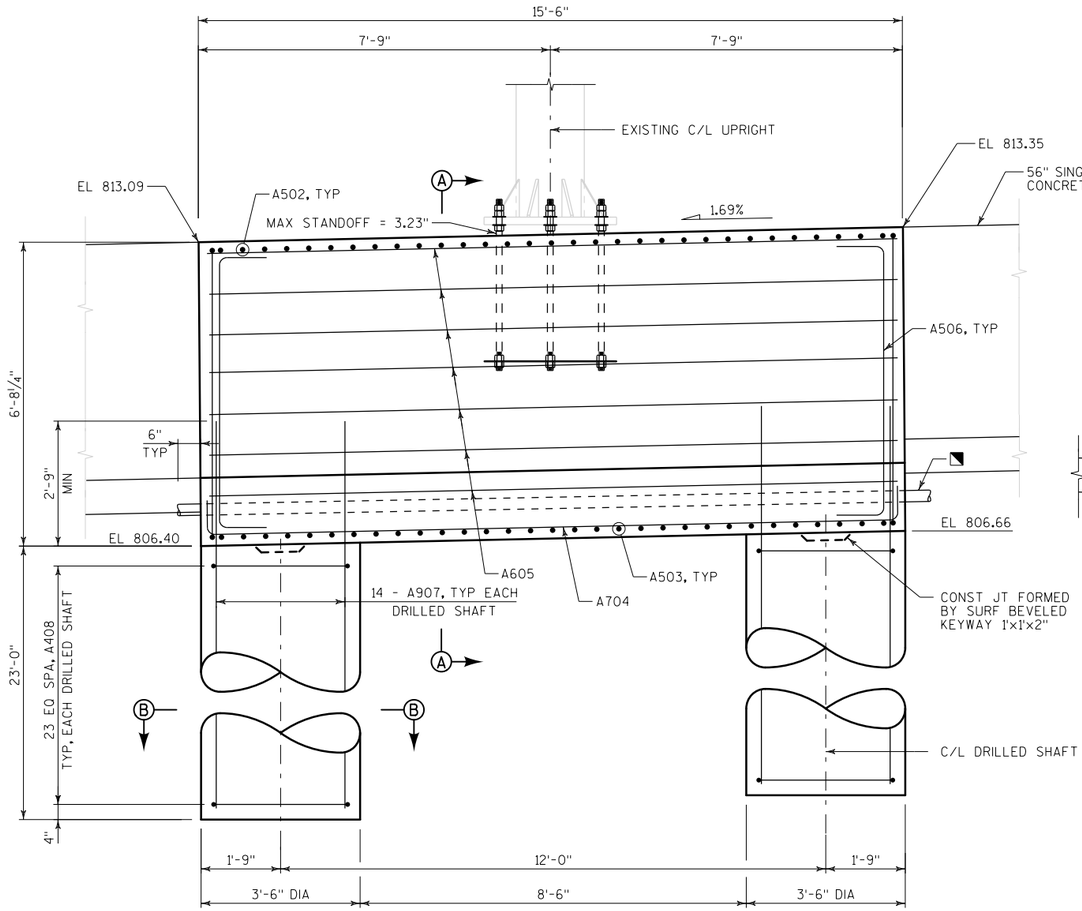
STRUCTURES S-40-410

DRAWN BY TEK | PLANS CK'D. EKM

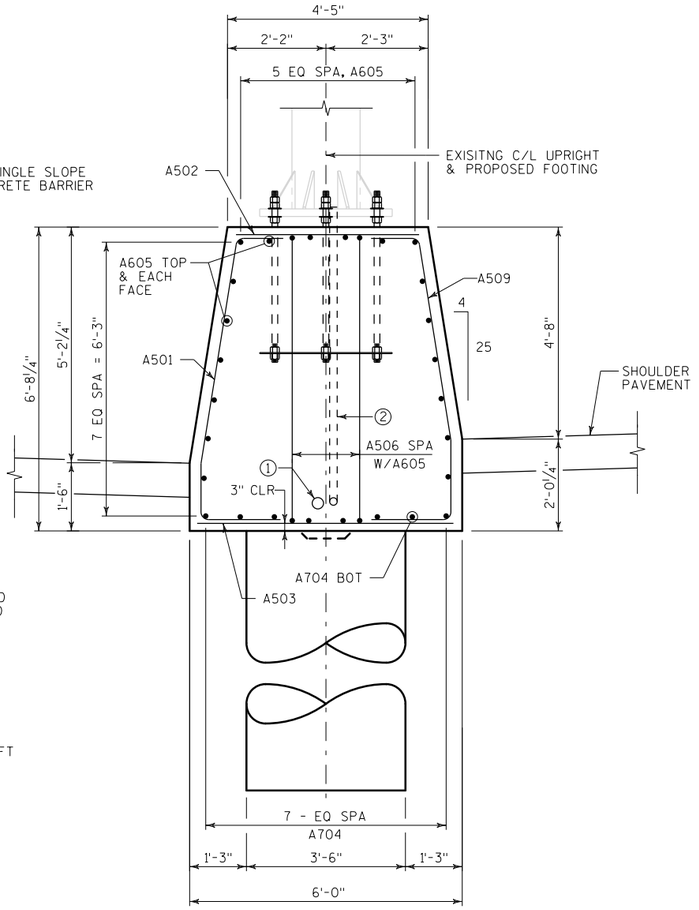
MEDIAN CONCRETE FOOTING DETAILS

SHEET 6 OF 11

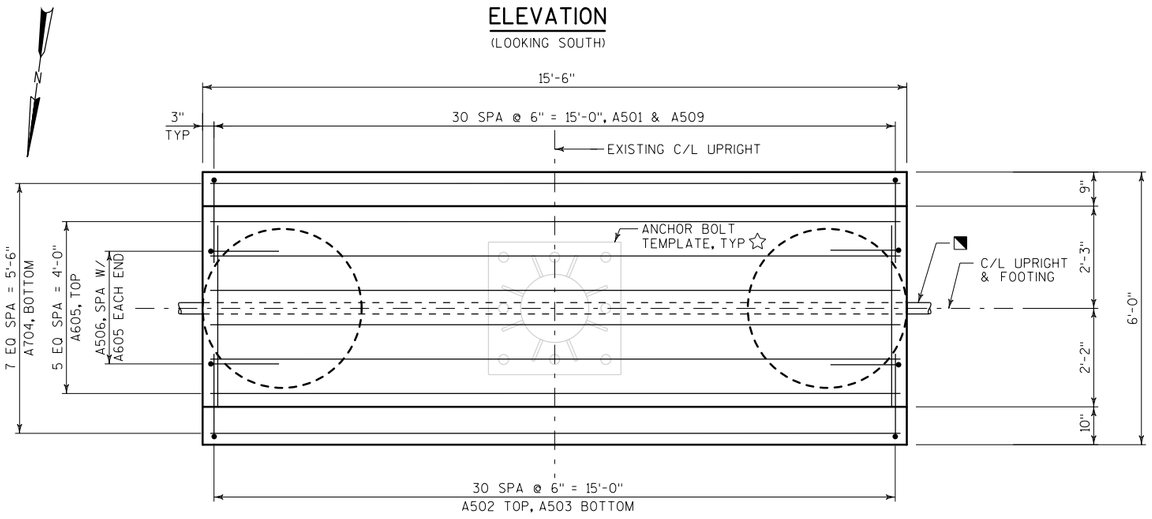
STATE PROJECT NUMBER
1100-45-00



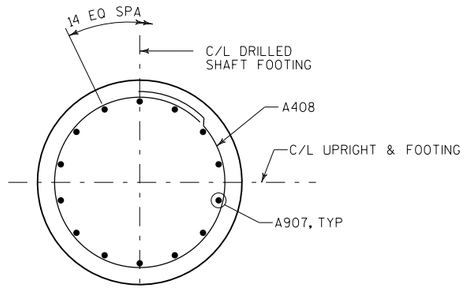
ELEVATION
(LOOKING SOUTH)



SECTION A-A
(LOOKING EAST)



PLAN

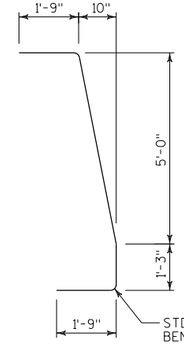


SECTION B-B
TYPICAL FOR EACH DRILLED SHAFT FOOTING

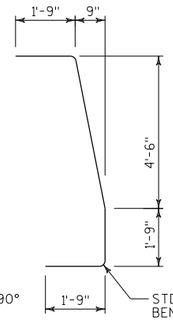
NOTES

1. 1 - 3" DIA NON-METALLIC CONDUIT PASSING THROUGH MEDIAN FOOTING. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".
2. 2" DIA NON-METALLIC CONDUIT. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

☆ SEE SHEET 9 FOR ANCHOR BOLT/TEMPLATE DETAILS.



A501



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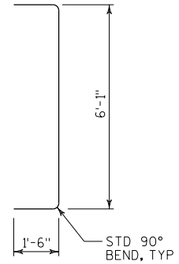

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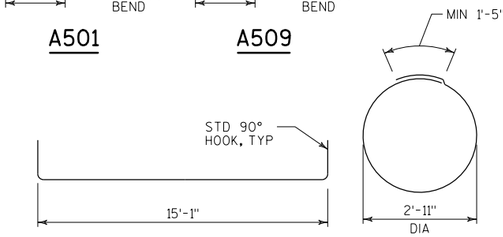


A704

A408

BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS
OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A501	X	31	9'-9"	X	FOOTING - TRANSVERSE - STIRRUP
A502	X	31	4'-1"		FOOTING - TRANSVERSE - TOP
A503	X	31	5'-6"		FOOTING - TRANSVERSE - BOTTOM
A704	X	8	17'-1"	X	FOOTING - LONGITUDINAL - BOTTOM
A605	X	18	15'-2"		FOOTING - LONGITUDINAL - TOP & SIDES
A506	X	8	8'-10"	X	FOOTING - VERTICAL - EACH END
A907		28	25'-9"		DRILLED FOOTING - VERTICAL
A408		48	10'-6"	X	DRILLED FOOTING - HORIZONTAL
A509	X	31	9'-9"	X	FOOTING - TRANSVERSE - STIRRUP

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

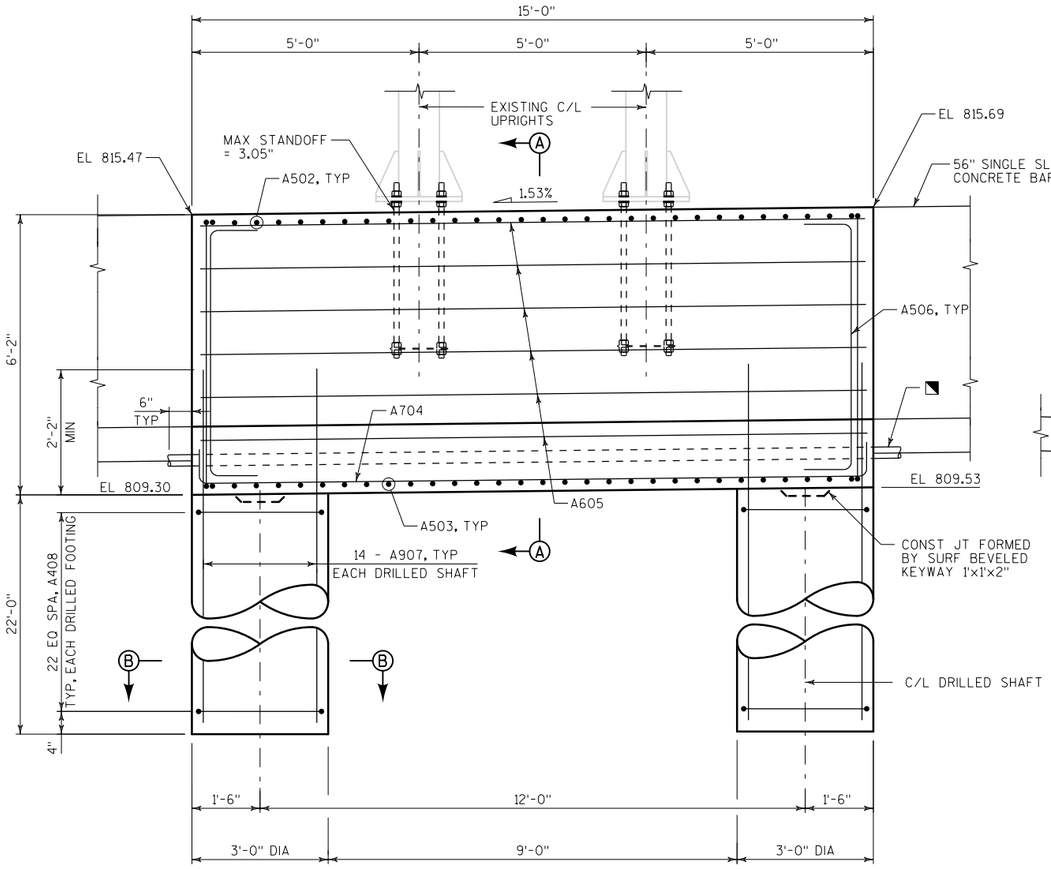
STRUCTURES S-40-413

DRAWN BY TEK | PLANS CK'D. EKM

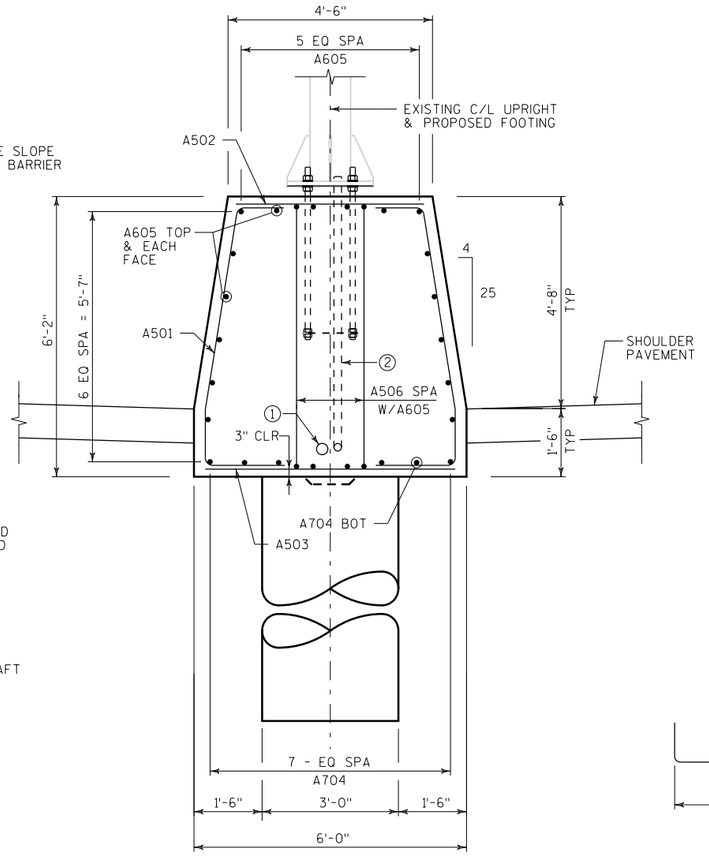
MEDIAN CONCRETE FOOTING DETAILS

SHEET 7 OF 11

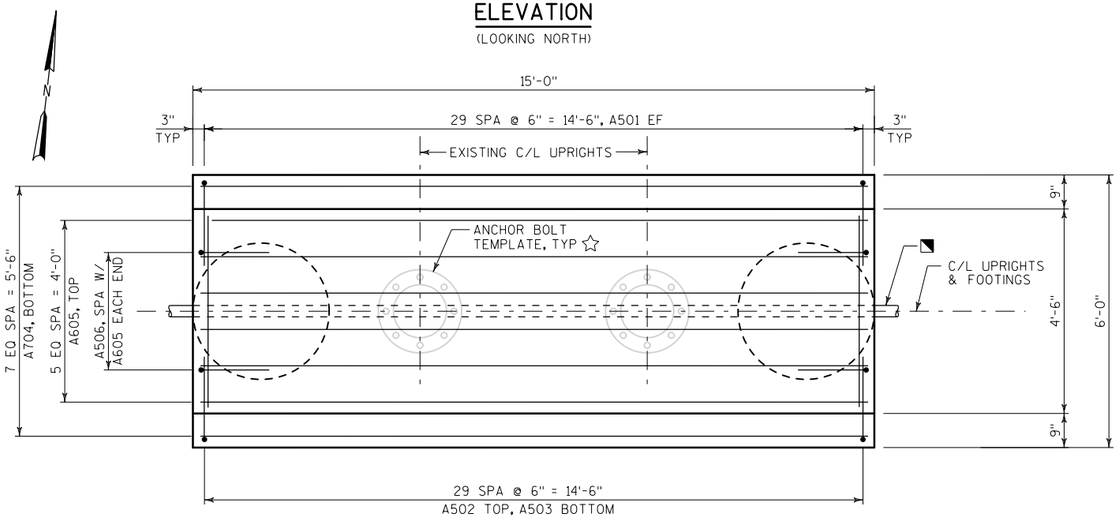
STATE PROJECT NUMBER
1100-45-00



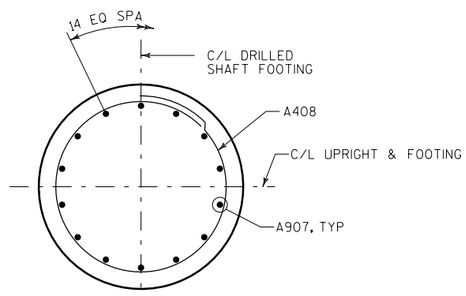
ELEVATION
(LOOKING NORTH)



SECTION A-A
(LOOKING WEST)



PLAN



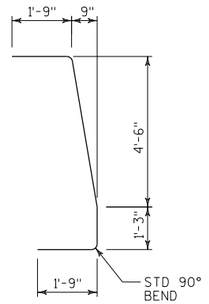
SECTION B-B
TYPICAL FOR EACH DRILLED SHAFT FOOTING

NOTES

① 1 - 3" DIA NON-METALLIC CONDUIT PASSING THROUGH MEDIAN FOOTING. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

② 2" DIA NON-METALLIC CONDUIT. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

☆ SEE SHEET 9 FOR ANCHOR BOLT/TEMPLATE DETAILS.



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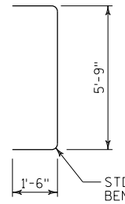

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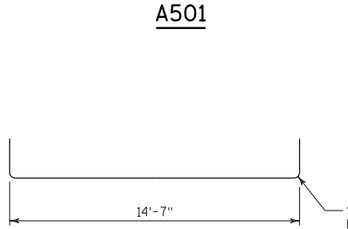

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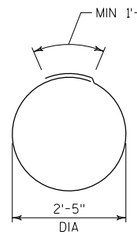


A408

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A501	X	60	9'-2"	X	FOOTING - TRANSVERSE - STIRRUP
A502	X	30	4'-0"		FOOTING - TRANSVERSE - TOP
A503	X	30	5'-6"		FOOTING - TRANSVERSE - BOTTOM
A704	X	8	16'-7"	X	FOOTING - LONGITUDINAL - BOTTOM
A605	X	16	14'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A506	X	8	8'-6"	X	FOOTING - VERTICAL - EACH END
A907		28	24'-2"		DRILLED FOOTING - VERTICAL
A408		46	9'-0"	X	DRILLED FOOTING - HORIZONTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-801

DRAWN BY TEK | PLANS CK'D. EKM

MEDIAN CONCRETE FOOTING DETAILS

SHEET 8 OF 11

733

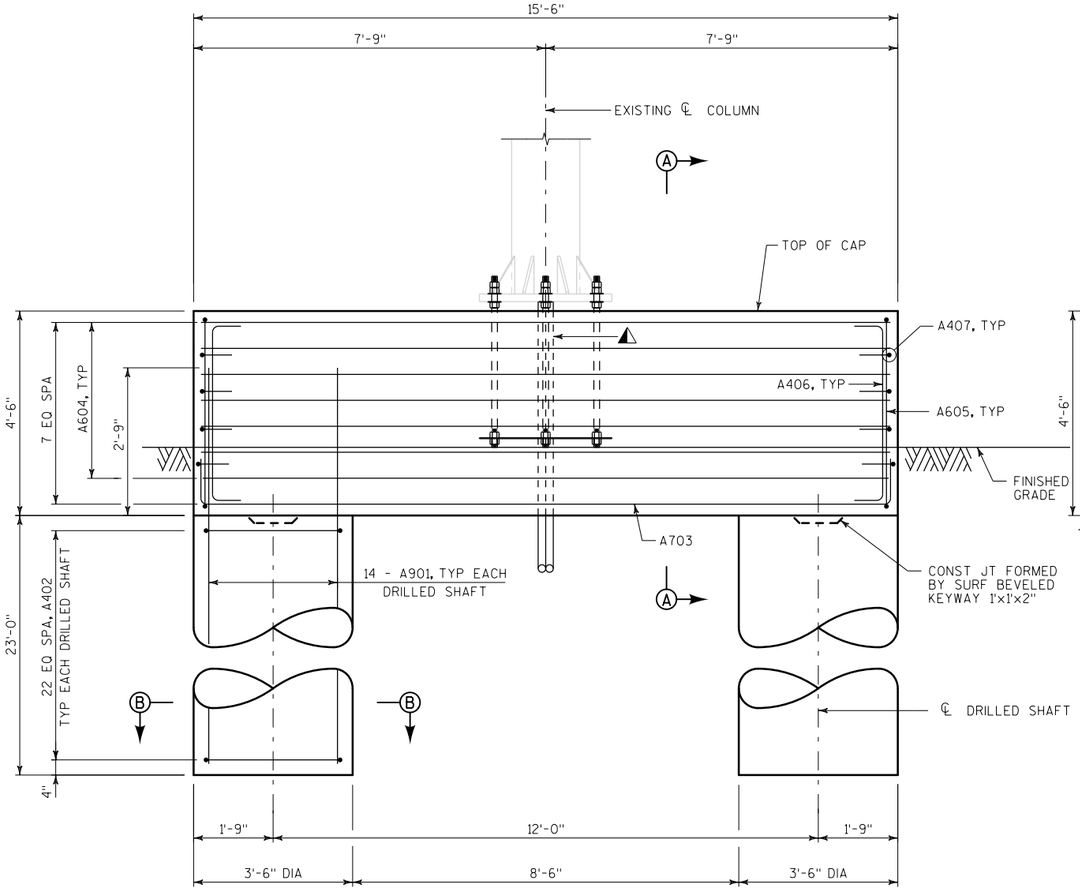
8

8

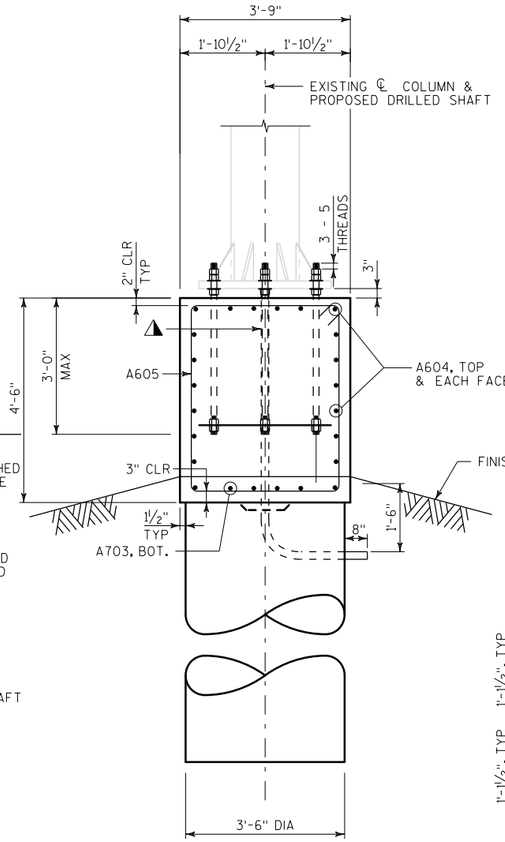
FILE NAME : S40801_080201_fd.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S40801_080201_fd PLOT SCALE : 3.333333:1

STATE PROJECT NUMBER

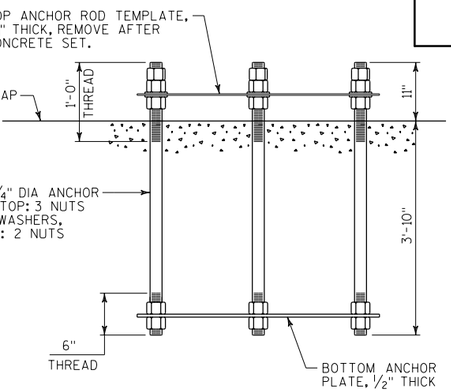
1100-45-00



ELEVATION



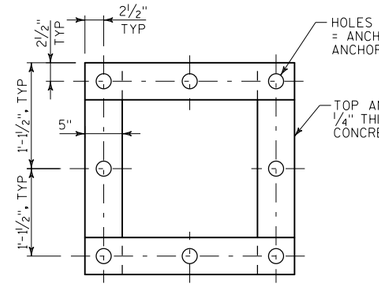
SECTION A-A



ELEVATION

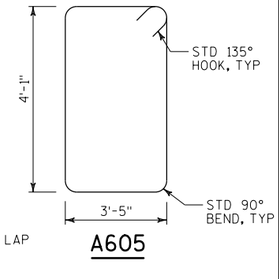
ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
8 ANCHOR RODS REQ'D PER ASSEMBLY

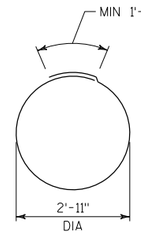


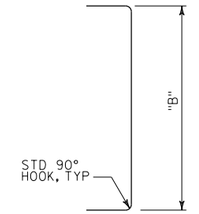
ANCHOR PLATE/TOP TEMPLATE

PLAN



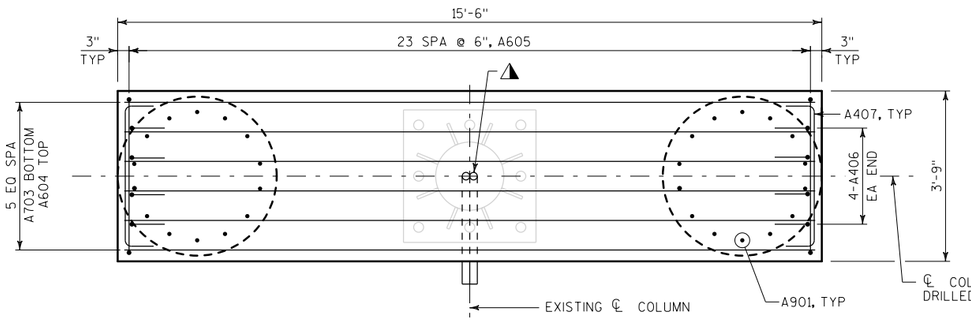
A605



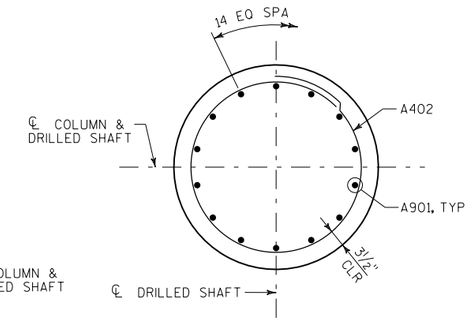


A703, A406, A407

BAR MARK	DIM "B"
A703	3'-11½"
A406	15'-1"
A407	3'-3½"



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

BILL OF BARS

A402

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A901		29	25'-9"		DRILLED SHAFT - VERTICAL
A402		48	10'-6"	X	DRILLED SHAFT - HORIZONTAL
A703	X	6	17'-1"	X	CAP - LONGITUDINAL - BOTTOM
A604	X	18	15'-2"		CAP - LONGITUDINAL - TOP & SIDES
A605	X	31	15'-10"	X	CAP - STIRRUP
A406	X	8	5'-2"	X	CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X	CAP - HORIZONTAL - EACH END

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS
OF A BAR MARK SIGNIFIES THE BAR SIZE

LEGEND

▲ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE BID ITEM "ANCILLARY STRUCTURES CONCRETE MASONRY TYPE NS".

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-40-410/413

DRAWN BY TEK | PLANS CK'D. EKM

SHOULDER CONCRETE FOOTING DETAILS

SHEET 9 OF 11

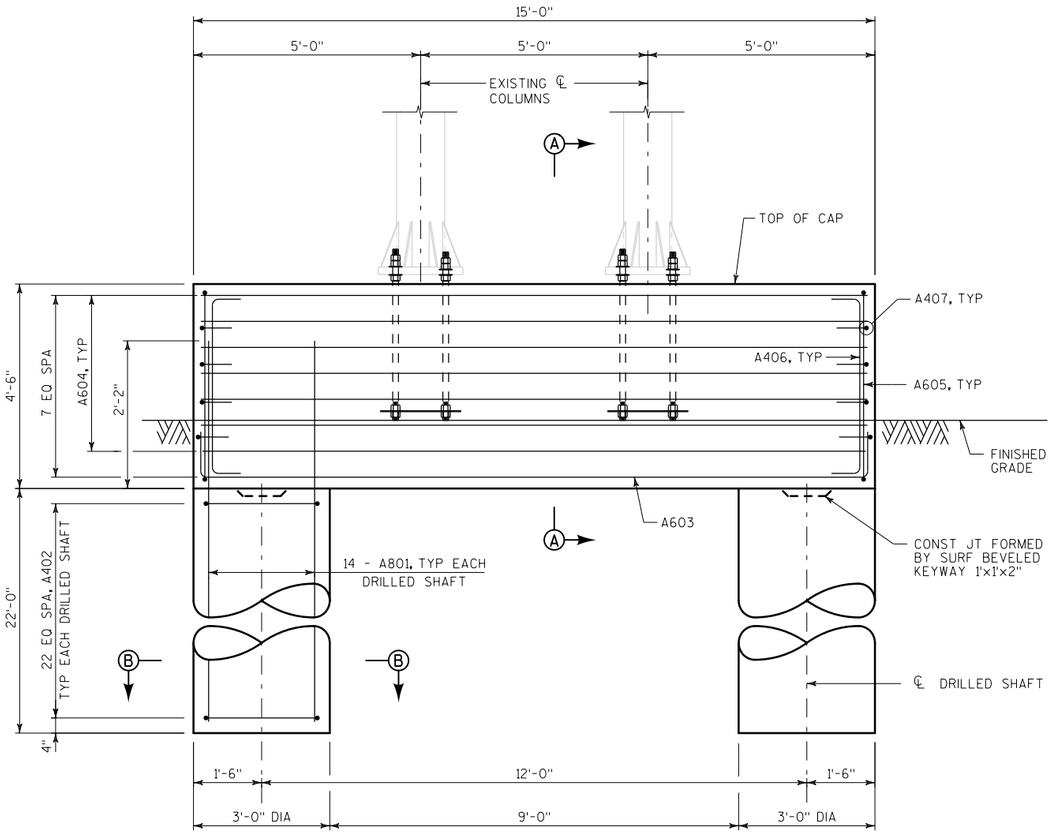
734

8

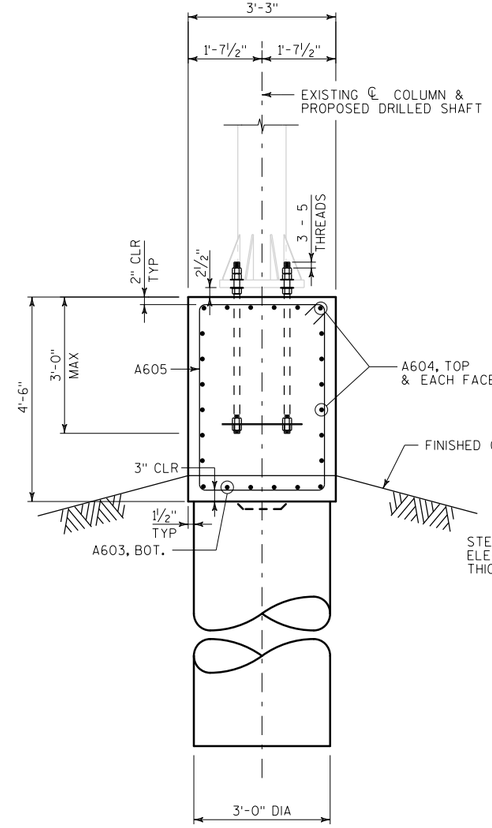
8

FILE NAME : S40410_413_Shoulder_Fnd_Details.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S40410_413_Shoulder_Fnd_Details PLOT SCALE : 3.333333:1

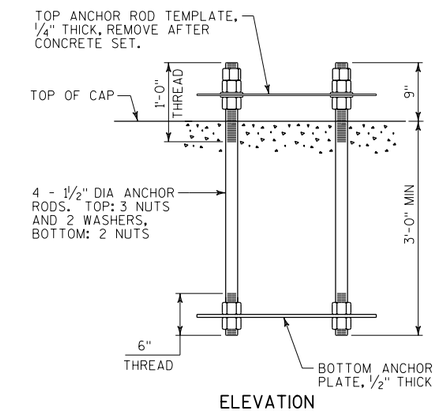
STATE PROJECT NUMBER
1100-45-00



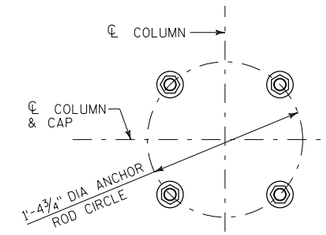
ELEVATION



SECTION A-A



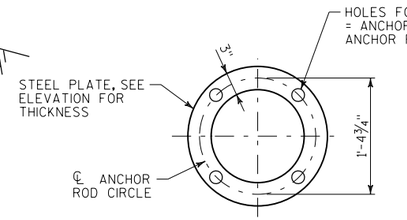
ELEVATION



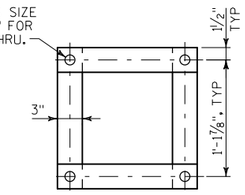
PLAN

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
4 ANCHOR RODS REQ'D PER ASSEMBLY



ANCHOR PLATE/TOP TEMPLATE
PLAN

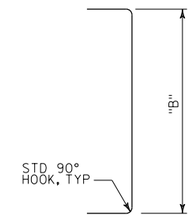


ALTERNATE
ANCHOR PLATE/TOP TEMPLATE
PLAN

BILL OF BARS

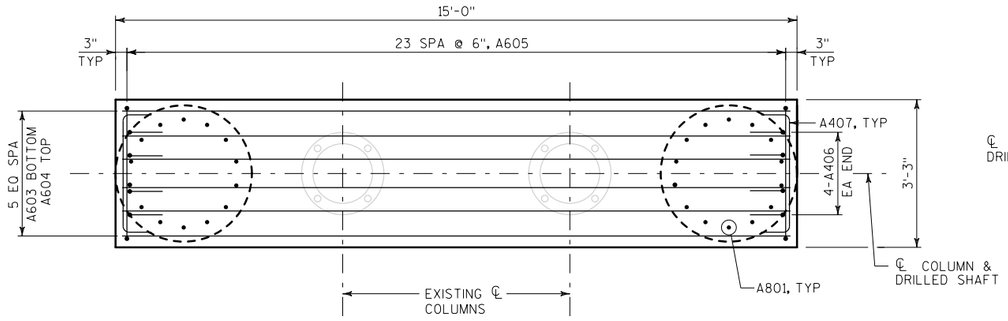
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A801		28	24'-2"		DRILLED SHAFT - VERTICAL
A402		48	9'-0"	X	DRILLED SHAFT - HORIZONTAL
A603	X	6	16'-3"	X	CAP - LONGITUDINAL - BOTTOM
A604	X	18	14'-8"		CAP - LONGITUDINAL - TOP & SIDES
A605	X	30	14'-10"	X	CAP - STIRRUP
A406	X	8	5'-2"	X	CAP - VERTICAL - EACH END
A407	X	8	3'-5"	X	CAP - HORIZONTAL - EACH END

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

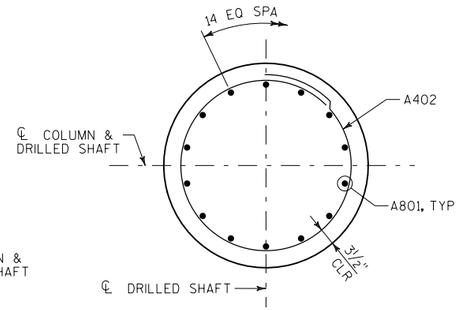


A603, A406, A407

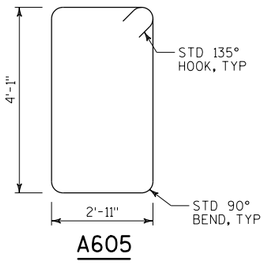
BAR MARK	DIM "B"
A603	14'-7"
A406	3'-11½"
A407	2'-9½"



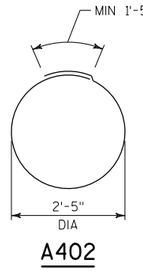
PLAN



SECTION B-B
TYPICAL FOR EACH DRILLED SHAFT FOOTING



A605



A402

LEGEND

⚠ 2 - 2" DIA NONMETALLIC CONDUITS. INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE BID ITEM "ANCILLARY STRUCTURES CONCRETE MASONRY TYPE NS".

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-40-801

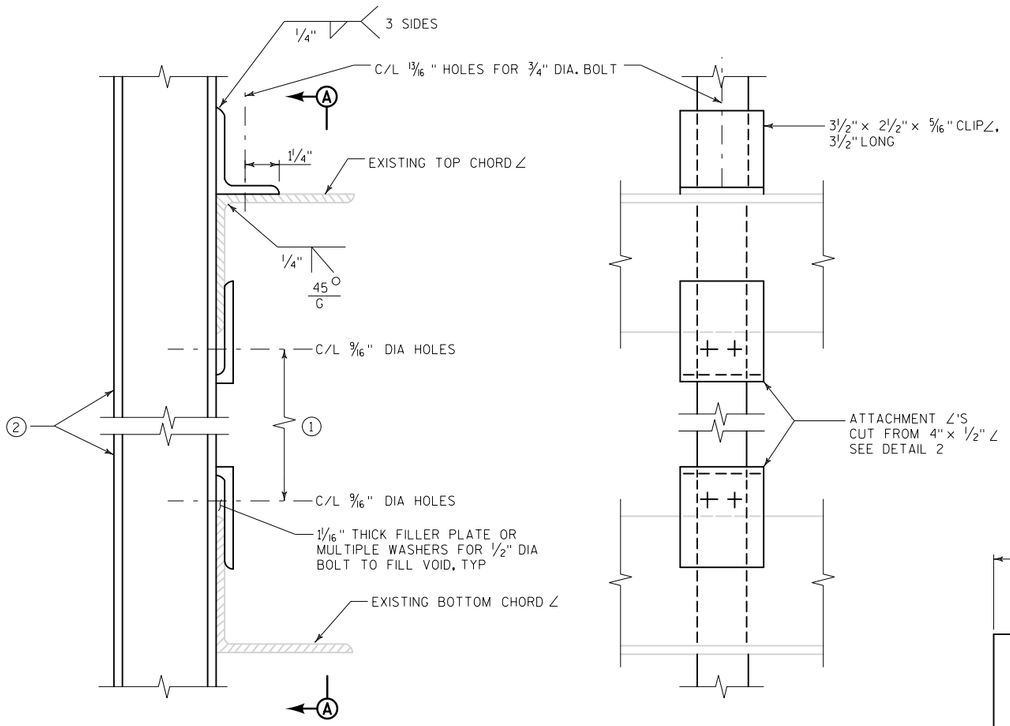
DRAWN BY TEK | PLANS CK'D. EKM

SHOULDER CONCRETE FOOTING DETAILS

SHEET 10 OF 11

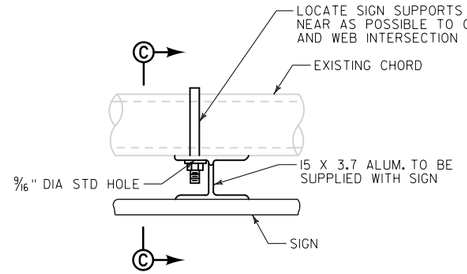
735

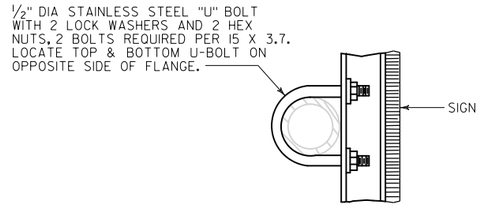
STATE PROJECT NUMBER
1100-45-00



DMS MOUNTING DETAIL 1

SECTION A-A

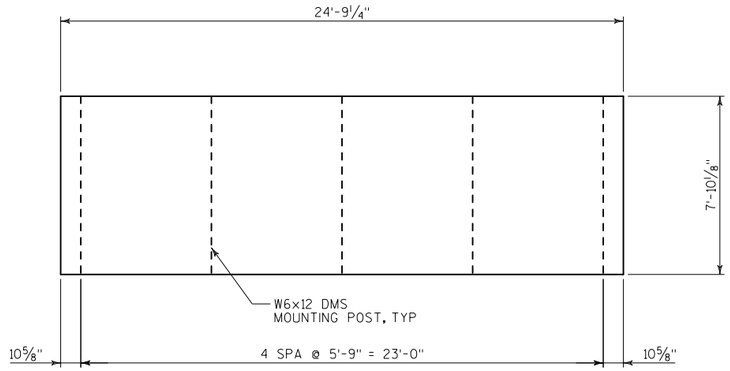




SECTION C-C

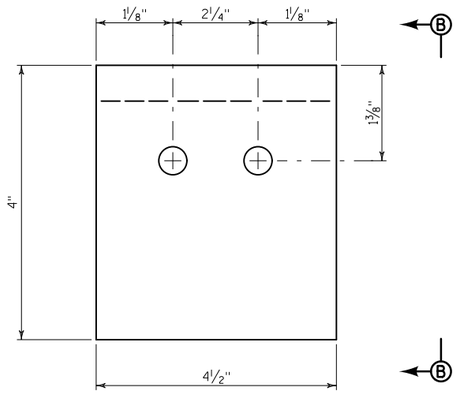
TYPICAL TYPE I SIGN CONNECTION

THE TYPE I SIGN MOUNTING BEAMS AND HARDWARE SHALL BE INCIDENTAL TO THE BID ITEMS "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-801" AND "REMOVE AND REINSTALL EXISTING SIGN BRIDGE S-40-834".

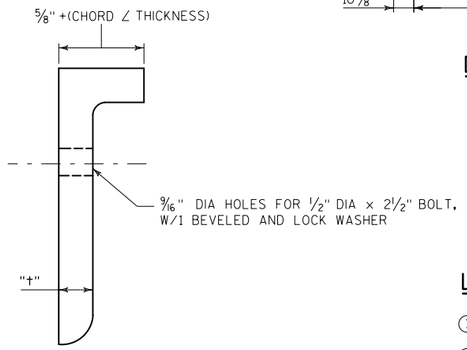


DMS MOUNTING POST SPACING DETAIL

NOTE:
POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



DMS MOUNTING DETAIL 2



VIEW B-B

NOTES

PLANS OF THE EXISTING S-40-410, S-40-413, S-40-801, AND S-40-834 STRUCTURES ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE 141 NW BARSTOW STREET, WAUKESHA, WI OR THROUGH THE WISDOT STRUCTURES WEBSITE.

REPLACE ALL HIGH STRENGTH BOLTS AND CONNECTING HARDWARE. WORK INCIDENTAL TO BID ITEMS "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-410", "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-413", "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-801" AND "REMOVE AND REINSTALL EXISTING SIGN BRIDGE S-40-834".

ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIA A325 BOLTS, GALVANIZED ASTM A153, CLASS C. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

LEGEND

(1) (TRUSS DEPTH)-(TOP & BOTTOM CHORD ∠ LEGS)-1 1/4"

(2) W6x12 (STEEL) FOR DYNAMIC MESSAGE SIGN (DMS), SPACE AS SHOWN IN THE DMS MOUNTING POST SPACING DETAIL. SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.

THE DMS HOUSING MOUNTING POSTS AND MOUNTING ANGLES SHALL BE INCIDENTAL TO THE BID ITEMS "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-410" AND "REMOVE AND RELOCATE EXISTING SIGN BRIDGE S-40-413".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-40-410/413/801/834

DRAWN BY	TEK	PLANS CK'D.	EKM

SIGN CONNECTION DETAILS

SHEET 11 OF 11

STATE PROJECT NUMBER

1100-45-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (1991).

COORDINATES ON THE PLANS ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (1997).

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEMS "BUTTERFLY 2-CHORD NS S-40-3101" AND "BUTTERFLY 4-CHORD NS S-40-3102". LOCATE THE NAME PLATE ON THE SIDE OF THE SUPPORT COLUMN AS SHOWN IN THE PLAN VIEW ON SHEET 2. FABRICATE AND INSTALL THE NAME PLATE IN ACCORDANCE WITH S.D.D. 12 A 3-10.

CENTER SIGN HORIZONTALLY ON UPRIGHT.

ALTERNATE DESIGNS ARE NOT ALLOWED.

ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.

UNLESS DETAILED OTHERWISE, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS IF THE UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS. PROJECT ENGINEER TO SEND SHOP DRAWINGS TO BUREAU OF STRUCTURES AND KAREN MARTENS, SE REGION TRAFFIC, FOR REVIEW.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING IF USED SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

STRUCTURAL ANGLES, PLATE AND BARS - ASTM A709 GRADE 36 ---------- fy = 36,000 psi

CHORDS & COLUMN PIPE - ASTM A500 GRADE C ---------- fy = 46,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ---------- fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

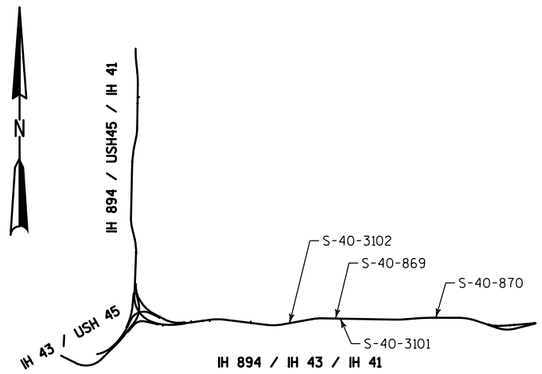
WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL PLAN & ELEVATION S-40-3101
3. GENERAL PLAN & ELEVATION S-40-3102
4. GENERAL PLAN & ELEVATION S-40-869
5. GENERAL PLAN & ELEVATION S-40-870
6. S-40-869/870/3101 MEDIAN CONCRETE FOOTING DETAILS
7. S-40-3102 MEDIAN CONCRETE FOOTING DETAILS
8. BUTTERFLY SIGN DETAILS
9. LIGHT POLE DETAILS
10. HANDHOLE DETAILS



LOCATION MAP

DESIGN DATA

STRUCTURE NO.	DESIGN SIGN AREA	MAX. SIGN DEPTH
S-40-869	143 SF	7'-6"
S-40-870	176 SF	8'-0"
S-40-3101	240 SF	10'-0"
S-40-3102	240 SF	10'-0"

EXISTING BUTTERFLY SIGN STRUCTURES S-40-869 AND S-40-870 WERE DESIGNED ACCORDING TO THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS".

DEAD LOAD: 3 PSF OF SIGN. WEIGHT OF SUPPORTING STRUCTURE, CATWALK, LIGHTS AND RAILING
LIVE LOAD: NONE
ICE LOAD: 3 PSF TO 1 FACE OF SIGN & AROUND SURFACE OF MEMBERS
WIND PRESSURE: 90 MPH (3-SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS
FATIGUE CATEGORY 1

BUTTERFLY SIGN STRUCTURES S-40-3101 AND S-40-3102 ARE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

BUTTERFLY SIGN STRUCTURE S-40-869, S-40-870, S-40-3101, AND S-40-3102 FOUNDATIONS ARE DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION. FOUNDATIONS ARE ALSO DESIGNED PER WISDOT BRIDGE MANUAL 39.5.3 AND WISDOT BRIDGE MANUAL DESIGN EXAMPLE E39-1 "DESIGN OF FOUNDATION CAP BEAM / INTEGRAL BARRIER TL-5 LOADING".

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TrG (TRUCK INDUCED GUST VIBRATION)

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
ED McCRIGHT (414) 272-2426

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

Jacobs

MILWAUKEE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/01/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN EDWARD K. McCRIGHT E-31422 MILWAUKEE, WI 11/30/22 PROFESSIONAL ENGINEER

BUTTERFLY 2-CHORD & 4-CHORD

IH-894 / IH-43 - RESURFACING SIGN STRUCTURES

COUNTY	TOWN/CITY/~~VILLAGE~~
MILWAUKEE	MILWAUKEE

DESIGN SPEC.
AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	SGM	TEK	EKM

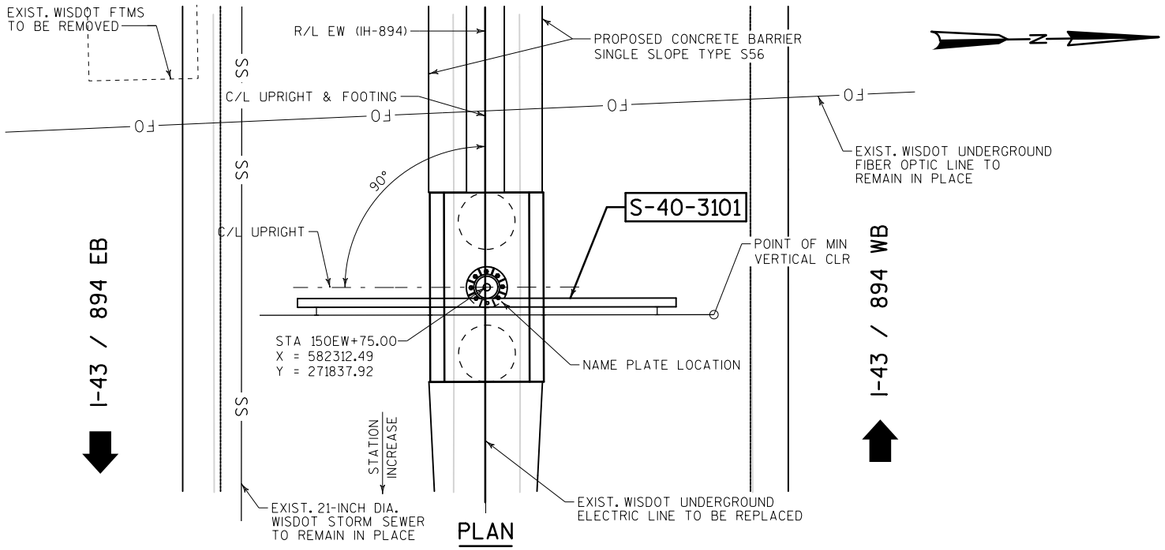
GENERAL NOTES & DESIGN DATA

SHEET 1 OF 10

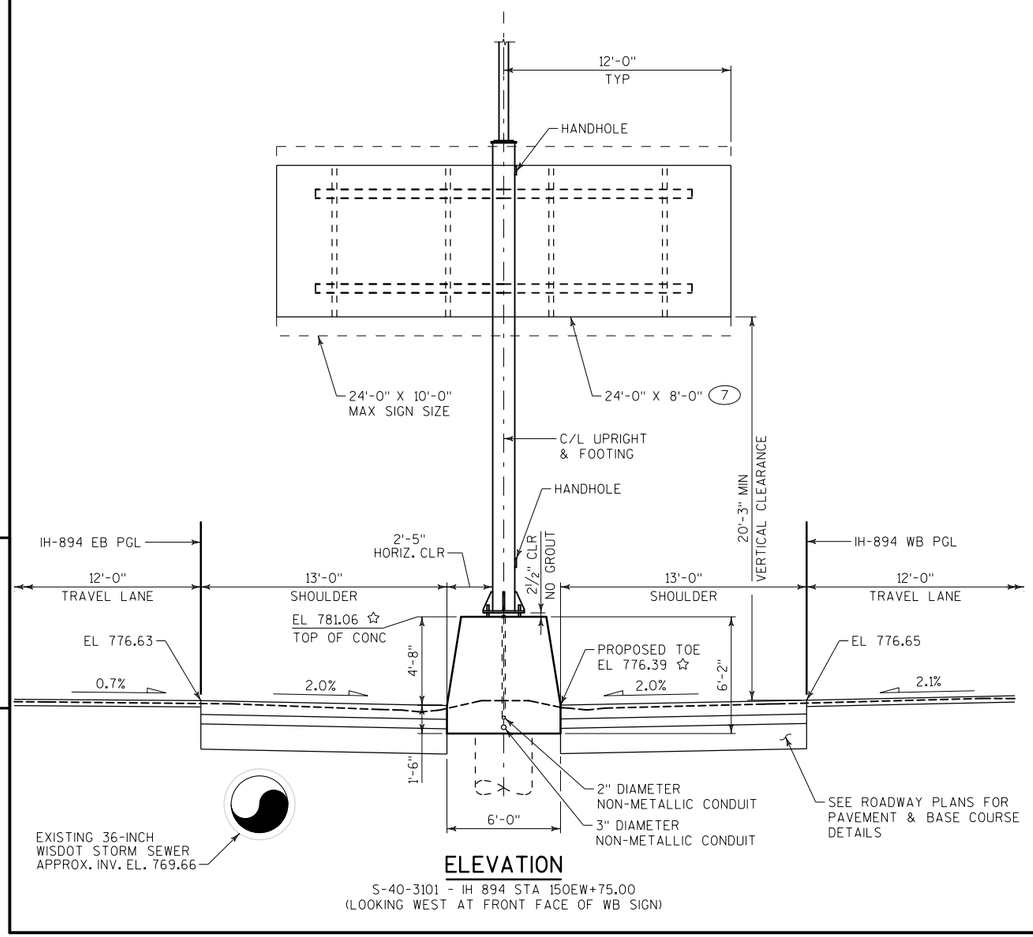
737

8

8

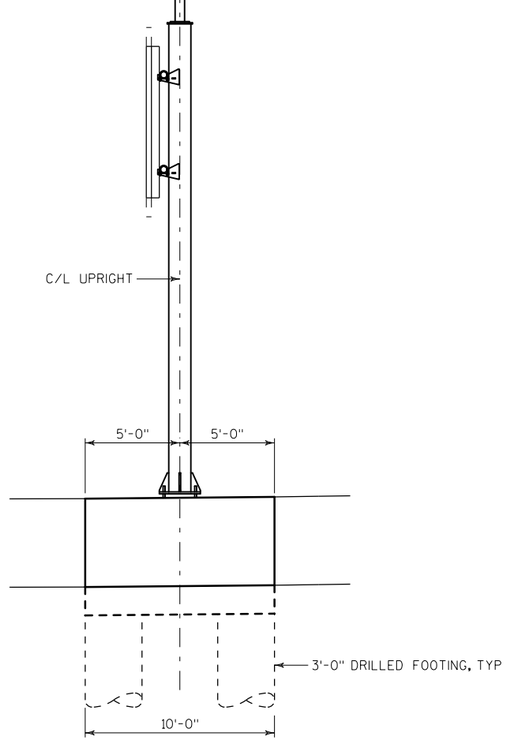


PLAN



ELEVATION

S-40-3101 - IH 894 STA 150EW+75.00
(LOOKING WEST AT FRONT FACE OF WB SIGN)



END VIEW

(LOOKING SOUTH)

STATE PROJECT NUMBER

1100-45-70

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
204.9060.S.490	REMOVING OLD SIGN STRUCTURE S-40-221	EACH	1
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	19
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	1,560
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1,045
531.2036	DRILLING SHAFT (36-INCH)	LF	24
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	1
532.5020.490	BUTTERFLY 2-CHORD S-40-3101	EACH	1

ALL ITEMS ARE CATEGORY 5110

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTES

EXISTING 2 CHORD BUTTERFLY SIGN STRUCTURE S-40-221 IS LOCATED AT APPROXIMATE STA 150EW+50. S-40-221 TO BE REMOVED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

S-40-3101
GENERAL PLAN
& ELEVATION

SHEET 2 OF 10

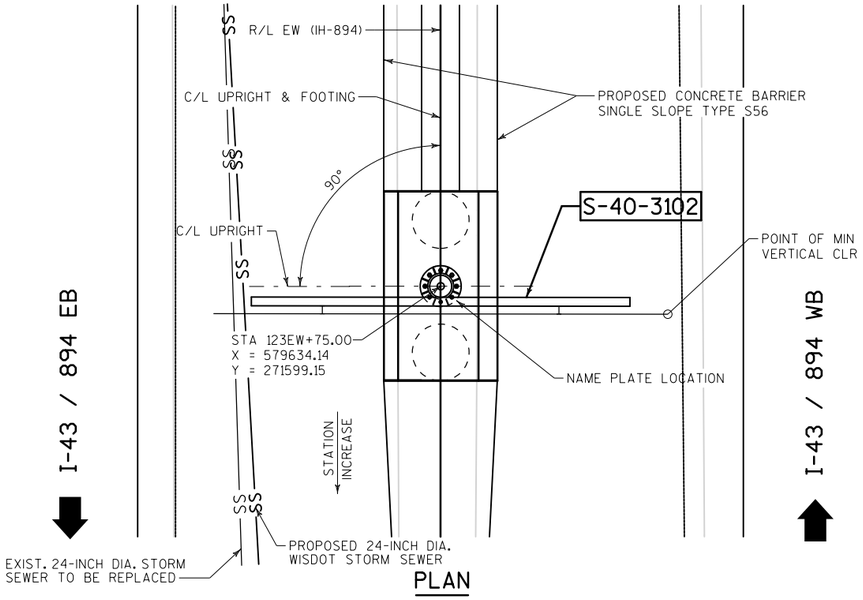
738

8

8

FILE NAME : S-40-3101_gp.dgn PLOT DATE : 25-OCT-2022 PLOT BY : emccrigh S-40-3101_gp PLOT SCALE : 8:1

STATE PROJECT NUMBER
1100-45-70



PLAN

TOTAL ESTIMATE OF QUANTITIES

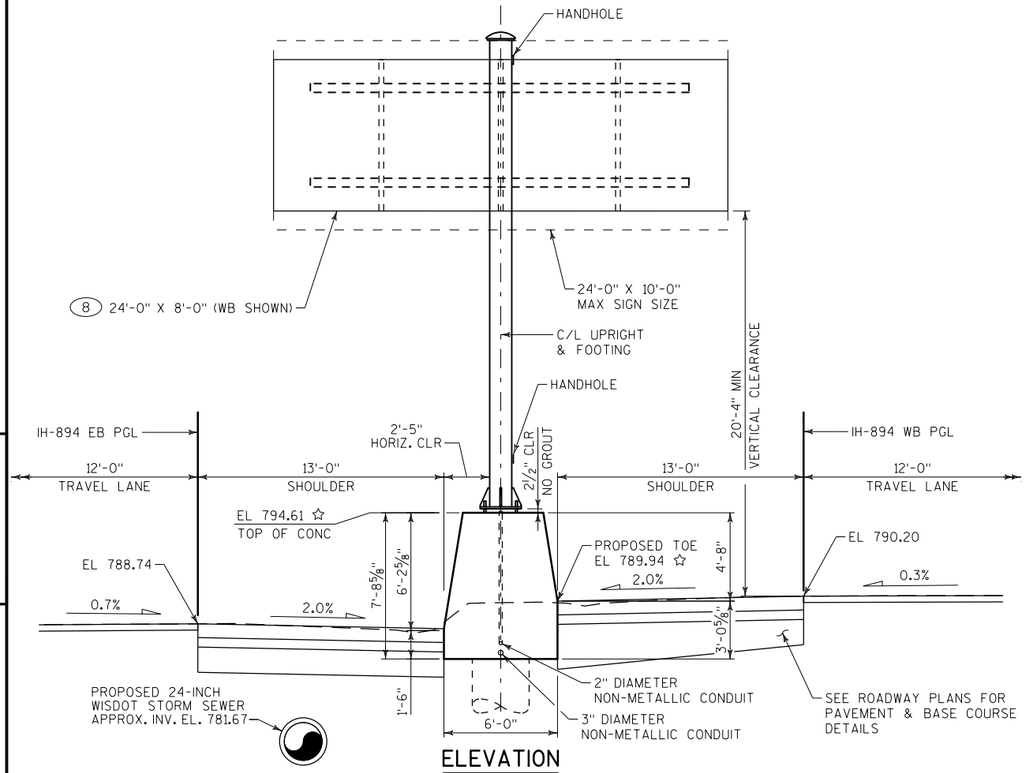
BID ITEM NO.	BID ITEM	UNIT	TOTAL
204.9060.S.495	REMOVING OLD SIGN STRUCTURE S-40-219	EACH	1
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	22
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	1,560
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1,135
531.2036	DRILLING SHAFT (36-INCH)	LF	24
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	1
532.5020.495	BUTTERFLY 2-CHORD NS (S-40-3102)	EACH	1

ALL ITEMS ARE CATEGORY 5120

LEGEND

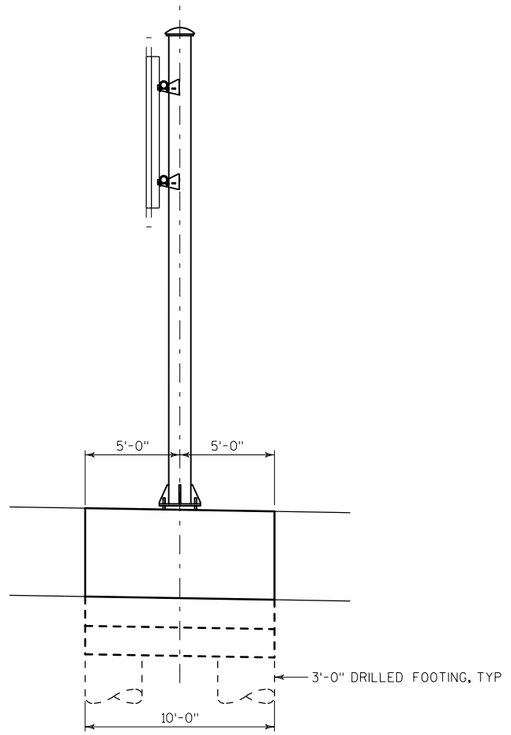
☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)



ELEVATION

S-40-3102 - IH 894 STA 123EW+75
(LOOKING WEST AT FRONT FACE OF WB SIGN)



END VIEW

(LOOKING SOUTH)

NOTES

EXISTING 2 CHORD BUTTERFLY SIGN STRUCTURE S-40-219 IS LOCATED AT APPROXIMATE STA 124EW+09. S-40-219 TO BE REMOVED.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3101/3102/869/870

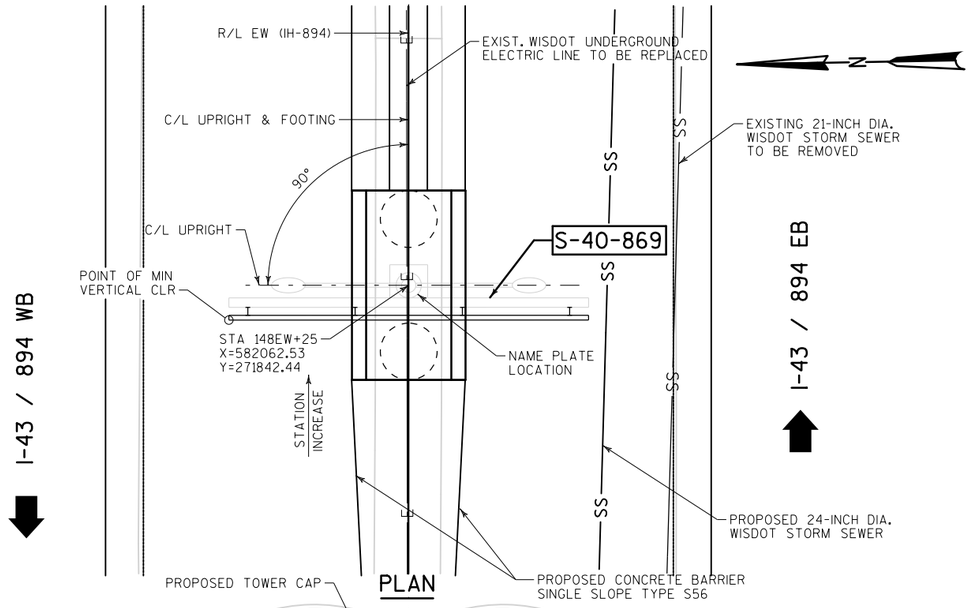
DRAWN BY TEK | PLANS CK'D. EKM

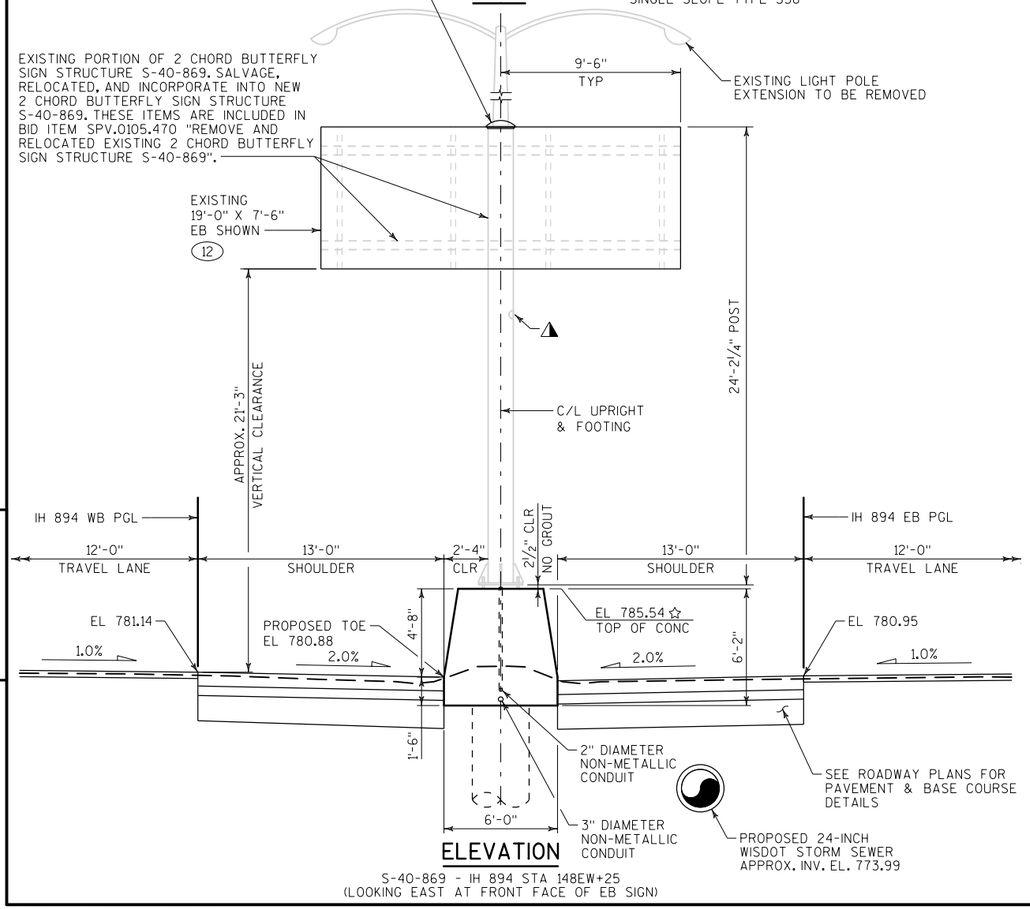
S-40-3102
GENERAL PLAN
& ELEVATION

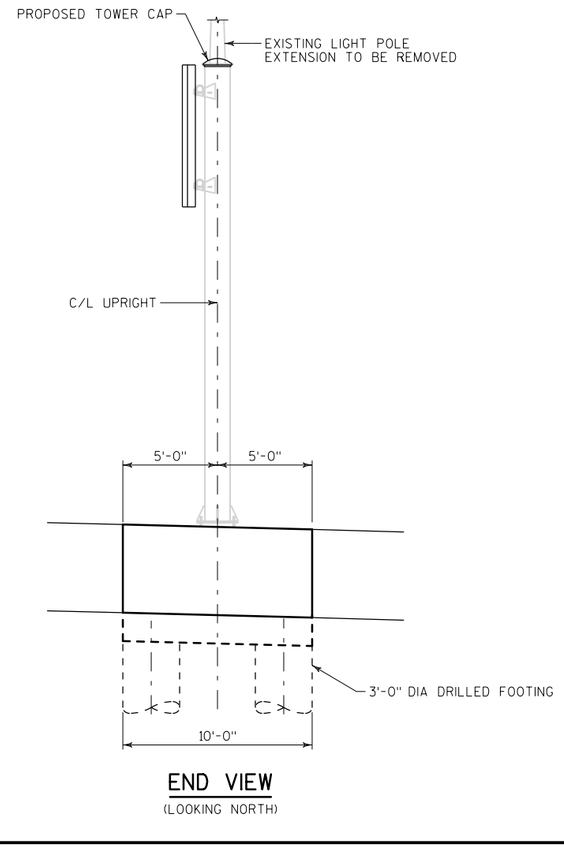
SHEET 3 OF 10

739

STATE PROJECT NUMBER
1100-45-70







TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	19
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	1,560
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1,045
531.2036	DRILLING SHAFT (36-INCH)	LF	24
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	1
SPV.0060.470	REMOVE AND RELOCATE EXISTING 2 CHORD BUTTERFLY SIGN STRUCTURE S-40-869	EACH	1

ALL ITEMS ARE CATEGORY 5040

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

EXISTING HANDHOLE LOCATION

NOTES

EXISTING SIGN BRIDGE IS LOCATED AT APPROXIMATE STA 148EW+50.

SALVAGE, RELOCATE, AND INCORPORATE EXISTING CHORDS AND UPRIGHT PORTION OF SIGN BRIDGE S-40-869 INTO NEW SIGN BRIDGE S-40-869. ERECT ON PROPOSED CONCRETE FOUNDATIONS. REPLACE ALL HIGH-STRENGTH BOLTS AND CONNECTING HARDWARE.

THE REMOVAL OF PORTIONS OF EXISTING S-40-869 THAT ARE NOT SALVAGED IS INCLUDED IN BID ITEM SPV.0105.470 "REMOVE AND RELOCATE EXISTING 2 CHORD BUTTERFLY SIGN STRUCTURE S-40-869".

PROVIDE A NEW TOWER CAP IN PLACE OF THE DISCARDED LIGHT POLE EXTENSION. THE NEW TOWER CAP IS INCLUDED IN BID ITEM SPV.0105.470 "REMOVE AND RELOCATE EXISTING 2 CHORD BUTTERFLY SIGN STRUCTURE S-40-869".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

S-40-869
GENERAL PLAN
& ELEVATION

SHEET 4 OF 10

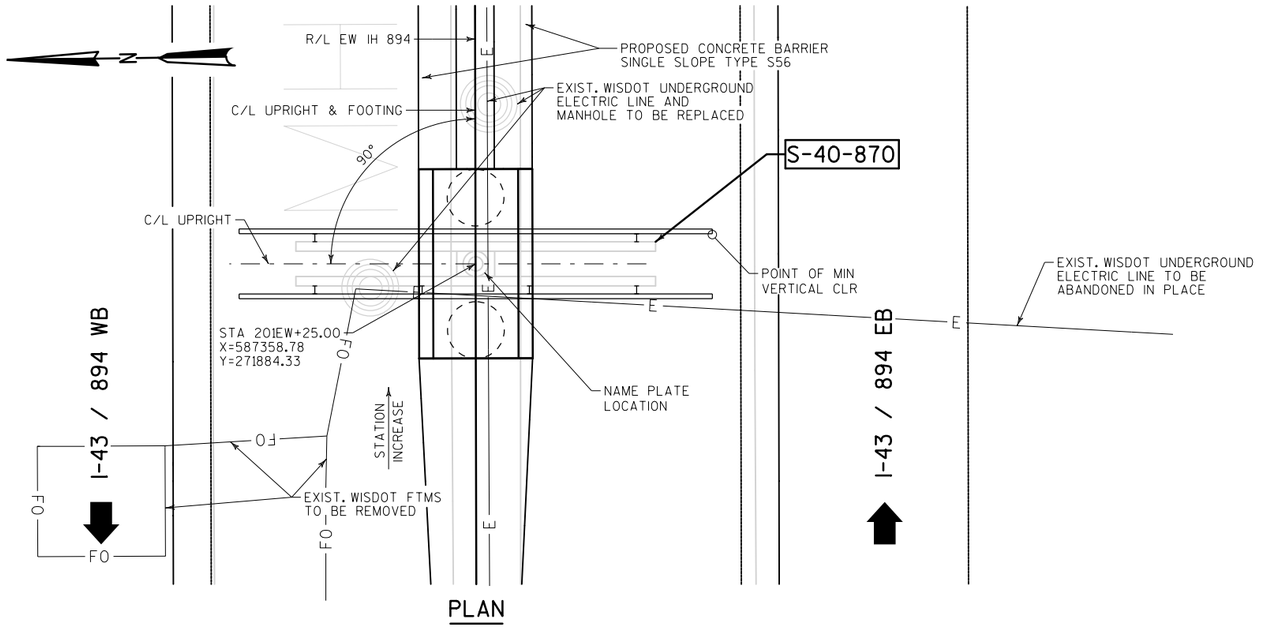
740

8

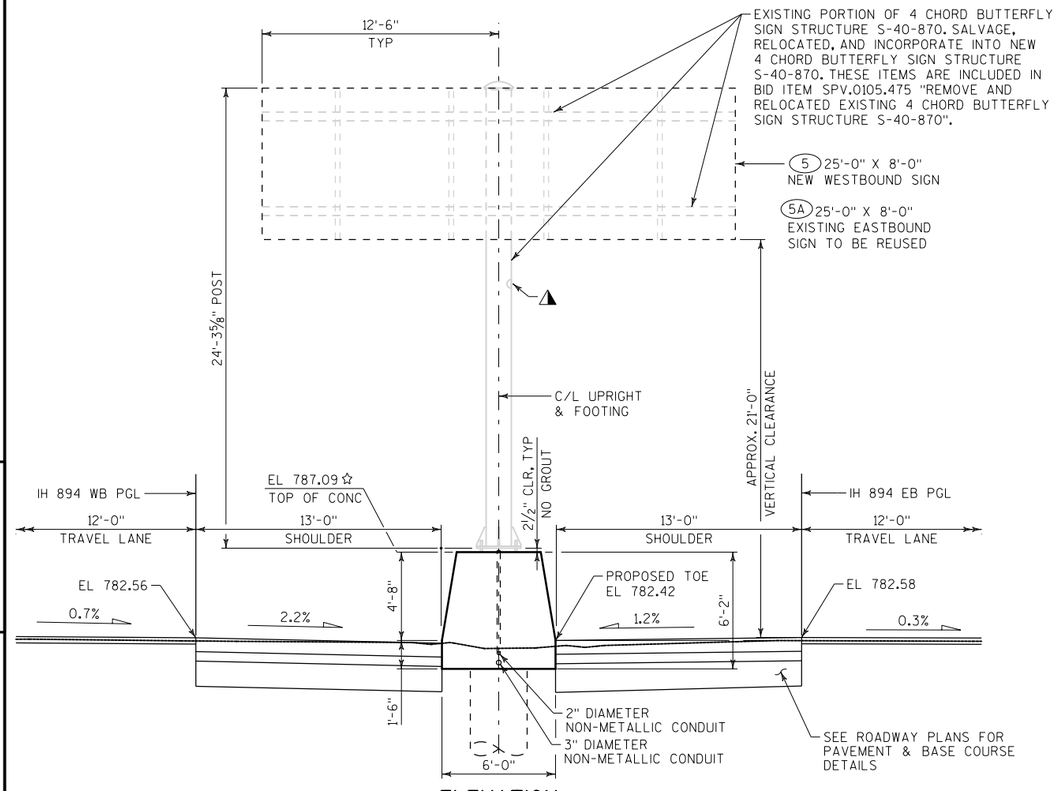
8

FILE NAME : S40869_080102_gp.dgn PLOT DATE : 14-NOV-2022 PLOT BY : emccrigh S40869_080102_gp PLOT SCALE : 8:1

STATE PROJECT NUMBER
1100-45-70

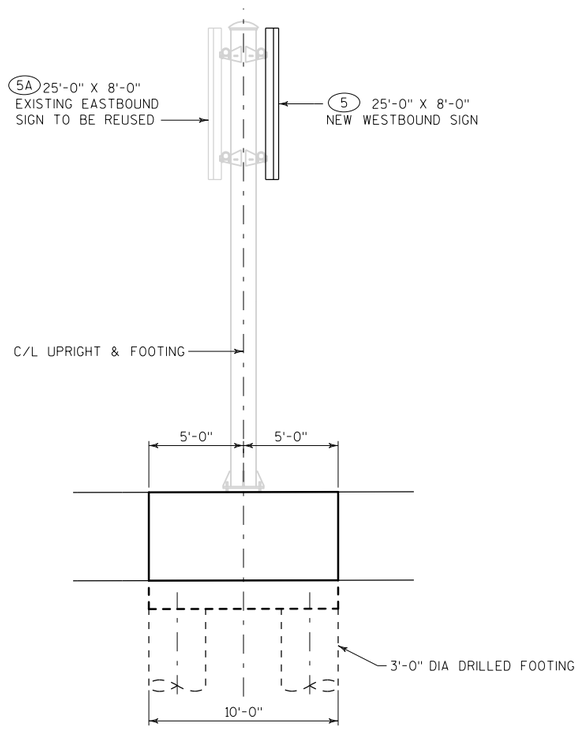


PLAN



ELEVATION

S-40-870 - IH 894 STA 201EW+25.00
(LOOKING EAST AT FRONT FACE OF EB SIGN)



END VIEW

(LOOKING NORTH)

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
531.1100	CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS	CY	19
531.1140	STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS	LB	1,560
531.1160	STEEL REINFORCEMENT HS COATED ANCILLARY STRUCTURES TYPE NS	LB	1,045
531.2036	DRILLING SHAFT (36-INCH)	LF	24
531.8990	ANCHOR ASSEMBLY POLES ON STRUCTURES	EACH	1
SPV.0060.475	REMOVE AND RELOCATE EXISTING 4 CHORD BUTTERFLY SIGN STRUCTURE S-40-870	EACH	1

ALL ITEMS ARE CATEGORY 5050

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

◭ EXISTING HANDHOLE LOCATION

NOTES

EXISTING SIGN BRIDGE IS LOCATED AT APPROXIMATE STA 201EW+00.00

SALVAGE, RELOCATE, AND INCORPORATE EXISTING CHORDS AND UPRIGHT PORTION OF SIGN BRIDGE S-40-870 INTO NEW SIGN BRIDGE S-40-870. ERECT ON PROPOSED CONCRETE FOUNDATIONS. REPLACE ALL HIGH-STRENGTH BOLTS AND CONNECTING HARDWARE.

THE REMOVAL OF PORTIONS OF EXISTING S-40-870 THAT ARE NOT SALVAGED IS INCLUDED IN BID ITEM SPV.0105.475 "REMOVE AND RELOCATED EXISTING 4 CHORD BUTTERFLY SIGN STRUCTURE S-40-870".

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3101/3102/869/870

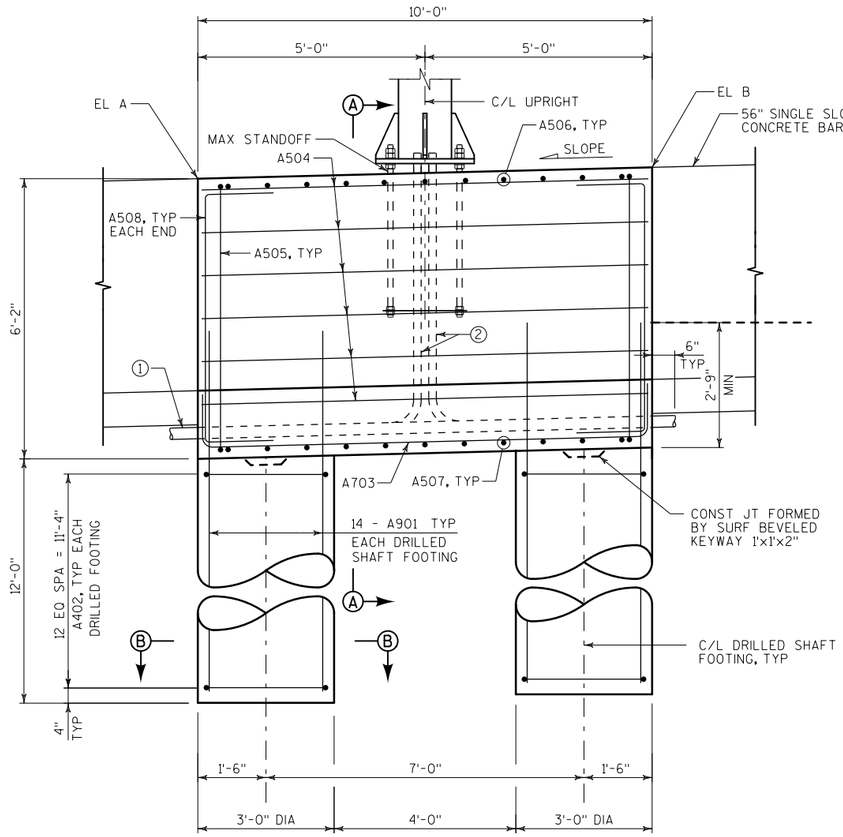
DRAWN BY TEK | PLANS CK'D. EKM

S-40-870
GENERAL PLAN
& ELEVATION

SHEET 5 OF 10

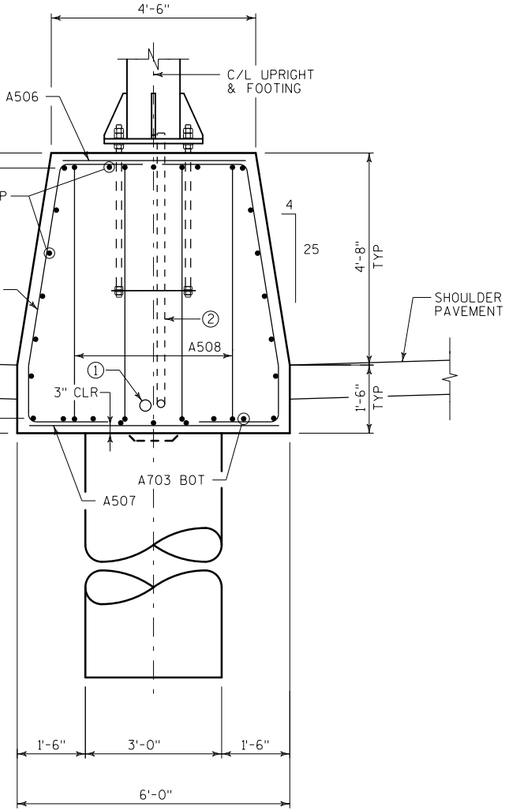
741

STATE PROJECT NUMBER
1100-45-70

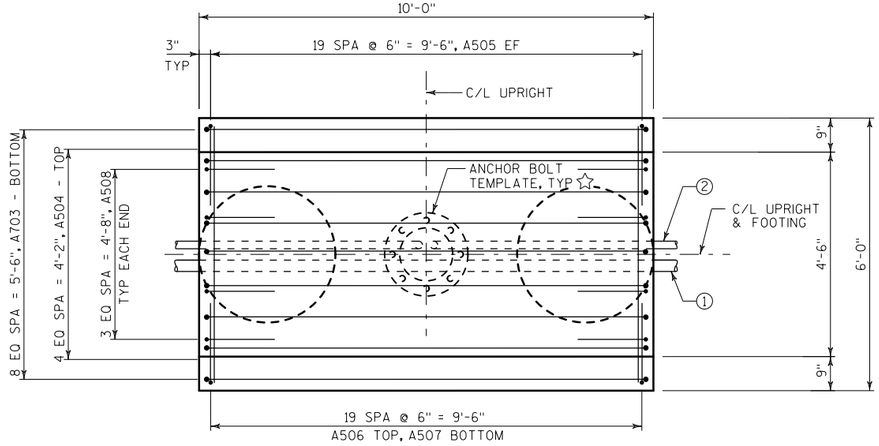


ELEVATION

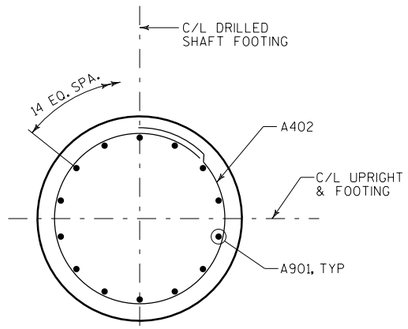
(LOOKING SOUTH S-40-3101, S-40-869
LOOKING NORTH S-40-870)



SECTION A-A



PLAN



SECTION B-B

TYPICAL FOR EACH
DRILLED SHAFT FOOTING

NOTES

① 1 - 3" DIA NON-METALLIC CONDUIT PASSING THROUGH MEDIAN FOOTING. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTRES TYPE NS".

② 2" DIA NON-METALLIC CONDUIT. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTRES TYPE NS".

☆ SEE SHEET 8 FOR ANCHOR BOLT/TEMPLATE DETAILS.

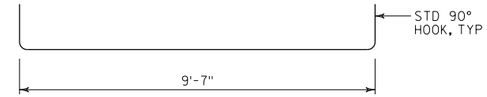
TABLE OF ELEVATIONS

STRUCTURE	EL A	EL B	SLOPE	MAX. STANDOFF
S-40-3101	781.03	781.09	0.57%	2.54"
S-40-869	785.41	785.67	2.56%	2.72"
S-40-870	787.08	787.10	0.11%	2.51"

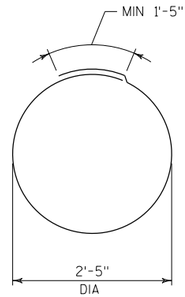
BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE. BILL OF BARS IS PROVIDED FOR ONE MEDIAN CONCRETE FOOTING.

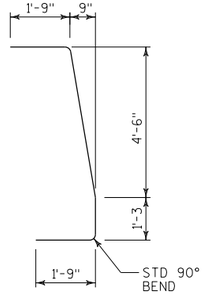
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A901		28	14'-9"		DRILLED SHAFT - VERTICAL
A402		26	9'-0"	X	DRILLED SHAFT - HORIZONTAL
A703	X	9	11'-7"	X	FOOTING - LONGITUDINAL - BOTTOM
A504	X	18	9'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A505	X	40	9'-1"	X	FOOTING - TRANSVERSE - STIRRUP
A506	X	20	4'-0"		FOOTING - TRANSVERSE - TOP
A507	X	20	5'-6"		FOOTING - TRANSVERSE - BOTTOM
A508	X	8	8'-6"	X	FOOTING - VERTICAL - EACH END



A703



A402



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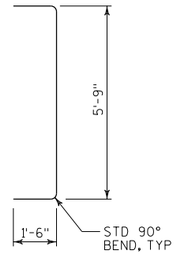


A508

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

S-40-869/870/3101
MEDIAN CONCRETE
FOOTING DETAILS

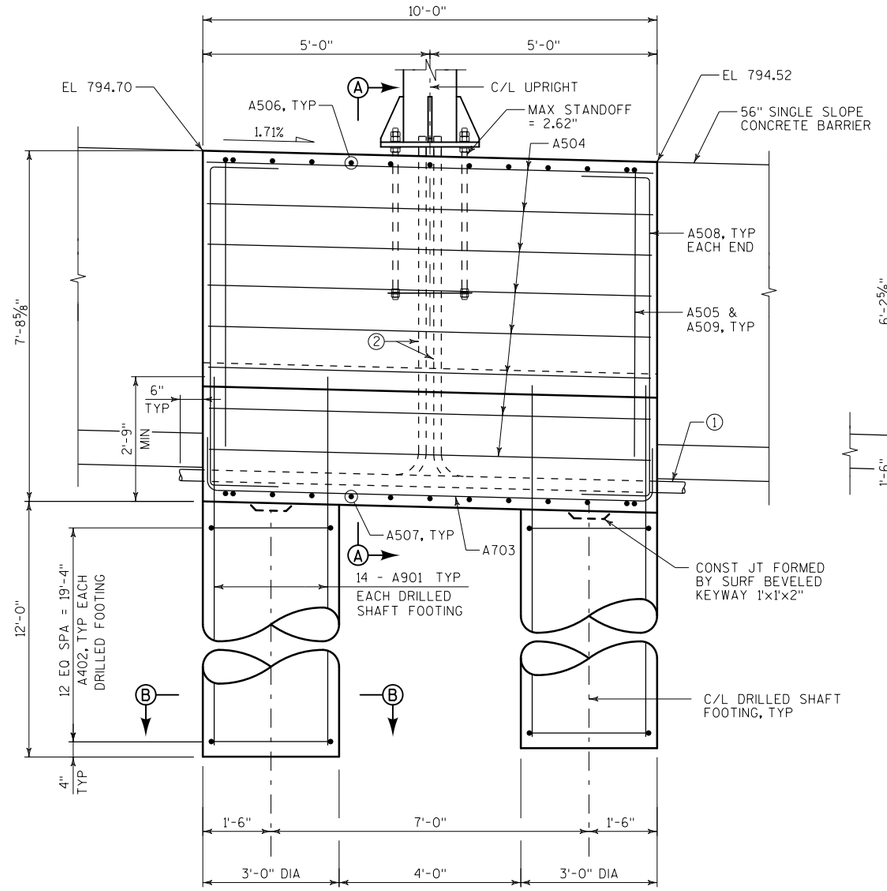
SHEET 6 OF 10

8

8

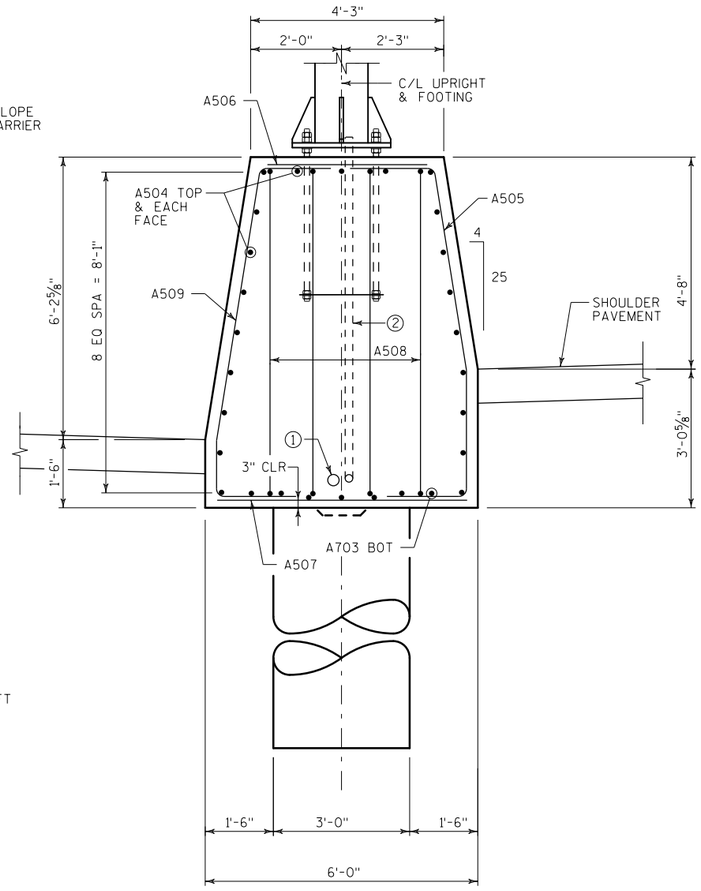
FILE NAME : S403101_080206_fd.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S403101_080206_fd PLOT SCALE : 3.333333:1

STATE PROJECT NUMBER
1100-45-70

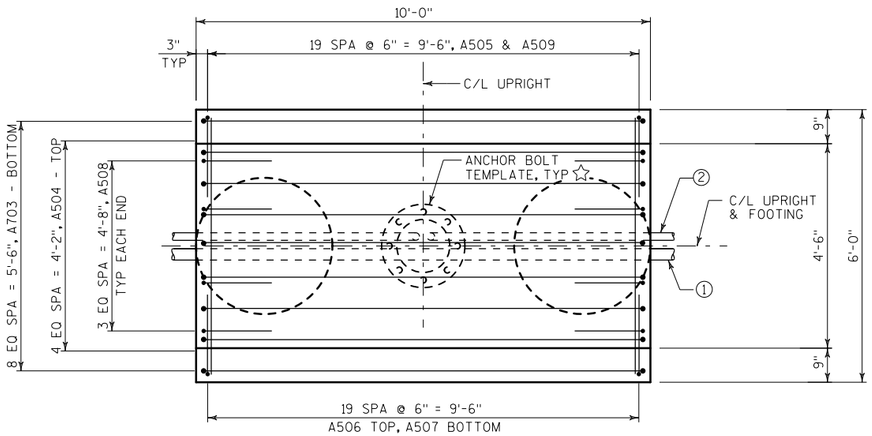


ELEVATION

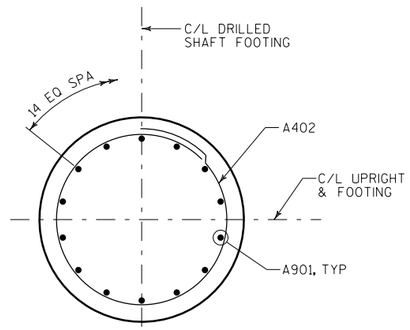
(LOOKING SOUTH S-40-3102)



SECTION A-A



PLAN



SECTION B-B

TYPICAL FOR EACH DRILLED SHAFT FOOTING

NOTES

① 1 - 3" DIA NON-METALLIC CONDUIT PASSING THROUGH MEDIAN FOOTING. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

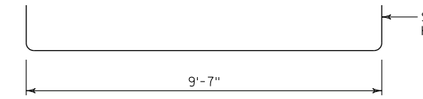
② 2" DIA NON-METALLIC CONDUIT. EXTEND CONDUIT AS SHOWN AND CAP OR SEAL WITH SUITABLE REMOVABLE PLUG. INCLUDED IN THE BID ITEM "CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS".

☆ SEE SHEET 8 FOR ANCHOR BOLT/TEMPLATE DETAILS.

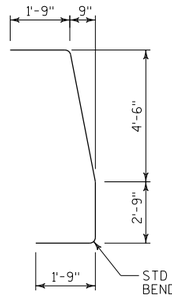
BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	LOCATION
A901		28	14'-9"		DRILLED FOOTING - VERTICAL
A402		26	9'-0"	X	DRILLED FOOTING - HORIZONTAL
A703	X	9	11'-7"	X	FOOTING - LONGITUDINAL - BOTTOM
A504	X	20	9'-8"		FOOTING - LONGITUDINAL - TOP & SIDES
A505	X	20	10'-7"	X	FOOTING - TRANSVERSE - STIRRUP
A506	X	20	3'-9"		FOOTING - TRANSVERSE - TOP
A507	X	20	5'-6"		FOOTING - TRANSVERSE - BOTTOM
A508	X	8	9'-6"	X	FOOTING - VERTICAL - EACH END
A509	X	20	10'-7"	X	FOOTING - TRANSVERSE - STIRRUP



A703



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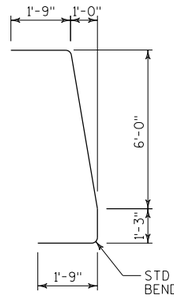

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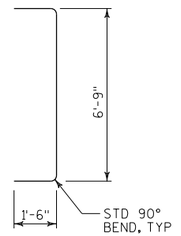

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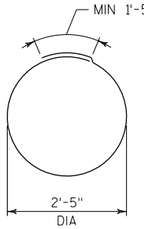


A502

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

S-40-3102
MEDIAN CONCRETE
FOOTING DETAILS

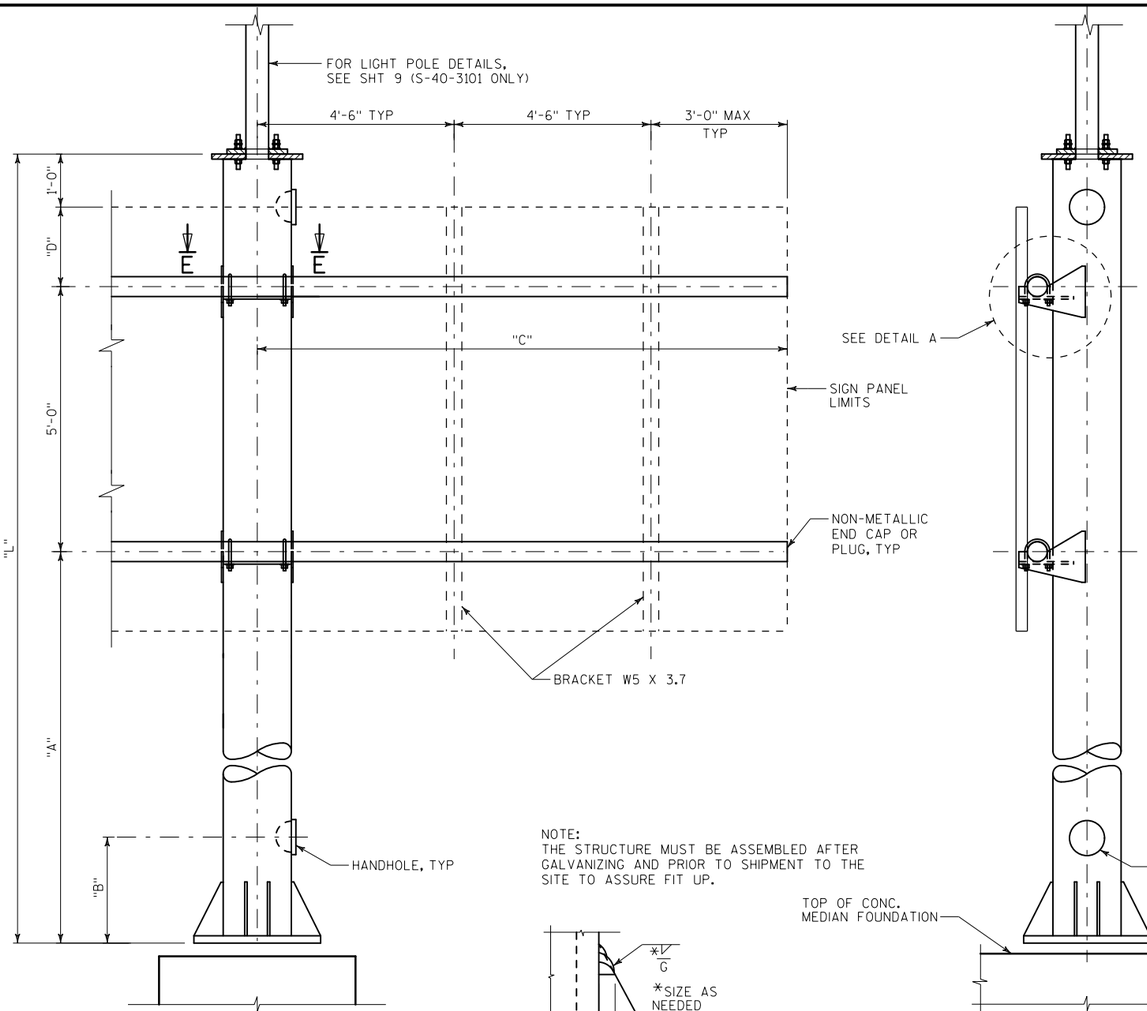
SHEET 7 OF 10

743

8

8

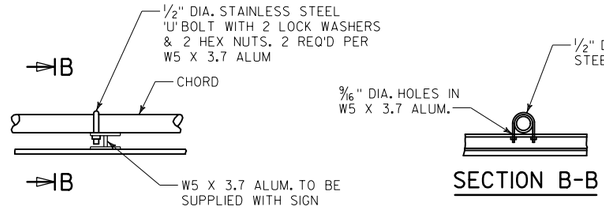
FILE NAME : S403102_080207_fd.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S403102_080207_fd PLOT SCALE : 3.333333:1



ELEVATION

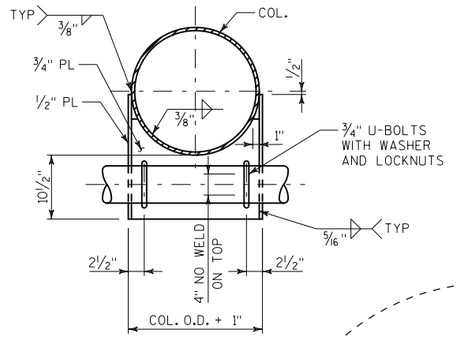
END VIEW

NOTE:
THE STRUCTURE MUST BE ASSEMBLED AFTER GALVANIZING AND PRIOR TO SHIPMENT TO THE SITE TO ASSURE FIT UP.

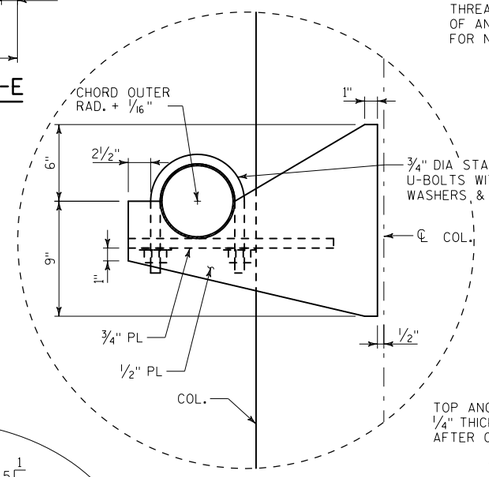


TYPICAL SIGN AND BRACKET CONNECTION

SECTION B-B

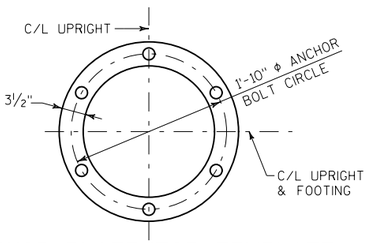


SECTION E-E



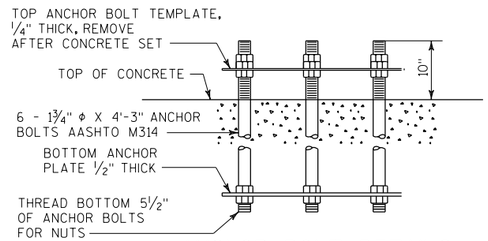
DETAIL A

(BRACKET NOT SHOWN)



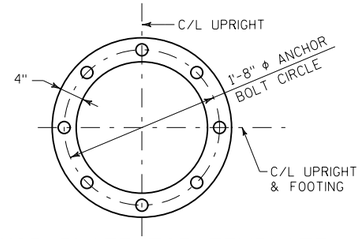
ANCHOR PLATE/TOP TEMPLATE

S-40-869 & S-40-870



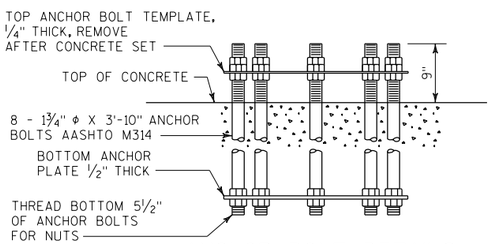
ANCHOR BOLT DETAILS

S-40-869 & S-40-870



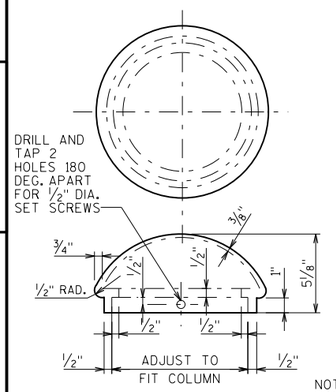
ANCHOR PLATE/TOP TEMPLATE

S-40-3101 & S-40-3102



ANCHOR BOLT DETAILS

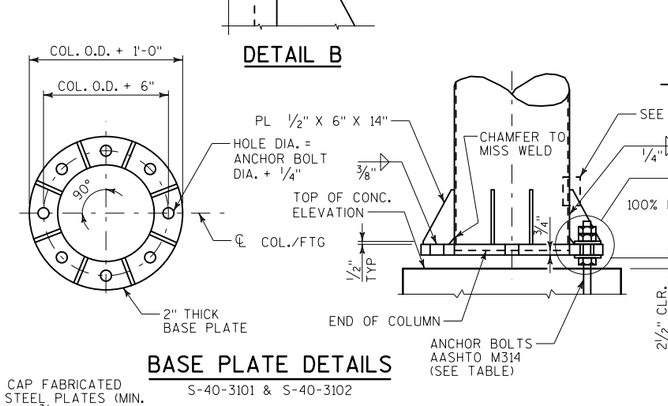
S-40-3101 & S-40-3102



TOWER CAP DETAIL

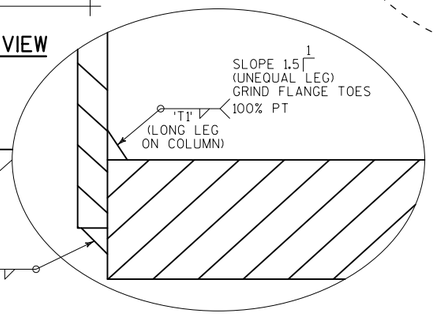
S-40-869 & S-40-3102

NOTE: CAP FABRICATED FROM STEEL PLATES (MIN. THICKNESS 3/16") WILL BE ACCEPTABLE, SUBJECT TO APPROVAL BY THE ENGINEER.



BASE PLATE DETAILS

S-40-3101 & S-40-3102



TABLE

STRUCTURE	CHORDS O.D. x THK.	COLUMN O.D. x THK.	L	A	B	C	D	ANCHOR BOLTS*
S-40-3101	5.563" x 0.500"	14.00" O.D. x 0.500"	24'-8"	17'-2"	1'-10"	12'-0"	1'-6"	8 - 1¾" DIA. X 3'-10" LONG
S-40-3102	5.563" x 0.500"	14.00" O.D. x 0.500"	24'-8"	17'-2"	1'-10"	12'-0"	1'-6"	8 - 1¾" DIA. X 3'-10" LONG
S-40-869	4.500" x 0.337"	16.00" O.D. x 0.500"	24'-2⅝"	18'-2⅝"	N/A	9'-6"	1'-0"	6 - 1¾" DIA. X 4'-3" LONG
S-40-870	4.500" x 0.337"	16.00" O.D. x 0.500"	24'-2⅝"	18'-3⅝"	N/A	12'-6"	1'-0"	6 - 1¾" DIA. X 4'-3" LONG

* - INCLUDES BOLT STANDOFF FROM TOP OF CONCRETE

STATE PROJECT NUMBER

1100-45-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

BUTTERFLY SIGN DETAILS

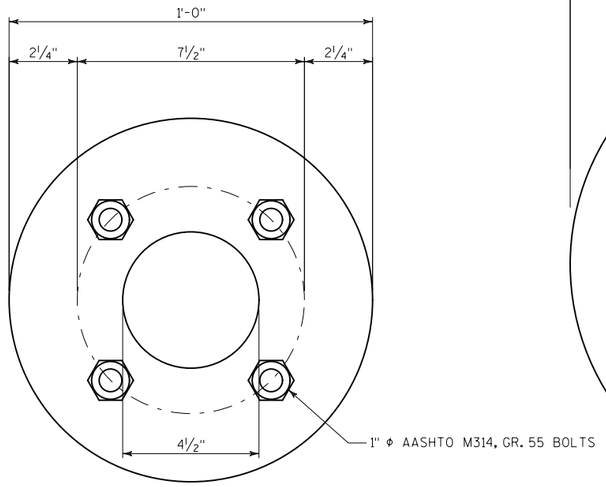
SHEET 8 OF 10

744

8

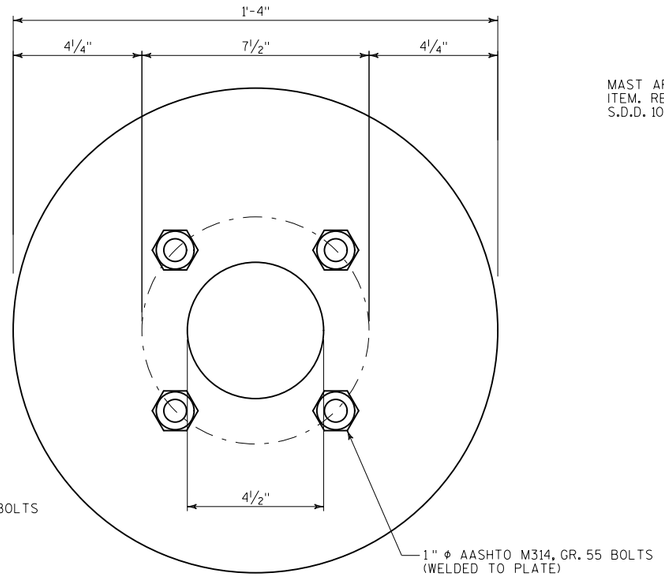
8

FILE NAME : S403101_080208_sd.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S403101_080208_sd PLOT SCALE : 5:1



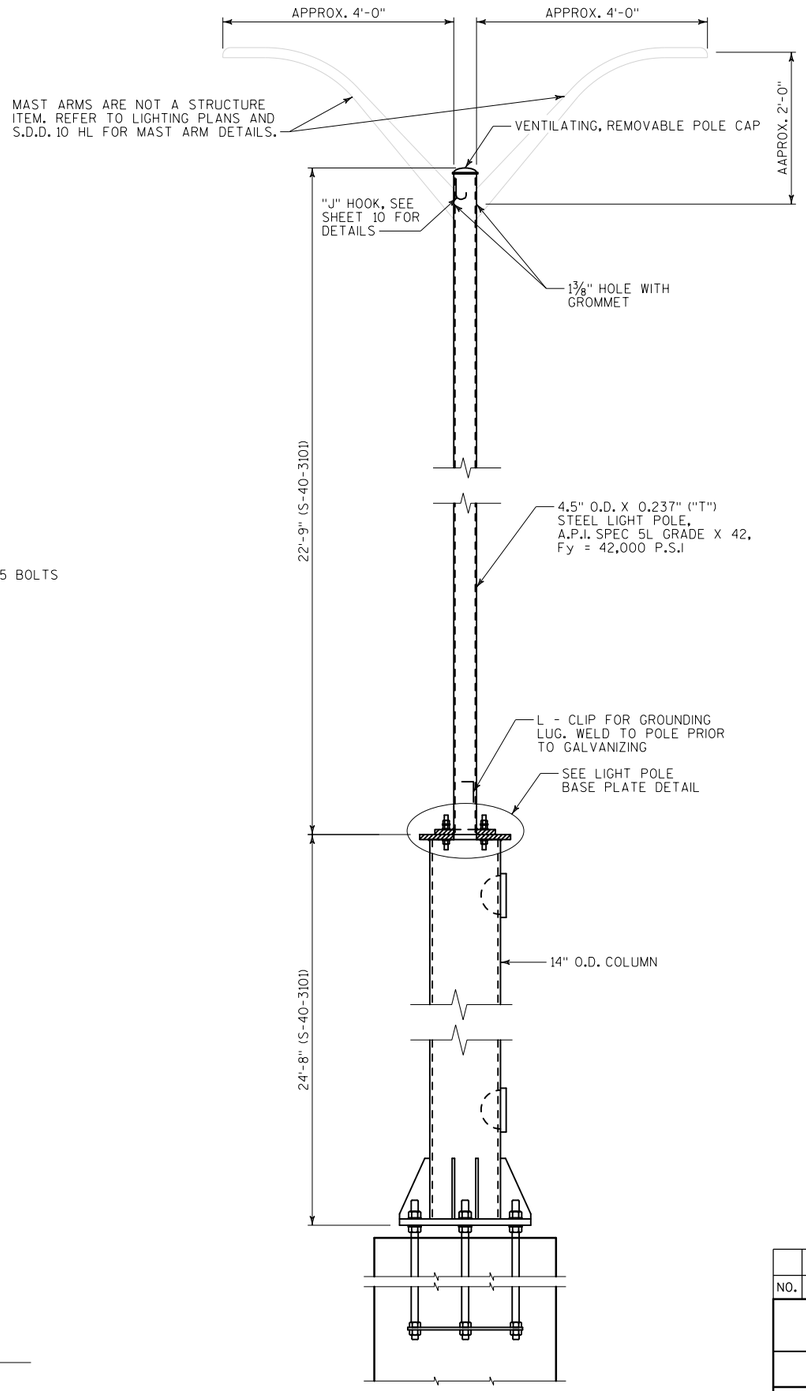
TOP PLATE

WELDED TO 4.5" ϕ LIGHT POLE



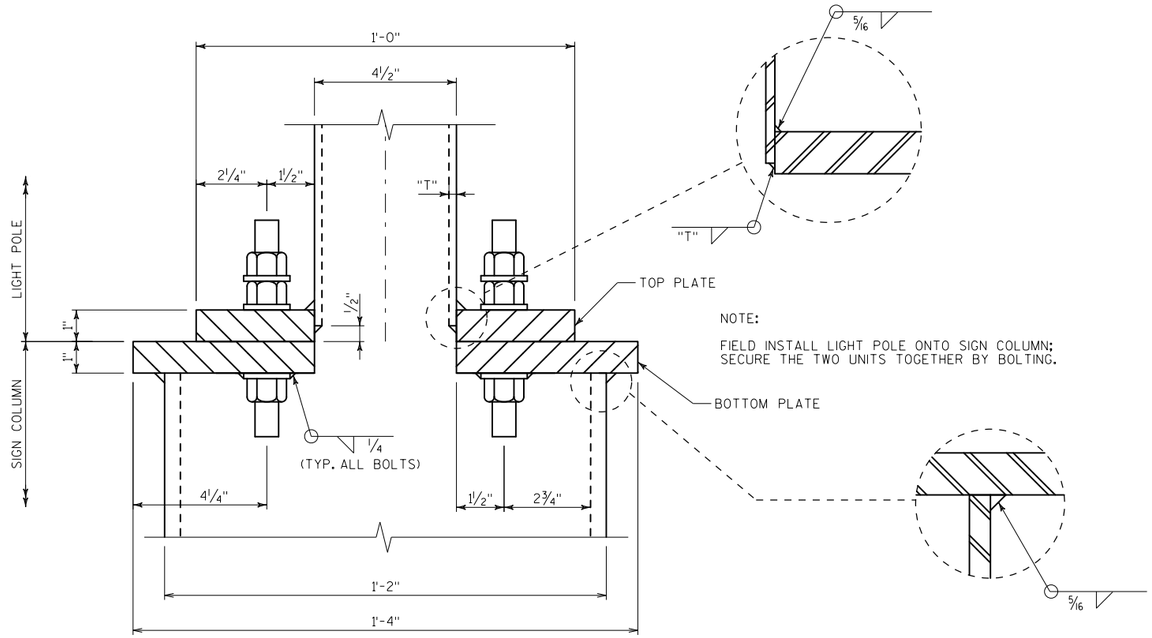
BOTTOM PLATE

WELDED TO 14" ϕ STEEL COLUMN



LIGHT POLE CONNECTION

S-40-3101 ONLY



LIGHT POLE BASE PLATE DETAIL

S-40-3101 ONLY

STATE PROJECT NUMBER
1100-45-70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-3101/3102/869/870

DRAWN BY TEK | PLANS CK'D. EKM

LIGHT POLE DETAILS

SHEET 9 OF 10

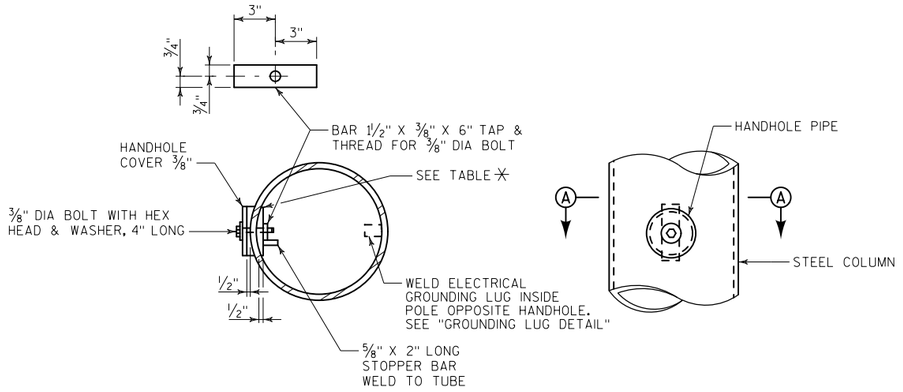
745

8

8

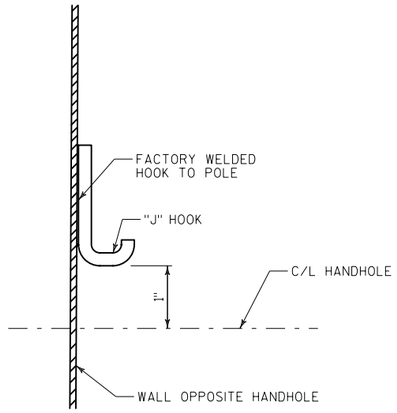
FILE NAME : S403101_080209_pd.dgn PLOT DATE : 31-OCT-2022 PLOT BY : emccrigh S403101_080209_pd PLOT SCALE : 5:1

STATE PROJECT NUMBER
1100-45-70



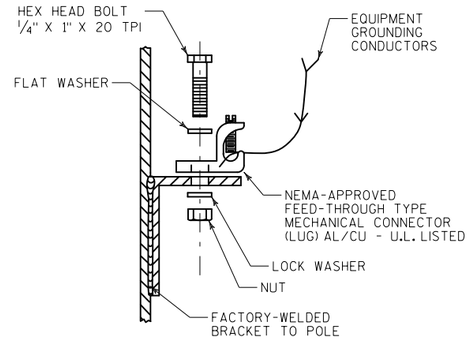
SECTION A-A

HANDHOLE DETAILS



TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

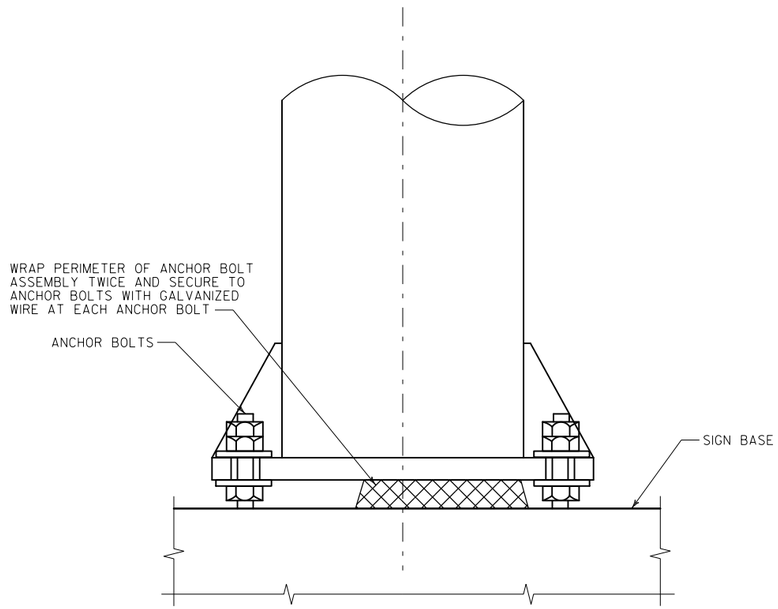
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HANDHOLE NOTES

HANDHOLES SHALL BE LOCATED IN THE STEEL COLUMN AS DETAILED ON SHEET 10.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER SECTION 641 OF THE WISDOT STANDARD SPECIFICATIONS.

✳ UPRIGHT DIAMETER SIZE	HANDHOLE PIPE O.D. X MIN THICKNESS
UP TO AND INCLUDING 16" X .375"	5.562" X .500"
GREATER THAN 16" X .375" TO AND INCLUDING 24" X .562"	6.625" X .562"



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)
(OUTER FOOTING)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-3101/3102/869/870

DRAWN BY	TEK	PLANS CK'D.	EKM

HANDHOLE DETAILS

SHEET 10 OF 10

8

8

STATE PROJECT NUMBER

1100-45-70

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (1997). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "TRUSS CANTILEVER 4-CHORD (TYPE)" FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

CATWALKS ARE USED ON 4-CHORD STRUCTURES CARRYING DMS SIGNS. CATWALKS SHALL BE INCIDENTAL TO THE BID ITEM "TRUSS CANTILEVER 4-CHORD (TYPE)" FOR EACH DMS SIGN STRUCTURE IN THE PLAN SET.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE ¼ THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA)".

DESIGN DATA

DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL

FOUNDATION DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS	
STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION) 1.0 TRG (TRUCK INDUCED GUST VIBRATION)

MATERIAL PROPERTIES

CONCRETE MASONRY _____ f'c = 3,500 psi

HIGH STRENGTH STEEL
REINFORCEMENT, GRADE 60 _____ fy = 60,000 psi

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36 _____ fy = 36,000 psi

CHORDS - ASTM A500 GRADE C _____ fy = 46,000 psi

COLUMN PIPE
DESIGN TRUSS TYPE I - ASTM A500 GRADE C _____ fy = 46,000 psi
DESIGN TRUSS TYPE II - API 5L PSL2 GRADE 46 _____ fy = 46,000 psi

HIGH STRENGTH BOLTS - A325 _____ fy = 92,000 psi

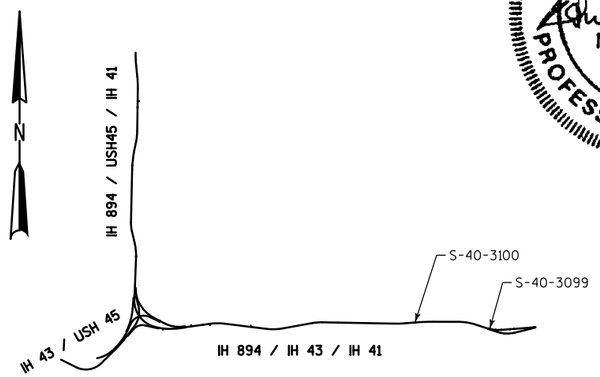
ANCHOR RODS - ASTM F1554 GRADE 55 _____ fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.



LOCATION MAP

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD DESIGN TRUSS
S-40-3099	197.5 SF	15'-0"	TYPE I
S-40-3100	115.5 SF	9'-6"	TYPE I

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-40-3099
3. LAYOUT S-40-3100

LIST OF OSS STANDARD DESIGN DRAWINGS

4. I. 4-CHORD TRUSS CANTILEVER
5. II. 4-CHORD TRUSS CANT. CONNECTION DETAILS 1
6. III. 4-CHORD TRUSS CANT. CONNECTION DETAILS 2
7. IV. 4-CHORD TRUSS CANT. CONNECTION DETAILS 3
8. V. 4-CHORD TRUSS CANT. CATWALK DETAILS
9. VI. 4-CHORD TRUSS CANT. ELECTRICAL DETAILS
10. VII. 4-CHORD TRUSS CANT. FOUNDATION DETAILS 1
11. VIII. 4-CHORD TRUSS CANT. FOUNDATION DETAILS 2

WISCONSIN
EDWARD K. McCRIGHT
E31422
MILWAUKEE, WI
11/30/22
PROFESSIONAL ENGINEER

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
ED McCRIGHT (414) 272-2426

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
Jacobs
MILWAUKEE, WISCONSIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 12/01/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

4-CHORD TRUSS CANTILEVER

IH-894 / IH-43 - RESURFACING SIGN STRUCTURES

COUNTY MILWAUKEE | ~~TOWN~~/CITY/~~VILLAGE~~ MILWAUKEE

DESIGN SPEC. AASHTO LRFDLTS-1 W/INTERIMS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	TEK	EKM

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 11

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8

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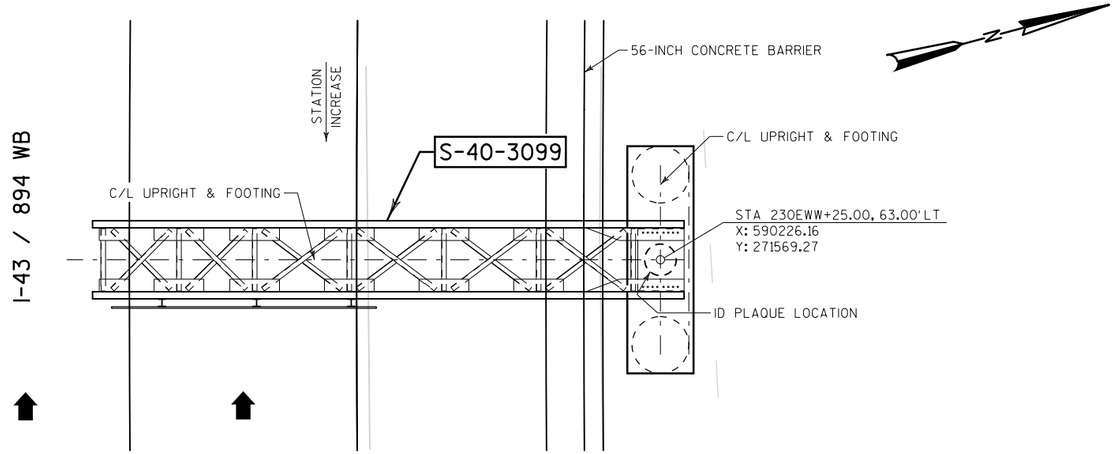
FILE NAME : 080102_gn.dgn PLOT DATE : 30-NOV-2022 PLOT BY : emccrigh 080102_gn PLOT SCALE : 2:1

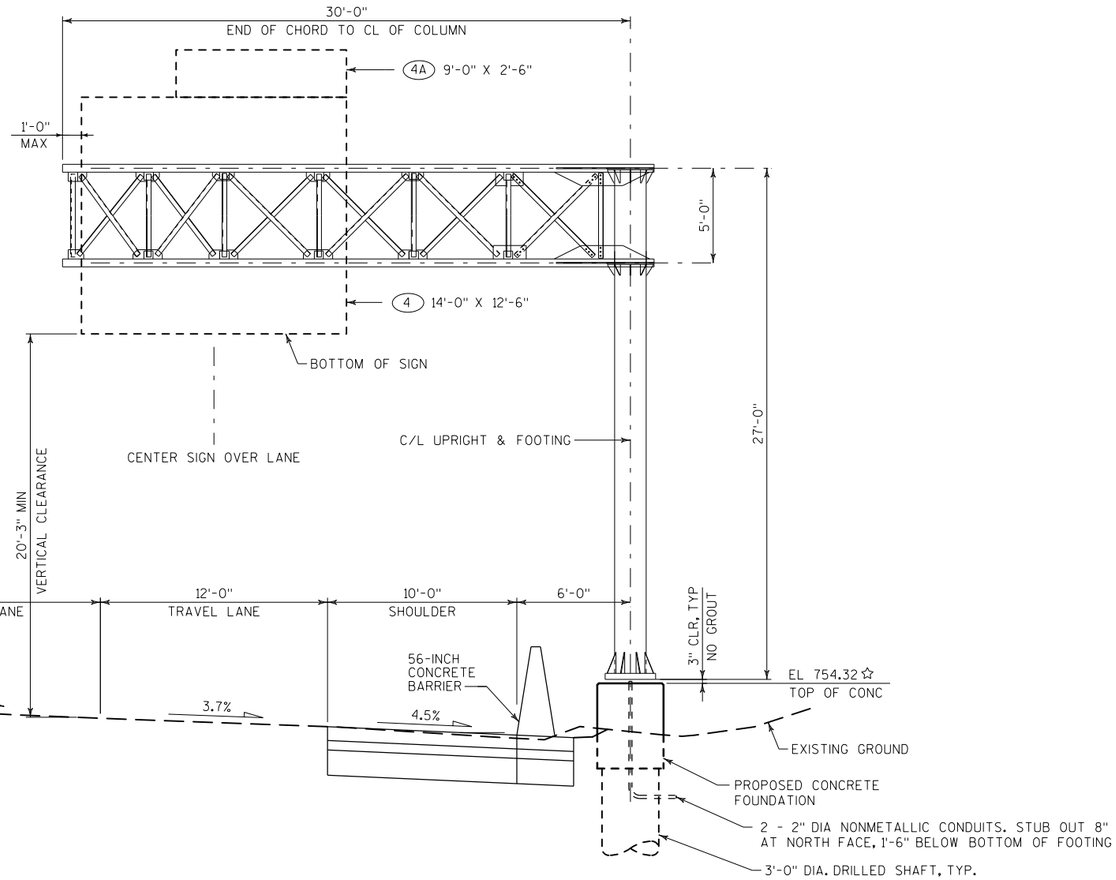
STATE PROJECT NUMBER
1100-45-70



TOTAL ESTIMATE OF QUANTITIES

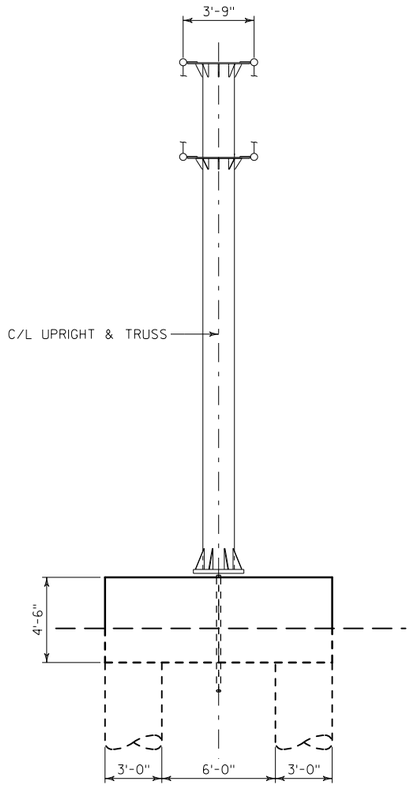
BID ITEM NO.	BID ITEM	UNIT	TOTAL
204.9060.S.480	REMOVING OLD SIGN STRUCTURE S-40-109	EACH	1
531.6010	FOUNDATION TWO-SHAFT TYPE FC-I (S-40-3099)	EACH	1
532.6000.480	TRUSS CANTILEVER 4-CHORD TYPE I (S-40-3099)	EACH	1

ALL ITEMS ARE CATEGORY 5090



ELEVATION

S-40-3099 IH-894 STA 230EWW+25
(LOOKING WEST AT FRONT FACE OF WB SIGN)
EXIT TO LOOMIS ROAD



END VIEW

(LOOKING SOUTH)

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

NOTE

EXISTING CANTILEVER SIGN STRUCTURE S-40-109 IS LOCATED AT APPROXIMATE STA 230EWW+00. S-40-109 TO BE REMOVED.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

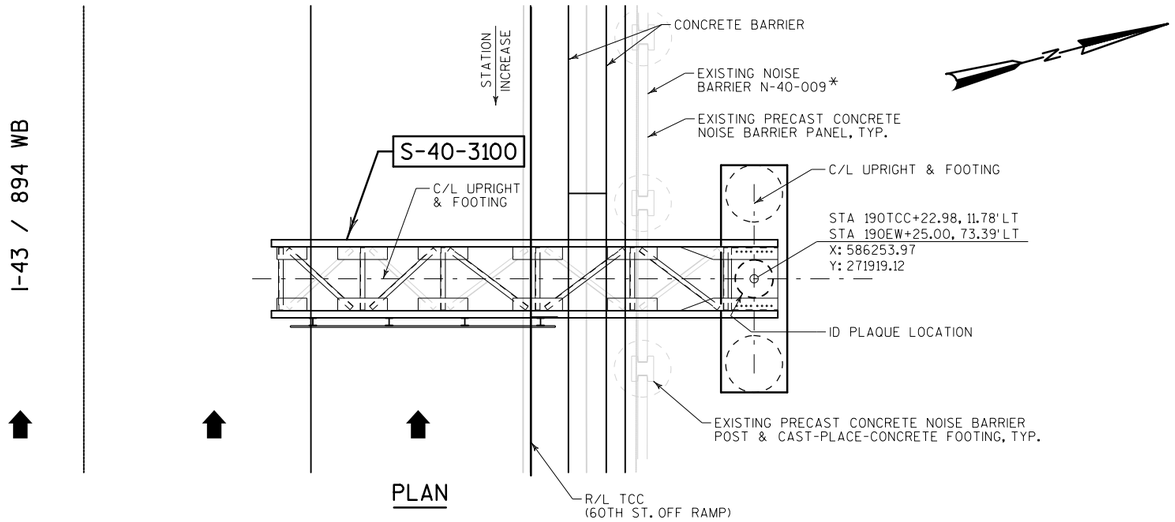
STRUCTURE S-40-3099

DRAWN BY TEK | PLANS CK'D. EKM

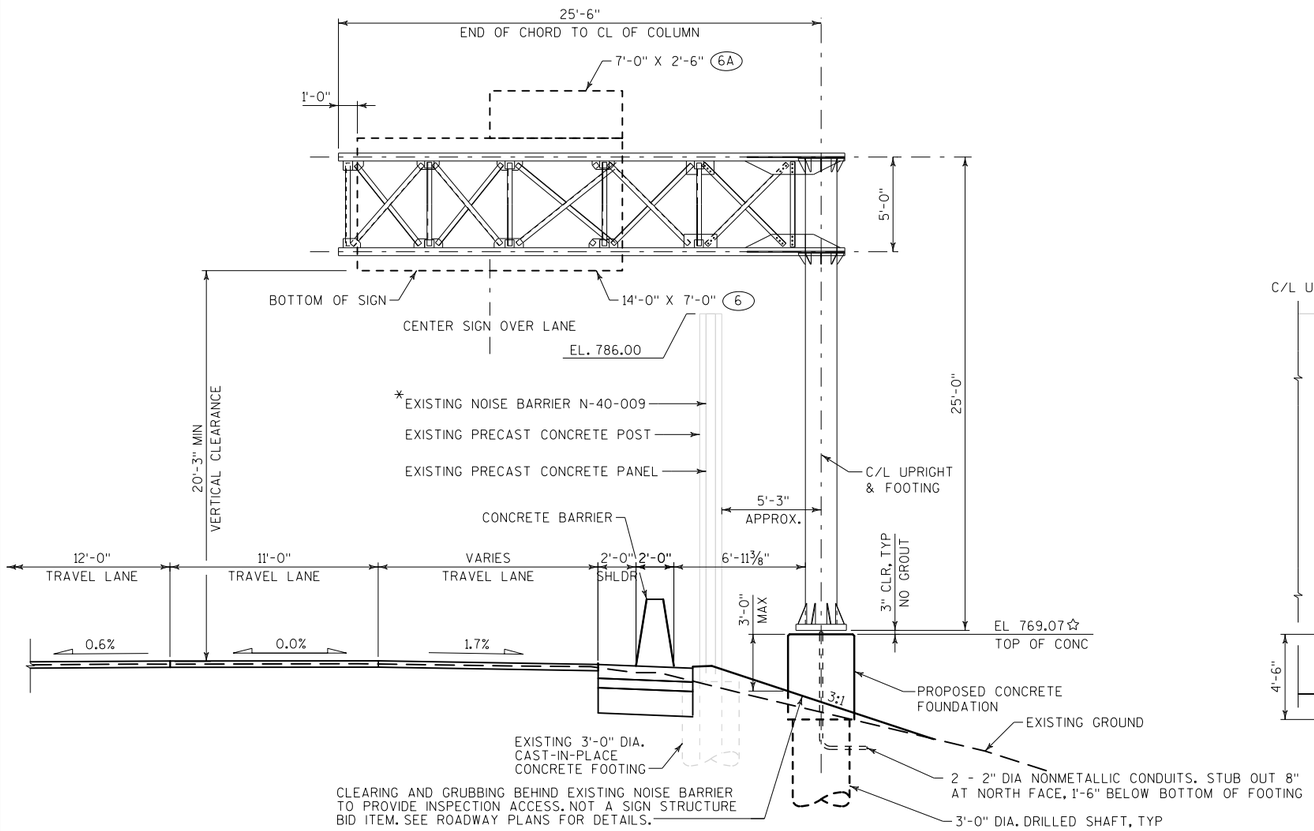
LAYOUT
S-40-3099

SHEET 2 OF 11

FILE NAME : S-40-3099_gp.dgn PLOT DATE : 22-NOV-2022 PLOT BY : emccrigh S-40-3099_gp PLOT SCALE : 8:1

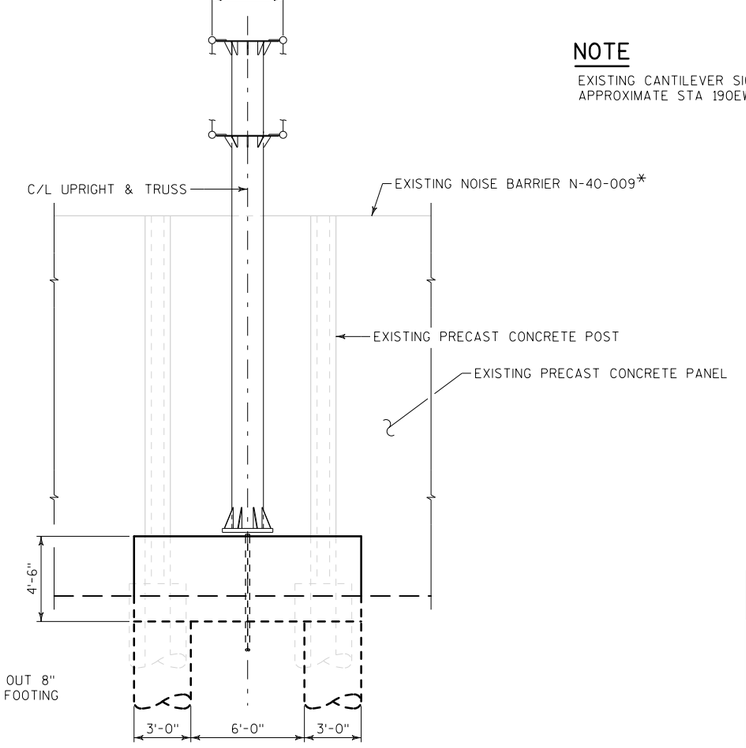


PLAN



ELEVATION

S-40-3100 IH-894 STA 190TCC+22.98 / STA 190EW+25.00
(LOOKING WEST AT FRONT FACE OF WB SIGN)
AT LOOMIS ROAD EXIT



END VIEW

(LOOKING SOUTH)

STATE PROJECT NUMBER

1100-45-70

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
204.9060.S.485	REMOVING OLD SIGN STRUCTURE S-40-009	EACH	1
531.6010	FOUNDATION TWO-SHAFT TYPE FC-I (S-40-3100)	EACH	1
532.6000.485	TRUSS CANTILEVER 4-CHORD TYPE I (S-40-3100)	EACH	1

ALL ITEMS ARE CATEGORY 5100

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L UPRIGHT

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

* IT IS ANTICIPATED THAT 3 PRECAST NOISE BARRIER PANELS WILL NEED TO BE TEMPORARILY REMOVED FROM EXISTING NOISE BARRIER N-40-009 TO ALLOW FOR CONSTRUCTION OF S-40-3100. THE PANELS SHALL BE STORED ON SITE AND REINSTALLED UPON COMPLETION OF S-40-3100. BID ITEMS FOR THE WORK ARE INCLUDED IN THE N-40-009 PLANS.

NOTE

EXISTING CANTILEVER SIGN STRUCTURE S-40-009 IS LOCATED AT APPROXIMATE STA 190EW+45. S-40-009 TO BE REMOVED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE S-40-3100

DRAWN BY TEK | PLANS CK'D. EKM

LAYOUT S-40-3100

SHEET 3 OF 11

749

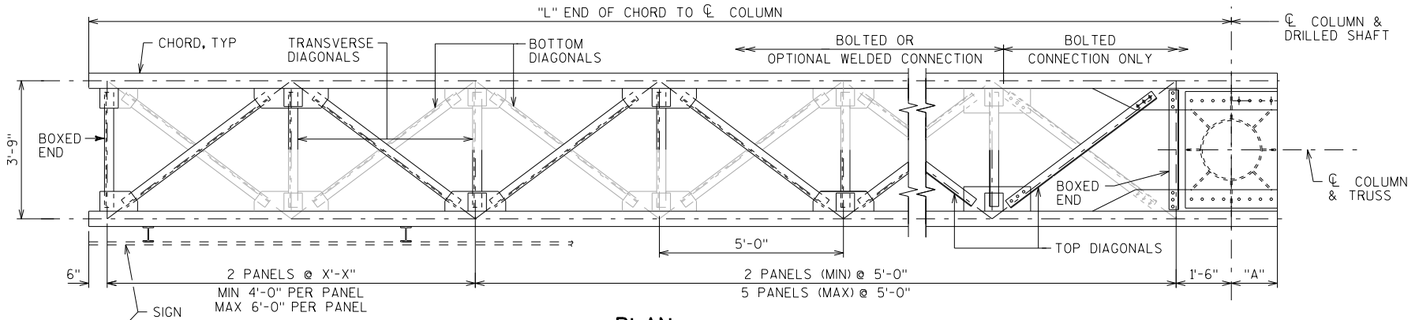
8

8

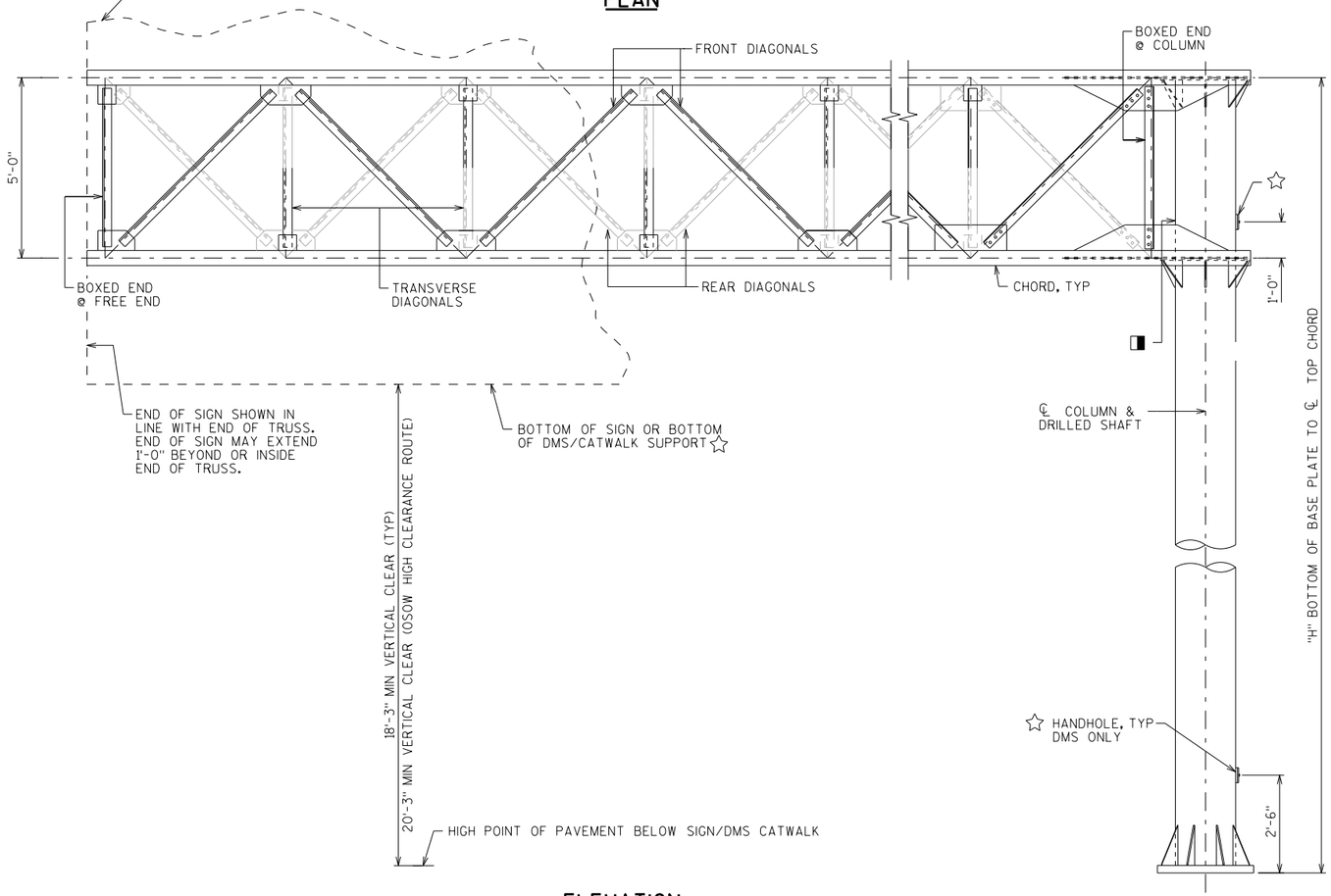
FILE NAME : S-40-3100_gp.dgn PLOT DATE : 29-NOV-2022 PLOT BY : emccrigh S-40-3100_gp PLOT SCALE : 8:1

STATE PROJECT NUMBER

STANDARD

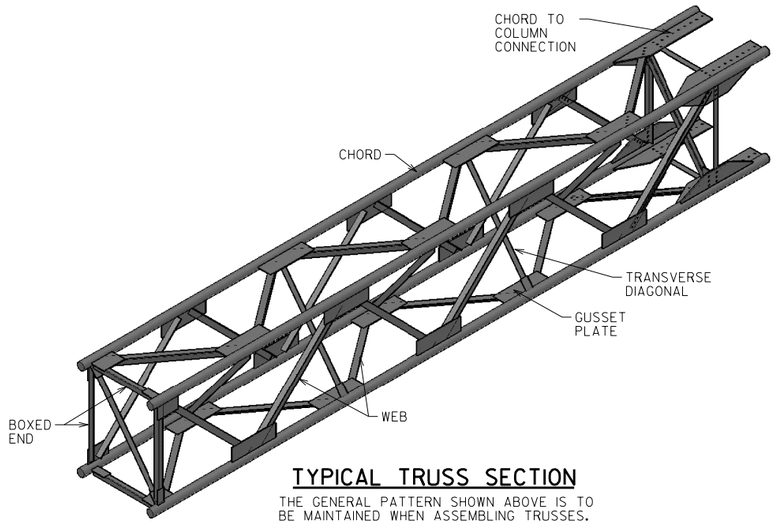


PLAN



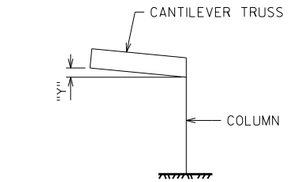
ELEVATION

LOOKING AT F.F. OF TRUSS



TYPICAL TRUSS SECTION

THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES.



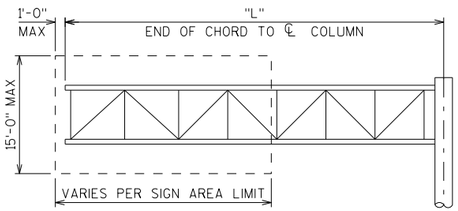
CAMBER DIAGRAM

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS AS SHOWN. DO NOT RAKE VERTICAL COLUMN BY ADJUSTMENT OF LEVELING NUTS.

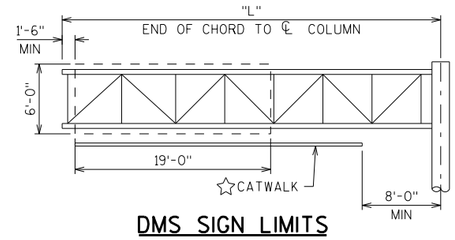
CAMBER VALUES

DIM "L" / "H"	"Y" (IN) 30' TYPE I	30' DMS	38' TYPE I	38' DMS
22'	2 1/4"	3 1/2"	2 5/8"	4 1/8"
24'	2 3/8"	3 7/8"	2 7/8"	4 1/2"
26'	2 1/2"	4 1/8"	3 1/8"	4 7/8"
28'	2 3/4"	4 1/2"	3 1/4"	5 1/4"
30'	2 7/8"	4 3/4"	3 1/2"	5 5/8"

INTERPOLATE FOR VALUES NOT SHOWN.
DMS VALUES INCLUDE DL OF CATWALK.



TYPE 1 SIGN LIMITS



DMS SIGN LIMITS

2,500 LB MAX DMS WEIGHT, INCLUDES DMS VERTICAL SUPPORT MEMBERS

CANTILEVER 4-CHORD TRUSS MEMBER TABLE

STANDARD DESIGN TRUSS	TYPE I SIGN AREA (FT^2)	DMS AREA (FT^2)	MAXIMUM SPAN "L"	MAXIMUM COL HEIGHT "H"	DIM "A"	COLUMN OUTER DIA. X THK	CHORD OUTER DIA. X THK	WEB W X D X THK	BOXED END W X D X THK	TRANSVERSE DIAGONAL W X D X THK
I	264	114	30'-0"	30'-0"	1'-3"	20.00" X 0.500"	5.000" X 0.375"	L3X3X1/4	L3X3X1/4	L3X3X1/4
II	240	114	38'-0"	30'-0"	1'-4 1/2"	24.00" X 0.500"	5.563" X 0.375"	L3X3X5/16	L3X3X1/4	L3X3X1/4

LEGEND

☆ FOR OSS WITH DMS ONLY, PROVIDE HANDHOLES AS SHOWN. SEE "CATWALK DETAILS" AND "ELECTRICAL DETAILS" SHEETS.

◨ FOR OSS WITH DMS ONLY, DRILL HOLE AND TAP FOR (2) 2" STD. PIPE THREADS. LOCATE BOTTOM HOLE 6" UP FROM TOP OF BOTTOM CHORD AND SPACE VERTICALLY AT 6" C/C. PLACE CONDUIT PLUG IN HOLES THAT ARE NOT USED FOR WIRING SIGN PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANTILEVER

SHEET I OF VIII

750

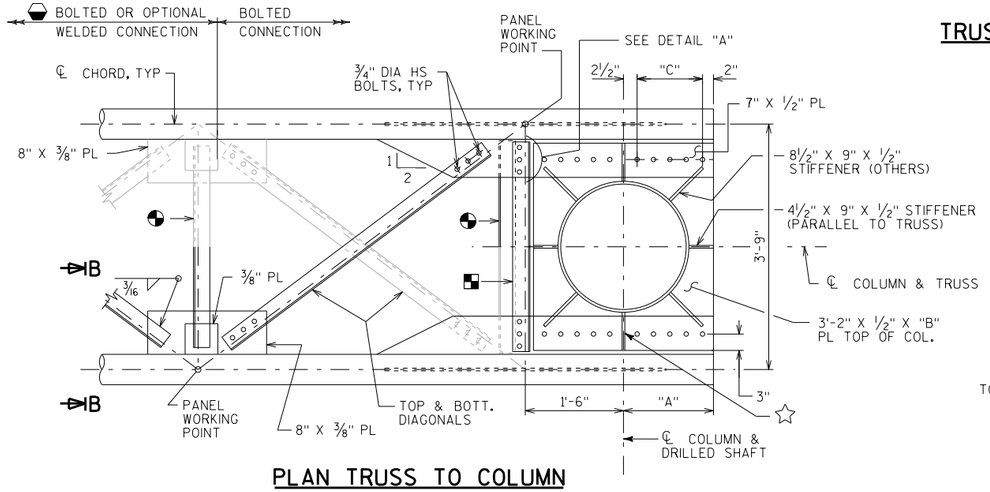
SCALE = 2.00

8

8

STATE PROJECT NUMBER

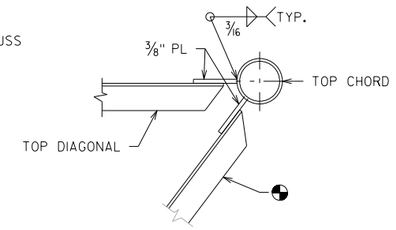
STANDARD



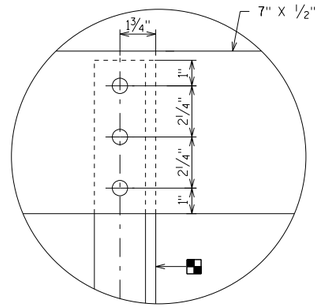
PLAN TRUSS TO COLUMN

TRUSS TO COLUMN CONNECTION DATA

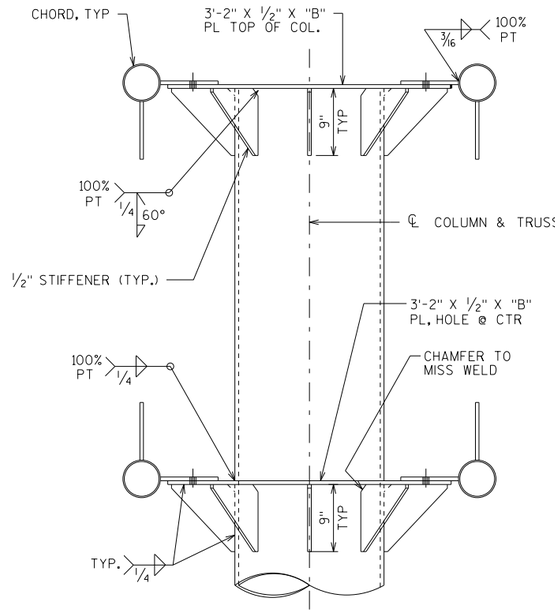
STANDARD DESIGN TYPE	"A"	"B"	"C"
I	1'-3"	2'-6"	3 SPA @ 3½"
II	1'-4½"	2'-9"	4 SPA @ 3"



SECTION B-B

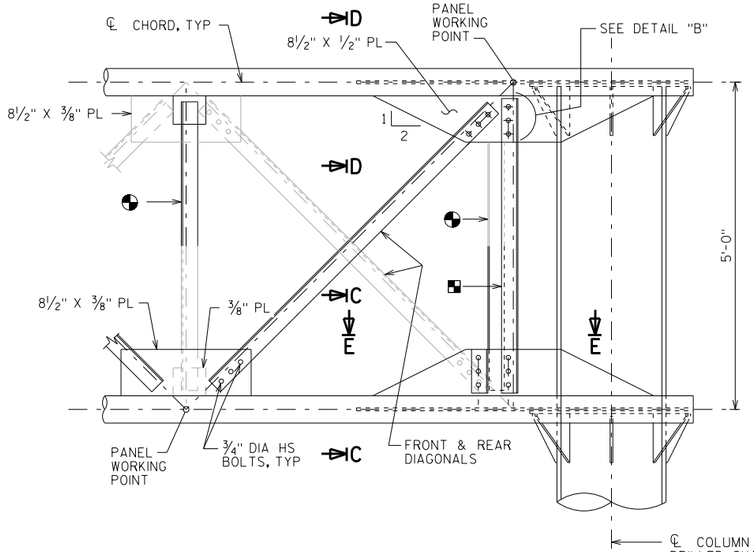


DETAIL "A"

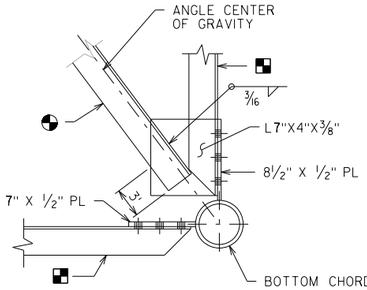


END VIEW TRUSS TO COLUMN

(WEB MEMBERS NOT SHOWN)

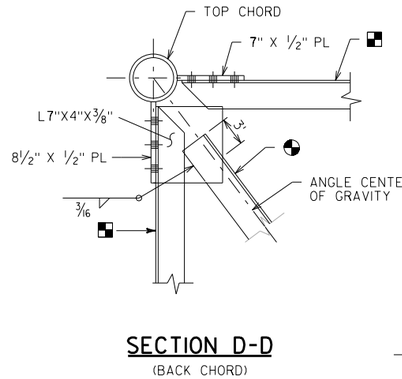


ELEVATION TRUSS TO COLUMN



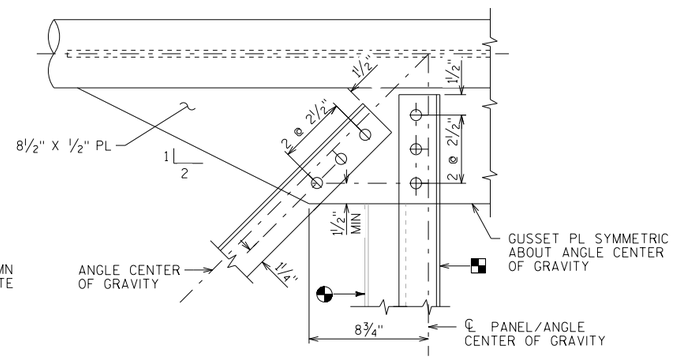
SECTION C-C

(FRONT CHORD)

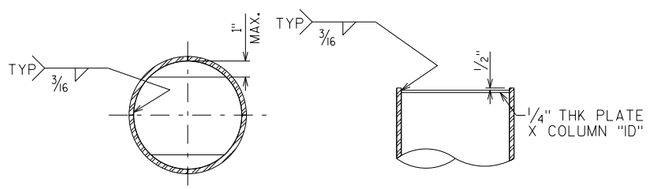


SECTION D-D

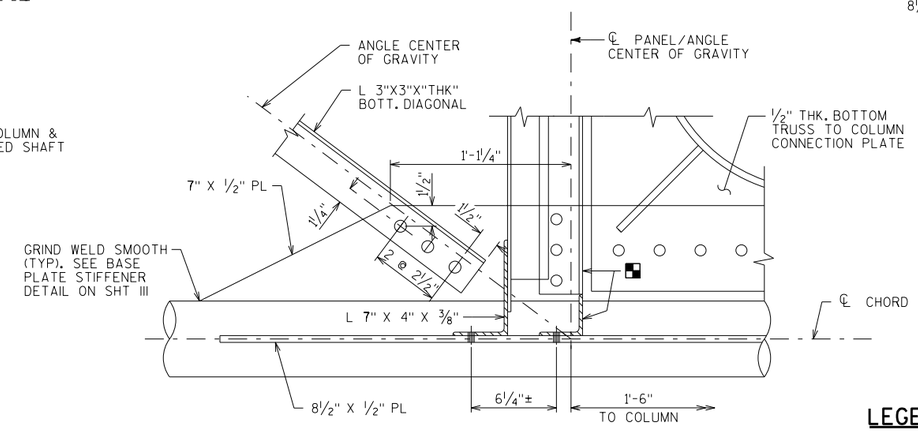
(BACK CHORD)



DETAIL "B"



CHORD CAP DETAIL



SECTION E-E

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)

LEGEND

- TRANSVERSE DIAGONAL
- BOXED END @ SUPPORT
- WELDED CONNECTIONS MAY BE USED IF UNIT CAN BE GALVANIZED IN ONE PIECE.
- ☆ 7" X 9" X ½" STIFFENER STD DESIGN TYPE 2 ONLY, TYP OPPOSITE SIDE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 1

SHEET II OF VIII

751

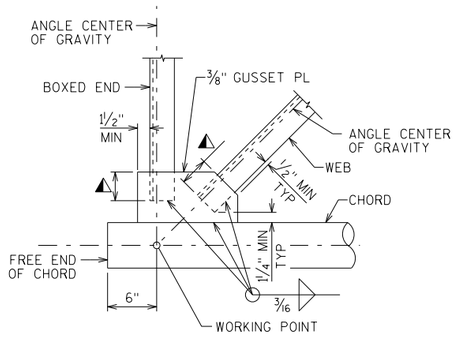
SCALE = 2.25

8

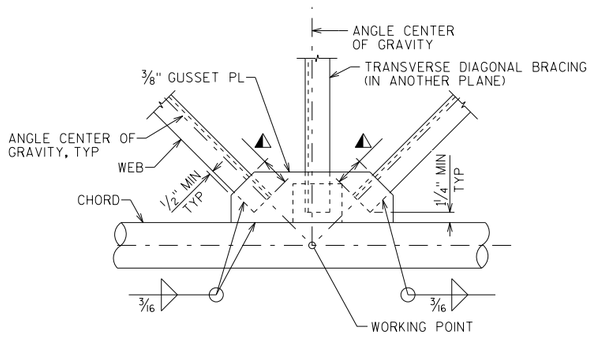
8

STATE PROJECT NUMBER

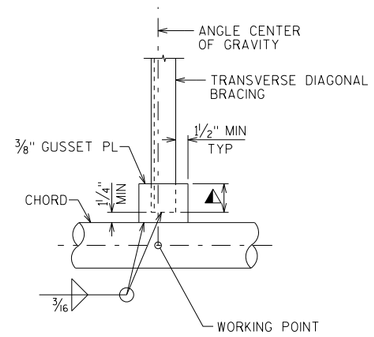
STANDARD



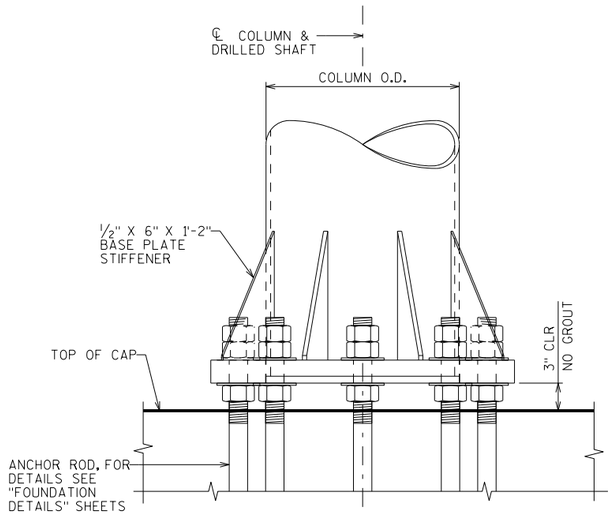
WELDED BOXED END CONNECTION



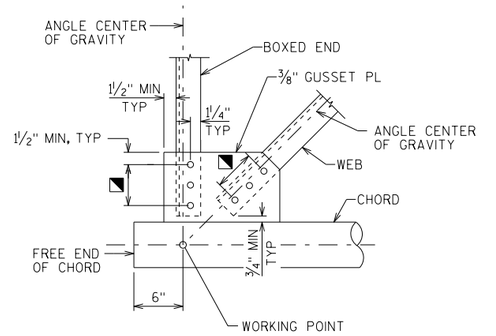
WELDED PANEL CONNECTION



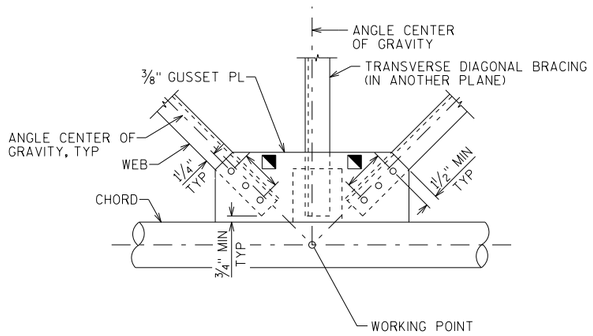
WELDED INTERIOR DIAGONAL CONNECTION



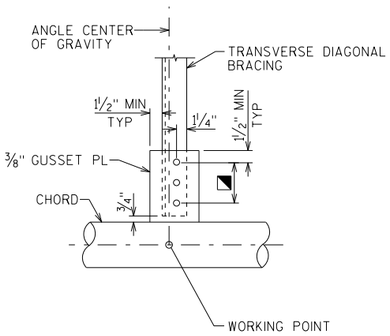
BASE PLATE & COLUMN DETAIL



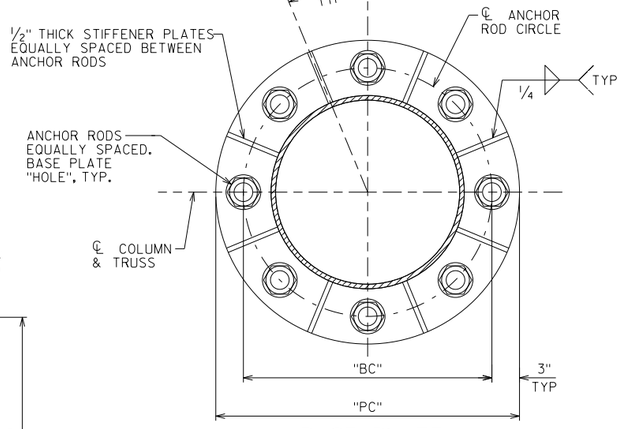
BOLTED BOXED END CONNECTION



BOLTED PANEL CONNECTION

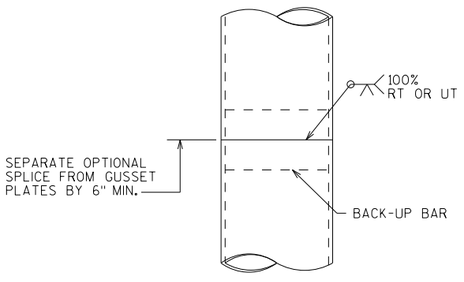


BOLTED INTERIOR DIAGONAL CONNECTION



BASE PLATE

PLAN



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

NOTE

FABRICATOR HAS THE OPTION TO USE NON-MITERED, RECTANGULAR GUSSET PLATES IN LIEU OF MITERED PLATES SHOWN ON THESE DETAILS.

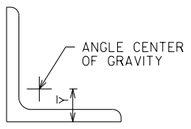
MEMBER CONNECTION DATA

STANDARD DESIGN TYPE	WELD LEG LENGTH ◭	NO. OF BOLTS ◥
I	3" MIN	3
II	3" MIN	3

FOR ALL ANGLE TO GUSSET CONNECTIONS, BOLT SPACING = 2 1/2"

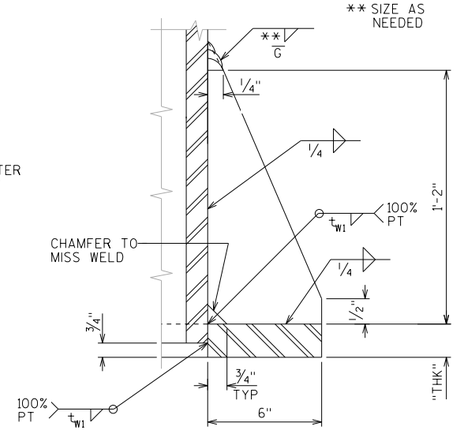
ANGLE DATA

ANGLE SIZE	$\bar{Y}$
L3x3x1/4	0.836"
L3x3x5/16	0.860"



CANTILEVER 4-CHORD COLUMN DATA TABLE

STANDARD DESIGN TYPE	COLUMN OUTER DIA X THK	BASE PLATE				
		"T_{W1}"	"HOLE"	"THK"	"BC"	"PC"
I	20.00" X 0.500"	5/16"	2 1/4"	2"	2'-2"	2'-8"
II	24.00" X 0.500"	5/16"	2 1/4"	2 1/2"	2'-6"	3'-0"



BASE PLATE STIFFENER DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 2

SHEET III OF VIII

752

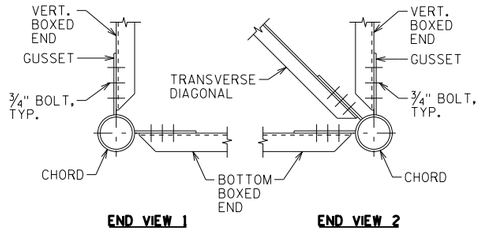
SCALE = 1.50

8

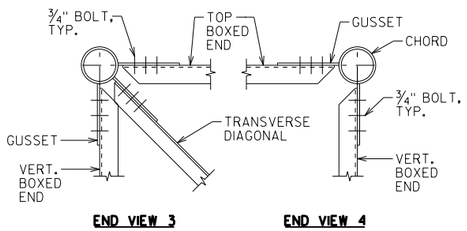
8

STATE PROJECT NUMBER

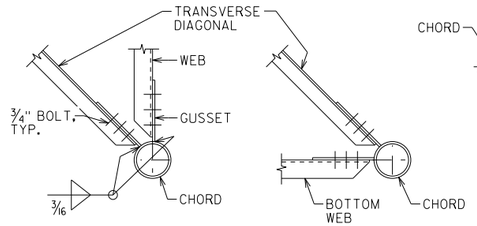
STANDARD



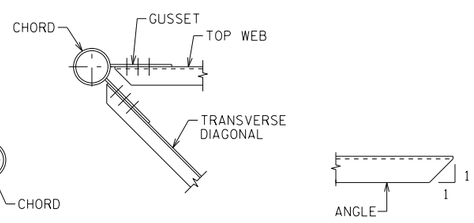
END VIEW 1 END VIEW 2



END VIEW 3 END VIEW 4



END VIEW 1 END VIEW 2

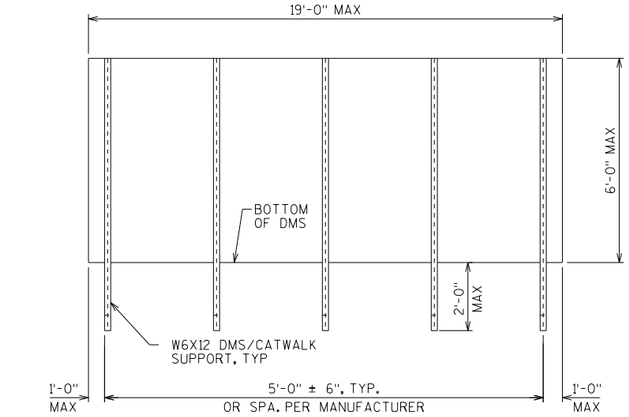


END VIEW 3

CLIP DETAIL

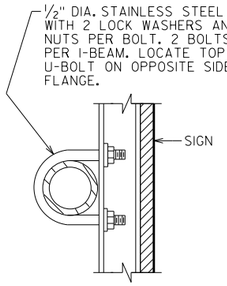
TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR

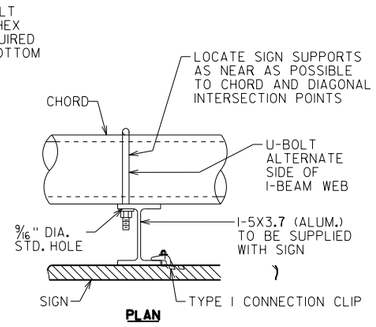


DMS MOUNTING POST SPACING DETAIL

POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



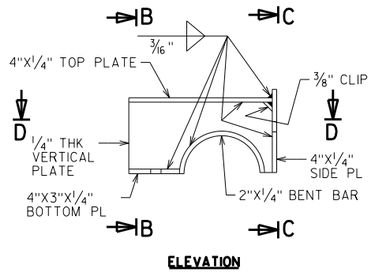
DETAIL 1



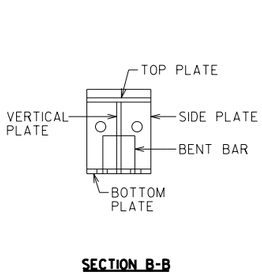
PLAN

TYPICAL SIGN CONNECTION

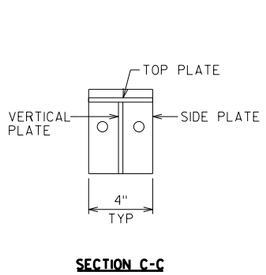
USE FOR TYPE I AND II SIGNS
SEE SIGN PLATE MANUAL A4-7A & A4-7B FOR DETAILS



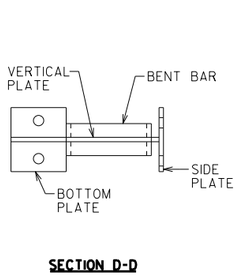
ELEVATION



SECTION B-B



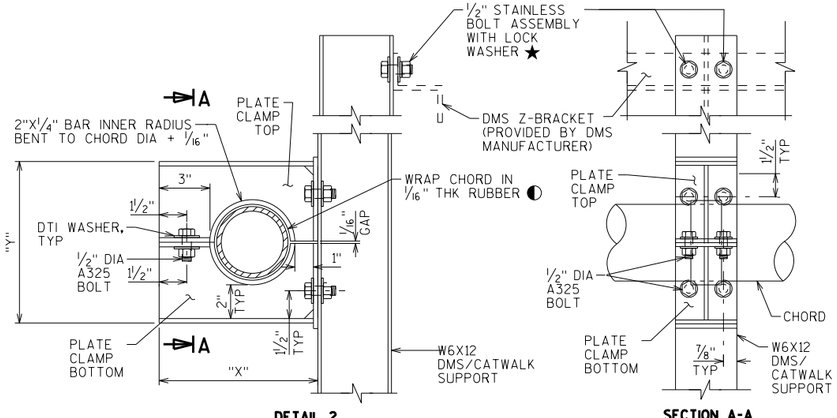
SECTION C-C



SECTION D-D

DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR

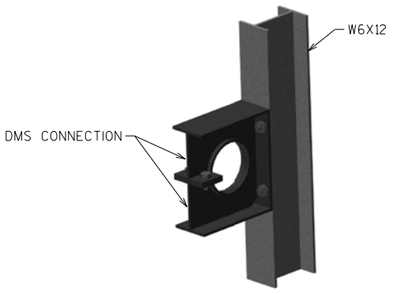


DETAIL 2 SECTION A-A

CHORD OUTER DIA	"X"	"Y"
5.000"	9 13/16"	10 1/16"
5.563"	10 3/8"	10 5/8"

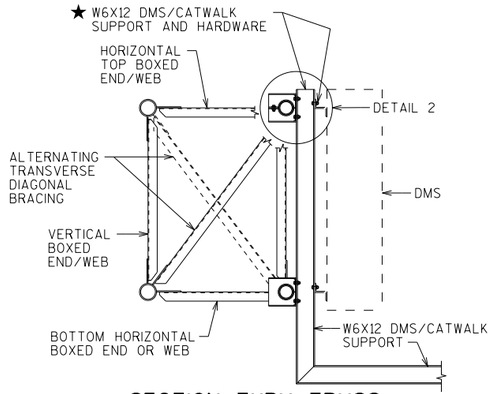
TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

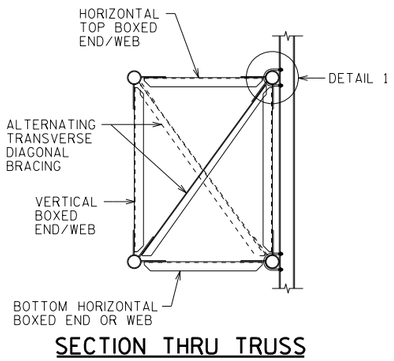
CHORD NOT SHOWN FOR CLARITY



SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. ½" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.



SECTION THRU TRUSS

FOR SIGN CONNECTION

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CONNECTION DETAILS 3

SHEET IV OF VIII

753

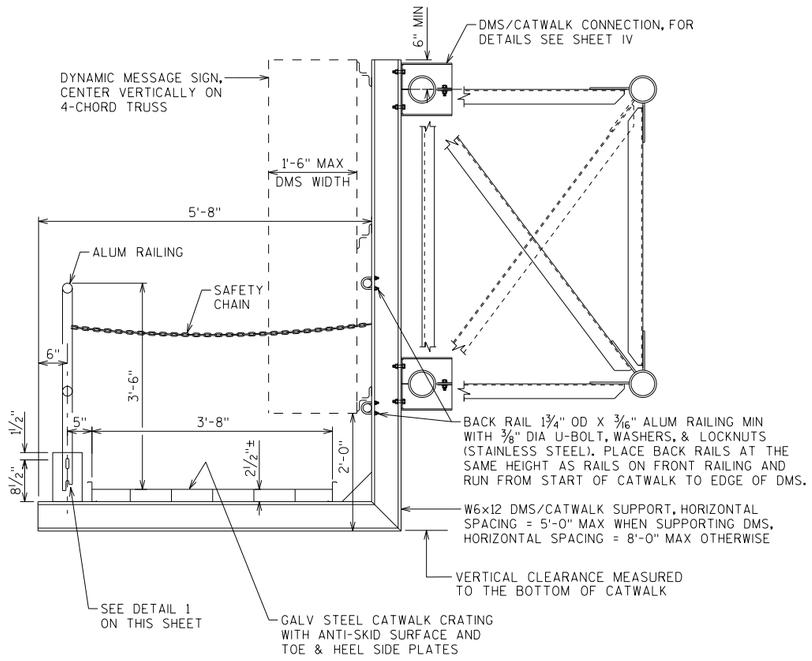
SCALE = 2.00

8

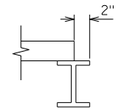
8

STATE PROJECT NUMBER

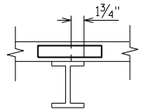
STANDARD



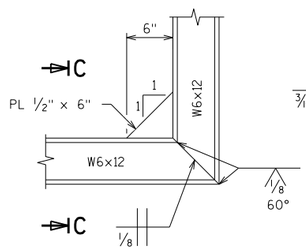
SECTION THRU WALKWAY



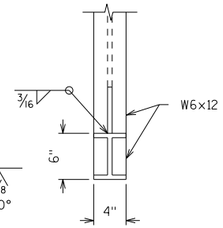
CATWALK TERMINATION DETAIL



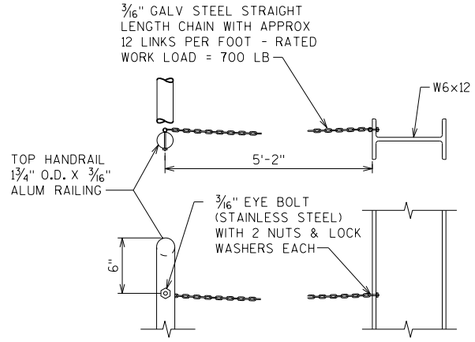
CATWALK SPLICE LOCATION DETAIL



BRACKET DETAIL

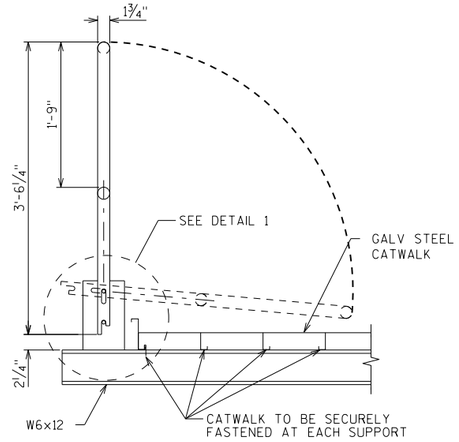


SECTION C-C

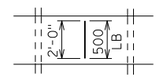


SAFETY CHAIN DETAIL

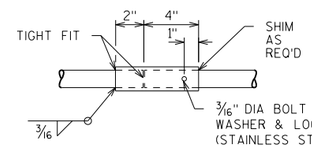
(PROVIDE SAFETY CHAIN AT EACH END OF THE CATWALK)



RAIL POST DETAIL

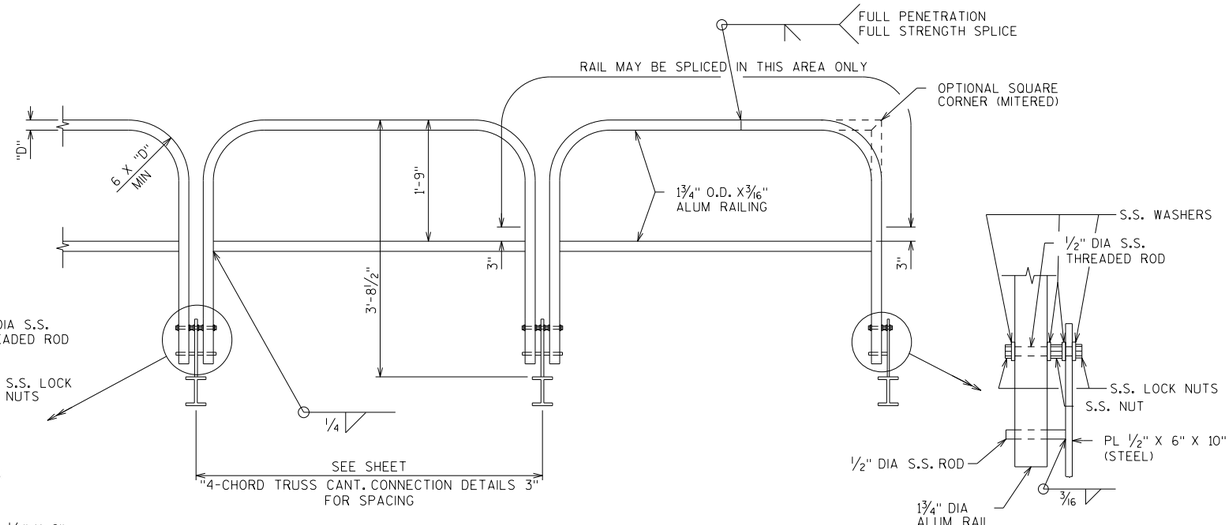


NOTE:
CATWALK GRATING SHALL MEET THE CURRENT AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", (500 LB LIVE LOAD DISTRIBUTED OVER 2'-0" TRANSVERSELY - MAX SPAN IS 8'-0"). CATWALK SHALL ALSO MEET CURRENT OSHA STD'S FOR WALKING-WORKING SURFACES.

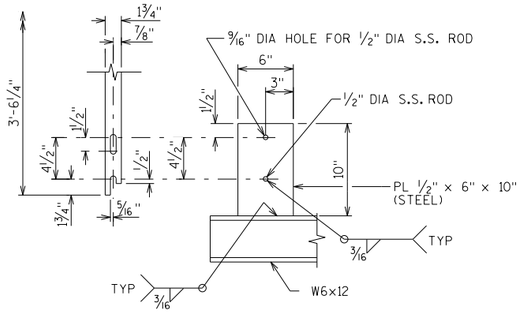


BACKRAIL SPLICE

ONE SPLICE ALLOWED FOR LENGTHS OVER 30'-0"



TYPICAL FRONT RAILING DETAILS



DETAIL 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. CATWALK DETAILS

SHEET V OF VIII

754

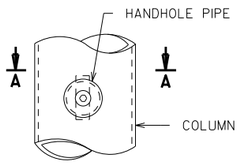
SCALE = 1.25

8

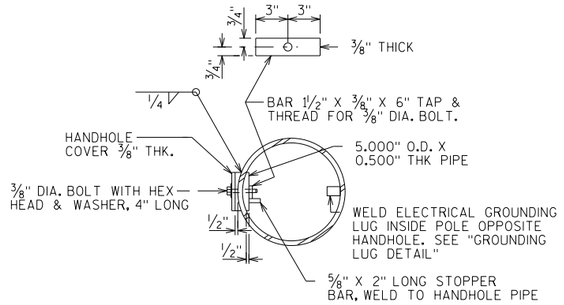
8

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

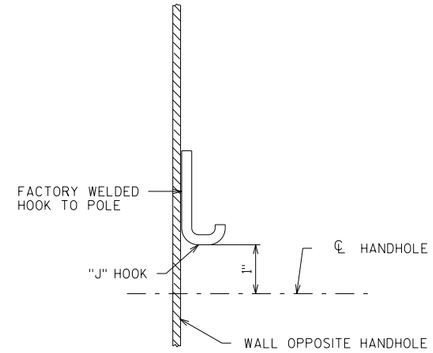


SECTION A-A

HANDHOLE NOTES

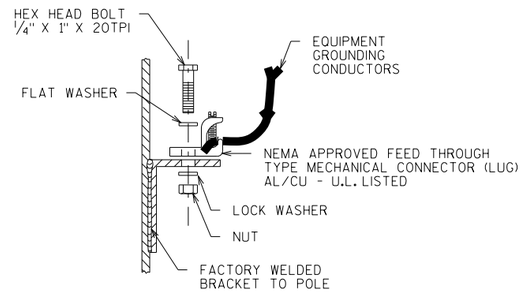
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



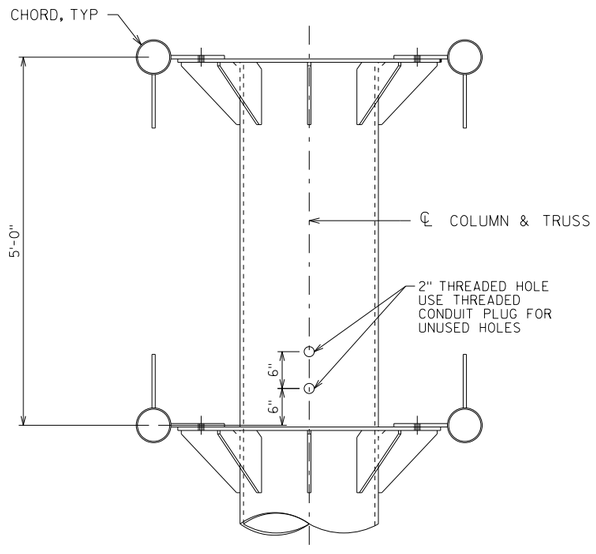
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

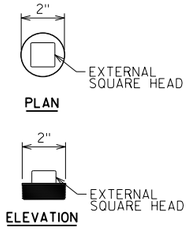


GROUNDING LUG DETAIL

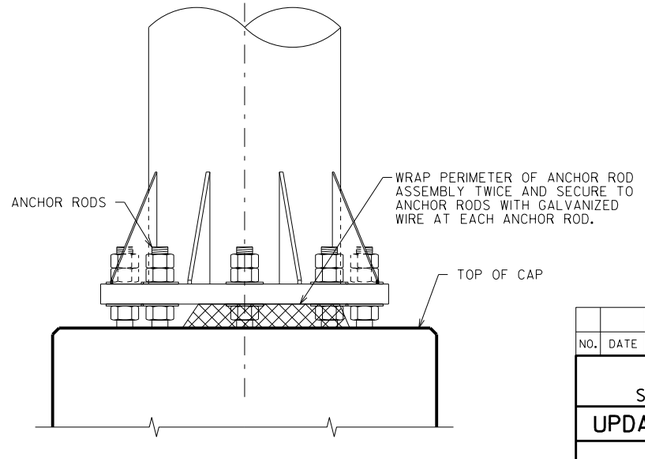
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



CONDUIT HOLE LOCATIONS



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. ELECTRICAL DETAILS

SHEET VI OF VIII

755

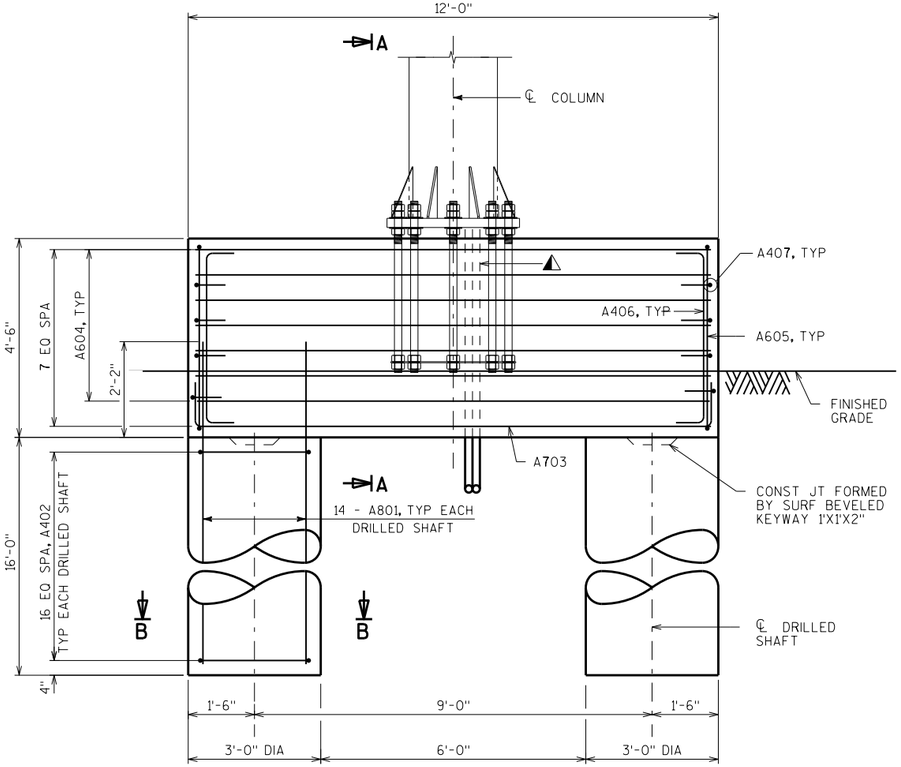
SCALE = 1.00

8

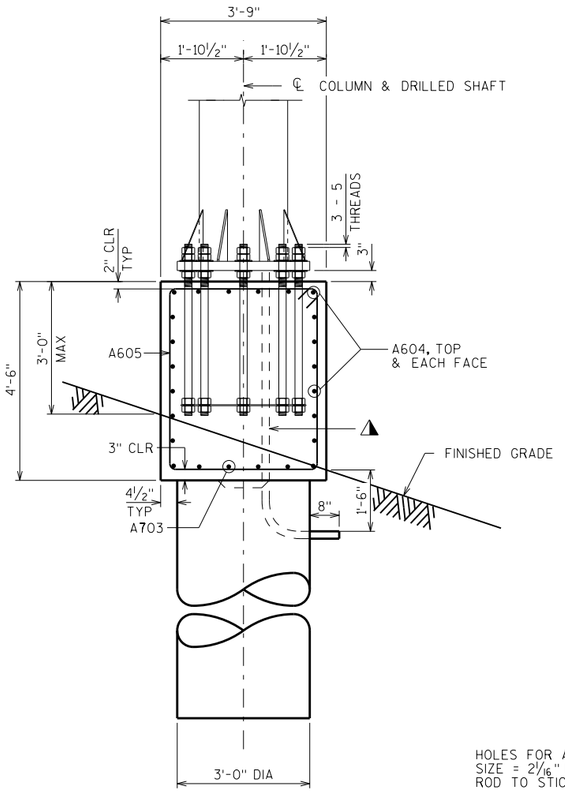
8

STATE PROJECT NUMBER

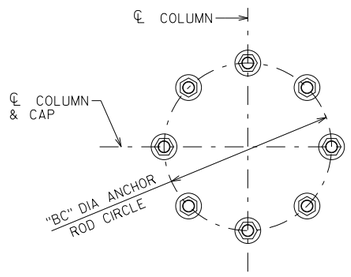
STANDARD



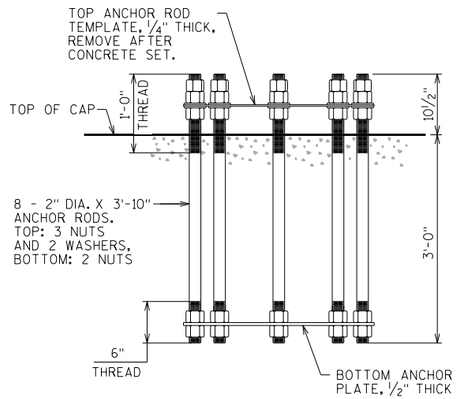
ELEVATION



SECTION A-A



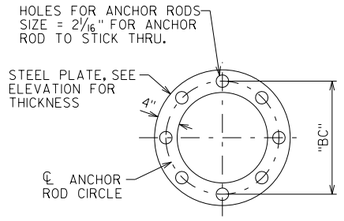
PLAN



ELEVATION

ANCHOR ROD ASSEMBLY DETAILS

SINGLE ASSEMBLY SHOWN
8 ANCHOR RODS REQ'D PER ASSEMBLY

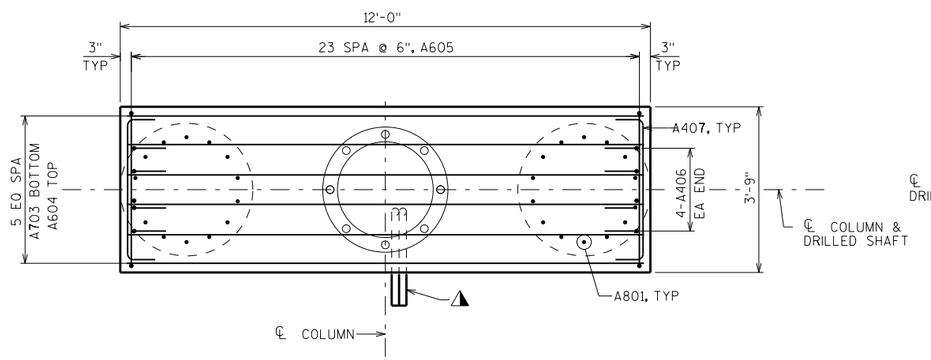


ANCHOR PLATE/TOP TEMPLATE

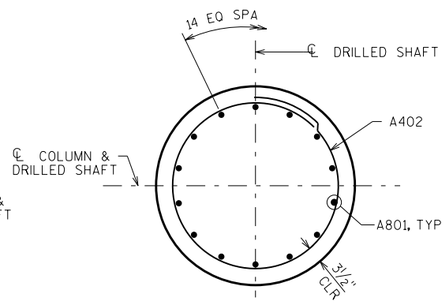
PLAN

ANCHOR PLATE DATA

STD DESIGN TRUSS	DIMENSIONS
	"BC"
I	2'-2"
II	2'-6"



PLAN



SECTION B-B

NOTES

CENTER ANCHOR ROD ASSEMBLY AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

LEGEND

⚠ 2 - 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

4-CHORD TRUSS CANT. FOUNDATION DETAILS 1

SHEET VII OF VIII

756

8

8

SCALE = 1.67

STATE PROJECT NUMBER

STANDARD

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

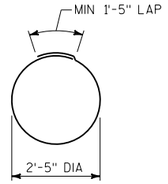
BILL OF BARS - STANDARD DESIGN TYPE I OR II

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		28	18'-2"			DRILLED SHAFT - VERTICAL
A402		34	9'-0"	X		DRILLED SHAFT - HORIZONTAL
A703	X	6	13'-7"	X		CAP - LONGITUDINAL - BOTTOM
A604	X	18	11'-8"			CAP - LONGITUDINAL - TOP & SIDES
A605	X	24	15'-10"	X		CAP - STIRRUP
A406	X	8	4'-7"	X		CAP - VERTICAL - EACH END
A407	X	8	3'-11"	X		CAP - HORIZONTAL - EACH END

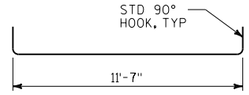
ESTIMATED QUANTITIES - FOUNDATION

STANDARD DESIGN TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	STEEL REINFORCEMENT HS COATED (LBS)	ANCHOR ASSEMBLY 2-INCH (EACH)	FOUNDATION DRILLING 36" DIA. (LF)
I/II	16	1,570	1,100	1	32

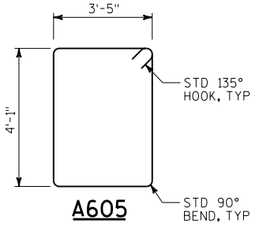
** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS



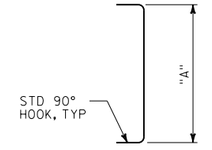
A402



A703



A605



A406, A407

BAR MARK	"A"
A406	3'-11½"
A407	3'-3½"

BAR BENDING DIAGRAMS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

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4-CHORD TRUSS
CANT. FOUNDATION
DETAILS 2

SHEET VIII OF VIII

757

SCALE = 0.50

DIVISION 2 - IH 41/43/894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
81+29 AH	8129.00	0.00	85.48	0.00	0	0	0	0	0	0
81+50	8150.00	21.00	82.56	0.00	65	0	65	0	0	65
82+00	8200.00	50.00	80.53	0.00	151	0	216	0	0	216
82+50	8250.00	50.00	82.82	0.00	151	0	367	0	0	367
83+00	8300.00	50.00	82.21	0.00	153	0	520	0	0	520
83+50	8350.00	50.00	83.43	0.00	153	0	673	0	0	673
84+00	8400.00	50.00	81.91	0.00	153	0	826	0	0	826
84+50	8450.00	50.00	81.16	0.00	151	0	977	0	0	977
85+00	8500.00	50.00	78.67	0.00	148	0	1,125	0	0	1,125
85+50	8550.00	50.00	78.97	0.00	146	0	1,271	0	0	1,271
86+00	8600.00	50.00	76.71	0.00	144	0	1,415	0	0	1,415
86+50	8650.00	50.00	78.03	0.00	143	0	1,558	0	0	1,558
87+00	8700.00	50.00	79.67	0.00	146	0	1,704	0	0	1,704
87+50	8750.00	50.00	81.83	0.00	150	0	1,854	0	0	1,854
88+00	8800.00	50.00	80.51	0.00	150	0	2,004	0	0	2,004
88+50	8850.00	50.00	78.13	0.00	147	0	2,151	0	0	2,151
89+00	8900.00	50.00	78.79	0.00	145	0	2,296	0	0	2,296
89+50	8950.00	50.00	78.42	0.00	146	0	2,442	0	0	2,442
90+00	9000.00	50.00	77.11	0.00	144	0	2,586	0	0	2,586
90+50	9050.00	50.00	73.52	0.00	139	0	2,725	0	0	2,725
91+00	9100.00	50.00	74.86	0.00	137	0	2,862	0	0	2,862
91+50	9150.00	50.00	77.59	0.00	141	0	3,003	0	0	3,003
92+00	9200.00	50.00	74.83	0.00	141	0	3,144	0	0	3,144
92+50	9250.00	50.00	76.95	0.00	141	0	3,285	0	0	3,285
93+00	9300.00	50.00	77.27	0.00	143	0	3,428	0	0	3,428
93+50	9350.00	50.00	75.00	0.00	141	0	3,569	0	0	3,569
94+00	9400.00	50.00	75.27	0.00	139	0	3,708	0	0	3,708
94+50	9450.00	50.00	76.35	0.00	140	0	3,848	0	0	3,848
95+00	9500.00	50.00	80.57	0.00	145	0	3,993	0	0	3,993
95+15.95 BK	9515.95	15.95	80.57	0.00	48	0	4,041	0	0	4,041
97+05.32 AH	9705.32	0.00	78.55	0.00	0	0	4,041	0	0	4,041
97+50	9750.00	44.68	78.55	0.00	130	0	4,171	0	0	4,171
98+00	9800.00	50.00	78.11	0.00	145	0	4,316	0	0	4,316
98+50	9850.00	50.00	77.04	0.00	144	0	4,460	0	0	4,460
99+00	9900.00	50.00	77.86	0.00	143	0	4,603	0	0	4,603
99+50	9950.00	50.00	74.21	0.00	141	0	4,744	0	0	4,744
100+00	10000.00	50.00	75.93	0.00	139	0	4,883	0	0	4,883
100+50	10050.00	50.00	76.67	0.00	141	0	5,024	0	0	5,024
101+00	10100.00	50.00	76.57	0.00	142	0	5,166	0	0	5,166
101+50	10150.00	50.00	77.38	0.00	143	0	5,309	0	0	5,309
102+00	10200.00	50.00	78.46	0.00	144	0	5,453	0	0	5,453
102+50	10250.00	50.00	77.47	0.00	144	0	5,597	0	0	5,597
103+00	10300.00	50.00	76.94	0.00	143	0	5,740	0	0	5,740
103+50	10350.00	50.00	78.33	0.00	144	0	5,884	0	0	5,884
104+00	10400.00	50.00	77.39	0.00	144	0	6,028	0	0	6,028
104+50	10450.00	50.00	74.79	0.00	141	0	6,169	0	0	6,169
105+00	10500.00	50.00	76.59	0.00	140	0	6,309	0	0	6,309
105+50	10550.00	50.00	76.42	0.00	142	0	6,451	0	0	6,451
106+00	10600.00	50.00	75.90	0.00	141	0	6,592	0	0	6,592
106+50	10650.00	50.00	77.83	0.00	142	0	6,734	0	0	6,734

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41/ 43/ 894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
107+00	10700.00	50.00	76.87	0.00	143	0	6,877	0	0	6,877
107+50	10750.00	50.00	77.71	0.00	143	0	7,020	0	0	7,020
108+00	10800.00	50.00	78.43	0.00	145	0	7,165	0	0	7,165
108+50	10850.00	50.00	78.91	0.00	146	0	7,311	0	0	7,311
109+00	10900.00	50.00	82.02	0.00	149	0	7,460	0	0	7,460
109+50	10950.00	50.00	84.10	0.00	154	0	7,614	0	0	7,614
110+00	11000.00	50.00	88.17	0.00	160	0	7,774	0	0	7,774
110+50	11050.00	50.00	93.45	0.00	168	0	7,942	0	0	7,942
111+00	11100.00	50.00	99.29	0.00	178	0	8,120	0	0	8,120
111+50	11150.00	50.00	100.73	0.00	185	0	8,305	0	0	8,305
112+00	11200.00	50.00	104.24	0.00	190	0	8,495	0	0	8,495
112+50	11250.00	50.00	103.85	0.00	193	0	8,688	0	0	8,688
113+00	11300.00	50.00	102.59	0.00	191	0	8,879	0	0	8,879
113+50	11350.00	50.00	101.93	0.00	189	0	9,068	0	0	9,068
114+00	11400.00	50.00	103.00	0.00	190	0	9,258	0	0	9,258
114+50	11450.00	50.00	103.15	0.00	191	0	9,449	0	0	9,449
115+00	11500.00	50.00	97.00	0.00	185	0	9,634	0	0	9,634
115+50	11550.00	50.00	97.06	0.00	180	0	9,814	0	0	9,814
116+00	11600.00	50.00	96.06	0.00	179	0	9,993	0	0	9,993
116+50	11650.00	50.00	97.39	0.00	179	0	10,172	0	0	10,172
117+00	11700.00	50.00	95.31	0.00	178	0	10,350	0	0	10,350
117+50	11750.00	50.00	94.48	0.00	176	0	10,526	0	0	10,526
118+00	11800.00	50.00	96.20	0.00	177	0	10,703	0	0	10,703
118+50	11850.00	50.00	95.45	0.00	177	0	10,880	0	0	10,880
119+00	11900.00	50.00	94.93	0.00	176	0	11,056	0	0	11,056
119+50	11950.00	50.00	93.92	0.00	175	0	11,231	0	0	11,231
120+00	12000.00	50.00	93.87	0.00	174	0	11,405	0	0	11,405
120+50	12050.00	50.00	93.63	0.00	174	0	11,579	0	0	11,579
121+00	12100.00	50.00	92.96	0.00	173	0	11,752	0	0	11,752
121+50	12150.00	50.00	92.65	0.00	172	0	11,924	0	0	11,924
122+00	12200.00	50.00	92.68	0.00	172	0	12,096	0	0	12,096
122+50	12250.00	50.00	91.41	0.00	170	0	12,266	0	0	12,266
123+00	12300.00	50.00	90.67	0.00	169	0	12,435	0	0	12,435
123+50	12350.00	50.00	92.20	0.00	169	0	12,604	0	0	12,604
124+00	12400.00	50.00	91.44	0.00	170	0	12,774	0	0	12,774
124+50	12450.00	50.00	84.36	0.00	163	0	12,937	0	0	12,937
125+00	12500.00	50.00	83.03	0.00	155	0	13,092	0	0	13,092
125+50	12550.00	50.00	80.49	0.00	151	0	13,243	0	0	13,243
126+00	12600.00	50.00	81.44	0.00	150	0	13,393	0	0	13,393
126+50	12650.00	50.00	80.17	0.00	150	0	13,543	0	0	13,543
127+00	12700.00	50.00	76.53	0.00	145	0	13,688	0	0	13,688
127+50	12750.00	50.00	78.14	0.00	143	0	13,831	0	0	13,831
128+00	12800.00	50.00	78.58	0.00	145	0	13,976	0	0	13,976
128+50	12850.00	50.00	77.13	0.00	144	0	14,120	0	0	14,120
129+00	12900.00	50.00	81.25	0.00	147	0	14,267	0	0	14,267
129+50	12950.00	50.00	80.91	0.00	150	0	14,417	0	0	14,417
130+00	13000.00	50.00	78.16	0.00	147	0	14,564	0	0	14,564
130+50	13050.00	50.00	78.47	0.00	145	0	14,709	0	0	14,709
131+00	13100.00	50.00	77.97	0.00	145	0	14,854	0	0	14,854
131+50	13150.00	50.00	78.83	0.00	145	0	14,999	0	0	14,999

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41/43/894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
132+00	13200.00	50.00	79.82	0.00	147	0	15,146	0	0	15,146
132+50	13250.00	50.00	79.74	0.00	148	0	15,294	0	0	15,294
133+00	13300.00	50.00	79.35	0.00	147	0	15,441	0	0	15,441
133+50	13350.00	50.00	78.18	0.00	146	0	15,587	0	0	15,587
134+00	13400.00	50.00	77.51	0.00	144	0	15,731	0	0	15,731
134+50	13450.00	50.00	78.88	0.00	145	0	15,876	0	0	15,876
135+00	13500.00	50.00	80.76	0.00	148	0	16,024	0	0	16,024
135+50	13550.00	50.00	80.32	0.00	149	0	16,173	0	0	16,173
136+00	13600.00	50.00	76.67	0.00	145	0	16,318	0	0	16,318
136+50	13650.00	50.00	82.49	0.00	147	0	16,465	0	0	16,465
137+00	13700.00	50.00	78.96	0.00	149	0	16,614	0	0	16,614
137+50	13750.00	50.00	82.58	0.00	150	0	16,764	0	0	16,764
138+00	13800.00	50.00	88.36	0.00	158	0	16,922	0	0	16,922
138+50	13850.00	50.00	83.49	0.00	159	0	17,081	0	0	17,081
139+00	13900.00	50.00	81.50	0.00	153	0	17,234	0	0	17,234
139+50	13950.00	50.00	80.57	0.00	150	0	17,384	0	0	17,384
140+00	14000.00	50.00	82.23	0.00	151	0	17,535	0	0	17,535
140+50	14050.00	50.00	83.32	0.00	153	0	17,688	0	0	17,688
141+00	14100.00	50.00	85.90	0.00	157	0	17,845	0	0	17,845
141+50	14150.00	50.00	82.14	0.00	156	0	18,001	0	0	18,001
142+00	14200.00	50.00	83.14	0.00	153	0	18,154	0	0	18,154
142+50	14250.00	50.00	80.58	0.00	152	0	18,306	0	0	18,306
143+00	14300.00	50.00	81.38	0.00	150	0	18,456	0	0	18,456
143+50	14350.00	50.00	82.95	0.00	152	0	18,608	0	0	18,608
144+00	14400.00	50.00	79.75	0.00	151	0	18,759	0	0	18,759
144+50	14450.00	50.00	81.16	0.00	149	0	18,908	0	0	18,908
145+00	14500.00	50.00	81.95	0.00	151	0	19,059	0	0	19,059
145+50	14550.00	50.00	79.23	0.00	149	0	19,208	0	0	19,208
146+00	14600.00	50.00	80.70	0.00	148	0	19,356	0	0	19,356
146+50	14650.00	50.00	80.34	0.00	149	0	19,505	0	0	19,505
147+00	14700.00	50.00	81.80	0.00	150	0	19,655	0	0	19,655
147+50	14750.00	50.00	80.73	0.00	150	0	19,805	0	0	19,805
148+00	14800.00	50.00	81.27	0.00	150	0	19,955	0	0	19,955
148+50	14850.00	50.00	82.34	0.00	151	0	20,106	0	0	20,106
149+00	14900.00	50.00	78.25	0.00	149	0	20,255	0	0	20,255
149+50	14950.00	50.00	79.05	0.00	146	0	20,401	0	0	20,401
150+00	15000.00	50.00	80.31	0.00	148	0	20,549	0	0	20,549
150+50	15050.00	50.00	82.87	0.00	151	0	20,700	0	0	20,700
151+00	15100.00	50.00	77.15	0.00	148	0	20,848	0	0	20,848
151+50	15150.00	50.00	75.25	0.00	141	0	20,989	0	0	20,989
152+00	15200.00	50.00	76.62	0.00	141	0	21,130	0	0	21,130
152+50	15250.00	50.00	79.76	0.00	145	0	21,275	0	0	21,275
153+00	15300.00	50.00	80.68	0.00	149	0	21,424	0	0	21,424
153+50	15350.00	50.00	78.38	0.00	147	0	21,571	0	0	21,571
154+00	15400.00	50.00	78.80	0.00	146	0	21,717	0	0	21,717
154+50	15450.00	50.00	76.42	0.00	144	0	21,861	0	0	21,861
155+00	15500.00	50.00	79.35	0.00	144	0	22,005	0	0	22,005
155+50	15550.00	50.00	76.14	0.00	144	0	22,149	0	0	22,149
156+00	15600.00	50.00	75.49	0.00	140	0	22,289	0	0	22,289
156+50	15650.00	50.00	78.82	0.00	143	0	22,432	0	0	22,432

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41/43/894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
157+00	15700.00	50.00	79.13	0.00	146	0	22,578	0	0	22,578
157+50	15750.00	50.00	79.60	0.00	147	0	22,725	0	0	22,725
158+00	15800.00	50.00	78.44	0.00	146	0	22,871	0	0	22,871
158+50	15850.00	50.00	76.43	0.00	143	0	23,014	0	0	23,014
159+00	15900.00	50.00	77.91	0.00	143	0	23,157	0	0	23,157
159+50	15950.00	50.00	78.27	0.00	145	0	23,302	0	0	23,302
160+00	16000.00	50.00	79.27	0.00	146	0	23,448	0	0	23,448
160+50	16050.00	50.00	76.93	0.00	145	0	23,593	0	0	23,593
161+00	16100.00	50.00	74.43	0.00	140	0	23,733	0	0	23,733
161+50	16150.00	50.00	76.56	0.00	140	0	23,873	0	0	23,873
162+00	16200.00	50.00	76.94	0.00	142	0	24,015	0	0	24,015
162+50	16250.00	50.00	76.25	0.00	142	0	24,157	0	0	24,157
163+00	16300.00	50.00	78.45	0.00	143	0	24,300	0	0	24,300
163+50	16350.00	50.00	75.58	0.00	143	0	24,443	0	0	24,443
164+00	16400.00	50.00	77.78	0.00	142	0	24,585	0	0	24,585
164+50	16450.00	50.00	76.93	0.00	143	0	24,728	0	0	24,728
165+00	16500.00	50.00	77.82	0.00	143	0	24,871	0	0	24,871
165+50	16550.00	50.00	74.94	0.00	141	0	25,012	0	0	25,012
166+00	16600.00	50.00	73.63	0.00	138	0	25,150	0	0	25,150
166+50	16650.00	50.00	74.79	0.00	137	0	25,287	0	0	25,287
167+00	16700.00	50.00	76.20	0.00	140	0	25,427	0	0	25,427
167+50	16750.00	50.00	77.75	0.00	143	0	25,570	0	0	25,570
168+00	16800.00	50.00	74.11	0.00	141	0	25,711	0	0	25,711
168+50	16850.00	50.00	74.08	0.00	137	0	25,848	0	0	25,848
169+00	16900.00	50.00	76.75	0.00	140	0	25,988	0	0	25,988
169+50	16950.00	50.00	77.79	0.00	143	0	26,131	0	0	26,131
170+00	17000.00	50.00	77.04	0.00	143	0	26,274	0	0	26,274
170+50	17050.00	50.00	80.15	0.00	146	0	26,420	0	0	26,420
171+00	17100.00	50.00	77.00	0.00	146	0	26,566	0	0	26,566
171+50	17150.00	50.00	79.10	0.00	145	0	26,711	0	0	26,711
172+00	17200.00	50.00	78.27	0.00	146	0	26,857	0	0	26,857
172+50	17250.00	50.00	77.72	0.00	144	0	27,001	0	0	27,001
173+00	17300.00	50.00	79.19	0.00	145	0	27,146	0	0	27,146
173+50	17350.00	50.00	76.84	0.00	144	0	27,290	0	0	27,290
174+00	17400.00	50.00	78.11	0.00	143	0	27,433	0	0	27,433
174+50	17450.00	50.00	77.76	0.00	144	0	27,577	0	0	27,577
175+00	17500.00	50.00	82.13	0.00	148	0	27,725	0	0	27,725
175+50	17550.00	50.00	81.04	0.00	151	0	27,876	0	0	27,876
176+00	17600.00	50.00	81.31	0.00	150	0	28,026	0	0	28,026
176+50	17650.00	50.00	80.20	0.00	150	0	28,176	0	0	28,176
177+00	17700.00	50.00	83.28	0.00	151	0	28,327	0	0	28,327
177+50	17750.00	50.00	78.98	0.00	150	0	28,477	0	0	28,477
178+00	17800.00	50.00	80.55	0.00	148	0	28,625	0	0	28,625
178+50	17850.00	50.00	79.81	0.00	148	0	28,773	0	0	28,773
179+00	17900.00	50.00	80.60	0.00	149	0	28,922	0	0	28,922
179+50	17950.00	50.00	80.41	0.00	149	0	29,071	0	0	29,071
180+00	18000.00	50.00	81.19	0.00	150	0	29,221	0	0	29,221
180+50	18050.00	50.00	78.34	0.00	148	0	29,369	0	0	29,369
181+00	18100.00	50.00	79.10	0.00	146	0	29,515	0	0	29,515
181+50	18150.00	50.00	77.48	0.00	145	0	29,660	0	0	29,660

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41/43/894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
182+00	18200.00	50.00	77.20	0.00	143	0	29,803	0	0	29,803
182+50	18250.00	50.00	74.63	0.00	141	0	29,944	0	0	29,944
183+00	18300.00	50.00	77.30	0.00	141	0	30,085	0	0	30,085
183+50	18350.00	50.00	78.18	0.00	144	0	30,229	0	0	30,229
184+00	18400.00	50.00	77.69	0.00	144	0	30,373	0	0	30,373
184+50	18450.00	50.00	77.50	0.00	144	0	30,517	0	0	30,517
185+00	18500.00	50.00	76.11	0.00	142	0	30,659	0	0	30,659
185+50	18550.00	50.00	74.31	0.00	139	0	30,798	0	0	30,798
186+00	18600.00	50.00	75.22	0.00	138	0	30,936	0	0	30,936
186+50	18650.00	50.00	74.14	0.00	138	0	31,074	0	0	31,074
187+00	18700.00	50.00	76.00	0.00	139	0	31,213	0	0	31,213
187+50	18750.00	50.00	76.48	0.00	141	0	31,354	0	0	31,354
188+00	18800.00	50.00	79.29	0.00	144	0	31,498	0	0	31,498
188+50	18850.00	50.00	78.43	0.00	146	0	31,644	0	0	31,644
189+00	18900.00	50.00	78.55	0.00	145	0	31,789	0	0	31,789
189+50	18950.00	50.00	77.82	0.00	145	0	31,934	0	0	31,934
190+00	19000.00	50.00	80.32	0.00	146	0	32,080	0	0	32,080
190+50	19050.00	50.00	81.54	0.00	150	0	32,230	0	0	32,230
191+00	19100.00	50.00	78.53	0.00	148	0	32,378	0	0	32,378
191+50	19150.00	50.00	80.37	0.00	147	0	32,525	0	0	32,525
192+00	19200.00	50.00	80.19	0.00	149	0	32,674	0	0	32,674
192+50	19250.00	50.00	80.24	0.00	149	0	32,823	0	0	32,823
193+00	19300.00	50.00	78.25	0.00	147	0	32,970	0	0	32,970
193+50	19350.00	50.00	79.76	0.00	146	0	33,116	0	0	33,116
194+00	19400.00	50.00	79.26	0.00	147	0	33,263	0	0	33,263
194+50	19450.00	50.00	80.35	0.00	148	0	33,411	0	0	33,411
195+00	19500.00	50.00	79.44	0.00	148	0	33,559	0	0	33,559
195+50	19550.00	50.00	79.73	0.00	147	0	33,706	0	0	33,706
196+00	19600.00	50.00	77.38	0.00	145	0	33,851	0	0	33,851
196+50	19650.00	50.00	76.71	0.00	143	0	33,994	0	0	33,994
197+00	19700.00	50.00	77.18	0.00	142	0	34,136	0	0	34,136
197+50	19750.00	50.00	78.86	0.00	144	0	34,280	0	0	34,280
198+00	19800.00	50.00	79.22	0.00	146	0	34,426	0	0	34,426
198+50	19850.00	50.00	78.37	0.00	146	0	34,572	0	0	34,572
199+00	19900.00	50.00	79.23	0.00	146	0	34,718	0	0	34,718
199+50	19950.00	50.00	78.80	0.00	146	0	34,864	0	0	34,864
200+00	20000.00	50.00	77.15	0.00	144	0	35,008	0	0	35,008
200+50	20050.00	50.00	74.62	0.00	141	0	35,149	0	0	35,149
201+00	20100.00	50.00	76.86	0.00	140	0	35,289	0	0	35,289
201+50	20150.00	50.00	75.83	0.00	141	0	35,430	0	0	35,430
202+00	20200.00	50.00	81.13	0.00	145	0	35,575	0	0	35,575
202+06.41 BK	20206.41	6.41	81.13	0.00	19	0	35,594	0	0	35,594
203+48.83 AH	20348.83	0.00	76.96	0.00	0	0	35,594	0	0	35,594
204+00	20400.00	51.17	76.96	0.00	146	0	35,740	0	0	35,740
204+50	20450.00	50.00	76.30	0.00	142	0	35,882	0	0	35,882
205+00	20500.00	50.00	71.82	0.00	137	0	36,019	0	0	36,019
205+50	20550.00	50.00	75.07	0.00	136	0	36,155	0	0	36,155
206+00	20600.00	50.00	74.85	0.00	139	0	36,294	0	0	36,294
206+50	20650.00	50.00	79.39	0.00	143	0	36,437	0	0	36,437
207+00	20700.00	50.00	77.58	0.00	145	0	36,582	0	0	36,582

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41/43/894 (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
207+50	20750.00	50.00	79.00	0.00	145	0	36,727	0	0	36,727
208+00	20800.00	50.00	77.59	0.00	145	0	36,872	0	0	36,872
208+50	20850.00	50.00	76.97	0.00	143	0	37,015	0	0	37,015
209+00	20900.00	50.00	76.77	0.00	142	0	37,157	0	0	37,157
209+50	20950.00	50.00	79.02	0.00	144	0	37,301	0	0	37,301
210+00	21000.00	50.00	80.02	0.00	147	0	37,448	0	0	37,448
210+50	21050.00	50.00	81.32	0.00	149	0	37,597	0	0	37,597
211+00	21100.00	50.00	80.28	0.00	150	0	37,747	0	0	37,747
211+50	21150.00	50.00	78.21	0.00	147	0	37,894	0	0	37,894
212+00	21200.00	50.00	79.28	0.00	146	0	38,040	0	0	38,040
212+50	21250.00	50.00	82.73	0.00	150	0	38,190	0	0	38,190
213+00	21300.00	50.00	86.34	0.00	157	0	38,347	0	0	38,347
213+50	21350.00	50.00	88.76	0.00	162	0	38,509	0	0	38,509
214+00	21400.00	50.00	91.84	0.00	167	0	38,676	0	0	38,676
214+50	21450.00	50.00	94.62	0.00	173	0	38,849	0	0	38,849
215+00	21500.00	50.00	96.68	0.00	177	0	39,026	0	0	39,026
215+50	21550.00	50.00	96.18	0.00	179	0	39,205	0	0	39,205
216+00	21600.00	50.00	93.36	0.00	175	0	39,380	0	0	39,380
216+50	21650.00	50.00	94.20	0.00	174	0	39,554	0	0	39,554
217+00	21700.00	50.00	93.78	0.00	174	0	39,728	0	0	39,728
217+50	21750.00	50.00	102.49	0.00	182	0	39,910	0	0	39,910
218+00	21800.00	50.00	94.71	0.00	183	0	40,093	0	0	40,093
218+50	21850.00	50.00	94.49	0.00	175	0	40,268	0	0	40,268
219+00	21900.00	50.00	94.80	0.00	175	0	40,443	0	0	40,443
219+50	21950.00	50.00	94.97	0.00	176	0	40,619	0	0	40,619
220+00	22000.00	50.00	95.16	0.00	176	0	40,795	0	0	40,795
220+50	22050.00	50.00	96.09	0.00	177	0	40,972	0	0	40,972
221+00	22100.00	50.00	95.23	0.00	177	0	41,149	0	0	41,149
221+50	22150.00	50.00	92.82	0.00	174	0	41,323	0	0	41,323
222+00	22200.00	50.00	91.06	0.00	170	0	41,493	0	0	41,493
222+50	22250.00	50.00	87.66	0.00	165	0	41,658	0	0	41,658
223+00	22300.00	50.00	84.78	0.00	160	0	41,818	0	0	41,818
223+50	22350.00	50.00	82.66	0.00	155	0	41,973	0	0	41,973
224+00	22400.00	50.00	83.18	0.00	154	0	42,127	0	0	42,127
224+50	22450.00	50.00	78.88	0.00	150	0	42,277	0	0	42,277
225+00	22500.00	50.00	79.55	0.00	147	0	42,424	0	0	42,424
225+50	22550.00	50.00	74.97	0.00	143	0	42,567	0	0	42,567
226+00	22600.00	50.00	73.20	0.00	137	0	42,704	0	0	42,704
226+50	22650.00	50.00	75.38	0.00	138	0	42,842	0	0	42,842
227+00	22700.00	50.00	76.30	0.00	140	0	42,982	0	0	42,982
227+50	22750.00	50.00	82.86	0.00	147	0	43,129	0	0	43,129
228+00	22800.00	50.00	81.01	0.00	152	0	43,281	0	0	43,281
228+50	22850.00	50.00	82.96	0.00	152	0	43,433	0	0	43,433
229+00	22900.00	50.00	83.90	0.00	155	0	43,588	0	0	43,588
229+47.79 BK	22947.79	47.79	83.05	0.00	148	0	43,736	0	0	43,736

COLUMN TOTALS	43,736	0

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 2 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EWE')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
229+47.79 AH	22947.79	0.00	41.07	0.11	0	0	0	0	0	0
230+00	23000.00	52.21	40.31	0.30	79	0	79	0	0	79
230+50	23050.00	50.00	47.13	0.00	81	0	160	0	0	160
231+00	23100.00	50.00	44.12	0.39	84	0	244	0	0	244
231+50	23150.00	50.00	44.32	0.00	82	0	326	0	0	326
232+00	23200.00	50.00	40.29	0.20	78	0	404	0	0	404
232+50	23250.00	50.00	37.51	1.11	72	1	476	1	0	475
233+00	23300.00	50.00	37.42	0.85	69	2	545	4	0	541
233+50	23350.00	50.00	39.47	0.80	71	2	616	6	0	610
234+00	23400.00	50.00	39.82	0.49	73	1	689	8	0	682
234+50	23450.00	50.00	44.22	0.00	78	0	767	8	0	760
235+00	23500.00	50.00	44.30	0.00	82	0	849	8	0	842
235+50	23550.00	50.00	47.25	0.01	85	0	934	8	0	927
236+00	23600.00	50.00	45.55	0.00	86	0	1,020	8	0	1,013
236+50	23650.00	50.00	45.53	0.01	84	0	1,104	8	0	1,097
237+00	23700.00	50.00	44.94	0.09	84	0	1,188	8	0	1,181
237+50	23750.00	50.00	44.64	1.28	83	1	1,271	9	0	1,262
238+00	23800.00	50.00	44.02	1.01	82	2	1,353	11	0	1,342
238+50	23850.00	50.00	43.87	1.16	81	2	1,434	14	0	1,420
239+00	23900.00	50.00	41.99	2.88	79	4	1,513	19	0	1,494
239+50	23950.00	50.00	43.08	1.22	79	4	1,592	24	0	1,568
240+00	24000.00	50.00	43.51	0.84	80	2	1,672	26	0	1,646
240+50	24050.00	50.00	43.28	0.91	80	2	1,752	29	0	1,723
241+00	24100.00	50.00	43.63	1.48	80	2	1,832	31	0	1,801
241+50	24150.00	50.00	43.12	1.27	80	3	1,912	35	0	1,877
242+00	24200.00	50.00	41.65	3.30	78	4	1,990	40	0	1,950
242+50	24250.00	50.00	42.97	1.51	78	4	2,068	45	0	2,023
243+00	24300.00	50.00	39.40	3.52	76	5	2,144	51	0	2,093
243+50	24350.00	50.00	38.84	4.91	72	8	2,216	61	0	2,155

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

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PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 764 | E

SION 2 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EWE')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
44+00	24400.00	50.00	39.74	2.19	73	7	2,289	70	0	2,219
44+50	24450.00	50.00	40.23	1.74	74	4	2,363	75	0	2,288
45+00	24500.00	50.00	36.98	9.88	71	21	2,434	89	0	2,345
45+50	24550.00	50.00	36.67	5.83	68	15	2,502	108	0	2,395
46+00	24600.00	50.00	33.89	4.24	65	9	2,567	119	0	2,448
46+50	24650.00	50.00	36.37	2.71	65	6	2,632	126	0	2,506
47+00	24700.00	50.00	39.14	1.50	70	4	2,702	131	0	2,571
47+50	24750.00	50.00	41.72	0.70	75	2	2,777	134	0	2,643
48+00	24800.00	50.00	40.99	0.49	77	1	2,854	135	0	2,719
48+50	24850.00	50.00	42.51	0.41	77	1	2,931	136	0	2,795
49+00	24900.00	50.00	40.37	0.76	77	1	3,008	138	0	2,871
49+50	24950.00	50.00	41.62	0.38	76	1	3,084	139	0	2,945
50+00	25000.00	50.00	42.25	0.30	78	1	3,162	140	0	3,022
50+50	25050.00	50.00	43.34	0.41	79	1	3,241	141	0	3,100
51+00	25100.00	50.00	40.41	0.28	78	1	3,319	143	0	3,177
51+50	25150.00	50.00	41.08	0.07	75	0	3,394	143	0	3,252
52+00	25200.00	50.00	40.15	0.01	75	0	3,469	143	0	3,327
52+50	25250.00	50.00	41.05	0.00	75	0	3,544	143	0	3,402
53+00	25300.00	50.00	39.69	0.00	75	0	3,619	143	0	3,477
53+50	25350.00	50.00	41.32	0.00	75	0	3,694	143	0	3,552
54+00	25400.00	50.00	45.35	12.09	80	11	3,774	156	0	3,618
54+50	25450.00	50.00	46.80	2.98	85	14	3,859	174	0	3,685
55+00	25500.00	50.00	48.28	0.42	88	3	3,947	178	0	3,770
55+50	25550.00	50.00	50.73	0.01	92	0	4,039	178	0	3,862
56+00	25600.00	50.00	48.41	0.00	92	0	4,131	178	0	3,954
56+45.40 BK	25645.40	45.40	44.89	0.00	78	0	4,209	178	0	4,032

COLUMN TOTALS	4,209	142

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

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(CONTINUED ON THE NEXT SHEET)

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	EARTHWORK	SHEET 765	E

DIVISION 2 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EWW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
229+47.79 AH	22947.79	0.00	37.24	0.00	0	0	0	0	0	0
230+00	23000.00	52.21	39.54	0.00	74	0	74	0	0	74
230+50	23050.00	50.00	32.47	1.17	67	1	141	1	0	140
231+00	23100.00	50.00	28.98	0.48	57	2	198	4	0	194
231+50	23150.00	50.00	27.56	1.69	52	2	250	6	0	244
232+00	23200.00	50.00	26.50	2.79	50	4	300	11	0	289
232+50	23250.00	50.00	28.14	2.63	51	5	351	18	0	334
233+00	23300.00	50.00	28.98	2.52	53	5	404	24	0	380
233+50	23350.00	50.00	27.99	5.41	53	7	457	33	0	425
234+00	23400.00	50.00	27.99	3.25	52	8	509	43	0	467
234+50	23450.00	50.00	28.23	4.09	52	7	561	51	0	510
235+00	23500.00	50.00	27.41	4.69	52	8	613	61	0	552
235+50	23550.00	50.00	27.26	3.49	51	8	664	71	0	593
236+00	23600.00	50.00	27.28	4.38	51	7	715	80	0	635
236+50	23650.00	50.00	26.91	3.27	50	7	765	89	0	676
237+00	23700.00	50.00	28.79	2.67	52	5	817	95	0	722
237+50	23750.00	50.00	28.53	1.61	53	4	870	100	0	770
238+00	23800.00	50.00	25.88	0.74	50	2	920	103	0	818
238+50	23850.00	50.00	24.42	0.08	47	1	967	104	0	863
239+00	23900.00	50.00	24.82	0.15	46	0	1,013	104	0	909
239+50	23950.00	50.00	25.65	0.00	47	0	1,060	104	0	956
240+00	24000.00	50.00	23.31	0.51	45	0	1,105	104	0	1,001
240+50	24050.00	50.00	23.46	1.01	43	1	1,148	105	0	1,043
241+00	24100.00	50.00	26.32	0.00	46	1	1,194	106	0	1,088
241+29.92 BK	24129.92	29.92	26.32	0.00	29	0	1,223	106	0	1,117

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

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PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 766 | E

DIVISION 2 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EWW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
242+85.28 AH	24285.28	0.00	23.84	0.00	0	0	1,223	106	0	1,117
243+50	24350.00	64.72	23.84	0.00	57	0	1,280	106	0	1,174
244+00	24400.00	50.00	23.23	0.00	44	0	1,324	106	0	1,218
244+50	24450.00	50.00	24.51	0.00	44	0	1,368	106	0	1,262
245+00	24500.00	50.00	27.66	0.00	48	0	1,416	106	0	1,310
245+50	24550.00	50.00	29.56	0.00	53	0	1,469	106	0	1,363
246+00	24600.00	50.00	31.98	0.00	57	0	1,526	106	0	1,420
246+50	24650.00	50.00	32.51	0.00	60	0	1,586	106	0	1,480
247+00	24700.00	50.00	34.64	0.00	62	0	1,648	106	0	1,542
247+50	24750.00	50.00	33.08	0.00	63	0	1,711	106	0	1,605
248+00	24800.00	50.00	32.10	0.00	60	0	1,771	106	0	1,665
248+50	24850.00	50.00	32.63	0.00	60	0	1,831	106	0	1,725
249+00	24900.00	50.00	33.80	0.00	62	0	1,893	106	0	1,787
249+50	24950.00	50.00	30.99	0.00	60	0	1,953	106	0	1,847
250+00	25000.00	50.00	30.00	3.20	56	3	2,009	110	0	1,899
250+50	25050.00	50.00	31.94	0.42	57	3	2,066	114	0	1,952
251+00	25100.00	50.00	31.92	0.15	59	1	2,125	115	0	2,010
251+50	25150.00	50.00	30.77	0.46	58	1	2,183	116	0	2,067
252+00	25200.00	50.00	32.70	0.69	59	1	2,242	118	0	2,125
252+50	25250.00	50.00	30.32	9.98	58	10	2,300	130	0	2,170
253+00	25300.00	50.00	30.10	13.17	56	21	2,356	156	0	2,200
253+50	25350.00	50.00	29.82	0.84	55	13	2,411	173	0	2,239
254+00	25400.00	50.00	30.64	0.63	56	1	2,467	174	0	2,293
254+50	25450.00	50.00	28.82	0.44	55	1	2,522	175	0	2,347
255+00	25500.00	50.00	26.63	0.03	51	0	2,573	175	0	2,398
255+50	25550.00	50.00	26.31	0.00	49	0	2,622	175	0	2,447
256+00	25605.93	55.93	22.23	0.45	50	0	2,672	175	0	2,497
256+36.78 BK	25636.78	30.85	21.78	0.06	25	0	2,697	175	0	2,522
			COLUMN TOTALS		2,697	140				

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
83+10.49 AH	8310.49	0.00	13.75	0.07	0	0	0	0	0	0
83+50	8350.00	39.51	13.75	0.07	20	0	20	0	0	20
84+00	8400.00	50.00	13.55	0.14	25	0	45	0	0	45
84+50	8450.00	50.00	13.55	0.13	25	0	70	0	0	70
85+00	8500.00	50.00	13.23	0.16	25	0	95	0	0	95
85+50	8550.00	50.00	12.93	0.13	24	0	119	0	0	119
86+00	8600.00	50.00	12.99	0.19	24	0	143	0	0	143
86+50	8650.00	50.00	13.09	0.14	24	0	167	0	0	167
87+00	8700.00	50.00	13.14	0.07	24	0	191	0	0	191
87+50	8750.00	50.00	12.93	0.18	24	0	215	0	0	215
88+00	8800.00	50.00	13.03	0.24	24	0	239	0	0	239
88+50	8850.00	50.00	13.00	0.38	24	1	263	1	0	262
88+91.23 BK	8891.23	41.23	13.00	0.38	20	1	283	3	0	281
88+91.23 AH	8891.23	0.00	31.57	0.33	0	0	283	3	0	281
89+00	8900.00	8.77	31.57	0.33	7	0	290	3	0	288
89+50	8950.00	50.00	33.19	0.52	60	1	350	4	0	346
90+00	9000.00	50.00	33.70	0.17	62	1	412	5	0	407
90+50	9050.00	50.00	32.95	0.30	62	0	474	5	0	469
91+00	9100.00	50.00	31.81	0.46	60	1	534	6	0	528
91+50	9150.00	50.00	31.96	0.53	59	1	593	8	0	586
92+00	9200.00	50.00	31.25	0.61	59	1	652	9	0	643
92+50	9250.00	50.00	31.33	0.63	58	1	710	10	0	700
93+00	9300.00	50.00	37.13	3.13	63	3	773	14	0	759
93+50	9350.00	50.00	36.77	3.71	68	6	841	21	0	820
94+00	9400.00	50.00	35.96	4.50	67	8	908	31	0	877
94+50	9450.00	50.00	35.35	3.68	66	8	974	41	0	933
95+00	9500.00	50.00	40.47	0.30	70	4	1,044	46	0	998
95+21.14 BK	9521.14	21.14	40.47	0.30	32	0	1,076	46	0	1,030
97+10.54 AH	9710.54	0.00	30.95	0.15	0	0	1,076	46	0	1,030
97+50	9750.00	39.46	30.95	0.15	45	0	1,121	46	0	1,075
98+00	9800.00	50.00	31.86	0.02	58	0	1,134	46	0	1,088
98+50	9850.00	50.00	31.91	0.10	59	0	1,193	46	0	1,147
99+00	9900.00	50.00	31.63	0.17	59	0	1,252	46	0	1,206
99+50	9950.00	50.00	31.65	0.13	59	0	1,311	46	0	1,265
100+00	10000.00	50.00	31.94	0.14	59	0	1,370	46	0	1,324
100+50	10050.00	50.00	32.45	0.17	60	0	1,430	46	0	1,384
101+00	10100.00	50.00	31.85	0.24	60	0	1,490	46	0	1,444
101+50	10150.00	50.00	31.39	0.27	59	0	1,549	46	0	1,503
102+00	10200.00	50.00	31.67	0.11	58	0	1,607	46	0	1,561
102+50	10250.00	50.00	31.32	0.14	58	0	1,665	46	0	1,619
103+00	10300.00	50.00	32.40	0.09	59	0	1,724	46	0	1,678
103+50	10350.00	50.00	31.39	0.14	59	0	1,783	46	0	1,737
104+00	10400.00	50.00	30.87	0.14	58	0	1,841	46	0	1,795
104+50	10450.00	50.00	31.65	0.17	58	0	1,899	46	0	1,853
105+00	10500.00	50.00	31.25	0.04	58	0	1,957	46	0	1,911
105+50	10550.00	50.00	32.27	0.01	59	0	2,016	46	0	1,970
106+00	10600.00	50.00	30.97	0.08	59	0	2,075	46	0	2,029
106+50	10650.00	50.00	31.88	0.02	58	0	2,133	46	0	2,087
107+00	10700.00	50.00	32.89	0.02	60	0	2,193	46	0	2,147
107+50	10750.00	50.00	32.99	0.01	61	0	2,254	46	0	2,208

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

9

9

PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 768 | E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090101-EW.DWG
LAYOUT NAME - 11

PLOT DATE : 11/1/2022 4:10 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
108+00	10800.00	50.00	32.48	0.01	61	0	2,315	46	0	2,269
108+50	10850.00	50.00	31.73	0.18	59	0	2,374	46	0	2,328
109+00	10900.00	50.00	32.44	0.14	59	0	2,433	46	0	2,387
109+50	10950.00	50.00	30.82	0.54	59	1	2,492	48	0	2,445
110+00	11000.00	50.00	36.87	0.11	63	1	2,555	49	0	2,506
110+50	11050.00	50.00	36.91	0.01	68	0	2,623	49	0	2,574
111+00	11100.00	50.00	40.48	0.10	72	0	2,695	49	0	2,646
111+50	11150.00	50.00	35.47	0.16	70	0	2,765	49	0	2,716
112+00	11200.00	50.00	31.38	2.91	62	3	2,827	53	0	2,775
112+50	11250.00	50.00	31.13	2.64	58	5	2,885	59	0	2,826
113+00	11300.00	50.00	31.08	1.66	58	4	2,943	64	0	2,879
113+50	11350.00	50.00	29.09	0.52	56	2	2,999	66	0	2,933
114+00	11400.00	50.00	31.73	0.01	56	0	3,055	66	0	2,989
114+50	11450.00	50.00	31.68	0.00	59	0	3,114	66	0	3,048
115+00	11500.00	50.00	29.36	0.07	57	0	3,171	66	0	3,105
115+50	11550.00	50.00	28.12	0.18	53	0	3,224	66	0	3,158
115+95.86 BK	11595.86	45.86	28.12	0.18	48	0	3,272	66	0	3,206
115+95.86 AH	11595.86	0.00	13.06	0.25	0	0	3,272	66	0	3,206
116+00	11600.00	4.14	13.06	0.25	2	0	3,274	66	0	3,208
116+50	11650.00	50.00	13.09	0.33	24	1	3,298	68	0	3,231
117+00	11700.00	50.00	13.17	0.35	24	1	3,322	69	0	3,253
117+50	11750.00	50.00	13.23	0.25	24	1	3,346	70	0	3,276
118+00	11800.00	50.00	13.53	0.07	25	0	3,371	70	0	3,301
118+50	11850.00	50.00	13.68	0.04	25	0	3,396	70	0	3,326
119+00	11900.00	50.00	12.26	0.25	24	0	3,420	70	0	3,350
119+50	11950.00	50.00	12.33	0.43	23	1	3,443	71	0	3,372
120+00	12000.00	50.00	12.41	0.23	23	1	3,466	73	0	3,394
120+50	12050.00	50.00	16.69	0.04	27	0	3,493	73	0	3,421
120+68.92 BK	12068.92	18.92	16.69	0.04	12	0	3,505	73	0	3,433
120+68.92 AH	12068.92	0.00	32.34	3.70	0	0	3,505	73	0	3,433
121+00	12100.00	31.08	32.34	3.70	37	4	3,542	78	0	3,465
121+50	12150.00	50.00	35.29	0.36	63	4	3,605	83	0	3,523
122+00	12200.00	50.00	32.95	0.82	63	1	3,668	84	0	3,584
122+50	12250.00	50.00	32.93	0.73	61	1	3,729	85	0	3,644
123+00	12300.00	50.00	32.56	0.90	61	2	3,790	88	0	3,703
123+50	12350.00	50.00	34.61	0.00	62	1	3,852	89	0	3,763
124+00	12400.00	50.00	33.04	0.00	63	0	3,915	89	0	3,826
124+50	12450.00	50.00	31.55	0.02	60	0	3,975	89	0	3,886
125+00	12500.00	50.00	32.45	0.00	59	0	4,034	89	0	3,945
125+50	12550.00	50.00	34.10	0.00	62	0	4,096	89	0	4,007
126+00	12600.00	50.00	34.02	0.00	63	0	4,159	89	0	4,070
126+50	12650.00	50.00	33.06	0.00	62	0	4,221	89	0	4,132
127+00	12700.00	50.00	33.51	0.00	62	0	4,283	89	0	4,194
127+20.93 BK	12720.93	20.93	33.51	0.00	26	0	4,309	89	0	4,220
127+20.93 AH	12720.93	0.00	13.78	0.00	0	0	4,309	89	0	4,220
127+50	12750.00	29.07	13.78	0.00	15	0	4,324	89	0	4,235
128+00	12800.00	50.00	13.88	0.00	26	0	4,350	89	0	4,261
128+50	12850.00	50.00	13.92	0.00	26	0	4,376	89	0	4,287
129+00	12900.00	50.00	13.64	0.02	26	0	4,402	89	0	4,313
129+50	12950.00	50.00	13.84	0.00	25	0	4,427	89	0	4,338

tes:	
CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
130+00	13000.00	50.00	13.80	0.00	26	0	4,453	89	0	4,364
130+50	13050.00	50.00	14.02	0.00	26	0	4,479	89	0	4,390
131+00	13100.00	50.00	13.95	0.00	26	0	4,505	89	0	4,416
131+50	13150.00	50.00	14.24	0.00	26	0	4,531	89	0	4,442
132+00	13200.00	50.00	14.27	0.00	26	0	4,557	89	0	4,468
132+50	13250.00	50.00	14.24	0.00	26	0	4,583	89	0	4,494
133+00	13300.00	50.00	14.51	0.00	27	0	4,610	89	0	4,521
133+50	13350.00	50.00	13.68	0.00	26	0	4,636	89	0	4,547
134+00	13400.00	50.00	13.08	0.01	25	0	4,661	89	0	4,572
134+49.57 BK	13449.57	49.57	13.08	0.01	24	0	4,685	89	0	4,596
134+49.57 AH	13449.57	0.00	32.54	0.00	0	0	4,685	89	0	4,596
134+50	13450.00	0.43	32.54	0.00	1	0	4,686	89	0	4,597
135+00	13500.00	50.00	32.97	0.00	61	0	4,747	89	0	4,658
135+50	13550.00	50.00	32.78	0.00	61	0	4,808	89	0	4,719
136+00	13600.00	50.00	29.44	2.61	58	2	4,866	91	0	4,775
136+50	13650.00	50.00	29.15	7.18	54	9	4,920	103	0	4,818
137+00	13700.00	50.00	29.27	15.88	54	21	4,974	129	0	4,845
137+50	13750.00	50.00	30.24	30.14	55	43	5,029	183	0	4,847
138+00	13800.00	50.00	32.59	0.00	58	28	5,087	218	0	4,870
138+50	13850.00	50.00	31.82	0.07	60	0	5,147	218	0	4,930
139+00	13900.00	50.00	34.00	0.00	61	0	5,208	218	0	4,991
139+50	13950.00	50.00	32.83	0.00	62	0	5,270	218	0	5,053
140+00	14000.00	50.00	33.77	0.00	62	0	5,332	218	0	5,115
140+50	14050.00	50.00	33.26	0.00	62	0	5,394	218	0	5,177
141+00	14100.00	50.00	33.94	0.00	62	0	5,456	218	0	5,239
141+50	14150.00	50.00	32.63	0.00	62	0	5,518	218	0	5,301
142+00	14200.00	50.00	31.64	0.27	60	0	5,578	218	0	5,361
142+50	14250.00	50.00	32.28	0.05	59	0	5,637	218	0	5,420
143+00	14300.00	50.00	32.64	0.07	60	0	5,697	218	0	5,480
143+50	14350.00	50.00	32.95	0.04	61	0	5,758	218	0	5,541
144+00	14400.00	50.00	32.54	0.14	61	0	5,819	218	0	5,602
144+50	14450.00	50.00	31.87	0.05	60	0	5,879	218	0	5,662
145+00	14500.00	50.00	29.96	0.33	57	0	5,936	218	0	5,719
145+50	14550.00	50.00	32.48	0.09	58	0	5,994	218	0	5,777
146+00	14600.00	50.00	31.18	0.04	59	0	6,053	218	0	5,836
146+50	14650.00	50.00	32.45	0.00	59	0	6,112	218	0	5,895
147+00	14700.00	50.00	34.63	0.01	62	0	6,174	218	0	5,957
147+50	14750.00	50.00	32.09	0.27	62	0	6,236	218	0	6,019
148+00	14800.00	50.00	31.47	0.13	59	0	6,295	218	0	6,078
148+50	14850.00	50.00	32.07	0.27	59	0	6,354	218	0	6,137
149+00	14900.00	50.00	30.79	0.19	58	0	6,412	218	0	6,195
149+50	14950.00	50.00	34.28	0.00	60	0	6,472	218	0	6,255
150+00	15000.00	50.00	34.81	0.00	64	0	6,536	218	0	6,319
150+50	15050.00	50.00	35.57	0.01	65	0	6,601	218	0	6,384
151+00	15100.00	50.00	32.84	0.00	63	0	6,664	218	0	6,447
151+50	15150.00	50.00	33.41	0.00	61	0	6,725	218	0	6,508
152+00	15200.00	50.00	31.24	0.03	60	0	6,785	218	0	6,568
152+50	15250.00	50.00	31.31	0.03	58	0	6,843	218	0	6,626
153+00	15300.00	50.00	33.97	0.00	60	0	6,903	218	0	6,686
153+50	15350.00	50.00	32.51	0.00	62	0	6,965	218	0	6,748

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION		REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
				CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
								1.00	1.25	1.30	
						NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
154+00		15400.00	50.00	31.88	0.00	60	0	7,025	218	0	6,808
154+50		15450.00	50.00	32.48	0.00	60	0	7,085	218	0	6,868
155+00		15500.00	50.00	31.83	0.00	60	0	7,145	218	0	6,928
155+50		15550.00	50.00	33.33	0.00	60	0	7,205	218	0	6,988
156+00		15600.00	50.00	31.65	0.02	60	0	7,265	218	0	7,048
156+50		15650.00	50.00	32.56	0.00	59	0	7,324	218	0	7,107
157+00		15700.00	50.00	32.90	0.00	61	0	7,385	218	0	7,168
157+50		15750.00	50.00	33.10	0.00	61	0	7,446	218	0	7,229
158+00		15800.00	50.00	31.70	0.00	60	0	7,506	218	0	7,289
158+50		15850.00	50.00	32.12	0.00	59	0	7,565	218	0	7,348
159+00		15900.00	50.00	33.74	0.00	61	0	7,626	218	0	7,409
159+50		15950.00	50.00	34.55	0.01	63	0	7,689	218	0	7,472
160+00		16000.00	50.00	38.90	0.00	68	0	7,757	218	0	7,540
160+50		16050.00	50.00	43.23	0.00	76	0	7,833	218	0	7,616
161+00		16100.00	50.00	40.53	0.14	78	0	7,911	218	0	7,694
161+34.06	BK	16134.06	34.06	40.53	0.14	51	0	7,962	218	0	7,745
161+34.06	AH	16134.06	0.00	24.47	0.18	0	0	7,962	218	0	7,745
161+50		16150.00	15.94	24.47	0.18	14	0	7,976	218	0	7,759
162+00		16200.00	50.00	13.32	0.12	35	0	8,011	218	0	7,794
162+50		16250.00	50.00	13.30	0.09	25	0	8,036	218	0	7,819
163+00		16300.00	50.00	13.31	0.10	25	0	8,061	218	0	7,844
163+50		16350.00	50.00	13.33	0.06	25	0	8,086	218	0	7,869
164+00		16400.00	50.00	13.29	0.08	25	0	8,111	218	0	7,894
164+50		16450.00	50.00	13.33	0.07	25	0	8,136	218	0	7,919
165+00		16500.00	50.00	13.40	0.03	25	0	8,161	218	0	7,944
165+50		16550.00	50.00	13.37	0.05	25	0	8,186	218	0	7,969
166+00		16600.00	50.00	13.18	0.17	25	0	8,211	218	0	7,994
166+50		16650.00	50.00	13.46	0.06	25	0	8,236	218	0	8,019
167+00		16700.00	50.00	13.44	0.10	25	0	8,261	218	0	8,044
167+50		16750.00	50.00	13.44	0.07	25	0	8,286	218	0	8,069
168+00		16800.00	50.00	13.32	0.08	25	0	8,311	218	0	8,094
168+50		16850.00	50.00	13.34	0.05	25	0	8,336	218	0	8,119
169+00		16900.00	50.00	13.12	0.08	24	0	8,360	218	0	8,143
169+50		16950.00	50.00	13.12	0.16	24	0	8,384	218	0	8,167
169+64.51	BK	16964.51	14.51	13.12	0.16	7	0	8,391	218	0	8,174
169+64.51	AH	16964.51	0.00	31.78	0.00	0	0	8,391	218	0	8,174
170+00		17000.00	35.49	31.78	0.00	42	0	8,433	218	0	8,216
170+50		17050.00	50.00	31.24	0.02	58	0	8,491	218	0	8,274
171+00		17100.00	50.00	32.79	0.00	59	0	8,550	218	0	8,333
171+50		17150.00	50.00	31.94	0.00	60	0	8,610	218	0	8,393
172+00		17200.00	50.00	31.87	0.01	59	0	8,669	218	0	8,452
172+50		17250.00	50.00	32.16	0.10	59	0	8,728	218	0	8,511
173+00		17300.00	50.00	32.38	0.00	60	0	8,788	218	0	8,571
173+50		17350.00	50.00	32.95	0.04	60	0	8,848	218	0	8,631
174+00		17400.00	50.00	32.05	0.07	60	0	8,908	218	0	8,691
174+50		17450.00	50.00	30.92	0.73	58	1	8,966	219	0	8,747
175+00		17500.00	50.00	31.51	0.94	58	2	9,024	221	0	8,803
175+50		17550.00	50.00	32.83	0.43	60	1	9,084	223	0	8,862
176+00		17600.00	50.00	33.09	0.41	61	1	9,145	224	0	8,921

Notes:	
- CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
- EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
- MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
176+50	17650.00	50.00	32.56	0.60	61	1	9,206	225	0	8,981
177+00	17700.00	50.00	34.74	0.00	62	1	9,268	226	0	9,042
177+50	17750.00	50.00	33.08	0.00	63	0	9,331	226	0	9,105
178+00	17800.00	50.00	32.80	0.01	61	0	9,392	226	0	9,166
178+50	17850.00	50.00	33.96	0.00	62	0	9,454	226	0	9,228
179+00	17900.00	50.00	33.89	0.00	63	0	9,517	226	0	9,291
179+50	17950.00	50.00	32.57	0.00	62	0	9,579	226	0	9,353
180+00	18000.00	50.00	32.97	0.00	61	0	9,640	226	0	9,414
180+50	18050.00	50.00	32.69	0.00	61	0	9,701	226	0	9,475
181+00	18100.00	50.00	31.89	0.00	60	0	9,761	226	0	9,535
181+50	18150.00	50.00	31.31	0.02	59	0	9,820	226	0	9,594
181+80.39 BK	18180.39	30.39	31.31	0.02	35	0	9,855	226	0	9,629
181+80.39 AH	18180.39	0.00	13.23	0.02	0	0	9,855	226	0	9,629
182+00	18200.00	19.61	13.23	0.02	10	0	9,865	226	0	9,639
182+50	18250.00	50.00	13.42	0.00	25	0	9,890	226	0	9,664
183+00	18300.00	50.00	13.82	0.00	25	0	9,915	226	0	9,689
183+50	18350.00	50.00	13.92	0.00	26	0	9,941	226	0	9,715
184+00	18400.00	50.00	13.30	0.15	25	0	9,966	226	0	9,740
184+50	18450.00	50.00	13.15	0.35	24	0	9,990	226	0	9,764
185+00	18500.00	50.00	13.12	0.40	24	1	10,014	228	0	9,787
185+50	18550.00	50.00	13.26	0.16	24	1	10,038	229	0	9,809
186+00	18600.00	50.00	13.16	0.14	24	0	10,062	229	0	9,833
186+50	18650.00	50.00	12.95	0.30	24	0	10,086	229	0	9,857
187+00	18700.00	50.00	12.87	0.45	24	1	10,110	230	0	9,880
187+50	18750.00	50.00	12.96	0.55	24	1	10,134	231	0	9,903
188+00	18800.00	50.00	37.28	0.30	47	1	10,181	233	0	9,949
188+08.23 BK	18808.23	8.23	37.28	0.30	11	0	10,192	233	0	9,960
188+08.23 AH	18808.23	0.00	54.15	0.45	0	0	10,192	233	0	9,960
188+50	18850.00	41.77	54.15	0.45	84	1	10,276	234	0	10,042
189+00	18900.00	50.00	52.37	0.27	99	1	10,375	235	0	10,140
189+50	18950.00	50.00	50.31	0.26	95	0	10,470	235	0	10,235
190+00	19000.00	50.00	46.83	0.33	90	1	10,560	236	0	10,324
190+50	19050.00	50.00	45.36	0.24	85	1	10,645	238	0	10,408
191+00	19100.00	50.00	43.14	0.10	82	0	10,727	238	0	10,490
191+50	19150.00	50.00	42.11	0.14	79	0	10,806	238	0	10,569
192+00	19200.00	50.00	44.16	0.10	80	0	10,886	238	0	10,649
192+50	19250.00	50.00	42.87	1.17	81	1	10,967	239	0	10,728
193+00	19300.00	50.00	41.69	1.90	78	3	11,045	243	0	10,803
193+50	19350.00	50.00	41.33	2.06	77	4	11,122	248	0	10,875
194+00	19400.00	50.00	41.61	2.08	77	4	11,199	253	0	10,947
194+50	19450.00	50.00	41.11	2.06	77	4	11,276	258	0	11,019
195+00	19500.00	50.00	42.05	1.64	77	3	11,353	261	0	11,092
195+50	19550.00	50.00	41.71	1.60	78	3	11,431	265	0	11,166
196+00	19600.00	50.00	41.70	1.66	77	3	11,508	269	0	11,239
196+50	19650.00	50.00	42.11	0.61	78	2	11,586	271	0	11,315
197+00	19700.00	50.00	39.50	1.28	76	2	11,662	274	0	11,388
197+50	19750.00	50.00	38.21	0.29	72	1	11,734	275	0	11,459
198+00	19800.00	50.00	33.42	0.16	66	0	11,800	275	0	11,525
198+50	19850.00	50.00	32.62	0.07	61	0	11,861	275	0	11,586
199+00	19900.00	50.00	32.26	0.71	60	1	11,921	276	0	11,645

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
199+50	19950.00	50.00	32.69	0.37	60	1	11,981	278	0	11,704
200+00	20000.00	50.00	32.38	0.55	60	1	12,041	279	0	11,762
200+50	20050.00	50.00	33.15	0.31	61	1	12,102	280	0	11,822
201+00	20100.00	50.00	31.65	0.04	60	0	12,162	280	0	11,882
201+50	20150.00	50.00	33.70	0.00	61	0	12,223	280	0	11,943
202+00	20200.00	50.00	20.58	0.00	50	0	12,273	280	0	11,993
202+05.84 BK	20205.84	5.84	20.58	0.00	4	0	12,277	280	0	11,997
203+47.97 AH	20347.97	0.00	32.77	0.00	0	0	12,277	280	0	11,997
203+50	20350.00	2.03	32.77	0.00	2	0	12,279	280	0	11,999
204+00	20400.00	50.00	32.77	0.00	61	0	12,340	280	0	12,060
204+50	20450.00	50.00	32.15	0.00	60	0	12,400	280	0	12,120
205+00	20500.00	50.00	32.75	0.16	60	0	12,460	280	0	12,180
205+50	20550.00	50.00	32.84	0.07	61	0	12,521	280	0	12,241
206+00	20600.00	50.00	33.01	0.01	61	0	12,582	280	0	12,302
206+50	20650.00	50.00	31.56	0.09	60	0	12,642	280	0	12,362
207+00	20700.00	50.00	31.92	0.03	59	0	12,701	280	0	12,421
207+50	20750.00	50.00	32.17	0.03	59	0	12,760	280	0	12,480
208+00	20800.00	50.00	32.31	0.01	60	0	12,820	280	0	12,540
208+50	20850.00	50.00	31.24	0.11	59	0	12,879	280	0	12,599
209+00	20900.00	50.00	31.90	0.01	58	0	12,937	280	0	12,657
209+50	20950.00	50.00	34.21	0.03	61	0	12,998	280	0	12,718
210+00	21000.00	50.00	36.11	0.01	65	0	13,063	280	0	12,783
210+50	21050.00	50.00	36.74	0.04	67	0	13,130	280	0	12,850
211+00	21100.00	50.00	38.66	0.03	70	0	13,200	280	0	12,920
211+50	21150.00	50.00	40.46	0.06	73	0	13,273	280	0	12,993
212+00	21200.00	50.00	42.25	0.08	77	0	13,350	280	0	13,070
212+50	21250.00	50.00	40.20	0.00	76	0	13,426	280	0	13,146
213+00 BK	21300.00	50.00	41.12	0.00	75	0	13,501	280	0	13,221
213+00 AH	21300.00	0.00	12.90	0.19	0	0	13,501	280	0	13,221
213+50	21350.00	50.00	12.90	0.19	24	0	13,525	280	0	13,245
214+00	21400.00	50.00	12.90	0.19	24	0	13,549	280	0	13,269
214+50	21450.00	50.00	12.67	0.49	24	1	13,573	281	0	13,292
215+00	21500.00	50.00	12.58	0.36	23	1	13,596	283	0	13,314
215+50	21550.00	50.00	12.49	0.20	23	1	13,619	284	0	13,335
216+00	21600.00	50.00	12.73	0.00	23	0	13,642	284	0	13,358
216+50	21650.00	50.00	12.57	0.09	23	0	13,665	284	0	13,381
217+00	21700.00	50.00	15.13	0.01	26	0	13,691	284	0	13,407
217+50	21750.00	50.00	14.89	0.00	28	0	13,719	284	0	13,435
218+00	21800.00	50.00	13.27	0.00	26	0	13,745	284	0	13,461
218+50	21850.00	50.00	13.19	0.02	24	0	13,769	284	0	13,485
219+00	21900.00	50.00	13.21	0.01	24	0	13,793	284	0	13,509
219+50	21950.00	50.00	13.11	0.02	24	0	13,817	284	0	13,533
220+00	22000.00	50.00	13.18	0.02	24	0	13,841	284	0	13,557
220+50	22050.00	50.00	13.03	0.08	24	0	13,865	284	0	13,581
221+00	22100.00	50.00	13.31	0.01	24	0	13,889	284	0	13,605
221+17.28 BK	22117.28	17.28	13.31	0.01	9	0	13,898	284	0	13,614
221+17.28 AH	22117.28	0.00	33.76	0.01	0	0	13,898	284	0	13,614
221+50	22150.00	32.72	33.76	0.01	41	0	13,939	284	0	13,655
222+00	22200.00	50.00	33.50	0.00	62	0	14,001	284	0	13,717
222+50	22250.00	50.00	33.21	0.01	62	0	14,063	284	0	13,779

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
223+00	22300.00	50.00	33.04	0.00	61	0	14,124	284	0	13,840
223+50	22350.00	50.00	32.98	0.00	61	0	14,185	284	0	13,901
224+00	22400.00	50.00	33.38	0.00	61	0	14,246	284	0	13,962
224+50	22450.00	50.00	33.04	0.01	61	0	14,307	284	0	14,023
225+00	22500.00	50.00	32.78	0.02	61	0	14,368	284	0	14,084
225+50	22550.00	50.00	31.96	0.07	60	0	14,428	284	0	14,144
226+00	22600.00	50.00	31.46	0.19	59	0	14,487	284	0	14,203
226+50	22650.00	50.00	30.16	0.34	57	0	14,544	284	0	14,260
227+00	22700.00	50.00	30.97	0.30	57	1	14,601	285	0	14,316
227+50	22750.00	50.00	31.26	0.06	58	0	14,659	285	0	14,374
228+00	22800.00	50.00	32.33	0.26	59	0	14,718	285	0	14,433
228+50	22850.00	50.00	31.81	0.67	59	1	14,777	286	0	14,491
229+00	22900.00	50.00	32.58	0.77	60	1	14,837	288	0	14,550
229+47.79 BK	22947.79	47.79	32.18	0.97	57	2	14,894	290	0	14,604

COLUMN TOTALS	14,939	232

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

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PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 774 | E

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
88+99.10 AH	8899.10	0.00	32.63	0.00	0	0	0	0	0	0
89+00	8900.00	0.90	32.63	0.00	1	0	1	0	0	1
89+50	8950.00	50.00	30.68	0.44	59	0	60	0	0	60
90+00	9000.00	50.00	31.19	0.38	57	1	117	1	0	116
90+50	9050.00	50.00	32.08	0.55	59	1	176	3	0	174
91+00	9100.00	50.00	31.52	0.85	59	1	235	4	0	231
91+50	9150.00	50.00	31.71	0.58	59	1	294	5	0	289
92+00	9200.00	50.00	31.76	0.59	59	1	353	6	0	347
92+50	9250.00	50.00	31.58	0.90	59	1	412	8	0	405
93+00	9300.00	50.00	31.91	0.56	59	1	471	9	0	462
93+50	9350.00	50.00	31.90	0.36	59	1	530	10	0	520
94+00	9400.00	50.00	32.02	0.21	59	1	589	11	0	578
94+50	9450.00	50.00	31.07	0.28	58	0	647	11	0	636
95+00	9500.00	50.00	30.15	7.15	57	7	704	20	0	684
9510.78 BK	9510.78	10.78	30.15	7.15	12	3	716	24	0	692
97+00 AH	9700.00	0.00	30.51	0.33	0	0	716	24	0	692
97+50	9750.00	50.00	30.51	0.33	57	1	773	25	0	748
98+00	9800.00	50.00	31.03	0.22	57	1	830	26	0	804
98+50	9850.00	50.00	31.57	0.03	58	0	888	26	0	862
99+00	9900.00	50.00	32.10	0.24	59	0	947	26	0	921
99+50	9950.00	50.00	31.58	0.23	59	0	1,006	26	0	980
100+00	10000.00	50.00	37.22	0.27	64	0	1,070	26	0	1,044
100+18.86 BK	10018.86	18.86	37.22	0.27	26	0	1,096	26	0	1,070
105+77.20 AH	10577.20	0.00	33.15	0.00	0	0	1,096	26	0	1,070
106+00	10600.00	22.80	33.15	0.00	28	0	1,124	26	0	1,098
106+50	10650.00	50.00	34.20	0.00	62	0	1,186	26	0	1,160
107+00	10700.00	50.00	32.71	0.00	62	0	1,248	26	0	1,222
107+50	10750.00	50.00	32.23	0.00	60	0	1,308	26	0	1,282
108+00	10800.00	50.00	30.32	0.12	58	0	1,366	26	0	1,340
108+48.90 BK	10848.90	48.90	30.32	0.12	55	0	1,421	26	0	1,395
108+48.90 AH	10848.90	0.00	12.77	0.33	0	0	1,421	26	0	1,395
108+50	10850.00	1.10	12.77	0.33	1	0	1,422	26	0	1,396
109+00	10900.00	50.00	12.81	0.42	24	1	1,446	28	0	1,419
109+50	10950.00	50.00	12.39	0.61	23	1	1,469	29	0	1,440
110+00	11000.00	50.00	12.57	0.21	23	1	1,492	30	0	1,462
110+50	11050.00	50.00	12.88	0.28	24	0	1,516	30	0	1,486
111+00	11100.00	50.00	13.48	0.15	24	0	1,540	30	0	1,510
111+50	11150.00	50.00	13.64	0.13	25	0	1,565	30	0	1,535
112+00	11200.00	50.00	12.72	0.10	24	0	1,589	30	0	1,559
112+50	11250.00	50.00	12.08	0.41	23	0	1,612	30	0	1,582
113+00	11300.00	50.00	12.90	0.00	23	0	1,635	30	0	1,605
113+50	11350.00	50.00	12.53	0.08	24	0	1,659	30	0	1,629
114+00	11400.00	50.00	12.26	0.06	23	0	1,682	30	0	1,652
114+50	11450.00	50.00	12.62	0.01	23	0	1,705	30	0	1,675
115+00	11500.00	50.00	12.24	0.20	23	0	1,728	30	0	1,698
115+50	11550.00	50.00	13.10	0.00	23	0	1,751	30	0	1,721
116+00	11600.00	50.00	11.73	0.24	23	0	1,774	30	0	1,744
116+50	11650.00	50.00	13.92	0.00	24	0	1,798	30	0	1,768
117+00	11700.00	50.00	14.02	0.00	26	0	1,824	30	0	1,794
117+50	11750.00	50.00	13.13	0.14	25	0	1,849	30	0	1,819

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
118+00	11800.00	50.00	13.33	0.13	25	0	1,874	30	0	1,844
118+50	11850.00	50.00	13.47	0.02	25	0	1,899	30	0	1,869
119+00	11900.00	50.00	13.38	0.03	25	0	1,924	30	0	1,894
119+50	11950.00	50.00	13.33	0.10	25	0	1,949	30	0	1,919
120+00	12000.00	50.00	13.35	0.04	25	0	1,974	30	0	1,944
120+50	12050.00	50.00	13.48	0.04	25	0	1,999	30	0	1,969
121+00	12100.00	50.00	13.47	0.01	25	0	2,024	30	0	1,994
121+50	12150.00	50.00	13.53	0.03	25	0	2,049	30	0	2,019
121+58.14 BK	12158.14	8.14	13.53	0.03	4	0	2,053	30	0	2,023
121+58.14 AH	12158.14	0.00	32.35	0.16	0	0	2,053	30	0	2,023
122+00	12200.00	41.86	32.35	0.16	50	0	2,103	30	0	2,073
122+50	12250.00	50.00	31.88	0.23	59	0	2,162	30	0	2,132
123+00	12300.00	50.00	31.79	0.47	59	1	2,221	31	0	2,190
123+50	12350.00	50.00	31.47	0.83	59	1	2,280	33	0	2,248
124+00	12400.00	50.00	32.85	0.00	60	1	2,340	34	0	2,306
124+50	12450.00	50.00	31.03	0.15	59	0	2,399	34	0	2,365
125+00	12500.00	50.00	31.42	0.14	58	0	2,457	34	0	2,423
125+50	12550.00	50.00	32.92	0.07	60	0	2,517	34	0	2,483
126+00	12600.00	50.00	32.66	0.04	61	0	2,578	34	0	2,544
126+50	12650.00	50.00	33.04	0.15	61	0	2,639	34	0	2,605
127+00	12700.00	50.00	32.43	0.00	61	0	2,700	34	0	2,666
127+50	12750.00	50.00	32.76	0.00	60	0	2,760	34	0	2,726
128+00	12800.00	50.00	32.21	0.02	60	0	2,820	34	0	2,786
128+50	12850.00	50.00	32.02	0.00	59	0	2,879	34	0	2,845
129+00	12900.00	50.00	32.31	0.00	60	0	2,939	34	0	2,905
129+50	12950.00	50.00	31.82	0.02	59	0	2,998	34	0	2,964
130+00	13000.00	50.00	31.78	0.03	59	0	3,057	34	0	3,023
130+50	13050.00	50.00	49.30	0.00	75	0	3,132	34	0	3,098
130+53.42 BK	13053.42	3.42	49.30	0.00	6	0	3,138	34	0	3,104
130+53.42 AH	13053.42	0.00	13.28	0.21	0	0	3,138	34	0	3,104
131+00	13100.00	46.58	13.28	0.21	23	0	3,161	34	0	3,127
131+50	13150.00	50.00	13.49	0.10	25	0	3,186	34	0	3,152
132+00	13200.00	50.00	13.62	0.03	25	0	3,211	34	0	3,177
132+50	13250.00	50.00	17.40	0.00	29	0	3,240	34	0	3,206
133+00	13300.00	50.00	14.97	0.00	30	0	3,270	34	0	3,236
133+50	13350.00	50.00	13.66	0.07	27	0	3,297	34	0	3,263
134+00	13400.00	50.00	14.84	0.00	26	0	3,323	34	0	3,289
134+50	13450.00	50.00	13.74	0.04	26	0	3,349	34	0	3,315
135+00	13500.00	50.00	13.54	0.16	25	0	3,374	34	0	3,340
135+50	13550.00	50.00	13.67	0.10	25	0	3,399	34	0	3,365
136+00	13600.00	50.00	13.82	0.10	25	0	3,424	34	0	3,390
136+50	13650.00	50.00	14.14	0.00	26	0	3,450	34	0	3,416
137+00	13700.00	50.00	13.59	0.08	26	0	3,476	34	0	3,442
137+50	13750.00	50.00	13.94	0.01	25	0	3,501	34	0	3,467
137+91.71 BK	13791.71	41.71	13.94	0.01	22	0	3,523	34	0	3,489
137+91.71 AH	13791.71	0.00	43.80	0.02	0	0	3,523	34	0	3,489
138+00	13800.00	8.29	43.80	0.02	13	0	3,536	34	0	3,502
138+50	13850.00	50.00	40.77	0.00	78	0	3,614	34	0	3,580
139+00	13900.00	50.00	38.99	0.00	74	0	3,688	34	0	3,654
139+50	13950.00	50.00	34.62	0.01	68	0	3,756	34	0	3,722

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	EXPANDED EBS BACKFILL	MASS ORDINATE
							1.00	1.25	1.30	
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
140+00	14000.00	50.00	31.79	0.00	61	0	3,817	34	0	3,783
140+50	14050.00	50.00	33.45	0.00	60	0	3,877	34	0	3,843
141+00	14100.00	50.00	30.99	0.03	60	0	3,937	34	0	3,903
141+50	14150.00	50.00	33.67	0.00	60	0	3,997	34	0	3,963
142+00	14200.00	50.00	32.44	0.14	61	0	4,058	34	0	4,024
142+50	14250.00	50.00	31.68	0.02	59	0	4,117	34	0	4,083
143+00	14300.00	50.00	35.01	0.00	62	0	4,179	34	0	4,145
143+50	14350.00	50.00	32.40	0.00	62	0	4,241	34	0	4,207
144+00	14400.00	50.00	32.11	0.01	60	0	4,301	34	0	4,267
144+50	14450.00	50.00	32.78	0.00	60	0	4,361	34	0	4,327
145+00	14500.00	50.00	32.29	0.00	60	0	4,421	34	0	4,387
145+50	14550.00	50.00	32.94	0.00	60	0	4,481	34	0	4,447
146+00	14600.00	50.00	32.92	0.00	61	0	4,542	34	0	4,508
146+50	14650.00	50.00	32.56	0.00	61	0	4,603	34	0	4,569
147+00	14700.00	50.00	34.25	0.00	62	0	4,665	34	0	4,631
147+50	14750.00	50.00	33.74	0.00	63	0	4,728	34	0	4,694
148+00	14800.00	50.00	33.71	0.00	62	0	4,790	34	0	4,756
148+50	14850.00	50.00	34.17	0.00	63	0	4,853	34	0	4,819
149+00	14900.00	50.00	34.98	0.01	64	0	4,917	34	0	4,883
149+50	14950.00	50.00	33.75	0.00	64	0	4,981	34	0	4,947
150+00	15000.00	50.00	33.45	0.05	62	0	5,043	34	0	5,009
150+50	15050.00	50.00	33.55	0.05	62	0	5,105	34	0	5,071
151+00	15100.00	50.00	31.86	0.13	61	0	5,166	34	0	5,132
151+50	15150.00	50.00	33.73	0.00	61	0	5,227	34	0	5,193
152+00	15200.00	50.00	32.09	0.05	61	0	5,288	34	0	5,254
152+50	15250.00	50.00	32.07	0.03	59	0	5,347	34	0	5,313
153+00	15300.00	50.00	32.88	0.00	60	0	5,407	34	0	5,373
153+50	15350.00	50.00	31.60	0.01	60	0	5,467	34	0	5,433
154+00	15400.00	50.00	33.76	0.00	61	0	5,528	34	0	5,494
154+50	15450.00	50.00	33.96	0.00	63	0	5,591	34	0	5,557
155+00	15500.00	50.00	33.77	0.00	63	0	5,654	34	0	5,620
155+50	15550.00	50.00	31.32	0.03	60	0	5,714	34	0	5,680
156+00	15600.00	50.00	31.22	0.18	58	0	5,772	34	0	5,738
156+50	15650.00	50.00	31.24	0.05	58	0	5,830	34	0	5,796
157+00	15700.00	50.00	33.53	0.00	60	0	5,890	34	0	5,856
157+50	15750.00	50.00	34.56	0.00	63	0	5,953	34	0	5,919
158+00	15800.00	50.00	37.57	0.00	67	0	6,020	34	0	5,986
158+50	15850.00	50.00	39.43	0.00	71	0	6,091	34	0	6,057
159+00	15900.00	50.00	43.41	0.01	77	0	6,168	34	0	6,134
159+50	15950.00	50.00	45.50	0.00	82	0	6,250	34	0	6,216
160+00	16000.00	50.00	48.24	0.00	87	0	6,337	34	0	6,303
160+50	16050.00	50.00	47.38	0.00	89	0	6,426	34	0	6,392
161+00	16100.00	50.00	49.47	0.03	90	0	6,516	34	0	6,482
161+50	16150.00	50.00	52.95	0.35	95	0	6,611	34	0	6,577
162+00	16200.00	50.00	53.60	0.61	99	1	6,710	35	0	6,675
162+16.50 BK	16216.50	16.50	53.60	0.61	33	0	6,743	35	0	6,708
162+16.50 AH	16216.50	0.00	12.79	0.28	0	0	6,743	35	0	6,708
162+50	16250.00	33.50	12.79	0.28	16	0	6,759	35	0	6,724
163+00	16300.00	50.00	12.91	0.28	24	1	6,783	36	0	6,747
163+50	16350.00	50.00	12.75	0.35	24	1	6,807	38	0	6,770

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
164+00	16400.00	50.00	12.81	0.47	24	1	6,831	39	0	6,792
164+50	16450.00	50.00	12.85	0.47	24	1	6,855	40	0	6,815
165+00	16500.00	50.00	12.81	0.60	24	1	6,879	41	0	6,838
165+50	16550.00	50.00	13.32	0.04	24	1	6,903	43	0	6,861
166+00	16600.00	50.00	13.94	0.00	25	0	6,928	43	0	6,886
166+50	16650.00	50.00	13.94	0.00	26	0	6,954	43	0	6,912
167+00	16700.00	50.00	13.94	0.00	26	0	6,980	43	0	6,938
167+50	16750.00	50.00	14.19	0.00	26	0	7,006	43	0	6,964
168+00	16800.00	50.00	14.70	0.00	27	0	7,033	43	0	6,991
168+50	16850.00	50.00	14.98	0.00	27	0	7,060	43	0	7,018
169+00	16900.00	50.00	14.83	0.02	28	0	7,088	43	0	7,046
169+50	16950.00	50.00	14.19	0.00	27	0	7,115	43	0	7,073
170+00	17000.00	50.00	13.45	0.00	26	0	7,141	43	0	7,099
170+40.78 BK	17040.78	40.78	13.45	0.00	20	0	7,161	43	0	7,119
170+40.78 AH	17040.78	0.00	36.69	0.06	0	0	7,161	43	0	7,119
170+50	17050.00	9.22	36.69	0.06	13	0	7,174	43	0	7,132
171+00	17100.00	50.00	31.85	0.01	63	0	7,237	43	0	7,195
171+50	17150.00	50.00	31.85	0.00	59	0	7,296	43	0	7,254
172+00	17200.00	50.00	31.75	0.10	59	0	7,355	43	0	7,313
172+50	17250.00	50.00	31.96	0.13	59	0	7,414	43	0	7,372
173+00	17300.00	50.00	32.32	0.02	60	0	7,474	43	0	7,432
173+50	17350.00	50.00	32.14	0.09	60	0	7,534	43	0	7,492
174+00	17400.00	50.00	32.69	0.03	60	0	7,594	43	0	7,552
174+50	17450.00	50.00	32.55	0.02	60	0	7,654	43	0	7,612
175+00	17500.00	50.00	33.67	0.01	61	0	7,715	43	0	7,673
175+50	17550.00	50.00	33.21	0.06	62	0	7,777	43	0	7,735
176+00	17600.00	50.00	32.75	0.60	61	1	7,838	44	0	7,794
176+50	17650.00	50.00	32.79	0.22	61	1	7,899	45	0	7,854
177+00	17700.00	50.00	32.90	0.14	61	0	7,960	45	0	7,915
177+50	17750.00	50.00	30.04	0.56	58	1	8,018	46	0	7,972
178+00	17800.00	50.00	31.22	0.12	57	1	8,075	48	0	8,028
178+50	17850.00	50.00	32.26	0.18	59	0	8,134	48	0	8,087
179+00	17900.00	50.00	32.29	0.02	60	0	8,194	48	0	8,147
179+50	17950.00	50.00	31.26	0.11	59	0	8,253	48	0	8,206
180+00	18000.00	50.00	30.92	0.14	58	0	8,311	48	0	8,264
180+50	18050.00	50.00	31.74	0.07	58	0	8,369	48	0	8,322
181+00	18100.00	50.00	32.33	0.01	59	0	8,428	48	0	8,381
181+50	18150.00	50.00	31.74	0.04	59	0	8,487	48	0	8,440
182+00	18200.00	50.00	31.96	0.03	59	0	8,546	48	0	8,499
182+50	18250.00	50.00	31.68	0.05	59	0	8,605	48	0	8,558
182+77.83 BK	18277.73	27.73	31.68	0.05	33	0	8,638	48	0	8,591
190+00 AH	19000.00	0.00	11.18	0.38	0	0	8,638	48	0	8,591
190+50	19050.00	50.00	11.18	0.38	21	1	8,659	49	0	8,610
191+00	19100.00	50.00	10.92	0.22	20	1	8,679	50	0	8,629
191+21.96 BK	19121.96	21.96	10.92	0.22	9	0	8,688	50	0	8,638
191+21.96 AH	19121.96	0.00	35.79	0.84	0	0	8,688	50	0	8,638
191+50	19150.00	28.04	35.79	0.84	37	1	8,725	51	0	8,674
192+00	19200.00	50.00	34.73	1.44	65	2	8,790	54	0	8,736
192+50	19250.00	50.00	33.50	1.55	63	3	8,853	58	0	8,796
193+00	19300.00	50.00	31.48	2.14	60	3	8,913	61	0	8,852

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
193+50	19350.00	50.00	27.88	4.44	55	6	8,968	69	0	8,899
194+00	19400.00	50.00	27.01	4.10	51	8	9,019	79	0	8,940
194+50	19450.00	50.00	26.64	4.36	50	8	9,069	89	0	8,980
195+00	19500.00	50.00	26.93	4.80	50	8	9,119	99	0	9,020
195+50	19550.00	50.00	26.38	5.71	49	10	9,168	111	0	9,057
196+00	19600.00	50.00	26.15	5.36	49	10	9,217	124	0	9,093
196+50	19650.00	50.00	24.80	6.78	47	11	9,264	138	0	9,127
197+00	19700.00	50.00	24.87	6.86	46	13	9,310	154	0	9,156
197+50	19750.00	50.00	26.64	5.40	48	11	9,358	168	0	9,191
198+00	19800.00	50.00	26.51	4.76	49	9	9,407	179	0	9,228
198+50	19850.00	50.00	27.16	0.34	50	5	9,457	185	0	9,272
199+00	19900.00	50.00	26.85	0.10	50	0	9,507	185	0	9,322
199+50	19950.00	50.00	27.33	0.12	50	0	9,557	185	0	9,372
200+00	20000.00	50.00	28.82	0.04	52	0	9,609	185	0	9,424
200+50	20050.00	50.00	29.47	0.00	54	0	9,663	185	0	9,478
201+00	20100.00	50.00	30.32	0.06	55	0	9,718	185	0	9,533
201+50	20150.00	50.00	30.61	0.00	56	0	9,774	185	0	9,589
202+00	20200.00	50.00	19.80	0.00	47	0	9,821	185	0	9,636
202+07.08 BK	20207.08	7.08	19.80	0.00	5	0	9,826	185	0	9,641
203+50 AH	20350.00	0.00	33.01	0.58	0	0	9,826	185	0	9,641
204+00	20400.00	50.00	33.01	0.58	61	1	9,887	186	0	9,701
204+50	20450.00	50.00	34.58	0.44	63	1	9,950	188	0	9,763
205+00	20500.00	50.00	37.24	0.46	67	1	10,017	189	0	9,828
205+50	20550.00	50.00	41.05	0.24	72	1	10,089	190	0	9,899
206+00	20600.00	50.00	44.81	0.06	79	0	10,168	190	0	9,978
206+50	20650.00	50.00	45.65	0.12	84	0	10,252	190	0	10,062
207+00	20700.00	50.00	49.44	0.02	88	0	10,340	190	0	10,150
207+50	20750.00	50.00	49.12	0.06	91	0	10,431	190	0	10,241
208+00	20800.00	50.00	52.24	0.04	94	0	10,525	190	0	10,335
208+50	20850.00	50.00	55.58	0.00	100	0	10,625	190	0	10,435
208+61.47 BK	20861.47	11.47	55.58	0.00	24	0	10,649	190	0	10,459
208+61.47 AH	20861.47	0.00	13.48	0.00	0	0	10,649	190	0	10,459
209+00	20900.00	38.53	13.48	0.00	19	0	10,668	190	0	10,478
209+50	20950.00	50.00	13.57	0.00	25	0	10,693	190	0	10,503
210+00	21000.00	50.00	13.65	0.00	25	0	10,718	190	0	10,528
210+50	21050.00	50.00	13.61	0.00	25	0	10,743	190	0	10,553
211+00	21100.00	50.00	13.72	0.00	25	0	10,768	190	0	10,578
211+50	21150.00	50.00	13.70	0.00	25	0	10,793	190	0	10,603
212+00	21200.00	50.00	13.44	0.03	25	0	10,818	190	0	10,628
212+50	21250.00	50.00	13.29	0.03	25	0	10,843	190	0	10,653
213+00	21300.00	50.00	13.32	0.07	25	0	10,868	190	0	10,678
213+50	21350.00	50.00	13.14	0.21	25	0	10,893	190	0	10,703
214+00	21400.00	50.00	13.72	0.00	25	0	10,918	190	0	10,728
214+50	21450.00	50.00	14.17	0.00	26	0	10,944	190	0	10,754
215+00	21500.00	50.00	14.34	0.00	26	0	10,970	190	0	10,780
215+50	21550.00	50.00	14.25	0.00	26	0	10,996	190	0	10,806
216+00	21600.00	50.00	14.12	0.00	26	0	11,022	190	0	10,832
216+50	21650.00	50.00	14.15	0.00	26	0	11,048	190	0	10,858
217+00	21700.00	50.00	14.06	0.00	26	0	11,074	190	0	10,884
217+50	21750.00	50.00	14.67	0.00	27	0	11,101	190	0	10,911

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30	MASS ORDINATE
					NOTE 1	NOTE 2	NOTE 1		NOTE 3	NOTE 4
218+00	21800.00	50.00	14.07	0.00	27	0	11,128	190	0	10,938
218+50	21850.00	50.00	14.07	0.00	26	0	11,154	190	0	10,964
218+63 BK	21863.00	13.00	14.07	0.00	7	0	11,161	190	0	10,971
218+63 AH	21863.00	0.00	34.43	0.00	0	0	11,161	190	0	10,971
219+00	21900.00	37.00	34.43	0.00	47	0	11,208	190	0	11,018
219+50	21950.00	50.00	33.43	0.00	63	0	11,271	190	0	11,081
220+00	22000.00	50.00	31.99	0.00	61	0	11,332	190	0	11,142
220+50	22050.00	50.00	31.36	0.00	59	0	11,391	190	0	11,201
221+00	22100.00	50.00	30.09	0.00	57	0	11,448	190	0	11,258
221+50	22150.00	50.00	31.09	0.00	57	0	11,505	190	0	11,315
222+00	22200.00	50.00	32.33	0.00	59	0	11,564	190	0	11,374
222+50	22250.00	50.00	32.95	0.00	60	0	11,624	190	0	11,434
223+00	22300.00	50.00	34.40	0.08	62	0	11,686	190	0	11,496
223+02.50 BK	22302.50	2.50	34.40	0.08	3	0	11,689	190	0	11,499
223+02.50 AH	22302.50	0.00	13.53	0.05	0	0	11,689	190	0	11,499
223+50	22350.00	47.50	13.53	0.05	24	0	11,713	190	0	11,523
224+00	22400.00	50.00	21.68	0.00	33	0	11,746	190	0	11,556
224+50	22450.00	50.00	32.20	0.00	50	0	11,796	190	0	11,606
225+00	22500.00	50.00	31.82	0.00	59	0	11,855	190	0	11,665
225+50	22550.00	50.00	32.20	0.07	59	0	11,914	190	0	11,724
226+00	22600.00	50.00	31.92	0.06	59	0	11,973	190	0	11,783
226+50	22650.00	50.00	32.22	0.03	59	0	12,032	190	0	11,842
227+00	22700.00	50.00	32.61	0.00	60	0	12,092	190	0	11,902
227+50	22750.00	50.00	33.25	0.00	61	0	12,153	190	0	11,963
228+00	22800.00	50.00	33.13	0.00	61	0	12,214	190	0	12,024
228+50	22850.00	50.00	32.19	0.10	60	0	12,274	190	0	12,084
229+00	22900.00	50.00	30.90	0.49	58	1	12,332	191	0	12,141
229+47.79 BK	22947.79	47.79	30.89	0.55	55	1	12,387	193	0	12,195

COLUMN TOTALS	12,387	154

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

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PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 780 | E

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EWE')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
229+47.79 AH	22947.80	0.00	32.18	1.07	0	0	0	0	0	0
230+00	23000.00	52.20	36.12	0.00	66	1	66	1	0	65
230+50	23050.00	50.00	34.42	0.00	65	0	131	1	0	130
231+00	23100.00	50.00	31.83	0.01	61	0	192	1	0	191
231+50	23150.00	50.00	32.52	0.00	60	0	252	1	0	251
232+00	23200.00	50.00	33.06	0.00	61	0	313	1	0	312
232+50	23250.00	50.00	33.05	0.00	61	0	374	1	0	373
233+00	23300.00	50.00	32.49	0.00	61	0	435	1	0	434
233+50	23350.00	50.00	32.81	0.00	60	0	495	1	0	494
234+00	23400.00	50.00	31.53	0.01	60	0	555	1	0	554
234+50	23450.00	50.00	33.75	0.00	60	0	615	1	0	614
235+00	23500.00	50.00	34.75	0.00	63	0	678	1	0	677
235+50	23550.00	50.00	33.19	0.00	63	0	741	1	0	740
235+96.52 BK	23596.52	46.52	33.19	0.00	57	0	798	1	0	797
235+96.52 AH	23596.52	0.00	13.24	0.49	0	0	798	1	0	797
236+00	23600.00	3.48	13.24	0.49	2	0	800	1	0	799
236+50	23650.00	50.00	13.24	0.49	25	1	825	3	0	823
237+00	23700.00	50.00	13.34	0.94	25	1	850	4	0	846
237+50	23750.00	50.00	13.59	0.28	25	1	875	5	0	870
238+00	23800.00	50.00	13.72	0.50	25	1	900	6	0	894
238+50	23850.00	50.00	13.73	0.21	25	1	925	8	0	918
239+00	23900.00	50.00	13.66	0.53	25	1	950	9	0	941
239+50	23950.00	50.00	13.87	0.24	25	1	975	10	0	965
240+00	24000.00	50.00	13.99	0.04	26	0	1,001	10	0	991
240+50	24050.00	50.00	13.82	0.02	26	0	1,027	10	0	1,017
241+00	24100.00	50.00	14.26	0.00	26	0	1,053	10	0	1,043
241+50	24150.00	50.00	14.12	0.02	26	0	1,079	10	0	1,069
242+00	24200.00	50.00	14.06	0.12	26	0	1,105	10	0	1,095
242+50	24250.00	50.00	14.01	0.10	26	0	1,131	10	0	1,121
242+90.81 BK	24290.81	40.81	14.01	0.10	21	0	1,152	10	0	1,142

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)

DIVISION 3 - IH 41 SB/ 43 NB/ 894 EB (ALIGNMENT 'EWE')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
242+90.81 AH	24290.81	0.00	34.77	0.00	0	0	1,152	10	0	1,142
243+00	24300.00	9.19	34.77	0.00	12	0	1,164	10	0	1,154
243+50	24350.00	50.00	33.50	0.00	63	0	1,227	10	0	1,217
244+00	24400.00	50.00	32.14	0.00	61	0	1,288	10	0	1,278
244+50	24450.00	50.00	30.75	0.00	58	0	1,346	10	0	1,336
245+00	24500.00	50.00	30.66	0.01	57	0	1,403	10	0	1,393
245+50	24550.00	50.00	29.76	0.13	56	0	1,459	10	0	1,449
246+00	24600.00	50.00	31.95	0.00	57	0	1,516	10	0	1,506
246+50	24650.00	50.00	33.20	0.00	60	0	1,576	10	0	1,566
247+00	24700.00	50.00	32.74	0.00	61	0	1,637	10	0	1,627
247+50	24750.00	50.00	32.52	0.02	60	0	1,697	10	0	1,687
248+00	24800.00	50.00	37.11	0.02	64	0	1,761	10	0	1,751
248+50	24850.00	50.00	36.10	0.00	68	0	1,829	10	0	1,819
249+00	24900.00	50.00	35.56	0.00	66	0	1,895	10	0	1,885
249+50	24950.00	50.00	35.98	0.00	66	0	1,961	10	0	1,951
250+00	25000.00	50.00	35.49	0.00	66	0	2,027	10	0	2,017
250+50	25050.00	50.00	36.33	0.00	67	0	2,094	10	0	2,084
251+00	25100.00	50.00	35.39	0.00	66	0	2,160	10	0	2,150
251+50	25150.00	50.00	35.99	0.00	66	0	2,226	10	0	2,216
252+00	25200.00	50.00	36.59	0.00	67	0	2,293	10	0	2,283
252+50	25250.00	50.00	36.45	0.00	68	0	2,361	10	0	2,351
253+00	25300.00	50.00	36.49	0.00	68	0	2,429	10	0	2,419
253+50	25350.00	50.00	36.03	0.00	67	0	2,496	10	0	2,486
254+00	25400.00	50.00	34.90	0.03	66	0	2,562	10	0	2,552
254+50	25450.00	50.00	34.74	0.00	64	0	2,626	10	0	2,616
255+00	25500.00	50.00	34.64	0.00	64	0	2,690	10	0	2,680
255+50	25550.00	50.00	35.50	0.00	65	0	2,755	10	0	2,745
256+00	25600.00	50.00	37.44	0.00	68	0	2,823	10	0	2,813
256+45.40 BK	25645.40	45.40	35.63	0.00	61	0	2,884	10	0	2,874

COLUMN TOTALS	2,884	8

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - ((FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

9

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PROJECT NO: 1100-45-70 | HWY: IH 41 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 782 | E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090101-EW.DWG
LAYOUT NAME - 25

PLOT DATE : 11/1/2022 4:12 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME : PLOT SCALE : 1" = 1'

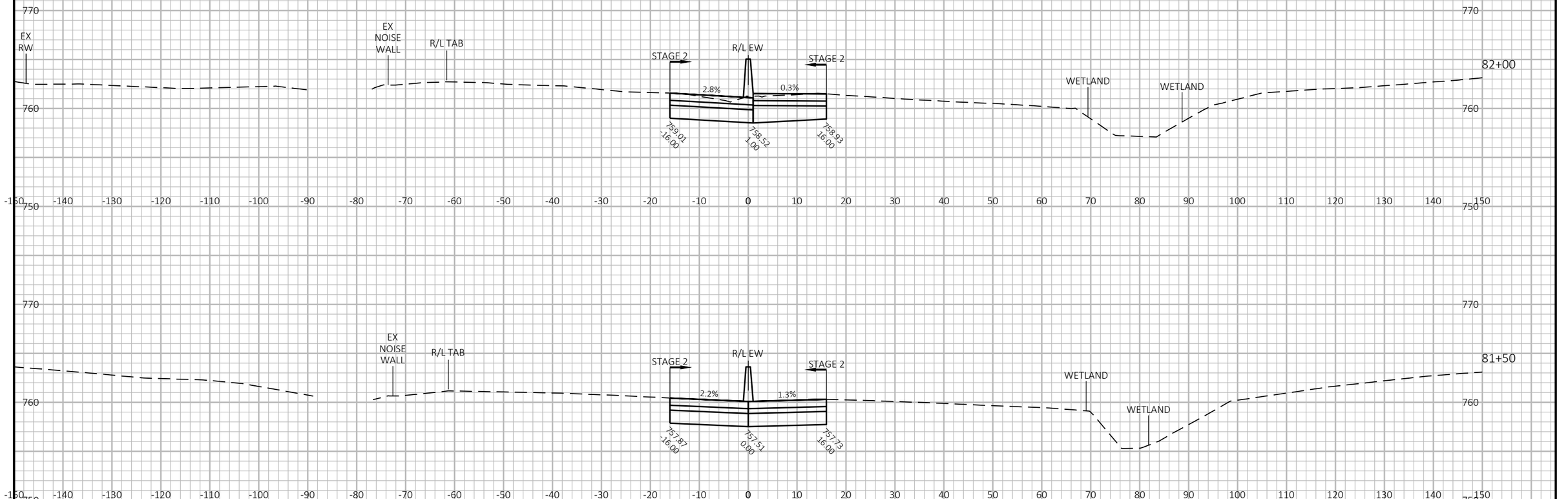
DIVISION 3 - IH 41 NB/ 43 SB/ 894 WB (ALIGNMENT 'EWW')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)			
			CUT	FILL	CUT NOTE 1	FILL NOTE 2	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	EXPANDED EBS BACKFILL 1.30 NOTE 3	MASS ORDINATE NOTE 4
229+47.79 AH	22947.79	0.00	32.36	0.87	0	0	0	0	0	0
230+00	23000.00	52.21	32.57	0.07	63	1	63	1	0	62
230+50	23050.00	50.00	34.05	0.00	62	0	125	1	0	124
231+00	23100.00	50.00	32.31	0.00	61	0	186	1	0	185
231+50	23150.00	50.00	32.64	0.00	60	0	246	1	0	245
232+00	23200.00	50.00	0.00	0.00	30	0	276	1	0	275
232+50	23250.00	50.00	0.00	0.00	0	0	276	1	0	275
232+91.53 BK	23291.53	41.53	0.00	0.00	0	0	276	1	0	275

COLUMN TOTALS	276	1

Notes:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - EXPANDED EBS	WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)
4 - MASS ORDINATE	IF EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT + EXPANDED EBS) - (FILL - REDUCED EBS IN FILL) * FILL FACTOR)]

(CONTINUED ON THE NEXT SHEET)



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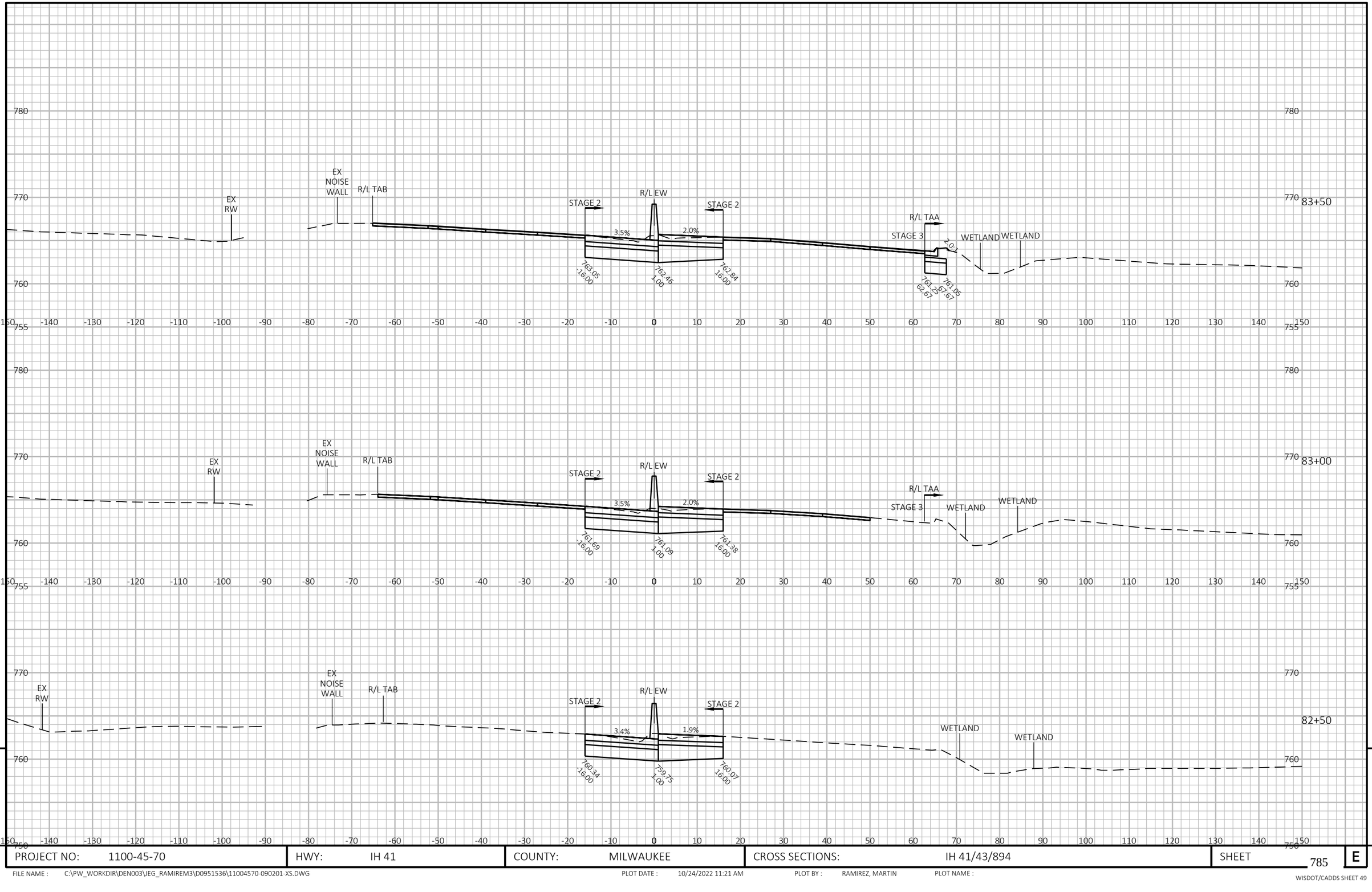
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 784	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:20 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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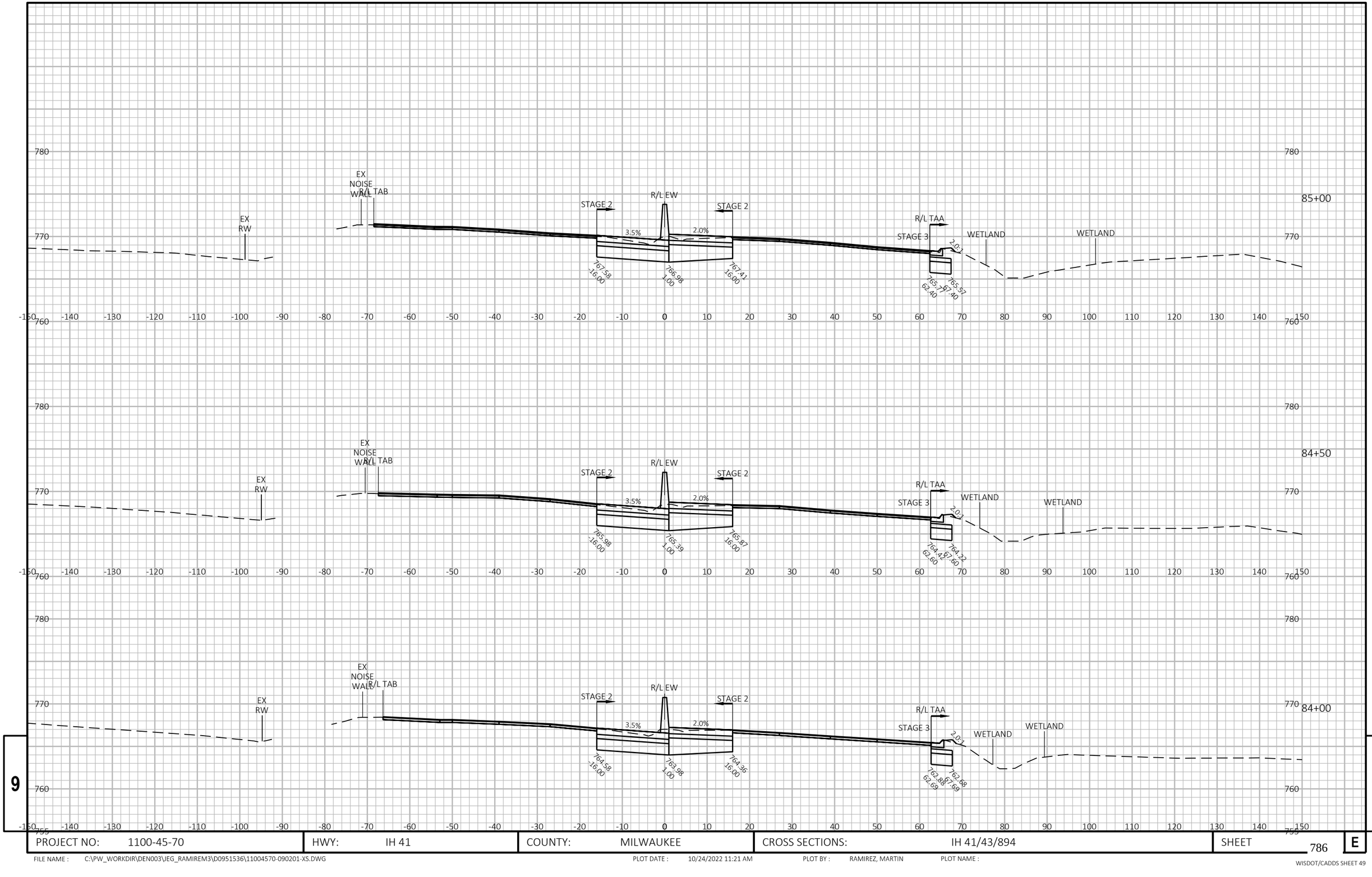
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 785	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:21 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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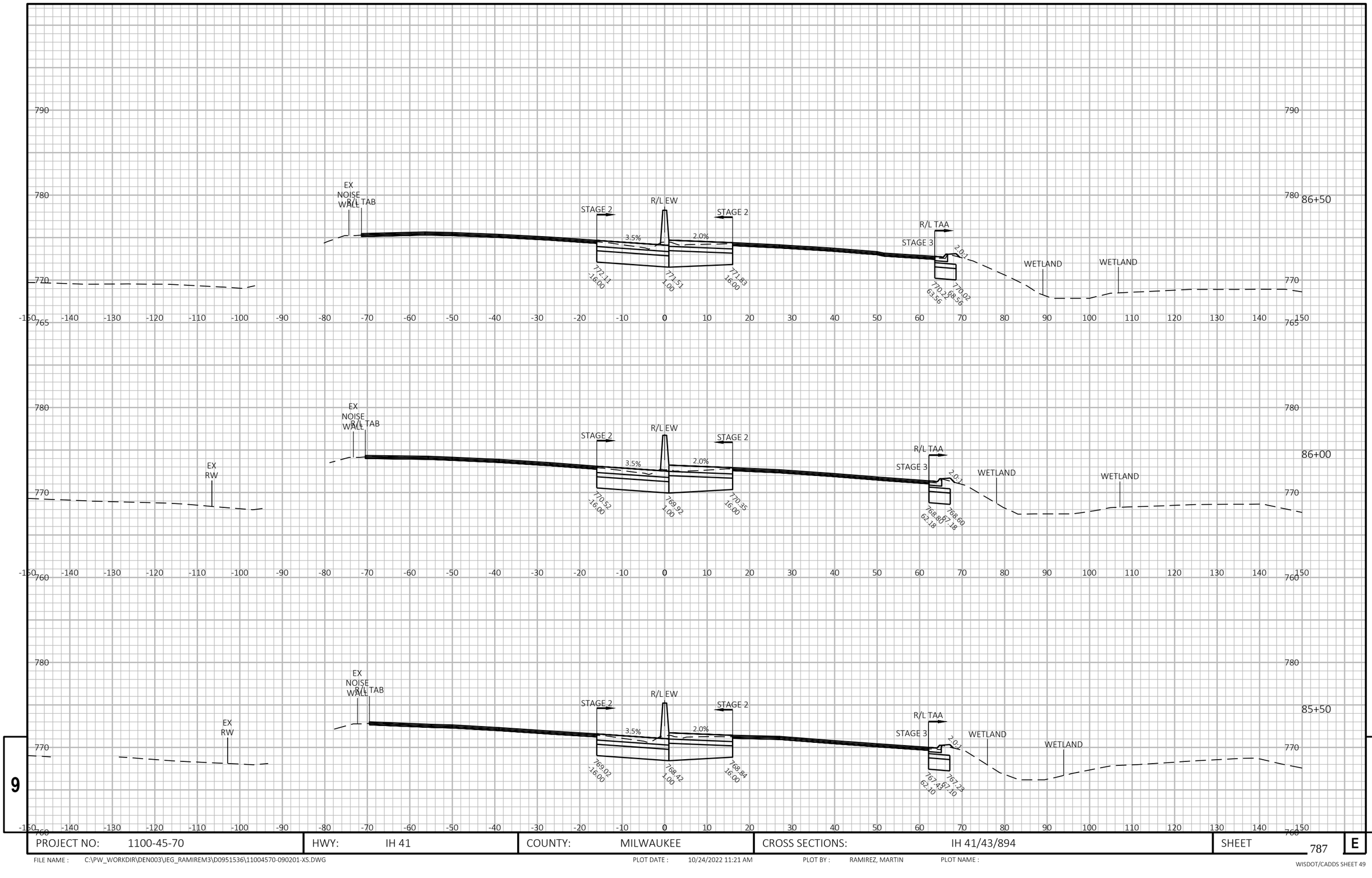
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 786	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:21 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

9



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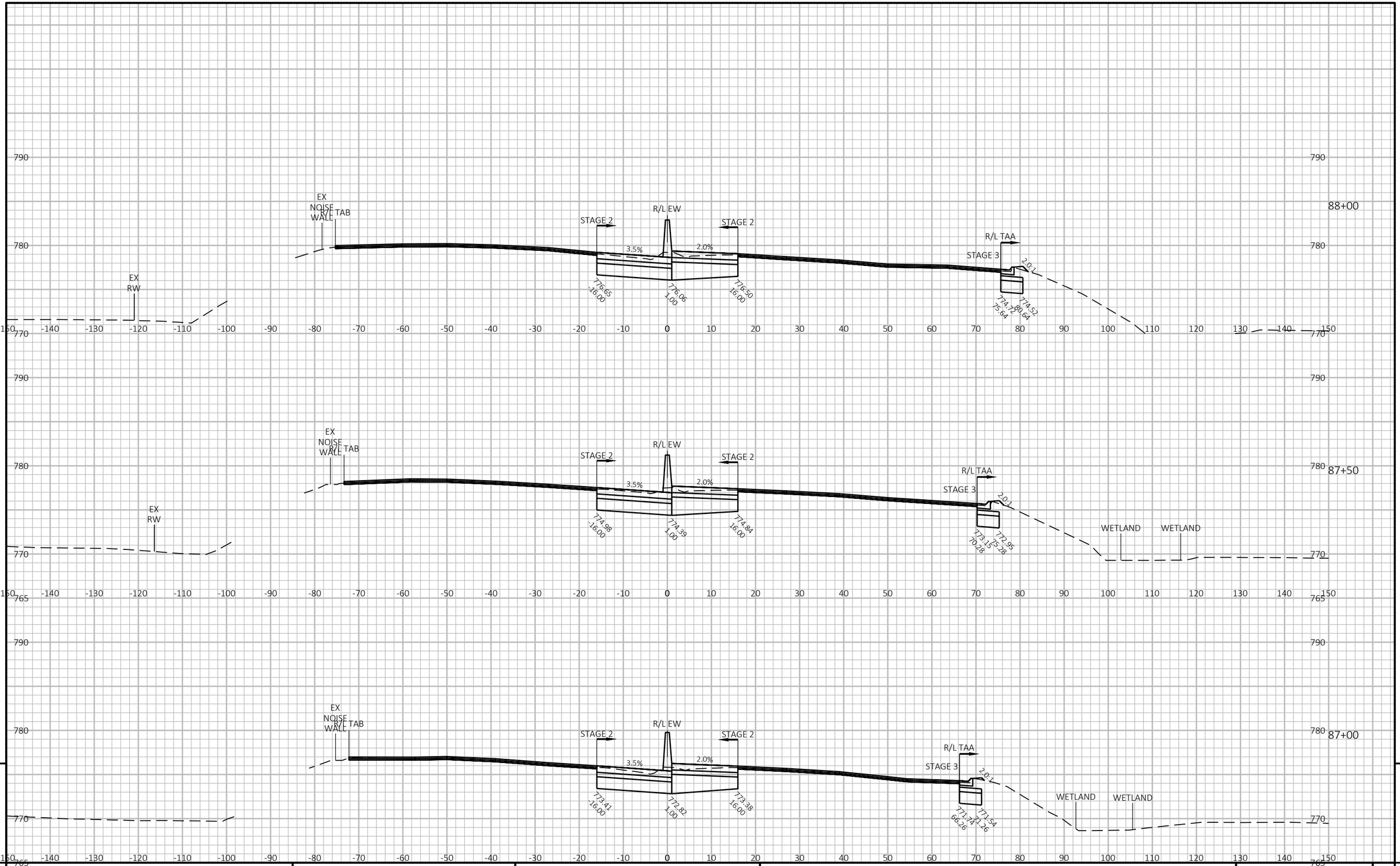
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 787	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:21 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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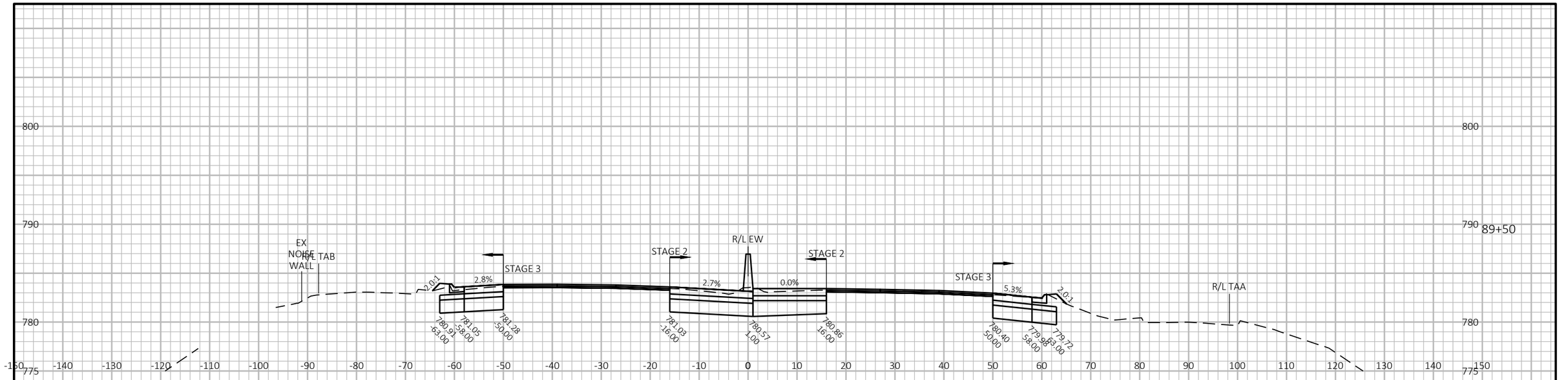
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 788 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:22 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

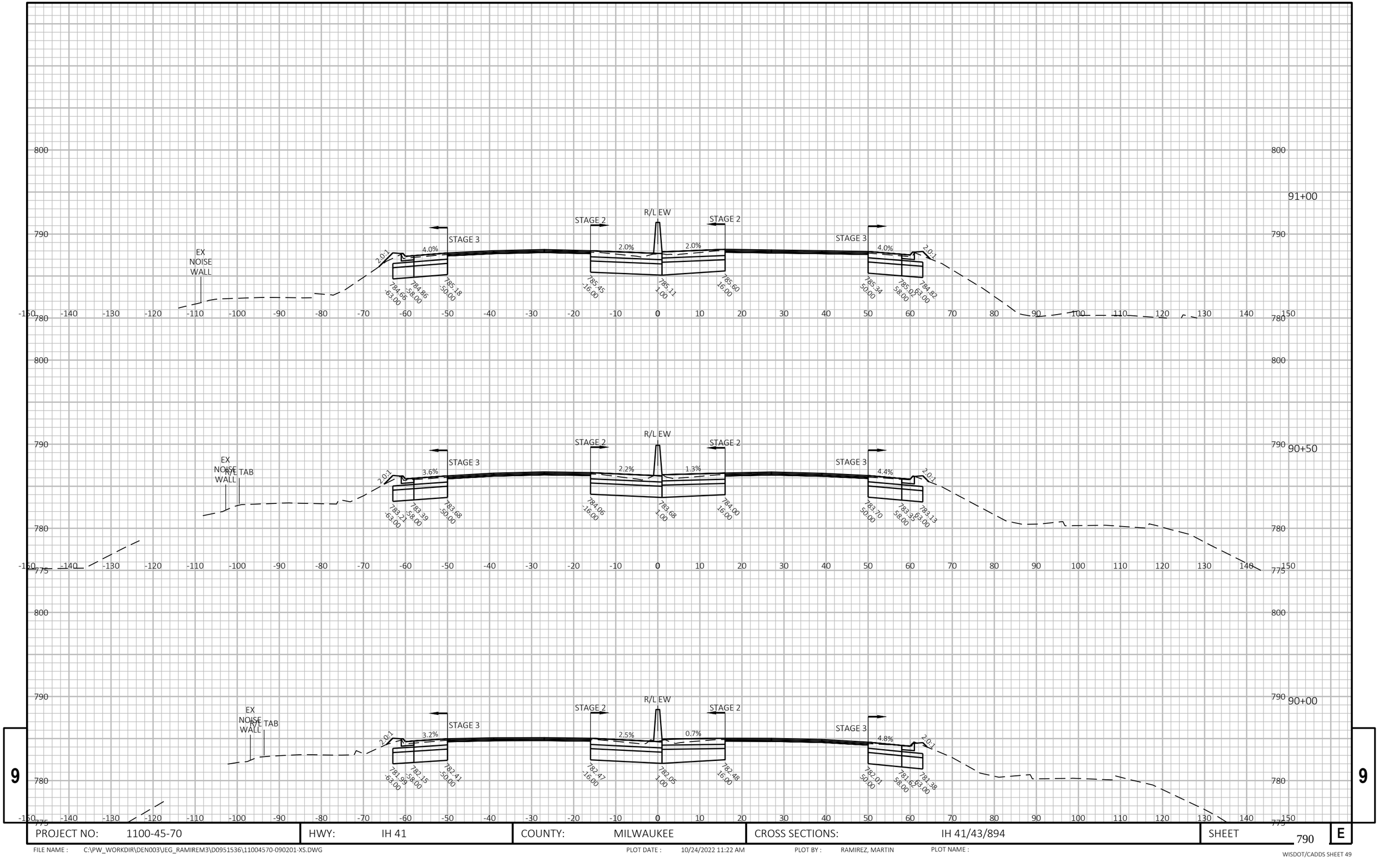
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 789	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:22 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

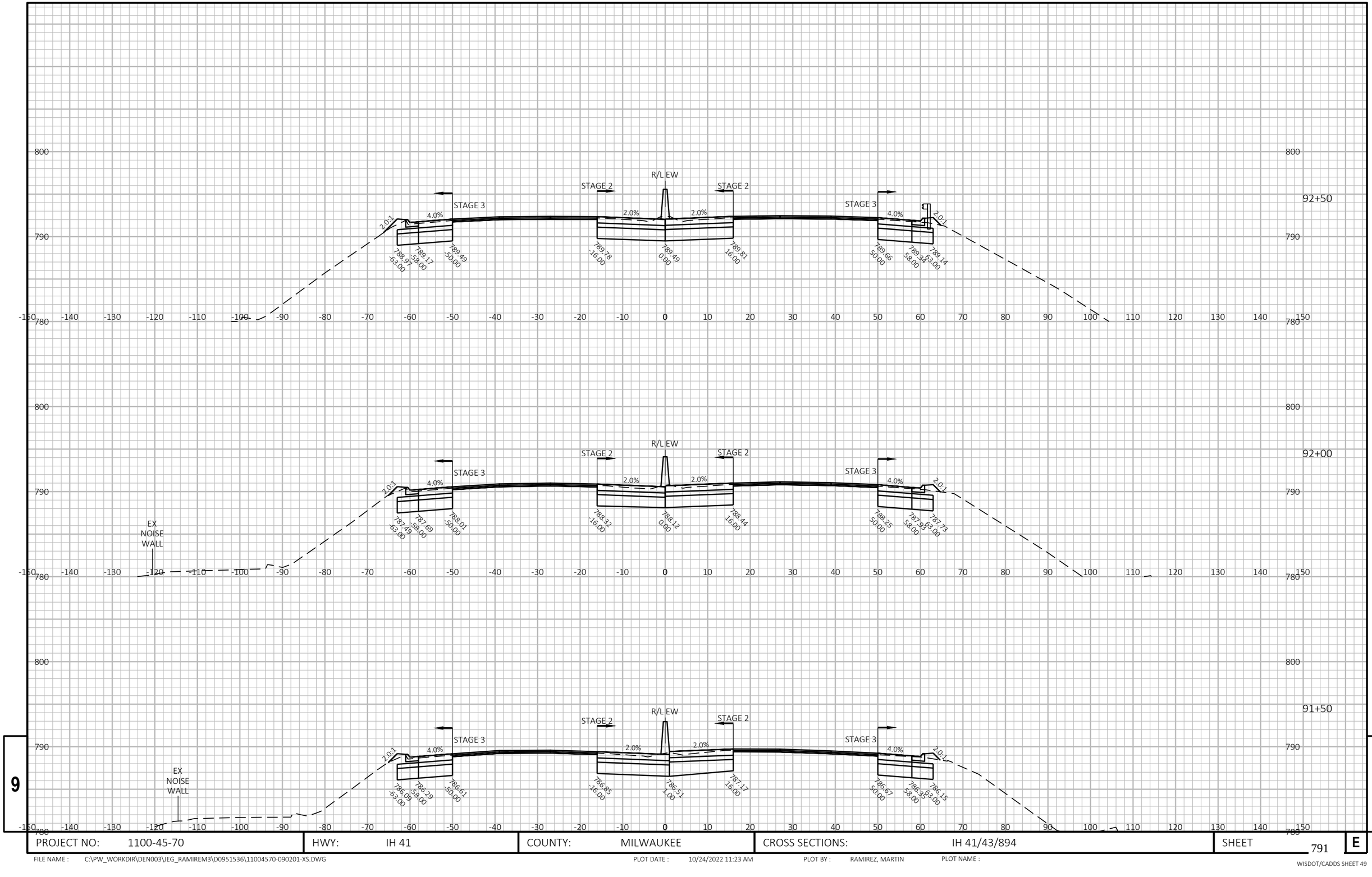
WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 790	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:22 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :



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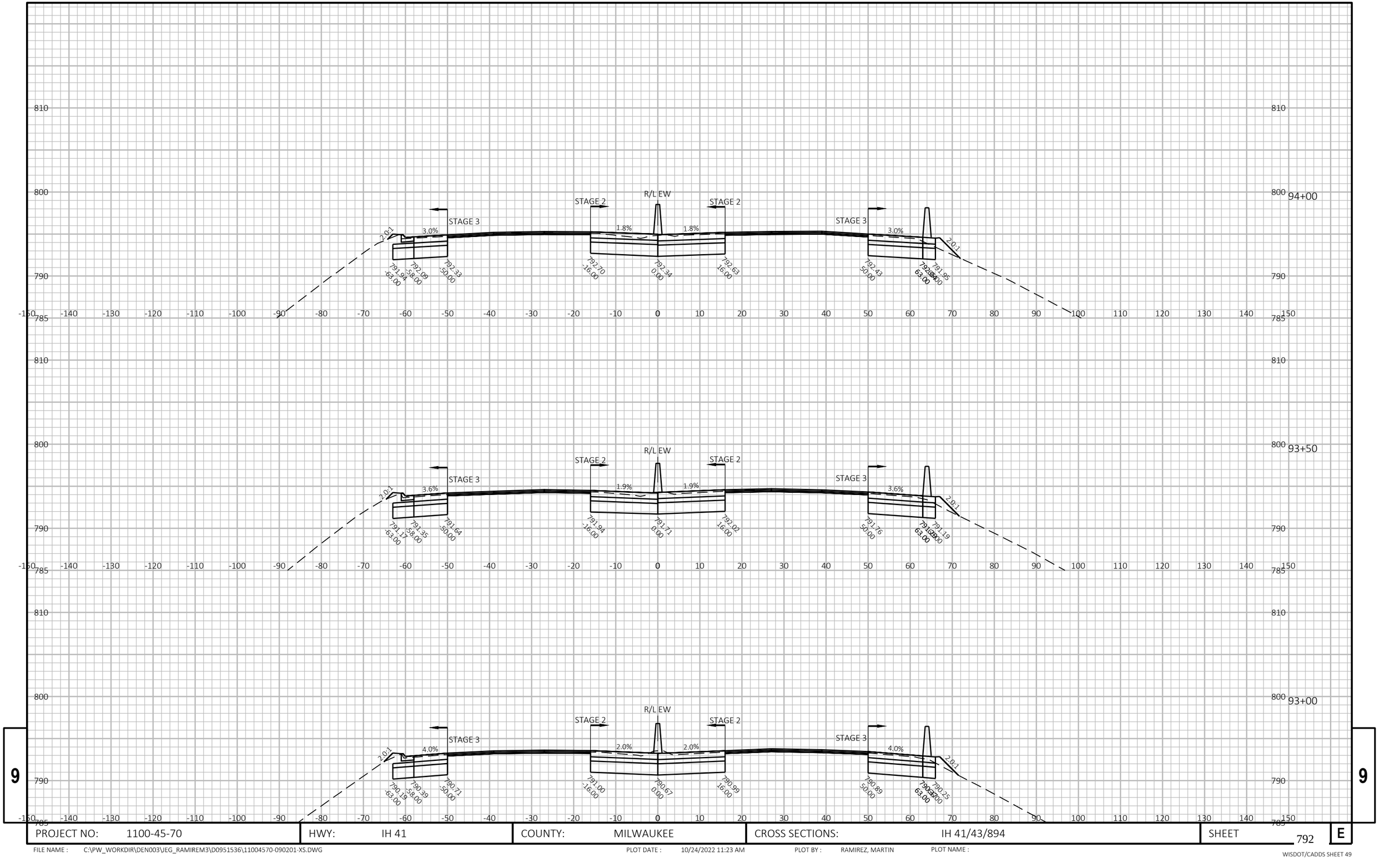
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 791	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:23 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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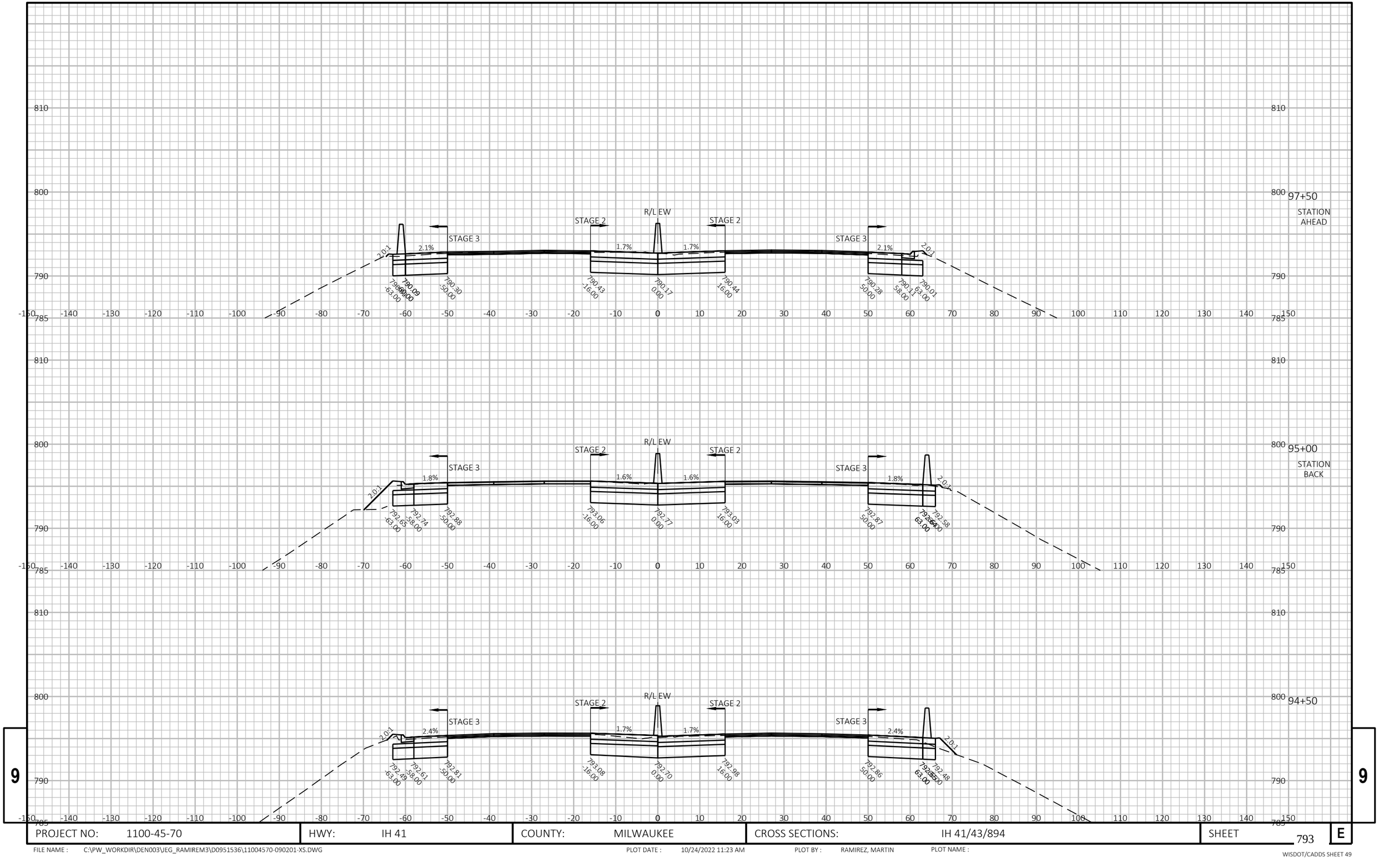
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 792	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:23 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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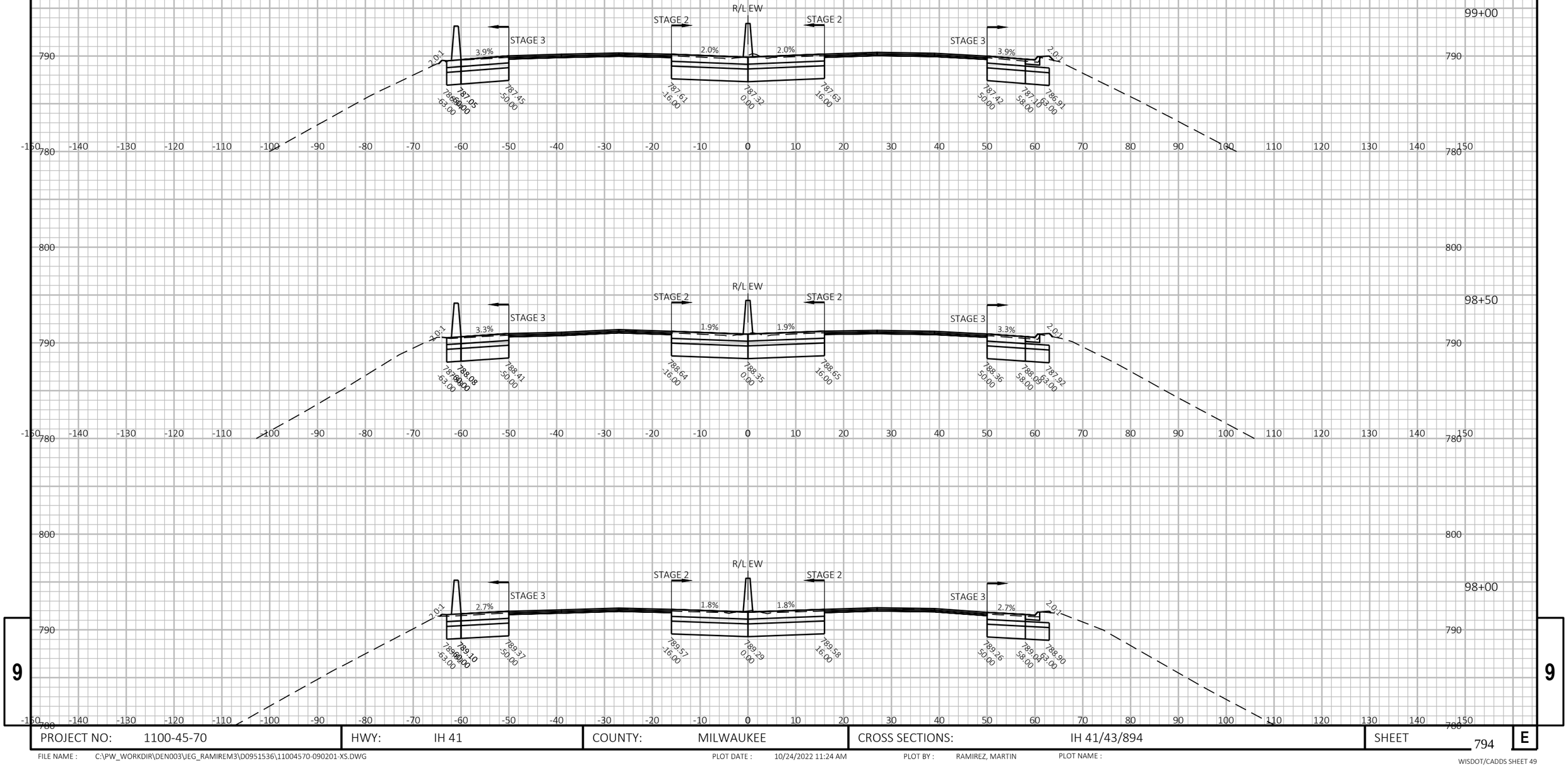
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 793	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:23 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 794	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:24 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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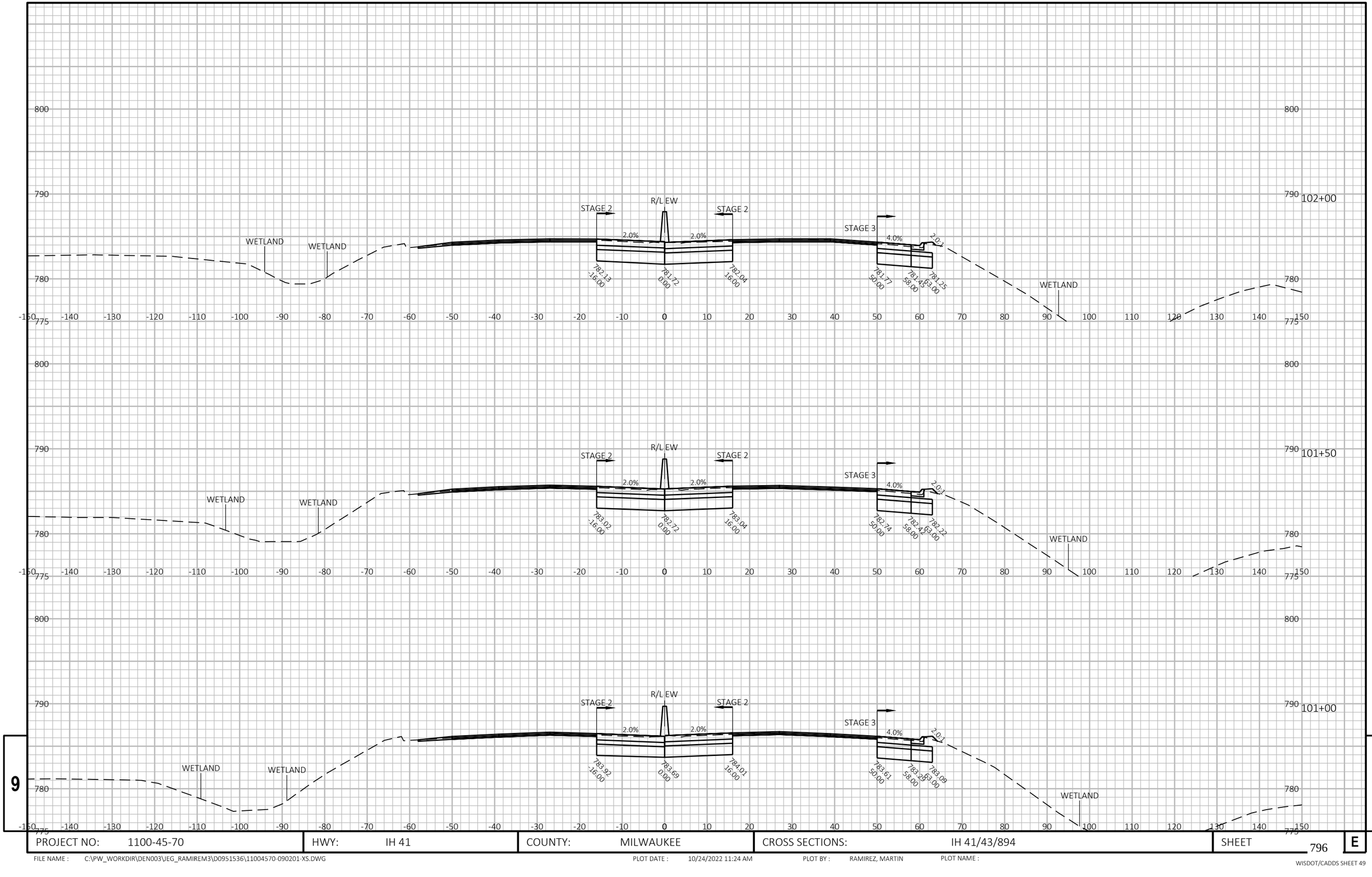
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 795	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:24 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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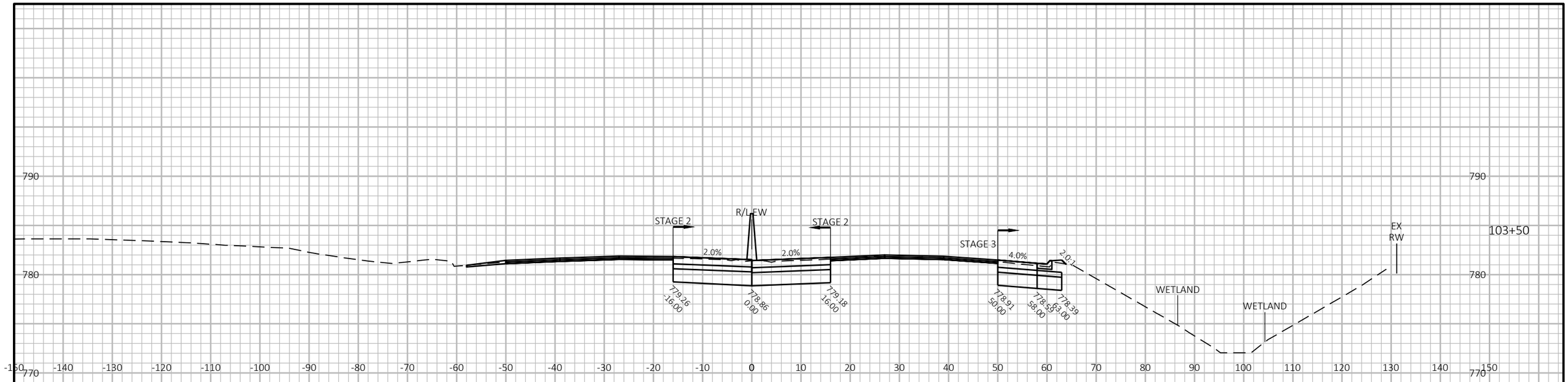
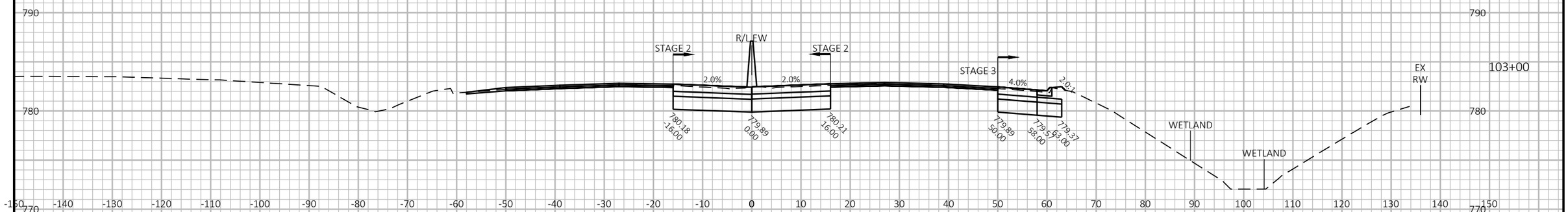
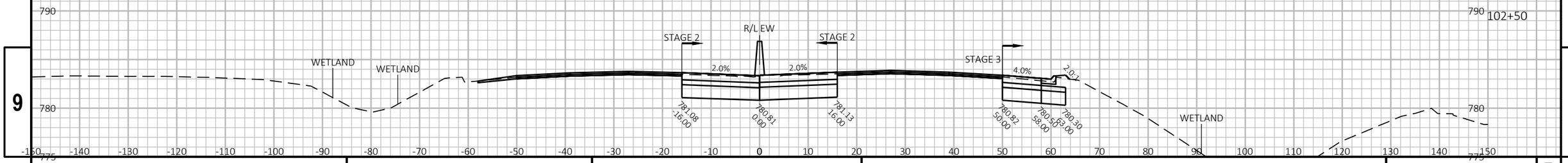
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 796	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:24 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49







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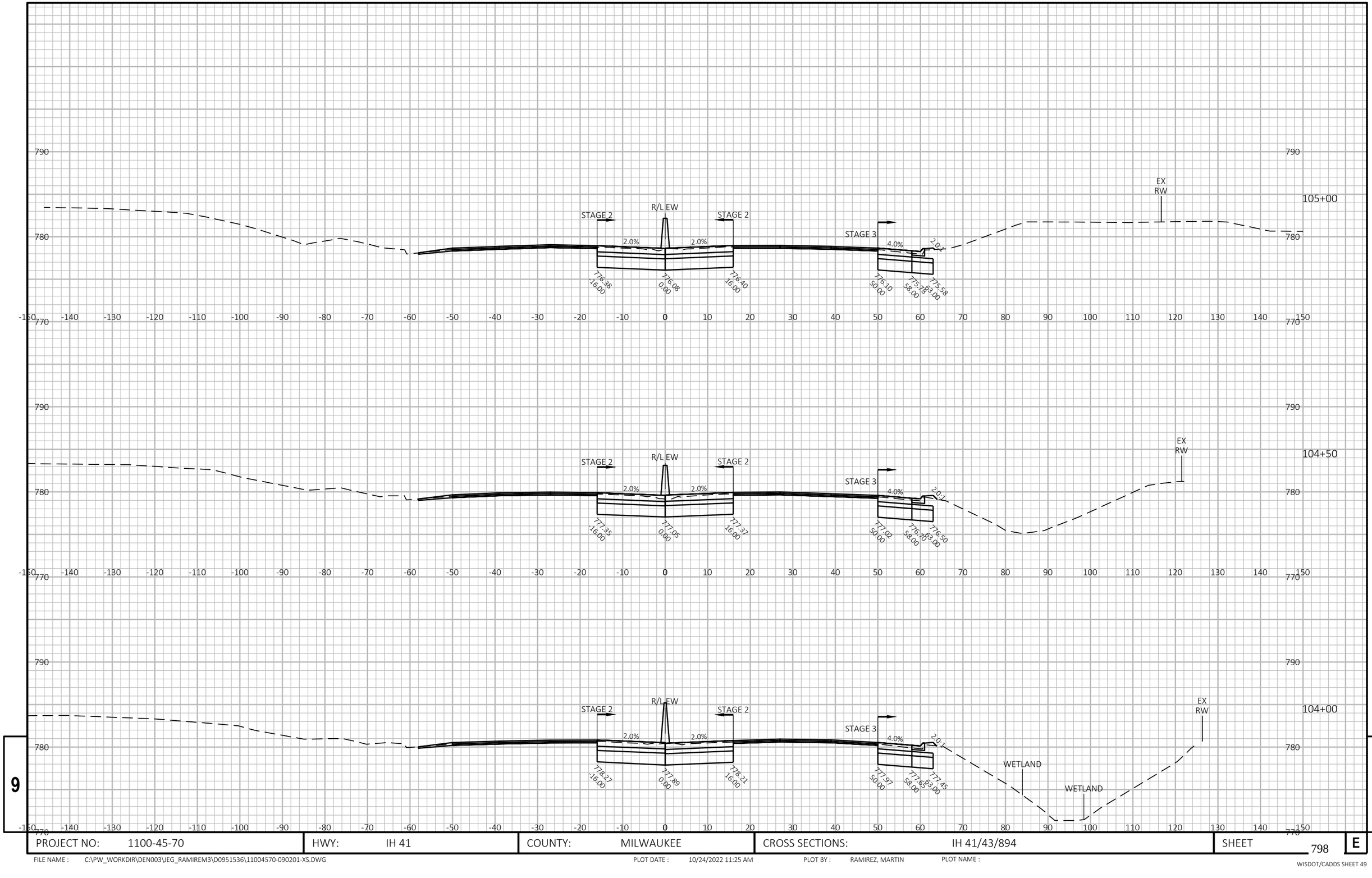
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 797	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:25 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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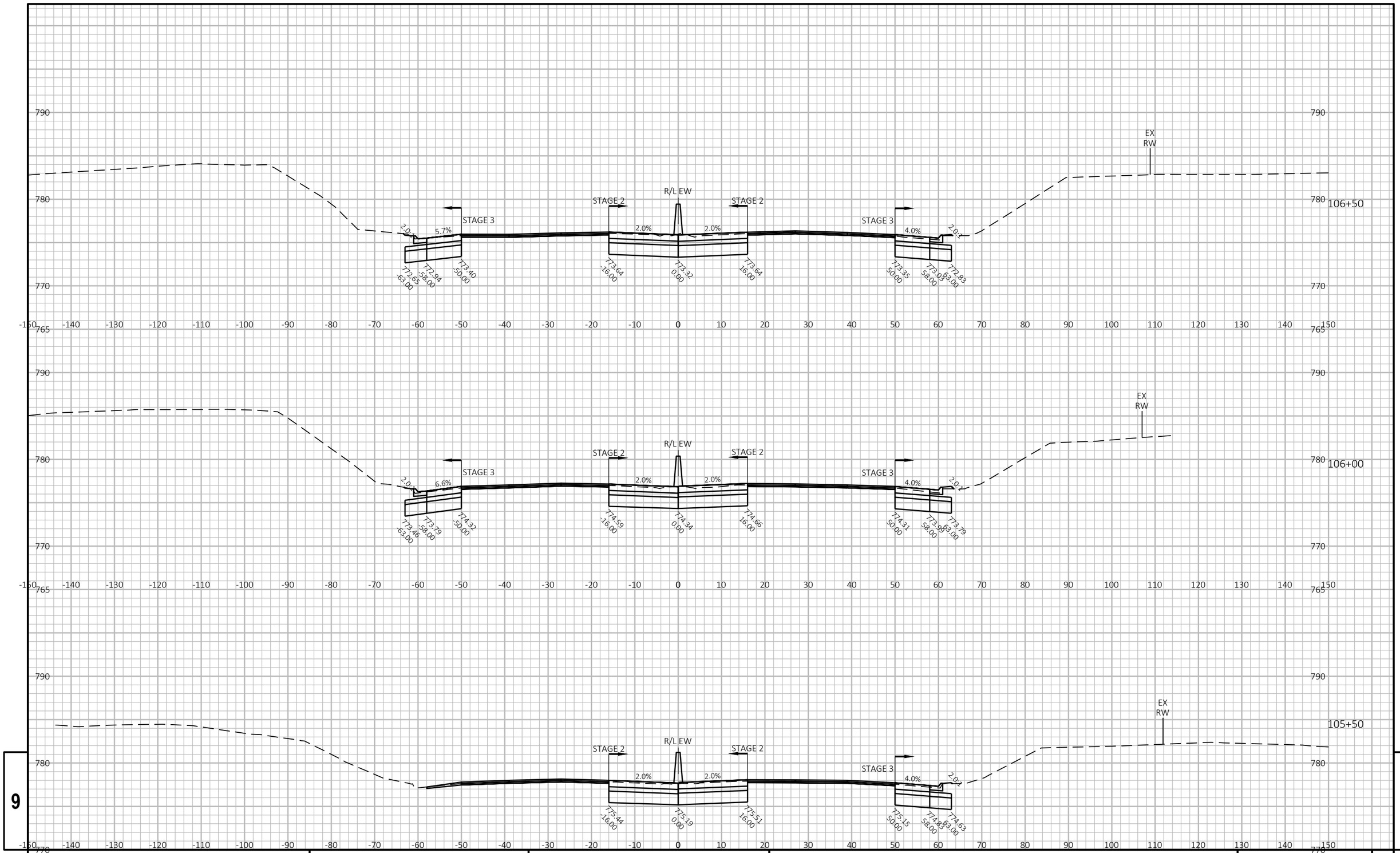
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 798	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:25 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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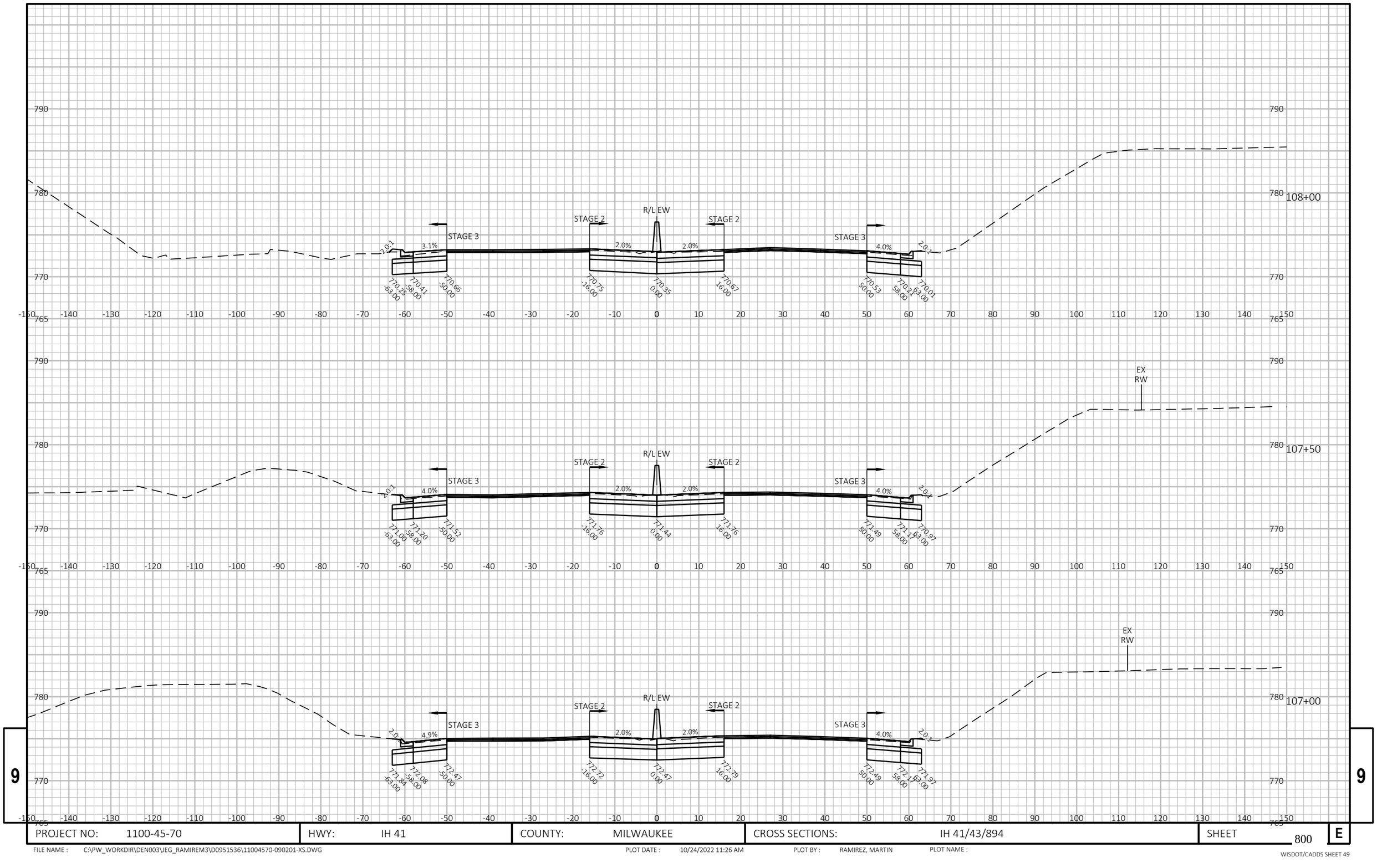
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 799	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:25 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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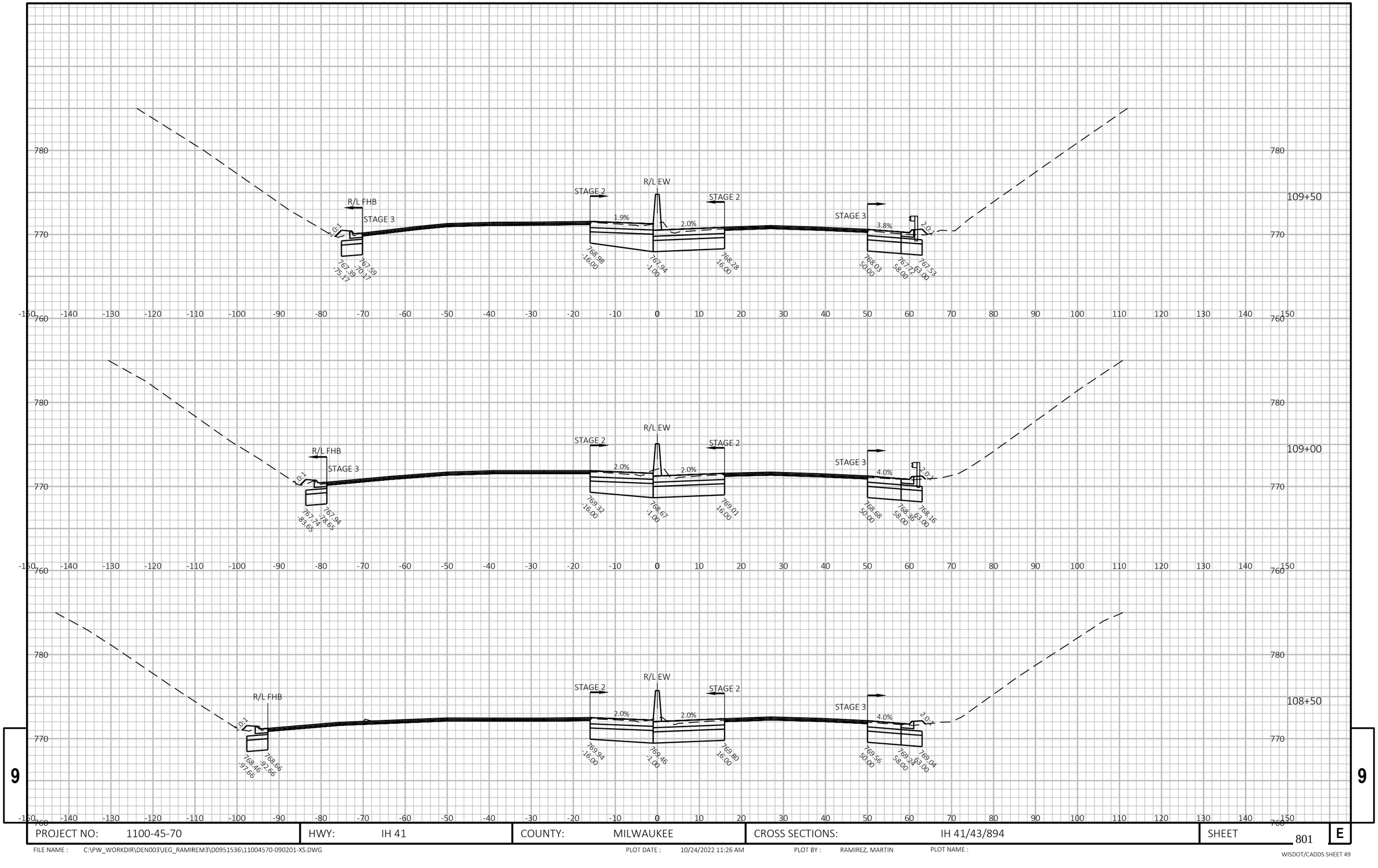
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 800	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:26 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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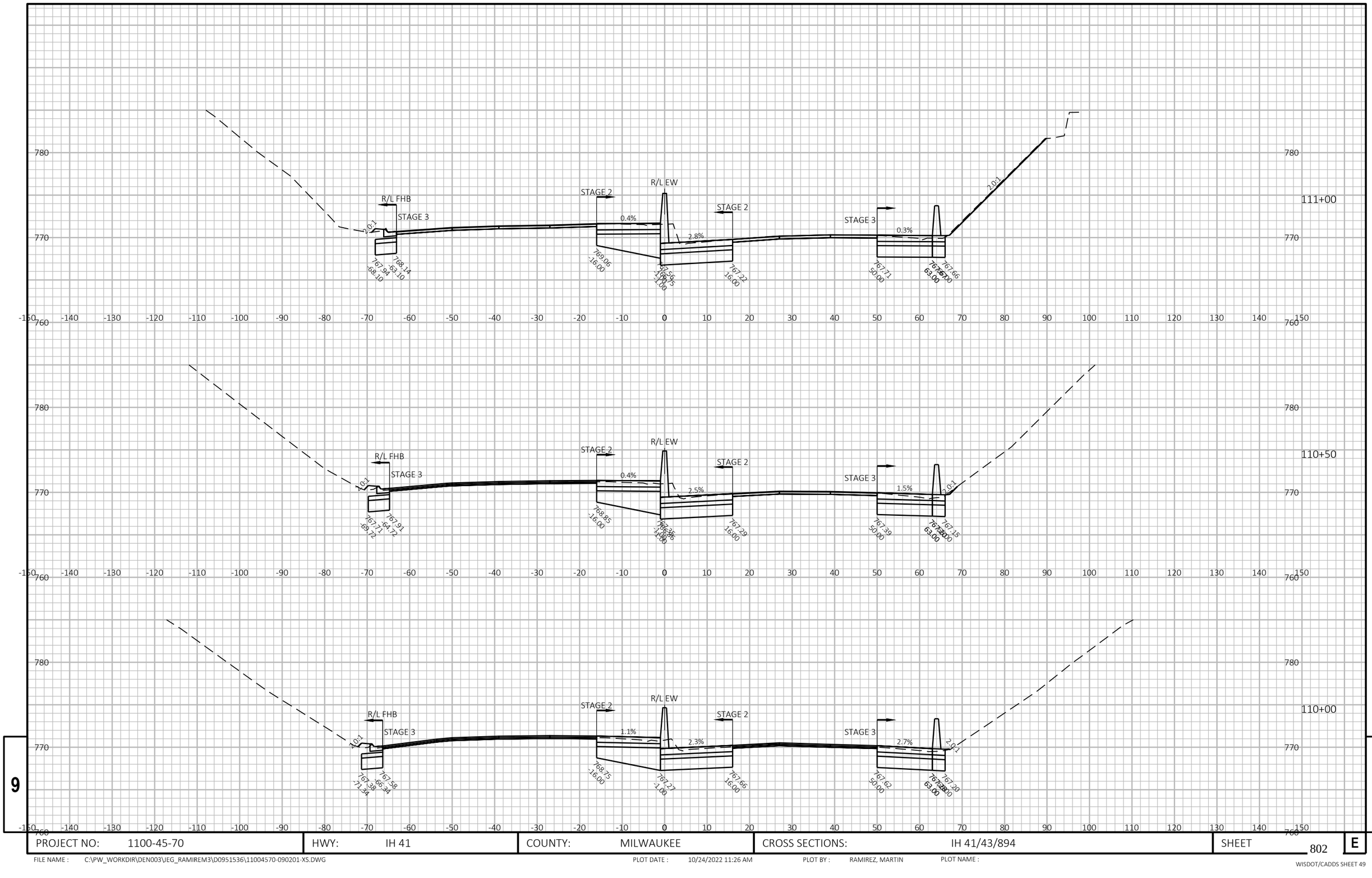
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 801	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:26 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 802	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:26 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 803	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:27 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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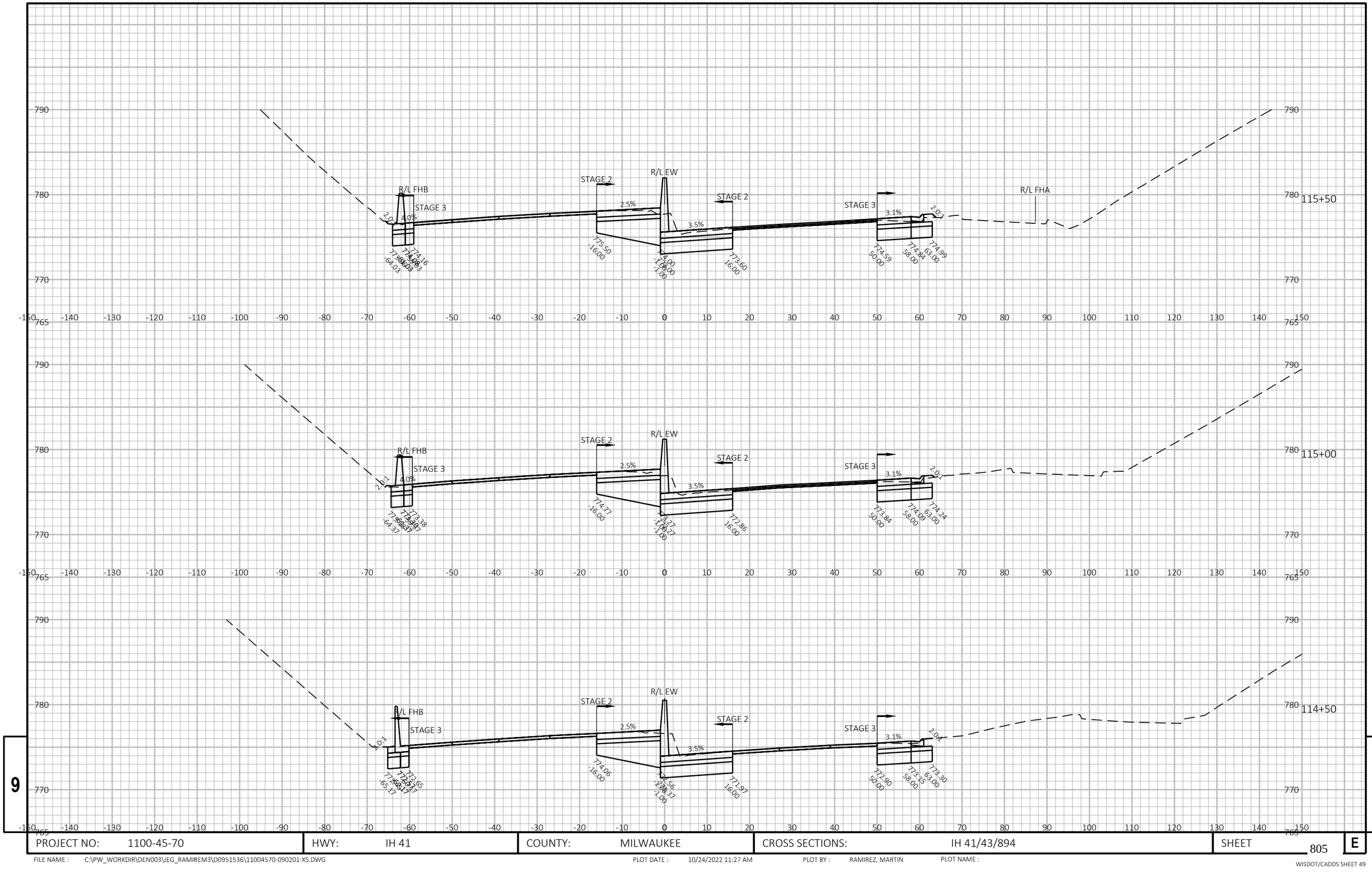
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 804	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:27 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

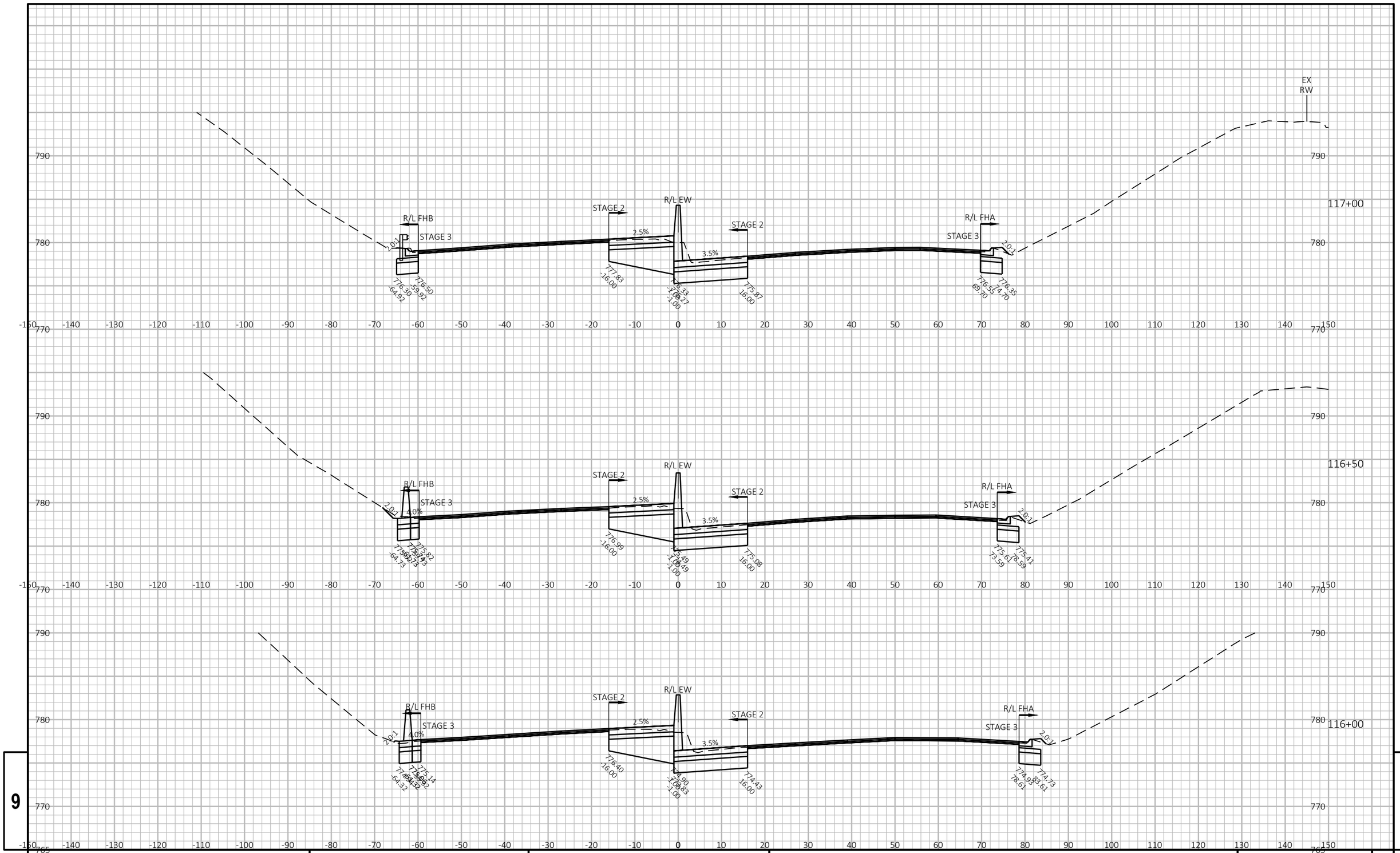
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 805 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:27 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

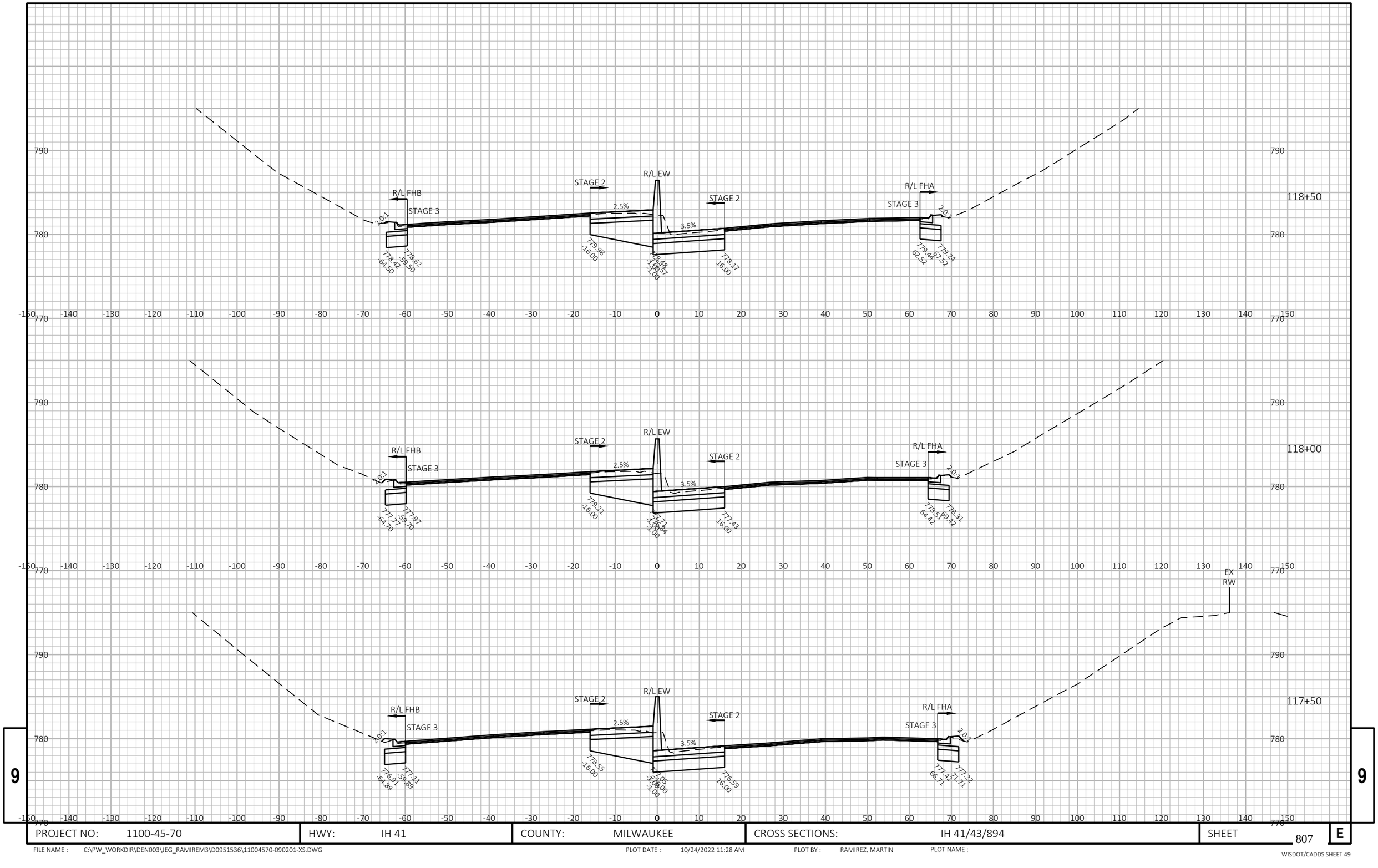
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 806 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:28 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 807 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:28 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 808	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:28 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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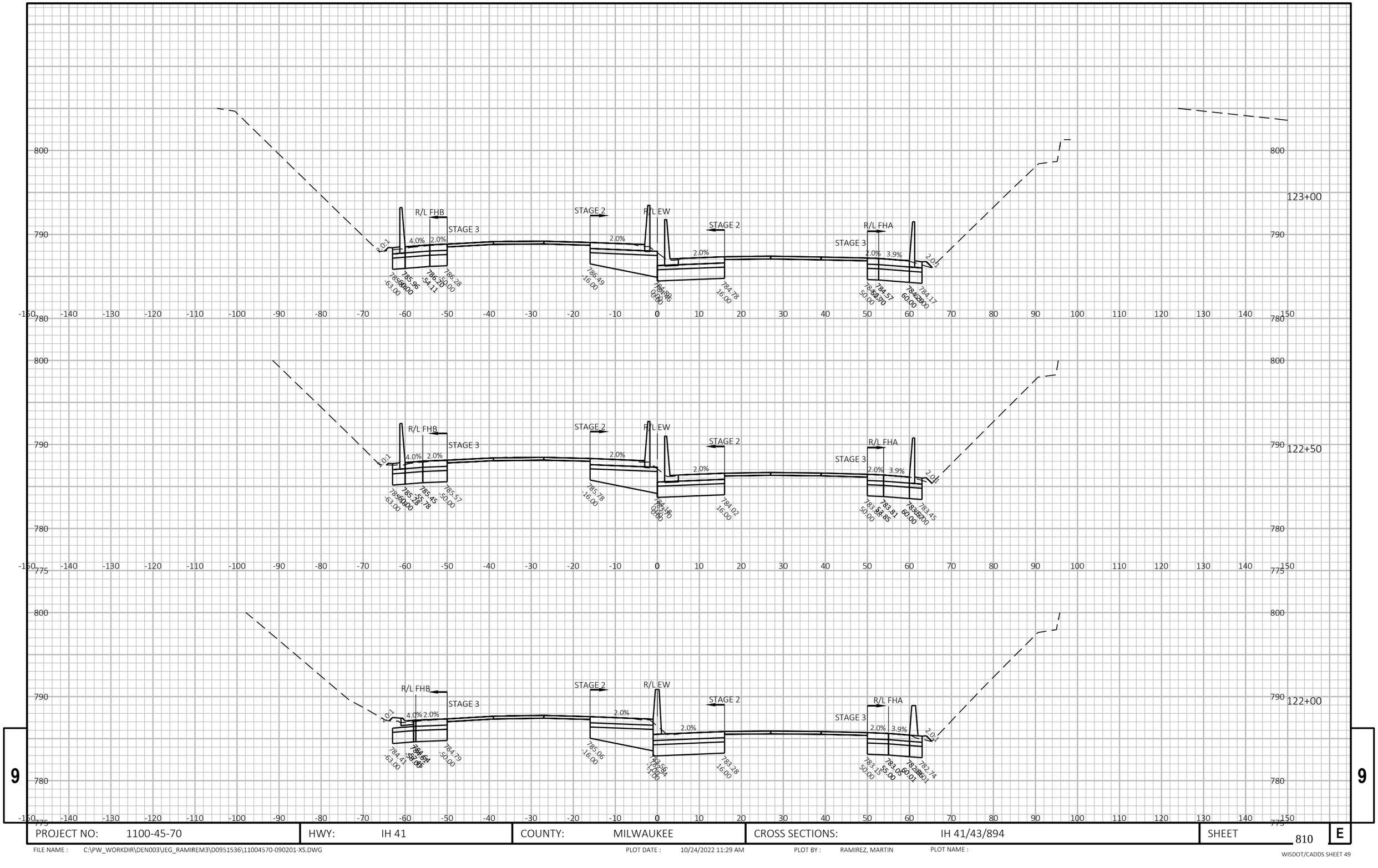
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 809	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:29 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

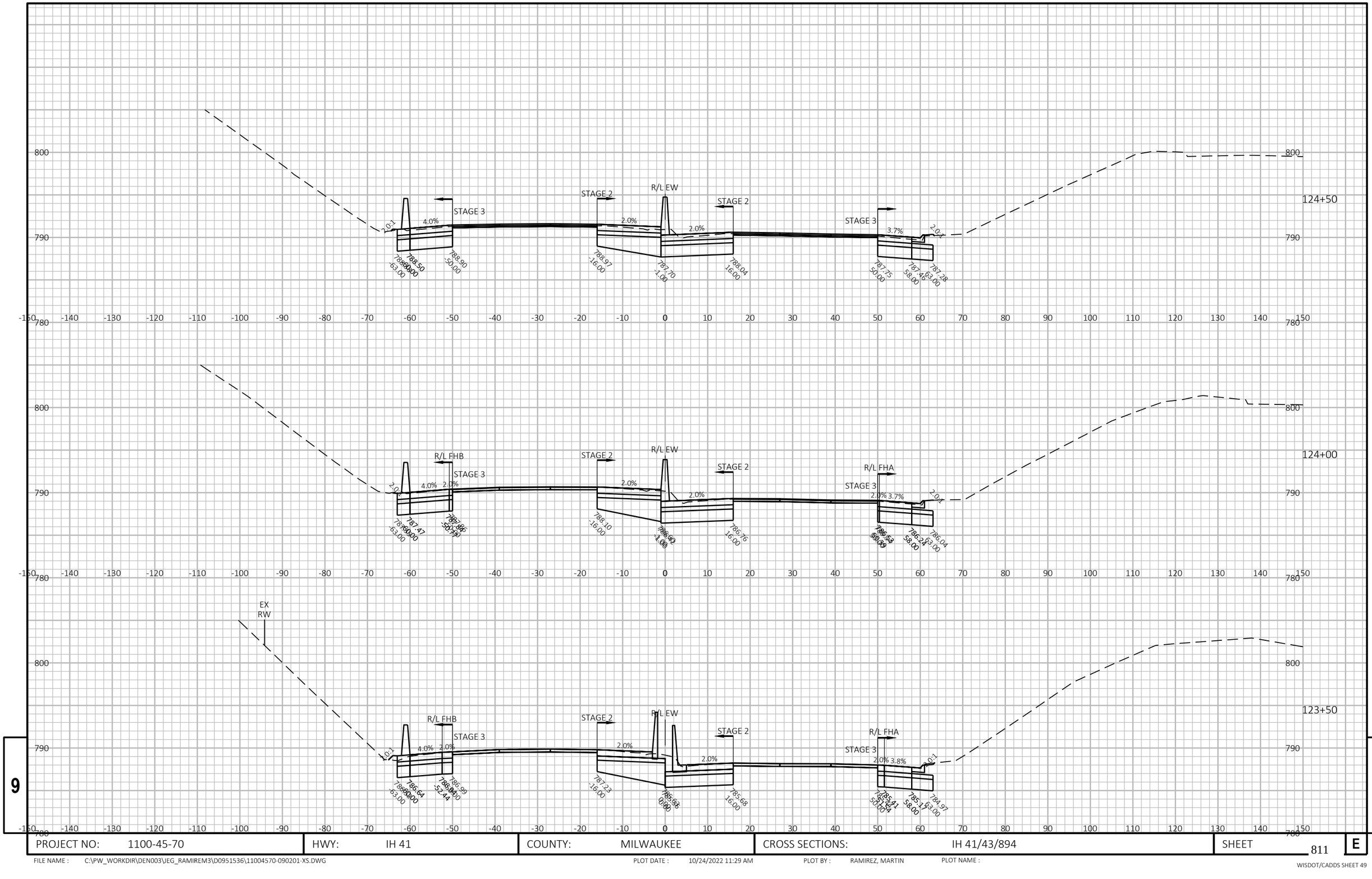
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 810 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:29 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

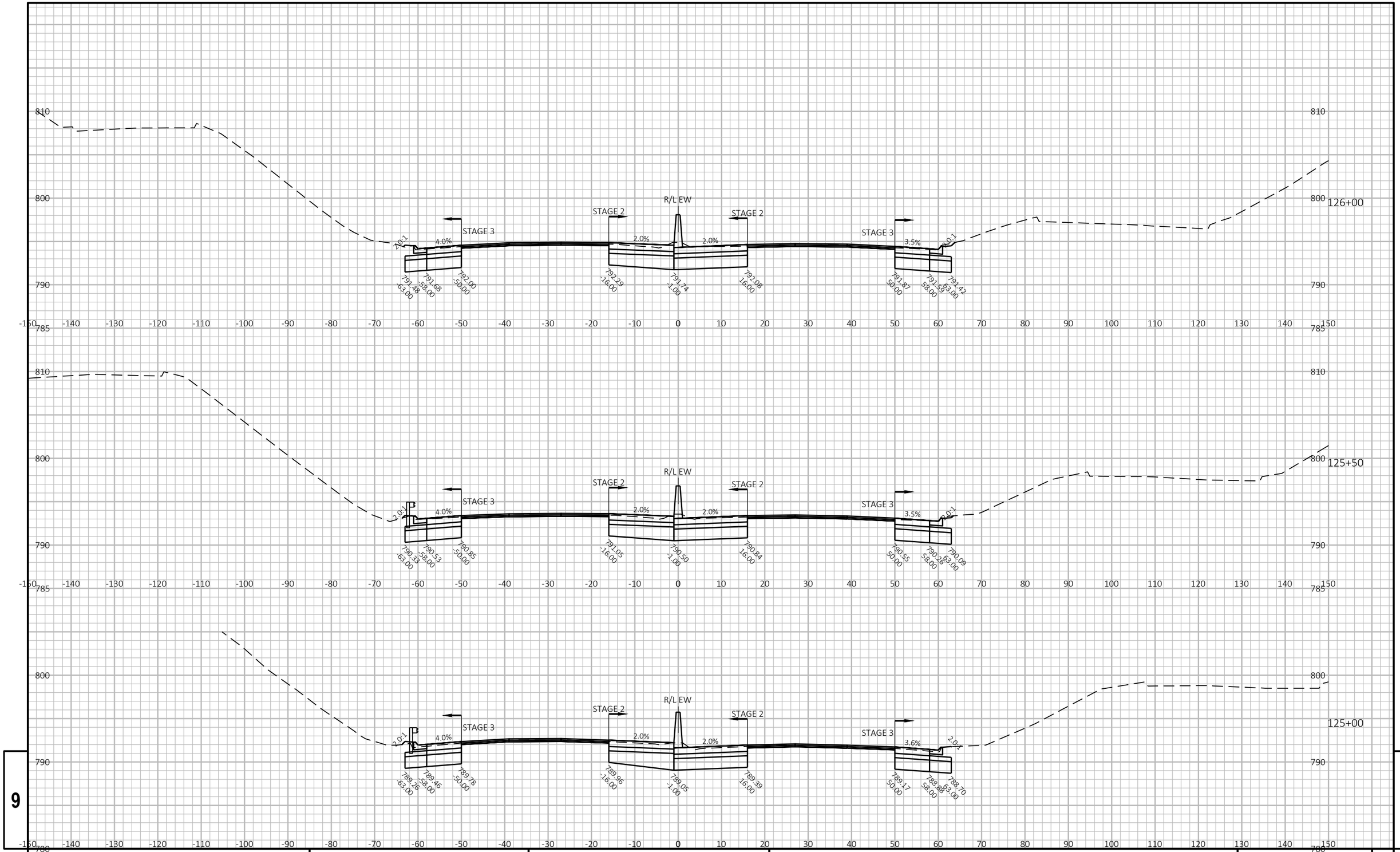
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 811	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:29 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

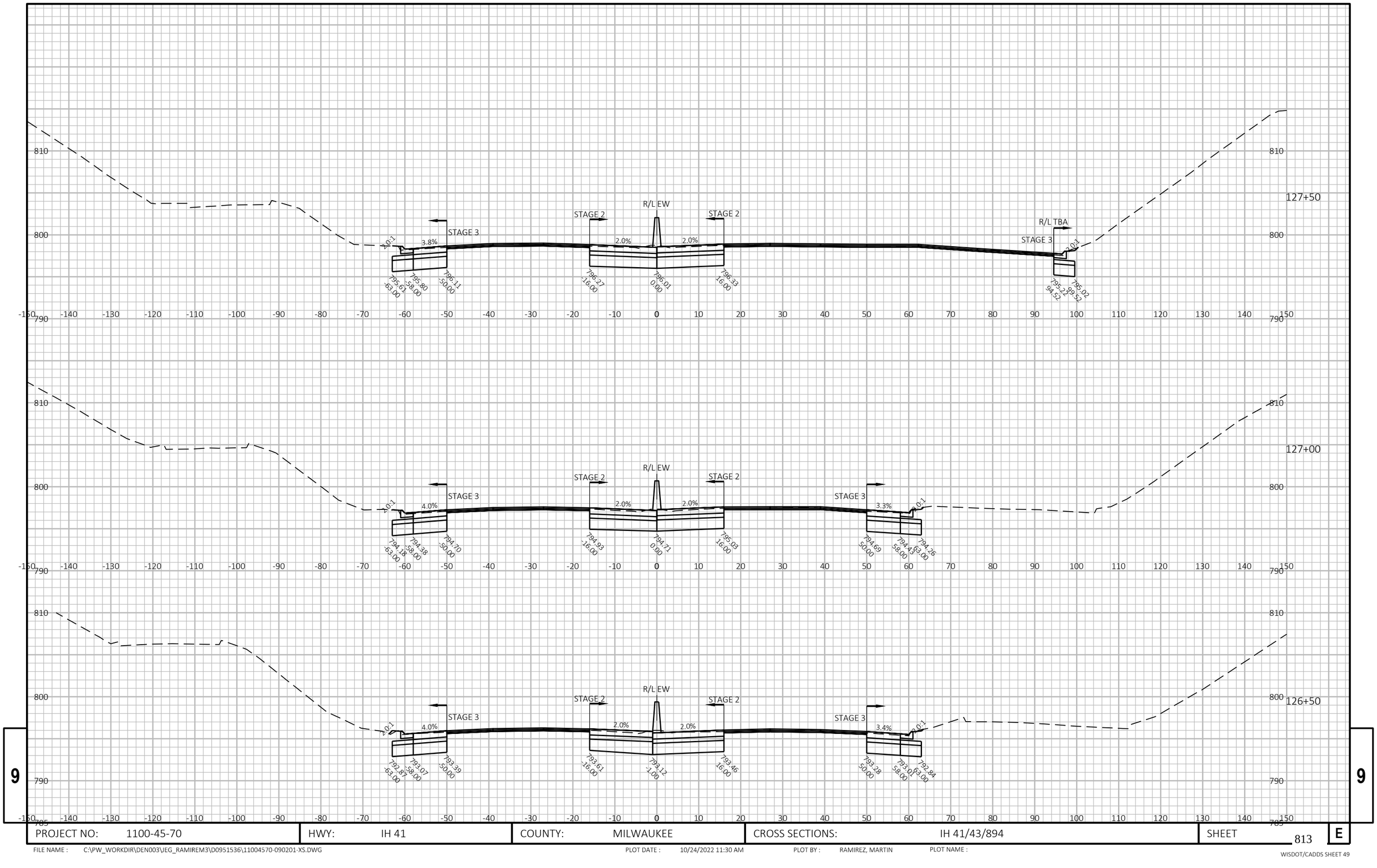
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 812 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:30 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 813	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:30 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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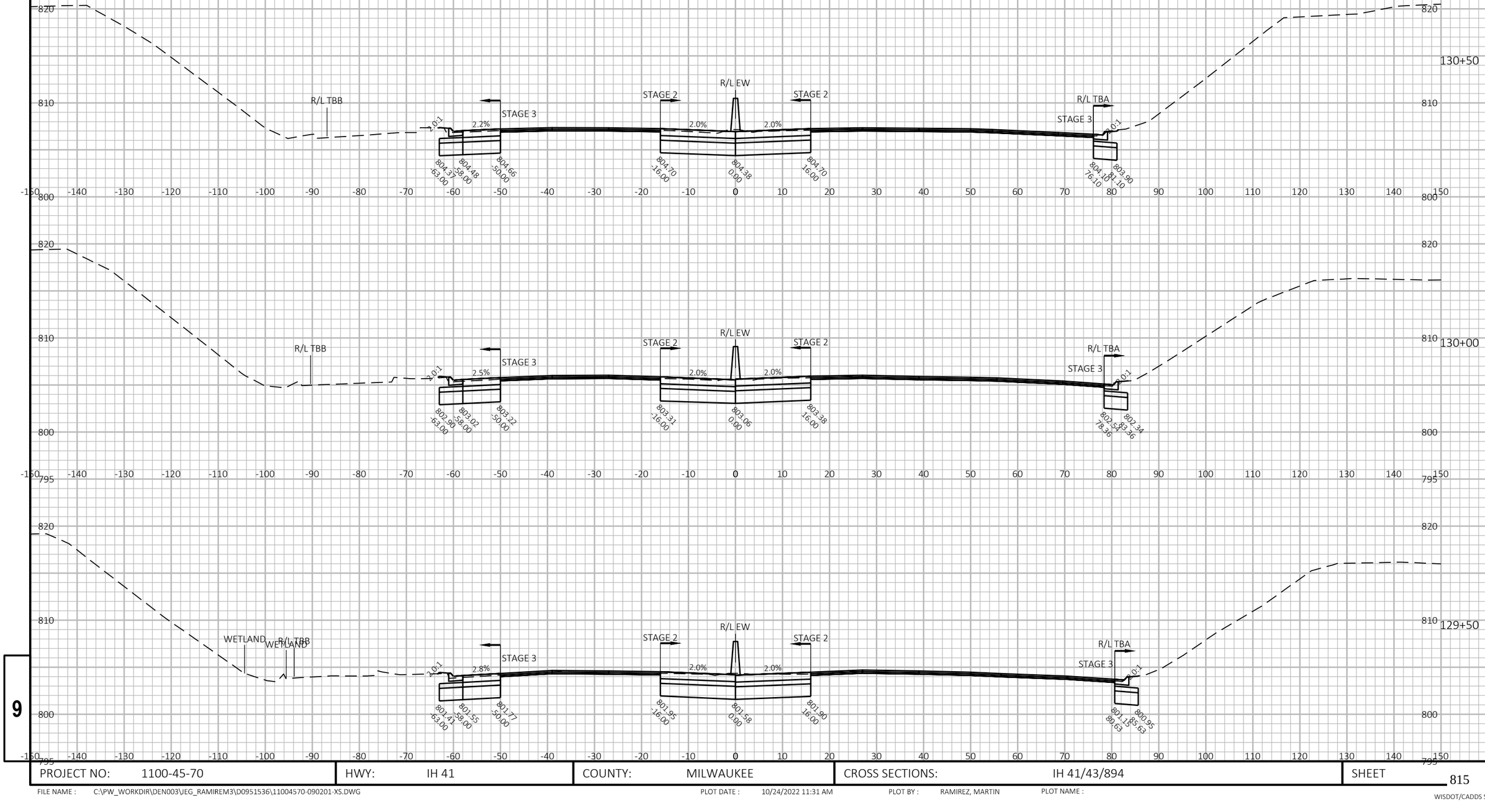
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 814	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:30 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 815	E

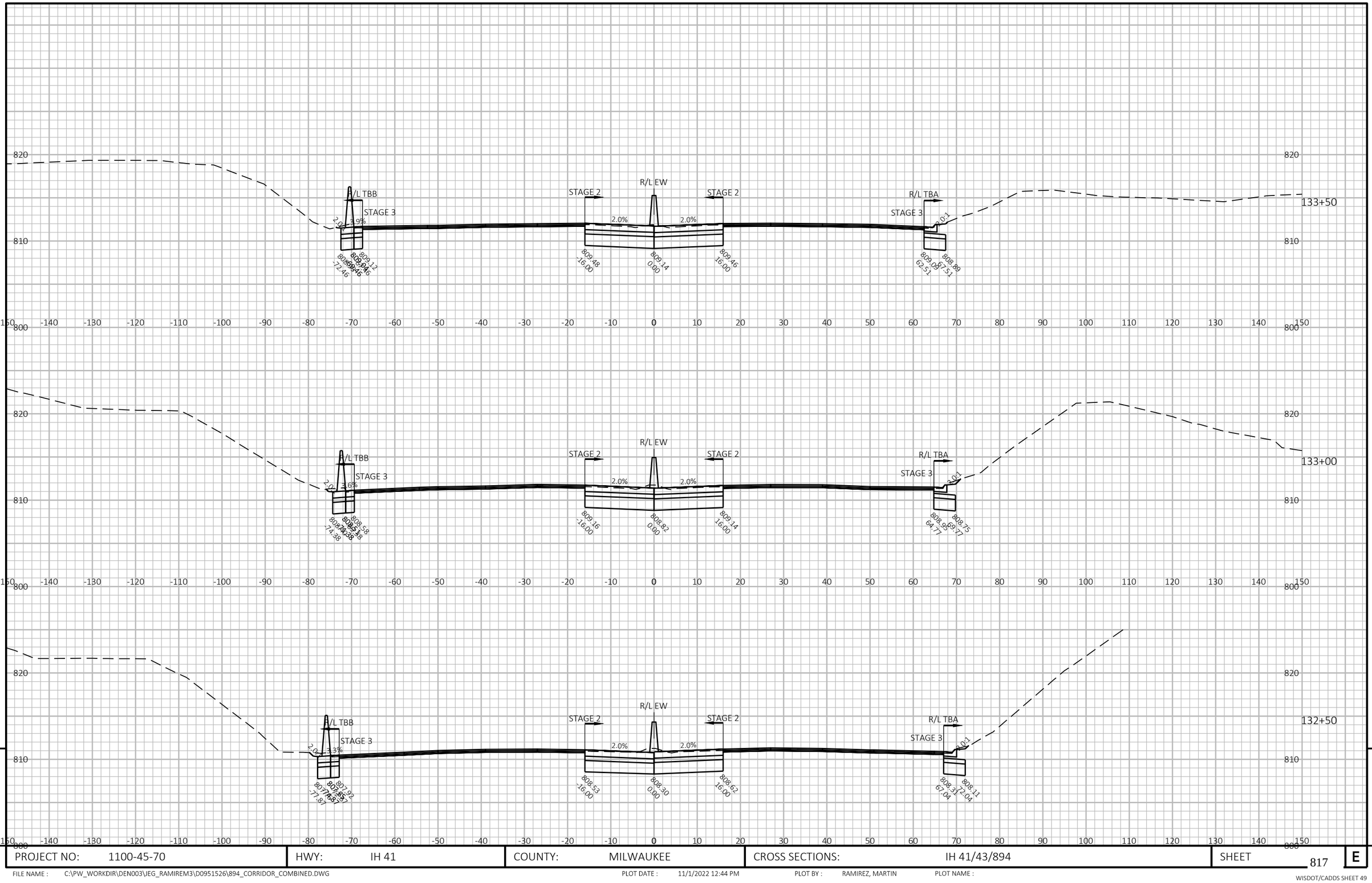
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:31 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 816	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:31 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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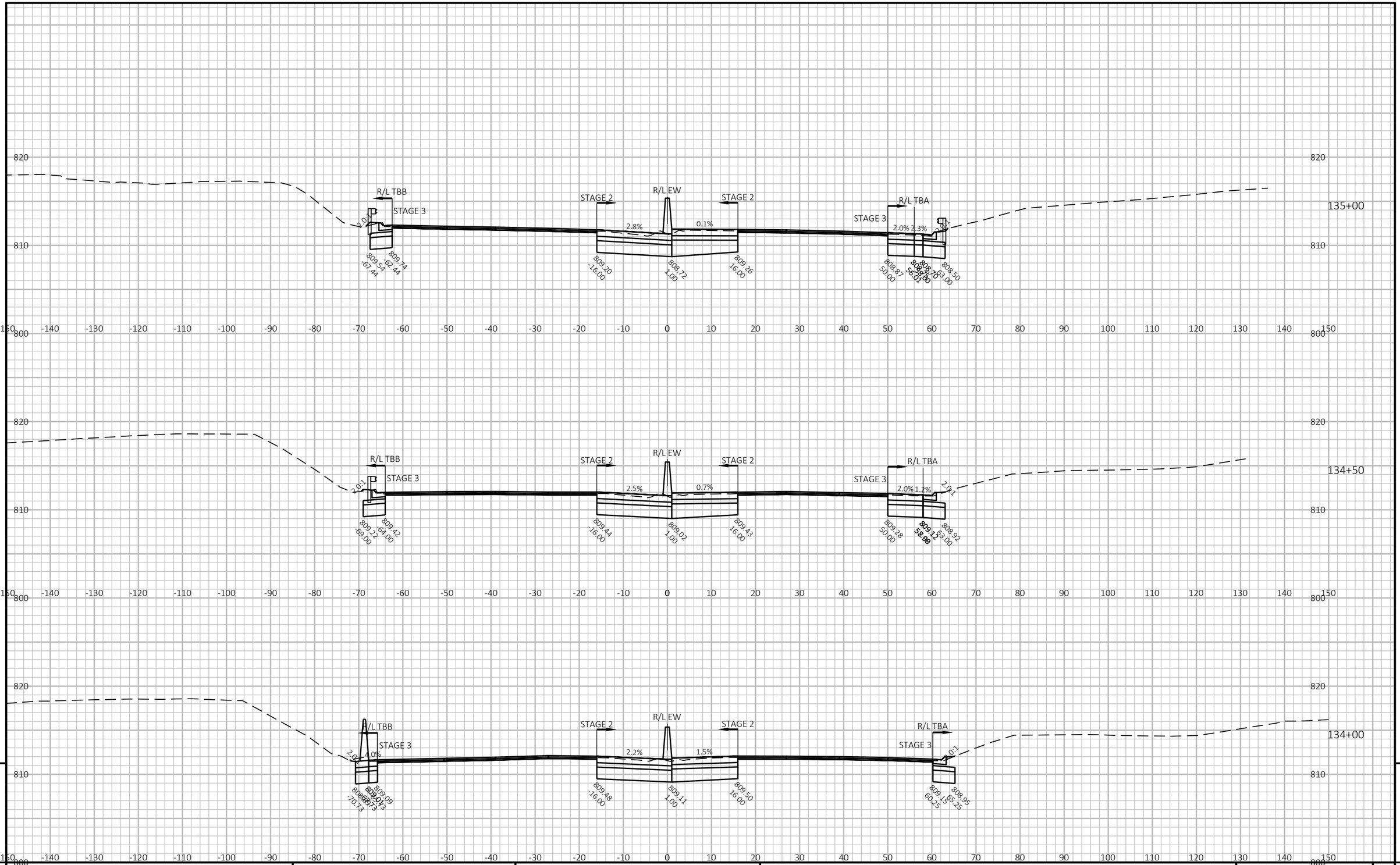
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 817	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951526\894_CORRIDOR_COMBINED.DWG PLOT DATE : 11/1/2022 12:44 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

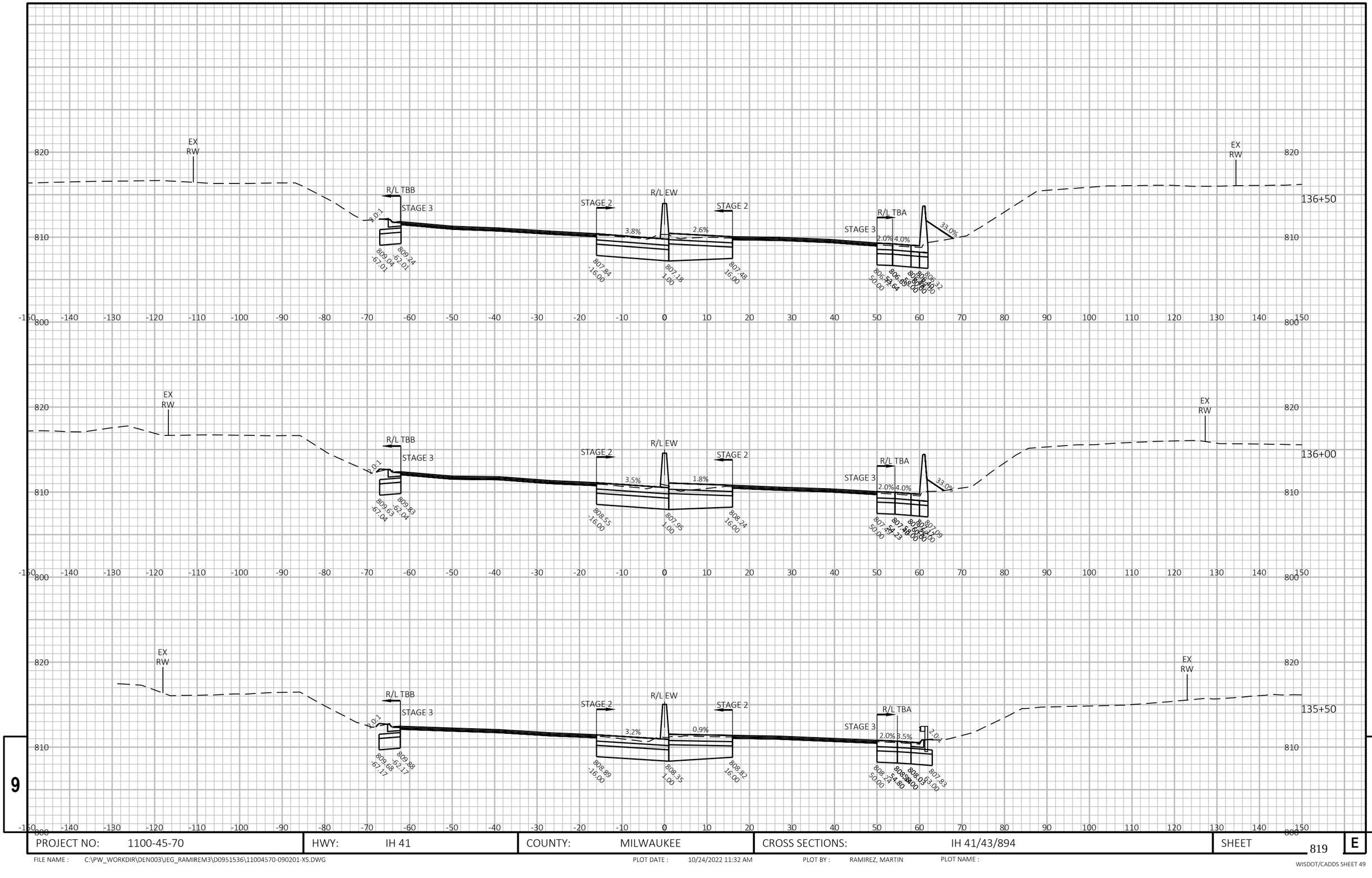
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 818 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951526\894_CORRIDOR_COMBINED.DWG PLOT DATE : 11/1/2022 12:48 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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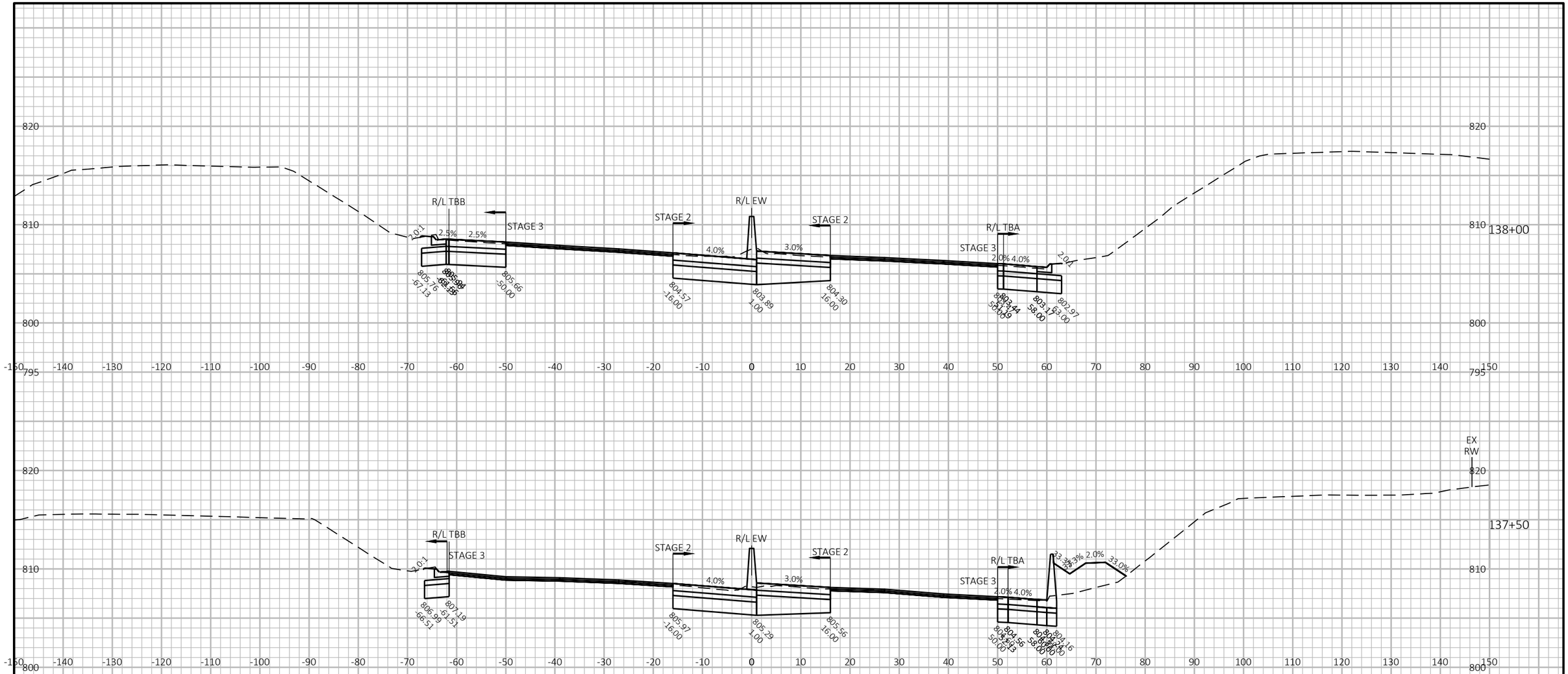
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 819	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:32 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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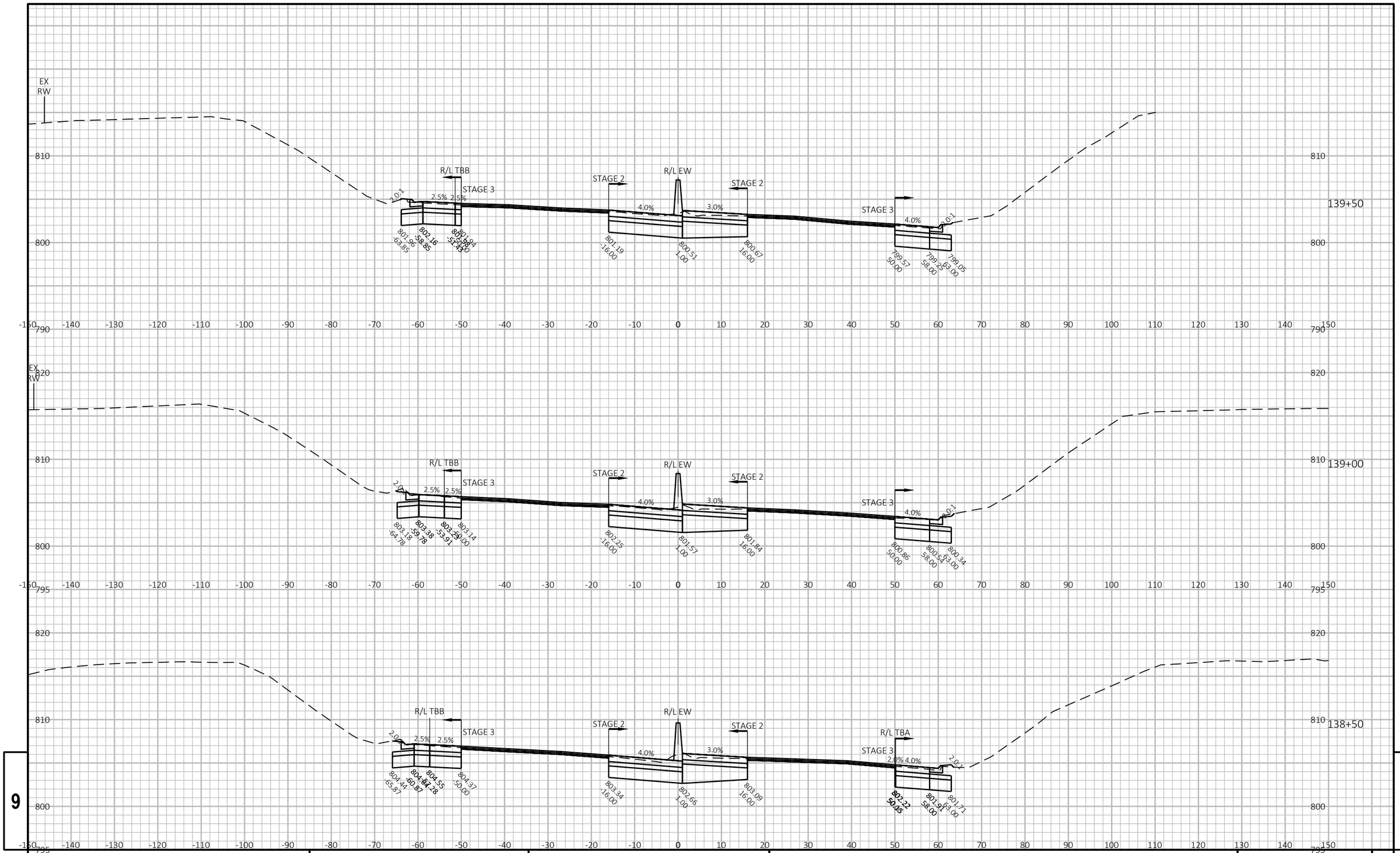
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 820	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:32 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 821 E

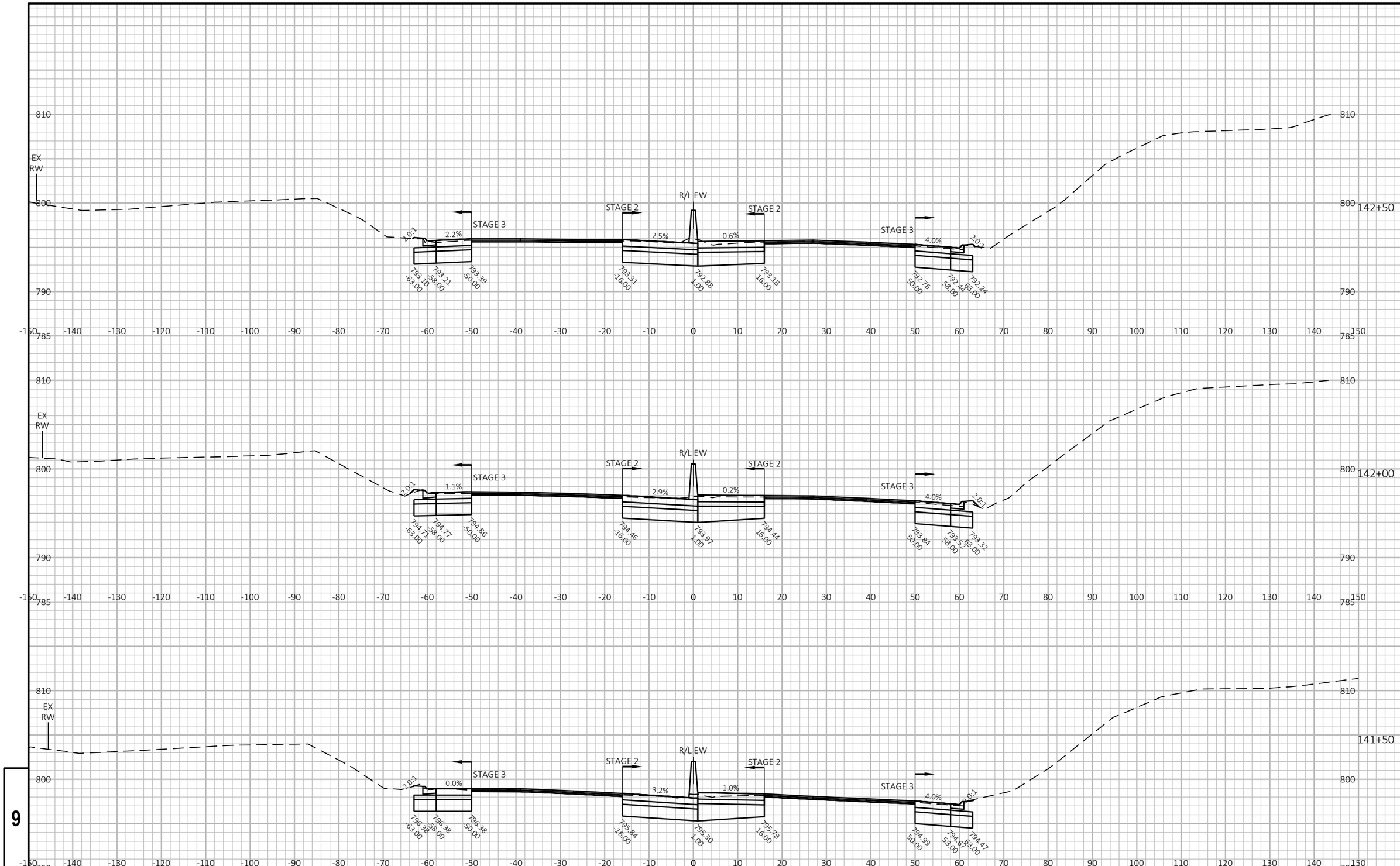
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:32 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 822 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:33 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

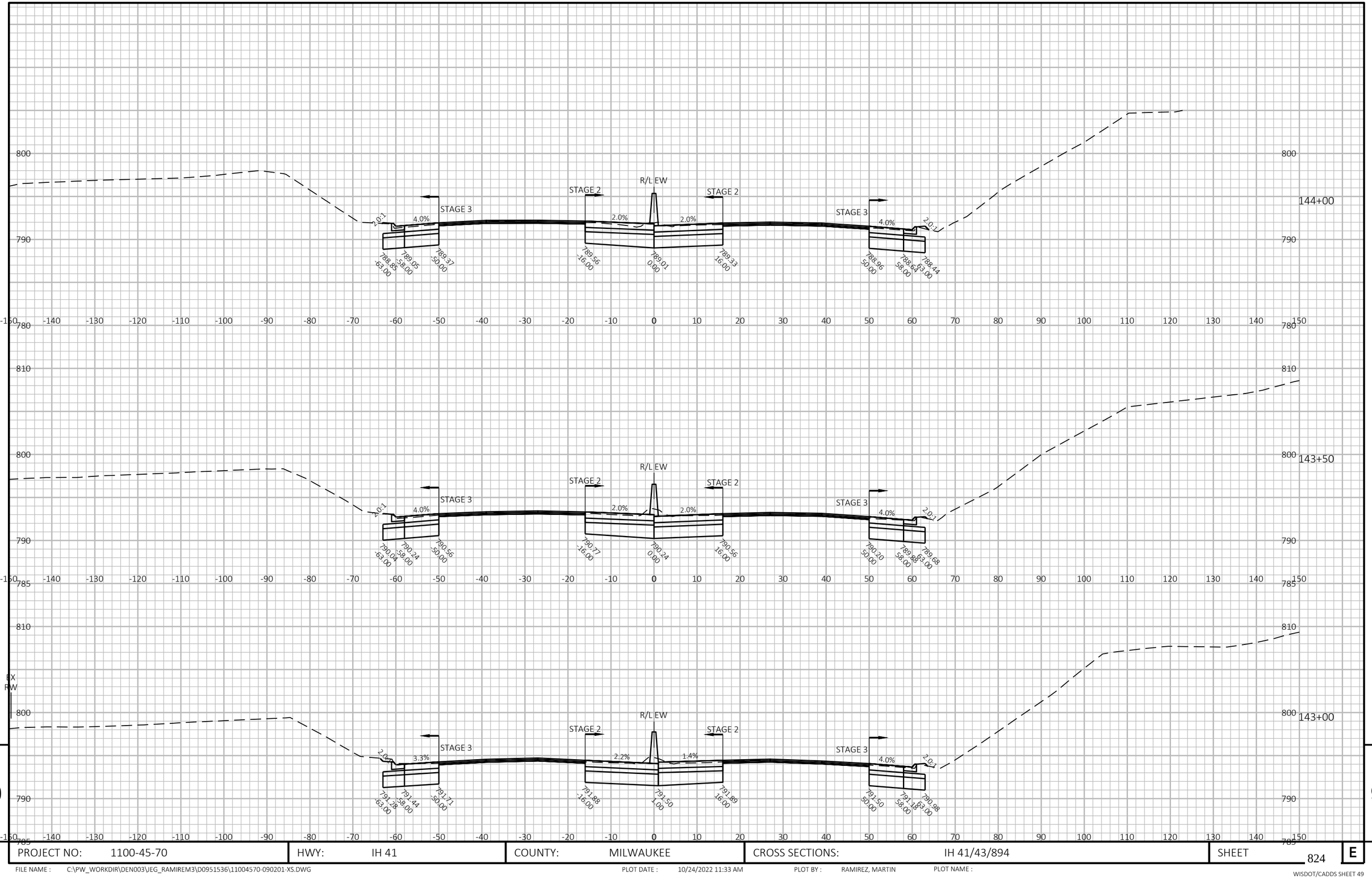
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 823	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:33 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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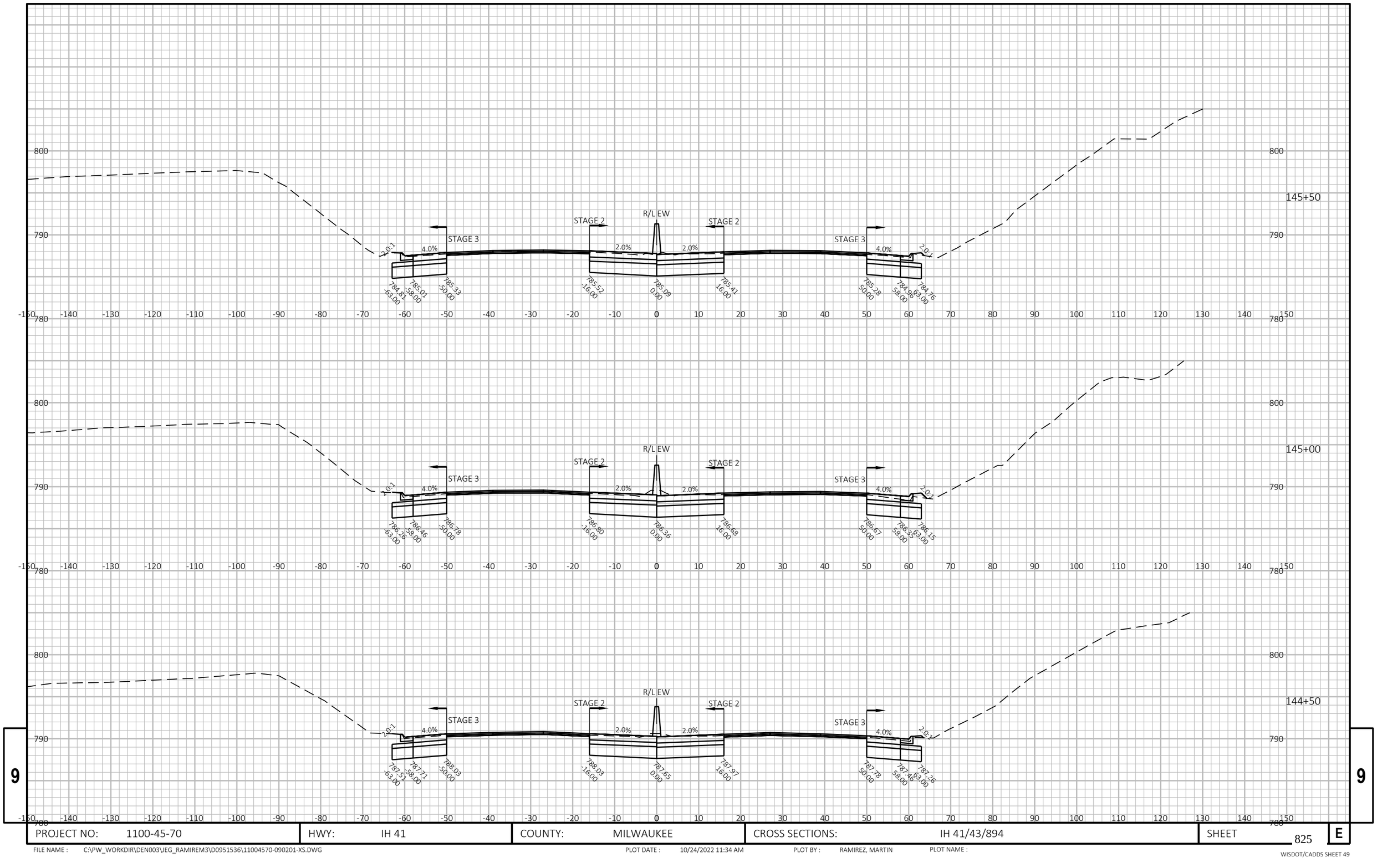
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 824	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:33 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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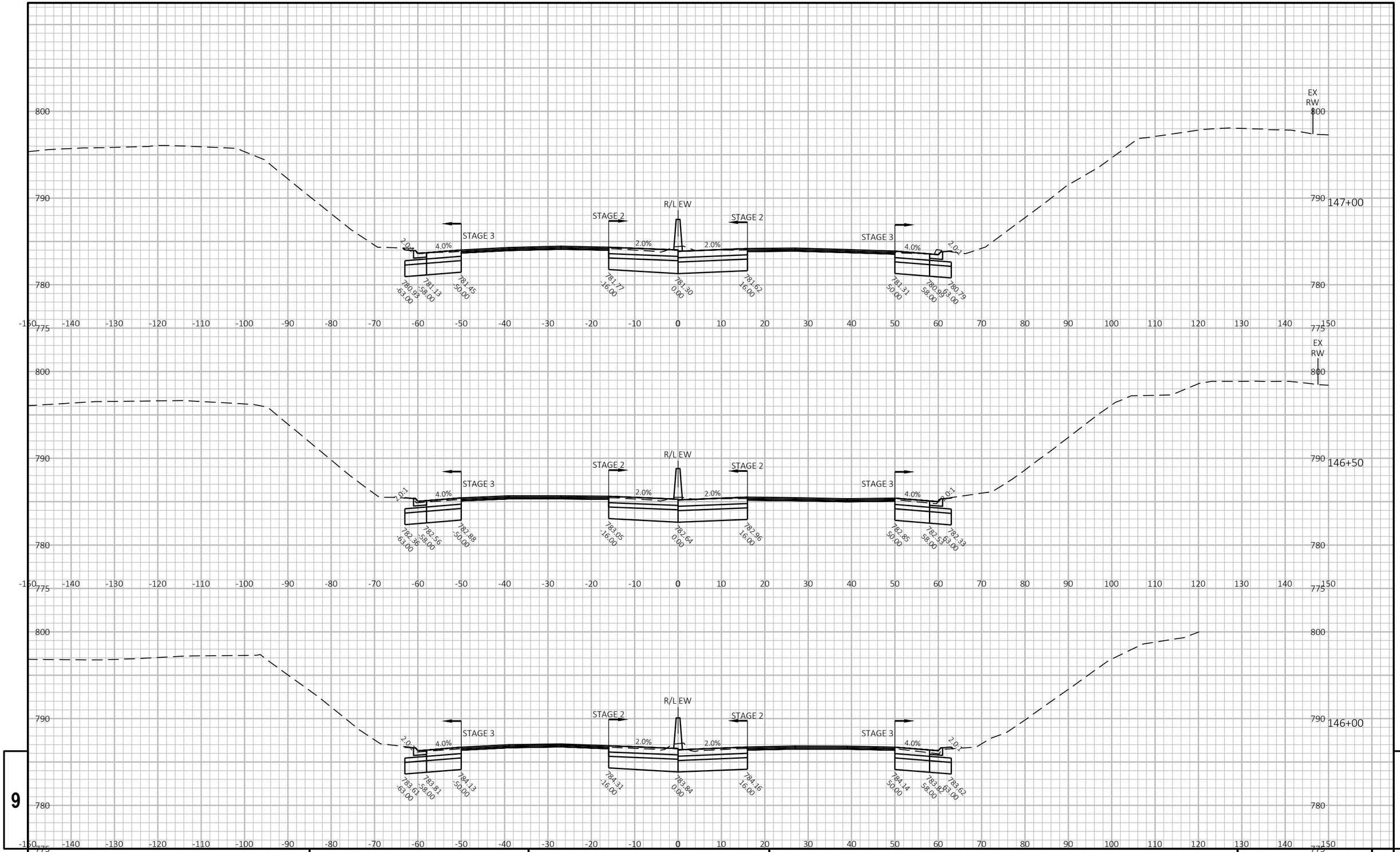
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 825	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:34 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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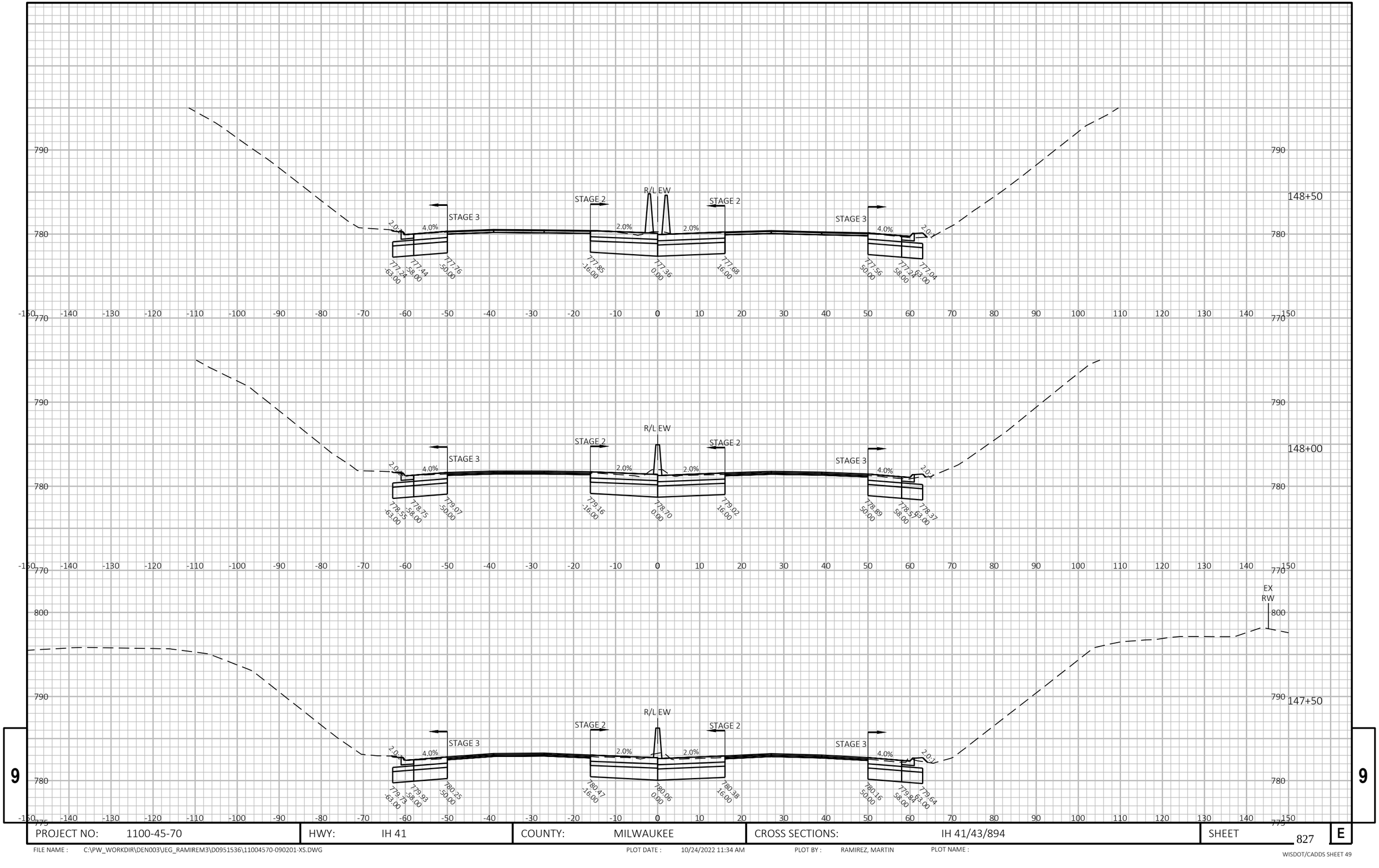
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 826	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:34 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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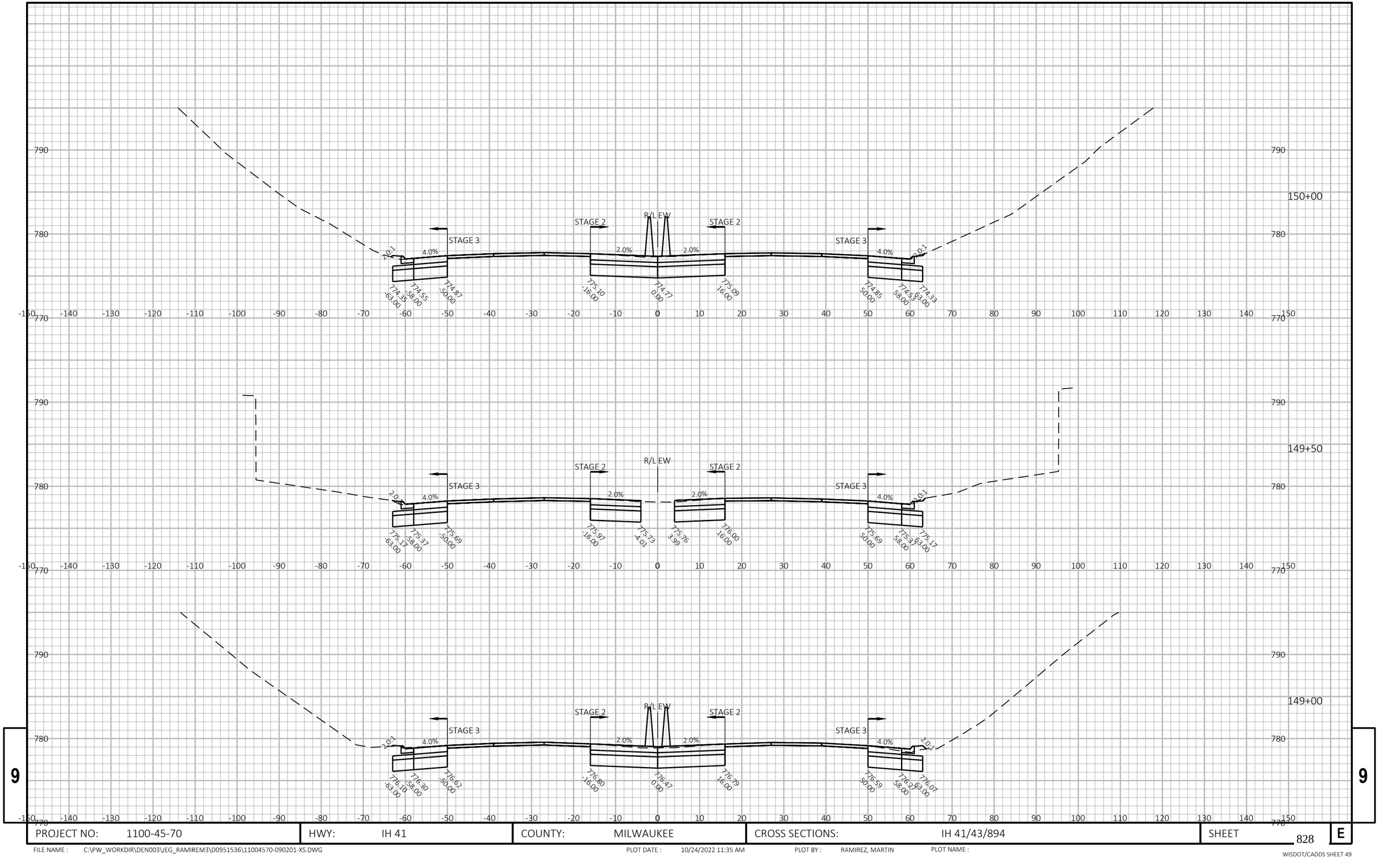
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 827	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:34 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

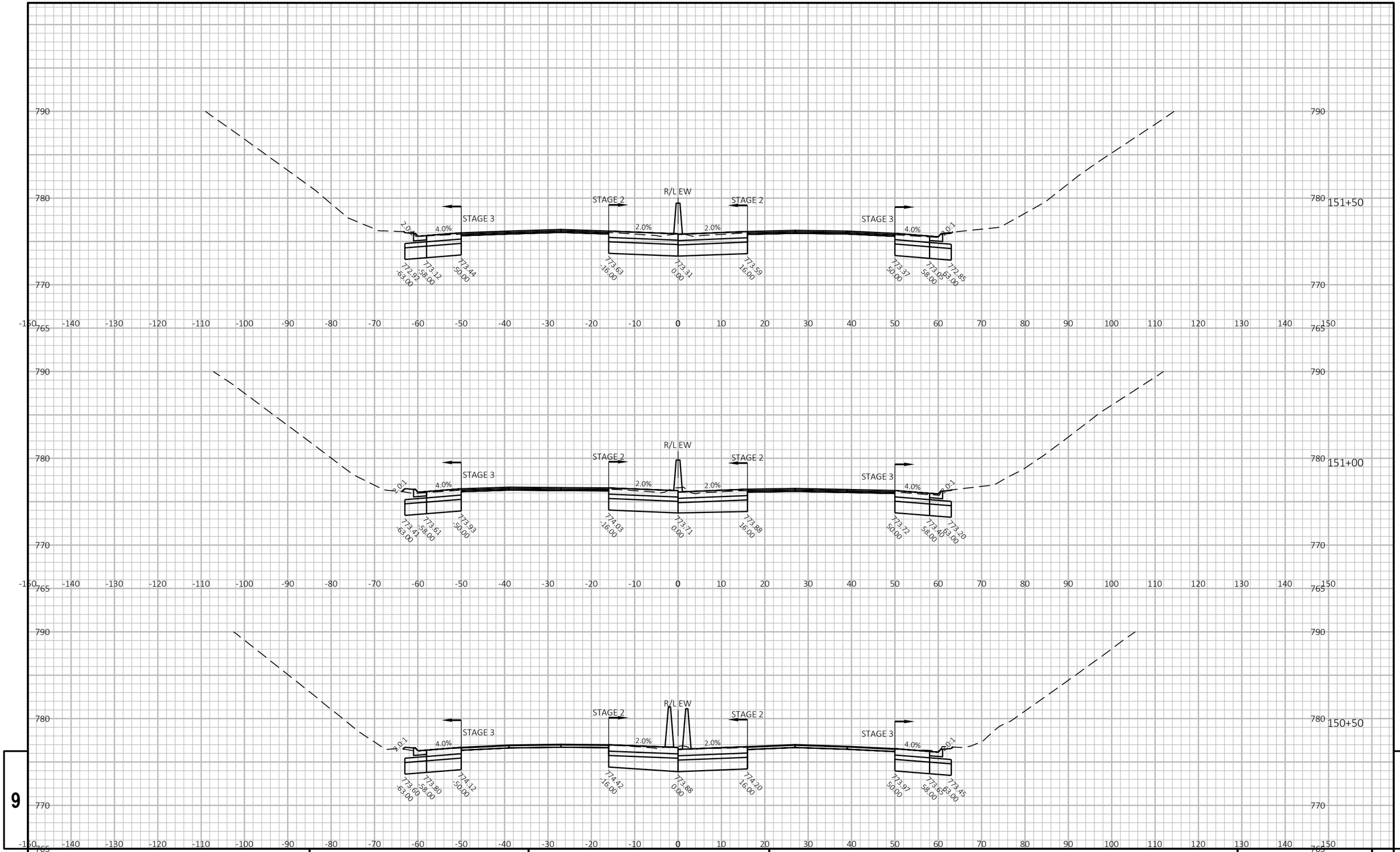
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 828 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:35 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 829	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:35 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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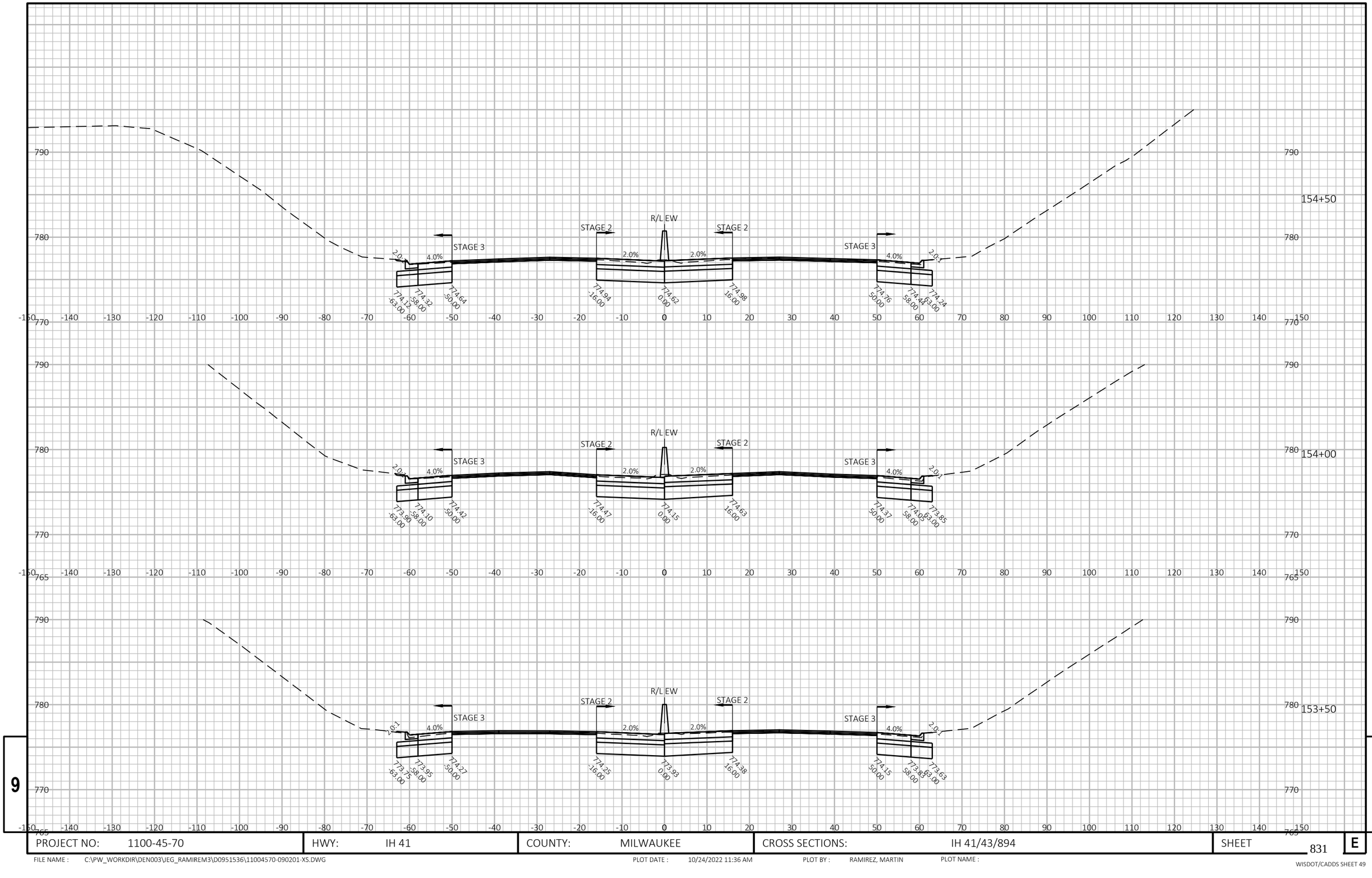
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 830	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:35 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

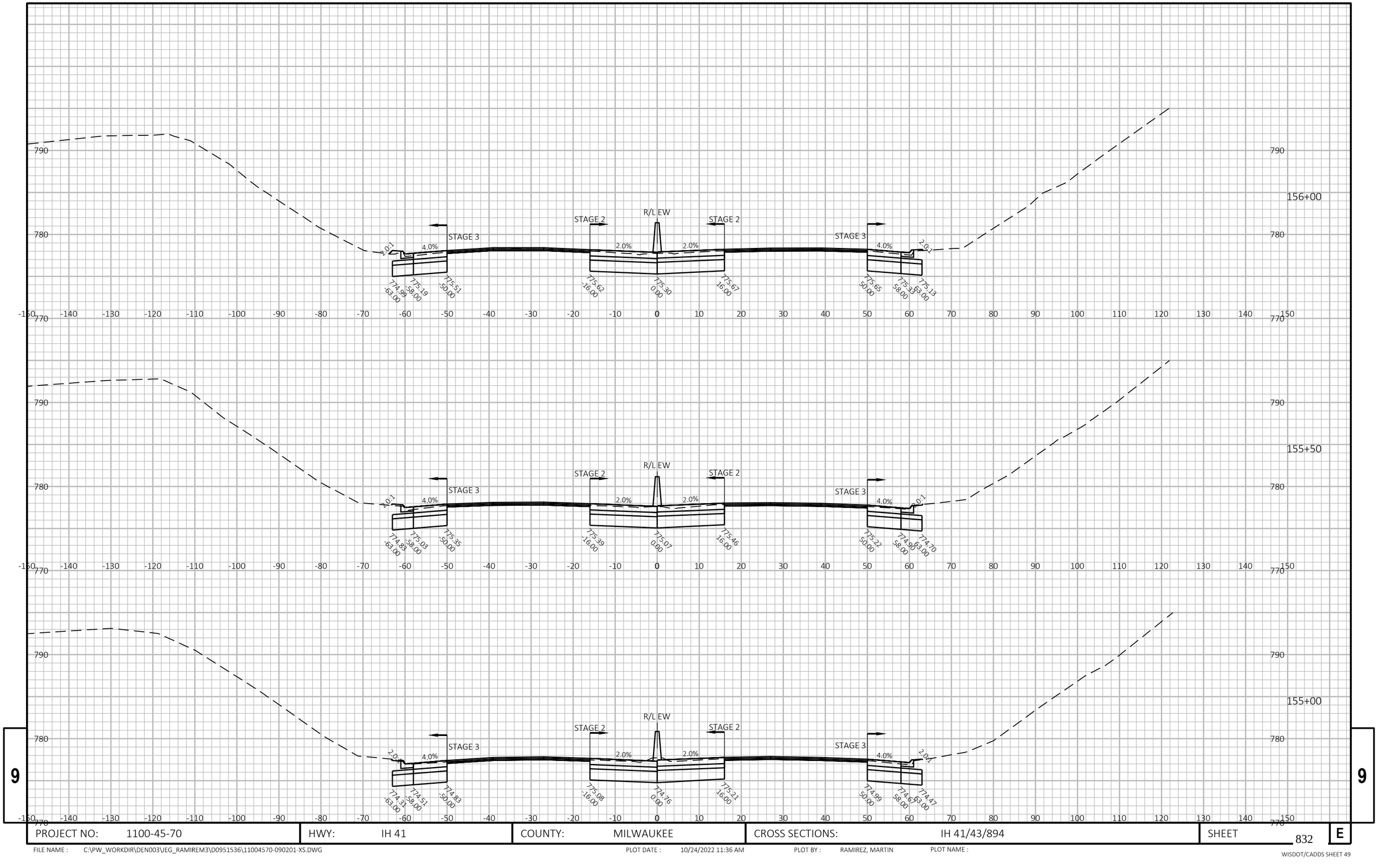
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 831 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:36 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 832 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:36 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 833	E

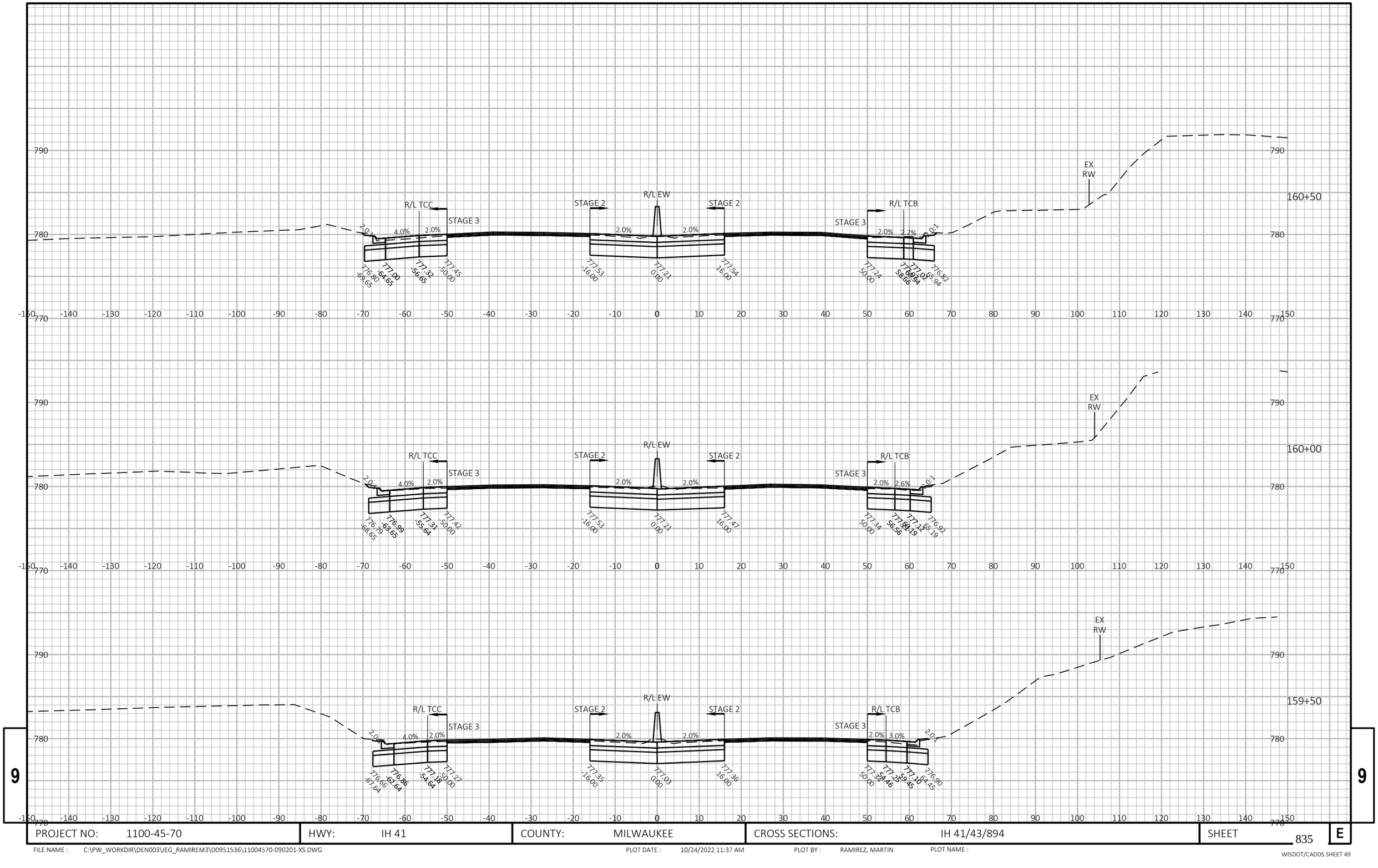
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:36 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 834 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:37 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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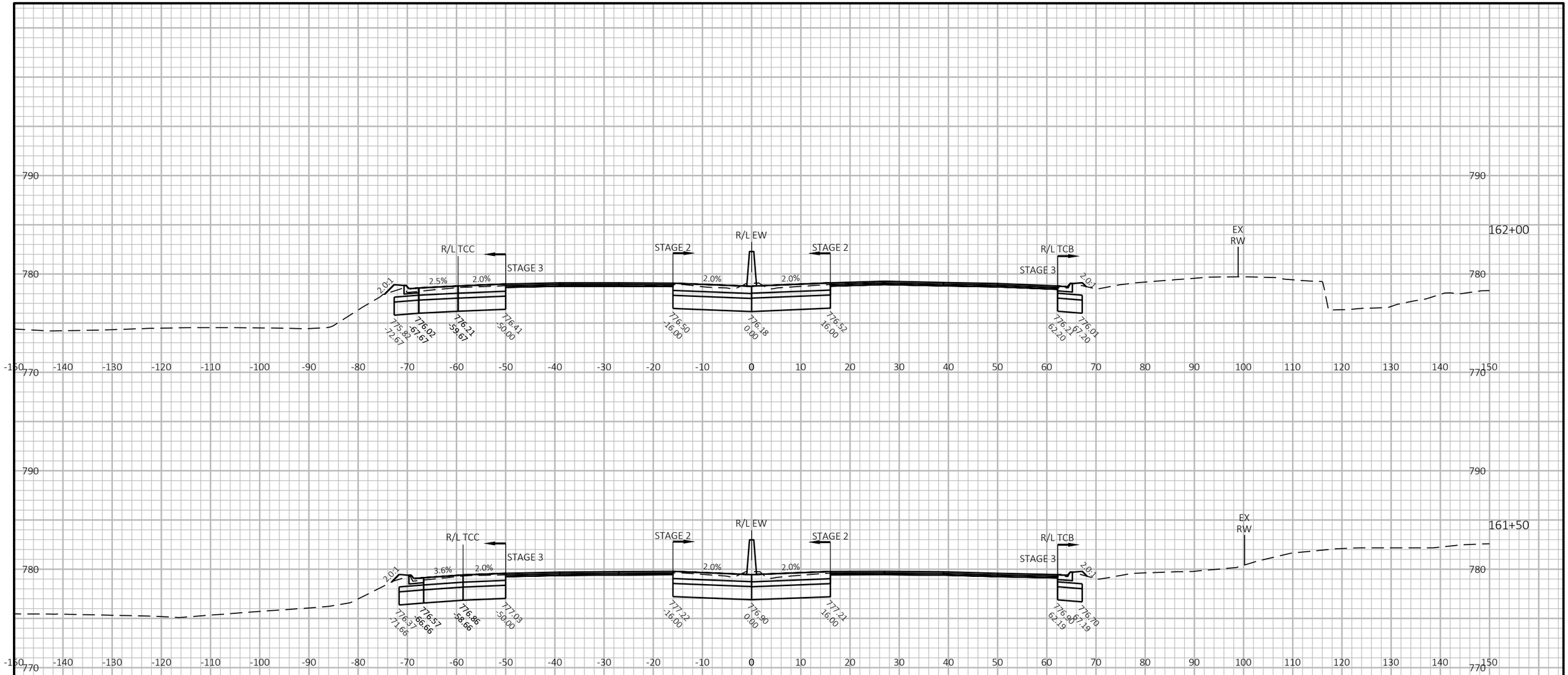
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 835	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:37 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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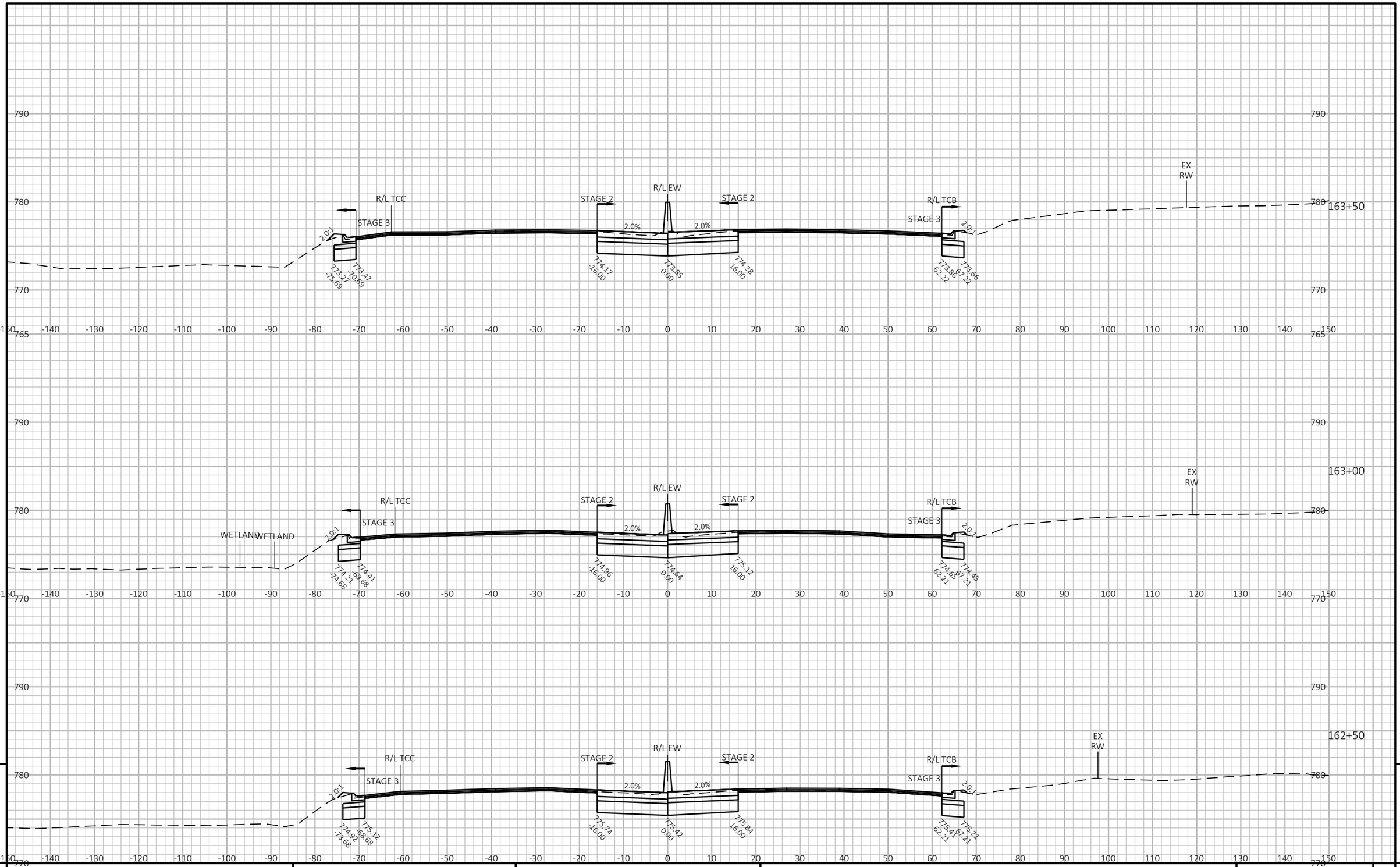
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 836	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:37 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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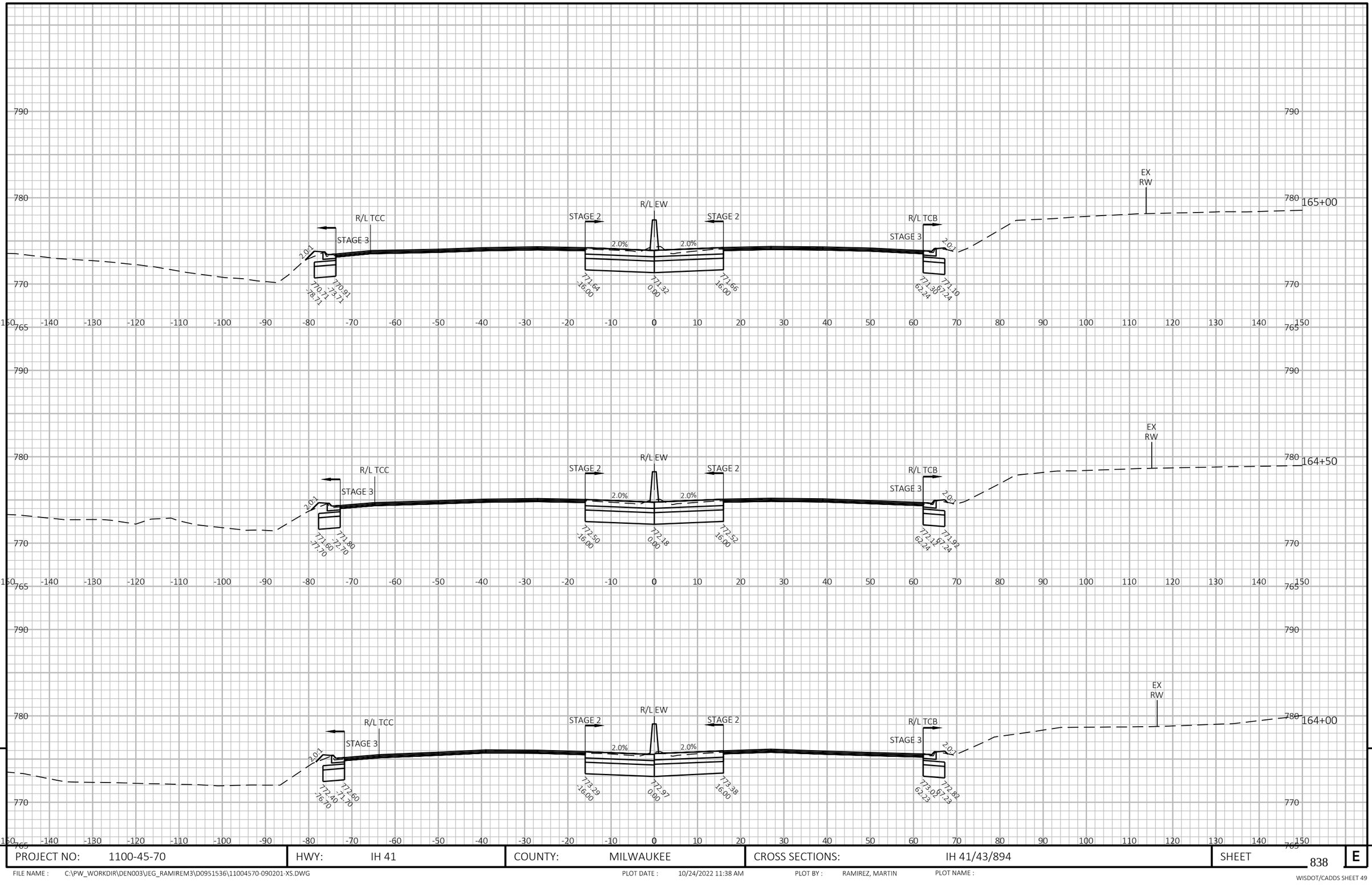
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 837	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:38 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

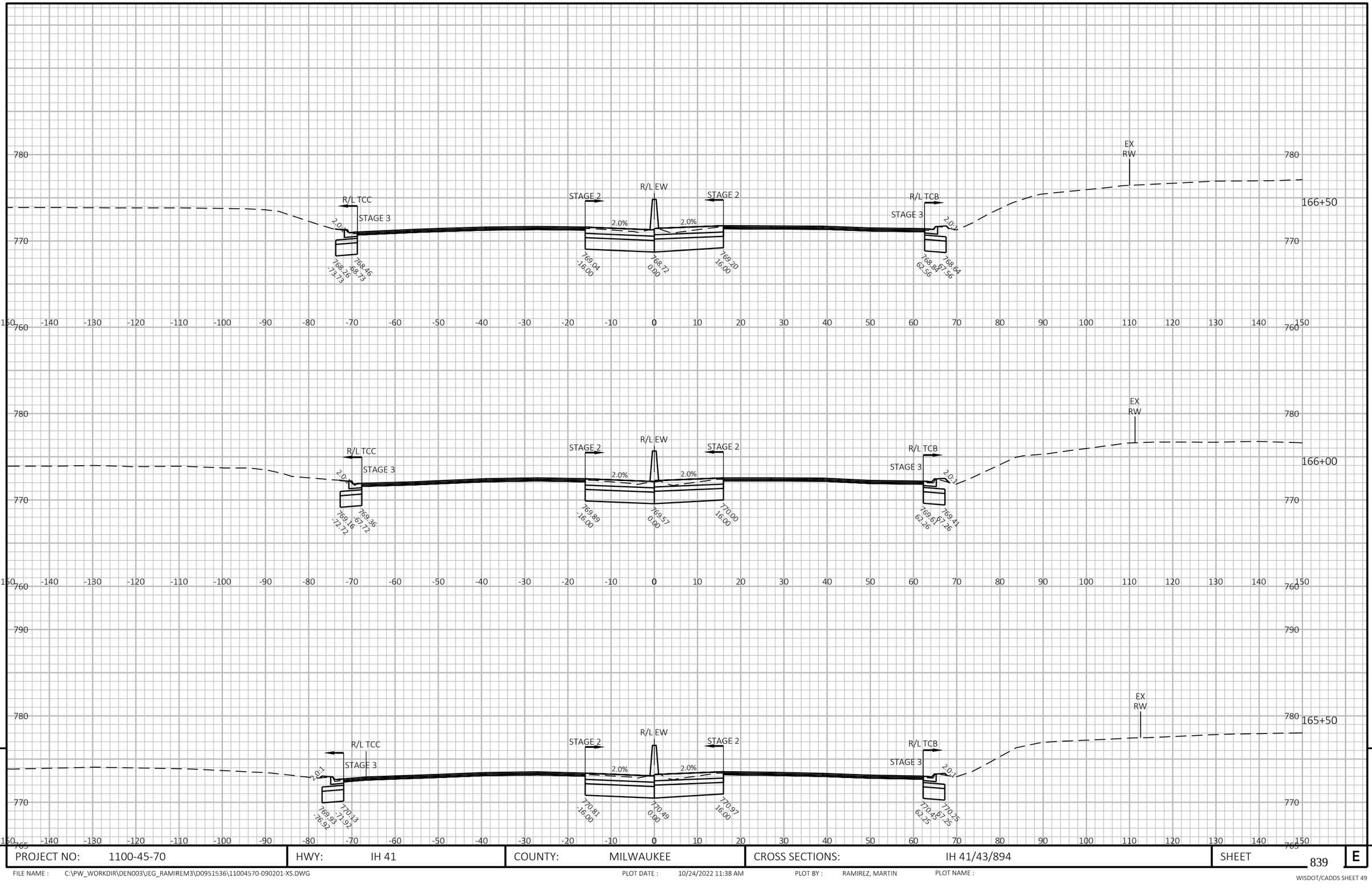
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 838	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:38 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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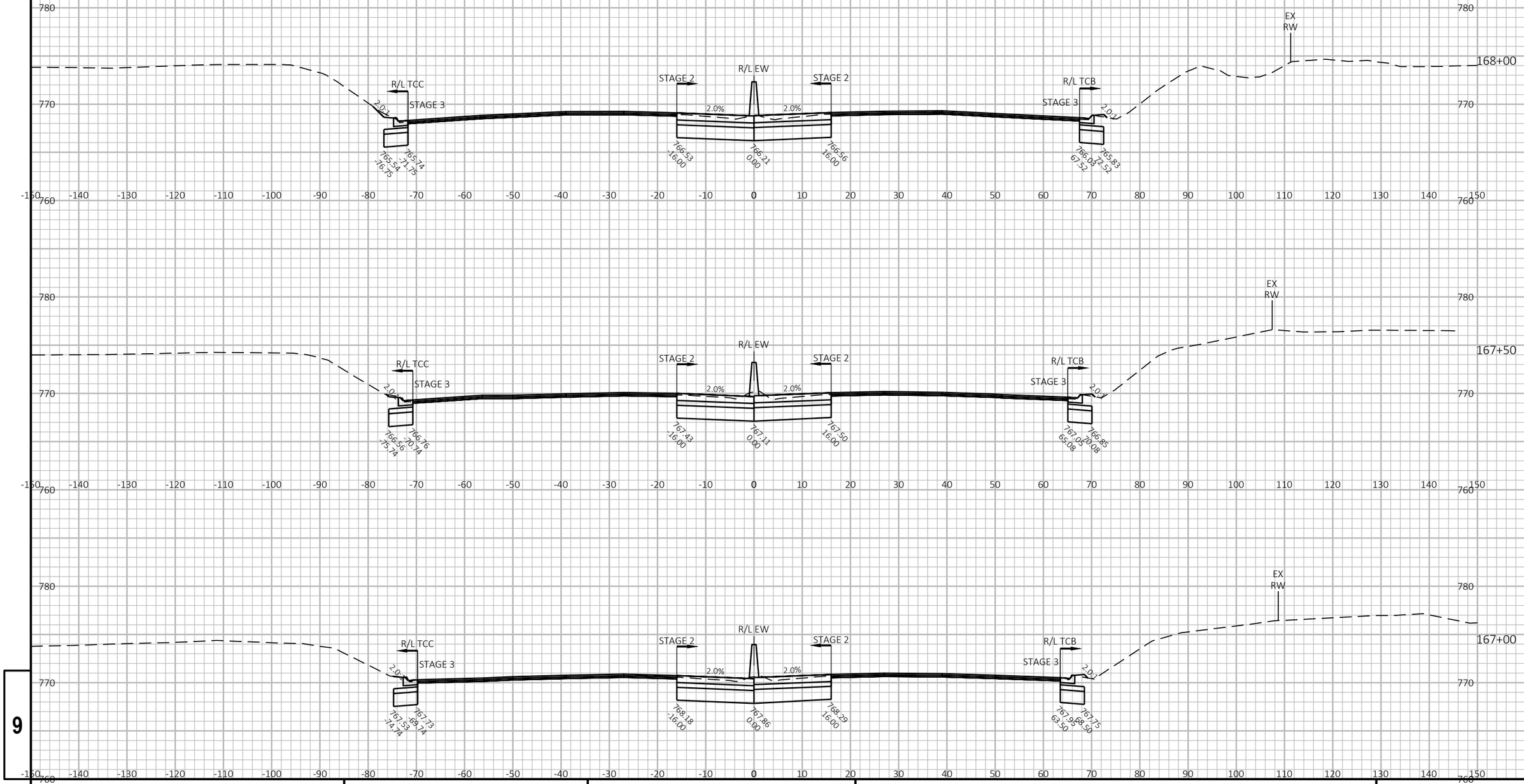
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 839	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:38 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 840	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:39 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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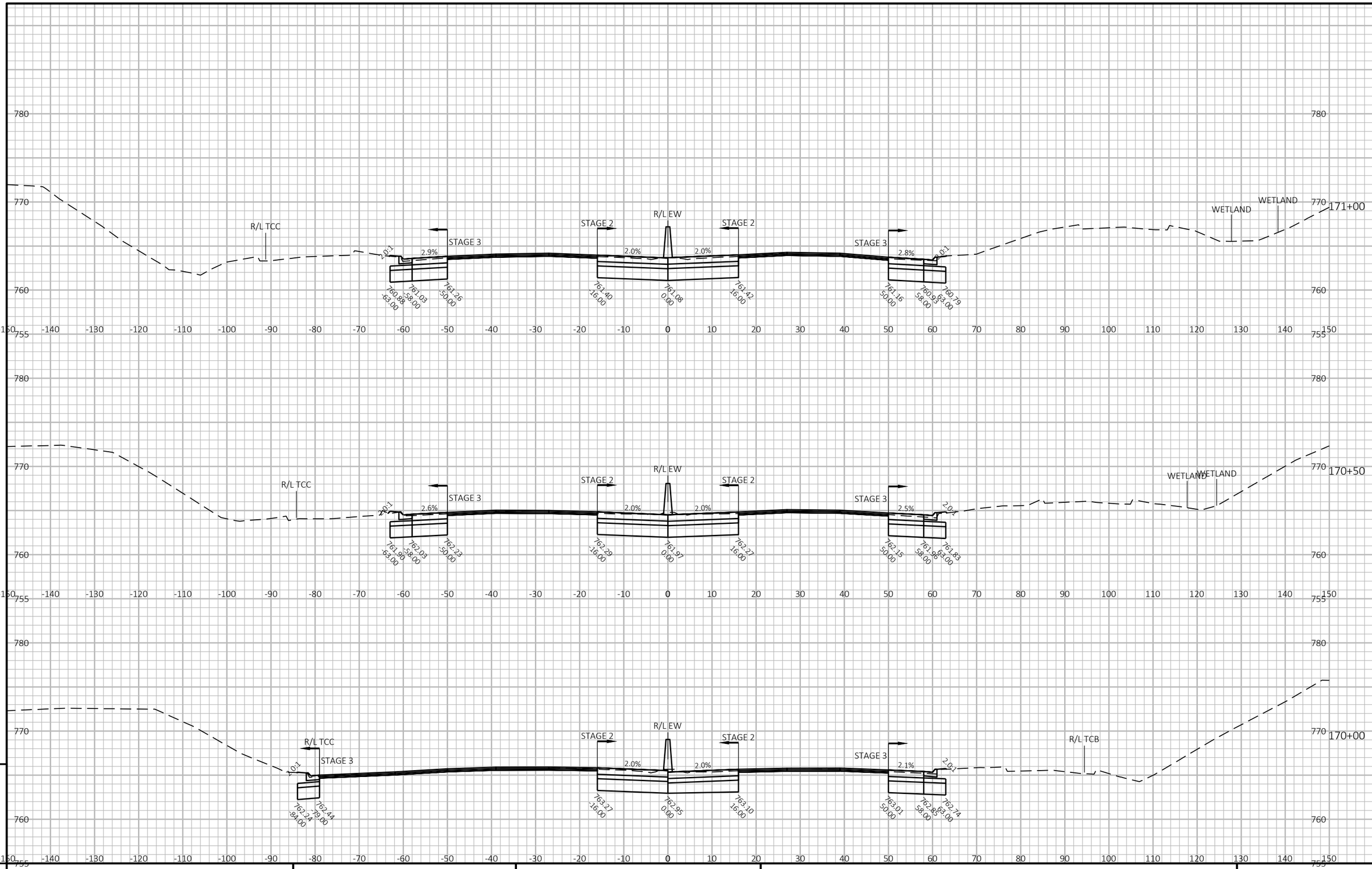
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 841	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:39 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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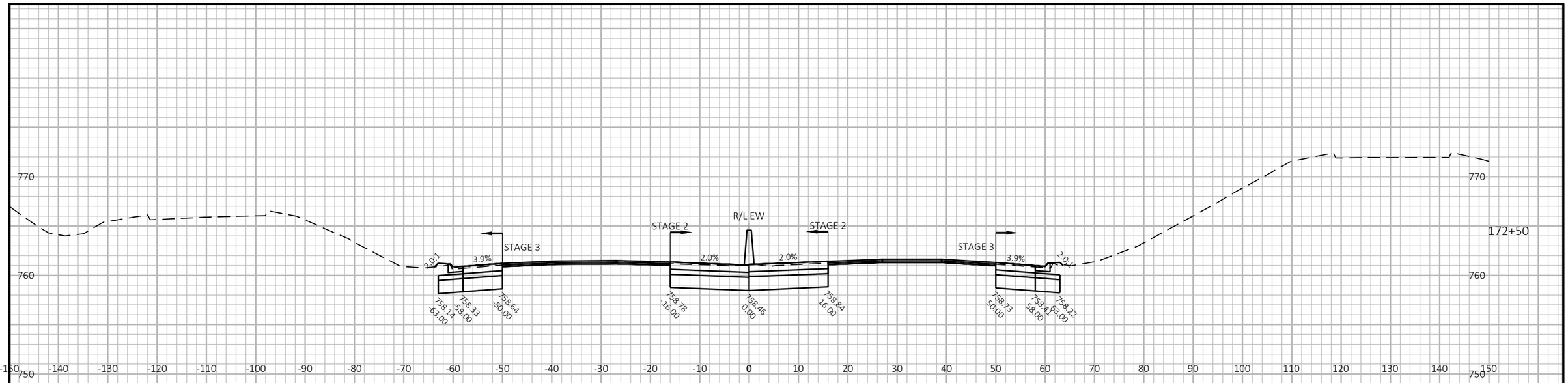
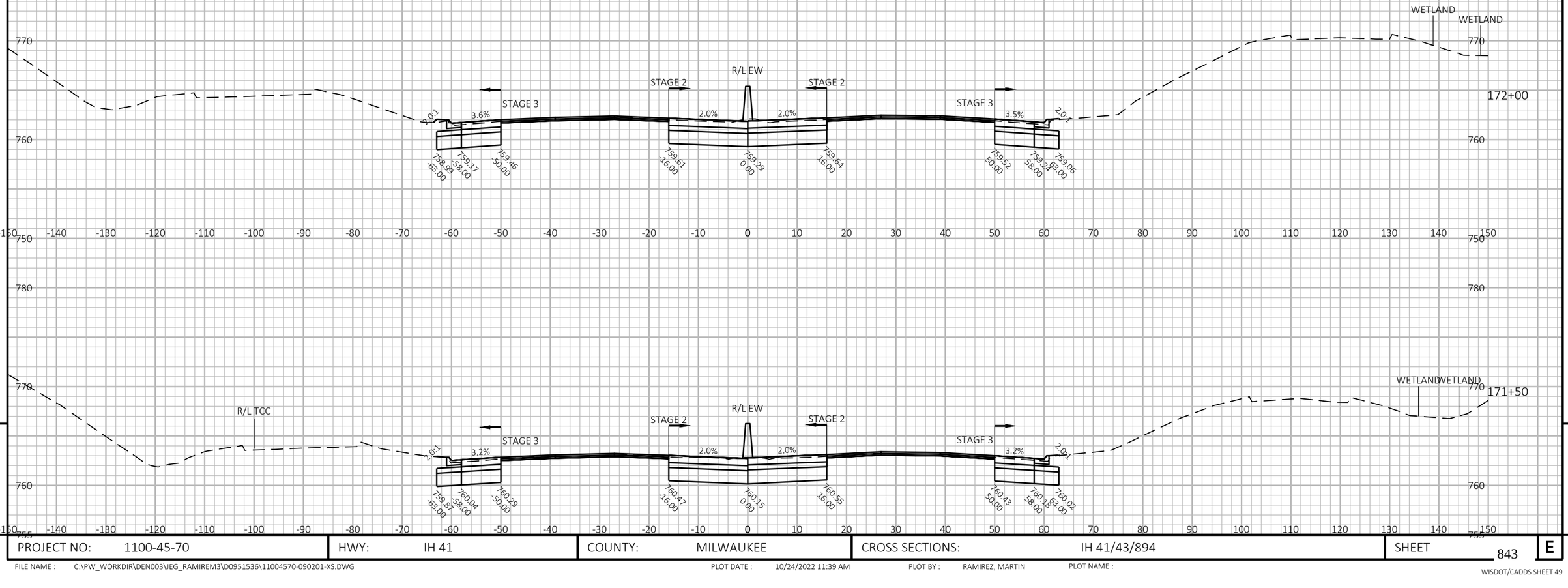
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 842	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:39 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49





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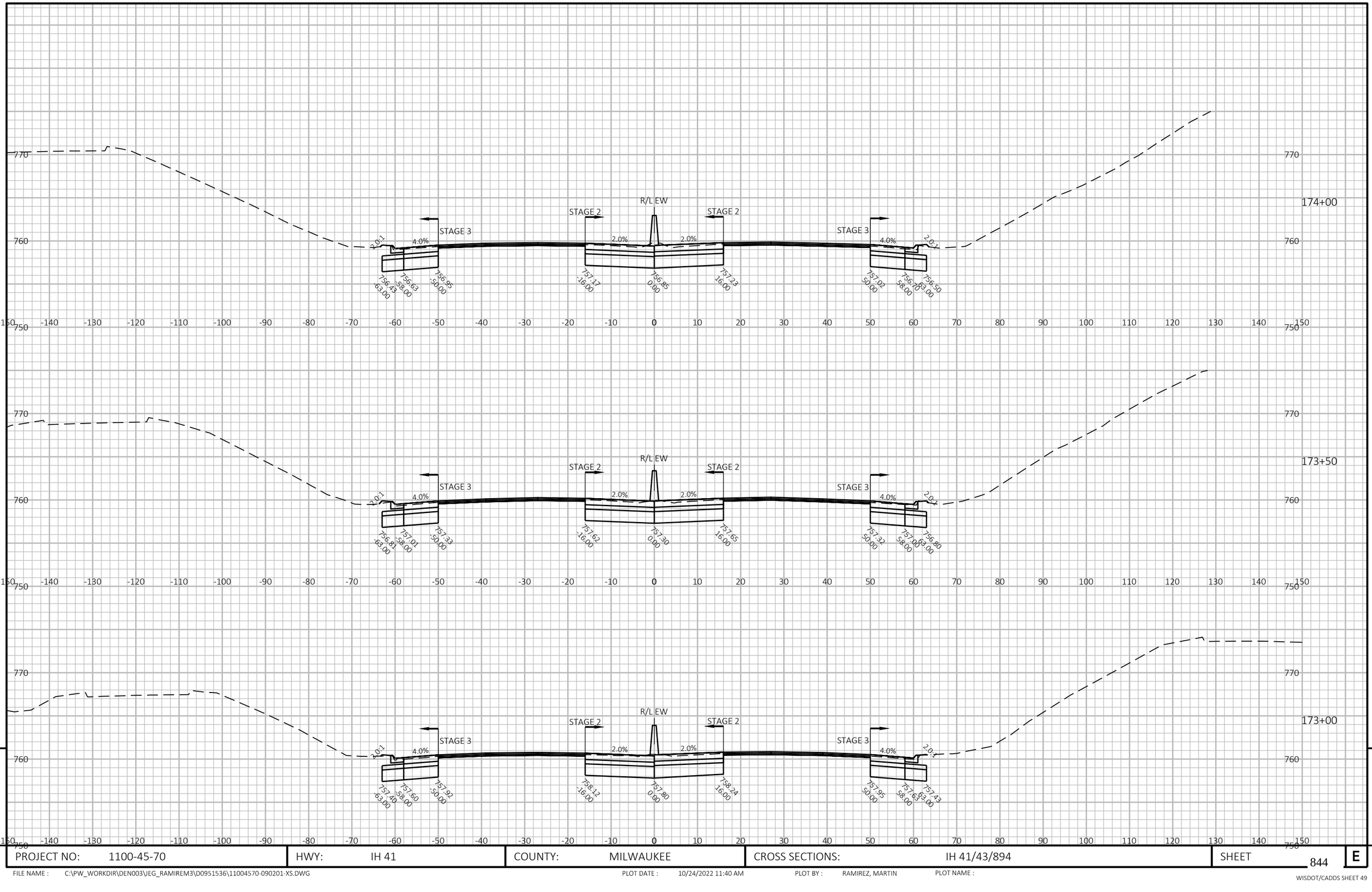
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 843	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:39 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 844	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:40 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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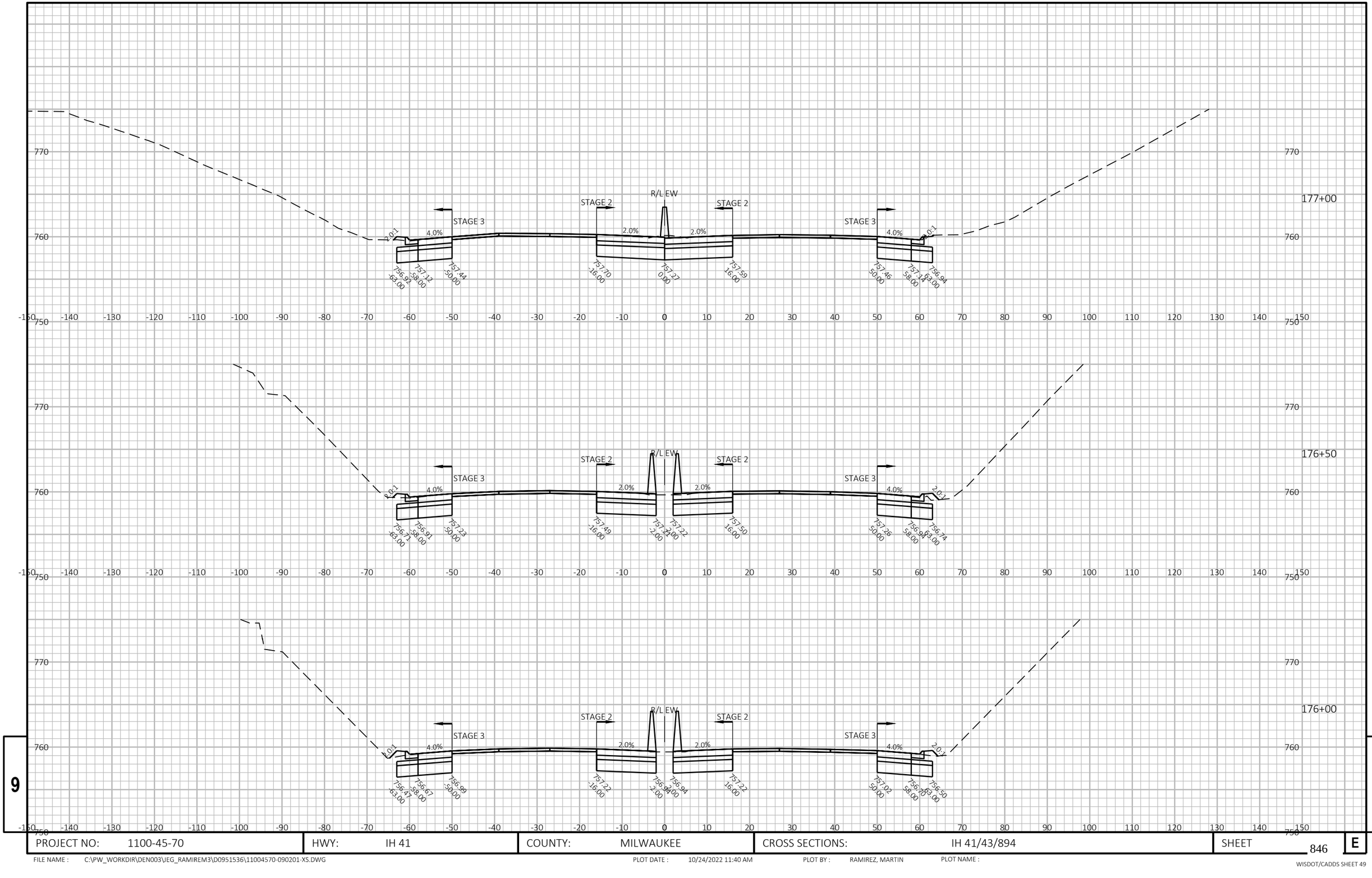
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 845	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:40 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 846	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:40 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 847	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:41 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

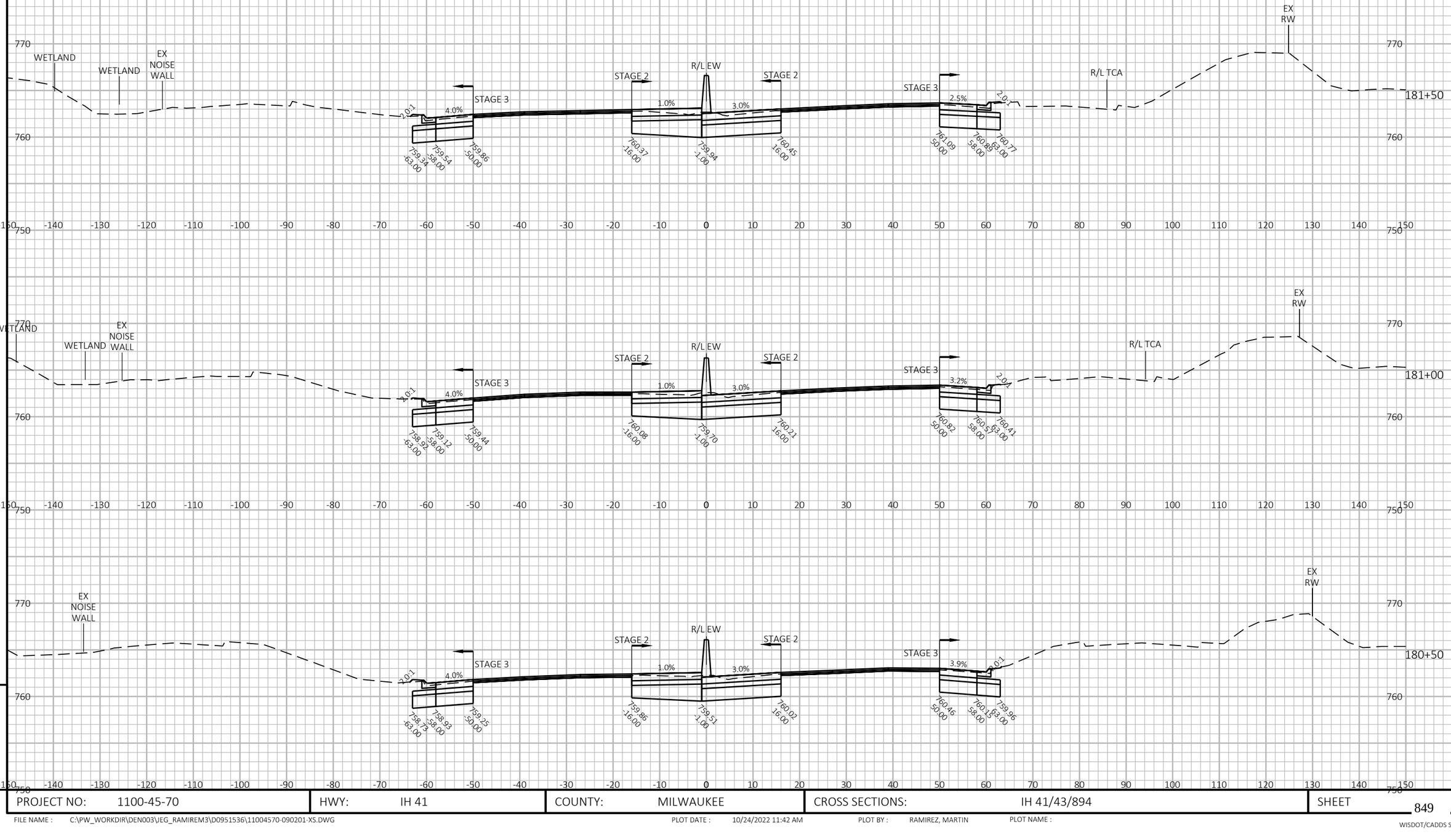
WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 848 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:41 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

9 9



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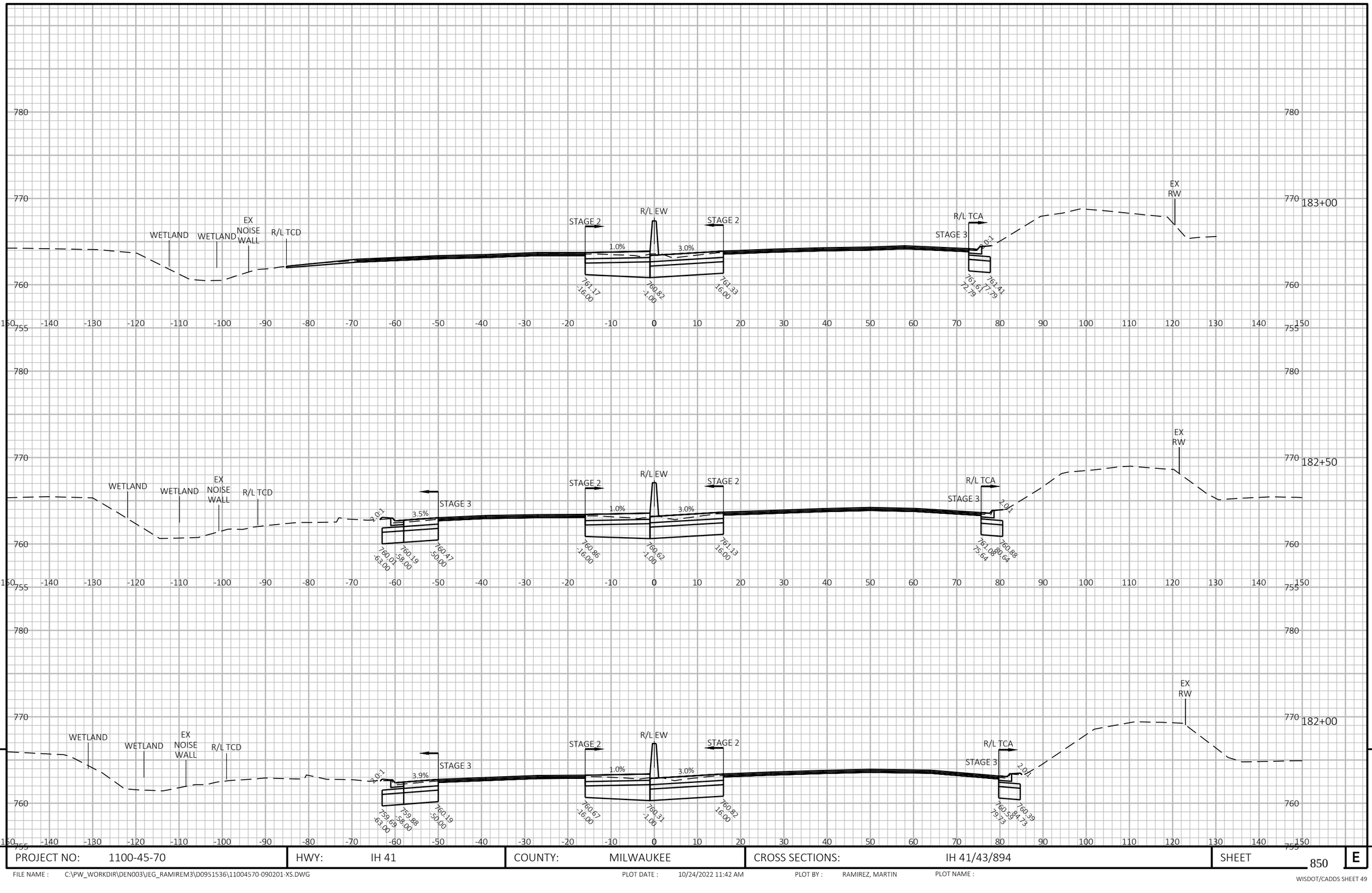
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 849	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:42 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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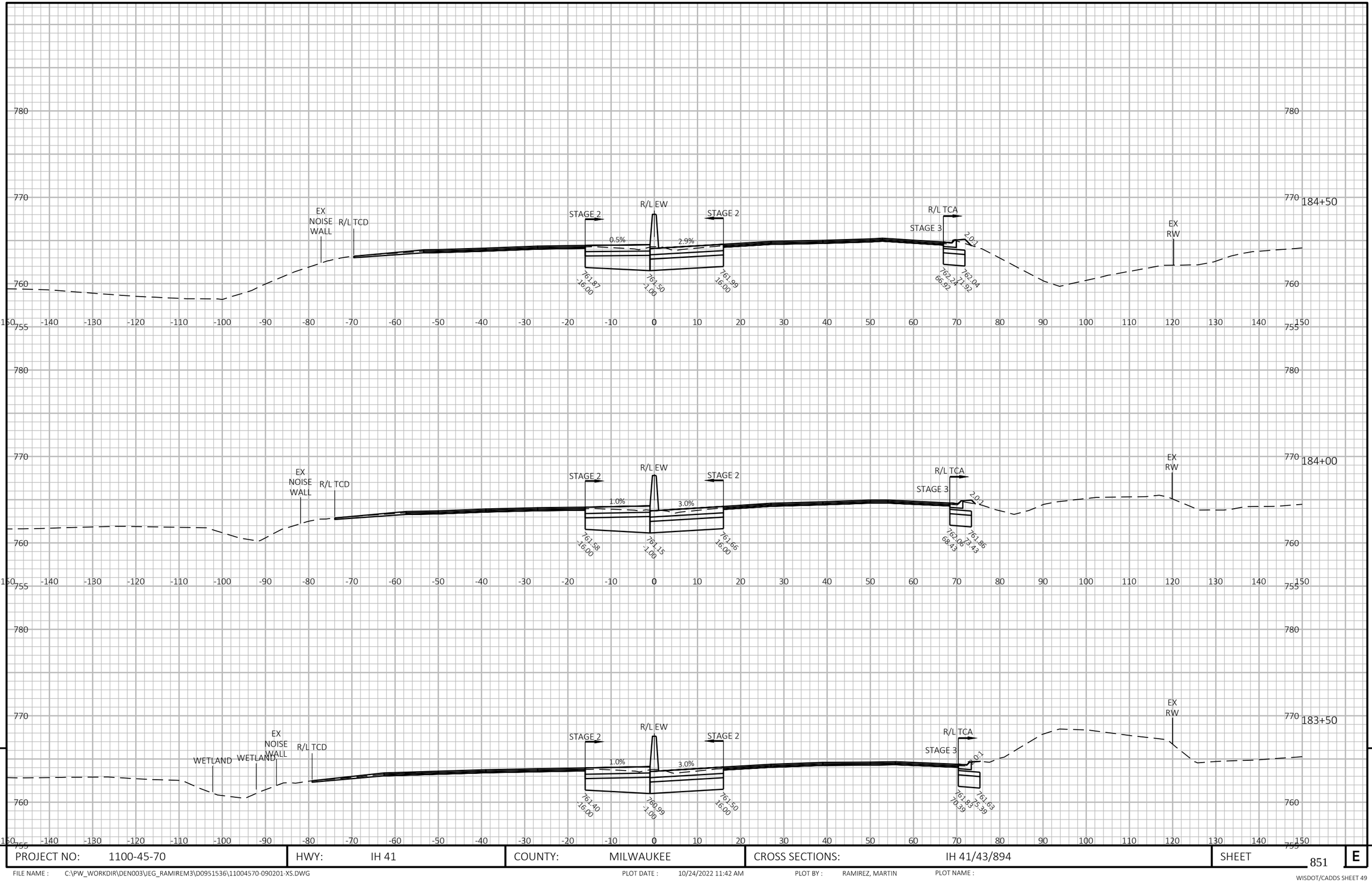
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 850	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:42 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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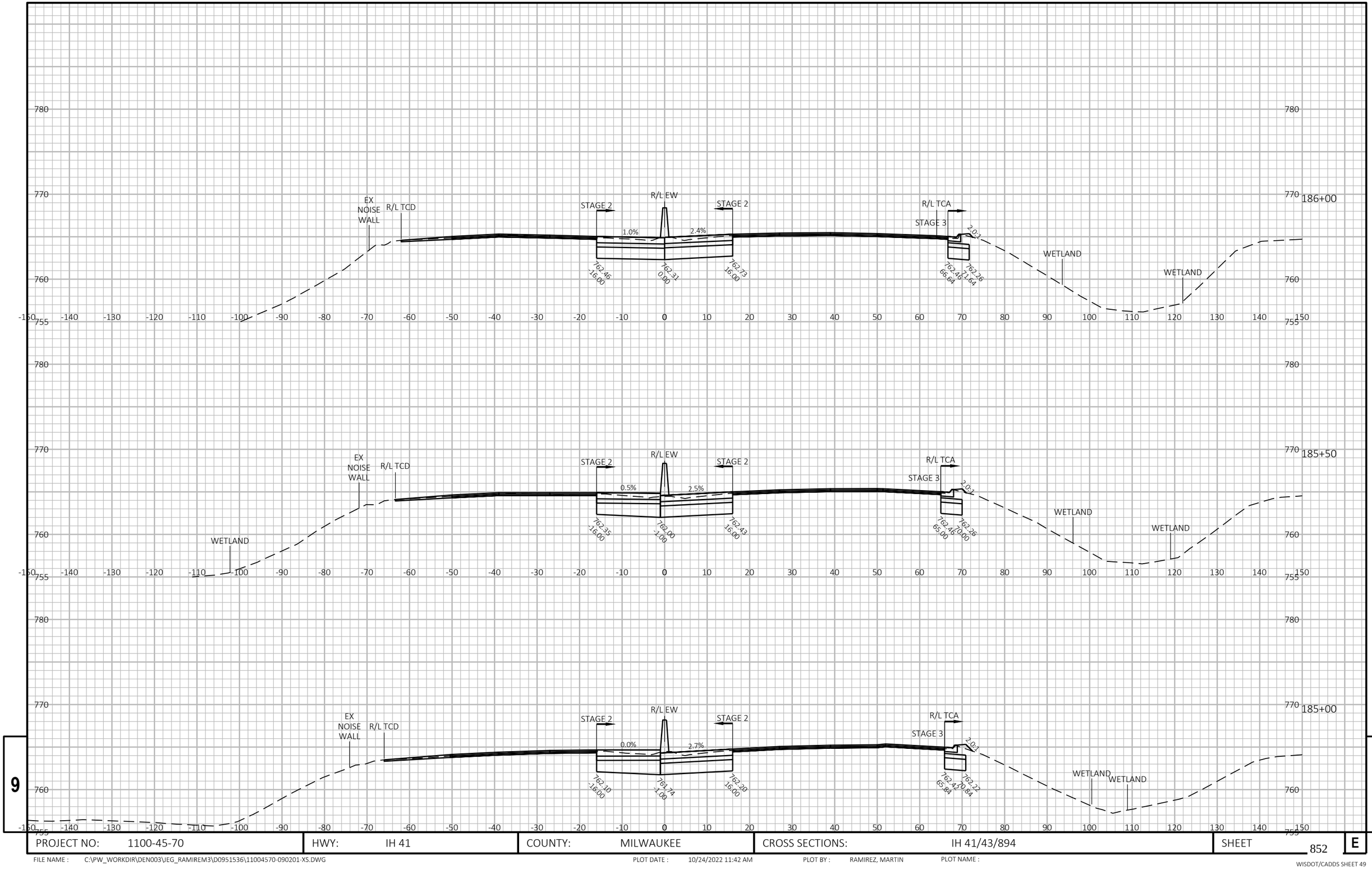
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 851	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:42 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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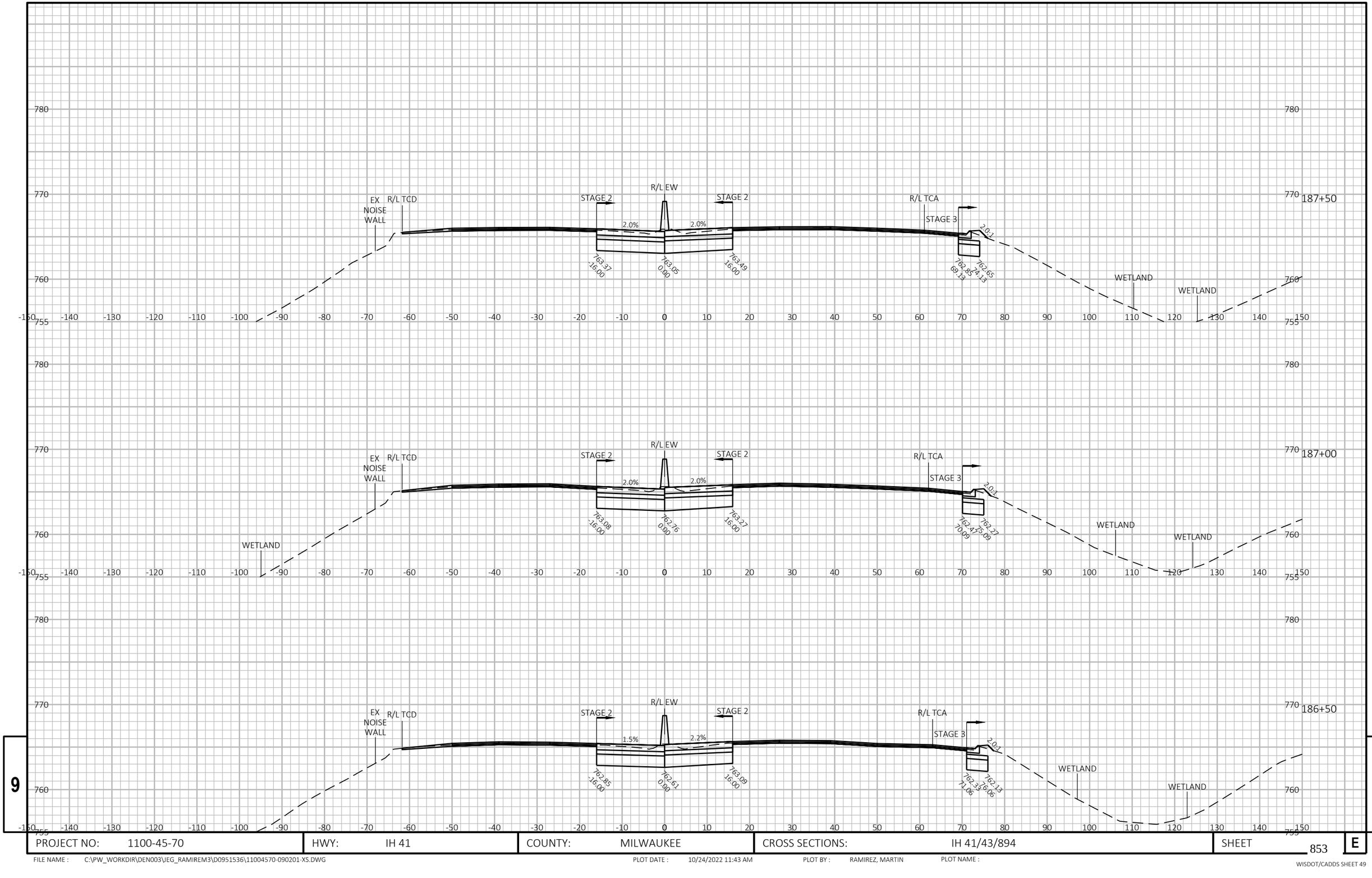
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 852	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:42 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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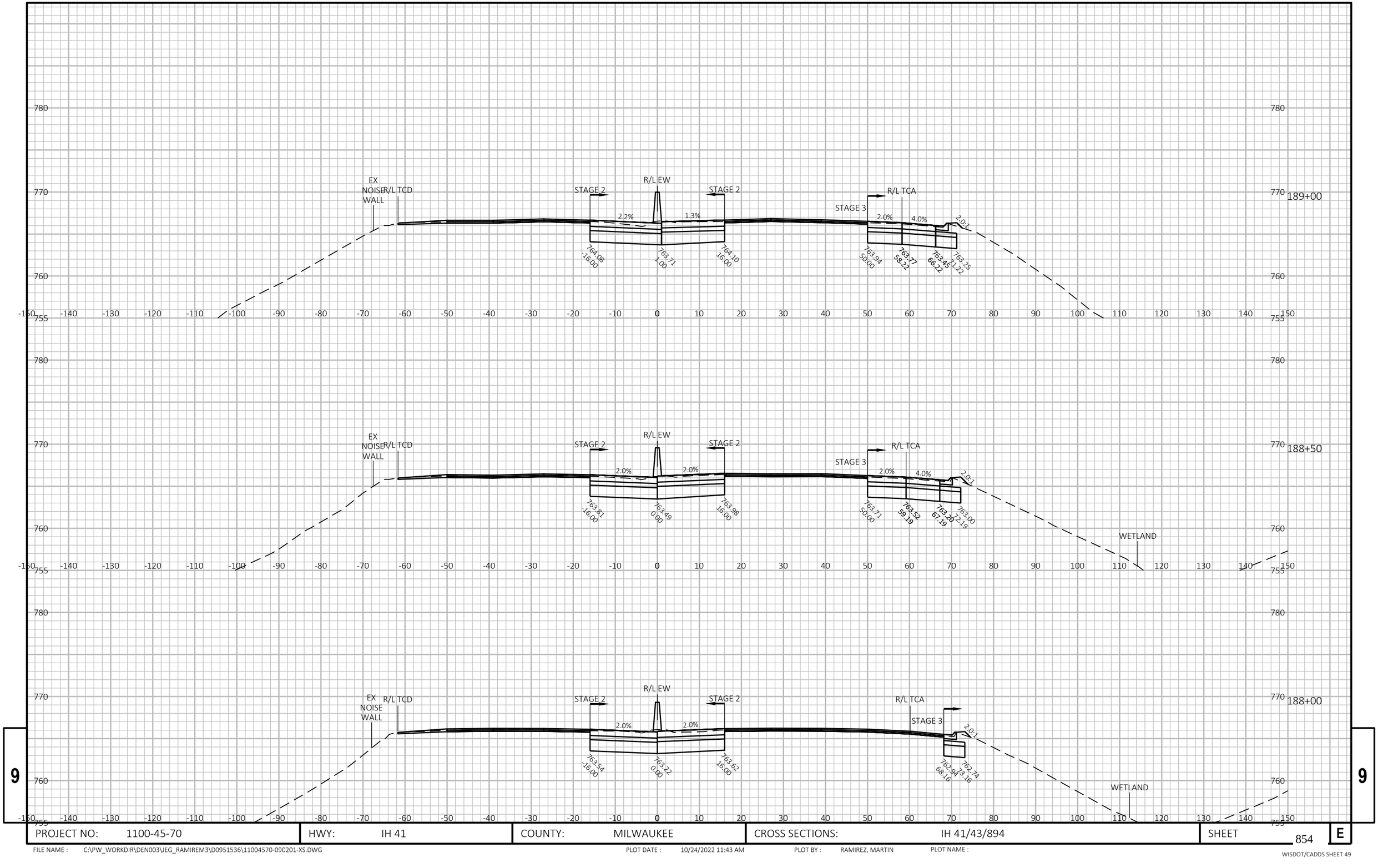
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 853	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:43 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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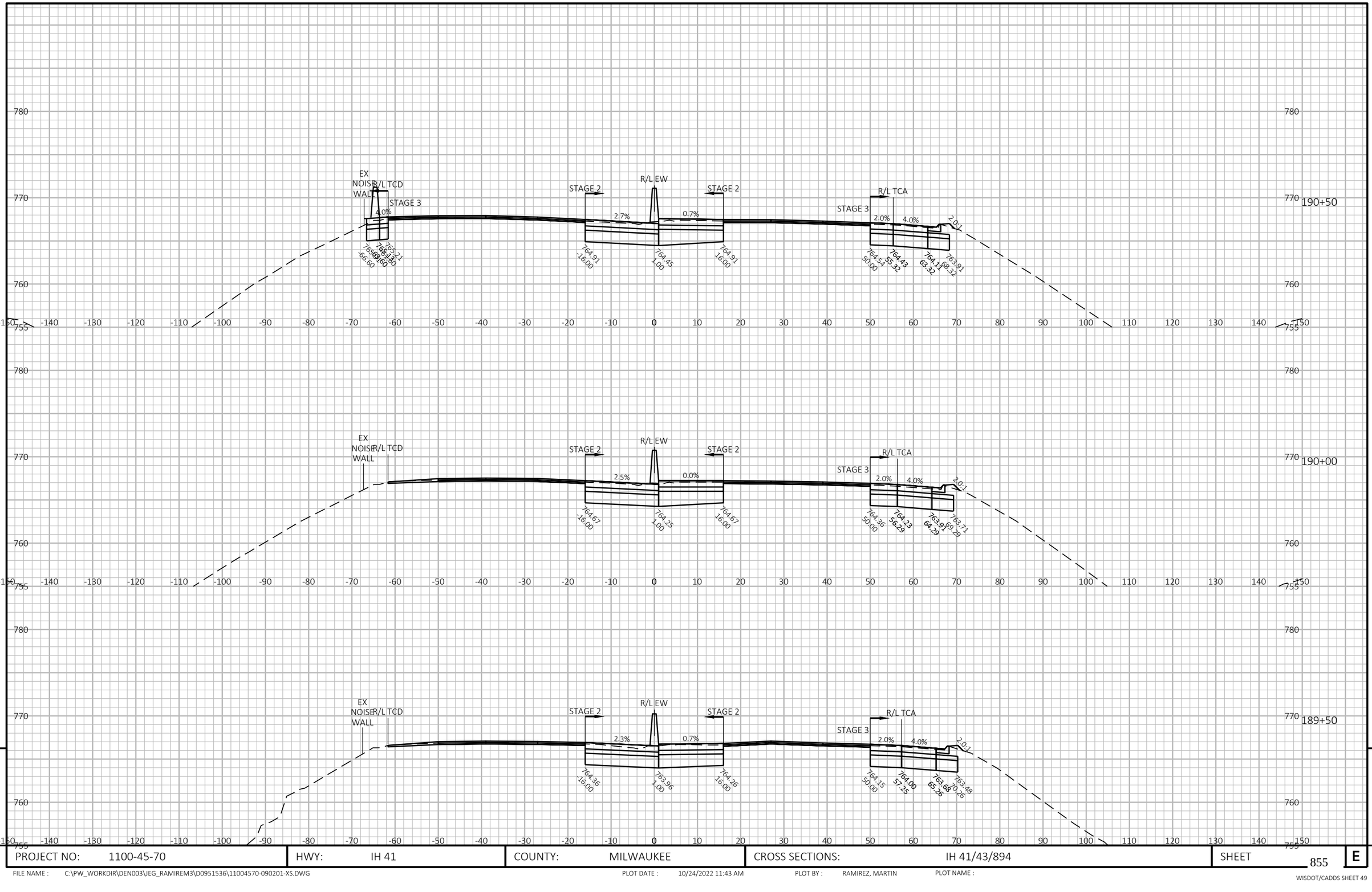
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 854	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:43 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 855	E

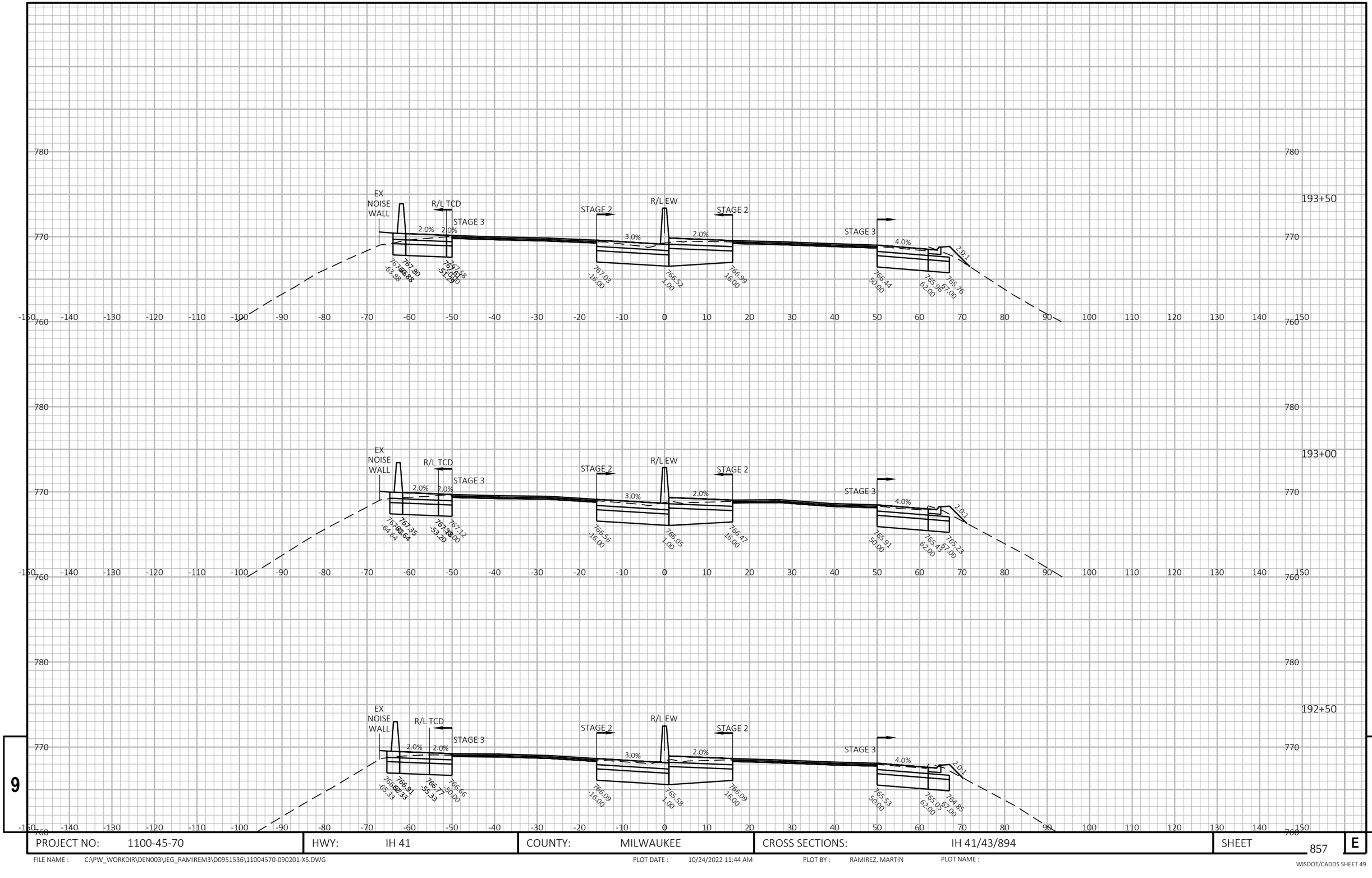
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:43 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 856	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:44 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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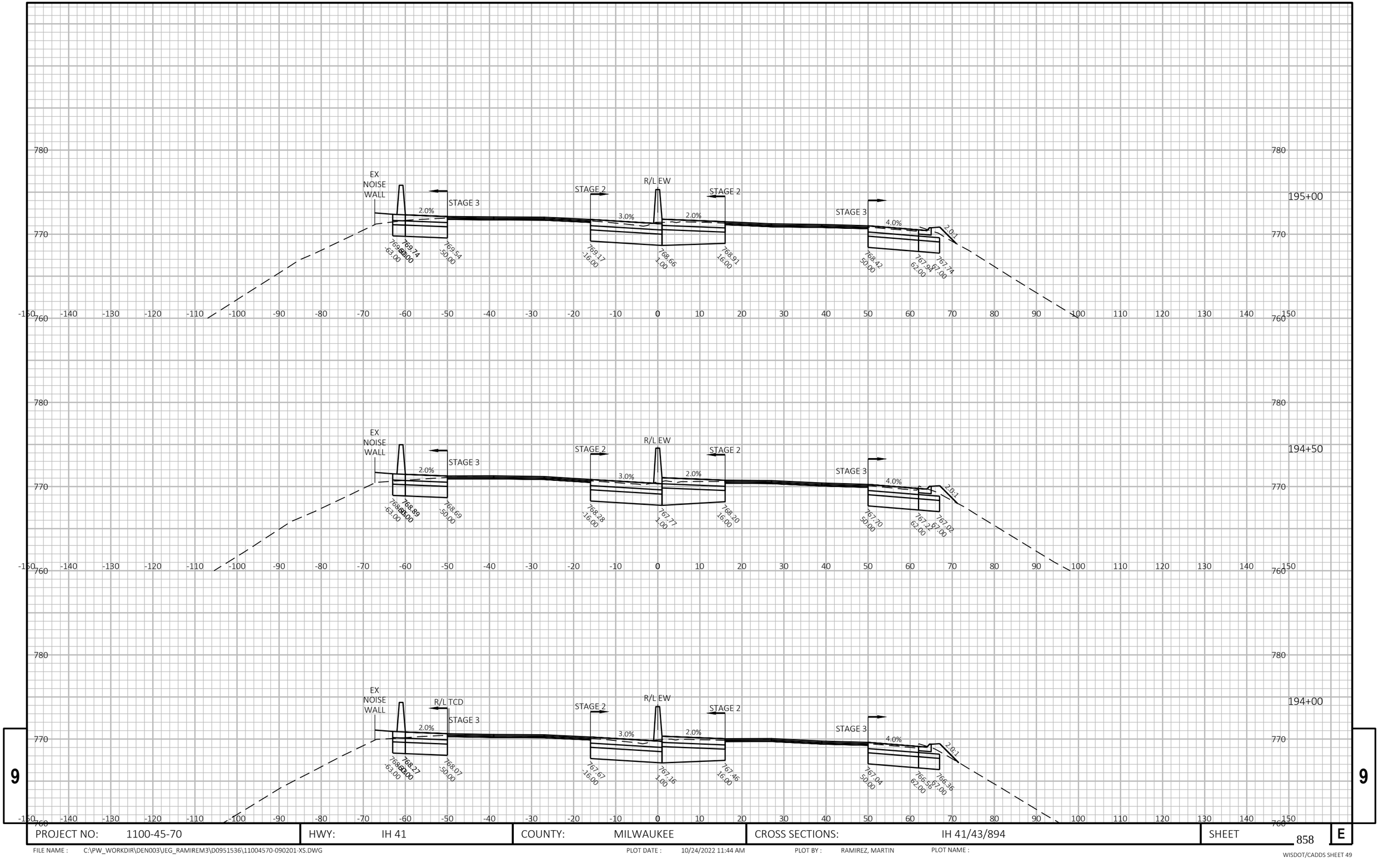
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 857	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:44 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 858	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:44 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 859	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:45 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 860 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:45 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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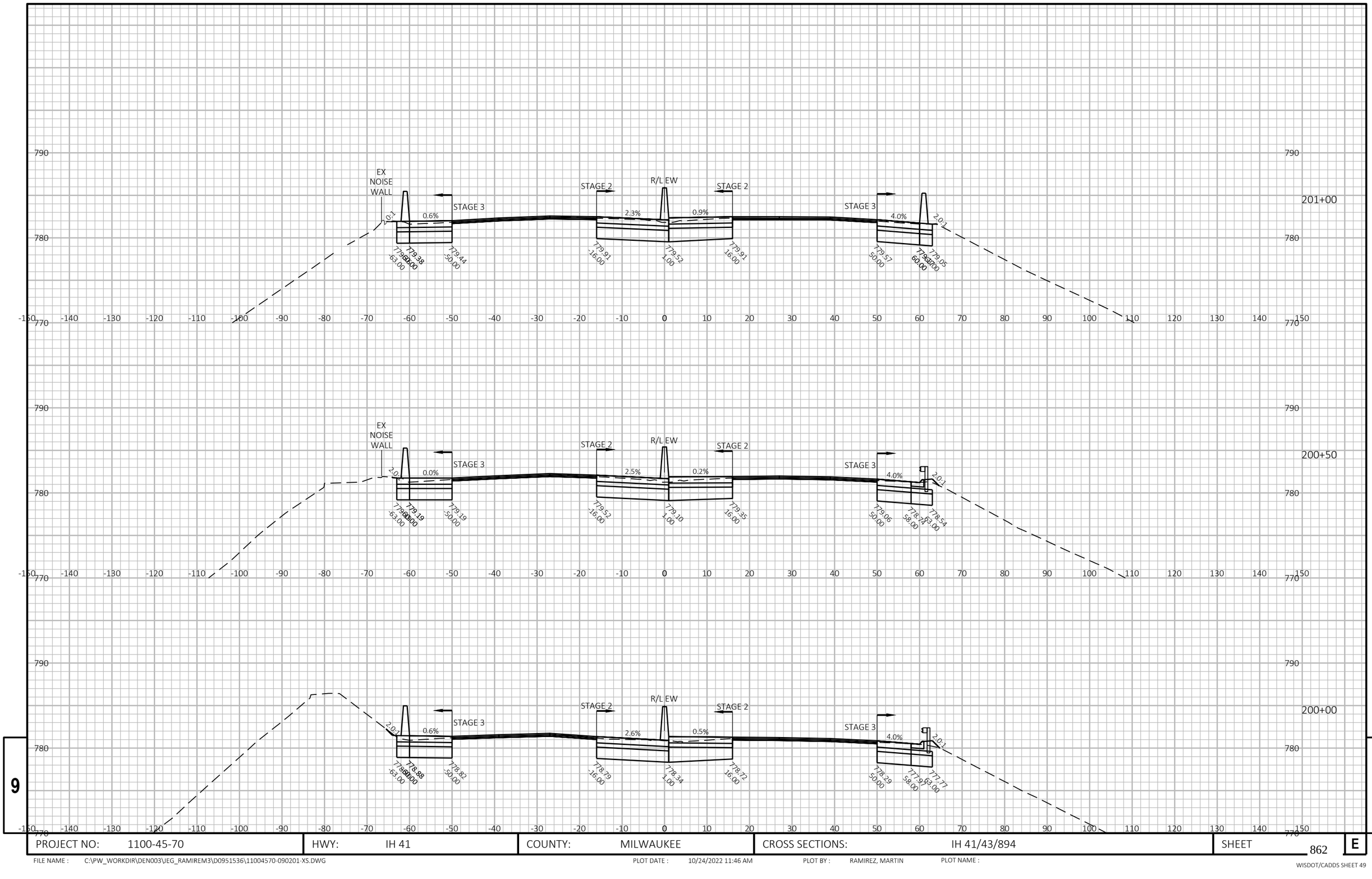
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 861	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:45 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

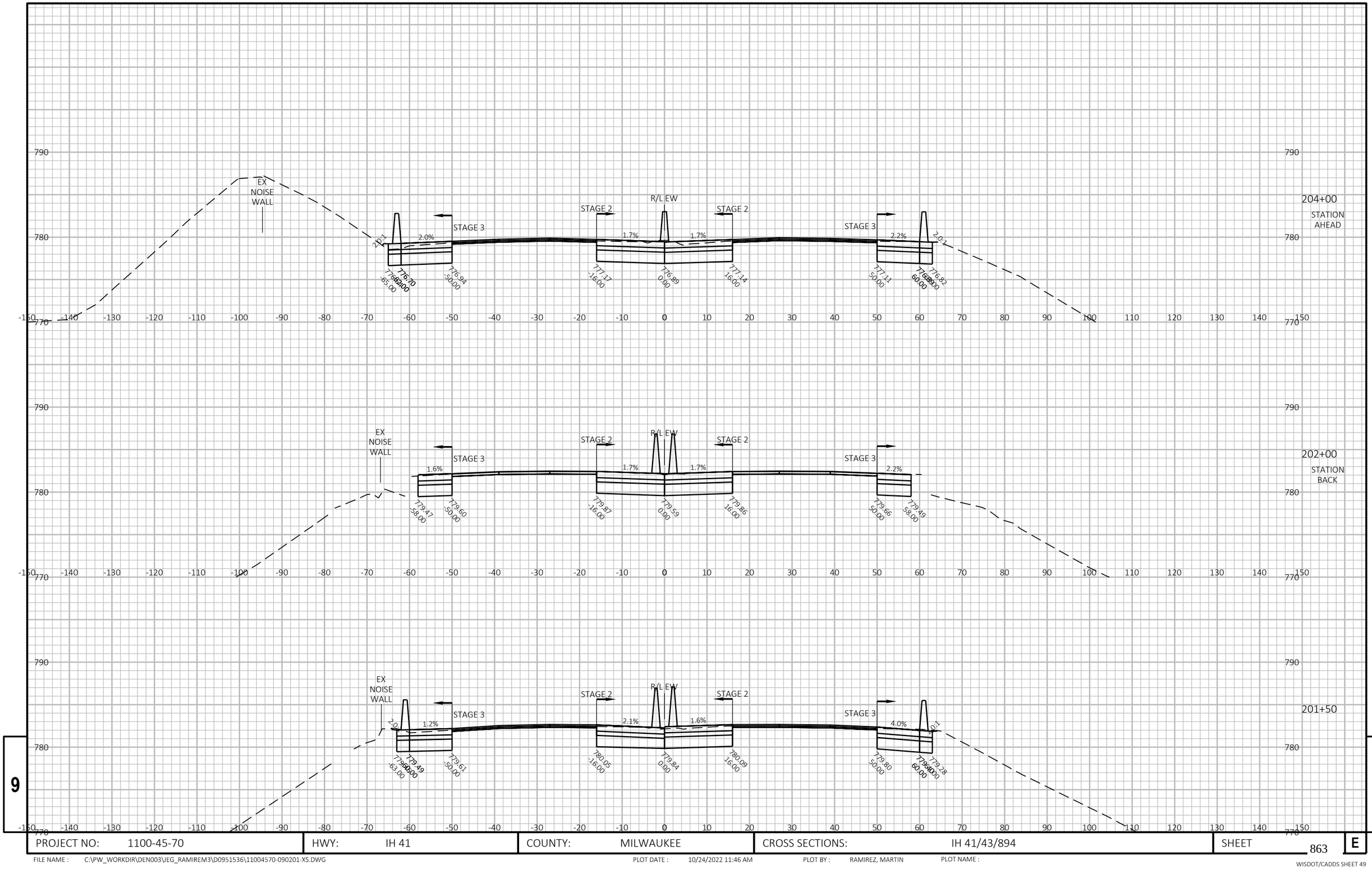


9 9

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 862	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:46 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

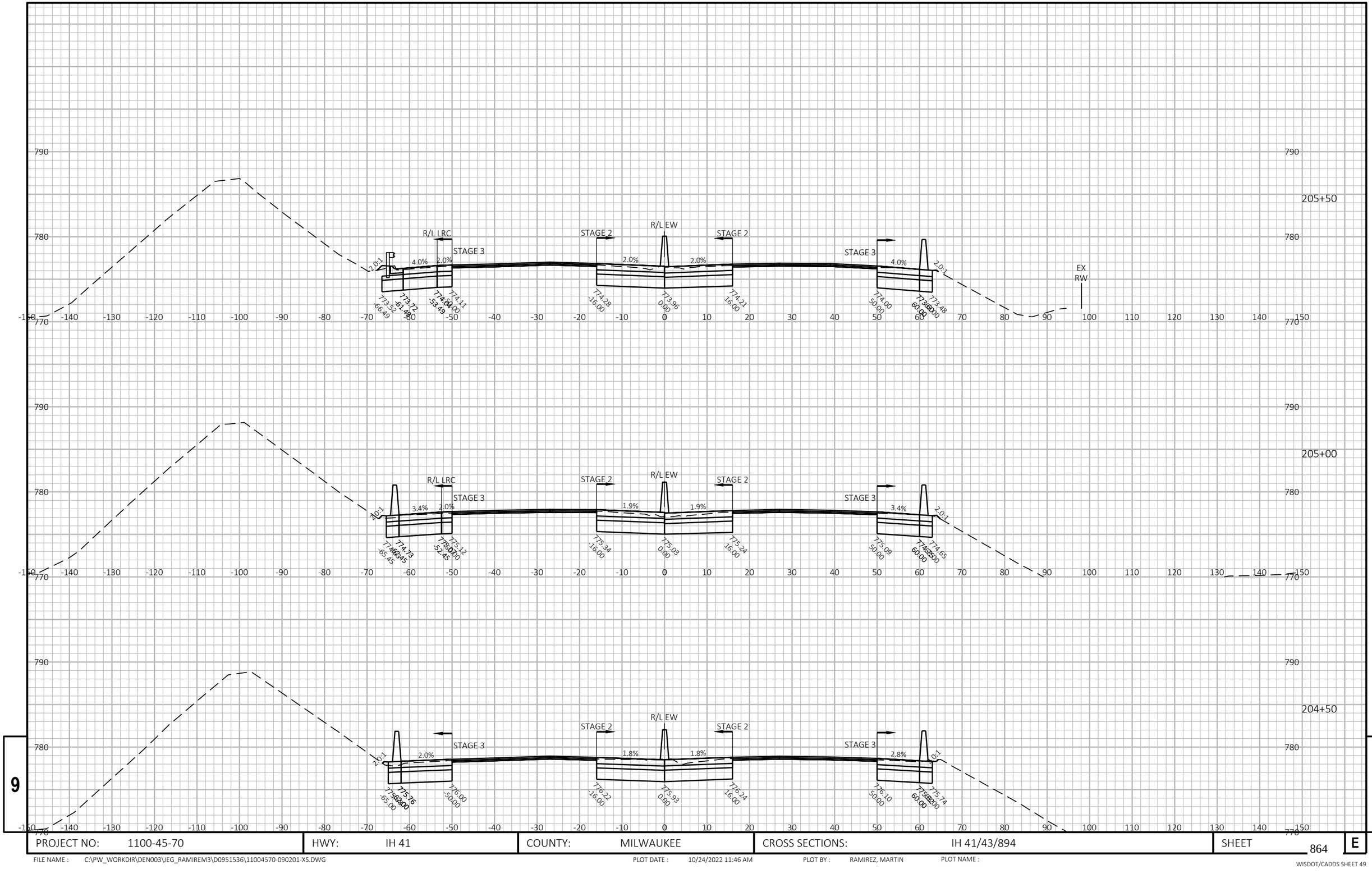
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 863 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:46 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

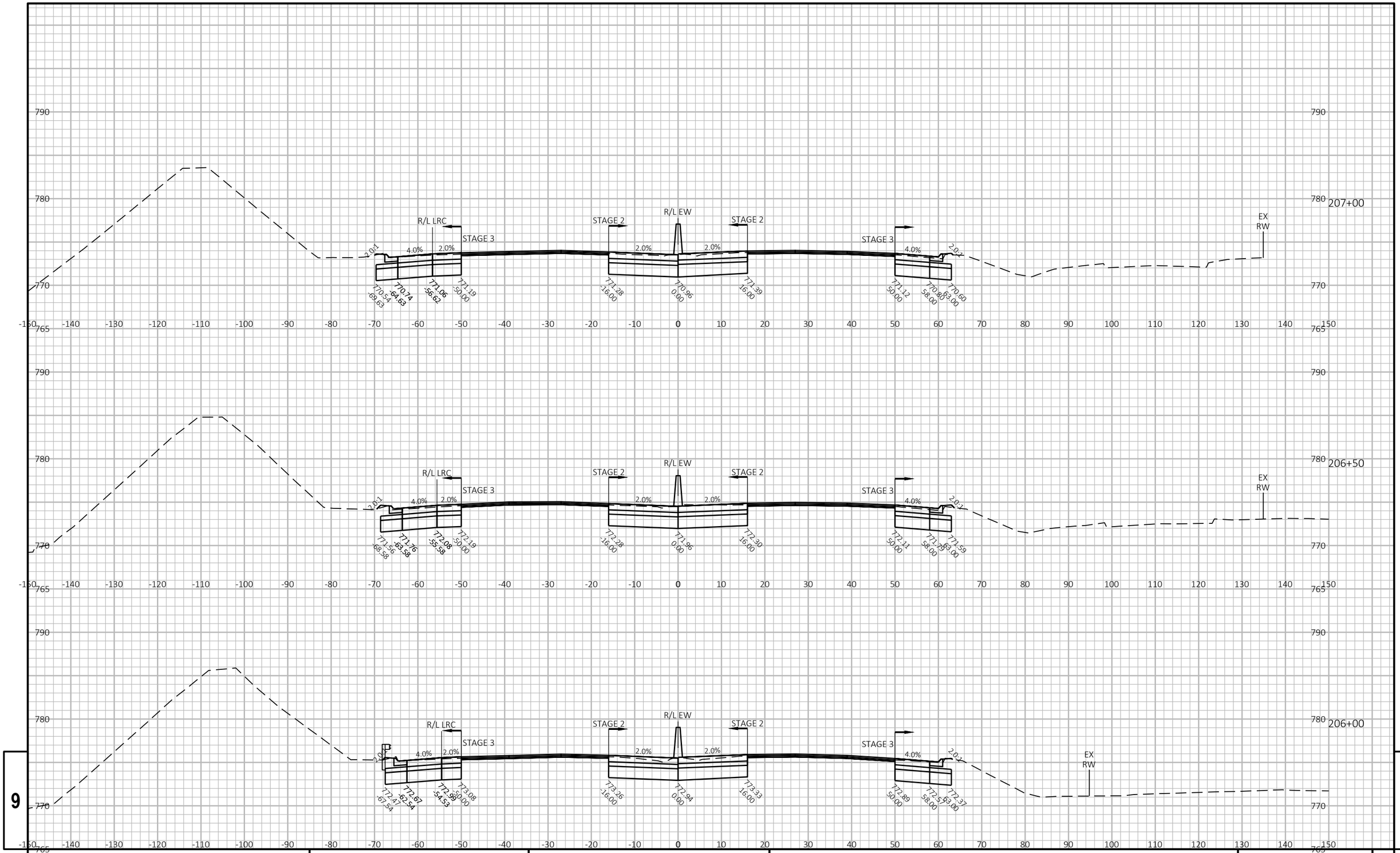
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 864	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:46 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 865 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:47 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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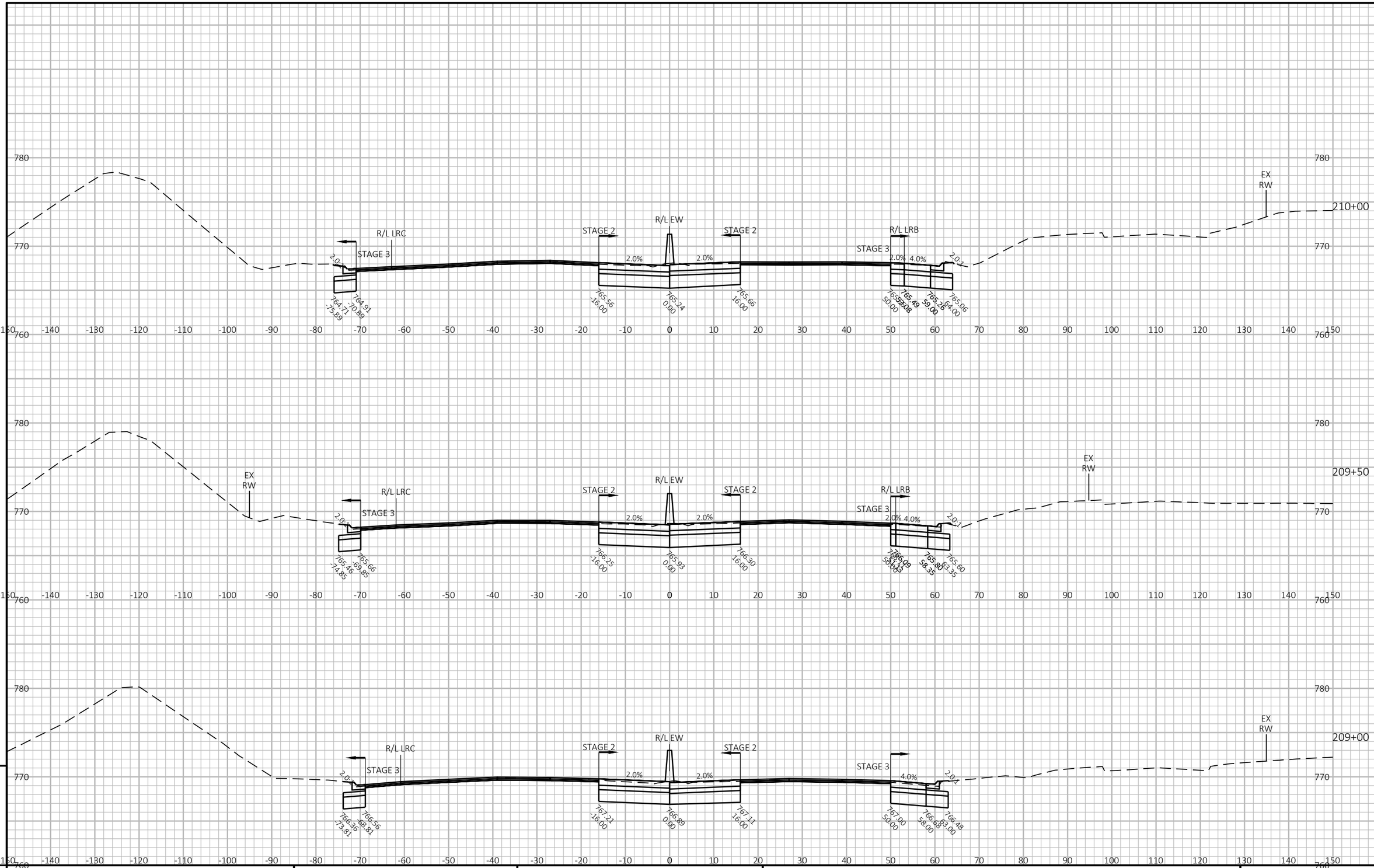
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 866	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:47 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

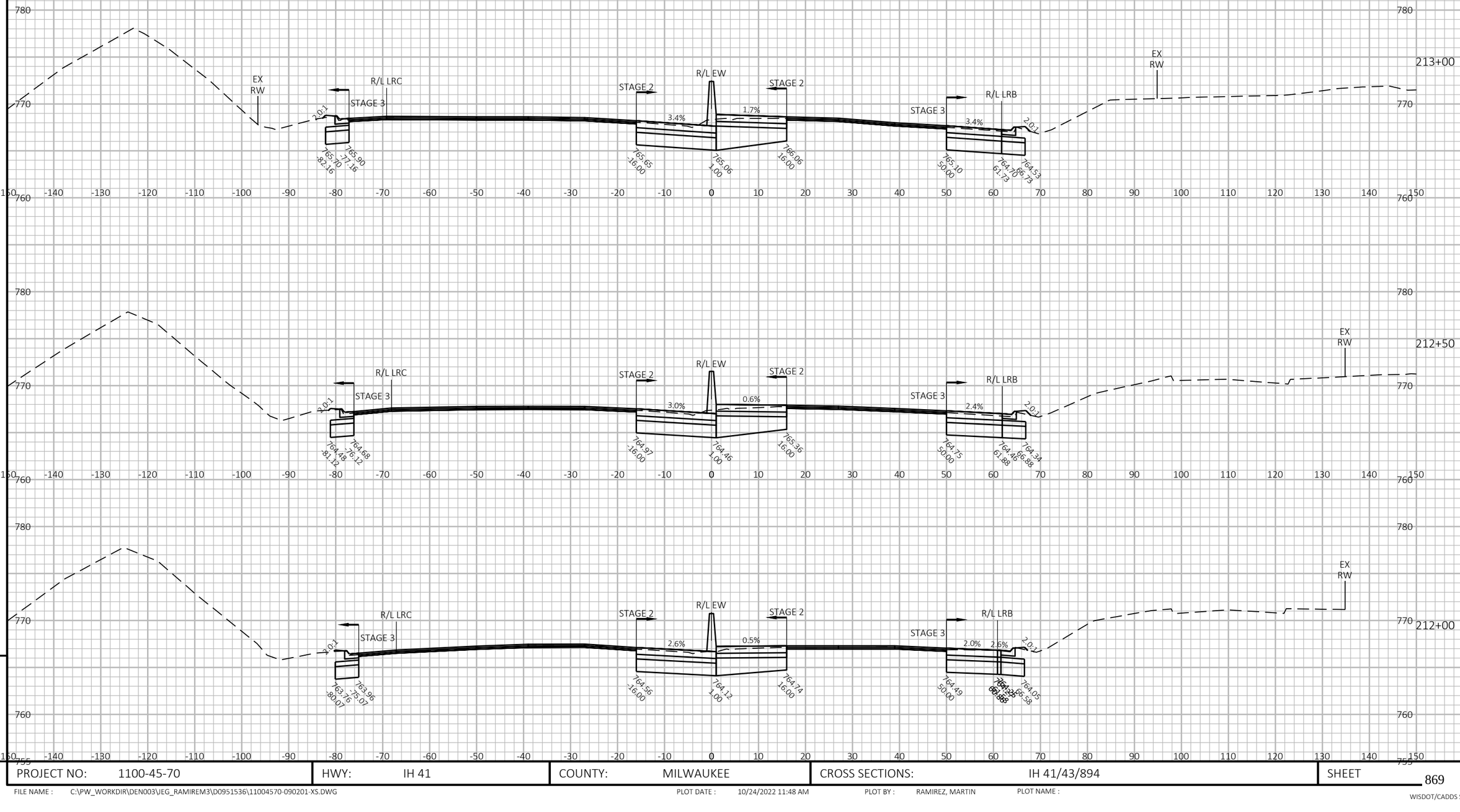
WISDOT/CADDS SHEET 49


210+00
EX RW
R/L LRC
R/L EW
R/L LRB
STAGE 2
STAGE 3
2.0%
4.0%
2.0:1
765.56 -16.00
765.24 0.00
765.66 16.00
764.91 -70.89
764.71 -75.89
765.49 59.08
765.06 64.00
765.26 59.00
765.49 59.08
765.49 59.08
765.49 59.08

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 868	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:48 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 869 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:48 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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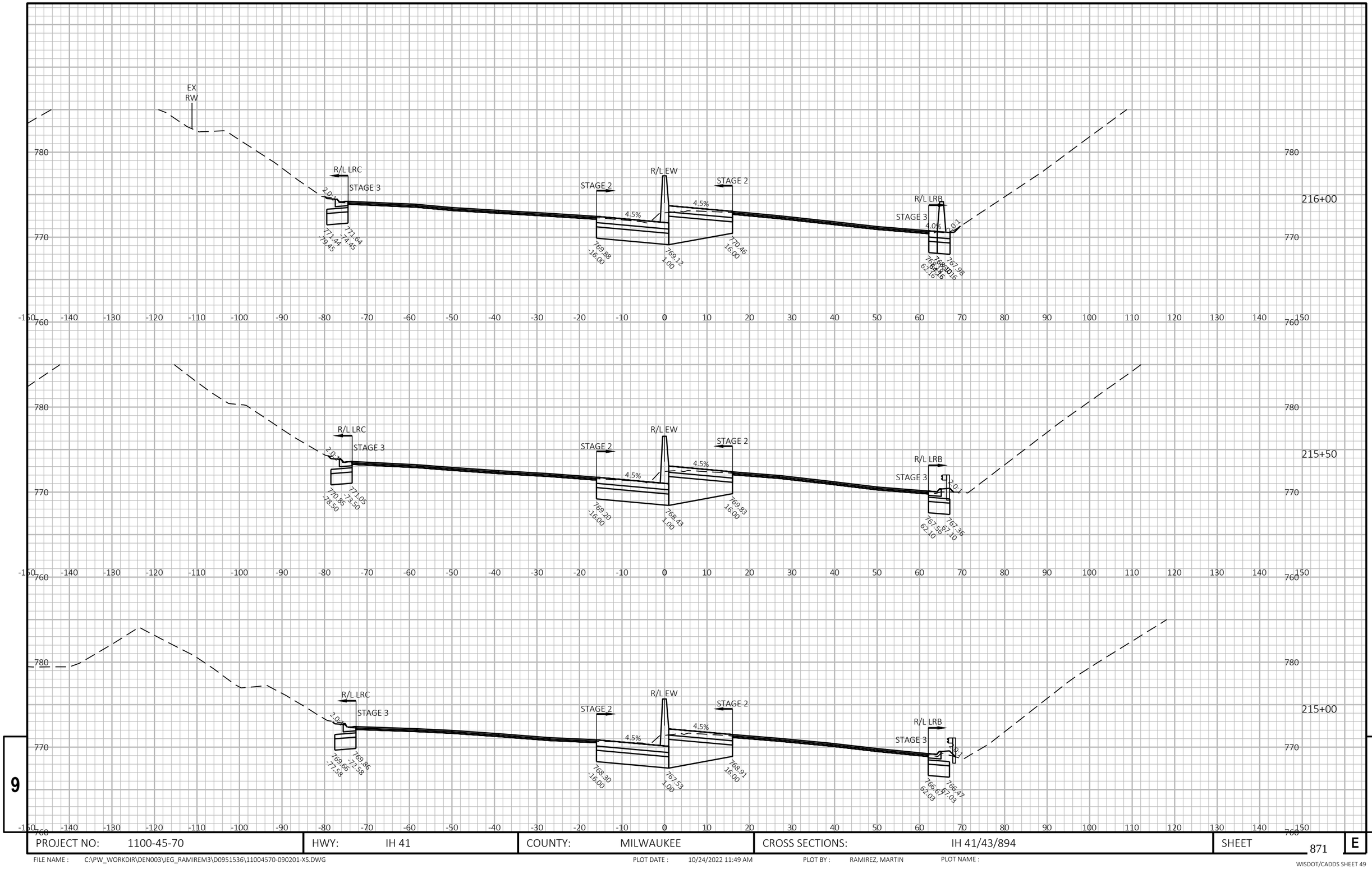
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 870	E

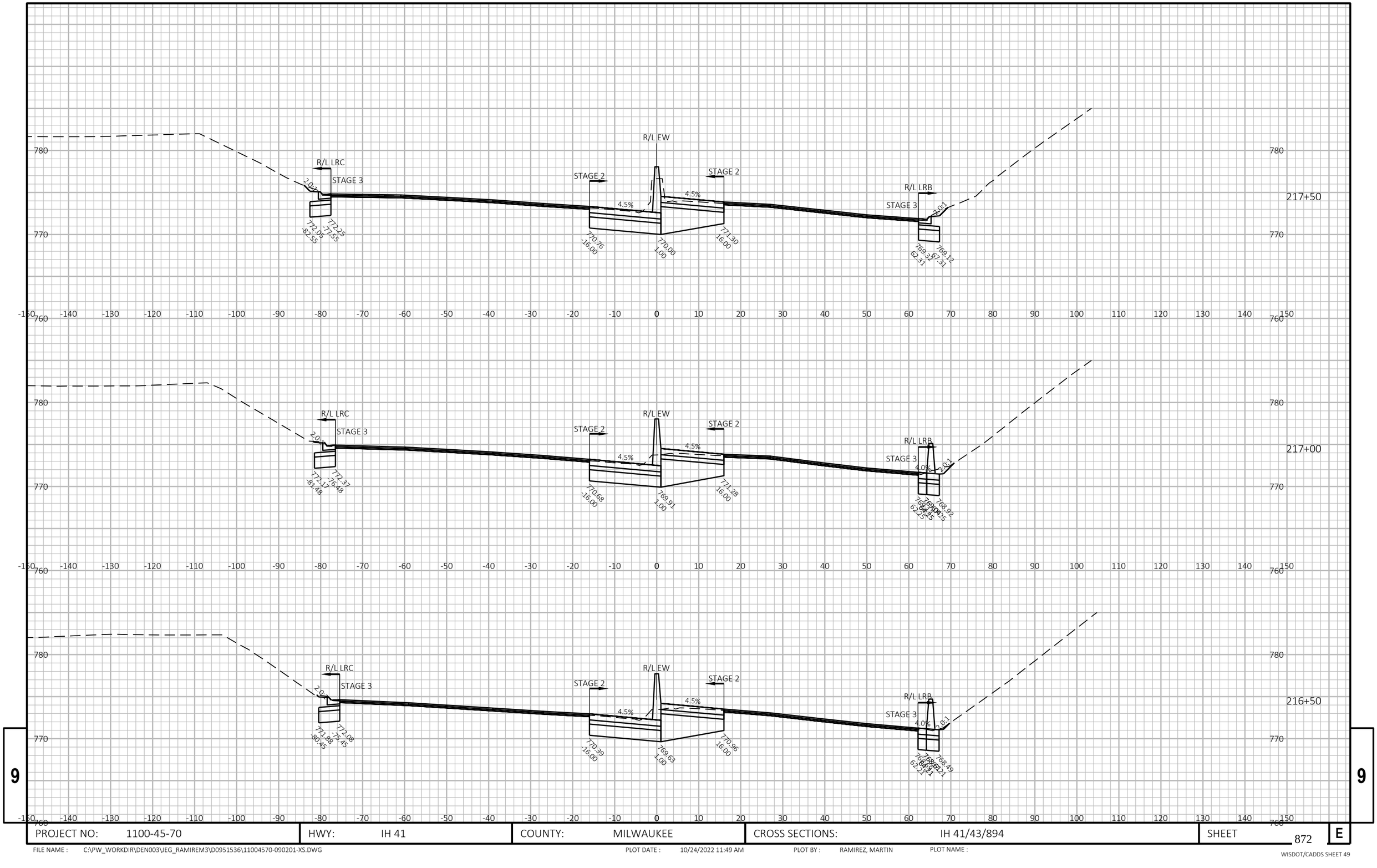
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:48 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 871 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:49 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 872	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:49 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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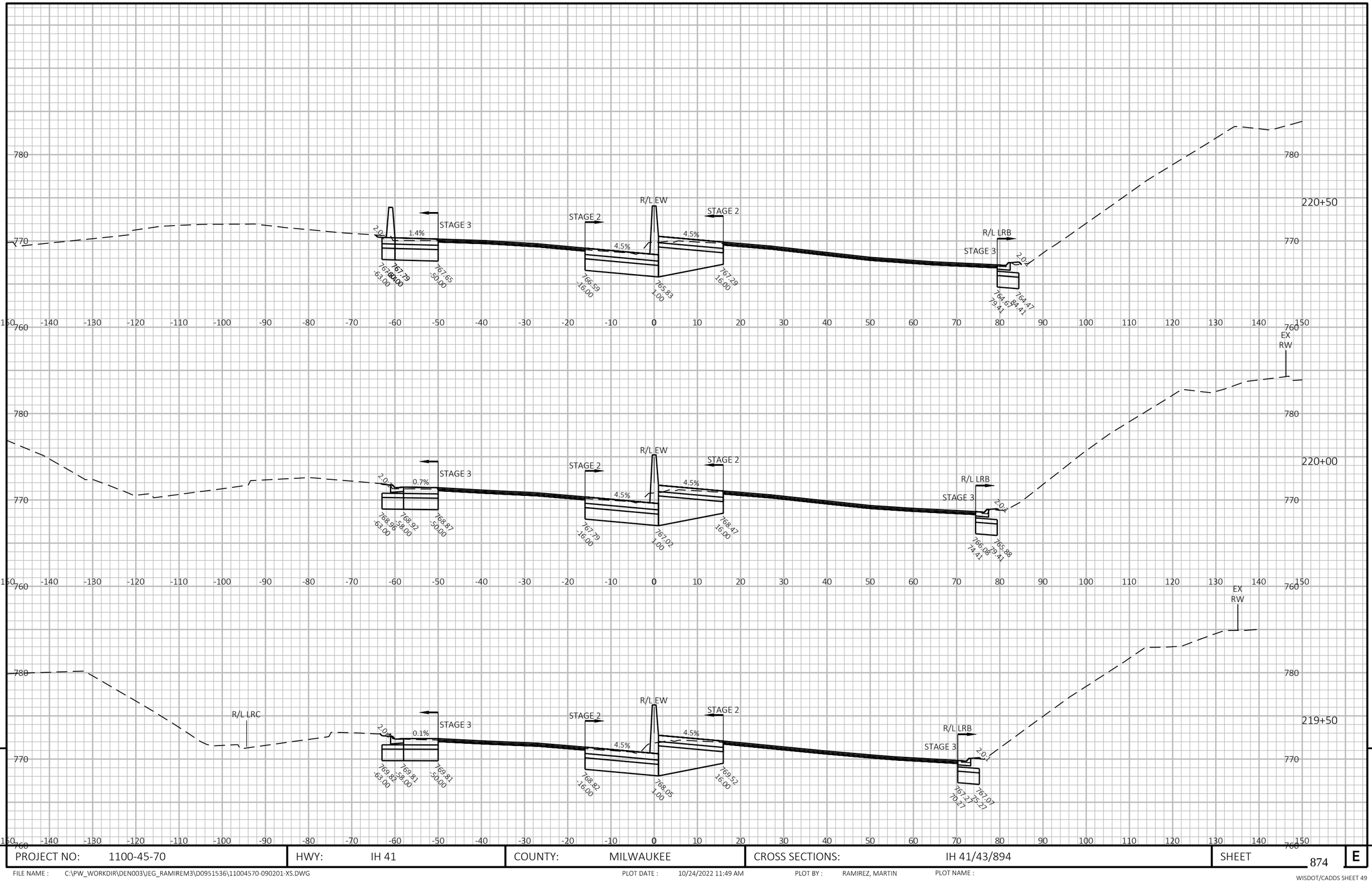
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 873	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:49 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

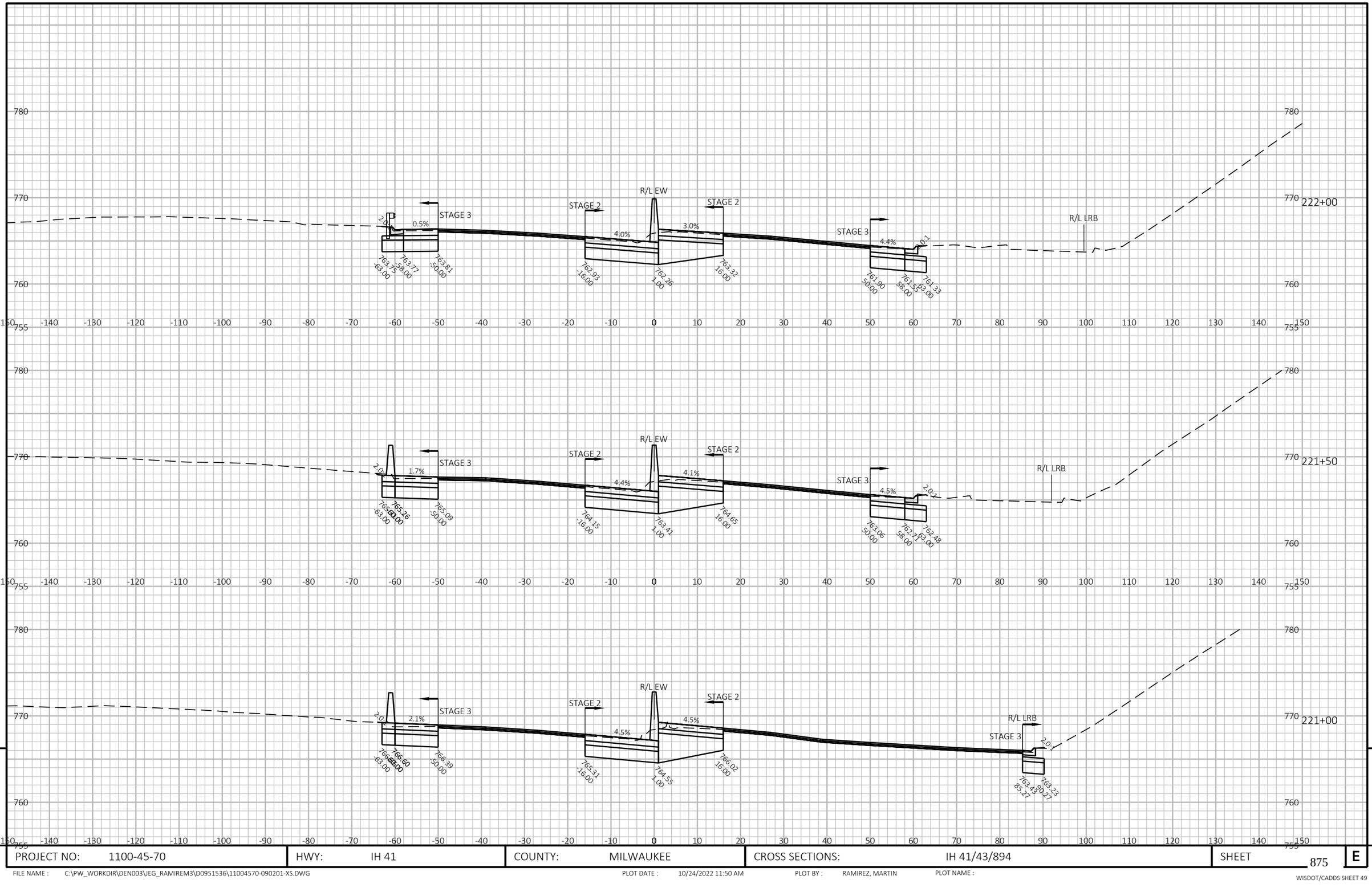
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 874 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:49 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 875	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:50 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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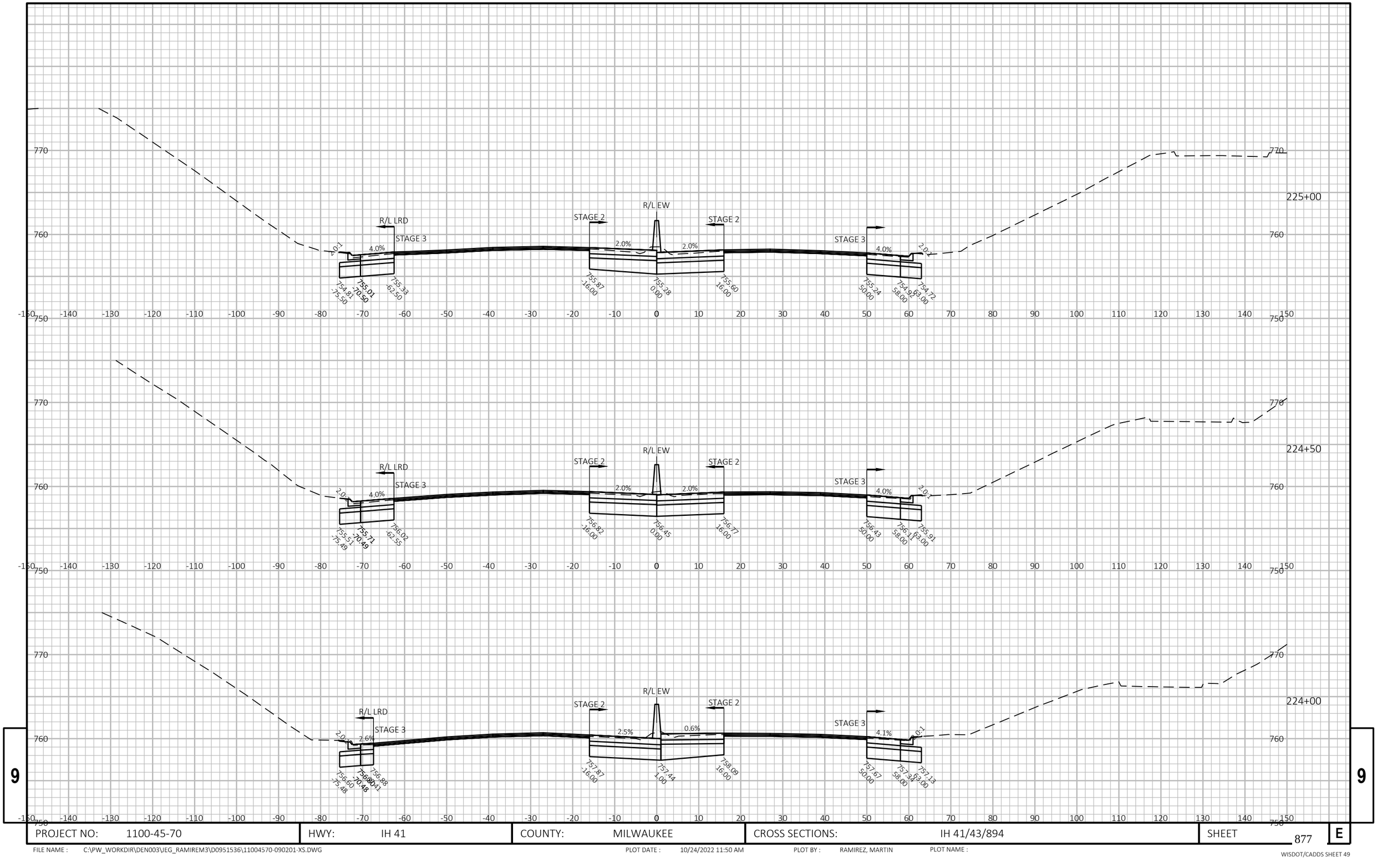
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 876	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:50 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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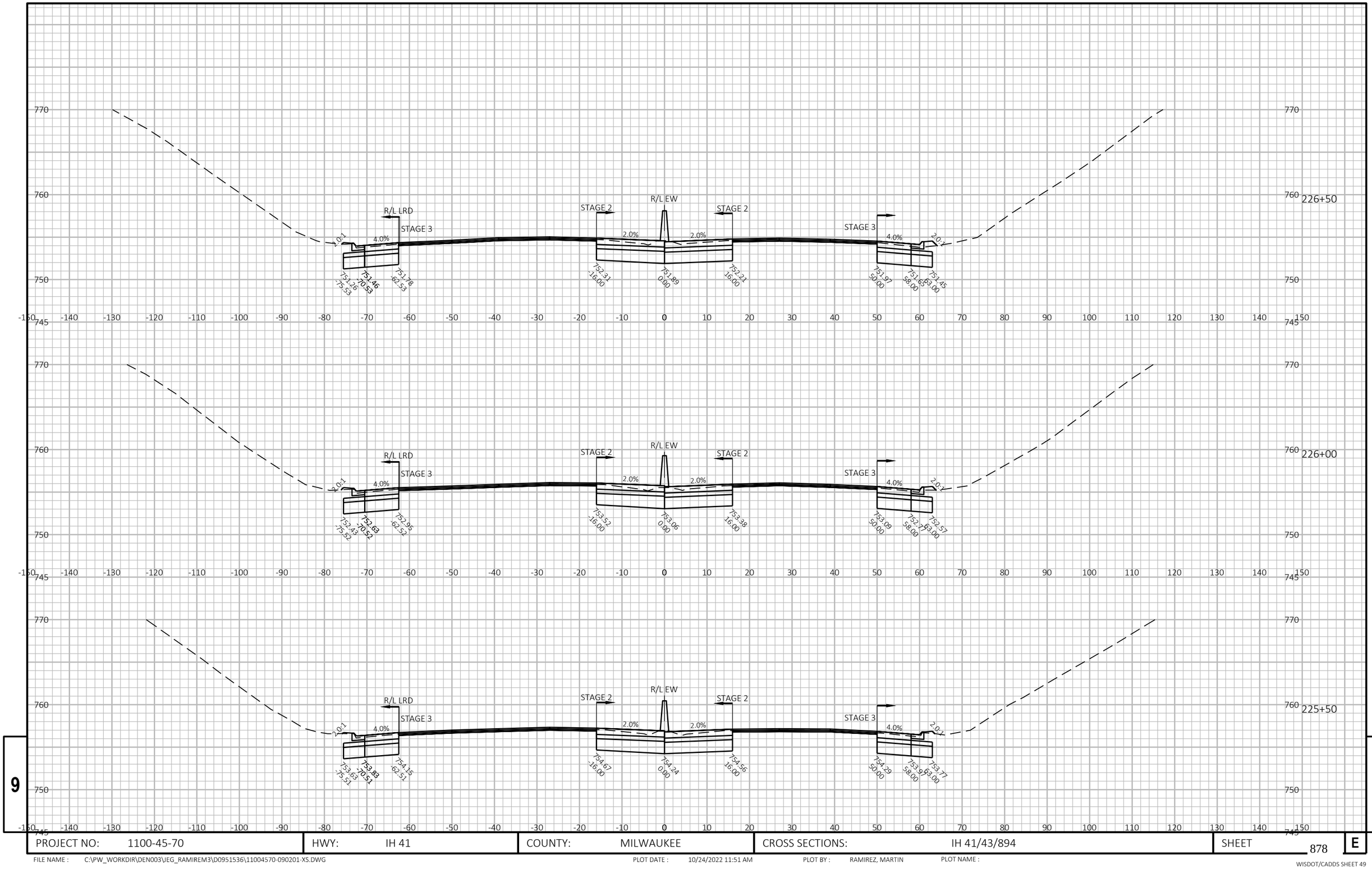
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 877	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:50 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

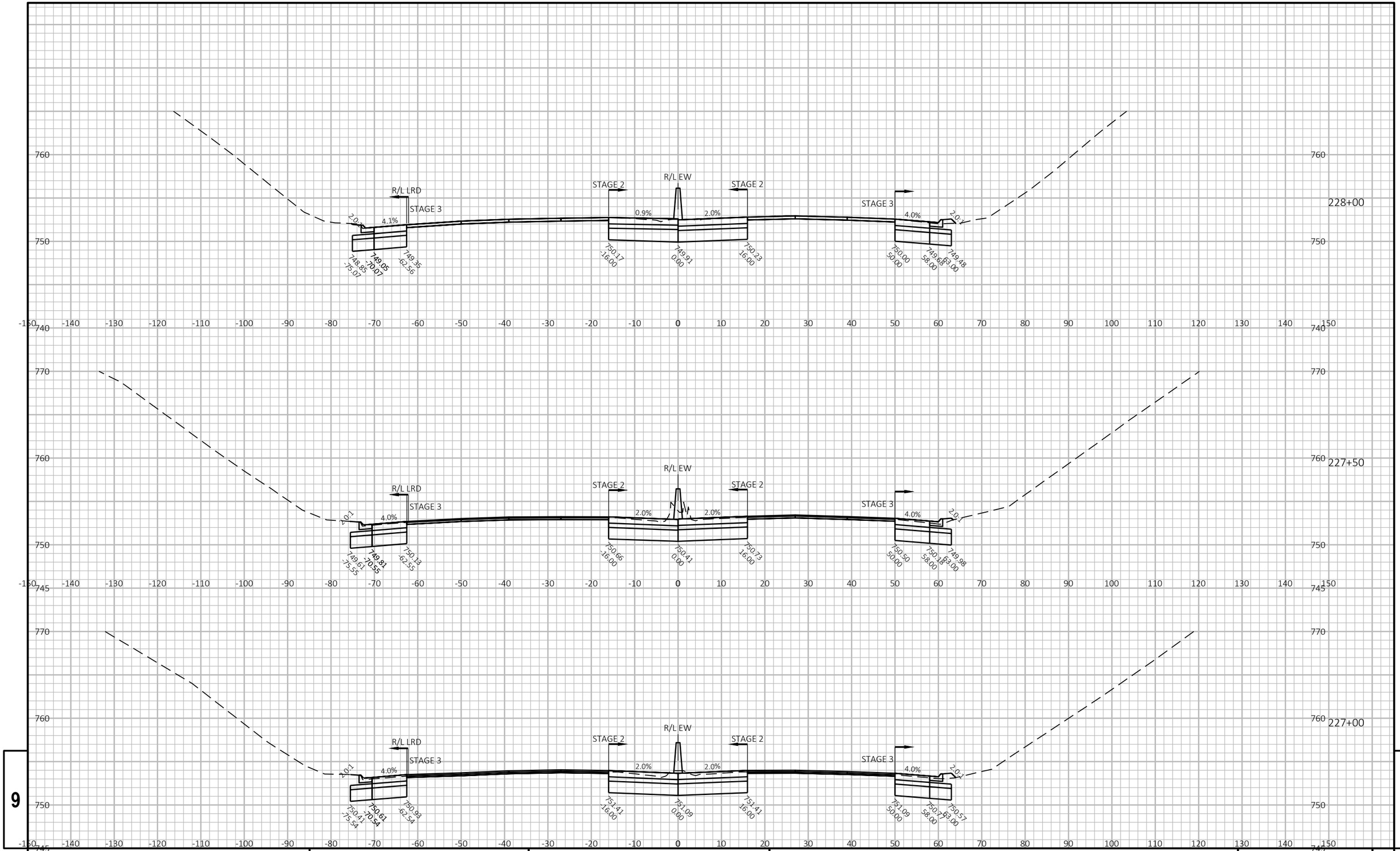
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 878 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:51 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 879	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:51 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/43/894	SHEET 880	E

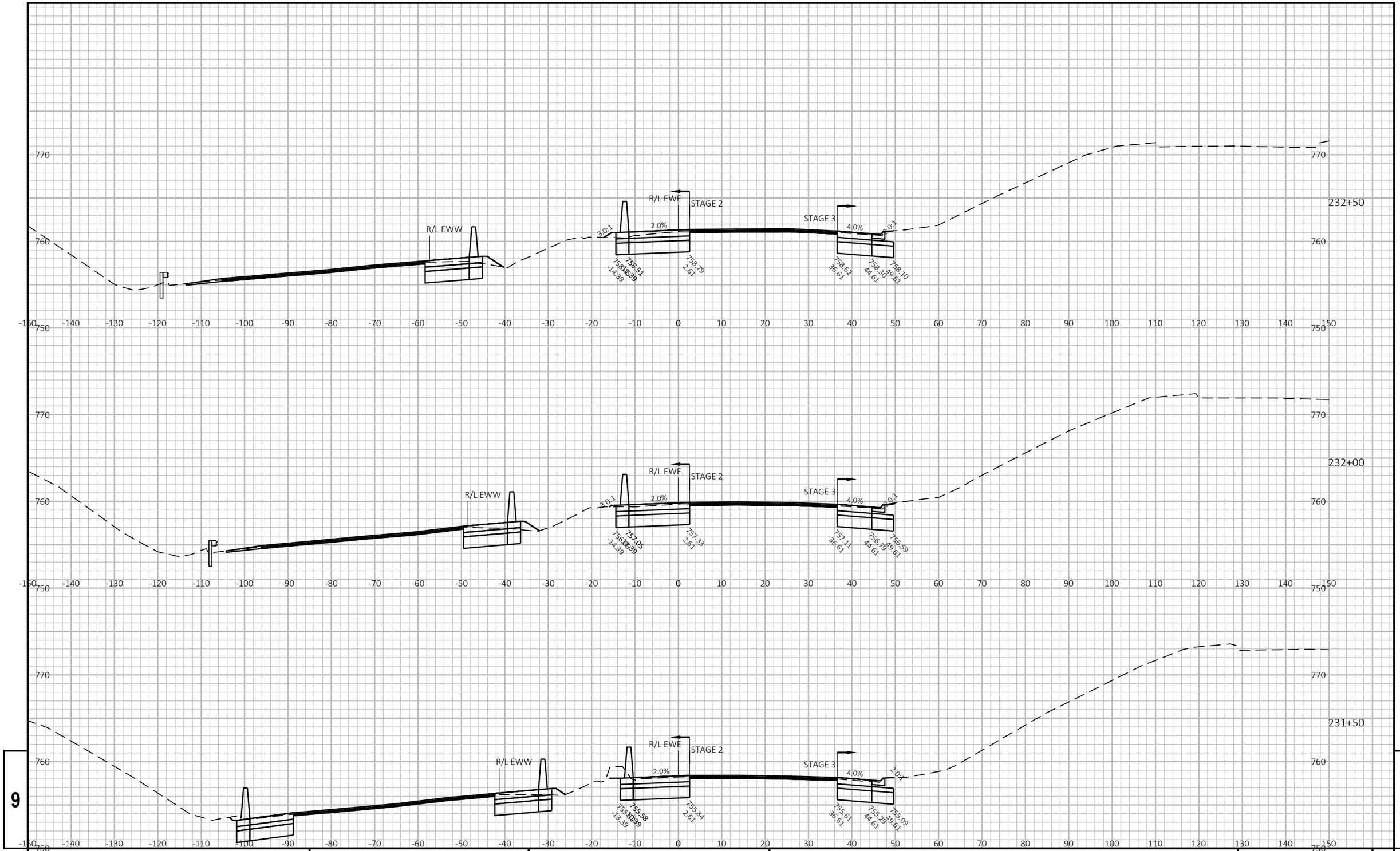
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:51 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 881	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:52 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

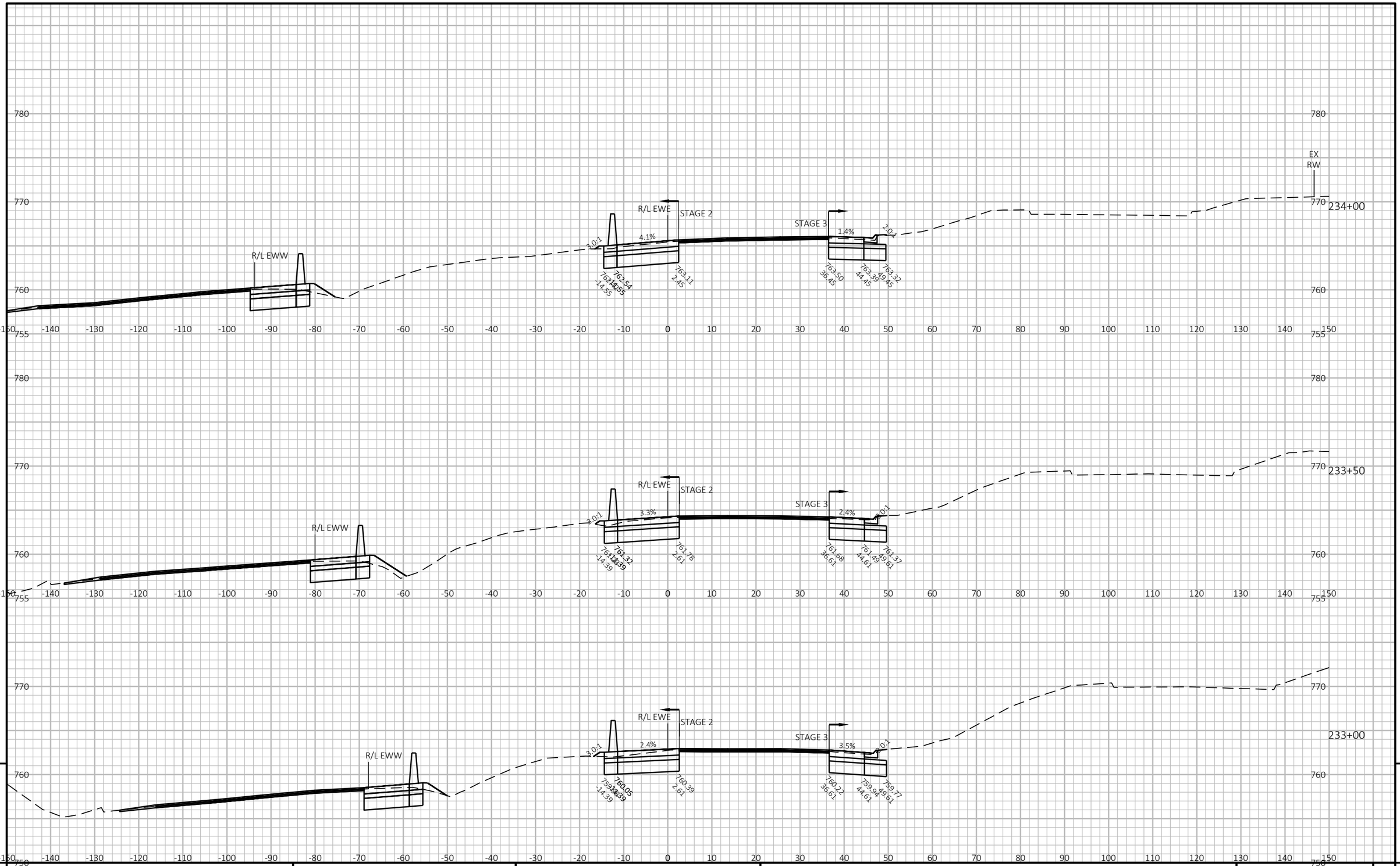
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 882 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:52 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

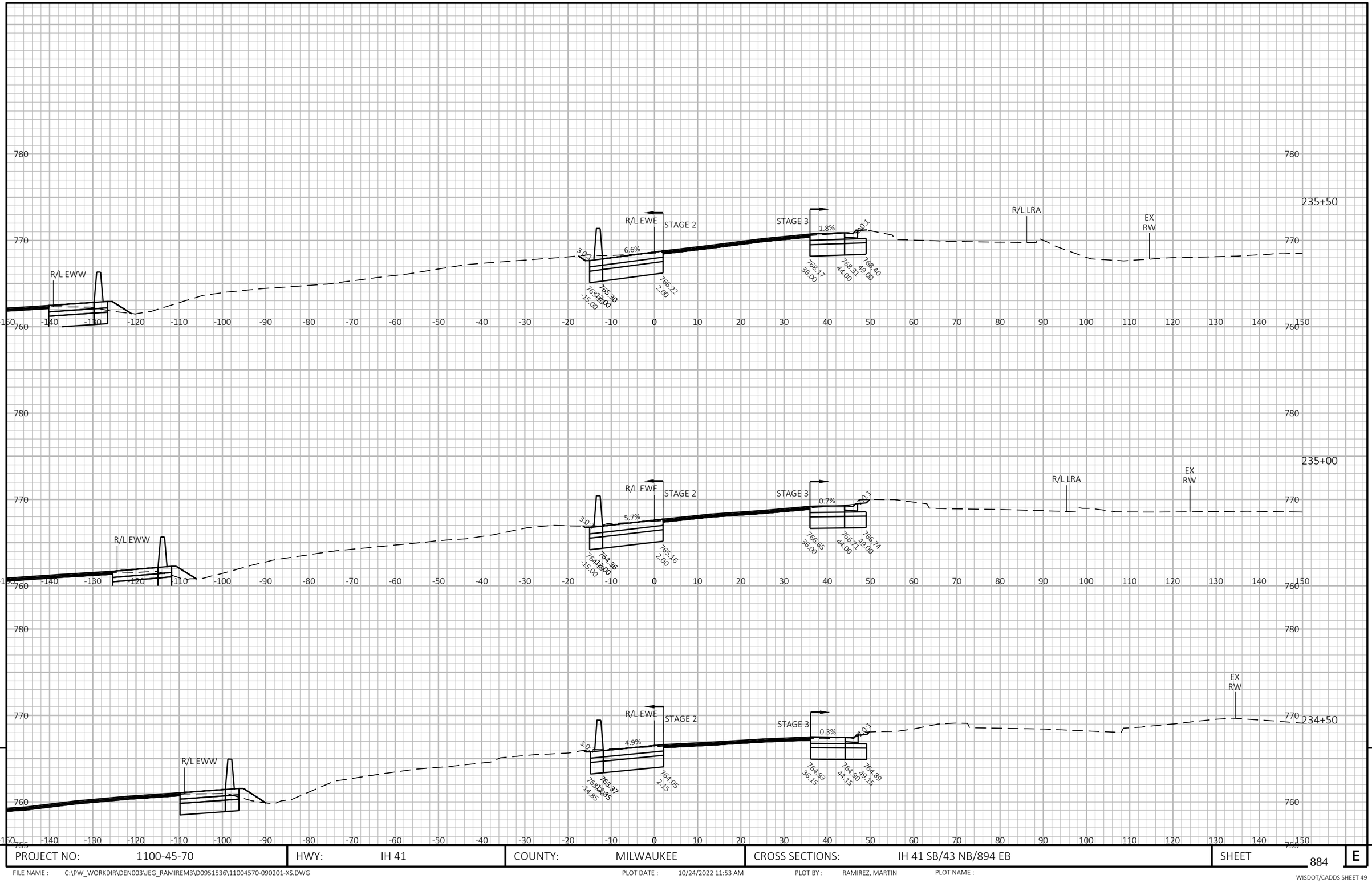
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 883 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:53 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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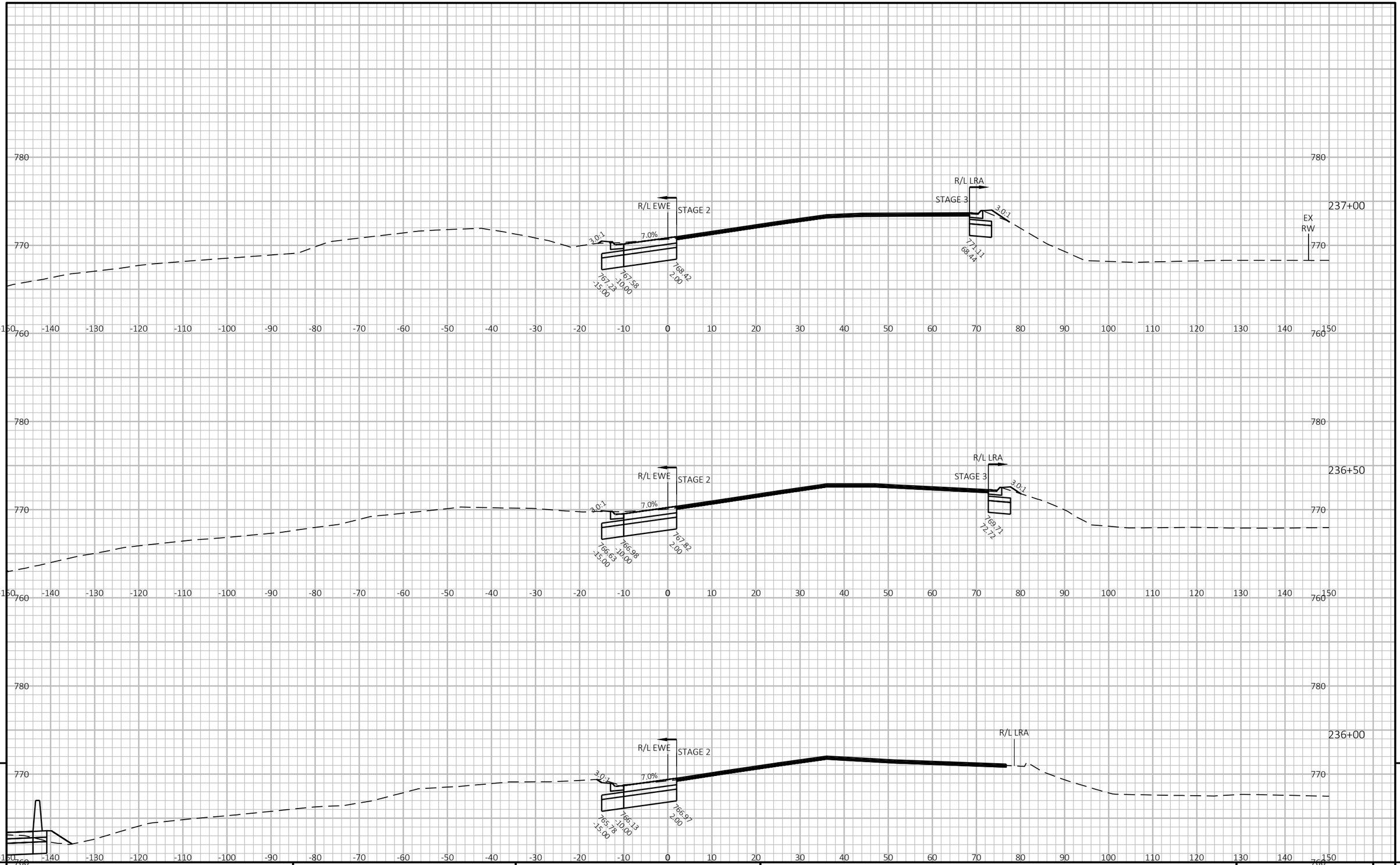
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 884	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:53 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

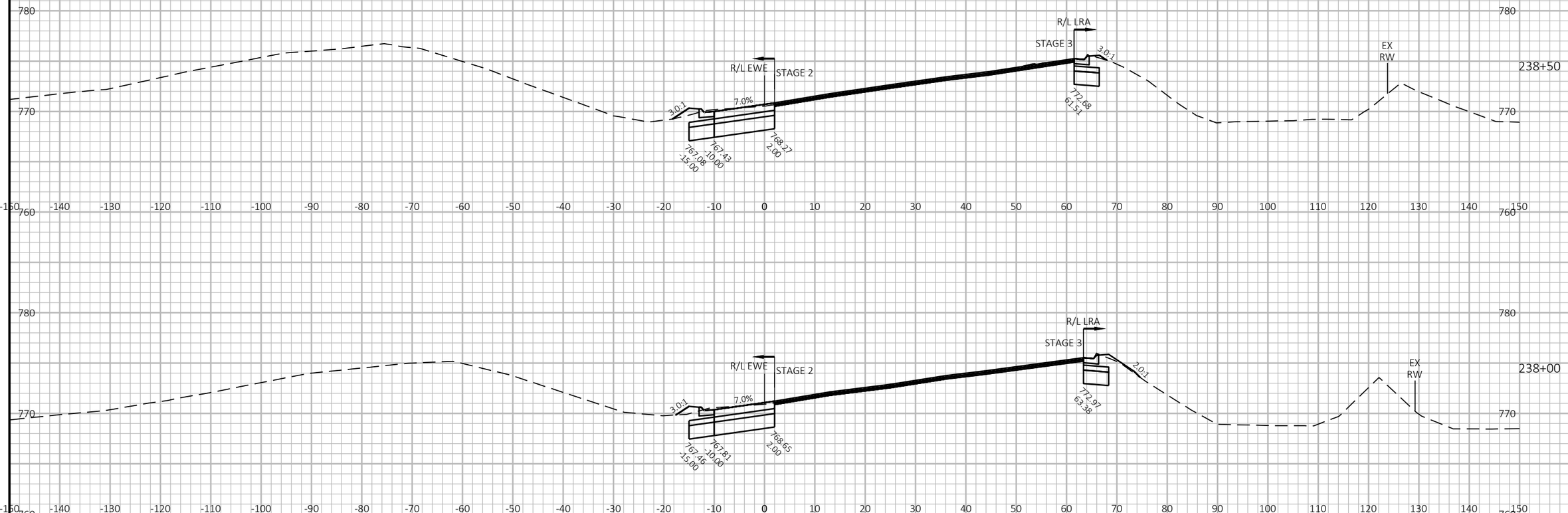
WISDOT/CADDS SHEET 49

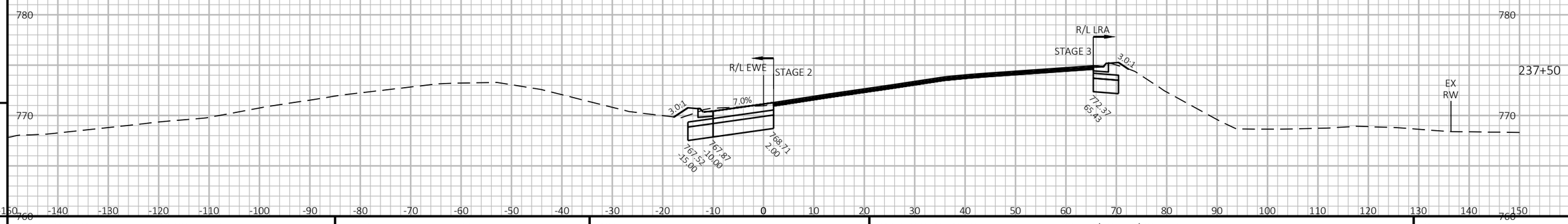


PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	885	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:53 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49





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PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	886	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:53 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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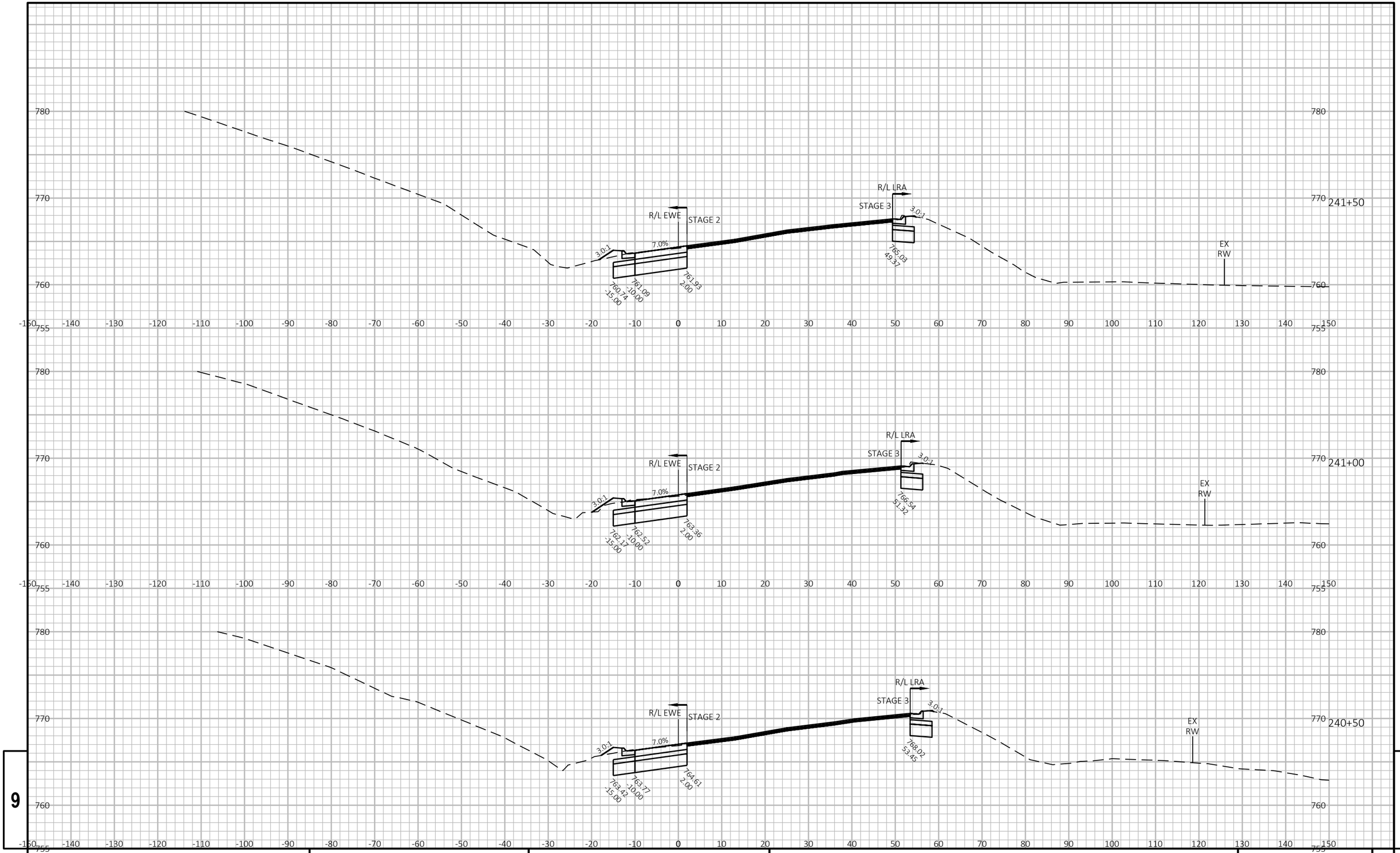
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 887	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:54 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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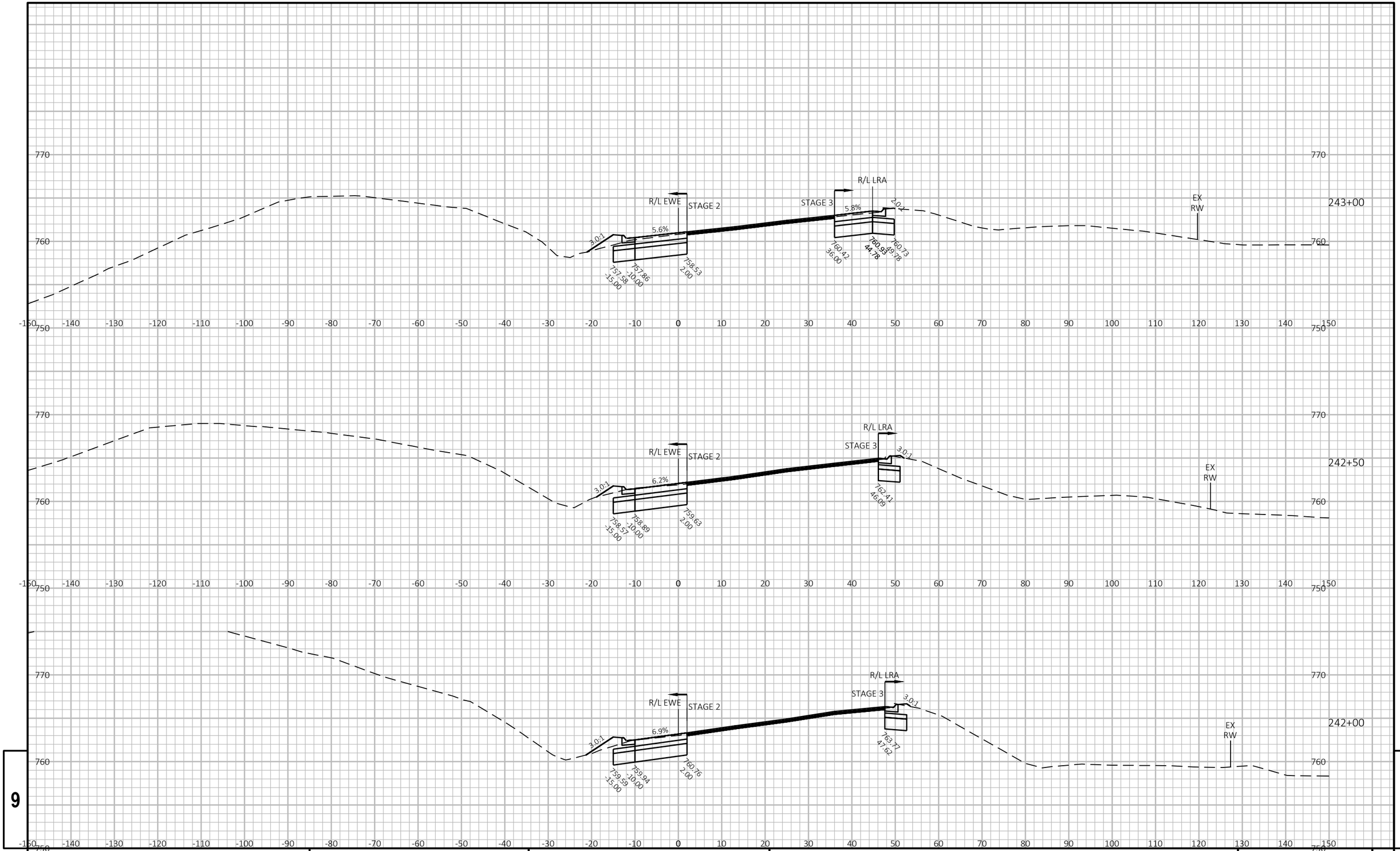
PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	888	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:54 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 889	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:54 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

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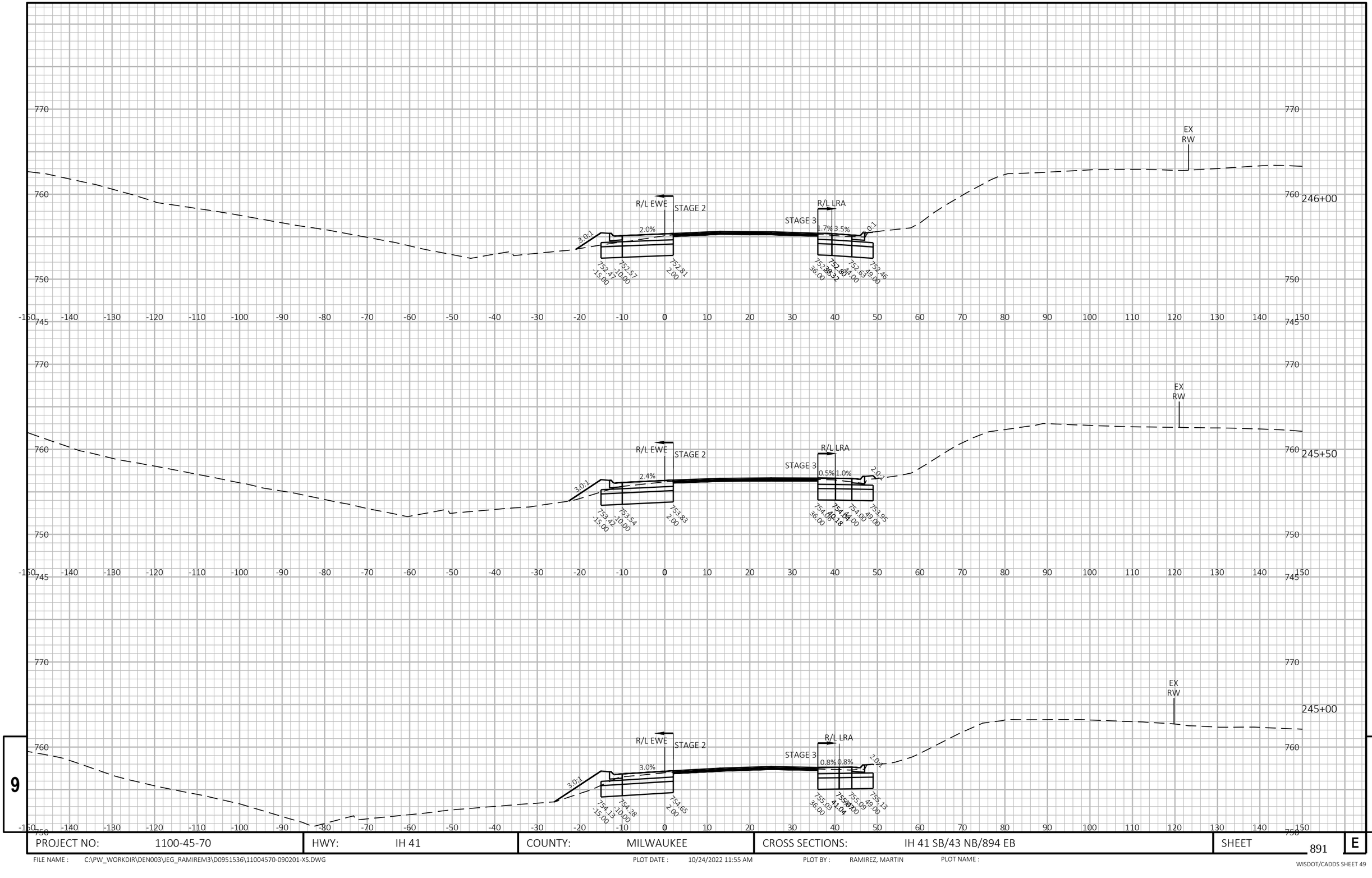
PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	890	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:55 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

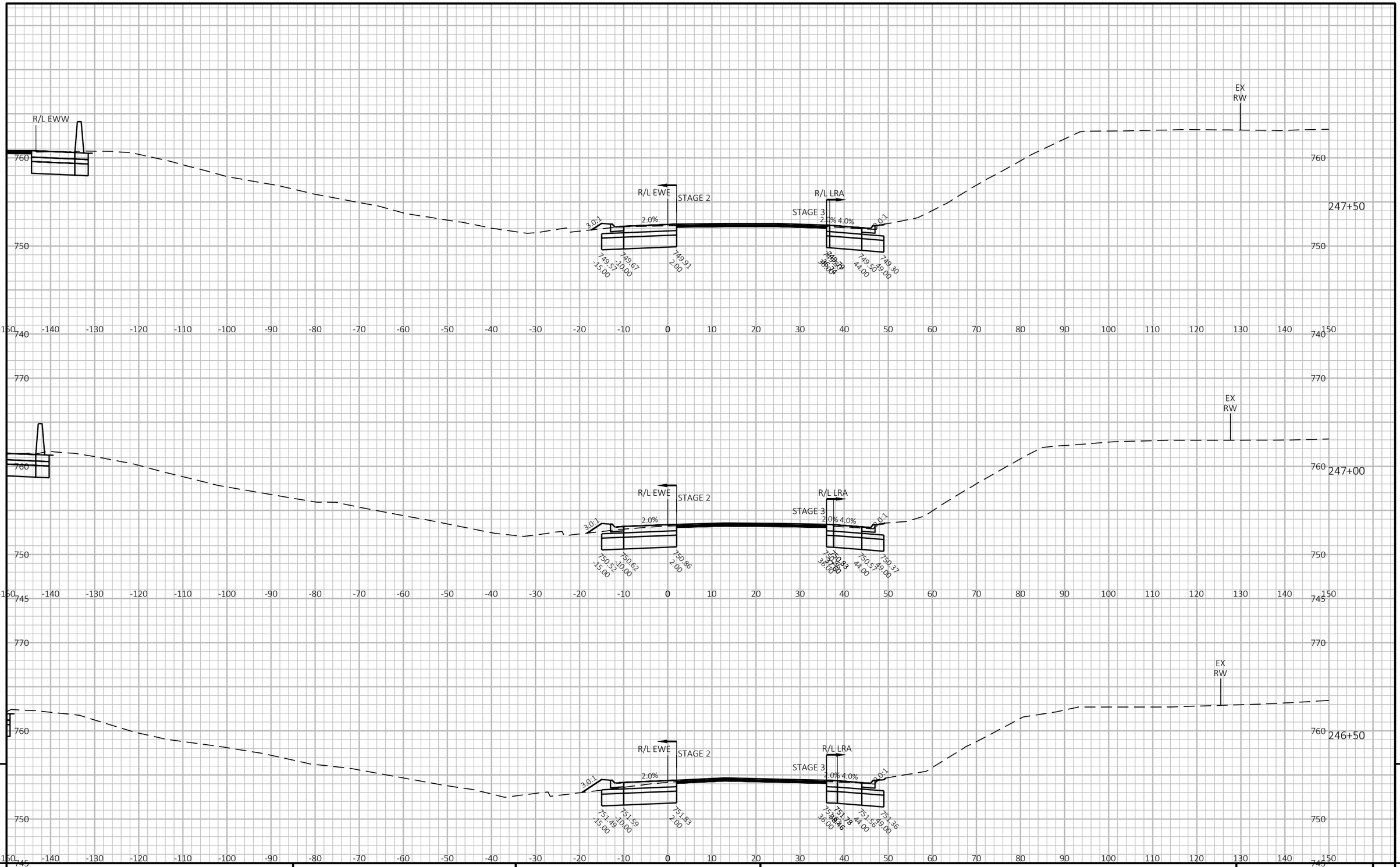
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 891 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:55 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



9

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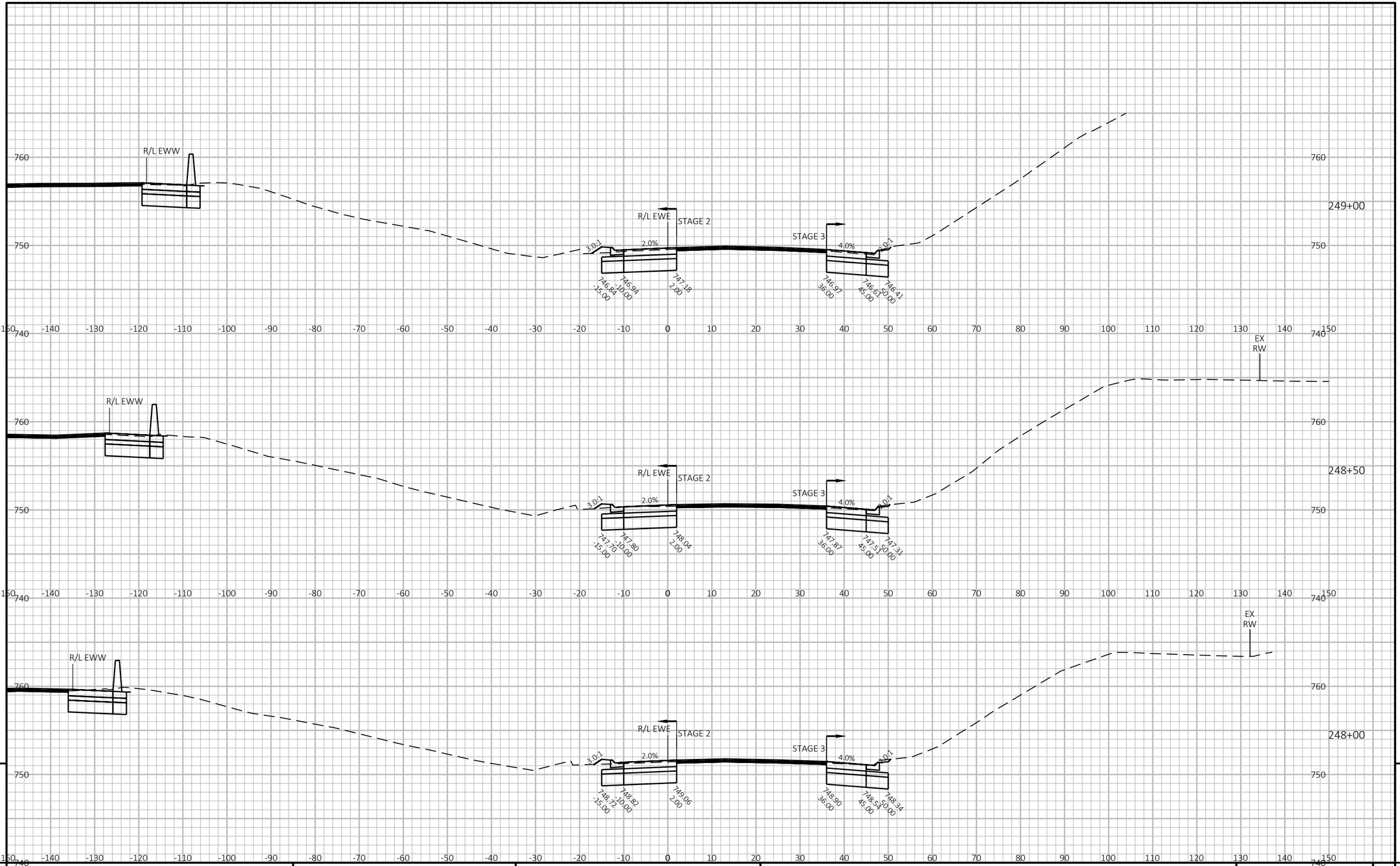
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 892	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:55 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	893	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:56 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

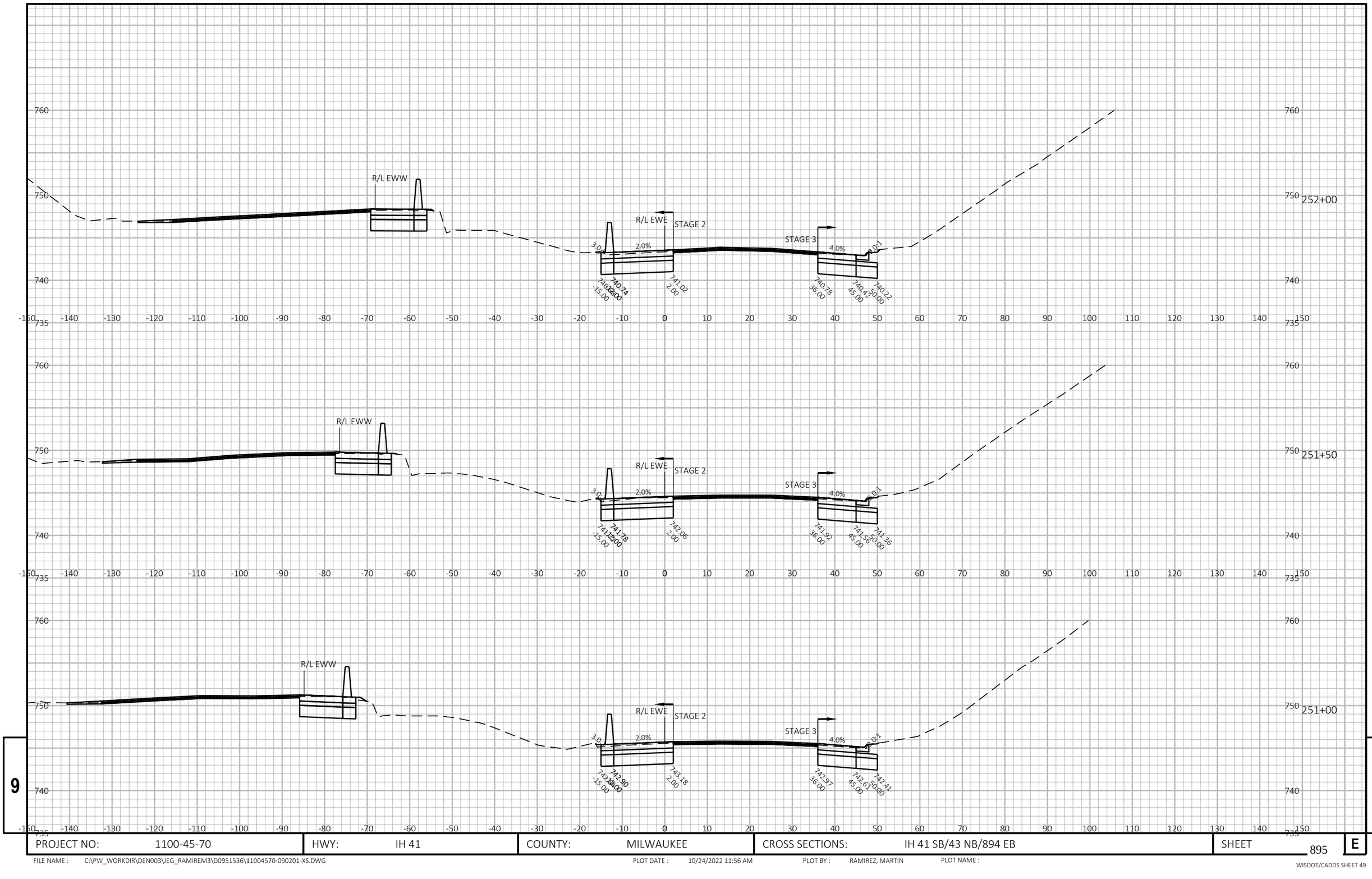
9

9

PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	894	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:56 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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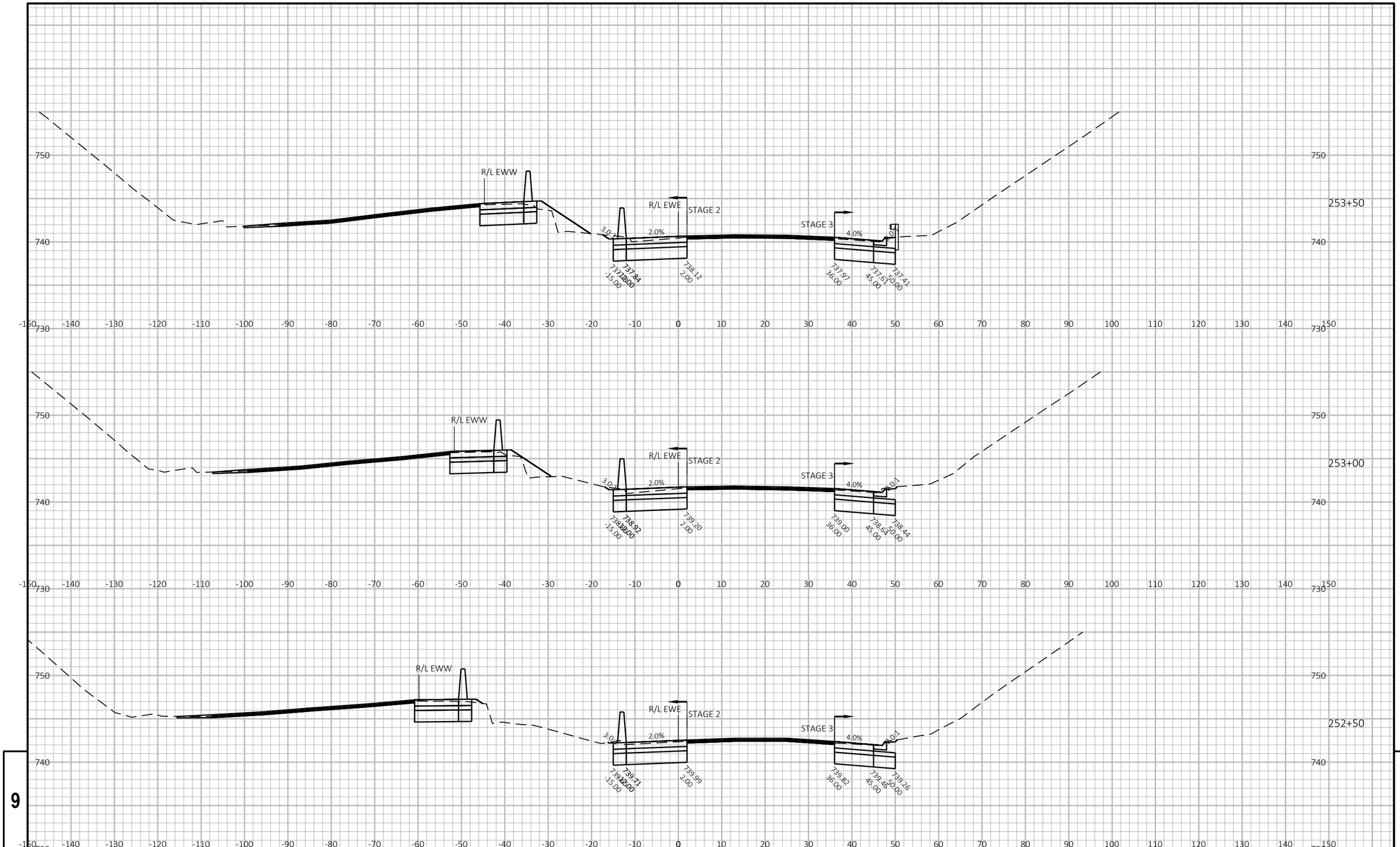
PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	895	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:56 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

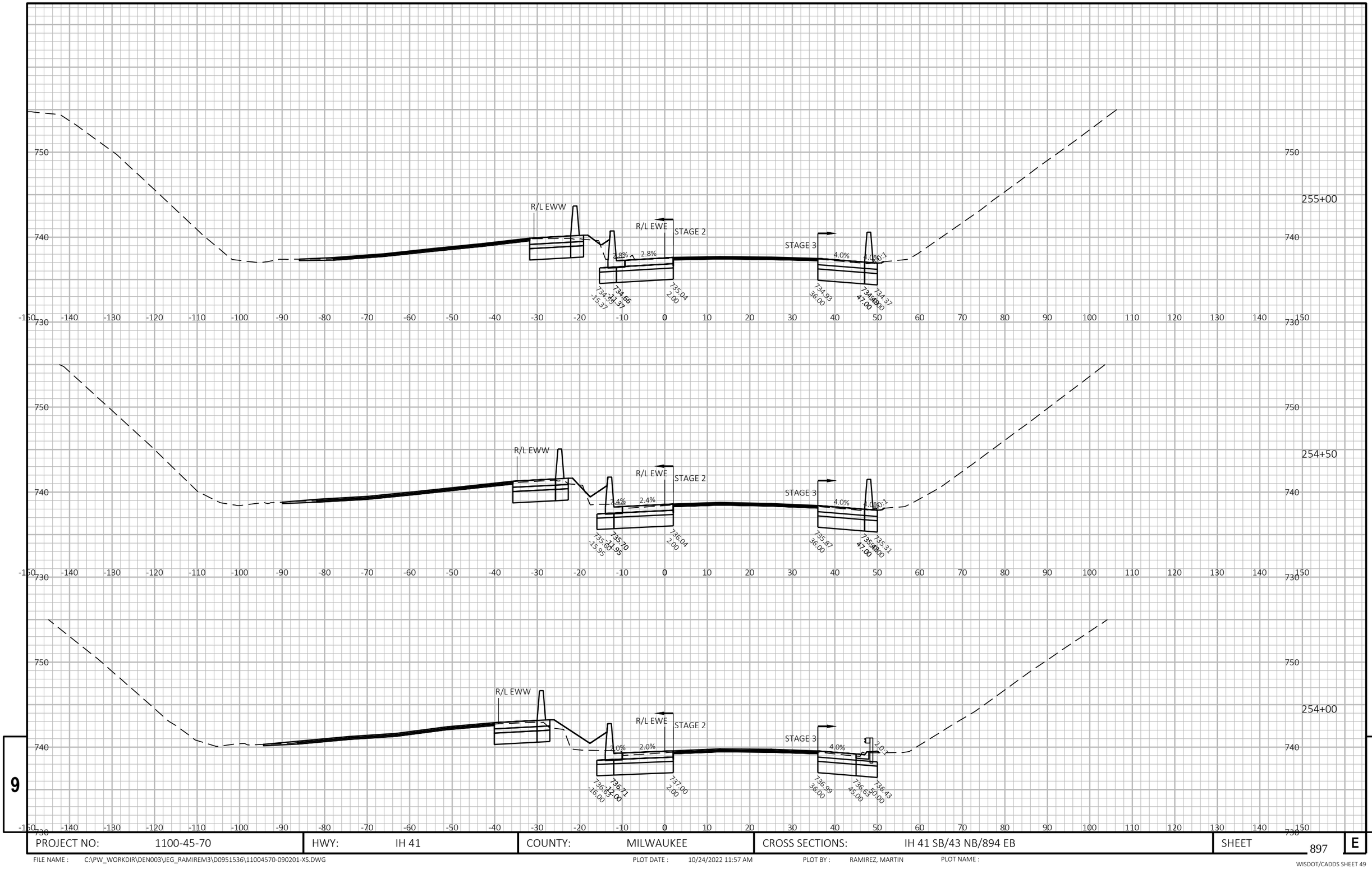
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 896 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:57 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 SB/43 NB/894 EB	SHEET	897	E

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WISDOT/CADDS SHEET 49

9

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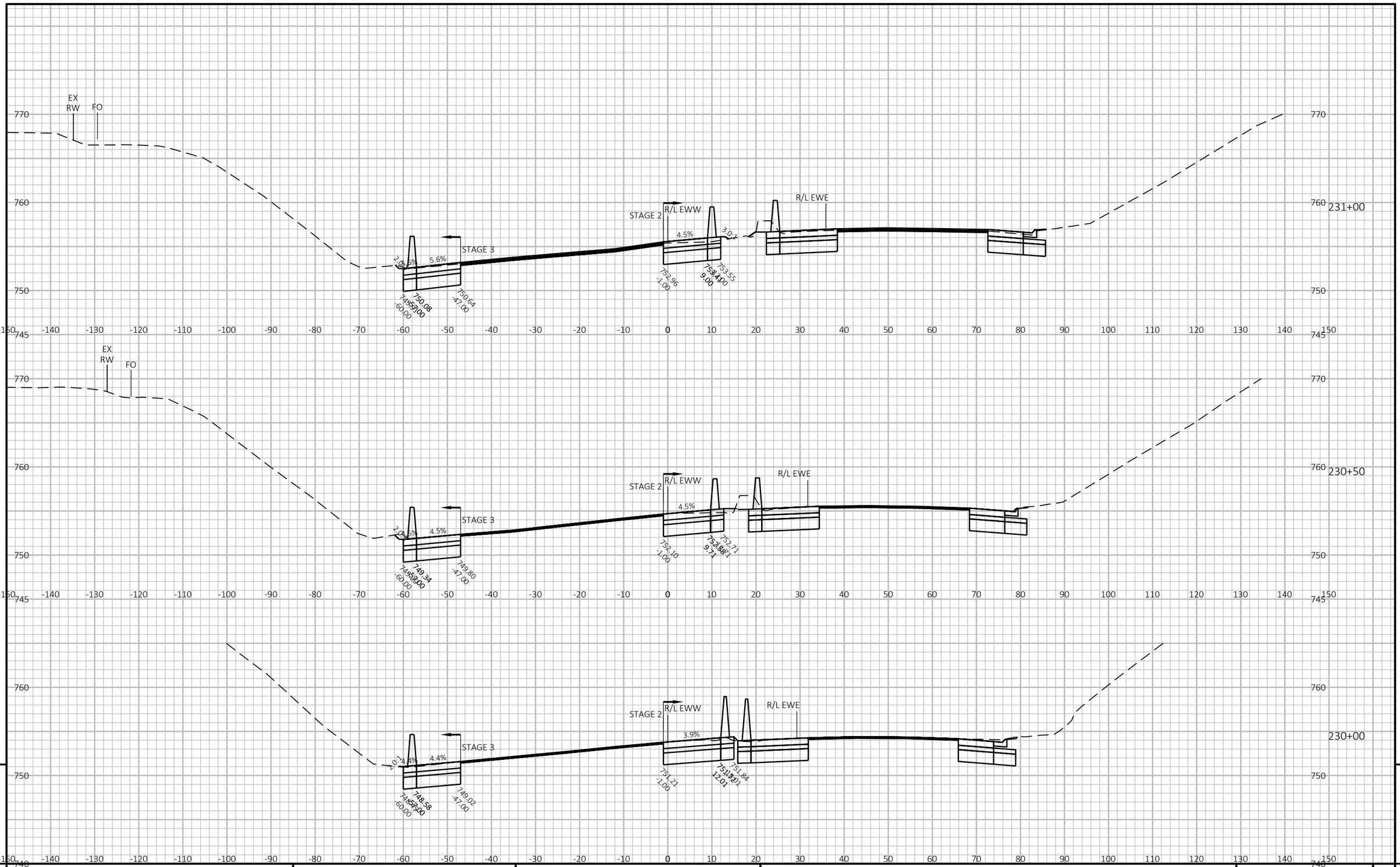
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 SB/43 NB/894 EB	SHEET 898	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:57 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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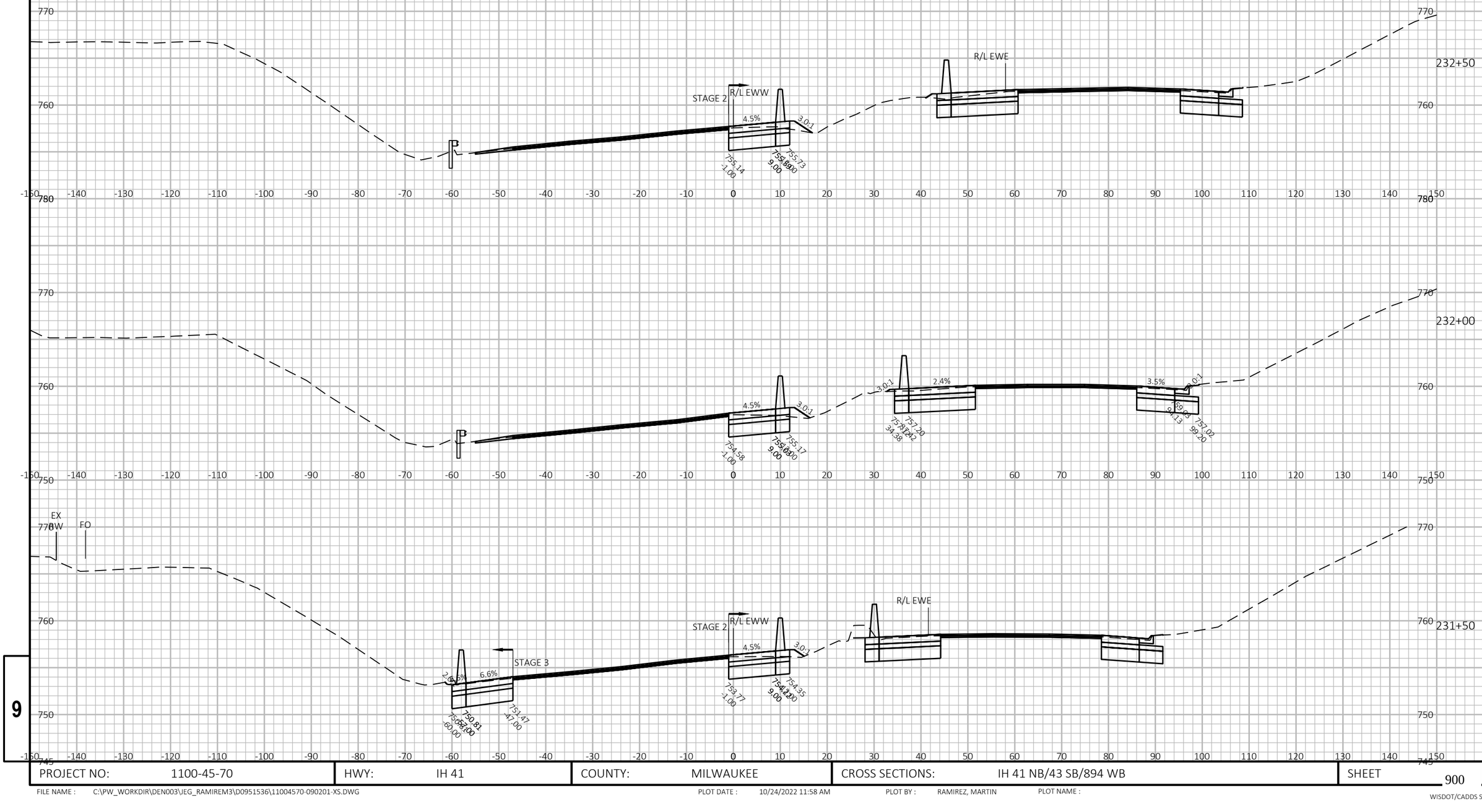
PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 NB/43 SB/894 WB	SHEET	899	E



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 900 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:58 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB

SHEET 901 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:58 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

9

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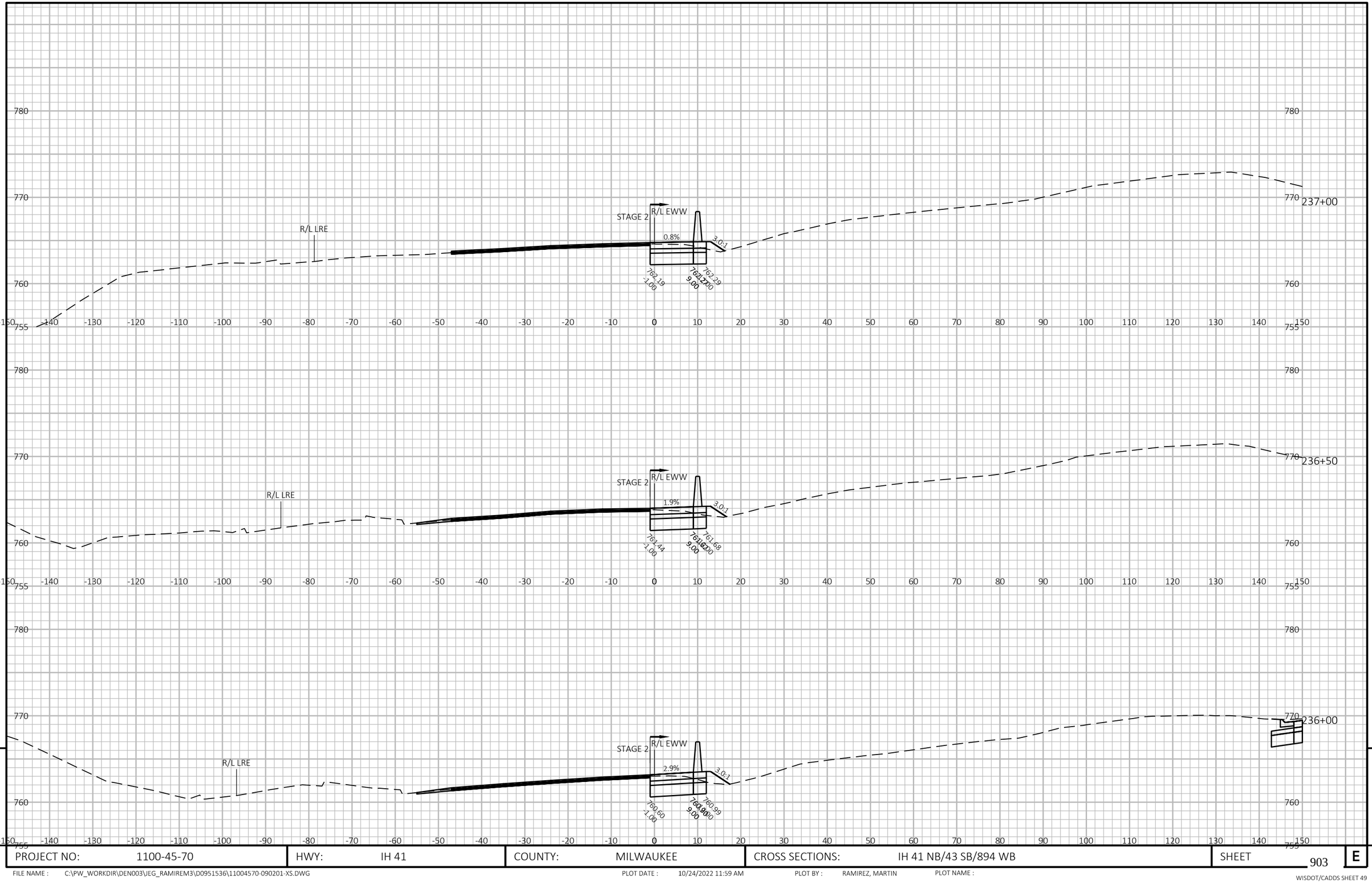
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 902	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:58 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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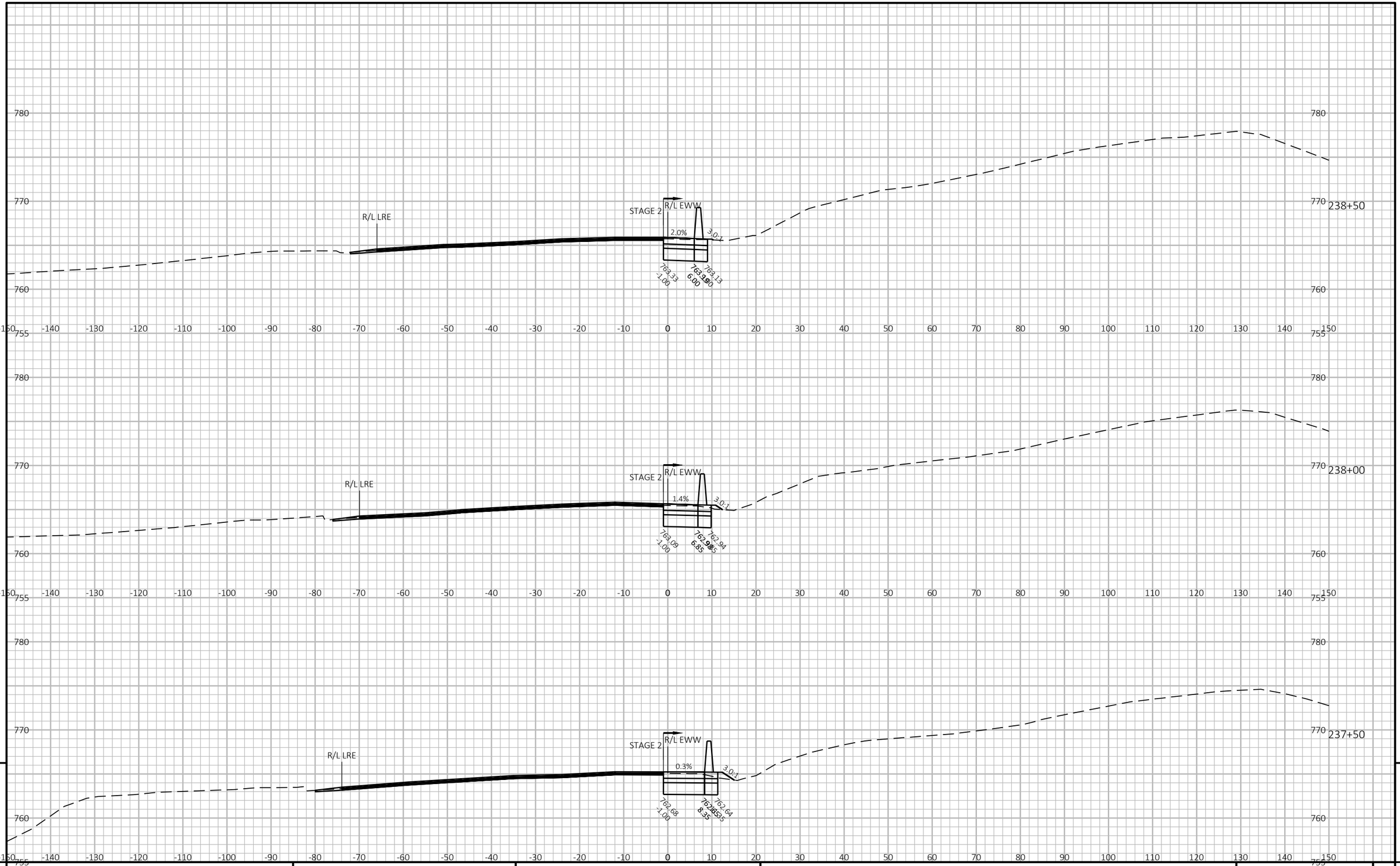
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 903	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 11:59 AM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 904	E

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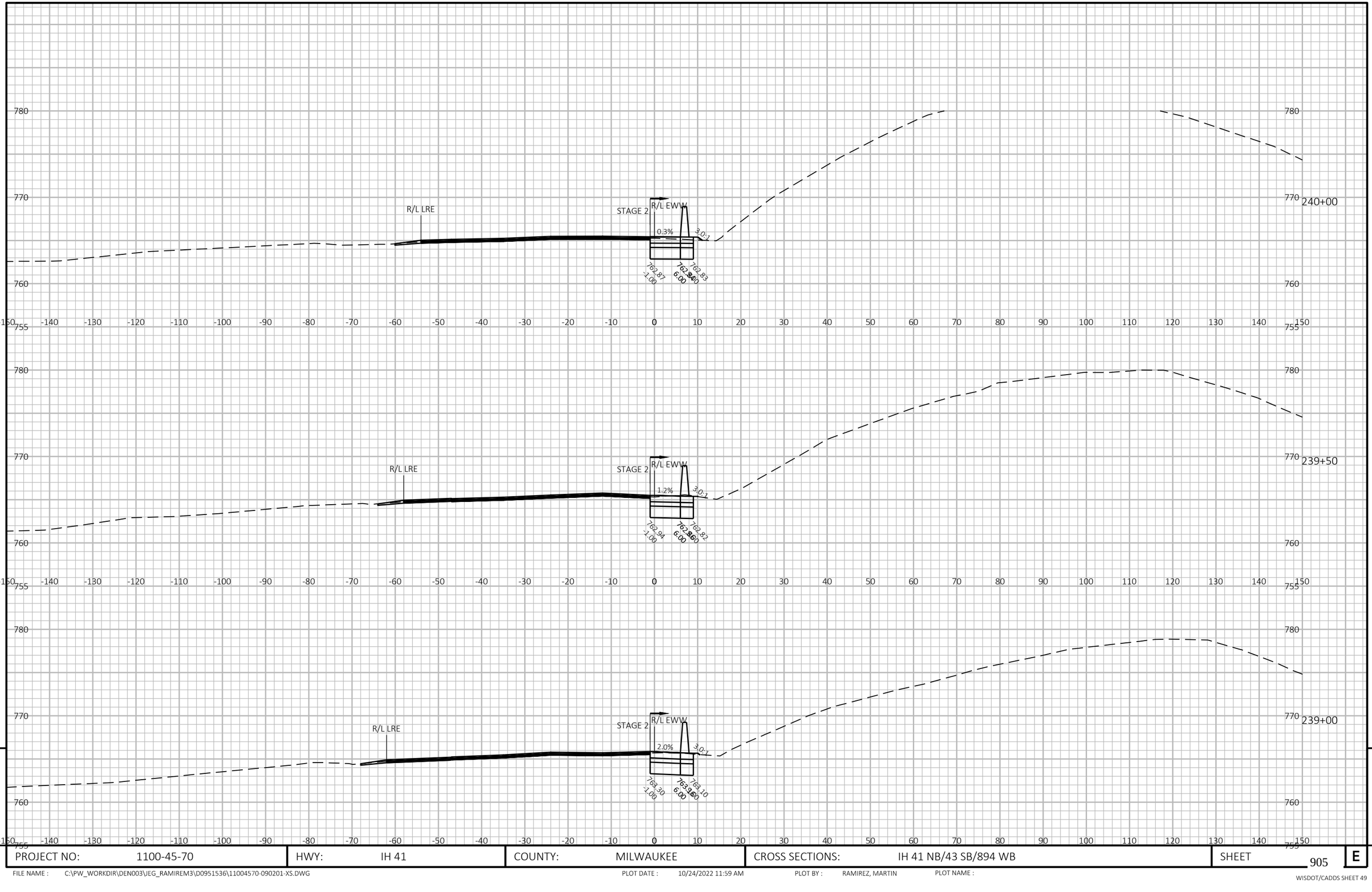
WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 905	E

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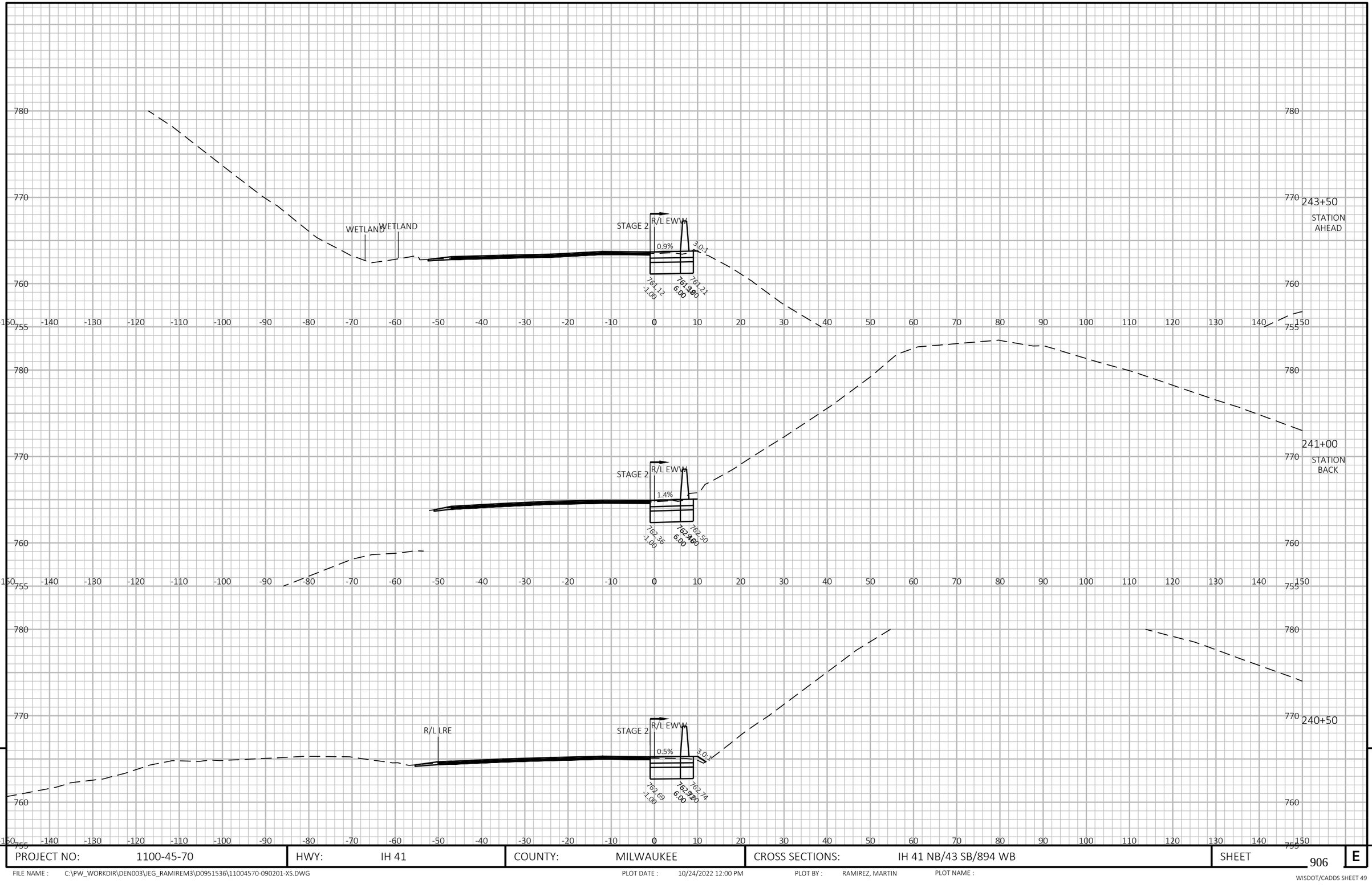
WISDOT/CADDS SHEET 49



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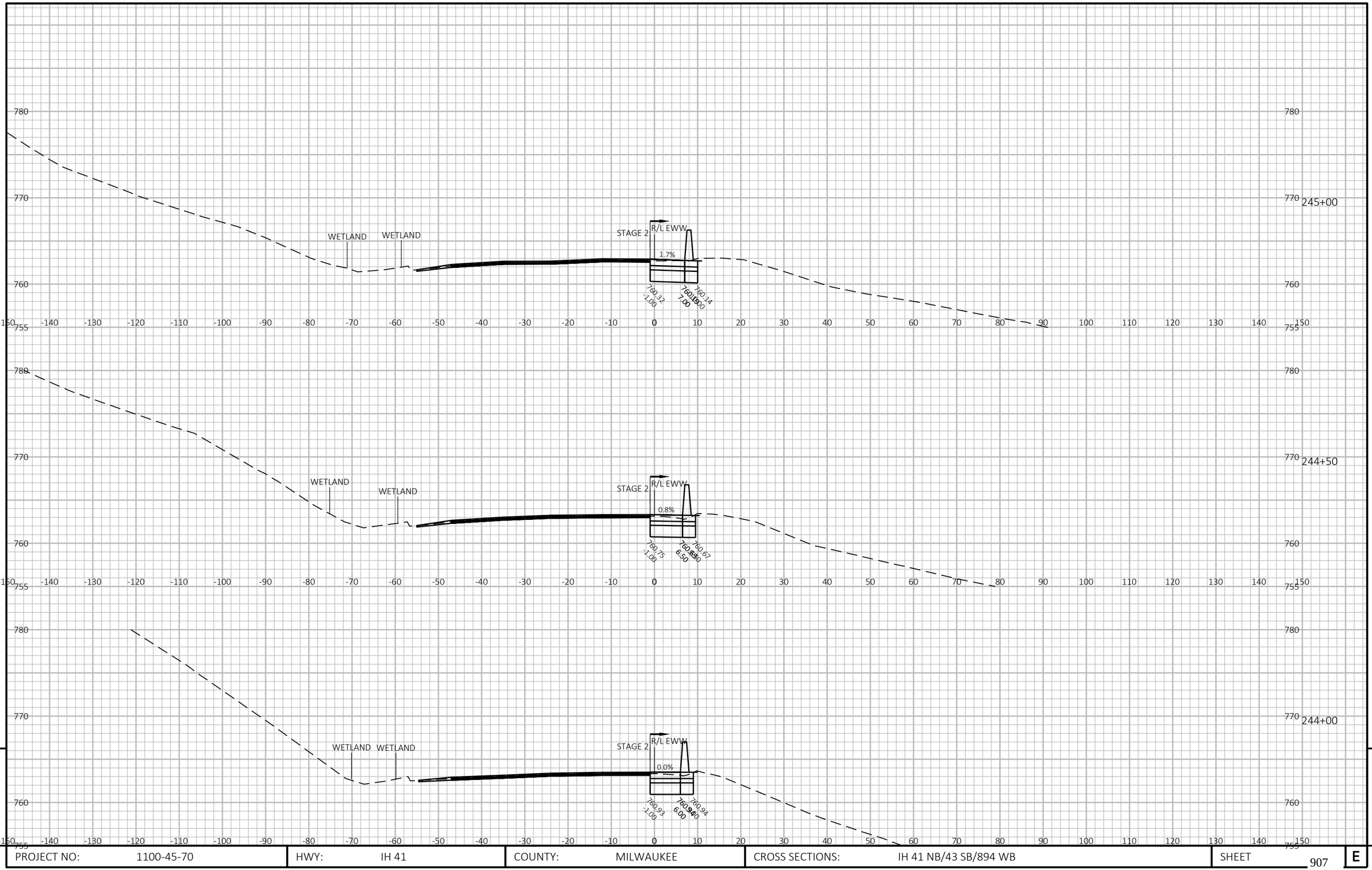
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 906	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:00 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 907 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:00 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

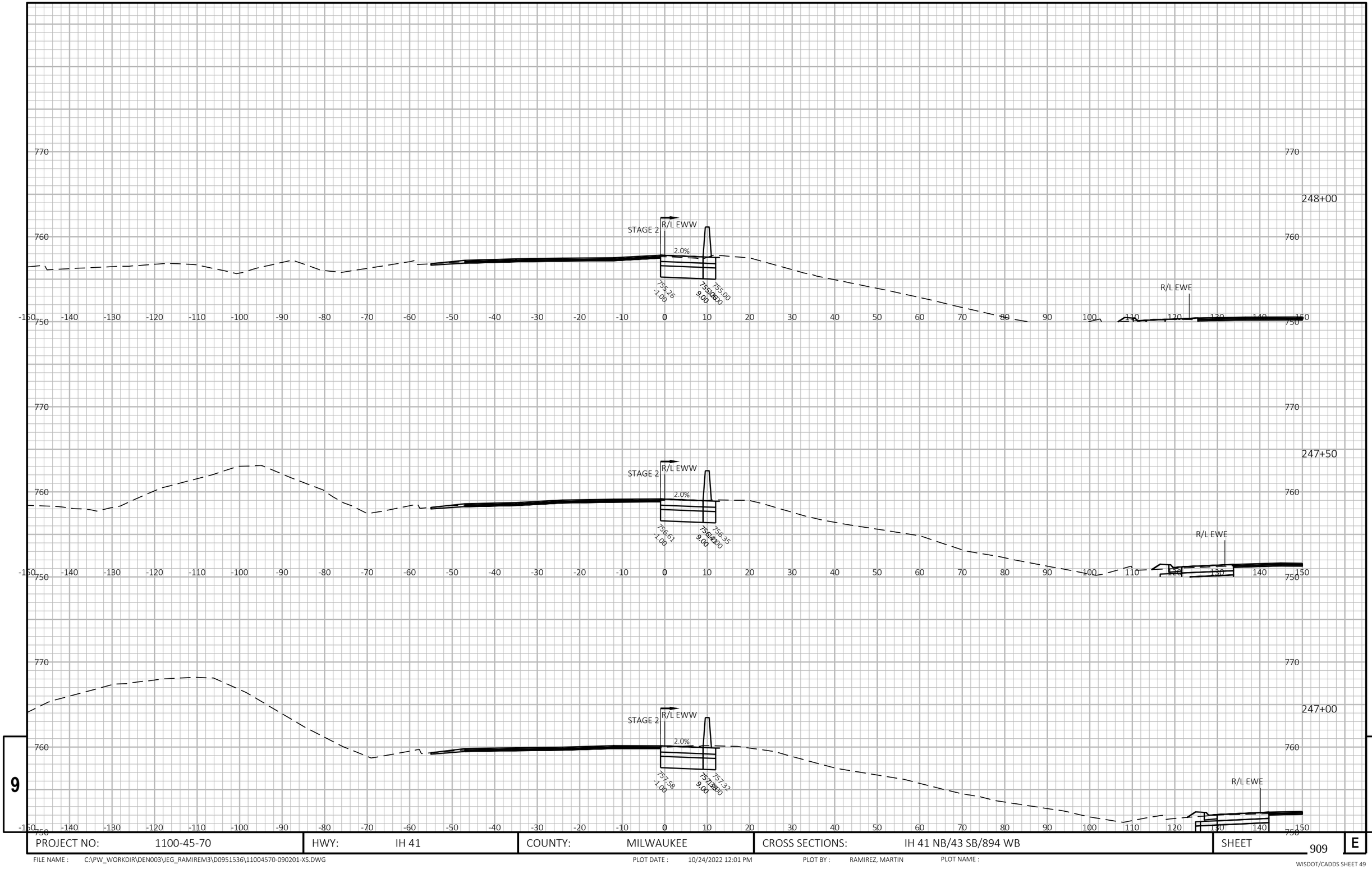
9

9

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 908	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:00 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

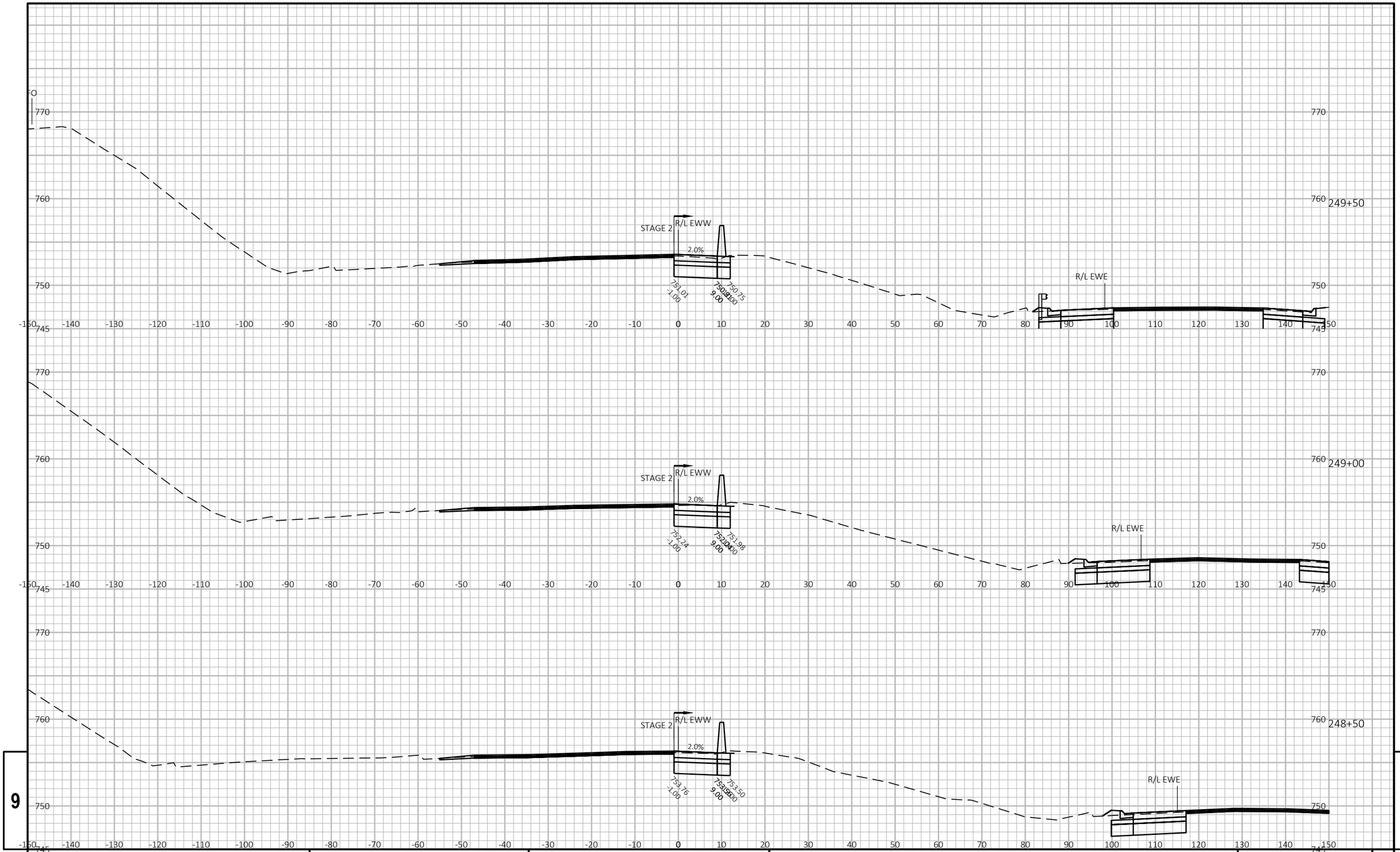
WISDOT/CADDS SHEET 49



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 909 E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:01 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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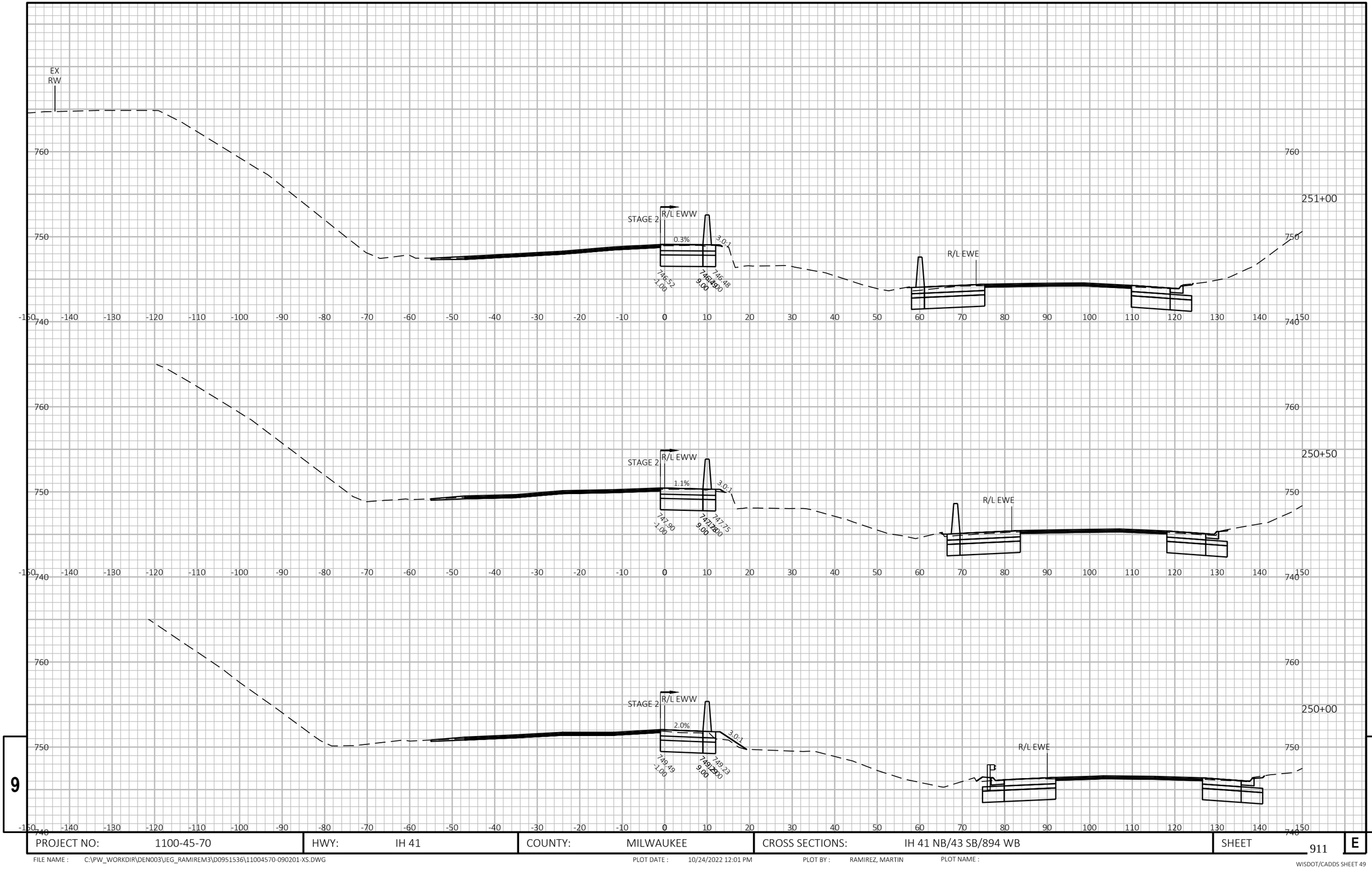
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 910	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:01 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

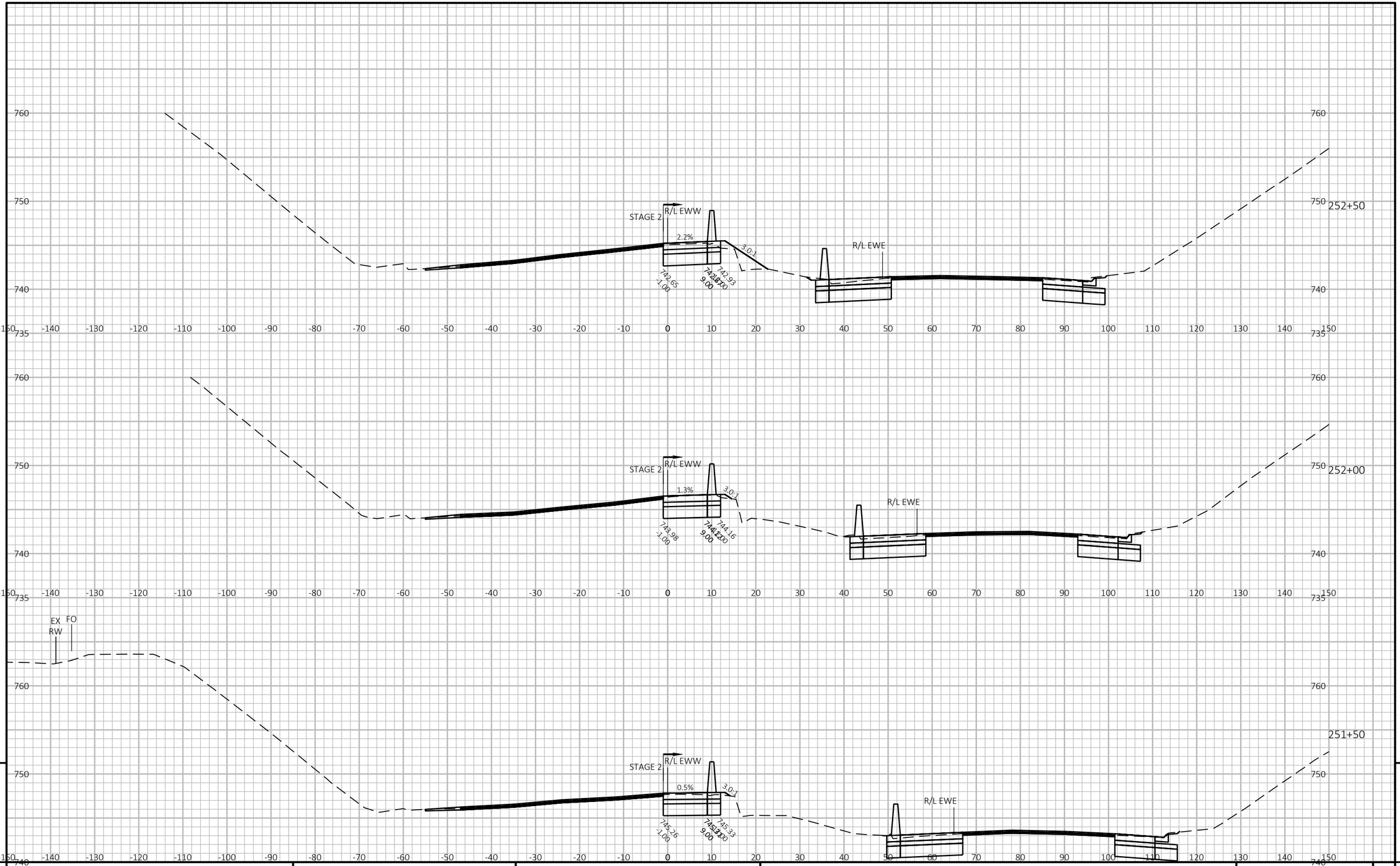
WISDOT/CADDS SHEET 49



PROJECT NO:	1100-45-70	HWY:	IH 41	COUNTY:	MILWAUKEE	CROSS SECTIONS:	IH 41 NB/43 SB/894 WB	SHEET	911	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:01 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 912	E

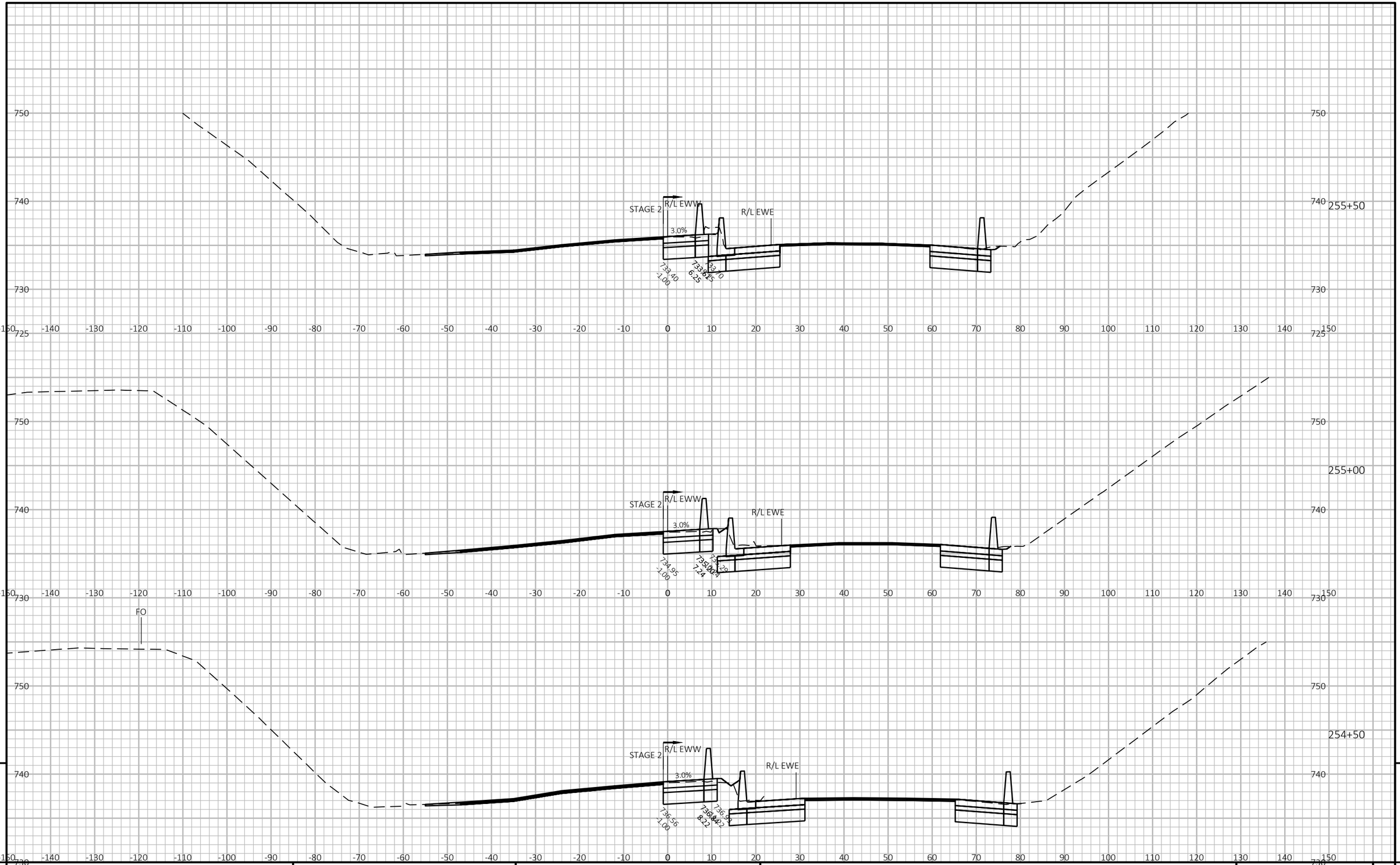
FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:02 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 913	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:02 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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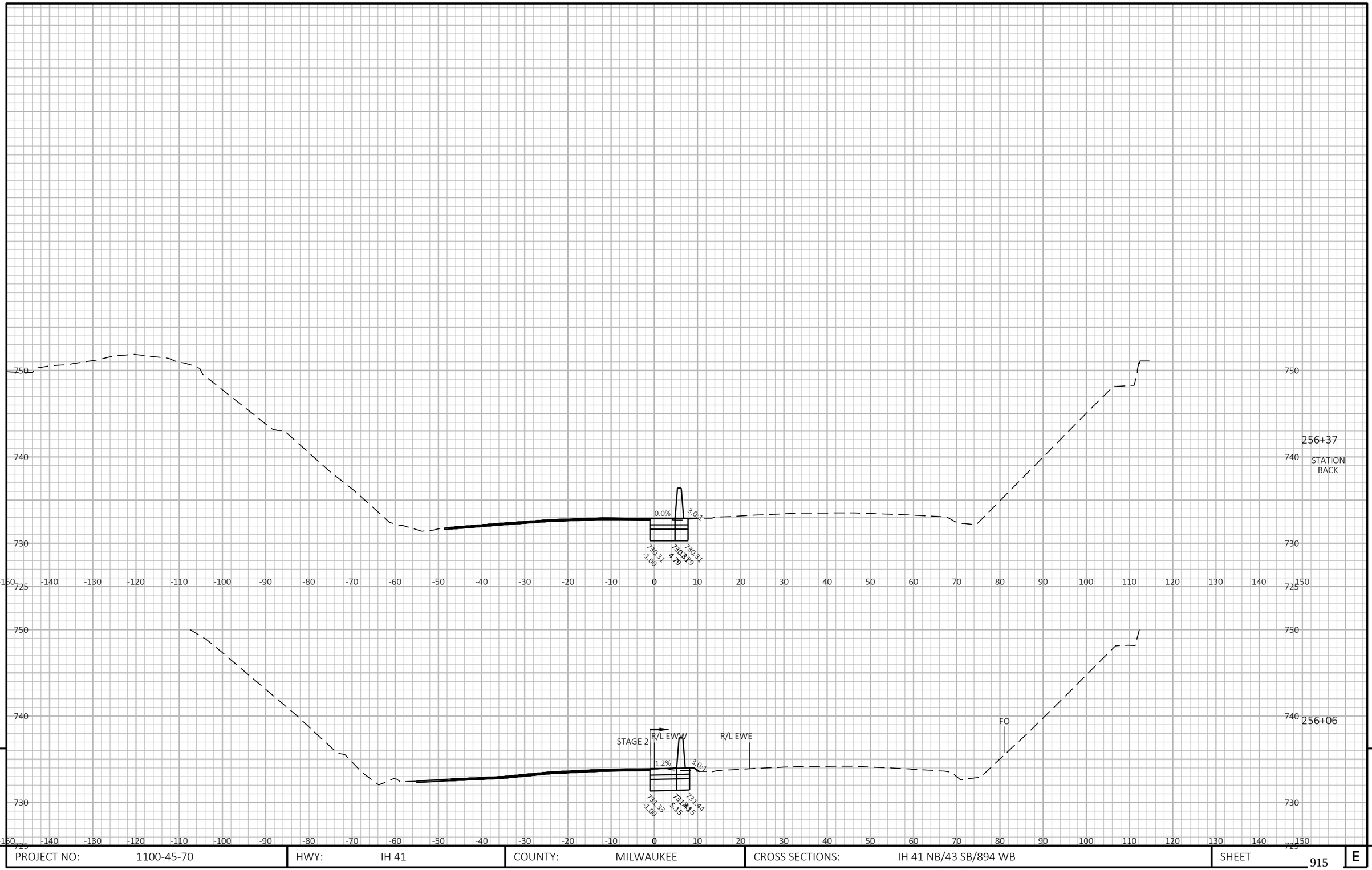
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 914	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:02 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41 NB/43 SB/894 WB	SHEET 915	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_RAMIREM3\D0951536\11004570-090201-XS.DWG PLOT DATE : 10/24/2022 12:03 PM PLOT BY : RAMIREZ, MARTIN PLOT NAME :

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE

JULY 2023

PROJECT ID: 1100-46-71

WITH: 1100-45-70

COUNTY: MILWAUKEE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 564

DESIGN DESIGNATION STH 36 (LOOMIS RD)

A.A.D.T.	2021	=	33,300
A.A.D.T.	2041	=	38,740
D.H.V.		=	3763
D.D.		=	59/41
T.		=	5.2%
DESIGN SPEED		=	45 MPH
ESALS		=	4,200,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

IH 41 AIRPORT FREEWAY

STH 36 (LOOMIS RD) BRIDGE

IH 41

MILWAUKEE COUNTY

STATE PROJECT NUMBER
1100-46-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1100-46-71	WISC 2023223	1

BEGIN PROJECT
STA 83+00.00
Y=270992.8925
X=589929.6825

END PROJECT
STA 98+75.91

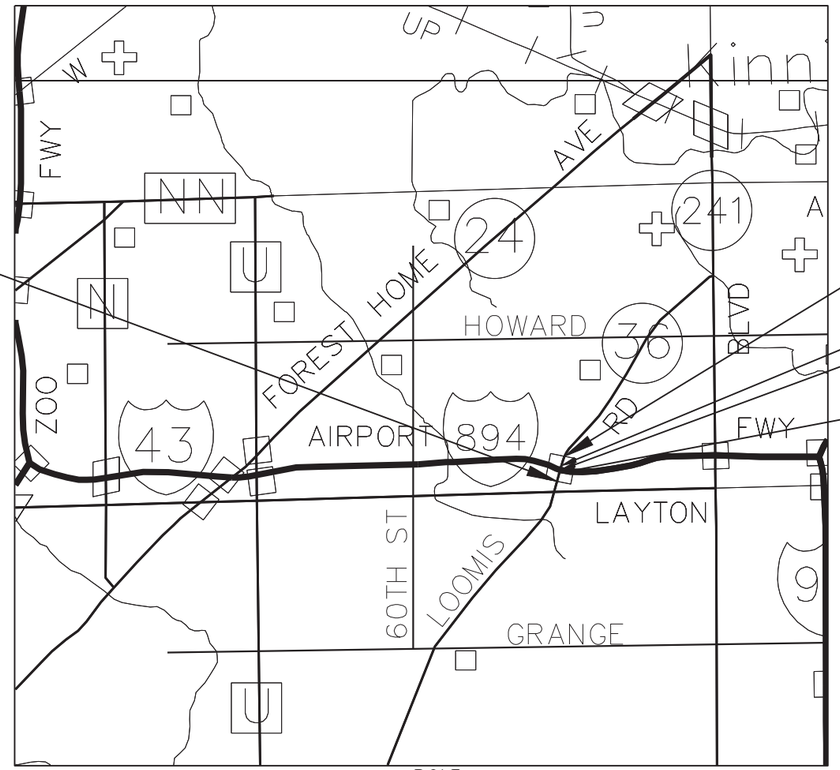
RETAINING WALL R-40-717

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

RETAINING WALL R-40-716

T-6-N

R-21-E



T-6-N

R-21-E

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.298 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 09-WI.

ORIGINAL PLANS PREPARED BY
AECOM

WISCONSIN
WILLIAM R SCHILLING
E-35841-006
WAUKESHA, WI
PROFESSIONAL ENGINEER

(Professional Engineer Signature) DATE: 11/1/2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	AECOM
Project Manager	JOSHUA LEVEQUE, P.E.
Regional Examiner	
Regional Supervisor	WILLIAM MOHR, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 5/5/23 (Signature)

E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\010101_TI.DWG PLOT DATE : 11/1/2022 4:01 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

GENERAL NOTES

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE CURB & GUTTER FLANGE, UNLESS OTHERWISE NOTED IN THE PLANS.

STATIONS, OFFSETS, AND DIMENSIONS FOR INLET AND MANHOLE STRUCTURES ARE GIVEN AT THE CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED IN THE PLANS.

WHERE THE QUANTITY OF BASE AGGREGATE DENSE AND HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER, AS SHOWN ON THE PLANS, IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

SECTIONS AS SHOWN ON THE CROSS SECTIONS SHEETS INCLUDE THE THICKNESS OF TOPSOIL.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE FERTILIZED, SEEDED, TEMPORARY SEEDED, AND PROTECTED WITH EROSION MAT AS DIRECTED BY THE ENGINEER. SOD LAWN SHALL BE PLACED IN URBAN AREAS AS DIRECTED BY THE ENGINEER.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLANS AT SUGGESTED LOCATIONS. THE EXACT LOCATIONS WILL BE DETERMINED BY THE FIELD ENGINEER.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR AN ALUMINUM MONUMENT TO SET IN THE STRUCTURE AS DESIGNATED BY THE ENGINEER.

THE BASE AGGREGATE DENSE 1 1/4-INCH CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.0 TONS/CY.

THE SELECT CRUSHED MATERIAL CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 1.9 TONS/CY.

THE HMA PAVEMENT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LB/SY/INCH.

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
PAVING DETAILS
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER
SIGNING REMOVAL PLAN
PERMANENT SIGNING
STREET LIGHTING PLAN
TRAFFIC SIGNAL PLAN
TRAFFIC SIGNAL INTERCONNECT PLAN
MARKING PLAN
TRAFFIC CONTROL
DETOUR ROUTES
ALIGNMENT DIAGRAM
SURVEY CONTROL

HMA MIXTURES

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	LOCATION
4 MT 58-28 S	2"	2" UPPER	STH 36 (LOOMIS RD) NORTH OF 43RD ST

UTILITY CONTACTS

AT&T LEGACY - COMMUNICATION LINE
KENNETH NINE
110 N MAIN ST
CULVER, IN 46511
PHONE: (574) 842-8830
KNINE@JMCEAINC.COM

AT&T WISCONSIN - COMMUNICATION LINE
MATTHEW DINNAUER
2005 PEWAUKEE RD
WAUKESHA, WI 53188
PHONE: (262) 896-7690
MD9542@ATT.COM

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION
CHRIS DAILEY
P.O. BOX 47
WAUKESHA, WI 53187
PHONE: (262) 506-6884
CDAILEY@ATCLLC.COM

CITY OF GREENFIELD - SEWER
JEFF KATZ
7325 W FOREST HOME AVE
GREENFIELD, WI 53220
PHONE: (414) 329-5321
JEFFK@GREENFIELDWI.US

CITY OF MILWAUKEE - WATER
JOSHUA IWEN
841 N BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3640
JIWEN@MILWAUKEE.GOV

EVERSTREAM - COMMUNICATION LINE
SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 522-6685
SGARCIA@EVERSTREAM.NET

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE
BRAHIM GADDOUR
3235 INTERTECH DR, SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 704-1026
BRAHIM.GADDOUR@LUMEN.COM

MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE
RICHARD TRGOVEC
6070 N FLINT RD
GLENDALE, WI 53209
PHONE: (414) 459-3554
RTRGOVEC@MIDWESTFIBERNETWORKS.COM

SPECTRUM - COMMUNICATION LINE
BEAU ABUYA
1320 N DR MARTIN LUTHER KING DR
MILWAUKEE, WI 53212
PHONE: (414) 758-9241
WIS.ENGINEERING@CHARTER.COM

VERIZON BUSINESS - COMMUNICATION LINE
RANDY CICATELLO
15725 W RYERSON RD
NEW BERLIN, WI 53151
PHONE: (262) 232-1323
RANDY.CICATELLO@VERIZON.COM

WE ENERGIES - ELECTRICITY
DAN BANDOR
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: (262) 884-6718
EMERGENCY DISPATCH PHONE: (800) 662-4797

WE ENERGIES - GAS/PETROLEUM
SPENSER DOONER
700 S KANE ST
BURLINGTON, WI 53105
PHONE: (262) 763-1083
EMERGENCY DISPATCH PHONE: (800) 261-5325
SPENSER.DOONER@WE-ENERGIES.COM

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

OTHER CONTACTS

WISDOT DESIGN
JOSHUA LEVEQUE, PROJECT MANAGER
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (414) 750-1468
JOSHUA.LEVEQUE@DOT.WI.GOV

WISCONSIN DNR
KRISTINA BETZOLD
2300 N SR MARTIN LUTHER KING DR
MILWAUKEE, WI 53213
PHONE: (414) 507-4946
KRISTINA.BETZOLD@WISCONSIN.GOV

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION - HIGHWAY MAINTENANCE SUPERINTENDENT
KEVIN KENT
10320 W WATERTOWN PLANK RD, 1ST FLOOR
WAUWATOSA, WI 53226
PHONE: (414) 257-6566
KEVIN.KENT@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION - TRAFFIC ENGINEER MANAGER
DANIEL MURPHY
10320 W WATERTOWN PLANK RD, 2ND FLOOR
WAUWATOSA, WI 53226
PHONE: (414) 257-5942
DANIEL.MURPHY@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) - TRANSIT PLANNER (STOPS)
ANDY TILLMAN
1942 N. 17TH ST
MILWAUKEE, WI 53205
PHONE: (414) 343-1728
ATILLMAN@MCTS.ORG

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
JEFF MADSON
433 W ST PAUL AVE, SUITE 300
MILWAUKEE, WI 53203-3007
PHONE: (414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - STREET LIGHTING
ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 574-5422
ERIC.PEREA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
JOANNA BUSH
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (608) 572-5726
JOANNA.BUSH@DOT.WI.GOV

DESIGN CONTACT

AECOM
WILLIAM SCHILLING, PROJECT MANAGER
1555 N RIVERCENTER DR, SUITE 214
MILWAUKEE, WI 53212
PHONE: (414) 944-6201
BILL.SCHILLING@AECOM.COM

2

N

R/L S. 43RD STREET

EQUATION
STA AHEAD = 95+67.29'SB'
STA BACK = 95+76.07'SB'

BEGIN CONSTRUCTION
STA 50+69.20'F'
MATCH EXISTING
SAW CUT REQ'D

END SIDEWALK CONSTRUCTION
STA 97+81.06
MATCH EXISTING

END SB CONSTRUCTION
STA 97+48.58
MATCH EXISTING
SAW CUT REQ'D

END SB LEFT TURN LANE CONSTRUCTION
STA 99+88.89
MATCH EXISTING
SAW CUT REQ'D

END PROJECT
STA 98+75.91
MATCH EXISTING
SAW CUT REQ'D

S. 43RD STREET

STH 36
(LOOMIS ROAD)

BEGIN CONSTRUCTION
STA 229+44.77'LRC'
MATCH EXISTING
SAW CUT REQ'D

R/L RAMP C

END CONSTRUCTION
STA 11+28.18'AR'
MATCH NEW ACCESS ROAD FOR
THE TURF DEVELOPMENT PROJECT

R/L NEW ACCESS ROAD

NEW ACCESS ROAD

EQUATION
STA AHEAD = 96+74.54'NB'
STA BACK = 95+65.67'NB'

RAMP C

RAMP D

BEGIN CONSTRUCTION
STA 12+50.00'LRC1'
MATCH EXISTING
SAW CUT REQ'D

R/L
RAMP C1

R/L RAMP E

END CONSTRUCTION
STA 214+96.37'LRD'
MATCH EXISTING
SAW CUT REQ'D

R/L
RAMP D

END CONSTRUCTION
STA 230+99.00'LRE'
MATCH EXISTING
SAW CUT REQ'D

RAMP E

RETAINING
WALL
R-40-717

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

R/L IH 41/43/894

IH 41 NB / IH 43 SB / IH 894 WB

R/L IH 41 NB / IH 43 SB / IH 894 WB

EQUATION
STA AHEAD = 88+23.91'SB'
STA BACK = 88+24.16'SB'

RAMP B

R/L RAMP B

BEGIN CONSTRUCTION
STA 226+69.72'LRB'
MATCH EXISTING
SAW CUT REQ'D

R/L
RAMP A1

IH 41 SB / IH 43 NB / IH 894 EB

R/L IH 41 SB / IH 43 NB / IH 894 EB

RAMP A

RETAINING WALL
R-40-716

END CONSTRUCTION
STA 12+50.00'LRA1'
MATCH EXISTING
SAW CUT REQ'D

R/L RAMP A

BEGIN SIDEWALK AND CURB & GUTTER CONSTRUCTION
STA 82+85.23

R/L STH 36 (LOOMIS ROAD) NB

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

STA AHEAD = 89+04.06'NB'
STA BACK = 89+04.38'NB'

EQUATION

BEGIN PROJECT
STA 83+00.00
Y=270992.8925
X=589929.6825
MATCH EXISTING
SAW CUT REQ'D

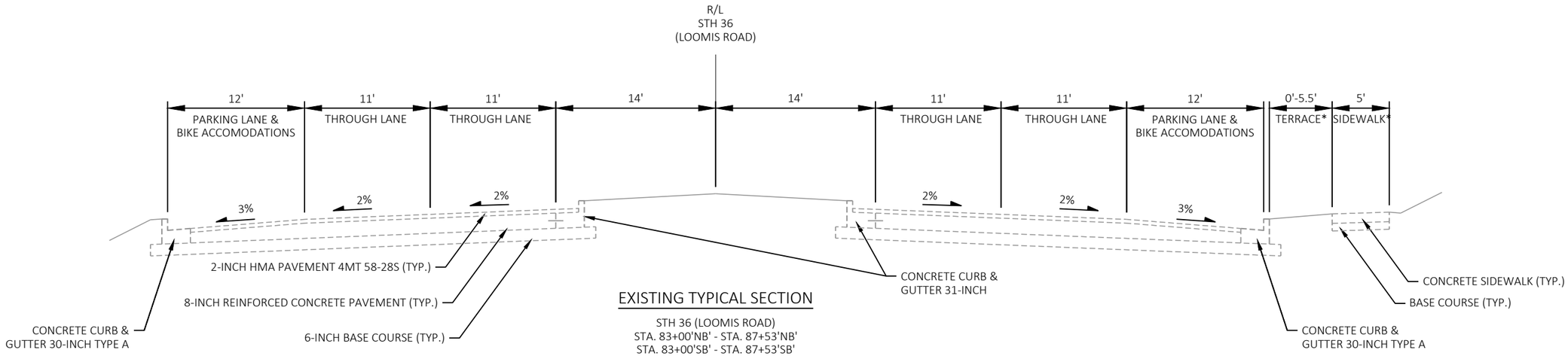
STH 36
(LOOMIS ROAD)

R/L W. LAYTON AVENUE

W LAYTON AVENUE

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 3	E

2

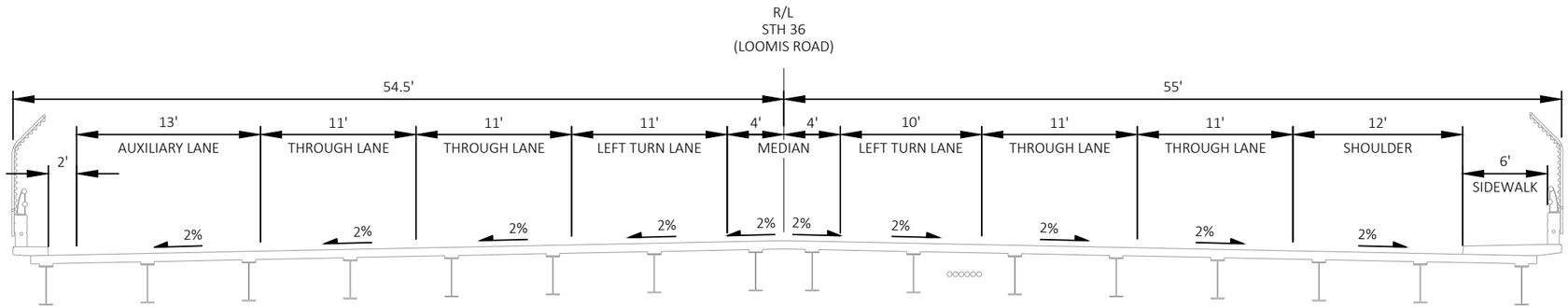


EXISTING TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 83+00'NB' - STA. 87+53'NB'
STA. 83+00'SB' - STA. 87+53'SB'

STA. 89+77'NB' - STA. 98+76'NB'
STA. 89+77'SB' - STA. 99+89'SB'

*STA. 83+00'NB' - STA. 87+53'NB'
*STA. 89+77'NB' - STA. 92+35'NB'

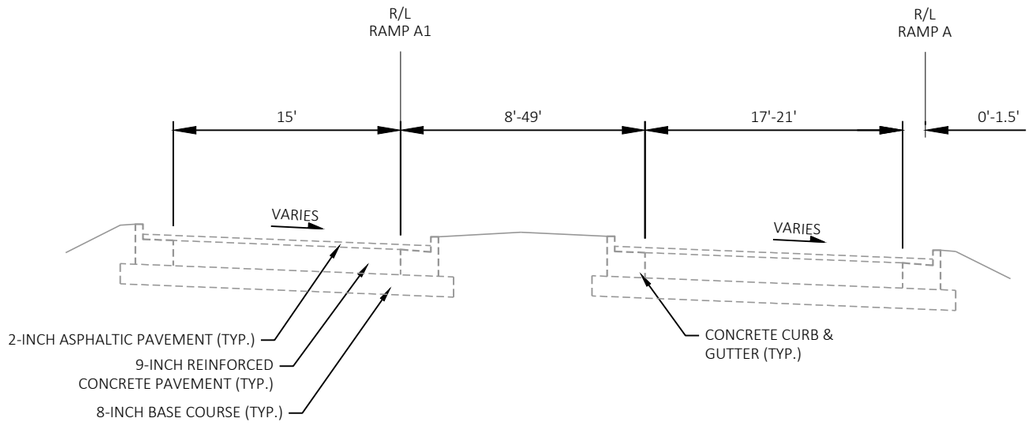


EXISTING TYPICAL SECTION

STH 36 (LOOMIS ROAD)
EXISTING STRUCTURE B-40-198
STA. 87+53'NB' - STA. 89+77'NB'
STA. 87+53'SB' - STA. 89+77'SB'

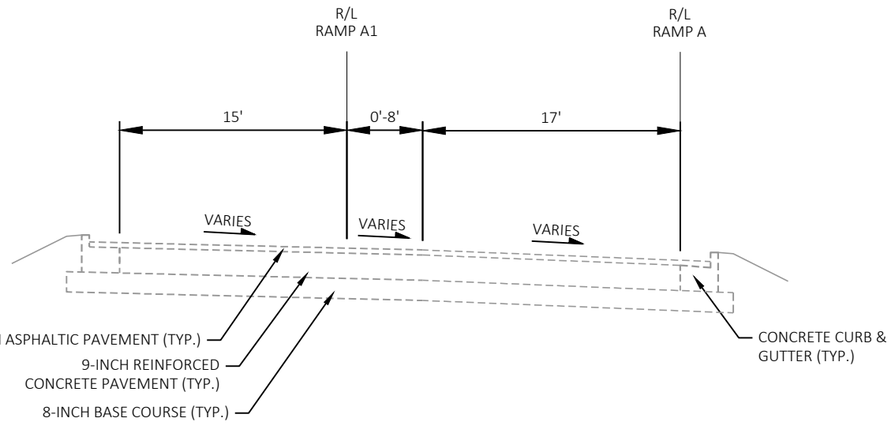
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 4	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\020301_TS-EXIST.DWG
LAYOUT NAME - 01
PLOT DATE : 11/1/2022 2:16 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



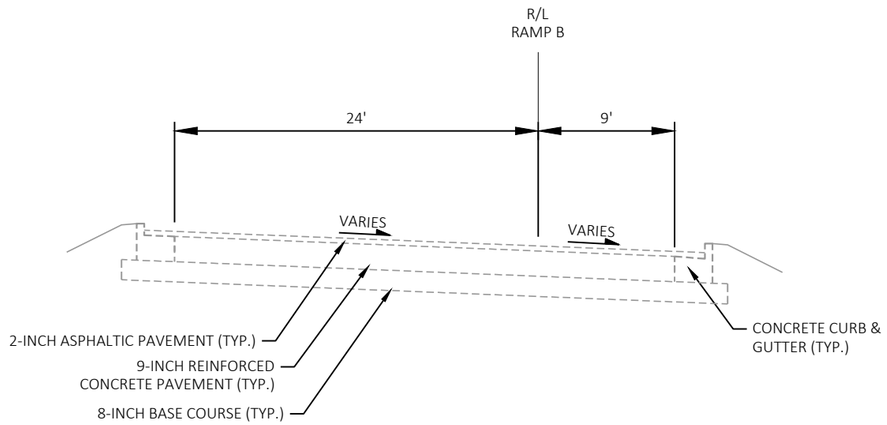
EXISTING TYPICAL SECTION

RAMP A & RAMP A1
EB ENTRANCE RAMP
STA. 229+27'LRA' - STA. 229+98'LRA'
STA. 10+91'LRA1' - STA. 11+21'LRA1'



EXISTING TYPICAL SECTION

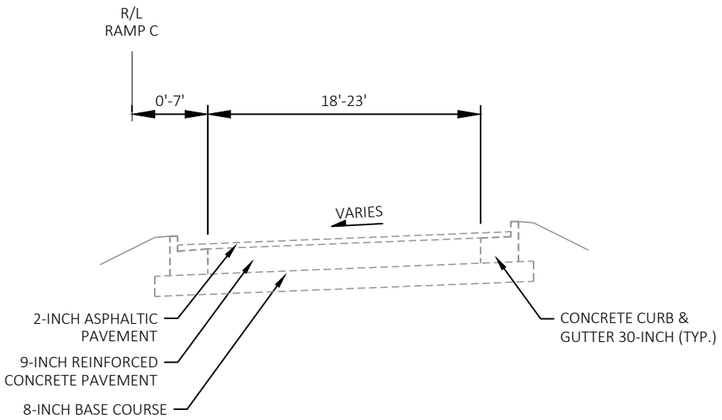
RAMP A & RAMP A1
EB ENTRANCE RAMP
STA. 229+98'LRA' - STA. 231+22'LRA'
STA. 11+21'LRA1' - STA. 12+50'LRA1'



EXISTING TYPICAL SECTION

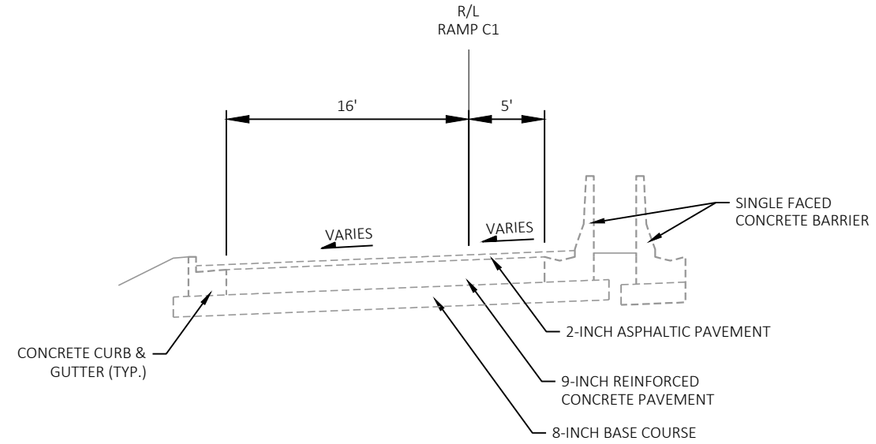
RAMP B
EB EXIT RAMP
STA. 226+70'LRB' - STA. 228+10'LRB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 5	E



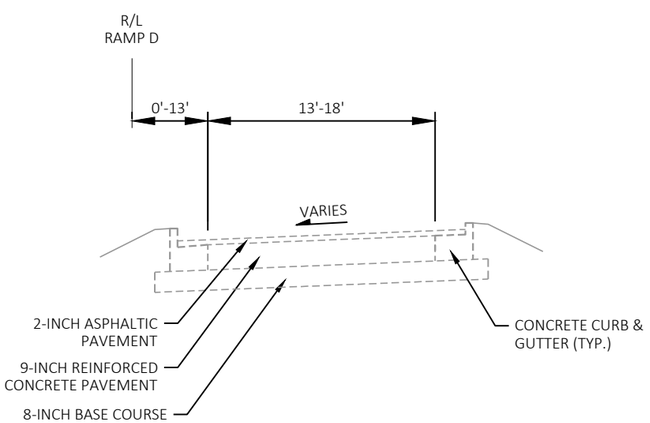
EXISTING TYPICAL SECTION

RAMP C
WB ENTRANCE RAMP
STA. 229+45'LRC' - STA. 230+60'LRC'



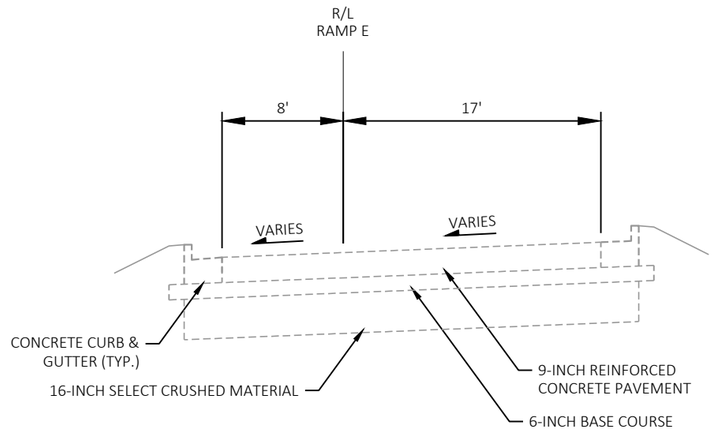
EXISTING TYPICAL SECTION

RAMP C1
WB ENTRANCE RAMP
STA. 12+50'LRC1' - STA. 12+89'LRC1'



EXISTING TYPICAL SECTION

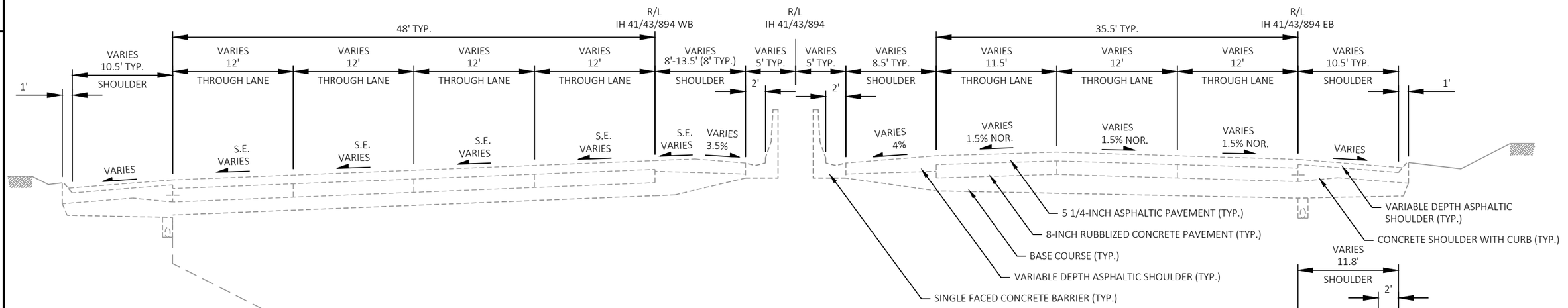
RAMP D
WB EXIT RAMP TO SB LOOMIS ROAD
STA. 213+46'LRD' - STA. 214+96'LRD'

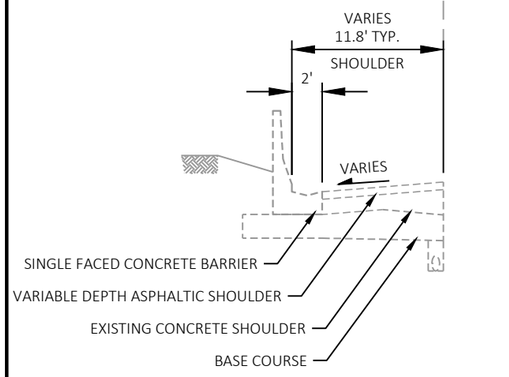


EXISTING TYPICAL SECTION

RAMP E
WB EXIT RAMP TO NB LOOMIS ROAD
STA. 230+04'LRE' - STA. 230+99'LRE'

2

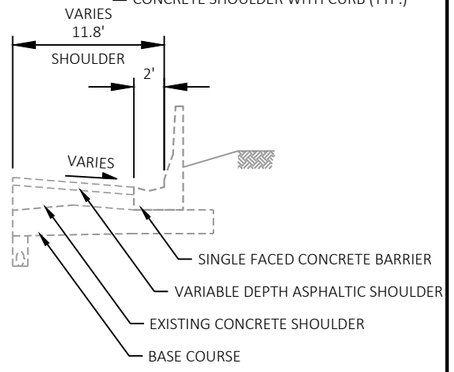




STA. 242+40'WB' - STA. 248+68'WB'

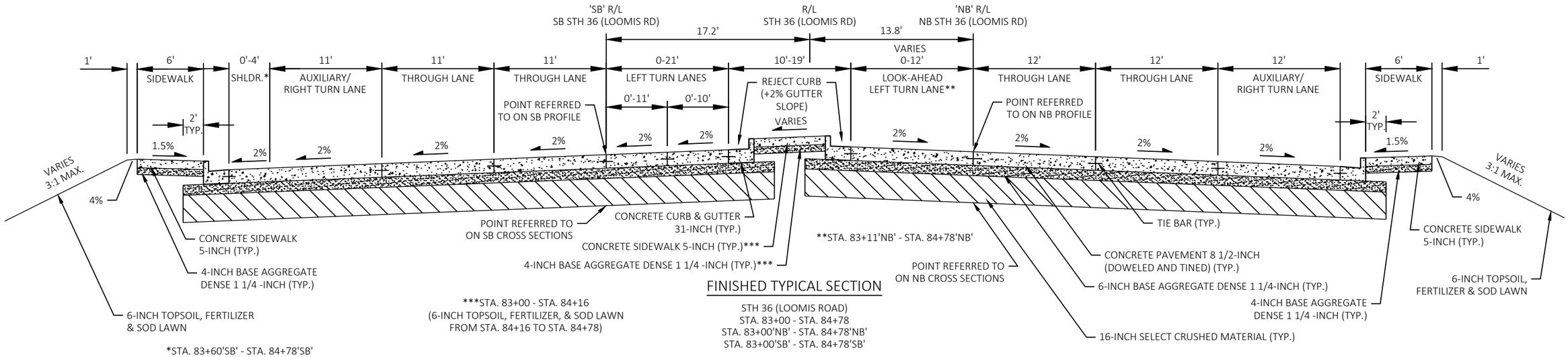
EXISTING TYPICAL SECTION

IH 41/43/894
STA. 239+25'EB' - STA. 248+68'WB'



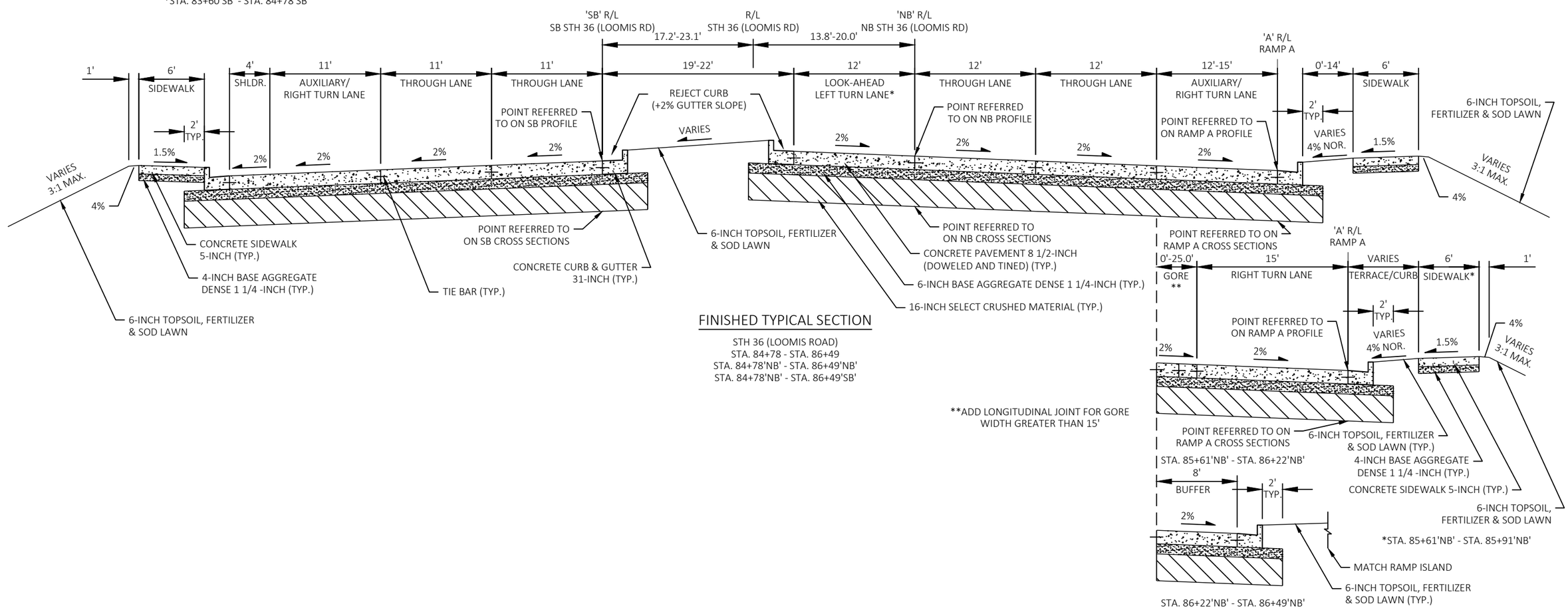
STA. 239+25'EB' - STA. 245+74'EB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTIONS	SHEET 7	E



FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 83+00 - STA. 84+78
STA. 83+00'NB' - STA. 84+78'NB'
STA. 83+00'SB' - STA. 84+78'SB'

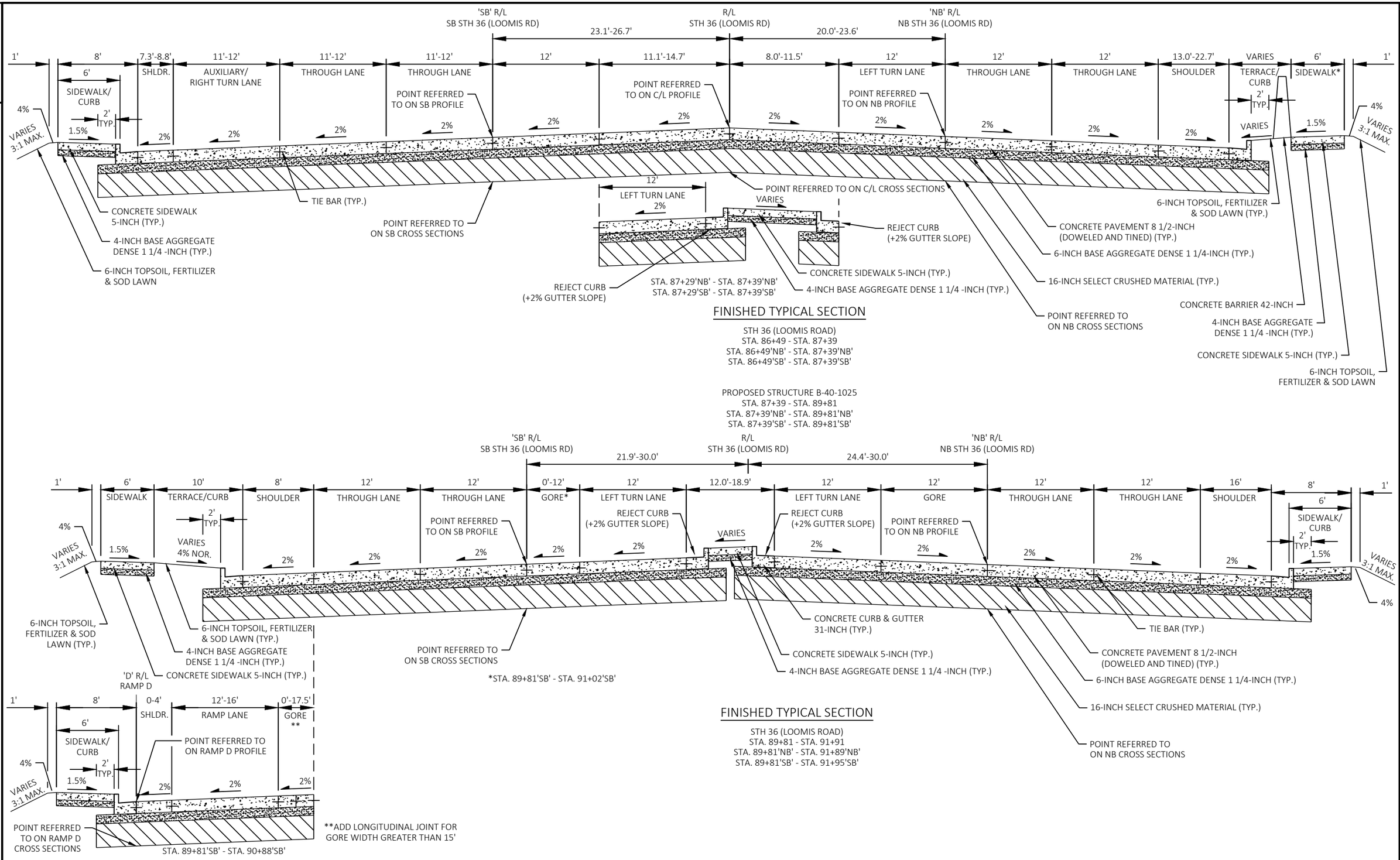


FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 84+78 - STA. 86+49
STA. 84+78'NB' - STA. 86+49'NB'
STA. 84+78'NB' - STA. 86+49'SB'

**ADD LONGITUDINAL JOINT FOR GORE
WIDTH GREATER THAN 15'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 8	E



FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 86+49 - STA. 87+39
STA. 86+49'NB' - STA. 87+39'NB'
STA. 86+49'SB' - STA. 87+39'SB'

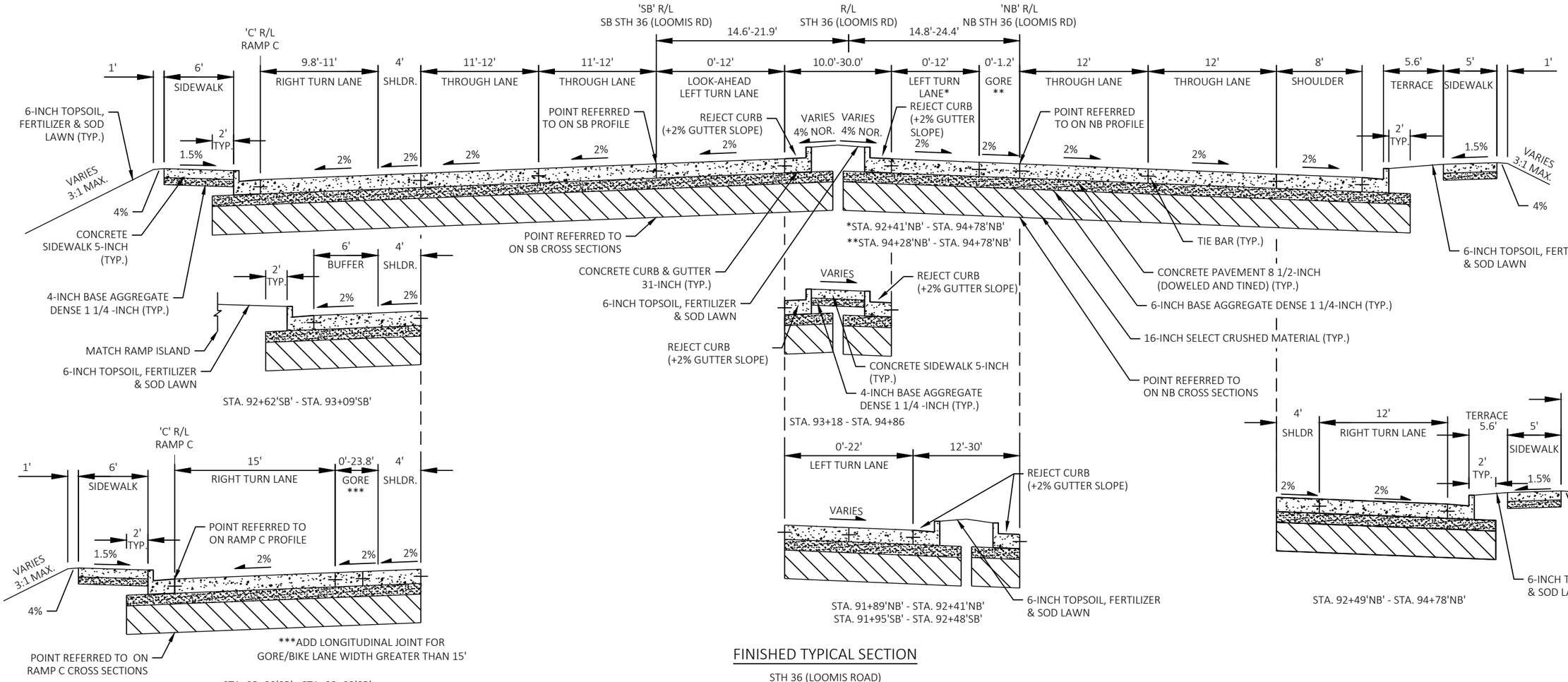
PROPOSED STRUCTURE B-40-1025
STA. 87+39 - STA. 89+81
STA. 87+39'NB' - STA. 89+81'NB'
STA. 87+39'SB' - STA. 89+81'SB'

FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 89+81 - STA. 91+91
STA. 89+81'NB' - STA. 91+89'NB'
STA. 89+81'SB' - STA. 91+95'SB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 9	E

2



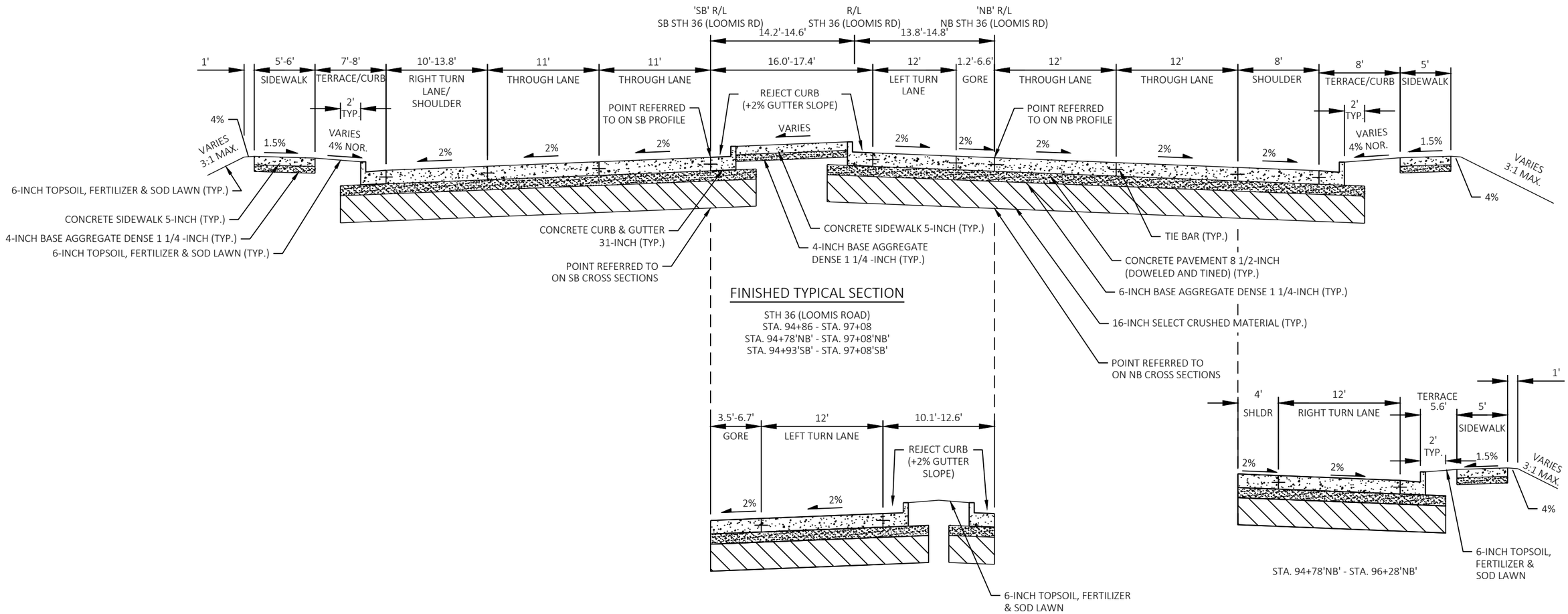
FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 91+91 - STA. 94+86
STA. 91+89'NB' - STA. 94+78'NB'
STA. 91+95'SB' - STA. 94+93'SB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 10	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\020302_TS.DWG
LAYOUT NAME - 03
PLOT DATE : 11/11/2022 10:10 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION

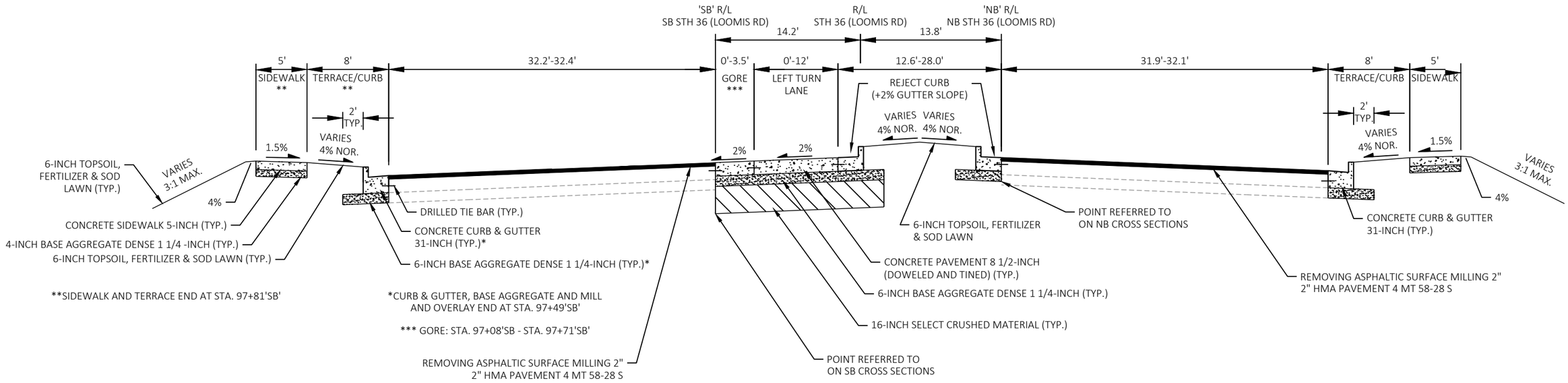
STH 36 (LOOMIS ROAD)
STA. 94+86 - STA. 97+08
STA. 94+78'NB' - STA. 97+08'NB'
STA. 94+93'SB' - STA. 97+08'SB'

STA. 96+28 - STA. 97+08
STA. 96+28'NB' - STA. 97+08'NB'
STA. 96+28'SB' - STA. 97+08'SB'

STA. 94+78'NB' - STA. 96+28'NB'

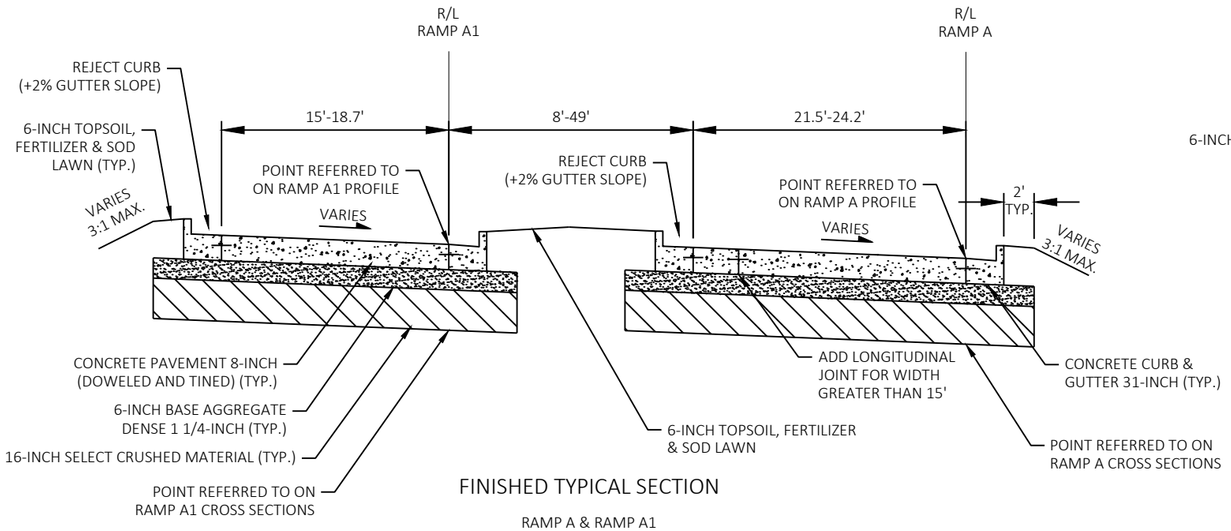
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 11	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\020302_TS.DWG
LAYOUT NAME - 04
PLOT DATE : 11/11/2022 10:10 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



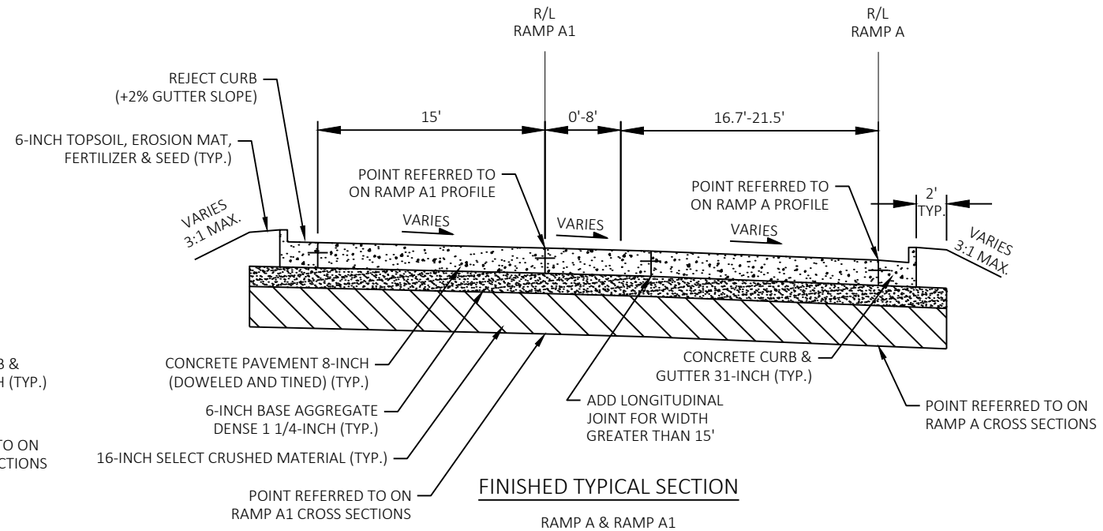
FINISHED TYPICAL SECTION

STH 36 (LOOMIS ROAD)
STA. 97+08 - STA. 100+30
STA. 97+08'NB' - STA. 98+76'NB'
STA. 97+08'SB' - STA. 99+89'SB'



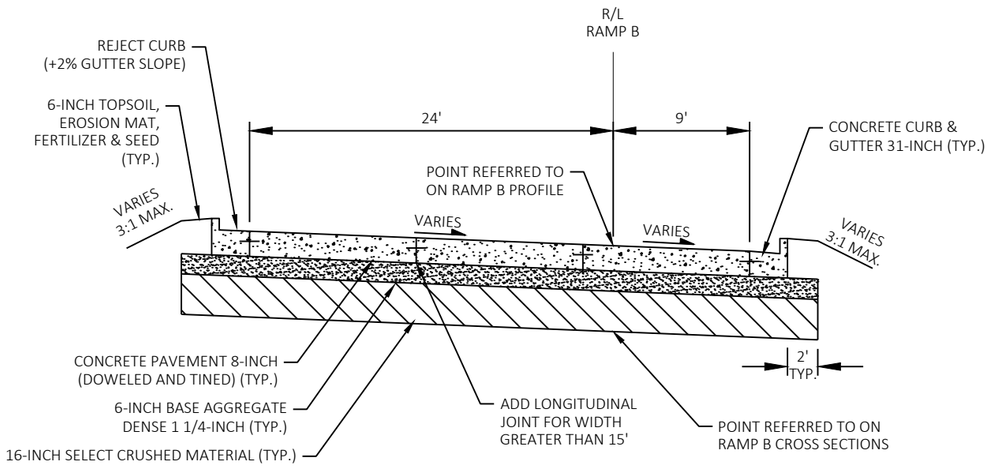
FINISHED TYPICAL SECTION

RAMP A & RAMP A1
EB ENTRANCE RAMP
STA. 229+27'LRA' - STA. 229+98'LRA'
STA. 10+86'LRA1' - STA. 11+19'LRA1'



FINISHED TYPICAL SECTION

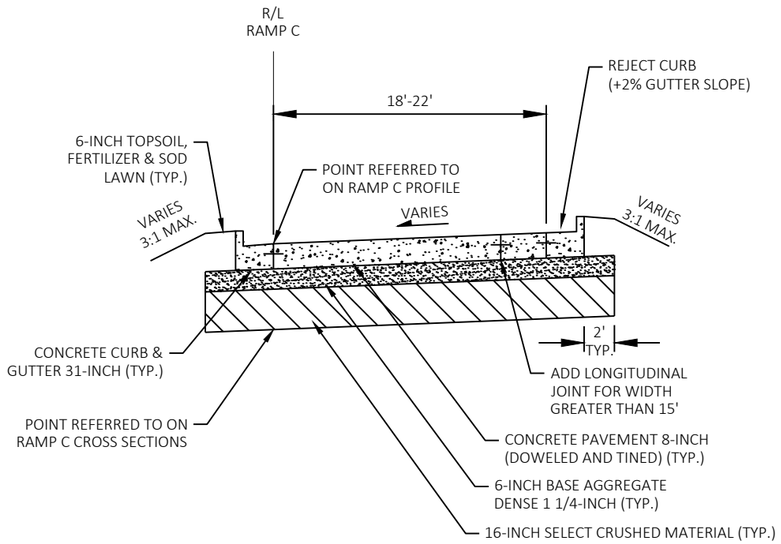
RAMP A & RAMP A1
EB ENTRANCE RAMP
STA. 229+98'LRA' - STA. 231+22'LRA'
STA. 11+19'LRA1' - STA. 12+50'LRA1'



FINISHED TYPICAL SECTION

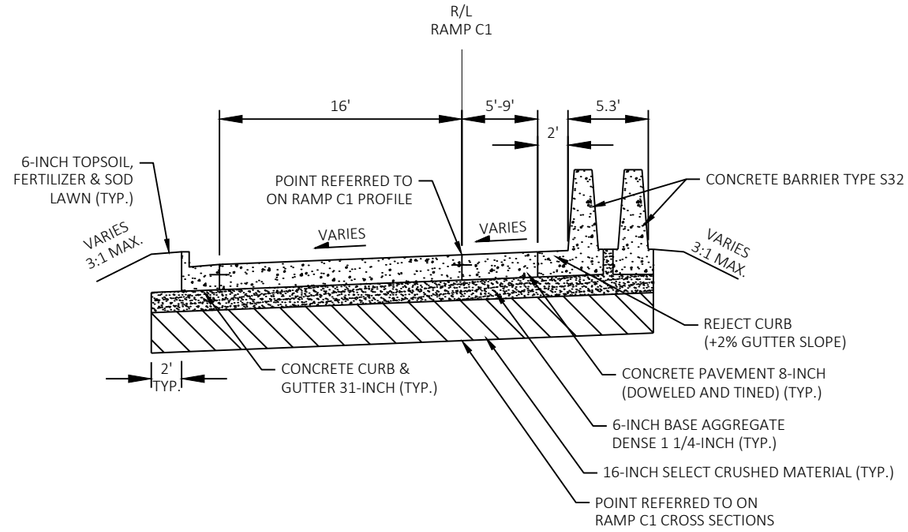
RAMP B
EB EXIT RAMP
STA. 226+70'LRB' - STA. 228+23'LRB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 13	E



FINISHED TYPICAL SECTION

RAMP C
WB ENTRANCE RAMP FROM SB STH 36 (LOOMIS ROAD)
STA. 229+45'LRC' - STA. 230+63'LRC'



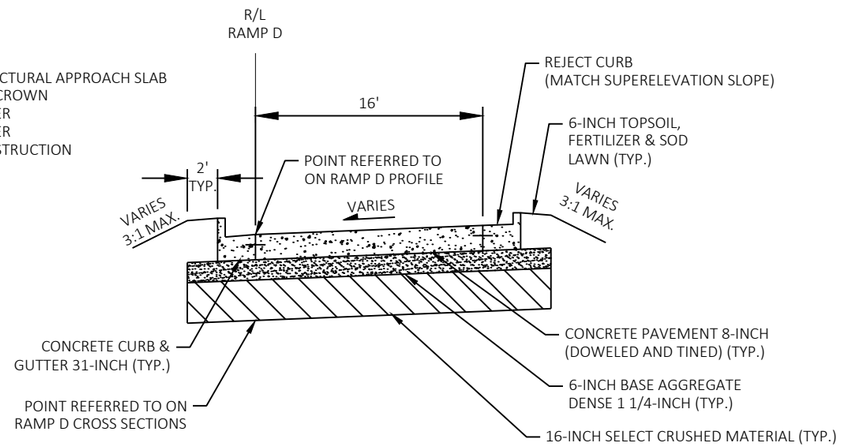
FINISHED TYPICAL SECTION

RAMP C1
WB ENTRANCE RAMP FROM NB STH 36 (LOOMIS ROAD)
STA. 12+50'LRC1' - STA. 13+03'LRC1'

RAMP D CURVE S.E. DATA

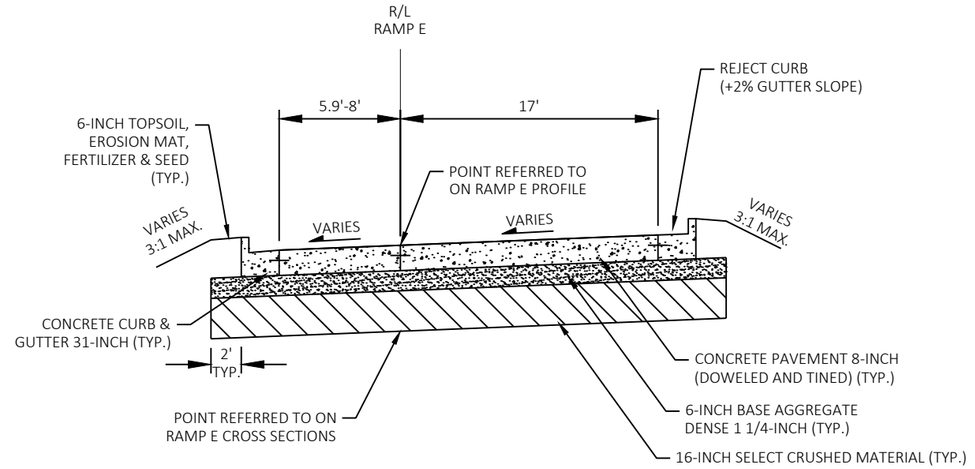
STA. 212+50.45'LRD'	2.00%	END STRUCTURAL APPROACH SLAB
STA. 212+51.32'LRD'	2.00%	REMOVE CROWN
STA. 213+14.93'LRD'	5.70%	FULL SUPER
STA. 214+38.10'LRD'	5.70%	FULL SUPER
STA. 214+96.37'LRD'	3.60%*	END CONSTRUCTION

*MATCH EXISTING CROSS SLOPE



FINISHED TYPICAL SECTION

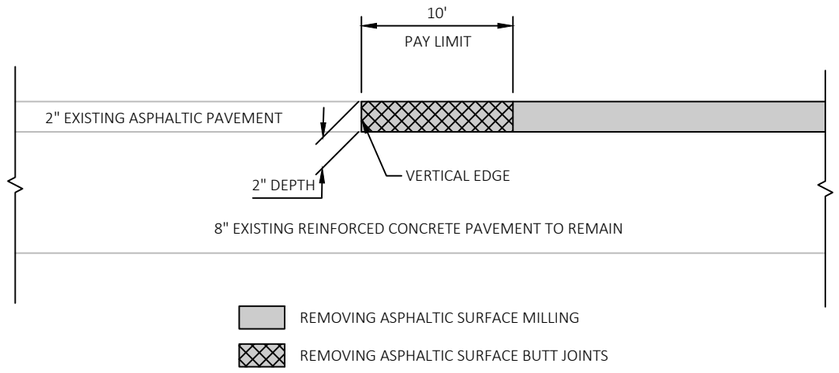
RAMP D
WB EXIT RAMP TO SB STH 36 (LOOMIS ROAD)
STA. 213+54'LRD' - STA. 214+96'LRD'



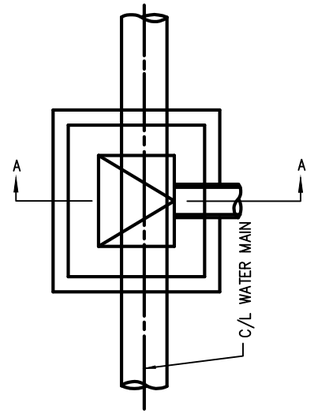
FINISHED TYPICAL SECTION

RAMP E
WB EXIT RAMP TO NB STH 36 (LOOMIS ROAD)
STA. 230+26'LRE' - STA. 230+99'LRE'

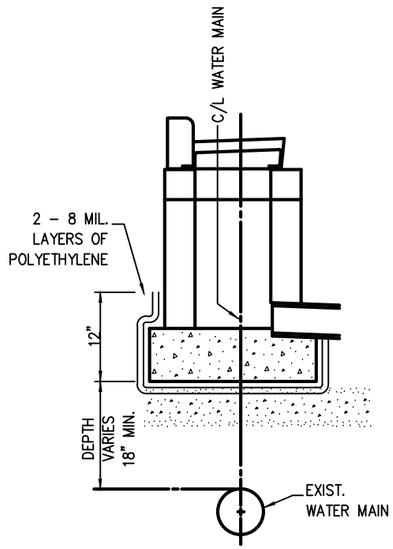
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	FINISHED TYPICAL SECTIONS	SHEET 14	E



REMOVING ASPHALTIC SURFACE BUTT JOINTS



PLAN VIEW



SECTION A–A

WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN

SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS

CS-1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CS-1.01	83+50.50'SB'	41.58' LT	780.00	271058.73	589888.81
CS-1.02	83+50.50'SB'	46.58' LT	780.08	271060.24	589884.04
CS-1.03	83+50.50'SB'	46.59' LT	780.66	271060.24	589884.04
CS-1.04	83+50.50'SB'	56.58' LT	780.81	271063.25	589874.50
CS-1.05	83+50.50'SB'	56.59' LT	781.39	271063.25	589874.50
CS-1.06	83+50.50'SB'	64.20' LT	781.41	271065.54	589867.24
CS-1.07	83+53.92'SB'	41.58' LT	779.99	271061.99	589889.84
CS-1.08	83+53.92'SB'	46.58' LT	780.06	271063.50	589885.07
CS-1.09	83+53.92'SB'	46.59' LT	780.65	271063.50	589885.07
CS-1.10	83+53.92'SB'	56.58' LT	780.80	271066.50	589875.53
CS-1.11	83+53.92'SB'	56.59' LT	781.38	271066.51	589875.53
CS-1.12	83+53.92'SB'	64.20' LT	781.49	271068.80	589868.27

CS-2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CS-2.01	84+11.68'SB'	45.58' LT	779.63	271118.28	589903.40
CS-2.02	84+11.68'SB'	50.58' LT	779.70	271119.79	589898.63
CS-2.03	84+11.68'SB'	50.59' LT	780.28	271119.79	589898.62
CS-2.04	84+11.68'SB'	55.58' LT	780.36	271121.29	589893.86
CS-2.05	84+11.68'SB'	55.59' LT	780.94	271121.29	589893.86
CS-2.06	84+11.68'SB'	60.58' LT	781.02	271122.80	589889.09
CS-2.07	84+11.68'SB'	67.86' LT	781.36	271124.99	589882.15
CS-2.08	84+15.09'SB'	45.58' LT	779.61	271121.54	589904.42
CS-2.09	84+15.09'SB'	50.58' LT	779.68	271123.04	589899.65
CS-2.10	84+15.09'SB'	50.59' LT	780.26	271123.04	589899.65
CS-2.11	84+15.09'SB'	55.58' LT	780.34	271124.54	589894.89
CS-2.12	84+15.09'SB'	55.59' LT	780.92	271124.54	589894.88
CS-2.13	84+15.09'SB'	60.58' LT	781.00	271126.05	589890.12
CS-2.14	84+15.09'SB'	67.86' LT	781.36	271128.24	589883.17

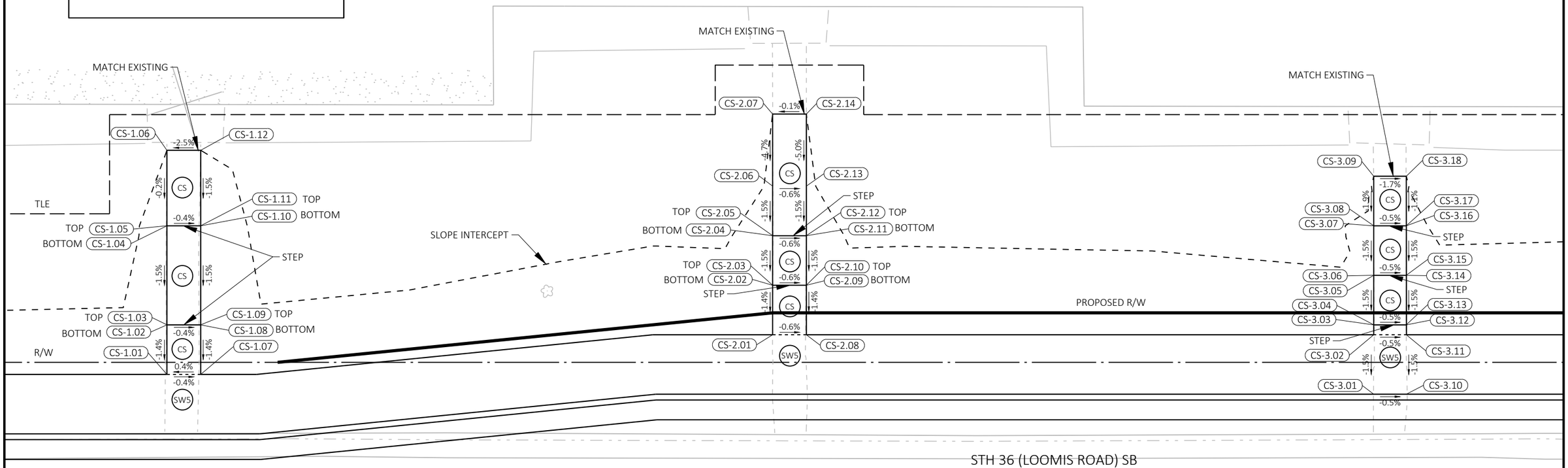
CS-3					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CS-3.01	84+72.39'SB'	39.58' LT	779.16	271174.38	589927.38
CS-3.02	84+72.39'SB'	45.58' LT	779.25	271176.19	589921.66
CS-3.03	84+72.39'SB'	46.58' LT	779.27	271176.49	589920.71
CS-3.04	84+72.39'SB'	46.59' LT	779.85	271176.49	589920.70
CS-3.05	84+72.39'SB'	51.58' LT	779.92	271177.99	589915.94
CS-3.06	84+72.39'SB'	51.59' LT	780.51	271177.99	589915.93
CS-3.07	84+72.39'SB'	56.58' LT	780.58	271179.50	589911.17
CS-3.08	84+72.39'SB'	56.59' LT	781.17	271179.50	589911.16
CS-3.09	84+72.39'SB'	61.58' LT	781.26	271181.00	589906.40
CS-3.10	84+75.68'SB'	39.58' LT	779.15	271177.52	589928.37
CS-3.11	84+75.68'SB'	45.58' LT	779.24	271179.32	589922.65
CS-3.12	84+75.68'SB'	46.58' LT	779.25	271179.62	589921.69
CS-3.13	84+75.68'SB'	46.59' LT	779.83	271179.63	589921.69
CS-3.14	84+75.68'SB'	51.58' LT	779.91	271181.13	589916.93
CS-3.15	84+75.68'SB'	51.59' LT	780.49	271181.13	589916.92
CS-3.16	84+75.68'SB'	56.58' LT	780.56	271182.63	589912.16
CS-3.17	84+75.68'SB'	56.59' LT	781.15	271182.63	589912.15
CS-3.18	84+75.68'SB'	61.58' LT	781.20	271184.14	589907.39

LEGEND

(SWS) CONCRETE SIDEWALK 5-INCH

(CS) CONCRETE STEPS

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CONCRETE STEPS AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS: CONCRETE STEPS	SHEET 16	E

CS-4					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CS-4.01	85+34.88'SB'	45.58' LT	778.92	271234.47	589938.56
CS-4.02	85+34.88'SB'	50.58' LT	778.99	271235.78	589933.74
CS-4.03	85+34.88'SB'	50.59' LT	779.53	271235.78	589933.74
CS-4.04	85+34.88'SB'	55.58' LT	779.61	271237.10	589928.92
CS-4.05	85+34.88'SB'	55.59' LT	780.15	271237.10	589928.91
CS-4.06	85+34.88'SB'	60.58' LT	780.22	271238.41	589924.09
CS-4.07	85+34.88'SB'	60.59' LT	780.77	271238.41	589924.09
CS-4.08	85+34.88'SB'	65.58' LT	780.80	271239.73	589919.27
CS-4.09	85+38.38'SB'	45.58' LT	778.90	271237.85	589939.49
CS-4.10	85+38.38'SB'	50.58' LT	778.97	271239.17	589934.66
CS-4.11	85+38.38'SB'	50.59' LT	779.51	271239.17	589934.66
CS-4.12	85+38.38'SB'	55.58' LT	779.59	271240.48	589929.84
CS-4.13	85+38.38'SB'	55.59' LT	780.13	271240.48	589929.84
CS-4.14	85+38.38'SB'	60.58' LT	780.20	271241.80	589925.02
CS-4.15	85+38.38'SB'	60.59' LT	780.75	271241.80	589925.01
CS-4.16	85+38.38'SB'	65.58' LT	780.75	271243.11	589920.19

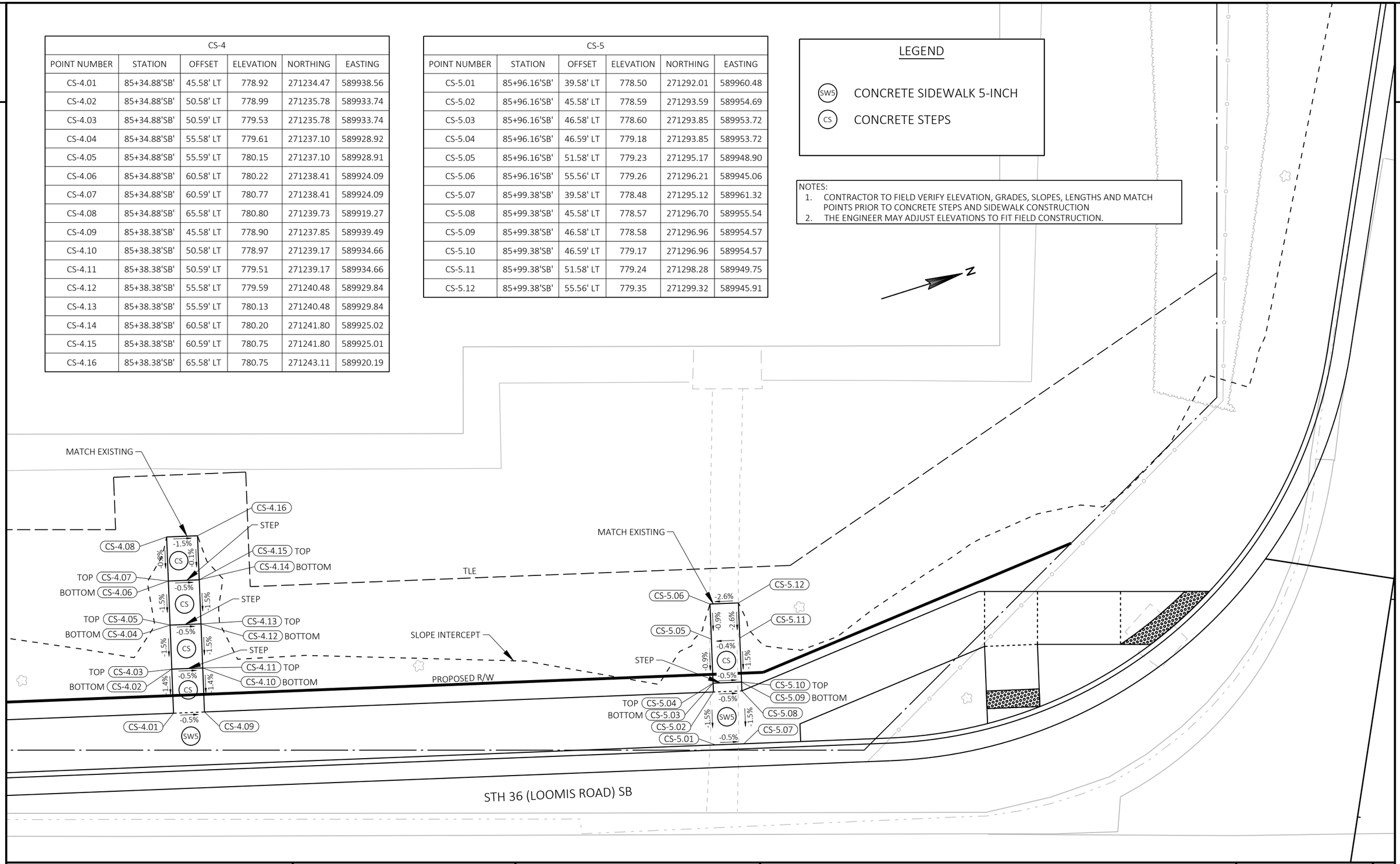
CS-5					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CS-5.01	85+96.16'SB'	39.58' LT	778.50	271292.01	589960.48
CS-5.02	85+96.16'SB'	45.58' LT	778.59	271293.59	589954.69
CS-5.03	85+96.16'SB'	46.58' LT	778.60	271293.85	589953.72
CS-5.04	85+96.16'SB'	46.59' LT	779.18	271293.85	589953.72
CS-5.05	85+96.16'SB'	51.58' LT	779.23	271295.17	589948.90
CS-5.06	85+96.16'SB'	55.56' LT	779.26	271296.21	589945.06
CS-5.07	85+99.38'SB'	39.58' LT	778.48	271295.12	589961.32
CS-5.08	85+99.38'SB'	45.58' LT	778.57	271296.70	589955.54
CS-5.09	85+99.38'SB'	46.58' LT	778.58	271296.96	589954.57
CS-5.10	85+99.38'SB'	46.59' LT	779.17	271296.96	589954.57
CS-5.11	85+99.38'SB'	51.58' LT	779.24	271298.28	589949.75
CS-5.12	85+99.38'SB'	55.56' LT	779.35	271299.32	589945.91

LEGEND

SW5 CONCRETE SIDEWALK 5-INCH

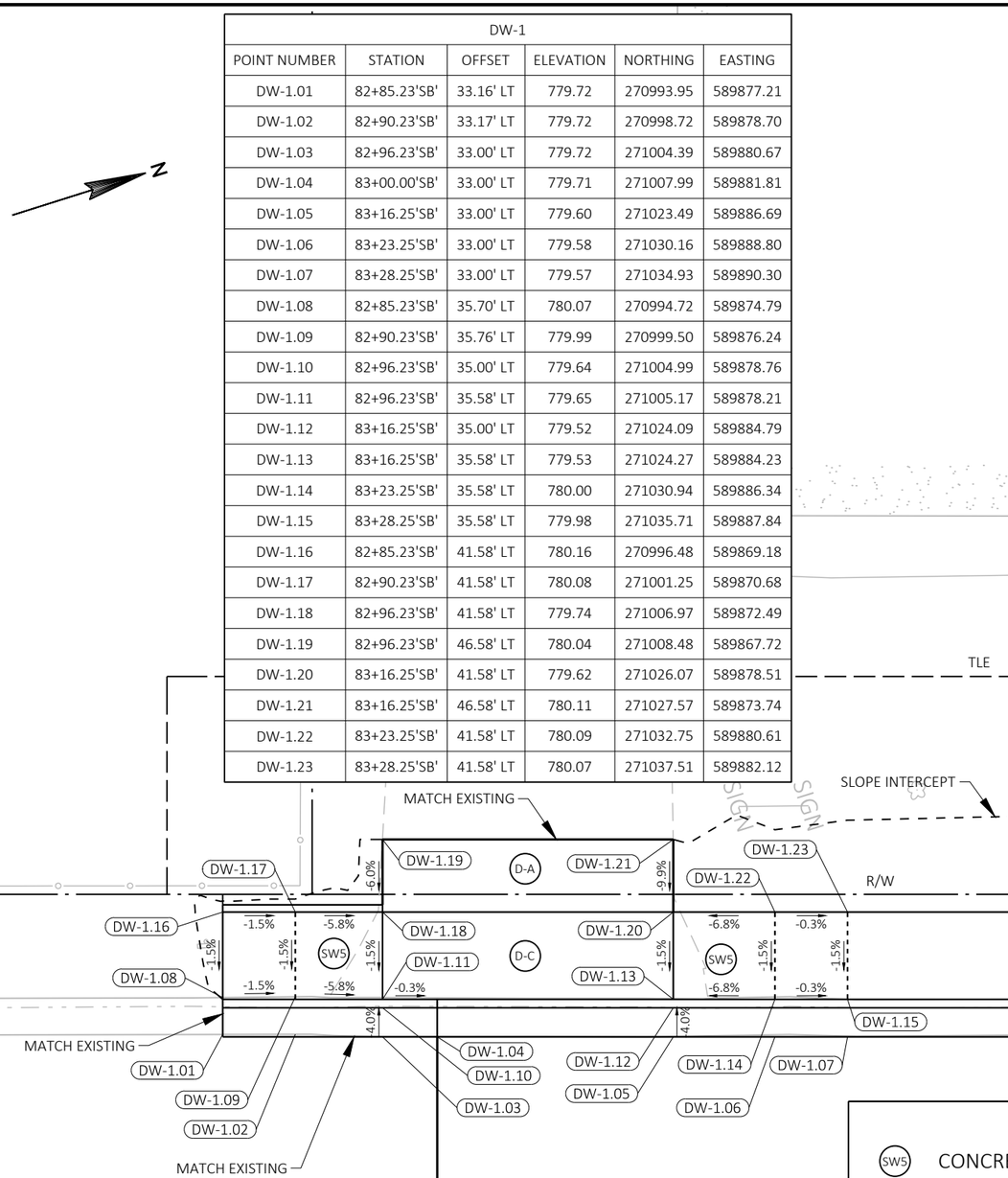
CS CONCRETE STEPS

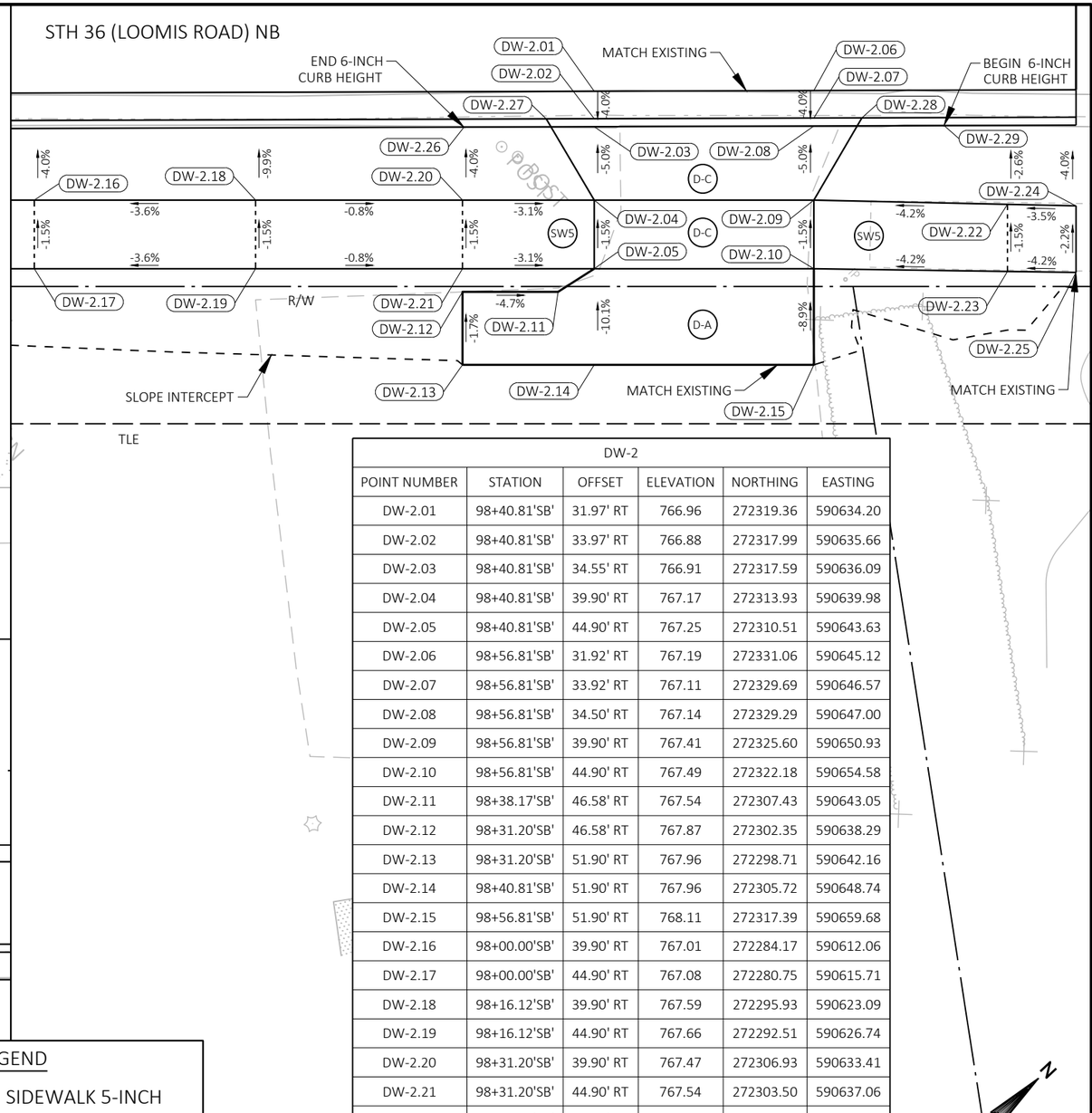
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CONCRETE STEPS AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.



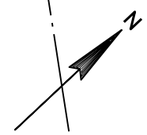
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS: CONCRETE STEPS	SHEET 17	E

DW-1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-1.01	82+85.23'SB'	33.16' LT	779.72	270993.95	589877.21
DW-1.02	82+90.23'SB'	33.17' LT	779.72	270998.72	589878.70
DW-1.03	82+96.23'SB'	33.00' LT	779.72	271004.39	589880.67
DW-1.04	83+00.00'SB'	33.00' LT	779.71	271007.99	589881.81
DW-1.05	83+16.25'SB'	33.00' LT	779.60	271023.49	589886.69
DW-1.06	83+23.25'SB'	33.00' LT	779.58	271030.16	589888.80
DW-1.07	83+28.25'SB'	33.00' LT	779.57	271034.93	589890.30
DW-1.08	82+85.23'SB'	35.70' LT	780.07	270994.72	589874.79
DW-1.09	82+90.23'SB'	35.76' LT	779.99	270999.50	589876.24
DW-1.10	82+96.23'SB'	35.00' LT	779.64	271004.99	589878.76
DW-1.11	82+96.23'SB'	35.58' LT	779.65	271005.17	589878.21
DW-1.12	83+16.25'SB'	35.00' LT	779.52	271024.09	589884.79
DW-1.13	83+16.25'SB'	35.58' LT	779.53	271024.27	589884.23
DW-1.14	83+23.25'SB'	35.58' LT	780.00	271030.94	589886.34
DW-1.15	83+28.25'SB'	35.58' LT	779.98	271035.71	589887.84
DW-1.16	82+85.23'SB'	41.58' LT	780.16	270996.48	589869.18
DW-1.17	82+90.23'SB'	41.58' LT	780.08	271001.25	589870.68
DW-1.18	82+96.23'SB'	41.58' LT	779.74	271006.97	589872.49
DW-1.19	82+96.23'SB'	46.58' LT	780.04	271008.48	589867.72
DW-1.20	83+16.25'SB'	41.58' LT	779.62	271026.07	589878.51
DW-1.21	83+16.25'SB'	46.58' LT	780.11	271027.57	589873.74
DW-1.22	83+23.25'SB'	41.58' LT	780.09	271032.75	589880.61
DW-1.23	83+28.25'SB'	41.58' LT	780.07	271037.51	589882.12





DW-2					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-2.01	98+40.81'SB'	31.97' RT	766.96	272319.36	590634.20
DW-2.02	98+40.81'SB'	33.97' RT	766.88	272317.99	590635.66
DW-2.03	98+40.81'SB'	34.55' RT	766.91	272317.59	590636.09
DW-2.04	98+40.81'SB'	39.90' RT	767.17	272313.93	590639.98
DW-2.05	98+40.81'SB'	44.90' RT	767.25	272310.51	590643.63
DW-2.06	98+56.81'SB'	31.92' RT	767.19	272331.06	590645.12
DW-2.07	98+56.81'SB'	33.92' RT	767.11	272329.69	590646.57
DW-2.08	98+56.81'SB'	34.50' RT	767.14	272329.29	590647.00
DW-2.09	98+56.81'SB'	39.90' RT	767.41	272325.60	590650.93
DW-2.10	98+56.81'SB'	44.90' RT	767.49	272322.18	590654.58
DW-2.11	98+38.17'SB'	46.58' RT	767.54	272307.43	590643.05
DW-2.12	98+31.20'SB'	46.58' RT	767.87	272302.35	590638.29
DW-2.13	98+31.20'SB'	51.90' RT	767.96	272298.71	590642.16
DW-2.14	98+40.81'SB'	51.90' RT	767.96	272305.72	590648.74
DW-2.15	98+56.81'SB'	51.90' RT	768.11	272317.39	590659.68
DW-2.16	98+00.00'SB'	39.90' RT	767.01	272284.17	590612.06
DW-2.17	98+00.00'SB'	44.90' RT	767.08	272280.75	590615.71
DW-2.18	98+16.12'SB'	39.90' RT	767.59	272295.93	590623.09
DW-2.19	98+16.12'SB'	44.90' RT	767.66	272292.51	590626.74
DW-2.20	98+31.20'SB'	39.90' RT	767.47	272306.93	590633.41
DW-2.21	98+31.20'SB'	44.90' RT	767.54	272303.50	590637.06
DW-2.22	98+70.91'SB'	40.20' RT	768.00	272335.67	590660.81
DW-2.23	98+70.91'SB'	45.10' RT	768.07	272332.32	590664.38
DW-2.24	98+75.91'SB'	40.32' RT	768.18	272339.24	590664.32
DW-2.25	98+75.91'SB'	45.16' RT	768.28	272335.93	590667.84
DW-2.26	98+31.31'SB'	34.58' RT	767.26	272310.64	590629.61
DW-2.27	98+37.31'SB'	33.98' RT	766.83	272315.43	590633.27
DW-2.28	98+60.31'SB'	33.91' RT	767.17	272332.25	590648.96
DW-2.29	98+66.31'SB'	34.47' RT	767.77	272336.24	590653.48



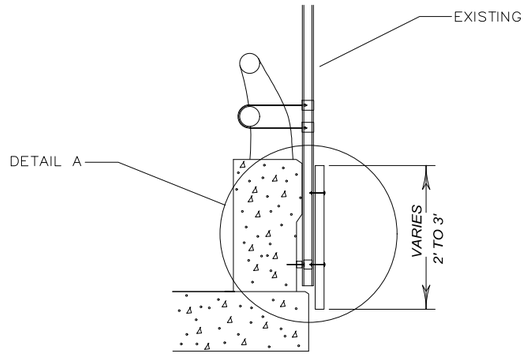
LEGEND

- SW5 — CONCRETE SIDEWALK 5-INCH
- D-C — CONCRETE DRIVEWAY 6-INCH
- D-A — ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 3-INCH

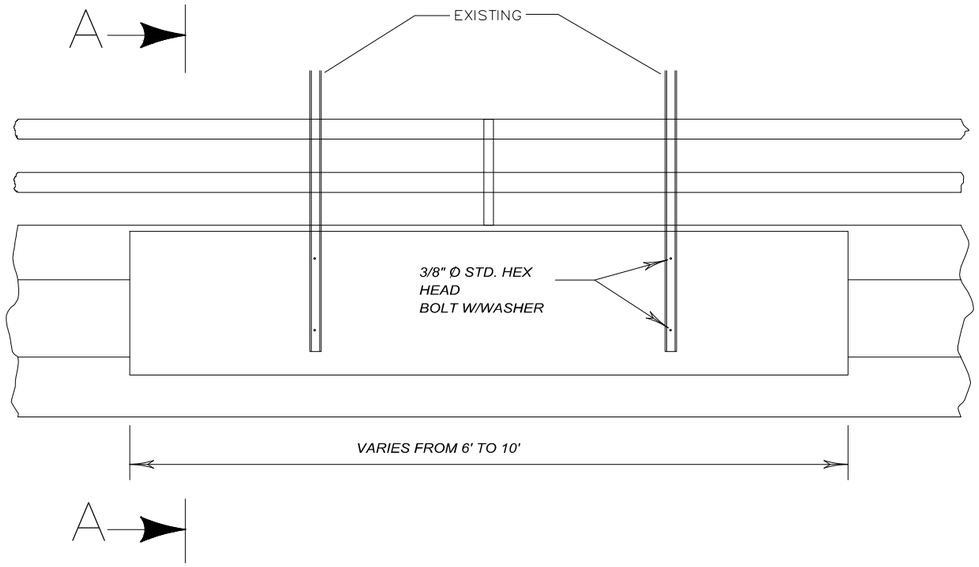
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CONCRETE STEPS AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS: DRIVEWAYS	SHEET 18	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021002_CD.DWG
LAYOUT NAME - 021002_cd-03
PLOT DATE : 11/10/2022 3:43 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########



SECTION A–A
SIDE VIEW

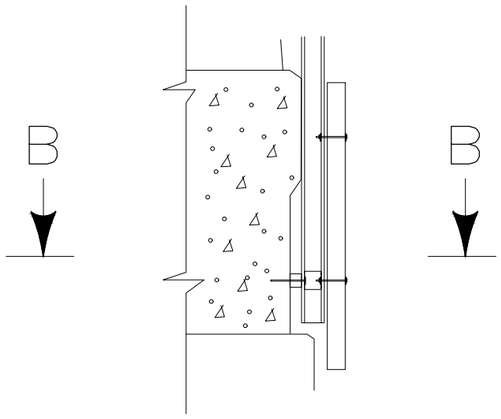


FRONT VIEW

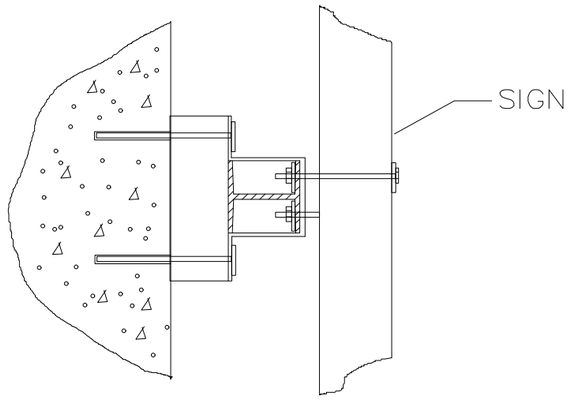
NOTES:

PROVIDE NEW BOLTS.

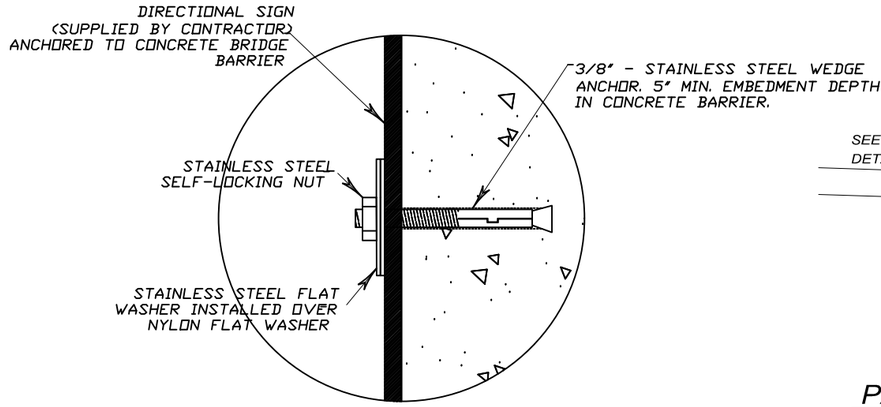
MOUNTING DETAIL COSTS ARE INCIDENTAL TO PAY ITEM "TYPE II SIGNS, REFLECTIVE".



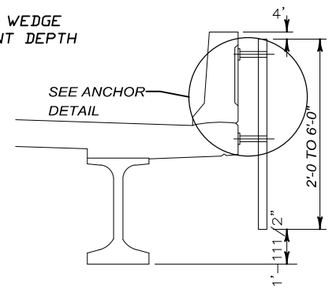
DETAIL A



SECTION B–B
TOP VIEW

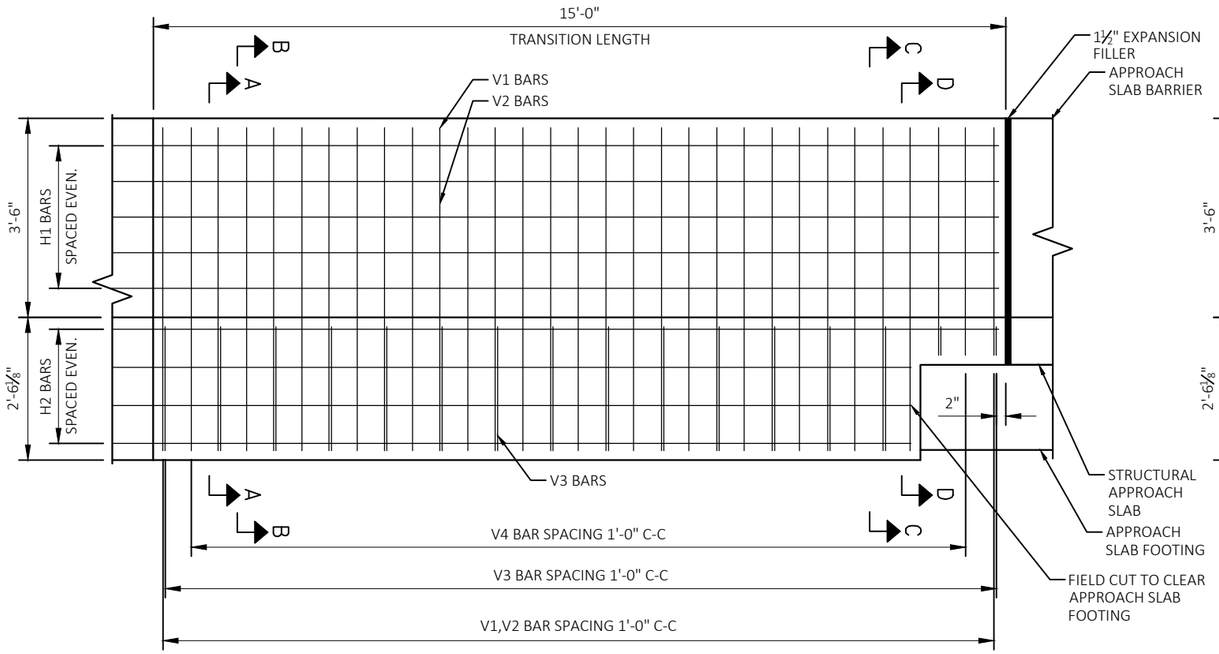


ANCHOR DETAIL
N.T.S.

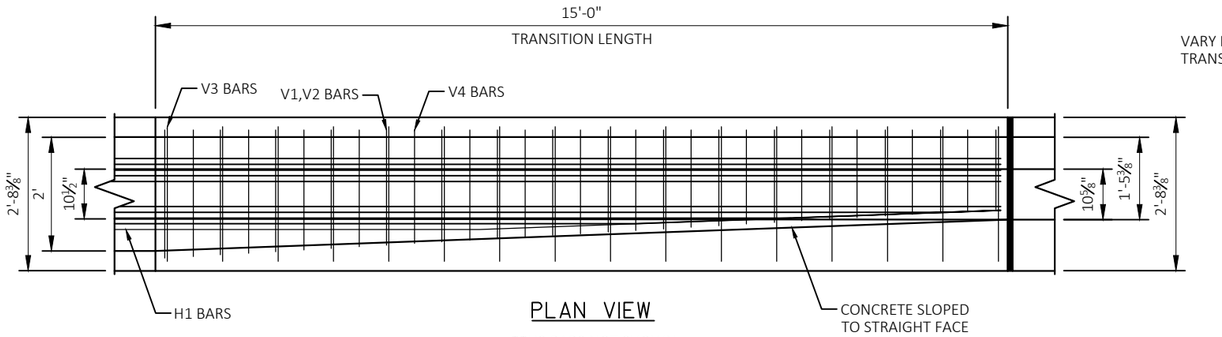


PARAPET OPTION
WITHOUT RAIL

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	SIGN MOUNTING DETAIL ON BRIDGE	SHEET 19 E

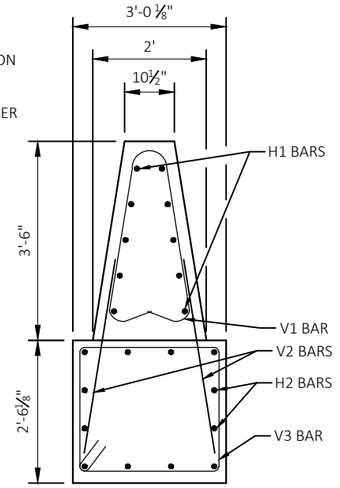


ELEVATION VIEW

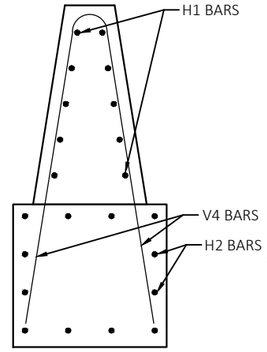


PLAN VIEW

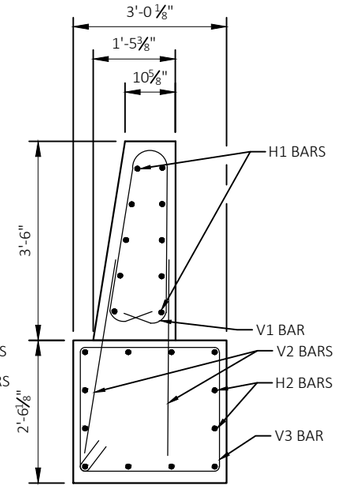
**H2 BARS NOT SHOWN



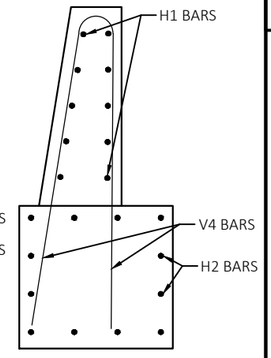
SECTION A-A



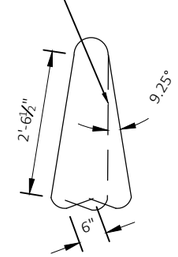
SECTION B-B



SECTION C-C



SECTION D-D



V1 BAR BEND

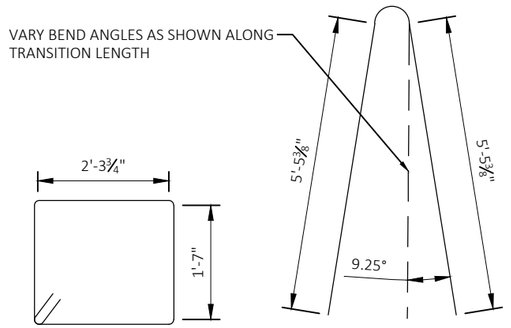
V1 BARS ARE NO. 4 BARS

V2 BAR BEND

V2 BARS ARE NO. 5 BARS

V3 BAR BEND

V3 BARS ARE NO. 6 BARS



V4 BAR BEND

V4 BARS ARE NO. 6 BARS

NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL

WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.

**H1 BARS ARE NO. 5 BARS
H2 BARS ARE NO. 5 BARS

CONCRETE BARRIER TRANSITION

STA. 86+26.1 'NB' - STA 86+41.1 'NB' RT
INCIDENTAL TO CONCRETE BARRIER TYPE S42B

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

R/L STH 36 (LOOMIS ROAD) SB
R/L STH 36 (LOOMIS ROAD)
PROPOSED R/W
PLE
R/W
TLE
20
20
22
4
CAUTION
R/L RAMP B
MATCHLINE STA 228+00'LRB'
STRUCTURE B-40-198 (EXISTING) TO BE REOMOVED, SEE STRUCTURE PLANS
RAMP B
EQUATION
STA BACK = 88+24.16'SB'
STA AHEAD = 88+23.91'SB'
MATCHLINE STA 88'NB'+50
MATCH EXISTING
STH 36
STH 36
STAGE A
+44.3
+83.9
83'SB'
84'SB'
85'SB'
86'SB'
87'SB'
88'SB'
83
84
85
86
87
88
83'NB'
84'NB'
85'NB'
86'NB'
87'NB'
88'NB'
STH 36 (LOOMIS ROAD) SB
229+00'LRA'
REMOVING RAMP GATE
SIGN
MH
TLE
R/W
STH 36 (LOOMIS ROAD) NB
CAUTION
BEGIN PROJECT
STA. 83+00.00
STAGE G
R/W
SIGN
RAMP A
RAMP A1
21+00'LRA1'
R/L RAMP A1
230+00'LRA'
R/L RAMP A
232+00'LRA'
DO NOT IMPACT CABINET BASE
+50.00'LRA1', -18.02' LT
+50.00'LRA1', 19.33' RT
MATCH EXISTING
IH 41 SB
IH 43 NB
IH 894 EB
R/L STH 36 (LOOMIS ROAD) NB

LEGEND

- XXXX XXXX XXXX XXXX — SAWING PAVEMENT (ASPHALT OR CONCRETE DETERMINED BY ADJACENT PAVEMENT TYPE)
- REMOVING CURB & GUTTER
- REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- ID — CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS
- REMOVING MANHOLES
- REMOVING INLETS
- SS — REMOVING STORM SEWER (SIZE, STAGE)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS: STH 36 (LOOMIS ROAD)	SHEET 21	E

LEGEND

- SAWING PAVEMENT (ASPHALT OR CONCRETE DETERMINED BY ADJACENT PAVEMENT TYPE)
- REMOVING CURB & GUTTER
- REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS
- REMOVING MANHOLES
- REMOVING INLETS
- REMOVING STORM SEWER (SIZE, STAGE)

N

PAVEMENT PATCH FOR TRAFFIC SIGNAL DETECTOR LOOP

STAGE G

R/L RAMP B

RAMP B

+69.72'LRB', -27.03' LT

+69.72'LRB', 11.57' RT

STAGE G

CAUTION

R/W

EQUATION

16

MATCHLINE STA 228+00'LRB'

STA BACK = 88+24.16'SB'

STA AHEAD = 88+23.91'SB'

IH 41 SB
IH 43 NB
IH 894 EB

IH 41 NB
IH 43 SB
IH 894 WB

226+00'LRB'

227+00'LRB'

228+00'LRD'

STAGE F

213+

88'SB'

89'SB'

2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS: STH 36 (LOOMIS ROAD)	SHEET 22	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021101_RM.DWG
LAYOUT NAME - 015
PLOT DATE : 11/1/2022 3:33 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

LEGEND

- SAWING PAVEMENT (ASPHALT OR CONCRETE DETERMINED BY ADJACENT PAVEMENT TYPE)
- REMOVING CURB & GUTTER
- REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS
- REMOVING MANHOLES
- REMOVING INLETS
- REMOVING STORM SEWER (SIZE, STAGE)

IH 41 NB
IH 43 SB
IH 894 WB

WETLAND BOUNDARY

RAMP D

R/L RAMP D

STRUCTURE B-40-198 (EXISTING) TO BE REOMOVED, SEE STRUCTURE PLANS

+96.37'LRD', -4.33' LT

+96.37'LRD', 18.27' RT

R/L RAMP C1

12+00'LRC1'

+44.77'LRC', 16.48' RT

+44.66'LRC', -3.02' LT

+70.02'LRC', 17.56' RT

+49.99'LRC1', -18.63' LT

MATCH EXISTING

+49.82'LRC1', 6.79' RT

RAMP C1

RAMP C

230+00'LRC'

R/L RAMP C

STAGE B
(REMOVING CURB & GUTTER FOR TEMPORARY PAVEMENT)

214+00'LRD'

213+00'LRD'

228+00'LRD'

229+00'LRD'

STH 36 (LOOMIS ROAD) SB

+93.10, -14.06' LT

+92.79, -1.15' LT

+54.11, -13.47' LT

+39.02, 14.13' RT

231+00'LRC'

PROPOSED R/W

R/W

TLE

232+00'LRC'

MATCHLINE STA 89'NB'+50

MATCHLINE STA 94'NB'+50

89'SB'

90'SB'

91'SB'

92'SB'

93'SB'

94'SB'

89'NB'

90'NB'

91'NB'

92'NB'

93'NB'

94'NB'

89

91

93

94

CAUTION

STH 36 (LOOMIS ROAD) NB

STAGE F

230'EWE'

230'EWW'

STA BACK = 89'NB'+04.38
STA AHEAD = 89'NB'+04.06

EQUATION

+99.00'LRE', 19.68' RT

+99.10'LRE', -8.53' LT

234+00'LRE'

RAMP E

SLAB

R/W

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

PROPOSED R/W

R/L STH 36 (LOOMIS ROAD) NB

TLE

CAUTION

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS: STH 36 (LOOMIS ROAD)	SHEET 23	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021101_RM.DWG
LAYOUT NAME - 02
PLOT DATE : 11/1/2022 3:34 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

N

R/L S. 43RD STREET

S. 43RD STREET

52

51+00'F'

+69.22'F', -22.79' LT

EQUATION

STA BACK = 95+76.07'SB'

STA AHEAD = 95+67.29'SB'

PROPOSED R/W

R/W

TLE

+69.20'F', 22.53' RT

+61.35'F', 80.45' RT

+08.36'SB', -32.17' LT

+61.84'F', 111.60' RT

+48.58'SB', -32.36' LT

REMOVING ASPHALTIC SURFACE BUTT JOINT REQ'D

+48.58'SB', 0.00' T

STH 36 (LOOMIS ROAD) SB

END PROJECT
STA. 98+75.91

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

+08.36'SB', 0.00' T

+88.89'SB', 0.00' T

MATCHLINE STA 94'NB'+50

95'SB'

96'SB'

97'SB'

98'SB'

99'SB'

100'SB'

95

96

97

98

99

100

95'NB'

96'NB'

97'NB'

98'NB'

99'NB'

100'NB'

+08.36'NB', 0.08' RT

+75.91'NB', 0.00' T

STH 36 (LOOMIS ROAD) NB

REMOVING ASPHALTIC SURFACE BUTT JOINT REQ'D

R/L STH 36 (LOOMIS ROAD) NB

+08.36'NB', 32.18' RT

+75.91'NB', 31.86' RT

STAGE F

TLE

EQUATION

STA BACK = 95'NB'+65.67

STA AHEAD = 95'NB'+74.54

PROPOSED R/W

BLDG

CAUTION

LEGEND

- XXXX XXXX XXXX XXXX — SAWING PAVEMENT (ASPHALT OR CONCRETE DETERMINED BY ADJACENT PAVEMENT TYPE)
- REMOVING CURB & GUTTER
- REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- ID — CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS
- REMOVING MANHOLES
- REMOVING INLETS
- SS — REMOVING STORM SEWER (SIZE, STAGE)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS: STH 36 (LOOMIS ROAD)	SHEET 24	E

2

2

STAGE F

PAVEMENT PATCH
FOR TRAFFIC SIGNAL
DETECTOR LOOP

N

SIGN

INL

MH

234+00'LRE'

235+00'LRE'

236+00'LRE'

237+00'LRE'

234'EWW'

235'EWW'

236'EWW'

237'EWW'

IH 41 NB/IH 43 SB/IH 894 WB

R/L IH 41 NB/43 SB/894 WB

232'EWW'

233'EWW'

W

232'EWE'

233'EWE'

234'EWE'

235'EWE'

236'EWE'

237'EWE'

IH 41 SB/IH43 NB/IH 894 EB

R/L IH 41 SB/43 NB/894 EB

MATCHLINE STA 231'EWE'+00

SLAB

FO

236+00'LRA'

235+00'LRA'

LEGEND

- SAWING PAVEMENT (ASPHALT OR CONCRETE DETERMINED BY ADJACENT PAVEMENT TYPE)
- REMOVING CURB & GUTTER
- REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING CONCRETE BARRIER
- CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS
- REMOVING MANHOLES
- REMOVING INLETS
- REMOVING STORM SEWER (SIZE, STAGE)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS: IH 41/43/894	SHEET 25	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021101_RM.DWG
LAYOUT NAME - 05

PLOT DATE : 11/1/2022 3:37 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########

2

2

EQUATION

STA BACK = 88+24.16'SB'
STA AHEAD = 88+23.91'SB'

MATCHLINE STA 228+00'LRB'

MATCHLINE STA 88'NB'+50

N

CONCRETE STEPS (TYP)

PROPOSED R/W

PLE

R/W

TLE

6'

CAUTION

R/L RAMP B

RAMP B

+85.23'SB', -33.00' LT

+00.00'SB', -33.00' LT

DWY-A

DWY-C

+00.00'SB', -37.00' LT

+60.00'SB', -33.00' LT

CS5

CG31

CP8.5

S-40-3096

S-40-3095

R/L STH 36 (LOOMIS ROAD) SB
R/L STH 36 (LOOMIS ROAD)
R/L STH 36 (LOOMIS ROAD) NB

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

MATCH EXISTING

+44.31'NB'

+83.88'NB'

+00.00'SB', 21.00' RT

+10.13'SB', 21.00' RT

+10.80'NB', 0.00' T

+00.00'NB', -0.01' LT

+00.00'NB', 36.00' RT

+06.80'NB', -12.00' LT

+78.13'SB', 0.00' T

+34.05'SB', 0.00' T

+33.59'NB', -12.00' LT

+19.77'SB', -37.00' LT

+25.69'NB', 36.00' RT

+26.84'LRA', -24.22' LT

+21.56'NB', 32.01' RT

229'LRA'

CP8

4B1

4A1

3

5

6

CMSN

CB42B

+61.35'SB', -55.59' LT

+22.65'LRB', -24.42' LT

+02.37'SB', -44.82' LT

+25.87'SB', -43.89' LT

+40.86'SB', -43.30' LT

PV01

+38.21'SB', 24.00' RT

+38.69'NB', -12.00' LT

+25.67'NB', 39.00' RT

+57.97'NB', 30.01' RT

+25.59'NB', 37.01' RT

+61.59'LRA1', 0.00' T

+11.23'NB', 37.57' RT

+33.98'NB', 46.69' RT

+40.97'NB', 46.41' RT

CONCRETE BARRIER TRANSITION
SEE CONSTRUCTION DETAIL

+85.52'LRA1', -18.73' LT

+61.47'NB', 58.71' RT

+27.17'NB', 66.34' RT

GATES CHAIN LINK 12-FT

+15.46'NB', 68.94' RT

+99.96'LRA1', -22.67' LT

+15.38'LRA1', -15.00' LT

+19.22'LRA1', 0.00' T

+97.98'LRA', -21.50' LT

STRUCTURE B-40-1025
(PROPOSED)

RETAINING WALL
R-40-716

IH 41 SB
IH 43 NB
IH 894 EB

RAMP A

RAMP A1

11'LRA1'

12'LRA1'

231'LRA'

R/L RAMP A

R/L RAMP A1

+38.24'LRA', 0.00' T

+91.95'LRA1', -22.62' LT

DO NOT IMPACT
CABINET BASE

+43.75'LRA1', 17.00' RT

+50.01'LRA1', 16.98' RT

+50.00'LRA1', -15.00' LT

MATCH EXISTING

SLOPE INTERCEPT (TYP.)

RAMP CLOSURE
GATE 30-FT

RAMP CLOSURE
GATE 28-FT

BEGIN PROJECT
STA. 83+00.00

LEGEND

A2	REMOVING ASPHALTIC SURFACE MILLING 2-INCH 2-INCH HMA PAVEMENT 4 MT 58-28 S	DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BAD 1 ¼"
CP8	8-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL	DWY-A	ASPHALTIC SURFACE 3-INCH OVER 6-INCH BAD 1 ¼"
CP8.5	8 ½-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL	PV01	CONCRETE PAVEMENT APPROACH SLAB
CG19	CONCRETE CURB & GUTTER 19-INCH	CMSN	CONCRETE MEDIAN SLOPED NOSE
CG31	CONCRETE CURB & GUTTER 31-INCH	CB32	CONCRETE BARRIER TYPE S32
		CB42B	CONCRETE BARRIER TYPE S42B
CS5	CONCRETE SIDEWALK 5-INCH		
X	CURB RAMP (TYPE) WITH DETECTABLE WARNING FIELD NATURAL PATINA		
	SLOPE INTERCEPTS		
	FENCE CHAIN LINK 6-FT		

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS: STH 36 (LOOMIS ROAD)	SHEET 26	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021201_PD.DWG
LAYOUT NAME - 01

PLOT DATE : 6/1/2023 2:55 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

2

N

+64.89'LRB', 8.74' RT

PAVEMENT PATCH FOR TRAFFIC SIGNAL DETECTOR LOOP (SEE TRAFFIC SIGNAL PLAN)

+64.94'LRB', -24.33' LT

+74.89'LRB', 8.82' RT

+74.94'LRB', -24.46' LT

CP8

R/L RAMP B

225'LRB'

226'LRB'

RAMP B

+69.72'LRB', 8.77' RT

MATCH EXISTING

+69.72'LRB', -24.44' LT

227'LRB'

CG31

R/W

SLOPE INTERCEPT (TYP.)

+84.79'LRB', -34.73' LT

+94.75'LRB', -35.59' LT

EQUATION

+97.73'LRB', 8.79' RT

CP8

228'LRB'

MATCHLINE STA 228+00'LRB'

+61.35'SB', -55.59' LT

IH 41 SB/IH 43 NB/IH 894 EB

IH 41 NB/ IH 43 SB/IH 894 WB

226

227

226'LRD'

227'LRD'

228'LRD'

STA BACK = 88+24.16'SB'

STA AHEAD = 88+23.91'SB'

+30.45'LRD', -13.08' LT

+96.15'SB', -

+81.47'SB', -4

+81.47'SB', 24.00

88'SB'

89'SB'

90'SB'

NOTE:
SEE "IH 41/43/894" SHEETS FOR
IH 41/43/894 PLAN DETAILS.

LEGEND

A2	REMOVING ASPHALTIC SURFACE MILLING 2-INCH 2-INCH HMA PAVEMENT 4 MT 58-28 S	DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BAD 1 ¾"
CP8	8-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¾" OVER 16-INCH SELECT CRUSHED MATERIAL	DWY-A	ASPHALTIC SURFACE 3-INCH OVER 6-INCH BAD 1 ¾"
CP8.5	8 ½-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¾" OVER 16-INCH SELECT CRUSHED MATERIAL	PV01	CONCRETE PAVEMENT APPROACH SLAB
CG19	CONCRETE CURB & GUTTER 19-INCH	CMSN	CONCRETE MEDIAN SLOPED NOSE
CG31	CONCRETE CURB & GUTTER 31-INCH	CB32	CONCRETE BARRIER TYPE S32
		CB42B	CONCRETE BARRIER TYPE S42B
CS5	CONCRETE SIDEWALK 5-INCH		
X	CURB RAMP (TYPE) WITH DETECTABLE WARNING FIELD NATURAL PATINA		
	SLOPE INTERCEPTS		
	FENCE CHAIN LINK 6-FT		

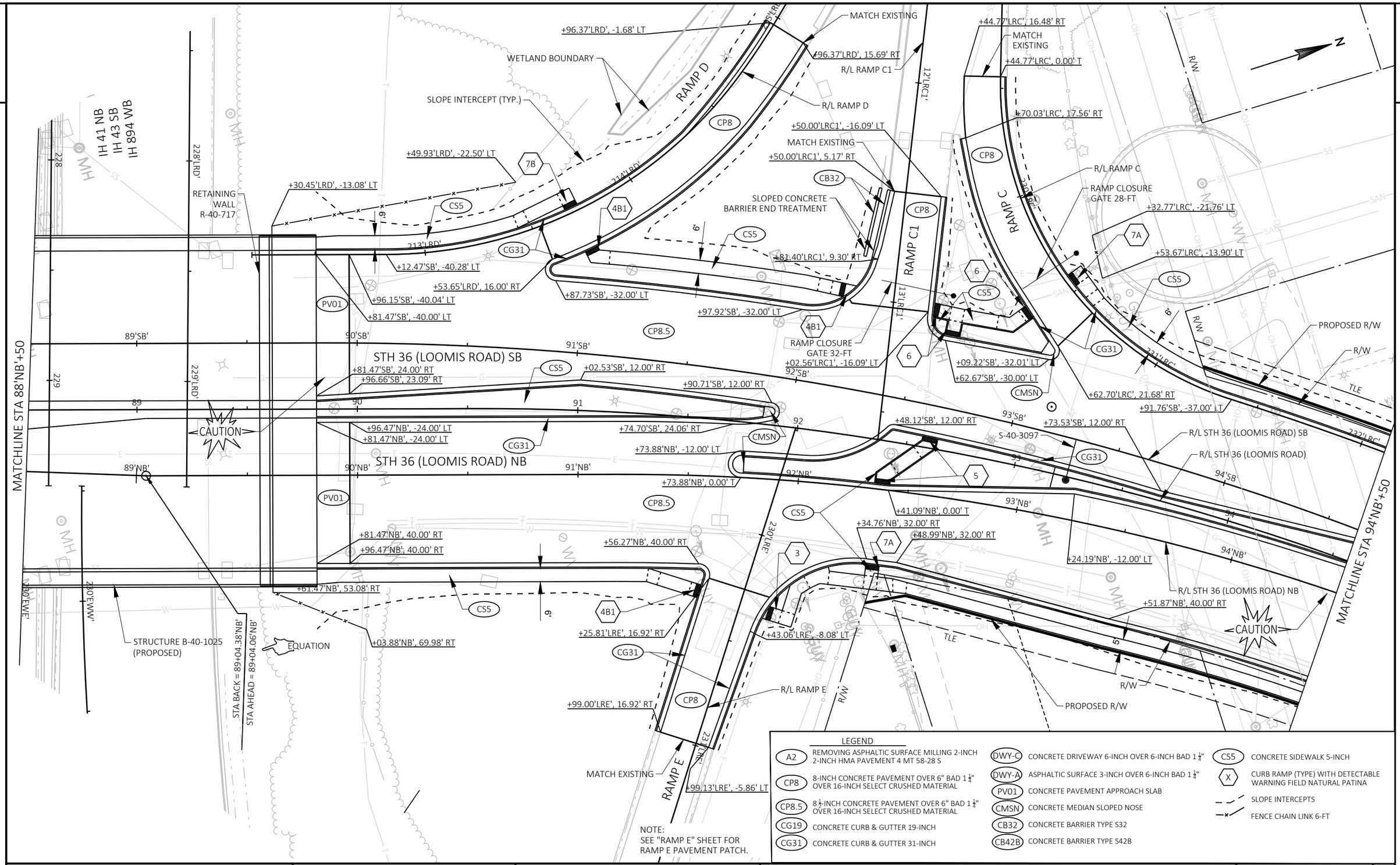
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS: STH 36 (LOOMIS ROAD)	SHEET 27 E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021201_PD.DWG
LAYOUT NAME - 015

PLOT DATE : 6/1/2023 2:55 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS: STH 36 (LOOMIS ROAD)	SHEET 28	E

2

2

LEGEND

A2	REMOVING ASPHALTIC SURFACE MILLING 2-INCH 2-INCH HMA PAVEMENT 4 MT 58-28 S
CP8	8-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL
CP8.5	8 ½-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL
CG19	CONCRETE CURB & GUTTER 19-INCH
CG31	CONCRETE CURB & GUTTER 31-INCH
DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BAD 1 ¼"
DWY-A	ASPHALTIC SURFACE 3-INCH OVER 6-INCH BAD 1 ¼"
PV01	CONCRETE PAVEMENT APPROACH SLAB
CMSN	CONCRETE MEDIAN SLOPED NOSE
CB32	CONCRETE BARRIER TYPE S32
CB42B	CONCRETE BARRIER TYPE S42B
CS5	CONCRETE SIDEWALK 5-INCH
X	CURB RAMP (TYPE) WITH DETECTABLE WARNING FIELD NATURAL PATINA
	SLOPE INTERCEPTS
	FENCE CHAIN LINK 6-FT

N

R/L S. 43RD STREET

S. 43RD STREET

+69.20'F', -20.40' LT

EQUATION

STA BACK = 95+76.07'SB'

STA AHEAD = 95+67.29'SB'

51+00'F'

+69.20'F', 19.95' RT

+71.22'SB', -32.00' LT

PROPOSED R/W

R/W

TLE

CS5

MATCH EXISTING

CAUTION

+08.36'SB', -32.17' LT

+20.58'SB', -32.00' LT

CG31

+89.03'SB', -37.00' LT

CP8.5

+93.40'SB', 0.00' T

95'SB'

+38.93'SB', 0.00' T

+35.82'SB', 1.48' RT

+85.18'SB', -32.00' LT

+87.99'SB', 0.00' T

96'SB'

CG19

+82.09'SB', 16.94' RT

+67.83'SB', 20.86' RT

+55.65'SB', 6.67' RT

+55.65'SB', 0.00' T

CG31

A2

+81.05'SB', -44.98' LT

+81.06'SB', -40.15' LT

MATCH EXISTING

+48.58'SB', -32.36' LT

+08.36'SB', -0.01' LT

+48.58'SB', -0.01' LT

97'SB'

98'SB'

99'SB'

END PROJECT
STA. 98+75.01

STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

+73.01'SB', -0.01' LT

+88.89'SB', -0.01' LT

100'SB'

+92.89'SB', 12.03' RT

+71.27'SB', 12.00' RT

+73.01'SB', 1.99' RT

100'NB'

MATCHLINE STA 94'NB'+50

+75.87, -3.06' LT

+87.99'SB', 8.04' RT

CMSN

BP: 10+24.28'AR'

+21.32'NB', -1.47' LT

+01.07, 0.42' RT

95'NB'

96'NB'

97'NB'

98'NB'

99'NB'

+67.82'NB', 0.06' RT

+08.36'NB', 0.08' RT

STH 36 (LOOMIS ROAD) NB

+75.91'NB', 0.00' T

STH 36 (W. LOOMIS RD.)

+18.20'NB', 0.03' RT

+82.34'NB' 32.11' RT

+08.36'NB', 32.18' RT

+75.91'NB', 31.86' RT

MATCH EXISTING

R/L STH 36 (LOOMIS ROAD) NB

+43.44'NB', 40.00' RT

+00.26'SB' 21.34' RT

+00.26'NB', 0.02' RT

+00.30'AR', -24.02' LT

+10.00'NB', 46.40' RT

+44.08'NB', 51.90' RT

+75.91'SB', 68.35' RT

+75.91'SB', 73.20' RT

STA BACK = 95+65.67'NB'

STA AHEAD = 95+74.54'NB'

+26.78'AR', 24.00' RT

+28.18'AR', 24.00' RT

+22.18'AR', -24.02' LT

+28.18'AR', -24.00' LT

BLDG

SLOPE INTERCEPT (TYP.)

PROPOSED R/W

NEW ACCESS ROAD

R/L NEW ACCESS ROAD

EP: 12+00.00'AR'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS: STH 36 (LOOMIS ROAD)	SHEET 29	E

2

2

+83.65'E', -6.01' LT
+93.72'E', -6.02' LT
CP8
+83.42'E', 16.95' RT
+93.23'E', 17.01' RT
PAVEMENT PATCH FOR TRAFFIC SIGNAL DETECTOR LOOP
(SEE TRAFFIC SIGNAL PLAN)
R/L RAMP E
RAMP E
R/L IH 41 NB/43 SB/894 WB
IH 41 NB
IH 43 SB
IH 894 WB
IH 41 SB
IH43 NB
IH 894 EB
R/L IH 41 SB/43 NB/894 EB
RAMP A
SLAB
SIGN
MH
INL
W
FO

NOTE:
SEE "STH 36 (LOOMIS ROAD)" SHEETS FOR STH 36 (LOOMIS ROAD) PLAN DETAILS.

LEGEND

A2	REMOVING ASPHALTIC SURFACE MILLING 2-INCH 2-INCH HMA PAVEMENT 4 MT 58-28 S	DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BAD 1 ¼"	CS5	CONCRETE SIDEWALK 5-INCH
CP8	8-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL	DWY-A	ASPHALTIC SURFACE 3-INCH OVER 6-INCH BAD 1 ¼"	X	CURB RAMP (TYPE) WITH DETECTABLE WARNING FIELD NATURAL PATINA
CP8.5	8 ½-INCH CONCRETE PAVEMENT OVER 6" BAD 1 ¼" OVER 16-INCH SELECT CRUSHED MATERIAL	PV01	CONCRETE PAVEMENT APPROACH SLAB		SLOPE INTERCEPTS
CG19	CONCRETE CURB & GUTTER 19-INCH	CMSN	CONCRETE MEDIAN SLOPED NOSE		FENCE CHAIN LINK 6-FT
CG31	CONCRETE CURB & GUTTER 31-INCH	CB32	CONCRETE BARRIER TYPE S32		
		CB42B	CONCRETE BARRIER TYPE S42B		

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS: RAMP E	SHEET 30	E

2

N

MATCHLINE STA 228+00'LRB'

CONCRETE STEPS (TYP)

PROPOSED R/W

PLE

R/W

TLE

R/L RAMP B

RAMP B

+09.68'LRB'

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

MATCH EXISTING

MATCH EXISTING

R/W

TLE

R/W

BEGIN PROJECT
STA. 83+00.00

SLOPE INTERCEPT (TYP.)

+26.76'LRA'

RAMP A

R/L RAMP A

229'LRA'

230'LRA'

231'LRA'

11+00'LRA1'

12+00'LRA1'

RAMP A1

R/L RAMP A1

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

R/L STH 36 (LOOMIS ROAD) NB

EQUATION

STA BACK = 88+24.16'SB'
STA AHEAD = 88+23.91'SB'

229+00'LRB'

RETAINING WALL
R-40-716

STRUCTURE B-40-1025
(PROPOSED)

IH 41 SB
IH 43 NB
IH 894 EB

MATCHLINE STA 88'NB'+75

228

229

230'EB'

231'EB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PAVING DETAILS: STH 36 (LOOMIS ROAD)	SHEET 31	E

2

N

PAVEMENT PATCH FOR TRAFFIC SIGNAL DETECTOR LOOP (SEE TRAFFIC SIGNAL PLAN)

R/L RAMP B

RAMP B

MATCH EXISTING

SLOPE INTERCEPT (TYP.)

MATCHLINE STA 228+00'LRB'

225+00'LRB'

226+00'LRB'

227+00'LRB'

228+00'LRB'

773.84
774.02
774.06
774.28
774.50
774.52
774.69
775.12
775.64
774.92
774.74
775.14
775.82
775.86
775.99
776.13
776.93
776.89
776.71
777.01
777.09

2.0%
1.7%
1.2%
0.7%

R/W

IH 41 SB/IH 43 NB/IH 894 EB

IH 41 NB/ IH 43 SB/IH 894 WB

226

226'LRD'

227

227'LRD'

228

228'LRD'

2

2

IH 41 NB
IH 43 SB
IH 894 WB

STRUCTURE B-40-1025 (PROPOSED)

RETAINING WALL R-40-717

SLOPE INTERCEPT (TYP.)

MATCH EXISTING

MATCH EXISTING

MATCH EXISTING

R/L RAMP D

R/L RAMP C1

R/L RAMP C

R/L RAMP E

RAMP D

RAMP C1

RAMP C

RAMP E

+38.10'LRD'

+14.93'LRD'

+51.32'LRD'

+51.86'SB

213'LRD'

228'LRD'

229'LRD'

230'WB'

231'WB'

230+00'LRC'

231+00'LRE'

12+00'LRC1

18+00'LRC1

221'LRC'

232'LRC'

94+00'LRC'

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

R/L STH 36 (LOOMIS ROAD) NB

89+00'SB'
90+00'SB'
91+00'SB'
92+00'SB'
93+00'SB'
94+00'SB'

89+00'NB'
90+00'NB'
91+00'NB'
92+00'NB'
93+00'NB'
94+00'NB'

89+00
90+00
91+00
92+00
93+00
94+00

MATCHLINE STA 88'NB'+75

STA BACK = 89+04.38'NB

STA AHEAD = 89+04.06'NB'

EQUATION

MATCHLINE STA 94'NB'+50

PROPOSED R/W

R/W

TLE

VAR.

N

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PAVING DETAILS: STH 36 (LOOMIS ROAD)	SHEET 33 E

2

2

R/L S. 43RD STREET

S. 43RD STREET

EQUATION

STA BACK = 95+76.07'SB'

STA AHEAD = 95+67.29'SB'

PROPOSED R/W

R/W

TLE

MATCH EXISTING

R/W

TLE

MATCH EXISTING

END PROJECT
STA. 98+75.01

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

STH 36 (W. LOOMIS RD.)

MATCH EXISTING

R/L STH 36 (LOOMIS ROAD) NB

MATCHLINE STA 94'NB'+50

TLE

R/W

SLOPE INTERCEPT (TYP.)

PROPOSED
R/W

TLE

R/W

BLDG

BLDG

BLDG

BLDG

EQUATION

STA BACK = 95+65.67'NB'

STA AHEAD = 95+74.54'NB'

NEW ACCESS ROAD

R/L NEW ACCESS ROAD

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PAVING DETAILS: STH 36 (LOOMIS ROAD)	SHEET 34	E

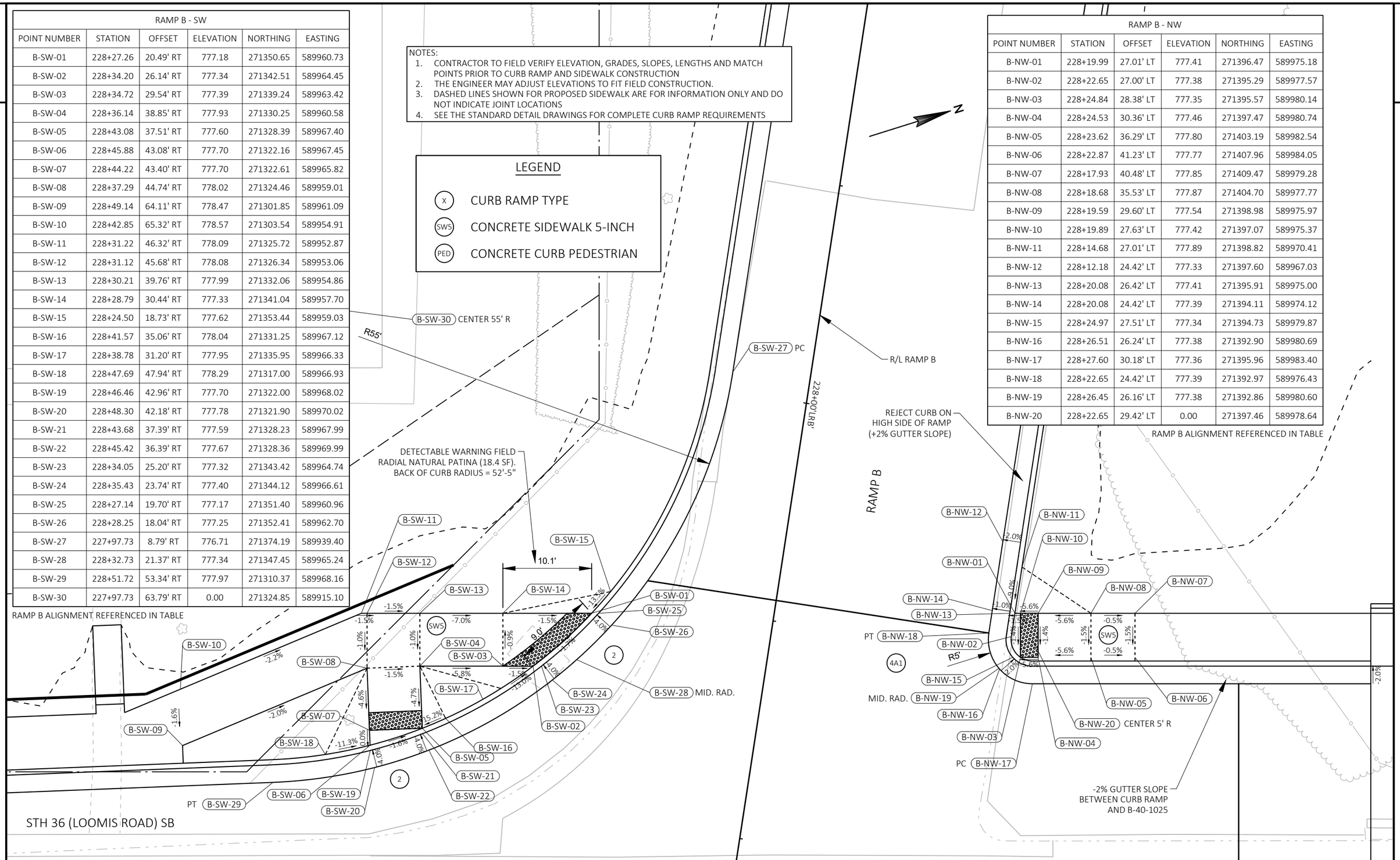
RAMP B - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
B-SW-01	228+27.26	20.49' RT	777.18	271350.65	589960.73
B-SW-02	228+34.20	26.14' RT	777.34	271342.51	589964.45
B-SW-03	228+34.72	29.54' RT	777.39	271339.24	589963.42
B-SW-04	228+36.14	38.85' RT	777.93	271330.25	589960.58
B-SW-05	228+43.08	37.51' RT	777.60	271328.39	589967.40
B-SW-06	228+45.88	43.08' RT	777.70	271322.16	589967.45
B-SW-07	228+44.22	43.40' RT	777.70	271322.61	589965.82
B-SW-08	228+37.29	44.74' RT	778.02	271324.46	589959.01
B-SW-09	228+49.14	64.11' RT	778.47	271301.85	589961.09
B-SW-10	228+42.85	65.32' RT	778.57	271303.54	589954.91
B-SW-11	228+31.22	46.32' RT	778.09	271325.72	589952.87
B-SW-12	228+31.12	45.68' RT	778.08	271326.34	589953.06
B-SW-13	228+30.21	39.76' RT	777.99	271332.06	589954.86
B-SW-14	228+28.79	30.44' RT	777.33	271341.04	589957.70
B-SW-15	228+24.50	18.73' RT	777.62	271353.44	589959.03
B-SW-16	228+41.57	35.06' RT	778.04	271331.25	589967.12
B-SW-17	228+38.78	31.20' RT	777.95	271335.95	589966.33
B-SW-18	228+47.69	47.94' RT	778.29	271317.00	589966.93
B-SW-19	228+46.46	42.96' RT	777.70	271322.00	589968.02
B-SW-20	228+48.30	42.18' RT	777.78	271321.90	589970.02
B-SW-21	228+43.68	37.39' RT	777.59	271328.23	589967.99
B-SW-22	228+45.42	36.39' RT	777.67	271328.36	589969.99
B-SW-23	228+34.05	25.20' RT	777.32	271343.42	589964.74
B-SW-24	228+35.43	23.74' RT	777.40	271344.12	589966.61
B-SW-25	228+27.14	19.70' RT	777.17	271351.40	589960.96
B-SW-26	228+28.25	18.04' RT	777.25	271352.41	589962.70
B-SW-27	227+97.73	8.79' RT	776.71	271374.19	589939.40
B-SW-28	228+32.73	21.37' RT	777.34	271347.45	589965.24
B-SW-29	228+51.72	53.34' RT	777.97	271310.37	589968.16
B-SW-30	227+97.73	63.79' RT	0.00	271324.85	589915.10

RAMP B ALIGNMENT REFERENCED IN TABLE

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN



RAMP B - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
B-NW-01	228+19.99	27.01' LT	777.41	271396.47	589975.18
B-NW-02	228+22.65	27.00' LT	777.38	271395.29	589977.57
B-NW-03	228+24.84	28.38' LT	777.35	271395.57	589980.14
B-NW-04	228+24.53	30.36' LT	777.46	271397.47	589980.74
B-NW-05	228+23.62	36.29' LT	777.80	271403.19	589982.54
B-NW-06	228+22.87	41.23' LT	777.77	271407.96	589984.05
B-NW-07	228+17.93	40.48' LT	777.85	271409.47	589979.28
B-NW-08	228+18.68	35.53' LT	777.87	271404.70	589977.77
B-NW-09	228+19.59	29.60' LT	777.54	271398.98	589975.97
B-NW-10	228+19.89	27.63' LT	777.42	271397.07	589975.37
B-NW-11	228+14.68	27.01' LT	777.89	271398.82	589970.41
B-NW-12	228+12.18	24.42' LT	777.33	271397.60	589967.03
B-NW-13	228+20.08	26.42' LT	777.41	271395.91	589975.00
B-NW-14	228+20.08	24.42' LT	777.39	271394.11	589974.12
B-NW-15	228+24.97	27.51' LT	777.34	271394.73	589979.87
B-NW-16	228+26.51	26.24' LT	777.38	271392.90	589980.69
B-NW-17	228+27.60	30.18' LT	777.36	271395.96	589983.40
B-NW-18	228+22.65	24.42' LT	777.39	271392.97	589976.43
B-NW-19	228+26.45	26.16' LT	777.38	271392.86	589980.60
B-NW-20	228+22.65	29.42' LT	0.00	271397.46	589978.64

RAMP B ALIGNMENT REFERENCED IN TABLE

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 35	E

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LAYOUT NAME - 0213101_cr
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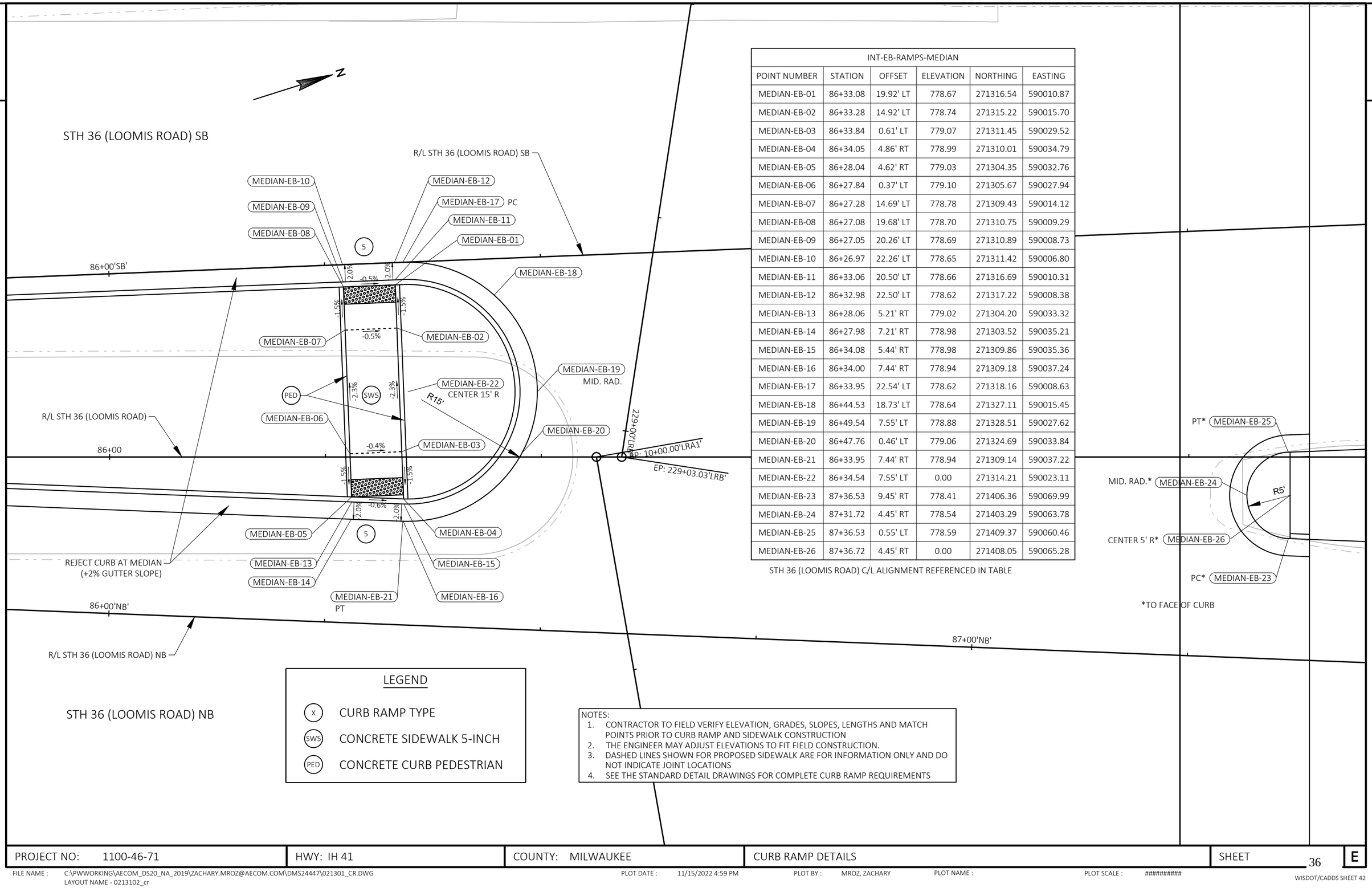
WISDOT/CADDS SHEET 42



INT-EB-RAMPS-MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MEDIAN-EB-01	86+33.08	19.92' LT	778.67	271316.54	590010.87
MEDIAN-EB-02	86+33.28	14.92' LT	778.74	271315.22	590015.70
MEDIAN-EB-03	86+33.84	0.61' LT	779.07	271311.45	590029.52
MEDIAN-EB-04	86+34.05	4.86' RT	778.99	271310.01	590034.79
MEDIAN-EB-05	86+28.04	4.62' RT	779.03	271304.35	590032.76
MEDIAN-EB-06	86+27.84	0.37' LT	779.10	271305.67	590027.94
MEDIAN-EB-07	86+27.28	14.69' LT	778.78	271309.43	590014.12
MEDIAN-EB-08	86+27.08	19.68' LT	778.70	271310.75	590009.29
MEDIAN-EB-09	86+27.05	20.26' LT	778.69	271310.89	590008.73
MEDIAN-EB-10	86+26.97	22.26' LT	778.65	271311.42	590006.80
MEDIAN-EB-11	86+33.06	20.50' LT	778.66	271316.69	590010.31
MEDIAN-EB-12	86+32.98	22.50' LT	778.62	271317.22	590008.38
MEDIAN-EB-13	86+28.06	5.21' RT	779.02	271304.20	590033.32
MEDIAN-EB-14	86+27.98	7.21' RT	778.98	271303.52	590035.21
MEDIAN-EB-15	86+34.08	5.44' RT	778.98	271309.86	590035.36
MEDIAN-EB-16	86+34.00	7.44' RT	778.94	271309.18	590037.24
MEDIAN-EB-17	86+33.95	22.54' LT	778.62	271318.16	590008.63
MEDIAN-EB-18	86+44.53	18.73' LT	778.64	271327.11	590015.45
MEDIAN-EB-19	86+49.54	7.55' LT	778.88	271328.51	590027.62
MEDIAN-EB-20	86+47.76	0.46' LT	779.06	271324.69	590033.84
MEDIAN-EB-21	86+33.95	7.44' RT	778.94	271309.14	590037.22
MEDIAN-EB-22	86+34.54	7.55' LT	0.00	271314.21	590023.11
MEDIAN-EB-23	87+36.53	9.45' RT	778.41	271406.36	590069.99
MEDIAN-EB-24	87+31.72	4.45' RT	778.54	271403.29	590063.78
MEDIAN-EB-25	87+36.53	0.55' LT	778.59	271409.37	590060.46
MEDIAN-EB-26	87+36.72	4.45' RT	0.00	271408.05	590065.28

STH 36 (LOOMIS ROAD) C/L ALIGNMENT REFERENCED IN TABLE

LEGEND

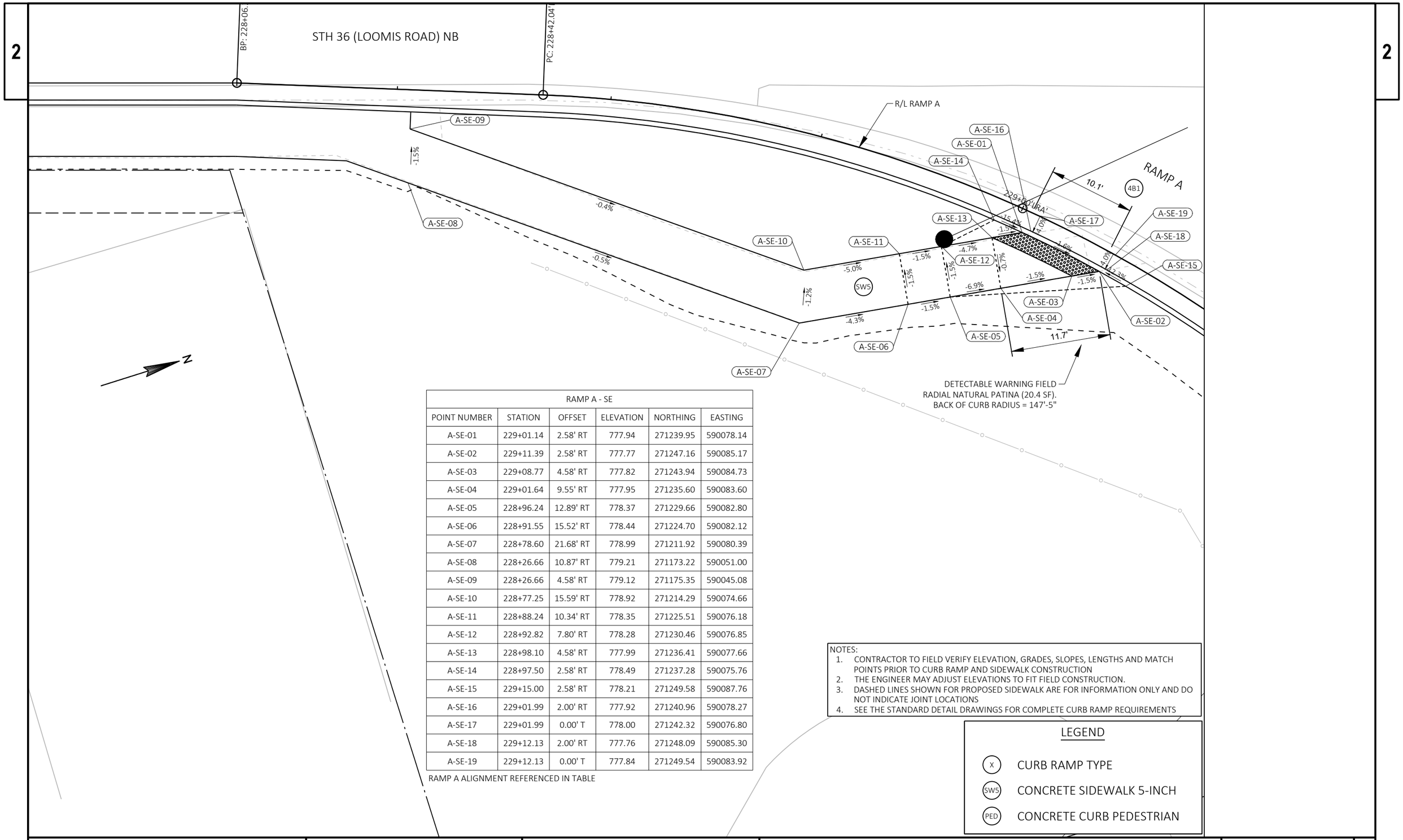
(X) CURB RAMP TYPE

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 36	E



RAMP A - SE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
A-SE-01	229+01.14	2.58' RT	777.94	271239.95	590078.14
A-SE-02	229+11.39	2.58' RT	777.77	271247.16	590085.17
A-SE-03	229+08.77	4.58' RT	777.82	271243.94	590084.73
A-SE-04	229+01.64	9.55' RT	777.95	271235.60	590083.60
A-SE-05	228+96.24	12.89' RT	778.37	271229.66	590082.80
A-SE-06	228+91.55	15.52' RT	778.44	271224.70	590082.12
A-SE-07	228+78.60	21.68' RT	778.99	271211.92	590080.39
A-SE-08	228+26.66	10.87' RT	779.21	271173.22	590051.00
A-SE-09	228+26.66	4.58' RT	779.12	271175.35	590045.08
A-SE-10	228+77.25	15.59' RT	778.92	271214.29	590074.66
A-SE-11	228+88.24	10.34' RT	778.35	271225.51	590076.18
A-SE-12	228+92.82	7.80' RT	778.28	271230.46	590076.85
A-SE-13	228+98.10	4.58' RT	777.99	271236.41	590077.66
A-SE-14	228+97.50	2.58' RT	778.49	271237.28	590075.76
A-SE-15	229+15.00	2.58' RT	778.21	271249.58	590087.76
A-SE-16	229+01.99	2.00' RT	777.92	271240.96	590078.27
A-SE-17	229+01.99	0.00' T	778.00	271242.32	590076.80
A-SE-18	229+12.13	2.00' RT	777.76	271248.09	590085.30
A-SE-19	229+12.13	0.00' T	777.84	271249.54	590083.92

RAMP A ALIGNMENT REFERENCED IN TABLE

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

LEGEND

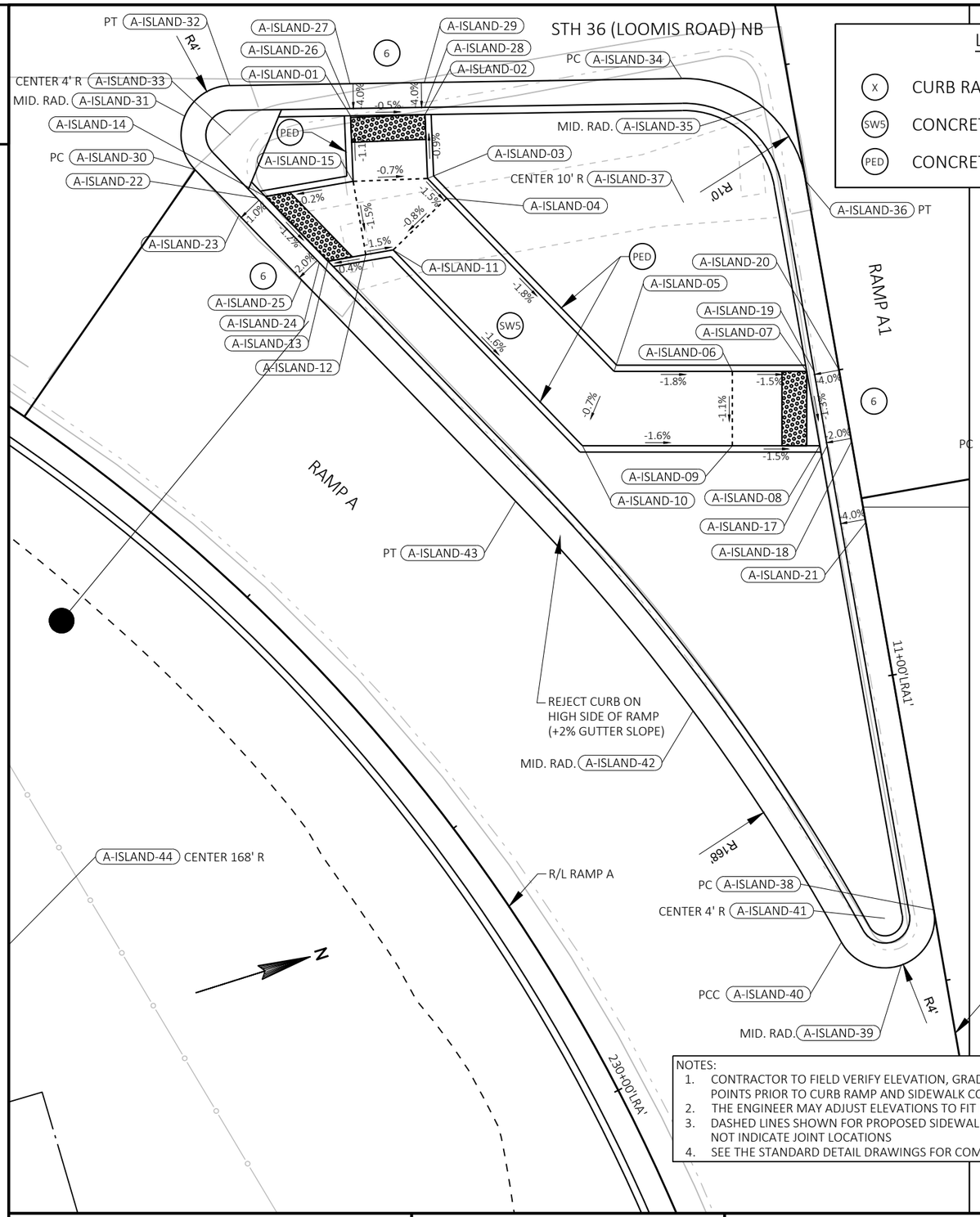
(X) CURB RAMP TYPE

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 37	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213103_cr
PLOT DATE : 12/8/2022 9:18 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

RAMP A ISLAND					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
A-ISLAND-01	10+48.00	35.26' RT	778.01	271291.51	590079.83
A-ISLAND-02	10+48.95	29.33' RT	777.99	271297.26	590081.55
A-ISLAND-03	10+54.05	30.02' RT	778.03	271295.91	590086.52
A-ISLAND-04	10+55.90	28.78' RT	778.00	271296.90	590088.51
A-ISLAND-05	10+71.99	17.89' RT	777.65	271305.58	590105.89
A-ISLAND-06	10+73.64	8.49' RT	777.48	271314.68	590108.76
A-ISLAND-07	10+74.68	2.58' RT	777.39	271320.40	590110.57
A-ISLAND-08	10+80.77	2.58' RT	777.31	271319.60	590116.61
A-ISLAND-09	10+79.55	9.53' RT	777.42	271312.87	590114.48
A-ISLAND-10	10+77.46	21.43' RT	777.60	271301.35	590110.85
A-ISLAND-11	10+59.26	33.75' RT	777.95	271291.53	590091.19
A-ISLAND-12	10+59.25	35.98' RT	777.98	271289.31	590090.88
A-ISLAND-13	10+59.24	39.08' RT	777.97	271286.25	590090.47
A-ISLAND-14	10+53.23	43.15' RT	778.06	271283.00	590083.97
A-ISLAND-15	10+53.25	35.97' RT	778.07	271290.12	590084.94
A-ISLAND-17	10+80.87	2.00' RT	777.30	271320.16	590116.78
A-ISLAND-18	10+80.87	0.00' T	777.34	271322.15	590117.05
A-ISLAND-19	10+74.78	2.00' RT	777.38	271320.96	590110.74
A-ISLAND-20	10+75.00	0.00' T	777.46	271322.92	590111.22
A-ISLAND-21	10+87.50	0.00' T	777.21	271321.28	590123.62
A-ISLAND-22	10+53.23	43.85' RT	778.06	271282.31	590083.88
A-ISLAND-23	10+54.35	45.51' RT	778.04	271280.52	590084.77
A-ISLAND-24	10+59.24	39.79' RT	777.96	271285.55	590090.37
A-ISLAND-25	10+60.36	41.44' RT	777.92	271283.76	590091.27
A-ISLAND-26	10+47.42	35.18' RT	778.01	271291.67	590079.26

RAMP A1 ALIGNMENT REFERENCED IN TABLE

RAMP A ISLAND					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
A-ISLAND-27	10+45.45	34.86' RT	778.09	271292.24	590077.35
A-ISLAND-28	10+48.37	29.25' RT	777.98	271297.42	590080.98
A-ISLAND-29	10+46.39	28.94' RT	778.06	271297.99	590079.07
A-ISLAND-30	10+50.11	48.37' RT	778.09	271278.23	590080.20
A-ISLAND-31	10+45.72	48.43' RT	778.10	271278.75	590075.84
A-ISLAND-32	10+43.92	44.43' RT	778.13	271282.96	590074.58
A-ISLAND-33	10+47.87	45.06' RT	0.00	271281.81	590078.41
A-ISLAND-34	10+49.67	8.42' RT	777.91	271317.89	590085.00
A-ISLAND-35	10+53.05	2.39' RT	777.84	271323.43	590089.15
A-ISLAND-36	10+59.54	0.00' T	777.77	271324.95	590095.90
A-ISLAND-37	10+59.54	10.00' RT	0.00	271315.03	590094.59
A-ISLAND-38	11+19.22	0.00' T	776.42	271317.11	590155.06
A-ISLAND-39	11+23.17	3.34' RT	776.35	271313.28	590158.53
A-ISLAND-40	11+20.52	7.78' RT	776.28	271309.22	590155.33
A-ISLAND-41	11+19.22	4.00' RT	0.00	271313.14	590154.54
A-ISLAND-42	11+00.07	16.35' RT	776.85	271303.42	590133.93
A-ISLAND-43	10+80.93	27.53' RT	777.38	271294.85	590113.49
A-ISLAND-44	11+75.05	166.69' RT	0.00	271144.53	590188.52

RAMP A1 ALIGNMENT REFERENCED IN TABLE

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 38	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
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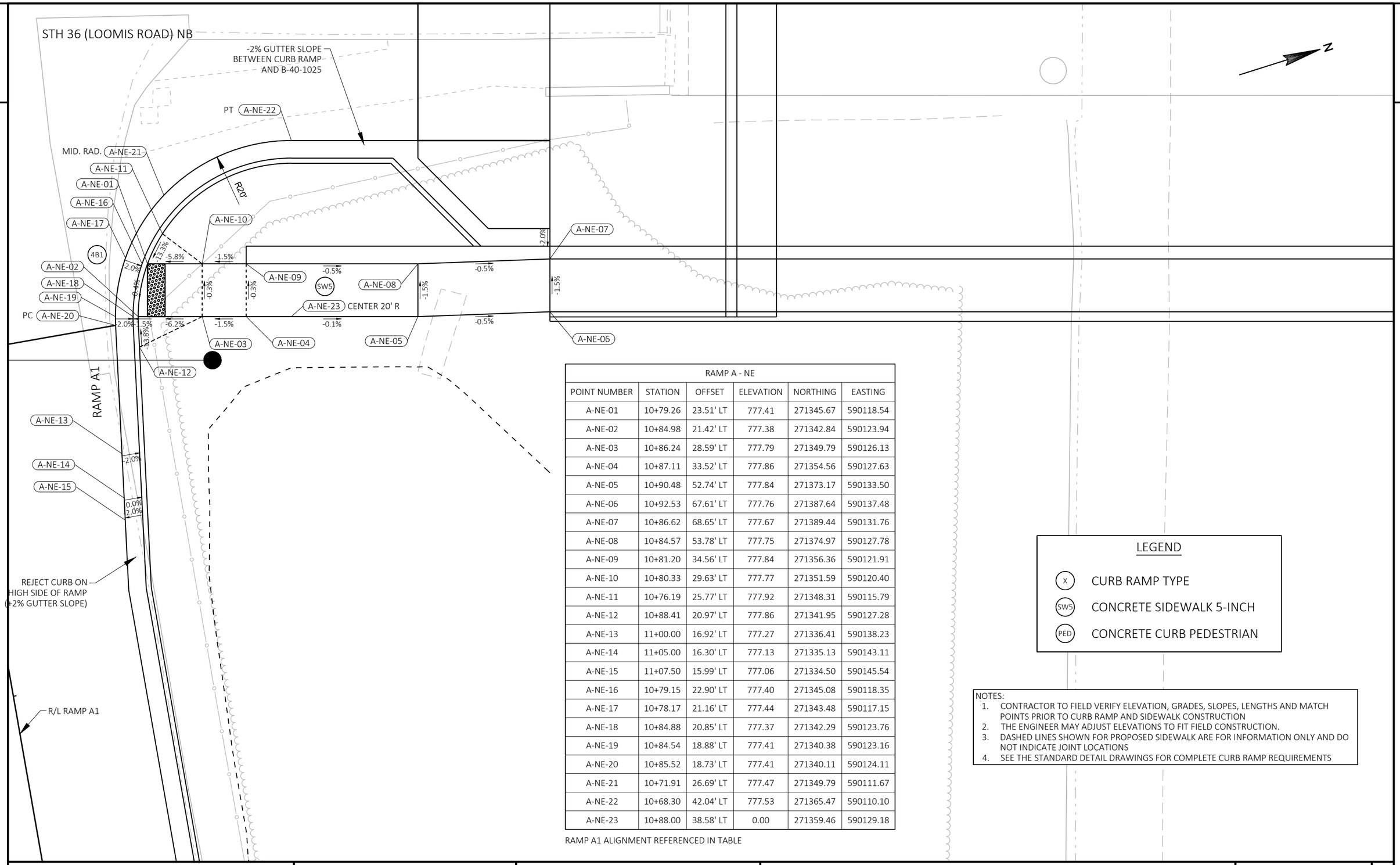
WISDOT/CADDS SHEET 42



RAMP A - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
A-NE-01	10+79.26	23.51' LT	777.41	271345.67	590118.54
A-NE-02	10+84.98	21.42' LT	777.38	271342.84	590123.94
A-NE-03	10+86.24	28.59' LT	777.79	271349.79	590126.13
A-NE-04	10+87.11	33.52' LT	777.86	271354.56	590127.63
A-NE-05	10+90.48	52.74' LT	777.84	271373.17	590133.50
A-NE-06	10+92.53	67.61' LT	777.76	271387.64	590137.48
A-NE-07	10+86.62	68.65' LT	777.67	271389.44	590131.76
A-NE-08	10+84.57	53.78' LT	777.75	271374.97	590127.78
A-NE-09	10+81.20	34.56' LT	777.84	271356.36	590121.91
A-NE-10	10+80.33	29.63' LT	777.77	271351.59	590120.40
A-NE-11	10+76.19	25.77' LT	777.92	271348.31	590115.79
A-NE-12	10+88.41	20.97' LT	777.86	271341.95	590127.28
A-NE-13	11+00.00	16.92' LT	777.27	271336.41	590138.23
A-NE-14	11+05.00	16.30' LT	777.13	271335.13	590143.11
A-NE-15	11+07.50	15.99' LT	777.06	271334.50	590145.54
A-NE-16	10+79.15	22.90' LT	777.40	271345.08	590118.35
A-NE-17	10+78.17	21.16' LT	777.44	271343.48	590117.15
A-NE-18	10+84.88	20.85' LT	777.37	271342.29	590123.76
A-NE-19	10+84.54	18.88' LT	777.41	271340.38	590123.16
A-NE-20	10+85.52	18.73' LT	777.41	271340.11	590124.11
A-NE-21	10+71.91	26.69' LT	777.47	271349.79	590111.67
A-NE-22	10+68.30	42.04' LT	777.53	271365.47	590110.10
A-NE-23	10+88.00	38.58' LT	0.00	271359.46	590129.18

RAMP A1 ALIGNMENT REFERENCED IN TABLE

LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
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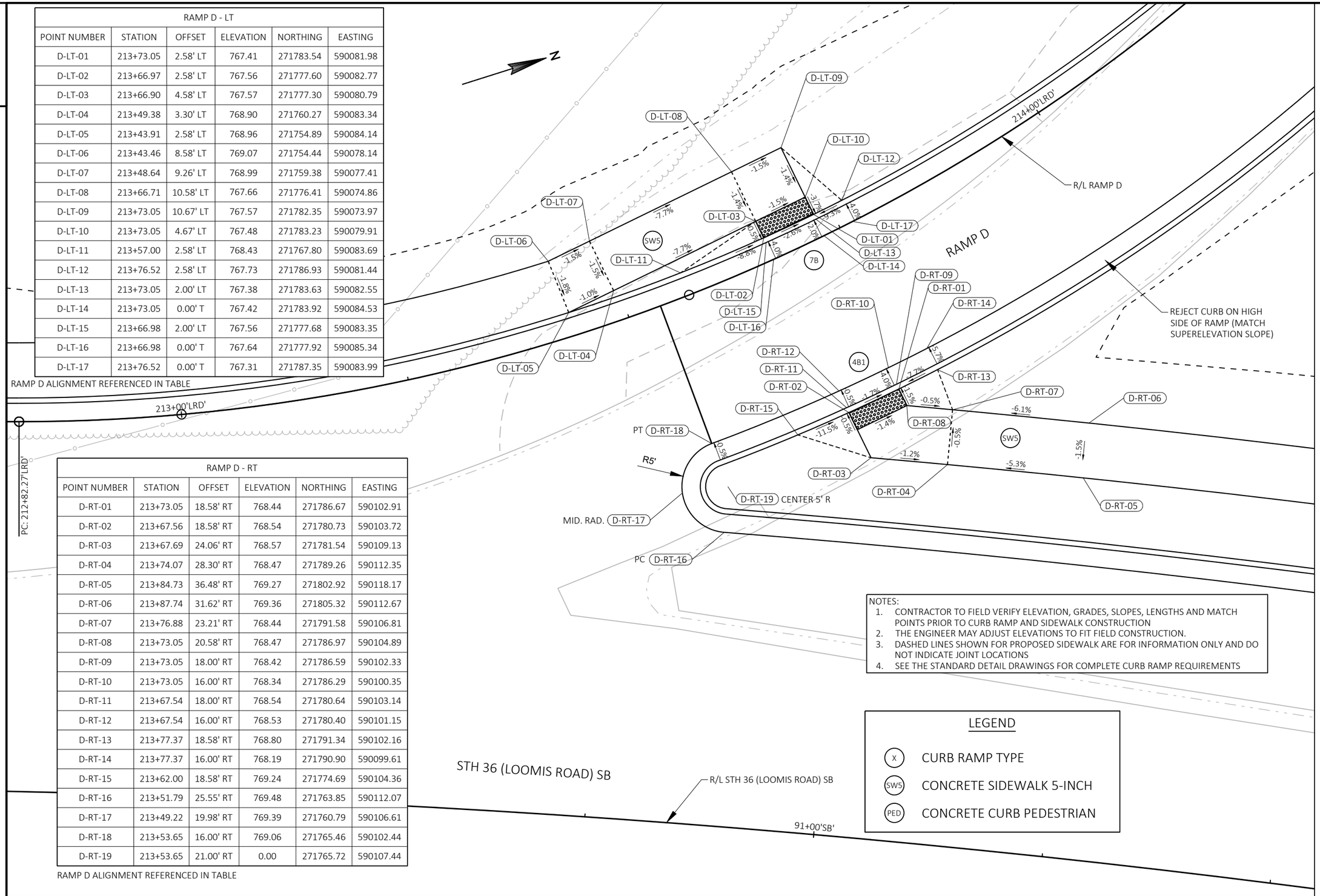
RAMP D - LT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
D-LT-01	213+73.05	2.58' LT	767.41	271783.54	590081.98
D-LT-02	213+66.97	2.58' LT	767.56	271777.60	590082.77
D-LT-03	213+66.90	4.58' LT	767.57	271777.30	590080.79
D-LT-04	213+49.38	3.30' LT	768.90	271760.27	590083.34
D-LT-05	213+43.91	2.58' LT	768.96	271754.89	590084.14
D-LT-06	213+43.46	8.58' LT	769.07	271754.44	590078.14
D-LT-07	213+48.64	9.26' LT	768.99	271759.38	590077.41
D-LT-08	213+66.71	10.58' LT	767.66	271776.41	590074.86
D-LT-09	213+73.05	10.67' LT	767.57	271782.35	590073.97
D-LT-10	213+73.05	4.67' LT	767.48	271783.23	590079.91
D-LT-11	213+57.00	2.58' LT	768.43	271767.80	590083.69
D-LT-12	213+76.52	2.58' LT	767.73	271786.93	590081.44
D-LT-13	213+73.05	2.00' LT	767.38	271783.63	590082.55
D-LT-14	213+73.05	0.00' T	767.42	271783.92	590084.53
D-LT-15	213+66.98	2.00' LT	767.56	271777.68	590083.35
D-LT-16	213+66.98	0.00' T	767.64	271777.92	590085.34
D-LT-17	213+76.52	0.00' T	767.31	271787.35	590083.99

RAMP D ALIGNMENT REFERENCED IN TABLE

RAMP D - RT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
D-RT-01	213+73.05	18.58' RT	768.44	271786.67	590102.91
D-RT-02	213+67.56	18.58' RT	768.54	271780.73	590103.72
D-RT-03	213+67.69	24.06' RT	768.57	271781.54	590109.13
D-RT-04	213+74.07	28.30' RT	768.47	271789.26	590112.35
D-RT-05	213+84.73	36.48' RT	769.27	271802.92	590118.17
D-RT-06	213+87.74	31.62' RT	769.36	271805.32	590112.67
D-RT-07	213+76.88	23.21' RT	768.44	271791.58	590106.81
D-RT-08	213+73.05	20.58' RT	768.47	271786.97	590104.89
D-RT-09	213+73.05	18.00' RT	768.42	271786.59	590102.33
D-RT-10	213+73.05	16.00' RT	768.34	271786.29	590100.35
D-RT-11	213+67.54	18.00' RT	768.54	271780.64	590103.14
D-RT-12	213+67.54	16.00' RT	768.53	271780.40	590101.15
D-RT-13	213+77.37	18.58' RT	768.80	271791.34	590102.16
D-RT-14	213+77.37	16.00' RT	768.19	271790.90	590099.61
D-RT-15	213+62.00	18.58' RT	769.24	271774.69	590104.36
D-RT-16	213+51.79	25.55' RT	769.48	271763.85	590112.07
D-RT-17	213+49.22	19.98' RT	769.39	271760.79	590106.61
D-RT-18	213+53.65	16.00' RT	769.06	271765.46	590102.44
D-RT-19	213+53.65	21.00' RT	0.00	271765.72	590107.44

RAMP D ALIGNMENT REFERENCED IN TABLE



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
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3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
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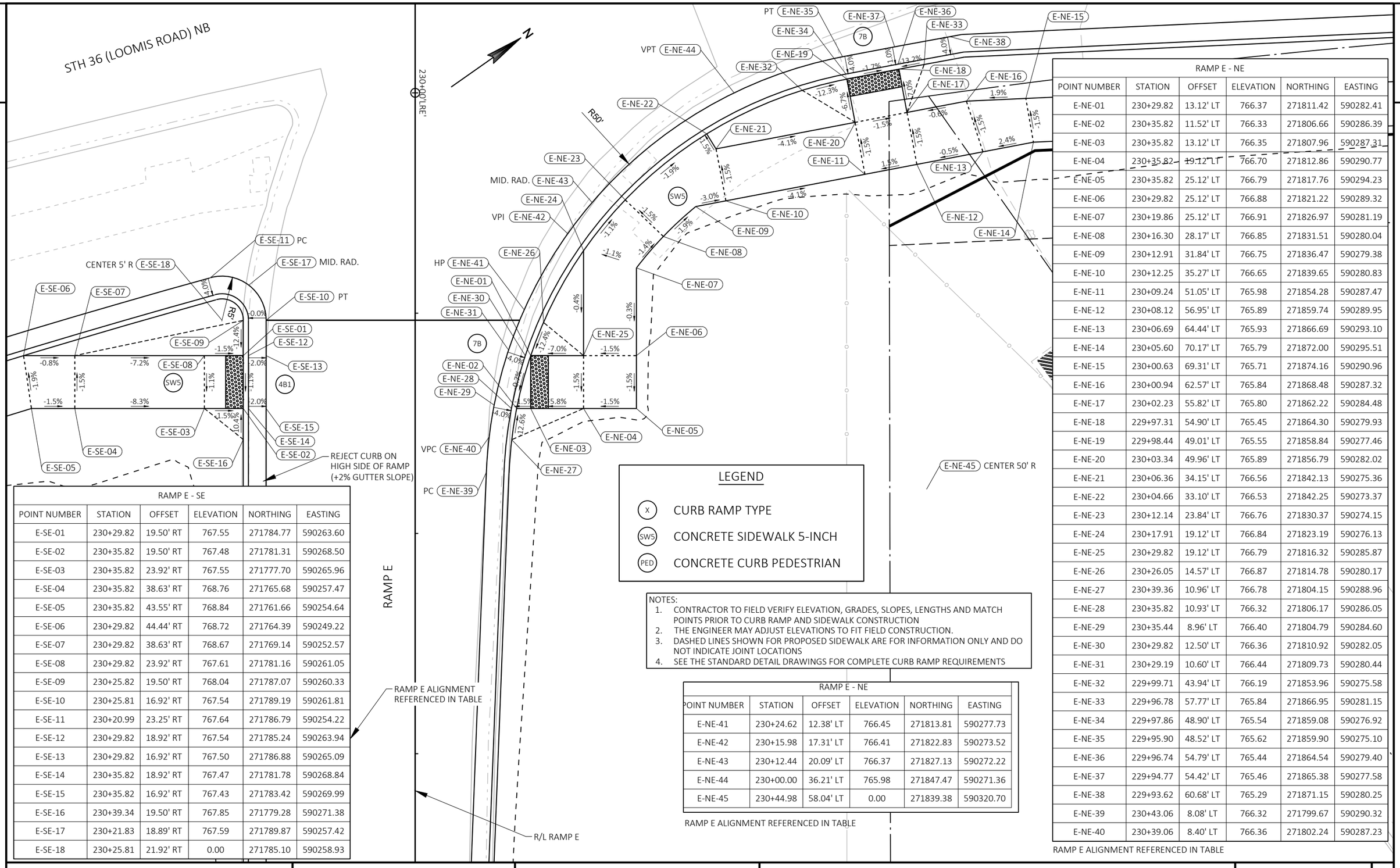
LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
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RAMP E ALIGNMENT REFERENCED IN TABLE

RAMP E - SE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
E-SE-01	230+29.82	19.50' RT	767.55	271784.77	590263.60
E-SE-02	230+35.82	19.50' RT	767.48	271781.31	590268.50
E-SE-03	230+35.82	23.92' RT	767.55	271777.70	590265.96
E-SE-04	230+35.82	38.63' RT	768.76	271765.68	590257.47
E-SE-05	230+35.82	43.55' RT	768.84	271761.66	590254.64
E-SE-06	230+29.82	44.44' RT	768.72	271764.39	590249.22
E-SE-07	230+29.82	38.63' RT	768.67	271769.14	590252.57
E-SE-08	230+29.82	23.92' RT	767.61	271781.16	590261.05
E-SE-09	230+25.82	19.50' RT	768.04	271787.07	590260.33
E-SE-10	230+25.81	16.92' RT	767.54	271789.19	590261.81
E-SE-11	230+20.99	23.25' RT	767.64	271786.79	590254.22
E-SE-12	230+29.82	18.92' RT	767.54	271785.24	590263.94
E-SE-13	230+29.82	16.92' RT	767.50	271786.88	590265.09
E-SE-14	230+35.82	18.92' RT	767.47	271781.78	590268.84
E-SE-15	230+35.82	16.92' RT	767.43	271783.42	590269.99
E-SE-16	230+39.34	19.50' RT	767.85	271779.28	590271.38
E-SE-17	230+21.83	18.89' RT	767.59	271789.87	590257.42
E-SE-18	230+25.81	21.92' RT	0.00	271785.10	590258.93

RAMP E - NE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
E-NE-41	230+24.62	12.38' LT	766.45	271813.81	590277.73
E-NE-42	230+15.98	17.31' LT	766.41	271822.83	590273.52
E-NE-43	230+12.44	20.09' LT	766.37	271827.13	590272.22
E-NE-44	230+00.00	36.21' LT	765.98	271847.47	590271.36
E-NE-45	230+44.98	58.04' LT	0.00	271839.38	590320.70

RAMP E ALIGNMENT REFERENCED IN TABLE

RAMP E - NE

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
E-NE-01	230+29.82	13.12' LT	766.37	271811.42	590282.41
E-NE-02	230+35.82	11.52' LT	766.33	271806.66	590286.39
E-NE-03	230+35.82	13.12' LT	766.35	271807.96	590287.31
E-NE-04	230+35.82	19.12' LT	766.70	271812.86	590290.77
E-NE-05	230+35.82	25.12' LT	766.79	271817.76	590294.23
E-NE-06	230+29.82	25.12' LT	766.88	271821.22	590289.32
E-NE-07	230+19.86	25.12' LT	766.91	271826.97	590281.19
E-NE-08	230+16.30	28.17' LT	766.85	271831.51	590280.04
E-NE-09	230+12.91	31.84' LT	766.75	271836.47	590279.38
E-NE-10	230+12.25	35.27' LT	766.65	271839.65	590280.83
E-NE-11	230+09.24	51.05' LT	765.98	271854.28	590287.47
E-NE-12	230+08.12	56.95' LT	765.89	271859.74	590289.95
E-NE-13	230+06.69	64.44' LT	765.93	271866.69	590293.10
E-NE-14	230+05.60	70.17' LT	765.79	271872.00	590295.51
E-NE-15	230+00.63	69.31' LT	765.71	271874.16	590290.96
E-NE-16	230+00.94	62.57' LT	765.84	271868.48	590287.32
E-NE-17	230+02.23	55.82' LT	765.80	271862.22	590284.48
E-NE-18	229+97.31	54.90' LT	765.45	271864.30	590279.93
E-NE-19	229+98.44	49.01' LT	765.55	271858.84	590277.46
E-NE-20	230+03.34	49.96' LT	765.89	271856.79	590282.02
E-NE-21	230+06.36	34.15' LT	766.56	271842.13	590275.36
E-NE-22	230+04.66	33.10' LT	766.53	271842.25	590273.37
E-NE-23	230+12.14	23.84' LT	766.76	271830.37	590274.15
E-NE-24	230+17.91	19.12' LT	766.84	271823.19	590276.13
E-NE-25	230+29.82	19.12' LT	766.79	271816.32	590285.87
E-NE-26	230+26.05	14.57' LT	766.87	271814.78	590280.17
E-NE-27	230+39.36	10.96' LT	766.78	271804.15	590288.96
E-NE-28	230+35.82	10.93' LT	766.32	271806.17	590286.05
E-NE-29	230+35.44	8.96' LT	766.40	271804.79	590284.60
E-NE-30	230+29.82	12.50' LT	766.36	271810.92	590282.05
E-NE-31	230+29.19	10.60' LT	766.44	271809.73	590280.44
E-NE-32	229+99.71	43.94' LT	766.19	271853.96	590275.58
E-NE-33	229+96.78	57.77' LT	765.84	271866.95	590281.15
E-NE-34	229+97.86	48.90' LT	765.54	271859.08	590276.92
E-NE-35	229+95.90	48.52' LT	765.62	271859.90	590275.10
E-NE-36	229+96.74	54.79' LT	765.44	271864.54	590279.40
E-NE-37	229+94.77	54.42' LT	765.46	271865.38	590277.58
E-NE-38	229+93.62	60.68' LT	765.29	271871.15	590280.25
E-NE-39	230+43.06	8.08' LT	766.32	271799.67	590290.32
E-NE-40	230+39.06	8.40' LT	766.36	271802.24	590287.23

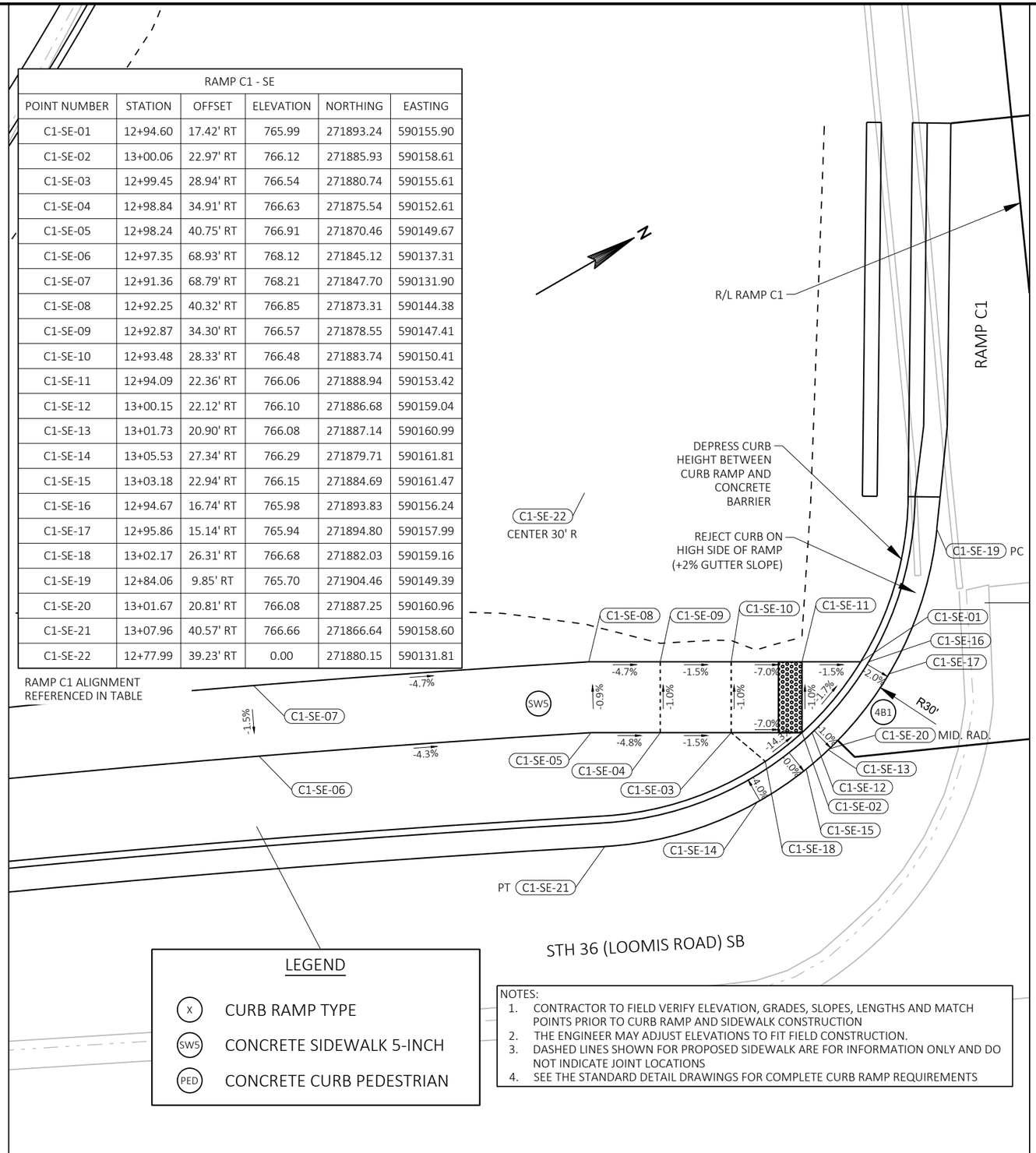
RAMP E ALIGNMENT REFERENCED IN TABLE

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 41	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213107_cr
PLOT DATE : 4/24/2023 12:54 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

RAMP C1 - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
C1-SE-01	12+94.60	17.42' RT	765.99	271893.24	590155.90
C1-SE-02	13+00.06	22.97' RT	766.12	271885.93	590158.61
C1-SE-03	12+99.45	28.94' RT	766.54	271880.74	590155.61
C1-SE-04	12+98.84	34.91' RT	766.63	271875.54	590152.61
C1-SE-05	12+98.24	40.75' RT	766.91	271870.46	590149.67
C1-SE-06	12+97.35	68.93' RT	768.12	271845.12	590137.31
C1-SE-07	12+91.36	68.79' RT	768.21	271847.70	590131.90
C1-SE-08	12+92.25	40.32' RT	766.85	271873.31	590144.38
C1-SE-09	12+92.87	34.30' RT	766.57	271878.55	590147.41
C1-SE-10	12+93.48	28.33' RT	766.48	271883.74	590150.41
C1-SE-11	12+94.09	22.36' RT	766.06	271888.94	590153.42
C1-SE-12	13+00.15	22.12' RT	766.10	271886.68	590159.04
C1-SE-13	13+01.73	20.90' RT	766.08	271887.14	590160.99
C1-SE-14	13+05.53	27.34' RT	766.29	271879.71	590161.81
C1-SE-15	13+03.18	22.94' RT	766.15	271884.69	590161.47
C1-SE-16	12+94.67	16.74' RT	765.98	271893.83	590156.24
C1-SE-17	12+95.86	15.14' RT	765.94	271894.80	590157.99
C1-SE-18	13+02.17	26.31' RT	766.68	271882.03	590159.16
C1-SE-19	12+84.06	9.85' RT	765.70	271904.46	590149.39
C1-SE-20	13+01.67	20.81' RT	766.08	271887.25	590160.96
C1-SE-21	13+07.96	40.57' RT	766.66	271866.64	590158.60
C1-SE-22	12+77.99	39.23' RT	0.00	271880.15	590131.81

RAMP C1 ALIGNMENT
REFERENCED IN TABLE



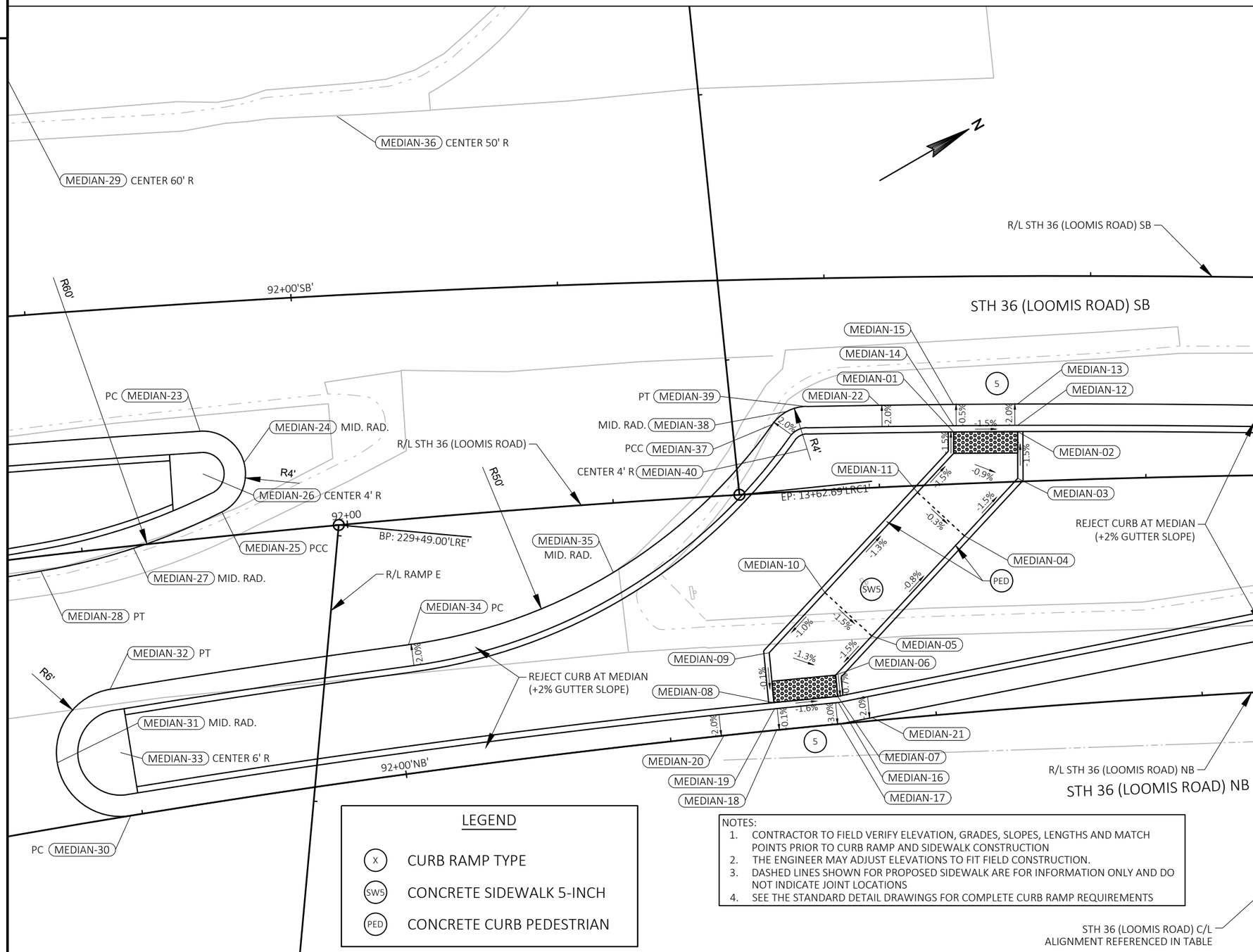
LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 42	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213108_cr
PLOT DATE : 11/15/2022 5:00 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



LEGEND

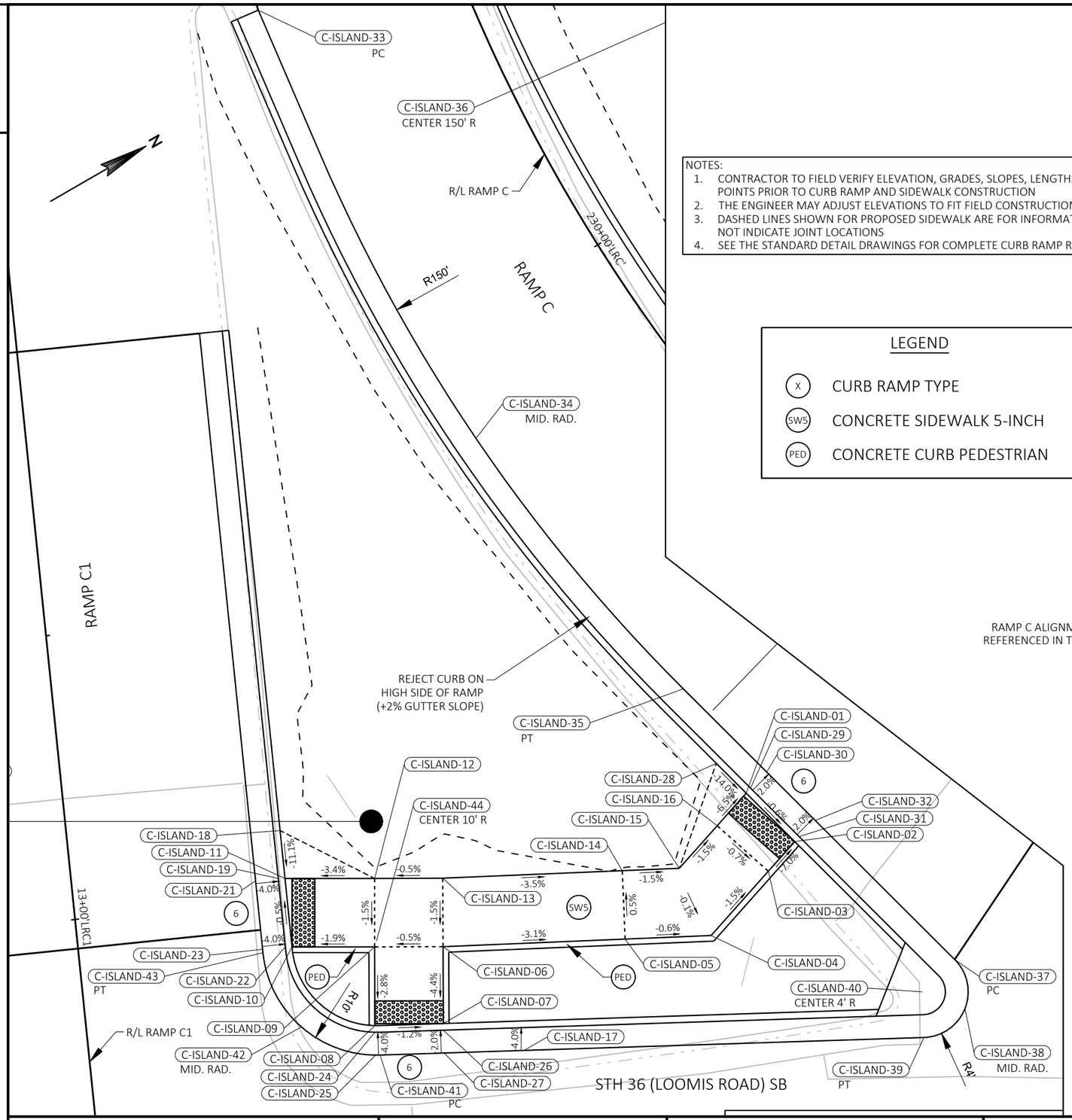
- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

INT WB RAMPS MEDIAN

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MEDIAN-01	92+57.16	4.88' LT	766.07	271901.56	590230.10
MEDIAN-02	92+63.13	4.69' LT	765.98	271906.78	590233.07
MEDIAN-03	92+62.99	0.31' LT	766.05	271904.60	590236.87
MEDIAN-04	92+57.78	4.90' RT	766.16	271897.57	590239.05
MEDIAN-05	92+48.61	13.89' RT	766.26	271885.35	590242.83
MEDIAN-06	92+44.99	17.38' RT	766.18	271880.58	590244.31
MEDIAN-07	92+45.07	19.38' RT	766.17	271879.74	590246.13
MEDIAN-08	92+38.98	19.64' RT	766.26	271874.28	590243.65
MEDIAN-09	92+38.79	14.94' RT	766.27	271876.24	590239.37
MEDIAN-10	92+44.37	9.60' RT	766.35	271883.58	590237.10
MEDIAN-11	92+53.54	0.64' RT	766.18	271895.79	590233.32
MEDIAN-12	92+63.15	5.27' LT	765.97	271907.07	590232.57
MEDIAN-13	92+63.21	7.27' LT	765.93	271908.06	590230.83
MEDIAN-14	92+57.18	5.46' LT	766.06	271901.85	590229.60
MEDIAN-15	92+57.25	7.46' LT	766.05	271902.84	590227.86
MEDIAN-16	92+45.10	19.96' RT	766.16	271879.50	590246.66
MEDIAN-17	92+45.19	21.96' RT	766.10	271878.67	590248.48
MEDIAN-18	92+39.09	22.23' RT	766.26	271873.22	590246.00
MEDIAN-19	92+39.00	20.23' RT	766.26	271874.04	590244.18
MEDIAN-20	92+34.02	22.45' RT	766.39	271868.68	590243.97
MEDIAN-21	92+48.27	21.53' RT	766.03	271881.56	590249.47
MEDIAN-22	92+50.33	7.69' LT	766.20	271896.77	590224.44
MEDIAN-23	91+87.15	10.01' LT	767.73	271840.44	590194.69
MEDIAN-24	91+90.92	6.67' LT	767.73	271842.53	590199.30
MEDIAN-25	91+88.41	2.28' LT	767.78	271838.43	590202.27
MEDIAN-26	91+87.00	6.02' LT	0.00	271838.66	590198.27
MEDIAN-27	91+79.83	0.25' RT	768.10	271829.56	590201.08
MEDIAN-28	91+70.95	1.40' RT	768.41	271820.97	590198.58
MEDIAN-29	91+68.08	58.53' LT	0.00	271841.95	590142.37
MEDIAN-30	91+76.78	25.14' RT	767.95	271816.77	590222.64
MEDIAN-31	91+70.37	19.43' RT	768.24	271813.29	590214.91
MEDIAN-32	91+76.16	13.15' RT	768.20	271821.02	590211.42
MEDIAN-33	91+76.47	19.14' RT	0.00	271818.90	590217.03
MEDIAN-34	92+04.72	11.77' RT	767.48	271847.33	590221.80
MEDIAN-35	92+24.56	6.51' RT	766.96	271867.35	590225.54
MEDIAN-36	92+02.43	38.18' LT	0.00	271866.33	590175.55
MEDIAN-37	92+40.30	6.41' LT	766.44	271887.21	590220.99
MEDIAN-38	92+41.75	7.55' LT	766.39	271889.02	590220.63
MEDIAN-39	92+43.56	7.92' LT	766.34	271890.81	590221.12
MEDIAN-40	92+43.42	3.92' LT	0.00	271888.88	590224.62

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 43	E



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

RAMP C ISLAND					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
C-ISLAND-01	230+42.24	21.35' RT	764.49	271963.39	590187.82
C-ISLAND-02	230+47.48	21.79' RT	764.45	271964.95	590193.63
C-ISLAND-03	230+47.37	25.27' RT	764.69	271961.64	590194.72
C-ISLAND-04	230+47.16	32.81' RT	764.81	271954.48	590197.08
C-ISLAND-05	230+42.70	37.96' RT	764.86	271947.80	590193.59
C-ISLAND-06	230+34.03	49.36' RT	765.35	271933.65	590186.17
C-ISLAND-07	230+37.53	54.18' RT	765.06	271930.30	590192.02
C-ISLAND-08	230+34.49	58.48' RT	765.13	271925.01	590189.18
C-ISLAND-09	230+30.91	53.65' RT	765.32	271928.44	590183.19
C-ISLAND-10	230+27.30	58.92' RT	765.19	271922.18	590179.56
C-ISLAND-11	230+23.77	55.37' RT	765.16	271924.65	590174.06
C-ISLAND-12	230+27.66	49.53' RT	765.41	271931.45	590177.99
C-ISLAND-13	230+30.77	45.17' RT	765.44	271936.63	590180.96
C-ISLAND-14	230+39.30	33.68' RT	764.89	271950.58	590188.27
C-ISLAND-15	230+42.24	30.17' RT	764.81	271955.01	590190.59
C-ISLAND-16	230+42.24	25.17' RT	764.74	271959.76	590189.02
C-ISLAND-17	230+42.57	51.14' RT	764.95	271935.25	590197.60
C-ISLAND-18	230+21.22	52.95' RT	765.63	271926.38	590170.21
C-ISLAND-19	230+23.48	55.81' RT	765.15	271924.14	590173.77
C-ISLAND-21	230+22.65	57.44' RT	765.23	271922.31	590172.95
C-ISLAND-22	230+27.01	59.35' RT	765.18	271921.67	590179.27
C-ISLAND-23	230+26.16	60.96' RT	765.26	271919.84	590178.45
C-ISLAND-24	230+34.79	58.90' RT	765.12	271924.72	590189.68
C-ISLAND-25	230+35.82	60.28' RT	765.20	271923.78	590191.45
C-ISLAND-26	230+37.83	54.60' RT	765.05	271930.01	590192.52
C-ISLAND-27	230+38.86	56.02' RT	765.09	271929.07	590194.29
C-ISLAND-28	230+39.00	21.17' RT	765.00	271962.43	590184.25
C-ISLAND-29	230+42.24	20.76' RT	764.48	271963.94	590187.64
C-ISLAND-30	230+42.34	18.77' RT	764.44	271965.87	590187.12
C-ISLAND-31	230+47.49	21.21' RT	764.44	271965.50	590193.44
C-ISLAND-32	230+47.66	19.22' RT	764.40	271967.43	590192.92
C-ISLAND-33	229+70.03	17.56' RT	765.03	271960.72	590106.99
C-ISLAND-34	230+07.73	18.30' RT	764.73	271958.45	590149.04
C-ISLAND-35	230+33.15	18.49' RT	764.51	271963.19	590177.15
C-ISLAND-36	230+28.61	131.50' LT	0.00	272108.06	590138.23
C-ISLAND-37	230+62.70	21.68' RT	764.32	271971.91	590209.60
C-ISLAND-38	230+65.39	24.78' RT	764.34	271970.53	590213.77
C-ISLAND-39	230+64.01	28.86' RT	764.41	271966.16	590214.16
C-ISLAND-40	230+62.04	25.61' RT	0.00	271968.05	590210.63
C-ISLAND-41	230+36.02	60.01' RT	765.20	271924.12	590191.64
C-ISLAND-42	230+31.32	63.14' RT	765.24	271919.38	590186.05
C-ISLAND-43	230+26.33	61.14' RT	765.26	271919.72	590178.73
C-ISLAND-44	230+30.72	53.18' RT	0.00	271928.84	590182.82

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 44	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213110_cr
PLOT DATE : 11/15/2022 5:00 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

RAMP C NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
C-NW-01	230+42.24	2.58' LT	763.99	271986.11	590180.31
C-NW-02	230+48.34	2.58' LT	763.94	271988.11	590185.97
C-NW-03	230+55.48	2.58' LT	764.37	271990.73	590192.47
C-NW-04	230+60.60	2.58' LT	764.33	271992.80	590197.06
C-NW-05	230+61.38	8.58' LT	764.41	271998.55	590195.16
C-NW-06	230+56.10	9.13' LT	764.46	271996.98	590190.41
C-NW-07	230+48.65	9.61' LT	764.04	271994.78	590183.76
C-NW-08	230+42.24	9.73' LT	764.10	271992.90	590178.07
C-NW-09	230+42.24	2.00' LT	763.98	271985.55	590180.49
C-NW-10	230+42.23	0.00' T	764.06	271983.65	590181.12
C-NW-11	230+48.32	2.00' LT	763.93	271987.55	590186.15
C-NW-12	230+48.32	0.00' T	764.01	271985.68	590186.86
C-NW-13	230+39.00	2.58' LT	764.51	271985.14	590177.28

RAMP C ALIGNMENT REFERENCED IN TABLE

N

C-NW-13
C-NW-08
C-NW-07
C-NW-01
C-NW-09
C-NW-10
C-NW-06
C-NW-05
7A
SW5
C-NW-02
C-NW-11
C-NW-12
C-NW-03
C-NW-04
-1.5%
-0.5%
16.3%
4.0%
-1.4%
-6.0%
-0.5%
4.0%
-6.1%
-1.4%
-1.0%
-0.9%
-1.4%

R/L RAMP C

RAMP C

231+00'LRC'

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

LEGEND

(X) CURB RAMP TYPE

(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 45	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213111_cr
PLOT DATE : 11/15/2022 5:00 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STH 36 (LOOMIS ROAD) NB

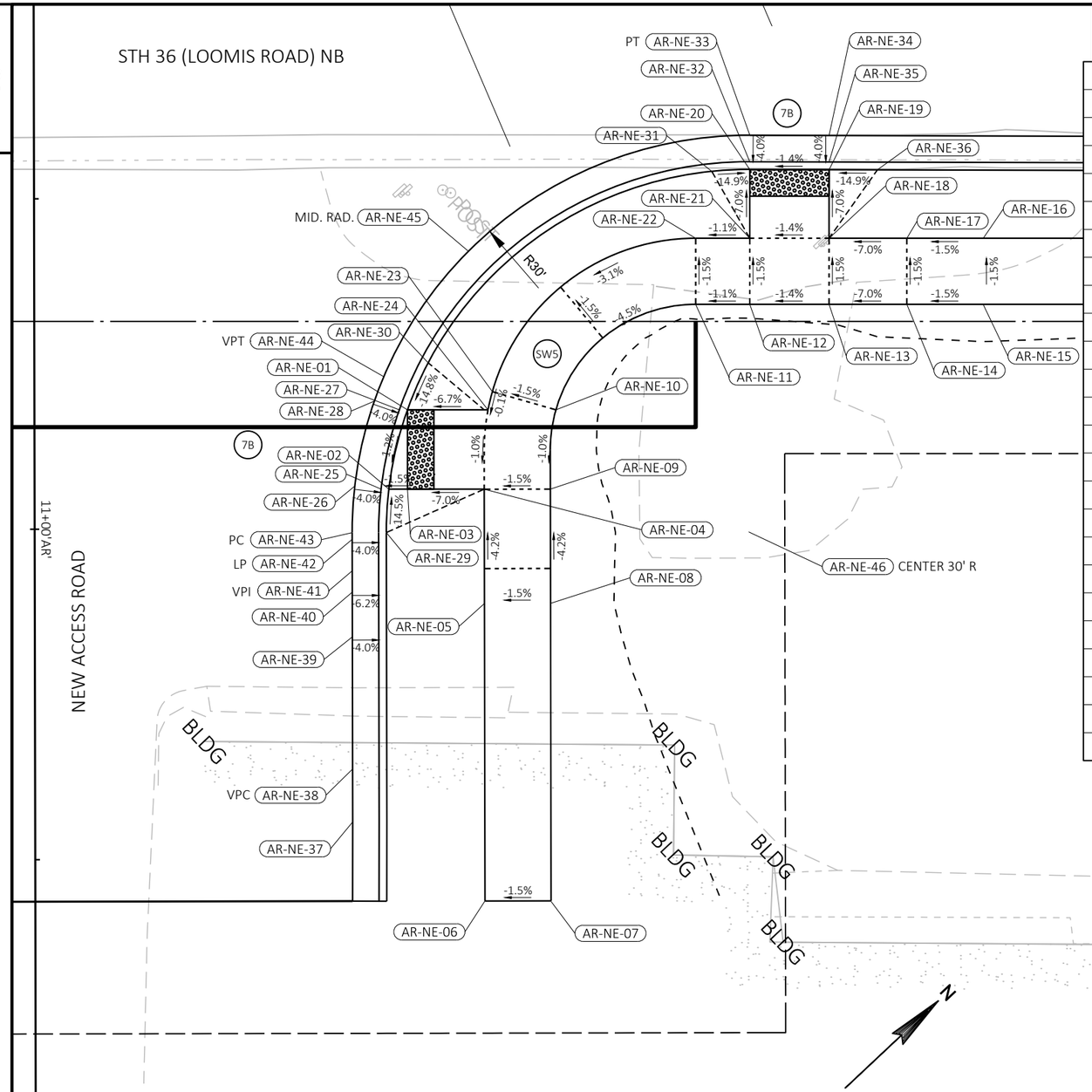
NEW ACCESS ROAD - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
AR-SE-01	10+83.32	58.61' RT	763.20	272112.44	590458.37
AR-SE-02	10+85.85	52.61' RT	763.31	272115.10	590464.31
AR-SE-03	10+89.57	52.62' RT	763.54	272112.55	590467.02
AR-SE-04	10+90.87	52.62' RT	763.55	272111.66	590467.97
AR-SE-05	10+90.88	44.70' RT	763.48	272117.44	590473.39
AR-SE-06	10+96.90	38.35' RT	763.56	272117.97	590482.12
AR-SE-07	10+96.88	44.71' RT	763.57	272113.33	590477.76
AR-SE-08	10+96.88	47.56' RT	763.59	272111.26	590475.81
AR-SE-09	11+28.18	33.98' RT	765.15	272099.80	590507.96
AR-SE-10	11+28.18	38.98' RT	765.22	272096.15	590504.54
AR-SE-11	11+00.56	50.94' RT	763.67	272106.27	590476.19
AR-SE-12	10+94.11	60.69' RT	763.56	272103.56	590464.83
AR-SE-13	10+90.83	74.74' RT	763.68	272095.53	590452.83
AR-SE-14	10+85.83	74.84' RT	763.60	272098.87	590449.11
AR-SE-15	10+89.56	58.62' RT	763.48	272108.17	590462.92
AR-SE-16	10+82.71	58.61' RT	763.20	272112.86	590457.92
AR-SE-17	10+80.81	57.97' RT	763.24	272114.62	590456.97
AR-SE-18	10+85.20	52.61' RT	763.30	272115.54	590463.83
AR-SE-19	10+83.41	51.72' RT	763.34	272117.42	590463.13
AR-SE-20	10+82.39	61.68' RT	763.64	272110.84	590455.59
AR-SE-21	10+87.33	49.91' RT	763.61	272116.06	590467.23
AR-SE-22	10+89.38	46.72' RT	763.67	272116.99	590470.91
AR-SE-23	10+90.88	43.76' RT	763.47	272118.12	590474.03
AR-SE-24	10+89.33	42.50' RT	763.51	272120.10	590473.75
AR-SE-25	10+96.90	37.58' RT	763.56	272118.54	590482.65
AR-SE-26	10+95.59	36.06' RT	763.64	272120.53	590482.73
AR-SE-27	11+01.08	35.07' RT	764.16	272117.51	590487.41
AR-SE-28	10+78.84	65.89' RT	763.12	272110.18	590450.12
AR-SE-29	10+78.19	75.00' RT	762.98	272103.97	590443.43
AR-SE-30	10+91.98	39.49' RT	763.57	272120.50	590477.75
AR-SE-31	10+97.59	34.43' RT	763.68	272120.36	590485.30
AR-SE-32	11+26.78	24.00' RT	764.40	272108.04	590513.75
AR-SE-33	11+28.18	73.98' RT	0.00	272070.58	590480.64

NEW ACCESS ROAD ALIGNMENT REFERENCED IN TABLE

PC AR-SE-29
AR-SE-28
AR-SE-01
AR-SE-17
AR-SE-16
AR-SE-21
AR-SE-19
AR-SE-18
AR-SE-02
3-INCH CURB HEIGHT
AR-SE-22
AR-SE-05
AR-SE-14
AR-SE-20
AR-SE-15
AR-SE-13
AR-SE-12
AR-SE-03
AR-SE-07
AR-SE-04
AR-SE-08
AR-SE-11
AR-SE-24
AR-SE-23
AR-SE-30
MID. RAD.
AR-SE-26
AR-SE-25
AR-SE-31
AR-SE-06
AR-SE-27
SW5
4.0%
2.0%
-3.5%
-1.6%
-4.4%
-1.5%
-1.0%
-6.2%
-2.0%
-2.3%
-0.8%
-0.9%
-1.5%
-0.8%
-0.1%
-1.12%
9.7'
87
R50'
DETECTABLE WARNING FIELD
RADIAL NATURAL PATINA (18.0 SF).
BACK OF CURB RADIUS = 47'-5"
AR-SE-33 CENTER 50' R
AR-SE-32 PT
-1.5%
AR-SE-09
AR-SE-10
NEW ACCESS ROAD
11+00 AR'
R/L NEW ACCESS ROAD

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 46	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213112_cr
PLOT DATE : 4/24/2023 12:55 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########



NEW ACCESS ROAD - NE						NEW ACCESS ROAD - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
AR-NE-01	10+91.02	28.22' LT	763.94	272170.61	590523.29	AR-NE-24	10+91.03	34.31' LT	764.35	272175.06	590527.46
AR-NE-02	10+97.02	26.80' LT	763.86	272165.48	590526.70	AR-NE-25	10+97.02	26.21' LT	763.85	272165.05	590526.30
AR-NE-03	10+97.02	28.21' LT	763.88	272166.51	590527.67	AR-NE-26	10+96.78	24.23' LT	763.93	272163.76	590524.77
AR-NE-04	10+97.04	34.02' LT	764.29	272170.74	590531.65	AR-NE-27	10+91.02	27.60' LT	763.93	272170.16	590522.87
AR-NE-05	11+05.68	34.02' LT	764.65	272164.83	590537.96	AR-NE-28	10+90.36	25.72' LT	764.01	272169.24	590521.09
AR-NE-06	11+28.18	34.02' LT	765.15	272149.47	590554.39	AR-NE-29	11+00.30	26.60' LT	764.34	272163.09	590528.96
AR-NE-07	11+28.23	39.02' LT	765.22	272153.09	590557.84	AR-NE-30	10+87.47	29.80' LT	764.51	272174.19	590521.77
AR-NE-08	11+05.68	39.02' LT	764.73	272168.49	590541.38	AR-NE-31	10+73.02	51.28' LT	765.10	272199.75	590525.89
AR-NE-09	10+97.04	39.02' LT	764.36	272174.39	590535.06	AR-NE-32	10+72.30	54.15' LT	764.66	272202.34	590527.33
AR-NE-10	10+91.04	39.45' LT	764.43	272178.80	590530.97	AR-NE-33	10+70.30	54.16' LT	764.74	272203.71	590525.87
AR-NE-11	10+83.08	50.04' LT	765.06	272191.97	590532.39	AR-NE-34	10+70.33	60.16' LT	764.83	272208.07	590529.99
AR-NE-12	10+83.09	54.13' LT	765.11	272194.96	590535.19	AR-NE-35	10+72.33	60.15' LT	764.75	272206.70	590531.44
AR-NE-13	10+83.10	60.13' LT	765.19	272199.33	590539.30	AR-NE-36	10+72.93	63.81' LT	765.30	272208.96	590534.38
AR-NE-14	10+83.11	66.02' LT	765.60	272203.62	590543.33	AR-NE-37	11+22.18	24.02' LT	764.27	272146.26	590543.18
AR-NE-15	10+83.12	71.79' LT	765.69	272207.83	590547.28	AR-NE-38	11+18.18	24.02' LT	764.16	272148.99	590540.26
AR-NE-16	10+78.13	71.80' LT	765.62	272211.25	590543.64	AR-NE-39	11+08.18	24.02' LT	763.96	272155.82	590532.96
AR-NE-17	10+78.12	66.03' LT	765.53	272207.05	590539.68	AR-NE-40	11+04.80	24.02' LT	763.93	272158.13	590530.49
AR-NE-18	10+78.10	60.14' LT	765.12	272202.75	590535.65	AR-NE-41	11+03.18	24.02' LT	763.92	272159.24	590529.31
AR-NE-19	10+72.91	60.15' LT	764.76	272206.30	590531.87	AR-NE-42	11+00.81	24.02' LT	763.92	272160.86	590527.57
AR-NE-20	10+72.89	54.15' LT	764.67	272201.94	590527.75	AR-NE-43	11+00.30	24.02' LT	763.92	272161.21	590527.20
AR-NE-21	10+78.09	54.14' LT	765.03	272198.38	590531.55	AR-NE-44	10+88.51	26.44' LT	764.04	272171.02	590520.24
AR-NE-22	10+78.08	50.04' LT	764.99	272195.39	590528.74	AR-NE-45	10+79.04	32.86' LT	764.27	272182.18	590517.70
AR-NE-23	10+89.66	34.65' LT	764.35	272176.24	590526.68	AR-NE-46	11+00.30	54.02' LT	0.00	272183.12	590547.69

NEW ACCESS ROAD ALIGNMENT REFERENCED IN TABLE

NEW ACCESS ROAD ALIGNMENT REFERENCED IN TABLE

LEGEND

- (X) CURB RAMP TYPE
- (SW5) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

43RD-INT-MEDIAN-S					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MED-S-01	95+75.60	2.58' RT	764.21	272165.26	590410.85
MED-S-02	95+75.60	8.59' RT	764.26	272161.15	590415.23
MED-S-03	95+69.60	9.02' RT	764.17	272156.48	590411.44
MED-S-04	95+69.60	2.58' RT	764.15	272160.89	590406.75
MED-S-05	95+75.60	9.18' RT	764.25	272160.75	590415.66
MED-S-06	95+75.74	11.17' RT	764.23	272159.49	590417.21
MED-S-07	95+69.60	9.61' RT	764.17	272156.08	590411.87
MED-S-08	95+69.74	11.60' RT	764.15	272154.82	590413.42
MED-S-09	95+69.60	2.00' RT	764.15	272161.28	590406.32
MED-S-10	95+69.60	0.00' T	764.11	272162.65	590404.86
MED-S-11	95+75.60	2.00' RT	764.21	272165.66	590410.43
MED-S-12	95+75.60	0.00' T	764.17	272167.03	590408.97
MED-S-13	95+72.46	12.04' RT	764.07	272150.11	590409.60
MED-S-14	95+75.87	11.16' RT	764.23	272159.59	590417.29
MED-S-15	95+82.07	10.15' RT	764.33	272164.80	590420.79
MED-S-16	95+87.99	8.04' RT	764.43	272170.56	590423.31
MED-S-17	95+73.35	23.75' LT	0.00	272181.64	590390.11

STH 36 (LOOMIS ROAD) SB ALIGNMENT REFERENCED IN TABLE

43RD-INT-MEDIAN-ISLAND					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
ISLAND-01	96+00.26	7.12' RT	764.48	272170.41	590441.40
ISLAND-02	96+19.95	0.60' RT	764.69	272189.22	590450.12
ISLAND-03	96+31.00	7.53' LT	764.82	272202.85	590451.76
ISLAND-04	96+33.08	9.62' LT	764.85	272205.79	590451.66
ISLAND-05	96+35.05	11.81' LT	764.88	272208.73	590451.41
ISLAND-06	96+35.82	12.74' LT	764.90	272209.93	590451.26
ISLAND-07	95+93.13	47.42' LT	0.00	272202.53	590396.76
ISLAND-08	96+37.21	13.83' LT	764.92	272211.69	590451.41
ISLAND-09	96+38.93	14.22' LT	764.94	272213.21	590452.30
ISLAND-10	96+38.93	10.22' LT	0.00	272210.47	590455.22
ISLAND-11	96+55.65	14.22' LT	765.18	272225.40	590463.75

STH 36 (LOOMIS ROAD) C/L ALIGNMENT REFERENCED IN TABLE

43RD-INT-MEDIAN-ISLAND					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
ISLAND-12	96+00.26	13.83' RT	764.41	272165.81	590446.30
ISLAND-13	96+18.20	13.84' RT	764.66	272178.89	590458.58
ISLAND-14	96+19.93	13.45' RT	764.69	272180.42	590459.48
ISLAND-15	96+18.20	9.84' RT	0.00	272181.63	590455.66
ISLAND-16	96+21.32	12.35' RT	764.72	272182.19	590459.63
ISLAND-17	96+36.63	0.81' LT	764.96	272202.35	590460.51
ISLAND-18	96+43.36	4.12' LT	765.05	272209.53	590462.70
ISLAND-19	96+48.93	6.06' LT	765.13	272214.91	590465.10
ISLAND-20	96+55.65	7.56' LT	765.21	272220.84	590468.61
ISLAND-21	96+64.21	46.77' RT	0.00	272189.90	590514.08

STH 36 (LOOMIS ROAD) C/L ALIGNMENT REFERENCED IN TABLE

LEGEND

(X) CURB RAMP TYPE

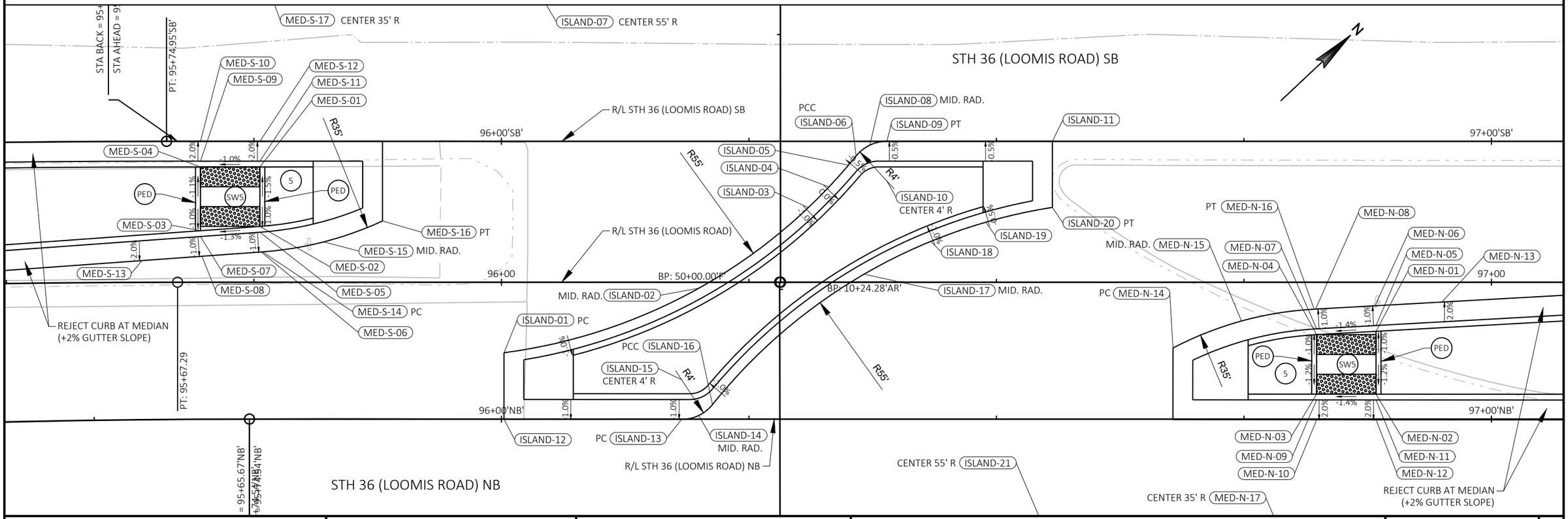
(SW5) CONCRETE SIDEWALK 5-INCH

(PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS

43RD-INT-MEDIAN-N					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MED-N-01	96+88.34	8.86' LT	765.74	272236.12	590500.10
MED-N-02	96+88.34	2.51' LT	765.72	272231.77	590504.73
MED-N-03	96+82.34	2.52' LT	765.63	272227.40	590500.62
MED-N-04	96+82.34	8.52' LT	765.66	272231.51	590496.24
MED-N-05	96+88.34	9.44' LT	765.73	272236.51	590499.68
MED-N-06	96+88.23	11.44' LT	765.71	272237.80	590498.15
MED-N-07	96+82.34	9.11' LT	765.65	272231.91	590495.81
MED-N-08	96+82.23	11.11' LT	765.63	272233.20	590494.28
MED-N-09	96+82.34	1.93' LT	765.62	272227.00	590501.04
MED-N-10	96+82.35	0.07' RT	765.58	272225.64	590502.51
MED-N-11	96+88.34	1.93' LT	765.71	272231.38	590505.15
MED-N-12	96+88.35	0.07' RT	765.67	272230.01	590506.62
MED-N-13	96+95.00	11.81' LT	765.84	272242.99	590502.50
MED-N-14	96+67.83	7.18' LT	765.45	272220.01	590487.29
MED-N-15	96+74.75	9.90' LT	765.53	272226.92	590490.04
MED-N-16	96+82.09	11.10' LT	765.63	272233.09	590494.19
MED-N-17	96+84.02	23.85' RT	0.00	272210.58	590521.00

STH 36 (LOOMIS ROAD) NB ALIGNMENT REFERENCED IN TABLE



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 48	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213114_cr
PLOT DATE : 11/15/2022 5:01 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

INT-43RD-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
43RD-SW-01	50+59.21	25.61' LT	763.44	272217.46	590394.61
43RD-SW-02	50+54.21	29.58' LT	763.52	272211.15	590395.55
43RD-SW-03	50+54.22	52.57' LT	763.54	272194.39	590379.82
43RD-SW-04	50+48.82	52.57' LT	763.45	272190.69	590383.75
43RD-SW-05	50+48.82	58.57' LT	763.40	272186.32	590379.64
43RD-SW-06	50+54.22	58.57' LT	763.52	272190.01	590375.71
43RD-SW-07	50+54.22	64.53' LT	763.93	272185.66	590371.63
43RD-SW-08	50+54.22	69.53' LT	764.01	272182.02	590368.21
43RD-SW-09	50+59.22	69.55' LT	764.08	272185.43	590364.55
43RD-SW-10	50+59.22	64.53' LT	764.01	272189.08	590367.98
43RD-SW-11	50+59.22	58.57' LT	763.59	272193.43	590372.06
43RD-SW-12	50+59.22	52.57' LT	763.62	272197.81	590376.17
43RD-SW-13	50+59.21	34.57' LT	763.57	272210.93	590388.48
43RD-SW-14	50+59.21	29.57' LT	763.50	272214.58	590391.90
43RD-SW-15	50+54.21	34.58' LT	763.60	272207.51	590392.13
43RD-SW-16	50+48.24	58.57' LT	763.39	272185.92	590380.07
43RD-SW-17	50+46.24	58.57' LT	763.47	272184.55	590381.53

S. 43RD STREET ALIGNMENT REFERENCED IN TABLE

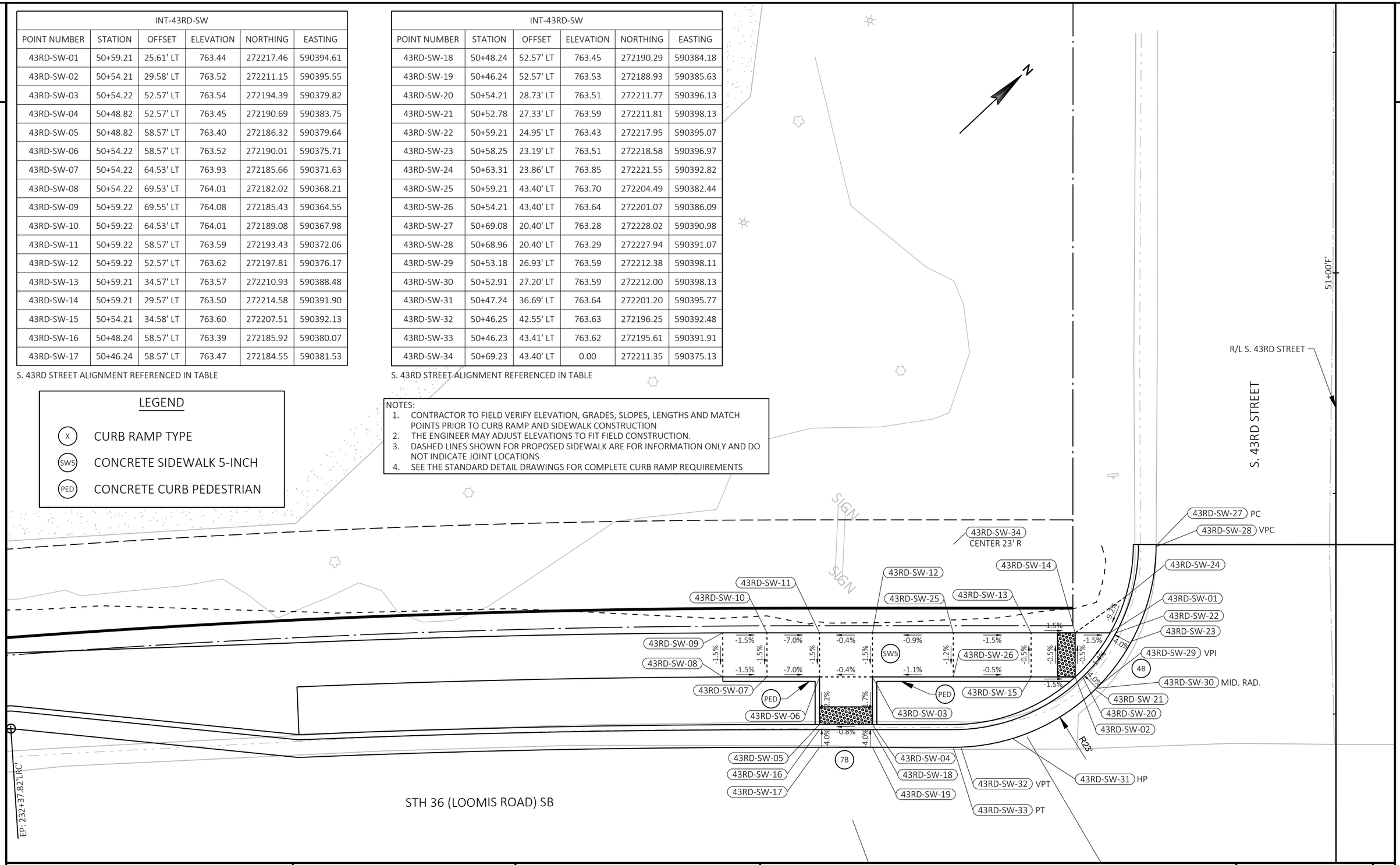
INT-43RD-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
43RD-SW-18	50+48.24	52.57' LT	763.45	272190.29	590384.18
43RD-SW-19	50+46.24	52.57' LT	763.53	272188.93	590385.63
43RD-SW-20	50+54.21	28.73' LT	763.51	272211.77	590396.13
43RD-SW-21	50+52.78	27.33' LT	763.59	272211.81	590398.13
43RD-SW-22	50+59.21	24.95' LT	763.43	272217.95	590395.07
43RD-SW-23	50+58.25	23.19' LT	763.51	272218.58	590396.97
43RD-SW-24	50+63.31	23.86' LT	763.85	272221.55	590392.82
43RD-SW-25	50+59.21	43.40' LT	763.70	272204.49	590382.44
43RD-SW-26	50+54.21	43.40' LT	763.64	272201.07	590386.09
43RD-SW-27	50+69.08	20.40' LT	763.28	272228.02	590390.98
43RD-SW-28	50+68.96	20.40' LT	763.29	272227.94	590391.07
43RD-SW-29	50+53.18	26.93' LT	763.59	272212.38	590398.11
43RD-SW-30	50+52.91	27.20' LT	763.59	272212.00	590398.13
43RD-SW-31	50+47.24	36.69' LT	763.64	272201.20	590395.77
43RD-SW-32	50+46.25	42.55' LT	763.63	272196.25	590392.48
43RD-SW-33	50+46.23	43.41' LT	763.62	272195.61	590391.91
43RD-SW-34	50+69.23	43.40' LT	0.00	272211.35	590375.13

S. 43RD STREET ALIGNMENT REFERENCED IN TABLE

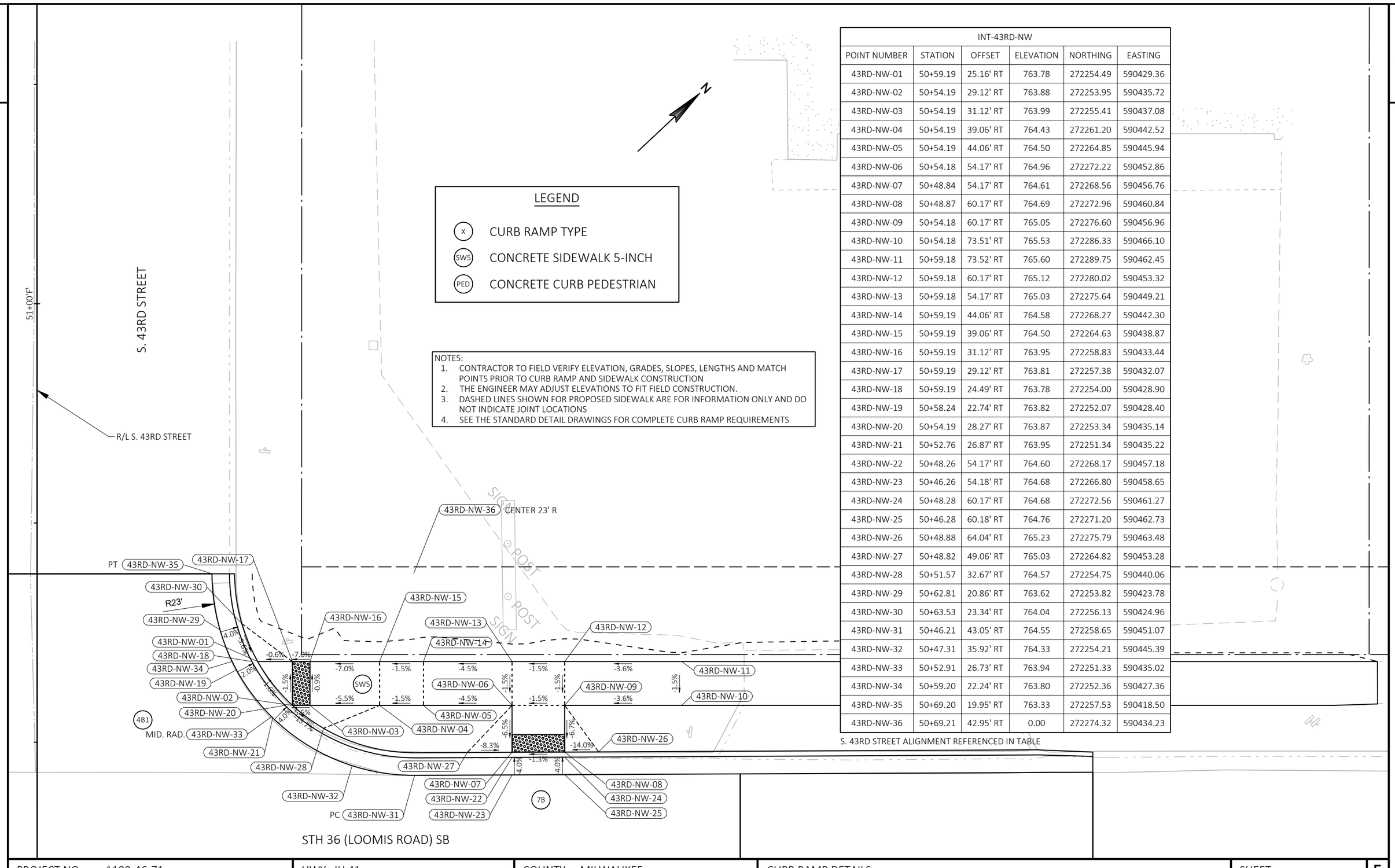
LEGEND

- (X) CURB RAMP TYPE
- (SWS) CONCRETE SIDEWALK 5-INCH
- (PED) CONCRETE CURB PEDESTRIAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 49	E



INT-43RD-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
43RD-NW-01	50+59.19	25.16' RT	763.78	272254.49	590429.36
43RD-NW-02	50+54.19	29.12' RT	763.88	272253.95	590435.72
43RD-NW-03	50+54.19	31.12' RT	763.99	272255.41	590437.08
43RD-NW-04	50+54.19	39.06' RT	764.43	272261.20	590442.52
43RD-NW-05	50+54.19	44.06' RT	764.50	272264.85	590445.94
43RD-NW-06	50+54.18	54.17' RT	764.96	272272.22	590452.86
43RD-NW-07	50+48.84	54.17' RT	764.61	272268.56	590456.76
43RD-NW-08	50+48.87	60.17' RT	764.69	272272.96	590460.84
43RD-NW-09	50+54.18	60.17' RT	765.05	272276.60	590456.96
43RD-NW-10	50+54.18	73.51' RT	765.53	272286.33	590466.10
43RD-NW-11	50+59.18	73.52' RT	765.60	272289.75	590462.45
43RD-NW-12	50+59.18	60.17' RT	765.12	272280.02	590453.32
43RD-NW-13	50+59.18	54.17' RT	765.03	272275.64	590449.21
43RD-NW-14	50+59.19	44.06' RT	764.58	272268.27	590442.30
43RD-NW-15	50+59.19	39.06' RT	764.50	272264.63	590438.87
43RD-NW-16	50+59.19	31.12' RT	763.95	272258.83	590433.44
43RD-NW-17	50+59.19	29.12' RT	763.81	272257.38	590432.07
43RD-NW-18	50+59.19	24.49' RT	763.78	272254.00	590428.90
43RD-NW-19	50+58.24	22.74' RT	763.82	272252.07	590428.40
43RD-NW-20	50+54.19	28.27' RT	763.87	272253.34	590435.14
43RD-NW-21	50+52.76	26.87' RT	763.95	272251.34	590435.22
43RD-NW-22	50+48.26	54.17' RT	764.60	272268.17	590457.18
43RD-NW-23	50+46.26	54.18' RT	764.68	272266.80	590458.65
43RD-NW-24	50+48.28	60.17' RT	764.68	272272.56	590461.27
43RD-NW-25	50+46.28	60.18' RT	764.76	272271.20	590462.73
43RD-NW-26	50+48.88	64.04' RT	765.23	272275.79	590463.48
43RD-NW-27	50+48.82	49.06' RT	765.03	272264.82	590453.28
43RD-NW-28	50+51.57	32.67' RT	764.57	272254.75	590440.06
43RD-NW-29	50+62.81	20.86' RT	763.62	272253.82	590423.78
43RD-NW-30	50+63.53	23.34' RT	764.04	272256.13	590424.96
43RD-NW-31	50+46.21	43.05' RT	764.55	272258.65	590451.07
43RD-NW-32	50+47.31	35.92' RT	764.33	272254.21	590445.39
43RD-NW-33	50+52.91	26.73' RT	763.94	272251.33	590435.02
43RD-NW-34	50+59.20	22.24' RT	763.80	272252.36	590427.36
43RD-NW-35	50+69.20	19.95' RT	763.33	272257.53	590418.50
43RD-NW-36	50+69.21	42.95' RT	0.00	272274.32	590434.23

S. 43RD STREET ALIGNMENT REFERENCED IN TABLE

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 50	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021301_CR.DWG
LAYOUT NAME - 0213116_cr
PLOT DATE : 4/24/2023 12:55 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

PROPOSED R/W
PLE
R/W
TLE
R/L RAMP B
MATCHLINE STA 228+00'LRB'
STRUCTURE B-40-198
(EXISTING)
STRUCTURE B-40-1025
(PROPOSED)
RAMP B
R/L STH 36 (LOOMIS ROAD) SB
R/L STH 36 (LOOMIS ROAD)
R/L STH 36 (LOOMIS ROAD) NB
STH 36 (LOOMIS ROAD) SB
STH 36 (LOOMIS ROAD) NB
MATCHLINE STA 88'NB'+75
229+00'LRB'
RAMP A
11+00'LRA1'
RAMP A1
R/L RAMP A
R/L RAMP A1
30+00'LRA'
12+00'LRA1'
231+00'LRA'
EQUATION
STA BACK = 88+24.16'SB'
STA AHEAD = 88+23.91'SB'
IH 41 SB
IH 43 NB
IH 894 EB
BEGIN PROJECT
STA. 83+00.00

LEGEND

- EROSION MAT CLASS II TYPE B SEEDING MIXTURE NO. 20 FERTILIZER TYPE B
- SOD
- SILT FENCE
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW

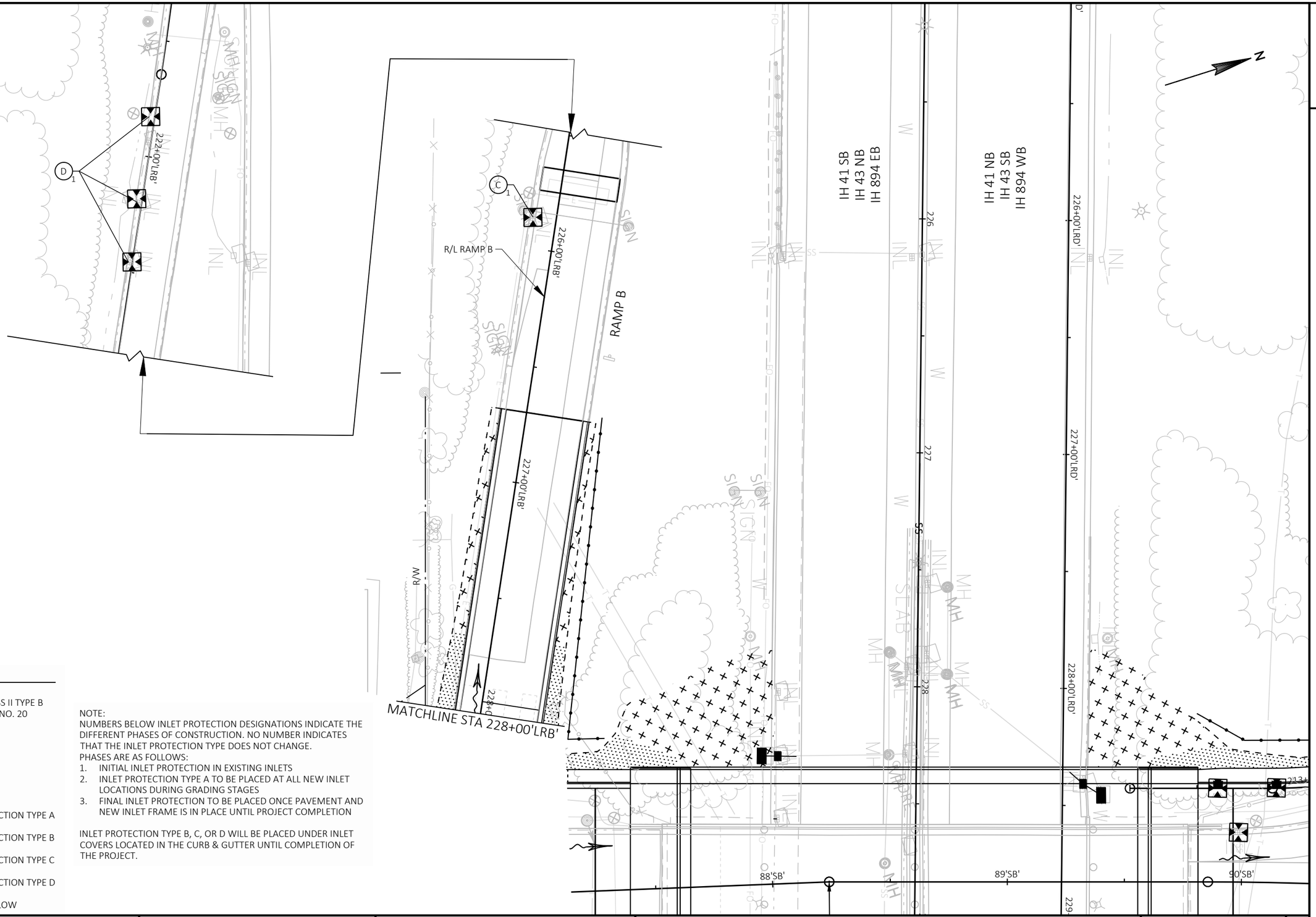
NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:
1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL: STH 36 (LOOMIS ROAD)	SHEET 51	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\022001_EC.DWG
LAYOUT NAME - 01
PLOT DATE : 12/8/2022 9:39 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



LEGEND

- EROSION MAT CLASS II TYPE B SEEDING MIXTURE NO. 20 FERTILIZER TYPE B
- SOD
- SILT FENCE
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:

1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL: STH 36 (LOOMIS ROAD)	SHEET 52	E

LEGEND

- EROSION MAT CLASS II TYPE B SEEDING MIXTURE NO. 20 FERTILIZER TYPE B
- SOD
- SILT FENCE
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:
1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.

IH 41 NB
IH 43 SB
IH 894 WB

MATCHLINE STA 88'NB'+75

MATCHLINE STA 94'NB'+50

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

RAMP D

RAMP C1

RAMP C

RAMP E

R/L RAMP D

R/L RAMP C1

R/L RAMP C

R/L RAMP E

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

R/L STH 36 (LOOMIS ROAD) NB

WETLAND BOUNDARY

PROPOSED R/W

R/W

TLE

EQUATION

STA BACK = 89+04.38'NB'
STA AHEAD = 89+04.06'NB'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL: STH 36 (LOOMIS ROAD)	SHEET 53	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\022001_EC.DWG
LAYOUT NAME - 02
PLOT DATE : 11/1/2022 10:38 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS II TYPE B
  SEEDING MIXTURE NO. 20
  FERTILIZER TYPE B
- SOD
- SILT FENCE
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:

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2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.

N

R/L S. 43RD STREET

S. 43RD STREET

51+00'F'

EQUATION

STA BACK = 95+76.07'SB'

STA AHEAD = 95+67.29'SB'

PROPOSED R/W

R/W

TLE

MATCHLINE STA 94'NB'+50

95'SB'

96'SB'

97'SB'

98'SB'

99'SB'

100'SB'

95

96

97

98

99

100

95'NB'

96'NB'

97'NB'

98'NB'

99'NB'

100'NB'

BP: 10+24.28'AR'

STH 36 (LOOMIS ROAD) SB

END PROJECT
STA. 98+75.91

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

STH 36 (LOOMIS ROAD) NB

STH 36 (W. LOOMIS RD.)

R/L STH 36 (LOOMIS ROAD) NB

W. LOOMIS ROAD

STA BACK = 95+65.67'NB'

STA AHEAD = 95+74.54'NB'

NEW ACCESS ROAD

R/L NEW ACCESS ROAD

EP: 12+00.00'AR'

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL: STH 36 (LOOMIS ROAD)	SHEET 54	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\022001_EC.DWG
LAYOUT NAME - 03
PLOT DATE : 11/1/2022 10:39 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : ##########

2

2

N

233+00'LRE'

234+00'LRE'

235+00'LRE'

236+00'LRE'

D 1

237'EWW'

236'EWW'

235'EWW'

234'EWW'

233'EWW'

232'EWW'

R/L IH 41 NB/43 SB/894 WB

IH 41 NB
IH 43 SB
IH 894 WB

232'EWE'

233'EWE'

234'EWE'

235'EWE'

236'EWE'

237'EWE'

R/L IH 41 SB/43 NB/894 EB

IH 41 SB
IH43 NB
IH 894 EB

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:

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3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.

LEGEND

- EROSION MAT CLASS II TYPE B
  SEEDING MIXTURE NO. 20
  FERTILIZER TYPE B
- SOD
- SILT FENCE
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW

B 1

234+00'LRA'

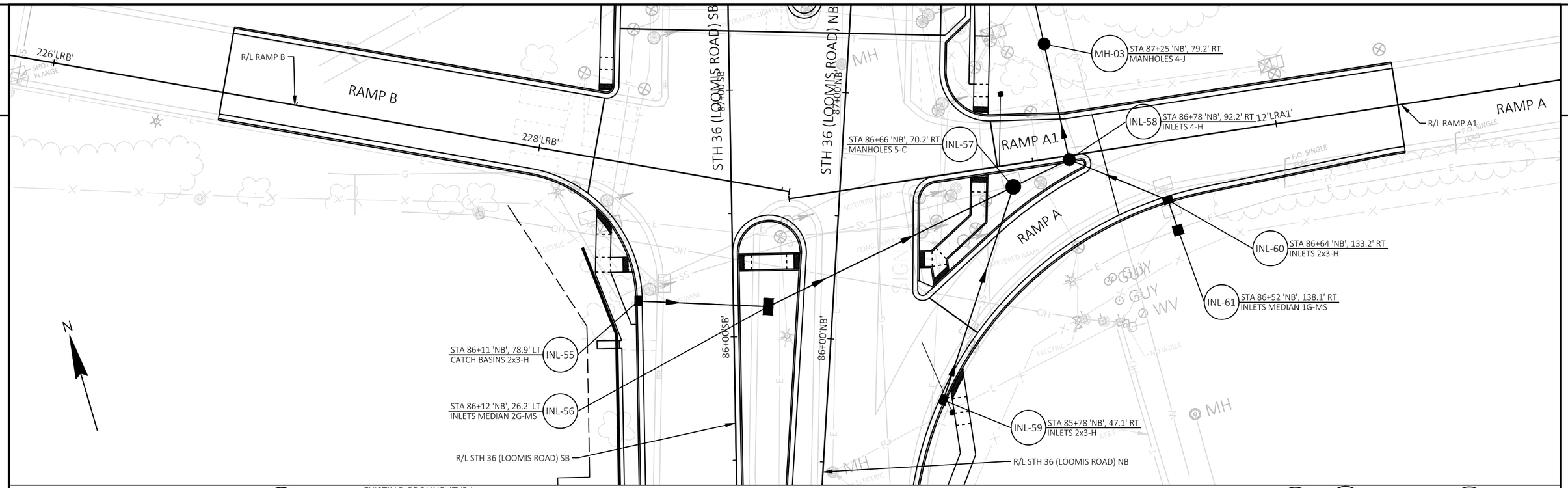
235+00'LRA'

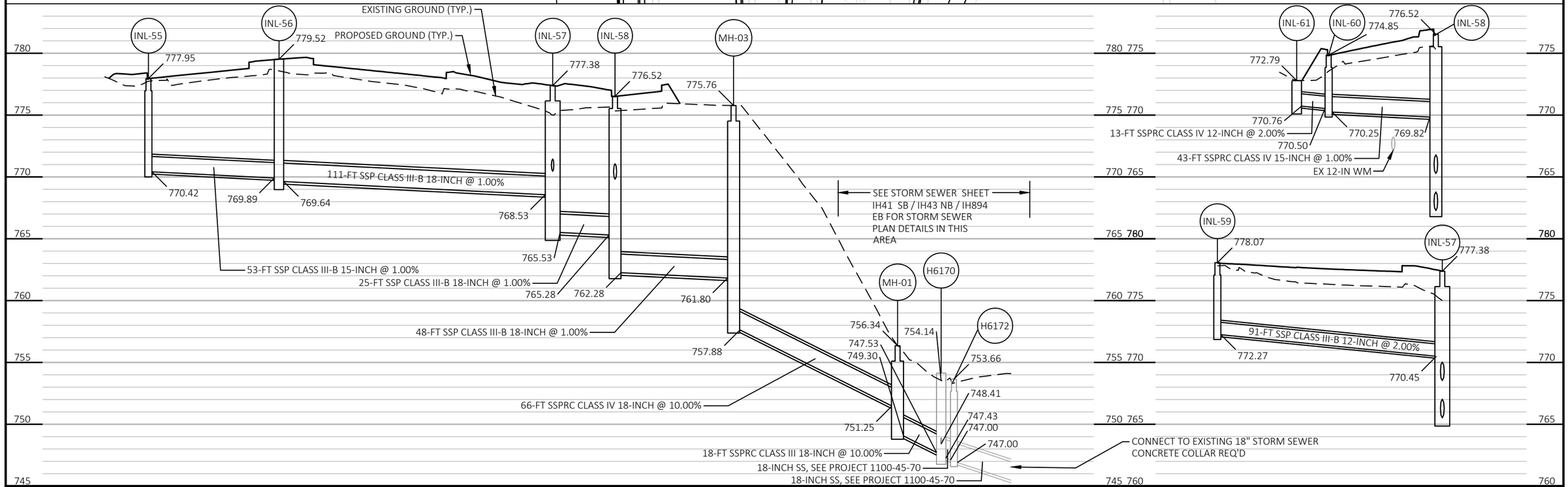
236+00'LRA'

233+00'LRA'

SLAB

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL: RAMP A AND RAMP E	SHEET 55	E





PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 56	E

2

R/L STH 36 (LOOMIS ROAD) NB

INL-62.1 STA 90+15 'NB', 41.6' RT
INLETS 2x3-H

INL-62 STA 89+90 'NB', 41.6' RT
INLETS 2x3-H

STA 90+15 'NB', 101.6' LT
INLETS 2x3-H
INL-63.1

STA 89+90 'NB', 101.6' LT
INLETS 2x3-H
INL-63

90+00'SB'

90+00'NB'

MH-66 STA 89+90 'NB', 67.0' RT
MANHOLES 4-J

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

IH 41 NB / IH 43 SB / IH 894 WB

R/L STH 36 (LOOMIS ROAD) SB

89+00'SB'

STH 36 (LOOMIS ROAD) SB

STH 36 (LOOMIS ROAD) NB

89+00'NB'

MH-02 STA 89+56 'NB', 67.7' RT
MANHOLES 4-J

H6146 STA 229+87 'EWW', 65.0' LT
SEE PROJECT 1100-45-70

H6148 STA 229+87 'EWW', 59.3' LT
SEE PROJECT 1100-45-70

R/L IH 41 NB / IH 43 SB / IH 894 WB

227'B'

228'B'

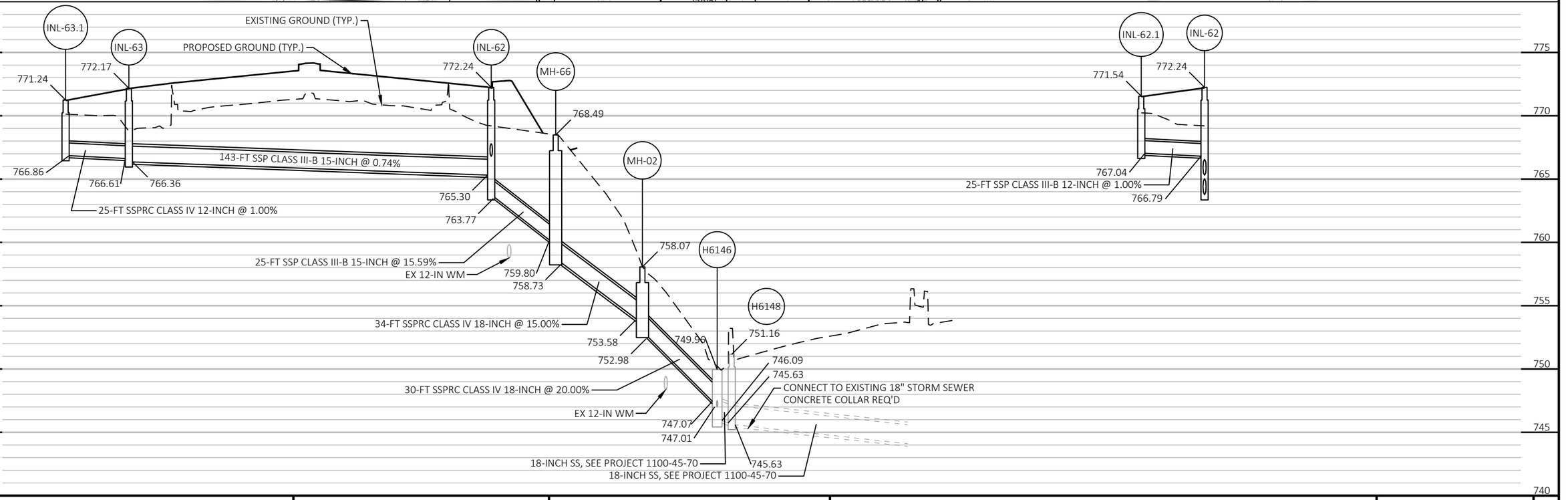
229'EWW'

230'EWW'

231'EWW'

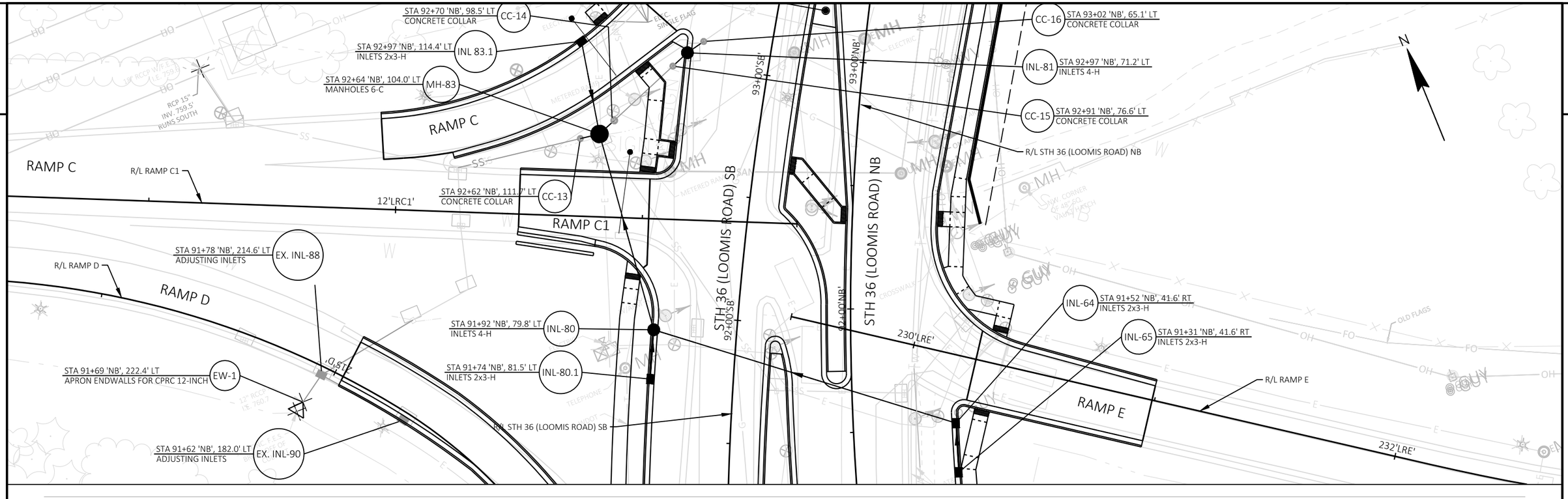
232'EWW'

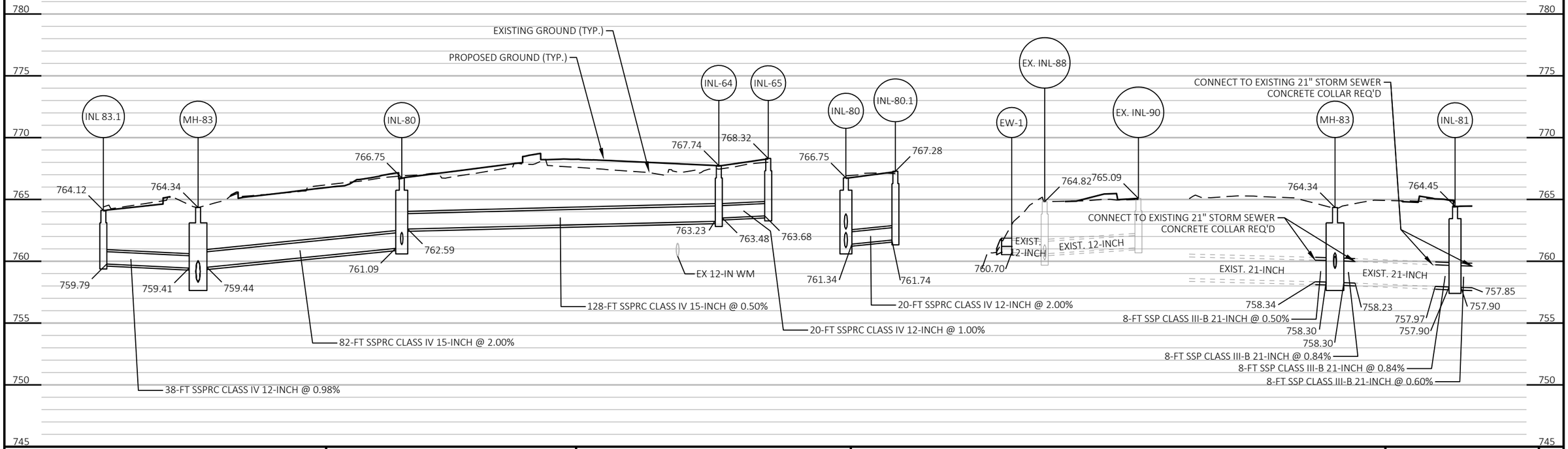
N



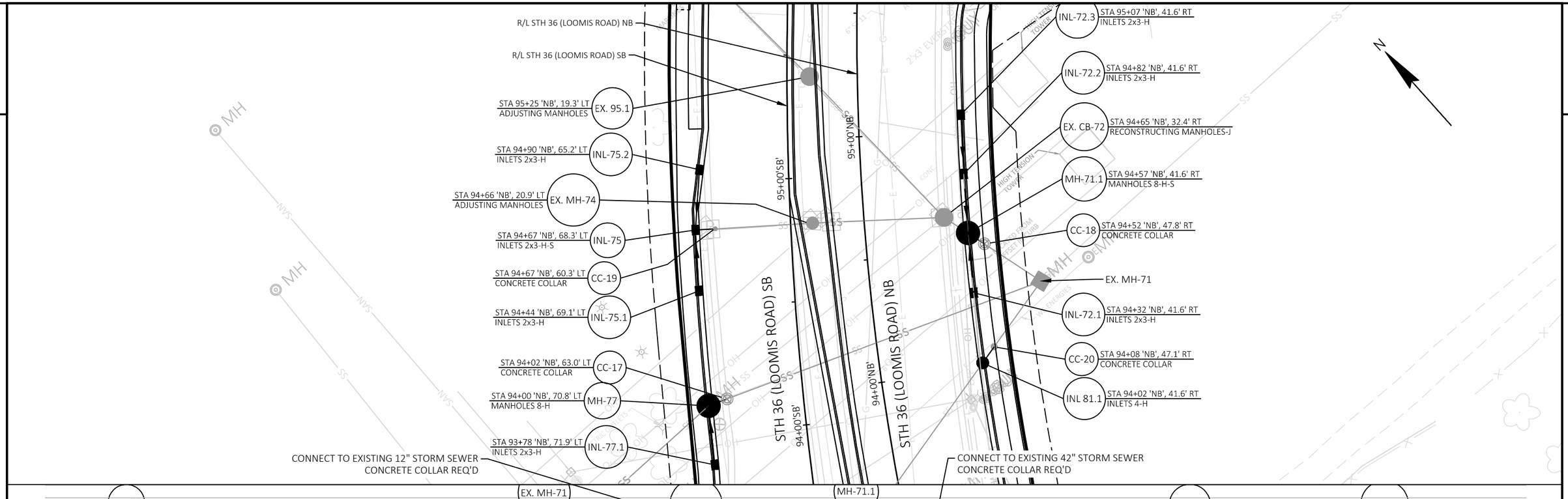
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 57	E

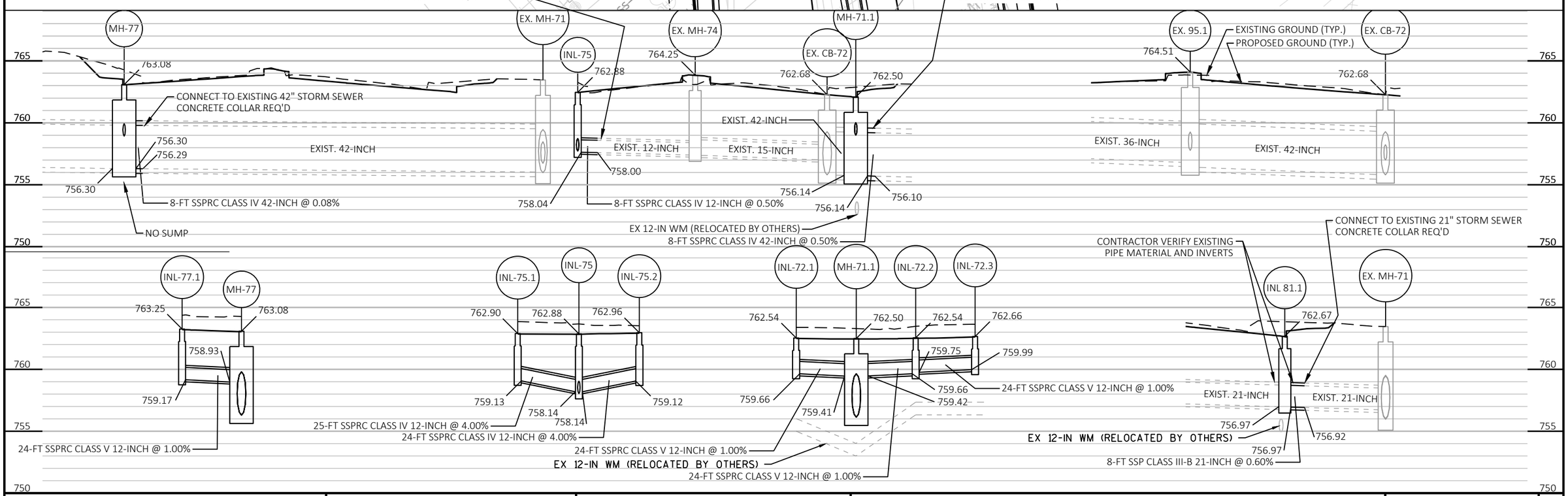
2



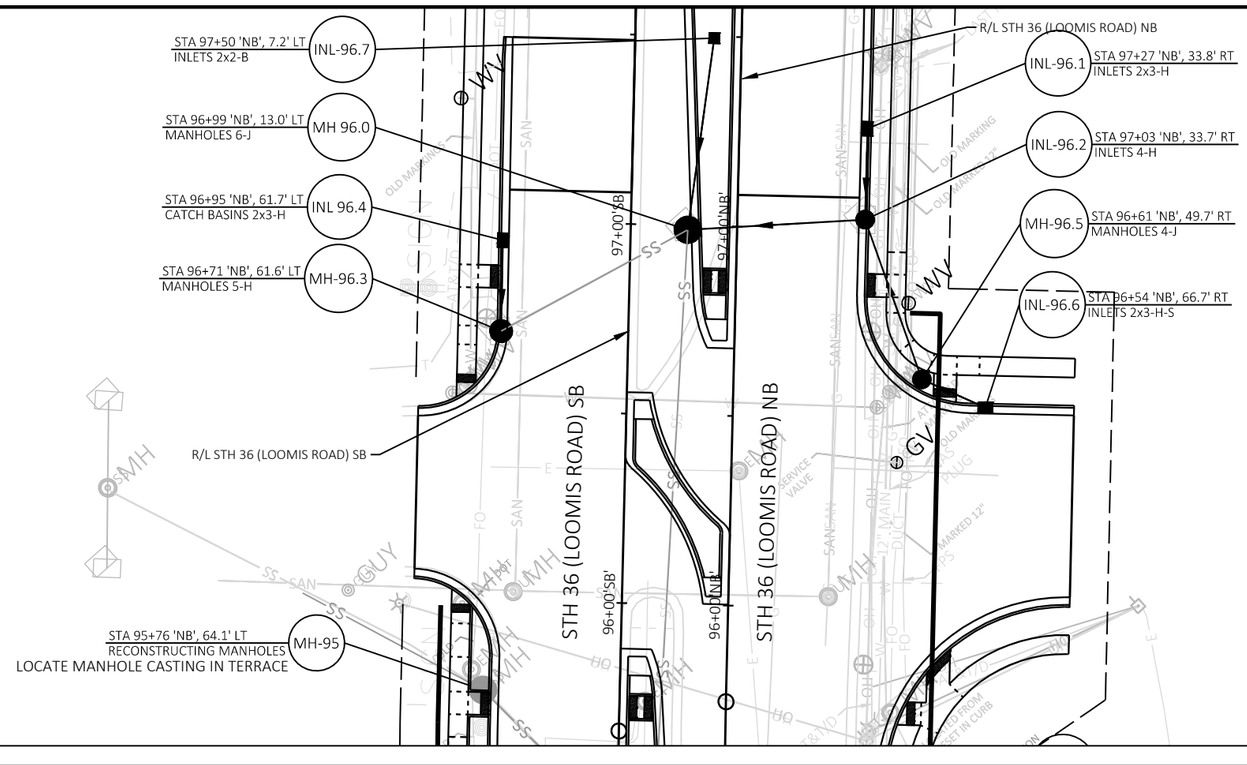


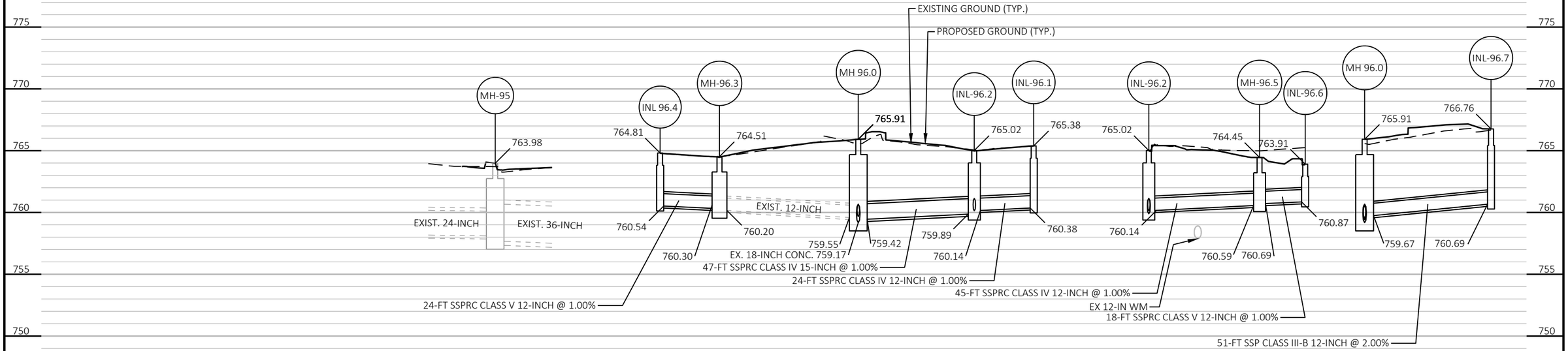
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 58	E



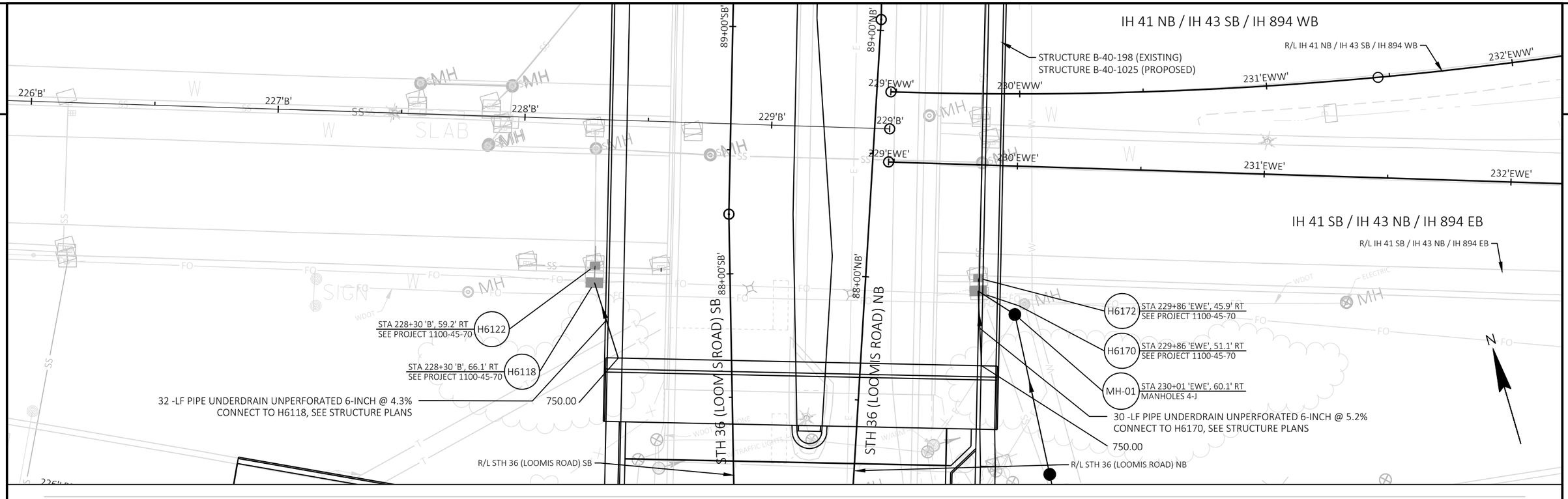


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 59	E

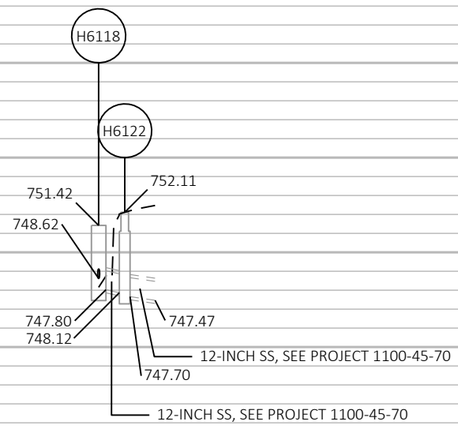


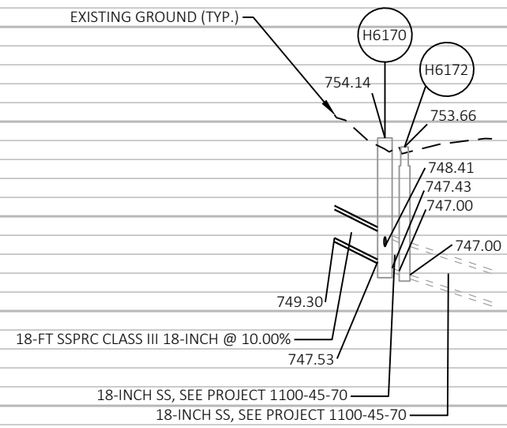


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 60	E

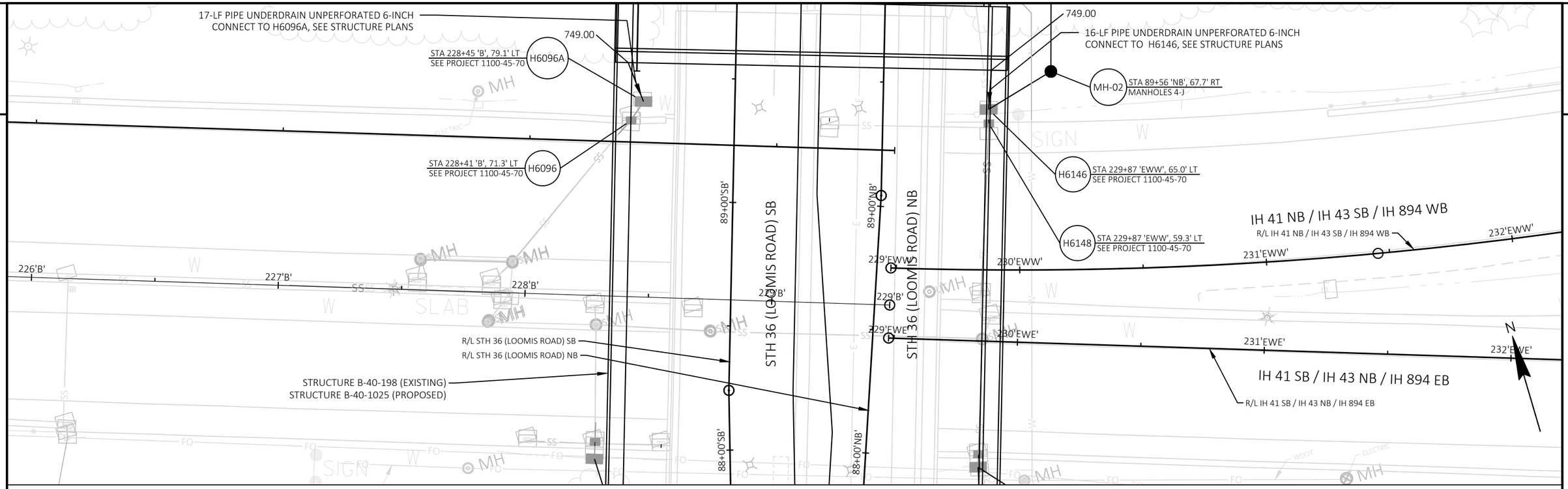


SEE PROJECT NO. 1100-45-70 FOR RECONSTRUCTION OF IH 41/IH 43/ IH 894 STORM SEWER.

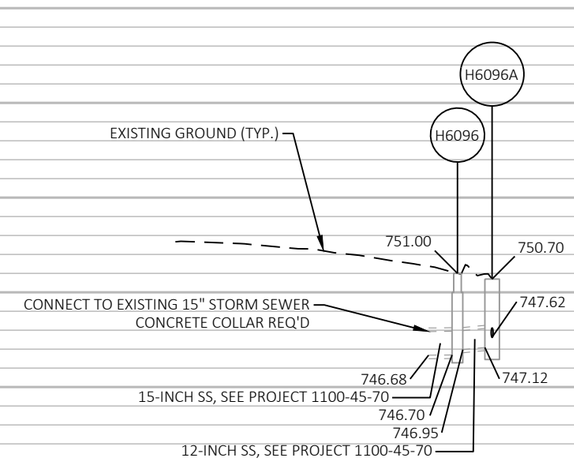


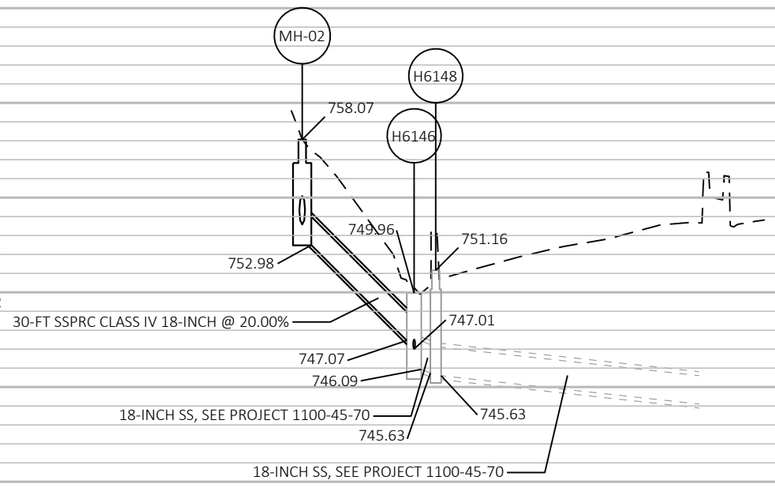


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 61	E



SEE PROJECT NO. 1100-45-70 FOR RECONSTRUCTION OF IH 41/IH 43/ IH 894 STORM SEWER.





770 765 760 755 750 745 740 735

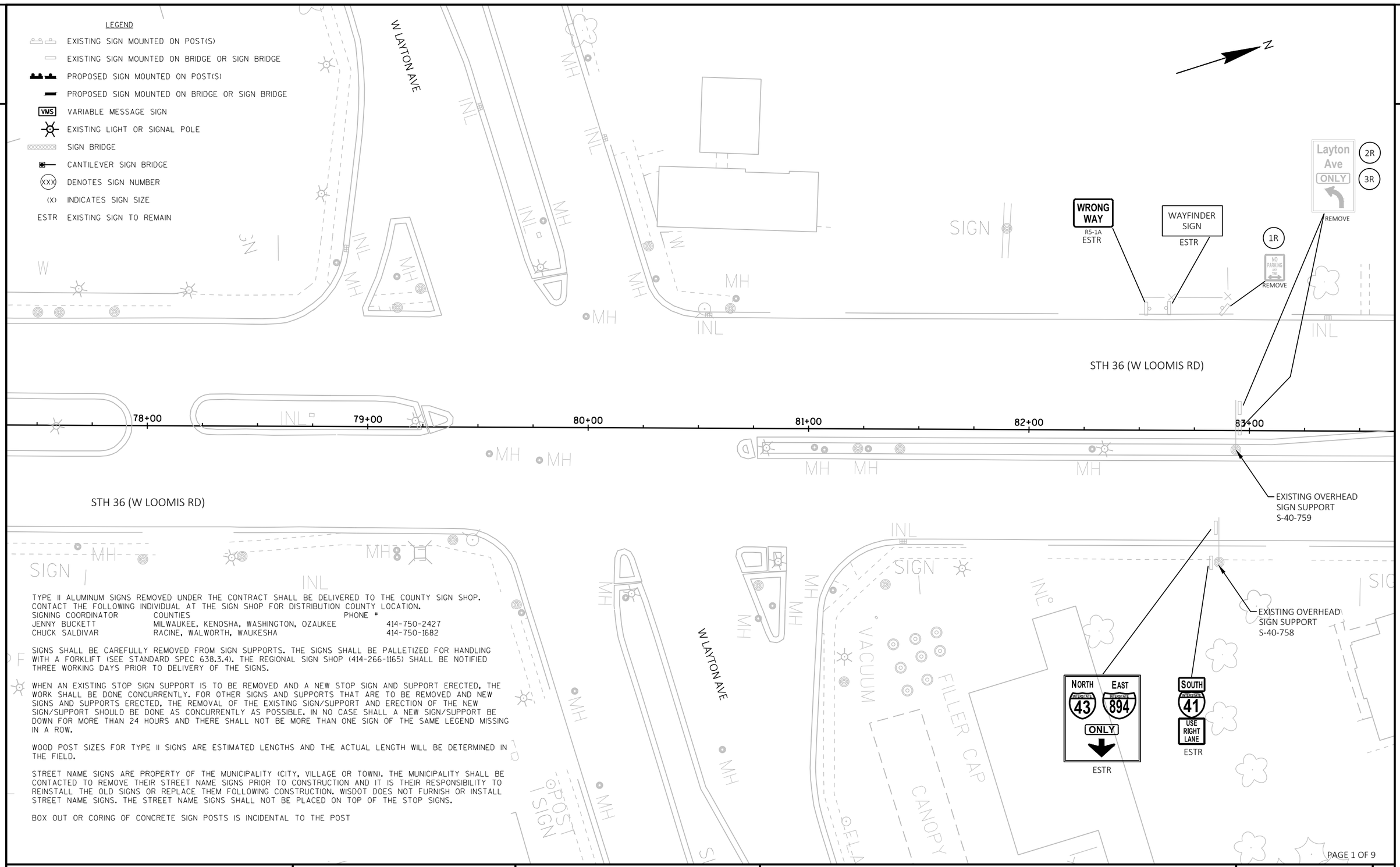
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET 62	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JESSE.WEBER@AECOM.COM\DMS24447\022501_SS.DWG
LAYOUT NAME - 022506_ss
PLOT DATE : 10/26/2022 4:33 PM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



STH 36 (W LOOMIS RD)

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTIES	PHONE #
JENNY BUCKETT	MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
CHUCK SALDIVAR	RACINE, WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

BOX OUT OR CORING OF CONCRETE SIGN POSTS IS INCIDENTAL TO THE POST

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 63	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 01
PLOT DATE : 10/13/2022 12:58 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

MATCHLINE A

IH 41 SB/43 NB/894 EB OFF RAMP

IH 41 SB/43 NB/894 EB

13+00

14+00

14+33

EXISTING OVERHEAD SIGN SUPPORT TO BE REMOVED S-40-760

4R NORTH 41 INTERSTATE / SOUTH 43 INTERSTATE / WEST 894 INTERSTATE — USE LEFT LANE — REMOVE

5R NO PARKING ANY TIME — REMOVE

6R Layton Ave ONLY

7R JCT COUNTY Y — REMOVE

Layton Ave 4700 SOUTH NEXT INTERSECTION — REMOVE

8R — REMOVE

9R BEGIN LEFT TURN LANE — REMOVE

10R NO PARKING ANY TIME — REMOVE

SOUTH 36 — REMOVE

11R ONE WAY — REMOVE

12R DO NOT ENTER — REMOVE; WRONG WAY — REMOVE; DIVIDED HIGHWAY — REMOVE; STOP — REMOVE

13R NORTH 36 / SOUTH 36 — REMOVE

14R DO NOT ENTER — REMOVE; WRONG WAY — REMOVE

15R — REMOVE; STOP — REMOVE

16R Loomis Rd — REMOVE

17R STOP — REMOVE

18R — REMOVE; — REMOVE

19R — REMOVE

20R — REMOVE

DO NOT ENTER — REMOVE

VERTICAL PANELS (TOTAL=19)
REMOVAL OF BRACKETS - INCIDENTAL

34R — REMOVE

STH 36 (W LOOMIS RD)

84+00 85+00 86+00 87+00 88+00 89+00

STH 36 (W LOOMIS RD)

21R — REMOVE; STOP — REMOVE

DO NOT ENTER — REMOVE

22R NORTH 36 — REMOVE

23R ONE WAY — REMOVE

SEE SHEET 3

32R WRONG WAY — REMOVE

33R RIGHT LANE MUST TURN RIGHT — REMOVE; EXCEPT BUSES — REMOVE; NO PARKING ANY TIME — REMOVE

31R LEFT LANE BUSES MOTORCYCLES AND 2 OR MORE OCCUPANT CAR POOLS ONLY — REMOVE

30R SOUTH 41 INTERSTATE / EAST 894 INTERSTATE / NORTH 43 INTERSTATE — REMOVE

29R STOP — REMOVE

RAMP METERED WHEN FLASHING

28R — REMOVE; FORM TWO LINES — REMOVE

27R — REMOVE

IH 41 SB/43 NB/894 EB ON RAMP

26R RAMP METERED WHEN FLASHING — REMOVE

25R — REMOVE

NORTH 41 INTERSTATE

SOUTH 43 INTERSTATE / WEST 894 INTERSTATE — REMOVE

24R

IH 41 NB/43 SB/894 WB

MATCHLINE B

PAGE 2 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 64	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 02

PLOT DATE : 10/13/2022 12:58 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

IH 41 SB/43 NB/894 EB

SEE SHEET 2

STH 36 (W LOOMIS RD)

IH 41 NB/43 SB/894 WB

IH 41 NB/43 SB/894 WB OFF RAMP

IH 41 NB/43 SB/894 WB ON RAMP

MATCHLINE C

MATCHLINE D

SEE SHEET 4

89+00 90+00 91+00 92+00 93+00 94+00 11+00

39R SOUTH 36 REMOVE

38R WRONG WAY REMOVE

36R WRONG WAY REMOVE

35R REMOVE

37R DO NOT ENTER REMOVE

YIELD REMOVE

40R NORTH 41 SOUTH 43 WEST 894 REMOVE

41R WRONG WAY REMOVE

68R YIELD REMOVE

67R YIELD REMOVE

66R RAMP METERED WHEN FLASHING REMOVE

65R PEDESTRIANS BICYCLES SKATEBOARDS RAFTS MOTOR BICYCLES PROHIBITED REMOVE

64R NORTH 41 SOUTH 43 WEST 894 REMOVE

45R SOUTH 41 NORTH 43 EAST 894 REMOVE

44R REMOVE

43R RAMP METERED WHEN FLASHING REMOVE

42R REMOVE

52R REMOVE

53R LEFT TURN YIELD ON FLASHING YELLOW ARROW REMOVE

63R DO NOT ENTER REMOVE

62R STOP REMOVE

51R STOP REMOVE

DO NOT ENTER REMOVE

54R STOP HERE ON RED REMOVE

55R REMOVE

DO NOT ENTER REMOVE

47R WRONG WAY REMOVE

49R REMOVE

46R Loomis Rd REMOVE

NORTH 41 SOUTH 43 WEST 894 REMOVE

48R DO NOT ENTER REMOVE

WRONG WAY REMOVE

50R STOP REMOVE

58R ONE WAY REMOVE

59R 43rd St REMOVE

60R NORTH 36 REMOVE

61R WRONG WAY REMOVE

56R STOP REMOVE

NORTH 36 REMOVE

57R REMOVE

DO NOT ENTER REMOVE

WRONG WAY REMOVE

REMOVE

PAGE 3 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 65	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 03

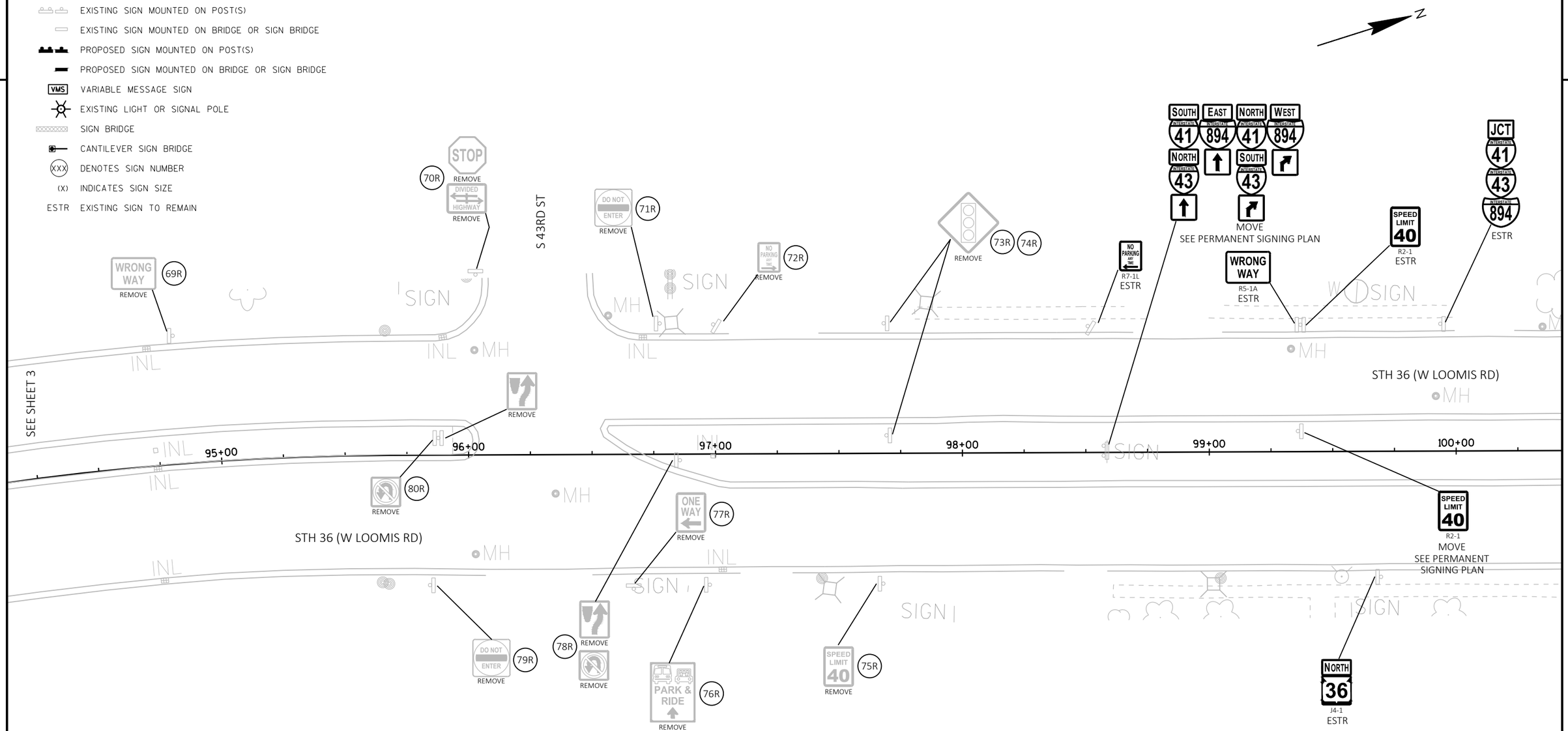
PLOT DATE : 10/13/2022 12:58 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



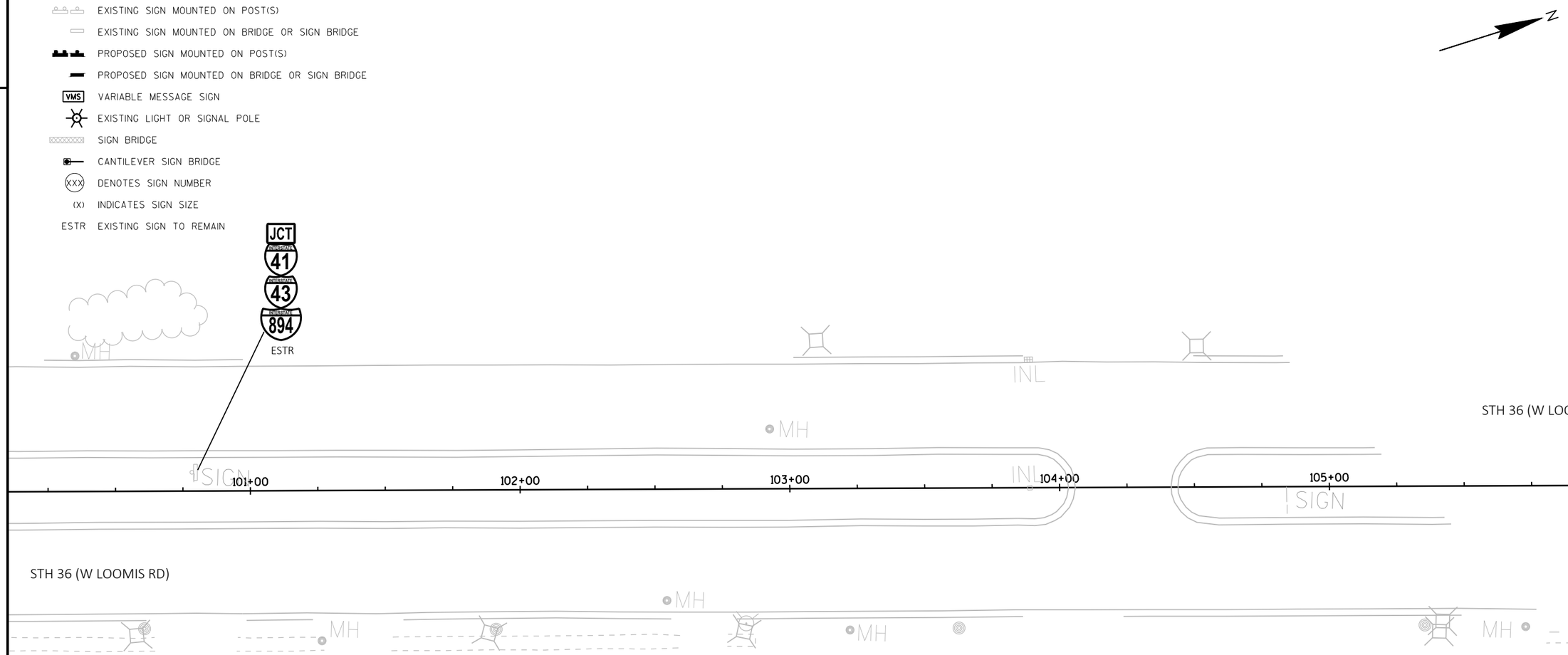
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 66	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 04
PLOT DATE : 10/13/2022 12:58 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

IH 41 NB/43 SB/894 WB

IH 41 SB/43 NB/894 EB

IH 41 SB/43 NB/894 EB OFF RAMP

N

EXISTING OVERHEAD SIGN SUPPORT
TO REMAIN
S-40-757

87R WRONG WAY
REMOVE

MATCHLINE A

10+00 11+00 12+00

81R
REMOVE

82R PARK & RIDE
REMOVE

83R ONLY
REMOVE

84R
REMOVE

85R ONLY
REMOVE

Alverno College
REMOVE

86R
Loomis Rd
EAST WEST
REMOVE

WRONG WAY
REMOVE

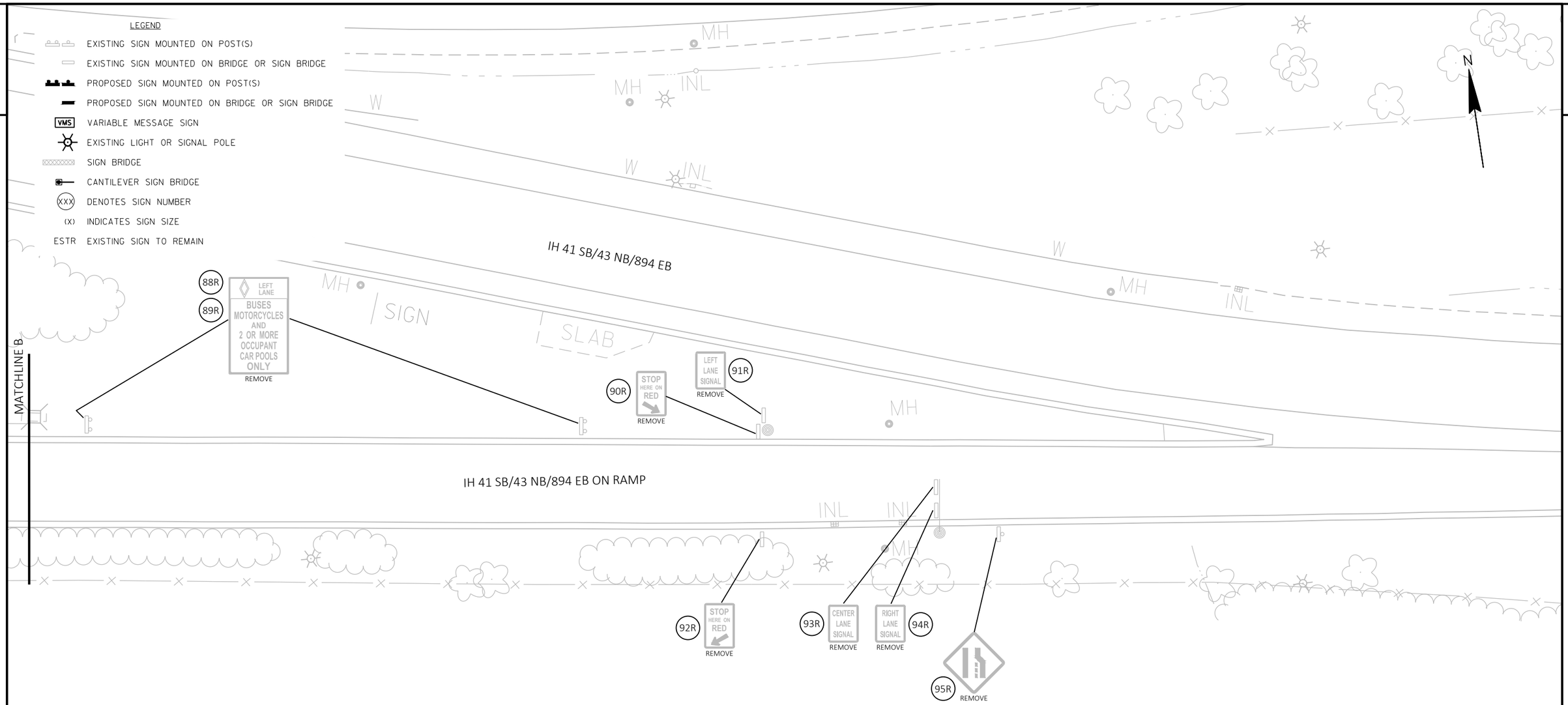
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 68	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 06
PLOT DATE : 10/13/2022 12:58 PM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

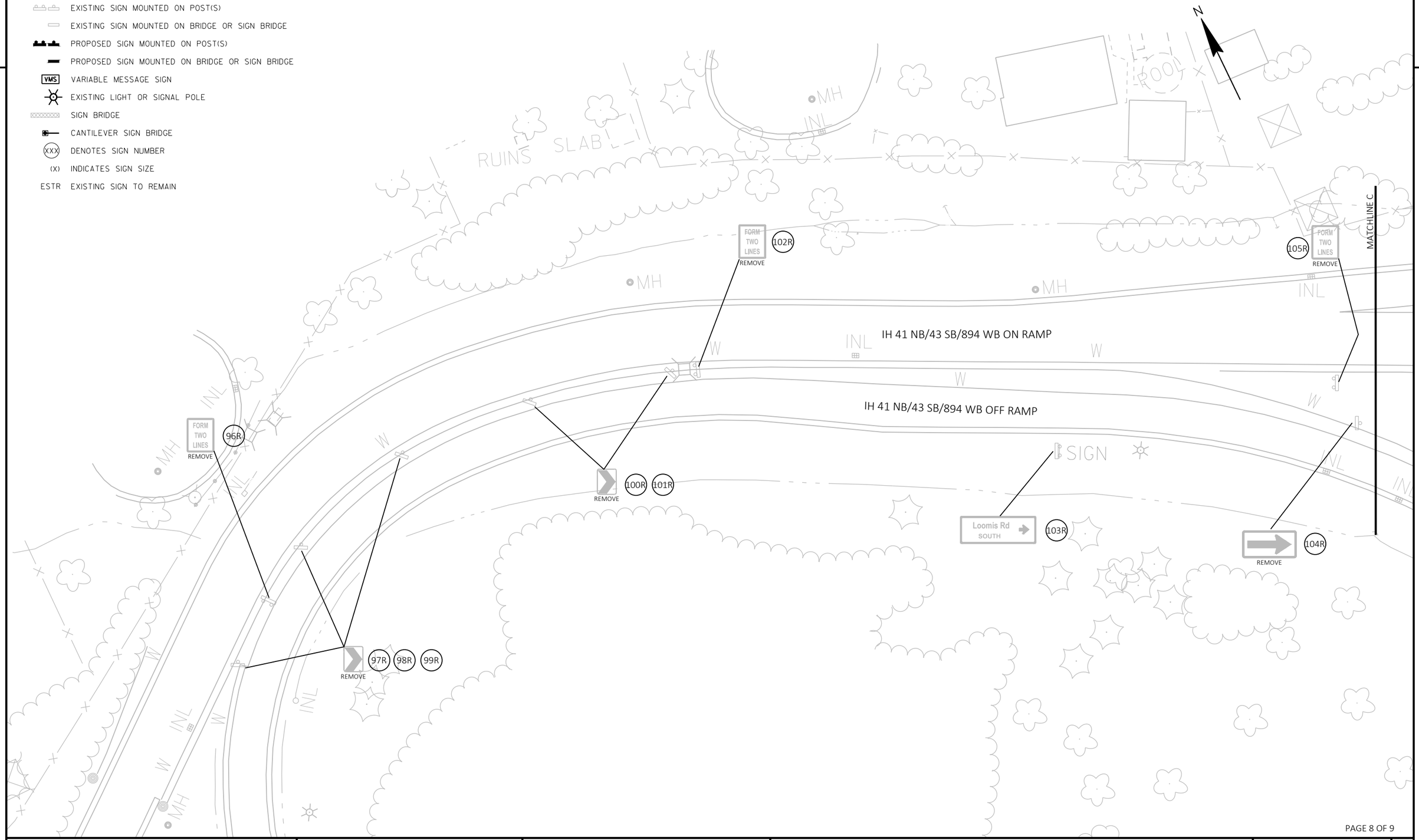
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



PAGE 8 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 70	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 08

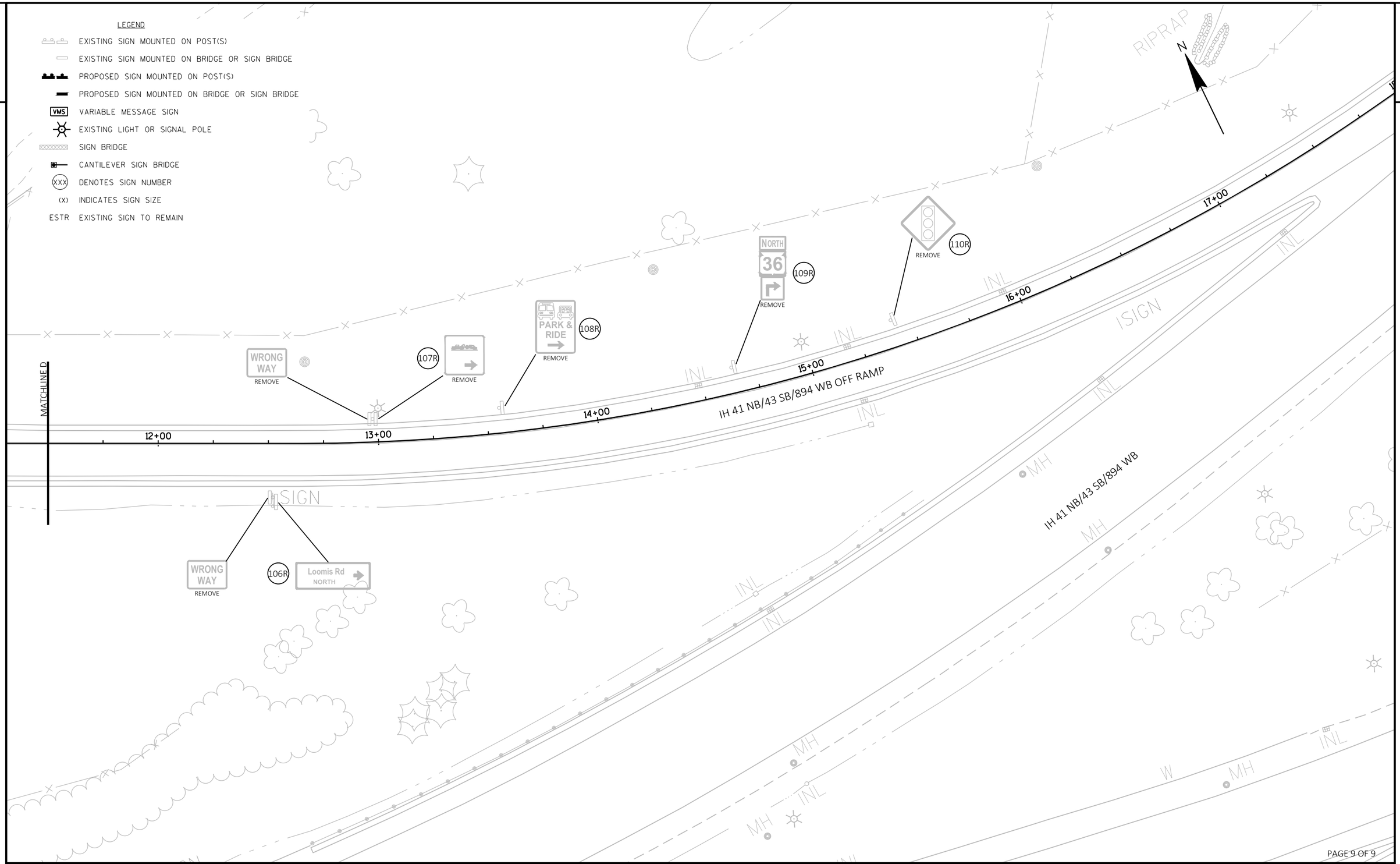
PLOT DATE : 10/13/2022 12:59 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



PAGE 9 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 71	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023101_PS.DWG
LAYOUT NAME - sheet 09

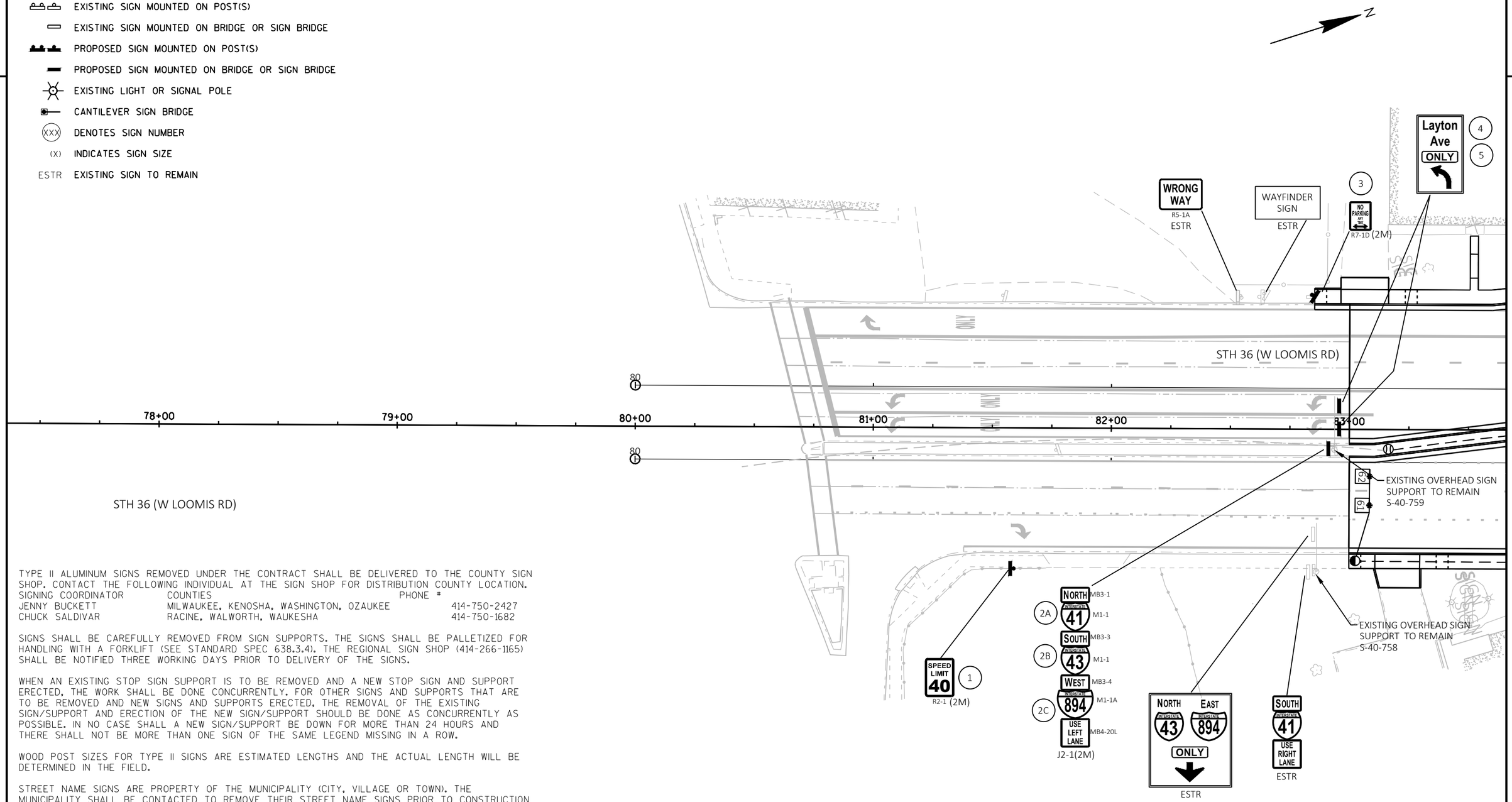
PLOT DATE : 10/13/2022 12:59 PM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



STH 36 (W LOOMIS RD)

TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE COUNTY SIGN SHOP. CONTACT THE FOLLOWING INDIVIDUAL AT THE SIGN SHOP FOR DISTRIBUTION COUNTY LOCATION.

SIGNING COORDINATOR	COUNTIES	PHONE #
JENNY BUCKETT	MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
CHUCK SALDIVAR	RACINE, WALWORTH, WAUKESHA	414-750-1682

SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE STANDARD SPEC 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING STOP SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

STREET NAME SIGNS ARE PROPERTY OF THE MUNICIPALITY (CITY, VILLAGE OR TOWN). THE MUNICIPALITY SHALL BE CONTACTED TO REMOVE THEIR STREET NAME SIGNS PRIOR TO CONSTRUCTION AND IT IS THEIR RESPONSIBILITY TO REINSTALL THE OLD SIGNS OR REPLACE THEM FOLLOWING CONSTRUCTION. WISDOT DOES NOT FURNISH OR INSTALL STREET NAME SIGNS. THE STREET NAME SIGNS SHALL NOT BE PLACED ON TOP OF THE STOP SIGNS.

BOX OUT OR CORING OF CONCRETE SIGN POSTS IS INCIDENTAL TO THE POST

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 72	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 01
PLOT DATE : 11/14/2022 9:04 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

MATCHLINE A

MATCHLINE B

IH 41/43/894 EB

IH 41/43/894 WB

STH 36 (W LOOMIS RD)

STH 36 (W LOOMIS RD)

CANTILEVER OVERHEAD SIGN SUPPORT STA 85+00 S-40-3096

CANTILEVER OVERHEAD SIGN SUPPORT STA 84+50 S-40-3095

6 BEGIN LEFT TURN LANE R3-20L (2M)

7 NO PARKING ANY TIME R7-1D (2M) MOUNT ON UPRIGHT

8 Layton Ave ONLY

9 M2-1 JCT M1-5A COUNTY Y J1-1 (2M)

10 Layton Ave 4700 SOUTH NEXT INTERSECTION D1-63

11 M3-3 SOUTH M1-6 36 J4-1 (2M) MOUNT ON SIGNAL POLE

12 M3-1 NORTH SOUTH M3-3 M1-6 36 36 M1-6 M6-1 M6-1 J3-2 (2S)

13 ONE WAY R6-2L (2M) MOUNT ON SIGNAL POLE

14 NO PARKING ANY TIME R7-1D (2M)

15 DIVIDED HIGHWAY R6-3 (2S)

16 STOP R1-1F (3) MOUNT ON SIGNAL POLE

17 DO NOT ENTER R5-1 (2M)

18 WRONG WAY R5-1A (2S) MOUNT ON SIGNAL POLE

19 DO NOT ENTER R5-1 (2M)

20 WRONG WAY R5-1A (2S)

21 DO NOT ENTER R5-1 (2M) MOUNT ON SIGNAL POLE

22 R3-1 (2M)

23 STOP R1-1F (3) MOUNT ON SIGNAL POLE

24 Loomis Rd M1-94 ON BRIDGE (SEE DETAIL)

25 STOP R1-1F (3) ON STEEL POST MOUNTED ON CONCRETE

26 R4-7 (2M)

27 R3-4 (2M)

28 R4-7 (2M)

29 I5-1 (2S)

30 MK6-1 (2S)

31 R3-18 (2M)

32 STOP R1-1F (3)

33 DO NOT ENTER R5-1 (2M) MOUNT ON SIGNAL POLE

34 ONE WAY R6-2L (2M) MOUNT ON SIGNAL POLE

35 SPEED LIMIT 40 R2-1 (2M)

36 M3-1 NORTH M1-6 41 M3-3 M1-1 SOUTH M1-1 43 M3-4 WEST M1-1A 894 M5-2L M5-2L JV3-2(2M) MOUNT HIGH ON SIGNAL POLE

37 NORTH M3-1 M1-6 36 M6-1 J3-1 (2M)

38 RAMP METERED WHEN FLASHING W3-8 (3) MOUNT ON SIGNAL POLE

39 RAMP CLOSED USE ALT ROUTE R11-54F (2M)

40 RAMP METERED WHEN FLASHING W3-8 (3)

41 FORM TWO LINES R3-59 (2S) MOUNT ON SIGNAL POLE

42 YIELD R1-2 (2M)

43 MB3-3 SOUTH M1-1 41 MB3-2 EAST M1-1 894 M1-1A MB3-1 NORTH M1-1 43 MB6-2 MB6-2 JV3-2(2M)

44 STOP R1-1F (3) MOUNT ON SIGNAL POLE

45 RAMP CLOSED USE ALT ROUTE R11-54F (2M)

46 NORTH INTERSTATE 41 SOUTH INTERSTATE 43 WEST INTERSTATE 894 ONLY

47 WRONG WAY R5-1A (2M)

48 RIGHT LANE MUST TURN RIGHT R3-7R (3)

49 NO PARKING ANY TIME R7-1D (2M)

SEE SHEET 3

PAGE 2 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 73 E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 02

PLOT DATE : 11/14/2022 9:04 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

EXISTING SIGN MOUNTED ON POST(S)
EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
PROPOSED SIGN MOUNTED ON POST(S)
PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
EXISTING LIGHT OR SIGNAL POLE
CANTILEVER SIGN BRIDGE
XXX DENOTES SIGN NUMBER
(X) INDICATES SIGN SIZE
ESTR EXISTING SIGN TO REMAIN

2

2

MATCHLINE C

55 SOUTH INTERSTATE 36 M3-3 M1-6 M6-2 J3-1(2S)

56 WRONG WAY R5-1A(3) MOUNT ON LIGHT POLE

53 SOUTH 41 INTERSTATE, NORTH 43 INTERSTATE, EAST 894 INTERSTATE J3-3(2M)

54 YIELD R1-2(2M)

52 DO NOT ENTER R5-1(3) MOUNT ON LIGHT POLE

61 WRONG WAY R5-1A(3)

62 RAMP METERED WHEN FLASHING W3-8(2S) MOUNT ON SIGNAL POLE

63 NORTH 41 INTERSTATE, SOUTH 43 INTERSTATE, WEST 894 INTERSTATE J3-3(2M)

64 YIELD R1-2(2M) MOUNT ON LIGHT POLE

65 YIELD R1-2(2M)

66 PEDESTRIANS BICYCLES NON MOTORIZED TRAFFIC MOTOR BICYCLES PROHIBITED R5-57(2S)

67 RAMP METERED WHEN FLASHING W3-8(2S) MOUNT ON SIGNAL POLE

59 RAMP CLOSED USE ALT ROUTE R11-54F(2M)

60 W5-52L(2S) 4' MOUNT HEIGHT

58 DO NOT ENTER R5-1(2M) MOUNT ON SIGNAL POLE

68 NORTH 41 INTERSTATE, SOUTH 43 INTERSTATE, WEST 894 INTERSTATE J3-3(2M)

69 RAMP CLOSED USE ALT ROUTE R11-54F(2M)

RAMP CLOSED USE ALT ROUTE R11-54F(2M) 50 51

21 22 23 24 25

90

57 W4-1R(2M) MOUNT ON SIGNAL POLE

45'

74 R4-7(2M)

75 R3-2(2M) MOUNT ON SIGNAL POLE

73 DO NOT ENTER R5-1(2M)

71 R3-2(2M)

70 STOP R1-1F(3) MOUNT ON SIGNAL POLE

72 STOP R1-1F(3)

SEE SHEET 2

89+00 90+00 91+00 92+00 93+00 94+00

STH 36 (W LOOMIS RD)

64 63

76 77 78 STOP R1-1F(3) MOUNT ON SIGNAL POLE

79 W12-1D(2M) 2' MOUNT HEIGHT

80 ONE WAY R6-2R(2M) MOUNT ON SIGNAL POLE

35'

STH 36 (W LOOMIS RD)

NORTH 41 INTERSTATE, SOUTH 43 INTERSTATE, WEST 894 INTERSTATE 83

84 R3-1(2M)

85 DO NOT ENTER R5-1(2M)

J3-3(2M)

Loomis Rd 81 M1-94 ON BRIDGE (SEE DETAIL)

82 WRONG WAY R5-1A(2M)

86 DO NOT ENTER R5-1(3)

87 WRONG WAY R5-1A(2S)

88 R3-2(3)

89 STOP R1-1F(3)

90 STOP R1-1F(3) MOUNT ON SIGNAL POLE

91 RIGHT TURN ONLY R3-53R(2S)

92 NORTH 36 M3-1 M1-6 M6-1 J3-1(2S)

11+00

MATCHLINE D

93 DO NOT ENTER R5-1(3)

94 WRONG WAY R5-1A(2S) MOUNT ON SIGNAL POLE

43rd St 97

CANTILEVER OVERHEAD SIGN SUPPORT STA 93+25 S-40-3097

95 ONE WAY R6-2L(2M)

96 M3-1 NORTH 36 M1-6 J4-1(2M) MOUNT ON SIGNAL POLE

SOUTH 41 INTERSTATE, NORTH 43 INTERSTATE, EAST 894 INTERSTATE ONLY

98 SPEED LIMIT 40 R2-1(2M) 99

100 WRONG WAY R5-1A(2M)

SEE SHEET 4

245

PAGE 3 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 74	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 03

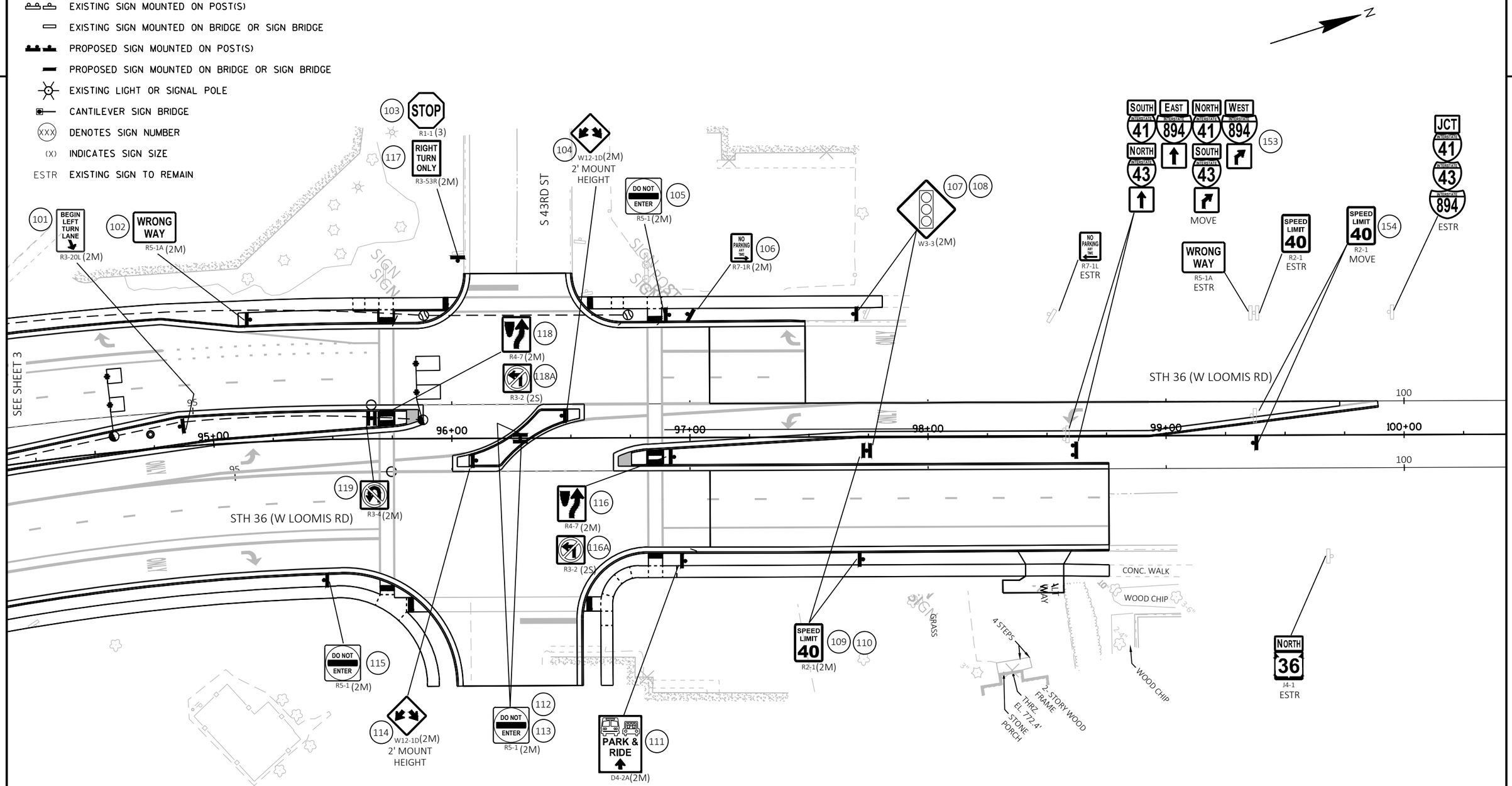
PLOT DATE : 11/14/2022 9:04 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 75	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 04
PLOT DATE : 11/14/2022 9:04 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

ESTR

STH 36 (W LOOMIS RD)

105

101+00 102+00 103+00 104+00 105+00 106+00

105

105

STH 36 (W LOOMIS RD)

2

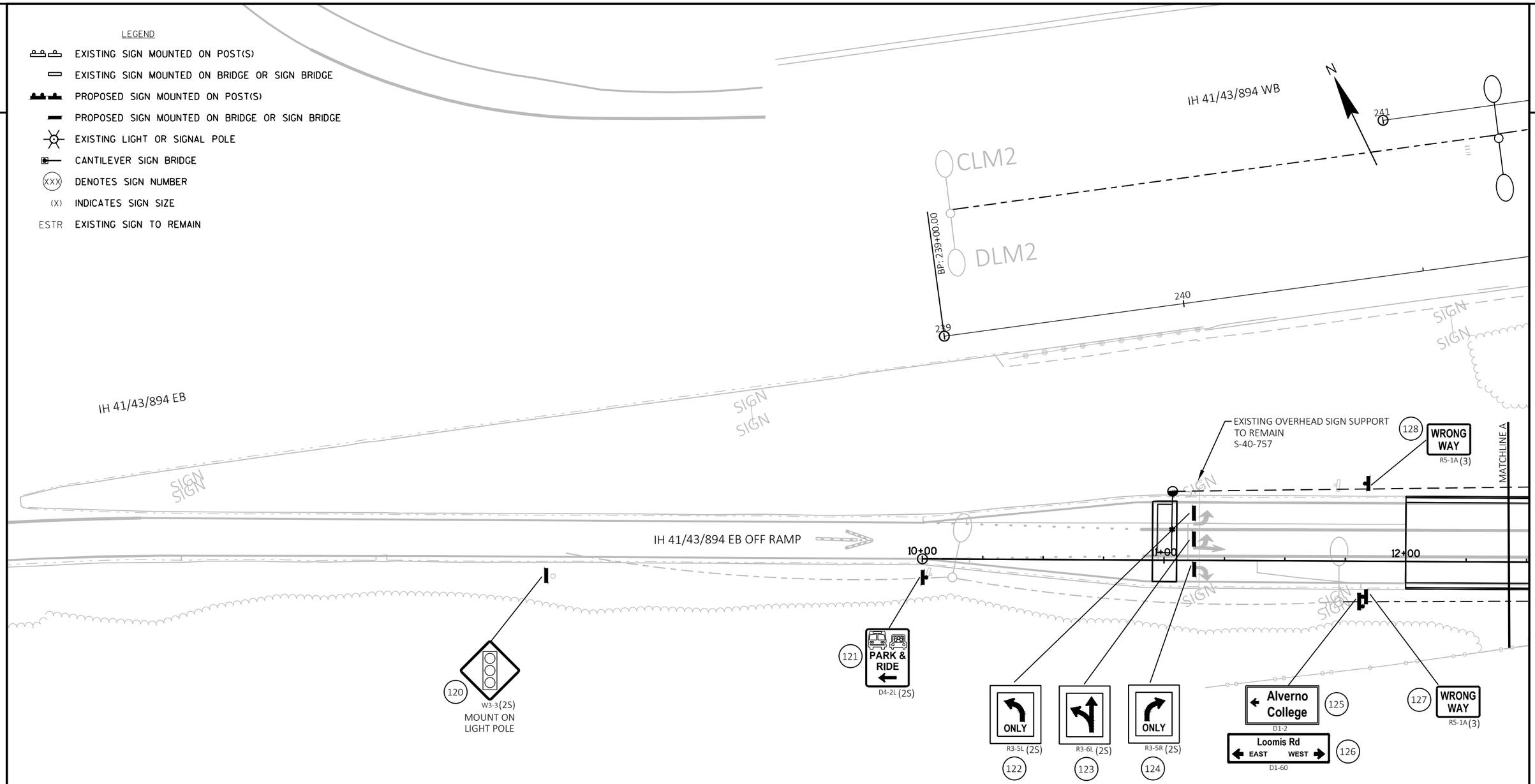
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 76	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 05
PLOT DATE : 11/14/2022 9:05 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 77	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 06
PLOT DATE : 11/14/2022 9:05 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

245

IH 41/43/894 EB

PC: 248+66.13

250

MATCHLINE B

SIGN

SIGN

SIGN

SIGN

129 LEFT LANE
130 BUSES MOTORCYCLES AND 2 OR MORE OCCUPANT CAR POOLS ONLY
R3-51L(2S)

131 LEFT LANE SIGNAL
R10-65L(2S)
MOUNT ON SIGNAL POLE

IH 41/43/894 EB ON RAMP

132 STOP HERE ON RED
R10-6MOD(2S)
MOUNT ON SIGNAL POLE

133 STOP HERE ON RED
R10-6(2S)
MOUNT ON SIGNAL POLE

134 CENTER LANE SIGNAL
R10-65C(2S)
MOUNT ON SIGNAL POLE

135 RIGHT LANE SIGNAL
R10-65R(2S)
MOUNT ON SIGNAL POLE

136
W4-2R(2S)

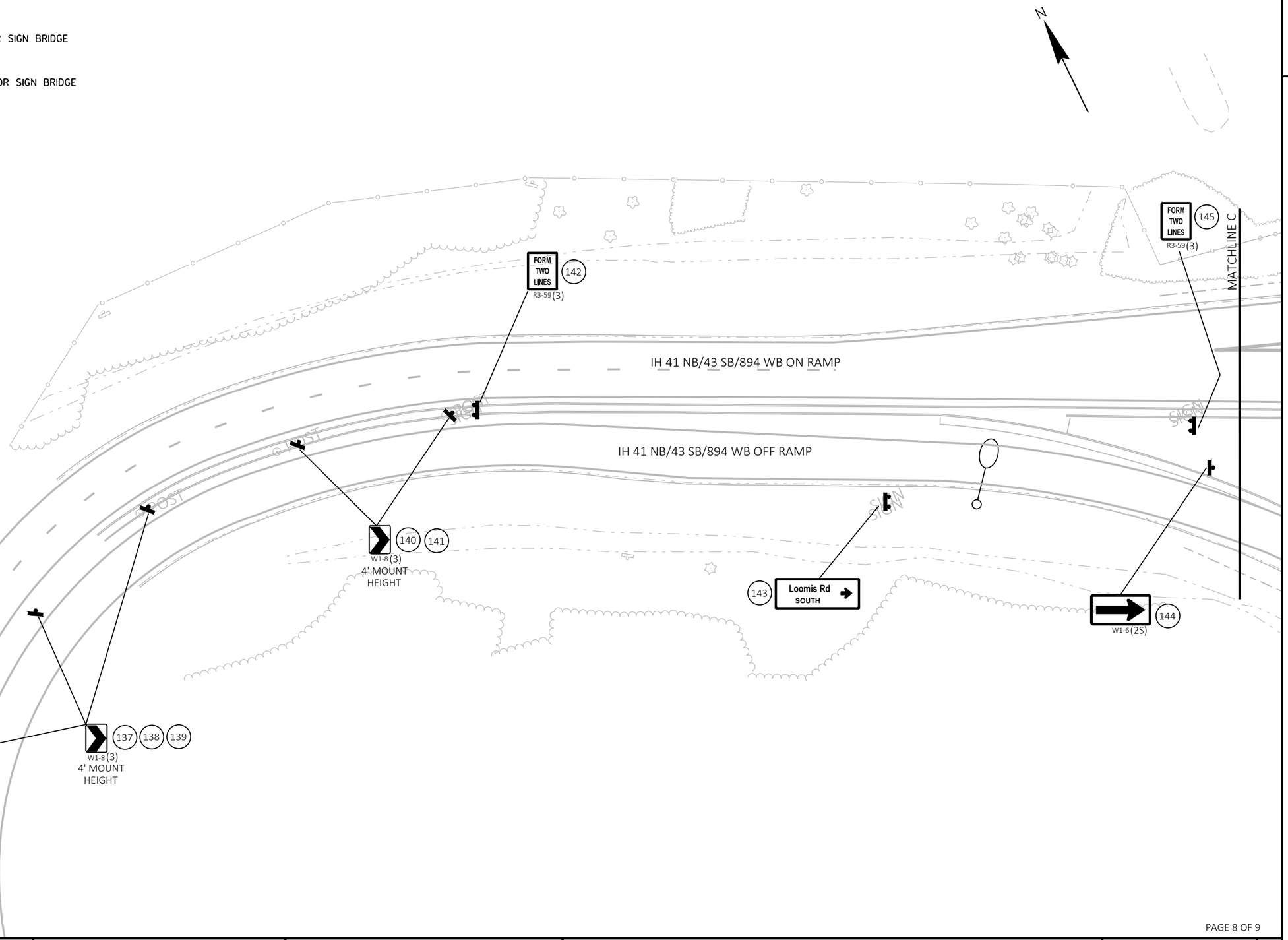
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 78	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 07
PLOT DATE : 11/14/2022 9:05 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

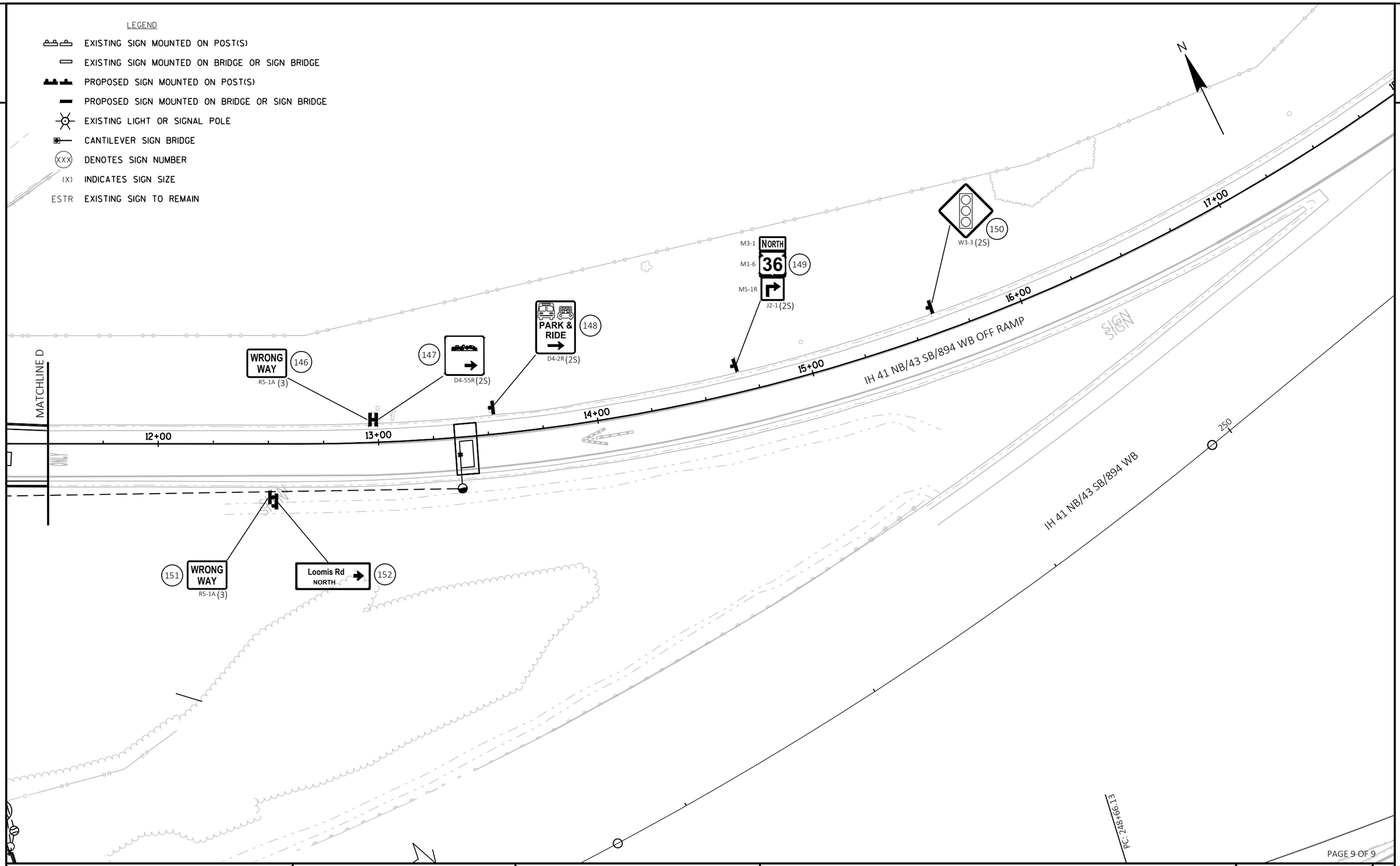
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



PAGE 9 OF 9

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 80	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIGN\023201_PS.DWG
LAYOUT NAME - sheet 09

PLOT DATE : 11/14/2022 9:05 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

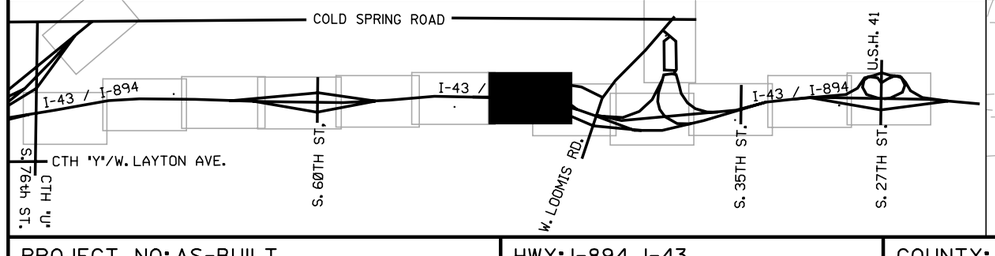
FOR INFORMATIONAL PURPOSES ONLY

N

S. 49TH ST.
S. 48TH ST.
S. 47TH ST.
S. 46TH ST.
S. 45TH ST.
W. ALLERTON AVE.
W. ARMOUR AVE.

222+65 BB03
AB03
225+00 AB04
BB04
227+35 BB05
AB05
229+70 AB06
BB06
232+05 BB07
AB07
234+40 ALM1
PB401
236+75 DLM1
PB402
ALM20
ALM22
BLM1
BLM21
BLM3
BLM4
CLM1
ELM1
ELM2
ELM3
PL23+76.285
2-#8AWG CID
3-#6AWG
3"
#4 A,B,N
#4 C,D,N
#8 E,N
#8 E,N
#4 A,B,N
#4 C,D,N
#8 E,N
3"
3-3"
12' GATE
3-#10 PCLM
S-40-157
1MV-BBO
INL
W
224
226
228
230
232
234
236
238

DISTRIBUTION CENTER
HL-40-LM.



PROJECT NO: AS-BUILT	HWY: I-894, I-43	COUNTY: MILWAUKEE	DISTRIBUTION CENTER - BO & LM	SHEET 81	E

FILE NAME : J:\projects\d2_light\40mil\40894EW22.dgn PLOT DATE : 27-JUN-2006 11:44 PLOT BY : DITJ3S PLOT NAME : PLOT SCALE : 100.000000:1.000000

WISDOT/CADDS SHEET 42

FOR INFORMATIONAL PURPOSES ONLY

2

2

HL-40-LM	
A,C,E	RED
B,D	BLACK
N	WHITE
GND	GREEN OR BARE
A,B,E	30A
C,D	30A
240/480VAC 3 WIRE GROUNDED NEUTRAL	

DISTRIBUTION CENTER HL-40-LM.

N

COLD SPRING ROAD
I-43 / I-894
CTH 'Y'/W. LAYTON AVE.
S. 76th ST.
CTH 'U'
S. 60TH ST.
W. LOOMIS RD.
S. 35TH ST.
S. 27TH ST.
U.S.H. 41

PROJECT NO: AS-BUILT	HWY: I-894, I-43	COUNTY: MILWAUKEE	DISTRIBUTION CENTER - BO, LM & AR	SHEET 82	E

FILE NAME : J:\projects\d2_light\40mil\40894EW23.dgn PLOT DATE : 27-JUN-2006 11:44 PLOT BY : DITJ3S PLOT NAME : PLOT SCALE : 100.000000:1.000000 WISDOT/CADDS SHEET 42

GENERAL NOTES

DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATIONS IN RED.

THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO ALL REMOVE ALL ROUGH EDGES ON THE ALL CONDUITS

PRIOR TO CONDUIT ACCEPTANCE ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATED WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARDS PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2' DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY T HE LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINES WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTORS(S) THAT WILL NOT BE USED FOR FURTHER POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE CONDUCTOR(S) LEAVING THE LAST POLE THE PHASE WAS UTILIZED. REMOVED EXCESS CONDUCTOR(S) IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED CONDUIT SEALANT. PROVIDE A 1#2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

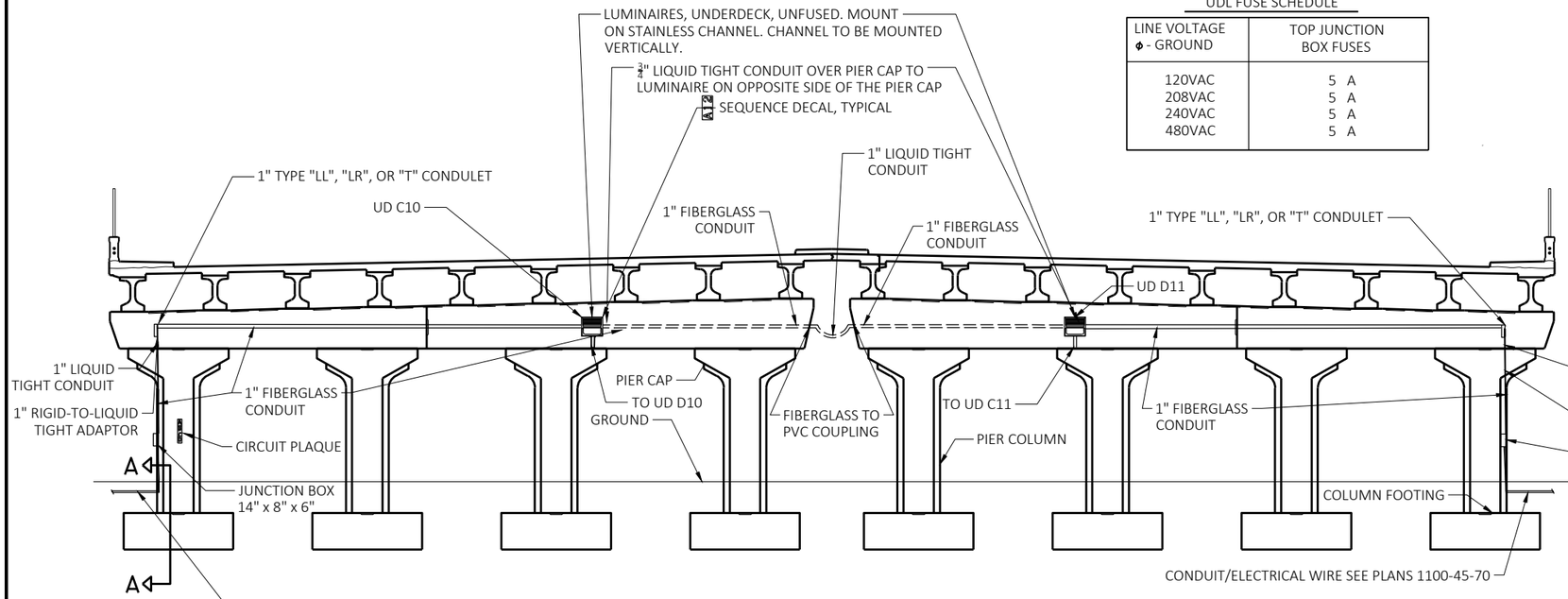
SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXISTS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

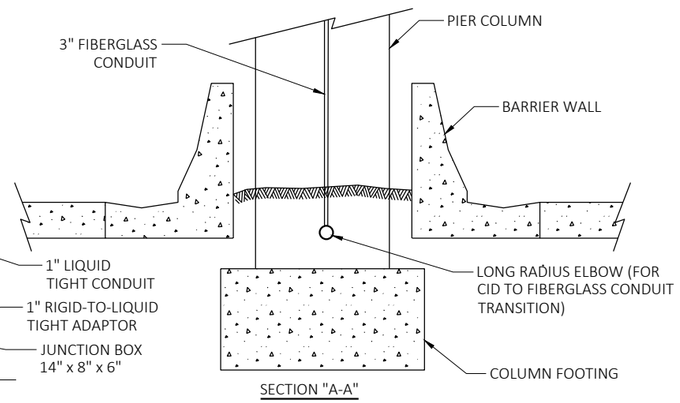
PULL BOXES:	5-FT ONE WAY IN OR OUT
EMBEDDED JUNCTIONS BOXES:	3-FT
DISTRIBUTION CENTER/LOAD CENTER:	10-FT

UDL FUSE SCHEDULE

LINE VOLTAGE Φ - GROUND	TOP JUNCTION BOX FUSES
120VAC	5 A
208VAC	5 A
240VAC	5 A
480VAC	5 A



TYPICAL UNDERDECK LIGHTING INSTALLATION



DETAIL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE PLANS WILL SHOW WHICH CIRCUIT LEGS(S) ARE CONNECTED TO EACH INSTALLATION AND THE REQUIRED NUMBER OF LUMINAIRES.

ELECTRICAL WIRE FROM JUNCTION BOX TO UNDERDECK LIGHTS WILL BE #12 AWG.

THE JUNCTION BOX (FOR FUSE ASSEMBLIES) SHALL CONFORM TO THE APPLICABLE PROVISIONS OF SECTION 653.2.2 OF THE STANDARD SPECIFICATIONS; SHALL BE SUITABLE FOR SURFACE MOUNTING WITH EXTERNAL MOUNTING LUGS; AND SHALL HAVE A HINGED COVER, WING-NUT FASTENERS, AND PADLOCK HASP, ALL HARDWARE SHALL BE STAINLESS STEEL. FURNISH O-Z/GEDNEY YW-120603, SPRING CITY HC-12-06-04, CROUSE-HINDS WTB-120604, OR APPROVED EQUAL.

WIRING FOR THE FIRST LUMINAIRE PAIR IS SHOWN IN SOLID LINES. WIRING FOR ADDITIONAL LUMINAIRE PAIRS, WHERE REQUIRED, IS SHOWN IN DOTTED LINES.

LEGEND

A.B.X.Y.Z	UNGROUNDED CIRCUIT CONDUCTORS		UNFUSED LUMINAIRE
N	GROUNDED CIRCUIT CONDUCTORS		SINGLE POLE (1P) FUSE ASSEMBLY
GND	EQUIPMENT GROUNDING CONDUCTOR		TERMINAL
P	POLE (ELECTRICAL CIRCUIT)		SPLICE
Φ	PHASE (ELECTRICAL CURRENT)		
	HANDHOLE GROUND LUG		CONDUCTOR

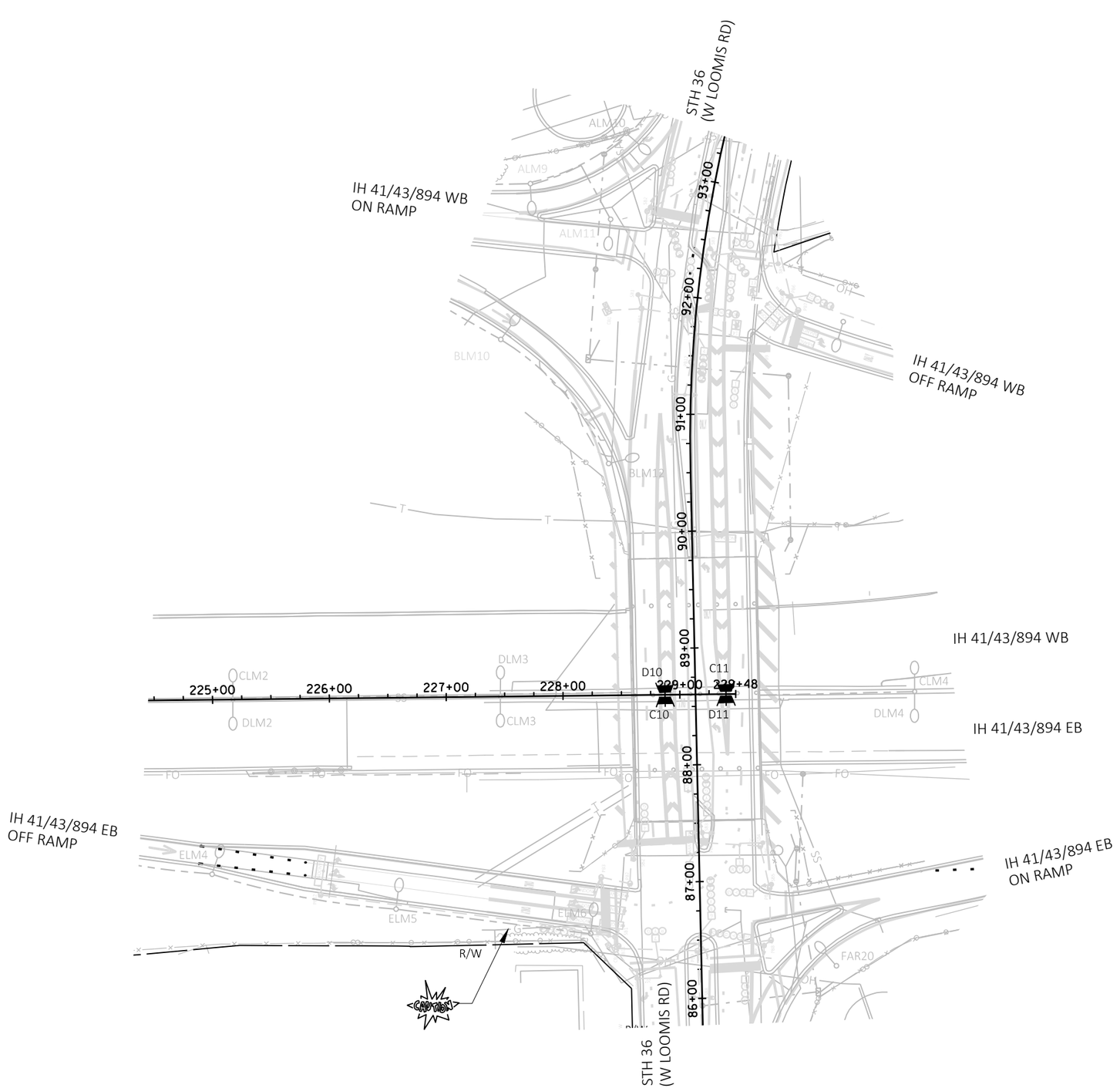
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING DETAIL	SHEET 83	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-LGT-LOOMIS.DWG
LAYOUT NAME - LOOMIS ST. LIGHTING CONSTRUCTION DETAIL 1

PLOT DATE : 7/22/2022 2:53 PM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



N

CONSTRUCTION NOTES:

1. REMOVE AL LIGHTING WIRE AND CABLE, AND GROUNDING WIRES FROM EXISTING CONDUIT SYSTEM. ABANDON CONDUIT IN PLACE.
2. REMOVE ALL ELECTRICAL WIRE AND ABANDON CONDUIT IN PLACE FOR UNDER DECK LUMINAIRES C10, C11, D10, AND D11.
3. SEE PLANS 1100-45-70 FOR OTHER LIGHTING REMOVALS.

LEGEND

- UNDER DECK LUMINAIRE
- LUMINAIRE, LIGHT POLE, TRANSFORMER BASE
- CABLE IN DUCT, UNLESS OTHERWISE NOTED
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 24" X 42"

NOTE: GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS ITEMS TO BE REMOVED.

HIGHWAY LIGHTING
IH 41/43/894 & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

INST. NO.

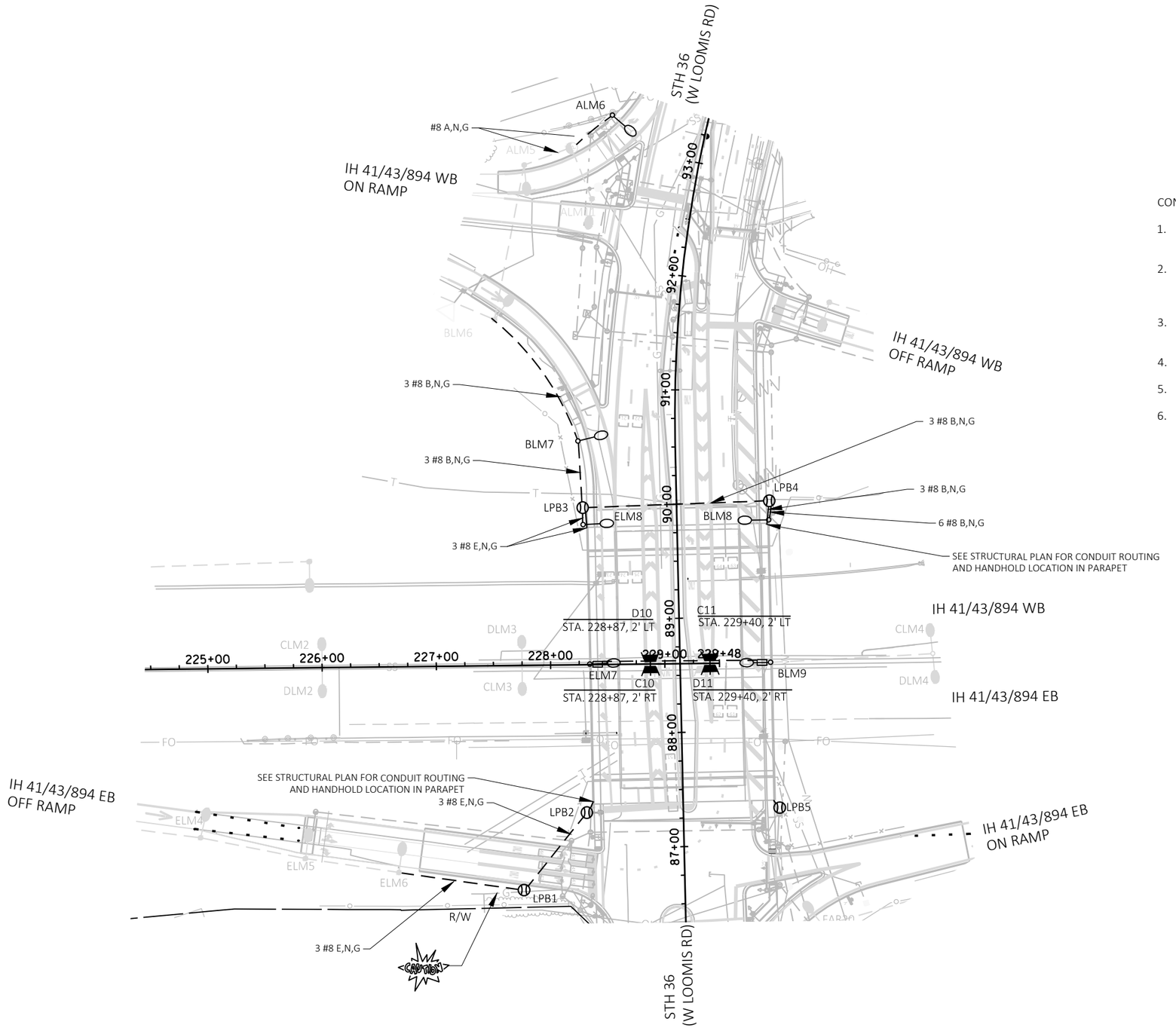
REGION CONTACT: ERIC PEREA
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLANS	SHEET 84	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-LGT-LOOMIS.DWG
LAYOUT NAME - LOOMIS ST. LIGHTING PLAN SHEET 1
PLOT DATE : 10/17/2022 11:11 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



CONSTRUCTION NOTES:

1. GRAYSHADE REPRESENTS EXISTING & PROPOSED SIGNALS, PAVEMENT MARKINGS, PAVEMENT AND UTLITIES.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. UNDERDECK LUMINAIRES WILL BE CONNECTED INTO EXISTING LIGHTING SYSTEM 'LM' FROM THE WEST LOCATED IN THE IH 41/43/894 MEDIAN.
4. ALL LUMINAIRES ON RAMPS AND STH 36 ARE LED C.
5. SEE PLANS 1100-45-70 FOR OTHER PROPOSED LIGHTING.
6. LIGHT POLES BLM7, ELM8, BLM8, ELM7, AND BLM9 SHALL BE BLACK.

LEGEND

- UNDER DECK LUMINAIRE LED B (UDL-LED B)
- LUMINAIRE, LIGHT POLE, TRANSFORMER BASE
- JUNCTION BOX
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 24" X 42"

HIGHWAY LIGHTING
IH 41/43/894 & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

INST. NO.

REGION CONTACT: ERIC PEREA
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLANS	SHEET 85	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-LGT-LOOMIS.DWG
LAYOUT NAME - LOOMIS ST. LIGHTING PLAN SHEET 1

PLOT DATE : 10/14/2022 8:17 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

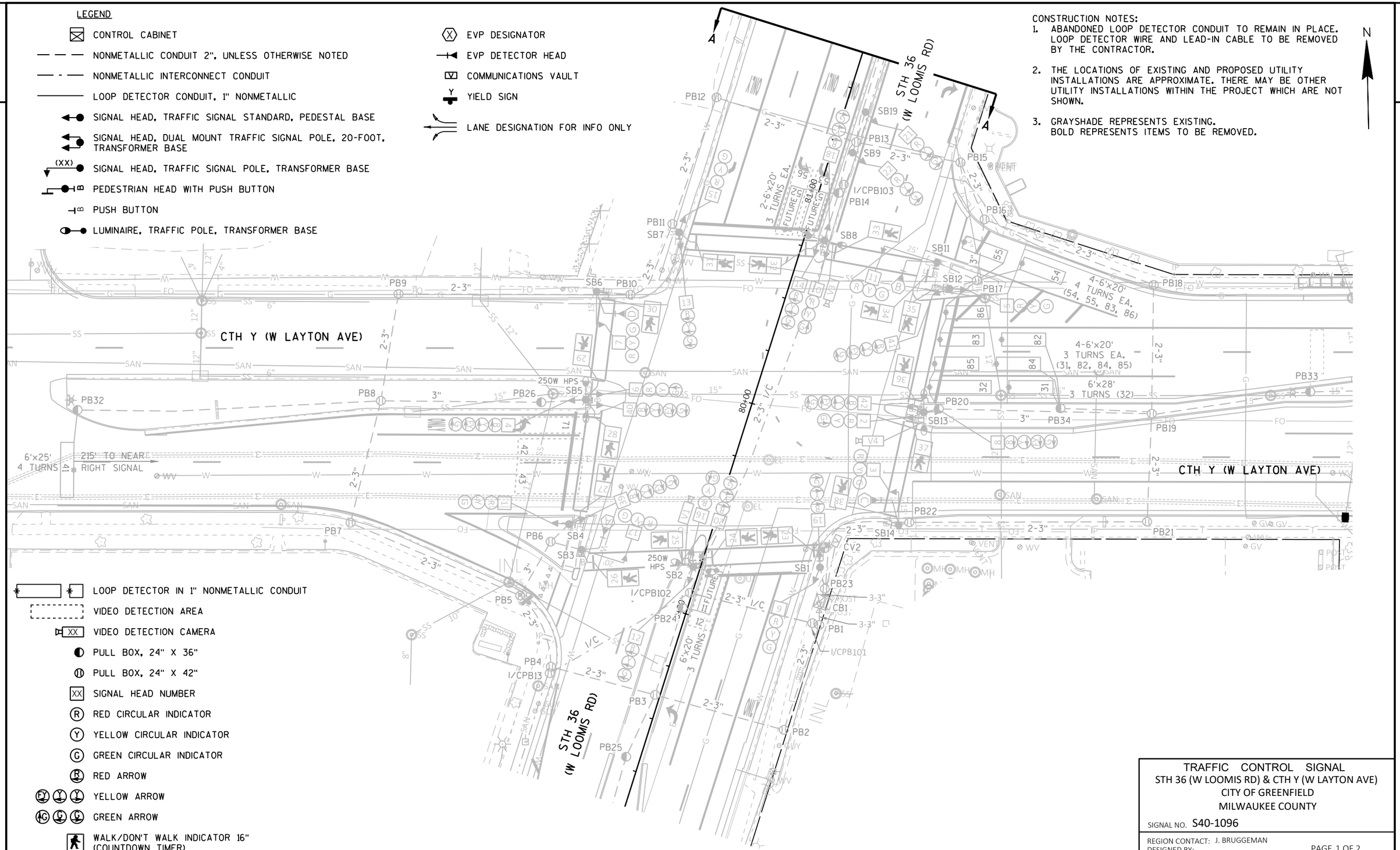
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- COMMUNICATIONS VAULT
- YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY

CONSTRUCTION NOTES:

1. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

N



- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- XX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) (Y) YELLOW ARROW
- (FG) (G) (G) GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

TRAFFIC CONTROL SIGNAL
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1096

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: C. VANDE LEEST

PAGE 1 OF 2

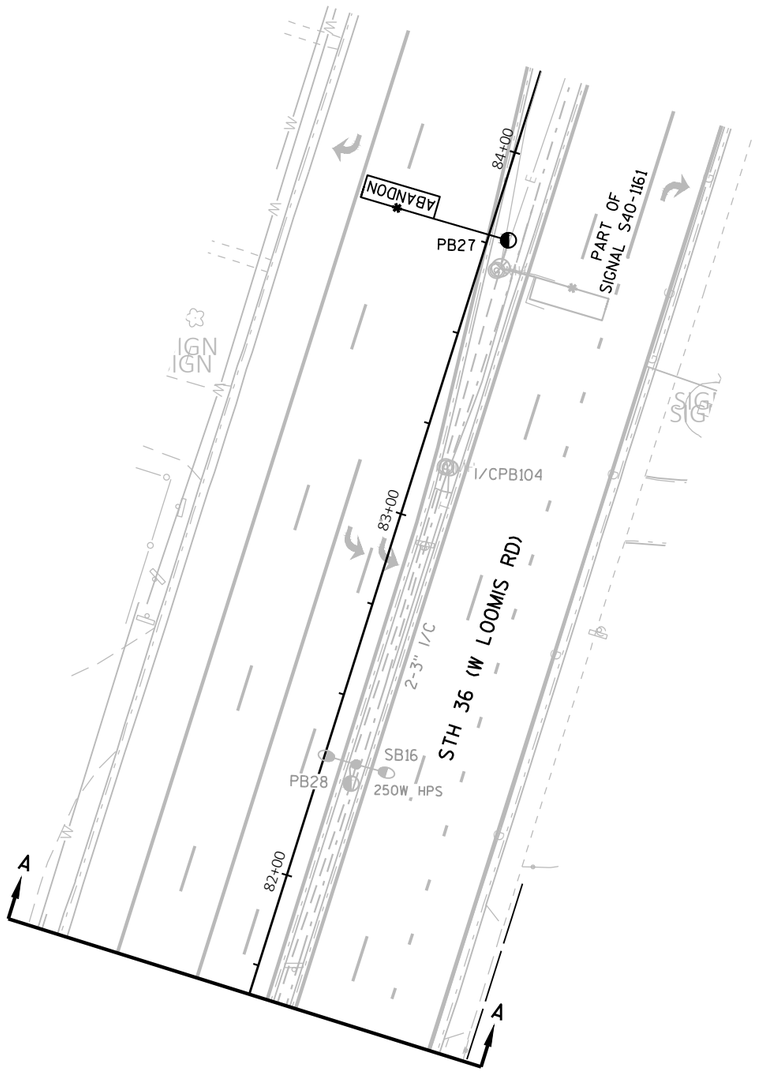
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 86	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIG\S40-1096\S40-1096_REM.DWG
LAYOUT NAME - S40-1096_rem_pg1

PLOT DATE : 10/28/2022 9:09 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL SIGNAL
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1096

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: C. VANDE LEEST

PAGE 2 OF 2

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 87	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIG\S40-1096\S40-1096_REM.DWG
LAYOUT NAME - S40-1096_rem_pg2
PLOT DATE : 10/28/2022 9:10 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

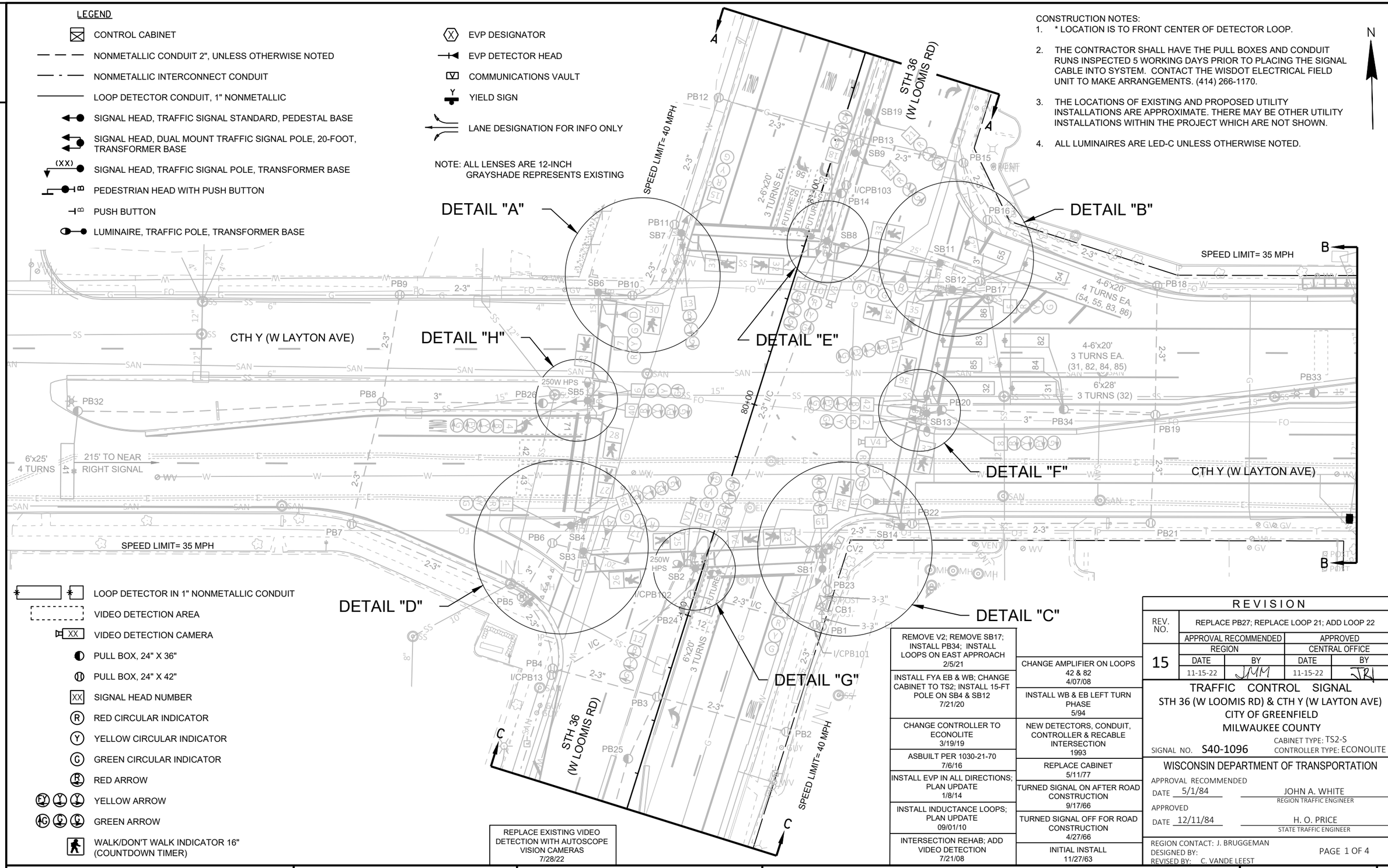
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- COMMUNICATIONS VAULT
- YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING THE SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.



LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
VIDEO DETECTION AREA
XX VIDEO DETECTION CAMERA
PULL BOX, 24" X 36"
PULL BOX, 24" X 42"
XX SIGNAL HEAD NUMBER
(R) RED CIRCULAR INDICATOR
(Y) YELLOW CIRCULAR INDICATOR
(G) GREEN CIRCULAR INDICATOR
(R) RED ARROW
(FY) (Y) (Y) YELLOW ARROW
(AG) (G) (G) GREEN ARROW
WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

REPLACE EXISTING VIDEO DETECTION WITH AUTOSCOPE VISION CAMERAS 7/28/22

REVISION	
REV. NO.	REPLACE PB27; REPLACE LOOP 21; ADD LOOP 22
15	APPROVAL RECOMMENDED: REGION — DATE 11-15-22, BY JMM; APPROVED: CENTRAL OFFICE — DATE 11-15-22, BY JRH

REMOVE V2; REMOVE SB17; INSTALL PB34; INSTALL LOOPS ON EAST APPROACH 2/5/21	CHANGE AMPLIFIER ON LOOPS 42 & 82 4/07/08
INSTALL FYA EB & WB; CHANGE CABINET TO TS2; INSTALL 15-FT POLE ON SB4 & SB12 7/21/20	INSTALL WB & EB LEFT TURN PHASE 5/94
CHANGE CONTROLLER TO ECONOLITE 3/19/19	NEW DETECTORS, CONDUIT, CONTROLLER & RECABLE INTERSECTION 1993
ASBUILT PER 1030-21-70 7/6/16	REPLACE CABINET 5/11/77
INSTALL EVP IN ALL DIRECTIONS; PLAN UPDATE 1/8/14	TURNED SIGNAL ON AFTER ROAD CONSTRUCTION 9/17/66
INSTALL INDUCTANCE LOOPS; PLAN UPDATE 09/01/10	TURNED SIGNAL OFF FOR ROAD CONSTRUCTION 4/27/66
INTERSECTION REHAB; ADD VIDEO DETECTION 7/21/08	INITIAL INSTALL 11/27/63

TRAFFIC CONTROL SIGNAL
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1096 CABINET TYPE: TS2-S CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 5/1/84 JOHN A. WHITE, REGION TRAFFIC ENGINEER

APPROVED
DATE 12/11/84 H. O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: C. VANDE LEEST

PAGE 1 OF 4

11-15-22 JPB

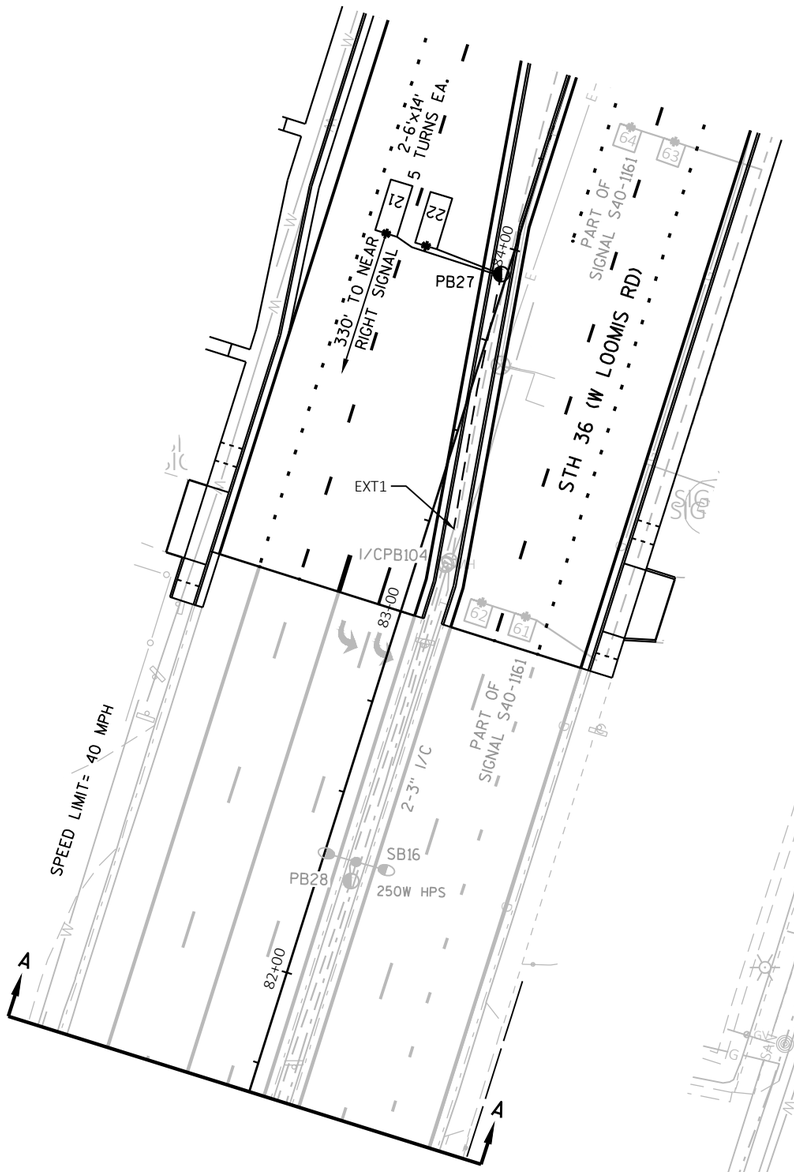
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 88	E

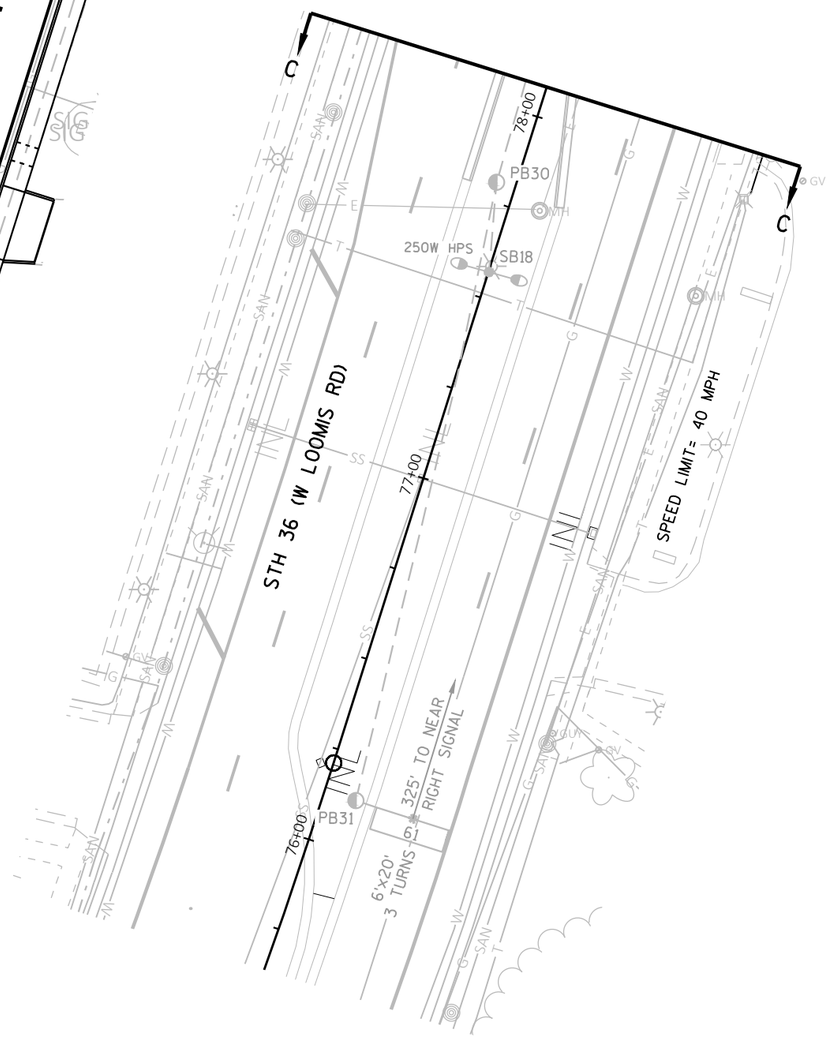
FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIG\S40-1096\S40-1096_R15.DWG
LAYOUT NAME - S40-1096_R15_pg1
PLOT DATE : 11/16/2022 9:01 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : 1 IN:40 FT

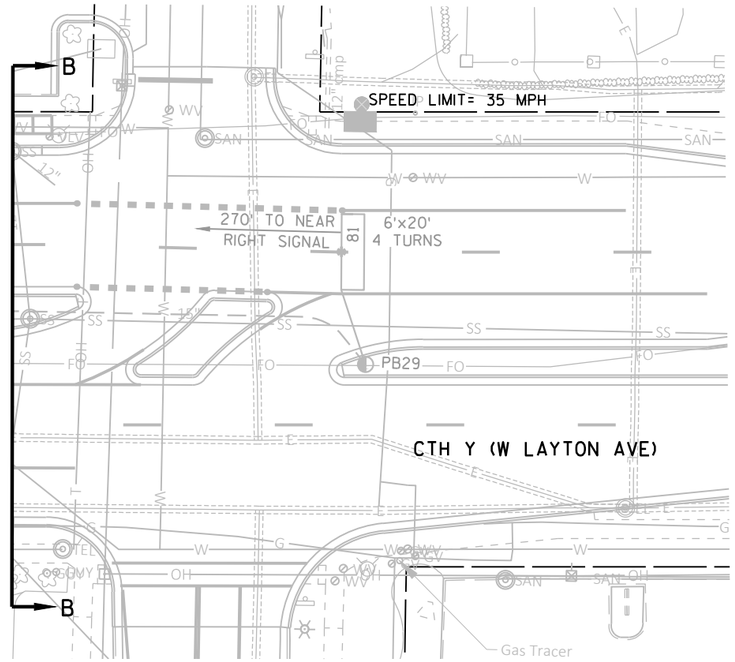
WISDOT/CADDS SHEET 42

2

N







TRAFFIC CONTROL SIGNAL
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY

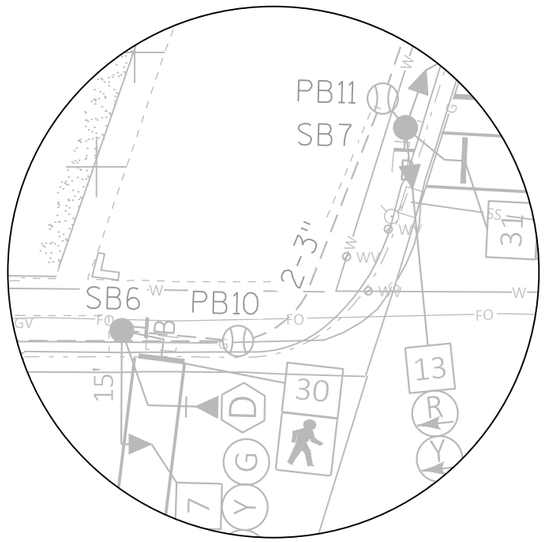
SIGNAL NO. S40-1096

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: C. VANDE LEEST

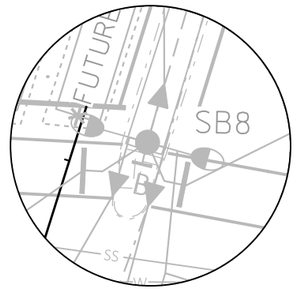
PAGE 2 OF 4

PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 89	E

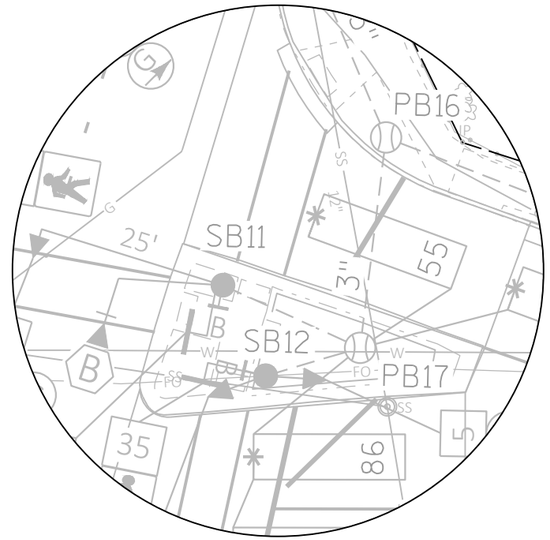
FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIG\S40-1096\S40-1096_R15.DWG
LAYOUT NAME - S40-1096_R15_pg2
PLOT DATE : 10/28/2022 11:38 AM
PLOT BY : VANDE LEEST, CYNTHIA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



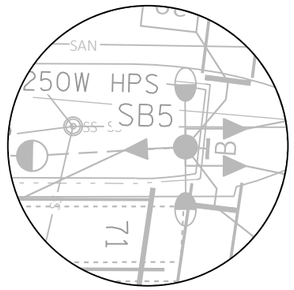
DETAIL "A"



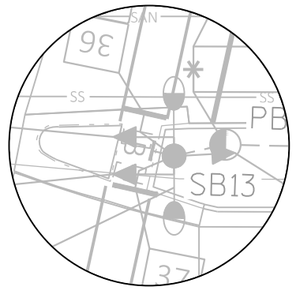
DETAIL "E"



DETAIL "B"



DETAIL "H"



DETAIL "F"

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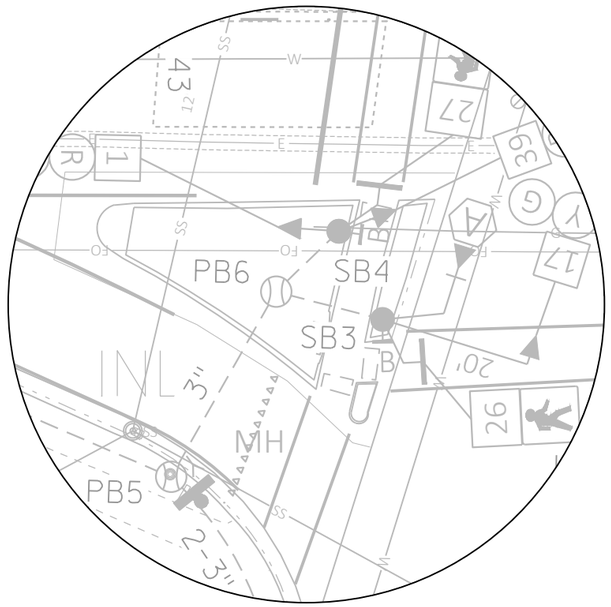
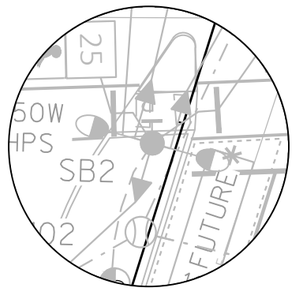
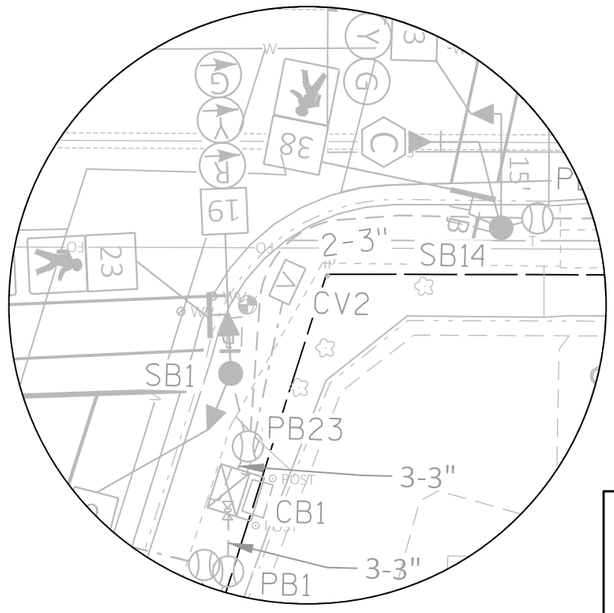


DETAIL "D"



DETAIL "G"



DETAIL "C"

TRAFFIC CONTROL SIGNAL
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1096

REGION CONTACT: J. BRUGGEMAN
DESIGNED BY:
REVISED BY: C. VANDE LEEST

PAGE 3 OF 4

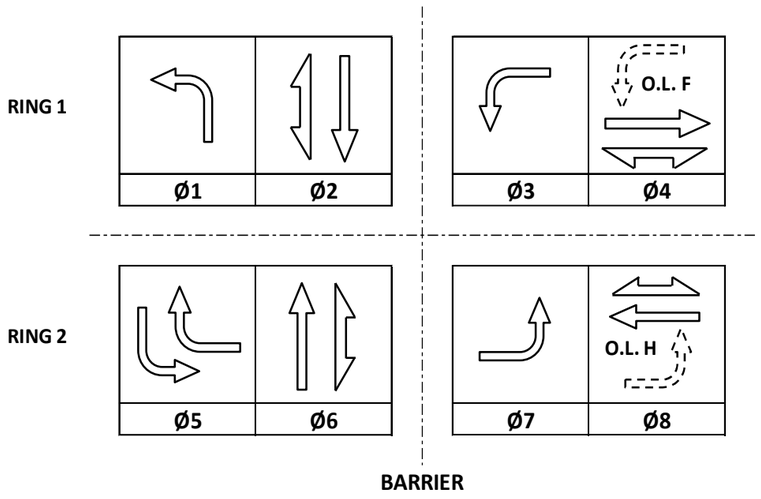
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 90	E

FILE NAME : N:\PDS\C3D\CAD\11004600\71\SIG\S40-1096\S40-1096_R15.DWG
LAYOUT NAME - S40-1096_R15_pg3

PLOT DATE : 10/28/2022 11:40 AM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	12,13,14	R ←
Ø2	15,16,17	R
Ø3	8,39,40	R ←
Ø4	1,2,3	R
Ø5	18,19,20,21,22	R, R ←
Ø6	9,10,11	R
Ø7	4,41,42	R ←
Ø8	5,6,7	R
Ø2P	27,28,29,30	
Ø4P	23,24,25,26	
Ø6P	35,36,37,38	
Ø8P	31,32,33,34	
OLE		
OLF	8,39,40	-
OLG		
OLH	4,41,42	-



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	↓ L	↑ L	⇢	⇠
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS- 40-0004

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	31	41	52	55	81	83
CALLED PHASE	FUTURE	2	3	4	FUTURE	5	8	8
CALL OPTION		X	X			X		X
DELAY TIME						X		
EXTENTION OPTION		X	X	X		X	X	X
EXTEND TIME				X			X	
USE ADDED INITIAL		X						
CROSS SWITCH PHASE			4					

DETECTOR INPUT	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	85		43	12		56			PLAN LOOP DETECTOR*(S)
CALLED PHASE	8		4	1		5			CALLED PHASE
CALL OPTION	X		X	X		X			CALL OPTION
DELAY TIME									DELAY TIME
EXTENTION OPTION	X		X	X		X			EXTENTION OPTION
EXTEND TIME									EXTEND TIME
USE ADDED INITIAL									USE ADDED INITIAL
CROSS SWITCH PHASE									CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)		22	32	51	54	61	82	84
CALLED PHASE		2	3	FUTURE	5	6	8	8
CALL OPTION		X	X		X	X	X	X
DELAY TIME					X			
EXTENTION OPTION		X	X		X	X	X	X
EXTEND TIME								
USE ADDED INITIAL		X				X		
CROSS SWITCH PHASE			4					

DETECTOR INPUT	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	86		53	42		71			PLAN LOOP DETECTOR*(S)
CALLED PHASE	8		4	7		7			CALLED PHASE
CALL OPTION	X		X	X		X			CALL OPTION
DELAY TIME									DELAY TIME
EXTENTION OPTION	X		X	X		X			EXTENTION OPTION
EXTEND TIME									EXTEND TIME
USE ADDED INITIAL									USE ADDED INITIAL
CROSS SWITCH PHASE						8			CROSS SWITCH PHASE

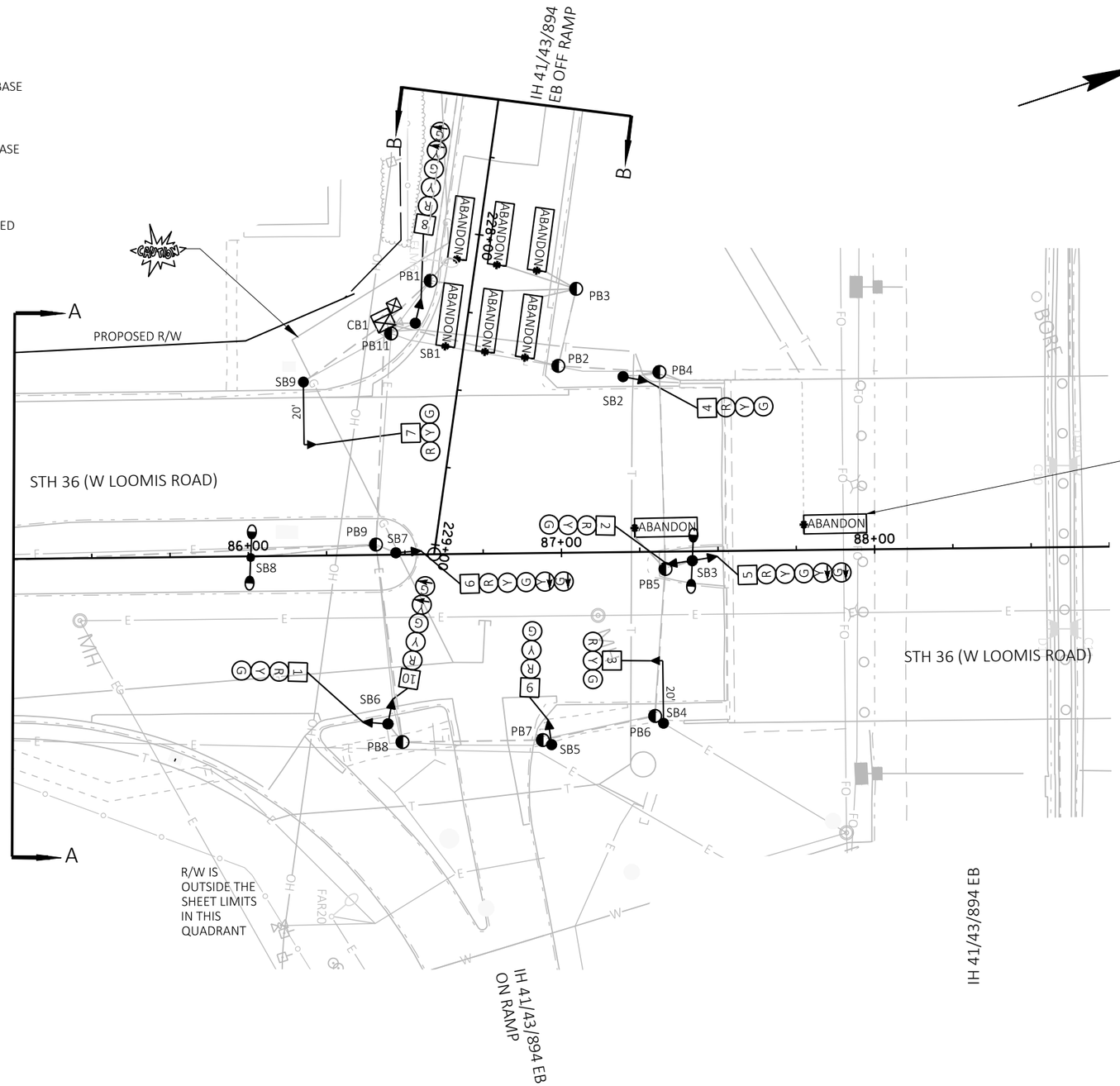
STH 36 (W LOOMIS RD) & CTH Y (W LAYTON AVE)
CITY OF GREENFIELD
MILWAUKEE COUNTY
SIGNAL NO: S40-1096 CABINET TYPE: TS2-S
CONTROLLER TYPE: ECONOLITE
DATE: 11/22 PAGE NUMBER: 4 OF 4

FILE NAME: \\dotwkefile1p\n3public\SPO\Operations\Signals\Databases\Signal Intersection Files\S40-1096\PLANS\TS2-S_E_FYA_EFGH_Econolite_SEQ.xlsx PLOT DATE: 11/9/2021 PLOT NAME: TS2-S_E_FYA_EFGH_Econolite_SEQ.xlsx PLOT BY: _____ PLOT SCALE: 1:1

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW

NOTE: GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS ITEMS TO BE REMOVED.



LOOP MOUNTED UNDER BRIDGE

CONSTRUCTION NOTES:

1. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE AND LOOP DETECTOR WIRE TO BE REMOVED BY THE CONTRACTOR
2. REMOVE ALL TRAFFIC SIGNAL CABLE, LOOP DETECTOR LEAD IN CABLE, AND GROUNDING WIRES FROM EXISTING CONDUIT SYSTEM. ABANDON CONDUIT IN PLACE.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. EXISTING UTILITIES SHOWN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SEWER AND WATER FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 3 WORKING DAYS PRIOR TO EXCAVATION.

TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

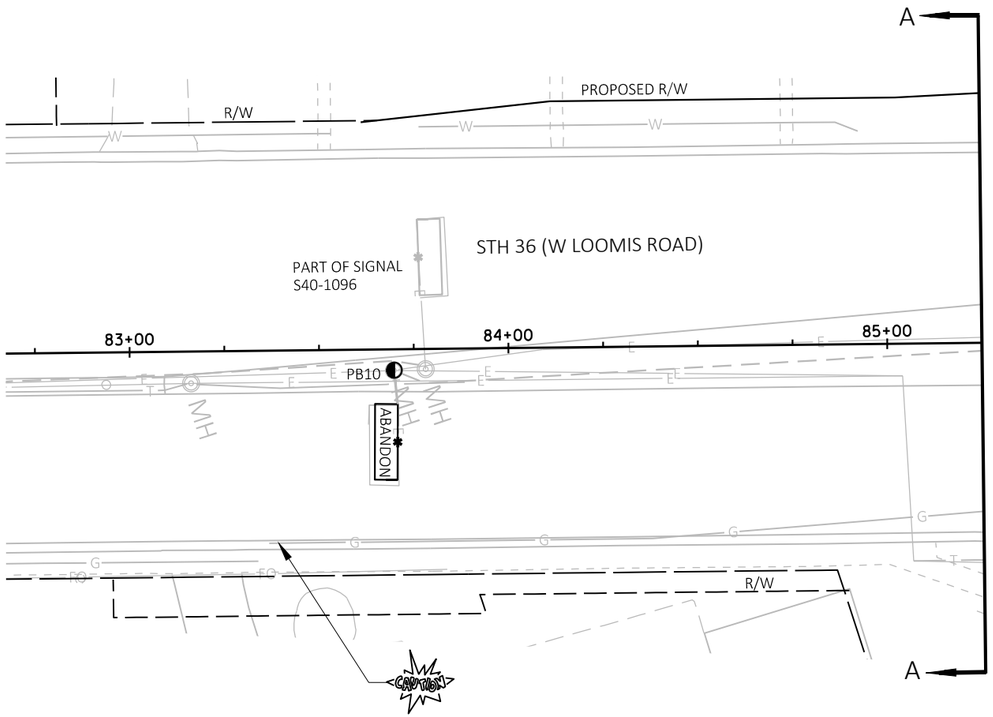
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 92	E

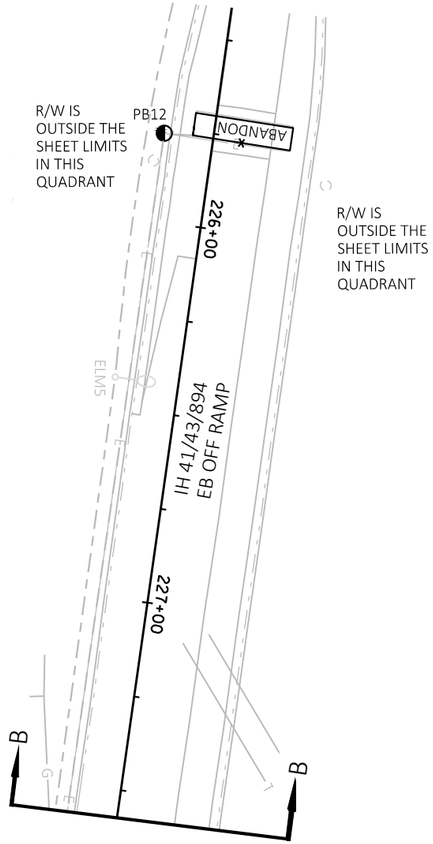
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 1

PLOT DATE : 10/14/2022 9:17 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 93	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 2

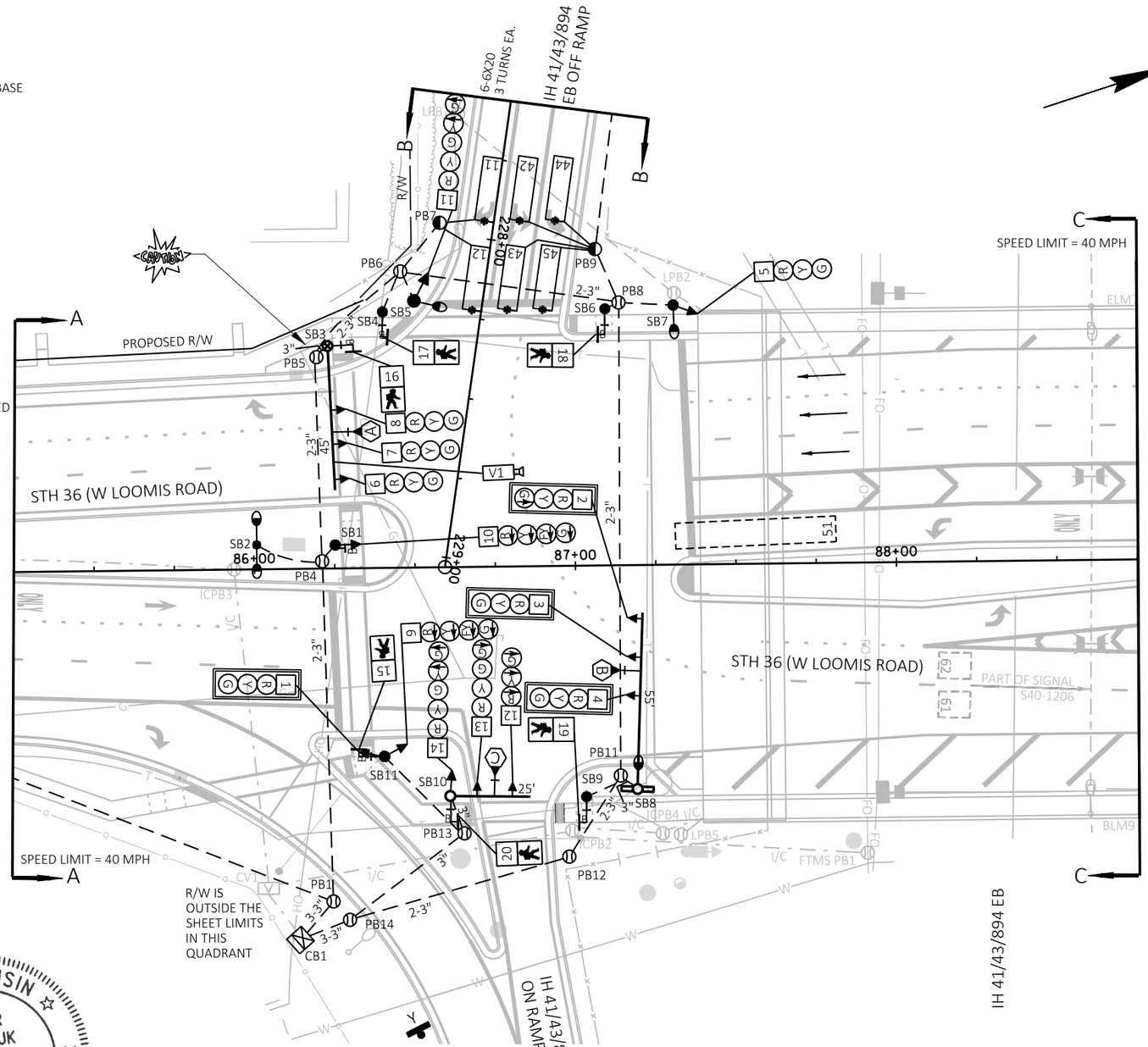
PLOT DATE : 10/31/2022 8:07 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- Y YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY
- XX PEDESTRIAN COUNTDOWN INDICATION (16-INCH)
- SIGNAL HEAD W/REFLECTIVE BACKPLATE
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- NONMETALLIC INTERCONNECT CONDUIT 2" UNLESS OTHERWISE NOTED
- V COMMUNICATION VAULT

NOTES:

* ALL LENSES ARE 12-INCH
* GRAYSHADE REPRESENTS EXISTING



SIGNAL BASE	MONOTUBE NO.
SB3	S-40-2068-01
SB8	S-40-2068-02
SB10	S-40-2068-03

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF CENTER OF DETECTOR LOOP
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROPOSED PAVEMENT, PAVEMENT MARKINGS, LIGHTING, AND STRUCTURES SHOWN GRAYSHADE FOR PLAN CLARITY.
4. ALL LUMINAIRES ARE CATEGORY C LED.
5. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 11/15/22 Joyce M Murphy REGION TRAFFIC ENGINEER

APPROVED
DATE 11/15/22 STATE TRAFFIC ENGINEER

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

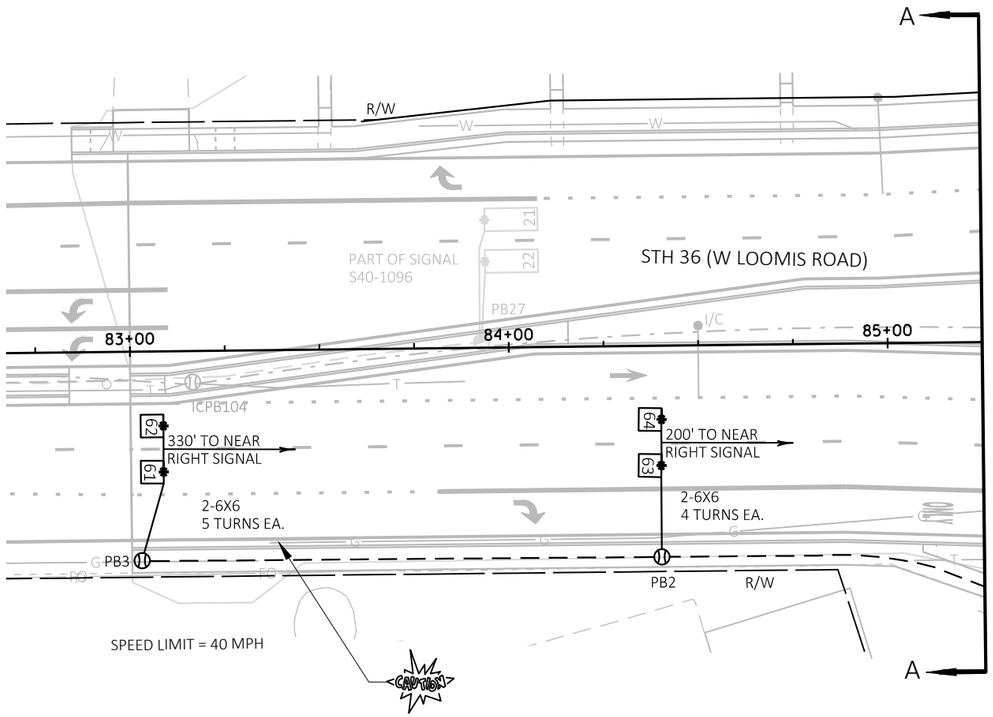
JPB 11-15-22

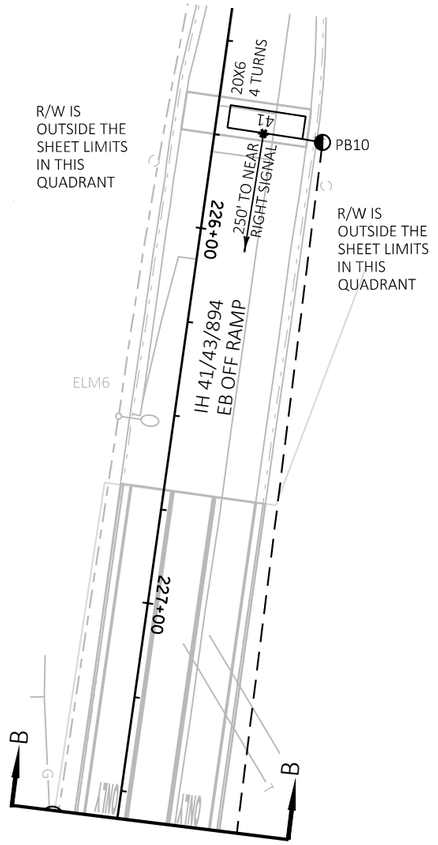
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 94	E

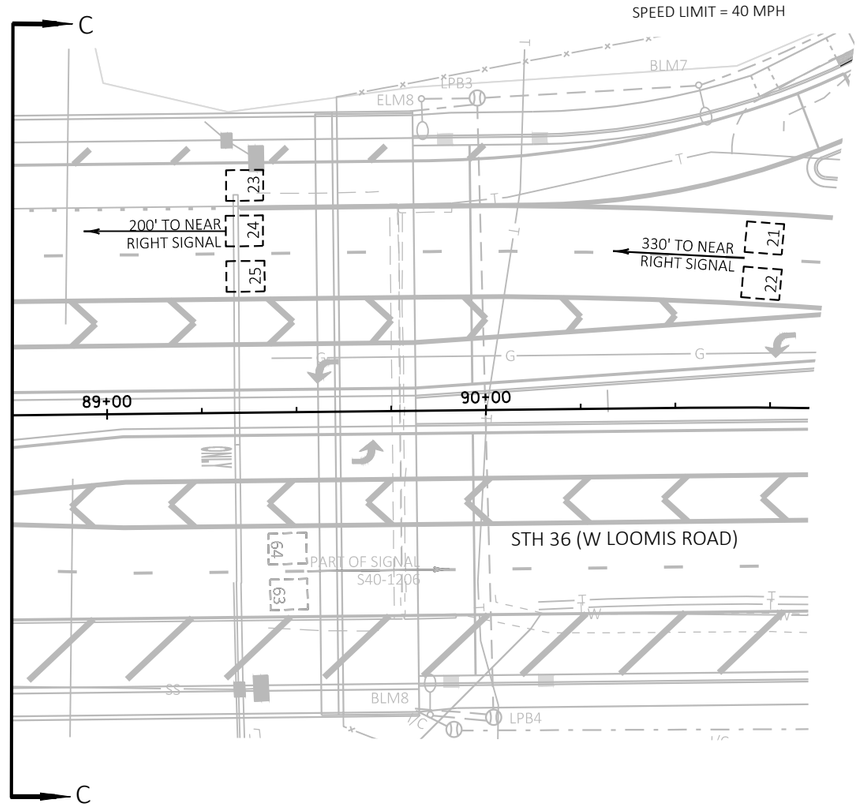
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 1
PLOT DATE : 10/25/2022 5:11 PM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N







TRAFFIC CONTROL SIGNAL
IH 41/43/894 EB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

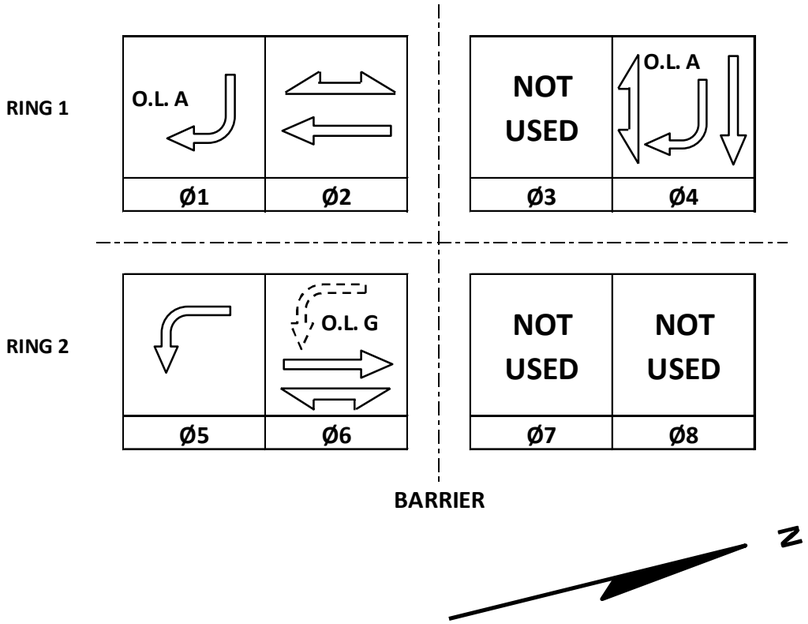
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 95	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 2

PLOT DATE : 10/31/2022 9:31 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		-
Ø2	5,6,7,8	R
Ø3		-
Ø4	11,12,13,14	R
Ø5	9,10	R ←
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø2P	17,18	
Ø4P	15,16	
Ø6P	19,20	
Ø8P		
OLA	11,14	R
OLE		
OLF		
OLG	9,10	-
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7				
8				

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C
MOVEMENT	←	↗	↓
PHASE	2+5	6	4

AFTER PREEMPTION SEQUENCE 6 OR 2+5, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	41	42	44	61	63		
CALLED PHASE	1	4	4	4	6	6		
CALL OPTION	X		X	X	X	X		
DELAY TIME								
EXTENSION OPTION	X	X	X	X	X	X		
EXTEND TIME		X						
USE ADDED INITIAL					X			
CROSS SWITCH PHASE								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)	21	23	25					
CALLED PHASE	2	2	2					
CALL OPTION	X	X	X					
DELAY TIME								
EXTENSION OPTION	X	X	X					
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	12		43	45	62	64		
CALLED PHASE	1		4	4	6	6		
CALL OPTION	X		X	X	X	X		
DELAY TIME								
EXTENSION OPTION	X		X	X	X	X		
EXTEND TIME								
USE ADDED INITIAL					X			
CROSS SWITCH PHASE								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)	22	24	51					
CALLED PHASE	2	2	5					
CALL OPTION	X	X	X					
DELAY TIME								
EXTENSION OPTION	X	X	X					
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE			6					

GENERAL NOTES:

1. OMIT OLA WHEN PHASE 4 PEDESTRIAN CALL IS PLACED.

IH 41/43/894 EB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO: S40-1161 CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE
DATE: OCTOBER 2022 PAGE NUMBER: 3 OF 3

FILE NAME: https://aecom.sharepoint.com/sites/LoomisInterchange/Shared Documents/General/15_SOO Sheets/Loomis EB Ramps.xlsx PLOT DATE: ######## PLOT NAME: Loomis EB Ramps.xlsx PLOT BY: James Jeninga PLOT SCALE: 1:1

PROJECT ID:	1100-46-71
INTERSECTION:	IH 41/43/894 EB RAMP & STH 36

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Oct-22

	AWG 12		SIGNAL INDICATION WIRE COLOR									PED	PED
CB1 TO	# OF COND.	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK	WALK	NEUTRAL	INPUT
SB1	7	10				RED	ORG	BLK/WHT	GRN				
		PB										WHT/BLK	
SB3	12	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		16								BLK	BLU		
		PB										WHT/BLK	
SB4	7	17								BLK	BLU		
		PB										WHT/BLK	
SB5	12	11	RED	ORG	GRN		ORG/BLK		GRN/BLK				
SB6	7	18								BLK	BLU		
		PB										WHT/BLK	
SB7	7	5	RED	ORG	GRN								
SB8	7	2	RED	ORG					BLK				
		3	RED	ORG	GRN								
		4	RED	ORG	GRN								
SB9	7	19								BLK	BLU		
		PB										WHT/BLK	
SB10	12	12				RED/BLK	ORG/BLK		GRN/BLK				
		13	RED	ORG	GRN				GRN/BLK				
		14	RED	ORG	GRN		BLU/BLK		BLK/WHT				
		20								BLK	BLU		
		PB										WHT/BLK	
SB11	12	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		15								BLK	BLU		
		PB										WHT/BLK	

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

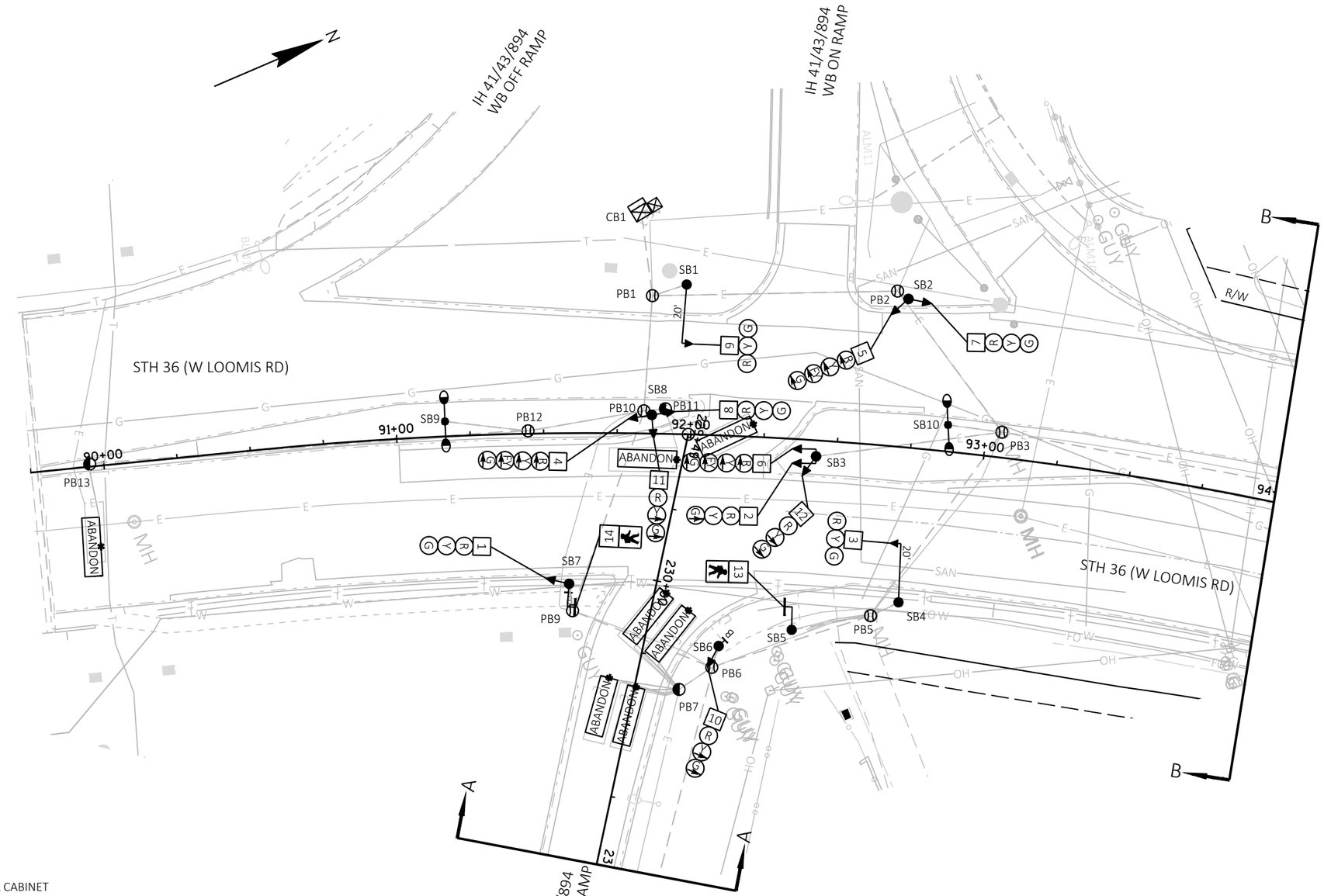
EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	CB1

PULL BOX	
BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	CB1
PB4	SB1
PB5	SB3
PB6	SB5
PB8	SB6
PB11	SB8
PB12	SB8
PB13	SB10
PB14	CB1

LIGHTING UF	
10 AWG W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB5
CB1	SB8
SB8	SB7

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB3
B	CB1	SB8
C	CB1	SB10

VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB3)



CONSTRUCTION NOTES:

1. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE AND LOOP DETECTOR WIRE TO BE REMOVED BY THE CONTRACTOR
2. REMOVE ALL TRAFFIC SIGNAL CABLE, LOOP DETECTOR LEAD IN CABLE, AND GROUNDING WIRES FROM EXISTING CONDUIT SYSTEM. ABANDON CONDUIT IN PLACE.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. EXISTING UTILITIES SHOWN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES INCLUDING SEWER AND WATER FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 3 WORKING DAYS PRIOR TO EXCAVATION.

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20-FOOT, TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- XX PEDESTRIAN COUNTDOWN INDICATION (16-INCH)
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW

NOTE: GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
IH 41/43/894 WB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1206

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

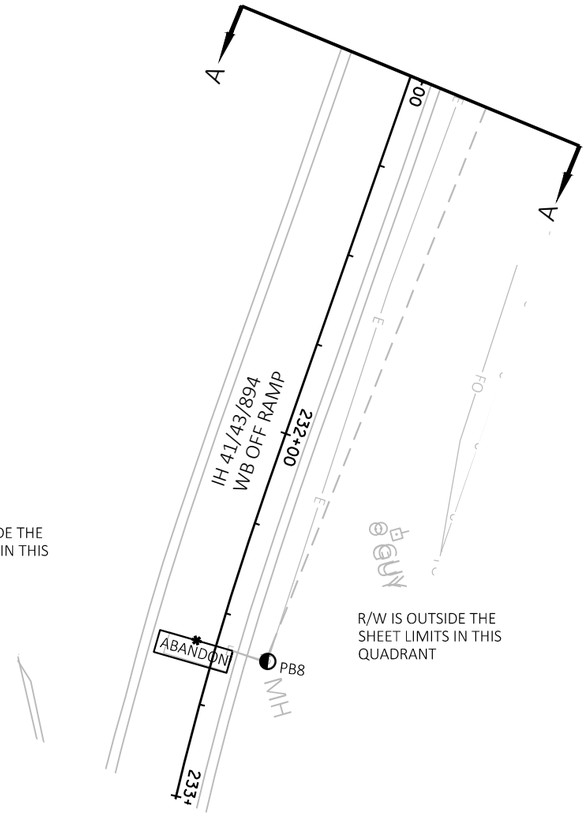
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 99	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 4

PLOT DATE : 10/25/2022 5:04 PM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

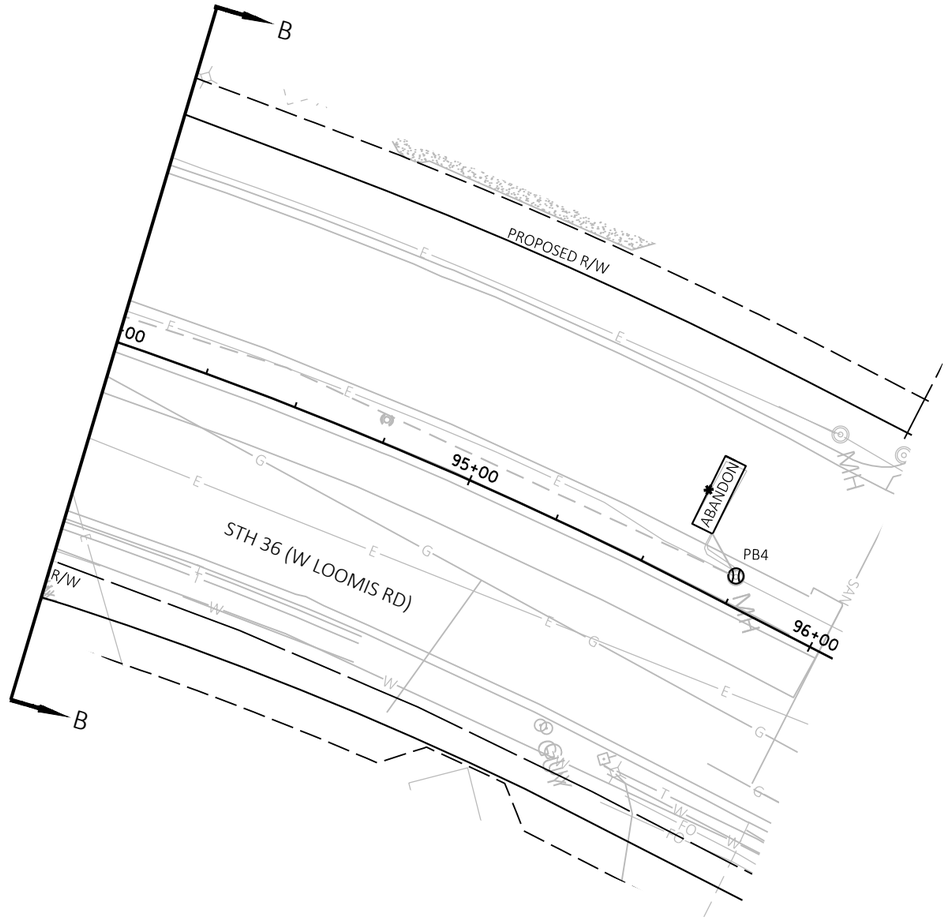
WISDOT/CADDS SHEET 42

2



R/W IS OUTSIDE THE SHEET LIMITS IN THIS QUADRANT

R/W IS OUTSIDE THE SHEET LIMITS IN THIS QUADRANT



TRAFFIC CONTROL SIGNAL
IH 41/43/894 WB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1206

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

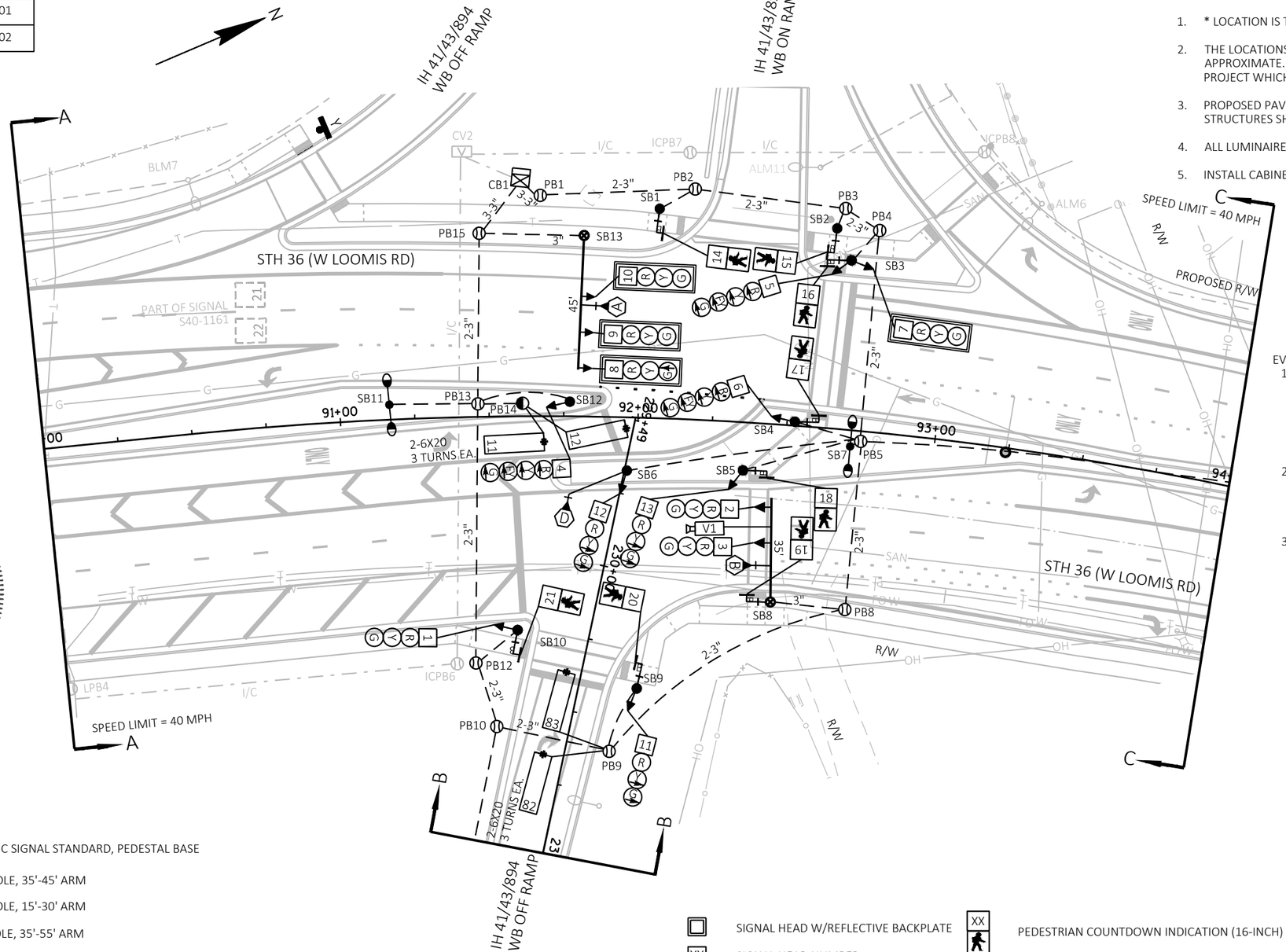
PAGE 2 OF 2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 100	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 5

PLOT DATE : 10/26/2022 8:27 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN: 40 FT

SIGNAL BASE	MONOTUBE NO.
SB8	S-40-2069-01
SB13	S-40-2069-02



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF CENTER OF DETECTOR LOOP
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROPOSED PAVEMENT, PAVEMENT MARKINGS SYMBOLS, LIGHTING, AND STRUCTURES SHOWN GRAYSHADE FOR PLAN CLARITY.
4. ALL LUMINAIRES ARE CATEGORY C LED.
5. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.

WISCONSIN
TYLER TKACHUK E-45086 VERONA WI
PROFESSIONAL ENGINEER
11-16-22

LEGEND

- CONTROL CABINET
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- NONMETALLIC INTERCONNECT CONDUIT 2" UNLESS OTHERWISE NOTED
- V COMMUNICATION VAULT
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- SIGNAL HEAD W/REFLECTIVE BACKPLATE
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- XX PEDESTRIAN COUNTDOWN INDICATION (16-INCH)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- Y YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY

TRAFFIC CONTROL SIGNAL

IH 41/43/894 WB RAMPS & STH 36

CITY OF GREENFIELD

MILWAUKEE COUNTY

SIGNAL NO. S40-1206 CABINET TYPE: TS2-E CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 11/15/22 Joyce M Murphy REGION TRAFFIC ENGINEER

APPROVED
DATE 11/15/22 Jerry R Sievert STATE TRAFFIC ENGINEER

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

JAB 11-15-22

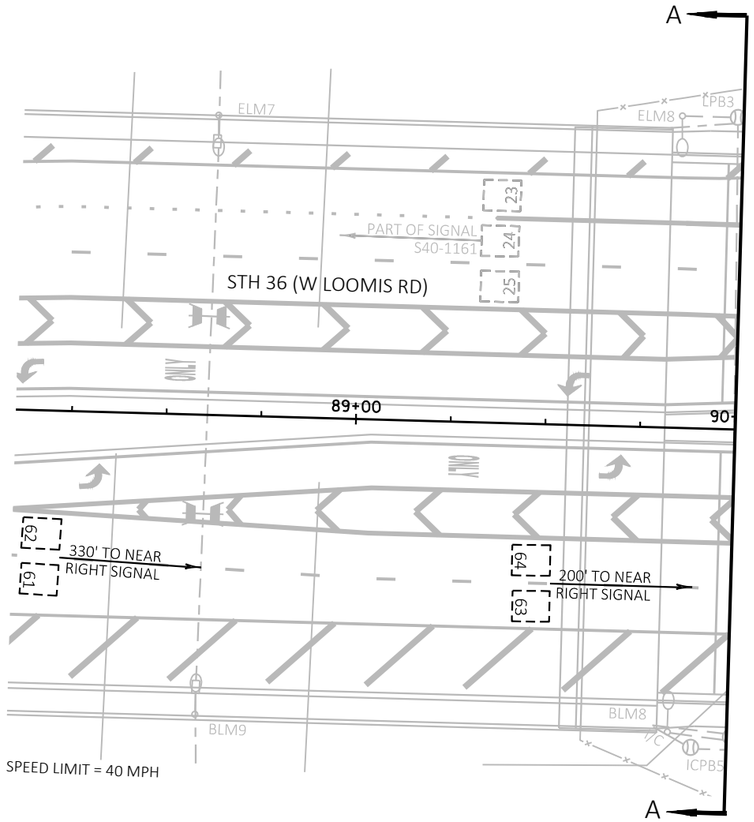
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 101	E

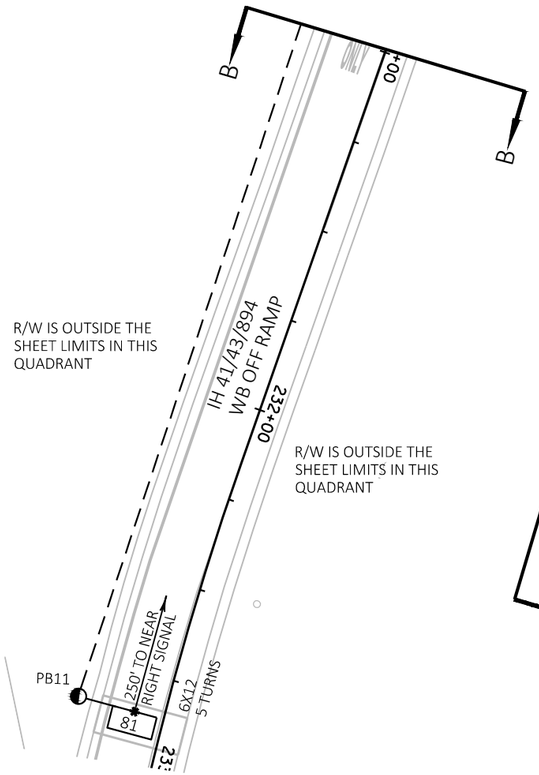
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 4

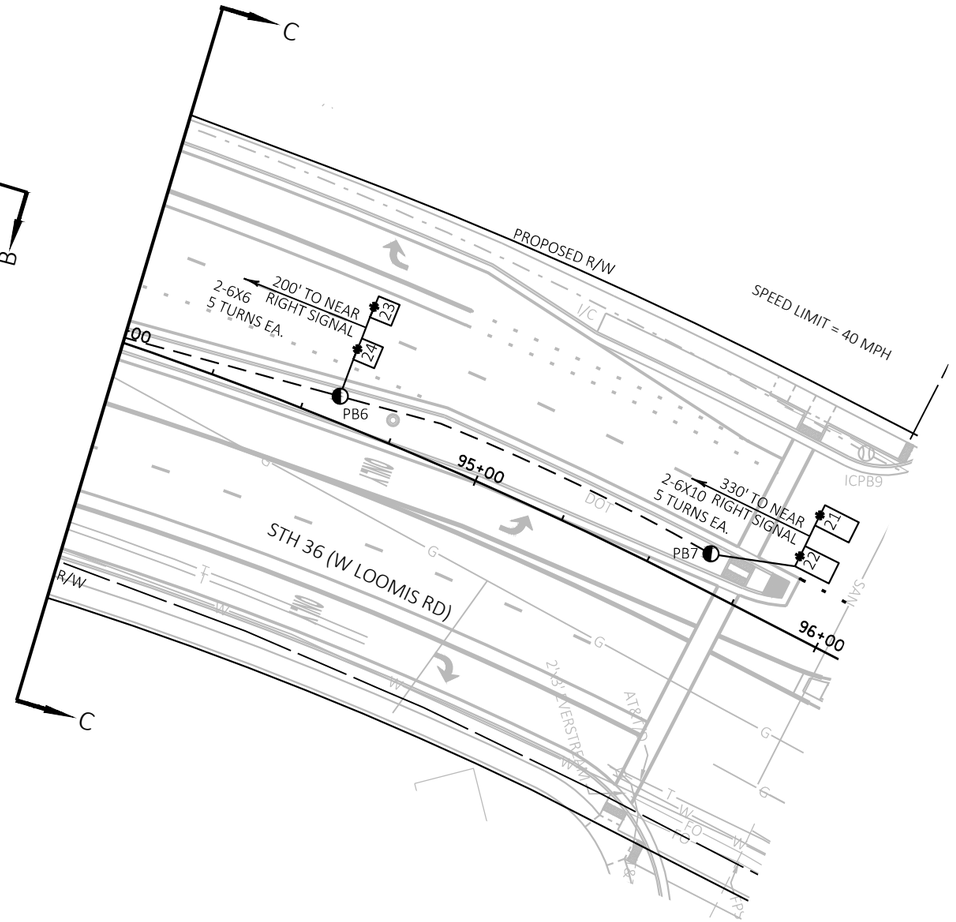
PLOT DATE : 10/26/2022 12:28 PM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2







TRAFFIC CONTROL SIGNAL
IH 41/43/894 WB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1206

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

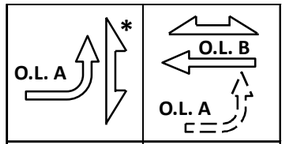
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 102	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-SIG-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 5

PLOT DATE : 10/17/2022 3:30 PM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN: 40 FT

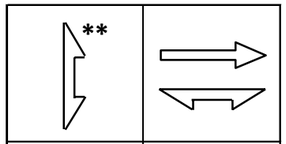
	HEAD NUMBERS	FLASH
Ø1	4,5,6	R ←
Ø2	7,8,9,10	R
Ø3		
Ø4		
Ø5		-
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13	R
Ø1P	18,19	
Ø2P	20,21	
Ø4P		
Ø5P	16,17	
Ø6P	14,15	
Ø8P		
OLA	4,5,6	
OLB	7,8,9,10	

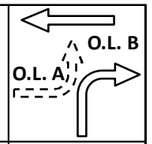
RING 1

	NOT USED
Ø1	Ø2

NOT USED	NOT USED
Ø3	Ø4

RING 2

	
Ø5	Ø6

NOT USED	
Ø7	Ø8

* PEDESTRIAN CROSSING OF STH 36 SB LANES
**PEDESTRIAN CROSSING OF STH 36 NB LANES

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				
5				X
6	X	2	MIN	X
7				
8				X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	D
MOVEMENT			
PHASE	2+6	6+1	8

AFTER PREEMPTION SEQUENCE 2+6 OR 8, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 6+1, CONTROLLER SHALL RETURN TO PHASES 6+2.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	X
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	23	81	83			
CALLED PHASE	1	2	2	8	8			
CALL OPTION	X	X	X	X	X			
DELAY TIME					X			
EXTENTION OPTION	X	X	X	X	X			
EXTEND TIME								
USE ADDED INITIAL		X	X					
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
61	63							PLAN LOOP DETECTOR*(S)
6	6							CALLED PHASE
X	X							CALL OPTION
								DELAY TIME
X	X							EXTENTION OPTION
								EXTEND TIME
X	X							USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	12	22	24	82				
CALLED PHASE	1	2	2	8				
CALL OPTION	X	X	X	X				
DELAY TIME				X				
EXTENTION OPTION	X	X	X	X				
EXTEND TIME								
USE ADDED INITIAL		X	X					
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
62	64							PLAN LOOP DETECTOR*(S)
6	6							CALLED PHASE
X	X							CALL OPTION
								DELAY TIME
X	X							EXTENTION OPTION
								EXTEND TIME
X	X							USE ADDED INITIAL
								CROSS SWITCH PHASE

IH 41/43/894 WB RAMPS & STH 36
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO:	S40-1161	CABINET TYPE:	TS2-E
		CONTROLLER TYPE:	ECONOLITE
DATE:	OCTOBER 2022	PAGE NUMBER:	3 OF 3

FILE NAME: https://aecom.sharepoint.com/sites/LoomisInterchange/Shared Documents/General/15_SOO Sheets/Loomis WB Ramps.xlsx PLOT DATE: ######## PLOT NAME: Loomis WB Ramps.xlsx PLOT BY: James Jeringa PLOT SCALE: 1:1

PROJECT ID:	1100-46-71
INTERSECTION:	IH 41/43/894 WB RAMP & STH 36

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Oct-22

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED NEUTRAL	PED INPUT
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK	WALK		
SB1	7	14								BLK	BLU		
		PB										WHT/BLK	
SB2	7	15								BLK	BLU		
		PB										WHT/BLK	
SB3	12	5				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		7	RED	ORG	GRN								
		16								BLK	BLU		
		PB										WHT/BLK	
SB4	12	6				RED	ORG	BLK/WHT	GRN				
		17								BLK	BLU		
		PB										WHT/BLK	
SB5	12	13	RED				ORG		GRN				
		18								BLK	BLU		
		PB										WHT/BLK	
SB6	7	12	RED				ORG		GRN				
SB8	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		19								BLK	BLU		
		PB										WHT/BLK	
SB9	12	11	RED				ORG		GRN				
		20								BLK	BLU		
		PB										WHT/BLK	
SB10	12	1	RED	ORG	GRN								
		21								BLK	BLU		
		PB										WHT/BLK	
SB12	7	4				RED	ORG	BLK	GRN				
SB13	7	8	RED	ORG					BLK				
		9	RED	ORG	GRN								
		10	RED	ORG	GRN								

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB8
SB8	SB9
SB9	SB10
SB10	SB12
SB12	SB13
SB13	CB1

PULL BOX	
BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	CB1
PB2	SB1
PB3	SB2
PB4	SB3
PB5	SB4
PB8	SB8
PB9	SB9
PB10	SB10
PB12	SB10
PB13	SB12
PB15	CB1

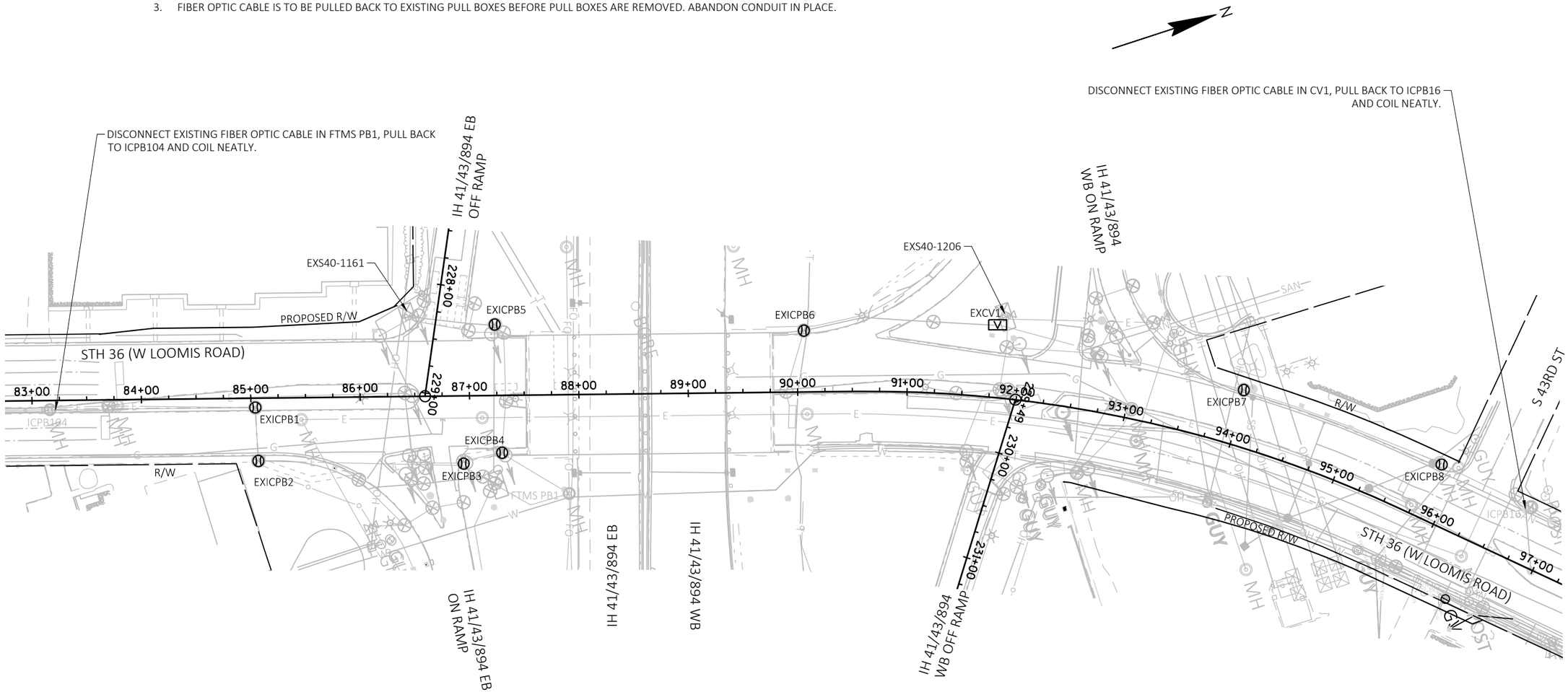
LIGHTING UF	
10 AWG W/ GROUND	
FROM	TO
CB1	SB7
CB1	SB11

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB13
B	CB1	SB8
D	CB1	SB6

VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB8)

CONSTRUCTION NOTES:

1. GRAY SHADE REPRESENTS EXISTING. BOLD REPRESENT ITEMS TO BE REMOVED.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. FIBER OPTIC CABLE IS TO BE PULLED BACK TO EXISTING PULL BOXES BEFORE PULL BOXES ARE REMOVED. ABANDON CONDUIT IN PLACE.



LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT, TYPE ROUND
- PULL BOX, 24" X 42"
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL INTERCONNECT
STH 36 (W. LOOMIS ROAD)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161, S40-1206

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT REMOVAL PLAN	SHEET 106	E

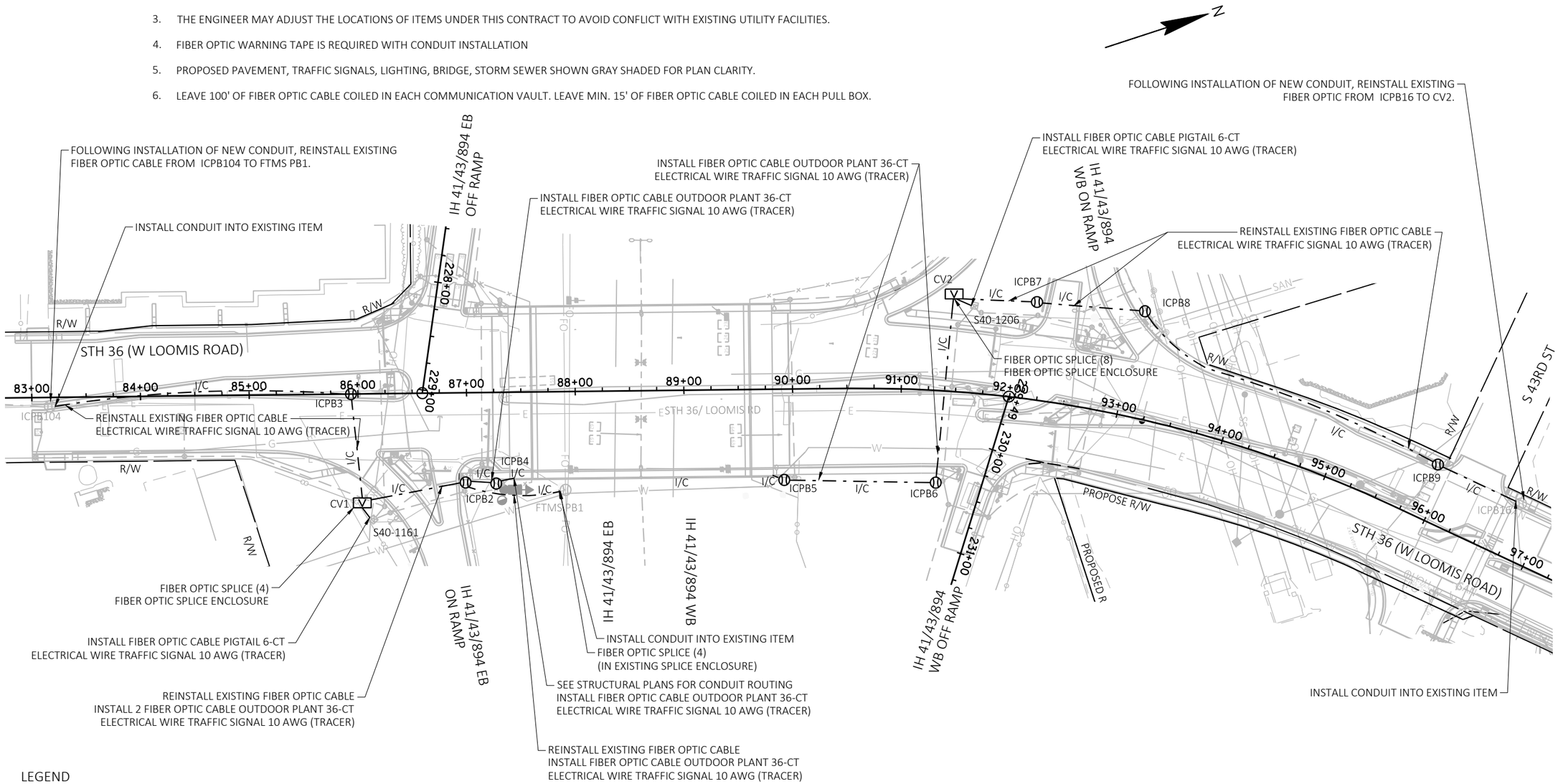
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\E-IC-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. IC REMOVAL

PLOT DATE : 10/19/2022 11:40 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE ALL CONDUIT RUNS, COMMUNICATION VAULTS, AND PULL BOXES INSPECTED 5 WORKING DAYS PRIOR TO PLACING CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS AT (715)-577-3854.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. FIBER OPTIC WARNING TAPE IS REQUIRED WITH CONDUIT INSTALLATION
5. PROPOSED PAVEMENT, TRAFFIC SIGNALS, LIGHTING, BRIDGE, STORM SEWER SHOWN GRAY SHADED FOR PLAN CLARITY.
6. LEAVE 100' OF FIBER OPTIC CABLE COILED IN EACH COMMUNICATION VAULT. LEAVE MIN. 15' OF FIBER OPTIC CABLE COILED IN EACH PULL BOX.



LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT, TYPE ROUND
- PULL BOX, 24" X 42"
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED

TRAFFIC SIGNAL INTERCONNECT
STH 36 (W. LOOMIS ROAD)
CITY OF GREENFIELD
MILWAUKEE COUNTY

SIGNAL NO. S40-1161, S40-1206

REGION CONTACT: JOYCE MURPHY
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 107	E

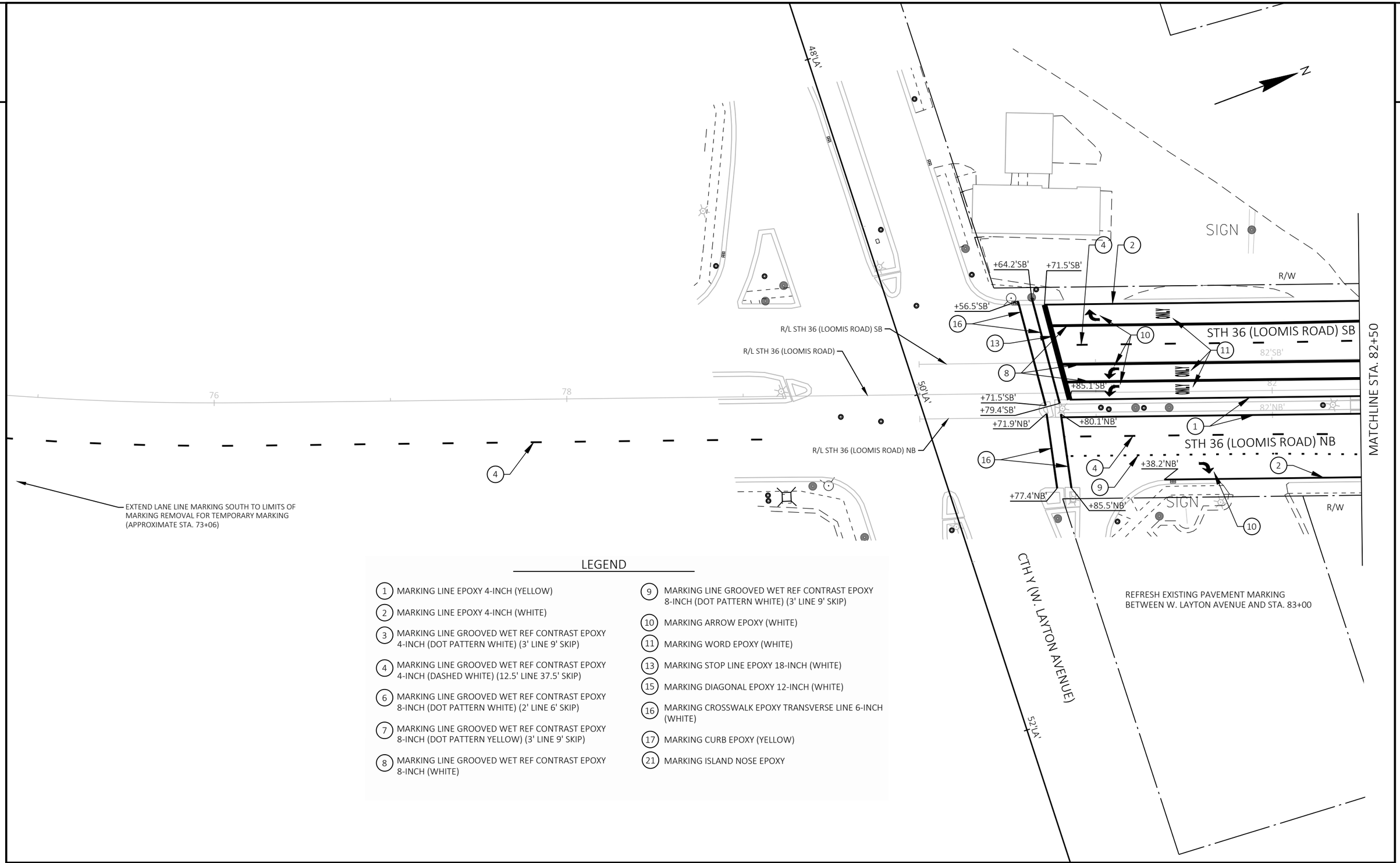
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\JAMES.JENINGA@AECOM.COM\DMS24416\P-IC-LOOMIS.DWG
LAYOUT NAME - LOOMIS RD. SIGNAL PLAN SHEET 1

PLOT DATE : 10/14/2022 10:29 AM PLOT BY : JENINGA, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2



LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
4. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DASHED WHITE) (12.5' LINE 37.5' SKIP)
6. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (2' LINE 6' SKIP)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (DOT PATTERN YELLOW) (3' LINE 9' SKIP)
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE)
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
10. MARKING ARROW EPOXY (WHITE)
11. MARKING WORD EPOXY (WHITE)
13. MARKING STOP LINE EPOXY 18-INCH (WHITE)
15. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
16. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
21. MARKING ISLAND NOSE EPOXY

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MARKING PLAN	SHEET 108	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\024501_PM.DWG
LAYOUT NAME - 024501_pm
PLOT DATE : 11/11/2022 8:47 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

REFRESH EXISTING PAVEMENT MARKING BETWEEN W. LAYTON AVENUE AND STA. 83+00

BEGIN PROJECT
STA 83+00.00
MATCH EXISTING

MATCHLINE STA. 82+50

MATCHLINE STA. 89+50

R/W

PROPOSED R/W

TLE

PLE

STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

STH 36 (LOOMIS ROAD) NB

R/L STH 36 (LOOMIS ROAD) NB

RAMP A

RAMP A1

RAMP B

R/L RAMP A

R/L RAMP A1

R/L RAMP B

EQUATION

STA BACK = 88+24.16'SB'
STA AHEAD = 88+23.91'SB'

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

STA BACK = 89+04.38'NB'
STA AHEAD = 89+04.06'NB'

IH 41 SB / IH 43 NB / IH 894 EB

IH 41 NB / IH 43 SB / IH 894 WB

SIGN

SLAB

ONLY

11'

12'

18'

20'

+10.1'SB'
+07.9'SB'
+22.3'LRB'
+26.7'LRB'
+33.6'LRB'
+16.3'LRB'
+20.4'LRB'
+26.2'LRB'
+33.1'SB'
+27.1'SB'
+35.7'SB'
+35.7'NB'
+10.8'NB'
+81.0'NB'
+23.8'NB'
+27.8'NB'
+33.8'NB'
+36.2'NB'
+27.2'NB'
+31.2'NB'
+37.2'NB'
+77.2'NB'
+74.6'LRA1'
+80.7'LRA1'
+78.3'LRA1'
+84.0'LRA1'
+58.1'NB'
+10.0'NB'
+08.4'NB'
+04.7'NB'
+09.2'NB'
+30.0'LRA'
+36.2'LRA'
+04.8'LRA'
+14.6'LRA'
+93.6'LRA'
+28.6'LRA'
+68.3'LRA'

LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
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15. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
16. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
21. MARKING ISLAND NOSE EPOXY

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MARKING PLAN	SHEET 109	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\024501_PM.DWG
LAYOUT NAME - 024501.1_pm

PLOT DATE : 12/8/2022 9:54 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
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16. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
21. MARKING ISLAND NOSE EPOXY

N

R/L RAMP D

RAMP D

R/L STH 36 (LOOMIS ROAD) SB

STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)

+73.0'LRD'
+67.0'LRD'

+73.0'LRD'
+67.5'LRD'

+85.7'SB'

+36.8'SB'

+90.7'SB'

+01.7'SB'

STH 36 (LOOMIS ROAD) SB

R/L STH 36 (LOOMIS ROAD)

+86.6'NB'
+91.4'NB'

R/L STH 36 (LOOMIS ROAD) NB

+56.3'NB'

STH 36 (LOOMIS ROAD) NB

+56.3'NB'

MATCHLINE STA. 89+50

R/L RAMP C1

RAMP C1

+94.9'LRC1'
+00.4'LRC1'

+98.0'LRC1'
+04.1'LRC1'

+62.2'SB'
+68.1'SB'
+72.0'SB'
+42.2'LRC'
+47.6'LRC'

+46.0'SB'

+35.0'NB'
+41.0'NB'

+72.1'SB'
+68.1'SB'
+62.0'SB'

+74.5'LRC'

R/L RAMP C

RAMP C

+42.2'LRC'
+48.2'LRC'

R/W

PROPOSED R/W

TLE

+47.3'SB'

+24.2'NB'

+51.9'NB'
+51.9'NB'

MATCHLINE STA. 94+00

+34.8'NB'
+41.0'NB'

+29.8'LRE'
+35.8'LRE'
+39.8'LRE'

+29.8'LRE
+35.8'LRE'
+39.8'LRE'

R/L RAMP E

RAMP E

MATCHLINE STA. 231+50'LRE'

SLAB

PROPOSED R/W

TLE

R/W

R/W

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MARKING PLAN	SHEET 110	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\024501_PM.DWG
LAYOUT NAME - 024502_pm

PLOT DATE : 11/11/2022 8:48 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
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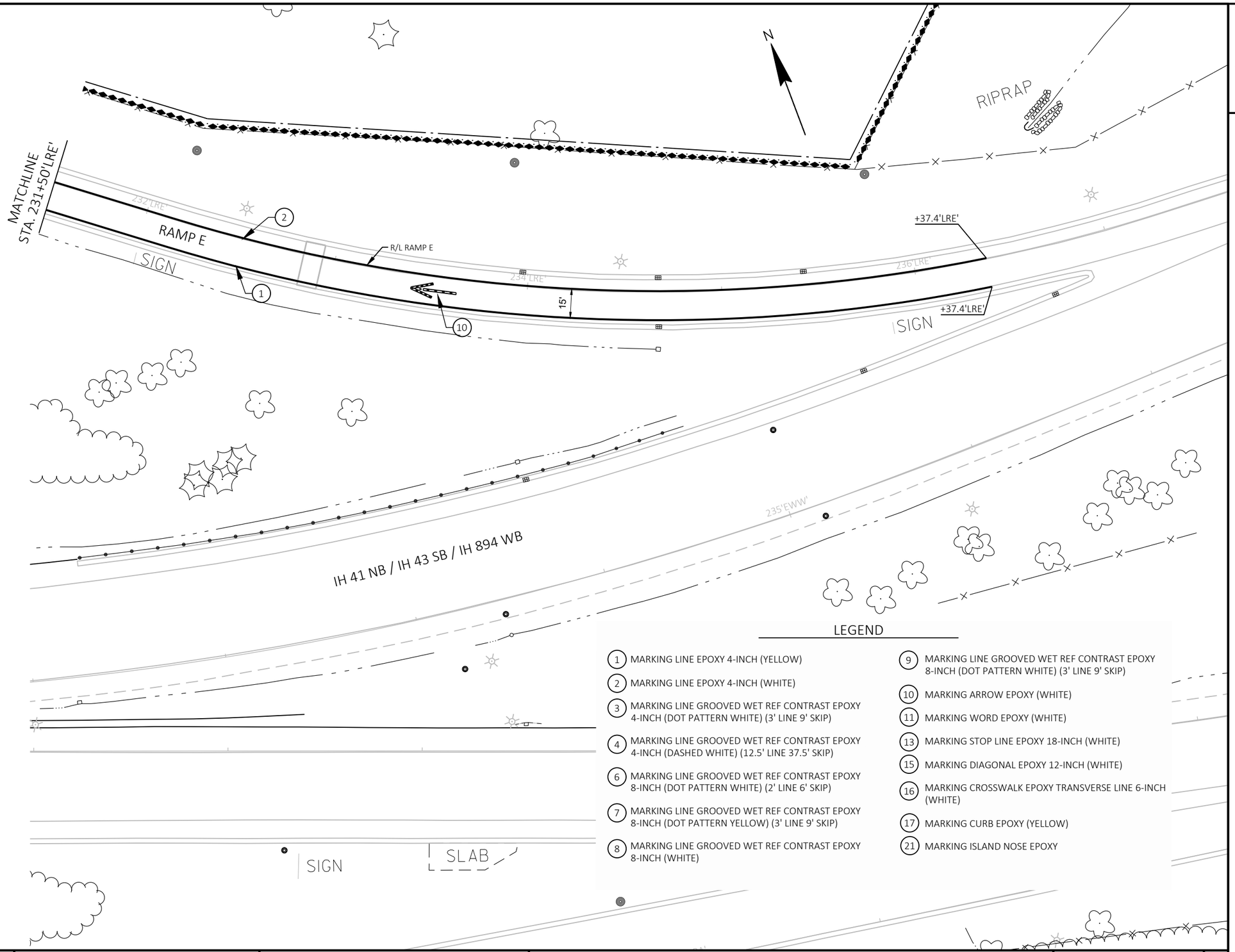
16. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
21. MARKING ISLAND NOSE EPOXY

S. 43RD STREET
R/L S. 43RD STREET
52'F'
+70.9'F'
+23.6'F'
+13.2'F'
+63.2'F'
+59.2'F'
+53.2'F'
+69.6'SB'
+75.6'SB'
+59.2'F'
+53.2'F'
+63.2'F'
+82.3'SB'
+88.3'SB'
TLE
R/W
SIGN
+22.0'SB'
+48.6'SB'
+43.4'SB'
STH 36 (LOOMIS ROAD) SB
+88.8'SB'
+93.5'SB'
+70.1'SB'
+88.3'SB'
+82.3'SB'
+82.3'NB'
+88.3'NB'
+67.8'NB'
+05.2'NB'
+20.2'NB'
+28.2'NB'
+75.9'NB'
STH 36 (LOOMIS ROAD) NB
R/L STH 36 (LOOMIS ROAD) SB
R/L STH 36 (LOOMIS ROAD)
R/L STH 36 (LOOMIS ROAD) NB
+41.4'NB'
EQUATION
STA BACK = 95+76.07'SB'
STA AHEAD = 95+67.29'SB'
PROPOSED R/W
+89.0'SB'
+93.4'SB'
+68.0'SB'
+69.6'SB'
+60.8'NB'
+88.0'SB'
+37.0'SB'
+50.8'SB'
+96'SB'
+98'SB'
+100'SB'
+96'NB'
+98'NB'
+100'NB'
MATCHLINE STA. 94+00
PROPOSED R/W
TLE
+60.5'NB'
+75.6'NB'
+96.9'AR'
+90.9'AR'
+01.0'AR'
+91.0'AR'
+97.0'AR'
+01.0'AR'
TLE
+88.3'NB'
+82.3'NB'
EQUATION
STA BACK = 95+65.67'NB'
STA AHEAD = 95+74.54'NB'
NEW ACCESS ROAD
R/L NEW ACCESS ROAD

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MARKING PLAN	SHEET 111	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\024501_PM.DWG
LAYOUT NAME - 024502.1_pm
PLOT DATE : 11/11/2022 8:48 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
3. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (DOT PATTERN WHITE) (3' LINE 9' SKIP)
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13. MARKING STOP LINE EPOXY 18-INCH (WHITE)
15. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
16. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
17. MARKING CURB EPOXY (YELLOW)
21. MARKING ISLAND NOSE EPOXY

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MARKING PLAN	SHEET 112	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\024501_PM.DWG
LAYOUT NAME - 024507_pm
PLOT DATE : 11/11/2022 8:48 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

GENERAL NOTES FOR TRAFFIC CONTROL

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR EXIT WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTIME OPERATIONS, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

ALL TYPE III BARRICADES SHALL BE 8' WIDE UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

ALL TRAFFIC CONTROL SIGNS LOCATED IN MEDIANS SHALL BE MOUNTED ON CONCRETE BARRIER UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

16" X 16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

ANY TEMPORARY OR EXISTING SIGNS WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED, AS APPROVED BY THE ENGINEER.

TEMPORARY TRAFFIC CONTROL AND DETOUR SIGNS SHALL NOT BE ATTACHED TO ANY LIGHT POLES MAINTAINED BY THE CITY OF GREENFIELD.

TRAFFIC CONTROL LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- Ⓑ TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- Ⓒ TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY PAVEMENT
- MARKING REMOVAL LINE (TYPE)
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC PORTABLE CRASH CUSHION
- SIGN COVERING

TRAFFIC CONTROL SHEET INDEX

TRAFFIC CONTROL GENERAL NOTES
TRAFFIC CONTROL PLANS - STAGE A
TRAFFIC CONTROL PLANS - STAGE B
TRAFFIC CONTROL PLANS - STAGE C
TRAFFIC CONTROL PLANS - STAGE D
TRAFFIC CONTROL PLANS - STAGE E
TRAFFIC CONTROL PLANS - STAGE F
TRAFFIC CONTROL PLANS - STAGE G
TRAFFIC CONTROL PLANS - STAGE H
TRAFFIC CONTROL PLANS - MAINLINE CLOSURE
TRAFFIC CONTROL PLANS - 27TH STREET MODIFICATIONS
TRAFFIC CONTROL PLANS - FIXED MESSAGE SIGN
TRAFFIC CONTROL PLANS - SHORT TERM RAMP CLOSURE DETAIL

2

N

ROAD WORK AHEAD
W20-1A

LEFT LANE MUST TURN LEFT
R3-7L
30"X30"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

WEST
M3-4
24"X12"
INTERSTATE 894
M1-1A
30"X24"

RAMP CLOSED AHEAD
W20-53A

W LAYTON AVENUE

END ROAD WORK
G20-2A
48"X24"

WO1-6
48"X24"

WEST
M3-4
24"X12"
INTERSTATE 894
M1-1A
30"X24"

RAMP CLOSED AHEAD
W20-53A

EXISTING PAVEMENT

3" TEMPORARY ASPHALT

6" BASE AGGREGATE DENSE 1 ¼"

TEMPORARY DRIVEWAY ACCESS TYPICAL SECTION

STH 36 (LOOMIS ROAD)

RAMP B

43RD STREET

END ROAD WORK
G20-2A
48"X24"

RAMP CLOSED AHEAD
W20-53A

ROAD WORK AHEAD
W20-1A

RAMP A

END ROAD WORK
G20-2A
48"X24"

STAGE A

STH 36 (LOOMIS ROAD):

LANE CLOSURES ARE ALLOWED DURING OFF PEAK HOURS ONLY. STH 36 (LOOMIS ROAD) CLOSE TO ONE SOUTHBOUND LEFT TURN LANE AT LAYTON AVENUE. STH 36 (LOOMIS ROAD) REDUCED TO ONE NORTHBOUND THRU LANE BEGINNING SOUTH OF LAYTON AVENUE TO JUST SOUTH OF THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP.

CONSTRUCT TEMPORARY MEDIAN CROSSOVER FOR THE LOOMIS APARTMENTS LLC DRIVEWAY, JUST NORTH OF LAYTON AVENUE. CONSTRUCT TEMPORARY MEDIAN WIDENING AT THE IH 41 NB/IH 43 SB/IH 894 WB RAMPS TO PROVIDE A RAMP TO RAMP CONNECTION DURING FULL FREEWAY CLOSURES.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE A	SHEET 114	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025102_TC_A.DWG
LAYOUT NAME - 025102_tc
PLOT DATE : 4/26/2023 9:13 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

RAMP B

RAMP C

RAMP D

RAMP A

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

END ROAD WORK
G20-2A
48"X24"

DO NOT IMPACT PULL BOX

TEMPORARY MEDIAN PAVING
(USE TEMPORARY DRIVEWAY ACCESS DETAIL)

STH 36 (LOOMIS ROAD)

S 43RD STREET

R3-2
24"X24"

RAMP CLOSED
R11-2R
48"X30"

W12-1D
24"X24"
RELOCATE

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

350'

350'

W04-2L

LEFT LANE CLOSED AHEAD
W20-5SR

ROAD WORK AHEAD
W20-1A

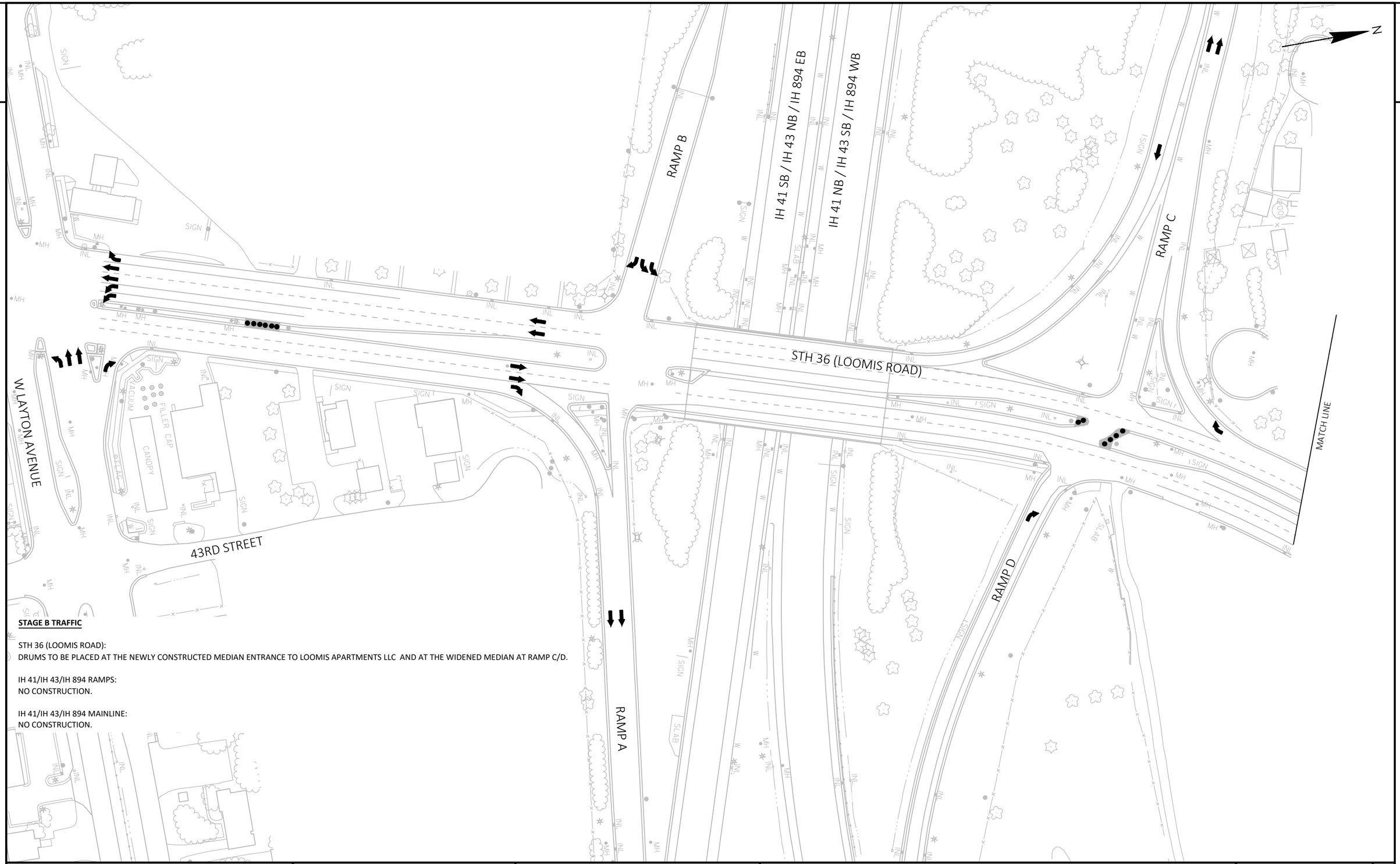
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE A	SHEET 115	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025102_TC_A.DWG
LAYOUT NAME - 025103_tc

PLOT DATE : 4/26/2023 9:15 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



STAGE B TRAFFIC

STH 36 (LOOMIS ROAD):
DRUMS TO BE PLACED AT THE NEWLY CONSTRUCTED MEDIAN ENTRANCE TO LOOMIS APARTMENTS LLC AND AT THE WIDENED MEDIAN AT RAMP C/D.

IH 41/IH 43/IH 894 RAMPS:
NO CONSTRUCTION.

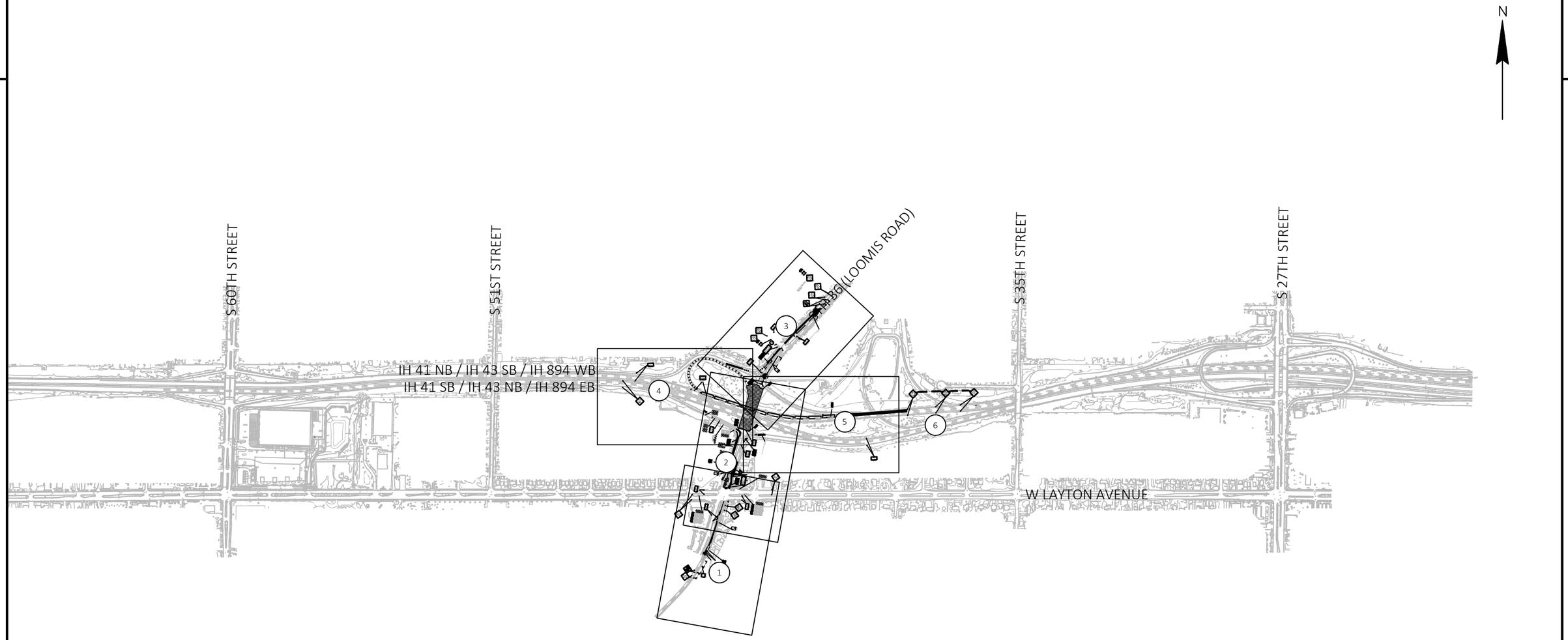
IH 41/IH 43/IH 894 MAINLINE:
NO CONSTRUCTION.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE B	SHEET 116	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025103_TC_B.DWG
LAYOUT NAME - 025104_tc

PLOT DATE : 4/24/2023 3:23 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



STAGE C TRAFFIC

STH 36 (LOOMIS ROAD):
THRU ACCESS FOR NORTHBOUND AND SOUTHBOUND STH 36 (LOOMIS ROAD) TRAFFIC RESTRICTED BETWEEN LAYTON AVENUE AND 43RD STREET. DETOUR "STAGE C-G: STH 36 (LOOMIS ROAD) NB AND SB" IN PLACE. ACCESS TO THE LOOMIS APARTMENTS LLC DRIVEWAY PROVIDED FROM LAYTON AVENUE WITH USE OF THE TEMPORARY MEDIAN CROSSOVER AND FROM IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP.

IH 41/IH 43/IH 894 RAMPS:
ACCESS TO THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, PROVIDED FROM LAYTON AVENUE WITH A SINGLE LANE ALONG STH 36 (LOOMIS ROAD). DETOUR "STAGE C-G: STH 36 (LOOMIS ROAD) SB TO IH 94 WB / IH 43 NB" IN PLACE. THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, RESTRICTED TO RIGHT TURNS ONLY. DETOUR "STAGE C-E: IH 94 EB/IH 43 SB TO STH 36 (LOOMIS ROAD) SB" IN PLACE. ACCESS TO THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C, PROVIDED FROM STH 36 (LOOMIS ROAD) NORTH OF THE PROJECT LIMITS. DETOUR "STAGE C-F: STH 36 (LOOMIS RD) NB TO IH 41 NB/ IH 43 SB / IH 894 WB" IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE.

IH 41/IH 43/IH 894 MAINLINE:
NO WORKING OCCURRING. 1100-45-70 IS IN WINTER SHUTDOWN. CLOSE THE AUXILIARY LANE FOR IH 41 NB/IH 43 SB/ IH 894 WB AT THE OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), CREATING AN EXIT ONLY LANE FOR THAT RAMP. IH 894 EB/WB LANE CLOSURES AND FULL FREEWAY CLOSURES ARE ALLOWED.

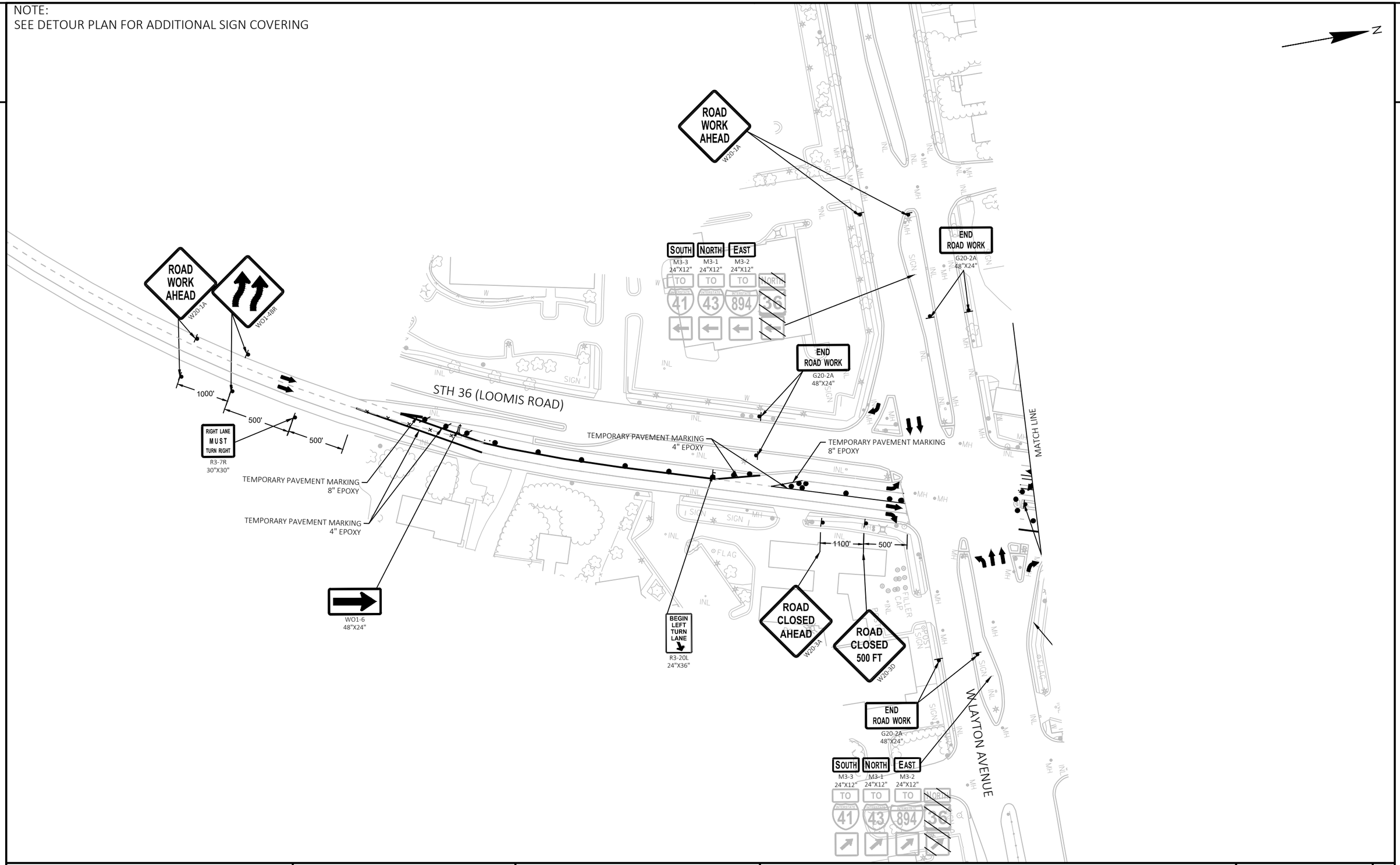
STAGE C CONSTRUCTION

STH 36 (LOOMIS ROAD):
TURN OFF AND REMOVE TRAFFIC SIGNALS AT BOTH RAMP TERMINALS. BEGIN PAVEMENT REMOVALS ON LOOMIS ROAD BETWEEN THE RAMP TERMINAL INTERSECTIONS. DEMOLISH AND REMOVE THE EXISTING BRIDGE B-40-198. BEGIN CONSTRUCTION OF ABUTMENTS AND RETAINING WALL.

IH 41/IH 43/IH 894 MAINLINE:
REMOVE THE EXISTING BRIDGE DECK AND GIRDERS. REMOVE PORTIONS OF THE OUTSIDE PIERS AS NEEDED.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C OVERVIEW	SHEET 117	E

NOTE:
SEE DETOUR PLAN FOR ADDITIONAL SIGN COVERING



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 118	E

2

END ROAD WORK
G20-2A
48"X24"

LANE CLOSED
R11-2L
48"X30"

R3-2
24"X24"

LOOMIS RD
ALTERNO COLLEGE

PARK & RIDE

RAMP B

IH 41 SB / IH 43 NB / IH 894 EB

IH 41 NB / IH 43 SB / IH 894 WB

RAMP D

RAMP C

BEGIN LEFT TURN LANE
R3-20L
24"X36"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

TEMPORARY PAVEMENT MARKING
4" EPOXY

TEMPORARY PAVEMENT MARKING
8" EPOXY

100' TAPER

LAYTON AVE ONLY

NORTH
SOUTH
36

WO1-6
48"X24"

STH 36 (LOOMIS ROAD)

ROAD CLOSED
R11-2
48"X30"

W LAYTON AVENUE

ACCESS TO I-894 EAST ONLY NO THRU TRAFFIC

EMS-10

YIELD
R1-2
36"X31"

TEMPORARY PAVEMENT MARKING
4" EPOXY

ROAD CLOSED
R11-2
48"X30"

BRIDGE OUT
R11-2B
48"X30"

SIDEWALK CLOSED
R9-9
24"X12"

100' TAPER

MATCH LINE

43RD STREET

TEMPORARY PAVEMENT MARKING
4" EPOXY

RAMP A

RAMP E

ROAD WORK AHEAD
W20-1A

N

2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 119	E

2

RAMP C

RAMP D

RAMP CLOSED

TEMPORARY PAVEMENT MARKING
4" EPOXY

ROAD CLOSED AHEAD
W20-3A

ROAD WORK AHEAD
W20-1A

SOUTH
M3-3
24"X12"

36
M1-6
24"X24"

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

ACCESS TO
I-894 WEST ONLY
NO THRU TRAFFIC
FMS-11

STOP
R1-1
30"X30"

S 43RD STREET

END
ROAD WORK
G20-2A
48"X24"

ROAD CLOSED
500 FT
W20-3D

TEMPORARY PAVEMENT
MARKING 4" EPOXY

POST ON COLD SPRING ROAD
AND ON SB 36 PRIOR TO COLD
SPRING ROAD

WO4-2L

LEFT LANE
CLOSED
AHEAD
W20-5SA

ROAD
WORK
AHEAD
W20-1A

100' TAPER

320' TAPER

350'

350'

350'

STH 36 (LOOMIS ROAD)

WO1-6
48"X24"

MATCH LINE

BEGIN
LEFT
TURN
LANE
R3-20L
24"X36"

100' TAPER

SIDEWALK
CLOSED
R9-9
24"X12"

TEMPORARY PAVEMENT MARKING
4" EPOXY

END
ROAD WORK
G20-2A
48"X24"

TEMPORARY PAVEMENT MARKING
4" EPOXY

RAMP E

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 120	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025109_TC_C.DWG
LAYOUT NAME - 025109_tc

PLOT DATE : 4/26/2023 3:14 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

END
ROAD WORK
G20-2A
48"X24"

ROAD
WORK
AHEAD
W20-1A

RAMP C

RAMP D

RAMP CLOSED

RAMP
CLOSED
R11-2R
48"X30"

ROAD
CLOSED
R11-2
48"X30"

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

RAMP B

LANE
CLOSED
R11-2L
48"X30"

ONLY

WO1-6
48"X24"

STH 36 (LOOMIS ROAD)

MATCH LINE

SOUTH
36

NORTH
36

LOOMIS RD
ALTERNATE ROUTE

NOTE:
SEE DETOUR PLAN FOR DETOUR SIGNS AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 121	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025109_TC_C.DWG
LAYOUT NAME - 025110_tc

PLOT DATE : 4/26/2023 3:15 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

STH 36 (LOOMIS ROAD)

MATCH LINE

SIDEWALK CLOSED
R9-9
24"X12"

RAMP E

SIGN

RIPRAP

WO5-52R
12"X36"

TEMPORARY PAVEMENT MARKING
8" EPOXY

IH 41 NB / IH 43 SB / IH 894 WB

MATCH LINE

SIDEWALK CLOSED
R9-9
24"X12"

BRIDGE OUT
R11-28
48"X30"

TEMPORARY PAVEMENT MARKING
4" EPOXY

RAMP A

IH 41 SB / IH 43 NB / IH 894 EB

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

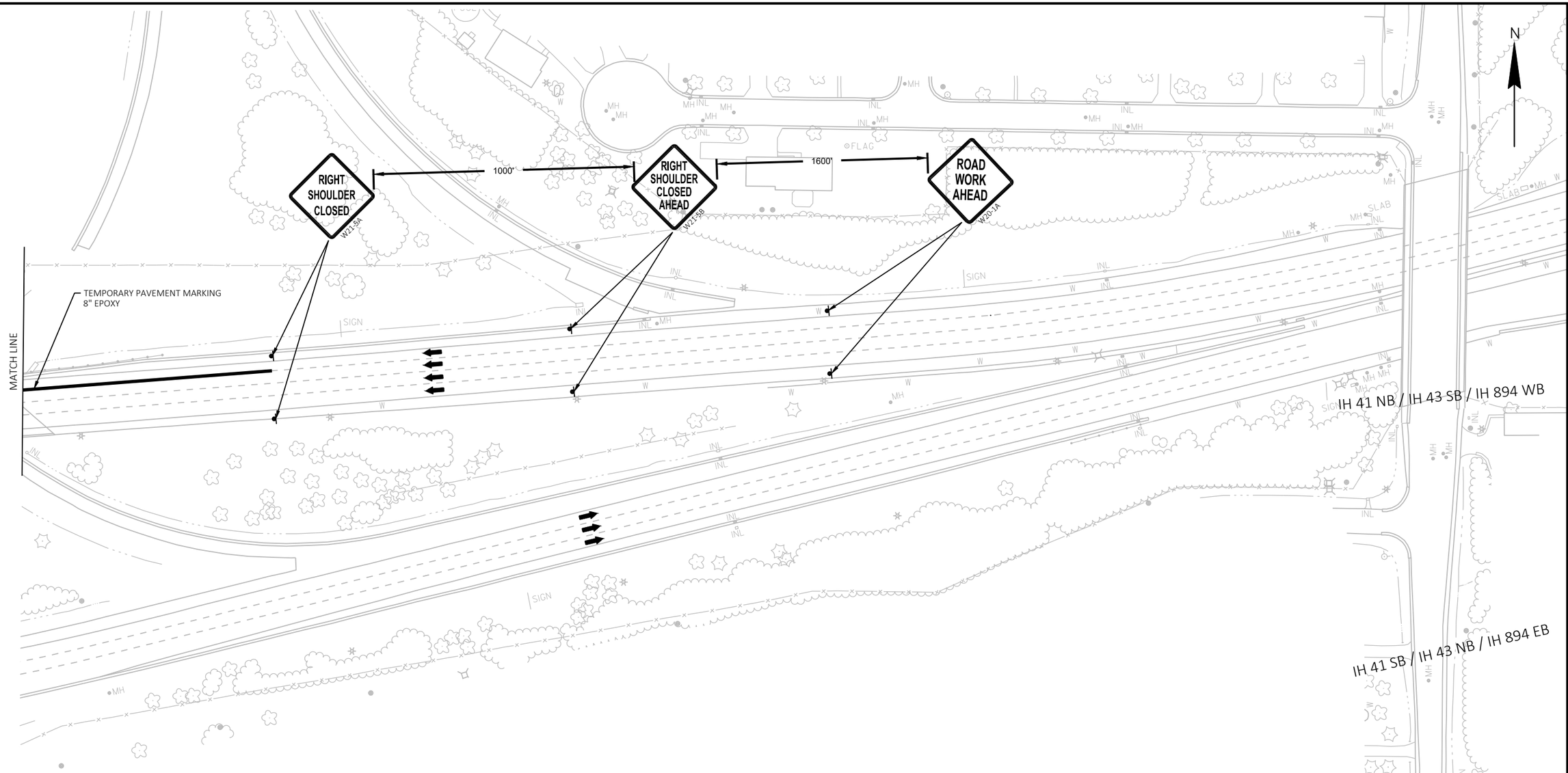
END ROAD WORK
G20-2A
48"X24"

TEMPORARY PAVEMENT MARKING
EPOXY

NOTE:
SEE DETOUR PLAN FOR DETOUR SIGNS AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 122	E

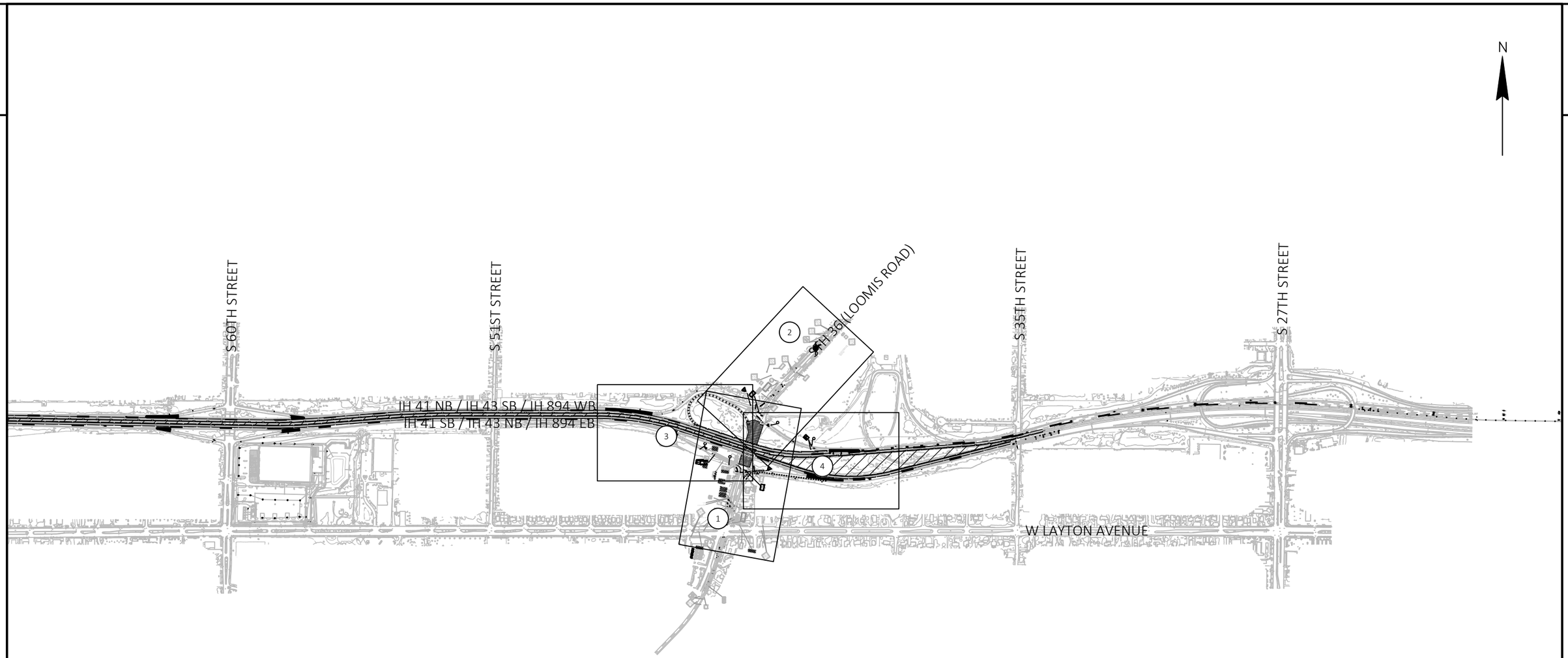
2



NOTE:
SEE DETOUR PLAN FOR DETOUR SIGNS AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE C	SHEET 123	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025109_TC_C.DWG
LAYOUT NAME - 025112_tc
PLOT DATE : 4/26/2023 3:18 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT



STAGE D TRAFFIC

STH 36 (LOOMIS ROAD):
SAME AS PREVIOUS STAGE, THRU ACCESS FOR NORTHBOUND AND SOUTHBOUND STH 36 (LOOMIS ROAD) TRAFFIC RESTRICTED BETWEEN LAYTON AVENUE AND 43RD STREET. DETOUR IN PLACE. ACCESS TO THE LOOMIS APARTMENTS LLC DRIVEWAY PROVIDED FROM LAYTON AVENUE WITH USE OF THE TEMPORARY MEDIAN CROSSOVER AND FROM IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP. FOR STORM SEWER WORK, ADJUST SINGLE LANE ON LOOMIS ROAD TO ACCESS WORK AREAS.

IH 41/IH 43/IH 894 RAMPS:
SAME AS PREVIOUS STAGE, ACCESS TO THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, PROVIDED FROM LAYTON AVENUE WITH A SINGLE LANE ALONG STH 36 (LOOMIS ROAD). DETOUR IN PLACE. THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, RESTRICTED TO RIGHT TURNS ONLY. DETOUR IN PLACE. ACCESS TO THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C, PROVIDED FROM STH 36 (LOOMIS ROAD) NORTH OF THE PROJECT LIMITS. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D, IS CLOSED TO ALL TRAFFIC. DETOUR "STAGE C-G: IH 94 EB / IH 43 SB TO STH 36 (LOOMIS ROAD) SB" IN PLACE. FOR STORM SEWER WORK CROSSING LIVE RAMP LANES, USE NIGHTTIME RAMP CLOSURES TO COMPLETE WORK.

IH 41/IH 43/IH 894 MAINLINE:
SEE STAGE 2 PLANS IN 1100-45-70 FOR MAINLINE CONFIGURATION. IH 41 SB/IH 43 NB/IH 894 EB TRAFFIC SHIFTED TO THE OUTSIDE. THE AUXILIARY LANE FOR IH 41 NB/IH 43 SB/IH 894 WB IS CLOSED AT THE OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), CREATING AN EXIT ONLY LANE FOR THAT RAMP. IH 41 NB/IH 43 SB/IH 894 WB TRAFFIC SHIFTED SLIGHTLY TO THE OUTSIDE BETWEEN THE STH 36 (LOOMIS ROAD) NORTHBOUND OFF RAMP AND THE STH 36 (LOOMIS ROAD) SOUTHBOUND OFF RAMP. SINGLE LANE CLOSURES AND FULL CLOSURES OF IH 41/IH 43/IH 894 ARE PERMITTED WITH DETOUR IN PLACE.

STAGE D CONSTRUCTION

STH 36 (LOOMIS ROAD):
CONTINUE CONSTRUCTION OF ABUTMENTS AND RETAINING WALLS. CONTINUE PAVEMENT REMOVALS ON LOOMIS ROAD BETWEEN THE RAMP TERMINAL INTERSECTIONS. CONSTRUCT STORM SEWER ON LOOMIS ROAD.

IH 41/IH 43/IH 894 MAINLINE:
COMPLETE REMOVAL OF THE MEDIAN BARRIER WALL, PIERS, AND PIER FOOTING. COMPLETE MEDIAN PIER CONSTRUCTION. CONTINUE CONSTRUCTION OF THE ABUTMENTS AND RETAINING WALLS.

MAINLINE CONSTRUCTION COORDINATION REQUIRED. COMPLETE MEDIAN RECONSTRUCTION BEFORE SWITCHING TO STAGE E.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE D OVERVIEW	SHEET 124	E

2

N

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

LOOMIS RD
ALVERNO COLLEGE

PARK & RIDE

LAYTON AVE ONLY

LAYTON AVE ONLY

LAYTON AVE ONLY

NORTH 36

SOUTH 36

WO1-6
48"X24"

WO1-6
48"X24"

STH 36 (LOOMIS ROAD)

MATCH LINE

WO1-6
48"X24"

R1-2
36"X31"

ACCESS TO I-894 EAST ONLY NO THRU TRAFFIC

EMS-10

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

BRIDGE OUT
R11-2B
48"X30"

TRAFFIC CONTROL ITEMS SOUTH OF LAYTON AVENUE LEFT IN-PLACE FROM STAGE C

W LAYTON AVENUE

END ROAD WORK
G20-2A
48"X24"

NORTH 36

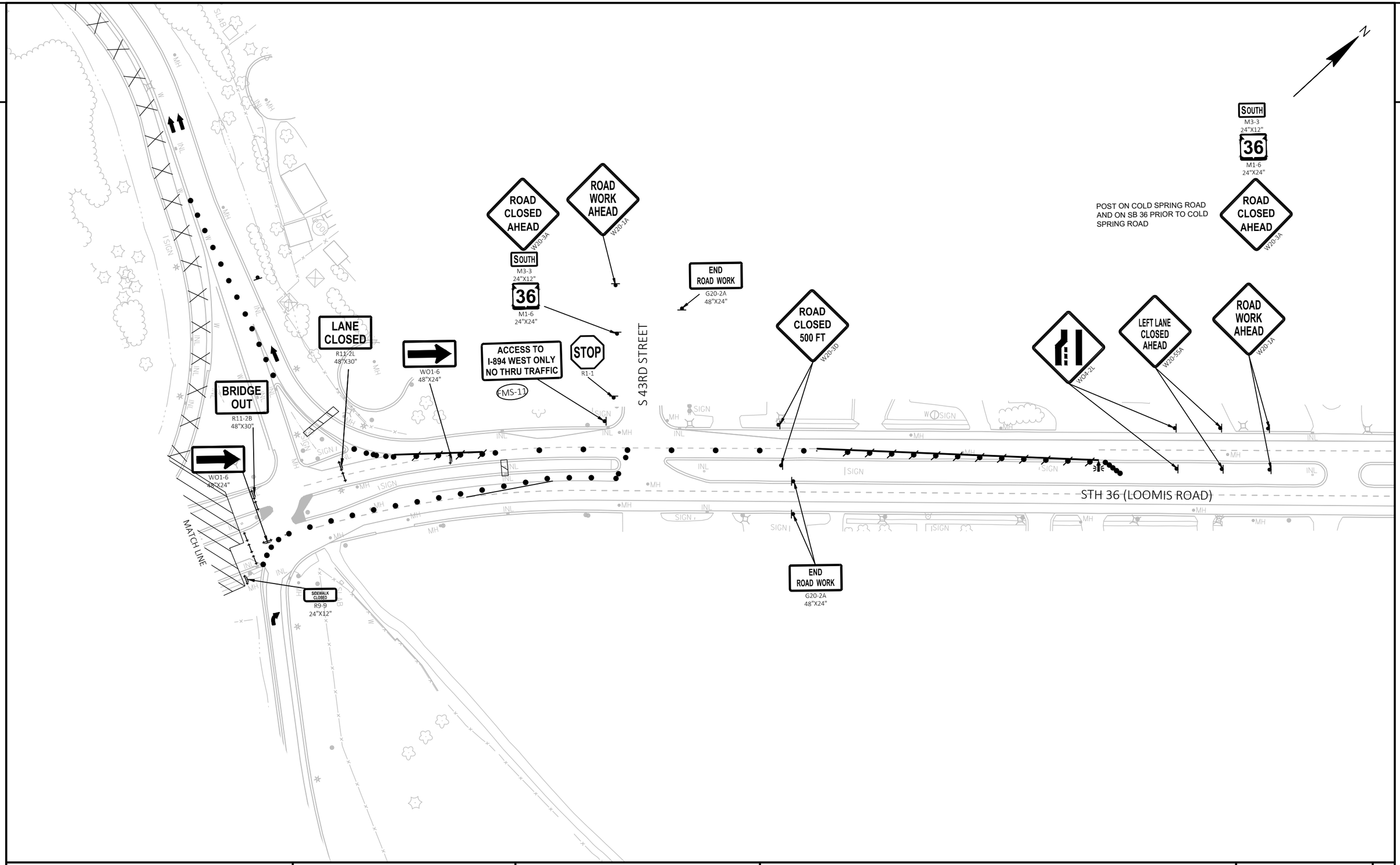
ROAD WORK AHEAD
W20-1A

S.T.H. 36

PROJECT NO: 1100-46-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE D	SHEET 125	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025111_tc
PLOT DATE : 10/10/2022 9:38 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1100-46-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE D	SHEET 126	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025112_tc

PLOT DATE : 10/10/2022 9:39 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

RAMP CLOSED

TRAFFIC CONTROL ITEMS ON ENTRANCE RAMP AND STH 36 (LOOMIS ROAD) NORTH OF THE BRIDGE LEFT IN-PLACE FROM STAGE C

RAMP C

RAMP D

RAMP B

~~IH 41 NB / IH 43 SB / IH 894 WB~~

IH 41 ~~SB~~ / IH ~~43~~ NB / ~~IH~~ 894 ~~EB~~

N

LANE CLOSED R11-2L 48"X30"

BRIDGE OUT R11-2B 48"X30"

W01-6 48"X24"

MATCH LINE

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

TRAFFIC CONTROL ITEMS ON EXIT RAMP AND STH 36 (LOOMIS ROAD) SOUTH OF THE BRIDGE LEFT IN-PLACE FROM STAGE C

ONLY

LANE CLOSED R11-2L 48"X30"

SOUTH 36

NORTH 36

LOOMIS RD CALVARY COLLEGE

STH 36 (LOOMIS ROAD)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE D	SHEET 127	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025113_tc

PLOT DATE : 10/10/2022 9:40 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

TRAFFIC CONTROL ITEMS ON EXIT
RAMP AND STH 36 (LOOMIS ROAD)
NORTH OF THE BRIDGE
LEFT IN-PLACE FROM STAGE C

STH 36 (LOOMIS ROAD)

RAMP E

RAMP A

MATCH LINE

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

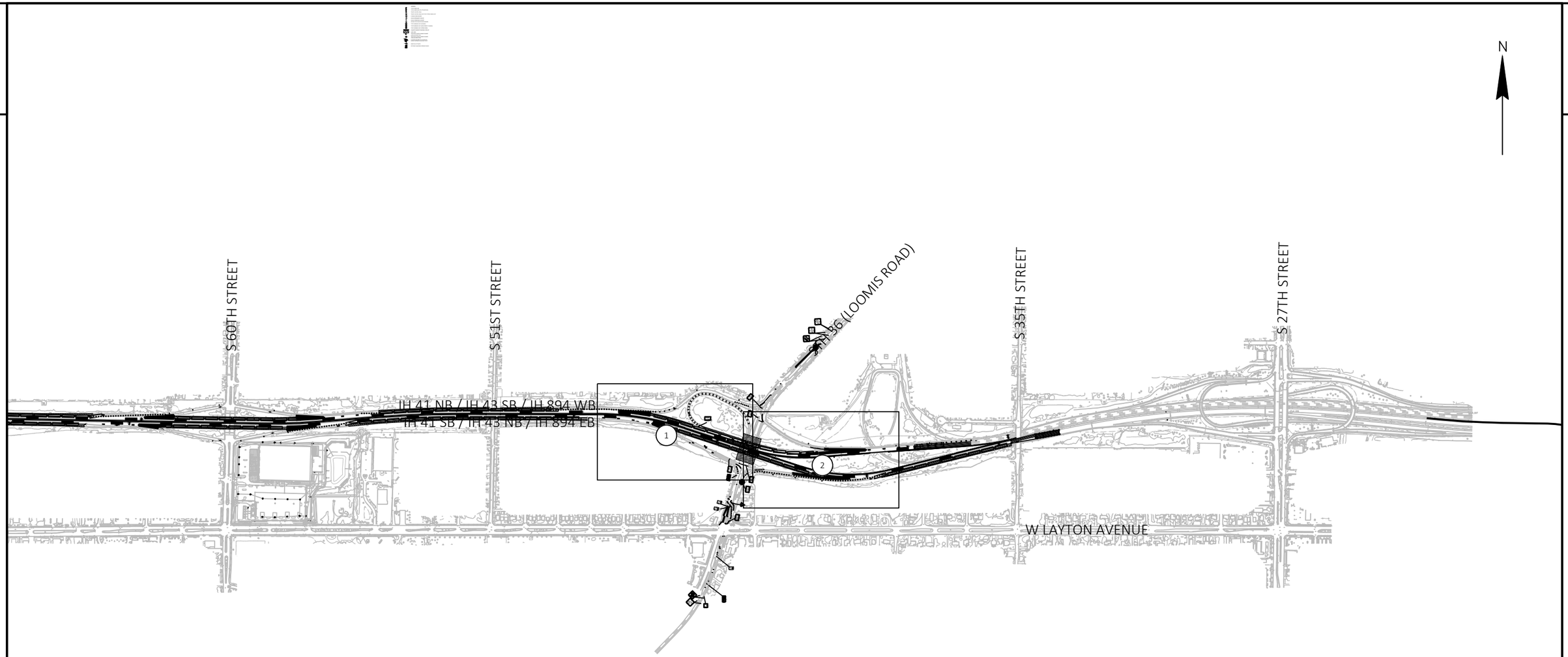
TRAFFIC CONTROL ITEMS ON ENTRANCE
RAMP AND STH 36 (LOOMIS ROAD)
SOUTH OF THE BRIDGE
LEFT IN-PLACE FROM STAGE C

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON
WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE D	SHEET 128	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025114_tc

PLOT DATE : 10/10/2022 9:41 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT



STAGE E TRAFFIC

STH 36 (LOOMIS ROAD):
SAME AS PREVIOUS STAGE, THRU ACCESS FOR NORTHBOUND AND SOUTHBOUND STH 36 (LOOMIS ROAD) TRAFFIC RESTRICTED BETWEEN LAYTON AVENUE AND 43RD STREET. DETOUR IN PLACE. ACCESS TO THE LOOMIS APARTMENTS LLC DRIVEWAY PROVIDED FROM LAYTON AVENUE WITH USE OF THE TEMPORARY MEDIAN CROSSOVER AND FROM IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP.

IH 41/IH 43/IH 894 RAMPS:
SAME AS PREVIOUS STAGE, ACCESS TO THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, PROVIDED FROM LAYTON AVENUE WITH A SINGLE LANE ALONG STH 36 (LOOMIS ROAD). DETOUR IN PLACE. THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, RESTRICTED TO RIGHT TURNS ONLY. DETOUR IN PLACE. ACCESS TO THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C, PROVIDED FROM STH 36 (LOOMIS ROAD) NORTH OF THE PROJECT LIMITS. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE.

IH 41/IH 43/IH 894 MAINLINE:
SEE STAGE 3 PLANS IN 1100-45-70 FOR MAINLINE CONFIGURATION. TRAFFIC SHIFTED TO THE INSIDE. THE AUXILIARY LANE FOR IH 41 NB/IH 43 SB/IH 894 WB IS CLOSED AT THE OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), CREATING AN EXIT ONLY LANE FOR THAT RAMP. SINGLE LANE CLOSURES AND FULL CLOSURES OF IH 41/IH 43/IH 894 ARE PERMITTED WITH DETOUR IN PLACE.

STAGE E CONSTRUCTION

STH 36 (LOOMIS ROAD):
CONTINUE CONSTRUCTION OF ABUTMENTS AND RETAINING WALLS. CONTINUE PAVEMENT REMOVALS ON LOOMIS ROAD BETWEEN THE RAMP TERMINAL INTERSECTIONS AND CONTINUE CONSTRUCTION OF STORM SEWER ON LOOMIS ROAD.

IH 41/IH 43/IH 894 MAINLINE:
CONSTRUCT THE NEW BRIDGE ABUTMENTS, RETAINING WALLS R-40-716 AND R-40-717, AND SLOPE PAVING. SET THE BRIDGE GIRDERS FOR B-40-1025.

REMOVE OUTSIDE PIERS AND FOOTING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE E OVERVIEW	SHEET 129	E

2

RAMP CLOSED

TRAFFIC CONTROL ITEMS ON ENTRANCE RAMP AND STH 36 (LOOMIS ROAD) NORTH OF THE BRIDGE LEFT IN-PLACE FROM STAGE C

N

RAMP C

RAMP D

LANE CLOSED
R11-2L
48"X30"

BRIDGE OUT
R11-2R

RAMP CLOSED
R11-2R
48"X30"

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

RAMP B

MATCH LINE

TRAFFIC CONTROL ITEMS ON EXIT RAMP AND STH 36 (LOOMIS ROAD) SOUTH OF THE BRIDGE LEFT IN-PLACE FROM STAGE C

LANE CLOSED
R11-2L
48"X30"

W01-6
48"X24"

STH 36 (LOOMIS ROAD)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE E	SHEET 130	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_E.DWG
LAYOUT NAME - 025113_tc

PLOT DATE : 4/25/2023 7:27 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

TRAFFIC CONTROL ITEMS ON EXIT
RAMP AND STH 36 (LOOMIS ROAD)
NORTH OF THE BRIDGE
LEFT IN-PLACE FROM STAGE C

STH 36 (LOOMIS ROAD)

RAMP E

MATCH LINE

IH 41 NB / IH 43 SB / IH 894 WB

RAMP A

IH 41 SB / IH 43 NB / IH 894 EB

BRIDGE OUT
R11-2B
48"X30"

LANE CLOSED
R11-2L
48"X30"

R1-2
36"X31"

TRAFFIC CONTROL ITEMS ON ENTRANCE
RAMP AND STH 36 (LOOMIS ROAD)
SOUTH OF THE BRIDGE
LEFT IN-PLACE FROM STAGE C

N

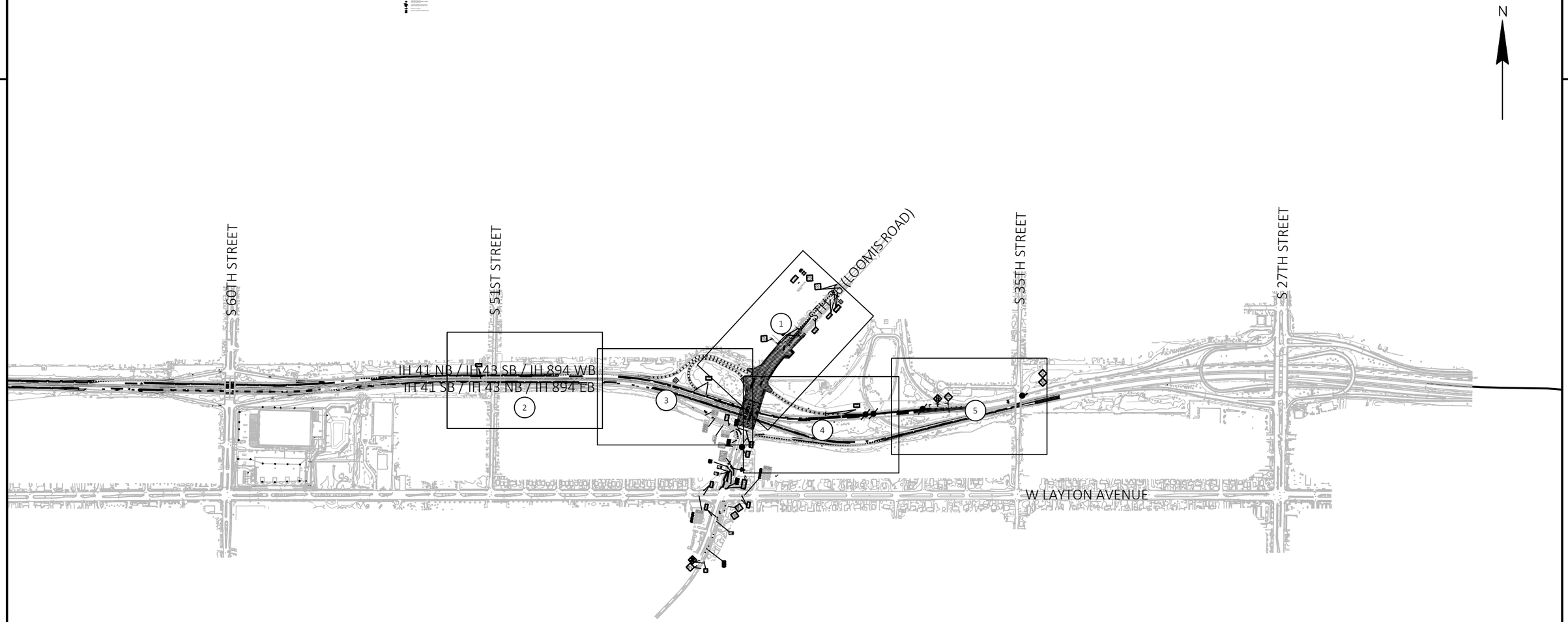
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE E	SHEET 131	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_E.DWG
LAYOUT NAME - 025114_tc

PLOT DATE : 4/25/2023 7:28 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



STAGE F TRAFFIC

STH 36 (LOOMIS ROAD):
STAGE G MAY OVERLAP WITH THIS STAGE. THRU ACCESS FOR NORTHBOUND AND SOUTHBOUND STH 36 (LOOMIS ROAD) TRAFFIC RESTRICTED BETWEEN LAYTON AVENUE AND COLD SPRING ROAD. DETOUR IN PLACE. ACCESS TO THE LOOMIS APARTMENTS LLC DRIVEWAY PROVIDED FROM LAYTON AVENUE WITH USE OF THE TEMPORARY MEDIAN CROSSOVER AND FROM IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP.

IH 41/IH 43/IH 894 RAMPS:
ACCESS TO THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, PROVIDED FROM LAYTON AVENUE WITH A SINGLE LANE ALONG STH 36 (LOOMIS ROAD). DETOUR IN PLACE. THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, RESTRICTED TO RIGHT TURNS ONLY. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), RAMP E, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE.

IH 41/IH 43/IH 894 MAINLINE:
SEE STAGE 3 OR 4 PLANS IN 1100-45-70 FOR MAINLINE CONFIGURATION. NO FULL CLOSURES OF IH 41 NB/IH 43 SB/IH 894 WB PERMITTED. THE AUXILIARY LANE FOR IH 41 NB/IH 43 SB/IH 894 WB IS CLOSED BEGINNING JUST WEST OF THE 35TH STREET OVERPASS.

STAGE F CONSTRUCTION

STH 36 (LOOMIS ROAD):
RECONSTRUCT STH 36 (LOOMIS ROAD) FROM BRIDGE TO JUST NORTH OF 43RD STREET, INCLUDING DRAINAGE, LIGHTING, AND SIGNALS. CONTINUE CONSTRUCTION OF THE NEW BRIDGE B-40-1025.

IH 41/IH 43/IH 894 RAMPS:
RECONSTRUCTION THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C; THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D; AND THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), RAMP E CONNECTIONS AT STH 36 (LOOMIS ROAD), INCLUDING CONCRETE BARRIER, DRAINAGE, LIGHTING, AND SIGNALS.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F OVERVIEW	SHEET 132	E

2

2

RAMP C

RAMP D

RAMP E

RAMP CLOSED

RAMP CLOSED

ROAD CLOSED AHEAD
W20-3A

300'

S 43RD STREET

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

STH 36 (LOOMIS ROAD)

ROAD CLOSED
0.2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60"X30"

SOUTH
M3-3
24"X12"

36
M1-6
24"X24"

POST ON COLD SPRING ROAD AND ON SB 36 PRIOR TO COLD SPRING ROAD

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 500 FT
W20-3D

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

DO NOT ENTER

N

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F	SHEET 133	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025115_TC_F.DWG
LAYOUT NAME - 025116_tc

PLOT DATE : 4/26/2023 10:19 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

END
ROAD WORK
G20-2A
48"X24"

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

RAMP C

MATCH LINE

51ST STREET

SUBSTATION

FLAG

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F	SHEET 134	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025115_TC_F.DWG
LAYOUT NAME - 025117_tc

PLOT DATE : 4/26/2023 10:20 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

RAMP CLOSED

N

RAMP C

RAMP D

RAMP CLOSED
R11-2R
48"X30"

IH 41 NB / IH 43 SB / IH 894 WB

MATCH LINE

IH 41 SB / IH 43 NB / IH 894 EB

RAMP B

PARK & RIDE

LANE CLOSED
R11-2L
48"X30"

MATCH LINE

ONLY

TRAFFIC CONTROL ITEMS ON EXIT
RAMP AND STH 36 (LOOMIS ROAD)
SOUTH OF THE BRIDGE
LEFT IN-PLACE FROM STAGE C

SOUTH 36

NORTH 36

LOOMIS RD
ALVERNO COLLEGE

W01-6
48"X24"

STH 36
(LOOMIS ROAD)

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON
WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F	SHEET 135	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025115_TC_F.DWG
LAYOUT NAME - 025118_tc

PLOT DATE : 4/26/2023 10:21 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

N

STH 36 (LOOMIS ROAD)

RAMP E

RAMP CLOSED

RAMP CLOSED
R11-2R
48"X30"

IH 41 NB / IH 43 SB / ~~IH~~ 894 ~~WB~~

MATCH LINE

MATCH LINE

RAMP A

IH 41 SB / ~~IH~~ 43 NB / IH 894 EB

BRIDGE OUT
R11-2B
48"X30"

ROAD CLOSED
R11-2
48"X30"

TRAFFIC CONTROL ITEMS ON ENTRANCE RAMP AND STH 36 (LOOMIS ROAD) SOUTH OF THE BRIDGE LEFT IN-PLACE FROM STAGE C

R3-2
36"X31"

EAST
M3-2
24"X12"

NORTH
TO
894

NOTE:
SEE DETOUR PLAN FOR DETOUR SIGNS.
SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F	SHEET 136	E

PLANS ONLY SHOW RAMP CLOSURES REQUIRED FOR WORK ON WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

N

ROAD WORK AHEAD W20-1A

PLACE SIGNS ON 27TH STREET ENTRANCE RAMP

RIGHT LANE CLOSED AHEAD W20-5A

ARMOUR AVENUE

RAMP CLOSED AHEAD W20-53A

TEMPORARY MARKING 4" PAINT

W04-2R

1000'

1500'

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

35TH STREET

MATCH LINE

NOTE:
SEE DETOUR PLAN FOR DETOUR SIGNS.
SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

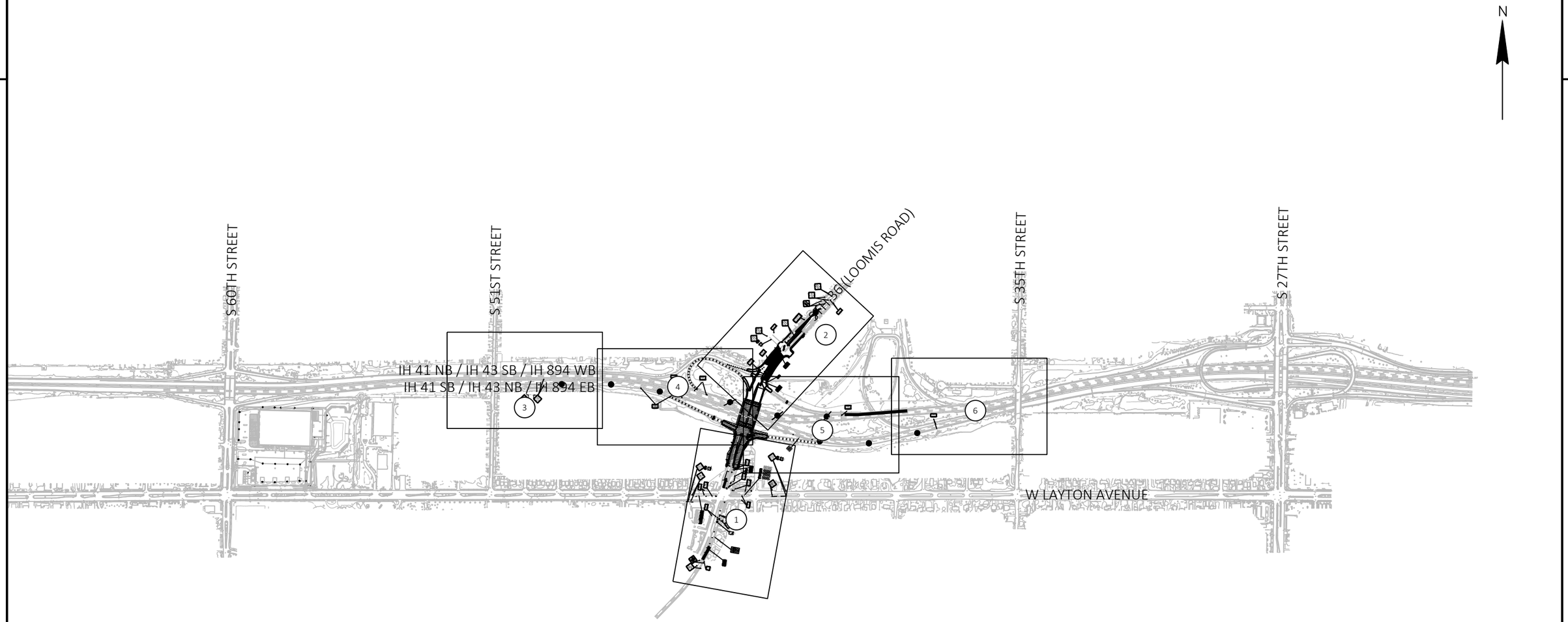
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE F	SHEET 137	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025115_TC_F.DWG
LAYOUT NAME - 025120_tc

PLOT DATE : 4/26/2023 10:23 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



STAGE G TRAFFIC

STH 36 (LOOMIS ROAD):
STAGE F MAY OVERLAP WITH THIS STAGE. THRU ACCESS FOR NORTHBOUND AND SOUTHBOUND STH 36 (LOOMIS ROAD) TRAFFIC RESTRICTED BETWEEN LAYTON AVENUE AND 43RD STREET. DETOUR IN PLACE. ACCESS TO THE LOOMIS APARTMENTS LLC DRIVEWAY PROVIDED FROM LAYTON AVENUE WITH USE OF THE TEMPORARY MEDIAN CROSSOVER. COORDINATE ALTERNATIVE METHODS OF ACCESS TO THE LOOMIS APARTMENTS LLC WHEN DRIVEWAY IS RECONSTRUCTED.

IH 41/IH 43/IH 894 RAMPS:
THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB ON RAMP, RAMP C, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO SOUTHBOUND STH 36 (LOOMIS ROAD), RAMP D, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE. THE IH 41 NB/IH 43 SB/IH 894 WB OFF RAMP TO NORTHBOUND STH 36 (LOOMIS ROAD), RAMP E, IS CLOSED TO ALL TRAFFIC. DETOUR IN PLACE.

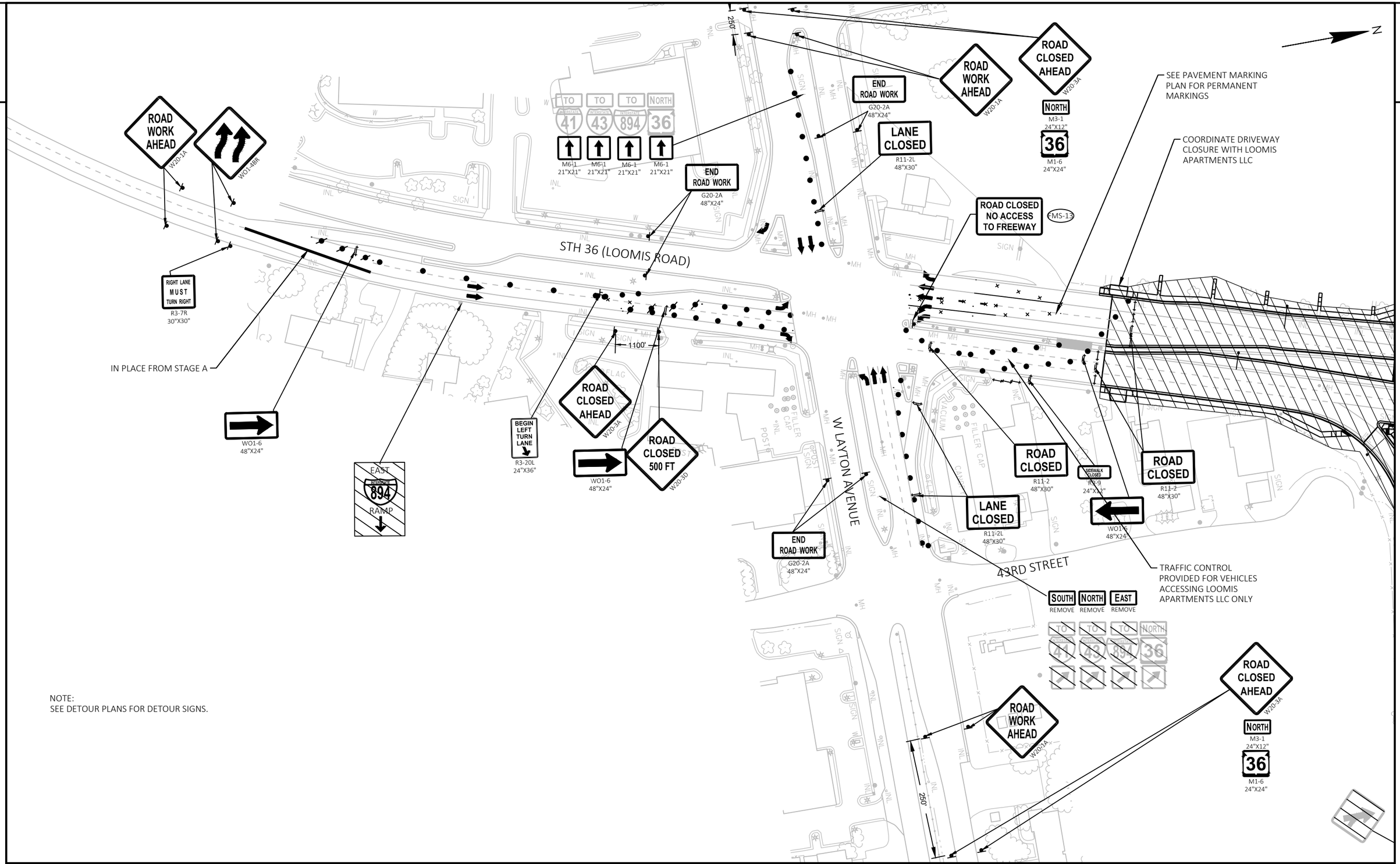
IH 41/IH 43/IH 894 MAINLINE:
SEE STAGE 3 OR 4 PLANS IN 1100-45-70 FOR MAINLINE CONFIGURATION. NO FULL CLOSURES OF IH 41/IH 43/IH 894 PERMITTED. THE AUXILIARY LANE FOR IH 41 NB/IH 43 SB/IH 894 WB IS CLOSED BEGINNING JUST WEST OF THE 35TH STREET OVERPASS.

STAGE G CONSTRUCTION

STH 36 (LOOMIS ROAD):
RECONSTRUCT STH 36 (LOOMIS ROAD) FROM BRIDGE TO JUST NORTH OF LAYTON AVENUE, INCLUDING DRAINAGE, LIGHTING, AND SIGNALS. COMPLETE CONSTRUCTION OF THE NEW BRIDGE B-40-1025.

IH 41/IH 43/IH 894 RAMPS:
RECONSTRUCTION THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP, RAMP A, AND THE IH 41 SB/IH 43 NB/IH 894 EB OFF RAMP, RAMP B, CONNECTIONS AT STH 36 (LOOMIS ROAD), INCLUDING DRAINAGE, LIGHTING, AND SIGNALS.

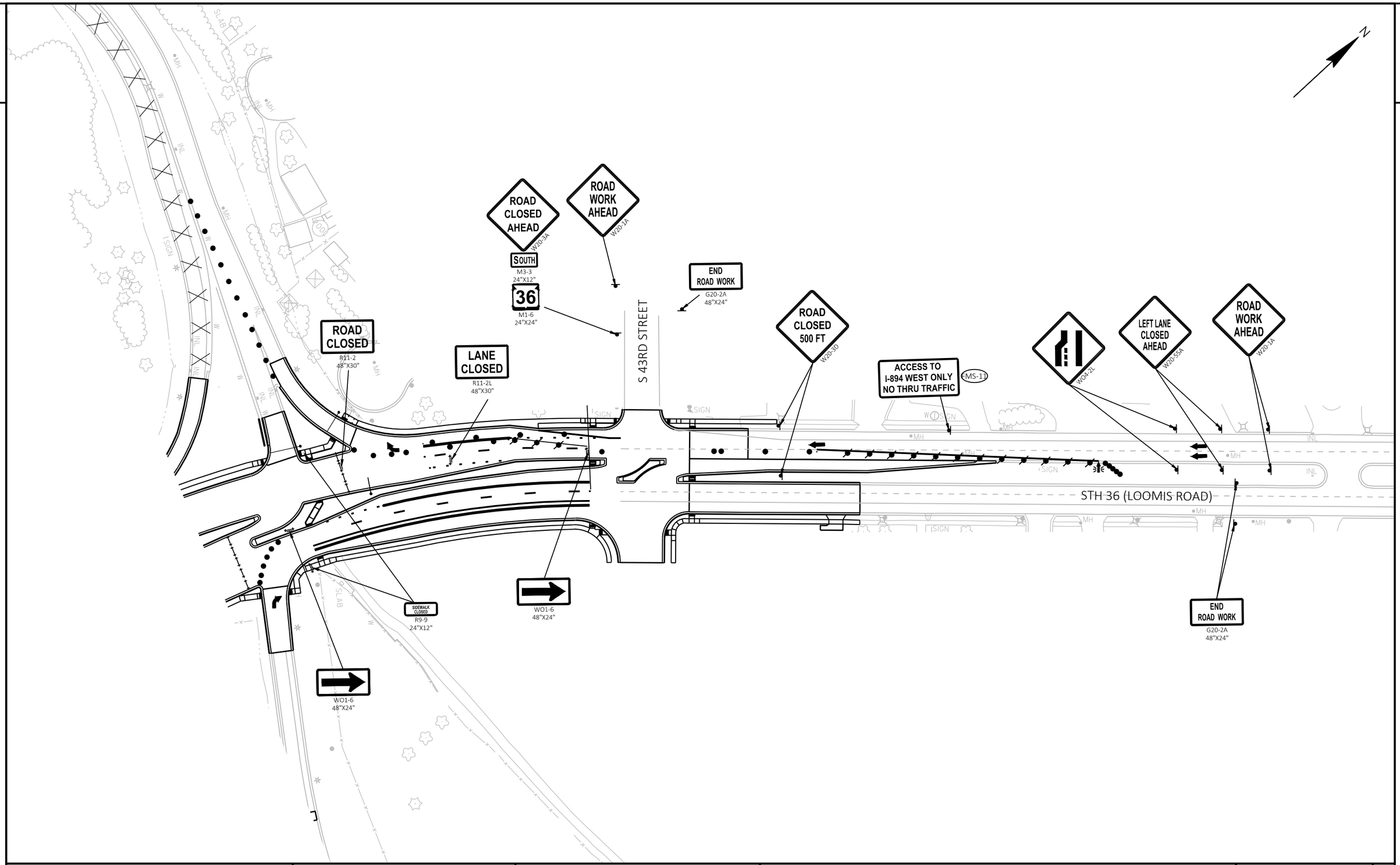
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G OVERVIEW	SHEET 138	E



NOTE:
SEE DETOUR PLANS FOR DETOUR SIGNS.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 139	E

2



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 140	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025121_TC_G.DWG
LAYOUT NAME - 025123_TC

PLOT DATE : 4/26/2023 10:51 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

SUBSTATION

FLAG

SIGN

RAMP C

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

MATCH LINE

51ST STREET

1500'

RAMP CLOSED AHEAD W20-53A

RAMP CLOSED 1000 FT W20-53C

NOTE:
PLANS ONLY SHOW RAMP CLOSURES NECESSARY FOR WORK ON WIS 36. SEE MAINLINE PLANS FOR MAINLINE STAGING.

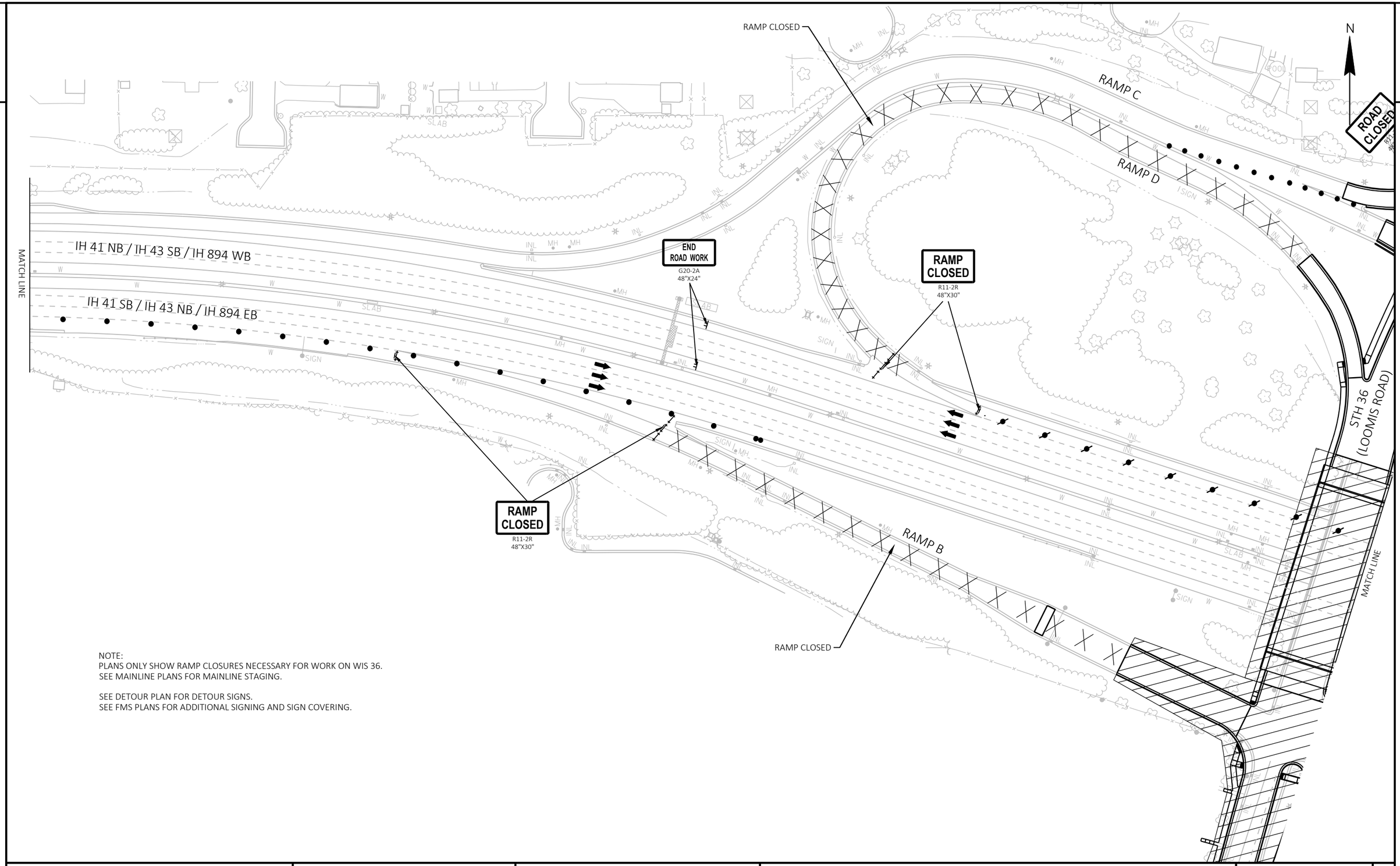
SEE DETOUR PLAN FOR DETOUR SIGNS. SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 141	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025121_TC_G.DWG
LAYOUT NAME - 025124_tc

PLOT DATE : 4/26/2023 10:50 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



NOTE:
PLANS ONLY SHOW RAMP CLOSURES NECESSARY FOR WORK ON WIS 36.
SEE MAINLINE PLANS FOR MAINLINE STAGING.

SEE DETOUR PLAN FOR DETOUR SIGNS.
SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 142	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025121_TC_G.DWG
LAYOUT NAME - 025125_tc
PLOT DATE : 4/26/2023 10:48 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

STH 36 (LOOMIS ROAD)

RAMP E

RAMP A

RAMP CLOSED

MATCH LINE

MATCH LINE

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED AHEAD
W20-3A

NORTH
M3-1
24"X12"

36
M1-6
24"X24"

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

SIDEWALK CLOSED
R9-9
24"X12"

EAST
REMOVE

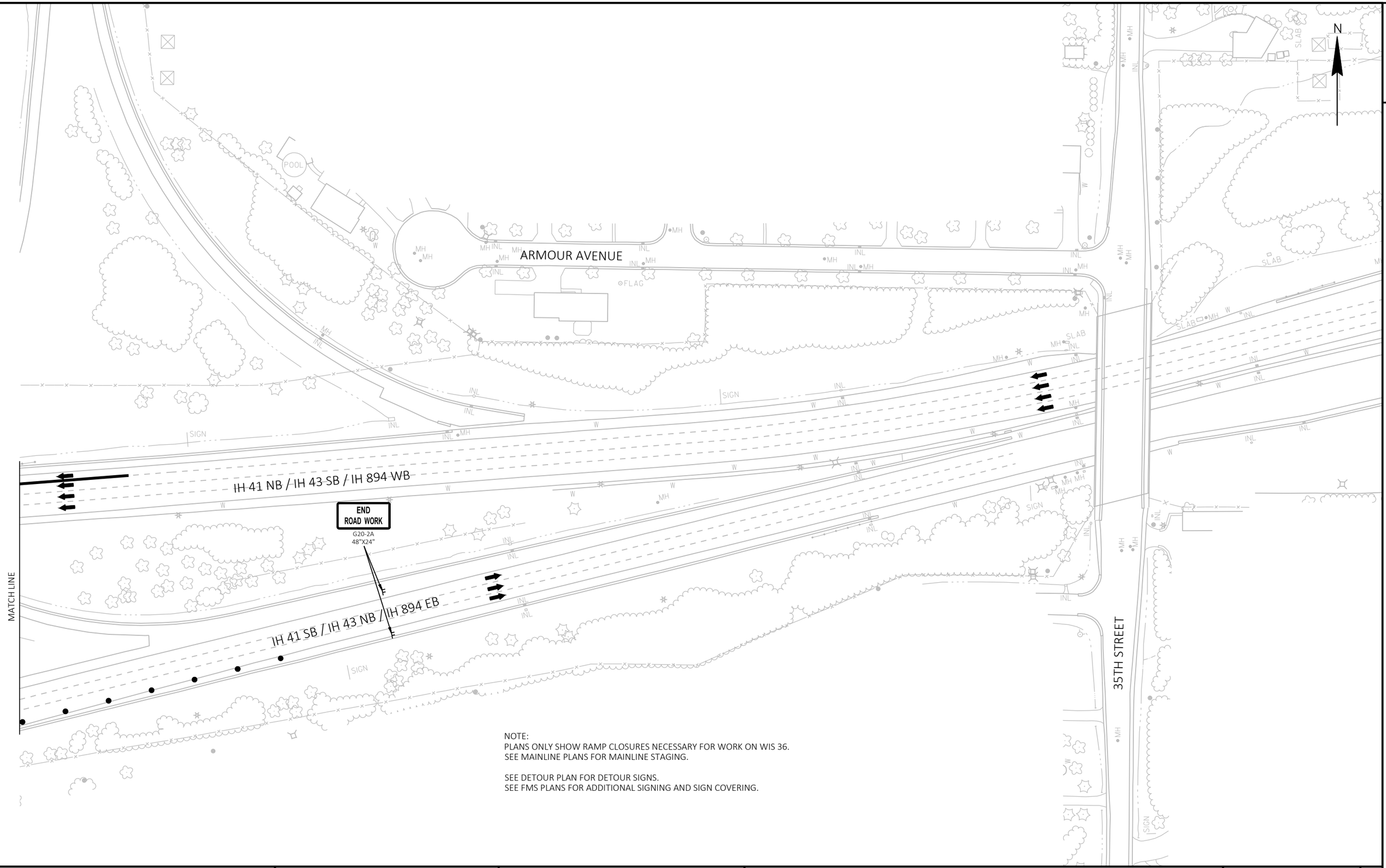
SIGN
SLAB
RIPRAP
INL
MH
W

NOTE:
PLANS ONLY SHOW RAMP CLOSURES NECESSARY FOR WORK ON WIS 36.
SEE MAINLINE PLANS FOR MAINLINE STAGING.

SEE DETOUR PLAN FOR DETOUR SIGNS.
SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 143	E

2



NOTE:
PLANS ONLY SHOW RAMP CLOSURES NECESSARY FOR WORK ON WIS 36.
SEE MAINLINE PLANS FOR MAINLINE STAGING.

SEE DETOUR PLAN FOR DETOUR SIGNS.
SEE FMS PLANS FOR ADDITIONAL SIGNING AND SIGN COVERING.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE G	SHEET 144	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025121_TC_G.DWG
LAYOUT NAME - 025127_tc
PLOT DATE : 4/26/2023 10:46 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

ROAD WORK AHEAD
W20-1A

W01-46R

1000'

1000'

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

500'

WO1-6
48"X24"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

WO1-6
48"X24"

END ROAD WORK
G20-2A
48"X24"

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

W LAYTON AVENUE

STH 36 (LOOMIS ROAD)

43RD STREET

RAMP B

RAMP A

STAGE H

STH 36 (LOOMIS ROAD):
STH 36 (LOOMIS ROAD) CLOSE TO ONE SOUTHBOUND LEFT TURN LANE AT LAYTON AVENUE. STH 36 (LOOMIS ROAD) REDUCED TO ONE NORTHBOUND THRU LANE BEGINNING SOUTH OF LAYTON AVENUE TO JUST SOUTH OF THE IH 41 SB/IH 43 NB/IH 894 EB ON RAMP.

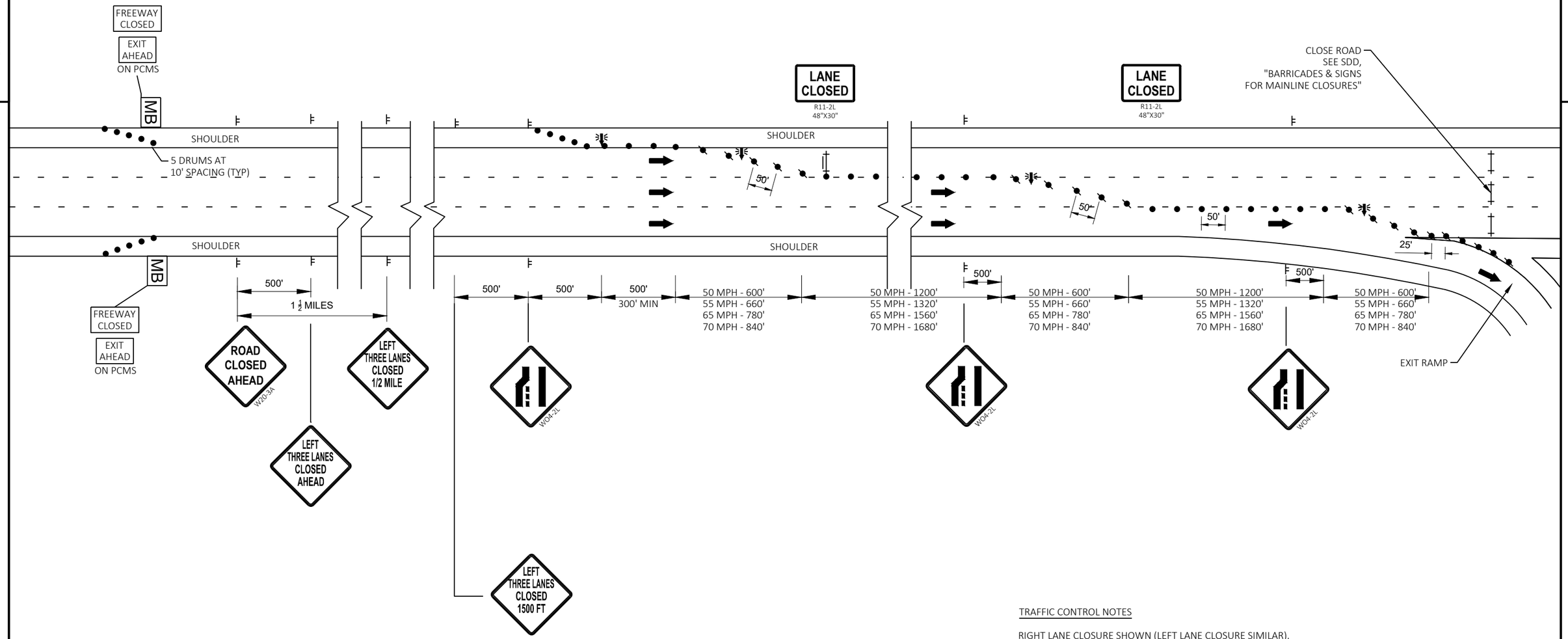
STAGE H

STH 36 (LOOMIS ROAD):
REMOVE TEMPORARY MEDIAN CROSSOVER FOR THE LOOMIS APARTMENTS LLC DRIVEWAY, JUST NORTH OF LAYTON AVENUE AND RESTORE THE CENTER MEDIAN WITH CURB AND GUTTER AND SIDEWALK.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE H	SHEET 145	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025125_TC_H.DWG
LAYOUT NAME - 025125_tc

PLOT DATE : 4/24/2023 3:10 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS
- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- WORK AREA

THREE LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT. TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS, WITH LANE CLOSED SIGN.

REFER TO DETOUR ROUTES FOR TRAFFIC CLOSING SIGNS.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAIL - FULL FREEWAY CLOSURE	SHEET 146	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025128_TC_FULLCLOSURE.DWG
LAYOUT NAME - 025102_tc
PLOT DATE : 10/12/2022 2:11 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

2

TRAFFIC CONTROL ITEMS SOUTH OF LAYTON AVENUE LEFT IN-PLACE FROM PRE-STAGE 1

W LAYTON AVENUE

ROAD WORK AHEAD

IN PLACE FROM STAGE B

END ROAD WORK

END ROAD WORK

END ROAD WORK

R5-1A (ON BACK OF R3-8W)

R3-8W

BEGIN LEFT TURN LANE

BEGIN RIGHT TURN LANE

LAYTON AVE ONLY

LAYTON AVE ONLY

LAYTON AVE ONLY

ONLY

R3-50A

ONLY

ONLY

LOOMIS RD

ALVERNO COLLEGE

PARK & RIDE

NORTH 36

SOUTH 36

NORTH 36

ACCESS TO I-894 EAST ONLY NO THRU TRAFFIC

EMS-10

ROAD CLOSED

BRIDGE OUT

ROAD CLOSED

R11-2

48"X30"

YIELD

R1-2

36"X31"

MATCH LINE

STH 36 (LOOMIS ROAD)

ROAD WORK AHEAD

A

DETOUR AHEAD

W20-2A

INTERSTATE 41 M1-1 24"X24"

INTERSTATE 43 M1-1 24"X24"

INTERSTATE 894 M1-1A 30"X24"

PLACE 1/2 MILE BEFORE EXIT

B

TO M4-5 24"X12"

INTERSTATE 41 M1-1 24"X24"

INTERSTATE 43 M1-1 24"X24"

INTERSTATE 894 M1-1A 30"X24"

M5-2R 21"X21"

M5-2R 21"X21"

M5-2R 21"X21"

PLACE 500 FT BEFORE EXIT

C

TO M4-5 24"X12"

INTERSTATE 41 M1-1 24"X24"

INTERSTATE 43 M1-1 24"X24"

INTERSTATE 894 M1-1A 30"X24"

M6-2 21"X21"

M6-2 21"X21"

M6-2 21"X21"

PLACE AT RAMP GORE

D

TO M4-5 24"X12"

INTERSTATE 41 M1-1 24"X24"

INTERSTATE 43 M1-1 24"X24"

INTERSTATE 894 M1-1A 30"X24"

M6-1 21"X21"

M6-1 21"X21"

M6-1 21"X21"

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE DETAIL	SHEET 147	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025111_tc

PLOT DATE : 1/25/2023 3:13 PM PLOT BY : MADHUR KHADE PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

ROAD CLOSED AHEAD

SOUTH

36

ROAD WORK AHEAD

END ROAD WORK

ROAD CLOSED 500 FT

LEFT LANE CLOSED AHEAD

ROAD WORK AHEAD

R1-2
36"X31"

ROAD CLOSED

R11-2
48"X30"

BRIDGE OUT

ACCESS TO I-894 WEST ONLY NO THRU TRAFFIC

STOP

EMS-11

S 43RD STREET

STH 36 (LOOMIS ROAD)

ROAD CLOSED

END ROAD WORK

SOUTH

36

POST ON COLD SPRING ROAD AND ON SB 36 PRIOR TO COLD SPRING ROAD

ROAD CLOSED AHEAD

D

MATCH LINE

R3-60R

D

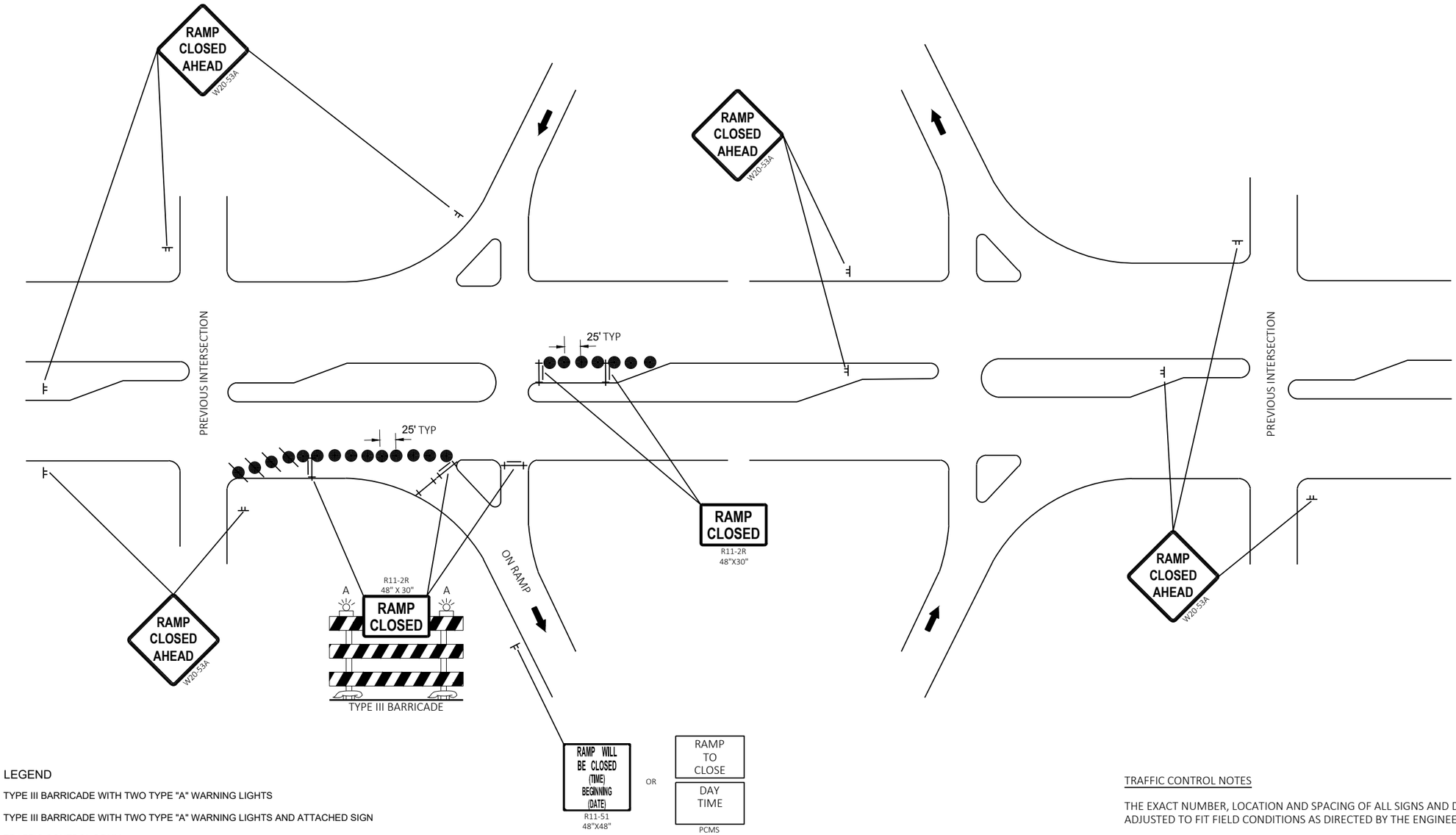
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE DETAIL	SHEET 148	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025112_tc

PLOT DATE : 1/25/2023 3:14 PM PLOT BY : MADHUR KHADE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS
- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SHORT TERM DEFINED AS 7 DAYS OR LESS. FOR NIGHT TIME OPERATIONS ALL DRUMS IN TAPERS SHALL HAVE WARNING LIGHT, TYPE C (STEADY BURN). MAY BE APPLIED TO ARTERIALS OR LOCAL ROADS.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
60TH ST, 27TH ST & LOOMIS RD - SHORT TERM ONLY

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAIL	SHEET 149	E

2

2

CTH Y (W LAYTON AVENUE)

TEMPORARY PAVEMENT WORD EPOXY

RIGHT LANE MUST TURN RIGHT
R3-7R
30"X30"

ONLY ONLY ONLY
R3-8AAR

WO1-6
48"X24"

RIGHT LANE CLOSED AHEAD
W20-5A

W04-2R

TEMPORARY PAVEMENT MARKING 4" EPOXY

320' TAPER

350'

350'

TEMPORARY PAVEMENT MARKING 8" EPOXY

TEMPORARY PAVEMENT ARROW EPOXY

STH 241 (27TH STREET)

IH 41 SB / IH 43 NB / IH 894 EB

IH 41 NB / IH 43 SB / IH 894 WB

NOTE: MODIFICATIONS ALONG STH 241 (27TH STREET) IN PLACE FROM STAGE B TO STAGE G. SEE DETOUR PLANS FOR ADDITIONAL SIGNING INFORMATION NOT SHOWN ON THIS PLAN.

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STH 241 (27TH STREET) STAGE C-G	SHEET 150	E

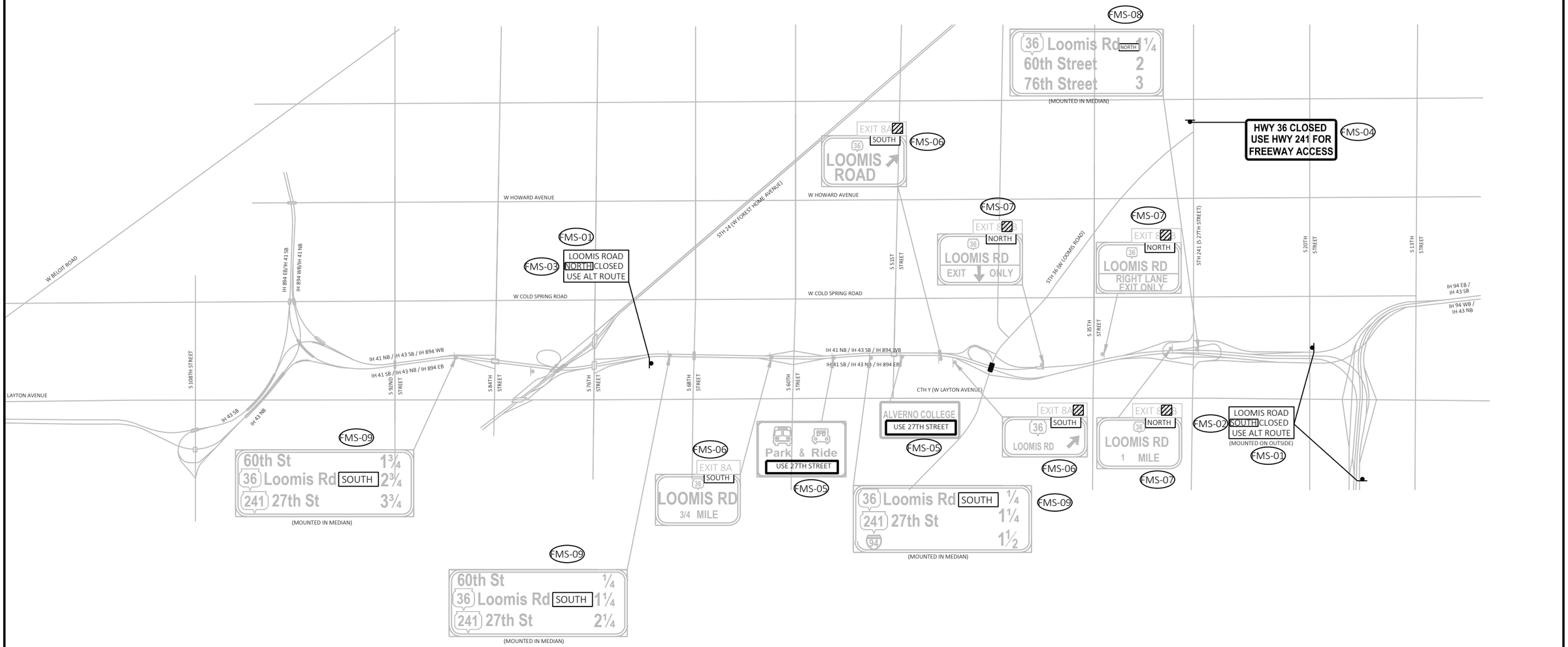
FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025132_TC_27TH STREET.DWG
LAYOUT NAME - 025132_tc

PLOT DATE : 4/26/2023 2:51 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

TRAFFIC CONTROL COVERING SIGNS TYPE 1

N



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FIXED MESSAGE SIGNS - STAGE C/D/E	SHEET 151	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025140_TC_FM.DWG
LAYOUT NAME - 025109_tc_fm

PLOT DATE : 4/26/2023 9:16 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

2

N

W HOWARD AVENUE

W COLD SPRING ROAD

LAYTON AVENUE

W BELOIT ROAD

IH 894 EB/IH 41 SB

IH 894 WB/IH 41 NB

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

IH 43 SB

IH 43 NB

IH 94 EB / IH 43 SB

IH 94 WB / IH 43 NB

S 108TH STREET

S 92ND STREET

S 84TH STREET

S 76TH STREET

S 68TH STREET

S 60TH STREET

S 51ST STREET

S 35TH STREET

S 20TH STREET

S 13TH STREET

STH 24 (W FOREST HOME AVENUE)

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

CTH Y (W LAYTON AVENUE)

LOOMIS ROAD
NORTH CLOSED
USE ALT ROUTE

EXIT 8A
SOUTH
36
LOOMIS ROAD

36 Loomis Rd CLOSED G20-62
60th Street 2
76th Street 3
(MOUNTED IN MEDIAN)

EXIT 8A-B
36
LOOMIS RD
CLOSED G20-60

HWY 36 CLOSED
USE HWY 241 FOR
FREEWAY ACCESS

EXIT 8A-B
36
LOOMIS RD
CLOSED G20-60

EXIT 8A-B
36
LOOMIS RD
CLOSED G20-60

60th St 1¾
36 Loomis Rd SOUTH 2¾
241 27th St 3¾
(MOUNTED IN MEDIAN)

EXIT 8A
SOUTH
36
LOOMIS RD
3/4 MILE

Park & Ride
USE 27TH STREET

ALVERNO COLLEGE
USE 27TH STREET

EXIT 8A-B
SOUTH
36
LOOMIS RD

LOOMIS ROAD
RAMP CLOSED
USE ALT ROUTE
(MOUNTED ON
OUTSIDE)
REMOVE
'SOUTH' FMS
PLAQUE

36 Loomis Rd SOUTH ¼
241 27th St 1¼
94 1½
(MOUNTED IN MEDIAN)

60th St ¼
36 Loomis Rd SOUTH 1¼
241 27th St 2¼
(MOUNTED IN MEDIAN)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FIXED MESSAGE SIGNS - STAGE F	SHEET 152	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025140_TC_FM.DWG
LAYOUT NAME - 025110_tc_fm

PLOT DATE : 4/26/2023 9:16 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

2

2

N

W BELOIT ROAD

W HOWARD AVENUE

W COLD SPRING ROAD

LAYTON AVENUE

IH 894 EB/IH 41 SB

IH 894 WB/IH 41 NB

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

IH 43 SB

IH 43 NB

IH 94 EB / IH 43 SB

IH 94 WB / IH 43 NB

S 108TH STREET

S 92ND STREET

S 84TH STREET

S 76TH STREET

S 68TH STREET

S 60TH STREET

S 51ST STREET

S 35TH STREET

S 20TH STREET

S 13TH STREET

STH 24 (W FOREST HOME AVENUE)

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

CTH Y (W LAYTON AVENUE)

REMOVE 'NORTH' FMS PLAQUE

LOOMIS ROAD RAMP CLOSED USE ALT ROUTE

FMS-08

36 Loomis Rd NORTH 1¼
60th Street 2
76th Street 3

(MOUNTED IN MEDIAN)

EXIT 8A-B
36 CLOSED G20-62
LOOMIS ROAD

EXIT 8A-B
NORTH FMS-07
36 LOOMIS RD
RIGHT LANE EXIT ONLY

HWY 36 CLOSED USE HWY 241 FOR FREEWAY ACCESS

FMS-07

EXIT 8A-B
NORTH
36 LOOMIS RD
EXIT ONLY

60th St 1¾
36 Loomis Rd CLOSED G20-62
241 27th St 3¾

(MOUNTED IN MEDIAN)

EXIT 8A
36 LOOMIS RD
CLOSED G20-60

Park & Ride
USE 27TH STREET

ALVERNO COLLEGE
USE 27TH STREET

36 Loomis Rd CLOSED G20-62
241 27th St 1¼
94 1½

(MOUNTED IN MEDIAN)

EXIT 8A-B
36 CLOSED G20-62
LOOMIS RD

EXIT 8A-B
NORTH FMS-07
36 LOOMIS RD
1 MILE

LOOMIS ROAD SOUTH CLOSED USE ALT ROUTE
(MOUNTED ON OUTSIDE)

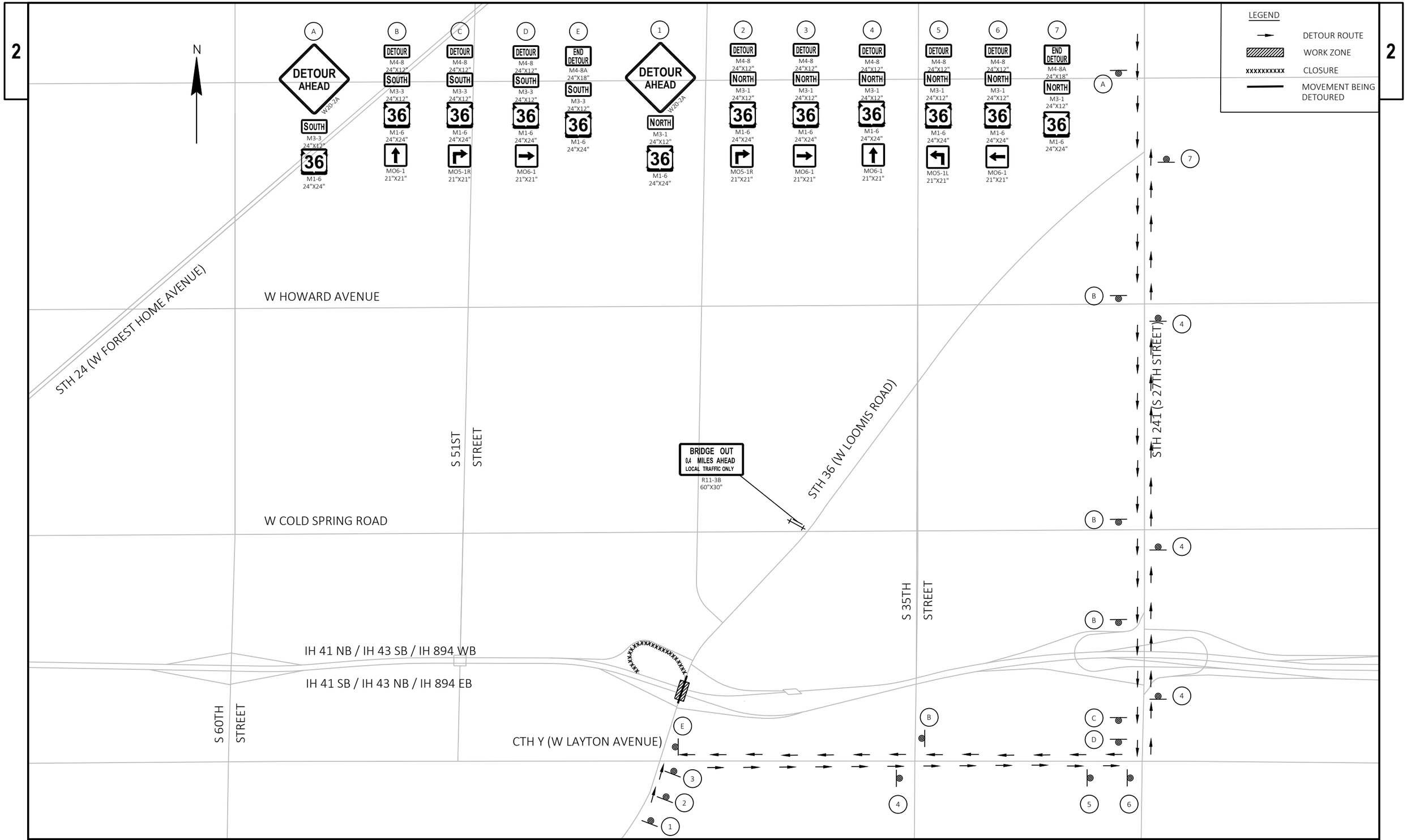
60th St 1¼
36 Loomis Rd CLOSED G20-62
241 27th St 2¼

(MOUNTED IN MEDIAN)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FIXED MESSAGE SIGNS - STAGE G	SHEET 153	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025140_TC_FM.DWG
LAYOUT NAME - 025111_tc_fm

PLOT DATE : 4/26/2023 9:16 AM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:0.5 MI



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR ROUTE - STAGE C-G: STH 36 (LOOMIS RD) NB AND SB	SHEET 154	E

N

A
RAMP CLOSED AHEAD
W20-53A
NORTH M3-1 24"X12" → INTERSTATE 41 M1-1 24"X24"
SOUTH M3-3 24"X12" → INTERSTATE 43 M1-1 24"X24"
WEST M3-4 24"X12" → INTERSTATE 894 M1-1A 30"X24"

B
TO MO4-5 24"X12"
NORTH M3-1 24"X12" → INTERSTATE 41 M1-1 24"X24" → MO5-1L 21"X21"
SOUTH M3-3 24"X12" → INTERSTATE 43 M1-1 24"X24" → MO5-1L 21"X21"
WEST M3-4 24"X12" → INTERSTATE 894 M1-1A 30"X24" → MO5-1L 21"X21"

C
TO MO4-5 24"X12"
NORTH M3-1 24"X12" → INTERSTATE 41 M1-1 24"X24" → MO6-1 21"X21"
SOUTH M3-3 24"X12" → INTERSTATE 43 M1-1 24"X24" → MO6-1 21"X21"
WEST M3-4 24"X12" → INTERSTATE 894 M1-1A 30"X24" → MO6-1 21"X21"

D
TO MO4-5 24"X12"
SOUTH M3-3 24"X12" → INTERSTATE 41 M1-1 24"X24" → MO6-1 21"X21"
NORTH M3-1 24"X12" → INTERSTATE 43 M1-1 24"X24" → MO6-1 21"X21"
EAST M3-2 24"X12" → INTERSTATE 894 M1-1A 30"X24" → MO6-1 21"X21"

E
TO MO4-5 24"X12"
NORTH M3-1 24"X12" → INTERSTATE 41 M1-1 24"X24" → MO6-1 21"X21"
SOUTH M3-3 24"X12" → INTERSTATE 43 M1-1 24"X24" → MO6-1 21"X21"
WEST M3-4 24"X12" → INTERSTATE 894 M1-1A 30"X24" → MO6-1 21"X21"

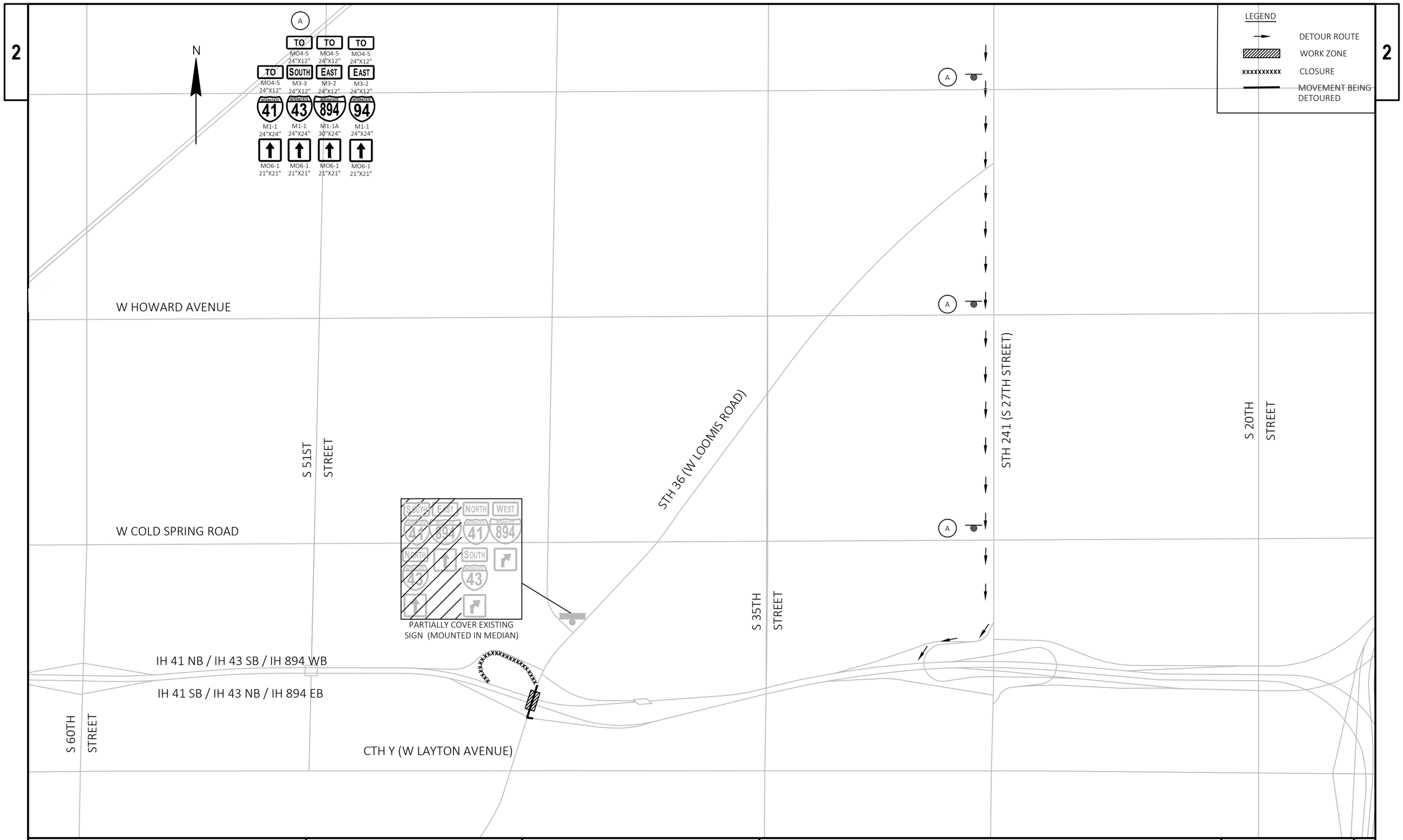
LEGEND
- DETOUR ROUTE
- WORK ZONE
- xxxxxxxxxx CLOSURE
- MOVEMENT BEING DETOURED

STH 24 (W FOREST HOME AVENUE)
W HOWARD AVENUE
S 51ST STREET
STH 36 (W LOOMIS ROAD)
STH 241 (S 27TH STREET)
W COLD SPRING ROAD
S 35TH STREET
IH 41 NB / IH 43 SB / IH 894 WB
IH 41 SB / IH 43 NB / IH 894 EB
S 68TH STREET
S 60TH STREET
CTH Y (W LAYTON AVENUE)

2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: STH 36 (LOOMIS RD) NB TO IH 41NB / IH 43 SB / IH 894 WB	SHEET 155	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027002_dt
PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: STH 36 (LOOMIS ROAD) SB TO IH 94 WB / IH 43 NB	SHEET 156	E

2

N

A

TO SOUTH INTERSTATE 41
TO EAST INTERSTATE 43
TO EAST INTERSTATE 894
TO EAST INTERSTATE 94

W HOWARD AVENUE

S 51ST STREET

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

S 20TH STREET

LEGEND

DETOUR ROUTE

WORK ZONE

xxxxxxxxxx CLOSURE

MOVEMENT BEING DETOURED

2

SOUTH INTERSTATE 41
EAST INTERSTATE 894
NORTH INTERSTATE 41
WEST INTERSTATE 894
NORTH INTERSTATE 43
SOUTH INTERSTATE 43

W COLD SPRING ROAD

PARTIALLY COVER EXISTING SIGN (MOUNTED IN MEDIAN)

S 35TH STREET

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

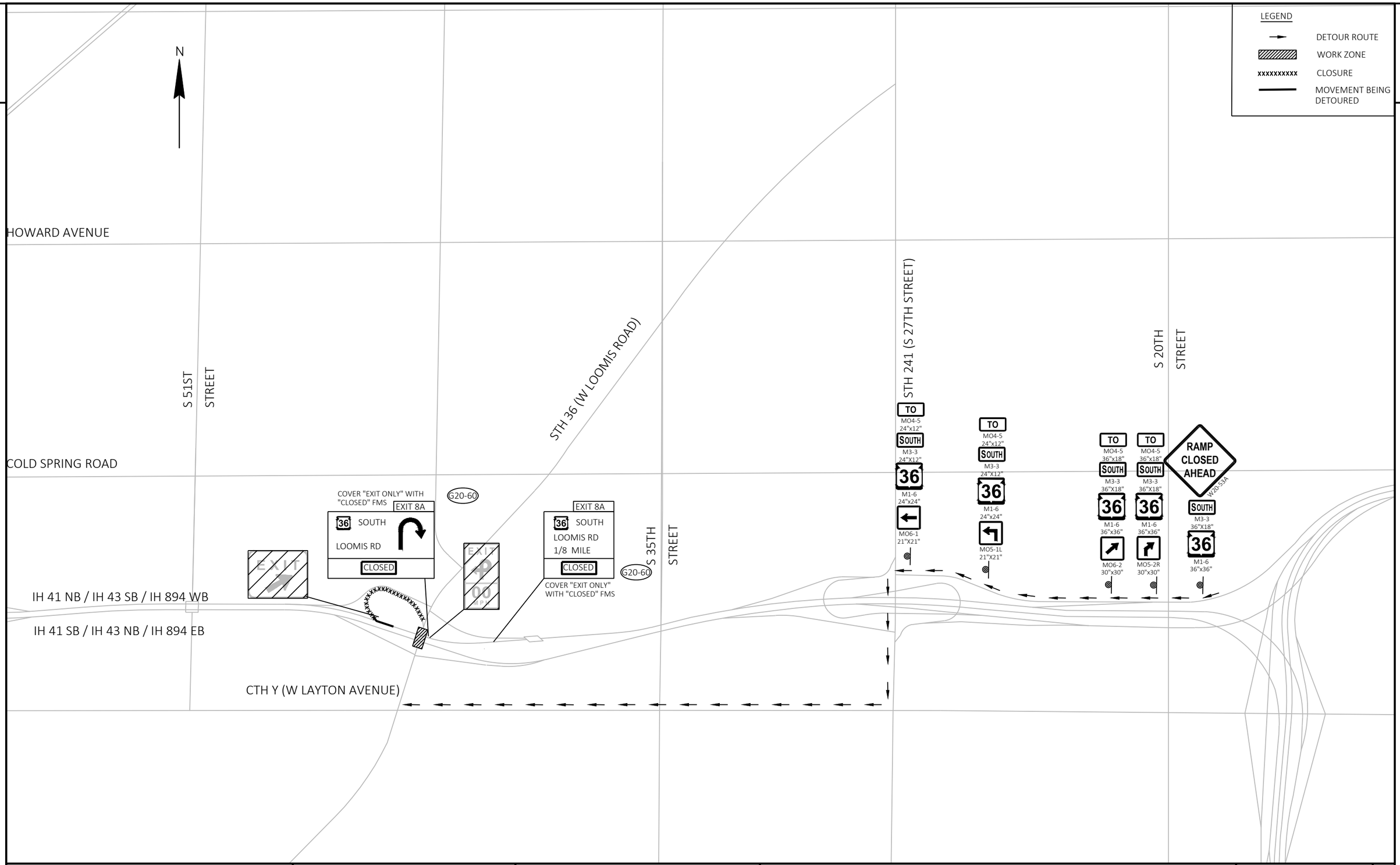
CTH Y (W LAYTON AVENUE)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: STH 36 (LOOMIS ROAD) SB TO IH 41 SB / IH 94 EB	SHEET 157	E

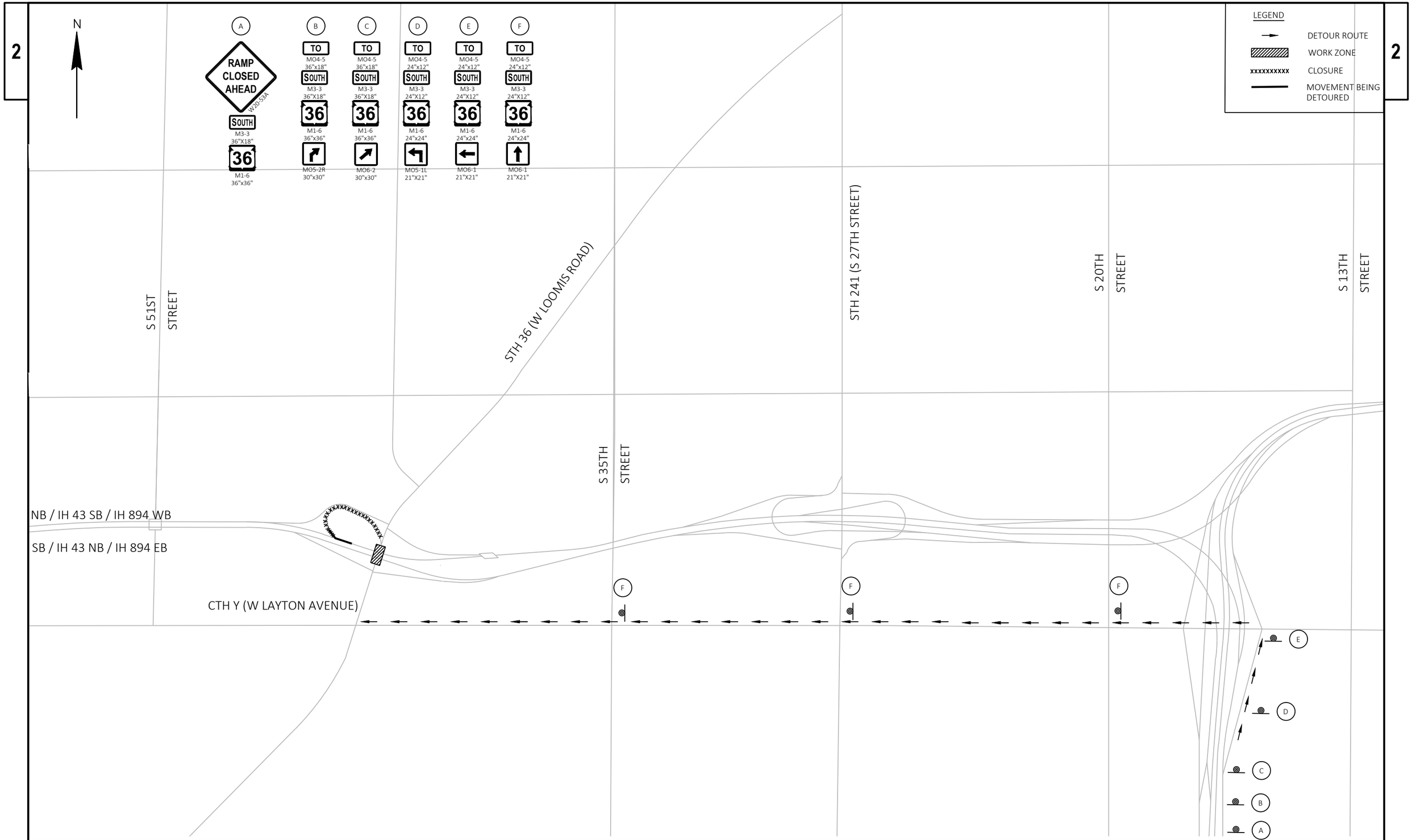
FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027004_dt

PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

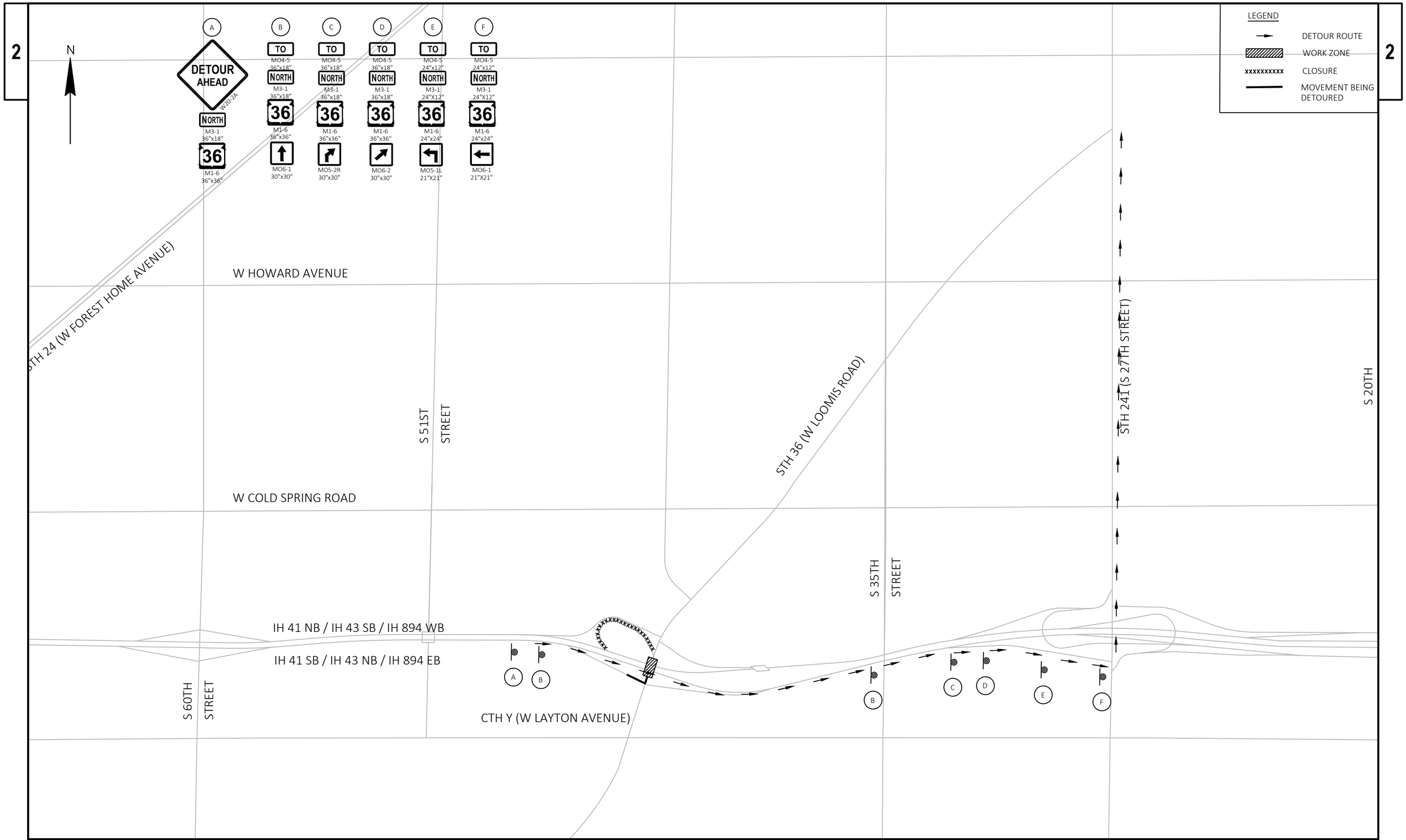


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: IH 94 EB / IH 43 SB TO STH 36 (LOOMIS ROAD) SB	SHEET 158	E



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: IH 41 NB / IH 94 WB TO STH 36 (LOOMIS ROAD) SB	SHEET 159	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027006_dt
PLOT DATE : 4/21/2023 2:06 PM
PLOT BY : REBECCA JONARDI
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: IH 41 SB / IH 43 NB / IH 894 TO STH 36 (LOOMIS ROAD) NB	SHEET 160	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027007_dt
PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42

2

N

STH 24 (W FOREST HOME AVENUE)

W HOWARD AVENUE

W COLD SPRING ROAD

S 51ST STREET

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

S 35TH STREET

S 60TH STREET

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

CTH Y (W LAYTON AVENUE)

LEGEND

- DETOUR ROUTE
- WORK ZONE
- xxxxxxxxxx CLOSURE
- MOVEMENT BEING DETOURED

DETOUR
M4-9B (MOD)
30"X24"

MO6-1
21"X21"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BR
30"X24"

DETOUR AHEAD
M4-9BA
30"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

DETOUR AHEAD
M4-9BA
30"X24"

DETOUR
M4-9B (MOD)
30"X24"

MO6-1
21"X21"

2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE C-G: STH 36 (LOOMIS ROAD) PEDESTRIAN DETOUR	SHEET 161	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027008_dt

PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

2

N

A

TO SOUTH 41 | TO SOUTH 43 | TO EAST 894 | TO EAST 94

*REMOVE ALL CARDINAL DIRECTION PANELS FROM EXISTING DETOUR SIGNS ALONG ROUTE

LEGEND

- DETOUR ROUTE
- WORK ZONE
- xxxxxxxxxx CLOSURE
- MOVEMENT BEING DETOURED

2

W HOWARD AVENUE

S 51ST STREET

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

S 20TH STREET

W COLD SPRING ROAD

SOUTH 41 894 | EAST 41 894 | NORTH 43 | SOUTH 43

FULLY COVER EXISTING SIGN (MOUNTED IN MEDIAN)

S 35TH STREET

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

S 60TH STREET

CTH Y (W LAYTON AVENUE)

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE F: STH 36 (LOOMIS ROAD) SB TO IH 41 NB / IH 43 SB / IH 894 WB	SHEET 162	E

2

LEGEND

DETOUR ROUTE

WORK ZONE

CLOSURE

MOVEMENT BEING DETOURED

N

A * RAMP CLOSED AHEAD — SOUTH 36

B * TO SOUTH 36

C * TO SOUTH 36

D TO SOUTH 36 — MO4-5 24"x12" — NORTH — M3-1 24"X12" — 36 — M1-6 24"x24" — MO5-1R 21"X21"

E TO SOUTH 36 — MO4-5 24"x12" — NORTH — M3-1 24"X12" — 36 — M1-6 24"x24" — MO6-1 21"X21"

F TO SOUTH 36 — MO4-5 24"x12" — NORTH — M3-1 24"X12" — 36 — M1-6 24"x24" — MO6-1 21"X21"

*REMOVE CARDINAL DIRECTION PANELS FROM EXISTING DETOUR SIGNS

HOWARD AVENUE

COLD SPRING ROAD

S 51ST STREET

STH 36 (W LOOMIS ROAD)

STH 241 (S 27TH STREET)

S 20TH STREET

S 35TH STREET

EXIT 8B — 36 NORTH — LOOMIS RD — CLOSED — G20-60

IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

CTH Y (W LAYTON AVENUE)

EXIT

ALVERNO COLLEGE EXIT 7 — FMS-12

Park & Ride EXIT 7 — FMS-12

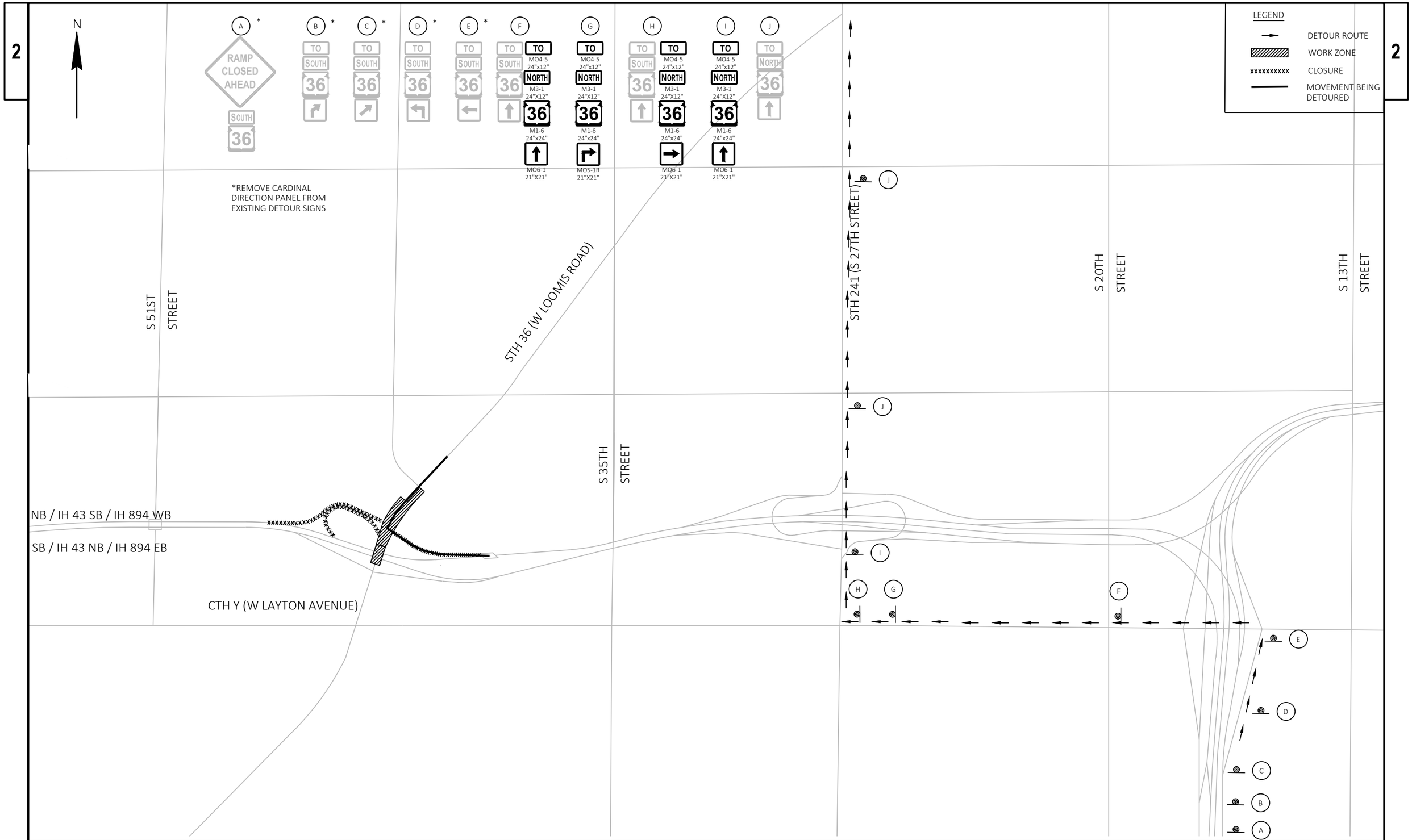
F E D C B A

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE F: IH 94 EB / IH 43 SB TO STH 36 (LOOMIS ROAD) NB	SHEET 163	E

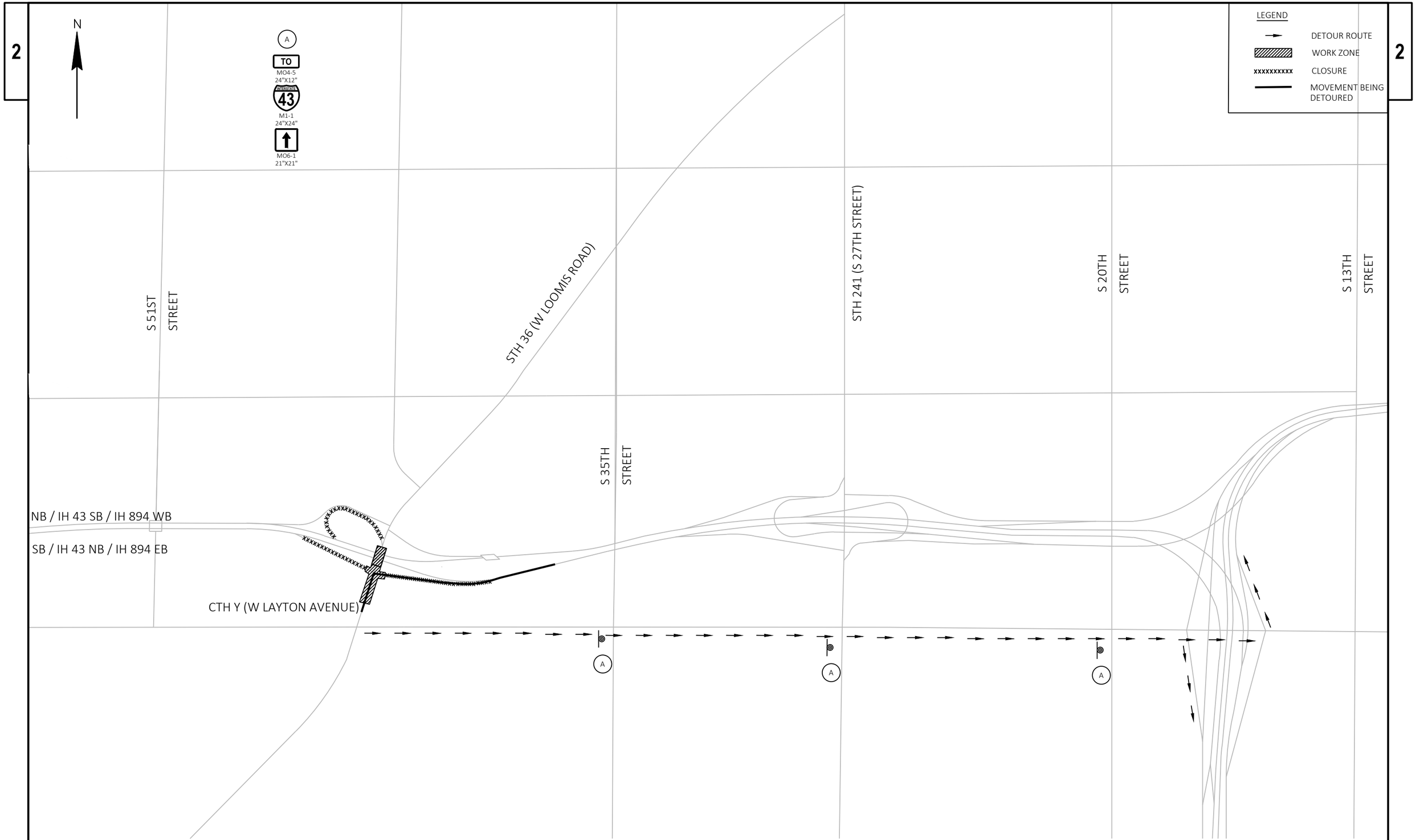
FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027010_dt

PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT

WISDOT/CADDS SHEET 42

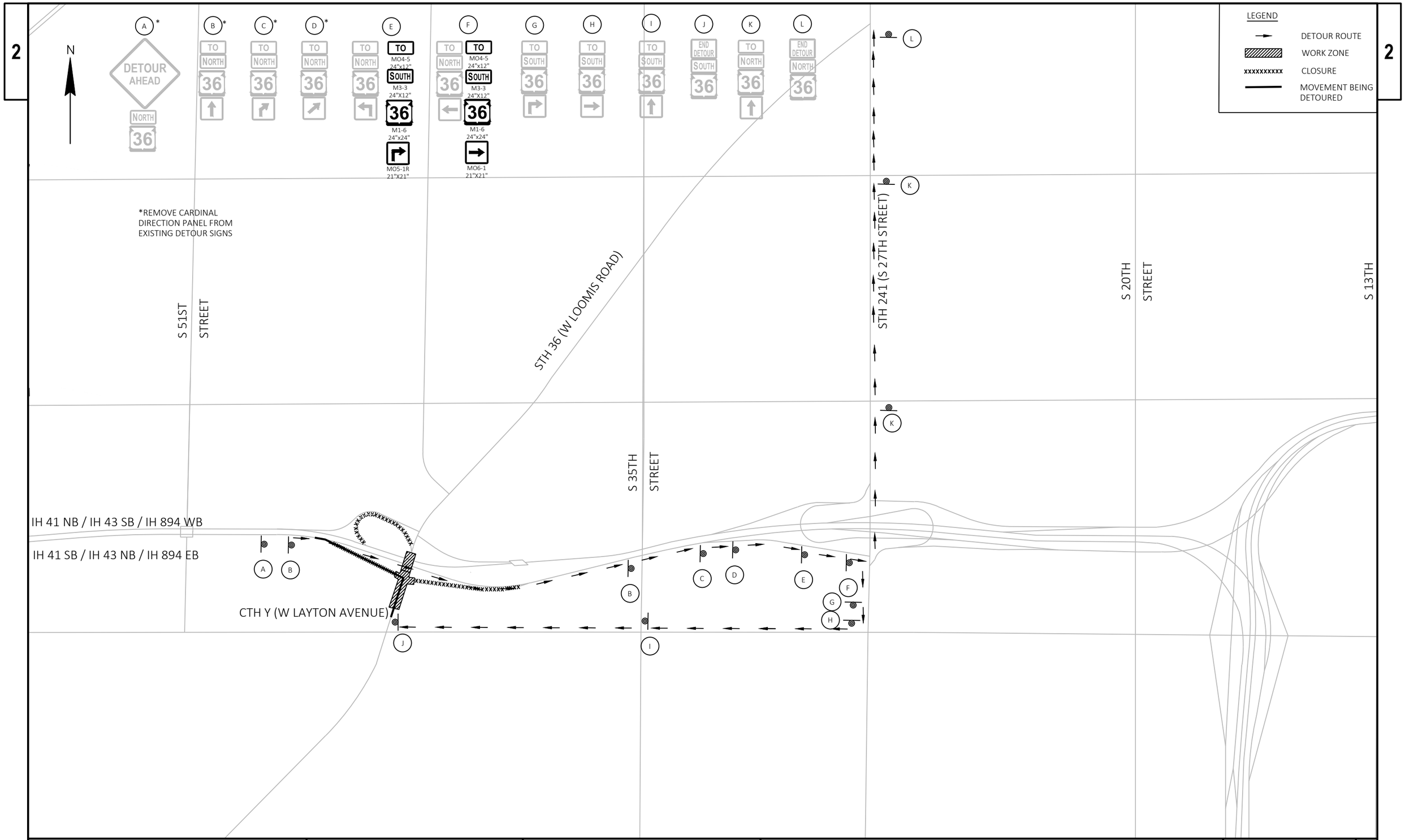


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE F: IH 41 NB / IH 94 WB TO STH 36 (LOOMIS ROAD) NB	SHEET 164	E



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE G: STH 36 (LOOMIS ROAD) NB TO IH 41 SB / IH 94 EB & IH 94 WB / IH 43 NB	SHEET 165	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - 027012_dt
PLOT DATE : 4/21/2023 2:06 PM PLOT BY : REBECCA JONARDI PLOT NAME : PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - STAGE G: IH 41 SB / IH 43 NB / IH 894 EB TO STH 36 (LOOMIS ROAD)	SHEET 166	E

2

2

N

PT: 54+96.82'F'

R/L S. 43RD STREET

S. 43RD STREET

PC: 51+97.28'F'

PI STA = 53+56.45'F'
Y = 272439.481
X = 590195.331
DELTA = 47°56'23"
D = 16°00'16"
T = 159.17'
L = 299.54'
R = 358.00'
PC STA = 51+97.28'F'
PT STA = 54+96.82'F'

EQUATION

STA AHEAD = 95+67.29'SB'
STA BACK = 95+76.07'SB'

PT: 95+74.95'SB'

PT: 95+67.29

N46°50'11"W
197.28'

BP: 50+00.00'F'

100'SB'
100'NB'

N43°10'51"E

STH 36 (LOOMIS ROAD)

R/L NEW ACCESS ROAD

EP: 12+00.00

S46°55'37"E

NEW ACCESS ROAD

STA AHEAD = 95+74.54'NB'
STA BACK = 95+65.67'NB'

PT: 95+74.54'NB'

EQUATION

R/L RAMP C

95'SB'
85'NB'

PI STA = 92+85.34'SB'
Y = 271941.624
X = 590197.442
DELTA = 25°40'34"
D = 4°21'26"
T = 299.68'
L = 589.30'
R = 1315.00'
PC STA = 89+85.65'SB'
PT STA = 95+74.95'SB'

RAMP C
RAMP D

R/L RAMP C1

PI: 93+14.91

R/L RAMP D

R/L RAMP E

PI STA = 93+14.91
Y = 271960.810
X = 590234.949
DELTA = 25°40'34"
D = 5°00'00"
T = 261.15'
L = 513.52'
R = 1145.90'
PC STA = 90+53.77
PT STA = 95+67.29

PI STA = 93+45.43'NB'
Y = 271980.891
X = 590272.739
DELTA = 25°40'34"
D = 5°43'46"
T = 227.89'
L = 448.14'
R = 1000.00'
PC STA = 91+17.54'NB'
PT STA = 95+74.54'NB'

RAMP E

PC: 90+53.77

PC: 89+85.65'SB'

PC: 91+17.54'NB'

PI: 89+04.06'NB'

90'SB'
90'NB'

89°21'30"

N17°30'16"E

STA AHEAD = 89+04.06'NB'
STA BACK = 89+04.38'NB'

EQUATION

PI: 88+23.91'SB'
STA AHEAD = 88+23.91'SB'
STA BACK = 88+24.16'SB'

EQUATION

RAMP B

R/L RAMP B

N19°44'29"E

N15°15'16"E

R/L STH 36 (LOOMIS ROAD) SB

PI: 84+98.13'SB'

85'SB'
85'NB'

STA 229+13.40 R/L IH 41/43/894 =
STA 88+60.22 R/L STH 36 (LOOMIS ROAD)
Y=271,527.168
X=590,098.185

RAMP A

R/L RAMP A1

R/L RAMP A

PI: 84+89.18'NB'

R/L STH 36 (LOOMIS ROAD)

R/L STH 36 (LOOMIS ROAD) NB

N17°30'16"E

STH 36 (LOOMIS ROAD)

BP: 80+00.00'SB'

BP: 80+00.00'NB'

PI: 50+00.00'LA'

EP: 58+00.00'LA'

R/L W. LAYTON AVENUE

W. LAYTON AVENUE

40'LA'
S89°54'43"E
45'LA'
S89°54'47"E
55'LA'

IH 41 NB / IH 43 SB / IH 894 WB

R/L IH 41 NB / IH 43 SB / IH 894 WB

IH 41 SB / IH 43 NB / IH 894 EB

R/L IH 41 SB / IH 43 NB / IH 894 EB

R/L IH 41/43/894

215'LRC'
220'LRC'
225'LRC'
230'LRC'
215
220
225
215'LRB'
220'LRB'
225'LRD'
230'LRE'
235'LRE'
240'LRE'
230'EWW'
230'EWE'
235'EWW'
240'EWW'
235'EWE'
240'EWE'
230'LRA'
235'LRA'
240'LRA'
245'EWE'
245'LRA'

NOTE:

SEE RAMP AND IH 41/43/894 ALIGNMENT DATA ON SEPARATE SHEETS

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM - STH 36 (LOOMIS ROAD)	SHEET 167	E

PI STA = 215+75.08'LRC'
DELTA = 9°49'33"
D = 1°51'55"
T = 264.04'
L = 526.78'
R = 3071.79'
PC STA = 213+11.04'LRC'
PT STA = 218+37.83'LRC'

PI STA = 220+57.81'LRC'
DELTA = 49°17'21"
D = 15°02'31"
T = 174.75'
L = 327.68'
R = 380.91'
PC STA = 218+83.06'LRC'
PT STA = 222+10.74'LRC'

PI STA = 223+85.43'LRC'
DELTA = 25°26'20"
D = 26°02'37"
T = 49.66'
L = 97.68'
R = 220.00'
PC STA = 223+35.77'LRC'
PT STA = 224+33.45'LRC'

PI STA = 224+63.43'LRC'
DELTA = 18°13'13"
D = 30°38'22"
T = 29.99'
L = 59.47'
R = 187.00'
PC STA = 224+33.45'LRC'
PT STA = 224+92.91'LRC'

PI STA = 225+65.79'LRC'
DELTA = 21°36'42"
D = 15°00'20"
T = 72.88'
L = 144.02'
R = 381.83'
PC STA = 224+92.91'LRC'
PT STA = 226+36.94'LRC'

PI STA = 230+57.27'LRC'
DELTA = 73°44'21"
D = 38°11'50"
T = 112.50'
L = 193.05'
R = 150.00'
PC STA = 229+44.77'LRC'
PT STA = 231+37.82'LRC'

PI STA = 231+87.84'LRC'
DELTA = 4°14'16"
D = 4°14'16"
T = 50.02'
L = 100.00'
R = 1352.00'
PC STA = 231+37.82'LRC'
PT STA = 232+37.82'LRC'

PI STA = 234+81.63'LRE'
DELTA = 34°51'10"
D = 6°44'26"
T = 266.80'
L = 517.05'
R = 850.00'
PC STA = 232+14.83'LRE'
PT STA = 237+31.88'LRE'

PI STA = 215+20.92'LRB'
DELTA = 8°19'21"
D = 2°00'41"
T = 207.25'
L = 413.76'
R = 2848.58'
PC STA = 213+13.68'LRB'
PT STA = 217+27.44'LRB'

PI STA = 219+47.73'LRB'
DELTA = 17°56'51"
D = 4°06'26"
T = 220.29'
L = 436.98'
R = 1395.00'
PC STA = 217+27.44'LRB'
PT STA = 221+64.42'LRB'

PI STA = 213+84.18'LRD'
DELTA = 54°00'02"
D = 28°38'52"
T = 101.91'
L = 188.50'
R = 200.00'
PC STA = 212+82.27'LRD'
PT STA = 214+70.77'LRD'

PI STA = 215+59.86'LRD'
DELTA = 27°56'35"
D = 16°00'00"
T = 89.10'
L = 174.64'
R = 358.10'
PC STA = 214+70.77'LRD'
PT STA = 216+45.41'LRD'

PI STA = 218+76.21'LRD'
DELTA = 29°23'30"
D = 22°01'35"
T = 68.22'
L = 133.44'
R = 260.12'
PC STA = 218+07.99'LRD'
PT STA = 219+41.43'LRD'

PI STA = 222+22.35'LRD'
DELTA = 123°52'49"
D = 38°15'39"
T = 280.93'
L = 323.78'
R = 149.75'
PC STA = 219+41.43'LRD'
PT STA = 222+65.20'LRD'

PI STA = 223+63.51'LRD'
DELTA = 34°09'17"
D = 17°54'18"
T = 98.31'
L = 190.76'
R = 320.00'
PC STA = 222+65.20'LRD'
PT STA = 224+55.96'LRD'

PI STA = 229+57.02'LRA'
DELTA = 74°56'38"
D = 38°11'50"
T = 114.98'
L = 196.20'
R = 150.00'
PC STA = 228+42.04'LRA'
PT STA = 230+38.24'LRA'

PI STA = 237+17.36'LRA'
DELTA = 1°10'36"
D = 1°14'30"
T = 47.39'
L = 94.78'
R = 4614.63'
PC STA = 236+69.97'LRA'
PT STA = 237+64.74'LRA'

PI STA = 239+15.48'LRA'
DELTA = 10°37'53"
D = 3°32'12"
T = 150.73'
L = 300.60'
R = 1620.00'
PC STA = 237+64.74'LRA'
PT STA = 240+65.34'LRA'

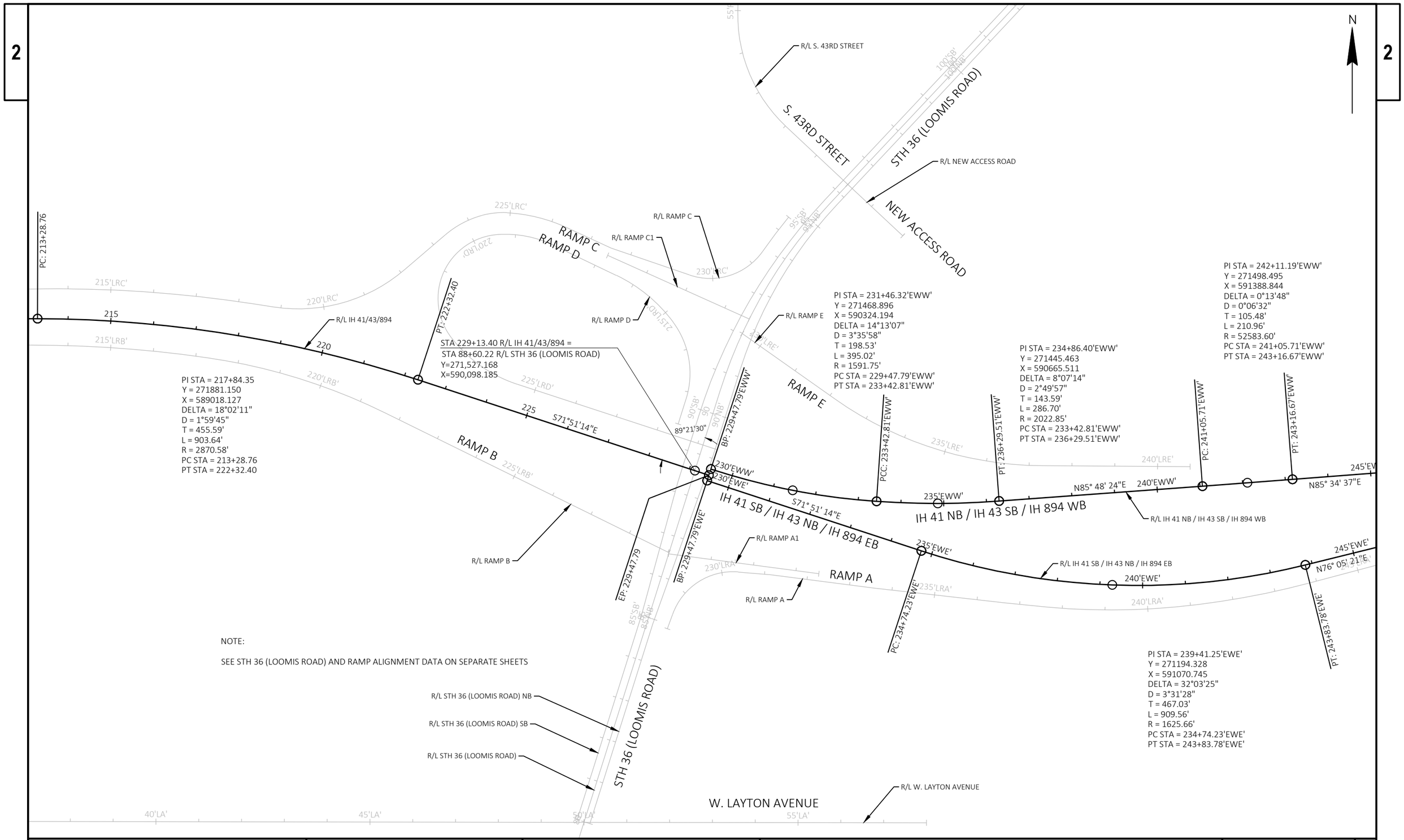
PI STA = 242+25.35'LRA'
DELTA = 9°29'07"
D = 2°58'15"
T = 160.01'
L = 319.30'
R = 1928.68'
PC STA = 240+65.34'LRA'
PT STA = 243+84.64'LRA'

NOTE:

SEE STH 36 (LOOMIS ROAD) AND IH 41/43/894 ALIGNMENT DATA ON SEPARATE SHEETS

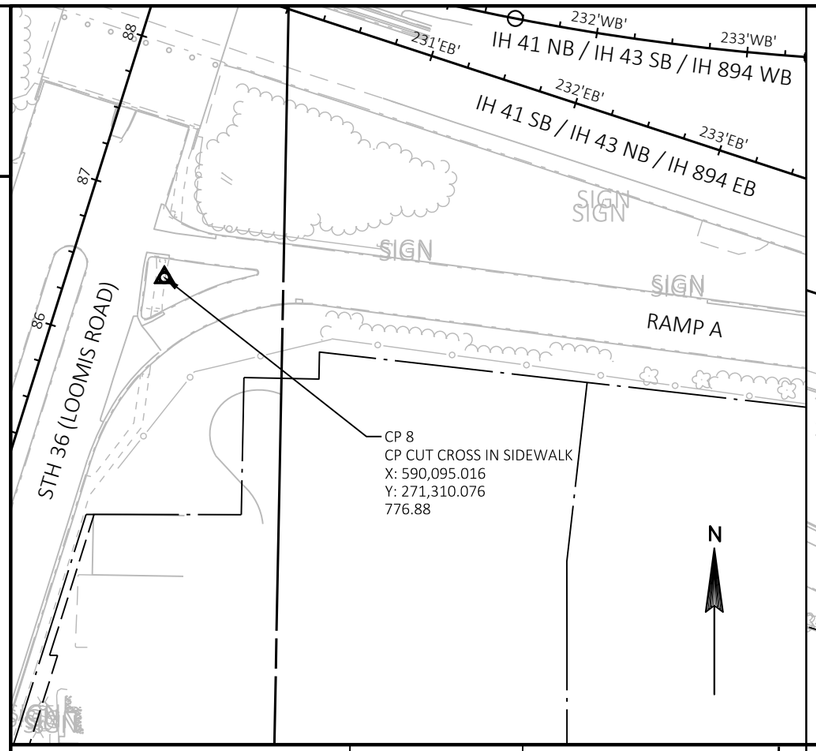
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM - RAMPS	SHEET 168	E

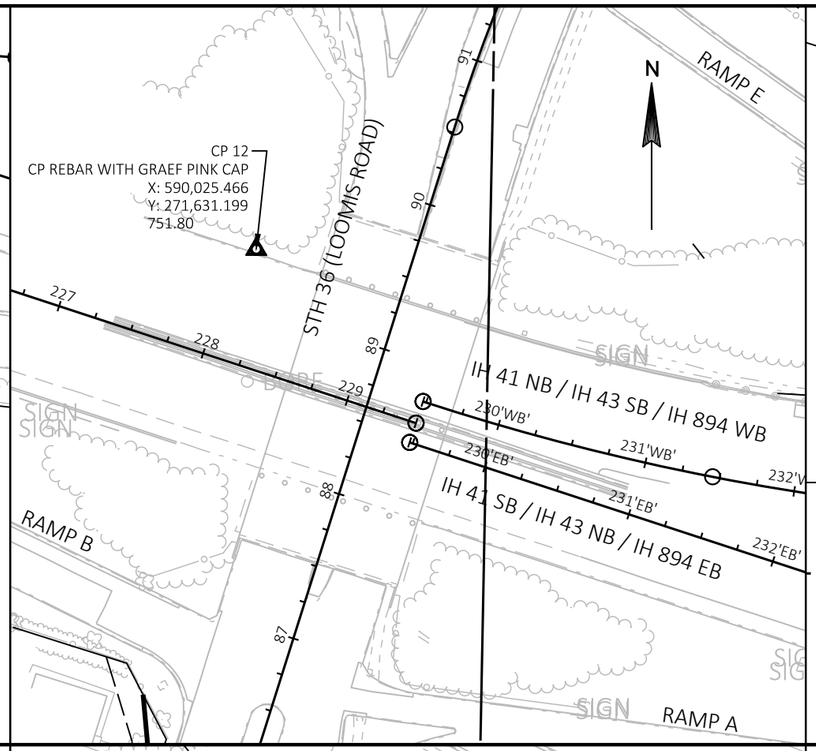
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\027202_AD.DWG
LAYOUT NAME - Plan 1 IN 100 FT
PLOT DATE : 11/1/2022 11:07 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

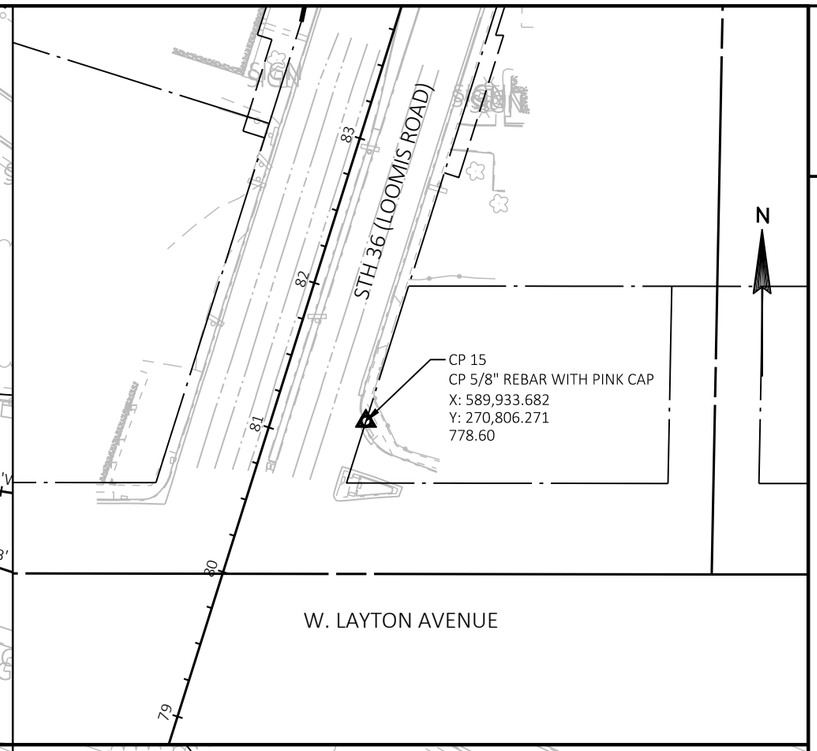


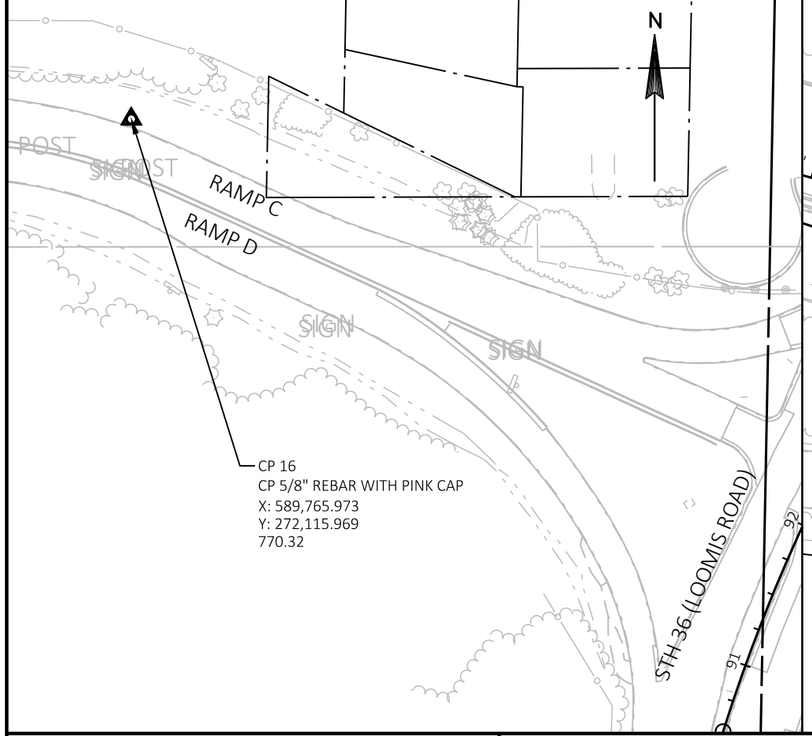
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT DIAGRAM - IH 41/43/894	SHEET 169	E

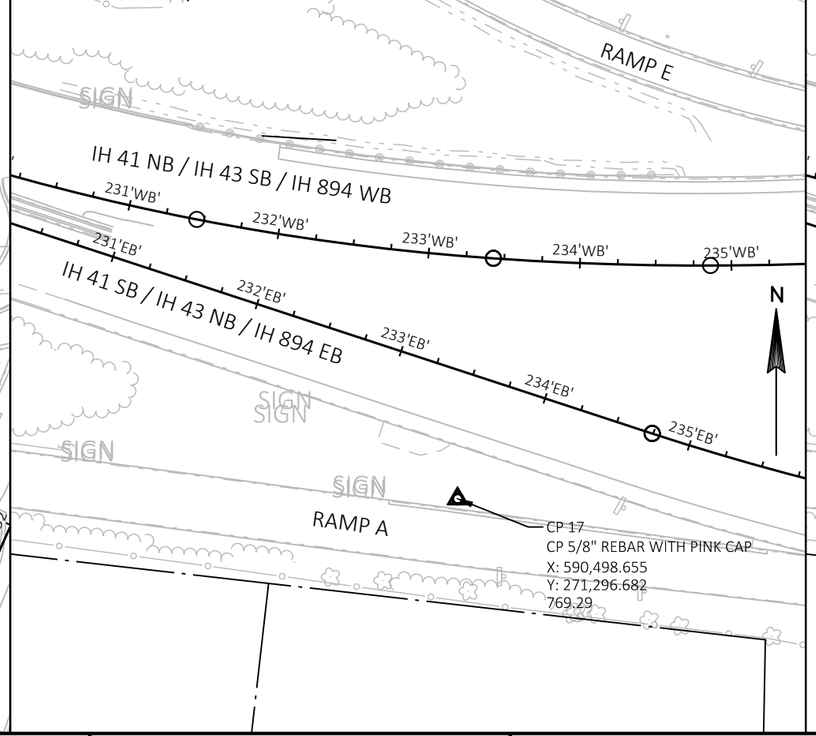
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\027203_AD.DWG
LAYOUT NAME - Plan 1 IN 100 FT
PLOT DATE : 11/1/2022 11:07 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

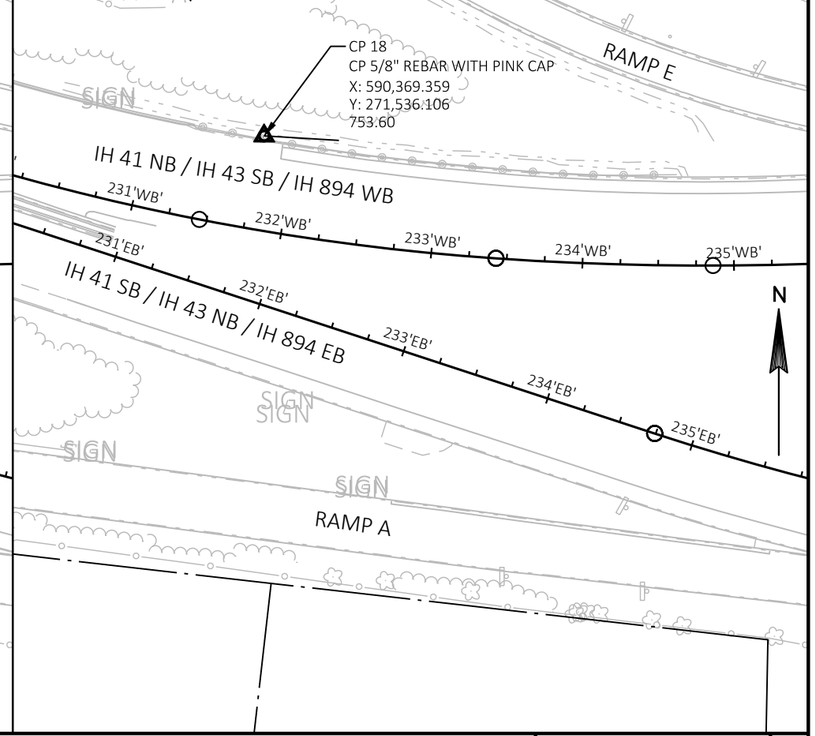






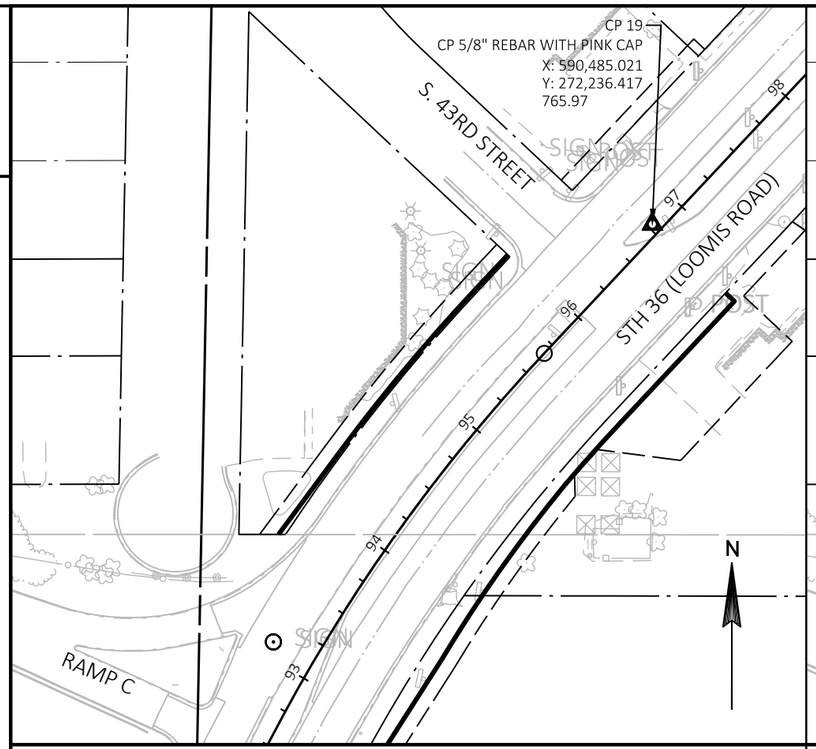


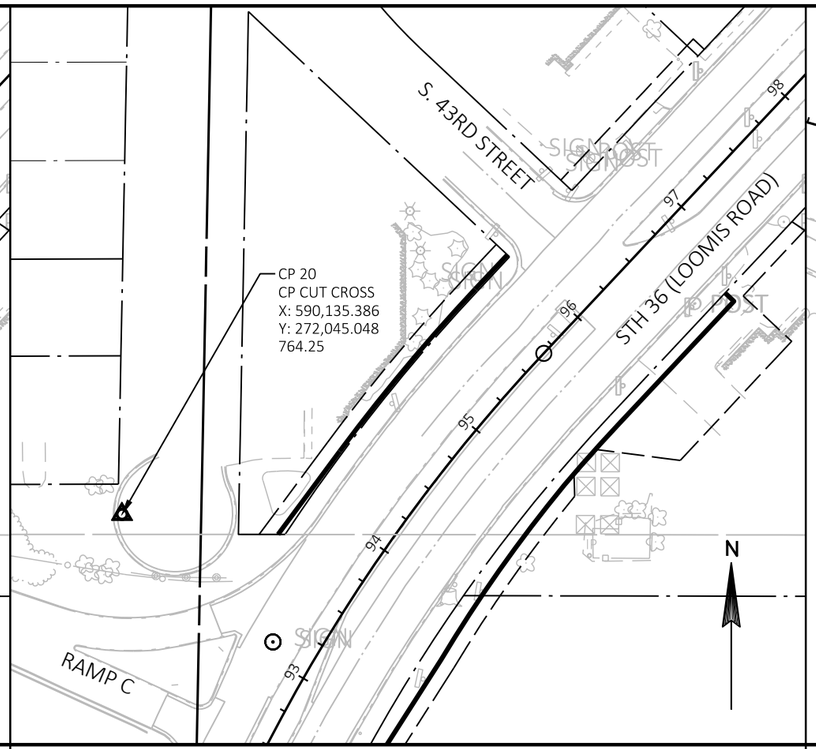


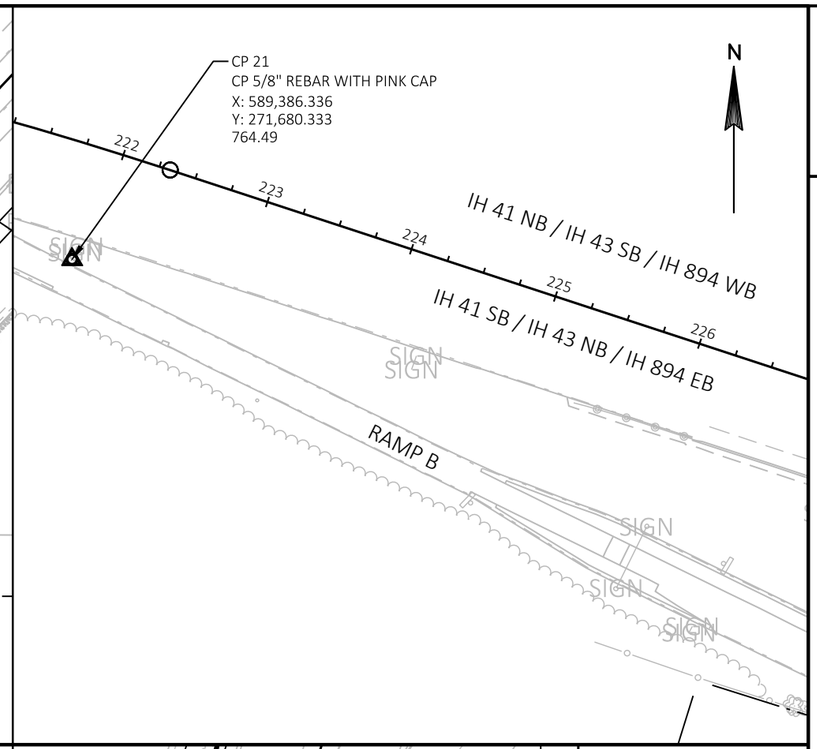


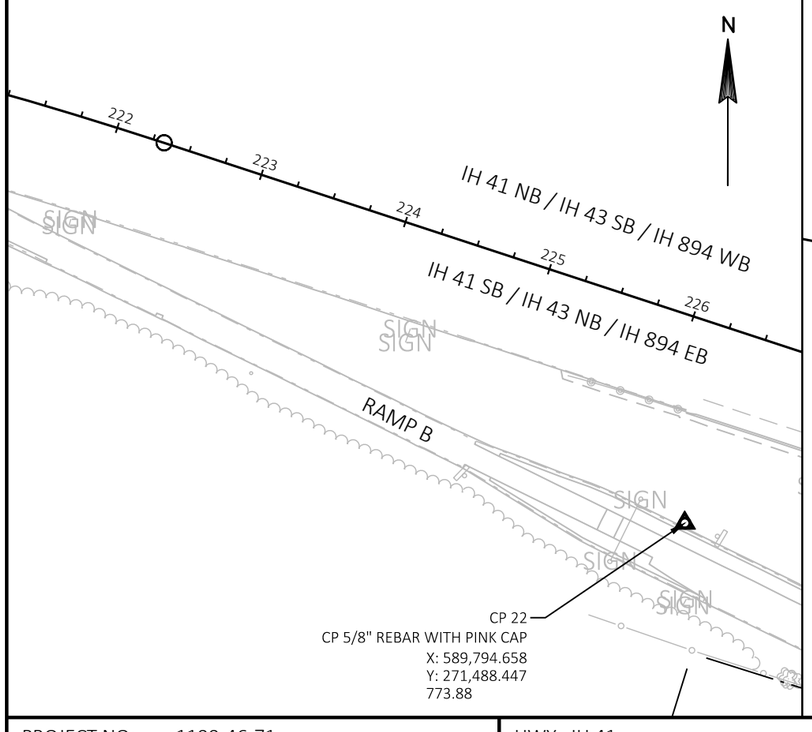
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 170	E

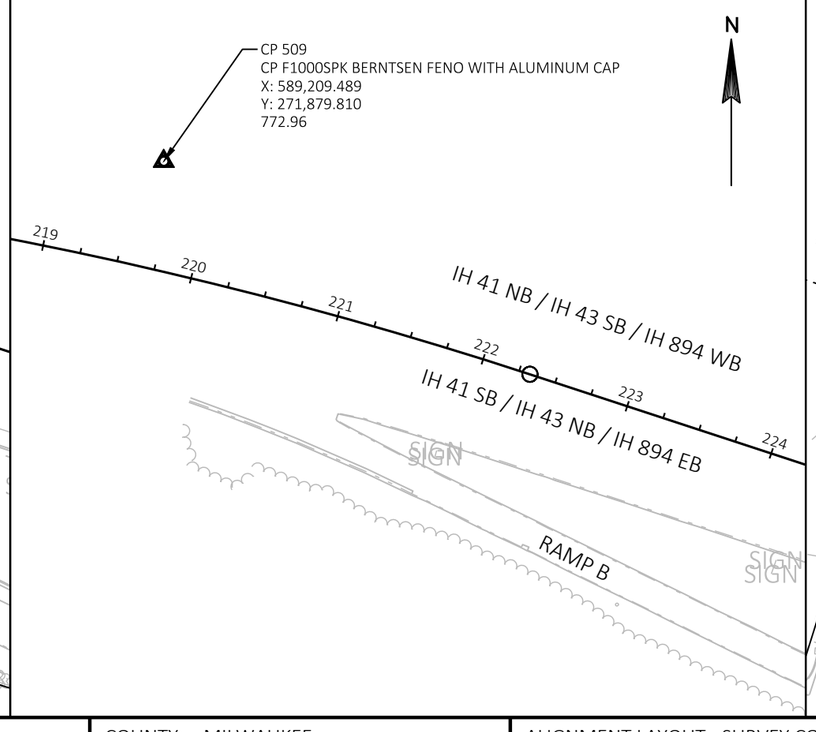
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\027221_AD_CP.DWG
LAYOUT NAME - 01
PLOT DATE : 10/30/2022 3:10 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

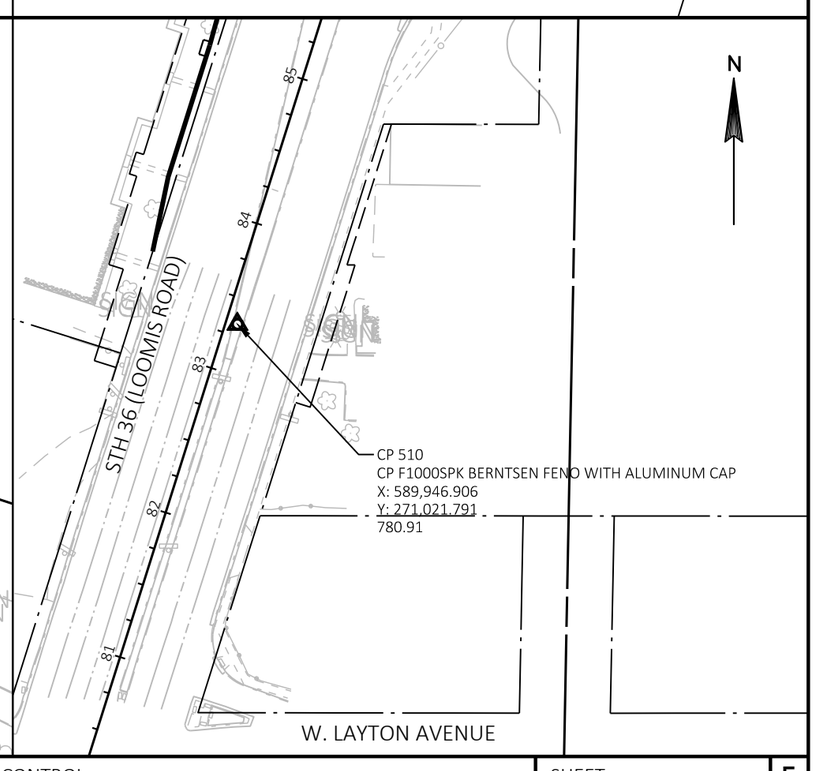




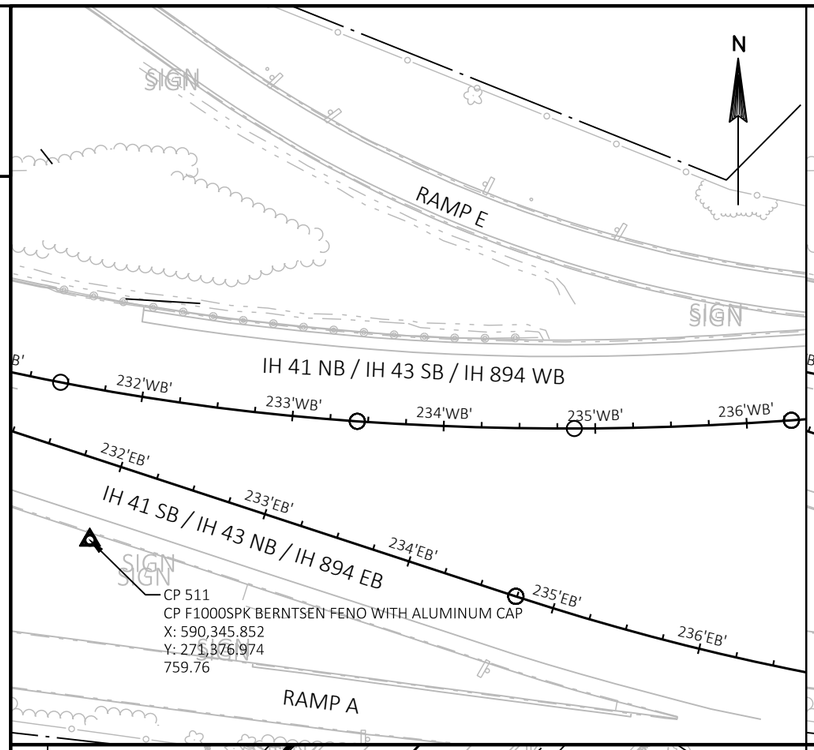


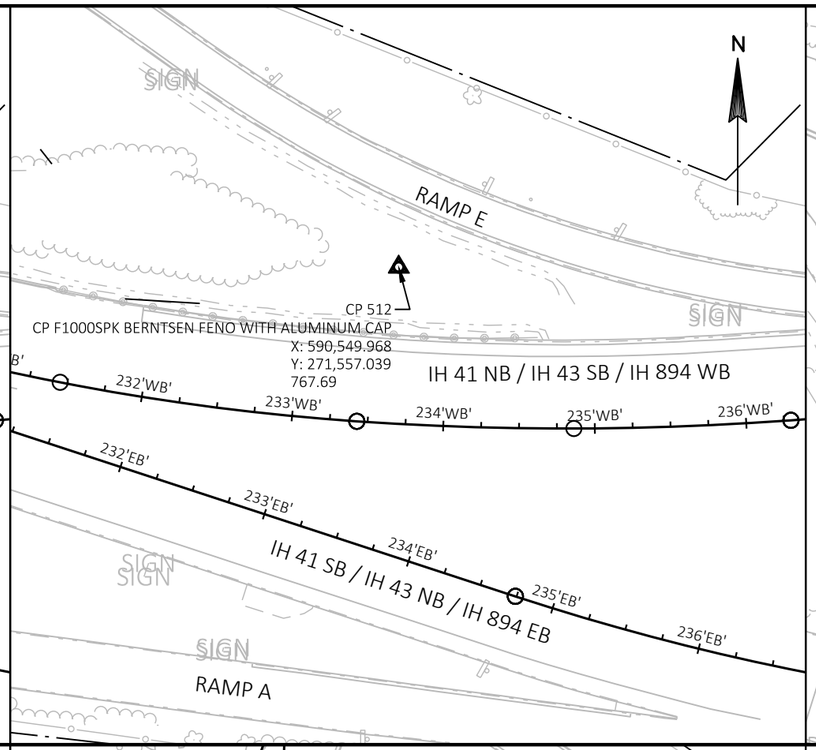


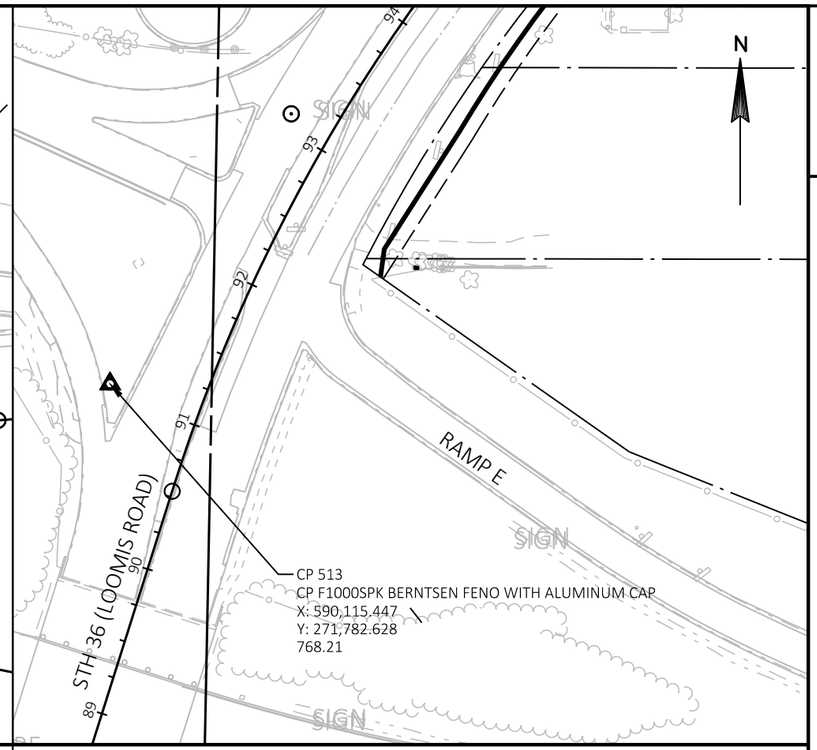


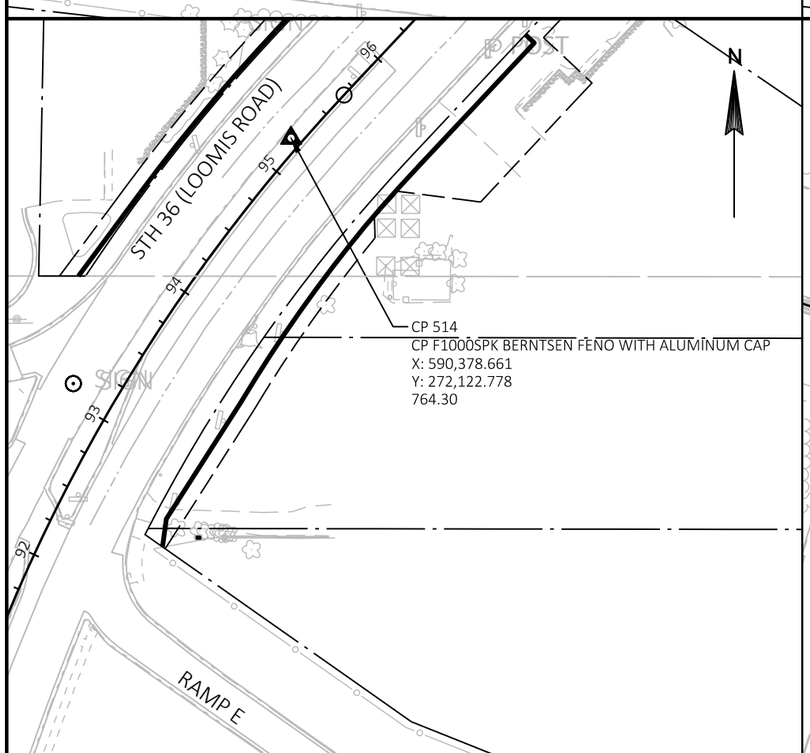


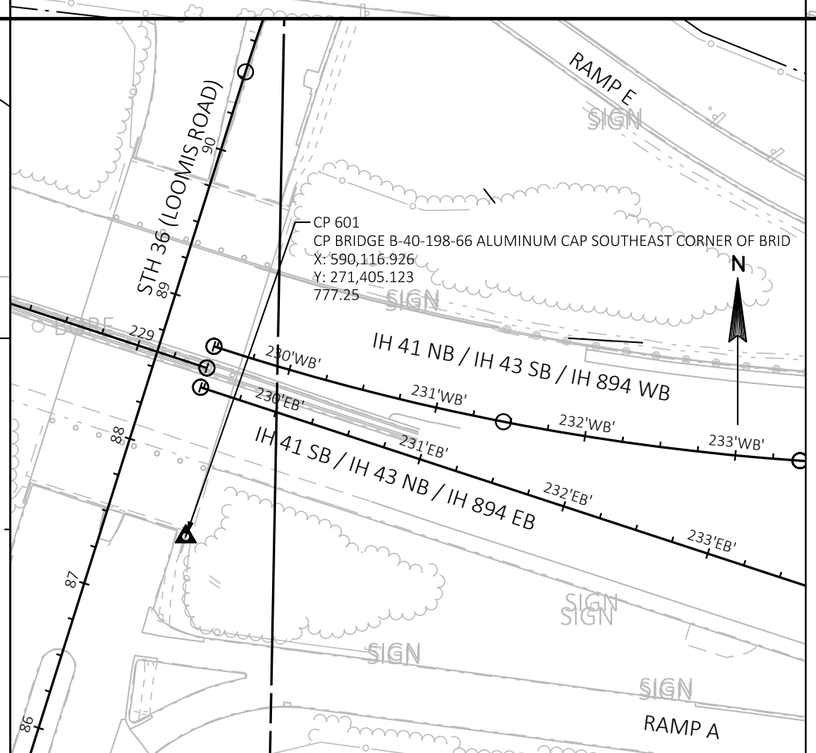
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 171	E











PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 172	E

1100-46-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	7.000	7.000
0004	201.0120	Clearing	ID	82.000	82.000
0006	201.0205	Grubbing	STA	7.000	7.000
0008	201.0220	Grubbing	ID	82.000	82.000
0010	203.0211.S	Abatement of Asbestos Containing Material (structure) 400. B-40-0198	EACH	1.000	1.000
0012	203.0220	Removing Structure (structure) 400. B-40-0198	EACH	1.000	1.000
0016	203.0330	Debris Containment (structure) 400. B-40-0198	EACH	1.000	1.000
0018	204.0100	Removing Concrete Pavement	SY	15,006.000	15,006.000
0026	204.0115	Removing Asphaltic Surface Butt Joints	SY	72.000	72.000
0028	204.0120	Removing Asphaltic Surface Milling	SY	671.000	671.000
0032	204.0150	Removing Curb & Gutter	LF	813.000	813.000
0034	204.0155	Removing Concrete Sidewalk	SY	539.000	539.000
0036	204.0157	Removing Concrete Barrier	LF	79.000	79.000
0040	204.0170	Removing Fence	LF	492.000	492.000
0044	204.0195	Removing Concrete Bases	EACH	21.000	21.000
0046	204.0210	Removing Manholes	EACH	3.000	3.000
0048	204.0220	Removing Inlets	EACH	18.000	18.000
0050	204.0245	Removing Storm Sewer (size) 801. 12-Inch	LF	626.000	626.000
0052	204.0245	Removing Storm Sewer (size) 802. 15-Inch	LF	95.000	95.000
0054	204.0245	Removing Storm Sewer (size) 803. 18-Inch	LF	311.000	311.000
0056	204.0245	Removing Storm Sewer (size) 804. 21-Inch	LF	48.000	48.000
0064	204.0245	Removing Storm Sewer (size) 808. 42-Inch	LF	21.000	21.000
0066	204.9060.S	Removing (item description) 001. Ramp Gate	EACH	2.000	2.000
0070	204.9060.S	Removing (item description) 100. Underdeck Lighting B-40-198	EACH	1.000	1.000
0082	204.9060.S	Removing (item description) 300. Electrical Service Meter Breaker Pedestal	EACH	2.000	2.000
0084	204.9060.S	Removing (item description) 301. Communication Vault	EACH	1.000	1.000
0086	204.9060.S	Removing (item description) 302. Traffic Signals IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0088	204.9060.S	Removing (item description) 303. Traffic Signals IH 41 WB Ramps & STH 36	EACH	1.000	1.000
0092	204.9060.S	Removing (item description) 305. Loop Detector Wire and Lead-In Cable, IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0094	204.9060.S	Removing (item description) 306. Loop Detector Wire and Lead-In Cable, IH 41 WB Ramps & STH 36	EACH	1.000	1.000
0096	204.9060.S	Removing (item description) 307. Loop Detector Wire and Lead-In Cable STH 36 & Layton	EACH	1.000	1.000
0106	205.0100	Excavation Common	CY	17,059.000	17,059.000
0108	206.1001	Excavation for Structures Bridges (structure) 400. B-40-1025	EACH	1.000	1.000
0112	208.1100	Select Borrow	CY	2,895.000	2,895.000
0118	213.0100	Finishing Roadway (project) 002. 1100-46-71	EACH	1.000	1.000
0124	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,991.000	7,991.000
0126	312.0110	Select Crushed Material	TON	16,440.000	16,440.000
0130	415.0080	Concrete Pavement 8-Inch	SY	2,258.000	2,258.000
0132	415.0085	Concrete Pavement 8 1/2-Inch	SY	13,363.000	13,363.000
0134	415.0410	Concrete Pavement Approach Slab	SY	430.000	430.000
0136	416.0160	Concrete Driveway 6-Inch	SY	21.000	21.000
0138	416.0260	Concrete Driveway HES 6-Inch	SY	14.000	14.000
0140	416.0610	Drilled Tie Bars	EACH	96.000	96.000
0142	416.0620	Drilled Dowel Bars	EACH	404.000	404.000
0146	455.0605	Tack Coat	GAL	104.000	104.000
0156	460.2000	Incentive Density HMA Pavement	DOL	60.000	60.000
0164	460.6224	HMA Pavement 4 MT 58-28 S	TON	83.000	83.000

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Line	Item	Item Description	Unit	Total	Qty
0172	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	6.000	6.000
0174	465.0125	Asphaltic Surface Temporary	TON	159.000	159.000
0178	502.0100	Concrete Masonry Bridges	CY	2,353.000	2,353.000
0180	502.3200	Protective Surface Treatment	SY	4,382.000	4,382.000
0184	502.3210	Pigmented Surface Sealer	SY	410.000	410.000
0190	503.0146	Prestressed Girder Type I 45W-Inch	LF	3,614.000	3,614.000
0194	505.0400	Bar Steel Reinforcement HS Structures	LB	28,260.000	28,260.000
0196	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	423,790.000	423,790.000
0198	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	5,410.000	5,410.000
0200	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	72.000	72.000
0202	506.4000	Steel Diaphragms (structure) 400. B-40-1025	EACH	68.000	68.000
0222	511.1200	Temporary Shoring (structure) 400. B-40-1025	SF	3,276.000	3,276.000
0224	511.1200	Temporary Shoring (structure) 401. R-40-716	SF	210.000	210.000
0226	511.2200	Temporary Shoring Left in Place (structure) 400. R-40-717	SF	210.000	210.000
0228	513.2001	Railing Pipe	LF	318.000	318.000
0230	513.4091	Railing Tubular Screening	LF	484.000	484.000
0232	516.0500	Rubberized Membrane Waterproofing	SY	70.000	70.000
0244	520.8000	Concrete Collars for Pipe	EACH	8.000	8.000
0248	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000
0260	531.2036	Drilling Shaft 36-Inch	LF	36.000	36.000
0264	531.2048	Drilling Shaft 48-Inch	LF	23.000	23.000
0268	531.5310	Foundation Single-Shaft Type TC-I (structure) 400. S-40-3095	EACH	1.000	1.000
0270	531.5310	Foundation Single-Shaft Type TC-I (structure) 401. S-40-3097	EACH	1.000	1.000
0272	531.5330	Foundation Single-Shaft Type TC-III (structure) 400. S-40-3096	EACH	1.000	1.000
0278	531.8990	Anchor Assemblies Poles on Structures	EACH	2.000	2.000
0284	532.5310	Truss Cantilever 2-Chord Type I (structure) 400. S-40-3095	EACH	1.000	1.000
0286	532.5310	Truss Cantilever 2-Chord Type I (structure) 402. S-40-3097	EACH	1.000	1.000
0288	532.5330	Truss Cantilever 2-Chord Type III (structure) 401. S-40-3096	EACH	1.000	1.000
0294	550.0600	Pile Redriving	EACH	27.000	27.000
0296	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	12,160.000	12,160.000
0298	601.0319	Concrete Curb & Gutter 19-Inch	LF	68.000	68.000
0300	601.0331	Concrete Curb & Gutter 31-Inch	LF	6,526.000	6,526.000
0304	601.0600	Concrete Curb Pedestrian	LF	350.000	350.000
0306	602.0410	Concrete Sidewalk 5-Inch	SF	19,141.000	19,141.000
0310	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	380.000	380.000
0314	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	56.000	56.000
0316	602.1500	Concrete Steps	SF	309.000	309.000
0318	603.1132	Concrete Barrier Type S32	LF	64.000	64.000
0326	603.1342	Concrete Barrier Type S42B	LF	35.000	35.000
0342	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,425.000	1,425.000
0344	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,425.000	1,425.000
0346	604.0400	Slope Paving Concrete	SY	88.000	88.000
0354	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	18.000	18.000
0366	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	266.000	266.000
0368	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	300.000	300.000
0370	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	130.000	130.000
0374	608.0442	Storm Sewer Pipe Reinforced Concrete Class IV 42-Inch	LF	16.000	16.000
0376	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	114.000	114.000
0378	608.3612	Storm Sewer Pipe Class III-B 12-Inch	LF	167.000	167.000

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Line	Item	Item Description	Unit	Total	Qty
0380	608.3615	Storm Sewer Pipe Class III-B 15-Inch	LF	221.000	221.000
0382	608.3618	Storm Sewer Pipe Class III-B 18-Inch	LF	184.000	184.000
0384	608.3621	Storm Sewer Pipe Class III-B 21-Inch	LF	40.000	40.000
0386	611.0420	Reconstructing Manholes	EACH	2.000	2.000
0390	611.0530	Manhole Covers Type J	EACH	8.000	8.000
0392	611.0606	Inlet Covers Type B	EACH	1.000	1.000
0394	611.0612	Inlet Covers Type C	EACH	2.000	2.000
0396	611.0624	Inlet Covers Type H	EACH	26.000	26.000
0400	611.0639	Inlet Covers Type H-S	EACH	3.000	3.000
0402	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
0404	611.2004	Manholes 4-FT Diameter	EACH	5.000	5.000
0406	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0408	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0410	611.2008	Manholes 8-FT Diameter	EACH	2.000	2.000
0412	611.3004	Inlets 4-FT Diameter	EACH	5.000	5.000
0414	611.3220	Inlets 2x2-FT	EACH	1.000	1.000
0418	611.3230	Inlets 2x3-FT	EACH	21.000	21.000
0420	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0422	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0424	611.8110	Adjusting Manhole Covers	EACH	7.000	7.000
0426	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0436	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	95.000	95.000
0438	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	430.000	430.000
0440	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0446	616.0206	Fence Chain Link 6-FT	LF	440.000	440.000
0448	616.0329	Gates Chain Link (width) 001. 12-FT	EACH	1.000	1.000
0450	616.0700.S	Fence Safety	LF	300.000	300.000
0454	618.0100	Maintenance And Repair of Haul Roads (project) 002. 1100-46-71	EACH	1.000	1.000
0456	619.1000	Mobilization	EACH	0.200	0.200
0458	620.0300	Concrete Median Sloped Nose	SF	440.000	440.000
0460	623.0200	Dust Control Surface Treatment	SY	22,281.000	22,281.000
0462	624.0100	Water	MGAL	103.000	103.000
0464	625.0100	Topsoil	SY	5,590.000	5,590.000
0466	628.1504	Silt Fence	LF	845.000	845.000
0468	628.1520	Silt Fence Maintenance	LF	845.000	845.000
0470	628.1905	Mobilizations Erosion Control	EACH	11.000	11.000
0472	628.1910	Mobilizations Emergency Erosion Control	EACH	8.000	8.000
0480	628.2023	Erosion Mat Class II Type B	SY	1,324.000	1,324.000
0482	628.7005	Inlet Protection Type A	EACH	63.000	63.000
0484	628.7010	Inlet Protection Type B	EACH	5.000	5.000
0486	628.7015	Inlet Protection Type C	EACH	40.000	40.000
0488	628.7020	Inlet Protection Type D	EACH	24.000	24.000
0490	628.7560	Tracking Pads	EACH	9.000	9.000
0494	629.0210	Fertilizer Type B	CWT	4.100	4.100
0496	630.0120	Seeding Mixture No. 20	LB	39.000	39.000
0502	630.0500	Seed Water	MGAL	55.000	55.000
0504	631.0300	Sod Water	MGAL	100.000	100.000
0506	631.1000	Sod Lawn	SY	4,270.000	4,270.000
0510	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	91.000	91.000

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Line	Item	Item Description	Unit	Total	Qty
0512	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	7.000	7.000
0514	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	3.000	3.000
0522	637.1220	Signs Type I Reflective SH	SF	153.500	153.500
0524	637.2210	Signs Type II Reflective H	SF	1,109.898	1,109.898
0526	637.2215	Signs Type II Reflective H Folding	SF	149.520	149.520
0528	637.2230	Signs Type II Reflective F	SF	166.000	166.000
0532	638.2102	Moving Signs Type II	EACH	7.000	7.000
0534	638.2601	Removing Signs Type I	EACH	3.000	3.000
0536	638.2602	Removing Signs Type II	EACH	125.000	125.000
0538	638.3000	Removing Small Sign Supports	EACH	86.000	86.000
0540	643.0300	Traffic Control Drums	DAY	75,715.000	75,715.000
0542	643.0420	Traffic Control Barricades Type III	DAY	10,274.000	10,274.000
0544	643.0705	Traffic Control Warning Lights Type A	DAY	15,766.000	15,766.000
0546	643.0715	Traffic Control Warning Lights Type C	DAY	19,116.000	19,116.000
0548	643.0800	Traffic Control Arrow Boards	DAY	1,222.000	1,222.000
0550	643.0900	Traffic Control Signs	DAY	103,635.000	103,635.000
0552	643.0910	Traffic Control Covering Signs Type I	EACH	15.000	15.000
0554	643.0920	Traffic Control Covering Signs Type II	EACH	21.000	21.000
0556	643.1000	Traffic Control Signs Fixed Message	SF	470.000	470.000
0558	643.1050	Traffic Control Signs PCMS	DAY	380.000	380.000
0562	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	4,217.000	4,217.000
0566	643.3220	Temporary Marking Line Epoxy 8-Inch	LF	1,986.000	1,986.000
0570	643.3520	Temporary Marking Arrow Epoxy	EACH	2.000	2.000
0572	643.3620	Temporary Marking Word Epoxy	EACH	1.000	1.000
0576	643.4100	Traffic Control Interim Lane Closure	EACH	101.000	101.000
0578	643.5000	Traffic Control	EACH	0.200	0.200
0592	646.1020	Marking Line Epoxy 4-Inch	LF	9,154.000	9,154.000
0596	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	1,012.000	1,012.000
0602	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	5,432.000	5,432.000
0606	646.5020	Marking Arrow Epoxy	EACH	36.000	36.000
0608	646.5120	Marking Word Epoxy	EACH	18.000	18.000
0612	646.6120	Marking Stop Line Epoxy 18-Inch	LF	375.000	375.000
0618	646.7120	Marking Diagonal Epoxy 12-Inch	LF	851.000	851.000
0622	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,479.000	1,479.000
0624	646.8120	Marking Curb Epoxy	LF	97.000	97.000
0626	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0628	646.9000	Marking Removal Line 4-Inch	LF	519.000	519.000
0630	646.9100	Marking Removal Line 8-Inch	LF	140.000	140.000
0632	646.9200	Marking Removal Line Wide	LF	56.000	56.000
0634	652.0125	Conduit Rigid Metallic 2-Inch	LF	48.000	48.000
0636	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	3,284.000	3,284.000
0638	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,477.000	2,477.000
0646	652.0800	Conduit Loop Detector	LF	1,754.000	1,754.000
0648	653.0135	Pull Boxes Steel 24x36-Inch	EACH	8.000	8.000
0650	653.0140	Pull Boxes Steel 24x42-Inch	EACH	35.000	35.000
0652	653.0222	Junction Boxes 18x12x6-Inch	EACH	6.000	6.000
0654	653.0905	Removing Pull Boxes	EACH	34.000	34.000
0656	654.0101	Concrete Bases Type 1	EACH	14.000	14.000
0658	654.0102	Concrete Bases Type 2	EACH	2.000	2.000

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Line	Item	Item Description	Unit	Total	Qty
0660	654.0105	Concrete Bases Type 5	EACH	7.000	7.000
0664	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
0666	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0668	654.0120	Concrete Bases Type 10-Special	EACH	3.000	3.000
0670	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0674	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,093.000	1,093.000
0678	655.0240	Cable Traffic Signal 7-14 AWG	LF	2,590.000	2,590.000
0680	655.0260	Cable Traffic Signal 12-14 AWG	LF	2,618.000	2,618.000
0682	655.0320	Cable Type UF 2-10 AWG Grounded	LF	1,208.000	1,208.000
0684	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	6,375.000	6,375.000
0686	655.0610	Electrical Wire Lighting 12 AWG	LF	2,367.000	2,367.000
0688	655.0615	Electrical Wire Lighting 10 AWG	LF	1,125.000	1,125.000
0690	655.0620	Electrical Wire Lighting 8 AWG	LF	4,002.000	4,002.000
0700	655.0700	Loop Detector Lead In Cable	LF	7,683.000	7,683.000
0702	655.0800	Loop Detector Wire	LF	7,106.000	7,106.000
0704	655.0900	Traffic Signal EVP Detector Cable	LF	1,815.000	1,815.000
0706	656.0201	Electrical Service Meter Breaker Pedestal (location) 300. IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0708	656.0201	Electrical Service Meter Breaker Pedestal (location) 301. IH 41 WB Ramps & STH 36	EACH	1.000	1.000
0722	657.0100	Pedestal Bases	EACH	14.000	14.000
0726	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	11.000	11.000
0728	657.0310	Poles Type 3	EACH	2.000	2.000
0730	657.0322	Poles Type 5-Aluminum	EACH	9.000	9.000
0736	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
0738	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	6.000	6.000
0740	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	5.000	5.000
0742	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	1.000	1.000
0746	657.0614	Luminaire Arms Single Member 4-Inch Clamp 8-FT	EACH	1.000	1.000
0748	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	12.000	12.000
0750	658.0173	Traffic Signal Face 3S 12-Inch	EACH	19.000	19.000
0752	658.0174	Traffic Signal Face 4S 12-Inch	EACH	8.000	8.000
0754	658.0175	Traffic Signal Face 5S 12-Inch	EACH	2.000	2.000
0756	658.0416	Pedestrian Signal Face 16-Inch	EACH	14.000	14.000
0758	658.0500	Pedestrian Push Buttons	EACH	15.000	15.000
0760	658.5070	Signal Mounting Hardware (location) 300. IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0762	658.5070	Signal Mounting Hardware (location) 301. IH 41 WB Ramps & STH 36	EACH	1.000	1.000
0766	659.0601	Underdeck Lighting (structure) 001. B-40-1025	EACH	1.000	1.000
0768	659.1125	Luminaires Utility LED C	EACH	15.000	15.000
0772	659.1210	Luminaires Underdeck LED B	EACH	4.000	4.000
0776	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	44.000	44.000
0778	662.1028.S	Ramp Closure Gates 28-FT	EACH	2.000	2.000
0780	662.1030.S	Ramp Closure Gates 30-FT	EACH	1.000	1.000
0782	662.1032.S	Ramp Closure Gates 32-FT	EACH	1.000	1.000
0784	670.0101	Field System Integrator	EACH	1.000	1.000
0788	670.0201	ITS Documentation	EACH	1.000	1.000
0792	671.0112	Conduit HDPE 1-Duct 2-Inch	LF	1,557.000	1,557.000
0796	673.0105	Communication Vault Type 1	EACH	2.000	2.000
0798	674.0300	Remove Cable	LF	1,095.000	1,095.000
0800	674.0400	Reinstall Cable	LF	1,637.000	1,637.000
0812	678.0006	Install Fiber Optic Cable Outdoor Plant 6-CT	LF	252.000	252.000

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Line	Item	Item Description	Unit	Total	Qty
0814	678.0036	Install Fiber Optic Cable Outdoor Plant 36-CT	LF	1,366.000	1,366.000
0818	678.0200	Fiber Optic Splice Enclosure	EACH	2.000	2.000
0820	678.0300	Fiber Optic Splice	EACH	16.000	16.000
0822	678.0501	Communication System Testing	EACH	1.000	1.000
0824	678.0600	Install Ethernet Switches	EACH	2.000	2.000
0826	690.0150	Sawing Asphalt	LF	113.000	113.000
0828	690.0250	Sawing Concrete	LF	1,435.000	1,435.000
0830	715.0502	Incentive Strength Concrete Structures	DOL	14,118.000	14,118.000
0832	715.0603	Incentive Strength Concrete Barrier	DOL	50.000	50.000
0834	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	4,816.000	4,816.000
0838	999.1501.S	Crack and Damage Survey	EACH	1.000	1.000
0840	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 001. 87+50	EACH	1.000	1.000
0860	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.200	0.200
0862	SPV.0060	Special 002. Monthly CPM Progress Schedule Updates	EACH	7.000	7.000
0898	SPV.0060	Special 020. Field Facilities Office Space	EACH	0.200	0.200
0902	SPV.0060	Special 022. Traffic Control Close-Open Freeway Entrance Ramp	EACH	28.000	28.000
0904	SPV.0060	Special 023. Traffic Control Full Freeway Closure	EACH	20.000	20.000
0906	SPV.0060	Special 024. Traffic Control Local Road Lane Closures	EACH	27.000	27.000
0920	SPV.0060	Special 031. Survey Project 1100-46-71	EACH	1.000	1.000
0938	SPV.0060	Special 111. Lighting Equipment Painting, IH 41 & STH 36	EACH	1.000	1.000
0952	SPV.0060	Special 300. Install Poles Type 9	EACH	1.000	1.000
0954	SPV.0060	Special 301. Install Poles Special Type 9	EACH	3.000	3.000
0956	SPV.0060	Special 302. Install Poles Type 13	EACH	1.000	1.000
0958	SPV.0060	Special 303. Install Monotube Arms 25-ft	EACH	1.000	1.000
0960	SPV.0060	Special 304. Install Monotube Arms Special 45-ft	EACH	2.000	2.000
0962	SPV.0060	Special 305. Install Monotube Arms 55-Ft	EACH	1.000	1.000
0964	SPV.0060	Special 306. Install Luminaire Arms Steel 15-Ft	EACH	1.000	1.000
0966	SPV.0060	Special 307. Install Monotube Arms Speical 35-ft	EACH	1.000	1.000
0968	SPV.0060	Special 308. Transport and Install State Furn Traffic Sig Cabinet, IH41 EB Ramps & STH36	EACH	1.000	1.000
0970	SPV.0060	Special 309. Transport and Install State Furn Traffic Sig Cabinet, IH41 WB Ramps & STH36	EACH	1.000	1.000
0972	SPV.0060	Special 310. Transport Signal and Intersection Lighting Materials, IH41 EB Ramps & STH36	EACH	1.000	1.000
0974	SPV.0060	Special 311. Transport Signal and Intersection Lighting Materials, IH41 WB Ramps & STH36	EACH	1.000	1.000
0976	SPV.0060	Special 312. Transport and Install State Furnished Video Detection, IH41EB Ramps & STH36	EACH	1.000	1.000
0978	SPV.0060	Special 313. Transport and Install State Furnished Video Detection, IH41WB Ramps & STH36	EACH	1.000	1.000
0980	SPV.0060	Special 314. Trnsprt and Install State Furnished EVP Detector Heads IH41EB Ramps & STH36	EACH	1.000	1.000
0982	SPV.0060	Special 315. Trnsprt and Install State Furnished EVP Detector Heads IH41WB Ramps & STH36	EACH	1.000	1.000
0984	SPV.0060	Special 316. Traffic Signal and Lighting Equipment Painting IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0986	SPV.0060	Special 317. Traffic Signal and Lighting Equipment Painting IH 41 WB Ramps & STH 36	EACH	1.000	1.000
0988	SPV.0060	Special 318. Install Fiber Optic Communications in Cabinet, IH 41 EB Ramps & STH 36	EACH	1.000	1.000
0990	SPV.0060	Special 319. Install Fiber Optic Communications in Cabinet, IH 41 WB Ramps & STH 36	EACH	1.000	1.000
1020	SPV.0060	Special 500. Utility Line Opening (ULO)	EACH	12.000	12.000

1100-46-71

Line	Item	Item Description	Unit	Total	Qty
1022	SPV.0060	Special 501. Water Main Protection	EACH	5.000	5.000
1024	SPV.0060	Special 502. Adjusting Water Boxes	EACH	11.000	11.000
1026	SPV.0060	Special 503. Sanitary Manhole Internal/External Seal	EACH	5.000	5.000
1050	SPV.0075	Special 002. Pavement Cleanup Project 1100-46-71	HRS	100.000	100.000
1074	SPV.0135	Special 001. Vibration Monitoring	MON	9.000	9.000
1076	SPV.0165	Special 400. Wall Concrete Panel Mechanically Stabilized Earth R-40-716	SF	4,340.000	4,340.000
1078	SPV.0165	Special 401. Wall Concrete Panel Mechanically Stabilized Earth R-40-717	SF	3,690.000	3,690.000
1090	SPV.0180	Special 400. Slope Paving Crushed Aggregate Special	SY	1,038.000	1,038.000

3

CPM PROGRESS SCHEDULE

PROJECT	SPV.0060.001 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.002 MONTHLY CPM PROGRESS SCHEDULE UPDATES EACH
1100-46-71	0.2	7
TOTAL	0.2	7

CLEARING AND GRUBBING

STAGE		STA	STA	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
G	NB	86+89	87+91	RT	2	2	-	-
F		89+47	90+18	RT	1	1	-	-
G	SB	83+90		67' LT	-	-	20	20
G		85+15		68' LT	-	-	20	20
G		85+60		70' LT	-	-	22	22
G		86+23		65' LT	-	-	4	4
G		87+07		104' LT	-	-	16	16
G		87+03	87+91	LT	1	1	-	-
F		89+42	90+97	LT	2	2	-	-
G	EB ON RAMP	11'LRA1'+00	11'LRA1'+57	LT	1	1	-	-
TOTALS					7	7	82	82

3

REMOVALS

CATEGORY	STAGES	LOCATION	STA	STA	SIDE	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0157 REMOVING CONCRETE BARRIER LF	204.0170 REMOVING FENCE LF	690.0250 SAWING CONCRETE LF	690.0150 SAWING ASPHALT LF
1000	A	LOOMIS RD TEMP PAVT	82+44	82+84	RT	-	-	-	80	20	-	-	100	-
1000	G	LOOMIS RD NB SOUTH OF IH 894	83+00	87+52	RT	2,081	-	-	16	296	-	179	52	18
1000	G	LOOMIS RD SB SOUTH OF IH 894	82+85	87+52	LT	2,463	-	-	15	53	-	130	91	20
1000	G	SW RAMP SIGNAL PAD	225'LRB'+65	225'LRB'+75	LT/RT	37	-	-	-	-	-	-	87	-
1000	G	SOUTH OFF RAMP	226'LRB'+70	228'LRB'+52	LT/RT	808	-	-	-	-	-	-	39	-
1000	G	SOUTH ON RAMP	10'LRA1'+47	12'LRA1'+50	LT/RT	1,043	-	-	-	-	-	-	37	-
1000	F	LOOMIS RD NB NORTH OF IH 894	89+77	96+04	RT	3,232	-	-	-	170	-	35	-	13
1000	F	LOOMIS RD SB NORTH OF IH 894	89+77	96+04	LT	2,697	-	-	-	-	-	148	11	-
1000	F	NORTH ON RAMPS	11'LRC1'+93	13'LRC1'+25	LT/RT	678	-	-	-	-	79	-	78	-
1000	F	NORTH OFF RAMP	229'LRC'+99	230'LRC'+99	LT/RT	770	-	-	-	-	-	-	51	-
1000	F	NE RAMP SIGNAL PAD	232'LRC'+84	232'LRC'+94	LT/RT	26	-	-	-	-	-	-	66	-
1000	B	LOOMIS RD TEMP PAVT	91+92	92+06	LT	-	-	-	28	-	-	-	40	-
1000	B	LOOMIS RD TEMP PAVT	92+25	92+54	LT/RT	-	-	-	51	-	-	-	65	-
CATEGORY 1000 TOTALS						13,835	0	0	190	539	79	492	717	51
8000	F	LOOMIS RD NB NORTH OF IH 895	96+04	98+76	RT	536	36	562	335	-	-	-	368	31
8000	F	LOOMIS RD SB NORTH OF IH 894	96+04	100+30	LT	635	36	109	288	-	-	-	350	31
CATEGORY 8000 TOTALS						1,171	72	671	623	0	0	0	718	62
PROJECT TOTALS						15,006	72	671	813	539	79	492	1,435	113

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED.

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EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (2)	AVAILABLE MATERIAL (5)	208.1100 SELECT BORROW (EXPANDED EBS BACKFILL (11)) FACTOR 1.30	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE
DIVISION 1 - CATEGORY 1000											
	83+00'NB' - 86+50'NB'	STH 36 (Loomis Rd) NB	1,650	--	--	1,650	--	95	119	1,531	--
	86+50 - 87+39	STH 36 (Loomis Rd) NB - C/L Align	193	--	--	193	--	103	129	64	--
	83+00'SB' - 86+50'SB'	STH 36 (Loomis Rd) SB	1,749	--	--	1,749	--	5	6	1,743	--
	86+50 - 87+39	STH 36 (Loomis Rd) SB - C/L Align	330	--	--	330	--	76	95	235	--
	10+96'LRA1' - 12+50'LRA1'	Ramp A1	397	--	--	397	--	25	31	366	--
	228+42'LRA' - 230+47'LRA'	Ramp A	300	--	--	300	--	20	25	275	--
	226+70'LRB' - 227+98'LRB'	Ramp B	426	--	--	426	--	11	14	412	--
DIVISION 1 SUBTOTAL			5,045	0	0	5,045	0	335	419	4,626	4,626
DIVISION 2 - CATEGORY 1000											
	89+81'NB' - 96+00'NB'	STH 36 (Loomis Rd) NB	3,444	--	--	3,444	--	277	346	3,098	--
	89+81'SB' - 96+00'SB'	STH 36 (Loomis Rd) SB	2,789	--	--	2,789	--	125	156	2,633	--
	12+50'LRC1' to 12+81'LRC1'	Ramp C1	97	--	--	97	--	0	0	97	--
	229+45'LRC' - 231+38'LRC'	Ramp C	485	--	--	485	--	2	3	482	--
	212+98'LRC' - 214+96'LRD'	Ramp D	362	--	--	362	--	68	85	277	--
	230+43'LRE' - 230+99'LRE'	Ramp E	155	--	--	155	--	2	3	152	--
DIVISION 2 SUBTOTAL			7,332	0	0	7,332	0	474	593	6,739	6,739
UNDISTRIBUTED EBS EXCAVATION	15% Undistributed		--	1,857	--	--	2,415	--	--	--	--
CATEGORY 1000 TOTAL			12,377	1,857	0	12,377	2,415	809	1,012	11,365	11,365
CATEGORY 1000 TOTAL COMMON EXC			14,234								
DIVISION 3 - CATEGORY 8000											
	96+00'NB' - 98+76'NB'	STH 36 (Loomis Rd) NB	1,122	--	--	1,122	--	3	4	1,118	--
	96+00'SB' - 99+89'SB'	STH 36 (Loomis Rd) SB	1,334	--	--	1,334	--	13	16	1,318	--
DIVISION 3 SUBTOTAL			2,456	0	0	2,456	0	16	20	2,436	2,436
UNDISTRIBUTED EBS EXCAVATION	15% Undistributed		--	369	--	--	480	--	--	--	--
CATEGORY 8000 TOTAL			2,456	369	0	2,456	480	16	20	2,436	2,436
CATEGORY 8000 TOTAL COMMON EXC			2,825								
GRAND TOTAL			14,833	2,226	0	14,833	2,895	825	1,032	13,801	13,801
TOTAL COMMON EXC			17,059								

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100

(13) EXPANDED FILL FACTOR = 1.25

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

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ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:01/28/2021

PLOTTED DATE: 11/14/2022 11:41 AM

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STORM SEWER REMOVALS

CATEGORY	STAGE(S)	LOCATION	STATION	STATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.801 REMOVING STORM SEWER 12-INCH LF	204.0245.802 REMOVING STORM SEWER 15-INCH LF	204.0245.803 REMOVING STORM SEWER 18-INCH LF	204.0245.804 REMOVING STORM SEWER 21-INCH LF	204.0245.808 REMOVING STORM SEWER 42-INCH LF
1000	G	LOOMIS ST SOUTH OF IH 894	82+85	87+52	-	7	109	95	252	-	-
1000	F	LOOMIS ST NORTH OF IH 894	89+77	96+04	2	9	470	-	59	48	21
		CATEGORY 1000 TOTALS			2	16	579	95	311	48	21
8000	F		96+04	100+30	1	2	47	-	-	-	-
		CATEGORY 8000 TOTALS			1	2	47	0	0	0	0
		PROJECT TOTALS			3	18	626	95	311	48	21

FINISHING ROADWAY

213.0100.002
FINISHING ROADWAY
1100-46-71

LOCATION	EACH
PROJECT	1
TOTAL	1

3

PAVING ITEMS

CATEGORY	STAGE(S)	LOCATION	STA	STA	SIDE	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	455.0605 TACK COAT GAL	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	624.0100 WATER MGAL
1000	F	NORTH APPROACH SLAB			LT/RT	71	180	213	-	-	-	-	2
1000	G	SOUTH APPROACH SLAB			LT/RT	73	183	217	-	-	-	-	2
1000	G	LOOMIS SOUTH OF 894			LT/RT	1834	4645	-	-	-	4683	-	28
1000	G	RAMPS				572	1449	-	-	1322	-	-	9
1000	G	SIGNAL PATCH RAMP B				13	32	-	-	37	-	-	1
1000	F	LOOMIS NORTH OF 894	89+77	96+04	LT/RT	2634	6672	-	0	-	6651	-	40
1000	F	RAMPS				433	1097	-	-	873	-	-	7
1000	F	SIGNAL PATCH RAMP E				9	22	-	-	26	-	-	1
		CATEGORY 1000 TOTALS				5,639	14,280	430	0	2,258	11,334	0	90
8000	F	LOOMIS NORTH OF 894	96+04	100+30	LT/RT	853	2,160	-	104	-	2,029	83	13
		CATEGORY 8000 TOTALS				853	2,160	0	104	0	2,029	83	13
		PROJECT TOTALS				6,492	16,440	430	104	2,258	13,363	83	103

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

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DRIVEWAYS

CATEGORY	STAGE	STA	LT/RT	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	416.0160 CONCRETE DRIVEWAY 6-INCH SY	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
1000	G	83'SB'+05	LT	9	-	14	2
		CATEGORY 1000 TOTALS		9	0	14	2
8000	F	98'NB'+50	RT	13	21	-	4
		CATEGORY 8000 TOTALS		13	21	0	4
		PROJECT TOTALS		22	21	14	6

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

DRILLED BARS

CATEGORY		ROADWAY	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
1000	G	SOUTH OF IH 894	BOP	-	72
1000	G	LRB RAMP	SIGNAL PAD	-	53
1000	G	LRB RAMP	MATCH	-	27
1000	G	LRA1 RAMP	MATCH	-	26
1000	F	LRD RAMP	MATCH	-	14
1000	F	LRE RAMP	MATCH	-	19
1000	F	LRE RAMP	SIGNAL PAD	-	37
1000	F	LRC1 RAMP	MATCH	-	18
1000	F	LRC RAMP	MATCH	-	14
1000	F	43RD ST WEST	MATCH	-	7
		CATEGORY 1000 TOTALS		0	287
8000	F	43RD ST WEST	MATCH	-	26
8000	F	43RD ST EAST	MATCH	-	39
8000	F	NORTH OF IH 894	97+08 LT/RT	-	52
8000	F	NORTH OF IH 894	SB LT	96	-
		CATEGORY 8000 TOTALS		96	117
		PROJECT TOTALS		96	404

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CONCRETE SIDEWALK & CONCRETE CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION		STATION	SIDE	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.1500 CONCRETE STEPS SF	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF
1000	G	LOOMIS SOUTH OF IH 894				LT/RT	140	5662	309	-	1657	162
1000	G	RAMPS				LT/RT	-	-	-	-	780	-
1000	F	LOOMIS NORTH OF IH 894	89+77	-	96+04	LT/RT	278	11228	-	-	2435	176
1000	F	RAMPS				LT/RT	-	-	-	-	735	-
					CATEGORY 1000 TOTALS		418	16,890	309	0	5,607	338
8000	F	LOOMIS NORTH OF IH 894	89+77	-	96+04	LT/RT	56	2251	-	68	919	12
					CATEGORY 8000 TOTALS		56	2,251	0	68	919	12
					PROJECT TOTALS		474	19,141	309	68	6,526	350

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE BARRIER

CATEGORY	STAGE(S)	LOCATION	SIDE	603.1132 CONCRETE BARRIER TYPE S32 LF	603.1342 CONCRETE BARRIER TYPE S42B LF
1000	F	RAMP C1	-	64	-
		CATEGORY 1000 TOTALS		64	0
8000	G	LOOMIS SOUTH OF IH 894	RT	-	35
		CATEGORY 8000 TOTALS		0	35
		PROJECT TOTALS		64	35

DETECTABLE WARNING FIELDS

CATEGORY	STAGE		LOCATION	SIDE	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
1000	G	SOUTH	85+84	69' RT	-	20
1000	G		86+30	62' RT	12	-
1000	G		86+33	33' RT	12	-
1000	G		86+30	5' RT	12	-
1000	G		86+30	20' LT	12	-
1000	G		86+28	65' LT	12	-
1000	G		86+25	83' LT	12	-
1000	G		86+45	75' LT	-	18
1000	G		86+65	75' RT	12	-
1000	G		86+95	75' RT	12	-
1000	G		87+00	75' LT	10	-
1000	F	NORTH	90+93	93' LT	12	-
1000	F		91+05	73' LT	12	-
1000	F		91+60	78' RT	12	-
1000	F		91+97	85' RT	12	-
1000	F		92+12	65' LT	12	-
1000	F		92+41	18' RT	12	-
1000	F		92+58	93' RT	12	-
1000	F		92+60	3' LT	12	-
1000	F		92+52	63' LT	12	-
1000	F		92+60	54' LT	12	-
1000	F		92+90	68' LT	12	-
1000	F		93+08	89' LT	12	-
1000	F		95+72	63' RT	12	-
1000	F		95+72	12' LT	12	-
1000	F		95+72	49' LT	12	-
1000	F		95+73	5' LT	12	-
1000	F		95+85	70' RT	-	18
1000	F		95+97	56' LT	10	-
			CATEGORY 1000 TOTALS		308	56
8000	F		96+58	70' RT	12	-
8000	F		96+57	56' LT	12	-
8000	F		96+85	50' RT	12	-
8000	F		96+85	12' RT	12	-
8000	F		96+85	5' LT	12	-
8000	F		96+85	49' LT	12	-
			CATEGORY 8000 TOTALS		72	0
			PROJECT TOTALS		380	56

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ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:01/28/2021
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STORM SEWER PIPES

CATEGORY	FROM	-	TO	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0442 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
1000	MH-71.1	-	CC-19	--	--	--	--	8	756.14	756.10	0.0050
1000	MH-77	-	CC-18	--	--	--	--	8	756.30	756.29	0.0012
1000	INL 83.1	-	MH-83	--	38	--	--	--	759.79	759.41	0.0100
1000	H6096A	-	BR. ABT.	--	--	--	--	--	749.00	747.62	0.0812
1000	INL-55	-	INL-56	--	--	--	--	--	770.42	769.89	0.0100
1000	INL-56	-	INL-57	--	--	--	--	--	769.64	768.53	0.0100
1000	INL-57	-	INL-58	--	--	--	--	--	765.53	765.28	0.0100
1000	INL-58	-	MH-03	--	--	--	--	--	762.28	761.80	0.0100
1000	INL-59	-	INL-57	--	--	--	--	--	772.27	770.45	0.0200
1000	INL-60	-	INL-58	--	--	43	--	--	770.25	769.82	0.0100
1000	INL-61	-	INL-60	--	13	--	--	--	770.76	770.50	0.0200
1000	INL-62	-	MH-66	--	--	--	--	--	763.77	759.80	0.1588
1000	INL-62.1	-	INL-62	--	--	--	--	--	767.04	766.79	0.0100
1000	INL-63	-	INL-62	--	--	--	--	--	766.36	765.30	0.0074
1000	INL-63.1	-	INL-63	--	25	--	--	--	766.86	766.61	0.0100
1000	INL-64	-	INL-80	--	--	128	--	--	763.23	762.59	0.0050
1000	INL-65	-	INL-64	--	20	--	--	--	763.68	763.48	0.0100
1000	INL-72.1	-	CB-71.1	--	--	--	--	--	759.66	759.41	0.0104
1000	INL-72.2	-	CB-71.1	--	--	--	--	--	759.66	759.42	0.0100
1000	INL-72.3	-	INL-72.2	--	--	--	--	--	759.99	759.75	0.0100
1000	INL-75	-	CC-19	--	8	--	--	--	758.04	758.00	0.0050
1000	INL-75.1	-	INL-75	--	25	--	--	--	759.13	758.14	0.0396
1000	INL-75.2	-	INL-75	--	24	--	--	--	759.12	758.14	0.0408
1000	INL-77.1	-	MH-77	--	--	--	--	--	759.17	758.93	0.0100
1000	INL-80	-	MH-83	--	--	82	--	--	761.09	759.44	0.0201

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STORM SEWER PIPES

CATEGORY	FROM	-	TO	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0442 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
1000	INL-80.1	-	INL-80	--	20	--	--	--	761.74	761.34	0.0200
1000	INL-81	-	CC-16	--	--	--	--	--	757.90	757.85	0.0062
1000	INL-81	-	CC-15	--	--	--	--	--	757.97	757.90	0.0088
1000	INL 81.1	-	CC-20	--	--	--	--	--	756.97	756.92	0.0063
1000	H6170	-	BR. ABT.	--	--	--	--	--	750.00	748.41	0.0530
1000	H6118	-	BR. ABT.	--	--	--	--	--	750.00	748.62	0.0431
1000	H6146	-	BR. ABT.	--	--	--	--	--	749.00	747.01	0.1244
1000	MH-01	-	H6170	18	--	--	--	--	749.30	747.53	0.0983
1000	MH-02	-	H6146	--	--	--	30	--	752.98	747.07	0.1970
1000	MH-03	-	MH-01	--	--	--	66	--	757.88	751.25	0.1005
1000	MH-66	-	MH-02	--	--	--	34	--	758.73	753.58	0.1515
1000	MH-83	-	CC-14	--	--	--	--	--	758.30	758.23	0.0087
1000	MH-83	-	CC-13	--	--	--	--	--	758.34	758.30	0.0050
	CATEGORY 1000 TOTALS			18	173	253	130	16			
8000	INL-96.1	-	INL-96.2	--	24	--	--	--	760.38	760.14	0.0100
8000	INL 96.4	-	MH-96.3	--	24	--	--	--	760.54	760.30	0.0100
8000	INL-96.6	-	MH-96.5	--	--	--	--	--	760.87	760.69	0.0100
8000	INL-96.7	-	MH 96.0	--	--	--	--	--	760.69	759.67	0.0200
8000	MH-96.5	-	INL-96.2	--	45	--	--	--	760.59	760.14	0.0100
8000	INL-96.2	-	MH 96.0	--	--	47	--	--	759.89	759.42	0.0100
	CATEGORY 8000 TOTALS			0	93	47	0	0			
	PROJECT TOTALS			18	266	300	130	16			

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STORM SEWER PIPES

CATEGORY	FROM	-	TO	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF	608.3612 STORM SEWER PIPE CLASS III-B 12-INCH LF	608.3615 STORM SEWER PIPE CLASS III-B 15-INCH LF	608.3618 STORM SEWER PIPE CLASS III-B 18-INCH LF	608.3621 STORM SEWER PIPE CLASS III-B 21-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
1000	MH-71.1	-	CC-19	--	--	--	--	--	--	--	756.14	756.10	0.0050
1000	MH-77	-	CC-18	--	--	--	--	--	--	--	756.30	756.29	0.0012
1000	INL 83.1	-	MH-83	--	--	--	--	--	--	--	759.79	759.41	0.0100
1000	H6096A	-	BR. ABT.	--	--	--	--	--	17	--	749.00	747.62	0.0812
1000	INL-55	-	INL-56	--	--	53	--	--	--	--	770.42	769.89	0.0100
1000	INL-56	-	INL-57	--	--	--	111	--	--	--	769.64	768.53	0.0100
1000	INL-57	-	INL-58	--	--	--	25	--	--	--	765.53	765.28	0.0100
1000	INL-58	-	MH-03	--	--	--	48	--	--	--	762.28	761.80	0.0100
1000	INL-59	-	INL-57	--	91	--	--	--	--	--	772.27	770.45	0.0200
1000	INL-60	-	INL-58	--	--	--	--	--	--	--	770.25	769.82	0.0100
1000	INL-61	-	INL-60	--	--	--	--	--	--	--	770.76	770.50	0.0200
1000	INL-62	-	MH-66	--	--	25	--	--	--	6	763.77	759.80	0.1588
1000	INL-62.1	-	INL-62	--	25	--	--	--	--	--	767.04	766.79	0.0100
1000	INL-63	-	INL-62	--	--	143	--	--	--	--	766.36	765.30	0.0074
1000	INL-63.1	-	INL-63	--	--	--	--	--	--	--	766.86	766.61	0.0100
1000	INL-64	-	INL-80	--	--	--	--	--	--	--	763.23	762.59	0.0050
1000	INL-65	-	INL-64	--	--	--	--	--	--	--	763.68	763.48	0.0100
1000	INL-72.1	-	CB-71.1	24	--	--	--	--	--	--	759.66	759.41	0.0104
1000	INL-72.2	-	CB-71.1	24	--	--	--	--	--	--	759.66	759.42	0.0100
1000	INL-72.3	-	INL-72.2	24	--	--	--	--	--	--	759.99	759.75	0.0100
1000	INL-75	-	CC-19	--	--	--	--	--	--	--	758.04	758.00	0.0050
1000	INL-75.1	-	INL-75	--	--	--	--	--	--	--	759.13	758.14	0.0396
1000	INL-75.2	-	INL-75	--	--	--	--	--	--	--	759.12	758.14	0.0408
1000	INL-77.1	-	MH-77	24	--	--	--	--	--	--	759.17	758.93	0.0100
1000	INL-80	-	MH-83	--	--	--	--	--	--	--	761.09	759.44	0.0201

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STORM SEWER PIPES

CATEGORY	FROM	-	TO	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF	608.3612 STORM SEWER PIPE CLASS III-B 12-INCH LF	608.3615 STORM SEWER PIPE CLASS III-B 15-INCH LF	608.3618 STORM SEWER PIPE CLASS III-B 18-INCH LF	608.3621 STORM SEWER PIPE CLASS III-B 21-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
1000	INL-80.1	-	INL-80	--	--	--	--	--	--	--	761.74	761.34	0.0200
1000	INL-81	-	CC-16	--	--	--	--	8	--	--	757.90	757.85	0.0062
1000	INL-81	-	CC-15	--	--	--	--	8	--	--	757.97	757.90	0.0088
1000	INL 81.1	-	CC-20	--	--	--	--	8	--	--	756.97	756.92	0.0063
1000	H6170	-	BR. ABT.	--	--	--	--	--	30	--	750.00	748.41	0.0530
1000	H6118	-	BR. ABT.	--	--	--	--	--	32	--	750.00	748.62	0.0431
1000	H6146	-	BR. ABT.	--	--	--	--	--	16	--	749.00	747.01	0.1244
1000	MH-01	-	H6170	--	--	--	--	--	--	4	749.30	747.53	0.0983
1000	MH-02	-	H6146	--	--	--	--	--	--	6	752.98	747.07	0.1970
1000	MH-03	-	MH-01	--	--	--	--	--	--	16	757.88	751.25	0.1005
1000	MH-66	-	MH-02	--	--	--	--	--	--	8	758.73	753.58	0.1515
1000	MH-83	-	CC-14	--	--	--	--	8	--	--	758.30	758.23	0.0087
1000	MH-83	-	CC-13	--	--	--	--	8	--	--	758.34	758.30	0.0050
	CATEGORY 1000 TOTALS			96	116	221	184	40	95	40			
8000	INL-96.1	-	INL-96.2	--	--	--	--	--	--	--	760.38	760.14	0.0100
8000	INL 96.4	-	MH-96.3	--	--	--	--	--	--	--	760.54	760.30	0.0100
8000	INL-96.6	-	MH-96.5	18	--	--	--	--	--	--	760.87	760.69	0.0100
8000	INL-96.7	-	MH 96.0	--	51	--	--	--	--	--	760.69	759.67	0.0200
8000	MH-96.5	-	INL-96.2	--	--	--	--	--	--	--	760.59	760.14	0.0100
8000	INL-96.2	-	MH 96.0	--	--	--	--	--	--	--	759.89	759.42	0.0100
	CATEGORY 8000 TOTALS			18	51	0	0	0	0	0			
	PROJECT TOTALS			114	167	221	184	40	95	40			

* NON-BID ITEM: FOR INFORMATION ONLY

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.0606 INLET COVERS TYPE B EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	MH-71.1	94+57.35	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.50	756.14	5.49
1000	MH-77	94+00.46	70.77' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	763.08	756.30	5.92
1000	EW-1	91+68.97	222.38' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	--	--	761.87	--
1000	EX. 95.1	95+24.62	19.34' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.51	--	--
1000	EX. CB-72	94+64.71	32.42' RT	STH36-LOOMIS-NB	--	--	1	--	1	--	--	762.68	--	--
1000	EX. INL-88	91+77.88	214.62' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.82	--	--
1000	EX. INL-90	91+61.76	182.03' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	765.09	--	--
1000	INL 83.1	92+97.38	114.38' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	764.12	759.79	3.49
1000	INL-55	86+10.67	79.03' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	777.95	770.42	6.72
1000	INL-56	86+11.53	26.16' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	779.52	769.64	10.09
1000	INL-57	86+65.99	70.21' RT	STH36-LOOMIS-NB	--	--	--	--	--	1	--	777.38	765.53	10.82
1000	INL-58	86+78.40	92.16' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	776.52	762.28	13.45
1000	INL-59	85+77.99	47.10' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	778.07	772.27	4.96
1000	INL-60	86+64.40	133.20' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	774.85	770.25	3.79
1000	INL-61	86+52.47	138.07' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	772.79	770.76	2.20
1000	INL-62	89+90.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	772.24	763.77	7.66
1000	INL-62.1	90+15.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	771.54	767.04	3.67
1000	INL-63	89+90.00	101.58' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	772.17	766.36	5.00
1000	INL-63.1	90+15.00	101.58' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	771.24	766.86	3.54
1000	INL-64	91+51.80	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	767.74	763.23	3.70
1000	INL-65	91+30.96	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	768.32	763.68	3.80
1000	INL-72.1	94+32.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.54	759.66	2.05
1000	INL-72.2	94+82.39	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.54	759.66	2.05
1000	INL-72.3	95+07.43	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.66	759.99	1.83
1000	INL-75	94+67.24	68.34' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.88	758.04	4.00
1000	INL-75.1	94+44.12	69.07' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.90	759.13	2.94
1000	INL-75.2	94+89.95	65.18' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.96	759.12	3.01
1000	INL-77.1	93+78.08	71.86' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	763.25	759.17	3.25
1000	INL-80	91+92.13	79.76' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	766.75	761.09	4.84
1000	INL-80.1	91+73.69	81.47' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	767.28	761.74	4.71

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	611.0420 RECONSTRUCTING MANHOLES EACH	611.0606 INLET COVERS TYPE B EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	INL-81	92+97.00	71.21' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	764.45	757.90	5.78
1000	INL-81.1	94+02.09	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.67	756.97	4.93
1000	MH-01	230+00.88	60.12' RT	ALI-IH894-EB-(EWE)	--	--	--	--	1	--	--	756.34	749.30	6.02
1000	MH-02	89+55.72	67.67' RT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	758.07	752.98	4.05
1000	MH-03	87+24.56	79.21' RT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	775.76	757.88	16.85
1000	MH-66	89+90.00	67.05' RT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	768.49	758.73	8.73
1000	EX. MH-74	94+66.47	20.88' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.25	--	--
1000	MH-83	92+64.16	104.02' LT	STH36-LOOMIS-NB	--	--	--	--	--	1	--	764.34	758.30	5.03
1000	MH-95	95+76.16	64.14' LT	STH36-LOOMIS-NB	--	--	1	--	1	--	--	764.01	--	--
1000	CC-13	92+62.04'	111.67' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-14	92+69.50'	98.45' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-15	92+90.76'	76.60' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-16	93+02.00'	65.10' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-17	94+02.63'	63.00' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-18	94+52.16'	47.79' RT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-19	94+67.09'	60.30' LT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
1000	CC-20	94+08.18'	47.08' RT	STH36-Loomis-NB	1	--	--	--	--	--	--	--	--	--
				CATEGORY 1000 TOTALS	8	1	2	0	6	2	22			
8000	INL-96.1	97+26.62	33.81' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	765.38	760.38	4.17
8000	INL-96.2	97+02.63	33.75' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	765.02	759.89	4.32
8000	INL-96.6	96+53.83	66.66' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	763.91	760.86	2.21
8000	INL-96.7	97+49.57	7.18' LT	STH36-LOOMIS-NB	--	--	--	1	--	--	--	766.76	760.69	4.90
8000	MH 96.0	96+98.82	12.99' LT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	765.92	759.42	5.44
8000	INL 96.4	96+94.97	61.73' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	764.81	760.54	3.44
8000	MH-96.3	96+70.97	61.62' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	764.51	760.30	3.14
8000	MH-96.5	96+69.62	45.51' RT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	764.50	760.49	2.90
				CATEGORY 8000 TOTALS	0	0	0	1	2	0	4			
				PROJECT TOTALS	8	1	2	1	8	2	26			

REMARKS

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	MH-71.1	94+57.35	41.58' RT	STH36-LOOMIS-NB	1	--	--	--	--	1	--	762.50	756.14	5.49
1000	MH-77	94+00.46	70.77' LT	STH36-LOOMIS-NB	--	--	--	--	--	1	--	763.08	756.30	5.92
1000	EW-1	91+68.97	222.38' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	--	761.87	--
1000	EX. 95.1	95+24.62	19.34' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.51	--	--
1000	EX. CB-72	94+64.71	32.42' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.68	--	--
1000	EX. INL-88	91+77.88	214.62' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.82	--	--
1000	EX. INL-90	91+61.76	182.03' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	765.09	--	--
1000	INL 83.1	92+97.38	114.38' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.12	759.79	3.49
1000	INL-55	86+10.67	79.03' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	777.95	770.42	6.72
1000	INL-56	86+11.53	26.16' LT	STH36-LOOMIS-NB	--	2	--	--	--	--	--	779.52	769.64	10.09
1000	INL-57	86+65.99	70.21' RT	STH36-LOOMIS-NB	--	--	--	1	--	--	--	777.38	765.53	10.82
1000	INL-58	86+78.40	92.16' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	776.52	762.28	13.45
1000	INL-59	85+77.99	47.10' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	778.07	772.27	4.96
1000	INL-60	86+64.40	133.20' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	774.85	770.25	3.79
1000	INL-61	86+52.47	138.07' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	--	772.79	770.76	2.20
1000	INL-62	89+90.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	772.24	763.77	7.66
1000	INL-62.1	90+15.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	771.54	767.04	3.67
1000	INL-63	89+90.00	101.58' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	772.17	766.36	5.00
1000	INL-63.1	90+15.00	101.58' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	771.24	766.86	3.54
1000	INL-64	91+51.80	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	767.74	763.23	3.70
1000	INL-65	91+30.96	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	768.32	763.68	3.80
1000	INL-72.1	94+32.00	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.54	759.66	2.05
1000	INL-72.2	94+82.39	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.54	759.66	2.05
1000	INL-72.3	95+07.43	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.66	759.99	1.83
1000	INL-75	94+67.24	68.34' LT	STH36-LOOMIS-NB	1	--	--	--	--	--	--	762.88	758.04	4.00
1000	INL-75.1	94+44.12	69.07' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.90	759.13	2.94
1000	INL-75.2	94+89.95	65.18' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	762.96	759.12	3.01
1000	INL-77.1	93+78.08	71.86' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	763.25	759.17	3.25
1000	INL-80	91+92.13	79.76' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	766.75	761.09	4.84
1000	INL-80.1	91+73.69	81.47' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	767.28	761.74	4.71

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	INL-81	92+97.00	71.21' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	764.45	757.90	5.78
1000	INL-81.1	94+02.09	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	762.67	756.97	4.93
1000	MH-01	230+00.88	60.12' RT	ALI-IH894-EB-(EWE)	--	--	1	--	--	--	--	756.34	749.30	6.02
1000	MH-02	89+55.72	67.67' RT	STH36-LOOMIS-NB	--	--	1	--	--	--	--	758.07	752.98	4.05
1000	MH-03	87+24.56	79.21' RT	STH36-LOOMIS-NB	--	--	1	--	--	--	--	775.76	757.88	16.85
1000	MH-66	89+90.00	67.05' RT	STH36-LOOMIS-NB	--	--	1	--	--	--	--	768.49	758.73	8.73
1000	EX. MH-74	94+66.47	20.88' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.25	--	--
1000	MH-83	92+64.16	104.02' LT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	764.34	758.30	5.03
1000	MH-95	95+76.16	64.14' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.01	--	--
1000	CC-13	92+62.04'	111.67' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-14	92+69.50'	98.45' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-15	92+90.76'	76.60' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-16	93+02.00'	65.10' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-17	94+02.63'	63.00' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-18	94+52.16'	47.79' RT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-19	94+67.09'	60.30' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
1000	CC-20	94+08.18'	47.08' RT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--	--
				CATEGORY 1000 TOTALS	2	3	4	1	1	2	4			
8000	INL-96.1	97+26.62	33.81' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	765.38	760.38	4.17
8000	INL-96.2	97+02.63	33.75' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	1	765.02	759.89	4.32
8000	INL-96.6	96+53.83	66.66' RT	STH36-LOOMIS-NB	1	--	--	--	--	--	--	763.91	760.86	2.21
8000	INL-96.7	97+49.57	7.18' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	766.76	760.69	4.90
8000	MH 96.0	96+98.82	12.99' LT	STH36-LOOMIS-NB	--	--	--	--	1	--	--	765.92	759.42	5.44
8000	INL 96.4	96+94.97	61.73' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	764.81	760.54	3.44
8000	MH-96.3	96+70.97	61.62' LT	STH36-LOOMIS-NB	--	--	--	1	--	--	--	764.51	760.30	3.14
8000	MH-96.5	96+69.62	45.51' RT	STH36-LOOMIS-NB	--	--	1	--	--	--	--	764.50	760.49	2.90
				CATEGORY 8000 TOTALS	1	0	1	1	1	0	1			
				PROJECT TOTALS	3	3	5	2	2	2	5			

REMARKS

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	611.3220 INLETS 2X2-FT EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.8110 ADJUSTING MANHOLE COVER EACH	611.8115 ADJUSTING INLET COVERS EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	MH-71.1	94+57.35	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	762.50	756.14	5.49
1000	MH-77	94+00.46	70.77' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	763.08	756.30	5.92
1000	EW-1	91+68.97	222.38' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	--	761.87	--
1000	EX. 95.1	95+24.62	19.34' LT	STH36-LOOMIS-NB	--	--	--	--	1	--	764.51	--	--
1000	EX. CB-72	94+64.71	32.42' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	762.68	--	--
1000	EX. INL-88	91+77.88	214.62' LT	STH36-LOOMIS-NB	--	--	--	--	--	1	764.82	--	--
1000	EX. INL-90	91+61.76	182.03' LT	STH36-LOOMIS-NB	--	--	--	--	--	1	765.09	--	--
1000	INL 83.1	92+97.38	114.38' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	764.12	759.79	3.49
1000	INL-55	86+10.67	79.03' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	777.95	770.42	6.72
1000	INL-56	86+11.53	26.16' LT	STH36-LOOMIS-NB	--	--	--	1	--	--	779.52	769.64	10.09
1000	INL-57	86+65.99	70.21' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	777.38	765.53	10.82
1000	INL-58	86+78.40	92.16' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	776.52	762.28	13.45
1000	INL-59	85+77.99	47.10' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	778.07	772.27	4.96
1000	INL-60	86+64.40	133.20' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	774.85	770.25	3.79
1000	INL-61	86+52.47	138.07' RT	STH36-LOOMIS-NB	--	--	1	--	--	--	772.79	770.76	2.20
1000	INL-62	89+90.00	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	772.24	763.77	7.66
1000	INL-62.1	90+15.00	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	771.54	767.04	3.67
1000	INL-63	89+90.00	101.58' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	772.17	766.36	5.00
1000	INL-63.1	90+15.00	101.58' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	771.24	766.86	3.54
1000	INL-64	91+51.80	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	767.74	763.23	3.70
1000	INL-65	91+30.96	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	768.32	763.68	3.80
1000	INL-72.1	94+32.00	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.54	759.66	2.05
1000	INL-72.2	94+82.39	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.54	759.66	2.05
1000	INL-72.3	95+07.43	41.58' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.66	759.99	1.83
1000	INL-75	94+67.24	68.34' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.88	758.04	4.00
1000	INL-75.1	94+44.12	69.07' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.90	759.13	2.94
1000	INL-75.2	94+89.95	65.18' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	762.96	759.12	3.01
1000	INL-77.1	93+78.08	71.86' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	763.25	759.17	3.25
1000	INL-80	91+92.13	79.76' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	766.75	761.09	4.84
1000	INL-80.1	91+73.69	81.47' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	767.28	761.74	4.71

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE	STATION	OFFSET*	LOCATION	611.3220 INLETS 2X2-FT EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.8110 ADJUSTING MANHOLE COVER EACH	611.8115 ADJUSTING INLET COVERS EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
1000	INL-81	92+97.00	71.21' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	764.45	757.90	5.78
1000	INL-81.1	94+02.09	41.58' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	762.67	756.97	4.93
1000	MH-01	230+00.88	60.12' RT	ALI-IH894-EB-(EWE)	--	--	--	--	--	--	756.34	749.30	6.02
1000	MH-02	89+55.72	67.67' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	758.07	752.98	4.05
1000	MH-03	87+24.56	79.21' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	775.76	757.88	16.85
1000	MH-66	89+90.00	67.05' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	768.49	758.73	8.73
1000	EX. MH-74	94+66.47	20.88' LT	STH36-LOOMIS-NB	--	--	--	--	1	--	764.25	--	--
1000	MH-83	92+64.16	104.02' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	764.34	758.30	5.03
1000	MH-95	95+76.16	64.14' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	764.01	--	--
1000	CC-13	92+62.04'	111.67' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-14	92+69.50'	98.45' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-15	92+90.76'	76.60' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-16	93+02.00'	65.10' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-17	94+02.63'	63.00' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-18	94+52.16'	47.79' RT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-19	94+67.09'	60.30' LT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
1000	CC-20	94+08.18'	47.08' RT	STH36-Loomis-NB	--	--	--	--	--	--	--	--	--
				CATEGORY 1000 TOTALS	0	18	1	1	2	2			
8000	INL-96.1	97+26.62	33.81' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	765.38	760.38	4.17
8000	INL-96.2	97+02.63	33.75' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	765.02	759.89	4.32
8000	INL-96.6	96+53.83	66.66' RT	STH36-LOOMIS-NB	--	1	--	--	--	--	763.91	760.86	2.21
8000	INL-96.7	97+49.57	7.18' LT	STH36-LOOMIS-NB	1	--	--	--	--	--	766.76	760.69	4.90
8000	MH 96.0	96+98.82	12.99' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	765.92	759.42	5.44
8000	INL 96.4	96+94.97	61.73' LT	STH36-LOOMIS-NB	--	1	--	--	--	--	764.81	760.54	3.44
8000	MH-96.3	96+70.97	61.62' LT	STH36-LOOMIS-NB	--	--	--	--	--	--	764.51	760.30	3.14
8000	MH-96.5	96+69.62	45.51' RT	STH36-LOOMIS-NB	--	--	--	--	--	--	764.50	760.49	2.90
				CATEGORY 8000 TOTALS	1	3	0	0	0	0			
				PROJECT TOTALS	1	21	1	1	2	2			

REMARKS

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*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT

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FENCE

STAGE	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	616.0206 FENCE CHAIN LINK 6-FT LF	616.0329 GATES CHAIN LINK 12-FT EACH
G	86+24	83.00' LT	13+35.94'B'	22.25' RT	35	-
G	13+15.06'B'	34.71' LT	87+58.97	79.08' LT	65	-
G	11+91.95'A1'	22.62' LT	87+58.97	79.08' RT	150	1
G	89+61.47	79.08' LT	13+71.44'D'	22.50' RT	120	-
G	89+61.47	79.08' RT	90+03.88	99.98' RT	50	-
F	12+81.80'C1'	21+76' LT	13+02.70'C1'	13.90' LT	20	-
	TOTAL				440	1

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY LF
UNDISTRIBUTED	300
TOTAL	300

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100.002 MAINTENANCE AND REPAIR OF HAUL ROADS 1100-46-71 EACH
PROJECT	1
TOTAL	1

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
PROJECT	0.2
TOTAL	0.2

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STAGE	STA	LT/RT	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
1000	G	86+20	RT	54
1000	G	87+35	RT	109
1000	G	91+76	RT	69
1000	F	91+90	LT	52
1000	F	93+05	LT	54
1000	F	95+85	LT	28
		CATEGORY 1000 TOTALS		366
8000	F	96+05	RT	22
8000	F	96+50	LT	23
8000	F	96+70	RT	29
		CATEGORY 8000 TOTALS		74
		PROJECT TOTALS		440

DUST

CATEGORY	STAGE	623.0200 DUST CONTROL SURFACE TREATMENT SY
1000	SOUTH OF IH 894	8,439
1000	NORTH OF IH 894	11,034
	CATEGORY 1000 TOTAL	19,473
8000	NORTH OF IH 894	2,808
	CATEGORY 8000 TOTAL	2,808
	PROJECT TOTAL	22,281

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EROSION CONTROL

LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
LOOMIS ROAD SOUTH OF 894	331	331	13	3	9	3
LOOMIS ROAD NORTH OF 894	345	345	44	1	27	18
UNDISTRIBUTED	169	169	6	1	4	3
TOTAL	845	845	63	5	40	24

NOTE: INLET PROTECTION PLACED DURING STAGE B TO REMAIN IN PLACE THROUGHOUT PROJECT

MOBILIZATIONS EROSION CONTROL

	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
STAGE A	1	1
STAGE B	1	1
STAGE F	6	4
STAGE G	3	2
TOTAL	11	8

3

TRACKING PAD

CATEGORY	LOCATION	628.7560 TRACKING PADS EACH
1000	RAMP A	1
1000	RAMP B	1
1000	RAMP C	1
1000	RAMP D	1
1000	RAMP E	1
1000	SOUTH LIMITS	2
1000	NORTH LIMITS	2
	TOTAL	9

RESTORATION

STAGE	LOCATION	625.0100 TOPSOIL SY	628.2023 EROSION MAT CLASS II TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO.20 LB	630.0500 SEED WATER MGAL	631.1000 SOD LAWN SY	631.0300 SOD WATER MGAL
C,D,E	ABUTMENTS	967	866	0.7	24	39	102	5
G	LOOMIS SOUTH OF IH 894	1,434	154	1.0	5	4	1,281	29
F	LOOMIS NORTH OF IH 894	2,071	39	1.4	2	1	2,033	46
	UNDISTRIBUTED	1,118	265	1.0	8	11	854	20
	TOTAL	5,590	1,324	4.1	39	55	4,270	100

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED.

FILE NAME: pw:\\aecom-na-pw.bentley.com:AECOM_DS20_NA_2019\Documents\60608972-Airport Freeway Loomis Road\400-Technical\434_Estimate\Working Quantities\030201_MQ_60th.pptx
ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:01/28/2021
PLOTTED DATE: 11/14/2022 11:41 AM

LINE MARKING

	646.1020		646.1545		646.3545				646.5020	646.5120	646.6120	646.7120	646.7420	646.8120	646.8220
	MARKING LINE EPOXY 4-INCH		MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH		MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH				MARKING ARROW EPOXY	MARKING WORD EPOXY	MARKING STOP LINE EPOXY 18-INCH	MARKING DIAGONAL EPOXY 12-INCH WHITE	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	MARKING CURB EPOXY	MARKING ISLAND NOSE EPOXY
	YELLOW	WHITE	WHITE		YELLOW	WHITE									
LOCATION	SOLID LF	SOLID LF	3' LINE-9' GAP LF	12.5' LINE-37.5' GAP LF	3' LINE-9' GAP LF	3' LINE-9' GAP LF	SOLID LF	2' LINE-6' GAP LF	EACH	EACH	LF	LF	LF	LF	EACH
LOOMIS ROAD	4,583	4,571	50	962	38	454	4,940	38	36	18	375	851	1,479	97	4
TOTALS	4,583	4,571	50	962	38	454	4,940	38	36	18	375	851	1,479	97	4
	9,154		1,012		5,432										

REMOVING RAMP GATES

STAGE	LOCATION	LT/RT	204.9060.S.001 REMOVING RAMP GATE EACH
G	229+02'LRA'	2' RT	1
G	10+67'LRA1'	6' RT	1
TOTALS			2

MARKING REMOVAL LINE WIDE

LOCATION	646.9200 MARKING REMOVAL LINE WIDE LF
WIS 36 SB STOP BAR AT LAYTON	56
TOTAL	56

RAMP GATES

STAGE	LOCATION	LT/RT	662.1028.S RAMP CLOSURE GATES 28-FT EACH	662.1030.S RAMP CLOSURE GATES 30-FT EACH	662.1032.S RAMP CLOSURE GATES 32-FT EACH
G	228+92.8'LRA'	6.9' RT	-	1	-
G	10+91.3'LRA1'	28.9' LT	1	-	-
F	230+36.0'LRC'	11.3' LT	1	-	-
F	12+94.1'LRC1'	26.7' LT	-	-	1
TOTALS			2	1	1

BIRD DETERRENT SYSTEM

LOCATION	999.2000.S.001 INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM STATION 87+50 EACH
STA. 87+50	1
TOTAL	1

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ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:01/28/2021
PLOTTED DATE: 4/24/2023 5:04 PM

VIBRATION MONITORING

LOCATION	999.1501.S CRACK AND DAMAGE SURVEY EACH	SPV.0135.001 VIBRATION MONITORING MONTHS
PROJECT	1	9
TOTALS	1	9

SANITARY SEWER

CATEGORY	STA	OFFSET	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.503 SANITARY MANHOLE INTERNAL/EXTERNAL SEAL EACH
8010	92+53	53' LT	1	1
	92+61	40' RT	1	1
	93+55	39' RT	1	1
	96+03	43' LT	1	1
	96+03	40' RT	1	1
TOTALS			5	5

UTILITIES

CATEGORY	LOCATION		SPV.0060.500 UTILITY LINE OPENING (ULO) EACH	SPV.0060.501 WATER MAIN PROTECTION EACH	SPV.0060.502 ADJUSTING WATER BOXES EACH
8020	R-40-716		6	-	-
	R-40-717		6	-	-
	84+83'SB'	41.4' LT	-	-	1
	90+12'NB'	27.3' RT	-	-	1
	90+16'NB'	24.0' RT	-	-	1
	90+93'NB'	28.6' RT	-	-	1
	92+37'NB'	35.7' RT	-	-	1
	93+03'NB'	33.4' RT	-	-	1
	96+53'NB'	38.0' RT	-	-	1
	96+54'SB'	46.0' LT	-	-	1
	96+57'NB'	41.2' RT	-	-	1
	97+46'NB'	39.0' RT	-	-	1
	98+46'NB'	45.1' RT	-	-	1
	94+02'NB'	41.6' RT	-	1	-
	94+32'NB'	41.6' RT	-	1	-
	94+57'NB'	41.6' RT	-	1	-
	94+82'NB'	41.6' RT	-	1	-
	95+07'NB'	41.6' RT	-	1	-
	TOTALS		12	5	11

3

FIELD OFFICE

LOCATION	SPV.0060.020 FIELD FACILITIES OFFICE SPACE EACH
PROJECT	0.2
TOTAL	0.2

PAVEMENT CLEANUP

LOCATION	SPV.0075.002 PAVEMENT CLEANUP PROJECT 1100-46-71 HRS
PROJECT	100
TOTAL	100

SURVEY PROJECT

LOCATION	SPV.0060.0031 SURVEY PROJECT 1100-46-71 EACH
1100-46-71	1
TOTAL	1

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3

TRAFFIC CONTROL PROJECT

PROJECT	643.5000 TRAFFIC CONTROL PROJECT EACH
1100-46-71	0.2
PROJECT TOTALS	0.2

TEMPORARY PAVEMENT MARKING

CATEGORY	STAGE	ROADWAY	LOCATION	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW LF	643.3120 TEMPORARY MARKING LINE EPOXY 4-INCH WHITE LF	643.3220 TEMPORARY MARKING LINE EPOXY 8-INCH WHITE LF	643.3520 TEMPORARY MARKING ARROW EPOXY WHITE EACH	643.3620 TEMPORARY MARKING WORD EPOXY WHITE EACH
1000	C	WIS 36, SOUTH OF LAYTON	NB	417	152	214	--	--
	C	WIS 36, SOUTH OF I-894	SB	635	300	198	--	--
	C	WIS 36, SOUTH OF I-895	NB	406	89	--	--	--
	C	WIS 36, NORTH OF I-894	SB	915	--	--	--	--
	C	WIS 36, NORTH OF I-895	NB	318	--	--	--	--
	C	I-894	WB	--	--	776	--	--
	F	I-894, EAST OF WIS 36	WB	--	660	--	--	--
	C-F	WIS 241, NORTH OF LAYTON	SB	325	--	798	2	1
			PROJECT TOTALS	4217		1986	2	1

PAVEMENT MARKING REMOVAL

CATEGORY	LOCATION		646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF
1000	WIS 36	C	38	--
	WIS 36, SOUTH OF I-894	C	100	100
	WIS 36, NORTH OF I-894	C	80	40
	WIS 241, NORTH OF LAYTON	C	81	--
	S. 43RD STREET	F	220	--
		PROJECT TOTALS	519	140

BASE AGGREGATE ITEMS

CATEGORY	ROADWAY	305.0120** BASE AGGREGATE DENSE 1 1/4-INCH TON
1000	LOOMIS ROAD CROSSOVER	16
	LOOMIS ROAD AT WB RAMPS	27
	SUBTOTAL	43

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ASPHALTIC PAVEMENT

CATEGORY	ROADWAY	465.0125 ASPHALTIC SURFACE TEMPORARY TON
1000	LOOMIS ROAD CROSSOVER	75
	LOOMIS ROAD AT WB RAMPS	84
	SUBTOTAL	159

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE NOTED

*FOR PROJECT INFORMATION ONLY

NOTE: ALL COVERED SIGNS TO BE COVERED FOR DURATION OF WORK IN AREA, ONE CYCLE ONLY

				TRAFFIC CONTROL																							
				643.0300		643.0420		643.0705		643.0715		643.0800		643.0900**		643.0910**			643.0920**			643.1050		643.4100	SPV.0060.022	SPV.0060.023	SPV.0060.024
			DURATION (CALENDAR DAYS)*	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE 1			TRAFFIC CONTROL COVERING SIGNS TYPE 2			TRAFFIC CONTROL SIGNS PCMS		TRAFFIC CONTROL INTERIM LANE CLOSURE	TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP	TRAFFIC CONTROL FULL FREEWAY CLOSURE	TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES
CATEGORY	STAGE	ROADWAY		NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	NO.*	DAYS	# OF SIGNS	# OF CYCLES	EA	# OF SIGNS	# OF CYCLES	EA	NO.*	DAYS	EA	EA	EA	EA
1000	A	WIS 36/LOOMIS RD	5	84	420	5	25	10	50	8	40	1	5	46	230	--	--	--	--	--	--	--	--	--	--	--	15
		STAGE A TOTALS	5	84	420	5	25	10	50	8	40	1	5	46	230	--		--	--		--	--	--	--	--	--	15
	B	WIS 36/LOOMIS RD AT CTH Y/LAYTON	125	12	1500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		STAGE B TOTALS	125	12	1500	--	--	--	--	--	--	--	--	--	--	--		--	--		--	--	--	--	--	--	--
	C	WIS 36/LOOMIS RD AT CTH Y/LAYTON	60	94	5640	12	720	18	1080	13	780	--	--	38	2280	3	1	3	3	1	3	1	7	--	--	--	1
		WIS 36/LOOMIS RD AT 43RD ST	60	54	3240	7	420	11	660	16	960	1	60	30	1800	--	--	--	--	--	--	1	7	--	--	--	1
		IH 894 RAMPS	60	50	3000	5	300	8	480	4	240	1	60	9	540	7	1	7	4	1	4	3	21	--	--	--	2
		STAGE C TOTALS	60	198	11880	24	1440	37	2220	33	1980	2	120	77	4620	10		10	7		7	5	35	--	--	--	4
	D	WIS 36/LOOMIS RD AT CTH Y/LAYTON	80	94	7520	12	960	18	1440	13	1040	--	--	38	3040	--	--	--	--	--	--	--	--	--	--	--	--
		WIS 36/LOOMIS RD AT 43RD ST	80	54	4320	7	560	11	880	16	1280	1	80	30	2400	--	--	--	--	--	--	--	--	--	--	--	--
		IH 894 RAMPS	80	50	4000	5	400	8	640	4	320	1	80	9	720	--	--	--	--	--	--	--	--	--	--	--	--
		IH 894 EB EXIT RAMP SHORT TERM CLOSURE	2	20	40	4	8	37	74	33	66	--	--	6	12	--	--	--	--	--	--	1	14	--	--	--	--
		IH 894 EB ENTRANCE RAMP SHORT TERM CLOSURE	6	5	30	5	30	10	60	--	--	--	--	6	36	--	--	--	--	--	--	1	42	--	6	--	--
		IH 894 WB ENTRANCE RAMP SHORT TERM CLOSURE	2	5	10	3	6	6	12	--	--	--	--	6	12	--	--	--	--	--	--	1	14	--	2	--	--
		STAGE D TOTALS	80	228	15920	36	1964	90	3106	66	2706	2	160	95	6220	--		--	--		--	3	70	--	8	--	--
	E	WIS 36/LOOMIS RD AT CTH Y/LAYTON	10	94	940	12	120	18	180	13	130	--	--	38	380	--	--	--	--	--	--	--	--	--	--	--	--
		WIS 36/LOOMIS RD AT 43RD ST	10	54	540	7	70	11	110	16	160	1	10	30	300	--	--	--	--	--	--	--	--	--	--	--	--
		IH 894 RAMPS	10	50	500	5	50	8	80	4	40	1	10	9	90	--	--	--	--	--	--	--	--	--	--	--	--
		STAGE E TOTALS	10	198	1980	24	240	37	370	33	330	2	20	77	770	--		--	--		--	--	--	--	--	--	--
	F	WIS 36/LOOMIS RD AT CTH Y/LAYTON	60	94	5640	12	720	18	1080	13	780	--	--	38	2280	--	--	--	--	--	--	--	--	--	--	--	--
		WIS 36/LOOMIS RD AT 43RD ST	60	38	2280	20	1200	33	1980	12	720	1	60	28	1680	--	--	--	1	1	1	1	7	--	--	--	1
		IH 894 WB RAMP CLOSURES	60	41	2460	8	480	12	720	24	1440	2	120	9	540	--	--	--	1	1	1	2	14	--	--	--	--
		IH 894 EB RAMPS	60	20	1200	2	120	4	240	4	240	1	60	1	60	--	--	--	--	--	--	--	--	--	--	--	--
		STAGE F TOTALS	60	193	11580	42	2520	67	4020	53	3180	4	240	76	4560	--		--	2		2	3	21	--	--	--	1
	G	WIS 36/LOOMIS RD AT CTH Y/LAYTON	60	64	3840	18	1080	27	1620	7	420	--	--	44	2640	1	1	1	3	1	3	--	--	--	--	--	1
		WIS 36/LOOMIS RD AT 43RD ST	60	38	2280	14	840	21	1260	12	720	1	60	21	1260	--	--	--	--	--	--	--	--	--	--	--	--
		IH 894 WB RAMPS	60	50	3000	6	360	12	720	50	3000	--	--	3	180	--	--	--	--	--	--	--	--	1	--	--	--
		IH 894 EB RAMP CLOSURES	60	62	3720	4	240	8	480	--	--	--	--	6	360	2	1	2	1	1	1	2	14	--	--	--	--
		STAGE G TOTALS	60	214	12840	42	2520	68	4080	69	4140	1	60	74	4440	3		3	4		4	2	14	1	--	--	1
	H	WIS 36/LOOMIS RD	5	37	185	2	10	4	20	3	15	--	--	18	90	--	--	--	--	--	--	--	--	--	--	--	5
		STAGE H TOTALS	5	37	185	2	10	4	20	3	15	--	--	18	90	--		--	--		--	--	--	--	--	--	5
	C-G	WIS 241/27TH ST	270	26	7020	1	270	2	540	13	3510	1	270	7	1890	--	--	--	--	--	--	--	--	--	--	--	1
		WIS 241/27TH ST TOTALS	270	26	7020	1	270	2	540	13	3510	1	270	7	1890	--		--	--		--	--	--	--	--	--	1
	IH 894	SINGLE LANE CLOUSE	40	55	2200	2	80	4	160	13	520	2	80	6	240	--	--	--	--	--	--	--	--	40	--	--	--
		DUAL LANE CLOSURE	60	93	5580	5	300	10	600	26	1560	3	180	11	660	--	--	--	--	--	--	--	--	60	--	--	--
		EB OR WB FULL CLOSURE	20	198	3960	38	760	18	360	53	1060	4	80	20	400	--	--	--	--	--	--	2	160	--	--	20	--
		60TH ST EB ENTRANCE RAMP CLOSURE	10	9	90	5	50	6	60	--	--	--	--	10	100	--	--	--	--	--	--	1	40	--	10	--	--
		WIS 241 WB ENTRANCE RAMP CLOSURE	10	21	210	6	60	11	110	4	40	--	--	15	150	--	--	--	--	--	--	1	40	--	10	--	--
		STAGE 894 TOTALS	--	376	12040	56	1250	49	1290	96	3180	9	340	62	1550	--		--	--		--	4	240	100	20	20	--
		UNDISTRIBUTED	7	50	350	5	35	10	70	5	35	1	7	5	35	1	1	1	3	1	3	--	--	--	--	--	--
		PROJECT TOTALS		1616	75715	237	10274	374	15766	379	19116	23	1222	537	24405	14		14	16		16	17	380	101	28	20	27

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL ITEMS

FIXED MESSAGE SIGNS

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE NOTED

CATEGORY	ROADWAY	LOCATION	STAGES	SIGN NUMBER	NUMBER REQUIRED	SIGN SIZE W X H IN	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1000	STH 36 NB	AT LAYTON AVE	C/D/E	FMS-10	1	72.0 X 36.0	18.0
	STH 36 SB	AT 43RD ST	C/D/E	FMS-11	1	72.0 X 36.0	18.0
	IH 41 SB/IH 894 EB	EAST OF 92ND STREET, MEDIAN	C/D/E/F	FMS-09	1	42.0 X 18.0	5.2
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF 76TH STREET, OUTSIDE	C/D/E/F/G	FMS-01	1	126.0 X 54.0	47.2
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF 76TH STREET, OUTSIDE	C/D/E/F	FMS-03	1	48.0 X 12.0	4.0
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF 68TH STREET, MEDIAN	C/D/E/F	FMS-09	1	42.0 X 18.0	5.2
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF 60TH STREET, OUTSIDE	C/D/E/F	FMS-06	1	30.0 X 12.0	2.5
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF 60TH STREET, OUTSIDE	C/D/E/F/G	FMS-05	1	96.0 X 18.0	12.0
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF S 51ST STREET, MEDIAN	C/D/E/F	FMS-09	1	42.0 X 18.0	5.2
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF S 51ST STREET, OUTSIDE	C/D/E/F/G	FMS-05	1	96.0 X 18.0	12.0
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF S 51ST STREET, OUTSIDE	C/D/E/F	FMS-06	1	30.0 X 12.0	2.5
	IH 41 SB/IH 43 NB/IH 894 EB	AT STH36/LOOMIS RD EXIT, OUTSIDE	C/D/E/F	FMS-06	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 27TH STREET, MEDIAN	C/D/E	FMS-08	1	42.0 X 18.0	5.2
	IH 41 NB/IH 43 SB/IH 894 WB	WEST OF 27TH STREET, OUTSIDE	C/D/E	FMS-07	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 35TH STREET, OUTSIDE	C/D/E	FMS-07	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF STH 36/LOOMIS RD, OUTSIDE	C/D/E	FMS-07	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF STH 36/LOOMIS RD, OUTSIDE	C/D/E/F/G	G20-60	1	108.0 X 24.0	18.0
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF STH 36/LOOMIS RD, OUTSIDE	C/D/E/F/G	G20-60	1	108.0 X 24.0	18.0
	STH 241/S 27TH STREET	NORTH OF W. MORGAN AVENUE, OUTSIDE	C/D/E/F/G	FMS-04	1	72.0 X 36.0	18.0
	IH 43 SB	EAST OF S. 20TH STREET, OUTSIDE	C/D/E/F/G	FMS-01	1	126.0 X 54.0	47.2
	IH 43 SB	EAST OF S. 20TH STREET, OUTSIDE	C/D/E	FMS-02	1	48.0 X 12.0	4.0
	IH 41 NB	NORTH OF W. EDGERTON AVENUE, OUTSIDE	C/D/E/F/G	FMS-01	1	126.0 X 54.0	47.2
	IH 41 NB	NORTH OF W. EDGERTON AVENUE, OUTSIDE	C/D/E	FMS-02	1	48.0 X 12.0	4.0
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 27TH STREET, MEDIAN	F	G20-62	1	48.0 X 24.0	8.0
	IH 41 NB/IH 43 SB/IH 894 WB	WEST OF 27TH STREET, OUTSIDE	F	G20-60	1	108.0 X 24.0	18.0
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 35TH STREET, OUTSIDE	F	G20-60	1	108.0 X 24.0	18.0
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 35TH STREET, OUTSIDE	F	FMS-12	1	42.0 X 18.0	5.2
	IH 41 NB/IH 43 SB/IH 894 WB	WEST OF 35TH STREET, OUTSIDE	F	FMS-12	1	42.0 X 18.0	5.2
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF STH 36/LOOMIS RD, OUTSIDE	F	G20-60	1	108.0 X 24.0	18.0
	IH 41 SB/IH 894 EB	EAST OF 92ND STREET, MEDIAN	G	G20-62	1	48.0 X 24.0	8.0
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF 68TH STREET, MEDIAN	G	G20-62	1	48.0 X 24.0	8.0
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF 60TH STREET, OUTSIDE	G	G20-60	1	108.0 X 24.0	18.0
	IH 41 SB/IH 43 NB/IH 894 EB	WEST OF 51ST STREET, MEDIAN	G	G20-62	1	48.0 X 24.0	8.0
	IH 41 SB/IH 43 NB/IH 894 EB	EAST OF S 51ST STREET, OUTSIDE	G	G20-62	1	48.0 X 24.0	8.0
	IH 41 SB/IH 43 NB/IH 894 EB	AT STH36/LOOMIS RD EXIT, OUTSIDE	G	G20-62	1	48.0 X 24.0	8.0
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 27TH STREET, MEDIAN	G	FMS-08	1	42.0 X 18.0	5.2
	IH 41 NB/IH 43 SB/IH 894 WB	WEST OF 27TH STREET, OUTSIDE	G	FMS-07	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF 35TH STREET, OUTSIDE	G	FMS-07	1	30.0 X 12.0	2.5
	IH 41 NB/IH 43 SB/IH 894 WB	EAST OF STH 36/LOOMIS RD, OUTSIDE	G	FMS-07	1	30.0 X 12.0	2.5
	IH 43 SB	EAST OF S. 20TH STREET, OUTSIDE	G	FMS-02	1	48.0 X 12.0	4.0
	IH 41 NB	NORTH OF W. EDGERTON AVENUE, OUTSIDE	G	FMS-02	1	48.0 X 12.0	4.0
	STH 36 NB	AT LAYTON AVE	G	FMS-13	1	60.0 X 36.0	15.0
				PROJECT TOTALS			470

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE NOTED

3

DETOUR TRAFFIC CONTROL

CATEGORY	DETOUR PLAN	STAGES	DURATION DAYS	643.0900** TRAFFIC CONTROL SIGNS NO.*	643.0900** TRAFFIC CONTROL SIGNS DAYS	643.0910** COVERING SIGNS TYPE 1 # OF SIGNS	643.0910** COVERING SIGNS TYPE 1 # OF CYCLES	643.0910** COVERING SIGNS TYPE 1 EA	643.0920** COVERING SIGNS TYPE 2 # OF SIGNS	643.0920** COVERING SIGNS TYPE 2 # OF CYCLES	643.0920** COVERING SIGNS TYPE 2 EA
1000	STH 36 (LOOMIS ROAD)	C/D/E/F/G	270	69	18630	--	--	--	--	--	--
	STH 36 (LOOMIS ROAD) PEDESTRIAN DETOUR	C/D/E/F/G	270	22	5940	--	--	--	--	--	--
	STH 36 (LOOMIS ROAD) NB TO IH 41 NB/IH 43 SB/IH 894 WB	C/D/E/F/G	270	68	18360	--	--	--	--	--	--
	STH 36 (LOOMIS ROAD) SB TO IH 94 WB/IH 43 NB	C/D/E/G	210	45	9450	--	--	--	1	1	1
	STH 36 (LOOMIS ROAD) SB TO IH 41 SB/IH 94 EB	C/D/E/G	210	--	--	--	--	--	--	--	--
	IH 94 EB/IH 43 SB TO STH 36 (LOOMIS ROAD) SB	C/D/E/G	210	19	3990	--	--	--	2	1	2
	IH 41 NB/IH 94 WB TO STH 36 (LOOMIS ROAD) SB	C/D/E/G	210	31	6510	--	--	--	--	--	--
	IH 41 SB/IH 43 NB/IH 894 EB TO STH 36 (LOOMIS ROAD) NB	C/D/E/F	210	27	5670	--	--	--	--	--	--
	STH 36 (LOOMIS ROAD) SB TO IH 41 NB/IH 43 SB/IH 894 WB	F	60	36	2160	--	--	--	1	1	1
	IH 94 EB/IH 43 SB TO STH 36 (LOOMIS ROAD) NB	F	60	32	1920	1	1	1	1	1	1
	IH 41 NB/IH 94 WB TO STH 36 (LOOMIS ROAD) NB	F	60	50	3000	--	--	--	--	--	--
	STH 36 (LOOMIS ROAD) NB TO IH 41 SB/IH 94 EB & IH 94 WB/IH 43 NB	G	60	9	540	--	--	--	--	--	--
	IH 41 SB/IH 43 NB/IH 894 EB TO STH 36 (LOOMIS ROAD) SB	G	60	51	3060	--	--	--	--	--	--
	PROJECT TOTALS			459	79230	1		1	5		5

*FOR PROJECT INFORMATION ONLY
**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY BARRIER

CATEGORY	STAGE	ROADWAY	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
1000	C	IH 894	WB	1425	1425
			PROJECT TOTALS	1425	1425

CRASH CUSHION

ROADWAY	STAGE	LOCATION	614.0905 CRASH CUSHION TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN --	CRASH TEST LEVEL --	TRAFFIC DIRECTION --	TRAFFIC LOCATION --	CRASH CUSHION SHIELDS --
IH 894 WB	C	Outside Shoulder	1	2	OM-3R (WO5-58R)	TL-3	Unidirectional	L	Temp Barrier
		PROJECT TOTAL	1						

TYPE I & II SIGN REMOVAL **CATEGORY 1000** **1100-46-71 STH 36**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 * REMOVING SMALL SIGN SUPPORTS [EA]	638.2601 REMOVING SIGNS TYPE I [EA]	REMARKS / SIGN LOCATION
1R	R7-1D	--	1	1	--	--
2R	D16-1L	--	--	--	1	--
3R	D16-1L	--	--	--	1	--
4R	J2-3	--	1	2	--	--
5R	R7-1D	--	1	1	--	--
6R	D16-1	--	--	--	1	--
7R	J1-1	--	1	2	--	ALSO REMOVE D1-63
8R	I5-1	--	1	1	--	--
9R	R3-20L	--	1	1	--	--
10R	R7-1D	--	1	--	--	ALSO REMOVE J4-1 FROM SIGNAL POLE
11R	R6-2L	--	1	1	--	--
12R	R5-1	--	1	--	--	ALSO REMOVE R5-1A, R6-3, R1-1F FROM SIGNAL POLE
13R	J3-2	--	1	--	--	REMOVE FROM LIGHT POLE
14R	R5-1	--	1	1	--	ALSO REMOVE R5-1A
15R	R3-1	--	1	--	--	ALSO REMOVE R1-1F AND R5-1 FROM SIGNAL POLE
16R	M1-94	--	1	--	--	REMOVE FROM BRIDGE
17R	R1-1F	--	1	--	--	REMOVE FROM LIGHT POLE
18R	R4-7	--	1	--	--	ALSO REMOVE R3-4 FROM SIGNAL POLE
19R	R3-4	--	1	--	--	REMOVE FROM SIGNAL POLE
20R	R4-7	--	1	1	--	--
21R	R3-2	--	1	1	--	ALSO REMOVE R1-1F
22R	J3-1	--	1	--	--	REMOVE FROM SIGNAL POLE
23R	R6-2L	--	1	1	--	--
24R	JV2-1	--	1	1	--	--
25R	J2-1	--	1	--	--	ALSO REMOVE W5-52R FROM SIGNAL POLE
26R	W3-8	--	1	--	--	REMOVE FROM SIGNAL POLE
27R	R1-2	--	1	1	--	--
28R	W3-8	--	1	--	--	ALSO REMOVE R3-59 FROM SIGNAL POLE
29R	R1-1F	--	1	--	--	REMOVE FROM SIGNAL POLE
30R	JV3-2	--	1	2	--	--
31R	R3-51L	--	1	1	--	--
32R	R5-1A	--	1	1	--	--
33R	R3-7R	--	1	1	--	ALSO REMOVE R7-1D AND "EXCEPT BUSES"
34R	--	VERTICAL PANELS	19	--	--	REMOVAL OF BRACKETS - INCIDENTAL
35R	W5-52R	--	1	1	--	--

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 * REMOVING SMALL SIGN SUPPORTS [EA]	638.2601 REMOVING SIGNS TYPE I [EA]	REMARKS / SIGN LOCATION
36R	R5-1A	--	1	1	--	--
37R	R5-1	--	1	--	--	ALSO REMOVE R1-2 ON LIGHT POLE
38R	R5-1A	--	1	--	--	REMOVE FROM LIGHT POLE
39R	J3-1	--	1	1	--	--
40R	J3-3	--	1	2	--	--
41R	R5-1A	--	1	1	--	--
42R	W5-52L	--	1	1	--	--
43R	W3-8	--	1	--	--	REMOVE FROM SIGNAL POLE
44R	W4-1	--	1	1	--	--
45R	J3-3	--	1	2	--	ALSO REMOVE J3-1 ON BACK
46R	M1-94	--	1	--	--	REMOVE FROM BRIDGE
47R	R5-1A	--	1	1	--	--
48R	R5-1	--	1	1	--	ALSO REMOVE R5-1A
49R	R3-1	--	1	1	--	--
50R	R1-1F	--	1	1	--	--
51R	R1-1F	--	1	--	--	REMOVE FROM SIGNAL POLE
52R	R4-7	--	1	--	--	ALSO REMOVE R5-1 AND R4-7 FROM SIGNAL POLE
53R	R10-50	--	1	--	--	REMOVE FROM SIGNAL POLE
54R	R10-6	--	1	--	--	REMOVE FROM SIGNAL POLE
55R	W12-1D	--	1	1	--	--
56R	R1-1F	--	1	--	--	ALSO REMOVE R5-1 AND R5-1A FROM SIGNAL POLE
57R	J3-1	--	1	1	--	ALSO REMOVE R3-2
58R	R6-2R	--	1	1	--	--
59R	D1-1	--	1	2	--	--
60R	J4-1	--	1	--	--	REMOVE FROM POLE
61R	R5-1A	--	1	1	--	--
62R	R3-18	--	1	--	--	ALSO REMOVE R1-1F FROM LIGHT POLE
63R	R5-1	--	1	--	--	ALSO REMOVE R1-1F FROM SIGNAL POLE
64R	J3-3	--	1	2	--	--
65R	R5-57	--	1	--	--	REMOVE FROM LIGHT POLE
66R	W3-8	--	1	--	--	REMOVE FROM SIGNAL POLE
67R	R1-2	--	1	1	--	--
68R	R1-2	--	1	--	--	REMOVE FROM LIGHT POLE
69R	R5-1A	--	1	1	--	--
70R	R1-1	--	1	1	--	ALSO REMOVE R6-3

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 * REMOVING SMALL SIGN SUPPORTS [EA]	638.2601 REMOVING SIGNS TYPE I [EA]	REMARKS / SIGN LOCATION
71R	R5-1	--	1	1	--	--
72R	R7-1D	--	1	1	--	--
73R	W3-3	--	1	1	--	--
74R	W3-3	--	1	1	--	--
75R	R2-1	--	1	1	--	--
76R	D4-2	--	1	1	--	--
77R	R6-2L	--	1	1	--	--
78R	R4-7	--	1	1	--	ALSO REMOVE R3-4
79R	R5-1	--	1	1	--	--
80R	R3-4	--	1	1	--	--
81R	W3-3	--	1	--	--	REMOVE FROM LIGHT POLE
82R	D4-2	--	1	1	--	--
83R	R3-5L	--	1	--	--	--
84R	R3-6L	--	1	--	--	--
85R	R3-5R	--	1	--	--	--
86R	D1-60	--	1	2	--	ALSO REMOVE D1-1 AND R5-1A
87R	R5-1A	--	1	1	--	--
88R	R3-51L	--	1	2	--	--
89R	R3-51L	--	1	2	--	--
90R	R10-6	--	1	--	--	REMOVE FROM SIGNAL POLE
91R	R10-65L	--	1	--	--	REMOVE FROM SIGNAL POLE
92R	R10-6	--	1	--	--	REMOVE FROM POLE
93R	R10-65C	--	1	--	--	REMOVE FROM SIGNAL POLE
94R	R10-65R	--	1	--	--	REMOVE FROM SIGNAL POLE
95R	W4-2R	--	1	1	--	--
96R	R3-59	--	1	2	--	--
97R	W1-8	--	1	1	--	--
98R	W1-8	--	1	1	--	--
99R	W1-8	--	1	1	--	--
100R	W1-8	--	1	1	--	--
101R	W1-8	--	1	1	--	--
102R	R3-59	--	1	2	--	--
103R	D1-60	--	1	2	--	--
104R	W1-6	--	1	1	--	--
105R	R3-59	--	1	1	--	--

TYPE I & II SIGN REMOVAL **CATEGORY 1000** **1100-46-71 STH 36**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 * REMOVING SMALL SIGN SUPPORTS [EA]	638.2601 REMOVING SIGNS TYPE I [EA]	REMARKS / SIGN LOCATION
106R	D1-60	--	1	2	--	ALSO REMOVE R5-1A
107R	D4-55L	--	1	1	--	ALSO REMOVE R5-1A
108R	D4-2R	--	1	1	--	--
109R	J2-1	--	1	1	--	--
110R	W3-3	--	1	1	--	--
TOTALS			125	83 *	3	

* SEE ADDITIONAL QUANTITIES ELSEWHERE

3

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLC H [SF]	**637.2230** SIGNS TYPE II REFLC F [SF]	**637.2215** SIGNS TYPE II REFLC H FOLDING [SF]	**638.3000*** REMOVING SMALL SIGN SUPPORTS [EA]	**634.0618** POSTS WOOD 4"X 6"X18' [EA]	**634.0622** POSTS WOOD 4"X6"X22' [EA]	**634.0814** POSTS TUBULAR STEEL 2"X2"X14' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	**637.1220** SIGNS TYPE I REFLC SH [SF]
1	R2-1(2M)	II	40 MPH	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
2A	J2-1(2S)	II	--	24 x 36	6.000	--	--	--	--	--	--	--	--	MOUNT ON UPRIGHT	-- x --	--
	MB3-1		NORTH	24 x 12												
	M1-1		IH 41	24 x 24												
2B	J2-1(2S)	II	--	24 x 36	6.000	--	--	--	--	--	--	--	--	MOUNT ON UPRIGHT		
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 43	24 x 24												
2C	J2-1(2S)	II	--	30 x 60	12.500	--	--	--	--	--	--	--	--	MOUNT ON UPRIGHT		
	MB3-4		WEST	24 x 12												
	M1-1		IH 894	30 x 24												
	MB4-20L		--	24 x 24												
3	R7-1D(2M)	II	--	24 x 30	5.000	--	--	--	--	--	1	--	--	--	-- x --	--
4	D16-1L	II	LAYTON AVE ONLY [LA]	36 x 54	13.500	--	--	--	--	--	--	--	--	INSTALL ON S-40-759 I-BEAMS INCIDENTAL	-- x --	--
5	D16-1L	II	LAYTON AVE ONLY [LA]	36 x 54	13.500	--	--	--	--	--	--	--	--	INSTALL ON S-40-759 I-BEAMS INCIDENTAL	-- x --	--
6	R3-20L(2M)	II	--	24 x 36	6.000	--	--	--	1	--	--	--	--	--	-- x --	--
7	R7-1D(2M)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON UPRIGHT	-- x --	--
8	D16-1R	I	LAYTON AVE ONLY [RA]	-- x --	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-3096 I-BEAMS INCIDENTAL	5 x 5.5	27.50
9	J1-1(2M)	II	--	24 x 39	6.500	--	--	--	--	--	--	--	10	ABOVE SIGN #10	-- x --	--
	M2-1		JCT	21 x 15												
	M1-5A		CTH Y	24 x 24												
10	D1-63	II	LAYTON AVE 4700 SOUTH NEXT INTERSECTION	102 x 36	25.500	--	--	--	2	--	--	--	--	--	-- x --	--
11	J4-1(2M)	II	--	24 x 36	6.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
	M3-3		SOUTH	24 x 12												
	M1-6		STH 36	24 x 24												
12	J3-2(2S)	II	--	48 x 57	19.000	--	--	--	1	--	--	--	--	--	-- x --	--
	M3-1		NORTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M6-1		--	21 x 21												
	M3-3		SOUTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M1-6		--	21 x 21												

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000* REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
13	R6-2L(2M)	II	--	30 x 36	7.500	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
14	R7-1D(2M)	II	--	24 x 30	5.000	--	--	--	--	--	1	--	--	--	-- x --	--
15	R6-3(2S)	II	--	30 x 24	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
16	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
17	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
18	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
19	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
20	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	19	BELOW SIGN #19	-- x --	--
21	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
22	R3-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
23	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
24	M1-94	II	LOOMIS RD	78 x 21	11.375	--	--	--	--	--	--	--	--	MOUNT ON BRIDGE	-- x --	--
25	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	1	--	--	MOUNTED ON CONCRETE	-- x --	--
26	R4-7(2M)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	25	BACK OF SIGN #25	-- x --	--
27	R3-4(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
28	R4-7(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
29	I5-1(2S)	II	--	24 x 24	4.000	--	--	--	1	--	--	--	--	--	-- x --	--
30	MK6-1(2S)	II	--	21 x 21	3.063	--	--	--	--	--	--	--	29	BELOW SIGN #29	-- x --	--
31	R3-18(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
32	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	31	BELOW SIGN #31	-- x --	--
33	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
34	R6-2L(2M)	II	--	30 x 36	7.500	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
35	R2-1(2M)	II	40 MPH	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
36	JV3-2(2M)	II	--	54 x 93	34.875	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
	MB3-1		NORTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB5-2L		--	21 x 21												
	MB3-4		WEST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB5-2L		--	21 x 21												
37	J3-1(2M)	II	--	-- x --	--	--	--	--	1	--	--	--	--	--	-- x --	--
	M3-1		NORTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M6-1		--	21 x 21												
38	W3-8(3)	II	--	48 x 48	--	16.000	--	--	--	--	--	--	--	MOUNT ON BEACON POLE	-- x --	--
39	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	2	--	--	--	--	--	-- x --	--
40	W3-8(3)	II	--	48 x 48	--	16.000	--	--	--	--	--	--	--	MOUNT ON BEACON POLE	-- x --	--
41	R3-59(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON BEACON POLE	-- x --	--
42	R1-2(2M)	II	--	48 x 42	7.000	--	--	--	1	--	--	--	--	--	-- x --	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000* REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
43	JV3-2(2M)	--	--	54 x 93	34.875	--	--	--	--	2	--	--	--	--	-- x --	--
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB3-1		NORTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB6-2		--	21 x 21												
	MB3-2		EAST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB6-2		--	21 x 21												
44	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
45	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	--	2	--	--	--	--	-- x --	--
46	D16-1A	I	NORTH SOUTH [41] [43] WEST [894] ONLY [DA]	-- x --	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-3095 I-BEAMS INCIDENTAL	7 x 9	63.00
47	R5-1A(2M)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--
48	R3-7R(3)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
49	R7-1D(2M)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	48	BELOW SIGN #48; ANGLE SIGN	-- x --	--
50	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	2	--	--	--	--	--	-- x --	--
51	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	--	--	--	--	50	BACK OF SIGN #50	-- x --	--
52	R5-1(3)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
53	J3-3(2M)	II	--	78 x 57	30.875	--	--	--	2	--	--	--	--	--	-- x --	--
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB6-1		--	21 x 21												
	MB3-1		NORTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB6-1		--	21 x 21												
	MB3-2		EAST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB6-1		--	21 x 21												
54	R1-2(2M)	II	--	48 x 42	7.000	--	--	--	1	--	--	--	--	--	-- x --	--
55	J3-1(2S)	II	--	24 x 57	9.500	--	--	--	1	--	--	--	--	--	-- x --	--
	M3-3		SOUTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M6-2		--	21 x 21												
56	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--
57	W4-1R(2M)	II	--	36 x 36	--	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
58	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
59	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	2	--	--	--	--	--	-- x --	--
60	W5-52L(2S)	II	--	12 x 36	--	3.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
61	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--
62	W3-8(3)	II	--	48 x 48	--	16.000	--	--	--	--	--	--	--	MOUNT ON BEACON POLE	-- x --	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.3000* REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	634.0622 POSTS WOOD 4"X6"X22' [EA]	634.0814 POSTS TUBULAR STEEL 2"X2"X14' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
63	J3-3(2M)	II	--	78 x 57	30.875	--	--	--	2	--	--	--	--	--	-- x --	--
	MB3-1		NORTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB6-1		--	21 x 21												
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB6-1		--	21 x 21												
	MB3-4		WEST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB6-1		--	21 x 21												
64	R1-2(2M)	II	--	48 x 42	7.000	--	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	-- x --	--
65	R1-2(2M)	II	--	48 x 42	7.000	--	--	--	1	--	--	--	--	--	-- x --	--
66	R5-57(2S)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
67	W3-8(3)	II	--	48 x 48	--	16.000	--	--	--	--	--	--	--	MOUNT ON BEACON POLE	-- x --	--
68	J3-3(2M)	II	--	78 x 57	30.875	--	--	--	2	--	--	--	--	--	-- x --	--
	MB3-1		NORTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB6-2		--	21 x 21												
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB6-2		--	21 x 21												
	MB3-4		WEST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB6-2		--	21 x 21												
69	R11-54F(2M)	II	--	48 x 30	--	--	10.000	--	2	--	--	--	--	--	-- x --	--
70	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
71	R3-2(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
72	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	71	BELOW SIGN #71	-- x --	--
73	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
74	R4-7(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
75	R3-2(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	74	BELOW SIGN #74	-- x --	--
76	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
77	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
78	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
79	W12-1D(2M)	II	--	24 x 24	--	4.000	--	--	1	--	--	--	--	2 FT MOUNT HEIGHT	-- x --	--
80	R6-2R(2M)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
81	M1-94	II	LOOMIS RD	78 x 21	11.375	--	--	--	--	--	--	--	--	MOUNT ON BRIDGE	-- x --	--
82	R5-1A(2M)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--

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83	J3-3(2M)	II	--	78 x 57	30.875	--	--	--	--	--	--	--	53	BACK OF SIGN #53	-- x --	--
	MB3-1		NORTH	24 x 12												
	M1-1		IH 41	24 x 24												
	MB6-1		--	21 x 21												
	MB3-3		SOUTH	24 x 12												
	M1-1		IH 43	24 x 24												
	MB6-1		--	21 x 21												
	MB3-4		WEST	24 x 12												
	M1-1A		IH 894	30 x 24												
	MB6-1		--	21 x 21												
84	R3-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
85	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	84	BACK OF SIGN #84	-- x --	--
86	R5-1(3)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
87	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	86	3 FT MOUNT HEIGHT	-- x --	--
88	R3-2(3)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
89	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	88	BELOW SIGN #88	-- x --	--
90	R1-1F(3)	II	--	36 x 36	--	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
91	R3-53R(2S)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
92	J3-1(2S)	II	--	24 x 57	9.500	--	--	--	1	--	--	--	--	--	-- x --	--
	M3-1		NORTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M6-1		--	21 x 21												
93	R5-1(3)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
94	R5-1A(2S)	II	--	36 x 24	6.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
95	R6-2L(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
96	J4-1(2M)	II	--	24 x 36	6.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
	M3-1		NORTH	24 x 12												
	M1-6		STH 36	24 x 24												
97	D1-1	II	[LA] 43 RD ST	66 x 15	6.875	--	--	--	2	--	--	--	--	--	-- x --	--
98	D16-1A	I	SOUTH NORTH [41] [43] EAST [894] ONLY [DA]	-- x --	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-3097 I-BEAMS INCIDENTAL	7 x 9	63.00
99	R2-1(2M)	II	40 MPH	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
100	R5-1A(2M)	II	--	42 x 30	8.750	--	--	--	--	--	--	--	99	BACK OF SIGN #99	-- x --	--
101	R3-20L(2M)	II	--	24 x 36	6.000	--	--	--	1	--	--	--	--	--	-- x --	--
102	R5-1A(2M)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--
103	R1-1(3)	II	--	36 x 36	7.460	--	--	--	1	--	--	--	--	--	-- x --	--

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104	W12-1D(2M)	II	--	24 x 24	--	4.000	--	--	1	--	--	--	--	2 FT MOUNT HEIGHT	-- x --	--
105	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
106	R7-1R(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
107	W3-3(2M)	II	--	36 x 36	--	9.000	--	--	1	--	--	--	--	--	-- x --	--
108	W3-3(2M)	II	--	36 x 36	--	9.000	--	--	1	--	--	--	--	--	-- x --	--
109	R2-1(2M)	II	40 MPH	30 x 36	7.500	--	--	--	--	--	--	--	108	BACK OF SIGN #108 IN MEDIAN	-- x --	--
110	R2-1(2M)	II	40 MPH	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
111	D4-2A(2M)	II	--	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
112	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
113	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	112	BACK OF SIGN #112	-- x --	--
114	W12-1D(2M)	II	--	24 x 24	--	4.000	--	--	1	--	--	--	--	2 FT MOUNT HEIGHT	-- x --	--
115	R5-1(2M)	II	--	36 x 36	9.000	--	--	--	1	--	--	--	--	--	-- x --	--
116	R4-7(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
116A	R3-2(2S)	II	--	24 x 24	4.000	--	--		--	--	--	--	116	BELOW SIGN #116	-- x --	--
117	R3-53R(2M)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	103	BELOW SIGN #103	-- x --	--
118	R4-7(2M)	II	--	24 x 30	5.000	--	--	--	1	--	--	--	--	--	-- x --	--
118A	R3-2(2S)	II	--	24 x 24	4.000	--	--		--	--	--	--	118	BELOW SIGN #118	-- x --	--
119	R3-4(2M)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	118	BACK OF SIGN #118	-- x --	--
120	W3-3(2S)	II	--	36 x 36	--	9.000	--	--	1	--	--	--	--	--	-- x --	--
121	D4-2L(2S)	II	--	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
122	R3-5L(2S)	II	--	42 x 48	14.000	--	--	--	--	--	--	--	--	INSTALL ON S-40-757 I-BEAMS INCIDENTAL	-- x --	--
123	R3-6L(2S)	II	--	42 x 48	14.000	--	--	--	--	--	--	--	--	INSTALL ON S-40-757 I-BEAMS INCIDENTAL	-- x --	--
124	R3-5R(2S)	II	--	42 x 48	14.000	--	--	--	--	--	--	--	--	INSTALL ON S-40-757 I-BEAMS INCIDENTAL	-- x --	--
125	D1-1	II	[LA] ALVERNO COLLEGE	60 x 24	10.000	--	--	--	2	--	--	--	--	--	-- x --	--
126	D1-60	II	LOOMIS RD [LA] EAST WEST [RA]	78 x 24	13.000	--	--	--	--	--	--	--	125	BELOW SIGN #125	-- x --	--
127	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	--	--	--	--	125	BACK OF SIGN #125	-- x --	--
128	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--
129	R3-51L(2S)	II	--	48 x 78	26.000	--	--	--	2	--	--	--	--	--	-- x --	--
130	R3-51L(2S)	II	--	48 x 78	26.000	--	--	--	2	--	--	--	--	--	-- x --	--
131	R10-65L(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
132	R10-6(MOD)(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
133	R10-6(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
134	R10-65C(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
135	R10-65R(2S)	II	--	24 x 30	5.000	--	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	-- x --	--
136	W4-2R(2S)	II	--	36 x 36	--	9.000	--	--	1	--	--	--	--	--	-- x --	--
137	W1-8(3)	II	--	24 x 30	--	5.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
138	W1-8(3)	II	--	24 x 30	--	5.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
139	W1-8(3)	II	--	24 x 30	--	5.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
140	W1-8(3)	II	--	24 x 30	--	5.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
141	W1-8(3)	II	--	24 x 30	--	5.000	--	--	1	--	--	--	--	4 FT MOUNT HEIGHT	-- x --	--
142	R3-59(3)	II	--	36 x 48	12.000	--	--	--	2	--	--	--	--	--	-- x --	--

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143	D1-2	II	LOOMIS RD [RA] SOUTH	72 x 24	12.000	--	--	--	2	--	--	--	--	--	-- x --	--
144	W1-6(2S)	II	--	48 x 24	--	8.000	--	--	1	--	--	--	--	--	-- x --	--
145	R3-59(3)	II	--	36 x 48	12.000	--	--	--	2	--	--	--	--	--	-- x --	--
146	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	1	--	--	--	--	--	-- x --	--
147	D4-55R(2S)	II	--	36 x 36	9.000	--	--	--	--	--	--	--	146	BACK OF SIGN #146	-- x --	--
148	D4-2R(2S)	II	--	30 x 36	7.500	--	--	--	1	--	--	--	--	--	-- x --	--
149	J2-1(2S)	II	--	24 x 57	9.500	--	--	--	1	--	--	--	--	--	-- x --	--
	M3-1		NORTH	24 x 12												
	M1-6		STH 36	24 x 24												
	M5-1R		--	21 x 21												
150	W3-3(2S)	II	--	36 x 36	--	9.000	--	--	1	--	--	--	--	--	-- x --	--
151	R5-1A(3)	II	--	42 x 30	8.750	--	--	--	--	--	--	--	152	BACK OF SIGN #152	-- x --	--
152	D1-2	II	LOOMIS RD [RA] NORTH	72 x 24	12.000	--	--	--	2	--	--	--	--	--	-- x --	--
153	J2-4	--	--	-- x --	--	--	--	2	--	2	--	1	--	--	-- x --	--
154	R2-1	--	--	-- x --	--	--	--	1	--	1	--	1	--	--	-- x --	--
	UNDISTRIBUTED											5				
	TOTALS				1109.898	166.000	149.520	3 *	91	7	3	7				153.500

* SEE ADDITIONAL QUANTITIES ELSEWHERE

3

UNDERDECK LIGHTING REMOVAL

DESCRIPTION	204.9060.S.100 REMOVING UNDERDECK LIGHTING B-40-0198 EACH
UDL STH 36 CIRCUIT C/D	1
TOTAL	1

UNDERDECK LIGHTING

DESCRIPTION	659.0601 UNDERDECK LIGHTING B-40-1025 EACH
IH 41 & STH 36	1
TOTAL	1

LIGHTING CONDUIT AND CABLE

LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	* 655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF
ELM6		LPB1	111		387
LPB1		LPB2	88		354
LPB2		ELM7	10	126	486
ELM7		LPB3	18		501
LPB3		ELM8	15	126	99
ALM5		ALM6	45	126	333
BLM6		BLM7	129	126	405
BLM7		LPB3	59		231
LPB3		LPB4	164		582
LPB4		BLM8	18	126	108
LPB4		BLM9	20	126	516
BLM9		LPB5	9	159	
JUNCTION BOX		C10		210	
C10		C11		210	
JUNCTION BOX		D10		270	
D10		D11		210	
D11		JUNCTION BOX		246	
C11		JUNCTION BOX		306	
TOTAL			686	2367	4002

LIGHTING EQUIPMENT

SIG. BASE NO.	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0322 POLES TYPE 5- ALUMINUM EACH	* 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2- INCH CLAMP 8-FT EACH	* 659.1125 LUMINAIRES UTILITY LED-C EACH
ELM7	1	1	1	1
ELM8	1	1	1	1
BLM7	1	1	1	1
BLM8	1	1	1	1
BLM9	1	1	1	1
ALM6	1	1	1	1
TOTAL	6	6	6	6

PULL BOXES

PULL BOX NO.	LOCATION	* 653.0140 PULL BOXES STEEL 24x42-INCH EACH
LPB1	86+65, 141' LT	1
LPB2	87+32, 85' LT	1
LPB3	89+99, 82' LT	1
LPB4	90+01, 81' RT	1
LPB5	87+32, 84' RT	1
TOTAL		5

CONCRETE BASES

SIGNAL BASE NO.	LOCATION	* 654.0105 CONCRETE BASE TYPE 5 EACH
ELM8	89+84, 82'LT	1
BLM7	90+57, 85' LT	1
BLM8	89+84, 80' RT	1
ALM6	93+25, 83' LT	1
TOTAL		4

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

LUMINAIRE NO.	UNDERDECK LIGHTING EACH
C10	1
C11	1
D10	1
D11	1
TOTAL	4

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE	* 659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
UNDERDECK LIGHTING	4
TOTAL	4

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1100

IH 41/43/894 & STH 36 LIGHTING

PAGE 1 OF 2

UNDERDECK LUMINAIRES

UDL NO.	LOCATION	659.1210 LUMINARIES UNDERDECK LED B EACH
C10	228+87, 2' RT	1
C11	229+40, 2' LT	1
D10	228+87, 2' LT	1
D11	229+40, 2' RT	1
	TOTAL	4

LIGHTING EQUIPMENT PAINTING

** LOCATION	SPV.0060.111 LIGHTING EQUIPMENT PAINTING EACH
IH 41 & STH 36	1
TOTAL CATEGORY 8000	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1100 UNLESS OTHERWISE NOTED.

IH 41/43/894 & STH 36 LIGHTING

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STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION PURPOSES ONLY)

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
1	POLES TYPE 9 (BLACK)
1	POLES SPECIAL TYPE 9 (BLACK)
1	POLES TYPE 13 (BLACK)
3	EVP DETECTOR HEADS
1	VIDEO DETECTION CAMERAS
1	MONOTUBE ARMS 25-FT (BLACK)
1	MONOTUBE ARMS SPECIAL 45-FT (BLACK)
1	MONOTUBE ARMS 55-FT (BLACK)
1	LUMINAIRE ARMS, STEEL, 15-FT (BLACK)

TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS

** LOCATION	SPV.0060.314 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS EACH
IH 41 EB RAMPS & STH 36	1
TOTAL	1

REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL

** LOCATION	204.9060.S.300 REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
SB9	1
CB1	1
TOTAL	10

REMOVING PULL BOXES

PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1
PB11	1
PB12	1
TOTAL	12

REMOVING TRAFFIC SIGNALS

** LOCATION	204.9060.S.302 REMOVING TRAFFIC SIGNALS EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

ELECTRICAL SERVICE

CABINET NO.	** LOCATION	656.0200.300 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	IH 41 EB Ramps & STH 36	1
TOTAL		1

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	204.9060.S.305 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 EB RAMPS & STH 36 SIGNALS

PAGE 1 OF 5

CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	* 654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	* 654.0105 CONCRETE BASE TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	* 654.0113 CONCRETE BASES TYPE 13 EACH	* 654.0120 CONCRETE BASES TYPE 10-SPECIAL EACH	* 654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
CB1	86+14, 115' RT							1
SB1	86+25, 7' LT	1						
SB2	86+01, 8' LT			1				
SB3	86+24, 69' LT						1	
SB4	86+41, 80' LT	1						
SB5	86+51, 83' LT		1					
SB6	87+10, 80' LT	1						
SB7	87+31, 81' LT		1					
SB8	87+19, 70' RT					1		
SB9	87+03, 72' RT	1						
SB10	86+60, 71' RT				1			
SB11	86+40, 59' RT	1						
	TOTAL	5	2	1	1	1	1	1

PULL BOXES

PULL BOX NO.	** LOCATION	* 653.0135 PULL BOXES STEEL 24x36-INCH EACH	* 653.0140 PULL BOXES STEEL 24x42-INCH EACH
PB1	86+24, 104' RT		1
PB2	84+40, 56' RT		1
PB3	83+03, 55' RT		1
PB4	86+21, 21' LT		1
PB5	86+20, 66' LT		1
PB6	86+46, 92' LT		1
PB7	86+59, 107' LT	1	
PB8	87+14, 82' LT		1
PB9	87+07, 99' LT	1	
PB10	87+37, 322' LT	1	
PB11	87+13, 66' RT		1
PB12	86+97, 91' RT		1
PB13	86+64, 83' RT		1
PB14	86+29, 110' RT		1
	TOTAL	3	11

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5070.300 SIGNAL MOUNTING HARDWARE EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

** LOCATION	SPV.0060.308 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION

** LOCATION	SPV.0060.312 TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

CONDUIT

LOC.	TO LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		45
PB1	PB2	193	
PB2	PB3	138	
PB1	PB4		214
PB4	SB1	7	
PB4	SB2	22	
PB4	PB5		128
PB5	SB3		5
PB5	PB6		76
PB6	SB4	14	
PB6	SB5	11	
PB6	PB7	20	
PB6	PB8		138
PB8	PB9	19	
PB8	SB6	5	
PB8	SB7	18	
PB8	PB11		296
PB9	PB10	226	
PB11	SB8		7
PB11	SB9	12	
PB11	PB12		60
PB12	PB14		144
PB14	PB13		45
PB13	SB10		15
PB13	SB11	35	
PB14	CB1		48
TOTAL		720	1221

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 EB RAMPS & STH 36 SIGNALS

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TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	* 655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	* 655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	* 655.0615 ELECTRICAL WIRE LIGHTING 10 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1		SB1		171			171		
CB1		SB2				186			
CB1		SB3			248				323
CB1		SB4		309					
CB1		SB5			306				
CB1		SB6		342					
CB1		SB7		355					
CB1		SB8		182		182			267
CB1		SB9		187					
CB1		SB10			118				173
CB1		SB11			139		139		
SB1		SB3					115		
SB3		SB4					97		
SB4		SB5					49		
SB5		SB6					124		
SB6		SB7					47		
SB7		SB8				212	212		
SB8		SB9					44		
SB9		SB10					242		
SB10		SB11					74		
PB1		CB1					37		
PB4		SB1					23		
PB5		SB3					21		
PB6		SB5					27		
PB8		SB6					21		
PB11		SB8					23		
PB12		SB8					55		
PB13		SB10					31		
PB14		CB1					35		
SB2		SB5				188			
SB1		HEAD 10		22					
SB2		LUMINAIRE (2)						246	
SB3		HEAD 6	68						
SB3		HEAD 7	57						
SB3		HEAD 8	47						
SB3		HEAD 16	15						
SB4		HEAD 17	15						
SB5		HEAD 11	19						
SB5		LUMINAIRE						120	
SB6		HEAD 18	15						
SB7		HEAD 5	19						
SB7		LUMINAIRE						123	
SB8		HEAD 2	79						
SB8		HEAD 3	68						
SB8		HEAD 4	55						
SB8		LUMINAIRE						144	
SB9		HEAD 19	15						
SB10		HEAD 12	46						
SB10		HEAD 13		35					
SB10		HEAD 14	26						
SB10		HEAD 20	15						
SB11		HEAD 1	21						
SB11		HEAD 9		22					
SB11		HEAD 15	15						
		TOTAL	595	1625	811	768	1587	633	763

TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS

** LOCATION	SPV.0060.310 TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS EACH
IH 41 EB Ramps & STH 36	1
TOTAL	1

TRAFFIC SIGNAL AND LIGHTING EQUIPMENT PAINTING

** LOCATION	SPV.0060.316 TRAFFIC SIGNAL AND LIGHTING EQUIPMENT PAINTING EACH
IH 41 EB Ramps & STH 36	1
TOTAL CATEGORY 8000	1

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH	* 658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB11	1***			
2	SB8	1***			
3	SB8	1***			
4	SB8	1***			
5	SB7	1			
6	SB3	1			
7	SB3	1			
8	SB3	1			
9	SB11		1		
10	SB1		1		
11	SB5			1	
12	SB10	1			
13	SB10		1		
14	SB10			1	
15	SB11				1
16	SB3				1
17	SB4				1
18	SB6				1
19	SB9				1
20	SB10				1
TOTAL		9	5	2	6

***RETROREFLECTIVE BACKPLATE REQUIRED

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 41/43/894 EB RAMPS & STH 36 SIGNALS

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION^	SIZE (FT)	X	(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	* 652.0800 CONDUIT LOOP DETECTOR L.F.	* 655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	* 655.0800 LOOP DETECTOR WIRE L.F.
11	PB7	86+73, 108' LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	250	234
12	PB7	86+69, 80' LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	250	246
41	PB10	225+73, 29' LT	20	X	6	4	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	64	516	268
42	PB9	86+84, 108' LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	96	291	300
43	PB9	86+80, 80' LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	98	291	306
44	PB9	86+95, 108, LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	291	246
45	PB9	86+91, 80' LT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	291	234
61	PB3	83+09, 32' RT	6	X	6	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	68	353	352
62	PB3	83+09, 20' RT	6	X	6	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	353	472
63	PB2	84+40, 32' RT	6	X	6	4	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	68	216	284
64	PB2	84+40, 20' RT	6	X	6	4	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	216	380
								TOTAL	882	3318	3322

^LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

CONTRACTOR FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	* 657.0322 POLES TYPE 5-ALUMINUM EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	* 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0609 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	* 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2- INCH CLAMP 8-FT EACH	* 658.0500 PEDESTRIAN PUSH BUTTONS EACH	* 659.1125 LUMINAIRES UTILITY LED-C EACH
SB1	1				1					1	
SB2		1		1					2		2
SB3										1	
SB4	1					1				1	
SB5		1	1				1				1
SB6	1					1				1	
SB7		1	1					1			1
SB8											1
SB9	1					1				1	
SB10										1	
SB11	1				1					1	
TOTAL	5	3	2	1	2	3	1	1	2	7	5

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 EB RAMPS & STH 36 SIGNALS

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET NO: 219	E

FILE NAME : "C:\OneDrive\AECOM Directory\Loomis Interchange - Documents\General\9_Quantities\Loomis Rd_MiscQuan_Signal_EB.ppt" PLOT DATE : 10/25/2022 6:49 AM PLOT BY : JAMES JENINGA PLOT NAME : IH 41_STH 36 EB_mq PLOT SCALE : 1.000000:1.000000

WISDOT / CADDS SHEET 42

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STATE FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	SPV.0060.300 INSTALL POLES TYPE 9 EACH	* SPV.0060.301 INSTALL POLES SPECIAL TYPE 9 EACH	SPV.0060.302 INSTALL POLES TYPE 13 EACH	SPV.0060.303 INSTALL MONOTUBE ARMS 25-FT EACH	* SPV.0060.304 INSTALL MONOTUBE ARMS SPECIAL 45-FT EACH	SPV.0060.305 INSTALL MONOTUBE ARMS 55-FT EACH	SPV.0060.306 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH
SB3		1			1		
SB8			1			1	1
SB9							
SB10	1			1			
TOTAL	1	1	1	1	1	1	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL THREE SECTION	6
TRAFFIC SIGNAL FIVE SECTION	4
HIGH PRESSURE SODIUM LAMP	4
MERCURY SWITCH FROM CABINET	1
BALLASTS	4
TOTAL	19

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	TRAFFIC SIGNAL, THREE SECTION EACH	TRAFFIC SIGNAL, FIVE SECTION EACH	HIGH PRESSURE SODIUM LAMP EACH	MERCURY SWITCH EACH	BALLASTS EACH
SB1		1			
SB2	1				
SB3	1	1	2		2
SB4	1				
SB5	1				
SB6	1	1			
SB7		1			
SB8			2		2
SB9	1				
CB1				1	
TOTAL	6	4	4	1	4

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 EB RAMPS & STH 36 SIGNALS

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STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION PURPOSES ONLY)

EACH	DESCRIPTION
1	TRAFFIC SIGNAL CONTROLLER, FULLY ACTUATED, 8 PHASE
1	TRAFFIC SIGNAL CABINET
2	POLES TYPE 9 SPECIAL (BLACK)
3	EVP DETECTOR HEADS
1	VIDEO DETECTION CAMERAS
1	MONOTUBE ARMS SPECIAL 35-FT (BLACK)
1	MONOTUBE ARMS SPECIAL 45-FT (BLACK)

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET

** LOCATION	SPV.0060.309 TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL

** LOCATION	204.9060.S.300 REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

3

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
SB9	1
CB1	1
SB10	1
TOTAL	11

REMOVING PULL BOXES

PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1
PB11	1
PB12	1
PB13	1
TOTAL	13

REMOVING TRAFFIC SIGNALS

** LOCATION	204.9060.S.303 REMOVING TRAFFIC SIGNALS EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	204.9060.S.306 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

TRAFFIC SIGNAL AND LIGHTING EQUIPMENT PAINTING

** LOCATION	SPV.0060.317 TRAFFIC SIGNAL AND LIGHTING EQUIPMENT PAINTING EACH
IH 41 WB Ramps & STH 36	1
TOTAL CATEGORY 8000	1

ELECTRICAL SERVICE

CABINET NO.	** LOCATION	656.0200.301 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	IH 41 WB Ramps & STH 36	1
TOTAL		1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

IH 41/43/894 WB RAMPS & STH 36 SIGNALS

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CONCRETE BASES

SIGNAL BASE NO.	LOCATION	* 654.0101 CONCRETE BASES TYPE 1 EACH	* 654.0105 CONCRETE BASE TYPE 5 EACH	* 654.0120 CONCRETE BASES TYPE 10-SPECIAL EACH	* 654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
CB1	91+61, 79' LT				1
SB1	92+05, 70' LT	1			
SB2	92+61, 67' LT	1			
SB3	92+67, 57' LT	1			
SB4	92+53, 1' LT	1			
SB5	92+36, 16' RT	1			
SB6	91+97, 18' RT	1			
SB7	92+72, 5' RT		1		
SB8	92+49, 60' RT			1	
SB9	92+02, 91' RT	1			
SB10	92+59, 72' RT	1			
SB11	91+17, 5' LT		1		
SB12	91+77, 5' LT	1			
SB13	91+81, 61' LT			1	
	TOTAL	9	2	2	1

PULL BOXES

PULL BOX NO.	LOCATION	* 653.0135 PULL BOXES STEEL 24x36-INCH EACH	* 653.0140 PULL BOXES STEEL 24x42-INCH EACH
PB1	91+67, 74' LT		1
PB2	92+16, 77' LT		1
PB3	92+64, 74' LT		1
PB4	92+75, 68' LT		1
PB5	92+75, 3' RT		1
PB6	94+59, 7' LT	1	
PB7	95+64, 9' LT	1	
PB8	92+75, 60' RT		1
PB9	92+93, 112' RT		1
PB10	91+51, 104' RT		1
PB11	232+85, 23' RT	1	
PB12	91+44, 83' RT		1
PB13	91+46, 4' LT		1
PB14	91+61, 4' LT	1	
PB15	91+48, 62' LT		1
	TOTAL	4	11

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	PEDESTRIAN SIGNAL, LED MODULE EACH	TRAFFIC SIGNAL, THREE SECTION EACH	TRAFFIC SIGNAL, FOUR SECTION EACH	LUMINAIRES UTILITY, LED C EACH	HIGH PRESSURE SODIUM LAMP EACH	BALLASTS EACH	MERCURY SWITCH EACH
SB1		1					
SB2		1	1				
SB3		2	1				
SB4		1					
SB5	1						
SB6		1					
SB7	1	1					
SB8		2	1				
SB9				2			
SB10					2	2	
CB1							1
TOTAL	2	9	3	2	2	2	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
PEDESTRIAN SIGNAL - 16 INCH	2
TRAFFIC SIGNAL THREE SECTION	9
TRAFFIC SIGNAL FOUR SECTION	3
LUMINAIRES, UTILITY, LED C	2
HIGH PRESSURE SODIUM LAMP	2
BALLASTS	2
MERCURY SWITCH	1
TOTAL	21

TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION

** LOCATION	SPV.0060.313 TRANSPORT AND INSTALL STATE FURNISHED VIDEO DETECTION EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

CONDUIT

LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1		PB1		27
PB1		PB2		106
PB2		SB1	14	
PB2		PB3		102
PB3		SB2	8	
PB3		PB4		28
PB4		SB3	14	
PB4		PB5		144
PB5		SB4	24	
PB5		SB5	41	
PB5		SB6	80	
PB5		SB7	4	
PB5		PB6	184	
PB6		PB7	104	
PB5		PB8		114
PB8		SB8		26
PB8		PB9		190
PB9		SB9	24	
PB9		PB10		78
PB10		PB11	227	
PB10		PB12		46
PB12		SB10	18	
PB12		PB13		174
PB13		PB14	15	
PB13		SB11	30	
PB13		SB12	32	
PB13		PB15		116
PB15		SB13		36
PB15		CB1		69
		TOTAL	819	1256

3

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 WB RAMPS & STH 36 SIGNALS

PAGE 2 OF 4

3

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	* 655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	* 655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	* 655.0615 ELECTRICAL WIRE LIGHTING 10 AWG L.F.	* 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1		SB1		118			118		
CB1		SB2		177					
CB1		SB3			212				
CB1		SB4			308				
CB1		SB5			325				
CB1		SB6		363					407
CB1		SB7				287			
CB1		SB8			381				465
CB1		SB9			338				
CB1		SB10			243				
CB1		SB11				153			
CB1		SB12		155					
CB1		SB13		86			86		180
SB1		SB2					112		
SB2		SB3					75		
SB3		SB4					148		
SB4		SB5					89		
SB5		SB6					145		
SB6		SB8					201		
SB8		SB9					172		
SB9		SB10					158		
SB10		SB12					185		
SB12		SB13					165		
PB1		CB1					31		
PB2		SB1					30		
PB3		SB2					24		
PB4		SB3					30		
PB5		SB4					40		
PB8		SB8					42		
PB9		SB9					40		
PB10		SB10					59		
PB12		SB10					34		
PB13		SB12					48		
PB15		CB1					52		
SB1		HEAD 14	15						
SB2		HEAD 15	15						
SB3		HEAD 5		22					
SB3		HEAD 7	21						
SB3		HEAD 16	15						
SB4		HEAD 6		22					
SB4		HEAD 17	15						
SB5		HEAD 13	19						
SB5		HEAD 18	15						
SB6		HEAD 12	19						
SB7		LUMINAIRE						246	
SB8		HEAD 2	58						
SB8		HEAD 3	46						
SB8		HEAD 19	15						
SB9		HEAD 11	19						
SB9		HEAD 20	15						
SB10		HEAD 1	19						
SB10		HEAD 21	15						
SB11		LUMINAIRE						246	
SB12		HEAD 4		22					
SB13		HEAD 8	71						
SB13		HEAD 9	59						
SB13		HEAD 10	47						
		TOTAL	498	965	1807	440	2084	492	1052

TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS

** LOCATION	SPV.0060.315 TRANSPORT AND INSTALL STATE FURNISHED EVP DETECTOR HEADS EACH
IH 41 WB RAMPS & STH 36	1
TOTAL	1

TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS

** LOCATION	SPV.0060.311 TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS EACH
IH 41 WB RAMPS & STH 36	1
TOTAL	1

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5070.301 SIGNAL MOUNTING HARDWARE EACH
IH 41 WB Ramps & STH 36	1
TOTAL	1

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* 658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB10	1		
2	SB8	1		
3	SB8	1		
4	SB12		1	
5	SB3		1	
6	SB4		1	
7	SB3	1***		
8	SB13	1***		
9	SB13	1***		
10	SB13	1***		
11	SB9	1		
12	SB6	1		
13	SB5	1		
14	SB1			1
15	SB2			1
16	SB3			1
17	SB4			1
18	SB5			1
19	SB8			1
20	SB9			1
21	SB10			1
TOTAL		10	3	8

***RETROREFLECTIVE BACKPLATE REQUIRED

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 WB RAMPS & STH 36 SIGNALS

PAGE 3 OF 4

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION ^	SIZE (FT)	X	(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	* 652.0800 CONDUIT LOOP DETECTOR L.F.	* 655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	* 655.0800 LOOP DETECTOR WIRE L.F.
11	PB14	91+68, 9' RT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	103	246
12	PB14	91+96, 4' RT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	103	276
21	PB7	95+85, 32' LT	6	X	10	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	519	402
22	PB7	95+85, 20' LT	6	X	10	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	519	522
23	PB6	94+58, 32' LT	6	X	6	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	46	388	242
24	PB6	94+58, 20' LT	6	X	6	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	388	362
81	PB11	91+07, 328' RT	6	X	12	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	56	425	292
82	PB9	91+68,114' RT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	236	276
83	PB9	91+77, 86' RT	6	X	20	3	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	236	276
								TOTAL	694	2917	2894

^ LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

CONTRACTOR FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0322 POLES TYPE 5- ALUMINUM EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	* 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	* 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2- INCH CLAMP 8-FT EACH	* 658.0500 PEDESTRIAN PUSH BUTTONS EACH	* 659.1125 LUMINAIRES UTILITY LED-C EACH
SB1	1					1		1	
SB2	1					1		1	
SB3	1				1			1	
SB4	1				1			1	
SB5	1			1				1	
SB6	1				1				
SB7		1	1				2		2
SB8								1	
SB9	1			1				1	
SB10	1			1				1	
SB11		1	1				2		2
SB12	1				1				
TOTAL	9	2	2	3	4	2	4	8	4

STATE FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* SPV.0060.301 INSTALL POLES SPECIAL TYPE 9 EACH	* SPV.0060.304 INSTALL MONOTUBE ARMS SPECIAL 45-FT EACH	SPV.0060.307 INSTALL MONOTUBE ARMS SPECIAL 35-FT EACH
SB8	1		1
SB13	1	1	
TOTAL	2	1	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 WB RAMPS & STH 36 SIGNALS

PAGE 4 OF 4

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION ^	SIZE (FT)	X	(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	* 652.0800 CONDUIT LOOP DETECTOR L.F.	* 655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	* 655.0800 LOOP DETECTOR WIRE L.F.
21	PB27	83+94, 34' LT	6	X	14	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	724	500
22	PB27	83+94, 23' LT	6	X	14	5	HMA	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	724	390
								TOTAL	178	1448	890

^LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

REMOVING PULL BOXES

PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH
PB27	1
TOTAL	1

PULL BOXES

PULL BOX NO.	LOCATION	* 653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB27	83+78, 1' LT	1
TOTAL		1

CONDUIT

LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
EXT1		PB27	69
TOTAL			69

REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	204.9060.S.307 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
STH 36 & LAYTON	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

STH 36 & LAYTON AVENUE SIGNALS

PAGE 1 OF 1

STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION PURPOSES ONLY)

FT	DESCRIPTION
252	FIBER OPTIC CABLE OUT PLANT 6-CT (GATOR PATCH)
1366	FIBER OPTIC CABLE OUT PLANT 36-CT

STATE FURNISHED MATERIALS SUMMARY (FOR INFORMATION PURPOSES ONLY)

EACH	DESCRIPTION
2	ETHERNET SWITCH

REMOVING PULL BOXES

PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH	204.9060.S.301 REMOVING COMMUNICATIONS VAULTS EACH
ICPB1	1	
ICPB2	1	
ICPB3	1	
ICPB4	1	
ICPB5	1	
ICPB6	1	
ICPB7	1	
ICPB8	1	
CV1		1
TOTAL	8	1

CONDUIT

LOC.	TO	LOC.	671.0112 CONDUIT HDPE 1-DUCT 2-INCH L.F.
FTMS PB1		ICPB2	93
ICPB2		ICPB4	35
ICPB2		CV1	96
CV1		ICPB3	101
CV1		S40-1161	20
ICPB3		ICPB104	278
ICPB4		BRIDGE	11
BRIDGE		ICPB5	12
ICPB5		ICPB6	141
ICPB6		CV2	175
CV2		S40-1206	24
CV2		ICPB7	76
ICPB7		ICPB8	100
ICPB8		ICPB9	309
ICPB9		ICPB16	86
		TOTAL	1557

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	674.0300 REMOVE CABLE L.F.	674.0400 REINSTALL CABLE L.F.	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT L.F.	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.
FTMSPB1		ICPB2	123		123		123
ICPB2		CV1	214		214		428
ICPB2		ICPB4	64				64
CV1		ICPB3	216		216		
CV1		S40-1161	126			126	
ICPB3		ICPB104	393		393		
ICPB4		ICPB5	291				291
ICPB5		ICPB6	170				170
ICPB6		CV2	290				290
CV2		S40-1206	126			126	
CV2		ICPB7	107		107		
ICPB7		ICPB8	130		130		
ICPB8		ICPB9	339		339		
ICPB9		ICPB16	115		115		
FTMSPB1		EXICPB4		103			
EXICPB4		EXICPB5		147			
EXICPB5		EXS40-1161		119			
EXICPB5		EXICPB6		313			
EXICPB6		EXCV1		293			
EXCV1		EXS40-1206		120			
		TOTAL	2704	1095	1637	252	1366

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 & STH 36 INTERCONNECT

PAGE 1 OF 2

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET NO: 226	E

3

FIBER OPTIC SPLICE AND ETHERNET SWITCHES

** LOCATION	678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH	678.0300 FIBER OPTIC SPLICE EACH	678.0600 INSTALL ETHERNET SWITCHES EACH
FTMSPB1		4	
CV2	1	8	
CV1	1	4	
CB1(S40-1161)			1
CB1(S40-1206)			1
TOTAL	2	16	2

INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET

** LOCATION	SPV.0060.318 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET EACH	SPV.0060.319 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET EACH
IH 41 EB Ramps & STH 36	1	
IH 41 WB Ramps & STH 36		1
TOTAL	1	1

COMMUNICATION SYSTEM TESTING

** LOCATION	678.0501 COMMUNICATION SYSTEM TESTING EACH
IH 41 & STH 36	1
TOTAL	1

3

PULL BOXES

PULL BOX NO.	** LOCATION	* 653.0140 PULL BOXES STEEL 24x42-INCH EACH	673.0105 COMMUNICATION VAULT TYPE 1 30"x48" EACH
ICPB2	86+98, 82' RT	1	
ICPB3	85+94, 00' RT	1	
CV1	86+05, 100' RT		1
ICPB4	87+27, 74' RT	1	
ICPB5	89+91' 84' RT	1	
ICPB6	91+37, 85' RT	1	
CV2	91+41, 89' LT		1
ICPB7	92+14, 90' LT	1	
ICPB8	93+06, 98' LT	1	
ICPB9	95+90, 52' LT	1	
	TOTAL	8	2

FIELD SYSTEM INTEGRATOR

** LOCATION	670.0101 FIELD SYSTEM INTEGRATOR EACH
IH 41 & STH 36	1
TOTAL	1

ITS DOCUMENTATION

** LOCATION	670.0201 ITS DOCUMENTATION EACH
IH 41 & STH 36	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

IH 41/43/894 & STH 36 INTERCONNECT

PAGE 2 OF 2

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1100-46-21/22		
R/W PROJECT NUMBER	4.01	

PLAT OF RIGHT OF WAY REQUIRED FOR

IH 43
STH 36 (LOOMIS RD) BRIDGE

IH 43	MILWAUKEE COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER 25
UTILITY NUMBER 40
SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS — CAUTION
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES — CAUTION
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.) — (TYPE)
SIGN — SIGN
OFF-PREMISE SIGN — SIGN

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
ELECTRIC TOWER	

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL ABBREVIATIONS

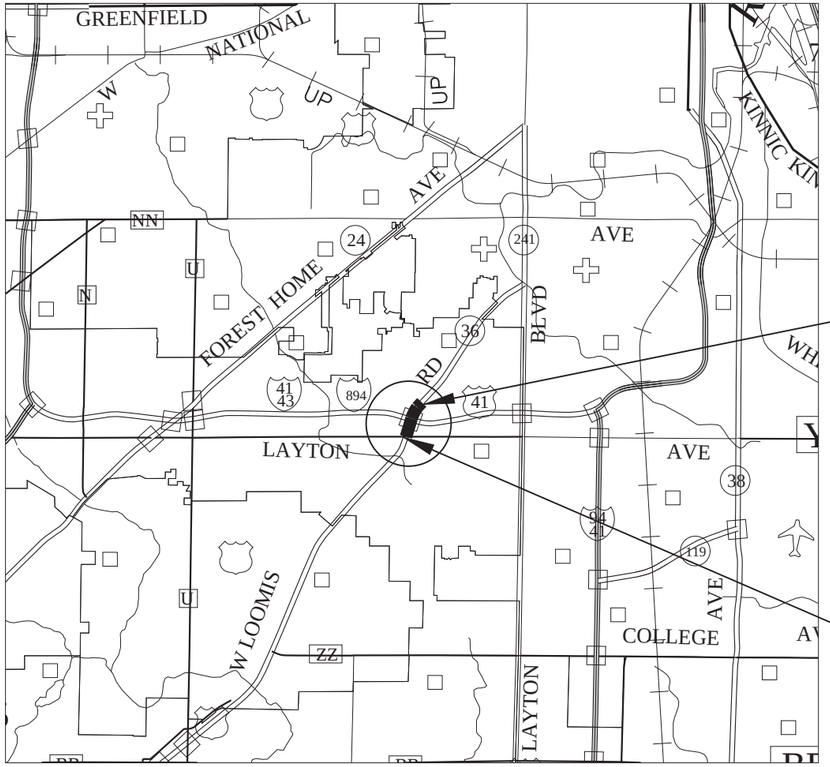
ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE COUNTY, NAD83 2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE ARE TYPE 2 (3/4" REBAR TYPICAL) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.



N

END RELOCATION ORDER
STA. 98+80.68
Y = 272379.750
X = 590628.096

BEGINNING RELOCATION ORDER
STA. 82+81.40
Y = 270975.135
X = 589924.082

LAYOUT
SCALE 0 SCALE

TOTAL NET LENGTH OF CENTERLINE = 0.3 MILES

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

REVISION DATE	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
07/05/2022 09/13/2022	APPROVED FOR THE DEPARTMENT DATE: 11/16/2021 (Signatur

FILE NAME : N:\PDS\C3D\11004600\RW\040101_RT.DWG PLOT DATE : 9/15/2022 1:28 PM PLOT BY : DODGE, BRIAN PLOT NAME :

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACREAGE COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED. OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.
*=CALCULATED **=SQUARE FEET

PARCEL NUMBER	PROJECT FUNDING I.D.	SHEET NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRE(S) REQUIRED (ACRES)			PLE AREA	TLE AREA	PARCEL NUMBER
					NEW	EXISTING	TOTAL			
1(2)	1100-46-21	4.04	ELIMINATED	--	--	--	--		--	1(2)
2(2)	1100-46-21	4.04	COBALT DEVELOPMENT HOLDINGS LLC	TLE	--	--	--		0.033	2(2)
3	1100-46-21	4.04	KIRIAKI INC.	TLE		--	--		0.003	3
4	1100-46-21	4.04	4340 W. LOOMIS RD LLC	FEE, TLE	0.035	--	0.035	0.001	0.151	4
5(2)	1100-46-21	4.04	COBALT DEVELOPMENT HOLDINGS LLC	FEE, TLE	0.085	--	0.085		0.201	5(2)
6(2)	1100-46-21	4.04, 4.05	ELIMINATED	--	--	--	--		--	6(2)
7(2)	1100-46-22	4.05	ELIMINATED	--	--	--	--		--	7(2)
8	1100-46-22	4.05	TIMOTHY S. & CHRISTINE G. BOYEA	TLE	--	--	--		0.027	8
9	1100-46-22	4.05	ARHC LMGFDWI101 LLC	TLE	--	--	--		0.005	9
10	1100-46-21	4.05	SHAF INTERNATIONAL INC	FEE, TLE	0.012	--	0.012		0.056	10
11	1100-46-22	4.05	6801 LLC	TLE	--	--	--		0.028	11
12	1100-46-22	4.05	WHITMORE	TLE	--	--	--		0.001	12
13(2)	1100-46-22	4.04	CITY OF GREENFIELD	FEE, TLE	0.003	--	0.003		0.002	13(2)

UTILITY NUMBER	SHEET NUMBER	*OWNER	INTEREST REQUIRED
533	4.04, 4.05	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
534	4.04, 4.05	AT&T WISCONSIN	RELEASE OF RIGHTS
535	4.04, 4.05	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS
539	4.04, 4.05	VOICESTREAM	RELEASE OF RIGHTS
UA520	4.35	CITY OF GREENFIELD - SANITARY	UTILITY AGREEMENT
UA521	4.04, 4.35	CITY OF MILWAUKEE - WATER	UTILITY AGREEMENT

4

4

REVISION DATE
07/05/2022
9/13/2022

DATE 11/16/2021

GRID FACTOR

SCALE, FEET
0 50 100

HWY: IH 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1100-46-21/22

CONSTRUCTION PROJECT NUMBER 1100-46-71

PLAT SHEET 4.02

PS&E SHEET

FILE NAME : 040402_RS.DWG
LAYOUT NAME - 040402_rs

PLOT DATE : 9/15/2022 1:28 PM PLOT BY : DODGE, BRIAN PLOT NAME : PLOT SCALE : ##########

REVISION DATE 07/05/2022 09/13/2022	DATE 11/16/2021 GRID FACTOR	SCALE, FEET 0 50 100	HWY: IH 43 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1100-46-21/22 CONSTRUCTION PROJECT NUMBER 1100-46-71	PLAT SHEET 4.03 PS&E SHEET 230 E

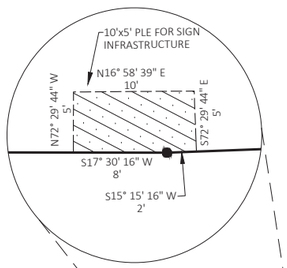
FILE NAME : 040402_RS.DWG
LAYOUT NAME - 040403_rs

PLOT DATE : 9/15/2022 1:30 PM PLOT BY : DODGE, BRIAN PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
STH 36	1054-21-41	1965	120'
IH-894	1894-7(21)306	1957	VARIES
IH-894	1090-27-20	2009	VARIES
LAYTON AVENUE	SHIRLEY CRES' ADD 1104	1927	120'
IH-894	CSM 9312	2021	VARIES
STH 36	CSM 9313	2021	VARIES
IH 894	DOC NO'S 11283194 96	2022	VARIES

Point	Station	Offset
PLE145	84+94.98	-65.00'
PLE146	84+94.98	-70.00'
PLE147	85+04.94	-70.09'
PLE148	85+05.14	-65.10'



Curve Table				
Curve #	Length	Radius	Chord Bearing	Chord Length
C10	117.24	1145.92	S24° 22' 41"W	117.19
C24	300.81	1085.92	S35° 14' 42"W	299.85
C25	138.63	936.42	N35° 08' 43"E	138.51
C27	141.38	946.42	N35° 11' 33"E	141.24

Line Table		
Line #	Length	Direction
L1	4.52'	N27° 18' 33"E
L2	11.17'	S89° 54' 40"E
L3	12.25'	S07° 48' 19"W
L4	14.15'	N54° 54' 12"W
L5	8.68'	S89° 54' 40"E
L7	15.88'	S32° 35' 38"W
L8	2.19'	N54° 54' 12"W
L13	91.85'	N32° 35' 38"E
L14	93.13'	N32° 35' 38"E
L25	6.39'	N07° 48' 19"E

500 WE ENERGIES - ELECTRIC
PARCEL 4 - DOC. NO. 4192213
PARCEL 4 - DOC. NO. 4805283
PARCEL 6 - DOC. NO. 4567551
PARCEL 6 - DOC. NO. 1279973
PARCEL 6 - DOC. NO. 8395132

505 AMERICAN TRANSMISSION COMPANY
PARCEL 5 - DOC. NO. 1279973
PARCEL 5 - DOC. NO. 8013166
PARCEL 6 - DOC. NO. 4158411
PARCEL 6 - DOC. NO. 1279973
PARCEL 6 - DOC. NO. 8013166

504 AT&T WISCONSIN
PARCEL 4 - DOC. NO. 4192213

UA 521 CITY OF MILWAUKEE - WATER

CONC. MONUMENT WITH BRASS CAP
Y = 273358.541
X = 590213.022

CURVE 1
PI STA = 93+14.91
Y = 271960.810
X = 590234.949
DELTA = 25°40'34"
D = 5°00'00"
T = 261.15'
L = 513.52'
R = 1145.90'
PC STA = 90+53.77
PT STA = 95+67.29

CITY OF GREENFIELD

W. LOOMIS ROAD (STH 36)

I-894

W. LAYTON AVENUE

S. 43rd STREET

SE 1/4 - SE 1/4

SW 1/4 - SW 1/4

SECTION LINE

SECTION LINE N1° 06' 19"E 2653.91' (MONUMENT TO MONUMENT)

1081.16'

1572.75'

1/16th LINE

MATCH LINE SEE SHEET 4.05 STA 94+12.69

BEGIN RELOCATION ORDER
STA. 82+81.40
Y = 270975.135
X = 589924.082

4340 W. LOOMIS RD, LLC

KIRIAKI INC.

SHIRLEY CREST ADDITION BLOCK 15

10' WIDE WIS. ELEC. PO. CO. EASEMENT (DOC 4805283)

6' WIDE WIS. ELEC. PO. CO & WIS. TELE CO. EASEMENT (DOC 4192213)

TLE FOR SLOPES

SLOPE INTERCEPT

ACCESS CONTROL PER I 894-7 (2) 306

ACCESS CONTROL PER QUIT CLAIM DEED DOCUMENT NO. 10948493

TLE FOR SLOPES 0.043 ACRES

(ACCESS CONTROL)

ELIMINATED

COBALT DEVELOPMENT HOLDINGS, LLC

COBALT LOOMIS, LLC

CITY OF GREENFIELD

CSM 9375 LOT 1

CSM NO. 9312

UNPLATTED LANDS

THE MILWAUKEE ELEC. RAILWAY & LIGHT CO. EASEMENT (DOC. NO. 1279973) WE ENERGIES ELECTRIC EASEMENT ASSIGNMENT (DOC. NO. 8061582, 01/17/2001) AT&T EASEMENT ASSIGNMENT (DOC. NO. 8013166, 01/17/2001)

127' WIDE WISCONSIN ELECTRIC POWER CO. (NOW WE ENERGIES) EASEMENT (DOC. NO. 4158411)

85'X100' WISCONSIN TELEPHONE CO. EASEMENT (DOC. NO. 4587859)

WISCONSIN ELECTRIC POWER CO

REVISION DATE			
07/05/2022			
09/13/2022			

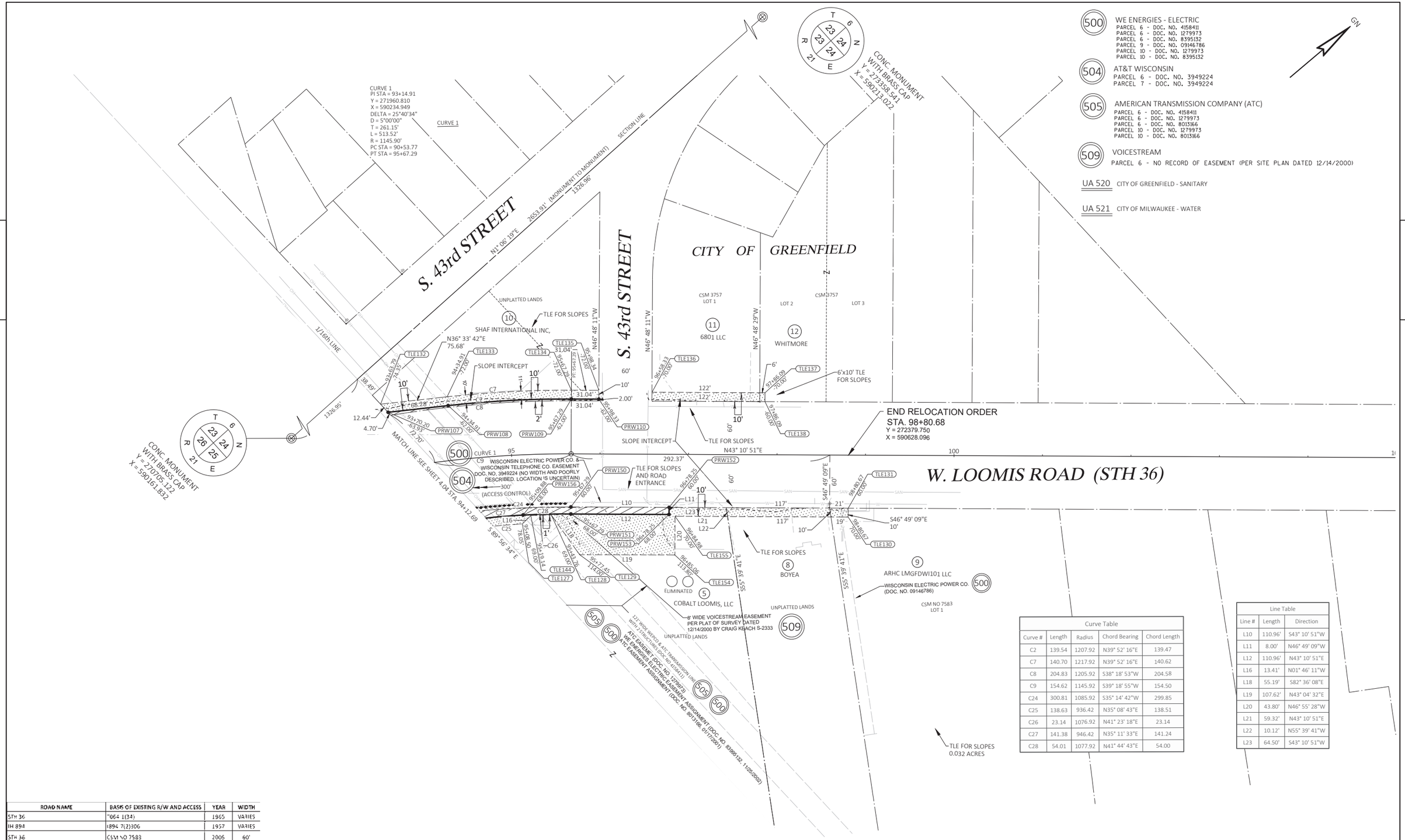
DATE 11/16/2021	SCALE, FEET 0 50 100	HWY: IH 43	STATE R/W PROJECT NUMBER 1100-46-21/22	PLAT SHEET 4.04	
GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1100-46-71	PS&E SHEET 231	E

FILE NAME : 1100-46-21_22_DETAILS.DWG
LAYOUT NAME - 040404_RP

PLOT DATE : 9/15/2022 1:30 PM PLOT BY : DODGE, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

4



ROAD NAME	BASIS OF EXISTING R/W AND ACCESS	YEAR	WIDTH
STH 36	1064 1(34)	1965	VARIES
IH 894	1894 7(2)306	1957	VARIES
STH 36	CSM NO 7583	2005	60'

Curve Table

Curve #	Length	Radius	Chord Bearing	Chord Length
C2	139.54	1207.92	N39° 52' 16"E	139.47
C7	140.70	1217.92	N39° 52' 16"E	140.62
C8	204.83	1205.92	S38° 18' 53"W	204.58
C9	154.62	1145.92	S39° 18' 55"W	154.50
C24	300.81	1085.92	S35° 14' 42"W	299.85
C25	138.63	936.42	N35° 08' 43"E	138.51
C26	23.14	1076.92	N41° 23' 18"E	23.14
C27	141.38	946.42	N35° 11' 33"E	141.24
C28	54.01	1077.92	N41° 44' 43"E	54.00

Line Table

Line #	Length	Direction
L10	110.96'	S43° 10' 51"W
L11	8.00'	N46° 49' 09"W
L12	110.96'	N43° 10' 51"E
L16	13.41'	N01° 46' 11"W
L18	55.19'	S82° 36' 08"E
L19	107.62'	N43° 04' 32"E
L20	43.80'	N46° 55' 28"W
L21	59.32'	N43° 10' 51"E
L22	10.12'	N55° 39' 41"W
L23	64.50'	S43° 10' 51"W

REVISION DATE
07/05/2022
09/13/2022

DATE 11/16/2021

GRID FACTOR

SCALE, FEET
0

HWY: IH 43

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1100-46-21/22

CONSTRUCTION PROJECT NUMBER 1100-46-71

PLAT SHEET 4.05

PS&E SHEET 231

E

FILE NAME : 1100-46-21_22_DETAILS.DWG
LAYOUT NAME - 040405_RP

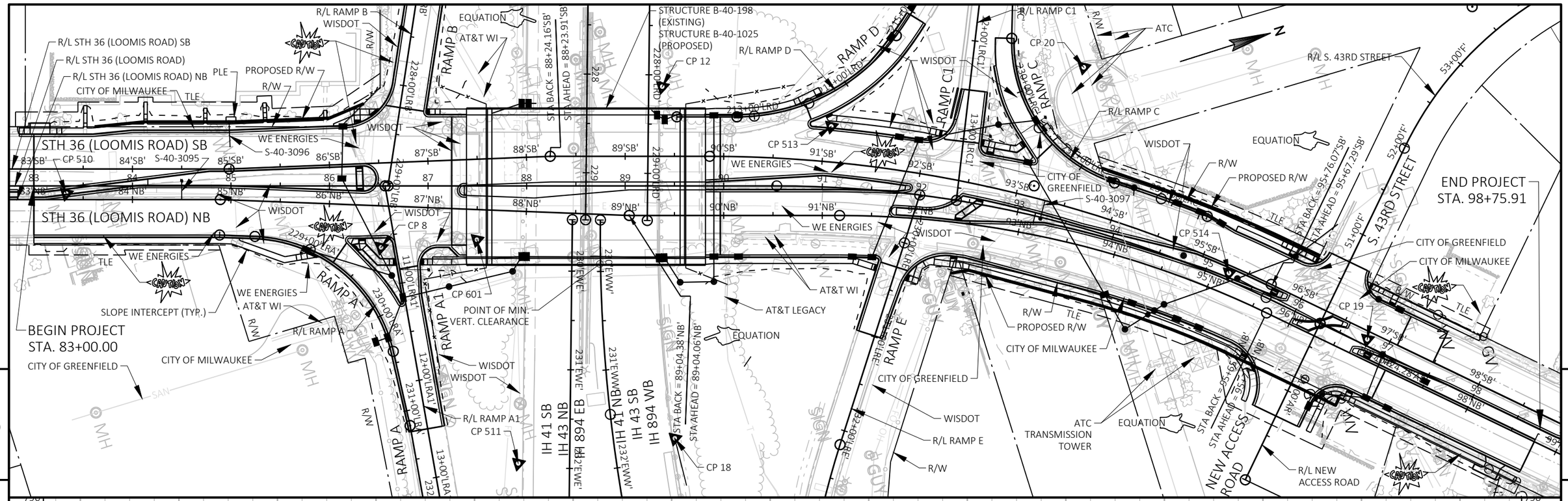
PLOT DATE : 9/15/2022 1:30 PM

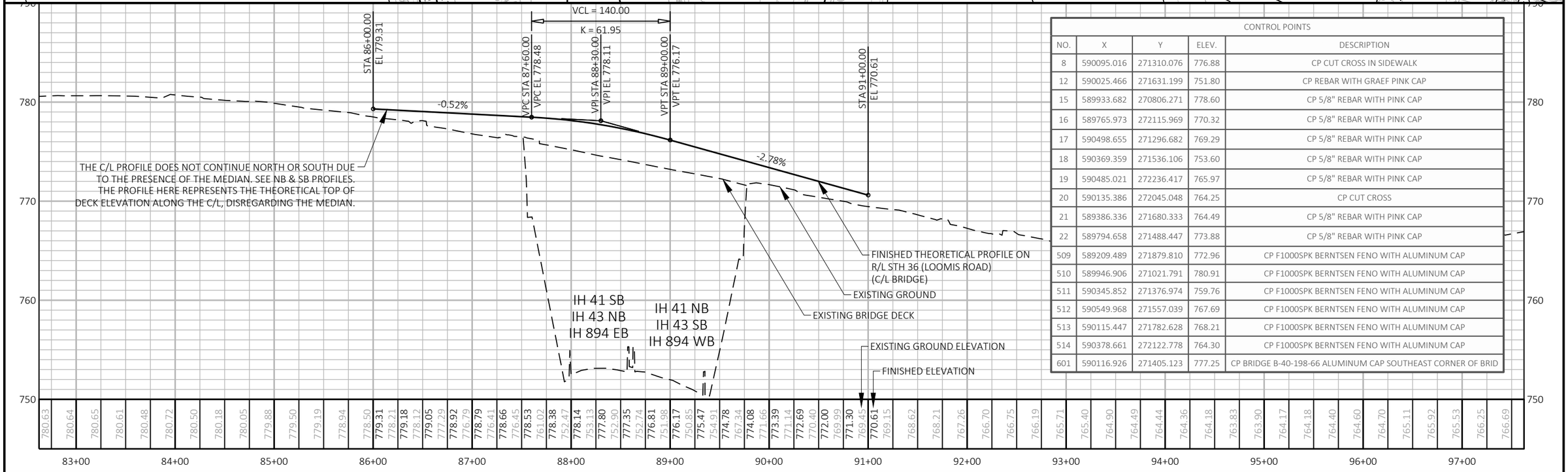
PLOT BY : DODGE, BRIAN

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75





CONTROL POINTS				
NO.	X	Y	ELEV.	DESCRIPTION
8	590095.016	271310.076	776.88	CP CUT CROSS IN SIDEWALK
12	590025.466	271631.199	751.80	CP REBAR WITH GRAEF PINK CAP
15	589933.682	270806.271	778.60	CP 5/8" REBAR WITH PINK CAP
16	589765.973	272115.969	770.32	CP 5/8" REBAR WITH PINK CAP
17	590498.655	271296.682	769.29	CP 5/8" REBAR WITH PINK CAP
18	590369.359	271536.106	753.60	CP 5/8" REBAR WITH PINK CAP
19	590485.021	272236.417	765.97	CP 5/8" REBAR WITH PINK CAP
20	590135.386	272045.048	764.25	CP CUT CROSS
21	589386.336	271680.333	764.49	CP 5/8" REBAR WITH PINK CAP
22	589794.658	271488.447	773.88	CP 5/8" REBAR WITH PINK CAP
509	589209.489	271879.810	772.96	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
510	589946.906	271021.791	780.91	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
511	590345.852	271376.974	759.76	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
512	590549.968	271557.039	767.69	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
513	590115.447	271782.628	768.21	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
514	590378.661	272122.778	764.30	CP F1000SPK BERNTSEN FENO WITH ALUMINUM CAP
601	590116.926	271405.123	777.25	CP BRIDGE B-40-198-66 ALUMINUM CAP SOUTHEAST CORNER OF BRID

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: STH 36 (LOOMIS ROAD) C/L	SHEET 233	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050101_PP.DWG
LAYOUT NAME - 050101_pp-CL
PLOT DATE : 12/8/2022 10:34 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:100 FT

R/L STH 36 (LOOMIS ROAD) SB
R/L STH 36 (LOOMIS ROAD)
R/L STH 36 (LOOMIS ROAD) NB
CITY OF MILWAUKEE
PROPOSED R/W
PLE
TLE
R/W
R/L RAMP B
WISDOT
EQUATION
AT&T WI
RAMP B
STA. BACK = 88+24.16'SB'
STA. AHEAD = 88+23.91'SB'
STRUCTURE B-40-198 (EXISTING)
STRUCTURE B-40-1025 (PROPOSED)
R/L RAMP D
RAMP D
RAMP C1
R/L RAMP C1
ATC
R/L S. 43RD STREET
STH 36 (LOOMIS ROAD) SB
WE ENERGIES
S-40-3096
S-40-3095
WISDOT
CP 8
RAMP C
R/L RAMP C
EQUATION
CITY OF GREENFIELD
S-40-3097
PROPOSED R/W
STA. BACK = 95+76.07'SB'
STA. AHEAD = 95+67.29'SB'
S. 43RD STREET
STH 36 (LOOMIS ROAD) NB
SLOPE INTERCEPT (TYP.)
AT&T WI
R/L RAMP A
RAMP A
RAMP A1
POINT OF MIN. VERT. CLEARANCE
AT&T LEGACY
EQUATION
MATCH B-40-1025
RAMP E
R/L RAMP E
CITY OF GREENFIELD
CITY OF MILWAUKEE
MATCH B-40-1025
WISDOT
R/L RAMP A1
IH 41 SB
IH 43 NB
IH 894 EB
IH 41 NB
IH 43 SB
IH 894 WB
STA. BACK = 89+04.38'NB'
STA. AHEAD = 89+04.06'NB'
ATC TRANSMISSION TOWER
NEW ACCESS ROAD
R/L NEW ACCESS ROAD
END CONSTRUCTION STA. 98+75.91'NB'
BEGIN CONSTRUCTION STA. 83+00.00'NB'
END RECONSTRUCTION STA. 97+08.36'NB'

VCL = 140.00
K = 436.19
-0.24%
-0.56%
-2.78%
1.43%
STA 83'NB'+00.00 VPC EL 780.35
VPC STA 83'NB'+00.00 VPC EL 780.35
VPI STA 83'NB'+70.00 VPI EL 780.18
VPT STA 84'NB'+40.00 VPT EL 779.79
STA 87'NB'+39.16 EL 778.11
NB PROFILE OVER BRIDGE CREATED FROM PROJECTING 2% CROSS SLOPE FROM C/L PROFILE
STA 89'NB'+81.47 EL 773.30
FINISHED PROFILE ON R/L STH 36 (LOOMIS ROAD) NB
EXISTING GROUND
EXISTING BRIDGE DECK
IH 41 SB
IH 43 NB
IH 894 EB
IH 41 NB
IH 43 SB
IH 894 WB
EXISTING GROUND ELEVATION
FINISHED ELEVATION
VPC STA 92'NB'+25.00 VPC EL 766.53
VPI STA 94'NB'+00.00 VPI EL 761.67
LOW POINT STA 94+55.93 LOW POINT EL 763.32
VPT STA 95'NB'+83.87 VPT EL 764.17
STA 97'NB'+08.36 EL 765.96
VCL = 350.00
K = 83.07
95+74.54 764.04

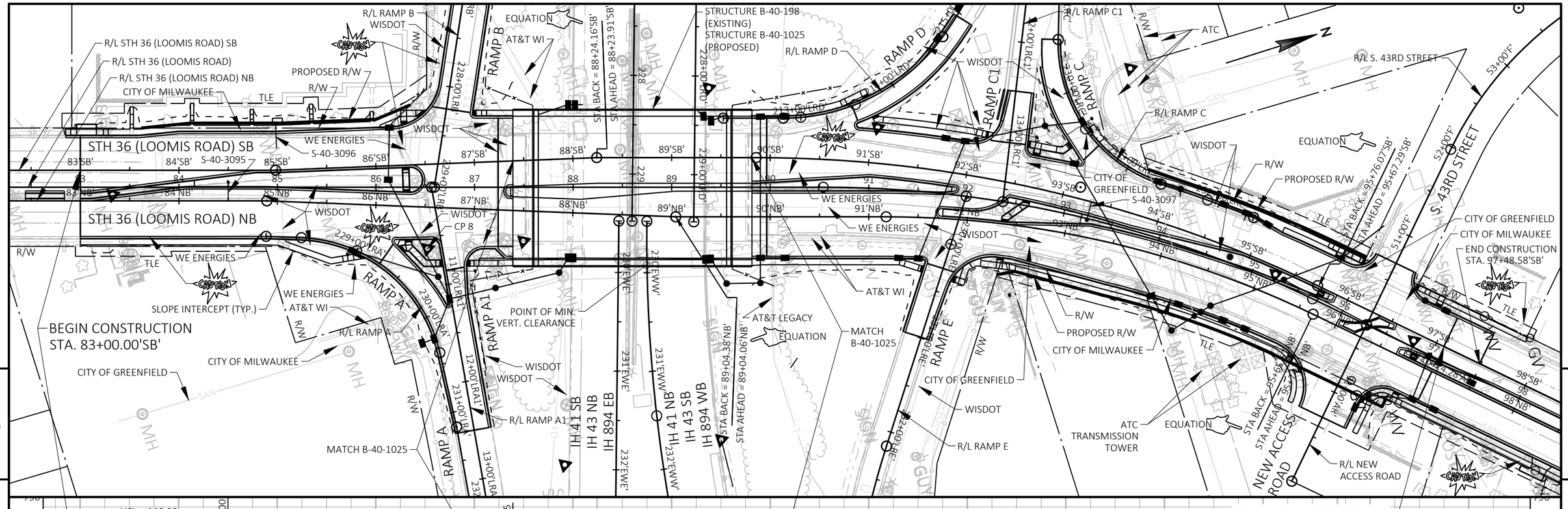
780.33 780.35 780.35 780.28 780.27 780.20 780.21 780.10 780.06 779.99 779.89 779.87 779.73 779.73 779.57 779.59 779.37 779.45 779.13 779.31 778.90 779.17 778.66 779.03 778.29 778.89 777.96 778.75 777.49 778.61 776.98 778.47 776.44 778.33 776.00 778.19 775.63 761.17 752.72 753.44 753.18 752.99 751.96 751.76 750.87 755.21 766.84 770.62 772.79 770.10 772.09 769.53 771.40 769.04 770.70 768.58 770.01 768.13 769.31 767.69 768.62 767.25 767.92 766.76 767.23 766.35 766.53 765.87 765.39 765.29 765.02 764.78 764.65 764.35 764.38 764.00 764.10 763.71 763.92 763.51 763.75 763.38 763.65 763.32 763.62 763.34 763.69 763.44 763.81 763.61 763.99 763.85 764.13 764.05 764.40 764.40 764.64 764.76 764.97 765.12 765.35 765.48 765.78 765.84 766.19 766.56

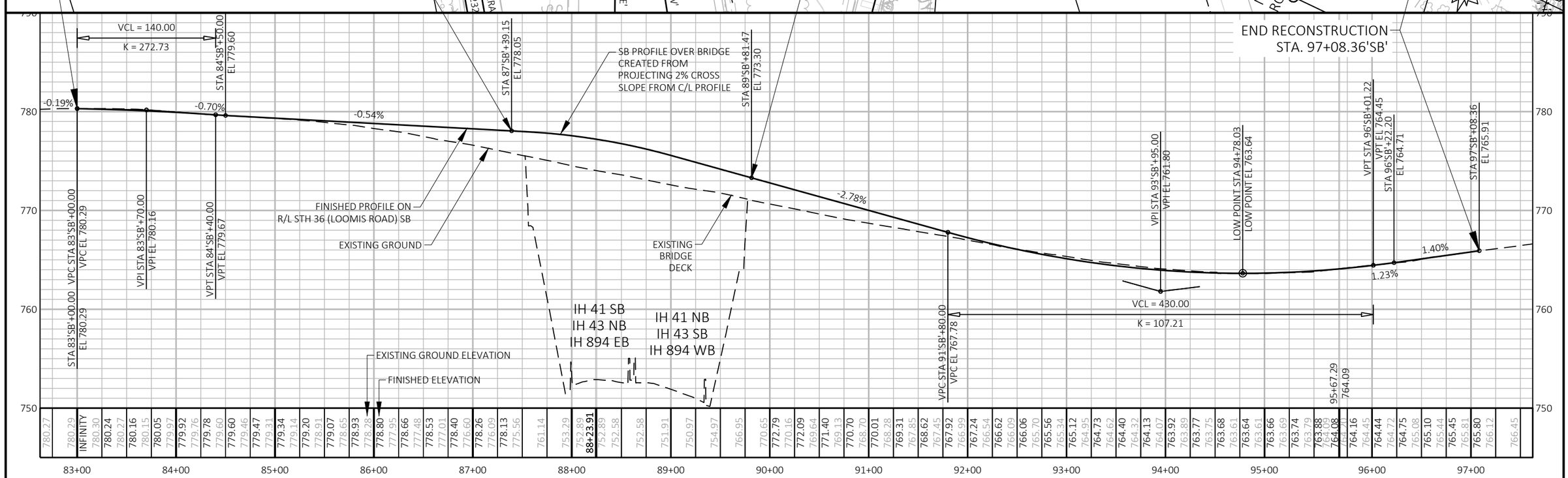
83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00

PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: STH 36 (LOOMIS ROAD) NORTHBOUND	SHEET 234 E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050101_PP.DWG
LAYOUT NAME - 050102_pp-NB
PLOT DATE : 12/8/2022 10:34 AM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



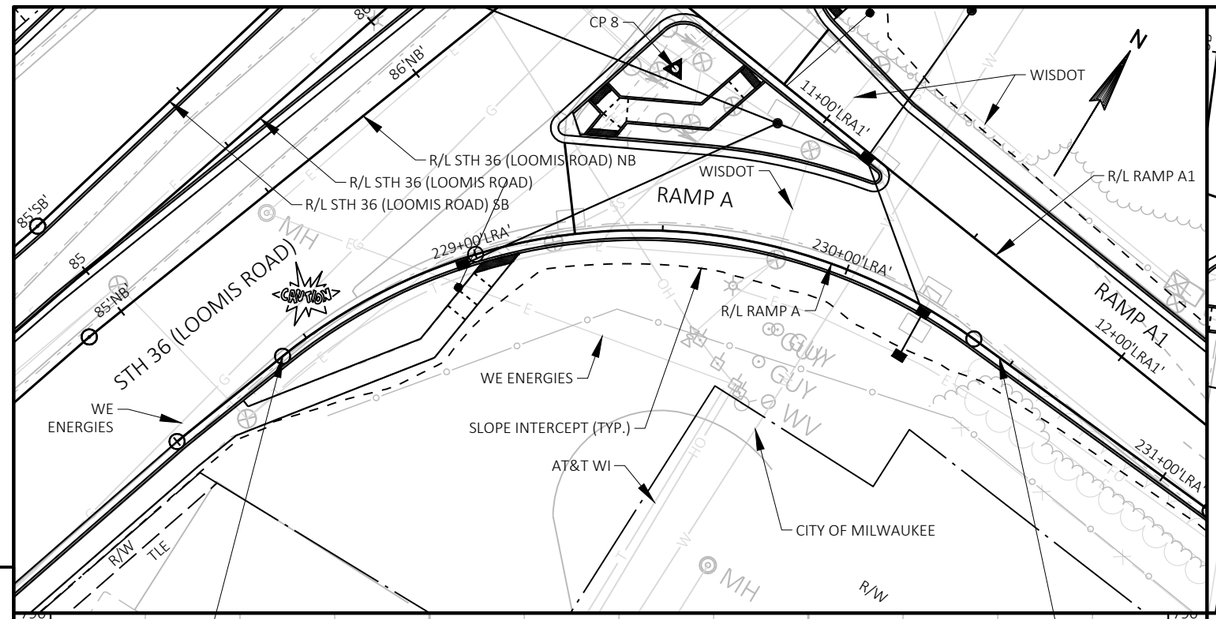


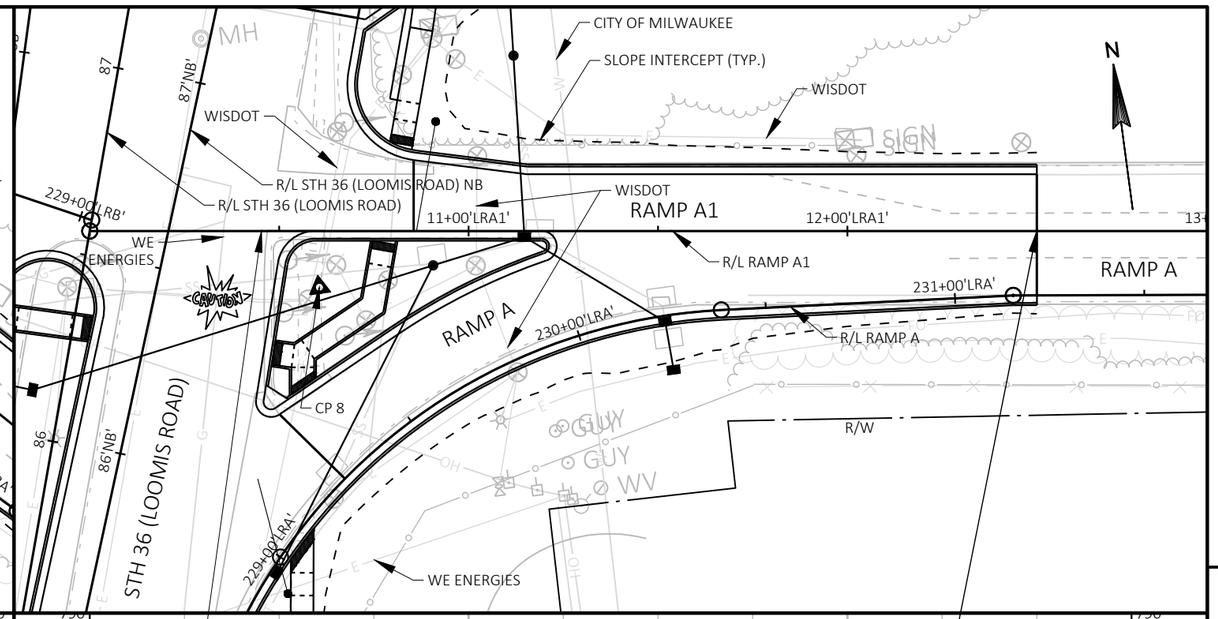
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: STH 36 (LOOMIS ROAD) SOUTHBOUND	SHEET 235	E

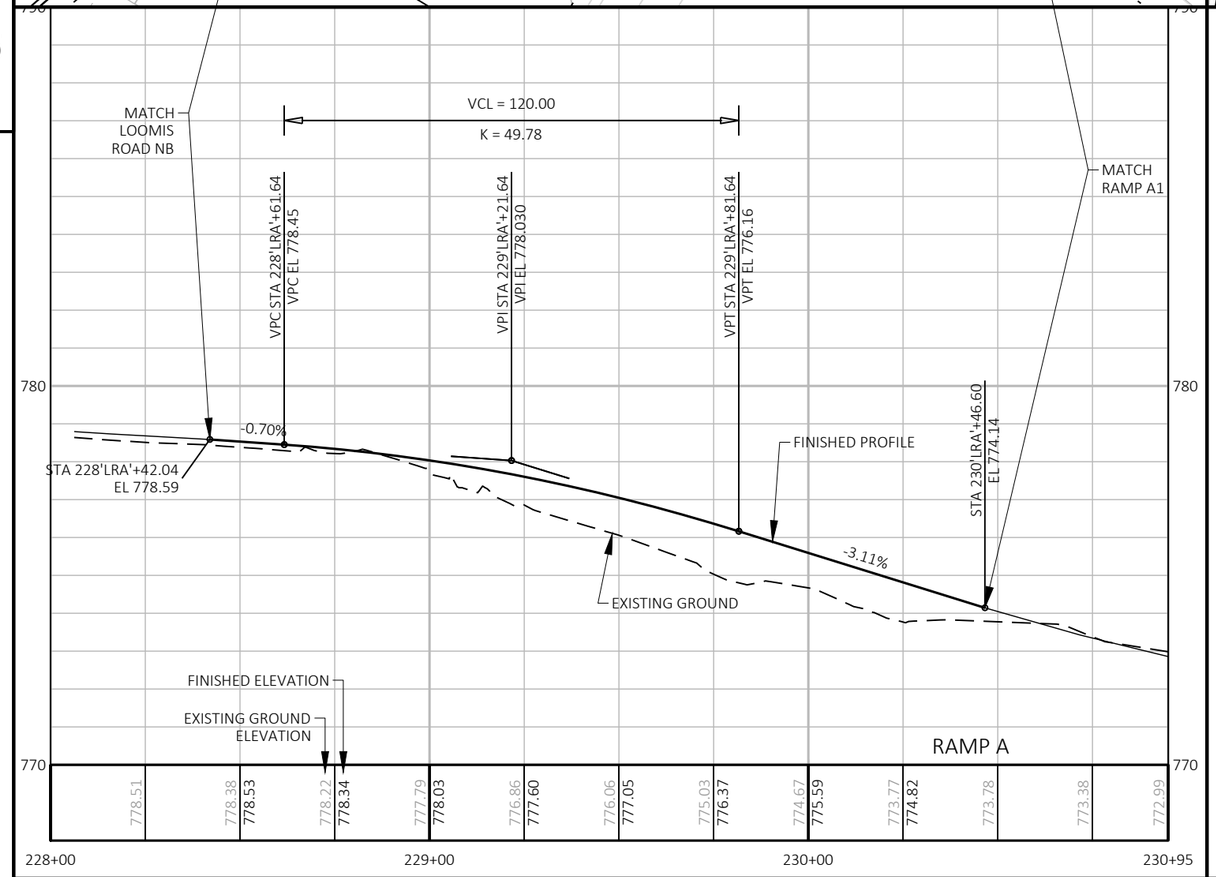
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050101_PP.DWG
LAYOUT NAME - 050103_pp-SB

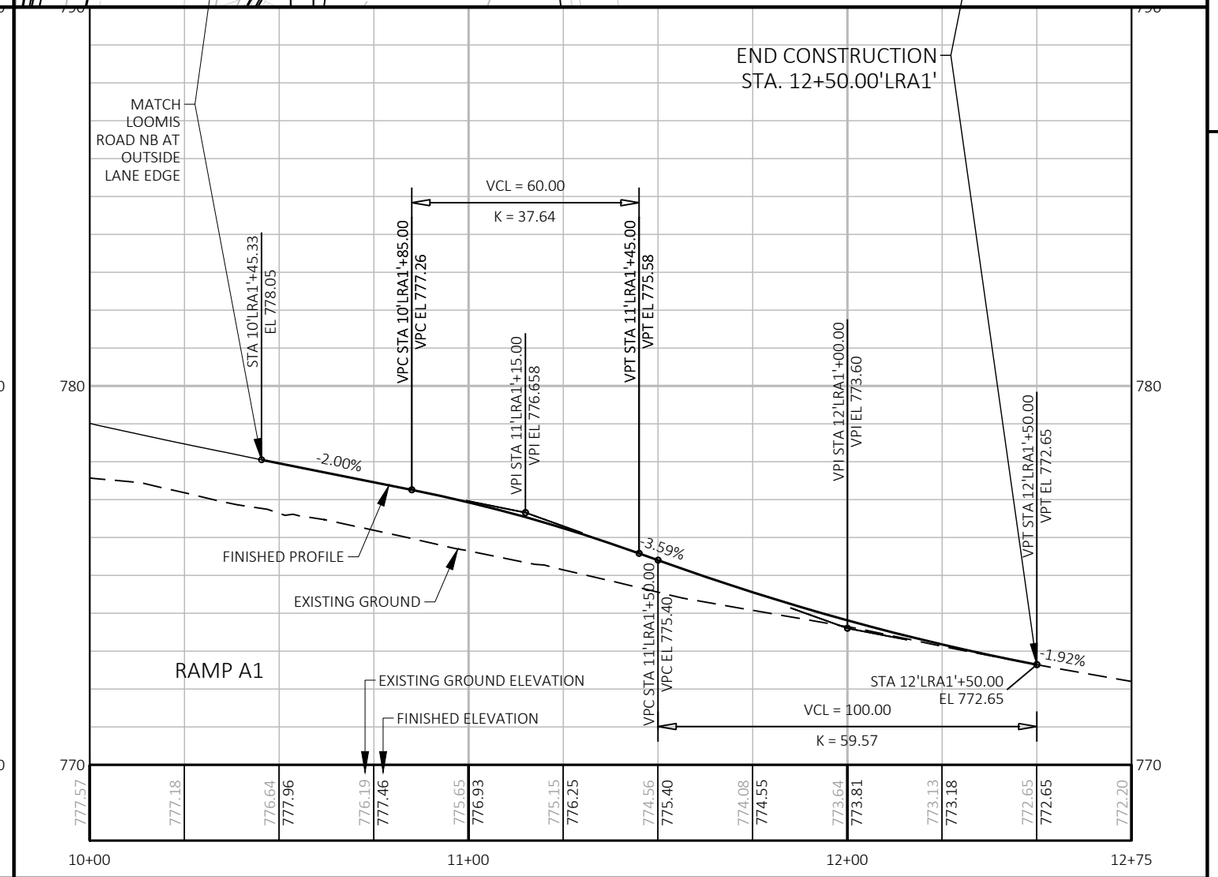
PLOT DATE : 12/8/2022 10:34 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



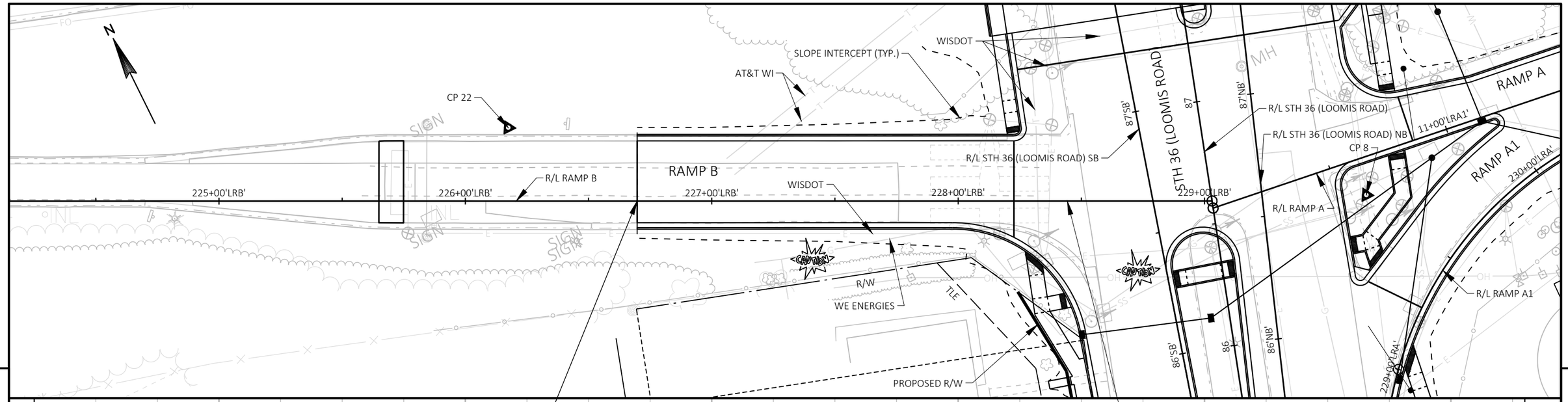


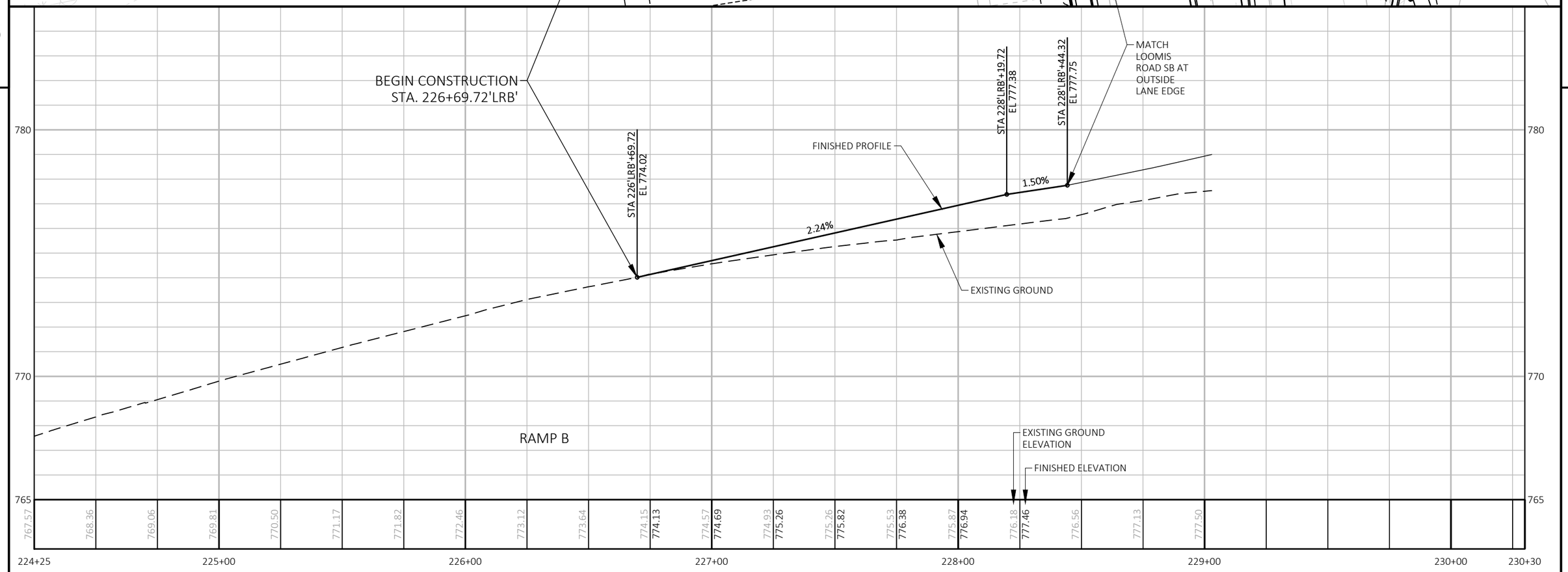




PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP A AND RAMP A1	SHEET 236	E

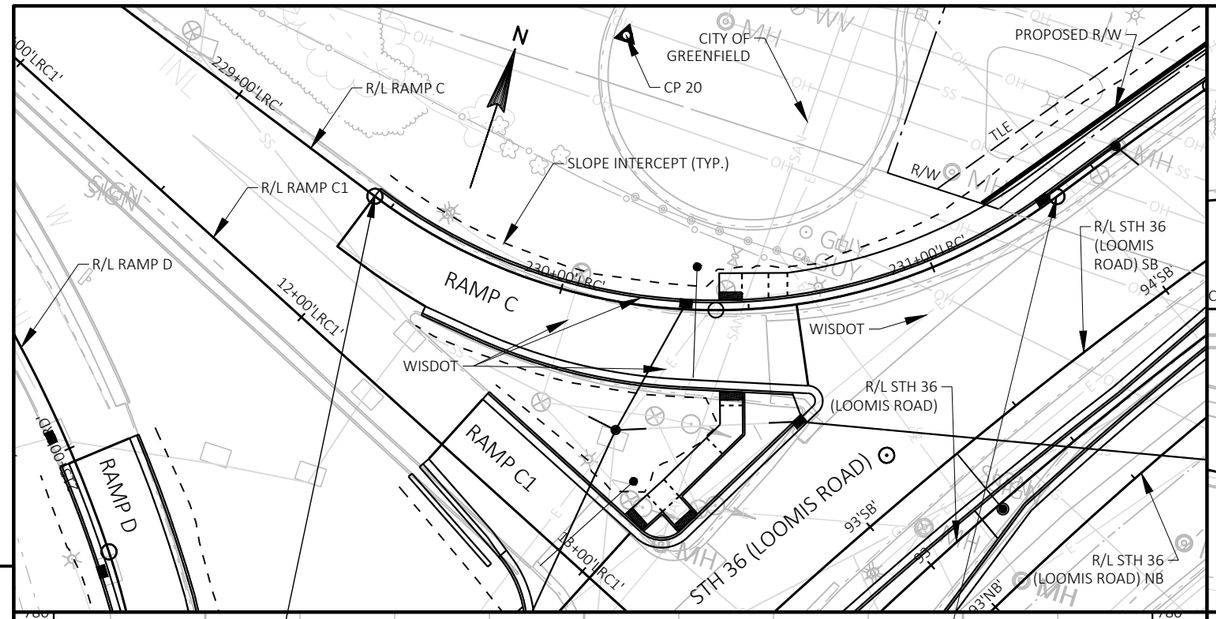
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050102_PP.DWG
LAYOUT NAME - 050104_pp-A-A1
PLOT DATE : 12/8/2022 10:21 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

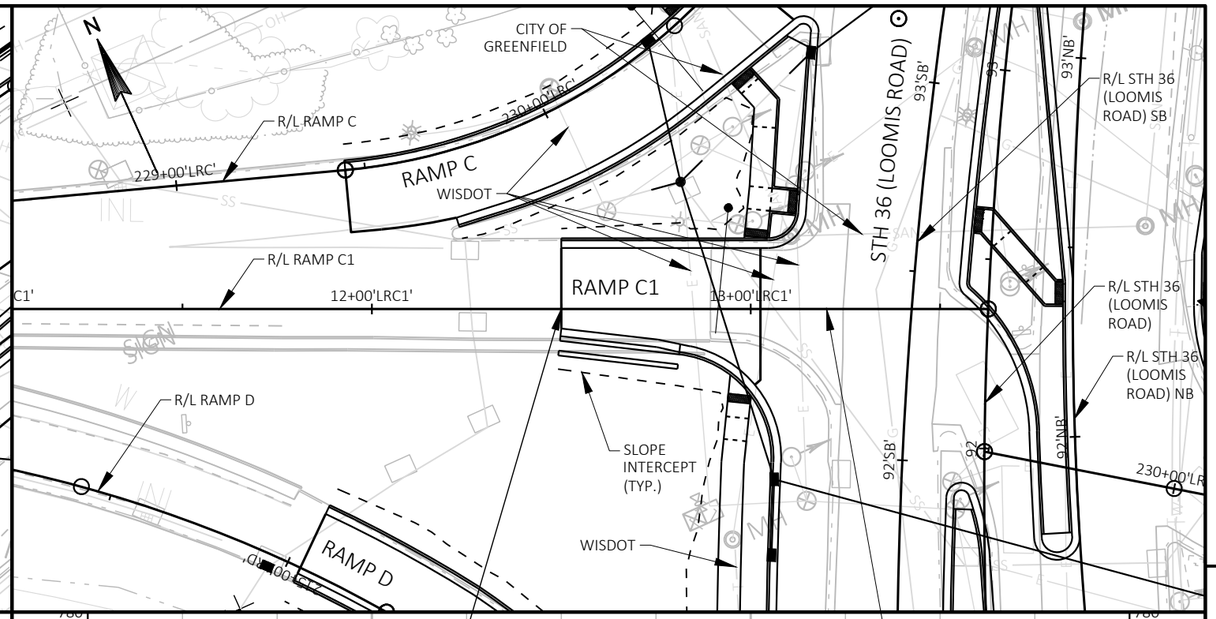




PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP B	SHEET 237	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050102_PP.DWG
LAYOUT NAME - 050105_pp-B
PLOT DATE : 12/8/2022 10:21 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44





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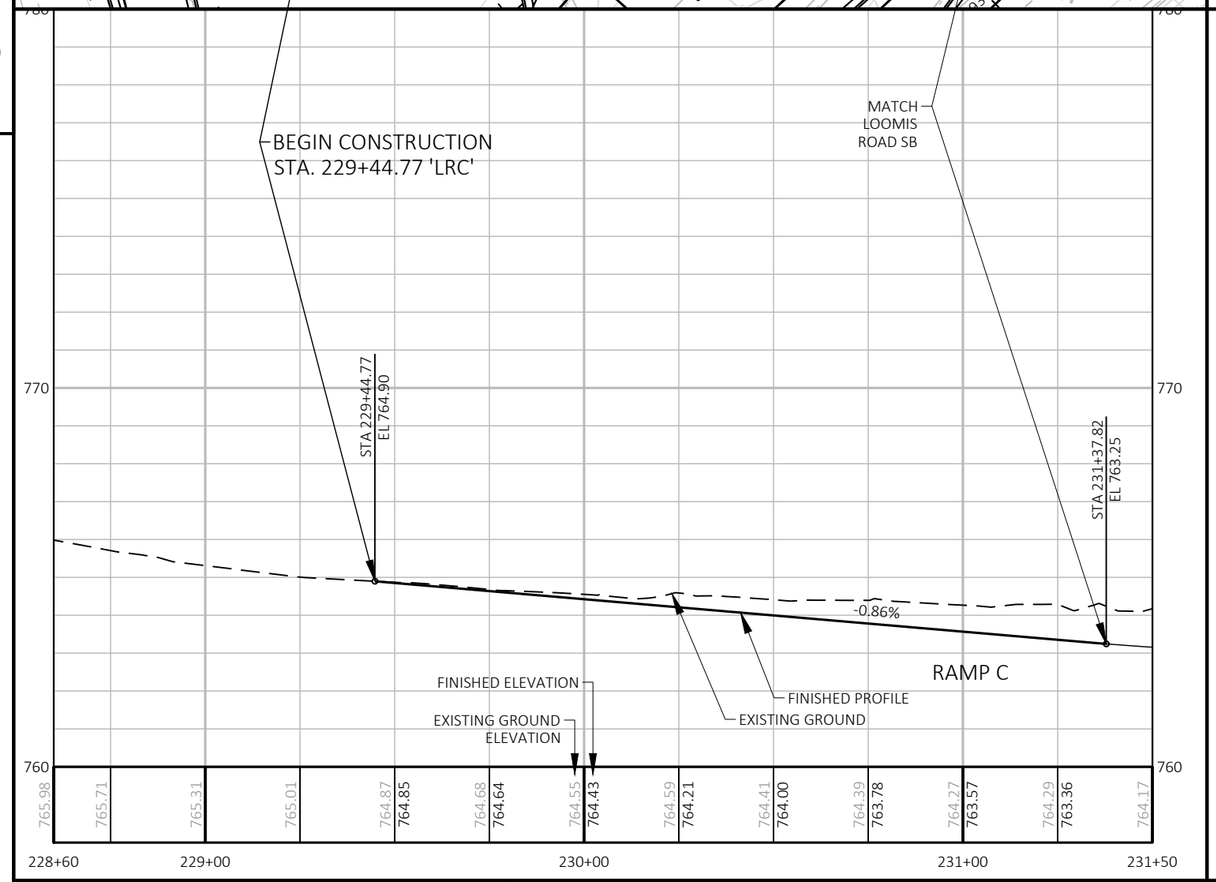

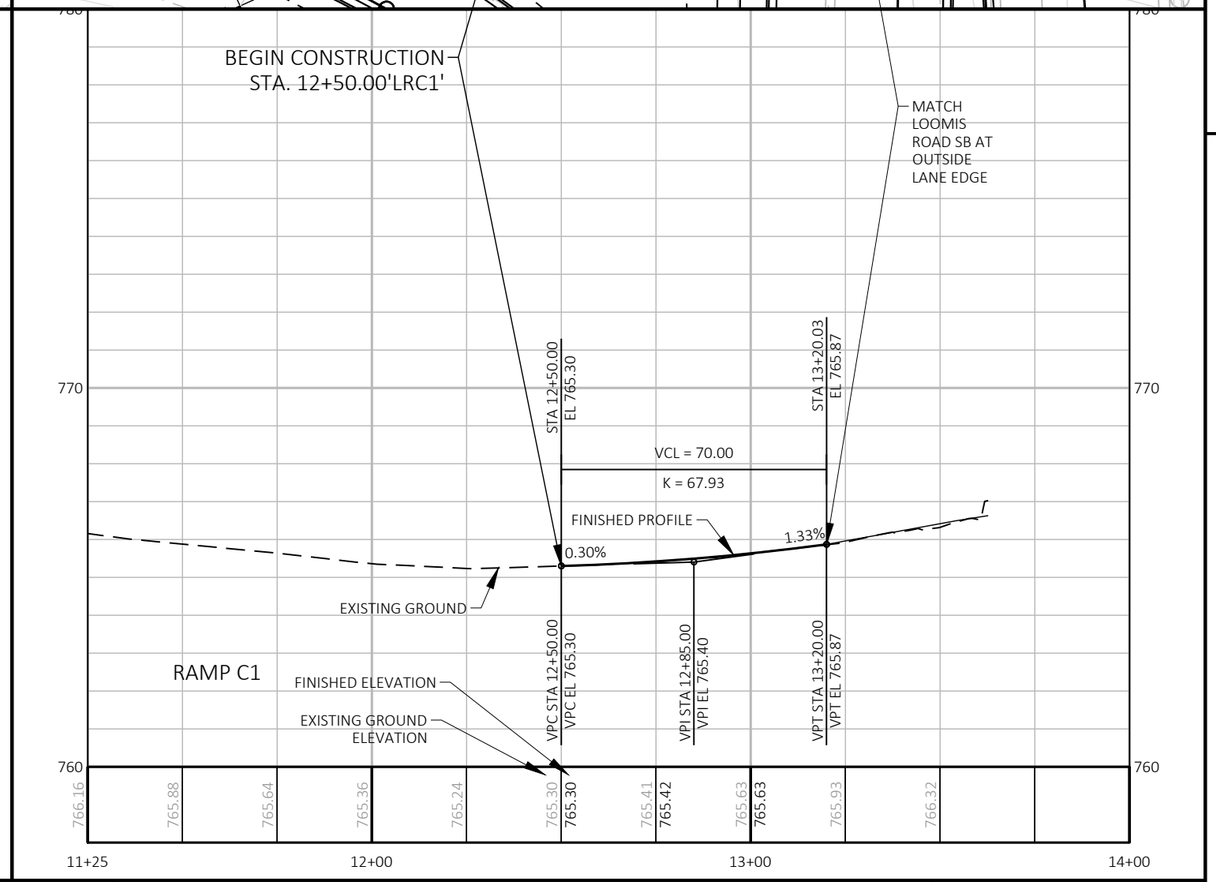

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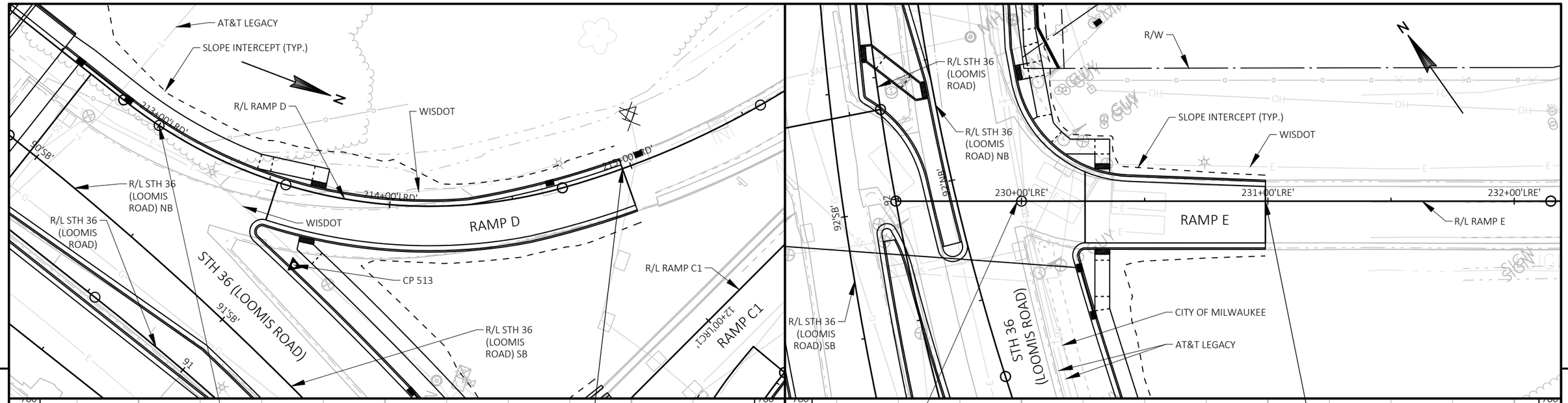
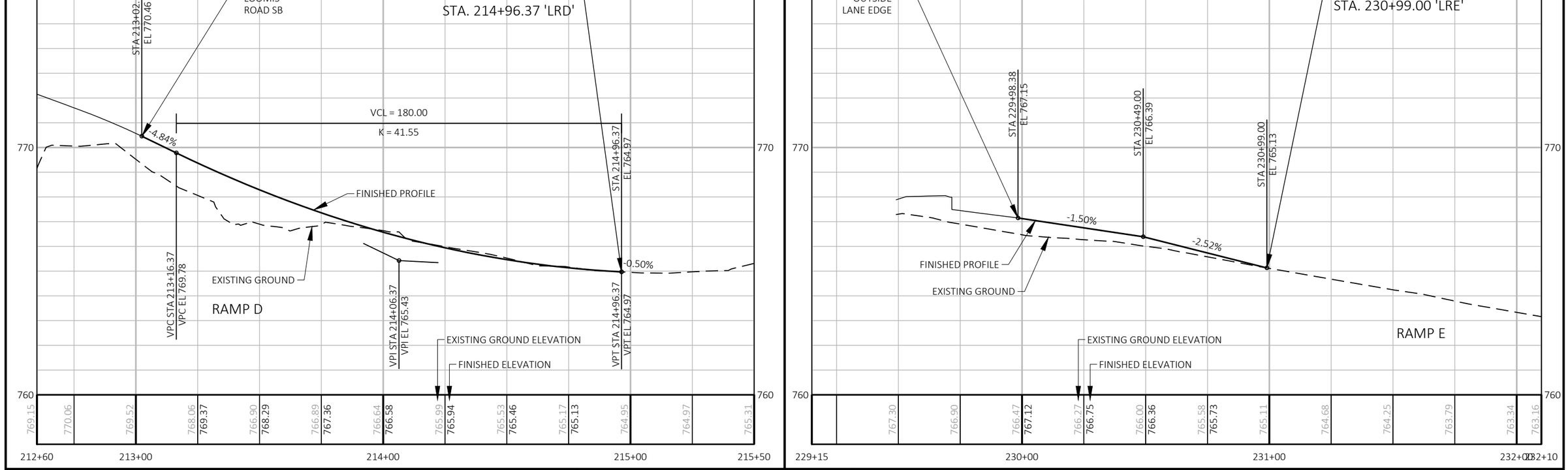
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP C AND RAMP C1	SHEET 238	E



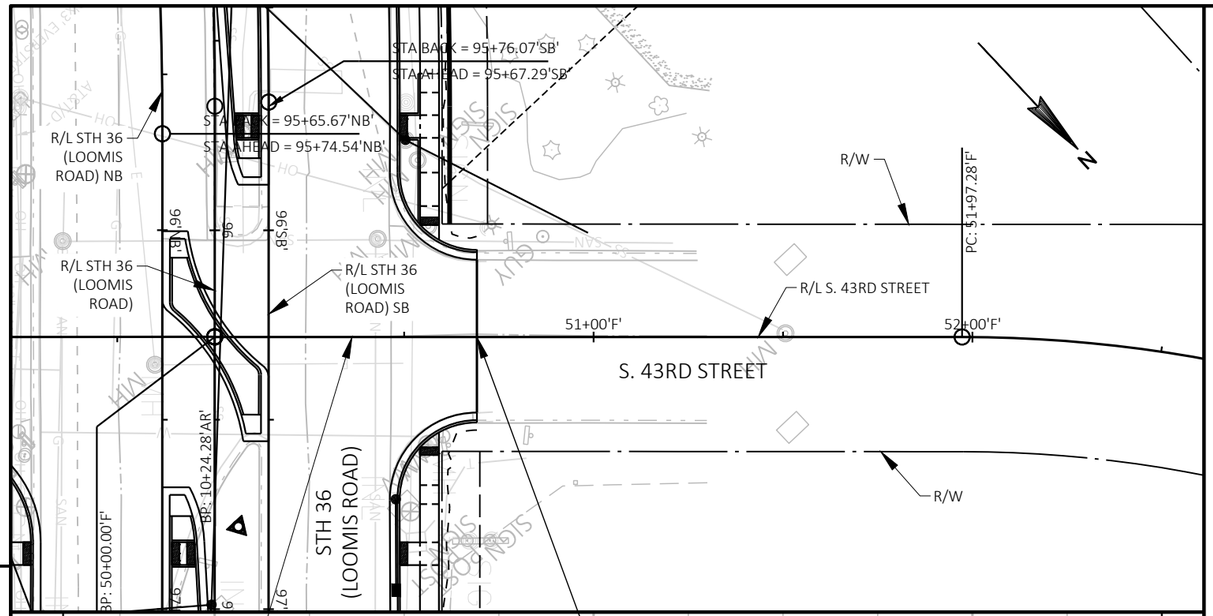


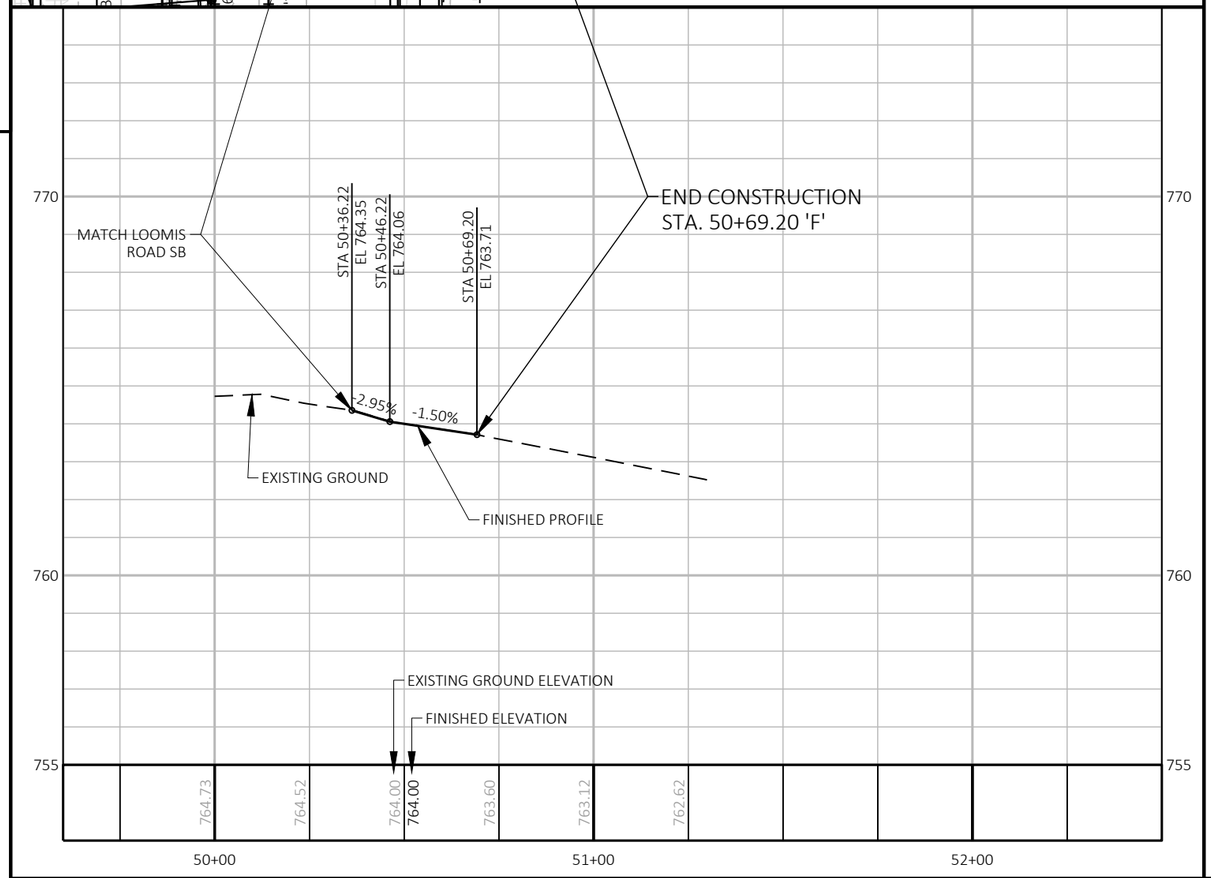
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: RAMP D AND RAMP E	SHEET 239	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050102_PP.DWG
LAYOUT NAME - 050107_pp-D-E

PLOT DATE : 11/1/2022 11:57 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



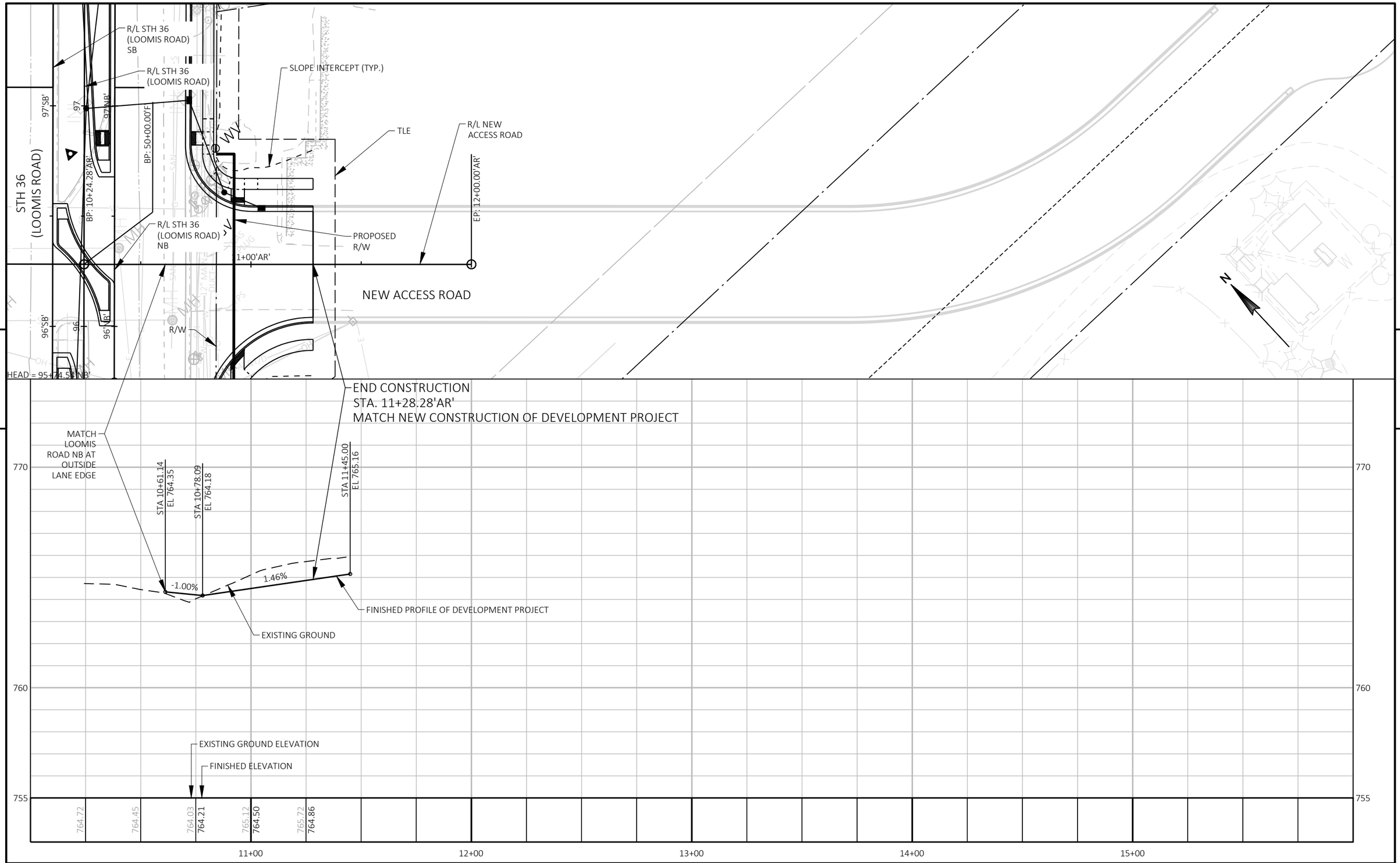


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: S. 43RD STREET	SHEET 240	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050102_PP.DWG
LAYOUT NAME - 050108_pp-43RD

PLOT DATE : 11/1/2022 11:58 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: NEW ACCESS ROAD	SHEET 240	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\050102_PP.DWG
LAYOUT NAME - 050109_pp-AR
PLOT DATE : 11/1/2022 11:59 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

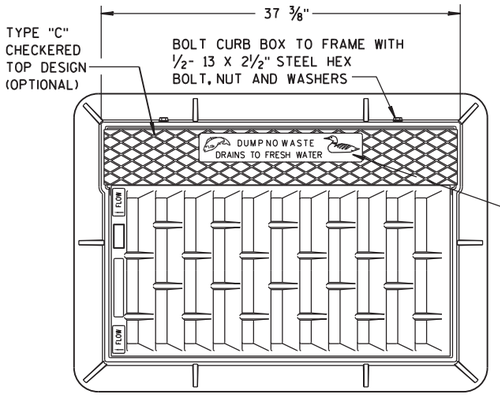
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-03	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-09B	TYPE 9 SPECIAL POLE 35' MONOTUBE ARM
09E08-09D	TYPE 9 SPECIAL POLE 45' MONOTUBE ARM
09E08-09J	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09E12-01E	GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09H09-02	COMMUNICATION VAULT TYPE 1
10A01-04	ELECTRICAL HANDHOLE WIRING
10A04-03	IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING
10A15-04A	ELECTRICAL DETAILS UNDERDECK LIGHTING
10A15-04B	ELECTRICAL DETAILS UNDERDECK LIGHTING
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-07G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

6

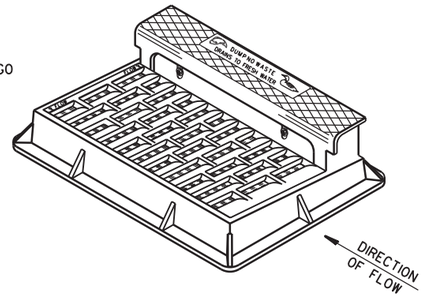
Standard Detail Drawing List

14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B32-10A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-10E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B34-02A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
14B34-02C	CONCRETE BARRIER SINGLE SLOPE CLASS B
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08D	ON RAMP LANE CLOSURE
15C02-08E	OFF RAMP LANE CLOSURE
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-22C	PAVEMENT MARKING (TURN LANES)
15C08-22D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-07A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-07B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-07C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-08B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C31-04A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-04C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D14-05	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-06A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-06E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-05	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D35-03A	RAMP GATE HARD WIRED
15D35-03B	RAMP GATE HARD WIRED
15D35-03C	RAMP GATE HARD WIRED
15D47-02A	TRAFFIC CONTROL, INGRESS/EGRESS WITH BARRIER
15D47-02B	TRAFFIC CONTROL, INGRESS/EGRESS WITHOUT BARRIER

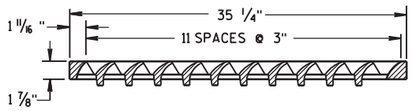
6

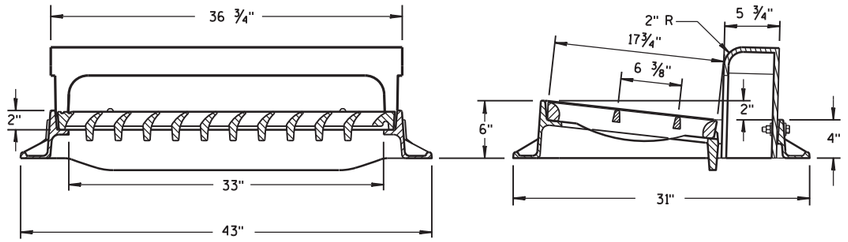


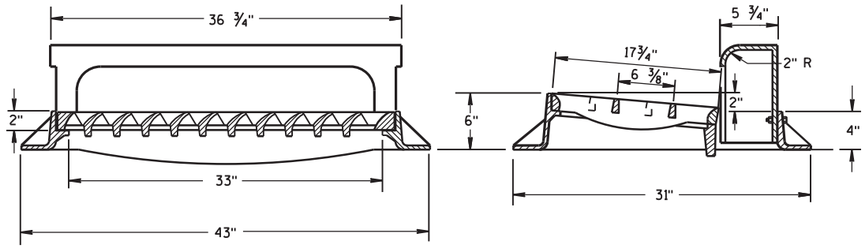
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

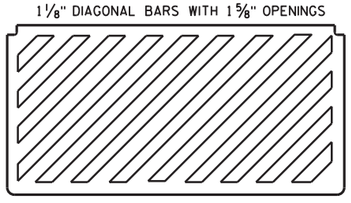






TYPE "H"

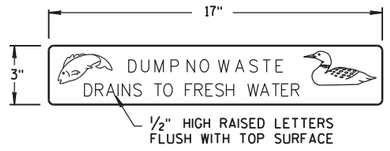
NOTE: EITHER CASTING IS ACCEPTABLE



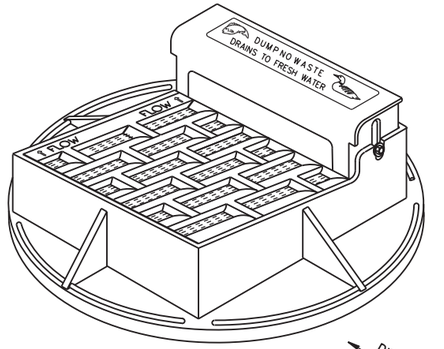
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

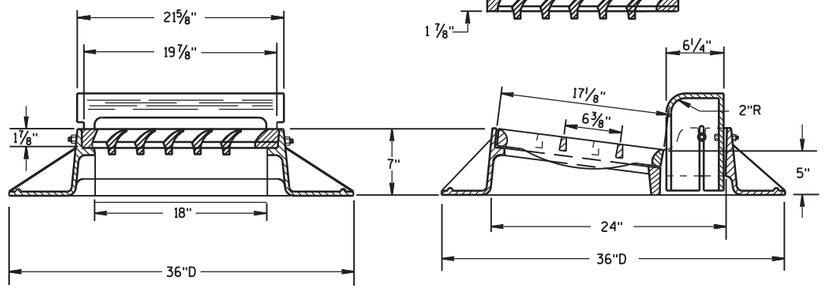


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



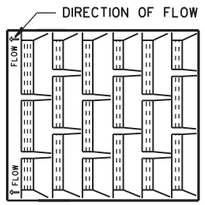
TYPE "A"

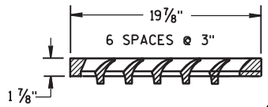
GENERAL NOTES

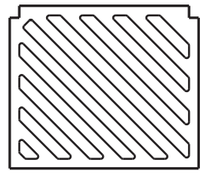
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



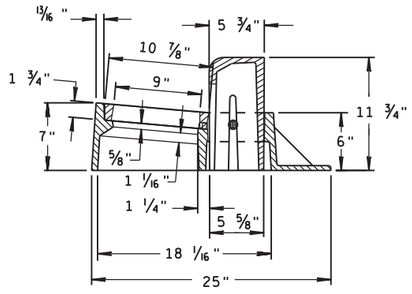


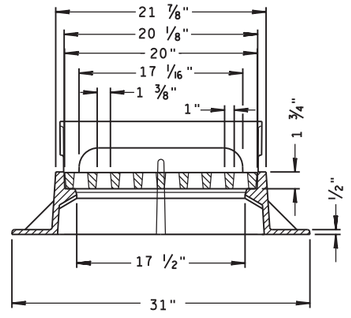


SPECIAL GRATE FOR TYPE "A" COVER

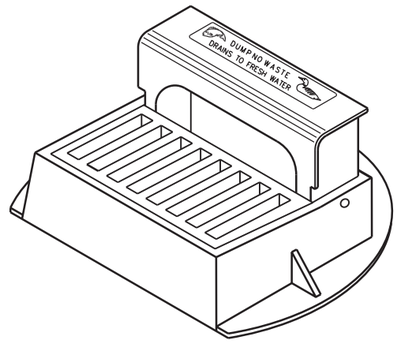
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



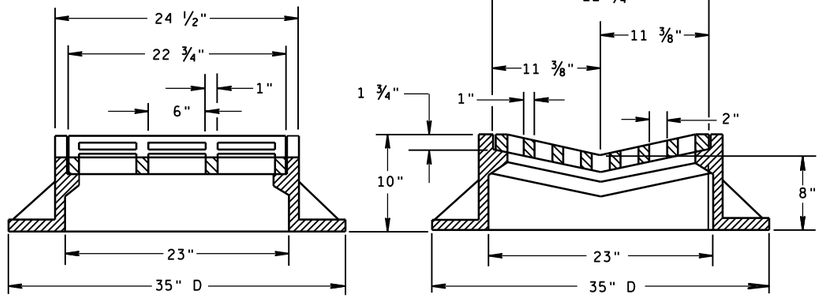
INLET COVERS TYPE A, H, A-S, H-S & Z

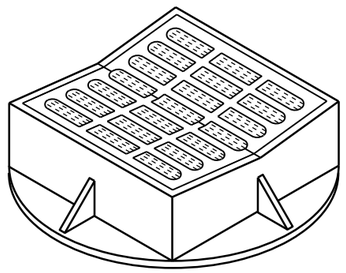
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

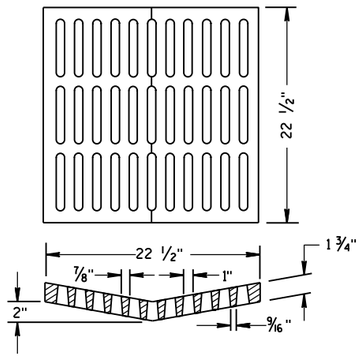
6

S.D.D. 8 A 5-19a



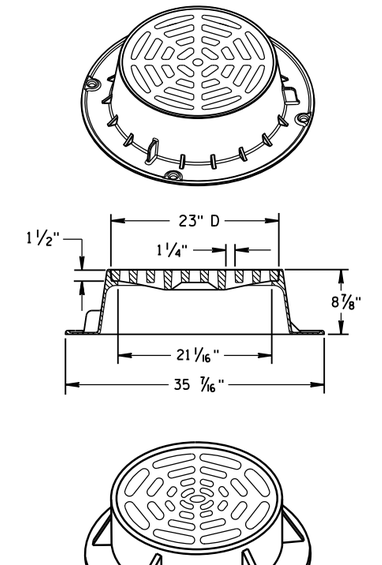


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

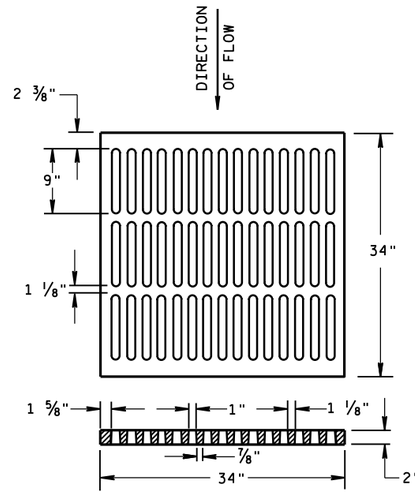
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

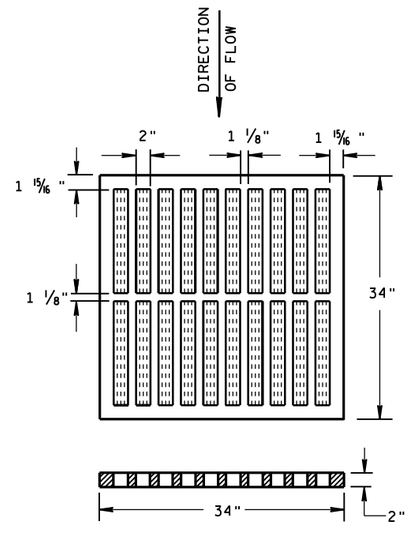
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



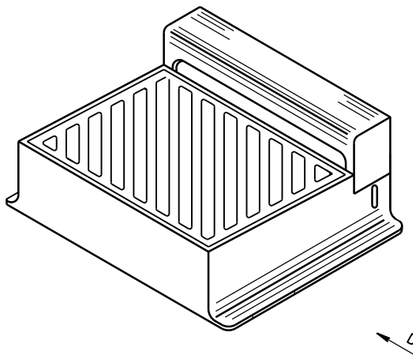
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

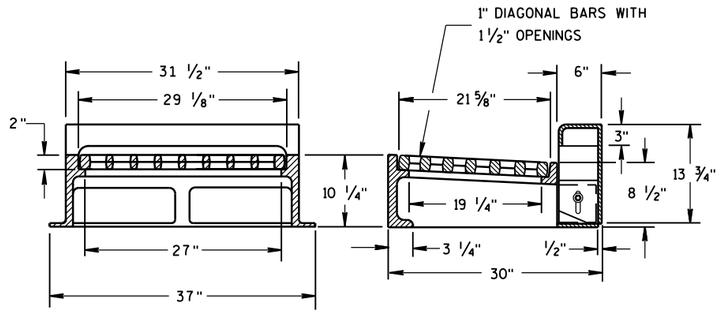


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

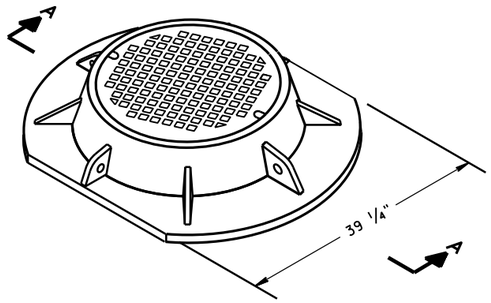
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

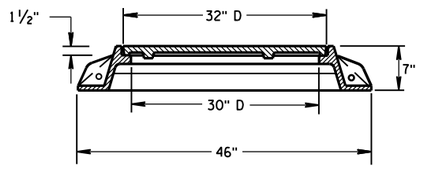
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

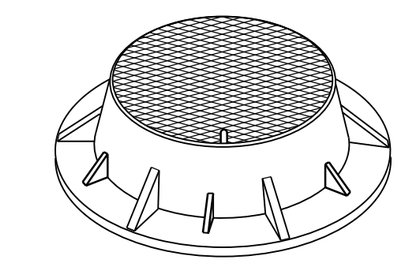
6

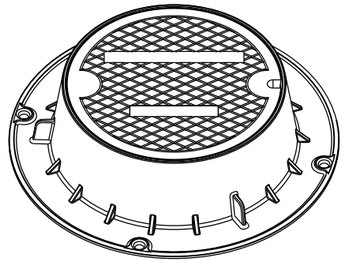
S.D.D. 8 A 5-19b

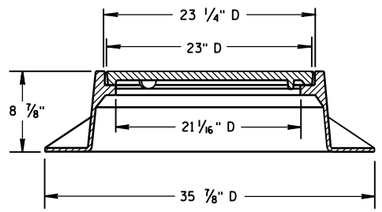


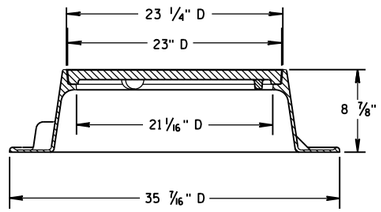


SECTION A-A
TYPE "K"









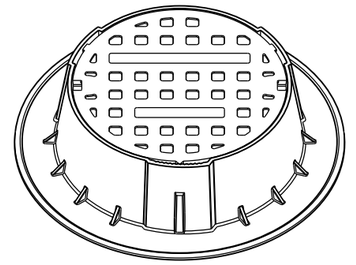
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

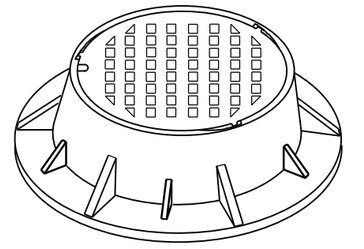
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

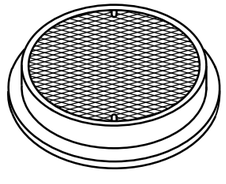
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

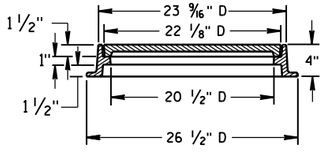
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



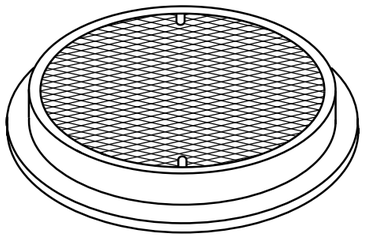


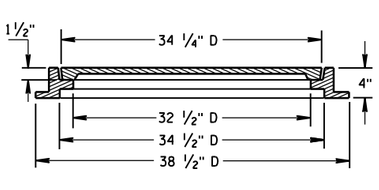
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



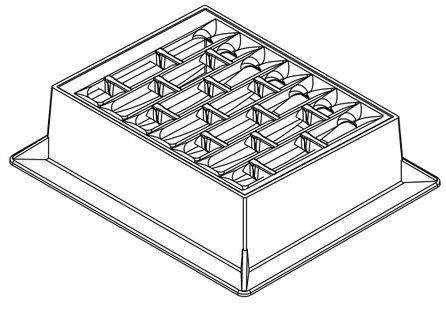


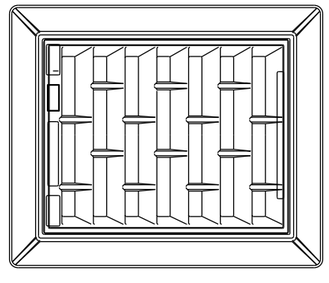
TYPE "L"

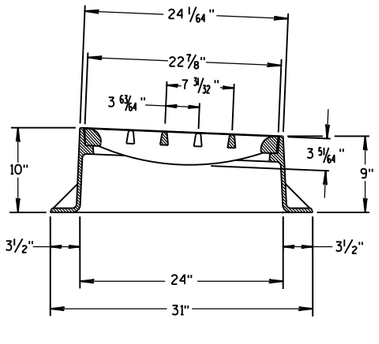


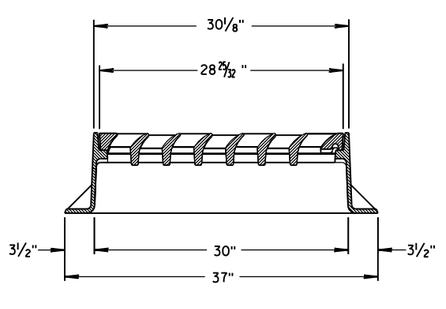


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

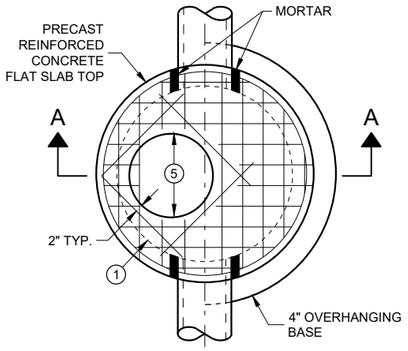
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

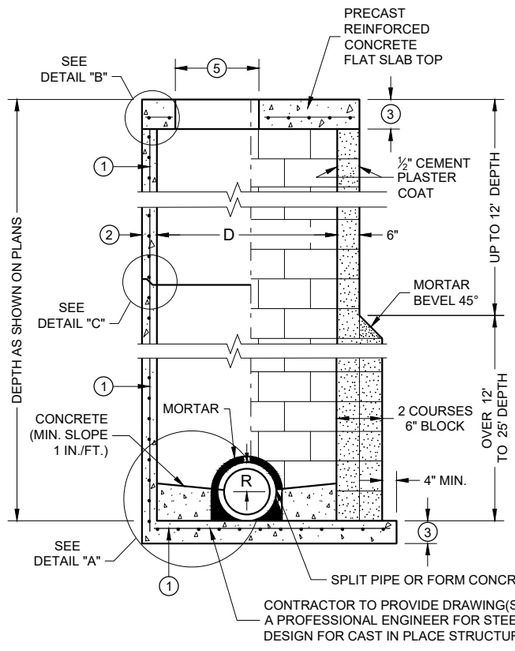
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d



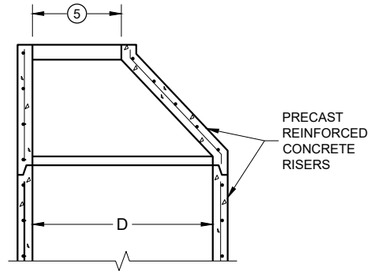
PLAN VIEW
CIRCULAR OPENING



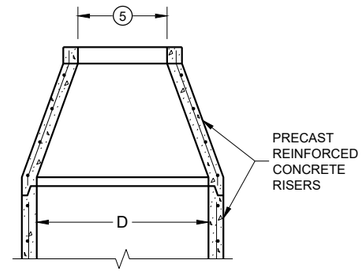
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

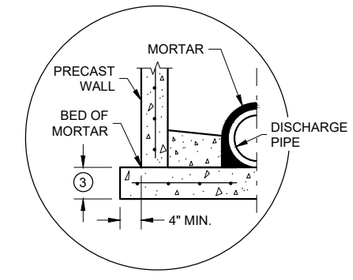
MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

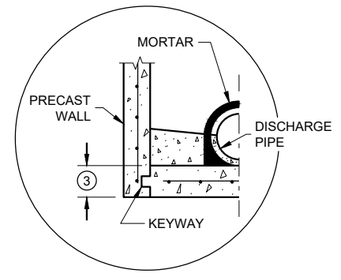
PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

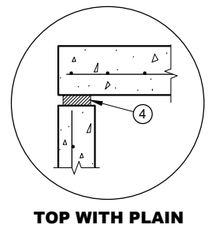


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

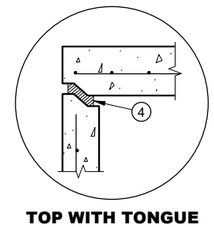


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

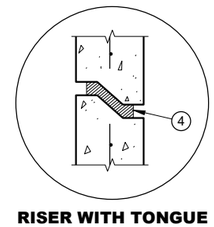
DETAIL "A"



TOP WITH PLAIN END JOINT

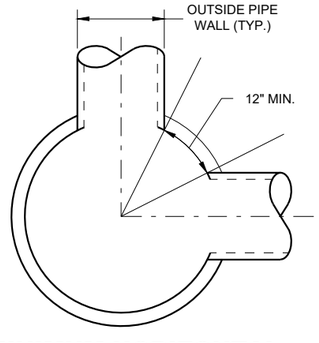


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**



MINIMUM HORIZONTAL PIPE SEPARATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

(5) SEE MANHOLE COVER OPENING MATRIX.

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

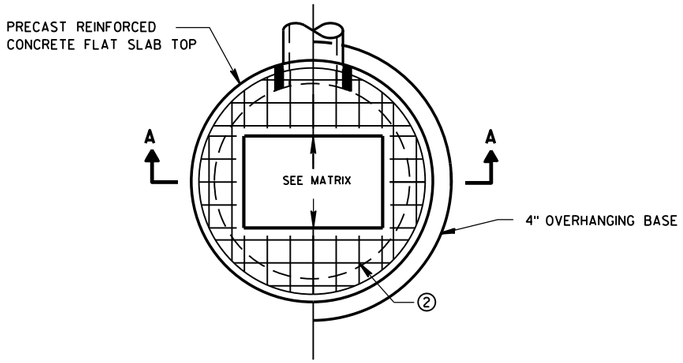
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
247
FHWA

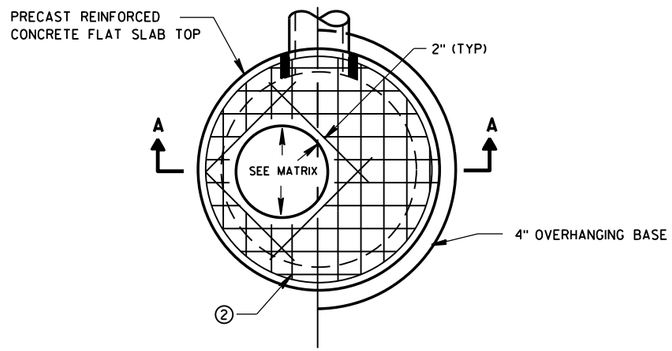
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

6

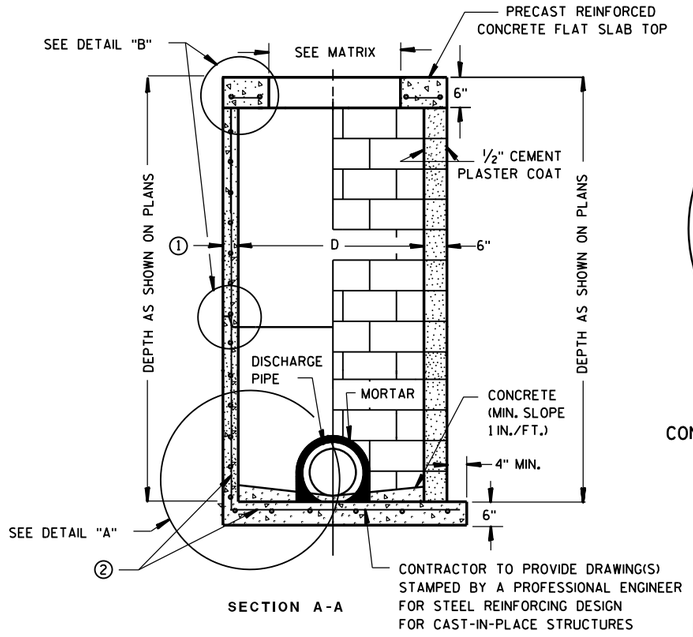
SDD 08B09 - 03



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

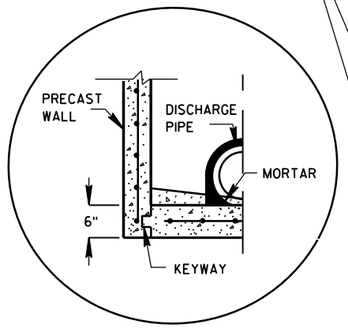


SECTION A-A

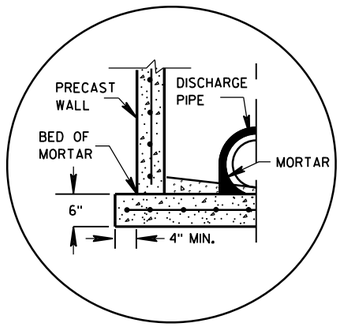
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

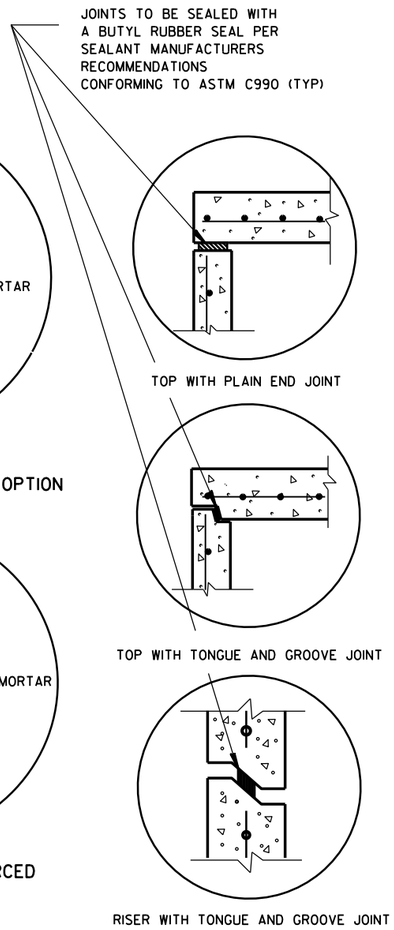


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

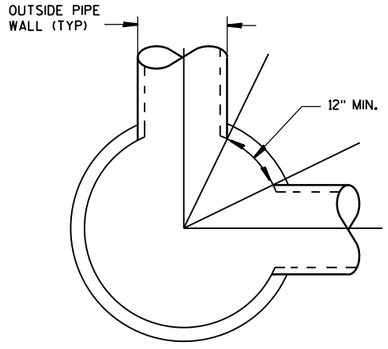
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

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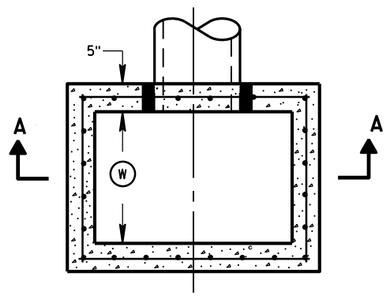
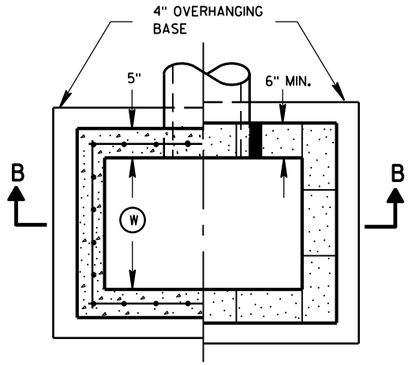
INLETS 3-FT AND 4-FT DIAMETER

6

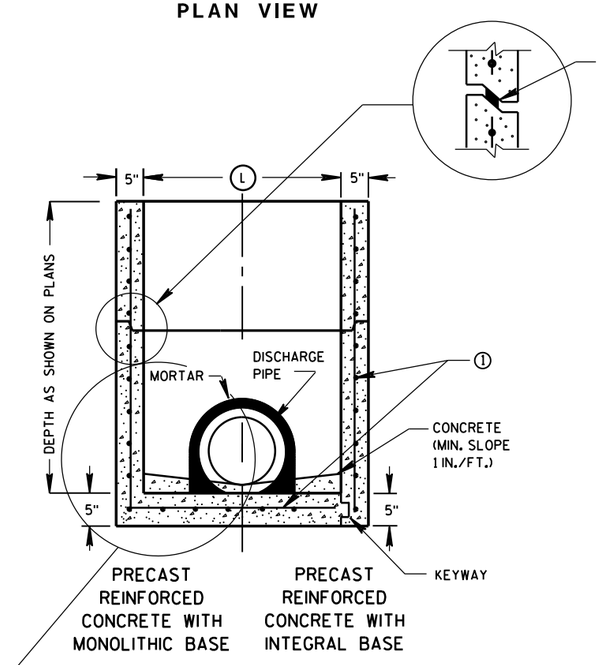
S.D.D. 8 C 6-2



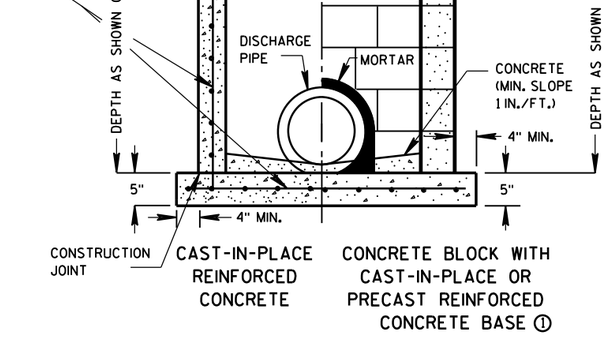
PLAN VIEW



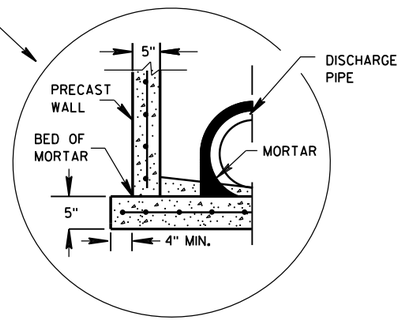
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

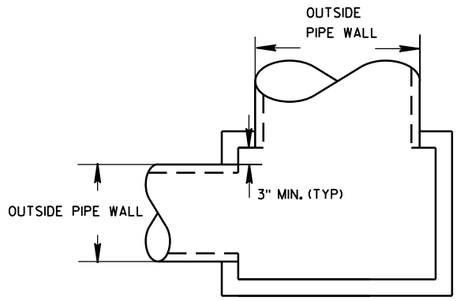
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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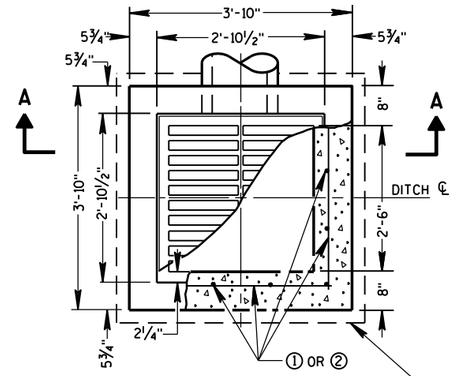
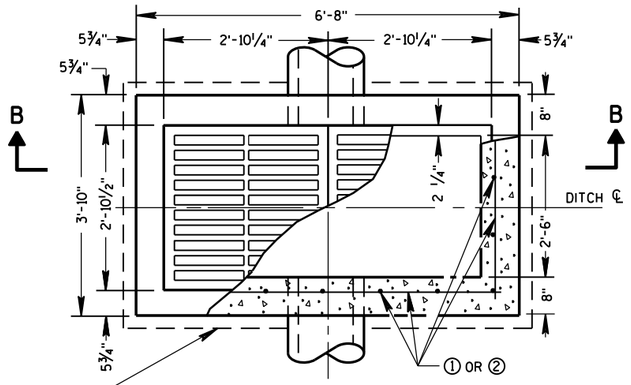
FHWA

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

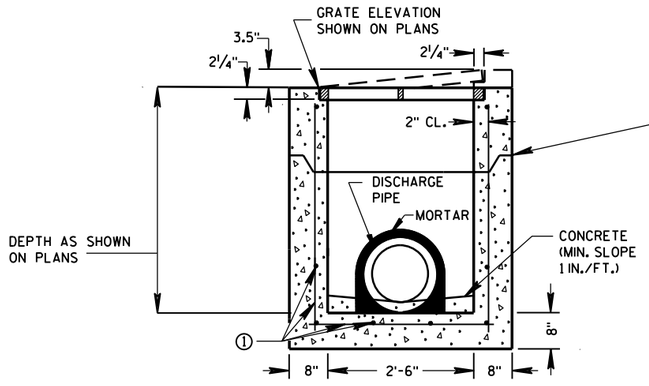


PLAN VIEW

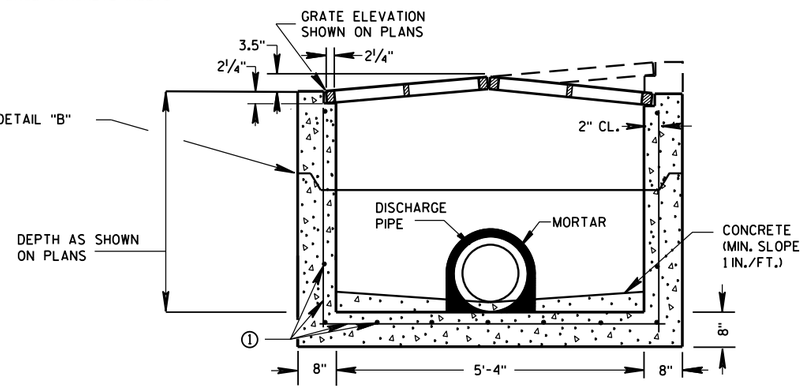


PLAN VIEW

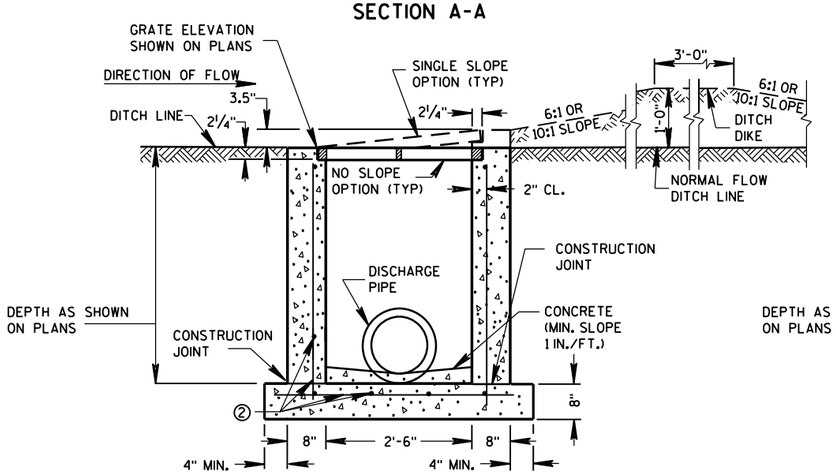
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



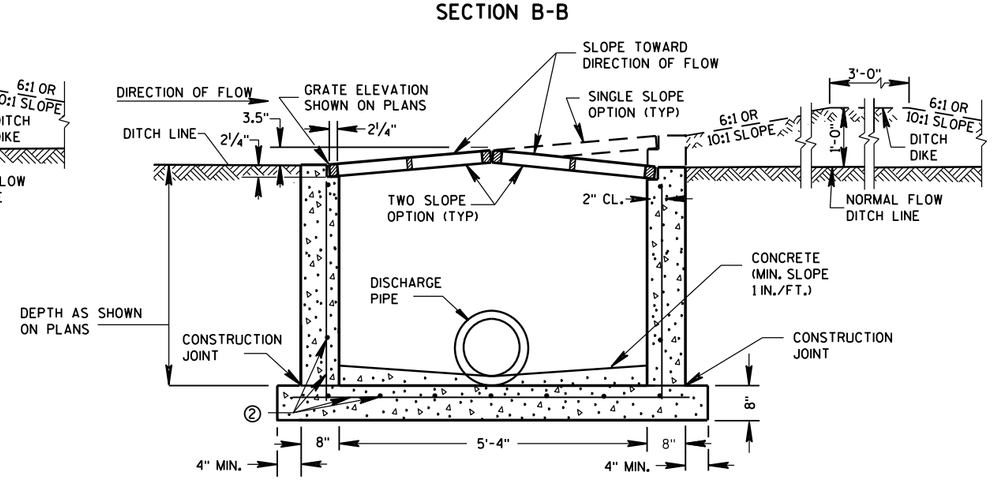
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

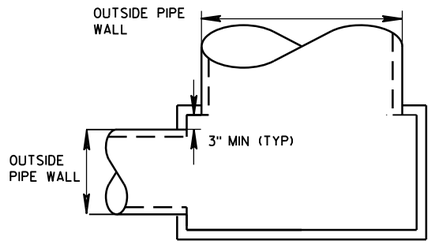
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

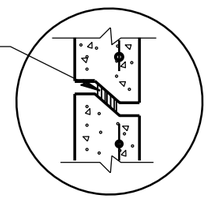
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
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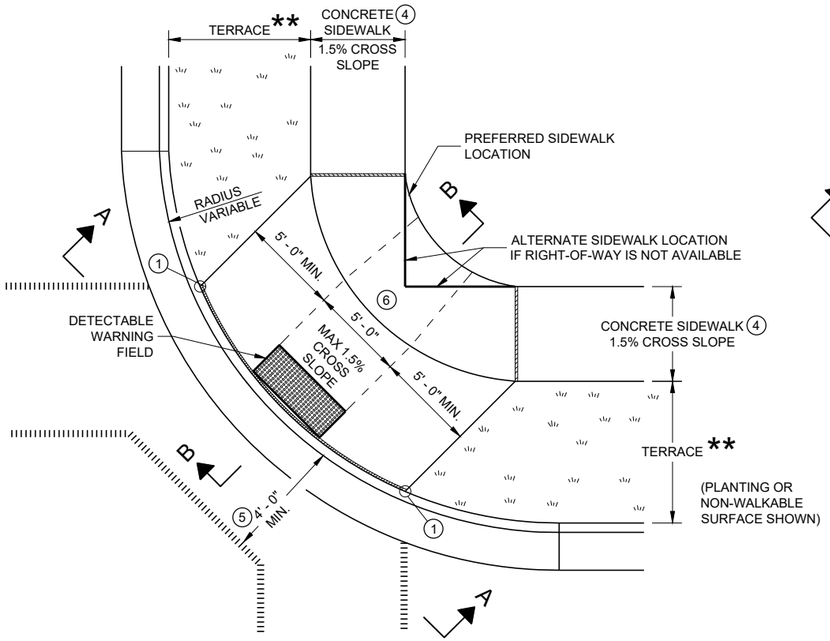
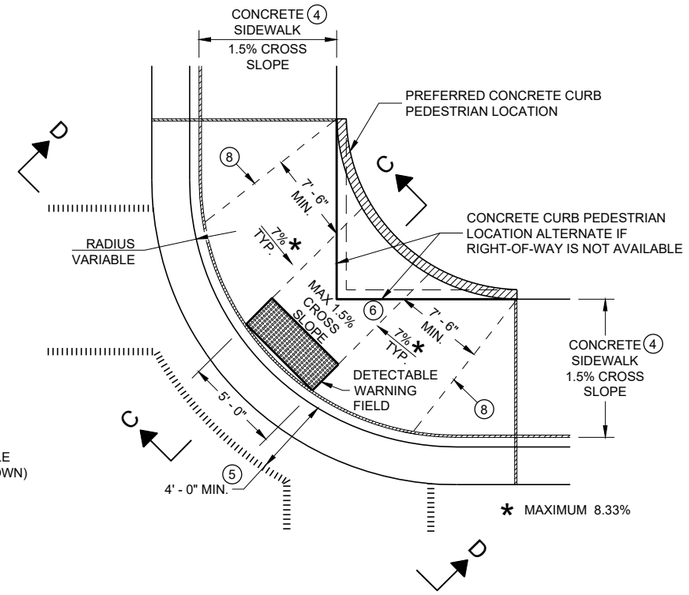


PLAN VIEW

CURB RAMP TYPE 1

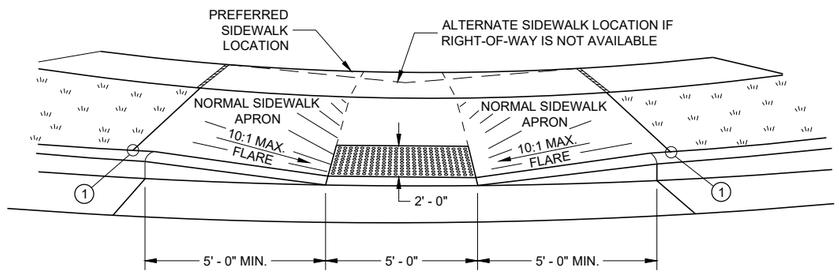
(CENTER OF CORNER RADIUS)



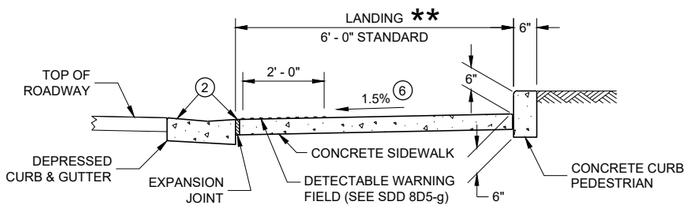
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

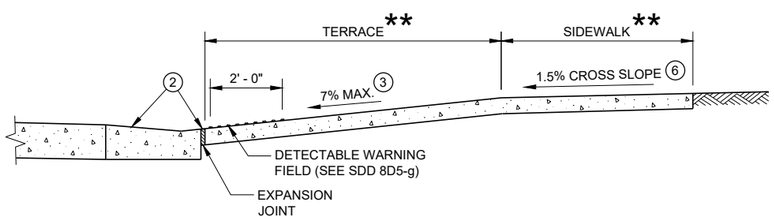


VIEW A - A FOR TYPE 1

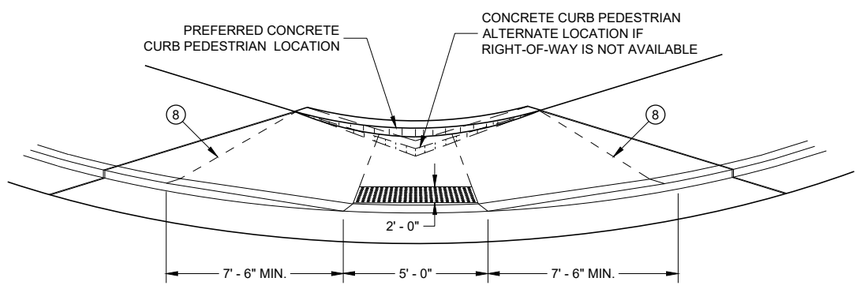


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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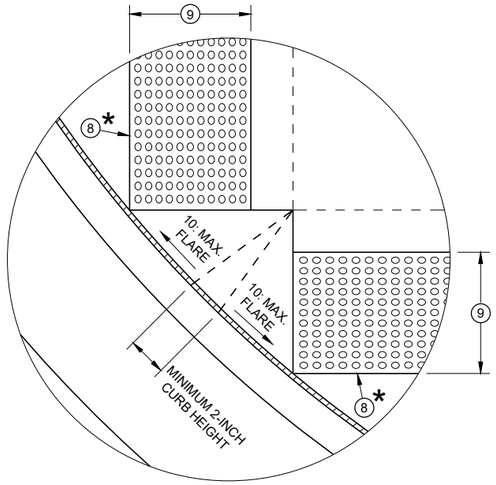
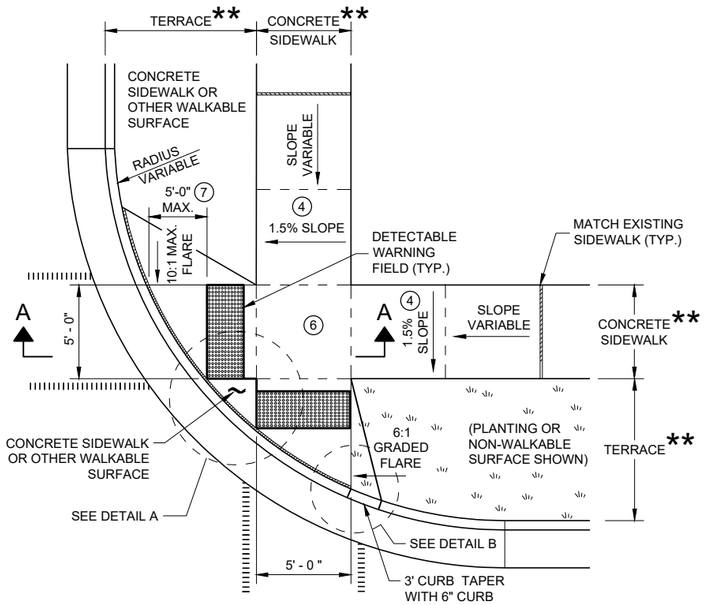
SDD 08D05 - 20a



DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

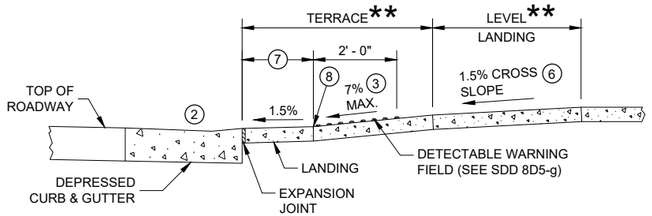
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

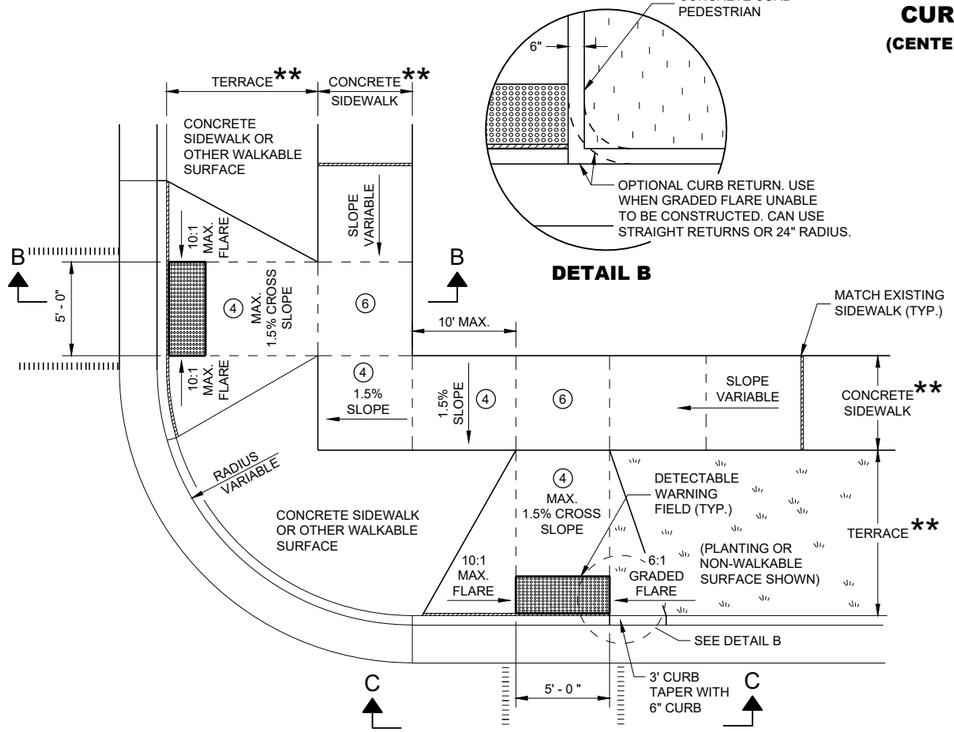
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

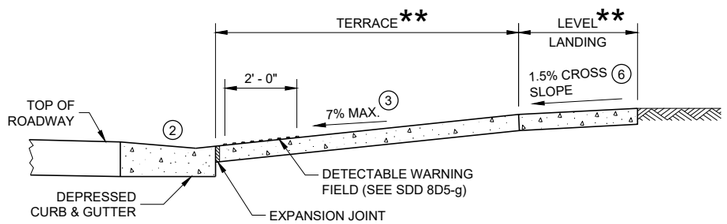
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

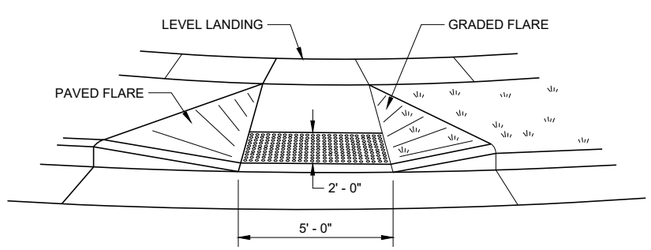


DETAIL B

PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

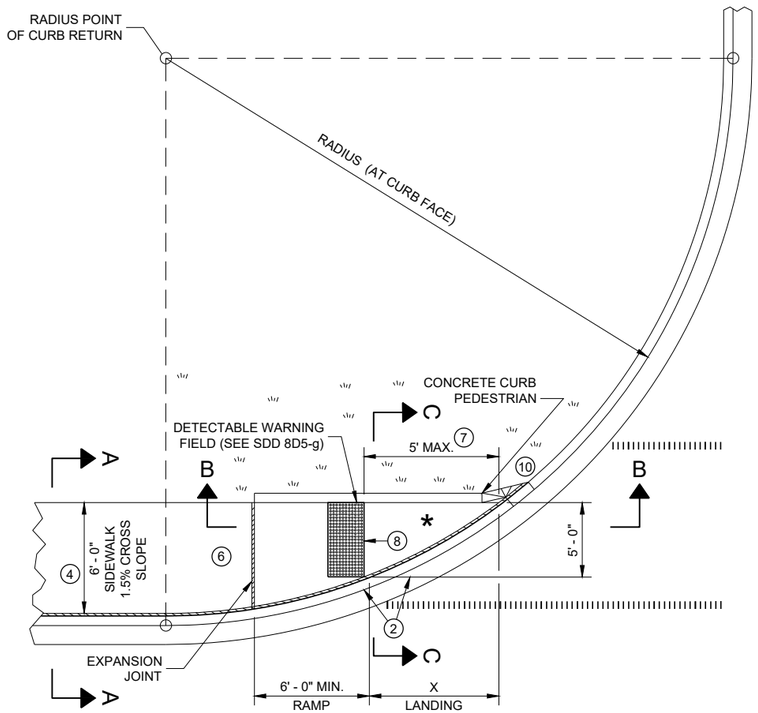
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

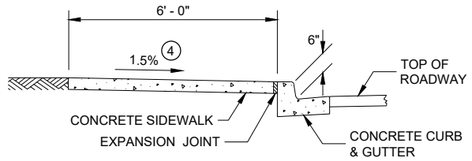


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

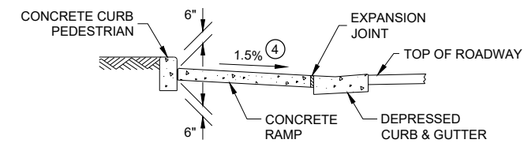
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

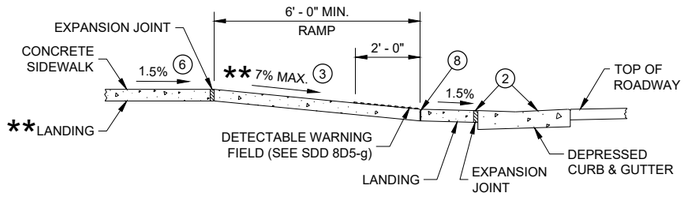
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



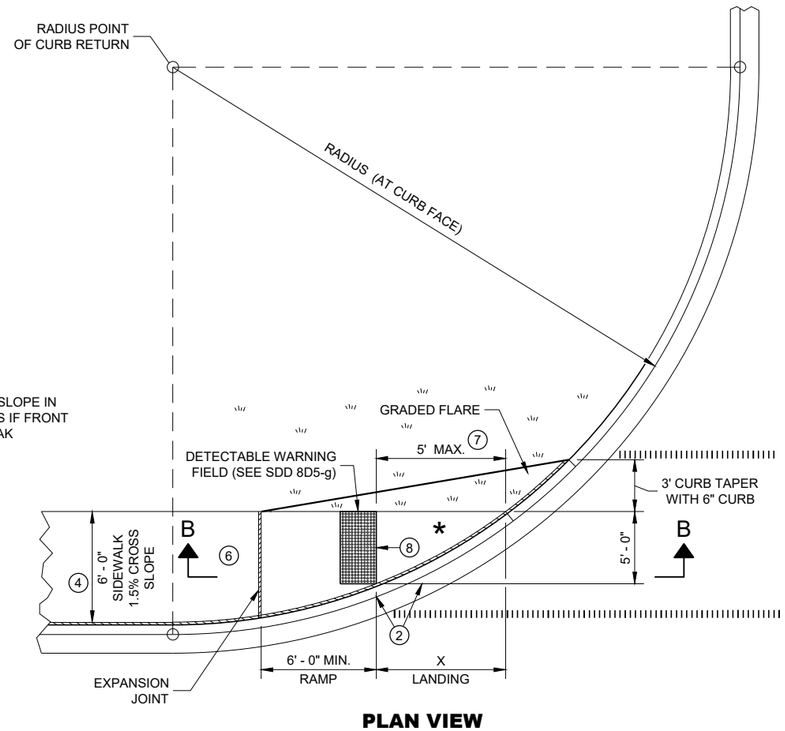
SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

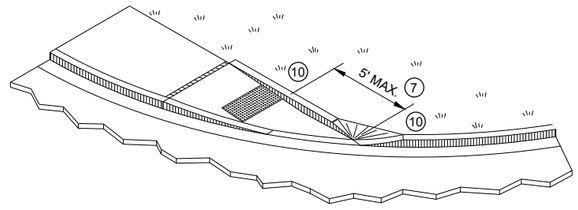
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

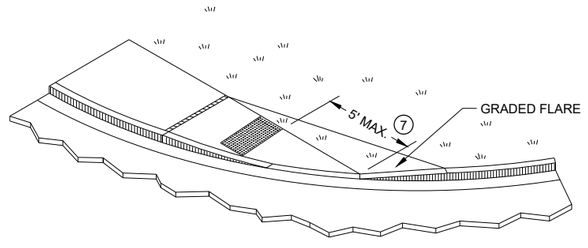


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



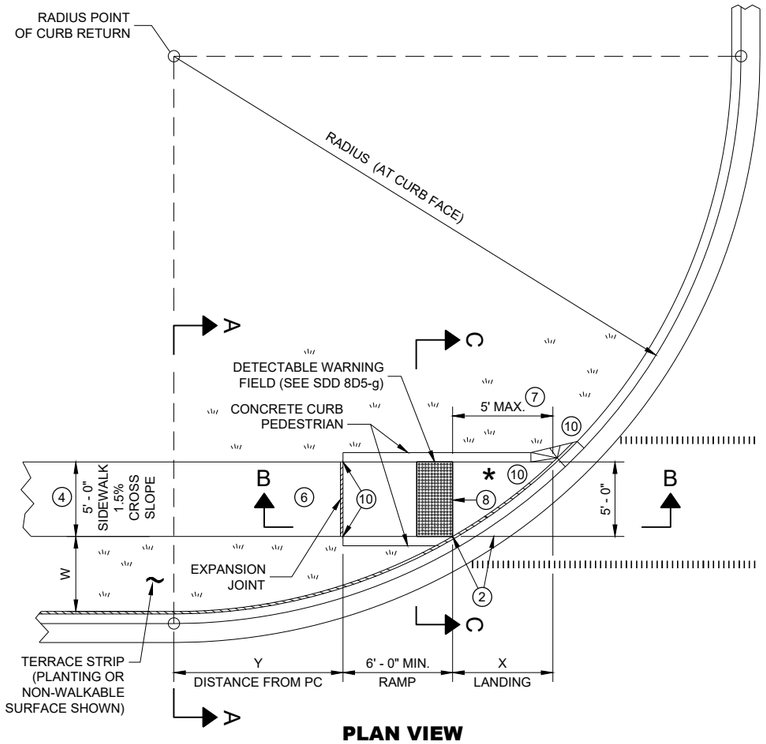
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

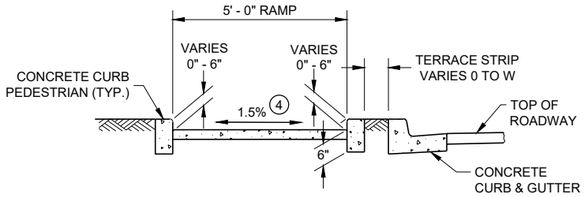


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

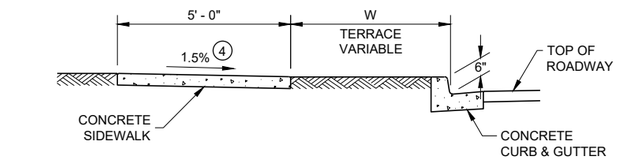
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

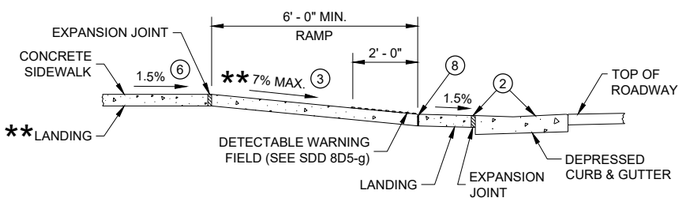
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



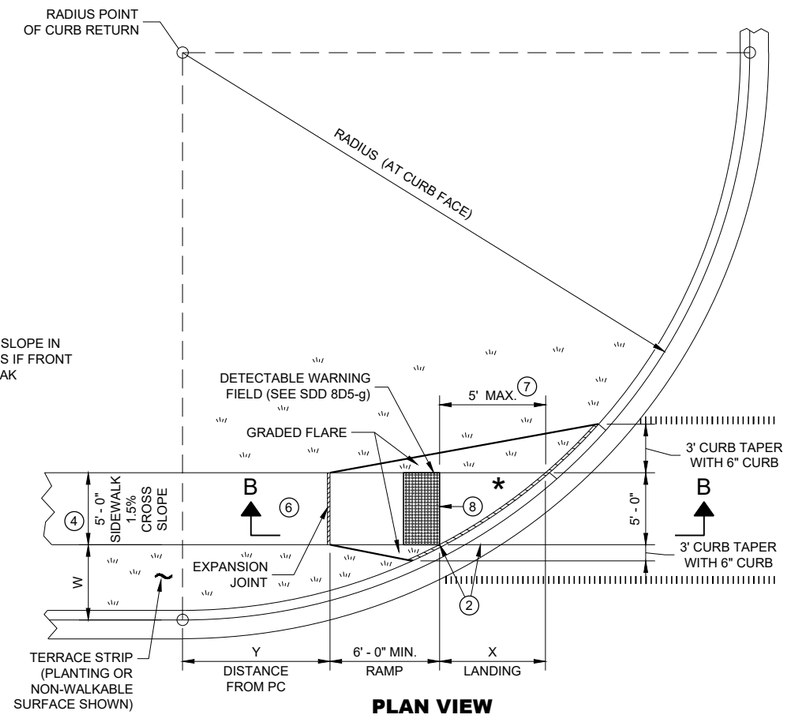
SECTION A - A FOR TYPE 4B



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

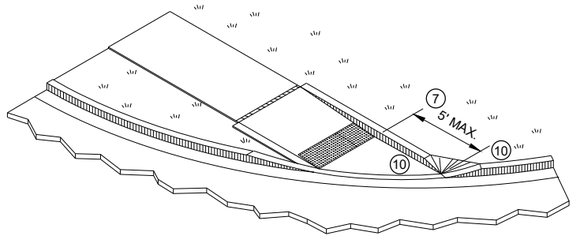
SECTION B - B FOR TYPE 4B AND TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

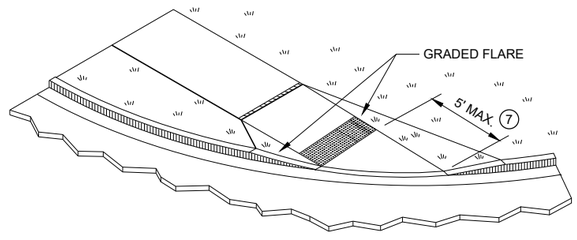


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



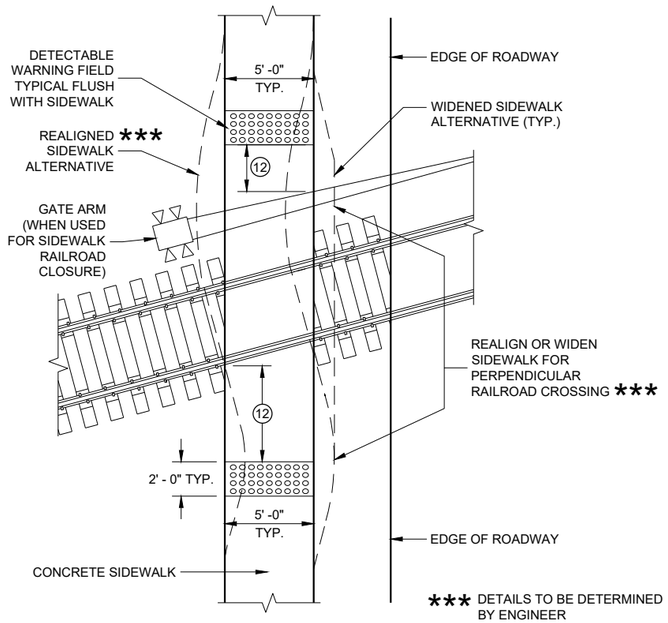
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

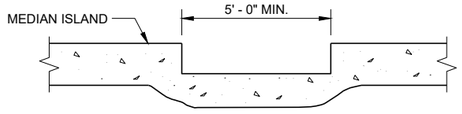
6

SDD 08D05 - 20d

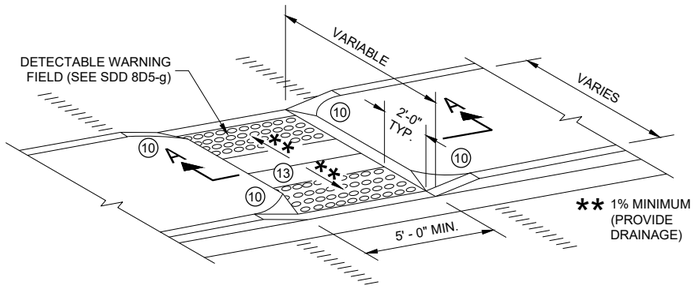


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

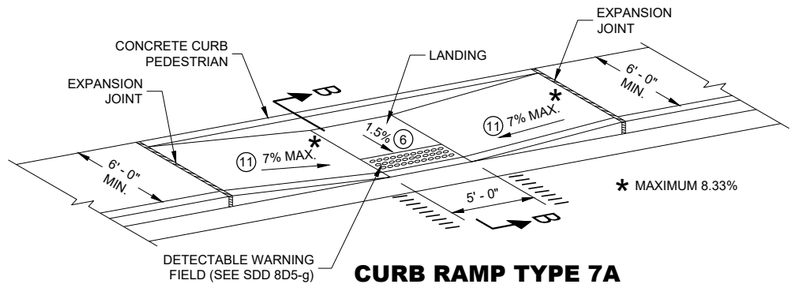
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

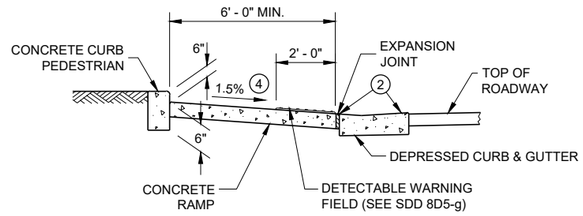
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

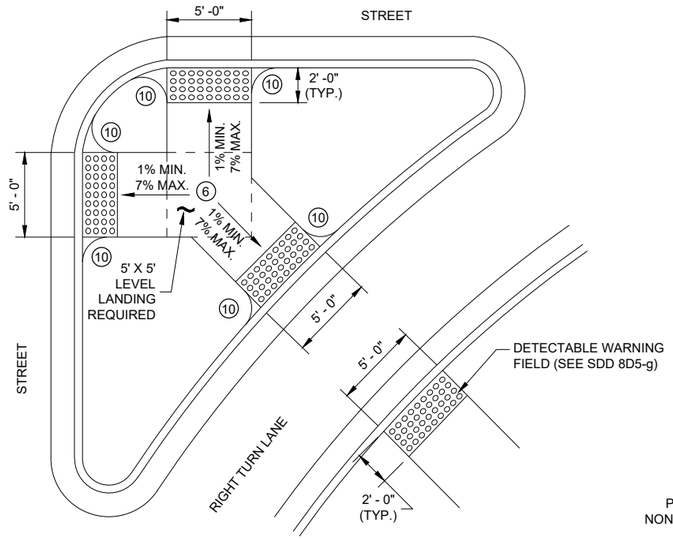


CURB RAMP TYPE 7A

MID BLOCK CROSSING



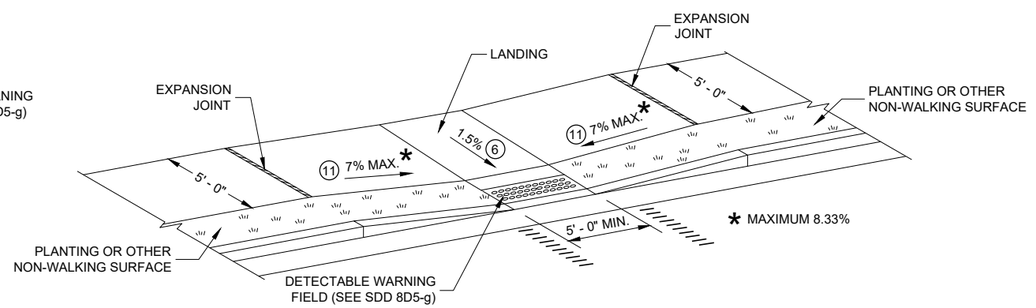
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 7B

MID BLOCK CROSSING

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

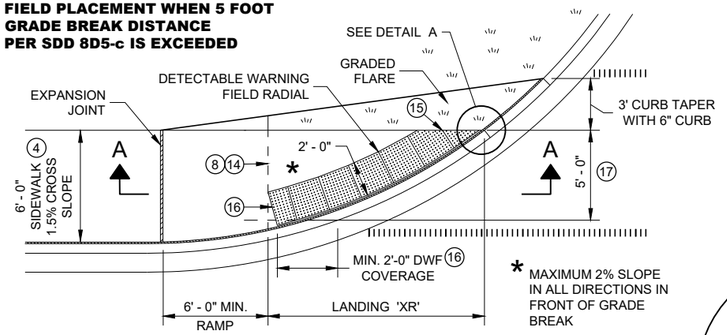
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20e

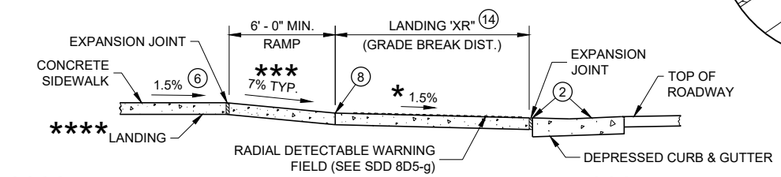
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

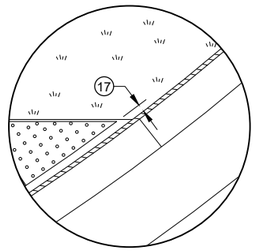
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

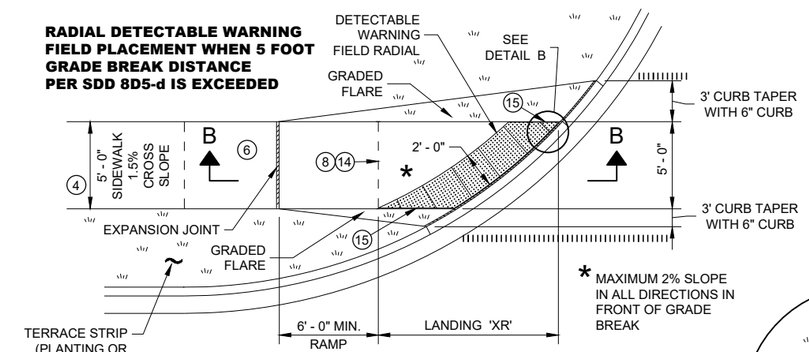
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

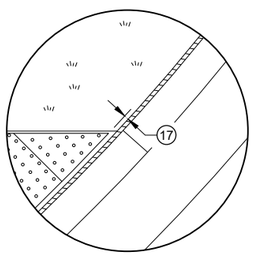
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



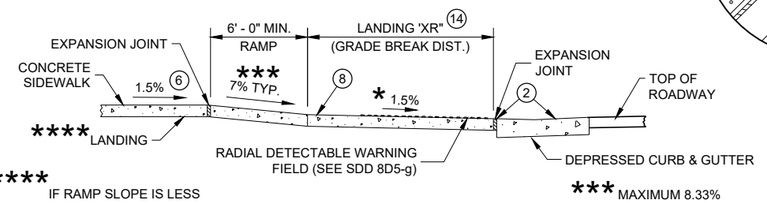
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

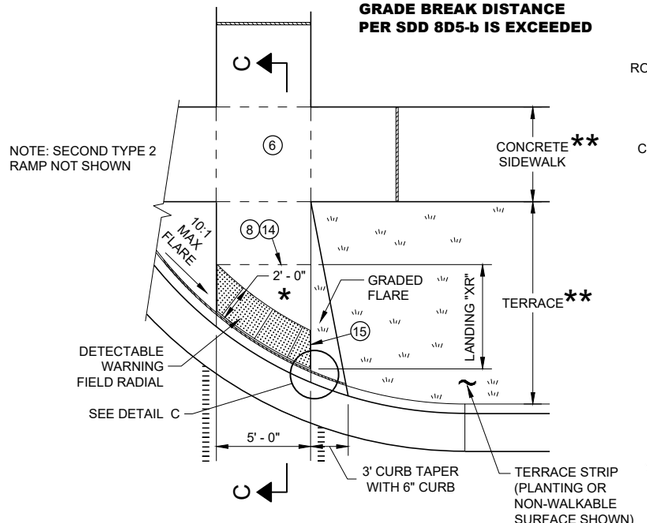


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

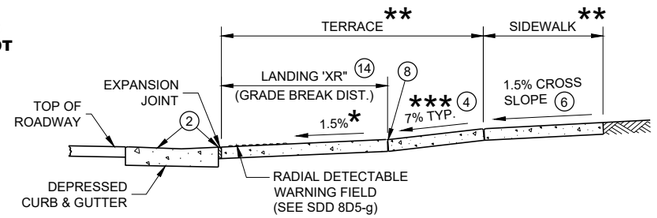


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

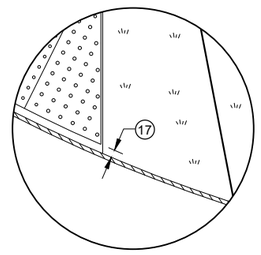


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

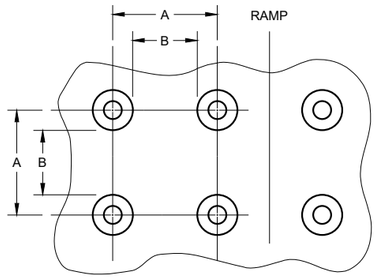
CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

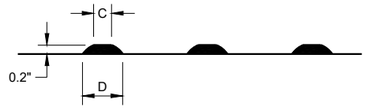
SDD 08D05 - 20f

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

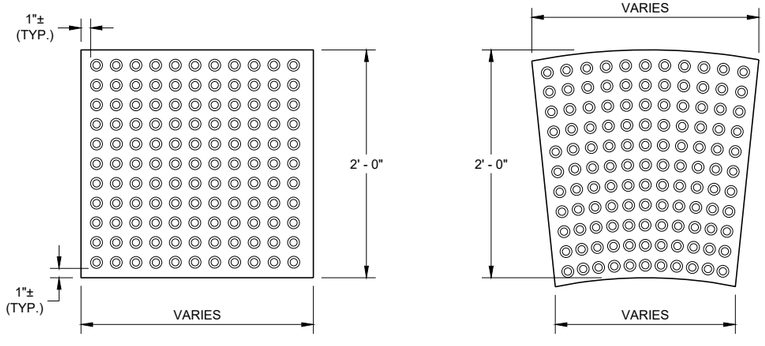


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

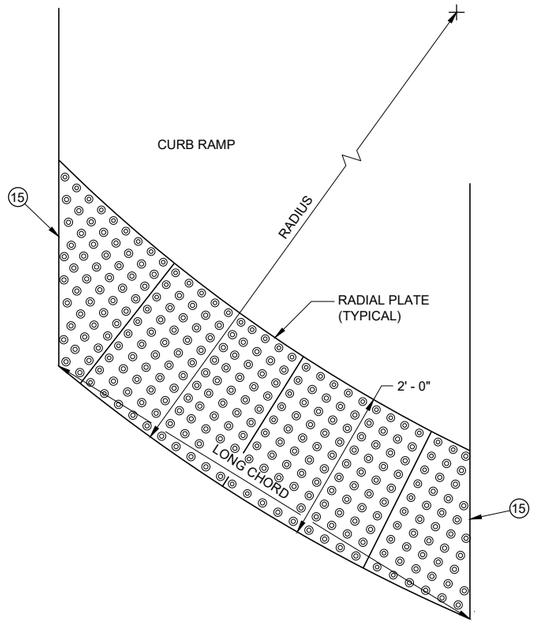
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

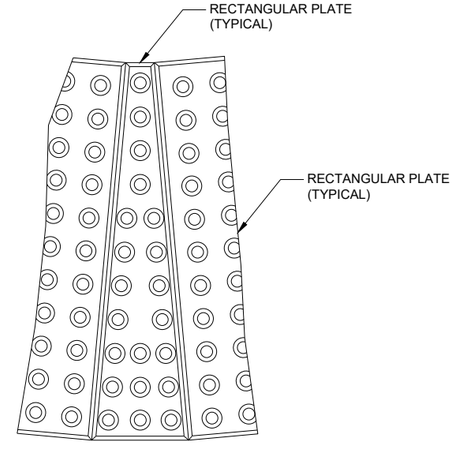
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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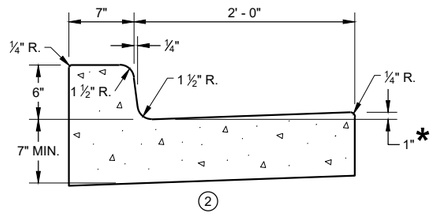
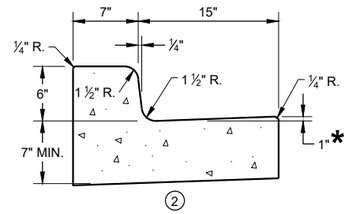
SDD 08D05 - 20g

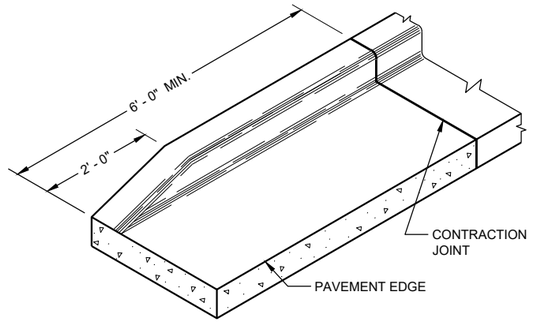


CONCRETE CURB AND GUTTER 31" ①

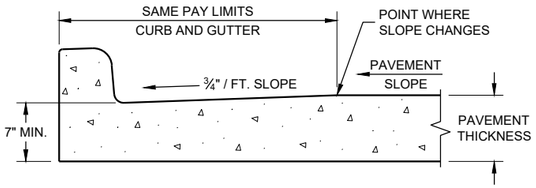
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



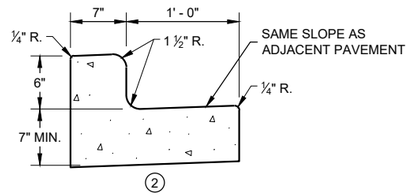
CONCRETE CURB AND GUTTER 22" ①



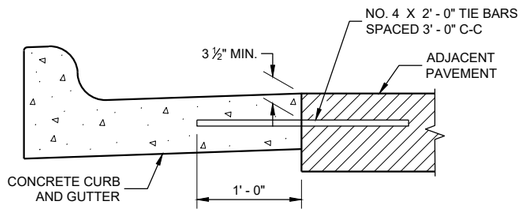
END SECTIONCURB AND GUTTER



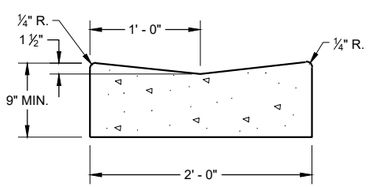
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



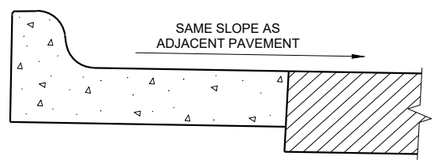
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

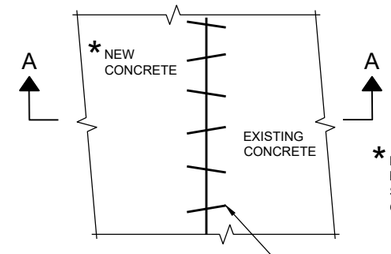
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

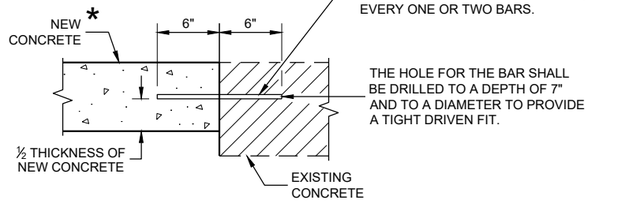
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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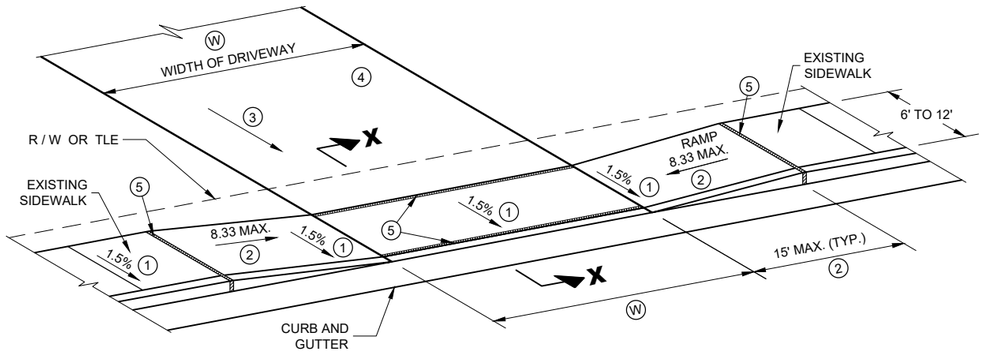
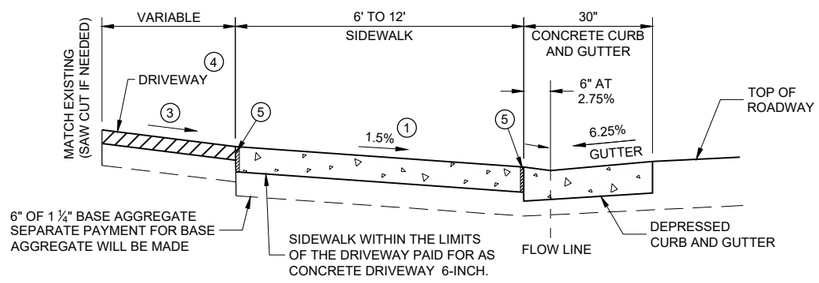
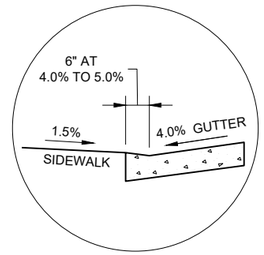
SDD 08D16 - 11



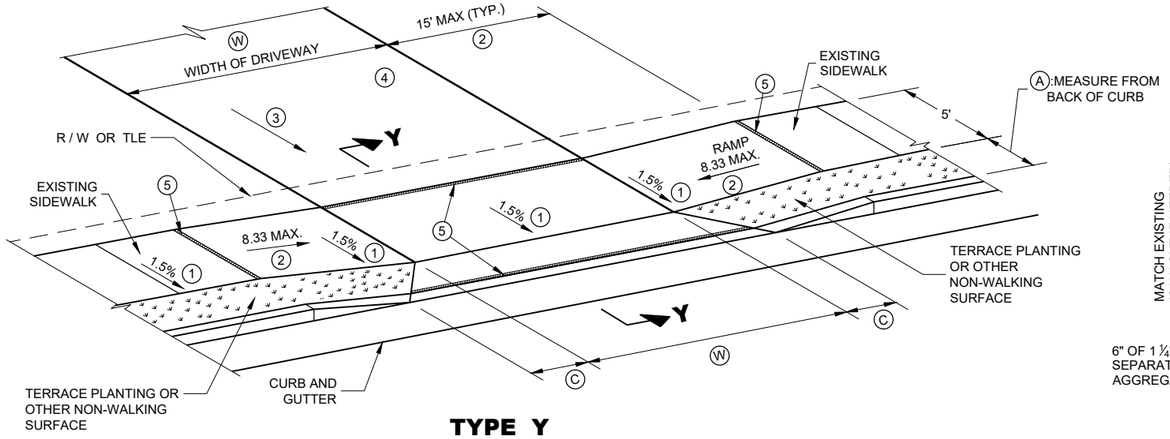
TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X - X



SECTION X - X
4% GUTTER SLOPE



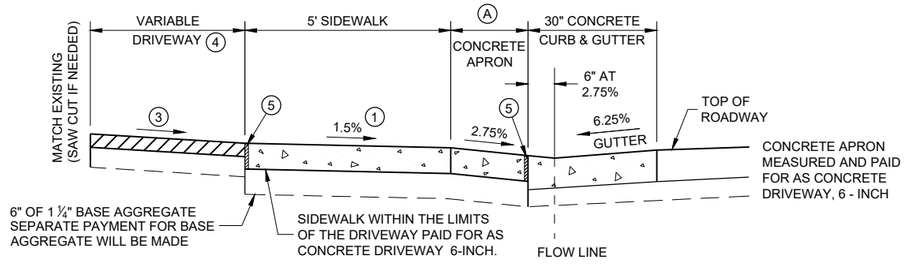
TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

W: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

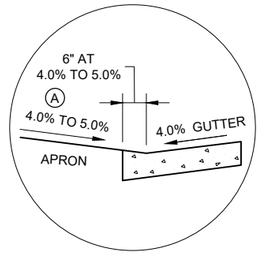
16' MIN. - 35' MAX. COMMERCIAL (CE)

TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS



SECTION Y - Y
4% GUTTER SLOPE

SECTION Y - Y
DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ ½" EXPANSION JOINT FILLER

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

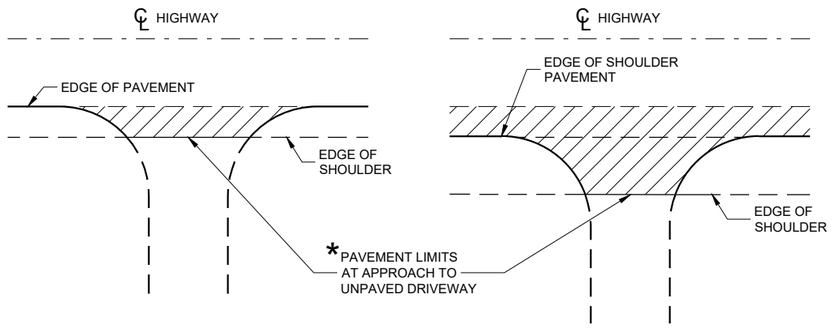
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D18 - 03

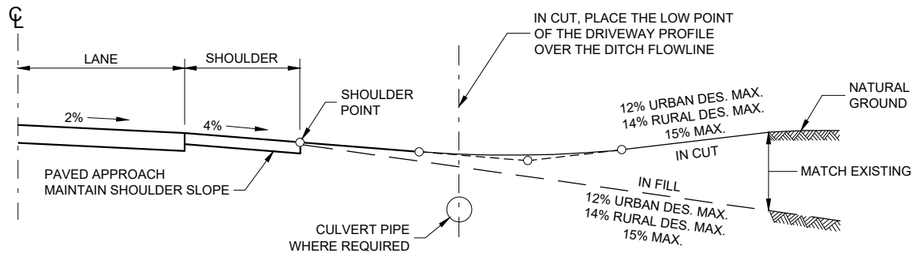
SDD 08D18 - 03



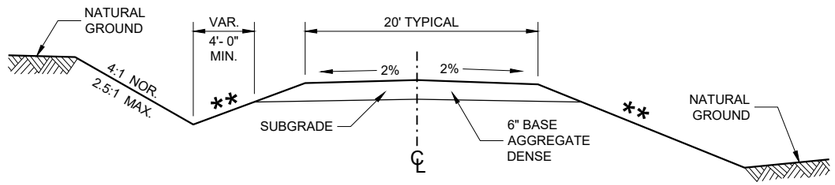
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

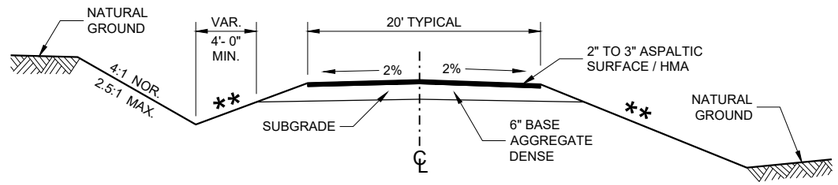


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

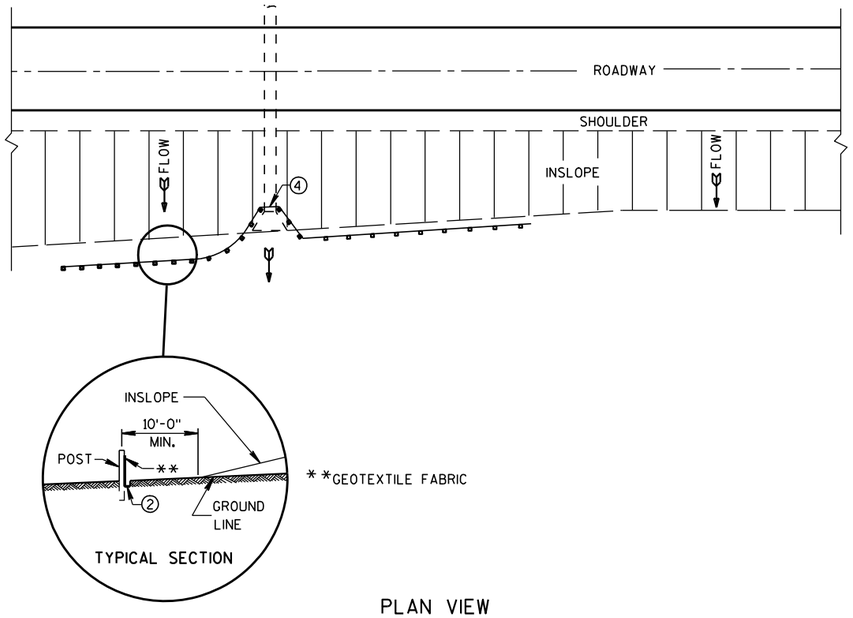
SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

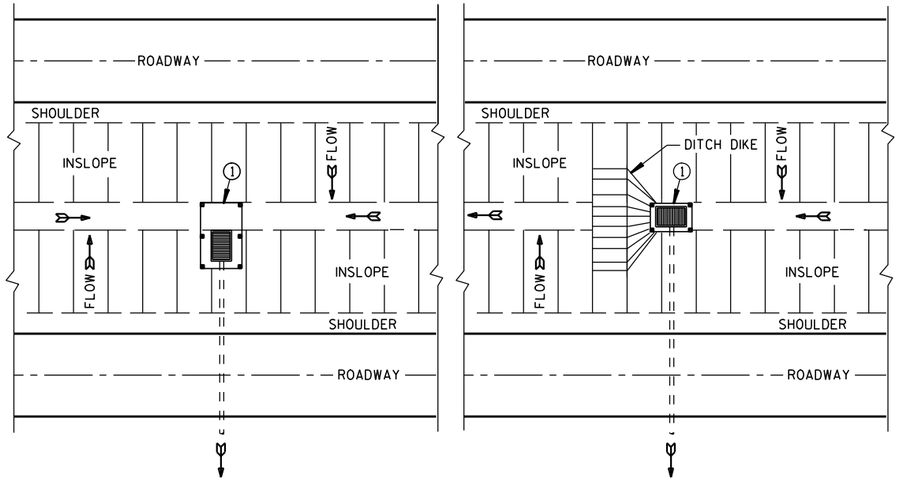
APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

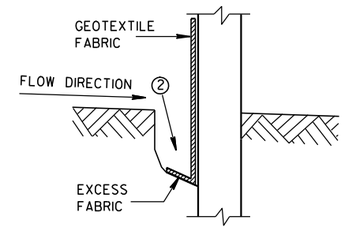
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

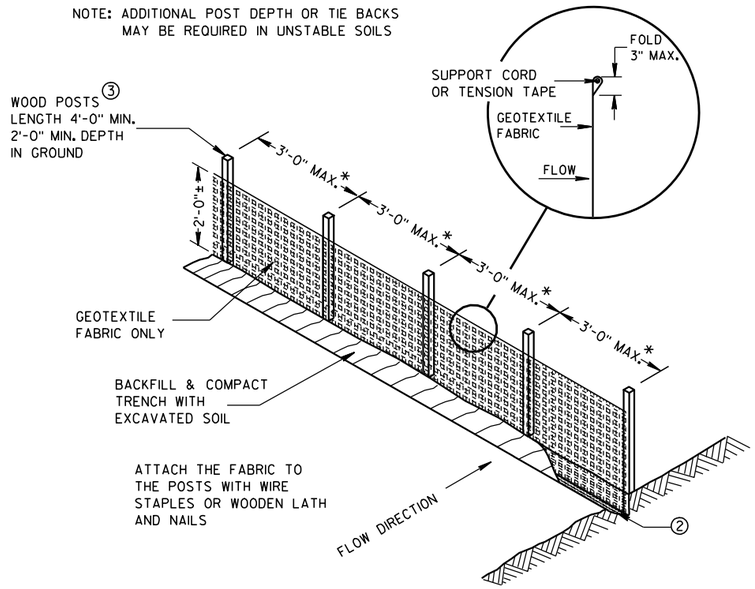
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

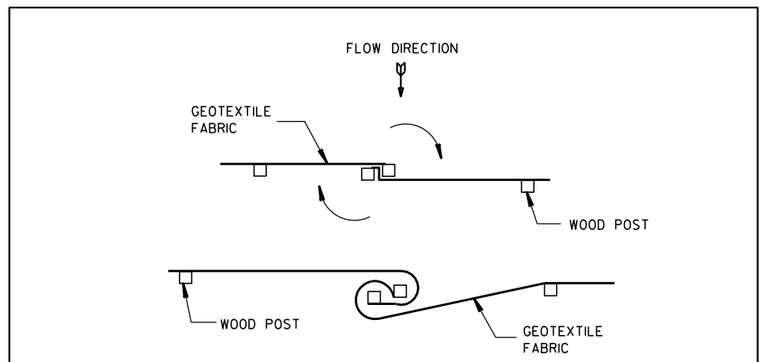
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



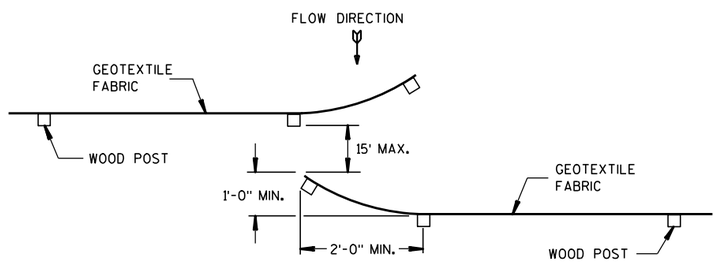
TRENCH DETAIL



SILT FENCE

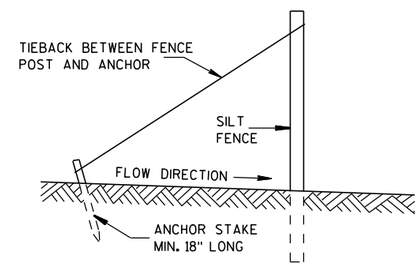


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

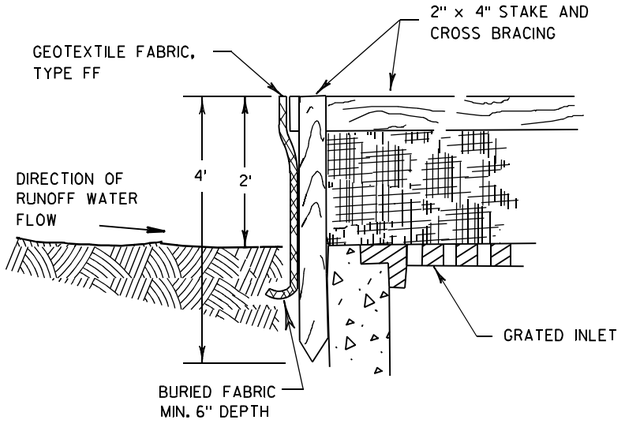
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

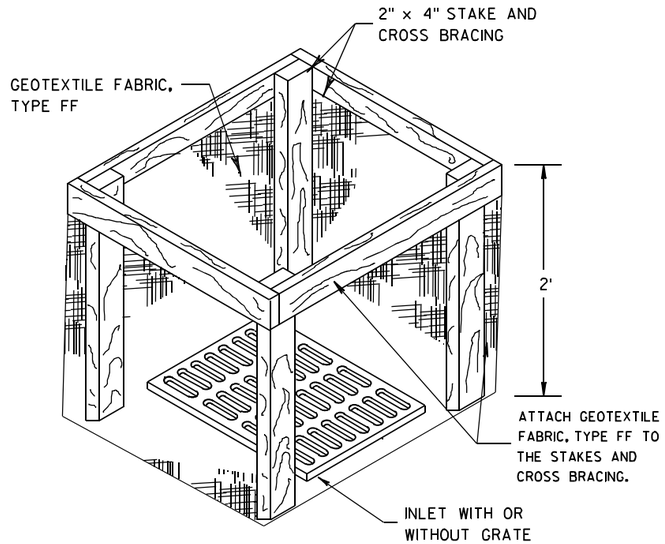
6

S.D.D. 8 E 9-6

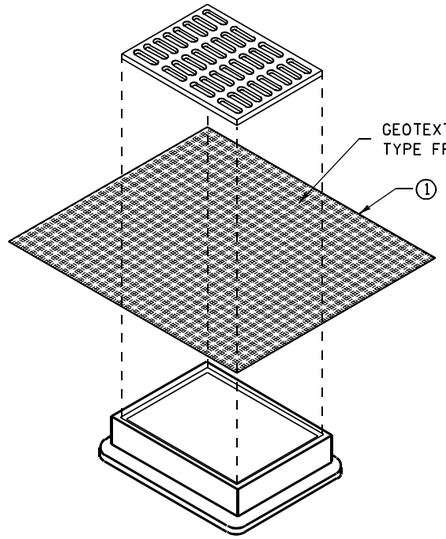
6

S.D.D. 8 E 9-6



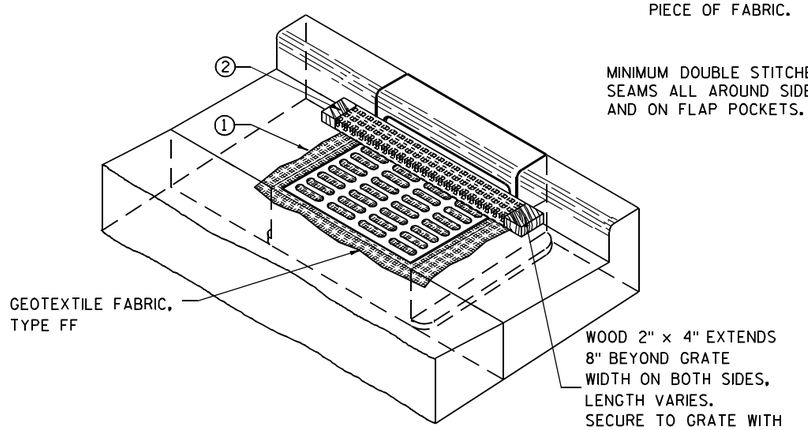


INLET PROTECTION, TYPE A

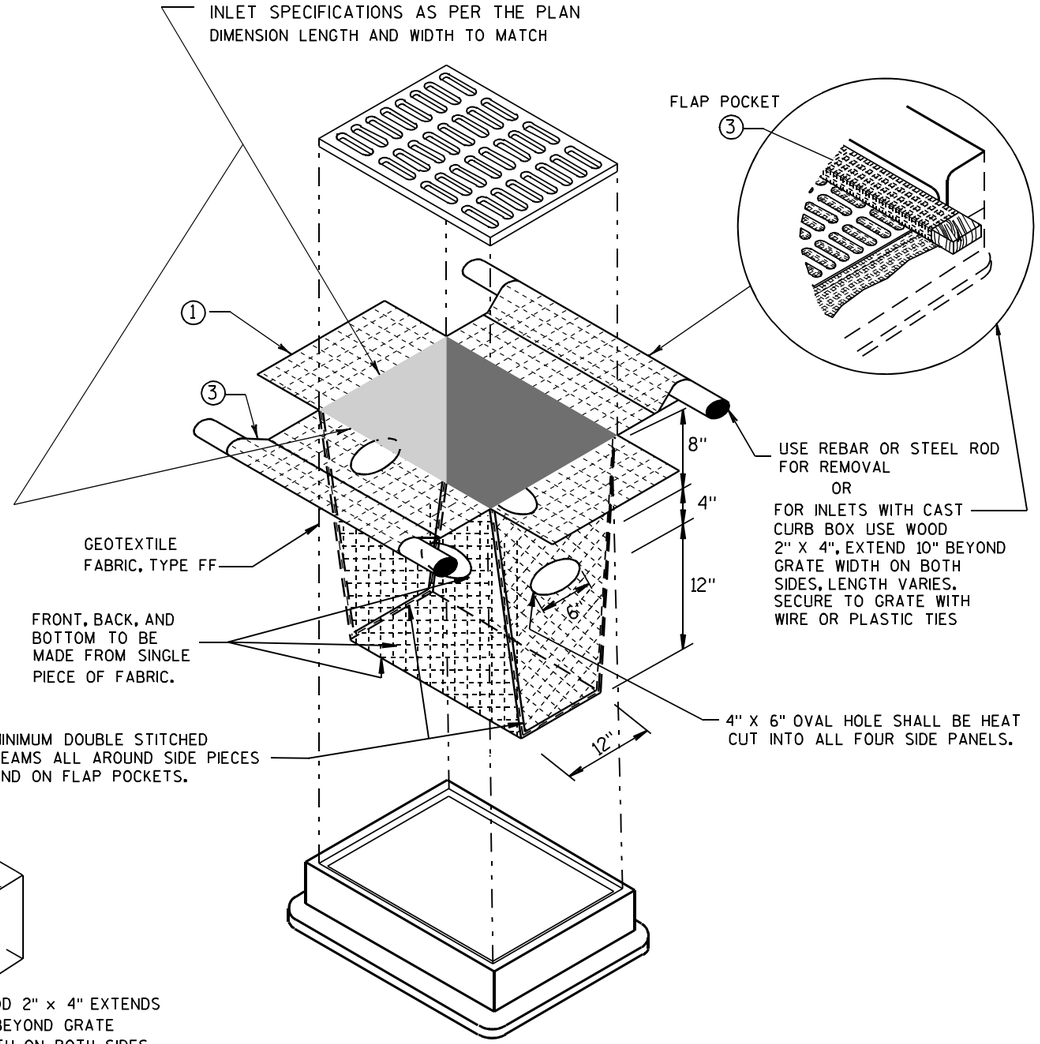


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

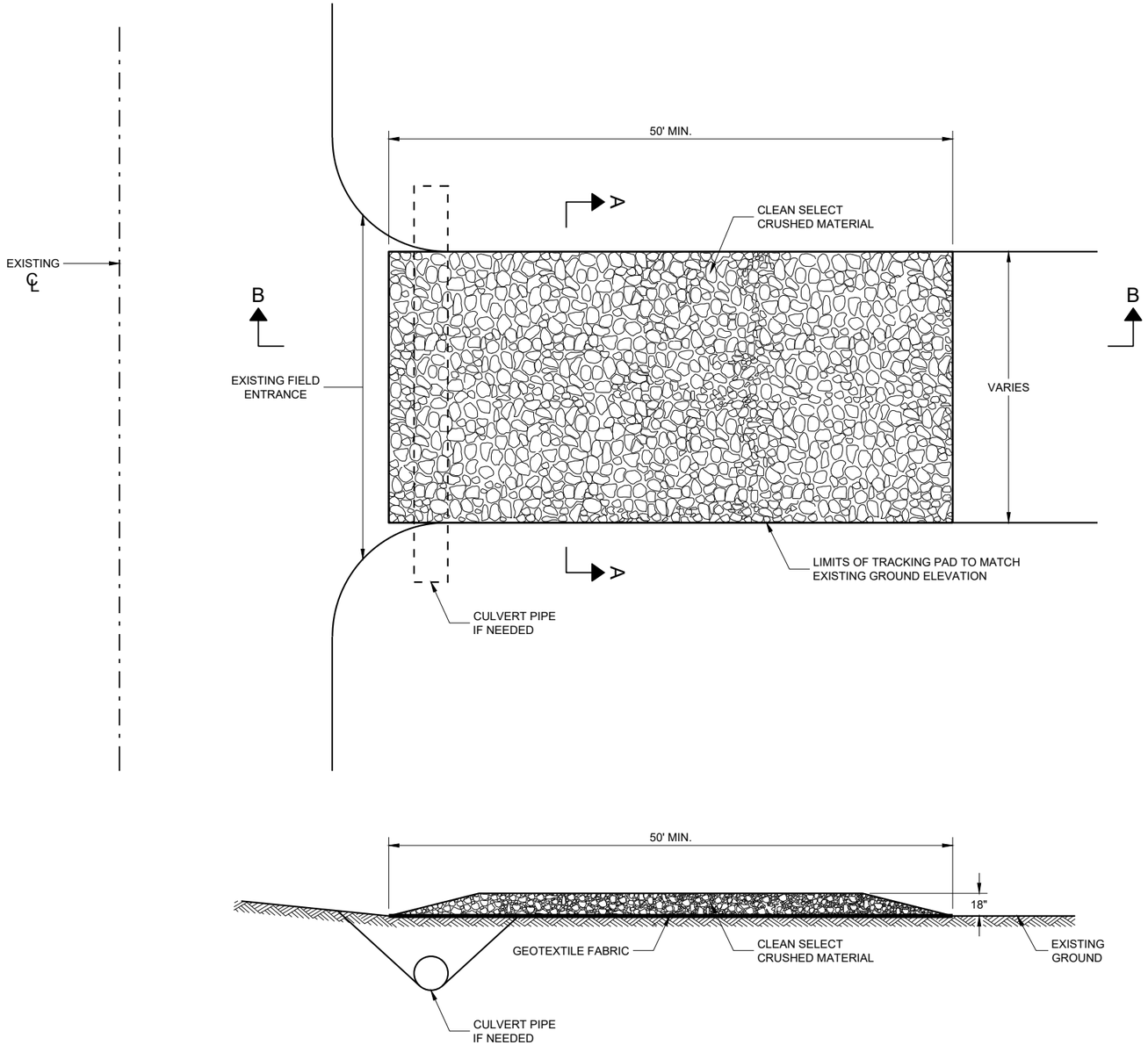
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

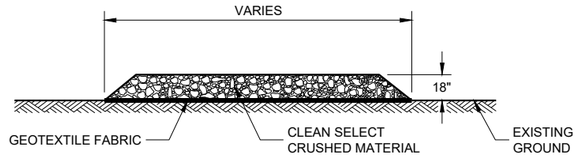
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 08E14 - 01

METAL APRON ENDWALLS

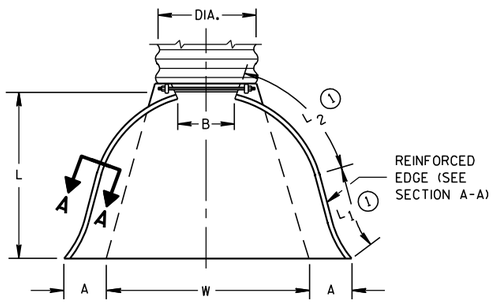
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

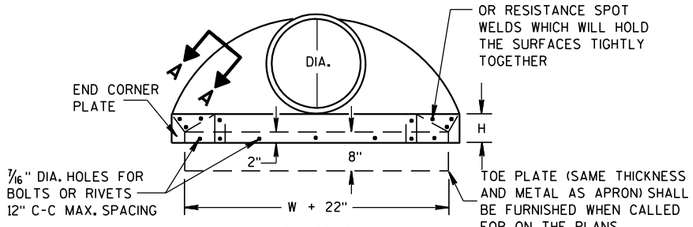
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

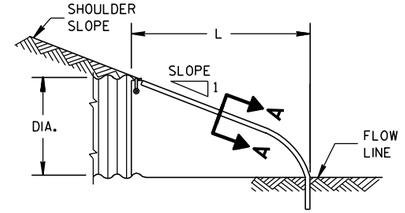
*MINIMUM
**MAXIMUM



PLAN VIEW

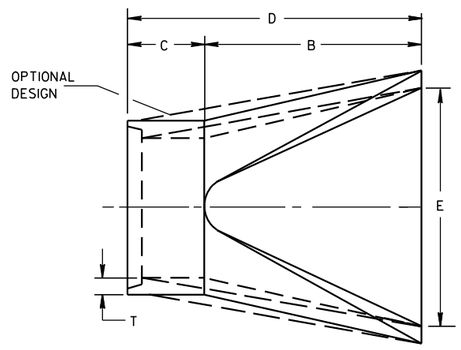


END VIEW

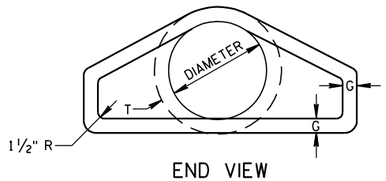


SIDE ELEVATION

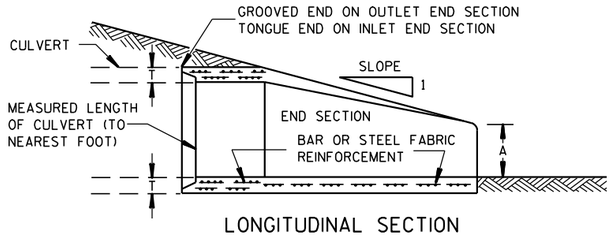
METAL ENDWALLS



PLAN

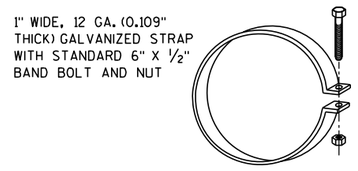


END VIEW



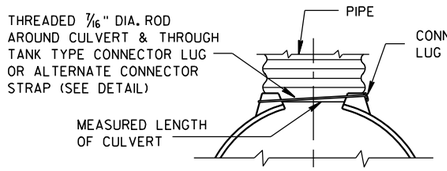
LONGITUDINAL SECTION

CONCRETE ENDWALLS

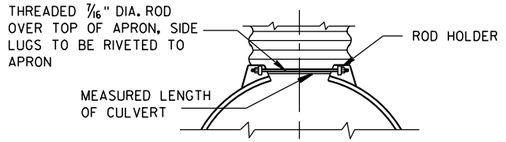


ALTERNATE FOR TYPE 1 CONNECTION

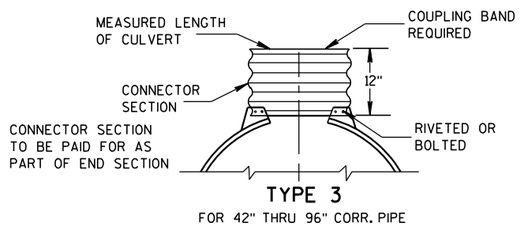
END SECTION CONNECTOR STRAP



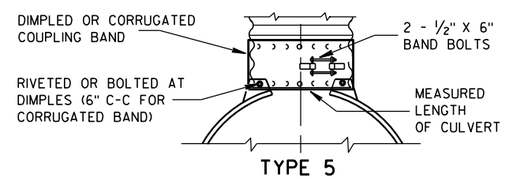
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

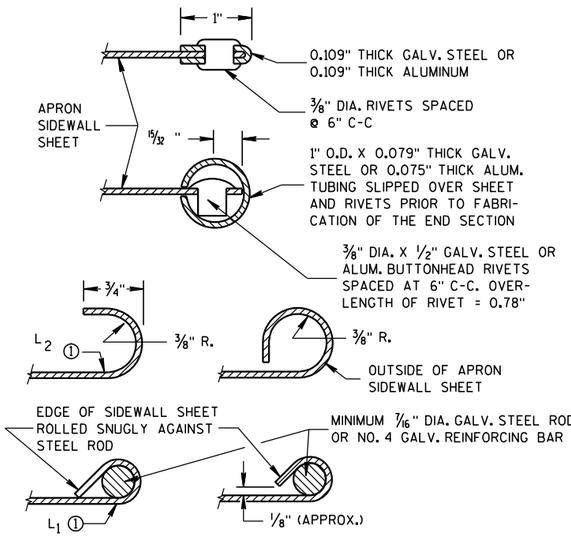
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

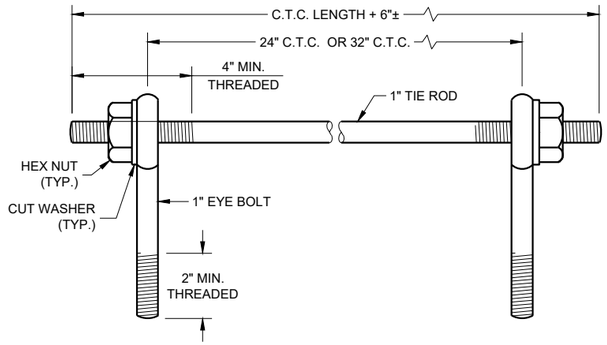
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

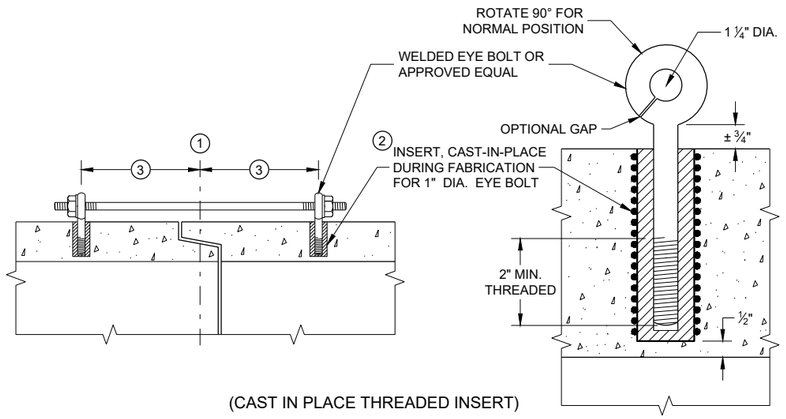
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

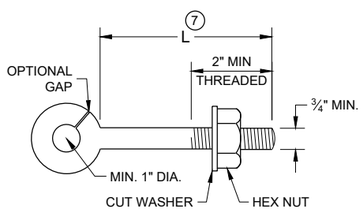
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

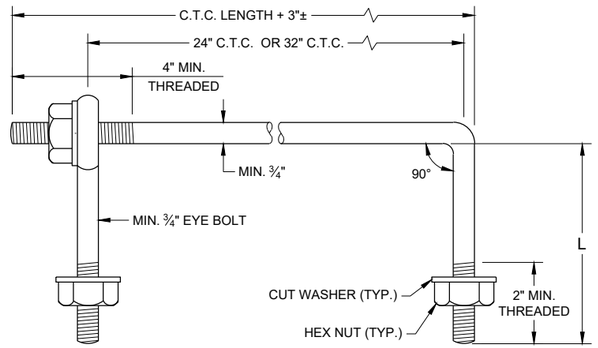
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

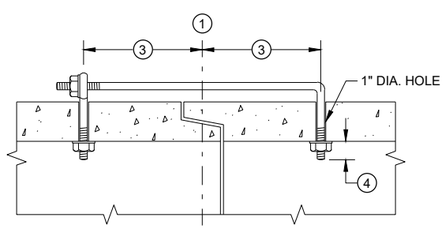


EYE BOLT (7)

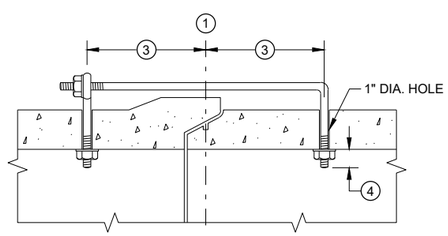
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

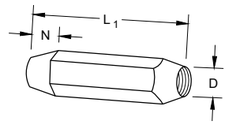
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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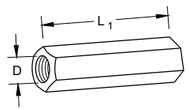
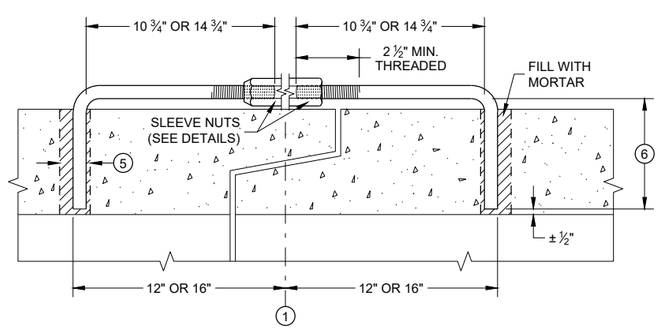


PLAIN

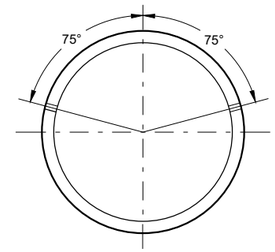
RIGHT AND LEFT THREADS

SLEEVE NUTS



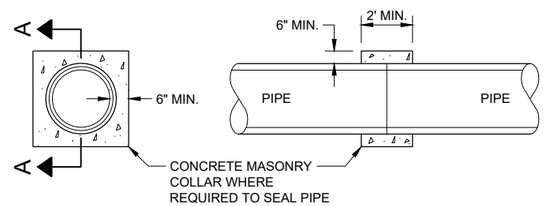
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

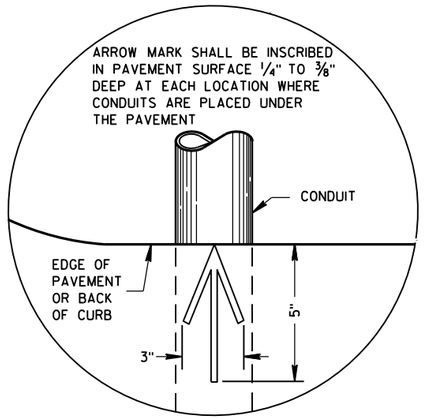
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

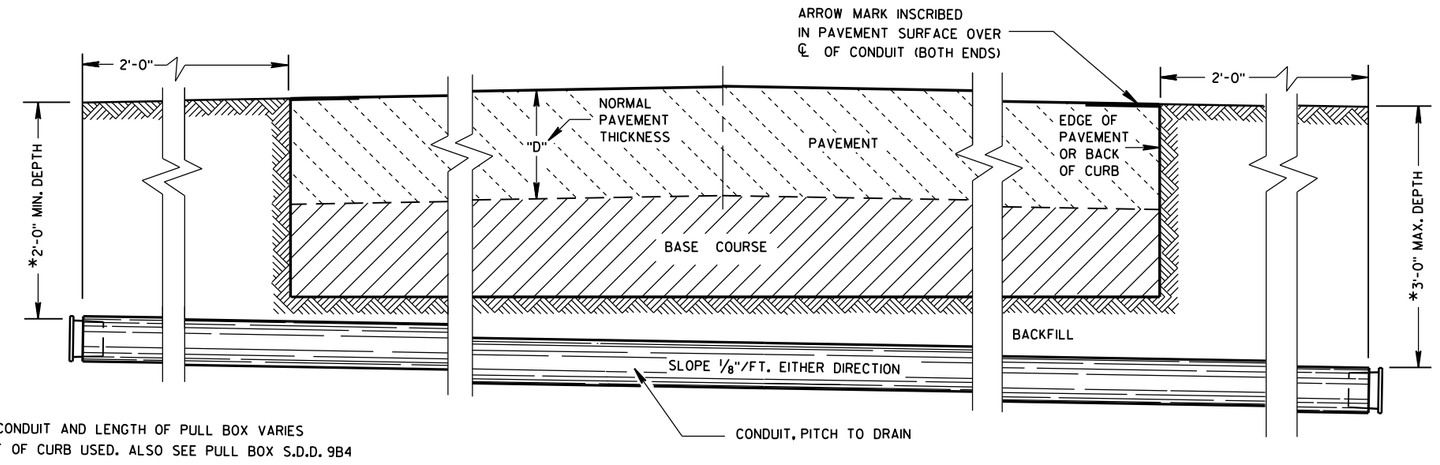
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

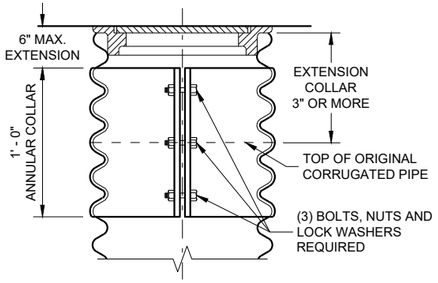
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

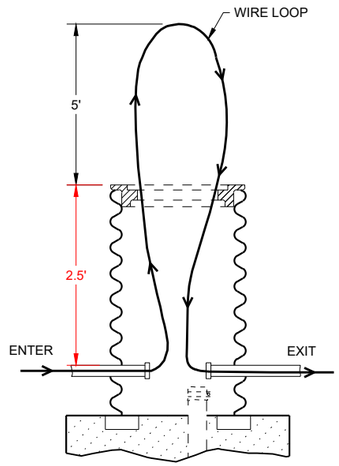
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

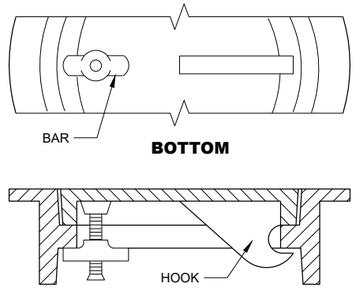
S.D.D. 9 B 2-10



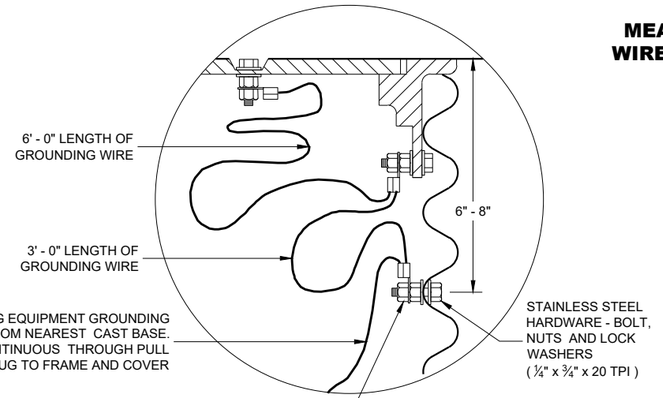
CORRUGATED PIPE EXTENDER



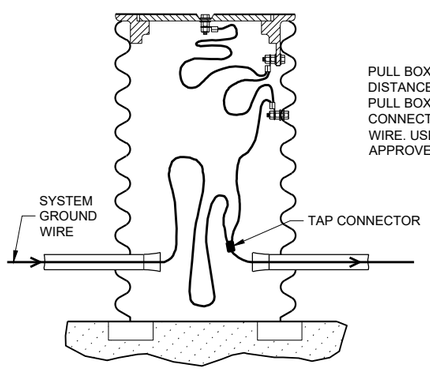
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

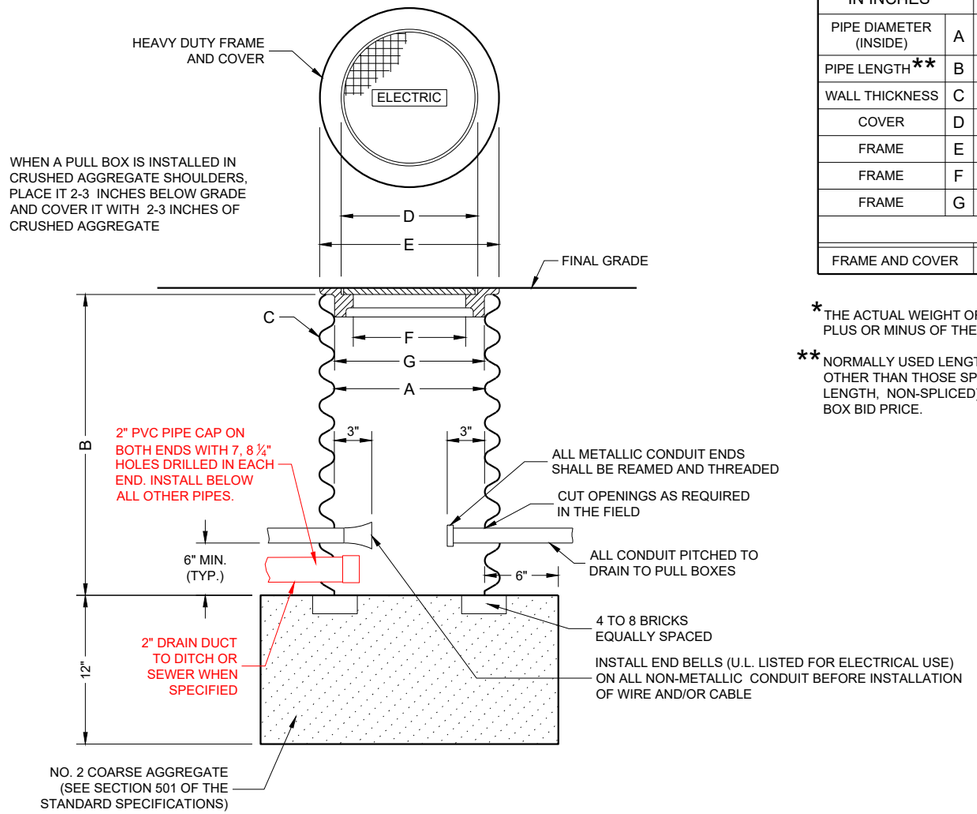


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

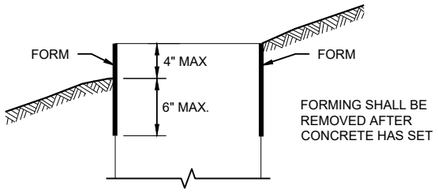
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 267

FHWA

6
SDD 09B04-12

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

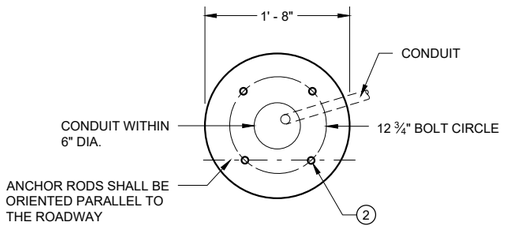
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

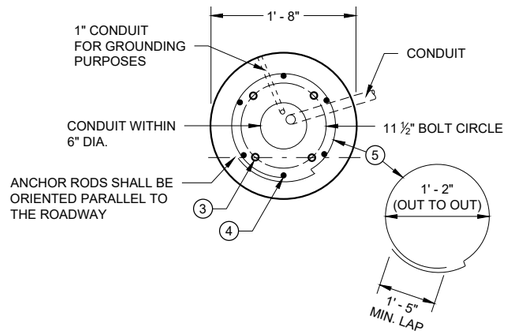
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

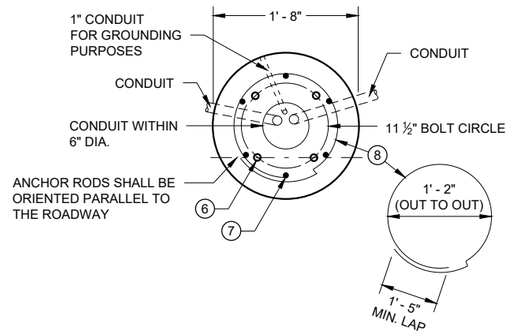
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

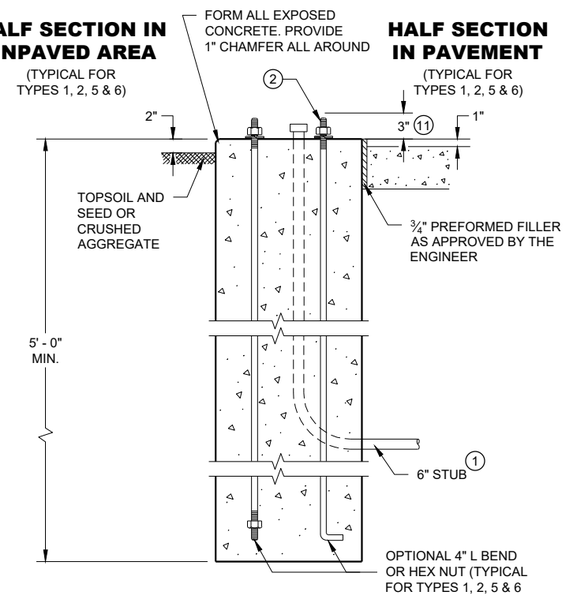
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

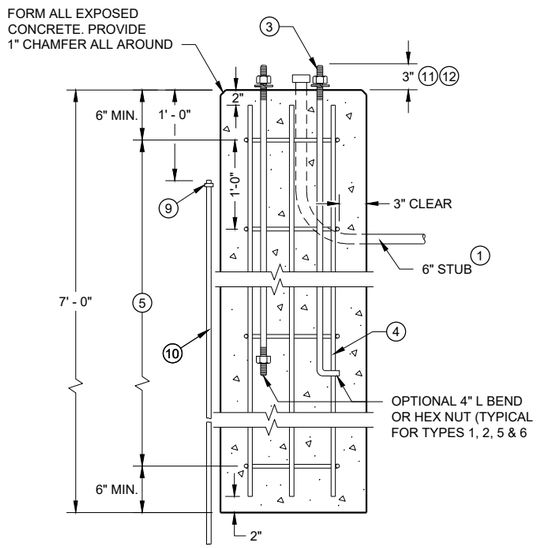
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



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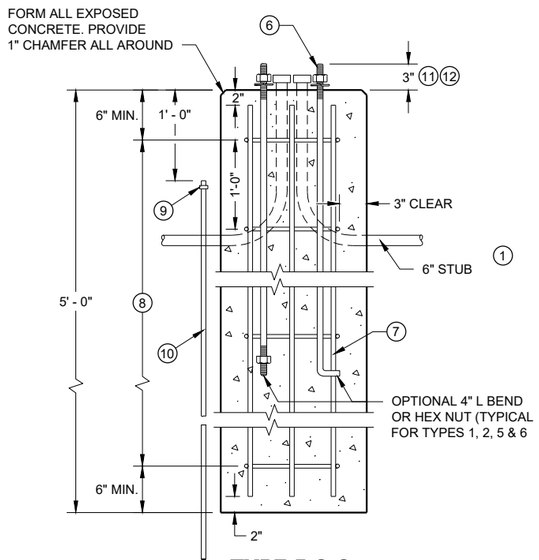


TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 268

FHWA

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

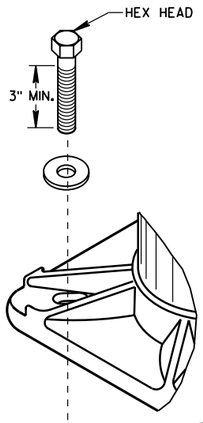
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

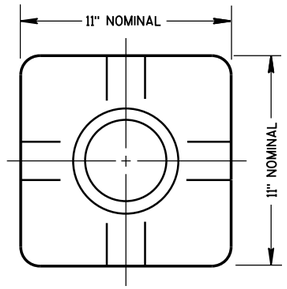
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

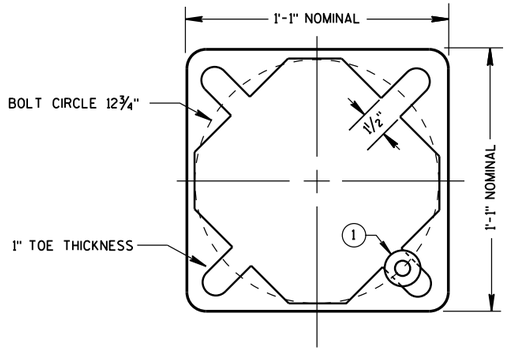
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

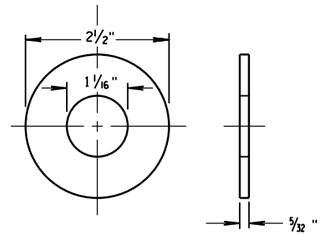




TOP VIEW
(PEDESTAL BASE)

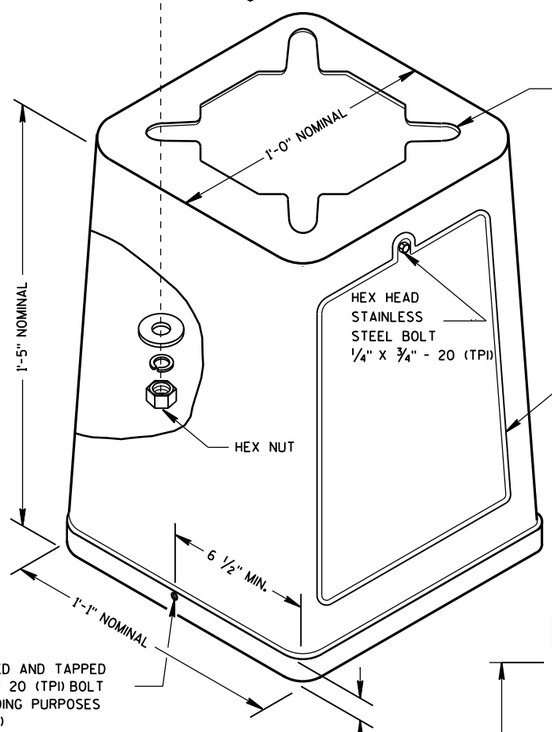


BOTTOM VIEW
(PEDESTAL BASE)

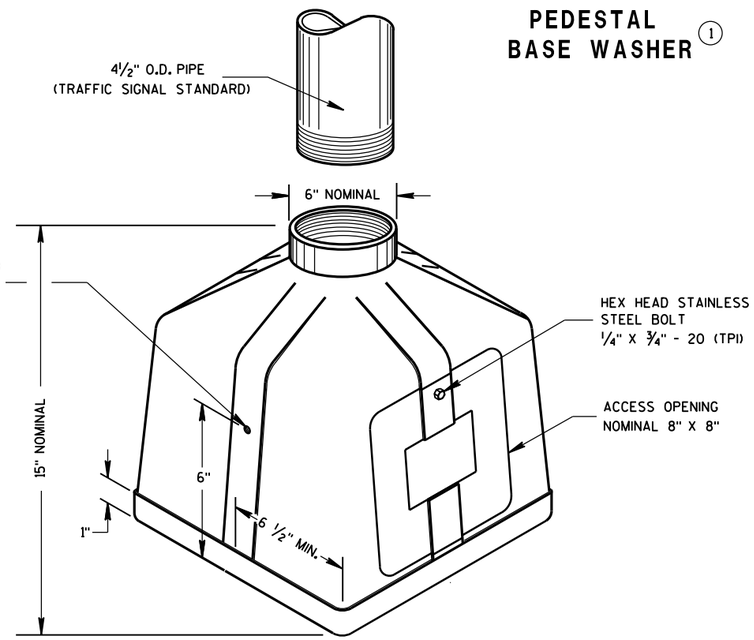


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

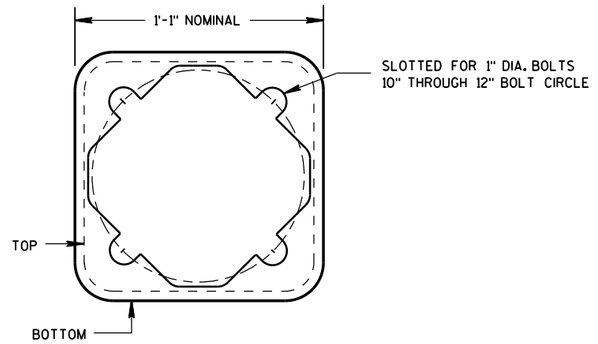


ISOMETRIC VIEW

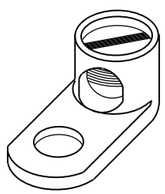


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

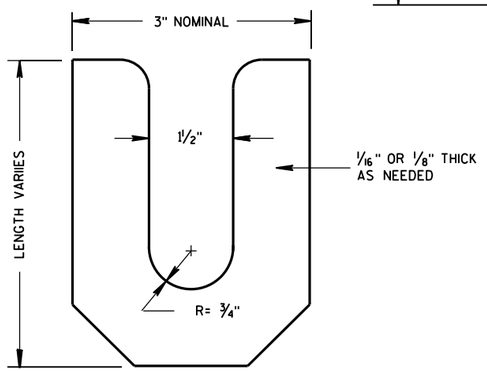


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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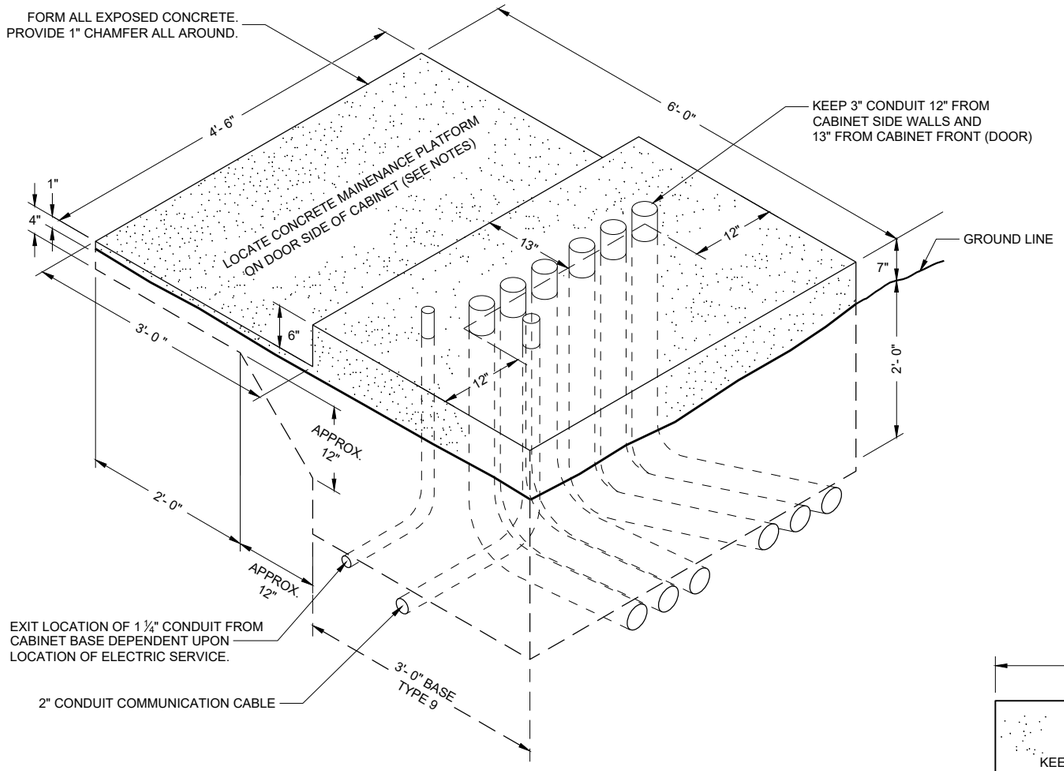
S.D.D. 9 C 3-4

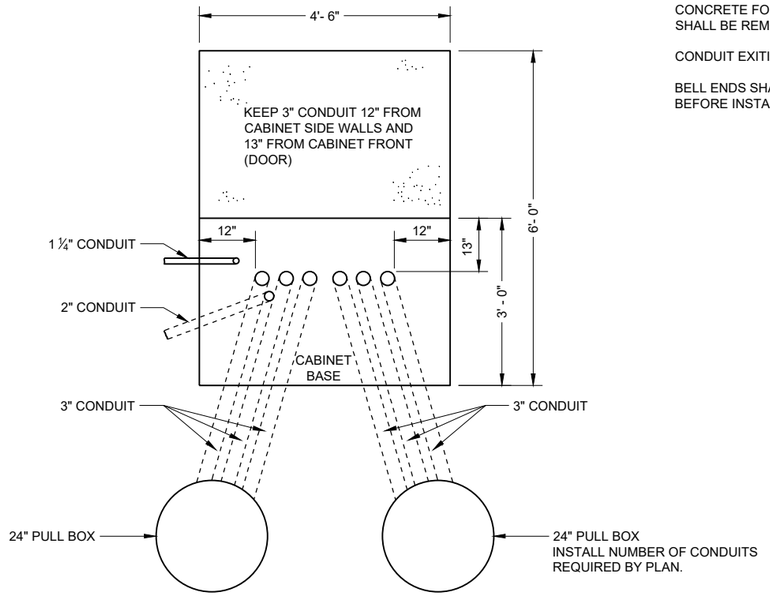
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW

TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 270

FHWA

6

SDD 09C06 - 07

6

SDD 09C06 - 07

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

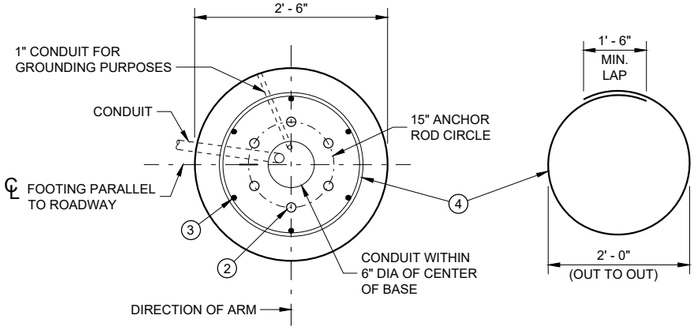
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

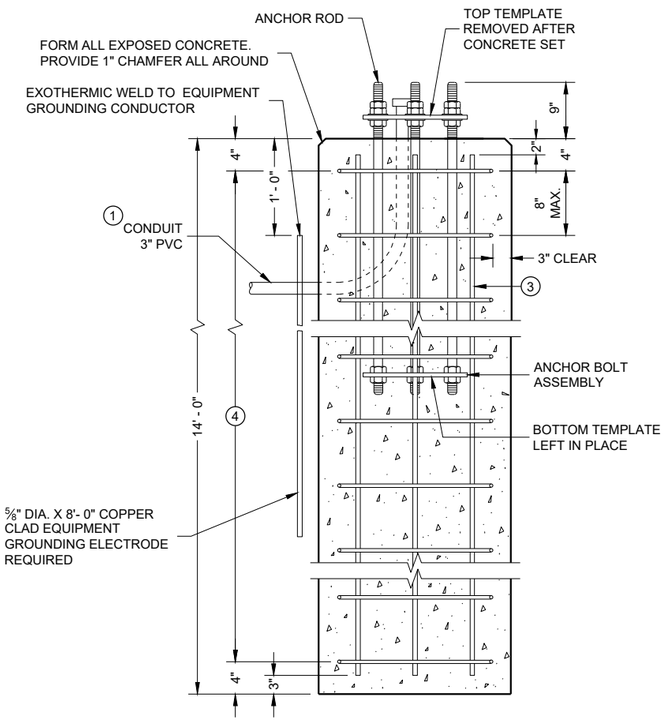
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

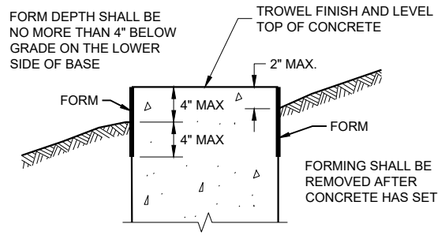
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



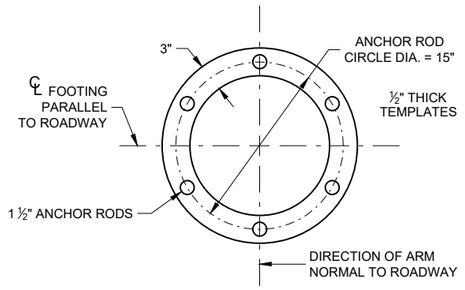


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

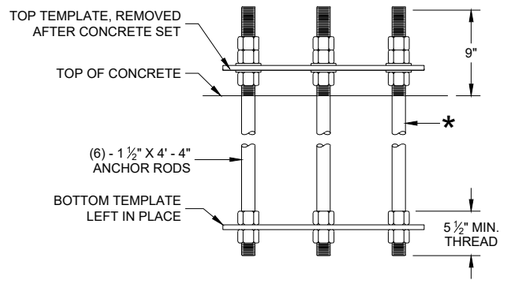
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

6

SDD 09C11 - 10

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 ½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

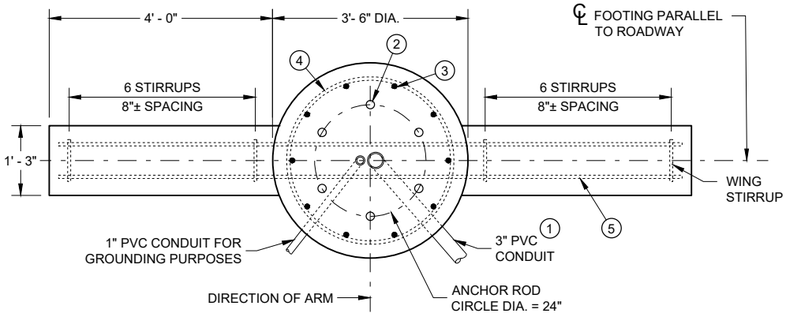
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

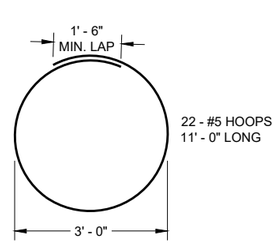
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

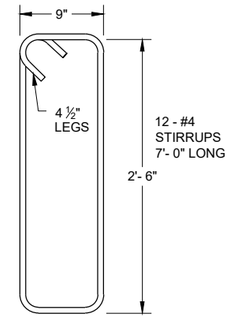
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



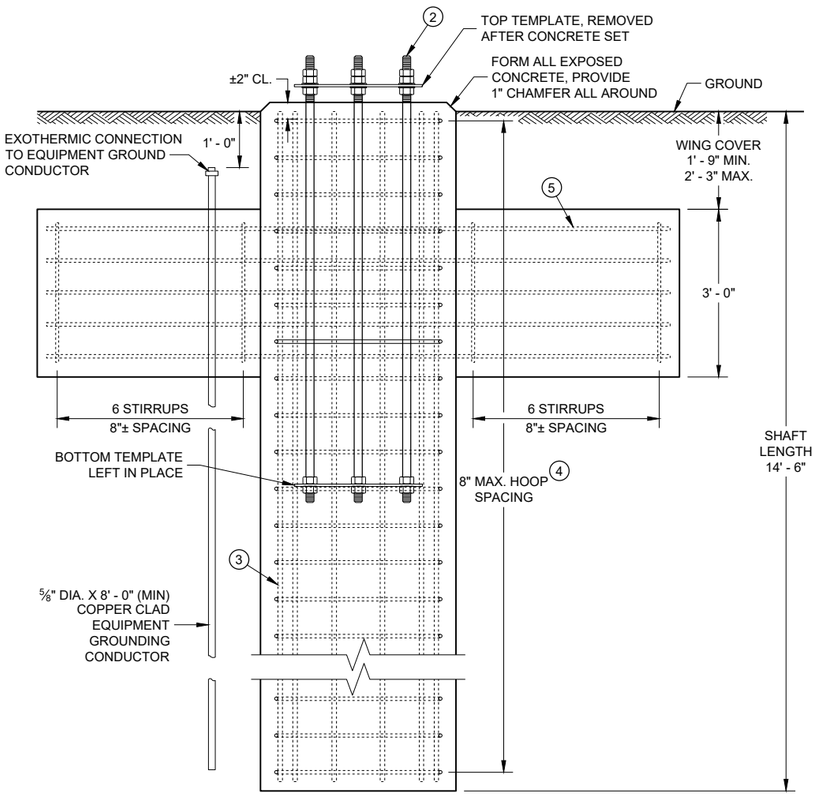
PLAN VIEW



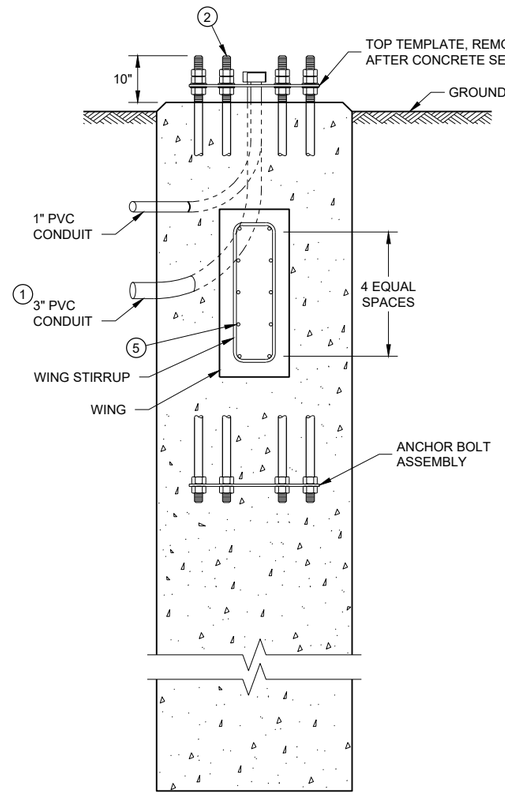
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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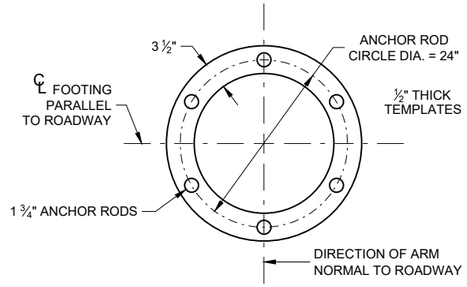
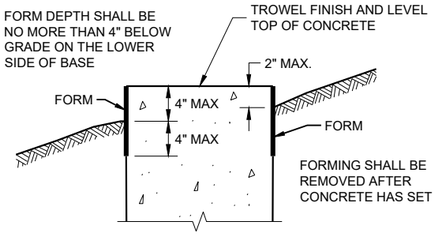
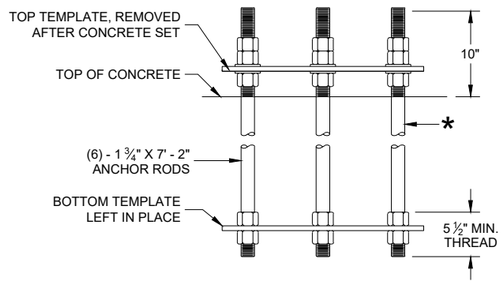
SDD 09C12 - 09a



TOP AND BOTTOM TEMPLATE



FORMING DETAIL



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

6

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

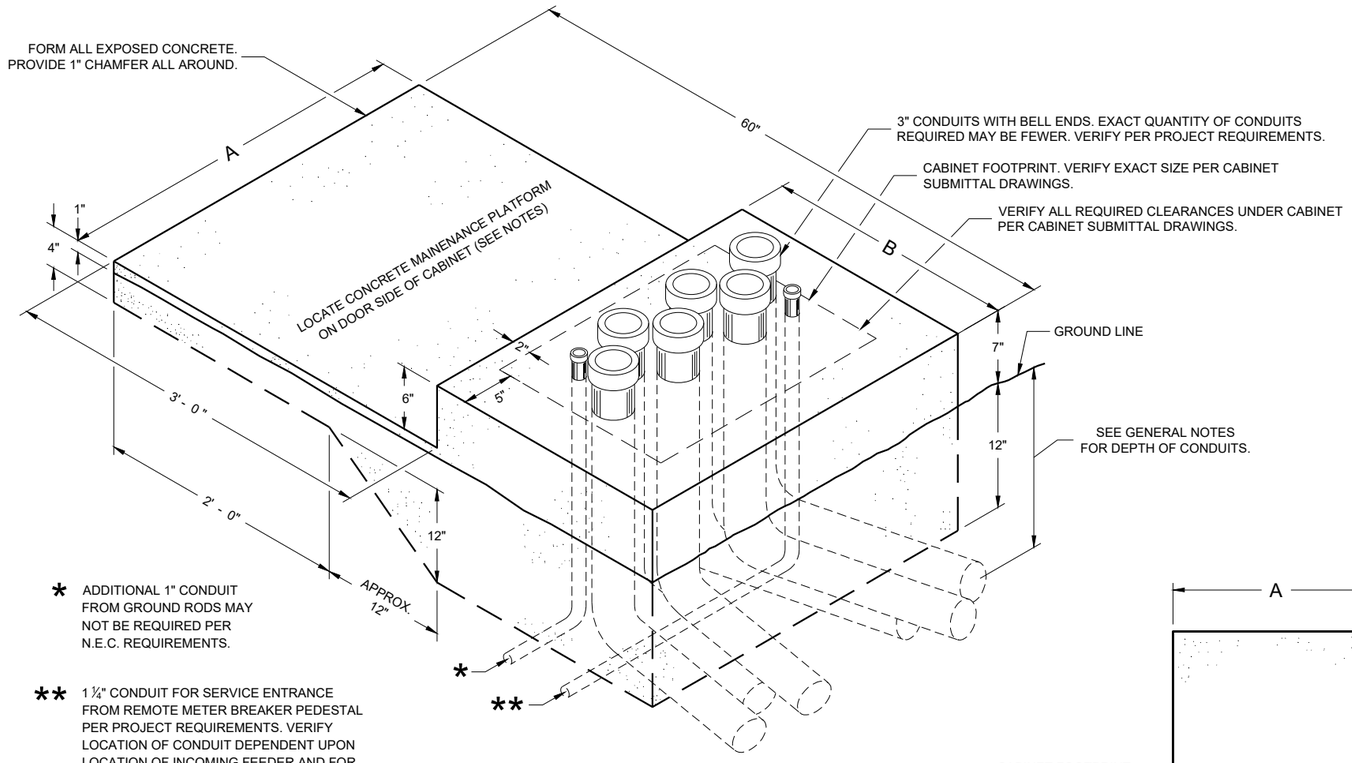
APPROVED

May 2017
DATE

/S/ Ahmet Demirbilek
WIND LOADED STRUCTU
PROGRAM LEADER

FHWA

SDD 09C12 - 09b



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

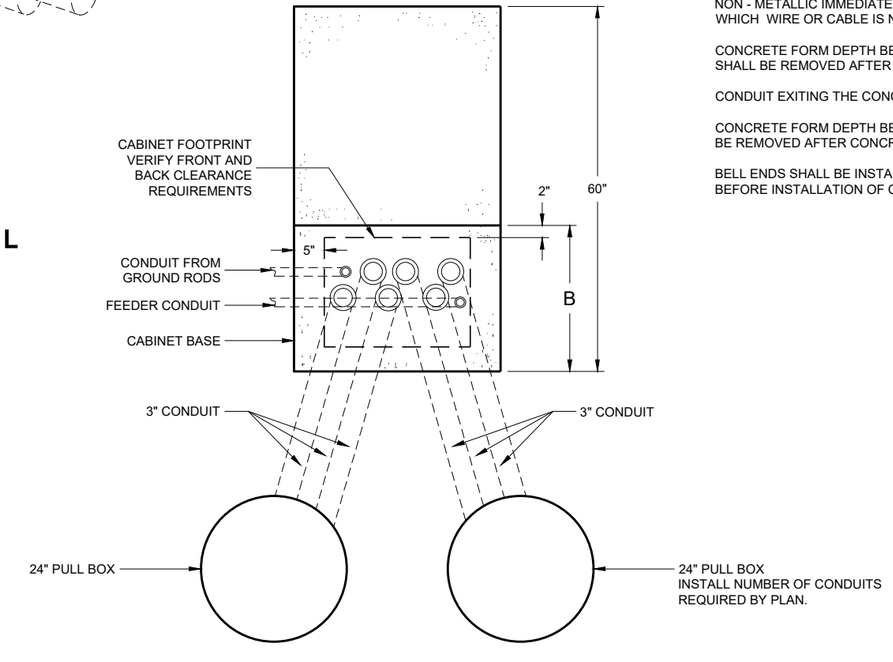
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 274

FHWA

SDD 09C14 - 03

SDD 09C14 - 03

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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

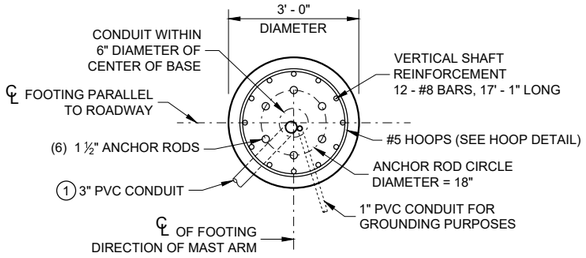
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

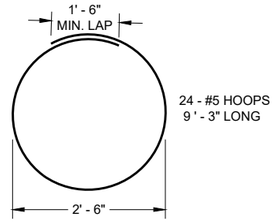
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

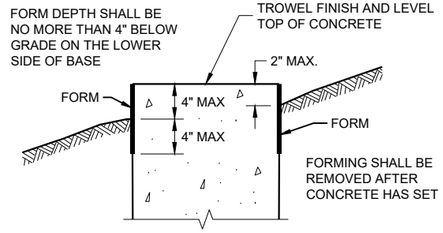
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



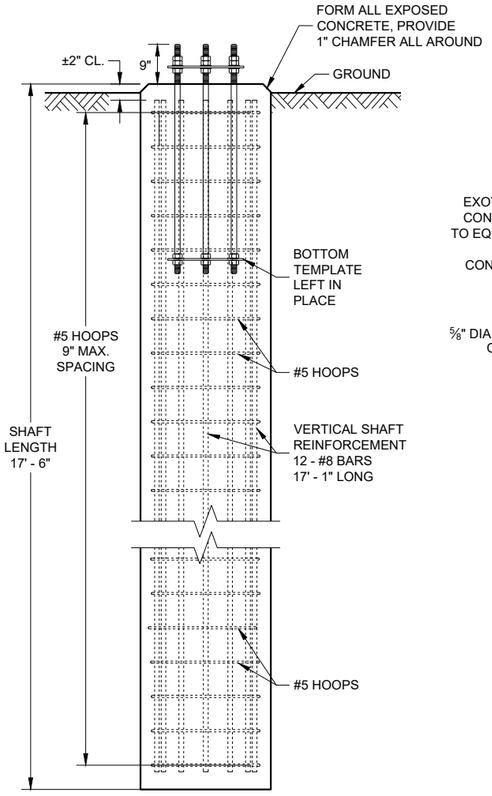
PLAN VIEW



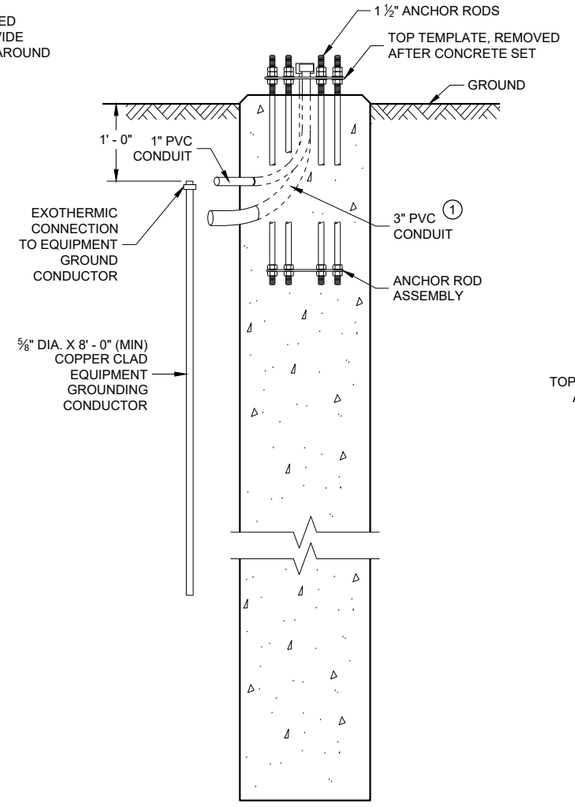
HOOP DETAIL



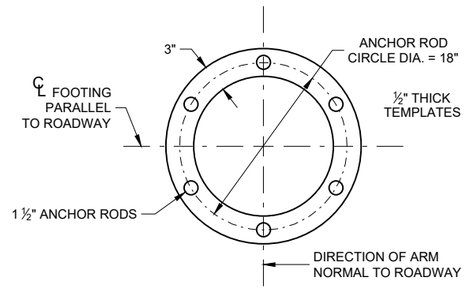
FORMING DETAIL



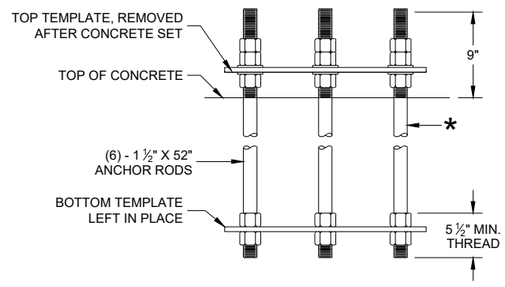
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

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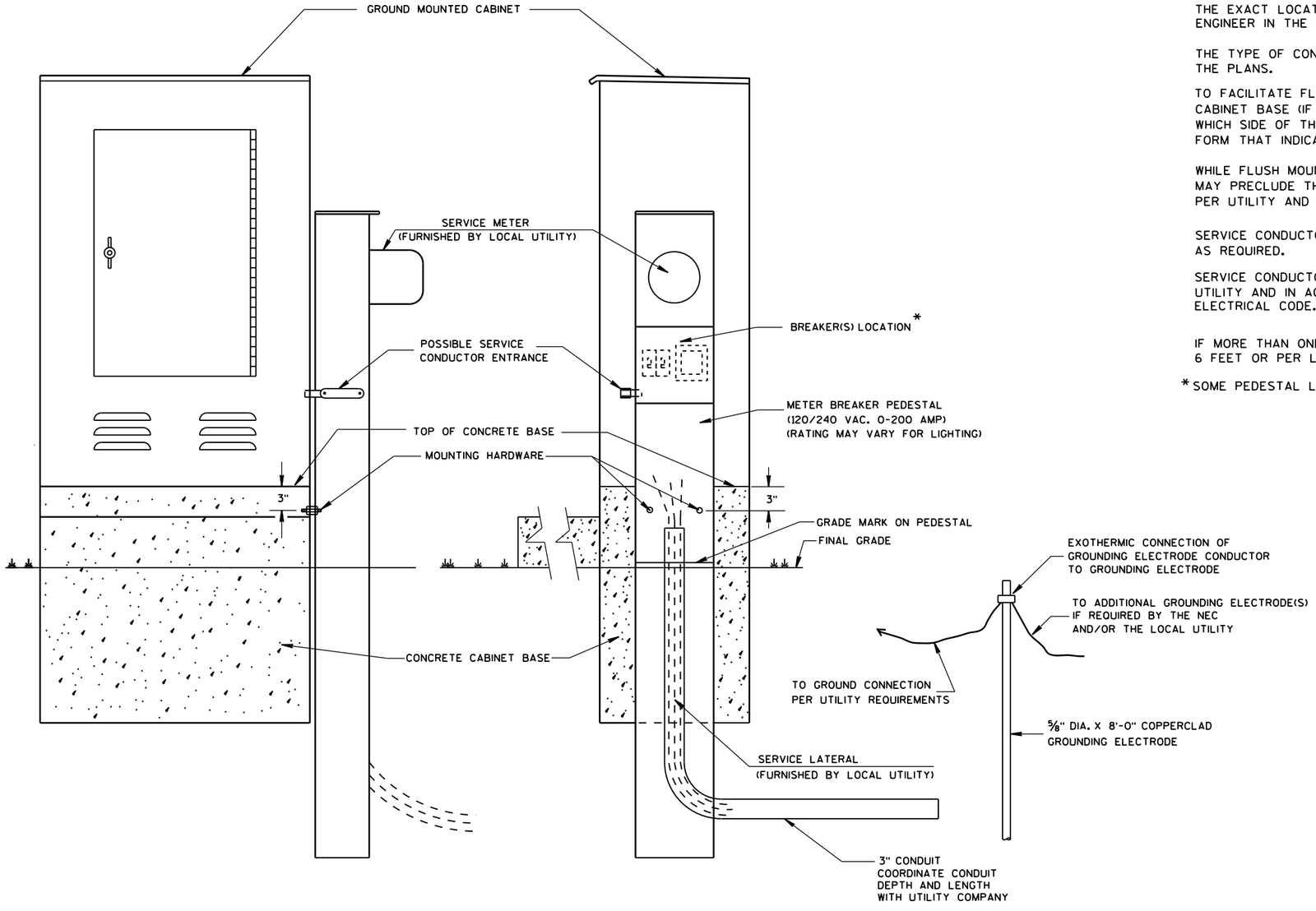
SDD 09C15 - 01



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

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S.D.D. 9 D 1-5

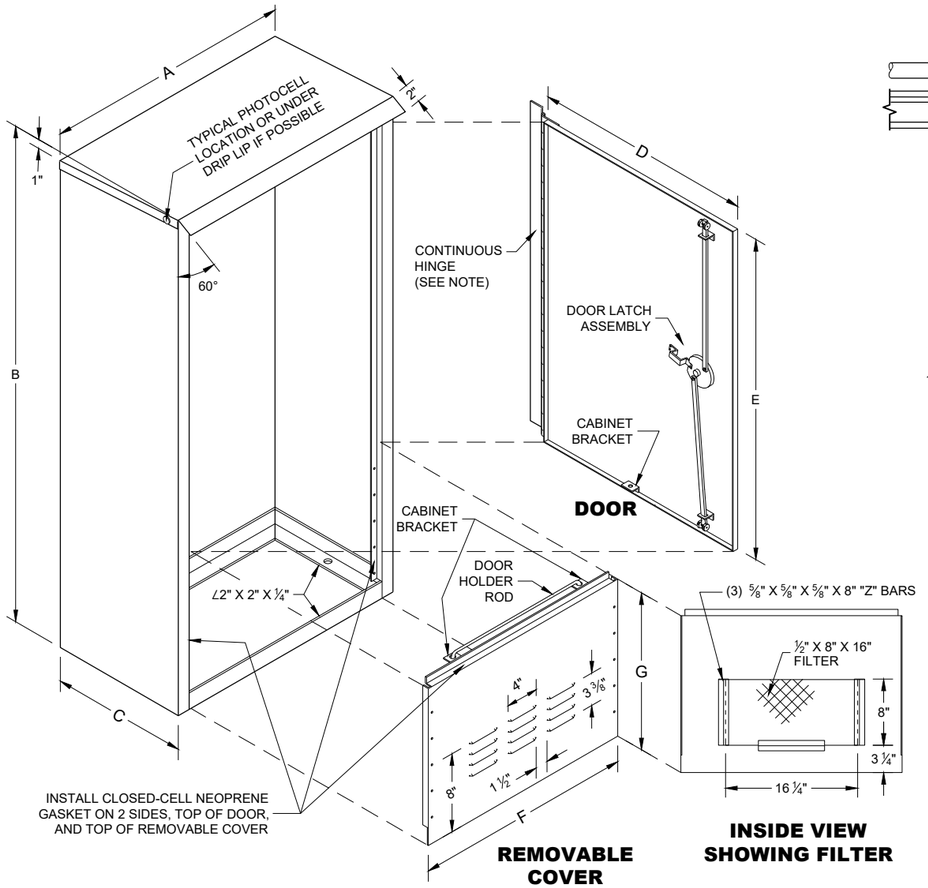
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

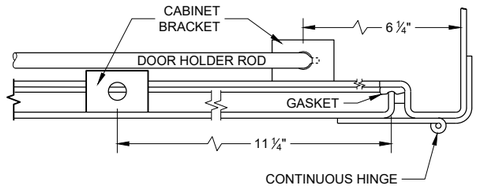
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

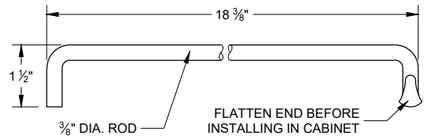
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

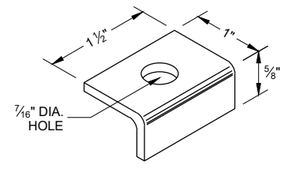




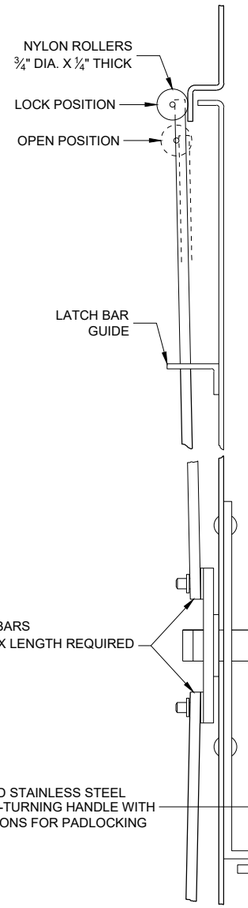
HINGE AND DOOR HOLDER



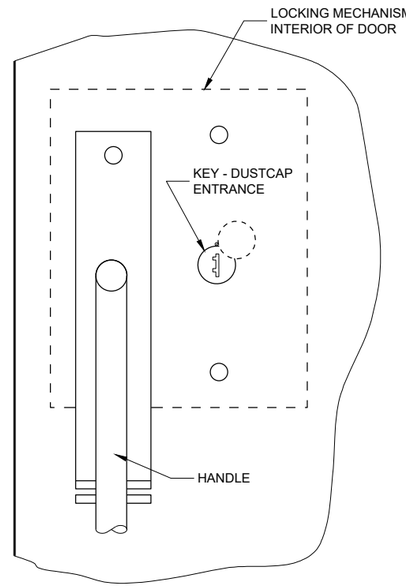
HOLDER ROD



CABINET BRACKET



SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

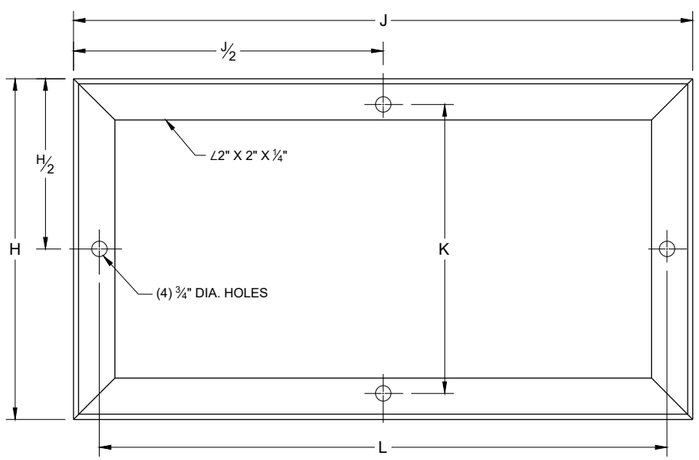
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

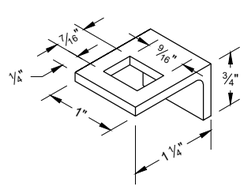
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 277

FHWA

SDD 09D02 - 03

SDD 09D02 - 03

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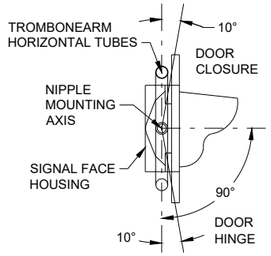
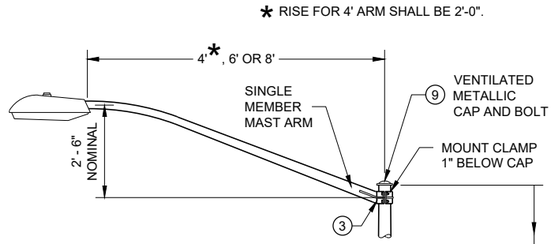
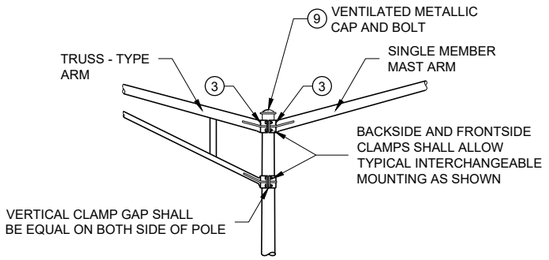
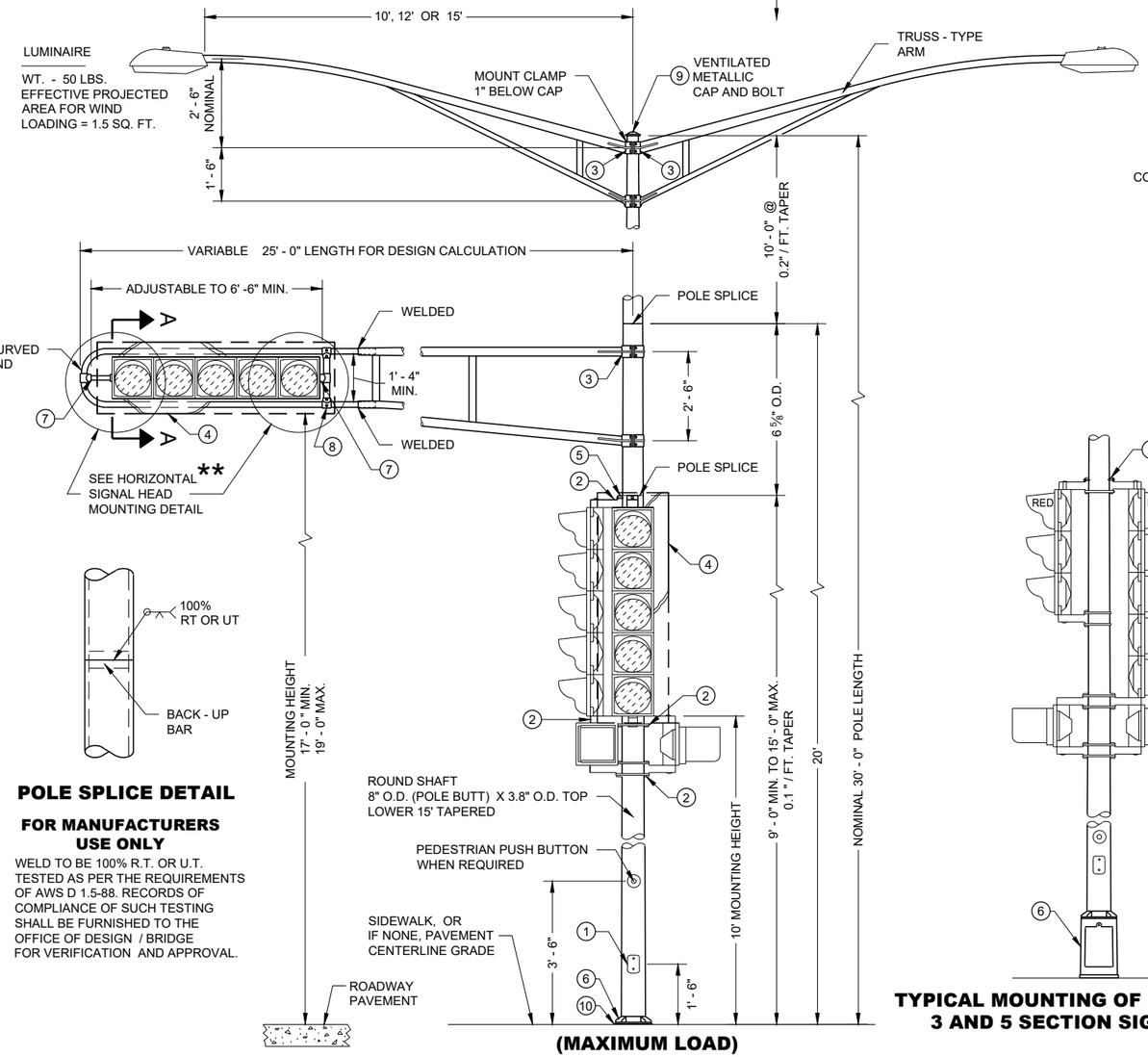


SECTION A-A

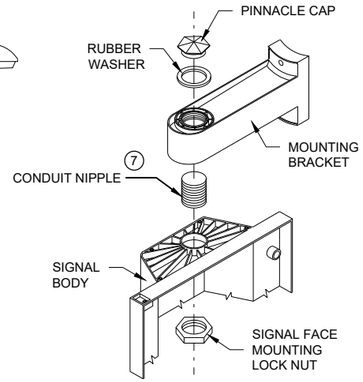




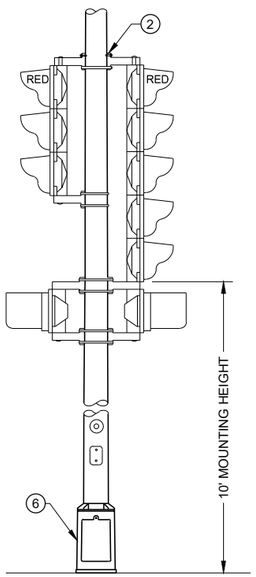
INTERCHANGEABLE MOUNTING DETAIL



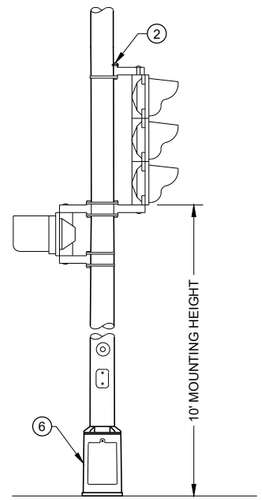
(MAXIMUM LOAD)



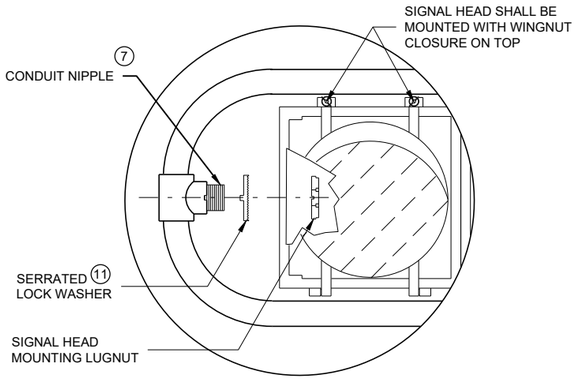
SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
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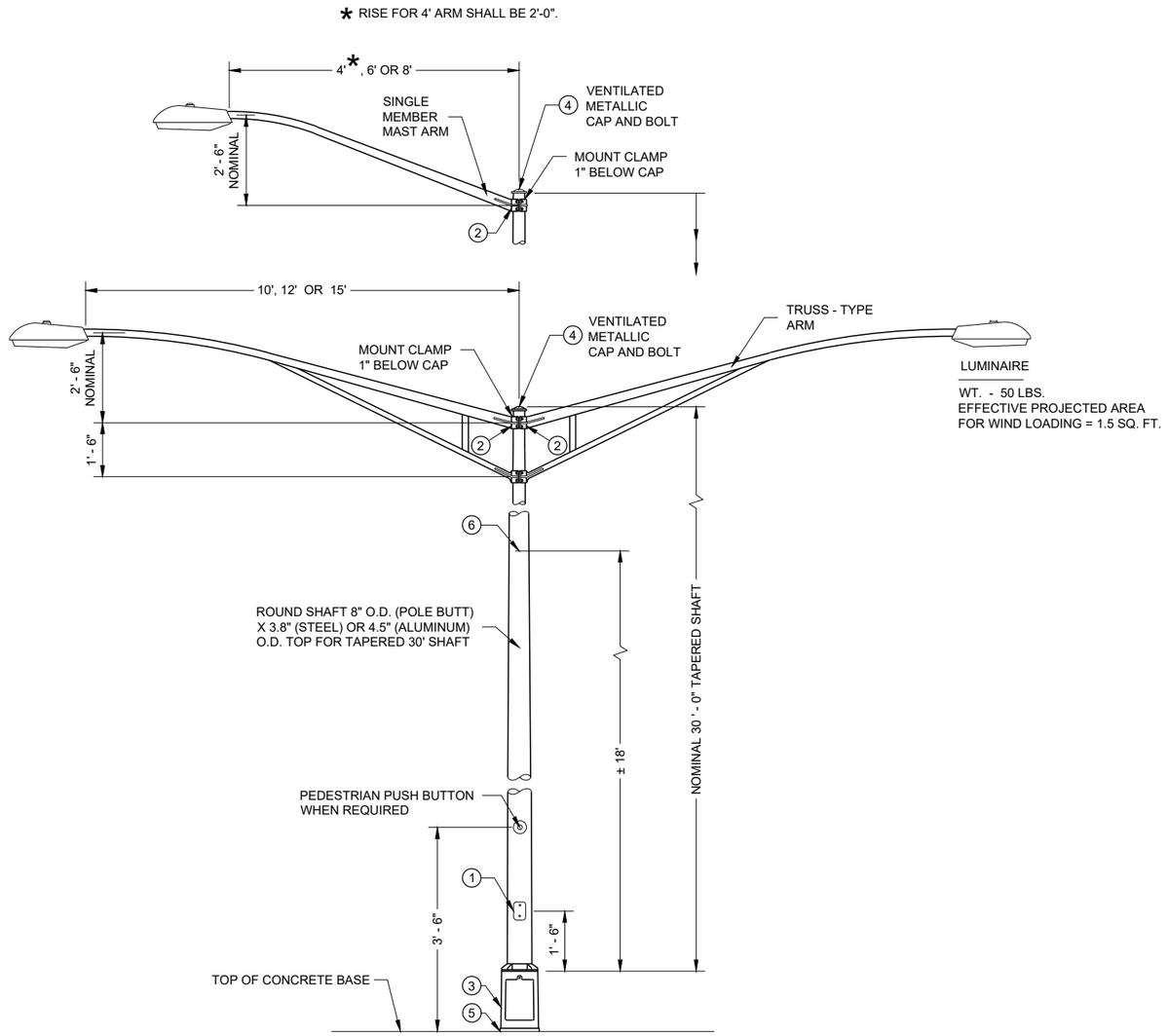


TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

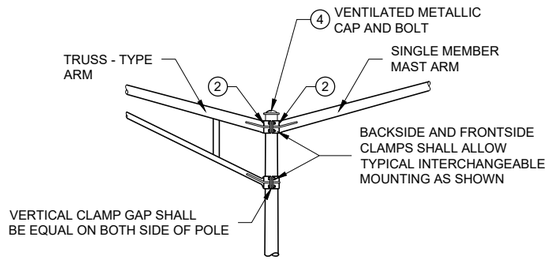
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

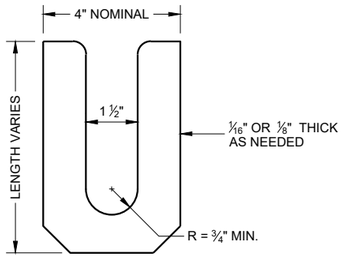
(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.

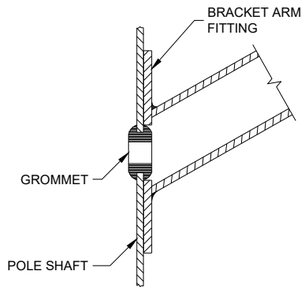


INTERCHANGEABLE MOUNTING DETAIL

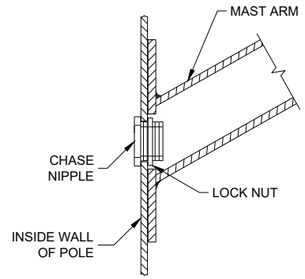
POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

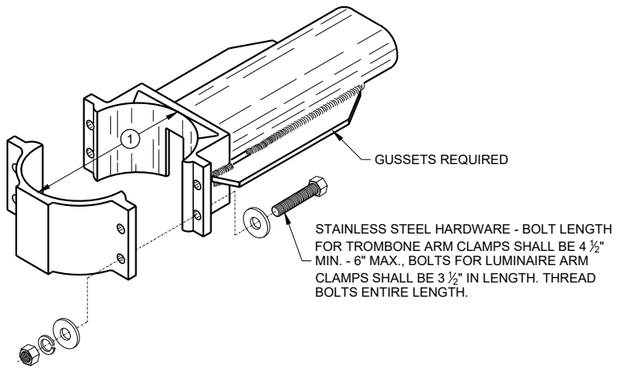
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

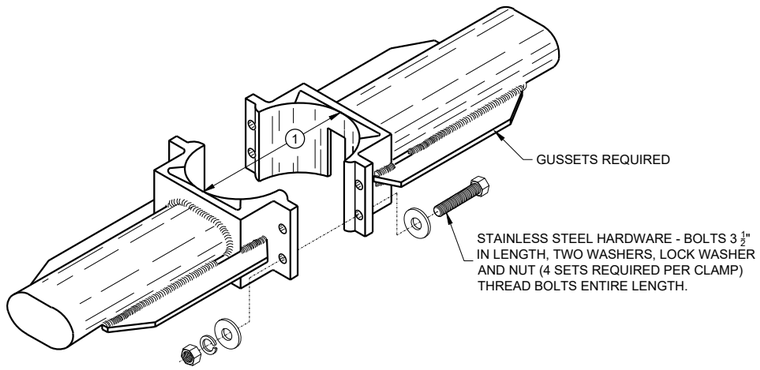
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

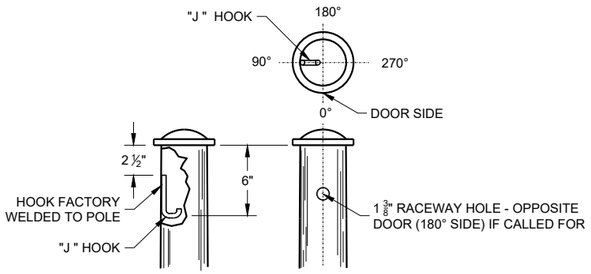
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



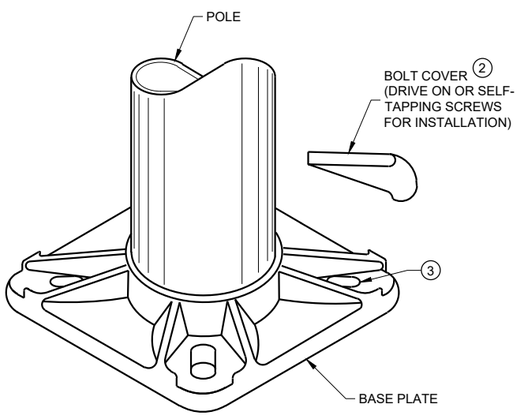
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



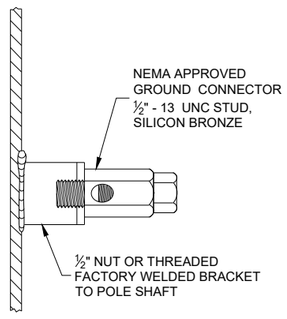
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

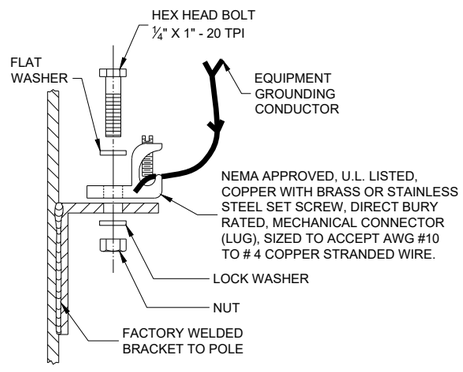


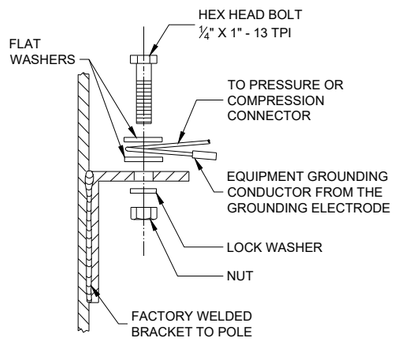
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 280

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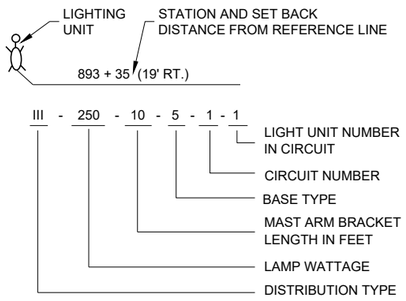
GENERAL NOTES

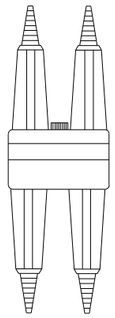
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

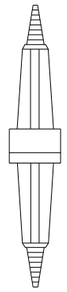
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



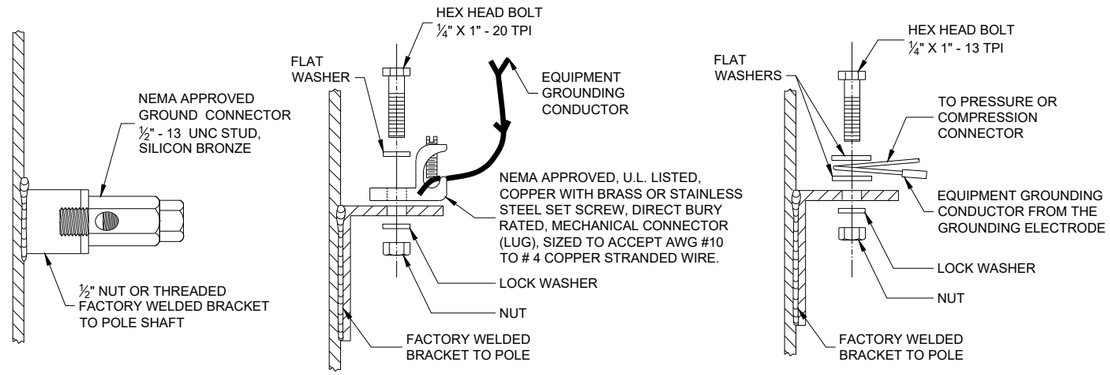
LIGHTING UNIT CODE
(TYPICAL)



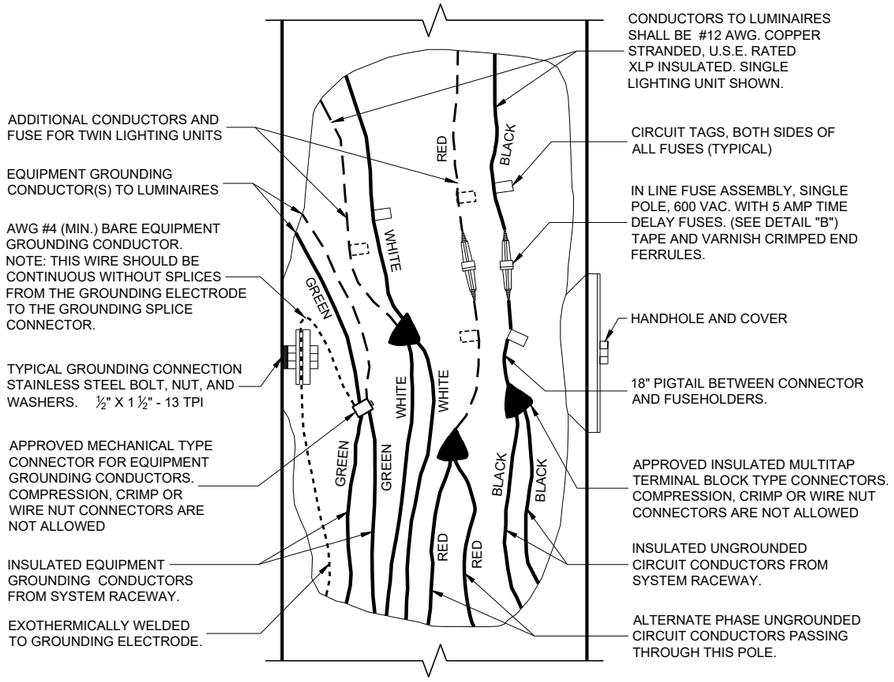
DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



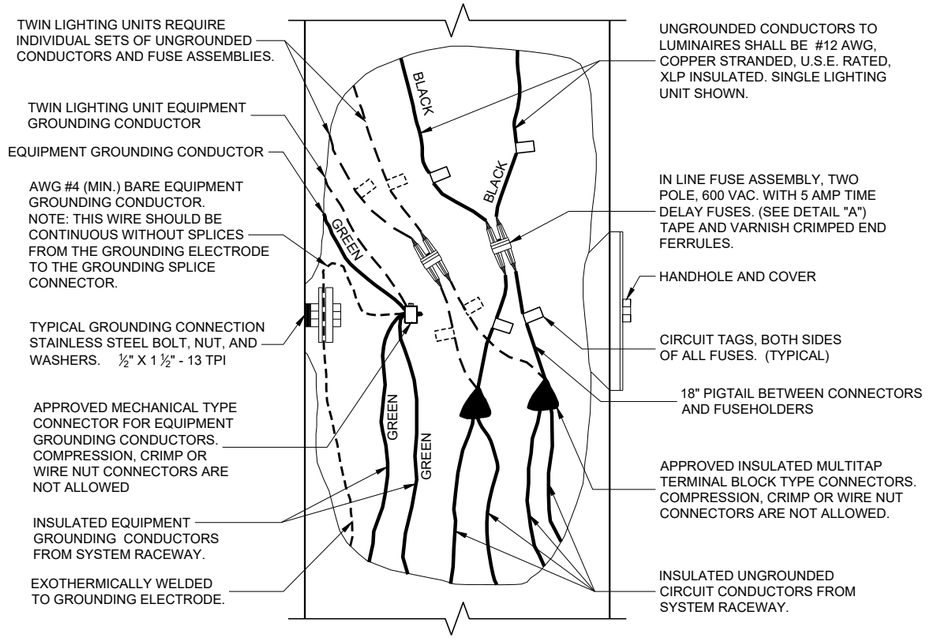
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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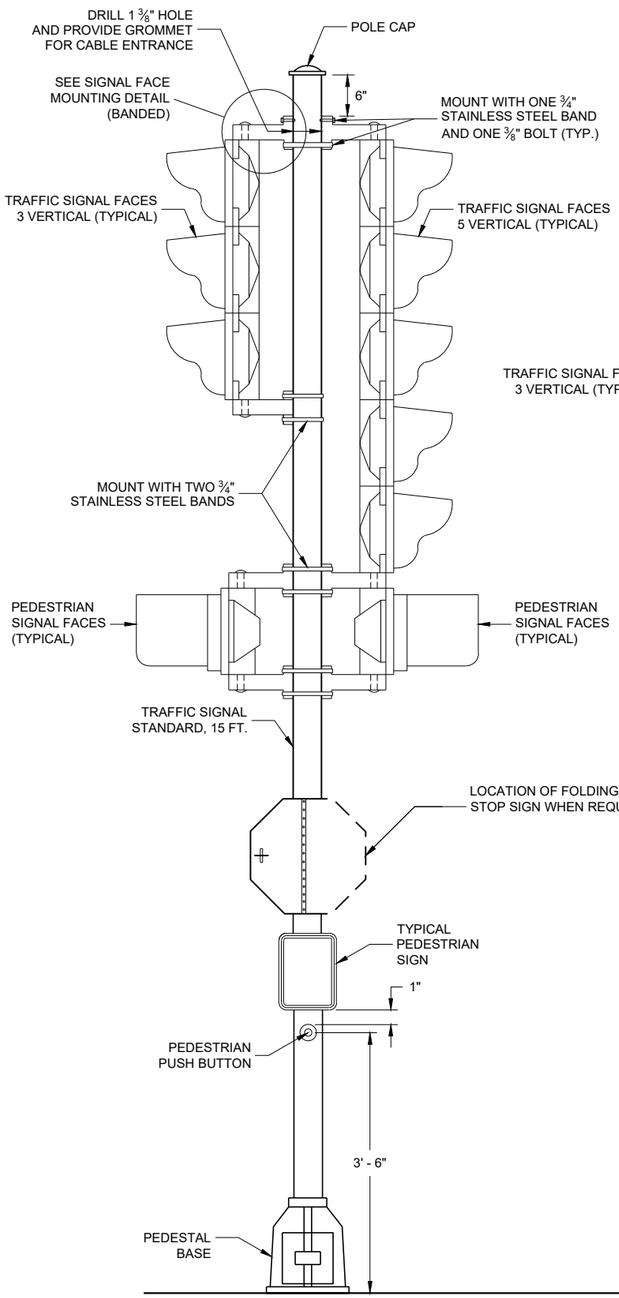
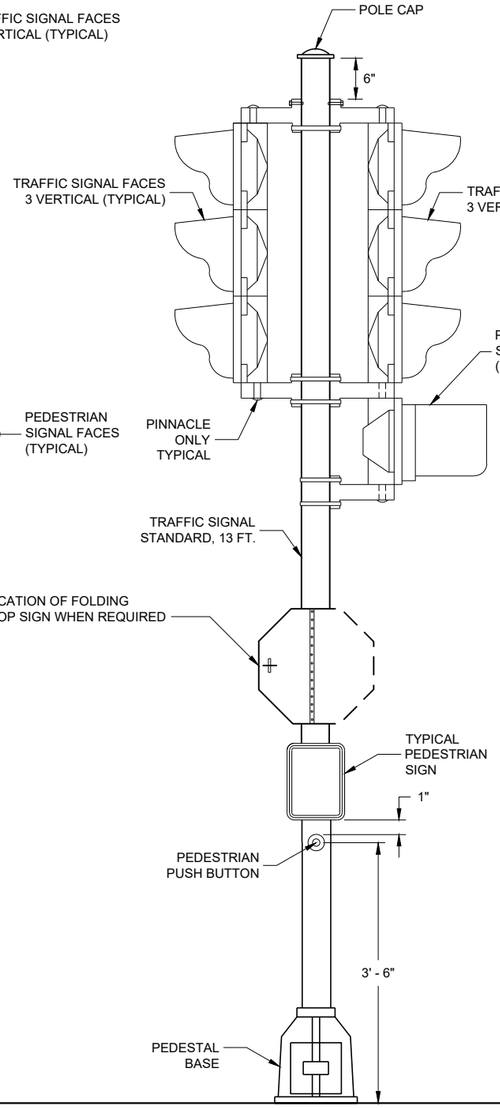
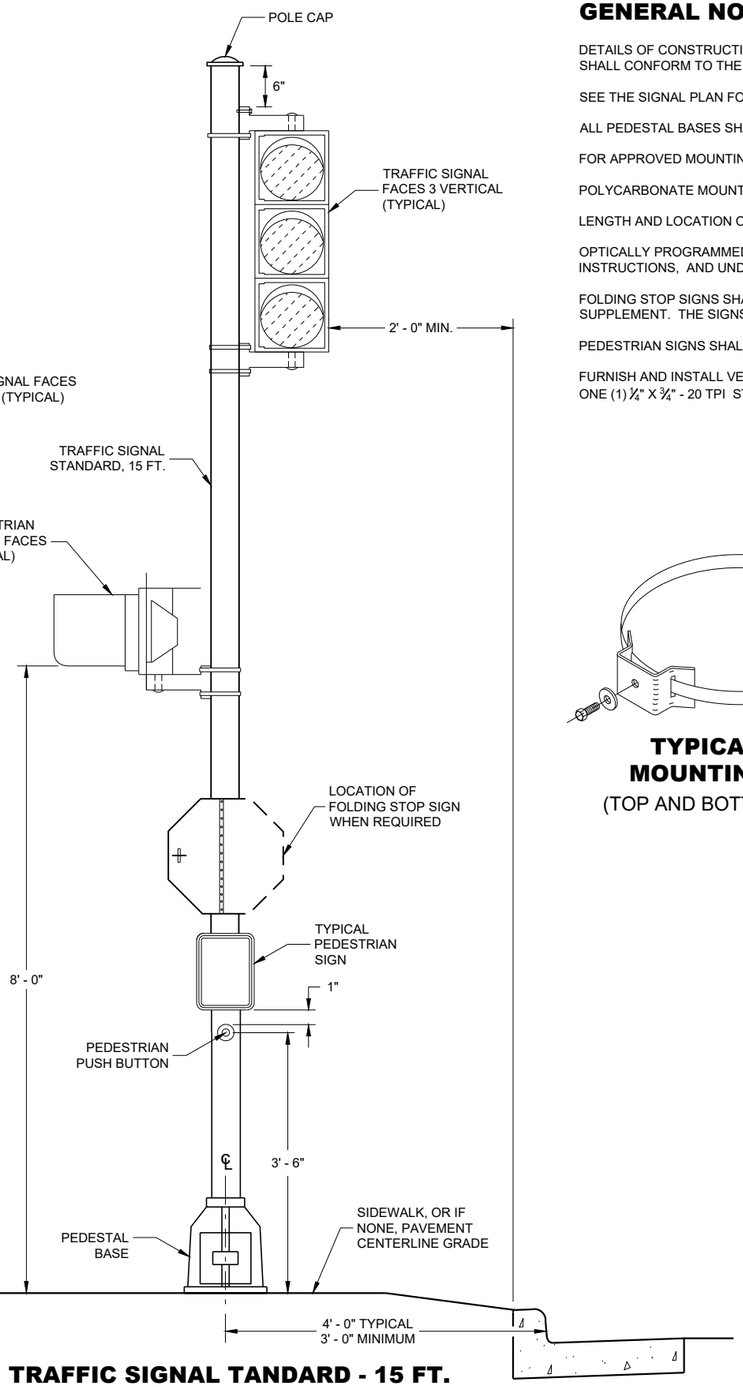


TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

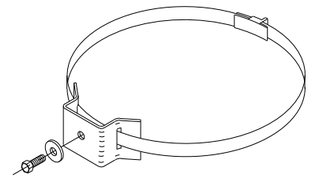
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

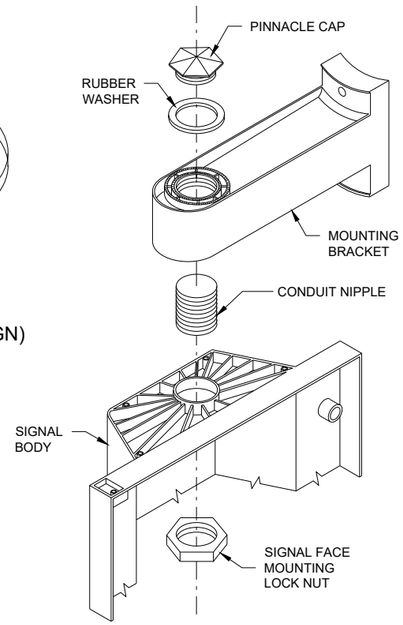
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 282

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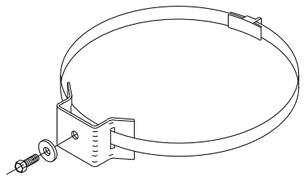
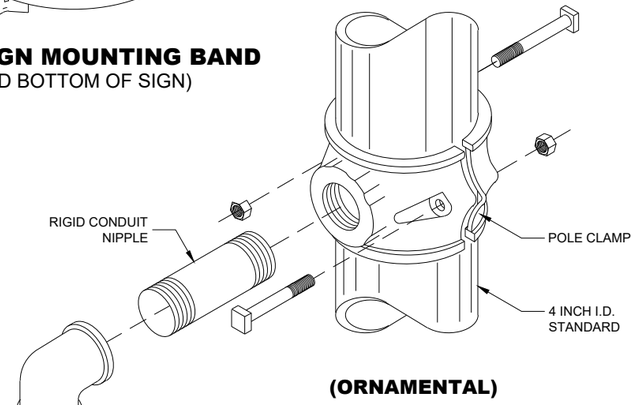
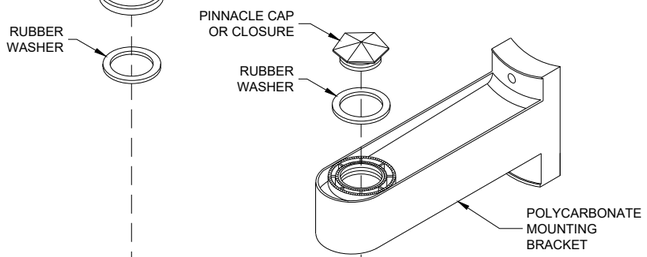
SDD 09E06 - 05



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



(ORNAMENTAL)



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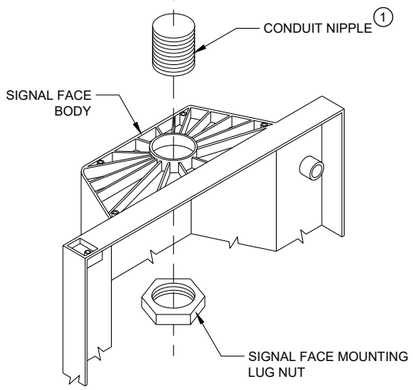
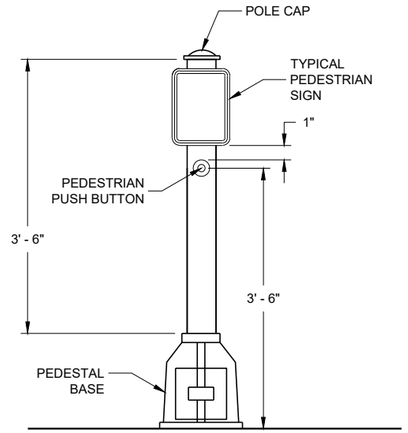


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

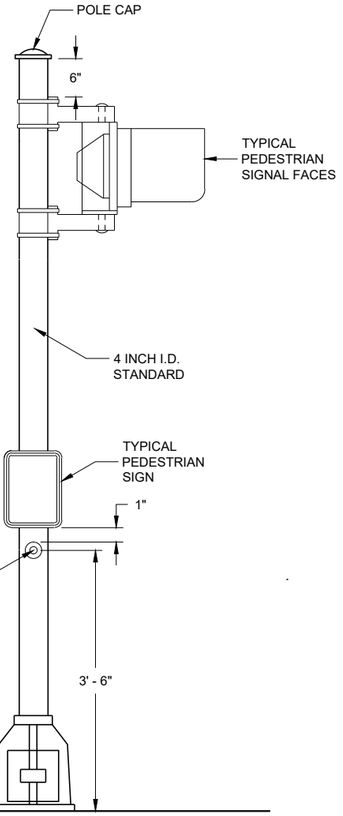
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

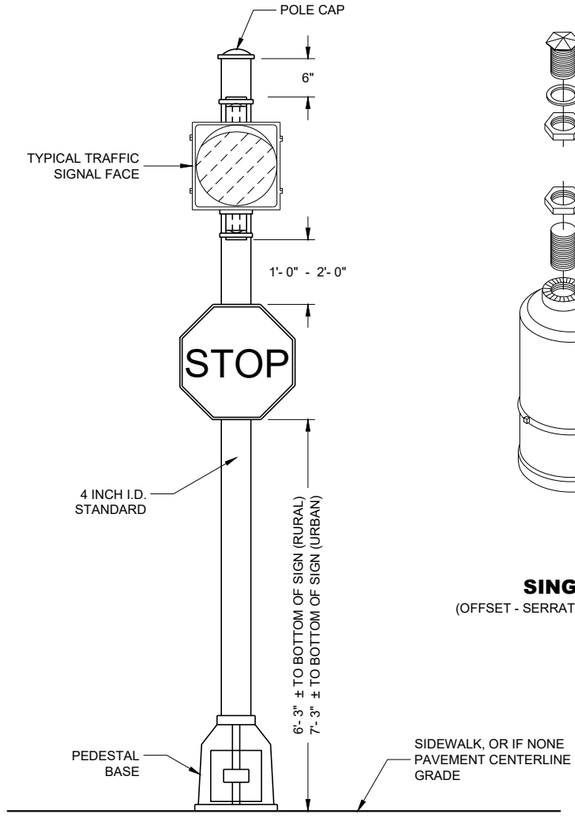
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

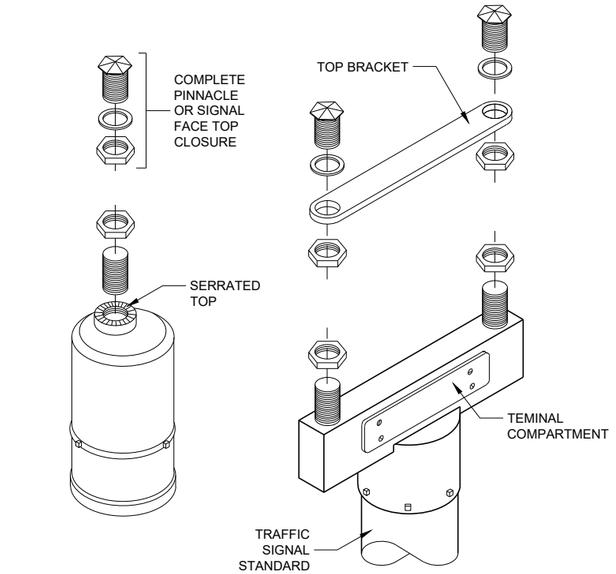
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
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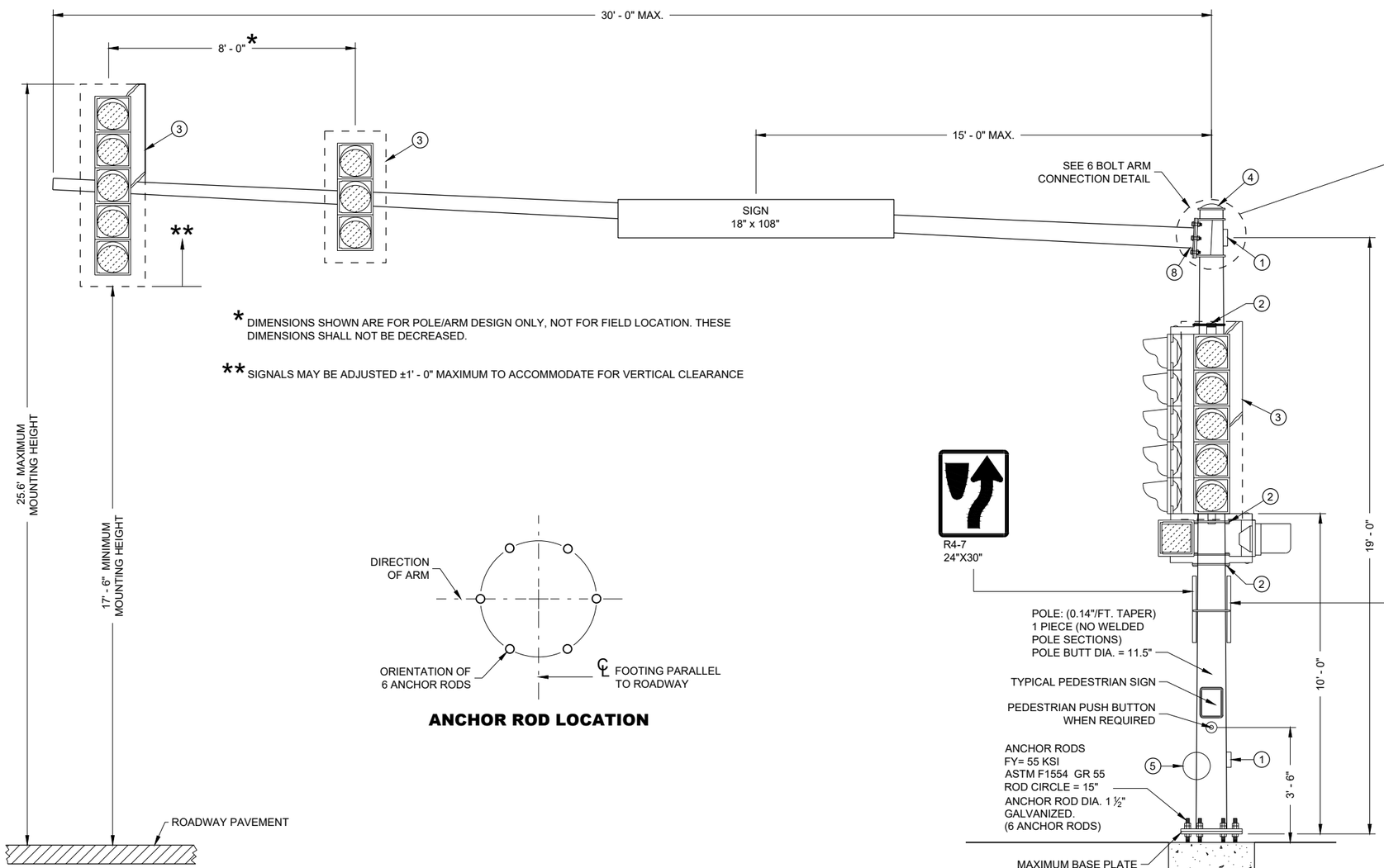
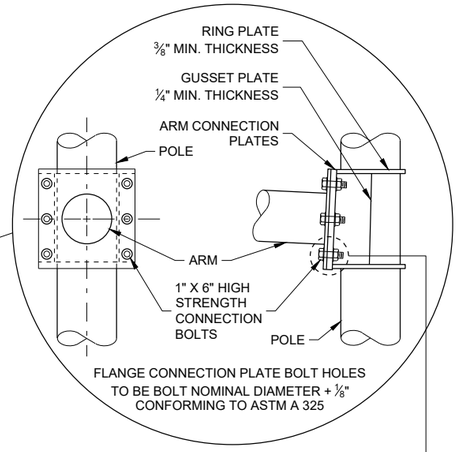


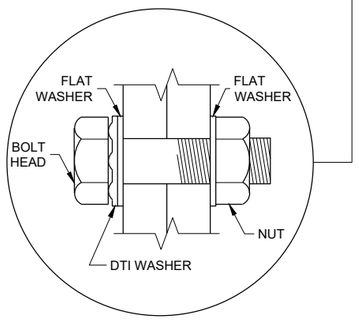
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

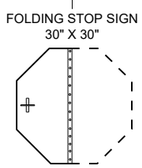
ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 9 POLE
15' - 30' MONOTUBE ARM

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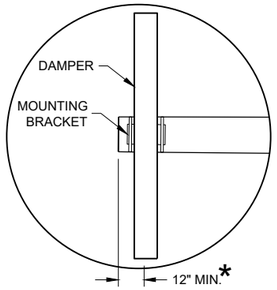
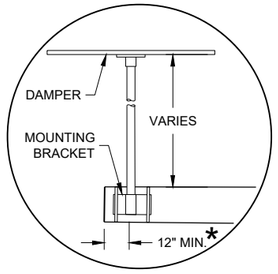
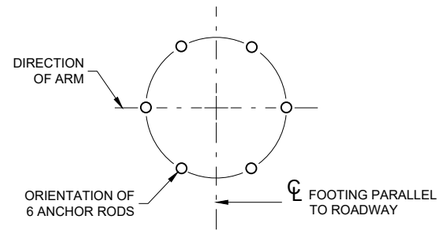


DUMBBELL VIBRATION DAMPER

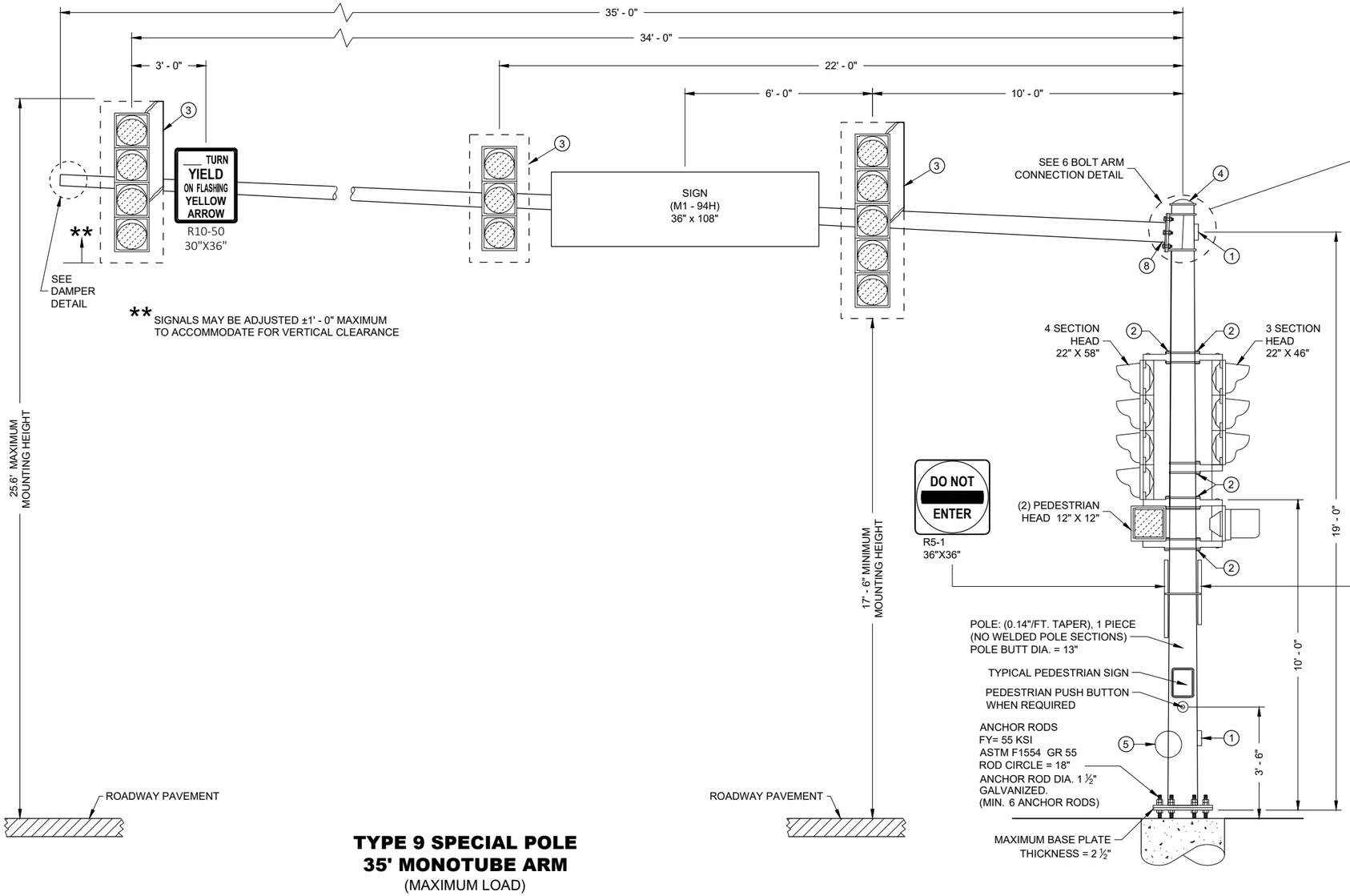


FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

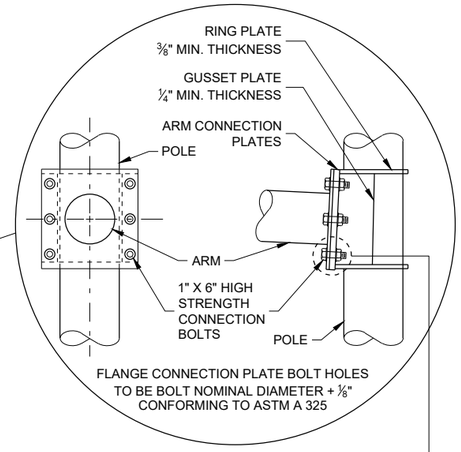


ANCHOR ROD LOCATION

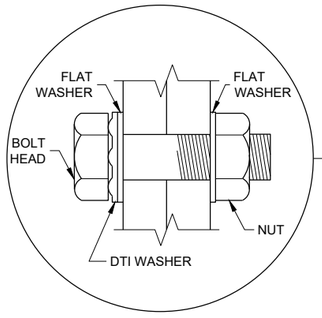


** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

TYPE 9 SPECIAL POLE
35' MONOTUBE ARM
(MAXIMUM LOAD)



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 9 SPECIAL POLE
35' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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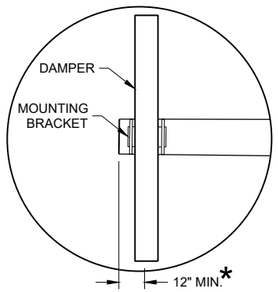
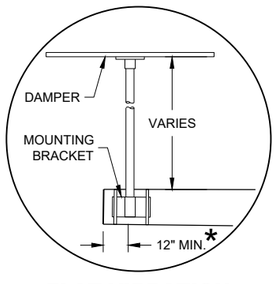
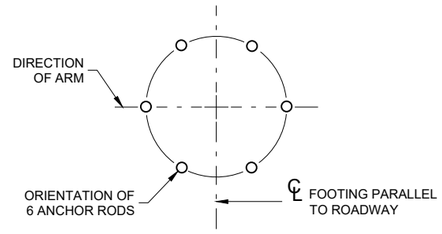


DUMBBELL VIBRATION DAMPER

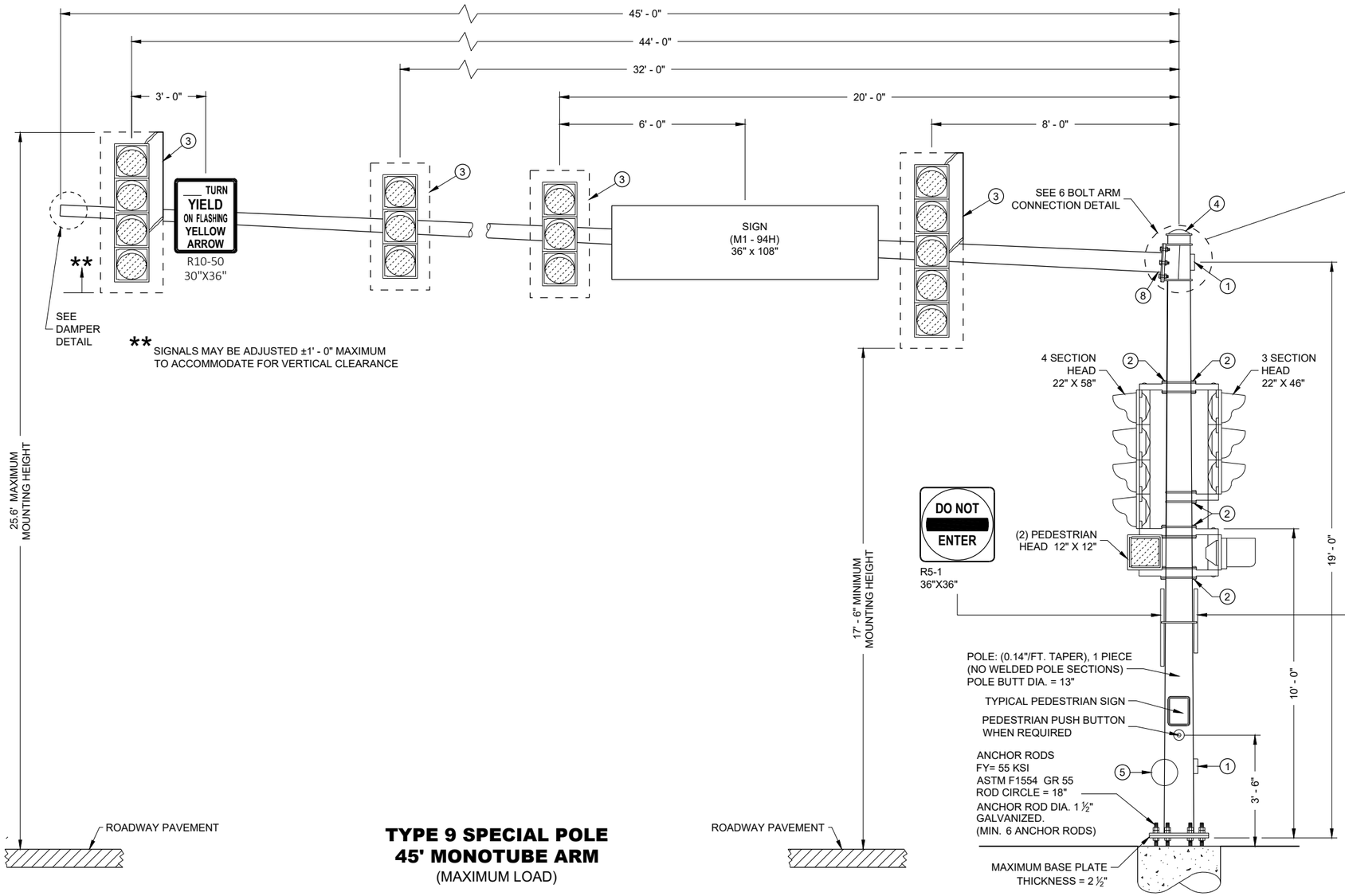


FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

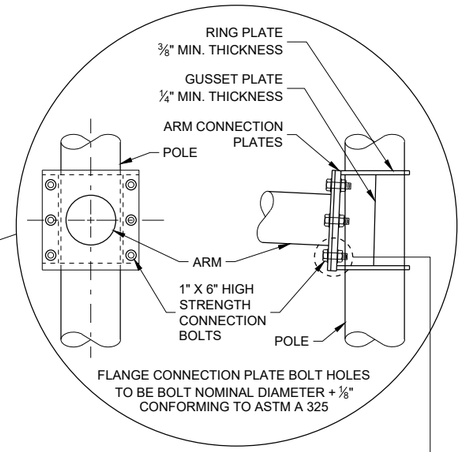


ANCHOR ROD LOCATION

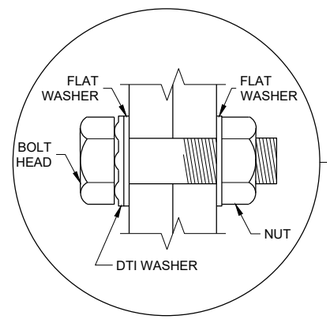


** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

TYPE 9 SPECIAL POLE
45' MONOTUBE ARM
(MAXIMUM LOAD)



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 9 SPECIAL POLE
45' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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August 2020
DATE

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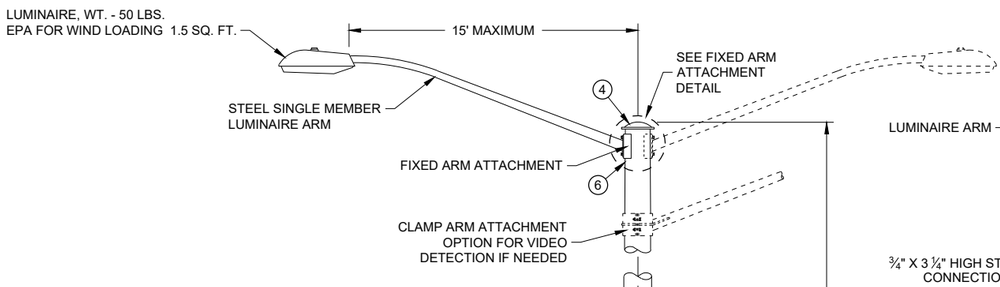
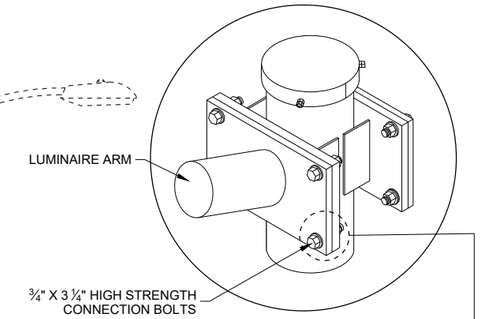
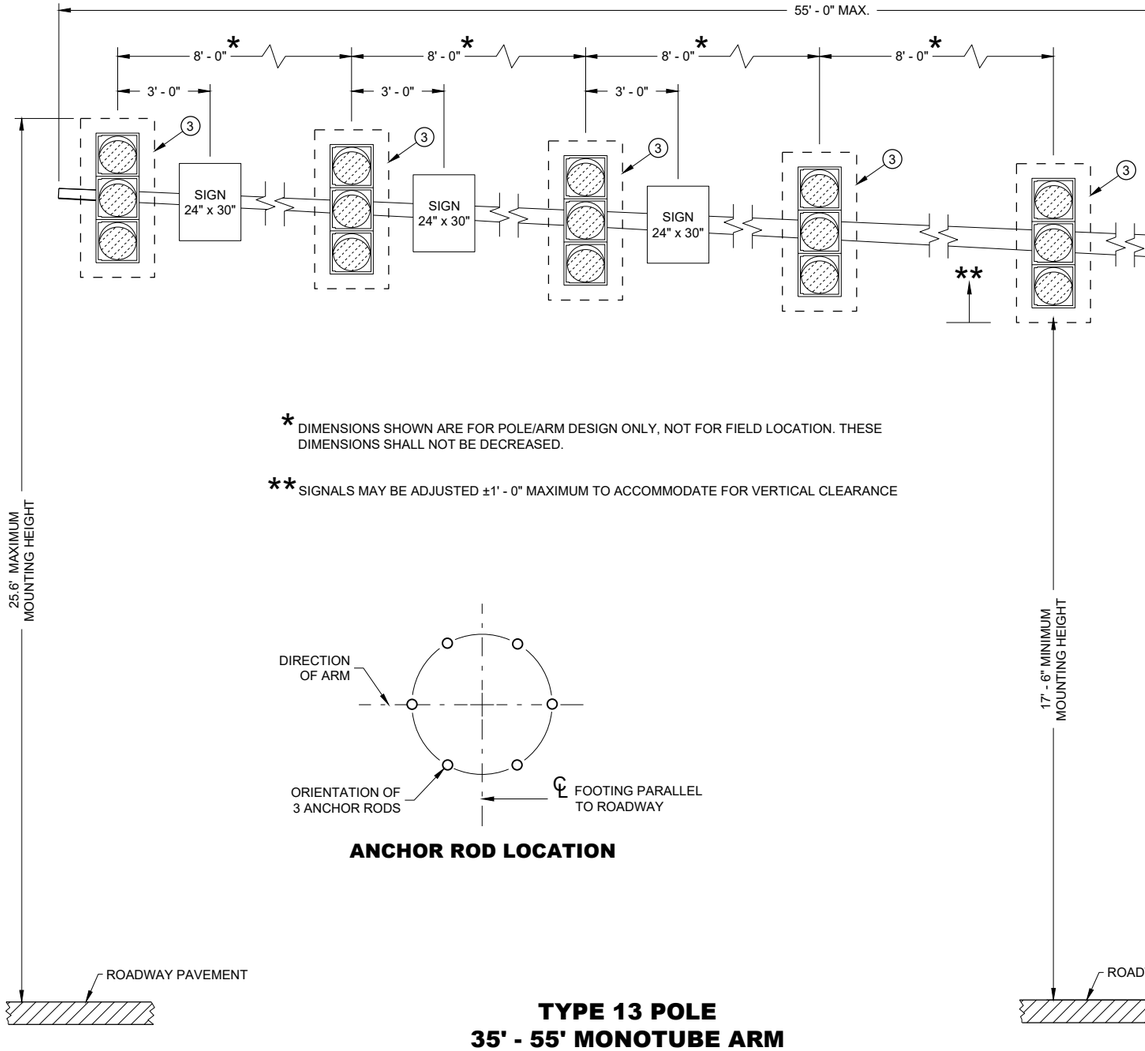
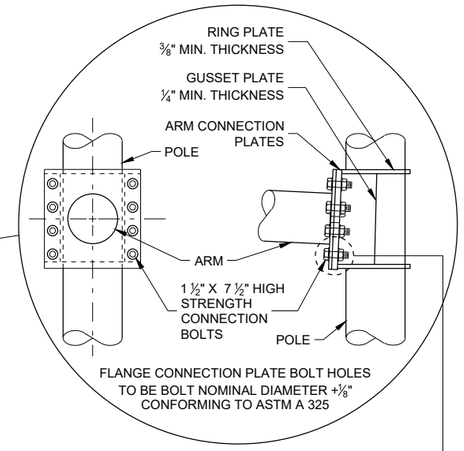


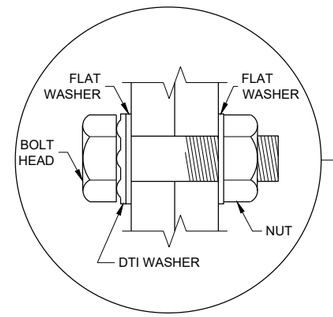


FIXED ARM ATTACHMENT DETAIL





8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 287

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GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

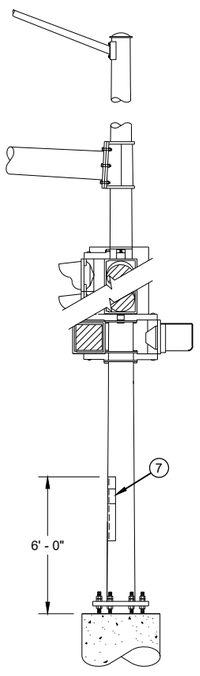
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

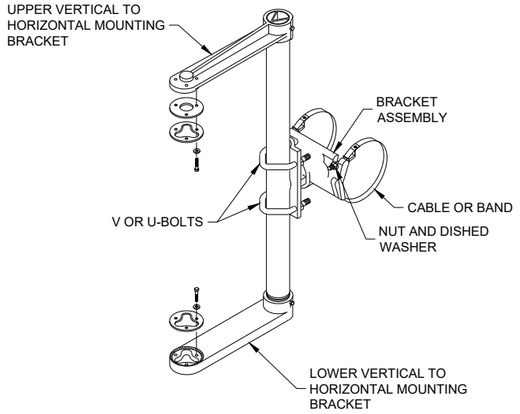
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

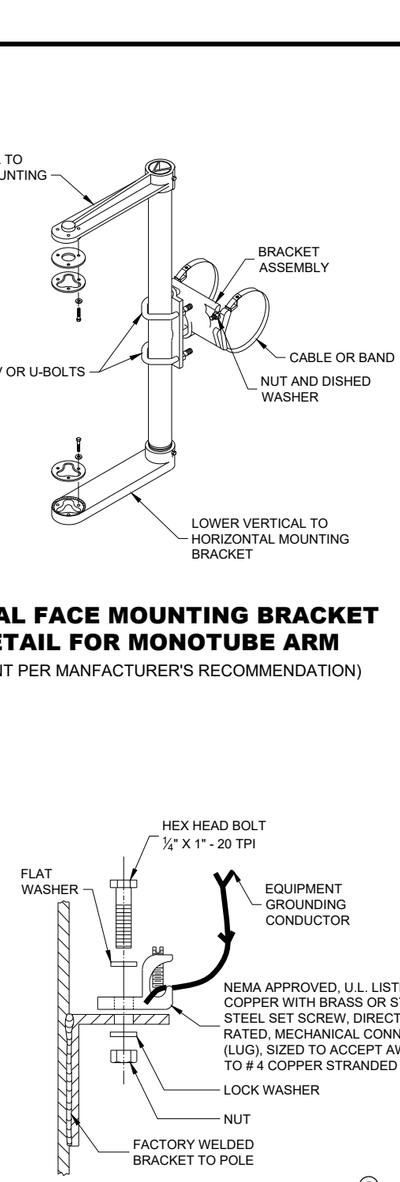


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



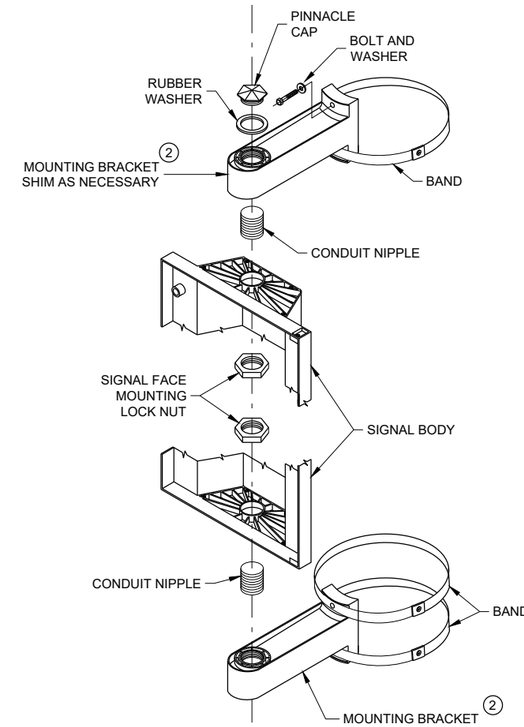
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANFACTURER'S RECOMMENDATION)

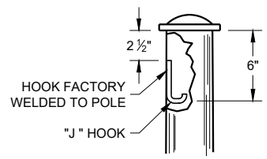


TYPICAL GROUNDING (5) CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK (6) WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING 2017 INTERIM REVISIONS) AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

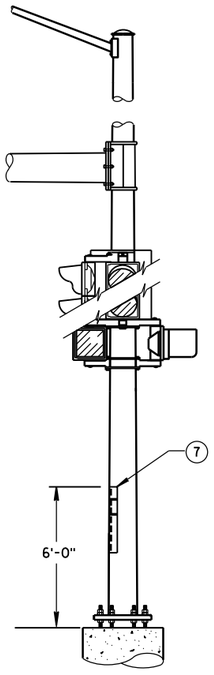
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

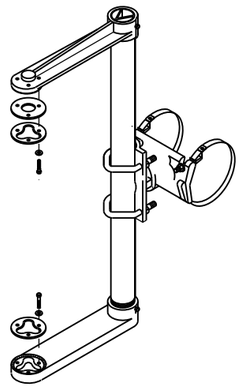
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

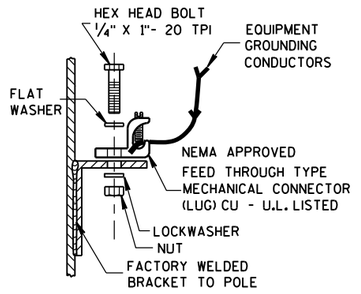


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



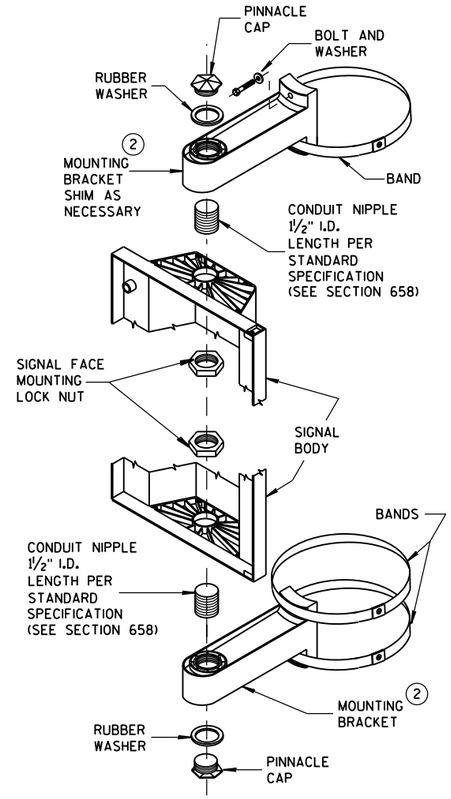
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

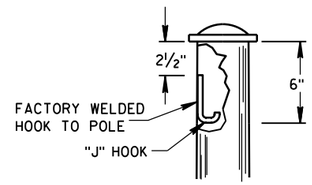


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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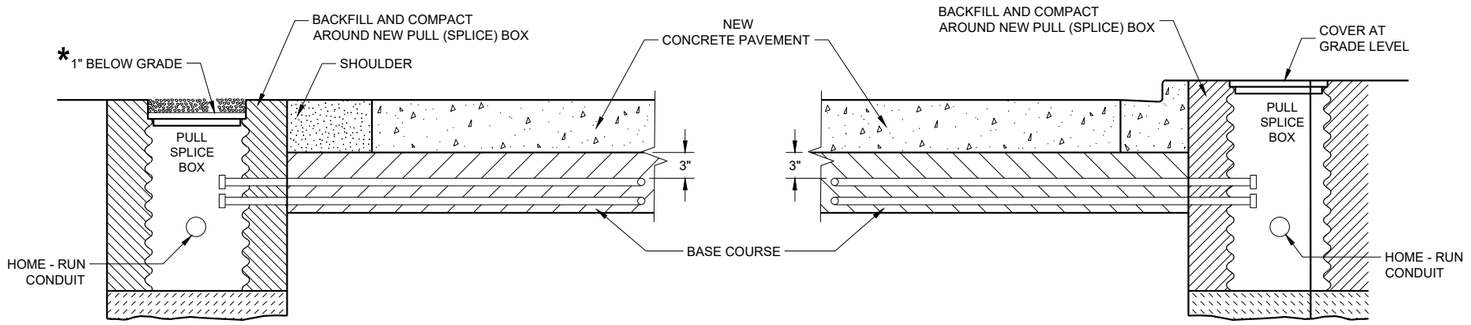
S.D.D. 9 E 12-1e



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

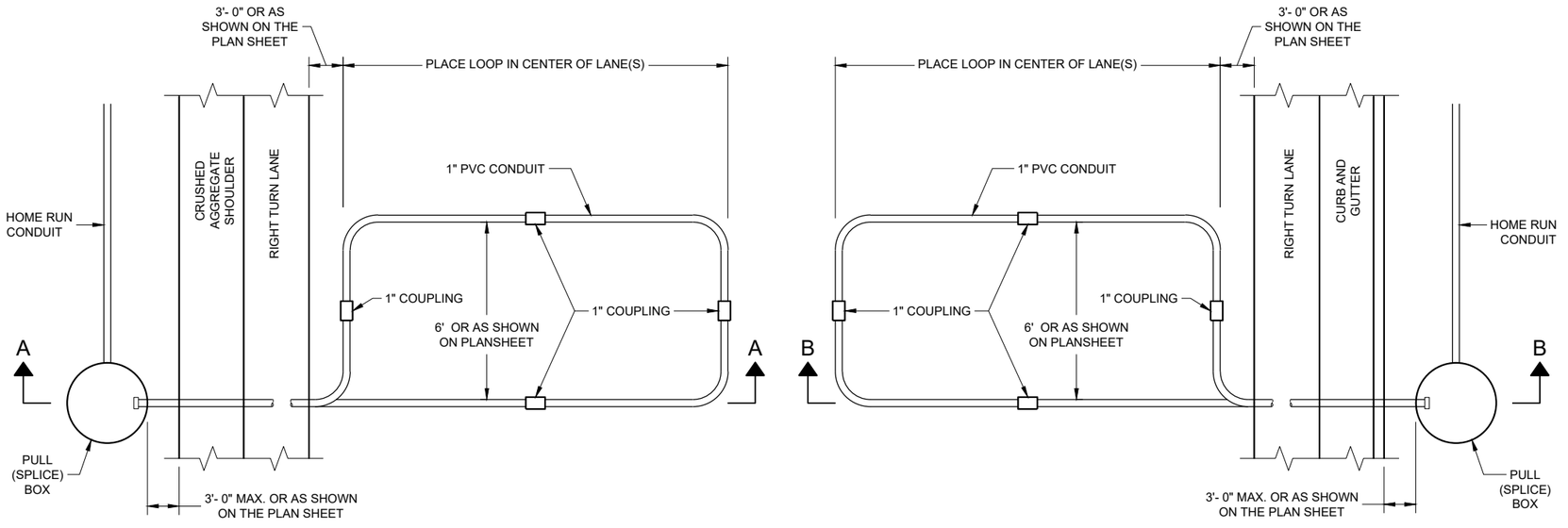
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

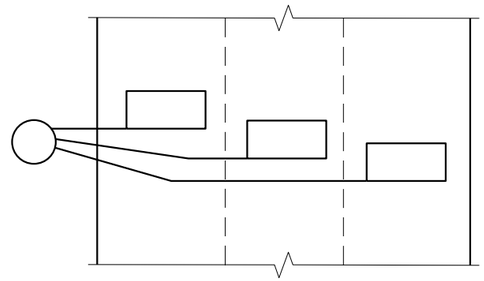
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
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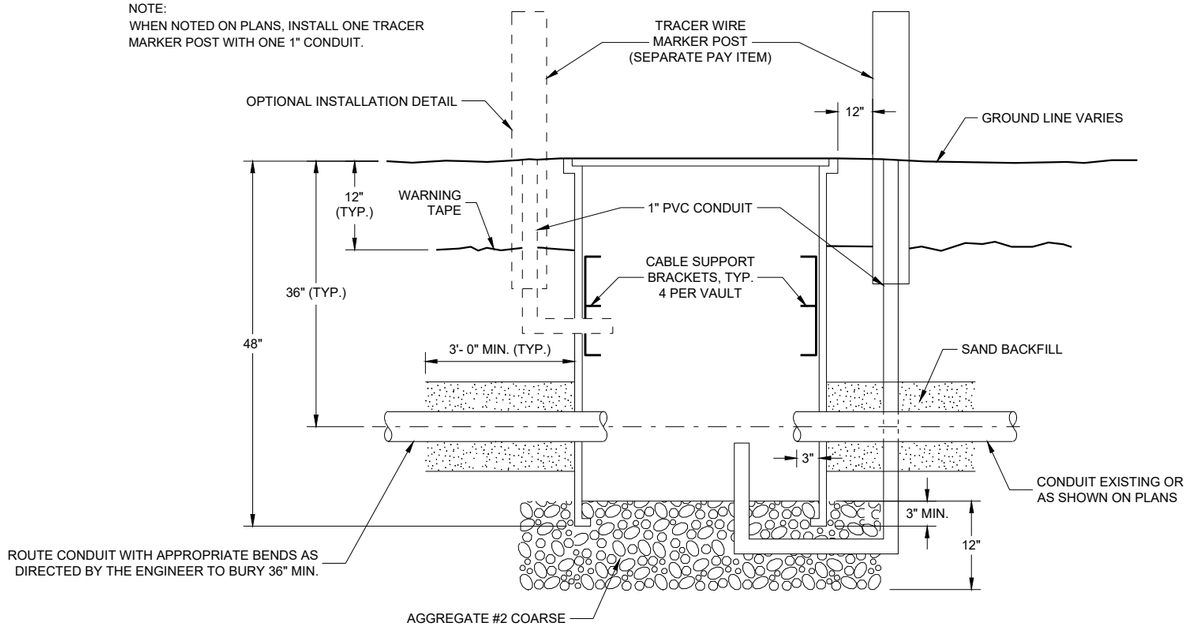
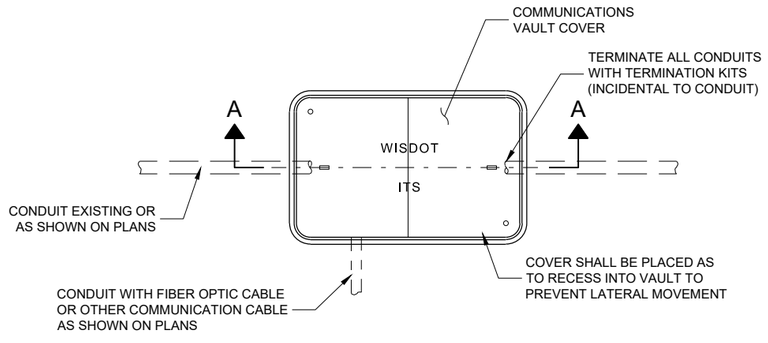
NOTE:
WHEN NOTED ON PLANS, INSTALL ONE TRACER MARKER POST WITH ONE 1" CONDUIT.



SECTION A - A



PLAN VIEW

COMMUNICATIONS VAULT TYPE 1

GENERAL NOTES

PROVIDE VAULT WITH OPEN BASE.

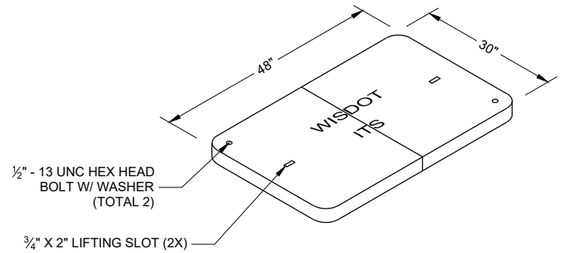
COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

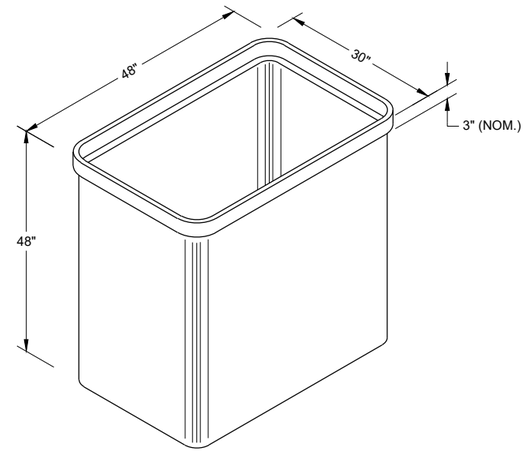
ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

FIBER TRACER MARKER POSTS SHALL BE CONSTRUCTED WITH HIGH-IMPACT PLASTIC MATERIAL WHICH IS FADE RESISTANT AND UV STABLE. ALL HARDWARE SHALL BE STAINLESS STEEL AND CONTAIN A MINIMUM OF FIVE STANDARD TERMINALS.





ISOMETRIC VIEW

COMMUNICATION VAULT TYPE 1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017
DATE
/S/ Ahmet Demirbilek
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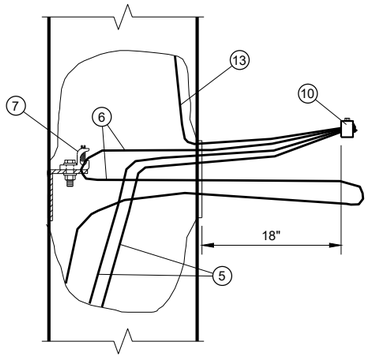
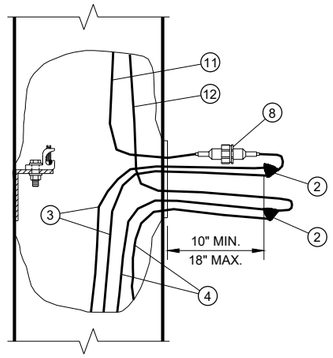
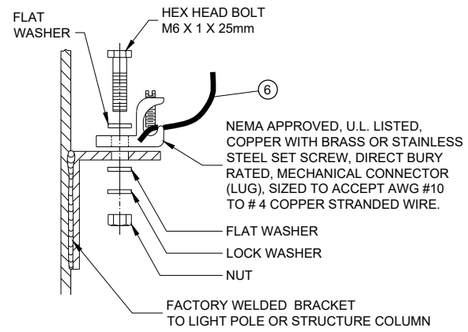


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



HANDHOLE GROUNDING LUG

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

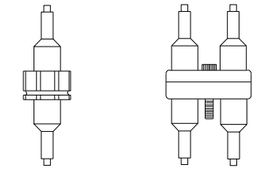
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



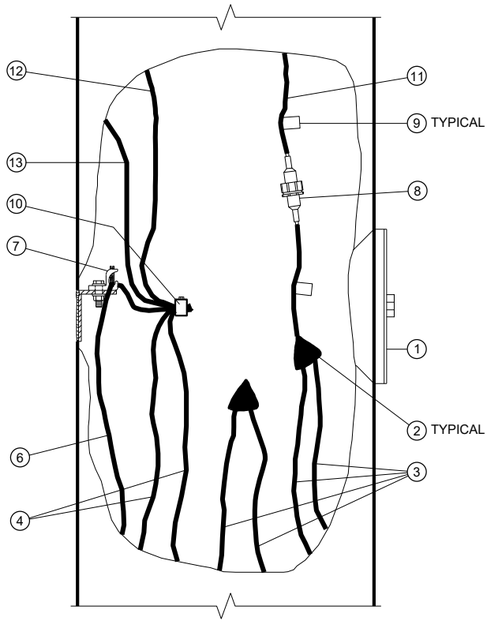
1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

CONDUCTOR COLOR CODES

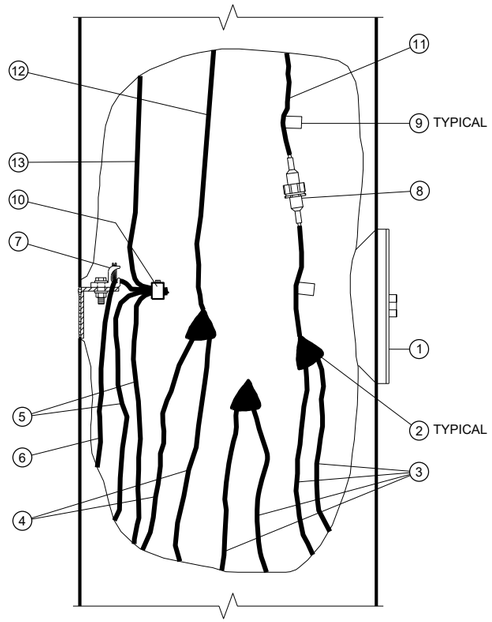
KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



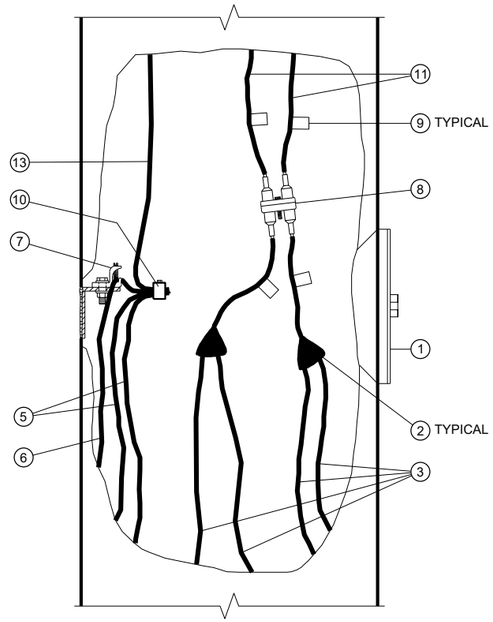
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-ϕ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-ϕ SHOWN; 3-ϕ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE TO PHASE SYSTEMS
1-ϕ SHOWN; 3-ϕ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 292

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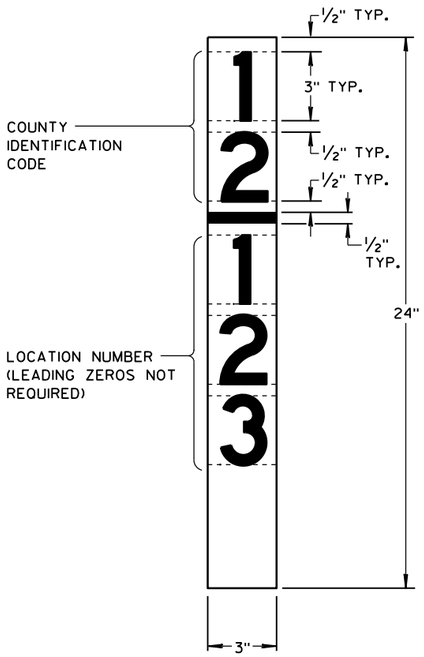
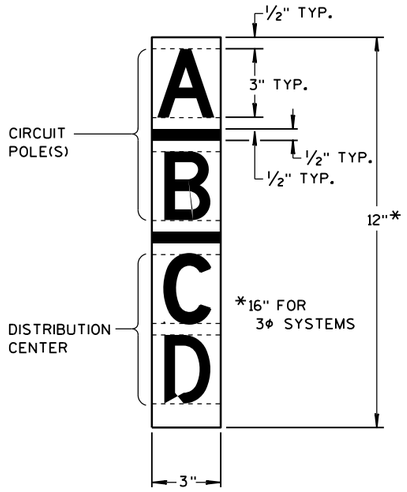
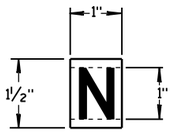


HIGH MAST LIGHT TOWER STRUCTURE PLAQUE

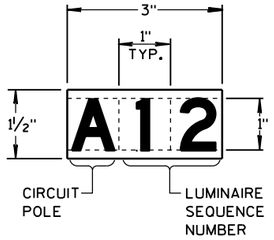


UNDERDECK LIGHTING OR HIGH MAST LIGHT TOWER CIRCUIT PLAQUE



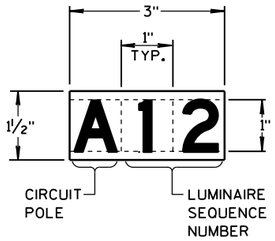
HIGH MAST LIGHT TOWER NORTH PLAQUE

(MOUNT ON LOWERING RING - INDICATING NORTH HEADING ^{2} ± 10^{o3} WHEN RING IS RAISED AND LATCHED)



HIGH MAST LIGHT TOWER LUMINAIRE SEQUENCE PLAQUE

(MOUNT ON LUMINAIRE RING)



UNDER DECK LUMINAIRE SEQUENCE DECAL

(MOUNT ON LUMINAIRE)

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

CONCRETE SURFACE - MASONRY ANCHORS

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

PLAQUE MATERIALS:

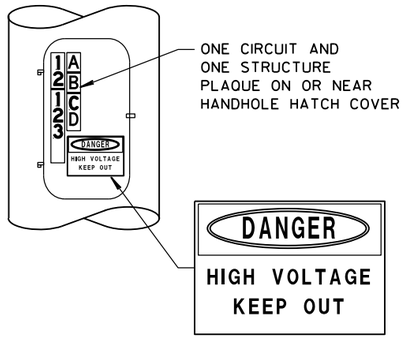
BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

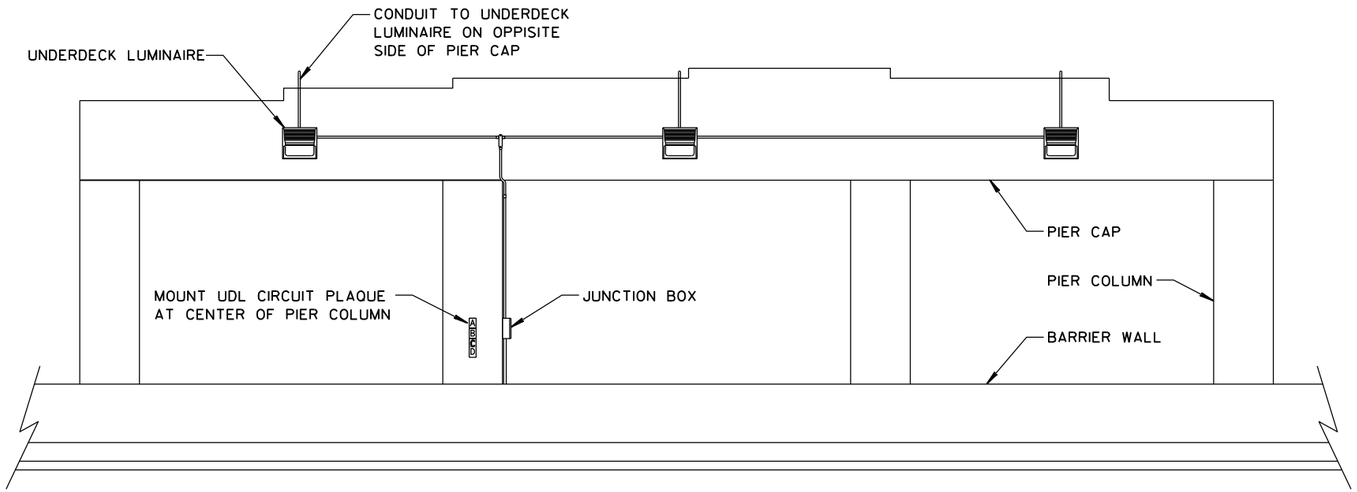
CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.



NOTE: NEMA PLAQUE SHOWN ABOVE IS REQUIRED ONLY IN PARK AND RIDE LOTS OR IN OTHER PEDESTRIAN ACCESSIBLE AREAS.

LOCATION OF HIGH MAST LIGHT TOWER STRUCTURE PLAQUE AND CIRCUIT PLAQUE



LOCATION OF UNDERDECK LIGHTING CIRCUIT PLAQUE

IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demriblek — STATE ELECTRICAL
FHWA

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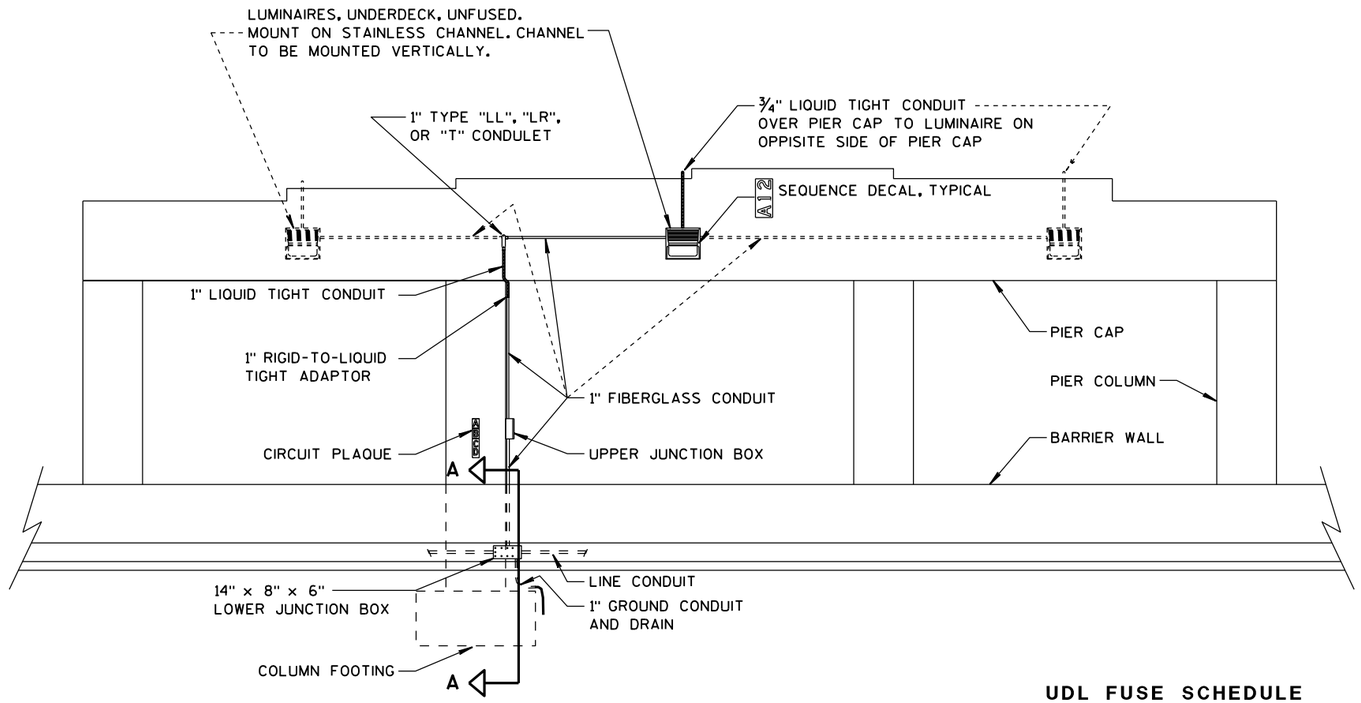
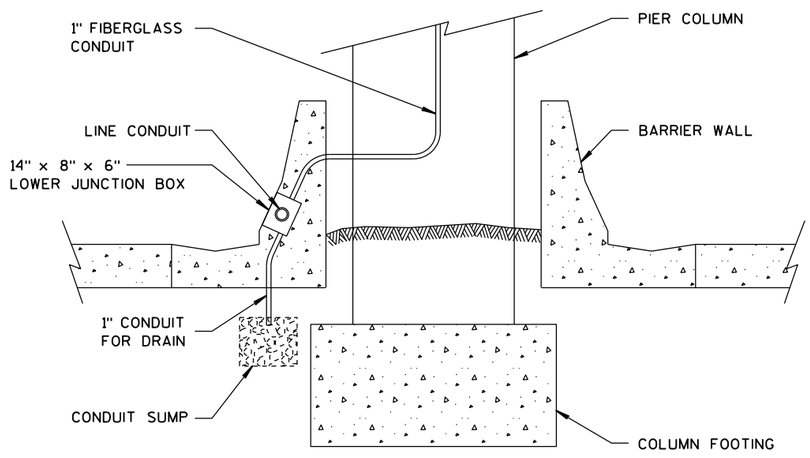
S.D.D. 10 A 4-3



TYPICAL UNDERDECK LIGHTING INSTALLATION



SECTION "A-A"

UDL FUSE SCHEDULE

LINE VOLTAGE ϕ-GROUND	TOP JUNCTION BOX FUSES
120VAC	5 A
208VAC	5 A
240VAC	5 A
480VAC	3 A

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SUBSTITUTING THE LOWER JUNCTION BOX FOR THE HANDHOLE SHOWN IN THAT DETAIL.

THE PLANS WILL SHOW WHICH CIRCUIT LEGS(S) ARE CONNECTED TO EACH INSTALLATION AND THE REQUIRED NUMBER OF LUMINAIRES.

THE UPPER JUNCTION BOX (FOR FUSE ASSEMBLIES) SHALL CONFORM TO THE APPLICABLE PROVISIONS OF SECTION 653.2.2 OF THE STANDARD SPECIFICATIONS; SHALL BE SUITABLE FOR SURFACE MOUNTING WITH EXTERNAL MOUNTING LUGS; AND SHALL HAVE A HINGED COVER, WING-NUT FASTENERS, AND PADLOCK HASP. ALL HARDWARE SHALL BE STAINLESS STEEL. FURNISH O-Z/GEDNEY YW-120603, SPRING CITY HC-12-06-04, CROUSE-HINDS WTB-120604, OR APPROVED EQUAL.

MEDIAN CONFIGURATIONS VARY; NOT ALL CASES CAN BE SHOWN IN THIS DETAIL.

WIRING FOR THE FIRST LUMINAIRE PAIR IS SHOWN IN SOLID LINES. WIRING FOR ADDITIONAL LUMINAIRE PAIRS, WHERE REQUIRED, IS SHOWN IN DOTTED LINES.

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	UNFUSED LUMINAIRE
	SINGLE POLE (1P) FUSE ASSEMBLY
	TERMINAL
	SPLICE
	CONDUCTOR

ELECTRICAL DETAILS
UNDERDECK LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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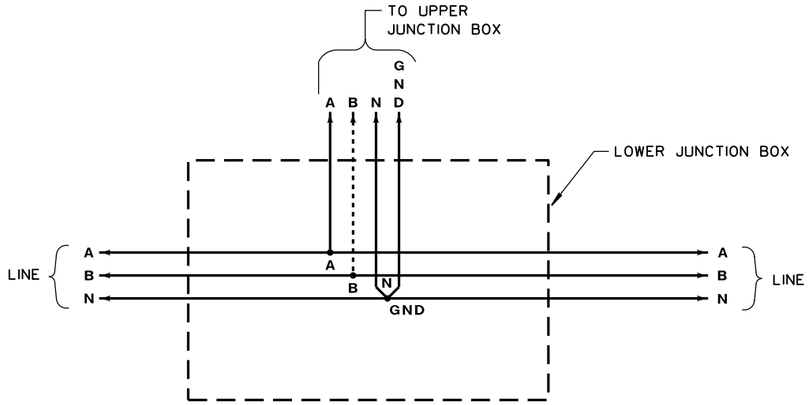
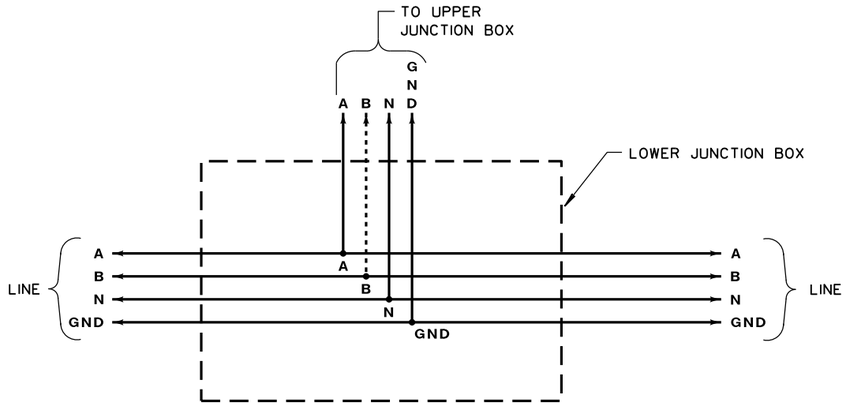
S.D.D. 10 A 15-4a



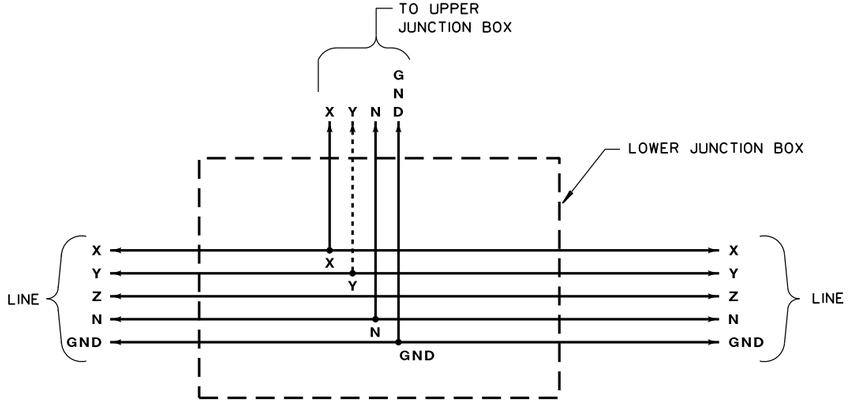
TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

GROUNDED NEUTRAL SYSTEM
1-ϕ 240/480VAC OR 3 WIRE OR 480VAC 2 WIRE



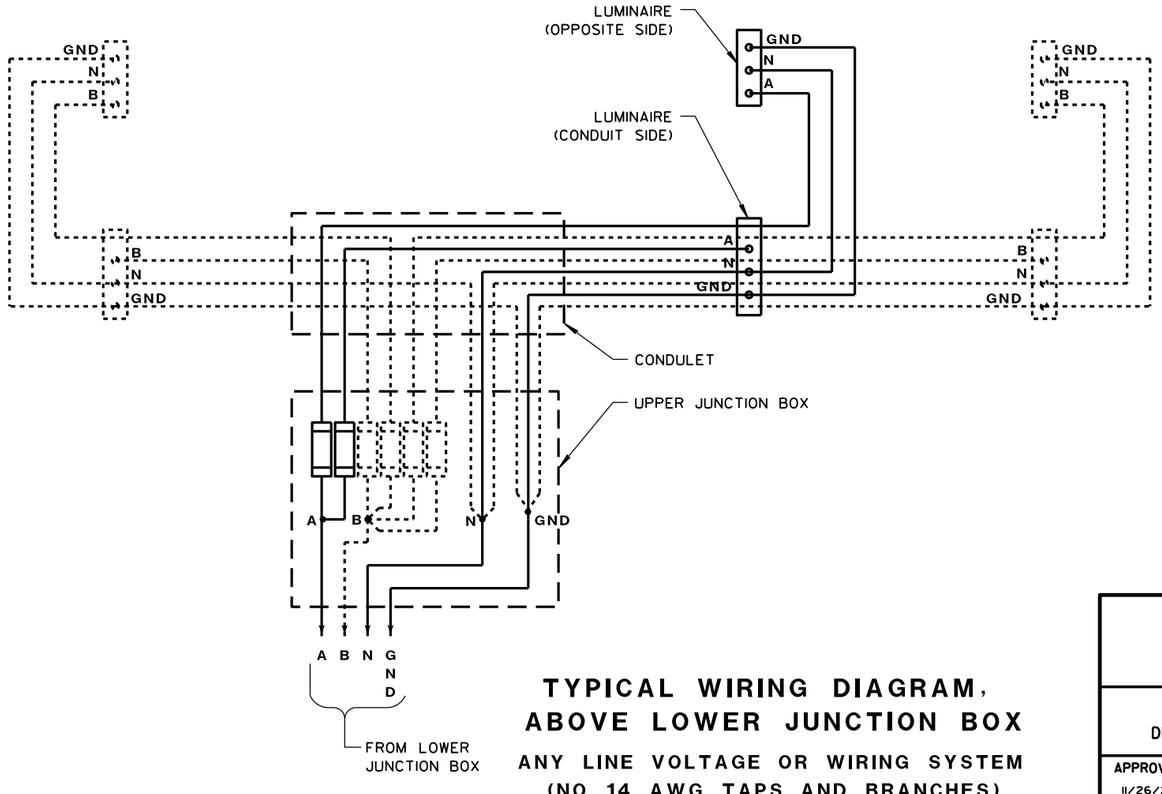
TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM
1-ϕ 120/240VAC OR 240/480VAC 3 WIRE



TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM
3-ϕ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM, ABOVE LOWER JUNCTION BOX

ANY LINE VOLTAGE OR WIRING SYSTEM
(NO. 14 AWG TAPS AND BRANCHES)

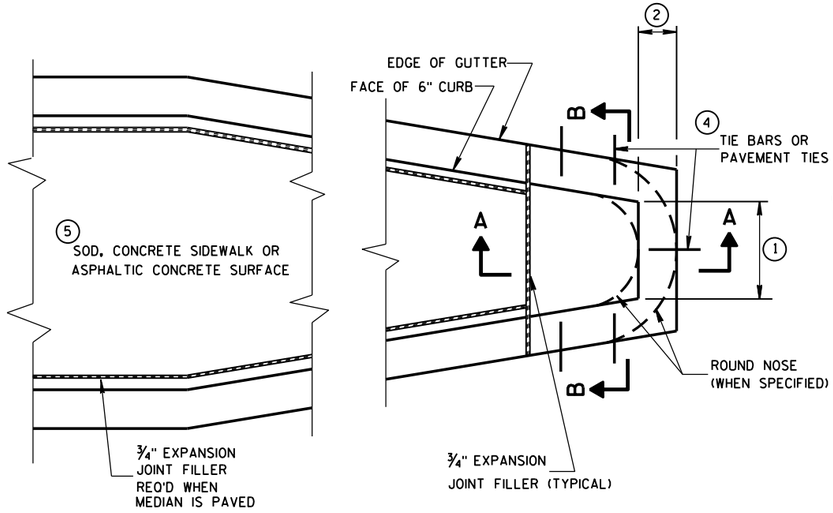
ELECTRICAL DETAILS
UNDERDECK LIGHTING

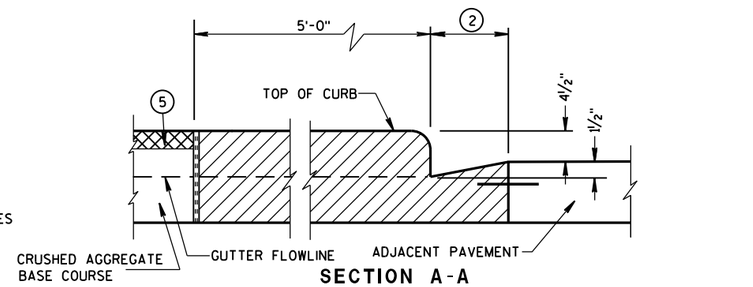
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

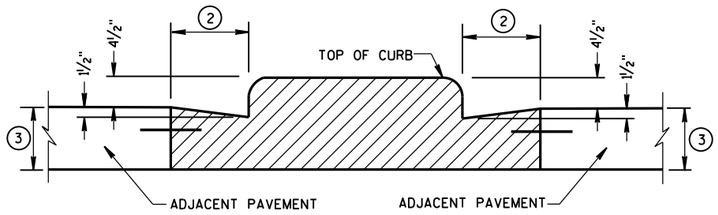
APPROVED
11/26/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 10 A 15-4b







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

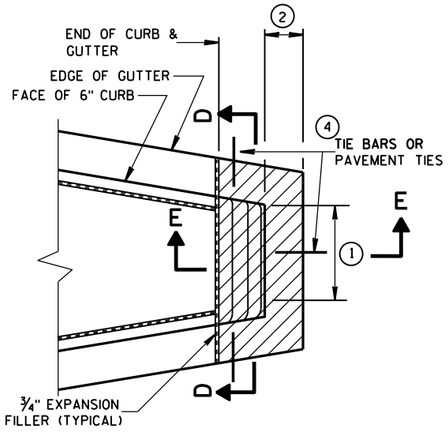
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

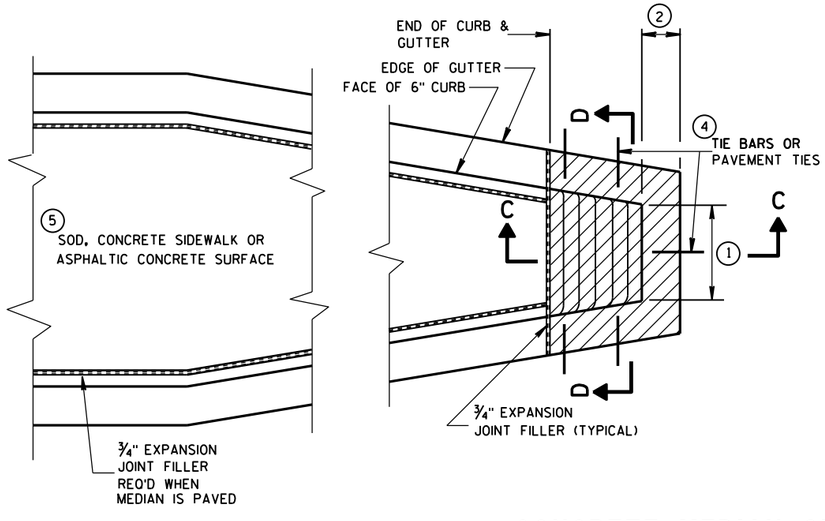
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

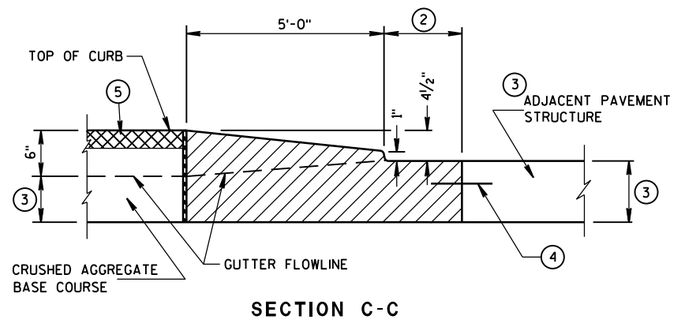
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

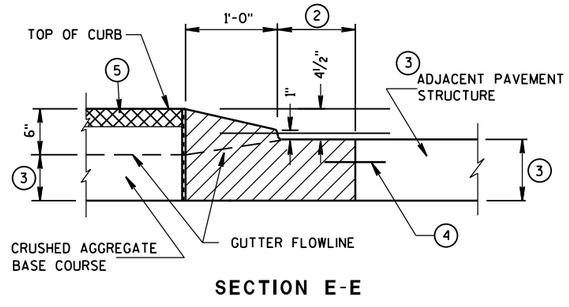
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



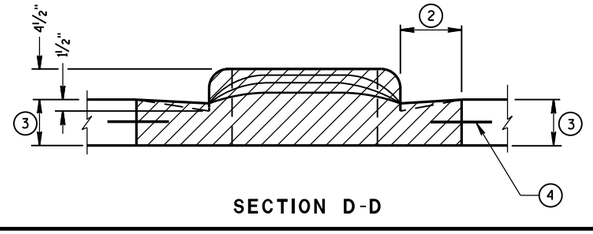






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

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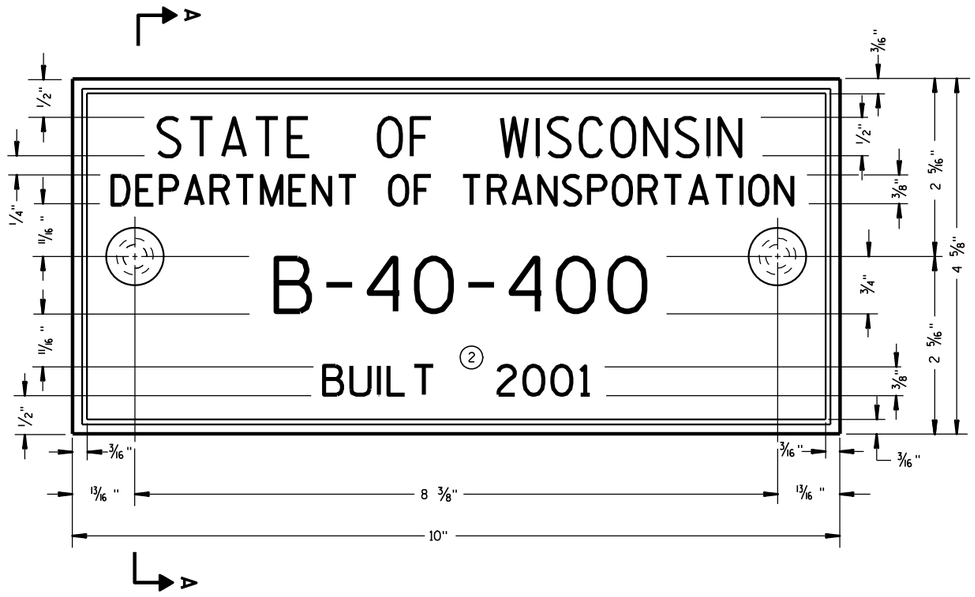
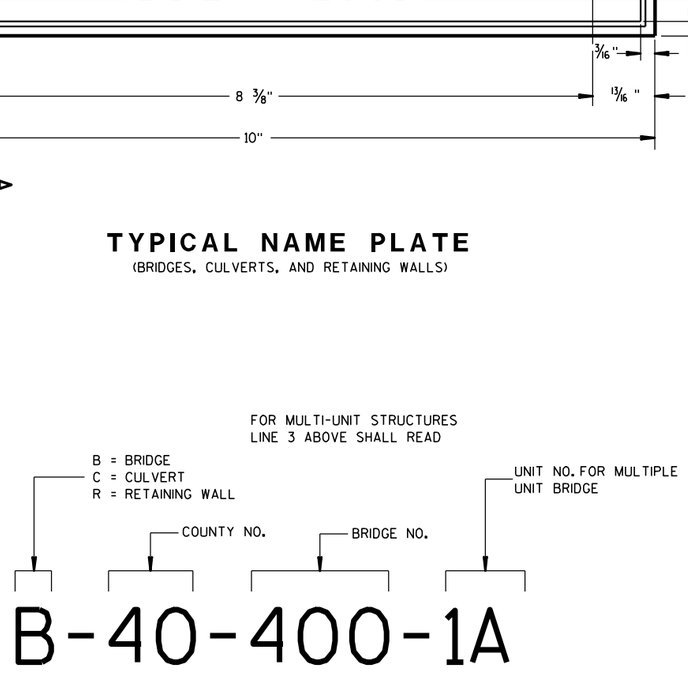
S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

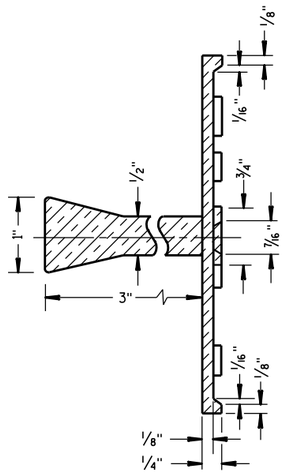
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

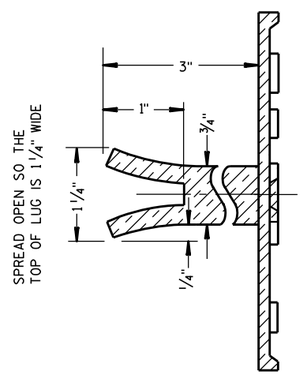
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

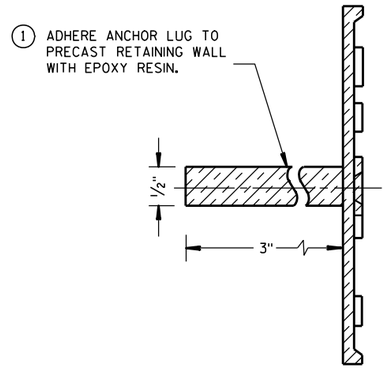
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE — /S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

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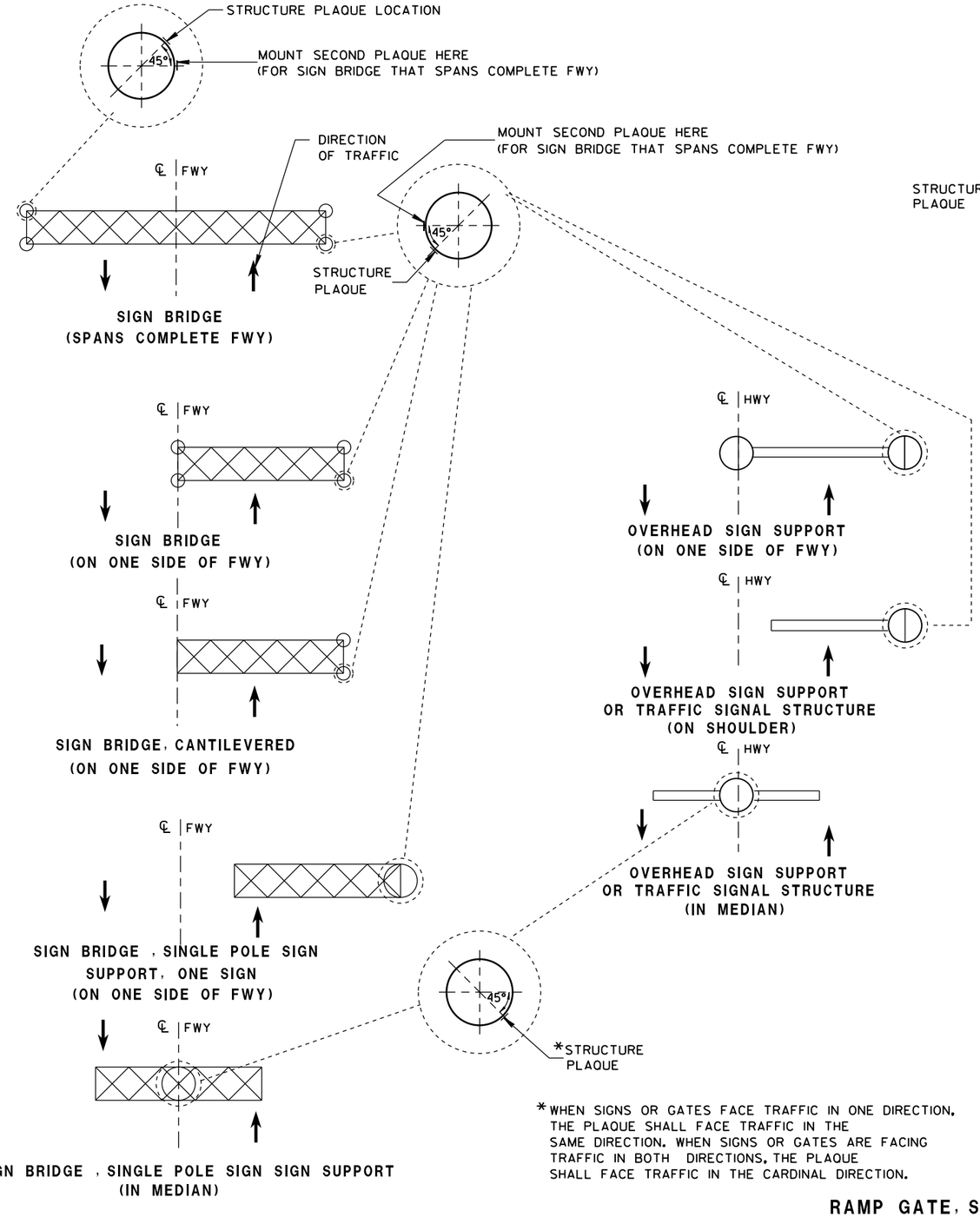
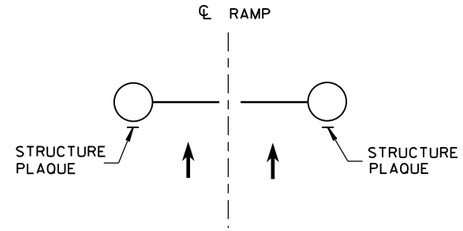
S.D.D. 12 A 3-10

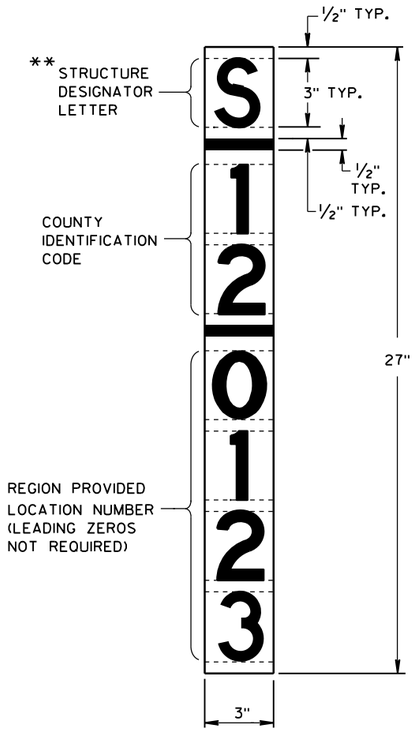


* WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

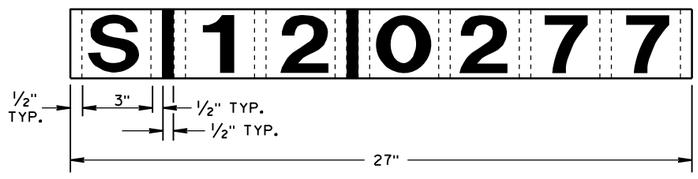
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 12 A 4-3

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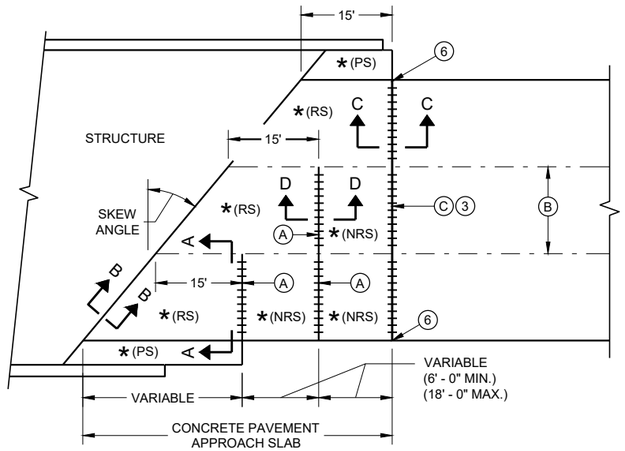
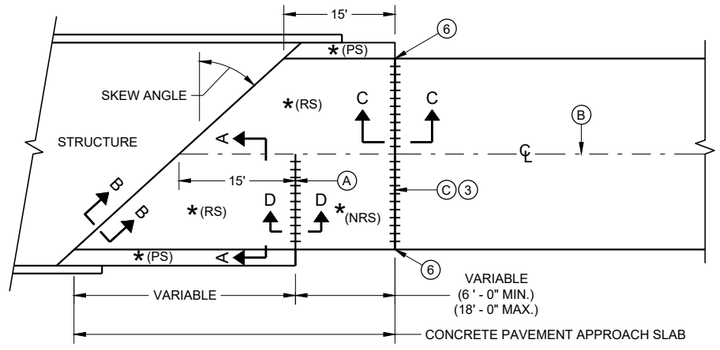
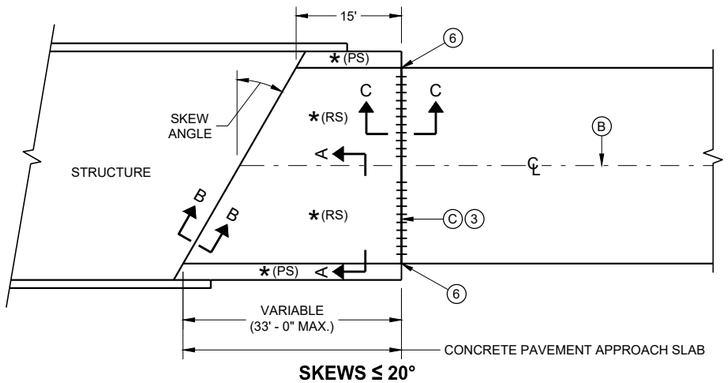
S.D.D. 12 A 4-3



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

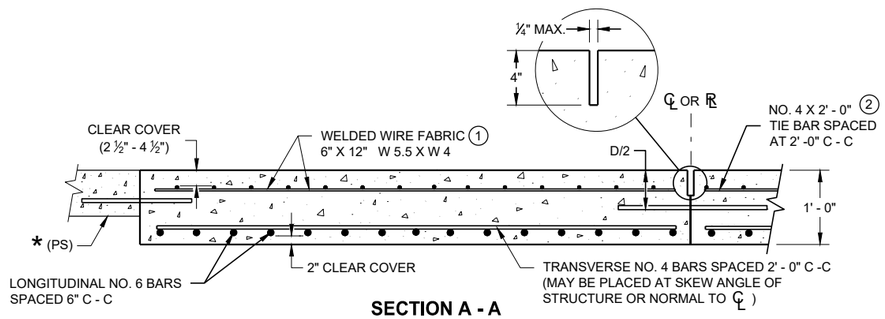
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

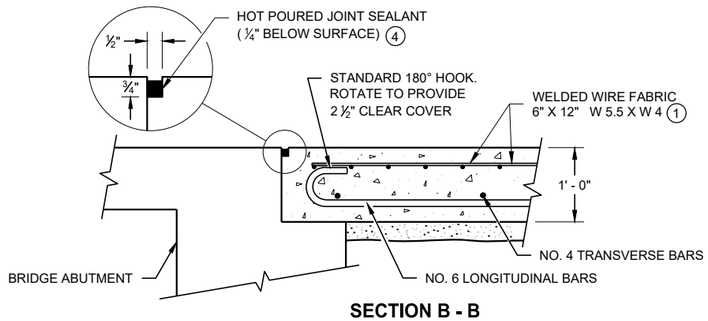
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

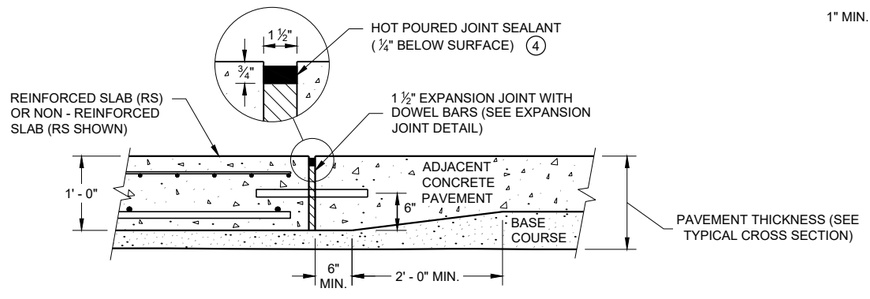
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

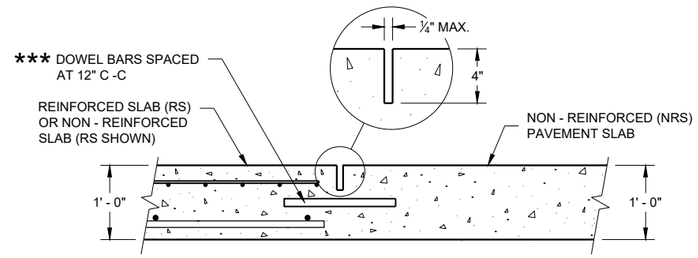
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

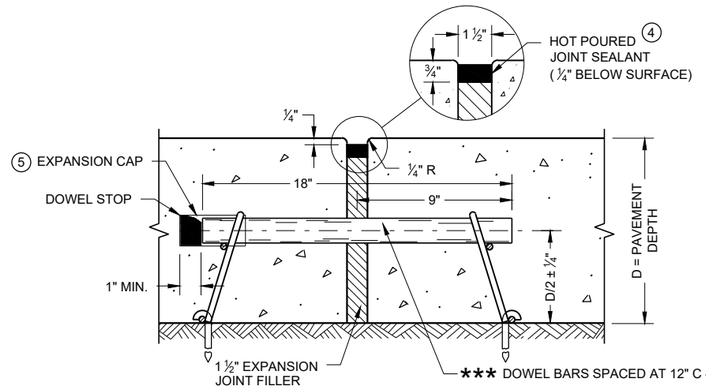
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVISO

FHWA

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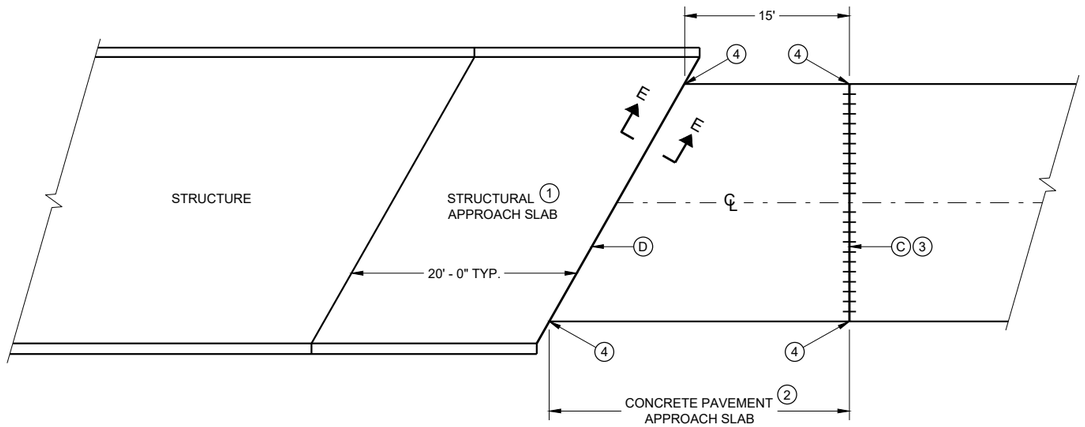
SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

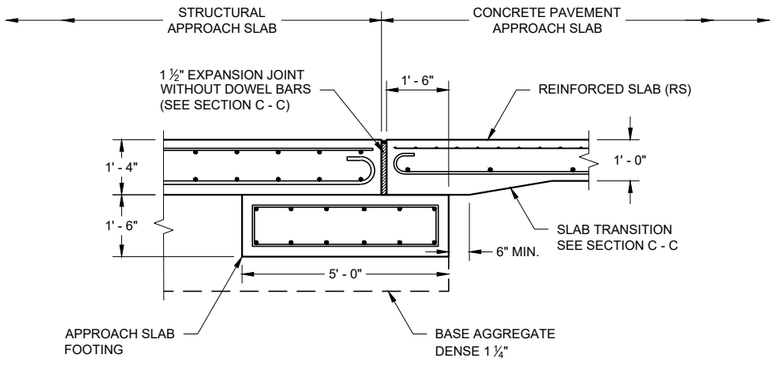
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS 300
FHWA

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SDD 13B02 - 09b

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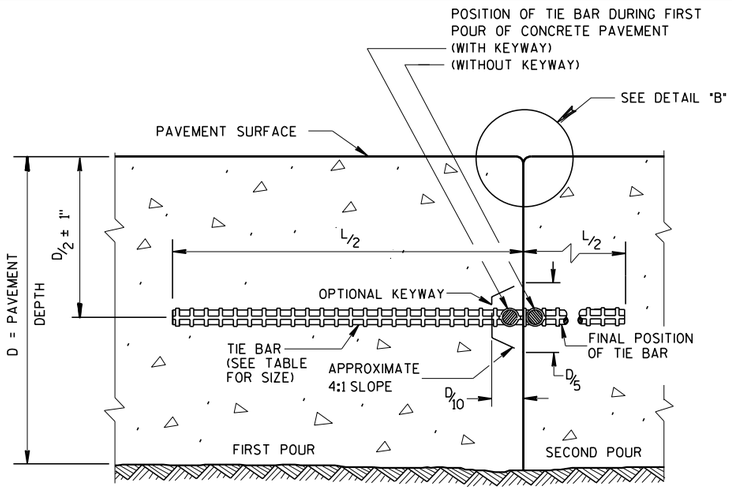
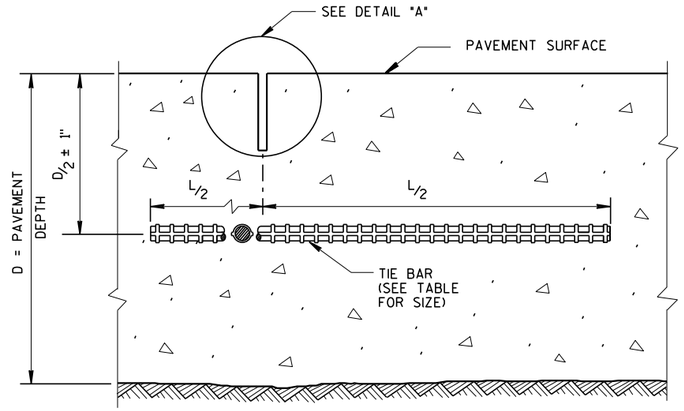
SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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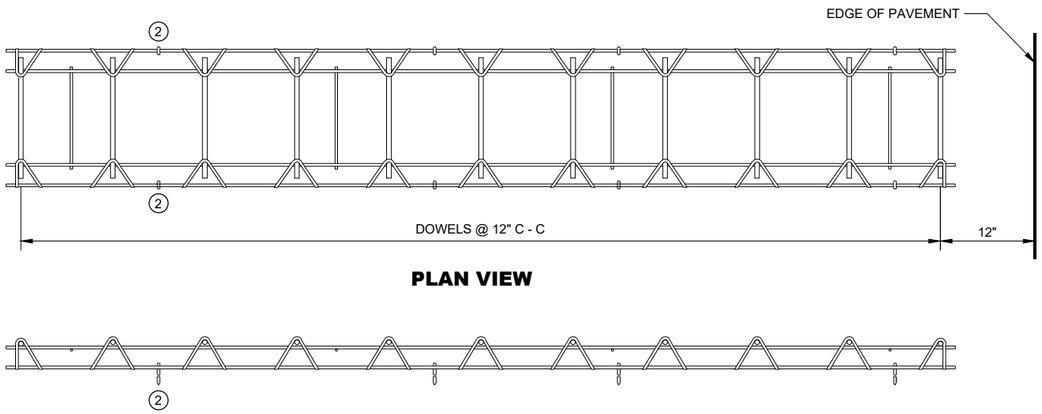
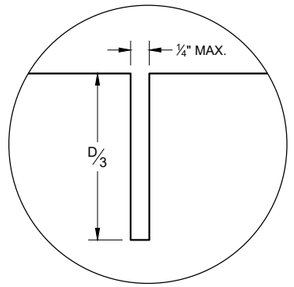
S.D.D. 13 C 1-19



PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

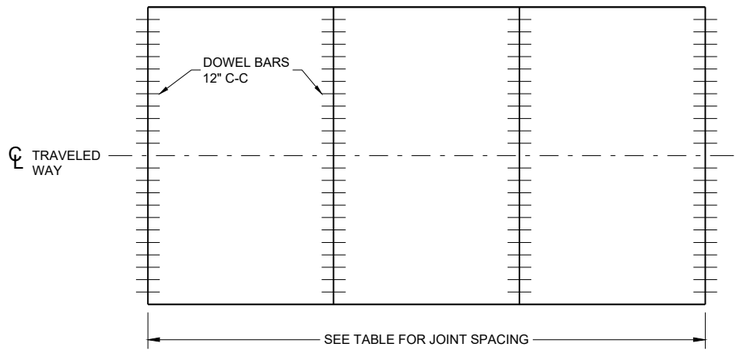
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

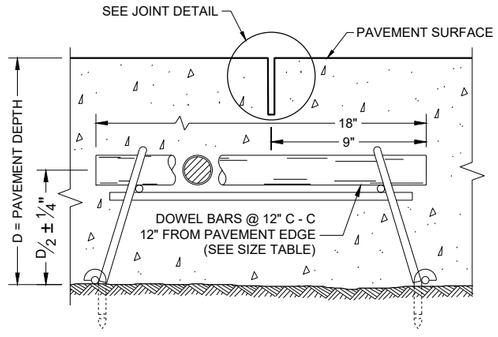
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



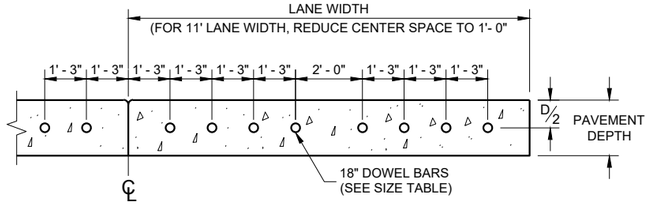
CONTRACTION JOINT LOCATIONS



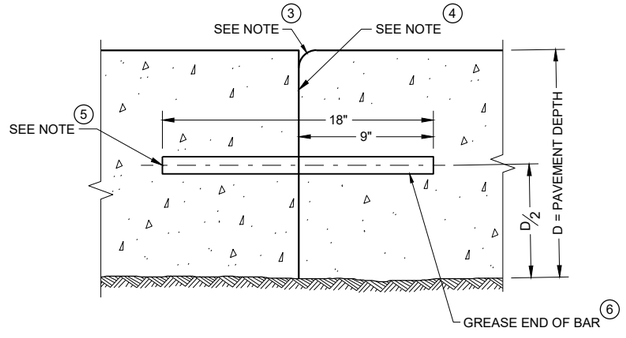
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13C13 - 11

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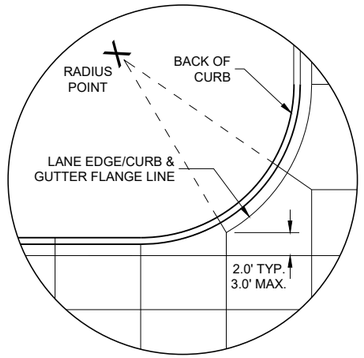
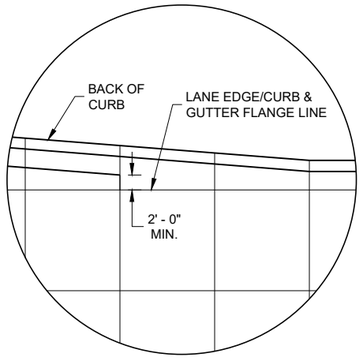
SDD 13C13 - 11



DETAIL "A"



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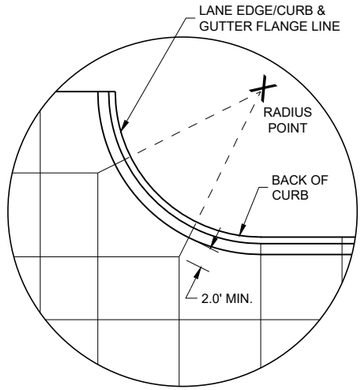
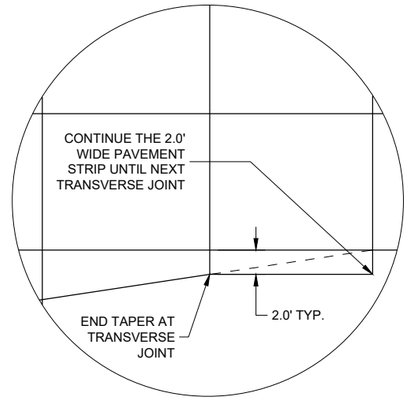


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

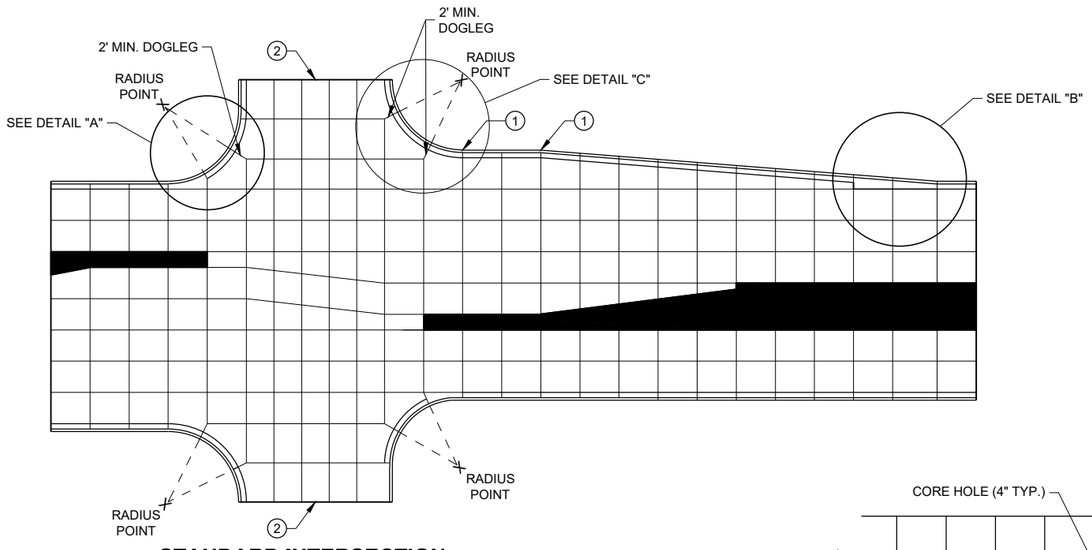
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

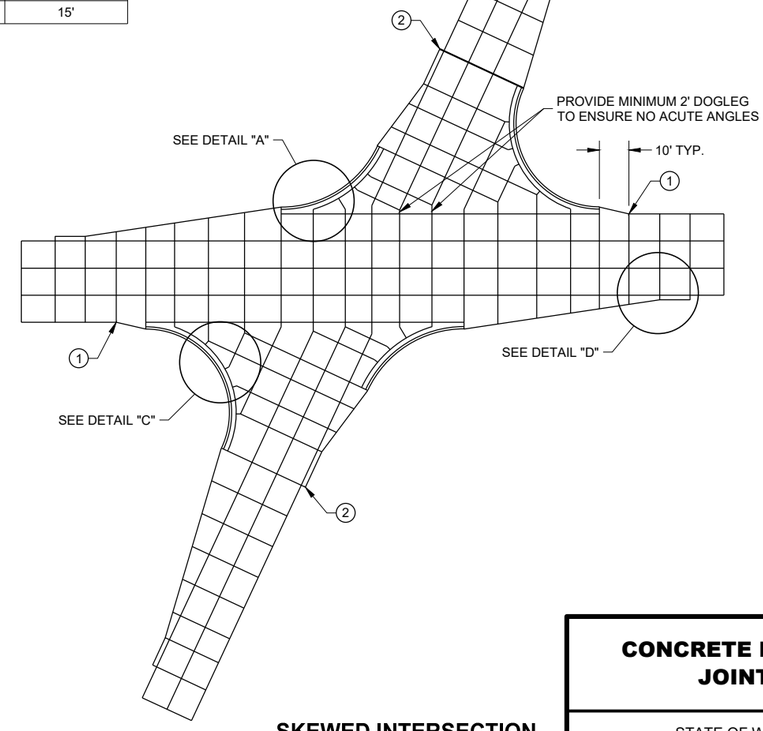
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



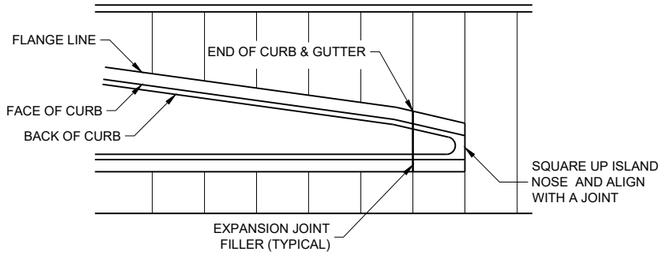
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

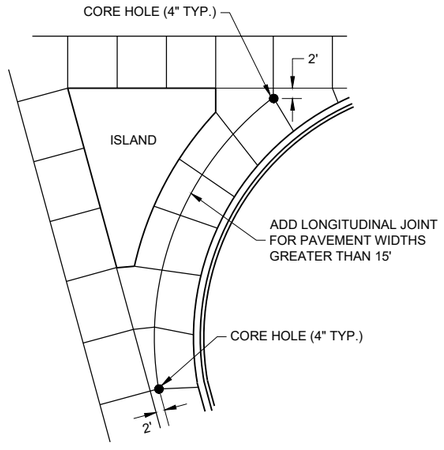
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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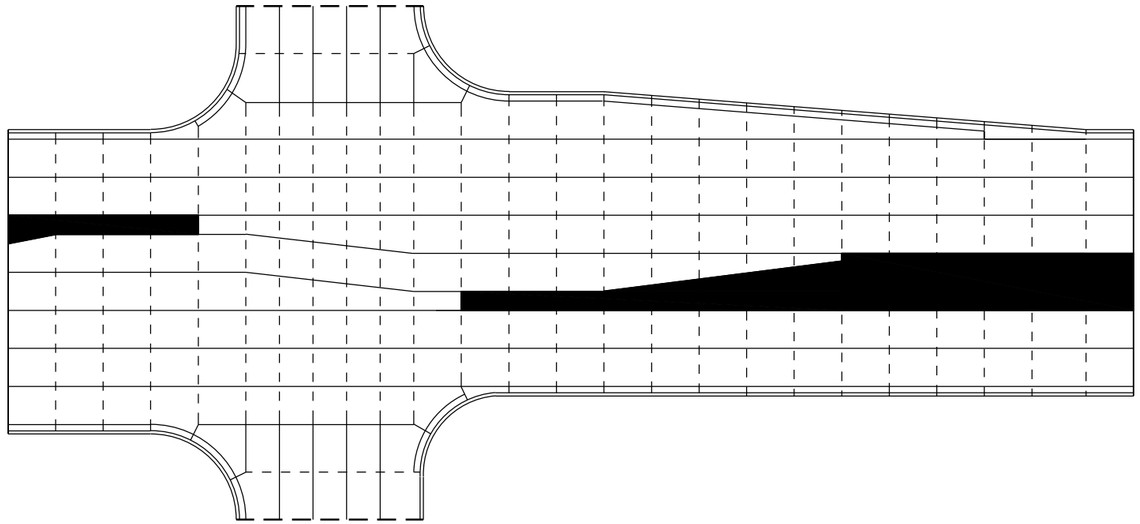
SDD 13C18 - 07a
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

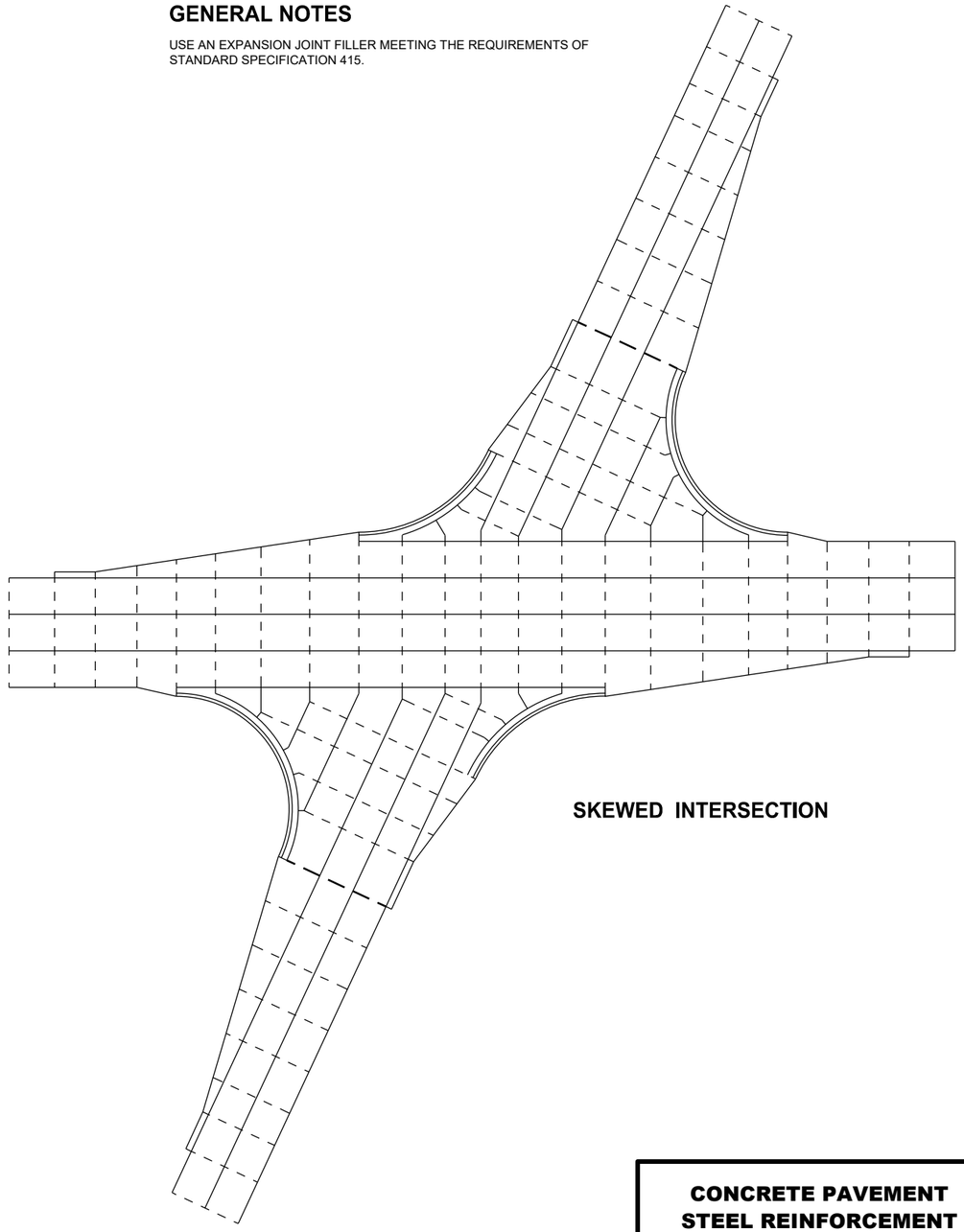
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

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SDD 13C18 - 07b

CONCRETE PAVEMENT STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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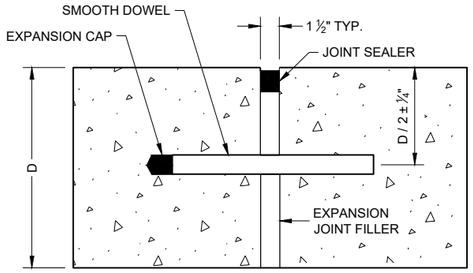
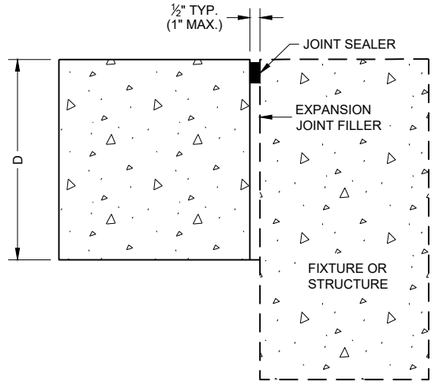
SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

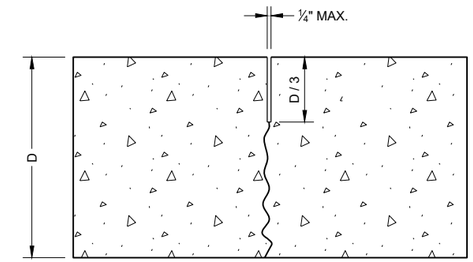
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

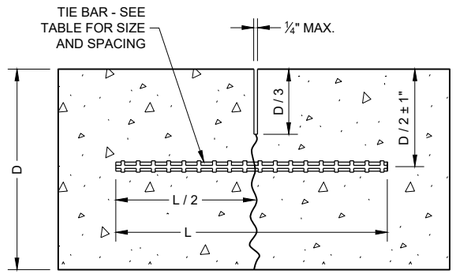
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

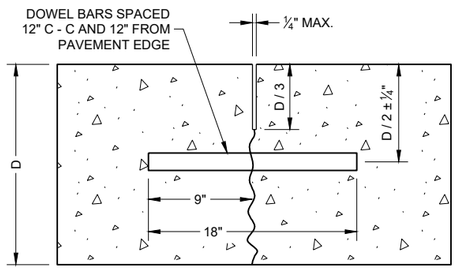
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

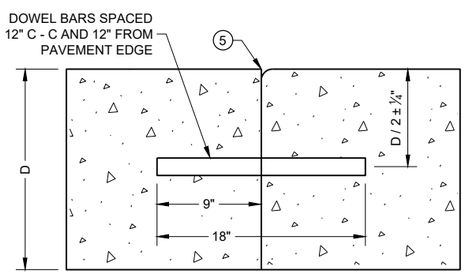


TIED LONGITUDINAL

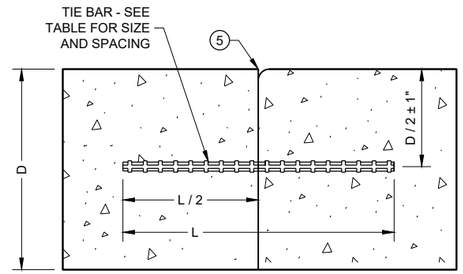


DOWELED TRANSVERSE

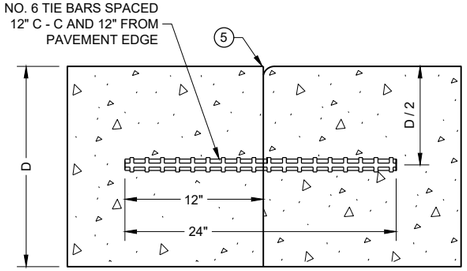
CONTRACTION JOINTS (2)



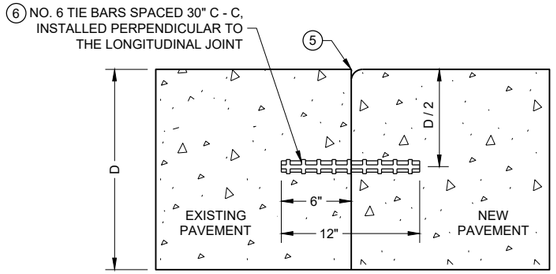
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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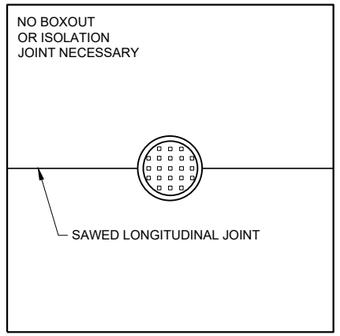
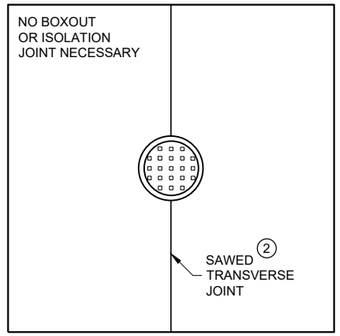
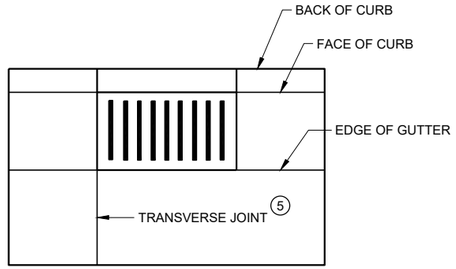
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



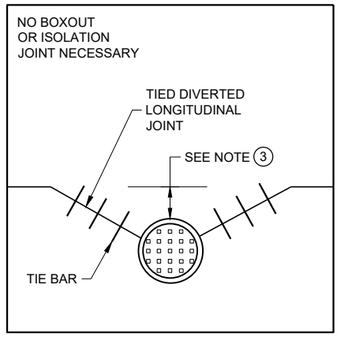
MANHOLE WITH TRANSVERSE JOINT



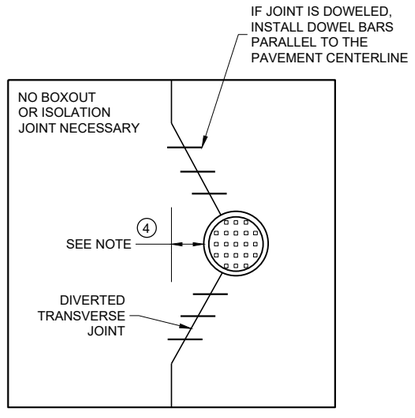
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

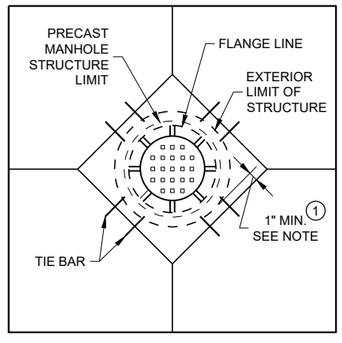
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

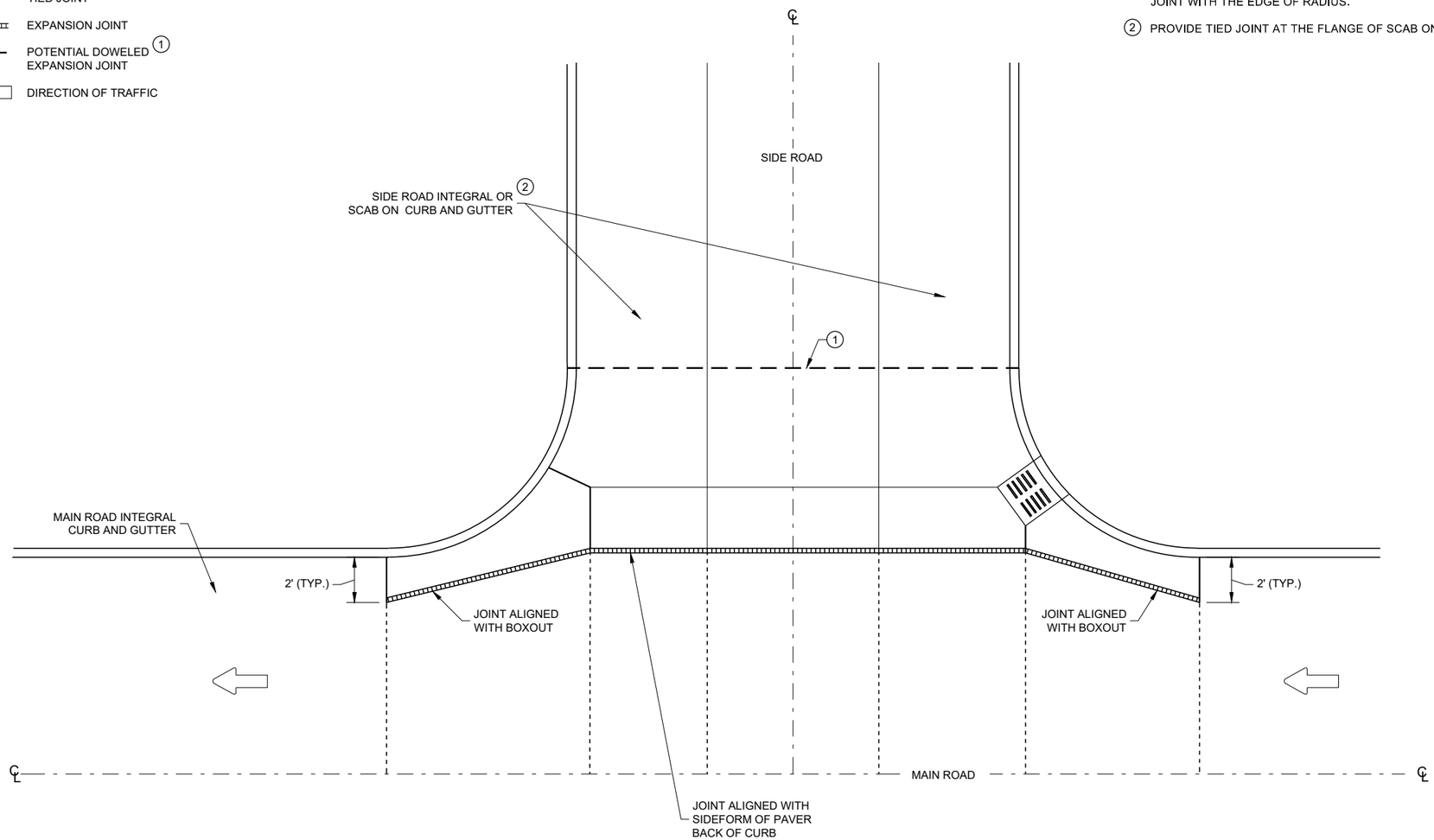
FHWA

6

SDD 13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

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SDD 13C18 - 07f

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CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

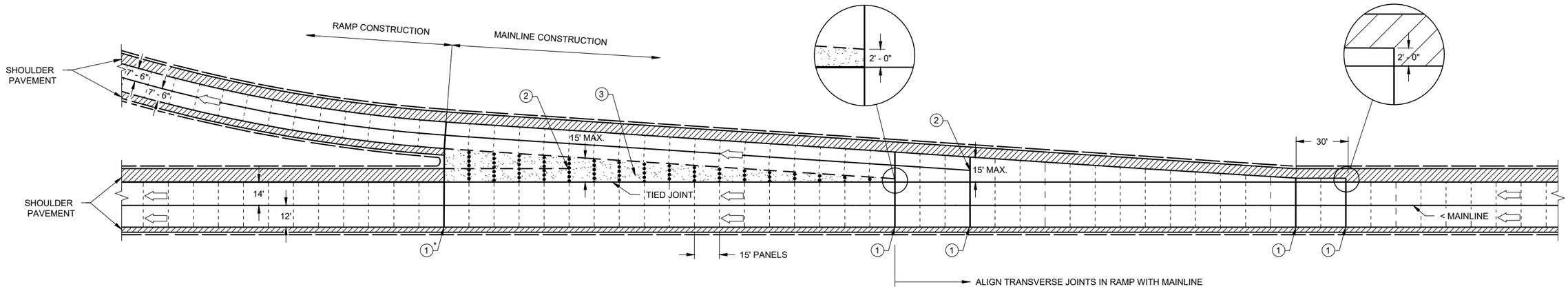
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

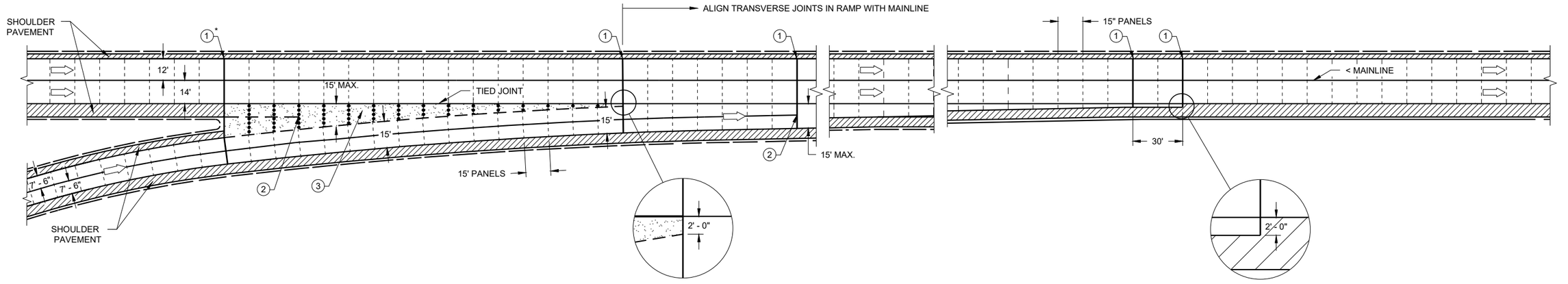
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

FHWA



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES. ((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

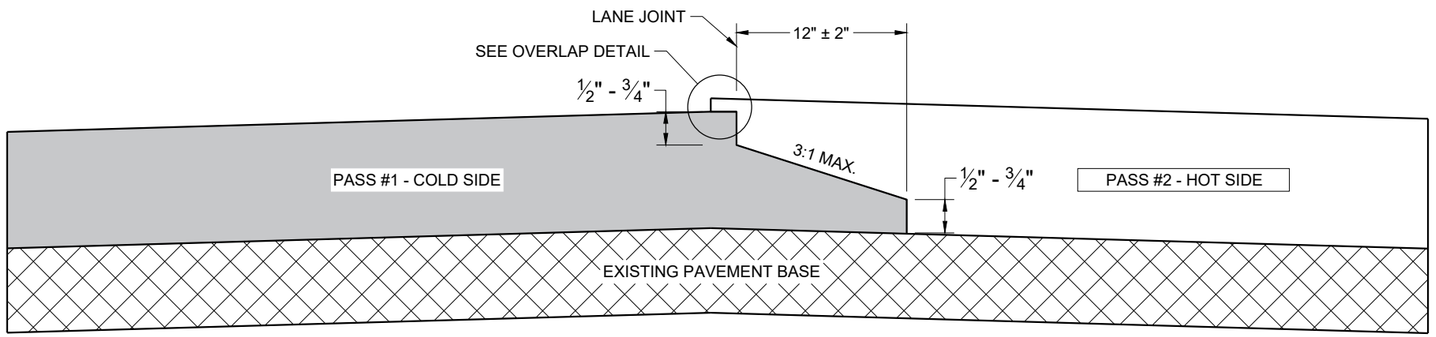
APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

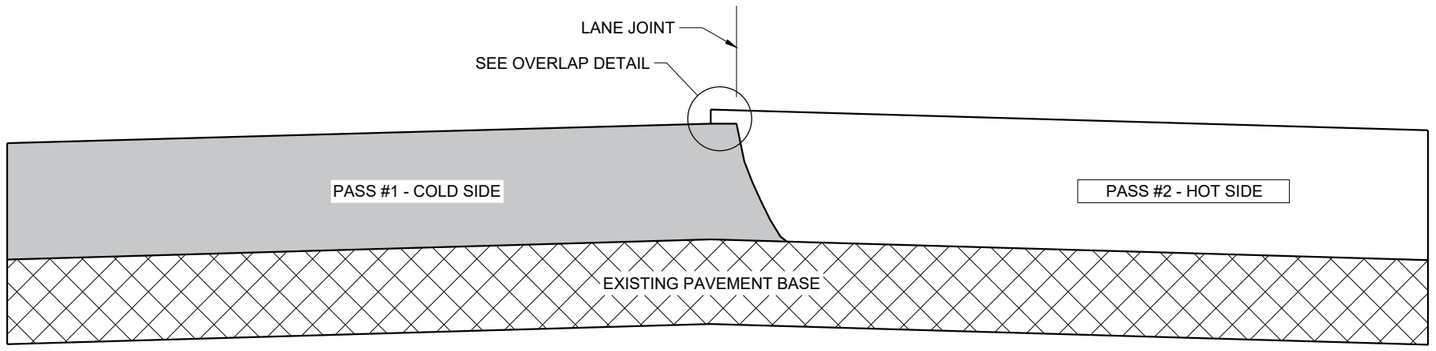
6

SDD13C18 - 07g

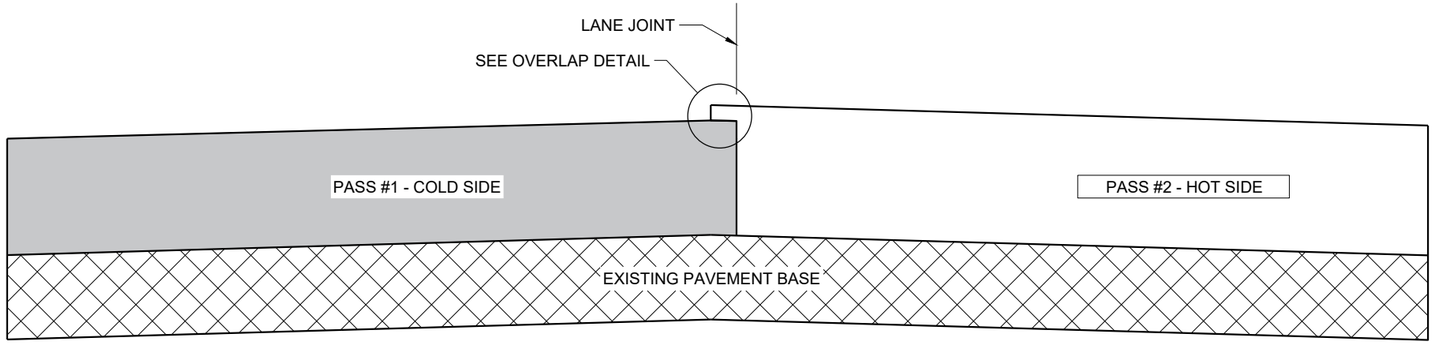
SDD13C18 - 07g



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

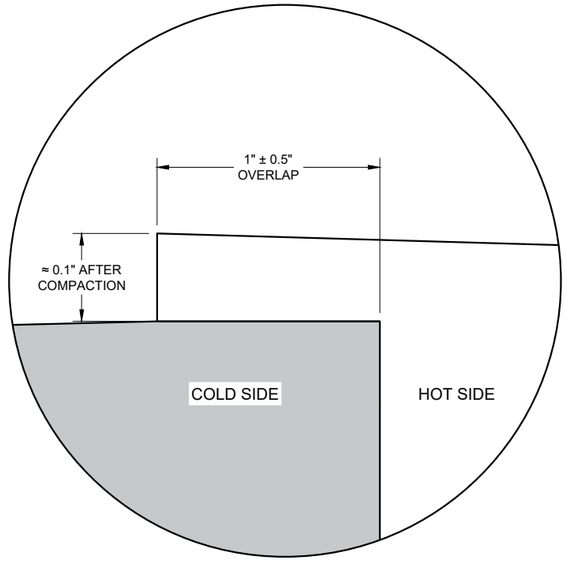
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

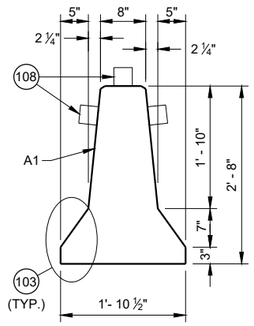
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

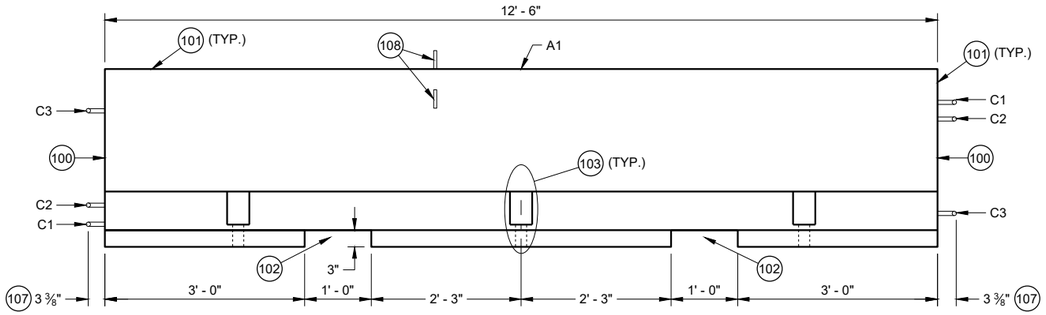
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

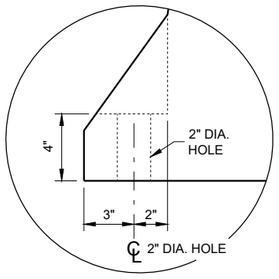
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

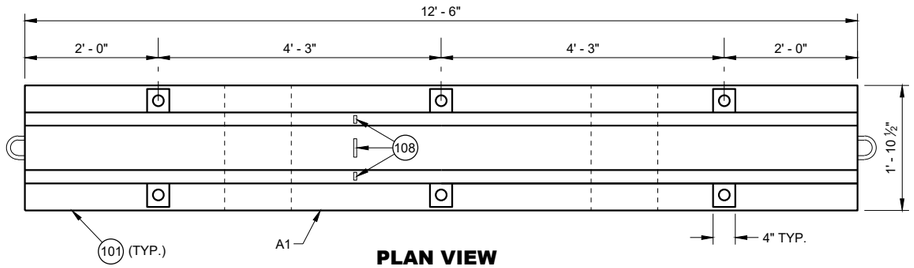
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

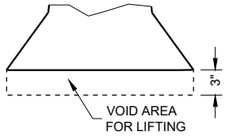


ANCHOR BLOCK DETAIL

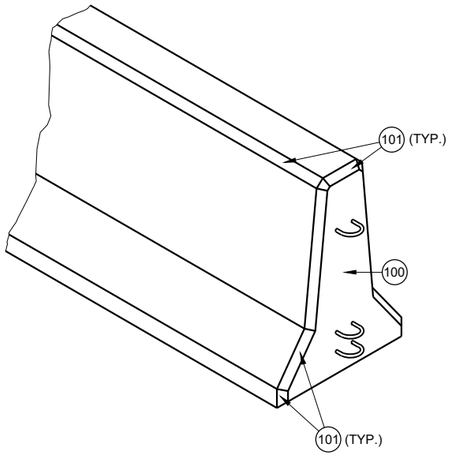


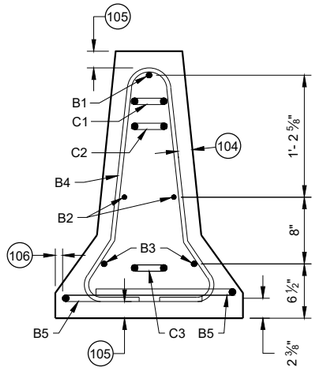
PLAN VIEW

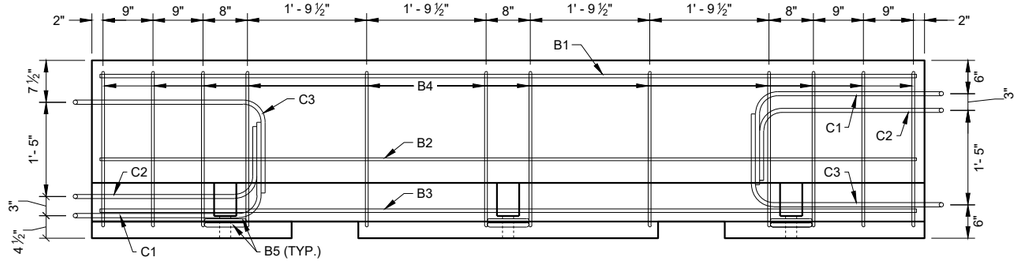
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)



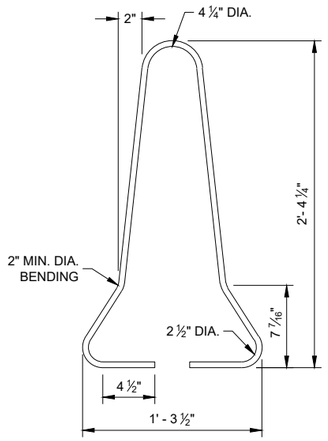




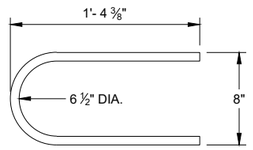
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

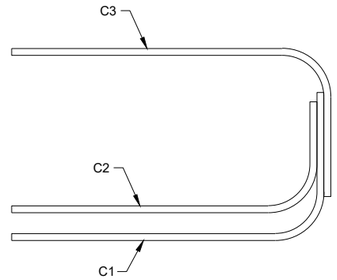
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



B4 BAR DETAIL

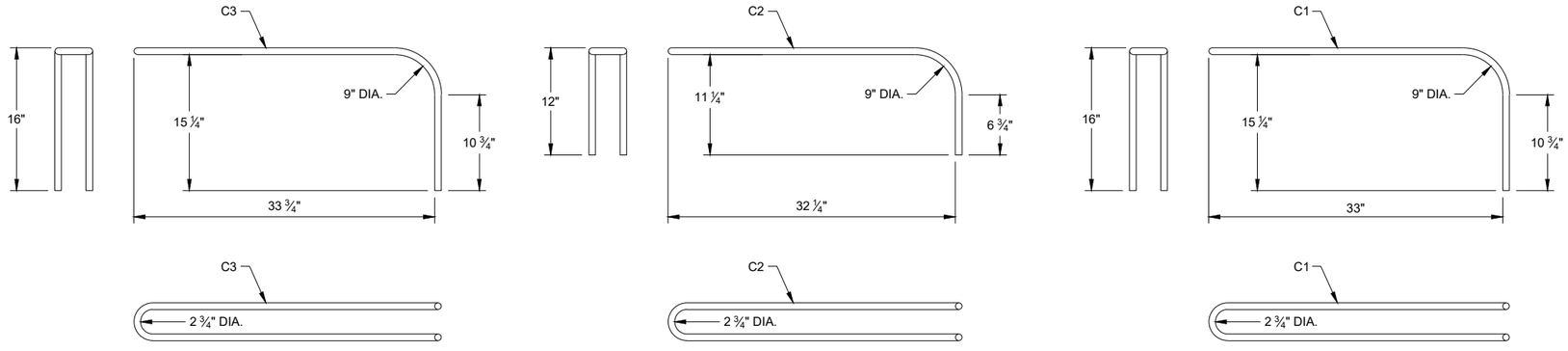


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
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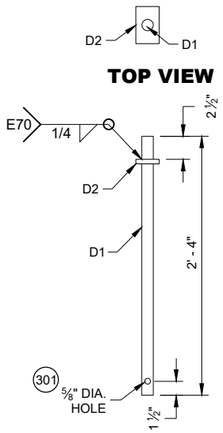
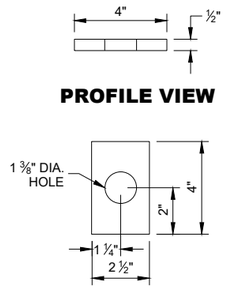
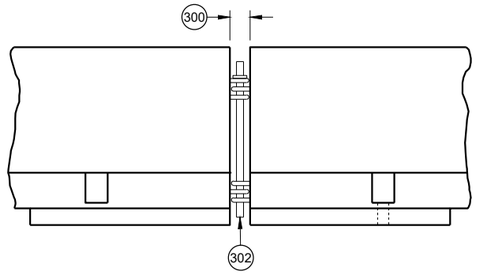


PROFILE VIEW

CONNECTOR PIN ASSEMBLY



TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

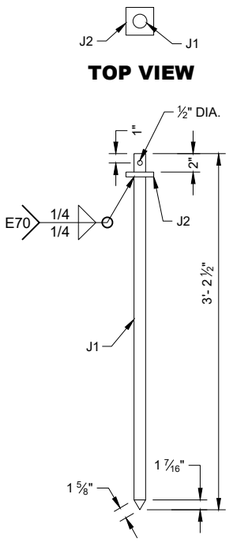
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

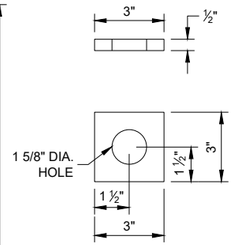
308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.

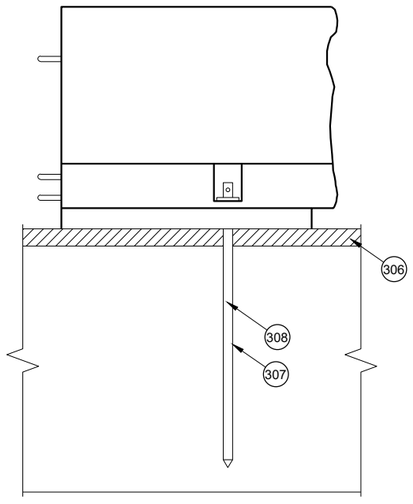


PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

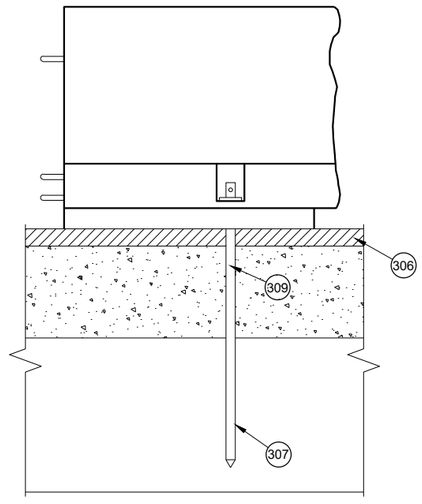


TOP VIEW J2



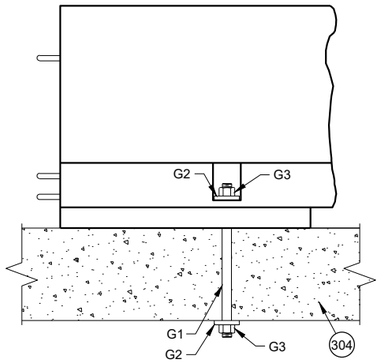
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



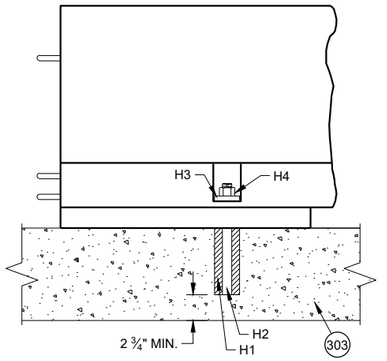
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

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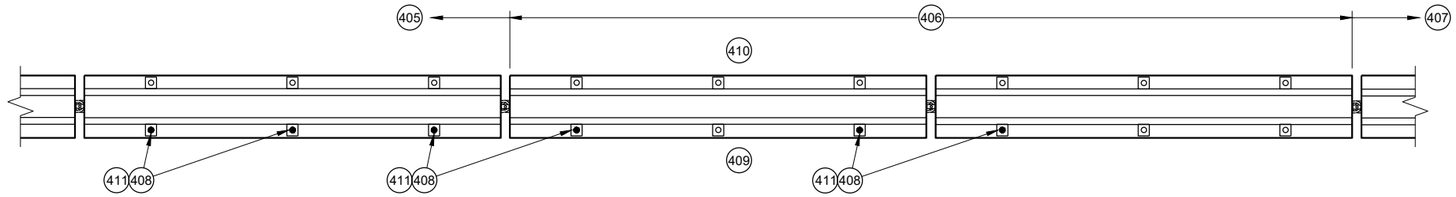
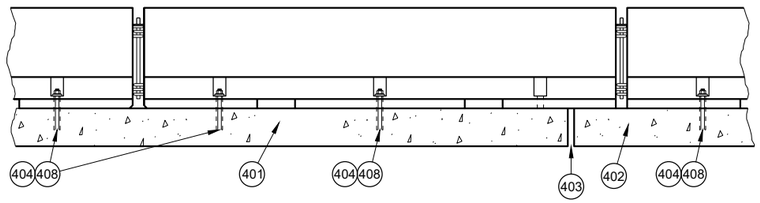
SDD 14B07-16c



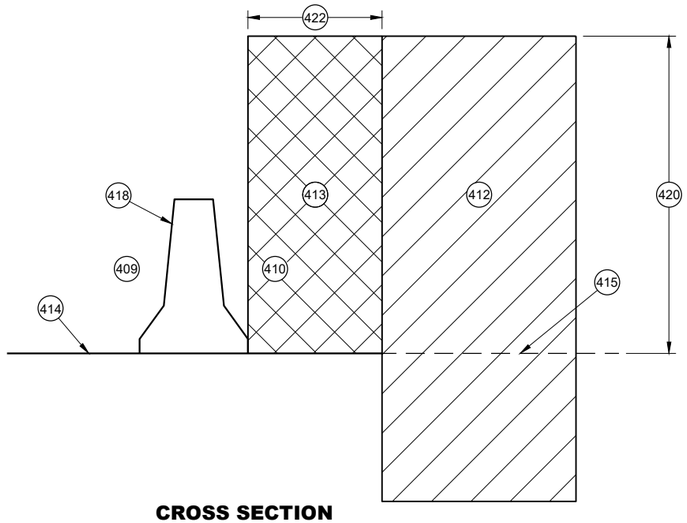
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



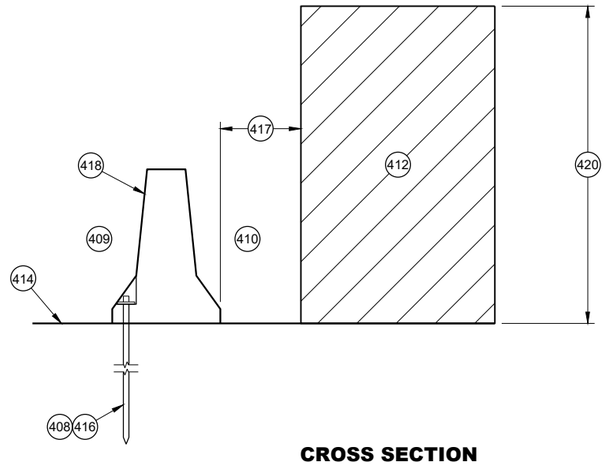
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



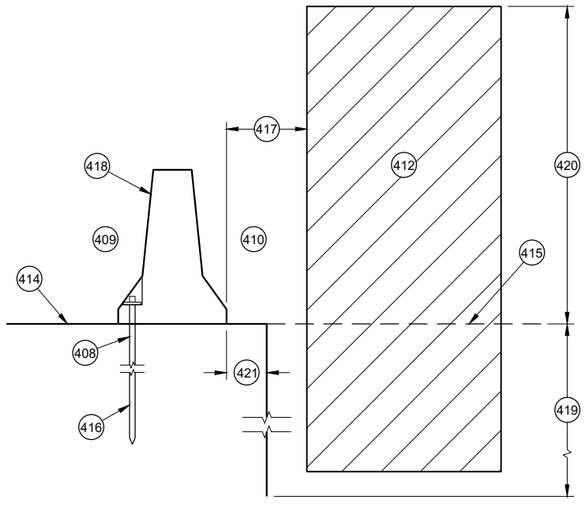
CROSS SECTION

FREE STANDING BARRIER



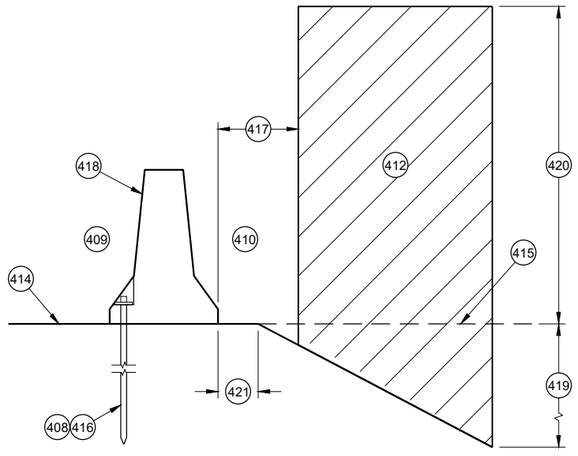
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

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SDD 14B07-16m

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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SDD 14B07-16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

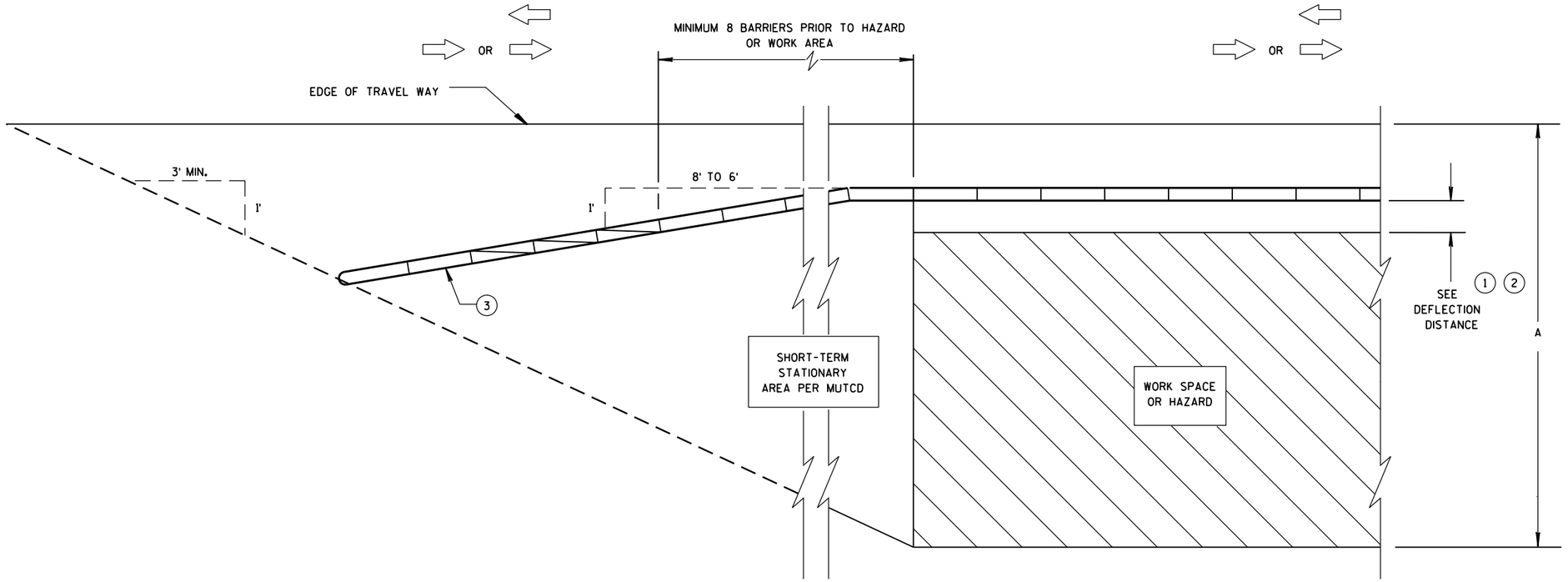
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

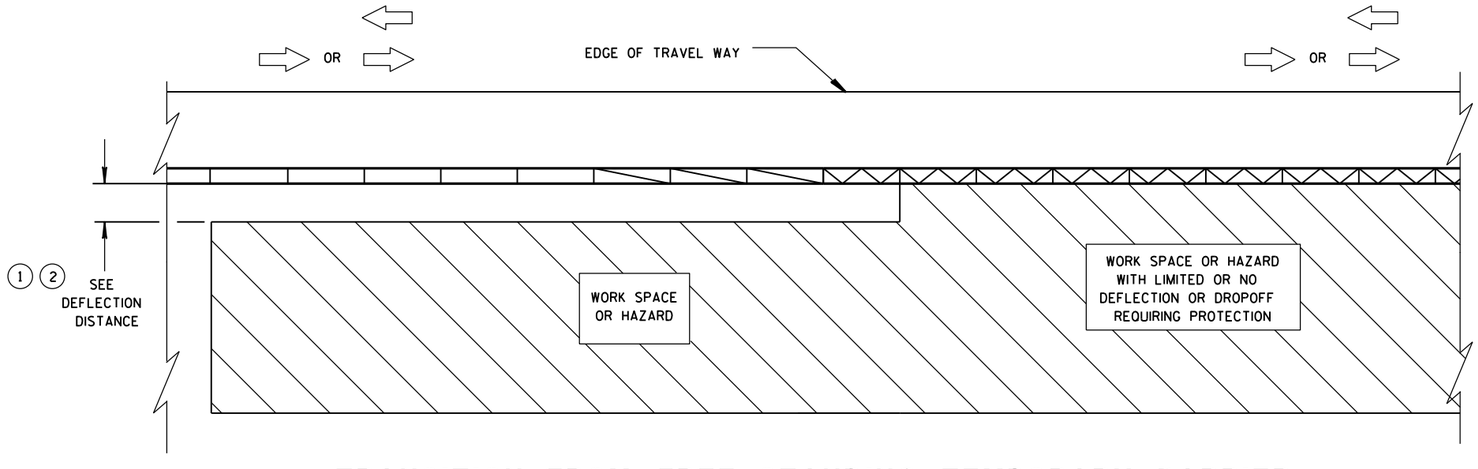
FHWA

6

SDD 14B07-16n



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2b

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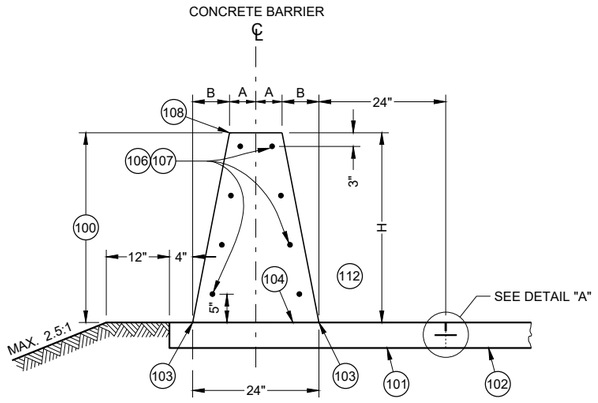
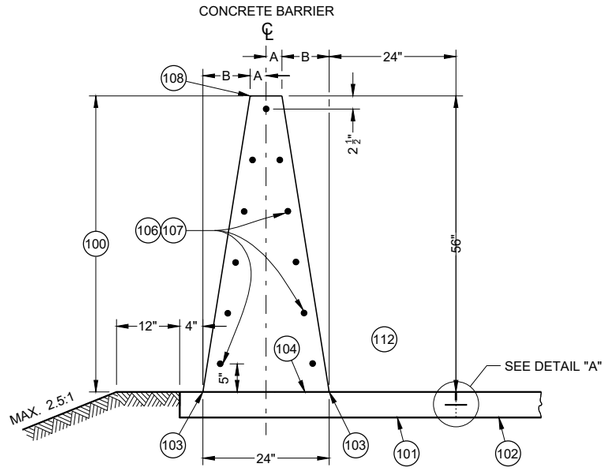
S.D.D. 14 B 8-2b



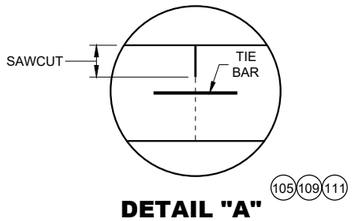
32 - INCH, 36 - INCH OR 42 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S32, TYPE S36, TYPE S42)



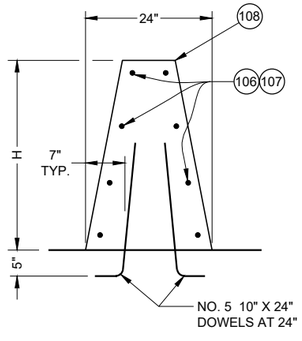
56 - INCH SINGLE SLOPE CONCRETE BARRIER
(TYPE S56)

TABLE "A"

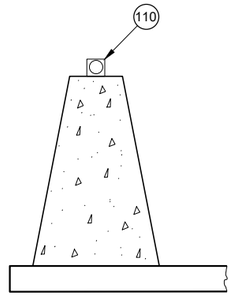
BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10
56	3	9	11



DETAIL "A"



SINGLE SLOPE CONCRETE BARRIER ON BRIDGE
(NON OUTER PARAPET APPLICATION)



DELINEATION

GENERAL NOTES

WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

LOCATE EXPANSION JOINTS IN CONCRETE BARRIER SHALL AT ALL DECK AND PRINCIPAL WALL JOINTS. FILL EXPANSION JOINT WITH EXPANSION JOINT MATERIAL. SEAL THE EXPANSION JOINT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.

2" CLEAR COVER TYPICAL

ANCHORS ARE REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN IN THIS SDD OR DETAIL SHOWN ON SDD 14B33. ANCHORS INCIDENTAL TO CBSS.

PROVIDE A 1" DEEP CONTRACTION JOINT IN BARRIER PAD AND BARRIER. JOINT IS TO MATCH ADJACENT CONCRETE JOINTS. NO DOWEL BARS ARE REQUIRED FOR BARRIER PAD. IF ADJACENT TO ASPHALT, CONTRACTION JOINT IS REQUIRED EVERY 15'.

ALL REBAR SHALL BE EPOXY COATED M31 TYPE S. SEE STANDARD SPECIFICATION 505.

CONCRETE BARRIER, UPPER CONCRETE BARRIER, LOWER CONCRETE BARRIER, CONCRETE BARRIER PAD, AND FOOTINGS ARE TERMS USED TO DESCRIBE PARTS OF SINGLE SLOPE CONCRETE BARRIER BID ITEMS. THESE PARTS ARE INCIDENTAL TO THE SINGLE SLOPE CONCRETE BARRIER BID ITEMS.

(100) CONCRETE BARRIER

(101) CONCRETE BARRIER PAD

(102) PAVEMENT

(103) WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1 ½", USE TYPE A SINGLE SLOPE BARRIER.

(104) OPTIONAL CONSTRUCTION JOINT.

(105) CONSTRUCTION JOINTS MAY BE ELIMINATED WHEN CONCRETE SHOULDER IS LESS THAT 10'.

(106) STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL IS 2' BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.

(107) NO. 5 CONTINUOUS BARS EVENLY SPACED (SEE TABLE "A").

(108) USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

(109) CONCRETE BARRIER PAD UNDER CBSS MAY BE PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED ⅓ DEPTH. CONCRETE BARRIER PAD AND SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE BARRIER PAD MINIMUM DEPTH IS 6", OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

(110) SEE SDD 15A04 FOR DELINEATOR DETAILS AND SPACING.

(111) SEE SDD 13C01 FOR DETAILS TYPING CONCRETE BARRIER TO ADJACENT CONCRETE

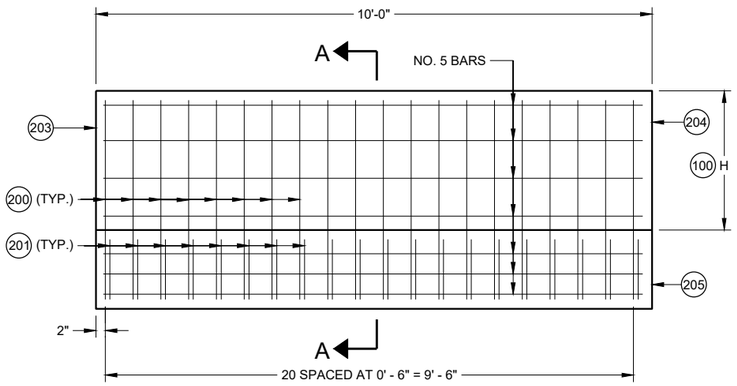
(112) TRAFFIC SIDE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

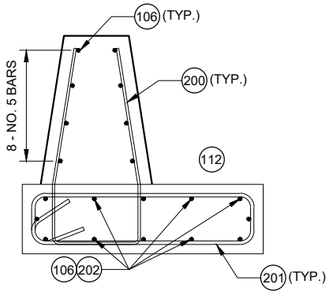
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

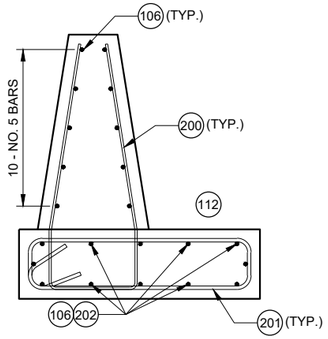
SDD 14B32 - 10a



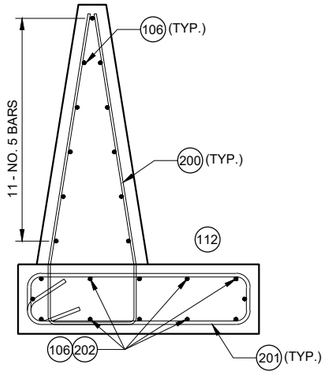
END ANCHOR SINGLE
SLOPE CONCRETE BARRIER



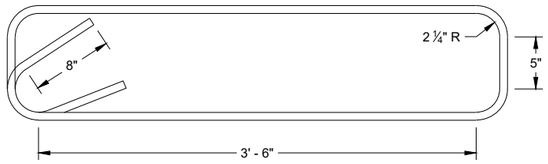
32" AND 36" CBSS



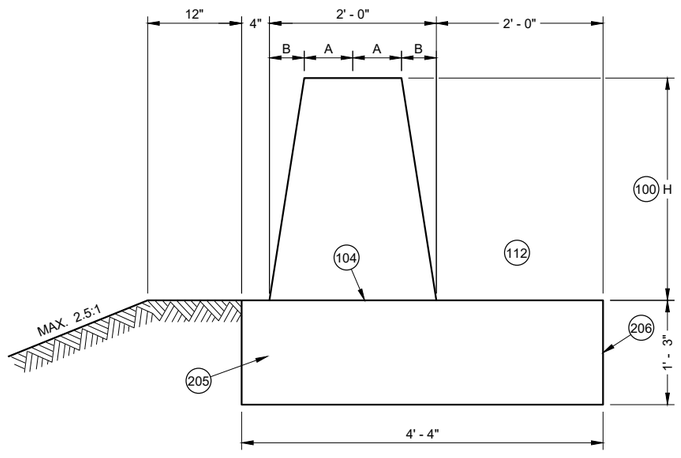
42" CBSS



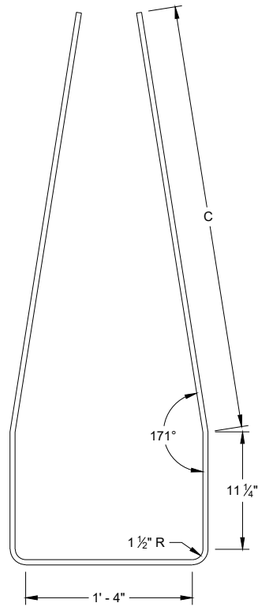
56" CBSS



STIRRUP BAR
BENDING DETAIL



SECTION A - A



V1 BAR
BENDING DETAIL

TABLE "B"

BARRIER HEIGHT H INCHES	C INCHES
32	2' - 6"
36	2' - 11"
42	3' - 4"
56	4' - 6 ½"

GENERAL NOTES

(200) V1 BARS ARE NO. 5 BARS. (SEE BAR BENDING DETAIL)

(201) STIRRUPS ARE NO. 6 BARS. (SEE BAR BENDING DETAIL)

(202) TWELVE (12) NO. 5 BARS EVENLY SPACED

(203) END OF INSTALLATION OR EXPANSION JOINT.

(204) SEE COLD JOINT DETAIL TO CONNECT END ANCHOR SINGLE SLOPE CONCRETE BARRIER TO SINGLE SLOPE CONCRETE BARRIER.

(205) FOOTING

(206) DO NOT TIE TO FOOTING TO ADJACENT PAVEMENT.

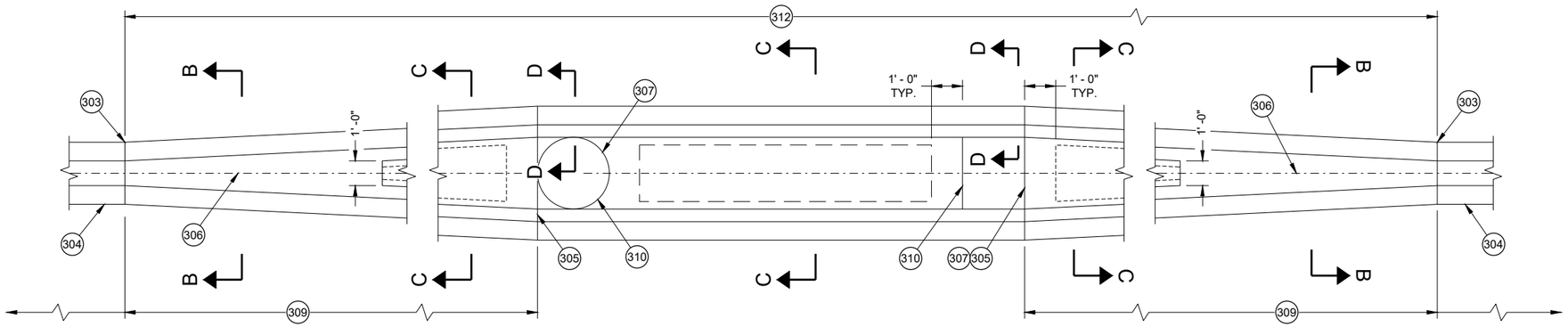
6

SDD 14B32 - 10b

CONCRETE BARRIER
SINGLE SLOPE (CBSS)

6

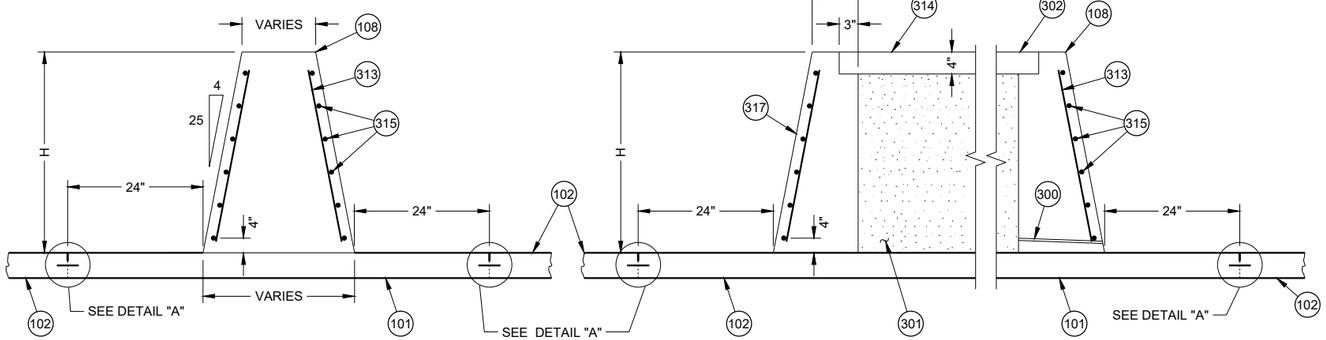
SDD 14B32 - 10b



LARGE FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

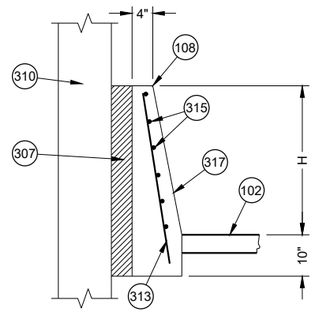
TABLE "C"

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	6

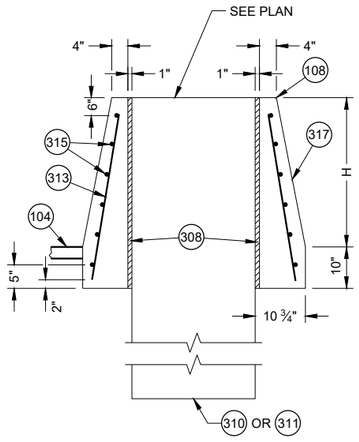


SECTION B - B

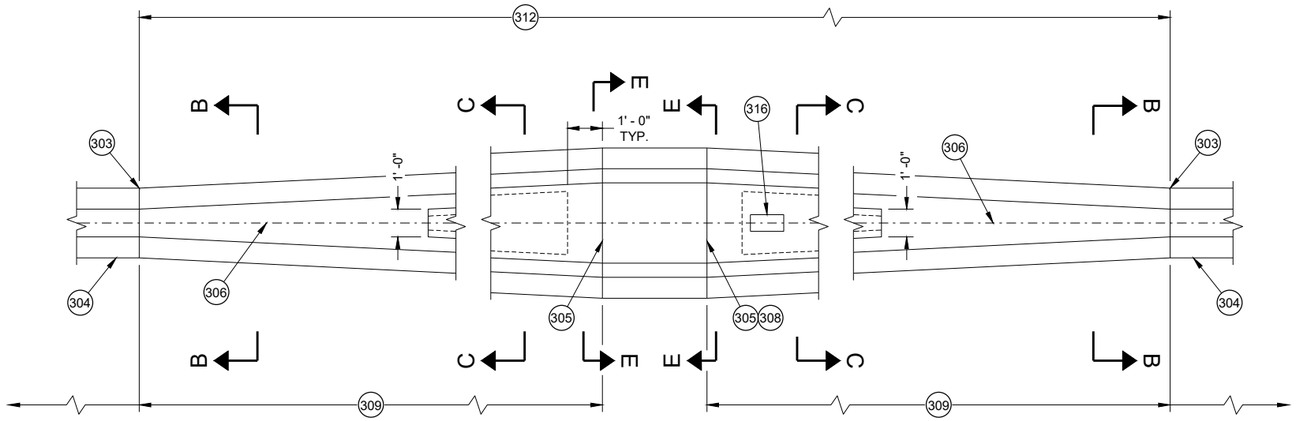
SECTION C - C



SECTION D - D



SECTION E - E



SMALL FIXED OBJECTS PROTECTION
(TYPE S32, TYPE S36, TYPE S42, TYPE S56)

GENERAL NOTES

(300) INSTALL 1 INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B -B. MINIMUM ONE DRAIN CAVITY.

(301) BETWEEN CONCRETE BARRIER WALLS FILL WITH FOUNDATION BACKFILL.

(302) LEVEL THE TOP OF CONCRETE BARRIER CAP ACROSS TOP OF BARRIER. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.

(303) USE COLD JOINTS BETWEEN FIXED OBJECT PROTECTION AND CONCRETE BARRIER ANCHOR.

(304) INSTALL END ANCHOR SINGLE SLOPE CONCRETE BARRIER.

(305) SEE COLD JOINT DETAIL

(306) CENTERLINE OF CONCRETE BARRIER.

(307) INSTALL 4" EXPANDED POLYSTYRENE BETWEEN COLUMN AND CONCRETE BARRIER.

(308) INSTALL 1" EXPANDED POLYSTYRENE BETWEEN PEDESTAL AND CONCRETE BARRIER.

(309) 20:1 MIN. TRANSITION.

(310) COLUMN

(311) PEDESTAL

(312) LIMITS OF PAYMENT FOR LARGE FIXED OBJECT PROTECTION (SEE PLAN)

(313) NO. 4 BARS SPACED 12" CENTER TO CENTER (TYP.)

(314) USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.

(315) SEE TABLE "C" FOR BAR INFORMATION

(316) ELECTRICAL PULL BOX FOR SIGN FLUSH WITH TOP OF CONCRETE BARRIER.

(317) VARIABLE SLOPE

CONCRETE BARRIER SINGLE SLOPE (CBSS)

GENERAL NOTES

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

(500) SEE TABLE "A" FOR DIMENSIONS

(501) SEE TABLE "D"

(502) MULTIPLE HEIGHT TRANSITION MAY BE USED IN SEQUENCE TO GET APPROPRIATE HEIGHT.

(503) COLD JOINT

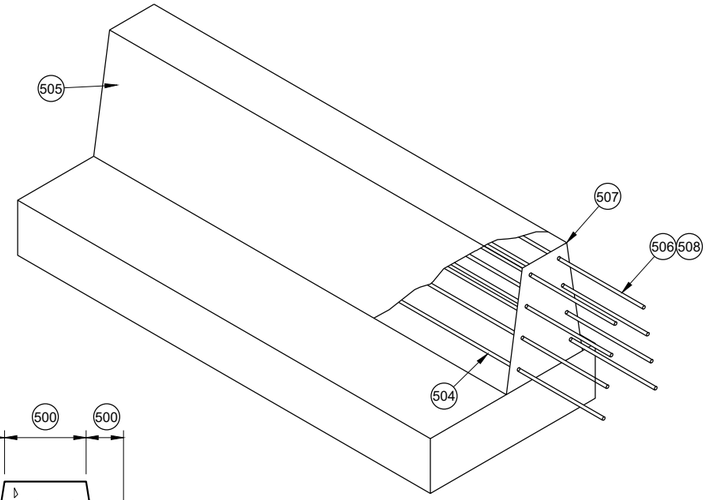
(504) BARRIER REBAR (SEE OTHER DETAILS FOR BAR SIZE, QUANTITY AND LOCATION).

(505) SINGLE SLOPE BARRIER SHOWN. SIMILAR DETAIL CAN BE USED FOR COLD JOINT IN END ANCHORS AND TRANSITIONS.

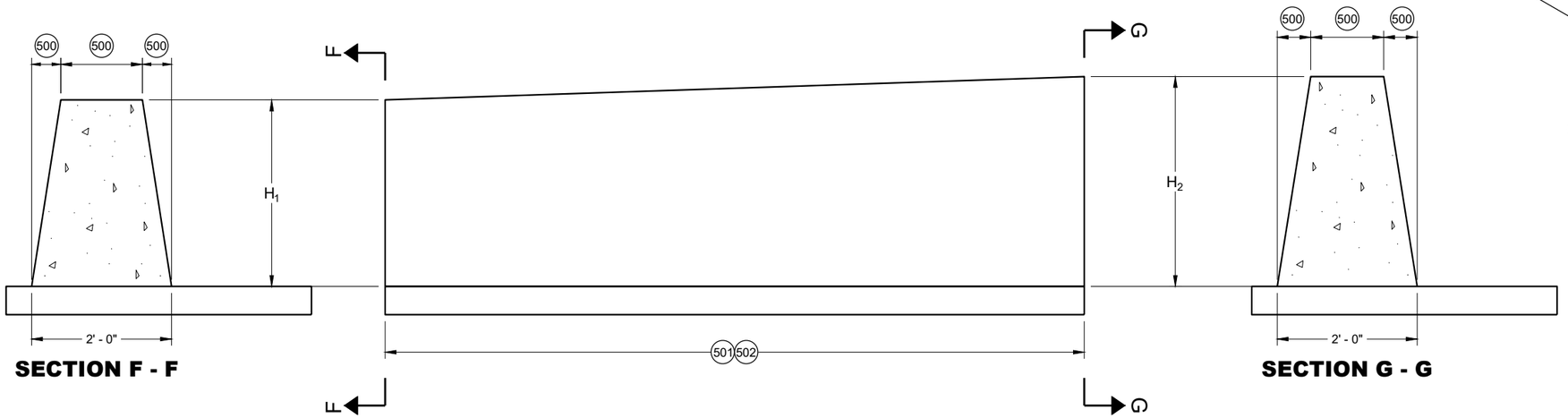
(506) NO. 5 REBAR FOR SPLICE. 3' OF SPLICE REBAR IS LAPPED AND TIED TO BARRIER REBAR. EXTEND 3' OF SPLICE REBAR BEYOND END OF POUR. ALL BARS ARE FIRMLY TIED OR CONNECTED. EVERY REBAR IN THE BARRIER SECTION REQUIRES A SPLICE BAR.

(507) END OF POUR.

(508) LAP AND TIE 3' OF NEXT POUR'S REBAR TO SPLICE REBAR.



COLD JOINT DETAIL



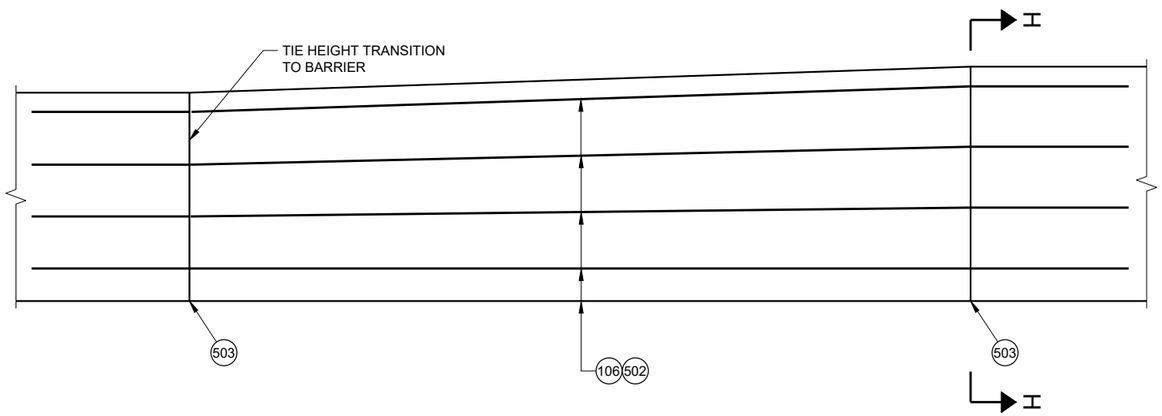
SECTION F - F

SECTION G - G

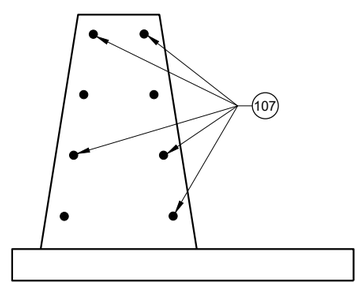
DOUBLE COLD JOINT HEIGHT TRANSITION

TABLE "D"

H_1	H_2	L	NUMBER OF NO. 5 BARS
32"	36"	10' - 0"	8
36"	42"	10' - 6"	10
42"	56"	24' - 6"	11



STEEL REINFORCEMENT DETAIL



SECTION H - H

CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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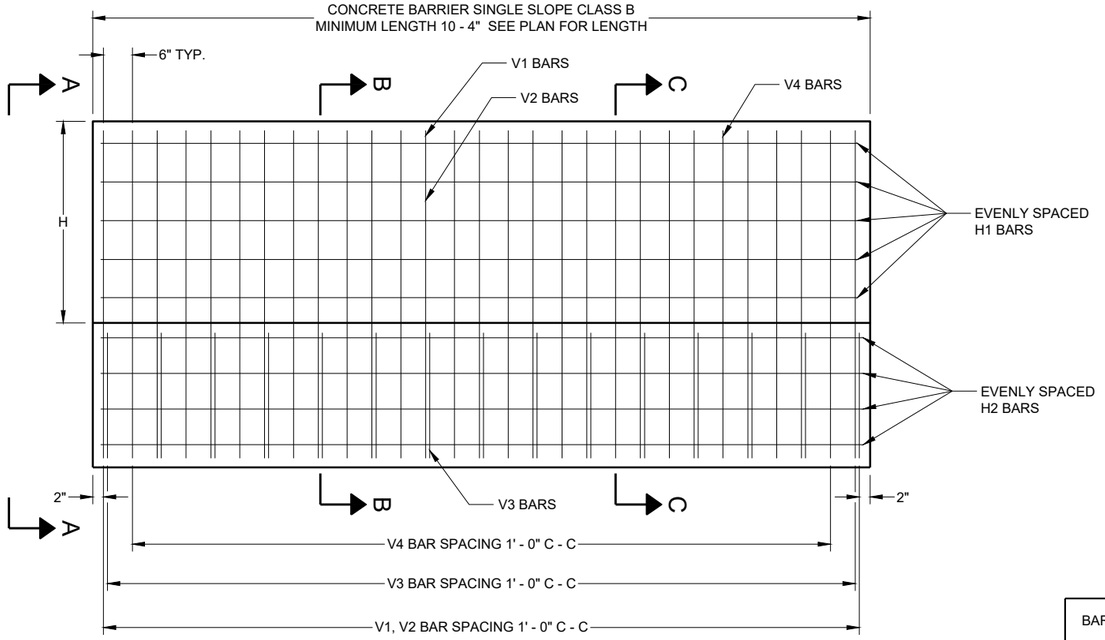
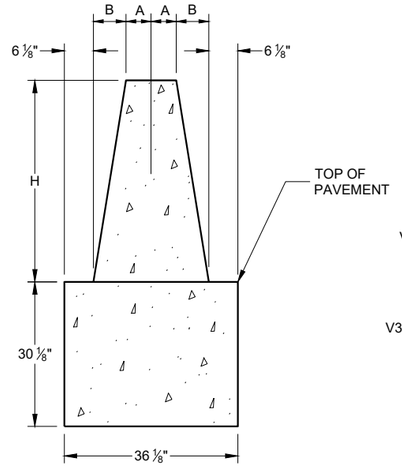
SDD 14B32 - 10e

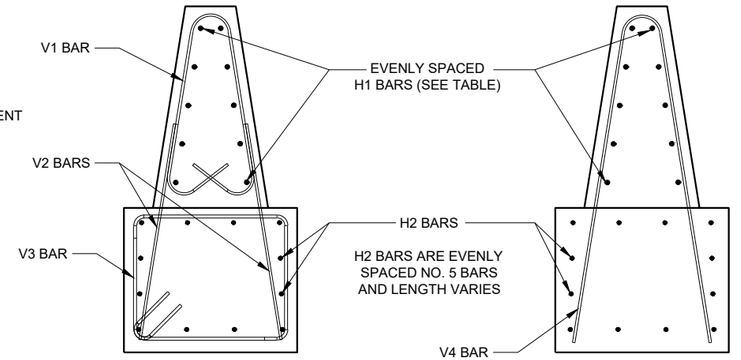
SDD 14B32 - 10e



ELEVATION VIEW



SECTION A - A

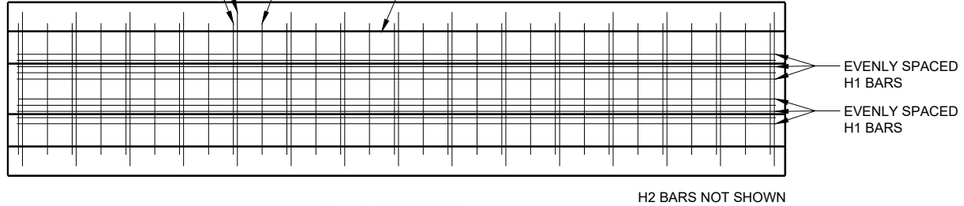


SECTION B - B

SECTION C - C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6 ¼	5 ¾	8
42	5 ¼	6 ¾	10

BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5 ⅝	18 ¾	5 ½	53 ¾
36	4 ¾	23 ¾	4 ⅞	58 ⅜
42	3 ⅝	30 ½	3 ⅝	65 ⅜



PLAN VIEW

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾ " BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

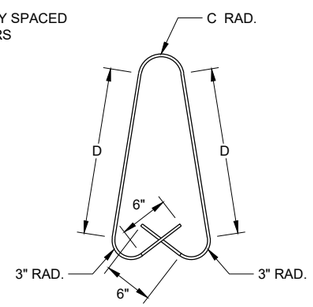
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL.

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

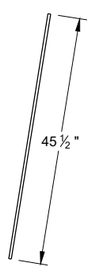
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



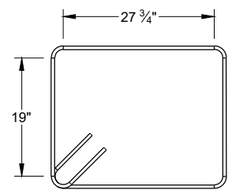
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



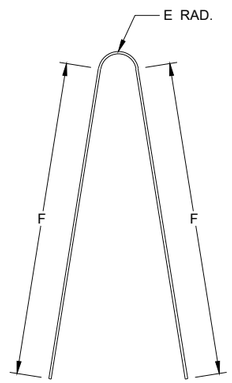
V2 BAR DETAIL

V2 BARS ARE NO. 5 BARS



V3 BAR BENDING DETAIL

V3 BARS ARE NO. 6 BARS



V4 BAR BENDING DETAIL

V4 BARS ARE NO. 6 BARS

32", 36", & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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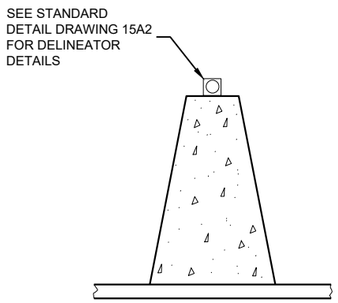
6

SDD 14B34 - 02a

6

SDD 14B34 - 02a



DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C - C 100' C - C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C - C 50' C - C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	50' C - C 100' C - C	2 2	6

6

6

SDD 14B34 - 02c

SDD 14B34 - 02c

CONCRETE BARRIER SINGLE SLOPE CLASS B

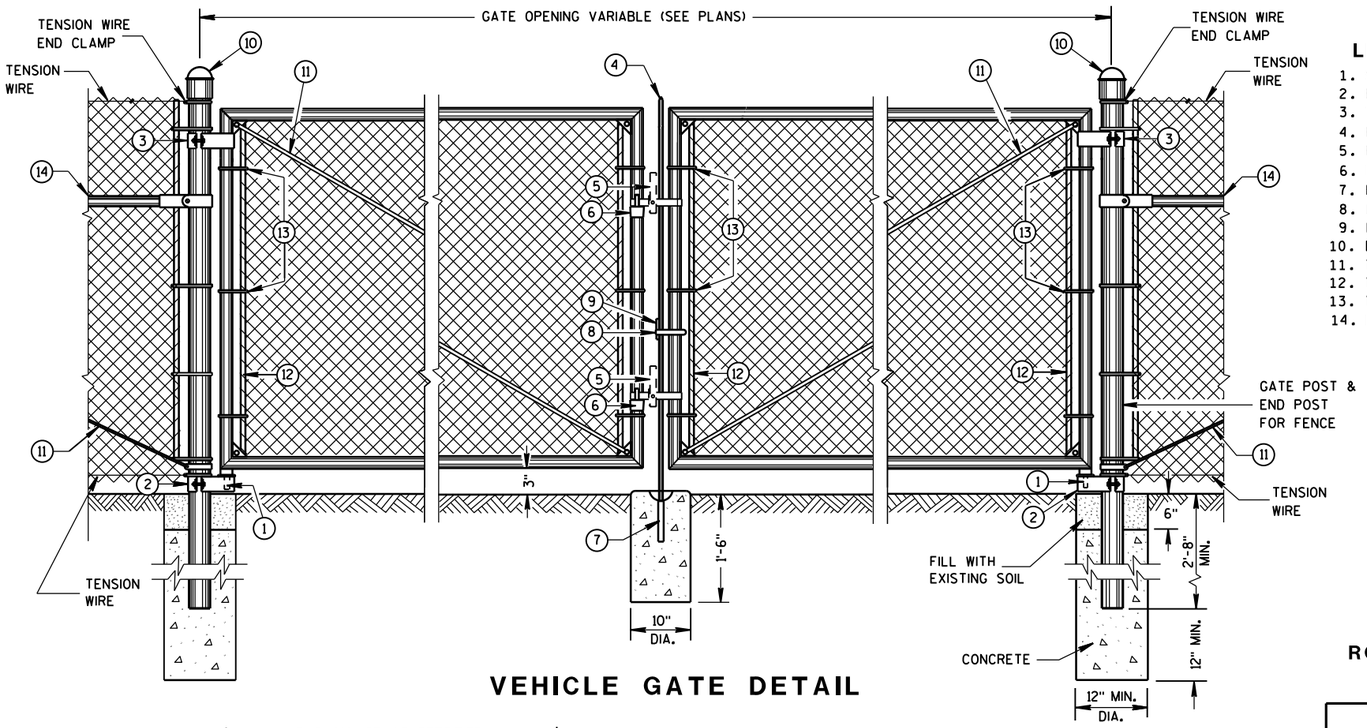
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

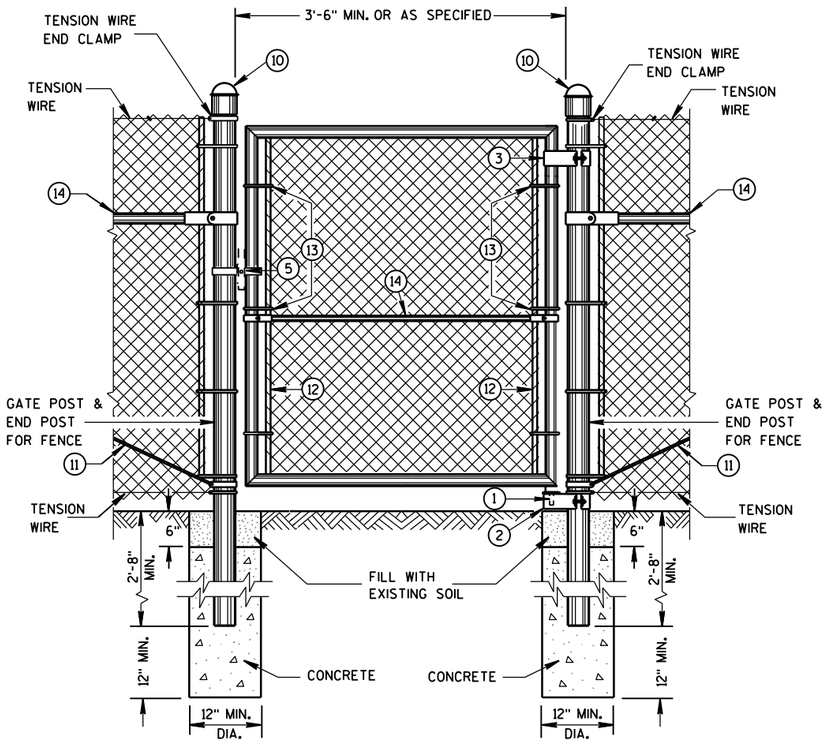
07/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

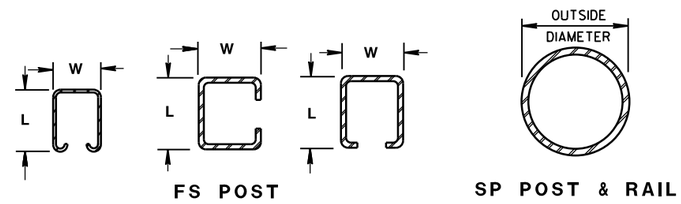
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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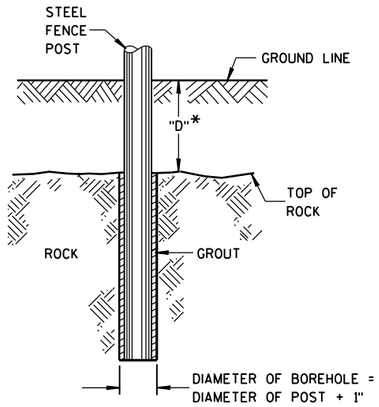
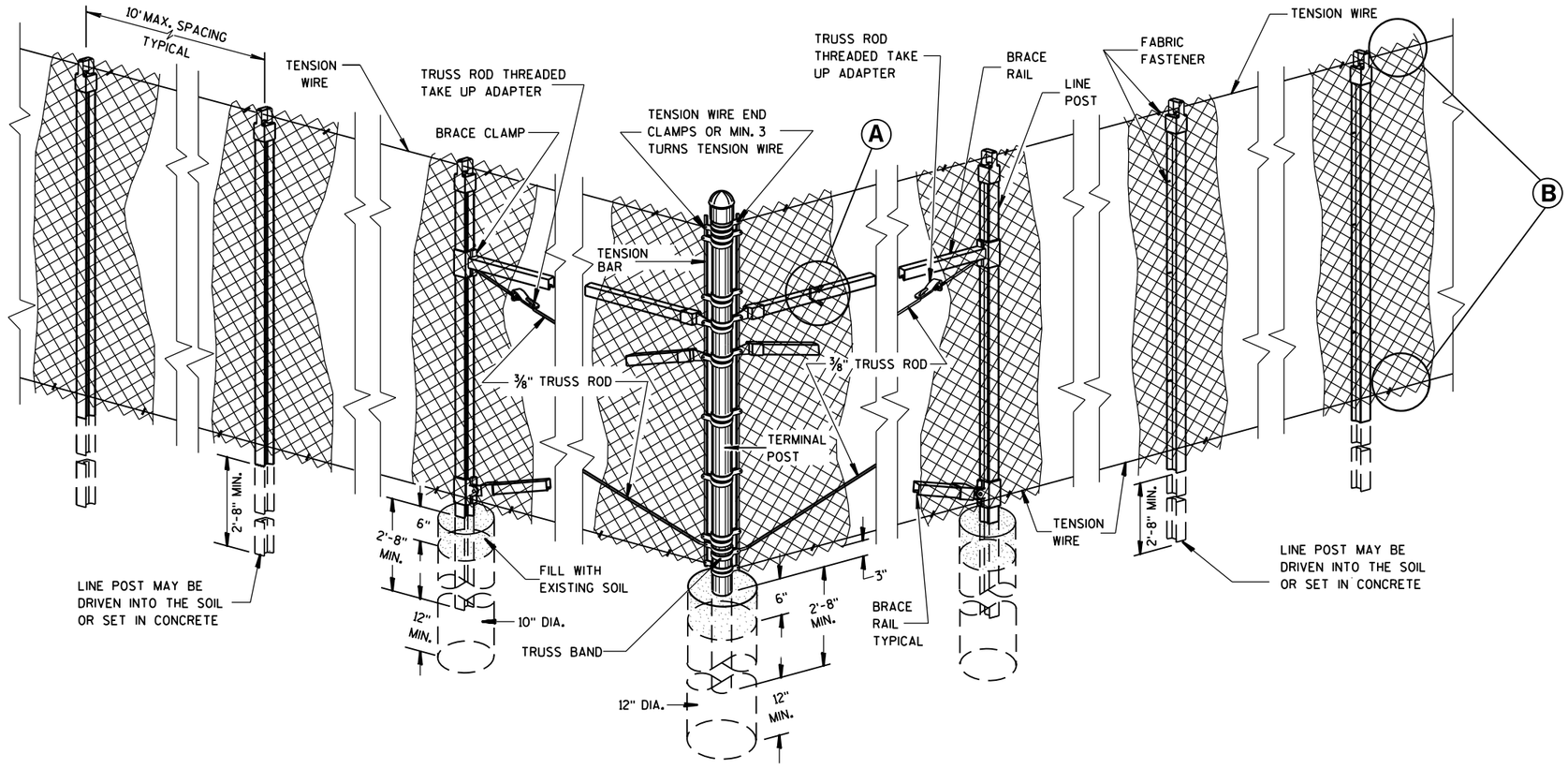
S.D.D. 15 B 3-15a

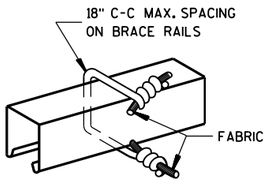


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



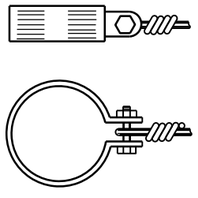
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



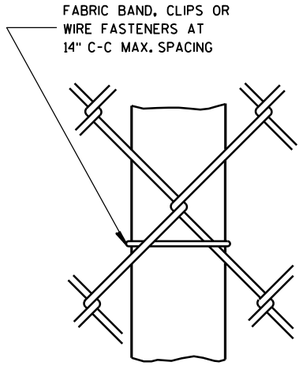
BRACE RAIL

FABRIC FASTENER

Ⓐ



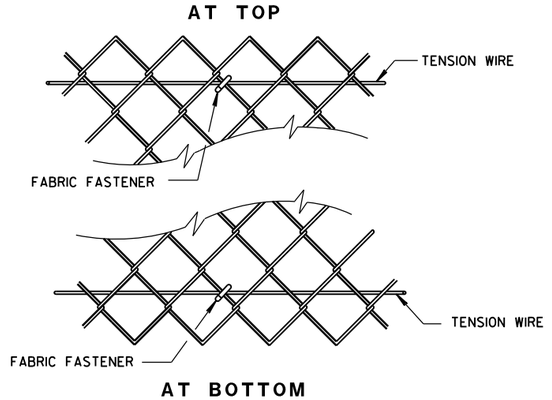
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

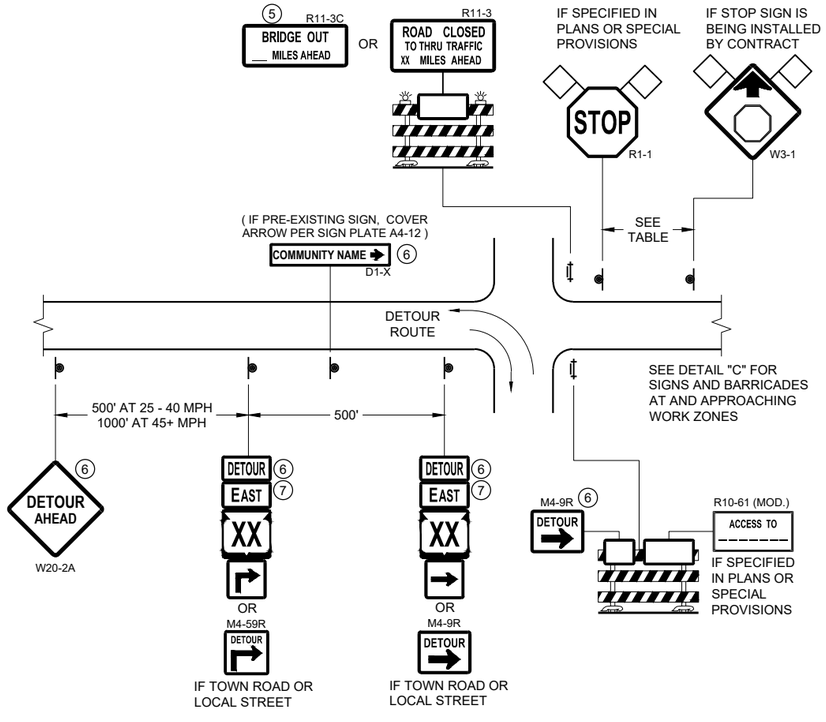
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

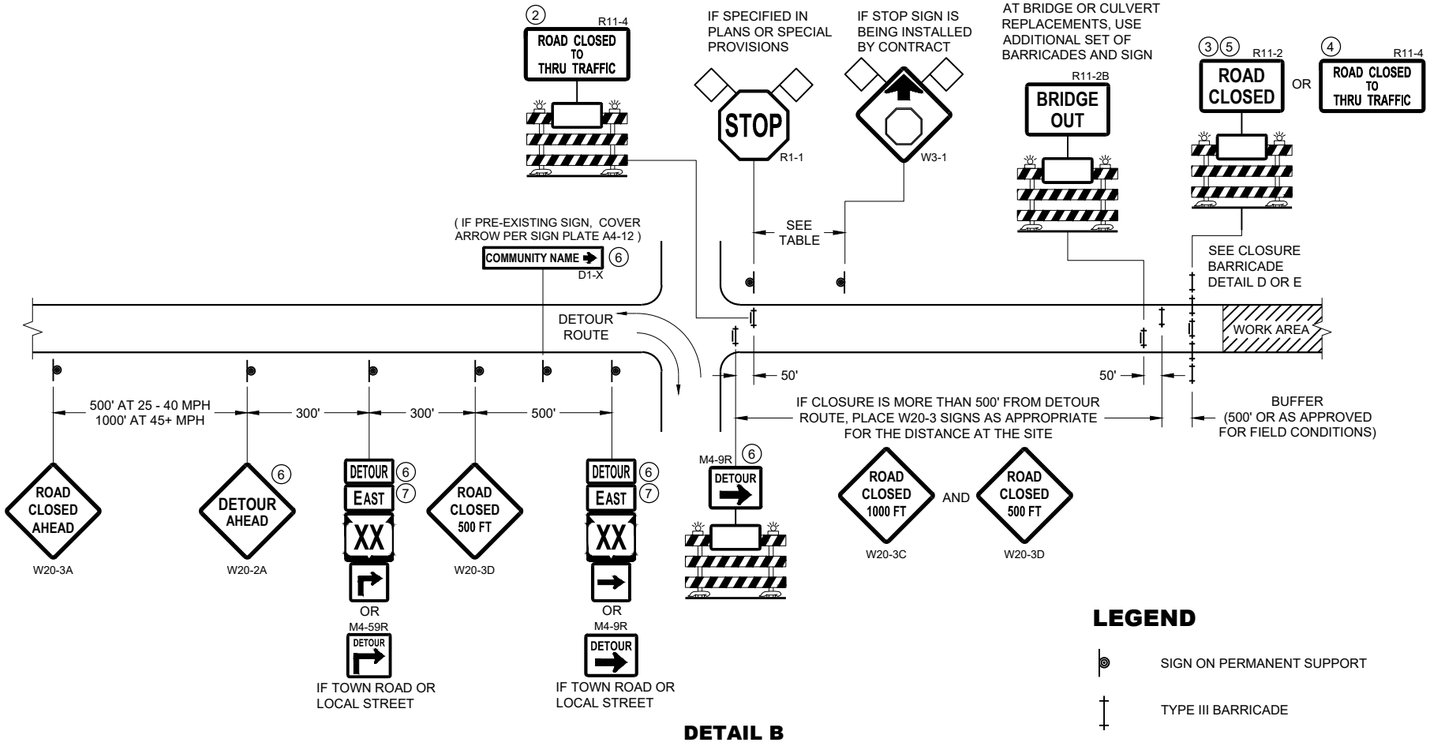
6

S.D.D. 15 B 3-15b



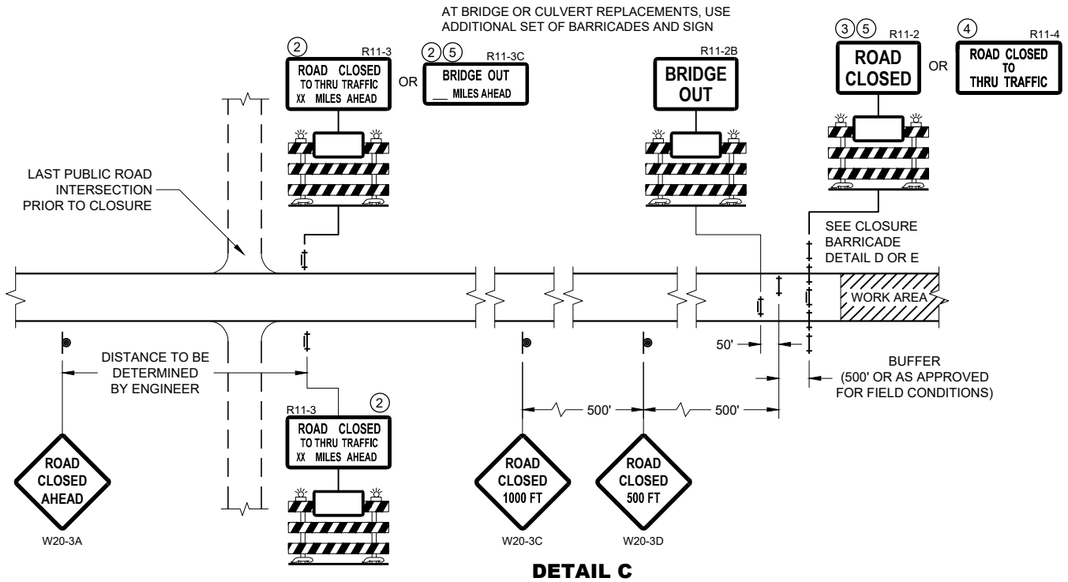
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

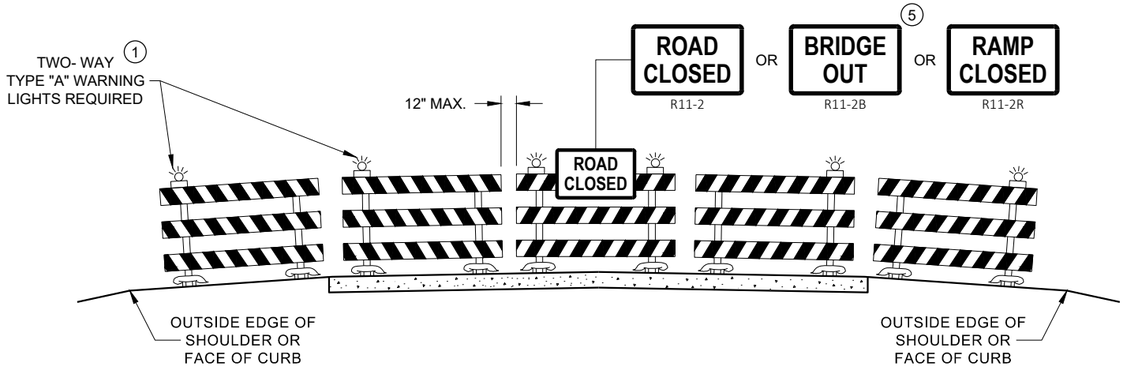
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

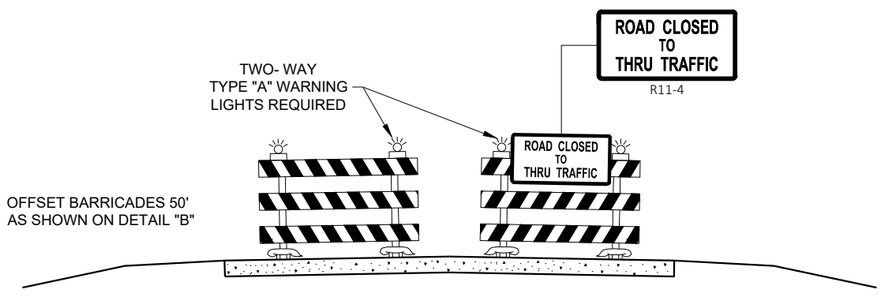
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

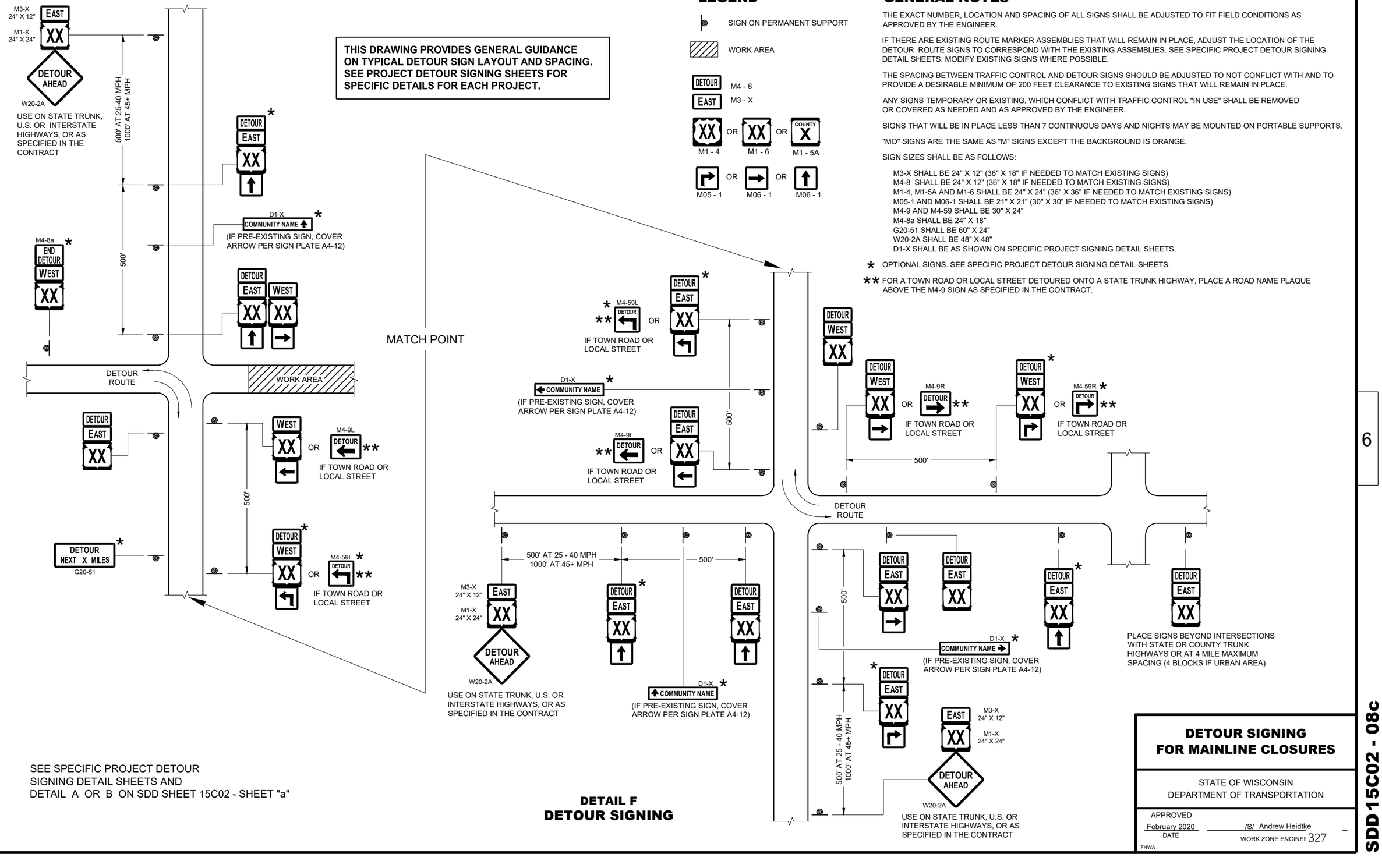
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

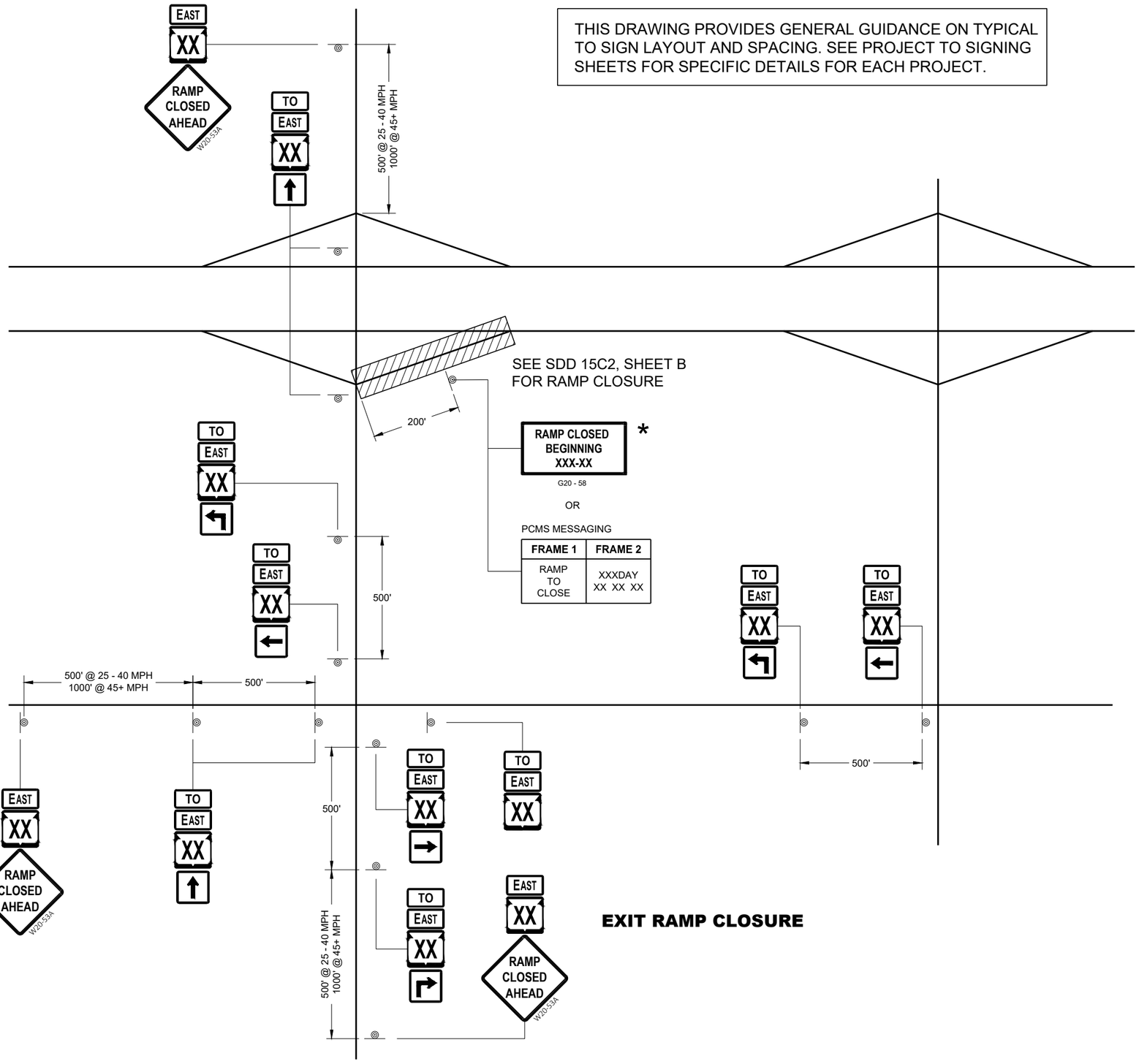
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C02 - 08c

SDD 15C02 - 08c



EXIT RAMP CLOSURE

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

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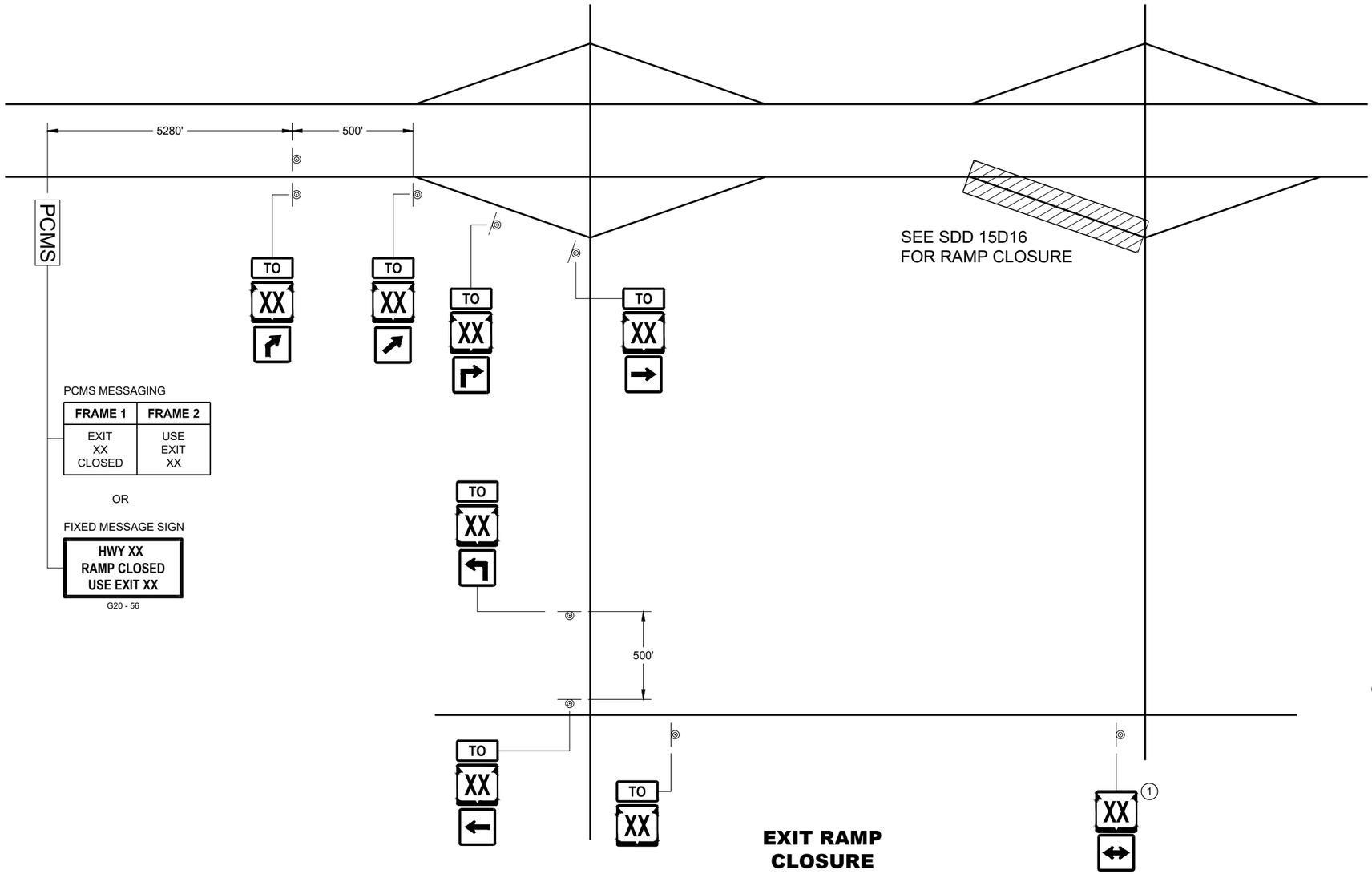
SDD 15C02 - 08d

SDD 15C02 - 08d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

SDD 15C02 - 08e

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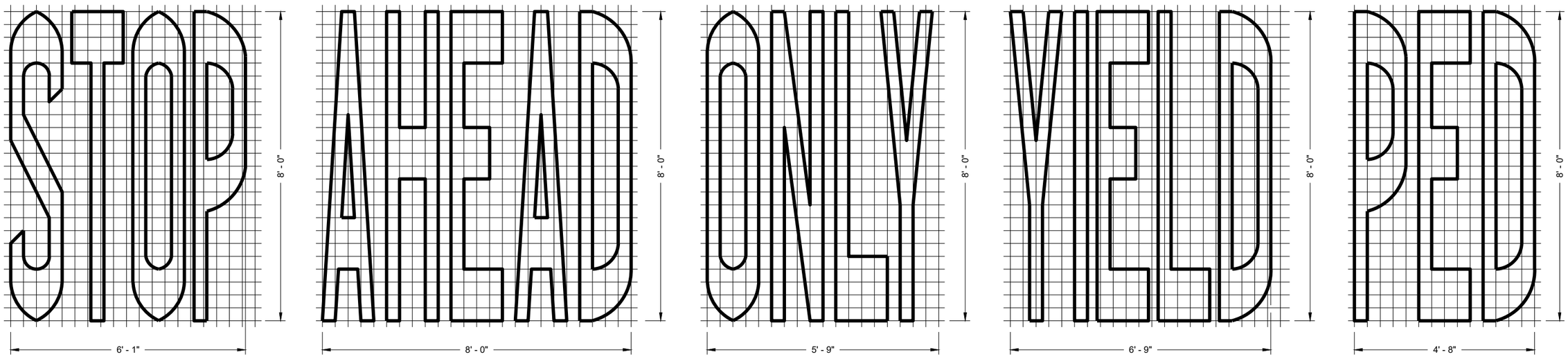
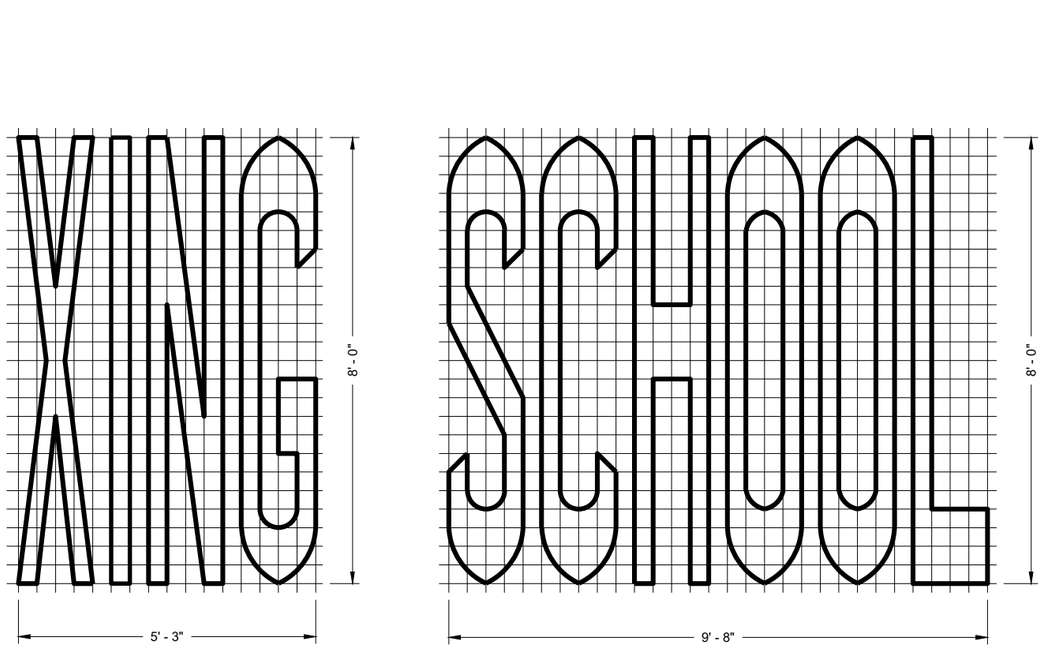
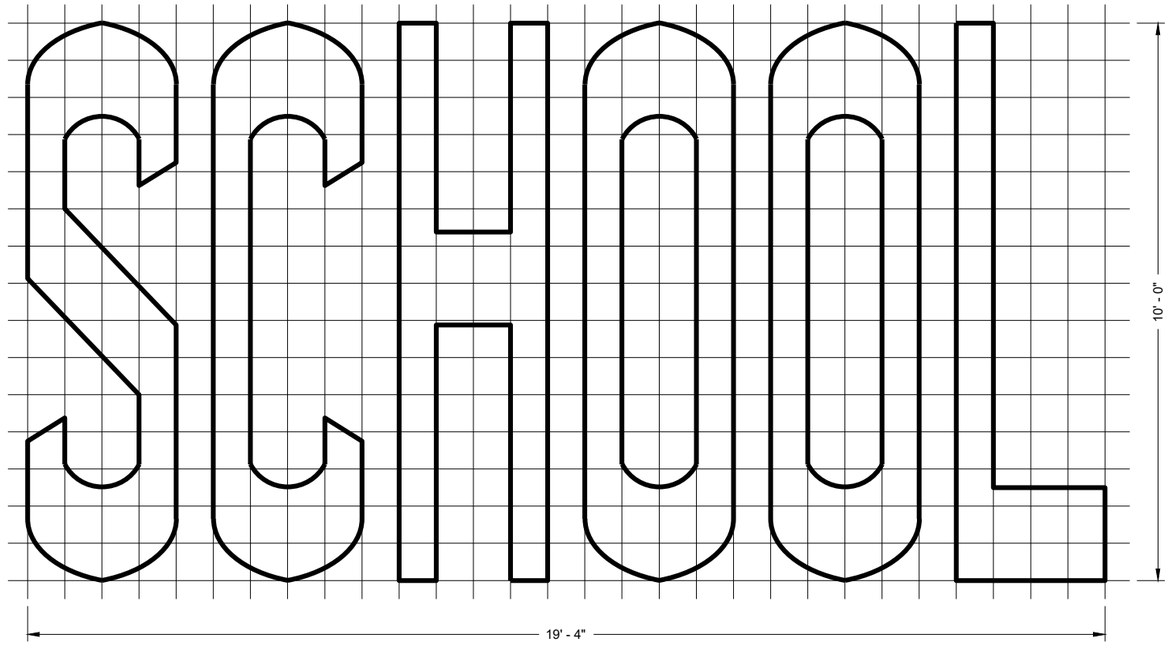




SINGLE LANE



TWO - LANE

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

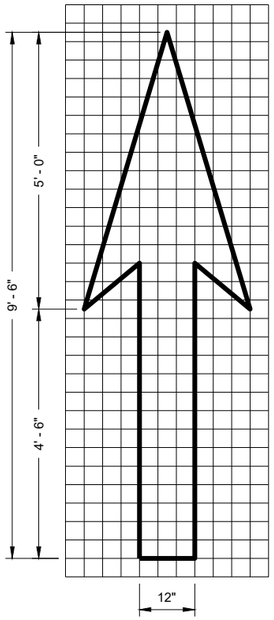
6

SDD 15C07 - 15b

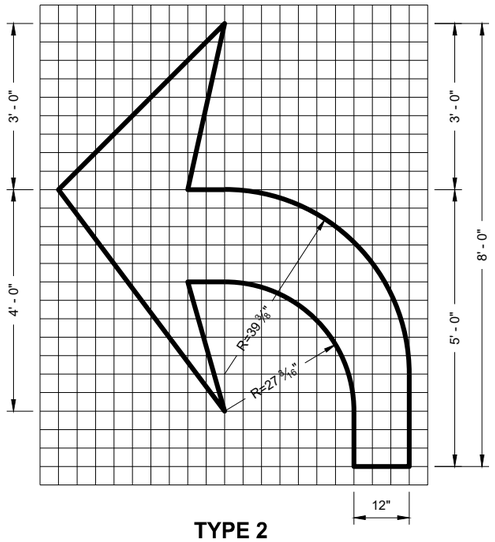
SDD 15C07 - 15b

GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



TYPE 1



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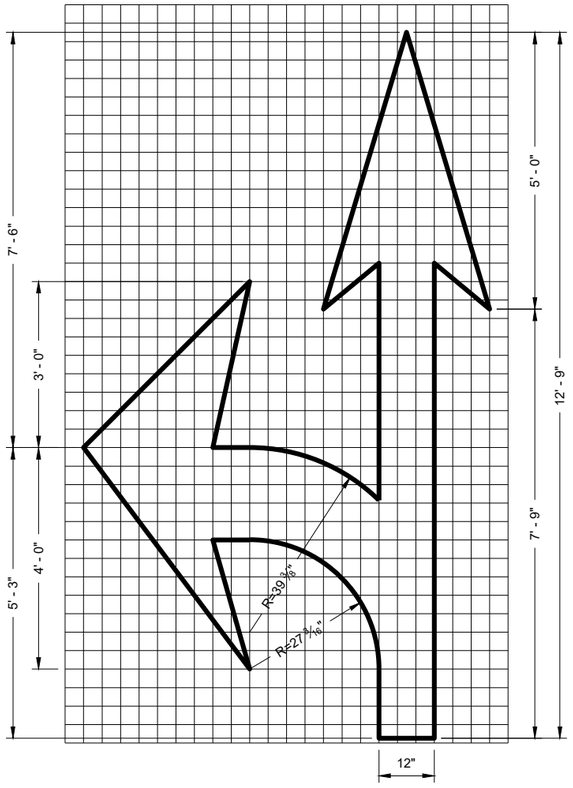
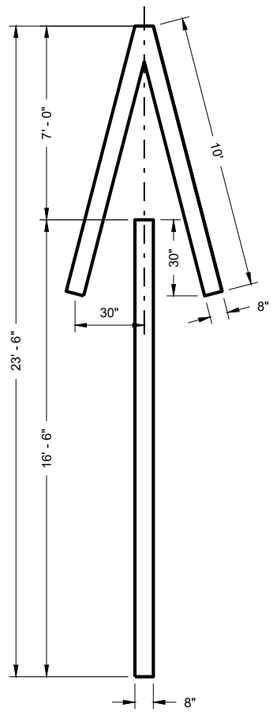
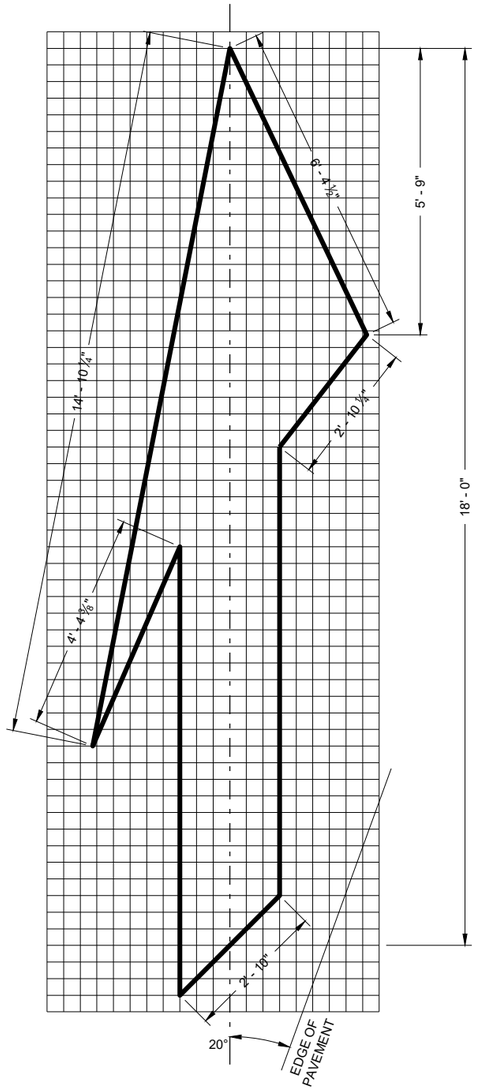


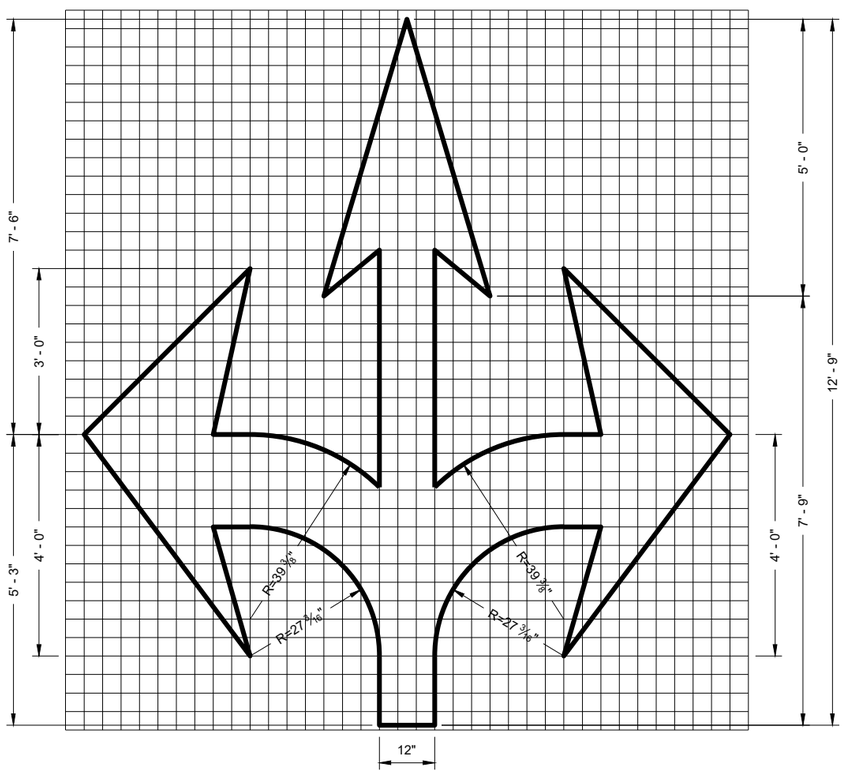
TYPE 3



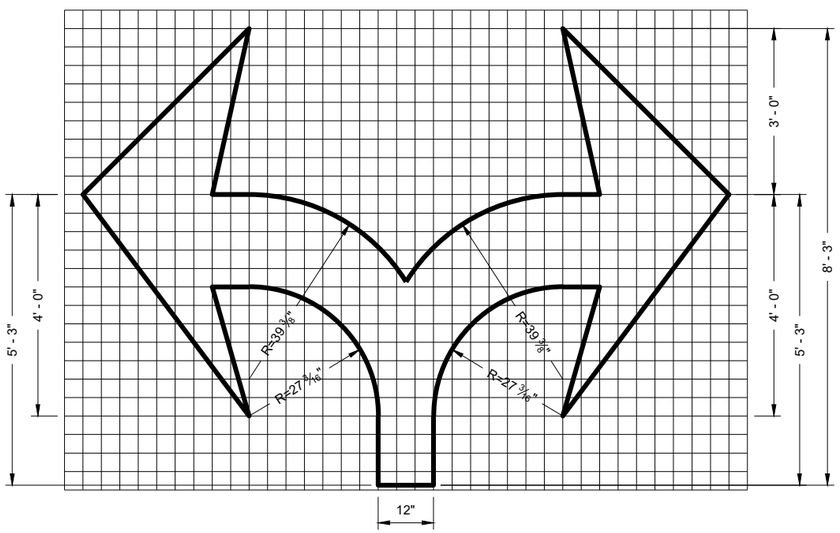
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15c

6

SDD 15C07 - 15c

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

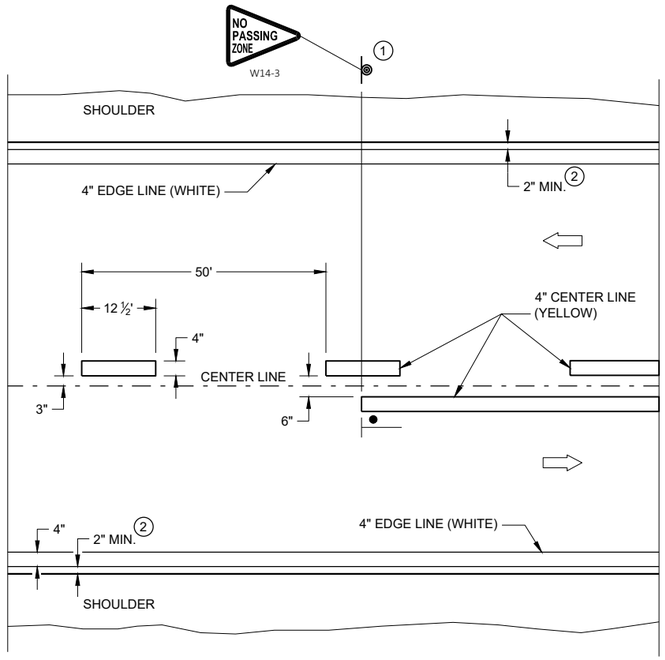
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

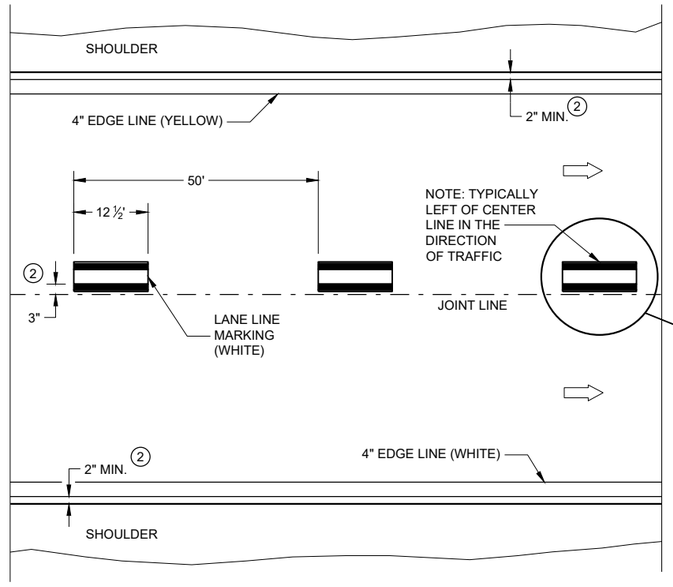
"T" MARKING

SIGN ON PERMANENT SUPPORT

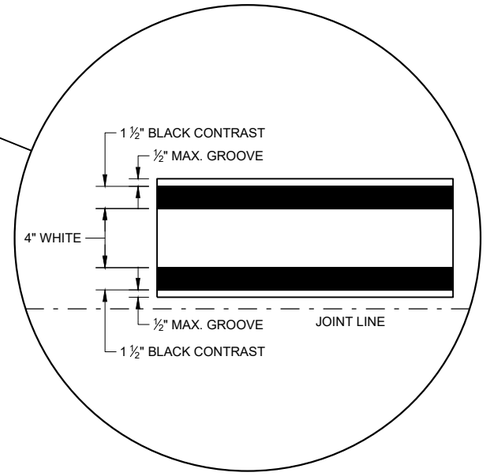
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA

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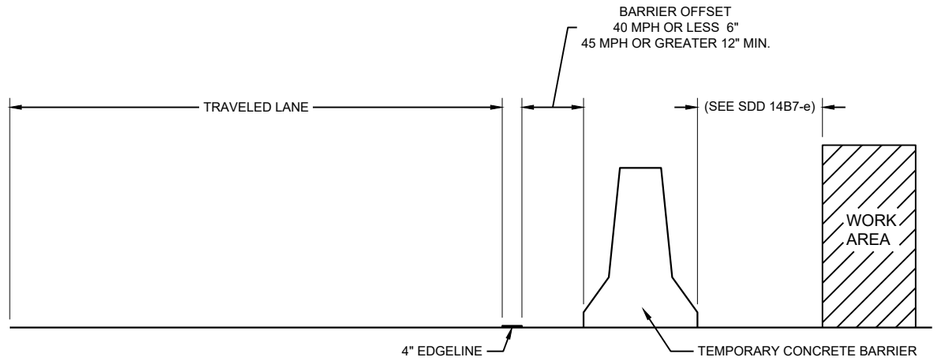
SDD 15C08 - 22a

6

SDD 15C08 - 22a



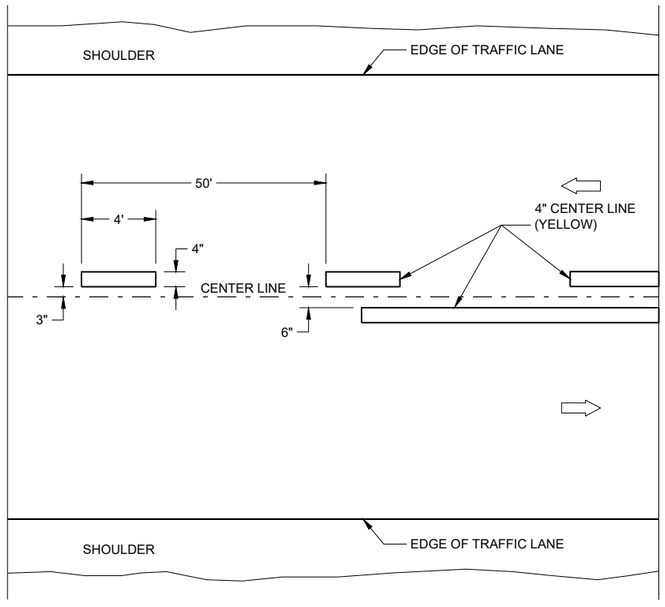
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

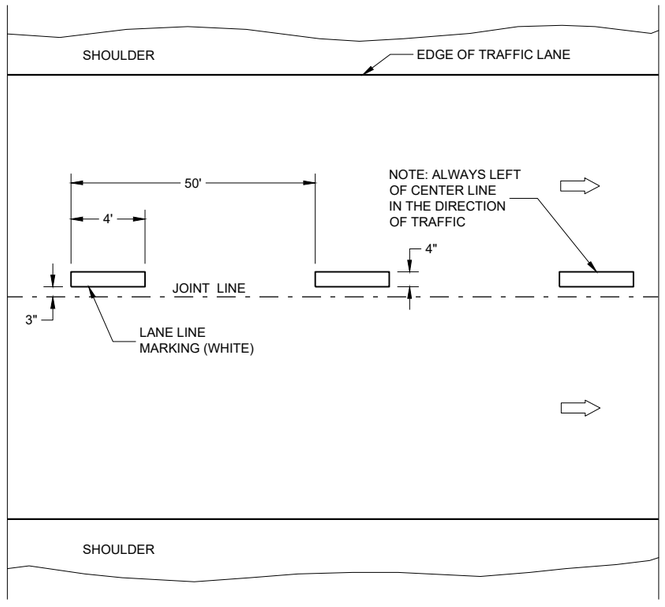
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

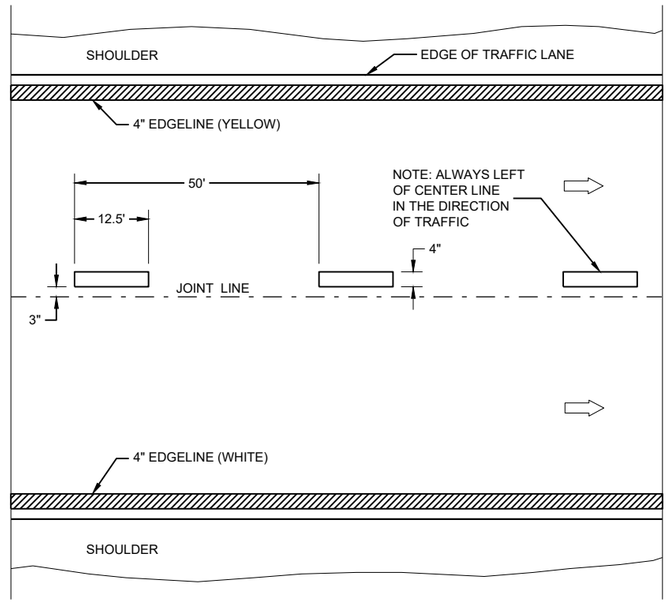
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA

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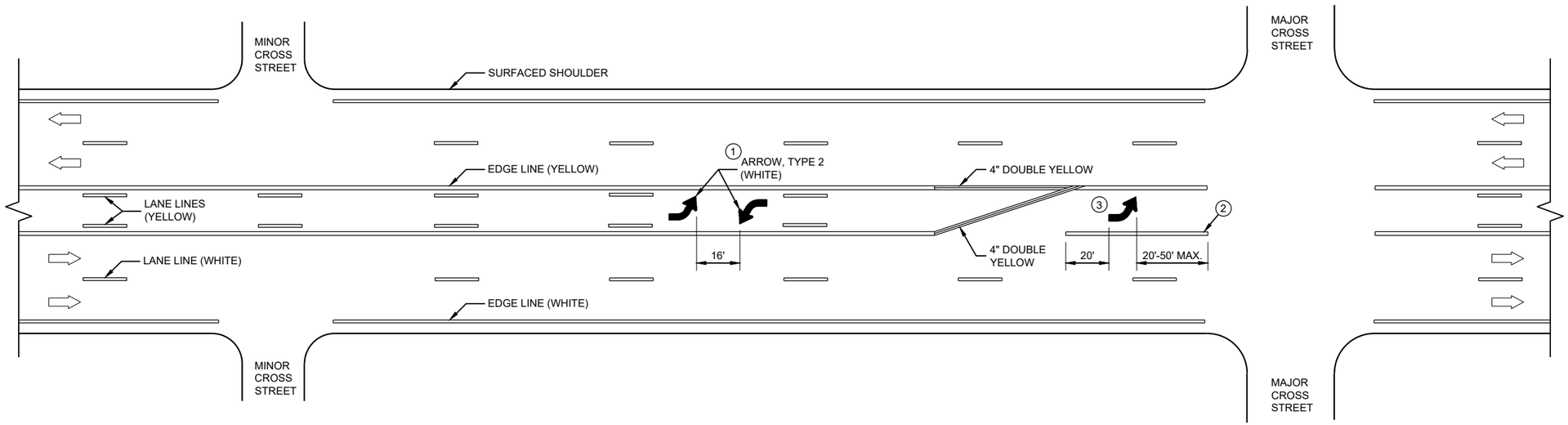
SDD 15C08 - 22b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

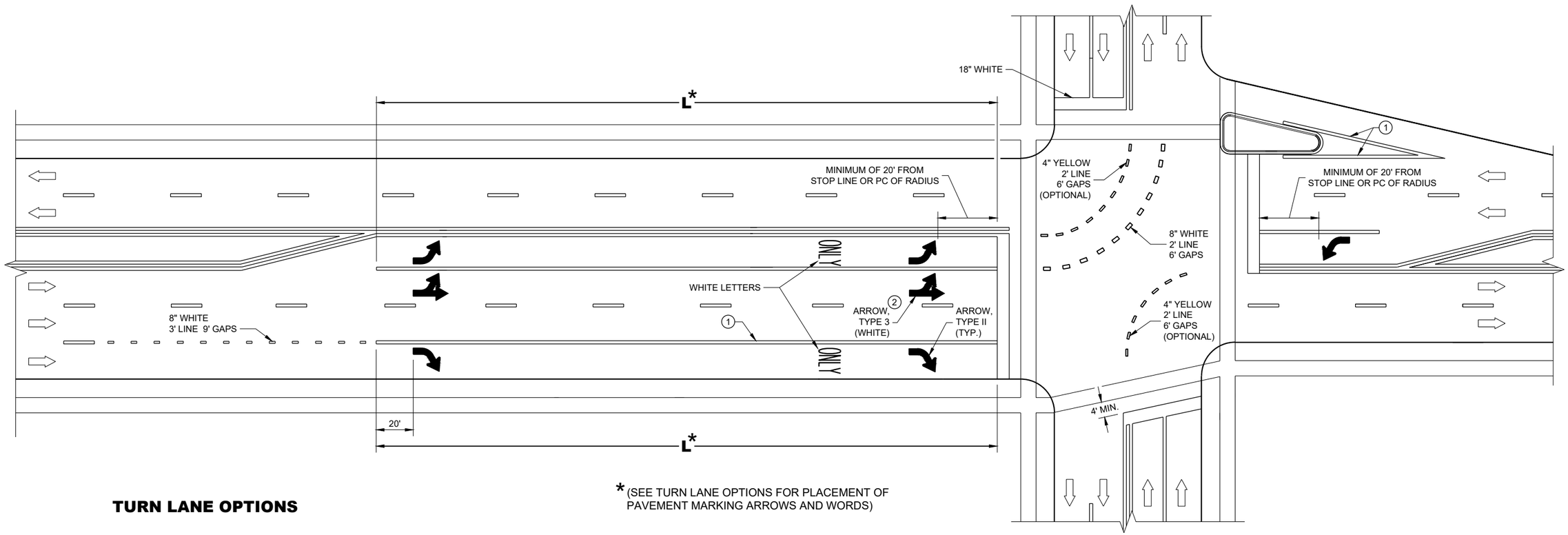
SDD 15C08 - 22c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

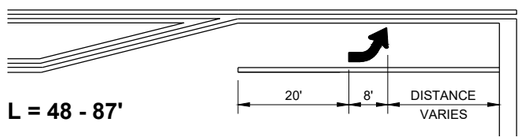
SDD 15C08 - 22c



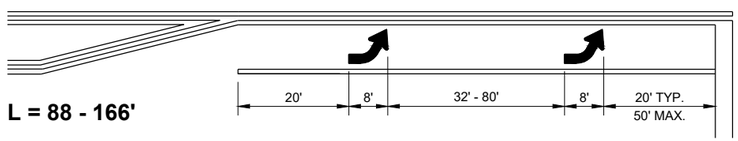
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

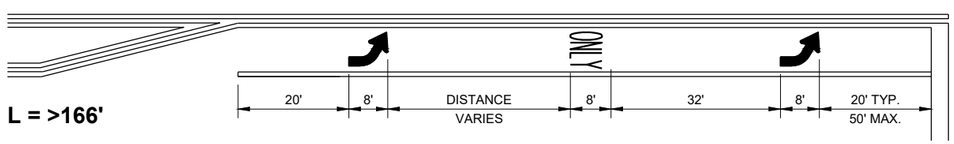
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

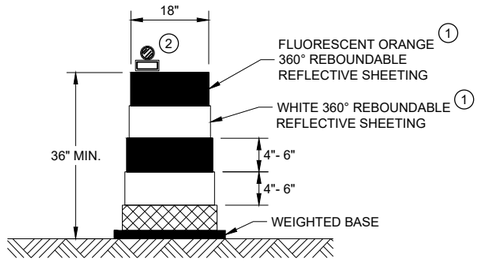
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C08 - 22d

6
SDD 15C08 - 22d

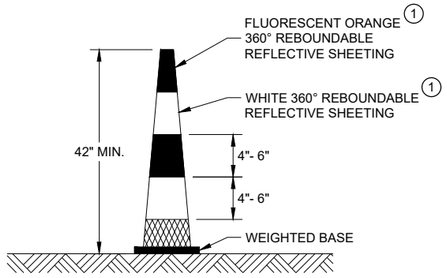
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

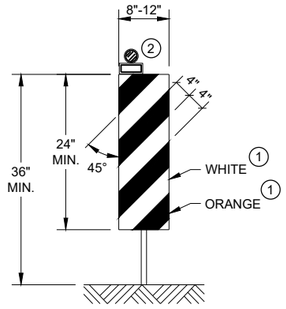
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

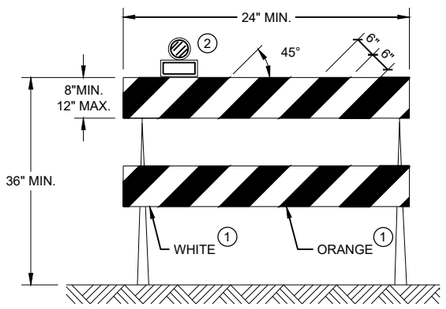
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



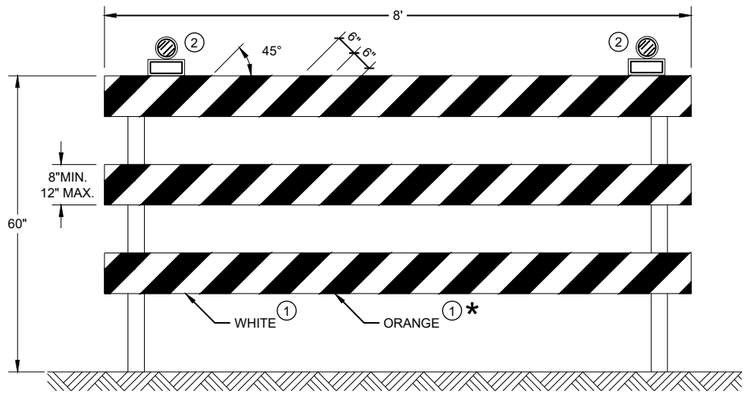
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C11 - 10b

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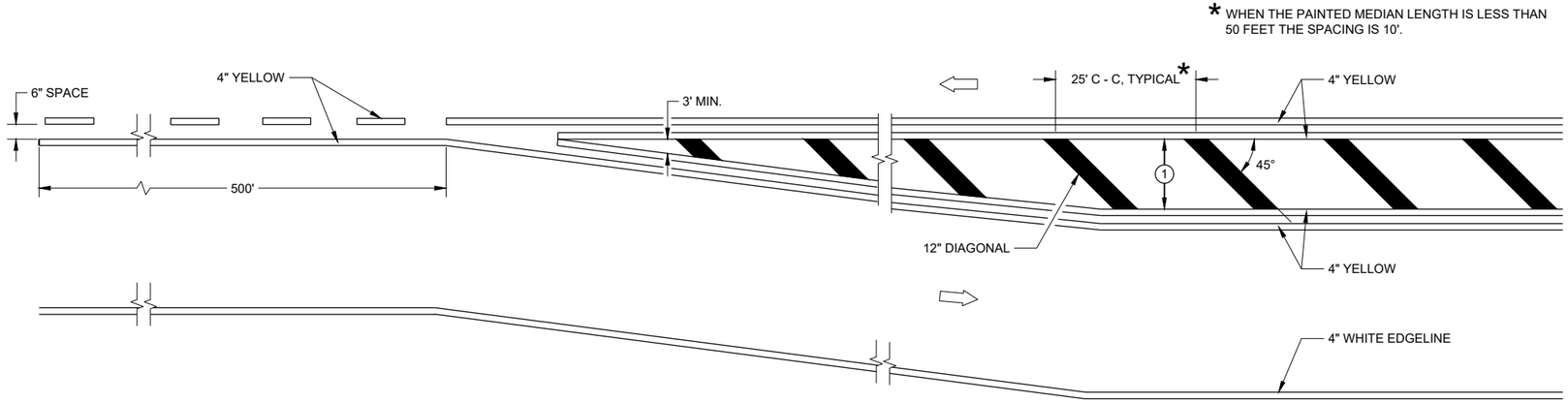
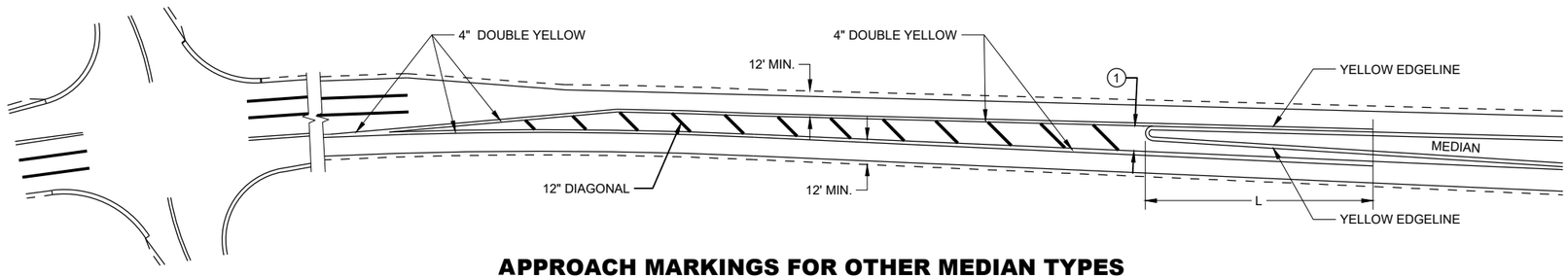


MEDIAN ISLAND DETAIL

GENERAL NOTES

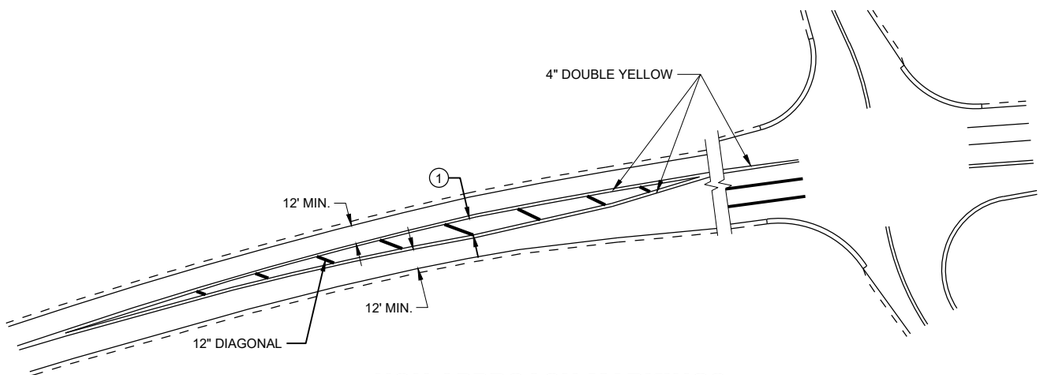
1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



NON-APPROACH MARKINGS

6

SDD 15C18 - 07a

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER
FHWA

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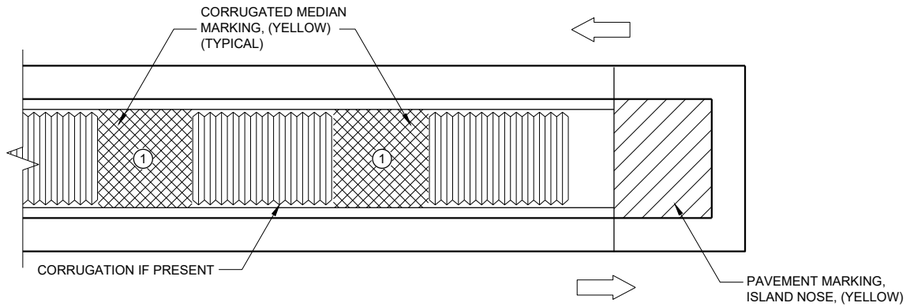
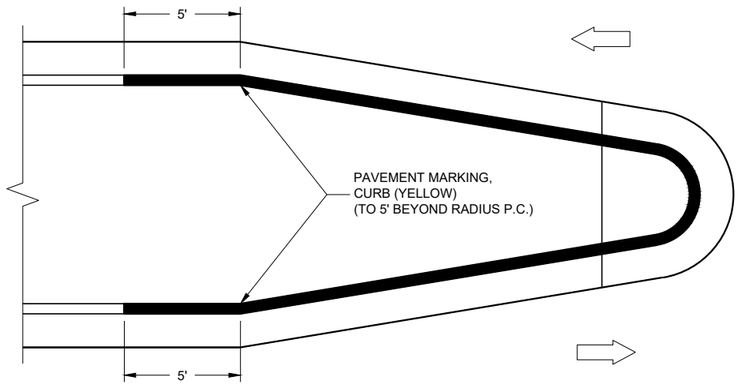
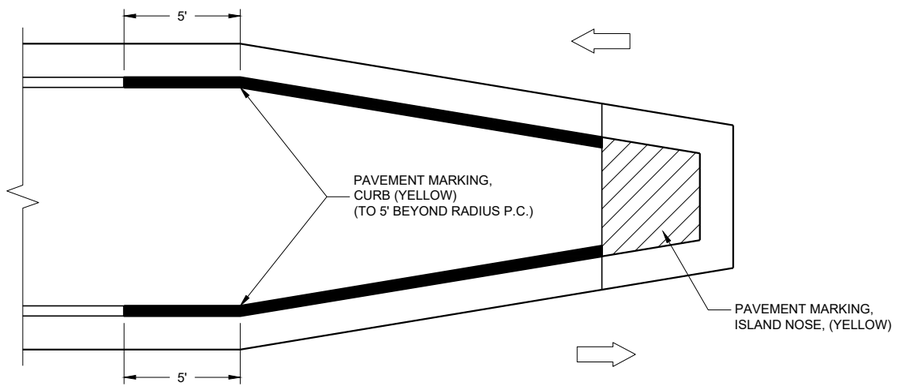


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE

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STATE SIGNING AND MAF ENGINEER

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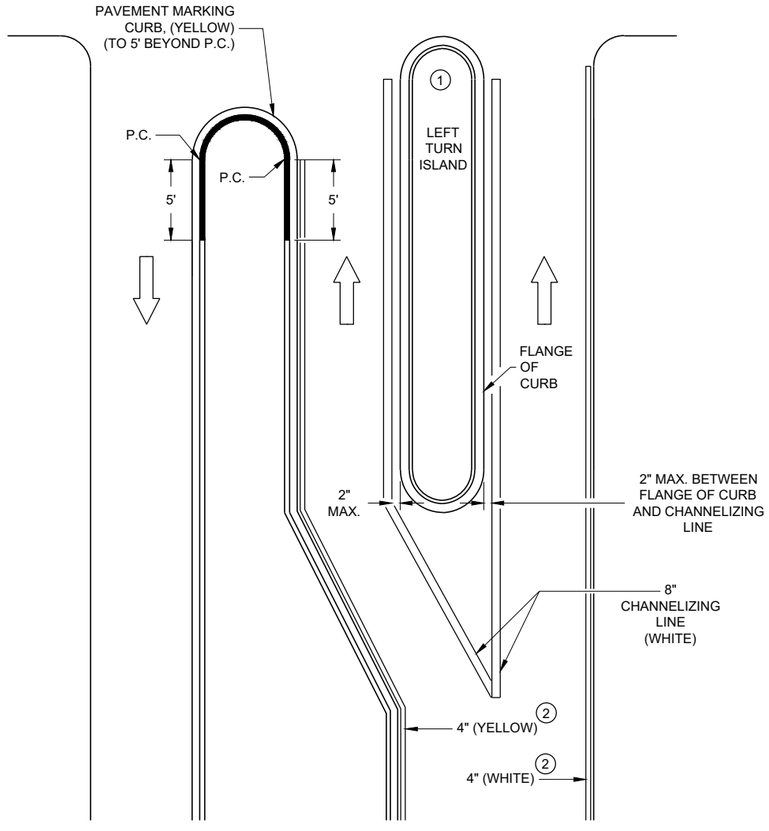
SDD15C18 - 07b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

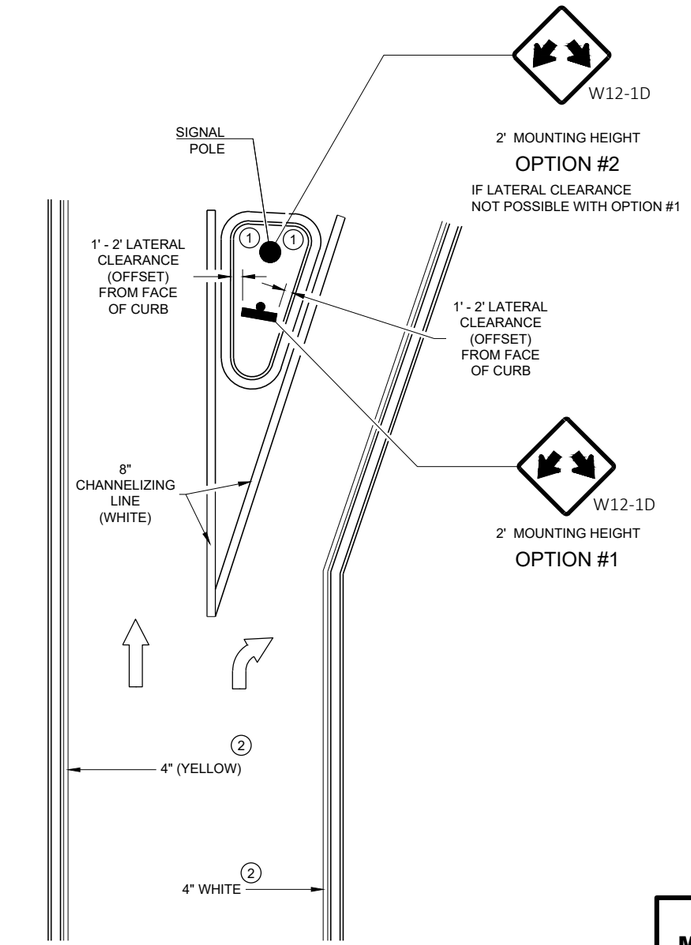
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE

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STATE SIGNING AND MAF ENGINEER

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LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

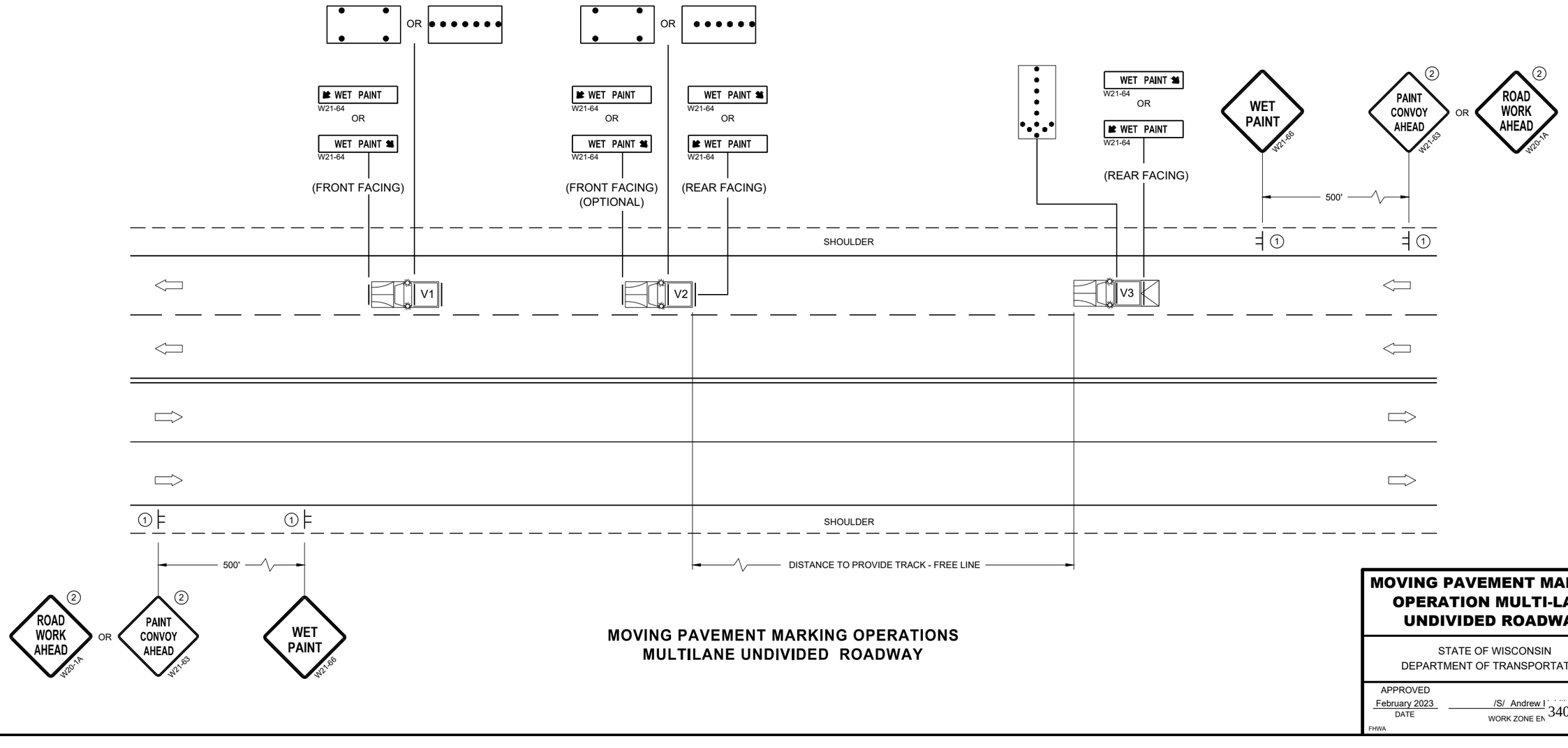
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Andrew I...
WORK ZONE EN

FHWA

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SDD 15C19-08b

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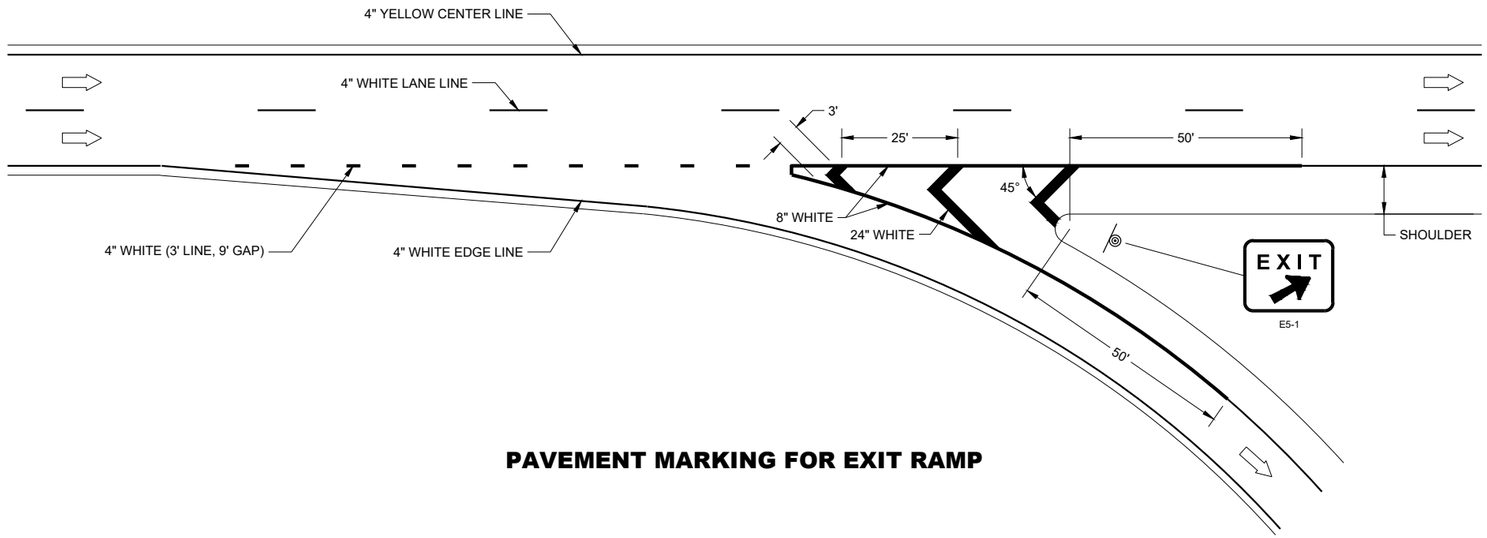
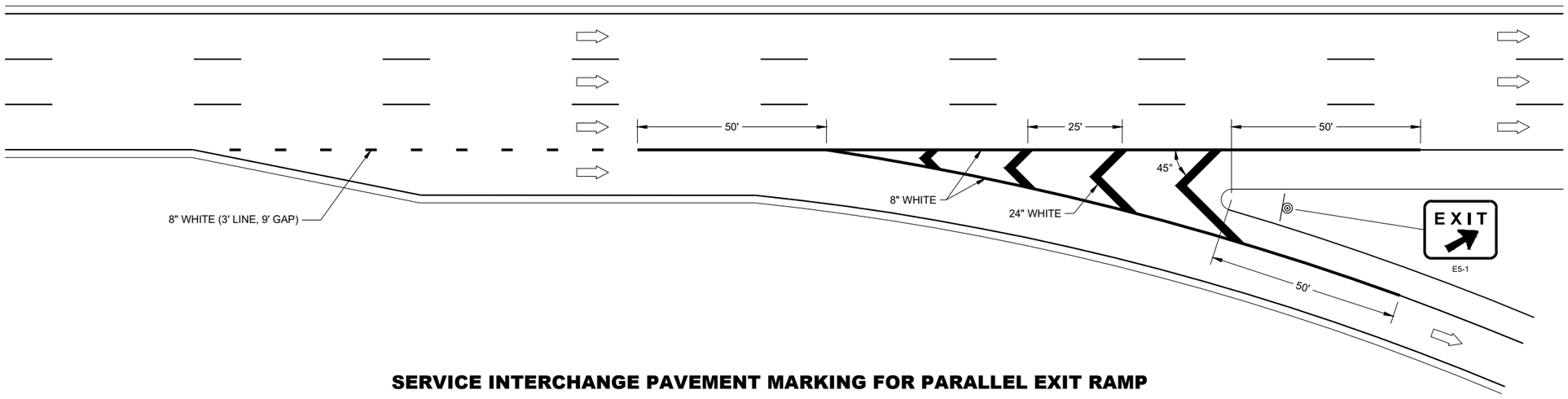
SDD 15C19-08b



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

6

SDD 15C31 - 04a

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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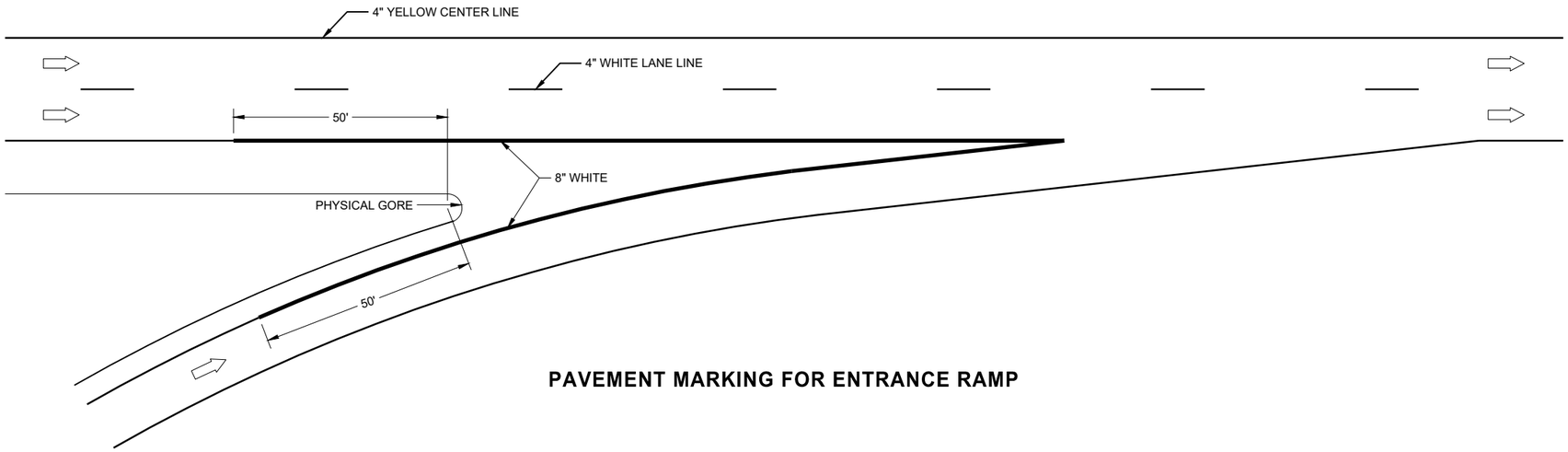
SDD 15C31 - 04a



PAVEMENT MARKING FOR ENTRANCE RAMP

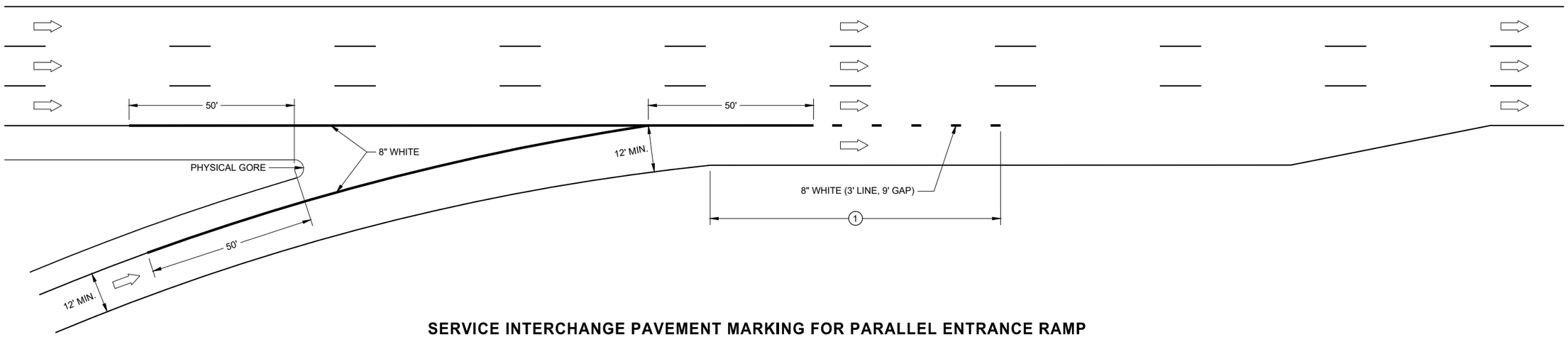
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

(1) ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

6

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SDD 14C31 - 04c

SDD 14C31 - 04c

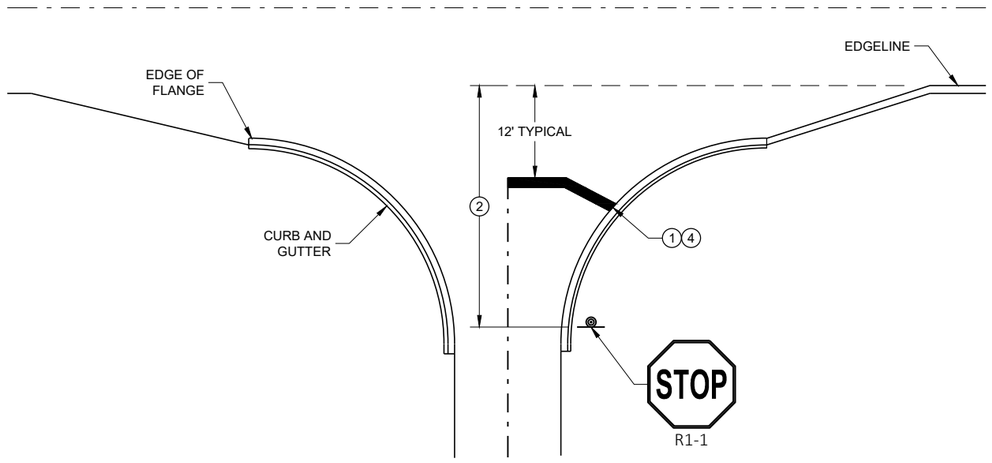
PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

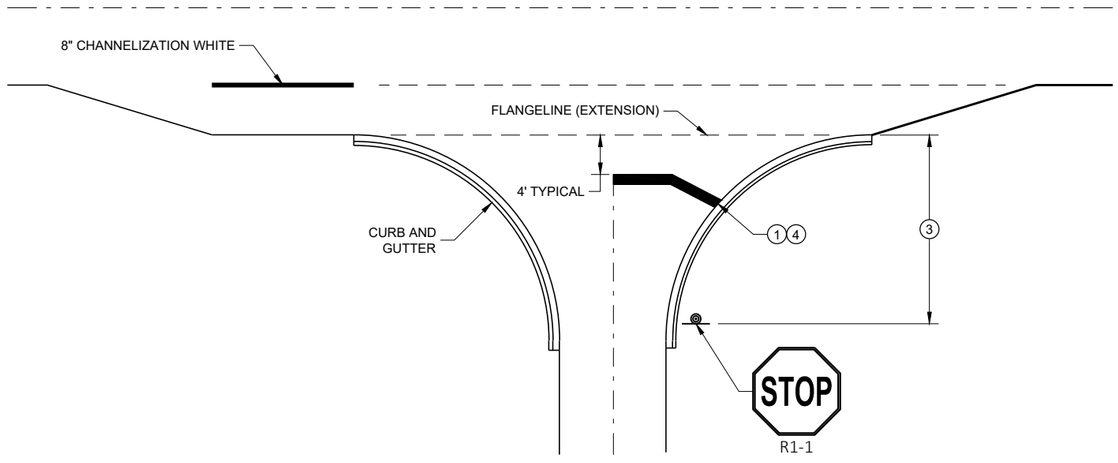
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

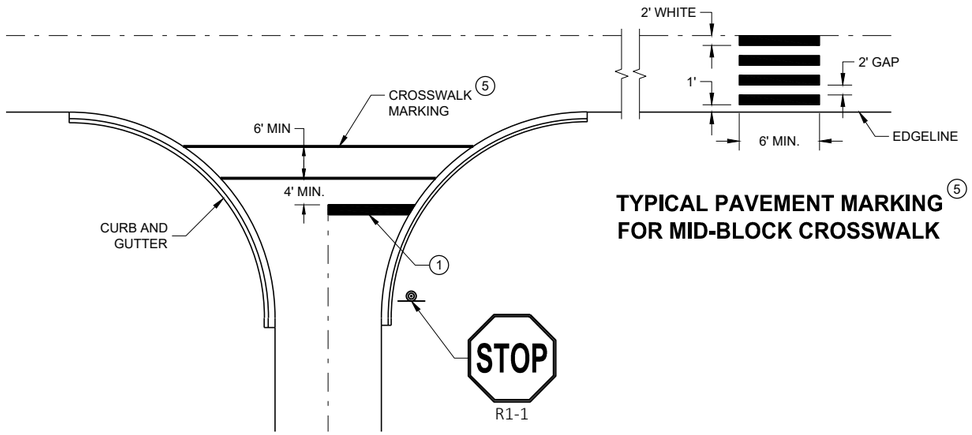
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

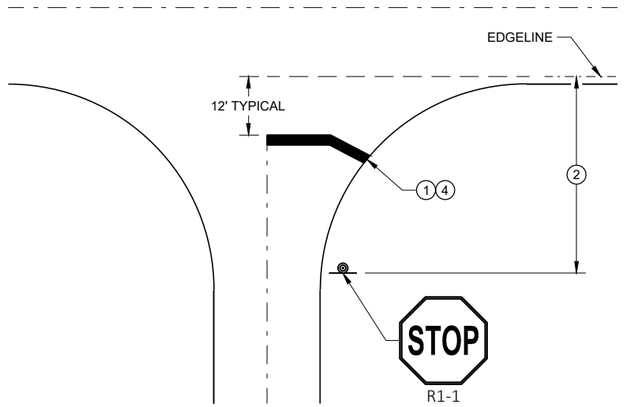


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

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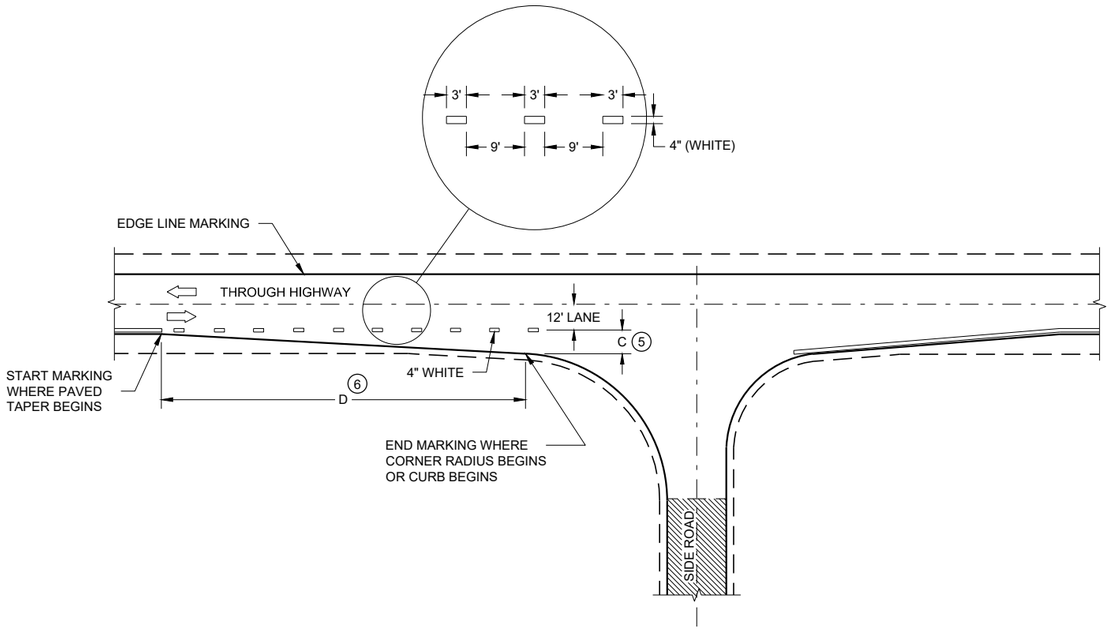
SDD 15C33 - 04



MINOR INTERSECTION

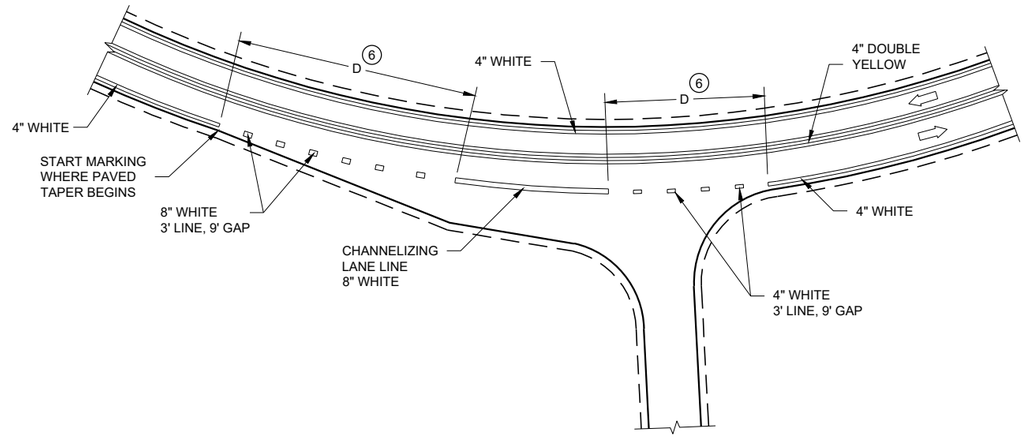
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

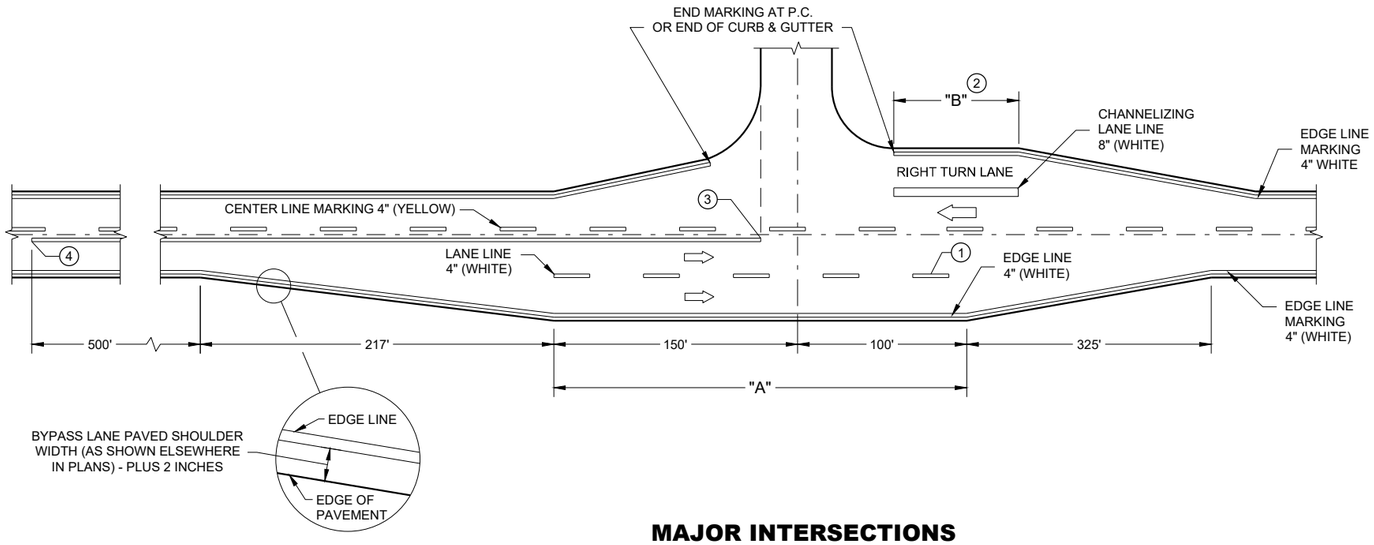
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

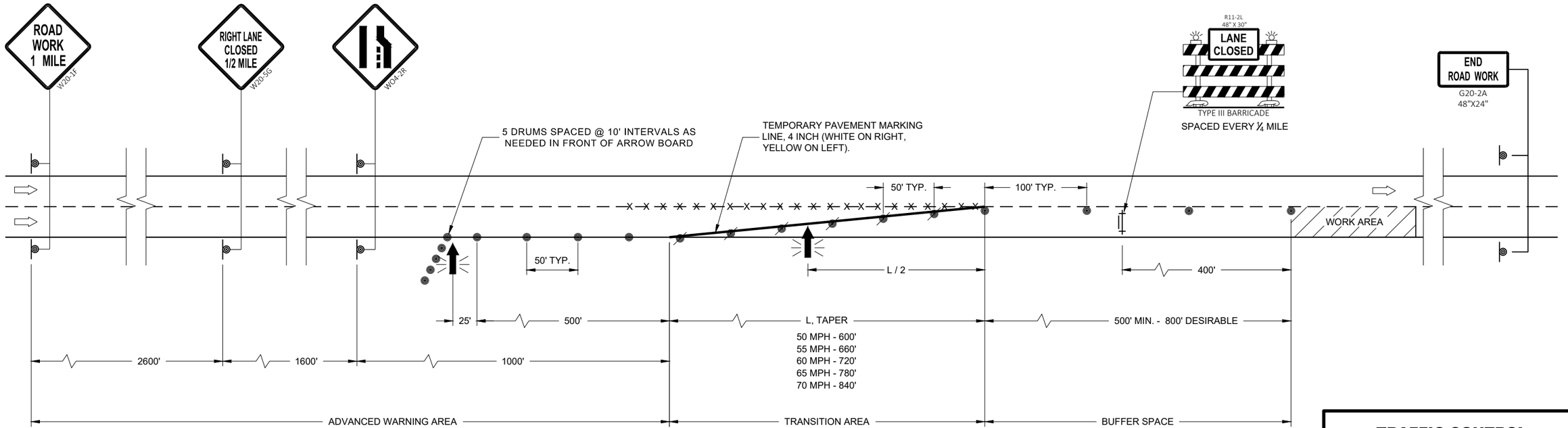
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 10a

6

SDD 15D12 - 10a

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS.

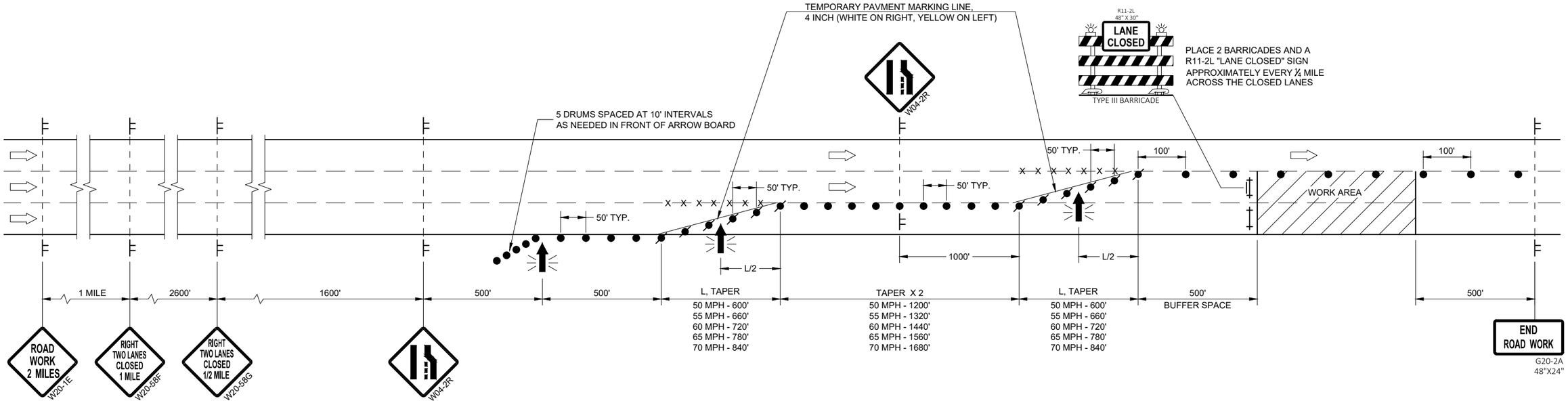
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D14 - 05

SDD 15D14 - 05

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

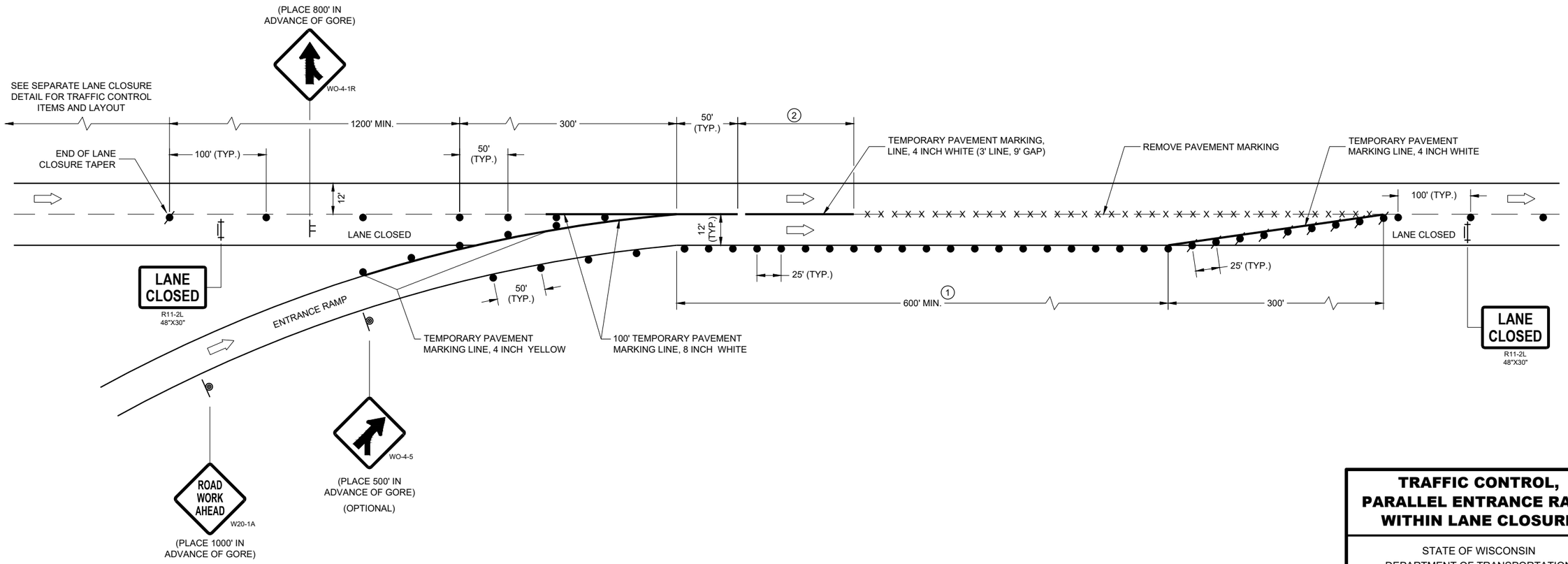
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D15 - 06a

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

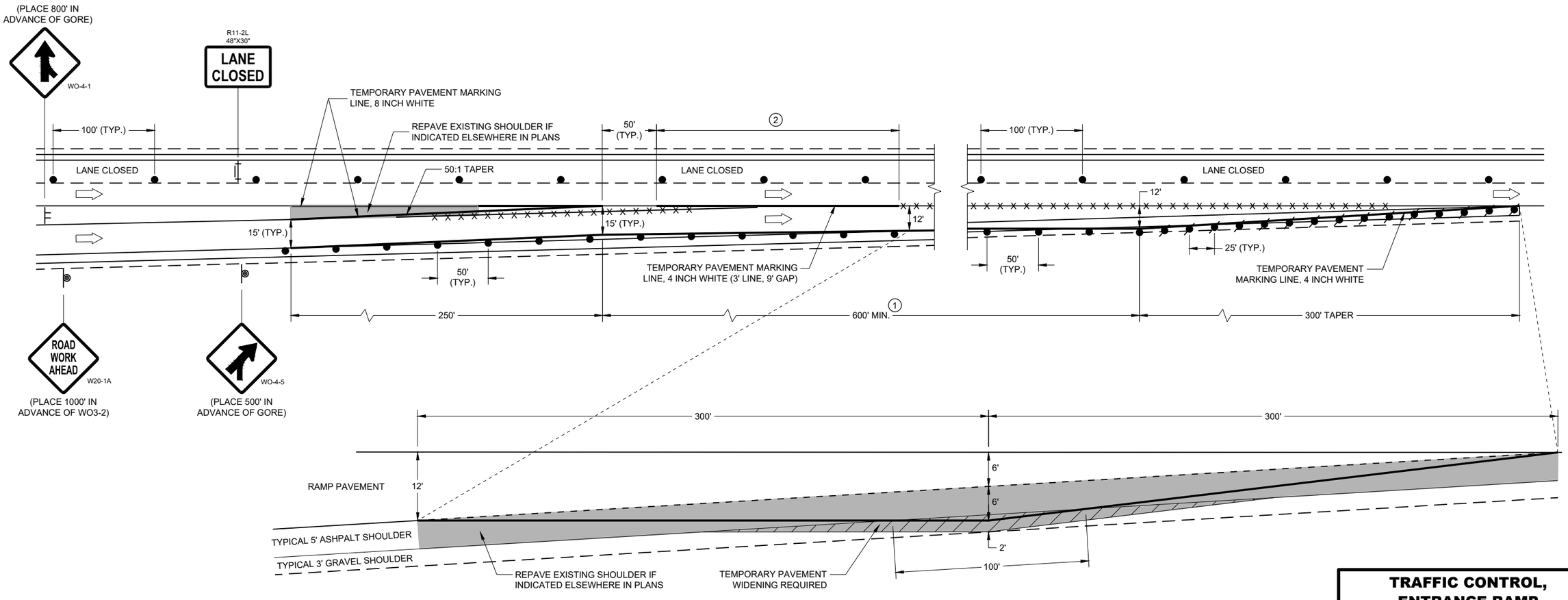
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15 - 06b

6

SDD15D15 - 06b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

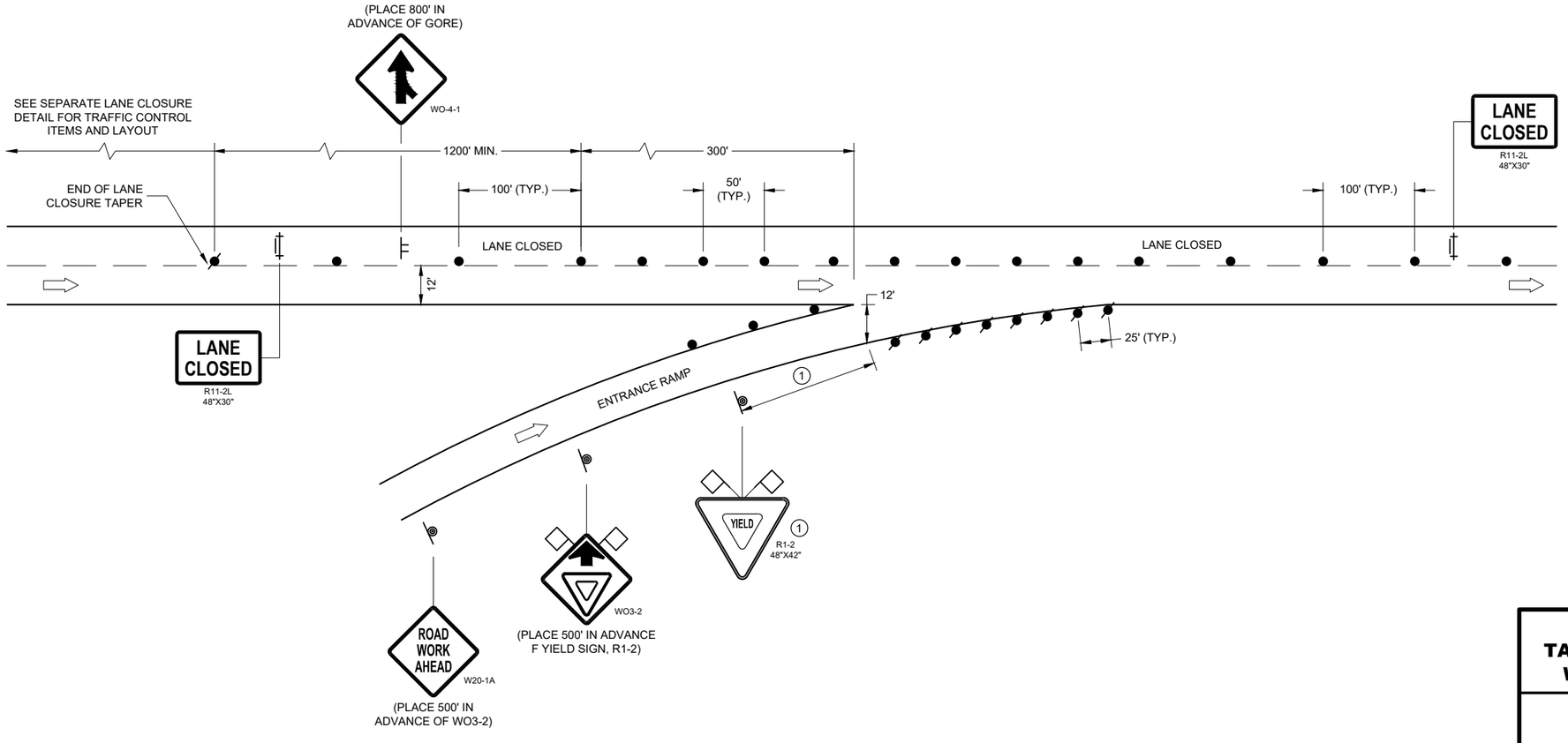
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D15 - 06d

SDD15D15 - 06d

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

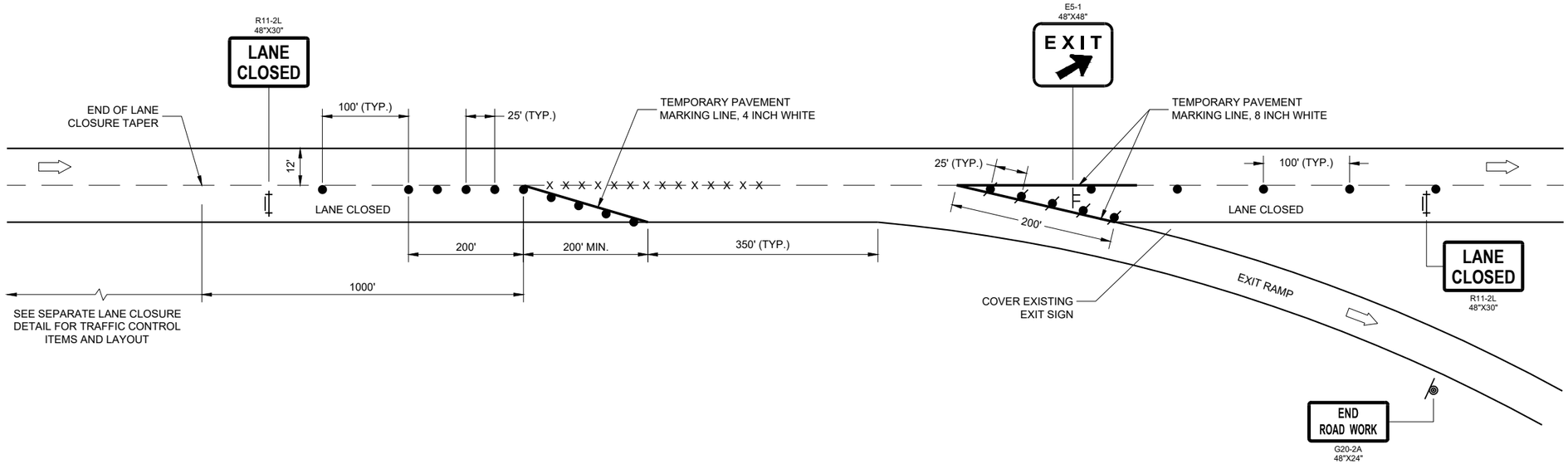
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



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SDD 15D15 - 06e

SDD15D15 - 06e

TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

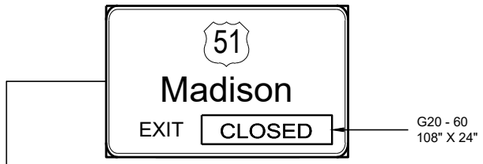
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



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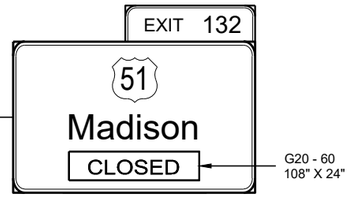
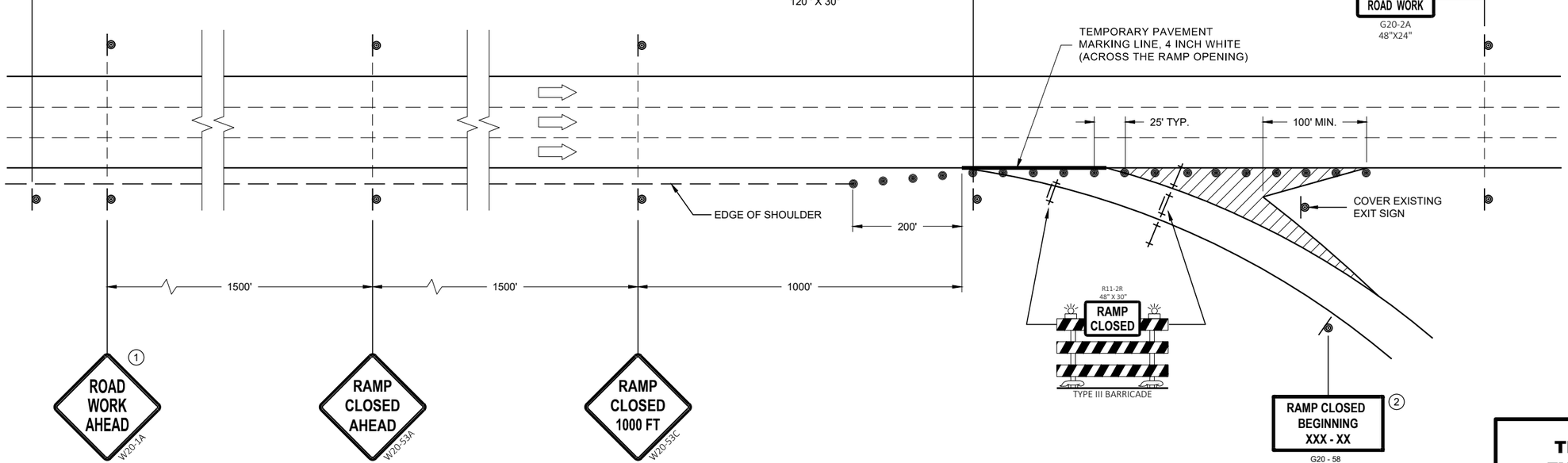


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16 - 05

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

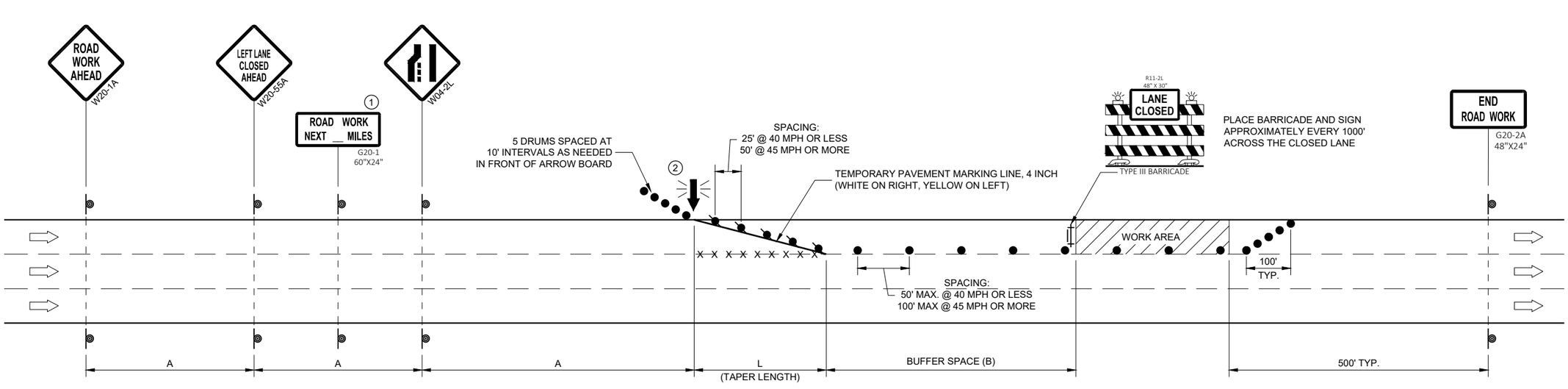
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

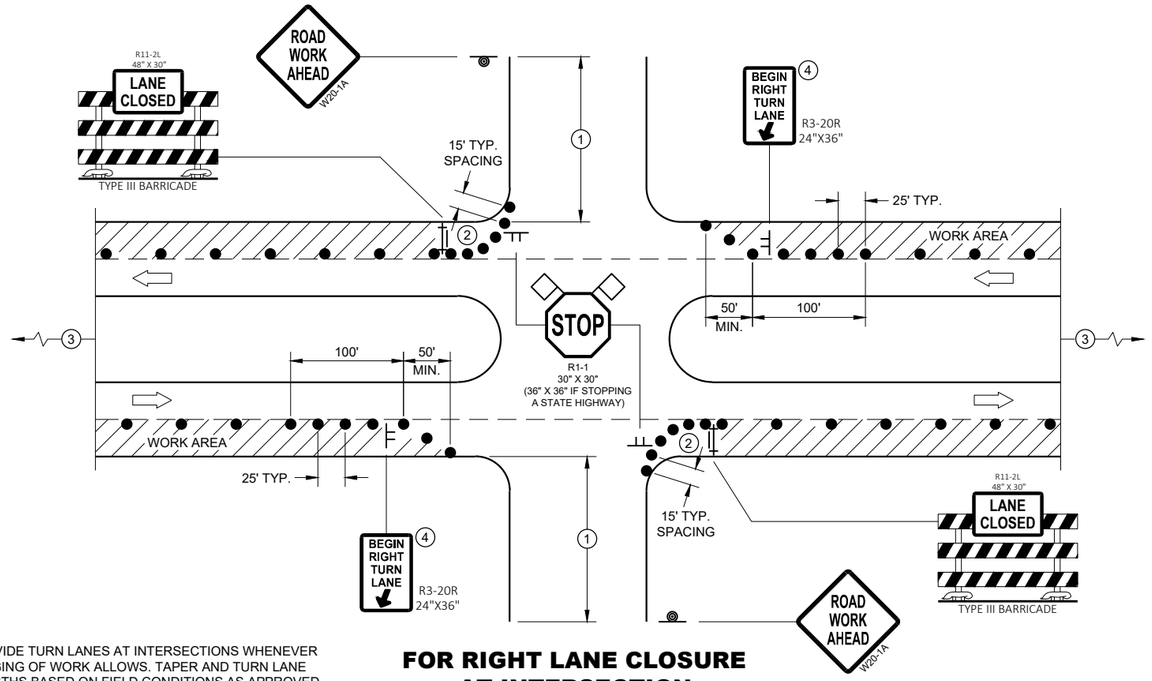
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20 - 06a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

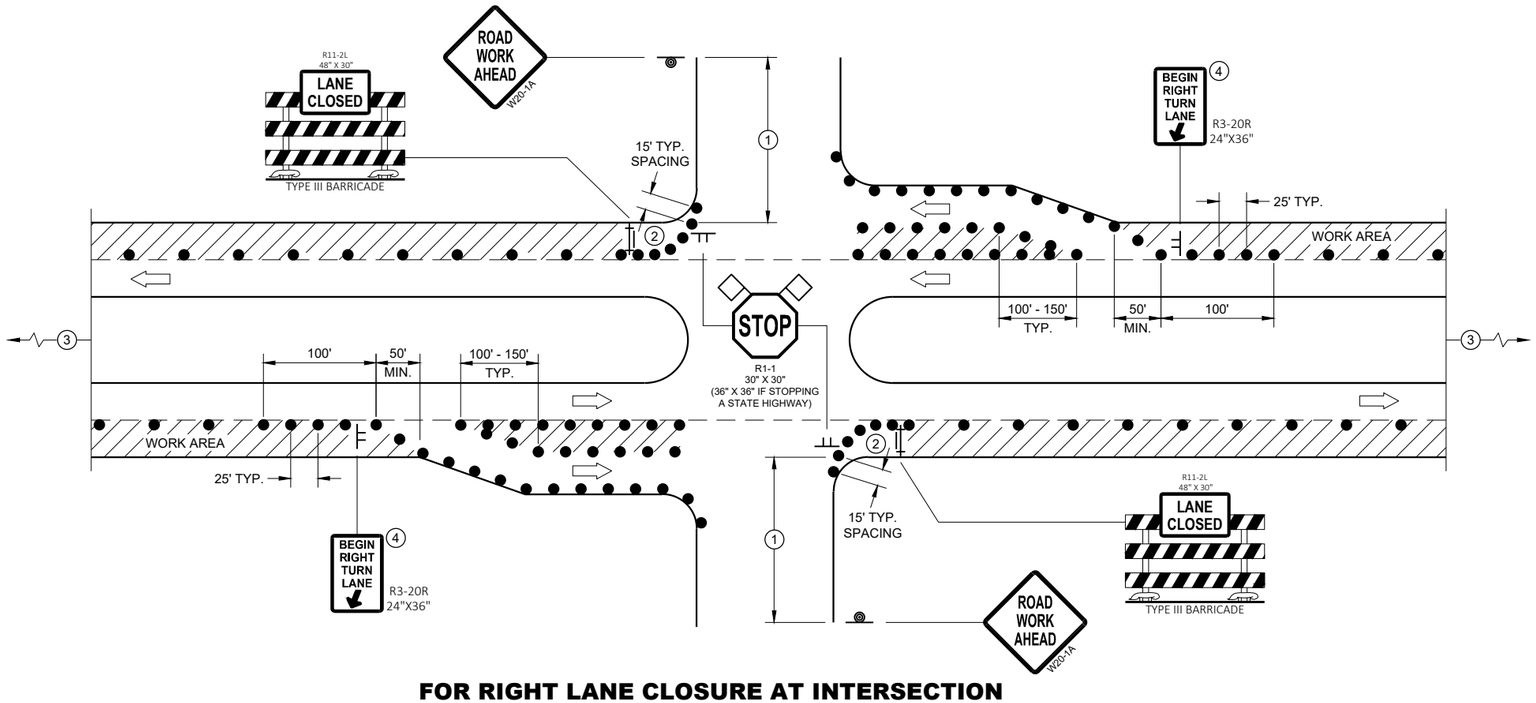
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

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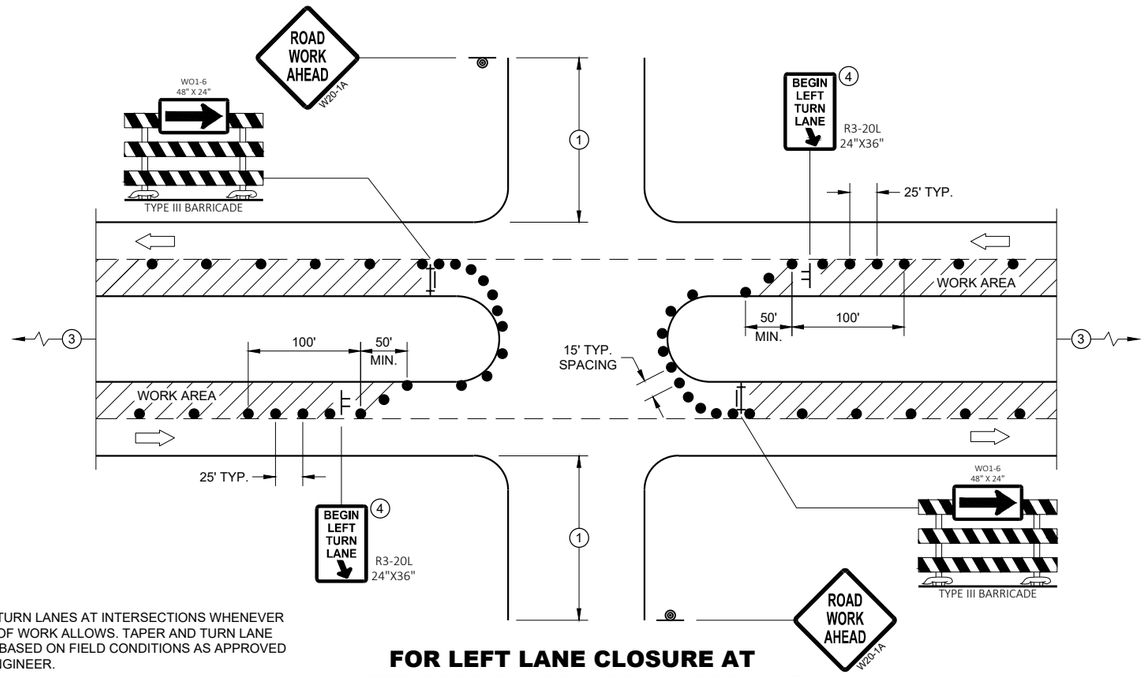
SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

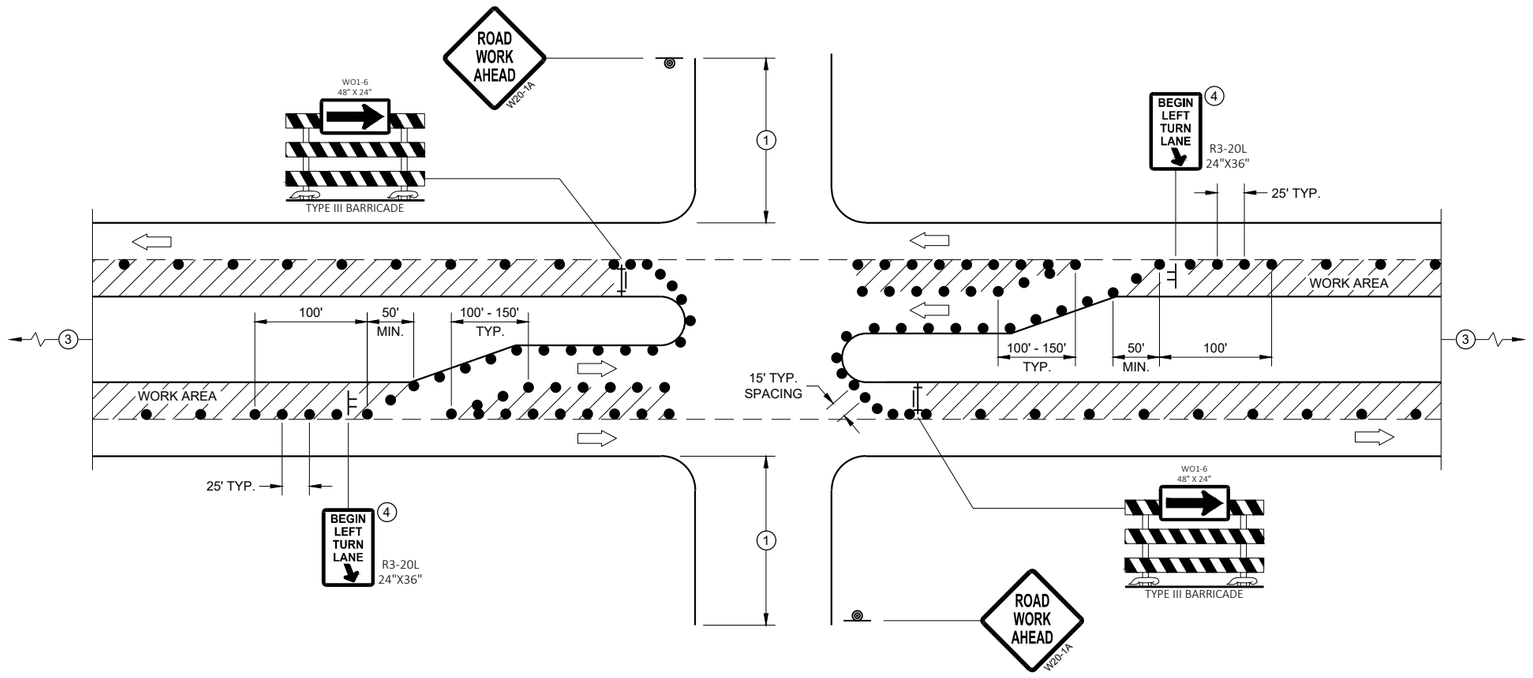
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

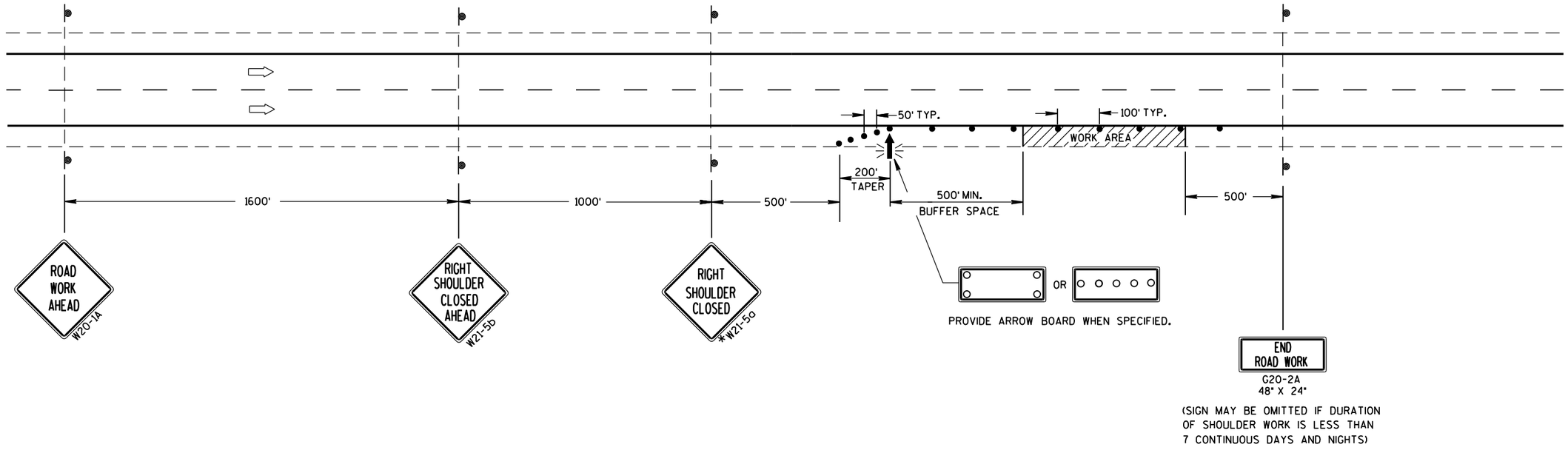
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

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S.D.D. 15 D 27-3

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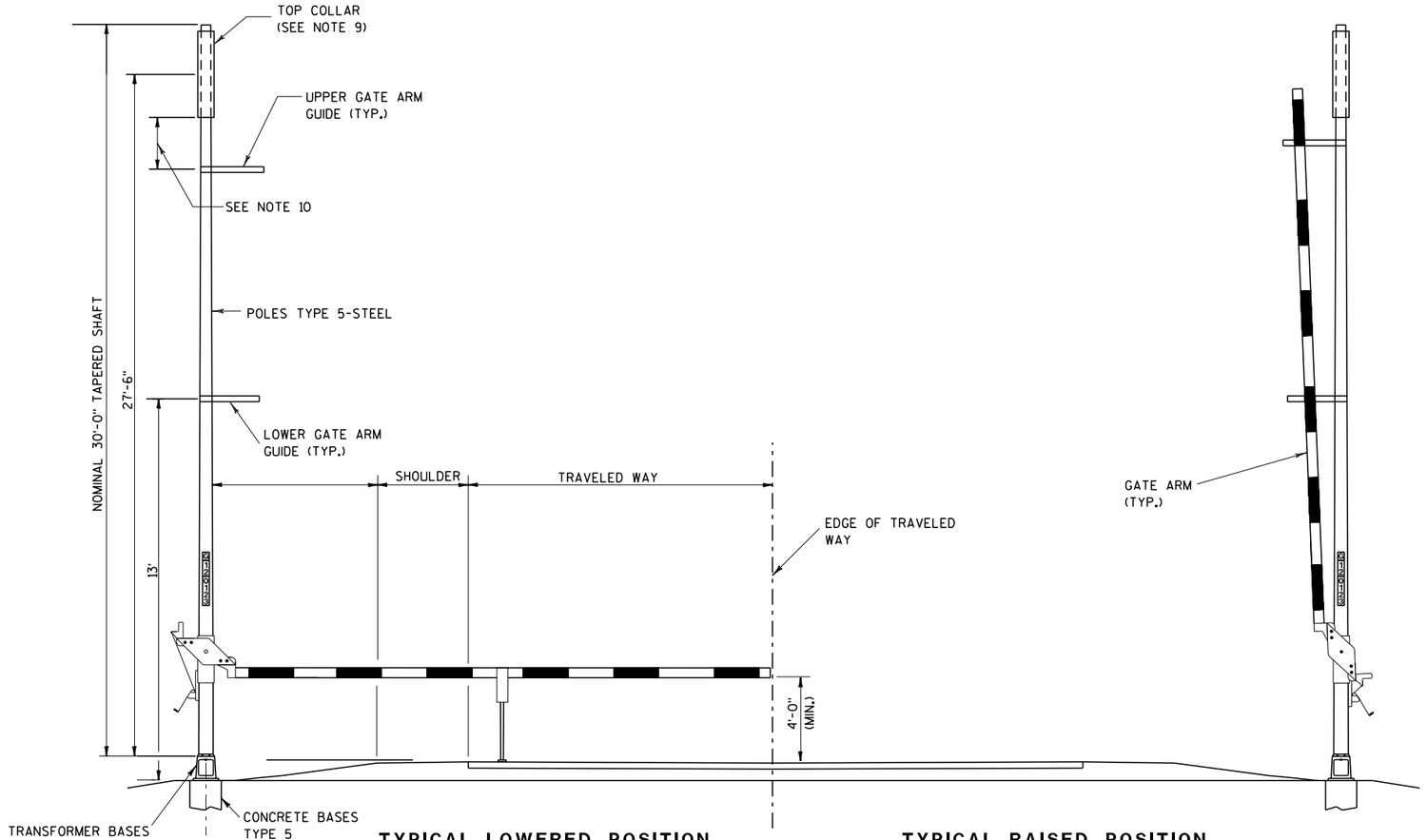
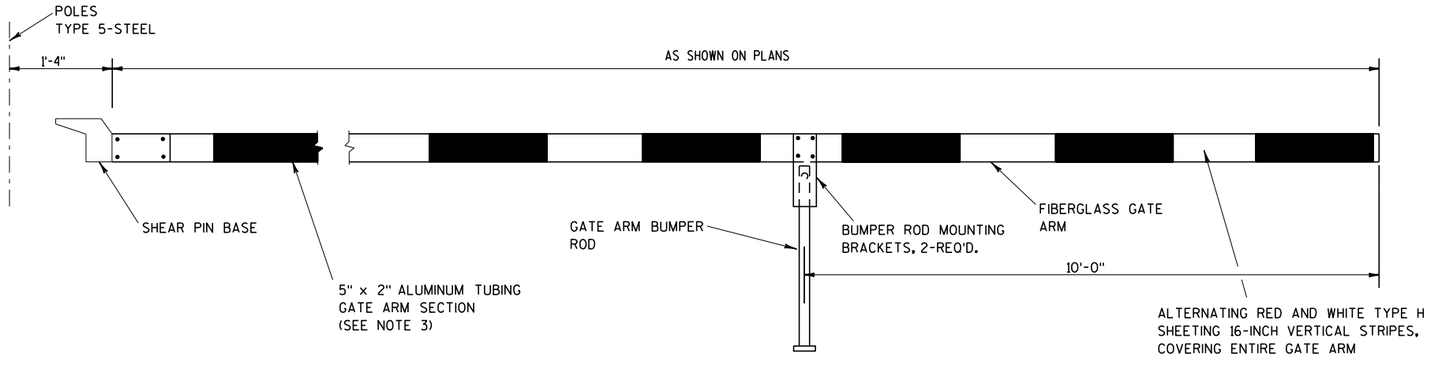
S.D.D. 15 D 27-3



TYPICAL LOWERED POSITION

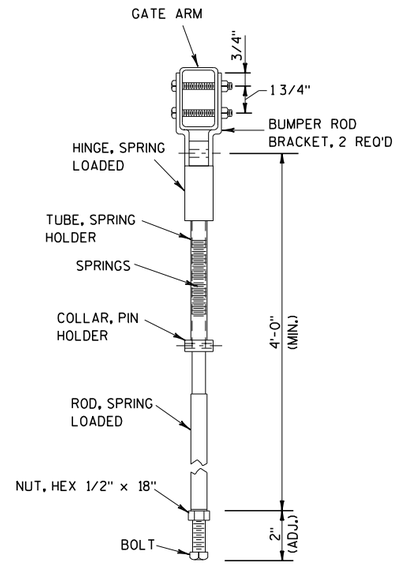
TYPICAL RAISED POSITION



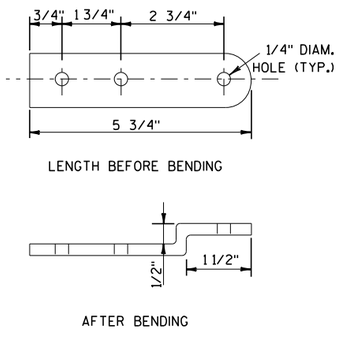
GATE DETAIL

GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.



GATE ARM BUMPER ROD DETAIL

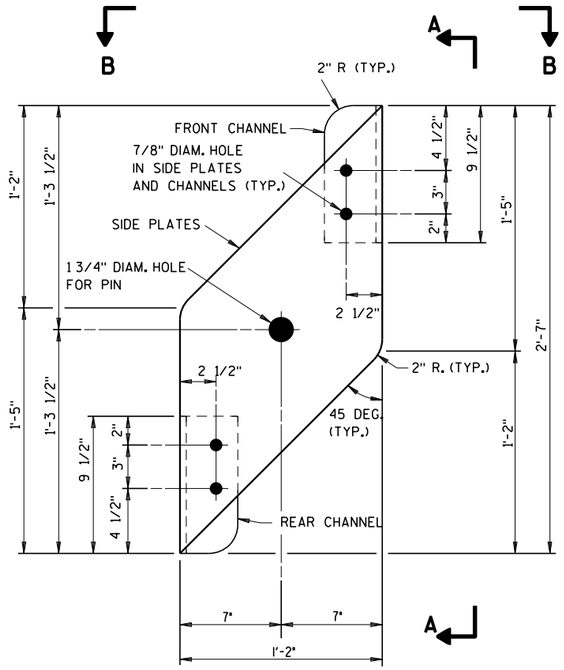


BUMPER ROD MOUNTING
BRACKET DETAIL

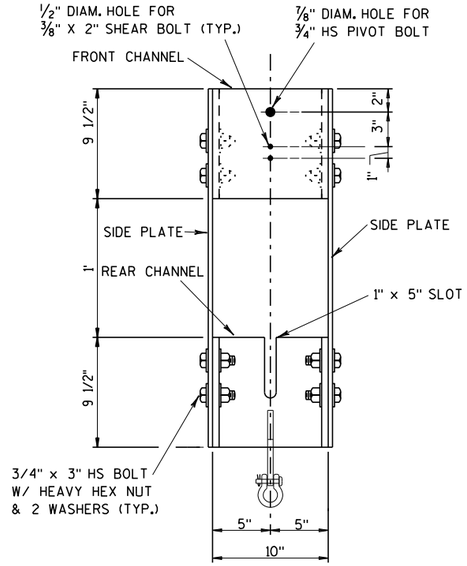
RAMP GATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

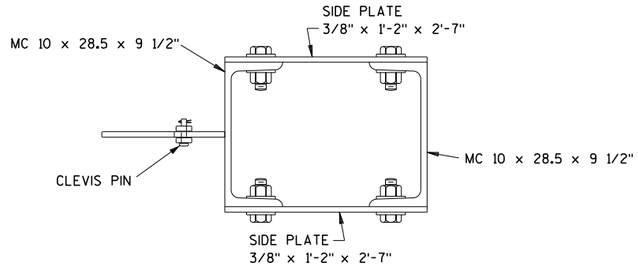
6
S.D.D. 15 D 35-3a



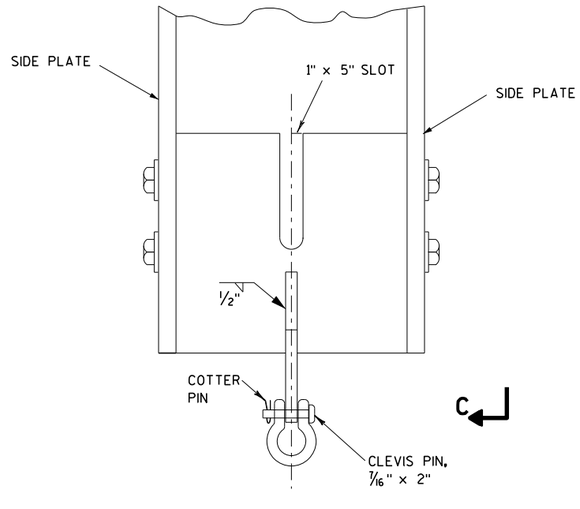
SIDE PLATE DETAIL



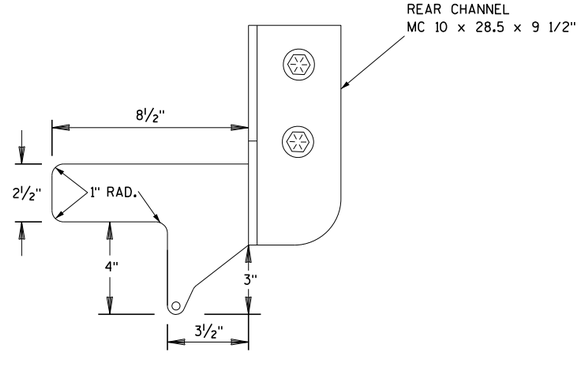
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 D 35-3b

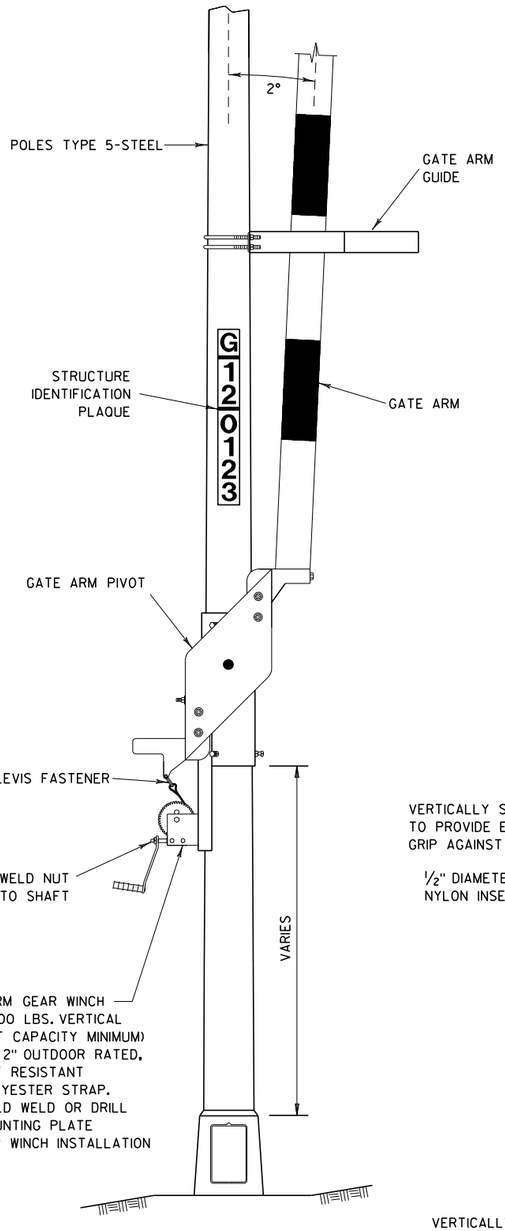
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL.

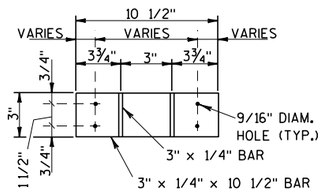
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

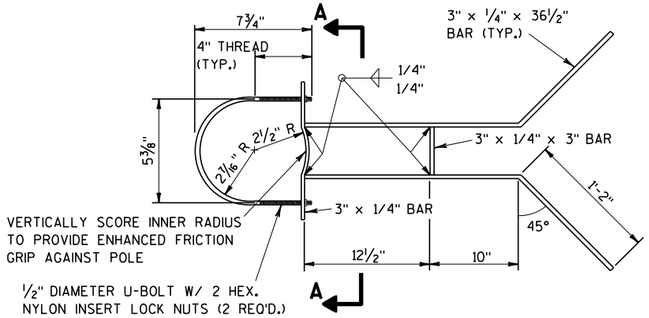
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF ½" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



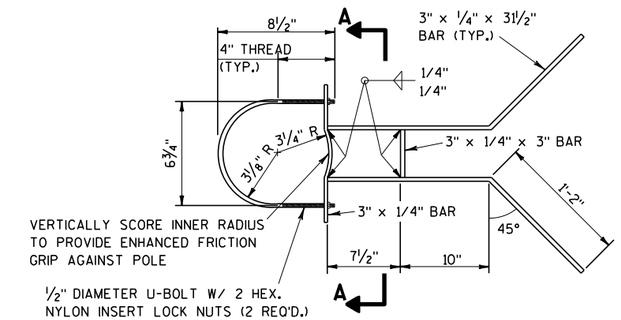
GATE PIVOT ASSEMBLY



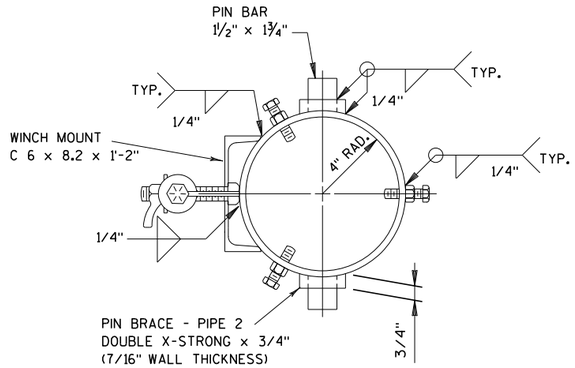
SECTION A-A
U-BOLTS NOT SHOWN



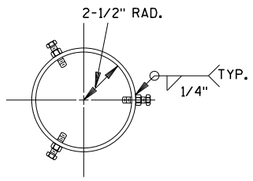
UPPER GATE ARM GUIDE DETAIL



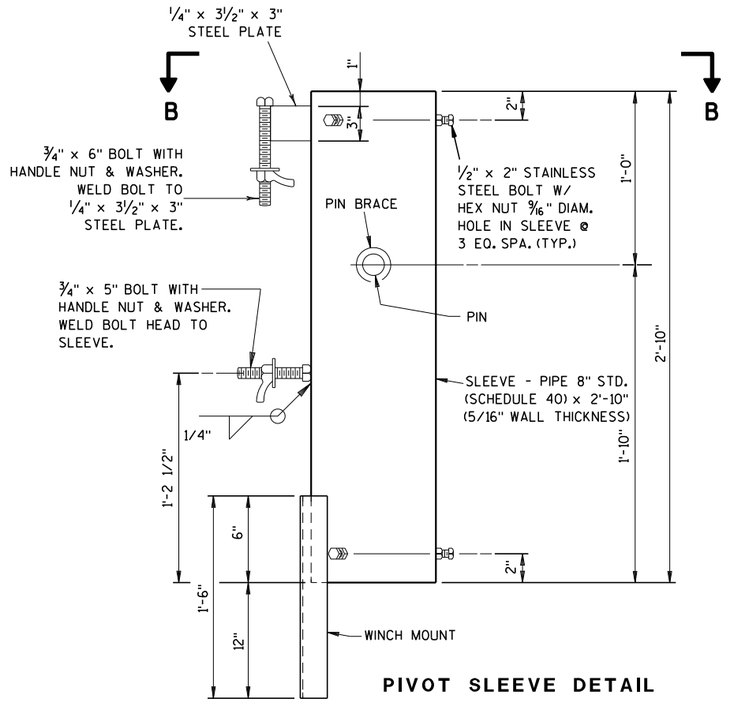
LOWER GATE ARM GUIDE DETAIL



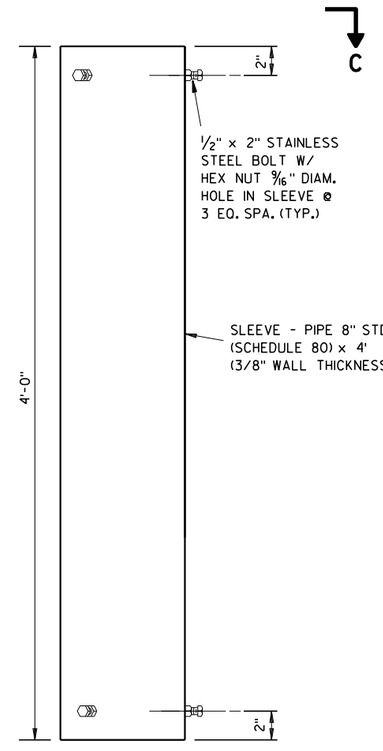
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

RAMP GATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 358 ENGINEER
FHWA

6

S.D.D. 15 D 35-3c

6

S.D.D. 15 D 35-3c

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR, FLEXIBLE TUBULAR MARKER
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK AREA
- CC — CRASH CUSHION TEMPORARY
- EXISTING CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

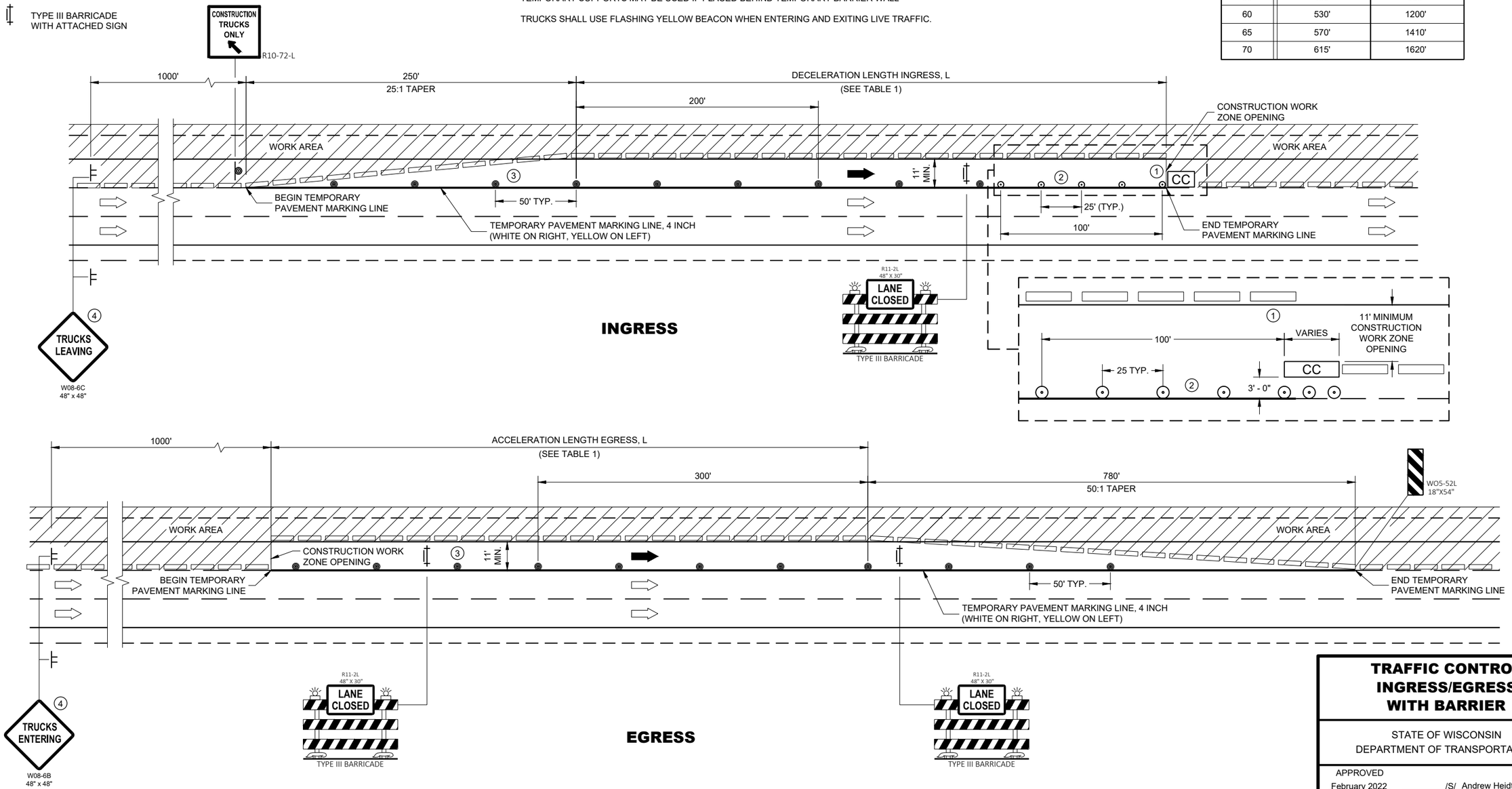
TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

1. WIDEN BARRIER AS NECESSARY TO ACCOMMODATE CRASH CUSHION WIDTH.
2. USE TUBULAR MARKERS TO HELP DELINEATE TEMPORARY CRASH CUSHION.
3. REMOVE DRUMS / BARRICADES WHEN INGRESS / EGRESS ARE IN USE.
4. REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'



TRAFFIC CONTROL INGRESS/EGRESS WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

359

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SDD 15D47 - 02a

6

SDD 15D47 - 02a

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

CONSTRUCTION TRAFFIC

WORK AREA

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
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65	570'	1410'
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LEGEND

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THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

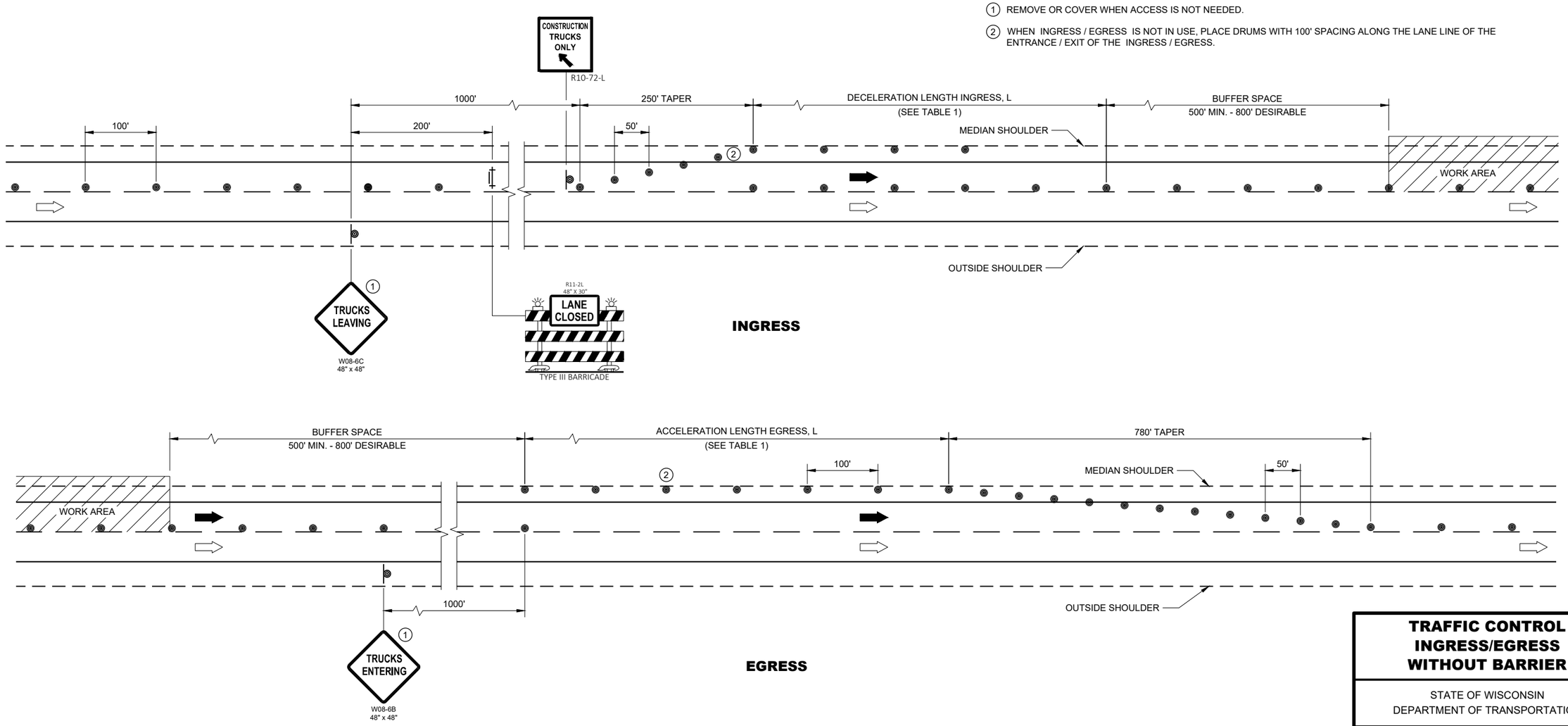
THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

(1) REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

(2) WHEN INGRESS / EGRESS IS NOT IN USE, PLACE DRUMS WITH 100' SPACING ALONG THE LANE LINE OF THE ENTRANCE / EXIT OF THE INGRESS / EGRESS.



TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

360

6

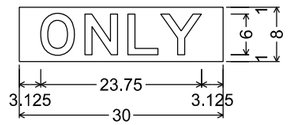
SDD 15D47 - 02b

6

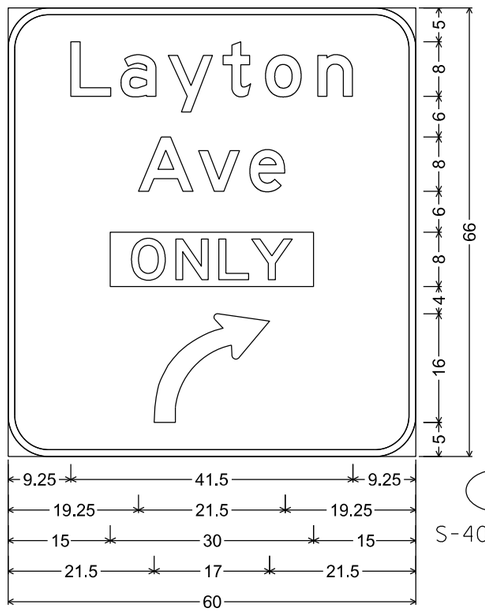
SDD 15D47 - 02b

NOTES

1. Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted
4. ONLY Plaque on Type F Reflective sheeting with Black Non-Reflective message

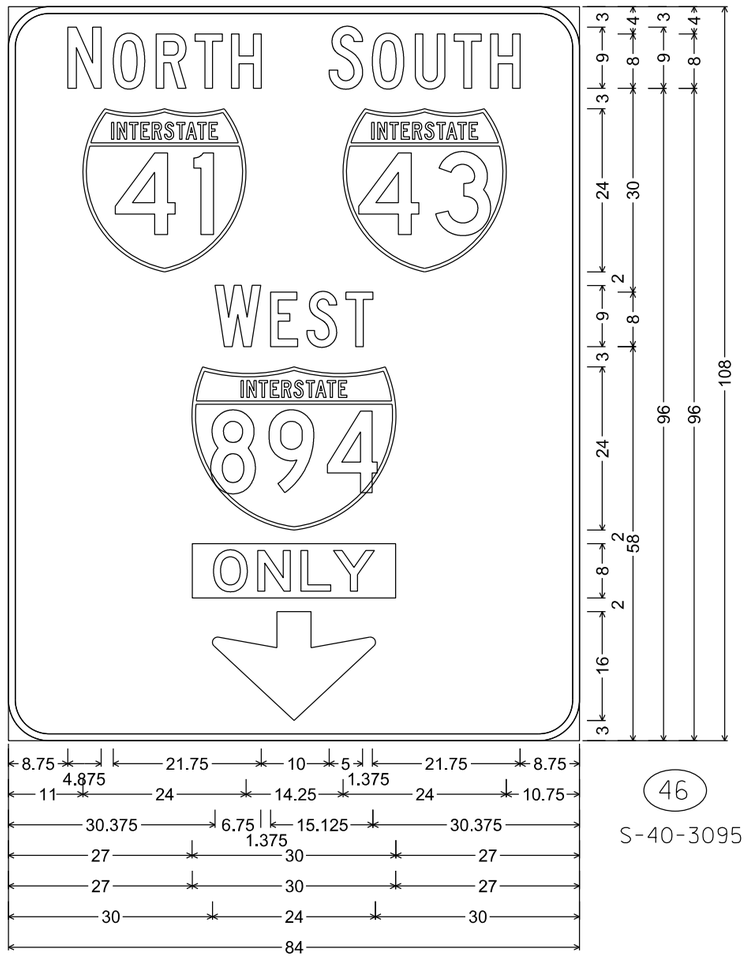


No border, Black on Fluorescent yellow;
"ONLY", E;



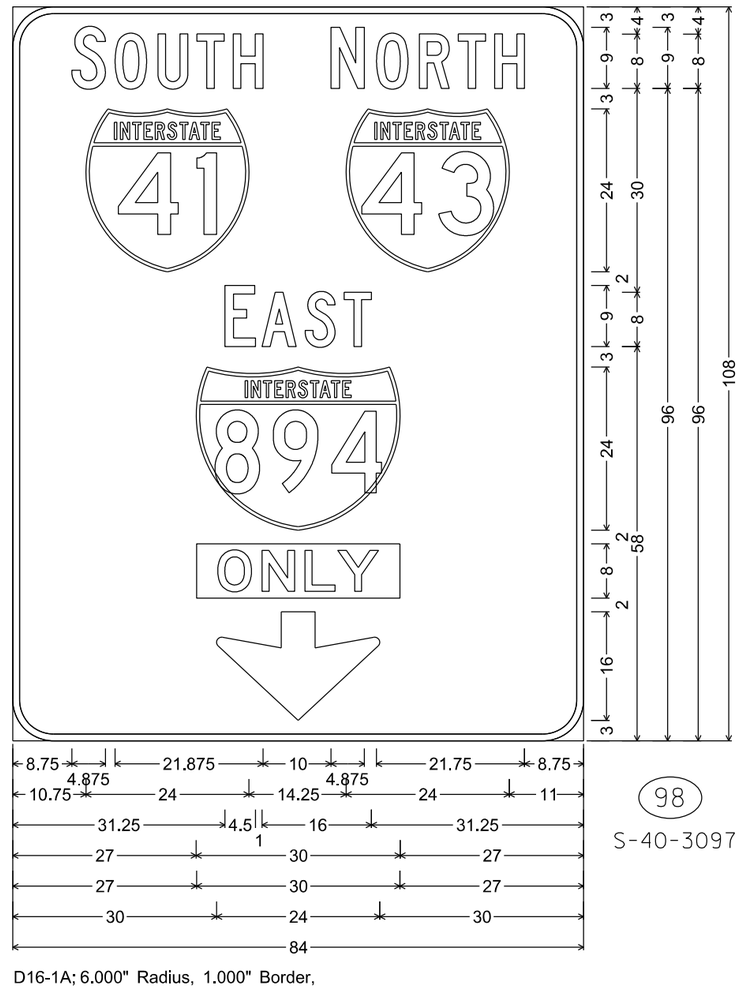
8
S-40-3096

D16-1R; 6.000" Radius, 1.000" Border



46
S-40-3095

D16-1A; 6.000" Radius, 1.000" Border,
"NORTH", C; "SOUTH", C; "WEST", C;



98
S-40-3097

D16-1A; 6.000" Radius, 1.000" Border,
"SOUTH", C; "NORTH", C; "EAST", C;

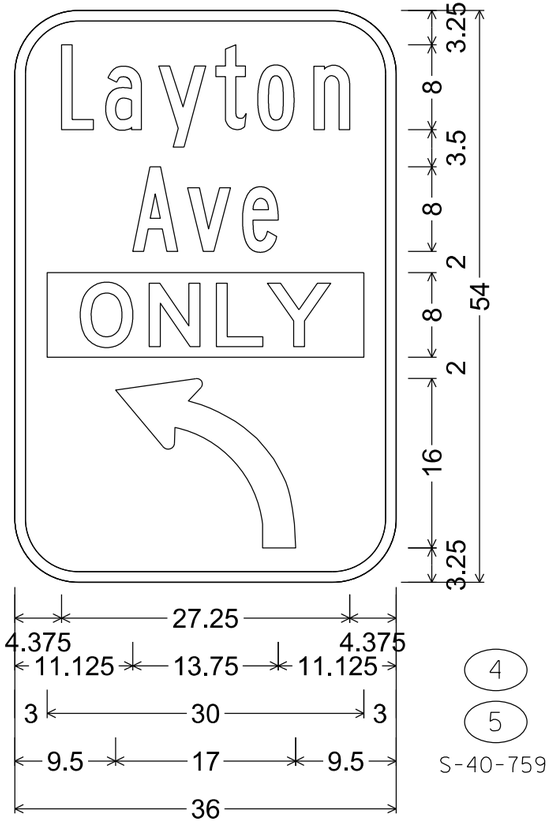
7

7

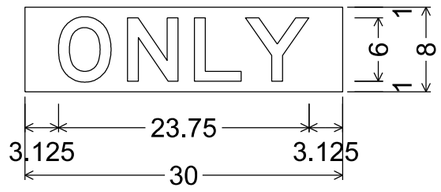
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 361	E

NOTES

1. Sign is Type II - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - B except as noted



D16-1R; 6.000" Radius, 1.000" Border



No border, Black on, Fluorescent yellow;
"ONLY", E

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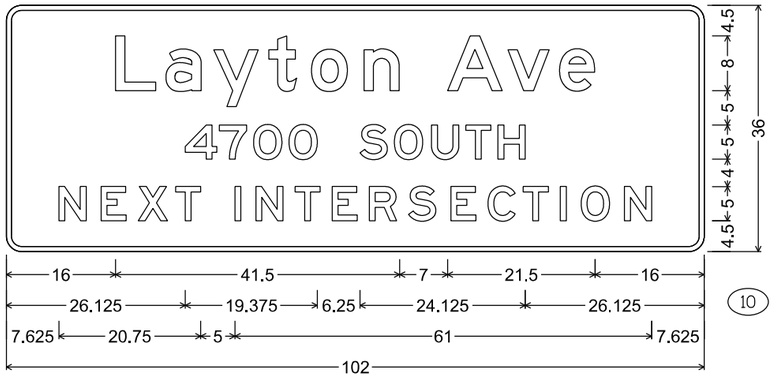
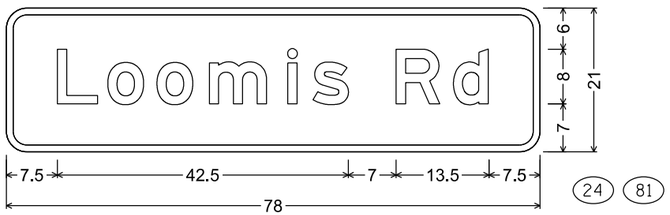
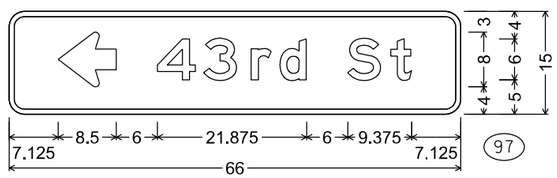
PROJECT NO: 1100-46-71	HWY: STH 36	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET NO: 362	E



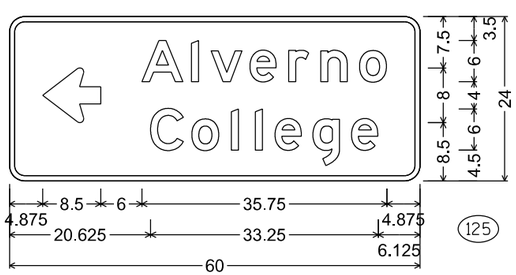
D1-63 MOD; 2.250" Radius, 0.750" Border



M1-94; 3.000" Radius, 1.000" Border



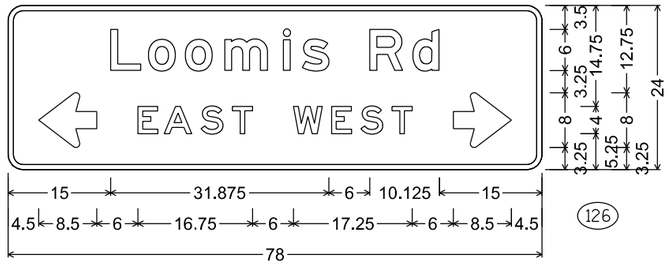
D1-1; 2.250" Radius, 0.750" Border



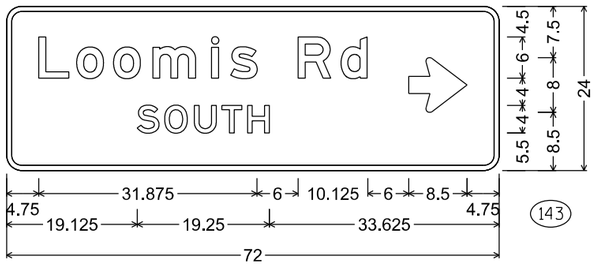
D1-2; 2.250" Radius, 0.750" Border

NOTES

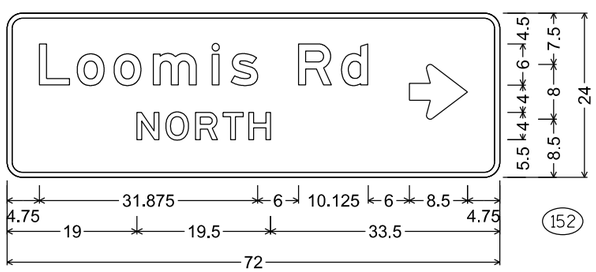
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-60; 2.250" Radius, 0.750" Border



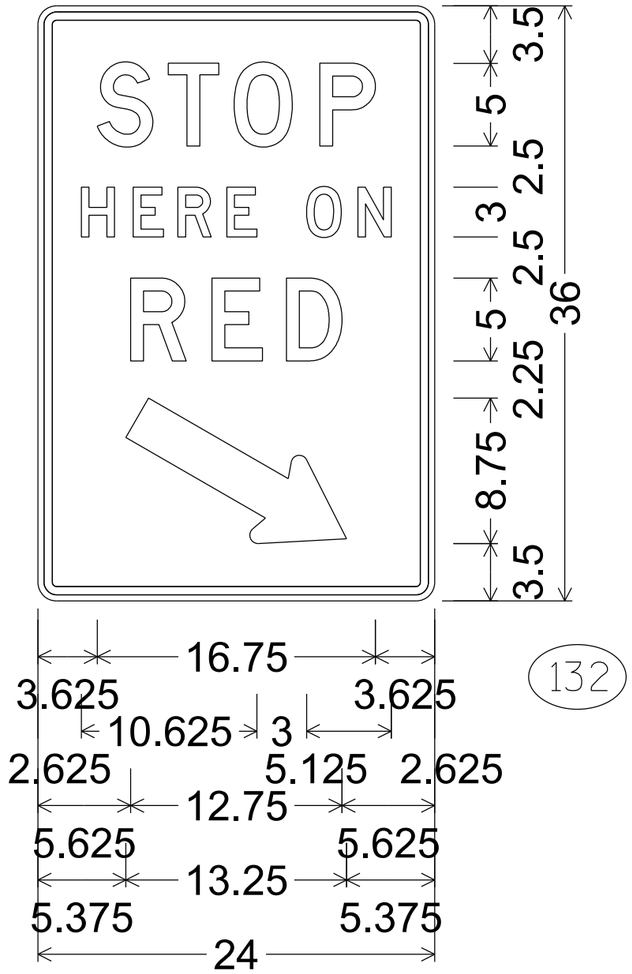
D1-2; 2.250" Radius, 0.750" Border



D1-2; 2.250" Radius, 0.750" Border

NOTES

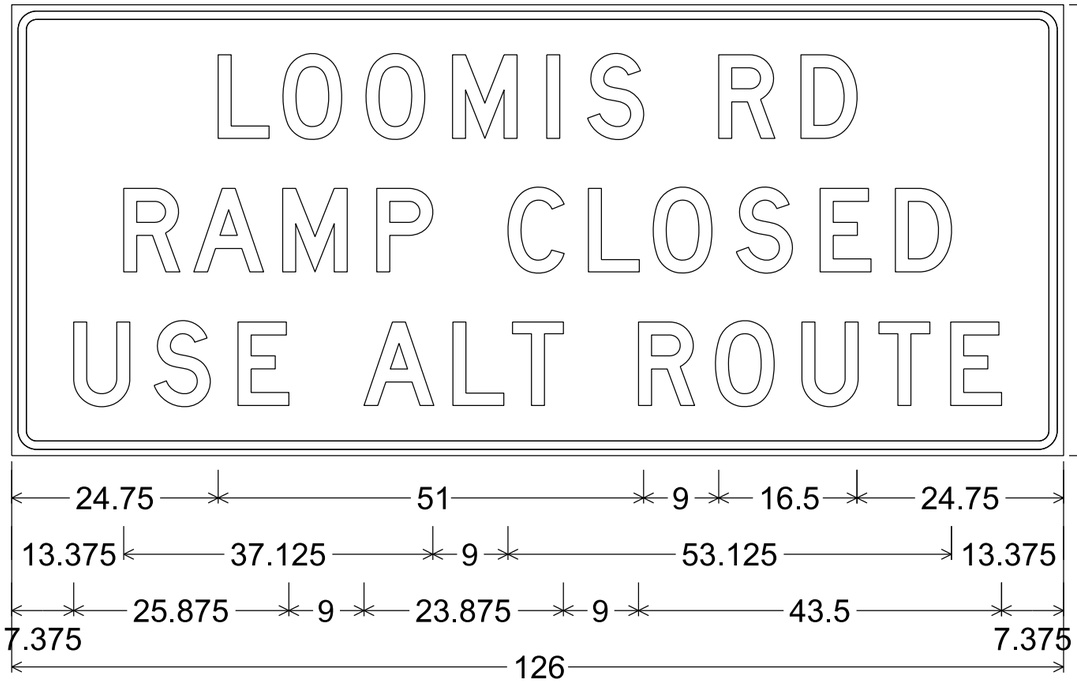
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R10-6 Mod; 1.125" Radius, 0.500" Border, 0.375" Indent

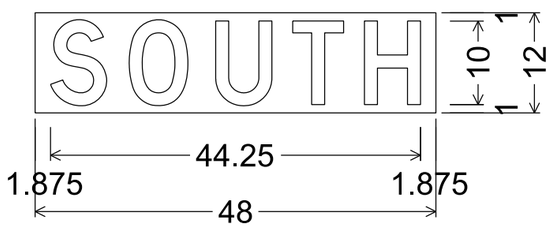
7

7



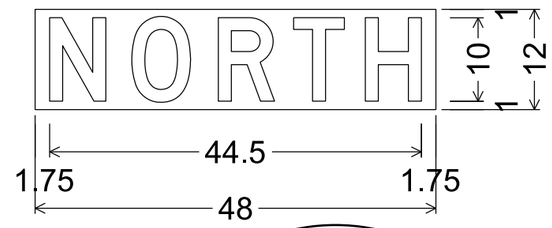
FMS-01

3.000" Radius, 1.000" Border, 0.750" Indent



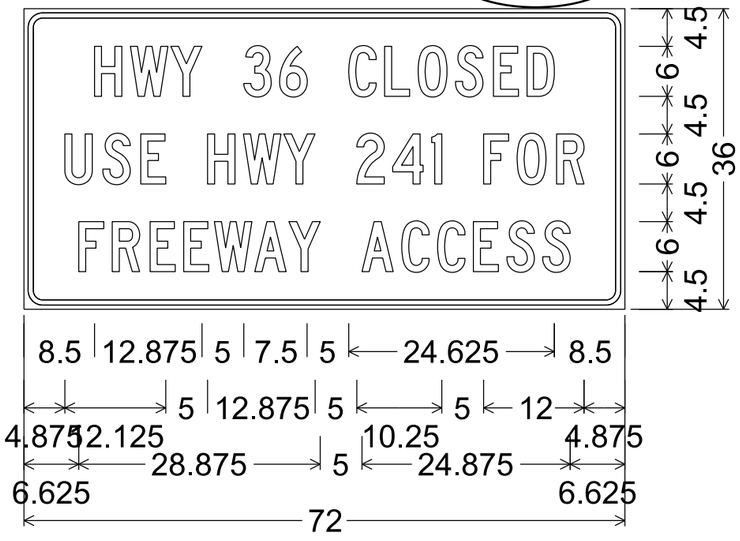
No border

FMS-02



No border

FMS-03

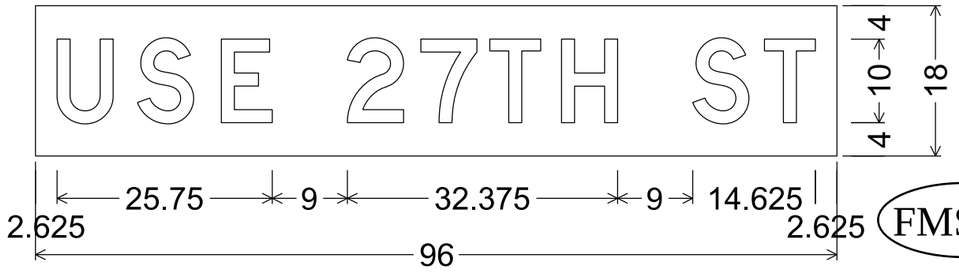


FMS-04

2.250" Radius, 0.625" Border, 0.500" Indent,
"HWY", C; "36", C; "CLOSED", C;
"USE", C; "HWY", C; "241", C;
"FOR", C; "FREEWAY", C; "ACCESS", C

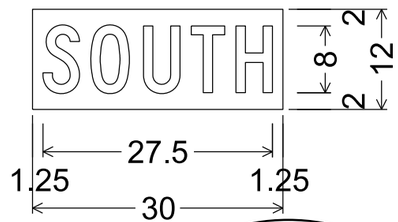
NOTES

1. Fixed Message signs are Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D except as noted



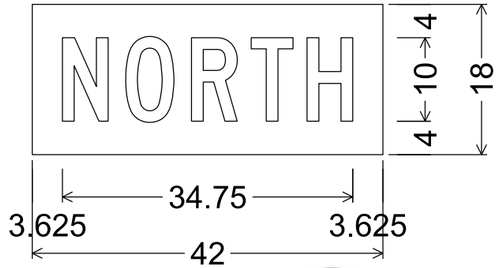
FMS-05

No border



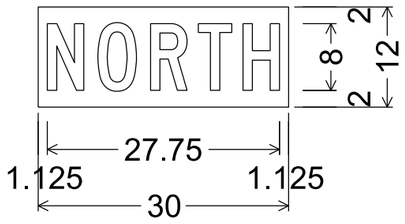
No border,
"SOUTH", C

FMS-06



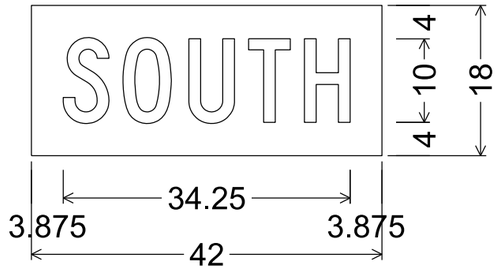
No border,
"NORTH", C

FMS-08



No border,
"NORTH", C

FMS-07



No border,
"SOUTH", C

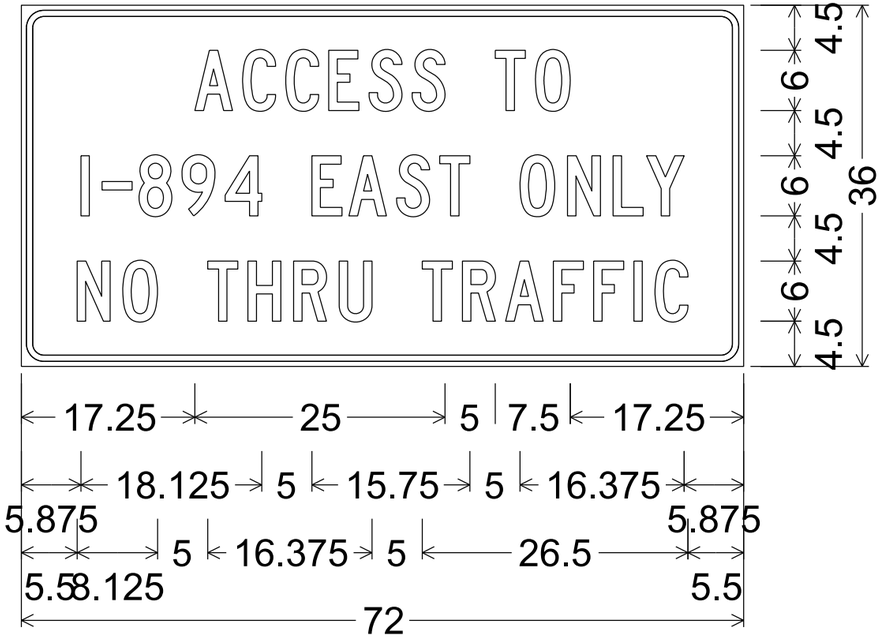
FMS-09

7

7

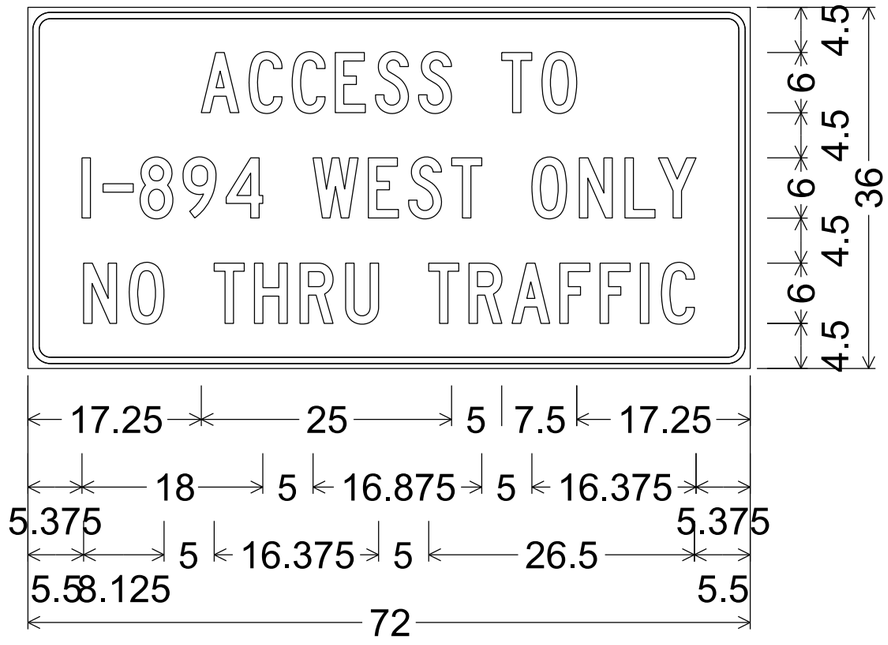
NOTES

1. Fixed Message signs are Type II- Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



2.250" Radius, 0.625" Border, 0.500" Indent

FMS-10

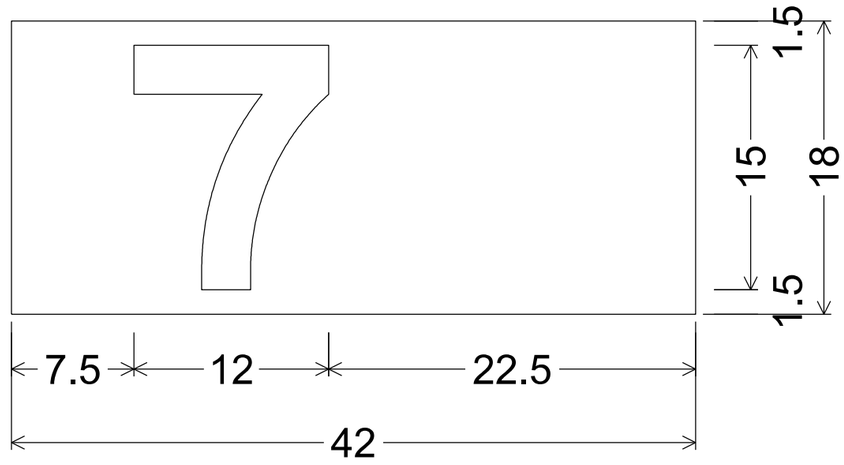


2.250" Radius, 0.625" Border, 0.500" Indent

FMS-11

NOTES

1. Overlay is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E Modified
4. Overlay base material is .040" aluminum



Exit 7; No border, Black on, Orange

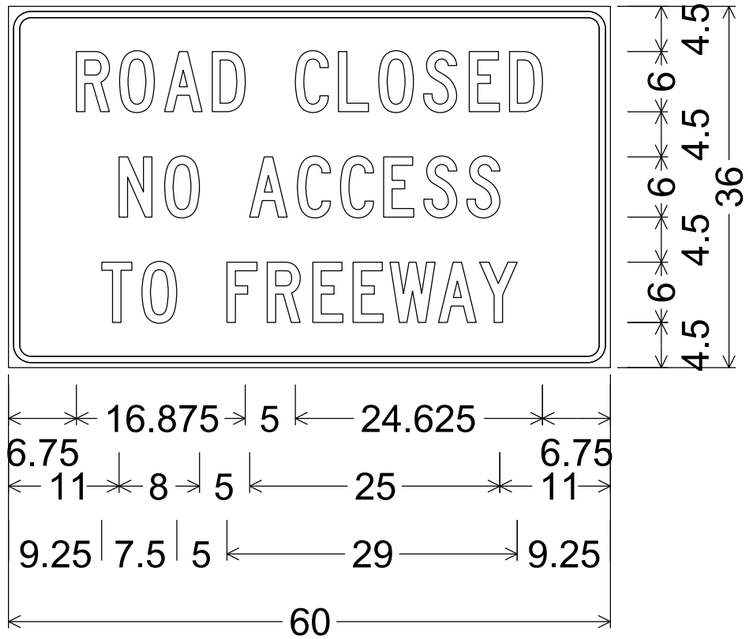
FMS-12

7

7

NOTES

1. Fixed Message sign is Type II- Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



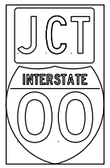
2.250" Radius, 0.625" Border, 0.500" Indent

FMS-13

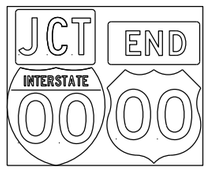
7

7

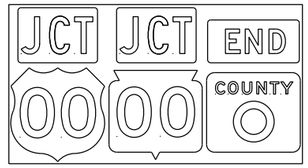
TYPICAL ASSEMBLIES



J1-1



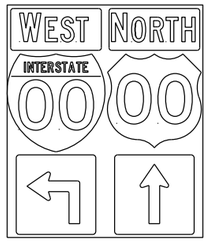
J1-2



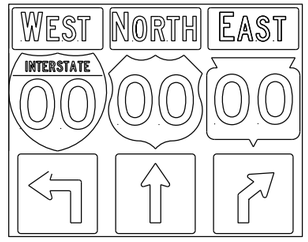
J1-3

JR1-1

J2-1

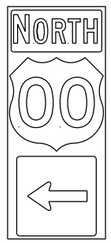


J2-2

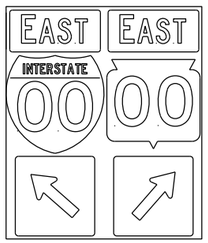


J2-3

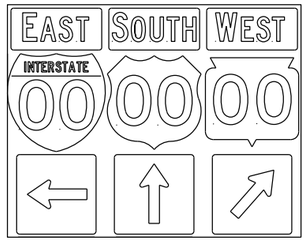
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



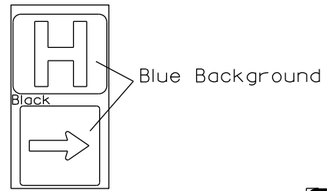
J3-1



J3-2

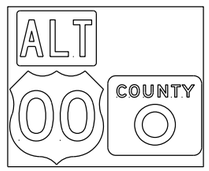


J3-3

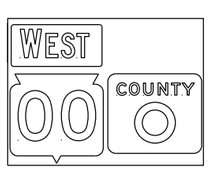


JH-1

J4-1

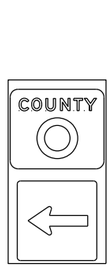


J4-2



J4-2

J12-1



J13-1

J32-1

J33-1

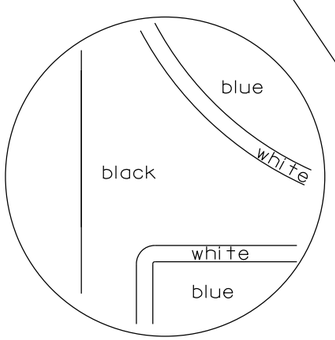
J22-1

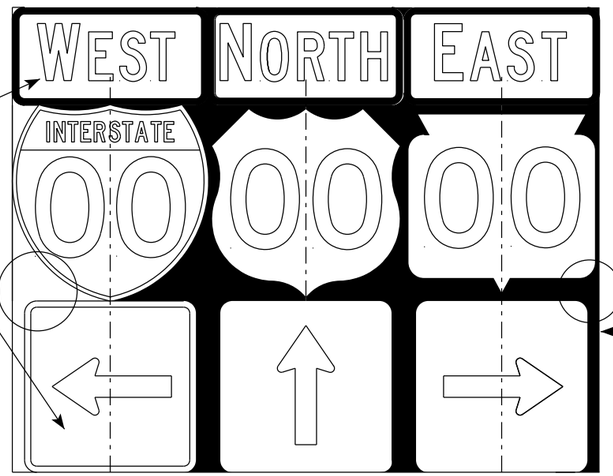
J23-1

JR13-1

JR23-1

JR99-1





NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

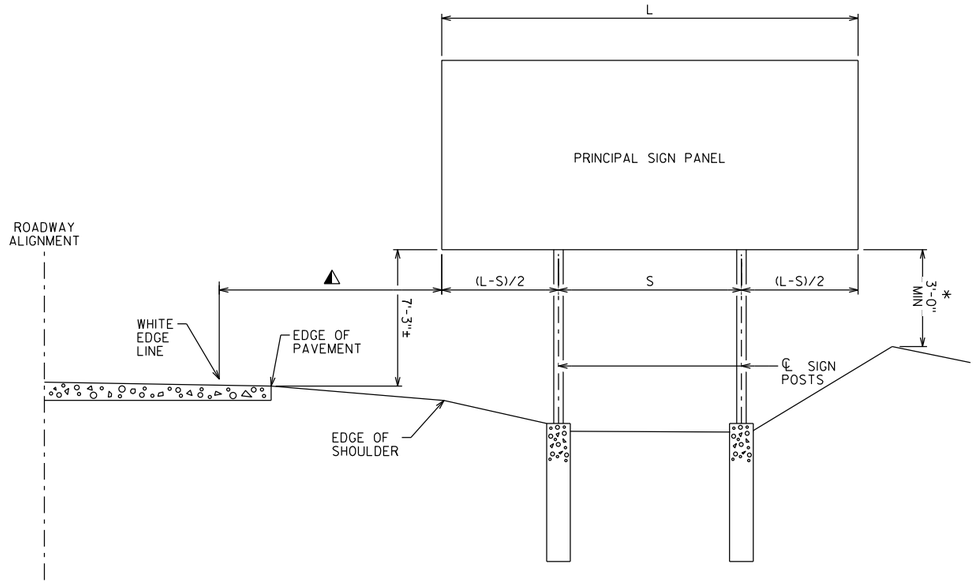
SHEET NO: 369 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate_A21S.dgn PLOT DATE : 18-MAR 2021 1:37 PLOT BY : mscj9h PLOT NAME :

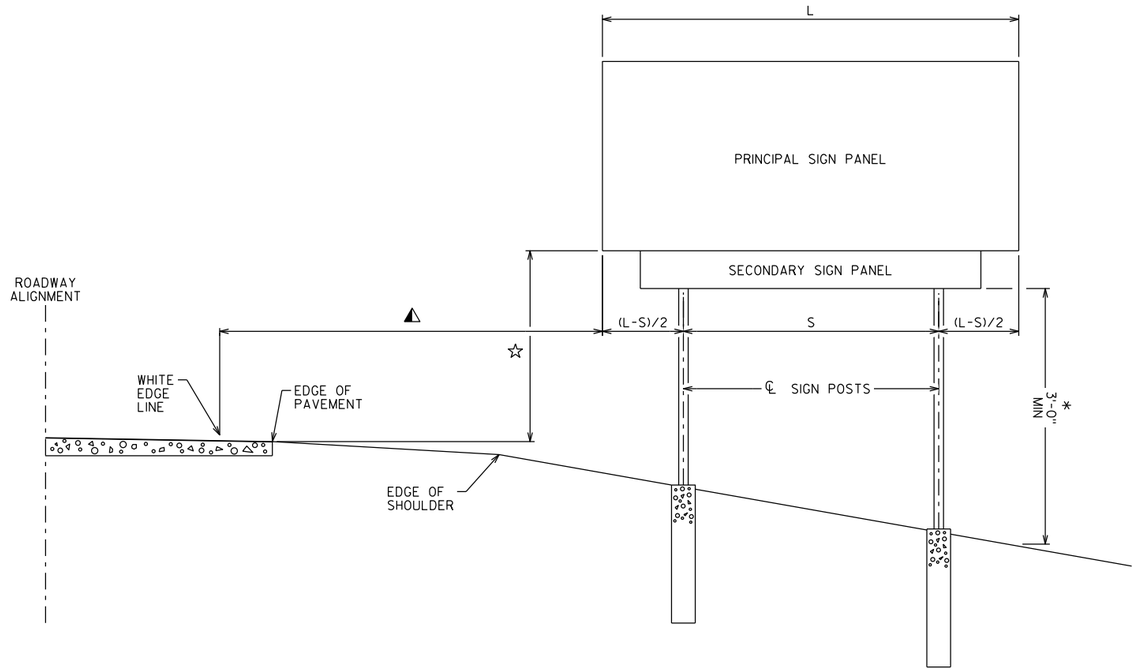
WISDOT/CADDS SHEET 42

7

7



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

◭ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

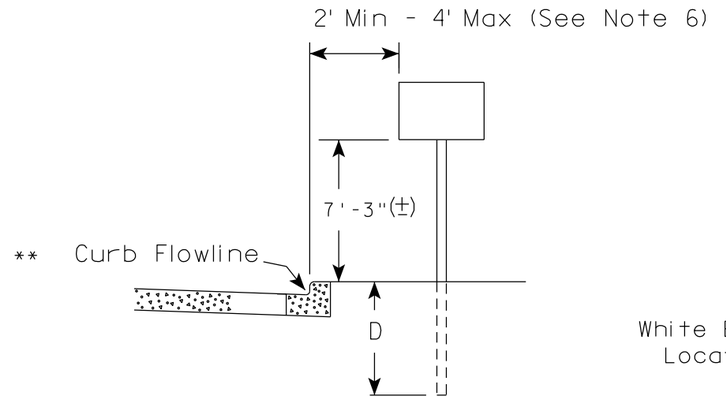
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

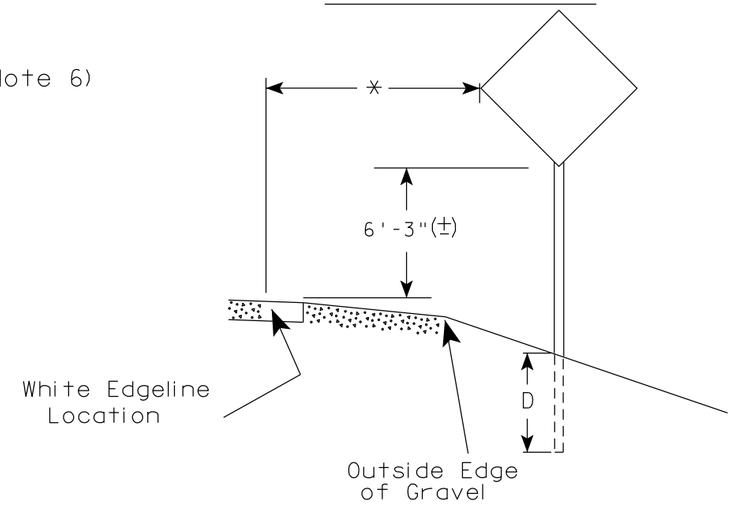
SHEET A4-1.10

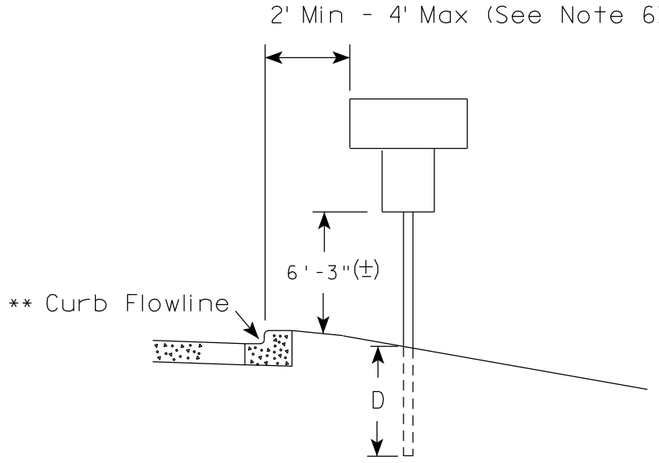
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 370	E

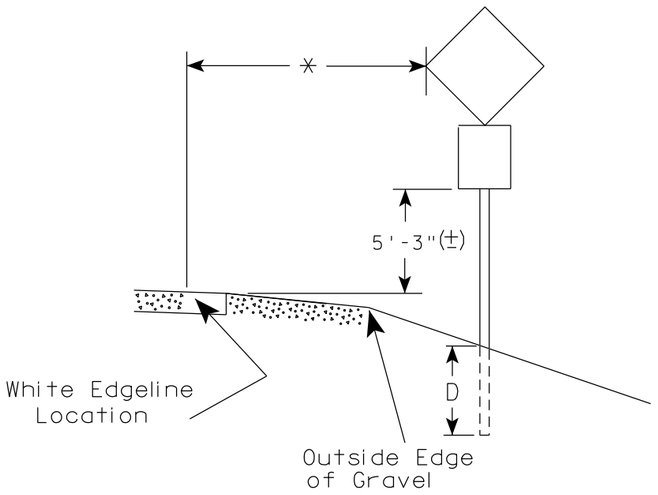
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

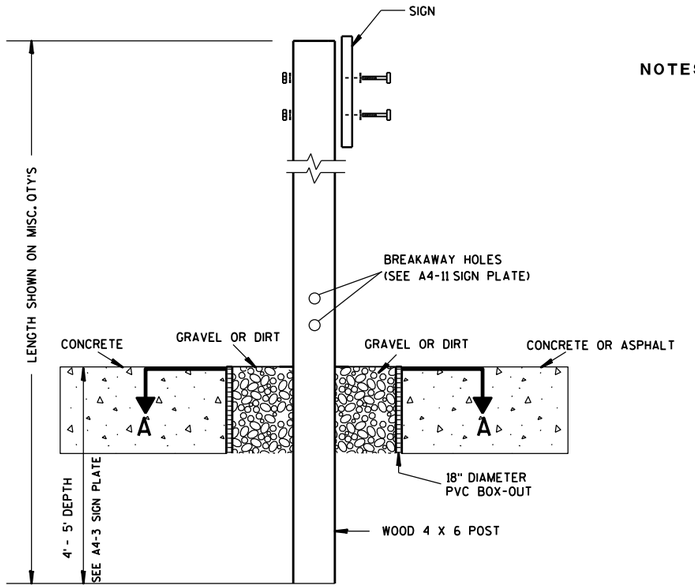
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

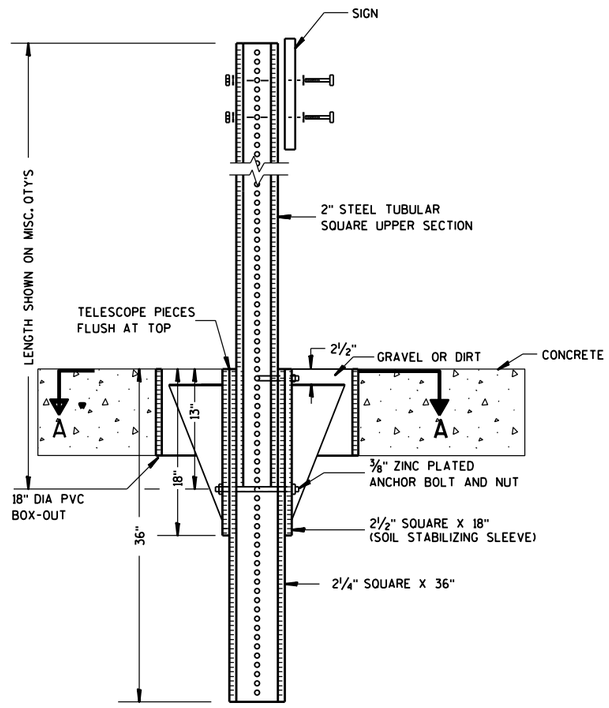
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 370	E



ELEVATION VIEW

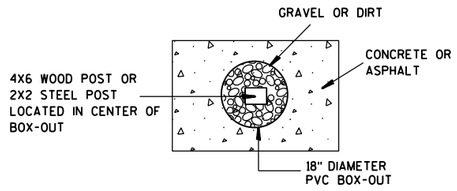
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

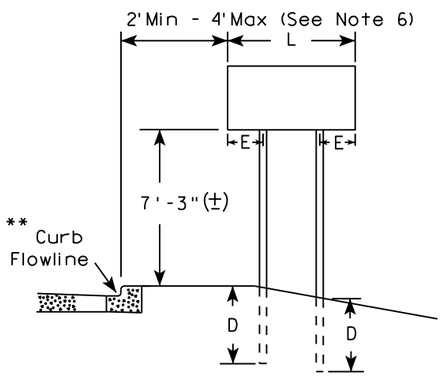
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

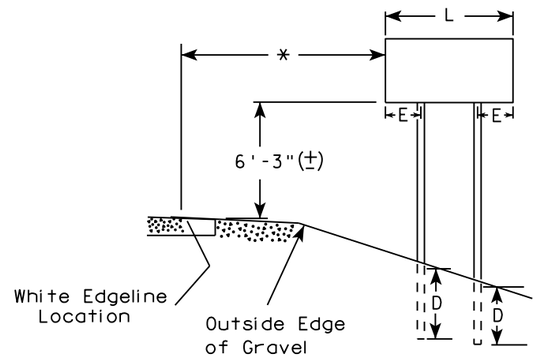
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

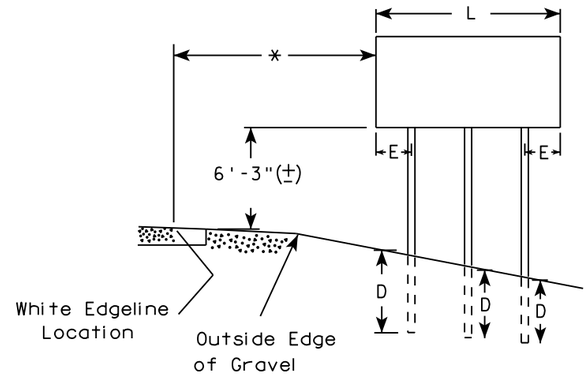
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

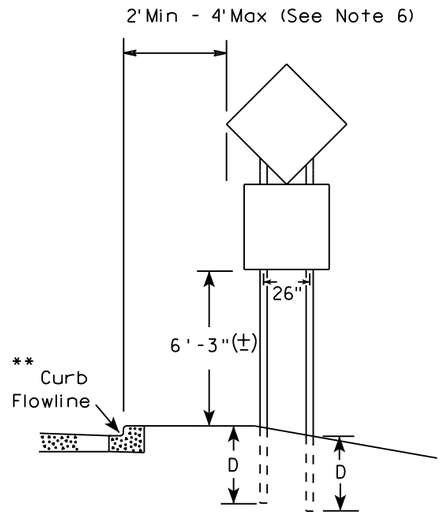
URBAN AREA



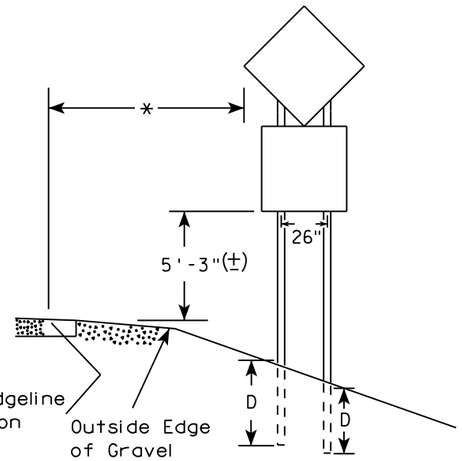
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

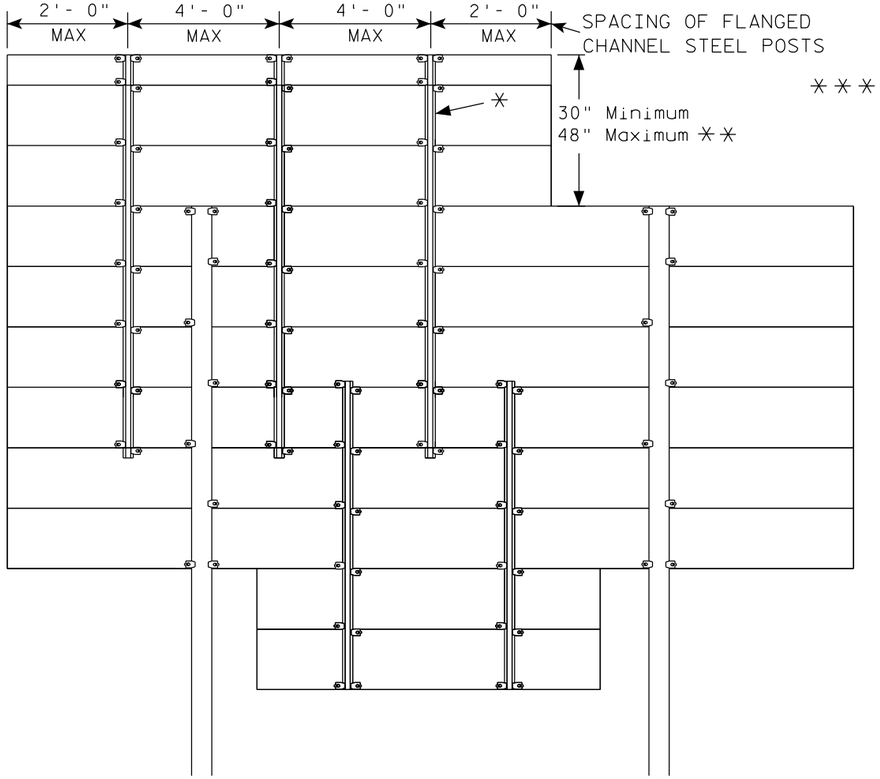
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 372	E

GROUND MOUNTED SIGN



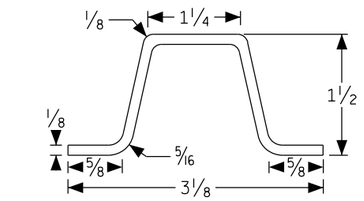
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

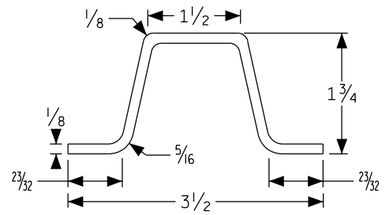
✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE

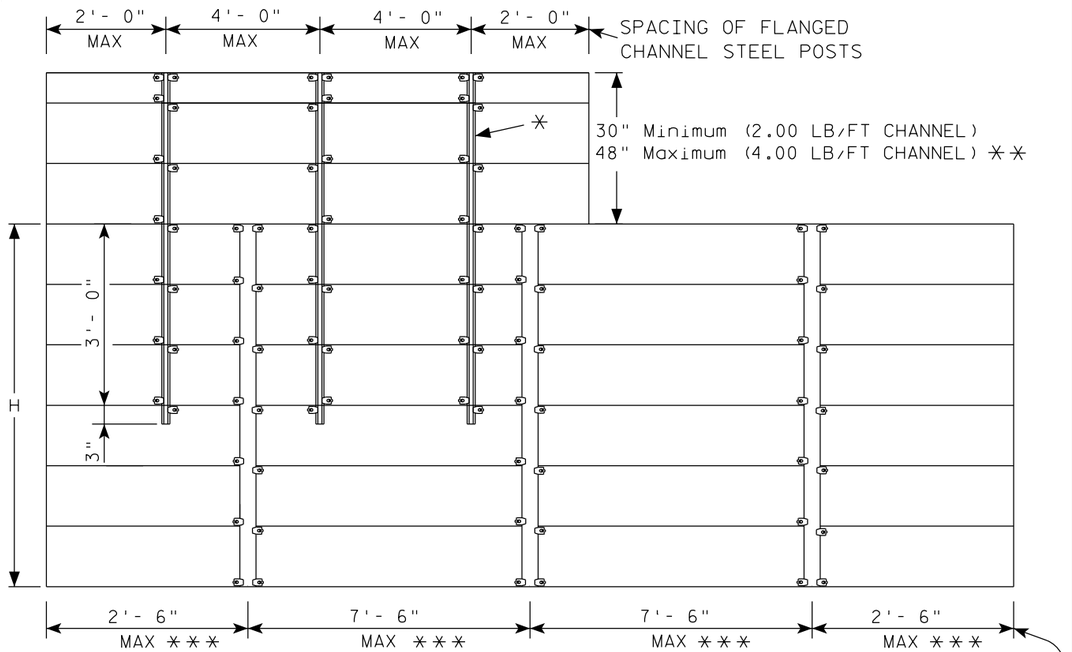


2.00 LB/FT CHANNEL



4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

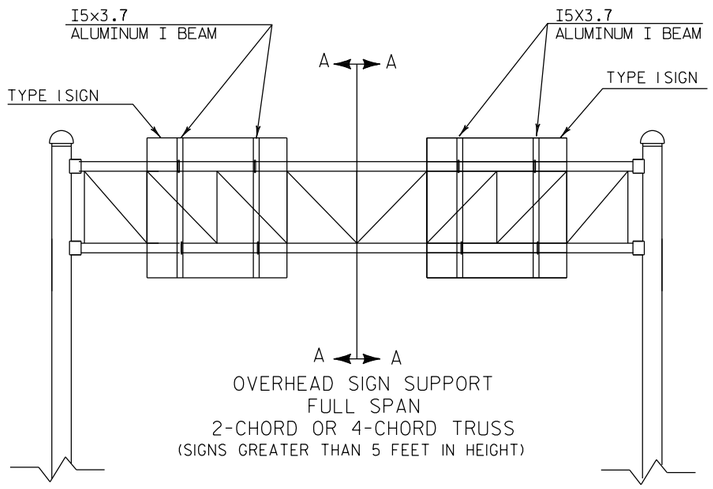
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

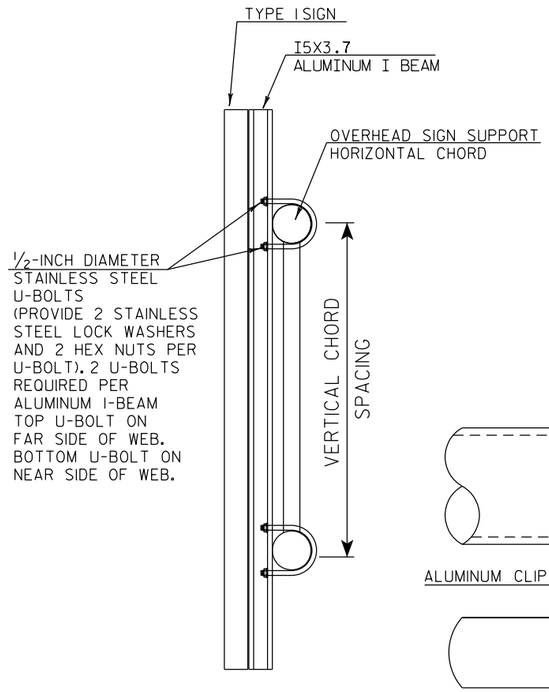
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

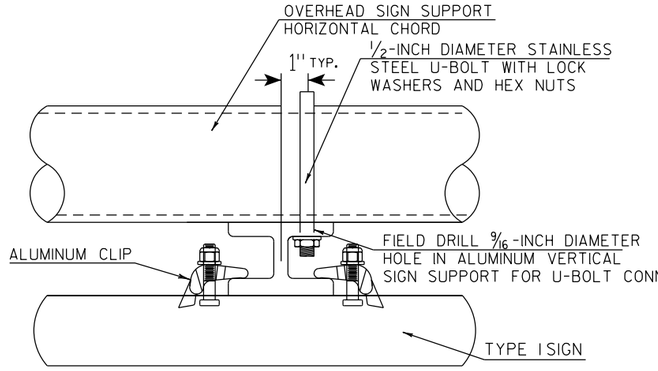
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



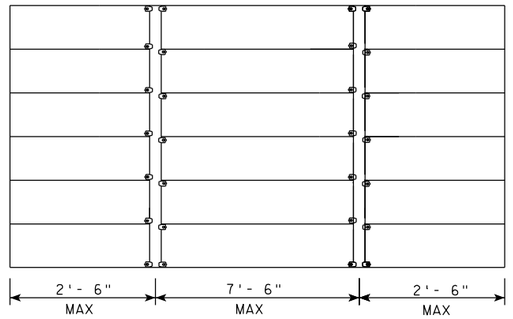
CUT SECTION A-A



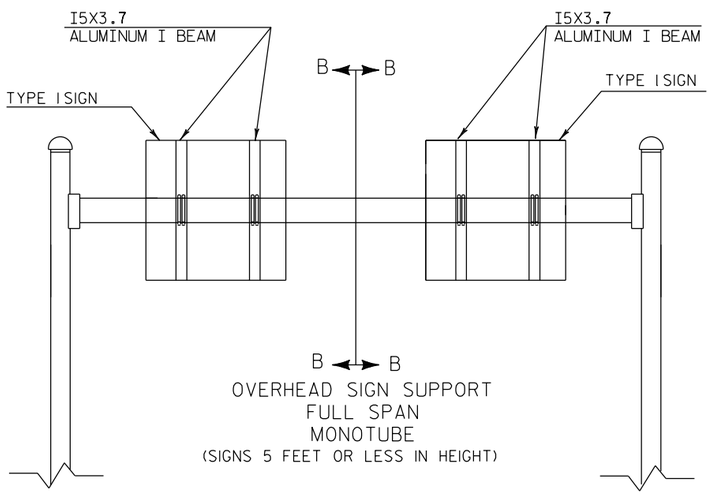
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

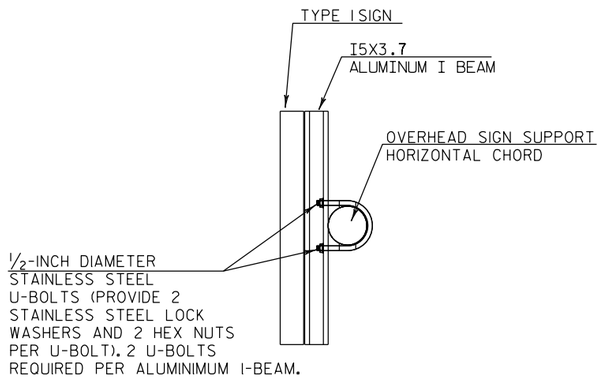
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



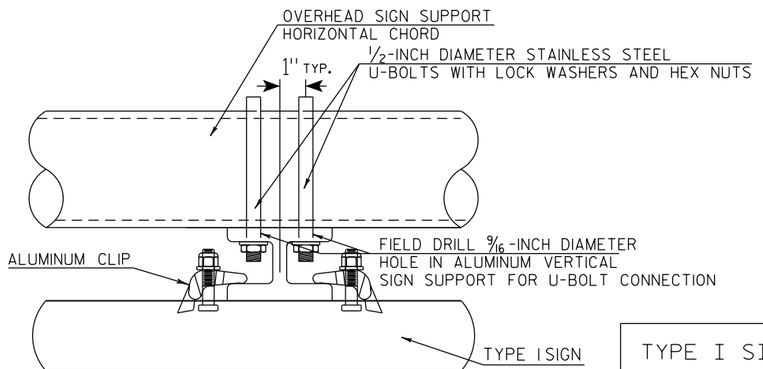
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

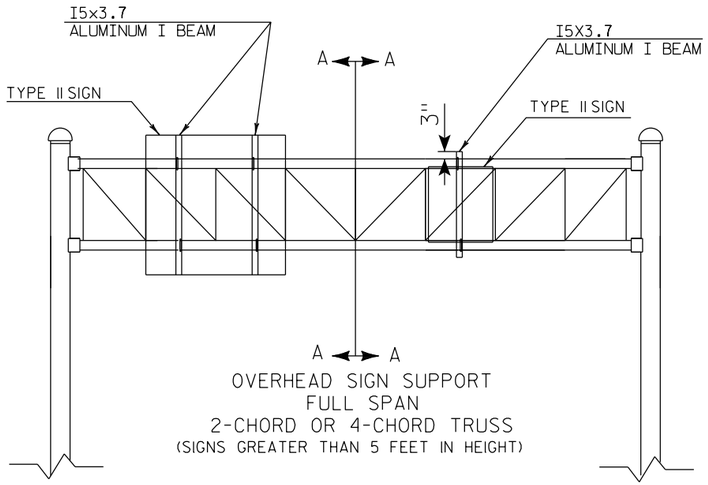
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

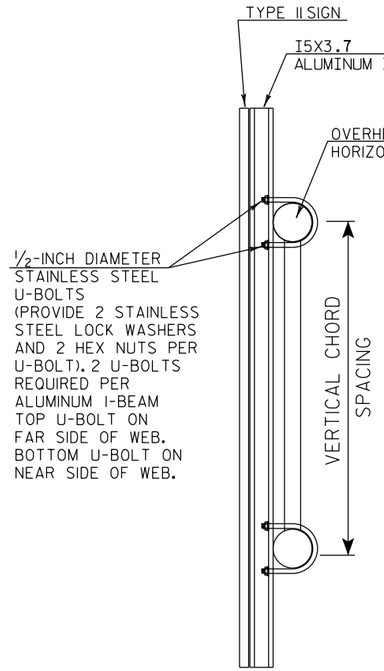
APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

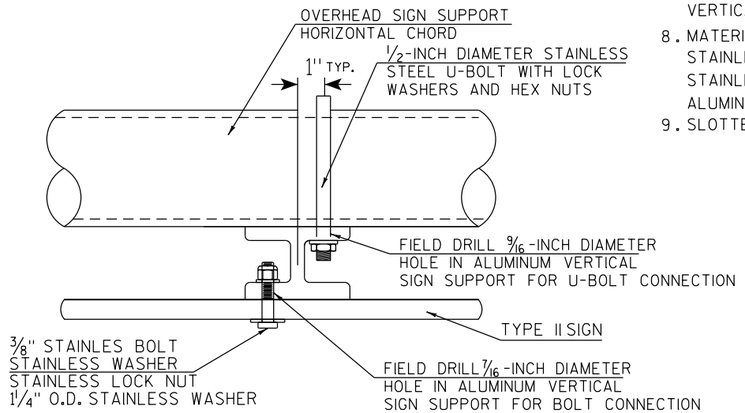
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 375	E



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



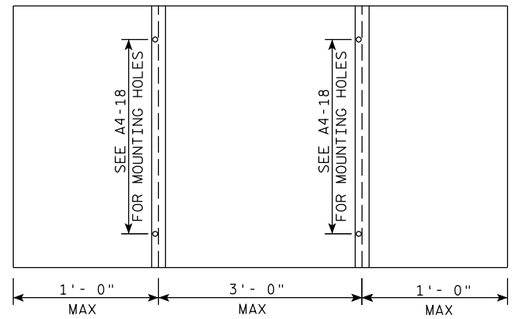
CUT SECTION A-A



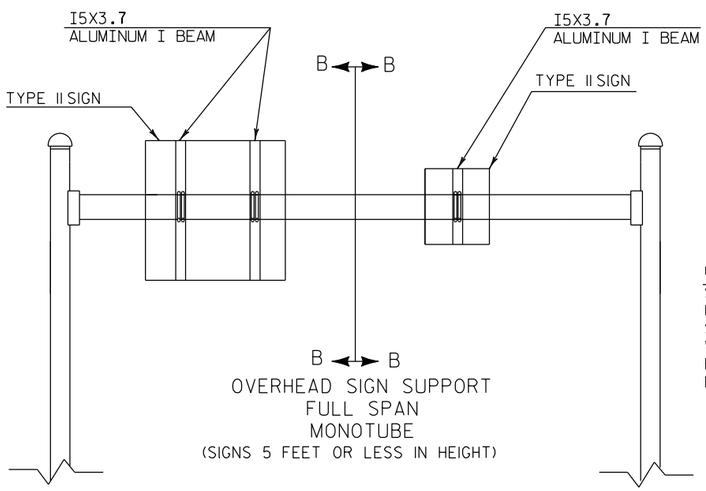
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

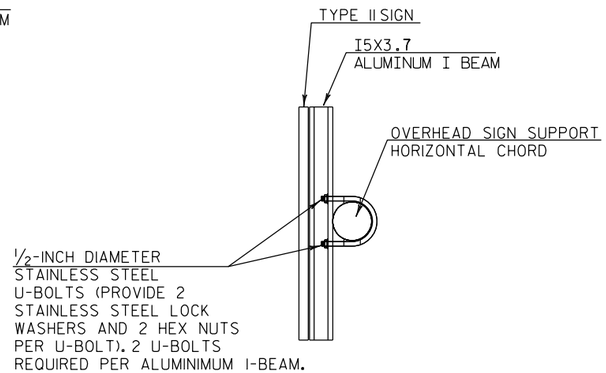
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



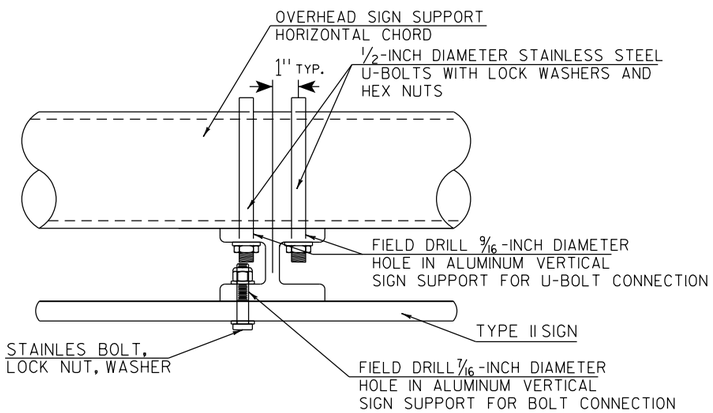
SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



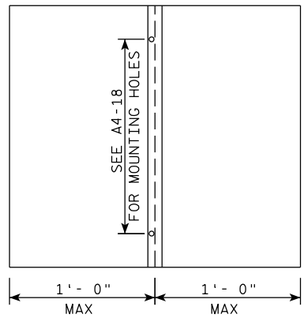
OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

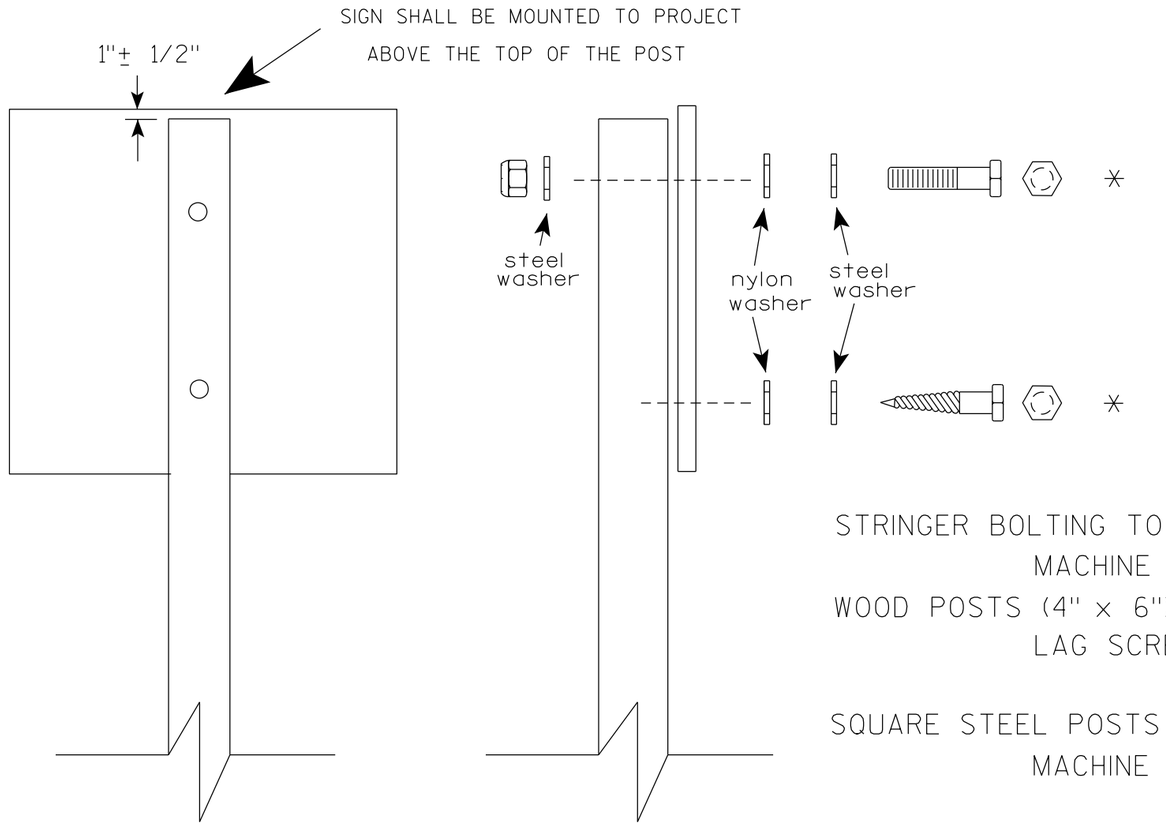
TYPE II SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 376	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

377

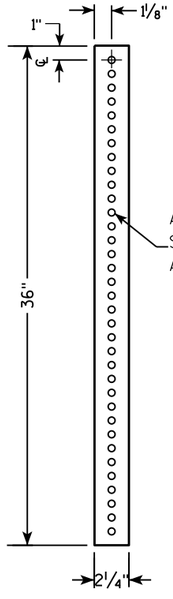
PROJECT NO:				SHEET NO: 376	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

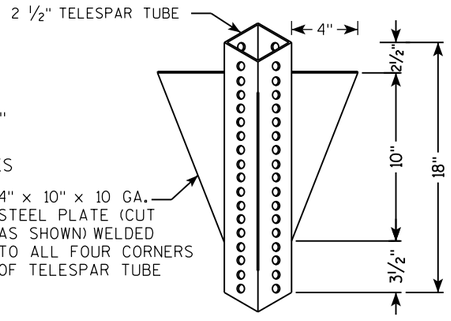
WISDOT/CADDS SHEET 42

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

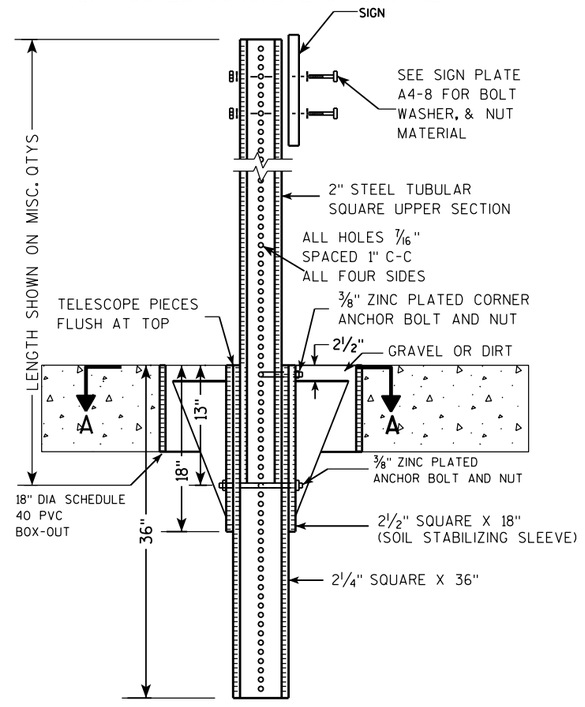
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



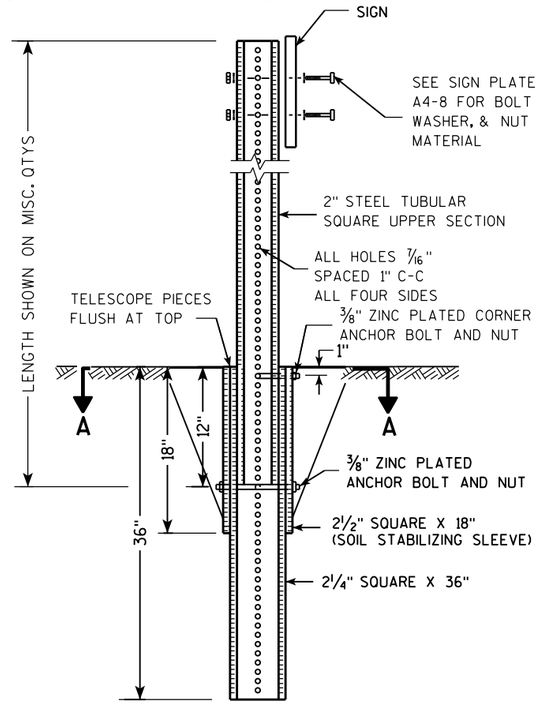
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

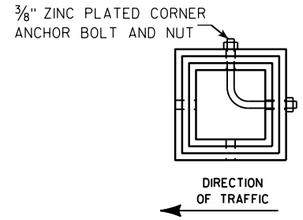


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

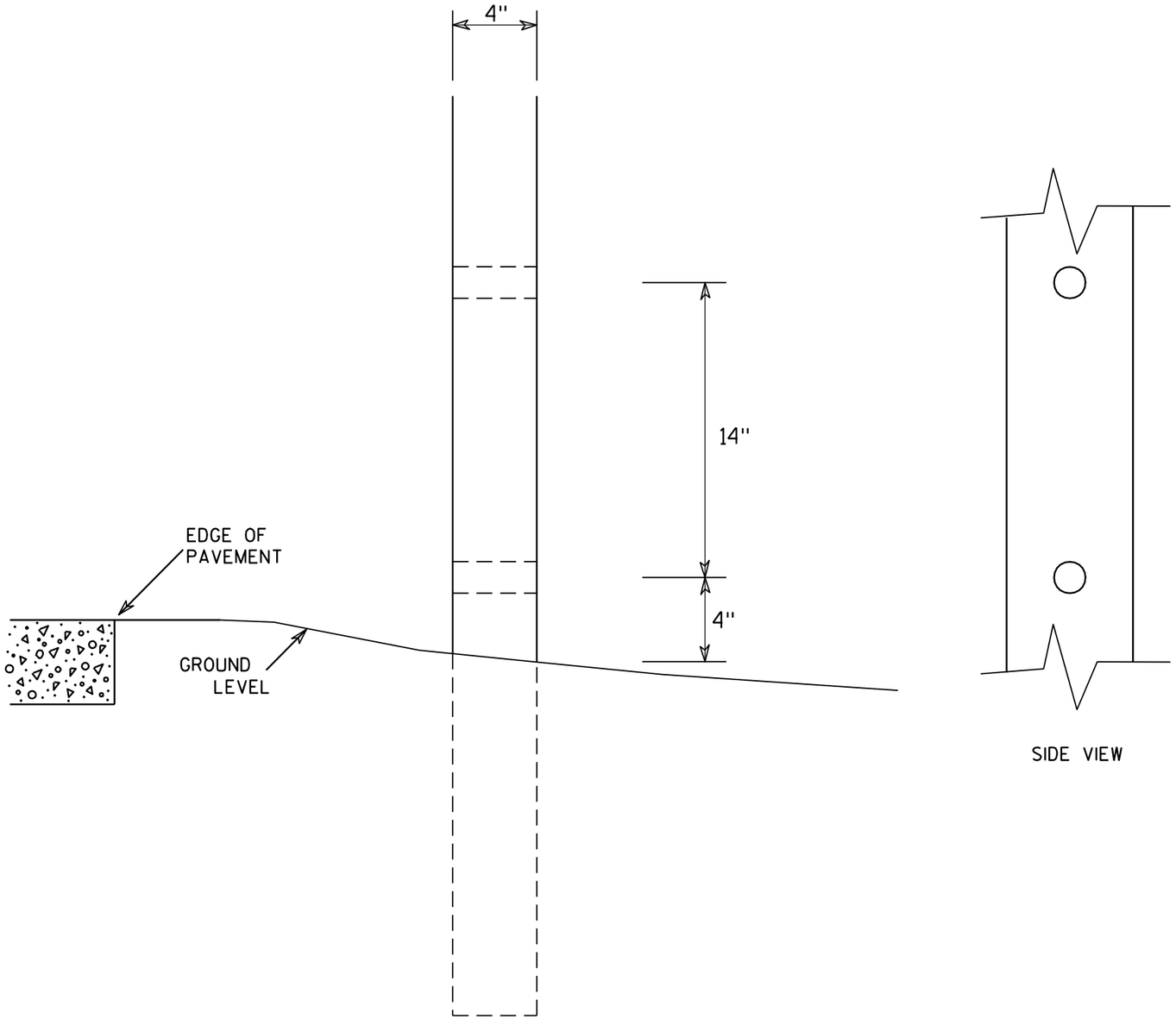
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 377 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

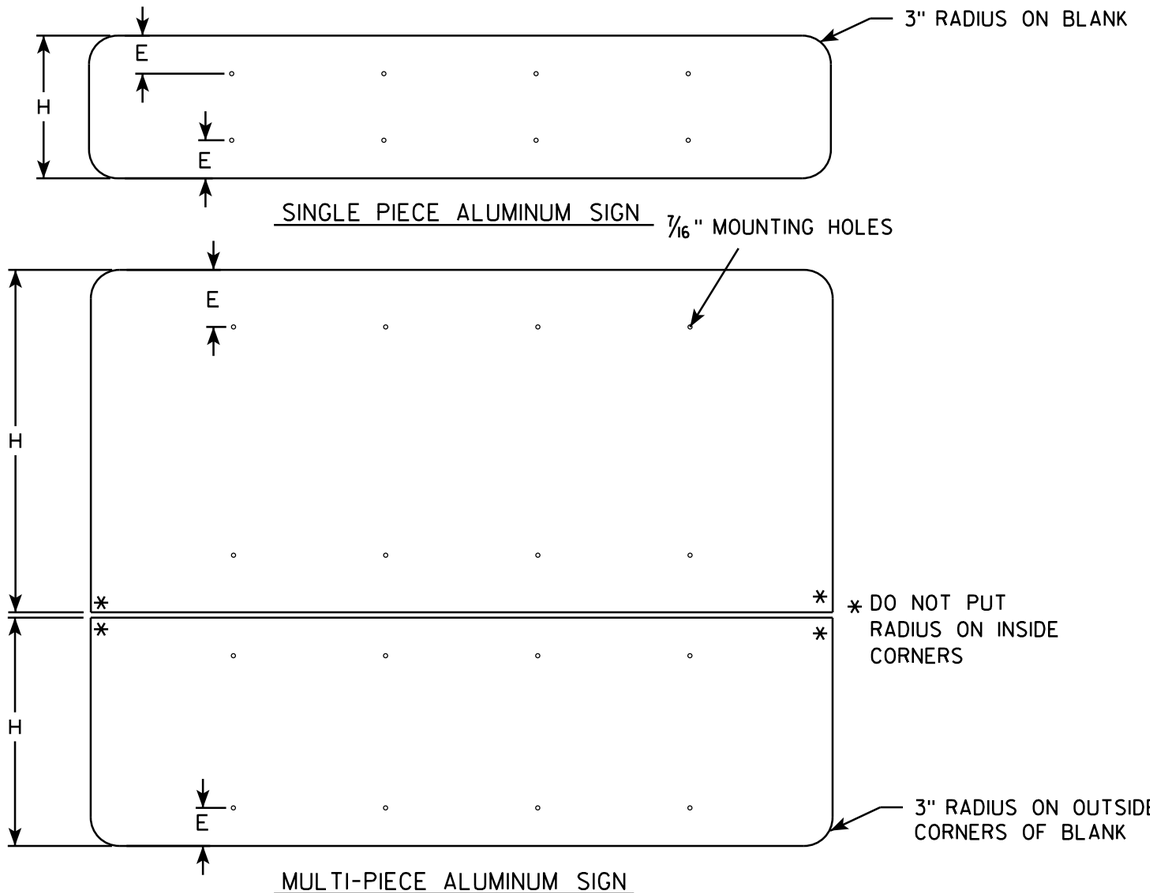
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

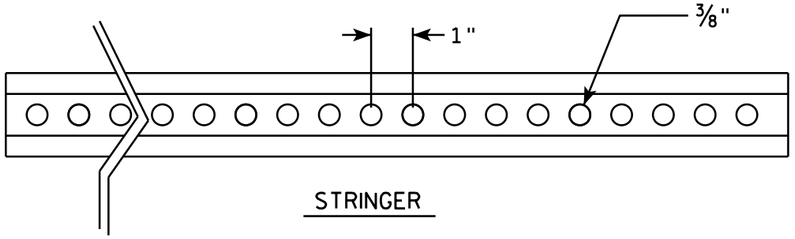
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 378	E



GENERAL NOTES

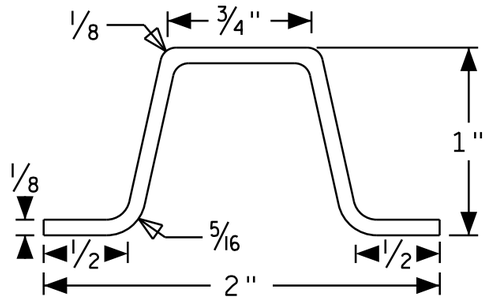
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

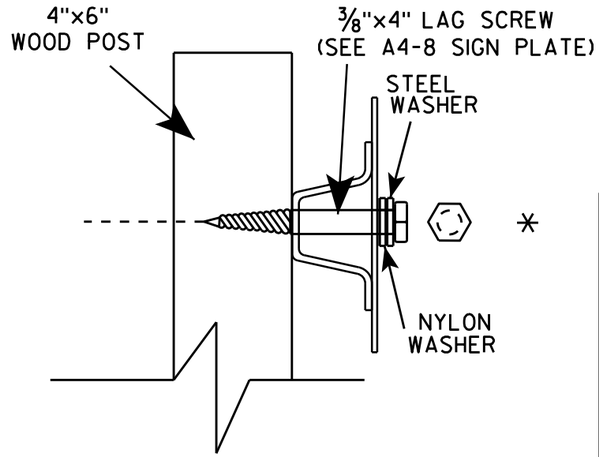


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

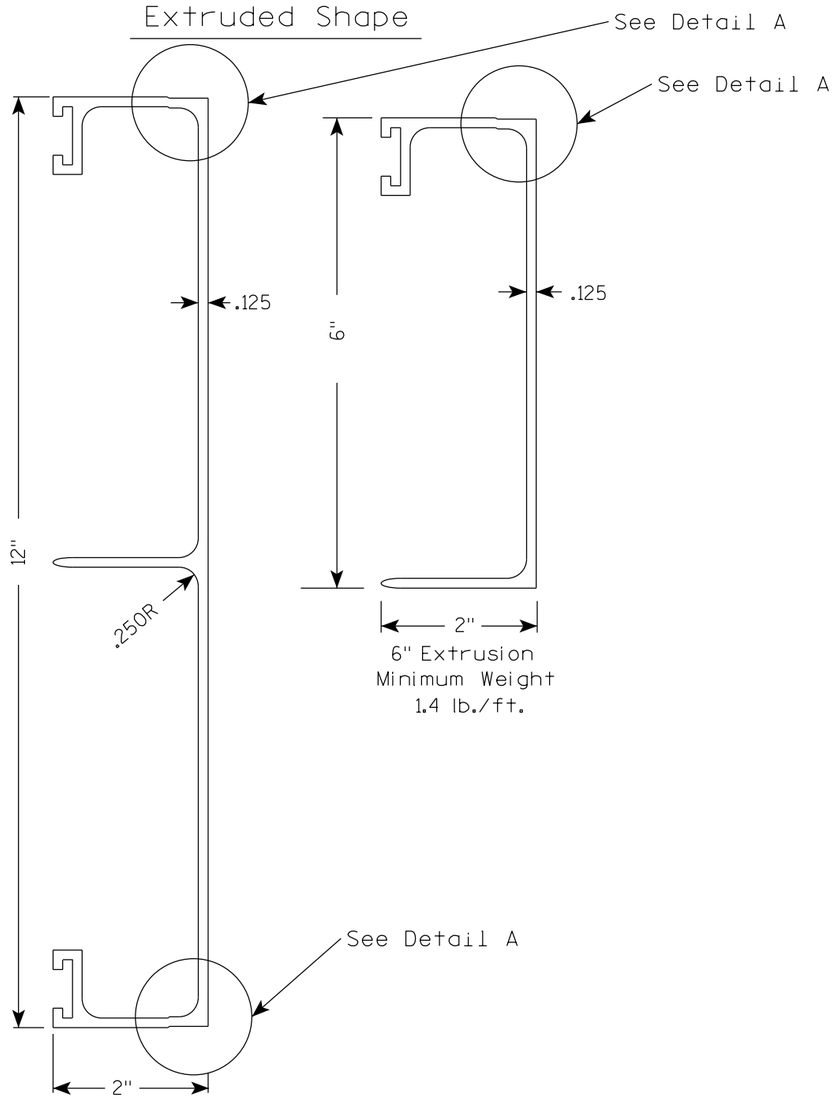
for State Traffic Engineer

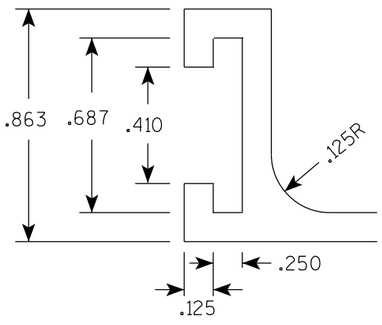
DATE 4/26/16 PLATE NO A4-18.1

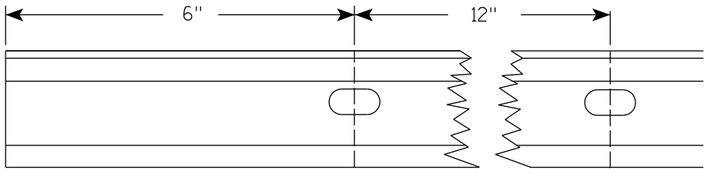
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







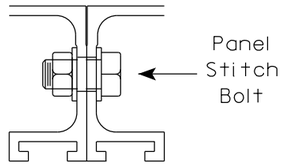
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

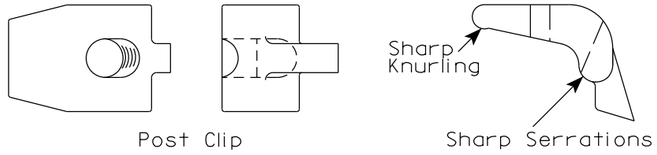
The hardware includes:

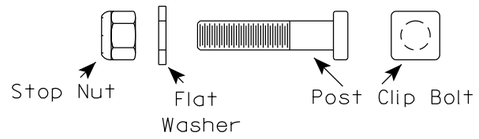
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

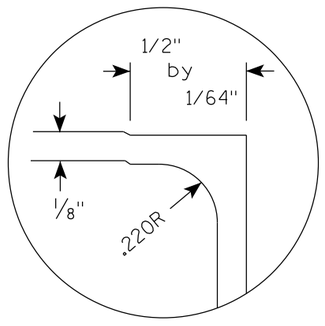
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

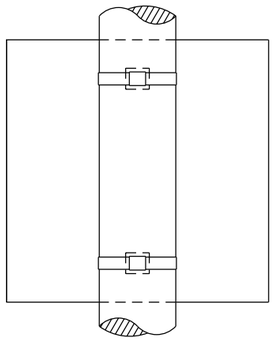
DATE 1/07/20 PLATE NO. A5-2.10

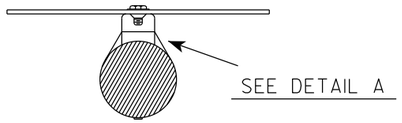
PROJECT NO:

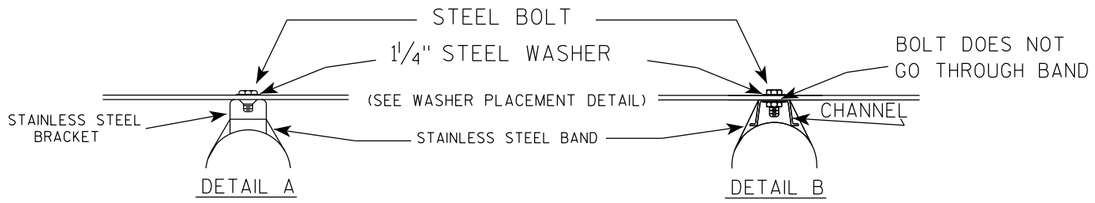
SHEET NO: 380 E

BANDING

SINGLE SIGN



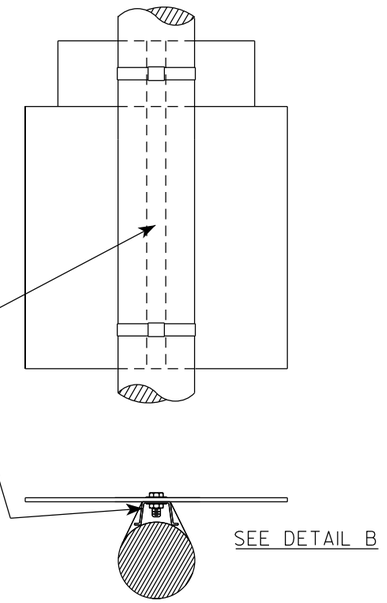




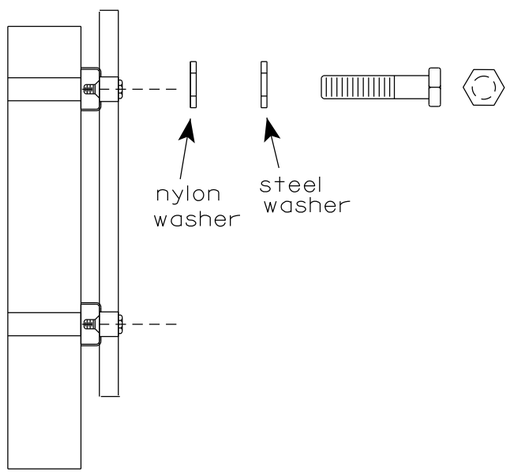
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

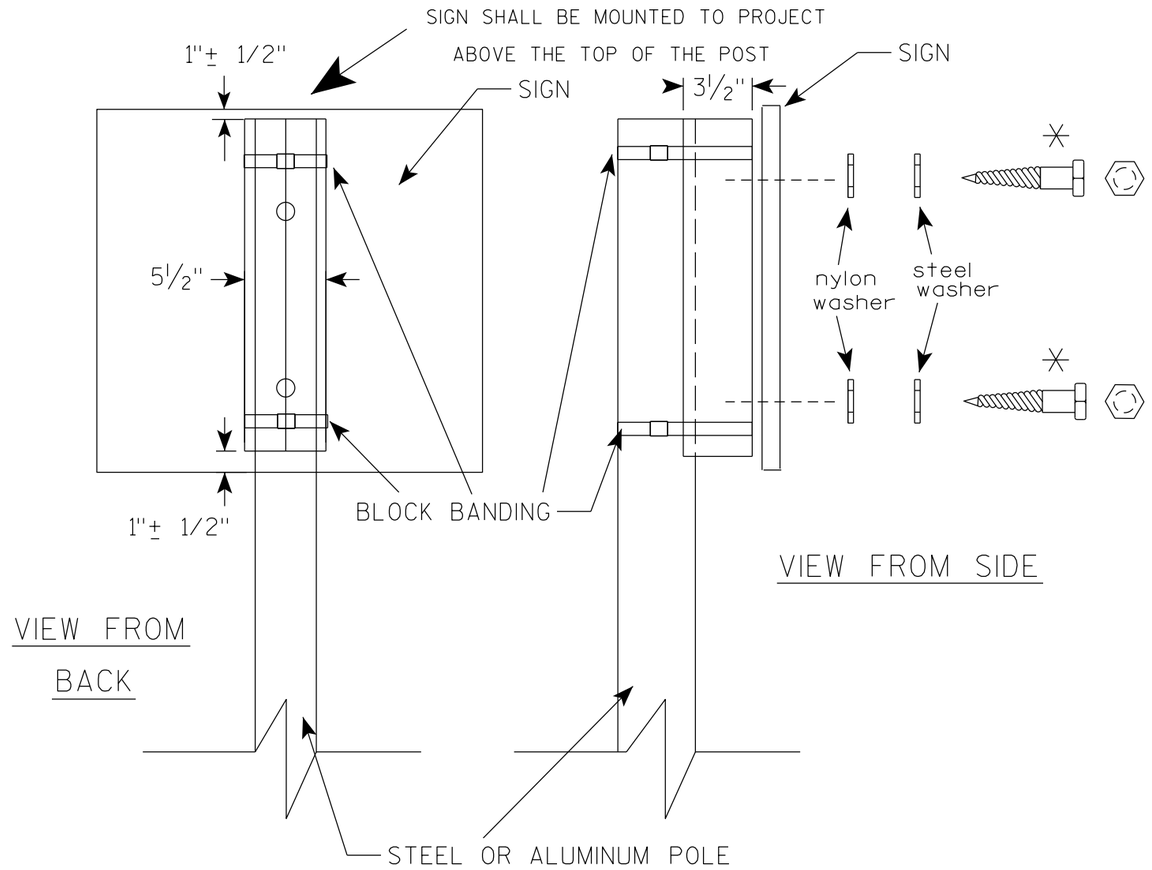
DATE 6/10/19 PLATE NO. A5-9.4

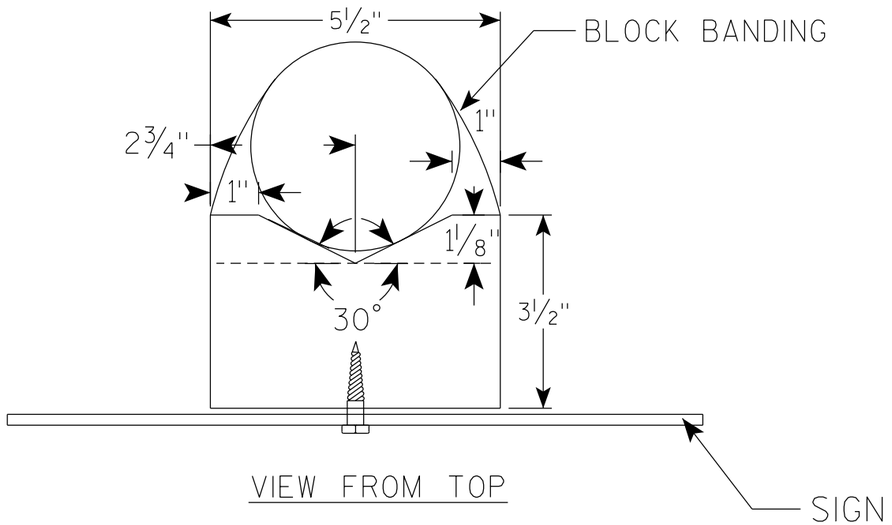
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 381	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

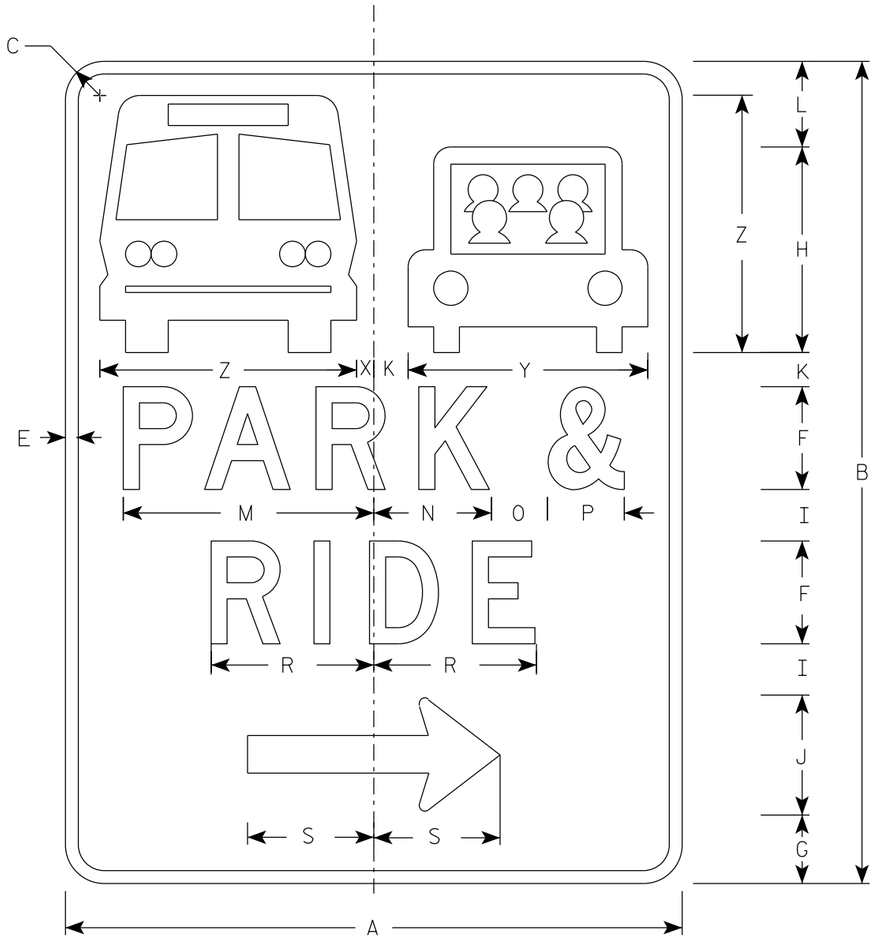
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

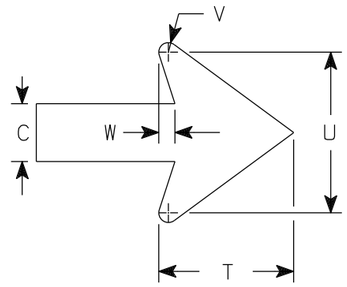
SHEET NO: 383 E



D4-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - D
4. The D4-2L is the same as a D4-2R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8		1/2	4	1 5/8	7 1/2	1 1/2	4 5/8	1 3/8	3 7/8	9 3/4	4	2 3/4	3		6 3/8	4 7/8	3 1/2	4 1/8	1/4	3/8	5/8	9 3/8	10	5.0
2S	30	36	1 3/8		5/8	5	2	9	1 5/8	5 1/2	1 5/8	4 5/8	12 1/4	5 1/8	3 3/8	3 3/4		8	6 1/8	4 3/8	5 1/4	3/8	1/2	7/8	11 3/4	12 1/2	7.50
2M	30	36	1 3/8		5/8	5	2	9	1 5/8	5 1/2	1 5/8	4 5/8	12 1/4	5 1/8	3 3/8	3 3/4		8	6 1/8	4 3/8	5 1/4	3/8	1/2	7/8	11 3/4	12 1/2	7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8	1	14	15	12.0
4																											
5																											

STANDARD SIGN
D4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/19/2021 PLATE NO. D4-2.6

PROJECT NO:

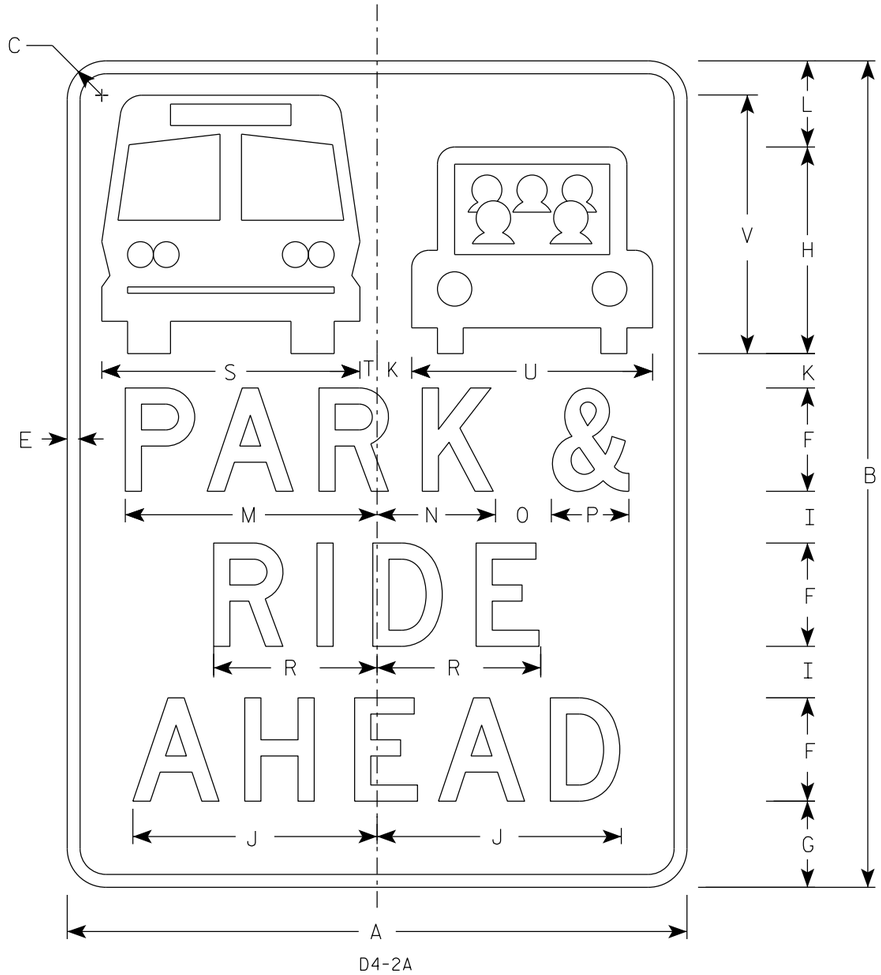
SHEET NO: E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\D42.dgn PLOT DATE : 19-JAN 2021 11:51 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



D4-2A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8		1/2	4	1 3/4	7 1/2	2	9 1/8	1 3/8	3 3/8	9 3/4	4 5/8	2 3/4	3		6 3/8	10	5/8	9 3/8	9 3/8					5.0
2S	30	36	1 3/8		5/8	5	1 7/8	9	2	11 3/8	1 5/8	4 1/2	12 1/4	5 1/8	3 3/8	3 3/4		8	12 1/2	7/8	11 3/4	12					7.5
2M	30	36	1 3/8		5/8	5	1 7/8	9	2	11 3/8	1 5/8	4 1/2	12 1/4	5 1/8	3 3/8	3 3/4		8	12 1/2	7/8	11 3/4	12					7.5
3	36	48	2 1/4		3/4	6	5	12	3	14 1/4	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	15	1	14	15					12.0
4																											
5																											

STANDARD SIGN
D4-2A

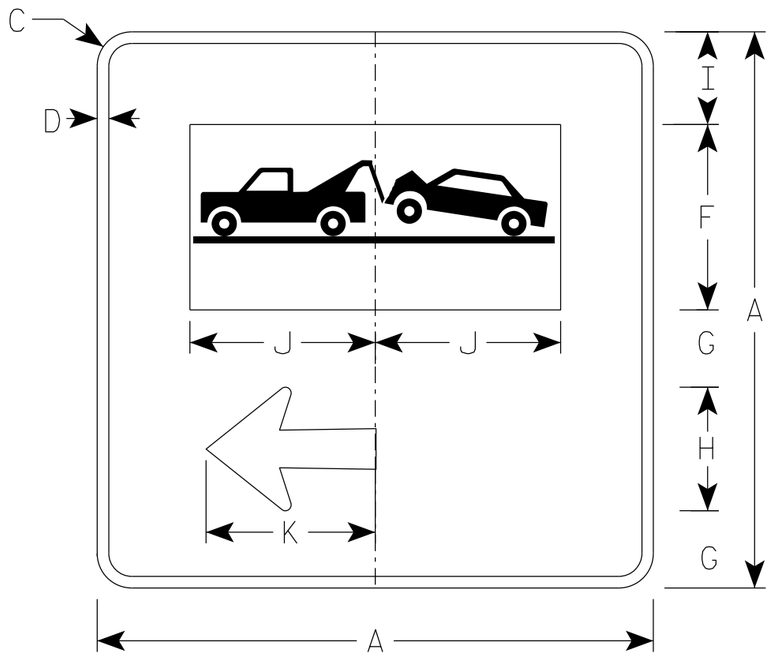
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/19/2021 PLATE NO. D4-2A.3

PROJECT NO:

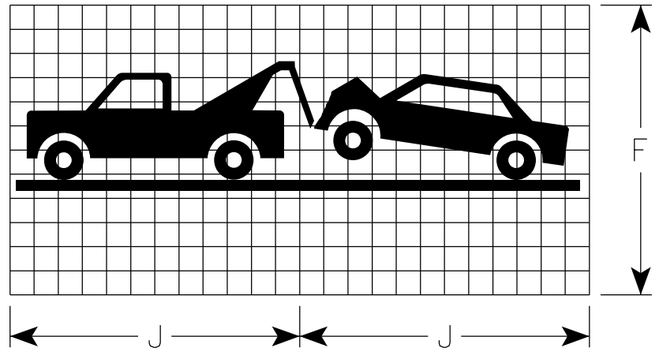
SHEET NO: 385 **E**



D4-55L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLUE
   Message - WHITE
3. Message Series - C
4. D4-55R is same as D4-55L except arrow is reversed.
5. Arrow is from A1-2 Lower Case 4½ Series D & E



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		2 1/4	3/4		12	5	8	6	12	11																9.0
2M	36		2 1/4	3/4		12	5	8	6	12	11																9.0
3																											
4																											
5																											

STANDARD SIGN
D4-55 L & R

WISCONSIN DEPT OF TRANSPORTATION

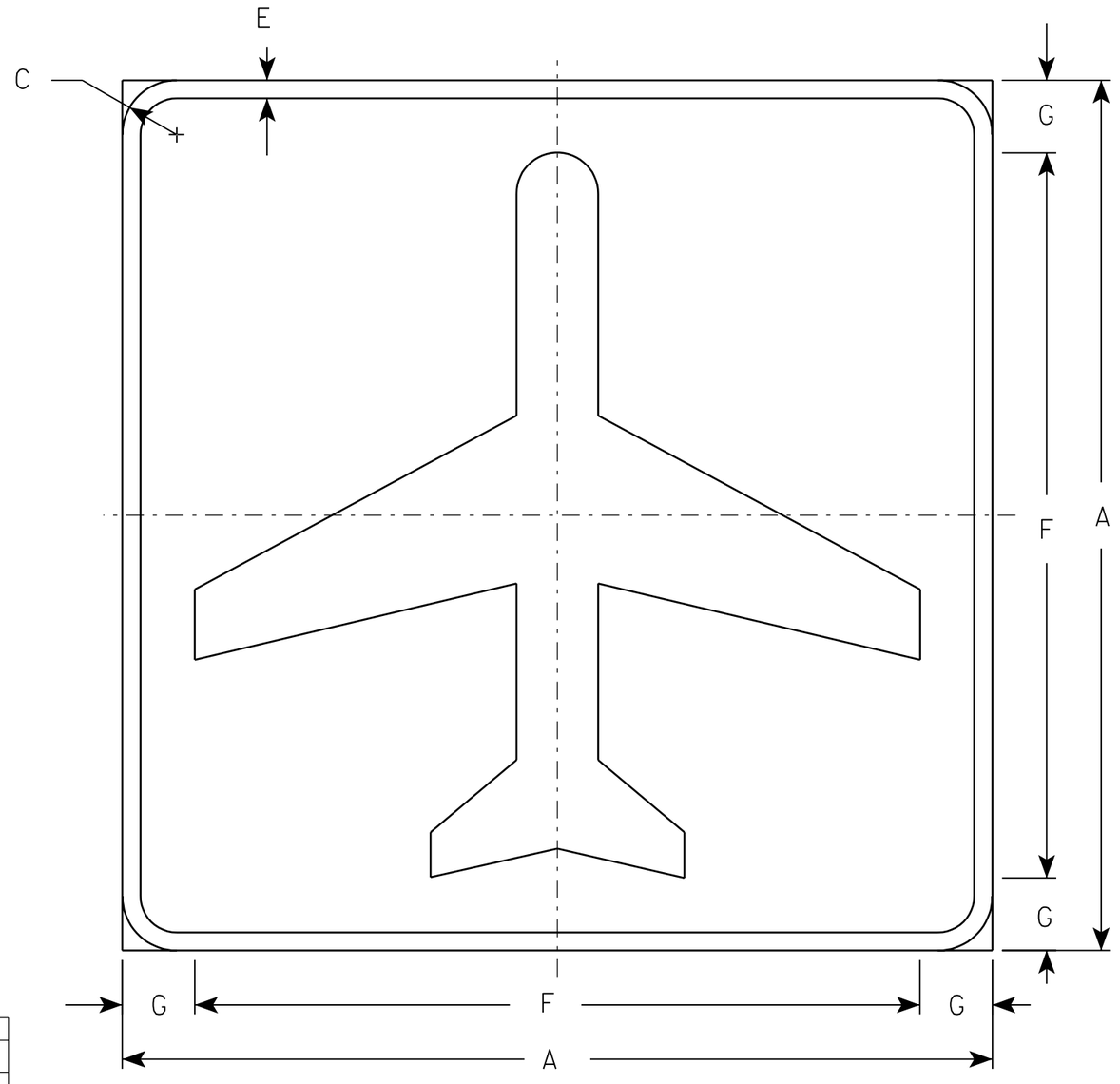
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2021 PLATE NO. D4-55.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 385 | E

7

7



I5 - 1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mm X 450 mm
2	600 mm X 600 mm
3	750 mm X 750 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	18		1 1/8		3/8	15	1 1/2																				2.25	0.20
2	24		1 1/2		1/2	20	2																				4.0	0.37
3	30		2 1/4		3/4	25	2 1/2																				6.25	0.58
4																												
5																												

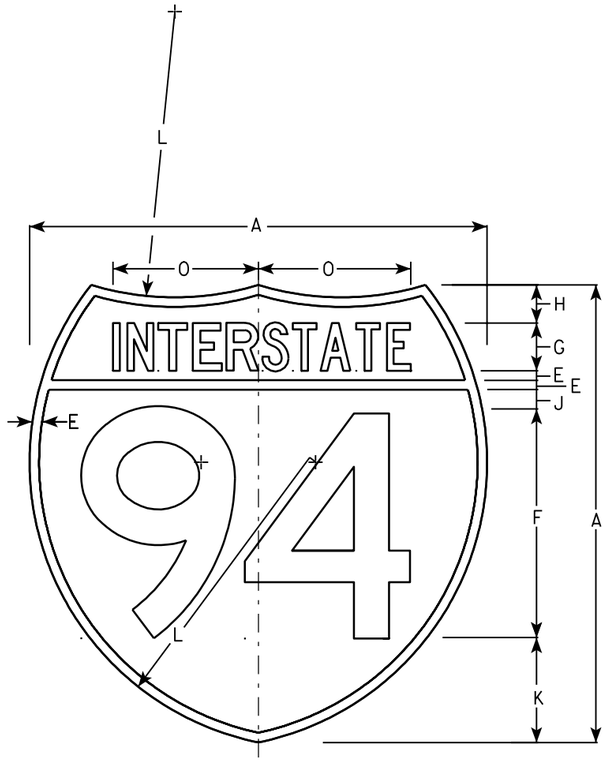
STANDARD SIGN
I5-1

WISCONSIN DEPT OF TRANSPORTATION

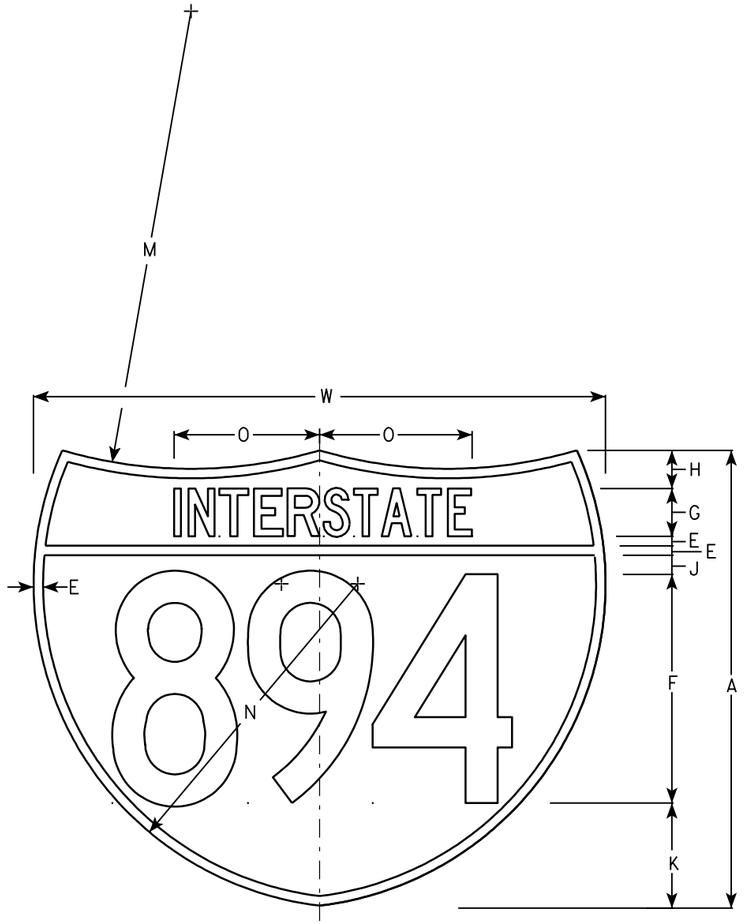
APPROVED Chester J Spang for State Traffic Engineer

DATE 1/25/02 PLATE NO. I5-1.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

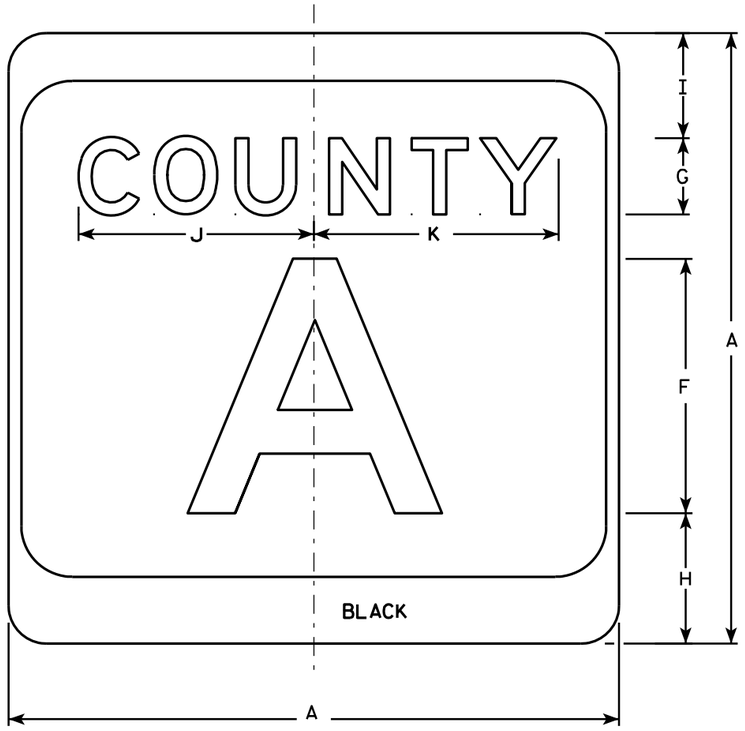
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

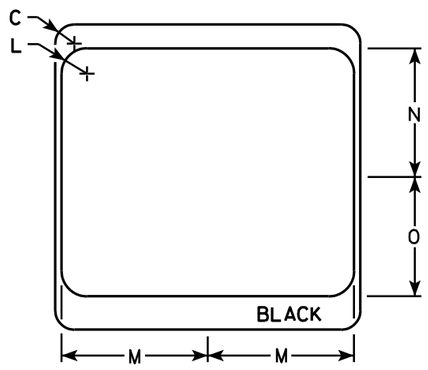
APPROVED Matthew R Rauch
for State Traffic Engineer

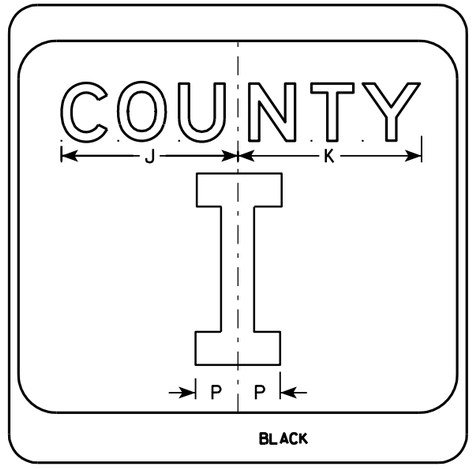
DATE 08/23/05 PLATE NO. M1-1.8

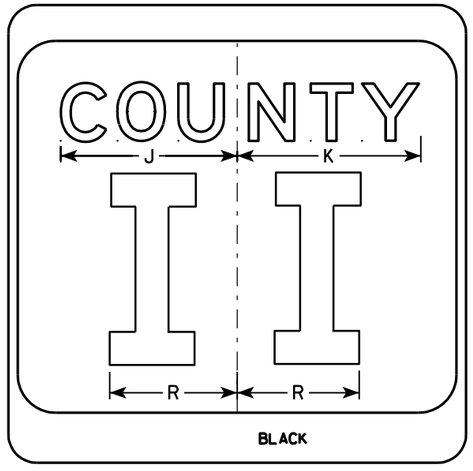
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

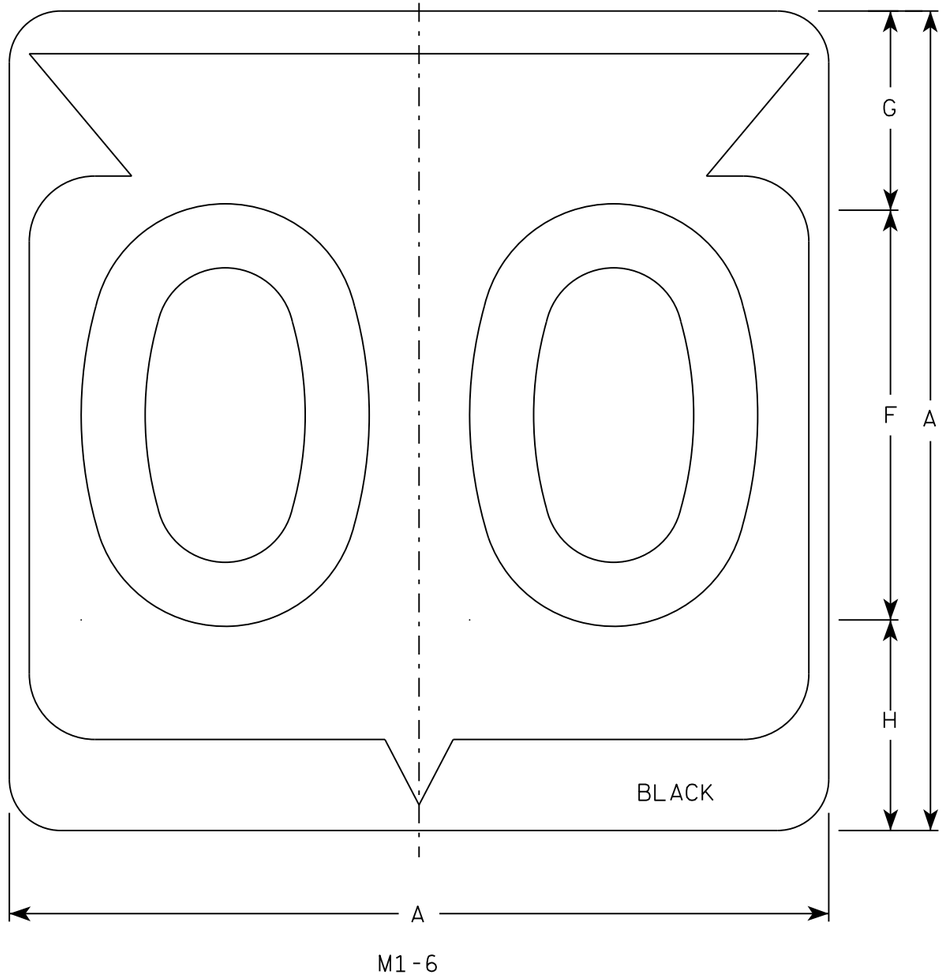
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

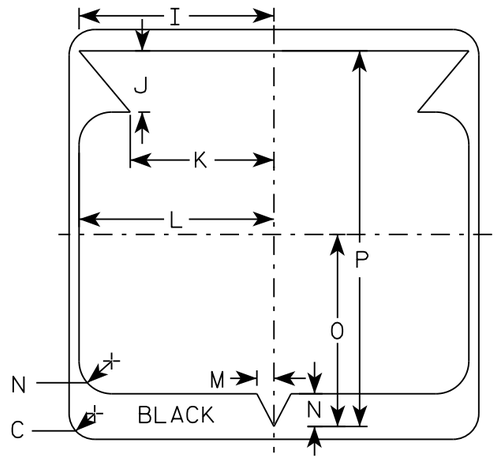
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 389 | E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

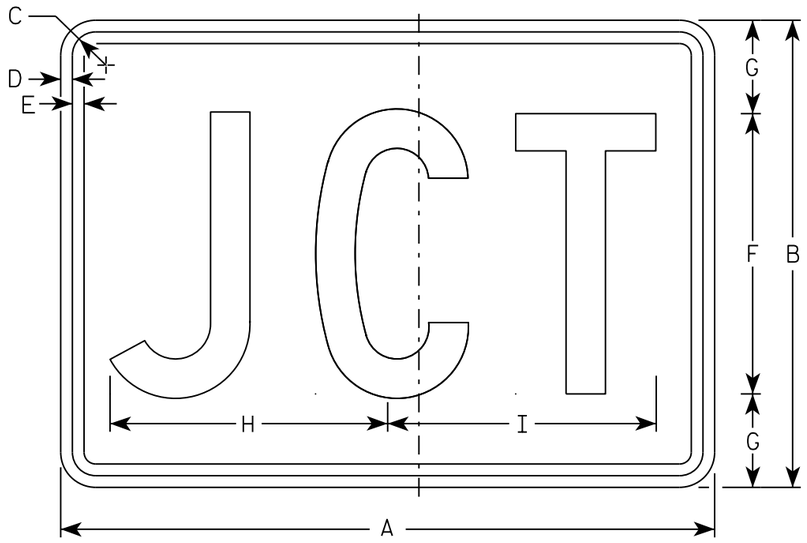
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

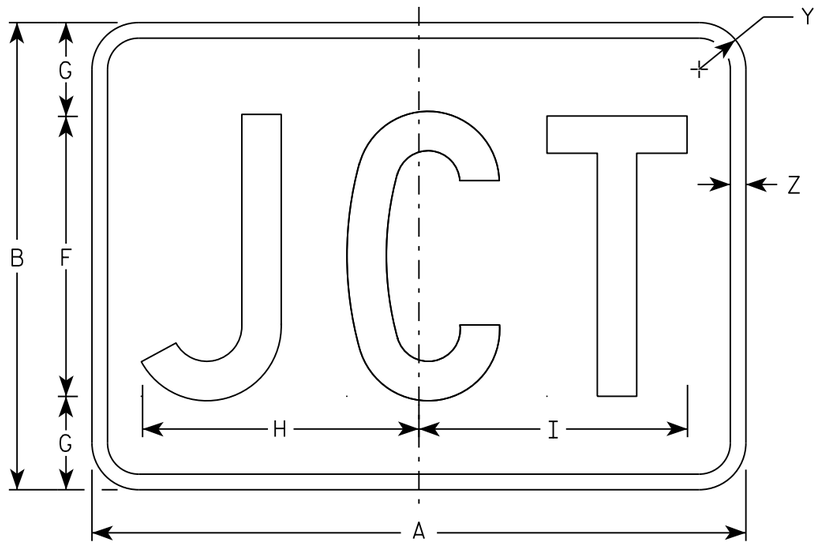
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 390	E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

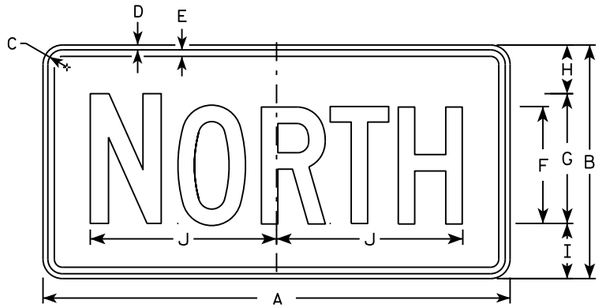
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

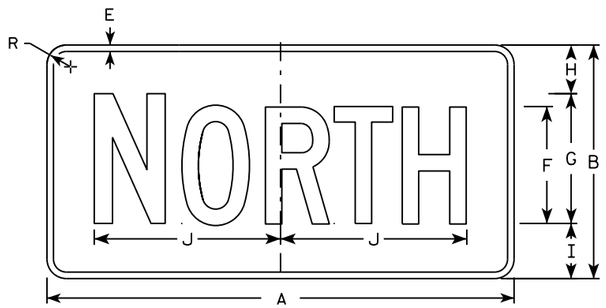
DATE 10/15/15 PLATE 391 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



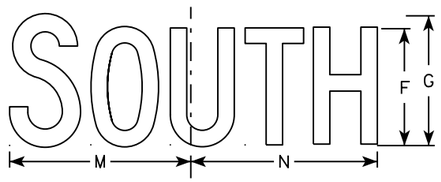
M3-1
MM3-1
MP3-1



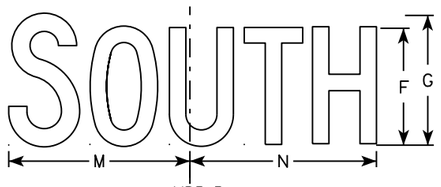
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

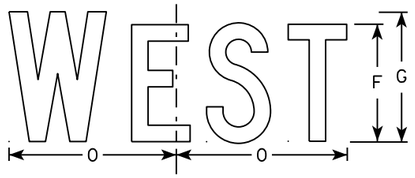
MB3-2
MK3-2
MN3-2



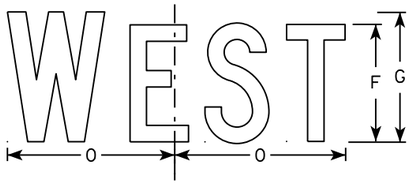
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

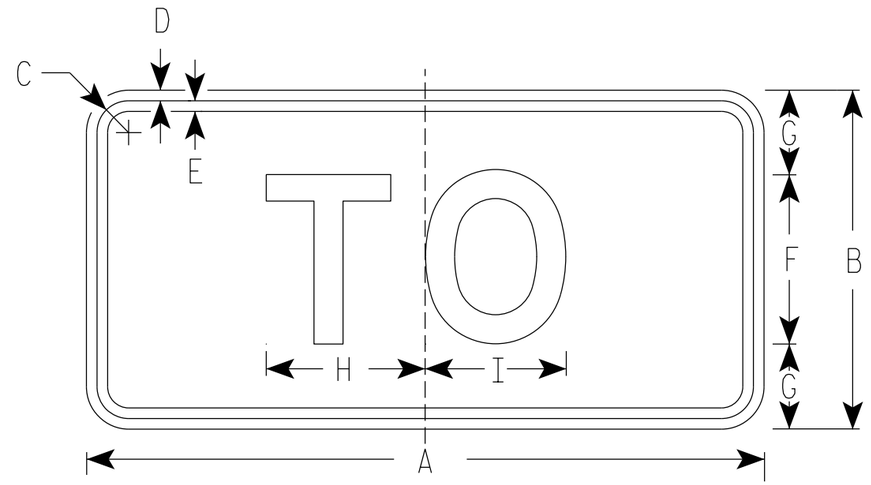
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

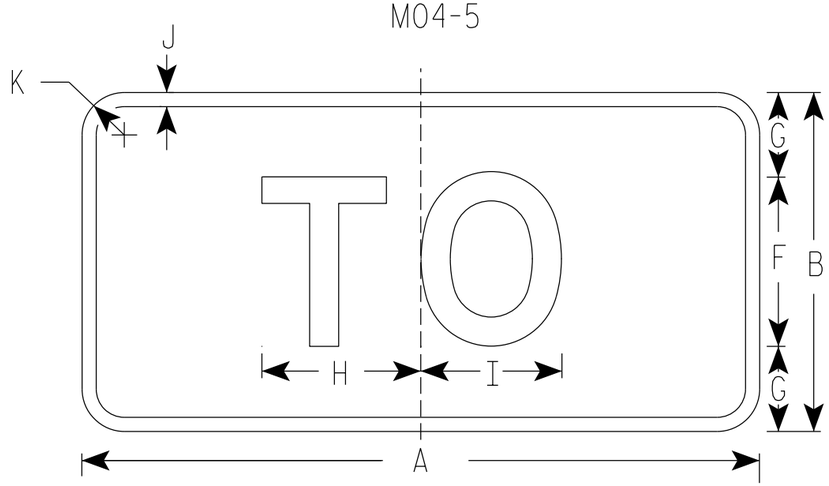
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

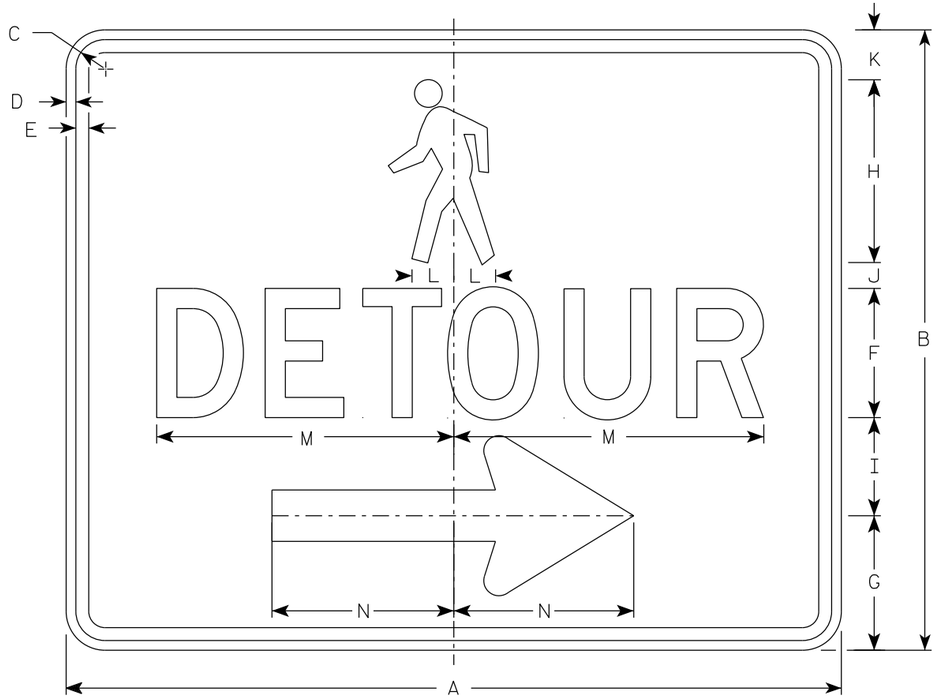
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 392 | E

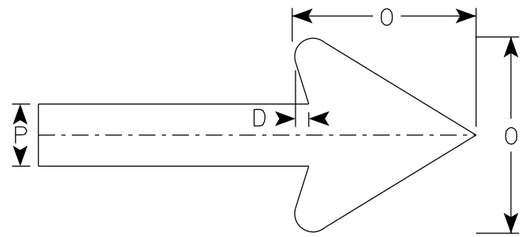
7



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

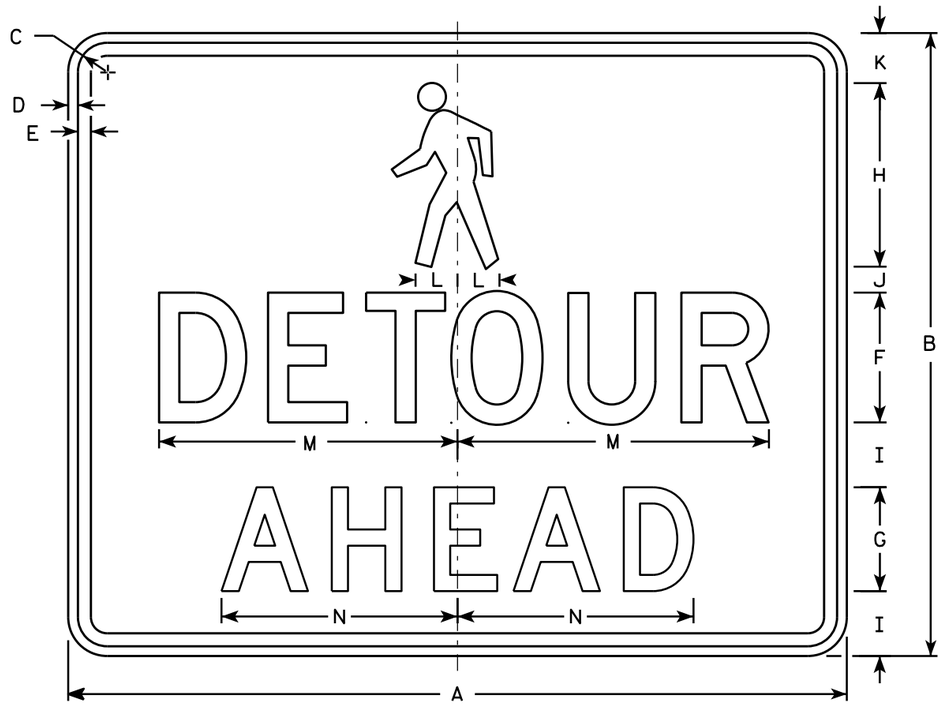
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/1/19 PLATE NO. M4-9B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 393 | E



M4-9BA

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7 1/8	2 1/2	1	1 7/8	1 5/8	11 3/4	9 1/8													5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9BA

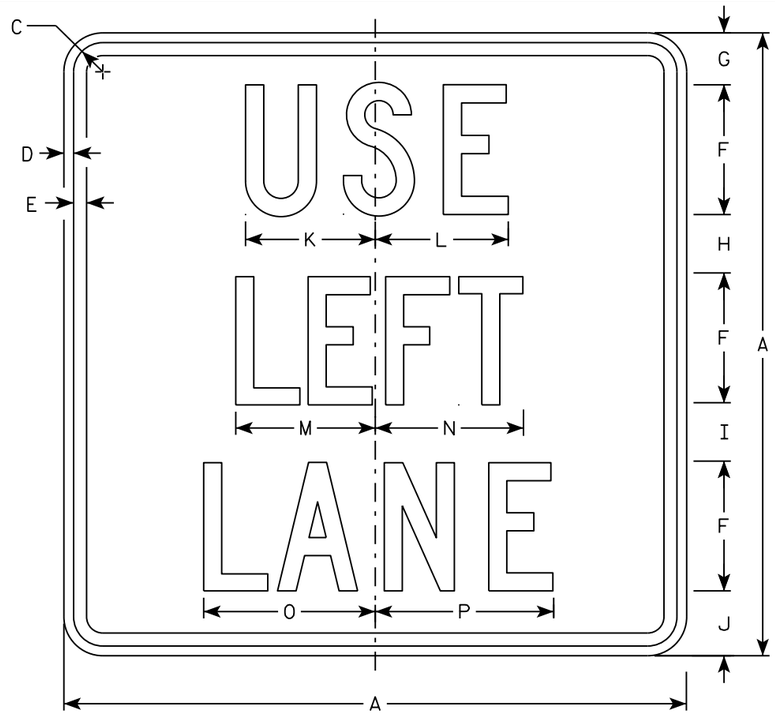
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/16 PLATE NO. M4-9BA.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

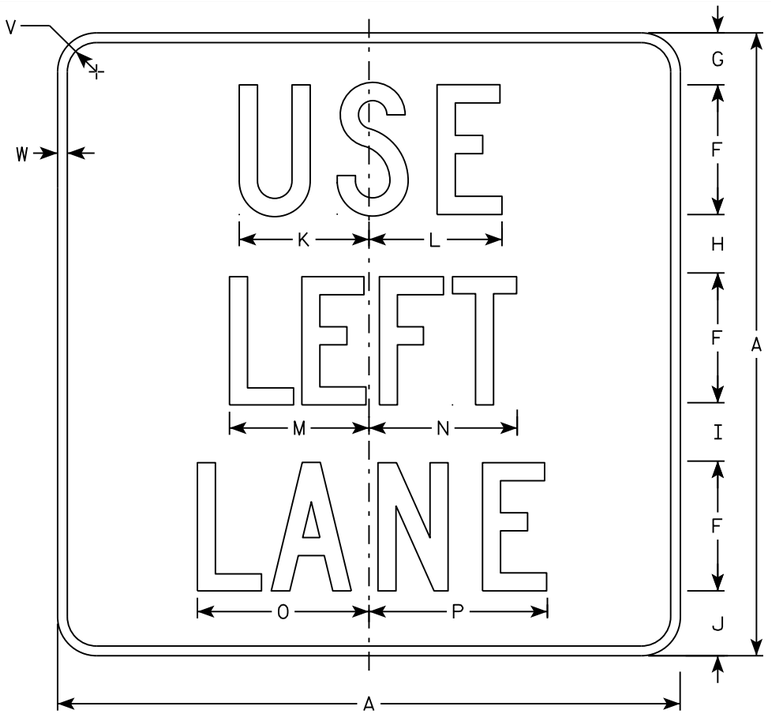
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M49BA.dgn PLOT DATE : 24-MAR-2016 14:57 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



M4-20L

A

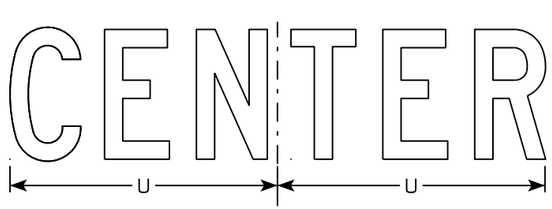
M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L

A

MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

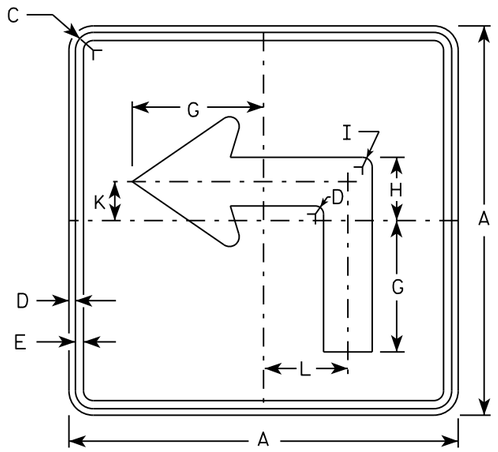
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

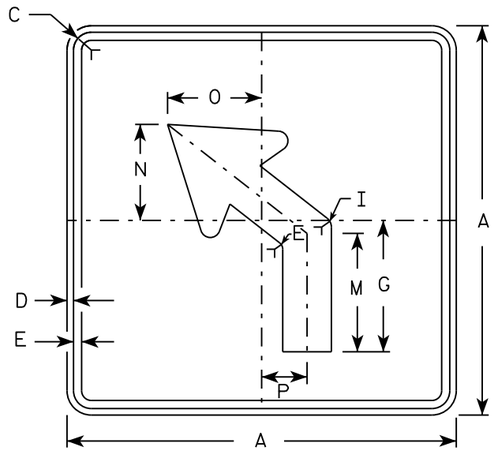
DATE 10/15/15 PLATE NO M4-20.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

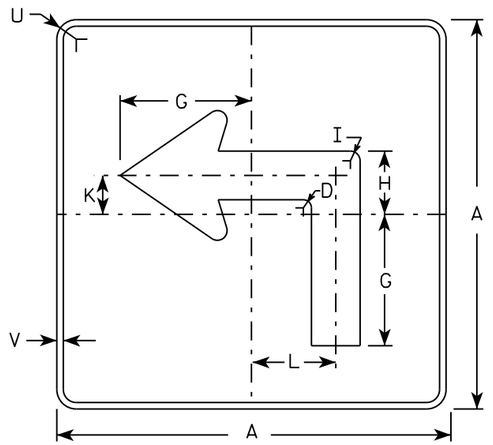
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 01-DEC-2015 18:03 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



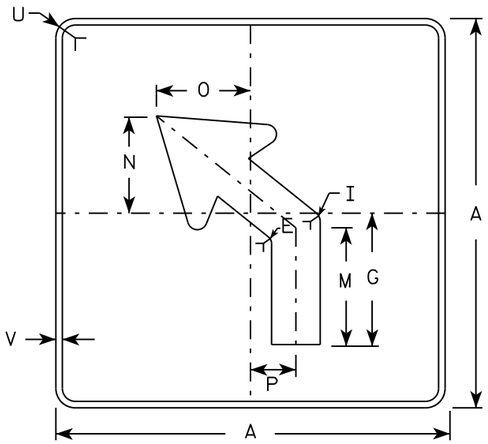
M5-1L
MM5-1L
MO5-1L
MP5-1L



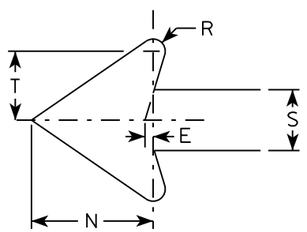
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

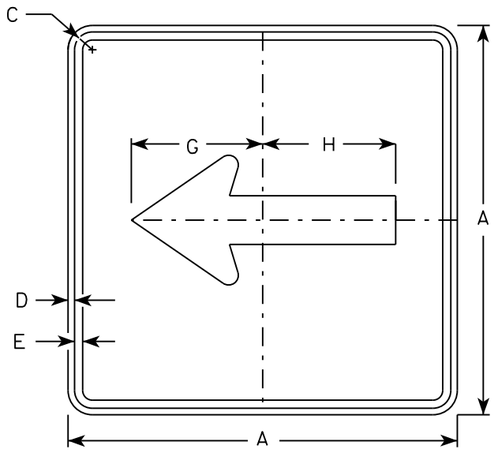
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

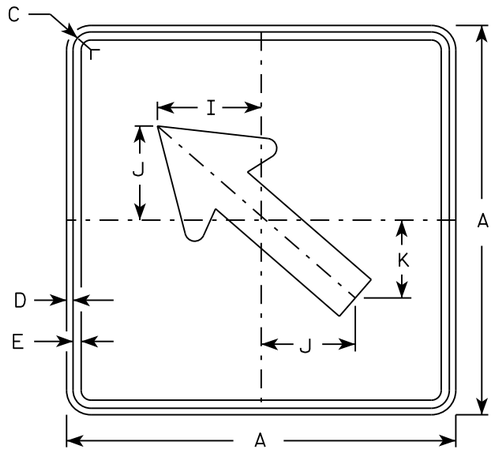
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



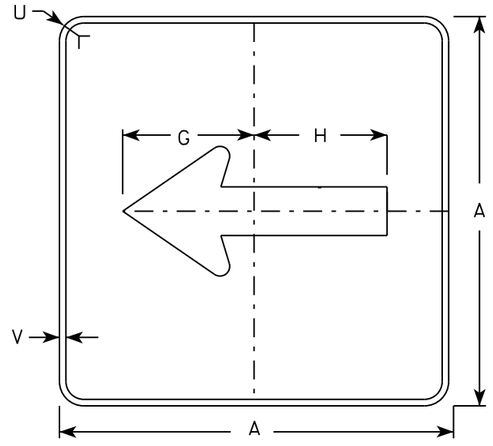
M6-1
MM6-1
MO6-1
MP6-1



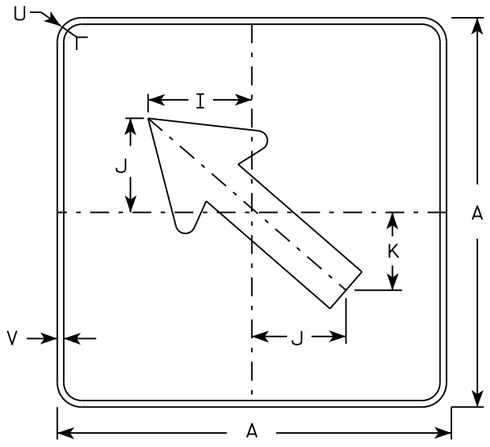
M6-2
MM6-2
MO6-2
MP6-2

NOTES

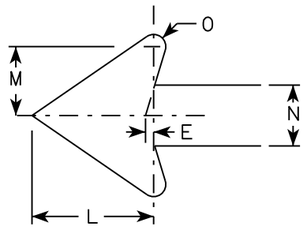
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

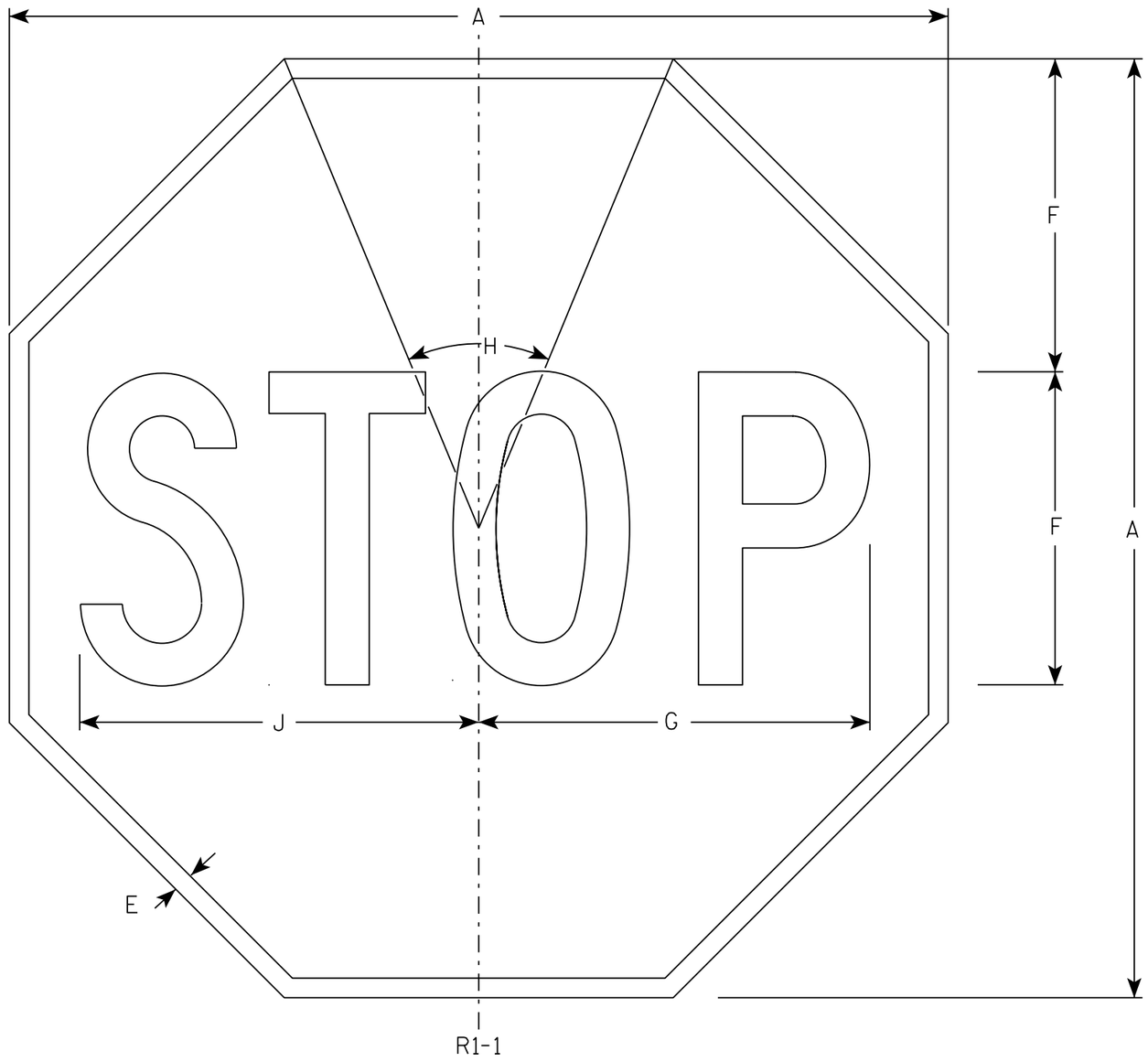
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 398 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

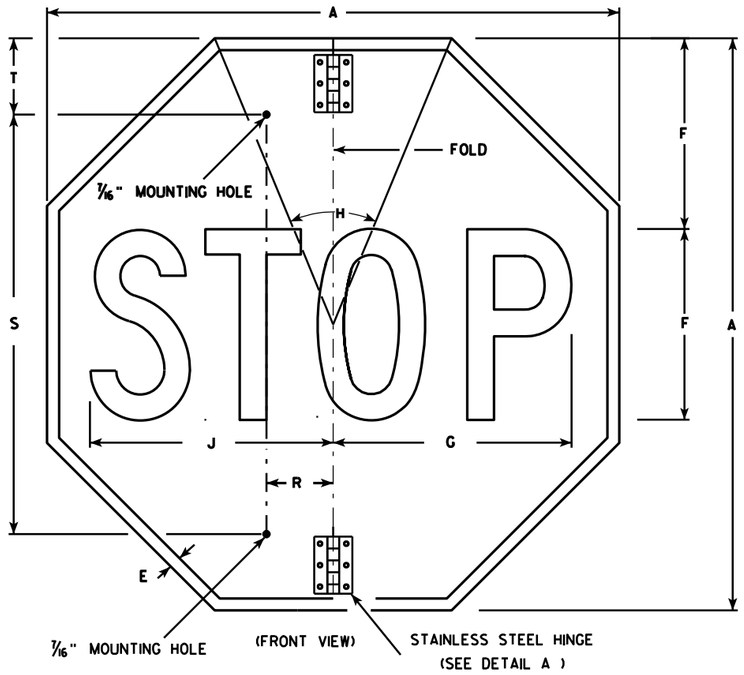
STANDARD SIGN
R1-1

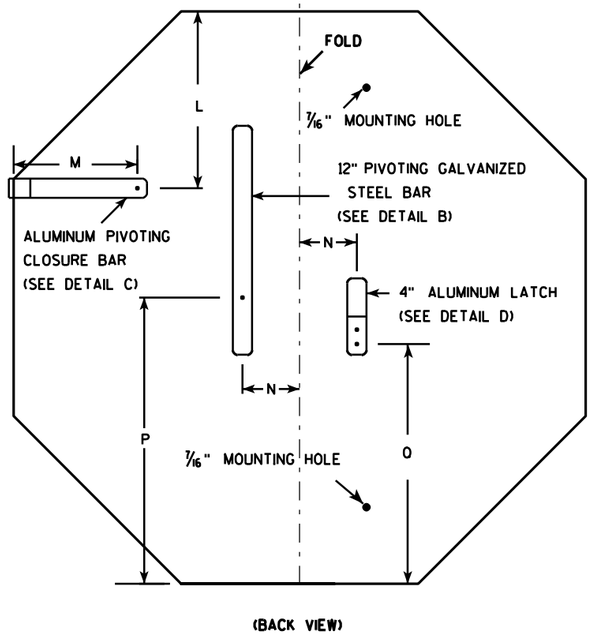
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

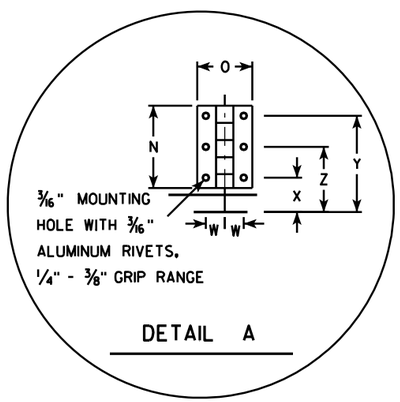
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 399	E



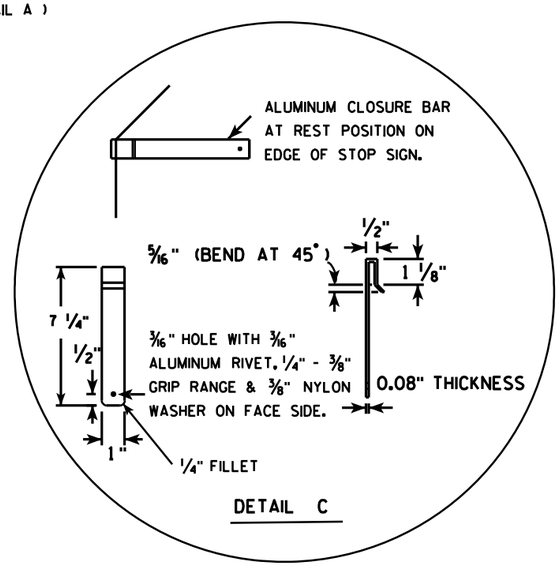


NOTES

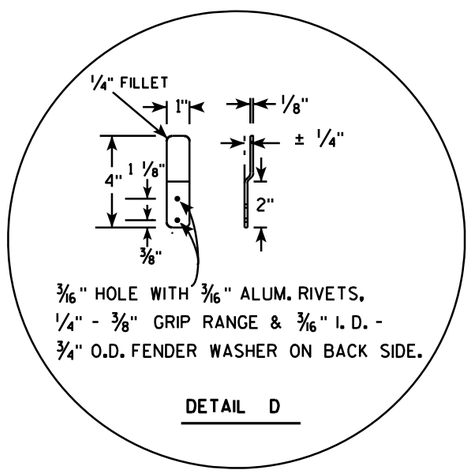
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



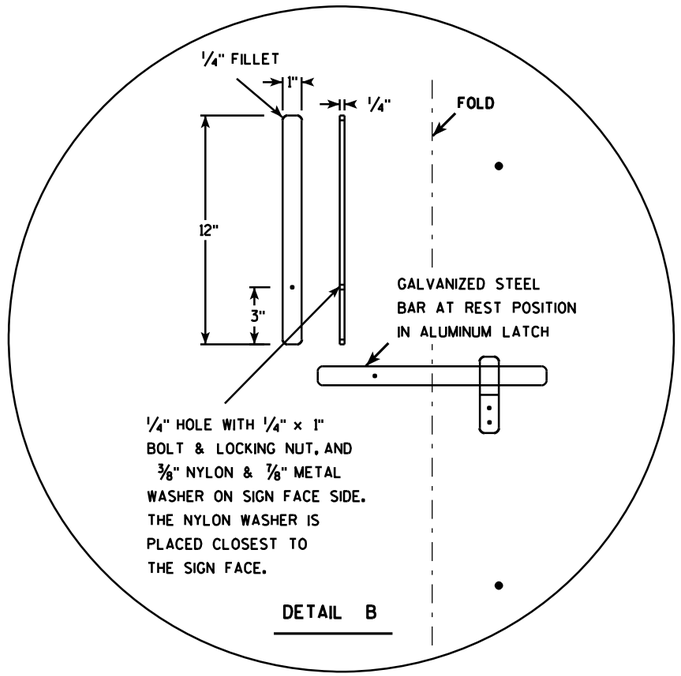
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

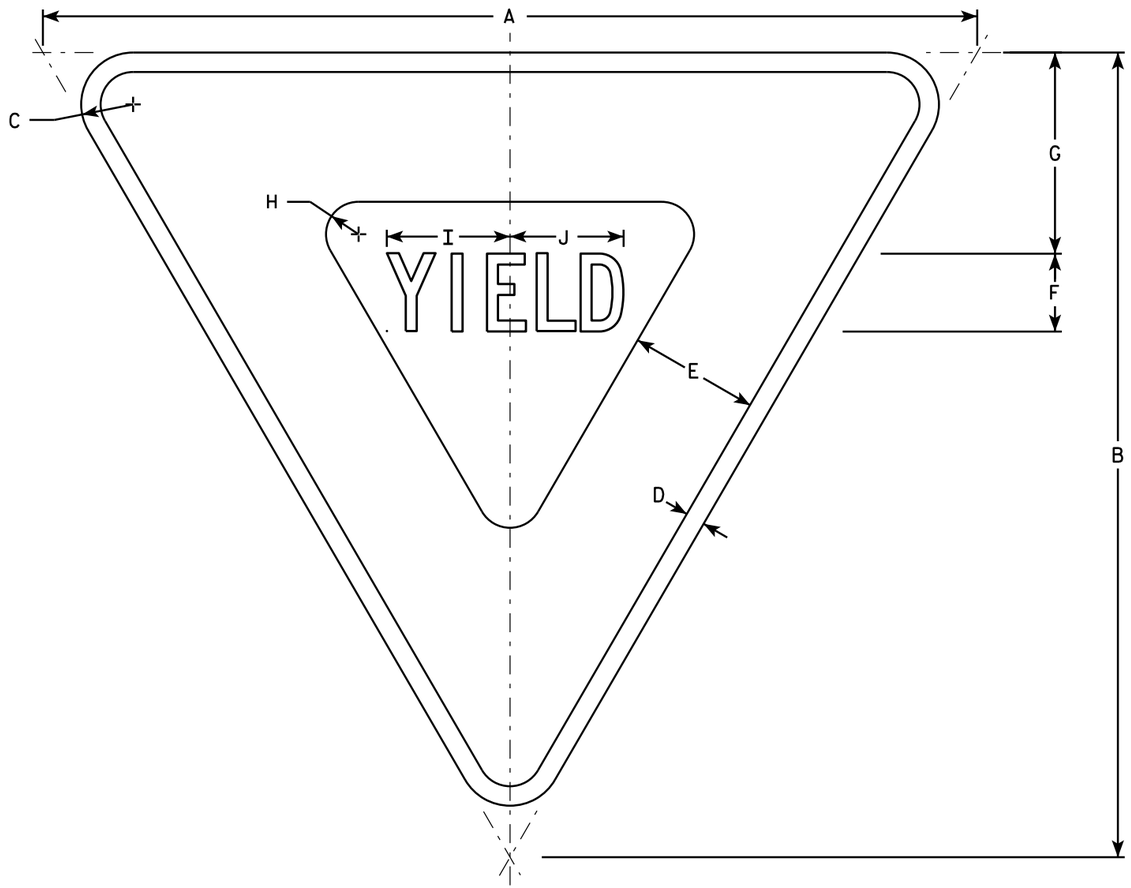
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 400	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

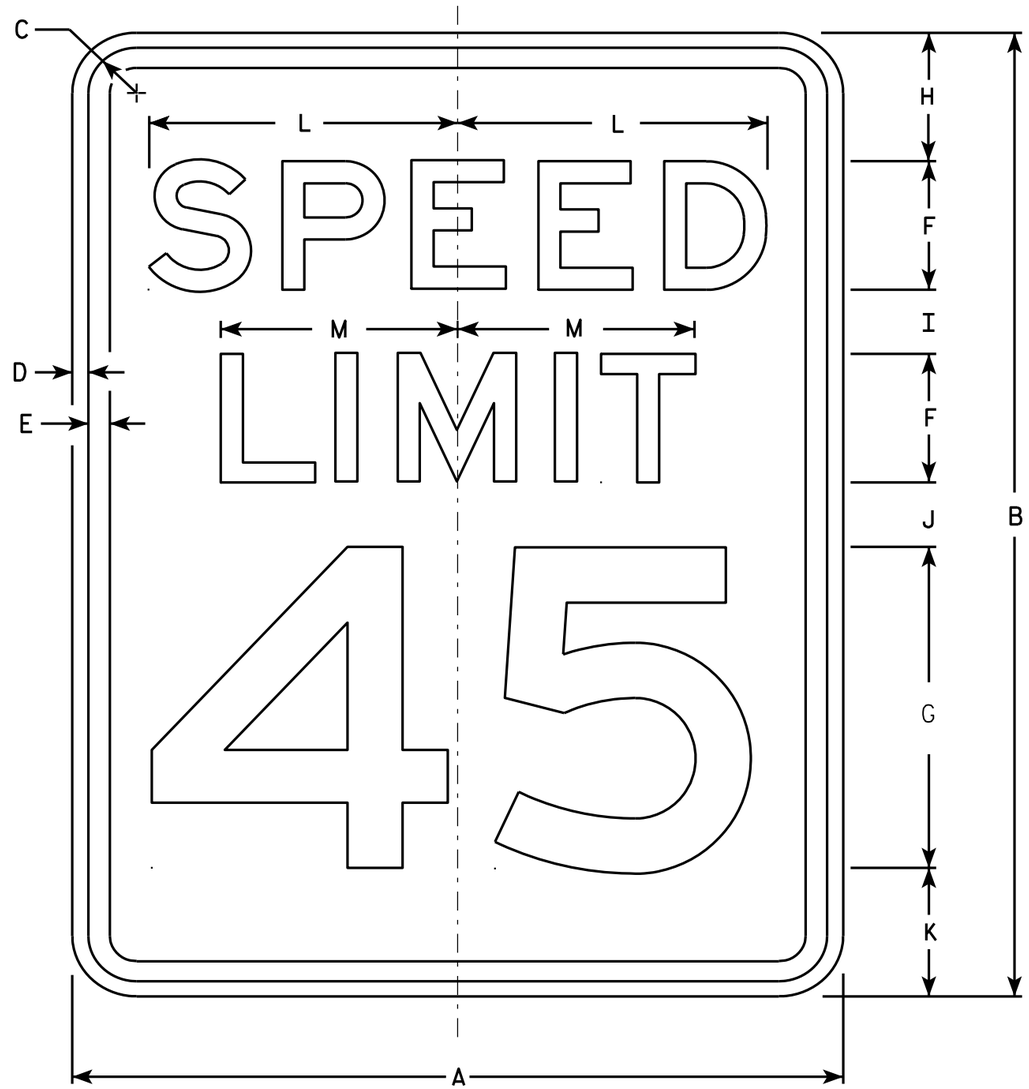
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

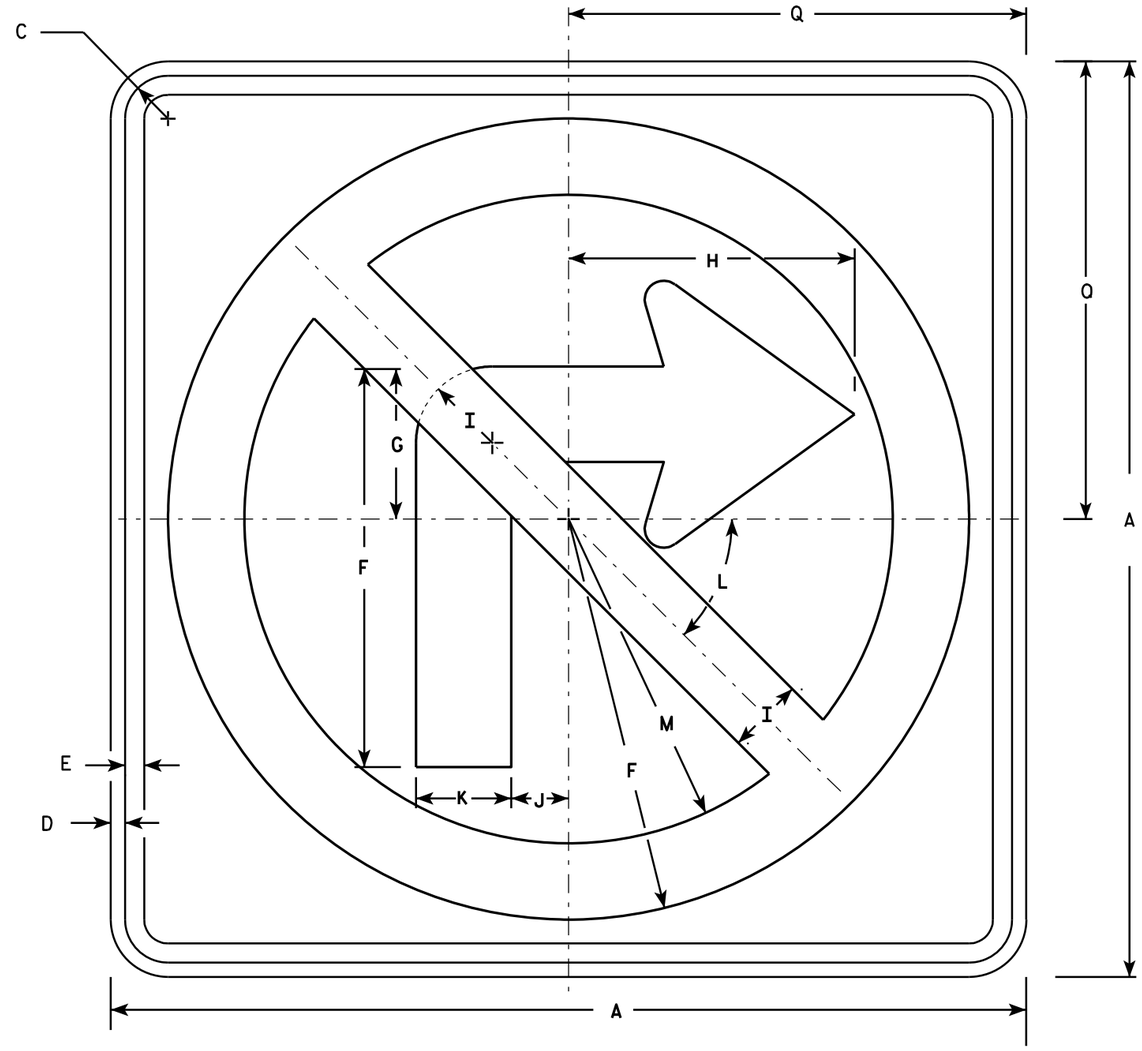
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

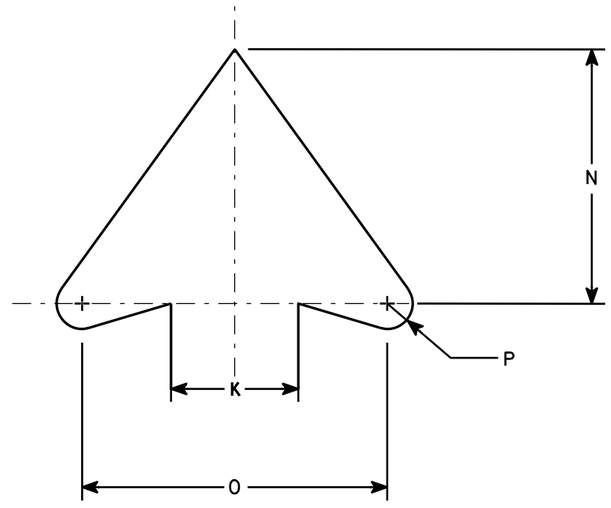
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 402 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

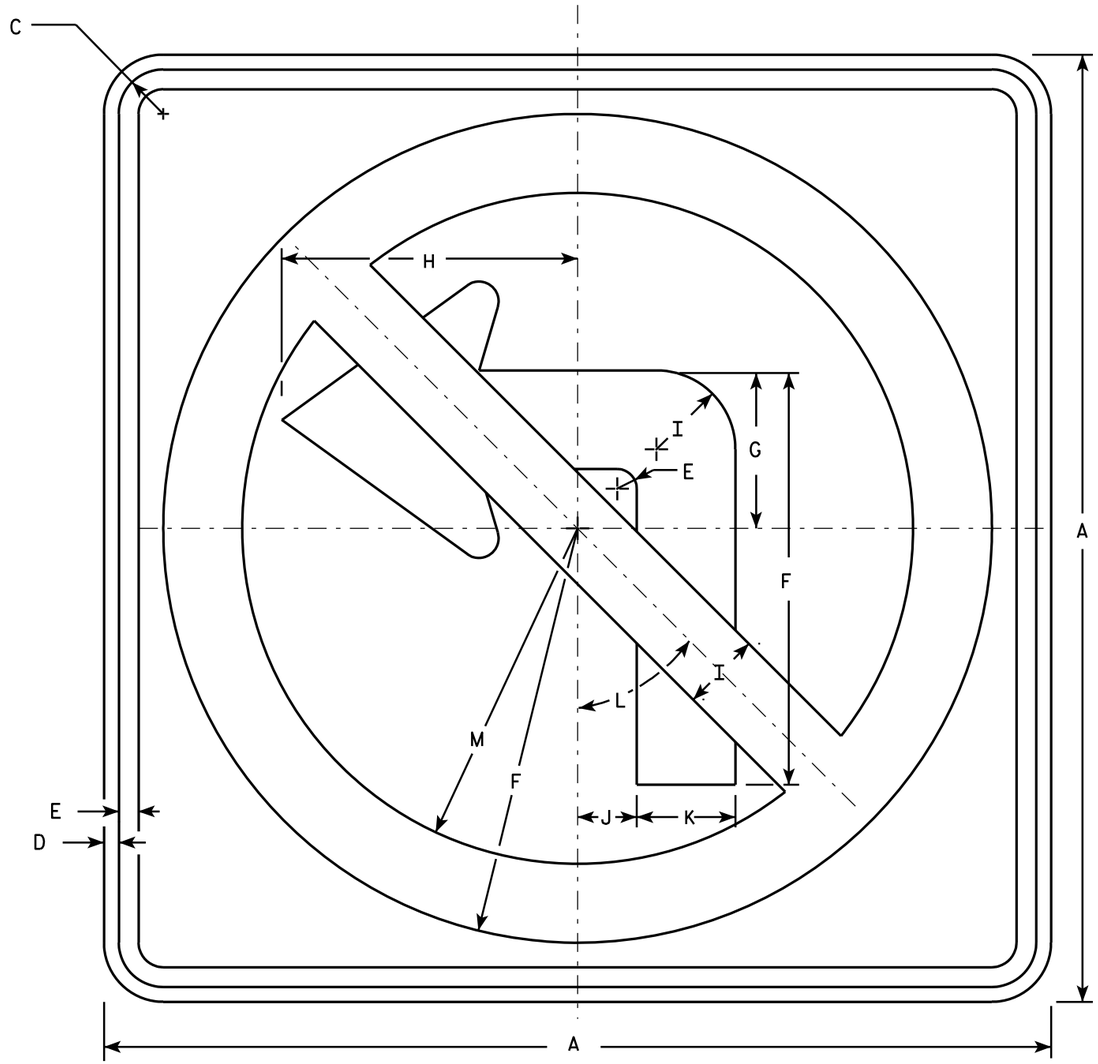
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

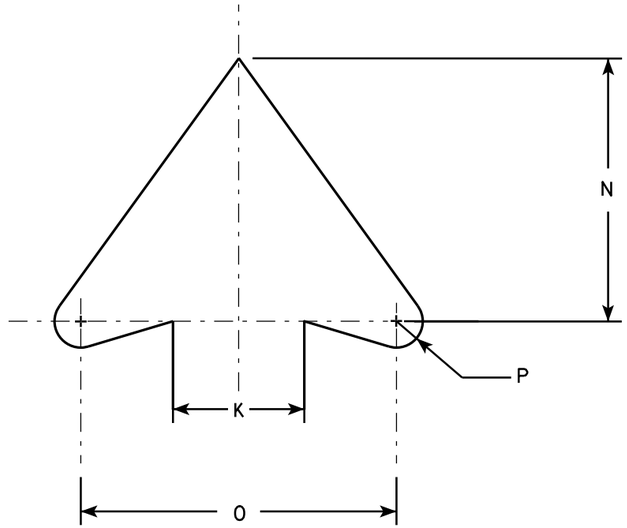
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 403	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

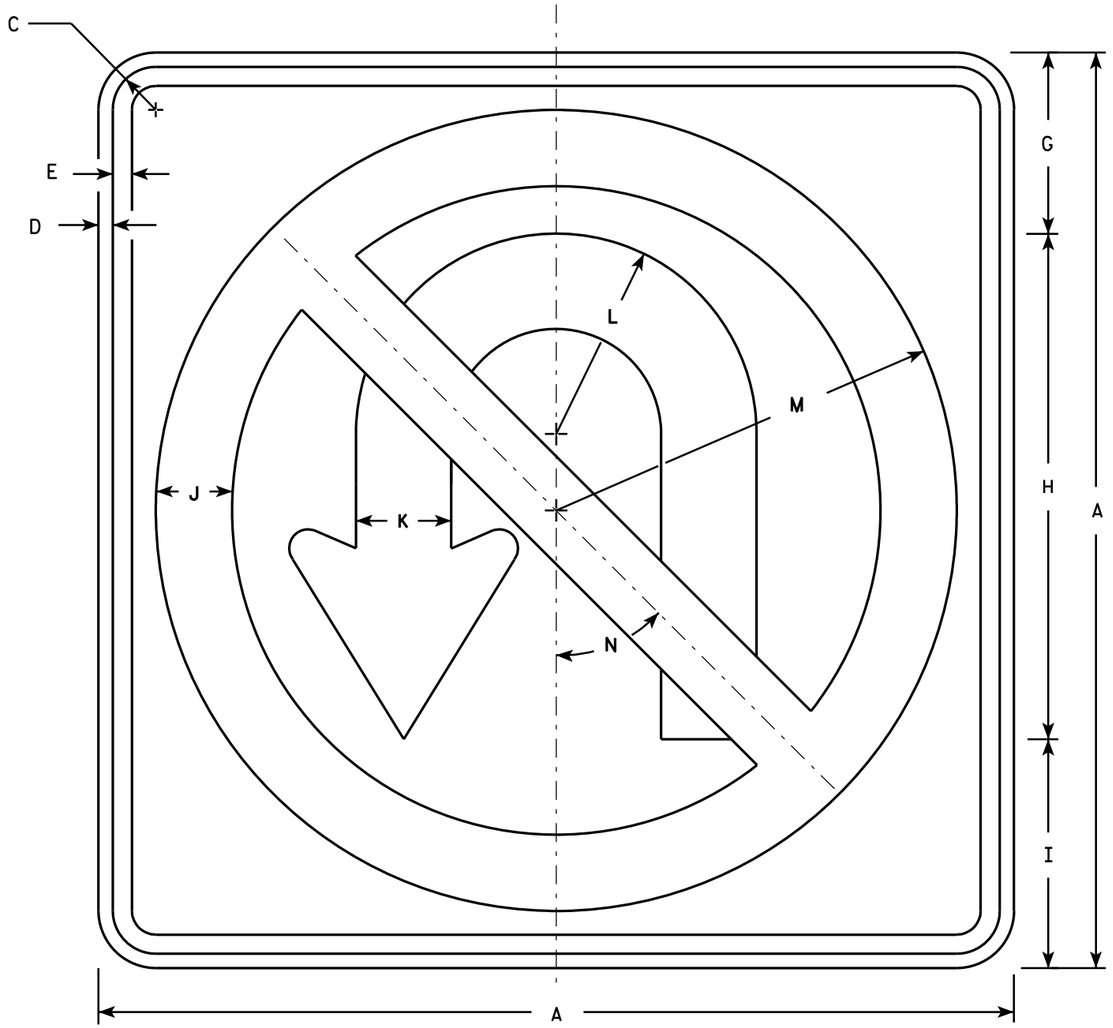
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

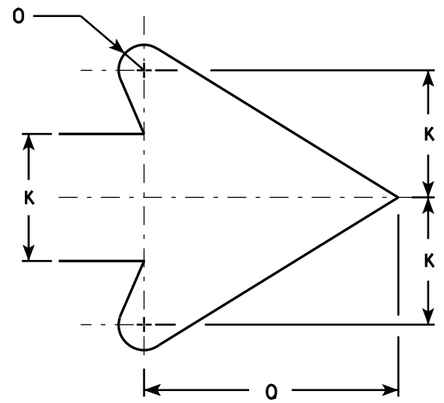
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 404	E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

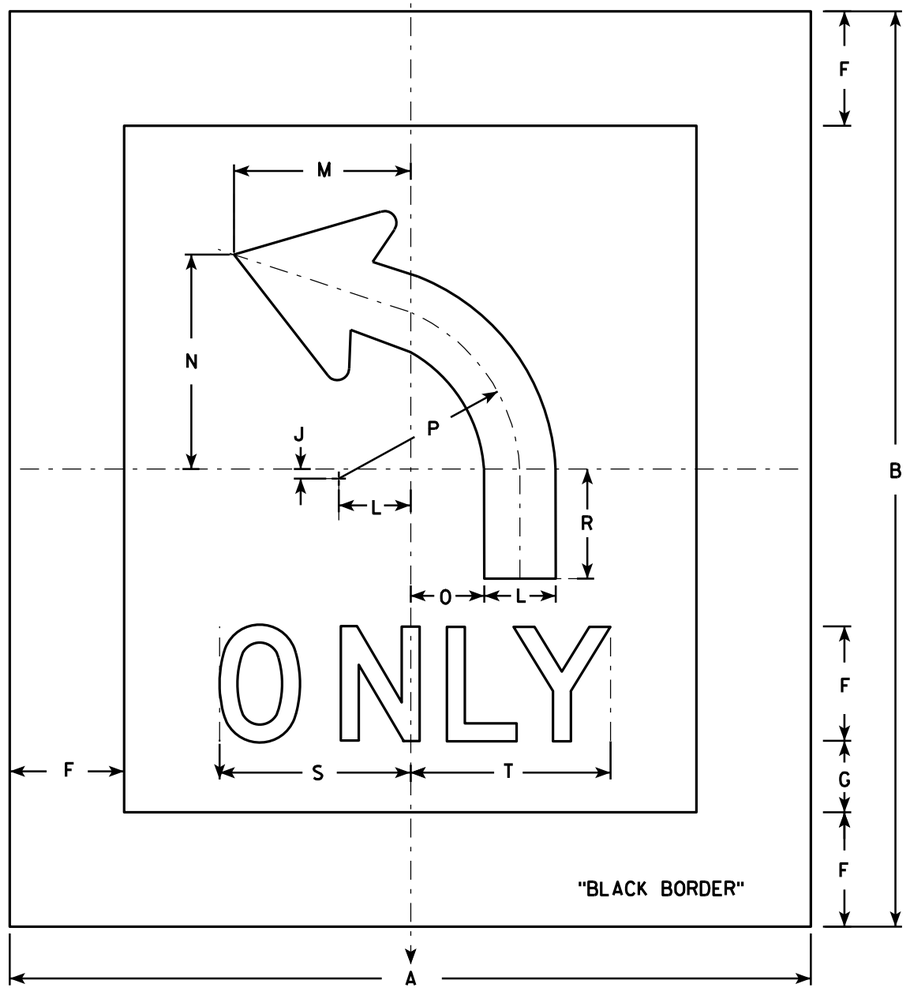
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

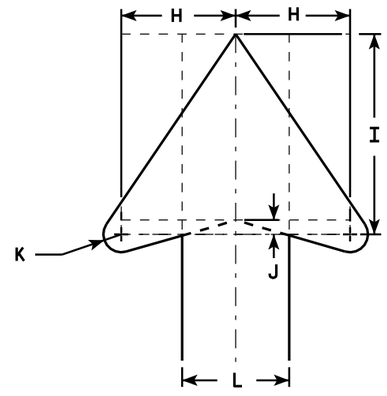
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 405	E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

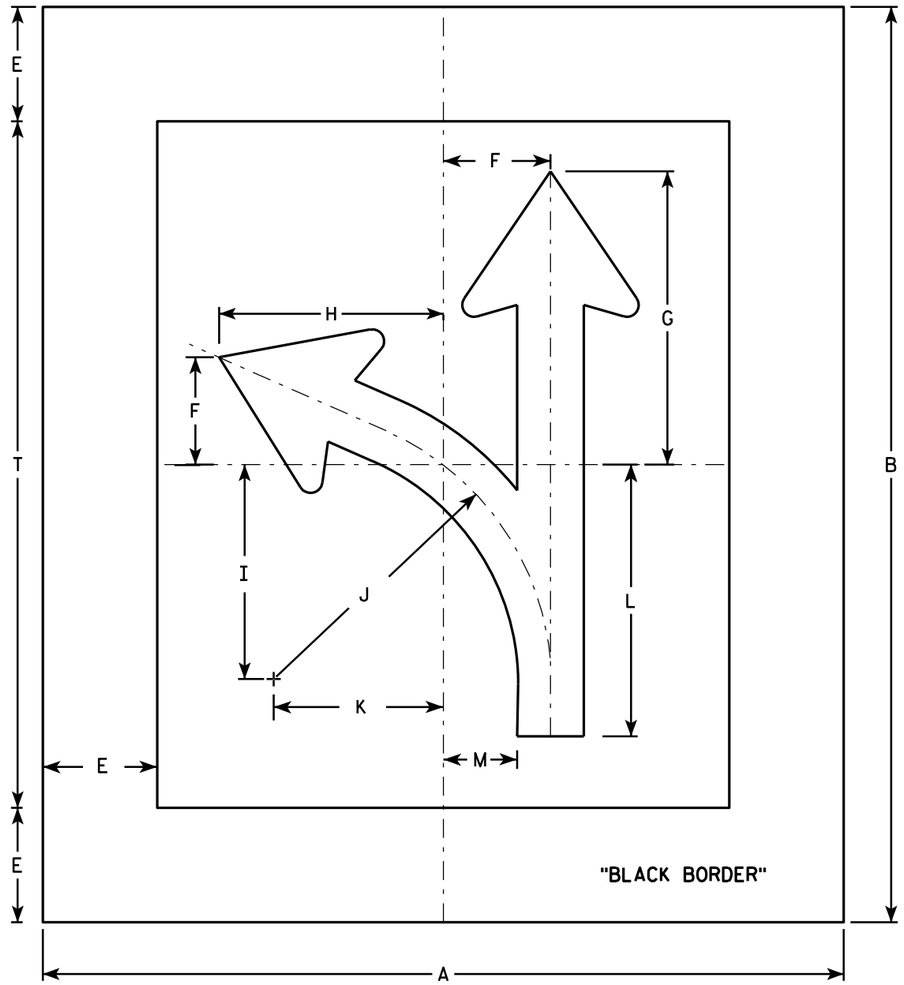
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

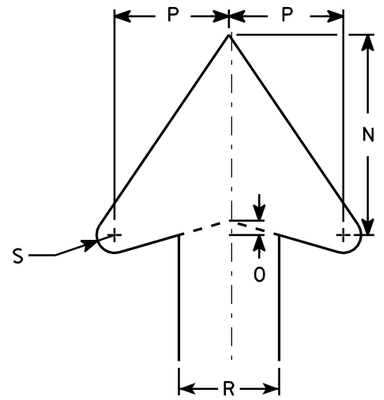
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 406 | E



R3-6L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
4. R3-6R is the same as R3-6L except curved portion of arrow points right.
5. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
2M	42	48			6	5 5/8	15 3/8	11 3/4	11 1/4	14 1/2	8 7/8	14 1/4	3 7/8	7	1/2	4		3 1/2	5/8	36							14.0
3																											
4																											
5																											

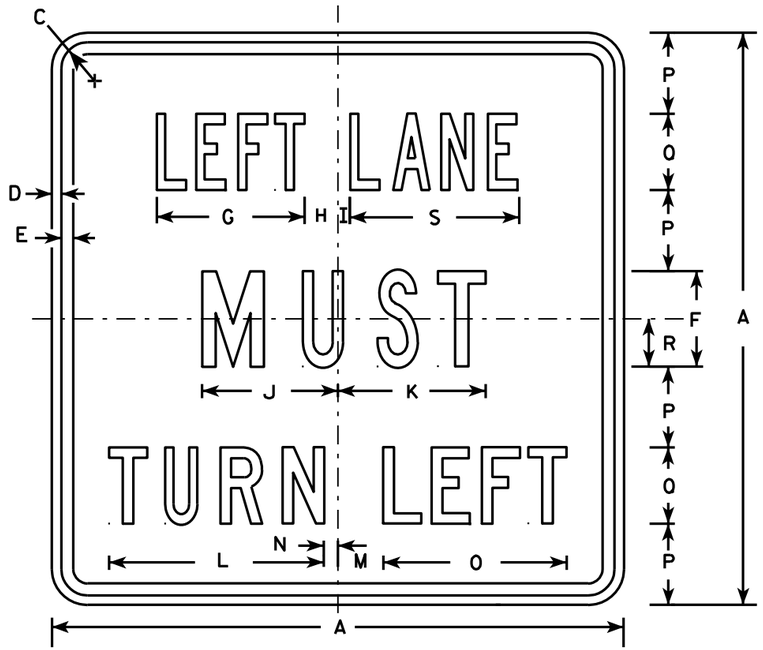
STANDARD SIGN
R3-6

WISCONSIN DEPT OF TRANSPORTATION

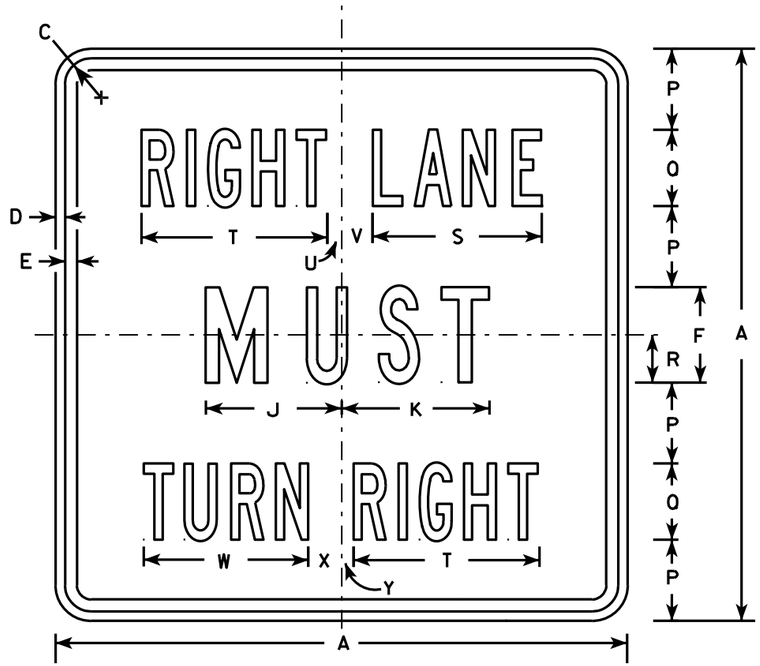
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-6.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 407 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

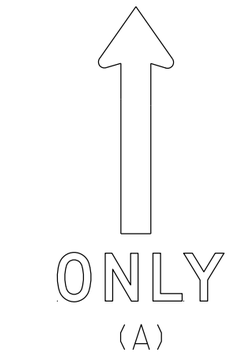
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

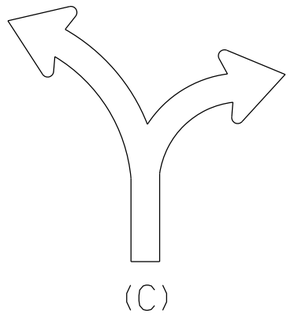
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 407 | E

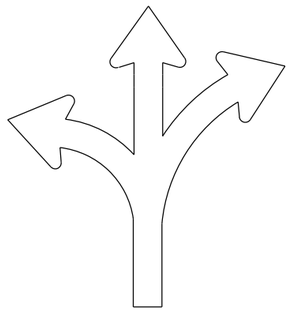
7

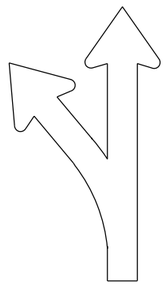


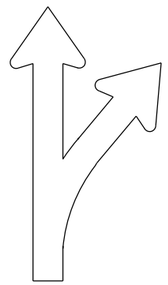
(A)

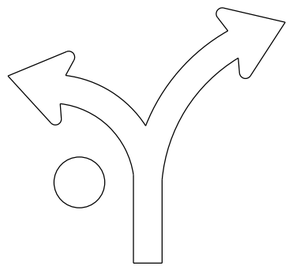
(B)

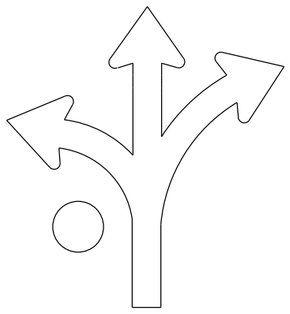

(C)


(D)


(E)

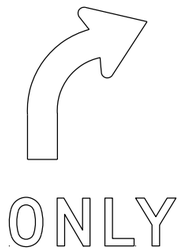

(F)


(G)

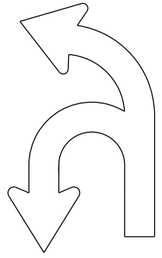

(H)

(I)

(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter =	3.75 sq ft	for Size 2
	6.0 sq ft	for Size 3
	10.0 sq ft	for Size 4 or 5
2 Letters =	7.5 sq ft	for Size 2
	12.0 sq ft	for Size 3
	20.0 sq ft	for Size 4 or 5
3 Letters =	11.25 sq ft	for Size 2
	18.0 sq ft	for Size 3
	30.0 sq ft	for Size 4 or 5
4 Letters =	15.0 sq ft	for Size 2
	24.0 sq ft	for Size 3
	40.0 sq ft	for Size 4 or 5
5 Letters =	18.75 sq ft	for Size 2
	30.0 sq ft	for Size 3
	50.0 sq ft	for Size 4 or 5
6 Letters =	22.5 sq ft	for Size 2
	36.0 sq ft	for Size 3
	60.0 sq ft	for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

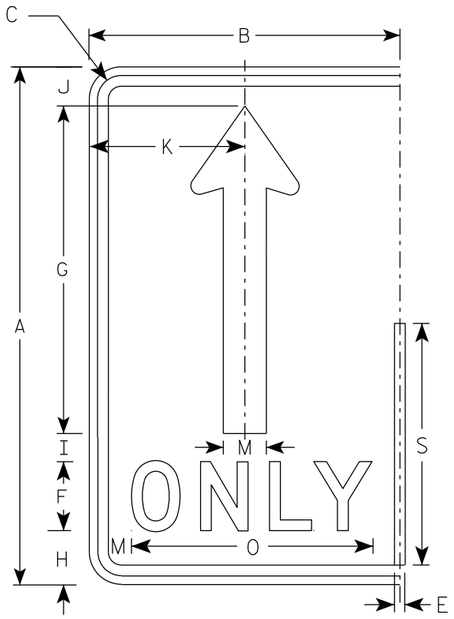
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

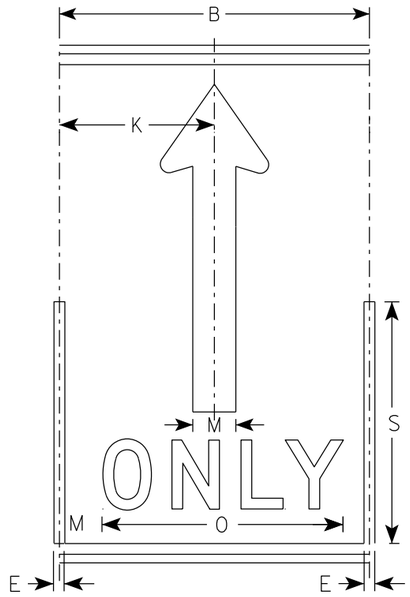
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

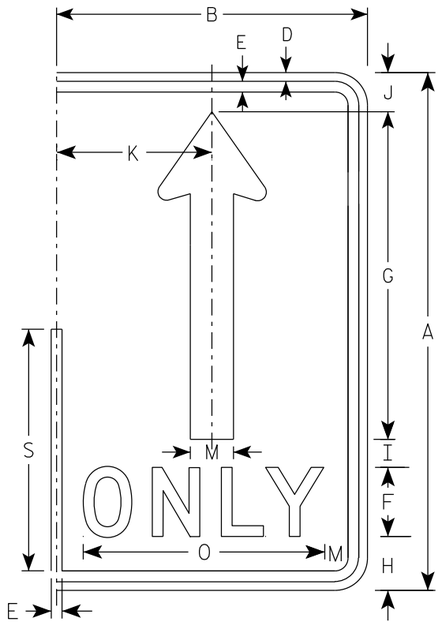
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



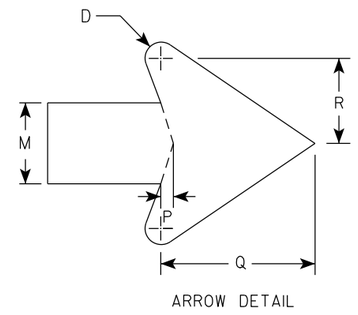
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

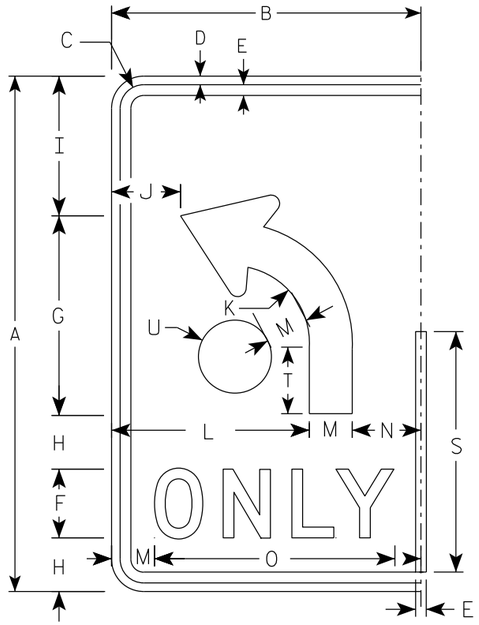
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

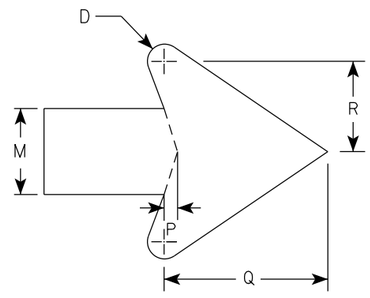
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 410 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

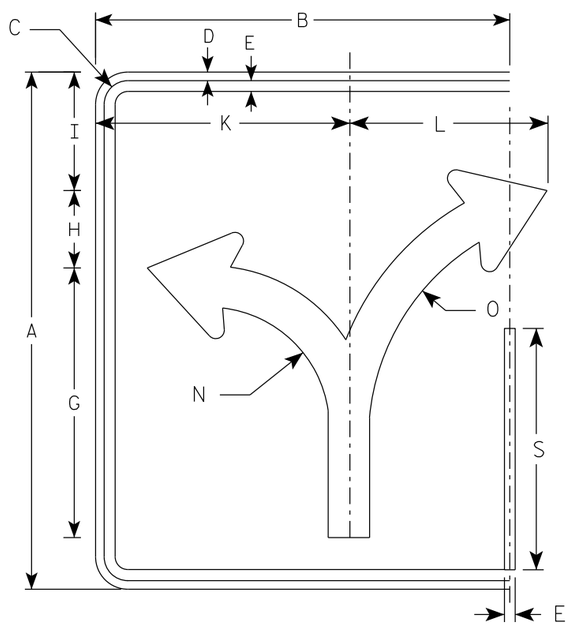
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

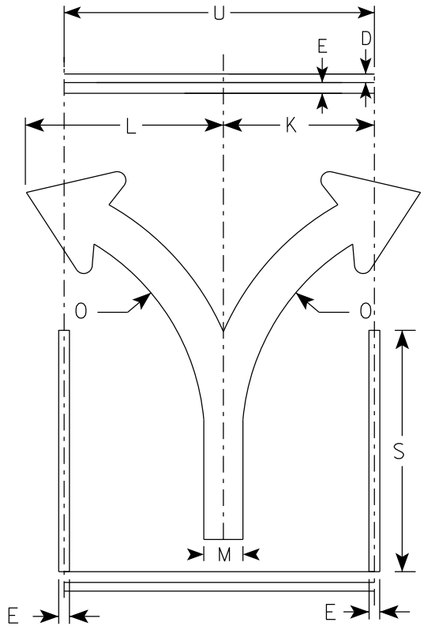
SHEET NO: 411 E

NOTES

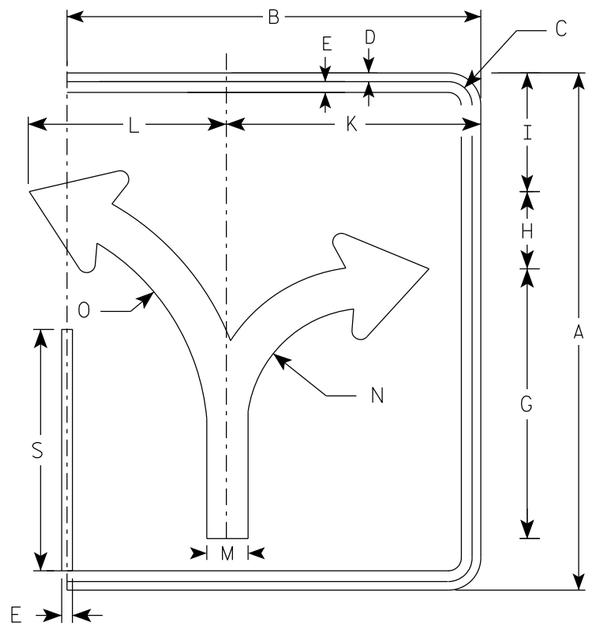
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



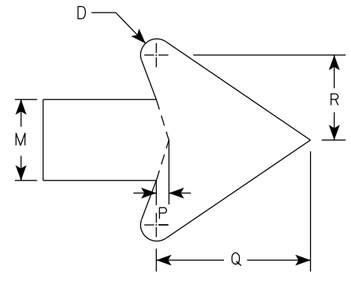
(C)



(C)



(C)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

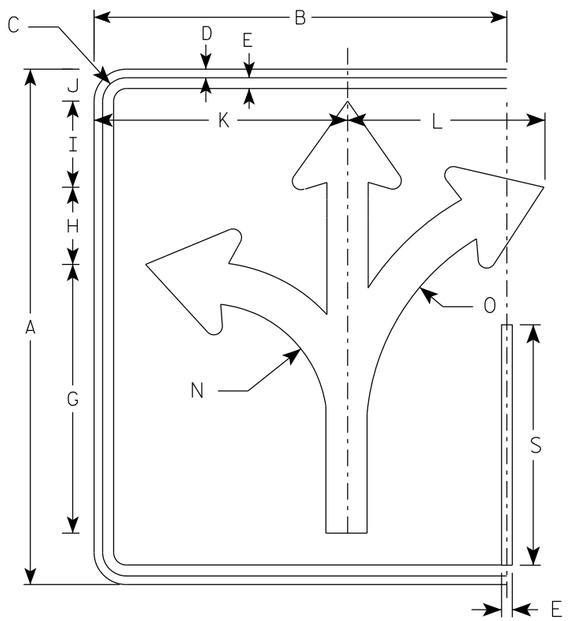
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

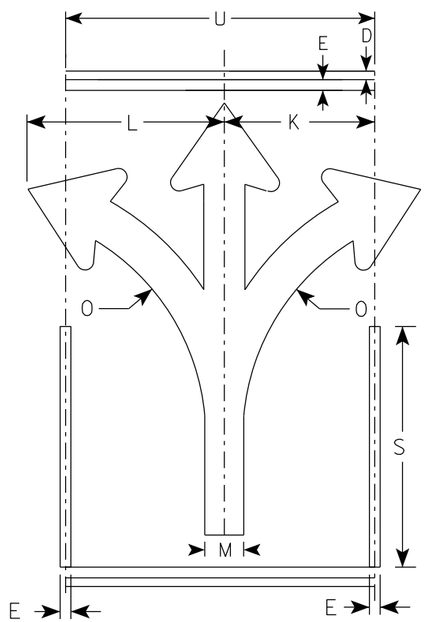
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 412 | E

NOTES

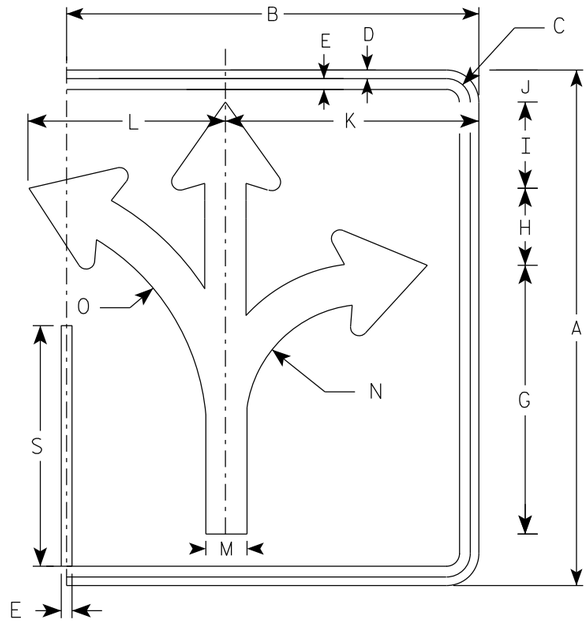
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



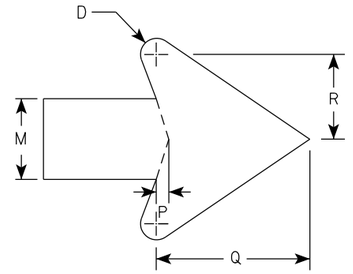
(D)



(D)



(D)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

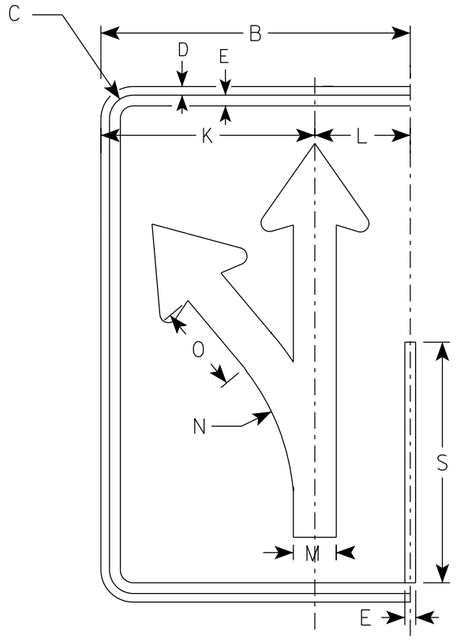
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 413 | E

7

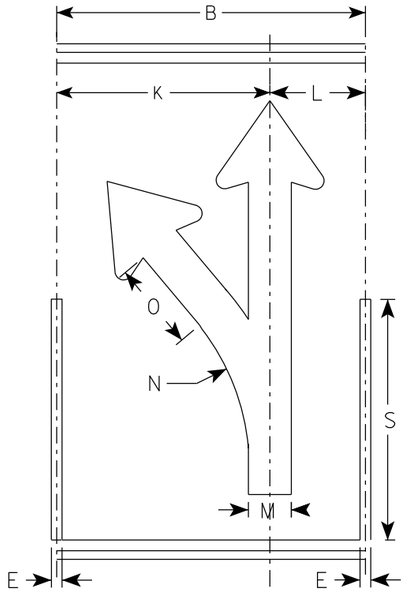
7

NOTES

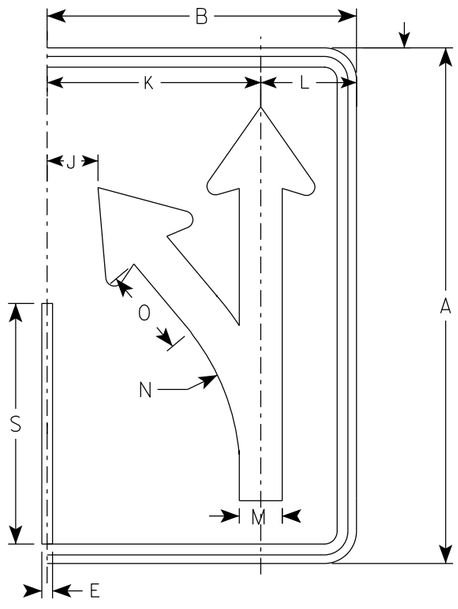
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



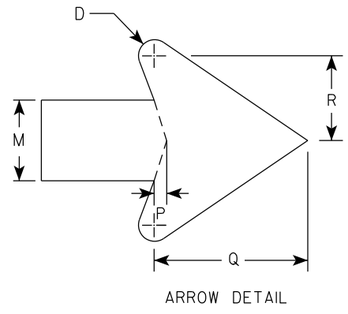
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

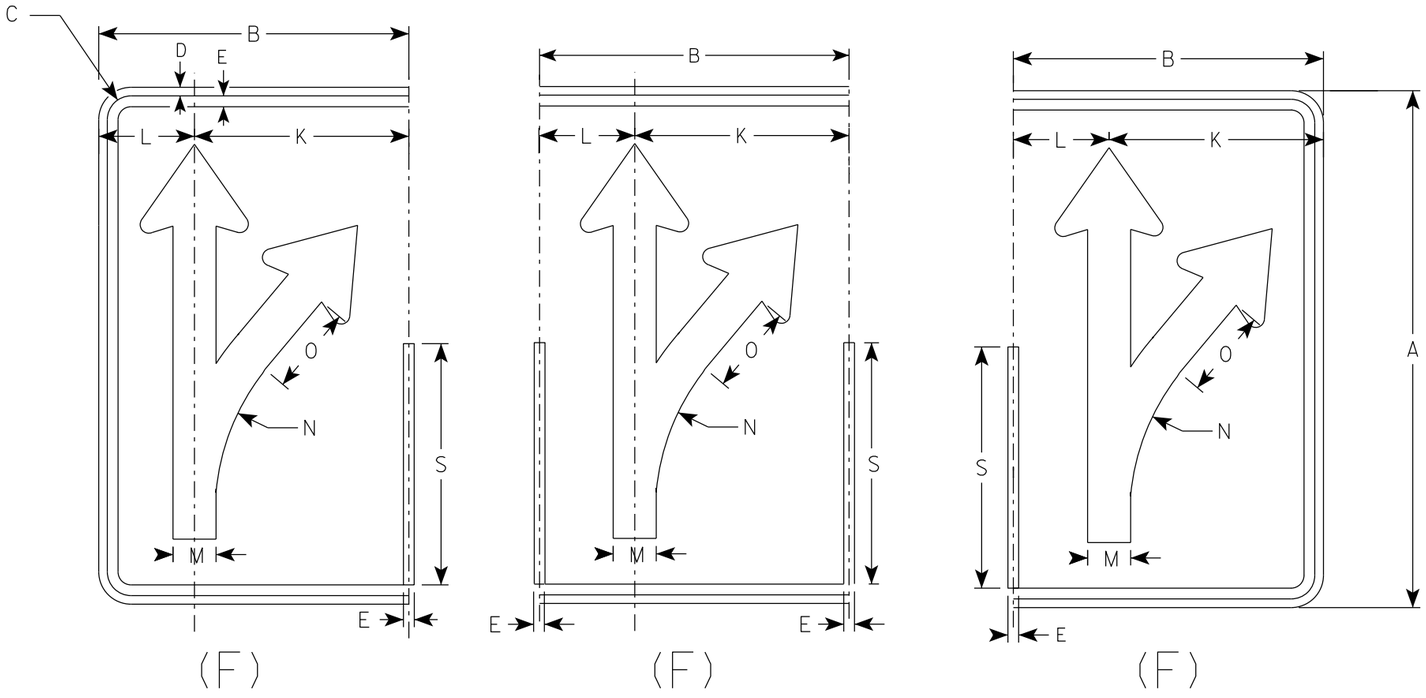
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

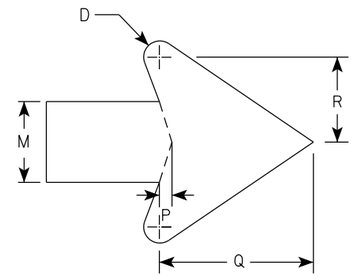
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 414 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(F) (F) (F)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

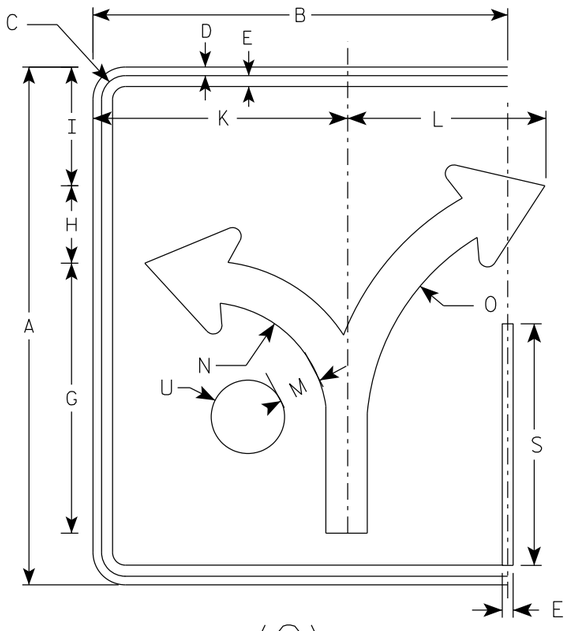
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

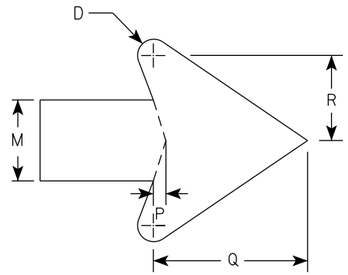
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 415 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

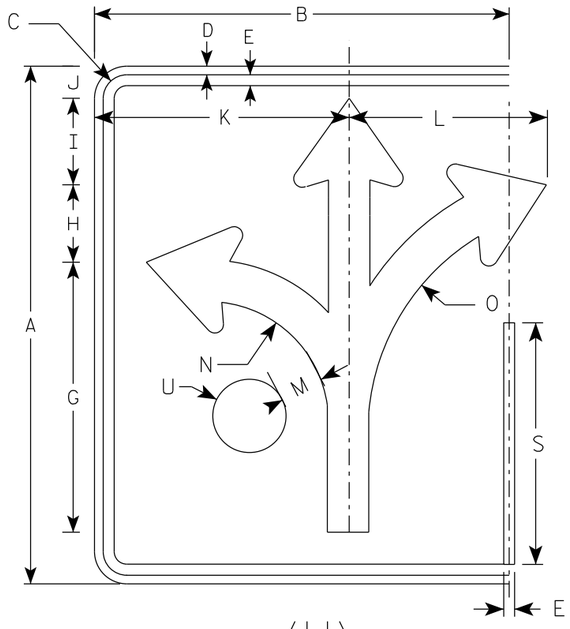
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

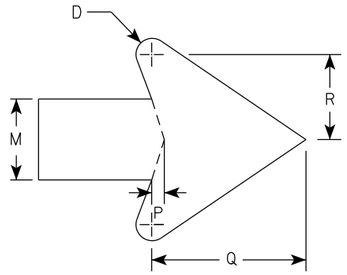
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 416	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

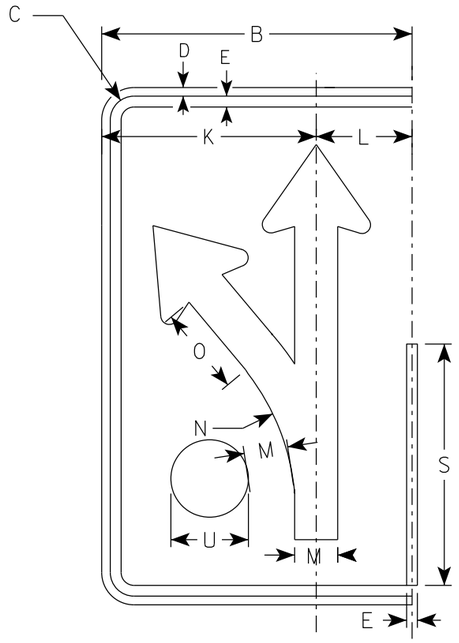
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

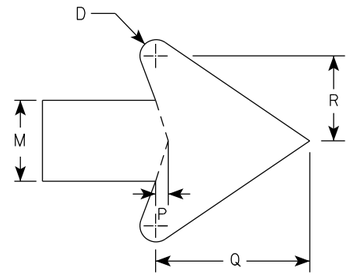
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 417	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

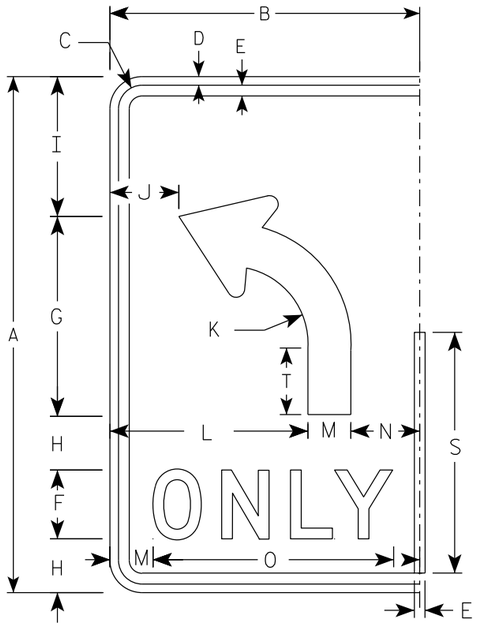
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

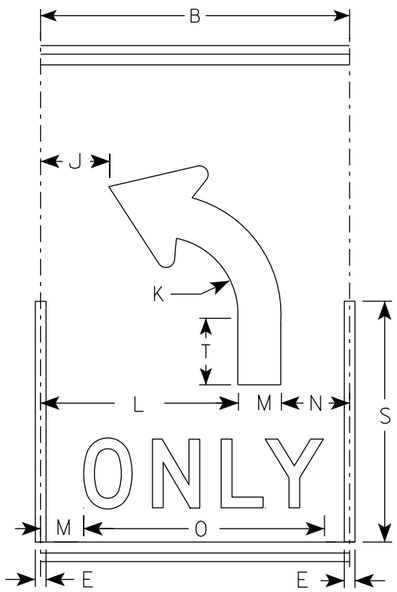
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 418 | E

NOTES

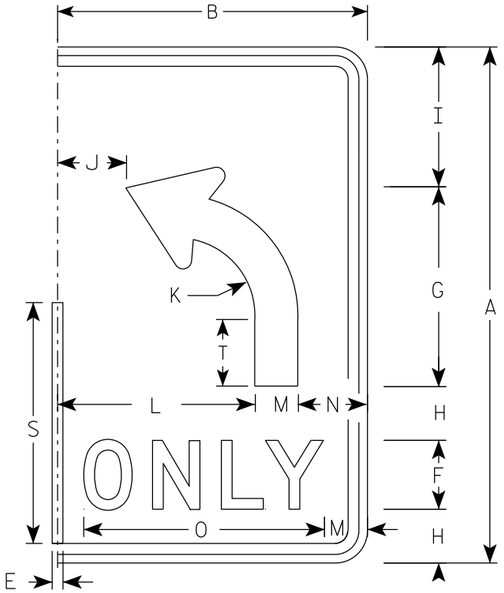
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



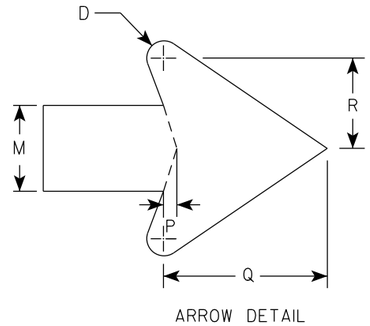
(L)



(L)



(L)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

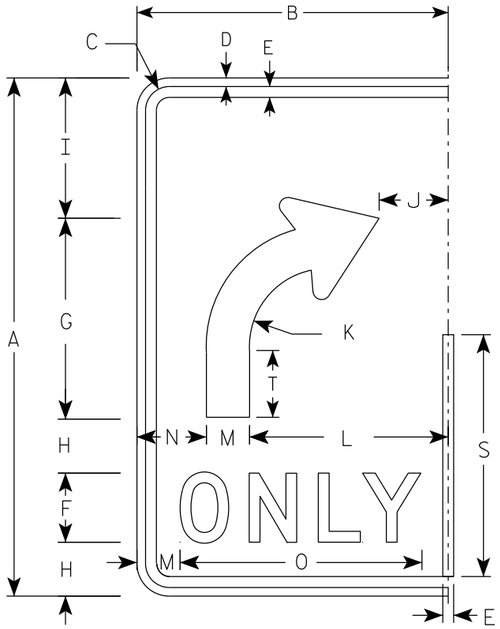
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

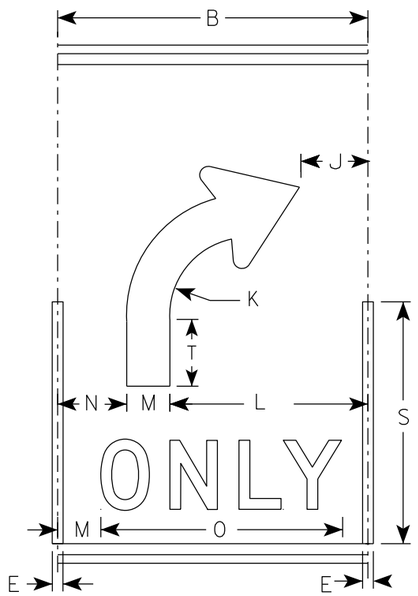
SHEET NO: 419 E

NOTES

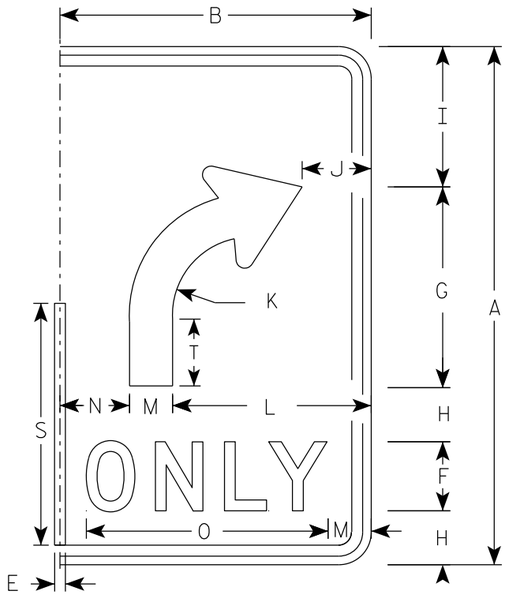
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



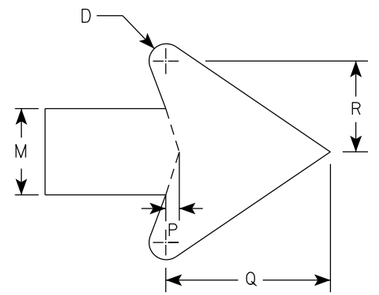
(R)



(R)



(R)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

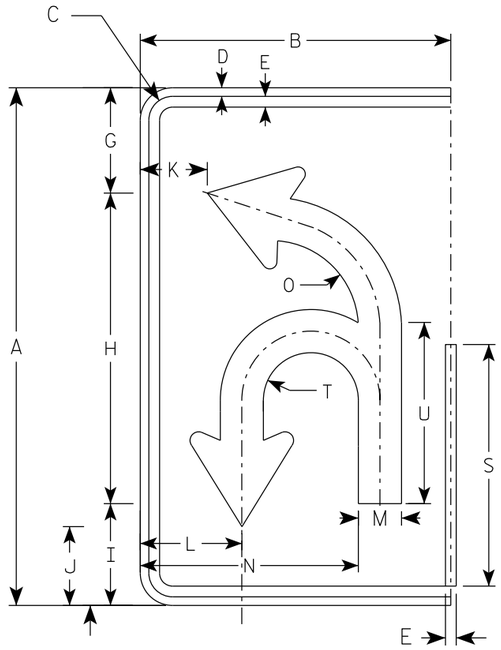
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

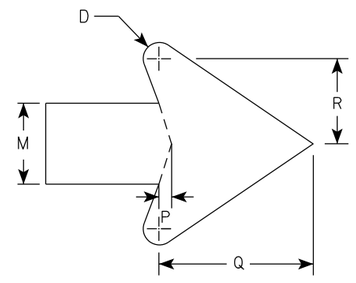
SHEET NO: 420 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

STANDARD SIGN
R3-8 (U) Arrow

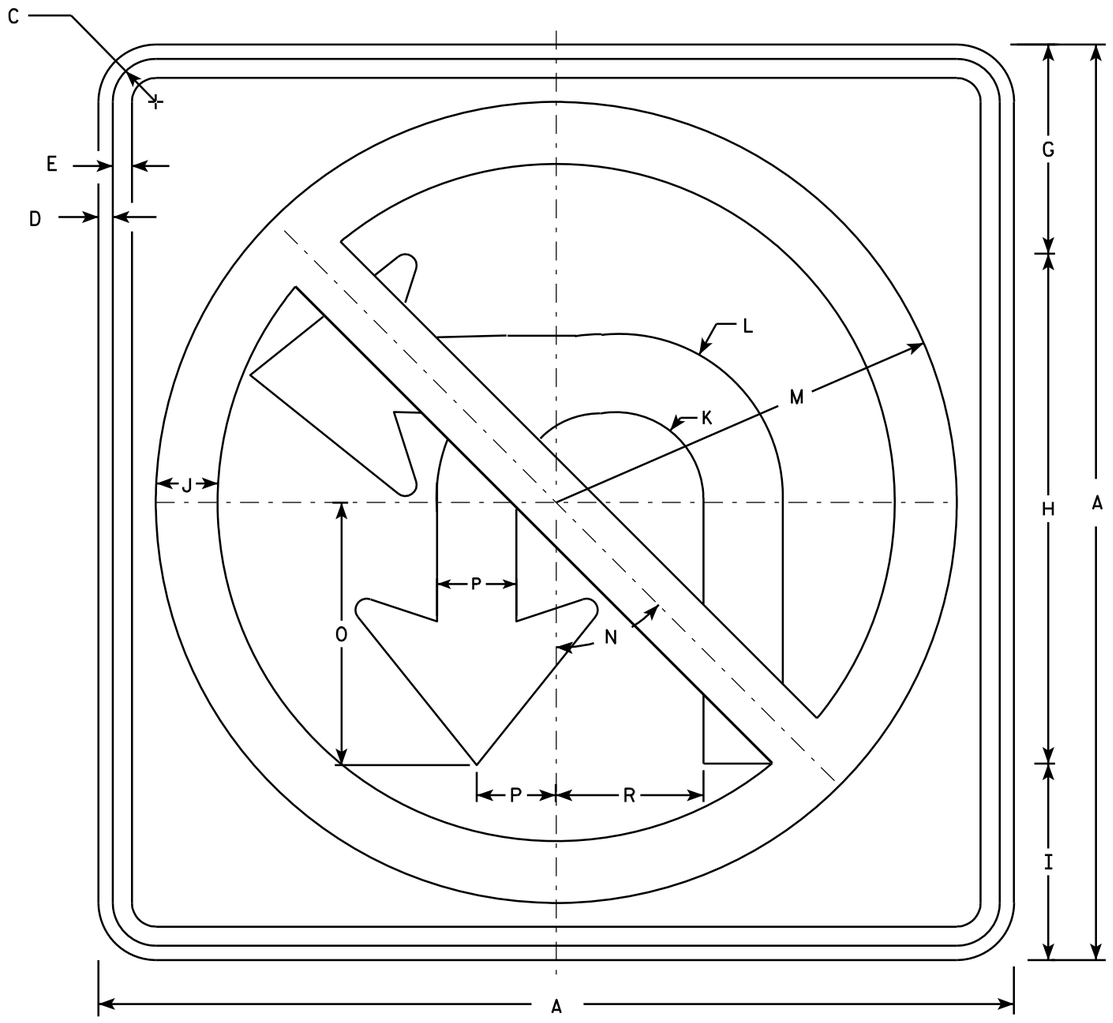
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 420 | E

7



R3-18

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

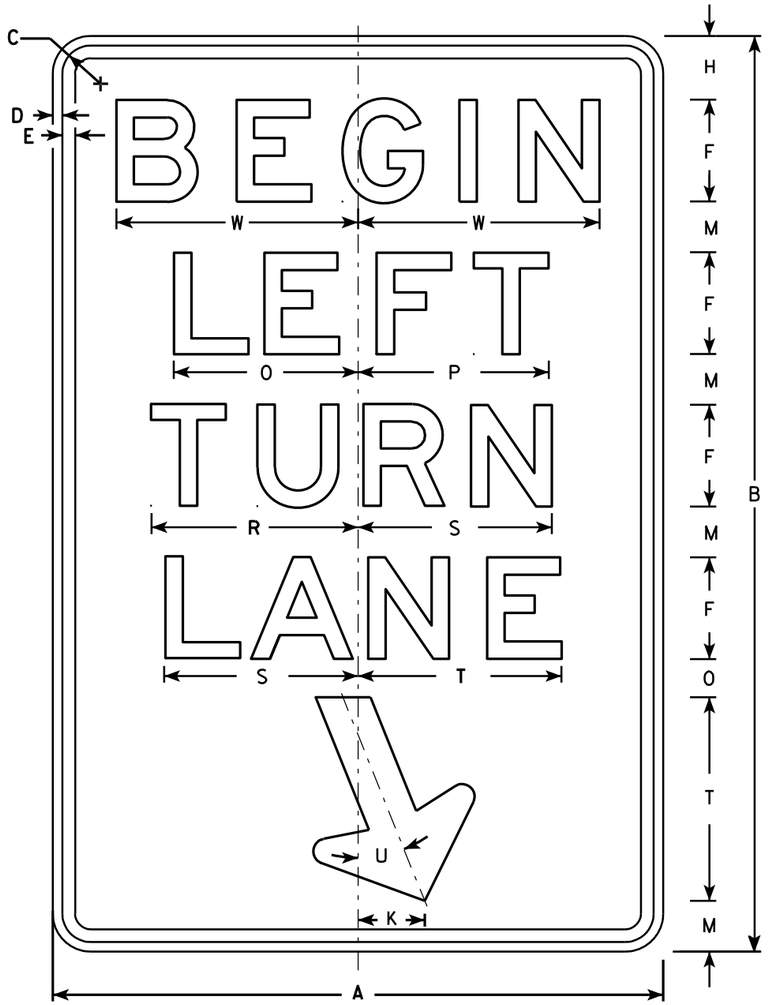
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

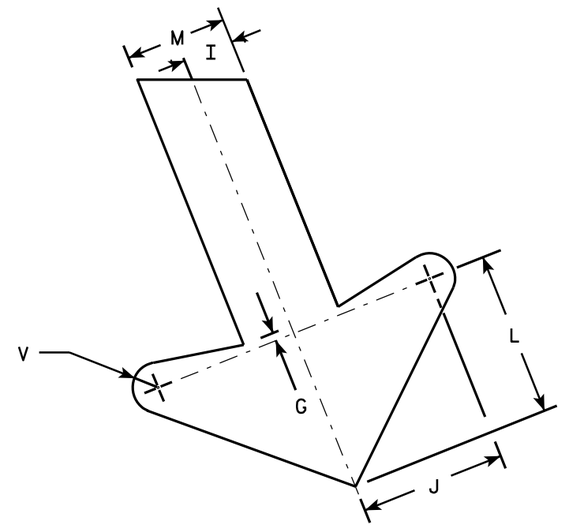
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 422	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

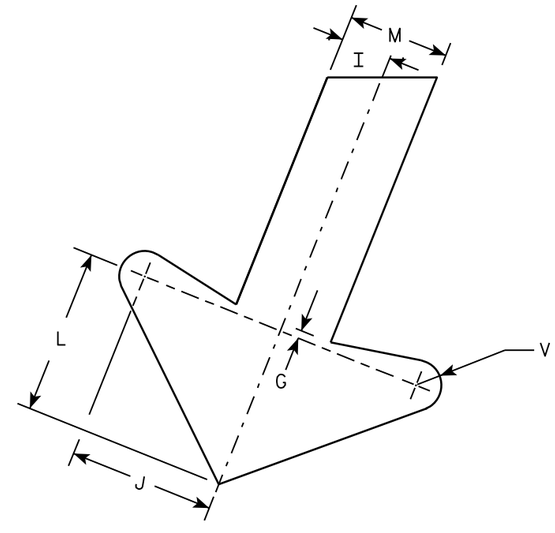
DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 423 | E

R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

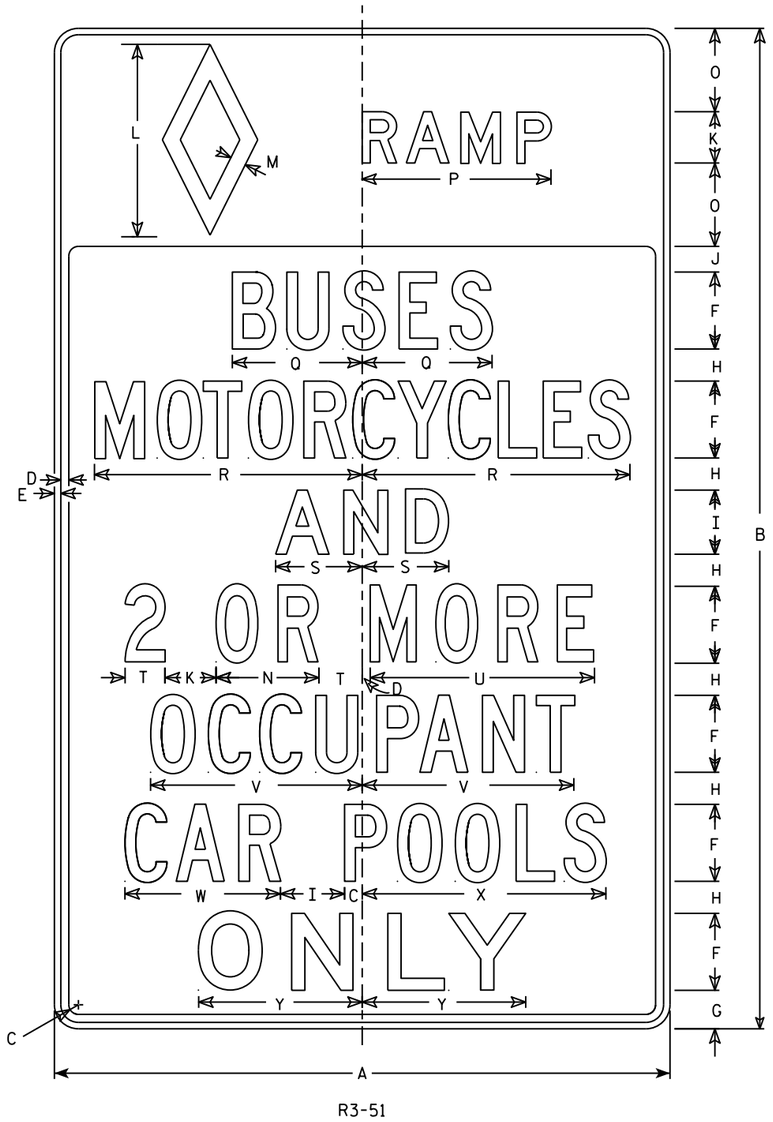
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 424 | E



R3-51

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See Note 5
   Message - See Note 5
3. Message Series - See Note 6
4. Top symbol and legend are white Type H Reflective with Black background.
   Bottom legend is Black with White Type H Reflective background.
5. Lines 1 and 4 are Series D.
   Lines 2, 3, 5, 6, and 7 are Series C.
   Bottom Line is Series E.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	78	1 3/8	5/8	1/2	6	3	2 1/2	5	2	4	15	1 1/4	8	6 1/2	14 3/4	10 1/8	20 7/8	6 3/4	3 1/8	17 1/2	16 1/2	12 1/8	19	12 3/4		26.0
2M	48	78	1 3/8	5/8	1/2	6	3	2 1/2	5	2	4	15	1 1/4	8	6 1/2	14 3/4	10 1/8	20 7/8	6 3/4	3 1/8	17 1/2	16 1/2	12 1/8	19	12 3/4		26.0
3																											
4																											
5																											

STANDARD SIGN
R3-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/22/17 PLATE NO. R3-51.6

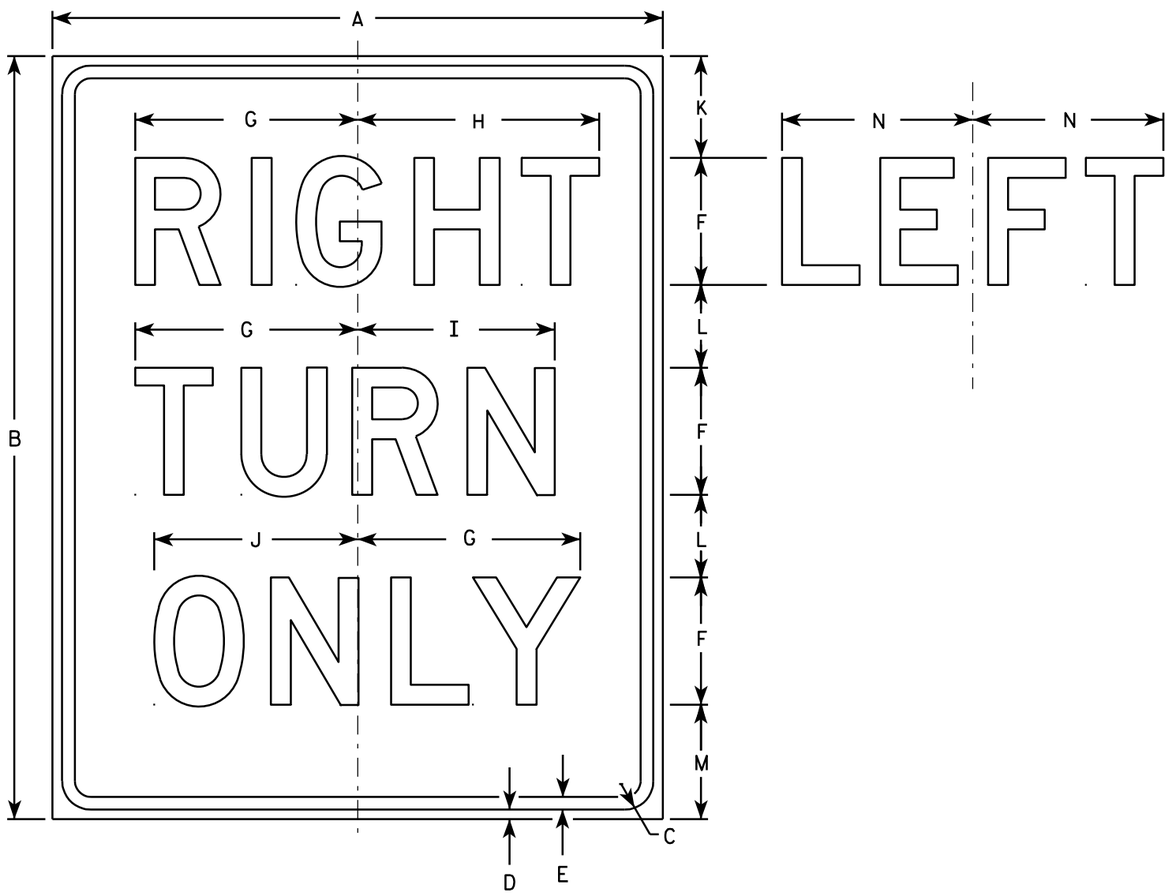
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 425 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R351.DGN PLOT DATE : 22-AUG-2017 16:28 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 11.811237:1.000000

WISDOT/CADDS SHEET 42

7

7



R3-53R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

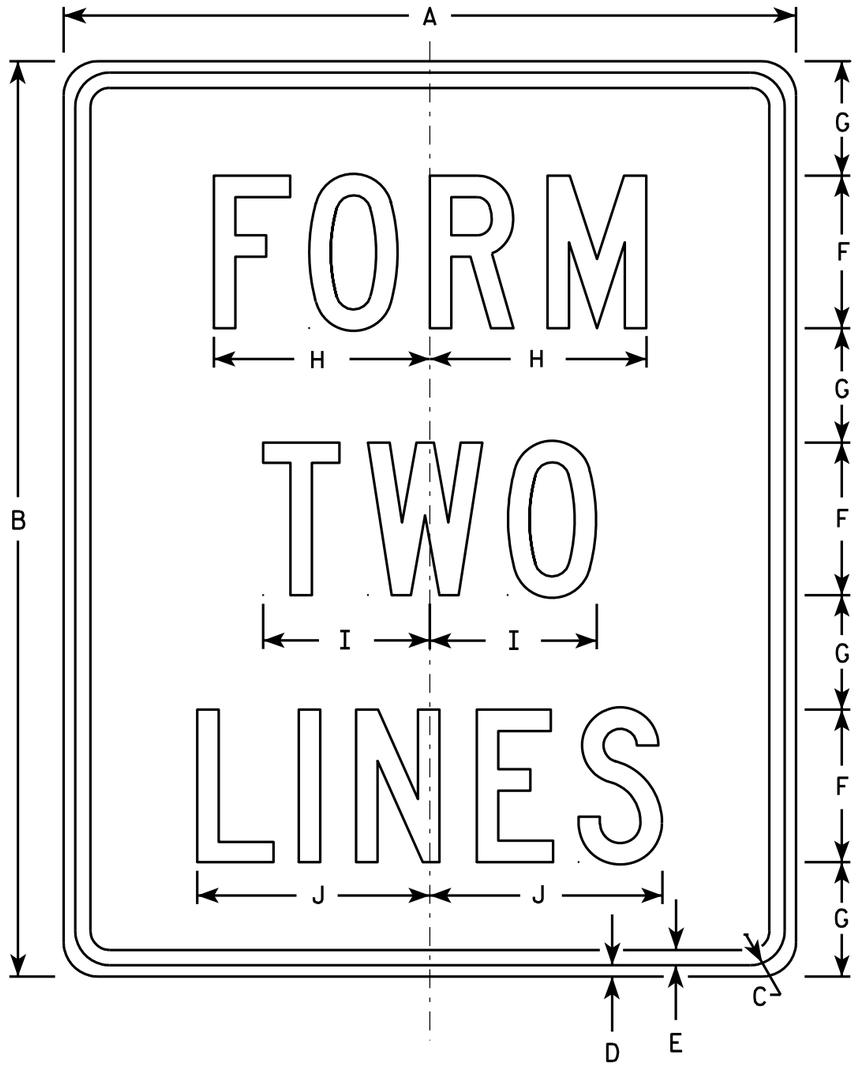
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 426	E



R3-59

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	5 1/2	7 5/8																	5.0
2S	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	5 1/2	7 5/8																	5.0
2M	24	30	1 1/8	3/8	1/2	5	3 3/4	7 1/8	5 1/2	7 5/8																	5.0
3	36	48	1 3/8	1/2	5/8	8	6	11 3/8	8 3/4	12 1/4																	12.0
4	36	48	1 3/8	1/2	5/8	8	6	11 3/8	8 3/4	12 1/4																	12.0
5																											

STANDARD SIGN
R3-59

WISCONSIN DEPT OF TRANSPORTATION

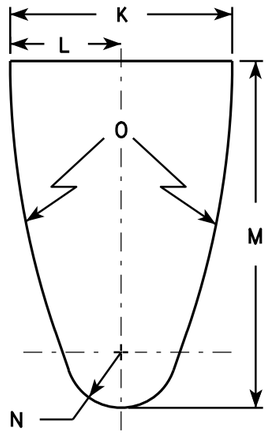
APPROVED Matthew R Rauch
for State Traffic Engineer

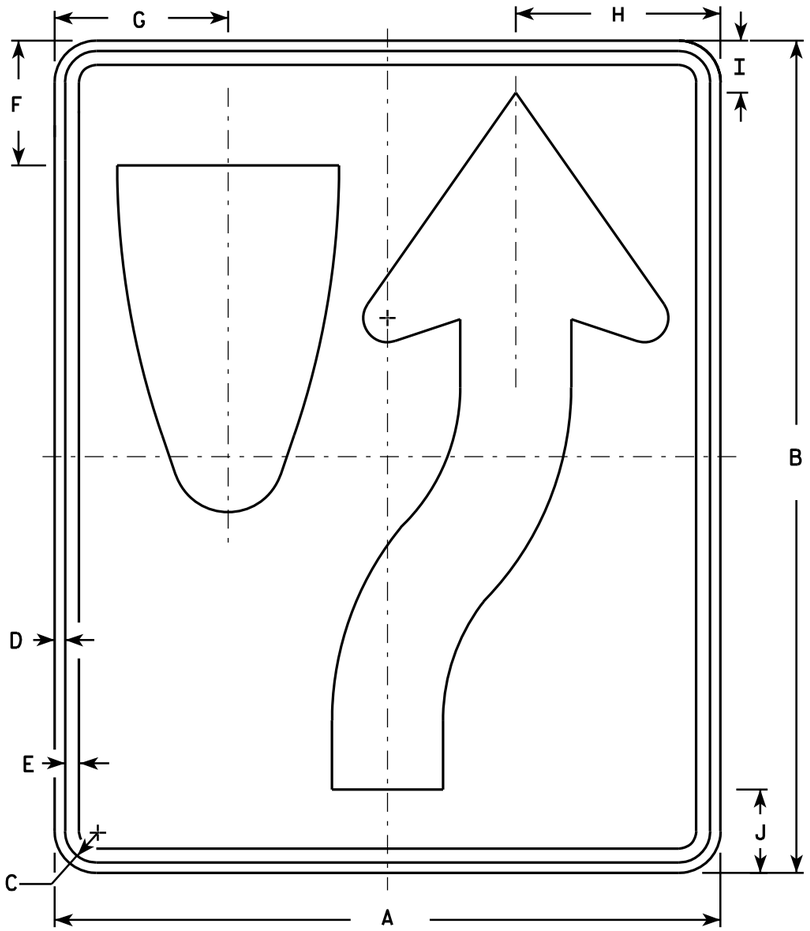
DATE 3/24/2011 PLATE NO. R3-59.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 427 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R359.DGN PLOT DATE : 24-MAR-2011 15:34 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.965868:1.000000
WISDOT/CADDS SHEET 42

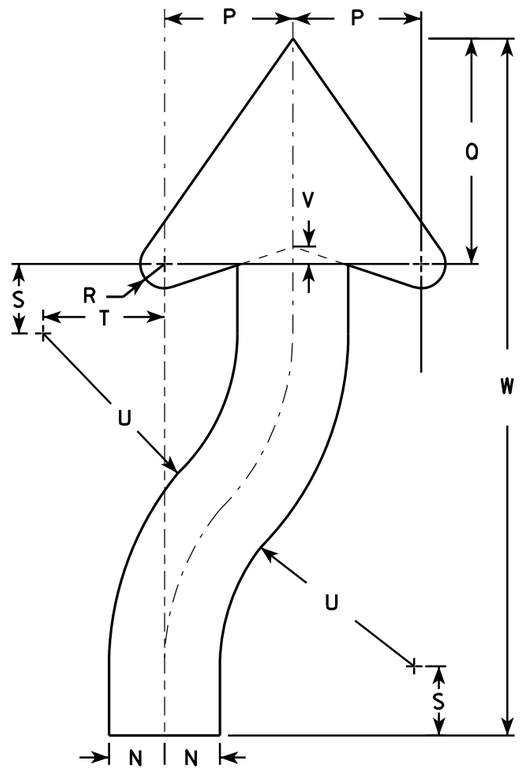




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

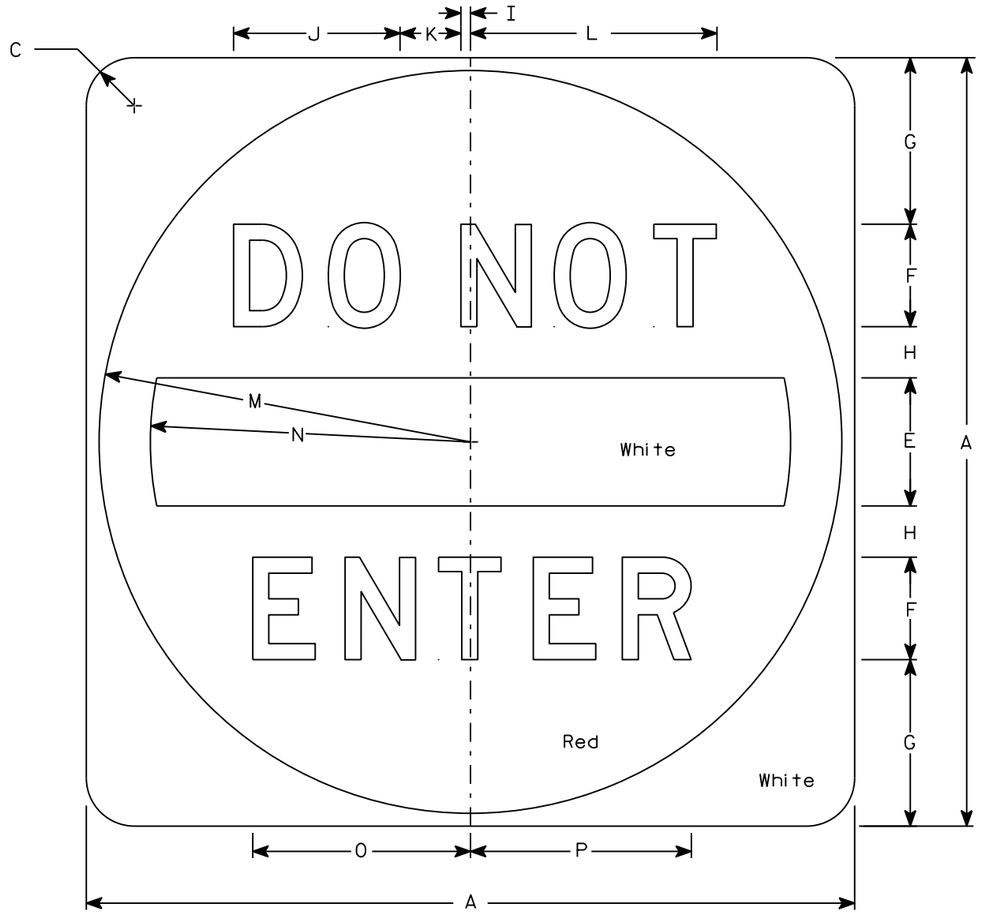
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 428	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

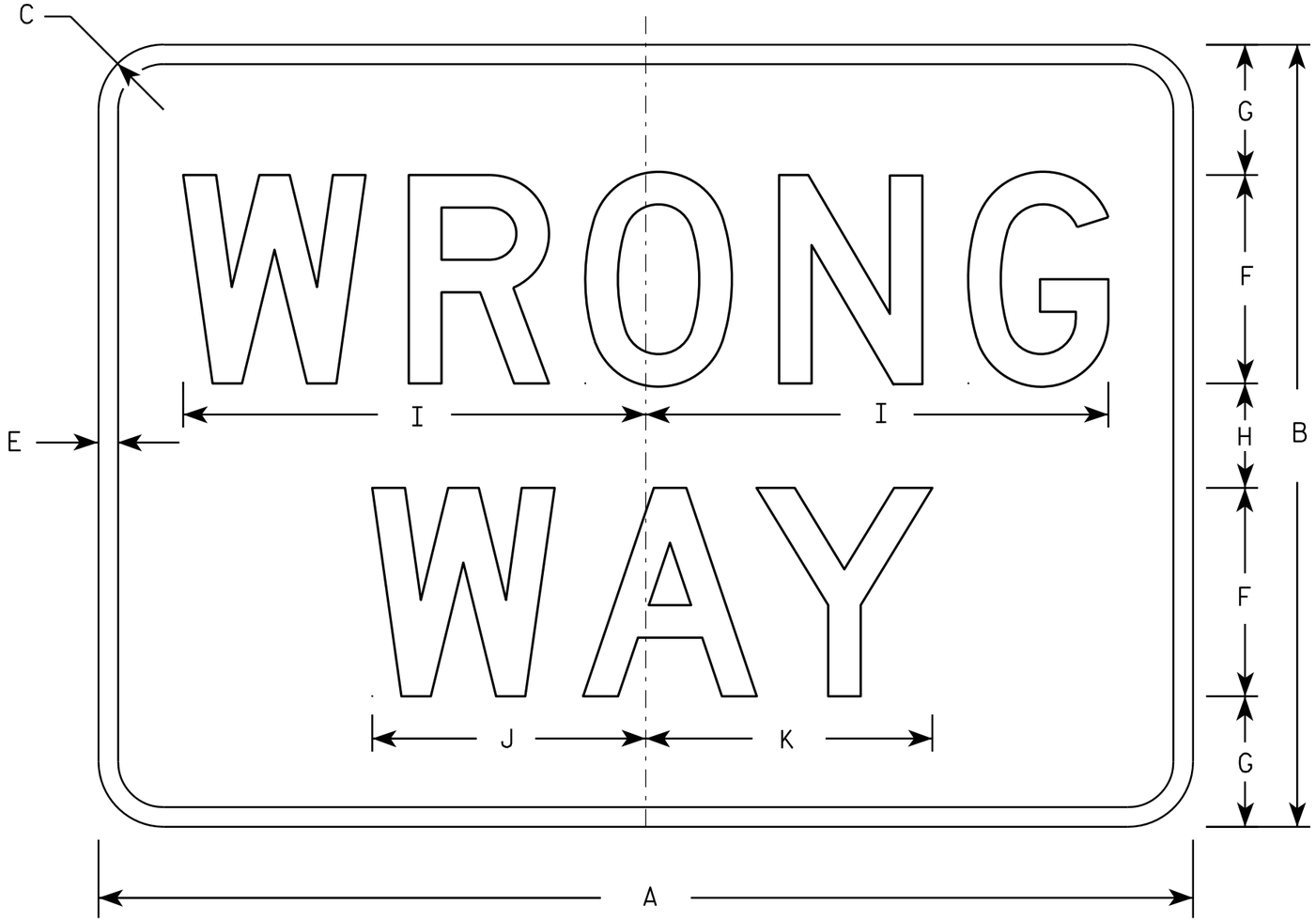
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

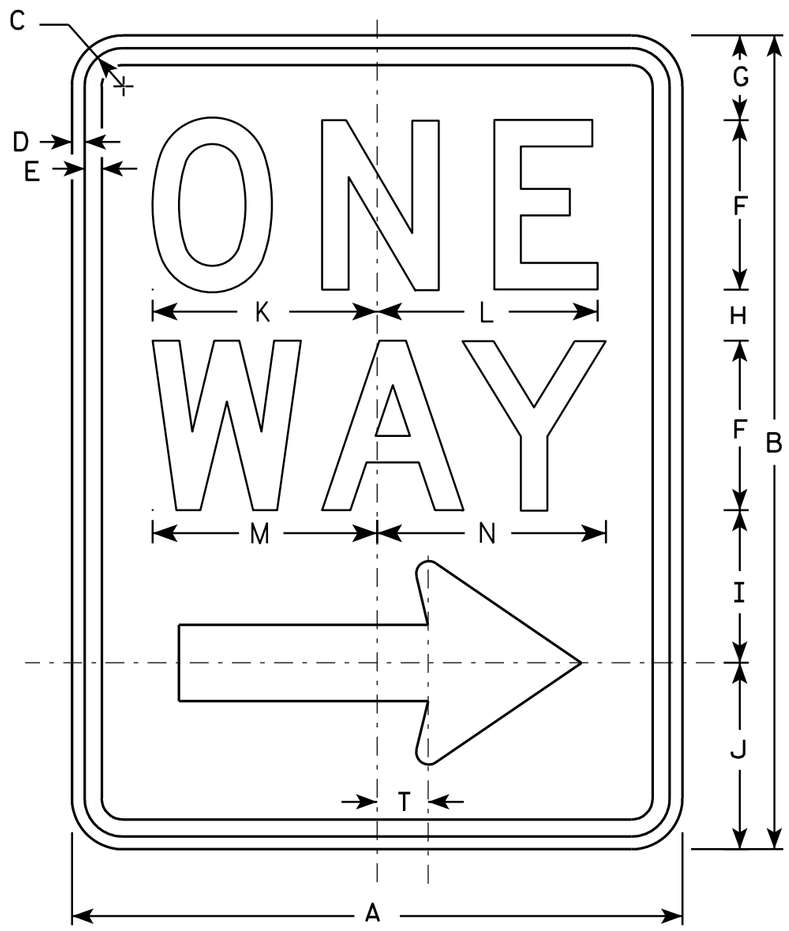
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

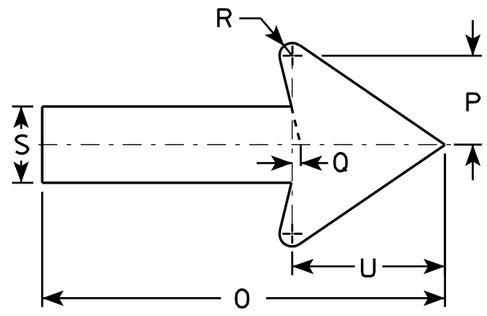
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 430 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

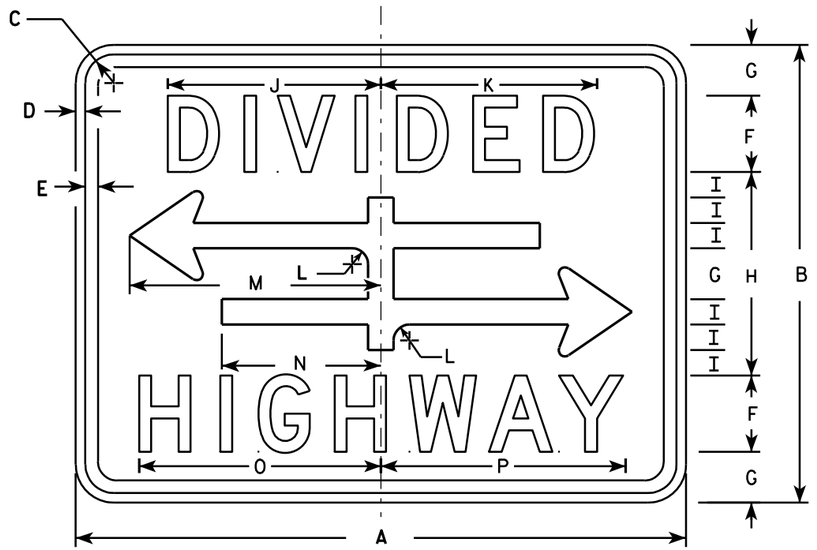
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

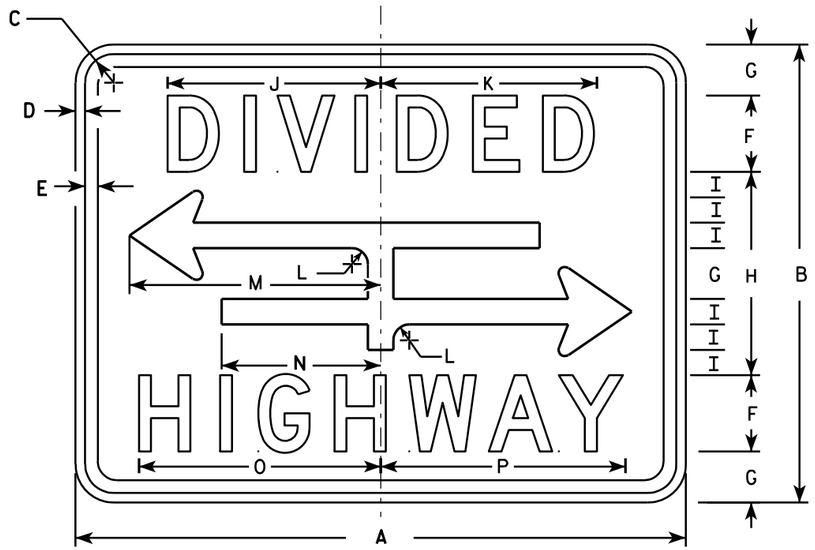
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 431	E



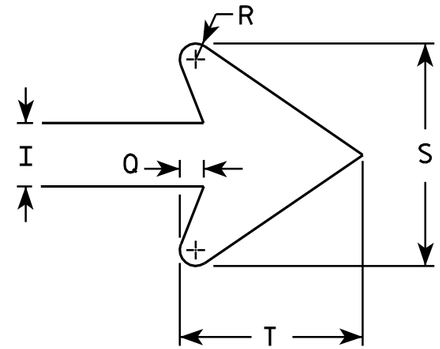
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

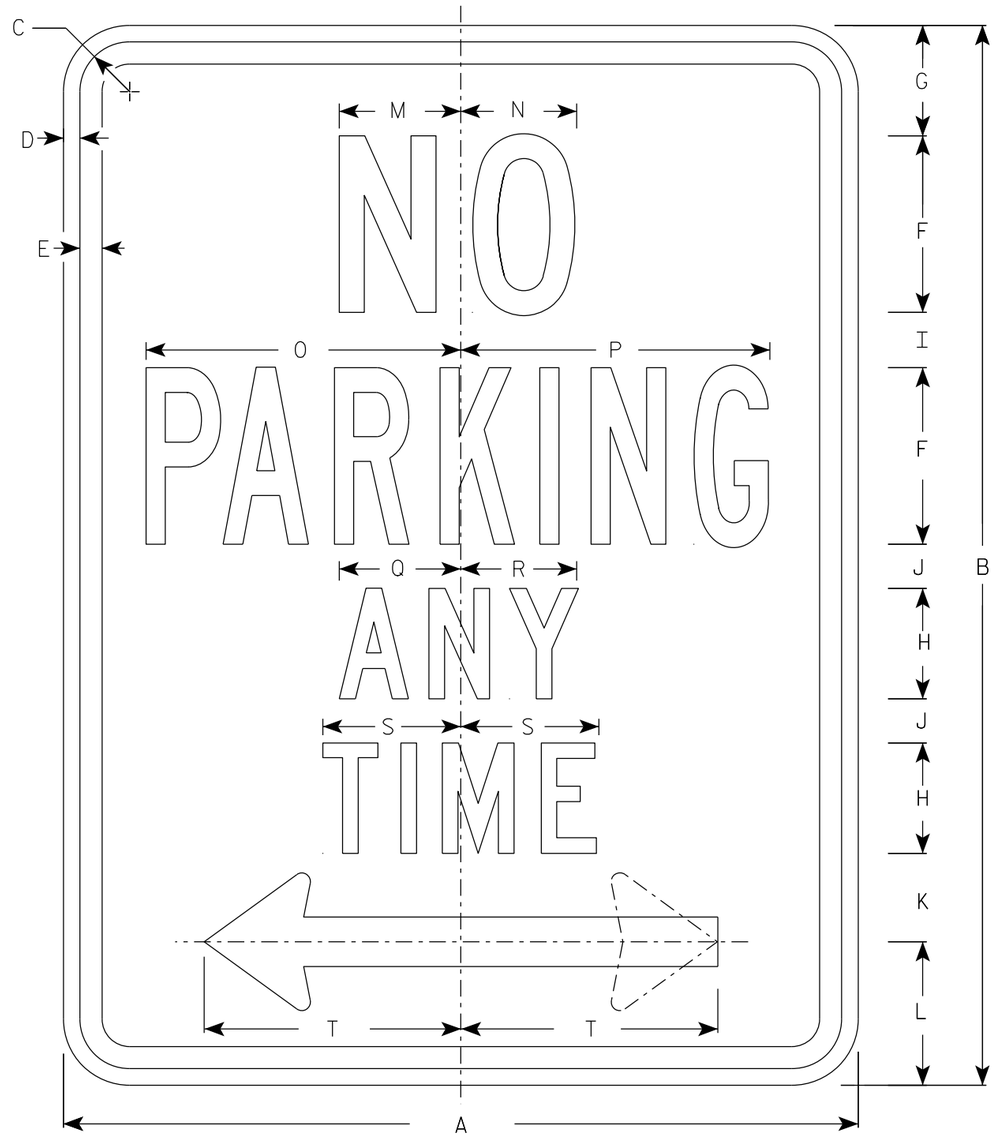
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

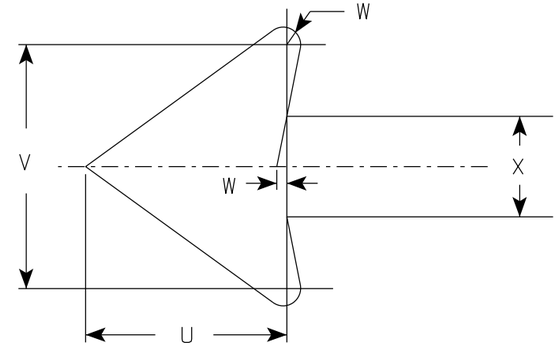
SHEET NO: 431 E



R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

433

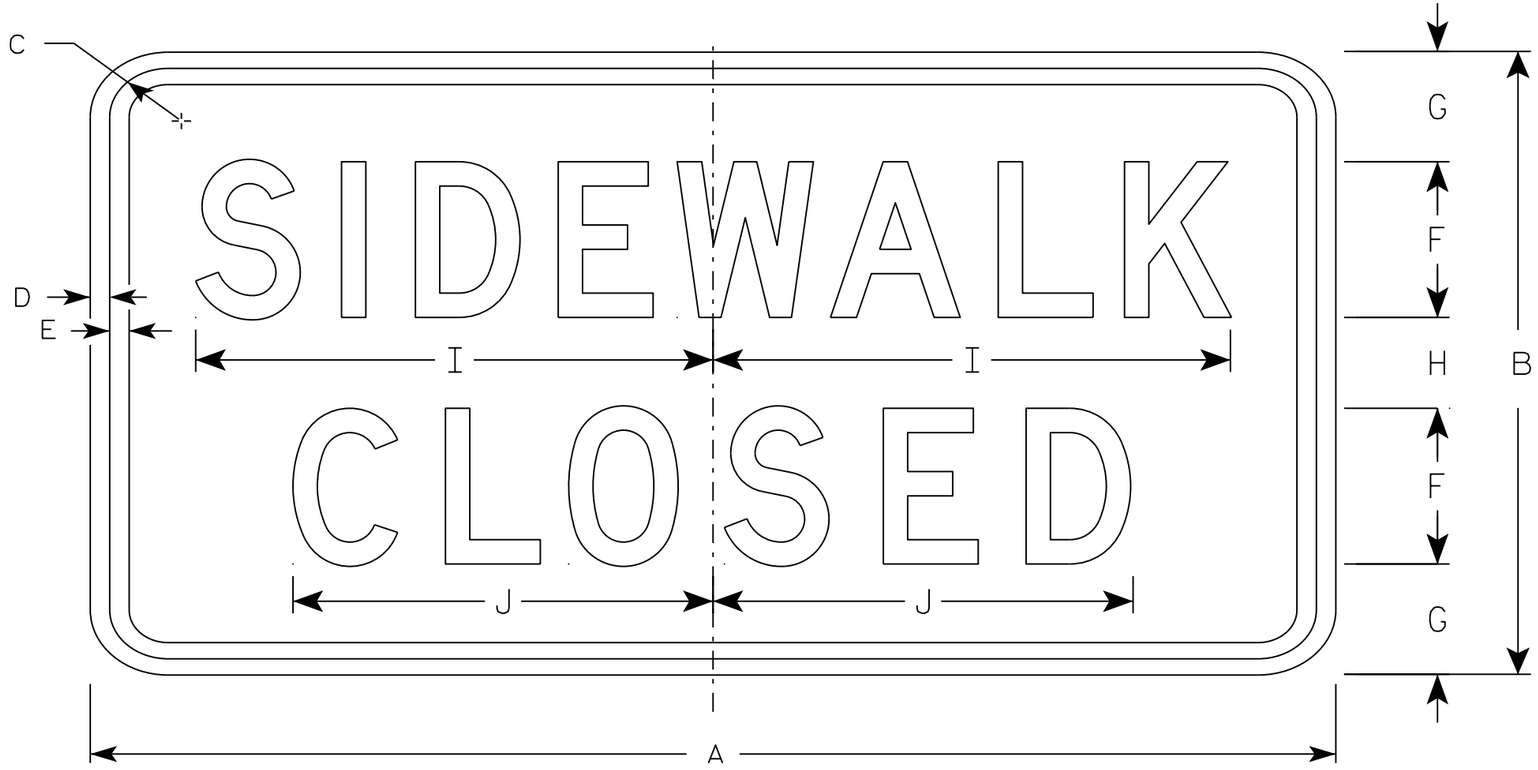
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 432	E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

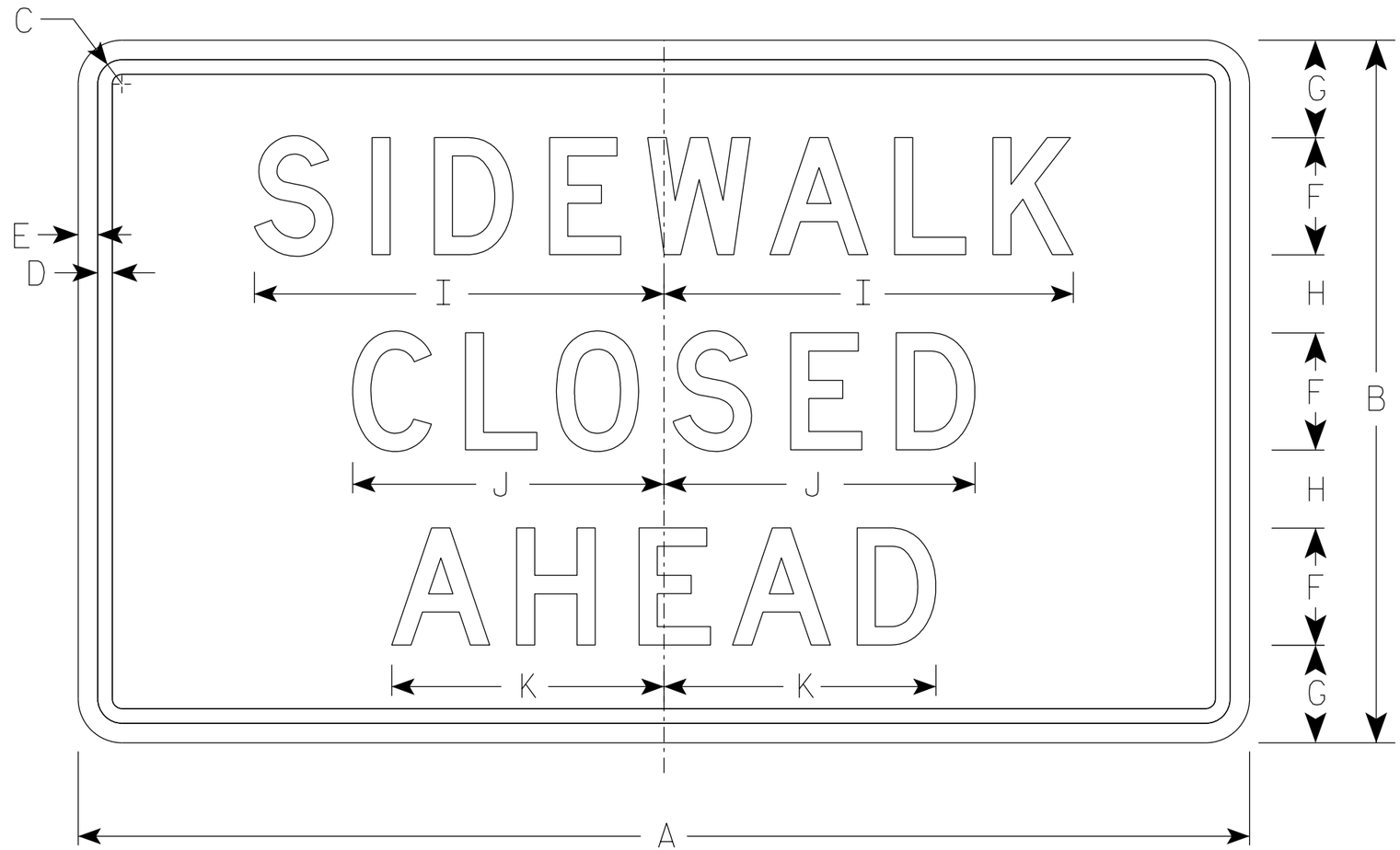
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 433 R9-9.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-9A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

435

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

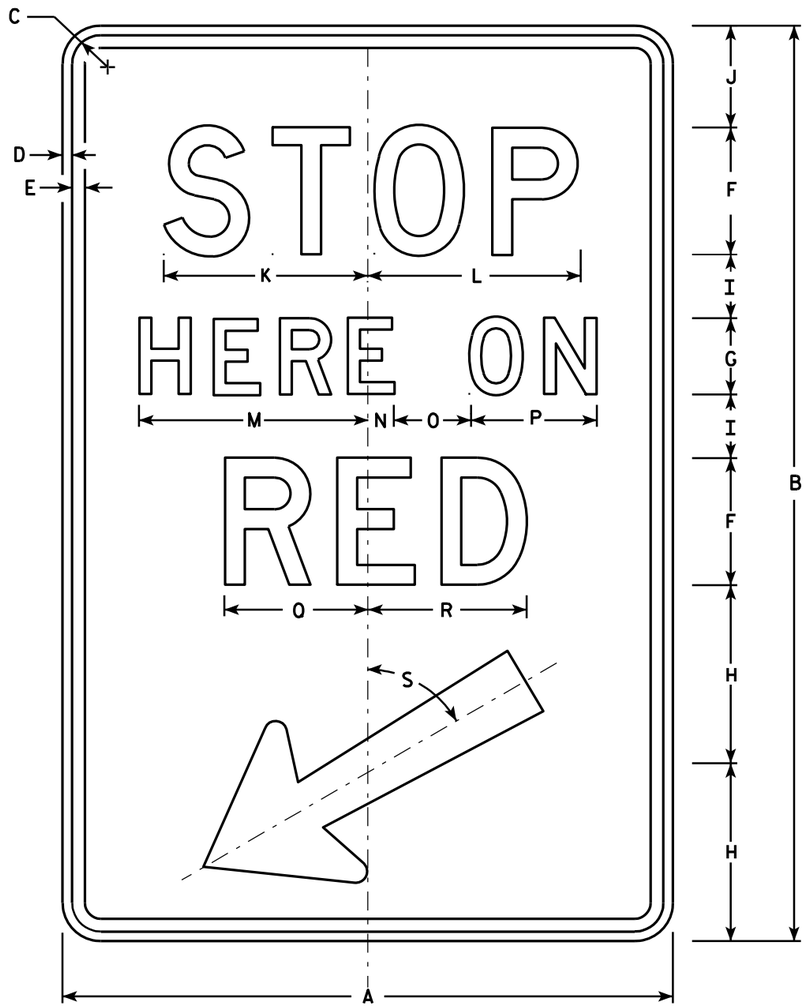
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/31/2020 PLATE NO. R9-9A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 434 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R99A.DGN PLOT DATE : 31-AUG-2020 3:26 PLOT BY : dotc4c PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

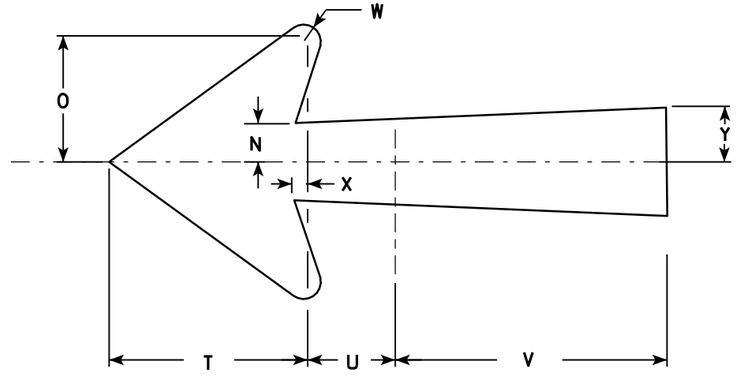
7 7



R10-6

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

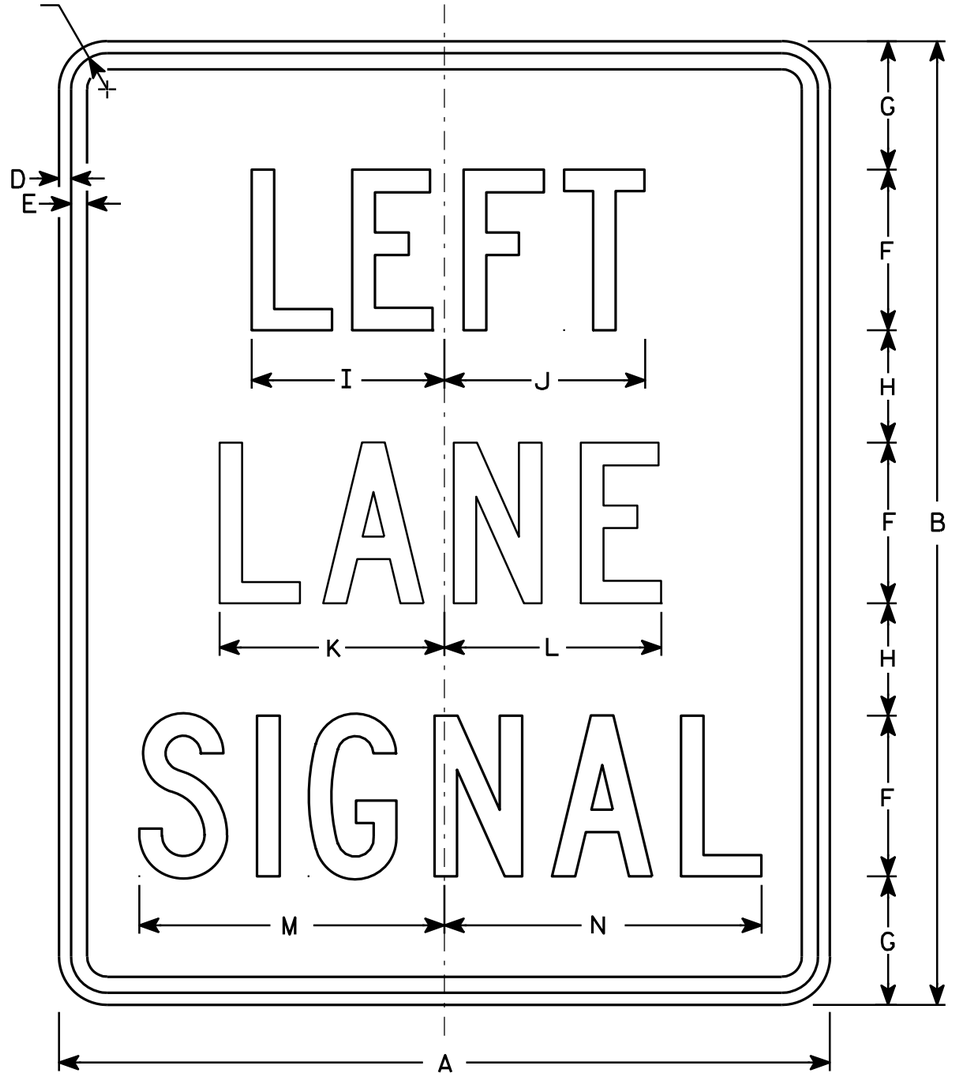
STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

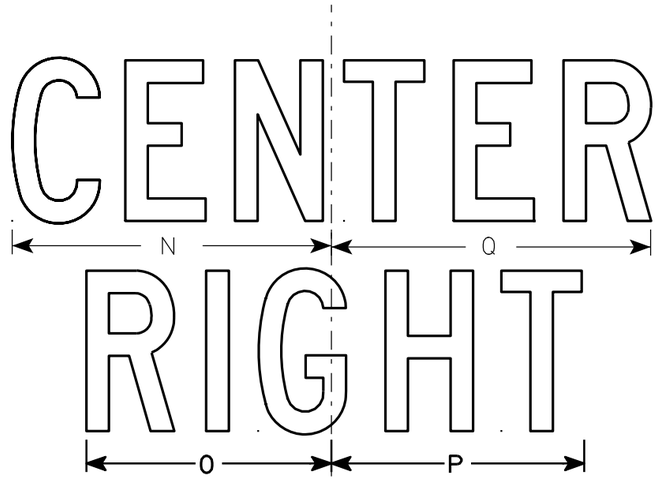
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 436	E



R10-65L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R10-65C

R10-65R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8	10										5.0
2M	24	30	1 1/8	3/8	1/2	5	4	3 1/2	6	6 1/4	7	6 3/4	9 1/2	9 7/8	7 5/8	7 7/8	10										5.0
3																											
4																											
5																											

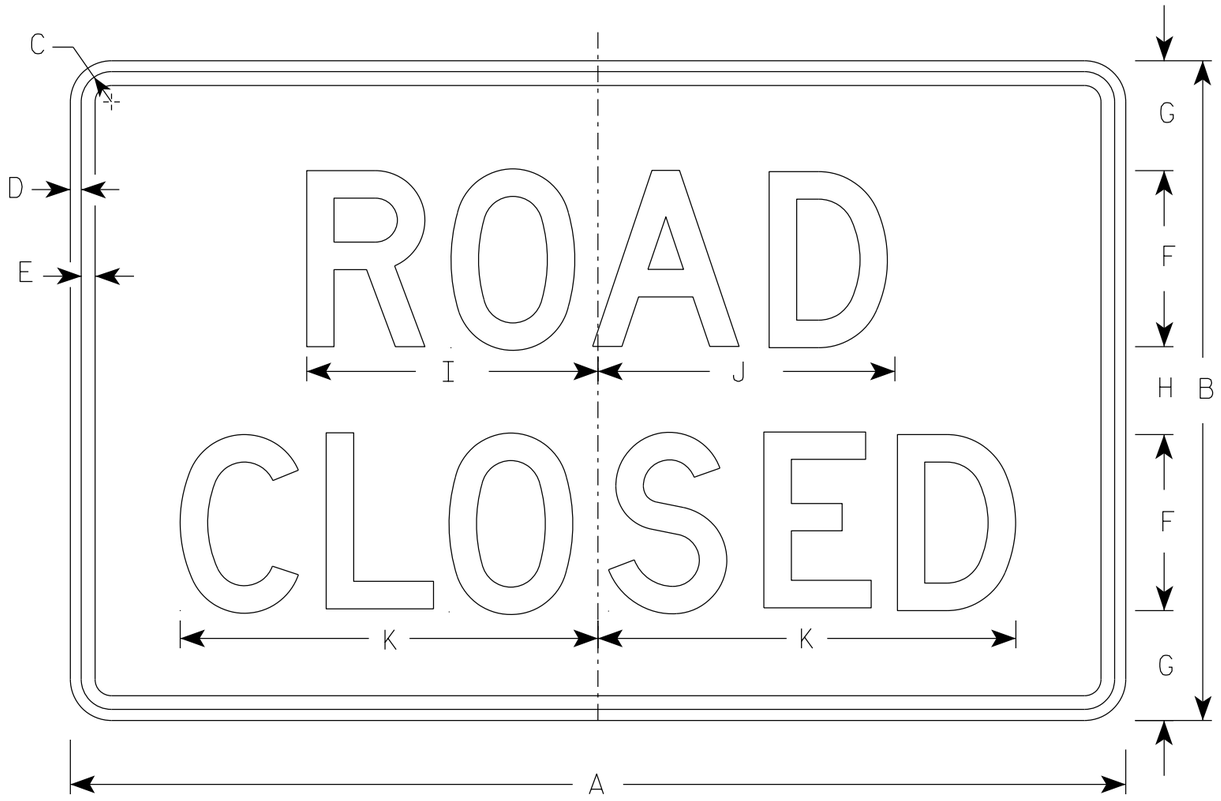
STANDARD SIGN
R10-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-65.2

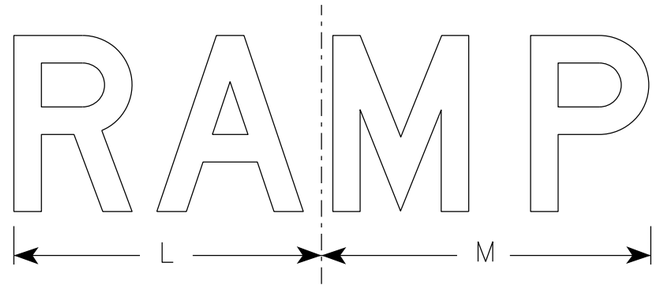
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 436 | E



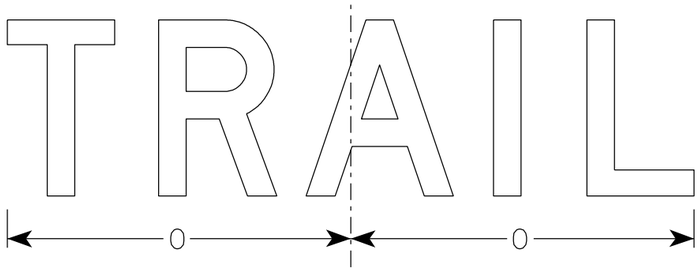
R11-2

NOTES

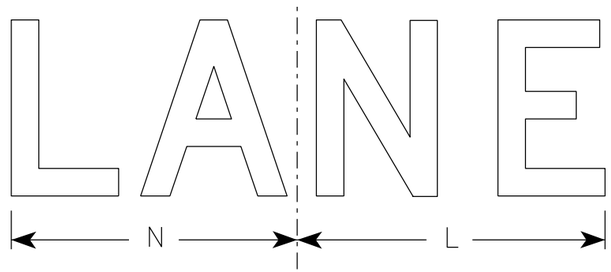
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

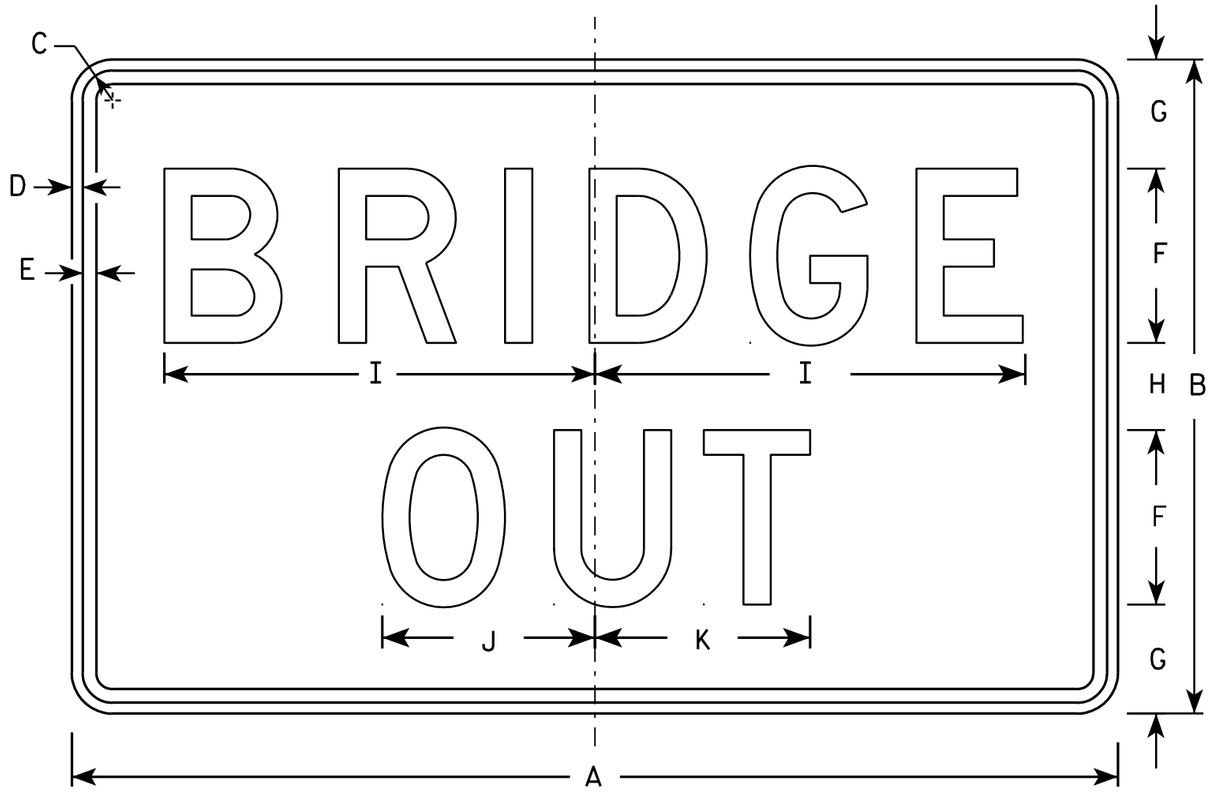
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 437 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 29-MAR 2021 8:15 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



R11-2B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

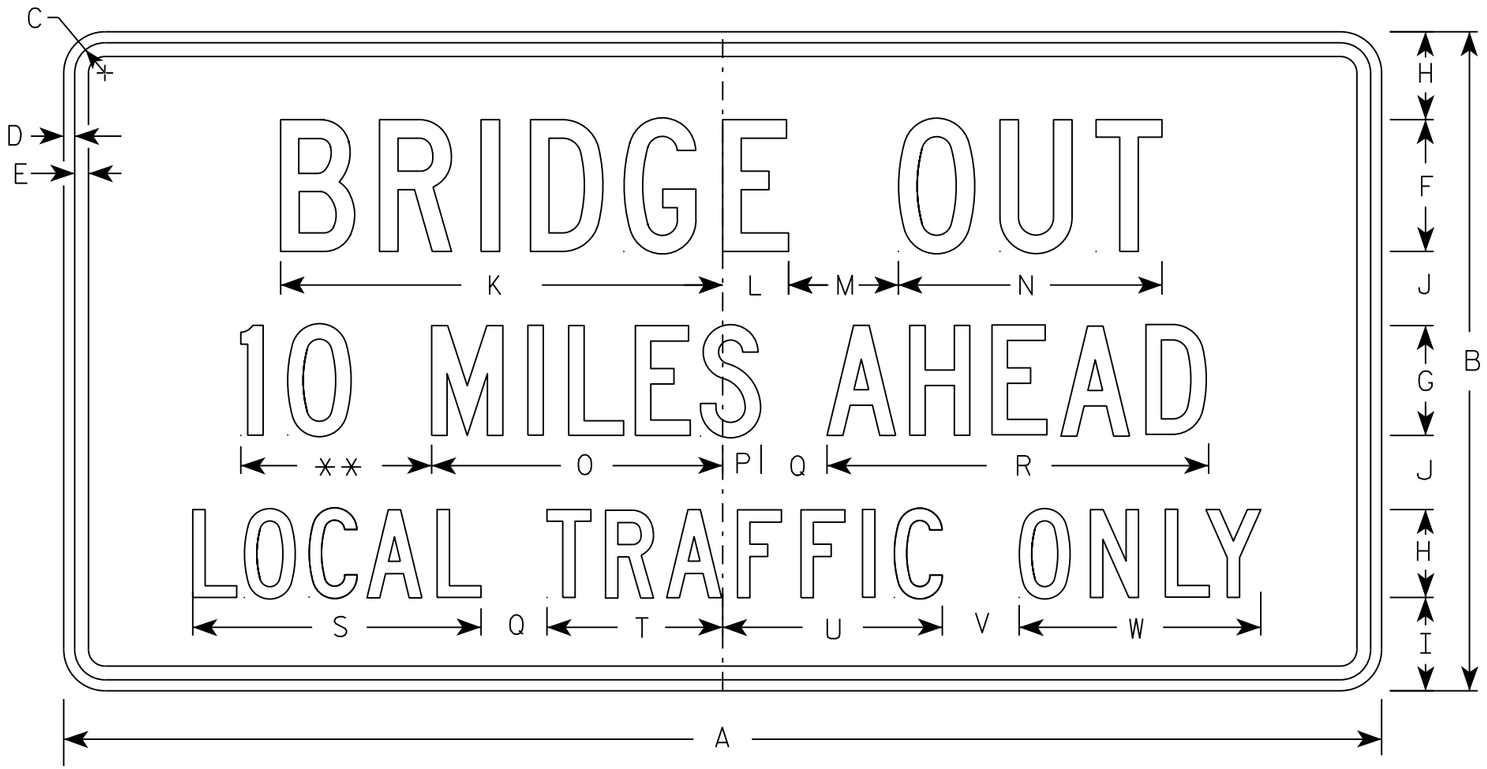
PROJECT NO:

SHEET NO: 439 E

7

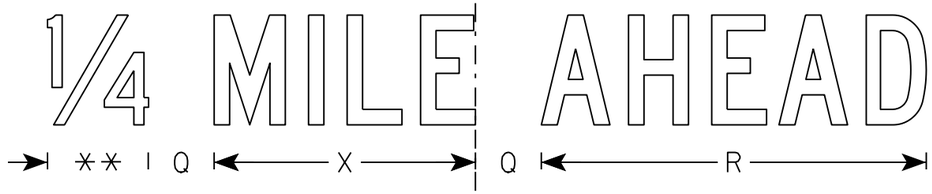
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



R11-3B

** See Note 5



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

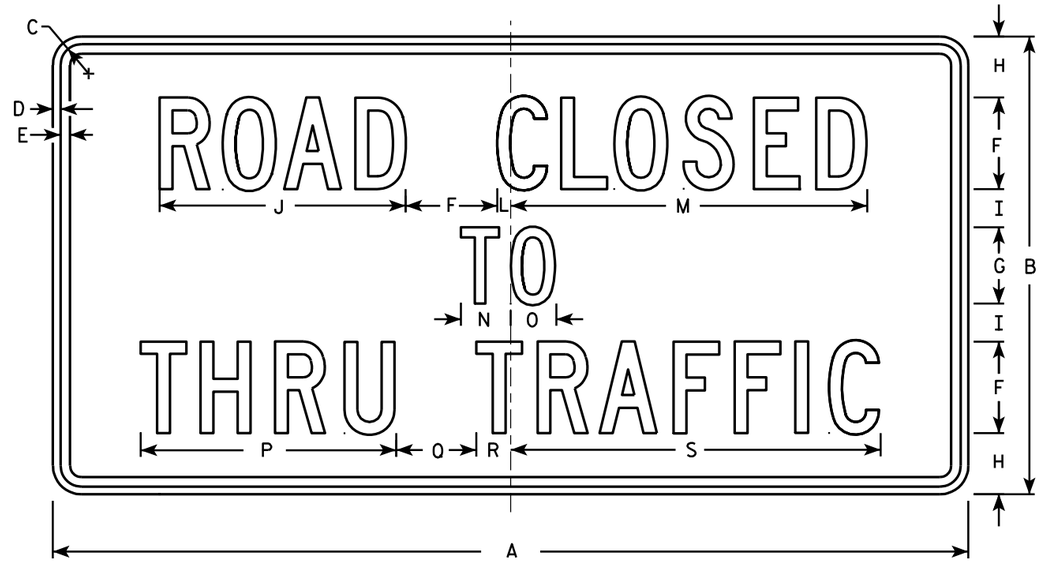
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. R11-3B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 440	E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

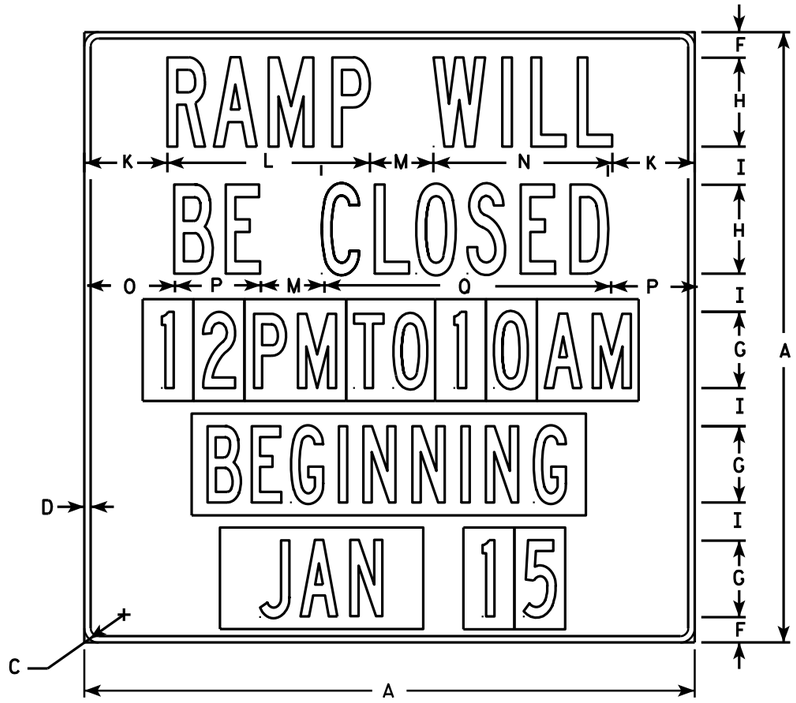
STANDARD SIGN
R11 - 4

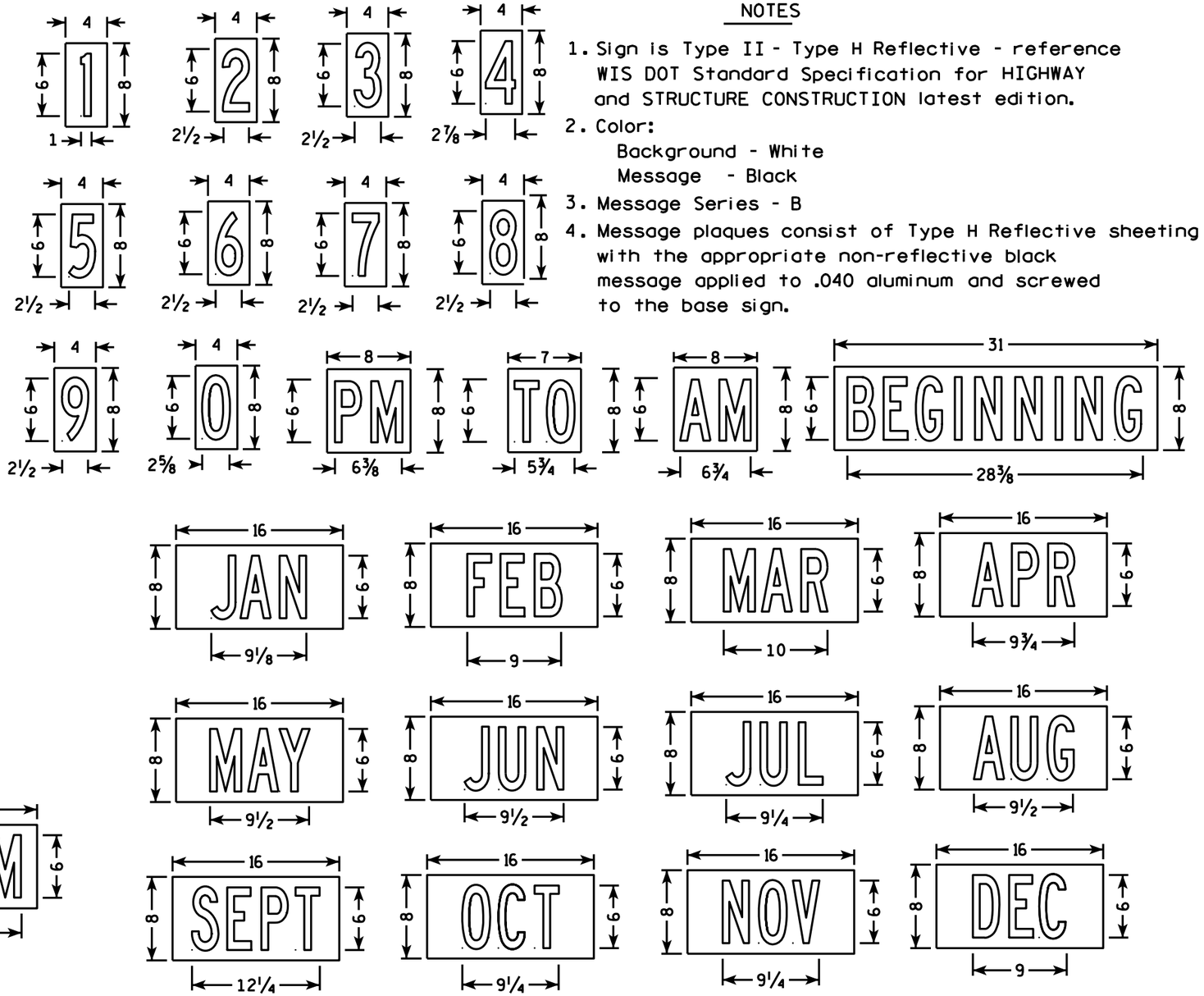
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 441 | E





NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

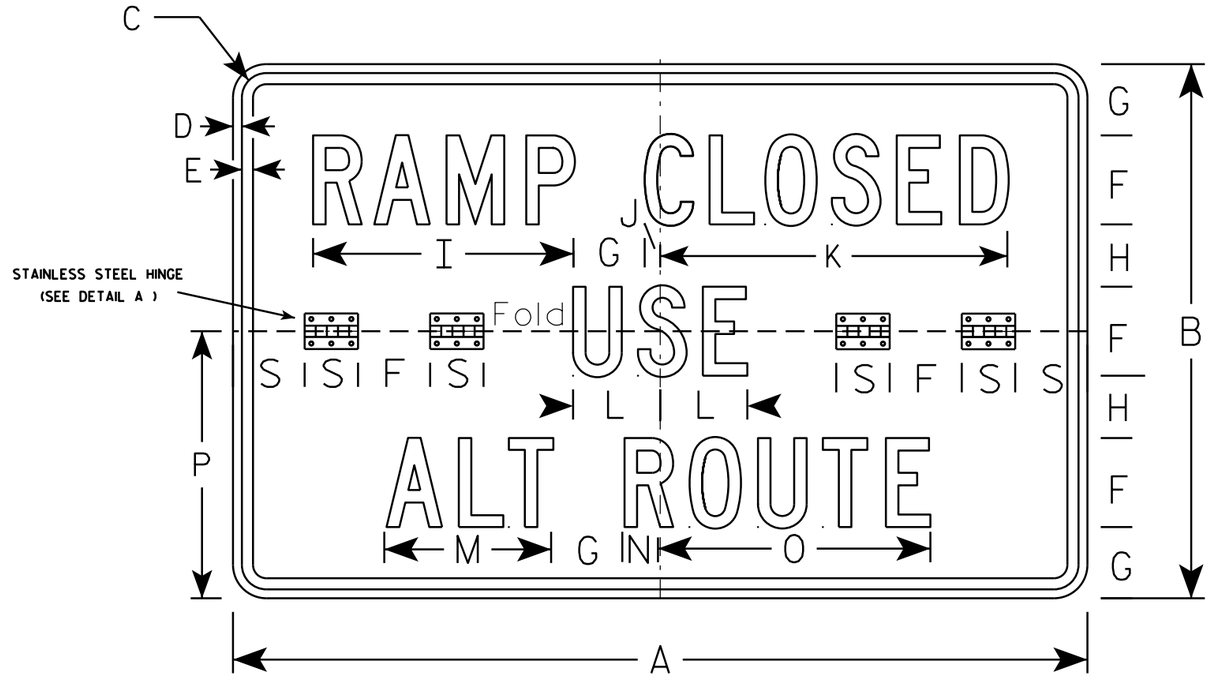
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 442	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1151.DGN PLOT DATE : 01-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000

WISDOT/CADDS SHEET 42

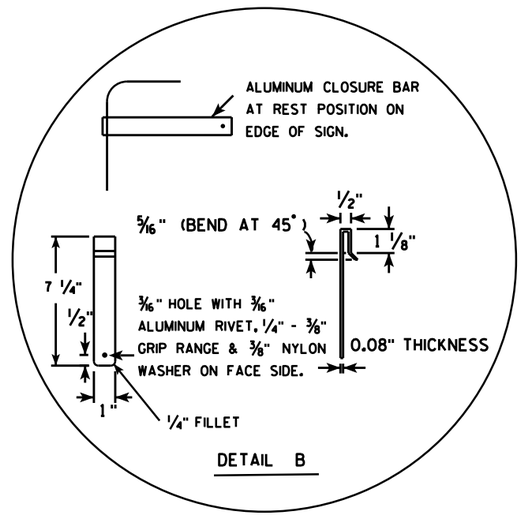
7

7



R11-54F

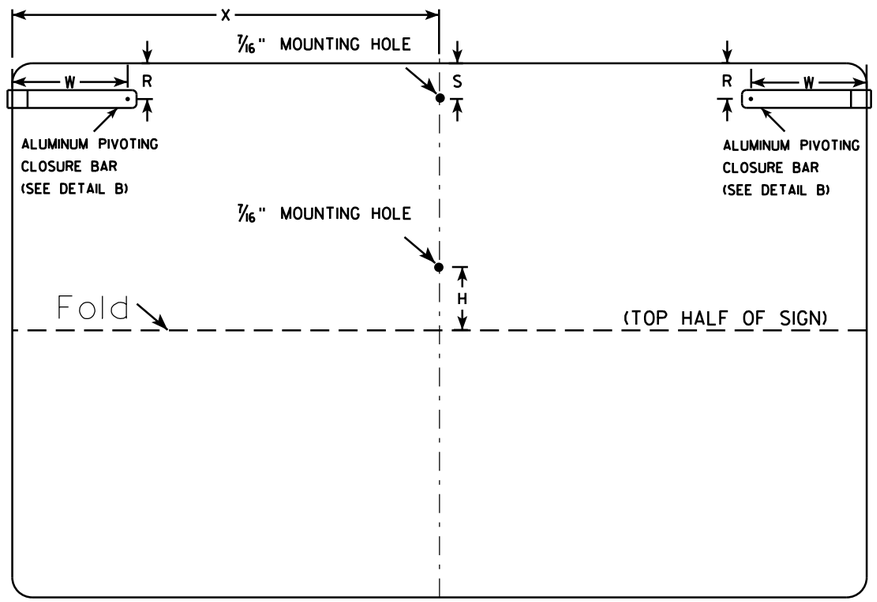
DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.



(BACK VIEW)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
2M	48	30	1 3/8	1/2	5/8	5	4	3 1/2	14 5/8	7/8	19 1/2	4 7/8	9 3/8	2	15 1/4	15		2	3	2 5/8	1 1/4	11/16	6 1/2	24			10.0
3																											
4																											
5																											

STANDARD SIGN
R11-54F

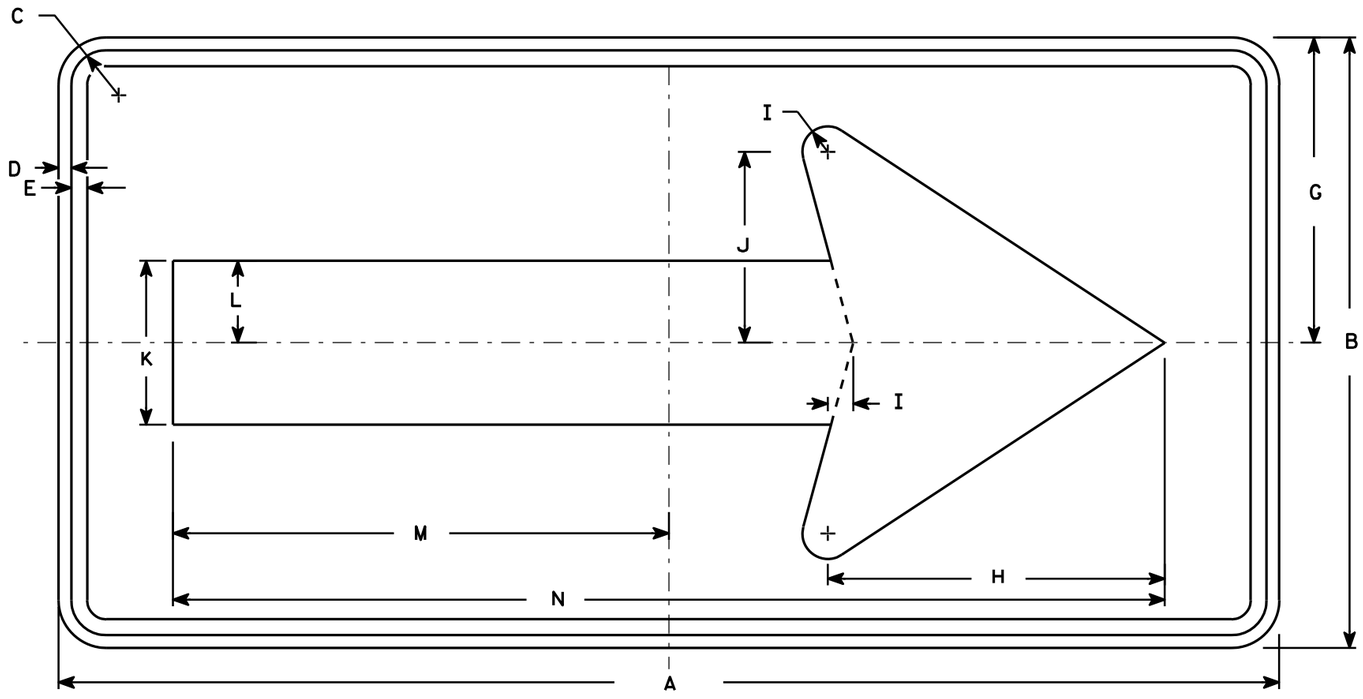
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE NO. R11-54F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R1154F.DGN PLOT DATE : 28-MAY-2014 14:15 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.511110:1.000000
WISDOT/CADDS SHEET 42



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

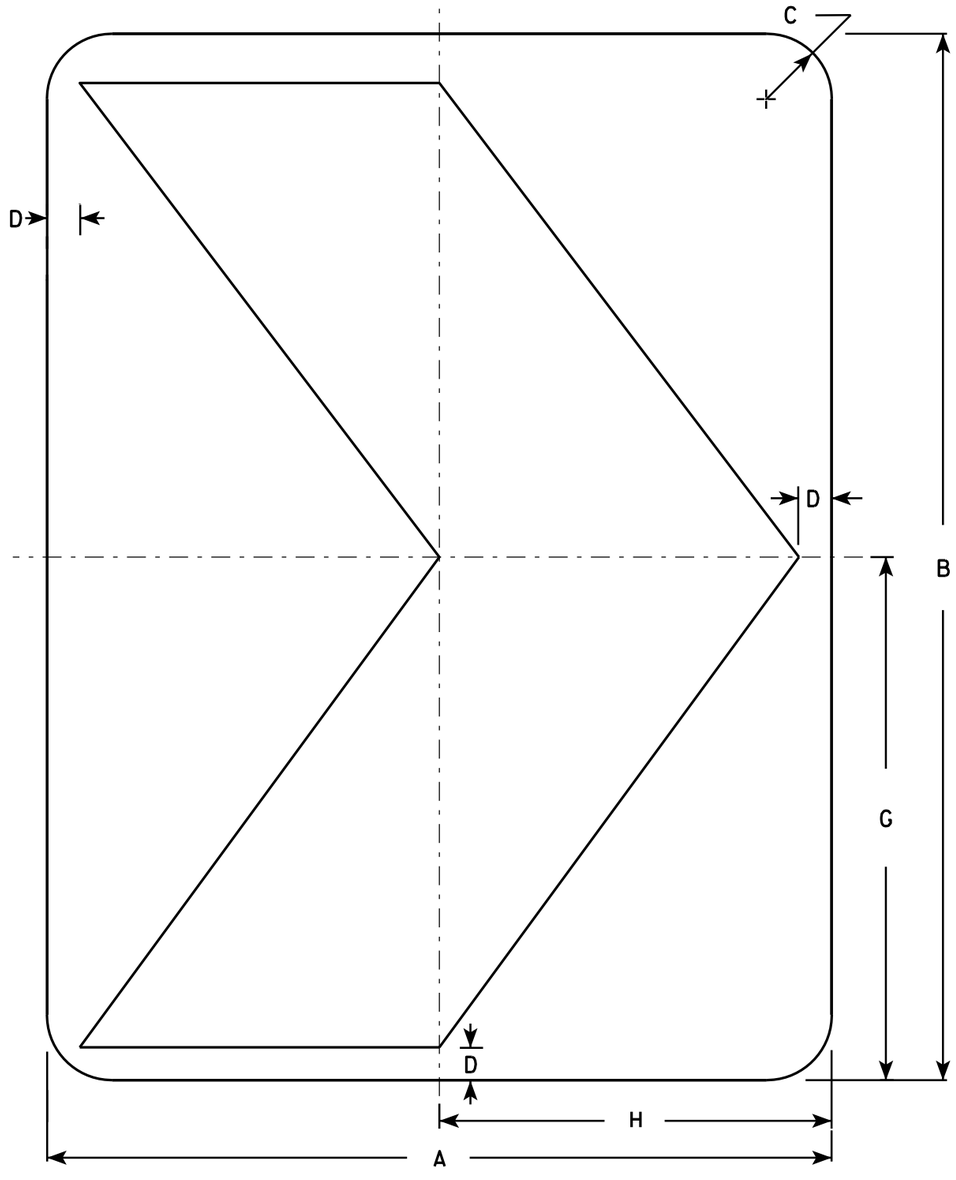
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 444



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

W1-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

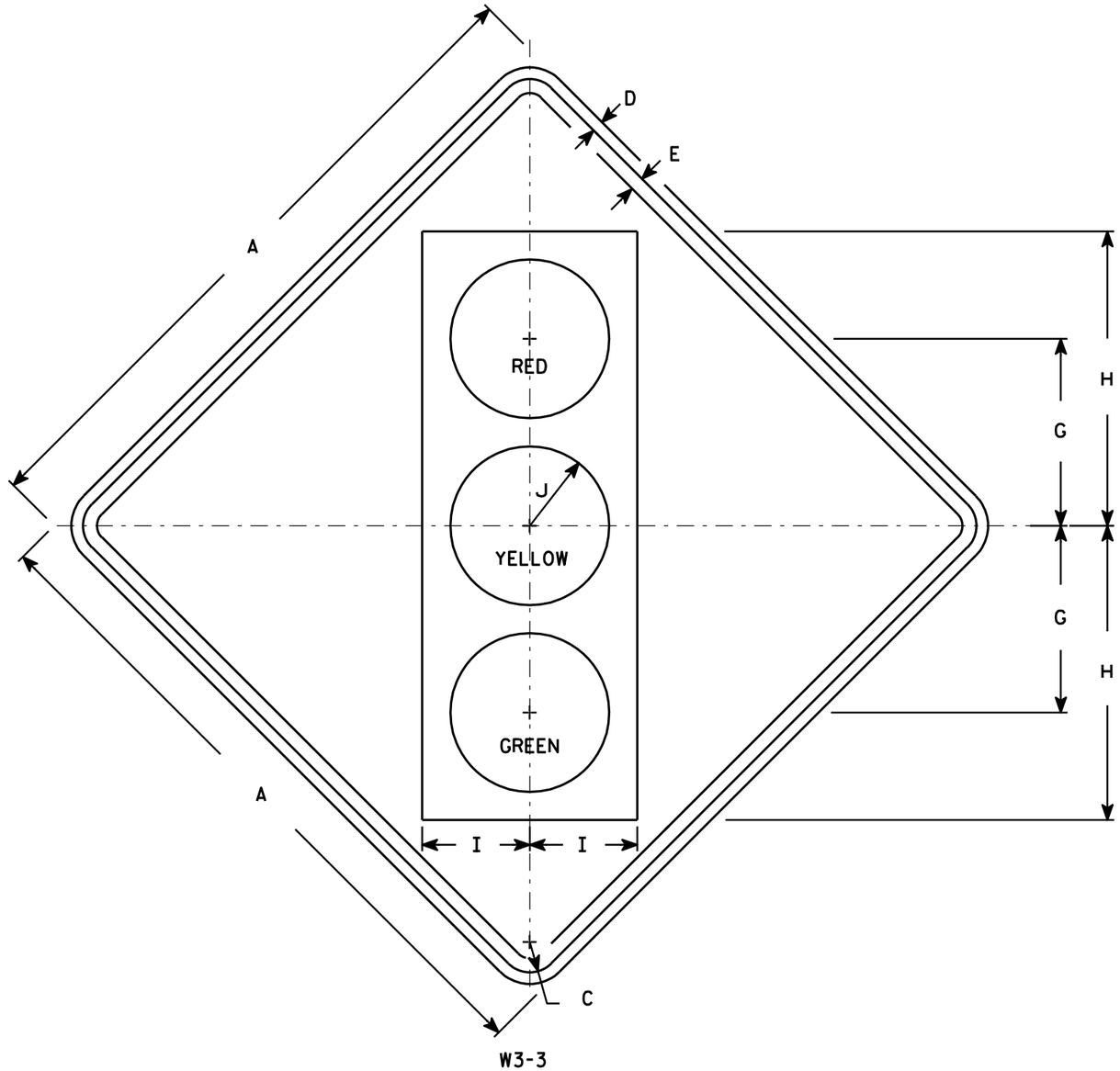
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 445 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

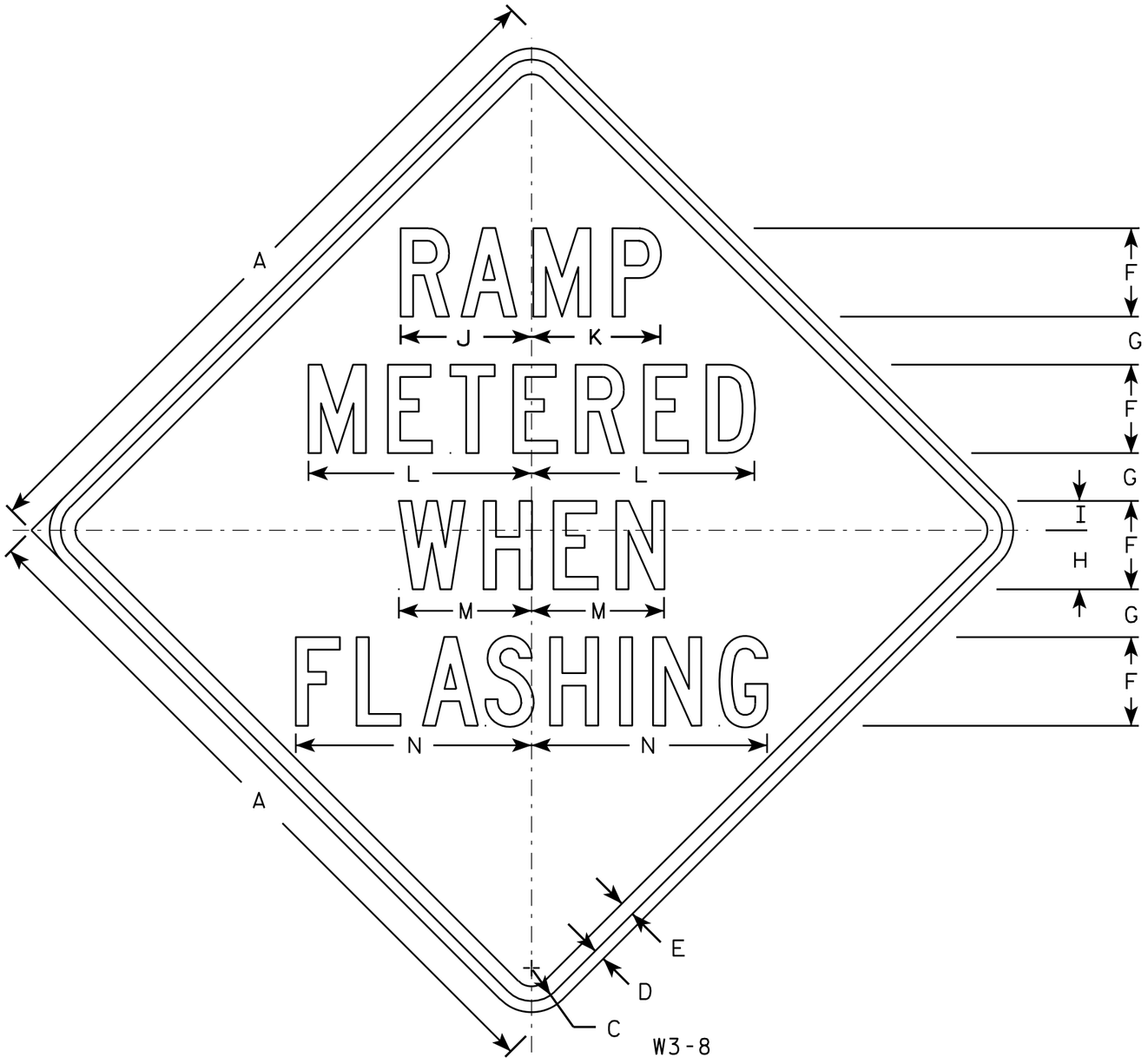
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 446 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
2M	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
3	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
4	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
5	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0

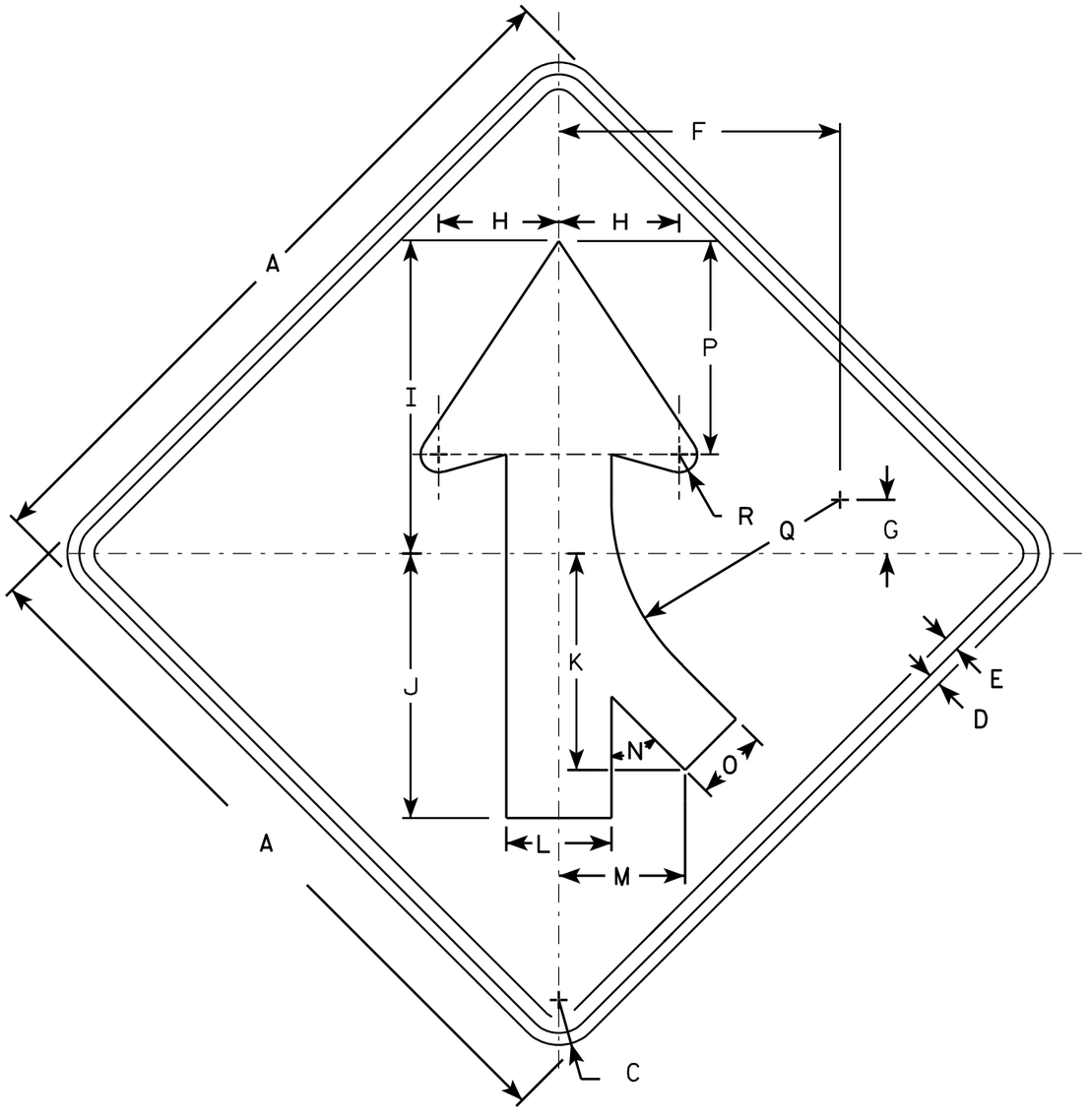
STANDARD SIGN
W3-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W3-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 447	E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

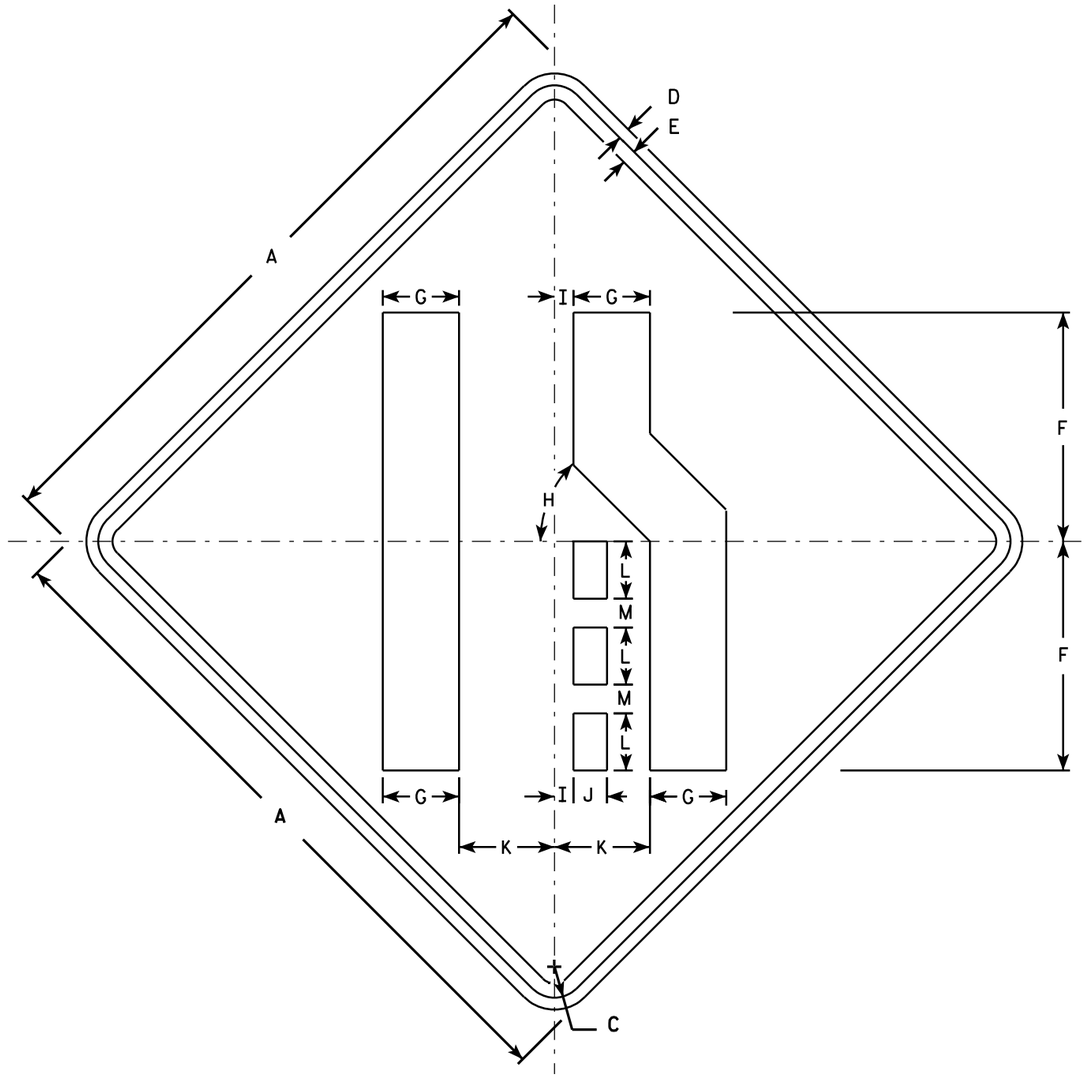
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 448	E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

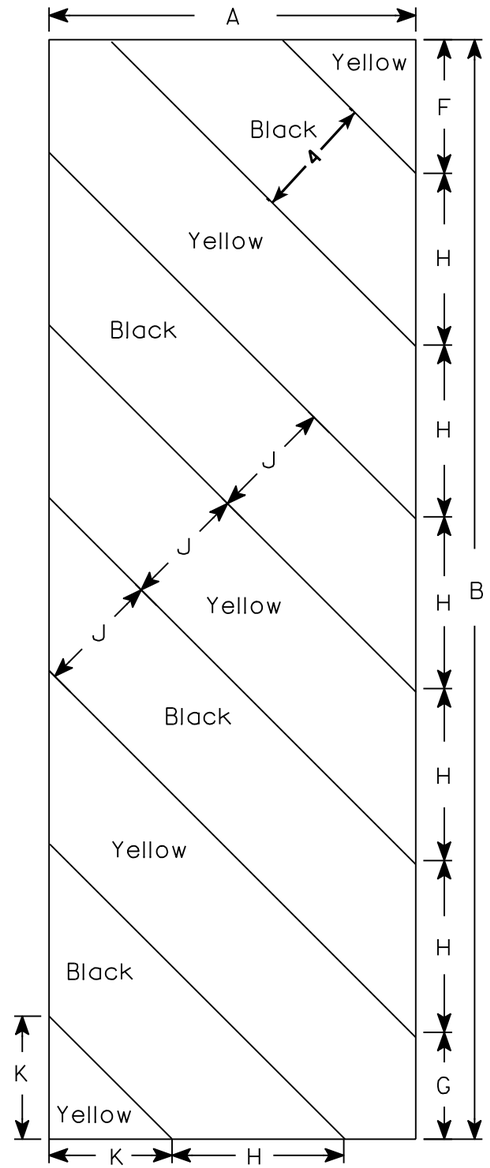
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

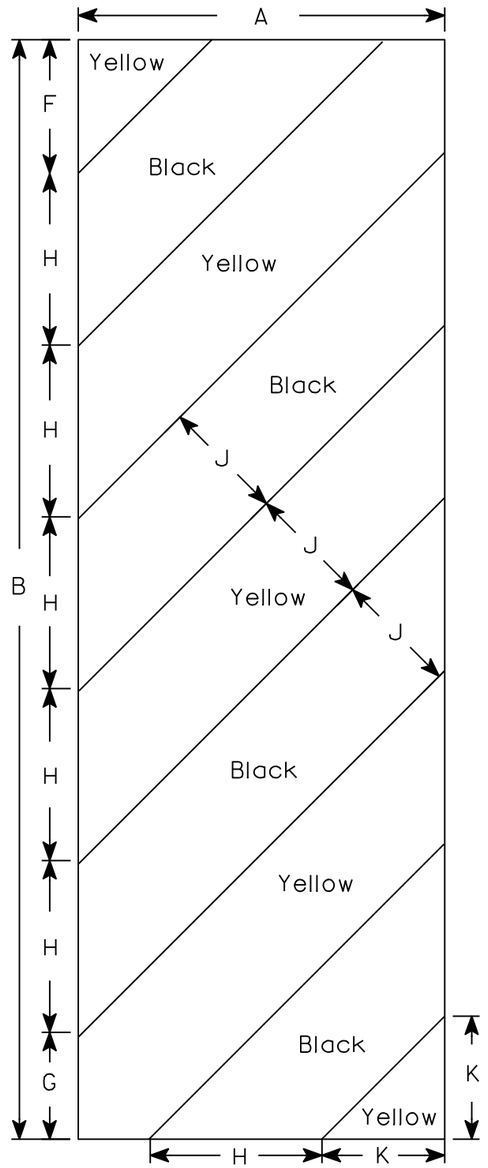
DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 449 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

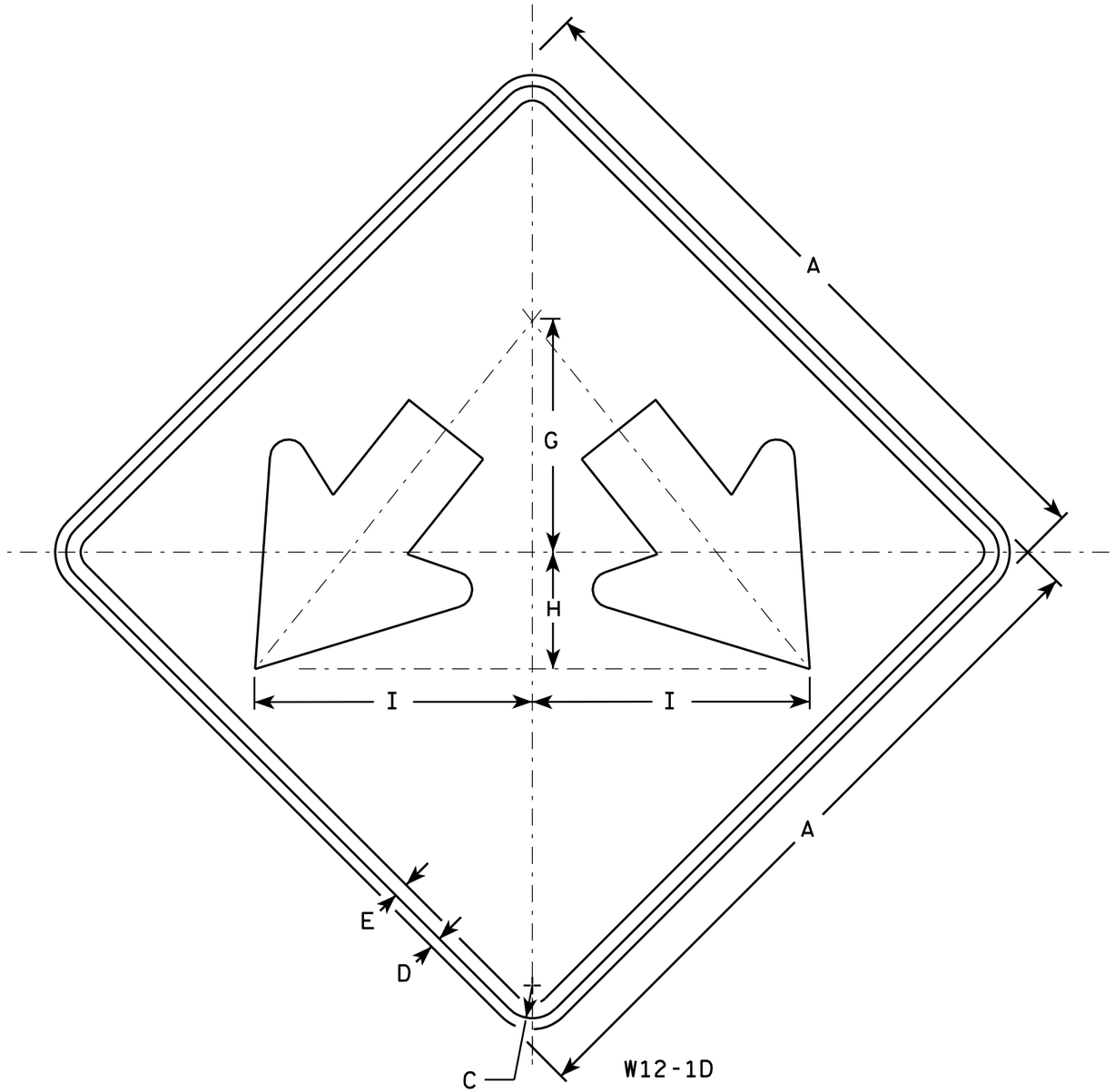
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

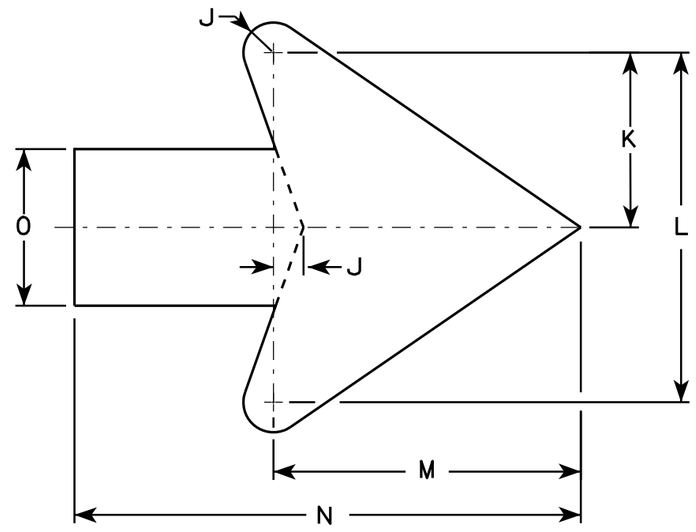
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 450 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

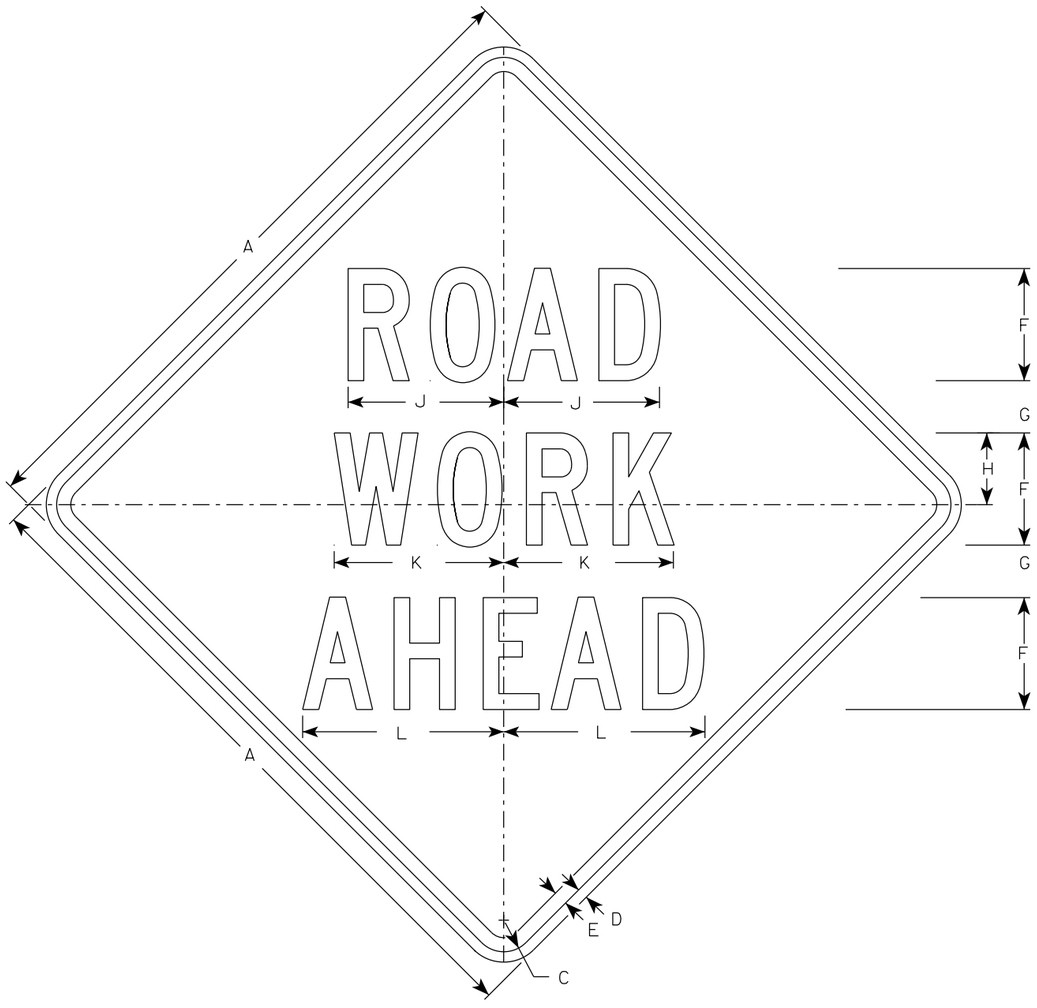
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

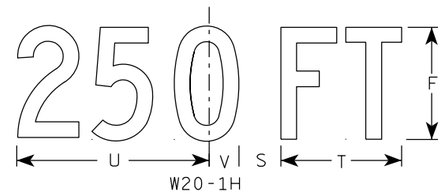
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 450	E

NOTES

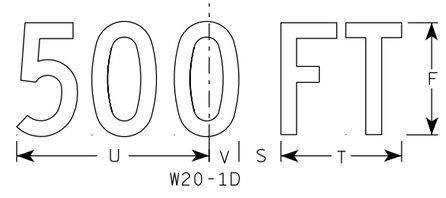
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



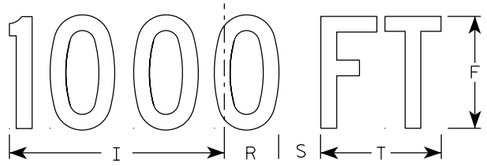
W20-1A



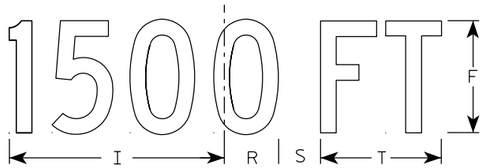
W20-1H



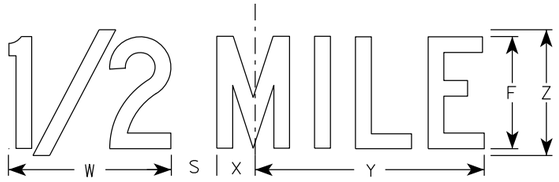
W20-1D



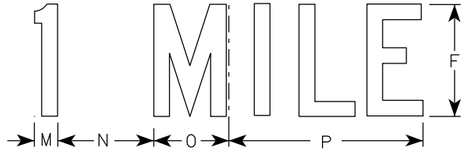
W20-1C



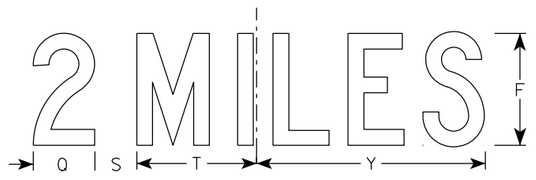
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

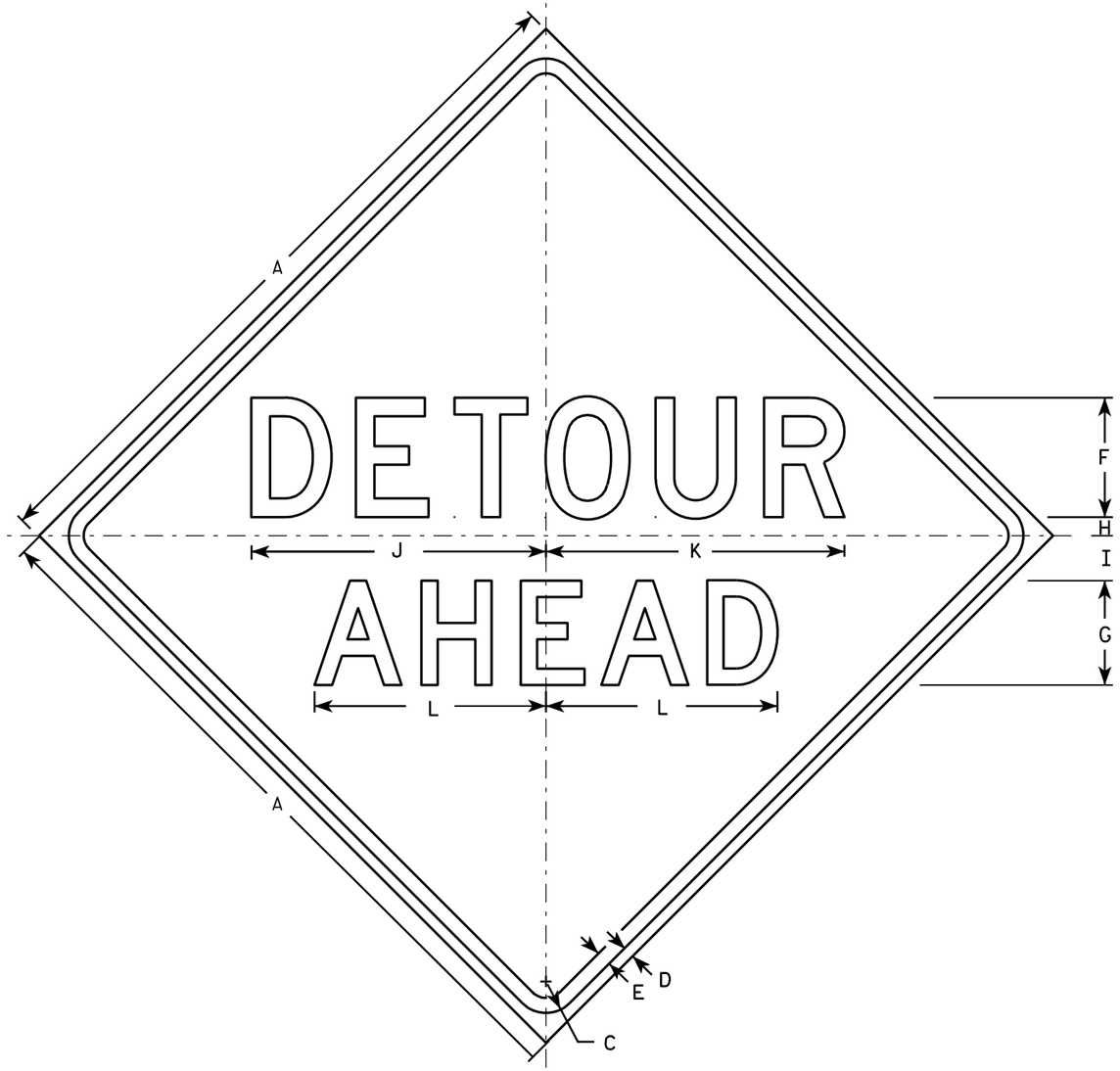
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

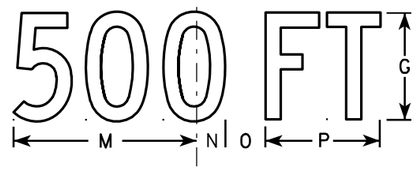
WISDOT/CADDS SHEET 42

7

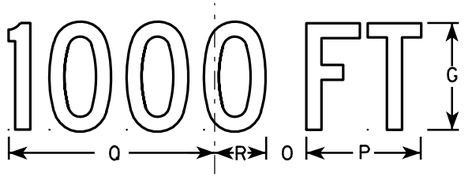
7



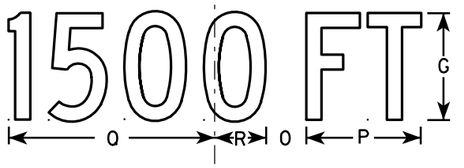
W20-2A



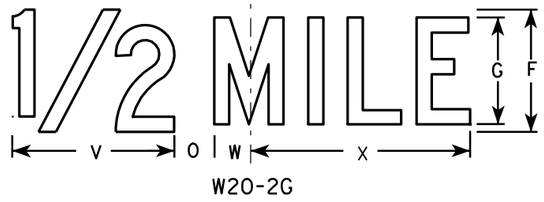
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

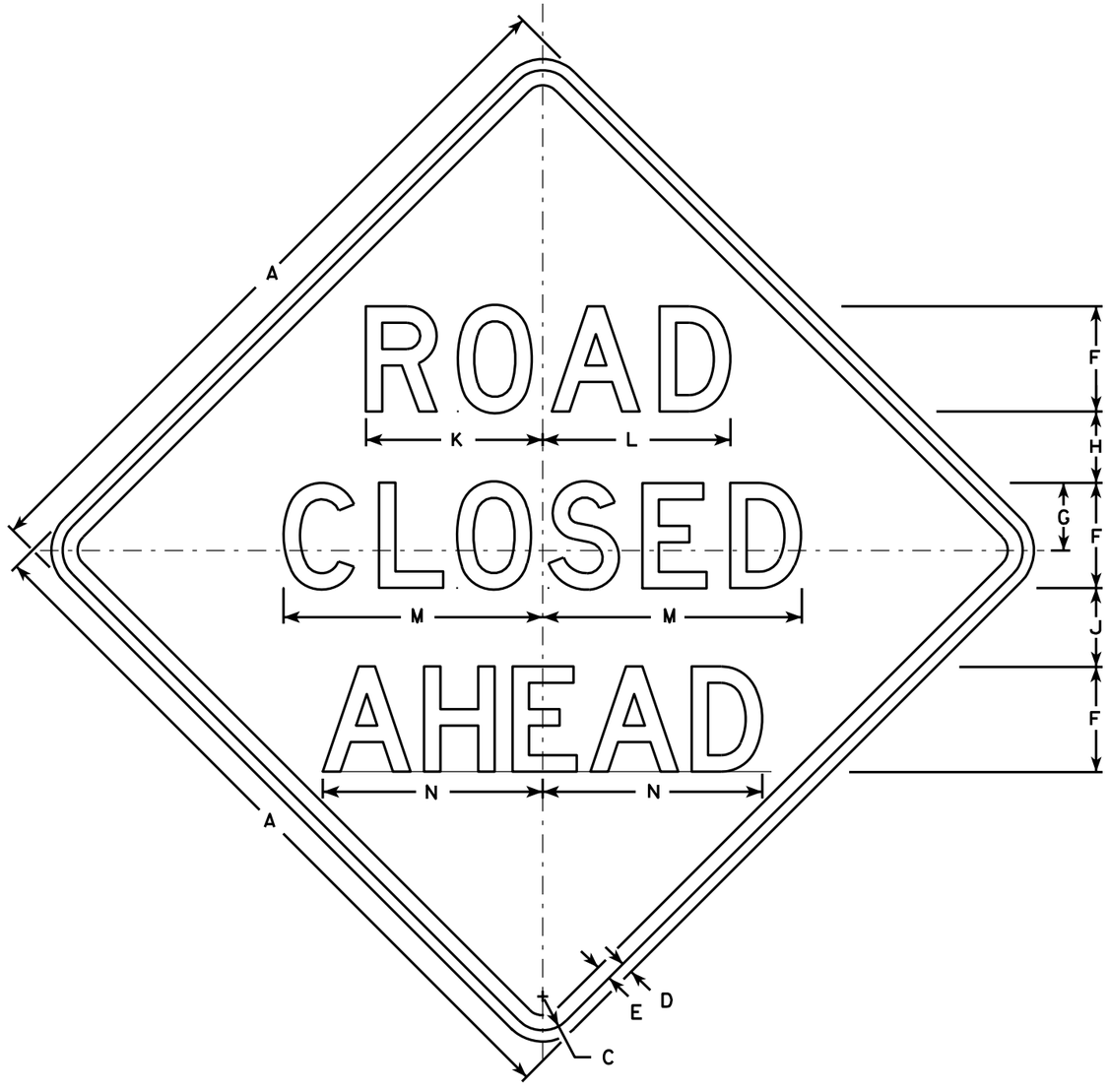
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

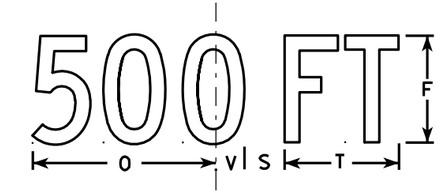
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 453 | E

7

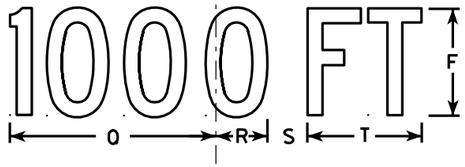
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



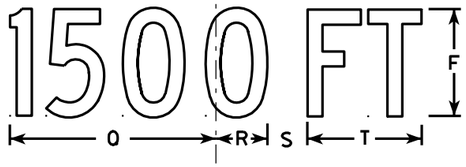
W20-3A



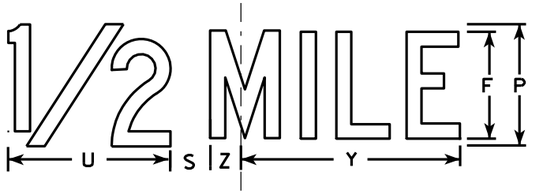
W20-3D



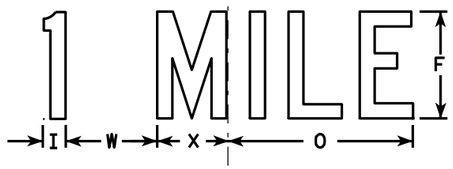
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

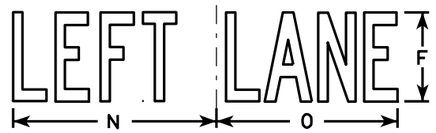
APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 454 | E

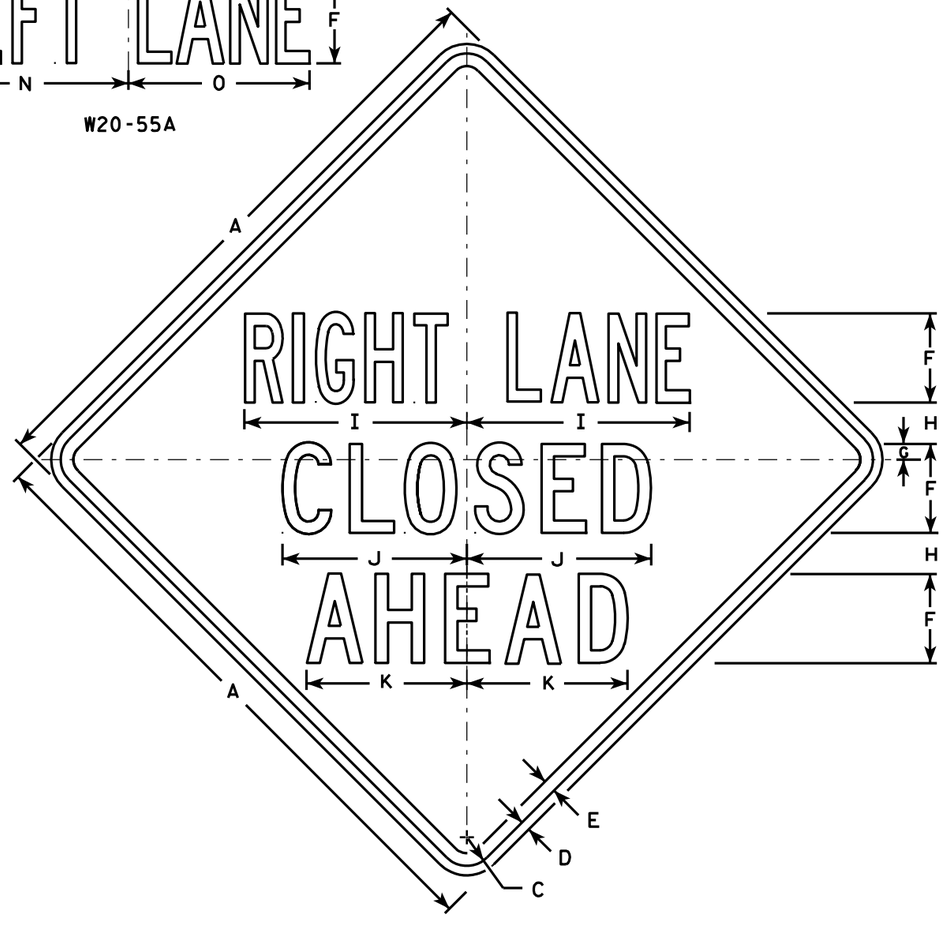
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42

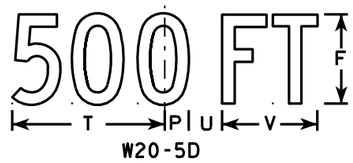
W20-56A



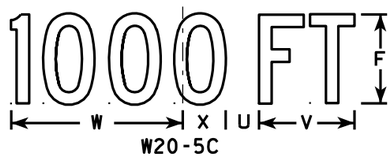
W20-55A



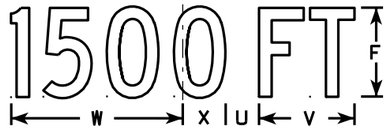
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

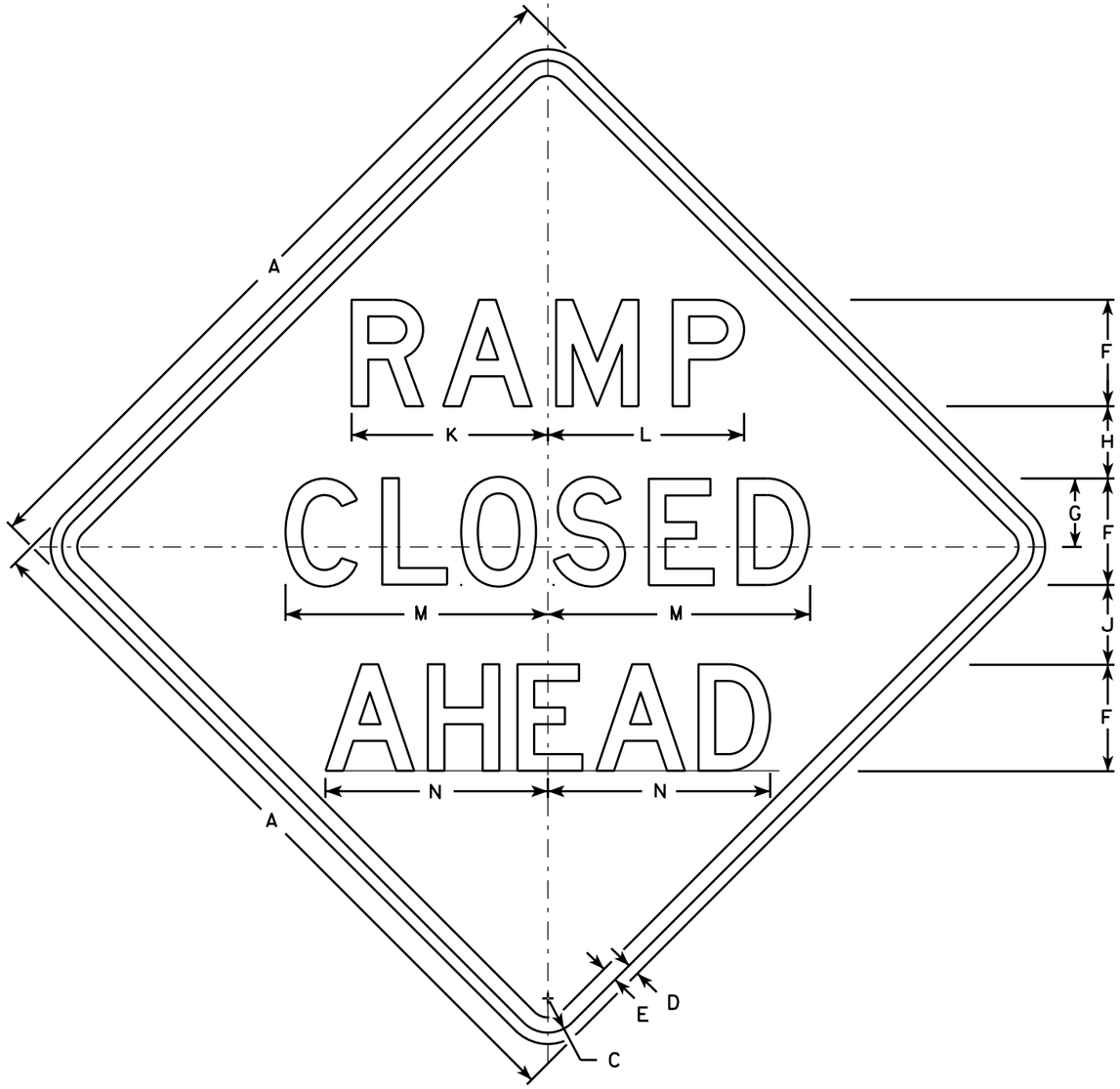
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

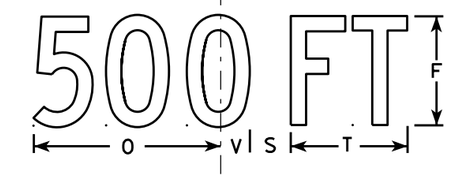
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 455	E

7

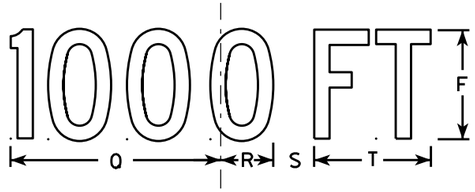
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



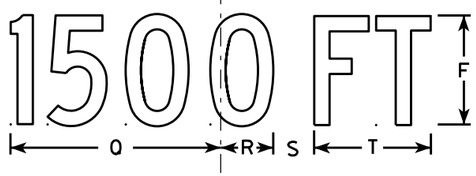
W20-53A



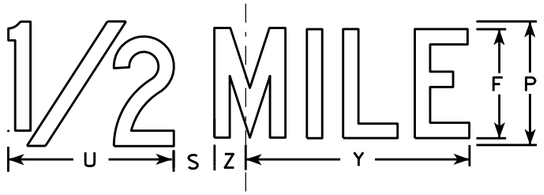
W20-53D



W20-53C



W20-53B



W20-53G

W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

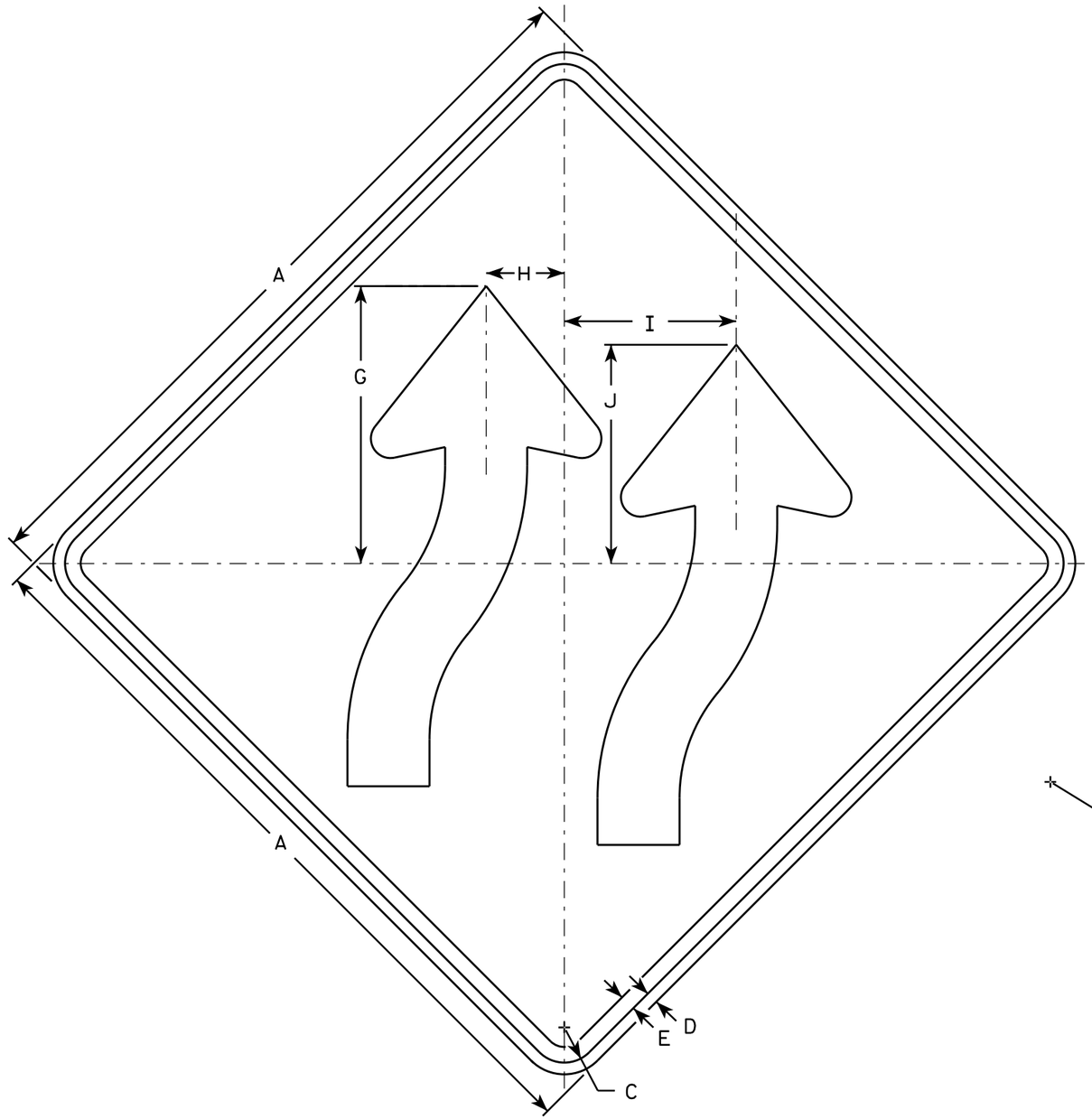
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

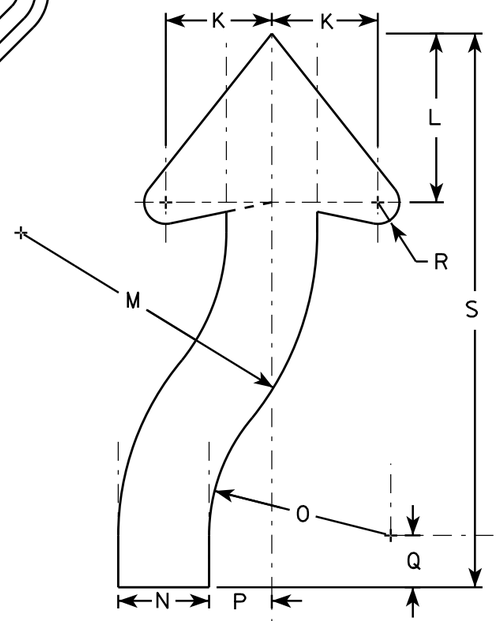
DATE 5/27/15 PLATE NO. W20-53.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W01-4bR



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

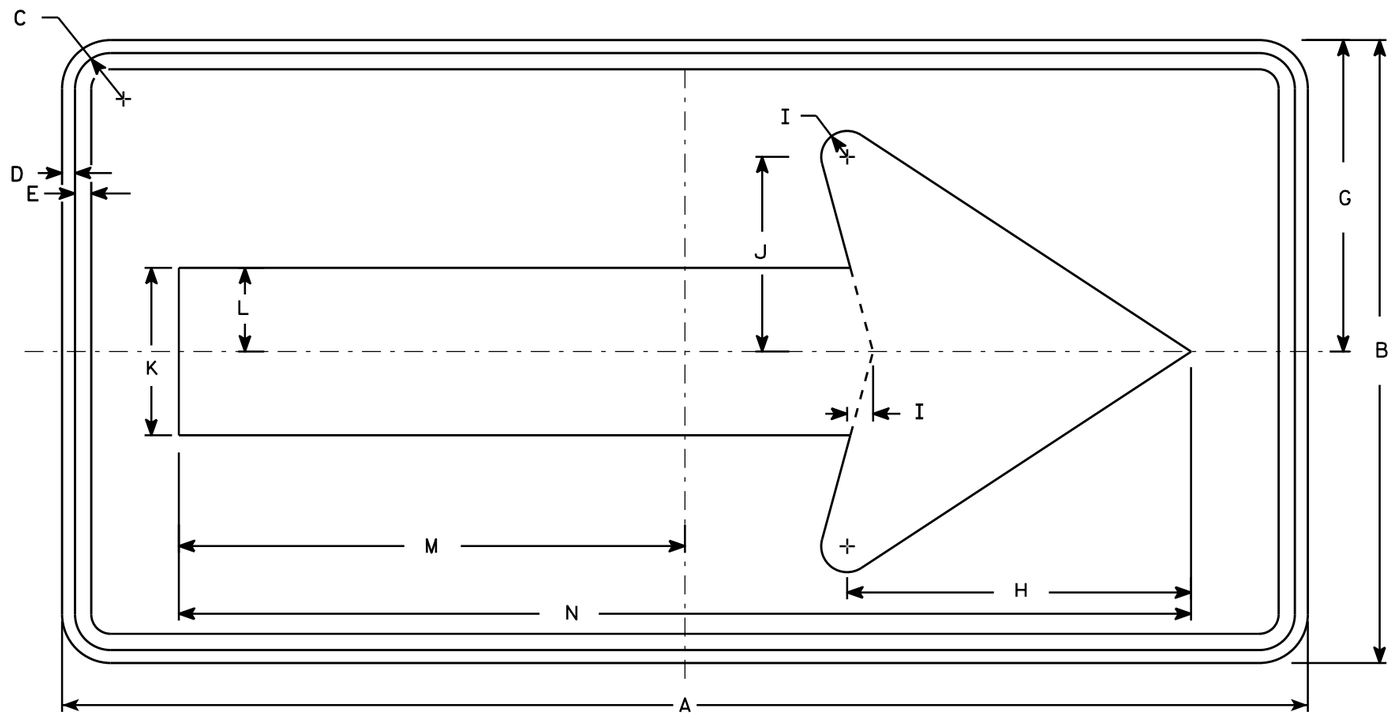
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

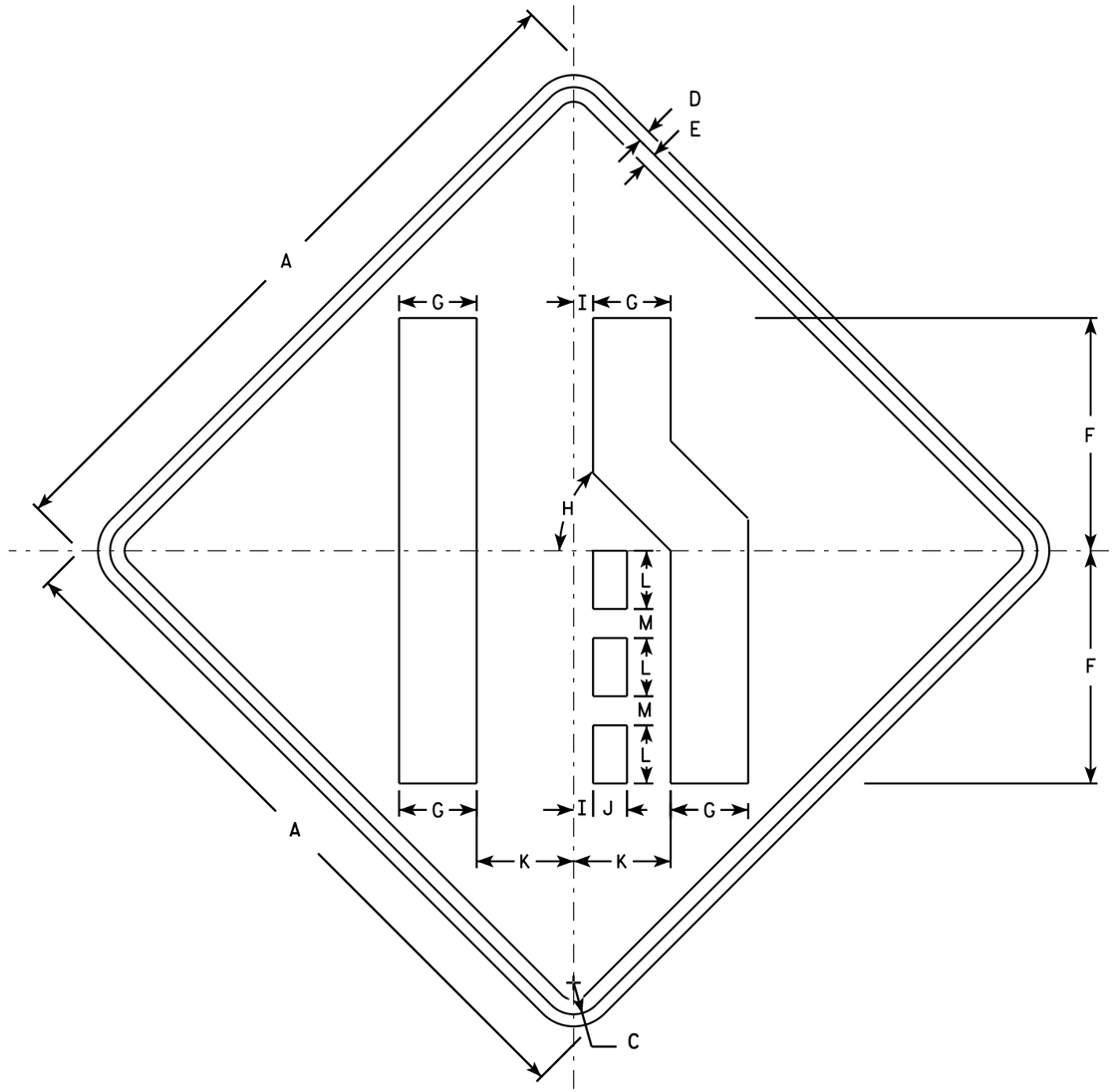
STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 458 W04-2.1

PROJECT NO:

SHEET NO: E

PRINTER DRIVER: c:\pwworking\aecom.ds20.na.2019\derek.jacobson@aecom.com\dms07634\pdf.pltcfg
PEN TABLE: pw://aecom-na-pw.bentley.com:AECOM_DS20_NA.2019/Documents/60608972-Airport Freeway Looms Road/900-CAD GIS/911.Structures/911.1.B-40-1025.Bridge/MS Printing/AE_WisDOT_structure.tbl
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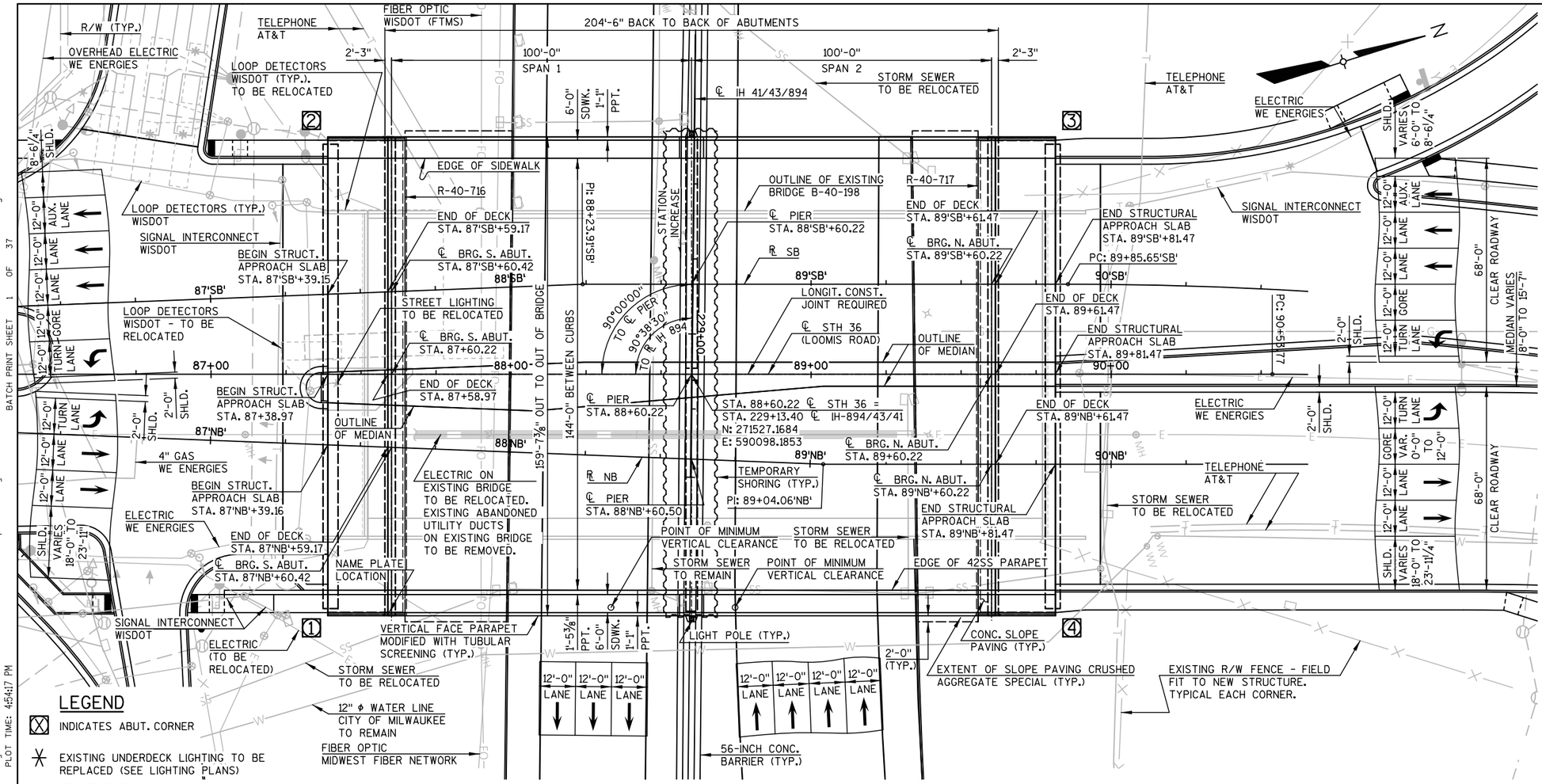
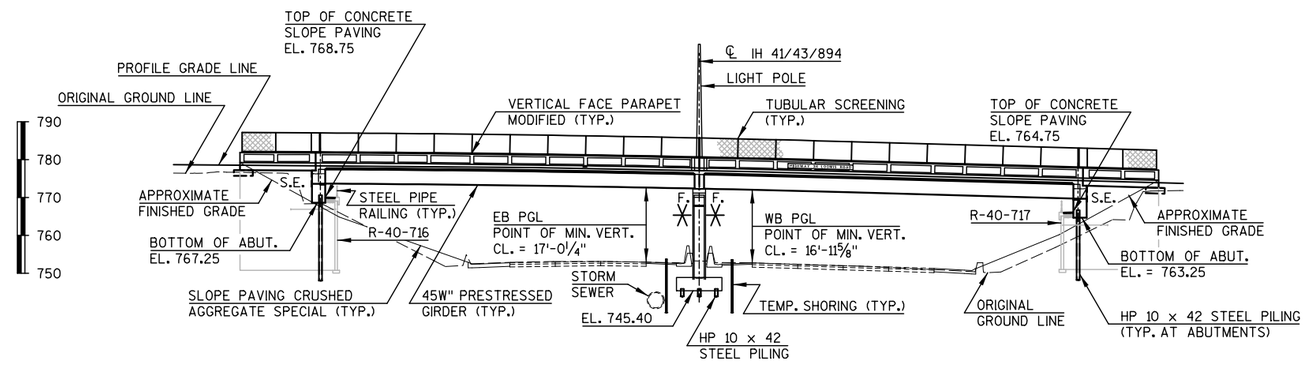


LEGEND

- ⊠ INDICATES ABUT. CORNER
- ✳ EXISTING UNDERDECK LIGHTING TO BE REPLACED (SEE LIGHTING PLANS)
- S.E. SEMI-EXPANSION
- F. FIXED

PLAN

(2-SPAN 45W" PRESTRESSED CONCRETE GIRDER BRIDGE)



ELEVATION

(LOOKING WEST)

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
CP 8	86+52.22 STH 36 (LOOMIS RD), 62.27' RT	CUT CROSS IN SIDEWALK	776.88
CP 12	89+37.56 STH 36 (LOOMIS RD), 100.56'LT	REBAR WITH GRAEF PINK CAP	751.80

STATE PROJECT NUMBER

1100-46-71

DESIGN DATA

LIVE LOAD

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF= 1.12
OPERATIONAL RATING FACTOR: RF= 1.64
WISCONSIN STANDARD PERMIT VEHICLE (Wis-SPV) = 250 KIPS
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY:
DECK, PARAPETS, DIAPHRAGMS, APPROACH SLABS & APPROACH SLAB FOOTINGS ____ f'c = 4,000 PSI
ALL OTHER ____ f'c = 3,500 PSI
45W-INCH PRESTRESSED GIRDERS ____ f'c = 8,000 PSI

PRESTRESSING STRANDS:
(0.6-INCH) ____ ULTIMATE TENSILE STRENGTH = 270,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60 fy = 60,000 PSI
(INCLUDES STAINLESS STEEL BAR REINFORCEMENT)
STRUCTURAL CARBON STEEL
(ASTM A709 GRADE 36) ____ fy = 36,000 PSI

FOUNDATION DATA

ABUTMENTS SHALL BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

THE PIER SHALL BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
SOUTH ABUTMENT ____ 90 FEET
NORTH ABUTMENT ____ 70 FEET
PIER ____ 70 FEET

TRAFFIC DATA

LOOMIS ROAD	IH 41/43/894
A.D.T. = 33,300 (2021)	A.D.T. = 140,100 (2021)
A.D.T. = 38,740 (2041)	A.D.T. = 148,800 (2041)
R.D.S. = 45 MPH	R.D.S. = 60 MPH

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
11/15/2022

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL DELEMONT (414) 207-4157

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/15/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-1025

STH 36 (LOOMIS ROAD) OVER IH-41/43/894

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	GREENFIELD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CEB	DESIGN CK'D.	MJA	DRAWN BY	CEB/DNJ	PLANS CK'D.	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 37
460

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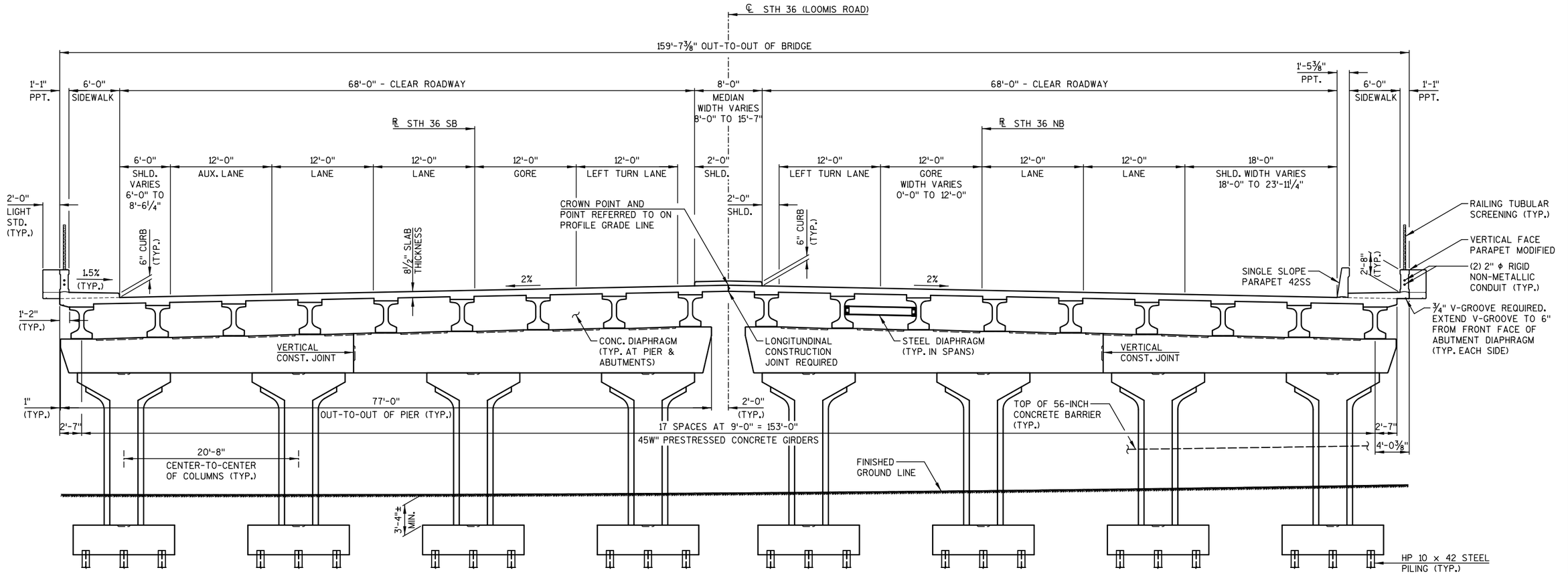
STATE PROJECT NUMBER

1100-46-71



CROSS SECTION THROUGH ROADWAY

(LOOKING NORTH - STA. 89+25 SHOWN)
(LANE AND MEDIAN LAYOUT AS SHOWN FOR SPAN 2, BUT VARY ACROSS LENGTH OF BRIDGE)

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. CROSS SECTION
3. GENERAL NOTES AND QUANTITIES
4. ALIGNMENT AND PROFILE
5. EXISTING STRUCTURE REMOVAL PLAN
6. SUBSURFACE EXPLORATION
7. SOUTH ABUTMENT
8. SOUTH ABUTMENT DETAILS
9. NORTH ABUTMENT
10. NORTH ABUTMENT DETAILS
11. ALTERNATE CONSTRUCTION JOINT
12. PIER LAYOUT 1
13. PIER LAYOUT 2
14. PIER FOOTING DETAILS
15. PIER COLUMN DETAILS
16. PIER CAP DETAILS
17. 45W" PRESTRESSED GIRDER DETAILS 1
18. 45W" PRESTRESSED GIRDER DETAILS 2
19. FRAMING PLAN
20. INTERMEDIATE STEEL DIAPHRAGMS
21. SUPERSTRUCTURE PLAN
22. SUPERSTRUCTURE CROSS SECTION
23. SUPERSTRUCTURE DETAILS (1 OF 3)
24. SUPERSTRUCTURE DETAILS (2 OF 3)
25. SUPERSTRUCTURE DETAILS (3 OF 3)
26. SUPERSTRUCTURE BILL OF BARS
27. SOUTH STRUCTURAL APPROACH SLAB
28. SOUTH STRUCTURAL APPROACH SLAB DETAILS
29. NORTH STRUCTURAL APPROACH SLAB
30. NORTH STRUCTURAL APPROACH SLAB DETAILS
31. LIGHT SUPPORT DETAILS
32. CONDUIT DETAILS
33. VERTICAL FACE PARAPET MODIFIED
34. SINGLE SLOPE BARRIER 42SS
35. TUBULAR STEEL RAILING SCREENING
36. SLOPE PAVING CRUSHED AGGREGATE SPECIAL
37. AESTHETIC DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

CROSS SECTION

SHEET 2 OF 37
461

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STATE PROJECT NUMBER

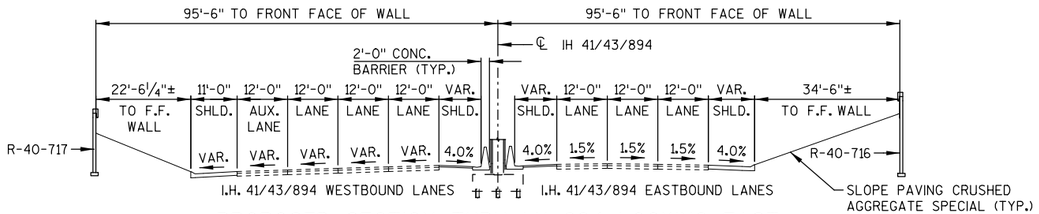
1100-46-71

TOTAL ESTIMATED QUANTITIES (CATEGORY 2080 ITEMS)

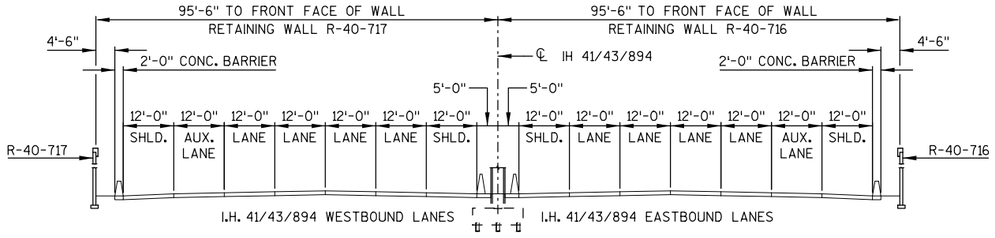
BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	PIER	NORTH ABUTMENT	NORTH APPROACH	SUPER.	TOTALS
203.0211.S.400	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-40-0198	EACH	———	———	———	———	———	———	1
203.0220.400	REMOVING STRUCTURE B-40-0198	EACH	———	———	———	———	———	———	1
203.0330.400	DEBRIS CONTAINMENT B-40-0198	EACH	———	———	———	———	———	———	1
206.1000.400	EXCAVATION FOR STRUCTURES BRIDGES B-40-1025	LS	———	———	———	———	———	———	1
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	480	———	———	———	480	———	960
502.0100	CONCRETE MASONRY BRIDGES	CY	221	118	346	118	219	1,297	2,319
502.3200	PROTECTIVE SURFACE TREATMENT	SY	397	———	———	———	397	3,588	4,382
502.3210	PIGMENTED SURFACE SEALER	SY	34	———	———	———	34	133	201
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	———	———	———	———	———	3,614	3,614
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	———	9,210	9,840	9,210	———	———	28,260
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	33,660	———	55,080	———	33,590	295,030	417,360
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	———	———	———	———	———	5,410	5,410
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	———	18	36	18	———	———	72
506.4000.400	STEEL DIAPHRAGMS B-40-1025	EACH	———	———	———	———	———	68	68
511.1200.400	TEMPORARY SHORING B-40-1025	SF	———	———	3,276	———	———	———	3,276
513.4091	RAILING TUBULAR SCREENING	LF	40	———	———	———	40	404	484
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	30	———	30	———	———	60
531.8990	ANCHOR ASSEMBLIES POLES ON STRUCTURES	EACH	———	———	———	———	———	2	2
550.0600	PILE REDRIVING	EACH	———	6	15	6	———	———	27
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	———	3,060	6,720	2,380	———	———	12,160
604.0400	SLOPE PAVING CONCRETE	SY	———	44	———	44	———	———	88
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	24	———	———	———	24	———	48
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	90	———	———	———	90	810	990
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	———	———	———	———	———	6	6
SPV.0180.400	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	———	628	———	410	———	———	1,038
	NON-BID ITEMS								
	FILLER	SIZE	———	———	———	———	———	———	1/2" & 3/4"
	NAME PLATE	EACH	———	———	———	———	———	———	1

TOTAL ESTIMATED QUANTITIES (CATEGORY 8000 ITEMS)

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
502.0100	CONCRETE MASONRY BRIDGES	CY	34
502.3210	PIGMENTED SURFACE SEALER	SY	209
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	6,430



PROPOSED SECTION THRU I.H. 894 LOOKING EAST



CONCEPTUAL ULTIMATE TYPICAL SECTION THRU I.H.894 LOOKING EAST
(FOR REFERENCE ONLY)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED WITH 2" CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007).

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88 (2007)).

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-1025" SHALL BE THE EXISTING GROUND LINE.

AT ABUTMENTS, ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE OR RETAINING WALL REINFORCED ZONE SHALL BE BACKFILLED AND PAID FOR IN THE CONSTRUCTION OF THE RETAINING WALLS R-40-716 AND R-40-717.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND SHEET 36.

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE PIER SHALL BE BACKFILLED TO THE LOWER OF THE EXISTING GROUNDLINE OR THE BOTTOM OF ADJACENT PROPOSED PAVEMENT SECTION. BACKFILL WILL BE PAID AS PART OF BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-40-1025."

ABUTMENT CONSTRUCTION AND PILE DRIVING MUST BE COORDINATED WITH THE CONSTRUCTION OF RETAINING WALLS R-40-716 AND R-40-717.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE 45W" PRESTRESSED GIRDER DETAILS SHEET.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE ENTIRE TOP OF DECK, SIDEWALK, MEDIAN, THE PAVING BLOCK AND STRUCTURAL APPROACH SLAB SURFACES. PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE FRONT FACE AND TOP OF ALL PARAPETS, INCLUDING PARAPETS ON THE STRUCTURAL APPROACH SLABS.

THE TUBULAR RAILING SCREENING SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE. THE COLOR OF THE POLYMER-COATING SHALL BE AMS COLOR NO. 27038 (BLACK) IN ACCORDANCE WITH ASTM F934.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF THE UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

GENERAL NOTES AND QUANTITIES

SHEET 3 OF 37
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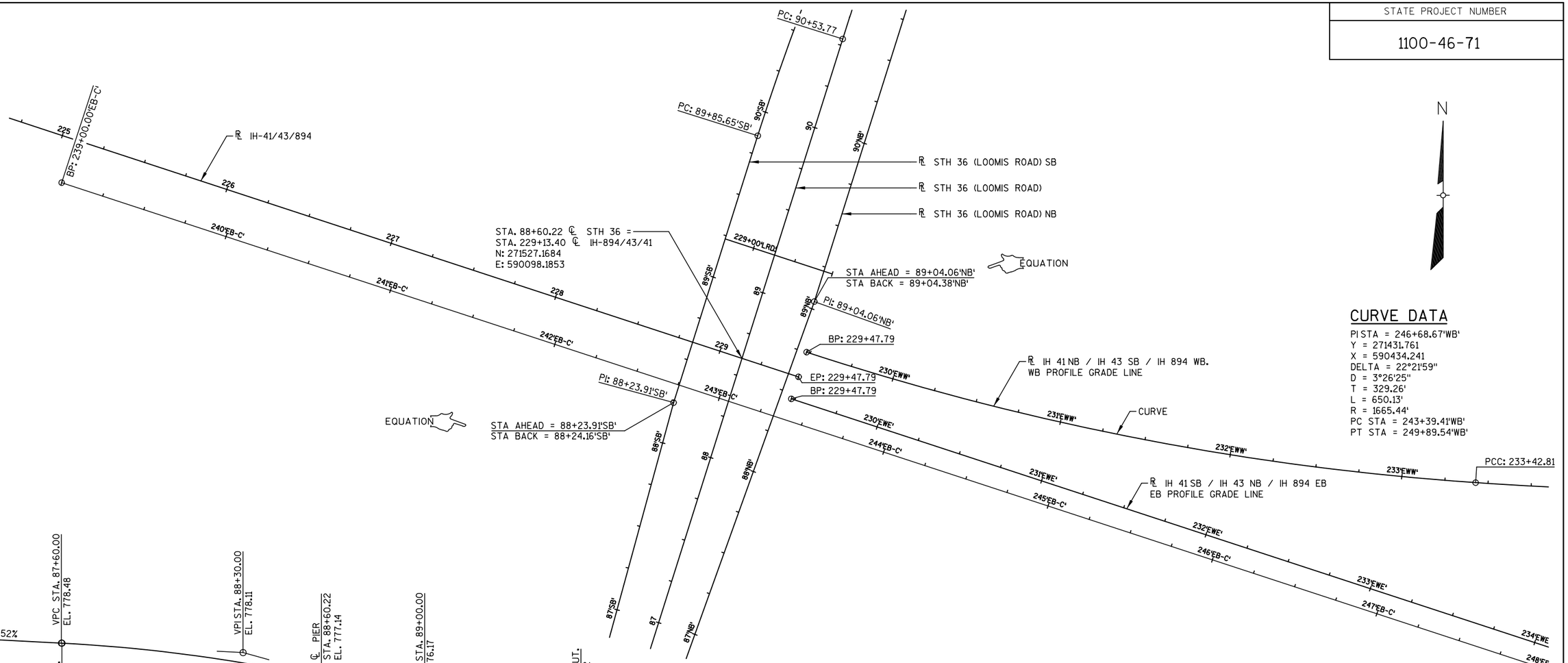
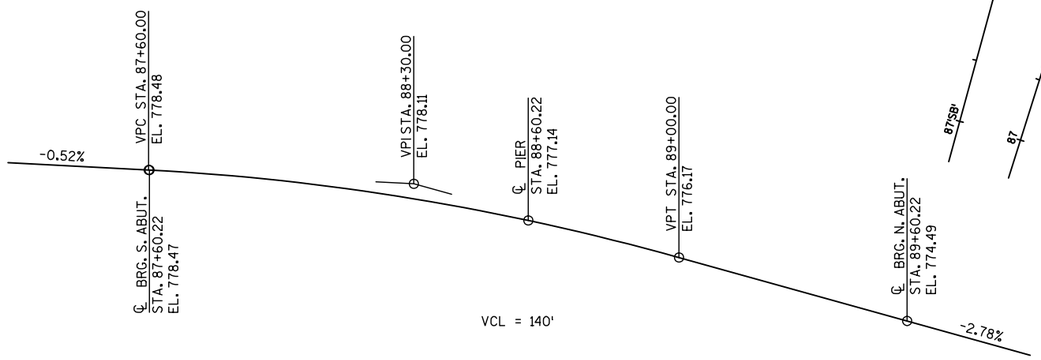
STATE PROJECT NUMBER
1100-46-71



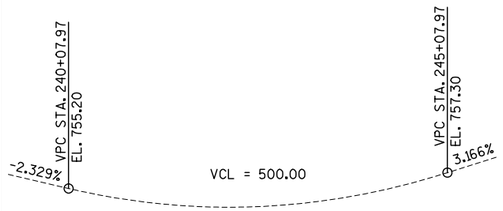
CURVE DATA

PI STA = 246+68.67'WB'
Y = 271431.761
X = 590434.241
DELTA = 22°21'59"
D = 3°26'25"
T = 329.26'
L = 650.13'
R = 1665.44'
PC STA = 243+39.41'WB'
PT STA = 249+89.54'WB'

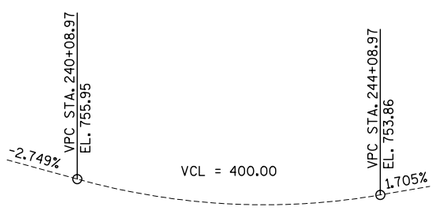
HORIZONTAL ALIGNMENT - IH-41/43/894
AND STH 36 (LOOMIS ROAD)



PROFILE GRADE LINE - STH 36 (LOOMIS ROAD)



EXISTING CROWN LINE
EB LANES - IH 41/43/894



EXISTING INSIDE EDGE OF LANE LINE
WB LANES - IH 41/43/894

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

ALIGNMENT AND PROFILE

SHEET 4 OF 37
463

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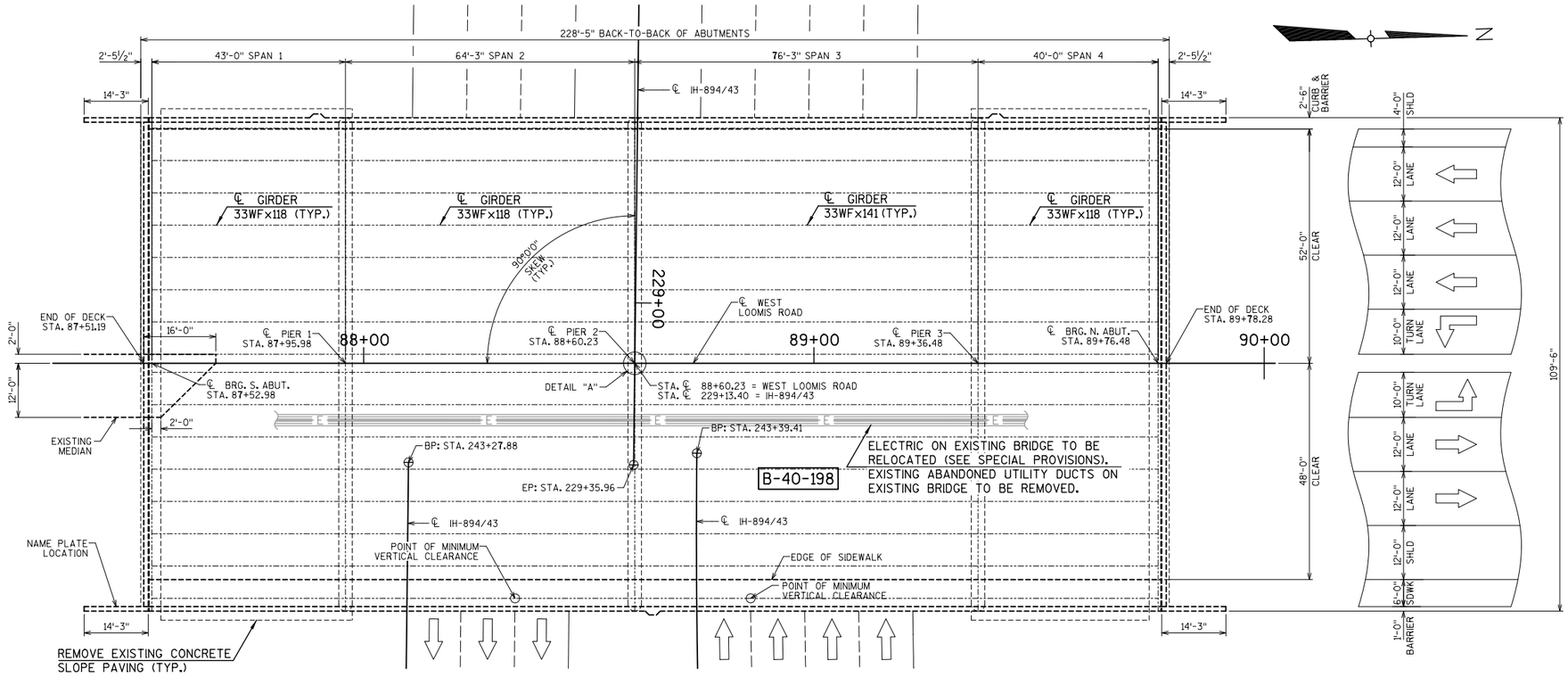
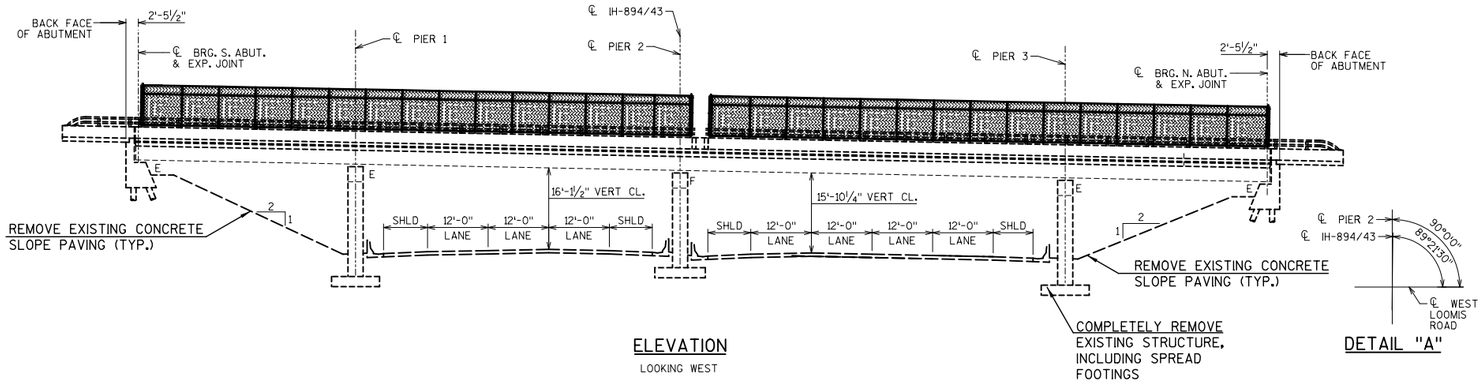
STATE PROJECT NUMBER

1100-46-71



PLAN B-40-198

4-SPAN STEEL GIRDER BRIDGE



ELEVATION

LOOKING WEST

DETAIL "A"

NOTES

THE EXISTING LOOMIS ROAD STRUCTURE B-40-198 IS A 4-SPAN, ROLLED STEEL GIRDER BRIDGE, 207.3'LONG X 109'± WIDE.

COMPLETELY REMOVE THE ENTIRE EXISTING STRUCTURE B-40-198 AND EXISTING CONCRETE SLOPE PAVING. PAYMENT FOR REMOVAL OF STRUCTURE B-40-198 AND CONCRETE SLOPE PAVING IS INCLUDED UNDER BID ITEM "REMOVING OLD STRUCTURE B-40-198." THE STRUCTURE CARRIES EXISTING UNDERDECK UTILITIES. COORDINATE UTILITY REMOVAL WITH THE UTILITIES SHOWN IN THE SPECIAL PROVISIONS.

ASBESTOS CONTAINING MATERIAL HAS BEEN IDENTIFIED ON THIS STRUCTURE, SEE SPECIAL PROVISIONS. PAYMENT FOR ABATEMENT OF ASBESTOS CONTAINING MATERIAL IS INCLUDED UNDER THE BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-198."

DEBRIS CONTAINMENT IS PAID FOR UNDER BID ITEM "DEBRIS CONTAINMENT B-40-0198."

EXISTING STRUCTURE PLANS FOR EXISTING B-40-198 ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW STREET, WAUKESHA, WI, OR THROUGH THE WISDOT STRUCTURES WEBSITE H.S.I. APPLICATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB | PLANS CK'D. MJA

EXISTING STRUCTURE REMOVAL PLAN

SHEET 5 OF 37
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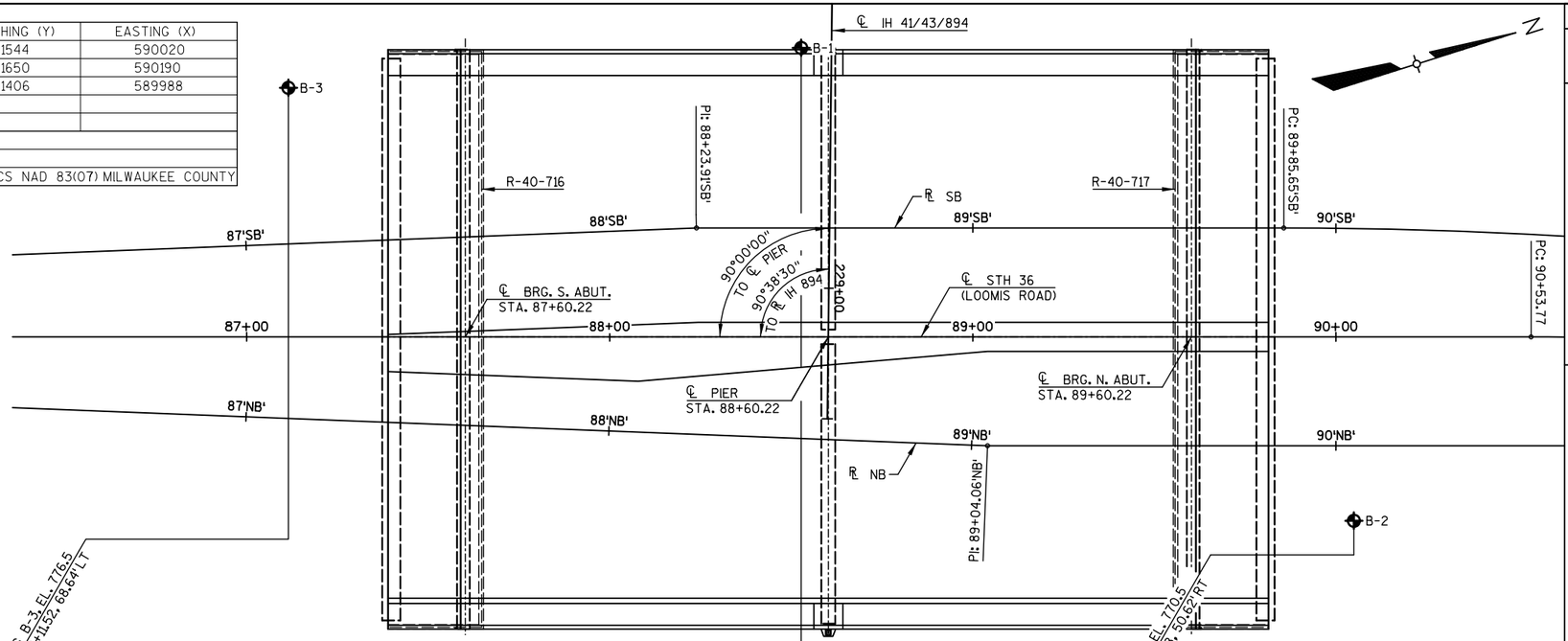
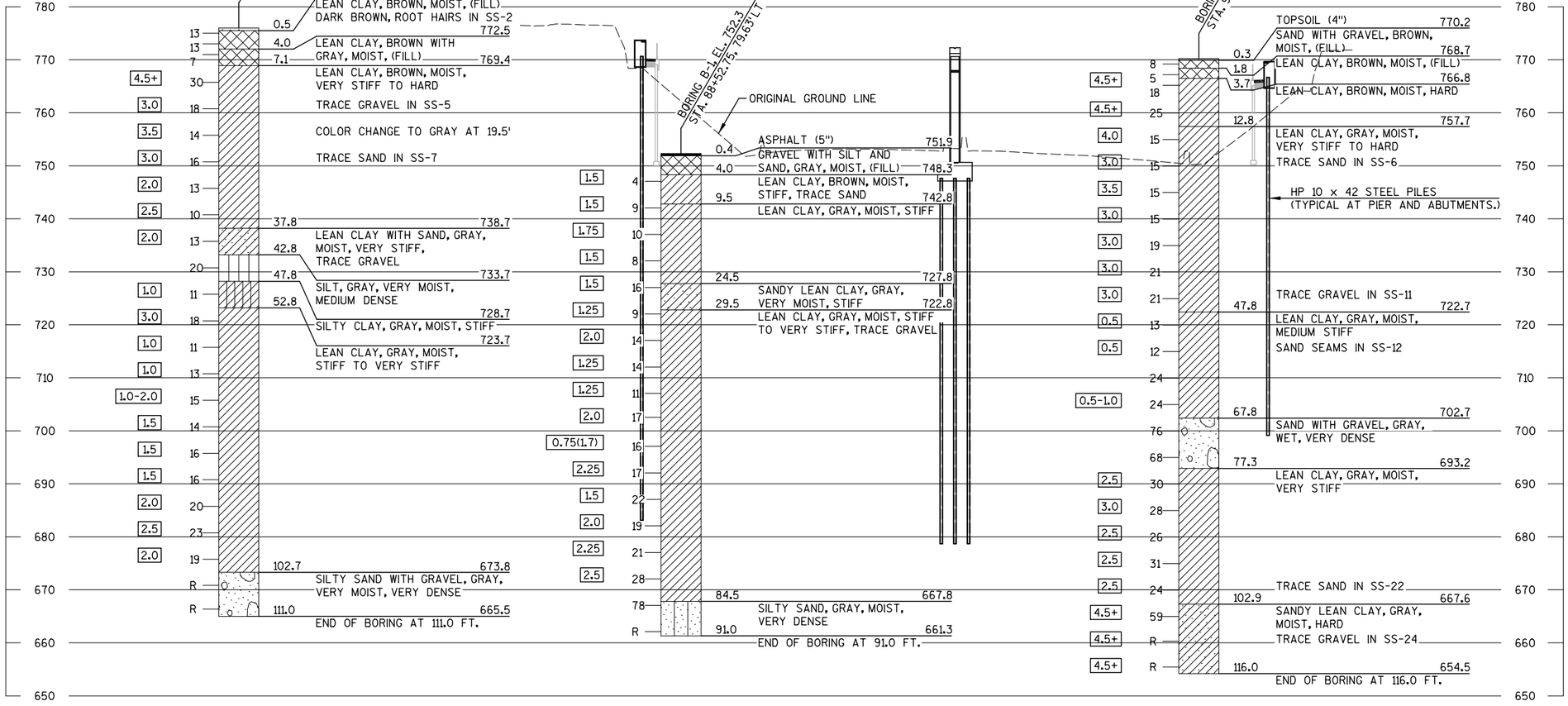
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	4/16/20	271544	590020
B-2	9/22/20	271650	590190
B-3	9/21/20	271406	589988

BORINGS COMPLETED BY: GESTRA
REPORT COMPLETED BY: GESTRA
ALL COORDINATES REFERENCED TO WCCS NAD 83(07) MILWAUKEE COUNTY





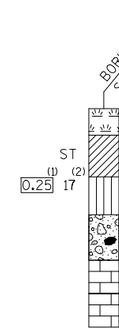
STATE PROJECT NUMBER

1100-46-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

SUBSURFACE EXPLORATION

SHEET 6 OF 37
465

SCALE =

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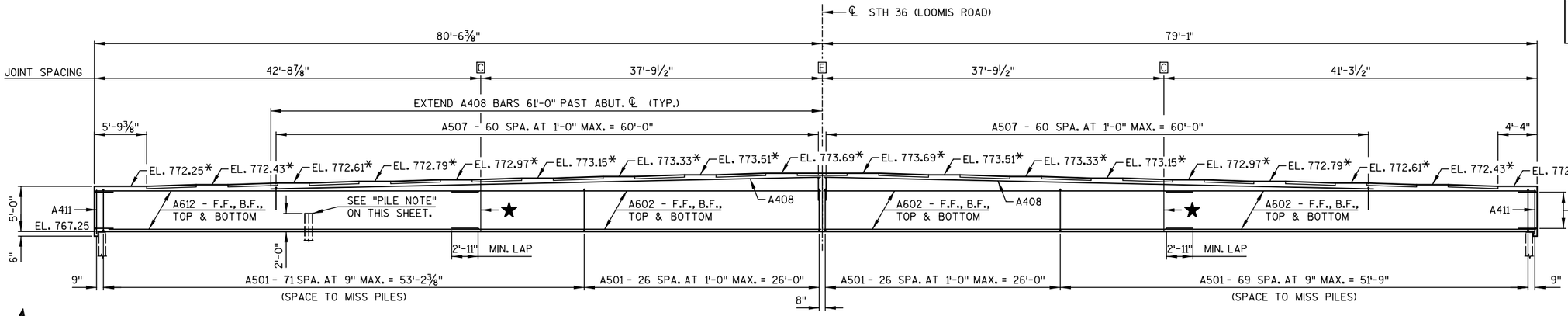
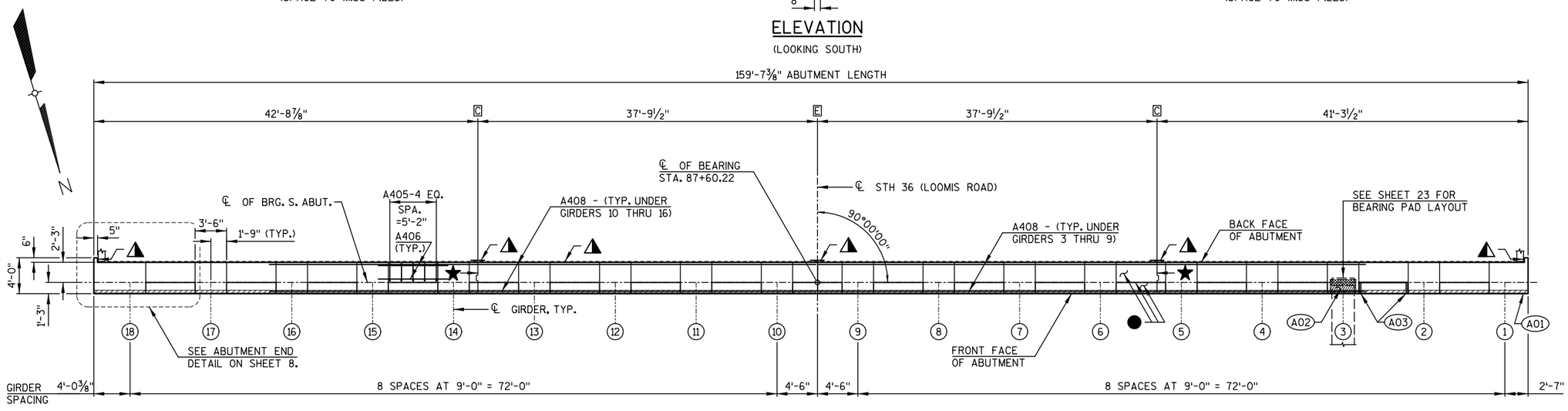
STATE PROJECT NUMBER

1100-46-71



ELEVATION

(LOOKING SOUTH)



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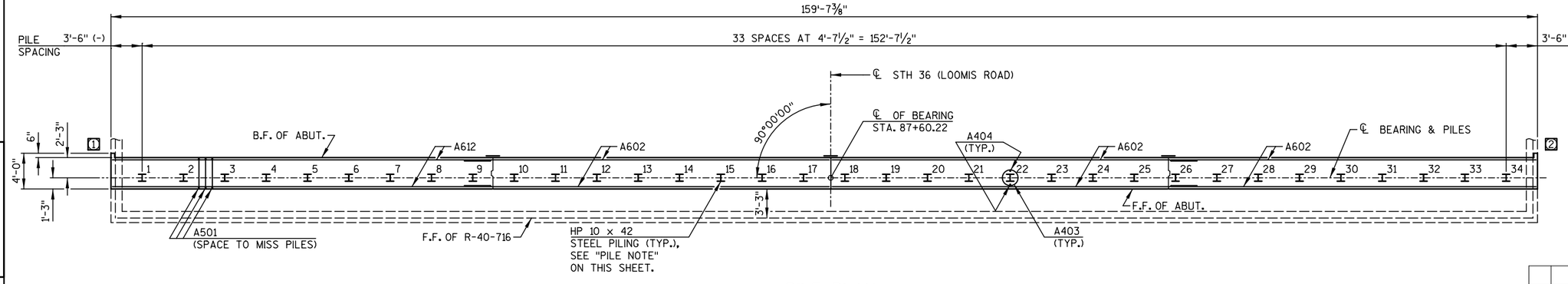
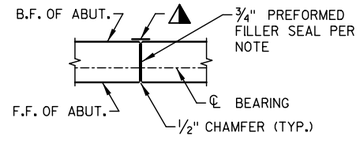


PILE PLAN



EXPANSION JOINT

(DO NOT RUN BAR STEEL THROUGH JOINT)

LEGEND

- E — EXPANSION JOINT
- C — CONTRACTION JOINT
- * — ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.
- ★ — VERTICAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2" × 8". SEE SHEET 11 FOR ALTERNATE CONSTRUCTION JOINT.
- ◭ — 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ◆ — SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ● — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- (X) — INDICATES CORNER NUMBER
- (A01) — 4" × ½" PREFORMED JOINT FILLER. EXTEND BETWEEN EDGES OF DIAPHRAGM EXCEPT UNDER THE GIRDER (TYP.)
- (A02) — ½" PREFORMED JOINT FILLER UNDER GIRDER FLANGE IN FRONT OF BEARING PAD.
- (A03) — ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

PILE NOTE

ABUTMENTS TO BE SUPPORTED ON HP 10 × 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTH IS 90'. FOR PILE SPLICE DETAILS, SEE SHEET 8.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY	CEB/DNJ	PLANS CK'D.	MJA

SOUTH ABUTMENT

SHEET 7 OF 37
466

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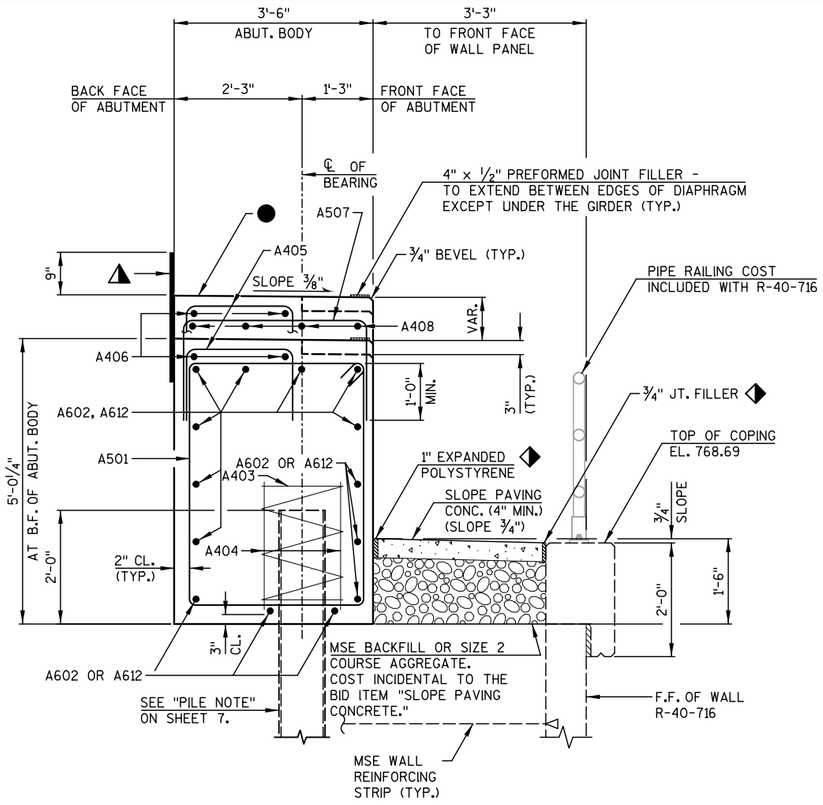
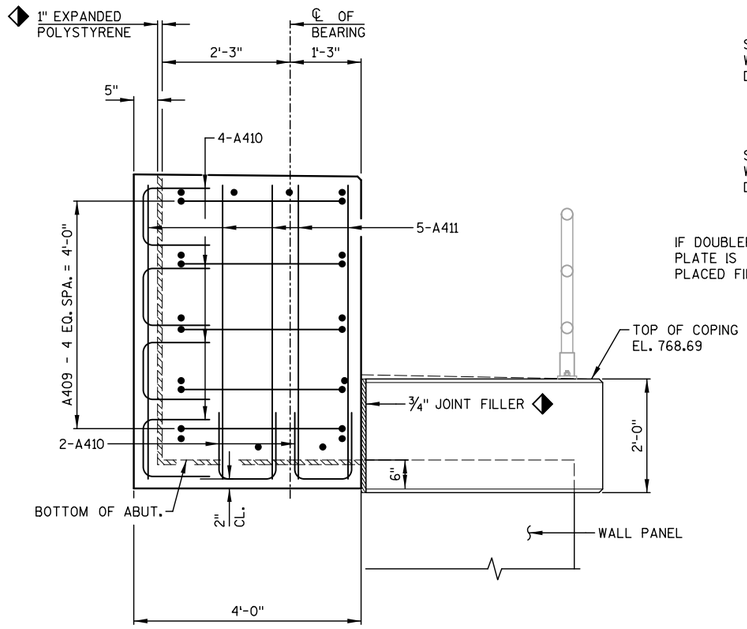
BATCH PRINT SHEET 8 OF 37



SECTION THRU ABUTMENT BODY

(LOOKING WEST)



PARTIAL ELEVATION ABUTMENT END

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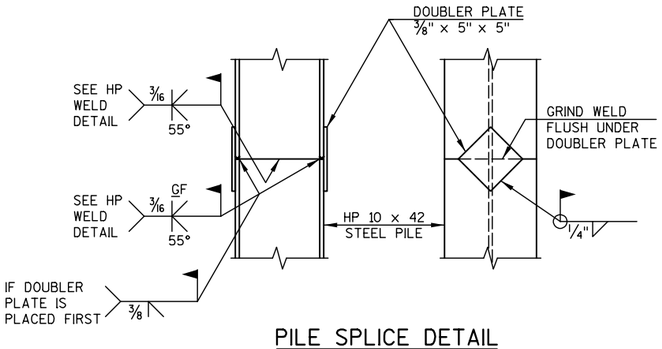
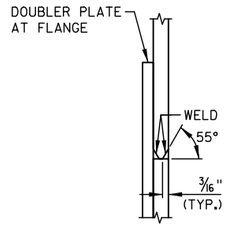
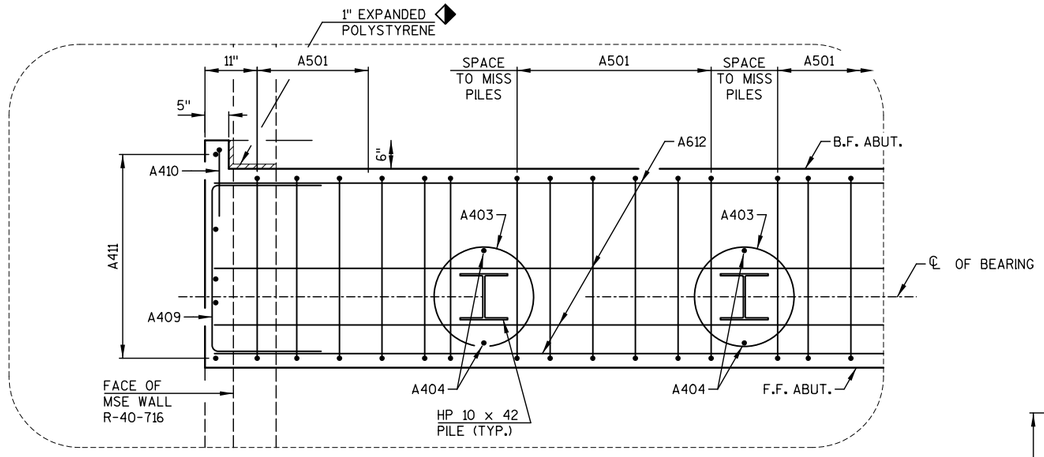


PILE SPLICE DETAIL



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

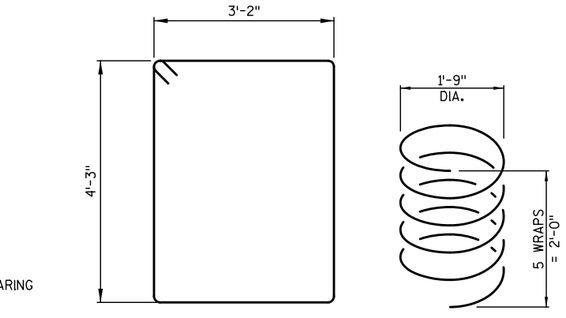


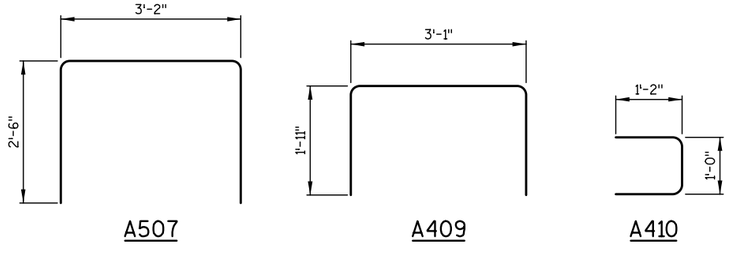
PARTIAL PLAN ABUTMENT END DETAILS

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION
NON-COATED BARS				TOTAL WEIGHT = 9,210 LBS
A501	194	15-6	X	ABUT. BODY - STIRRUPS VERT.
A602	42	40-10		ABUT. BODY - F. F., B.F., TOP & BOTTOM HORIZ.
A403	34	28-0	X	ABUT. BODY - PILES - SPIRAL - 1 PER PILE HORIZ.
A404	68	2-3		ABUT. BODY - PILES VERT.
A405	85	4-3	X	ABUT. BODY - BTWN. BEAM SEATS VERT.
A406	34	7-6		ABUT. BODY - BTWN. BEAM SEATS HORIZ.
A507	122	7-11	X	ABUT. BODY - HAUNCH VERT.
A408	16	31-5		ABUT. BODY - HAUNCH HORIZ.
A409	10	6-9	X	ABUT. BODY - U BAR - EACH END HORIZ.
A410	12	3-2	X	ABUT. BODY - EACH END VERT.
A411	10	5-2		ABUT. BODY - EACH END VERT.
A612	14	42-4		ABUT. BODY - F. F., B.F., TOP & BOTTOM HORIZ.





LEGEND

◆ ● ▲ FOR SYMBOL DESCRIPTIONS, SEE SHEET 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SOUTH ABUTMENT DETAILS

SHEET 8 OF 37
467

8

8

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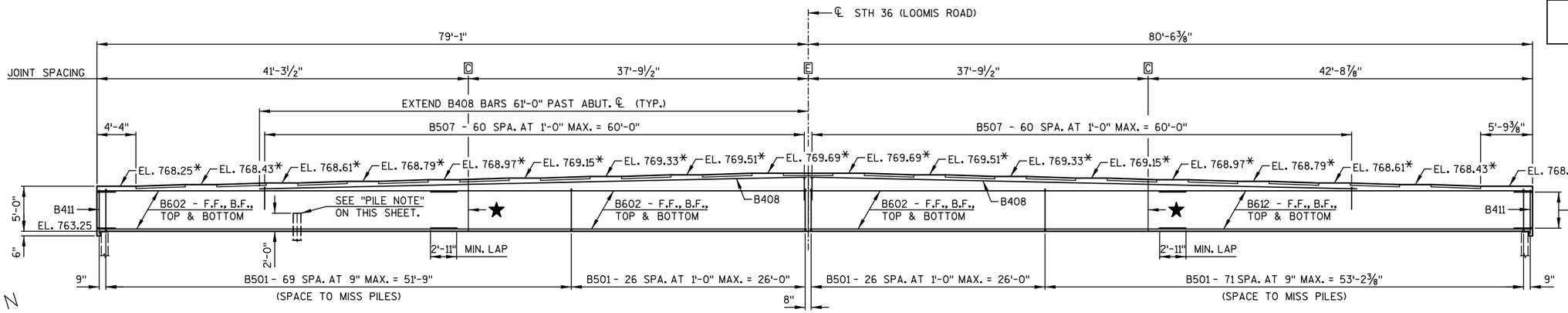
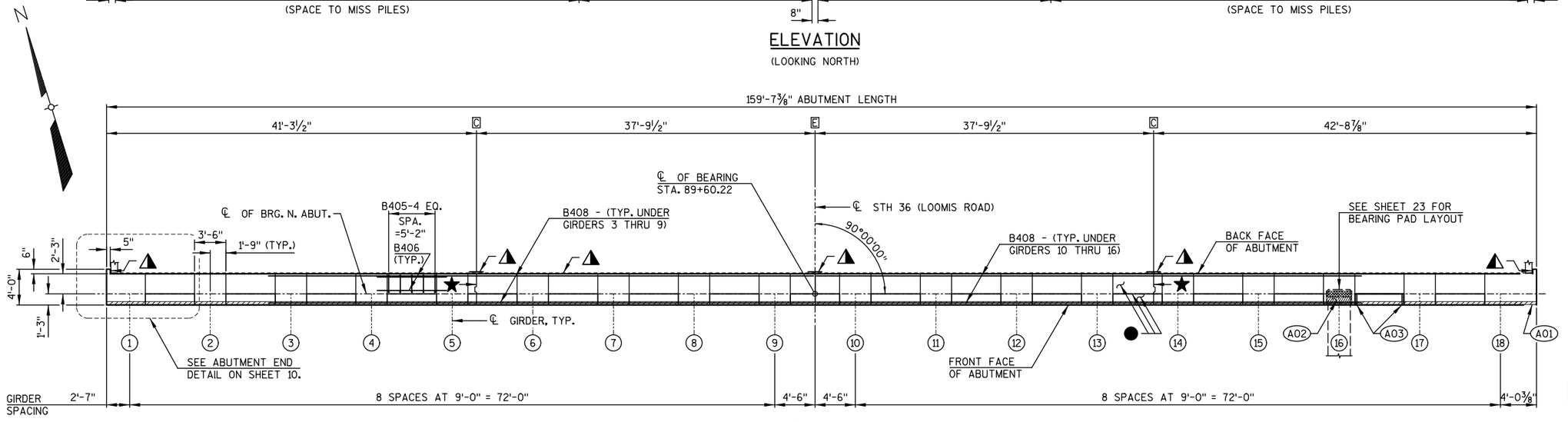
STATE PROJECT NUMBER

1100-46-71



ELEVATION

(LOOKING NORTH)



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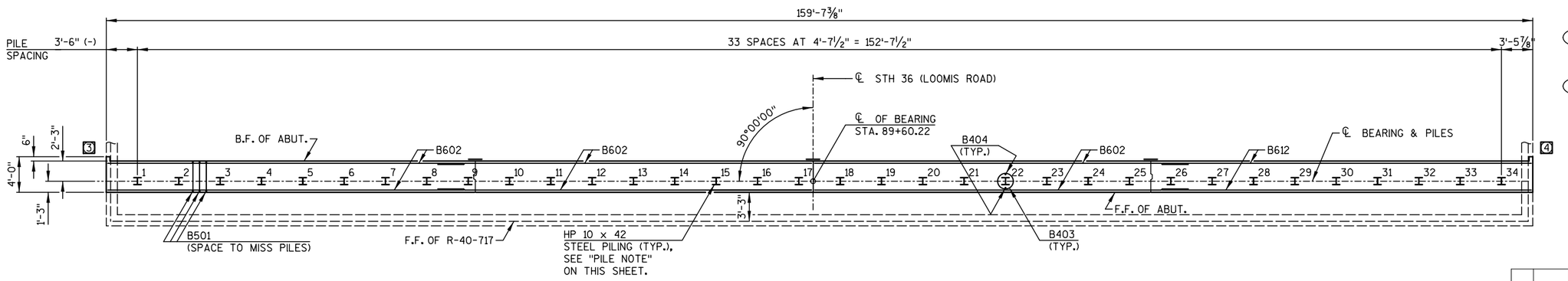
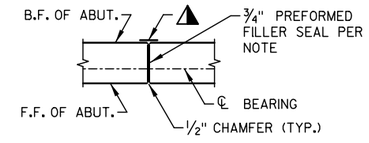


PILE PLAN



EXPANSION JOINT

(DO NOT RUN BAR STEEL THROUGH JOINT)

LEGEND

- E — EXPANSION JOINT
- C — CONTRACTION JOINT
- * — ELEVATIONS ARE GIVEN AT THE TOP OF CONCRETE AT THE ℄ OF BEARING.
- ★ — VERTICAL CONSTRUCTION JOINT WITH KEYWAY FORMED BY BEVELED 2" × 8". SEE SHEET 11 FOR ALTERNATE CONSTRUCTION JOINT.
- ◭ — 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ◆ — SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ● — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- (X) — INDICATES CORNER NUMBER
- (A01) — 4" × ½" PREFORMED JOINT FILLER. EXTEND BETWEEN EDGES OF DIAPHRAGM EXCEPT UNDER THE GIRDER (TYP.)
- (A02) — ½" PREFORMED JOINT FILLER UNDER GIRDER FLANGE IN FRONT OF BEARING PAD.
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PILE NOTE

ABUTMENTS TO BE SUPPORTED ON HP 10 × 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTH IS 70' LONG. FOR PILE SPLICE DETAILS, SEE SHEET 10.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY	CEB/DNJ	PLANS CK'D.	MJA

NORTH ABUTMENT

SHEET 9 OF 37
468

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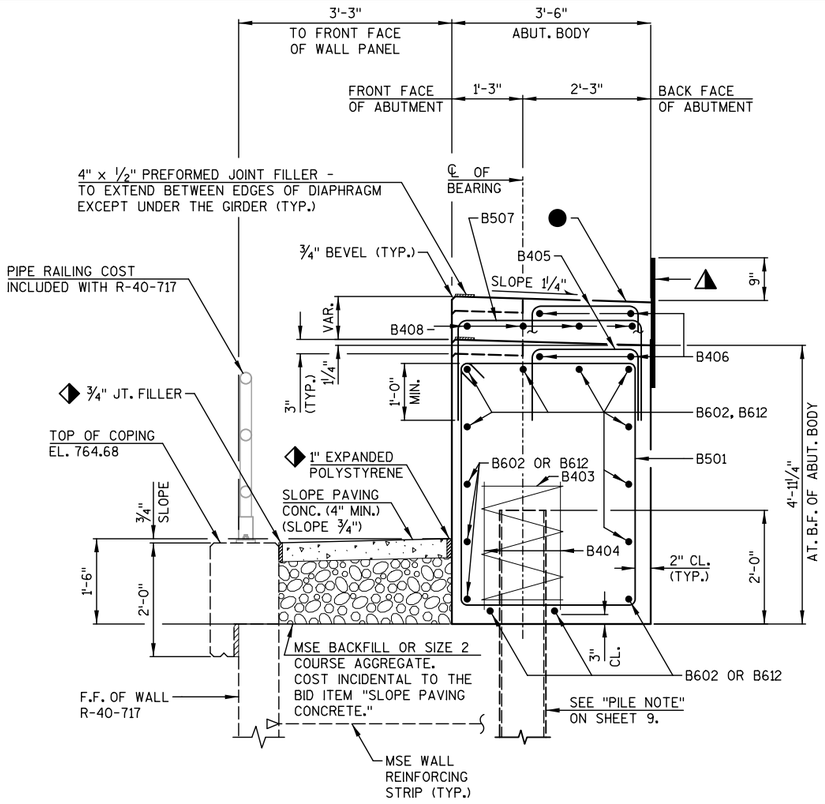
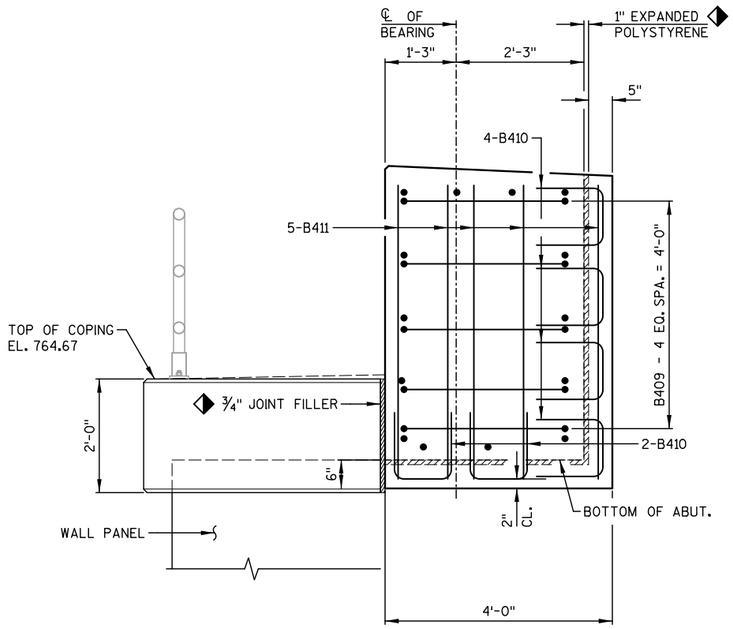
STATE PROJECT NUMBER

1100-46-71



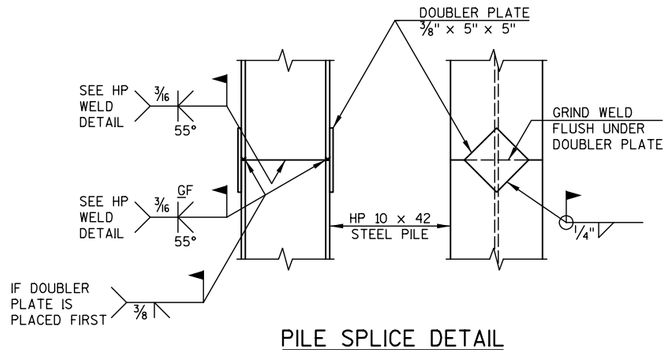
SECTION THRU ABUTMENT BODY

(LOOKING WEST)

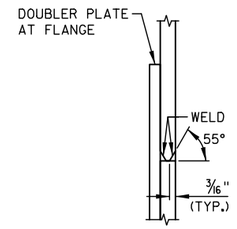


PARTIAL ELEVATION ABUTMENT END

(EAST END SHOWN, WEST SIMILAR)

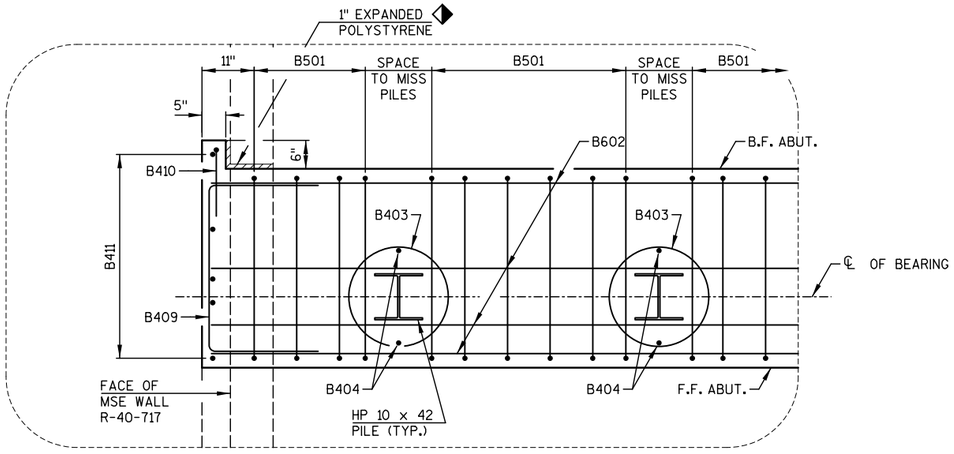


PILE SPLICE DETAIL



HP WELD DETAIL

(FLANGE SHOWN, WEB SIMILAR)

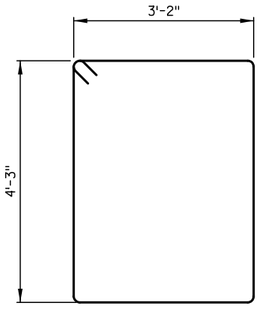


PARTIAL PLAN ABUTMENT END DETAILS

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
NON-COATED BARS				TOTAL WEIGHT = 9,210 LBS	
B501	194	15-6	X	ABUT. BODY - STIRRUPS	VERT.
B602	42	40-10		ABUT. BODY - F. F., B.F., TOP & BOTTOM	HORIZ.
B403	34	28-0	X	ABUT. BODY - PILES - SPIRAL - 1 PER PILE	HORIZ.
B404	68	2-3		ABUT. BODY - PILES	VERT.
B405	85	4-3	X	ABUT. BODY - BTWN. BEAM SEATS	VERT.
B406	34	7-6		ABUT. BODY - BTWN. BEAM SEATS	HORIZ.
B507	122	7-11	X	ABUT. BODY - HAUNCH	VERT.
B408	16	31-5		ABUT. BODY - HAUNCH	HORIZ.
B409	10	6-9	X	ABUT. BODY - U BAR - EACH END	HORIZ.
B410	12	3-2	X	ABUT. BODY - EACH END	VERT.
B411	10	5-2		ABUT. BODY - EACH END	VERT.
B612	14	42-4		ABUT. BODY - F. F., B.F., TOP & BOTTOM	HORIZ.



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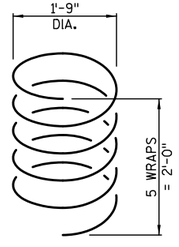

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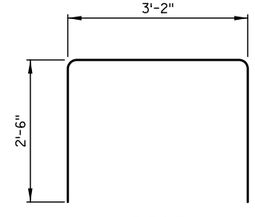

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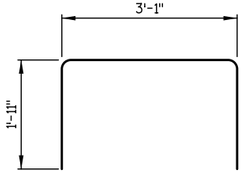

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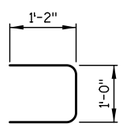

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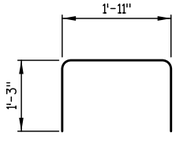

B405

LEGEND

◆ ● ▲ FOR SYMBOL DESCRIPTIONS, SEE SHEET 9.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

NORTH ABUTMENT DETAILS

SHEET 10 OF 37

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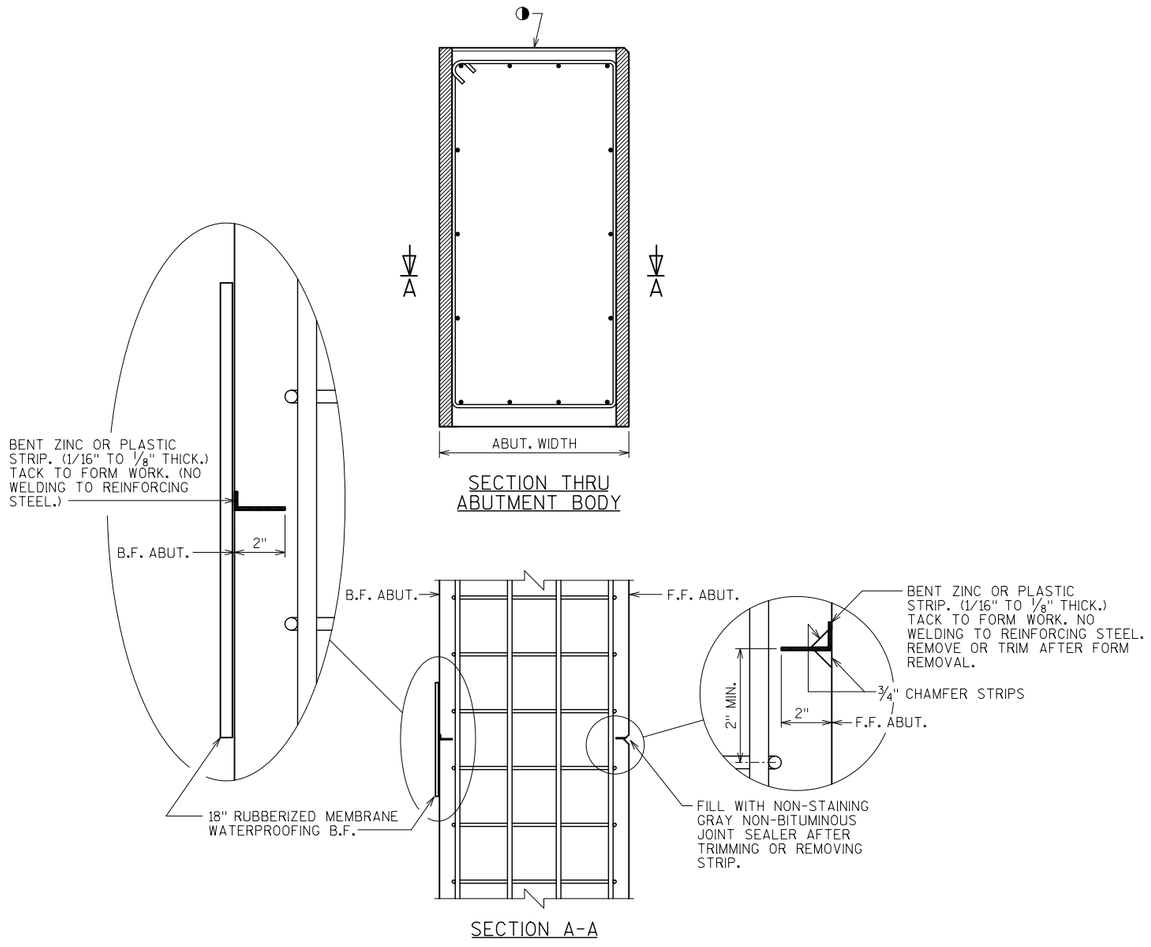
BATCH PRINT SHEET 11 OF 37

STATE PROJECT NUMBER

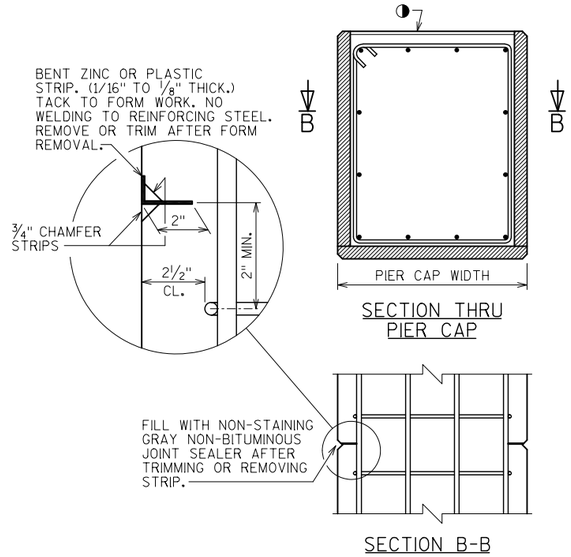
1100-46-71



SECTION A-A

SECTION THRU ABUTMENT BODY

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT



SECTION B-B

SECTION THRU PIER CAP

ALTERNATE CONSTRUCTION JOINT AT PIER CAP

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

ALTERNATE CONSTRUCTION JOINT

SHEET 11 OF 37
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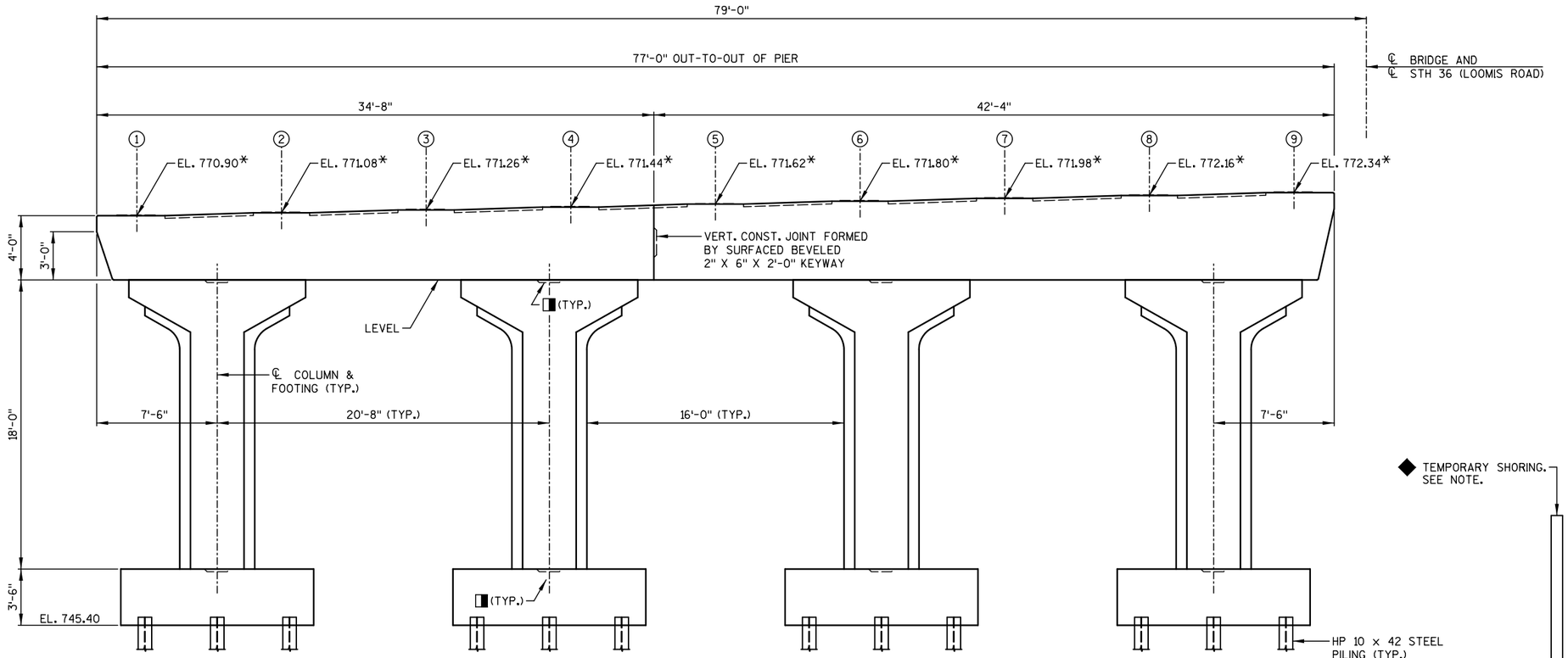
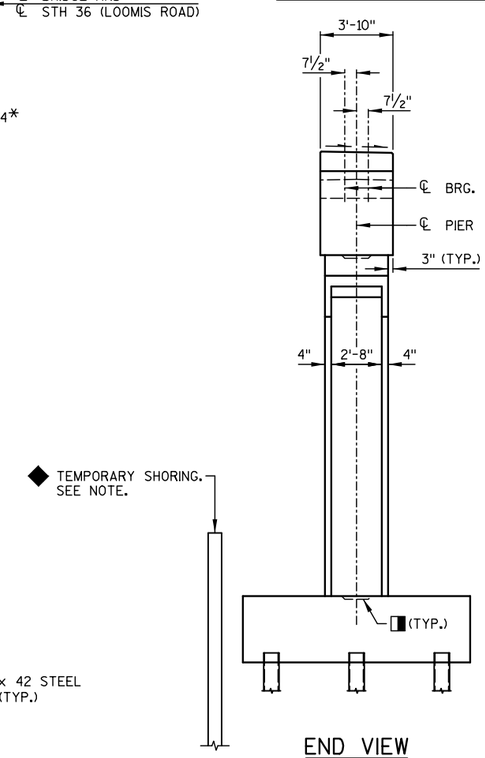
STATE PROJECT NUMBER

1100-46-71



ELEVATION - WEST PIER

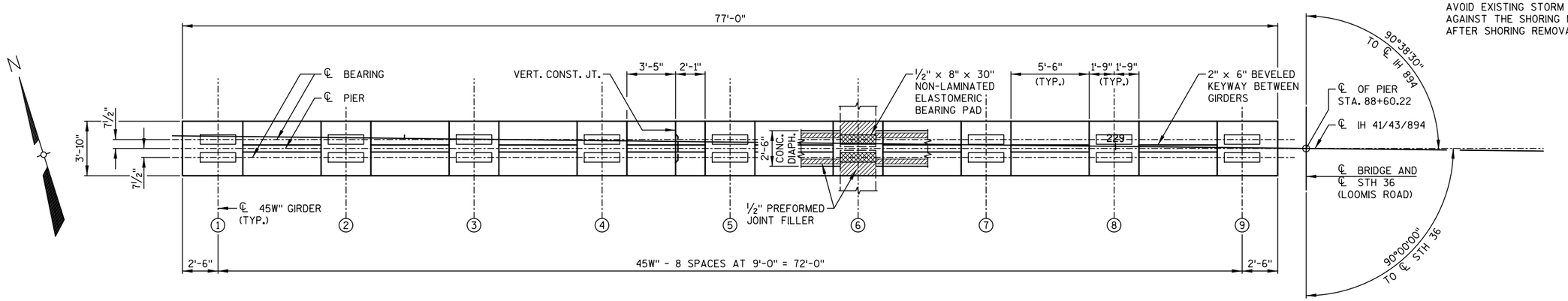
(LOOKING NORTH)



END VIEW

(LOOKING WEST)

◆ NOTE: ALONG SOUTH EDGE OF FOOTING, TEMPORARY SHORING MAY BE USED AS THE FOOTING FORM TO AVOID EXISTING STORM SEWER. PLYWOOD FORMS AGAINST THE SHORING MAY BE LEFT IN PLACE AFTER SHORING REMOVAL.



PLAN - WEST PIER

NOTES

FOR PIER FOOTING REINFORCING DETAILS, SEE SHEET 14.

FOR PIER COLUMN REINFORCING DETAILS, SEE SHEET 15.

FOR PIER CAP REINFORCING DETAILS, SEE SHEET 16.

LEGEND

◨ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 4" X 1'-3" X 2'-0".

* ELEVATIONS ARE GIVEN AT THE TOP OF THE PIER CAP CONCRETE AT THE ℄ PIER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

PIER LAYOUT 1

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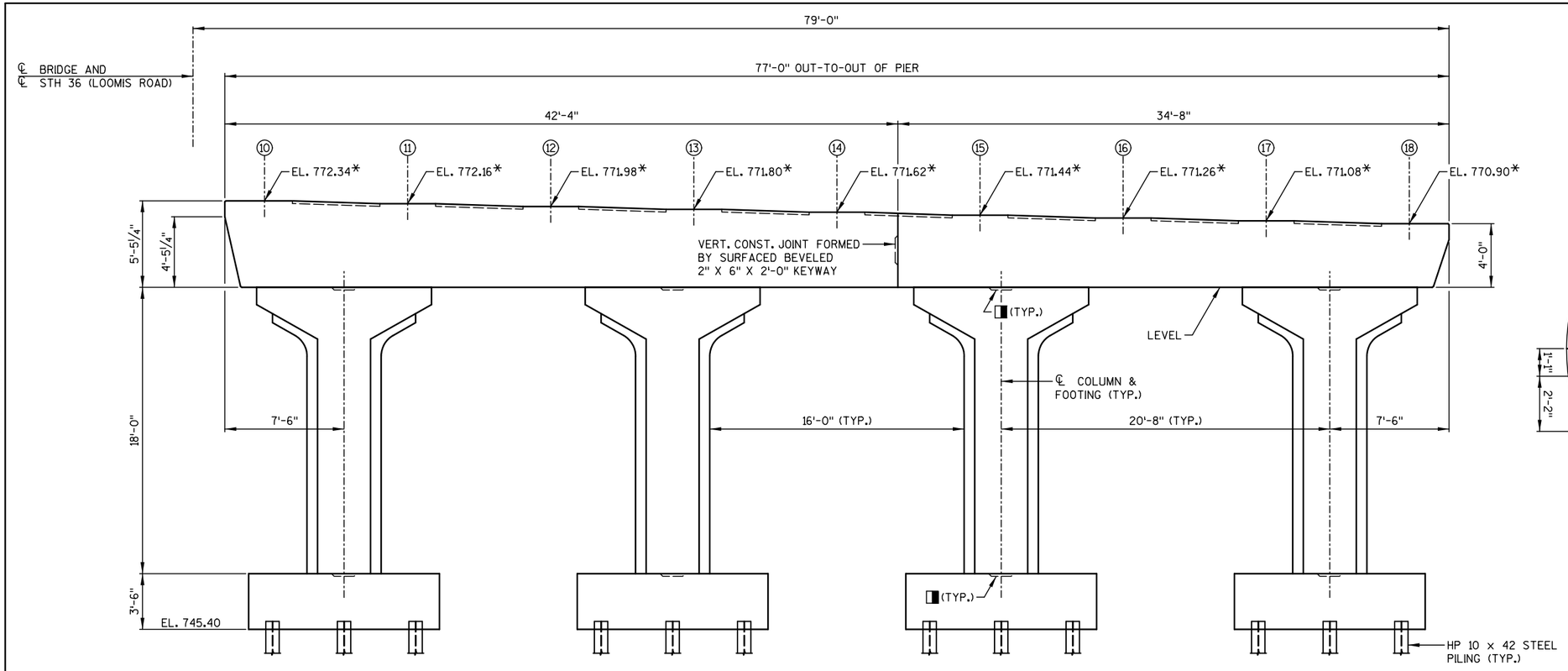
BATCH PRINT SHEET 13 OF 37

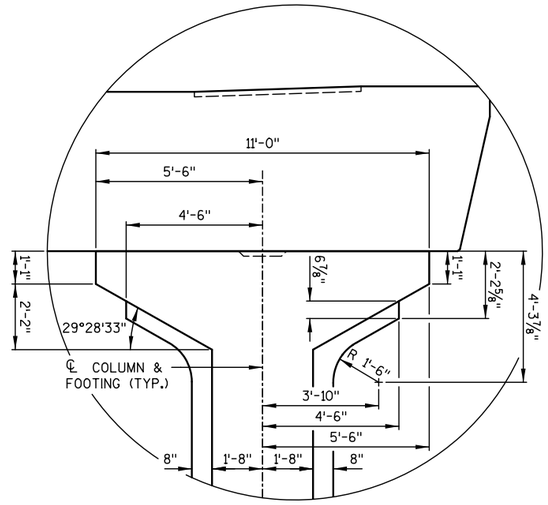
STATE PROJECT NUMBER

1100-46-71

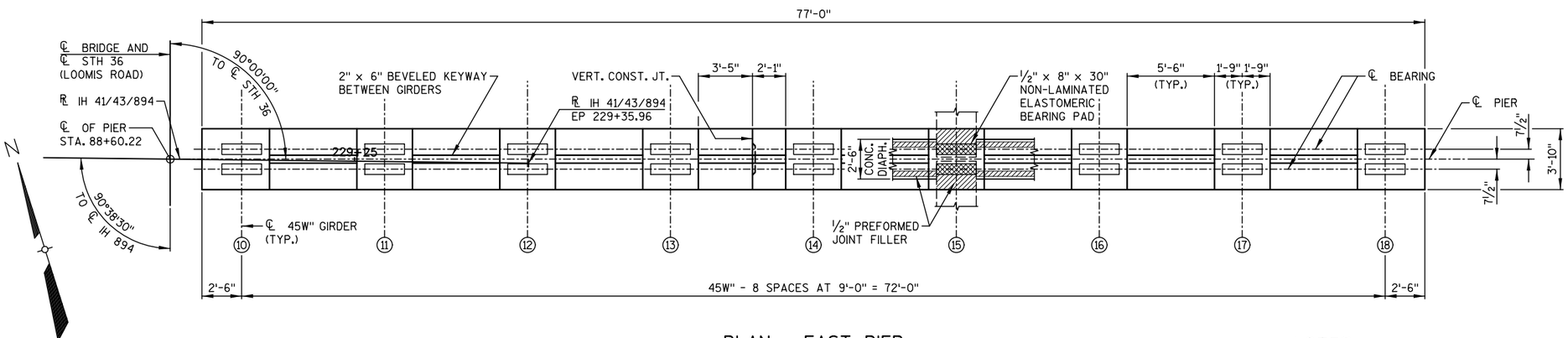


ELEVATION - EAST PIER

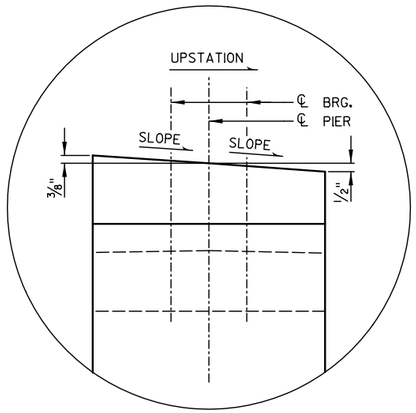
(LOOKING NORTH)



DETAIL 1



PLAN - EAST PIER



DETAIL 2

NOTES

FOR PIER FOOTING REINFORCING DETAILS, SEE SHEET 14.

FOR PIER COLUMN REINFORCING DETAILS, SEE SHEET 15.

FOR PIER CAP REINFORCING DETAILS, SEE SHEET 16.

LEGEND

◨ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 4" X 1'-3" X 2'-0".

* ELEVATIONS ARE GIVEN AT THE TOP OF THE PIER CAP CONCRETE AT THE ℄ PIER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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PIER LAYOUT 2

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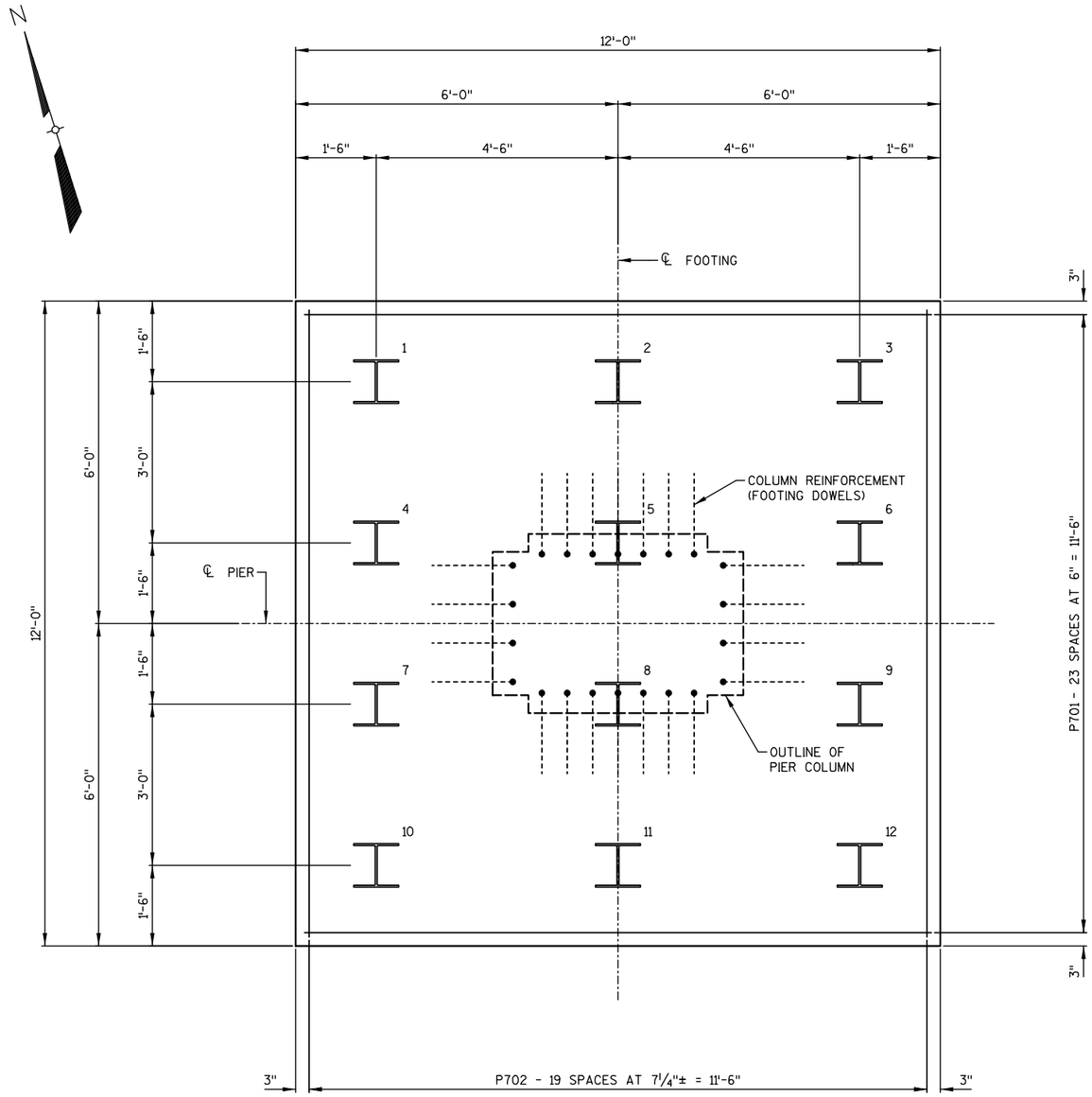
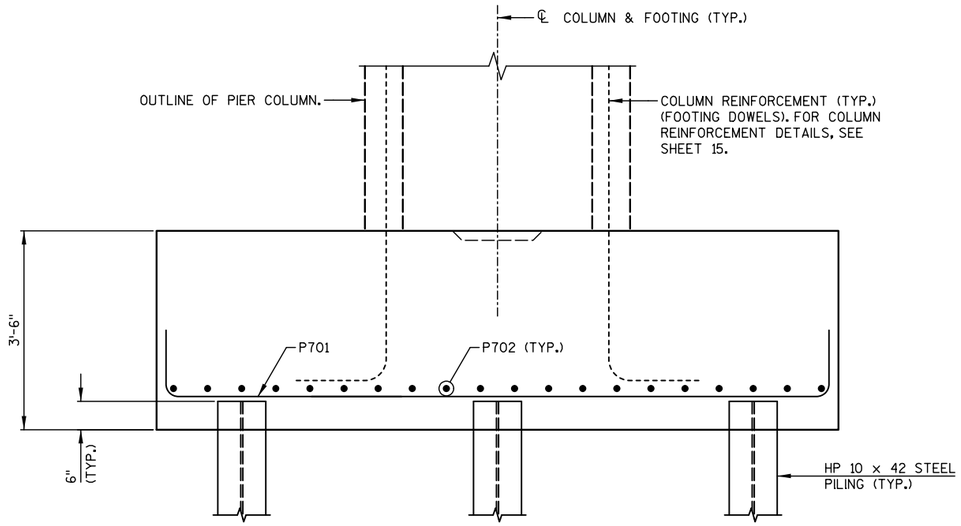
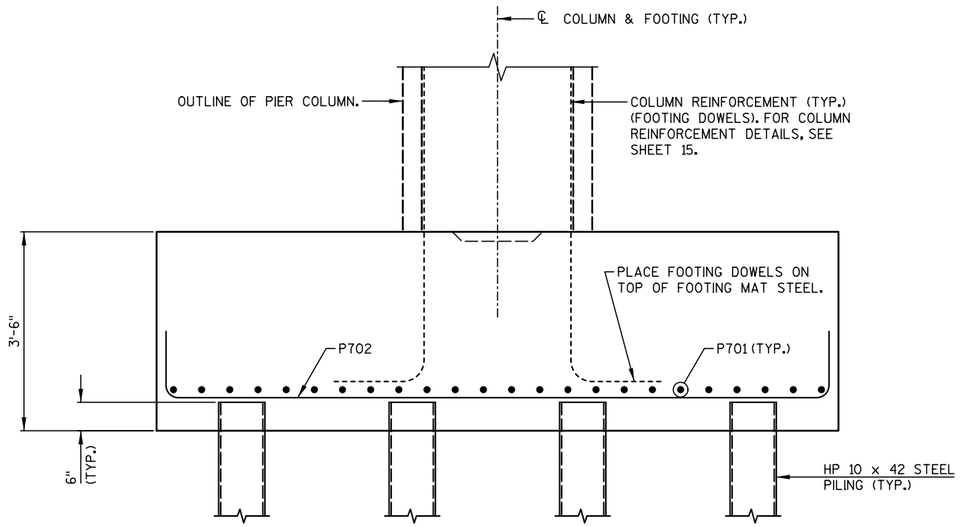


TYPICAL FOOTING PLAN



TYPICAL FOOTING FRONT ELEVATION



TYPICAL FOOTING SIDE ELEVATION

FOUNDATION NOTE

PIER SHALL BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED PILE LENGTH = 70 FT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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PIER FOOTING DETAILS

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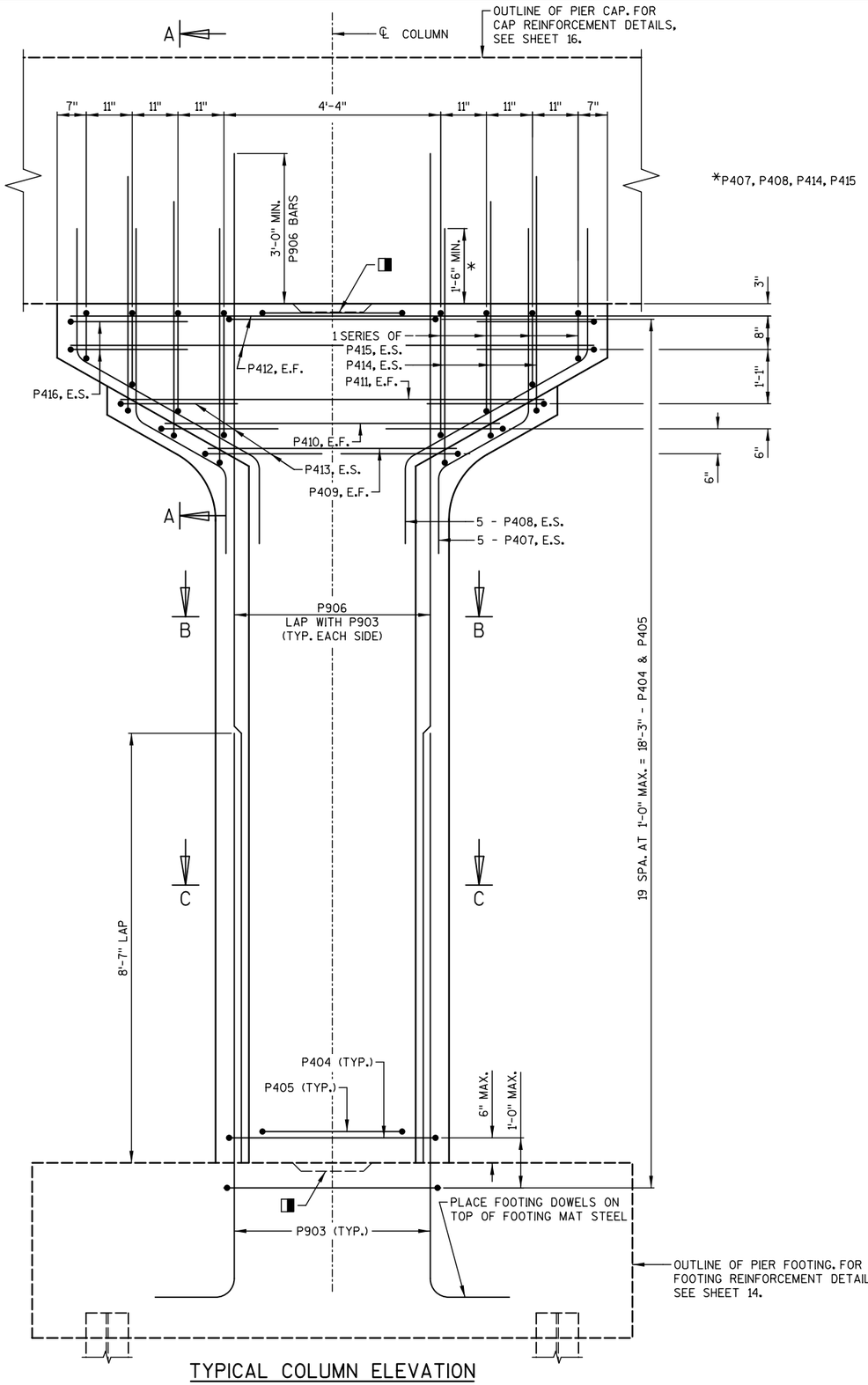
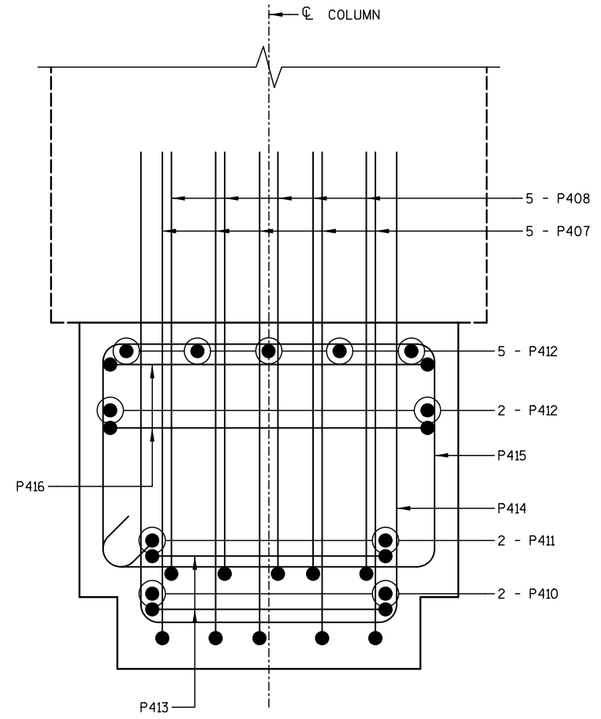
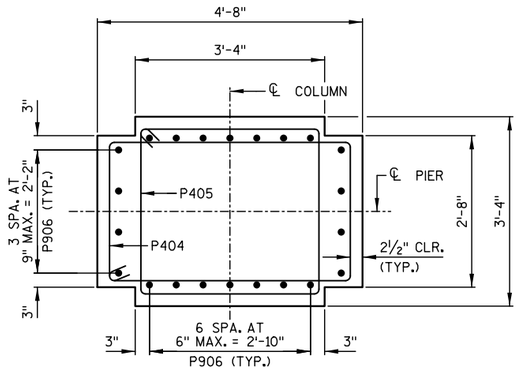


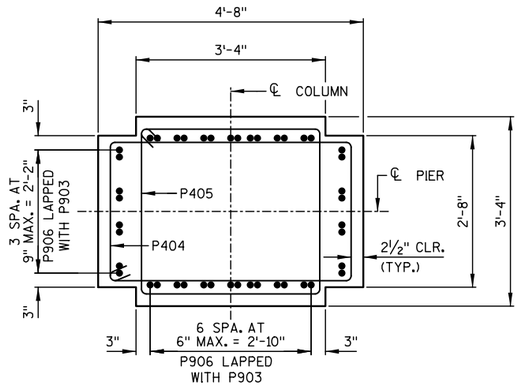
TYPICAL COLUMN ELEVATION



SECTION A-A
(NOT TO SCALE)



SECTION B-B



SECTION C-C

LEGEND

◨ FOR SYMBOL DESCRIPTIONS, SEE SHEET 12.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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PIER COLUMN DETAILS

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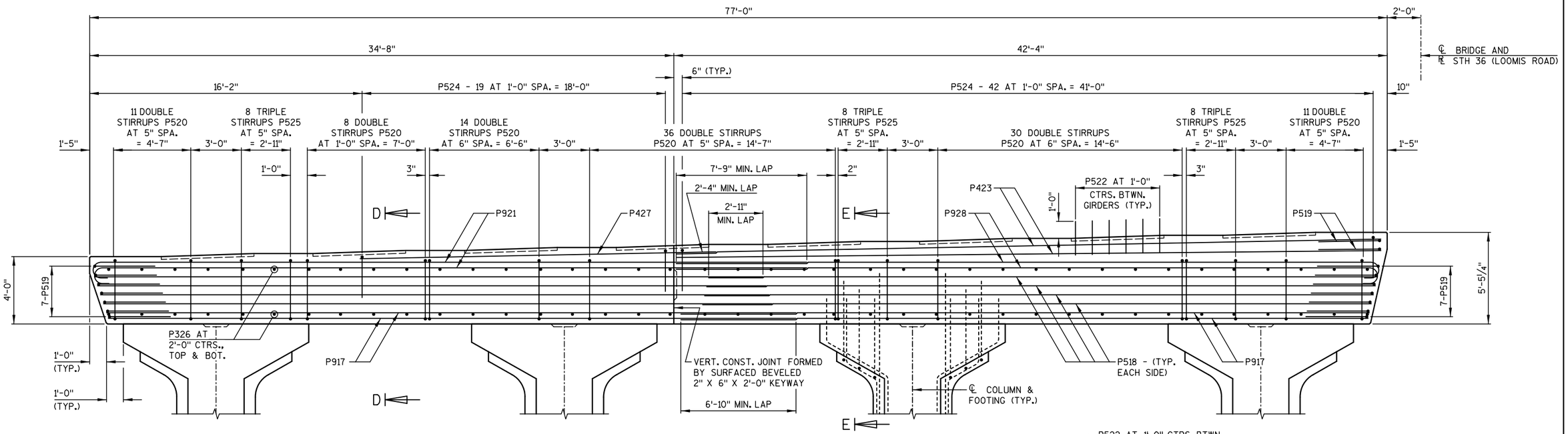
1100-46-71



BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
P415	16 SERIES OF 4	8'-2" TO 11'-4"

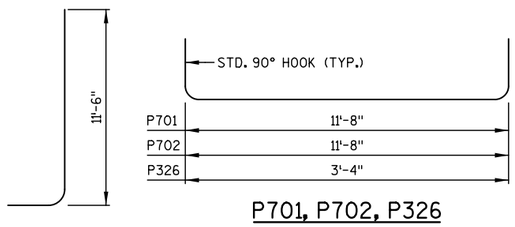
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
△ LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS						TOTAL WEIGHT = 9,840 LBS
P701	192	13-8	X		PIER FOOTING - BOTTOM MAT	HORIZ.
P702	160	13-8	X		PIER FOOTING - BOTTOM MAT	HORIZ.
COATED BARS						TOTAL WEIGHT = 55,080 LBS
P903	176	12-10	X		COLUMN AND FOOTING	VERT.
P404	160	13-6	X		COLUMN - BAR TIES	HORIZ.
P405	160	12-2	X		COLUMN - BAR TIES	HORIZ.
P906	176	21-0			COLUMN	VERT.
P407	80	7-9	X		COLUMN CAP - EACH SIDE	VERT.
P408	80	8-6	X		COLUMN CAP - EACH SIDE	VERT.
P409	16	5-6			COLUMN CAP - EACH FACE	HORIZ.
P410	16	7-2			COLUMN CAP - EACH FACE	HORIZ.
P411	16	8-7			COLUMN CAP - EACH FACE	HORIZ.
P412	56	10-7			COLUMN CAP - EACH FACE	HORIZ.
P413	48	5-6	X		COLUMN CAP - END - EACH SIDE	HORIZ.
P414	48	11-2	X		COLUMN CAP - EACH SIDE	VERT.
P415	64	9-9	X	△	COLUMN CAP - EACH SIDE	VERT.
P416	32	6-2	X		COLUMN CAP - END - EACH SIDE	HORIZ.
P917	64	40-10			PIER CAP - BOTTOM	HORIZ.
P518	32	39-6			PIER CAP - SIDES	HORIZ.
P519	32	10-4	X		PIER CAP - ENDS	HORIZ.
P520	440	12-6	X		PIER CAP - STIRRUPS	VERT.
P921	32	43-8	X		PIER CAP - TOP	HORIZ.
P522	96	2-0			PIER CAP - DOWELS B/W GIRDERS	VERT.
P423	14	41-10			PIER CAP - TOP	HORIZ.
P524	122	8-2	X		PIER CAP - TOP	VERT.
P525	144	12-0	X		PIER CAP - STIRRUPS	VERT.
P326	156	3-10	X		PIER CAP SUPPORT BARS	HORIZ.
P427	10	21-0			PIER CAP - TOP	HORIZ.
P928	32	43-0	X		PIER CAP - TOP	HORIZ.

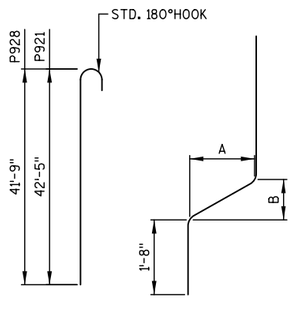
PIER CAP ELEVATION

(LOOKING NORTH, WEST PIER CAP SHOWN, EAST PIER MIRROR IMAGE)

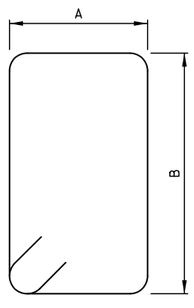


P701, P702, P326

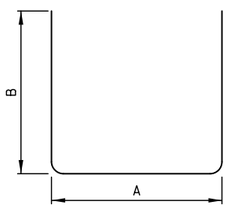
P903



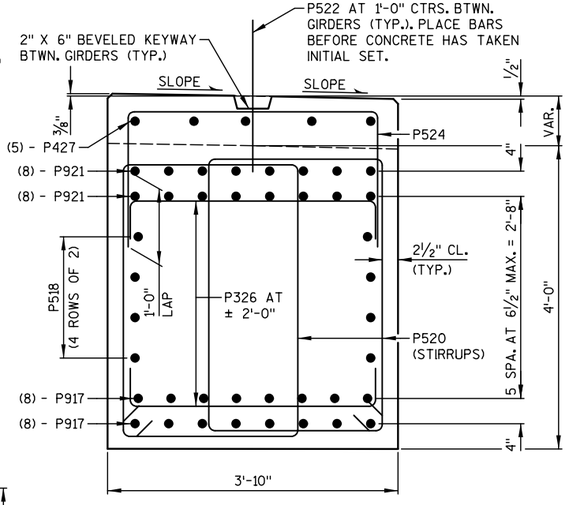
P921, P928 P407, P408



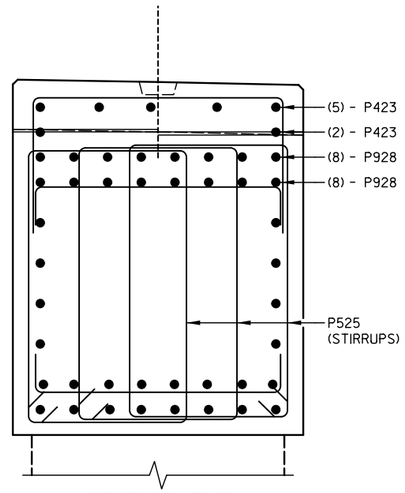
P404, P405, P415, P520, P525



P413, P414, P416, P519, P524



SECTION D-D



SECTION E-E

(SIMILAR TO SECTION D-D EXCEPT AS SHOWN)

TABLE OF DIMENSIONS

BAR MARK	DIM "A"	DIM "B"
P404	4'-3"	2'-3"
P405	2'-11"	2'-11"
P407	2'-4"	1'-3"
P408	3'-10"	2'-2"
P413	2'-2"	1'-9"
P414	2'-3"	4'-7"
P415	2'-11"	11" TO 2'-6"
P416	2'-10"	1'-9"
P519	3'-3"	3'-8"
P520	2'-4"	3'-7"
P524	3'-5"	2'-6"
P525	2'-1"	3'-7"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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PIER CAP DETAILS

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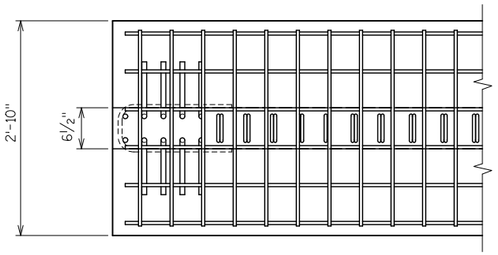
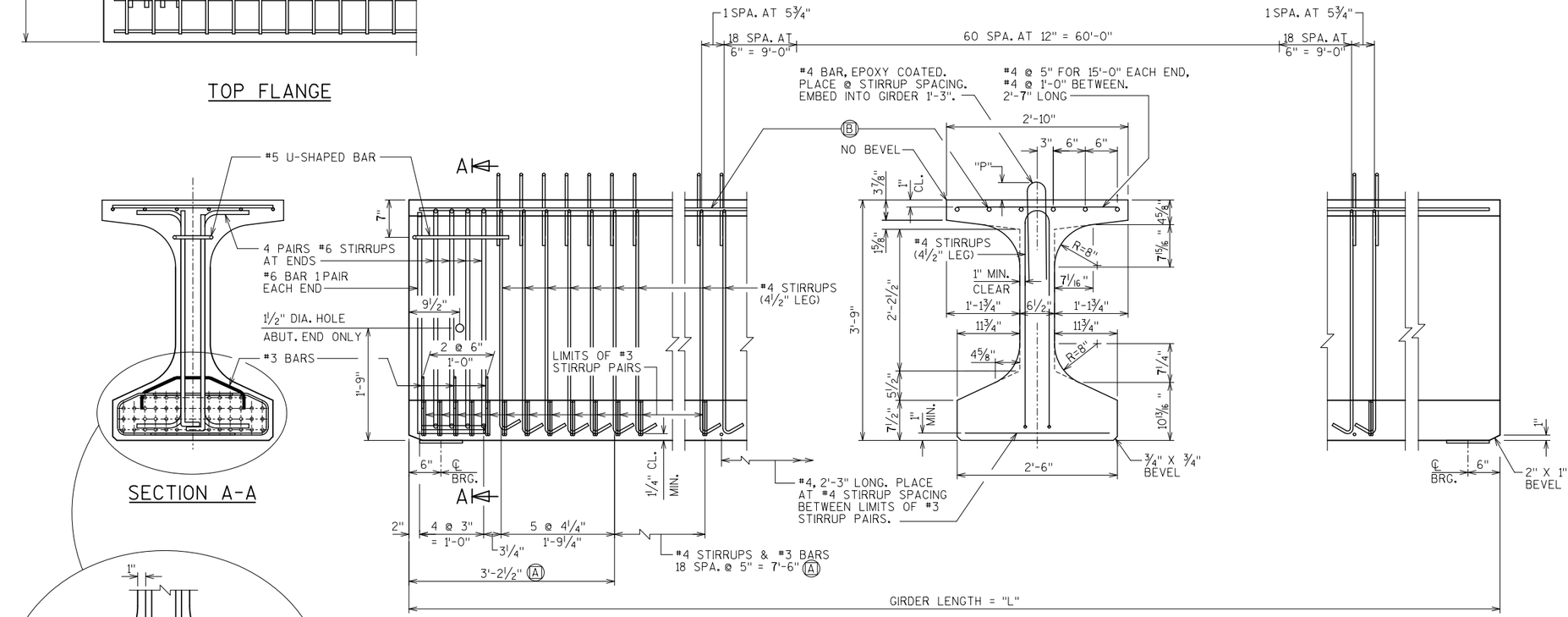
STATE PROJECT NUMBER

1100-46-71



TOP FLANGE

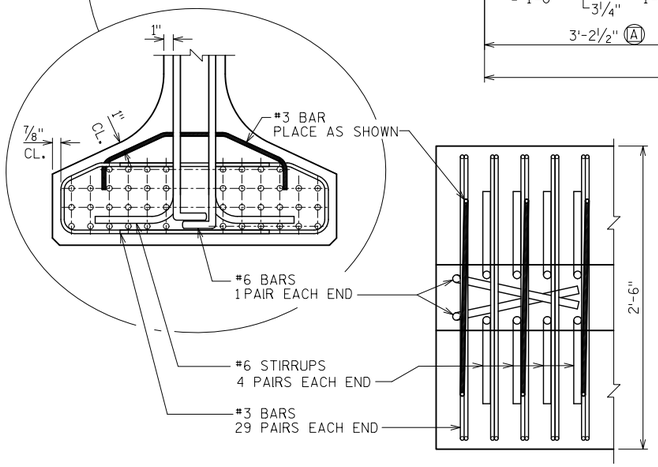


SECTION A-A

SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-8"



BOTTOM FLANGE

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

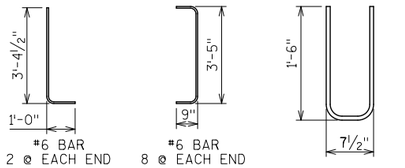
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

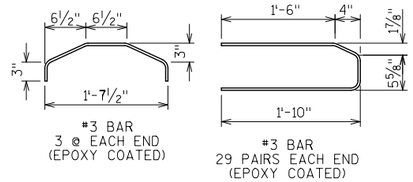
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON ACCEPTANCE OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.6" DIA. -7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE SHEET "INTERMEDIATE STEEL DIAPHRAGMS."





✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (P.S.I.)	"P" (IN.)			DIA. OF STRAND (IN.)	TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	DRAPED PATTERN (IN.)			
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10		1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 OF GIRDER				"A"	"B" MIN.	"B" MAX.	"C"
1	1	100.375	0.7	1.3	1.7	2.0	2.1	1.9	1.6	1.1	0.6	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0
1	2-17	100.375	0.6	1.3	1.7	2.0	2.1	2.0	1.7	1.2	0.6	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0
1	18	100.375	0.7	1.4	1.9	2.2	2.3	2.1	1.7	1.2	0.6	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0
2	1	100.375	0.6	1.1	1.6	1.9	2.1	2.0	1.7	1.3	0.7	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0
2	2-17	100.375	0.6	1.2	1.7	2.0	2.1	2.0	1.7	1.3	0.6	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0
2	18	100.375	0.6	1.2	1.7	2.1	2.3	2.2	1.9	1.4	0.7	8,000	7	7	7	0.6	32	6,800	40.00	13.75	16.75	5.0

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

45W" PRESTRESSED GIRDER DETAILS 1

SHEET 17 OF 37
476

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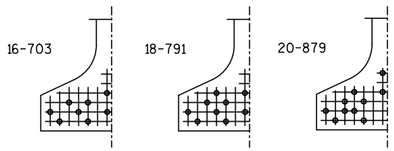
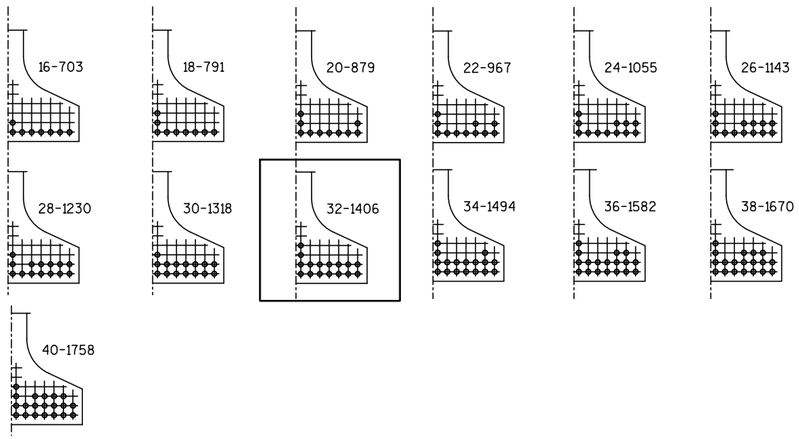
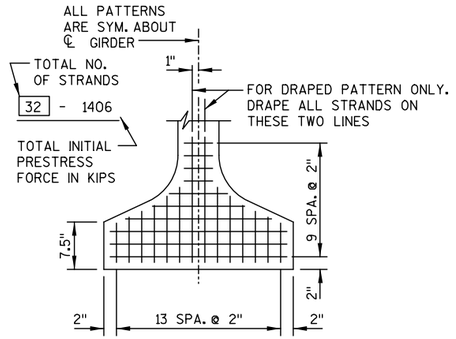


STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

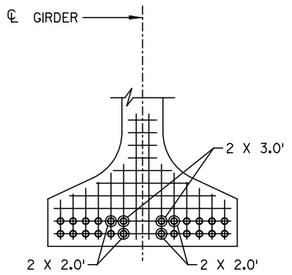


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS

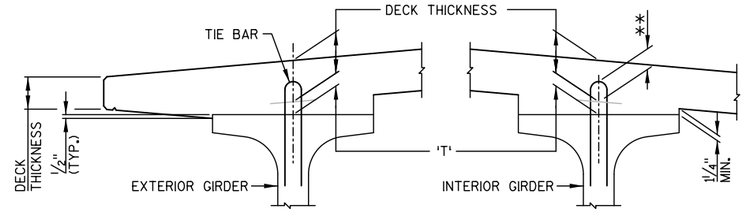


TYP. STRAND PATTERN



DEBONDING STRAND LAYOUT SECTION AT THE END

(SPANS 1 & 2, BEAM 18)



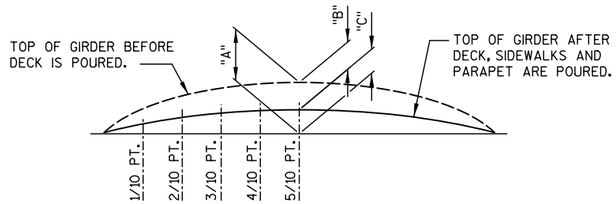
DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION
* IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,
** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T' ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

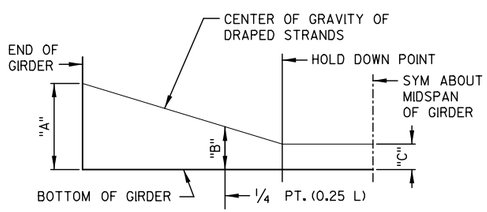
TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.86" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

* "A" = PRESTRESS CAMBER
* "B" = DEAD LOAD DEFLECTION
* "C" = RESIDUAL CAMBER

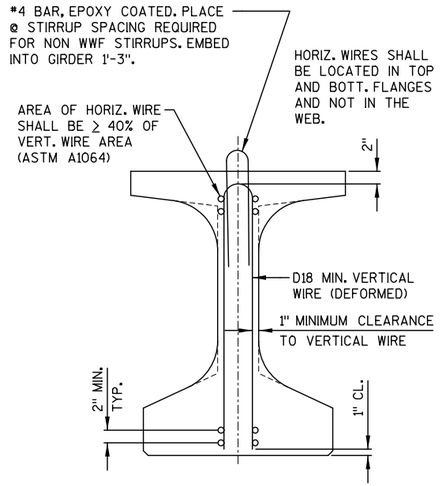


DRAPED STRAND PROFILE

* THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.2"
2	3.2"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



SECTION THRU GIRDER

SHOWING WELDED WIRE FABRIC (WWF) STIRRUPS ASTM A1064 (FY = 70 KSI)

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

45W" PRESTRESSED GIRDER DETAILS 2

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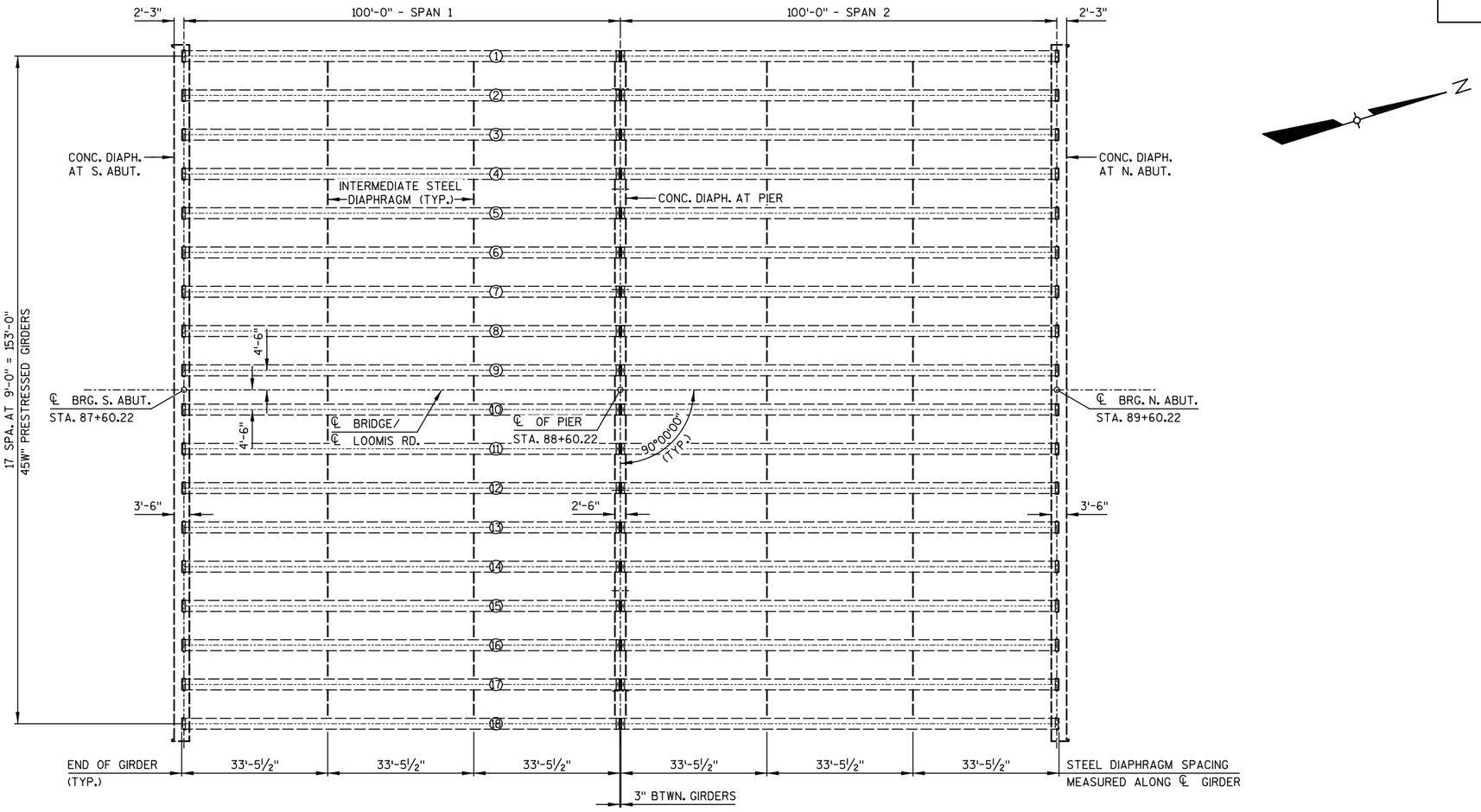
STATE PROJECT NUMBER

1100-46-71



PLAN

TOP OF DECK ELEVATIONS

Locations	CL BRG. S. ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	CL Pier	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	CL BRG. N. ABUT.
* West Edge of Deck	776.89	776.83	776.76	776.66	776.55	776.43	776.29	776.13	775.96	775.77	775.56	775.34	775.10	774.85	774.58	774.30	774.02	773.74	773.47	773.19	772.91
Girder 1	776.94	776.88	776.81	776.71	776.61	776.48	776.34	776.18	776.01	775.82	775.61	775.39	775.15	774.90	774.63	774.35	774.07	773.80	773.52	773.24	772.96
West Gutter Line	777.03	776.97	776.90	776.80	776.70	776.57	776.43	776.27	776.10	775.91	775.70	775.48	775.24	774.99	774.72	774.44	774.16	773.89	773.61	773.33	773.05
Girder 2	777.12	777.06	776.99	776.89	776.79	776.66	776.52	776.36	776.19	776.00	775.79	775.57	775.33	775.08	774.81	774.53	774.25	773.98	773.70	773.42	773.14
Girder 3	777.30	777.24	777.17	777.07	776.97	776.84	776.70	776.54	776.37	776.18	775.97	775.75	775.51	775.26	774.99	774.71	774.43	774.16	773.88	773.60	773.32
Girder 4	777.48	777.42	777.35	777.25	777.15	777.02	776.88	776.72	776.55	776.36	776.15	775.93	775.69	775.44	775.17	774.89	774.61	774.34	774.06	773.78	773.50
Girder 5	777.66	777.60	777.53	777.43	777.33	777.20	777.06	776.90	776.73	776.54	776.33	776.11	775.87	775.62	775.35	775.07	774.79	774.52	774.24	773.96	773.68
Girder 6	777.84	777.78	777.71	777.61	777.51	777.38	777.24	777.08	776.91	776.72	776.51	776.29	776.05	775.80	775.53	775.25	774.97	774.70	774.42	774.14	773.86
Girder 7	778.02	777.96	777.89	777.79	777.69	777.56	777.42	777.26	777.09	776.90	776.69	776.47	776.23	775.98	775.71	775.43	775.15	774.88	774.60	774.32	774.04
Girder 8	778.20	778.14	778.07	777.97	777.87	777.74	777.60	777.44	777.27	777.08	776.87	776.65	776.41	776.16	775.89	775.61	775.33	775.06	774.78	774.50	774.22
Girder 9	778.38	778.32	778.25	778.15	778.05	777.92	777.78	777.62	777.45	777.26	777.05	776.83	776.59	776.34	776.07	775.79	775.51	775.24	774.96	774.68	774.40
PGL	778.47	778.41	778.34	778.24	778.14	778.01	777.87	777.71	777.54	777.35	777.14	776.92	776.68	776.43	776.16	775.88	775.60	775.33	775.05	774.77	774.49
Girder 10	778.38	778.32	778.25	778.15	778.05	777.92	777.78	777.62	777.45	777.26	777.05	776.83	776.59	776.34	776.07	775.79	775.51	775.24	774.96	774.68	774.40
Girder 11	778.20	778.14	778.07	777.97	777.87	777.74	777.60	777.44	777.27	777.08	776.87	776.65	776.41	776.16	775.89	775.61	775.33	775.06	774.78	774.50	774.22
Girder 12	778.02	777.96	777.89	777.79	777.69	777.56	777.42	777.26	777.09	776.90	776.69	776.47	776.23	775.98	775.71	775.43	775.15	774.88	774.60	774.32	774.04
Girder 13	777.84	777.78	777.71	777.61	777.51	777.38	777.24	777.08	776.91	776.72	776.51	776.29	776.05	775.80	775.53	775.25	774.97	774.70	774.42	774.14	773.86
Girder 14	777.66	777.60	777.53	777.43	777.33	777.20	777.06	776.90	776.73	776.54	776.33	776.11	775.87	775.62	775.35	775.07	774.79	774.52	774.24	773.96	773.68
Girder 15	777.48	777.42	777.35	777.25	777.15	777.02	776.88	776.72	776.55	776.36	776.15	775.93	775.69	775.44	775.17	774.89	774.61	774.34	774.06	773.78	773.50
Girder 16	777.30	777.24	777.17	777.07	776.97	776.84	776.70	776.54	776.37	776.18	775.97	775.75	775.51	775.26	774.99	774.71	774.43	774.16	773.88	773.60	773.32
Girder 17	777.12	777.06	776.99	776.89	776.79	776.66	776.52	776.36	776.19	776.00	775.79	775.57	775.33	775.08	774.81	774.53	774.25	773.98	773.70	773.42	773.14
East Gutter Line	777.03	776.97	776.90	776.80	776.70	776.57	776.43	776.27	776.10	775.91	775.70	775.48	775.24	774.99	774.72	774.44	774.16	773.89	773.61	773.33	773.05
Girder 18	776.94	776.88	776.81	776.71	776.61	776.48	776.34	776.18	776.01	775.82	775.61	775.39	775.15	774.90	774.63	774.35	774.07	773.80	773.52	773.24	772.96
* East Edge of Deck	776.89	776.83	776.76	776.66	776.55	776.43	776.29	776.13	775.96	775.77	775.56	775.34	775.10	774.85	774.58	774.30	774.02	773.74	773.47	773.19	772.91

LEGEND

* EDGE OF DECK ELEVATION GIVEN AS CONTINUATION OF 2% CROSS SLOPE TO EDGE OF DECK UNDER SIDEWALK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

FRAMING PLAN

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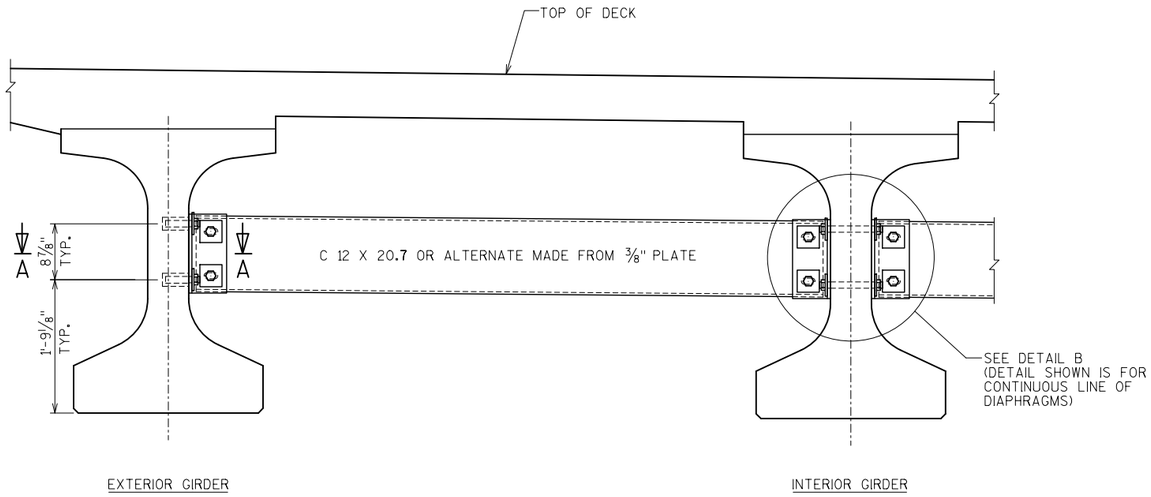
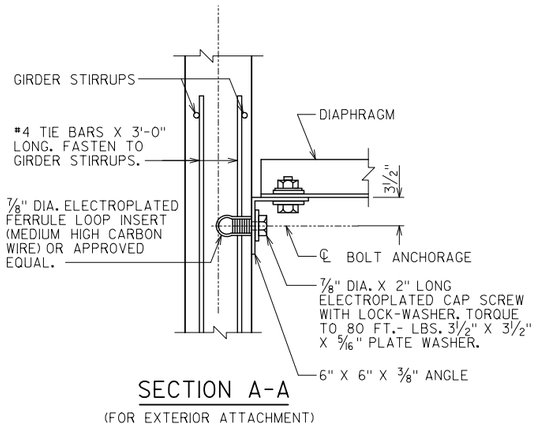
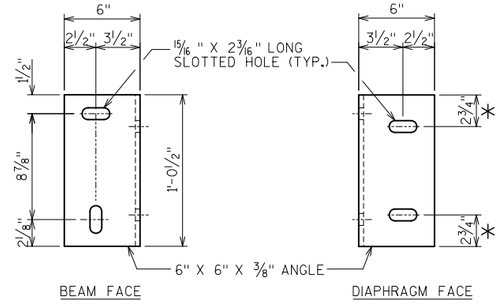


PART TRANSVERSE SECTION AT DIAPHRAGM



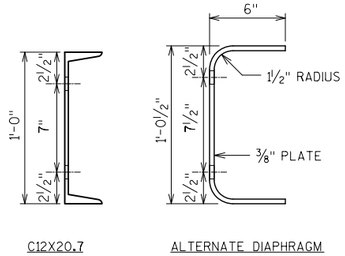
SECTION A-A

(FOR EXTERIOR ATTACHMENT)

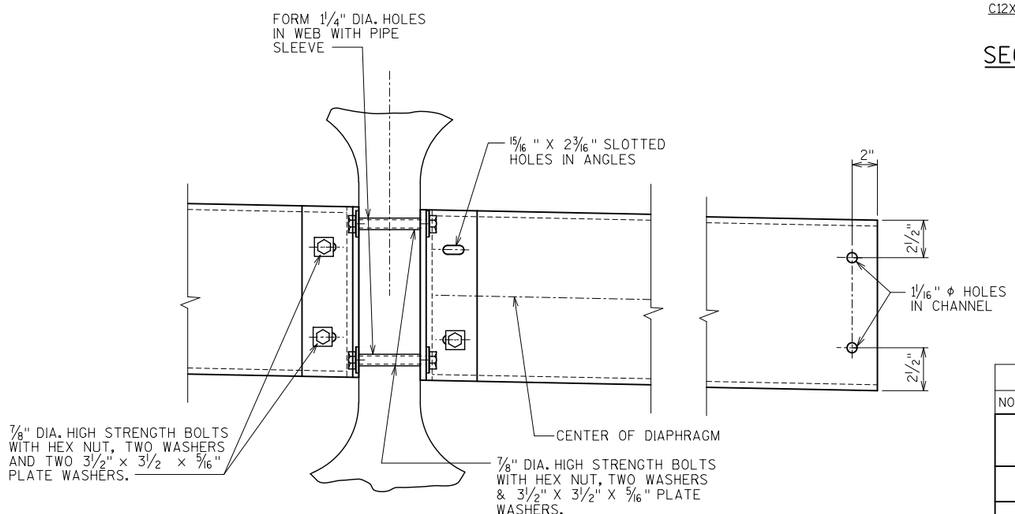


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU DIAPHRAGM



DETAIL B

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-40-1025," EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS ¼ TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

INTERMEDIATE STEEL DIAPHRAGMS

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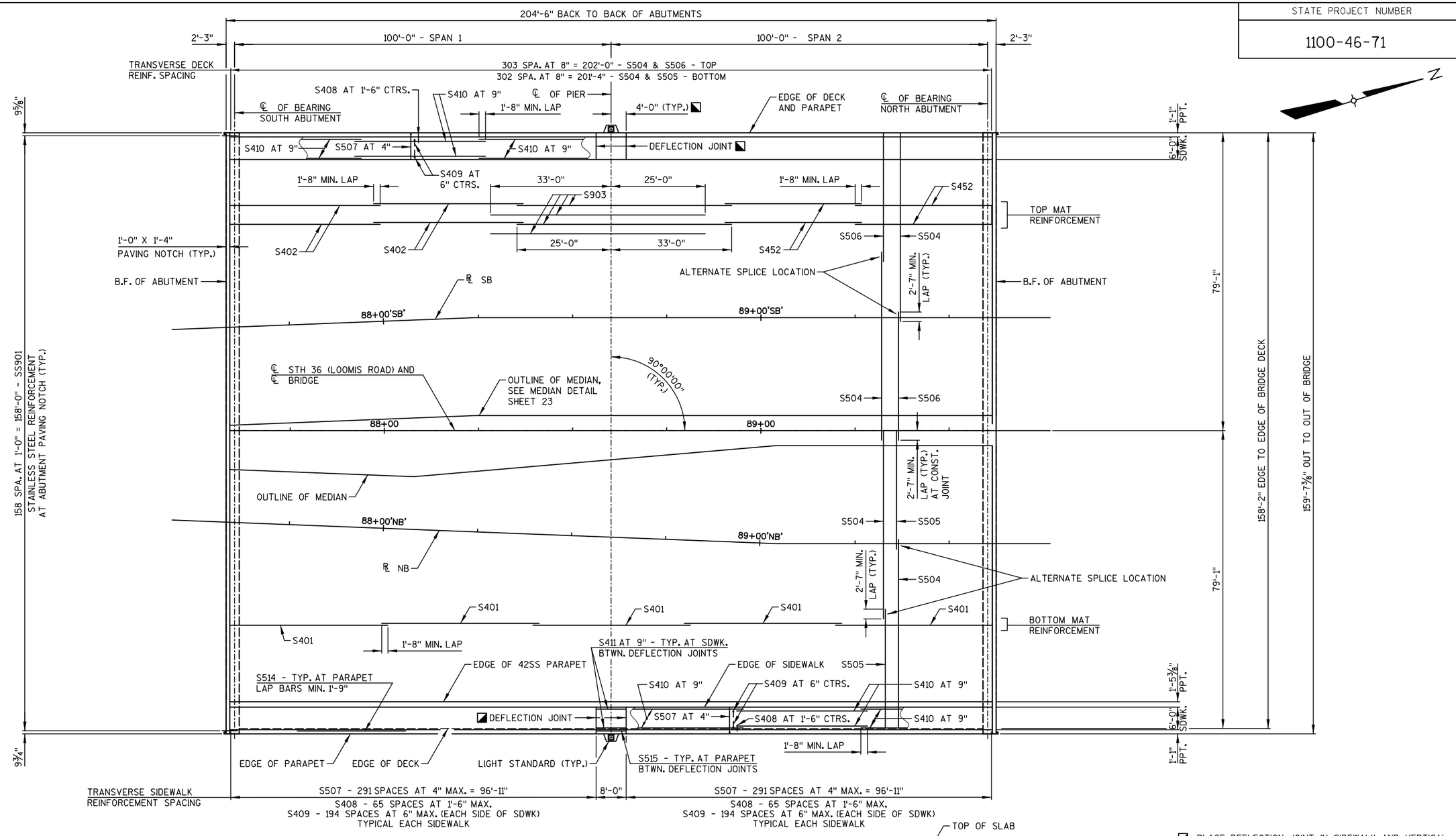
STATE PROJECT NUMBER

1100-46-71



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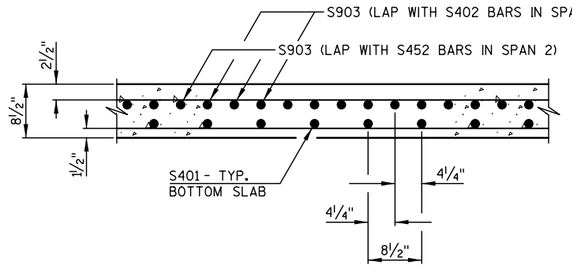
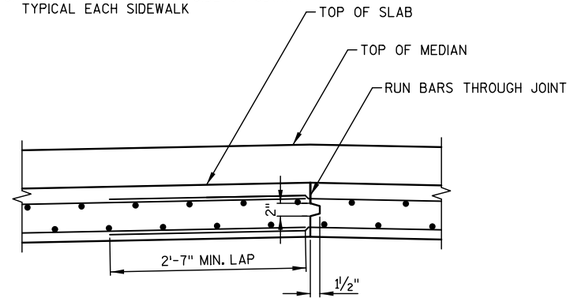


CROSS SECTION THRU SLAB - AT PIER

(LOOKING NORTH)



LONGITUDINAL CONSTRUCTION JOINT DETAIL

◪ PLACE DEFLECTION JOINT IN SIDEWALK AND VERTICAL FACE PARAPET APPROX. 4'-0" EACH SIDE OF ℄ PIER. SEE "PLAN - DEFLECTION JOINT AT SIDEWALK" DETAIL ON SHEET 23 AND SHEET 32 "VERTICAL FACE PARAPET MODIFIED" FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY	CEB/DNJ	PLANS CK'D.	MJA

SUPERSTRUCTURE PLAN

SHEET 21 OF 37
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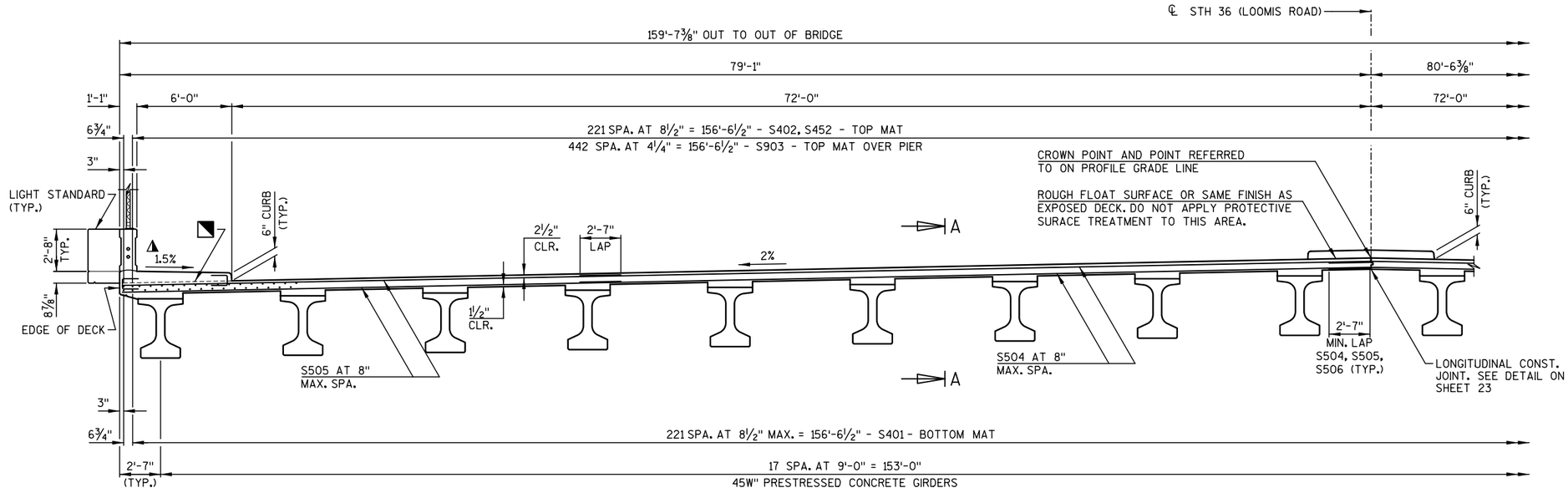
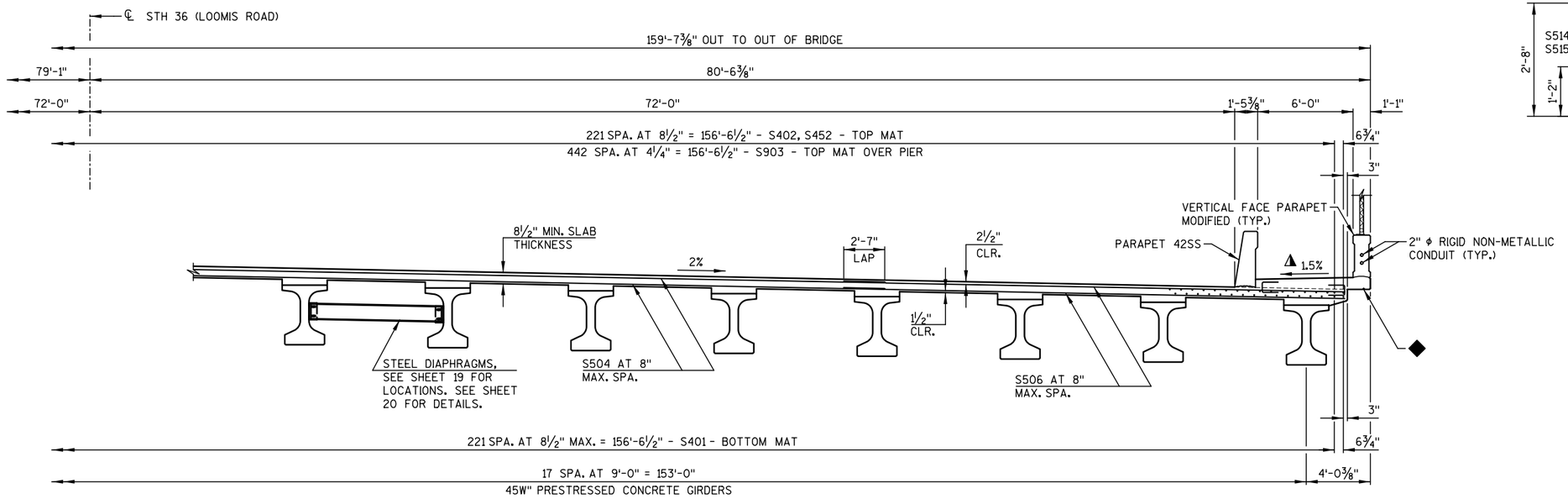


CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

NOTES

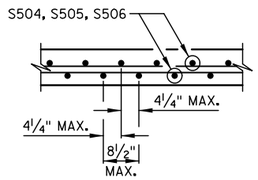
EMBED S409 BARS INTO DECK PRIOR TO DECK POUR.

EMBED S516 BARS INTO DECK PRIOR TO DECK POUR.

EMBED S512 BARS INTO SIDEWALK PRIOR TO POURING SIDEWALK.

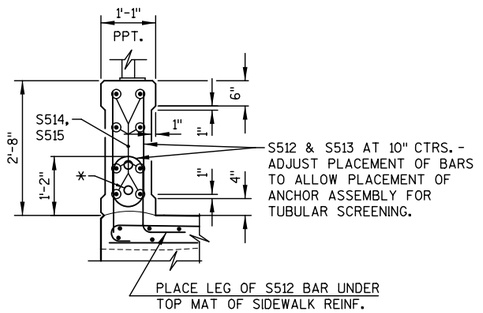
LAP LONGITUDINAL NO. 5 BARS IN PARAPET 1'-9" MIN.

CLEAN ALL LOOSE MATERIAL ON THE DECK AT THE MEDIAN LOCATION PRIOR TO MEDIAN PLACEMENT USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO MEDIAN PLACEMENT. NEAT CEMENT IS REQUIRED AS PER 509.3.9.2 OF THE STANDARD SPECIFICATIONS UNLESS THE MEDIAN IS POURED WITHIN 45 DAYS OF COMPLETING THE DECK POUR.



SECTION A-A

(TRANSVERSE BAR STAGGER DETAIL)



SECTION THRU PARAPET ON BRIDGE

LEGEND

- CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.
- ◆ ¾" V-GROOVE REQUIRED. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM (TYP. EACH SIDE)
- * 2 - 2" RIGID NONMETALLIC CONDUIT SCHEDULE 40
- ⚠ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUPERSTRUCTURE CROSS SECTION

SHEET 22 OF 37
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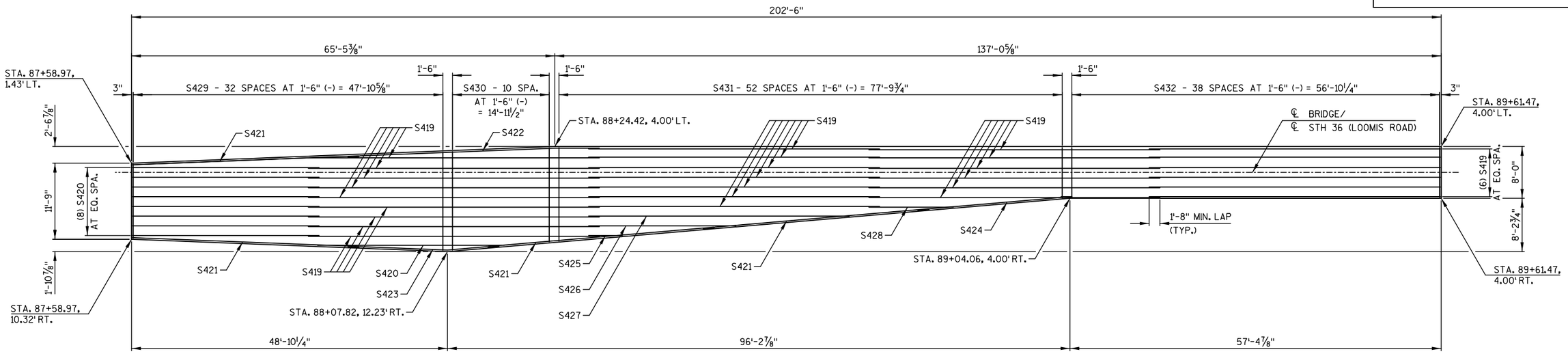
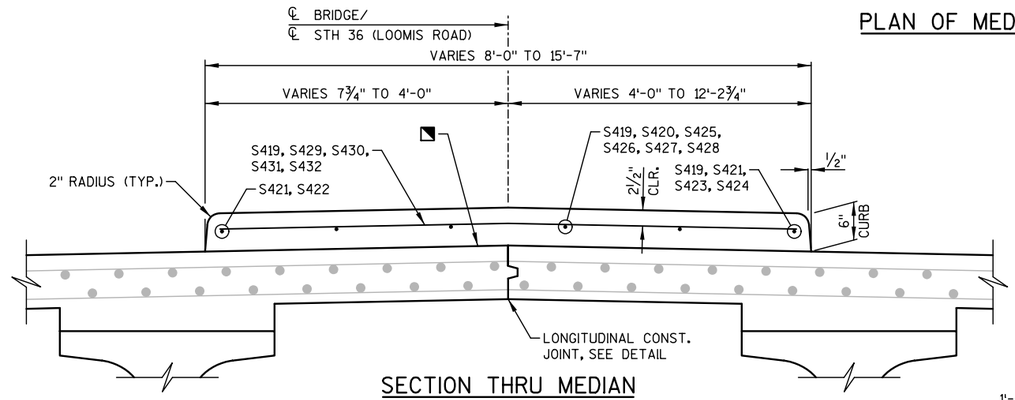
STATE PROJECT NUMBER

1100-46-71

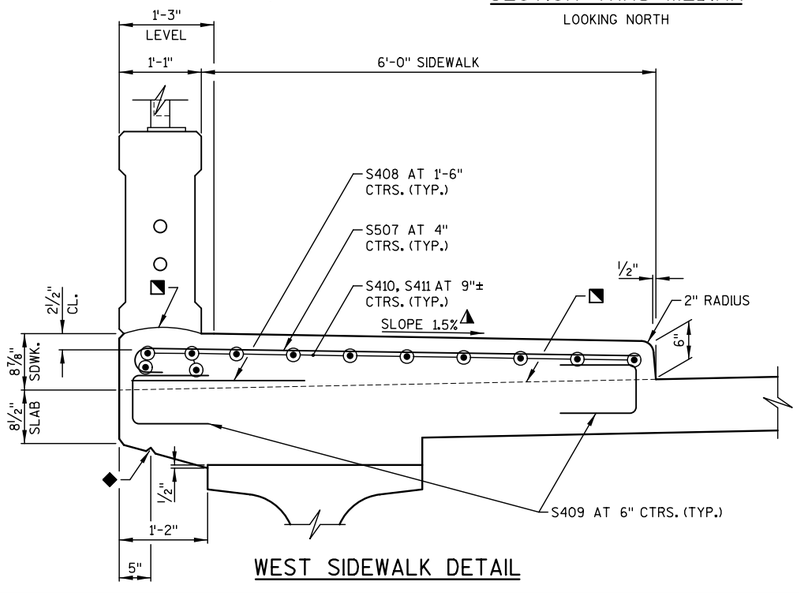


PLAN OF MEDIAN REINFORCEMENT

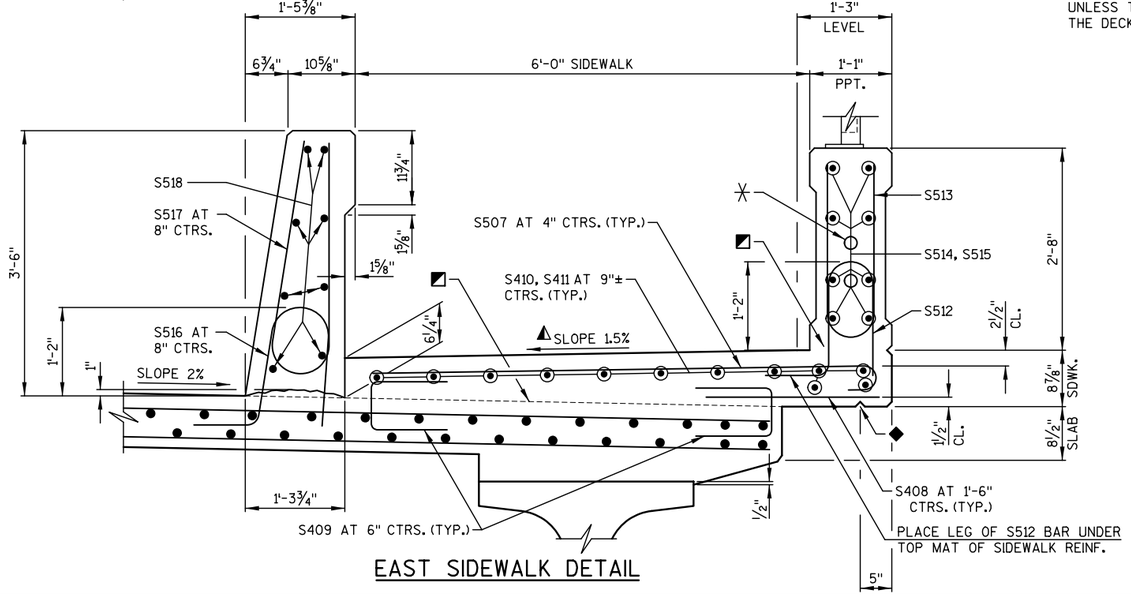


SECTION THRU MEDIAN

LOOKING NORTH



WEST SIDEWALK DETAIL



EAST SIDEWALK DETAIL

NOTES

EMBED S409 BARS INTO DECK PRIOR TO DECK POUR.

EMBED S516 BARS INTO DECK PRIOR TO DECK POUR.

EMBED S512 BARS INTO SIDEWALK PRIOR TO POURING SIDEWALK.

LAP LONGITUDINAL NO. 5 BARS IN PARAPET 1'-9" MIN.

CLEAN ALL LOOSE MATERIAL ON THE DECK AT THE MEDIAN LOCATION PRIOR TO MEDIAN PLACEMENT USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO MEDIAN PLACEMENT. NEAT CEMENT IS REQUIRED AS PER 509.3.9.2 OF THE STANDARD SPECIFICATIONS UNLESS THE MEDIAN IS POURED WITHIN 45 DAYS OF COMPLETING THE DECK POUR.

LEGEND

- ◥ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.
- ◆ ¾" V-GROOVE REQUIRED. EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM (TYP. EACH SIDE)
- ✳ 2 - 2" RIGID NONMETALLIC CONDUIT SCHEDULE 40
- ▲ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUPERSTRUCTURE DETAILS (1 OF 3)

SHEET 23 OF 37
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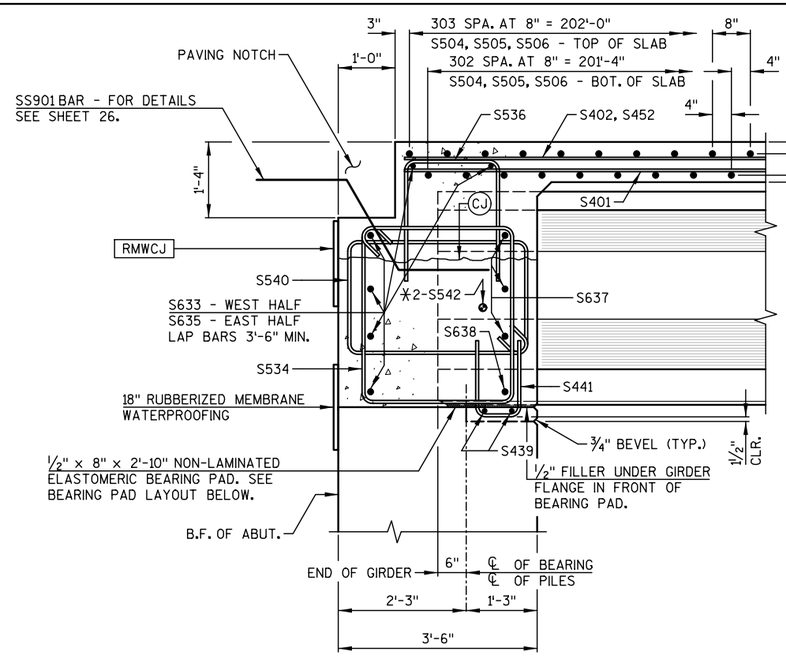
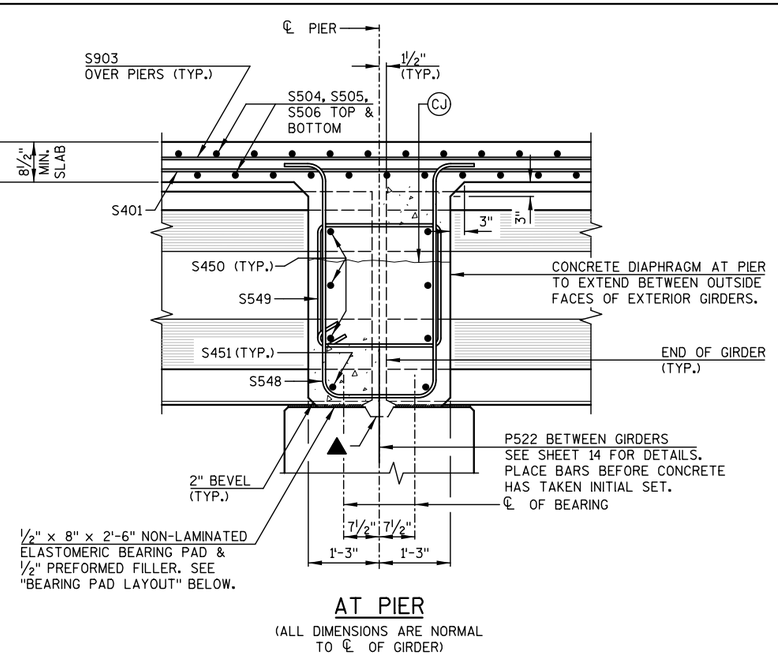


AT ABUTMENT

(ALL DIMENSIONS ARE NORMAL TO ℄ OF GIRDER)



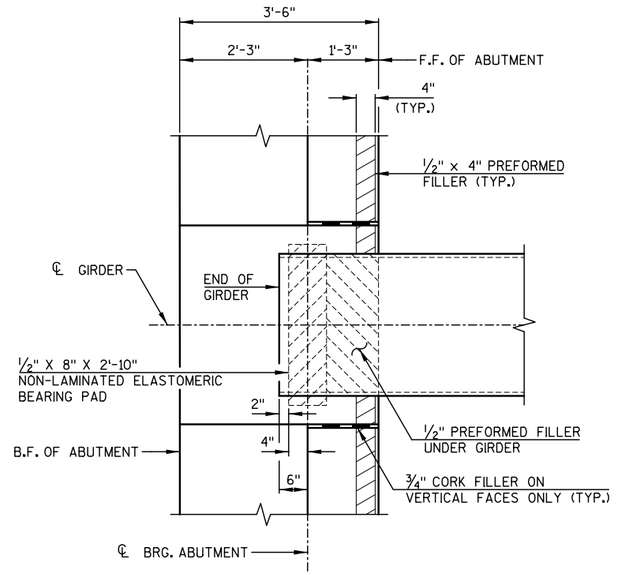
AT PIER

(ALL DIMENSIONS ARE NORMAL TO ℄ OF GIRDER)

LEGEND

- ✳ 1½" DIA. HOLE IN WEB FOR S542 BARS. PLACE TWO S542 BARS SYMMETRICAL ABOUT THE ℄ OF EACH GIRDER.
- ▲ KEYED CONSTRUCTION JOINT BETWEEN GIRDERS FORMED BY BEVELED 2" x 6".
- (CJ) OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.
- RMWCJ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONSTRUCTION JOINT IS USED. (COST INCLUDED WITH BID ITEM "CONCRETE MASONRY BRIDGES")

PART LONGITUDINAL SECTION



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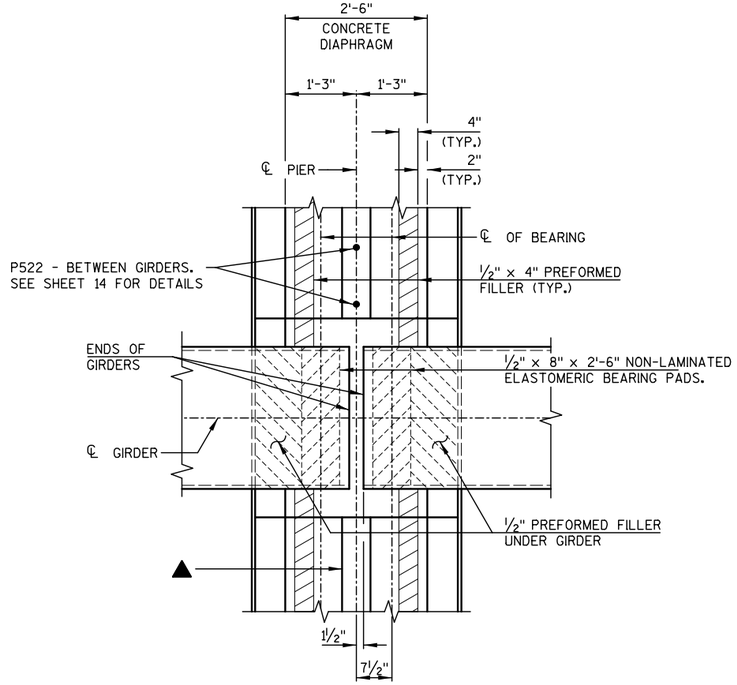
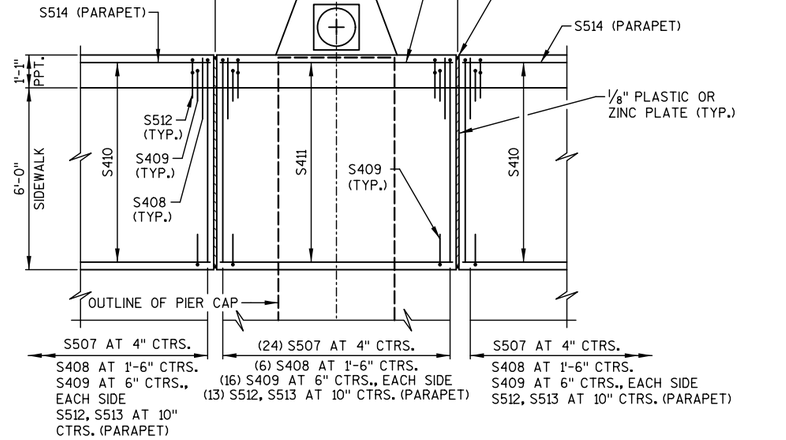


AT PIER



PLAN OF DEFLECTION JOINT AT SIDEWALK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY: CEB/DNJ | PLANS CK'D.: MJA

SUPERSTRUCTURE DETAILS (2 OF 3)

SHEET 24 OF 37
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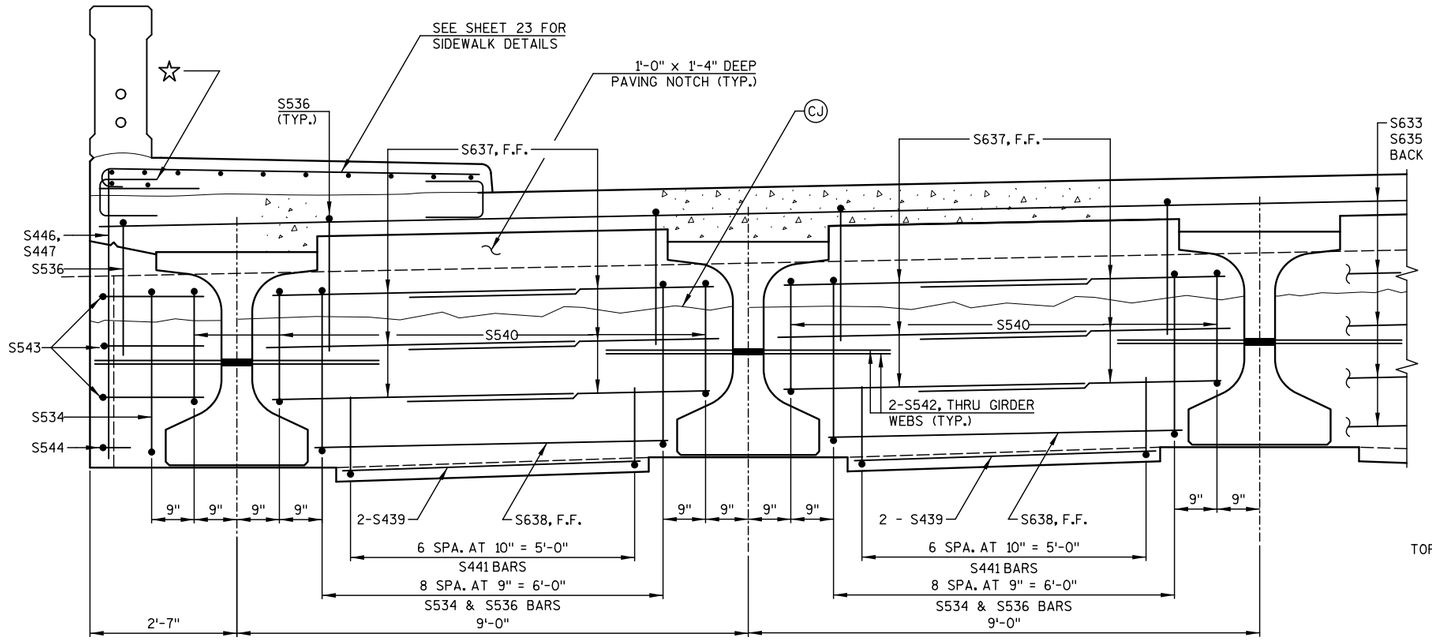
STATE PROJECT NUMBER

1100-46-71



EXTERIOR GIRDER
(END OF DIAPHRAGM THRU G2)

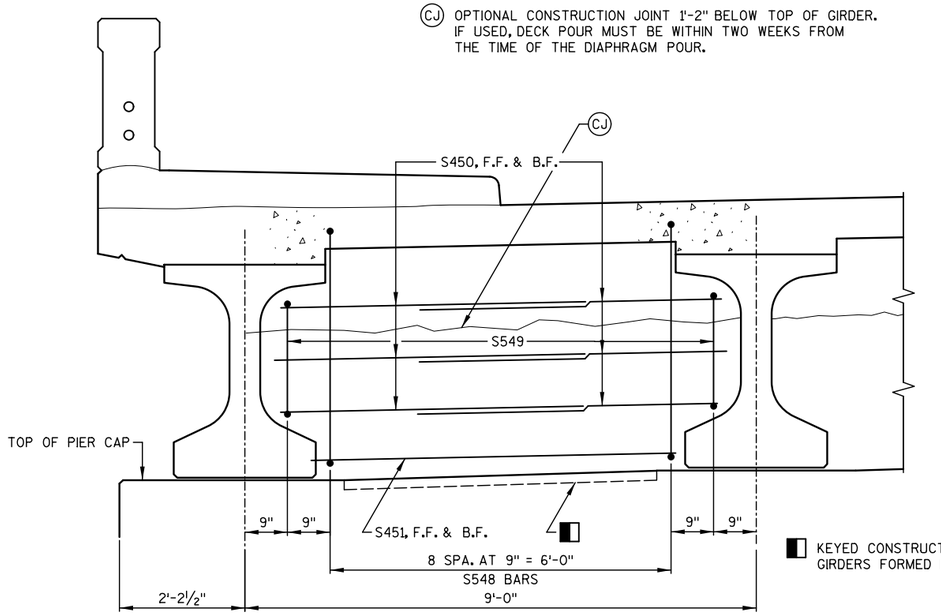
INTERIOR GIRDERS
(TYPICAL G2 THRU G17)

DIAPHRAGM AT ABUTMENT

(NORTH ABUTMENT SHOWN - LOOKING NORTH)
(SOUTH ABUTMENT SIMILAR)
(WEST SIDE SHOWN, EAST SIMILAR)

☆ TIE S409 BARS TO DIAPHRAGM REINFORCEMENT BEFORE DIAPHRAGM CONCRETE IS POURED (TYP.)

(CJ) OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN TWO WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

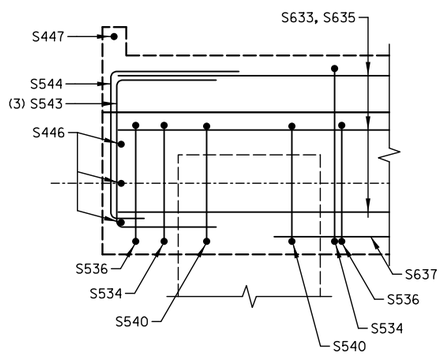


EXTERIOR GIRDER — INTERIOR GIRDER

DIAPHRAGM AT PIER

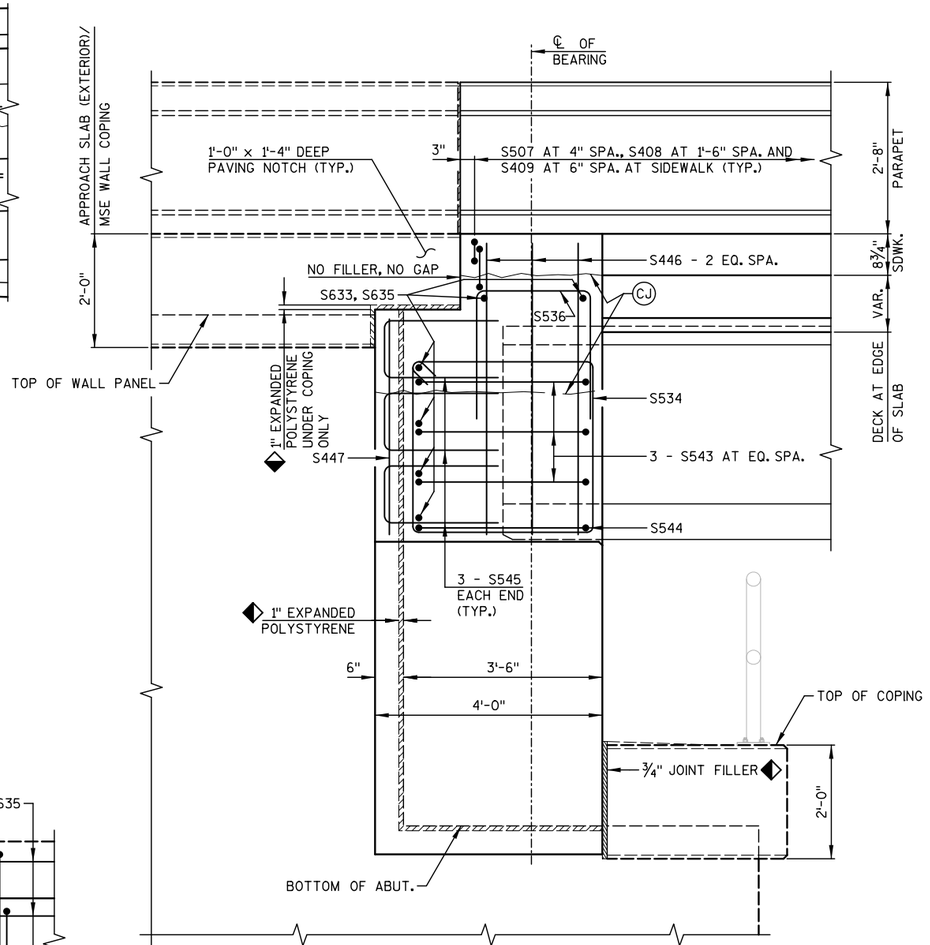
(LOOKING SOUTH - TYPICAL AT EACH BAY)

◧ KEYED CONSTRUCTION JOINT BETWEEN GIRDERS FORMED BY BEVELED 2" x 6".



PART PLAN AT ABUTMENT

(NORTH ABUTMENT SHOWN)
(SOUTH ABUTMENT SIMILAR)
(WEST SIDE SHOWN)



TYPICAL END VIEW AT ABUTMENT DIAPHRAGM

(WEST END SHOWN, EAST SIMILAR)

◆ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUPERSTRUCTURE DETAILS (3 OF 3)

SHEET 25 OF 37
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PLOT TIME: 4:57:13 PM
BATCH PRINT SHEET 26 OF 37

STATE PROJECT NUMBER

1100-46-71

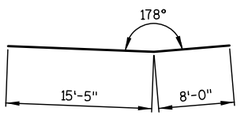
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

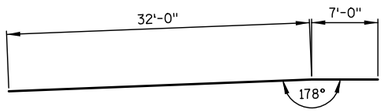
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
STAINLESS STEEL BARS					TOTAL WEIGHT = 5,410 LBS	
SS901	318	5 - 0	X		CONC. ABUT. DIAPHRAGM TO APPROACH SLAB	VERT.
COATED BARS					TOTAL WEIGHT = 294,530 LBS	
S401	1120	41 - 10			DECK - BOTTOM	LONGIT.
S402	448	39 - 9			DECK - TOP	LONGIT.
S903	445	58 - 0			DECK - TOP OVER PIER	LONGIT.
S504	1214	50 - 0			DECK - TOP AND BOTTOM	TRANS.
S505	607	31 - 6			DECK - TOP AND BOTTOM	TRANS.
S506	607	34 - 1			DECK - TOP AND BOTTOM	TRANS.
S507	1216	7 - 3	X		SIDEWALK - TOP	TRANS.
S408	276	2 - 3			SIDEWALK - BOTTOM	TRANS.
S409	1624	2 - 6	X		SIDEWALK - AT DECK JOINT	VERT.
S410	144	33 - 5			SIDEWALK - TOP AND BOTTOM	LONGIT.
S411	24	7 - 8			SIDEWALK - TOP AND BOTTOM	LONGIT.
S512	492	4 - 4	X		PARAPET - VERTICAL FACE - EACH SIDE	VERT.
S513	492	4 - 9	X		PARAPET - VERTICAL FACE - EACH SIDE	VERT.
S514	96	33 - 5			PARAPET - VERTICAL FACE - EACH SIDE	LONGIT.
S515	16	7 - 8			PARAPET - VERTICAL FACE - EACH SIDE	LONGIT.
S516	304	4 - 5	X		PARAPET - 42SS	VERT.
S517	304	6 - 8	X		PARAPET - 42SS	VERT.
S518	32	51 - 11			PARAPET - 42SS	LONGIT.
S419	28	45 - 0			MEDIAN	LONGIT.
S420	9	28 - 9			MEDIAN	LONGIT.
S421	4	35 - 0			MEDIAN	LONGIT.
S422	1	38 - 11	X		MEDIAN	LONGIT.
S423	1	23 - 5	X		MEDIAN	LONGIT.
S424	1	23 - 10	X		MEDIAN	LONGIT.
S425	1	5 - 3			MEDIAN	LONGIT.
S426	1	22 - 9			MEDIAN	LONGIT.
S427	1	40 - 4			MEDIAN	LONGIT.
S428	1	13 - 1			MEDIAN	LONGIT.
S429	33	13 - 3		△	MEDIAN	TRANS.
S430	11	14 - 10		△	MEDIAN	TRANS.
S431	53	11 - 1		△	MEDIAN	TRANS.
S432	39	7 - 8			MEDIAN	TRANS.
S633	24	43 - 0			ABUT. - DIAPHRAGM - TOP AND BACK FACE	HORIZ.
S534	310	13 - 0	X		ABUT. - DIAPHRAGM - STIRRUP	VERT.
S635	24	42 - 0			ABUT. - DIAPHRAGM - TOP AND BACK FACE	HORIZ.
S536	310	6 - 7	X		ABUT. - DIAPHRAGM - TOP - BETWEEN GIRDERS	VERT.
S637	204	5 - 10			ABUT. - DIAPHRAGM - FRONT FACE	HORIZ.
S638	34	6 - 2			ABUT. - DIAPHRAGM - BOTTOM - FRONT FACE	HORIZ.
S439	72	5 - 0			ABUT. - DIAPHRAGM - BOTTOM - FRONT FACE	HORIZ.
S540	72	11 - 4	X		ABUT. - DIAPHRAGM - STIRRUP	VERT.
S441	238	3 - 7	X		ABUT. - DIAPHRAGM - BOTTOM - FRONT FACE	VERT.
S542	72	6 - 0			ABUT. - DIAPHRAGM - THRU GIRDER WEB	HORIZ.
S543	12	7 - 3	X		ABUT. - DIAPHRAGM - EACH END	HORIZ.
S544	4	5 - 7	X		ABUT. - DIAPHRAGM - EACH END - BOTTOM	HORIZ.
S545	12	4 - 4	X		ABUT. - DIAPHRAGM - EACH END	VERT.
S446	12	5 - 0			ABUT. - DIAPHRAGM - EACH END	VERT.
S447	4	3 - 9			ABUT. - DIAPHRAGM - EACH END	VERT.
S548	153	11 - 8	X		PIER - DIAPHRAGM - STIRRUP	VERT.
S549	34	9 - 4	X		PIER - DIAPHRAGM - STIRRUP	VERT.
S450	204	4 - 8			PIER - DIAPHRAGM - EACH FACE	HORIZ.
S451	34	6 - 2			PIER - DIAPHRAGM - BOTTOM - EACH FACE	HORIZ.
S452	448	35 - 9			DECK - TOP	LONGIT.

BAR SERIES

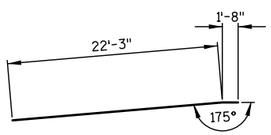
MARK	NO. REQ'D	LENGTH
S429	1 SET OF 33	11'-5" TO 15'-2"
S430	1 SET OF 11	14'-6" TO 15'-3"
S431	1 SET OF 53	7'-9" TO 14'-5"



S423



S422



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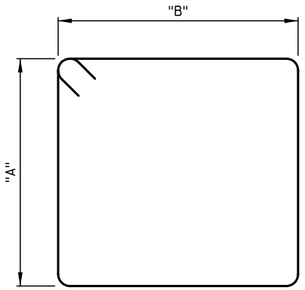
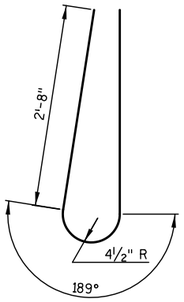
S507



S534, S540, S549

BAR MARK	DIM "A"	DIM "B"
S534	3'-0"	3'-2"
S540	2'-2"	3'-2"
S549	2'-2"	2'-2"



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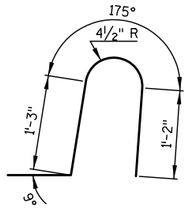

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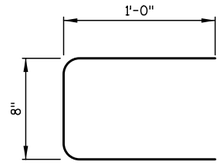

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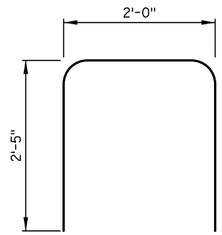

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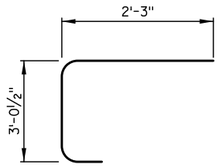

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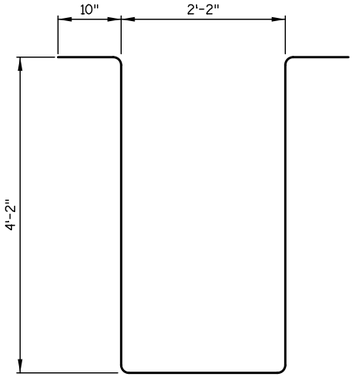

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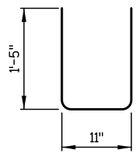

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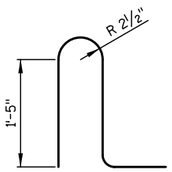

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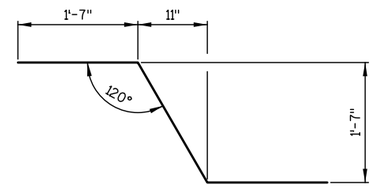

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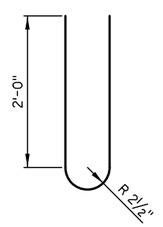

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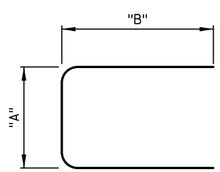

S543, S545

BAR MARK	DIM "A"	DIM "B"
S543	3'-0½"	2'-3"
S545	7"	2'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUPERSTRUCTURE BILL OF BARS

SHEET 26 OF 37
485

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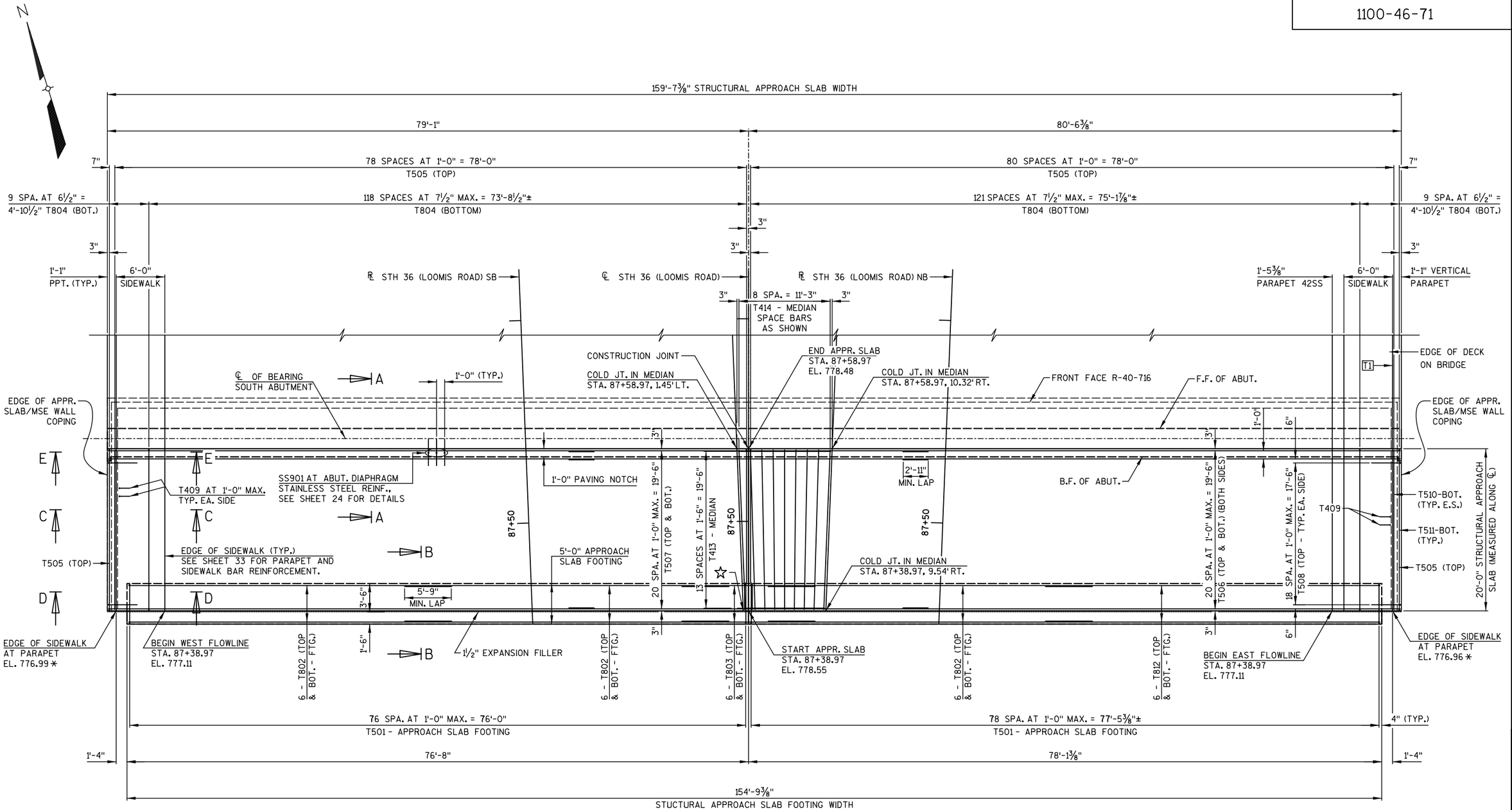
BATCH PRINT SHEET 27 OF 37

STATE PROJECT NUMBER

1100-46-71



SOUTH STRUCTURAL APPROACH SLAB

NOTES

FOR SECTION VIEWS SEE SHEET 28.

LEGEND

T1 SEE SHEET "VERTICAL FACE PARAPET MODIFIED" FOR LOCATION OF NAME PLATE WITH RESPECT TO THE END OF THE PARAPET.

* ELEVATION GIVEN AS CONTINUATION OF 2% CROSS SLOPE TO EDGE OF SIDEWALK AT PARAPET UNDER SIDEWALK.

☆ COLD JT. IN MEDIAN STA. 87+39.97, 0.64'LT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SOUTH STRUCTURAL APPROACH SLAB

SHEET 27 OF 37
486

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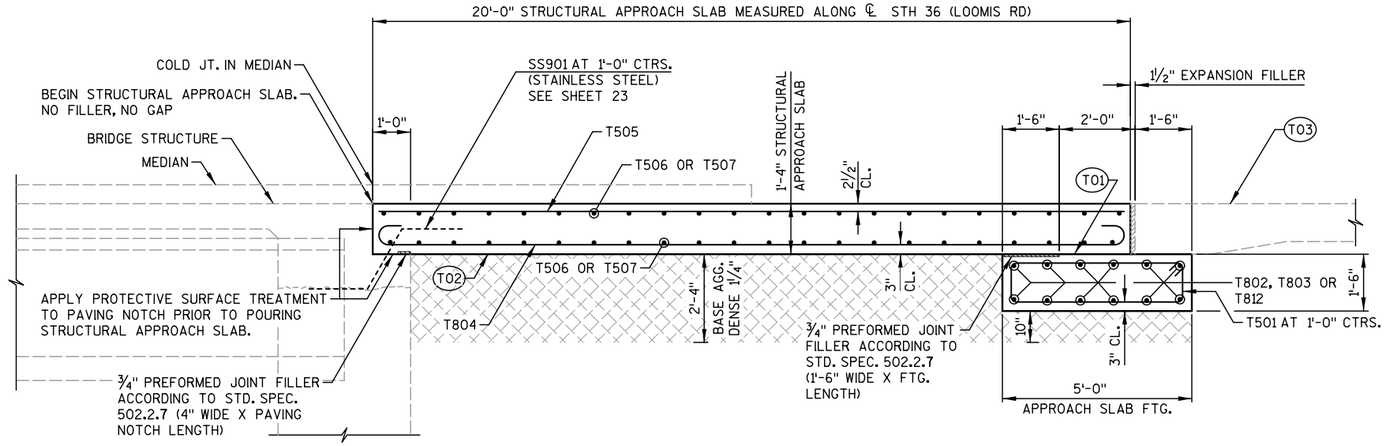
STATE PROJECT NUMBER
1100-46-71



SECTION A-A

SECTION B-B

SECTION THRU STRUCTURAL APPROACH SLAB

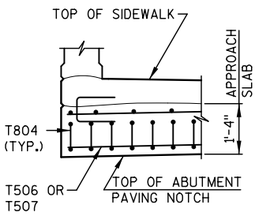
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

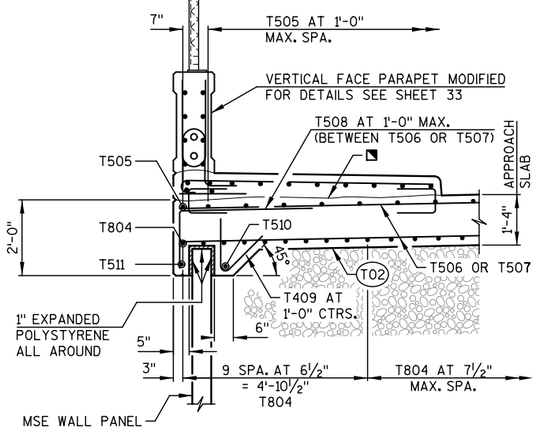
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 33,660 LBS	
T501	156	12-2	X		APPROACH SLAB - FOOTING - STIRRUPS	VERT.
T802	36	40-0			APPROACH SLAB - FOOTING	TRANS.
T803	12	16-0			APPROACH SLAB - FOOTING AT CENTER JOINT	TRANS.
T804	259	21-6	X		APPROACH SLAB - BOTTOM	LONGIT.
T505	162	19-8			APPROACH SLAB - TOP	LONGIT.
T506	84	60-0			APPROACH SLAB - TOP & BOTTOM	TRANS.
T507	42	45-2			APPROACH SLAB - TOP & BOTTOM	TRANS.
T508	38	4-10	X		APPROACH SLAB - TOP - WALL	TRANS.
T409	38	3-0	X		APPROACH SLAB - WALL	VERT.
T510	2	18-8			APPROACH SLAB - BOTTOM - WALL	LONGIT.
T511	2	18-2			APPROACH SLAB - BOTTOM - WALL	LONGIT.
T812	12	41-5			APPROACH SLAB - FOOTING - EAST SIDE	TRANS.
T413	14	10-6		△	APPROACH SLAB - MEDIAN	TRANS.
T414	9	19-8			APPROACH SLAB - MEDIAN	LONGIT.

BAR SERIES

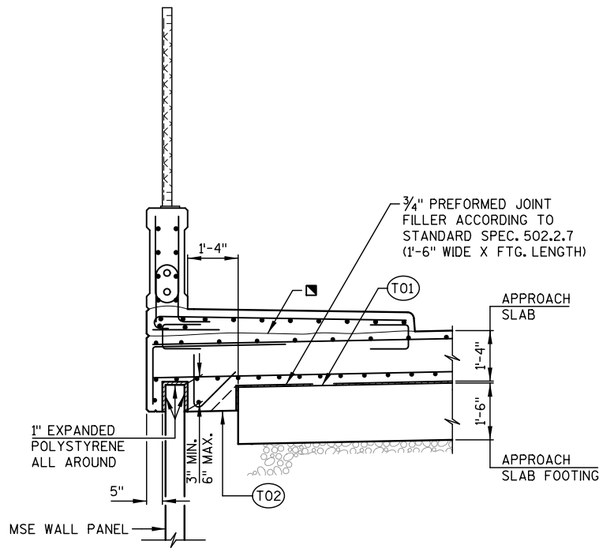
MARK	NO. REQ'D	LENGTH
T413	1 SETS OF 14	9'-9" TO 11'-4"



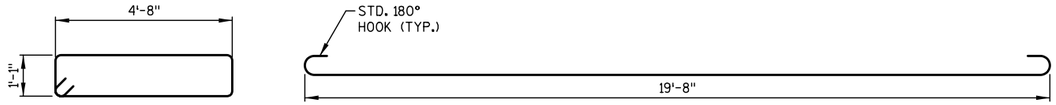
SECTION E-E



SECTION C-C
(AT WALL R-40-716)

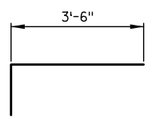


SECTION D-D
(AT WALL R-40-716)



T501

T804



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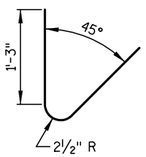

T409

LEGEND

(T01) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T02) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

(T03) CONCRETE PAVEMENT APPROACH SLAB. SEE ROADWAY PLANS FOR DETAILS.

◥ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. MATCH APPROACH SLAB X-SLOPE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SOUTH STRUCTURAL APPROACH SLAB DETAILS

SHEET 28 OF 37
487

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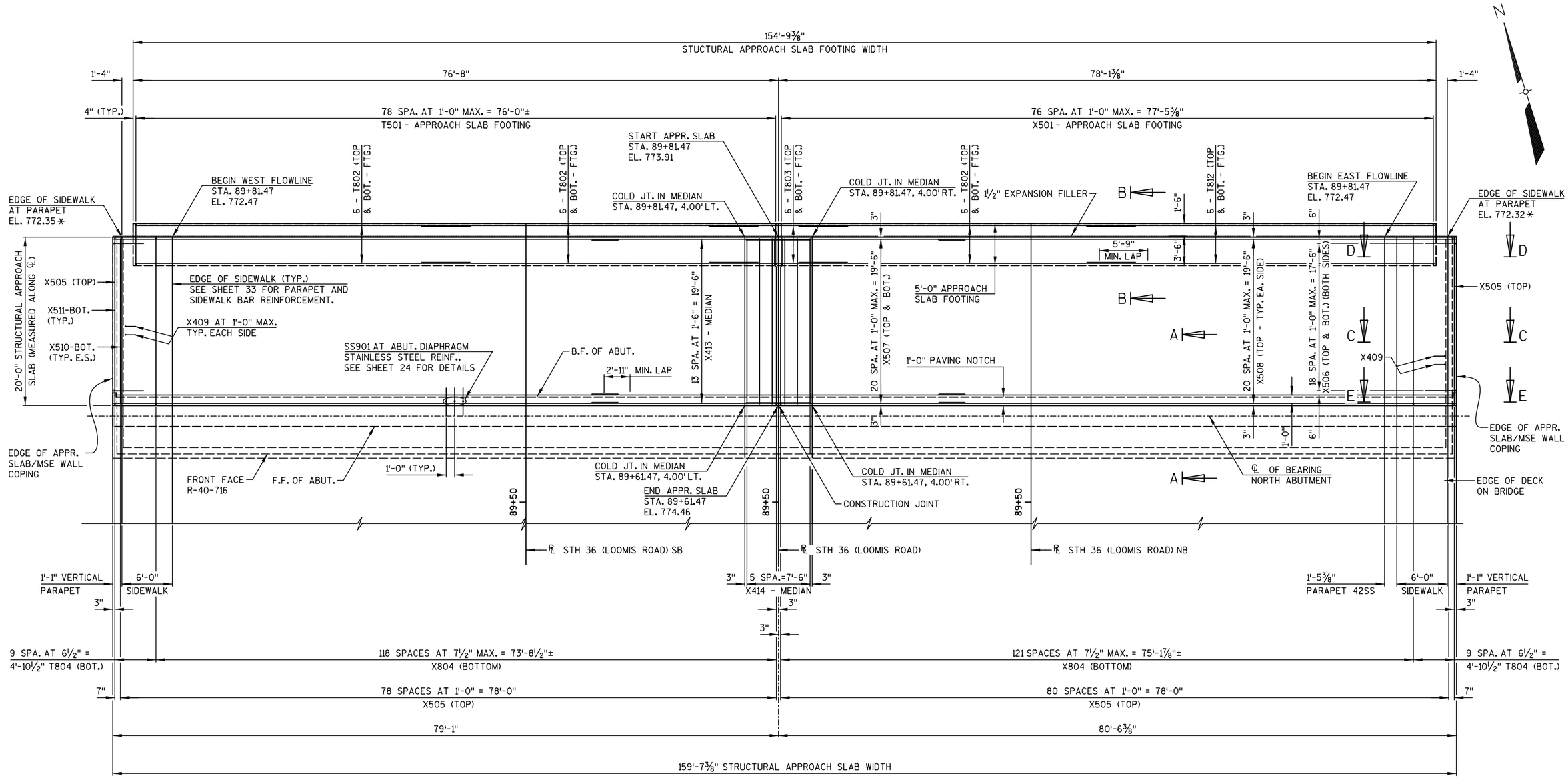
STATE PROJECT NUMBER

1100-46-71



NORTH STRUCTURAL APPROACH SLAB

NOTES

FOR SECTION VIEWS SEE SHEET 30.

LEGEND

* ELEVATION GIVEN AS CONTINUATION OF 2% CROSS SLOPE TO EDGE OF SIDEWALK AT PARAPET UNDER SIDEWALK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

NORTH STRUCTURAL APPROACH SLAB

SHEET 29 OF 37
488

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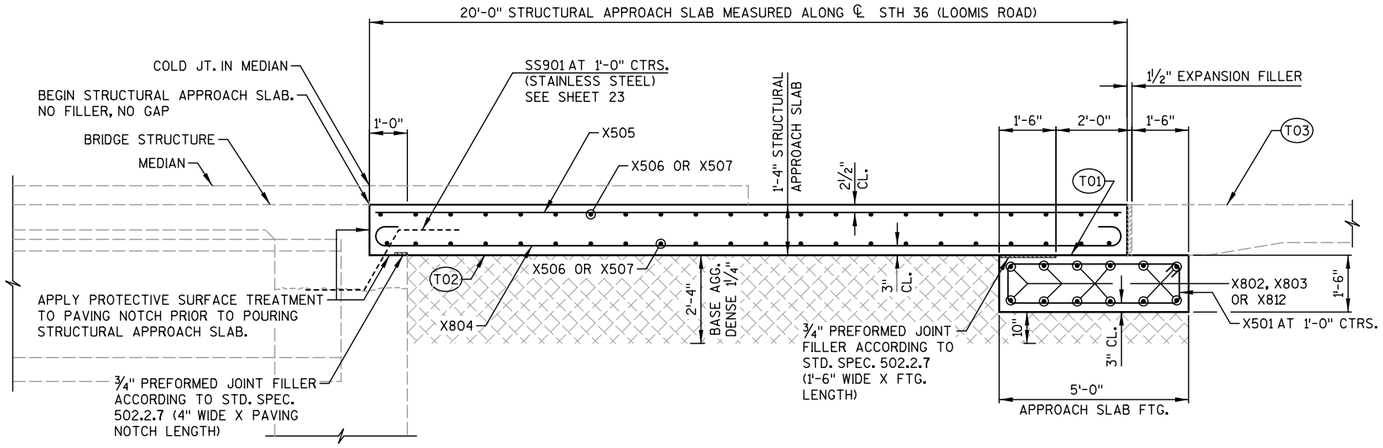


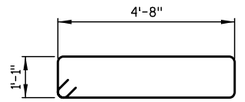
SECTION A-A

SECTION B-B

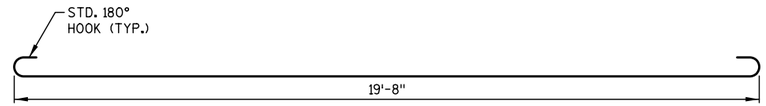
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 33,590 LBS	
X501	156	12-2	X		APPROACH SLAB - FOOTING - STIRRUPS	VERT.
X802	36	40-0			APPROACH SLAB - FOOTING	TRANS.
X803	12	16-0			APPROACH SLAB - FOOTING AT CENTER JOINT	TRANS.
X804	259	21-6	X		APPROACH SLAB - BOTTOM	LONGIT.
X505	162	19-8			APPROACH SLAB - TOP	LONGIT.
X506	84	60-0			APPROACH SLAB - TOP & BOTTOM	TRANS.
X507	42	45-2			APPROACH SLAB - TOP & BOTTOM	TRANS.
X508	38	4-10	X		APPROACH SLAB - TOP - WALL	TRANS.
X409	38	3-0	X		APPROACH SLAB - WALL	VERT.
X510	2	18-8			APPROACH SLAB - BOTTOM - WALL	LONGIT.
X511	2	18-2			APPROACH SLAB - BOTTOM - WALL	LONGIT.
X812	12	41-5			APPROACH SLAB - FOOTING - EAST SIDE	TRANS.
X413	14	7-6			APPROACH SLAB - MEDIAN	TRANS.
X414	6	19-8			APPROACH SLAB - MEDIAN	LONGIT.

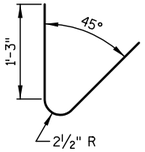


X501



X804

X508



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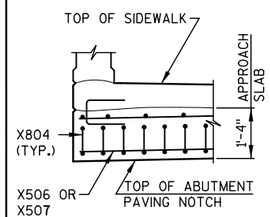
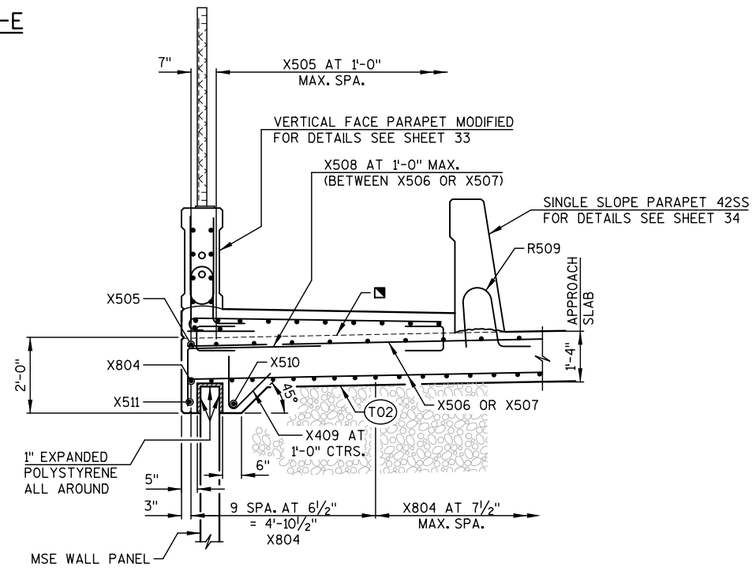
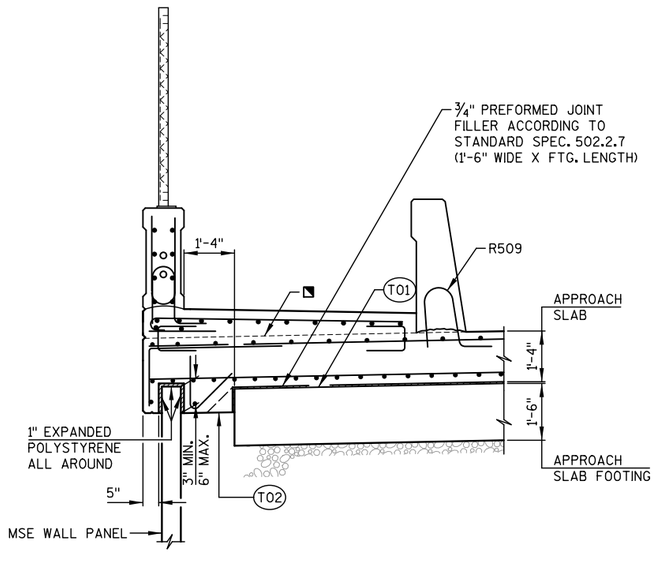


SECTION E-E



SECTION C-C
(AT WALL R-40-717)



SECTION D-D
(AT WALL R-40-717)

LEGEND

- T01 — STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.
- T02 — PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.
- T03 — CONCRETE PAVEMENT APPROACH SLAB. SEE ROADWAY PLANS FOR DETAILS.
- ◥ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. MATCH APPROACH SLAB X-SLOPE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

NORTH STRUCTURAL APPROACH SLAB DETAILS

SHEET 30 OF 37
489

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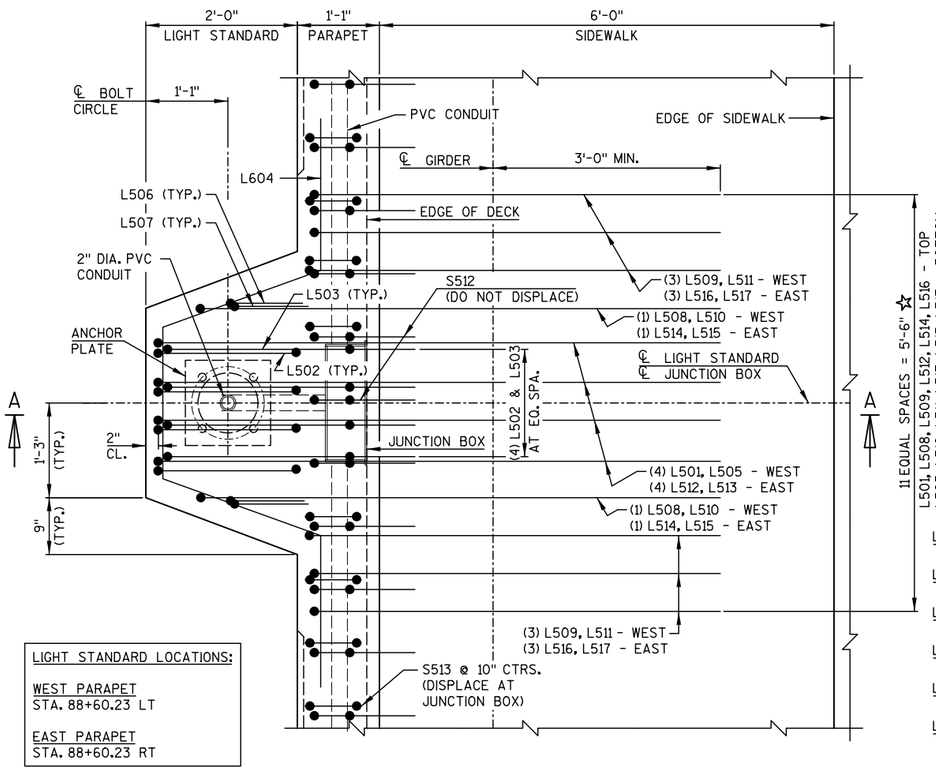
STATE PROJECT NUMBER

1100-46-71



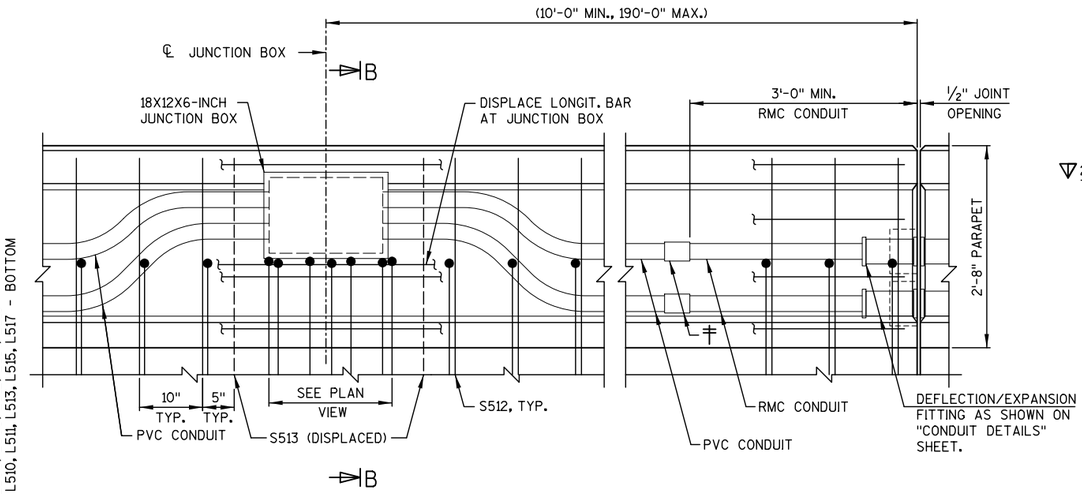
LIGHT STANDARD LOCATIONS:

WEST PARAPET
STA. 88+60.23 LT

EAST PARAPET
STA. 88+60.23 RT

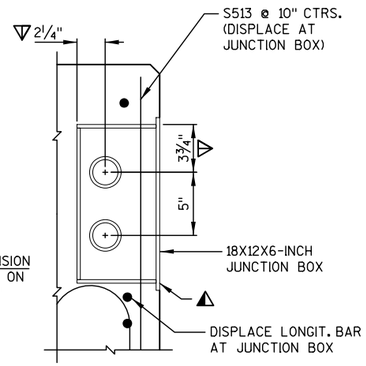
PLAN AT LIGHT STANDARD

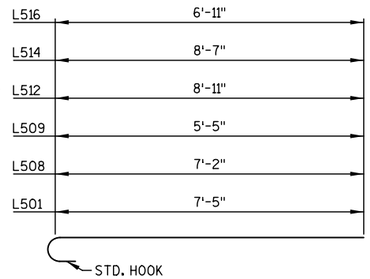
(SIDEWALK STEEL NOT SHOWN FOR CLARITY)



INSIDE ELEVATION AT JUNCTION BOX AT SEMI-EXP. JOINT

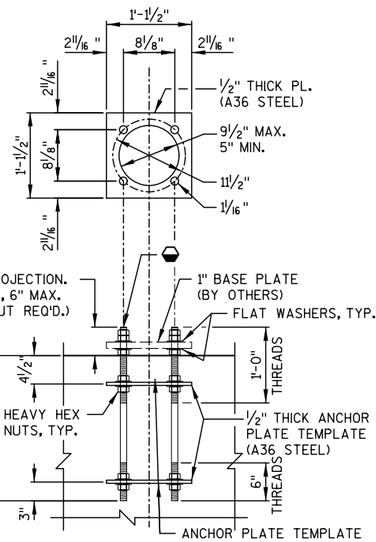
(DECK & SIDEWALK STEEL NOT SHOWN FOR CLARITY)





L501, L508, L509 L512, L514, L516

SECTION B-B



ANCHORAGE DETAIL

SINGLE ASSEMBLY SHOWN
(4) - RODS REQUIRED PER ASSEMBLY

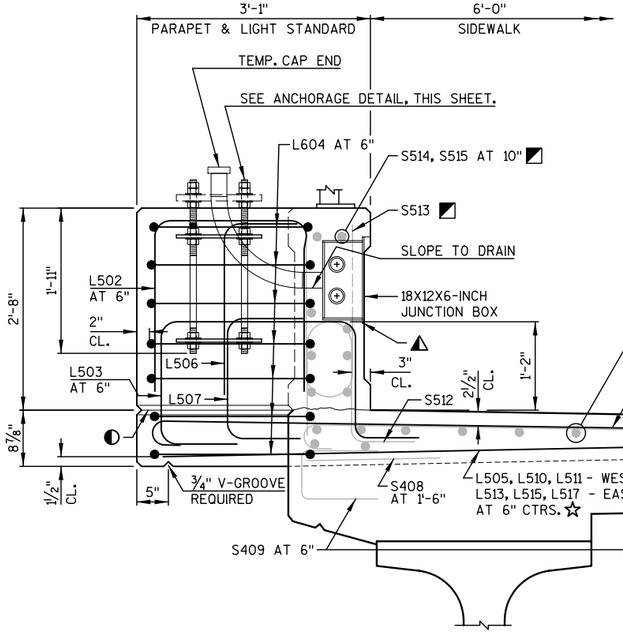
LEGEND

- ◐ CONSTRUCTION JOINT, STRIKE OFF AS SHOWN.
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ╪ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

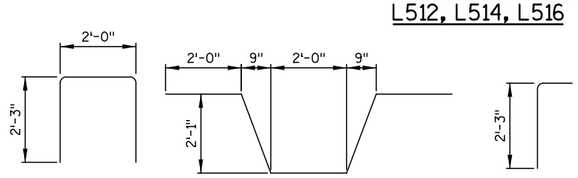
RMC = RIGID METALLIC CONDUIT

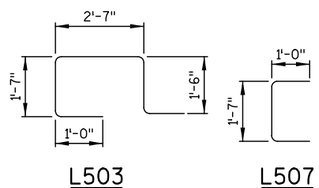
- ☆ THESE BARS ARE IN ADDITION TO STANDARD TRANSVERSE BARS IN THE SIDEWALK.
- ⬬ 1" DIA. ANCHOR RODS ASTM F1554 GR 55, HEAVY HEX NUTS ASTM A563, AND WASHERS ASTM F436. ANCHOR ASSEMBLIES SHALL BE GALVANIZED PER SECTION 531 OF THE STANDARD SPECIFICATION. PROVIDE (2) WASHERS AND (7) NUTS PER ANCHOR ROD.
- ◩ DISPLACE AT JUNCTION BOX.



SECTION A-A

(DECK STEEL NOT SHOWN FOR CLARITY)





NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

SEE "CONDUIT DETAILS" SHEET FOR ADDITIONAL INFORMATION.

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION
COATED BARS				TOTAL WEIGHT = 720 LBS
L501	4	8-0	X	LIGHT STD. - SIDEWALK - TOP - WEST SIDE TRANS.
L502	8	6-3	X	LIGHT STD. - PARAPET - BOTH SIDES VERT.
L503	8	7-0	X	LIGHT STD. - PARAPET - BOTH SIDES VERT.
L604	14	10-0	X	LIGHT STD. - PARAPET - BOTH SIDES HORIZ.
L505	4	7-5		LIGHT STD. - SIDEWALK - BOT. - WEST SIDE TRANS.
L506	4	3-2	X	LIGHT STD. - PARAPET - BOTH SIDES VERT.
L507	4	3-4	X	LIGHT STD. - PARAPET - BOTH SIDES VERT.
L508	2	7-9	X	LIGHT STD. - SIDEWALK - TOP - WEST SIDE TRANS.
L509	6	6-0	X	LIGHT STD. - SIDEWALK - TOP - WEST SIDE TRANS.
L510	2	7-2		LIGHT STD. - SIDEWALK - BOT. - WEST SIDE TRANS.
L511	6	5-5		LIGHT STD. - SIDEWALK - BOT. - WEST SIDE TRANS.
L512	4	9-6	X	LIGHT STD. - SIDEWALK - TOP - EAST SIDE TRANS.
L513	4	8-11		LIGHT STD. - SIDEWALK - BOT. - EAST SIDE TRANS.
L514	2	9-2	X	LIGHT STD. - SIDEWALK - TOP - EAST SIDE TRANS.
L515	2	8-7		LIGHT STD. - SIDEWALK - BOT. - EAST SIDE TRANS.
L516	6	7-6	X	LIGHT STD. - SIDEWALK - TOP - EAST SIDE TRANS.
L517	6	6-11		LIGHT STD. - SIDEWALK - BOT. - EAST SIDE TRANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

LIGHT SUPPORT DETAILS

SHEET 31 OF 37
490

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PLOT DATE: 9/2/2022
PLOT TIME: 4:57:44 PM
BATCH PRINT SHEET 32 OF 37

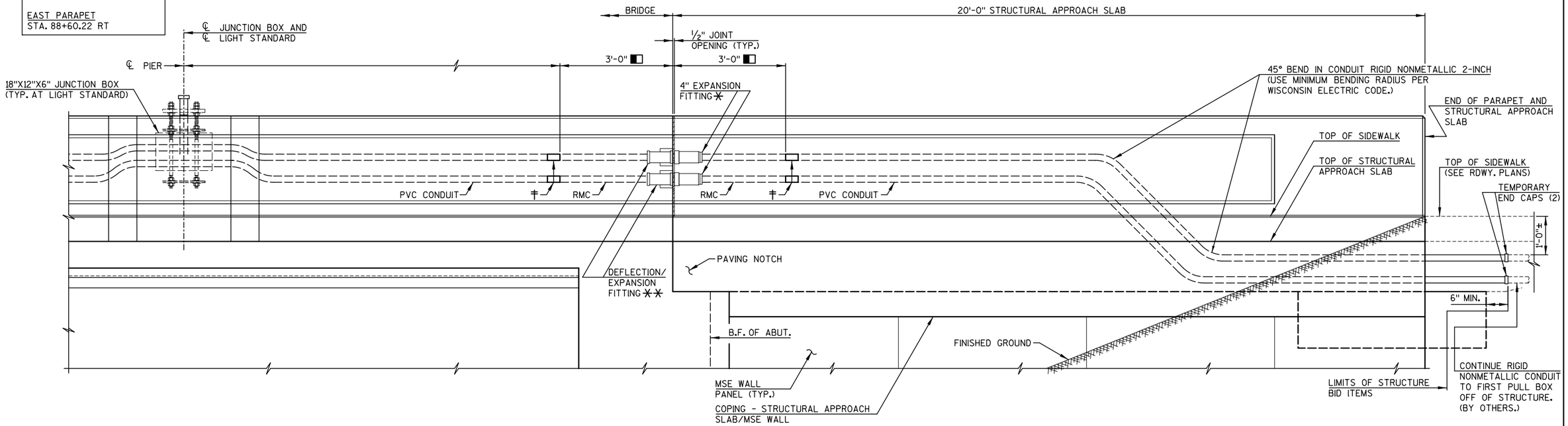
STATE PROJECT NUMBER

1100-46-71

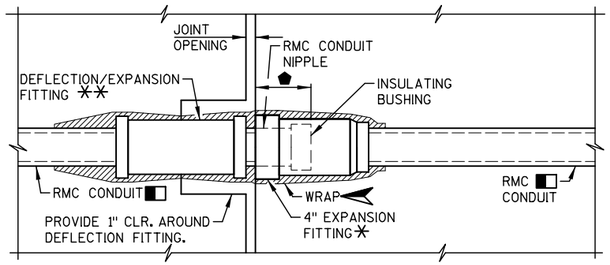
LIGHT STANDARD LOCATIONS:

WEST PARAPET
STA. 88+60.22 LT

EAST PARAPET
STA. 88+60.22 RT



OUTSIDE ELEVATION OF PARAPET AT MSE WALL



DEFLECTION/EXPANSION AND 4" EXPANSION FITTING

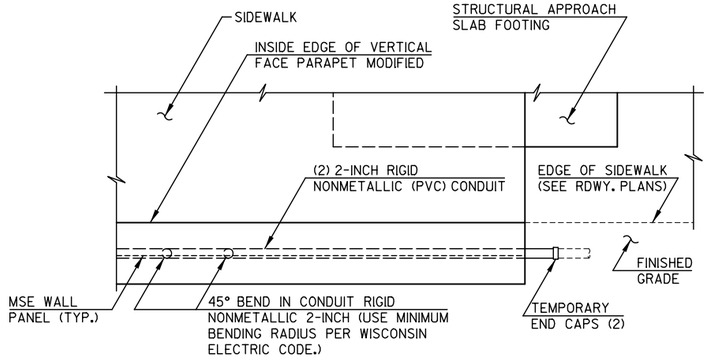
THIS DETAIL ACCOMMODATES A MAXIMUM OF 4" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY

LEGEND

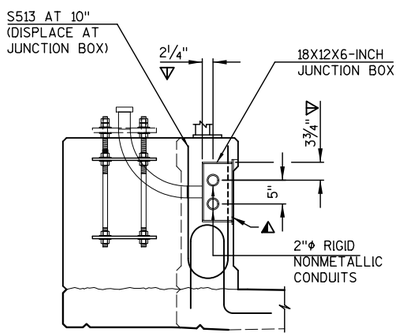
- ■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.
- ‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).
- ◀ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".
- ⬟ POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT IN EACH DIRECTION. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.
- ✳ EXPANSION FITTING REQUIREMENTS:
  - 4" TOTAL MOVEMENT WITH BONDING JUMPER
- ✳✳ DEFLECTION/EXPANSION FITTING REQUIREMENTS:
  - UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30° OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT



PLAN OF PARAPET AT MSE WALL



SECTION THRU PARAPET ON BRIDGE

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

RAILING TUBULAR SCREENING AND AESTHETIC DETAILS NOT SHOWN FOR CLARITY.

TERMINATE CONDUIT AT 24"X36" PULL BOX. REFER TO ROADWAY PLANS FOR LOCATION AND DETAILS.

PULL BOX QUANTITIES ARE NOT INCORPORATED INTO THE STRUCTURE "TOTAL ESTIMATED QUANTITIES".

VERIFY PULL BOX LOCATION BEFORE DETERMINING FINAL LENGTH OF RIGID NONMETALLIC CONDUIT EXTENDING OUTSIDE THE STRUCTURE LIMIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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CONDUIT DETAILS

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491

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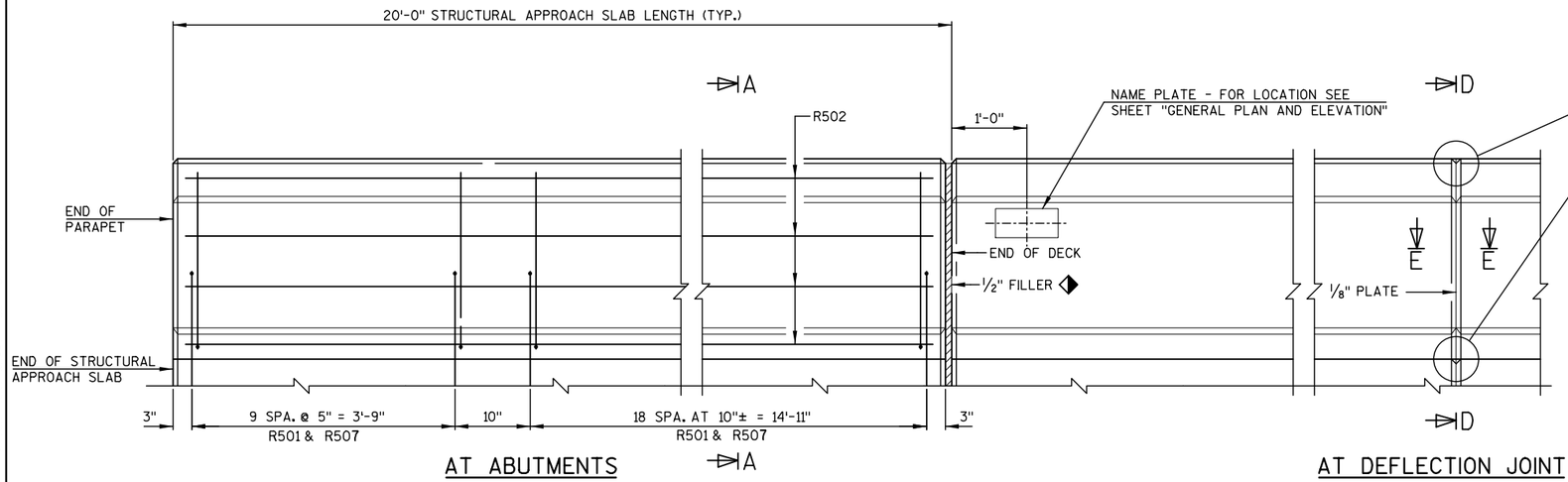
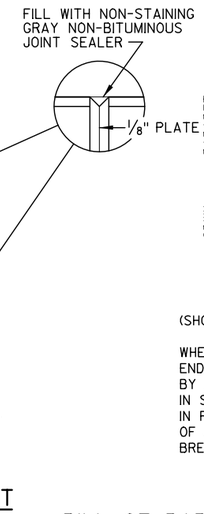
BATCH PRINT SHEET 33 OF 37

STATE PROJECT NUMBER

1100-46-71

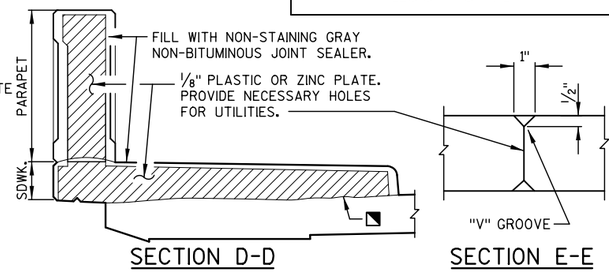


AT ABUTMENTS



AT DEFLECTION JOINT

(AT ℄ PIER)



SECTION D-D

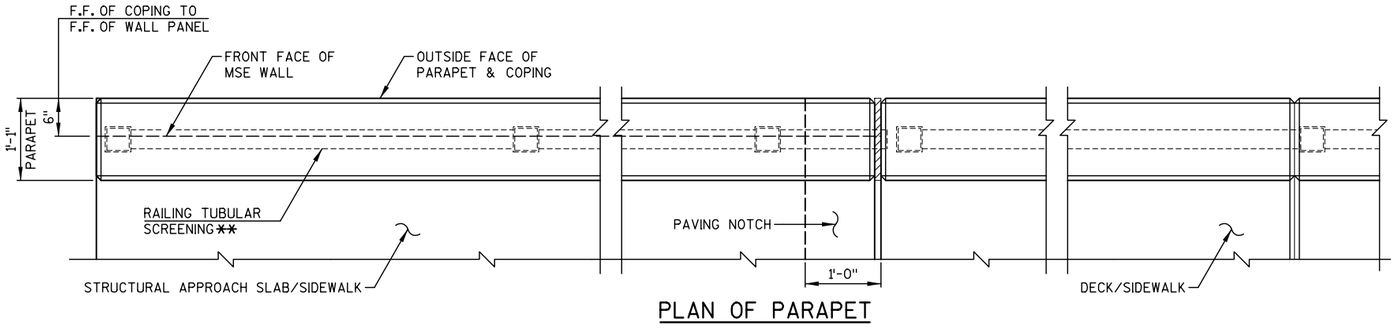
SECTION E-E

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

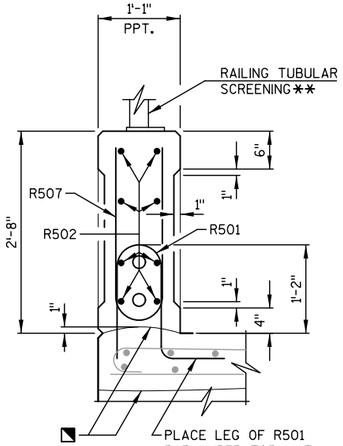
WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION D-D BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.

INSIDE ELEVATION OF PARAPET

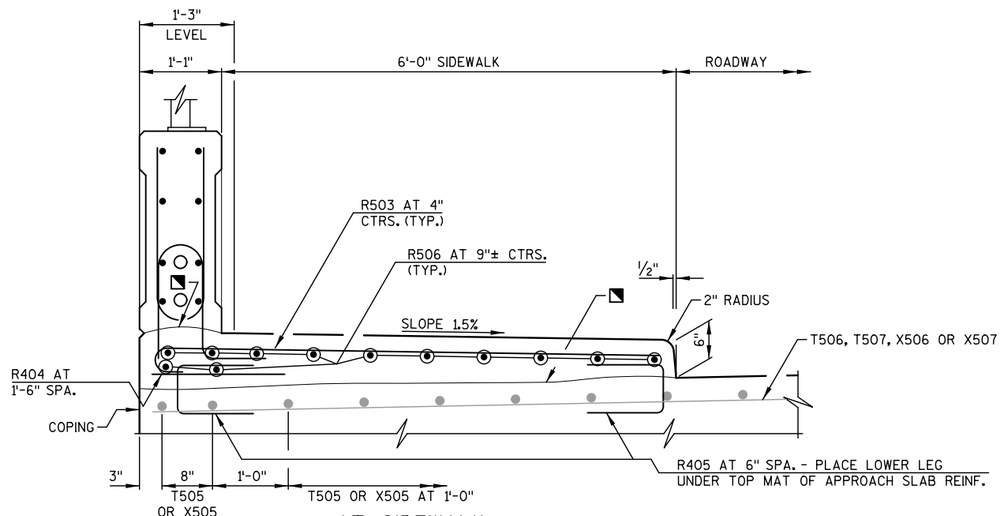
RAILING OMITTED FOR CLARITY. SEE SHEET 35 FOR RAILING ANCHORAGE SPACING.



PLAN OF PARAPET



AT PARAPET



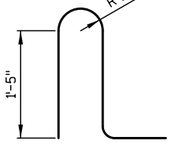
AT SIDEWALK

SECTION A-A

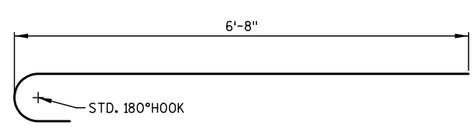
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

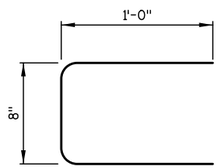
MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
COATED BARS				TOTAL WEIGHT = 5,160 LBS	
R501	116	4-4	X	PARAPET - STIRRUP	VERT.
R502	32	19-8		PARAPET	HORIZ.
R503	240	7-3	X	SIDEWALK - TOP	TRANS.
R404	56	1-9		SIDEWALK - BOTTOM	TRANS.
R405	320	2-6	X	SIDEWALK - AT DECK JOINT	VERT.
R506	48	19-8		SIDEWALK - TOP AND BOTTOM	LONGIT.
R507	116	4-9		PARAPET - STIRRUP	VERT.



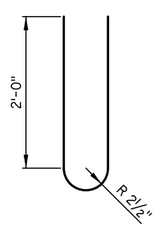
R501



R503



R405



R507

NOTES

SEE SHEET 33 FOR TUBULAR RAILING SCREENING DETAILS.
SEE SHEET 35 FOR TUBULAR RAILING POST SPACING.

LEGEND

- CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ** ADJUST LOCATIONS OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING TUBULAR SCREENING POSTS.
- * OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT, LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" - 'V' GROOVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

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VERTICAL FACE PARAPET MODIFIED

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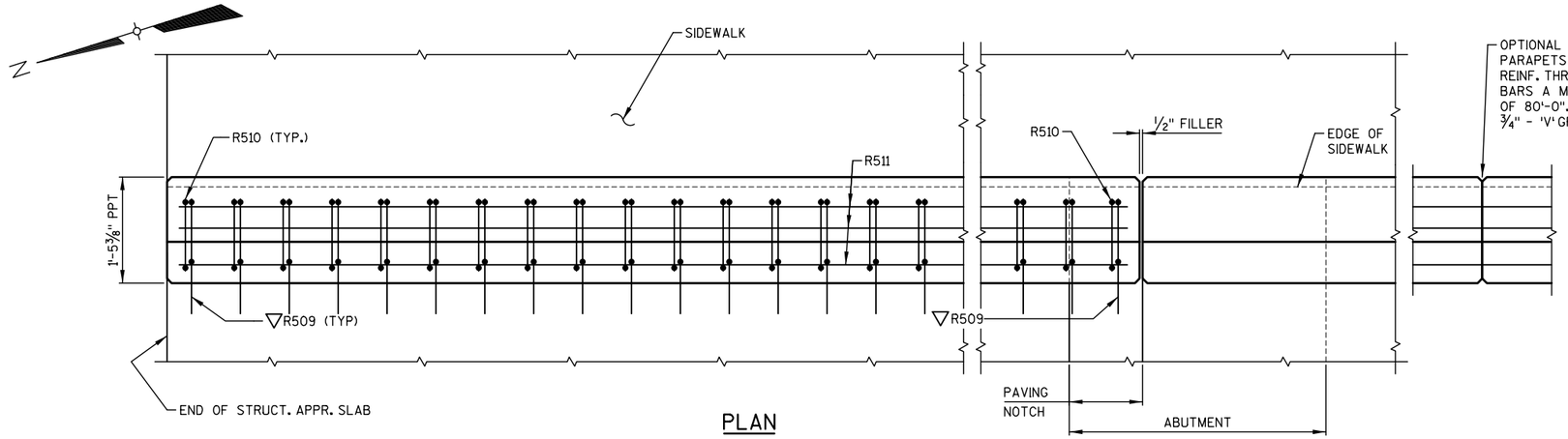
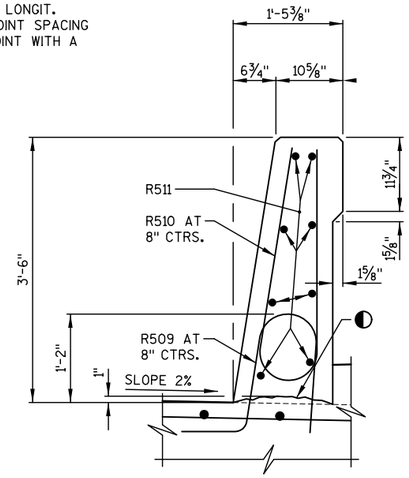
STATE PROJECT NUMBER

1100-46-71

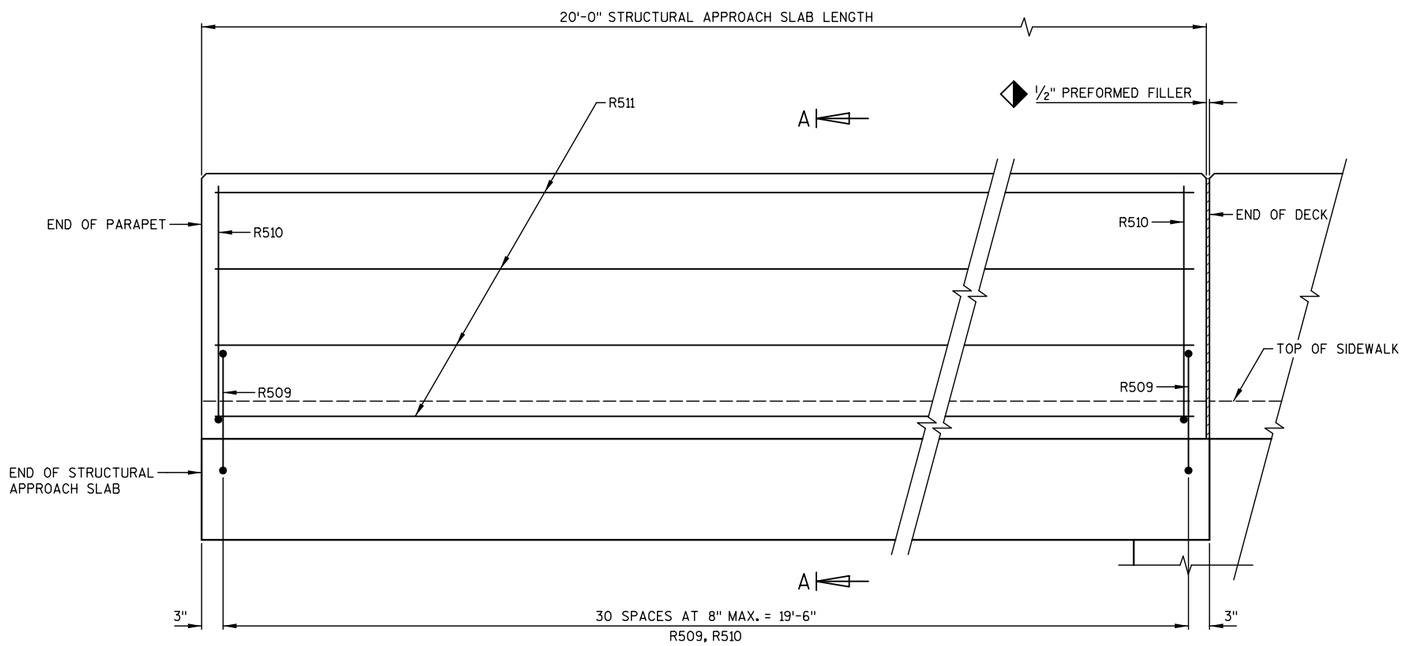


PLAN

NORTH APPROACH BARRIER SHOWN, SOUTH SIMILAR

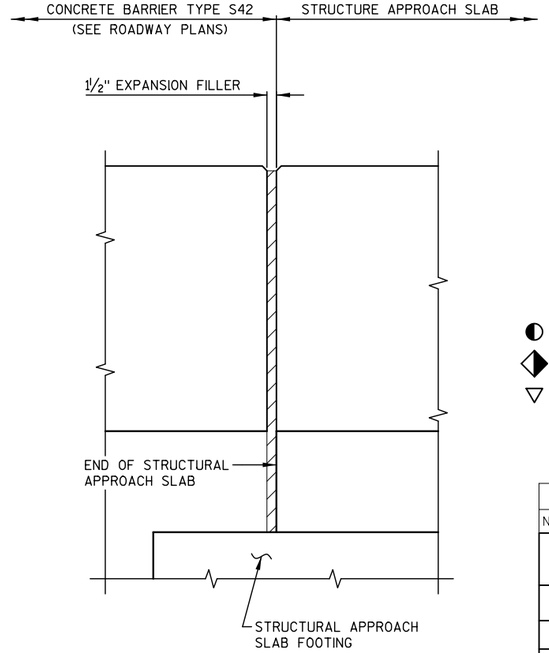


SECTION A-A



INSIDE ELEVATION

NORTH APPROACH BARRIER SHOWN, SOUTH SIMILAR
STRUCTURAL APPROACH SLAB FOOTING NOT SHOWN FOR CLARITY



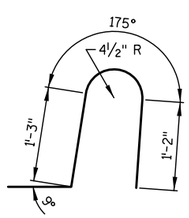
PART ELEVATION AT SOUTH BARRIER

(SEE ROADWAY PLANS FOR BARRIER DETAILS)

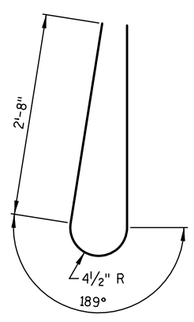
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 1,050 LBS
R509	62	4-5	X		PARAPET - 42SS	VERT.
R510	62	6-8	X		PARAPET - 42SS	VERT.
R511	16	19-8			PARAPET - 42SS	LONGIT.



R509



R510

LEGEND

- CONST. JOINT - STRIKE OFF AS SHOWN
- SLOPE FOR DRAINAGE
- R501 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

SINGLE SLOPE BARRIER 42SS

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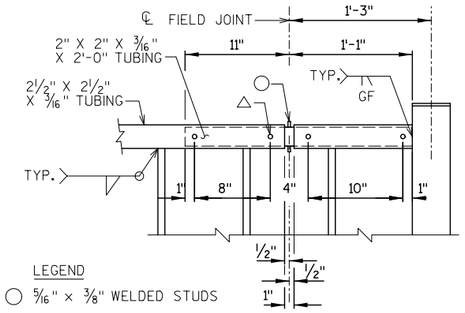
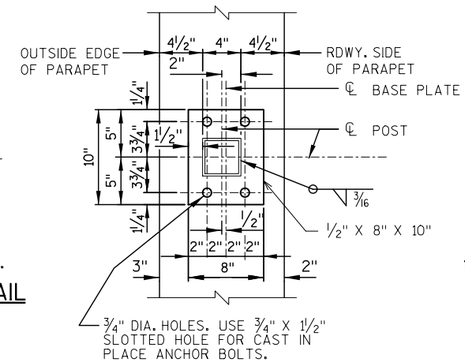
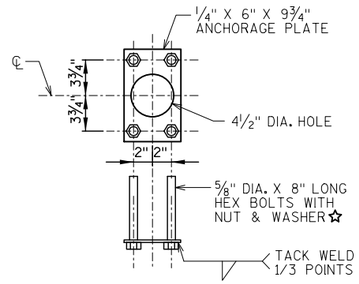
BATCH PRINT SHEET 35 OF 37



RAILING EXPANSION JOINT DETAIL



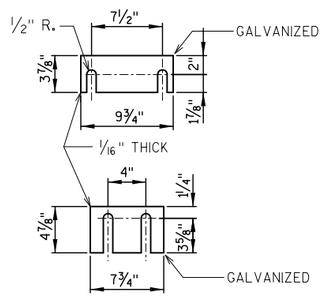
BASE PLATE



ANCHORAGE DETAIL

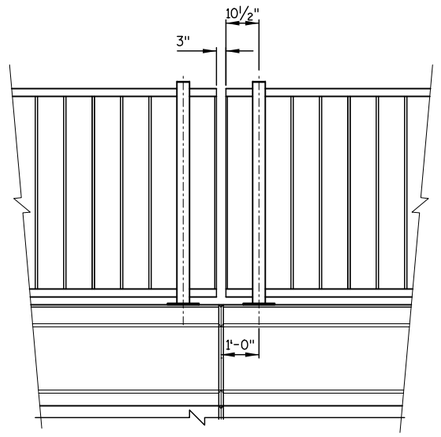
☆ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



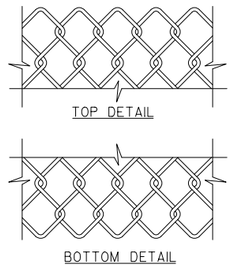
SHIM PLATE DETAILS

TWO SHIMS OF EACH SIZE REQUIRED PER POST



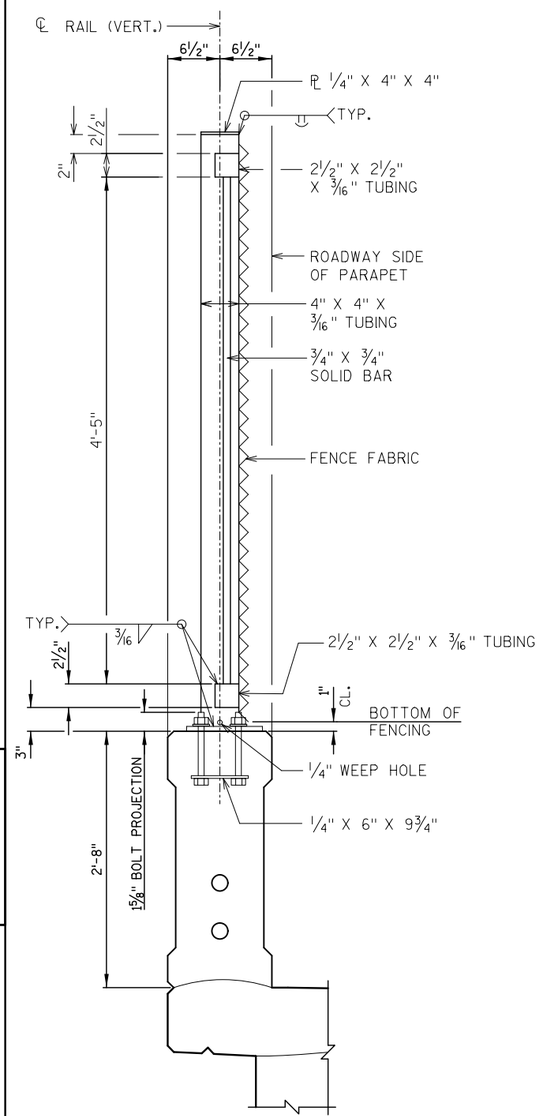
RAILING ELEVATION AT DEFLECTION JOINT

(AT 4'-0" EACH SIDE OF PIER)

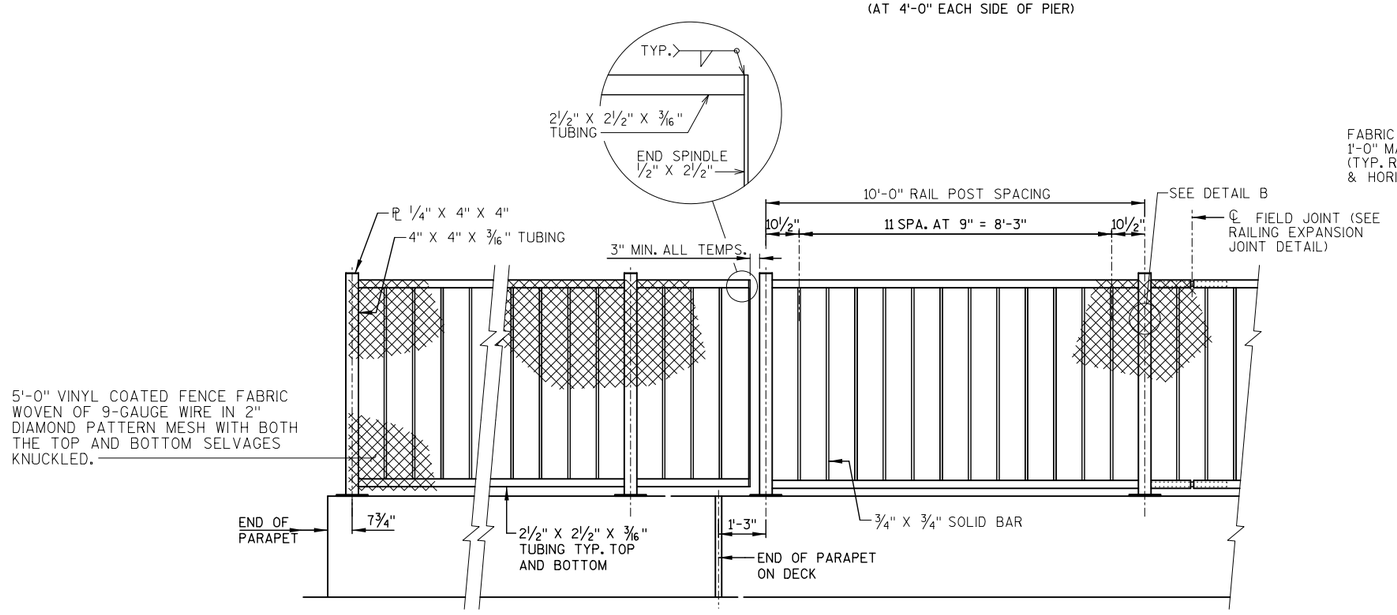


FENCE FABRIC

(TOP AND BOTTOM KNUCKLE SELVAGE)



SECTION THRU RAILING



INSIDE ELEVATION OF RAILING

NOTES

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B. PLATES, ANGLES, BARS AND SHIMS SHALL CONFORM TO ASTM A709, GRADE 36. FENCE FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPACINGS ARE TAKEN HORIZONTAL ALONG CENTERLINE OF RAILING AT BASE OF POST.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED. ☆

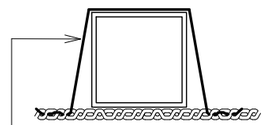
THE BID ITEM SHALL BE "RAILING TUBULAR SCREENING" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE NOT MORE THAN 3 POSTS.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

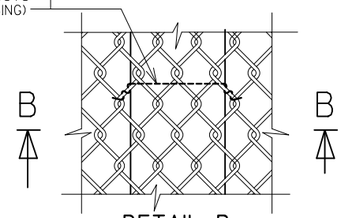
ALL RAILING MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK.
FENCE FABRIC AND TIES TO BE VINYL-COATED. COLOR SHALL BE BLACK IN ACCORDANCE WITH ASTM F934.

THE END OF THE FABRIC SHALL BE ATTACHED TO THE POST BY MEANS OF A TENSION BAR THREADED THROUGH THE END LOOPS OF THE FABRIC AND SECURED TO THE POST WITH CLAMPS & BOLT. THE FABRIC SHALL BE STRETCHED TO REMOVE ALL SLACK.



SECTION B-B

FABRIC TIE @ 1'-0" MAX. SPA. (TYP. RAIL POSTS & HORIZ. TUBING)



DETAIL B

STATE PROJECT NUMBER
1100-46-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY DNJ | PLANS CK'D. MJA

TUBULAR STEEL RAILING SCREENING

SHEET 35 OF 37
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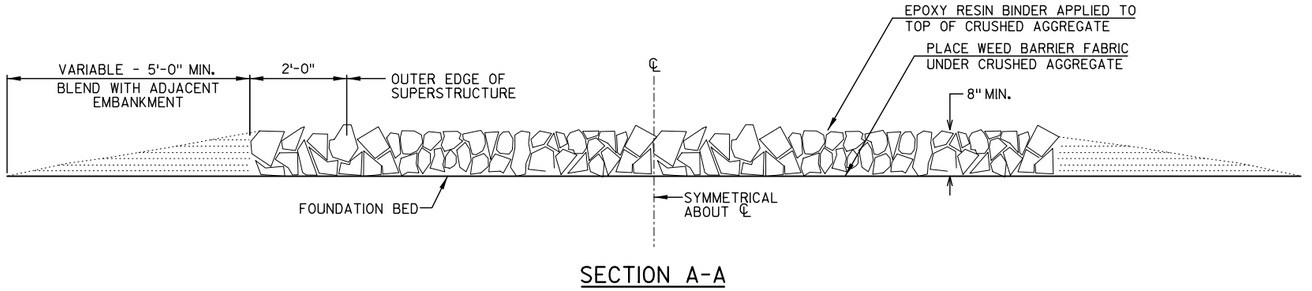
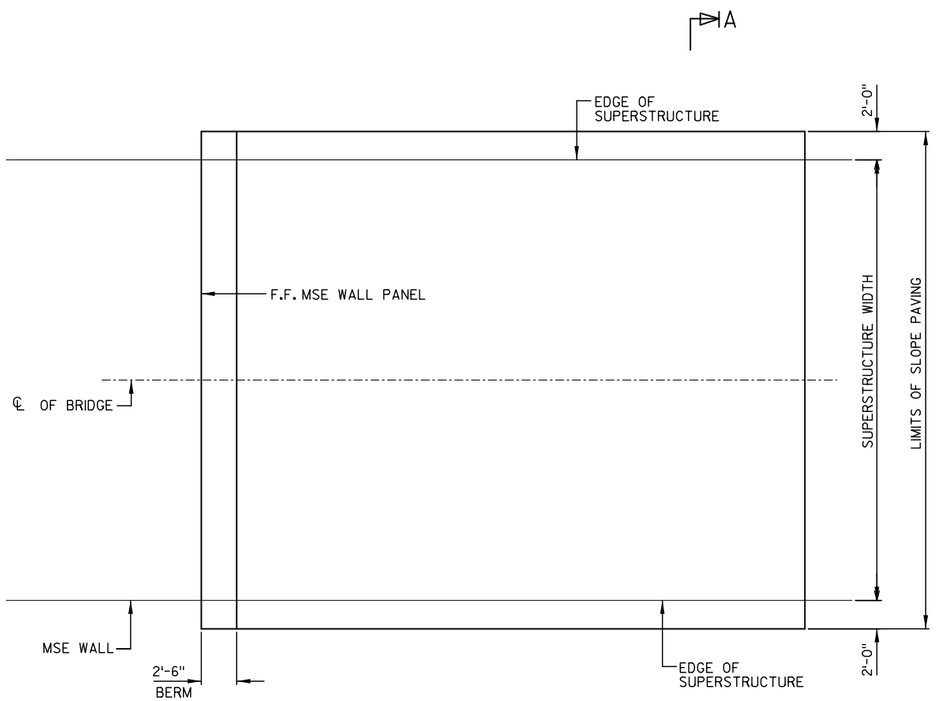
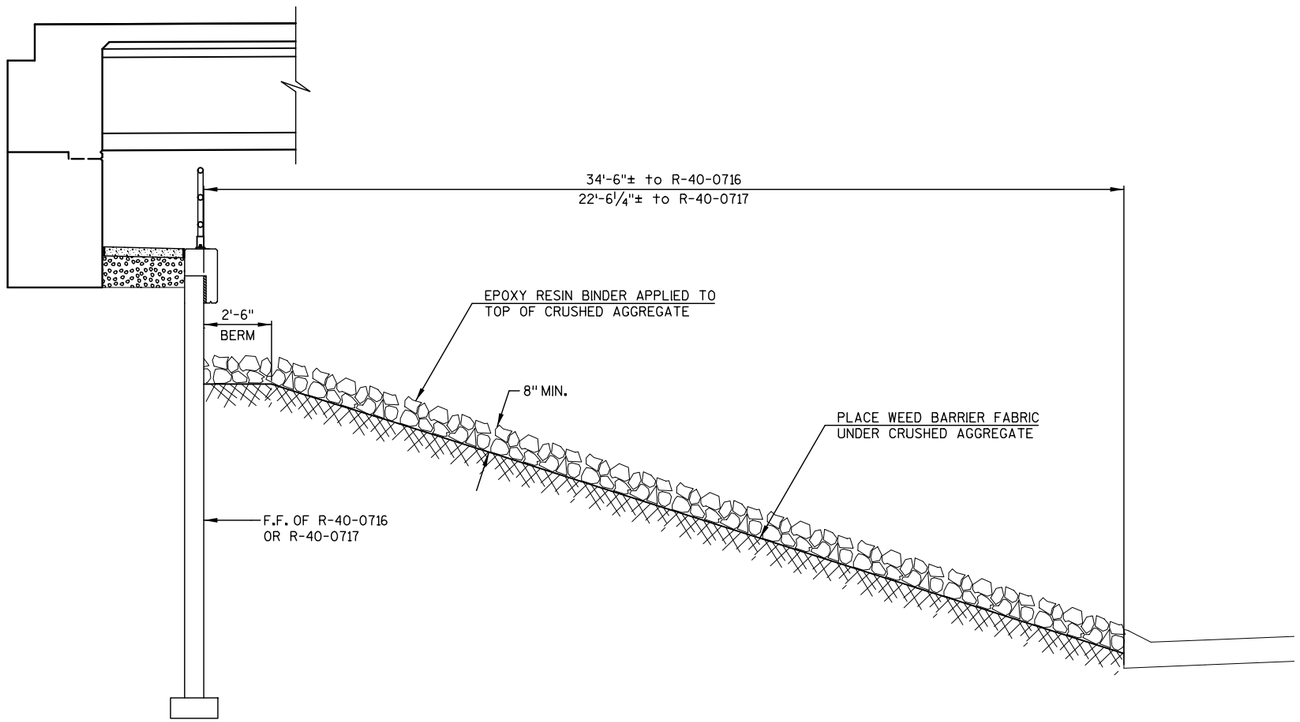
STATE PROJECT NUMBER
1100-46-71



SECTION A-A



PLAN



TYPICAL SECTION

NOTES

BID ITEM SHALL BE "SLOPE PAVING CRUSHED AGGREGATE SPECIAL."

COST FOR WEED BARRIER INCLUDED WITH BID ITEM FOR "SLOPE PAVING CRUSHED AGGREGATE SPECIAL".

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB | PLANS CK'D. MJA

SLOPE PAVING CRUSHED AGGREGATE SPECIAL

SHEET 36 OF 37
495

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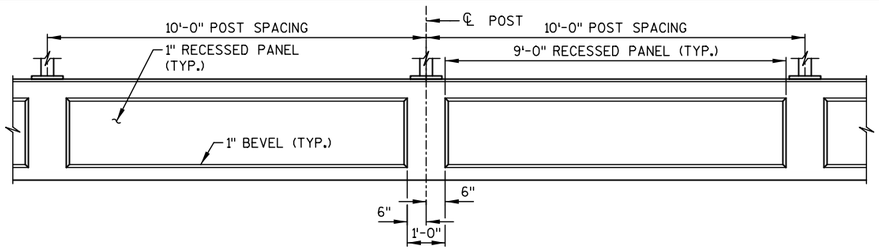
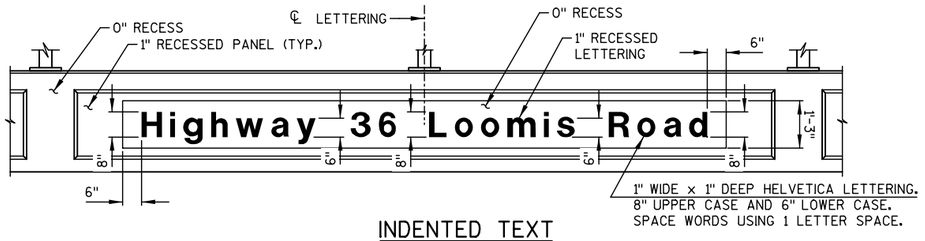
STATE PROJECT NUMBER
1100-46-71



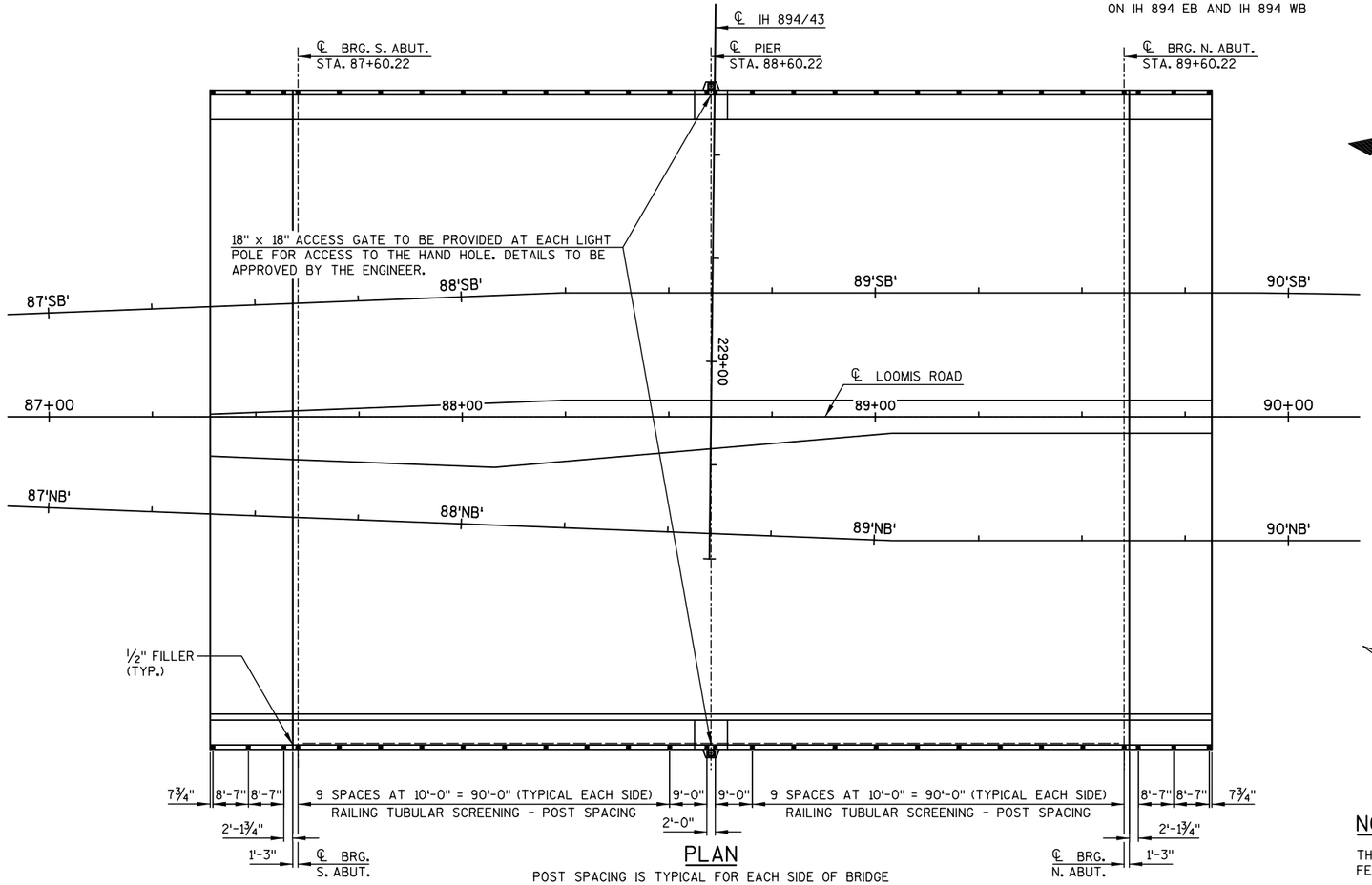
TYPICAL RECESSED PANEL DETAIL



1" WIDE x 1" DEEP HELVETICA LETTERING.
8" UPPER CASE AND 6" LOWER CASE.
SPACE WORDS USING 1 LETTER SPACE.

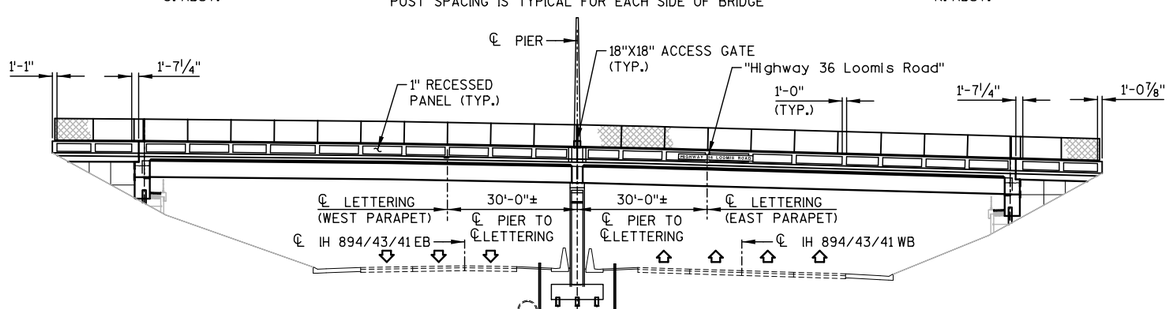
INDENTED TEXT

EXTERIOR FACE OF PARAPET ONLY - THE STREET NAME SHALL BE LOCATED NEAR THE CENTER OF THE LANES ON IH 894 EB AND IH 894 WB



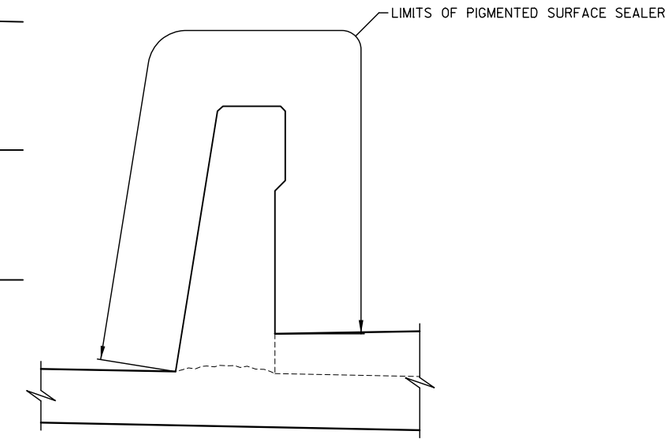
PLAN

POST SPACING IS TYPICAL FOR EACH SIDE OF BRIDGE



ELEVATION - LOOKING WEST

NORMAL TO IH 894/43/41



SECTION AT 42SS PARAPET

NOTES

THE COLOR OF THE CONCRETE LETTERING SHALL MATCH THE FEDERAL STANDARD COLOR NO. 37038 (BLACK).

FORMING AND STAINING OF THE LETTERING IS INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1025

DRAWN BY CEB | PLANS CK'D. MJA

AESTHETICS DETAILS

SHEET 37 OF 37
496

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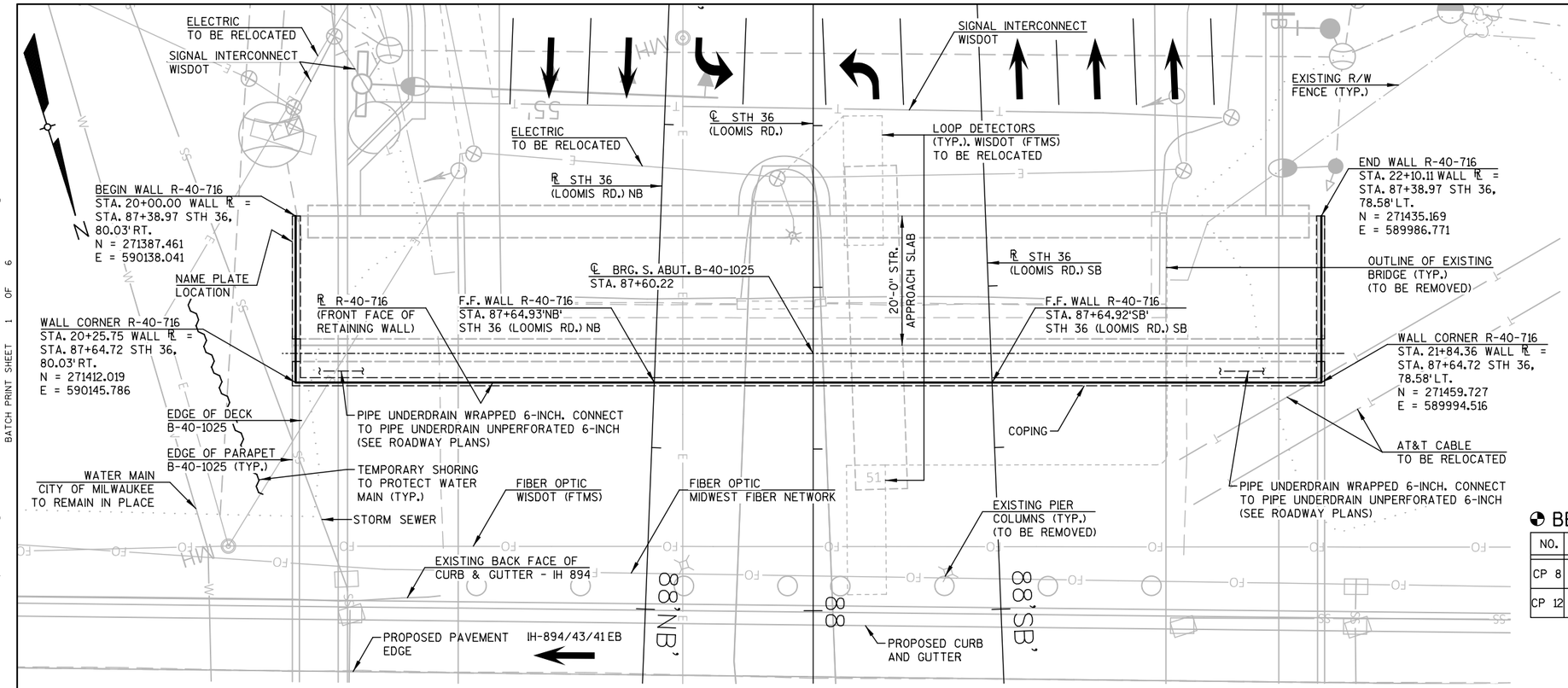
BATCH PRINT SHEET 1 OF 6

STATE PROJECT NUMBER
1100-46-71



DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) _____ 240 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL:
(INCLUDES CONCRETE FOR COPING AND LEVELING PAD) ___ f'c = 3,500 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 PSI

FOUNDATION DATA - FACTORED BEARING RESISTANCE
MSE WALL - REFER TO "WALL EXTERNAL AND OVERALL STABILITY EVALUATION" TABLE ON SHEET 2.

DO NOT OPERATE HEAVY EQUIPMENT OR STOCKPILE MATERIALS IN CLOSE PROXIMITY TO THE WALL.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. GENERAL NOTES AND QUANTITIES
3. WALL DETAILS 1
4. WALL DETAILS 2
5. PIPE RAILING DETAILS
6. SUBSURFACE EXPLORATION

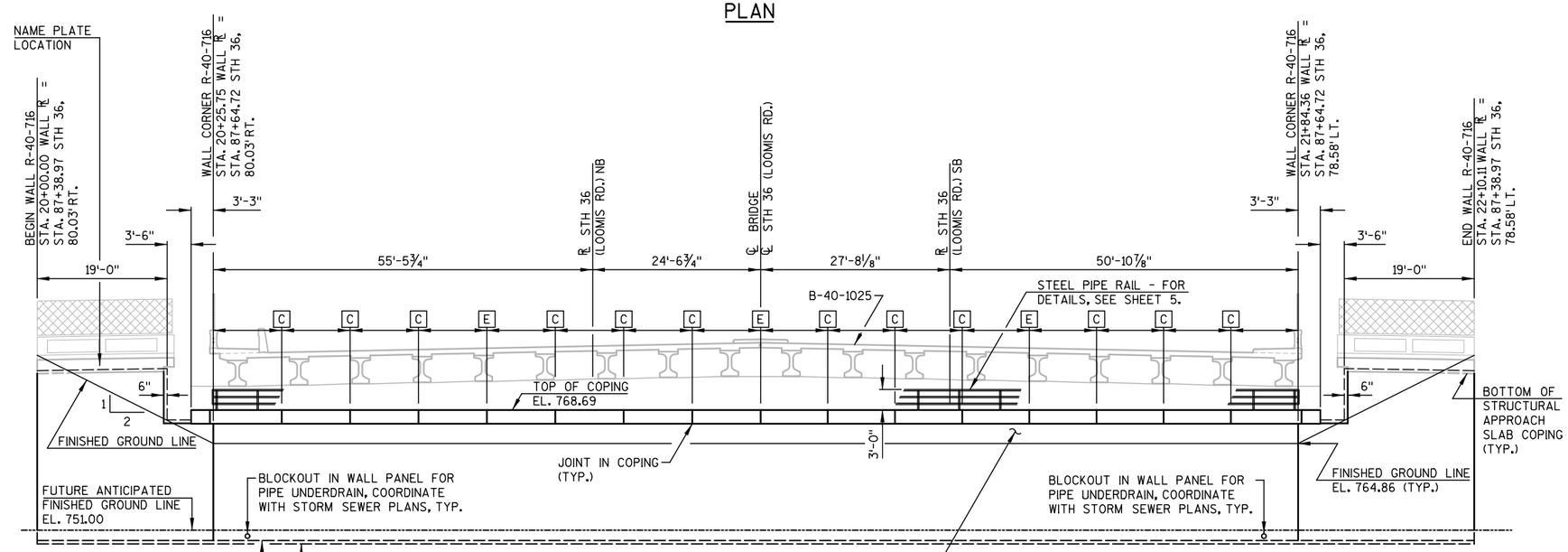
LEGEND

[E] EXPANSION JOINT
[C] CONTRACTION JOINT
DIRECTION OF TRAFFIC

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
CP 8	86+52.22 STH 36 (LOOMIS RD), 62.27' RT	CUT CROSS IN SIDEWALK	776.880
CP 12	89+37.56 STH 36 (LOOMIS RD), 100.56' LT	REBAR WITH GRAEF PINK CAP	751.803

PLAN



ELEVATION

(UNFOLDED ELEVATION LOOKING SOUTH AT FRONT FACE OF WALL)

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL DELEMONT (414) 207-4157

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
09/01/2022

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-716

RETAINING WALL AT B-40-1025 S. ABUT.

COUNTY MILWAUKEE | ~~TOWN~~/CITY/~~VILLAGE~~ GREENFIELD

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CEB	DESIGN CK'D.	MJA	DRAWN BY	CEB/DNJ	PLANS CK'D.	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 6
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PLOT DATE: 9/1/2022 PLOT TIME: 10:03:39 AM BATCH PRINT SHEET 2 OF 6

STATE PROJECT NUMBER

1100-46-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

B.F. = BACK FACE
F.F. = FRONT FACE

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL BAR STEEL IN CAST IN PLACE CONCRETE SHALL BE EPOXY COATED.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-716" IS BASED ON WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH 1.5' BELOW FUTURE FINISHED GROUND.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL, AND MSE WALL REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-716".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

WALL STATIONS ARE ALONG THE ℄ FOR R-40-716, WHICH IS LOCATED AT THE FRONT FACE OF THE WALL.

PROVIDE A RUBBED SURFACE TREATMENT IN ACCORDANCE WITH SECTION 502.3.7.3 TO ALL PERMANENTLY EXPOSED SURFACES OF CONCRETE MASONRY RETAINING WALLS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

THE RETAINING WALL DESIGN SHALL USE THE FUTURE ANTICIPATED FINISHED GROUND LINE ELEVATION TO DETERMINE THE MAXIMUM WALL HEIGHTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

DESIGN THE RETAINING WALL TO PROVIDE FOR A FINISHED GROUND SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

COORDINATE THE CONSTRUCTION OF R-40-716 WITH THE CONSTRUCTION OF THE BRIDGE ABUTMENT AND PILING OF STRUCTURE B-40-1025.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE CONCRETE COPING IN FRONT OF THE ABUTMENT AND THE LEVELING PAD, INCLUDING REINFORCEMENT, IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-716".

THE COST OF THE APPROACH SLAB, COPING AT THE APPROACH SLAB AND PARAPET ARE INCLUDED WITH B-40-1025.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SUBSURFACE CONDITIONS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE SOUTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE MATERIALS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL. THE GEOTECHNICAL REPORT IS AVAILABLE UPON REQUEST FROM WISDOT'S SE REGION OFFICE.

GENERAL NOTES (CONTINUED)

THE EXISTING WATER MAIN PIPE BURIED IN CLOSE PROXIMITY TO THE BRIDGE AND WALL CONSTRUCTION WILL REMAIN IN PLACE AND MUST BE MAINTAINED DURING CONSTRUCTION. BEFORE EXCAVATING OR INSTALLING TEMPORARY SHORING FOR CONSTRUCTION OF THE RETAINING WALLS AND BRIDGE, EXPOSE THE WATER LINES TO CONFIRM THEIR EXACT LOCATION AND DEPTH. PAYMENT FOR CAREFUL EXCAVATION TO EXPOSE THE WATER LINE IS INCLUDED IN THE BID ITEM "UTILITY LINE OPENING." AFTER EXPOSING THE PIPES TO CONFIRM THEIR LOCATION, INSTALL TEMPORARY SHORING AS NECESSARY TO COMPLETE THE EXCAVATION. USE ONLY NON-VIBRATORY METHODS OF SHORING INSTALLATION. PAYMENT FOR MATERIALS, EQUIPMENT AND LABOR REQUIRED TO PREVENT DAMAGE TO THE EXISTING PIPE DURING CONSTRUCTION IS CONSIDERED INCIDENTAL TO THE BID ITEM "TEMPORARY SHORING R-70-716."

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET SIDE	OFFSET TO R/L OF WALL	TOP OF WALL EL	FINISHED GROUND EL	FUTURE FINISHED GROUND
20+00.00	87+38.97	RIGHT	80.03	776.97	777.70	751.00
20+19.00	87+57.97	RIGHT (COPING)	80.03	776.87	768.20	751.00
20+19.00	87+57.97	B.F. ABUT. (RIGHT)	80.03	767.25	768.20	751.00
20+22.50	87+61.47	F.F. ABUT. (RIGHT)	80.03	767.25	766.45	751.00
20+22.50	87+61.47	F.F. ABUT. (RIGHT)	80.03	768.75	766.45	751.00
20+25.75	87+64.72	CORNER (RIGHT)	80.03	768.69	764.83	751.00
20+50.00	87+64.72	COPING (RIGHT)	55.78	768.69	764.83	751.00
20+75.00	87+64.72	COPING (RIGHT)	30.78	768.69	764.83	751.00
21+00.00	87+64.72	COPING (RIGHT)	5.78	768.69	764.83	751.00
21+25.00	87+64.72	COPING (LEFT)	19.22	768.69	764.83	751.00
21+50.00	87+64.72	COPING (LEFT)	44.22	768.69	764.83	751.00
21+75.00	87+64.72	COPING (LEFT)	69.22	768.69	764.83	751.00
21+84.36	87+64.72	CORNER (LEFT)	78.58	768.69	764.86	751.00
21+87.61	87+61.47	F.F. ABUT. (LEFT)	78.58	768.75	766.48	751.00
21+87.61	87+61.47	F.F. ABUT. (LEFT)	78.58	767.25	766.48	751.00
21+91.11	87+57.97	B.F. ABUT. (LEFT)	78.58	767.25	768.23	751.00
21+91.11	87+57.97	LEFT (COPING)	78.58	776.90	768.23	751.00
22+00.00	87+47.63	LEFT	78.58	776.96	772.68	751.00
22+10.11	87+38.97	LEFT	78.58	777.00	777.73	751.00

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
511.1200.401	TEMPORARY SHORING R-40-716	SF	210
513.2001	RAILING PIPE	LF	159
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	215
SPV.0165.400	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-716	SF	4,340
	NON-BID ITEMS		
	FILLER	SIZE	3/4" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

ALL ITEMS ARE CATEGORY 3000

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	DRAINED FRICTION ANGLE (DEGREES)	UNDRAINED COHESION (PSF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
FILL BEHIND THE REINFORCING ZONE	120	30	0
BORING B-3, STA 87+11.52			
EL. 749.0 TO EL. 733.7 - VERY STIFF LEAN CLAY	125	28	2,000
EL. 733.7 TO EL. 728.7 - MEDIUM DENSE SILT	120	30	--
EL. 728.7 TO EL. 689.0 - STIFF LEAN CLAY	120	28	1,500
EL. 689.0 TO EL. 673.8 - VERY STIFF LEAN CLAY	125	28	2,000
EL. 673.8 TO EL. <665.5 - VERY DENSE SILTY SAND	130	36	--

WALL EXTERNAL & OVERALL STABILITY EVALUATION

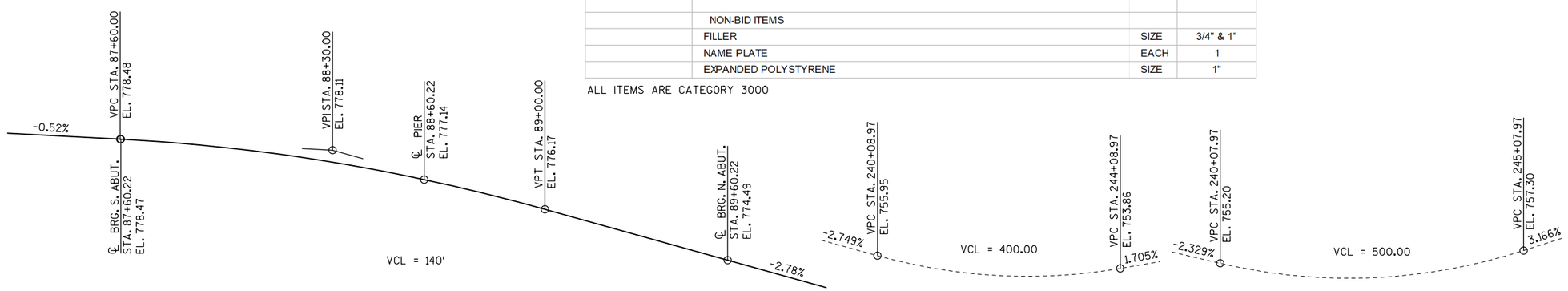
DIMENSIONS	EVALUATED LOCATIONS	
WALL HEIGHT (FT.)*	28.00	19.69
EXPOSED WALL HEIGHT (FT.)	26.50	18.19
■ MIN. LENGTH OF REINFORCEMENT (FT.)	25	24
WALL STATION	20+00.00 TO 20+25.75 & 21+82.92 TO 22+08.67	20+25.75 TO 21+82.92
BORING USED	B-3	B-3
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING (CDR > 1.0)	1.21	1.58
ECCENTRICITY (CDR > 1.0)	1.70	1.55
⬢ OVERALL STABILITY (CDR > 1.0)	1.19	1.02
BEARING RESISTANCE (CDR > 1.0)	1.12	1.30
ULTIMATE BEARING RESISTANCE (PSF)	12,700	15,770

* INCLUDES 1'-6" EMBEDMENT DEPTH

LEGEND

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

⬢ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTOR'S RESPONSIBILITY.



PROFILE GRADE LINE - STH 36 LOOMIS ROAD

EXISTING INSIDE EDGE OF LANE LINE
WB LANES - IH 41/43/894

EXISTING CROWN LINE
EB LANES - IH 41/43/894

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0716

DRAWN BY CEB/GTS | PLANS CK'D. MJA

GENERAL NOTES AND QUANTITIES

SHEET 2 OF 6
498

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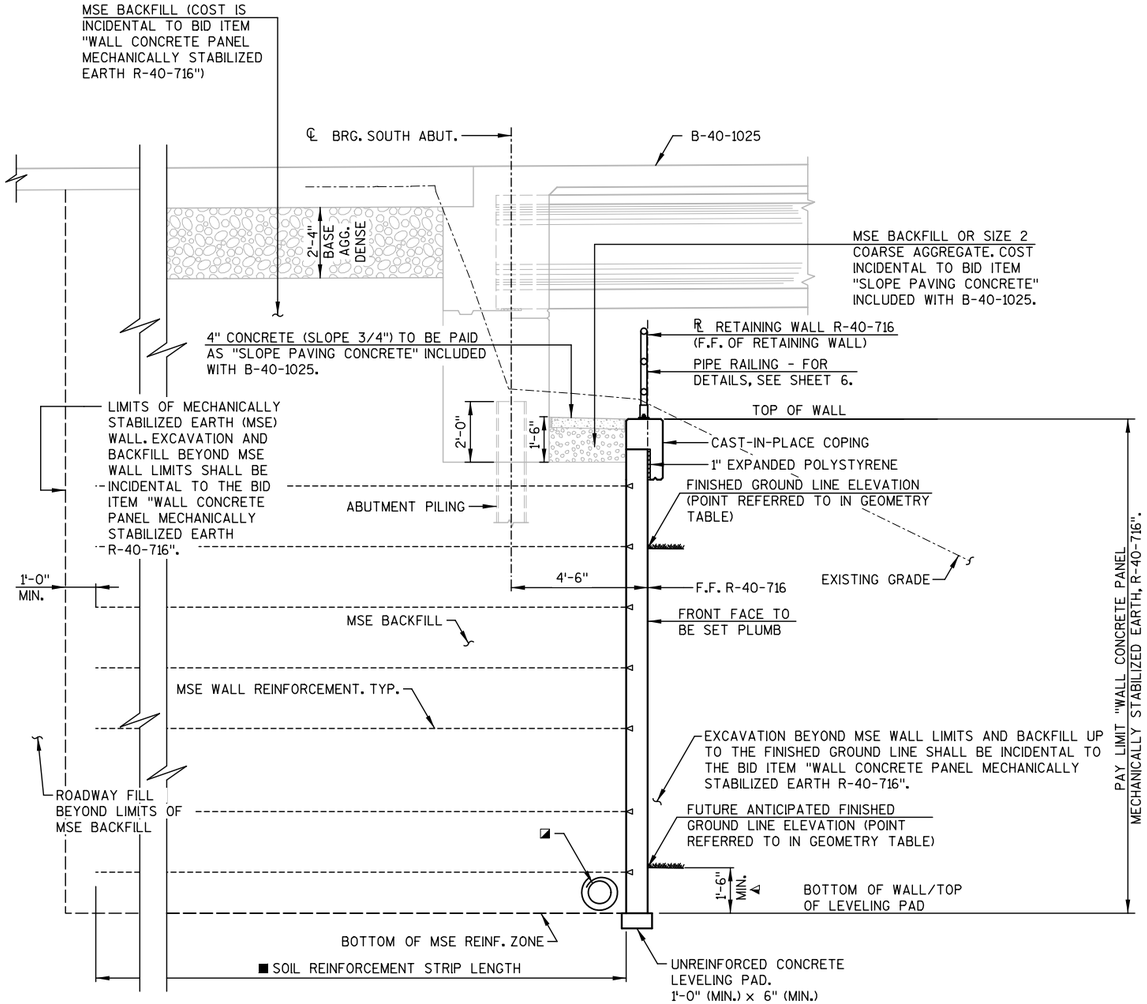
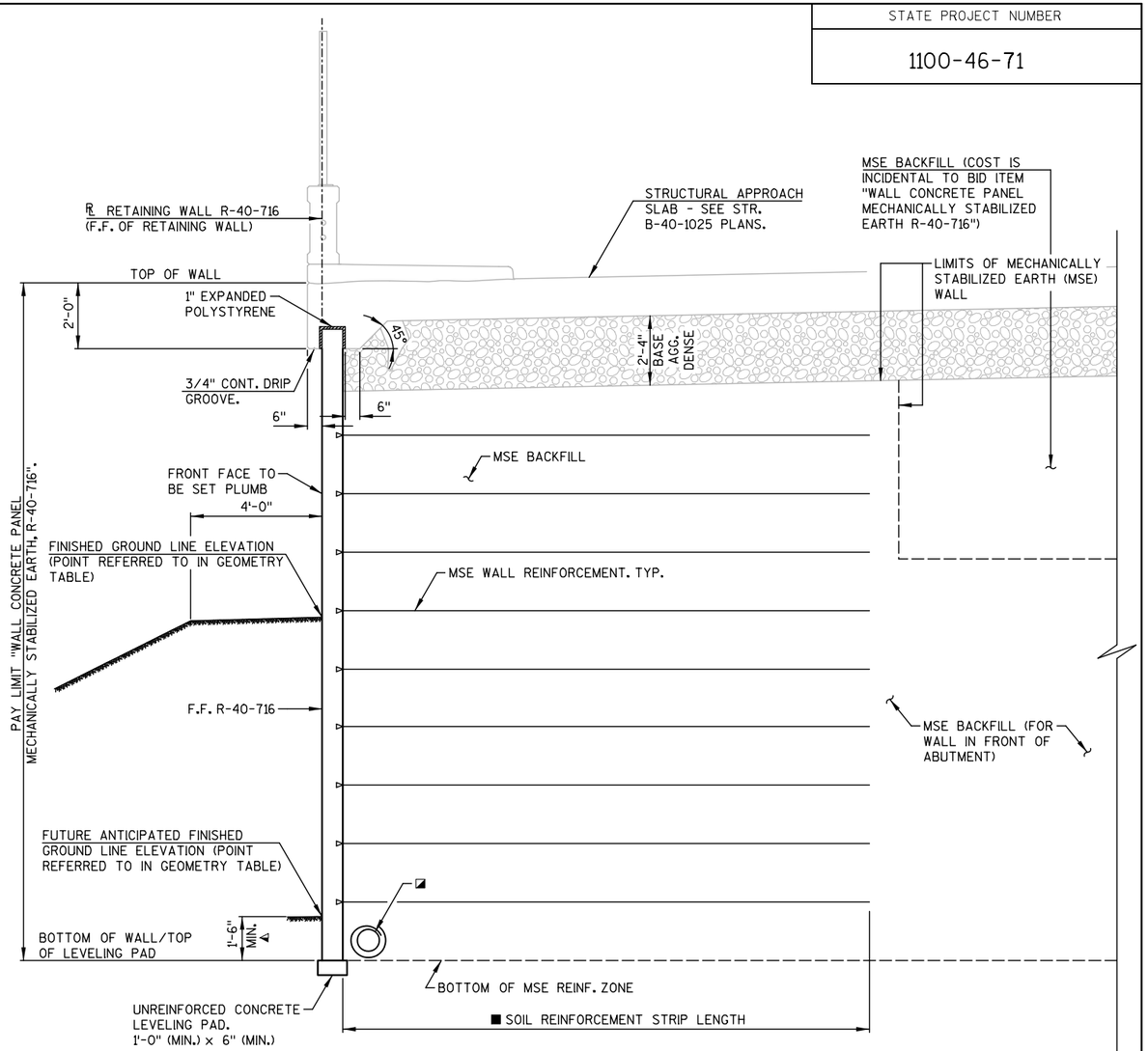
STATE PROJECT NUMBER

1100-46-71



TYPICAL WALL SECTION THRU WALL AT ABUTMENT

(MSE WALL WITH CONCRETE PANEL FACING)



TYPICAL SECTION THRU WALL

(LOOKING NORTH AT WEST SIDE OF STH 36, EAST SIDE SIMILAR)

LEGEND

◪ PIPE UNDERDRAIN WRAPPED (6-INCH). CONNECT TO UNPERFORATED UNDERDRAIN THROUGH WALL PANEL. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.

⚠ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MIN. FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

■ SEE "WALL EXTERNAL & OVERALL STABILITY EVALUATION" ON SHEET 2 FOR MINIMUM SOIL REINFORCEMENT LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0716

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

WALL DETAILS 1

SHEET 3 OF 6
499

8

8

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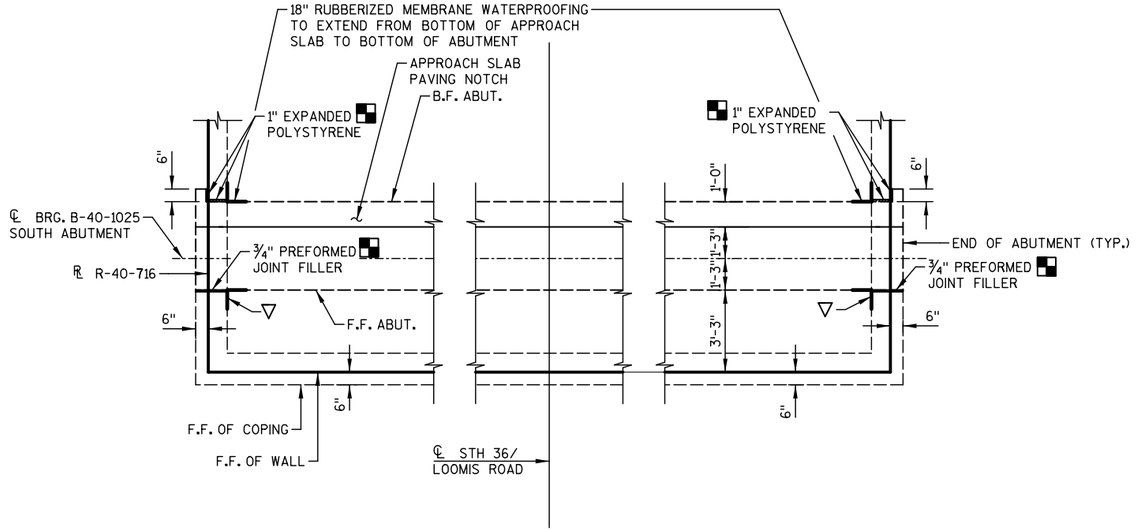
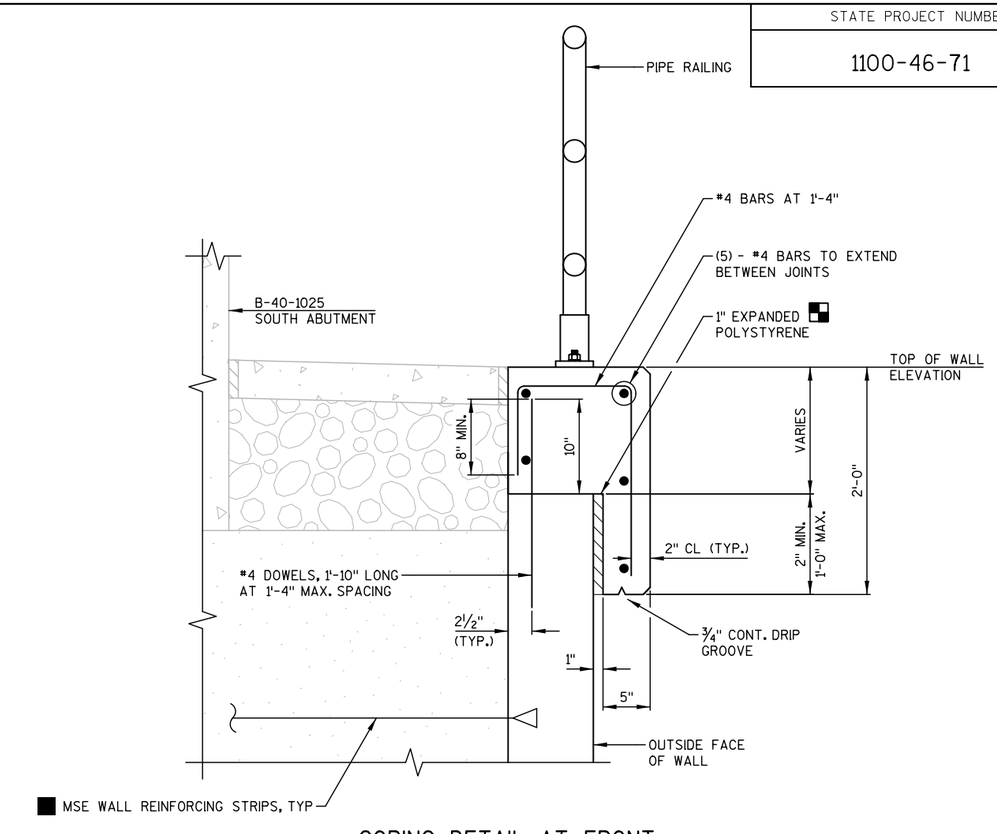
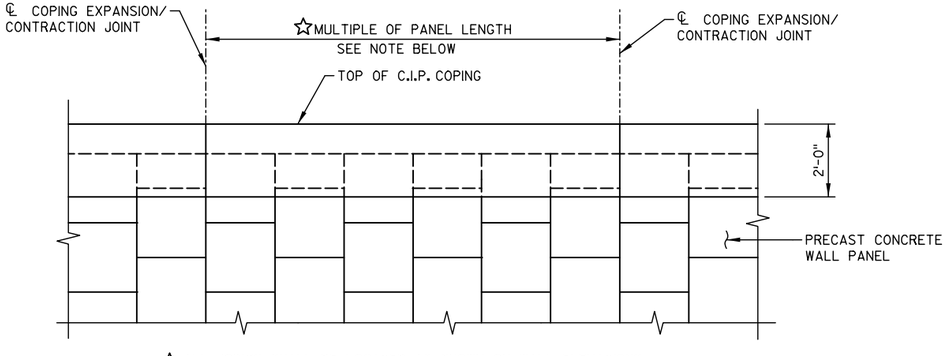


COPING PLAN AT ABUTMENT



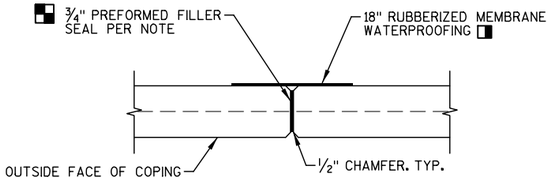
COPING DETAIL AT FRONT FACE OF ABUTMENT

WALL STA 20+22.50 THRU WALL STA 21+87.61



☆ ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

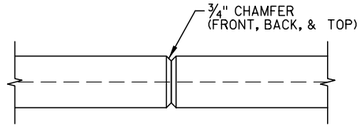
C.I.P. COPING PARTIAL ELEVATION



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

LEGEND

- ■ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ■ SEE "WALL EXTERNAL & OVERALL STABILITY EVALUATION" ON SHEET 2 FOR MINIMUM SOIL REINFORCEMENT LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0716

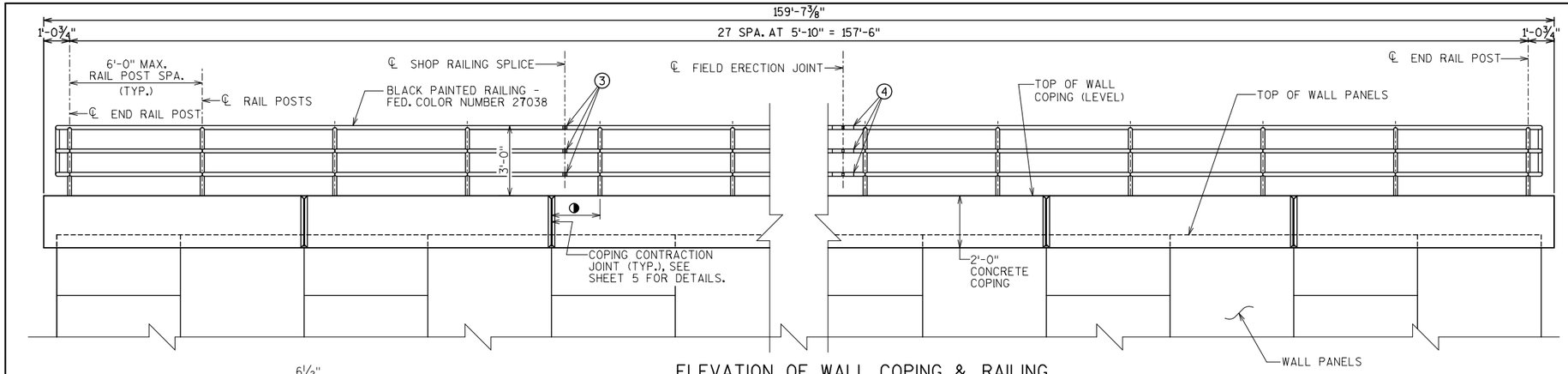
DRAWN BY DNJ/GTS | PLANS CK'D. MJA

WALL DETAILS 2

SHEET 4 OF 6
500

8

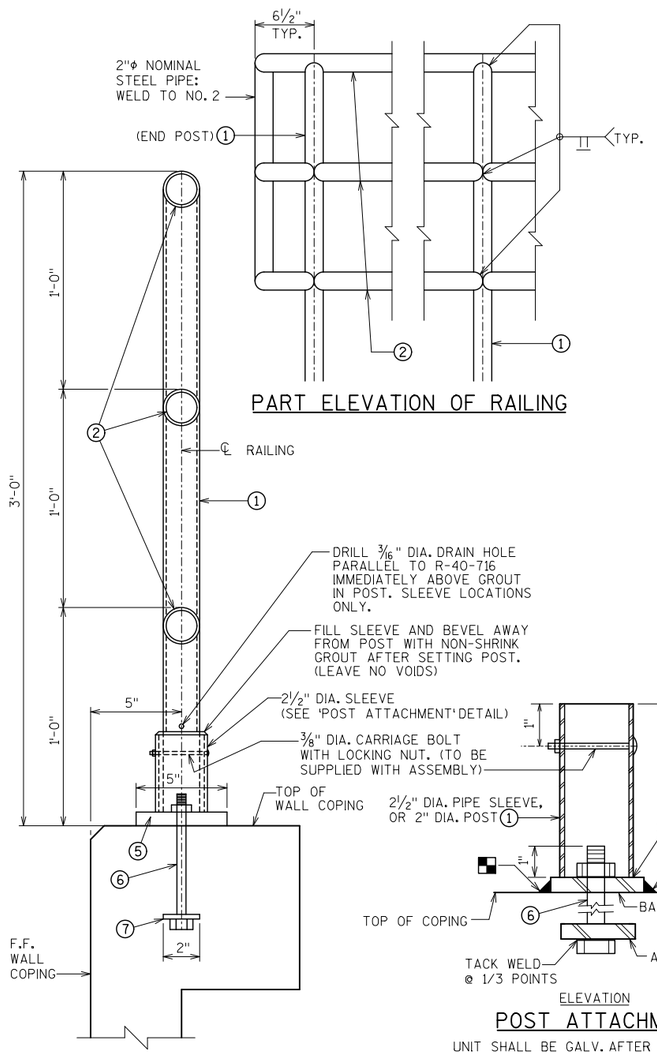
8



ELEVATION OF WALL COPING & RAILING

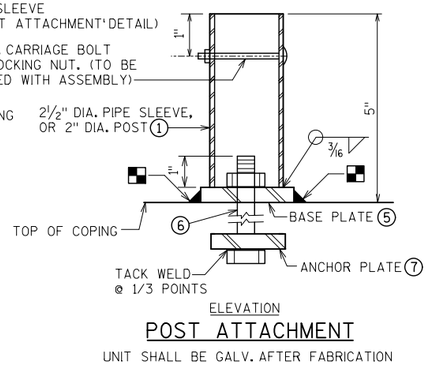
LOOKING SOUTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING EXPANSION AND CONTRACTION JOINTS AND THE ℄ OF RAIL POSTS



PART ELEVATION OF RAILING

SECTION THRU RAILING

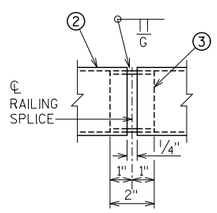


ELEVATION

POST ATTACHMENT

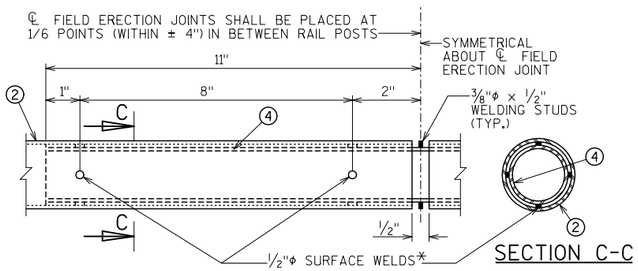
UNIT SHALL BE GALV. AFTER FABRICATION

NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.



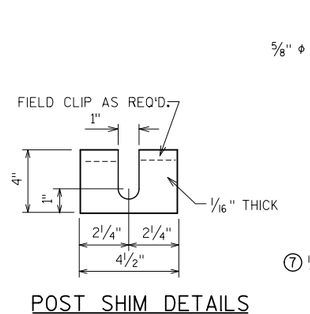
SHOP RAILING SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



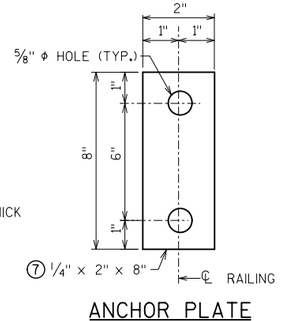
FIELD ERECTION JOINT DETAIL

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

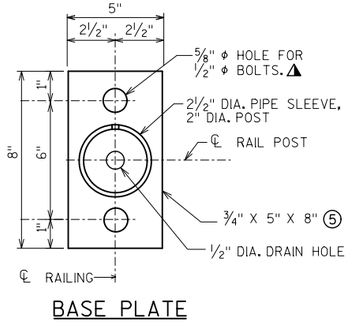


POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.



ANCHOR PLATE



BASE PLATE

LEGEND

1. 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.
2. 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1
3. 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".
4. 1½"Φ PIPE SLEEVE x 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ x ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.
5. PLATE ¾" x 5" x 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.
6. ½"Φ x 6⅞" LONG HEX BOLTS (GALVANIZED) WITH NUT AND WASHER. 2 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 5. CHAMFER TOP OF BOLTS BEFORE THREADING. ½" CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" BOLTS. ANCHOR PLATE NOT REQUIRED WHEN CONCRETE MASONRY ANCHORS ARE USED. SEE NOTE ☆
7. ¼" x 2" x 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

☆ ½" DIA. CONCRETE MASONRY ANCHOR, 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

GENERAL NOTES

BID ITEM SHALL BE "RAILING PIPE", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CONCRETE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 7) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS. AFTER GALVANIZING, PAINT ALL SURFACES OF RAILING BLACK (FEDERAL COLOR NUMBER 27038).

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

◪ CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

STATE PROJECT NUMBER
1100-46-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0716

DRAWN BY DNJ | PLANS CK'D. MJA

PIPE RAILING DETAILS

SHEET 5 OF 6
501

8

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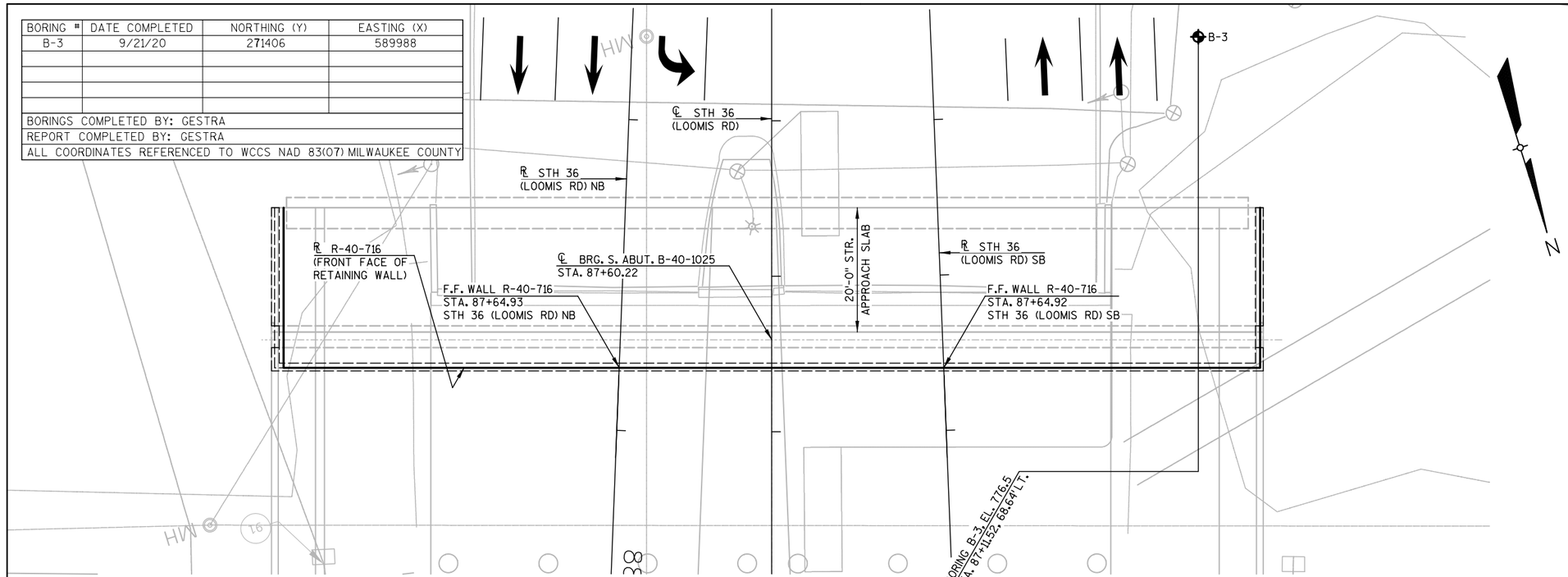
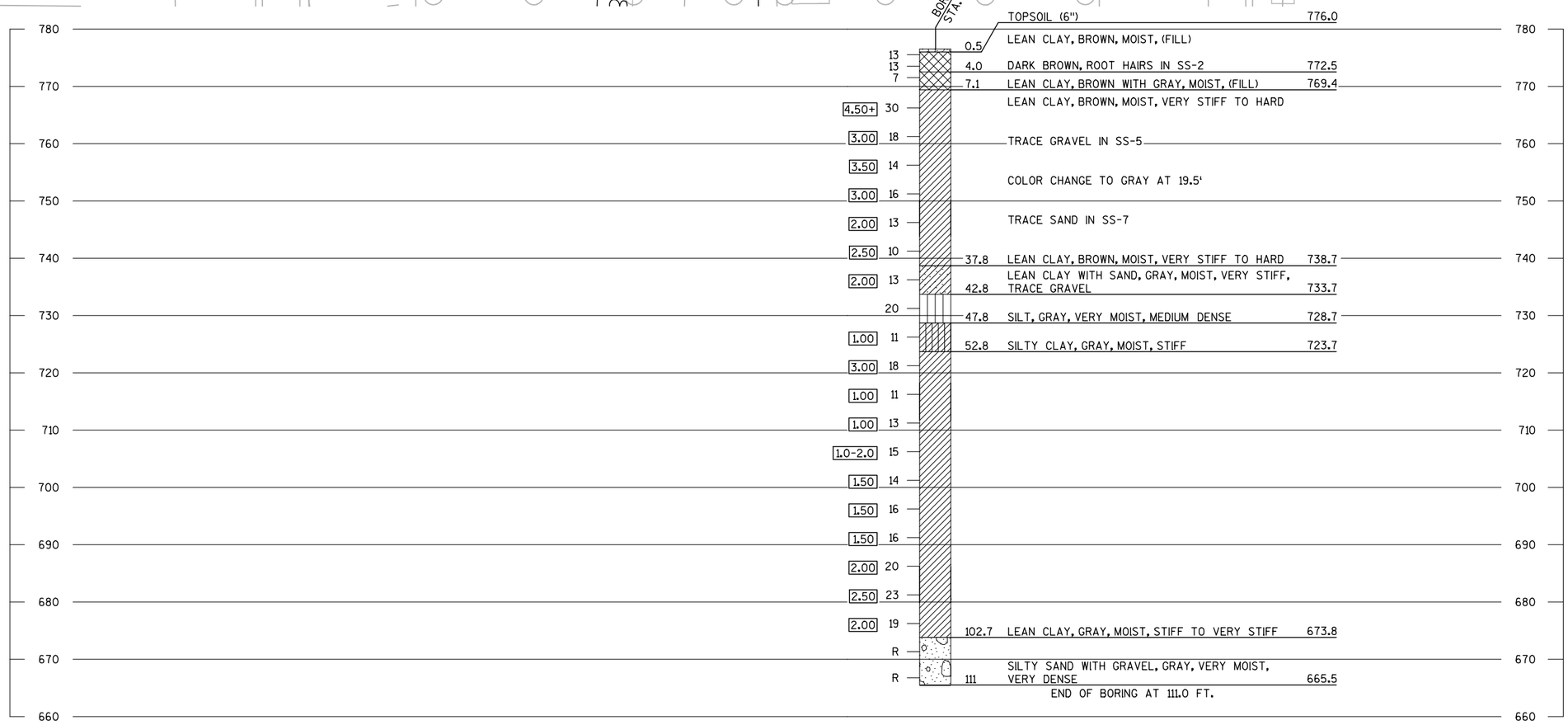
PLOT DATE: 9/1/2022 PLOT TIME: 9:15:44 AM BATCH PRINT SHEET 5 OF 6

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-3	9/21/20	271406	589988

BORINGS COMPLETED BY: GESTRA
REPORT COMPLETED BY: GESTRA
ALL COORDINATES REFERENCED TO WCCS NAD 83(07) MILWAUKEE COUNTY





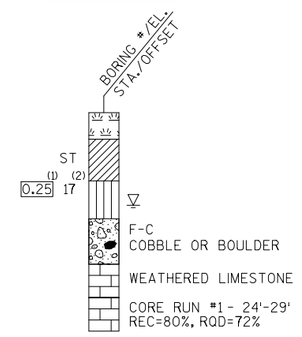
STATE PROJECT NUMBER

1100-46-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-716

DRAWN BY CEB | PLANS CK'D. AJC

SUBSURFACE EXPLORATION

SHEET 6 OF 6
502

SCALE =

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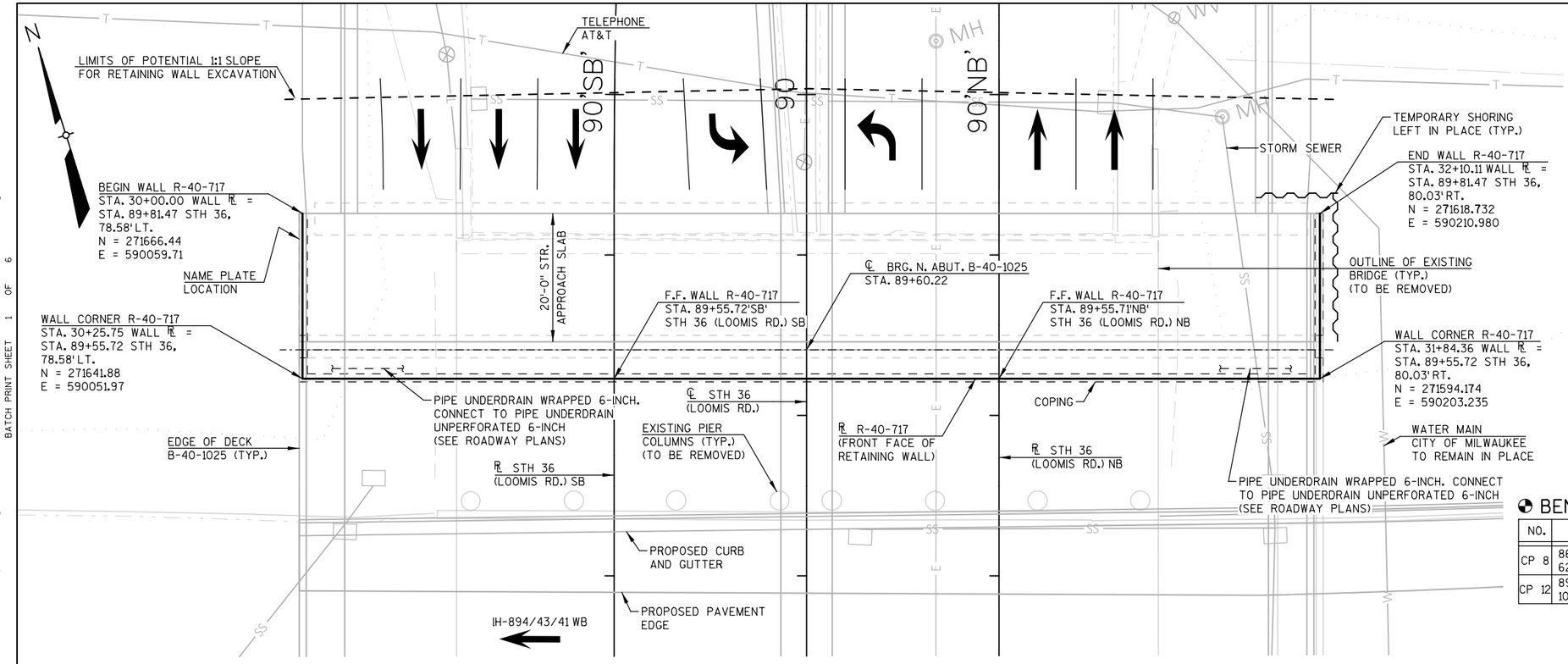
STATE PROJECT NUMBER
1100-46-71



DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) _____ 240 PSF

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL:
(INCLUDES CONCRETE FOR COPING AND LEVELING PAD) ___ f'c = 3,500 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 PSI

FOUNDATION DATA - FACTORED BEARING RESISTANCE
MSE WALL - REFER TO "WALL EXTERNAL AND OVERALL STABILITY EVALUATION" TABLE ON SHEET 2.

DO NOT OPERATE HEAVY EQUIPMENT OR STOCKPILE MATERIALS IN CLOSE PROXIMITY TO THE WALL.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. GENERAL NOTES AND QUANTITIES
3. WALL DETAILS 1
4. WALL DETAILS 2
5. PIPE RAILING DETAILS
6. SUBSURFACE EXPLORATION

LEGEND

[E] EXPANSION JOINT
[C] CONTRACTION JOINT
DIRECTION OF TRAFFIC

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
CP 8	86+52.22 STH 36 (LOOMIS RD), 62.27' RT	CUT CROSS IN SIDEWALK	776.880
CP 12	89+37.56 STH 36 (LOOMIS RD), 100.56' LT	REBAR WITH GRAEF PINK CAP	751.803

ELEVATION

(UNFOLDED ELEVATION LOOKING NORTH AT FRONT FACE OF WALL)

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL DELEMONT (414) 207-4157

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
09/01/2022

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-717

RETAINING WALL AT B-40-1025 N. ABUT.

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	GREENFIELD

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CEB	DESIGN CK'D.	MJA	DRAWN BY	CEB	PLANS CK'D.	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 6
503

8

8

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PLOT DATE: 9/1/2022 PLOT TIME: 9:03:33 AM BATCH PRINT SHEET 2 OF 6

STATE PROJECT NUMBER

1100-46-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

B.F. = BACK FACE
F.F. = FRONT FACE

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL BAR STEEL IN CAST IN PLACE CONCRETE SHALL BE EPOXY COATED.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-717" IS BASED ON WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO A CONSTANT DEPTH 1.5' BELOW FUTURE FINISHED GROUND.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALL, AND MSE WALL REINFORCEMENT IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-717".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

WALL STATIONS ARE ALONG THE ℄ FOR R-40-717, WHICH IS LOCATED AT THE FRONT FACE OF THE WALL.

PROVIDE A RUBBED SURFACE TREATMENT IN ACCORDANCE WITH SECTION 502.3.7.3 TO ALL PERMANENTLY EXPOSED SURFACES OF CONCRETE MASONRY RETAINING WALLS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

THE RETAINING WALL DESIGN SHALL USE THE FUTURE ANTICIPATED FINISHED GROUND LINE ELEVATION TO DETERMINE THE MAXIMUM WALL HEIGHTS.

THE DESIGN OF THE WALL IN FRONT OF THE ABUTMENT SHALL INCLUDE THE HORIZONTAL EARTH LOADS AND 240 PSF LIVE LOAD SURCHARGE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

DESIGN THE RETAINING WALL TO PROVIDE FOR A FINISHED GROUND SLOPE BEHIND THE WALL AS SHOWN IN THE ROADWAY CROSS SECTIONS.

COORDINATE THE CONSTRUCTION OF R-40-717 WITH THE CONSTRUCTION OF THE BRIDGE ABUTMENT AND PILING OF STRUCTURE B-40-1025.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE CONCRETE COPING IN FRONT OF THE ABUTMENT AND THE LEVELING PAD, INCLUDING REINFORCEMENT, IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-717".

THE COST OF THE APPROACH SLAB, COPING AT THE APPROACH SLAB AND PARAPET ARE INCLUDED WITH B-40-1025.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SUBSURFACE CONDITIONS AT THE BASE OF THE WALL SHALL BE REVIEWED BY THE SOUTHEAST REGION SOILS ENGINEER TO DETERMINE IF THE MATERIALS HAVE ADEQUATE STRENGTH TO SUPPORT THE MSE WALL. THE GEOTECHNICAL REPORT IS AVAILABLE UPON REQUEST FROM WISDOT'S SE REGION OFFICE.

GENERAL NOTES (CONTINUED)

THE EXISTING WATER MAIN PIPE BURIED IN CLOSE PROXIMITY TO THE BRIDGE AND WALL CONSTRUCTION WILL REMAIN IN PLACE AND MUST BE MAINTAINED DURING CONSTRUCTION. BEFORE EXCAVATING OR INSTALLING TEMPORARY SHORING FOR CONSTRUCTION OF THE RETAINING WALLS AND BRIDGE, EXPOSE THE WATER LINES TO CONFIRM THEIR EXACT LOCATION AND DEPTH. PAYMENT FOR CAREFUL EXCAVATION TO EXPOSE THE WATER LINE IS INCLUDED IN THE BID ITEM "UTILITY LINE OPENING." AFTER EXPOSING THE PIPES TO CONFIRM THEIR LOCATION, INSTALL TEMPORARY SHORING AS NECESSARY TO COMPLETE THE EXCAVATION. USE ONLY NON-VIBRATORY METHODS OF SHORING INSTALLATION. CUT OFF TEMPORARY SHORING A MINIMUM OF TWO-FEET BELOW FINISHED GROUND LINE, AND LEAVE THE REMAINING TEMPORARY SHORING IN PLACE. PAYMENT FOR MATERIALS, EQUIPMENT AND LABOR REQUIRED TO PREVENT DAMAGE TO THE EXISTING PIPE DURING CONSTRUCTION IS CONSIDERED INCIDENTAL TO THE BID ITEM "TEMPORARY SHORING LEFT IN PLACE R-70-717."

GEOMETRY TABLE

WALL STATION	ROADWAY STATION	OFFSET SIDE	OFFSET TO R/L OF WALL	TOP OF WALL EL	FINISHED GROUND EL	FUTURE FINISHED GROUND
30+00.00	89+81.47	LEFT	78.58	772.32	773.05	750.00
30+19.00	89+62.47	LEFT (COPING)	78.58	772.85	763.55	750.00
30+19.00	89+62.47	B.F. ABUT. (LEFT)	78.58	763.25	763.55	750.00
30+22.50	89+58.97	F.F. ABUT. (LEFT)	78.58	763.25	761.80	750.00
30+22.50	89+58.97	F.F. ABUT. (LEFT)	78.58	764.75	761.80	750.00
30+25.75	89+55.72	CORNER (LEFT)	78.58	764.68	760.17	750.00
30+50.00	89+55.72	COPING (LEFT)	54.33	764.68	760.17	750.00
30+75.00	89+55.72	COPING (LEFT)	29.33	764.68	760.17	750.00
31+00.00	89+55.72	COPING (LEFT)	4.33	764.68	760.17	750.00
31+25.00	89+55.72	COPING (RIGHT)	20.67	764.68	760.17	750.00
31+50.00	89+55.72	COPING (RIGHT)	45.67	764.68	760.17	750.00
31+75.00	89+55.72	COPING (RIGHT)	70.67	764.68	760.17	750.00
31+84.36	89+55.72	CORNER (RIGHT)	80.03	764.68	760.14	750.00
31+87.61	89+58.97	F.F. ABUT. (RIGHT)	80.03	764.75	761.77	750.00
31+87.61	89+58.97	F.F. ABUT. (RIGHT)	80.03	763.25	761.77	750.00
31+91.11	89+62.47	B.F. ABUT. (RIGHT)	80.03	763.25	763.52	750.00
31+91.11	89+62.47	RIGHT (COPING)	80.03	772.82	763.52	750.00
32+00.00	89+72.80	RIGHT	80.03	772.53	767.96	750.00
32+10.11	89+81.47	RIGHT	80.03	772.29	773.02	750.00

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
511.2200.400	TEMPORARY SHORING LEFT IN PLACE R-40-717	SF	210
513.2001	RAILING PIPE	LF	159
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	5
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	215
SPV.0165.401	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH R-40-717	SF	3,690
	NON-BID ITEMS		
	FILLER	SIZE	3/4" & 1"
	NAME PLATE	EACH	1
	EXPANDED POLYSTYRENE	SIZE	1"

ALL ITEMS ARE CATEGORY 3010

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	DRAINED FRICTION ANGLE (DEGREES)	UNDRAINED COHESION (PSF)
GRANULAR BACKFILL (REINFORCING ZONE OR BACKFILL)	120	30	0
FILL BEHIND THE REINFORCING ZONE	120	30	0
BORING B-2, STA 90+04.98			
EL. 749.0 TO EL. 722.7 - VERY STIFF LEAN CLAY	125	28	2,000
EL. 722.7 TO EL. 702.7 - MEDIUM STIFF LEAN CLAY	120	27	1,500
EL. 702.7 TO EL. 693.2 - VERY DENSE SAND WITH GRAVEL	130	35	--
EL. 693.2 TO EL. 667.6 - VERY STIFF LEAN CLAY	125	28	2,000
EL. 667.6 TO EL. <654.5 - HARD SANDY LEAN CLAY	125	28	4,000

WALL EXTERNAL & OVERALL STABILITY EVALUATION

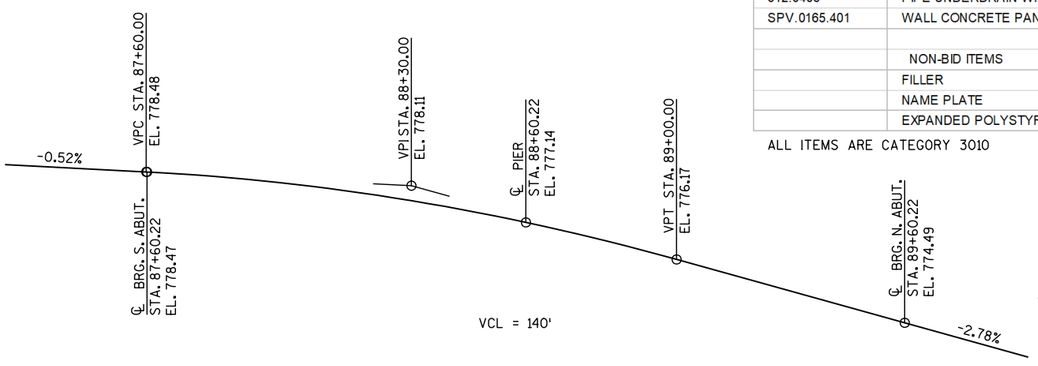
DIMENSIONS	EVALUATED LOCATIONS	
WALL HEIGHT (FT.)*	23.32	15.67
EXPOSED WALL HEIGHT (FT.)	21.82	14.17
■ MIN. LENGTH OF REINFORCEMENT (FT.)	20	22
WALL STATION	30+00.00 TO 30+25.75 & 31+82.92 TO 32+8.67	30+25.75 TO 31+82.92
BORING USED	B-2	B-2
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING (CDR > 1.0)	1.34	1.60
ECCENTRICITY (CDR > 1.0)	1.43	1.45
● OVERALL STABILITY (CDR > 1.0)	1.27	1.04
BEARING RESISTANCE (CDR > 1.0)	1.10	1.17
ULTIMATE BEARING RESISTANCE (PSF)	11,780	14,760

* INCLUDES 1'-6" EMBEDMENT DEPTH

LEGEND

■ THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED UPON THE MINIMUM DESCRIBED IN THE WALL SYSTEM SPECIAL PROVISIONS OR EXTERNAL AND OVERALL STABILITY AT THE DESIGNATED LOCATIONS. THESE DESIGNATED LOCATIONS REPRESENT TYPICAL AND CRITICAL WALL LOCATIONS, BUT SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR DESIGN LENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES REPRESENTED IN THE TABLE AT THESE DESIGNATED LOCATIONS.

● THE LENGTHS PROVIDED IN THE TABLE ARE THE MINIMUM REQUIRED REINFORCEMENT LENGTHS BASED ON OVERALL STABILITY PERFORMED BY THE WALL DESIGNER. COMPOUND STABILITY IS THE CONTRACTOR'S RESPONSIBILITY.



PROFILE GRADE LINE - STH 36 LOOMIS ROAD

EXISTING INSIDE EDGE OF LANE LINE
WB LANES - IH 41/43/894

EXISTING CROWN LINE
EB LANES - IH 41/43/894

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0717

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

GENERAL NOTES AND QUANTITIES

SHEET 2 OF 6
504

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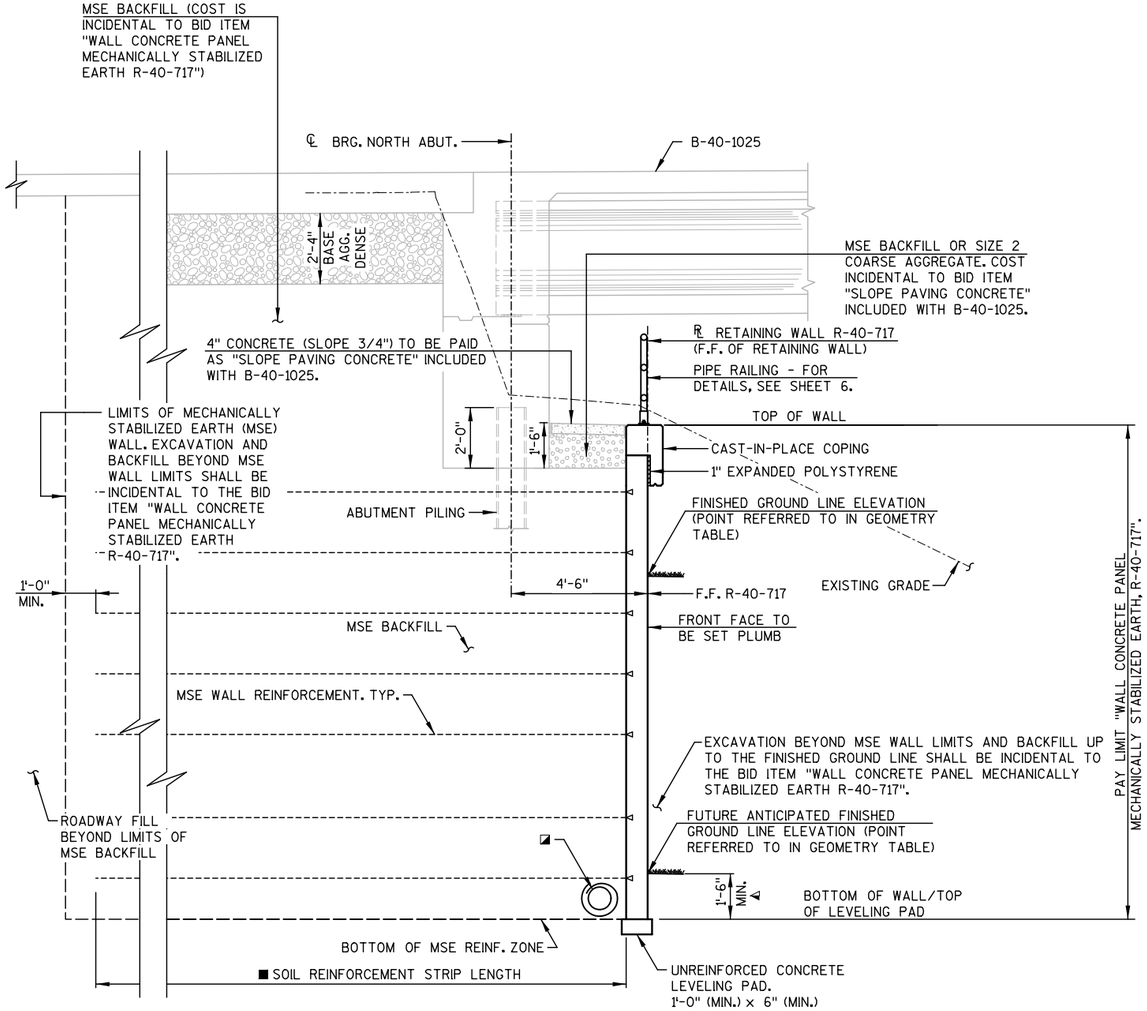
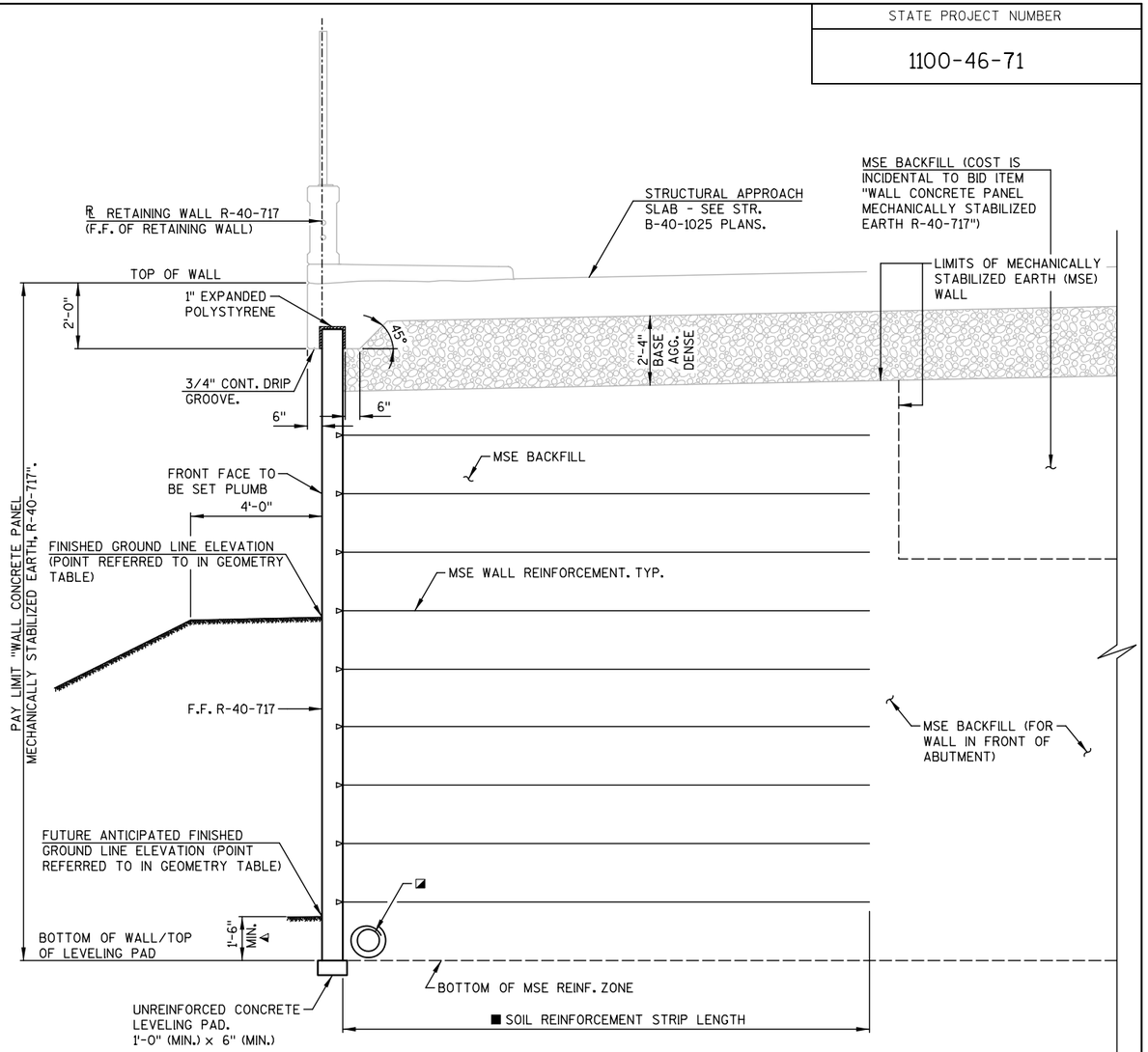
STATE PROJECT NUMBER

1100-46-71



TYPICAL WALL SECTION THRU WALL AT ABUTMENT

(MSE WALL WITH CONCRETE PANEL FACING)



TYPICAL SECTION THRU WALL

(LOOKING SOUTH AT EAST SIDE OF STH 36, WEST SIDE SIMILAR)

LEGEND

◪ PIPE UNDERDRAIN WRAPPED (6-INCH). CONNECT TO UNPERFORATED UNDERDRAIN THROUGH WALL PANEL. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE.

◭ MINIMUM EMBEDMENT BASED ON SITE SPECIFIC PARAMETERS (1'-6" MIN. FOR ALL WALLS ON LEVEL GROUND). FIELD EMBEDMENTS SHALL MEET OR EXCEED THE MINIMUM EMBEDMENT. FIELD EMBEDMENTS BELOW MINIMUM EMBEDMENT SHALL NOT BE INCLUDED IN THE PAY LIMITS.

■ SEE "WALL EXTERNAL & OVERALL STABILITY EVALUATION" ON SHEET 2 FOR MINIMUM SOIL REINFORCEMENT LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0717

DRAWN BY CEB | PLANS CK'D. MJA

WALL DETAILS 1

SHEET 3 OF 6

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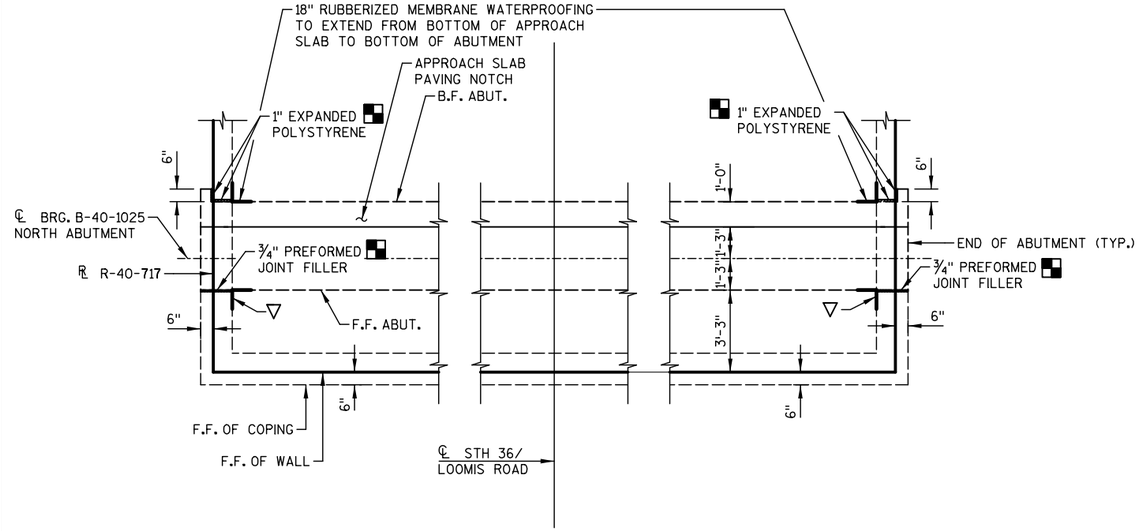
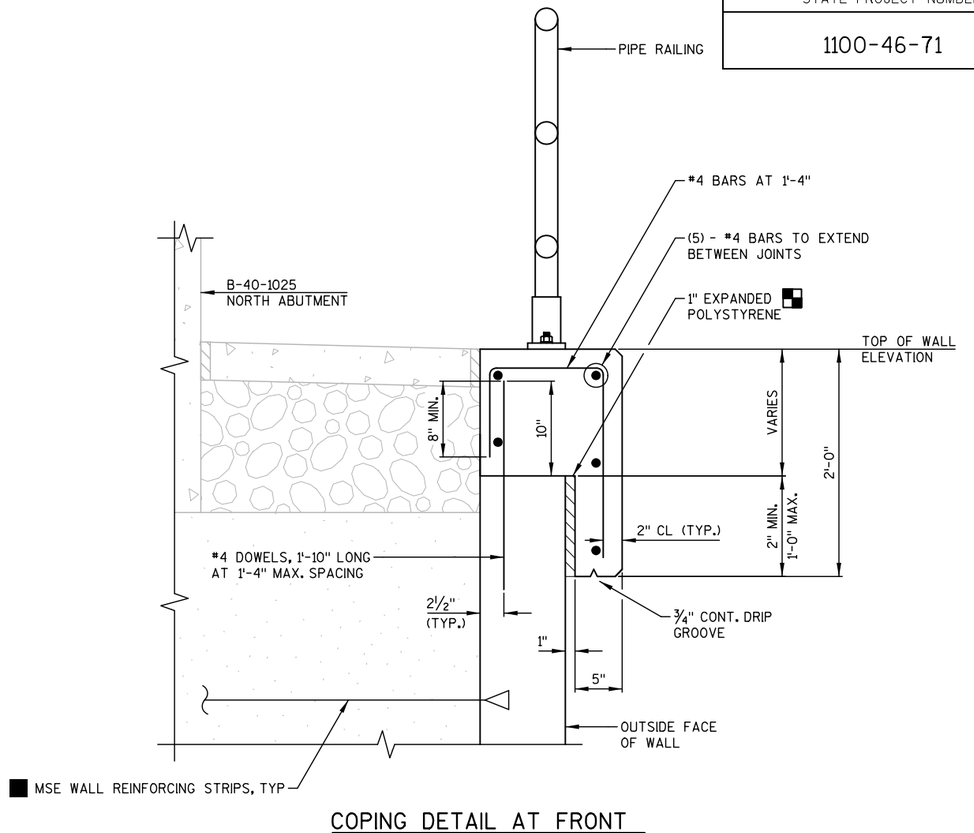
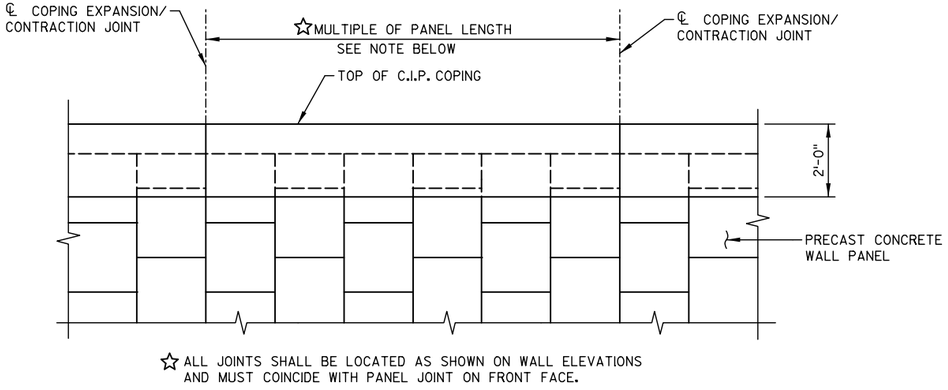


COPING PLAN AT ABUTMENT



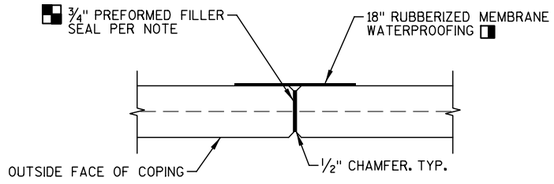
COPING DETAIL AT FRONT FACE OF ABUTMENT

WALL STA 30+22.50 THRU WALL STA 31+87.61



☆ ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

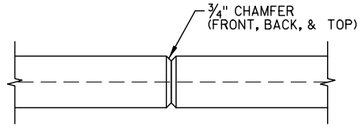
C.I.P. COPING PARTIAL ELEVATION



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 50'

MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

LEGEND

- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ■ SEE "WALL EXTERNAL & OVERALL STABILITY EVALUATION" ON SHEET 2 FOR MINIMUM SOIL REINFORCEMENT LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0717

DRAWN BY DNJ | PLANS CK'D. MJA

WALL DETAILS 2

SHEET 4 OF 6
506

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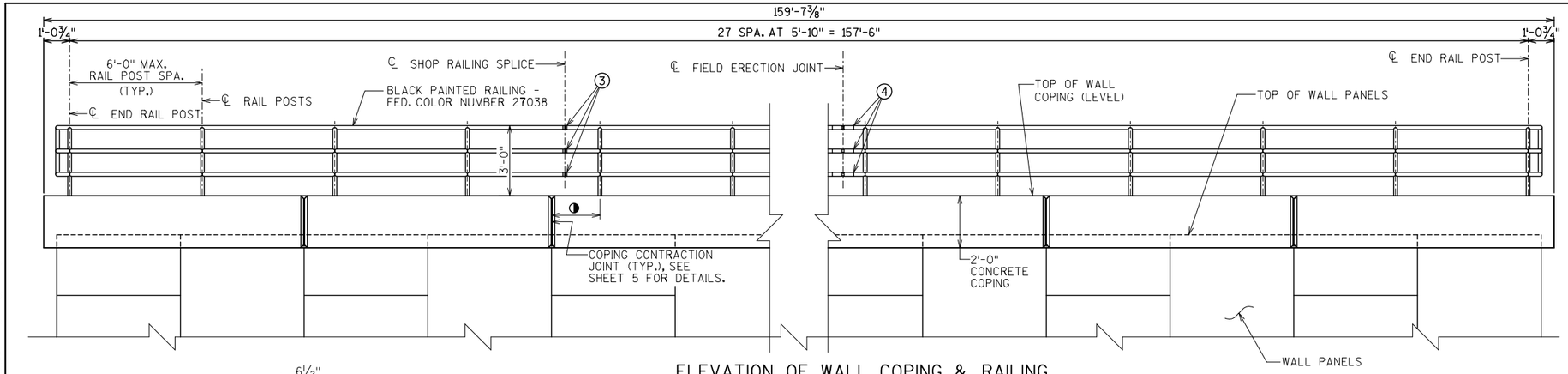
STATE PROJECT NUMBER

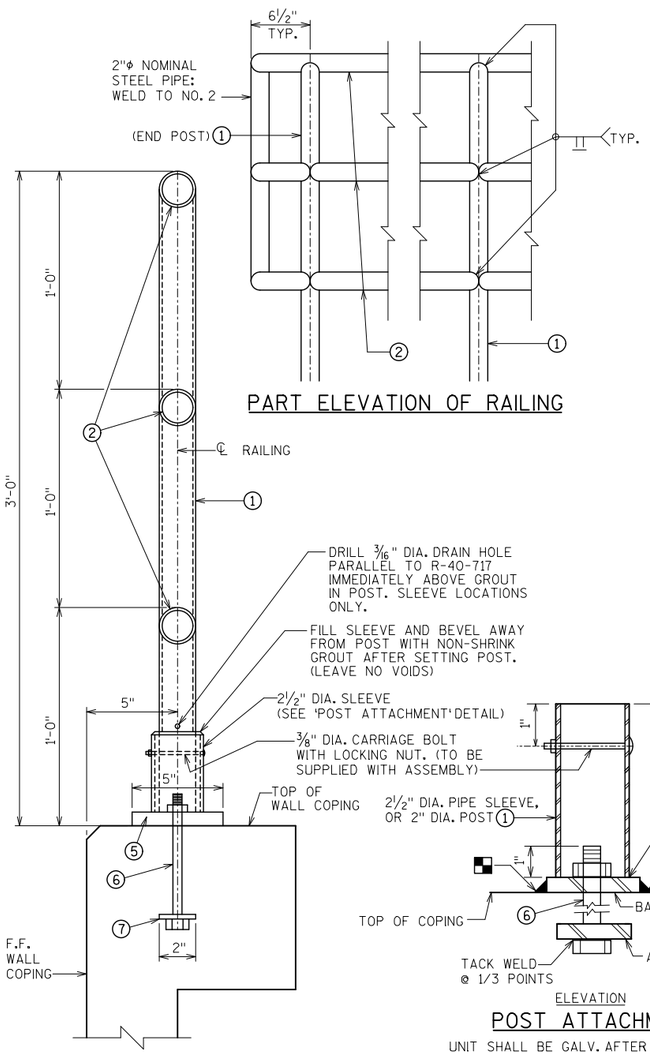
1100-46-71



ELEVATION OF WALL COPING & RAILING

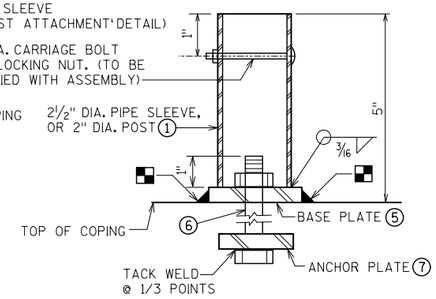
LOOKING SOUTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING EXPANSION AND CONTRACTION JOINTS AND THE ℄ OF RAIL POSTS



PART ELEVATION OF RAILING

SECTION THRU RAILING

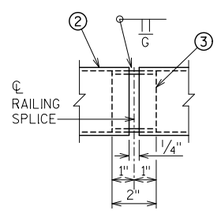


ELEVATION

POST ATTACHMENT

UNIT SHALL BE GALV. AFTER FABRICATION

NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.

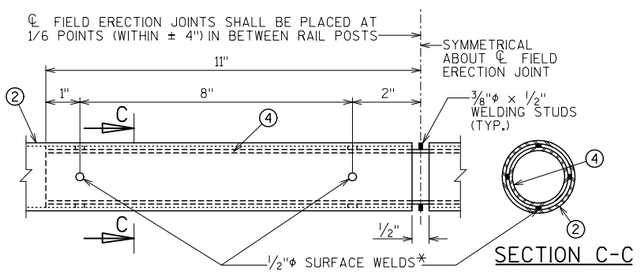


SHOP RAILING SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

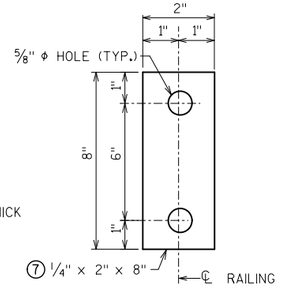
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.

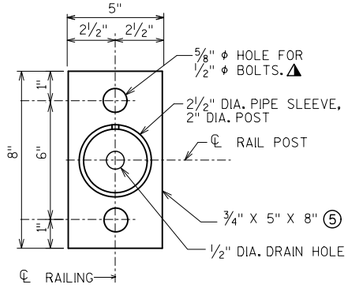


FIELD ERECTION JOINT DETAIL

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



ANCHOR PLATE



BASE PLATE

LEGEND

① 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.

② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

③ 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".

④ 1½"Φ PIPE SLEEVE x 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ x ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

⑤ PLATE ¾" x 5" x 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1 OR PIPE SLEEVE AS SHOWN.

⑥ ½"Φ x 6⅞" LONG HEX BOLTS (GALVANIZED) WITH NUT AND WASHER. 2 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 5. CHAMFER TOP OF BOLTS BEFORE THREADING. ½" CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" BOLTS. ANCHOR PLATE NOT REQUIRED WHEN CONCRETE MASONRY ANCHORS ARE USED. SEE NOTE ☆

☆ ½" DIA. CONCRETE MASONRY ANCHOR, 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

⑦ ¼" x 2" x 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

GENERAL NOTES

BID ITEM SHALL BE "RAILING PIPE", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CONCRETE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 7) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS. AFTER GALVANIZING, PAINT ALL SURFACES OF RAILING BLACK (FEDERAL COLOR NUMBER 27038).

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

◪ CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-40-0717

DRAWN BY DNJ | PLANS CK'D. MJA

PIPE RAILING DETAILS

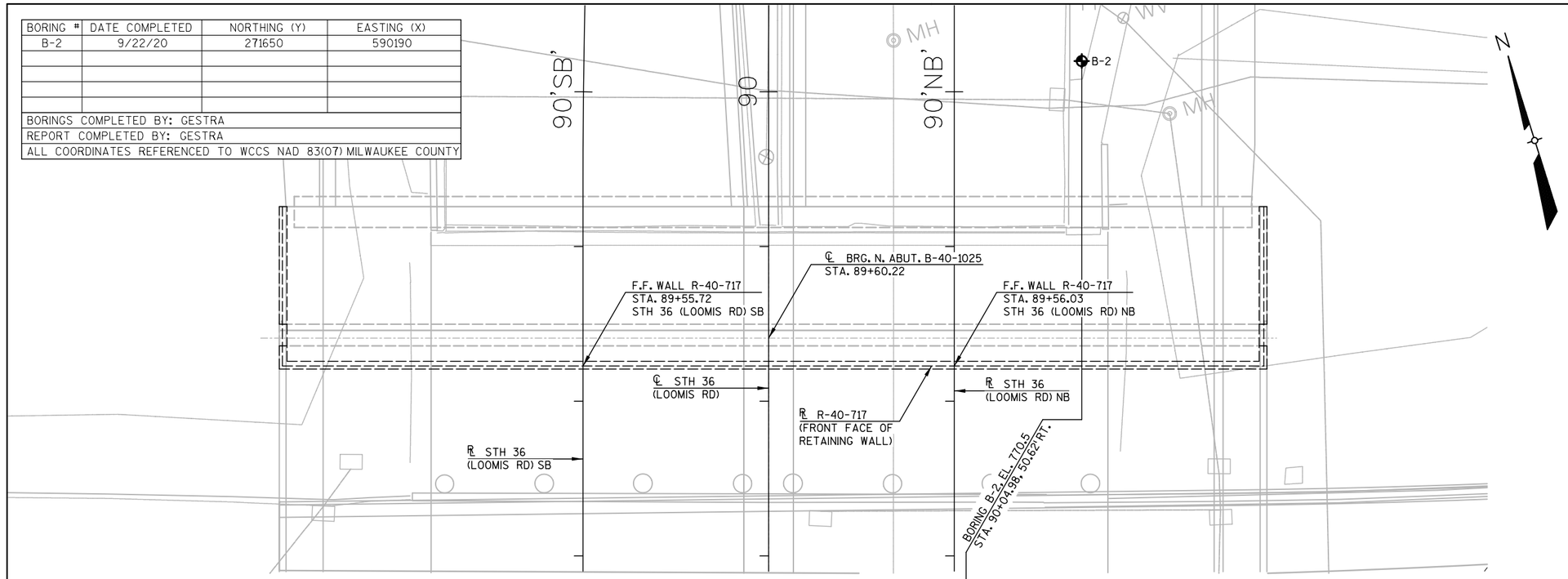
SHEET 5 OF 6
507

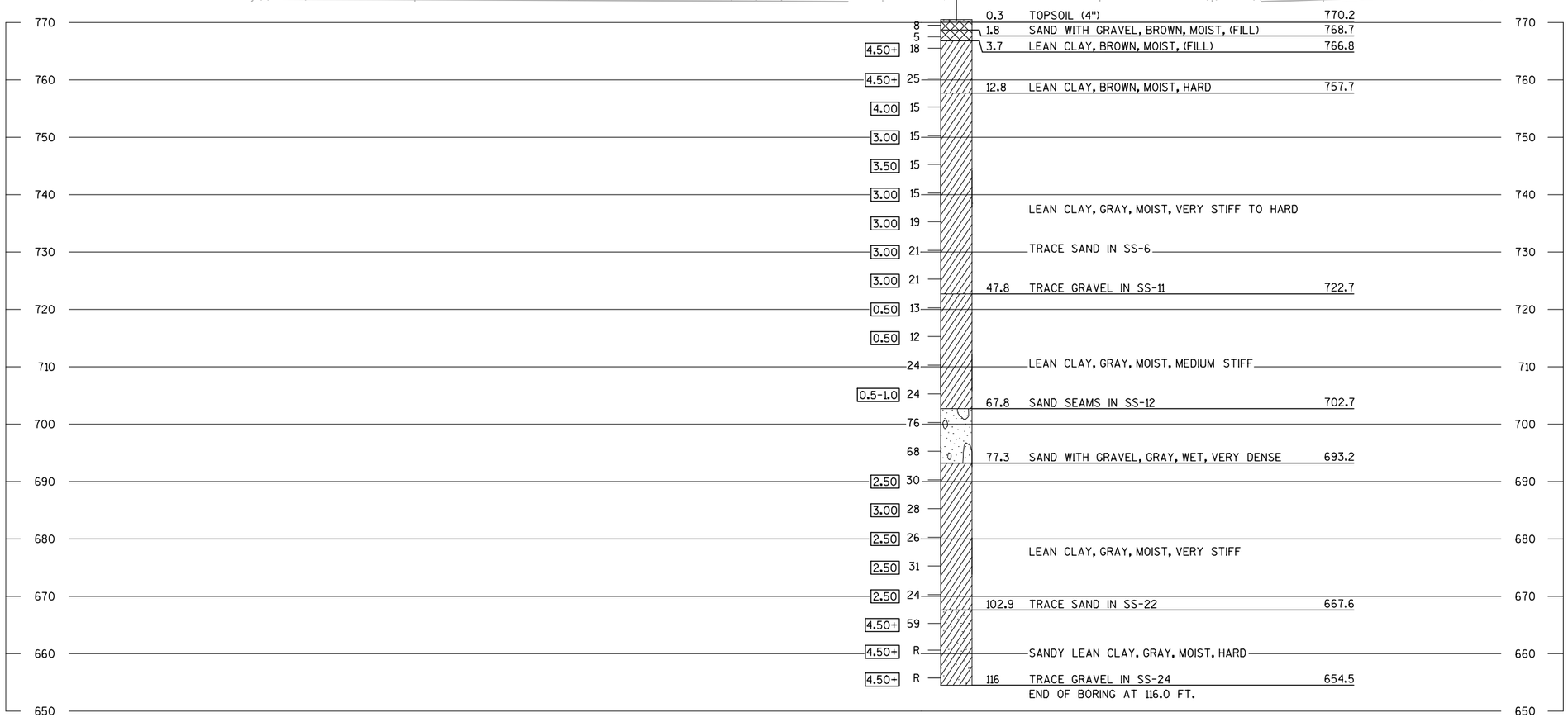
8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-2	9/22/20	271650	590190

BORINGS COMPLETED BY: GESTRA
REPORT COMPLETED BY: GESTRA
ALL COORDINATES REFERENCED TO WCCS NAD 83(07) MILWAUKEE COUNTY





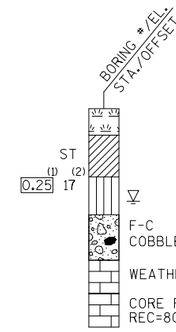
STATE PROJECT NUMBER

1100-46-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-717

DRAWN BY CEB PLANS CK'D. AJC

SUBSURFACE EXPLORATION

SHEET 6 OF 6
508

SCALE =

8

8

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

STANDARD FOUNDATIONS DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTREME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)
	1.0 GVW (GALLOPING - CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY ..... f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ..... fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 ..... fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ..... fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (1997). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE TRUSS OR MONOTUBE BID ITEMS FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING SHAFT (DIA.)".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-40-3095	63 SF	9'-0"	TC-I
S-40-3096	27.5 SF	5'-6"	TC-III
S-40-3097	63 SF	9'-0"	TC-I

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. LAYOUT S-40-3095
3. LAYOUT S-40-3096
4. LAYOUT S-40-3097

LIST OF OSS STANDARD DESIGN DRAWINGS

5. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
6. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
7. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
8. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

STATE PROJECT NUMBER

1100-46-71

TRAFFIC VOLUME

A.D.T. (2043) = 40,100
R.D.S. = 45 MPH

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-40-3095	S-40-3096	S-40-3097
531.2036	DRILLING SHAFT 36-INCH	LF	18	----	18
531.2048	DRILLING SHAFT 48-INCH	LF	----	23	----
531.5310	FOUNDATION SINGLE-SHAFT TYPE TC-I (STRUCTURE)	EA	1	----	1
531.5330	FOUNDATION SINGLE-SHAFT TYPE TC-III (STRUCTURE)	EA	----	1	----
532.5310	TRUSS CANTILEVER 2-CHORD TYPE I (STRUCTURE)	EA	1	----	1
532.5330	TRUSS CANTILEVER 2-CHORD TYPE III (STRUCTURE)	EA	----	1	----

STRUCTURE DESIGN CONTACTS:

AARON BONK (608) 261-0261
MICHAEL ARNOLD (414) 559-9885

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

WISCONSIN MICHAEL J. ARNOLD E-41717 NEW BERLIN, WI 08/24/2022 PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED SDR 11/08/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

MONOTUBE AND 2-CHORD TRUSS PLANS

STH 36 (LOOMIS ROAD) OVER IH-41/43/894

COUNTY: MILWAUKEE
~~TOWN/CITY/VILLAGE~~: GREENFIELD

DESIGN SPEC.: AASHTO LRFD LTS-1 W/INTERIMS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
BOS	BOS	GTS	MJA

GENERAL NOTES & DESIGN DATA

SHEET 1 OF 8

509

I.D. 1100-46-71 DATE: 08 2022

SCALE = 0.50

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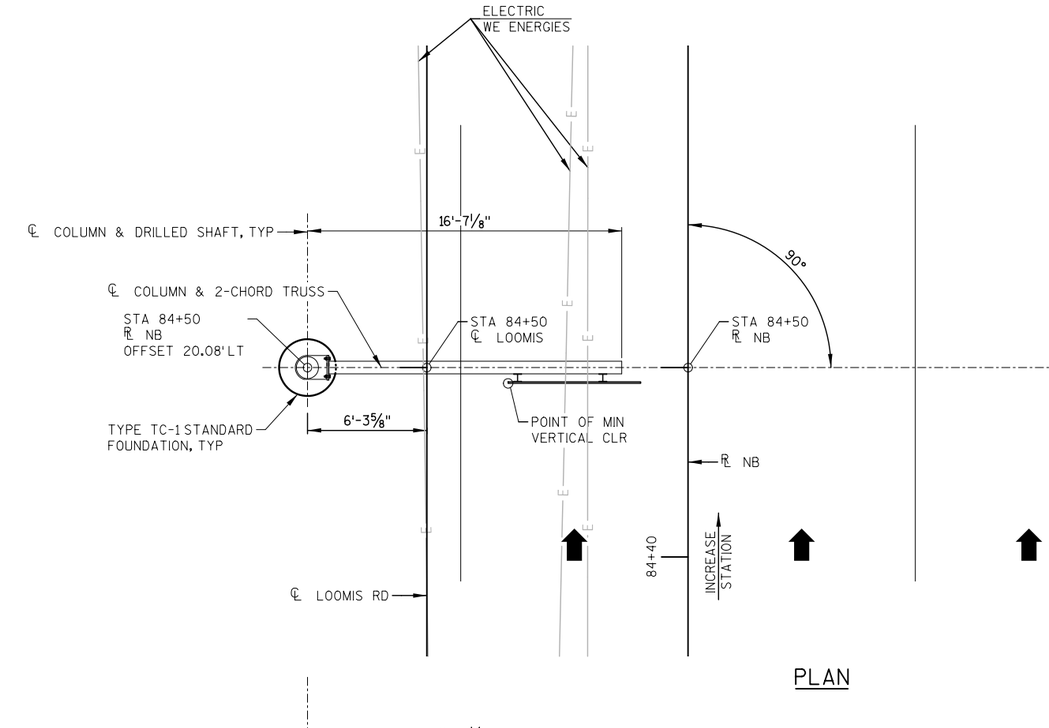
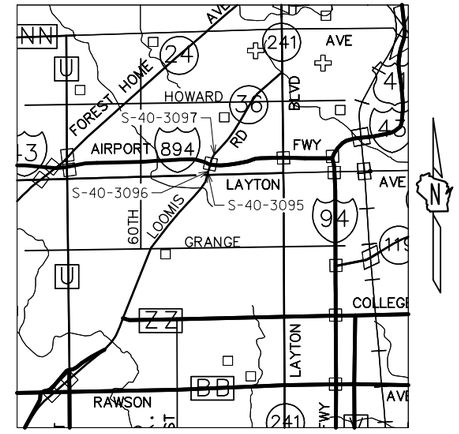
STATE PROJECT NUMBER

1100-46-71



PLAN



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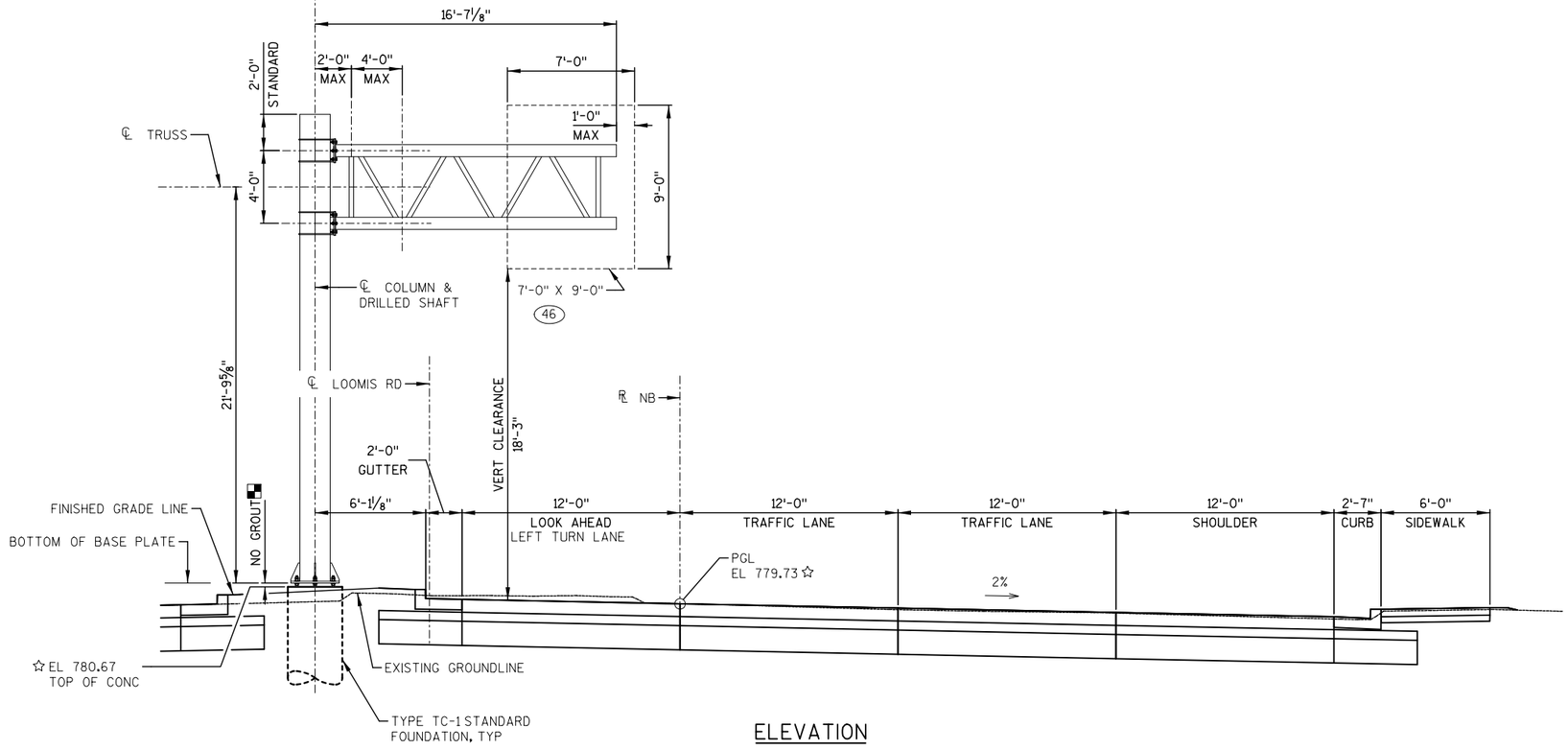

ELEVATION

STA 84+50'NB'
(LOOKING UPSTATION AT FRONT OF SIGN)

NOTE

POINT OF MIN VERTICAL CLEARANCE
STA 84+50'NB', 9.50'LEFT
EL 779.92 ☆

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-40-3095

DRAWN BY GTS | PLANS CK'D. MJA

GENERAL LAYOUT
S-40-3095

SHEET 2 OF 8
510

8

8

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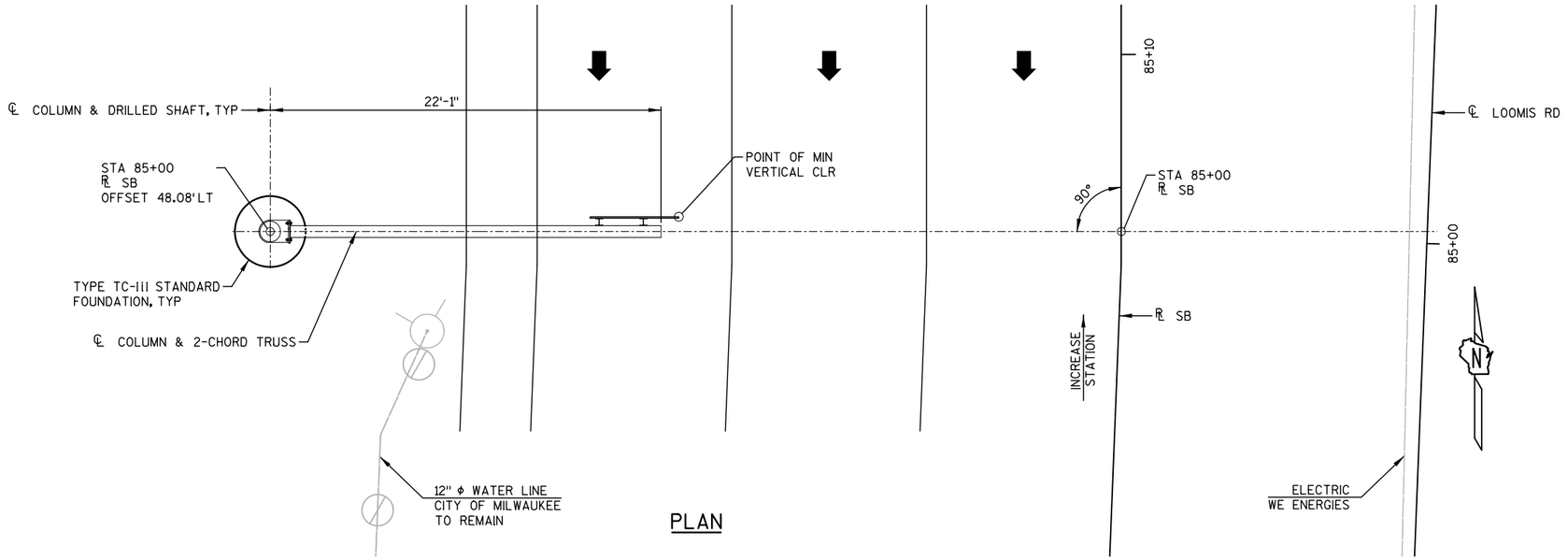
STATE PROJECT NUMBER

1100-46-71



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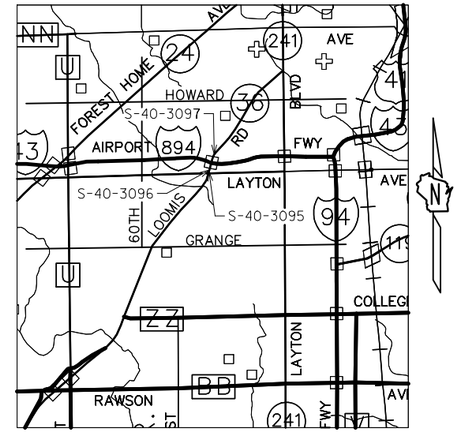

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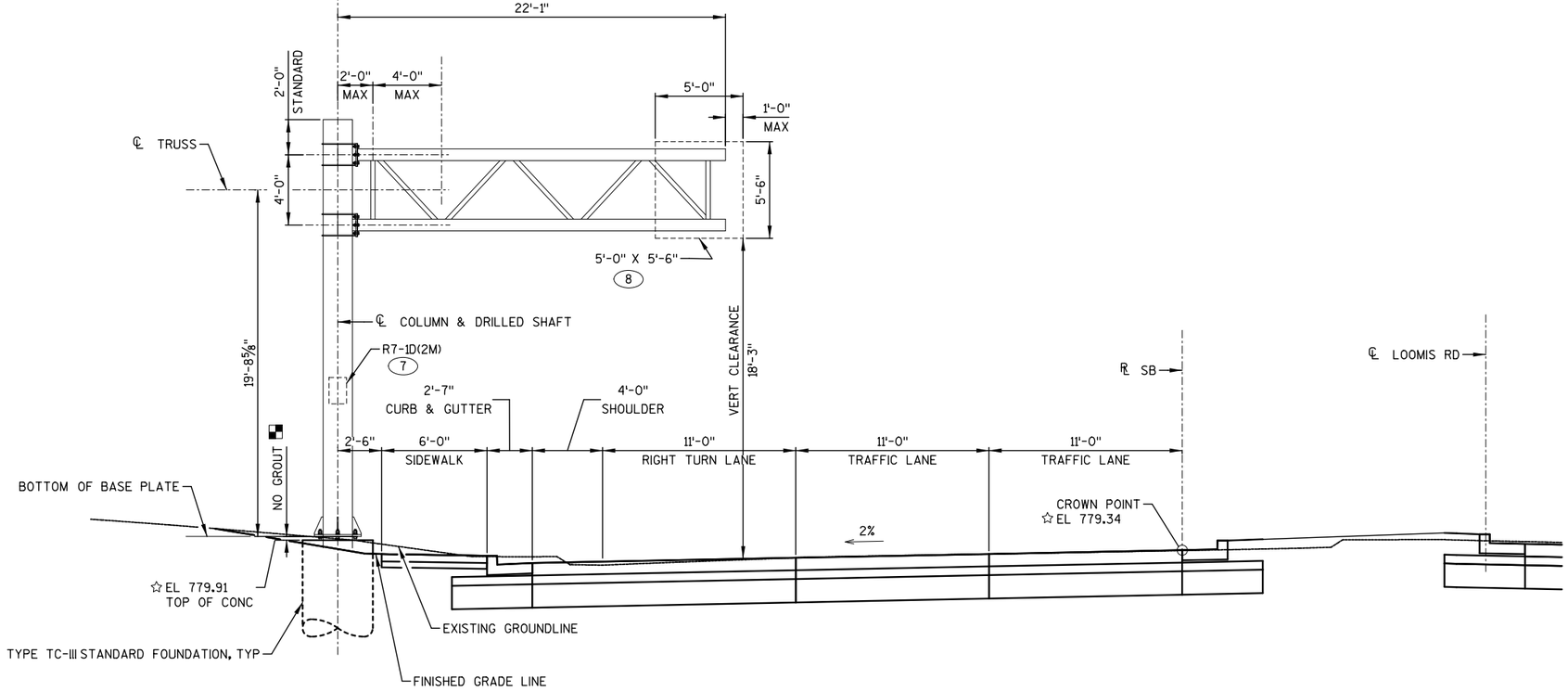

ELEVATION

STA 85+00'SB'
(LOOKING UPSTATION AT BACK OF SIGN)

NOTE

POINT OF MIN VERTICAL CLEARANCE
STA 85+00'SB', 25.00' LEFT
EL 778.84 ☆

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-40-3096

DRAWN BY GTS | PLANS CK'D. MJA

GENERAL LAYOUT
S-40-3096

SHEET 3 OF 8
511

8

8

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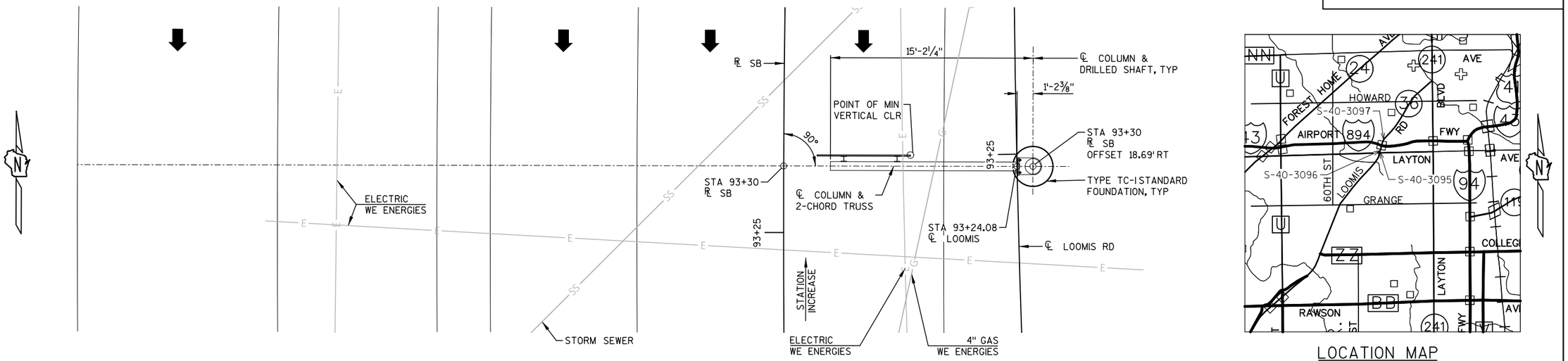
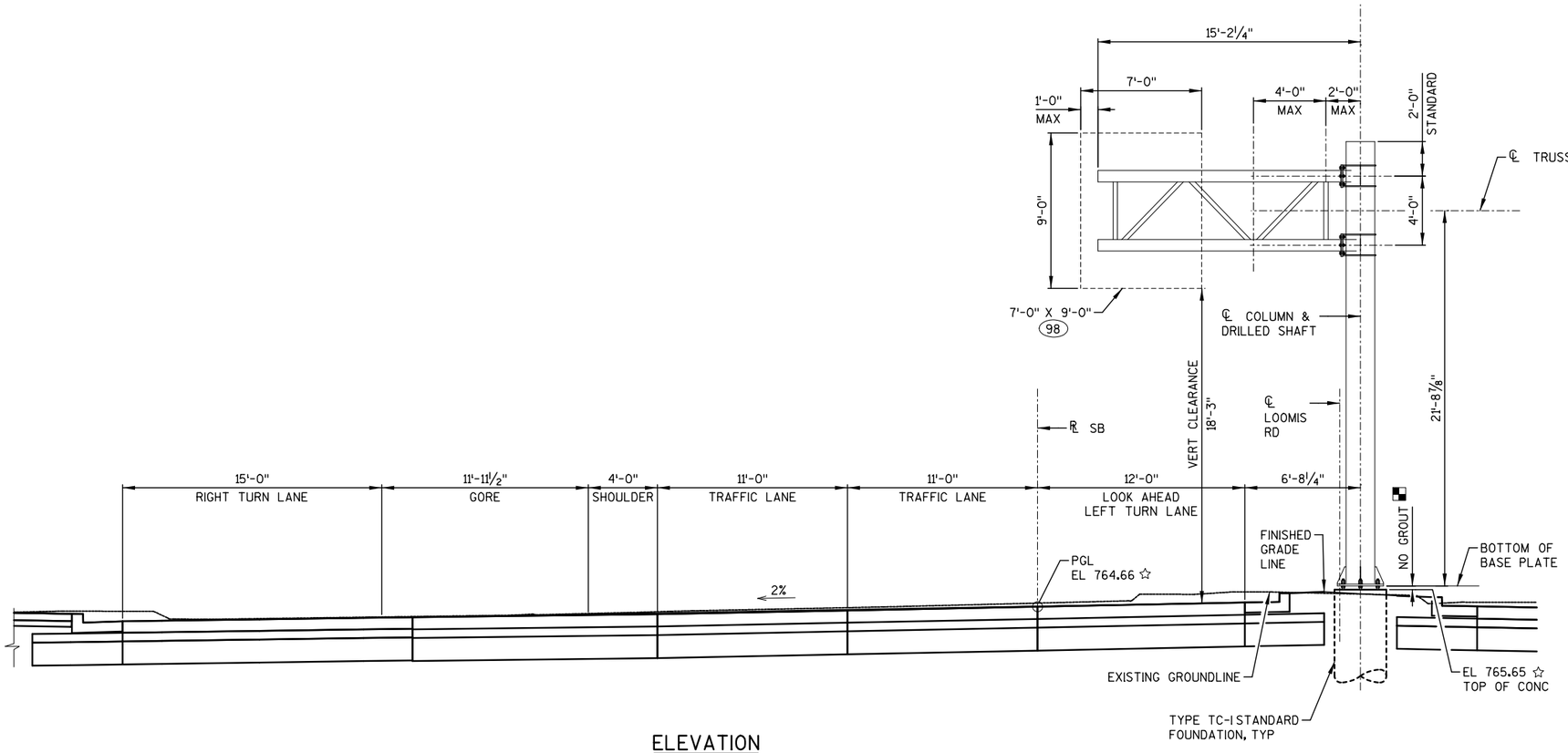
STATE PROJECT NUMBER

1100-46-71



PLAN

LOCATION MAP



ELEVATION

STA 93+30'SB'
(LOOKING UPSTATION AT BACK OF SIGN)

NOTE

POINT OF MIN VERTICAL CLEARANCE
STA 93+30'SB', 9.5'RIGHT
EL 764.85 ☆

LEGEND

☆ ELEVATIONS GIVEN ALONG ℄ 2-CHORD TRUSS

(XXX) SIGN NUMBERS (PERMANENT SIGNING PLAN)

■ STANDOFF DIMENSION IS ASSUMED TO BE 2½", BUT IS A MAXIMUM OF 2 X ANCHOR ROD DIAMETER. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE S-40-3097

DRAWN BY GTS | PLANS CK'D. MJA

GENERAL LAYOUT
S-40-3097

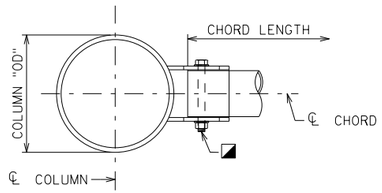
SHEET 4 OF 8
512

8

8

STATE PROJECT NUMBER

STANDARD



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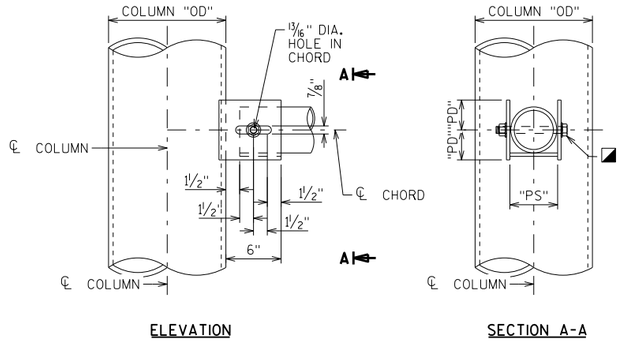


ELEVATION SECTION A-A

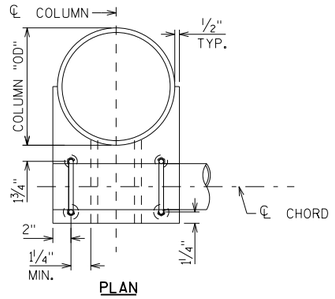
FULL SPAN SADDLE CONNECTION

PREFERRED

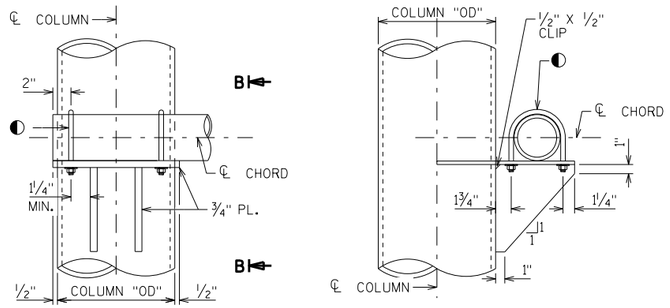
¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT, WASHER

"PD" = (CHORD "OD")/2 + ¾"

"PS" = CHORD "OD" + 3/16"



PLAN

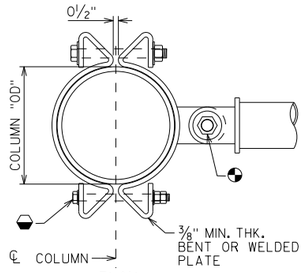


ELEVATION SECTION B-B

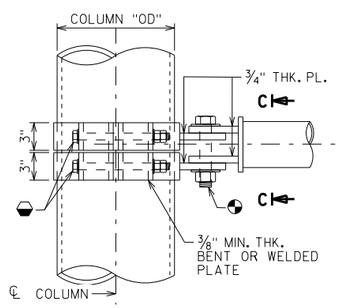
FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

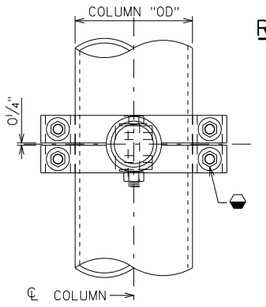
◐ (2) - ½" MIN. GALVANIZED U-BOLT, NUT, WASHER AND LOCK WASHER



PLAN



ELEVATION



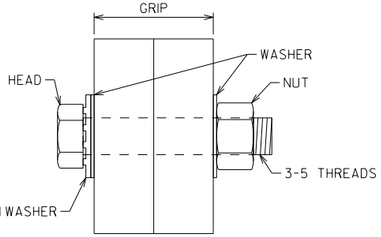
SECTION C-C

FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

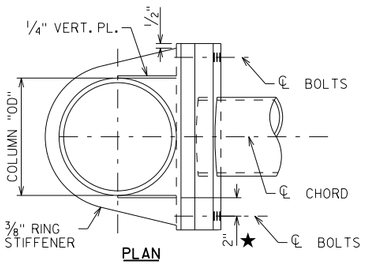
◔ 1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

⬣ 1" GALVANIZED A449 HEAVY HEX BOLT, NUT AND WASHER

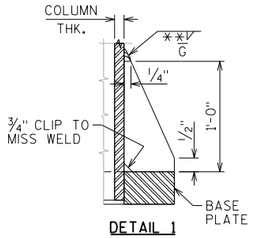


RECOMMENDED BOLT DETAIL WITH DTI

NUT IS THE TURNED ELEMENT

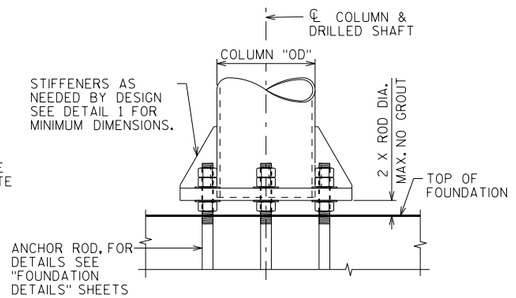


PLAN



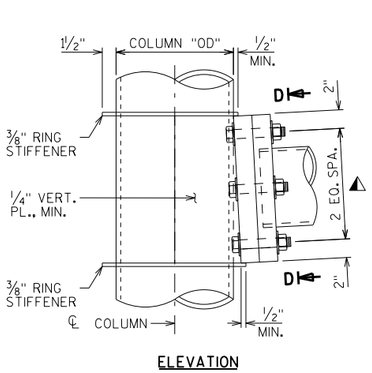
DETAIL 1

** SIZE AS NEEDED

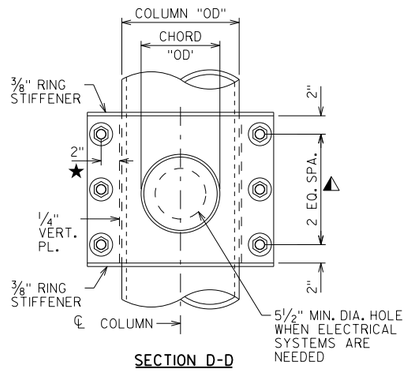


BASE PLATE & COLUMN DETAIL

LOOKING AT FRONT FACE OF STRUCTURE



ELEVATION

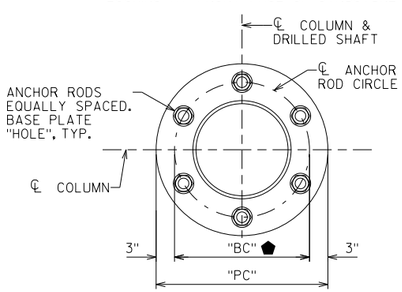


SECTION D-D

CANTILEVER POST TO CHORD CONNECTION

◭ MIN. CONNECTION = (6) - 1" GALVANIZED F3125 GRADE A325 BOLTS, NUT, WASHER AND DTI

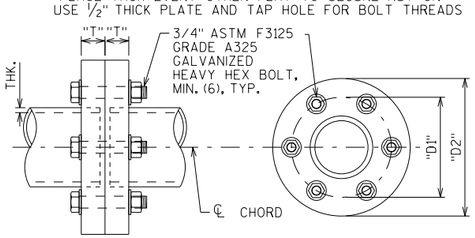
★ MIN. DIMENSION MEASURED FROM EXT. FACE OF VERT. PLATE



BASE PLATE

PLAN

⬟ "BC" = POLE OD + 6"

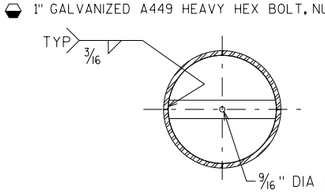


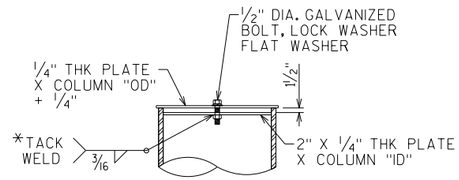
CHORD SPLICE DETAIL

"D1" = CHORD "OD" + 3"

"D2" = CHORD "OD" + 6"

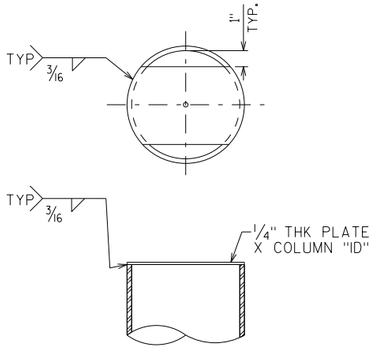
"T" = BY DESIGN





COLUMN/CHORD CAP DETAIL

* PLACE TACK EVERY OTHER FLAT TO SECURE NUT OR USE ½" THICK PLATE AND TAP HOLE FOR BOLT THREADS



CHORD CAP DETAIL

NOTES:

MINIMUM VALUES SHOWN

ALL CONNETIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURE LOADS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

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MONOTUBE & 2-CHORD TRUSS DETAILS 1

SHEET 1 OF IV

513

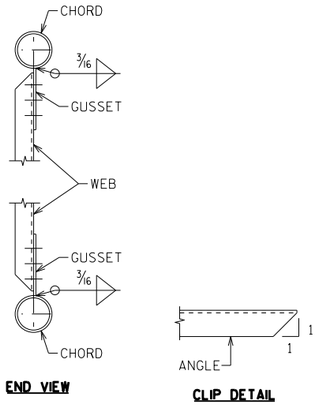
8

8

SCALE = 1.00

STATE PROJECT NUMBER

STANDARD

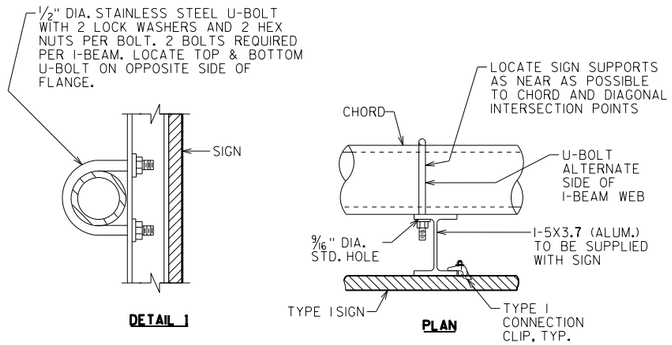


END VIEW

CLIP DETAIL

TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR



DETAIL 1

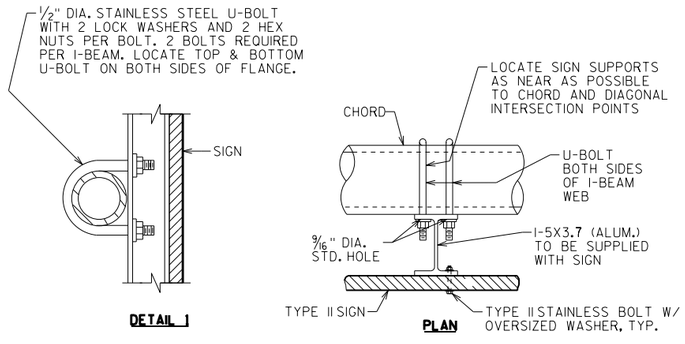
PLAN

2-CHORD TRUSS SIGN CONNECTION

SEE SIGN PLATE MANUAL A4-7A FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



DETAIL 1

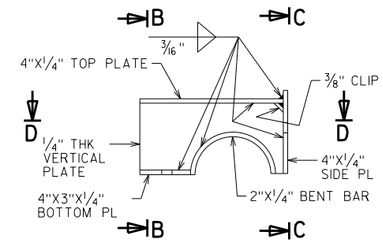
PLAN

MONOTUBE SIGN CONNECTION

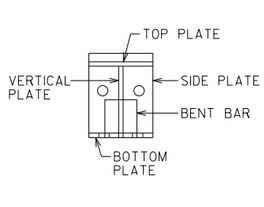
SEE SIGN PLATE MANUAL A4-7B FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

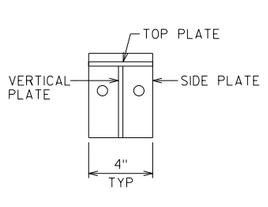
HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



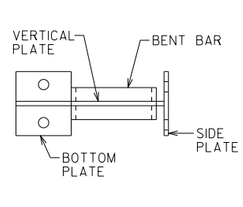
ELEVATION



SECTION B-B



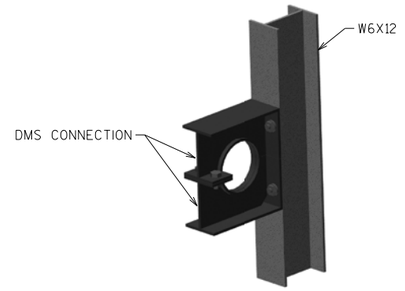
SECTION C-C



SECTION D-D

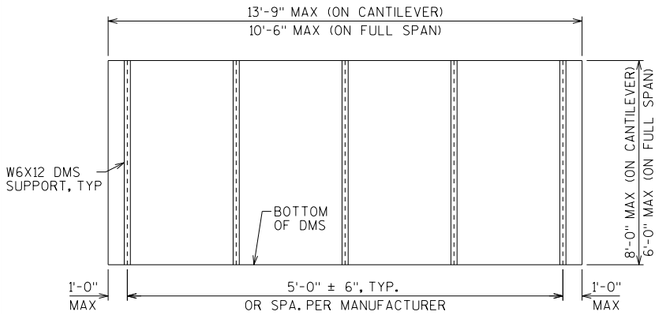
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



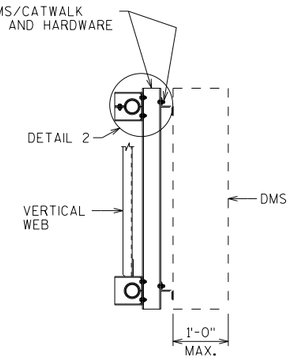
3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY



DMS MOUNTING POST SPACING DETAIL

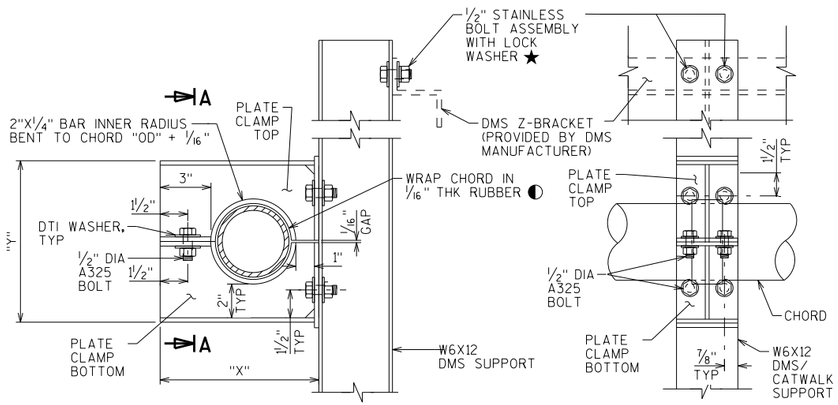
POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.



DETAIL 2

SECTION A-A

CHORD OUTER DIA	"X"	"Y"
"OD"	"OD"+4 13/16"	"OD"+5 1/16"

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

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MONOTUBE & 2-CHORD TRUSS DETAILS 2

SHEET II OF IV

514

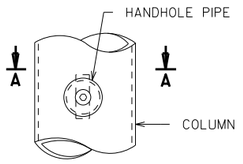
SCALE = 2.00

8

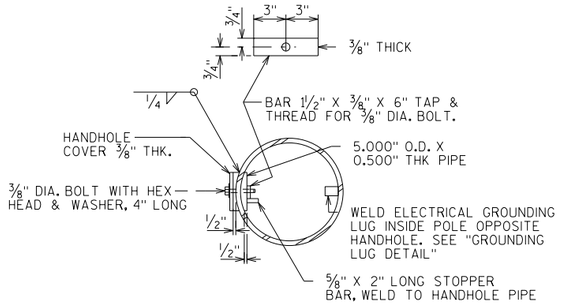
8

STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

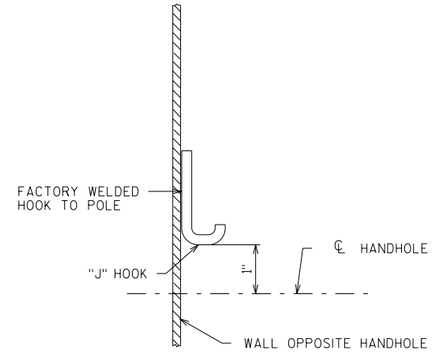


SECTION A-A

HANDHOLE NOTES

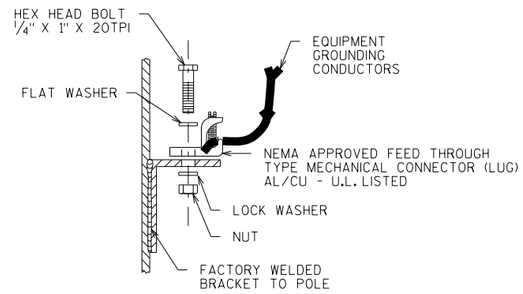
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



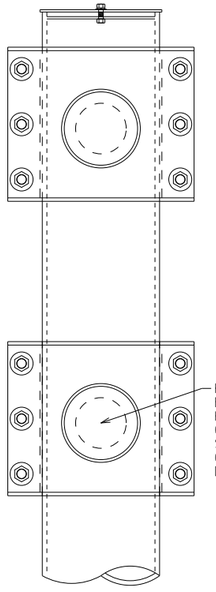
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

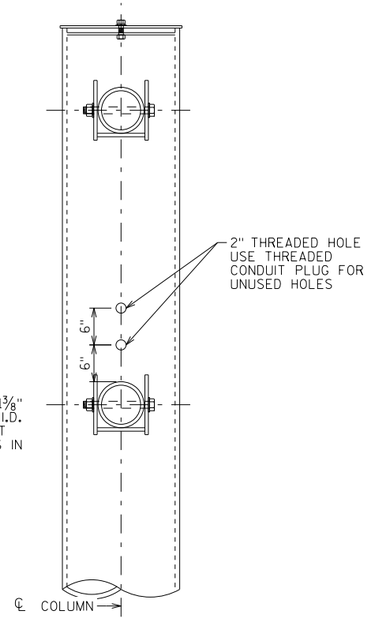


GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



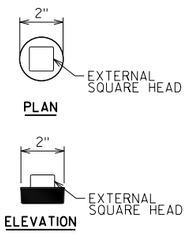
2-CHORD CANTILEVER



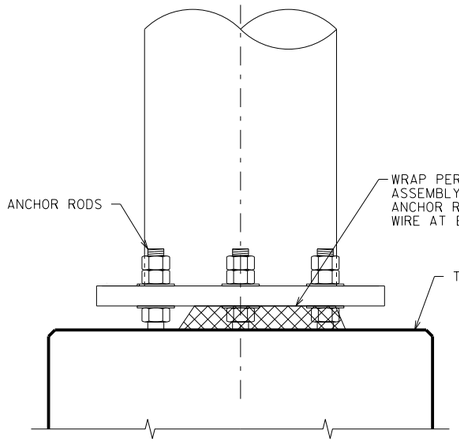
2-CHORD FULL SPAN

SADDLE CONNECTIONS SHOWN, BEARING AND CLAMP CONNECTIONS SIMILAR

CONDUIT HOLE LOCATIONS



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

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MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III OF IV

515

SCALE = 1.00

8

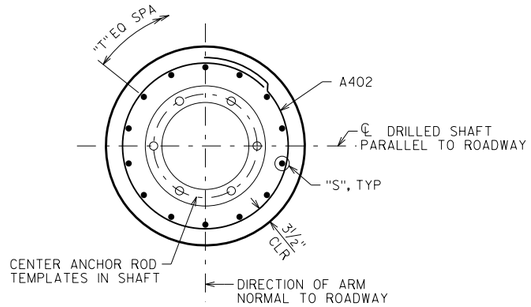
8

STATE PROJECT NUMBER

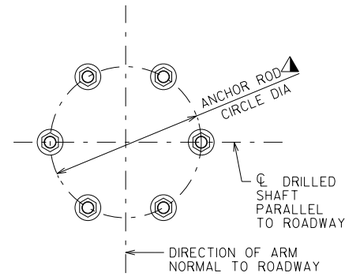
STANDARD

FOUNDATION & REINFORCING DATA

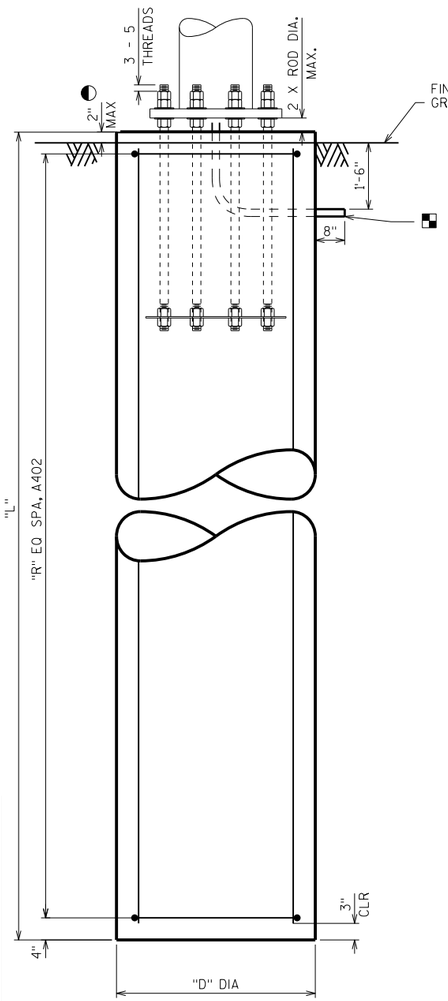
STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
MFI	2'-0"	12'-0"	12	A801	6	12"
MFII	2'-6"	13'-0"	13	A801	10	17"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	17"
TCI	3'-0"	18'-0"	18	A801	14	22"
TFII	3'-0"	20'-0"	20	A801	14	22"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	28"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	28"
TCIII	4'-0"	23'-0"	23	A1001	14	34"
TCIV	4'-0"	28'-0"	28	A1001	14	34"



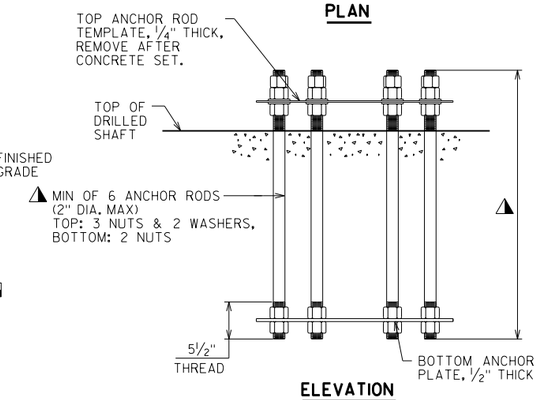
PLAN



PLAN



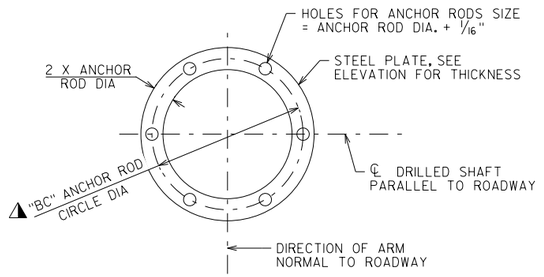
ELEVATION



ELEVATION

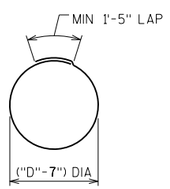
ANCHOR ROD ASSEMBLY DETAILS

△ ANCHOR ROD NUMBER, DIAMETER, LENGTH & ORIENTATION AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN



A402

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD FOUNDATIONS

STANDARD FOUNDATION MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-7"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-7"			DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-7"			DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-7"			DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-7"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)				
			24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
MFI	2	240	12				
MFII	3	410		13			
MCI/MCII/TFI	4	540		17			
TCI	5	780			18		
TFII	6	860			20		
MCIII/TCII/TFIII	7	970				18	
MCIV/TFIV	9	1,250				23	
TCIII	11	1,560					23
TCIV	13	1,900					28

✳✳ QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

◐ FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

◪ 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV OF IV

516

SCALE = 1.67

8

8

STH 36 (LOOMIS ROAD) NB - SOUTH OF B-40-1025

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
83+00'NB'		122.62	0.00	0	0	0	0	0
83+50'NB'	50	139.60	0.00	243	0	243	0	243
84+00'NB'	50	152.23	0.05	270	0	513	0	513
84+50'NB'	50	149.89	3.13	280	3	793	4	789
85+00'NB'	50	146.82	4.18	275	7	1,067	12	1,055
85+50'NB'	50	94.13	8.23	223	11	1,291	27	1,264
86+00'NB'	50	104.76	17.58	184	24	1,475	56	1,418
86+33'NB'	33	88.63	38.00	116	33	1,591	98	1,493
86+50'NB'	18	92.47	13.63	59	17	1,650	119	1,531
				1,650	95			

STH 36 (LOOMIS ROAD) NB - SOUTH OF B-40-1025 - C/L ALIGNMENT

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
86+50		80.58	46.16	0	0	0	0	0
87+00	50	61.38	0.00	131	43	131	53	78
87+39	39	23.63	84.14	61	61	193	129	46
				193	103			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STH 36 (LOOMIS ROAD) SB - SOUTH OF B-40-1025

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
83+00'SB'		167.52	0.00	0	0	0	0	0
83+50'SB'	50	161.67	0.00	305	0	305	0	305
84+00'SB'	50	160.75	0.00	299	0	603	0	603
84+50'SB'	50	140.28	0.00	279	0	882	0	882
85+00'SB'	50	126.23	0.00	247	0	1,129	0	1,129
85+50'SB'	50	121.00	0.00	229	0	1,358	0	1,358
86+00'SB'	50	102.07	0.36	207	0	1,564	0	1,564
86+33'SB'	33	88.73	1.81	115	1	1,679	2	1,677
86+50'SB'	18	126.36	7.91	70	3	1,749	6	1,743
				1,749	5			

STH 36 (LOOMIS ROAD) SB - SOUTH OF B-40-1025 - C/L ALIGNMENT

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
86+50		126.36	7.07	0	0	0	0	0
87+00	50	120.57	0.88	229	7	229	9	219
87+39	39	19.53	93.58	101	68	330	94	235
				330	76			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

RAMP A1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
10+96'LRA1'		30.87	23.27	0	0	0	0	0
11+00'LRA1'	4	30.98	17.97	5	3	5	4	1
11+50'LRA1'	50	38.98	1.89	65	18	70	27	43
12+00'LRA1'	50	103.84	0.76	132	2	202	30	172
12+50'LRA1'	50	106.89	0.18	195	1	397	31	366
				397	25			

RAMP A

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
228+42'LRA'		41.44	0.00	0	0	0	0	0
228+50'LRA'	8	40.74	2.46	12	0	12	0	12
229+00'LRA'	50	40.99	0.00	76	2	88	3	84
229+40'LRA'	40	42.52	2.98	62	2	150	6	144
229+50'LRA'	10	39.87	3.20	15	1	165	7	157
230+00'LRA'	50	31.45	4.29	66	7	231	16	215
230+38'LRA'	38	44.91	4.21	54	6	285	24	261
230+47'LRA'	8	50.87	1.58	15	1	300	25	275
				300	20			

RAMP B

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
226+70'LRB'		107.12	0.54	0	0	0	0	0
227+00'LRB'	30	103.21	0.90	118	1	118	1	117
227+50'LRB'	50	86.18	1.97	175	3	293	4	289
227+98'LRB'	48	63.43	6.64	132	8	426	14	412
				426	11			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STH 36 (LOOMIS ROAD) NB - NORTH OF B-40-1025 (STA. 89+81'NB' TO STA. 96+00'NB')

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
89+81'NB'		20.60	148.44	0	0	0	0	0
90+50'NB'	69	71.97	15.58	117	208	117	260	-143
91+00'NB'	50	101.25	11.68	160	25	278	292	-14
91+50'NB'	50	138.40	8.58	222	19	500	315	185
92+00'NB'	50	180.81	0.00	296	8	795	325	470
92+50'NB'	50	118.77	7.01	277	6	1,073	333	739
93+00'NB'	50	154.75	1.37	253	8	1,326	343	983
93+50'NB'	50	185.49	0.81	315	2	1,641	345	1,296
94+00'NB'	50	195.25	0.00	353	1	1,994	346	1,647
94+50'NB'	50	186.52	0.00	353	0	2,347	346	2,001
95+00'NB'	50	191.15	0.00	350	0	2,697	346	2,350
95+50'NB'	50	193.74	0.00	356	0	3,053	346	2,707
96+00'NB'	41	318.82	0.00	390	0	3,444	346	3,097
				3,444	277			

STH 36 (LOOMIS ROAD) NB - NORTH OF B-40-1025 (STA. 96+00'NB' TO STA. 98+76'NB')

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
96+00'NB'		318.82	0.00	0	0	0	0	0
96+50'NB'	50	309.98	0.00	582	0	582	0	582
97+00'NB'	50	106.02	0.87	385	1	967	1	966
97+08'NB'	8	105.33	1.70	33	0	1,000	2	999
97+08'NB'	0	7.94	1.70	0	0	1,000	2	999
97+50'NB'	42	17.61	0.01	20	1	1,020	3	1,017
98+00'NB'	50	20.28	0.00	35	0	1,055	3	1,052
98+50'NB'	50	29.06	0.00	46	0	1,101	3	1,097
98+76'NB'	26	16.49	0.07	22	0	1,122	3	1,119
				1,122	3			

NOTES:

(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) UNEXPANDED FILL VOLUME

(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STH 36 (LOOMIS ROAD) SB - NORTH OF B-40-1025 (STA. 89+81'SB' TO STA. 96+00'SB')

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
89+81'SB'		14.87	156.72	0	0	0	0	0
90+00'SB'	19	37.20	15.41	18	59	18	74	-56
90+50'SB'	50	43.33	0.00	75	14	92	92	1
91+00'SB'	50	76.39	8.70	111	8	203	102	102
91+50'SB'	50	101.33	18.80	165	25	368	134	234
92+00'SB'	50	119.19	0.00	204	17	572	155	417
92+50'SB'	50	208.30	0.00	303	0	875	155	720
93+00'SB'	50	146.53	0.00	329	0	1,204	155	1,048
93+50'SB'	50	125.62	0.00	252	0	1,456	155	1,300
94+00'SB'	50	172.64	0.00	276	0	1,732	155	1,577
94+50'SB'	50	154.48	0.00	303	0	2,035	155	1,880
95+00'SB'	50	123.50	0.00	257	0	2,292	155	2,137
95+50'SB'	50	108.46	0.17	215	0	2,507	156	2,352
96+00'SB'	59	150.15	0.00	282	0	2,789	156	2,633
				2,789	125			

STH 36 (LOOMIS ROAD) SB - NORTH OF B-40-1025 (STA. 96+00'SB' TO STA. 99+89'SB')

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
96+00'SB'		151.23	0.00	0	0	0	0	0
96+40'SB'	40	174.73	0.00	243	0	243	0	243
96+50'SB'	10	171.26	0.00	63	0	305	0	305
97+00'SB'	50	147.82	1.12	295	1	601	1	600
97+08'SB'	8	146.93	1.95	46	0	647	2	645
97+08'SB'	0	60.37	2.13	0	0	647	2	645
97+49'SB'	40	58.53	1.30	89	3	735	5	730
97+50'SB'	1	51.53	1.16	6	0	6	0	6
97+81'SB'	31	49.53	0.67	124	1	366	1	365
98+00'SB'	19	46.06	0.83	64	1	370	1	369
98+50'SB'	50	45.54	0.97	140	2	741	4	737
99+00'SB'	50	42.79	0.54	116	2	763	5	758
99+50'SB'	50	26.60	0.16	88	2	735	4	731
99+89'SB'	39	12.68	0.00	60	1	795	6	789
				1,334	13			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

RAMP C1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
12+50'LRC1'		79.95	0.12	0	0	0	0	0
12+81'LRC1'	31	87.65	0.33	97	0	97	0	97
				97	0			

RAMP C

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
229+45'LRC'		53.07	0.49	0	0	0	0	0
229+50'LRC'	5	53.23	0.49	10	0	10	0	10
230+00'LRC'	50	73.90	0.25	118	1	128	1	127
230+41'LRC'	41	74.02	0.25	113	0	241	1	240
230+50'LRC'	9	76.74	0.82	24	0	265	2	151
231+00'LRC'	50	61.02	0.00	128	1	393	3	369
231+38'LRC'	38	70.56	0.00	92	0	485	3	462
				485	2			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

RAMP D

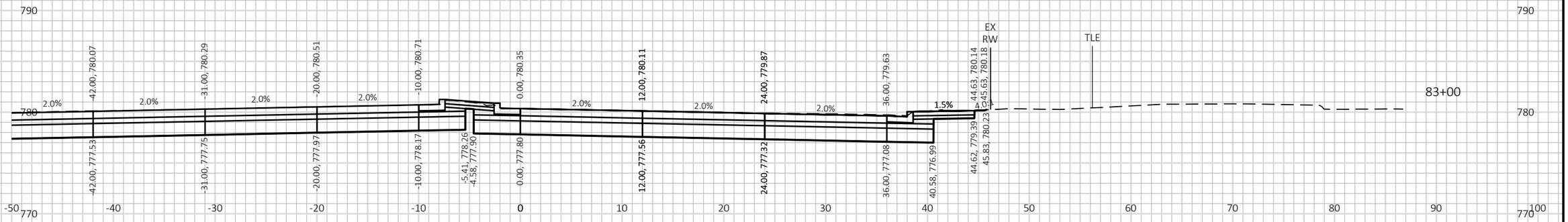
STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
212+98'LRD'		27.23	5.37	0	0	0	0	0
213+00'LRD'	2	27.02	5.74	2	0	2	0	1
213+15'LRD'	15	23.67	8.98	14	4	16	6	10
213+50'LRD'	35	27.46	15.26	33	16	49	25	24
213+77'LRD'	27	48.86	21.49	37	18	86	48	39
214+00'LRD'	23	56.50	14.53	46	16	132	67	65
214+38'LRD'	38	64.54	1.38	85	11	218	81	136
214+50'LRD'	12	66.73	1.21	29	1	246	82	164
214+71'LRD'	21	68.01	1.73	52	1	298	83	215
214+96'LRD'	26	67.03	1.22	64	1	362	85	277
				362	68			

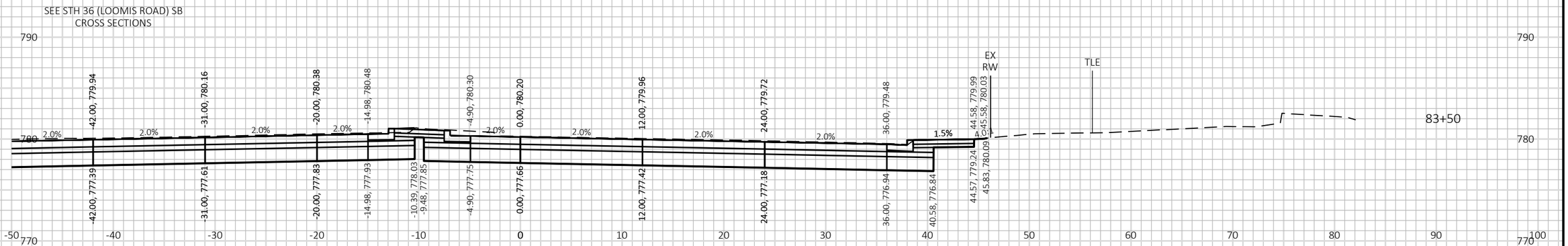
RAMP E

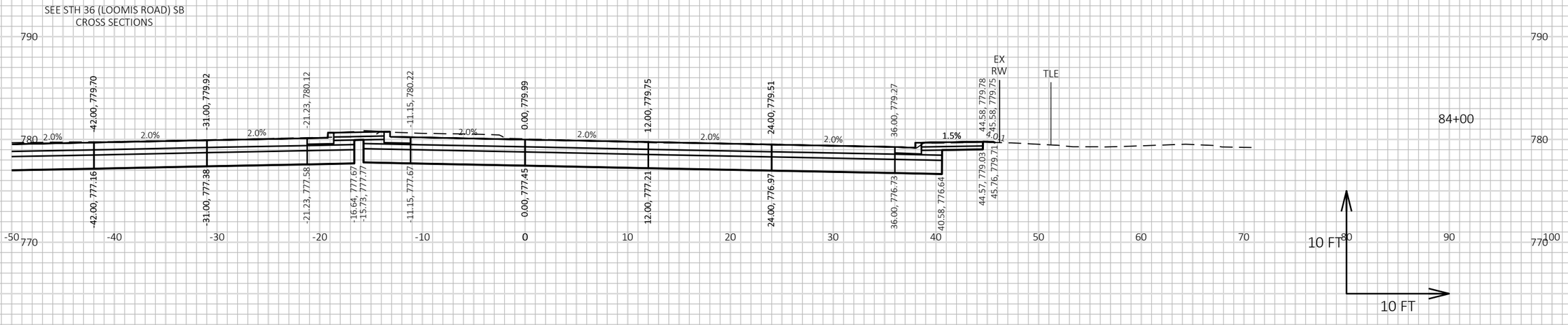
STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut Note 1	Incremental Vol (CY) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Fill 1.25	Mass Ordinate Note 8
230+43'LRE'		68.24	1.98	0	0	0	0	0
230+50'LRE'	7	69.87	1.53	18	0	18	1	17
230+99'LRE'	49	81.60	0.08	137	1	155	2	153
				155	2			

NOTES:
(1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) UNEXPANDED FILL VOLUME
(8) THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 83+00.00'NB'







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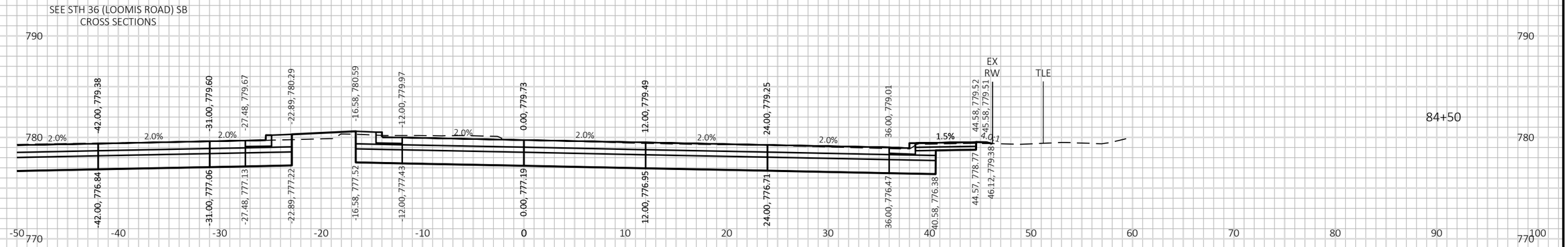
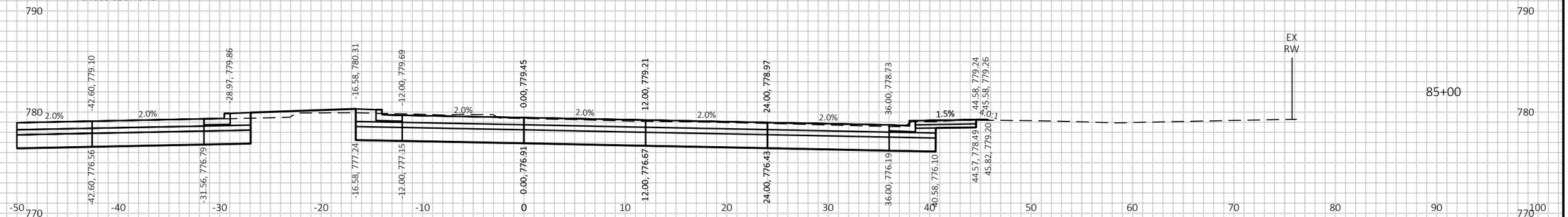
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 524	E

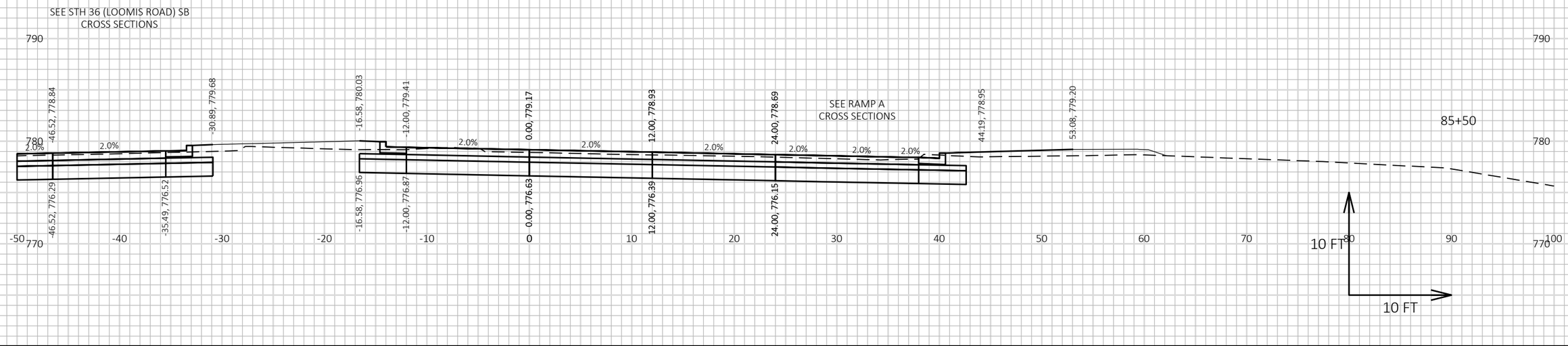
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-South-01

PLOT DATE : 11/15/2022 4:37 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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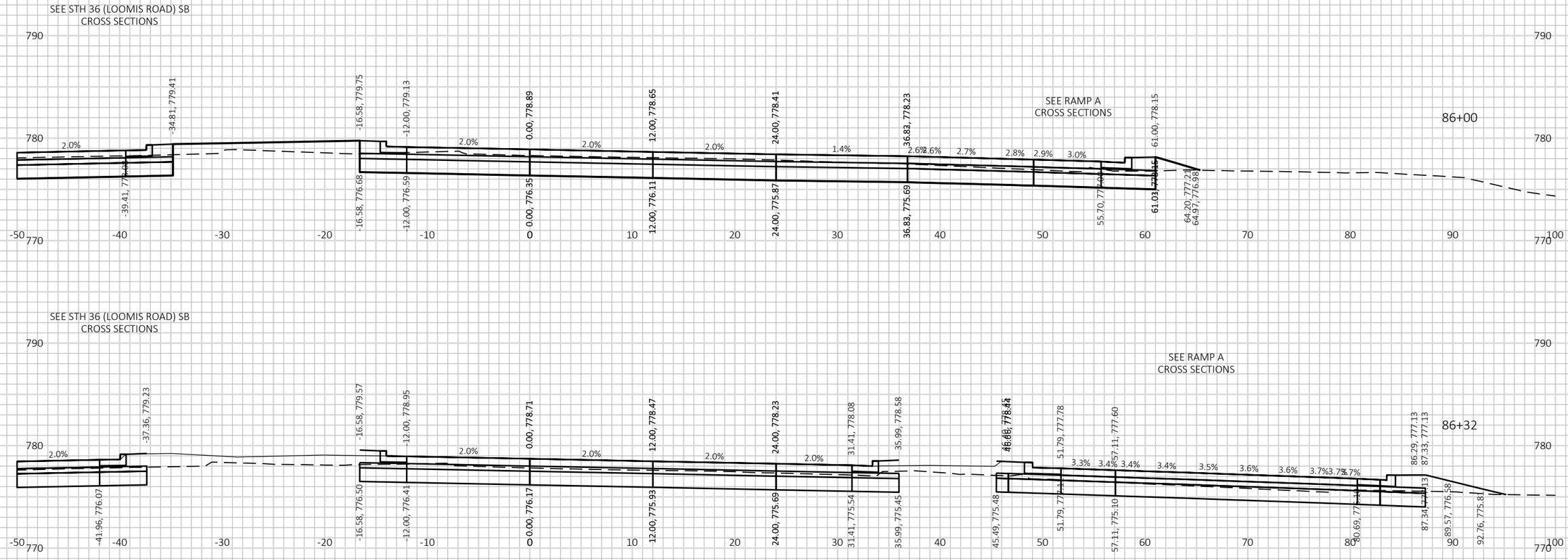
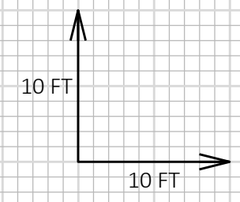
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 525	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-South-02

PLOT DATE : 11/15/2022 4:38 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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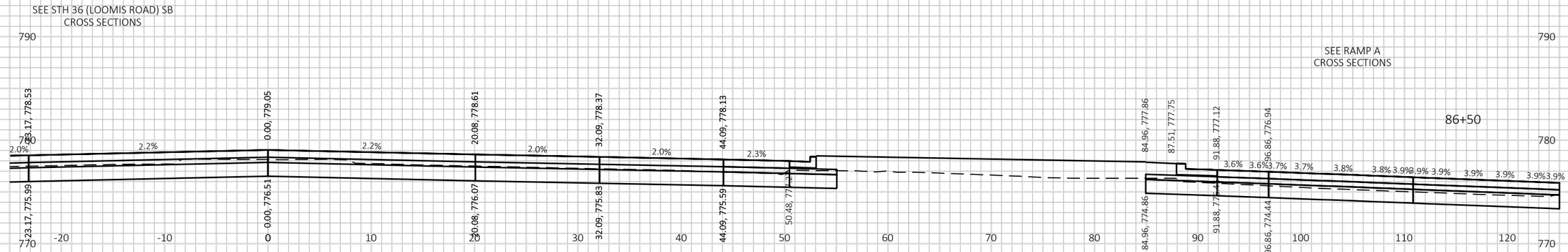
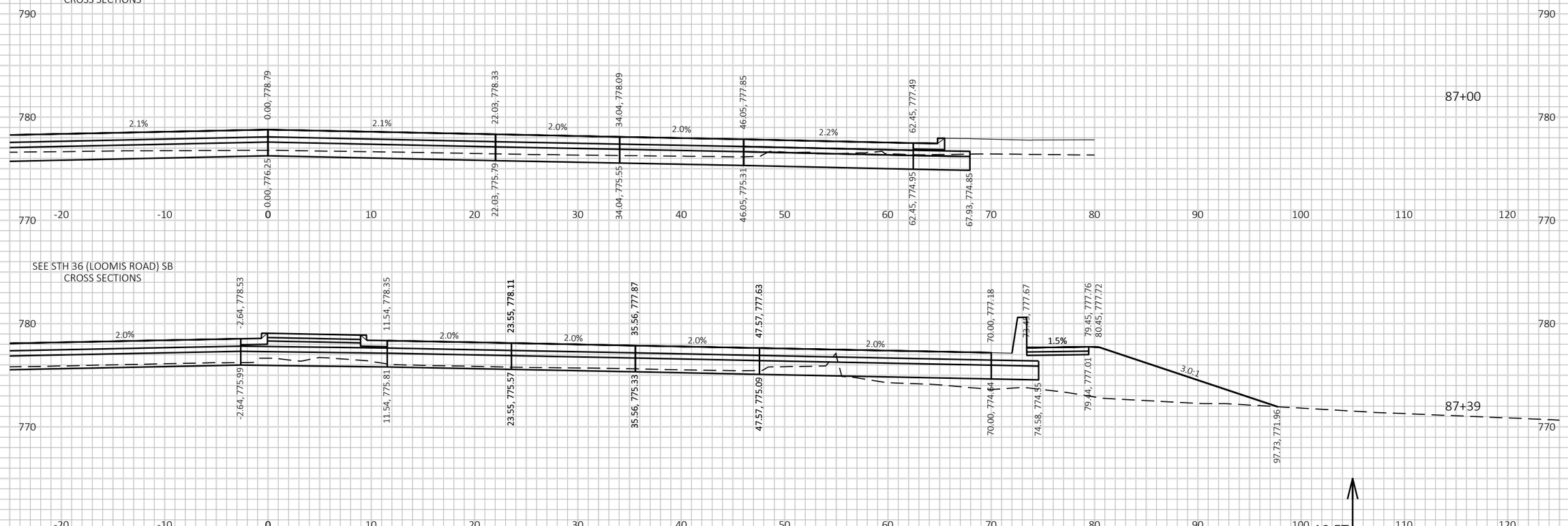
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 526	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-South-03

PLOT DATE : 11/15/2022 4:38 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





BEGIN STRUCTURAL APPROACH SLAB B-40-1025
STA. 87+38.97

9

9

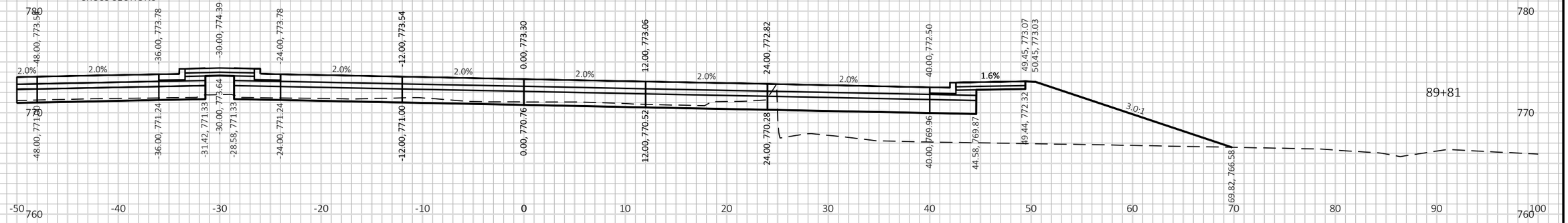
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB - CL ALIGNMENT	SHEET 527	E

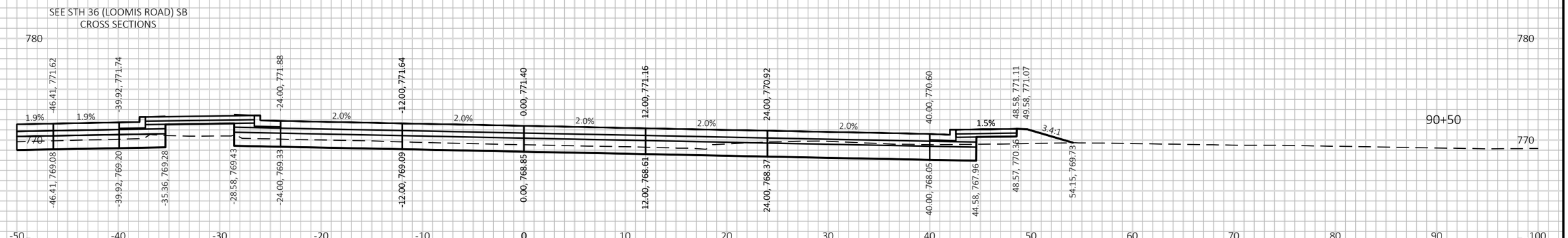
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-South-CL-01

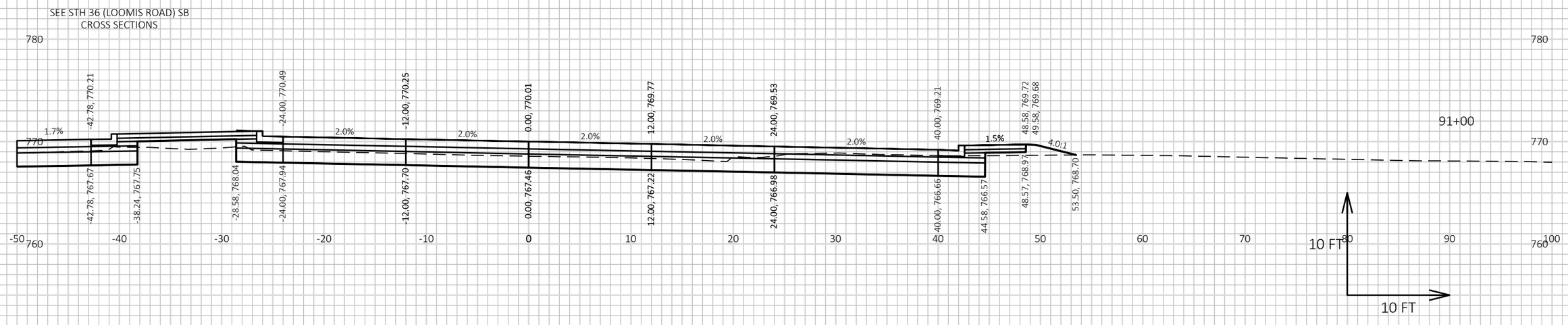
PLOT DATE : 11/15/2022 4:38 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END STRUCTURAL APPROACH SLAB B-40-1025
STA. 89+81.47'NB'







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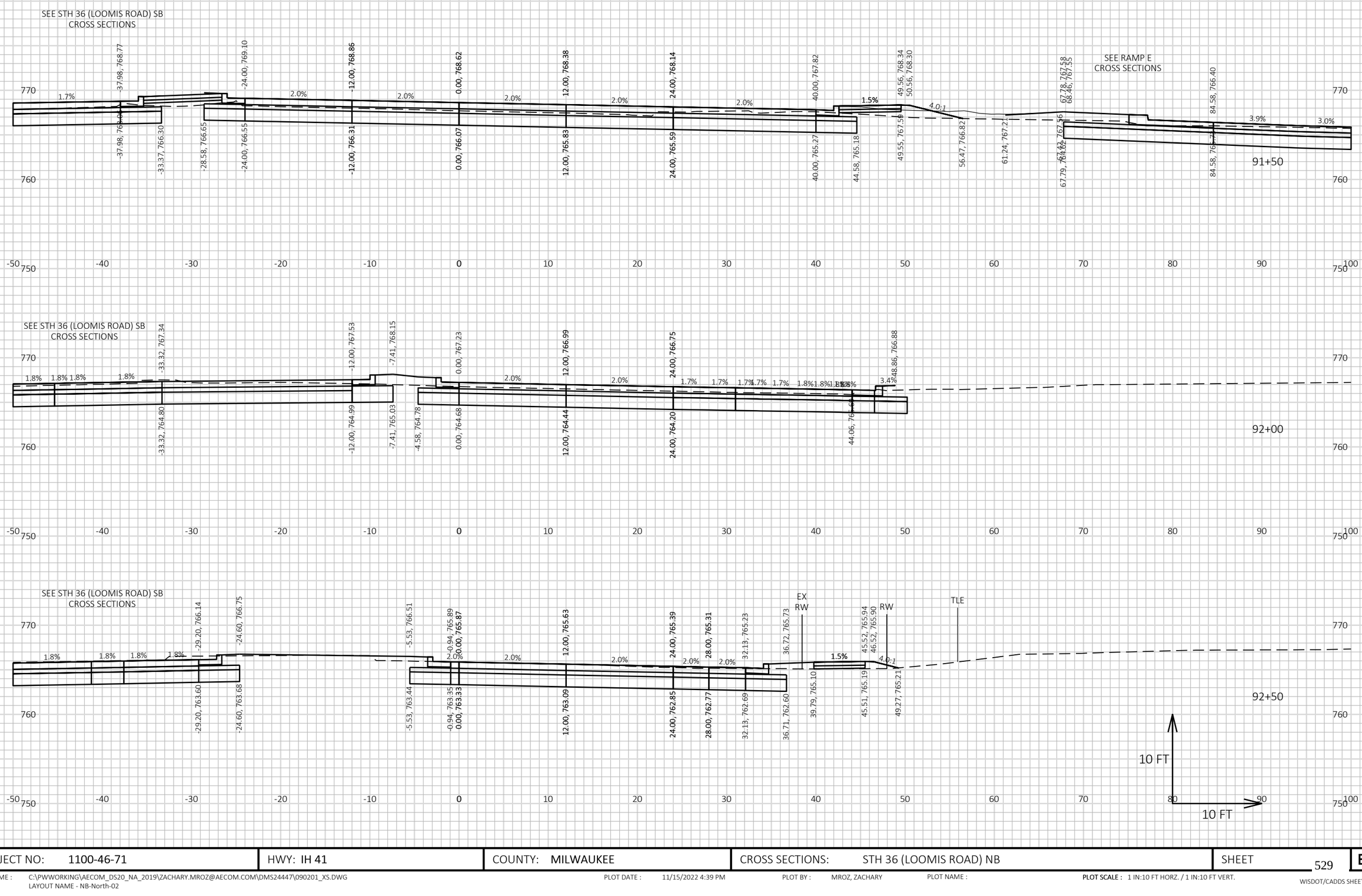
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 528	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-01

PLOT DATE : 11/15/2022 4:38 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



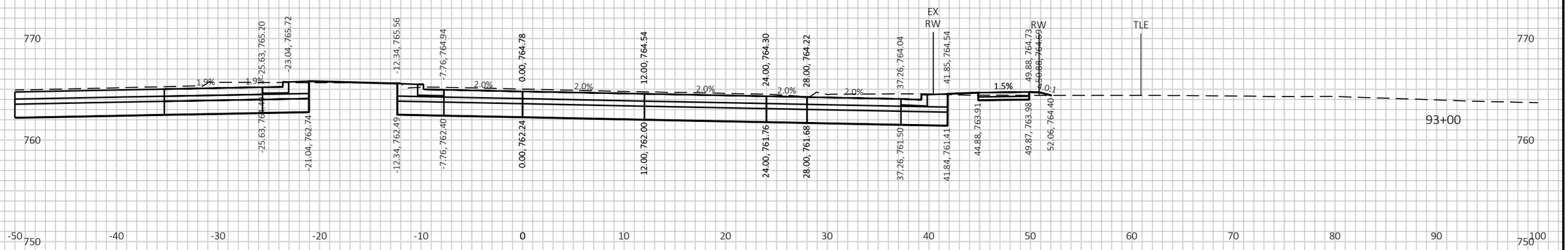
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 529 E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-02

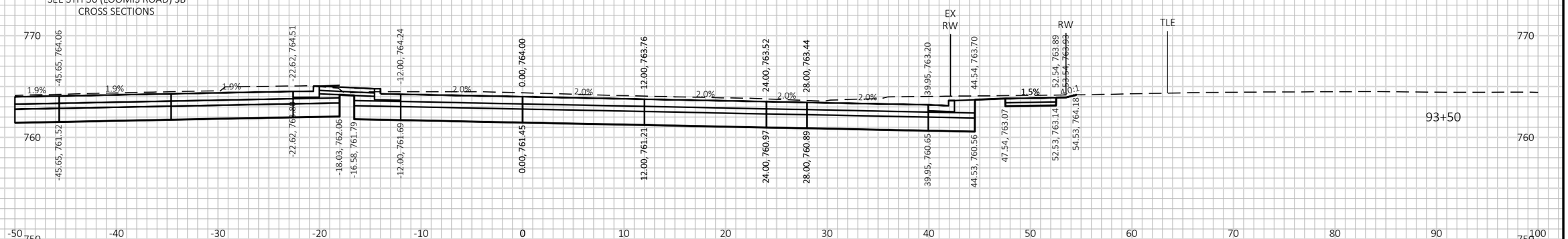
PLOT DATE : 11/15/2022 4:39 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

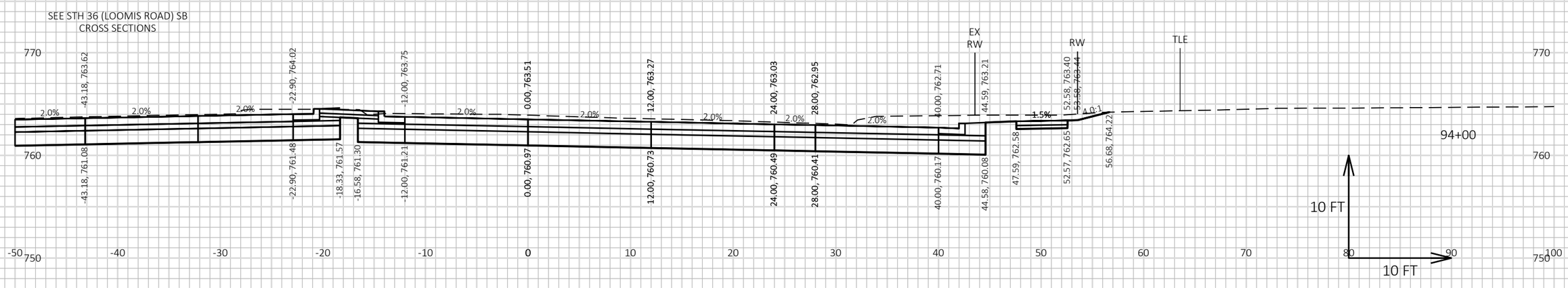
SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



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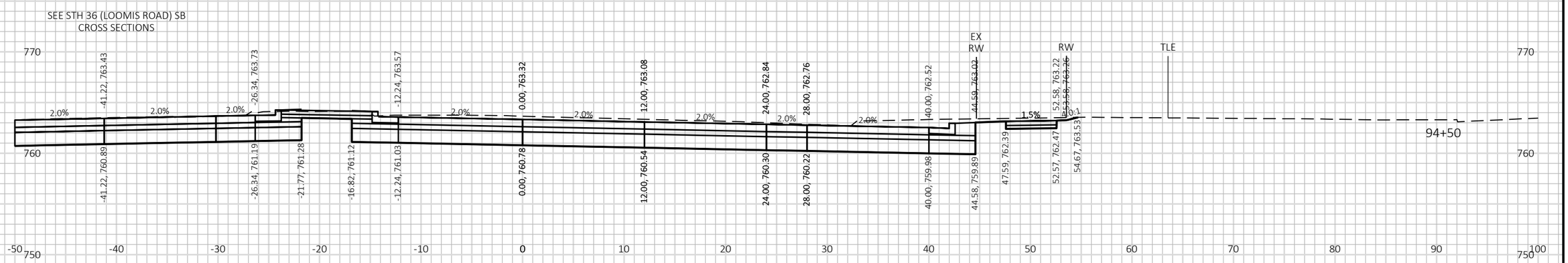
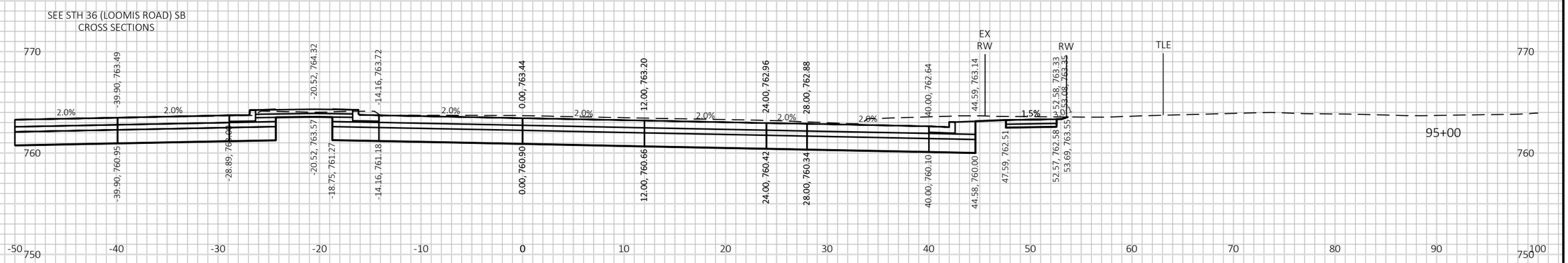
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 530	E

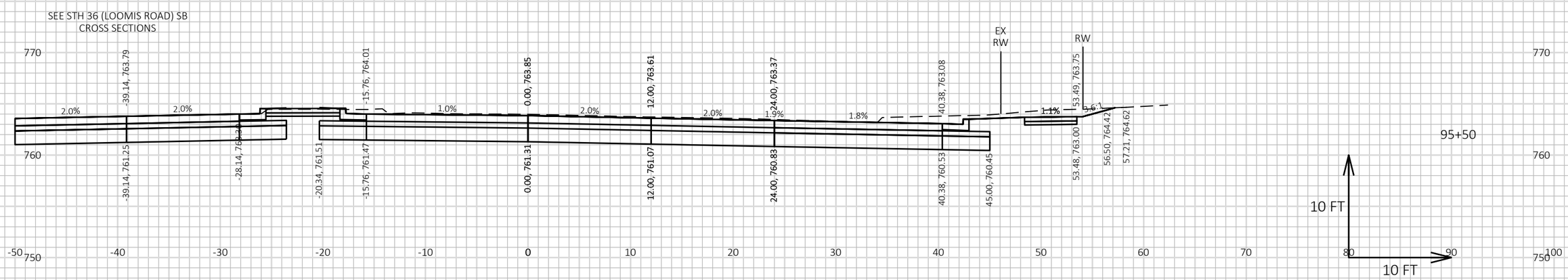
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-03

PLOT DATE : 11/15/2022 4:39 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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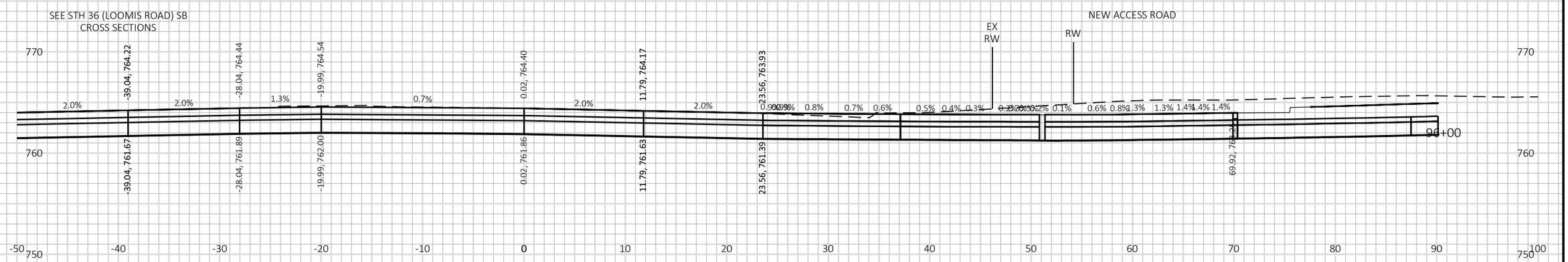
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 531	E

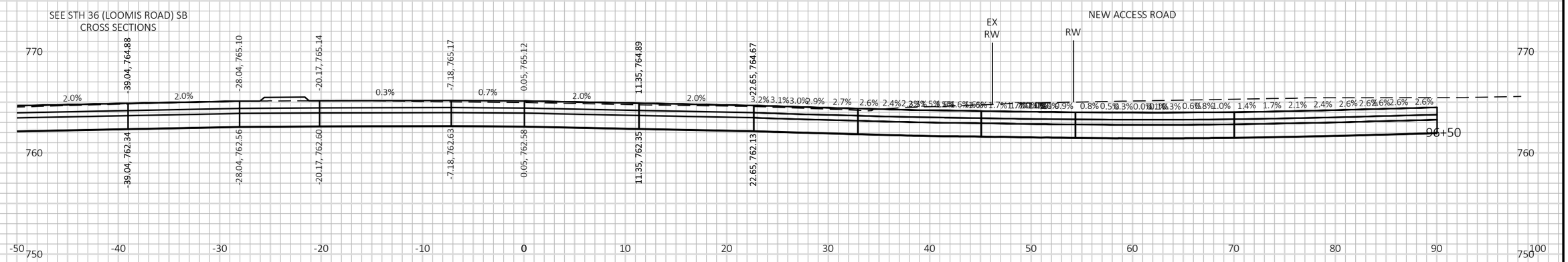
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-04

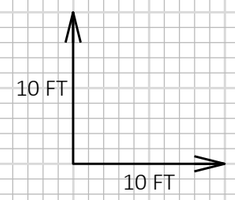
PLOT DATE : 11/15/2022 4:39 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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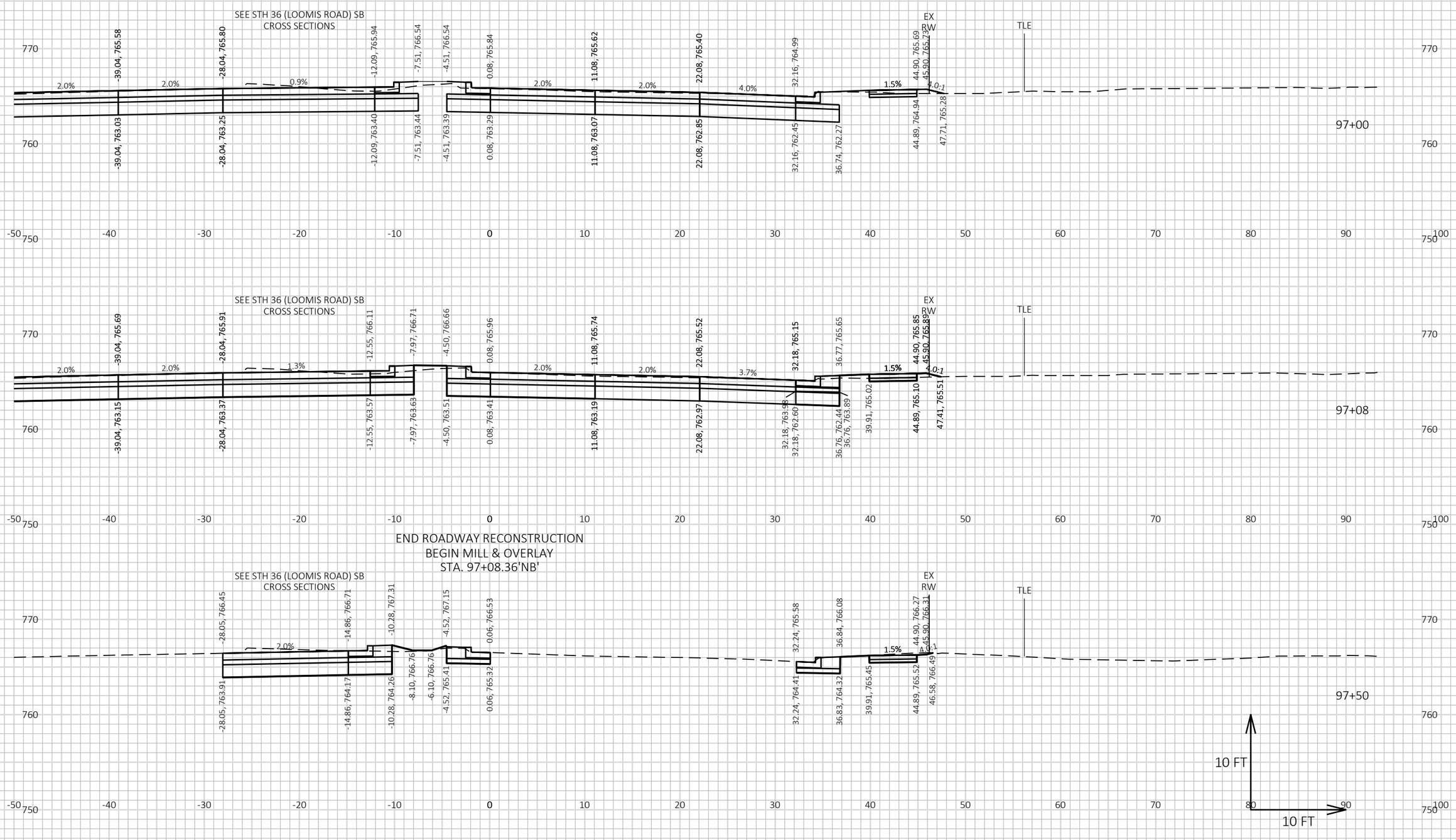
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 532	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-05

PLOT DATE : 11/15/2022 4:39 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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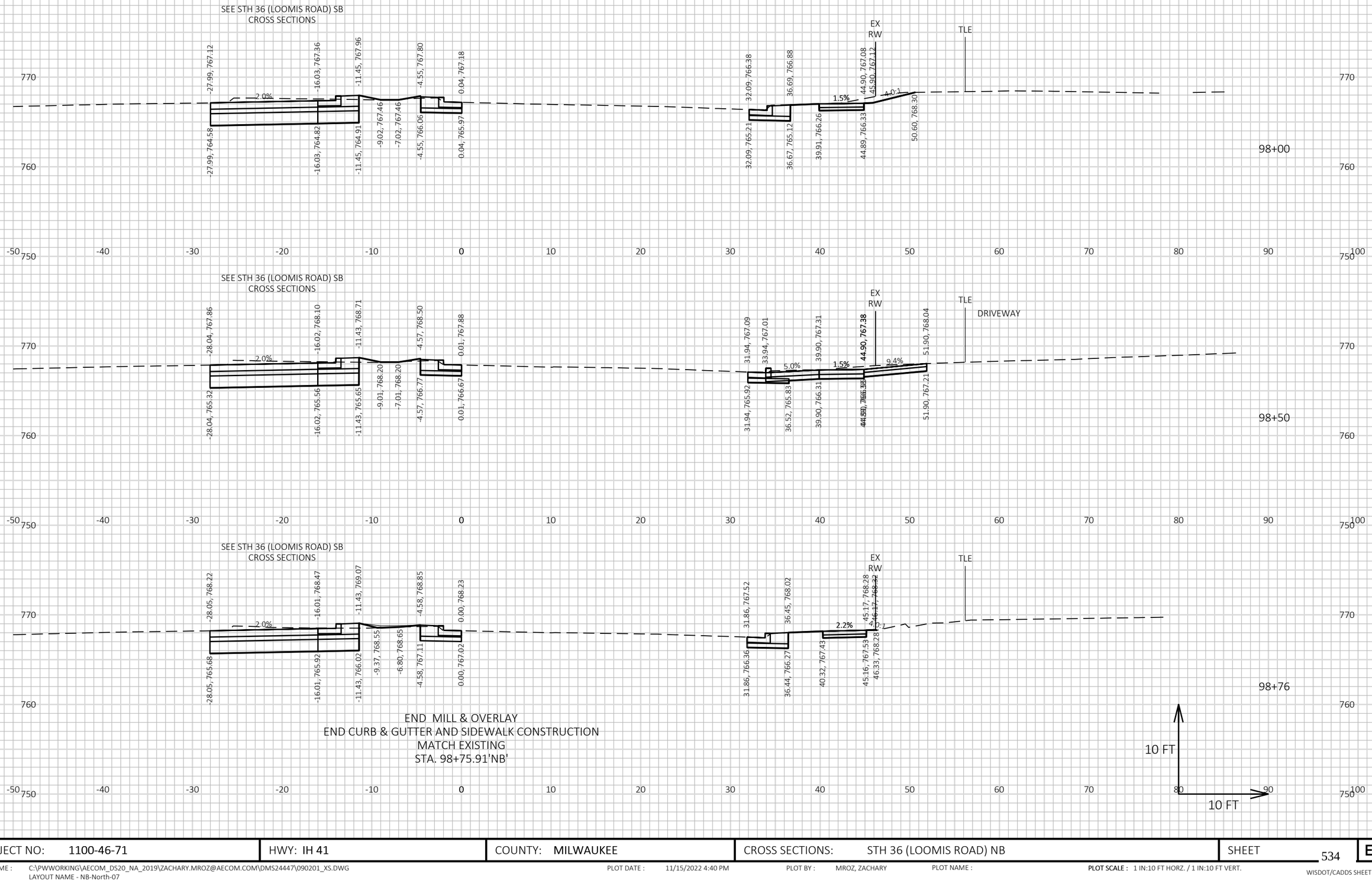
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 533	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-06

PLOT DATE : 11/15/2022 4:40 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) NB	SHEET 534	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - NB-North-07

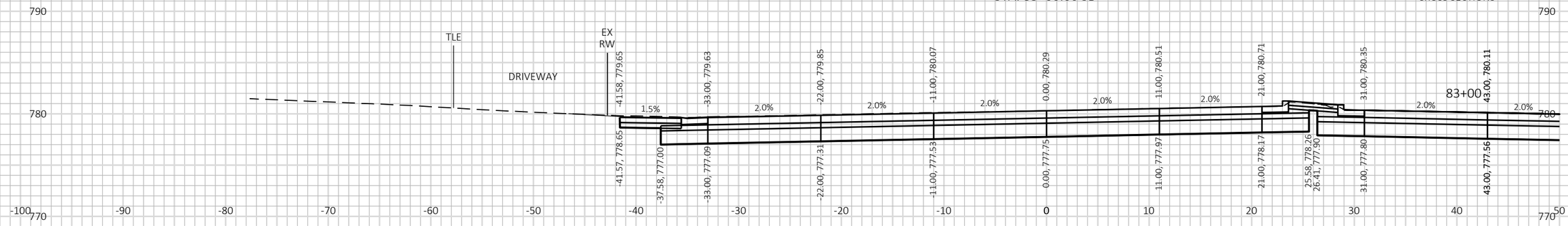
PLOT DATE : 11/15/2022 4:40 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

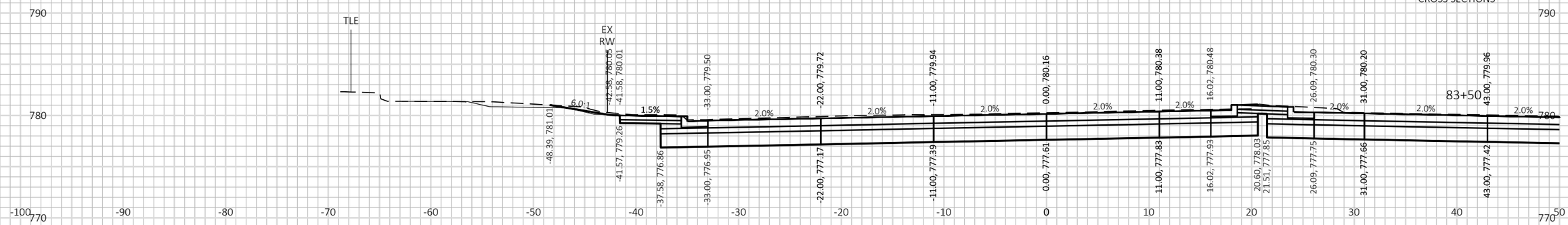
9

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 83+00.00'SB'

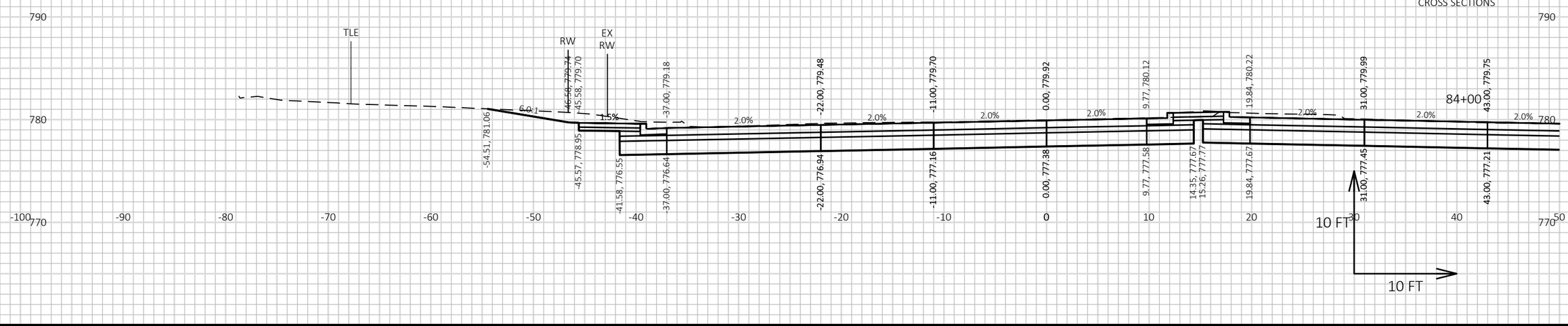
SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



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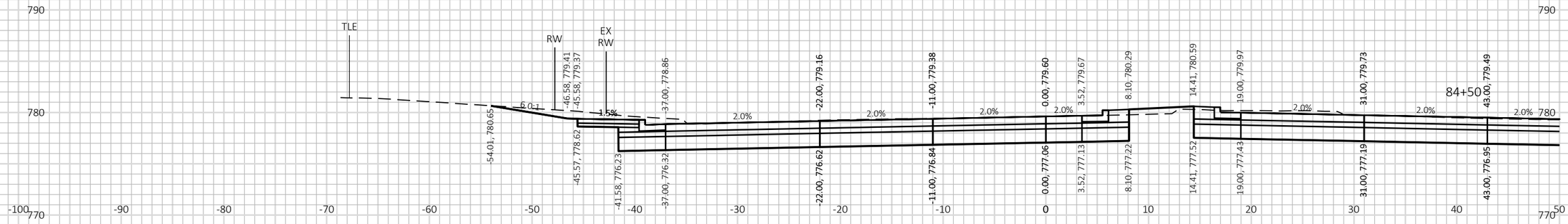
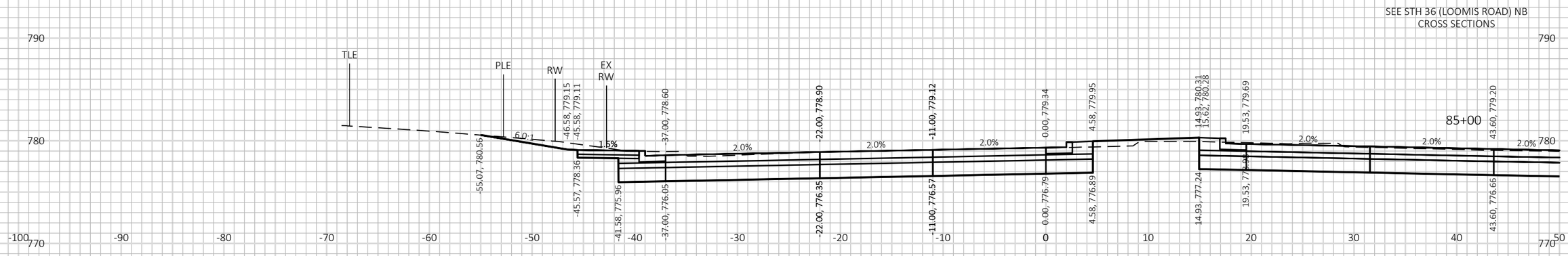
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 535	E

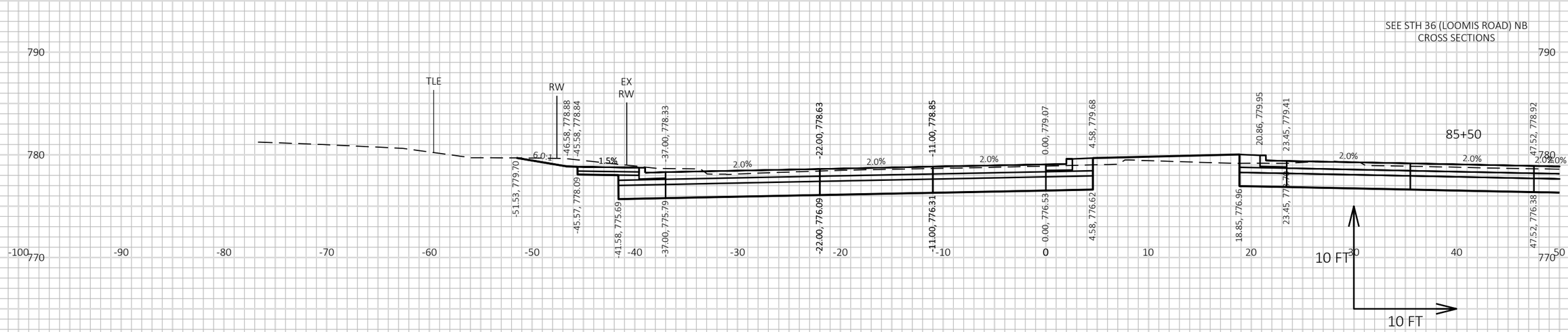
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-South-01

PLOT DATE : 11/15/2022 4:40 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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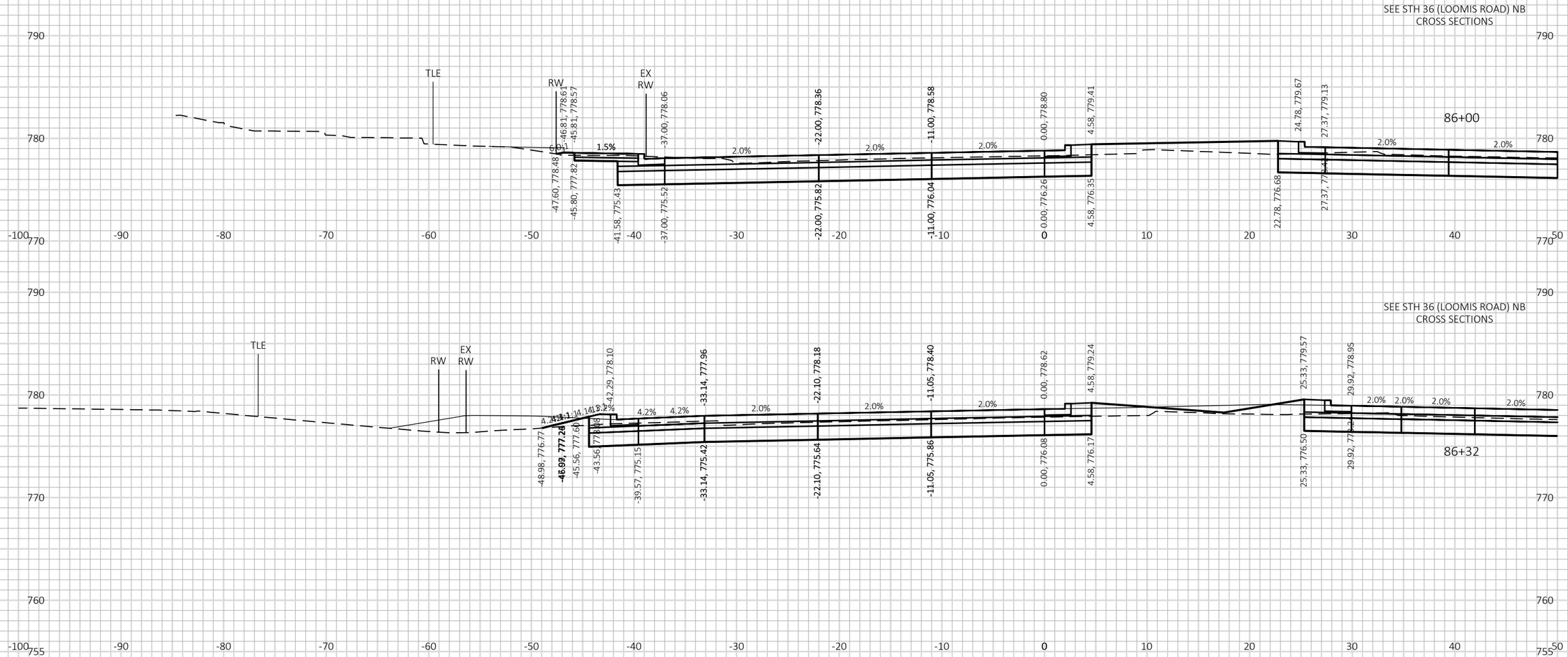
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 536	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-South-02

PLOT DATE : 11/15/2022 4:41 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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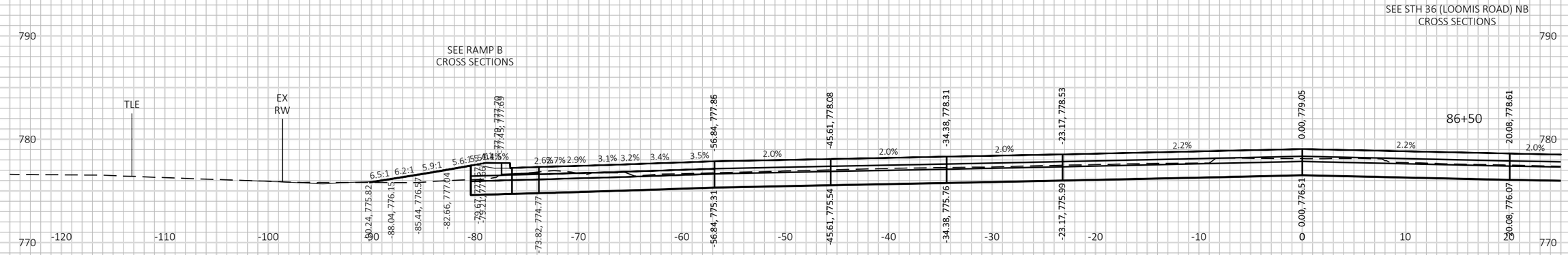
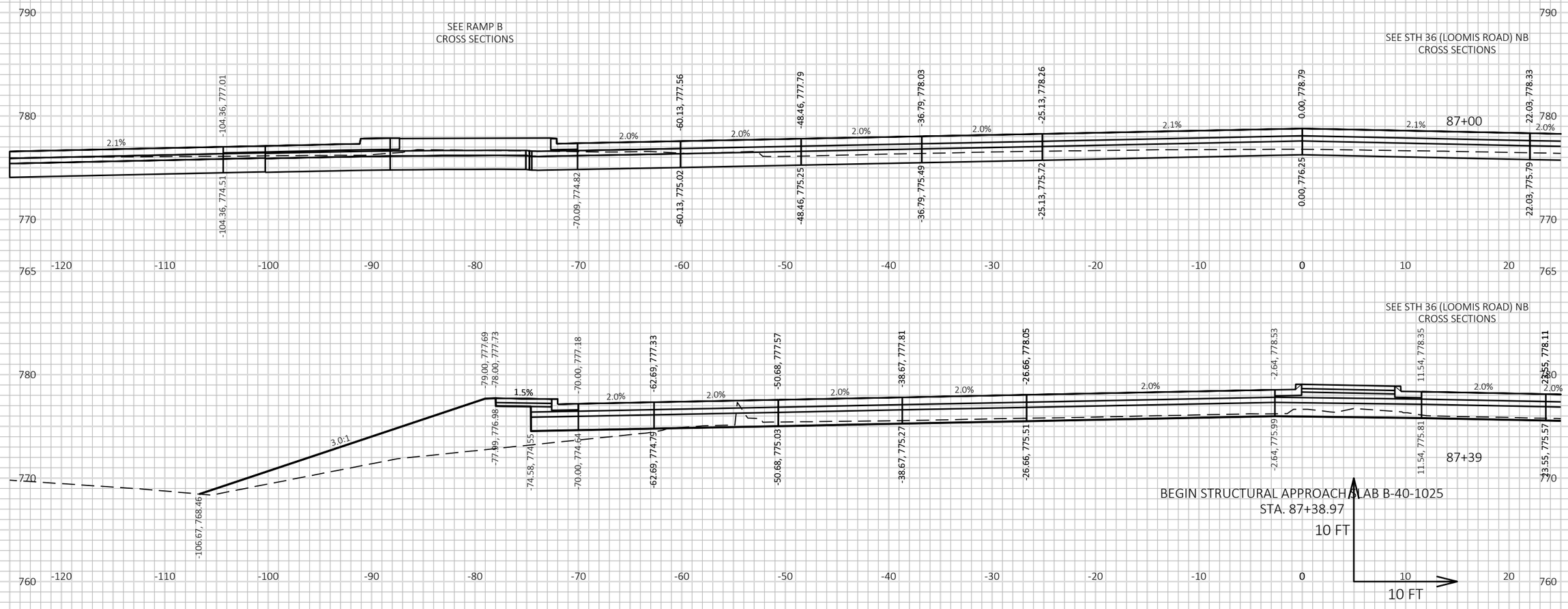
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 537	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-South-03

PLOT DATE : 11/15/2022 4:41 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





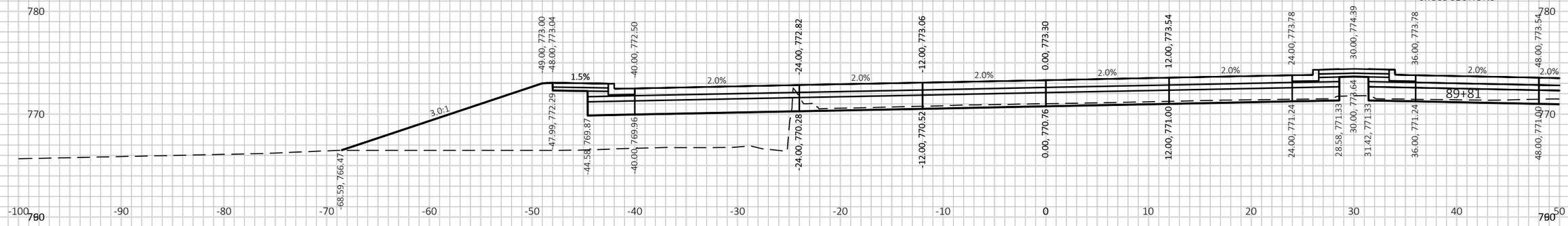
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB - CL ALIGNMENT	SHEET 538 E

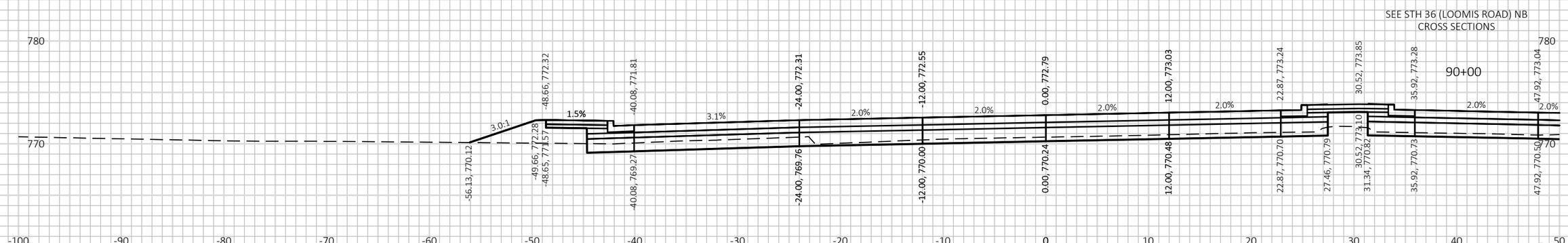
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-South-CL - 01

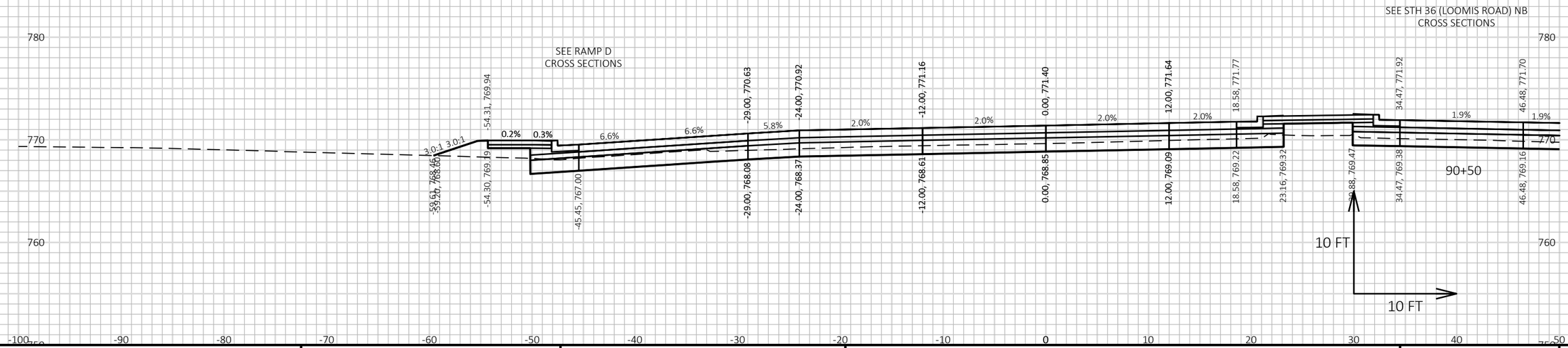
PLOT DATE : 11/15/2022 4:41 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END STRUCTURAL APPROACH SLAB B-40-1025
STA. 89+81.47'SB'







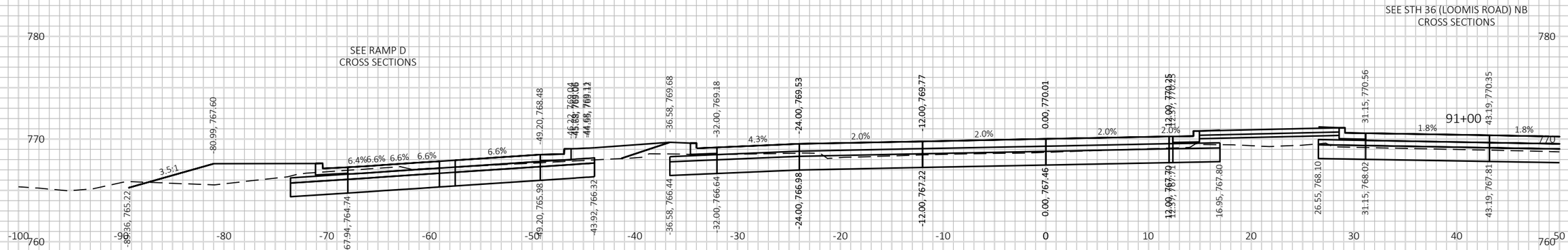
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 539 E

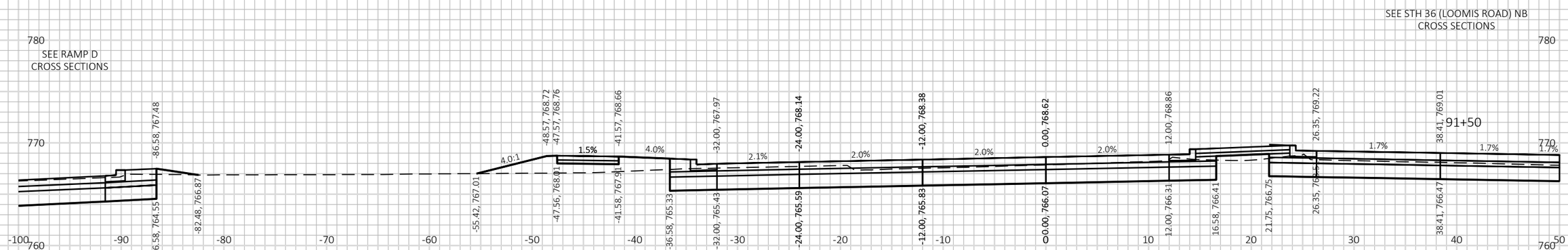
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-01

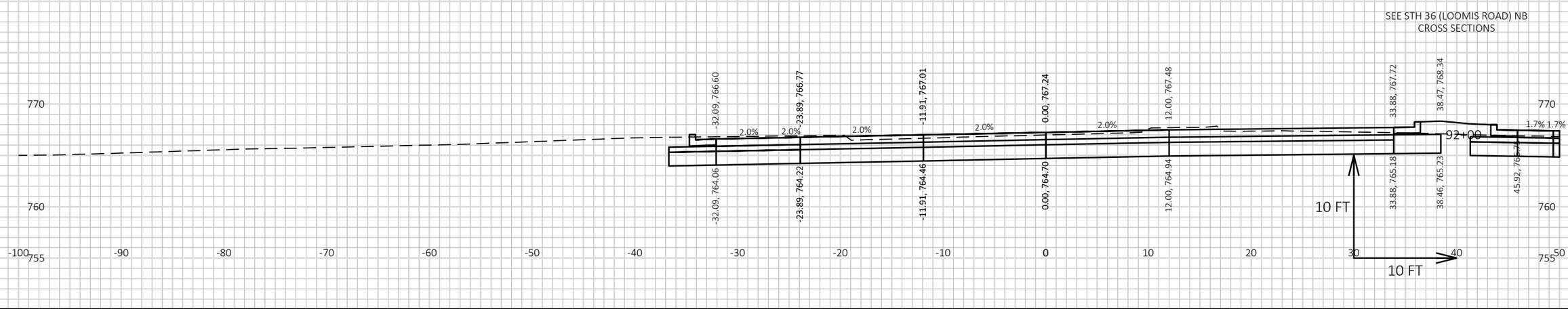
PLOT DATE : 11/15/2022 4:41 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9 9







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PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 540	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-02

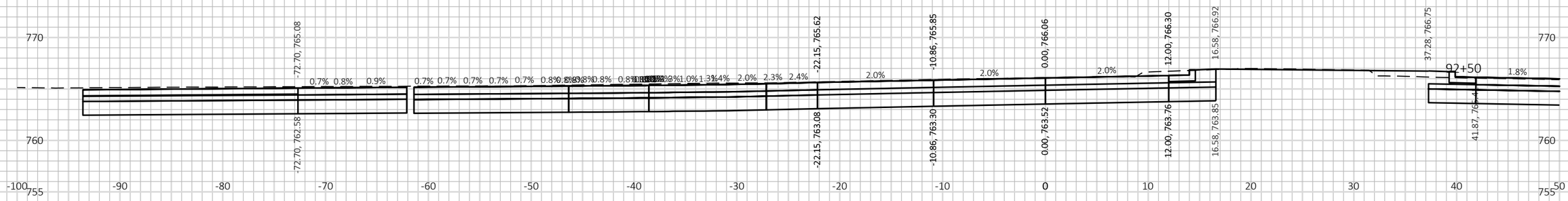
PLOT DATE : 11/15/2022 4:42 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

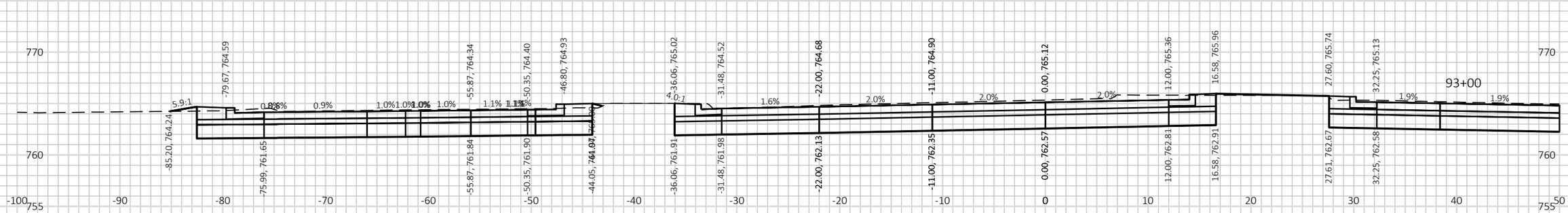
SEE RAMP C1
CROSS SECTIONS

SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



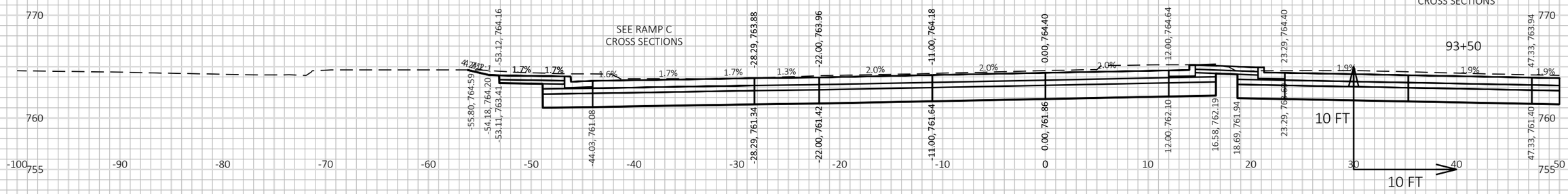
SEE RAMP C
CROSS SECTIONS

SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



SEE RAMP C
CROSS SECTIONS

SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



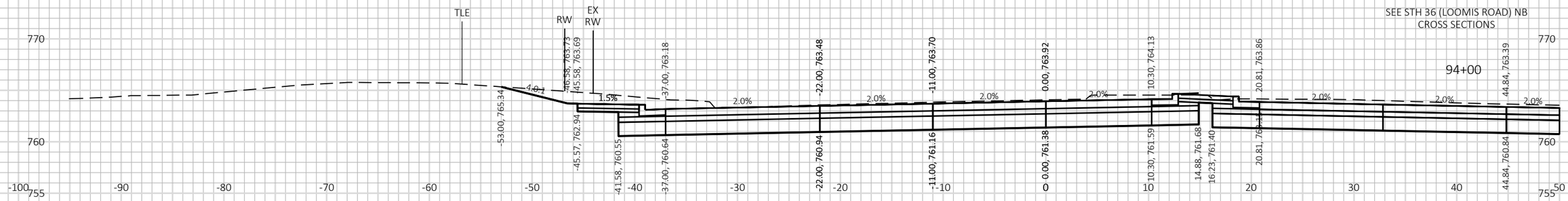
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 541	E

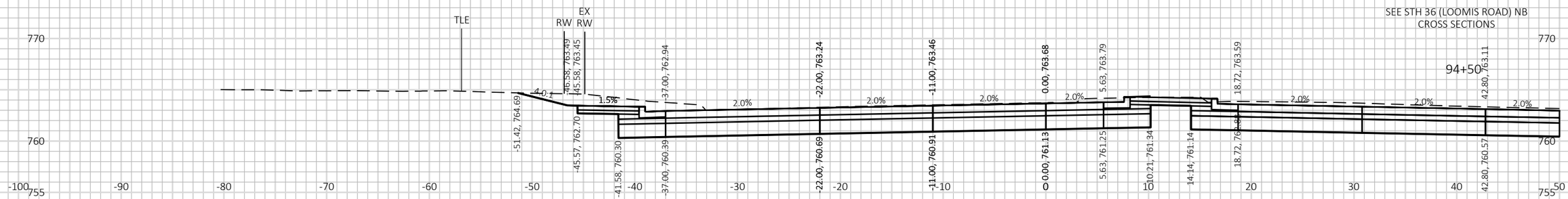
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-03

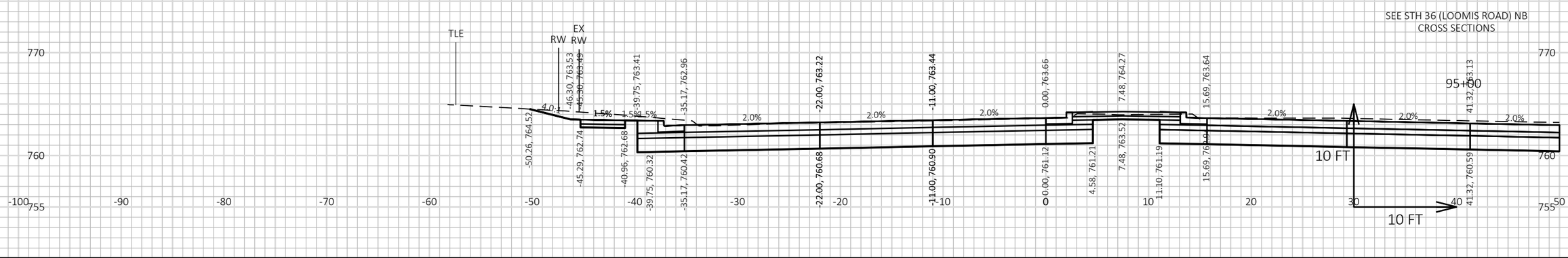
PLOT DATE : 11/15/2022 4:42 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 542	E

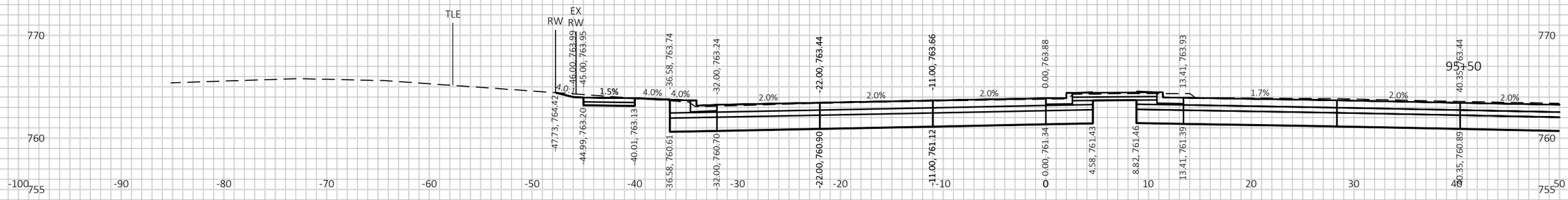
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-04

PLOT DATE : 11/15/2022 4:42 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

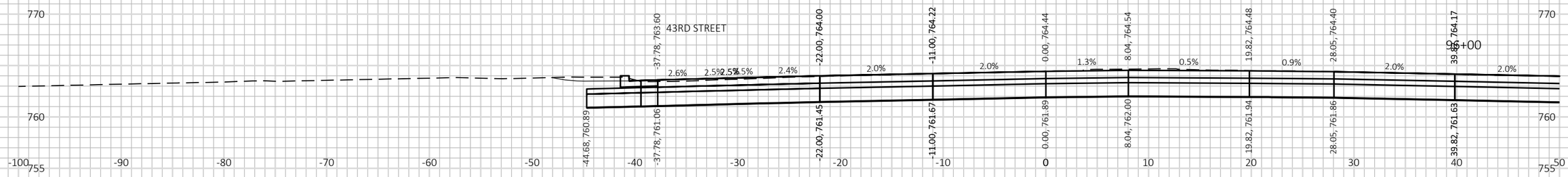
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

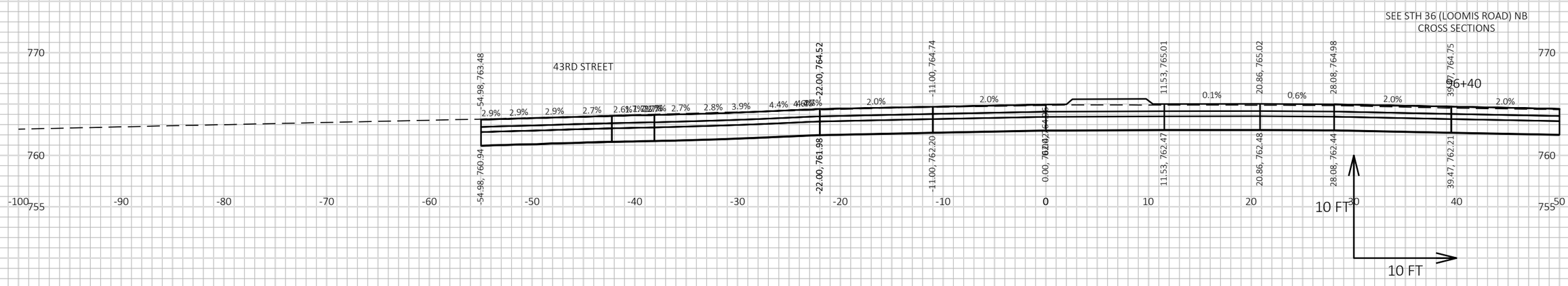
SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) NB
CROSS SECTIONS



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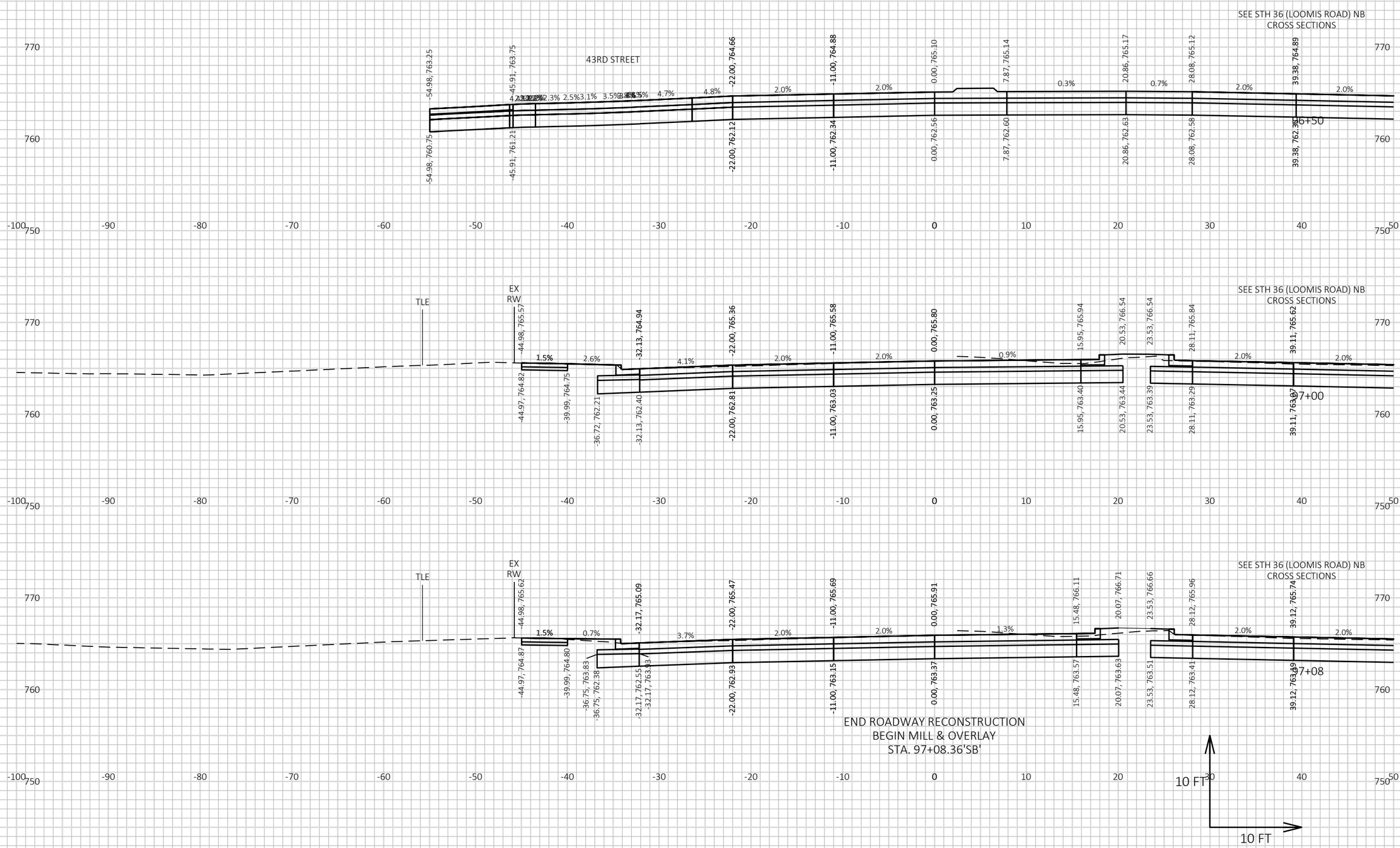
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 543	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-05

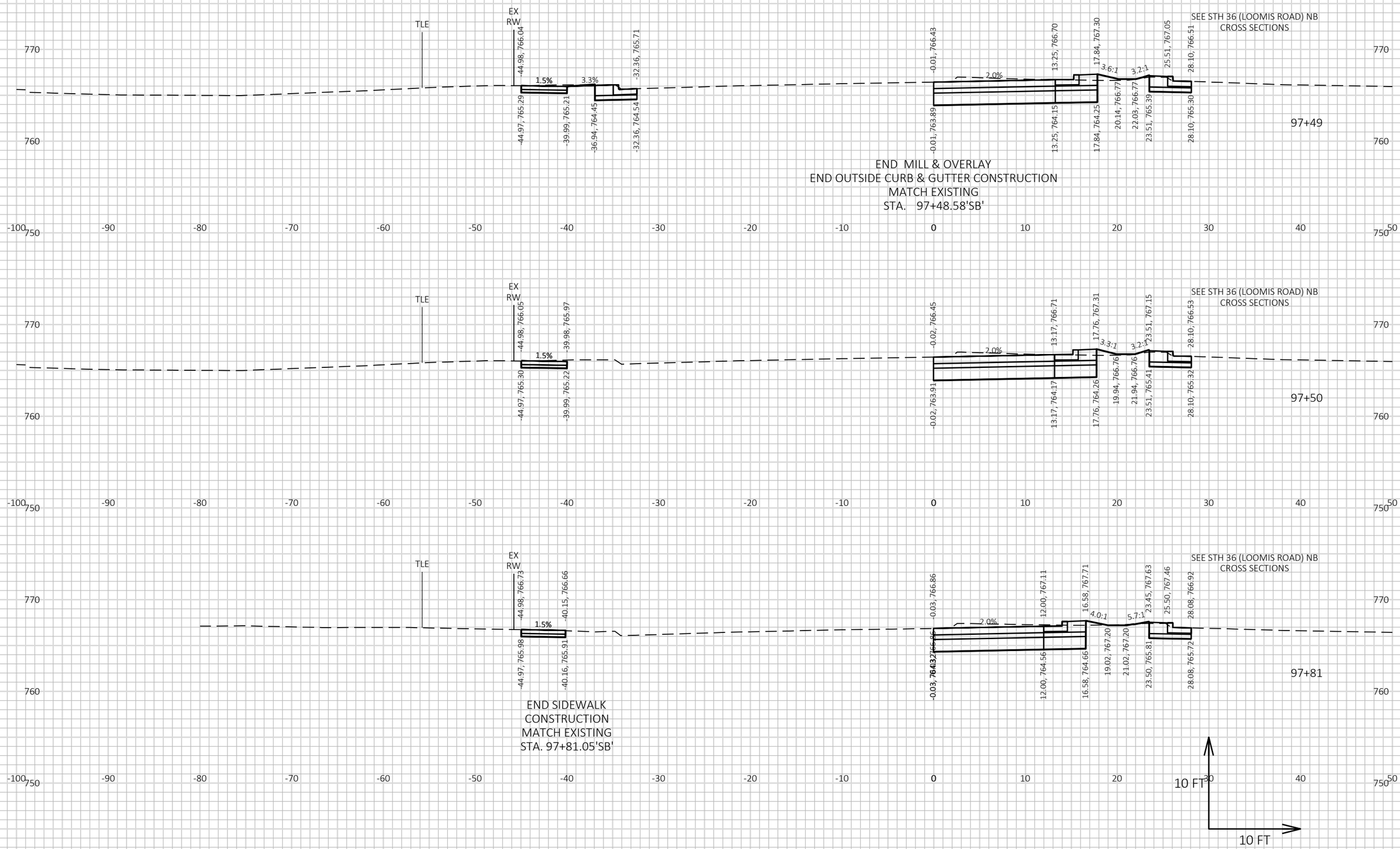
PLOT DATE : 11/15/2022 4:43 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 544	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-06
PLOT DATE : 11/15/2022 4:43 PM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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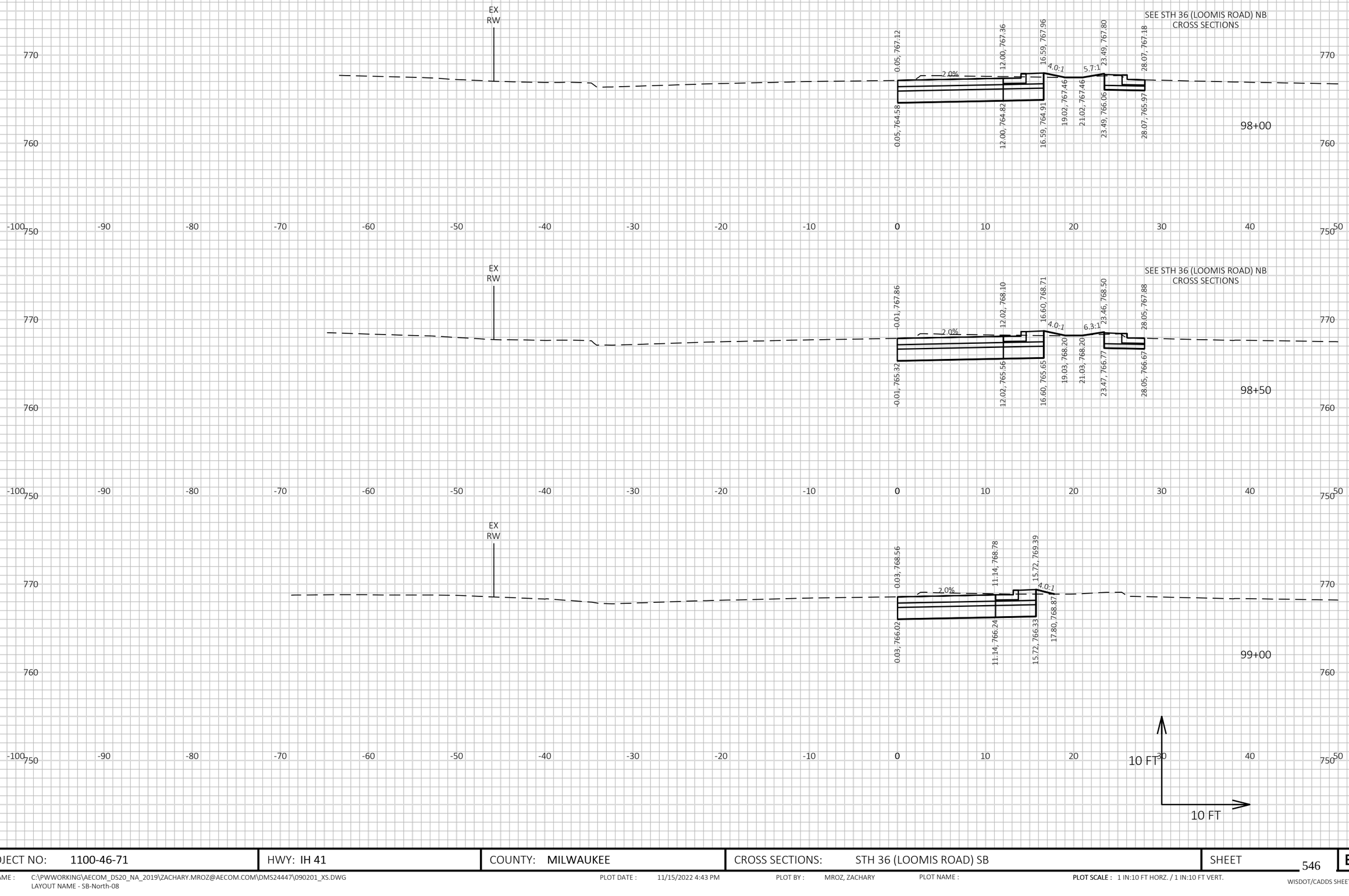
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 545	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-07

PLOT DATE : 11/15/2022 4:43 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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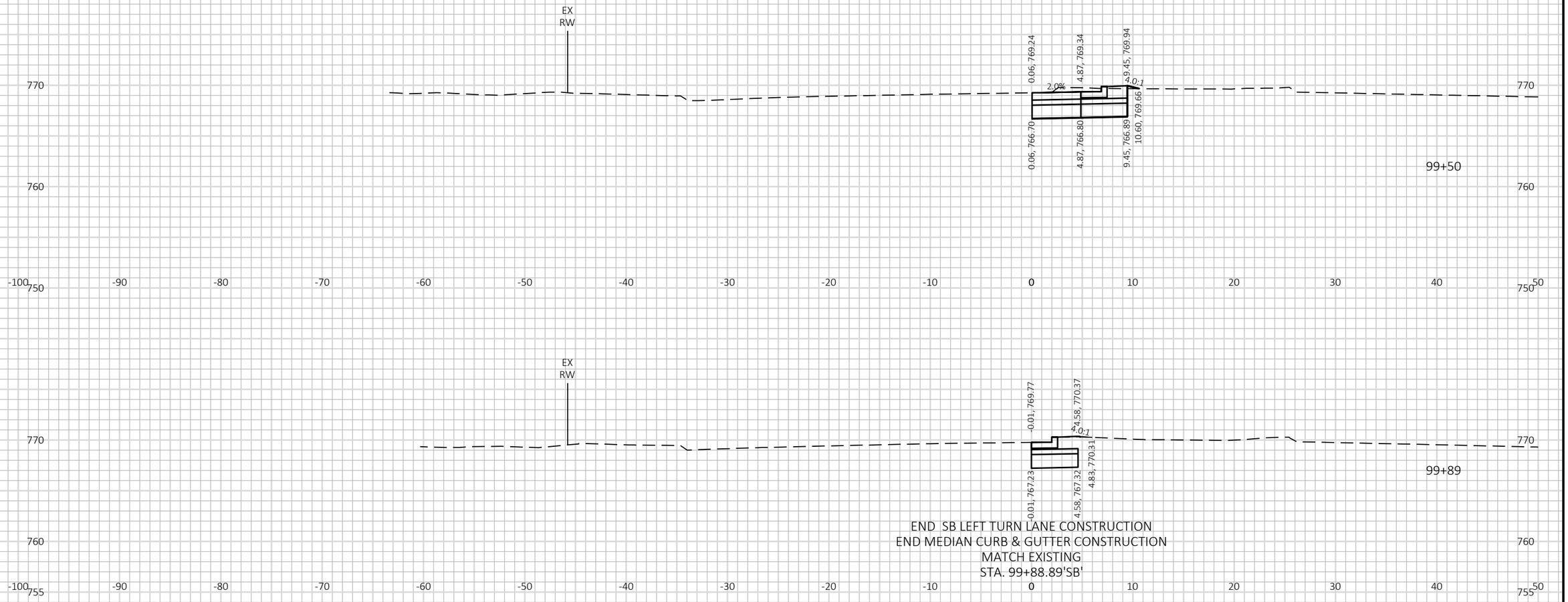
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 546	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-08

PLOT DATE : 11/15/2022 4:43 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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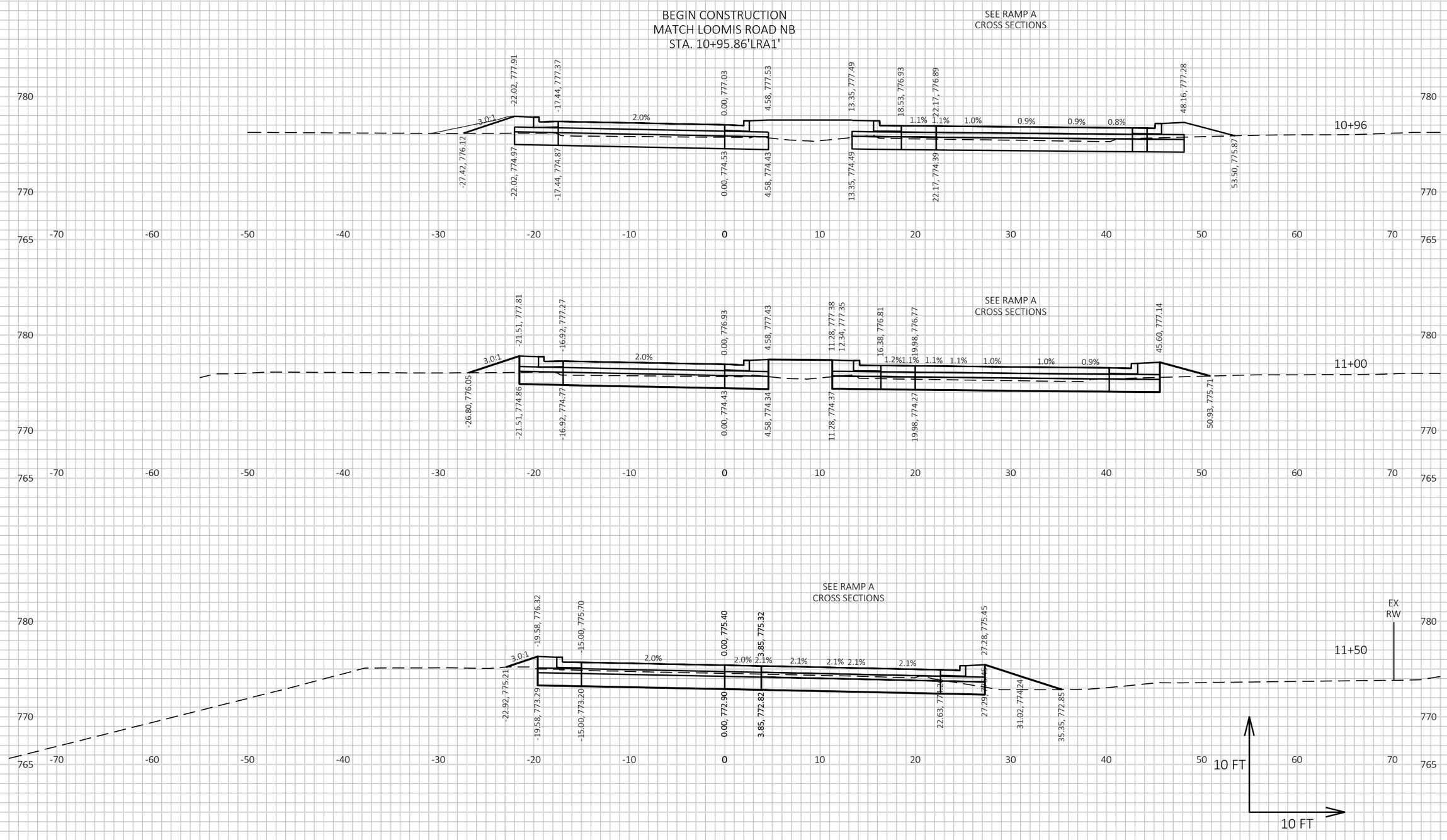
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 36 (LOOMIS ROAD) SB	SHEET 547	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - SB-North-09

PLOT DATE : 11/15/2022 11:19 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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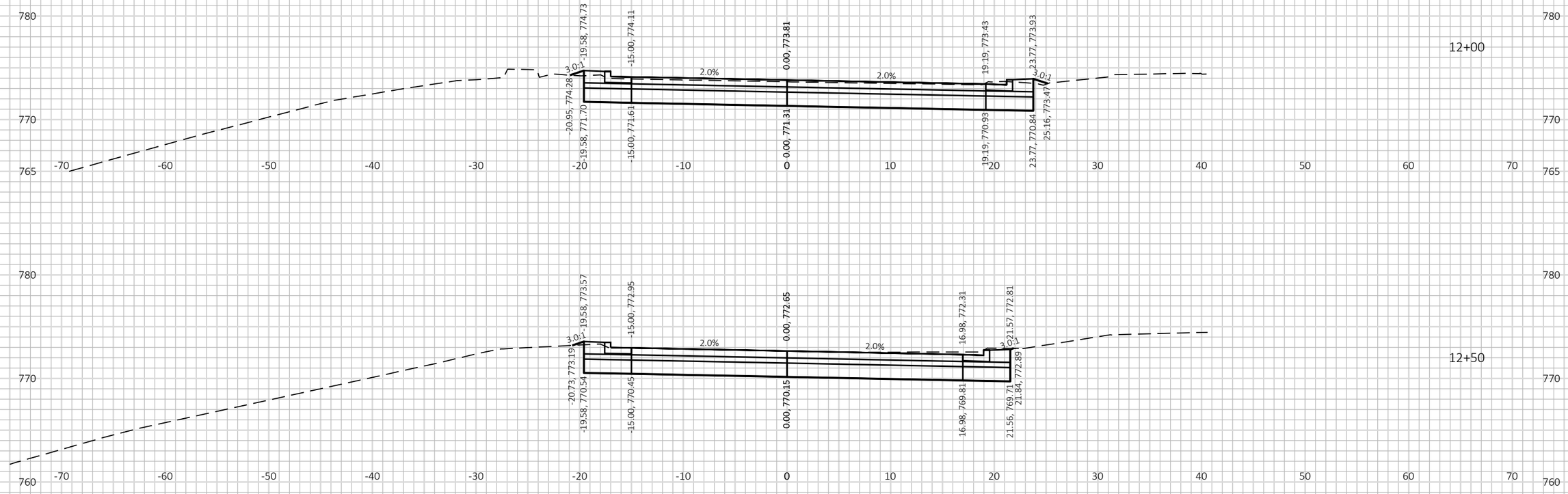
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP A1	SHEET 548	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - A1-01

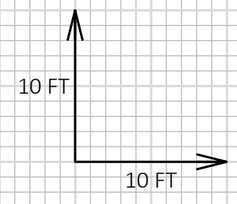
PLOT DATE : 11/15/2022 4:44 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



END CONSTRUCTION
MATCH EXISTING
STA. 12+50.00'LRA1'



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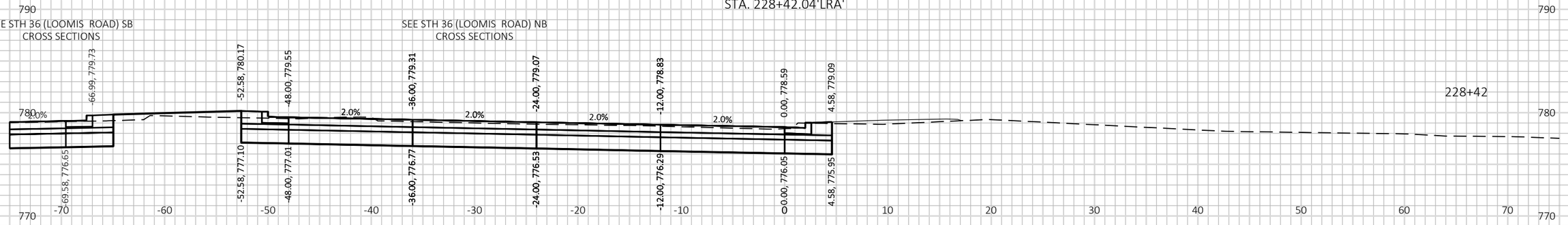
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP A1	SHEET 549	E

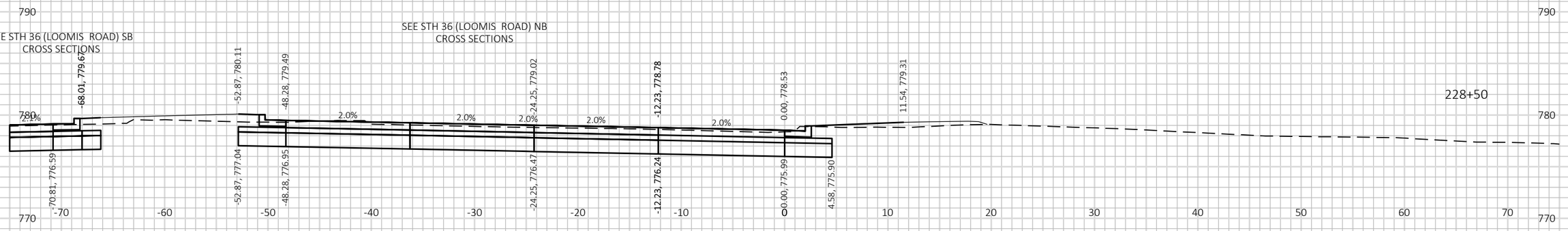
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - A1-02

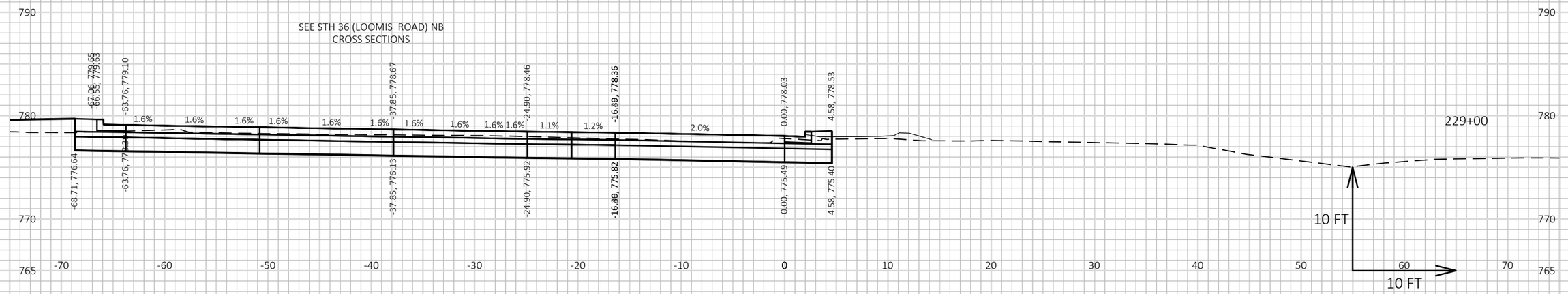
PLOT DATE : 11/15/2022 4:44 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
MATCH LOOMIS ROAD NB
STA. 228+42.04'LRA'







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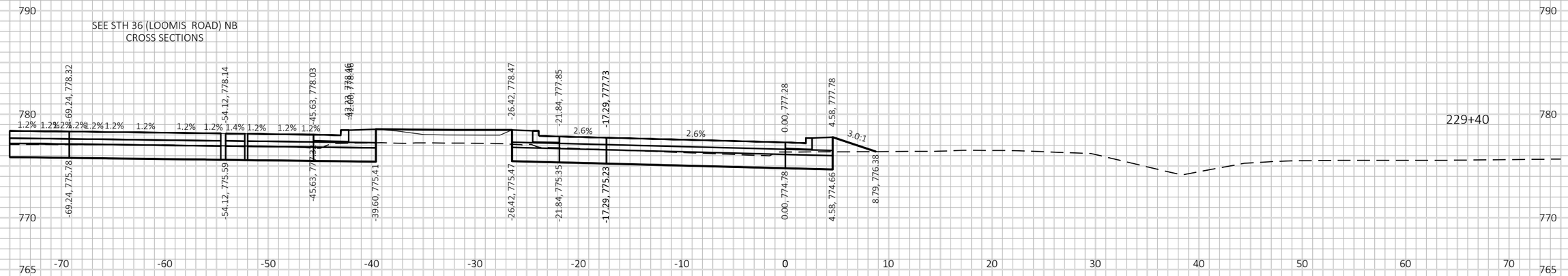
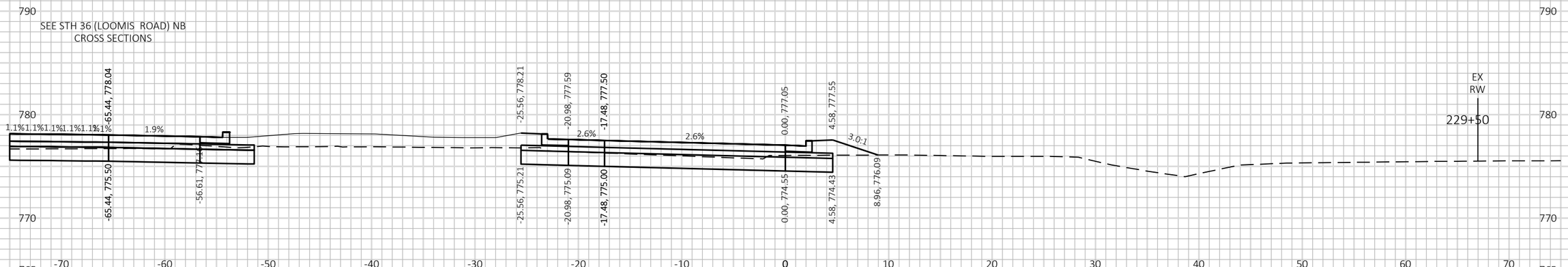
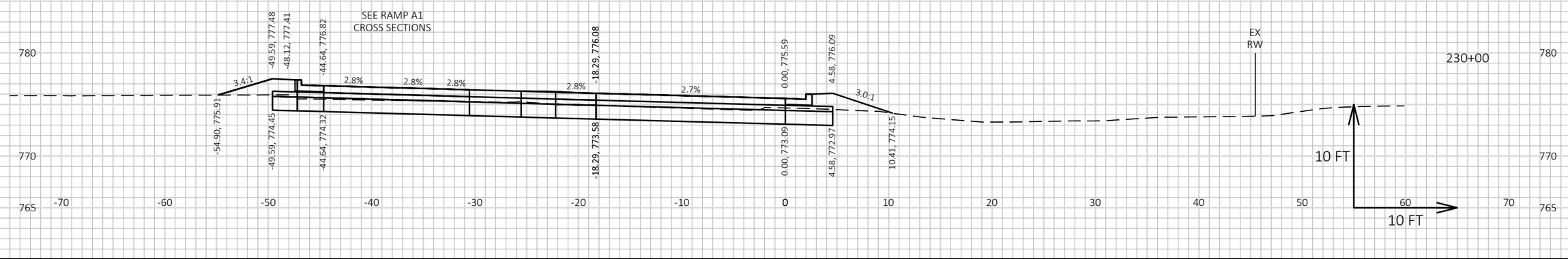
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP A	SHEET 550	E







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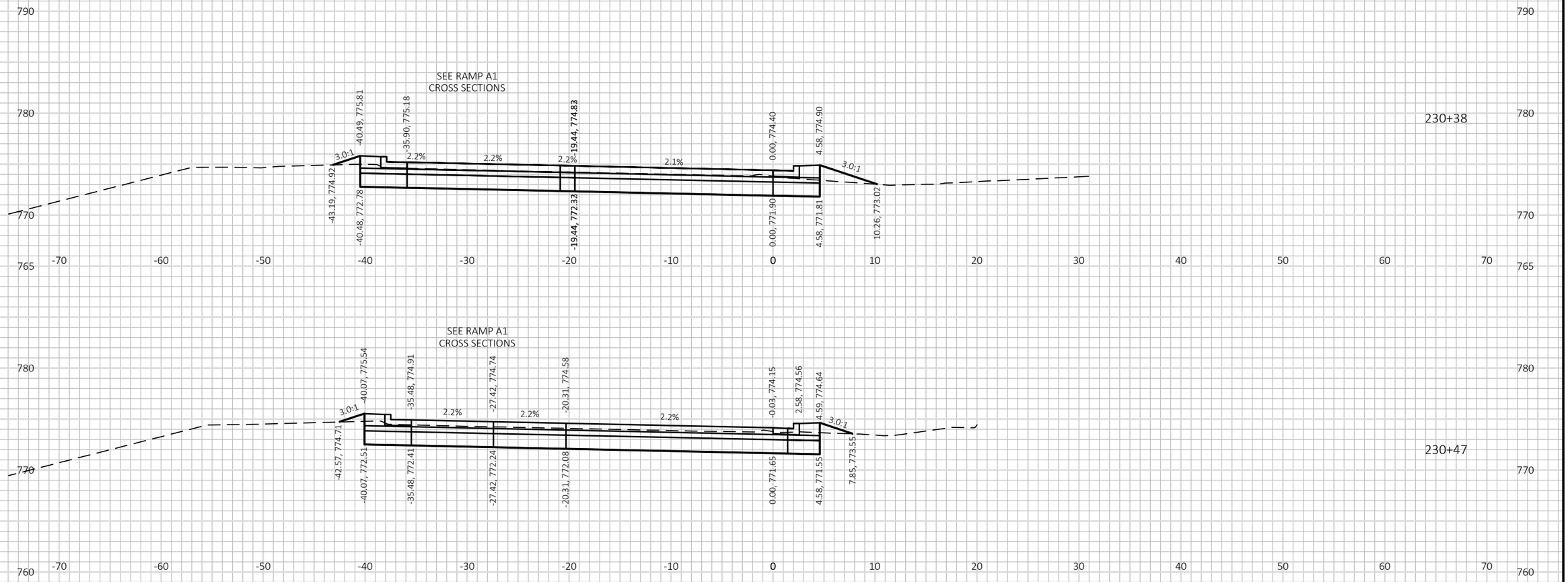
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP A	SHEET 551	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - A-02

PLOT DATE : 11/15/2022 4:45 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

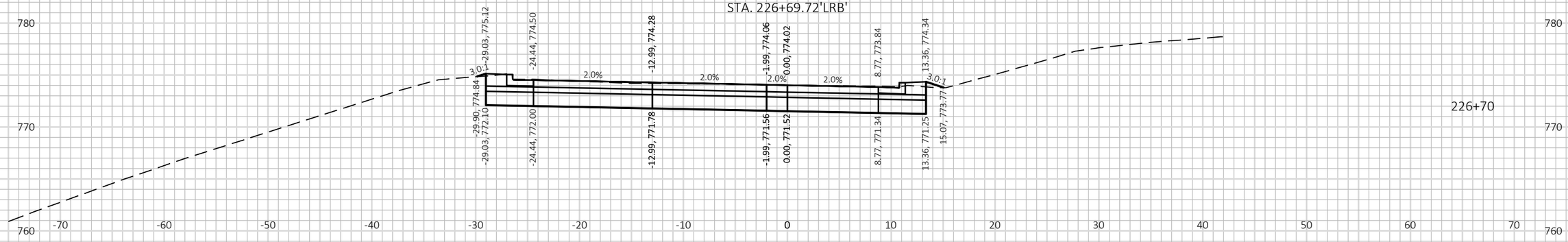
WISDOT/CADDS SHEET 49

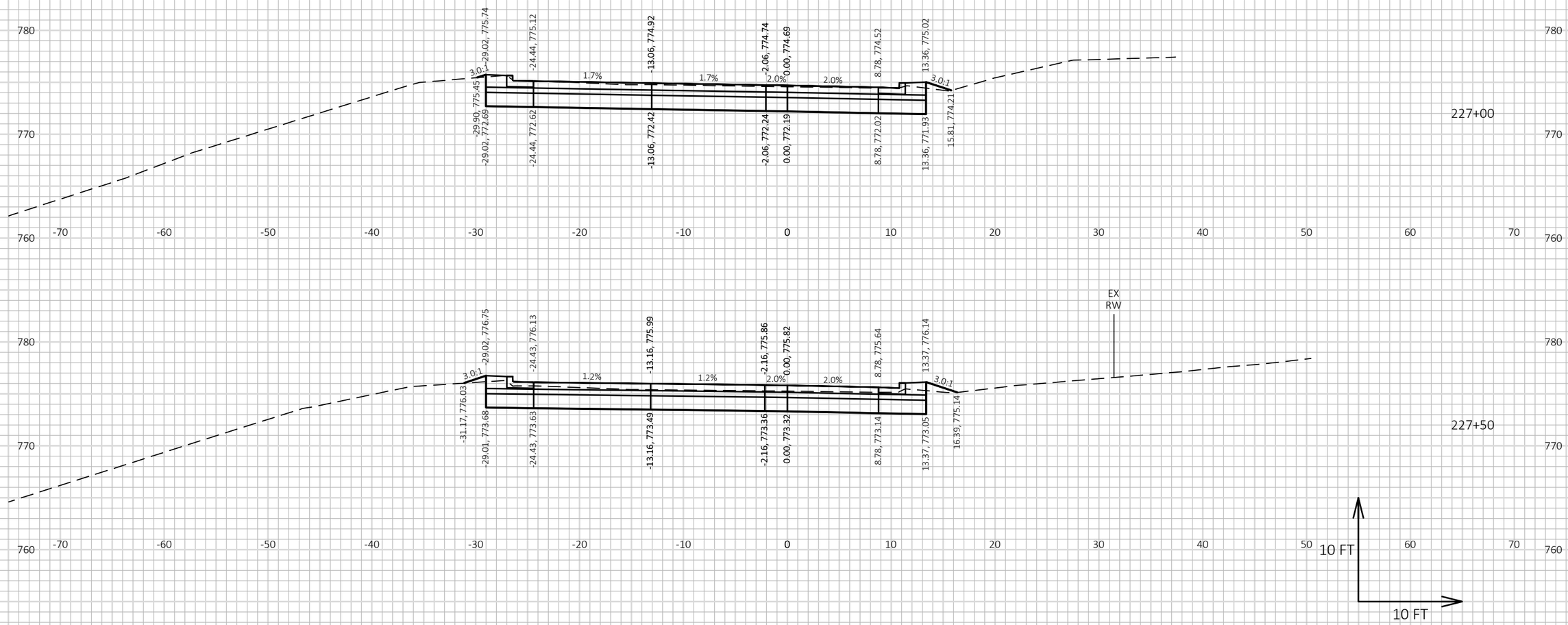


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP A	SHEET 552	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - A-03
PLOT DATE : 11/15/2022 4:45 PM
PLOT BY : MROZ, ZACHARY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 226+69.72'LRB'



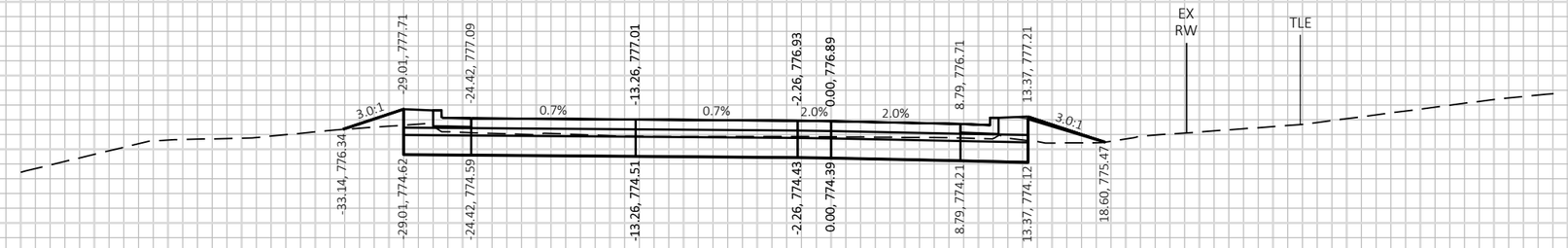


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP B	SHEET 553	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - B-01

PLOT DATE : 11/15/2022 4:45 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



10 FT

10 FT

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PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP B	SHEET 554	E

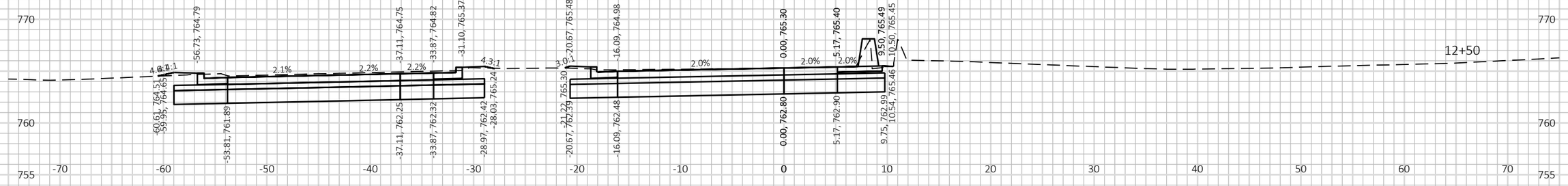
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - B-02

PLOT DATE : 11/15/2022 4:45 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

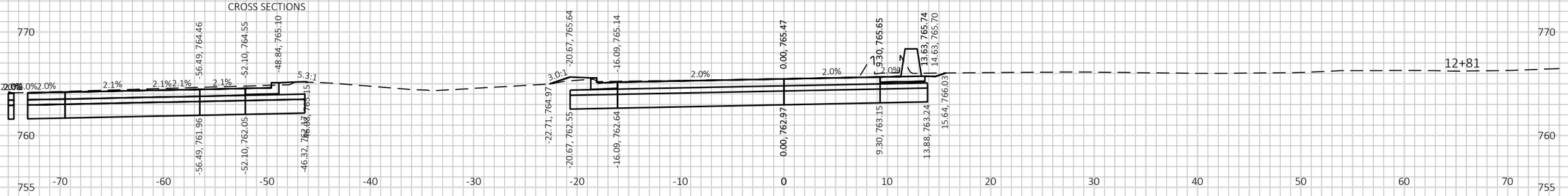
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 12+50.00'LRC1'

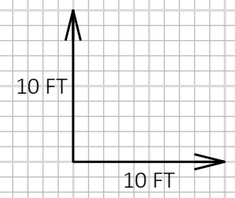
SEE RAMP C
CROSS SECTIONS



SEE RAMP C
CROSS SECTIONS



END CONSTRUCTION
MATCH LOOMIS ROAD SB
STA. 12+81.40'LRC1'



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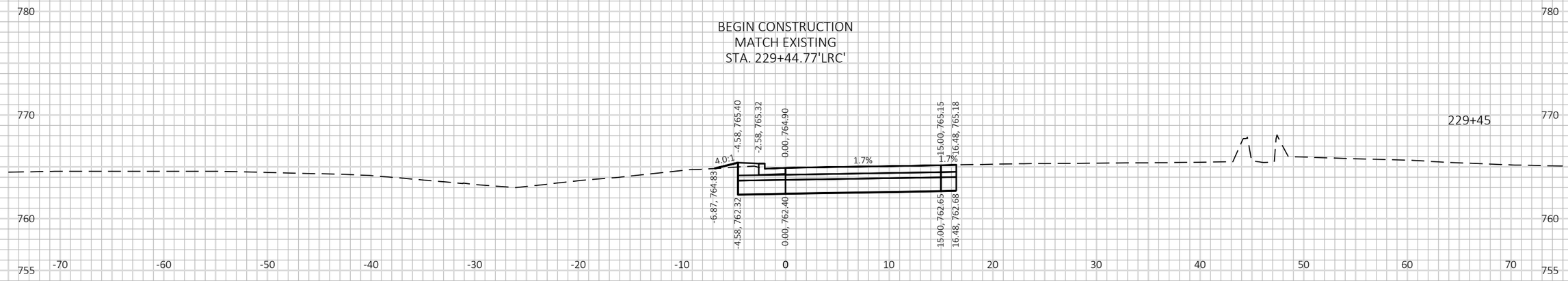
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP C1	SHEET 555	E

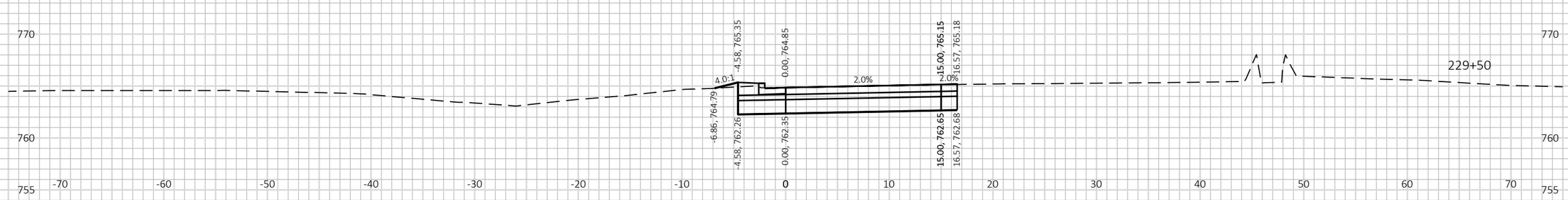
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - C1-01

PLOT DATE : 11/15/2022 4:46 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

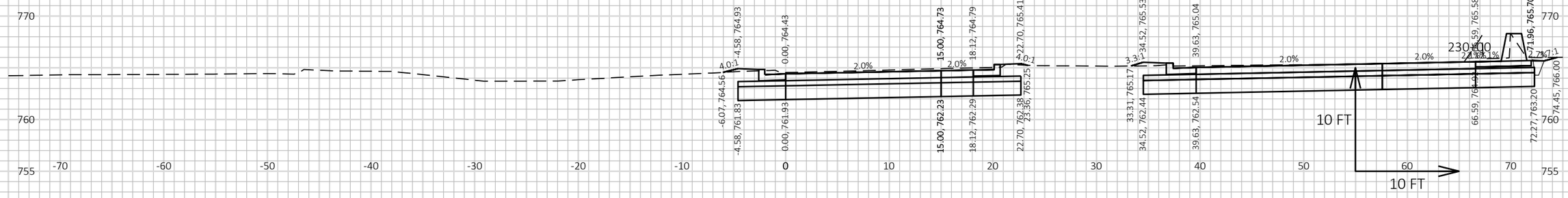
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 229+44.77'LRC'





SEE RAMP C1
CROSS SECTIONS



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP C	SHEET 556	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - C-01

PLOT DATE : 11/15/2022 4:46 PM PLOT BY : MROZ, ZACHARY PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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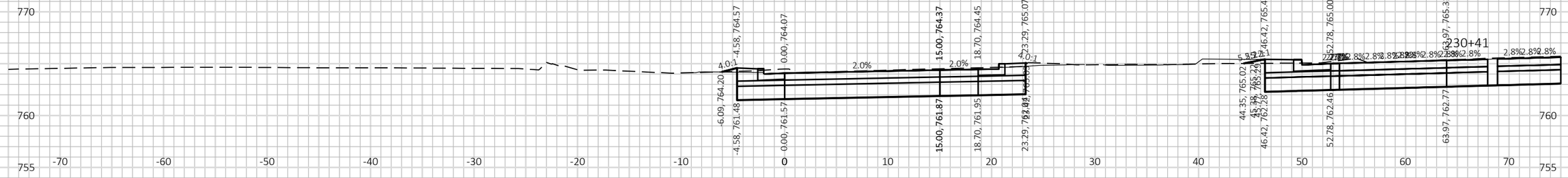
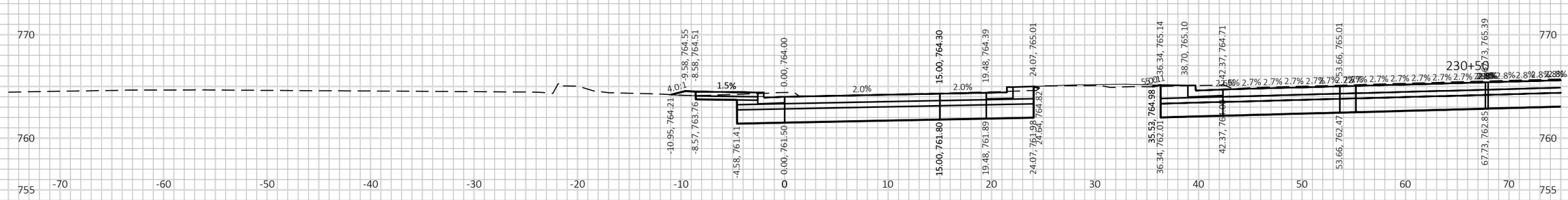
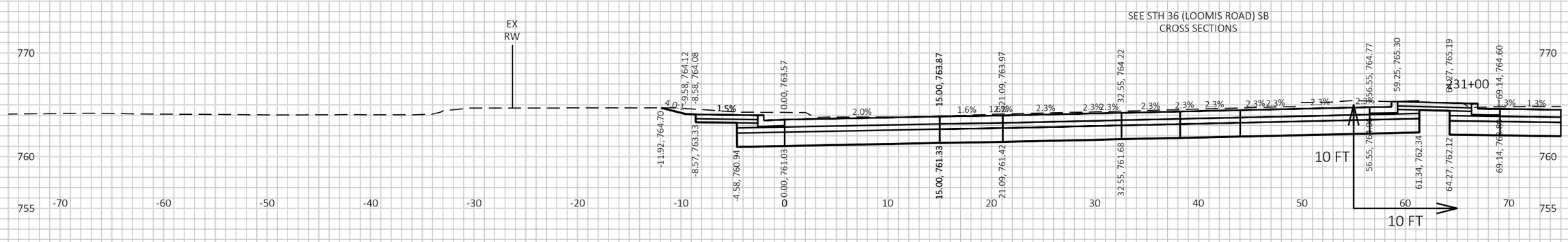
SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



SEE STH 36 (LOOMIS ROAD) SB
CROSS SECTIONS



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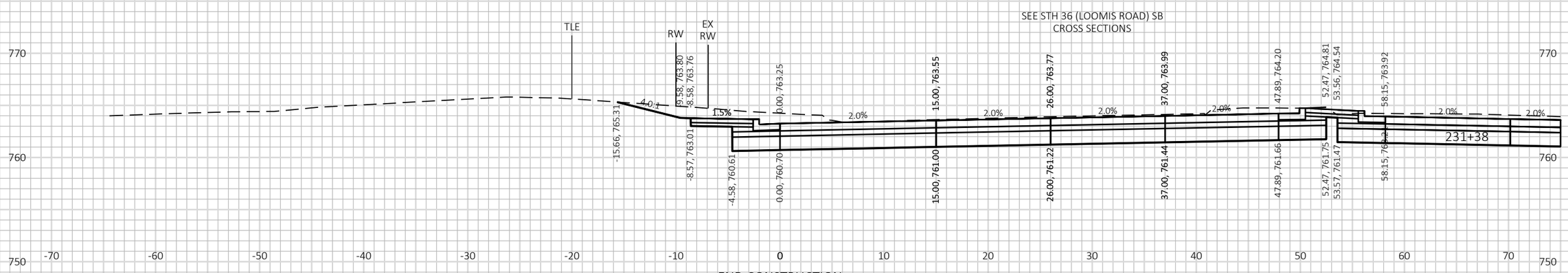
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP C	SHEET 557	E

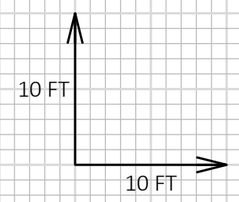
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - C-02

PLOT DATE : 11/15/2022 4:46 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



END CONSTRUCTION
MATCH LOOMIS ROAD SB
STA. 231+37.82'LRC'



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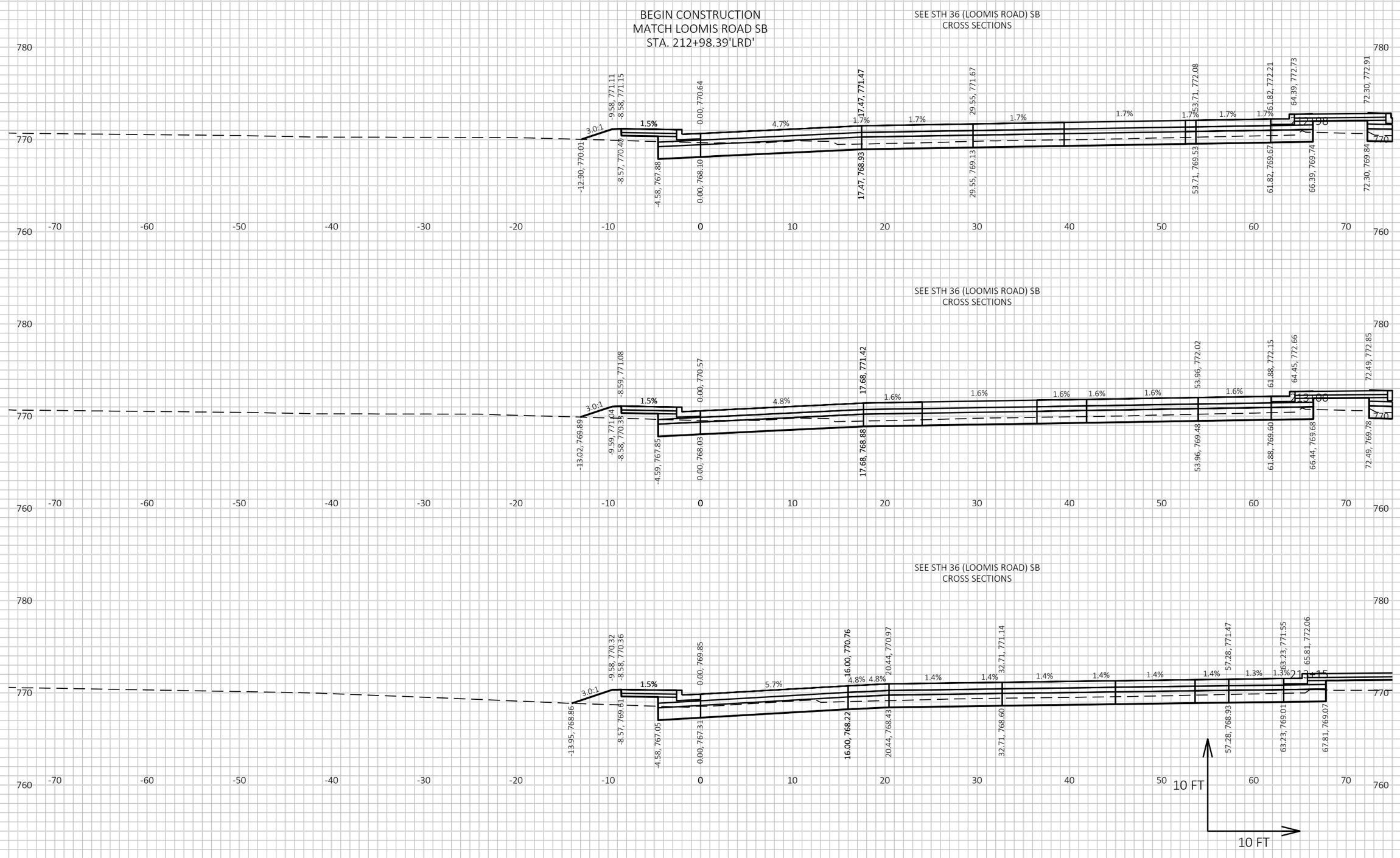
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP C	SHEET 558	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - C-03

PLOT DATE : 11/15/2022 4:47 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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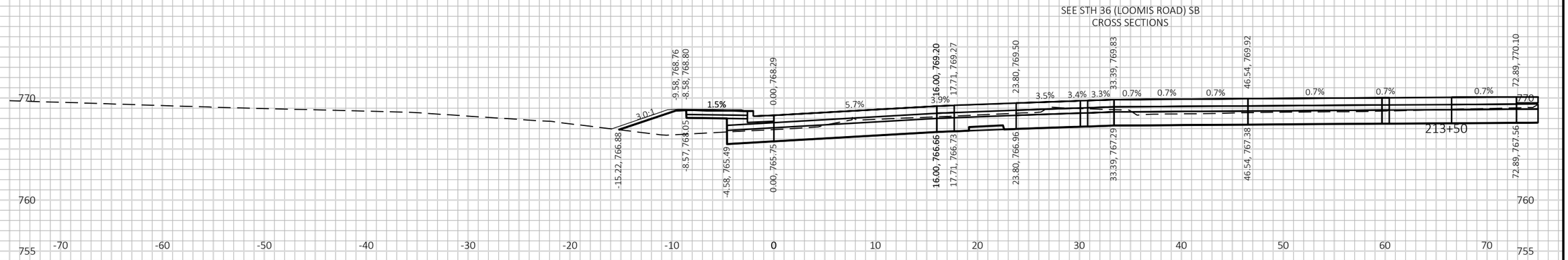
9

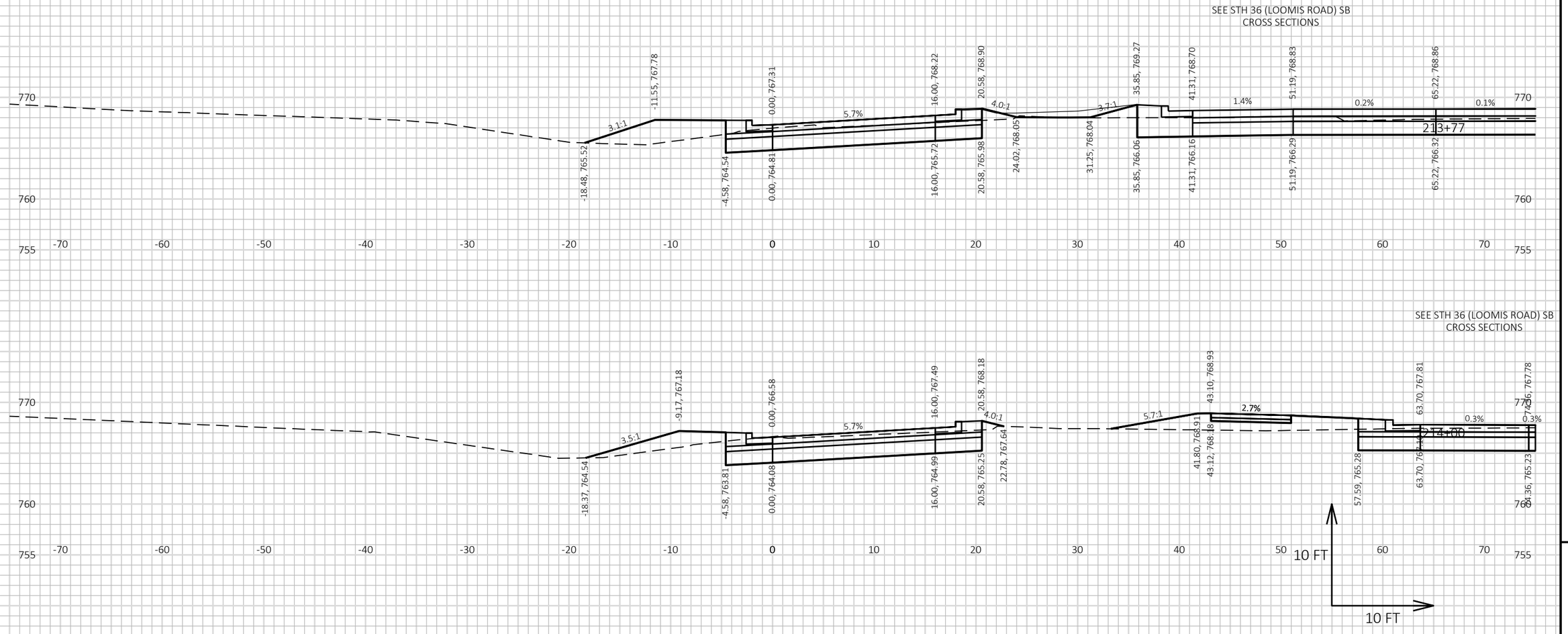
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP D	SHEET 559	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - D-01

PLOT DATE : 11/15/2022 4:47 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





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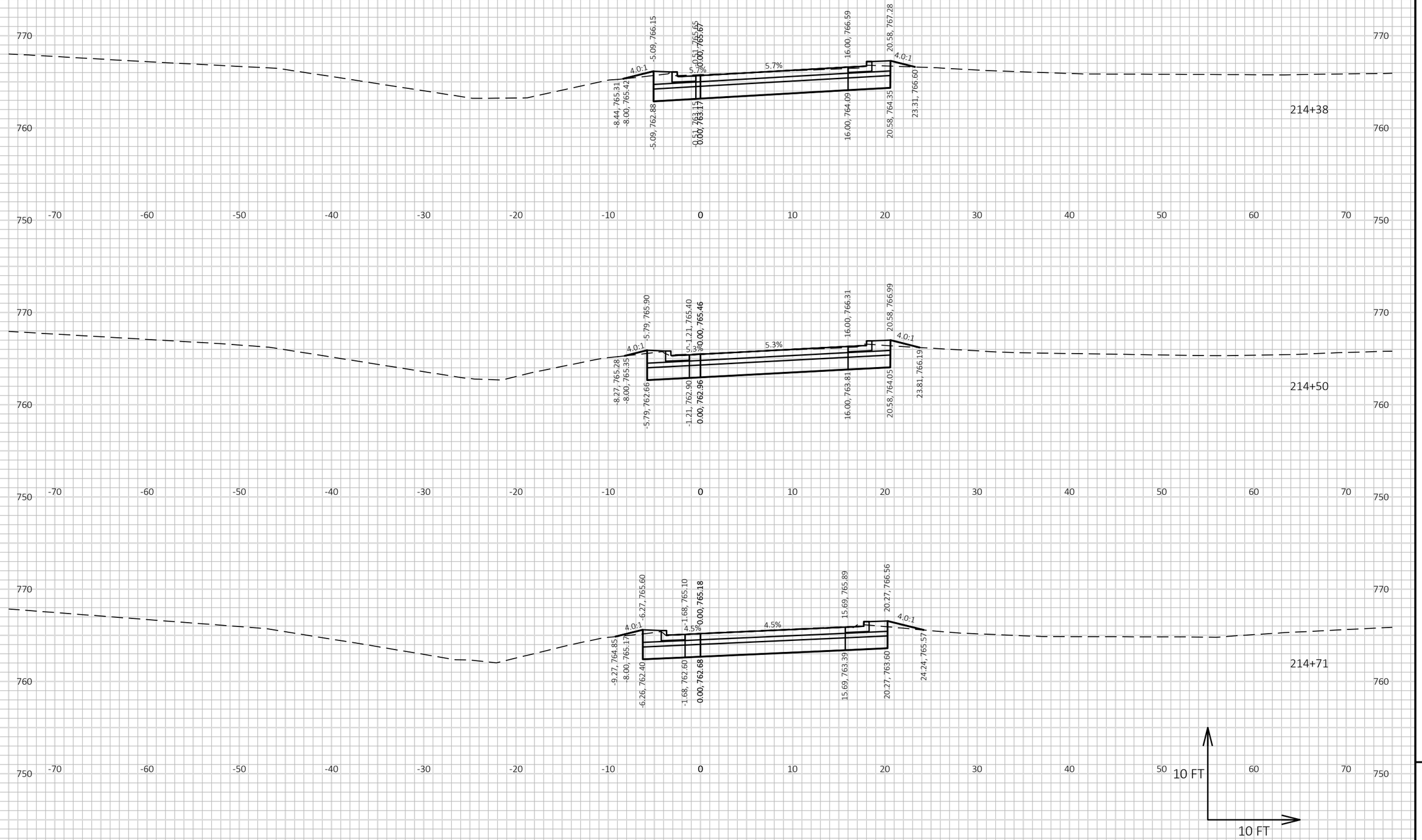
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP D	SHEET 560	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - D-02

PLOT DATE : 11/15/2022 4:47 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

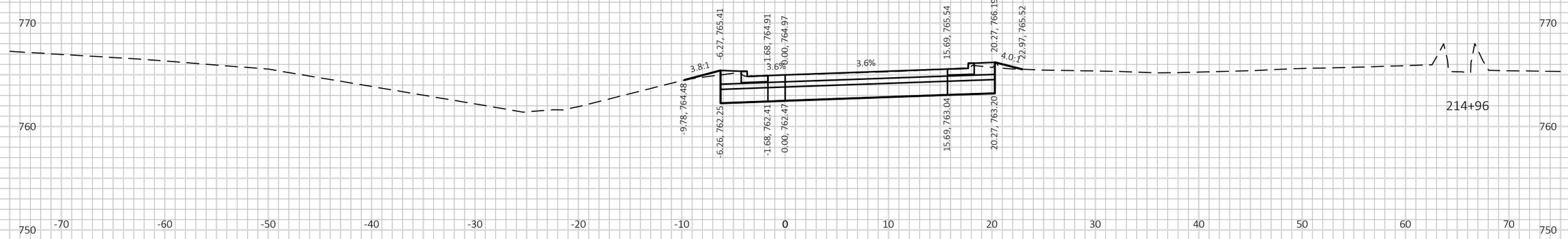


PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP D	SHEET 561	E

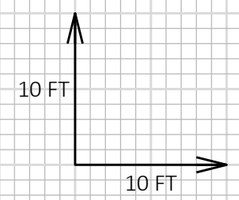
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - D-03

PLOT DATE : 11/15/2022 4:47 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



END CONSTRUCTION
MATCH EXISTING
STA. 214+96.37'LRD'



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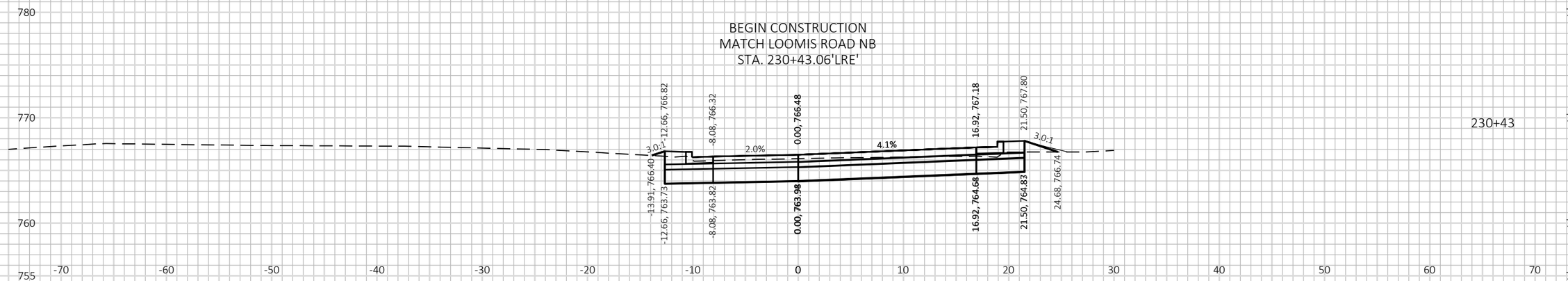
PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP D	SHEET 562	E

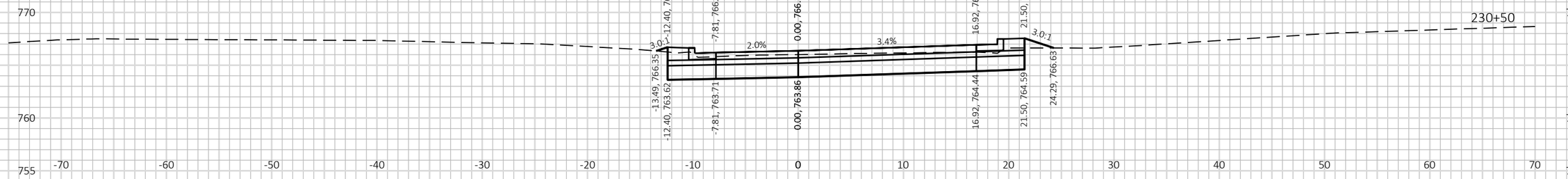
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - D-04

PLOT DATE : 11/15/2022 4:48 PM PLOT BY : MROZ, ZACHARY PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

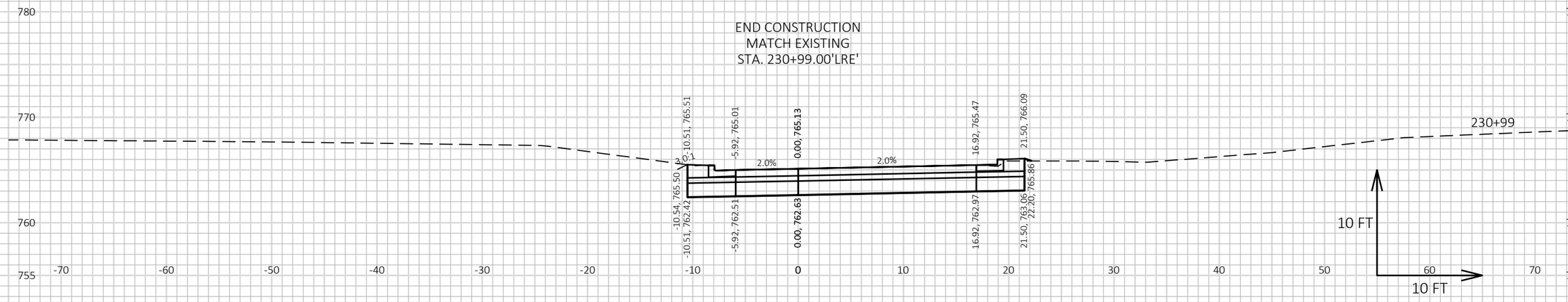
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
MATCH LOOMIS ROAD NB
STA. 230+43.06'LRE'





END CONSTRUCTION
MATCH EXISTING
STA. 230+99.00'LRE'



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PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP E	SHEET 562	E

FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\090201_XS.DWG
LAYOUT NAME - E-01

PLOT DATE : 11/15/2022 4:48 PM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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through innovation and exceptional service.

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