WKE May 10, 2022

PROJECT ID: 1320-22-70
WITH: 3180-00-77

COUNTY: WALWORTH

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 = 84



N

DESIGN DESIGNATION

A.A.D.T.	2015	= 7000
A.A.D.T.	2043	= 9400
D.H.V.		= 9.5
D.D.		= 60/40
T.		= 11.3
DESIGN SPEED		= 60 MPH
ESALS		= ---

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
- 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

ELKHORN - BURLINGTON

INDIAN RUN CR 0.7 MI E CLAUSSEN RD

STH 11

WALWORTH COUNTY

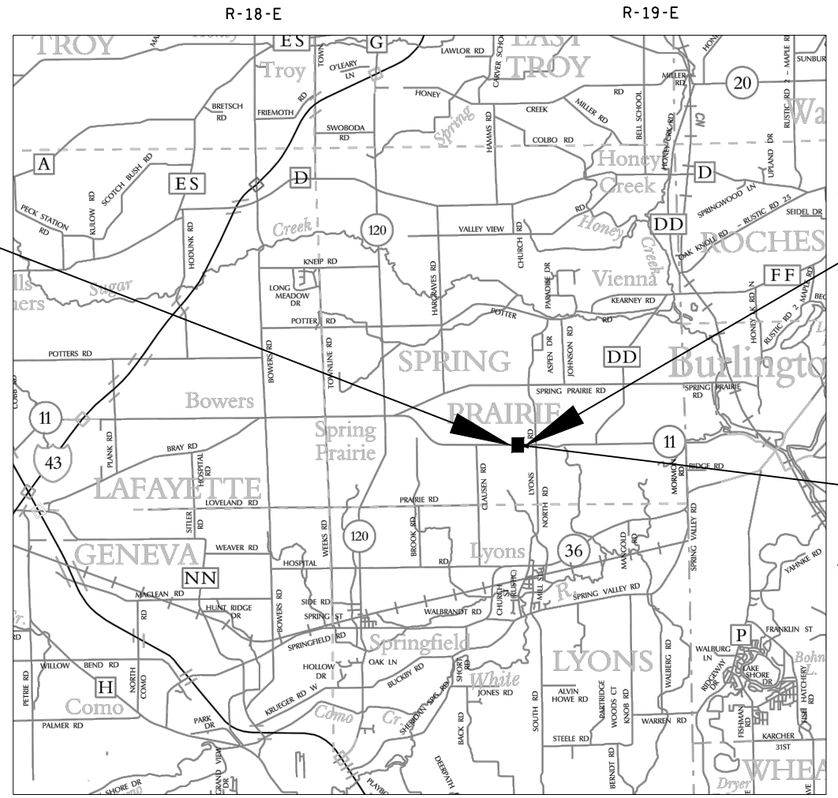
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1320-22-70		

STATE PROJECT NUMBER
1320-22-70

BEGIN PROJECT 1320-22-70
STA 516+94.66
Y = 369,543.07
X = 811,152.69

END PROJECT
STA 522+94.01

STRUCTURE C-64-090



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.19 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WALWORTH 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 NAVD88 (2007).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	WISDOT
Project Manager	JUSTIN SUYDAM
Regional Examiner	SE REGION
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 1-29-2022 Justin W Suydam (Signature)

E

GENERAL NOTES

1. 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 COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
2. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
3. ALL ELEVATIONS AND OFFSETS SHOWN IN THE PLAN SHALL BE VERIFIED IN THE FIELD.
4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

EROSION CONTROL AND STORM WATER MANAGEMENT GENERAL NOTES

1. ALL DISTURBED STREAM BANK AND/OR WETLAND AREAS SHOULD BE ADEQUATELY PROTECTED AND/OR RESTORED OR TEMPORARY PROTECTED/RESTORED WITHIN 24 HOURS OF ANY DISTURBANCE.
2. IF DEWATERING IS REQUIRED FOR ANY REASON, THE WATER MUST BE PUMPED INTO A PROPERLY SELECTED AND SIZED DEWATERING BASING BEFORE THE CLEAN/FILTERED WATER IS ALLOWED TO ENTER ANY WATERWAY OR WETLAND. THE TREATMENT DEVICE MUST REMOVE SUSPENDED SOLIDS AND MEET WATER QUALITY STANDARDS. DO NOT HOUSE ANY DEWATERING DEVICE IN A WETLAND WITHOUT DNR APPROVAL.
3. THE CONTRACTOR SHALL RESTRICT THE REMOVAL OF VEGETATIVE COVER AND EXPOSURE OF BARE GROUND TO THE MINIMUM AMOUNTS NECESSARY TO COMPLETE CONSTRUCTION. RE-TOPSOIL DISTURBED AREAS, AS DESIGNATED BY THE ENGINEER. SEE AND E-MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
4. ALL TEMPORARY STOCK PILES MUST BE IN AN UPLAND LOCATION AND PROTECTED WITH EROSION CONTROL MEASURES (E.G. SILT FENCE, ROCK FILTER-BAG BERN, ETC.) IN A LOCATION APPROVED BY THE ENGINEER. DO NOT STOCKPILE MATERIALS IN WETLANDS, WATERWAYS OR FLOODPLAINS. TEMPORARY SEED AND MULCH STOCKPILES OR WINDROWS OF SOIL WITHIN 72 HOURS. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING TIMING OF RESTORATION REQUIREMENTS.

LIST OF STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ASPH	ASPHALT
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BF	BACK FACE
BL	BASE LINE
BM	BENCH MARK
CB	CATCH BASIN
C/L	CENTERLINE
CC	CENTER TO CENTER
CE	COMMERCIAL ENTRANCE
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CULV	CULVERT
C&G	CURB AND GUTTER
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC
ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FF	FACE TO FACE
FE	FIELD ENTRANCE
FG	FINISHED GRADE
FL	FLOW LINE
FT	FOOT
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM
HES	HIGH EARLY STRENGTH
CWT	HUNDREDWEIGHT
HYD	HYDRANT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
INV	INVERT
IP	IRON PIPE
JT	JOINT
JCT	JUNCTION
LT	LEFT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LF	LINEAR FOOT
L	LITER
LS	LUMP SUM
MH	MANHOLE
MB	MESSAGE BOARD
MLB	MAILBOX
ML	MATCH LINE
NC	NORMAL CROWN
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PERM	PERMANENT
PLE	PERMANENT LIMITED EASEMENT
PT	POINT
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
PE	PRIVATE ENTRANCE
PROJ	PROJECT
PL	PROPERTY LINE
R	RADIUS
R/L	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REQD	REQUIRED
RT	RIGHT
RHF	RIGHT HAND FORWARD
R/W	RIGHT-OF-WAY
RD	ROAD
RDWY	ROADWAY
SALV	SALVAGED
SSS	SANITARY AND STORM SEWER
SAN S	SANITARY SEWER
SEC	SECTION
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SP	SPECIAL
SPECS	SPECIFICATIONS
SQ	SQUARE
SF	SQUARE FEET
SY	SQUARE YARD
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
STR	STRUCTURE OR STRUCTURAL
SL	SURVEY LINE
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T	TON
TC	TOP OF CURB
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
UG	UNDERGROUND
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VERT	VERTICAL
W	WATER
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

AGENCIES

WISDOT CONTACT

SOUTHEAST REGION
JUSTIN SUYDAM
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: (262) 548-8745
EMAIL: JUSTIN.SUYDAM@DOT.WI.GOV

WALWORTH COUNTY

WALWORTH COUNTY - ROAD FACILITY
RICHARD HOUGH
W4097 COUNTY ROAD NN
ELKHORN, WI 53121
PHONE: (262) 741-3104
EMAIL: RHOUGH@CO.WALWORTH.WI.US

DNR CONTACT

DNR SOUTHERN REGION
CRAIG WEBSTER
141 NW BARSTOW ST, ROOM 180
WAUKESHA, WI 53188
PHONE: (262) 574-2141
EMAIL: CRAIG.WEBSTER@WISCONSIN.GOV

UTILITIES

COMMUNICATIONS

AT&T WISCONSIN
MATTHEW DINNAUER
2005 PEWAUKEE RD
WAUKESHA, WI 53188
PHONE: (262) 896-7690
EMAIL: MD9542@ATT.COM

COMMUNICATIONS

EVERSTREAM
JOEL BOJARSKI
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 409-1709
EMAIL: JBOJARSKI@EVERSTREAM.NET

COMMUNICATIONS

SPECTRUM
BEAU ABUYA
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 908-1343
EMAIL: WIS.ENGINEERING@CHARTER.COM

ELECTRICITY

WE ENERGIES
WE ENERGIES UTILITY COORDINATOR
500 S 116TH ST
WEST ALLIS, WI 53214
PHONE: (414) 221-2738
EMAIL: WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

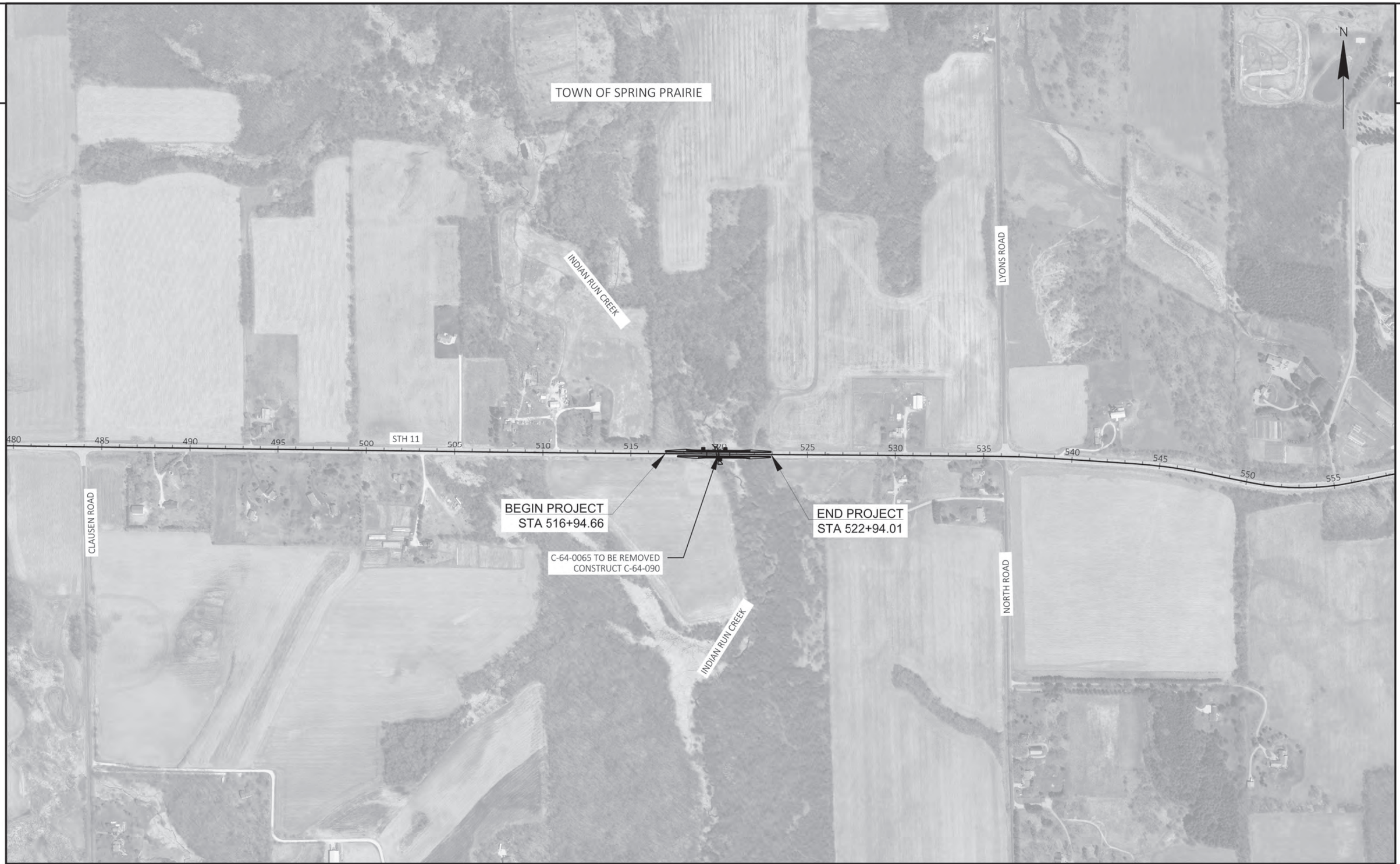
PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
STH 11 (MAINLINE)	4"	2" UPPER LAYER 2" LOWER LAYER	4-MT 58-28 S 4-MT 58-28 S

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
CONTOURS
EROSION CONTROL
SIGNING & MARKING
TRAFFIC CONTROL
ALIGNMENT PLAN

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

2



2

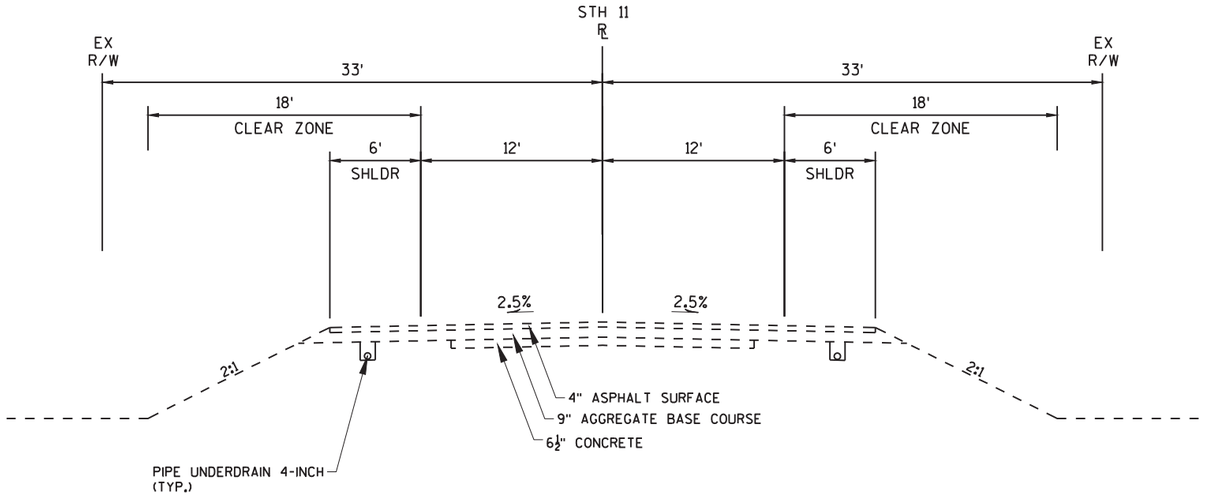
PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2022 9:35 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:500 FT

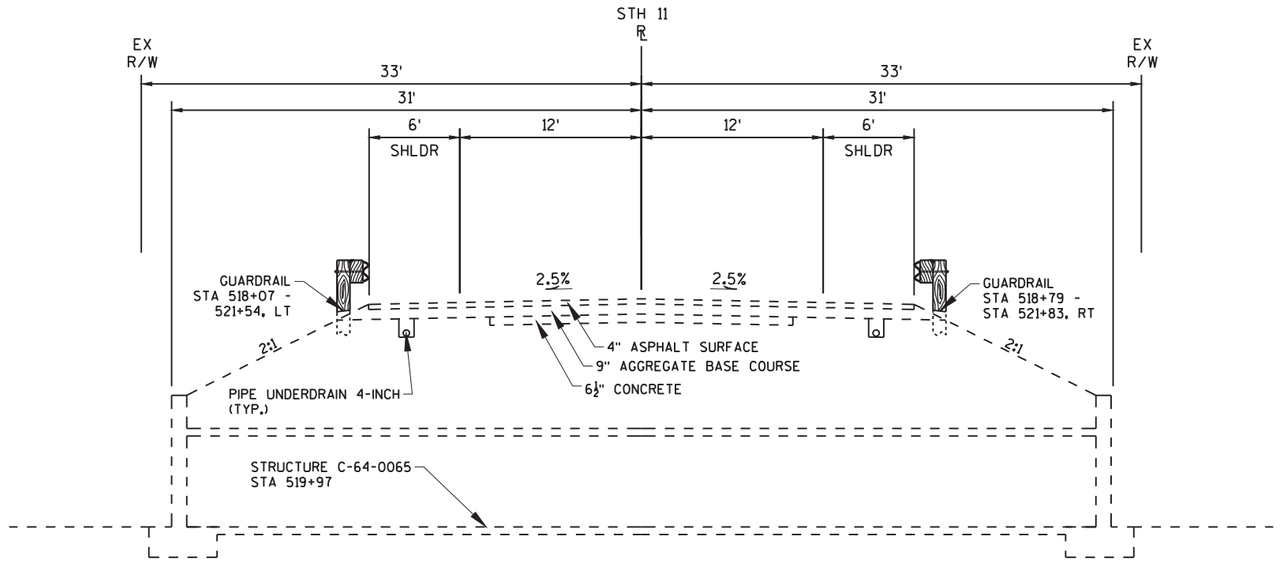
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION

STA 516+94.66 - 518+07
STA 521+83 - 522+94

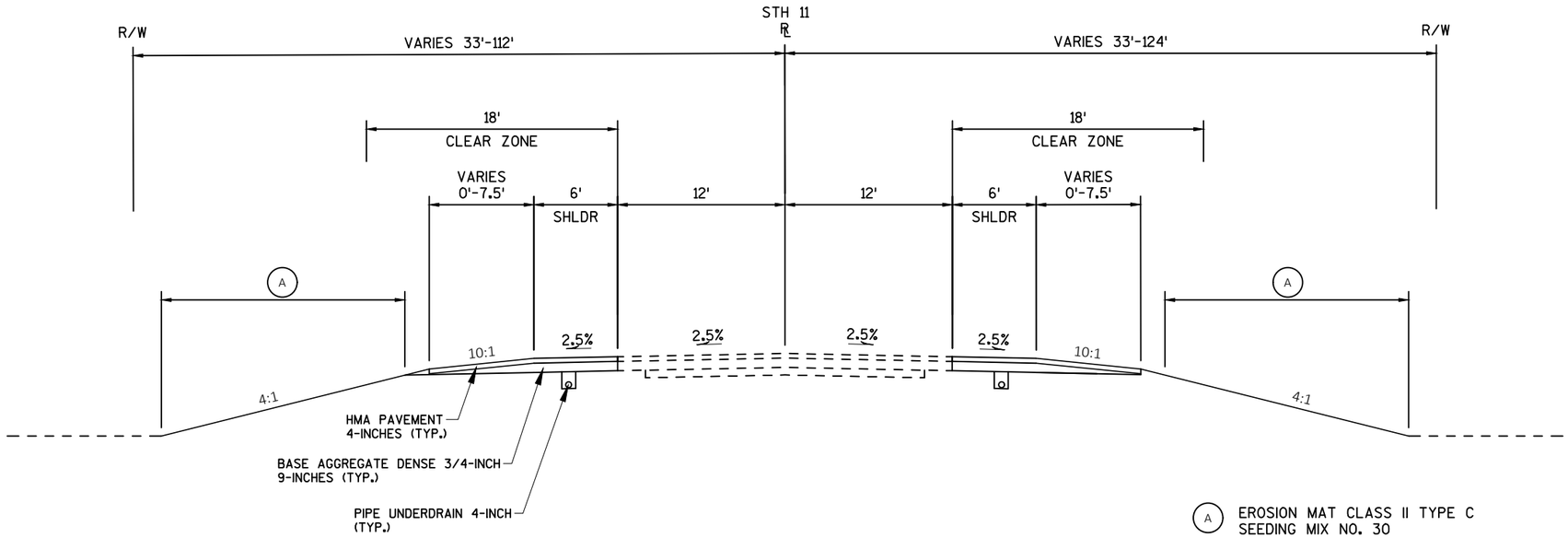


EXISTING TYPICAL SECTION

STA 518+07 - 521+83

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PLAN: EXISTING TYPICAL SECTIONS	SHEET 4	E

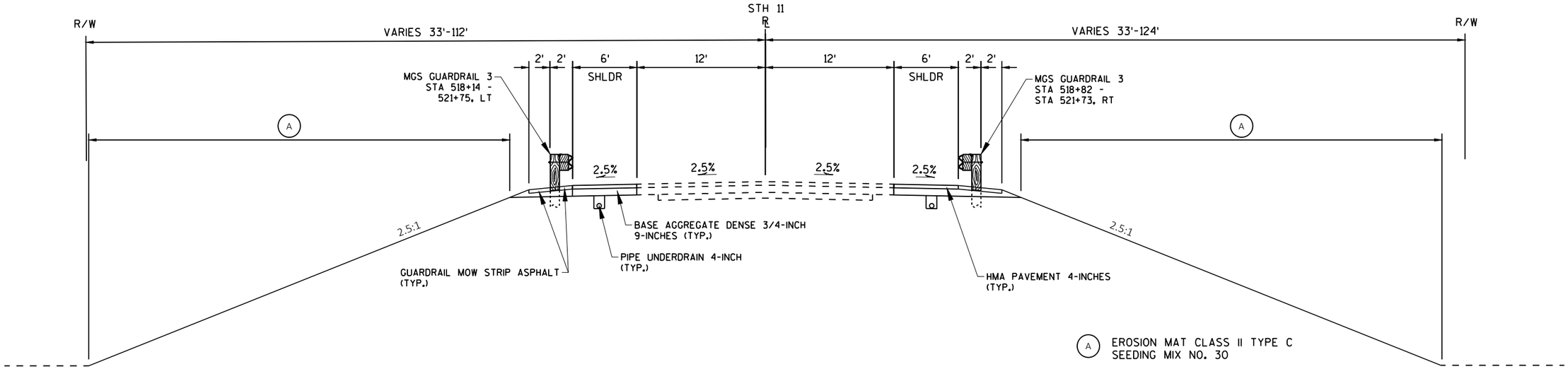
2



FINISHED TYPICAL SECTION

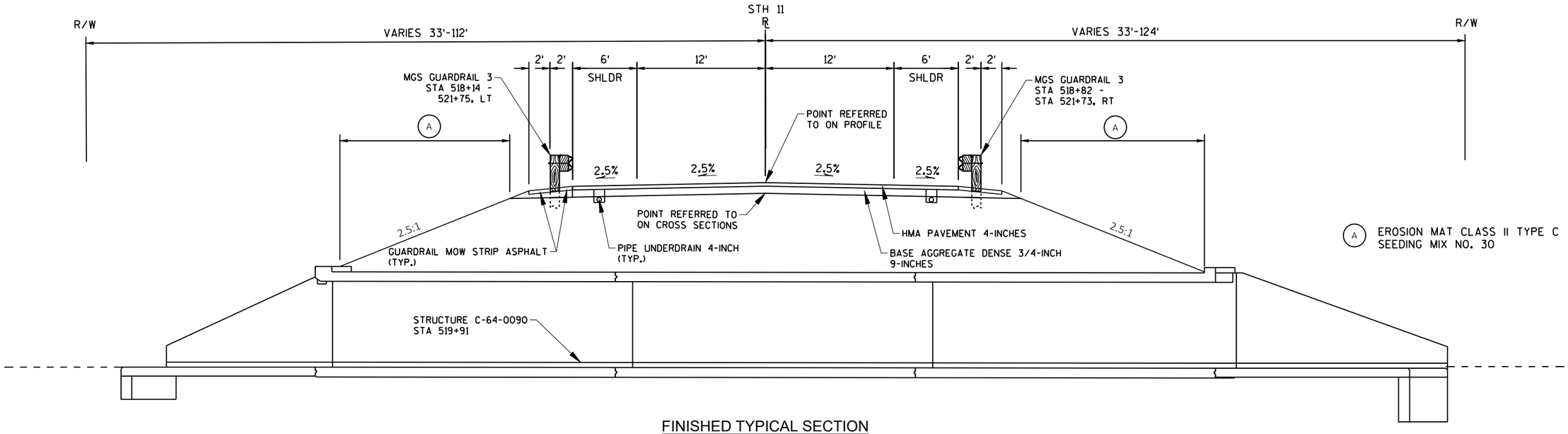
STA 516+94.66 - 518+14
STA 521+82 - 522+94

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 5	E



FINISHED TYPICAL SECTION

STA 518+14 - 519+30
STA 520+60 - 521+82



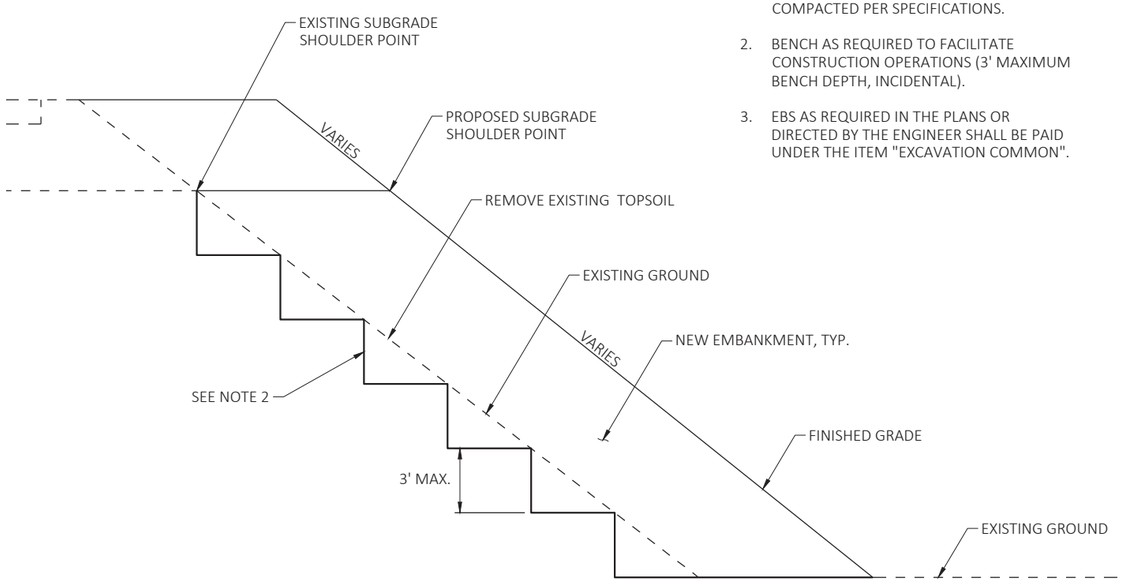
FINISHED TYPICAL SECTION

STA 519+30 - 520+60

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 6	E

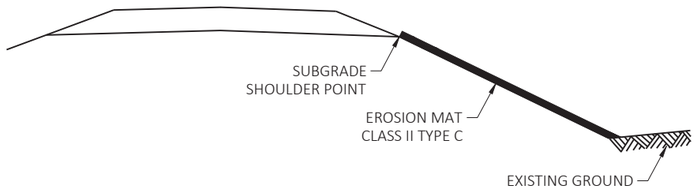
NOTES

1. EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS.
2. BENCH AS REQUIRED TO FACILITATE CONSTRUCTION OPERATIONS (3' MAXIMUM BENCH DEPTH, INCIDENTAL).
3. EBS AS REQUIRED IN THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE PAID UNDER THE ITEM "EXCAVATION COMMON".



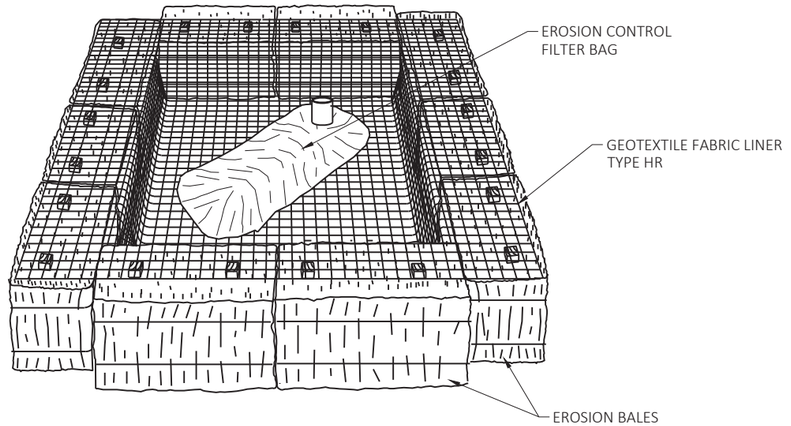
STEPPED EMBANKMENT

EXISTING EMBANKMENT TO REMAIN



EROSION MAT DETAIL FOR SLOPES

SEE EROSION CONTROL PLAN FOR LOCATIONS



NOTES

GEOTEXTILE FABRIC AND EROSION BALES WILL BE PAID UNDER THE ITEMS "GEOTEXTILE TYPE HR" AND "EROSION BALES"

TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

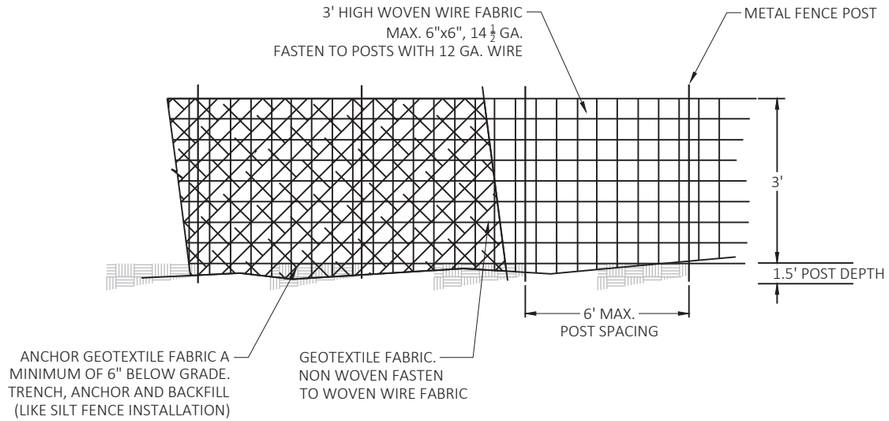
STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

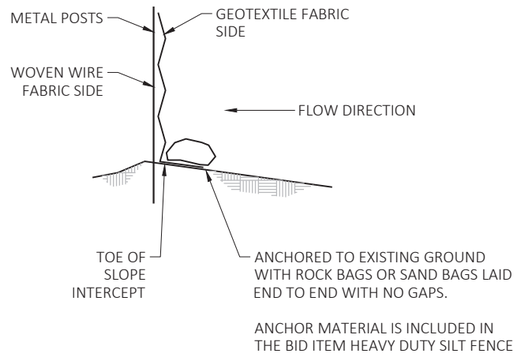
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION
SV (C.F.) = 16 X 50
= 800 C.F.

800 C.F. / 1.5 FT. = 533 S.F.
USE A 20 FT. X 27 FT. BASIN

2





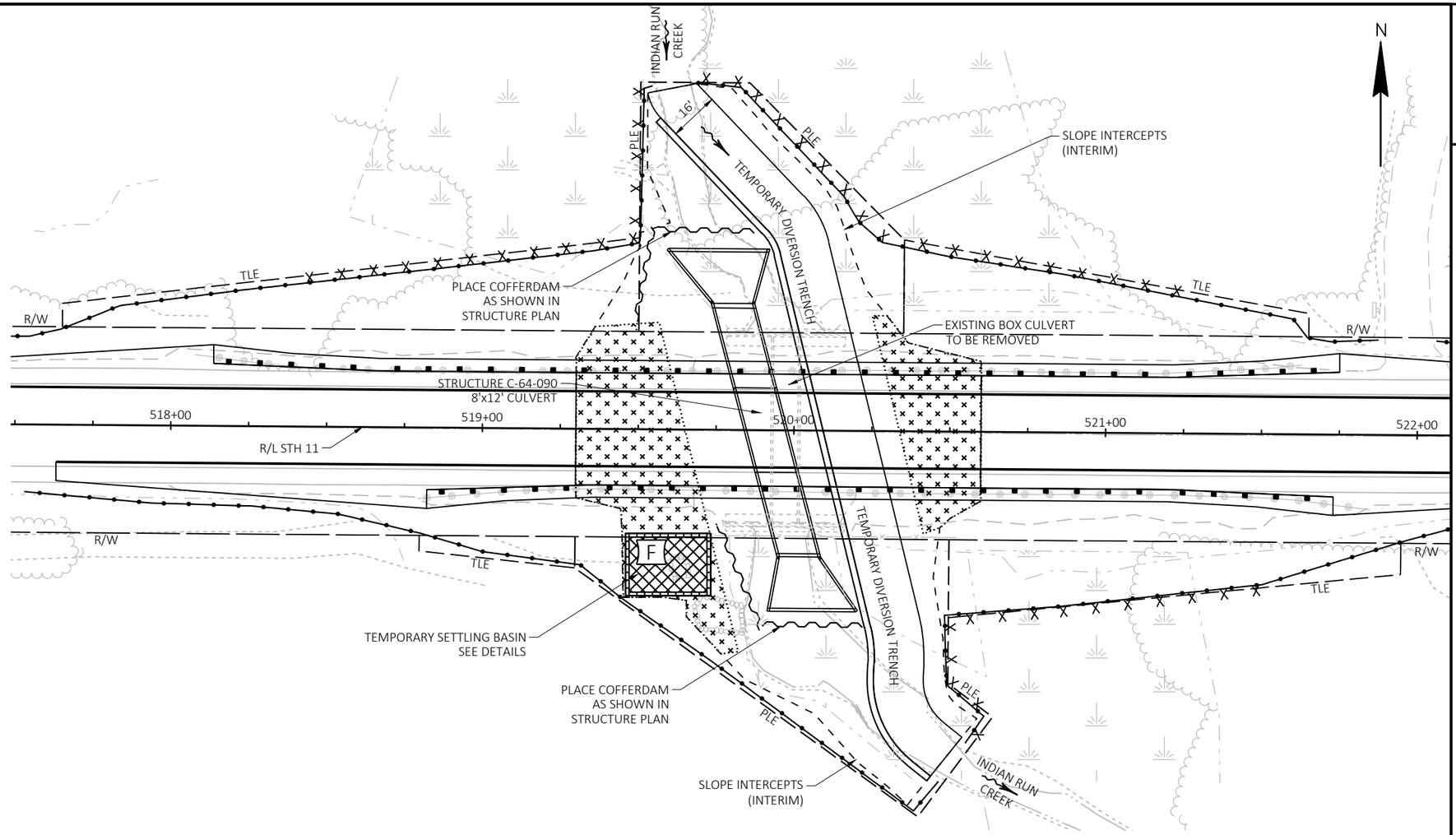
HEAVY DUTY SILT FENCE DETAIL

INSTALL AS NECESSARY AS SHOWN IN THE PLANS
AND DIRECTED BY THE ENGINEER

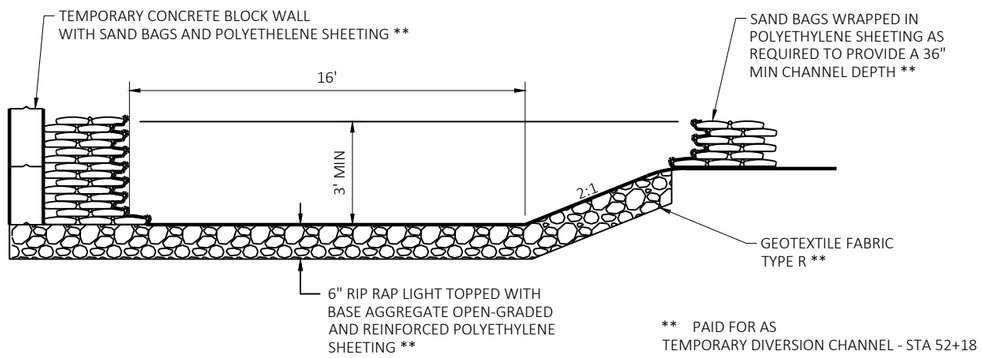
2

LEGEND

- SLOPE INTERCEPT
- WETLAND
- COFFERDAM
- TEMPORARY CONCRETE BLOCK WALL WITH SAND BAGS AND PLASTIC SHEETING PAID FOR AS "TEMPORARY DIVERSION CHANNEL"
- SILT FENCE
- HEAVY DUTY SILT FENCE
- EROSION MAT CLASS II TYPE C SEEDING TEMPORARY
- F — EROSION CONTROL FILTER BAG



C-64-090



** PAID FOR AS TEMPORARY DIVERSION CHANNEL - STA 52+18

TEMPORARY DIVERSION CHANNEL TYPICAL

INDIAN RUN CREEK FLOW RATES

Q(2) = 143 CFS
Q(5) = 212 CFS

1. INSTALL HEAVY DUTY SILT FENCE AND STANDARD SILT FENCE AT LOCATIONS SHOWN.
2. EXCAVATE MAJORITY OF THE TEMPORARY DIVERSION TRENCH (TDT), LEAVING 5-10' OF EMBANKMENT BETWEEN EXCAVATION AND THE EXISTING WATERWAY ON BOTH ENDS (TO PREVENT FLOW INTO THE EXCAVATION).
3. INSTALL EROSION MAT AND SEEDING TEMPORARY ALONG THE EXCAVATED SLOPES AT LOCATIONS SHOWN.
4. REMOVE NORTHEAST WINGWALL OF EXISTING BOX CULVERT.
5. PLACE FABRIC AND STONE ALONG THE BOTTOM OF TDT AND ALONG SIDES TO A VERTICAL HEIGHT OF 3'.
6. SET UP BYPASS PUMP AND PLACE PLATES UPSTREAM AND DOWNSTREAM OF TDT.
7. EXCAVATE BETWEEN THE EXISTING WATERWAY AND THE UPSTREAM AND DOWNSTREAM ENDS OF TDT. PLACE FABRIC AND STONE ALONG THE NEWLY EXCAVATED TDT.
8. PLACE TEMPORARY CONCRETE BLOCK IN UPSTREAM END OF EXISTING WATERWAY TO DIVERT WATER FLOW FROM EXISTING WATERWAY INTO TDT.
9. PLACE TEMPORARY CONCRETE BLOCK IN DOWNSTREAM END OF EXISTING WATERWAY TO PREVENT BACK FLOW OF WATER INTO EXISTING WATERWAY.
10. REMOVE PLATES AND PUMP.
11. PUMP REMAINING WATER OUT OF NOW-BYPASSED WATERWAY TO PREPARE FOR CONSTRUCTION OF NEW STRUCTURE.

ANY WORK WITH CONSTRUCTION OF TEMPORARY DIVERSION TRENCH NEEDS TO BE SCHEDULED DURING A PERIOD WITH LESS THAN 40% CHANCE OF RAIN FOR THE TWO DAY FORECAST.

PUMPING NOT TO EXCEED 48 HOURS.

REFER TO SPECIAL PROVISIONS FOR TIMING DETAILS REGARDING SEEDING AND MULCHING.

REFER TO MAINTAINING DRAINAGE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CONSTRUCTION DETAILS - TEMPORARY DIVERSION CHANNEL - STA 520+18	SHEET 9	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 03
PLOT DATE : 3/2/2022 4:08 PM
PLOT BY : MANANDHAR, BHUVAN K
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

XXXX SAWCUT

REMOVING ASPHALT PAVEMENT
(PAID FOR AS COMMON EXCAVATION)

X CLEARING AND GRUBBING

N

2

INDIAN RUN CREEK

SLOPE INTERCEPTS

REMOVE BOX CULVERT
PAID FOR AS "REMOVING OLD STRUCTURE (C-64-65)"
SEE STRUCTURE PLANS

REMOVING GUARDRAIL

516+00 517+00 518+00 519+00 520+00 521+00 522+00 523+00

STH 11

REMOVING GUARDRAIL

REMOVING FENCE

SLOPE INTERCEPTS

INDIAN RUN CREEK

NOTES

USGS MONITORING PIPE ATTACHED TO SOUTHWEST WINGWALL OF EXISTING STRUCTURE.
PROTECT MONITORING PIPE AND REPLACE IN-KIND ON NEW STRUCTURE.
COST IS INCIDENTAL TO REMOVING OLD STRUCTURE (C-64-65). SEE STRUCTURE PLANS.

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	REMOVAL PLAN	SHEET 10	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2022 12:00 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

INDIAN RUN CREEK

PLE

MGS GUARDRAIL TERMINAL EAT
STA 518+63.50, 18' LT (POST 9)

STA 518+38.50, 19' LT (POST 5)

MGS GUARDRAIL TERMINAL EAT
STA 518+13.50, 20' LT (POST 1)

PROPOSED COMMUNICATION LINE - EVERSTREAM

EXISTING R/W

TLE

4' GUARD RAIL MOW STRIP

MGS GUARDRAIL 3

COMMUNICATION - AT&T

EXISTING BOX CULVERT C-64-0065
TO BE REMOVED

TLE

SLOPE LIMITS (TYP.)

MGS GUARDRAIL TERMINAL EAT
STA 521+25, 18' LT (POST 9)

STA 521+50, 19' LT (POST 5)

MGS GUARDRAIL TERMINAL EAT
STA 521+75, 20' LT (POST 1)

HMA PAVEMENT 4-INCHES ON
BASE AGGREGATE DENSE 3/4-INCH
9-INCHES

EXISTING R/W

+95 +67 +30 +60 +22 +94

516+00 517+00 518+00 519+00 520+00 521+00 522+00 523+00

STH 11

R/L STH 11

+63 +35 12' 6' 12' 6' +20 +92

BEGIN PROJECT
STA 516+94.66

EXISTING R/W

ELECTRIC - WE ENERGIES
COMMUNICATION - CHARTER/SPECTRUM

MGS GUARDRAIL TERMINAL EAT
STA 518+82.25, 20' RT (POST 1)

STA 519+07.25, 19' RT (POST 5)

MGS GUARDRAIL TERMINAL EAT
STA 519+32.25, 18' RT (POST 9)

TLE

MGS GUARDRAIL 3

HMA PAVEMENT 4-INCHES ON
BASE AGGREGATE DENSE 3/4-INCH
9-INCHES

PROPOSED BOX CULVERT C-64-090
12'x8'x84' CONCRETE BOX CULVERT (6" BURY DEPTH)
STA. 519+91
15° SKEW
I.E. - 871.50 (N)
I.E. - 871.40 (S)

PLE

SLOPE LIMITS (TYP.)

INDIAN RUN CREEK

TLE

4' GUARD RAIL MOW STRIP

REMOVE SILT DEPOSITED DOWNSTREAM
OF CULVERT AND FILL SCOUR HOLE

MGS GUARDRAIL TERMINAL EAT
STA 521+73.25, 20' RT (POST 1)

STA 521+48.25, 19' RT (POST 5)

MGS GUARDRAIL TERMINAL EAT
STA 521+23.25, 18' RT (POST 9)

EXISTING R/W

HMA PAVEMENT 4-INCHES ON
BASE AGGREGATE DENSE 3/4-INCH
9-INCHES

END PROJECT
STA 522+94.01

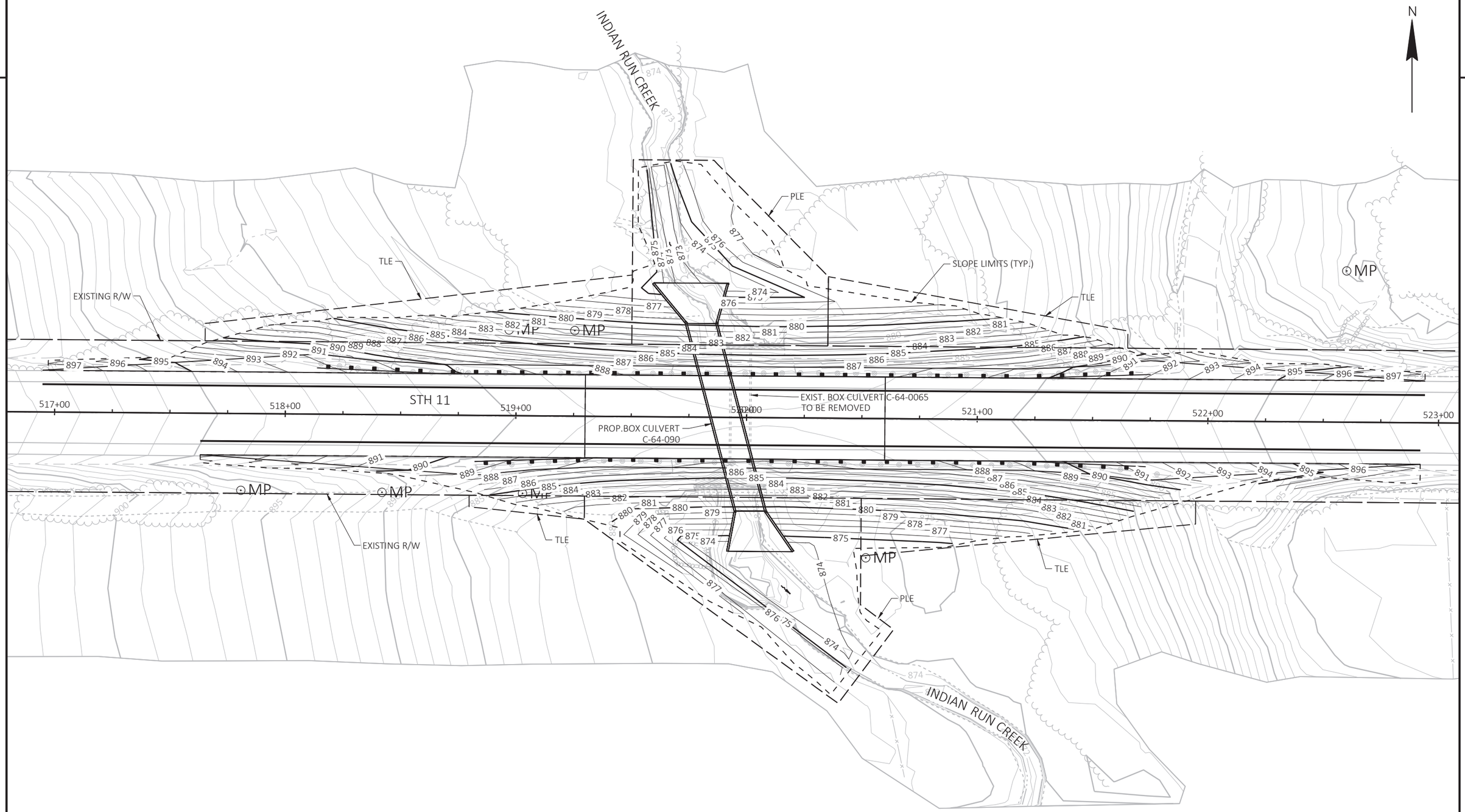
PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS	SHEET 11	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 01

PLOT DATE : 2/1/2022 4:39 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CONTOUR MAP	SHEET 12	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\021601-CM.DWG
LAYOUT NAME - 01

PLOT DATE : 10/12/2021 2:19 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

INDIAN RUN CREEK

SEE CONSTRUCTION DETAILS FOR
TEMPORARY DIVERSION TRENCH LAYOUT

PLE

PLE

TLE

TLE

PRIVATE ENTRANCE

R/W

R/W

STH 11

C-64-090

518

520

522

OH

R/W

R/W

TLE

TLE

STA. 520+40
79' RT

PLE

SEE STRUCTURE PLANS FOR DETAIL OF RIPRAP LIGHT
PLACEMENT AROUND AND THROUGH CULVERT

STA. 519+85
79' RT

PLE

RIPRAP MEDIUM ON SLOPES
OVER GEOTEXTILE TYPE HR

STA. 520+51
100' RT

INDIAN RUN CREEK

STA. 520+39
119' RT

LEGEND

- EROSION MAT CLASS II TYPE C
- SILT FENCE
- HEAVY DUTY SILT FENCE
- RIPRAP (LIGHT OR MEDIUM PER NOTE)
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WETLAND BOUNDARY

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	EROSION CONTROL	SHEET 13	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/12/2022 8:14 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

+95

518

A

+62

R/L STH 11

A

+30

12'

12'

520

B DOUBLE

+60

522

STH 11

+94

+92

5

BEGIN PROJECT 1320-22-70
STA 516+94.66

END PROJECT 1320-22-70
STA 522+94.01

LEGEND

A MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)

B MARKING LINE EPOXY 4-INCH (YELLOW)

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 14	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

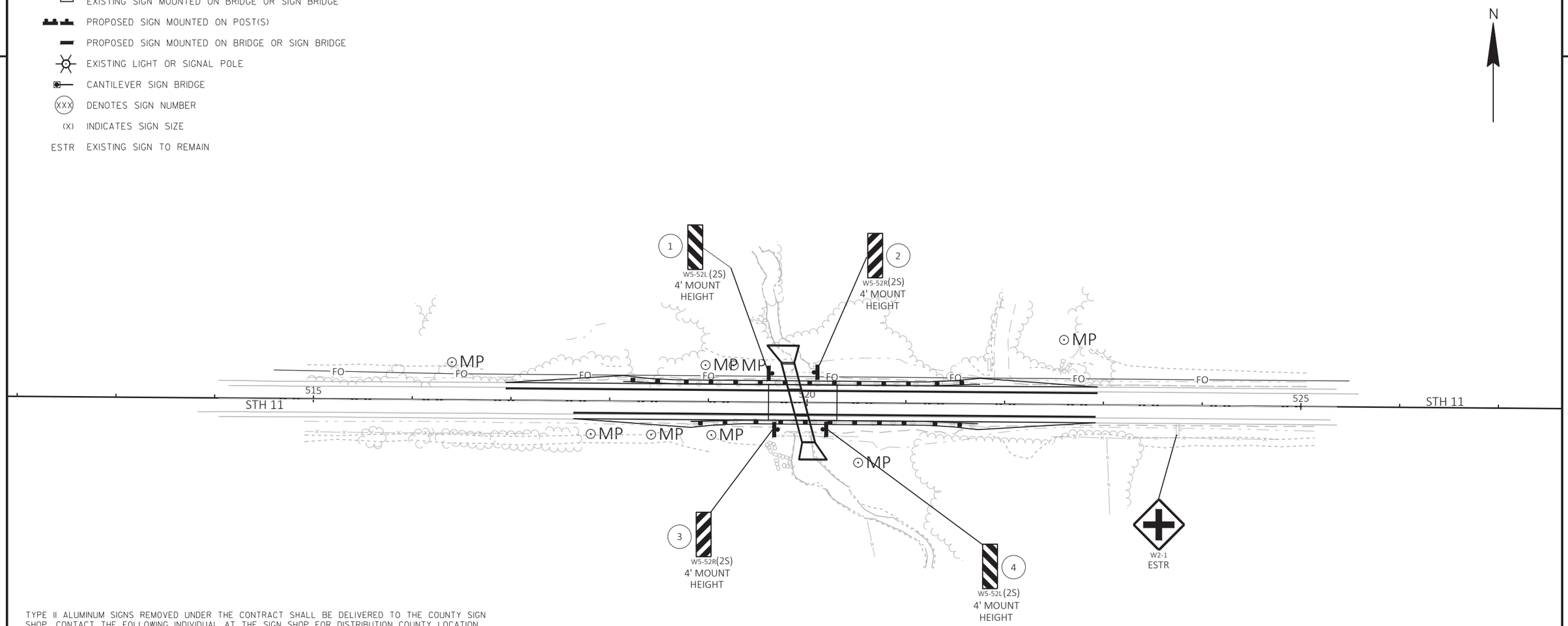
PLOT DATE : 1/12/2022 8:25 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:50 FT

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



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.

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 15	E

FILE NAME : N:\PDS\C3D\CAD\13202200\SIGN\030201_PS.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 8/13/2021 8:36 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

LEGEND

/ PERMANENT/TEMPORARY SIGN ON POST

/ TYPE III BARRICADE WITHOUT/WITH SIGN AND 2 TYPE A WARNING LIGHTS (FLASHING)

PROJECT LIMITS

1 ROAD CLOSED — R11-2, 48"X30"

2 ROAD CLOSED AHEAD — W20-3A

3 ROAD CLOSED 1000 FT — W20-3C

4 ROAD CLOSED 500 FT — W20-3D

5 BRIDGE OUT — R11-2B, 48"X30"

6 BRIDGE OUT 2.2 MILES AHEAD — R11-3C, 60"X24"

7 BRIDGE OUT 1.3 MILES AHEAD — R11-3C, 60"X24"

8 BRIDGE OUT 0.5 MILES AHEAD — R11-3C, 60"X24"

9 ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3, 60"X30"

10 ROAD CLOSED TO THRU TRAFFIC — R11-4, 60"X30"

11 DETOUR — M4-9L, 30"X24"

12 DETOUR — M4-9R, 30"X24"

13 DETOUR AHEAD — W20-2A; EAST M3-2 24"X12"; 11 M1-6 24"X24"

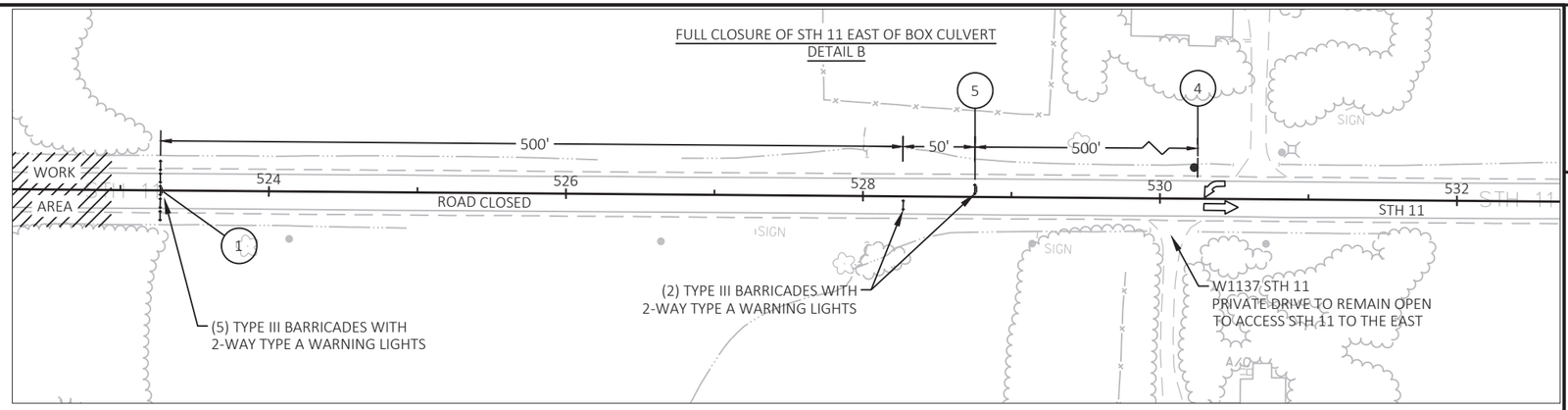
14 DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 11 M1-6 24"X24"; M05-1L 21"X21"

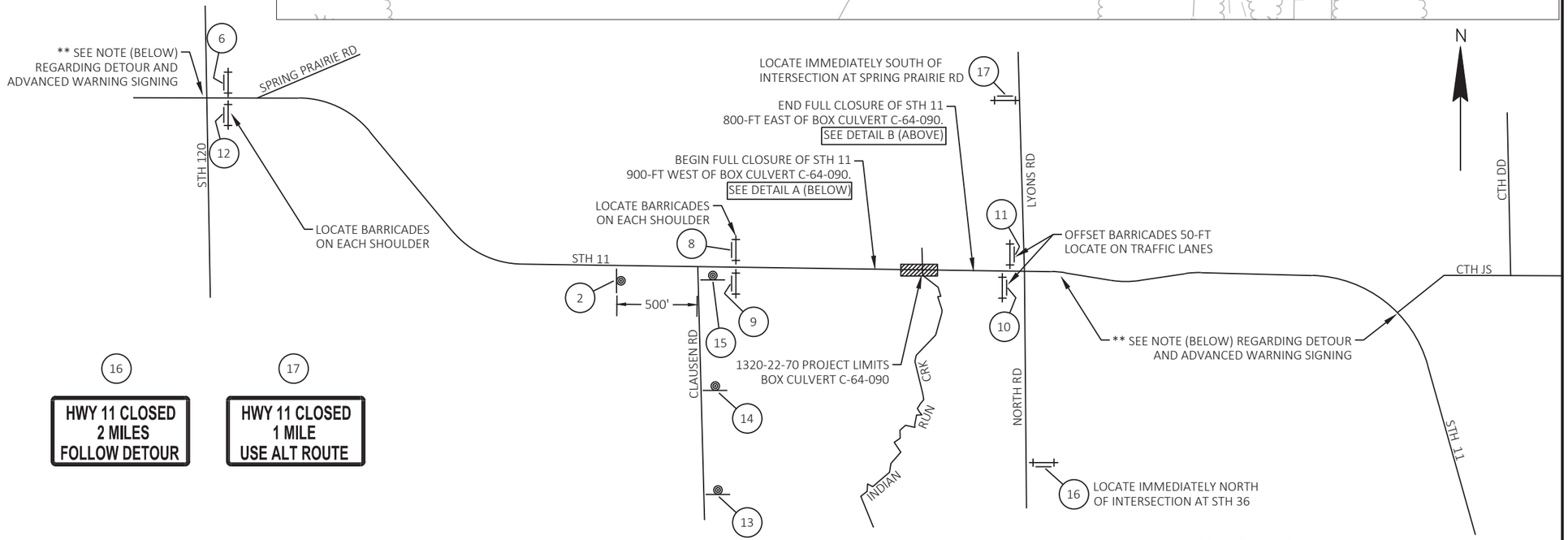
15 DETOUR M4-8 24"X12"; EAST M3-2 24"X12"; 11 M1-6 24"X24"; M06-1 21"X21"

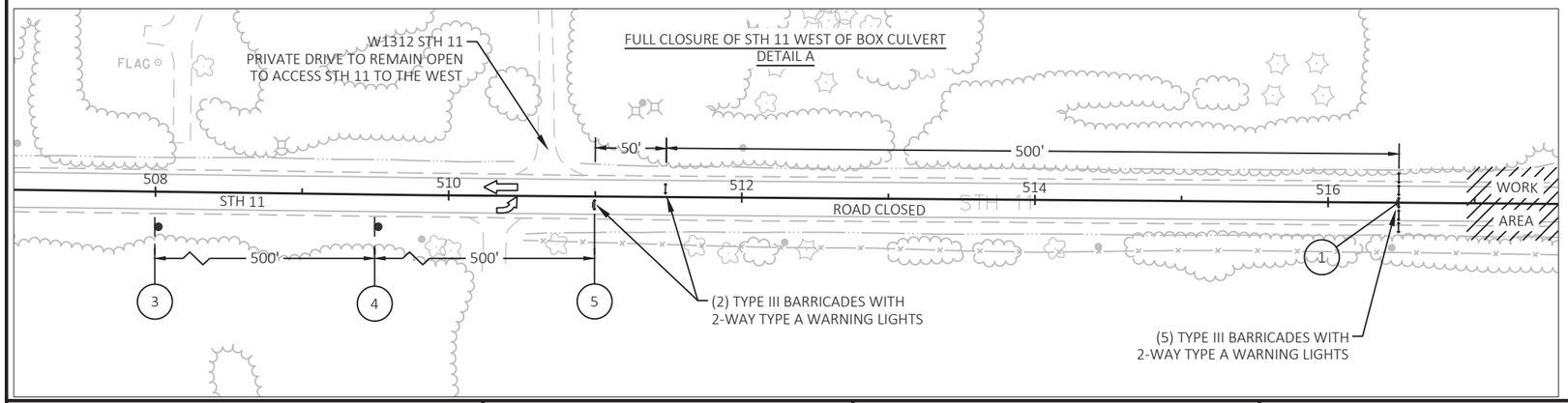
16 HWY 11 CLOSED 2 MILES FOLLOW DETOUR

17 HWY 11 CLOSED 1 MILE USE ALT ROUTE

FULL CLOSURE OF STH 11 EAST OF BOX CULVERT
DETAIL B







TRAFFIC CONTROL NOTES

** REFER TO PROJECT 3180-00-77 FOR DETAILS REGARDING THE STH 11 DETOUR IN EFFECT DURING CONSTRUCTION OF CULVERT C-64-090 AND REQUIRED ADVANCED WARNING SIGNING. ALL DETOUR AND ADVANCED WARNING SIGNING REQUIRED SPECIFICALLY FOR CONSTRUCTION OF BOX CULVERT C-64-090, AS SHOWN ON THIS SHEET, WILL BE PAID FOR UNDER PROJECT 1320-22-70. ADDITIONAL DETOUR SIGNING AND BARRICADES SHOWN IN PROJECT 3180-00-77 ARE PAID FOR UNDER THAT PROJECT ID.

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' (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

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

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.

ALL TYPE III BARRICADES SHALL BE 8' IN LENGTH AND HAVE 2 TYPE 'A' WARNING LIGHTS.

ANY STOP SIGNS THAT ARE REMOVED FOR A CONSTRUCTION OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED.

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL	SHEET 16	E

2

2

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
104	520+15 RT	CP BM CHIZX IN CHIZS	881.581
105	520+16 LT	CP BM CHIZX IN CHIZS	881.675
106	524+14 RT	BM1 RRSPK PP#08-18398	906.886
107	521+63 RT	BM2 RRSPK PP#08-18390	887.633
108	514+44 RT	BM3 RRSPK PP#08-07627	916.874

N

T 3 N
21 22
27 28
R 18 E

CONC. MON.

Y = 372,328.13
X = 810,386.01

PT: 509+79.70

BEGIN PROJECT 1320-22-70
STA 516+94.66
Y = 369,543.07
X = 811,152.69

END PROJECT 1320-22-70
STA 522+94.01

100
CP FENO
STA: 525+10.79, 34.1 LT
N: 369703.222
E: 811969.068
EL: 908.37

PC: 535+60.71

Y = 369,660.84
X = 813,018.68

R/L STH 11

BM105

505

10

28.883

SEC SE 28-3-18

515

STH 11

525

S89° 32' 50.41"E
2581.008

530

535

Y = 369,681.23
X = 810,437.76

BM108

BM104

BM107

BM106

103
CP FENO
STA: 514+01.93, 31.1 RT
N: 369646.802
E: 810859.727
EL: 916.996

102
CP FENO
STA: 517+72.41, 32.9 RT
N: 369642.100
E: 811230.180
EL: 896.75

101
CP FENO
STA: 522+41.17, 33.7 RT
N: 369637.526
E: 811698.922
EL: 898.43

T 3 N
29 28
33 32
R 18 E

CONC. MON.

Y = 369,719.09
X = 807,811.56

T 3 N
28 27
33 34
R 18 E

Y = 369,685.12
X = 810,446.63

T 3 N
27 26
35 34
R 18 E

Y = 369,655.28
X = 813,098.57

T 3 N R 18 E
33 34
3 4
T 2 N R 18 E

Y = 367,052.18
X = 810,509.25

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	ALIGNMENT LAYOUT - SURVEY CONTROL OVERVIEW	SHEET 17	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 01

PLOT DATE : 1/12/2022 10:40 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

1320-22-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	340.000	340.000
0004	201.0210	Grubbing	SY	340.000	340.000
0006	203.0220	Removing Structure (structure) 01. C-64-65	EACH	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	222.000	222.000
0012	204.0110	Removing Asphaltic Surface	SY	1,095.000	1,095.000
0022	204.0165	Removing Guardrail	LF	662.000	662.000
0024	204.0170	Removing Fence	LF	100.000	100.000
0028	205.0100	Excavation Common	CY	750.000	750.000
0032	206.2000	Excavation for Structures Culverts (structure) 01. C-64-90	LS	1.000	1.000
0034	206.5000	Cofferdams (structure) 01. C-64-90	LS	1.000	1.000
0036	208.0100	Borrow	CY	944.000	944.000
0040	210.2500	Backfill Structure Type B	TON	1,590.000	1,590.000
0044	211.0100	Prepare Foundation for Asphaltic Paving (project) 01.1320-22-70	LS	1.000	1.000
0046	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	6.000	6.000
0050	213.0100	Finishing Roadway (project) 01.1320-22-70	EACH	1.000	1.000
0052	305.0110	Base Aggregate Dense 3/4-Inch	TON	575.000	575.000
0058	311.0115	Breaker Run	CY	244.000	244.000
0060	312.0115	Select Crushed Material	CY	45.000	45.000
0062	455.0605	Tack Coat	GAL	42.000	42.000
0068	460.2000	Incentive Density HMA Pavement	DOL	160.000	160.000
0078	460.6224	HMA Pavement 4 MT 58-28 S	TON	246.000	246.000
0082	465.0400	Asphaltic Shoulder Rumble Strips	LF	1,123.000	1,123.000
0086	504.0100	Concrete Masonry Culverts	CY	156.000	156.000
0088	505.0400	Bar Steel Reinforcement HS Structures	LB	19,630.000	19,630.000
0090	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,310.000	2,310.000
0096	516.0500	Rubberized Membrane Waterproofing	SY	30.000	30.000
0104	606.0100	Riprap Light	CY	214.000	214.000
0106	606.0200	Riprap Medium	CY	60.000	60.000
0112	612.0104	Pipe Underdrain 4-Inch	LF	1,128.000	1,128.000
0120	614.0396	Guardrail Mow Strip Asphalt	SY	299.000	299.000
0122	614.2300	MGS Guardrail 3	LF	473.000	473.000
0128	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0132	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1320-22-70	EACH	1.000	1.000
0136	619.1000	Mobilization	EACH	0.160	0.160
0140	624.0100	Water	MGAL	2.000	2.000
0142	625.0100	Topsoil	SY	2,065.000	2,065.000
0144	627.0200	Mulching	SY	2,065.000	2,065.000
0146	628.1104	Erosion Bales	EACH	16.000	16.000
0148	628.1504	Silt Fence	LF	804.000	804.000
0150	628.1520	Silt Fence Maintenance	LF	804.000	804.000
0152	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0154	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0158	628.2027	Erosion Mat Class II Type C	SY	2,612.000	2,612.000
0160	628.6505	Soil Stabilizer Type A	ACRE	1.000	1.000
0164	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0168	628.7570	Rock Bags	EACH	20.000	20.000
0172	630.0130	Seeding Mixture No. 30	LB	28.000	28.000
0176	630.0200	Seeding Temporary	LB	112.000	112.000
0178	630.0500	Seed Water	MGAL	46.000	46.000

1320-22-70

Line	Item	Item Description	Unit	Total	Qty
0180	633.5200	Markers Culvert End	EACH	2.000	2.000
0182	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	4.000	4.000
0186	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0194	642.5001	Field Office Type B	EACH	0.160	0.160
0196	643.0300	Traffic Control Drums	DAY	900.000	900.000
0198	643.0420	Traffic Control Barricades Type III	DAY	3,960.000	3,960.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	7,920.000	7,920.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	900.000	900.000
0206	643.0900	Traffic Control Signs	DAY	4,500.000	4,500.000
0208	643.0910	Traffic Control Covering Signs Type I	EACH	5.000	5.000
0210	643.1000	Traffic Control Signs Fixed Message	SF	33.000	33.000
0216	643.5000	Traffic Control	EACH	0.160	0.160
0218	645.0105	Geotextile Type C	SY	325.000	325.000
0220	645.0120	Geotextile Type HR	SY	198.000	198.000
0222	645.0130	Geotextile Type R	SY	200.000	200.000
0224	646.1020	Marking Line Epoxy 4-Inch	LF	260.000	260.000
0226	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	1,128.000	1,128.000
0246	650.4500	Construction Staking Subgrade	LF	130.000	130.000
0248	650.5000	Construction Staking Base	LF	130.000	130.000
0252	650.6500	Construction Staking Structure Layout (structure) 01. C-64-90	LS	1.000	1.000
0256	650.9910	Construction Staking Supplemental Control (project) 01. 1320-22-70	LS	1.000	1.000
0260	690.0150	Sawing Asphalt	LF	1,170.000	1,170.000
0262	690.0250	Sawing Concrete	LF	40.000	40.000
0264	715.0502	Incentive Strength Concrete Structures	DOL	936.000	936.000
0268	SPV.0060	Special 01. Erosion Control Filter Bags	EACH	1.000	1.000
0270	SPV.0060	Special 02. Temporary Diversion Channel Sta 520+18	EACH	1.000	1.000
0272	SPV.0090	Special 01. Heavy Duty Silt Fence	LF	492.000	492.000

3

CLEARING & GRUBBING

STATION	TO	STATION	LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
518+20	-	518+53	STH 11 (LT)	47	47
519+52	-	520+07	STH 11 (LT)	171	171
521+08	-	521+92	STH 11 (RT)	122	122
			PROJECT TOTAL	**340**	**340**

REMOVALS

STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF
519+30	-	520+60	STH 11	222	1095	-	-
518+08	-	521+63	STH 11 (LT)	-	-	356	-
518+82	-	521+85	STH 11 (RT)	-	-	306	100
			PROJECT TOTAL	**222**	**1095**	**662**	**100**

3

EARTHWORK

STATION	TO	STATION	LOCATION	205.0100 EXCAVATION COMMON CY	208.0100 BORROW CY	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 1320-22-70) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
516+92	-	522+99	STH 11	750	944	1	6
			PROJECT TOTAL	**750**	**944**	**1**	**6**

EARTHWORK SUMMARY

STATION TO STATION	LOCATION	205.0100 EXCAVATION COMMON (1) CUT (2) CY	205.0100 EXCAVATION COMMON (1) EBS EXCAV. (3) CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL (2) CY	AVAILABLE MATERIAL (4) CY	EXPANDED EBS BACKFILL (5) FACTOR 1.00 CY	UNEXPANDED FILL CY	EXPANDED FILL (7) FACTOR 1.30 CY	MASS ORDINATE +/- (8) CY	WASTE CY	208.0100 BORROW CY
516+94 TO 522+94	STH 11	625		477	148		936	1217	-1069		
-	INDIAN RUN CREEK (NORTH)	50			50		0	0	50		
-	INDIAN RUN CREEK (SOUTH)	75			75		0	0	75		
	SUBTOTAL	750	0		273	0	936	1217	-944	0	944
	TOTAL	750									944

1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100.

2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

3) EBS EXCAVATION IS TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL. MATERIAL EXCAVATED FROM EBS IS NOT TO BE USED AS FILL ELSEWHERE ON THE PROJECT.

4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL.

5) ROCK EXCAVATION ITEM NUMBER 205.0200.

6) EXPANDED ROCK: FACTOR = 1.00

7) EXPANDED FILL: FACTOR = 1.00; EXPANDED FILL = (UNEXPANDED FILL - ROCK * ROCK FACTOR) * FILL FACTOR

8) 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.

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

BASE AGGREGATE ITEMS

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON
519+30	-	520+60	STH 11	182
516+97	-	522+91	STH 11 (LT)	208
517+63	-	522+92	STH 11 (RT)	185
			PROJECT TOTAL	575

PAVEMENT

STATION	TO	STATION	LOCATION	213.0100.01 FINISHING ROADWAY (PROJECT) (01. 1320-22-70) EACH	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
516+97	-	522+91	STH 11 (LT)	-	-	-	594
517+63	-	522+92	STH 11 (RT)	-	-	-	529
516+92	-	522+99	UNDISTRIBUTED	1	-	-	-
519+30	-	520+60	STH 11	-	42	246	-
			PROJECT TOTAL	1	42	246	1123

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

PIPE UNDERDRAIN

STATION	TO	STATION	LOCATION	612.0104 PIPE UNDERDRAIN 4-INCH LF
516+97	-	522+91	STH 11 (LT)	599
517+63	-	522+92	STH 11 (RT)	529
			PROJECT TOTAL	1128

MOBILIZATION

STATION	TO	STATION	LOCATION	619.1000 MOBILIZATION EACH
516+92	-	522+99	STH 11	0.16
			PROJECT TOTAL	0.16

3

BEAM GUARD

STATION	TO	STATION	LOCATION	614.0396 GUARDRAIL MOW STRIP ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
516+95	-	518+67	STH 11 (LT)	-	-	-
517+63	-	519+35	STH 11 (RT)	-	-	-
521+22	-	522+73	STH 11 (RT)	-	-	-
521+22	-	522+75	STH 11 (LT)	-	-	-
518+64	-	521+22	STH 11 (LT)	-	258	-
519+08	-	521+23	STH 11 (RT)	-	215	-
519+90	-		STH 11 (LT)	-	-	-
520+00	-		STH 11 (RT)	-	-	-
518+14	-	518+67	STH 11 (LT)	-	-	1
518+82	-	519+35	STH 11 (RT)	-	-	1
521+20	-	521+73	STH 11 (RT)	-	-	1
521+22	-	521+75	STH 11 (LT)	-	-	1
518+10	-	521+80	STH 11 (RT)	165	-	-
518+80	-	521+80	STH 11 (LT)	134	-	-
			PROJECT TOTAL	299	473	4

LANDSCAPING

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
516+92	-	522+99	STH 11 (LT)	888	888	12	-
516+92	-	522+99	STH 11 (RT)	1177	1177	16	-
516+92	-	522+99	UNDISTRIBUTED	-	-	-	46
			PROJECT TOTAL	2065	2065	28	46

MARKERS CULVERT END

STATION	LOCATION	633.5200 MARKERS CULVERT END EACH
519+90	STH 11 (LT)	1
520+00	STH 11 (RT)	1
	PROJECT TOTAL	2

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

				EROSION CONTROL						
				606.0200 RIPRAP MEDIUM	624.0100 WATER	628.1104 EROSION BALES	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.1905 MOBILIZATIONS EROSION CONTROL	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL
STATION	TO	STATION	LOCATION	CY	MGAL	EACH	LF	LF	EACH	EACH
516+92	-	522+99	STH 11 (LT)	46	1	-	487	487	-	-
516+92	-	522+99	STH 11 (RT)	14	1	-	317	317	-	-
516+92	-	522+99	UNDISTRIBUTED	-	-	16	-		1	4
			PROJECT TOTAL	60	2	16	804	804	1	4

				EROSION CONTROL						
				628.2027 EROSION MAT CLASS II TYPE C	628.6505 SOIL STABILIZER TYPE A	628.7504 TEMPORARY DITCH CHECKS	628.7570 ROCK BAGS	630.0200 SEEDING TEMPORARY	SPV.0060.01 SPECIAL (01. EROSION CONTROL FILTER BAGS)	SPV.0090.01 SPECIAL (HEAVY DUTY SILT FENCE)
STATION	TO	STATION	LOCATION	SY	ACRE	LF	EACH	LB	EACH	LF
516+92	-	522+99	STH 11 (LT)	1254	-	-	-	-	-	161
516+92	-	522+99	STH 11 (RT)	1358	-	-	-	-	-	331
516+92	-	522+99	UNDISTRIBUTED	-	1	100	20	112	1	-
			PROJECT TOTAL	2612	1	100	20	112	1	492

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

TYPE II PERMANENT SIGNING -

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	**637.2230** SIGNS TYPE II REFLC F [SF]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	W5-52L(2S)	--	12	x	36	3.000	1	--	4 FT MOUNT HEIGHT
2	W5-52R(2S)	--	12	x	36	3.000	1	--	4 FT MOUNT HEIGHT
3	W5-52R(2S)	--	12	x	36	3.000	1	--	4 FT MOUNT HEIGHT
4	W5-52L(2S)	--	12	x	36	3.000	1	--	4 FT MOUNT HEIGHT
--	--	--	--	x	--	--	--	--	--
TOTALS						12.000	4		

3

SHEET 1 OF 1

3

				TRAFFIC CONTROL								
				643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	643.0900 TRAFFIC CONTROL SIGNS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I		643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE	643.5000 TRAFFIC CONTROL
STATION	TO	STATION	LOCATION	DAY	DAY	DAY	DAY	DAY	NUMBER OF CYCLES	EACH	SF	EACH
516+94	-	522+94	STH 11	-	3960	7920	-	4500	-	-	33	-
516+92	-	522+99	UNDISTRIBUTED	900	-	-	900	-	1	5	-	0.16
			PROJECT TOTAL	900	3960	7920	900	4500		5	33	0.16

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

3

PAVEMENT MARKING

STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH LF
516+95	-	522+94	STH 11 (LT)	-	599
517+63	-	522+92	STH 11 (RT)	-	529
519+30	-	520+60	STH 11	260	-
			PROJECT TOTAL	**260**	**1128**

FIELD OFFICE

STATION	TO	STATION	LOCATION	642.5001 FIELD OFFICE TYPE B EACH
516+92	-	522+99	STH 11	0.16
			PROJECT TOTAL	**0.16**

GEOTEXTILE

STATION	TO	STATION	LOCATION	645.0120 GEOTEXTILE TYPE HR SY
516+92	-	522+99	TEMPORARY SETTLING BASIN	198
			PROJECT TOTAL	**198**

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (01. C-64-90) LS	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 1320-22-70) LS
516+92	-	522+99	STH 11	130	130	1	1
			PROJECT TOTAL	**130**	**130**	**1**	**1**

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

3

SAWCUT

STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
519+30	-	520+60	STH 11	73	40
516+95	-	522+94	STH 11 (LT)	547	-
517+63	-	522+92	STH 11 (RT)	550	-
			PROJECT TOTAL	1170	40

TEMPORARY DIVERSION CHANNEL

STATION	LOCATION	SPV.0060.02 SPECIAL (02. TEMPORARY DIVERSION CHANNEL) EACH
520+18	STH 11	1
	PROJECT TOTAL	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

R/W PROJECT NUMBER: 1320-22-20	SHEET NUMBER: 4.01

TLE AND PLE ACQUISITION EXHIBIT
STH 11
ELKHORN TO BURLINGTON

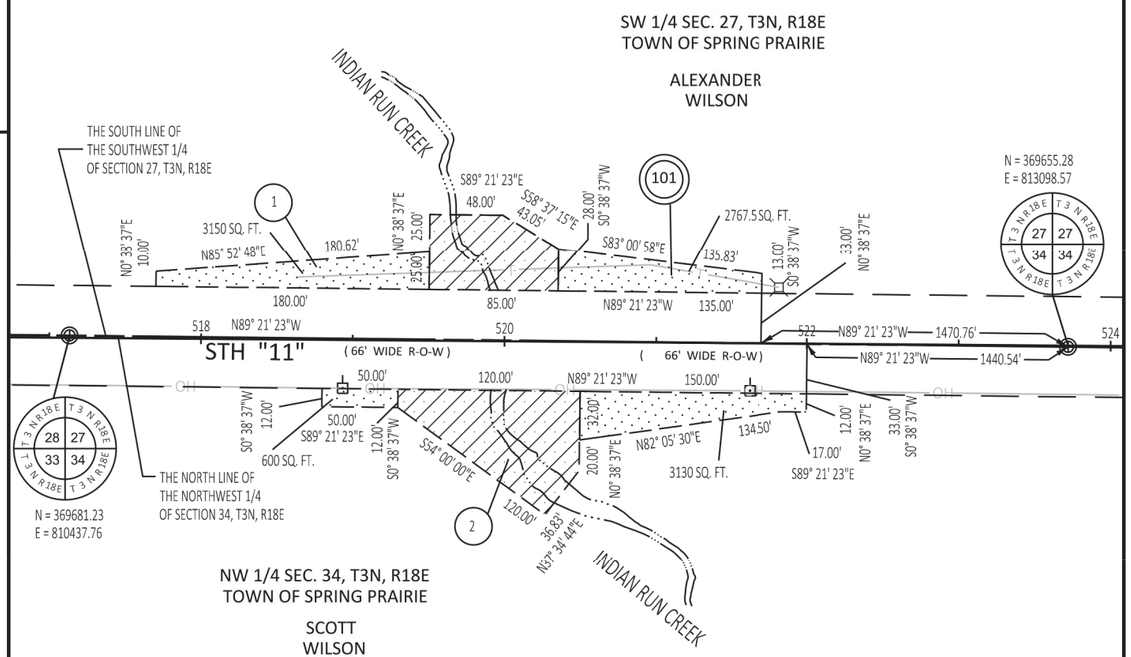
STH 11 — WALWORTH COUNTY

THE SOUTH 1/2 OF THE SW 1/4 SEC. 27-3-18 AND THE NORTH 1/2 OF THE NW 1/4 OF SEC. 34-3-18
TOWN OF SPRING PRAIRIE, WALWORTH COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
STH 11	PROJECT 13201029	66'	2003

(101) NO RECORD OF EASEMENT FOR PARCEL 1



GN

SCALE, FEET
0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	T.L.E S.F.	F.E.E. S.F.	P.L.E. S.F.
1	ALEXANDER WILSON	T.L.E, P.L.E	5917.5		3843.0
2	SCOTT WILSON	T.L.E, P.L.E	3730.0		6049.0

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED			
101	A.T.&T	ROR			

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
REGION AND CITY REGION OFFICE

SIGNATURE: Robert A Duffeck DATE: 09/07/2021

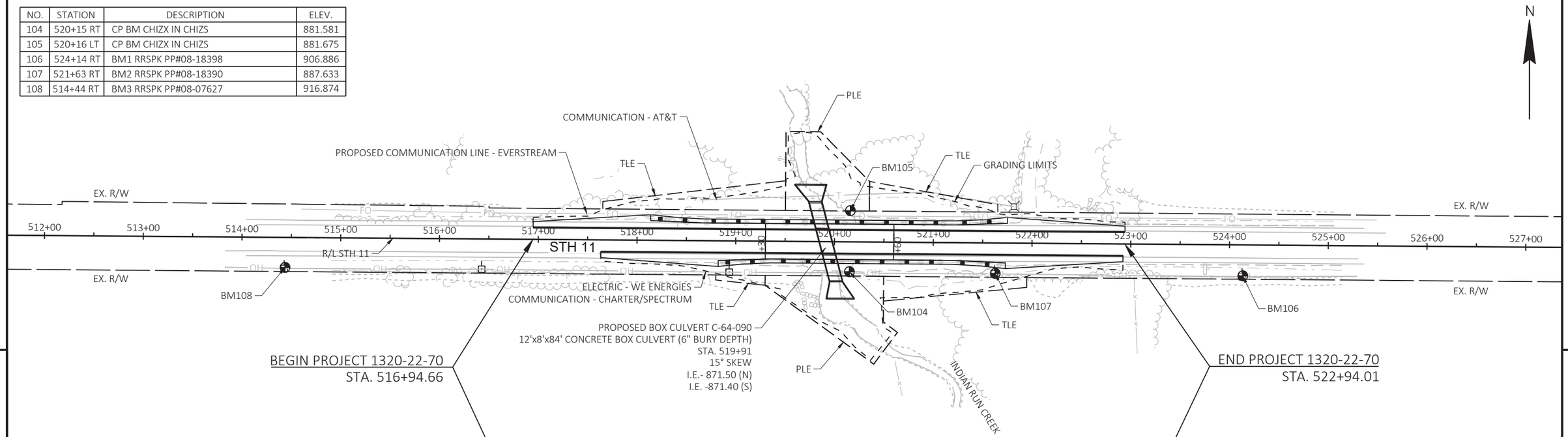
PRINT NAME: BOB DUFFECK

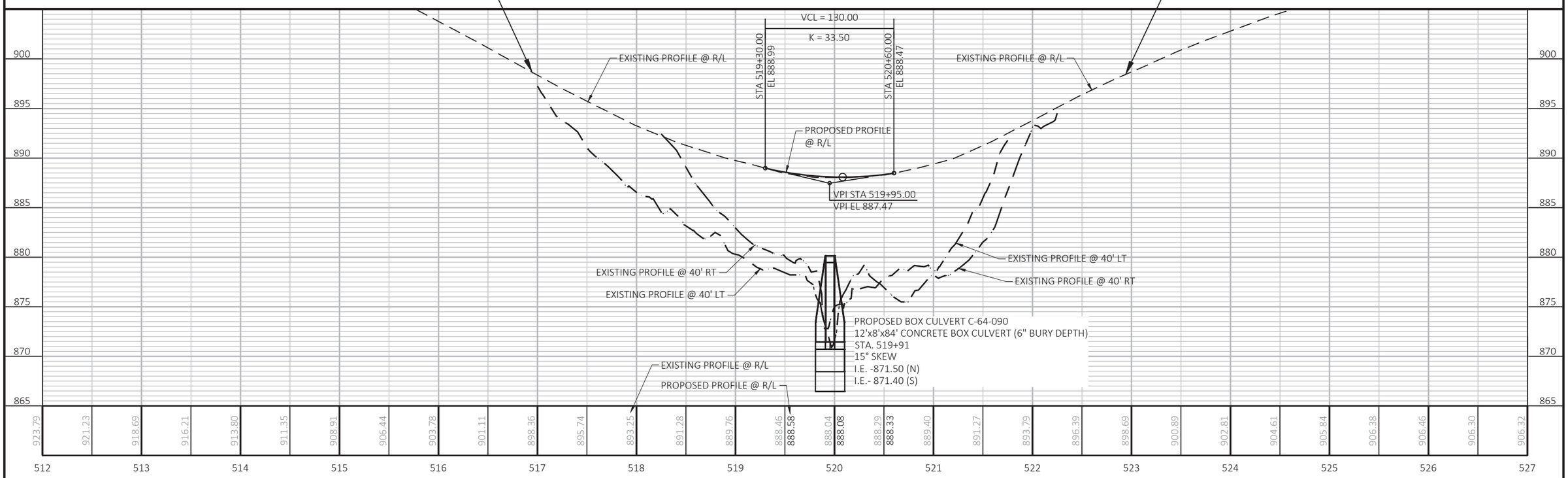
FILE NAME : T:\WORKING\SKIFFINGTON\PUBLIC\PDS\C3D\13202200\SHEETSPLAN\04.01.DWG
APPRAISAL PLAT DATE : _____
PLOT DATE : 9/7/2021 2:40 PM
R/W PROJECT: R/W PROJECT
PLOT DATE : 11/3/2021 9:41 AM
PLOT BY : SKIFFINGTON, NICHOLA
PLOT NAME :
PLOT SCALE :

4

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
104	520+15 RT	CP BM CHIZX IN CHIZS	881.581
105	520+16 LT	CP BM CHIZX IN CHIZS	881.675
106	524+14 RT	BM1 RRSPK PP#08-18398	906.886
107	521+63 RT	BM2 RRSPK PP#08-18390	887.633
108	514+44 RT	BM3 RRSPK PP#08-07627	916.874





PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	PLAN AND PROFILE: PLAN AND PROFILE	SHEET 29	E

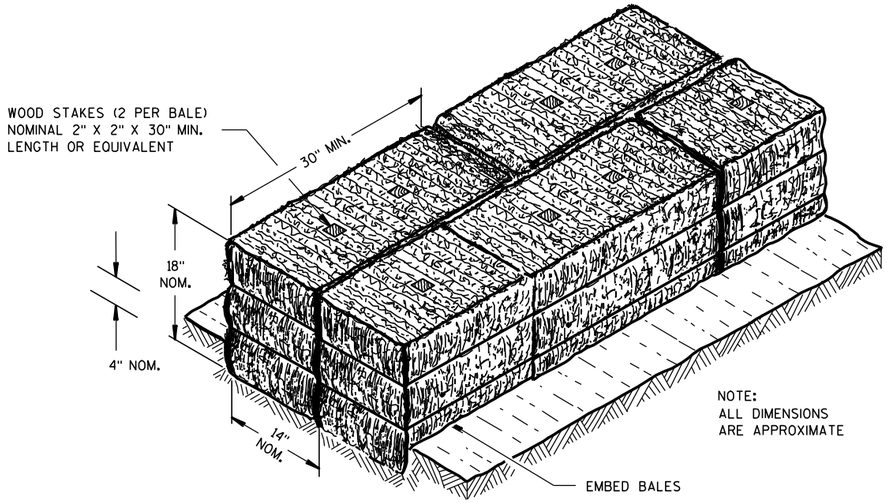
FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2022 3:58 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:100 FT

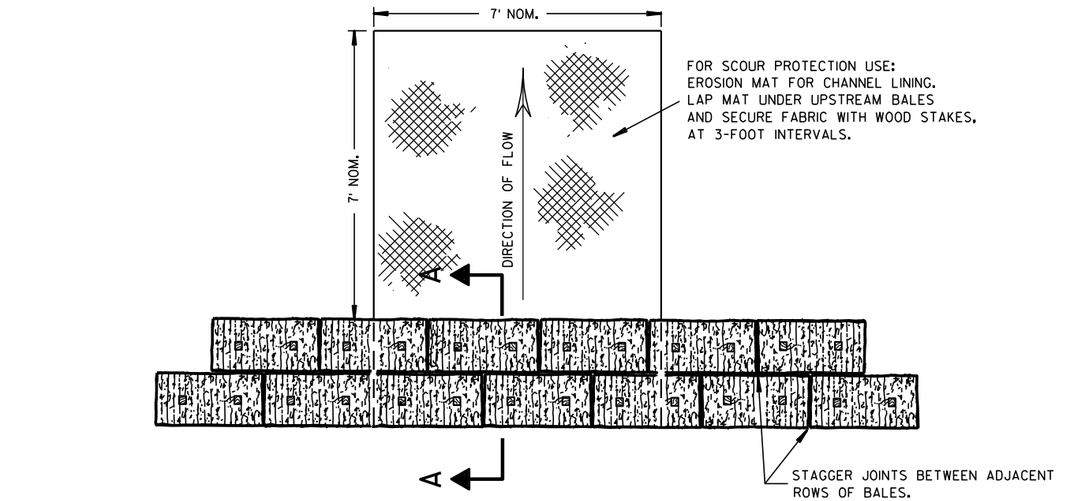
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

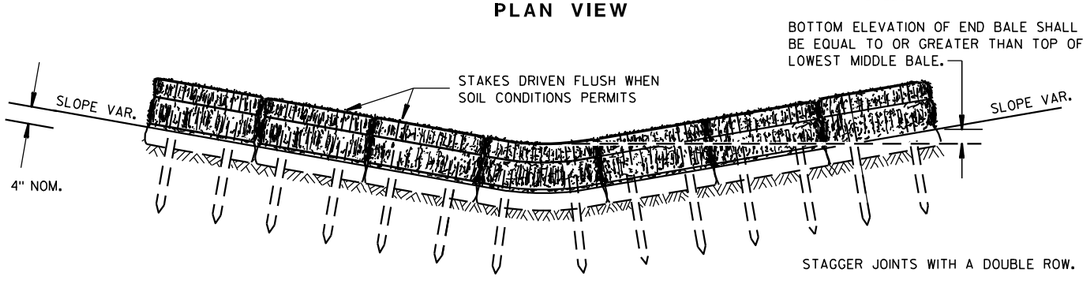
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	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)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS



SECTION A-A



PLAN VIEW



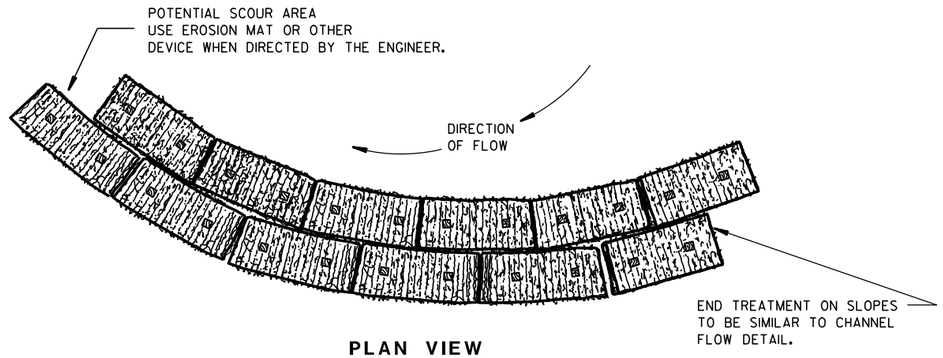
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

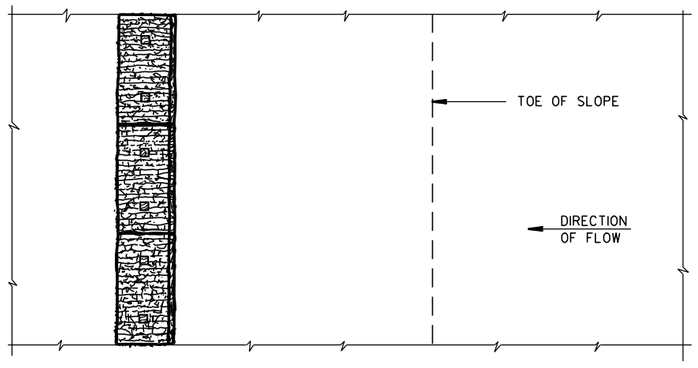
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

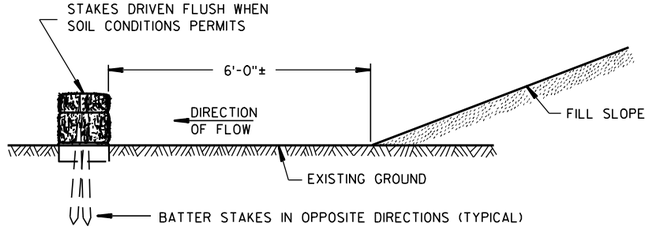


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

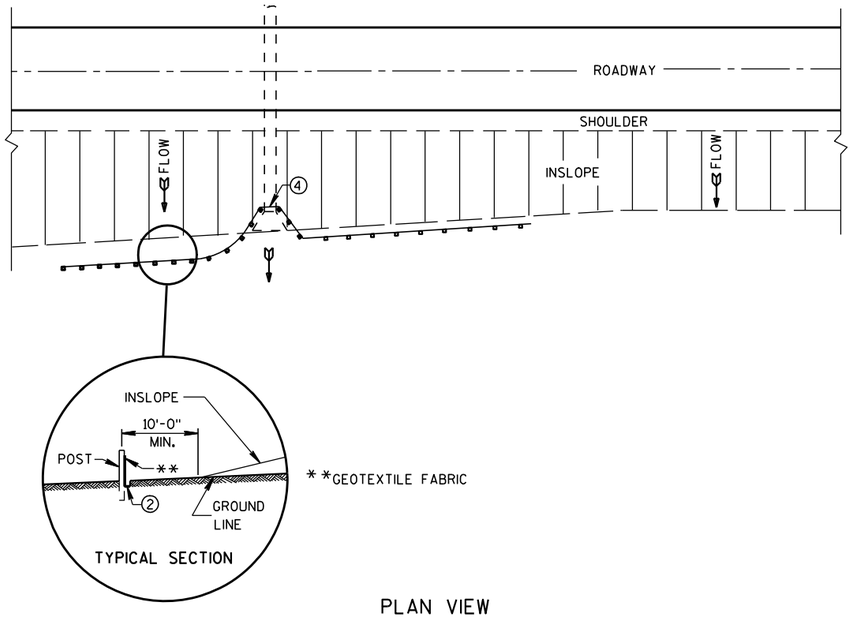
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

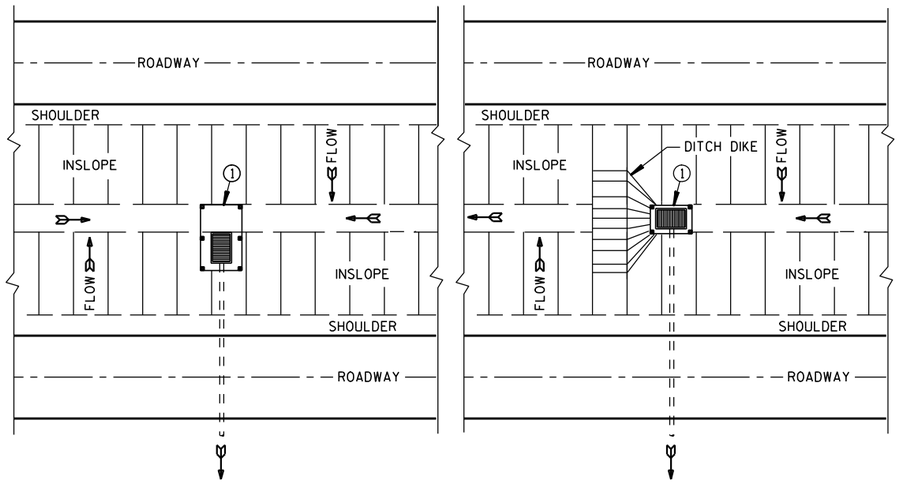
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



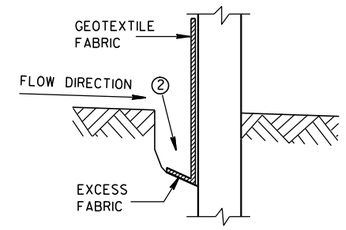
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

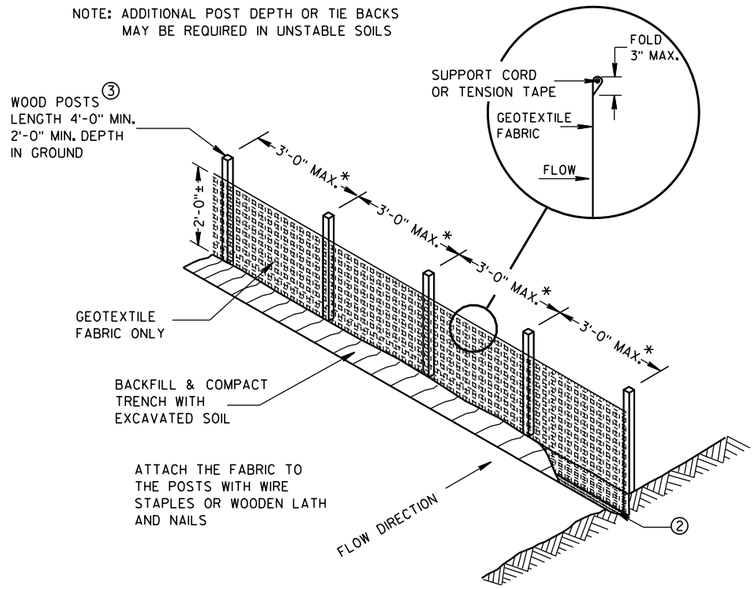
GENERAL NOTES

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

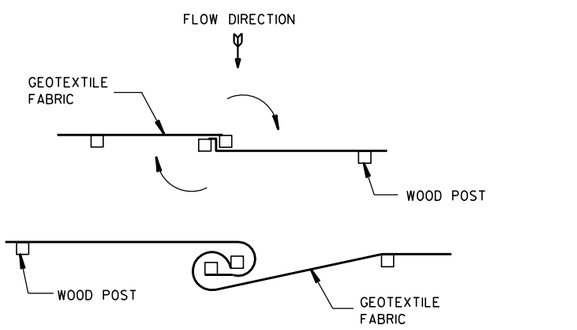
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



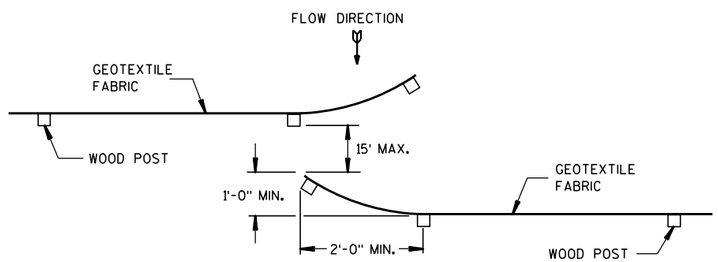
TRENCH DETAIL



SILT FENCE

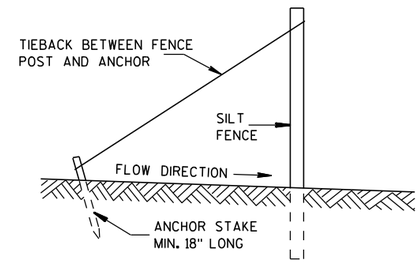


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



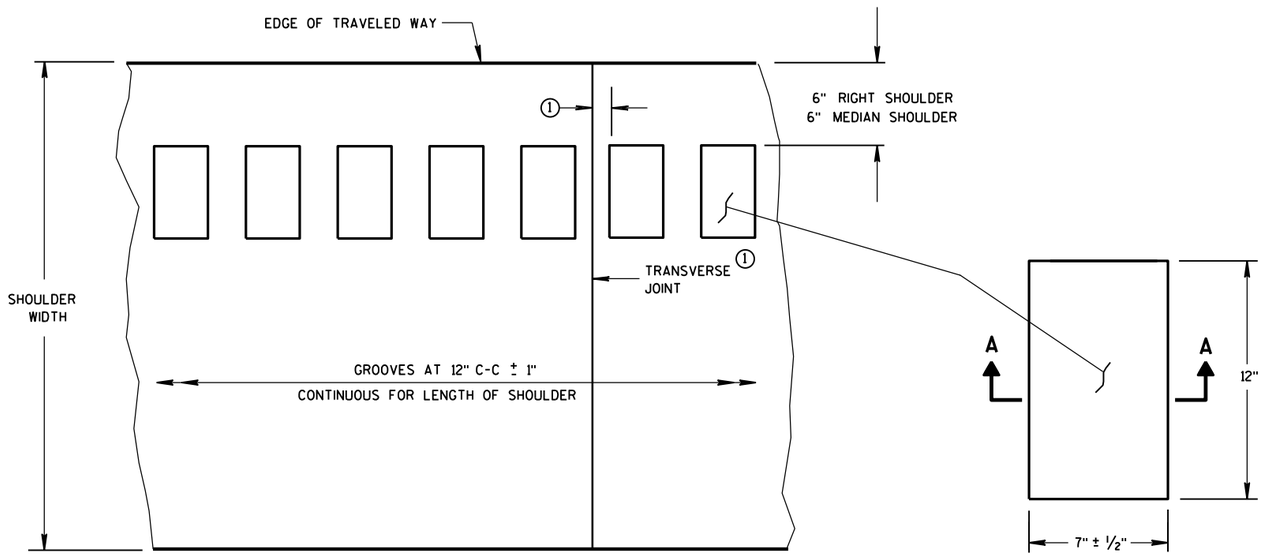
SILT FENCE TIE BACK

(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



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

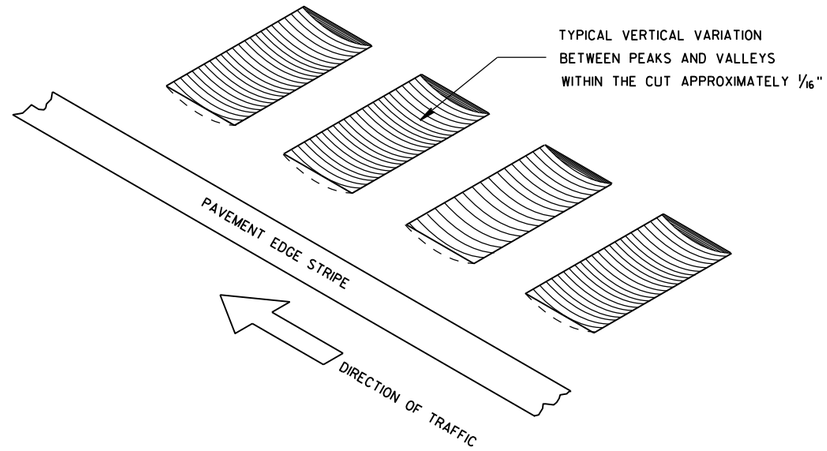
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

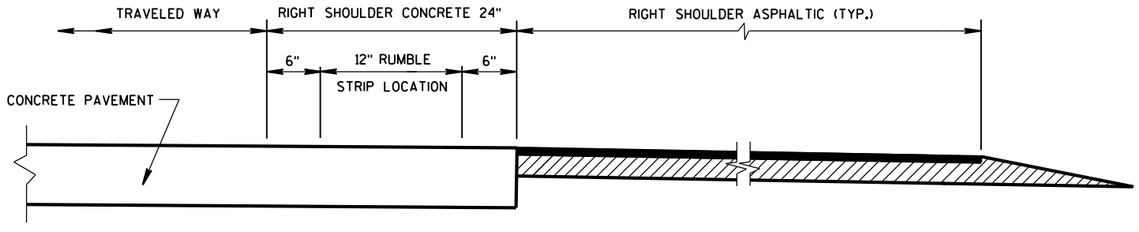
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

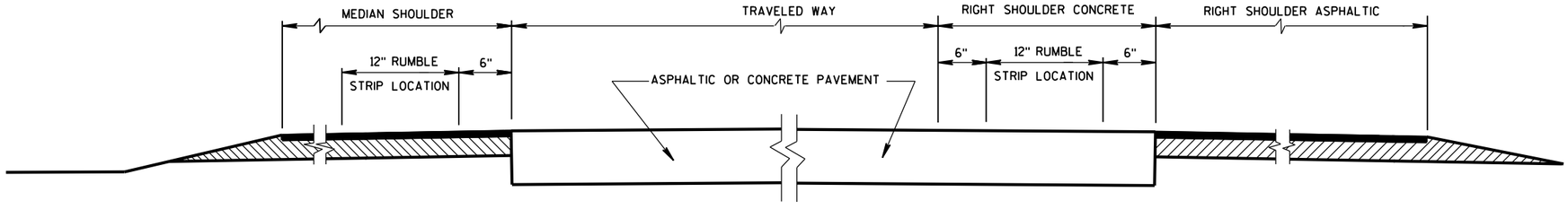
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



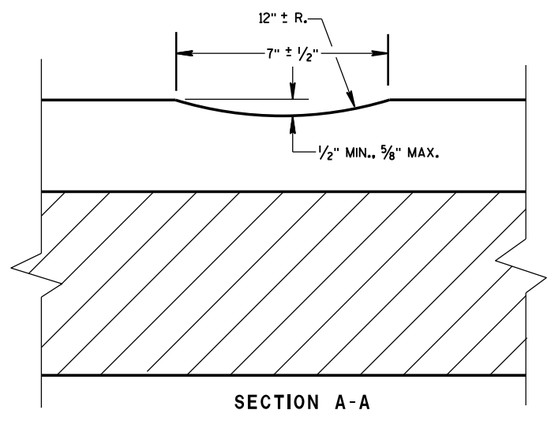
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

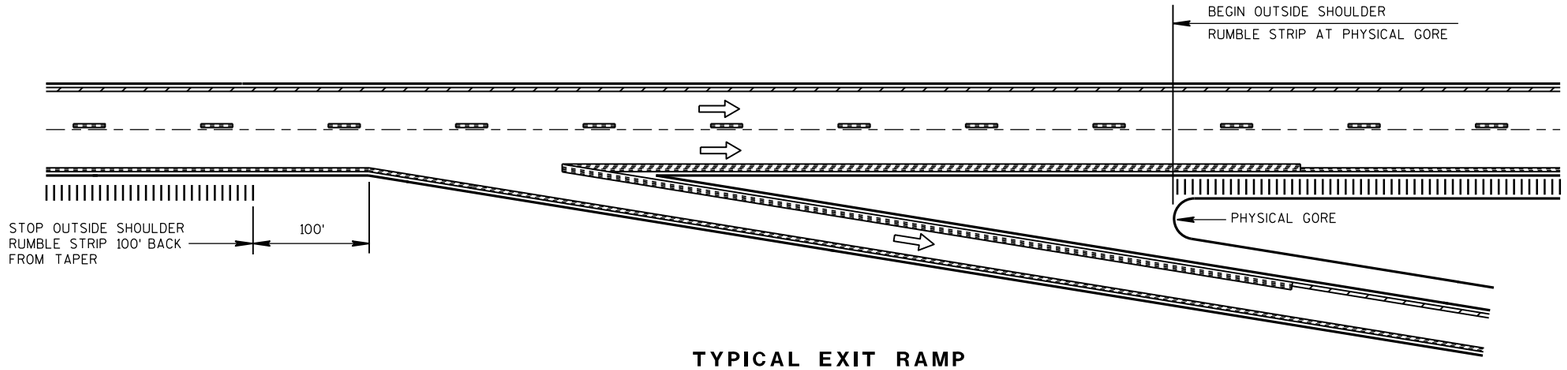
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



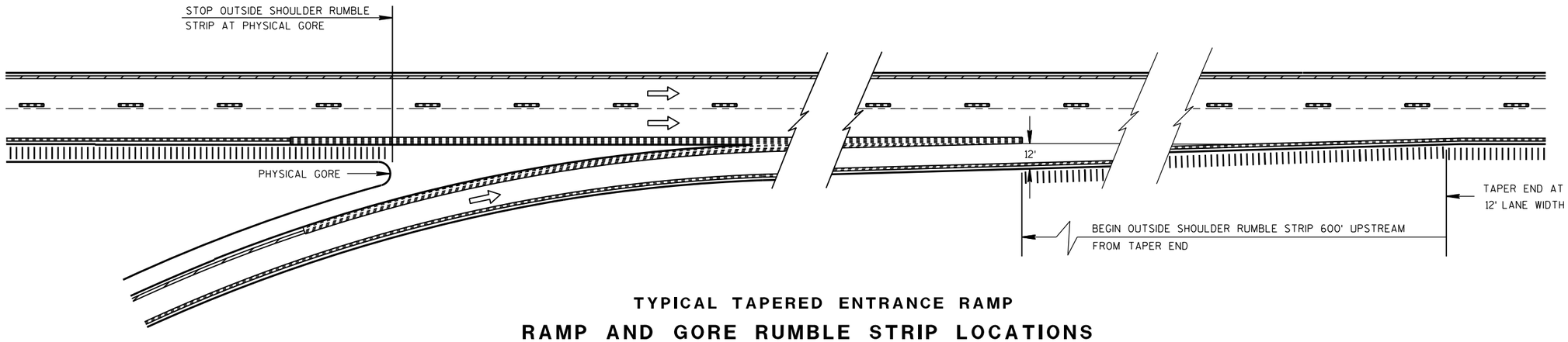
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

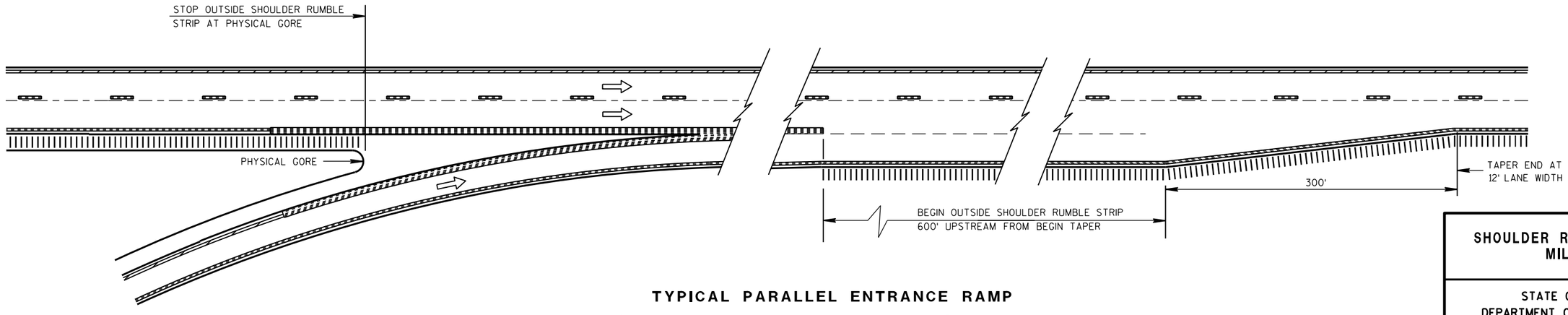
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 13 A 5-5b

6

S.D.D. 13 A 5-5b

(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.

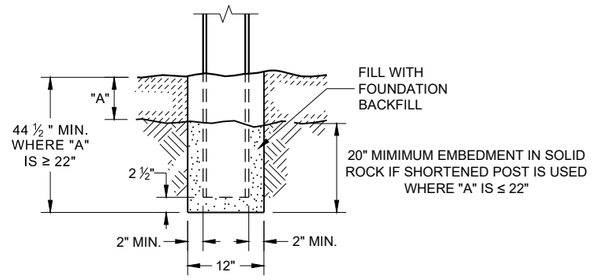
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

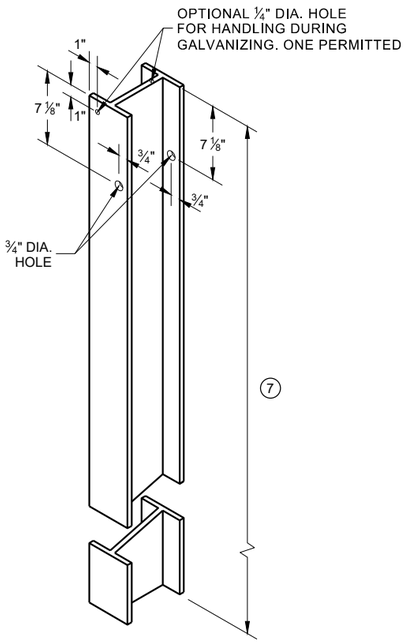
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

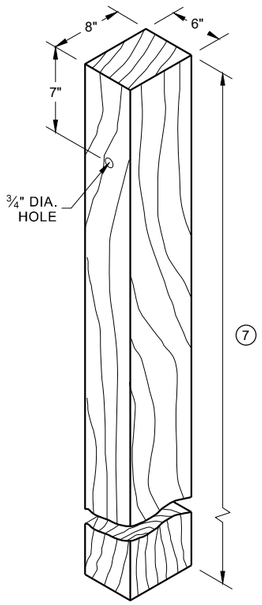
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



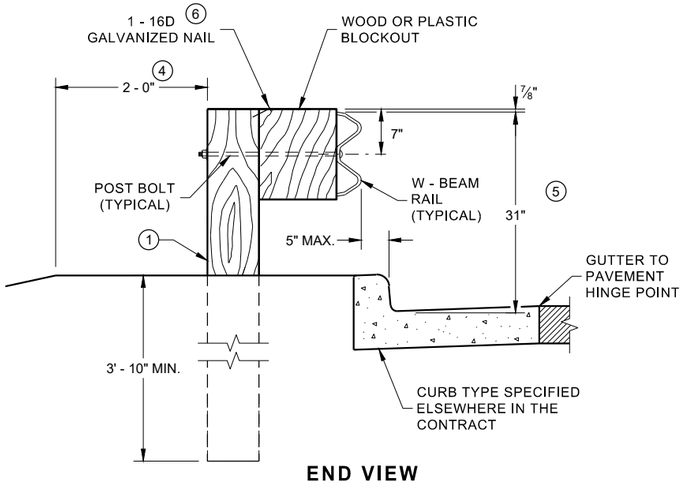
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



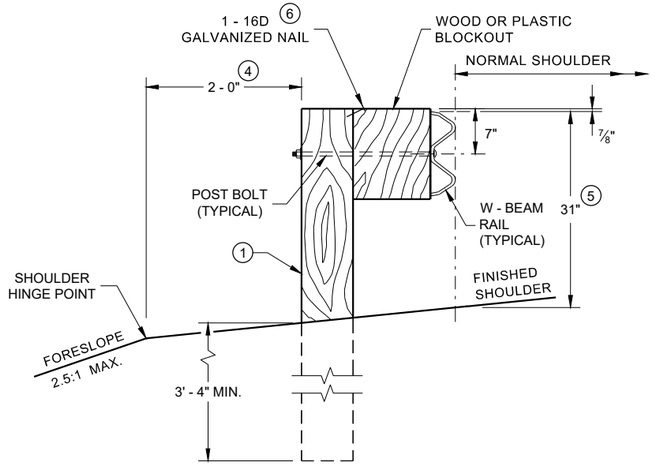
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



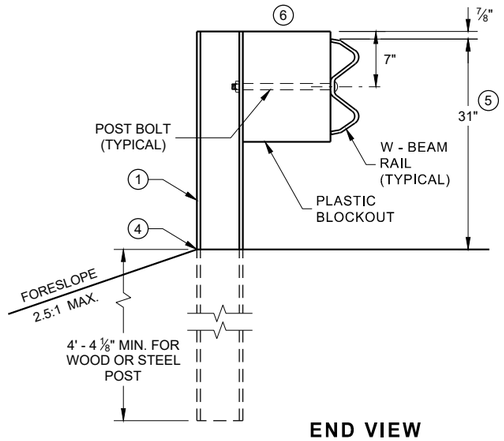
WOOD POST (6" X 8") NOMINAL (1)



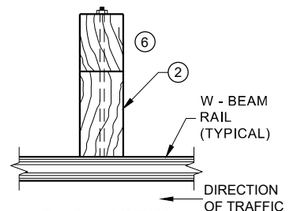
END VIEW
LOCATED ALONG A CURBED ROADWAY



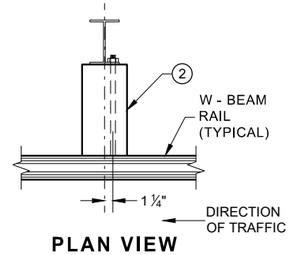
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



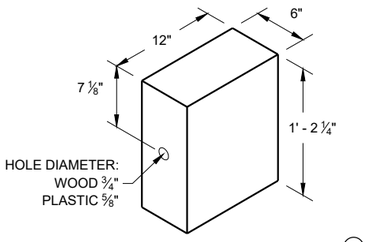
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

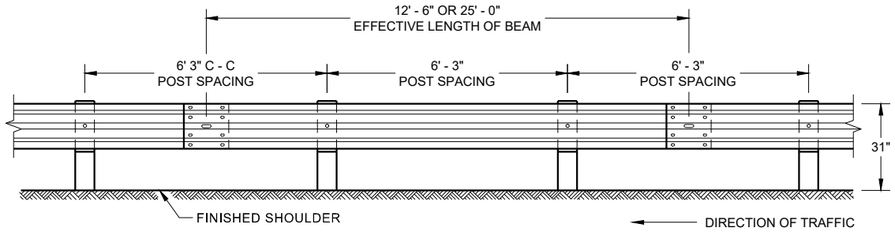
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

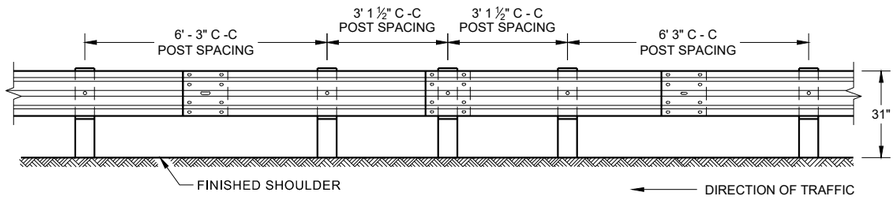
SDD 14B42 - 07a

6

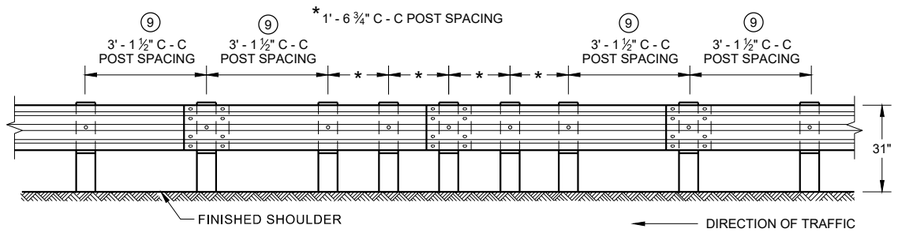
SDD 14B42 - 07a



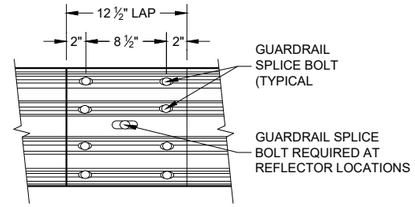
FRONT VIEW
POST SPACING STANDARD INSTALLATION



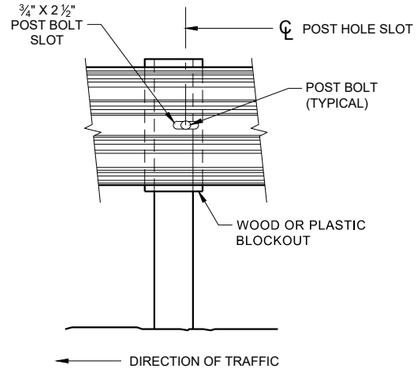
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



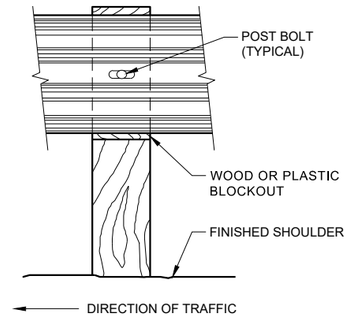
FRONT VIEW
QUARTER POST SPACING (QS)



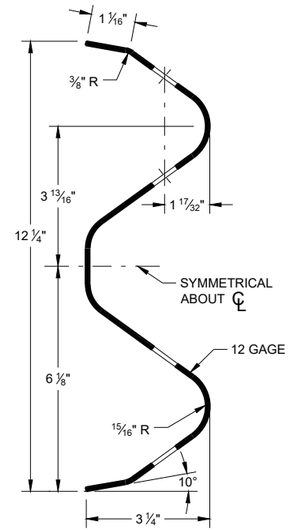
FRONT VIEW
MID-SPAN BEAM SPLICE



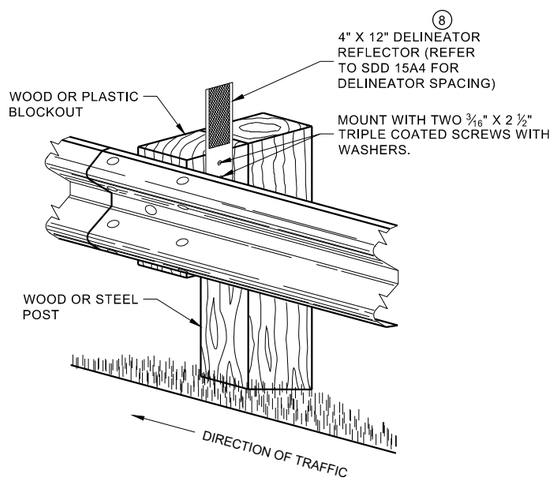
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

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.

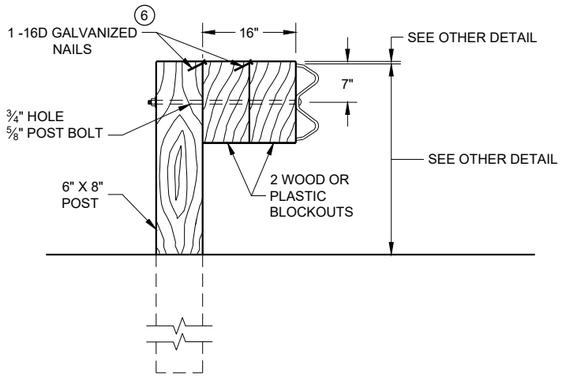
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

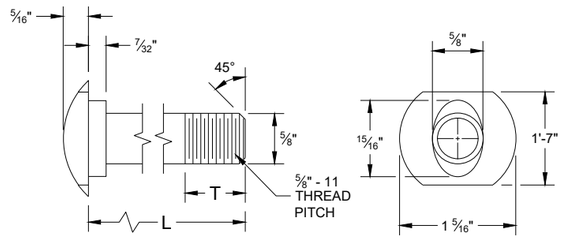


DETAIL FOR 16" BLOCKOUT DEPTH

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.

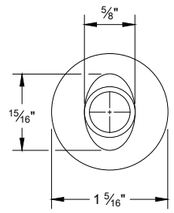
NOTE:

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.

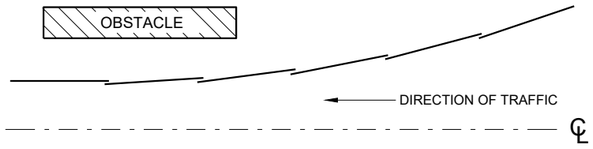


POST BOLT TABLE

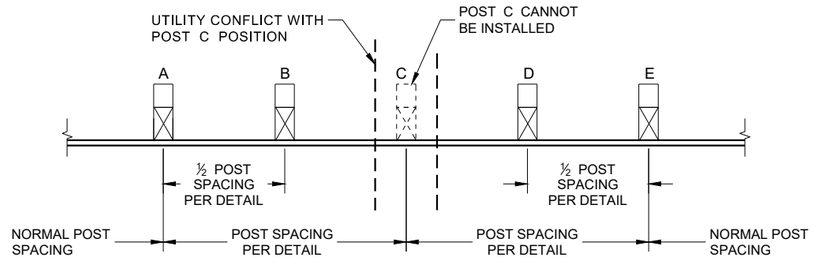
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



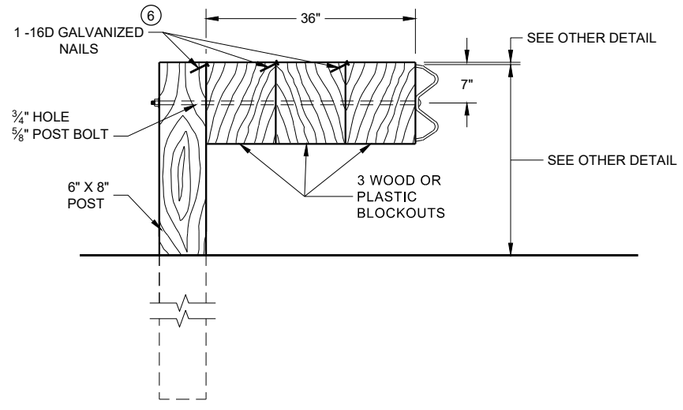
ALTERNATE BOLT HEAD



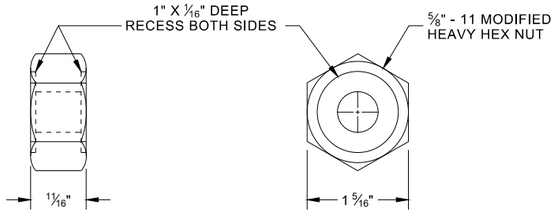
PLAN VIEW
BEAM LAPPING DETAIL



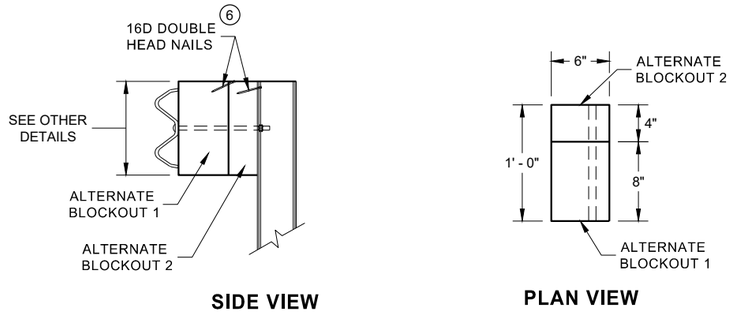
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW

PLAN VIEW

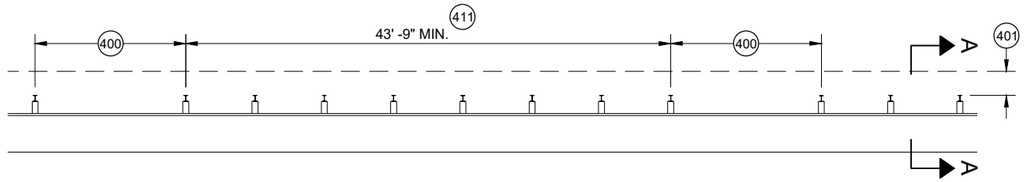
ALTERNATE WOOD BLOCKOUT DETAIL

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.

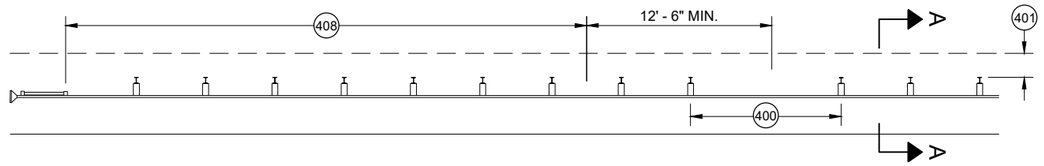
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

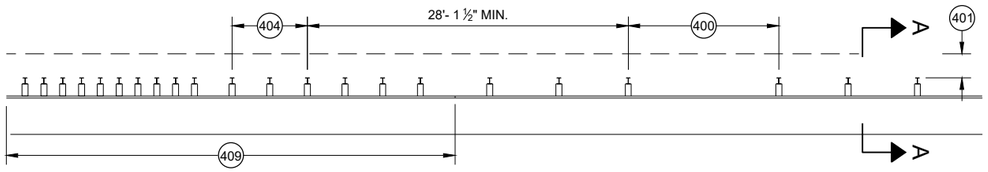
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



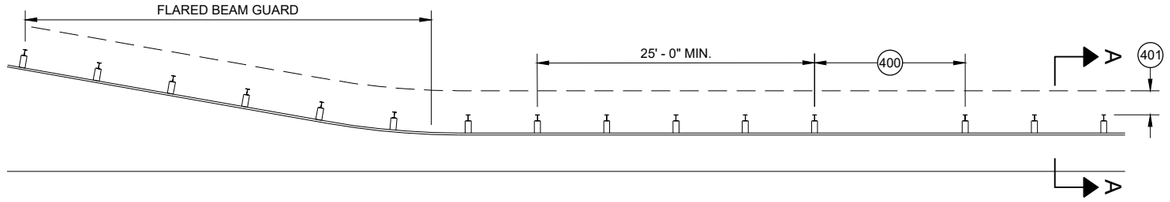
MISSING POST IN MGS GUARDRAIL



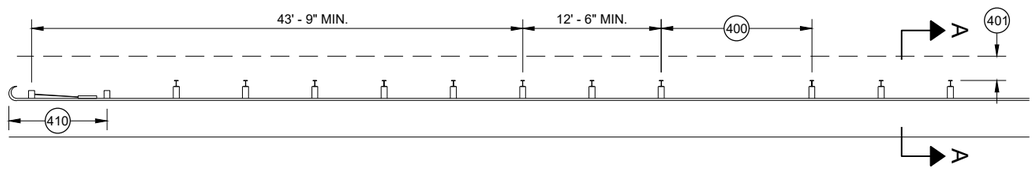
MISSING POST IN MGS GUARDRAIL NEAR EAT



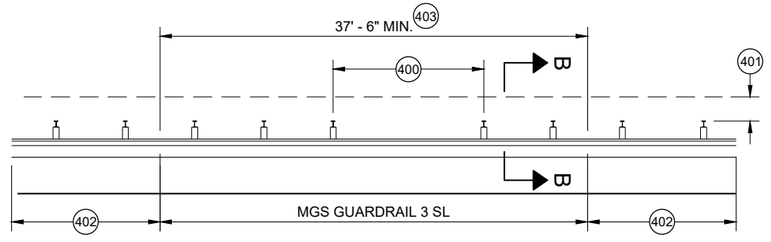
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

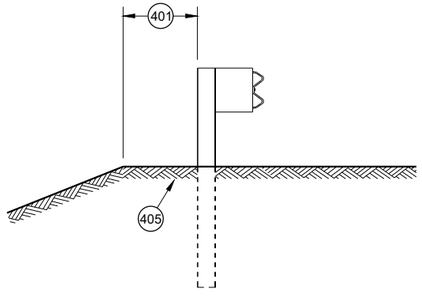


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

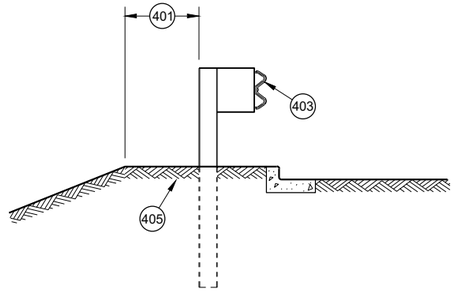


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

SDD 14B42 - 07d

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.

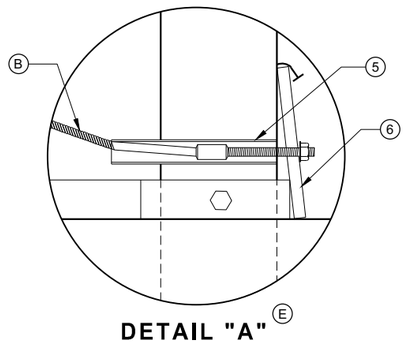
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

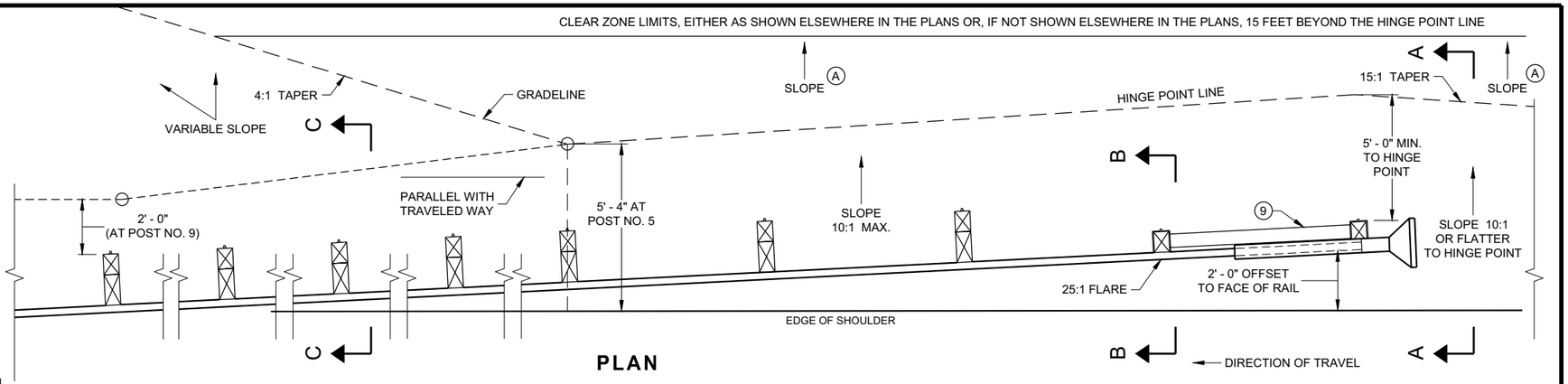
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

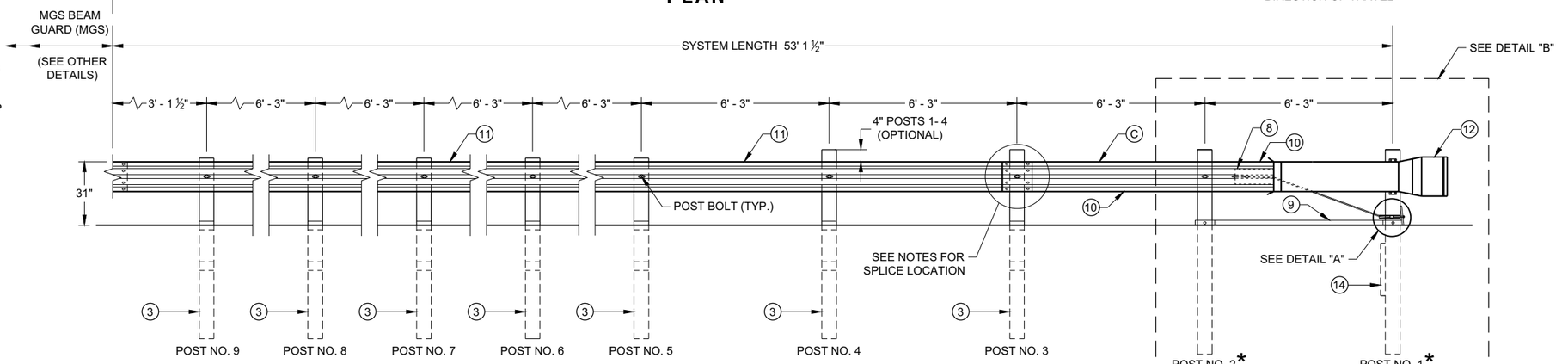
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



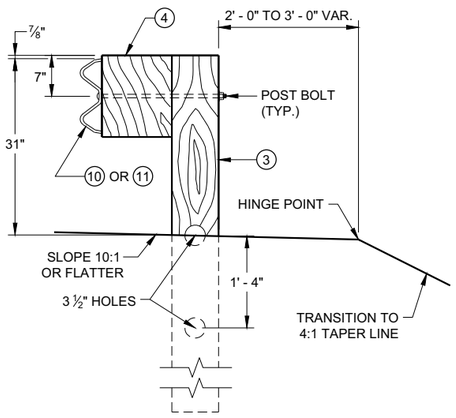
DETAIL "A" (E)



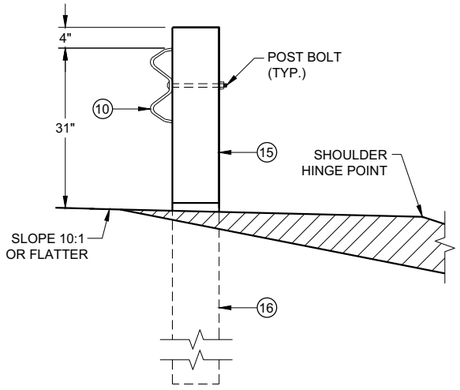
PLAN



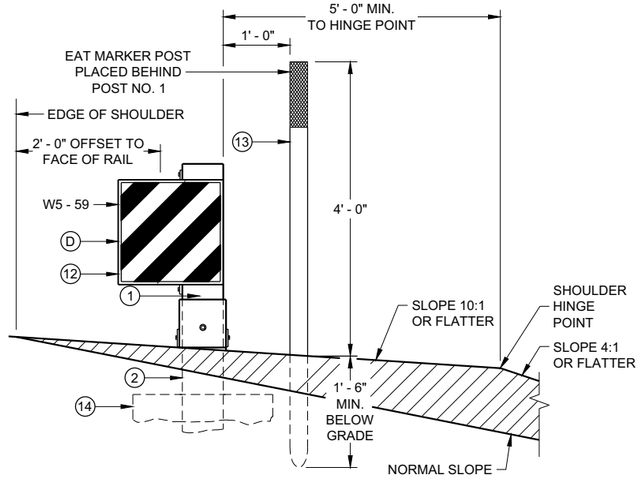
ELEVATION



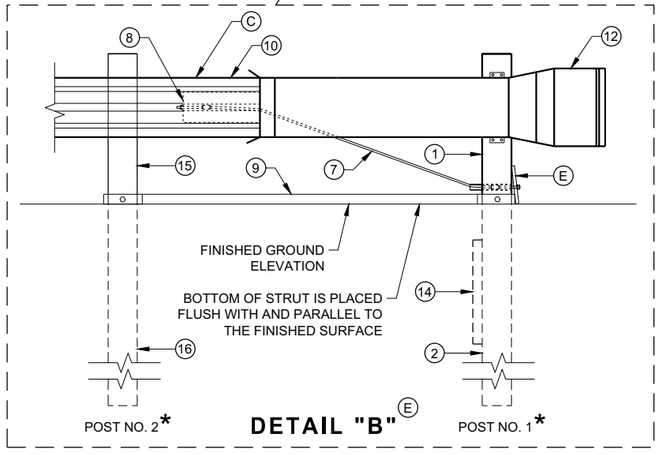
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



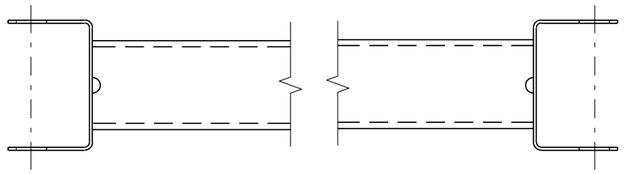
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

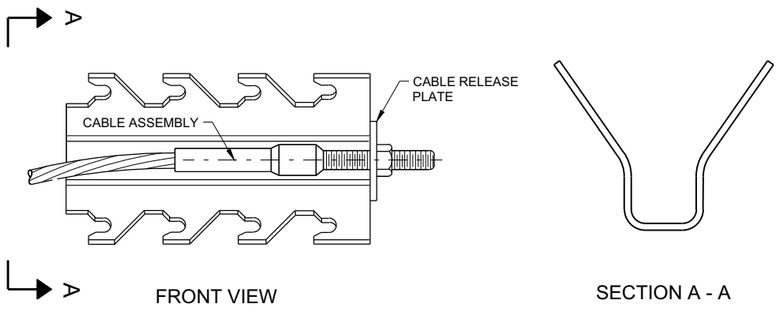
SDD 14B44 - 04a



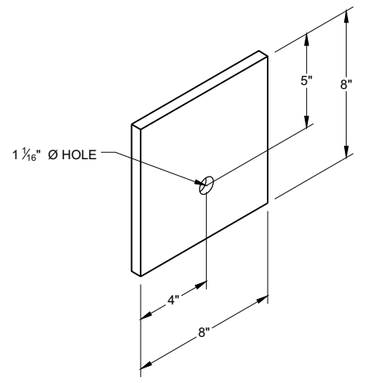
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

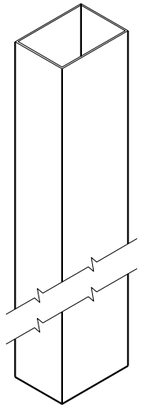
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SDD 14B44 - 04b

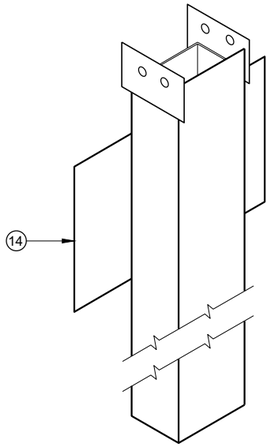
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

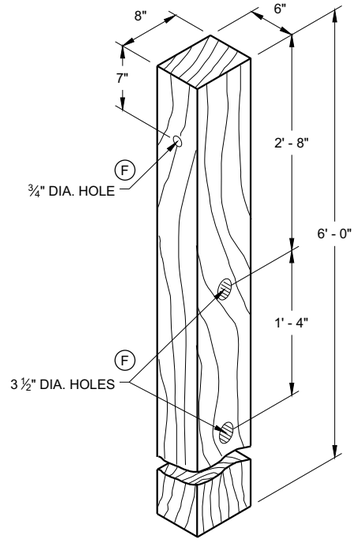
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



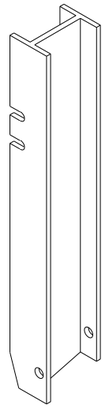
UPPER POST NO. 1 (1) (E)



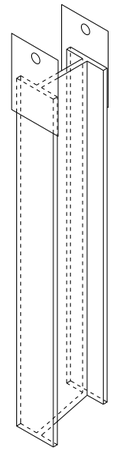
LOWER POST NO. 1 (2) (E)



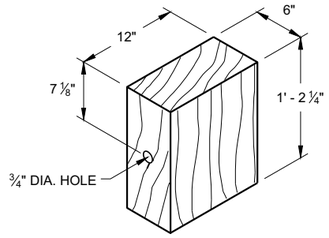
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



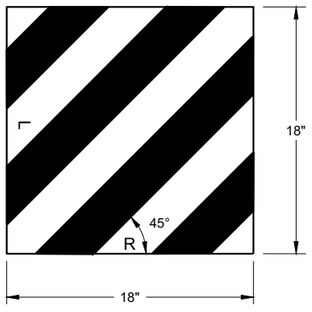
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

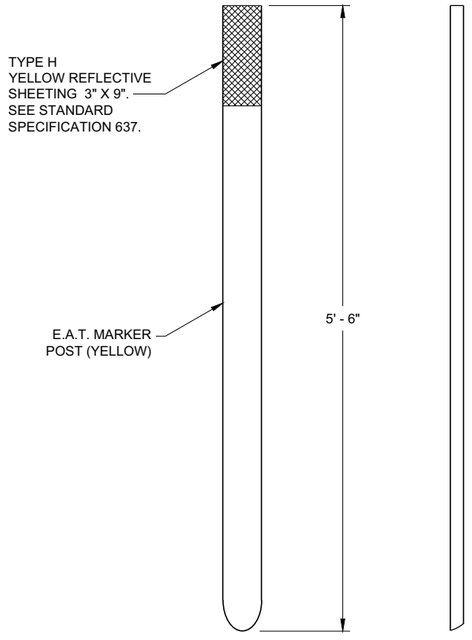


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



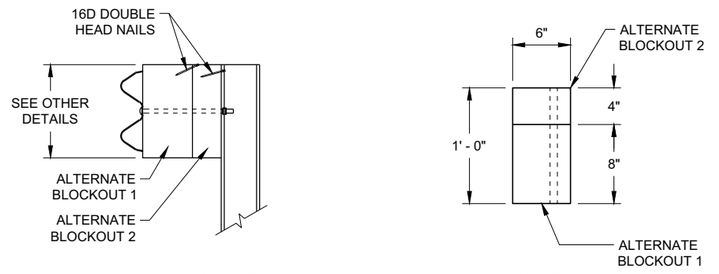
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

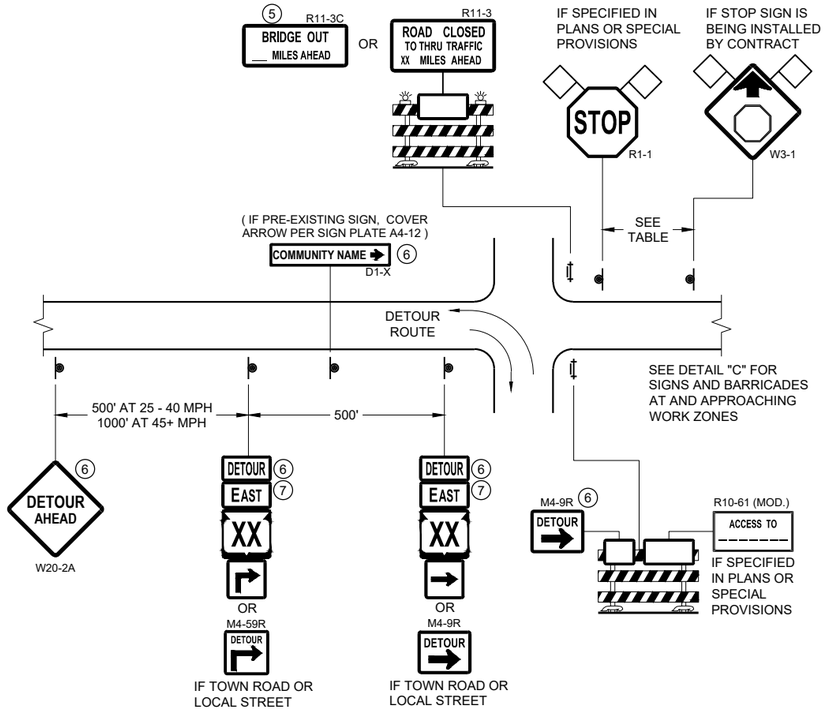
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

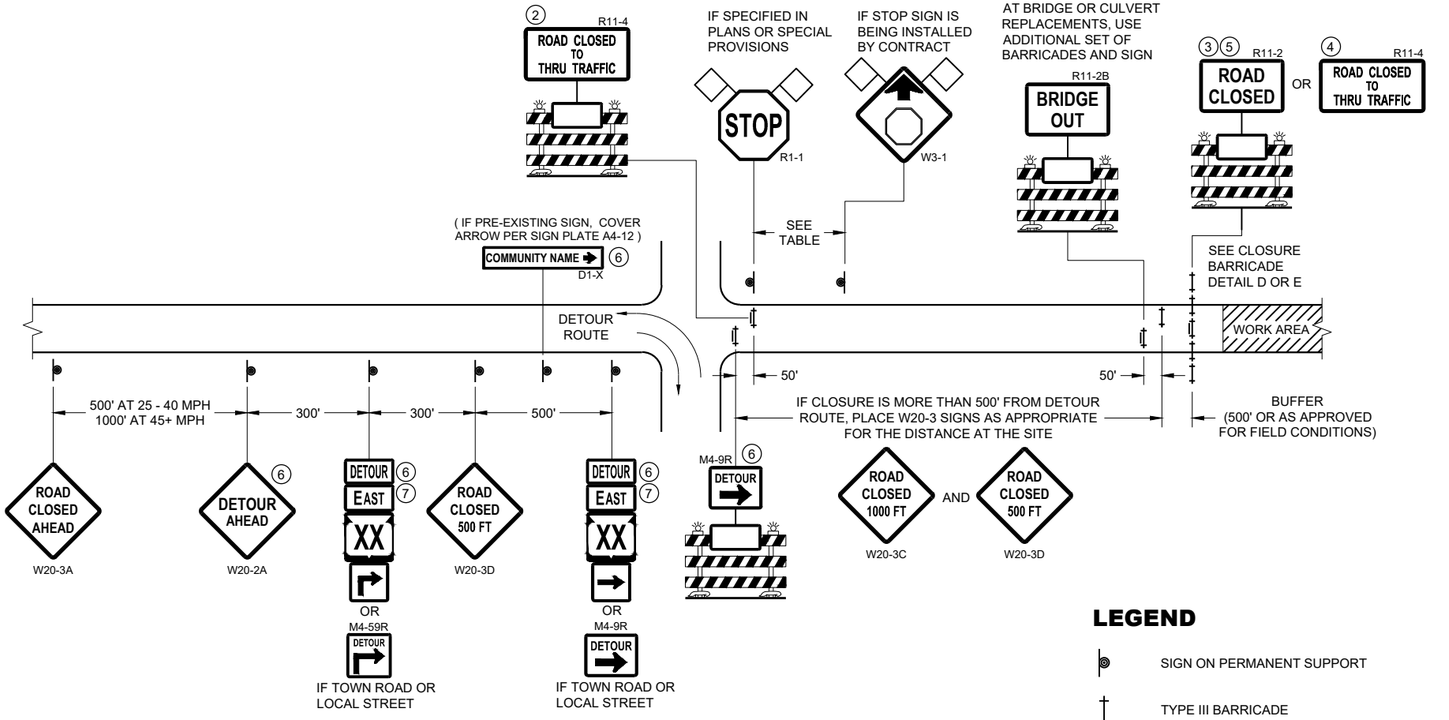
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SDD 14B44 - 04c



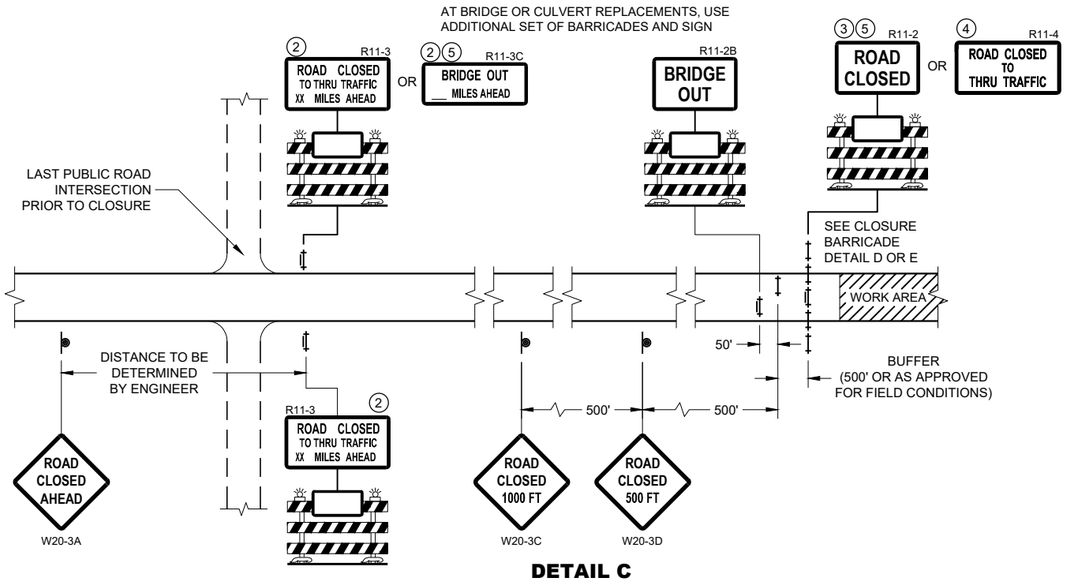
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

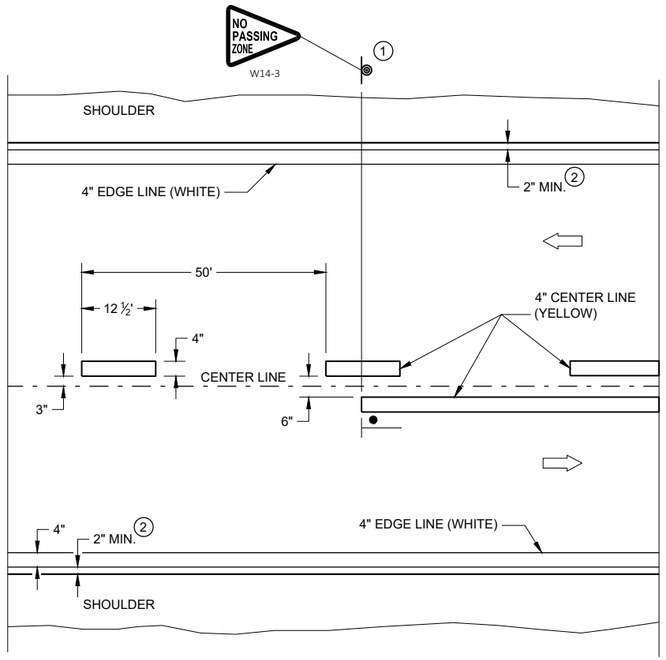
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

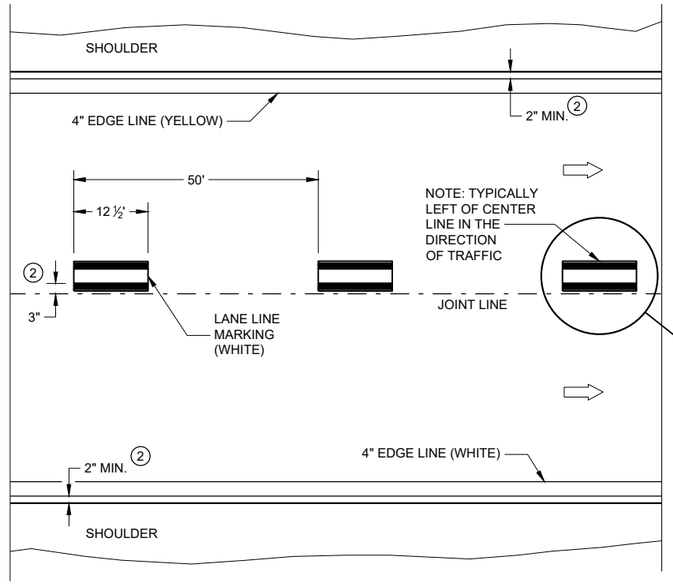
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SDD 15C02 - 08a

SDD 15C02 - 08a

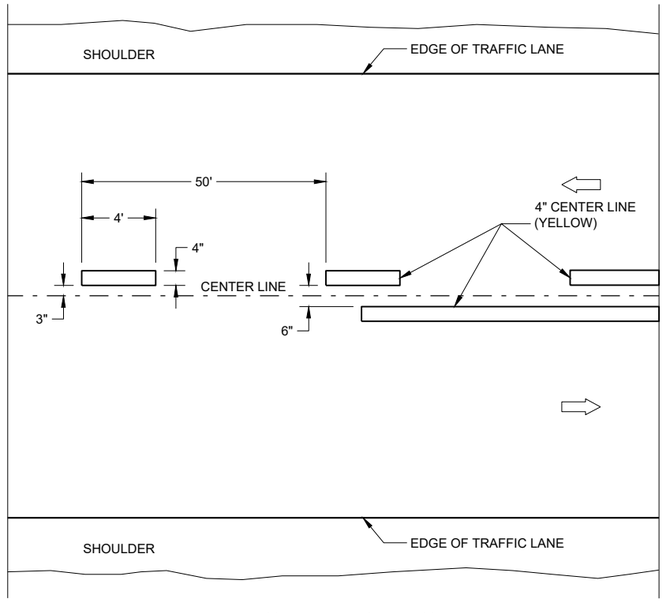


TWO WAY TRAFFIC

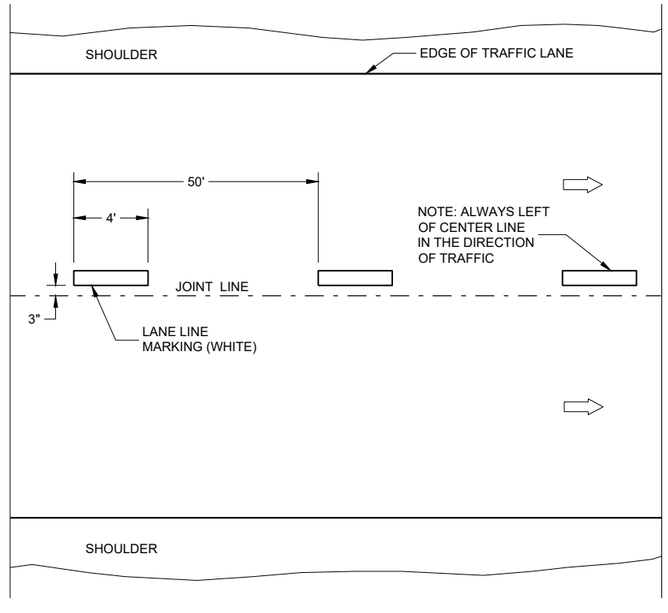


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

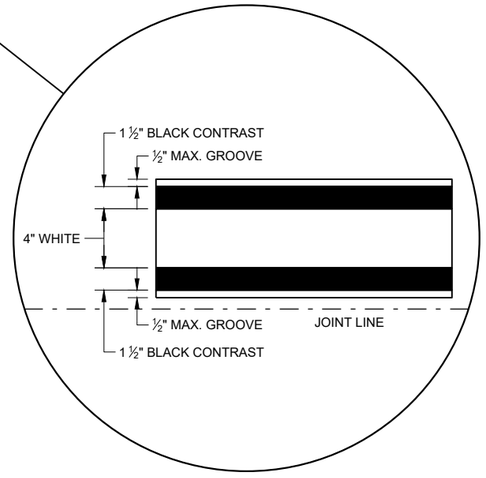
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

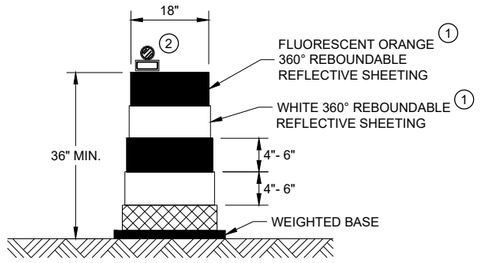
FHWA

SDD 15C08 - 20a

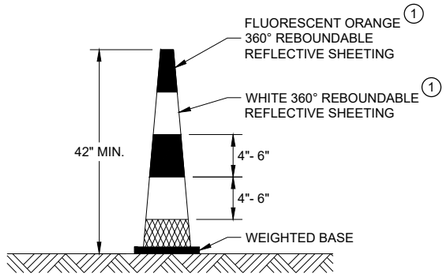
SDD 15C08 - 20a

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.

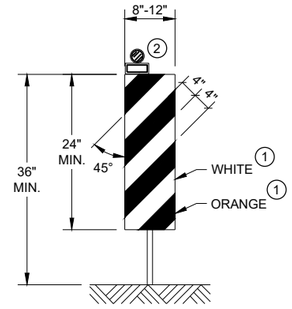


DRUM



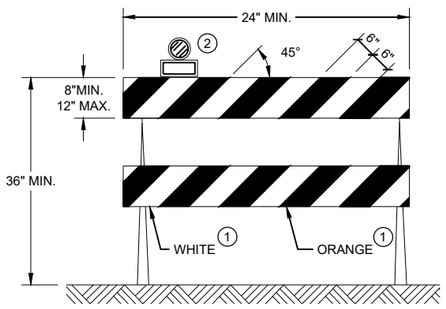
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



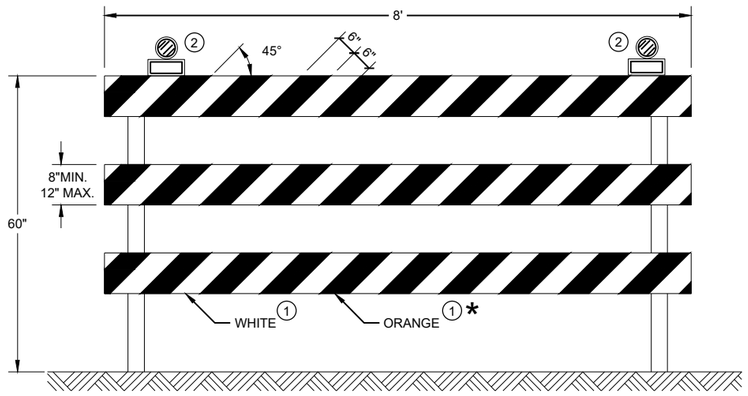
VERTICAL PANEL

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
May 2021
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

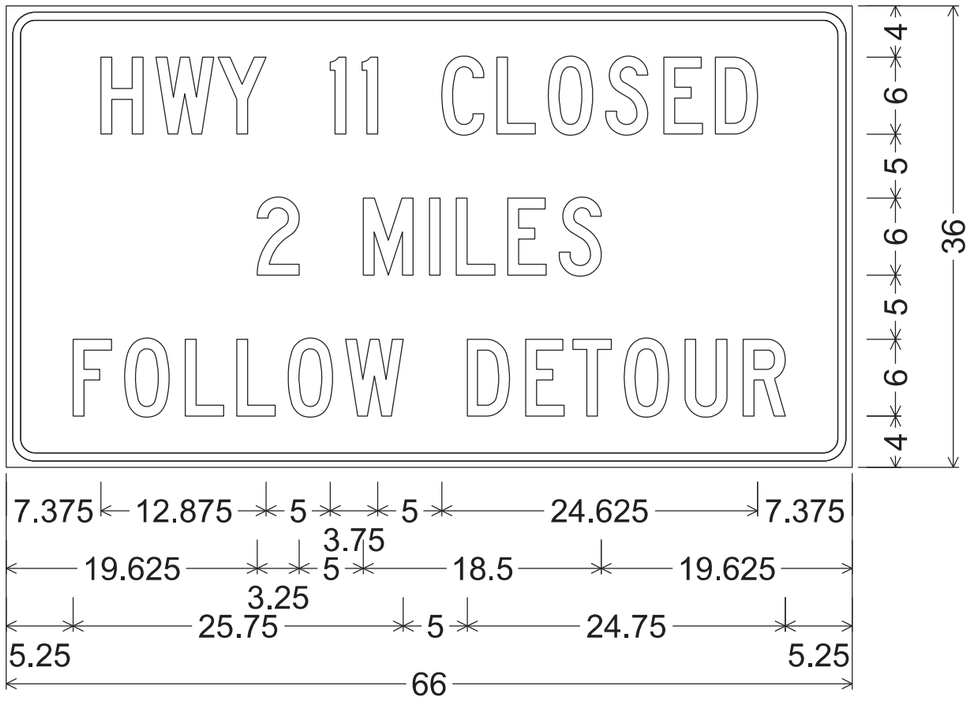
SDD 15C11 - 09b

6

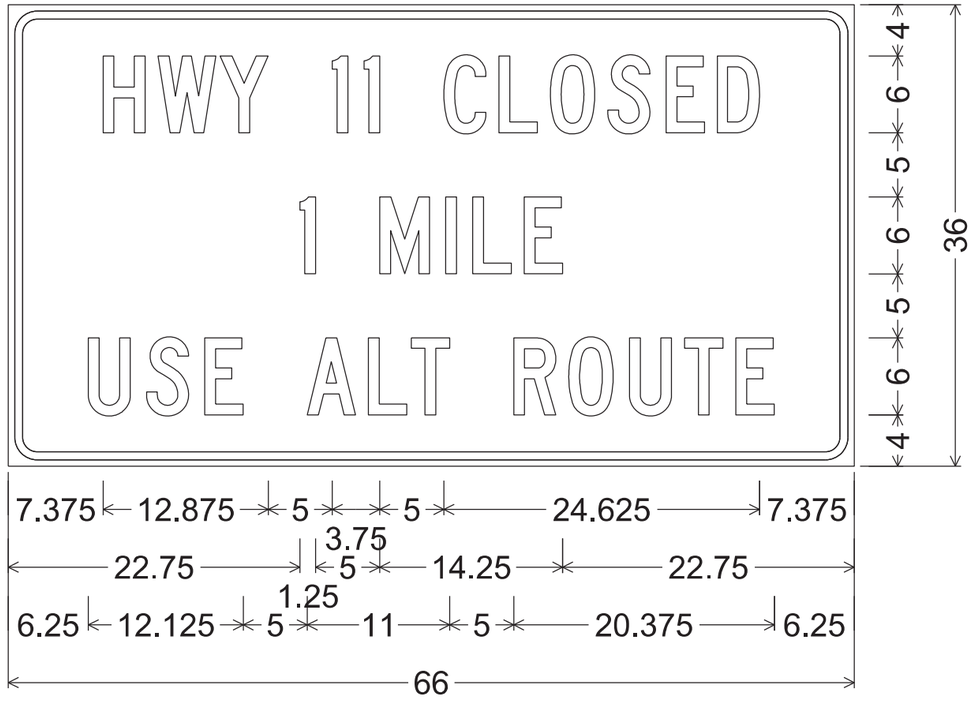
SDD 15C11 - 09b

NOTES

1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C

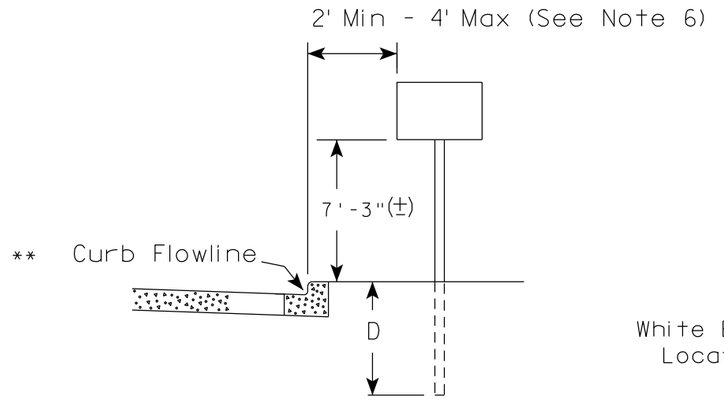


2.250" Radius, 0.625" Border, 0.500" Indent

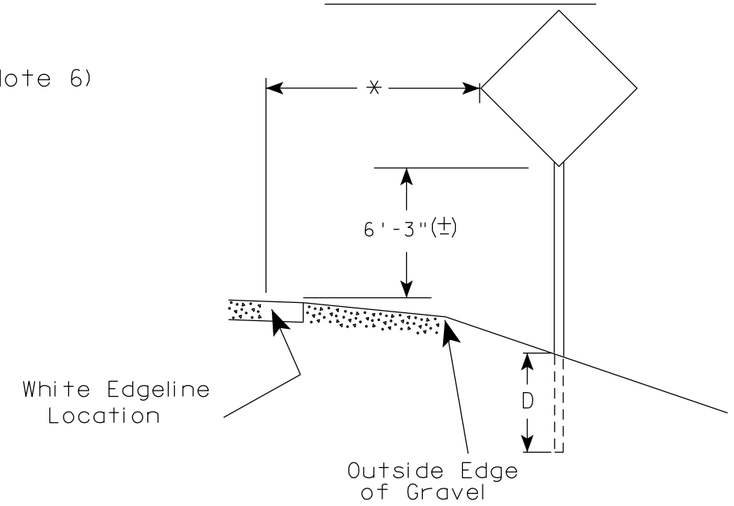


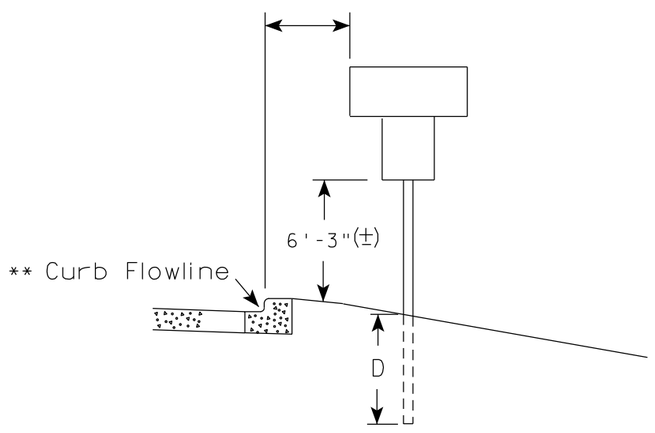
2.250" Radius, 0.625" Border, 0.500" Indent

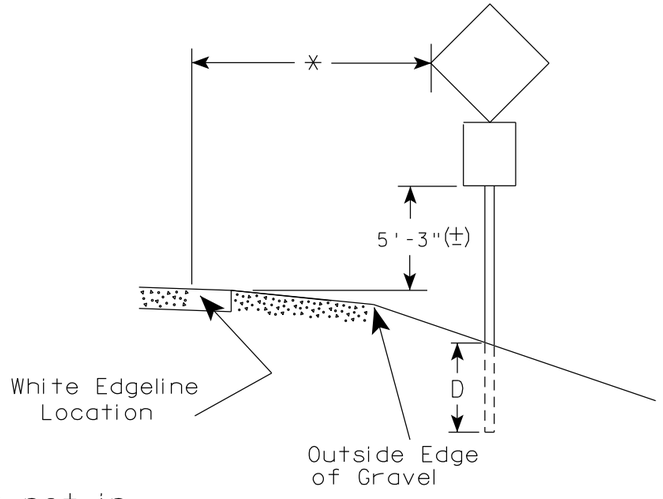
URBAN AREA



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.

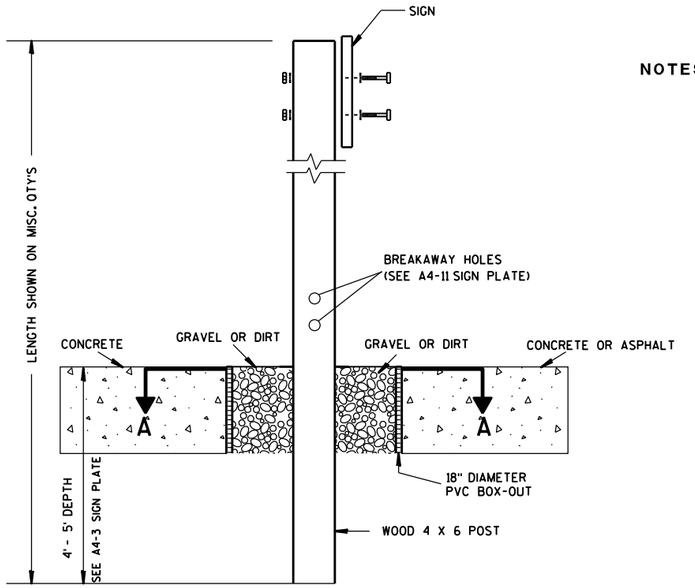
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

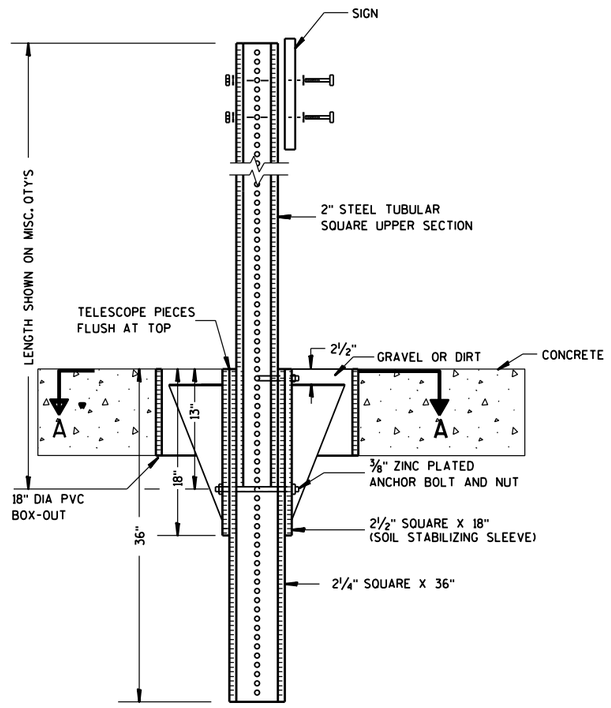
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 46	E



ELEVATION VIEW

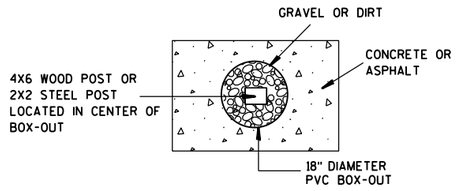
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

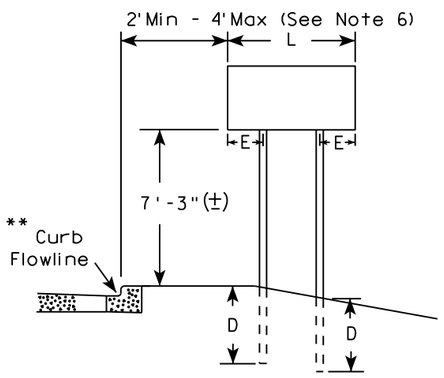
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

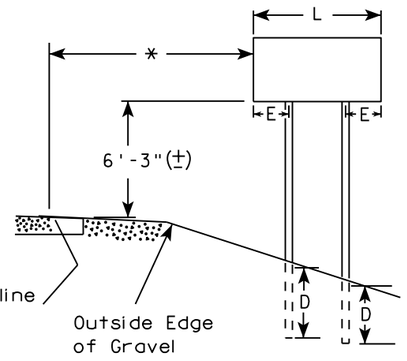
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

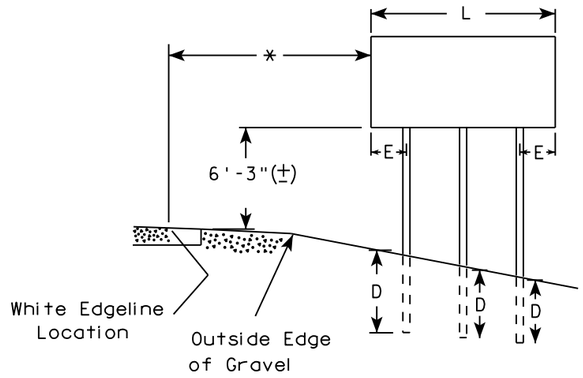
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

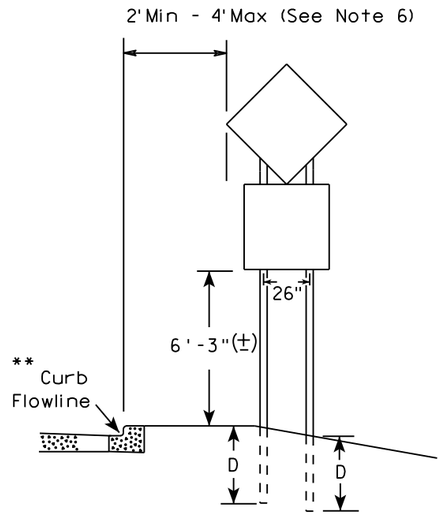
URBAN AREA



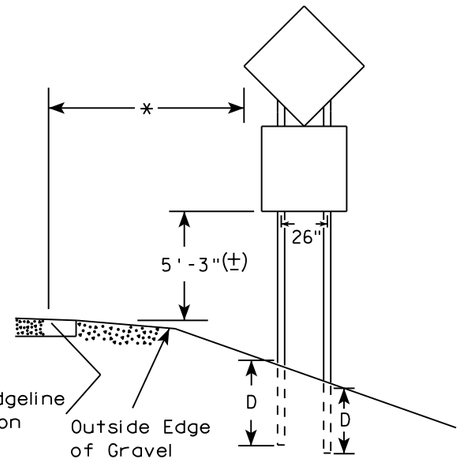
RURAL AREA (See Note 3)







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'

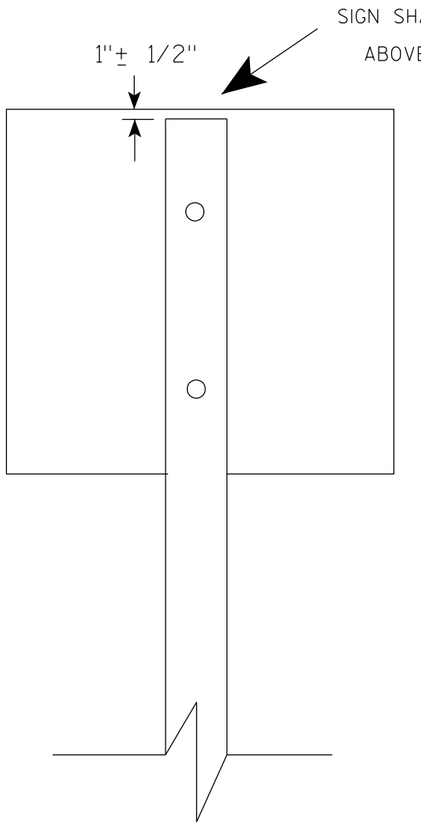
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

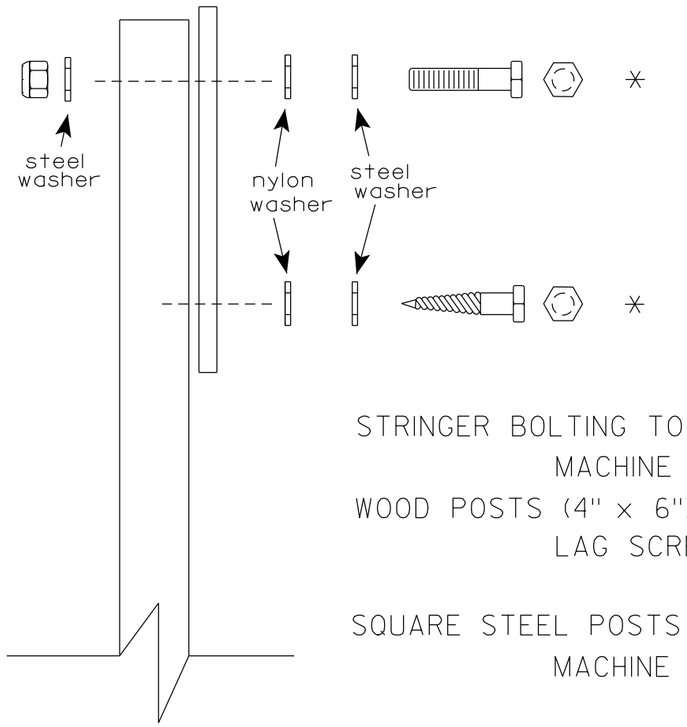
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 48	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

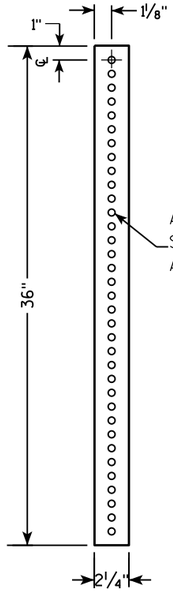
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

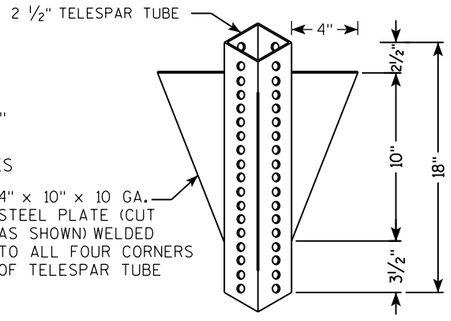
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

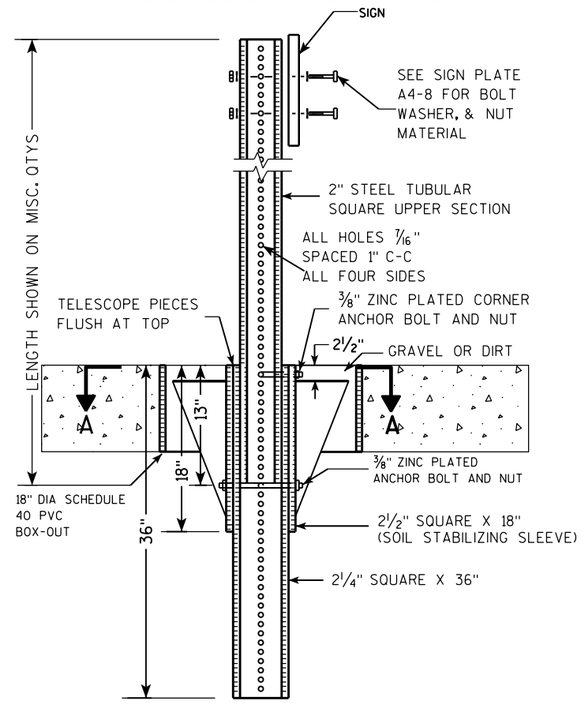
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



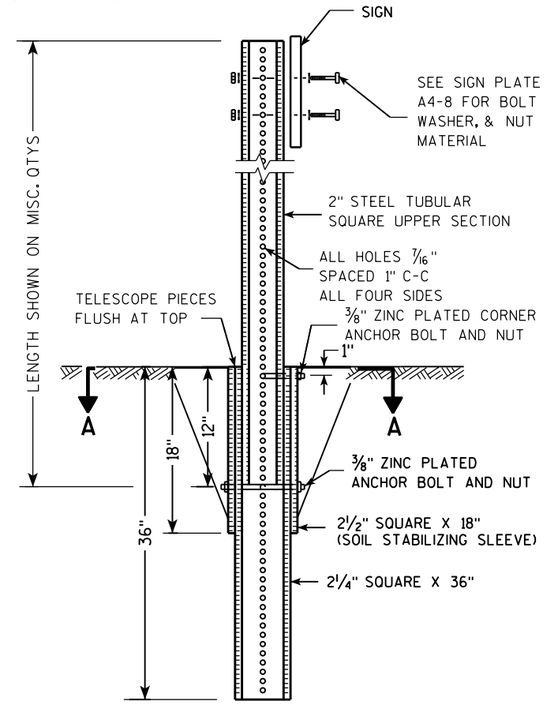
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

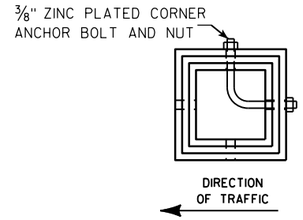


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

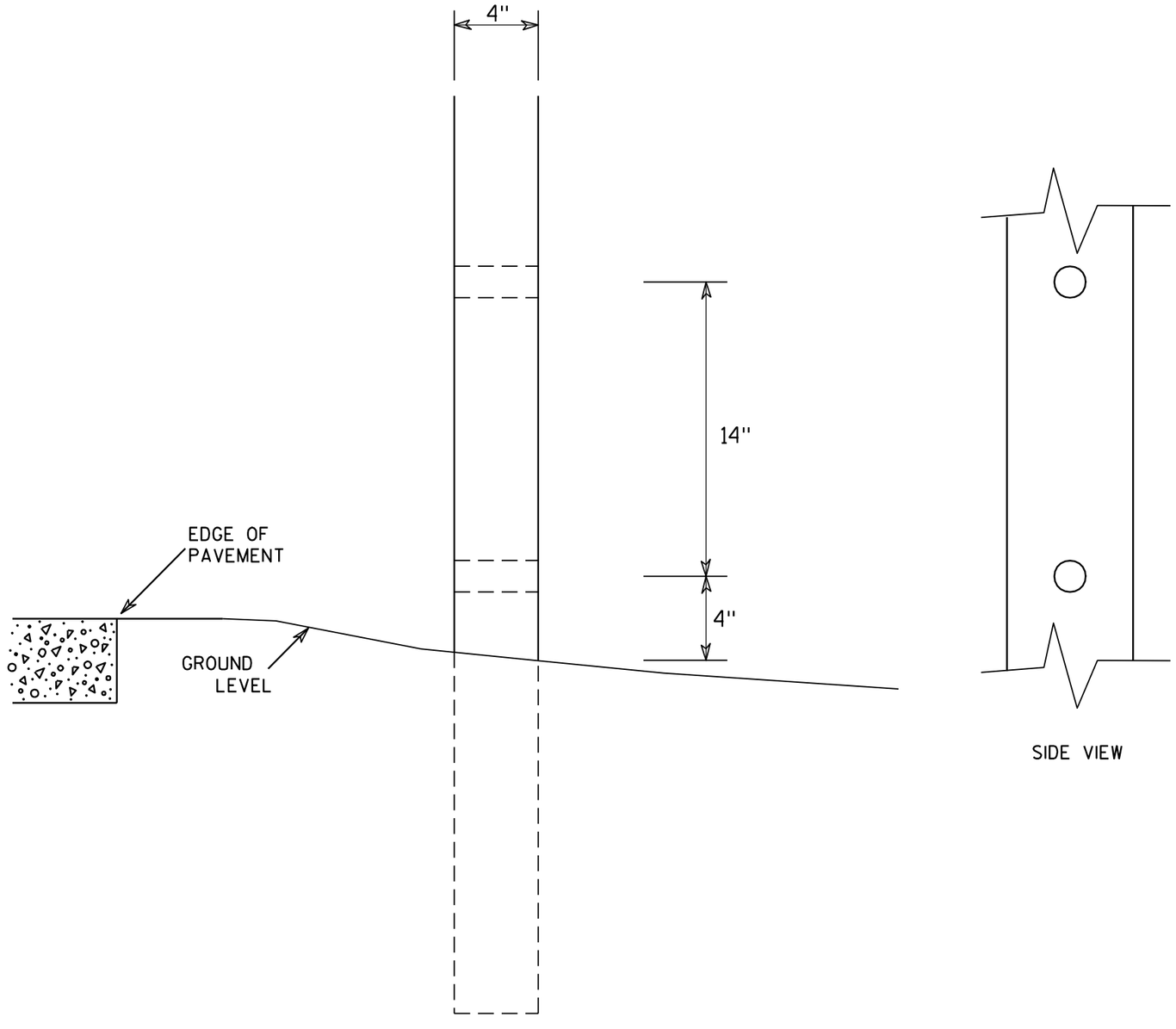
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 50 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

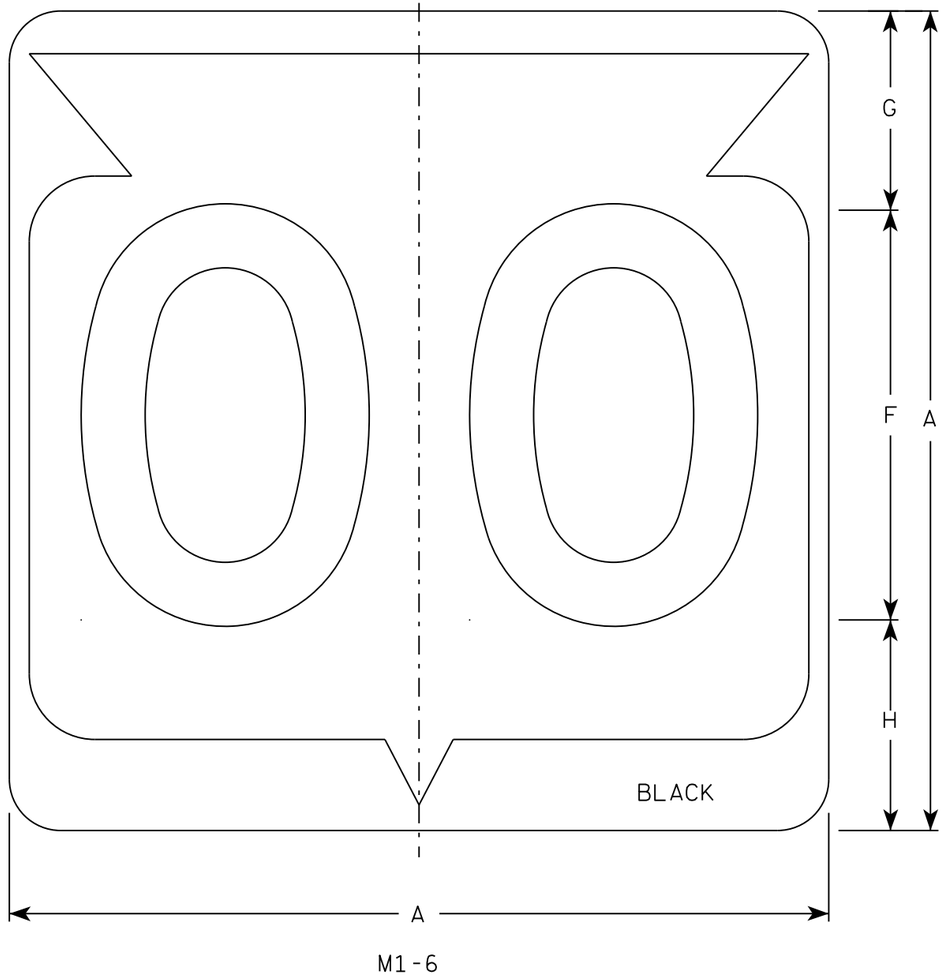
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

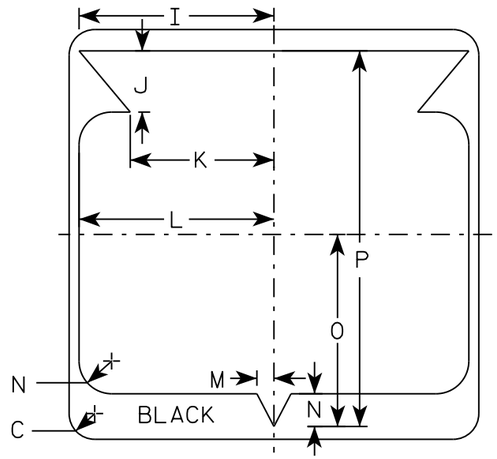
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 51	E



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

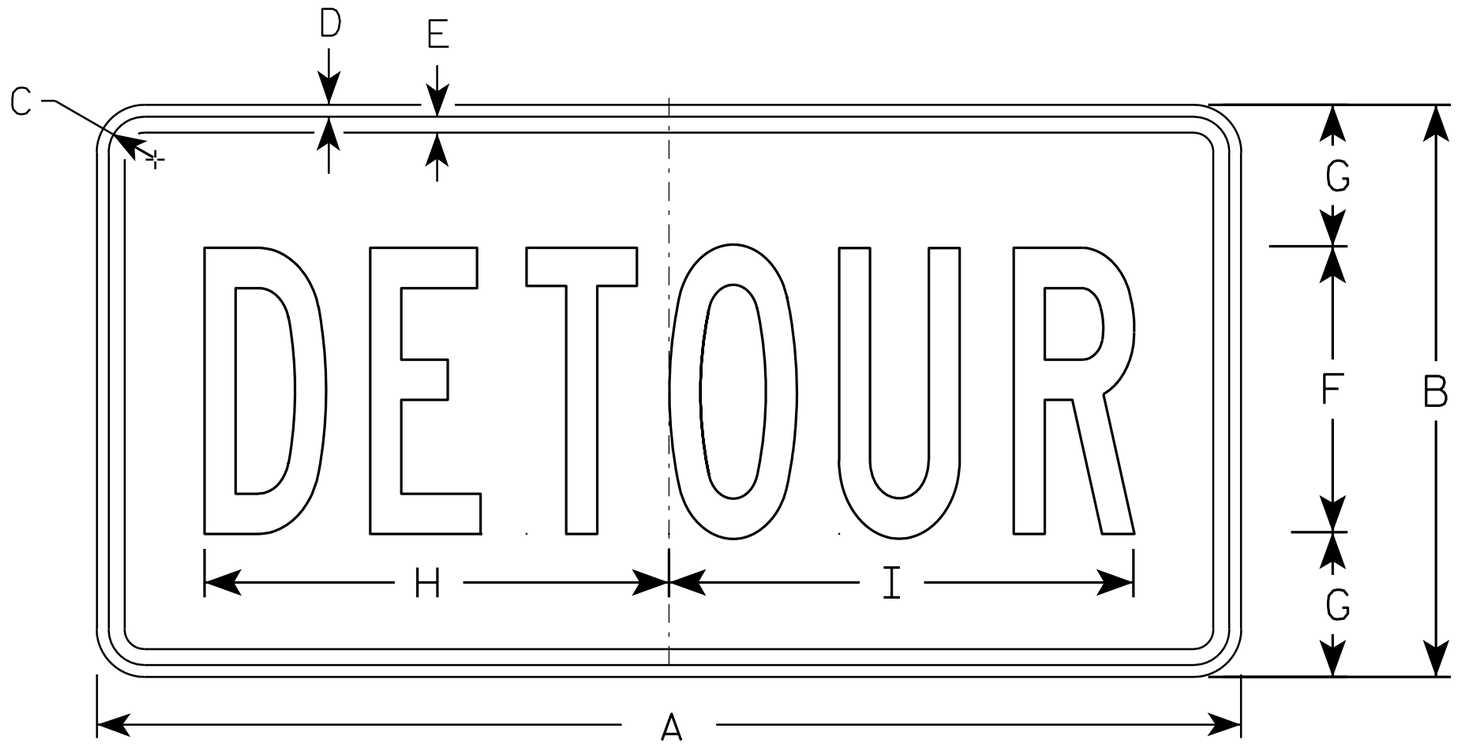
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

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: 52 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																											

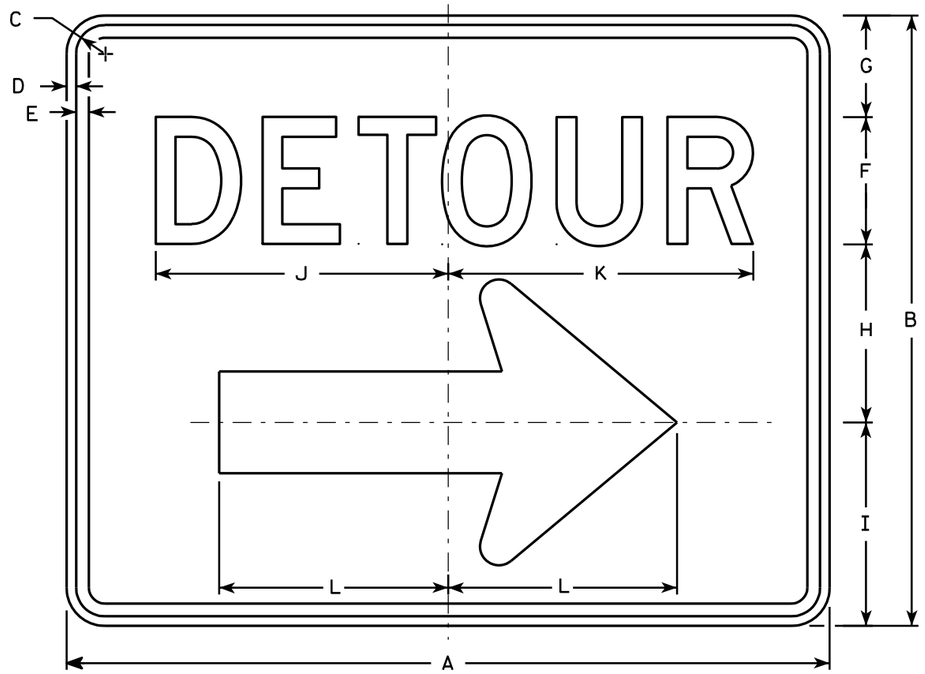
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

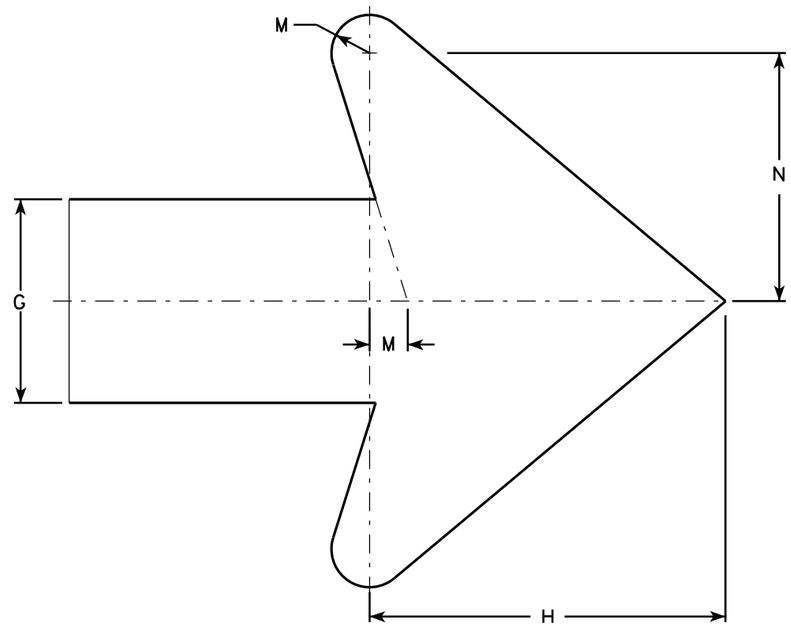
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 53	E



M4-9R

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 - 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. M4-9L is the same as M4-9R 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	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

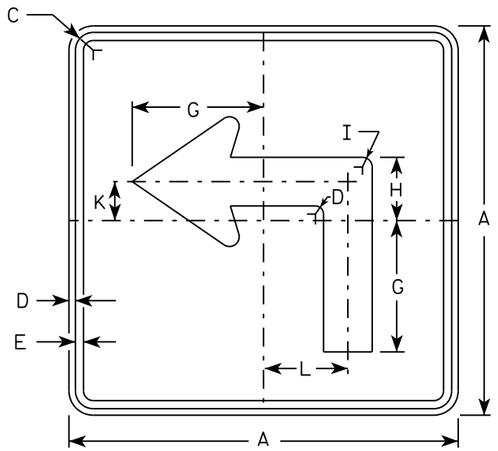
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

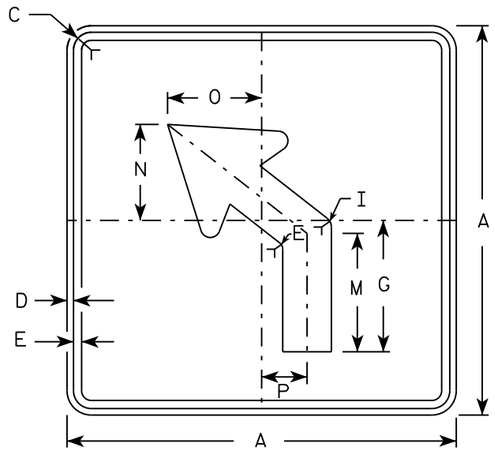
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

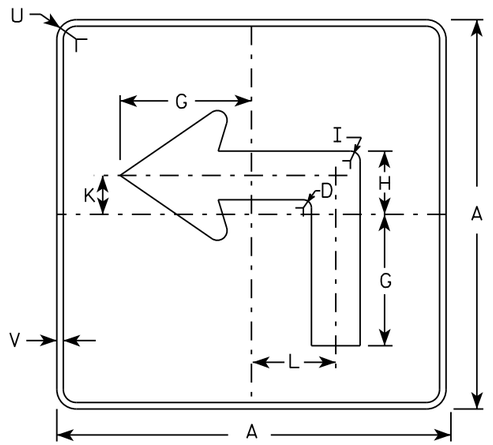
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 54	E



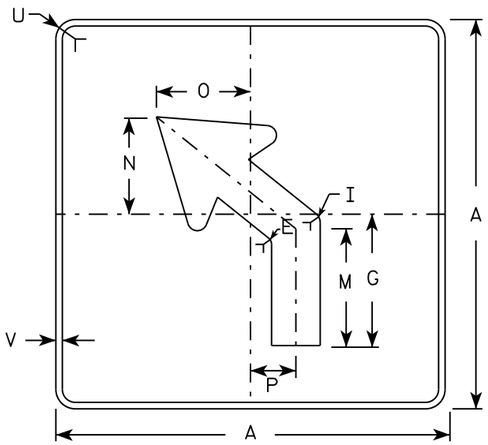
M5-1L
MM5-1L
MO5-1L
MP5-1L



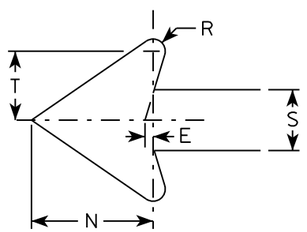
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

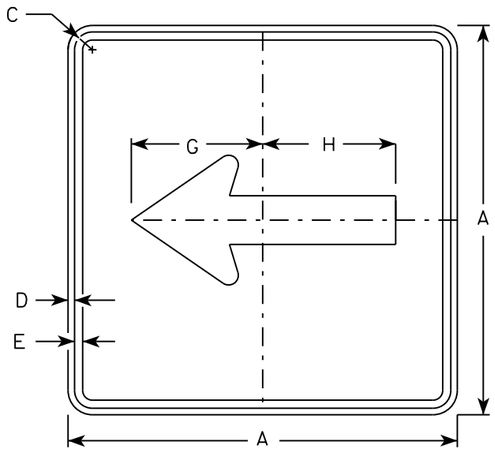
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

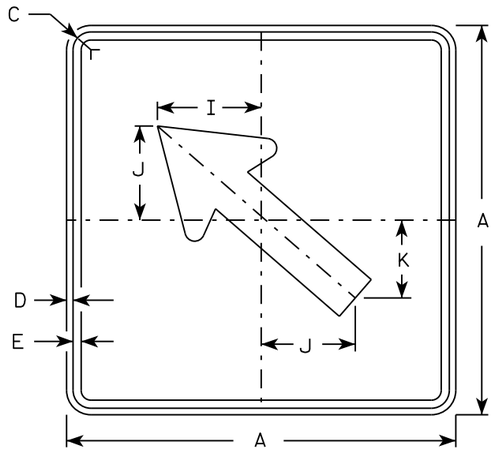
DATE 10/15/15 PLATE NO. M5-1.13

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



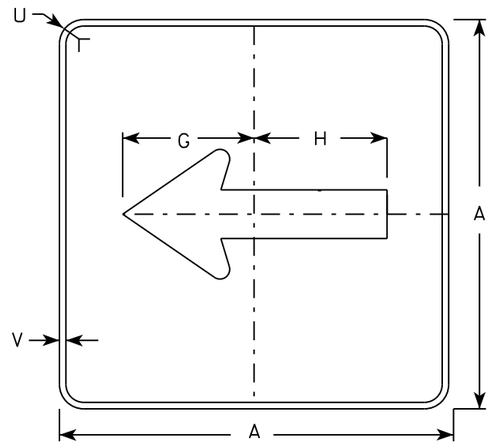
M6-1
MM6-1
MO6-1
MP6-1



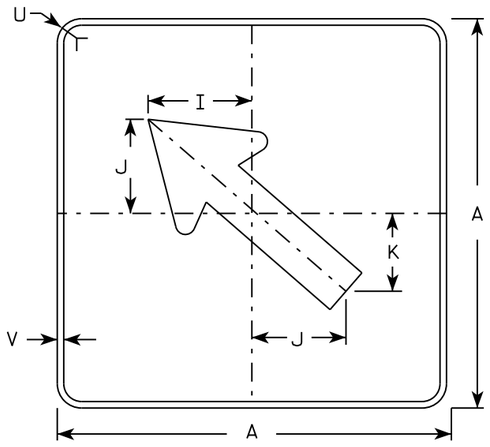
M6-2
MM6-2
MO6-2
MP6-2

NOTES

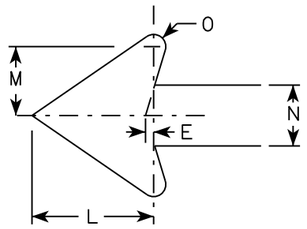
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

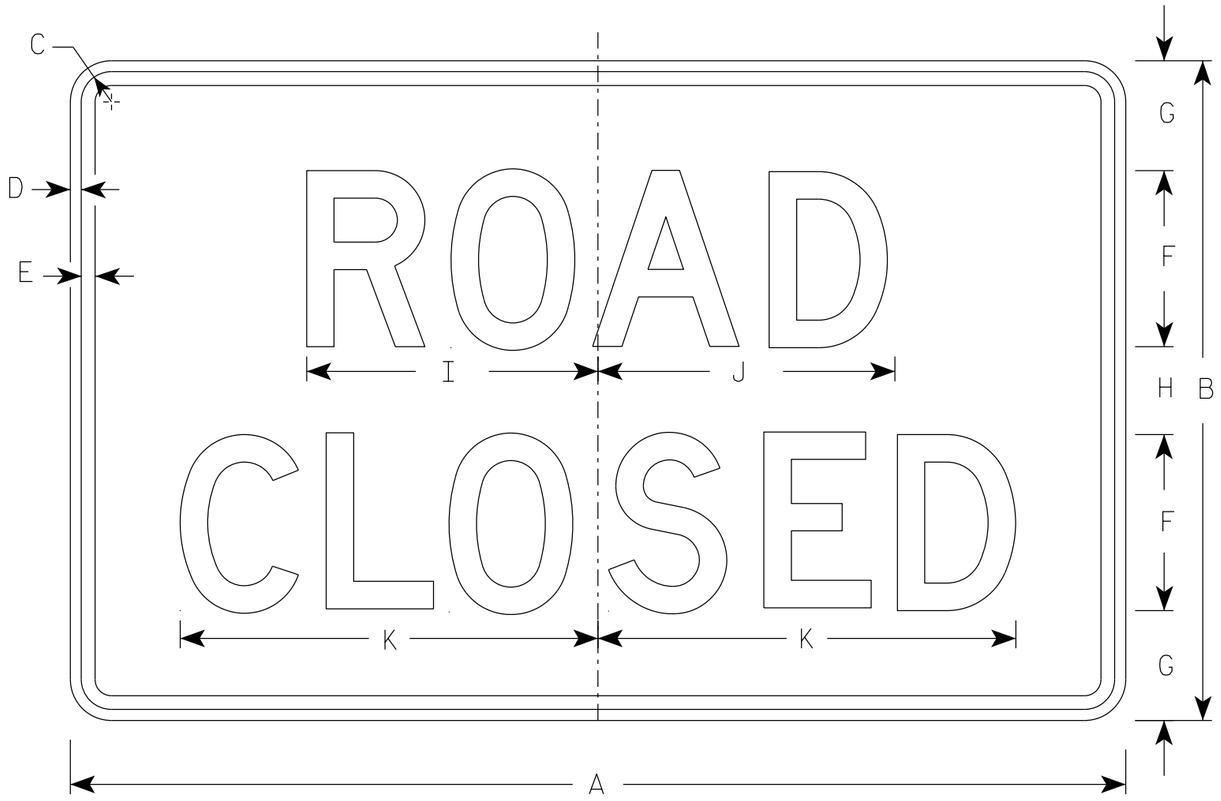
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 56 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

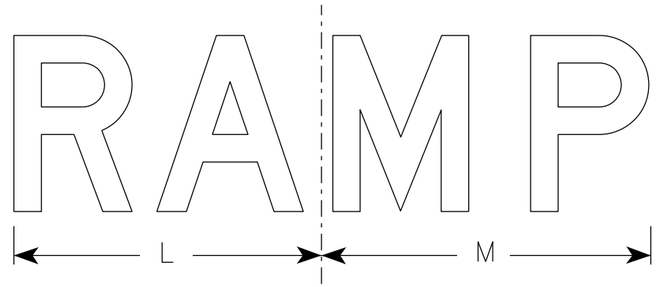
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



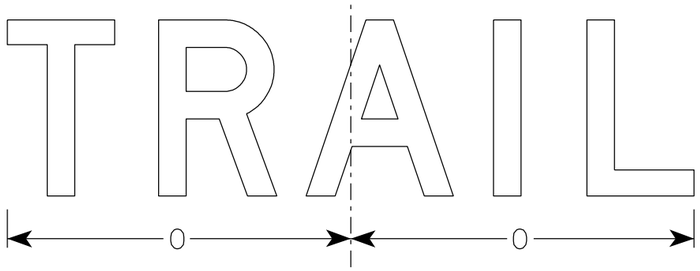
R11-2

NOTES

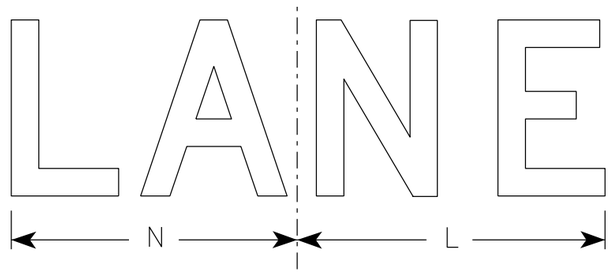
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the 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

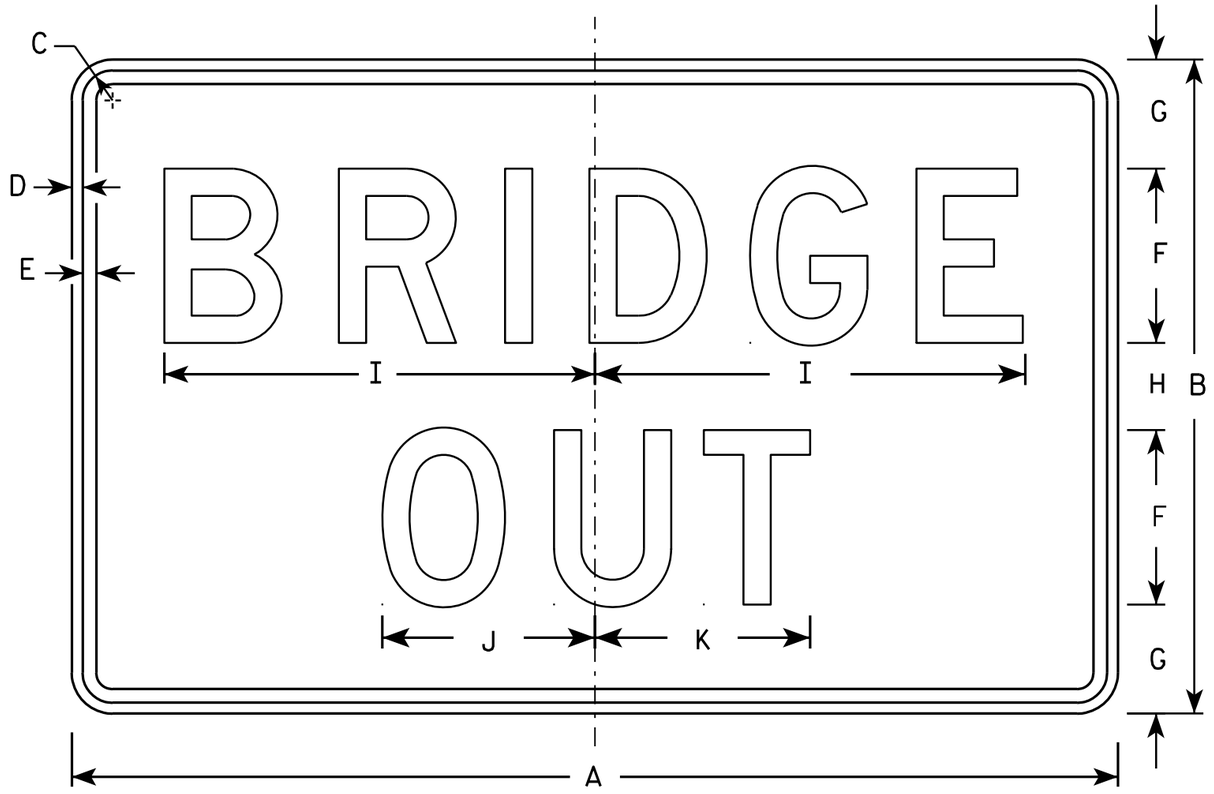
STANDARD SIGN
R11-2

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: 57 E



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

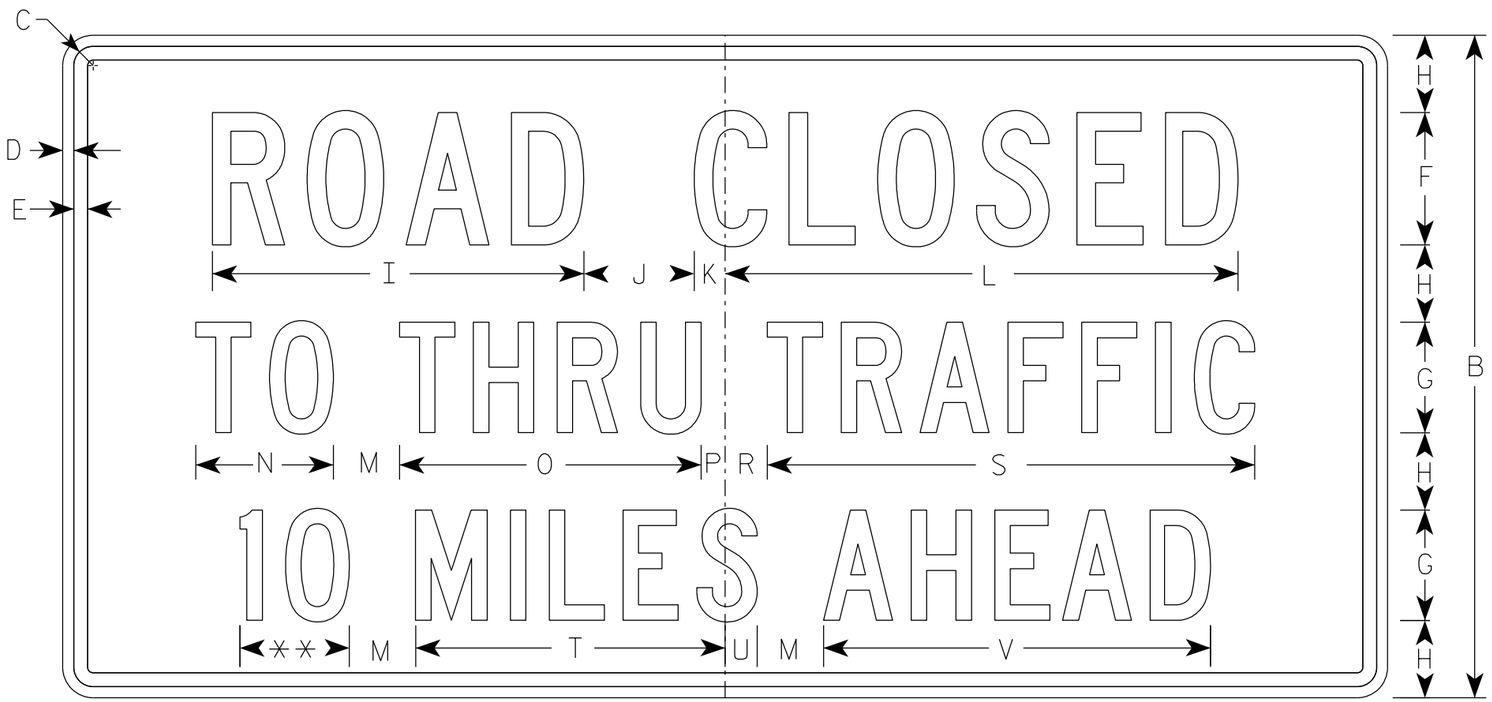
DATE 4/1/11 PLATE NO. R11-2B.2

PROJECT NO:

SHEET NO: 58 E

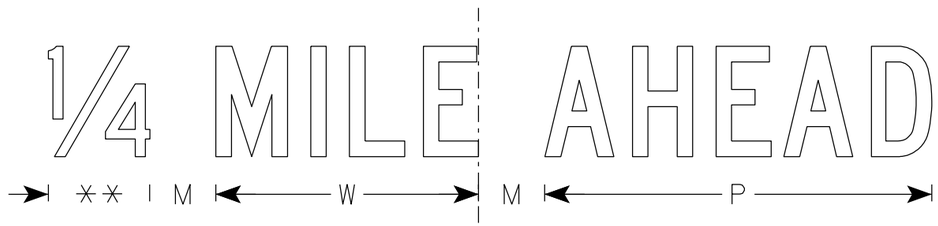
NOTES

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.



R11-3

** See Note 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.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

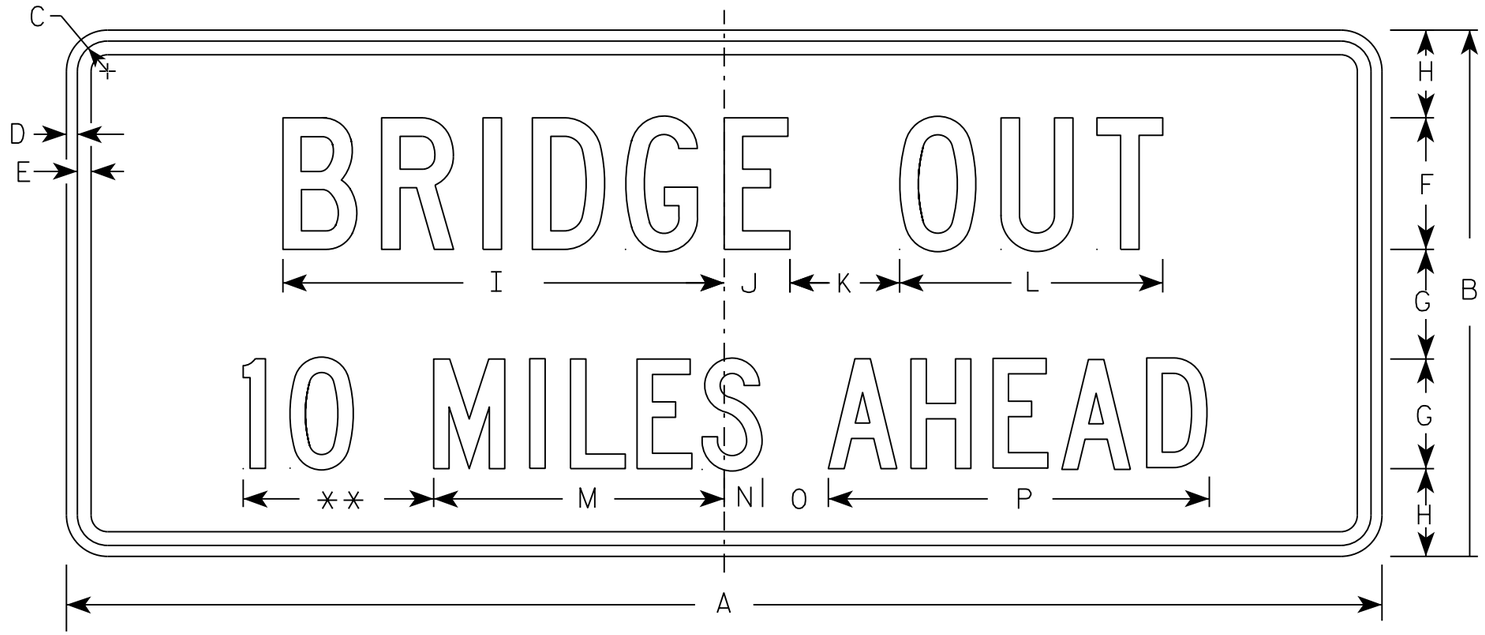
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 59	E

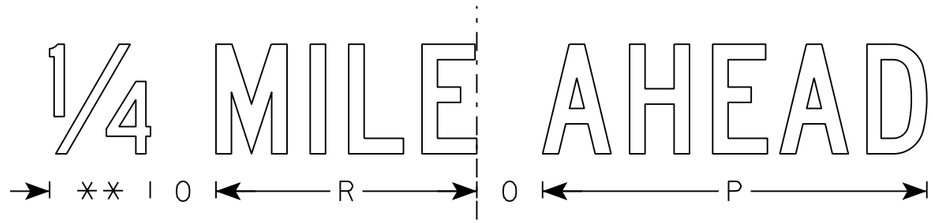
NOTES

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.



R11-3C

** See Note 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.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

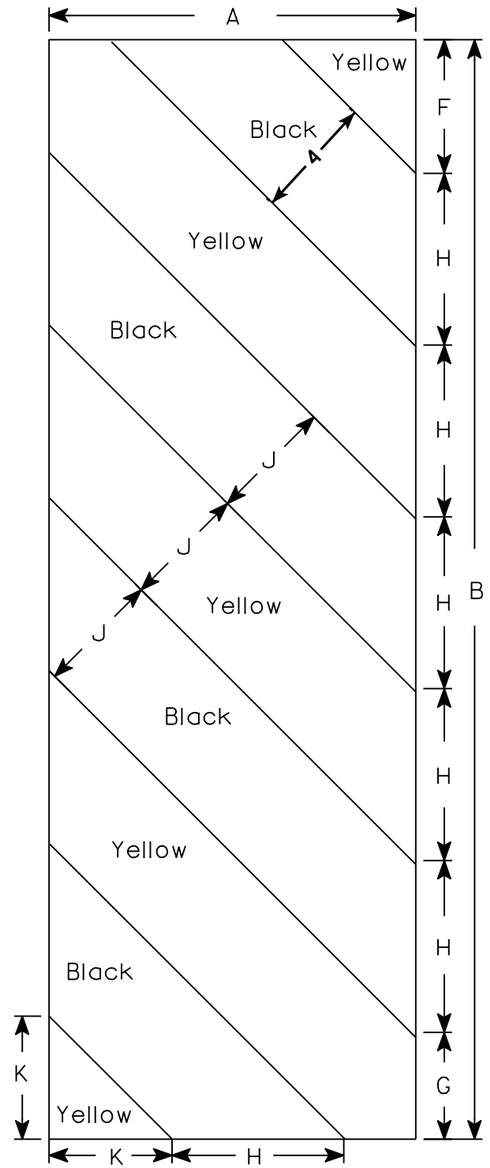
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

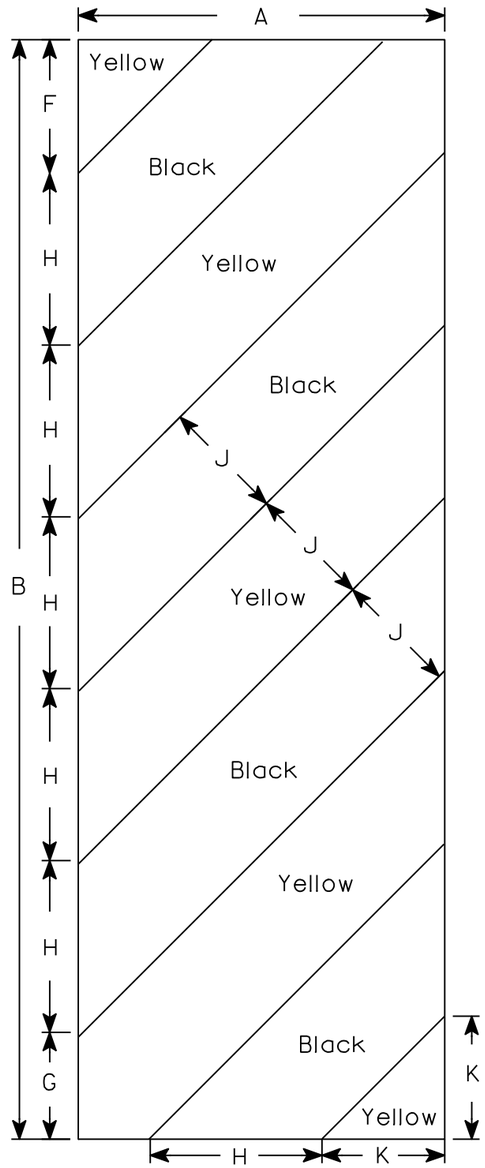
DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

SHEET NO: 60 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

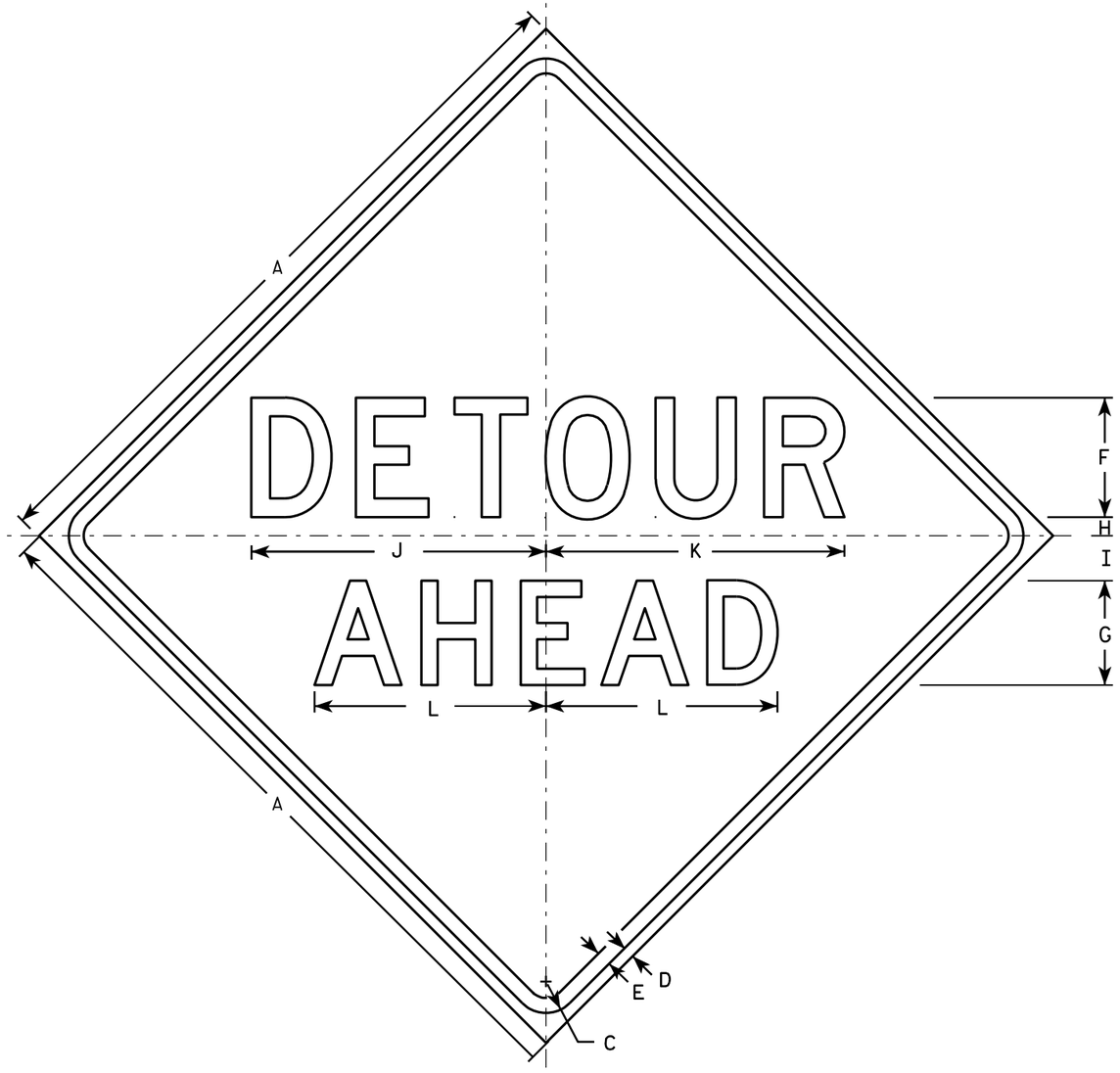
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

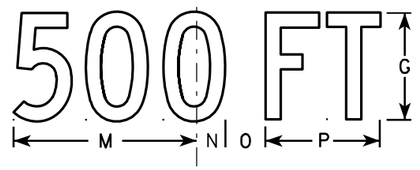
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

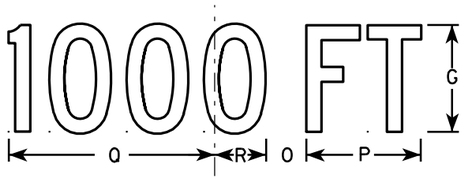
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 61 | E



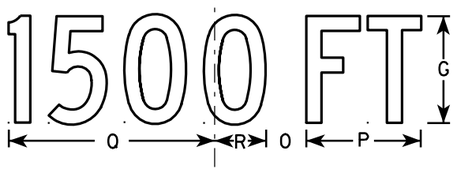
W20-2A



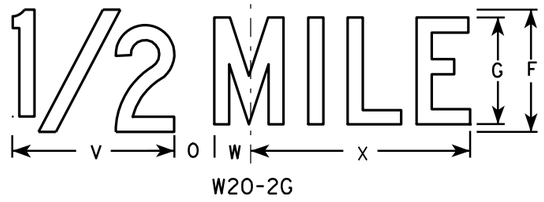
W20-2D



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

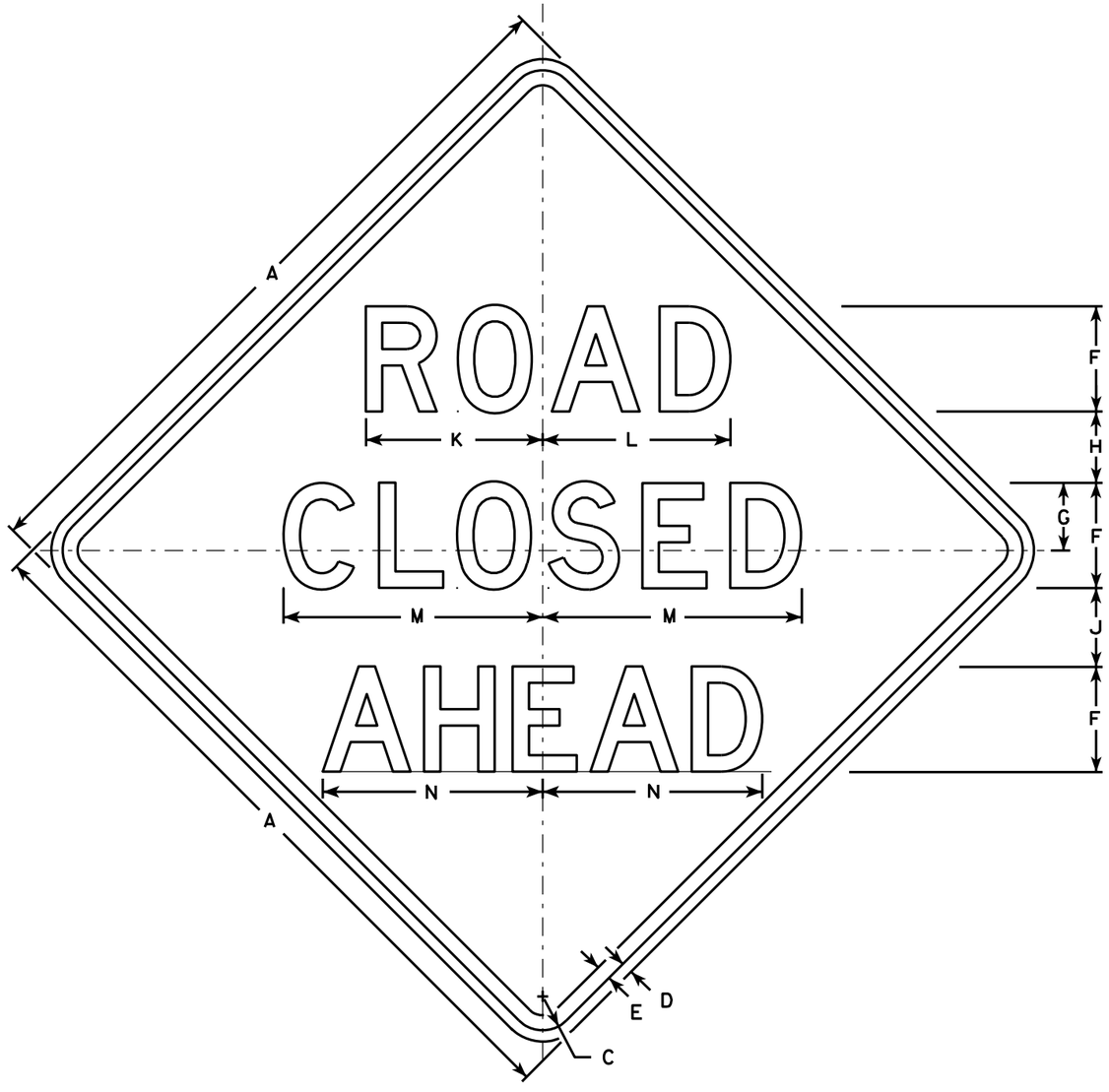
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

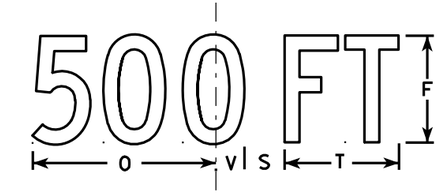
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 62 | E

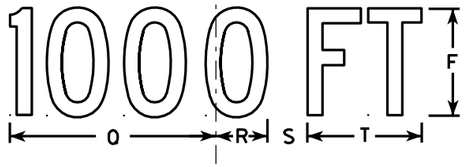
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



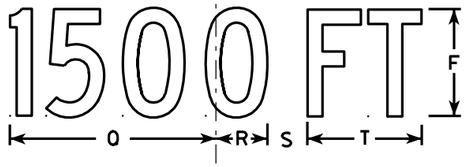
W20-3A



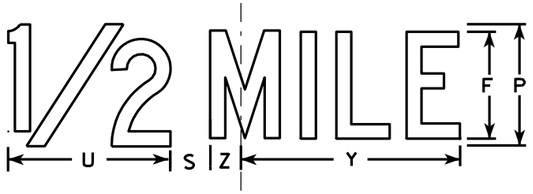
W20-3D



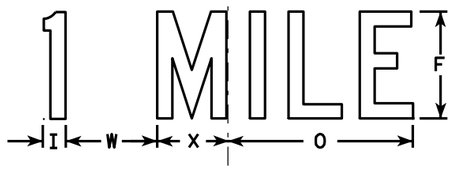
W20-3C



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: 63 | E

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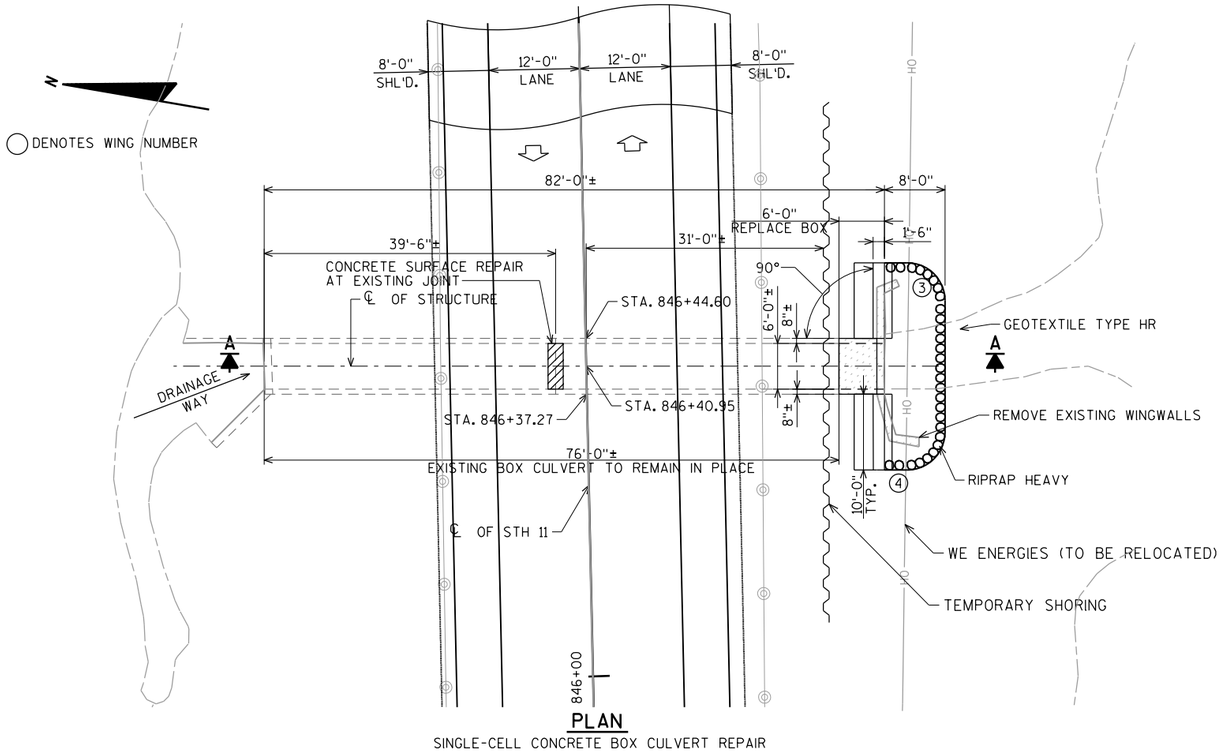
WISDOT/CADDS SHEET 42

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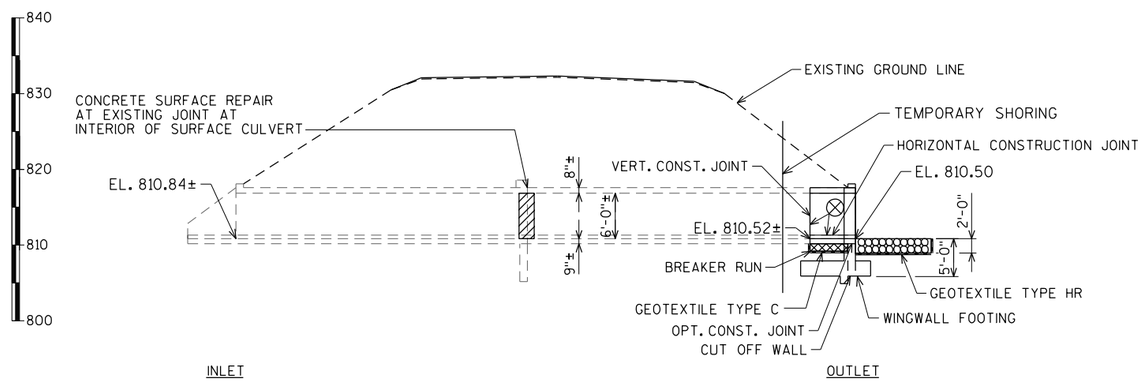
STATE PROJECT NUMBER

3180-00-77



PLAN

SINGLE-CELL CONCRETE BOX CULVERT REPAIR



SECTION A

⊗ 18" RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS AND ALONG HORIZONTAL CONSTRUCTION JOINTS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93

	NEW	EXISTING
INVENTORY RATING	1.05	1.00
OPERATING RATING	1.35	1.67
WIS-SPV	250	190

EARTH LOAD: DESIGNED FOR FILL HEIGHT OF 11 TO 12 FEET ✳

MATERIAL PROPERTIES:

CONCRETE MASONRY ——— f'c = 3,500 p.s.i.

HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— f_y = 60,000 p.s.i.

FOUNDATION DATA:

WINGWALL TO BE SUPPORTED ON A SPREAD FOOTING WITH A REQUIRED FACTORED BEARING RESISTANCE OF 3,000 psf**. A GEOTECHNICAL ENGINEER, WITH THREE DAYS NOTICE, WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE WINGWALL FOOTINGS.

** THE FACTORED BEARING RESISTANCE IS THE VALUE USED IN DESIGN.

TRAFFIC DATA:

A.A.D.T. = 13,825 (2025)
A.A.D.T. = 15,925 (2045)
R.D.S. = 60 M.P.H.

✳ EXISTING CULVERT WAS DESIGNED FOR 12'-0" OF FILL.

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. WINGWALLS DETAILS
4. WINGWALLS DETAILS
5. BOX DETAILS
6. DETAILS AND BILL OF BARS

WISCONSIN ARLEN E. BEAUDETTE E-36829 EAU CLAIRE PROFESSIONAL ENGINEER

01/20/2022

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
ARLEN BEAUDETTE
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

AYRES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ SDR 03/01/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE C-64-8

STH 11 OVER DRAINAGE WAY

COUNTY	TOWN/~~CITY/VILLAGE~~
WALWORTH	SPRING PRAIRIE

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	JLB	DESIGN CK'D.	JCK	DRAWN BY	JLB	PLANS CK'D.	AEB

GENERAL PLAN

SHEET 1 OF 6
64

I.D.

DATE:

DATE: DATE: DATE:

CHECKED BY: BACK CHECKED BY: CORRECTED BY:

1/19/2022
PENTABLE:BReau_snd_util.tbl

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I:±49±49071400 Burlington Bypass West±Structures±CADD±Final±C-64-008_finalGP.dgn

STATE PROJECT NUMBER
3180-00-77

1/19/2022
PENTABLE:BReau_shd_util.tbl

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

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 UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS" SHALL BE THE EXISTING GROUND LINE.

THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON THE CONCRETE CUTOFF WALLS.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THE EXISTING STRUCTURE, C-64-8, IS A SINGLE-CELL 6'-0"± × 6'-0"± CONCRETE BOX CULVERT WITH A BARREL LENGTH OF 82'-0"±.

REMOVING STRUCTURE C-64-8, INCLUDES REMOVING EXISTING WINGS 3 AND 4 AND EXISTING OUTLET TO THE LIMITS SHOWN IN THESE PLANS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS. THE CONTRACTOR SHALL ADJUST THE DIMENSIONS OF THE BOX CELL OPENING TO MATCH THE EXISTING CULVERT.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT UNLESS SHOWN OR NOTED OTHERWISE.

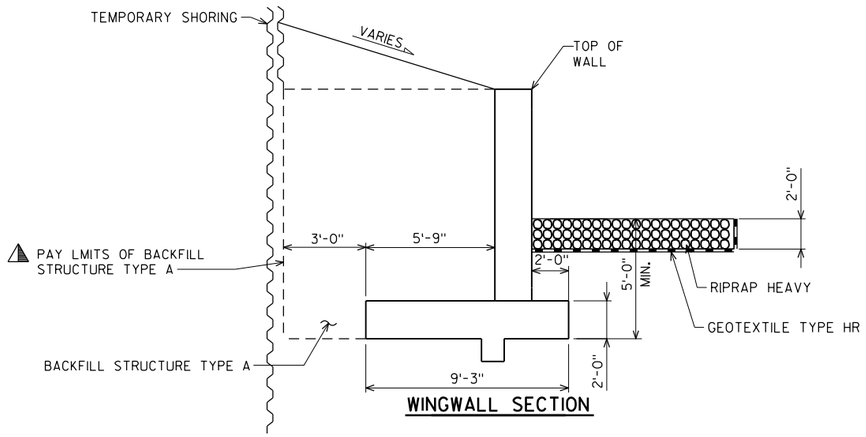
FILLET THE FORMS WITH ¾ INCH TRIANGULAR MOLDING CHAMFER STRIPS AT ALL EXPOSED, SHARP CORNERS AND AT THE EDGES OF THE CONCRETE, UNLESS SPECIFIED OTHERWISE.

WITHIN THE LENGTH OF THE BOX ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE CULVERT.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND APRON WINGWALLS FOR 3-FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

UNDER CUT 1'-0", EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTACTED TO DETERMINE IF "OTHER GRANUILAR MATERIAL" IS ACCEPTABLE.

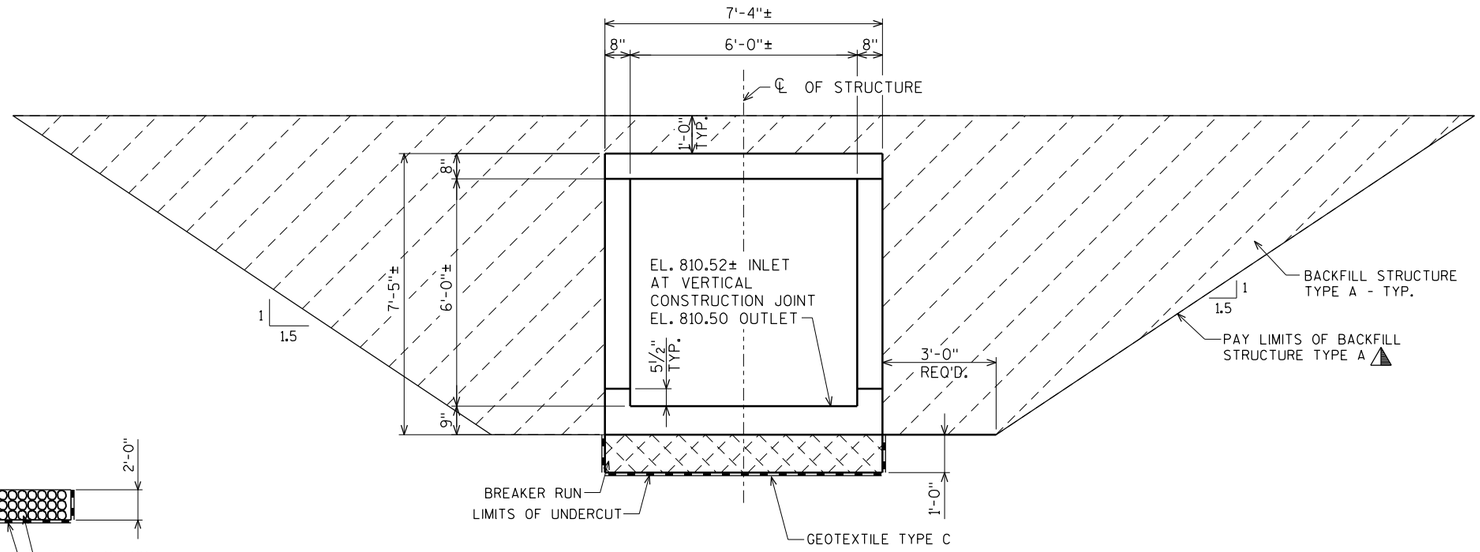


WINGWALL SECTION

TOTAL ESTIMATED QUANTITIES

WISDOT ITEM NUMBER	BID ITEMS	AMOUNT
203.0220	REMOVING STRUCTURE C-64-8	1 EACH
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-64-8	1 LS
210.1500	BACKFILL STRUCTURE TYPE A	190 TON
311.0110	BREAKER RUN	4 TON
502.4205	ADHESIVE ANCHORS NO. 5 BAR	28 EACH
504.0100	CONCRETE MASONRY CULVERTS	31 CY
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	800 LB
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	1,700 LB
⊗509.1500	CONCRETE SURFACE REPAIR	100 SF
511.1200	TEMPORARY SHORING C-64-8	925 SF
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	10 SY
606.0300	RIPRAP HEAVY	20 CY
645.0105	GEOTEXTILE TYPE C	7 SY
645.0120	GEOTEXTILE TYPE HR	42 SY
	NON-BID ITEMS	
	FILLER	¾ SIZE

⊗AT EXISTING JOINT AT INTERIOR OF CULVERT AND UNDISTRIBUTED, AS DIRECTED BY THE ENGINEER IN THE FIELD.



TYPICAL SECTION THRU BOX EXTENSION

NOTE: MATCH EXISTING CULVERT OPENING

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-8

DRAWN BY JLB | PLANS CK'D. JCK

QUANTITIES AND NOTES

SHEET 2 OF 6
65

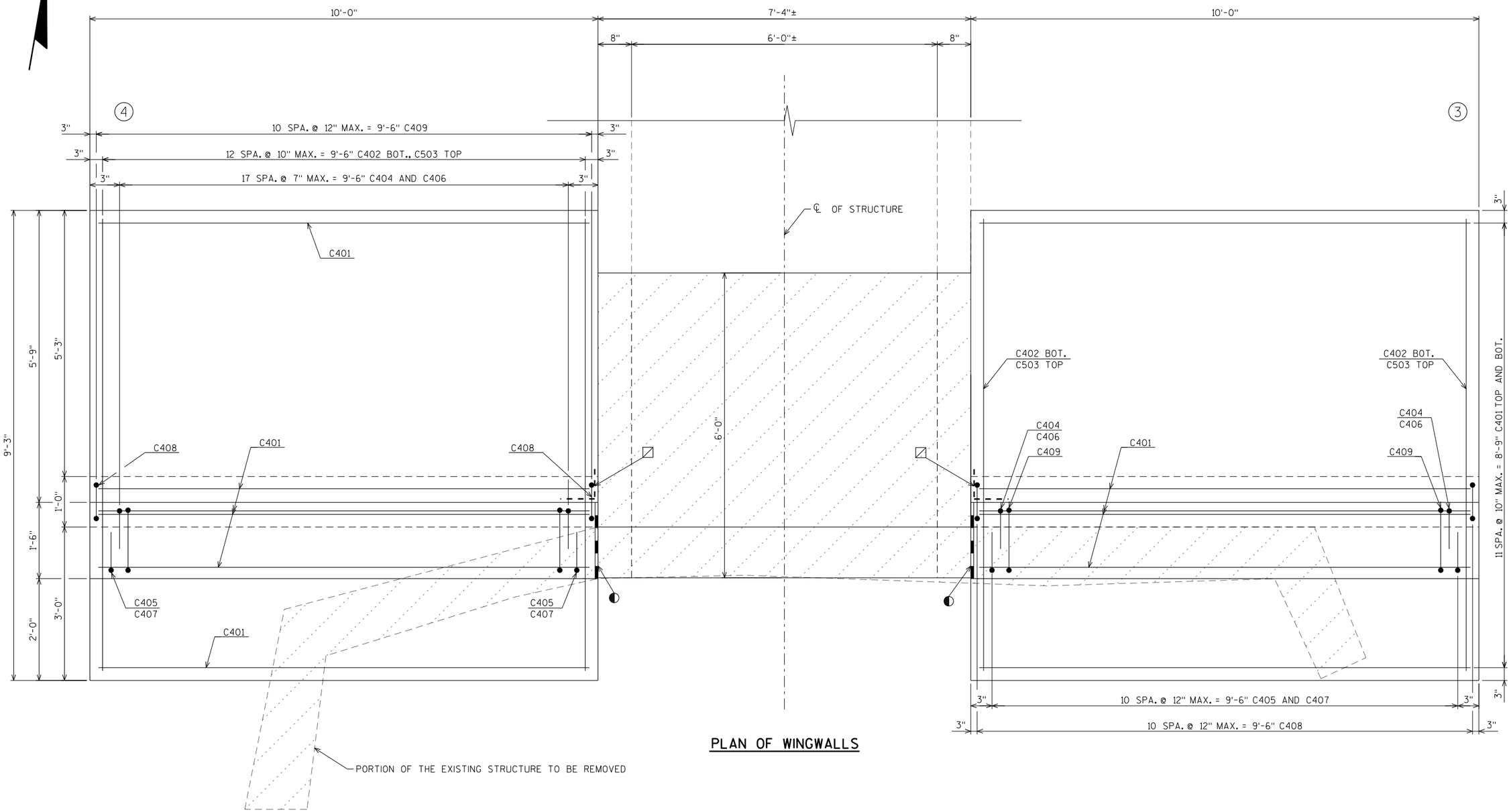
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Eau Claire, WI 54701
www.AyresAssociates.com

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STATE PROJECT NUMBER
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PLAN OF WINGWALLS

NOTE: WINGWALLS ARE SYMMETRICAL ABOUT ℄ OF STRUCTURE UNLESS SHOWN OR NOTED OTHERWISE.

▨ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING.

◐ ¾" FILLER TO EXTEND FROM BOTTOM OF FOOTING JT. TO TOP OF WING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-8

DRAWN BY JLB | PLANS CK'D. JCK

WINGWALLS DETAILS

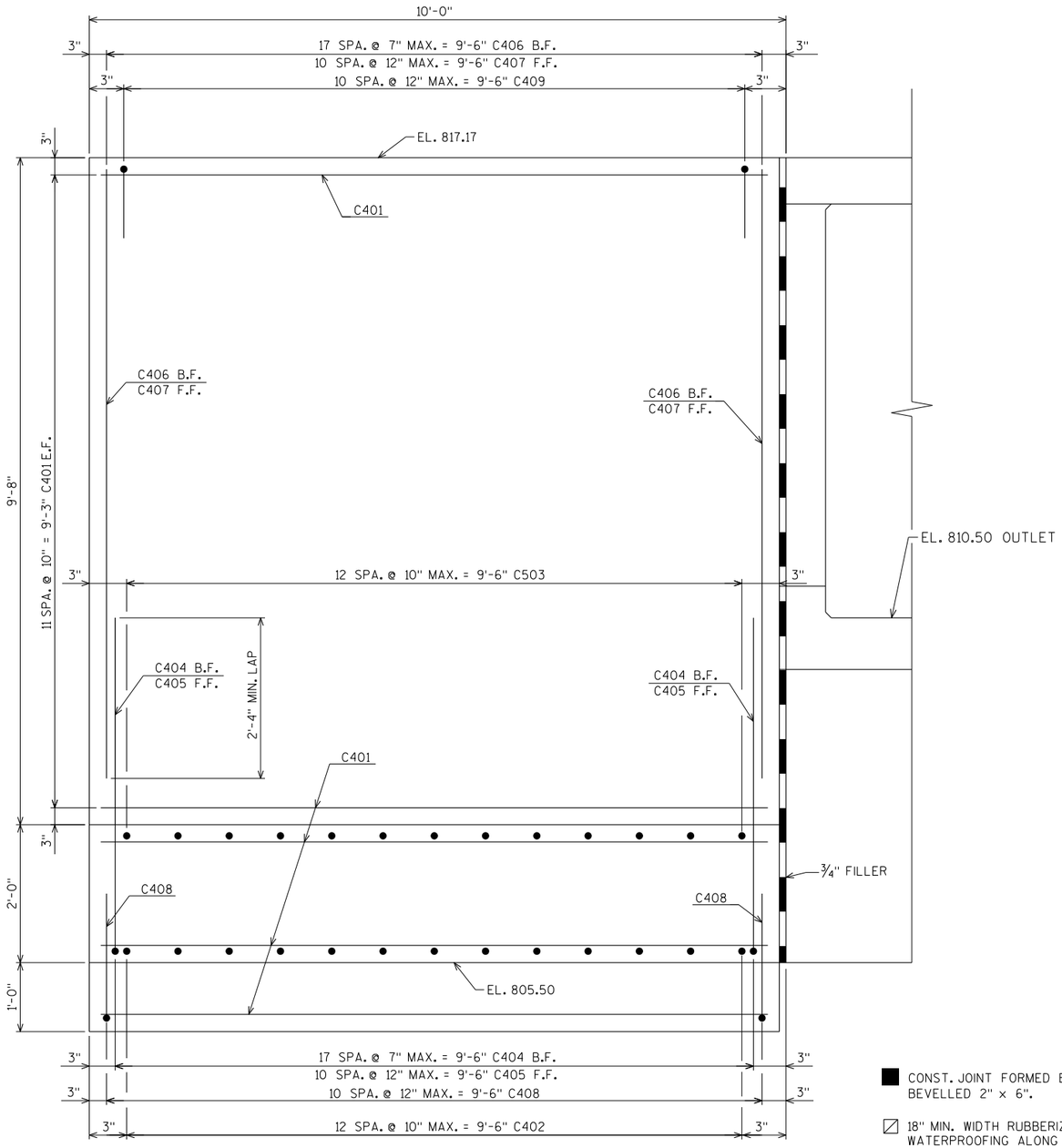
SHEET 3 OF 6
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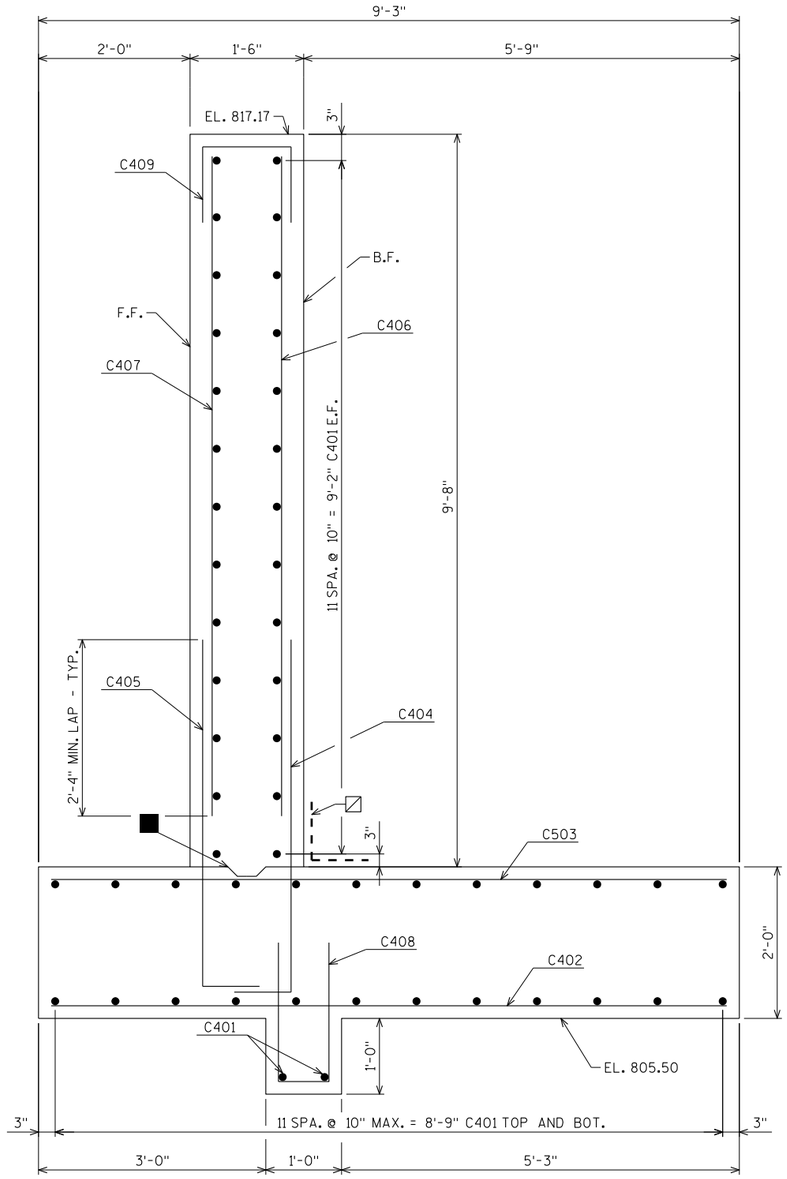
STATE PROJECT NUMBER

3180-00-77



ELEVATION - WING 4

(WING 3 SIMILAR)



TYP. SECTION THRU WING

■ CONST. JOINT FORMED BY A SURFACE BEVELLED 2" x 6".

☒ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

NOTE: WINGWALLS ARE SYMMETRICAL ABOUT ℄ OF STRUCTURE UNLESS SHOWN OF NOTED OTHERWISE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-8

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WINGWALLS DETAILS

SHEET 4 OF 6
67

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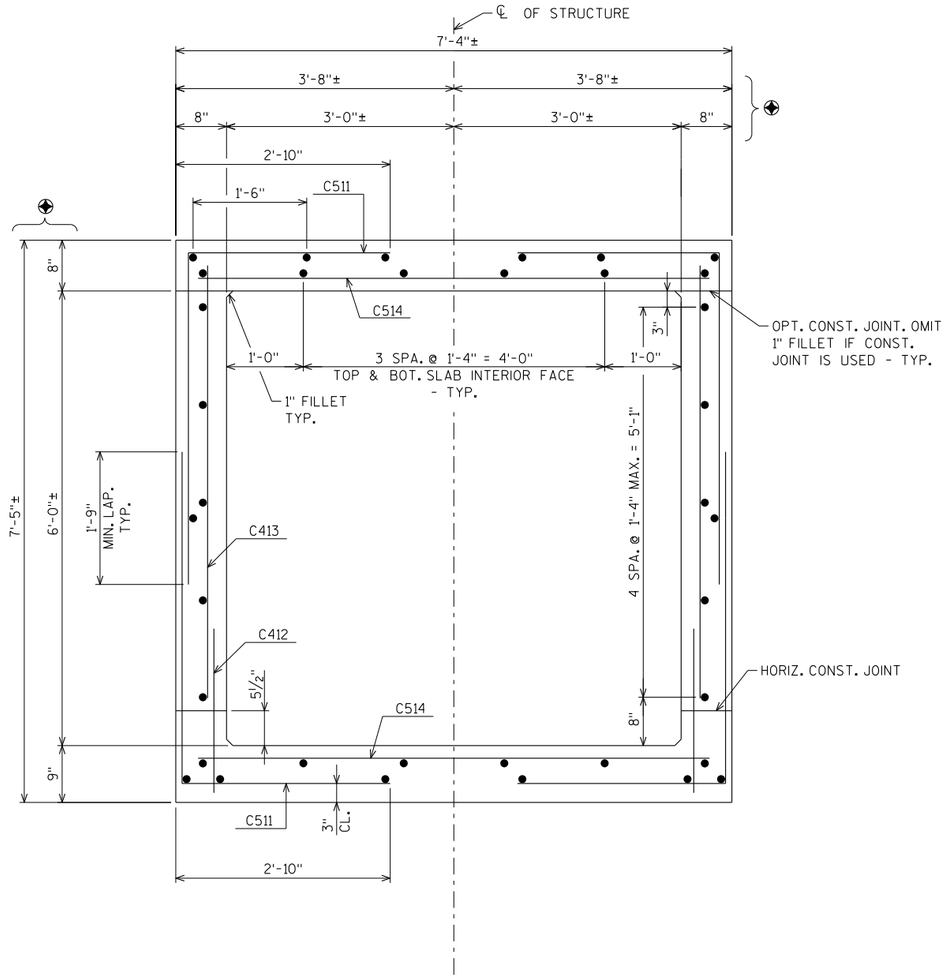
STATE PROJECT NUMBER

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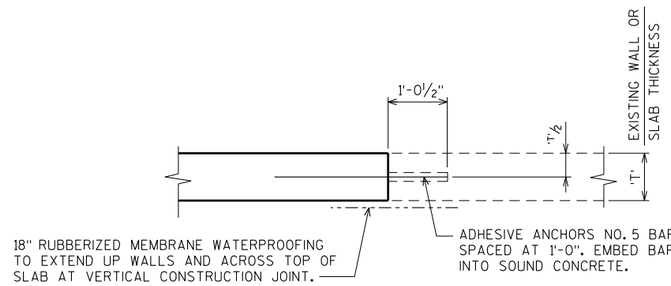
NOTE: CULVERT SYMMETRICAL ABOUT ℄ OF STRUCTURE UNLESS SHOWN OR NOTED OTHERWISE.

◈ ADJUST AS NECESSARY TO MATCH THE OPENINGS OF THE EXISTING CULVERT

ALL LONGITUDINAL BARS IN BOX ARE C410 UNLESS SHOWN OTHERWISE

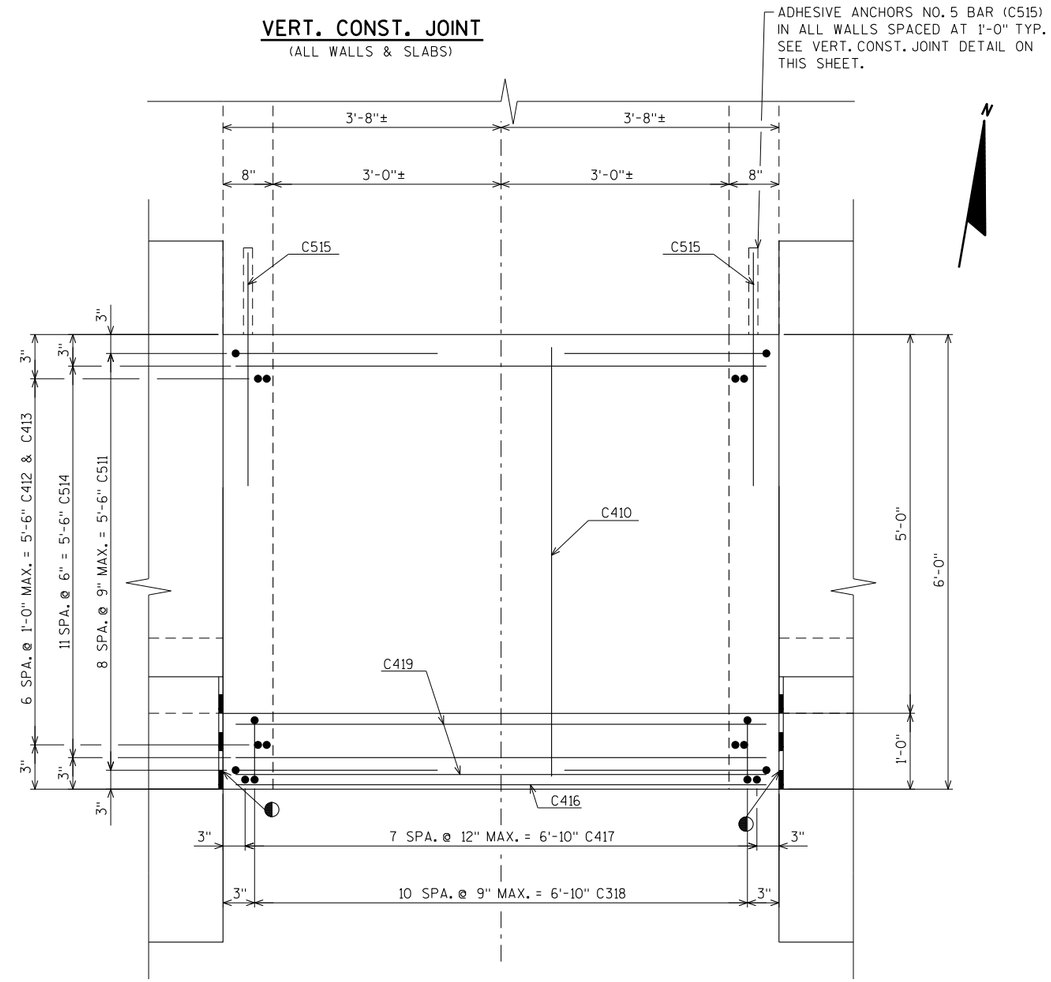


TYPICAL SECTION THRU BOX



VERT. CONST. JOINT

(ALL WALLS & SLABS)



PLAN OF CULVERT

◐ ¾" FILLER TO EXTEND FROM BOTTOM OF FOOTING TO TOP OF WING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-8

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BOX DETAILS

SHEET 5 OF 6
68

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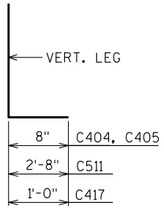
STATE PROJECT NUMBER

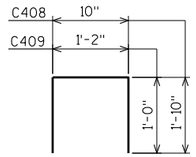
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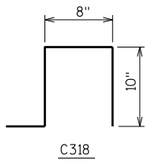
BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	1.700# COATED 800# UNCOATED LOCATION
C401	X	100	9-8			WINGWALL HORIZONTAL
C402	X	26	8-11			WINGWALL FOOTING BOTTOM
C503	X	26	8-11			WINGWALL FOOTING TOP
C404	X	36	5-5	X		WINGWALL STEM DOWEL BACK FACE
C405	X	22	5-5	X		WINGWALL STEM DOWEL FRONT FACE
C406	X	36	8-10			WINGWALL STEM BACK FACE VERTICAL
C407	X	22	8-10			WINGWALL STEM FRONT FACE VERTICAL
C408	X	22	4-4	X		WINGWALL SHEAR KEY
C409	X	22	3-0	X		WINGWALL STEM TOP
C410		36	5-8			BOX CULVERT LONGITUDINAL
C511		36	6-11	X		BOX CULVERT CORNERS
C412		14	2-1			BOX CULVERT WALL DOWEL
C413		14	6-0			BOX CULVERT WALL
C514		24	7-0			BOX CULVERT TOP AND BOTTOM SLAB
C515		28	3-1			BOX CULVERT ADHESIVE ANCHOR
C416		4	7-0			CUTOFF WALL HORIZONTAL
C417		8	5-6	X		CUTOFF WALL VERTICAL
C318		10	2-7	X		HEADER VERTICAL
C419		2	7-0			HEADER HORIZONTAL

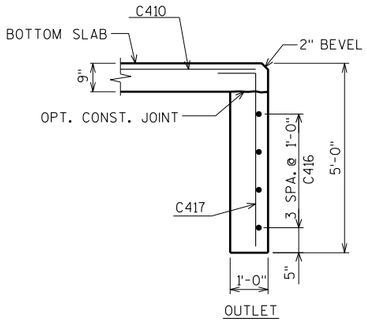
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





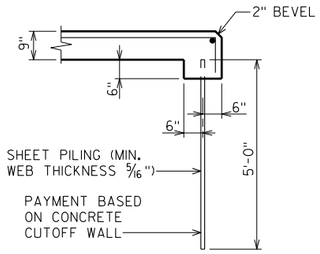


C318

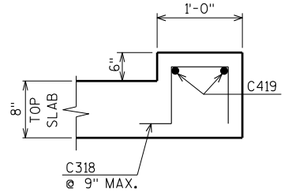


OUTLET

SECTION THRU CUTOFF WALL



SECTION THRU ALTERNATE CUTOFF WALL



OUTLET

HEADER DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-64-8

DRAWN BY JLB | PLANS CK'D. JCK

DETAILS AND BILL OF BARS

SHEET 6 OF 6
69

ORIGINAL PLANS PREPARED BY

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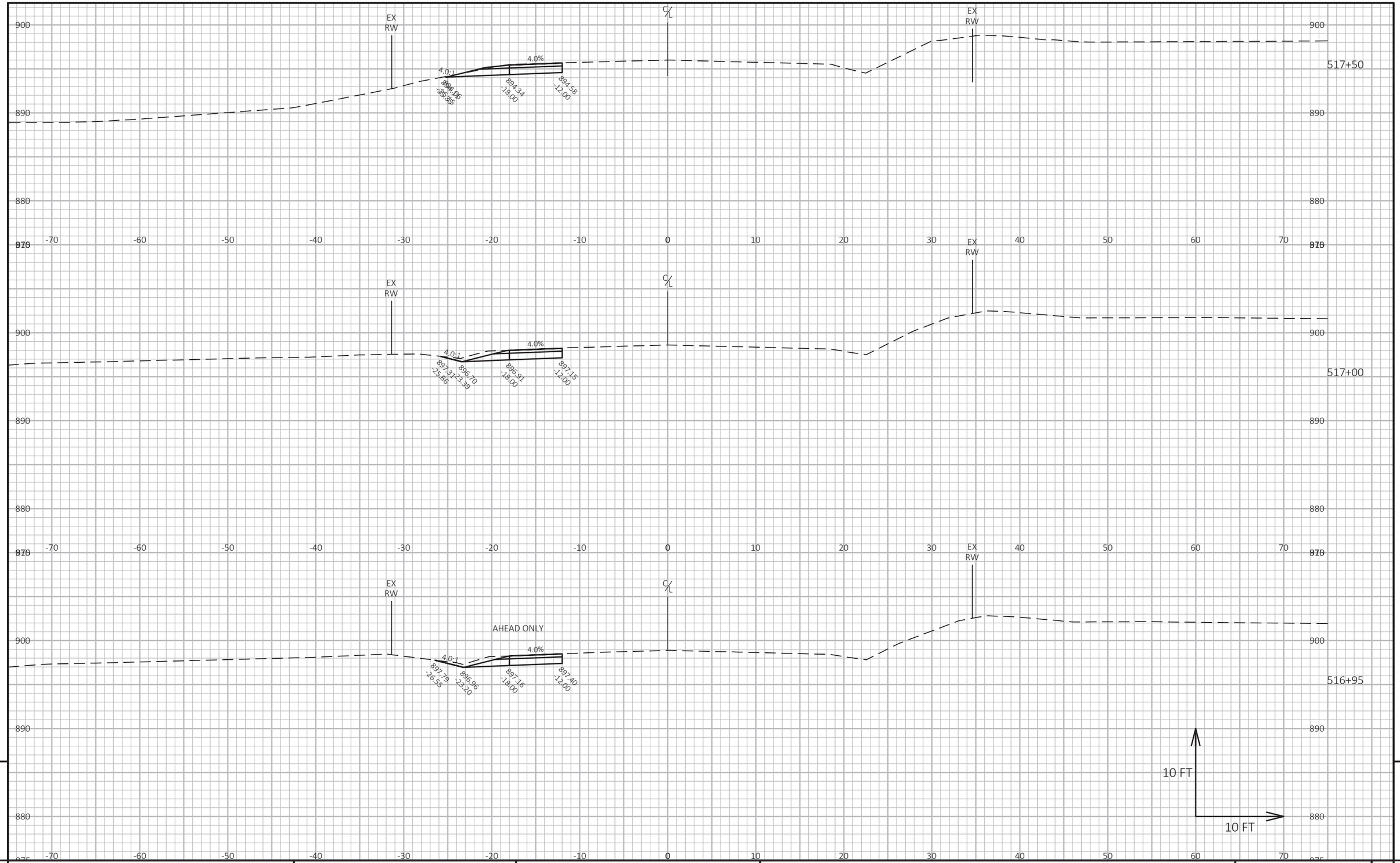
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STH 11

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	Reduced Marsh in Fill	Reduced EBS in Fill	Mass Ordinate
									1.00	1.30	1.00	1.00	
						Note 1	Note 2	Note 3	Note 1		Note 6	Note 7	Note 8
516+95	51695.00	0.00	11.10	6.00	0.00	0	0	0	0	0	0	0	0
517+00	51700.00	5.00	11.51	6.00	0.00	2	1	0	2	0	0	0	1
517+50	51750.00	50.00	11.35	6.00	0.00	21	11	0	23	0	0	0	11
517+63	51763.00	13.00	18.93	12.00	8.42	7	4	2	30	3	0	0	11
518+00	51800.00	37.00	19.97	12.00	16.96	27	16	17	57	25	0	0	0
518+14	51814.00	14.00	20.23	12.00	21.10	10	6	10	67	38	0	0	-9
518+39	51839.00	25.00	21.79	12.00	4.68	19	11	12	86	53	0	0	-16
518+50	51850.00	11.00	20.73	12.00	17.68	9	5	5	95	60	0	0	-19
518+64	51864.00	14.00	21.15	12.00	19.56	11	6	10	106	73	0	0	-27
518+67	51867.00	3.00	20.99	12.00	22.22	2	1	2	108	75	0	0	-28
518+82	51882.00	15.00	19.46	12.00	9.60	11	7	9	119	87	0	0	-36
519+00	51900.00	18.00	17.56	12.00	54.52	12	8	21	131	114	0	0	-59
519+07	51907.00	7.00	18.28	12.00	63.95	5	3	15	136	134	0	0	-77
519+30	51932.00	25.00	51.63	51.63	71.03	32	29	62	168	215	0	0	-155
519+35	51935.00	3.00	52.63	52.63	70.20	6	6	8	174	225	0	0	-165
520+00	52000.00	65.00	51.62	51.62	68.79	124	124	166	298	441	0	0	-381
520+50	52050.00	50.00	51.51	51.51	105.66	95	95	162	393	651	0	0	-591
521+00	52100.00	50.00	18.16	12.00	117.90	65	59	207	458	920	0	0	-854
521+23	52123.00	23.00	17.53	12.00	75.74	15	10	82	473	1,027	0	0	-956
521+25	52125.00	2.00	17.66	12.00	94.24	1	1	6	474	1,035	0	0	-964
521+48	52148.00	23.00	21.18	12.00	92.01	17	10	79	491	1,138	0	0	-1,060
521+50	52150.00	2.00	21.80	12.00	80.27	2	1	6	493	1,145	0	0	-1,066
521+73	52173.00	23.00	23.23	12.00	22.01	19	10	44	512	1,203	0	0	-1,115
521+75	52175.00	2.00	23.12	12.00	17.36	2	1	1	514	1,204	0	0	-1,115
522+00	52200.00	25.00	34.35	12.00	0.00	27	11	8	541	1,214	0	0	-1,109
522+50	52250.00	50.00	20.82	12.00	1.60	51	22	1	592	1,216	0	0	-1,082
522+92	52292.00	42.00	22.11	12.00	0.00	33	19	1	625	1,217	0	0	-1,069

9

9



PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 71	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

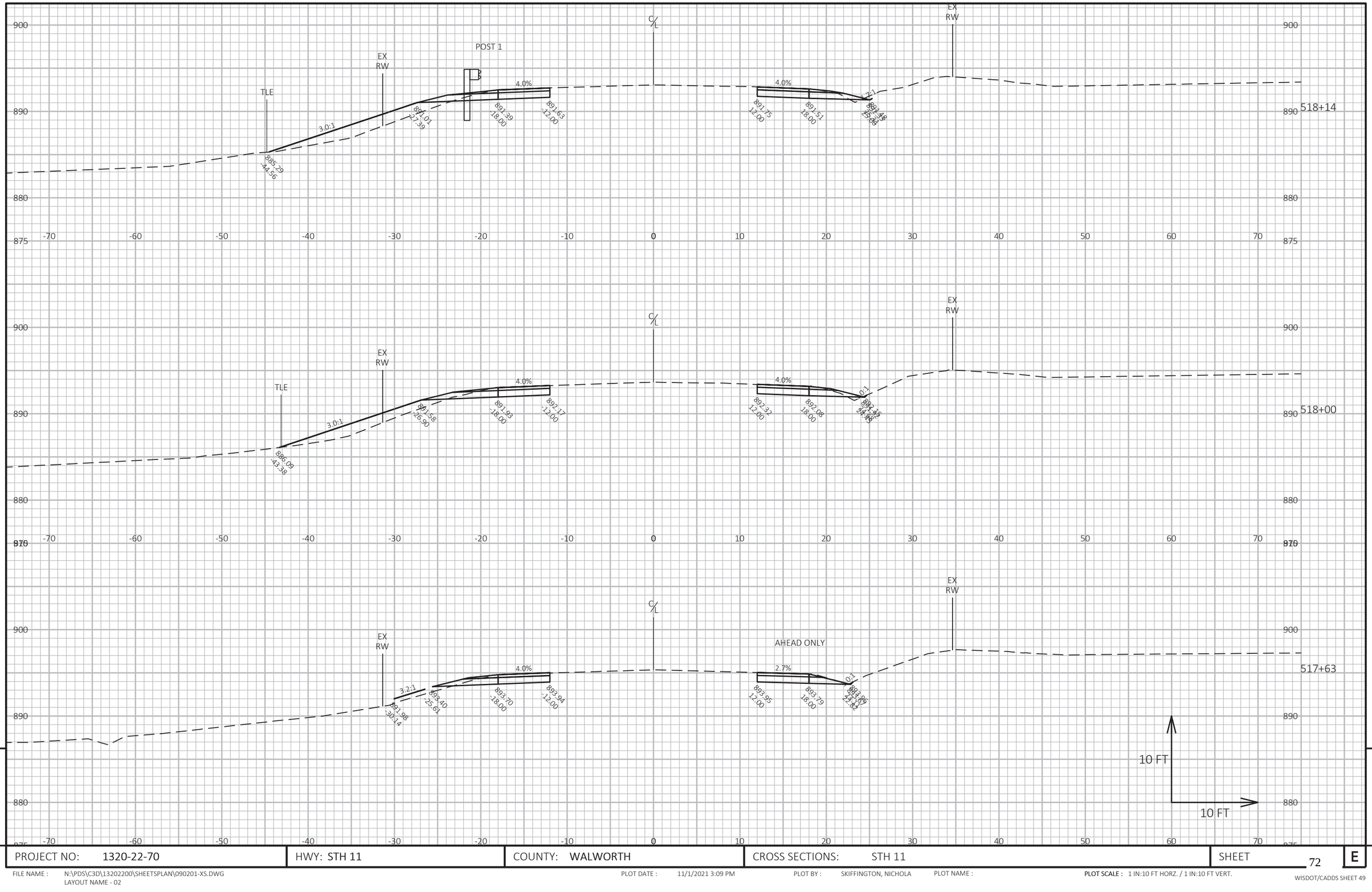
PLOT DATE : 11/1/2021 3:08 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

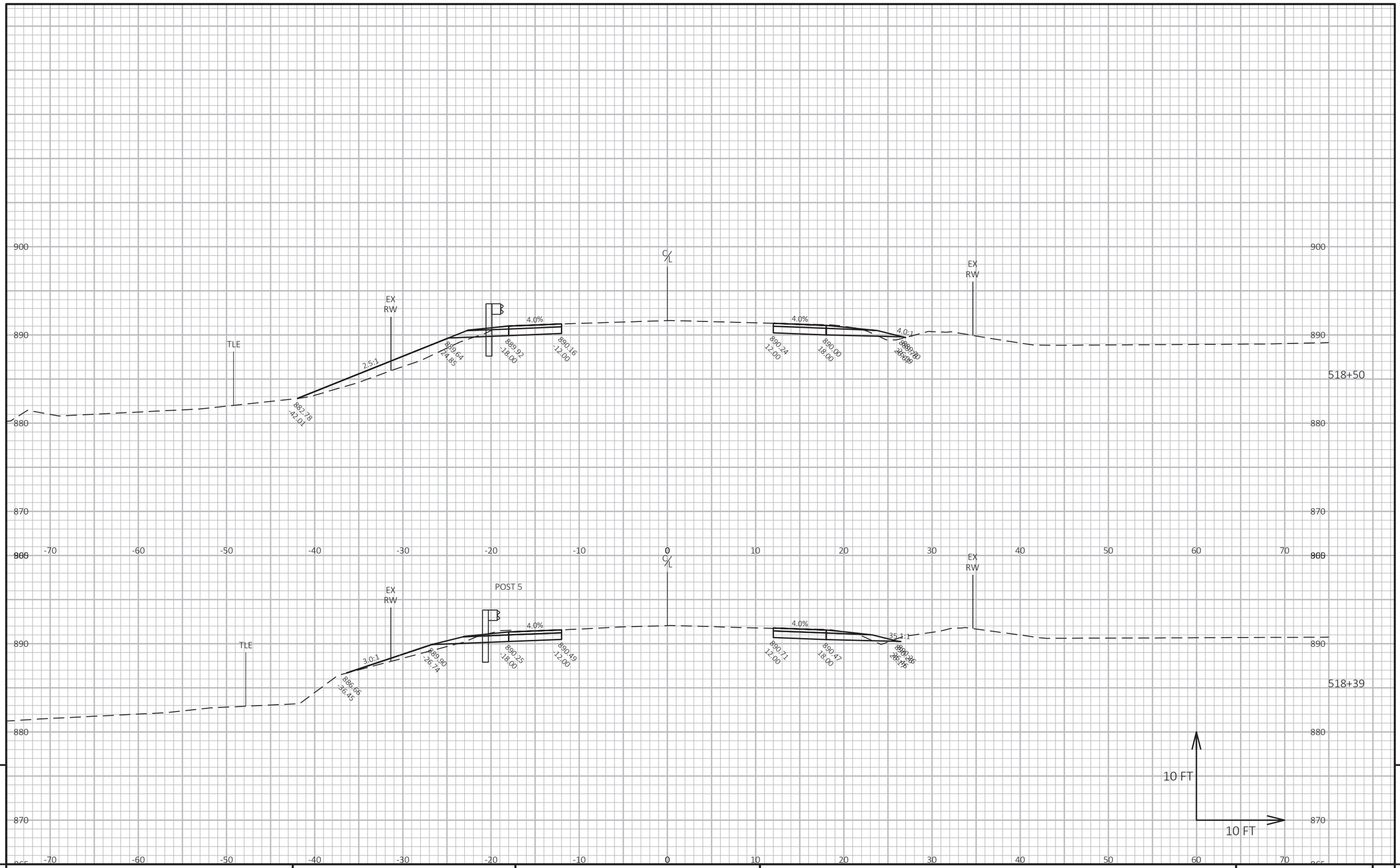


PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 72 E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 11/1/2021 3:09 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

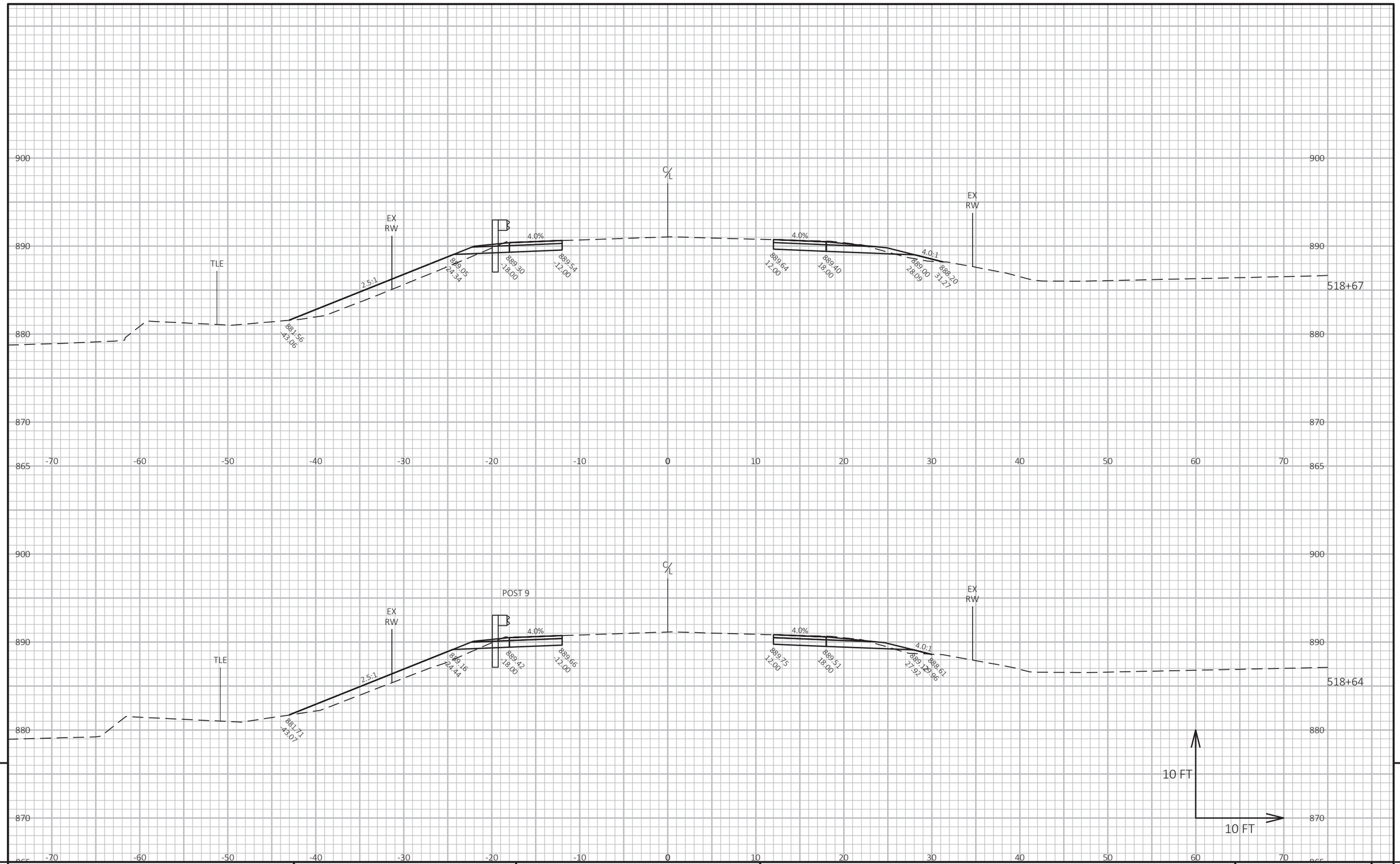


PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 73 E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 11/1/2021 3:09 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 74	E

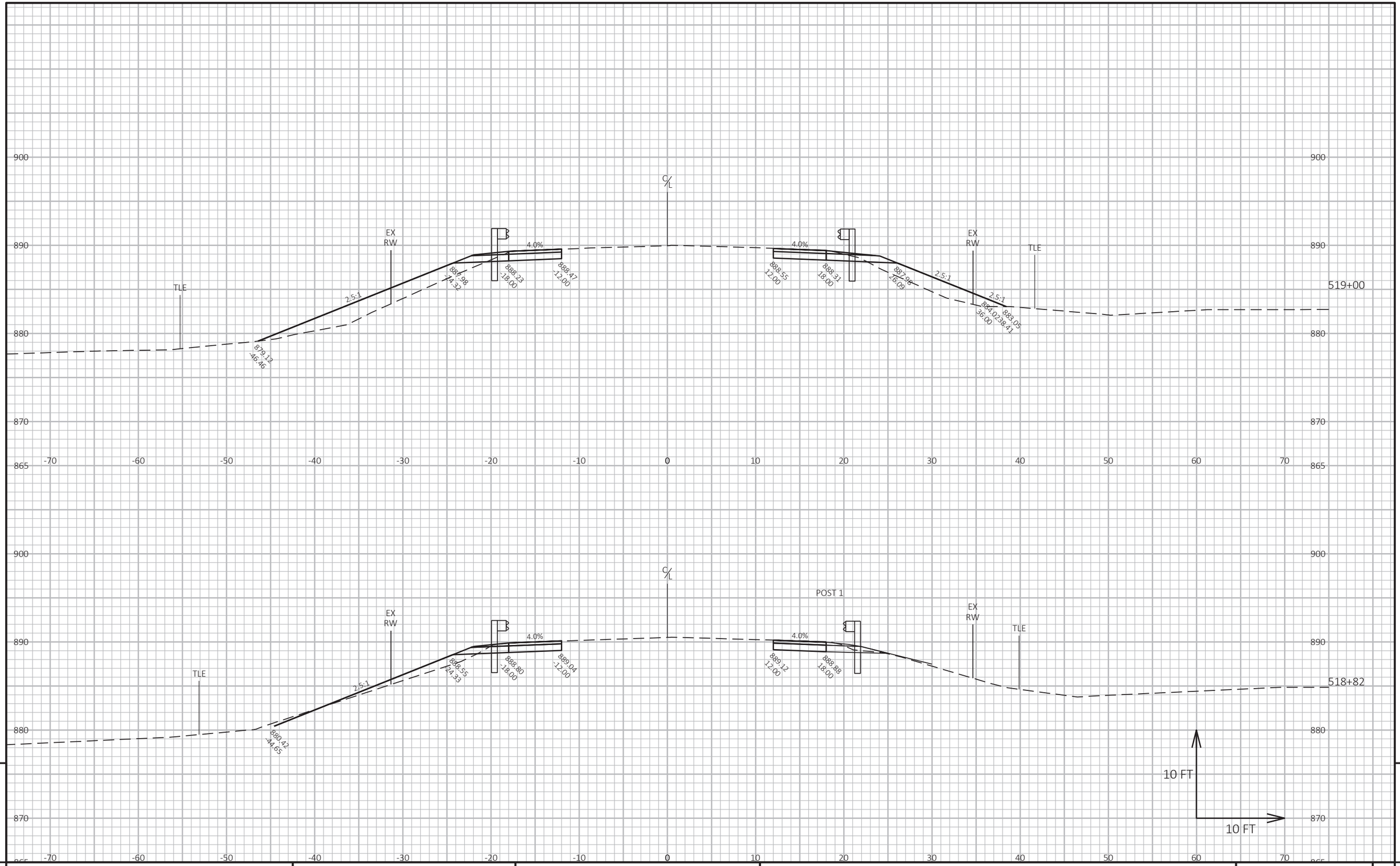
FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 11/1/2021 3:09 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

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PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 75	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

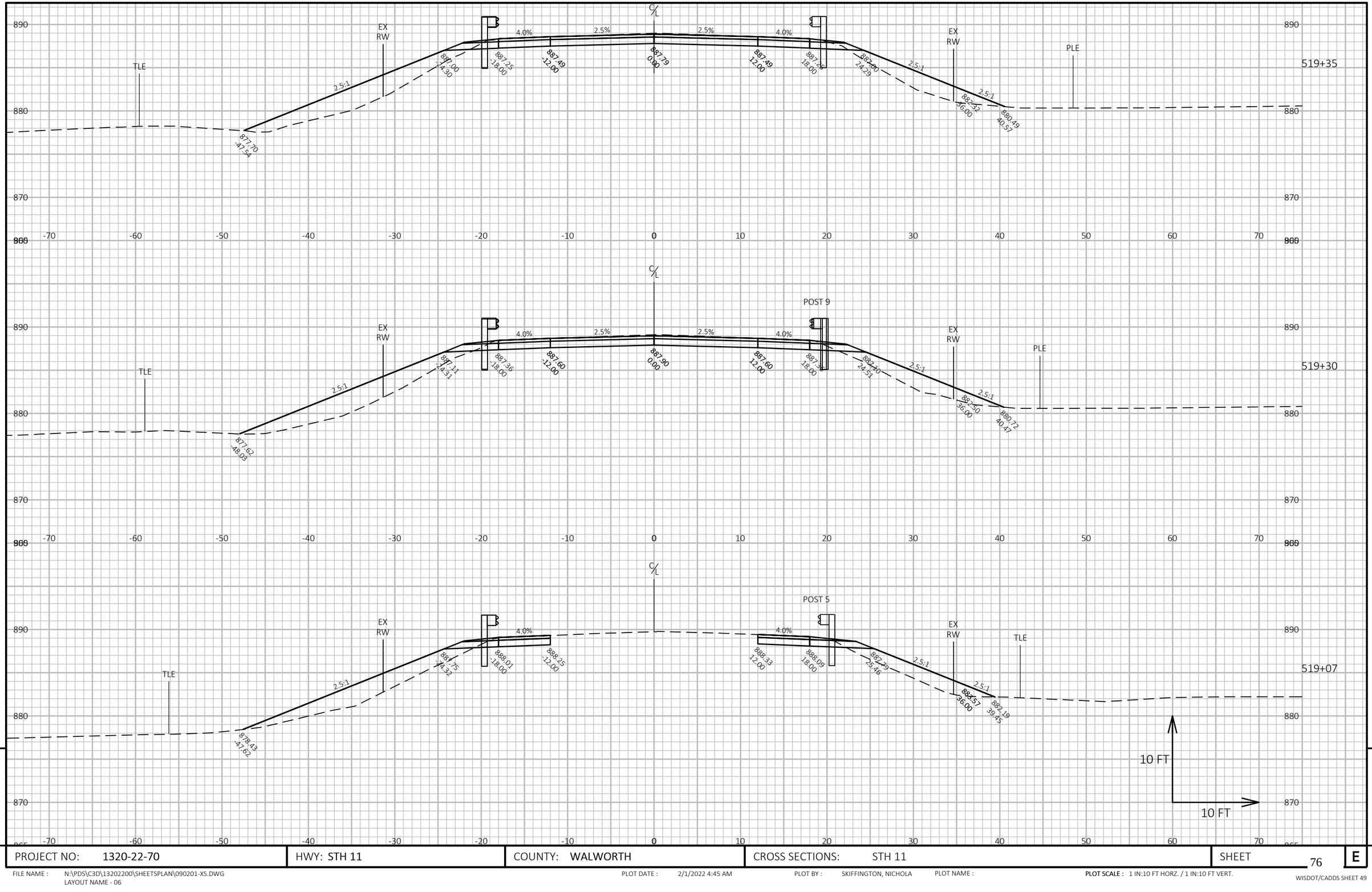
PLOT DATE : 11/1/2021 3:09 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 76	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

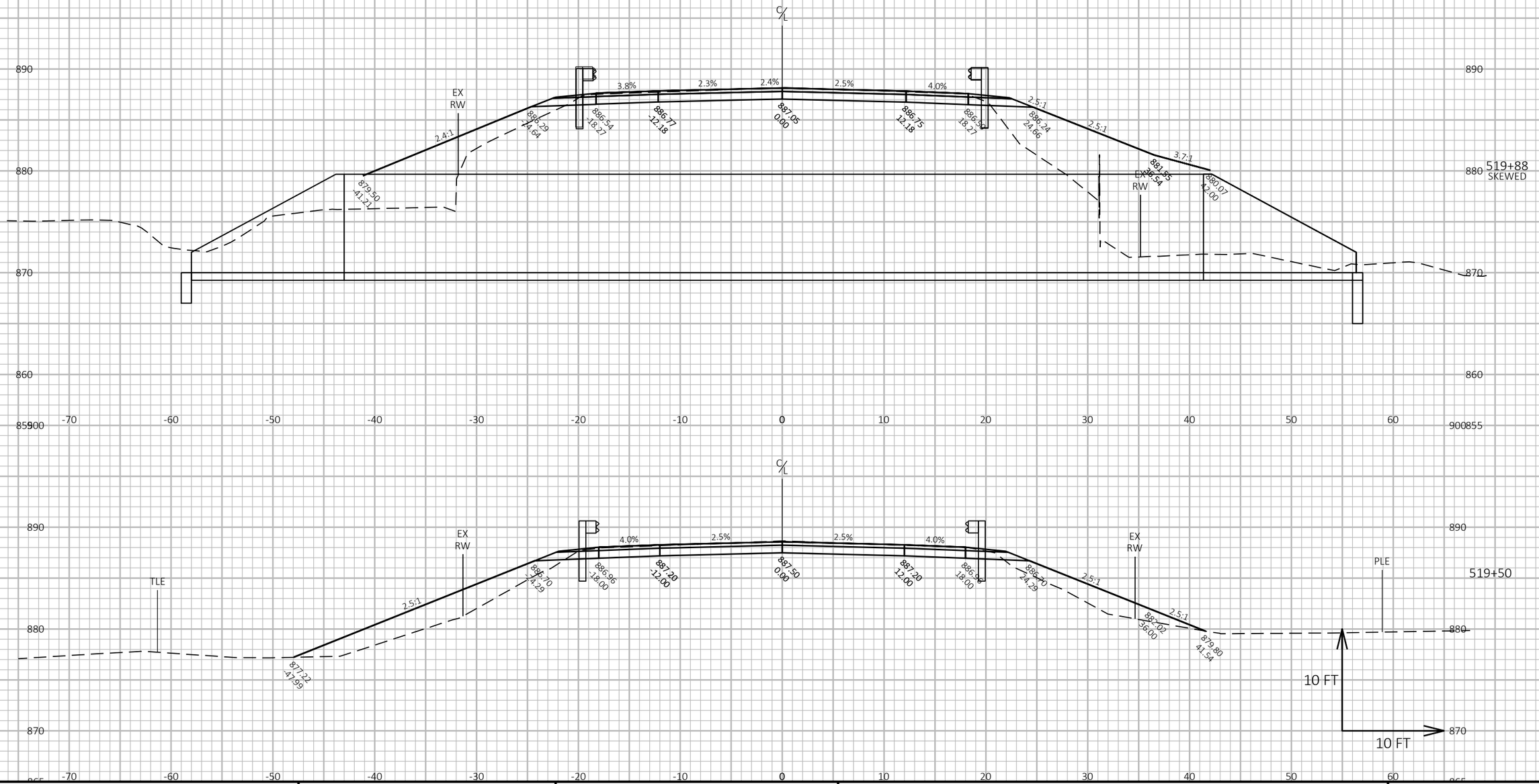
PLOT DATE : 2/1/2022 4:45 AM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 77	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

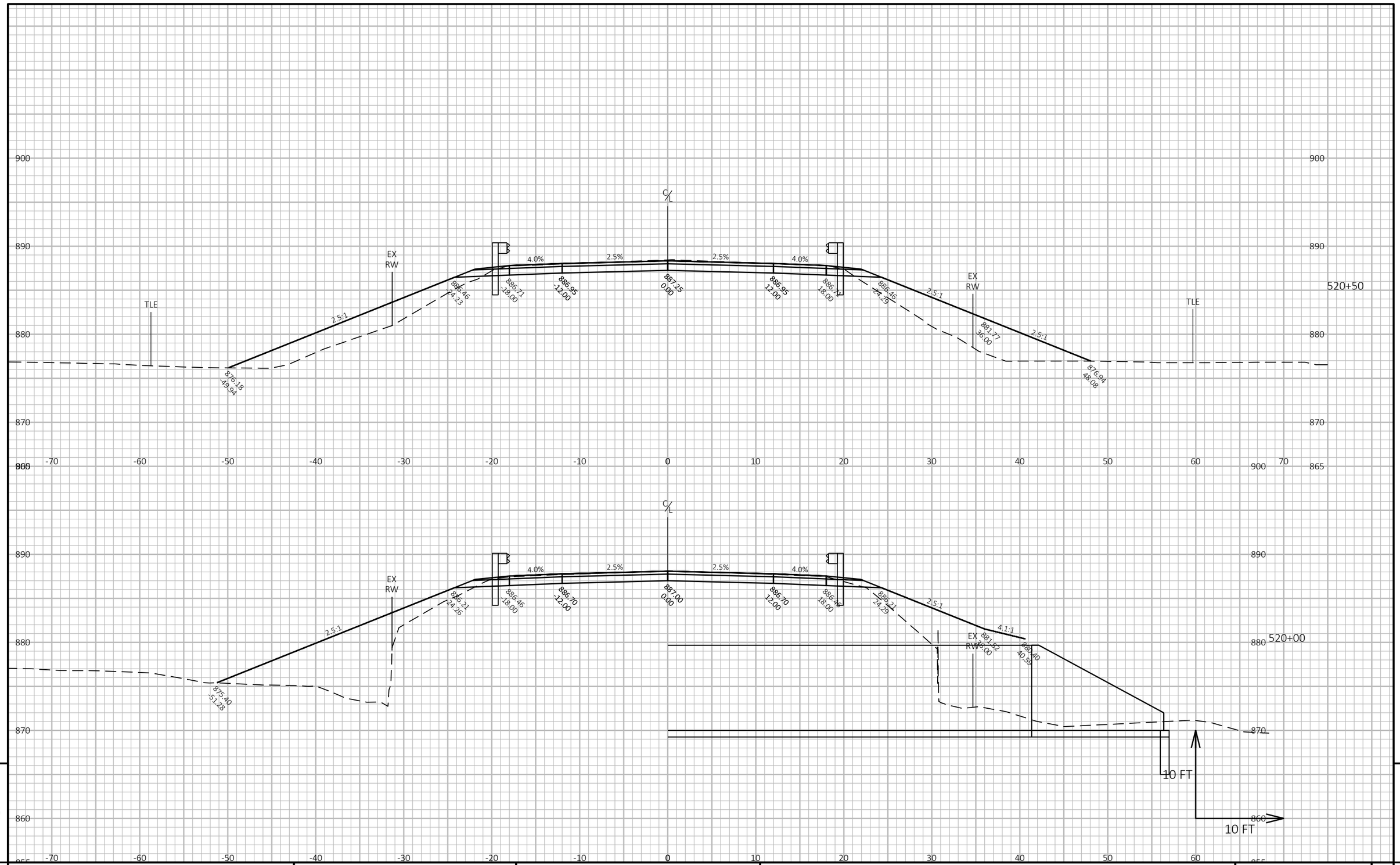
PLOT DATE : 2/1/2022 4:45 AM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

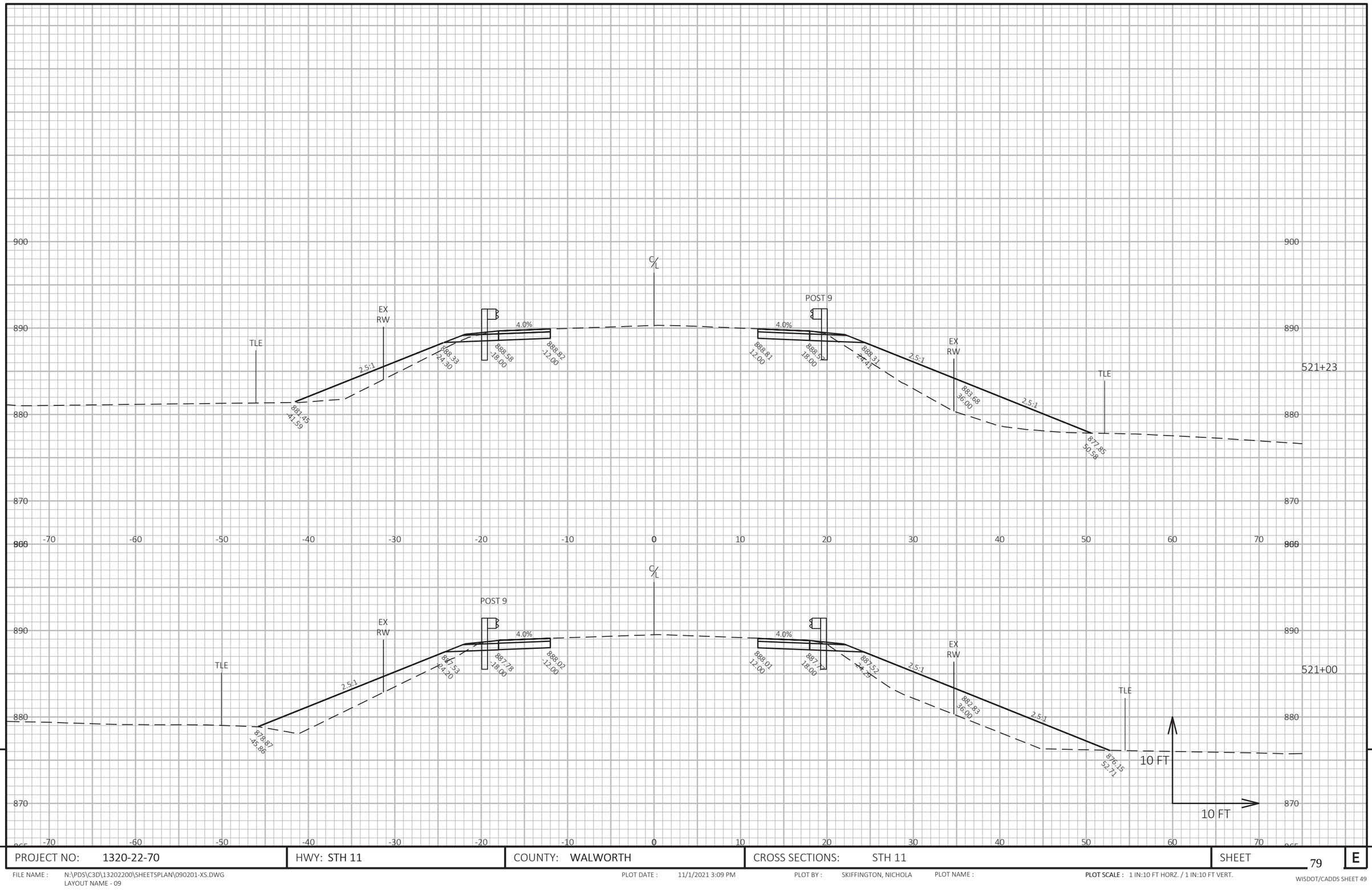


PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 78	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 2/1/2022 4:45 AM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 79	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

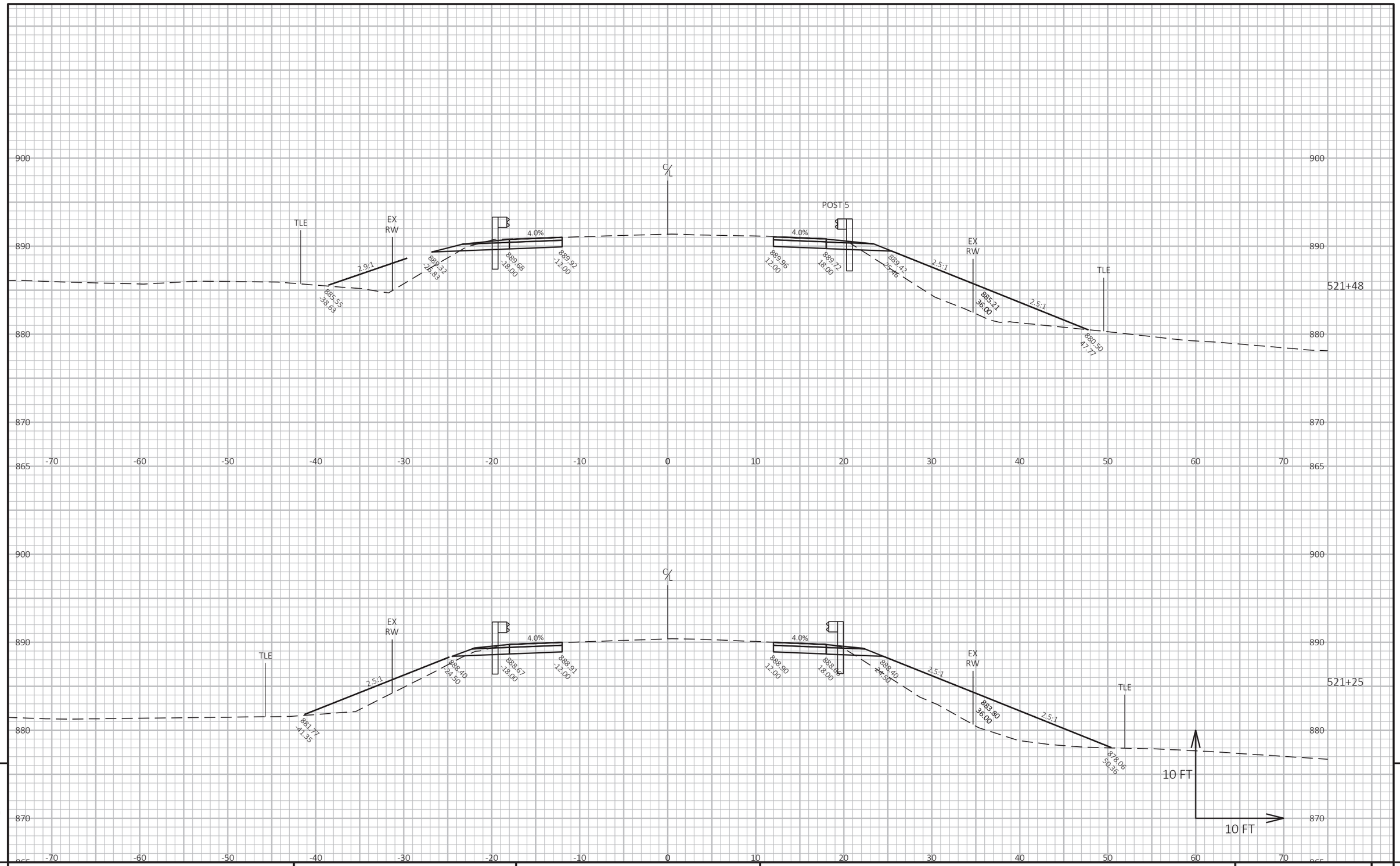
PLOT DATE : 11/1/2021 3:09 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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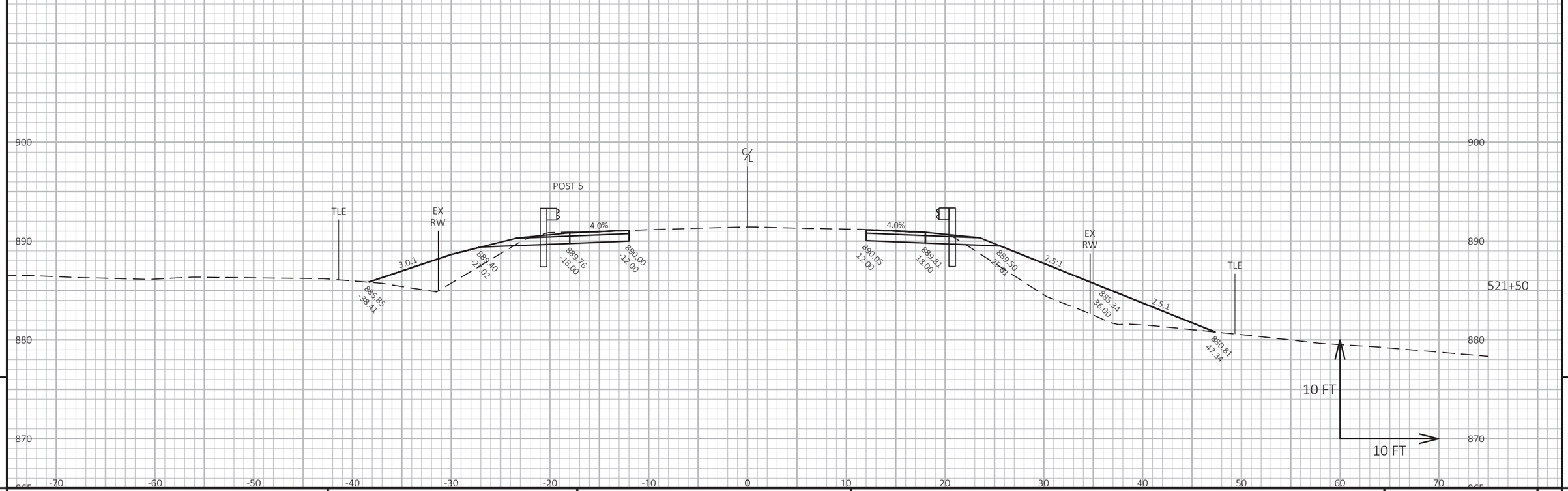
PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 80	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 11/1/2021 3:09 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

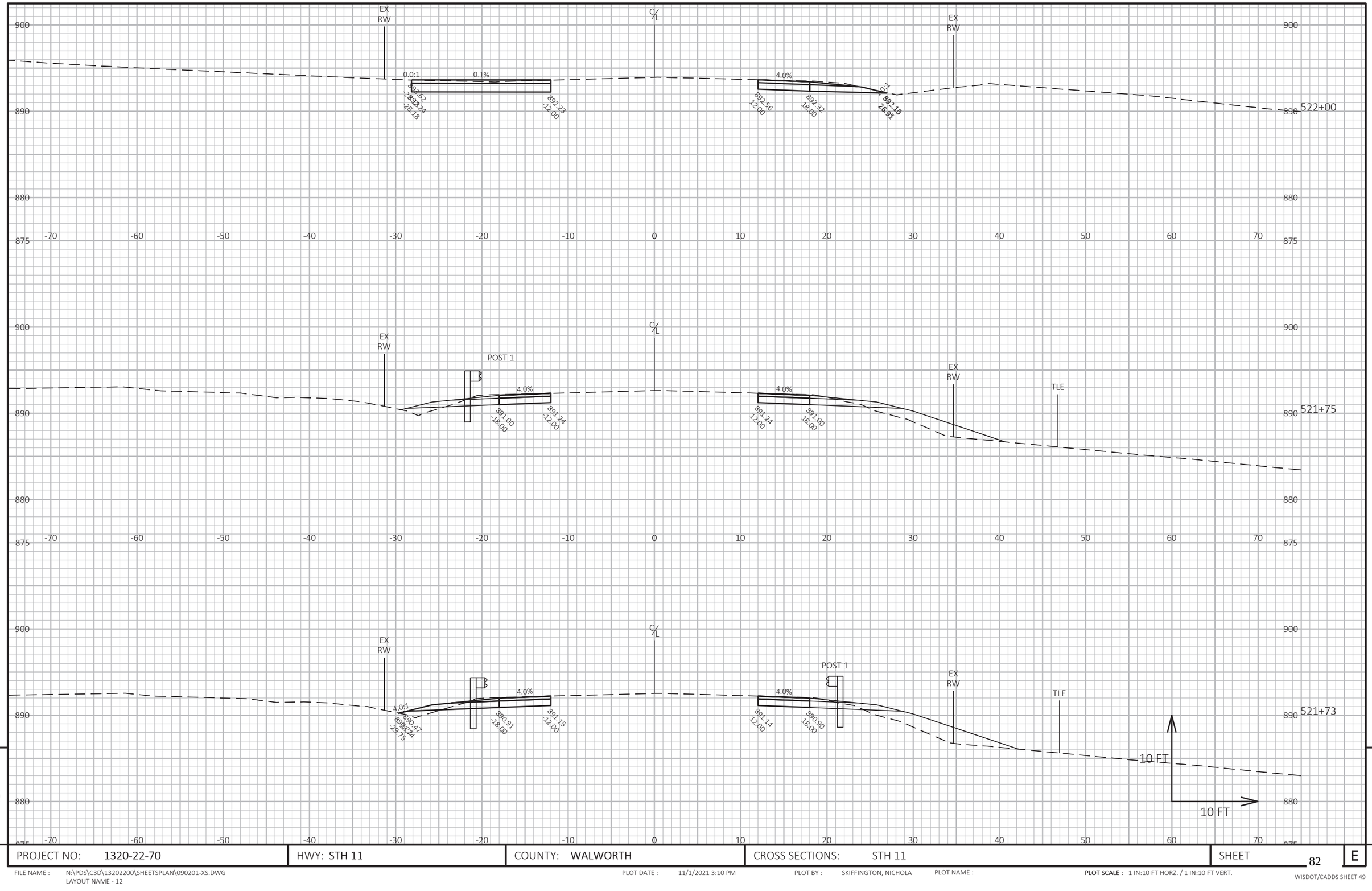


9 9

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 81	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 11/1/2021 3:09 PM PLOT BY : SKIFFINGTON, NICHOLA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 82	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

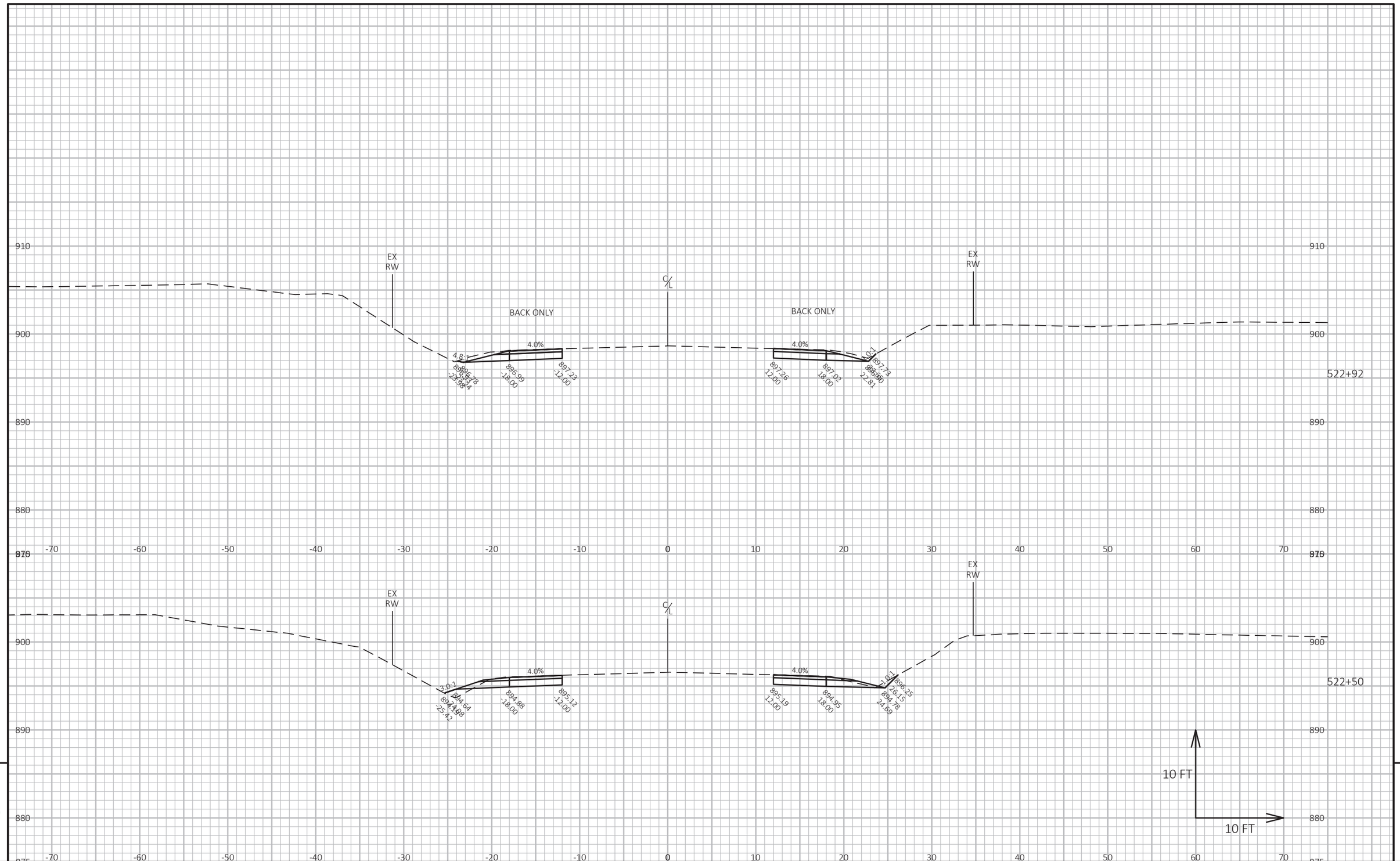
PLOT DATE : 11/1/2021 3:10 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1320-22-70	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: STH 11	SHEET 83	E

FILE NAME : N:\PDS\C3D\13202200\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 11/1/2021 3:10 PM

PLOT BY : SKIFFINGTON, NICHOLA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE May 10, 2022

PROJECT ID: 3180-00-77

WITH: 1320-22-70

COUNTY: WALWORTH

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 = 240



N

DESIGN DESIGNATION

A.A.D.T.	2023	=	7000
A.A.D.T.	2043	=	8500
D.H.V.		=	23.1
D.D.		=	60/40
T.		=	19.9
DESIGN SPEED		=	60 MPH
ESALS		=	3,000,000

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
- 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

ELKHORN - BURLINGTON

E OF LYONS TO E OF SPRING VALLEY RD

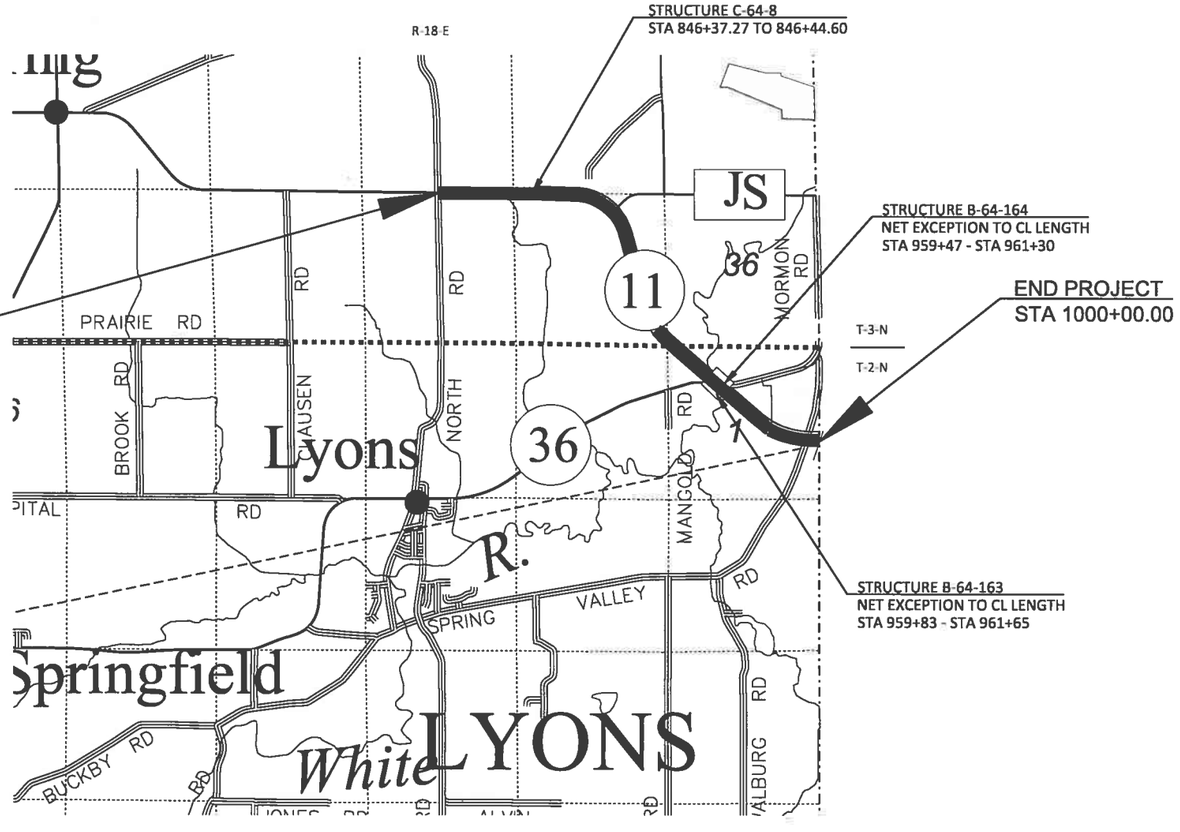
STH 11

WALWORTH

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3180-00-77		

STATE PROJECT NUMBER

3180-00-77



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 3.343 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), WALWORTH COUNTY, NAD83 (2011), 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 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

benesch

Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, WI 53233
414-[illegible] Fax No. 262.[illegible].00

WISCONSIN TIMOTHY A. WATT E-43069 BIG BEND, WI PROFESSIONAL ENGINEER

DATE 2/1/2022 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	ALFRED BENESCH & CO
Project Manager	JUSTIN SUYDAM
Regional Examiner	SE REGION
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 1-29-2022 Justin W Suydam (Signature)

E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\010101-TI.DWG PLOT DATE : 1/17/2022 9:58 AM PLOT BY : WATT, TIMOTHY PLOT NAME :

GENERAL NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WIHTIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
2. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
3. ALL ELEVATIONS AND OFFSETS SHOWN IN THE PLAN SHALL BE VERIFIED IN THE FIELD.
4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
5. THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.
6. CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENTS.

EROSION CONTROL GENERAL NOTES

1. RE-TOPSOIL DISTURBED AREAS, AS DESIGNATED BY THE ENGINEER. SEED AND E-MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.
2. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.
3. QUANTITIES FOR EROSION CONTROL ITEMS HAVE BEEN INCLUDED IN THE PROJECT, BUT MAY NOT BE REPRESENTED ON THE PLAN. THE LOCATIONS AND TYPE OF EROSION CONTROL ITEMS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER.
4. EROSION CONTROL ITEMS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE ITEMS IS NO LONGER REQUIRED.

LIST OF STANDARD ABBREVIATIONS

ABUT	ABUTMENT	HYD	HYDRANT	RD	ROAD
AC	ACRE	IN DIA	INCH DIAMETER	RDWY	ROADWAY
AGG	AGGREGATE	INL	INLET	SALV	SALVAGED
AADT	ANNUAL AVERAGE DAILY TRAFFIC	ID	INSIDE DIAMETER	SSS	SANITARY AND STORM SEWER
ASPH	ASPHALT	INV	INVERT	SAN S	SANITARY SEWER
AVG	AVERAGE	IP	IRON PIPE	SEC	SECTION
ADT	AVERAGE DAILY TRAFFIC	JT	JOINT	SHLDR	SHOULDER
BF	BACK FACE	JCT	JUNCTION	SW	SIDEWALK
BL	BASE LINE	LT	LEFT	S	SOUTH
BM	BENCH MARK	L	LENGTH OF CURVE	SB	SOUTHBOUND
CB	CATCH BASIN	LHF	LEFT-HAND FORWARD	SP	SPECIAL
C/L	CENTERLINE	LF	LINEAR FOOT	SPECS	SPECIFICATIONS
CC	CENTER TO CENTER	L	LITER	SQ	SQUARE
CE	COMMERCIAL ENTRANCE	LS	LUMP SUM	SF	SQUARE FEET
CONC	CONCRETE	MH	MANHOLE	SY	SQUARE YARD
CO	COUNTY	MB	MESSAGE BOARD	STD	STANDARD
CTH	COUNTY TRUNK HIGHWAY	MLB	MAILBOX	SDD	STANDARD DETAIL DRAWINGS
CY	CUBIC YARD	ML	MATCH LINE	STH	STATE TRUNK HIGHWAYS
CULV	CULVERT	NC	NORMAL CROWN	STA	STATION
C&G	CURB AND GUTTER	N	NORTH	SS	STORM SEWER
DHV	DESIGN HOUR VOLUME	Y	NORTH GRID COORDINATE	STR	STRUCTURE OR STRUCTURAL
DIA	DIAMETER	NB	NORTHBOUND	SL	SURVEY LINE
DD	DIRECTIONAL DISTRIBUTION	NO	NUMBER	TEL	TELEPHONE
E	EAST	OD	OUTSIDE DIAMETER	TEMP	TEMPORARY
X	EAST GRID COORDINATE	PAVT	PAVEMENT	TLE	TEMPORARY LIMITED EASEMENT
EB	EASTBOUND	PERM	PERMANENT	T	TON
ELEC	ELECTRIC	PLE	PERMANENT LIMITED EASEMENT	TC	TOP OF CURB
ELEV	ELEVATION	PT	POINT	T	TRUCKS (PERCENT OF)
ESALS	EQUIVALENT SINGLE AXLE LOADS	PVC	POLYVINYL CHLORIDE	TYP	TYPICAL
EXC	EXCAVATION	PCC	PORTLAND CEMENT CONCRETE	UG	UNDERGROUND
EBS	EXCAVATION BELOW SUBGRADE	PE	PRIVATE ENTRANCE	USH	UNITED STATES HIGHWAY
EXIST	EXISTING	PROJ	PROJECT	VAR	VARIABLE
FF	FACE TO FACE	PL	PROPERTY LINE	VERT	VERTICAL
FE	FIELD ENTRANCE	R	RADIUS	W	WATER
FG	FINISHED GRADE	R/L	REFERENCE LINE	WM	WATER MAIN
FL	FLOW LINE	RCCP	REINFORCED CONCRETE CULVERT PIPE	WV	WATER VALVE
FT	FOOT	REQD	REQUIRED	W	WEST
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM	RT	RIGHT	WB	WESTBOUND
HES	HIGH EARLY STRENGTH	RHF	RIGHT HAND FORWARD	YD	YARD
CWT	HUNDREDWEIGHT	R/W	RIGHT-OF-WAY		

OTHER AGENCIES

WISDOT CONTACT

SOUTHEAST REGION
JUSTIN SUYDAM
141 N.W. BARSTOW ST
WAUKESHA, WI 53188
PHONE: (262) 548-8745
EMAIL: JUSTIN.SUYDAM@DOT.WI.GOV

DESIGN CONTACT

ALFRED BENESCH
TIMOTHY WATT
1300 W CANAL ST, SUITE 150
MILWAUKEE, WI 53233
PHONE: (414) 308-1310
EMAIL: TWATT@BENESCH.COM

WALWORTH COUNTY

WALWORTH COUNTY - ROAD FACILITY
RICHARD HOUGH
W4097 COUNTY ROAD NN
ELKHORN, WI 53121
PHONE: (262) 741-3104
EMAIL: RHOUGH@CO.WALWORTH.WI.US

DNR CONTACT

DNR SOUTHERN REGION
BENTON STELZEL
141 N.W. BARSTOW ST, ROOM 180
WAUKESHA, WI 53188
PHONE: (262) 623-0194

SEWRPC

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ROB MERRY (CHIEF SURVEYOR)
W239 N 1812 ROCKWOOD DR
PO BOX 1607
WAUKESHA, WI 53187
PHONE: (262) 953-4289
CELL: (920) 912-1036
EMAIL: RMERRY@SEWRPC.ORG

STREET LIGHTING

WISCONSIN DEPARTMENT OF TRANSPORTATION
ERIC PEREA
141 N.W. BARSTOW ST
WAUKESHA, WI 53188
PHONE: (262) 574-5422
EMAIL: ERIC.PEREA@DOT.WI.GOV

WISCONSIN SIGNAL

WISCONSIN DEPARTMENT OF TRANSPORTATION
PARWINDER VIRK
141 N.W. BARSTOW ST
WAUKESHA, WI 53188
PHONE: (414) 852-0829
EMAIL: PARWINDER.VIRK@DOT.WI.GOV

UTILITIES

COMMUNICATIONS

AT&T WISCONSIN
MATTHEW DINNAUER
435 SOUTH 95TH STREET
MILWAUKEE, WI 53214-1226
PHONE: (262) 237-0042
EMAIL: MD9542@ATT.COM

COMMUNICATIONS

EVERSTREAM
SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 522-6685
EMAIL: SGARCIA@EVERSTREAM.NET

COMMUNICATIONS

MIDWEST FIBER NETWORKS LLC
CORY SCHMUKI
6070 NORTH FLINT RD
GLENDALE, WI 53209
PHONE: (414) 349-2764
EMAIL: CSCHMUKI@MIDWESTFIBERNETWORKS.COM

COMMUNICATIONS

SPECTRUM COMMUNICATIONS
GERALD SCHULTZ
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 232-7178
EMAIL: GERALD.SCHULTZ@CHARTER.COM

ELECTRICITY

WE ENERGIES
ADAM PSICIHULIS
700 S KANE ST
BURLINGTON, WI 53105
PHONE: (262) 490-1259
EMAIL: ADAM.PSICIHULIS@WE-ENERGIES.COM

GAS/PETROLEUM

WE ENERGIES
SCOTT HOLSTEIN
700 S KANE ST
BURLINGTON, WI 53105
PHONE: (262) 949-0490
EMAIL: SCOTT.HOLSTEIN@WE-ENERGIES.COM

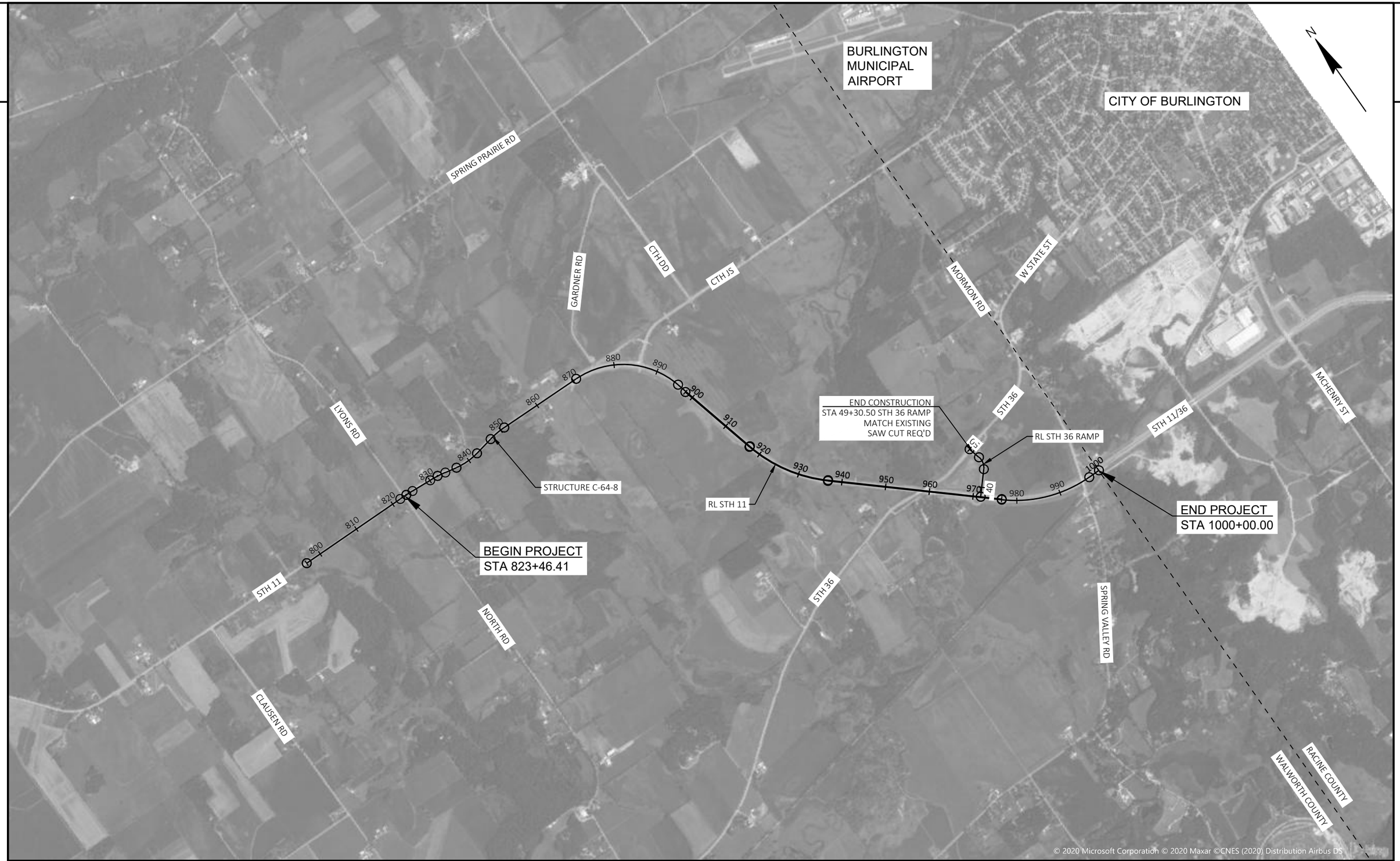
ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CULVERT DETAILS & EROSION CONTROL
PERMANENT SIGNING
PERMANENT PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT PLAN

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
STH 11 (LYONS RD TO STA 852+00)	2"	2" UPPER	4 MT 58-28 S
STH 11 (STA 851+00 TO 1000+00)	5"	1.75" UPPER OVER 3.25" LOWER	4 MT 58-28 S OVER 3 MT 58-28 S
STH 36 RAMPS (SIDE ROAD)	5"	1.75" UPPER OVER 3.25" LOWER	4 MT 58-28 S OVER 3 MT 58-28 S

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

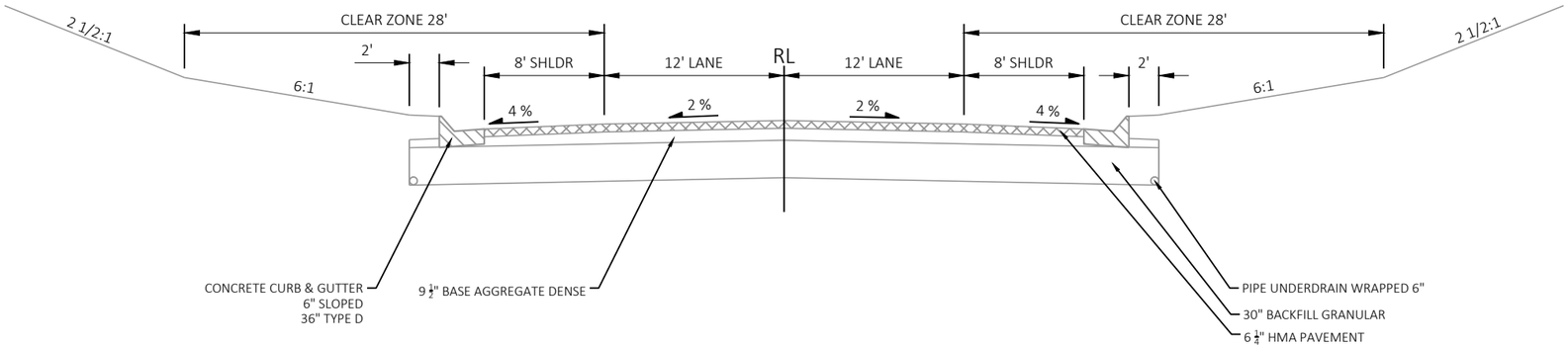
2



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PROJECT OVERVIEW	SHEET 3	E

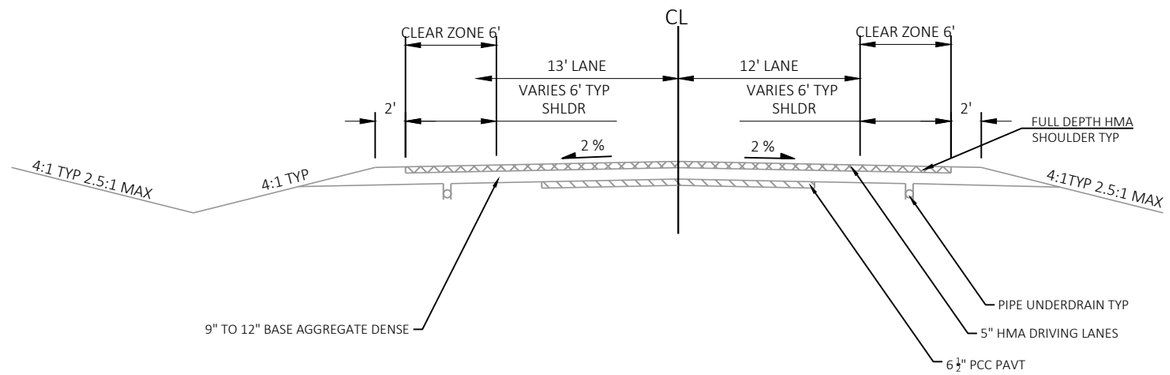
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LAYOUT NAME - 01
PLOT DATE : 1/17/2022 10:16 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL RURAL 2-LANE UNDIVIDED SECTION - MAINLINE

STH 11 STA 852+00 - 862+10



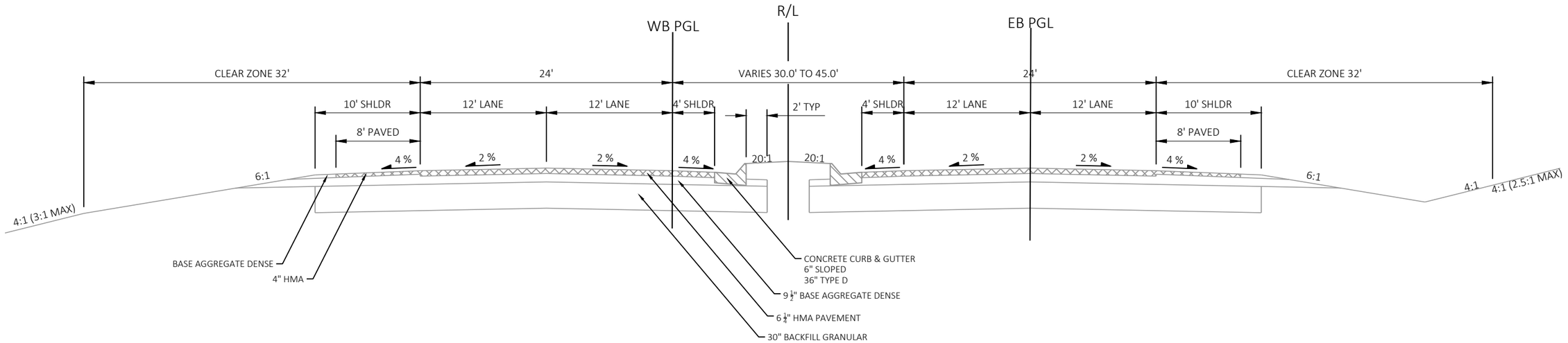
EXISTING TYPICAL RURAL 2-LANE UNDIVIDED SECTION

STH 11 STA 823+46.41 - 852+00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS EXISTING	SHEET 4	E

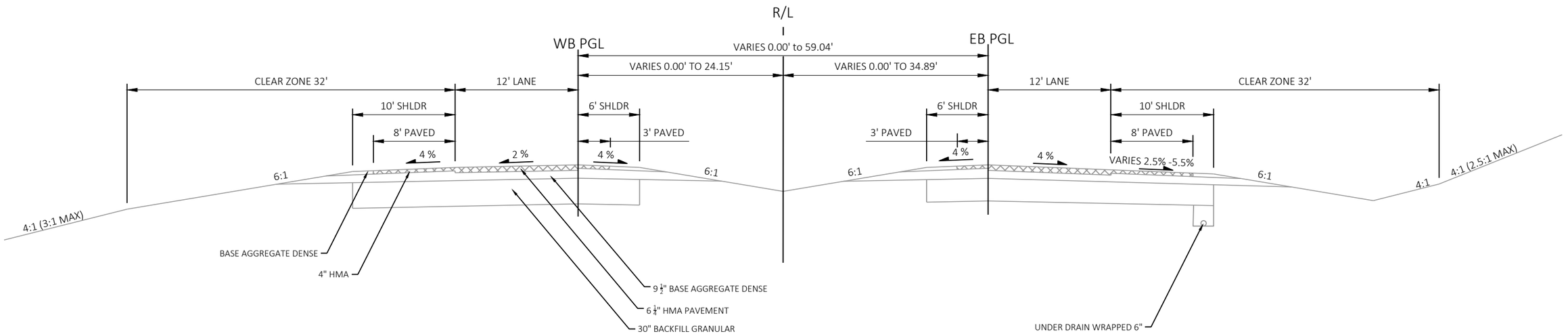
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LAYOUT NAME - 01-10ft
PLOT DATE : 1/17/2022 10:16 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL RURAL 4-LANE DIVIDED SECTION

STH 11 STA 885+00 - 976+52.68

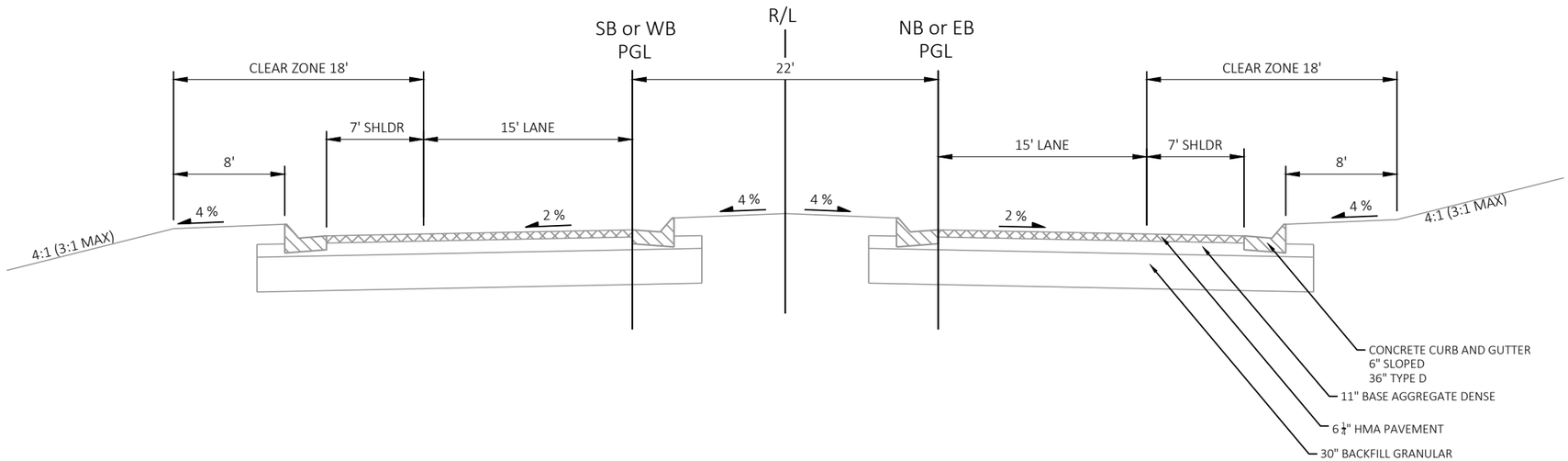


EXISTING TYPICAL RURAL 2-LANE DIVIDED SECTION - MAINLINE

STH 11 STA 862+10 - 885+00

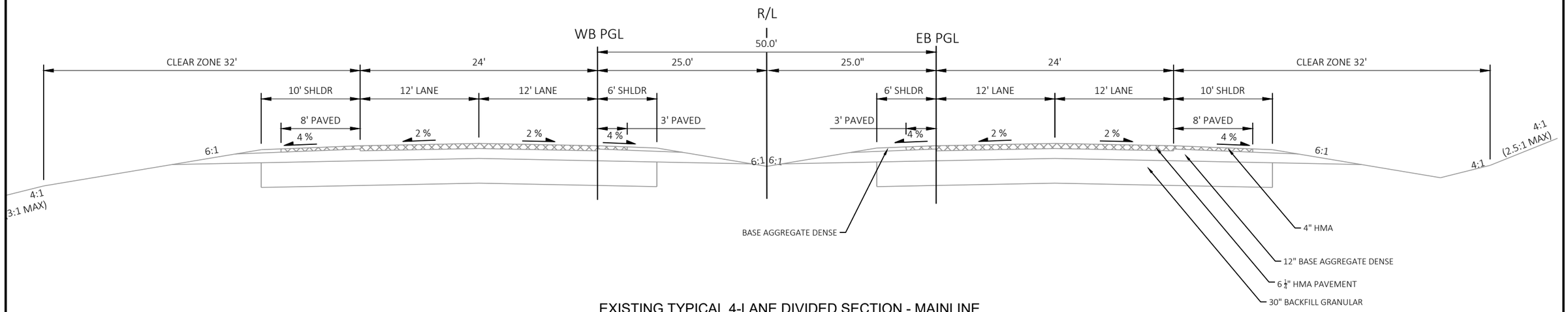
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS EXISTING	SHEET 5	E

2



EXISTING TYPICAL RAMP

STH 36 SE RAMP STA 38+46.20 - 49+30.50

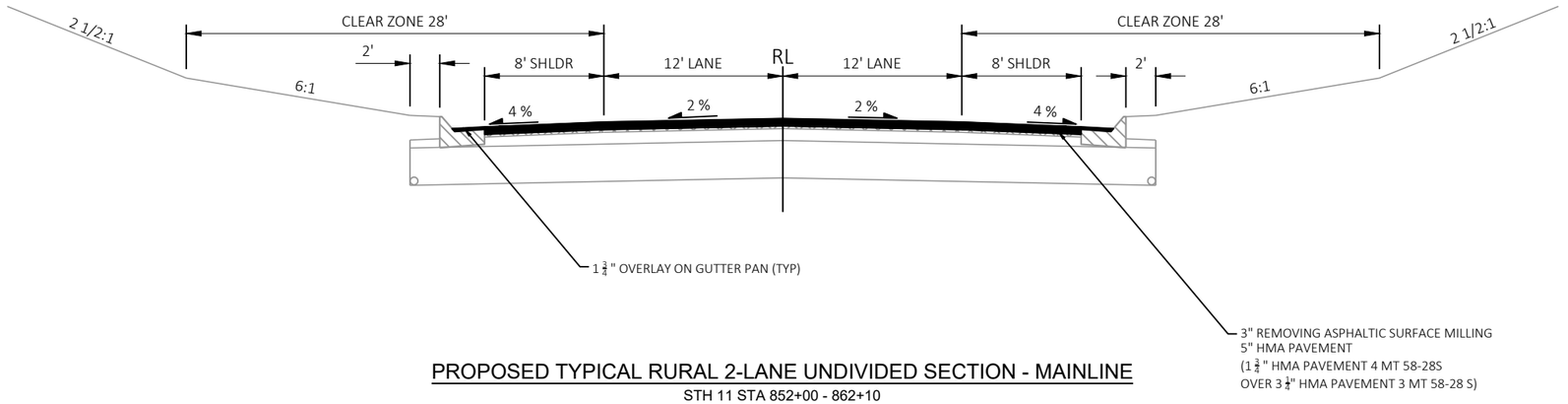


EXISTING TYPICAL 4-LANE DIVIDED SECTION - MAINLINE

STH 11 STA 976+52.68 - 1000+00.00

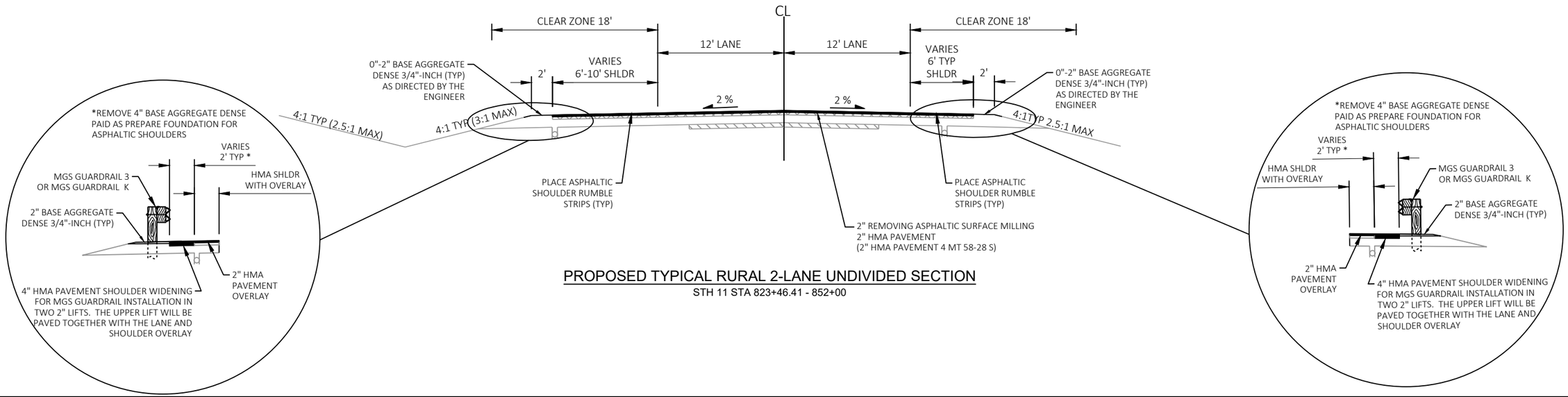
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS EXISTING	SHEET 6	E

2



PROPOSED TYPICAL RURAL 2-LANE UNDIVIDED SECTION - MAINLINE

STH 11 STA 852+00 - 862+10



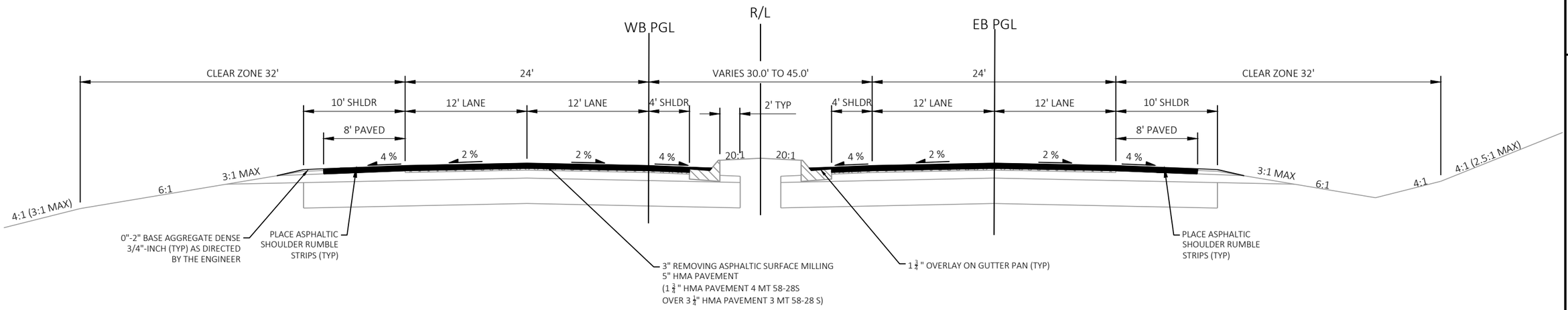
PROPOSED TYPICAL RURAL 2-LANE UNDIVIDED SECTION

STH 11 STA 823+46.41 - 852+00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 7	E

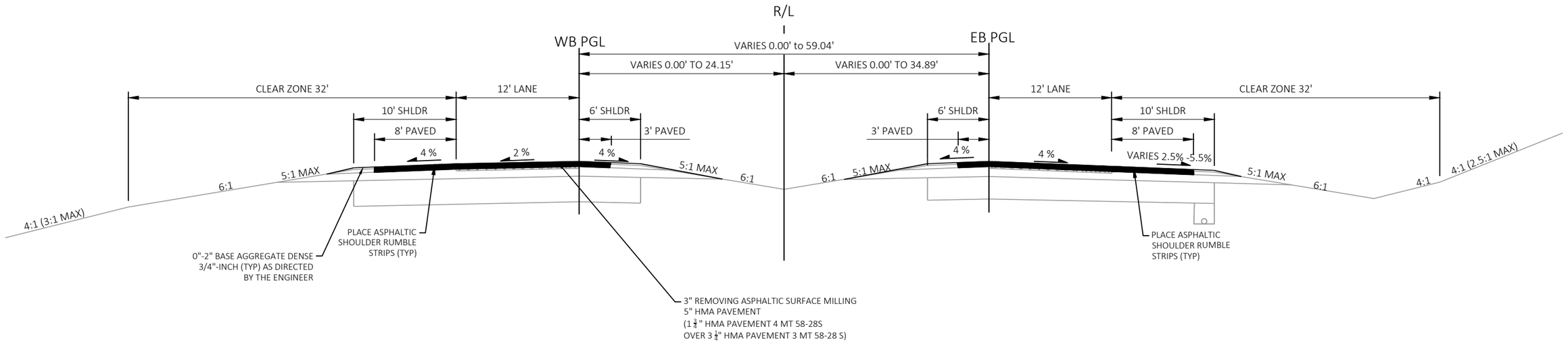
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LAYOUT NAME - 04-10ft
PLOT DATE : 1/20/2022 10:22 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



PROPOSED TYPICAL RURAL 4-LANE DIVIDED SECTION

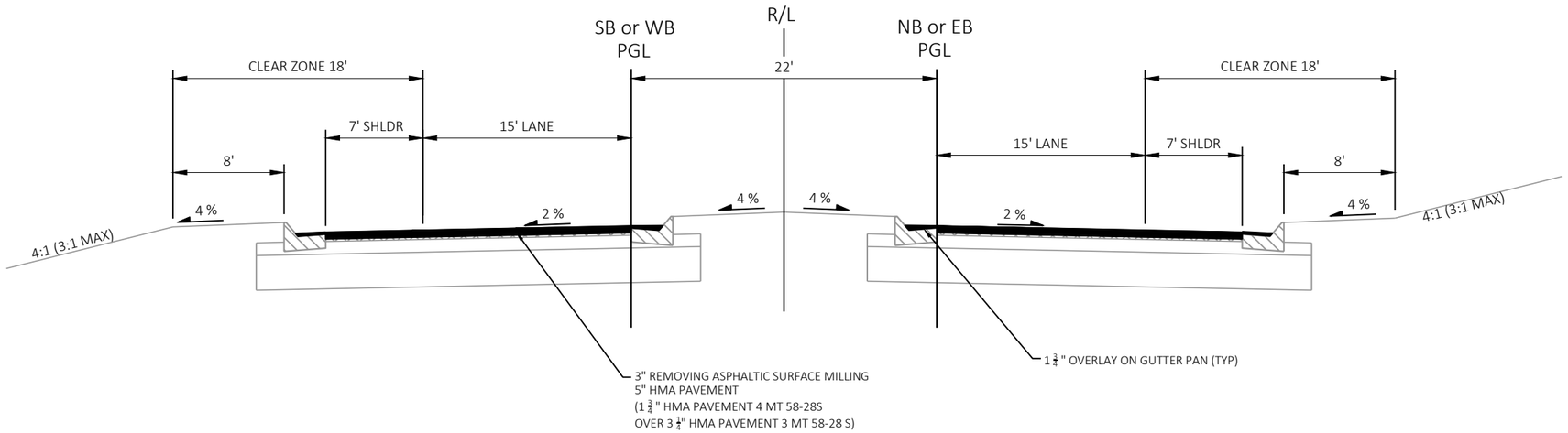
STH 11 STA 885+00 - 976+52.68



PROPOSED TYPICAL RURAL 2-LANE DIVIDED SECTION - MAINLINE

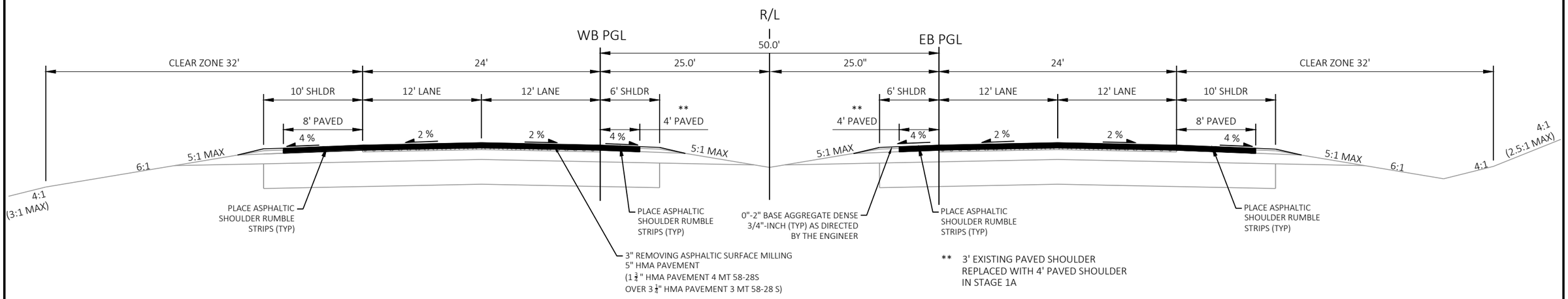
STH 11 STA 862+10 - 885+00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 8	E



PROPOSED TYPICAL RAMP

STH 36 SE RAMP STA 38+46.20 - 49+30.50



PROPOSED TYPICAL 4-LANE DIVIDED SECTION - MAINLINE

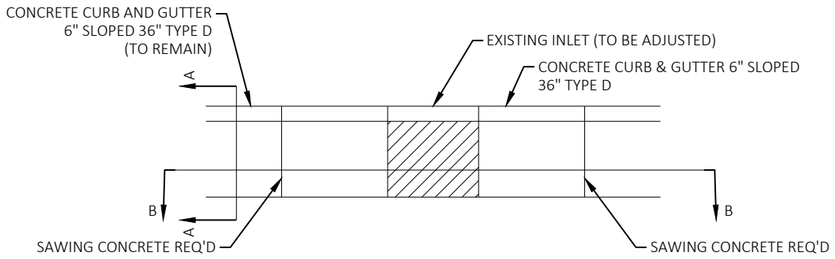
STH 11 STA 976+52.68 - 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 9	E

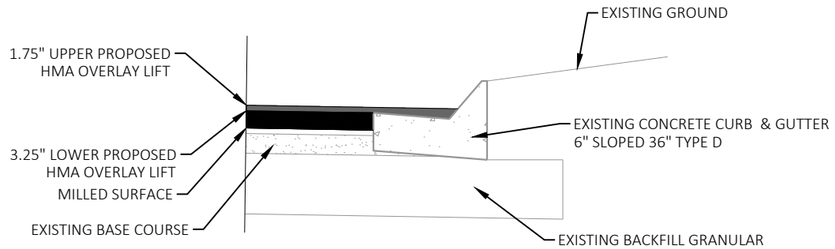
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LAYOUT NAME - 06-10ft

PLOT DATE : 1/20/2022 10:22 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:10 FT

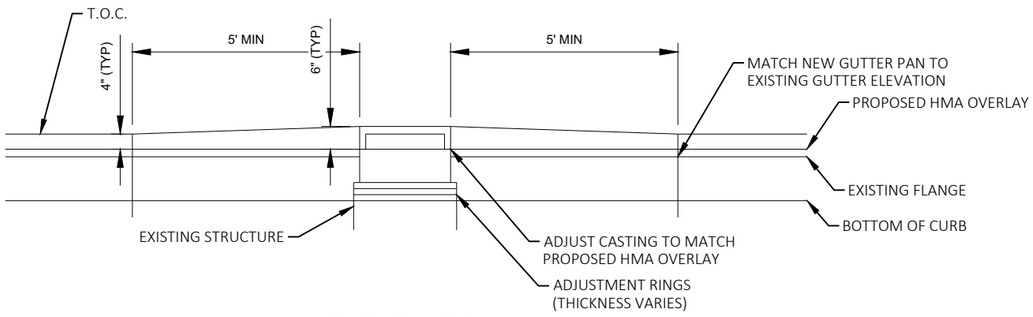
WISDOT/CADDS SHEET 42



PLAN

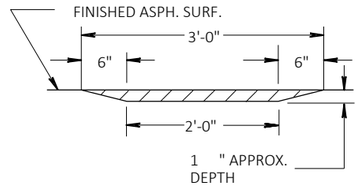


SECTION "A-A"

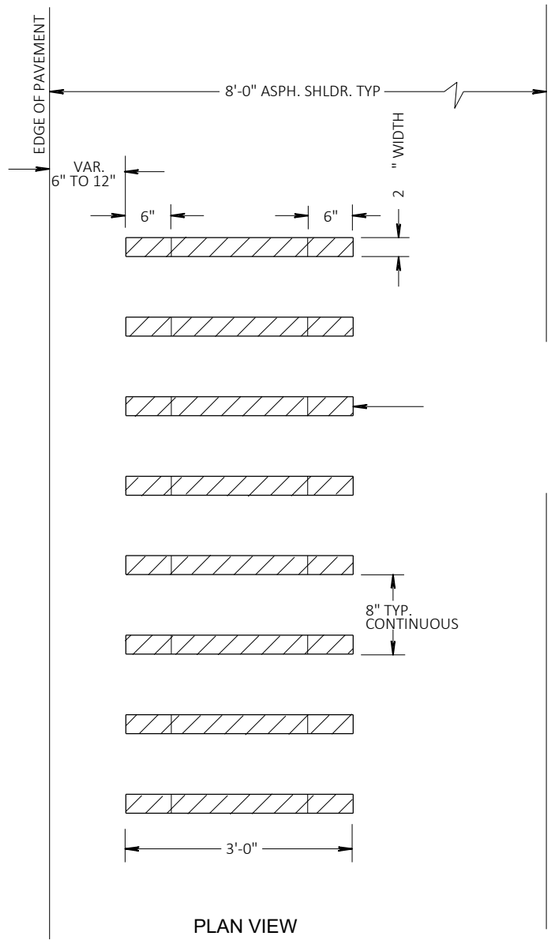


SECTION "B-B"

DETAIL FOR ADJUSTING INLET COVERS



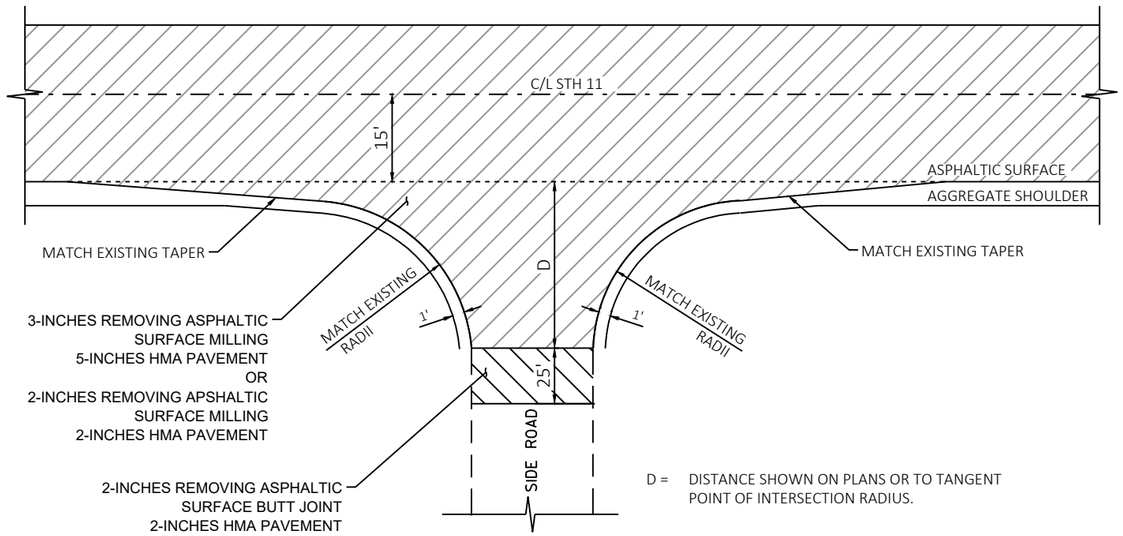
END VIEW



PLAN VIEW

ASPHALTIC SHOULDER RUMBLE STRIPS

2

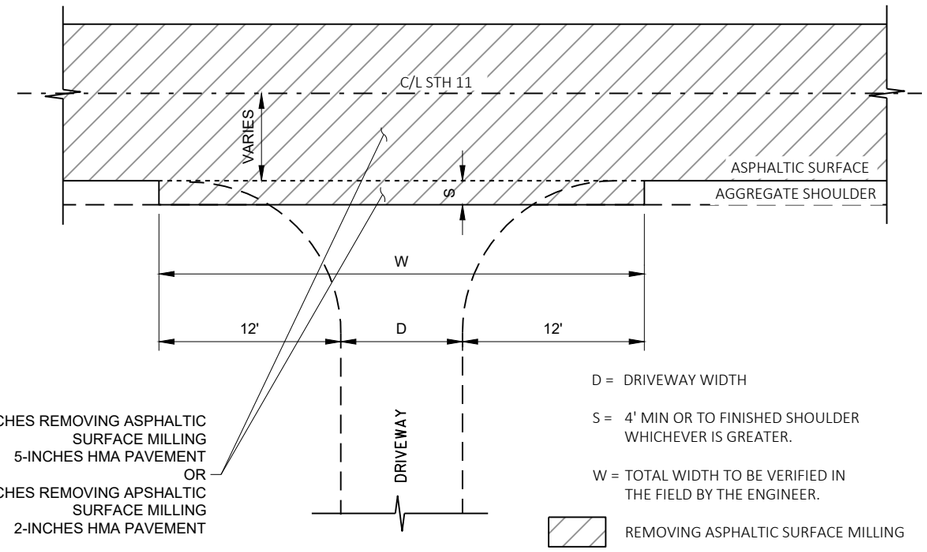


D = DISTANCE SHOWN ON PLANS OR TO TANGENT POINT OF INTERSECTION RADIUS.

REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINT

TYPICAL SIDE ROAD DETAIL



D = DRIVEWAY WIDTH

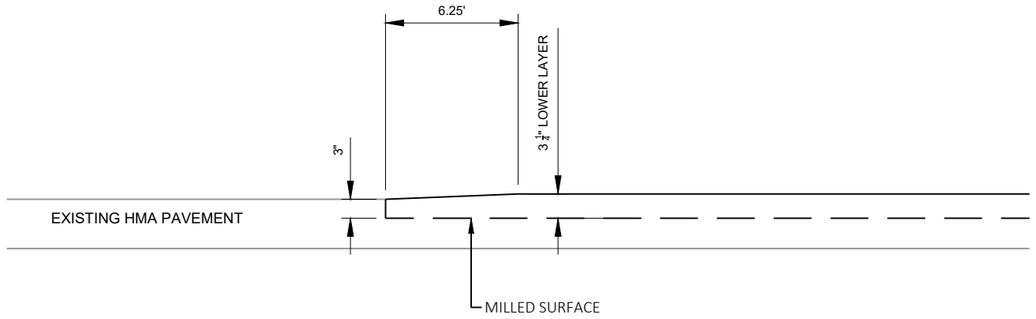
S = 4' MIN OR TO FINISHED SHOULDER WHICHEVER IS GREATER.

W = TOTAL WIDTH TO BE VERIFIED IN THE FIELD BY THE ENGINEER.

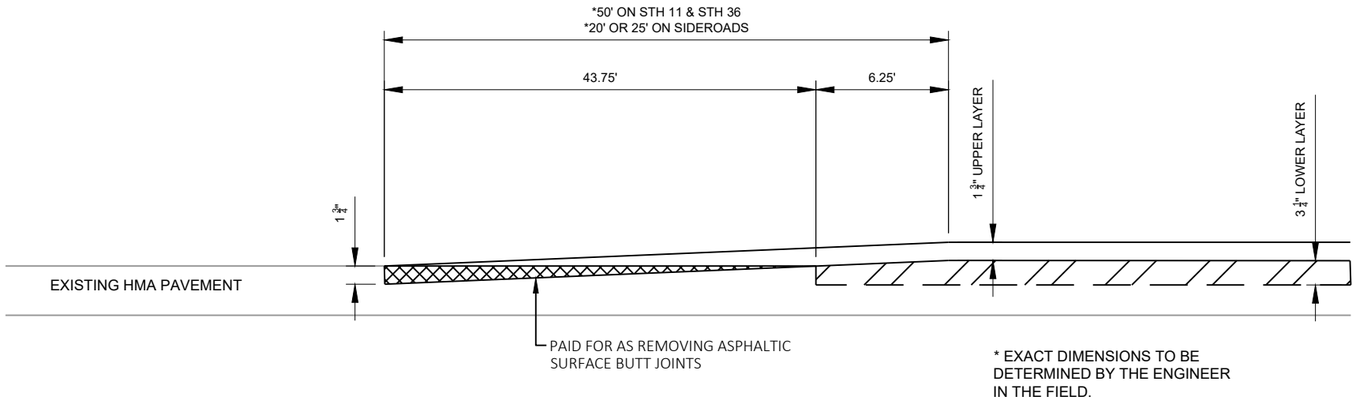
REMOVING ASPHALTIC SURFACE MILLING

TYPICAL DRIVEWAY DETAIL

2



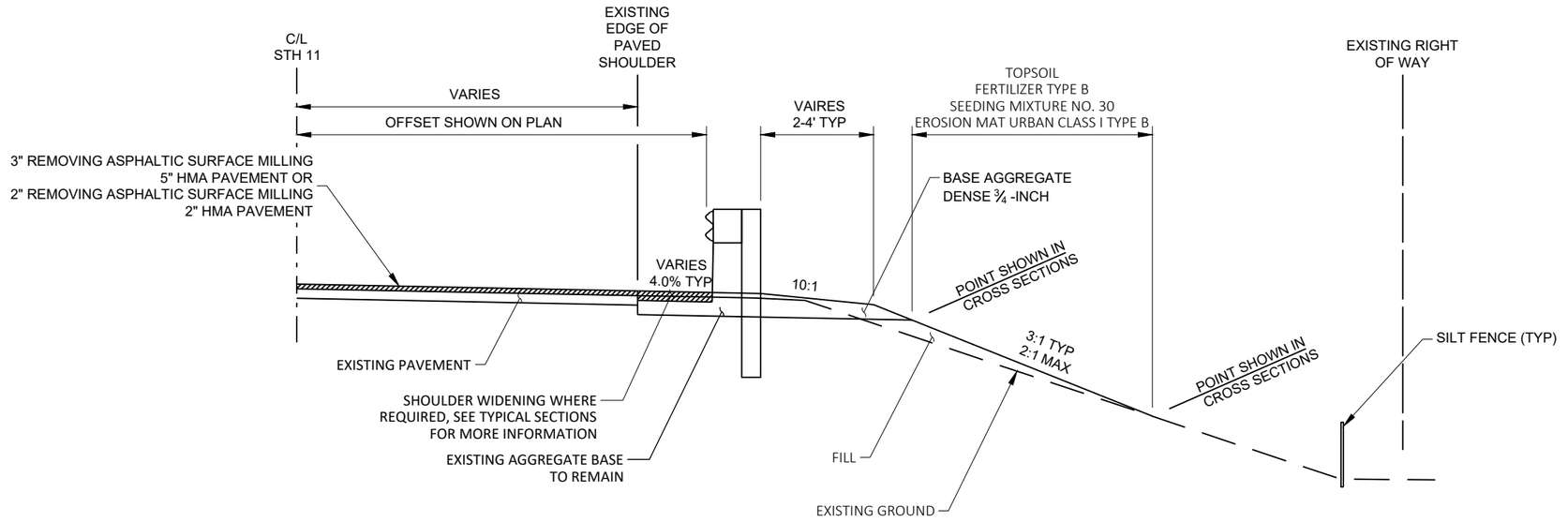
MILL 3", PAVE LOWER LAYER
BUTT JOINT DETAIL



MILL BUTT JOINT, PAVE UPPER LAYER
DETAIL

BUTT JOINT DETAIL, MILL 3" PAVE 5" BUTT JOINT
MAINLINE & SIDEROADS

2



NOTES:

EXCAVATION COMMON , FILL, BORROW, TOPSOIL, FERTILIZER AND SEEDING ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

BARRIER SYSTEM GRADING SHAPING FINISHING WILL BE MEASURED BY LENGTH OF THE ENTIRE BARRIER SYSTEM INCLUDING GRADING REQUIRED BEHIND THE GUARDRAIL IN BETWEEN TWO TERMINALS OR AT THE TERMINATION OF GUARDRAIL.

SEE STANDARD DETAIL DRAWINGS FOR MORE INFORMATION.

MGS GUARDRAIL GRADING, SHAPING, AND FINISHING

2

GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE MAINTENANCE BID ITEM.

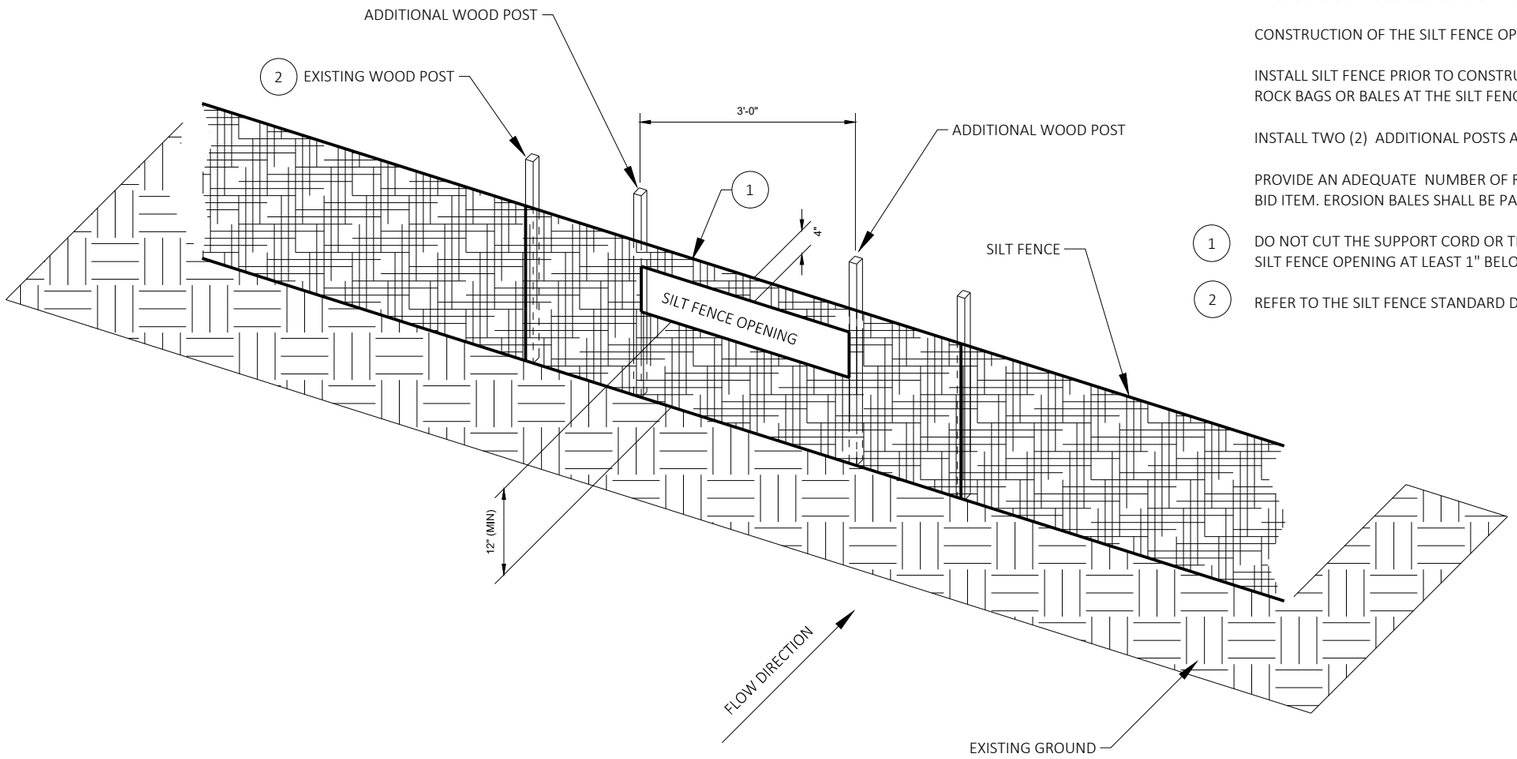
INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CUTTING THE SILT FENCE OPENING, PLACE ROCK BAGS OR BALES AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL. SILT FENCE OPENING SHOULD BE BETWEEN 4" - 8" TALL

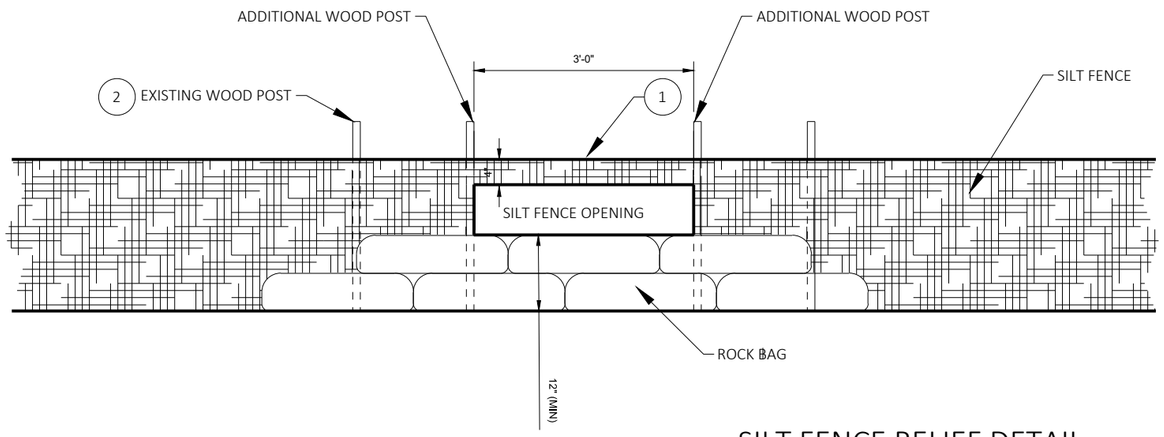
INSTALL TWO (2) ADDITIONAL POSTS AT 3' SPACING AT LOCATION OF OPENING.

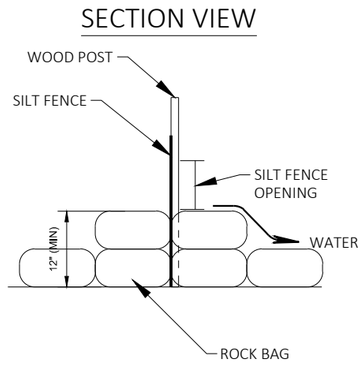
PROVIDE AN ADEQUATE NUMBER OF ROCK BAGS OR BALES TO STACK TO A HEIGHT OF 1' (MINIMUM). ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM. EROSION BALES SHALL BE PAID UNDER THE EROSION BALES BID ITEM.

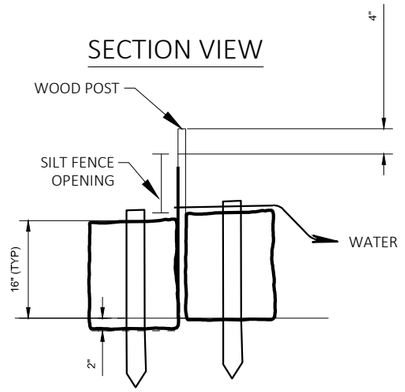
(1) DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. CUT THE SILT FENCE OPENING AT LEAST 1" BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.

(2) REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.





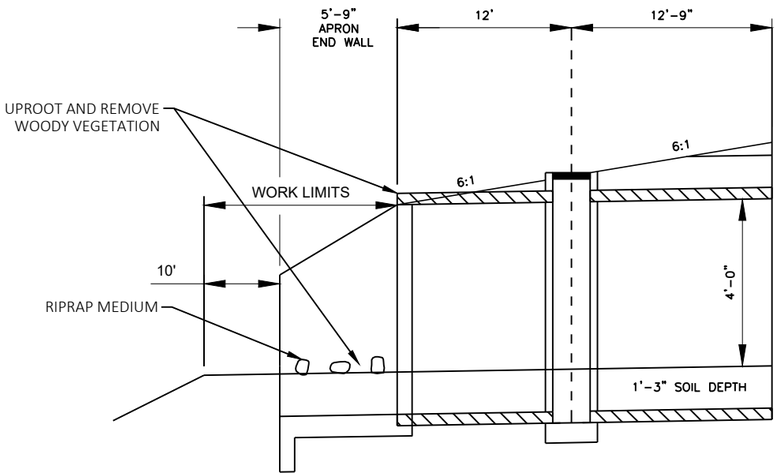




SILT FENCE RELIEF DETAIL

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CONSTRUCTION DETAILS	SHEET 14	E

2



ECO-PASSAGE MAINTENANCE

STA 929+00, LT & RT

NOTES:

- ALL WORK SHALL TAKE PLACE WITHIN THE LIMITS SHOWN OR AS DIRECTED BY THE ENGINEER AND DNR. NO WORK IS TO TAKE PLACE WITHIN THE ECO-PASSAGE.
- UPROOT AND REMOVE WOODY VEGETATION FROM THE TOP AND INSIDE APRON ENDWALL AT THE DIRECTION OF THE ENGINEER AND DNR. PAID FOR UNDER THE BID ITEM CLEANING CULVERT PIPES.
- REMOVE BERMS, FILL LOW SPOTS, GRADE, AND SHAPE AS NECESSARY TO MAINTAIN A SOIL DEPTH OF 1'-3" IN THE APRON ENDWALL THAT SLOPES AWAY FROM THE ECO-PASSAGE, AS DIRECTED BY THE ENGINEER AND DNR. USE EXISTING SOIL MATERIAL TO PERFORM THIS WORK. SALVAGE AND RESET EXISTING ECO-PASSAGE STONES AS NECESSARY. PAID FOR UNDER THE BID ITEM CLEANING CULVERT PIPES.
- SPORADICALLY PLACE MEDIUM RIPRAP BY HAND FOR CRITTER PROTECTION AT THE DIRECTION OF THE ENGINEER AND DNR. PAID FOR UNDER THE BID ITEM RIPRAP MEDIUM.
- RESTORE AREAS OF BARE GROUND WITH NO. 60 SEED. PAID FOR UNDER THE BID ITEM SEEDING MIXTURE NO. 60.

2

2

N

LYONS RD

EXISTING R/W

REMOVE EXISTING ENDWALLS
PLACE APRON ENDWALL FOR CULV PIPE
STEEL 24-INCH

CLEANING CULVERT PIPES

SECTION CORNER
CONTRACTOR TO PROTECT
SEE GENERAL NOTES SHEET
FOR MORE INFORMATION

CLEANING PIPES

819+00

820+00

821+00

822+00

823+00

824+00

STH 11

R/L STH 11

REMOVE EXISTING ENDWALLS
PLACE APRON ENDWALL FOR CULV PIPE
STEEL 24-INCH

EXISTING R/W

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 16	E

2

2

N

EXISTING R/W

SI

833+00

834+00

835+00

836+00

837+00

838+00

839+00

R/L STH 11

STH 11

SI

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 17	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 02a

PLOT DATE : 1/17/2022 10:26 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

SI

CLEANING CULVERT PIPES

SI

839+00

840+00

841+00

842+00

843+00

844+00

845+00

R/L STH 11

STH 11

SI

EXISTING R/W

CLEANING CULVERT PIPES

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 18	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 02b
PLOT DATE : 1/17/2022 10:26 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

WETLAND 21

SI

WETLAND BOUNDARY

845+00

846+00

847+00

848+00

849+00

850+00

R/L STH 11

STH 11

SI

SECTION CORNER
LOCATION APPROXIMATE
PROTECT OR REPLACE WITH ITEM
LANDMARK REFERENCE MONUMENTS
SEE GENERAL NOTES SHEET FOR
MORE INFORMATION

EXISTING R/W

BOX CULVERT C-64-8
END REPLACEMENT

WETLAND BOUNDARY

WETLAND IMPACT
AREA 69.53 SF, 0.0016 ACRES

WETLAND 22

SEE STRUCTURE C-64-8 PLAN FOR
EROSION CONTROL AND RESTORATION ITEMS

LEGEND

- DITCH CHECK
- WATER FLOW ARROW
- EROSION MAT CLASS I URBAN TYPE B
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CLEARING
- CULVERT PIPE CHECK
- POTENTIAL WETLAND IMPACTS
- SILT FENCE
- SILT FENCE RELIEF

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 19	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 03a
PLOT DATE : 1/17/2022 10:27 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

SI

850+00 851+00 852+00 853+00 854+00 855+00 856+00

R/L STH 11

STH 11

CLEANING CULVERT PIPES

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 20	E

2

2

N

SLAB

POST

EXISTING R/W

CLEANING CULVERT PIPES
DITCHING AND SHAPING

POST

W

POST

RIPRAP

SIGN

SIGN

SIGN

INL

STH 11 WB

R/L STH 11 WB

865

865+00

865

866+00

867+00

868+00

869+00

870

870+00

870

R/L STH 11

STH 11 EB

R/L STH 11 EB

SIGN

SIGN

SIGN

HO

HO

HO

RIPRAP

CLEANING CULVERT PIPES

RIPRAP

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 21	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 04
PLOT DATE : 1/17/2022 10:29 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

WETLAND BOUNDARY

WETLAND 19

WETLAND IMPACT
AREA 554 SF, 0.0127 ACRES

EXISTING R/W

N

POST

RIPRAP

SIGN

STH 11 WB

R/L STH 11 WB

880

880+00

881+00

882+00

883+00

879+00

878+00

R/L STH 11

STH 11 EB

R/L STH 11 EB

880

POST

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES
DITCHING AND SHAPING

EXISTING R/W

POST

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 22	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 05
PLOT DATE : 1/17/2022 10:29 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

WETLAND BOUNDARY

EXISTING R/W

WETLAND IMPACT
AREA 308 SF, 0.0071 ACRES

WETLAND 18

CLEANING CULVERT PIPES

WETLAND BOUNDARY

WETLAND 17

WETLAND IMPACT
AREA 560 SF,0.0129 ACRES

CLEANING CULVERT PIPES

CTH JS

STH 11 WB

R/L STH 11 WB

STH 11 EB

R/L STH 11

R/L STH 11 EB

884+00

885

885+00

886+00

887+00

888+00

889+00

POST

SIGN

INL

SSS

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES

REPLACE CULVERT ENDWALL

DITCHING AND SHAPING

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 23	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 06

PLOT DATE : 1/17/2022 10:30 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

EXISTING R/W

STH 11 WB

R/L STH 11 WB

INL INL

890

890+00

891+00

892+00

POST

R/L STH 11

893+00

894+00

895

895+00

INL

890

STH 11 EB

R/L STH 11 EB

INL

895

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES

POST

POST

POST

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 24	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 07
PLOT DATE : 1/17/2022 10:31 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

R/L STH 11 WB

STH 11 WB

R/L STH 11

R/L STH 11 EB

STH 11 EB

895

896+00

897+00

898+00

899+00

900

900+00

901+00

INL

SIGN

POST

CLEANING CULVERT PIPES

WETLAND BOUNDARY

WETLAND 1

WETLAND IMPACT
AREA 560 SF,0.0129 ACRES

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 25	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 08
PLOT DATE : 1/17/2022 10:32 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

CLEANING CULVERT PIPES

POST

SIGN

CLEANING CULVERT PIPES

POST

STH 11 WB

R/L STH 11 WB

905

INL

INL

901+00 902+00 903+00 904+00 905+00 906+00 907+00

R/L STH 11

905

R/L STH 11 EB

STH 11 EB

INL

SIGN

SIGN

CLEANING CULVERT PIPES

POST

WETLAND 1

WETLAND IMPACT
AREA 312 SF, 0.0072 ACRES

WETLAND BOUNDARY

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 26	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 09
PLOT DATE : 1/17/2022 10:33 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

POST

POST

EXISTING R/W

POST

CLEANING CULVERT PIPES

POST

CLEANING CULVERT PIPES

R/L STH 11 WB

STH 11 WB

910

907+00 908+00 909+00 910+00 911+00 912+00 913+0

INL INL INL INL INL INL

R/L STH 11

910

R/L STH 11 EB

STH 11 EB

SIGN

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 27	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 10
PLOT DATE : 1/17/2022 10:34 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

EXISTING R/W

WETLAND 16

WETLAND BOUNDARY

POST

POST

POST

POST

STH 11 WB

R/L STH 11 WB

915

913+00

914+00

915+00

916+00

917+00

918+00

R/L STH 11

915

STH 11 EB

R/L STH 11 EB

CLEANING CULVERT PIPES

POST

WETLAND BOUNDARY

POST

CLEANING CULVERT PIPES

POST

PO

WETLAND IMPACT
AREA 653 SF, 0.0150 ACRES

WETLAND 2

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 28	E

2

2

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

N

EXISTING R/W

DITCHING AND SHAPING

POST

CLEANING CULVERT PIPES

DITCHING AND SHAPING

POST

POST

CLEANING CULVERT PIPES

POST

CLEANING CULVERT PIPES

R/L STH 11 WB

919+00

920

920+00

920

R/L STH 11

921+00

922+00

923+00

924+00

INL

INL INL

SIGN

R/L STH 11 EB

CLEANING CULVERT PIPES

POST

POST

POST

POST

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES
DITCHING AND SHAPING

POST

CLEANING CULVERT PIPES
DITCHING AND SHAPING

EXISTING R/W

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 29	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 12
PLOT DATE : 1/17/2022 10:35 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

EXISTING R/W

CLEANING CULVERT PIPES
DITCHING AND SHAPING

CLEANING CULVERT PIPES
DITCHING AND SHAPING

POST

POST

POST

POST

POST

POST

INL

925

925+00

926+00

927+00

928+00

929+00

930

930+00

R/L STH 11 WB

STH 11 WB

R/L STH 11 EB

R/L STH 11

STH 11 EB

CLEANING CULVERT PIPES
DITCHING AND SHAPING

CLEANING CULVERT PIPES
DITCHING AND SHAPING

CLEANING CULVERT PIPES

ECO-PASSAGE
SEE CONSTRUCTION DETAIL FOR WORK ON BOTH LEFT AND RIGHT ENDWALLS. CONTACT WDNR 14-DAYS PRIOR TO MAINTENANCE WORK ON ECO-PASSAGE

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 30	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 13
PLOT DATE : 1/27/2022 3:58 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

EXISTING R/W

CLEANING CULVERT PIPES
DITCHING AND SHAPING

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES
DITCHING AND SHAPING

POST

POST

POST

POST

STH 11 WB

R/L STH 11 WB

931+00

932+00

933+00

R/L STH 11

934+00

935

935+00

936+00

933

R/L STH 11 EB

STH 11 EB

POST

POST

CLEANING CULVERT PIPES
CLEARING

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 31	E

2

2

EXISTING R/W

CLEANING CULVERT PIPES CLEARING

POST

CLEANING CULVERT PIPES CLEARING

POST

SIGN

STH 11 WB

R/L STH 11 WB

937+00

938+00

939+00

940

940+00

941+00

942+00

R/L STH 11

SIGN

940

STH 11 EB

R/L STH 11 EB

POST

CLEANING CULVERT PIPES CLEARING

POST

CLEANING CULVERT PIPES CLEARING

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 32	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 15
PLOT DATE : 1/17/2022 10:38 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

EXISTING R/W

WETLAND 15

WETLAND IMPACTS
AREA 226 SF, 0.0052 ACRES

WETLAND BOUNDARY

POST

POST

CLEANING CULVERT PIPES

WETLAND 14

WETLAND IMPACTS
AREA 388 SF, 0.0089 ACRES

WETLAND BOUNDARY

POST

CLEANING CULVERT PIPES
DITCHING AND SHAPING

R/L STH 11 WB

STH 11 WB

950

948+00

949+00

950+00

951+00

952+00

953+00

R/L STH 11

950

R/L STH 11 EB

STH 11 EB

SIGN

CLEANING CULVERT PIPES

POST

WETLAND BOUNDARY

WETLAND IMPACTS
AREA 488 SF, 0.0112 ACRES

WETLAND 3

POST

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

EXISTING R/W

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 33	E

2

2

WHITE RIVER

N

EXISTING R/W

CLEANING CULVERT PIPES
DITCHING AND SHAPING

WETLAND 13

CLEANING CULVERT PIPES
DITCHING AND SHAPING
CLEARING

POST

POST

POST

RIPRAP

R/L STH 11 WB

STH 11 WB

955

954+00 955+00 956+00 957+00 958+00 959+00

R/L STH 11

955

R/L STH 11 EB

STH 11 EB

WETLAND IMPACTS
AREA 1253 SF, 0.0288 ACRES

WETLAND BOUNDARY

WETLAND 4

STH 36

POST

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 34	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 17

PLOT DATE : 1/17/2022 10:39 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

STH 36

WETLAND IMPACTS
AREA 686 SF, 0.0157 ACRES RE-D
AREA 508 SF, 0.0117 ACRES AB

WETLAND BOUNDARY

WETLAND 12

CLEANING CULVERT PIPES
DITCHING AND SHAPING

POST

RIPRAP

RIPRAP

POST

SIGN

R/L STH 11 WB

STH 11 WB

960

960+00

961+00

962+00

963+00

964+00

965+00

RIPRAP

RIPRAP

POST

R/L STH 11

SIGN

SIGN

960

965

R/L STH 11 EB

STH 11 EB

SSS

RIPRAP

RIPRAP

SIGN

WHITE RIVER

CLEANING CULVERT PIPES

CLEANING CULVERT PIPES
CLEARING

POST

POST

WETLAND 5

POST

EXISTING R/W

POST

LEGEND

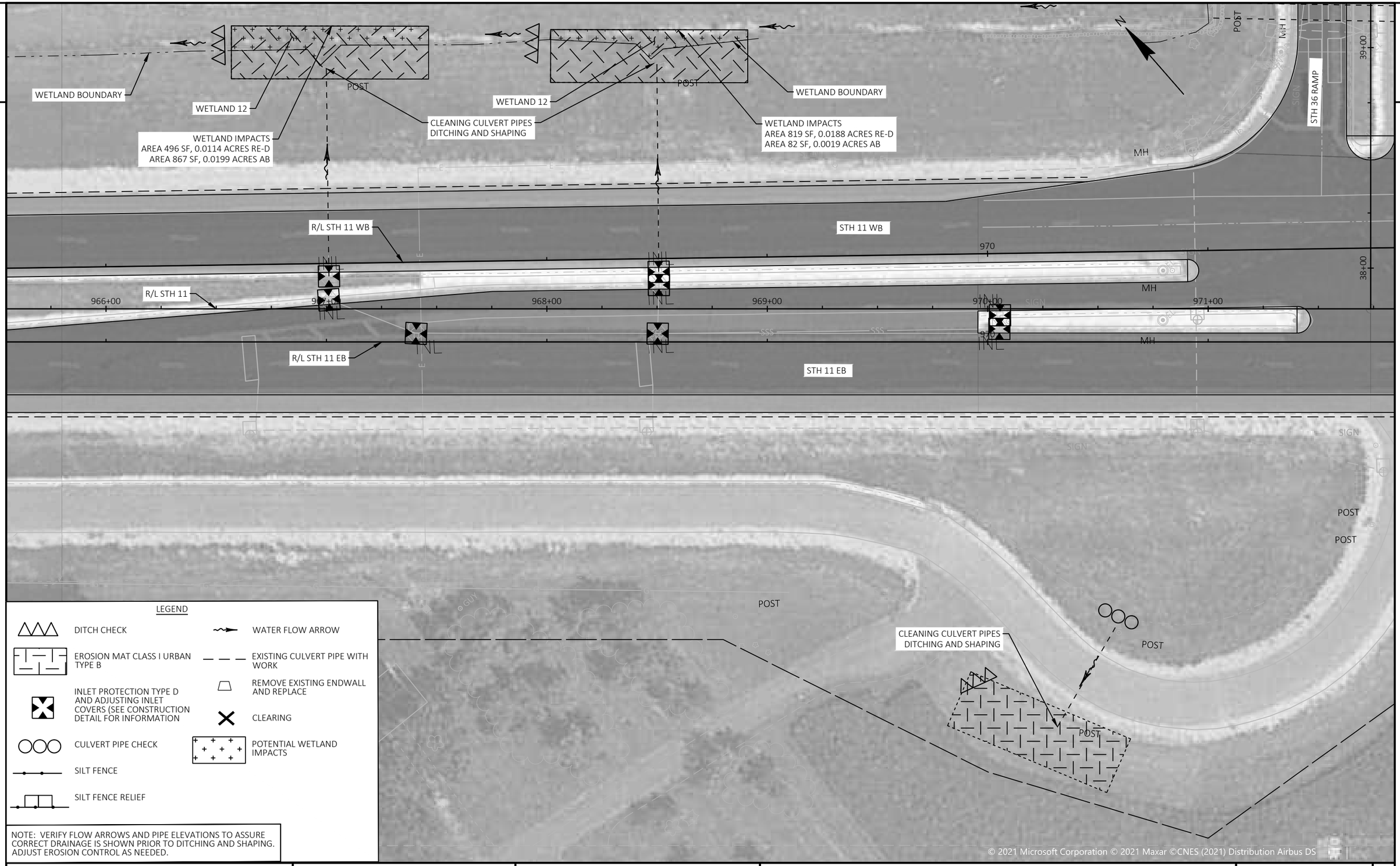
- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

S (2021) Distribution Airbus DS

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 35	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 18
PLOT DATE : 1/17/2022 10:40 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 36	E

2

2

WETLAND 8

WETLAND BOUNDARY

RIPRAP

EXISTING R/W

WETLAND IMPACTS
SEE STH 36 RAMP SHEET FOR IMPACTS

CLEANING CULVERT PIPES

STH 36 RAMP

POST

INL

MH

SIGN

39+00

38+00

1+00

972+00

973+00

974+00

975+00

976+00

975

STH 11 WB

R/L STH 11 WB

R/L STH 11

STH 11 EB

R/L STH 11 EB

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 37	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 20
PLOT DATE : 1/17/2022 10:42 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

EXISTING R/W

N

SIGN

SIGN

R/L STH 11 WB

STH 11 WB

980

SIGN

SIGN

POST

980

R/L STH 11 EB

STH 11 EB

SIGN

SIGN

CLEANING CULVERT PIPES

POST

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 38	E

2

2

EXISTING R/W

N

SIGN

STH 11 WB

R/L STH 11 WB

985

POST

POST

985

R/L STH 11 EB

STH 11 EB

CLEANING CULVERT PIPES

POST

EXISTING R/W

LEGEND

- DITCH CHECK
- WATER FLOW ARROW
- EROSION MAT CLASS I URBAN TYPE B
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CLEARING
- CULVERT PIPE CHECK
- POTENTIAL WETLAND IMPACTS
- SILT FENCE
- SILT FENCE RELIEF

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 39	E

2

2

N

EXISTING R/W

R/L STH 11 WB

STH 11 WB

990

990

R/L STH 11 EB

STH 11 EB

CLEANING CULVERT PIPES

WETLAND 20

POST

POST

RIPRAP

POST

POST

EXISTING R/W

LEGEND

- DITCH CHECK
- WATER FLOW ARROW
- EROSION MAT CLASS I URBAN TYPE B
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CLEARING
- CULVERT PIPE CHECK
- POTENTIAL WETLAND IMPACTS
- SILT FENCE
- SILT FENCE RELIEF

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 40	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 23
PLOT DATE : 1/17/2022 10:44 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

POST

WETLAND 7

N

WETLAND IMPACTS
AREA 1263 SF, 0.0290 ACRES

WETLAND BOUNDARY

CLEANING CULVERT PIPES

POST

CLEANING CULVERT PIPES
DITCHING AND SHAPING

SIGN

R/L STH 11 WB

STH 11 WB

995

1000000

INL

995

1000000

R/L STH 11 EB

STH 11 EB

CLEANING CULVERT PIPES
DITCHING AND SHAPING

WETLAND BOUNDARY

POST

RIPRAP

RIPRAP

WETLAND IMPACTS
AREA 591 SF, 0.0136 ACRES RE
AREA 1285 SF, 0.0295 ACRES AB

WETLAND 6

POST

INL

SPRING VALLEY RD

SIGN

CLEANING CULVERT PIPES

POST

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 41	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 24

PLOT DATE : 1/17/2022 10:45 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

WETLAND IMPACTS
AREA 240 SF, 0.0055 ACRES RE-D
AREA 307 SF, 0.0070 ACRES AB

WETLAND 12

RIPRAP

POST

POST

WETLAND BOUNDARY

CLEANING CULVERT PIPES

WETLAND IMPACTS
AREA 972 SF, 0.0223 ACRES SM-D
AREA 130 SF, 0.0030 ACRES WM-D

WETLAND 11

POST

WETLAND BOUNDARY

CLEANING CULVERT PIPES
DITCHING AND SHAPING

STH 36 RAMP

R/L STH 36 RAMP

R/L STH 11 WB

WETLAND 8

POST

POST

RIPRAP

WETLAND IMPACTS
AREA 21 SF, 0.0005 ACRES RE-D
AREA 112 SF, 0.0026 ACRES AB

WETLAND BOUNDARY

EXISTING R/W

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 42	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 25
PLOT DATE : 1/17/2022 10:46 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

STH 36

WETLAND 10

WETLAND IMPACTS
AREA 530 SF, 0.0122 ACRES

WETLAND BOUNDARY

CLEANING CULVERT PIPES

STH 36 RAMP

44+00

45+00

46+00

47+00

48+00

49+00

50+00

R/L STH 36 RAMP

CLEANING CULVERT PIPES
DITCHING AND SHAPING

WETLAND BOUNDARY

WETLAND 9

EXISTING R/W

WETLAND IMPACT
AREA 532 SF, 0.0122 ACRES SM-D
AREA 1442 SF, 0.0331 ACRES WM-D

LEGEND

- DITCH CHECK
- EROSION MAT CLASS I URBAN TYPE B
- INLET PROTECTION TYPE D AND ADJUSTING INLET COVERS (SEE CONSTRUCTION DETAIL FOR INFORMATION
- CULVERT PIPE CHECK
- SILT FENCE
- SILT FENCE RELIEF
- WATER FLOW ARROW
- EXISTING CULVERT PIPE WITH WORK
- REMOVE EXISTING ENDWALL AND REPLACE
- CLEARING
- POTENTIAL WETLAND IMPACTS

NOTE: VERIFY FLOW ARROWS AND PIPE ELEVATIONS TO ASSURE CORRECT DRAINAGE IS SHOWN PRIOR TO DITCHING AND SHAPING. ADJUST EROSION CONTROL AS NEEDED.

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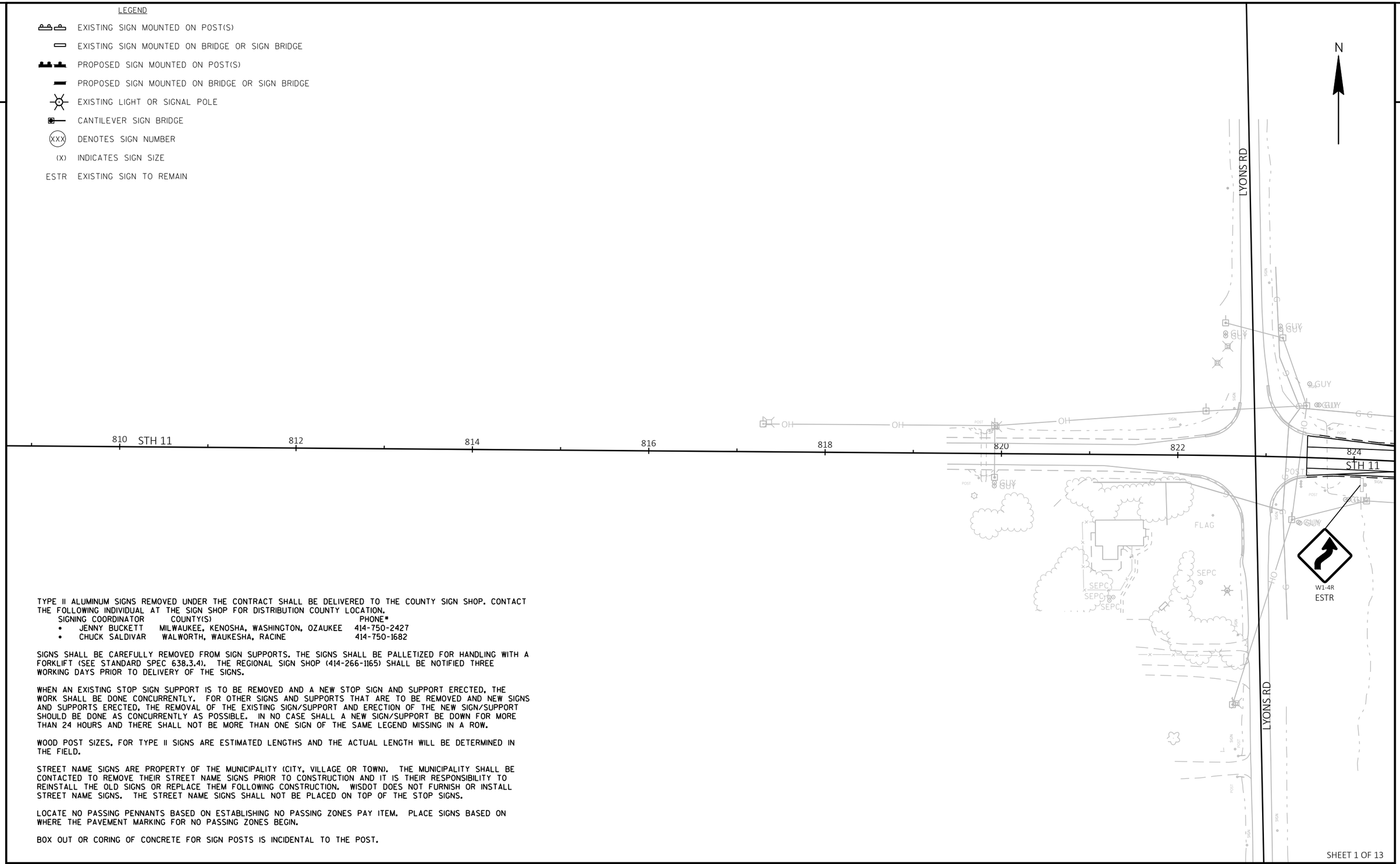
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CULVERT. INLET & EROSION CONTROL DETAILS	SHEET 43	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021202_PD.DWG
LAYOUT NAME - 26
PLOT DATE : 1/17/2022 10:47 AM PLOT BY : WATT, TIMOTHY 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



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	COUNTY(S)	PHONE*
• JENNY BUCKETT	MILWAUKEE, KENOSHA, WASHINGTON, OZAUKEE	414-750-2427
• CHUCK SALDIVAR	WALWORTH, WAUKESHA, RACINE	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.

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 44	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 9/30/2021 9:38 AM
PLOT BY : MARTENS, KAREN L
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

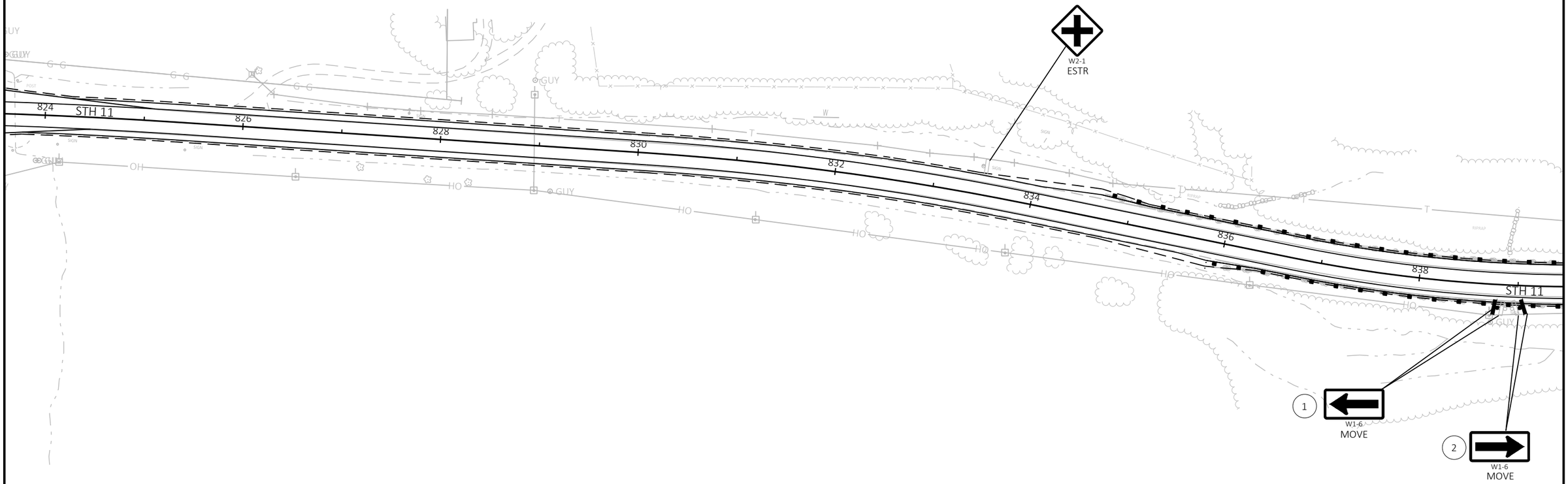
2

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

N

2



SHEET 2 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 45	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023202_PS

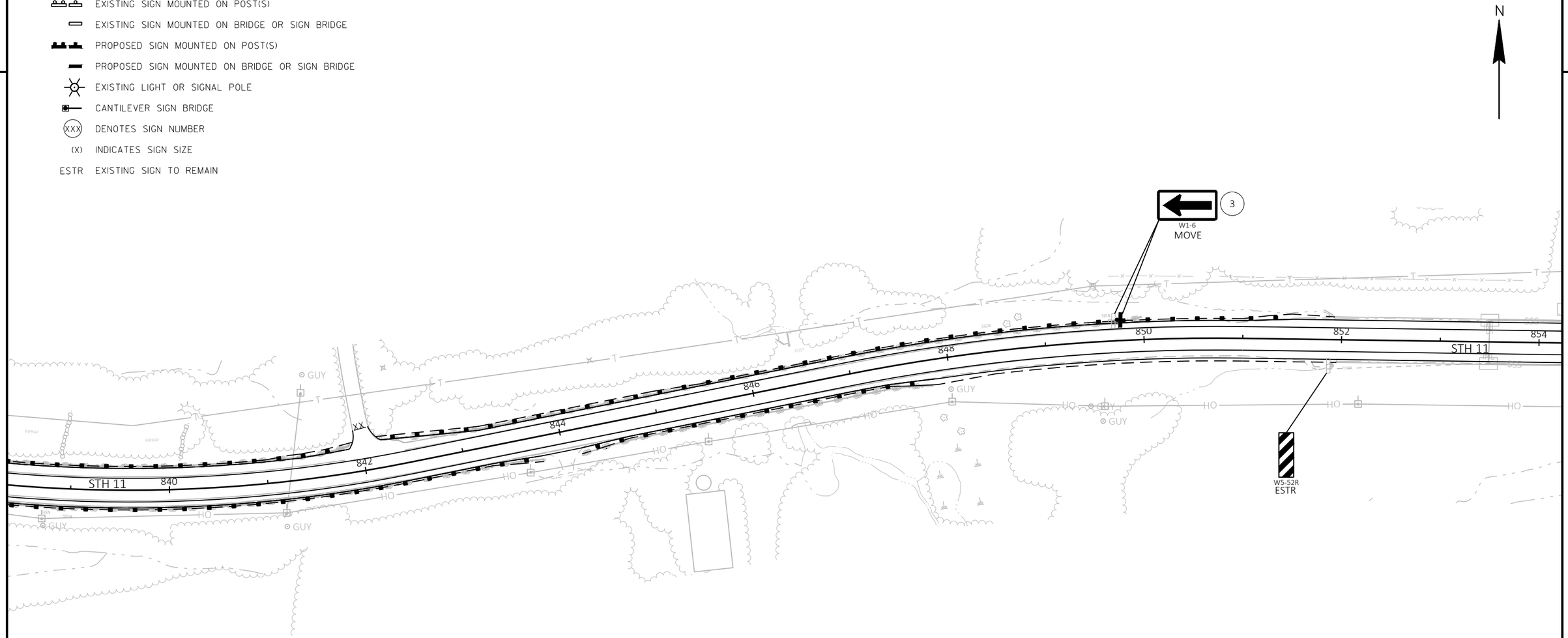
PLOT DATE : 9/30/2021 9:38 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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



2

SHEET 3 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 46	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 9/30/2021 9:38 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

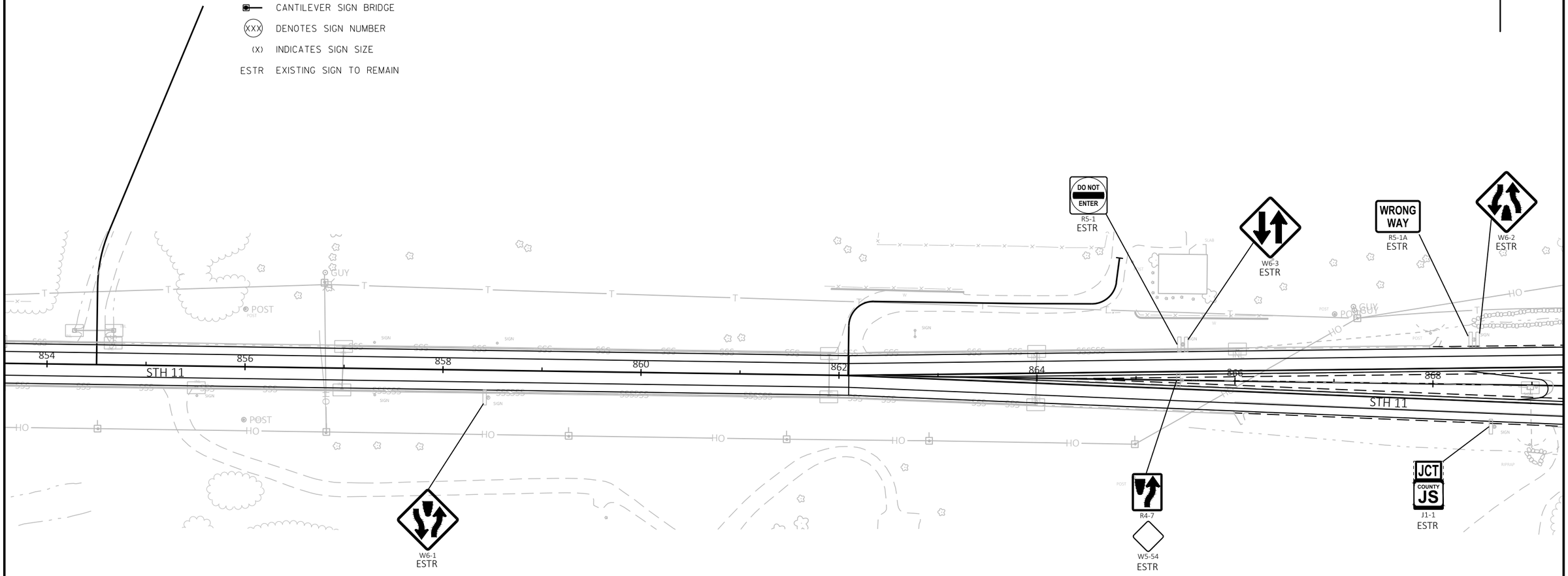
2

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

N

2



SHEET 4 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 47	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 9/30/2021 9:38 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

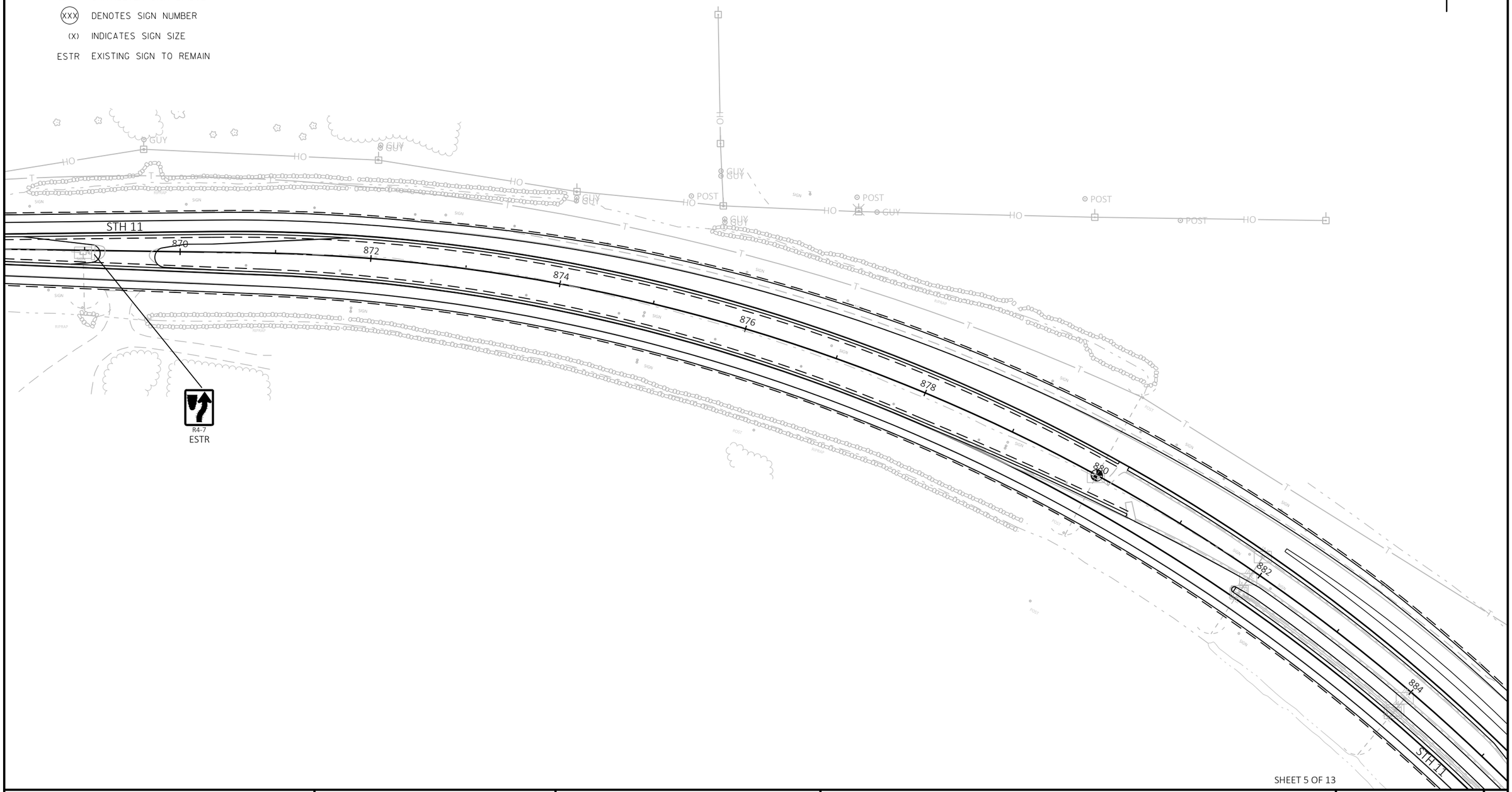
2

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

N

2



SHEET 5 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 48	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 9/30/2021 9:38 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

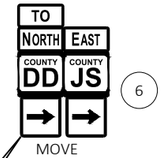
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

CTH JS

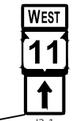
STH 11

886 888 890 892 894 896 898 900

EXISTING OVERHEAD SIGN SUPPORT
TO REMAIN
S-64-208



6
MOVE



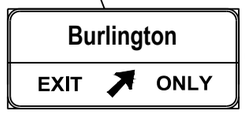
J3-1
ESTR

4



TYPE I SIGN
I-BEAMS INCIDENTAL

5



TYPE I SIGN
I-BEAMS INCIDENTAL

[2006]



REMOVE

[2006]



REMOVE

SHEET 6 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 49	E

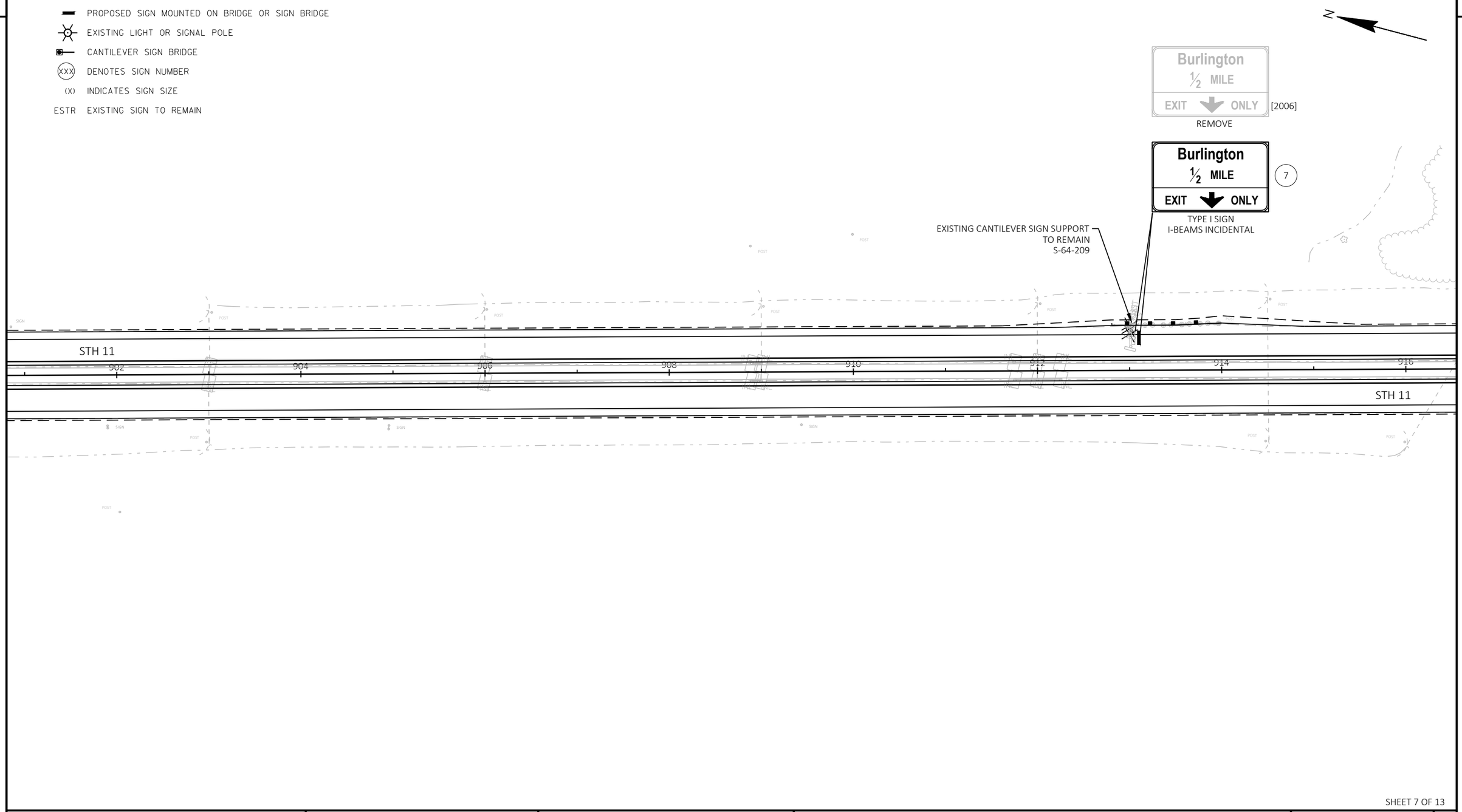
FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L 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



SHEET 7 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 50	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

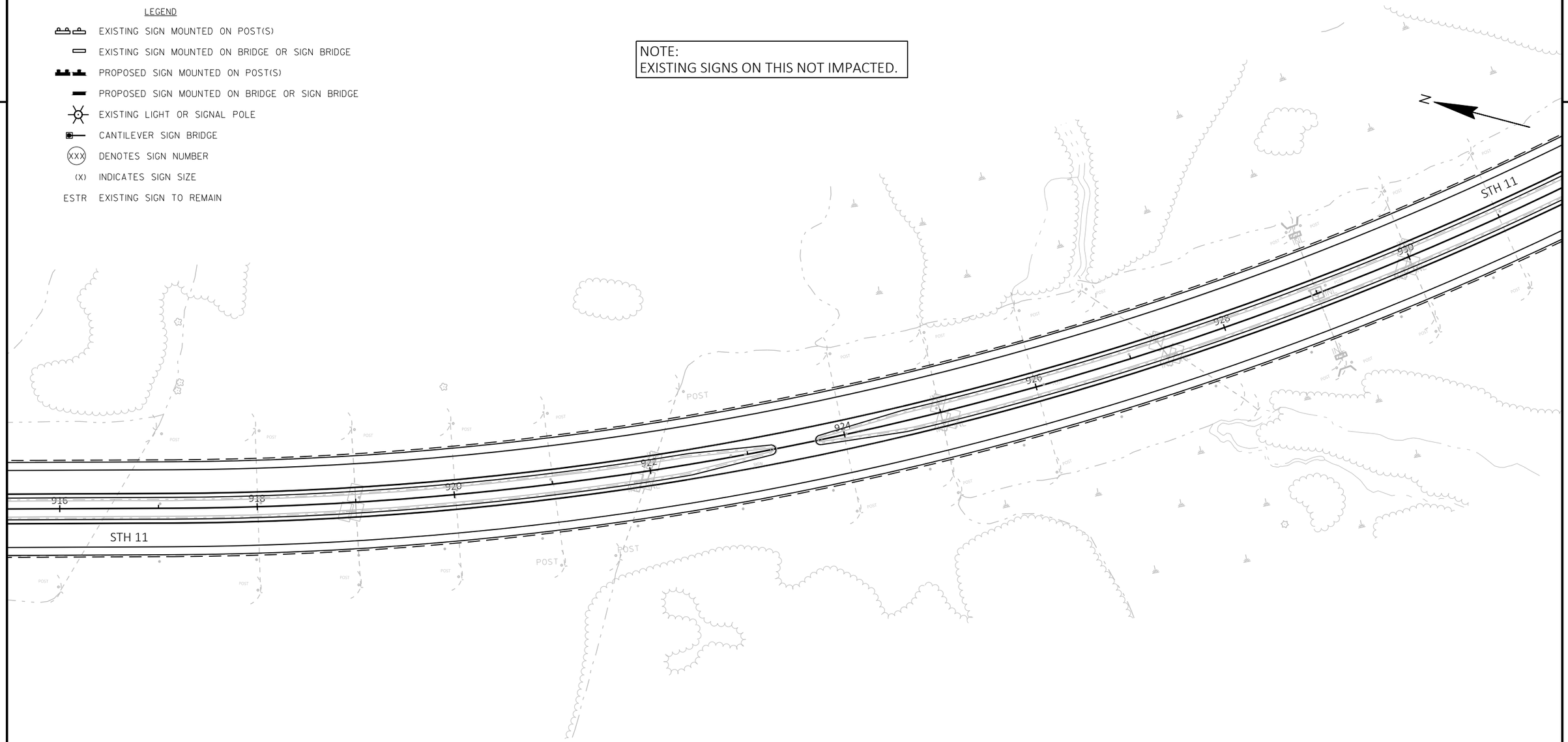
WISDOT/CADDS SHEET 42

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

NOTE:
EXISTING SIGNS ON THIS NOT IMPACTED.



2

SHEET 8 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 51	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023208_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

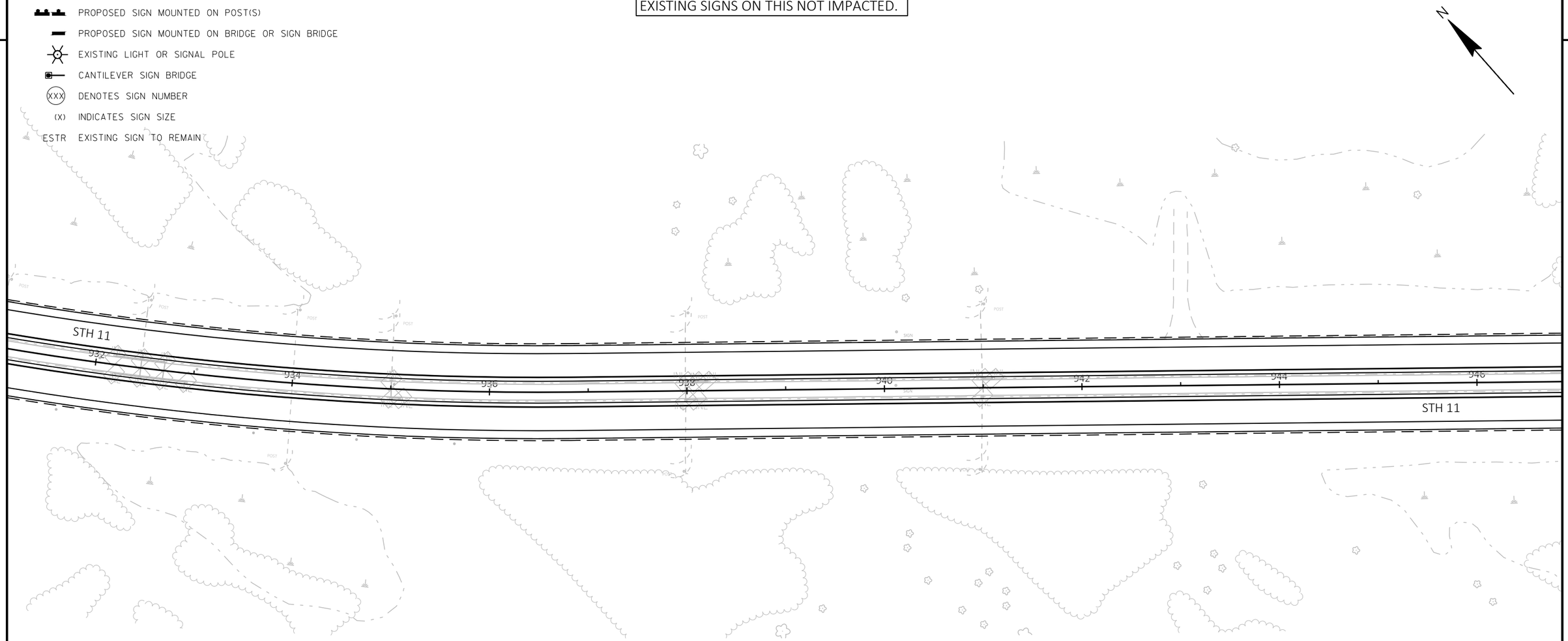
WISDOT/CADDS SHEET 42

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

NOTE:
EXISTING SIGNS ON THIS NOT IMPACTED.



2

SHEET 9 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 52	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023209_PS

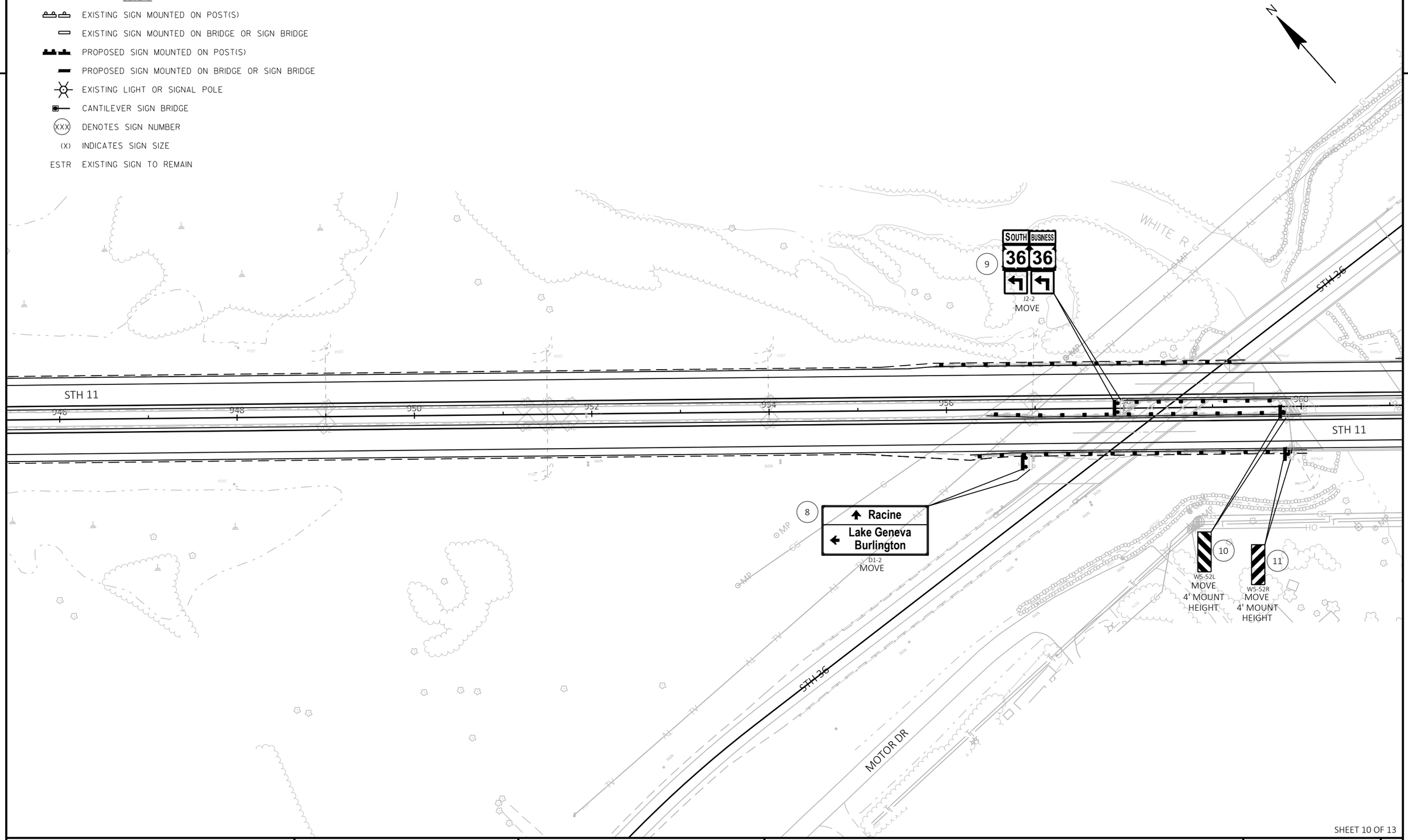
PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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



SHEET 10 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 53	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023210_PS

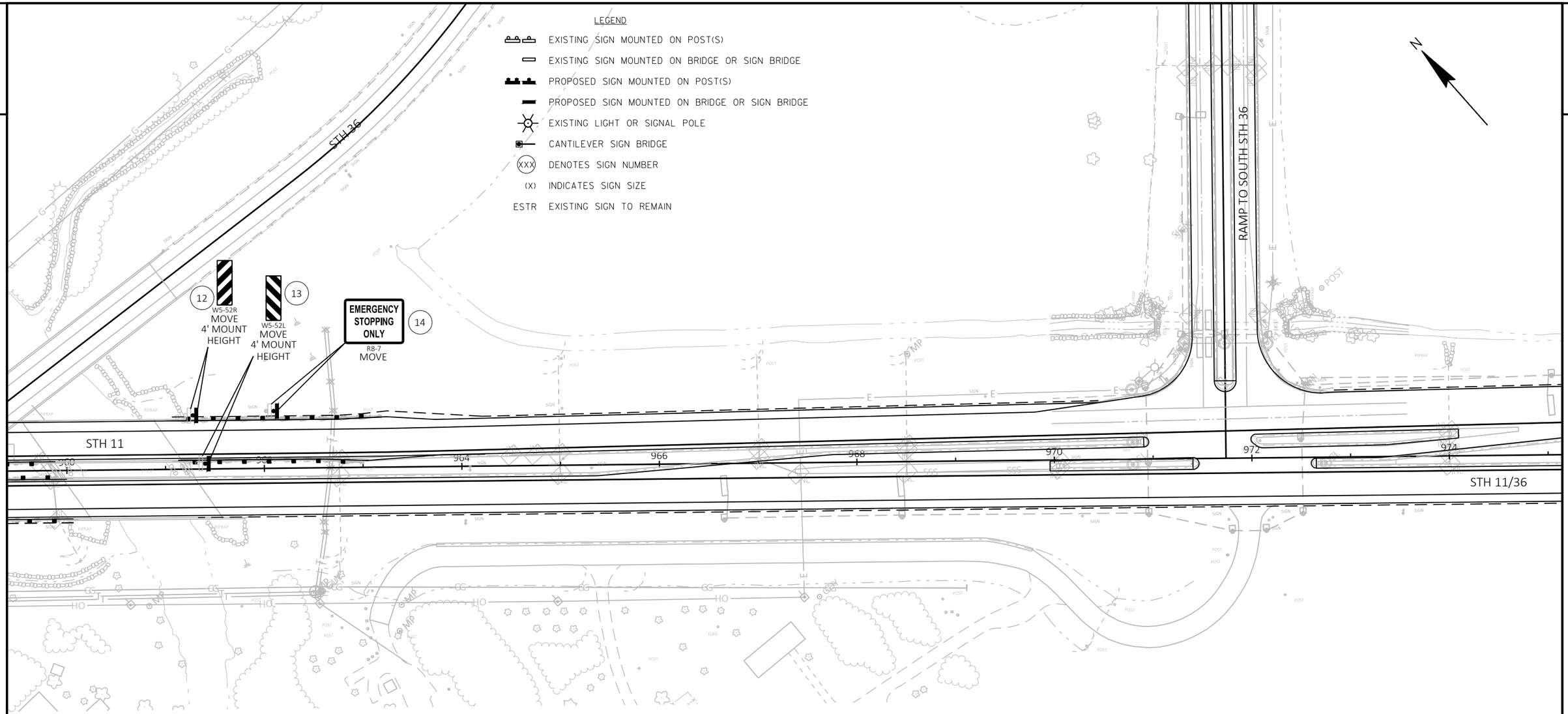
PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

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



SHEET 11 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 54	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023211_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

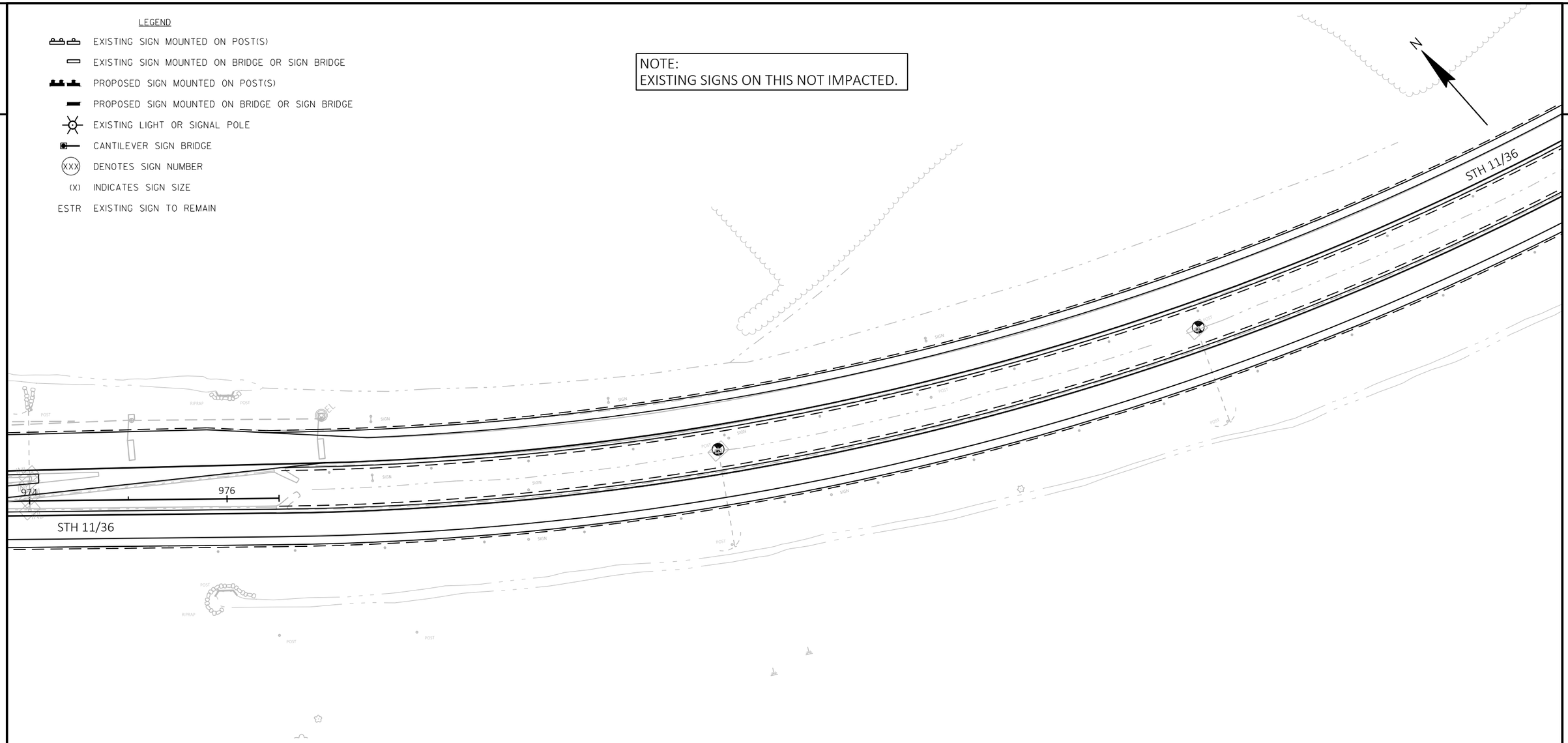
WISDOT/CADDS SHEET 42

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

NOTE:
EXISTING SIGNS ON THIS NOT IMPACTED.



SHEET 12 OF 13

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 55	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023212_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L 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

NOTE:
EXISTING SIGNS ON THIS NOT IMPACTED.

N

STH 11/36

SPRING VALLEY RD

SPRING VALLEY RD

STH 11/36

SHEET 13 OF 13

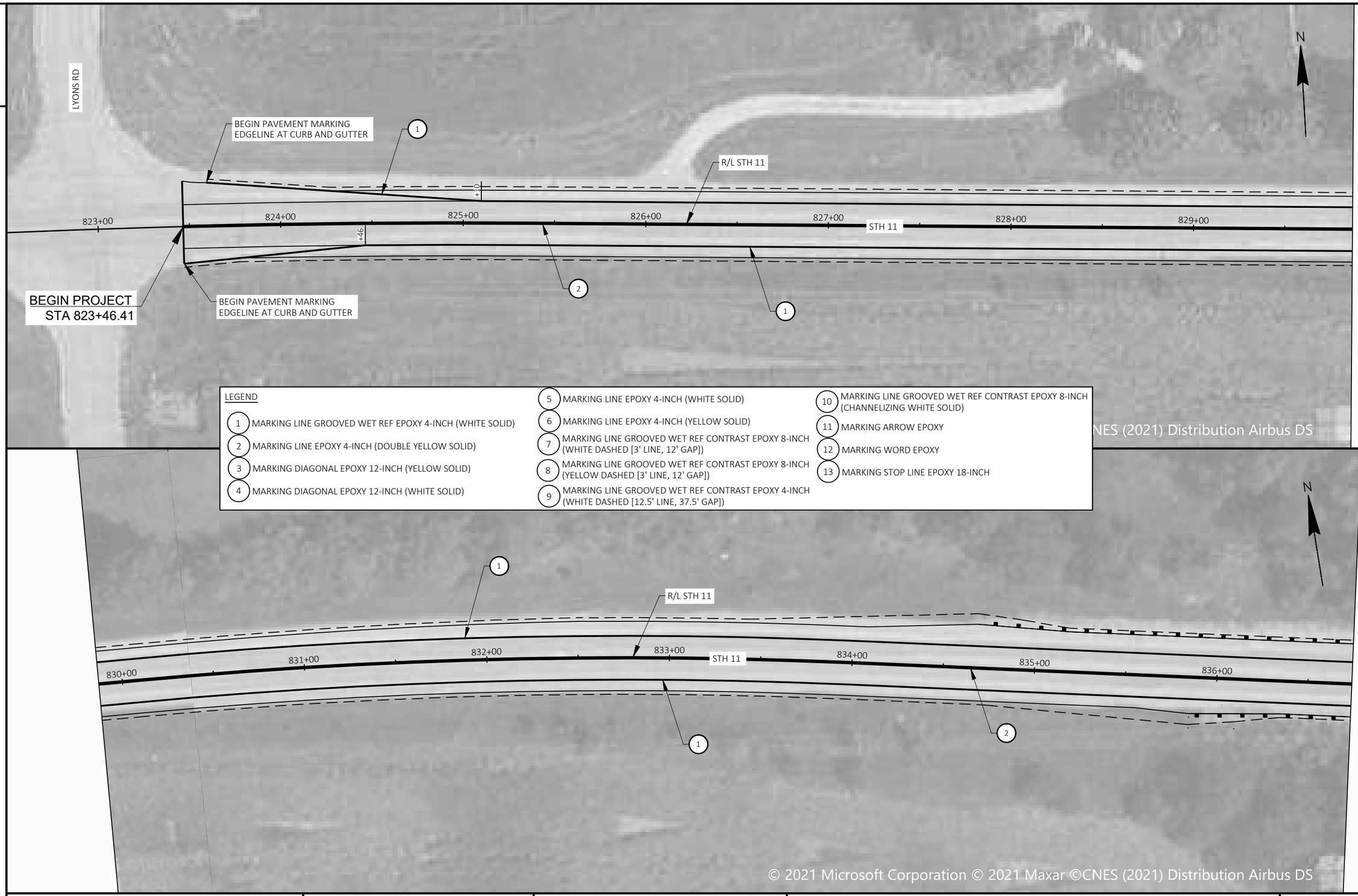
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PERMANENT SIGNING PLAN	SHEET 56	E

FILE NAME : N:\PDS\C3D\CAD\31800007\SIGN\023201_PS_20.DWG
LAYOUT NAME - 023213_PS

PLOT DATE : 9/30/2021 9:39 AM PLOT BY : MARTENS, KAREN L PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



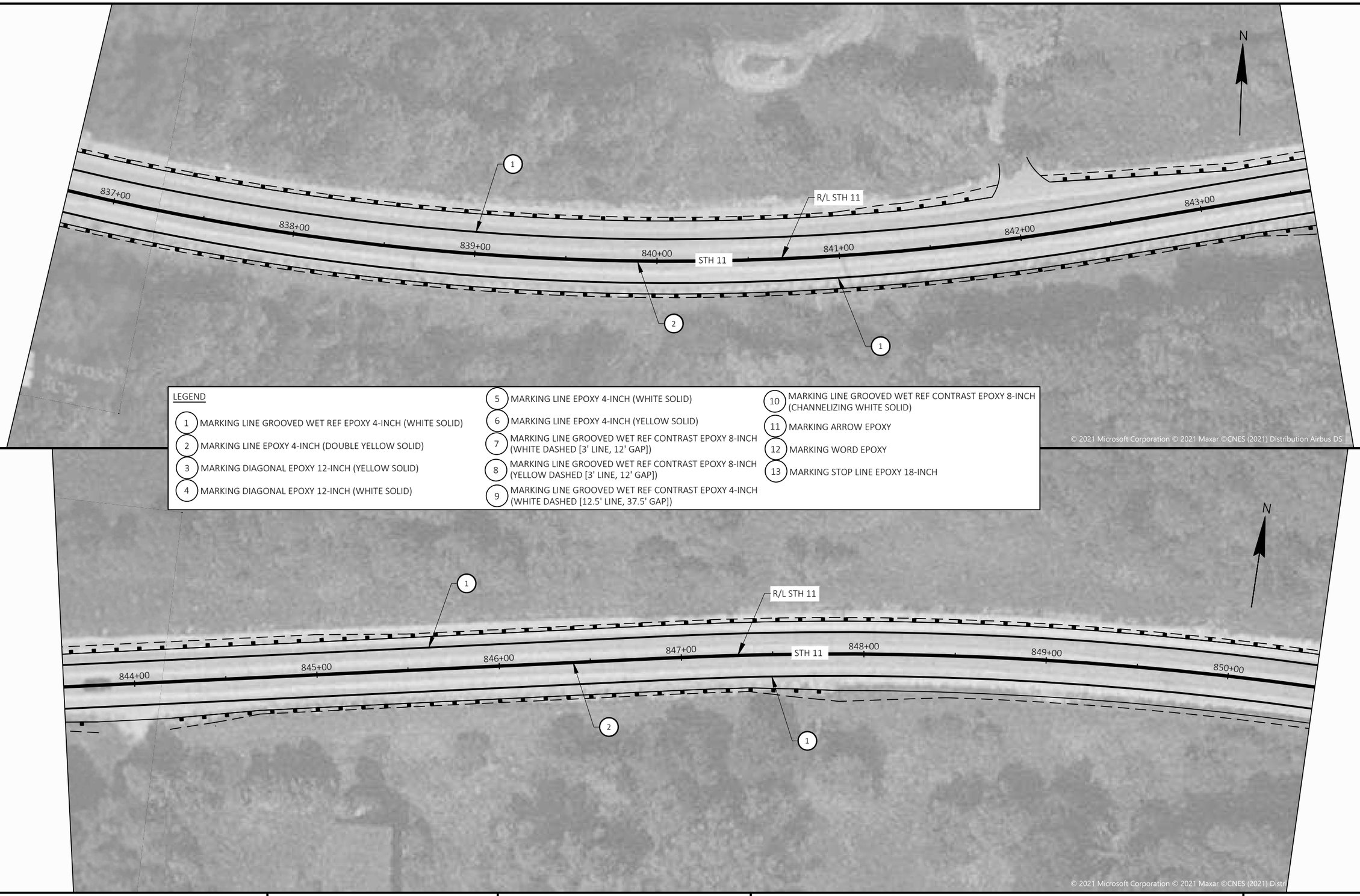
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 57	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 2
PLOT DATE : 1/20/2022 9:21 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

2



LEGEND

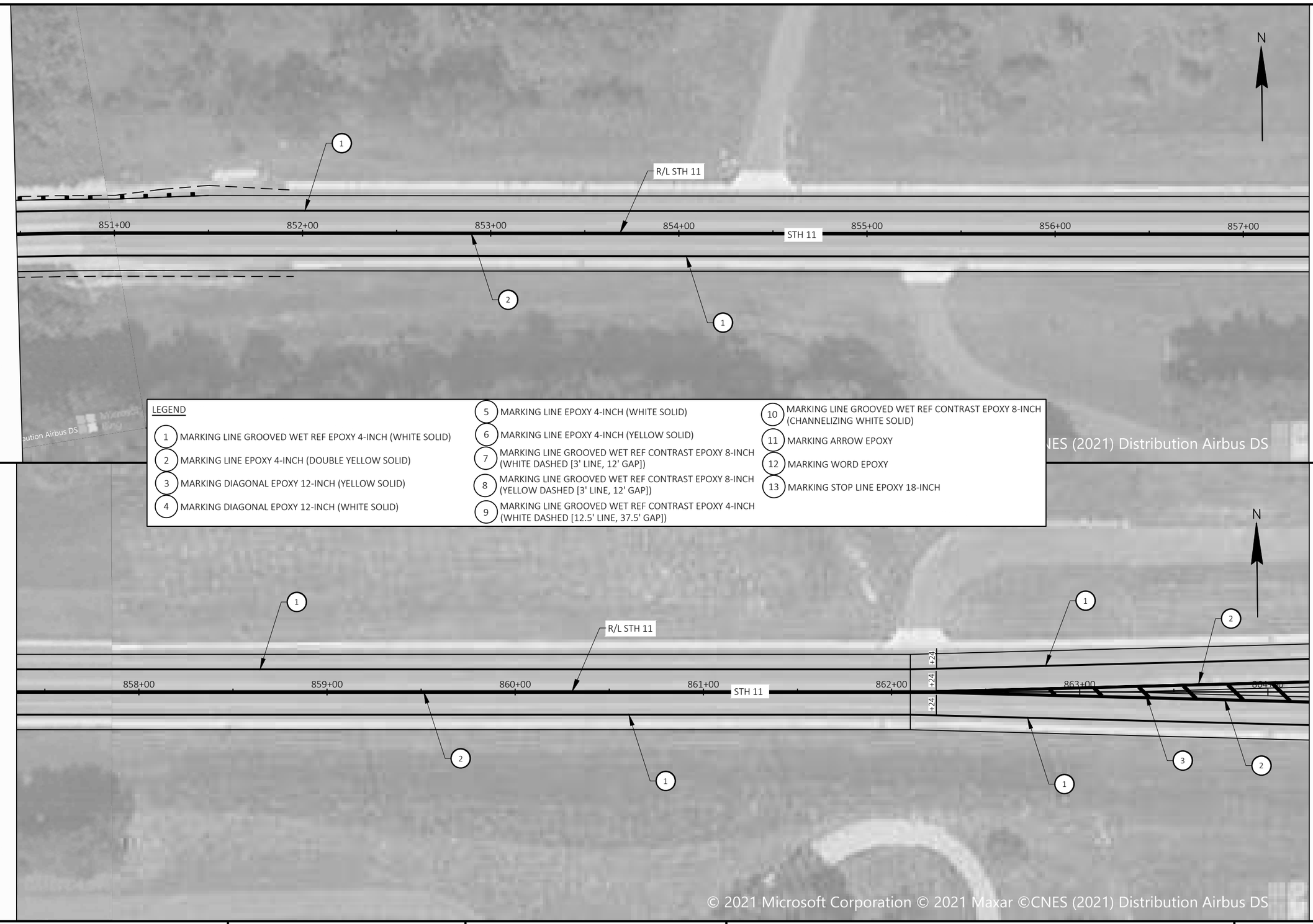
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 58	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 3

PLOT DATE : 1/20/2022 9:21 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

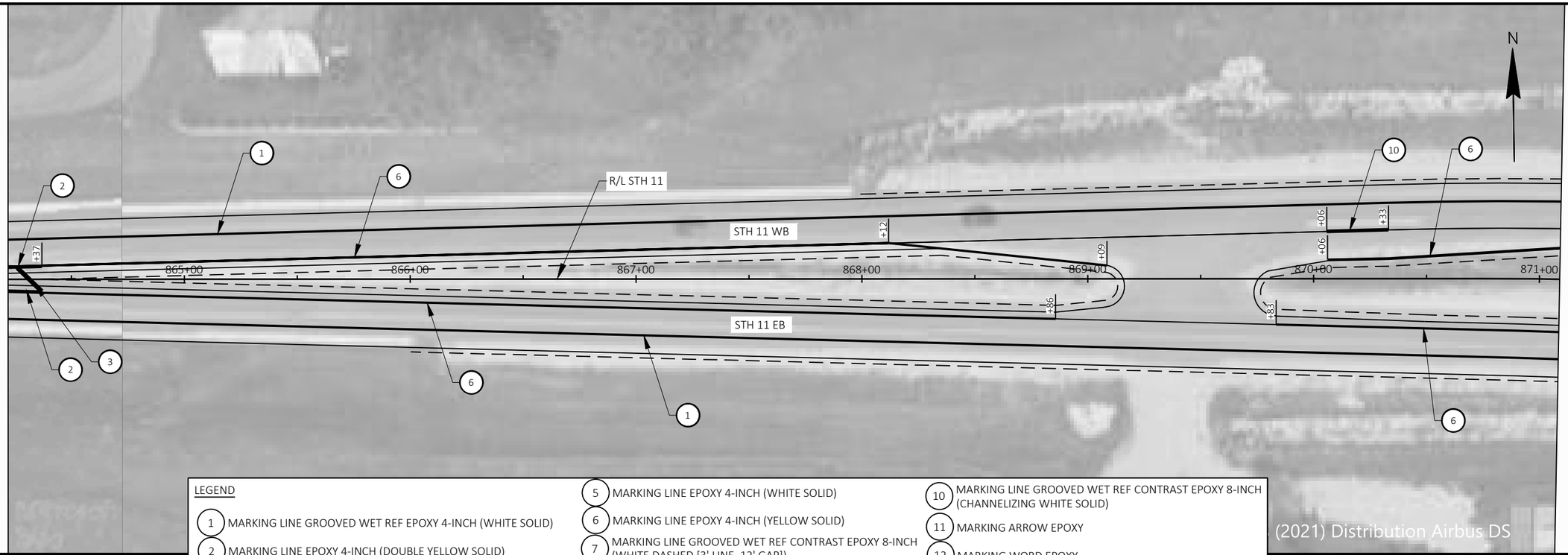


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 59	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 4

PLOT DATE : 1/20/2022 9:21 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

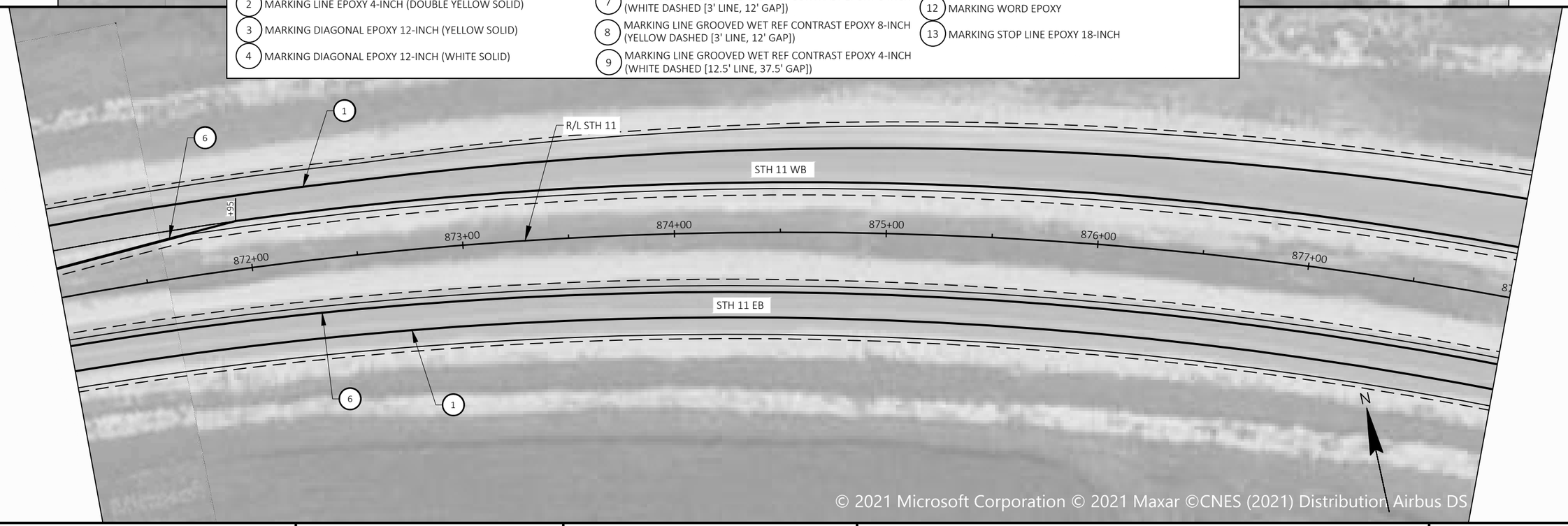
2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

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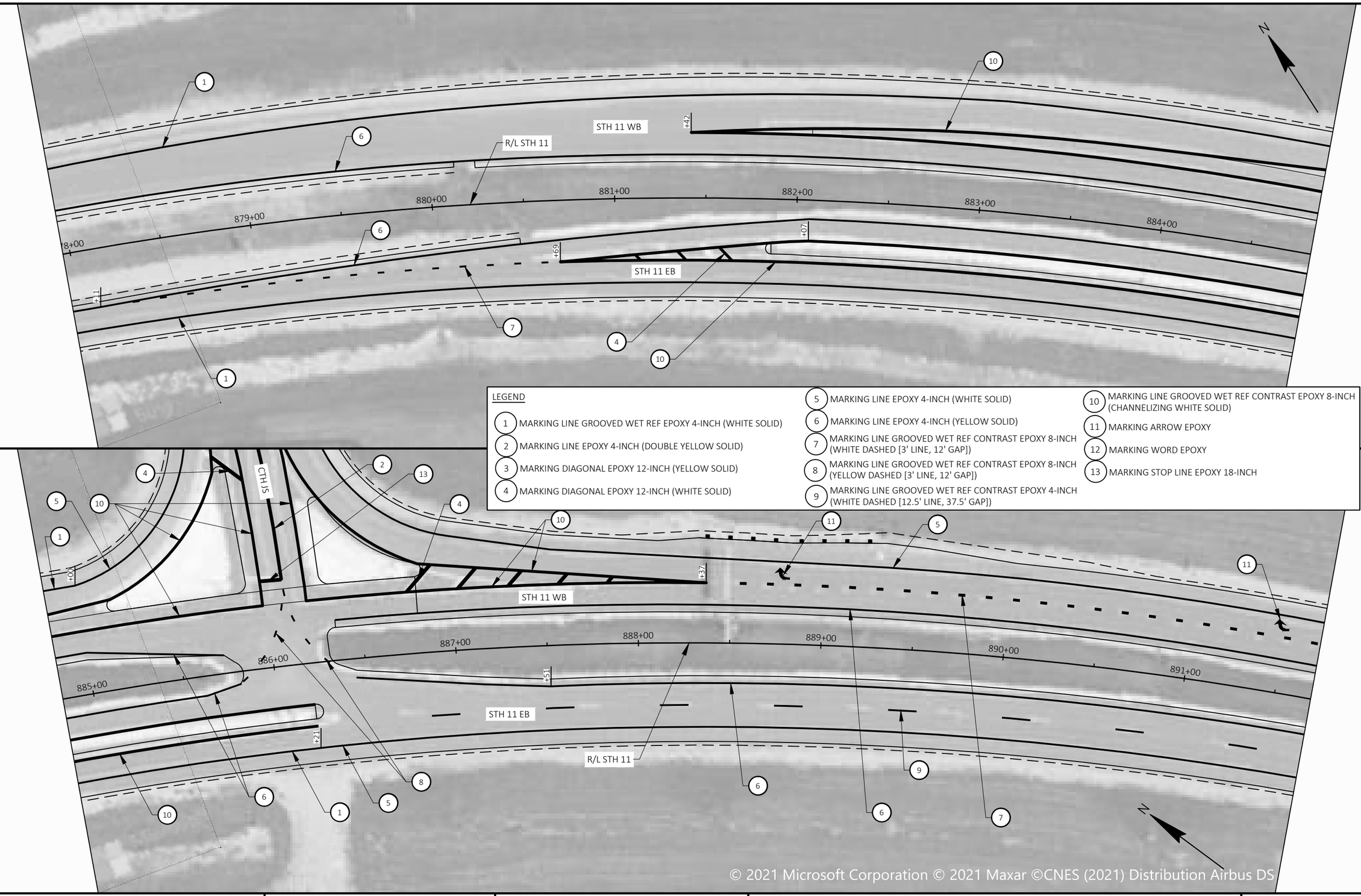
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 60	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 5

PLOT DATE : 1/20/2022 9:21 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



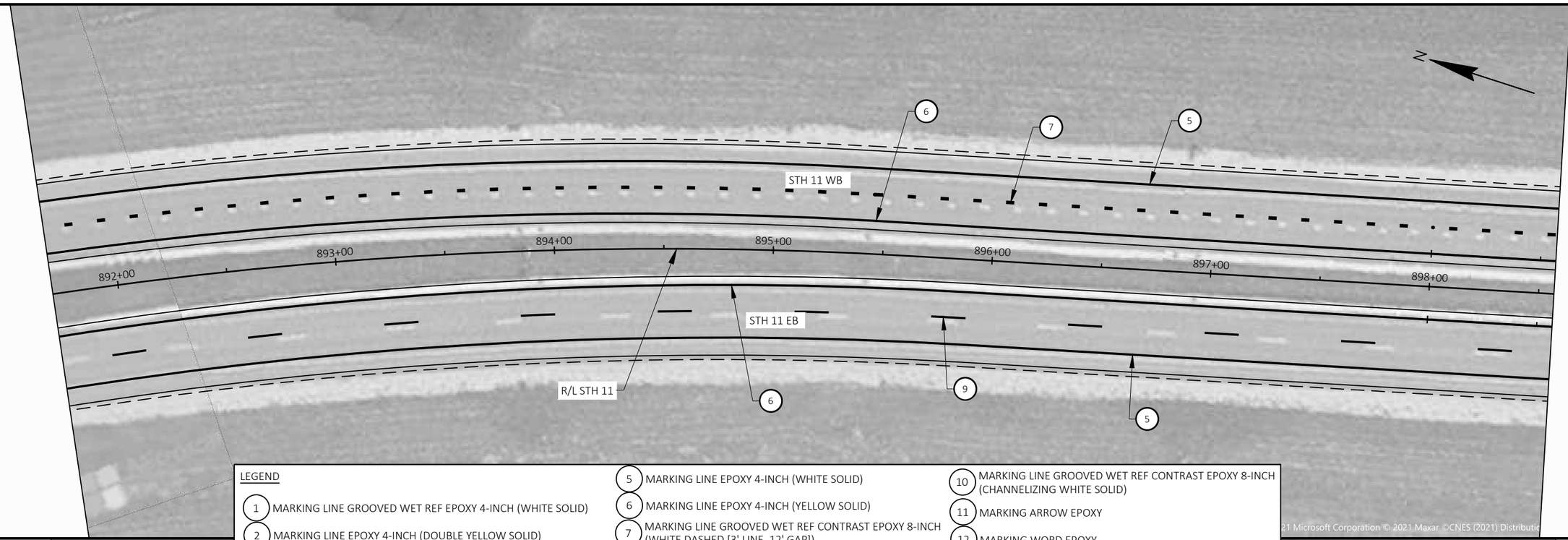
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

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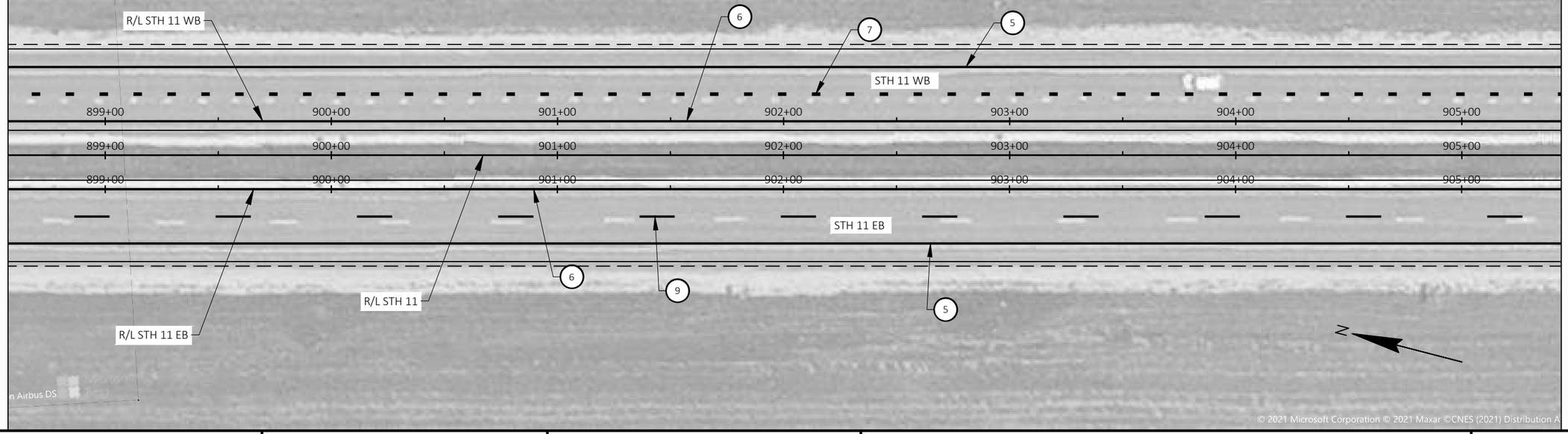
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 61	E

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

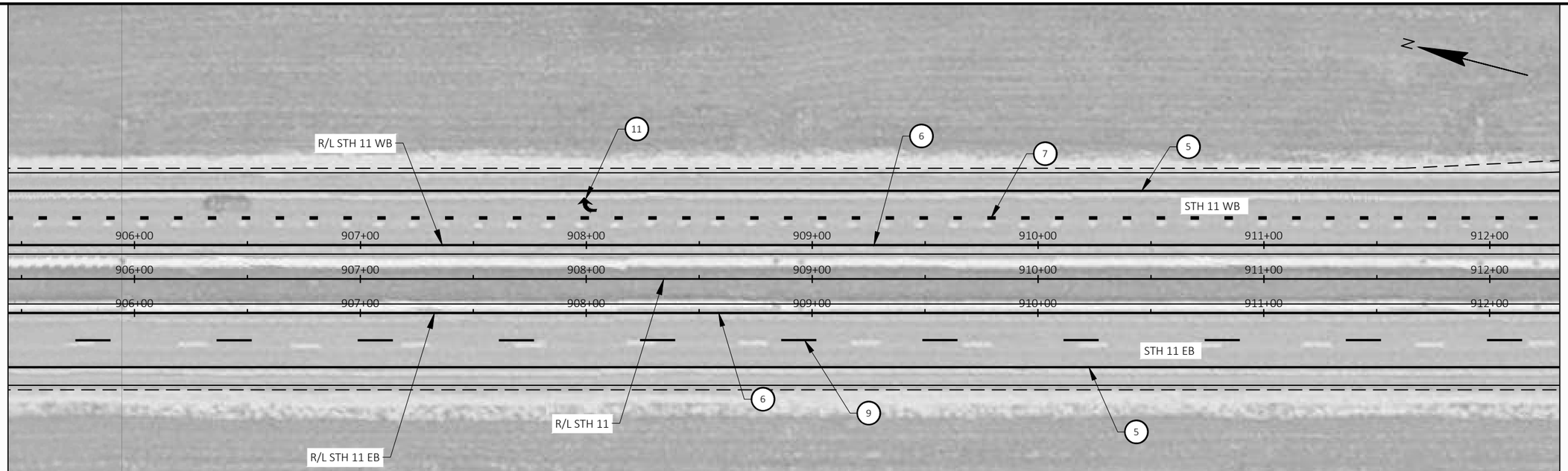


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 62	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 7

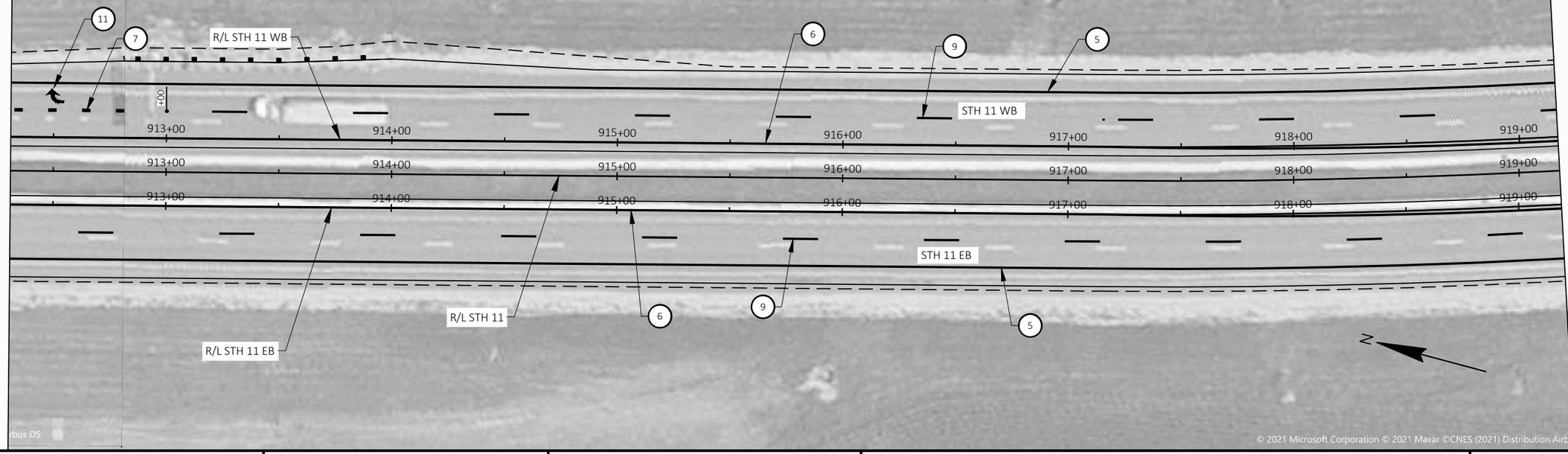
PLOT DATE : 1/20/2022 9:22 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

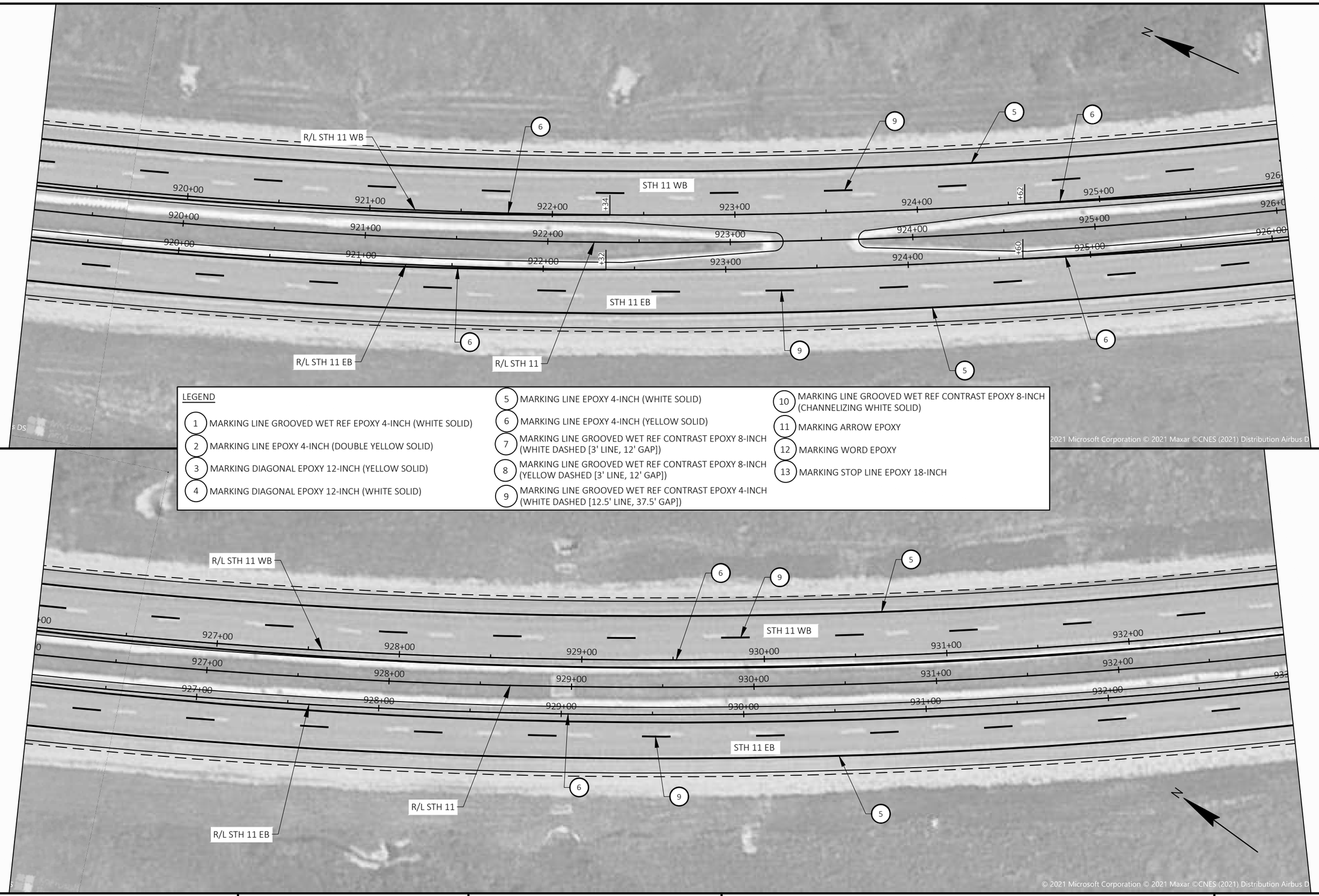


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 63	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 8

PLOT DATE : 1/20/2022 9:22 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

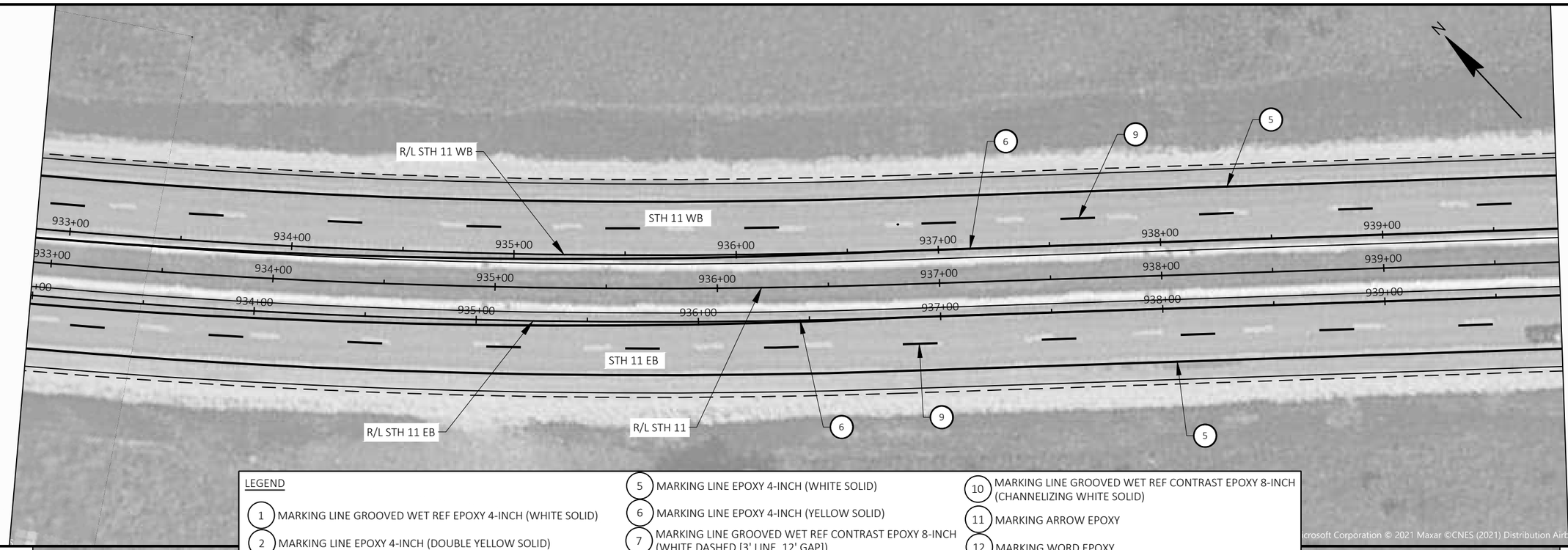


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

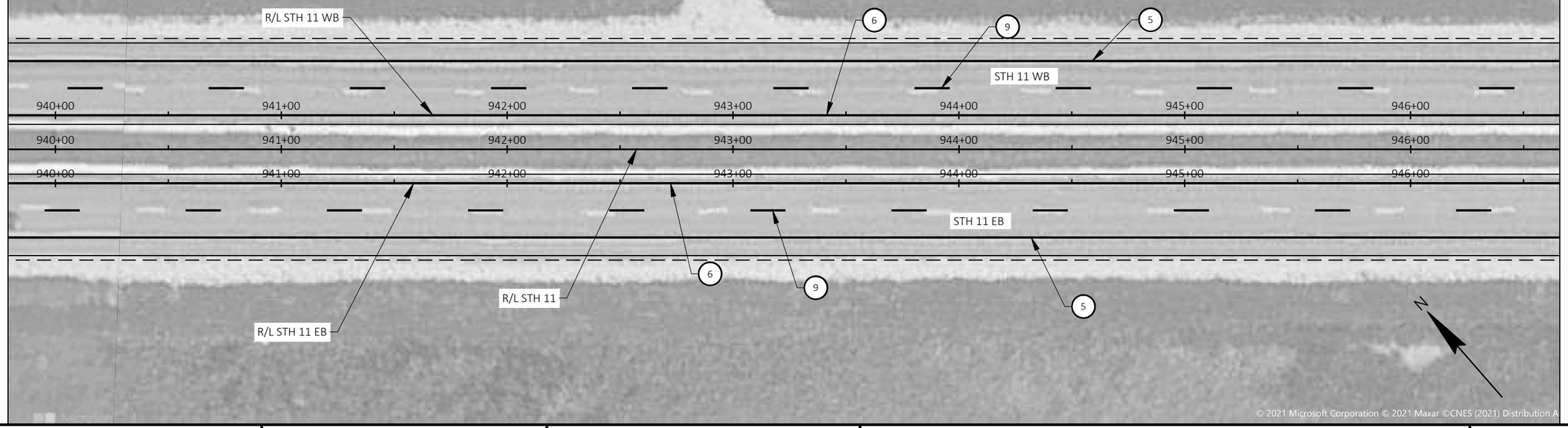
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 64	E

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

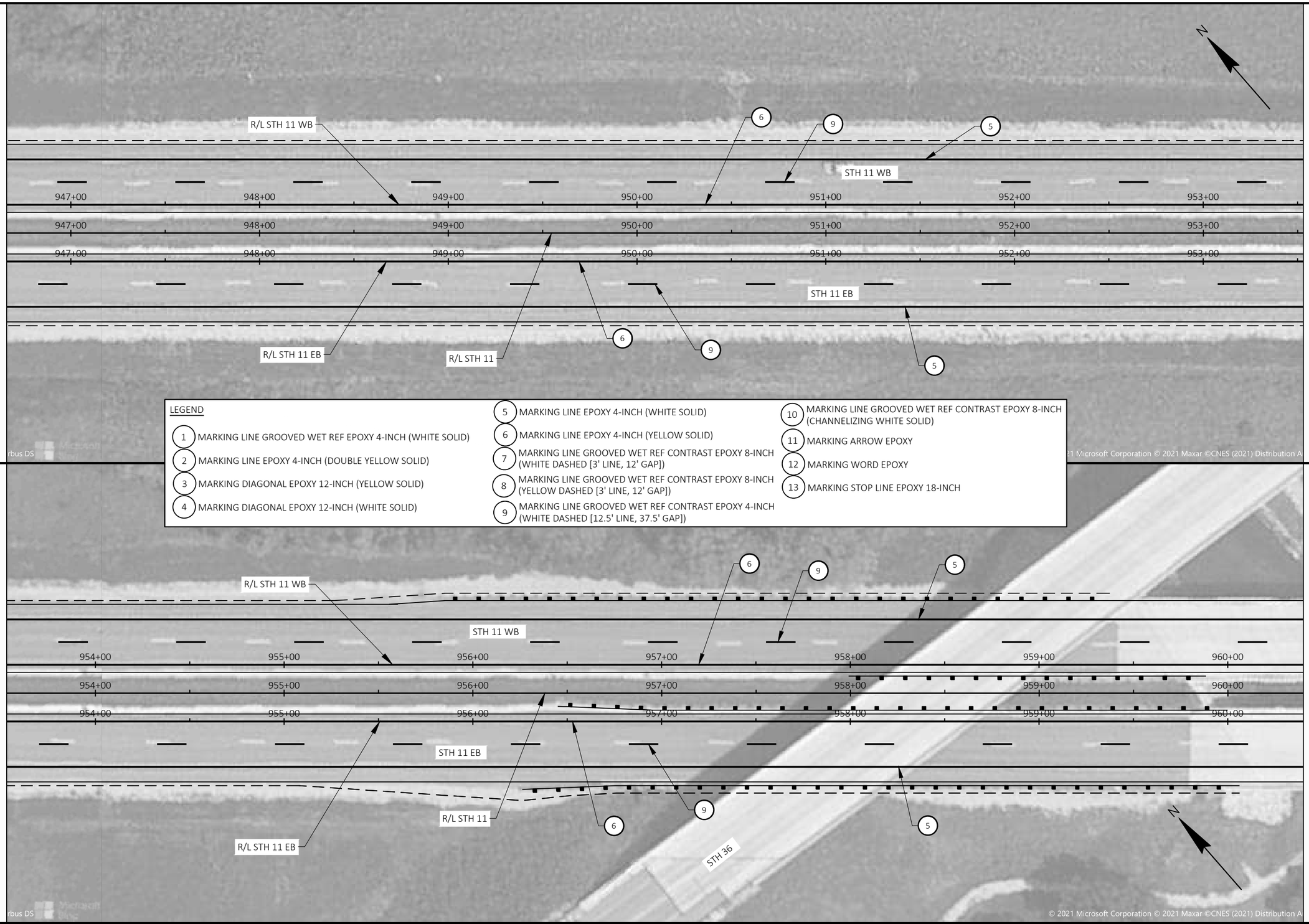


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 65	E

2

2

N



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

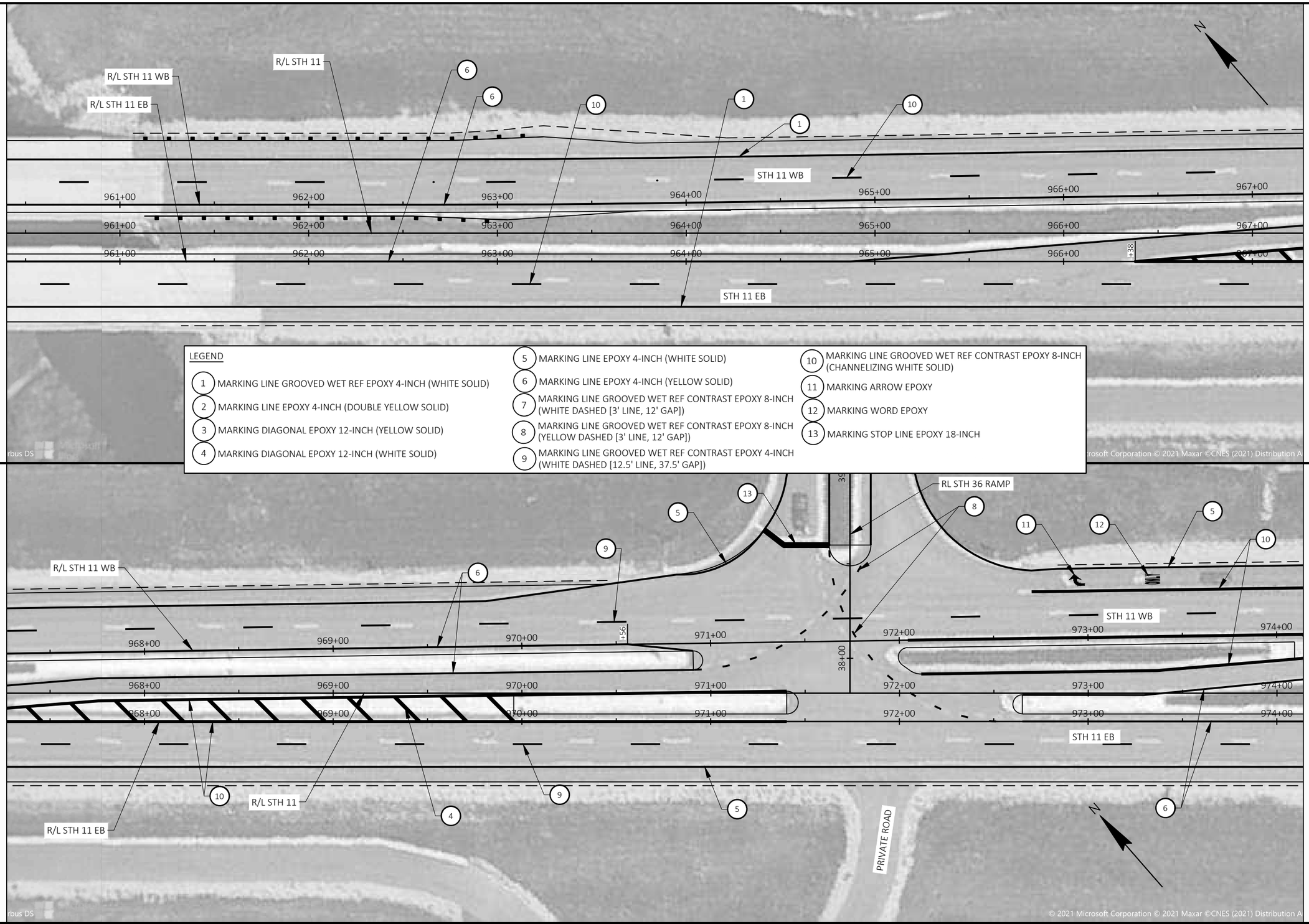
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 66	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 11

PLOT DATE : 1/20/2022 9:22 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

2

N

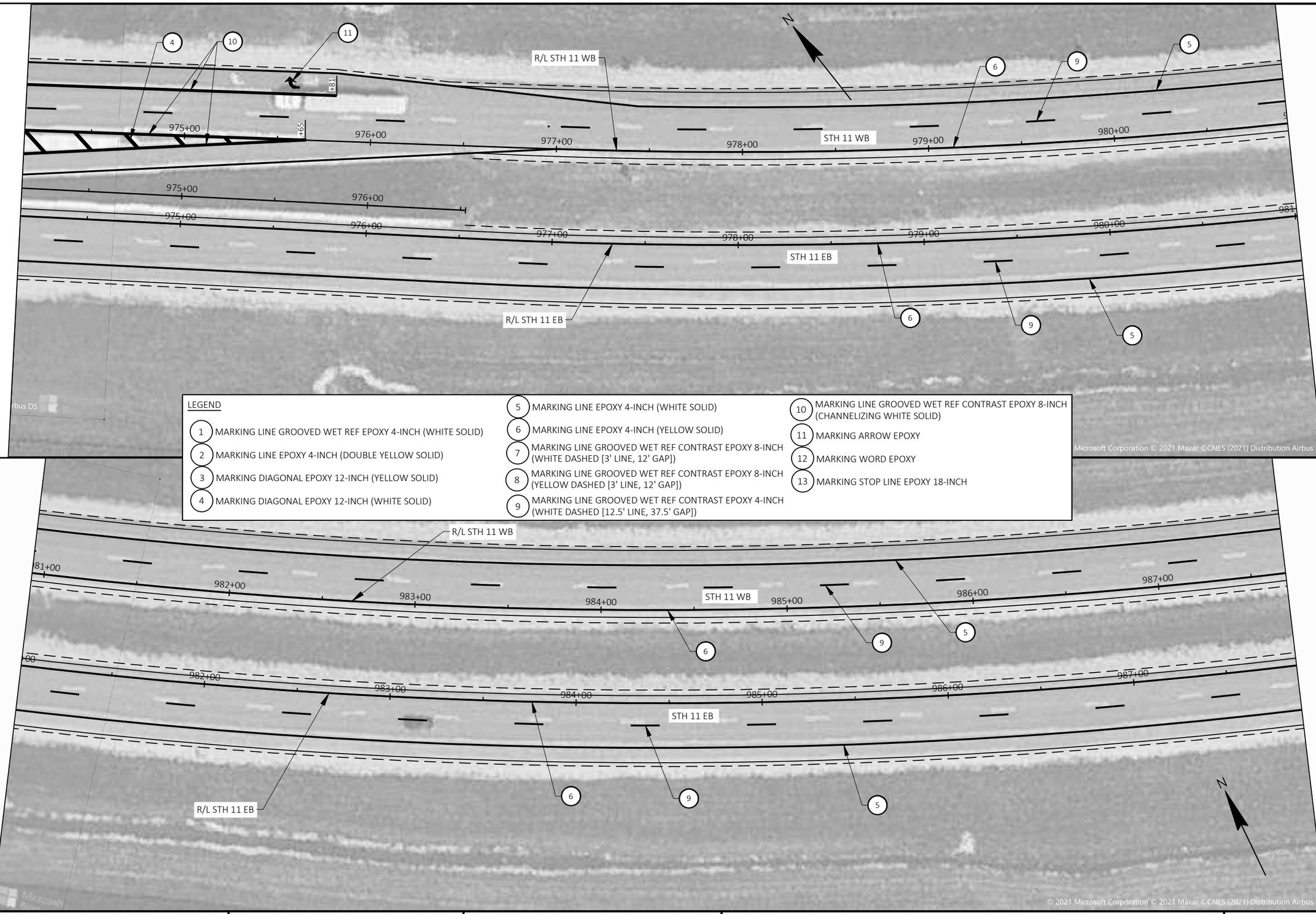
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 67	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 12

PLOT DATE : 1/25/2022 10:12 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

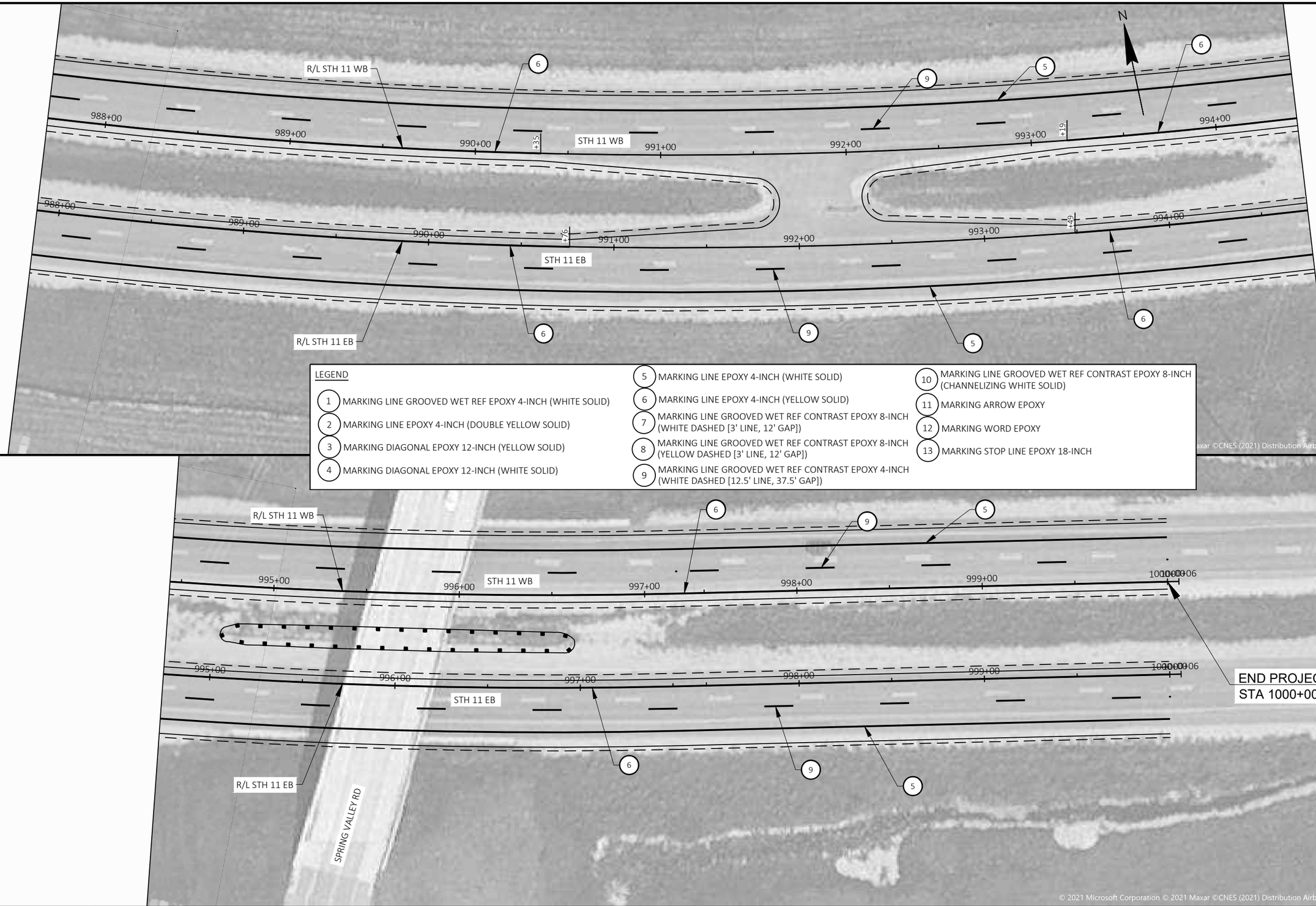


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 68	E

2



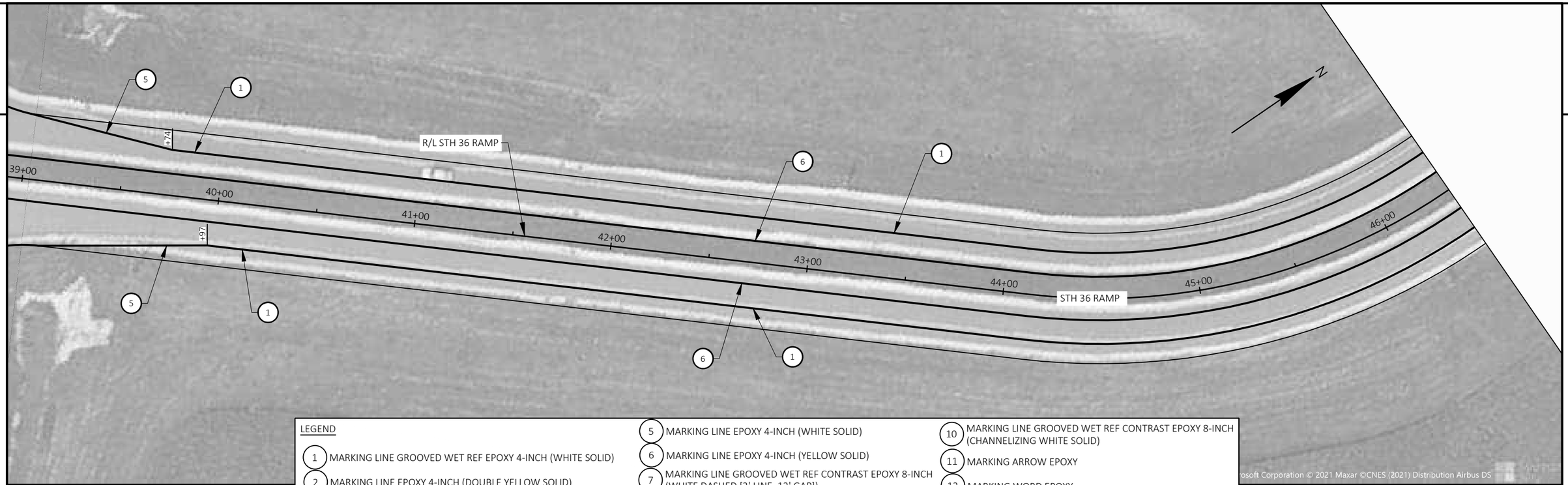
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 69	E

2

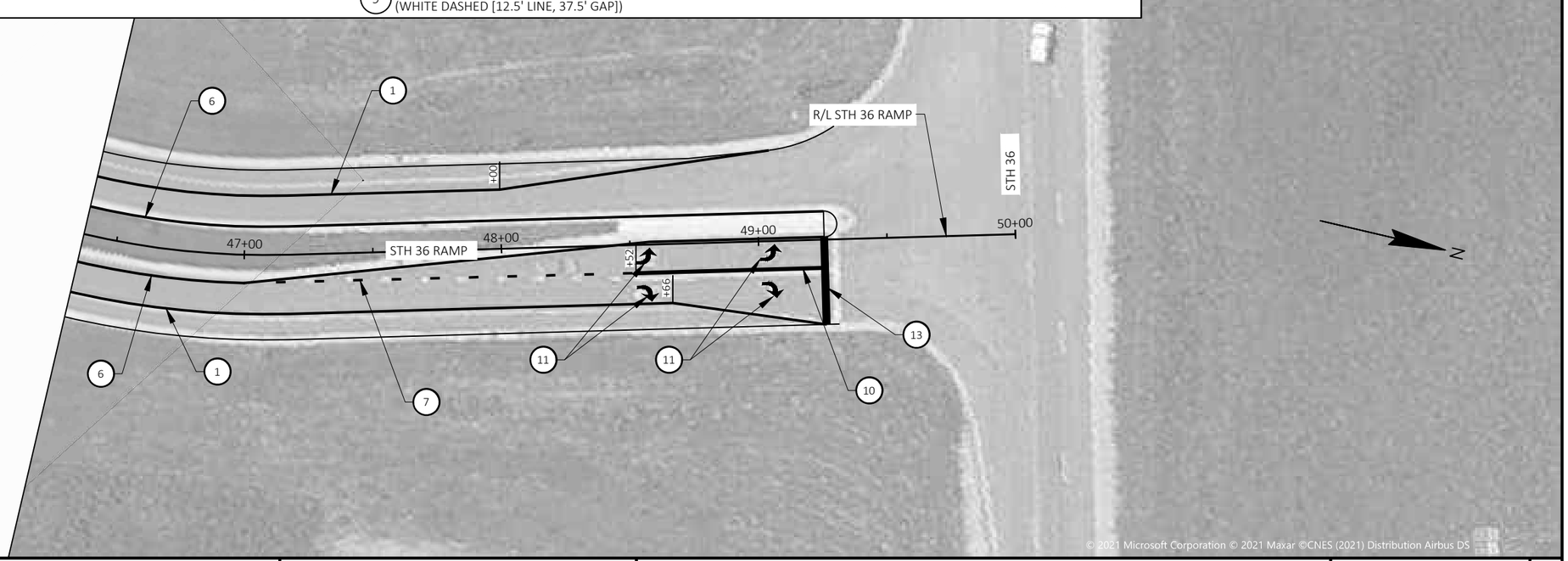
2



osoft Corporation © 2021 Maxar ©CNES (2021) Distribution Airbus DS

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SOLID)
2. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW SOLID)
3. MARKING DIAGONAL EPOXY 12-INCH (YELLOW SOLID)
4. MARKING DIAGONAL EPOXY 12-INCH (WHITE SOLID)
5. MARKING LINE EPOXY 4-INCH (WHITE SOLID)
6. MARKING LINE EPOXY 4-INCH (YELLOW SOLID)
7. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE DASHED [3' LINE, 12' GAP])
8. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (YELLOW DASHED [3' LINE, 12' GAP])
9. MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE DASHED [12.5' LINE, 37.5' GAP])
10. MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (CHANNELIZING WHITE SOLID)
11. MARKING ARROW EPOXY
12. MARKING WORD EPOXY
13. MARKING STOP LINE EPOXY 18-INCH



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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PAVEMENT MARKING PLAN	SHEET 70	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 15

PLOT DATE : 1/20/2022 9:23 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

2

TRAFFIC CONTROL OVERVIEW NOTES:

1. STAGE 1A TO BE COMPLETED UNDER SINGLE LANE CLOSURES UTILIZING SDD TRAFFIC CONTROL LANE CLOSURE AND TRAFFIC CONTROL, SHOULDER CLOSURES ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.

2. COMPLETE WORK ON MEDIAN INLET ADJUSTMENTS, CULVERTS, MGS GUARDRAIL REPLACEMENT, RUMBLE STRIP PLACEMENT AND PAVEMENT MARKING ITEMS UTILIZING SDD TRAFFIC CONTROL LANE CLOSURE AND TRAFFIC CONTROL, SHOULDER CLOSURES ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H. LIMIT LANE CLOSURES DURING THIS WORK TO 1 MILE IN LENGTH. SHOULDER CLOSURES CAN EXTEND FURTHER AT THE APPROVAL OF THE ENGINEER.

3. STAGE 1 AND STAGE 2 SHALL BE COMPLETED UNDER SINGLE LANE CLOSURES WITH TRAFFIC SHIFTED 4 FEET FROM CENTERLINE OF ROADWAY. UTILIZE SDD TRAFFIC CONTROL LANE CLOSURE AND TRAFFIC CONTROL, SHOULDER CLOSURES ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H. LIMIT LANE CLOSURES DURING STAGE 1 AND STAGE 2 TO $\frac{1}{2}$ MILE IN LENGTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.

4. COMPLETE WORK BETWEEN LYONS RD AND CTH JS UNDER FULL ROADWAY CLOSURE. SEE SDD BARRICADES AND SIGNS FOR SIDEROAD CLOSURES AND BARRICADES AND SIGNS FOR MAINLINE CLOSURES. TRAFFIC WILL UTILIZE DETOUR DURING FULL CLOSURE.

5. WORK ON STH 36/STH 11 RAMP CANNOT BE COMPLETED WHILE TRAFFIC IS DETOURED FOR FULL ROADWAY CLOSURE BETWEEN LYONS RD AND CTH JS OR WHILE DETOURED FOR BOX CULVERT WORK UNDER PROJECT ID 1320-22-70.

6. ONE LANE OF TRAFFIC MUST BE MAINTAINED IN EACH DIRECTION AT ALL TIMES EXCEPT WORK COMPLETED WHERE ROADWAY IS FULLY CLOSED AND DETOURED. THIS AREA MUST MAINTAIN ACCESS TO LOCAL TRAFFIC AND EMERGENCY VEHICLES.

7. PLACE PCMS SIGNS NOTIFYING TRAFFIC OF UPCOMING ROAD WORK AND RAMP CLOSURES ON STH 36/STH 11 RAMP AT LEAST 7 DAYS PRIOR TO WORK BEGINNING.

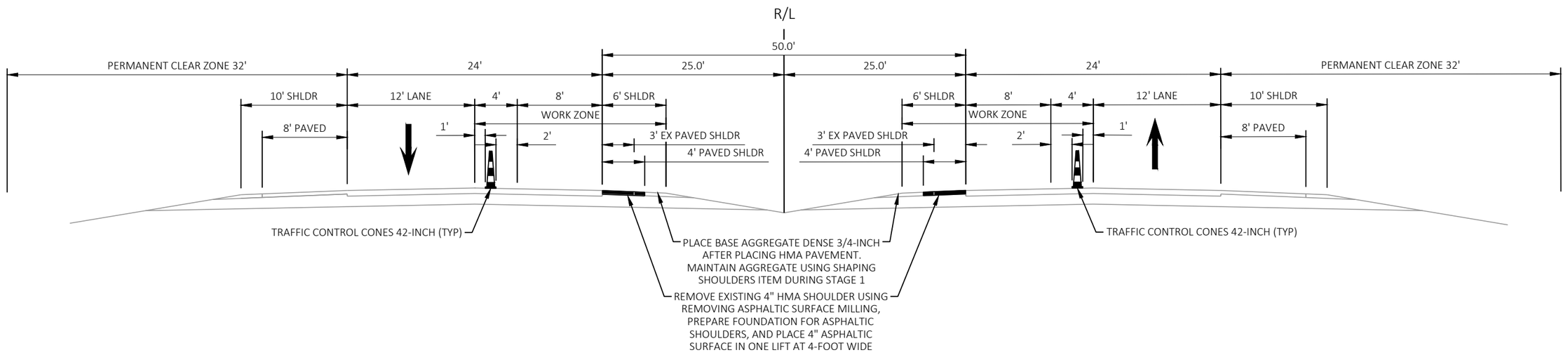
   PCMS MESSAGES

   UPCOMING ROAD WORK
   FRAME 1: ROAD WORK BEGINS

   FRAME 2: XXXDAY XX XX XX (DATE)

   STH 36/STH 11 RAMP CLOSURE
   FRAME 1: RAMP CLOSED BEGINS

   FRAME 2: XXXDAY XX XX XX (DATE)

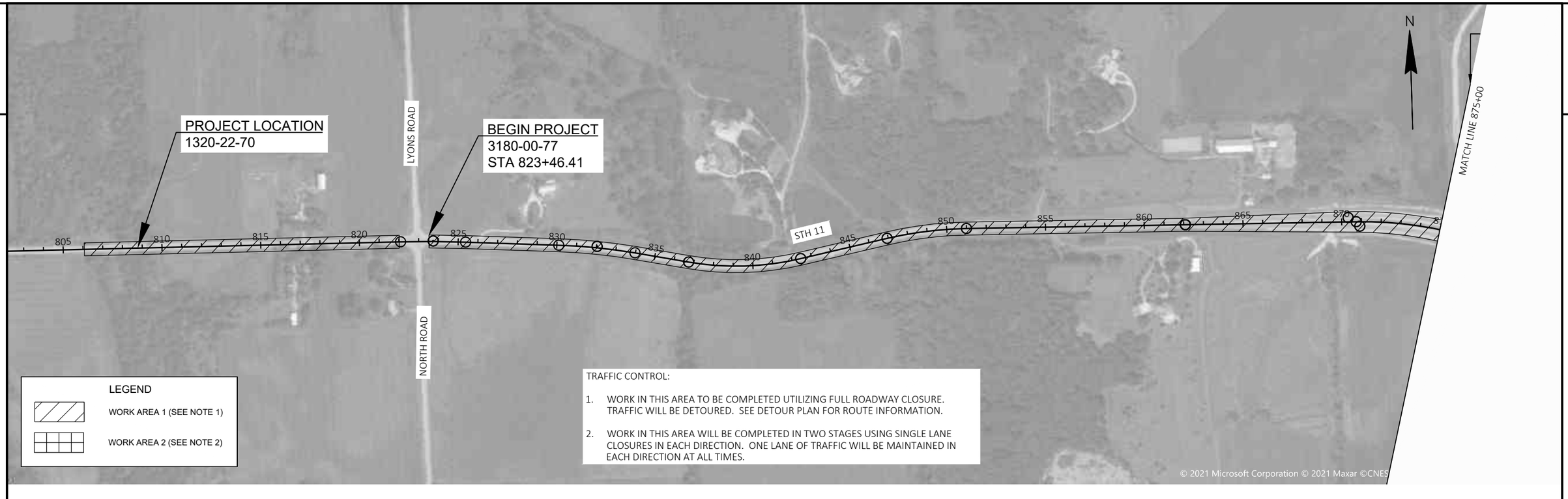


TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION RURAL

STAGE 1A (TO BE COMPLETED PRIOR TO MILLING AND OVERLAY OPERATIONS)

STA 976+52.68 TO 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 OVERVIEW	SHEET 71	E

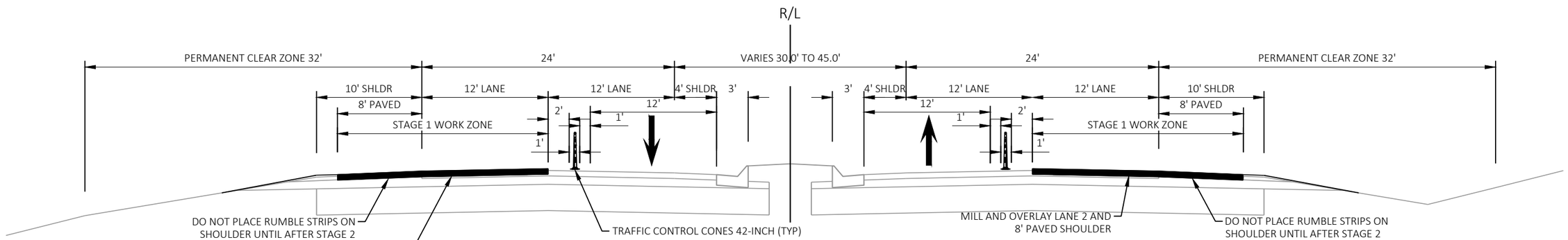


2

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 1	SHEET 72	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/20/2022 3:42 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

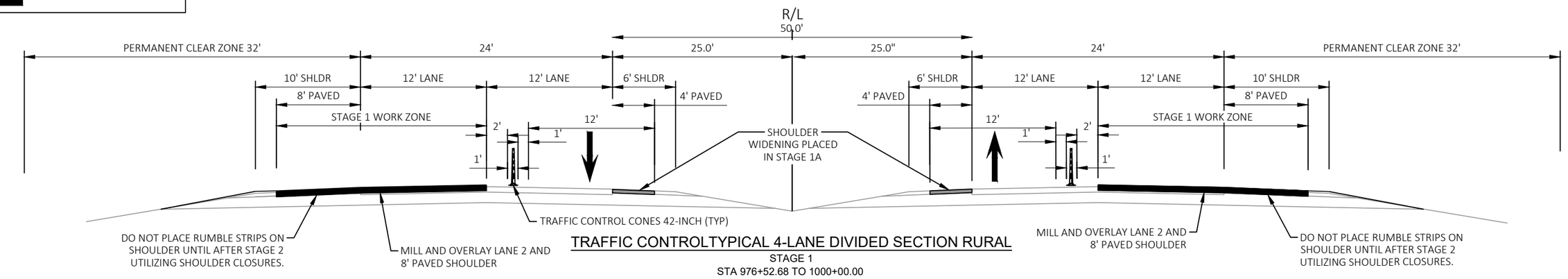




TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION URBAN

STAGE 1
STA 885+00.00 TO 976+52.68

LEGEND
STAGE 1 MILL AND OVERLAY



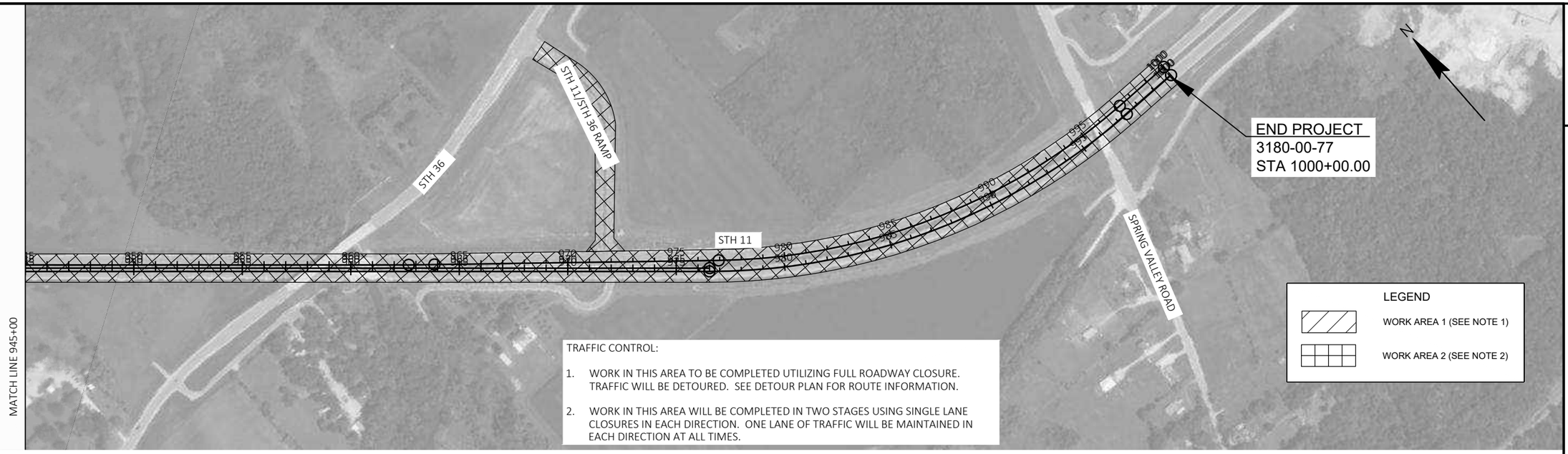
TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION RURAL

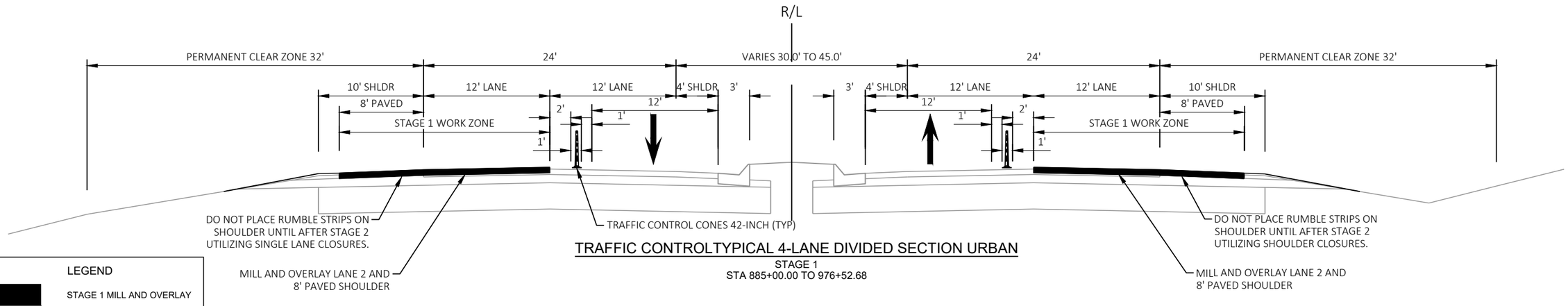
STAGE 1
STA 976+52.68 TO 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 1	SHEET 73	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 1/20/2022 3:42 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

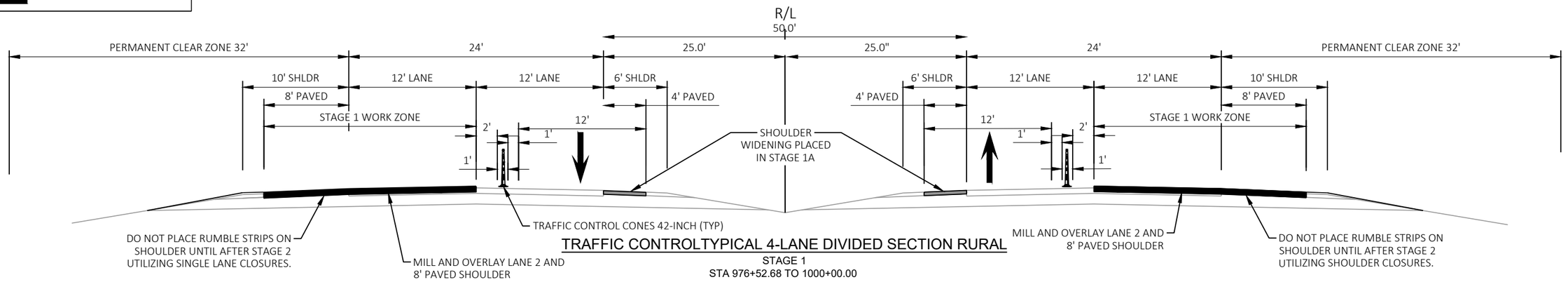
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TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION URBAN

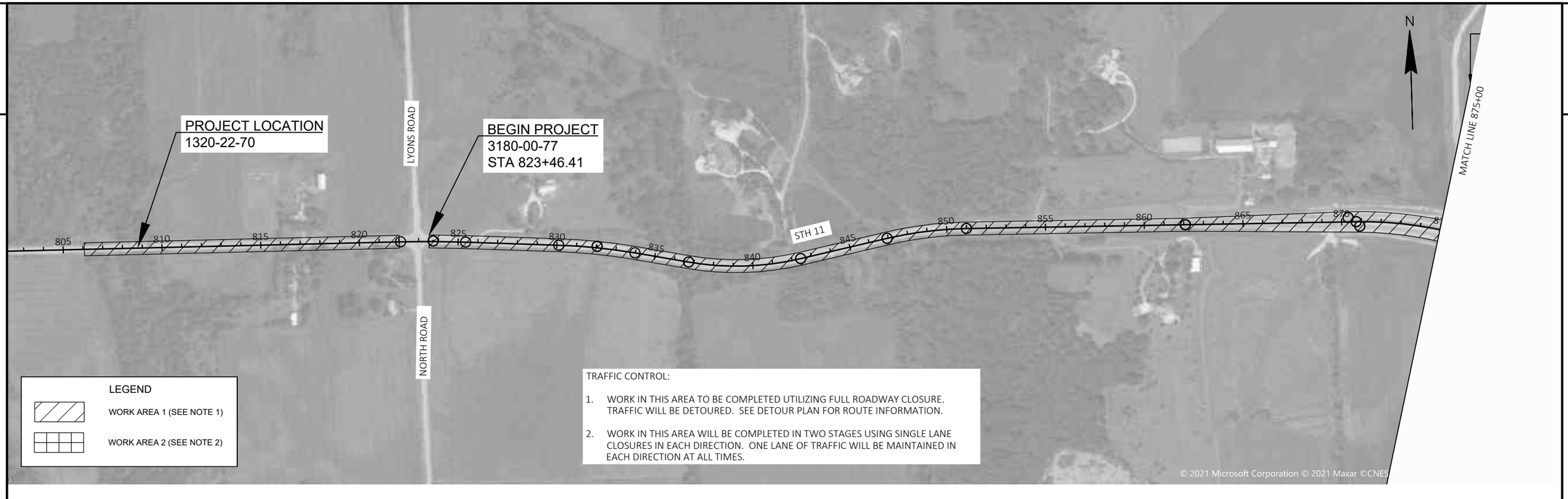
STAGE 1
STA 885+00.00 TO 976+52.68



TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION RURAL

STAGE 1
STA 976+52.68 TO 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 1	SHEET 74	E



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 2	SHEET 75	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/20/2022 3:43 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:500 FT

2

LEGEND

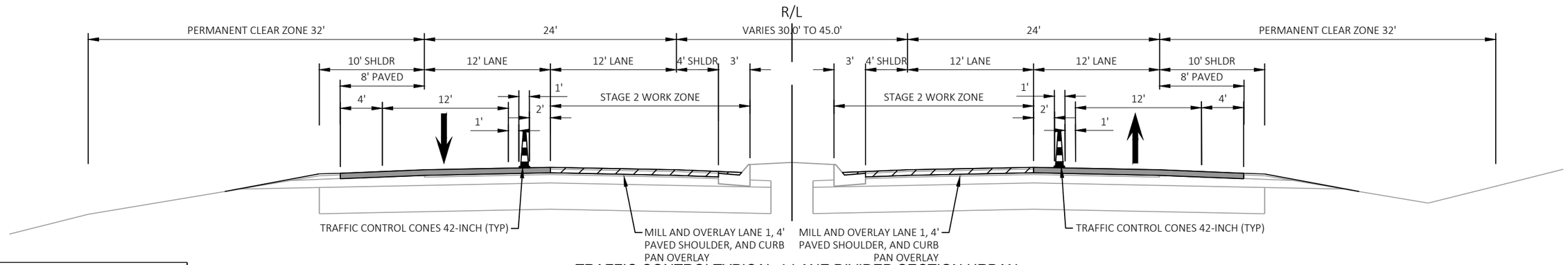
WORK AREA 1 (SEE NOTE 1)

WORK AREA 2 (SEE NOTE 2)

TRAFFIC CONTROL:

1. WORK IN THIS AREA TO BE COMPLETED UTILIZING FULL ROADWAY CLOSURE. TRAFFIC WILL BE DETOURED. SEE DETOUR PLAN FOR ROUTE INFORMATION.
2. WORK IN THIS AREA WILL BE COMPLETED IN TWO STAGES USING SINGLE LANE CLOSURES IN EACH DIRECTION. ONE LANE OF TRAFFIC WILL BE MAINTAINED IN EACH DIRECTION AT ALL TIMES.



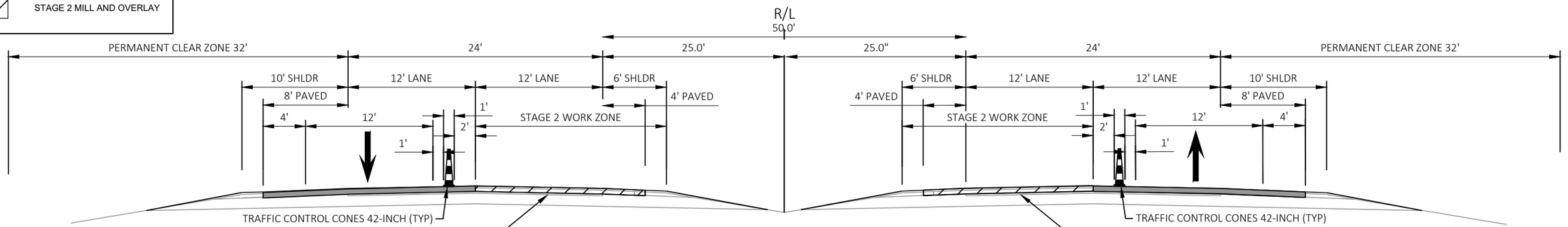


TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION URBAN

STAGE 2
STA 885+00.00 TO 976+52.68

LEGEND

STAGE 2 MILL AND OVERLAY

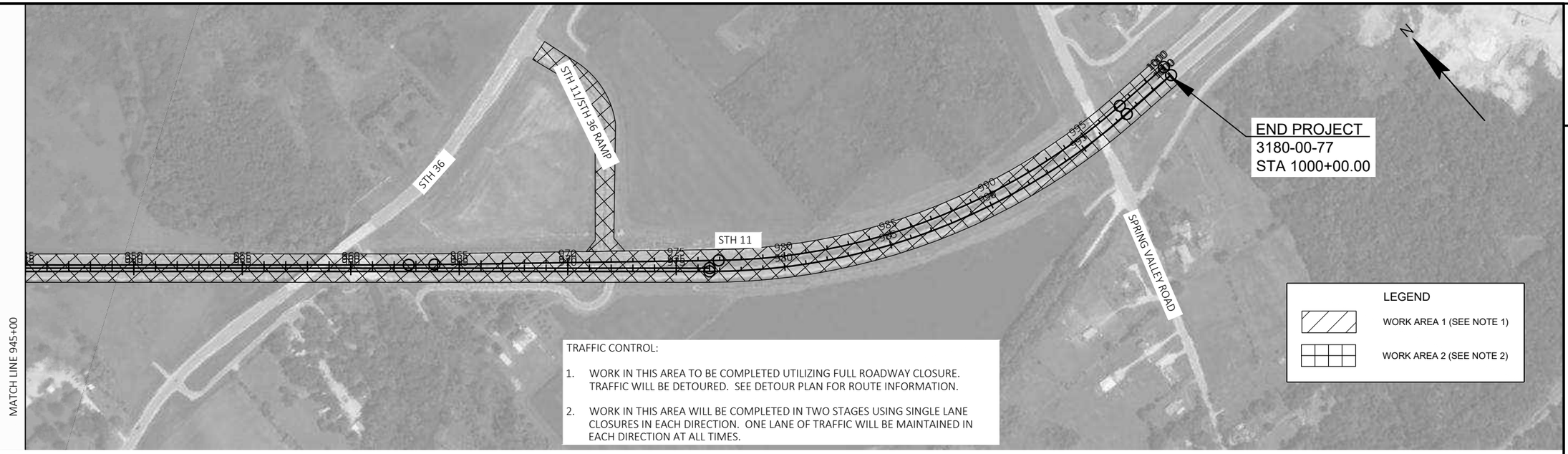


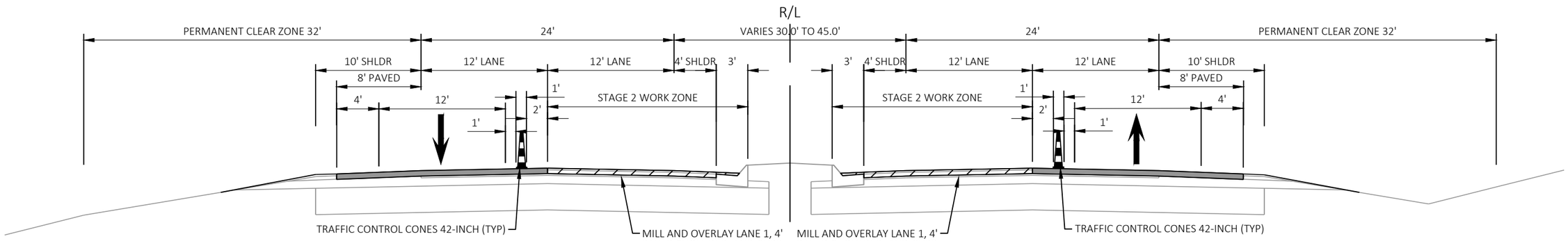
TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION RURAL

STAGE 2
STA 976+52.68 TO 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 2	SHEET 76	E

2

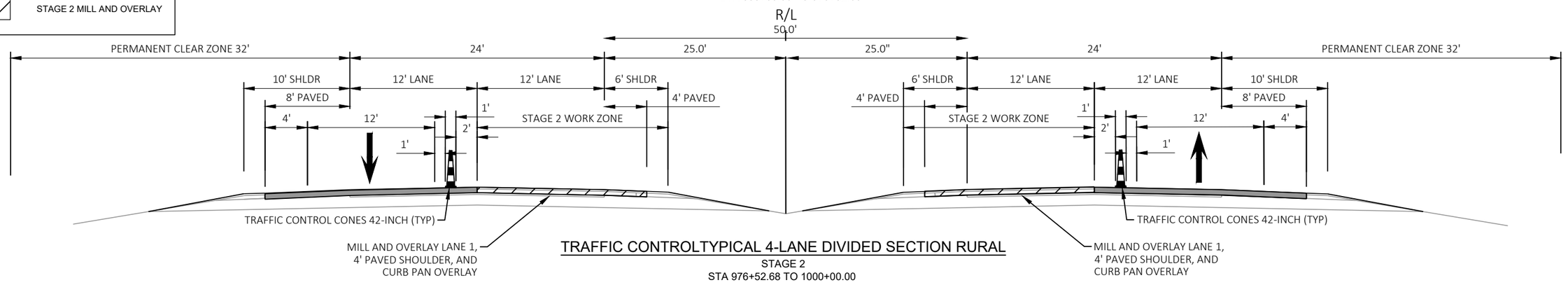




TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION URBAN

STAGE 2
STA 885+00.00 TO 976+52.68





TRAFFIC CONTROLTYPICAL 4-LANE DIVIDED SECTION RURAL

STAGE 2
STA 976+52.68 TO 1000+00.00

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STH 11 STAGE 2	SHEET 77	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/25/2022 10:21 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

2

PROJECT LOCATION
1320-22-70
BOX CULVERT AT
INDIAN RUN CREEK

BEGIN PROJECT
3180-00-77

LYONS RD/NORTH RD

BEGIN FULL CLOSURE
PROJECT 3180-00-77

END FULL CLOSURE
PROPJECT 3180-00-77

BEGIN FULL CLOSURE
PROJECT 1320-22-70

END FULL CLOSURE
PROJECT 1320-22-70

PRAIRIE RD

HOSPITAL RD

CLAUSEN RD

COUNTY JS

END PROJECT
3180-00-77

Spring Prairie

Burlington Municipal Airport

Echo Lake

Browns Lake Golf Course

Browns Lake

Rockland Lake

Bushnell Park

Saint Charles Cemetery

Waller Elementary School

Bushnell High School

Burlington

Burlington Byp

Lyons

State Road 11

State Road 120

State Road 36

State Route 83 Byp

Milwaukee Ave

Milwaukee Ave S

S Browns Lake Dr

S Pine St

S Main St

S Bridge St

S Church St

S Mckenny St

W Chestnut St

E Chestnut St

E State St

W State St

Durand Ave

Bushnell Rd

S Tout Rd

Brown Lake Dr

N

A

MAX. 12' WIDTH — W12-52 48"X48"

4 MILES AHEAD — WO57-52 48"X36"

B

MAX. 12' WIDTH — W12-52 48"X48"

2 MILES AHEAD — WO57-52 48"X36"

1

NORTH 11 — M3-1 24"X12", M1-6 24"X24"

MAX. 12' WIDTH — W12-52 48"X48"

2

SOUTH 11 — M3-3 24"X12", M1-6 24"X24"

MAX. 12' WIDTH — W12-52 48"X48"

3

NORTH / SOUTH 11 — M3-1 24"X12", M3-3 24"X12", M1-6 24"X24"

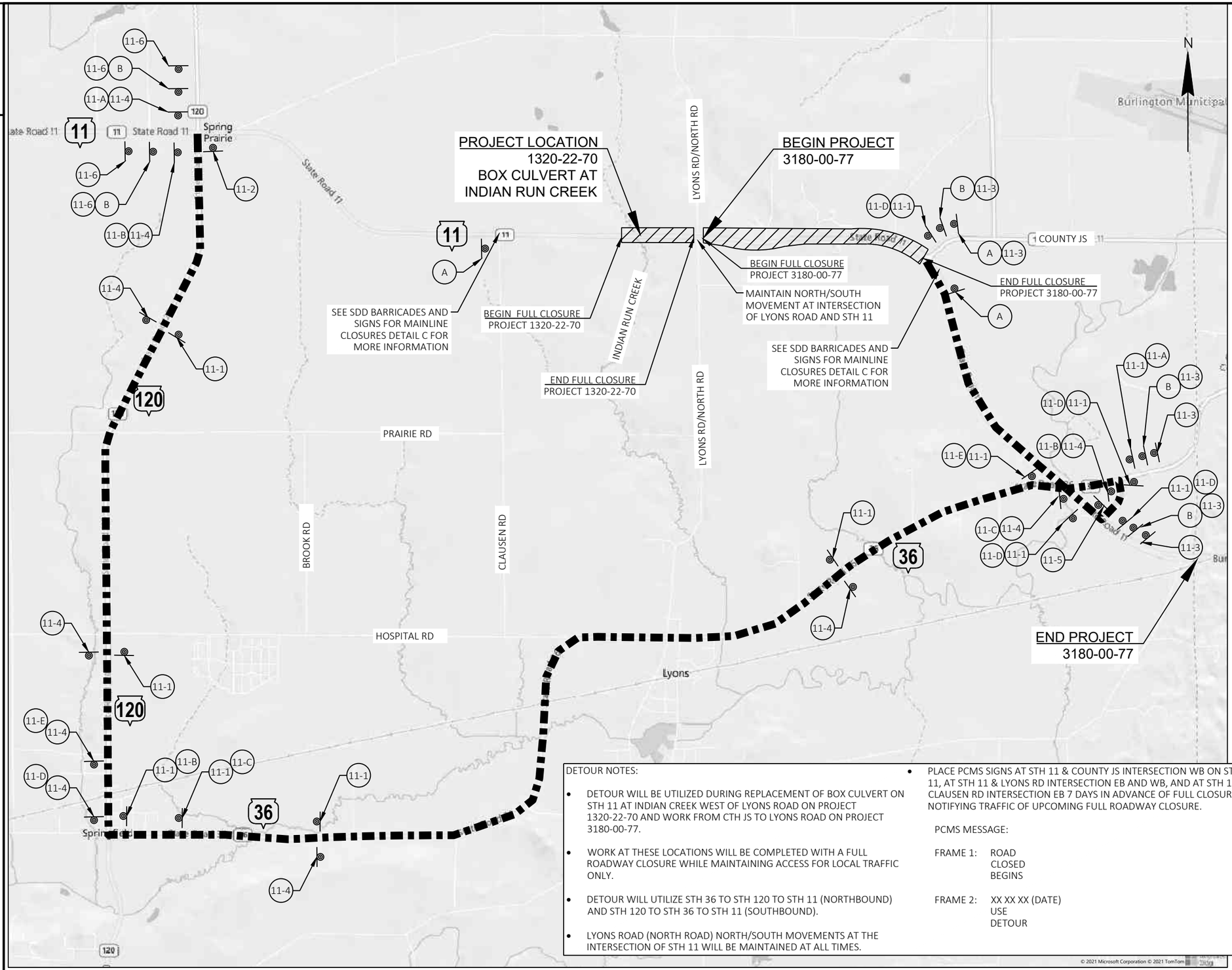
MAX. 12' WIDTH — W12-52 48"X48"

LEGEND

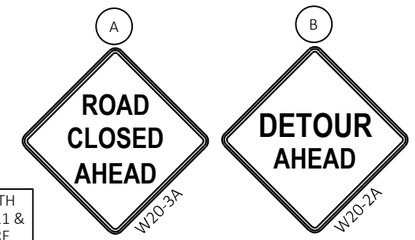
- LANE CLOSURE WORK
- FULL CLOSURE
- POST MOUNTED SIGN
- (x) WIDTH RESTRICTION SIGN

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	TRAFFIC CONTROL - STAGE 1 ADVANCED WIDTH RESTRICTION SIGNING	SHEET 78	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 01 (2)
PLOT DATE : 1/17/2022 11:03 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN: 3000 FT
WISDOT/CADDS SHEET 42



11-1	DETOUR / NORTH / 11	M4-8 24"X12", M3-1 24"X12", M1-6 24"X24"
11-2	END DETOUR / NORTH / 11	M4-8A 24"X18", M3-1 24"X12", M1-6 24"X24"
11-3	NORTH / 11	M3-1 24"X12", M1-6 24"X24"
11-4	DETOUR / SOUTH / 11	M4-8 24"X12", M3-3 24"X12", M1-6 24"X24"
11-5	END DETOUR / SOUTH / 11	M4-8A 24"X18", M3-3 24"X12", M1-6 24"X24"
11-6	SOUTH / 11	M3-3 24"X12", M1-6 24"X24"
11-A		MO6-1 21"X21"
11-B		MO6-1 21"X21"
11-C		MO5-1R 21"X21"
11-D		MO6-1 21"X21"
11-E		MO5-1L 21"X21"



DETOUR NOTES:

- DETOUR WILL BE UTILIZED DURING REPLACEMENT OF BOX CULVERT ON STH 11 AT INDIAN CREEK WEST OF LYONS ROAD ON PROJECT 1320-22-70 AND WORK FROM CTH JS TO LYONS ROAD ON PROJECT 3180-00-77.
- WORK AT THESE LOCATIONS WILL BE COMPLETED WITH A FULL ROADWAY CLOSURE WHILE MAINTAINING ACCESS FOR LOCAL TRAFFIC ONLY.
- DETOUR WILL UTILIZE STH 36 TO STH 120 TO STH 11 (NORTHBOUND) AND STH 120 TO STH 36 TO STH 11 (SOUTHBOUND).
- LYONS ROAD (NORTH ROAD) NORTH/SOUTH MOVEMENTS AT THE INTERSECTION OF STH 11 WILL BE MAINTAINED AT ALL TIMES.
- PLACE PCMS SIGNS AT STH 11 & COUNTY JS INTERSECTION WB ON STH 11, AT STH 11 & LYONS RD INTERSECTION EB AND WB, AND AT STH 11 & CLAUSEN RD INTERSECTION EB 7 DAYS IN ADVANCE OF FULL CLOSURE NOTIFYING TRAFFIC OF UPCOMING FULL ROADWAY CLOSURE.

PCMS MESSAGE:

FRAME 1: ROAD CLOSED BEGINS

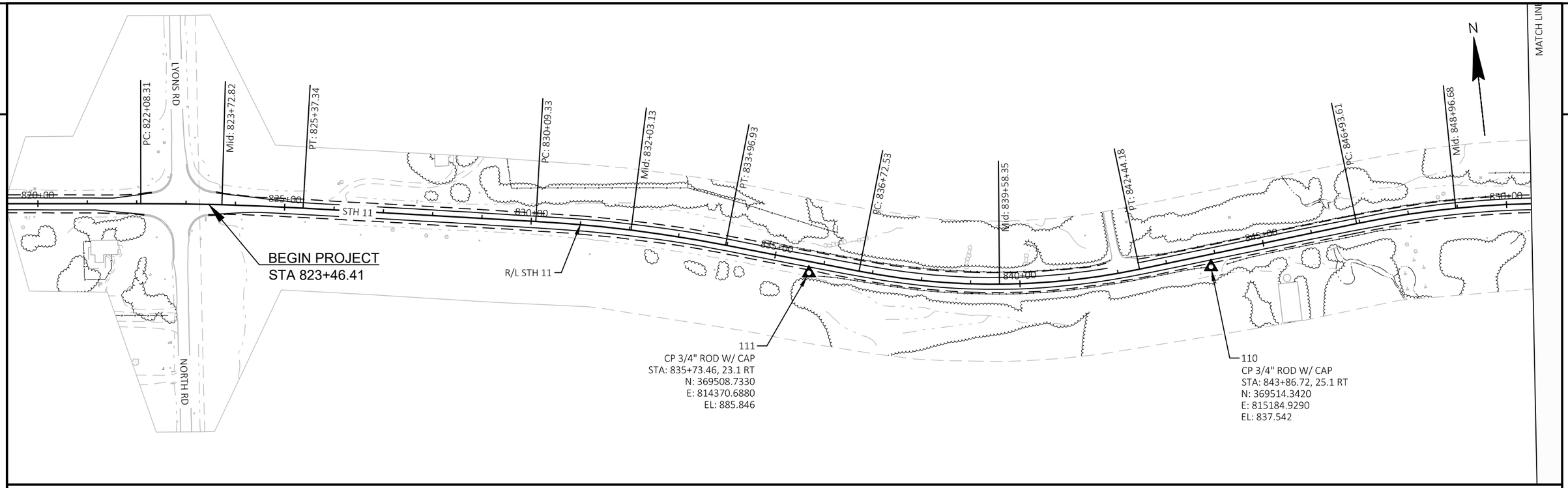
FRAME 2: XX XX XX (DATE) USE DETOUR

LEGEND

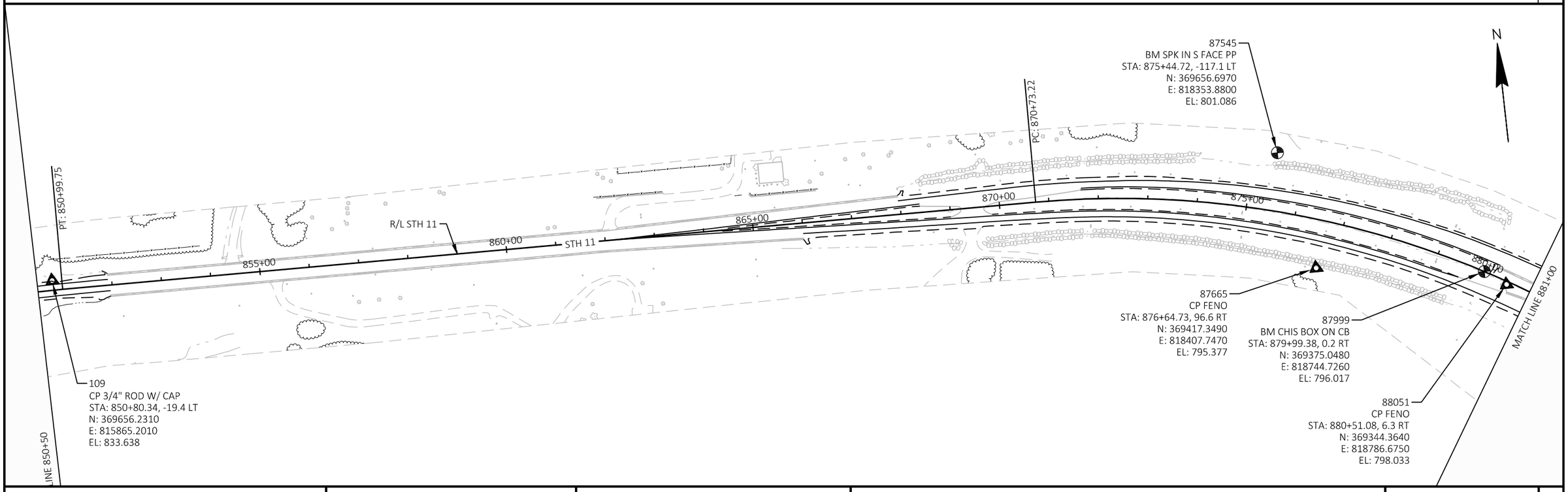
- DETOUR ROUTE
- WORK ZONE
- POST MOUNTED SIGN
- (X) DETOUR SIGN

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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	DETOUR PLAN	SHEET 79	E

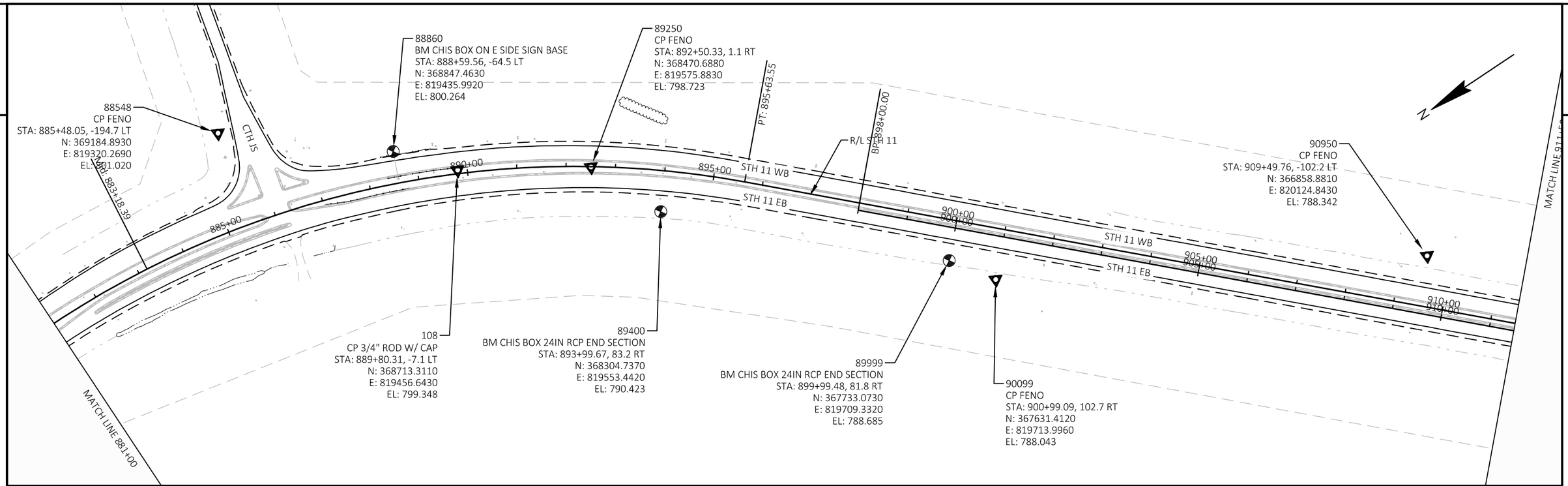


2



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	ALIGNMENT LAYOUT SURVEY CONTROL OVERVIEW	SHEET 80	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 01
PLOT DATE : 1/17/2022 11:07 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	ALIGNMENT LAYOUT SURVEY CONTROL OVERVIEW	SHEET 81	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 02
PLOT DATE : 1/17/2022 11:08 AM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE 942+00

94288
CP FENO
STA: 942+87.82, -66.2 LT
N: 364094.8560
E: 821734.3280
EL: 779.478

95714
CP FENO
STA: 957+13.61, 0.5 RT
N: 363107.0310
E: 822764.6290
EL: 780.950

105
CP 3/4" ROD W/ CAP
STA: 957+42.95, -0.6 LT
N: 363088.5940
E: 822787.4770
EL: 781.109

97173
CP FENO
STA: 38+76.69, -0.6 LT
N: 362219.3600
E: 823927.1730
EL: 786.281

104
CP SURVEY NAIL
STA: 963+50.40, -49.0 LT
N: 362725.6030
E: 823276.9520
EL: 783.549

R/L STH 11

R/L STH 36 RAMP

945+00
950+00
955+00
960+00
965+00
970+00

STH 11 WB

STH 11 EB

R/L STH 11 EB

STH 36

95137
CP FENO
STA: 951+36.85, 62.9 RT
N: 363439.3570
E: 822289.1380
EL: 775.978

95149
BM CHIS BOX RCP PIPE
STA: 951+49.26, 70.2 RT
N: 363425.6860
E: 822293.6790
EL: 775.506

96006
MON ALUM STRUCT B-64-163
STA: 960+05.85, 50.1 RT
N: 362877.5590
E: 822952.2390
EL: 784.044

96107
MON ALUM STRUCT B-64-164
STA: 961+06.91, -49.9 LT
N: 362886.4340
E: 823094.1360
EL: 784.588

96301
CP FENO
STA: 963+00.92, 73.7 RT
N: 362665.7400
E: 823159.0140
EL: 780.135

MATCH LINE 972+50

2

MATCH LINE 972+50

98101
BM CHIS BOX ON CB
STA: 981+03.43, -25.4 LT
N: 361573.4720
E: 824590.6260
EL: 780.481

98605
BM CHIS BOX NE COR CB
STA: 986+09.91, -23.8 LT
N: 361342.2260
E: 825035.7210
EL: 786.168

100
CP 3/4" ROD W/ CAP
STA: 995+51.44, -10.9 LT
N: 361119.5040
E: 825940.6520
EL: 790.041

101
CP 3/4" ROD W/ CAP
STA: 997+27.62, -23.2 LT
N: 361125.4450
E: 826116.1020
EL: 788.378

100018
BM CHIS X ON CB CL S SIDE
STA: 0+00.00, 0.0
N: 361127.5530
E: 826417.8550
EL: 785.185

R/L STH 11

975+00
980+00
985+00
990+00
995+00
1000+00

Mid: 987+02.88

STH 11 WB

STH 11 EB

R/L STH 11 EB

PC: 997+35.07

STA BACK = 997+33.08
STA AHEAD = 997+35.07

END PROJECT
STA 1000+00.00

97830
CP FENO
STA: 978+31.15, 51.1 RT
N: 361667.3630
E: 824322.7440
EL: 782.483

98324
CP FENO
STA: 983+27.67, -32.8 LT
N: 361468.7950
E: 824786.4760
EL: 784.884

98901
CP FENO
STA: 989+07.04, -31.8 LT
N: 361252.1000
E: 825315.8530
EL: 789.577

99432
CP FENO
STA: 994+41.58, 79.6 RT
N: 361038.7450
E: 825822.2160
EL: 788.993

99418
BM SPK N FACE PP 07-18856
STA: 994+27.61, 128.6 RT
N: 360991.5160
E: 825802.6310
EL: 794.905

SPRING VALLEY RD

100000
CP FENO
STA: 999+92.95, -34.2 LT
N: 361137.2120
E: 826399.2100
EL: 786.602

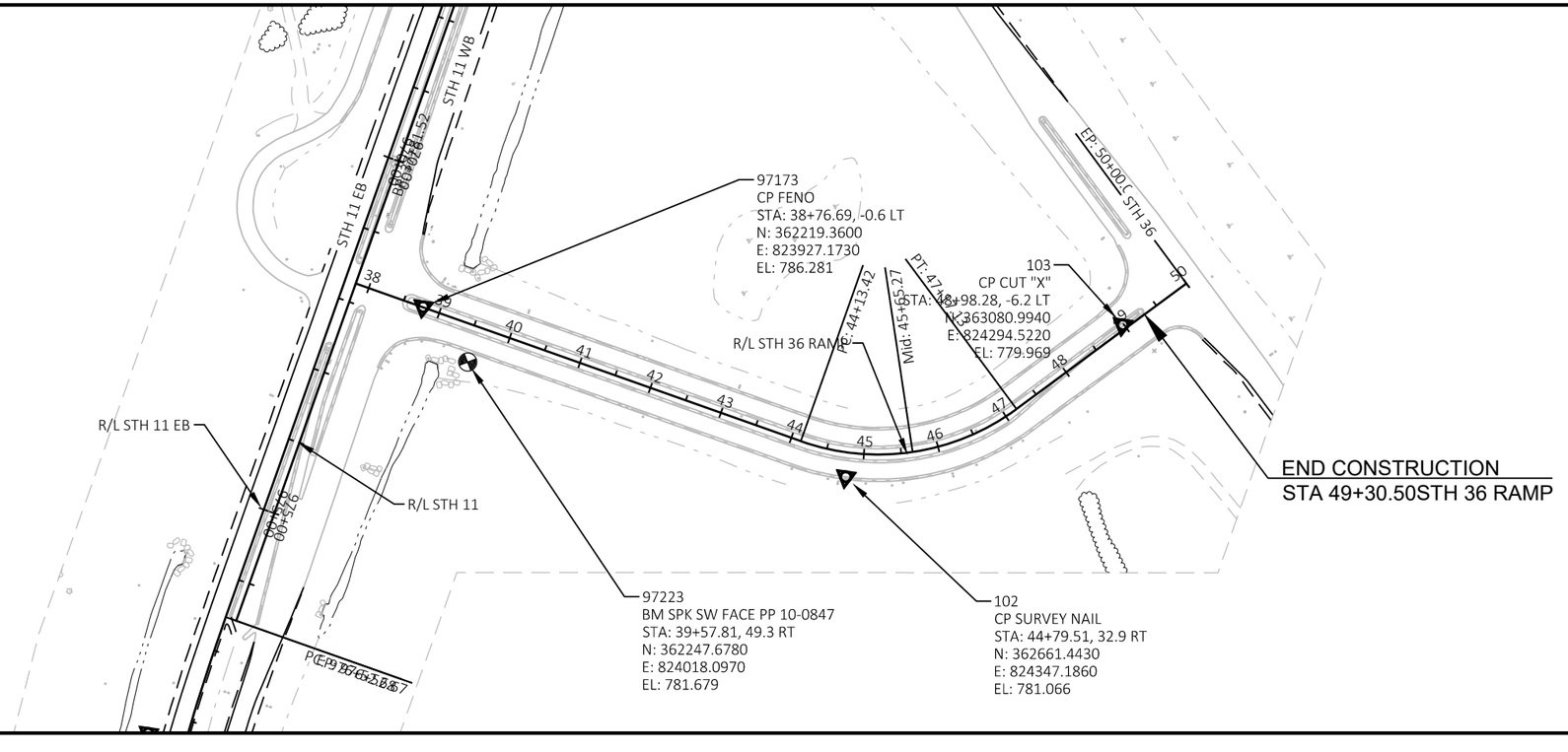
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	ALIGNMENT LAYOUT SURVEY CONTROL OVERVIEW	SHEET 82	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 03

PLOT DATE : 1/17/2022 11:08 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	ALIGNMENT LAYOUT SURVEY CONTROL OVERVIEW	SHEET 83	E

3180-00-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	35.000	35.000
0008	203.0220	Removing Structure (structure) 01. C-64-8	EACH	1.000	1.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,198.000	1,198.000
0016	204.0120	Removing Asphaltic Surface Milling	SY	137,090.000	137,090.000
0018	204.0130	Removing Curb	LF	725.000	725.000
0020	204.0150	Removing Curb & Gutter	LF	1,900.000	1,900.000
0022	204.0165	Removing Guardrail	LF	5,268.000	5,268.000
0026	204.9060.S	Removing (item description) 01. Apron Endwalls For Culvert Pipe Steel 24-Inch	EACH	5.000	5.000
0030	206.2000	Excavation for Structures Culverts (structure) 01. C-64-8	LS	1.000	1.000
0038	210.1500	Backfill Structure Type A	TON	190.000	190.000
0042	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 3180-00-77	LS	1.000	1.000
0046	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	80.000	80.000
0048	213.0100	Finishing Roadway (project) 01. 3180-00-77	EACH	1.000	1.000
0052	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,512.000	3,512.000
0054	305.0500	Shaping Shoulders	STA	58.000	58.000
0056	311.0110	Breaker Run	TON	4.000	4.000
0062	455.0605	Tack Coat	GAL	22,180.000	22,180.000
0064	460.0115.S	HMA Pavement Test Strips Volumetrics	EACH	1.000	1.000
0066	460.0120.S	HMA Pavement Test Strips Density	EACH	1.000	1.000
0068	460.2000	Incentive Density HMA Pavement	DOL	14,760.000	14,760.000
0070	460.2005	Incentive Density PWL HMA Pavement	DOL	9,163.000	9,163.000
0072	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	30,120.000	30,120.000
0074	460.2010	Incentive Air Voids HMA Pavement	DOL	13,825.000	13,825.000
0076	460.6223	HMA Pavement 3 MT 58-28 S	TON	23,050.000	23,050.000
0078	460.6224	HMA Pavement 4 MT 58-28 S	TON	13,825.000	13,825.000
0080	465.0105	Asphaltic Surface	TON	550.000	550.000
0082	465.0400	Asphaltic Shoulder Rumble Strips	LF	42,400.000	42,400.000
0084	502.4205	Adhesive Anchors No. 5 Bar	EACH	28.000	28.000
0086	504.0100	Concrete Masonry Culverts	CY	31.000	31.000
0088	505.0400	Bar Steel Reinforcement HS Structures	LB	800.000	800.000
0090	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,700.000	1,700.000
0092	509.1500	Concrete Surface Repair	SF	100.000	100.000
0094	511.1200	Temporary Shoring (structure) 01. C-64-8	SF	925.000	925.000
0096	516.0500	Rubberized Membrane Waterproofing	SY	10.000	10.000
0098	520.8700	Cleaning Culvert Pipes	EACH	83.000	83.000
0100	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	5.000	5.000
0102	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	1,900.000	1,900.000
0106	606.0200	Riprap Medium	CY	1.000	1.000
0108	606.0300	Riprap Heavy	CY	20.000	20.000
0110	611.8115	Adjusting Inlet Covers	EACH	140.000	140.000
0114	614.0010	Barrier System Grading Shaping Finishing	EACH	18.000	18.000
0116	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
0118	614.0230	Steel Thrie Beam	LF	187.500	187.500
0122	614.2300	MGS Guardrail 3	LF	1,900.000	1,900.000
0124	614.2330	MGS Guardrail 3 K	LF	2,237.500	2,237.500
0126	614.2500	MGS Thrie Beam Transition	LF	237.000	237.000
0128	614.2610	MGS Guardrail Terminal EAT	EACH	14.000	14.000
0130	614.2620	MGS Guardrail Terminal Type 2	EACH	8.000	8.000
0134	618.0100	Maintenance And Repair of Haul Roads (project) 01. 3180-00-77	EACH	1.000	1.000

3180-00-77

Line	Item	Item Description	Unit	Total	Qty
0136	619.1000	Mobilization	EACH	0.840	0.840
0138	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0140	624.0100	Water	MGAL	67.300	67.300
0142	625.0100	Topsoil	SY	7,812.000	7,812.000
0146	628.1104	Erosion Bales	EACH	70.000	70.000
0148	628.1504	Silt Fence	LF	6,280.000	6,280.000
0150	628.1520	Silt Fence Maintenance	LF	6,280.000	6,280.000
0152	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0154	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0156	628.2008	Erosion Mat Urban Class I Type B	SY	13,192.000	13,192.000
0162	628.7020	Inlet Protection Type D	EACH	140.000	140.000
0164	628.7504	Temporary Ditch Checks	LF	700.000	700.000
0166	628.7555	Culvert Pipe Checks	EACH	36.000	36.000
0168	628.7570	Rock Bags	EACH	230.000	230.000
0170	629.0210	Fertilizer Type B	CWT	5.000	5.000
0172	630.0130	Seeding Mixture No. 30	LB	195.000	195.000
0174	630.0160	Seeding Mixture No. 60	LB	42.000	42.000
0176	630.0200	Seeding Temporary	LB	212.000	212.000
0178	630.0500	Seed Water	MGAL	178.000	178.000
0182	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	34.000	34.000
0184	637.1220	Signs Type I Reflective SH	SF	265.500	265.500
0188	638.2102	Moving Signs Type II	EACH	31.000	31.000
0190	638.2601	Removing Signs Type I	EACH	3.000	3.000
0192	638.3000	Removing Small Sign Supports	EACH	14.000	14.000
0194	642.5001	Field Office Type B	EACH	0.840	0.840
0196	643.0300	Traffic Control Drums	DAY	3,350.000	3,350.000
0198	643.0420	Traffic Control Barricades Type III	DAY	1,070.000	1,070.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	1,930.000	1,930.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	1,920.000	1,920.000
0204	643.0800	Traffic Control Arrow Boards	DAY	90.000	90.000
0206	643.0900	Traffic Control Signs	DAY	14,040.000	14,040.000
0208	643.0910	Traffic Control Covering Signs Type I	EACH	15.000	15.000
0212	643.1050	Traffic Control Signs PCMS	DAY	74.000	74.000
0214	643.1070	Traffic Control Cones 42-Inch	DAY	10,400.000	10,400.000
0216	643.5000	Traffic Control	EACH	0.840	0.840
0218	645.0105	Geotextile Type C	SY	7.000	7.000
0220	645.0120	Geotextile Type HR	SY	42.000	42.000
0224	646.1020	Marking Line Epoxy 4-Inch	LF	61,050.000	61,050.000
0226	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	12,905.000	12,905.000
0228	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	5,130.000	5,130.000
0230	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	5,685.000	5,685.000
0232	646.4505	Marking Line Same Day Paint 4-Inch	LF	11,700.000	11,700.000
0234	646.5020	Marking Arrow Epoxy	EACH	10.000	10.000
0236	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0238	646.6120	Marking Stop Line Epoxy 18-Inch	LF	90.000	90.000
0240	646.7120	Marking Diagonal Epoxy 12-Inch	LF	480.000	480.000
0242	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	12,000.000	12,000.000
0244	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	50.000	50.000
0250	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,900.000	1,900.000

3180-00-77

Line	Item	Item Description	Unit	Total	Qty
0254	650.8000	Construction Staking Resurfacing Reference	LF	18,852.000	18,852.000
0258	650.9910	Construction Staking Supplemental Control (project) 01. 3180-00-77	LS	1.000	1.000
0260	690.0150	Sawing Asphalt	LF	950.000	950.000
0262	690.0250	Sawing Concrete	LF	710.000	710.000
0266	740.0440	Incentive IRI Ride	DOL	5,200.000	5,200.000
0274	SPV.0090	Special 02. Ditching and Shaping	LF	1,750.000	1,750.000

3

REMOVALS

LOCATION			204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS (SY)	204.0120 REMOVING ASPHALTIC SURFACE MILLING (SY)	204.9060.S.01 REMOVING APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH (EACH)
Lyons Rd	to	835+21	223	5325	4
835+21	to	841+89	-	2949	-
841+89	to	851+00	54	4172	-
851+00	to	862+10	-	4932	-
862+10	to	873+00	-	5964	-
873+00	to	880+85	-	5346	-
880+85	to	885+00	-	3909	-
885+00	to	887+50	209	3324	1
887+50	to	898+00	-	8431	-
898+00	to	908+00	-	7998	-
908+00	to	917+16	-	7322	-
917+16	to	922+40	-	4208	-
922+40	to	936+80	-	11620	-
936+80	to	956+00	-	15348	-
956+00	to	969+90	-	12209	-
969+90	to	971+75	-	1881	-
971+75	to	975+80	-	4177	-
975+80	to	1000+00	389	19073	-
STH 36 RAMP			323	5651	-
STAGE 1A WORK			-	1567	-
UNDISTRIBUTED			-	1684	-
			1,198	**137,090**	**5**

BASE AGGREGATE DENSE

LOCATION			305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0500 SHAPING SHOULDERS (STA)	624.0100 WATER (MGAL)
STAGE 1A			244	47	4.9
LYONS RD	to	835+21	230	-	4.6
835+21	to	852+00	328	-	6.6
866+00	to	880+00	454	-	9.1
880+00	to	976+50	1252	-	25.1
976+50	to	1000+00	762	-	15.3
UNDISTRIBUTED			242	11	1.7
TOTALS			**3512**	**58**	**67.3**

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

PWL MIXTURE USE TABLE

LOCATION	STATION			MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
STH 11 LANES	823+46	to	851+00	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	888	2.00	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
STH 11 LANES	851+00	to	862+10	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	323	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
STH 11 LANES	862+10	to	1000+00	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	7570	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
STH 36 RAMP LANES	38+70	to	49+31	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	382	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE PWL HMA PAVEMENT 460.2005
STH 11 SHOULDERS	823+46	to	851+00	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	515	2.00	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
STH 11 SHOULDERS	851+00	to	862+10	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	223	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
STH 11 SHOULDERS	862+10	to	1000+00	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	3685	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
STH 36 SHOULDERS	38+70	to	49+31	UPPER LAYER	LOWER HMA LAYER	4 MT 58-28 S	239	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE
STH 11 & STH 36 LANES	851+00	to	1000+00	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	15395	3.25	QMP AS PER SS 460	INCENTIVE HMA PAVEMENT 460.2000
STH 11 & STH 36 SHOULDERS	851+00	to	1000+00	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	7655	3.25	QMP AS PER SS 460	ACCEPTANCE TESTING BY THE DEPARTMENT, NOT ELIGIBLE FOR INCENTIVE

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

PAVEMENT

LOCATION			211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (STA)	455.0605 TACK COAT * (GAL)	640.6223 HMA PAVEMENT 3 MT 58-28 S (TON)	460.6224 HMA PAVEMENT 4 MT 58-28 S (TON)	465.0105 ASPHALTIC SURFACE (TON)	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS (LF)
Lyons Rd	to	835+21	2	373	-	613	-	2350
835+21	to	841+89	14	207	-	340	-	1335
841+89	to	852+00	17	293	-	480	-	2022
852+00	to	862+10	-	840	922	497	-	-
862+10	to	873+00	-	1016	1115	601	-	2400
873+00	to	880+85	-	911	1000	538	-	3140
880+85	to	885+00	-	666	731	394	-	830
885+00	to	887+50	-	567	622	335	-	500
887+50	to	898+00	-	1435	1576	849	-	2100
898+00	to	908+00	-	1360	1495	805	-	2000
908+00	to	917+16	-	1247	1369	737	-	1832
917+16	to	922+40	-	717	787	424	-	1048
922+40	to	936+80	-	1976	2172	1170	-	2880
936+80	to	956+00	-	2611	2869	1545	-	3840
956+00	to	969+90	-	2077	2282	1229	-	2780
969+90	to	971+75	-	322	352	190	-	370
971+75	to	975+80	-	711	781	421	-	810
975+80	to	1000+00	-	3244	3565	1920	-	9680
STH 36 RAMP			-	962	1056	569	-	2000
TEMPORARY TRAFFIC			47	-	-	-	490	-
UNDISTRIBUTED			-	645	356	168	60	483
TOTALS			**80**	**22180**	**23050**	**13825**	**550**	**42400**

* ASSUMES 0.05 GA;/SY ON MILLED SURFACES AND 0.070 GAL/SY BETWEEN LIFTS

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

MGS GUARDRAIL

LOCATION	204.0165 REMOVING GUARDRAIL (LF)	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING (EACH)	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL (EACH)	614.0230 STEEL THRIE BEAM (LF)	614.2300 MGS GUARDRAIL 3 (LF)	614.2330 MGS GUARDRAIL 3K (LF)	614.2500 MGS THRIE BEAM TRANSITION (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)	625.0100* TOPSOIL (SY)	628.2008** EROSION MAT CLASS I TYPE B (SY)	629.0210* FERTILIZER TYPE B (CWT)	630.0130* SEEDING MIXTURE NO. 30 (LB)
833+00 to 852+00 WB	1496	3	-	-	287.5	1225.0	-	3	1	1643	1643	1.1	45
834+25 to 849+00 EB	1149	3	-	-	-	1012.5	-	3	1	1136	1136	0.8	31
888+83 Lt	100	1	-	-	50.0	-	-	1	1	396	396	0.3	11
889+00 WB MEDIAN	162	1	-	-	112.5	-	-	1	1	60	60	0.1	2
888+00 EB MEDIAN	179	1	-	-	125.0	-	-	1	1	60	60	0.1	2
913+40 Lt	117	1	-	-	75.0	-	-	1	1	563	563	0.4	16
955+00 to 965+00 WB	940	4	-	-	700.0	-	158.0	2	2	778	778	0.5	21
956+00 to 964+00 EB	725	2	-	-	550.0	-	79.0	2	-	534	534	0.4	15
995+00 to 997+00 MEDIAN	400	2	2	187.5	-	-	-	-	-	210	210	0.5	11
	5,268	**18**	**2**	**187.5**	**1900.0**	**2237.5**	**237**	**14**	**8**	**5,380**	**5,380**	**4.2**	**154**

* NON PAY QUANTITY, PAID UNDER 614.0010, AND IS NOT INCLUDED IN THE TOTALS FOR THESE BID ITEMS
** ADDITIONAL ITEM QUANTITY LOCATED ON RESTORATION TABLE

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

CULVERT WORK

CULVERT ID	STA	OFF	201.0110 CLEARING (SY)	520.8700 CLEANING CULVERT PIPES (EACH)	521.1024 APRON ENDWALL FOR CULV PIPE STEEL 24-INCH (EACH)	SPV.0090.02 DITCHING AND SHAPING (LF)	NOTES
2195	819+80	RT	-	-	1	-	
2196	819+80	LT	-	1	1	-	
2194	819+90	RT	-	-	1	-	
2188	819+90	LT	-	1	1	-	
Lyons Rd	***823+00***						
2211	823+75	RT	-	1	-	-	
2210	823+75	LT	-	-	-	-	
12352	843+85	RT	-	-	-	-	
12331	843+85	LT	-	1	-	-	
12351	844+20	RT	-	1	-	-	
12315	851+85	RT	-	1	-	-	
12278	868+00	LT	-	1	-	87	
12266	869+00	RT	-	1	-	-	
12267	869+10	RT	-	1	-	-	
12269	869+70	RT	-	-	-	-	
12230	880+00	RT	-	1	-	-	
12229	880+00	LT	-	-	-	-	
12224	882+00	RT	-	1	-	87	
12220	884+00	RT	-	1	-	-	
12204	885+20	LT	-	1	-	-	
12210	885+75	RT	-	1	-	-	
12212	885+90	RT	-	1	-	-	
12211	885+90	RT	-	1	1	-	
SUB TOTAL			**0**	**16**	**5**	**174**	

CULVERT WORK CONTINUED

CULVERT ID	STA	OFF	201.0110 CLEARING (SY)	520.8700 CLEANING CULVERT PIPES (EACH)	521.1024 APRON ENDWALL FOR CULV PIPE STEEL 24-INCH (EACH)	SPV.0090.02 DITCHING AND SHAPING (LF)	NOTES
CTH JS	***886+10***						
12198	886+80	LT	-	-	-	-	
12197	886+90	LT	-	-	-	-	
12200	886+95	RT	-	1	-	86	
12196	886+95	LT	-	-	-	-	
12192	888+50	RT	-	1	-	-	
12188	891+00	RT	-	1	-	-	
12184	894+00	RT	-	1	-	-	
12181	895+50	RT	-	1	-	-	
12177	897+00	RT	-	1	-	-	
12172	900+00	RT	-	1	-	-	
12169	903+00	RT	-	1	-	-	
12168	903+00	LT	-	1	-	-	
12165	906+00	LT	-	1	-	-	
12160	909+00	LT	-	1	-	-	
12153	912+00	LT	-	1	-	-	
12151	914+75	RT	-	1	-	-	
12152	914+75	LT	-	-	-	-	
12150	916+10	RT	-	1	-	-	
12149	917+00	LT	-	-	-	-	
12143	918+00	RT	-	1	-	-	
12144	918+00	LT	-	-	-	-	
12142	919+00	RT	-	1	-	-	
12145	919+00	LT	-	1	-	90	
12141	920+00	RT	-	1	-	85	
12140	920+00	LT	-	-	-	-	
12138	921+00	RT	-	1	-	-	
12139	921+00	LT	-	-	-	-	
SUB TOTAL			**0**	**19**	**0**	**261**	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

CULVERT WORK CONTINUED

CULVERT ID	STA	OFF	201.0110 CLEARING (SY)	520.8700 CLEANING CULVERT PIPES (EACH)	521.1024 APRON ENDWALL FOR CULV PIPE STEEL 24-INCH (EACH)	SPV.0090.02 DITCHING AND SHAPING (LF)	NOTES
12137	921+50	RT	-	1	-	-	
12133	922+50	LT	-	1	-	-	
2185	924+00	RT	-	1	-	50	
2184	924+00	LT	-	-	-	50	
2180	925+00	RT	-	1	-	50	
2182	925+05	LT	-	1	-	50	
2176	926+00	RT	-	1	-	50	
2175	926+00	LT	-	-	-	50	
2173	927+00	LT	-	1	-	50	
2171	928+00	RT	-	1	-	50	
2159	929+00	RT	-	1	-	50	
2166	929+00	LT	-	1	-	60	
ECO-PASSAGE		RT	-	1	-	-	AS DIRECTED BY THE ENGINEER
ECO-PASSAGE		LT	-	1	-	-	AS DIRECTED BY THE ENGINEER
2145	930+00	RT	-	1	-	-	
2147	930+00	LT	-	1	-	60	
2141	931+00	RT	-	1	-	-	
2140	931+00	LT	-	-	-	-	
2138	932+25	LT	-	1	-	68	
2130	934+00	RT	5	1	-	-	
2129	934+00	LT	-	-	-	-	
2127	935+00	LT	-	1	-	70	
2122	938+00	RT	5	1	-	-	
2120	938+00	LT	5	1	-	-	
2111	941+00	RT	5	1	-	-	
2113	941+00	LT	5	1	-	-	
2106	949+00	LT	-	1	-	-	
2100	951+50	RT	-	1	-	-	
2102	951+50	LT	-	1	-	50	
2090	954+00	LT	-	1	-	65	
2080	957+00	LT	5	1	-	55	
SUB TOTAL			**30**	**27**	**0**	**878**	

CULVERT WORK CONTINUED

CULVERT ID	STA	OFF	201.0110 CLEARING (SY)	520.8700 CLEANING CULVERT PIPES (EACH)	521.1024 APRON ENDWALL FOR CULV PIPE STEEL 24-INCH (EACH)	SPV.0090.02 DITCHING AND SHAPING (LF)	NOTES
STH 36	**958+50**						
2062	960+00	RT	-	1	-	-	
2036	962+75	RT	5	1	-	-	
2020	963+10	RT	-	-	-	-	
2045	965+00	LT	-	1	-	52	
2038	967+00	LT	-	1	-	52	
2011	968+50	LT	-	1	-	68	
2014	970+10	RT	-	1	-	40	
2013	970+25	RT	-	-	-	-	
14472	39+05	RT	-	1	-	-	36 RAMP
14185	39+05	LT	-	-	-	-	36 RAMP
14473	39+15	RT	-	1	-	-	36 RAMP
14187	39+15	LT	-	-	-	-	36 RAMP
14411	39+25	RT	-	1	-	-	36 RAMP
14094	39+25	LT	-	1	-	-	36 RAMP
14032	41+85	LT	-	1	-	65	36 RAMP
14273	47+60	RT	-	1	-	70	36 RAMP
14272	47+60	LT	-	1	-	-	36 RAMP
14274	48+00	RT	-	1	-	-	36 RAMP
12006	974+00	LT	-	1	-	-	
12008	981+00	RT	-	1	-	-	
12016	986+00	RT	-	1	-	-	
12022	992+00	RT	-	1	-	-	
12023	992+60	LT	-	-	-	-	
12045	994+75	RT	-	1	-	-	
12057	994+75	LT	-	-	-	-	
12108	999+75	RT	-	1	-	50	
12107	999+75	LT	-	1	-	40	
SUB TOTAL			**5**	**21**	**0**	**437**	
TOTALS			**35**	**83**	**5**	**1750**	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

INLET ADJUSTMENTS

LOCATION	204.0130 REMOVING CURB (LF)	204.0150 REMOVING CURB & GUTTER (LF)	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (LF)	611.8115 ADJUSTING INLET COVERS (EACH)
835+00 to 842+00 WB	*700*	-	-	-
MAINLINE	-	1584	1584	121
STH 36 RAMP	-	150	150	15
UNDISTRIBUTED	25	166	166	4
TOTALS	**725**	**1900**	**1900**	**140**

RESTORATION

LOCATION	606.0200 RIPRAP MEDIUM (CY)	625.0100 TOPSOIL (SY)	628.2008** EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	*630.0160 SEEDING MIXTURE NO. 60 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)	COMMENTS
CULVERT PIPE DITCHING & SHAPING	-	6912	6912	4.4	187	28	187	156	
CULVERT PIPE CLEANING	-	900	900	0.6	8	13	25	21	ASSUMED 10'X10' AREA OF DISTURBANCE PER CLEANING
STA 929+00 ECO-PASSAGE LT & RT	1	-	-	-	-	1	-	1	PLACE AS DIRECTED BY THE ENGINEER
TOTALS	**1**	**7812**	**7812**	**5.0**	**195**	**42**	**212**	**178**	

*** USE SEEDING MIXTURE NO. 60 TO RESTORE WETLAND AREAS AFTER DITCHING AND SHAPING AS DIRECTED BY THE ENGINEER**

**** ADDITIONAL ITEM QUANTITY LOCATED ON MGS GUARDRAIL TABLE**

EROSION CONTROL

LOCATION	628.1104 EROSION BALES (EACH)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.7020 INLET PROTECTION TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	678.7570 ROCK BAGS (EACH)	COMMENTS
833+00 to 852+00 WB	-	1880	1880	-	-	-	-	-	100	MGS GUARDRAIL LOCATION
834+25 to 849+00 EB	-	1460	1460	-	-	-	-	-	80	MGS GUARDRAIL LOCATION
888+83 Lt	-	370	370	-	-	-	-	-	-	MGS GUARDRAIL LOCATION
913+40 Lt	-	440	440	-	-	-	-	-	-	MGS GUARDRAIL LOCATION
955+00 to 965+00 WB	-	720	720	-	-	-	-	-	40	MGS GUARDRAIL LOCATION
956+00 to 964+00 EB	-	410	410	-	-	-	-	-	-	MGS GUARDRAIL LOCATION
INLETS	-	-	-	-	-	140	-	-	-	
CULVERT PIPES				-	-	-	604	30	-	SEE CULVERT DETAILS & EROSION CONTROL SHEETS FOR LOCATIONS
PROJECT UNDISTRIBUTED	70	1000	1000	5	3	-	96	6	10	ITEMS TO BE USED AT THE DIRECTION OF THE ENGINEER
TOTALS	**70**	**6280**	**6280**	**5**	**3**	**140**	**700**	**36**	**230**	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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TRAFFIC CONTROL

STAGE	DURATION CALANDAR DAYS	#	643.0300 TC DRUMS *(FOR TAPERS & ARROW BOARDS)* (DAY)	#	643.0420 TC BARRICADES TYPE III (DAY)	#	643.0705 TC WARNING LIGHTS TYPE A (DAY)	#	643.0715 TC WARNING LIGHTS TYPE C (DAY)	#	643.0800 TC ARROW BOARDS (DAY)	#	643.0900 TC SIGNS (DAY)	# OF SIGNS	# OF CYCLES	643.0910 TC COVERING SIGNS TYPE 2 (EACH)	#	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAY)	#	643.1070 TRAFFIC CONTROL CONES 42-INCH (DAY)
BEGIN CONSTUCTION	**7**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	28	-	-
STAGE 1A	**5**																				
976+50 TO 1000+00 EB		*23*	115	*4*	20	*8*	40	*13*	*65*	*1*	5	*11*	55	-	-	-	-	-	47	235
976+50 TO 1000+00 WB		*23*	115	*4*	20	*8*	40	*13*	*65*	*1*	5	*11*	55	-	-	-	-	-	47	235
STAGE 1	**20**																				
1/2 MILE SEGMENT EB		*23*	460	*4*	80	*8*	160	*13*	*260*	*1*	20	*32*	640	-	-	-	-	-	56	1120
1/2 MILE SEGMENT WB		*23*	460	*4*	80	*8*	160	*13*	*260*	*1*	20	*32*	640	-	-	-	-	-	56	1120
STAGE 2	**20**																				
1/2 MILE SEGMENT EB		*23*	460	*4*	80	*8*	160	*13*	*260*	*1*	20	*11*	220	-	-	-	-	-	56	1120
1/2 MILE SEGMENT WB		*23*	460	*4*	80	*8*	160	*13*	*260*	*1*	20	*11*	220	-	-	-	-	-	56	1120
STH 36 RAMP	**5**	-	-	*10*	50	*12*	60	-	-	-	-	*6*	30	-	-	-	2	14	-	-
DETOUR - BOX CULVERT WORK & FULL CLOSURE BETWEEN LYONS RD AND CTH JS	**90**	-	-	*10*	210	*12*	252	-	-	-	-	*125*	11250	-	-	-	4	28	-	-
OTHER WORK - MGS GUARDRAIL, ADJUST INLETS, RUMBLE STRIPS, MARKING ETC	**25**																				
1 MILE SEGMENTS EB & WB		*46*	1150	*16*	400	*32*	800	*26*	*650*	-	-	*32*	800	-	-	-	-	-	212	5300
UNDISTRIBUTED	-	-	130	-	50	-	98	-	*100*	-	-	-	130	5	3	15	-	*4*	-	150
	TOTALS		**3,350**		**1,070**		**1,930**		**1,920**		**90**		**14,040**			**15**		**74**		**10,400**

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

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PAVEMENT MARKING

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH *DOUBLE YELLOW SOLID* (LF)	646.1020 MARKING LINE EPOXY 4-INCH *YELLOW SOLID* (LF)	646.1020 MARKING LINE EPOXY 4-INCH *WHITE SOLID* (LF)	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH *WHITE SOLID* (LF)	646.1545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH *WHITE 12.5' LINE, 37.5' GAP* (LF)	646.3545 MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH *SOLID WHITE* (LF)	646.3545 *WHITE DASHED 3' LINE, 12' GAP* (LF)	646.3545 *YELLOW DASHED 3' LINE, 12' GAP* (LF)	646.5020 MARKING ARROW EPOXY (EACH)	646.5120 MARKING WORD EPOXY (EACH)	646.6120 MARKING STOP LINE EPOXY 18-INCH *WHITE* (LF)	646.7120 MARKING DIAGONAL EPOXY 12-INCH *SOLID YELLOW* (LF)	646.7120 *SOLID WHITE* (LF)
STH 11 (MAINLINE)													
STA 823+46.41 TO STA 862+24	7756	-	-	7756	-	-	-	-	-	-	-	-	-
STA 862+24 TO STA 888+37	972	4495	215	4957	59	2867	51	27	-	-	12	71	133
STA 888+37 TO STA 913+00	-	4926	4926	-	616	-	495	-	4	-	-	-	-
STA 913+00 TO STA 965+00	-	10400	10400	-	2600	-	-	-	-	-	-	-	-
STA 965+00 TO STA 977+00	-	2072	2610	-	600	2030	-	56	2	1	-	-	253
STA 977+00 TO STA 1000+00	-	4600	4600	-	1150	-	-	-	-	-	-	-	-
STH 36 RAMP	-	2130	-	-	-	75	31	-	4	-	72	-	-
UNDISTRIBUTED	98	400	450	192	105	35	8	10	-	-	6	10	13
TOTALS	**61050**			**12905**	**5130**	**5685**			**10**	**1**	**90**	**480**	

TEMPROARY PAVEMENT MARKING

LOCATION	646.4505 MARKING LINE SAME DAY PAINT 4-INCH *WHITE 12.5' LINE, 37.5' GAP* (LF)	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH *YELLOW* (LF)	649.0150 *WHITE* (LF)	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (LF)	NOTES
STH 11 EB - STAGE 2 LOWER LIFT	2800	-	-	-	
STH 11 WB -STAGE 2 LOWER LIFT	2800	-	-	-	
STH 11 EB - STAGE 2 UPPER LIFT	2800				USE BEFORE FINAL MARKINGS ARE APPLIED
STH 11 WB -STAGE 2 UPPER LIFT	2800				USE BEFORE FINAL MARKINGS ARE APPLIED
UNDISTRIBUTED	500	6000	6000	50	FOR USE AT THE DIRECTION OF THE ENGINEER
TOTALS	**11700**	**12000**		**50**	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

CONSTRUCTION STAKING

LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS (EA)	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	650.8000 RESURFACING REFERENCE (LF)	650.9910 SUPPLEMENTAL CONTROL (3180-00-77) (LS)
MAINLINE	-	1750	17652	-
STH 36 RAMP	-	150	1200	-
PROJECT	1	-	-	1
TOTALS	**1**	**1900**	**18852**	**1**

SAWING

LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
BEGIN MAINLINE	40	-
835+00 to 842+00 WB (CURB REMOVAL)	700	
END MAINLINE	70	-
STH 36 RAMP	60	-
SIDEROADS	60	-
C&G FOR INLET ADJUSTMENTS		680
UNDISTRIBUTED	20	30
TOTALS	**950**	**710**

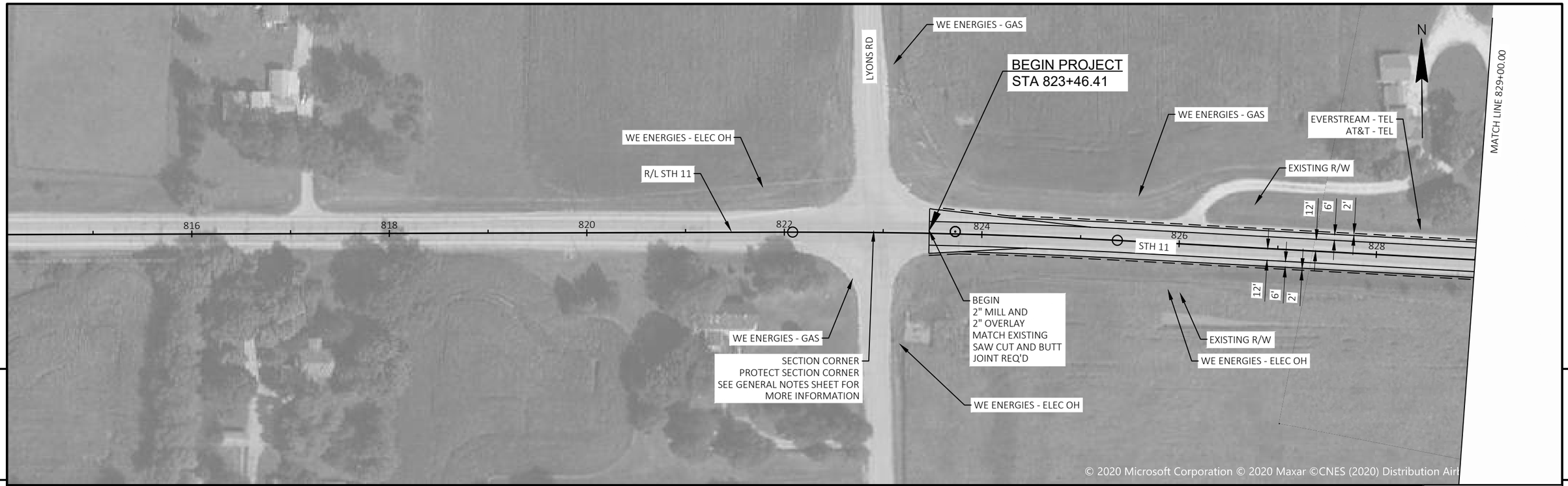
NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010

3

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	634.0618 POSTS WOOD 4"X 6"X18' [EA]	638.2102 MOVE 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]	638.2601 REMOVING SIGNS TYPE I [EA]
1	W1-6	II	--	-- x --	1	1	1	--	SHEET 2 OF 13	-- x --	--	--
2	W1-6	II	--	-- x --	1	1	1	--	SHEET 2 OF 13	-- x --	--	--
3	W1-6	II	--	-- x --	1	1	1	--	SHEET 3 OF 13	-- x --	--	--
4	E6-51	I	[11] WEST ELKHORN [DA]	-- x --	--	--	--	--	SHEET 6 OF 13 INSTALL ON S-64-208 I-BEAMS INCIDENTAL	10 x 9	90.000	1
5	E6-1	--	BURLINGTON EXIT [TR] ONLY	-- x --	--	--	--	--	SHEET 6 OF 13 INSTALL ON S-64-208 I-BEAMS INCIDENTAL	13 x 6	78.000	1
6	J3-2	II	--	-- x --	2	2	1	--	SHEET 6 OF 13	-- x --	--	--
7	E6-51	I	BURLINGTON 1/2 MILE EXIT [DA] ONLY	-- x --	--	--	--	--	SHEET 7 OF 13 INSTALL ON S-64-209 I-BEAMS INCIDENTAL	13 x 7.5	97.500	1
8	D1-3	II	--	-- x --	2	2	1	--	SHEET 10 OF 13	-- x --	--	--
9	J2-2	II	--	-- x --	2	2	1	--	--	-- x --	--	--
10	W5-52L	II	--	-- x --	1	1	1	--	4 FT MOUNT HEIGHT	-- x --	--	--
11	W5-52R	II	--	-- x --	1	1	1	--	4 FT MOUNT HEIGHT	-- x --	--	--
12	W5-52R	II	--	-- x --	1	1	1	--	SHEET 11 OF 13, 4 FT MOUNT HEIGHT	-- x --	--	--
13	W5-52L	II	--	-- x --	1	1	1	--	4 FT MOUNT HEIGHT	-- x --	--	--
14	R8-7	II	--	-- x --	1	1	1	--	--	-- x --	--	--
--	--	--	--	-- x --	--	--	--	--	--	-- x --	--	--
	UNDISTRIBUTED				--	20	20				--	--
	TOTALS				14	34	31				265.500	3

3

SHEET 1 OF 1

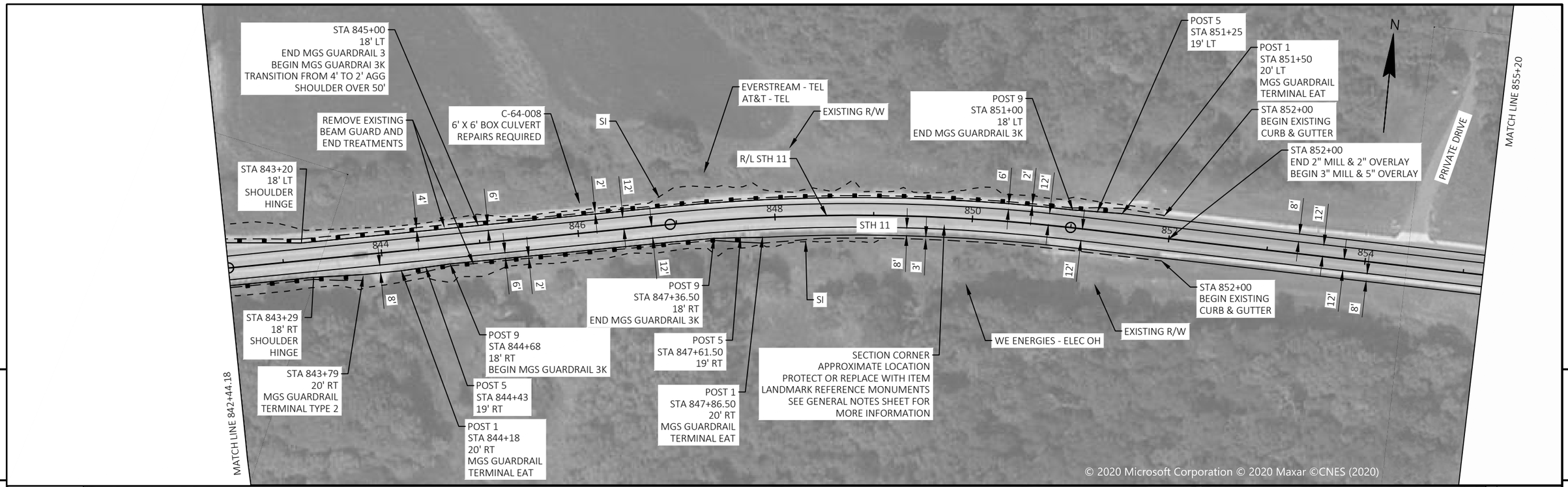


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 11	SHEET 98	E

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LAYOUT NAME - 01

PLOT DATE : 3/2/2022 4:02 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

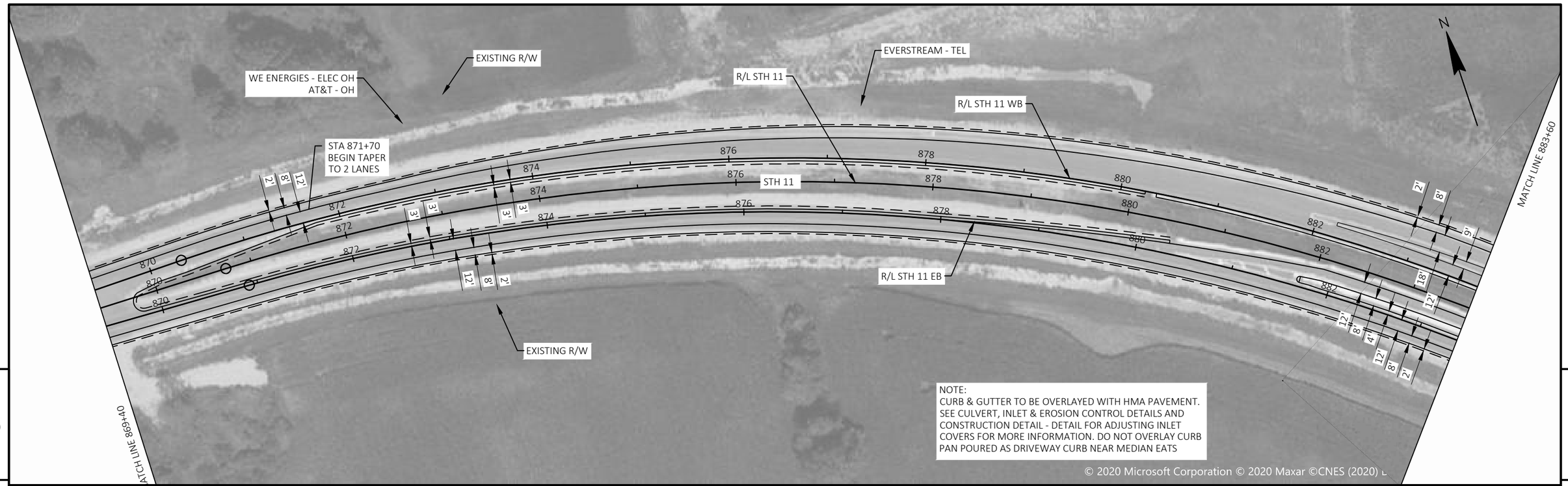


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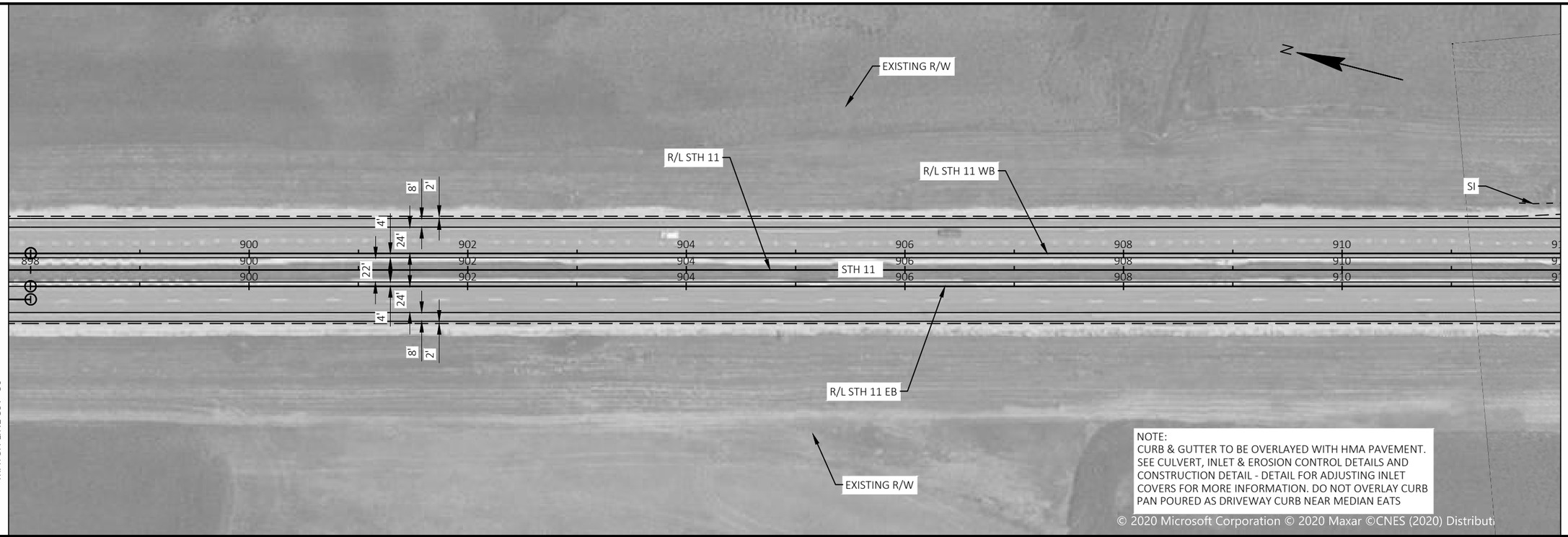
WISDOT/CADDS SHEET 44

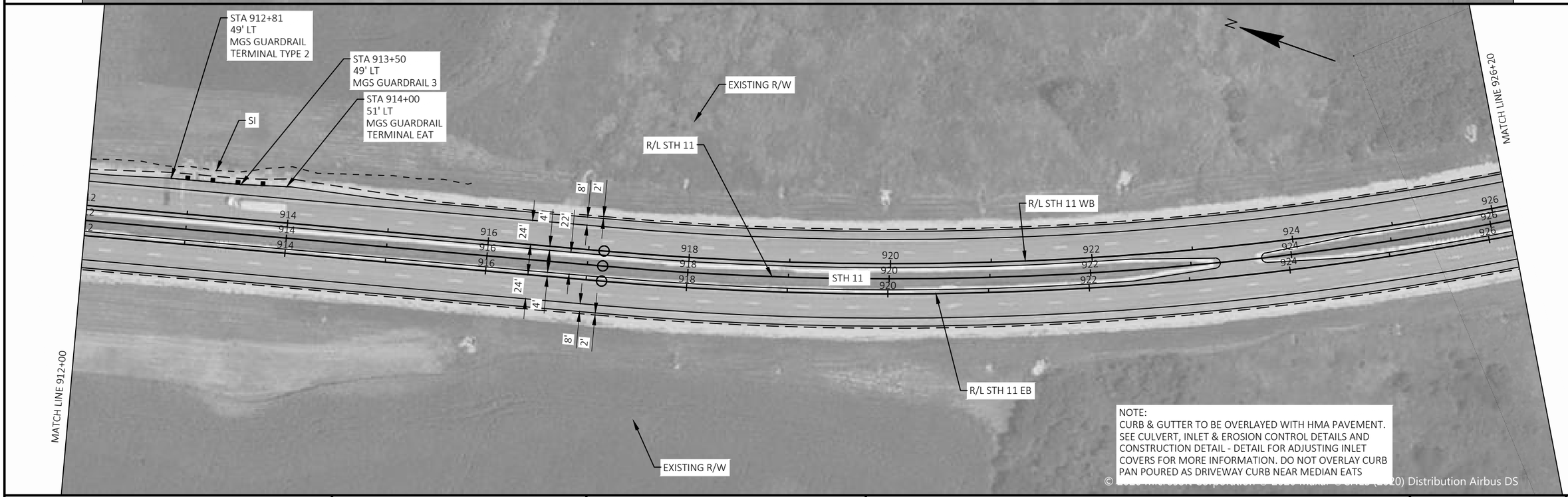


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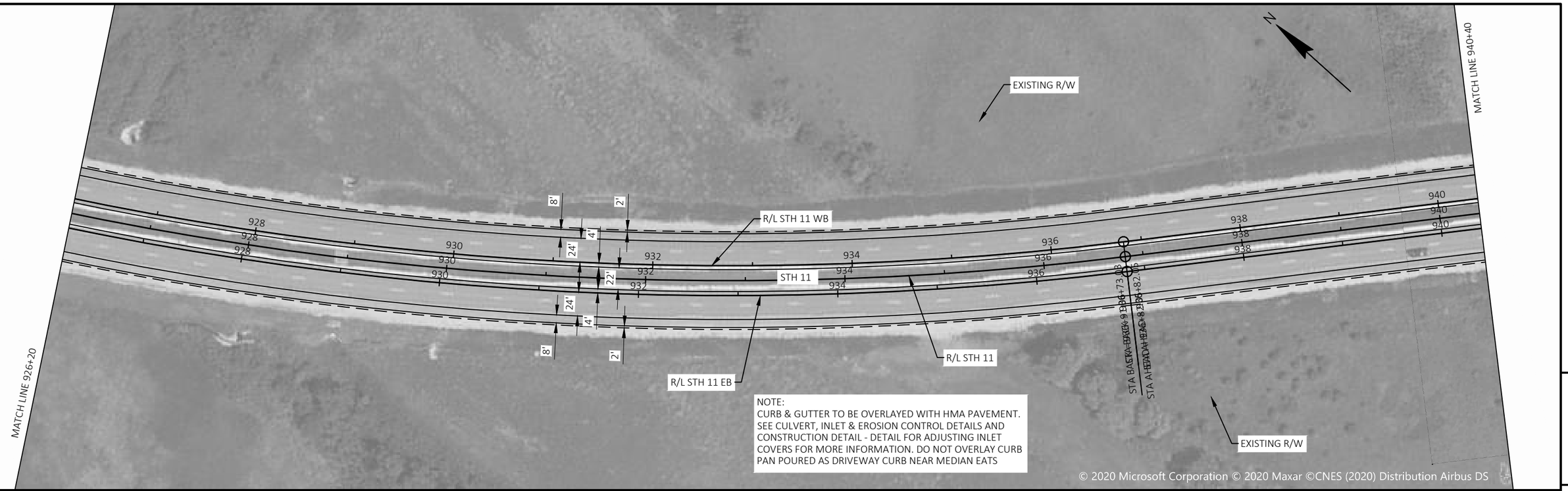
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PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

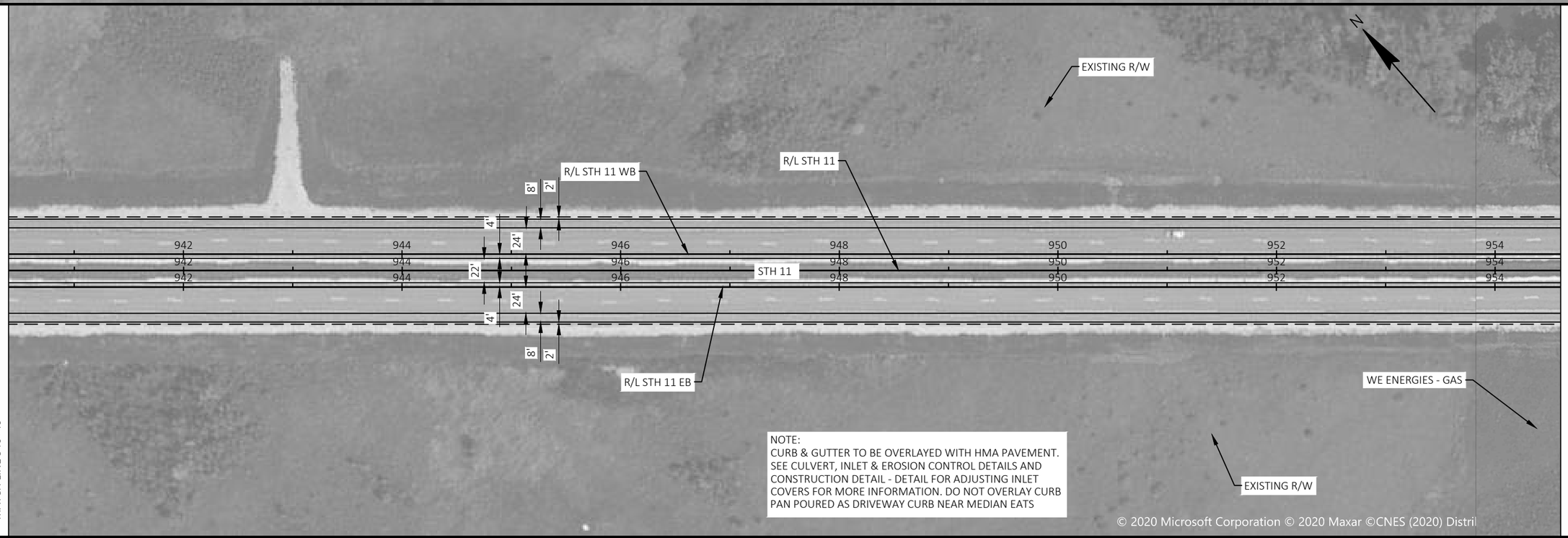




PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 11	SHEET 101	E

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LAYOUT NAME - 04
PLOT DATE : 3/2/2022 4:03 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 11	SHEET 102	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 05

PLOT DATE : 3/2/2022 4:03 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

STA 964+00 END REMOVE CURB & GUTTER PLACE CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (DRIVEWAY CURB HEAD) TO PROPOSED PAVEMENT ELEVATION; TRANSITION TO FULL CURB HEAD HEIGHT OVER LAST 5 FEET.

EXISTING R/W

SPECTRUM - TV

STA 957+99.07
9' LT
MGS GUARDRAIL
TERMINAL TYPE 2

WHITE RIVER

WE ENERGIES - GAS

STA 956+44.96
7' RT
MGS GUARDRAIL
TERMINAL EAT

STA 955+85.57
49' LT
MGS GUARDRAIL
TERMINAL TYPE 2

SI

MGS THRIE BEAM TRANSITION

STH 36

REMOVE EXISTING BEAM GUARD AND END TREATMENTS

MGS THRIE BEAM TRANSITION

AT&T - TEL

SI

STA 962+74.37
49' LT
MGS GUARDRAIL 3

STA 962+94 BEGIN REMOVE CURB & GUTTER PLACE CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (DRIVEWAY CURB HEAD) TO PROPOSED PAVEMENT ELEVATION; TRANSITION TO FULL CURB HEAD HEIGHT OVER LAST 5 FEET.

STA 964+00 END REMOVE CURB & GUTTER PLACE CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (DRIVEWAY CURB HEAD) TO PROPOSED PAVEMENT ELEVATION; TRANSITION TO FULL CURB HEAD HEIGHT OVER LAST 5 FEET.

REMOVE 3" SURFACE OF THE EXISTING CONCRETE CORRUGATED MEDIAN UNDER REMOVING ASPHALTIC SURFACE MILLING BID ITEM

STA 963+24.37
51' LT
MGS GUARDRAIL
TERMINAL EAT

R/L STH 11

WE ENERGIES - ELEC

ADJUST CORRUGATED MEDIAN SURFACE INLETS TO ELEVATION OF FINISHED HMA PAVEMENT

MATCH LINE 968+80

MATCH LINE 954+60

956 958 960 962 964 966 968

STH 11

R/L STH 11 WB

R/L STH 11 EB

STA 963+05.39
7' LT
MGS GUARDRAIL
TERMINAL EAT

WE ENERGIES - ELEC OH

WISDOT SIGNALS

WE ENERGIES - GAS

WE ENERGIES - ELEC

EXISTING R/W

STA 956+26.16
49' RT
MGS GUARDRAIL
TERMINAL EAT

STA 956+94.96
9' RT
MGS GUARDRAIL 3

STA 956+76.16
47' RT
MGS GUARDRAIL 3

AT&T - TEL
SPECTRUM - TEL

MGS THRIE BEAM TRANSITION

REMOVE EXISTING BEAM GUARD AND END TREATMENTS

MATCH APPROACH SLABS ON BOTH SIDES OF EACH STRUCTURE

B-64-164 WB STRUCTURE
NET EXCEPTION TO CL LENGTH
STA 959+47 TO 961+30

B-64-163 EB STRUCTURE
NET EXCEPTION TO CL LENGTH
STA 959+83 TO 961+65

STA 962+55.39
9' LT
MGS GUARDRAIL 3

STA 955+50 BEGIN REMOVE CURB & GUTTER PLACE CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (DRIVEWAY CURB HEAD) TO PROPOSED PAVEMENT ELEVATION; TRANSITION TO FULL CURB HEAD HEIGHT OVER LAST 5 FEET.

STA 956+73 BEGIN EXISTING CURB & GUTTER TO REMAIN AND OVERLAY PAN, ONLY REMOVE EXISTING BEAM GUARD

STA 958+24 END EXISTING CURB & GUTTER TO REMAIN AND OVERLAY PAN, ONLY REMOVE EXISTING BEAM GUARD

NOTE:
CURB & GUTTER TO BE OVERLAYED WITH HMA PAVEMENT. SEE CULVERT, INLET & EROSION CONTROL DETAILS AND CONSTRUCTION DETAIL - DETAIL FOR ADJUSTING INLET COVERS FOR MORE INFORMATION. DO NOT OVERLAY CURB PAN POURED AS DRIVEWAY CURB NEAR MEDIAN EATS

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STH 36 RAMP

WISDOT SIGNALS

WE ENERGIES - ELEC

R/L STH 11 WB

EXISTING R/W

WISDOT SIGNALS

970 972 974 976 978 980 982

STH 11

R/L STH 11

R/L STH 11 EB

WISDOT SIGNALS

REMOVE 3" SURFACE OF THE EXISTING CONCRETE CORRUGATED MEDIAN UNDER REMOVING ASPHALTIC SURFACE MILLING BID ITEM

PRIVATE ROAD

WE ENERGIES - GAS

MATCH LINE 968+80

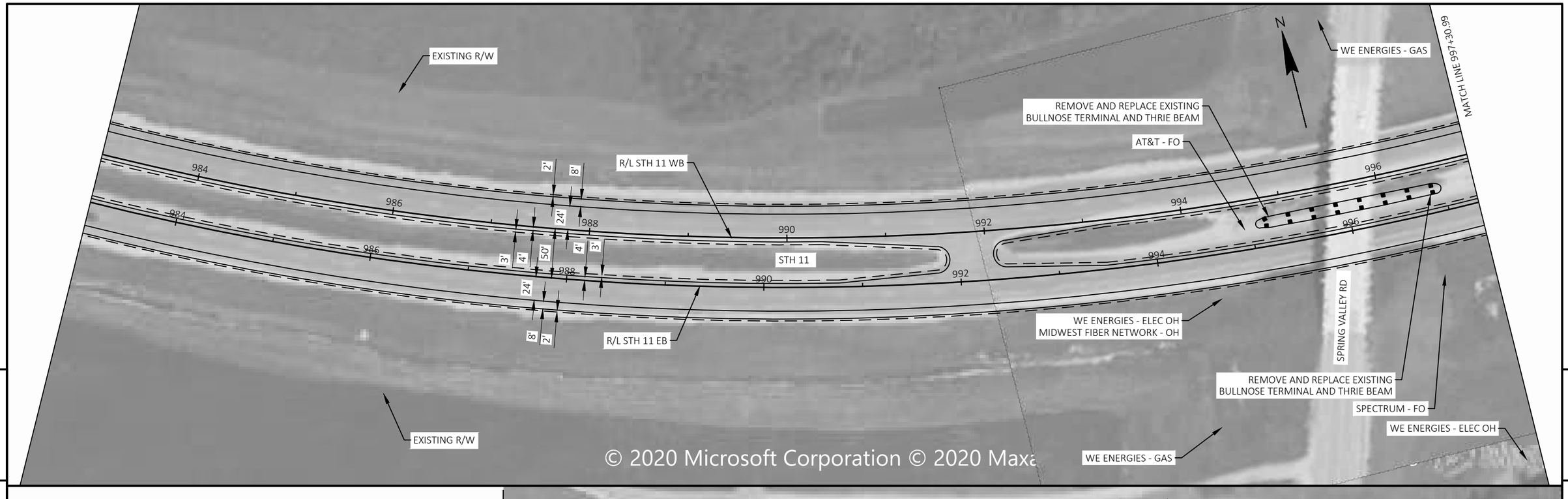
MATCH LINE 983+10.99

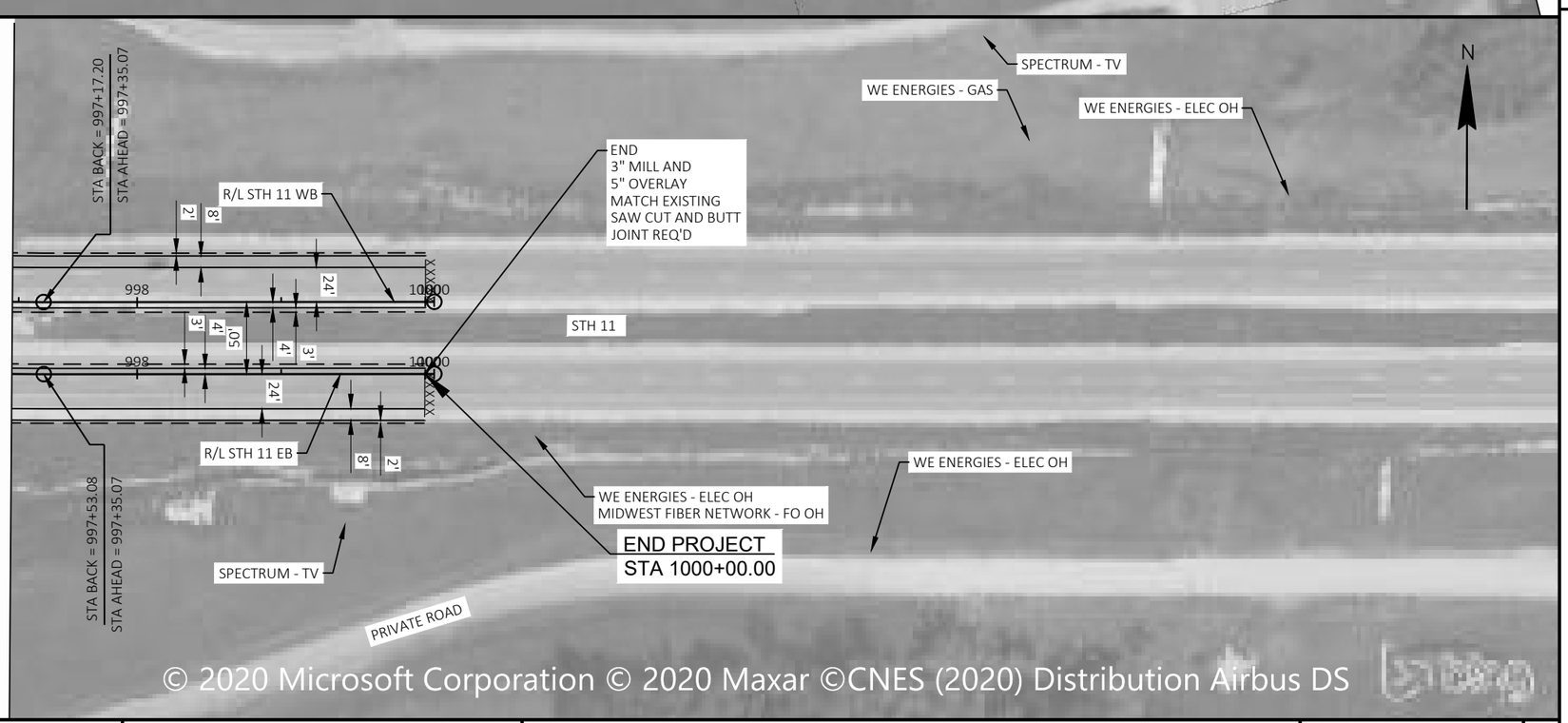
NOTE:
CURB & GUTTER TO BE OVERLAYED WITH HMA PAVEMENT. SEE CULVERT, INLET & EROSION CONTROL DETAILS AND CONSTRUCTION DETAIL - DETAIL FOR ADJUSTING INLET COVERS FOR MORE INFORMATION. DO NOT OVERLAY CURB PAN POURED AS DRIVEWAY CURB NEAR MEDIAN EATS

EXISTING R/W

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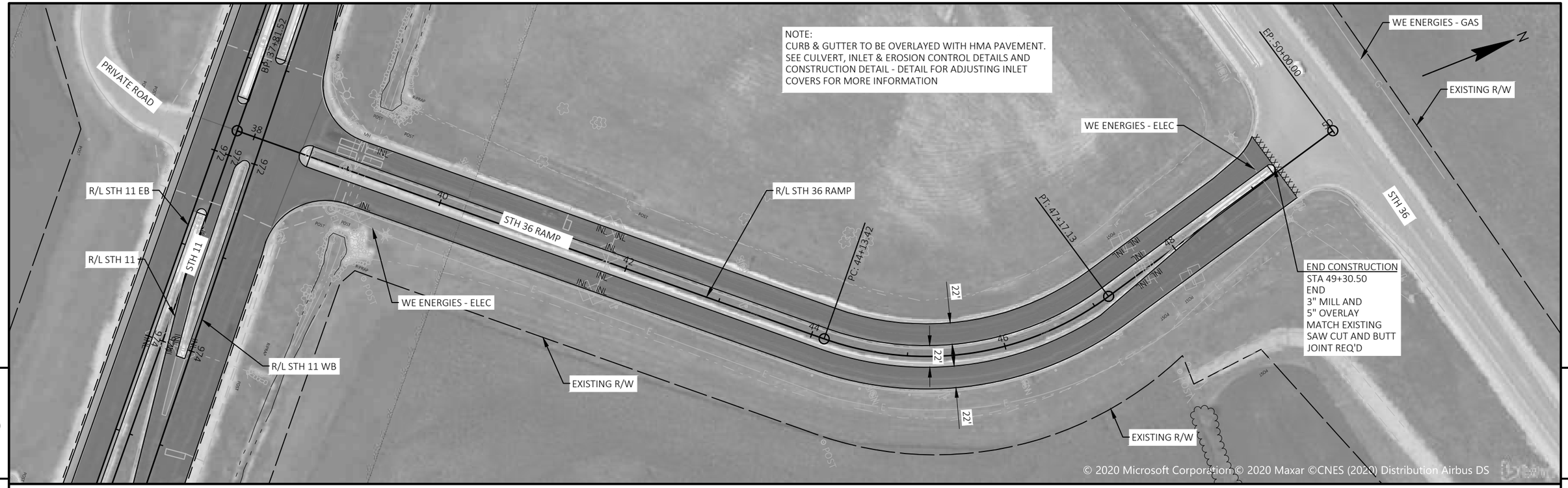
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 11	SHEET 103	E





PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 11	SHEET 104	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 07
PLOT DATE : 3/2/2022 4:03 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	PLAN DETAILS - STH 36 RAMP	SHEET 105	E

Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
11A01-06	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B26-04A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-04H	STEEL THRIE BEAM BULLNOSE TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	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)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	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)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-03A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-05A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-05B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D40-02D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER

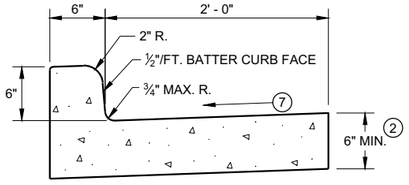
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Standard Detail Drawing List

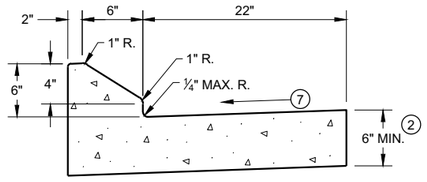
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

6

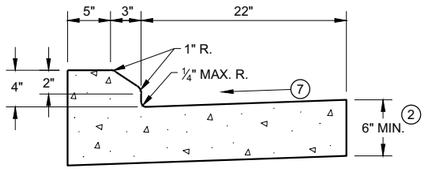
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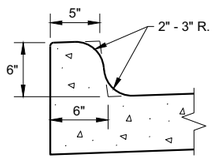
TYPES A (1) & D



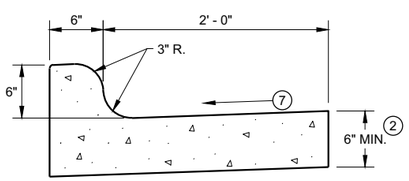
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

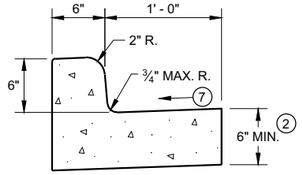


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



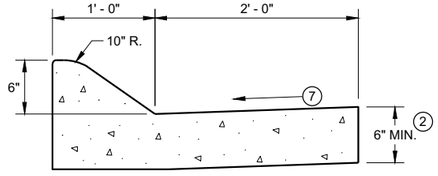
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

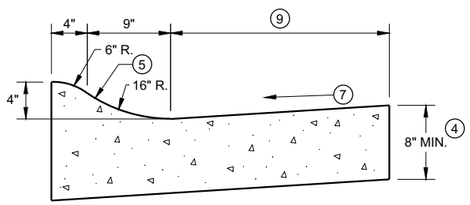
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

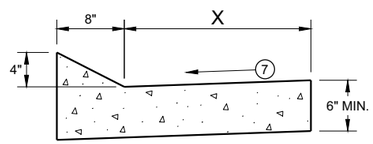
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

TBT & TBTT	X
30"	22"
36"	28"

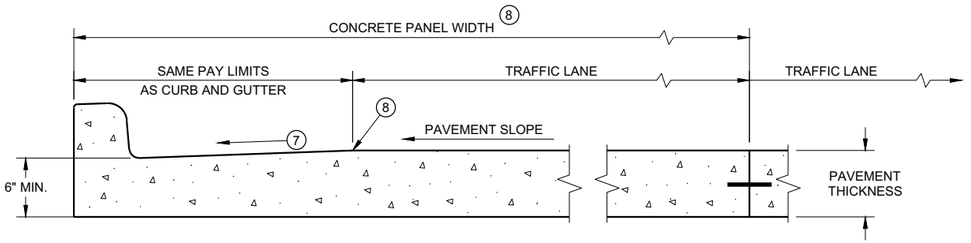


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

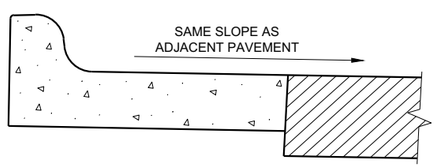
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

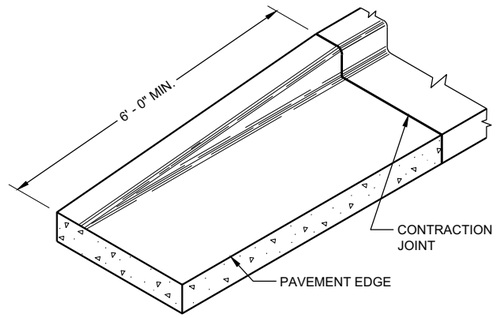
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

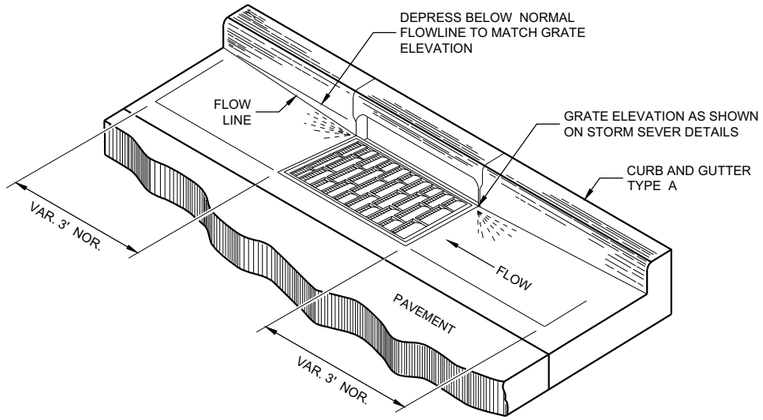
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
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.

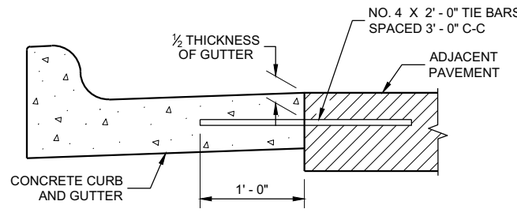
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

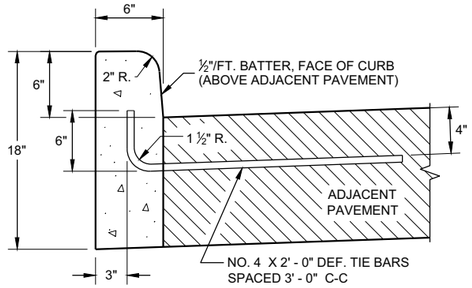
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

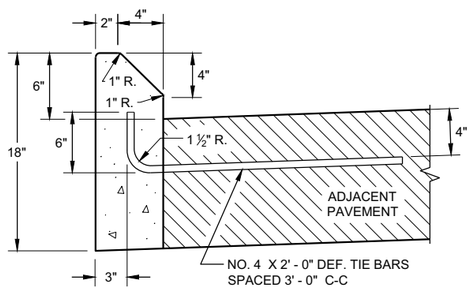
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

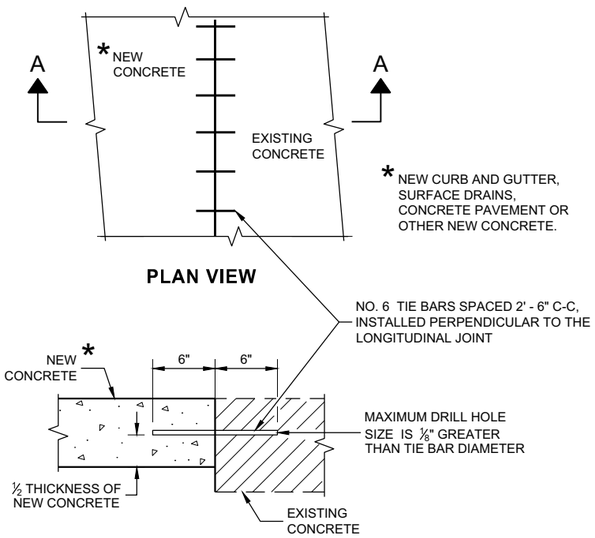


TYPES A (1) & D



TYPES G (1) & J

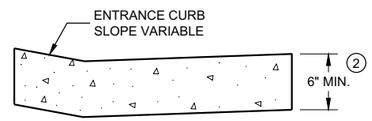
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)
(WHEN DIRECTED BY THE ENGINEER)

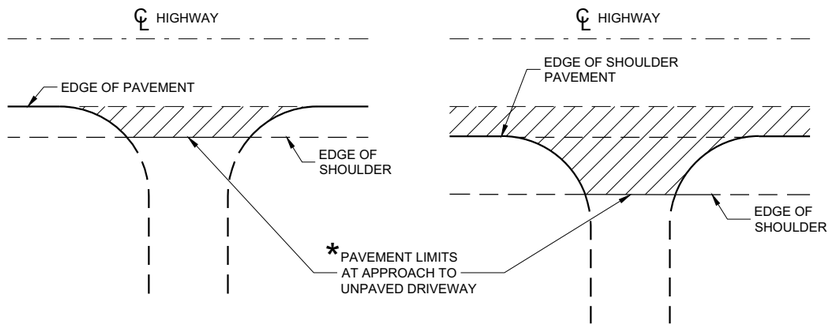
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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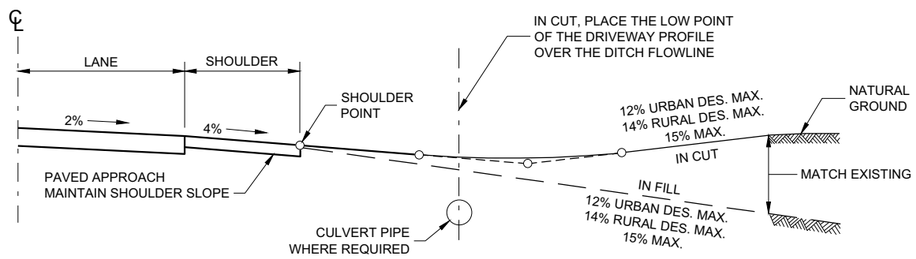
SDD08D01 - 22b



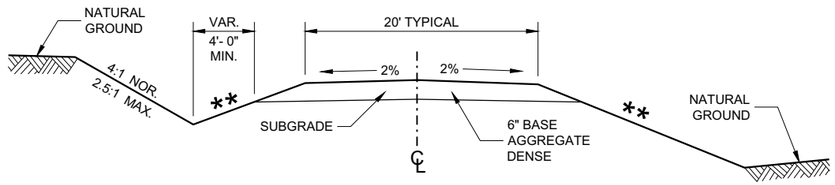
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

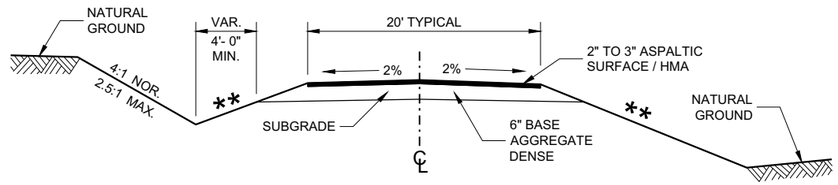


IN CUT **IN FILL**

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

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

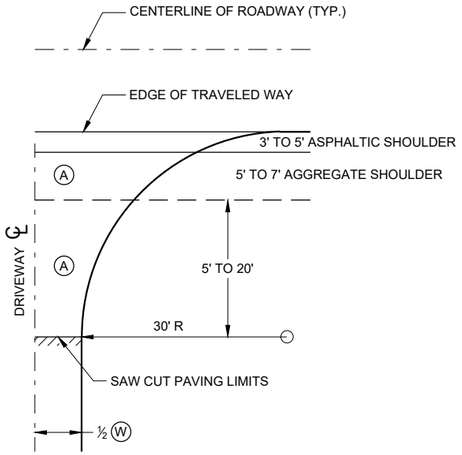
FHWA

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SDD 08D21 - 01

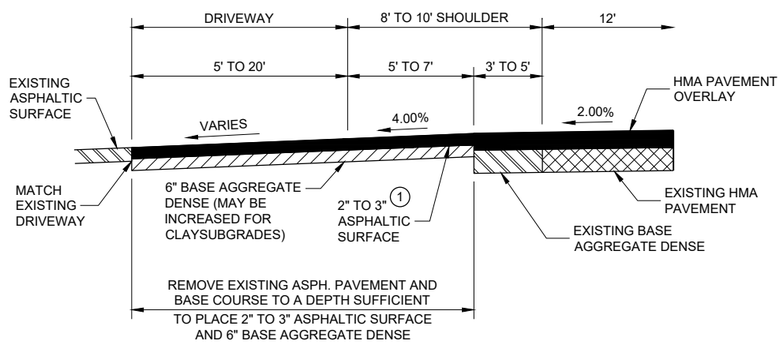
GENERAL NOTES

(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PLAN VIEW

HALF SECTION



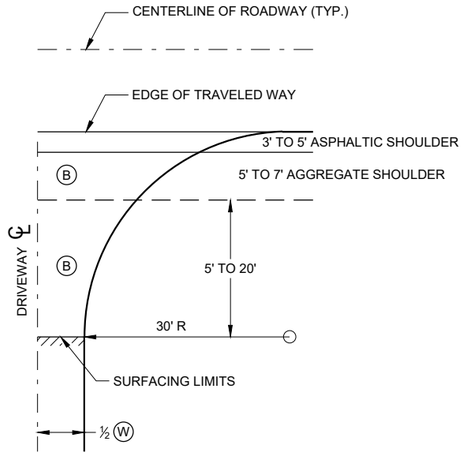
PROFILE VIEW

RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS

(A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

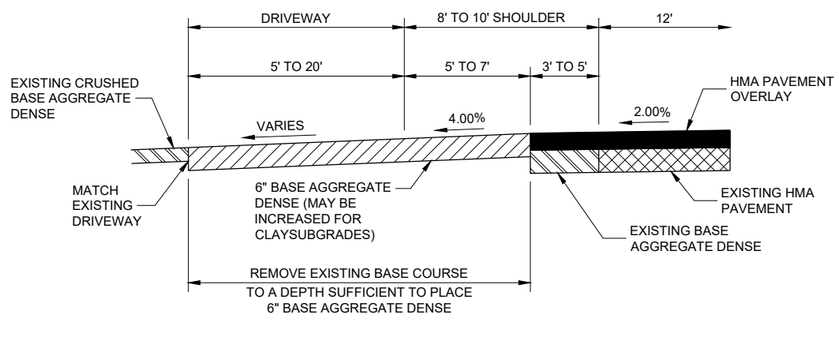
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

(W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

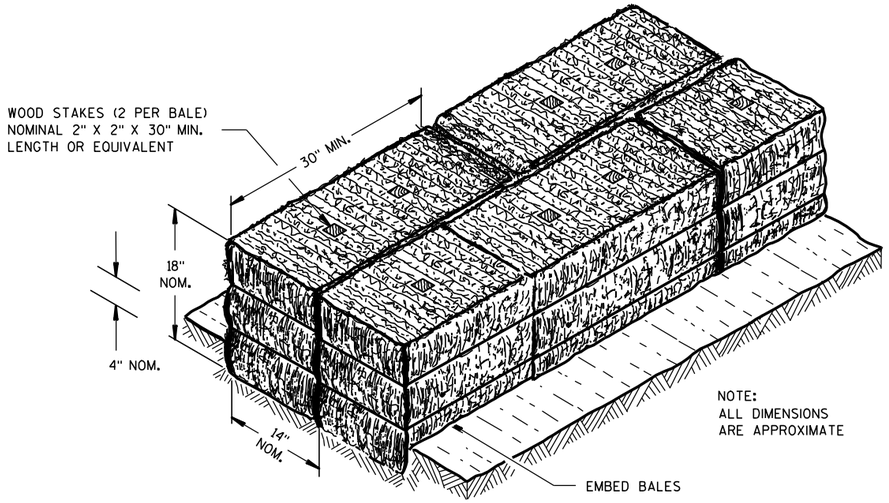
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

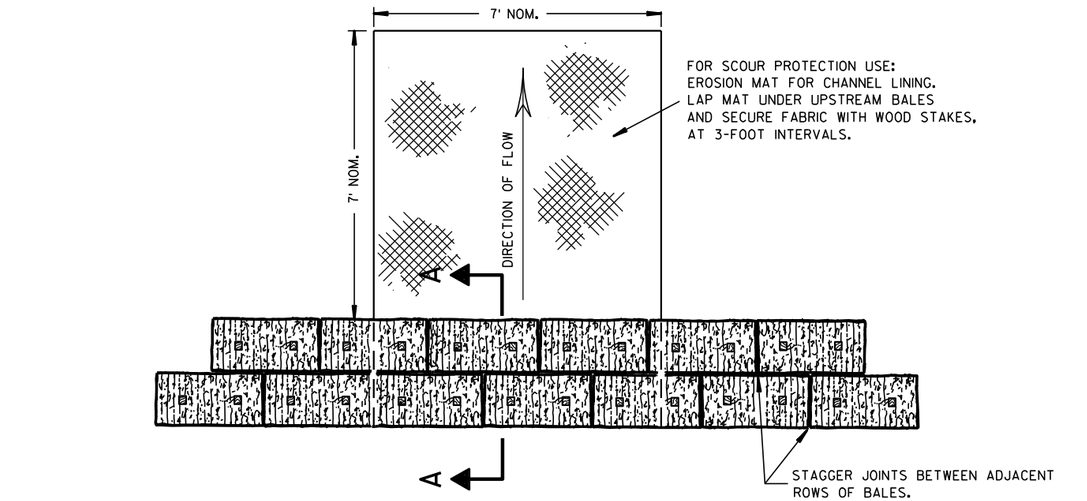
FHWA

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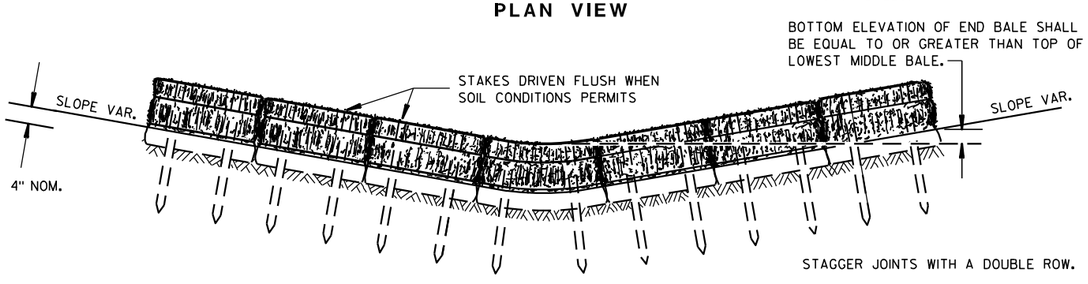
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



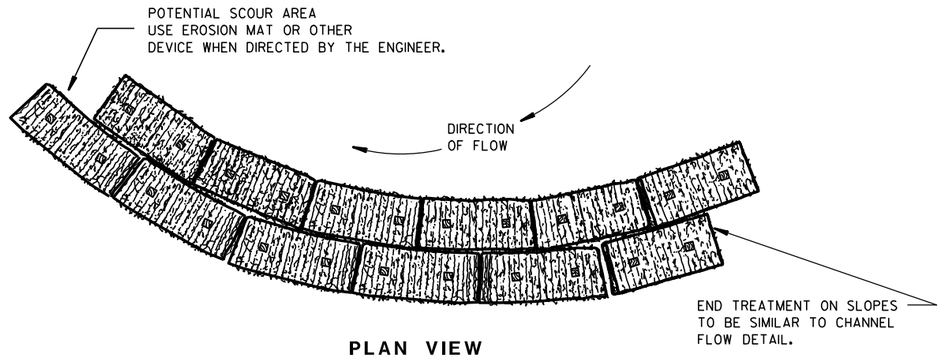
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

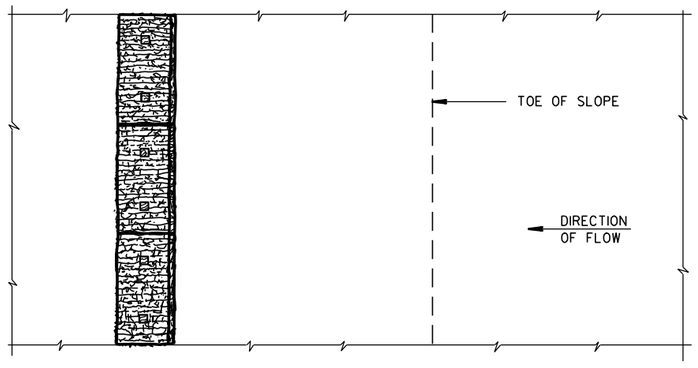
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

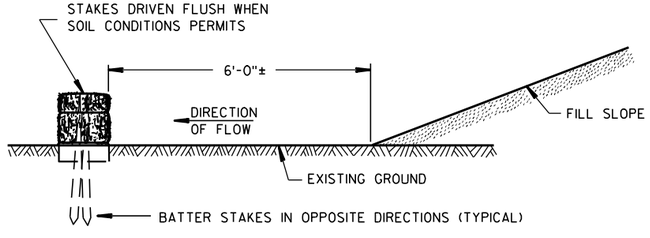


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

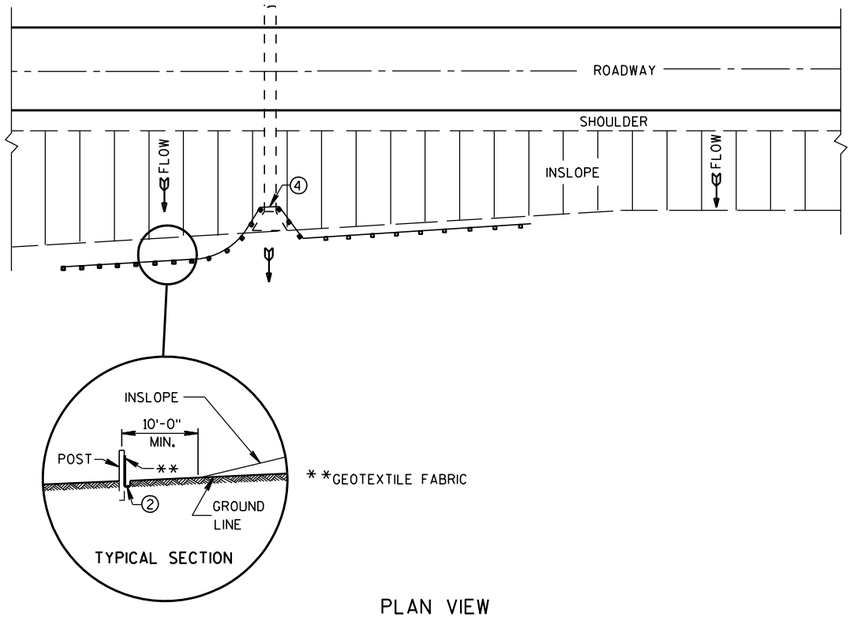
6/04/02 DATE

/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

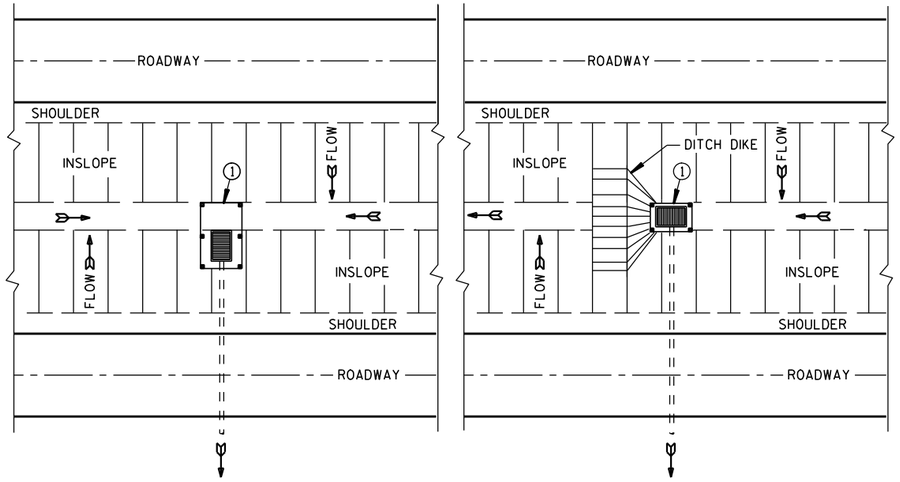
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



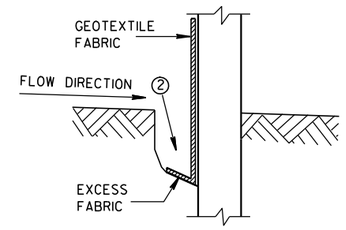
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

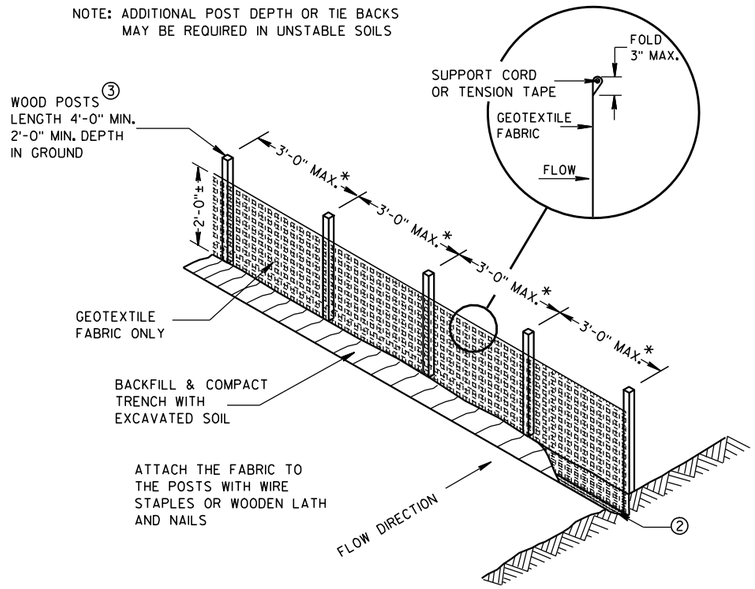
GENERAL NOTES

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.

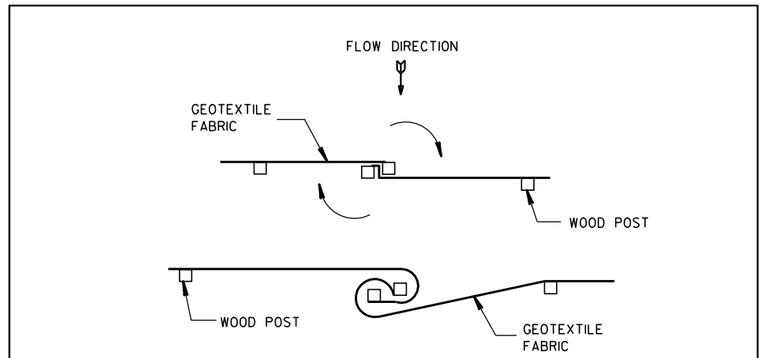


TRENCH DETAIL

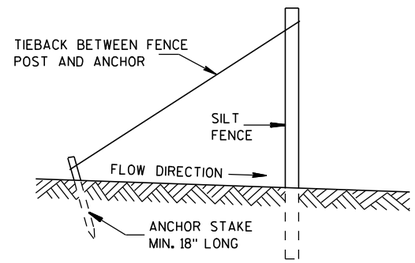


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

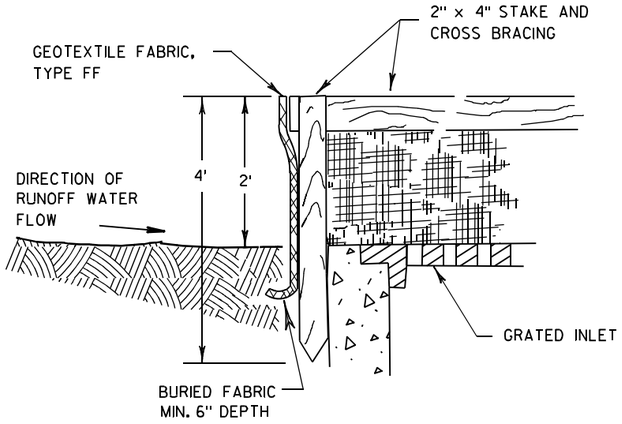
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

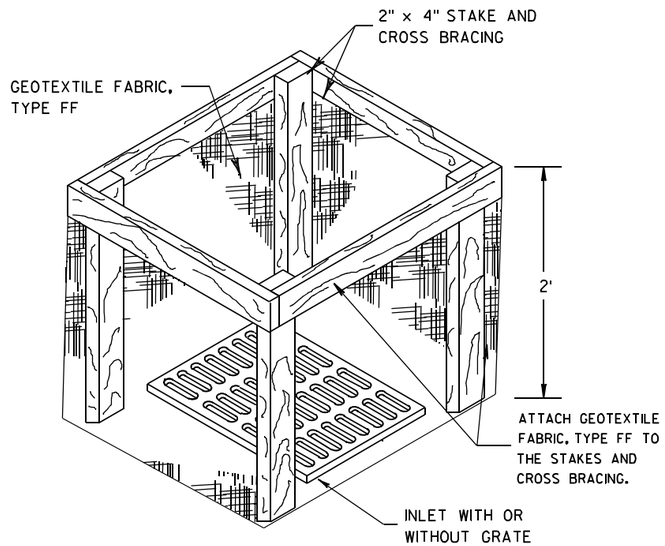
6

S.D.D. 8 E 9-6

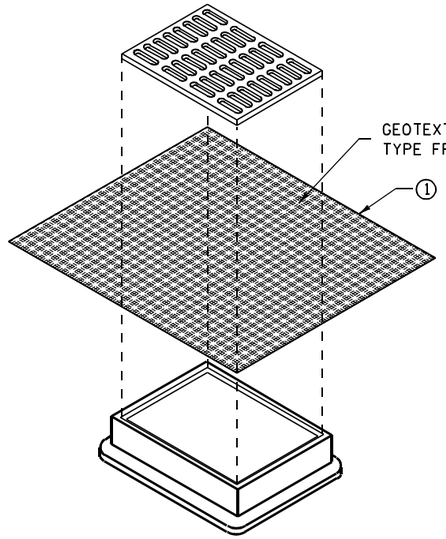
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S.D.D. 8 E 9-6



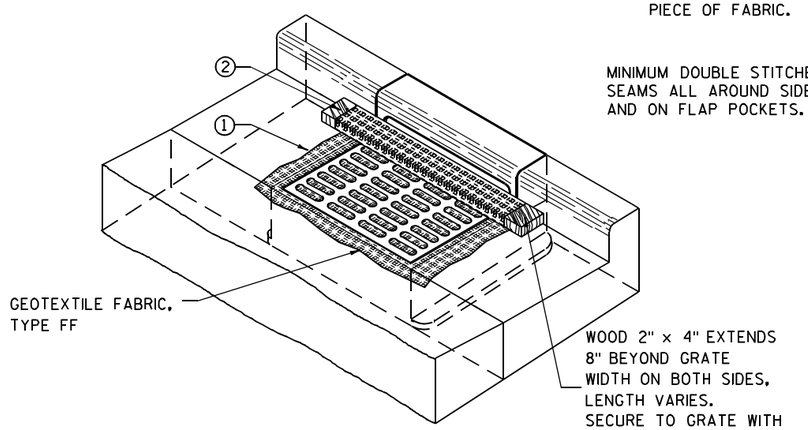


INLET PROTECTION, TYPE A

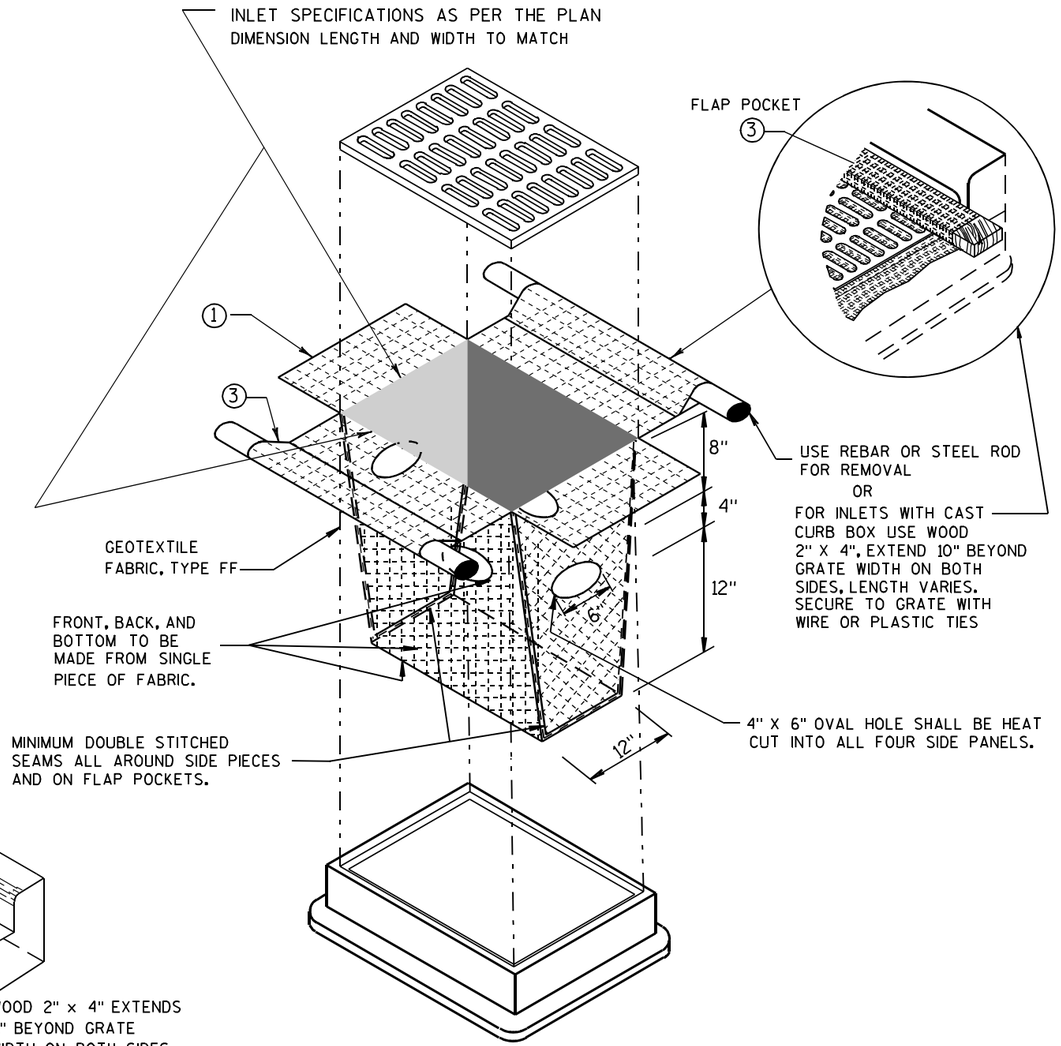


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

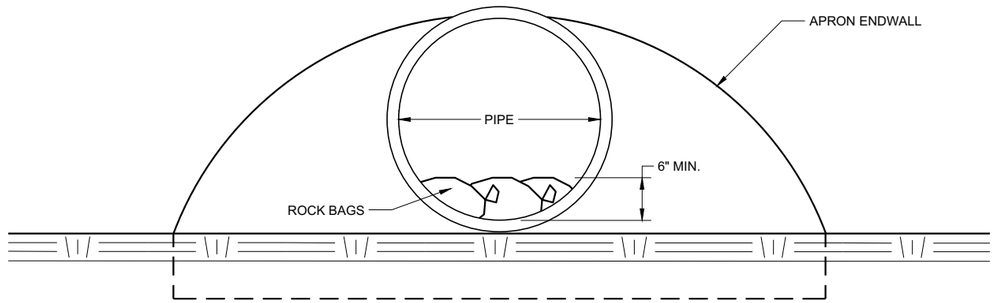
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

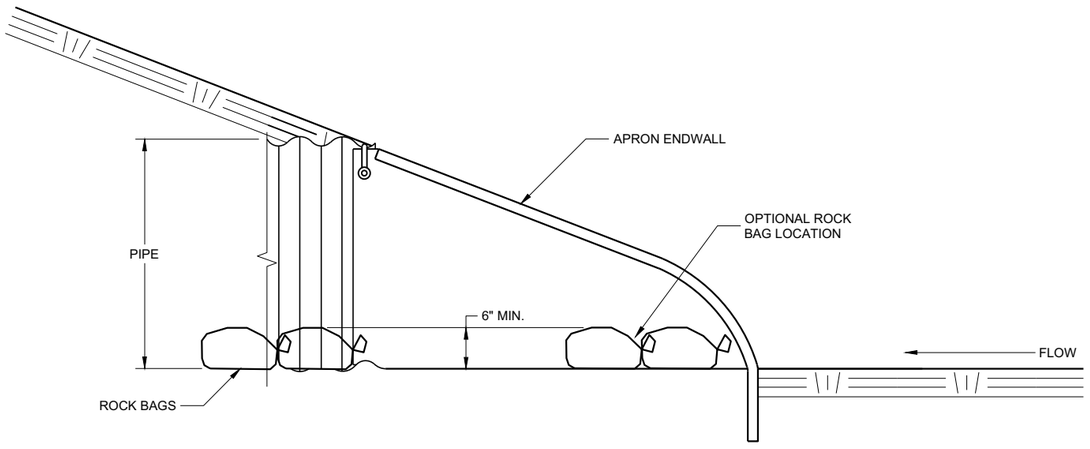
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Daniel Schave — EROSION CONTROL ENGI
FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

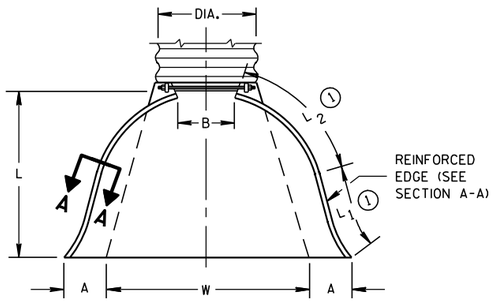
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

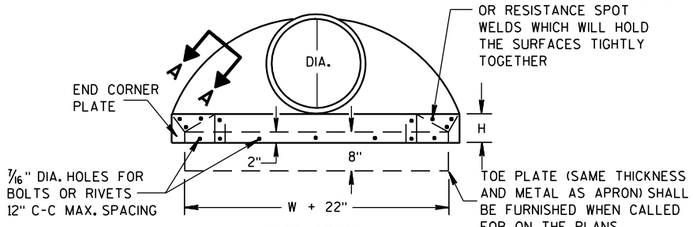
REINFORCED CONCRETE APRON ENDWALLS

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

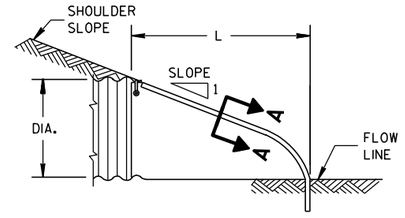
*MINIMUM
**MAXIMUM



PLAN VIEW

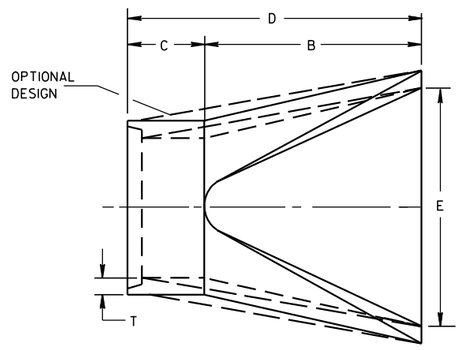


END VIEW

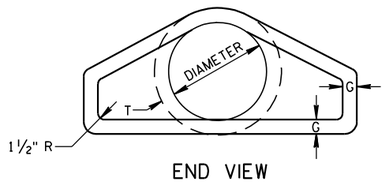


SIDE ELEVATION

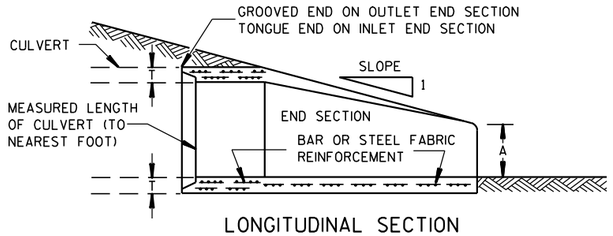
METAL ENDWALLS



PLAN

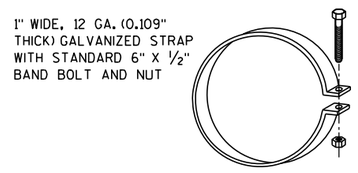


END VIEW



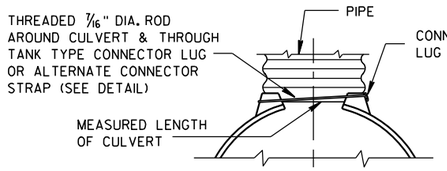
LONGITUDINAL SECTION

CONCRETE ENDWALLS

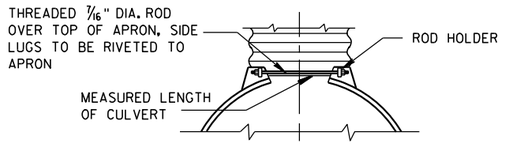


ALTERNATE FOR TYPE 1 CONNECTION

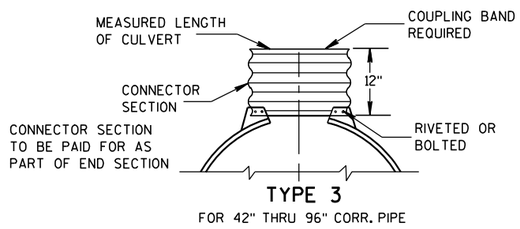
END SECTION CONNECTOR STRAP



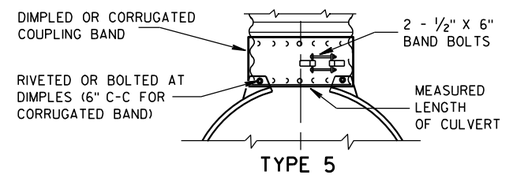
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

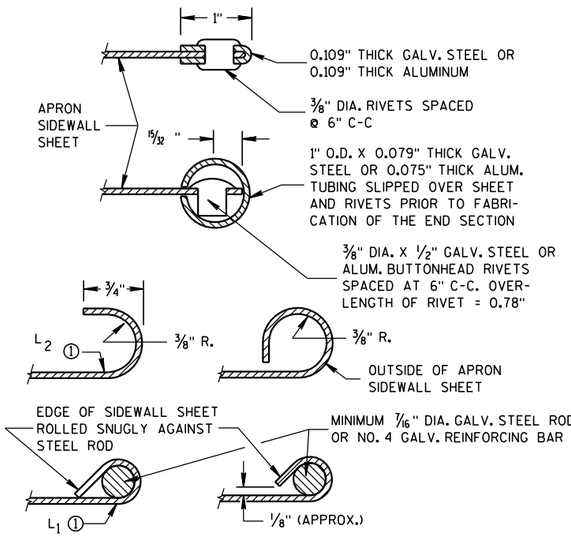
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

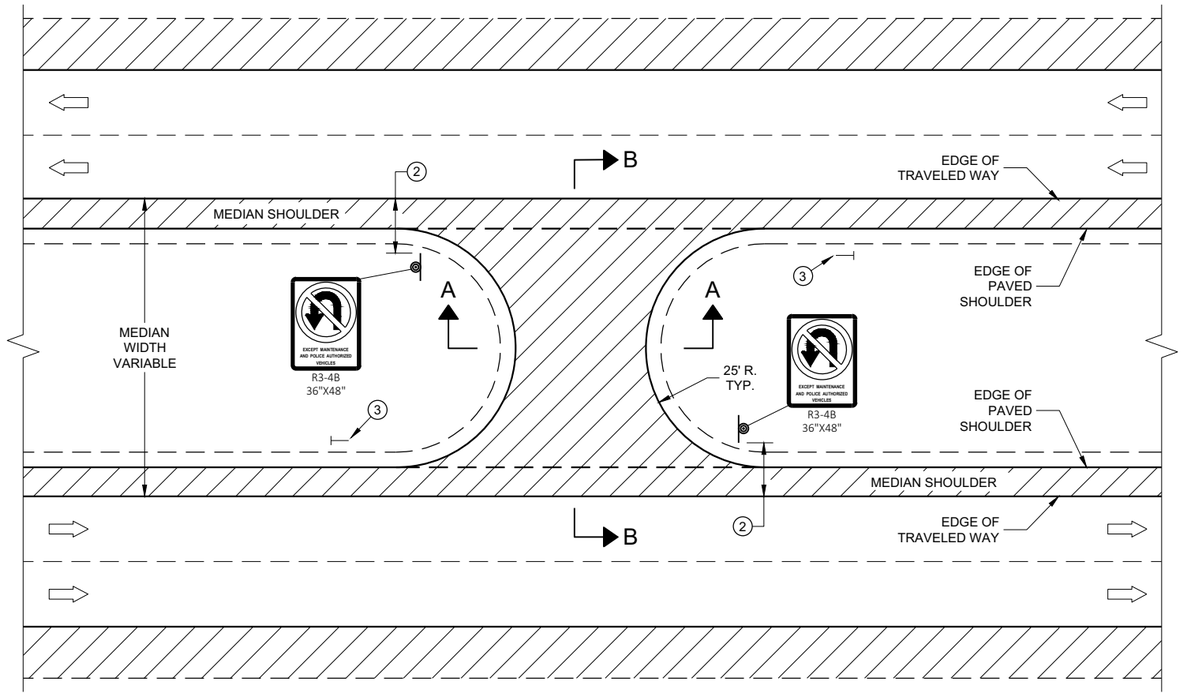
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

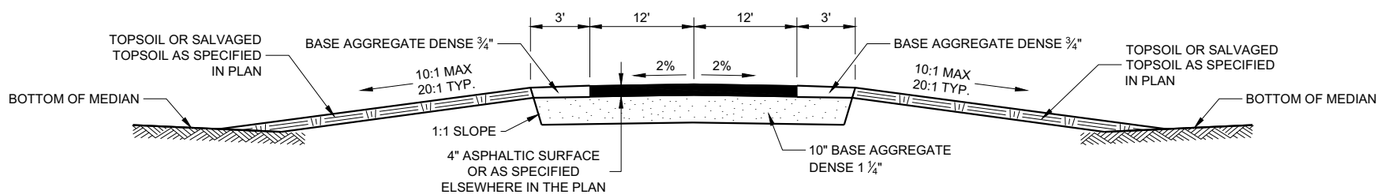
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

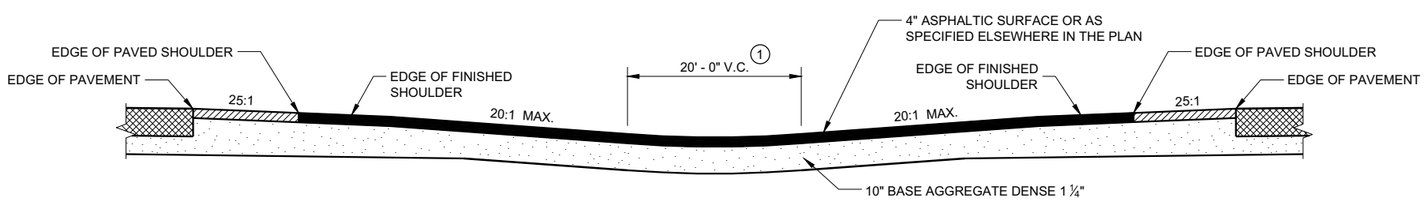
6
S.D.D. 8 F 1-11



PLAN VIEW



SECTION A-A



SECTION B-B

GENERAL NOTES

1. ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.
2. SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.
3. INSTALL DELINEATOR. SEE STANDARD DETAIL DRAWING 15A4.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR
- DIRECTION OF TRAFFIC

MAINTENANCE CROSSOVER FOR FREEWAYS

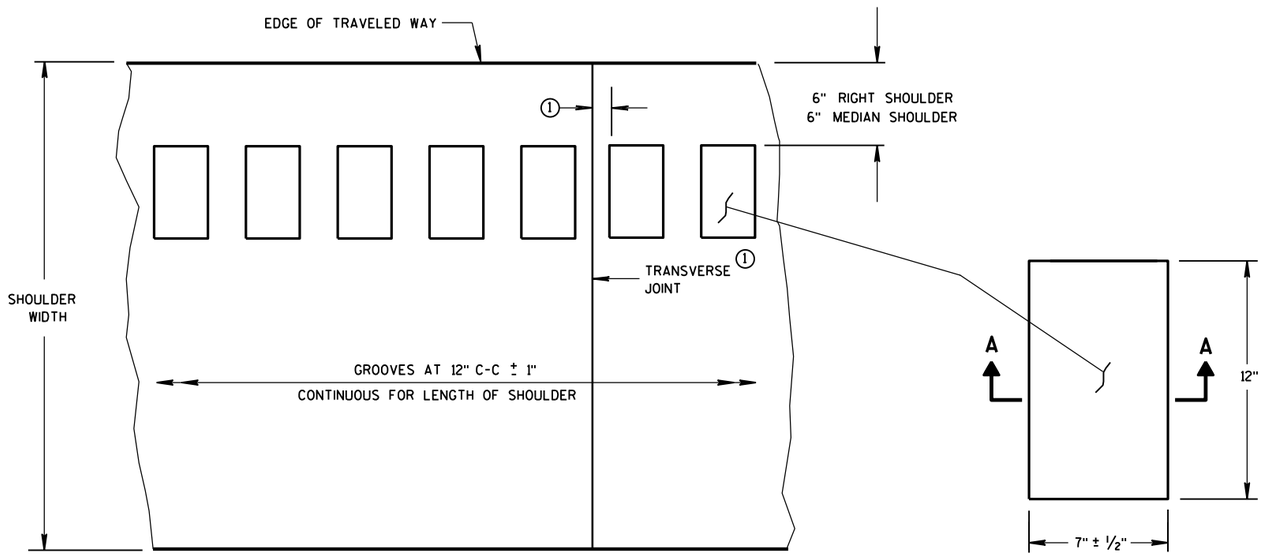
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 11A01 - 06



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

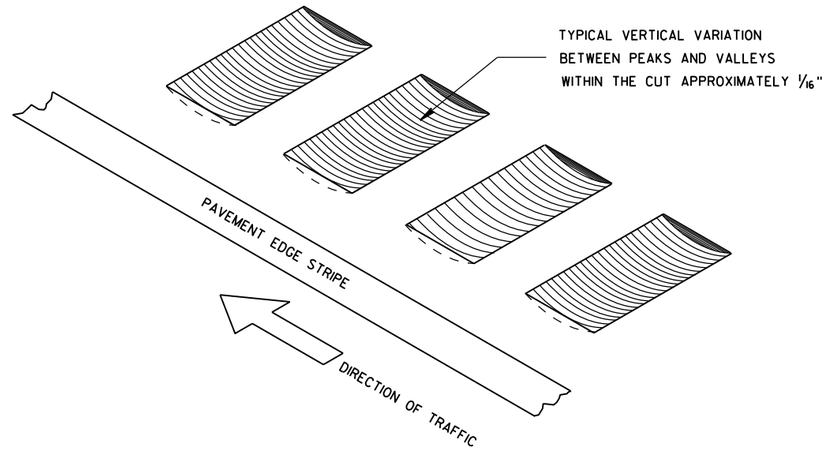
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

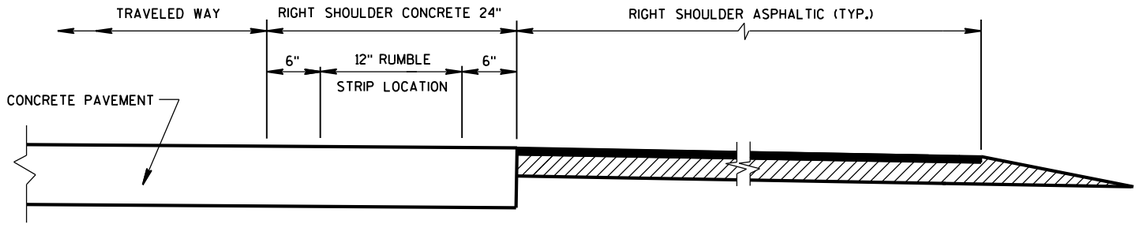
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

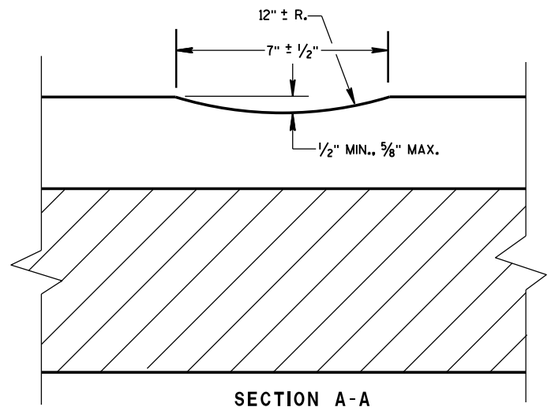
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



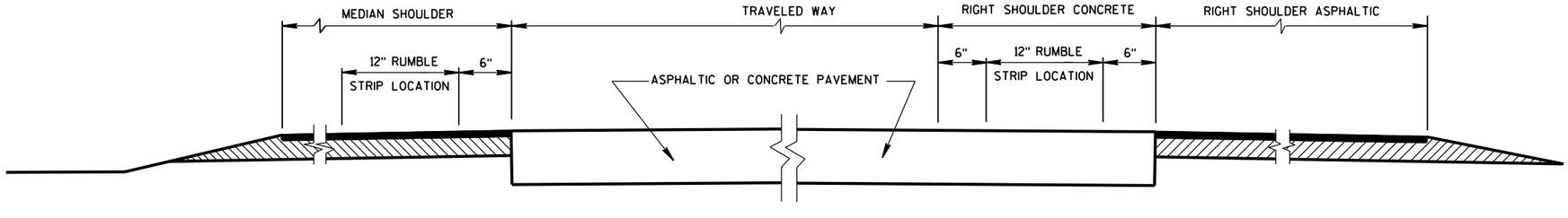
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION A-A



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIP, MILLING

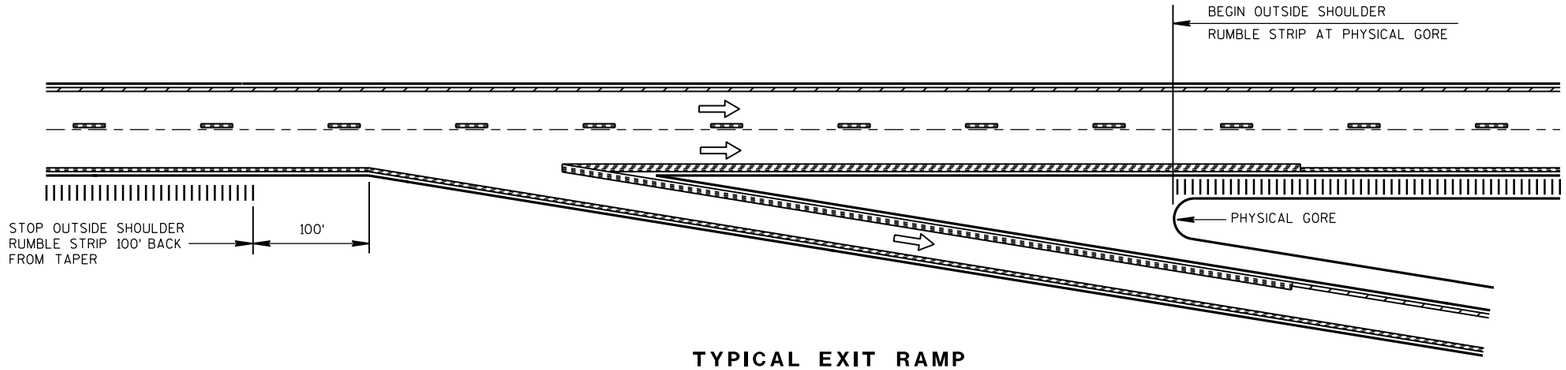
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 A 5-5a

6

S.D.D. 13 A 5-5a



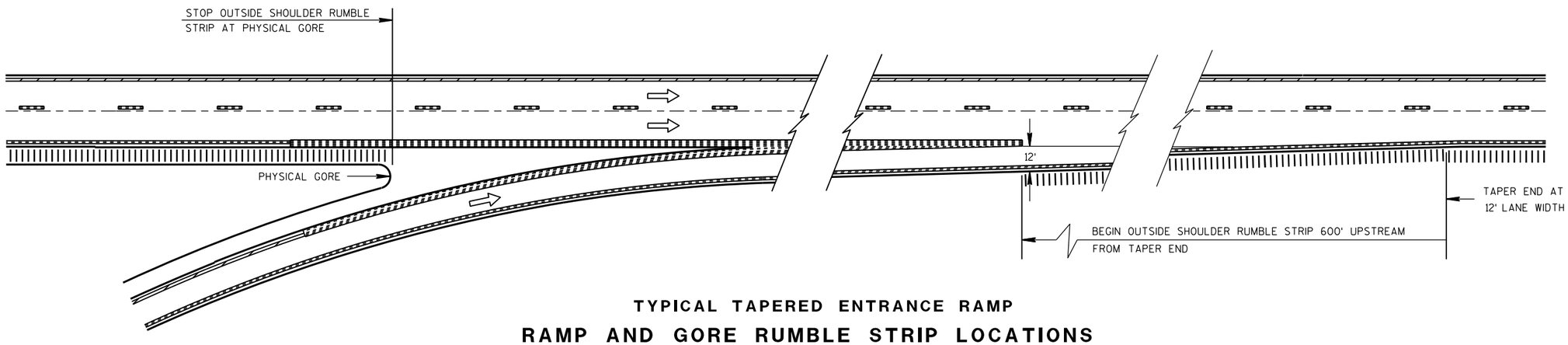
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

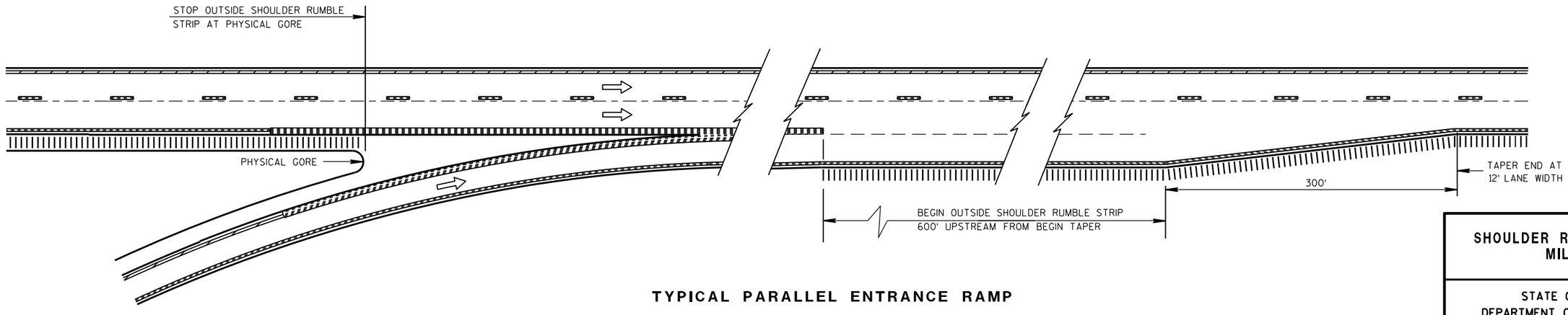
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

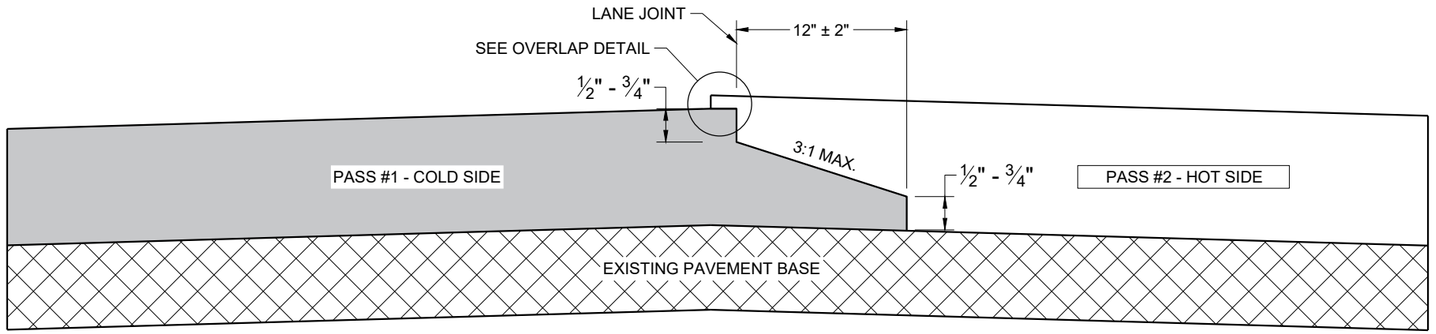
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

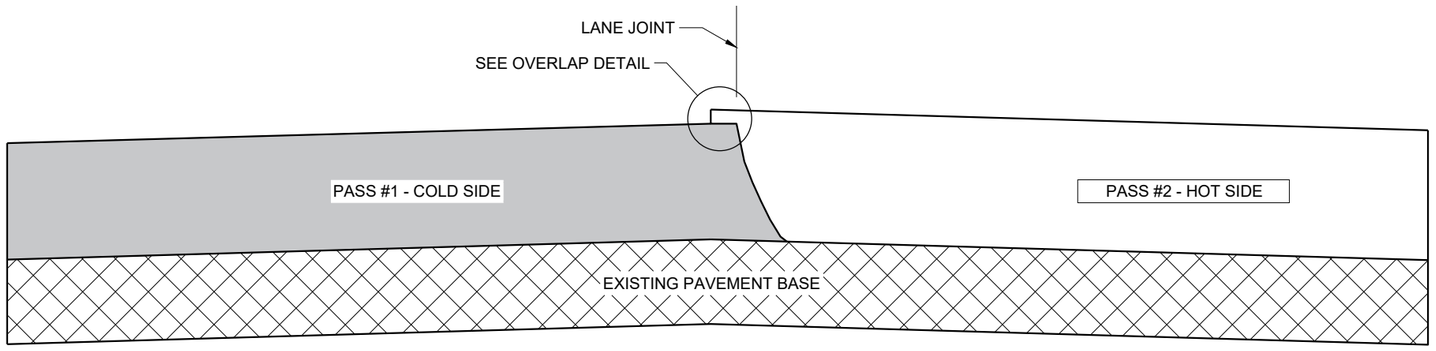
APPROVED
12/17/2012 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS ENGINEER
FHWA

6

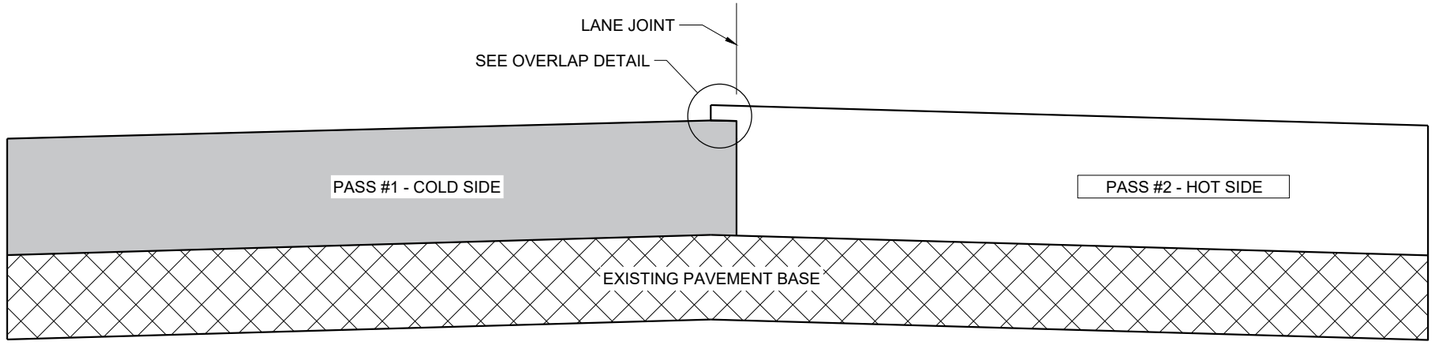
S.D.D. 13 A 5-5b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

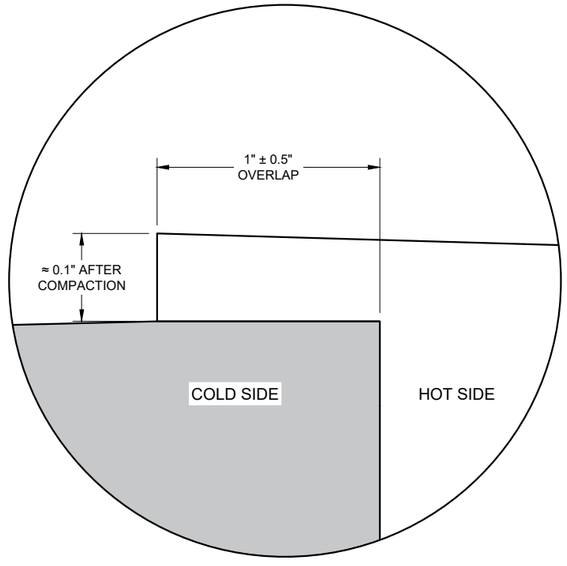
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

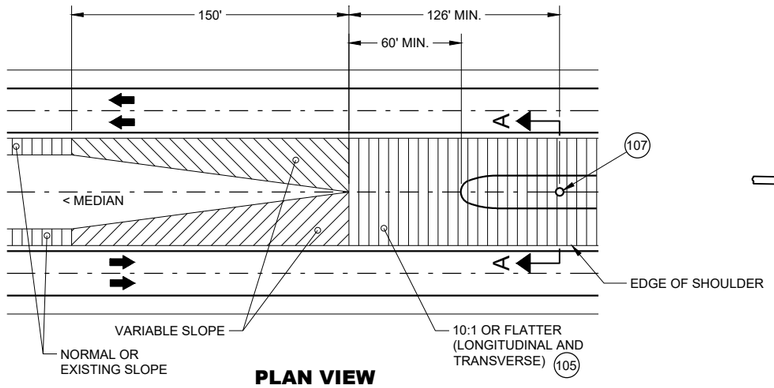
FHWA

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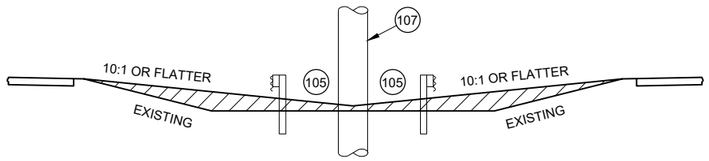
SDD 13C19 - 03

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SDD 13C19 - 03



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

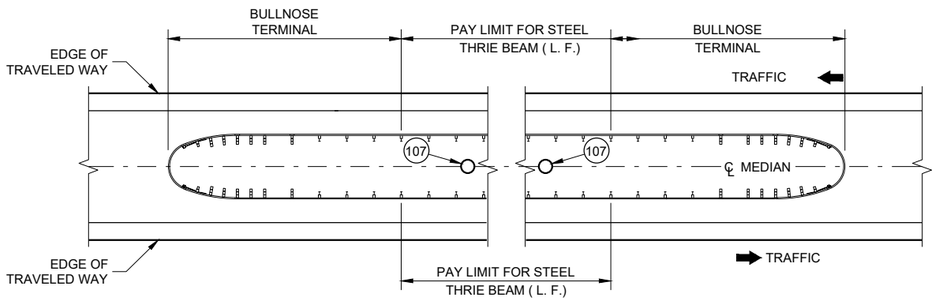
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

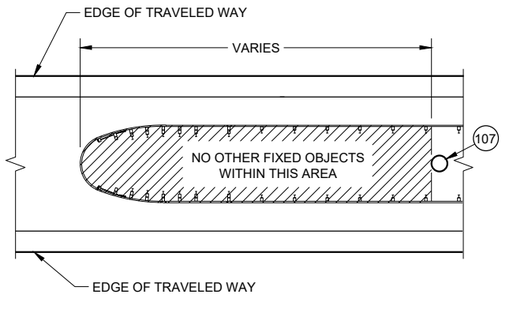
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

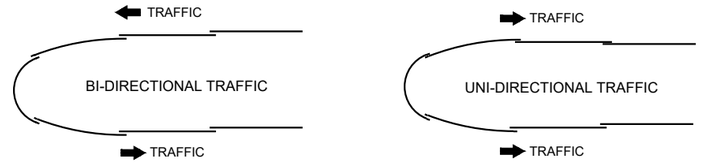
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



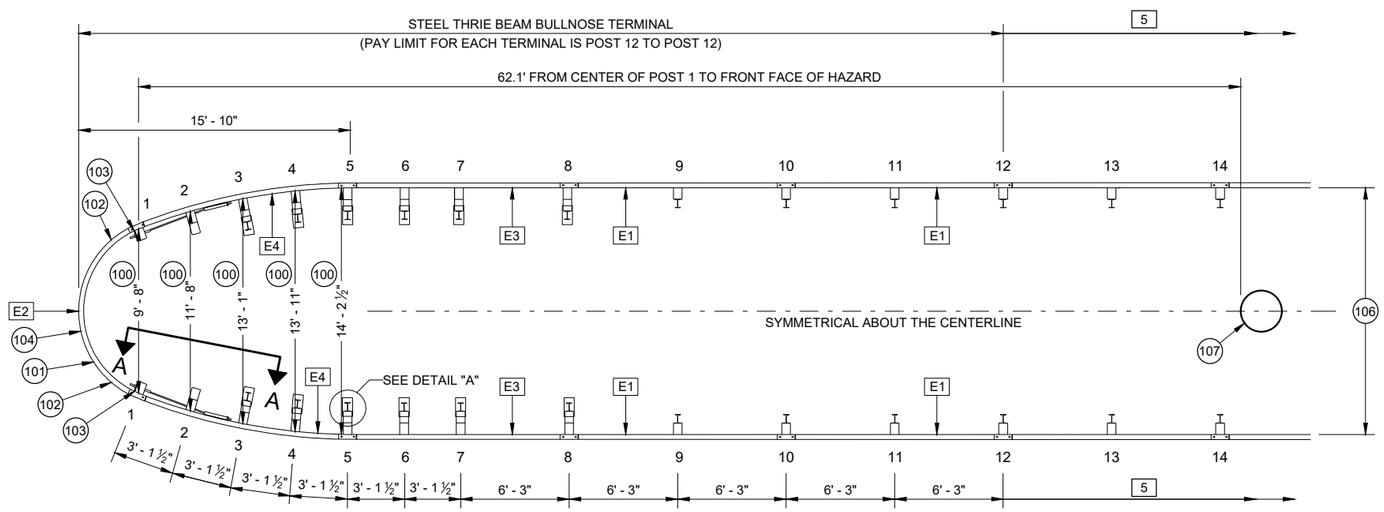
MEDIAN HAZARD PROTECTION PAY LIMITS



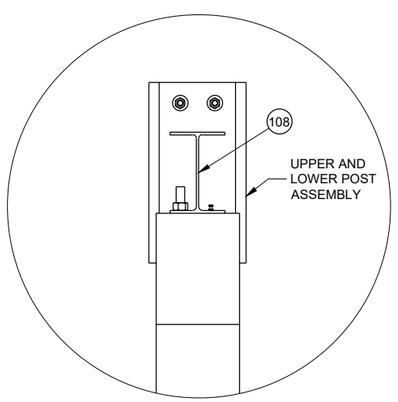
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



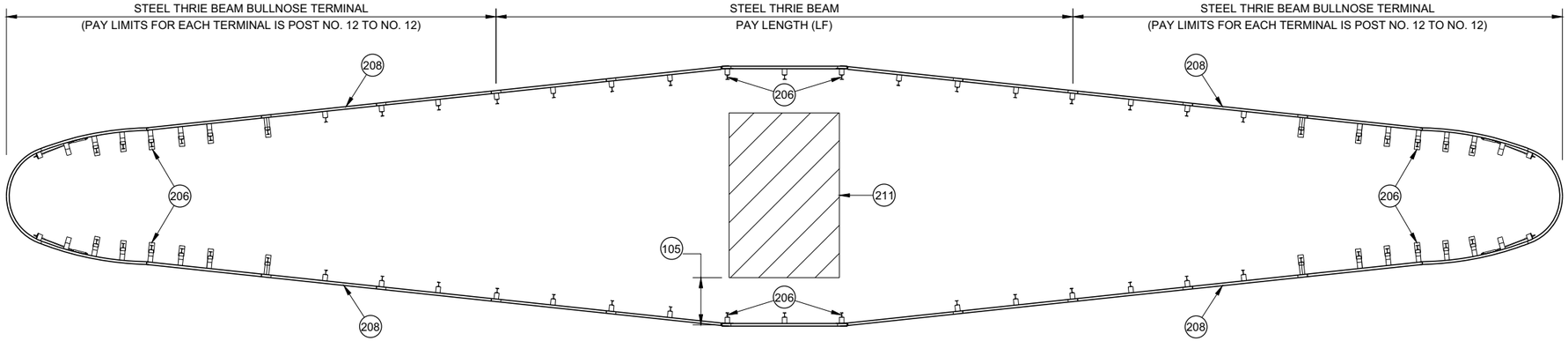
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 04a

SDD 14B26 - 04a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

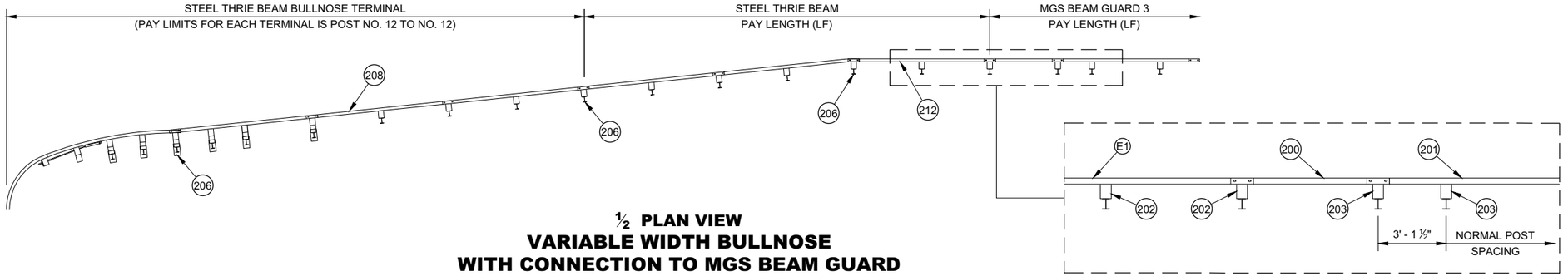
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

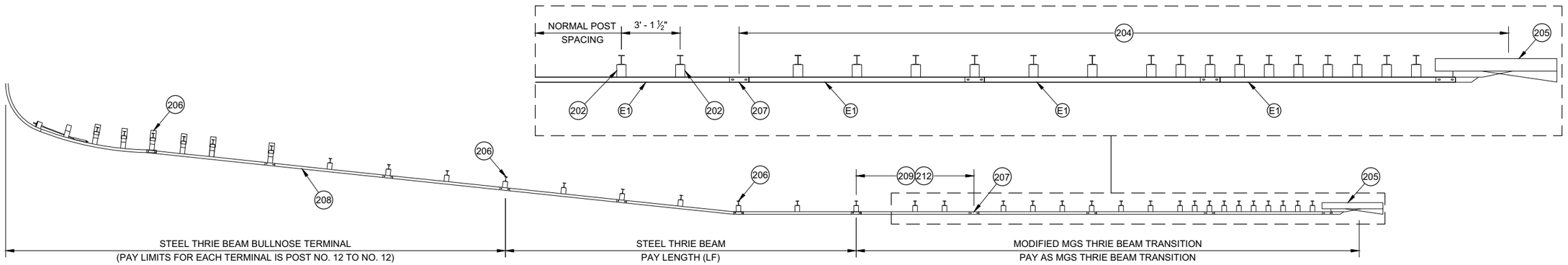
210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO MGS BEAM GUARD



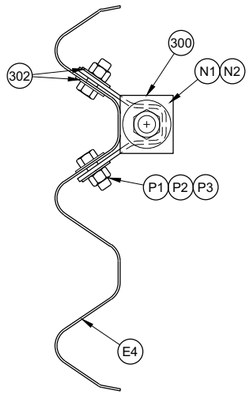
½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

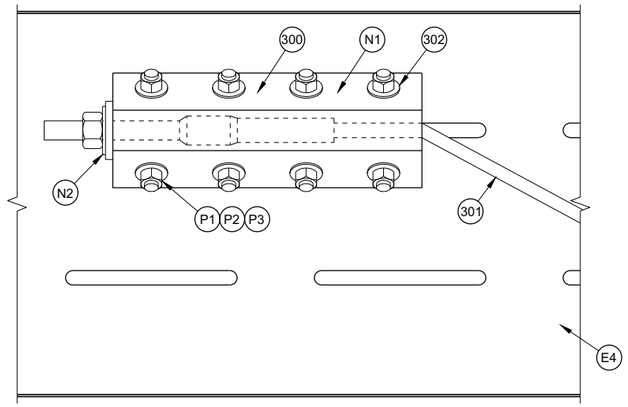
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SDD 14B26 - 04b

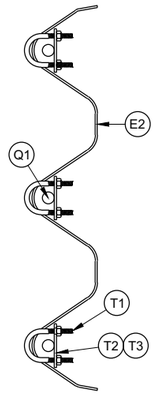


PROFILE VIEW

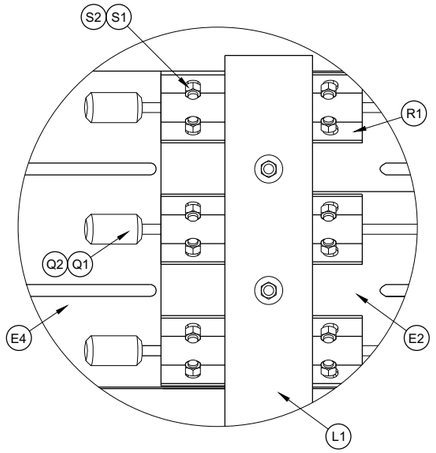
CABLE ANCHOR ASSEMBLY CONNECTION



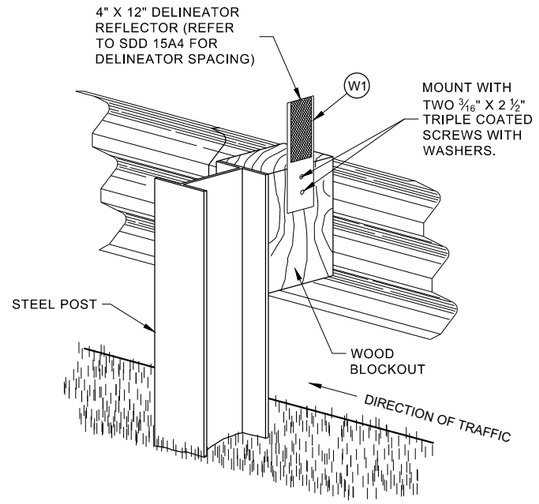
CABLE ANCHOR ASSEMBLY



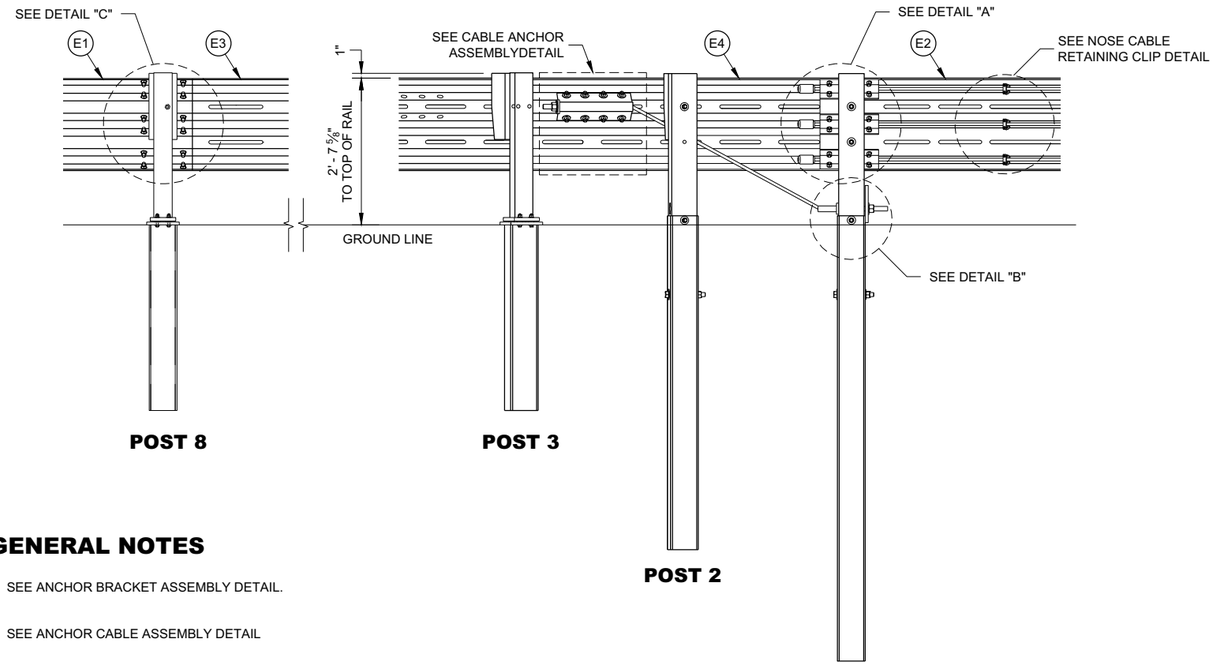
NOSE CABLE RETAINING CLIP



DETAIL "A"

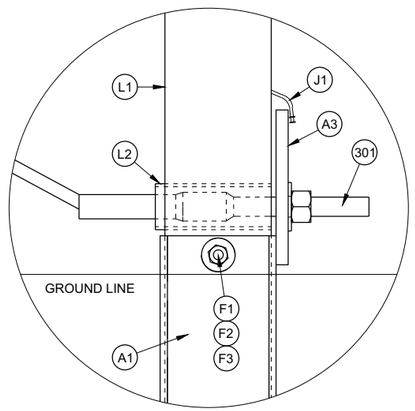


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

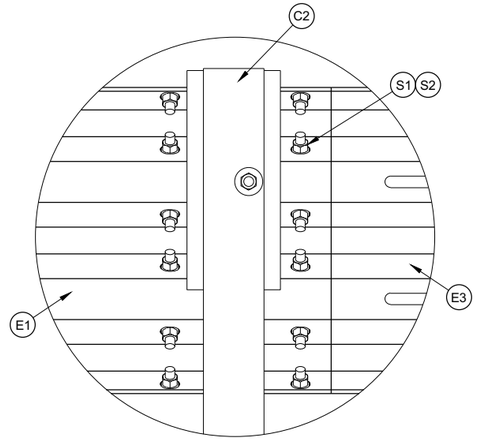


POST 8 **POST 3** **POST 2** **POST 1**

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

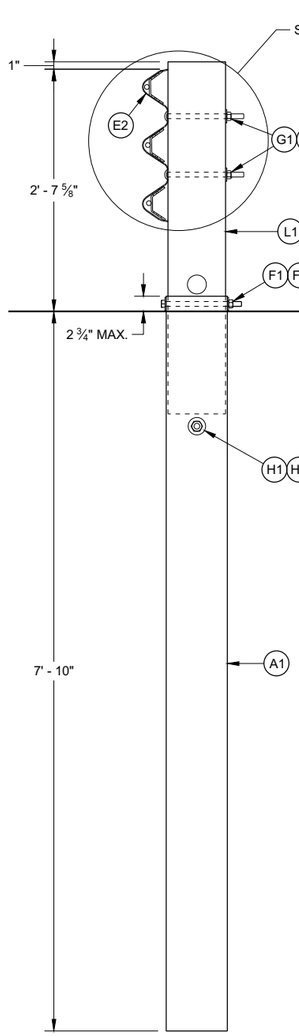
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

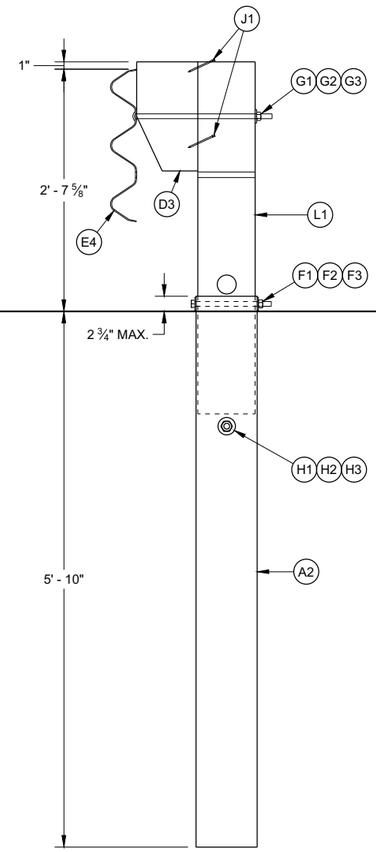
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SDD 14B26 - 04c

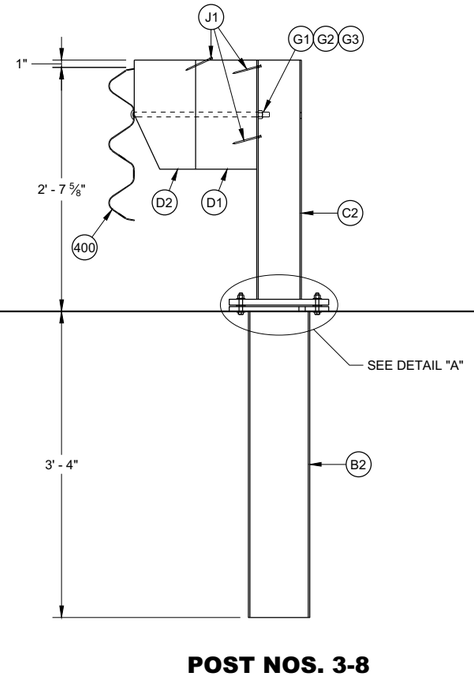
SDD 14B26 - 04c



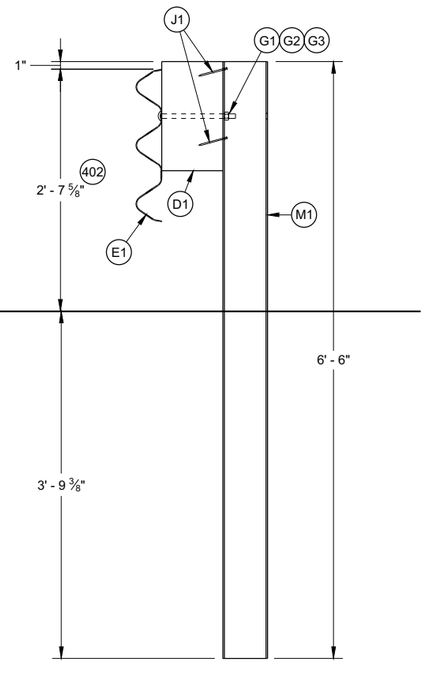
POST NO. 1



POST NO. 2



POST NOS. 3-8



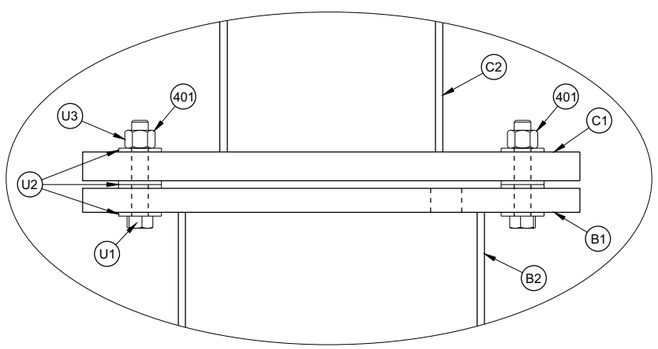
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

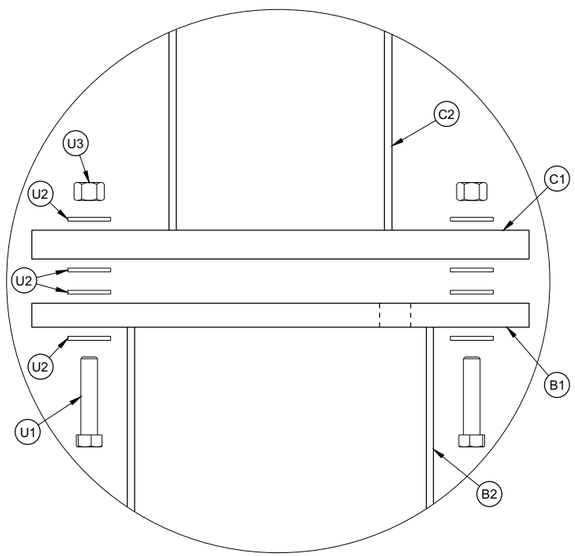
400 RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

401 TORQUE BOLD BETWEEN 60-75 FT-LB

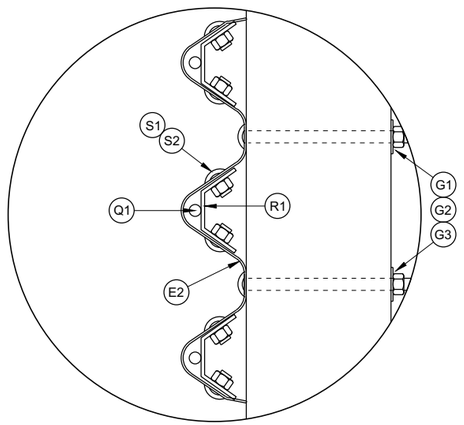
402 HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



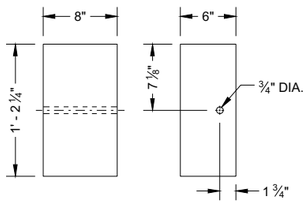
DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

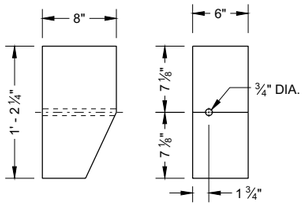
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SDD 14B26 - 04d



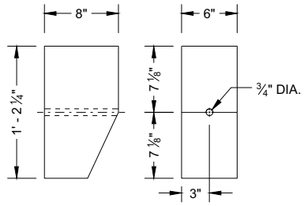
ELEVATION PROFILE

BLOCKOUT (D1)



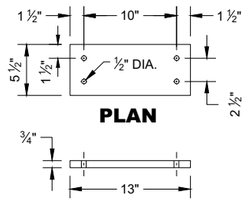
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

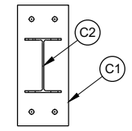
BLOCKOUT (D3)



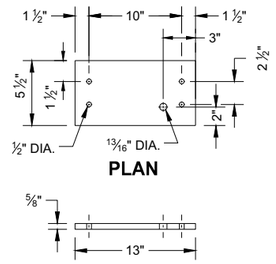
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



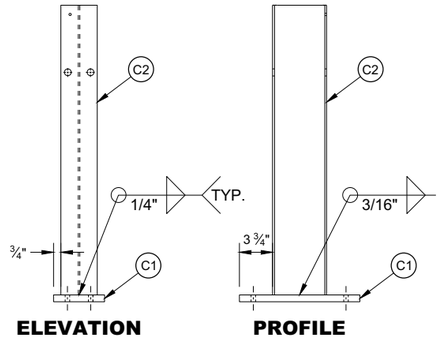
PLAN



PLAN

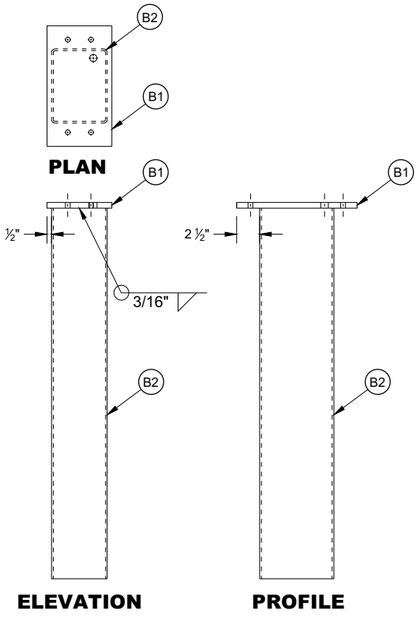
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

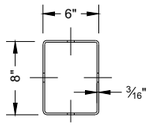
UPPER POST ASSEMBLY



PLAN

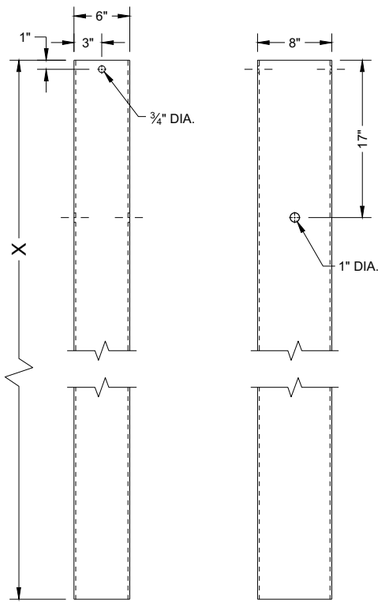
ELEVATION PROFILE

LOWER POST ASSEMBLY



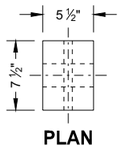
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 6"

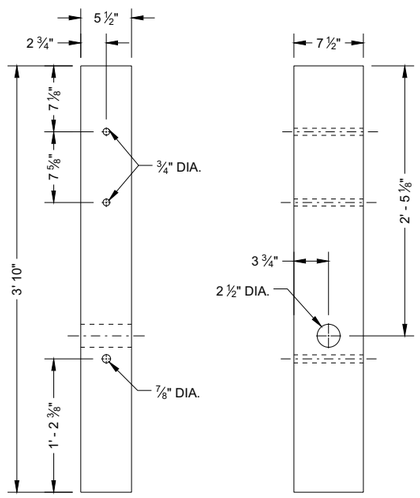


ELEVATION PROFILE

FOUNDATION TUBE

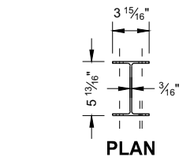


PLAN

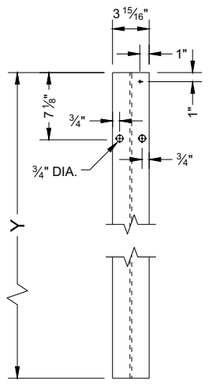


ELEVATION PROFILE

BCT POST (L1)



PLAN



ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 8 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

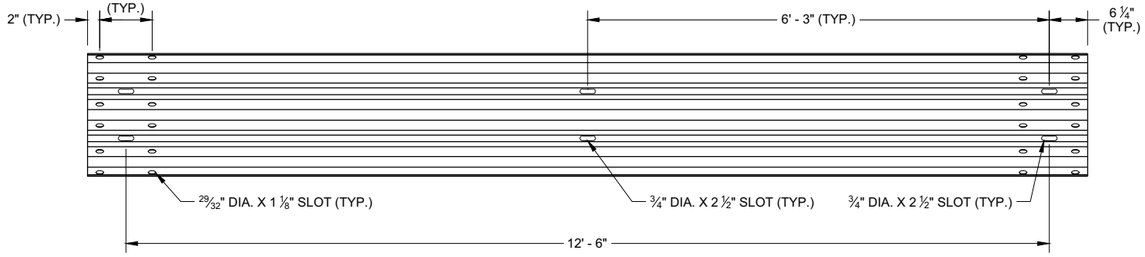
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

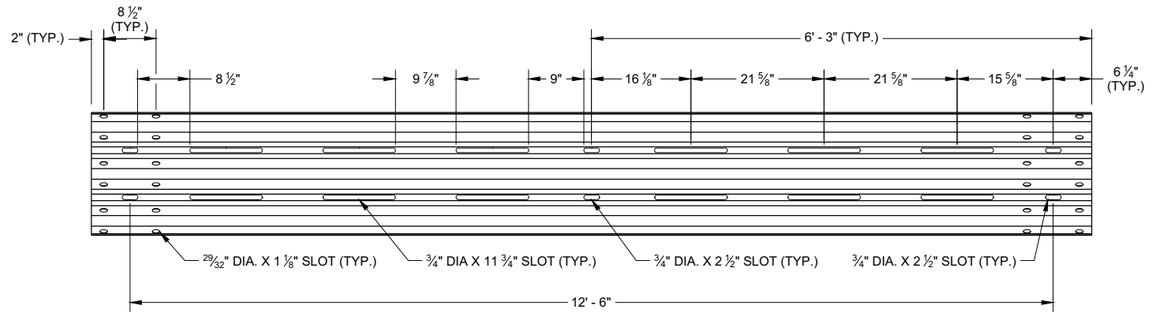
SDD 14B26 - 04e

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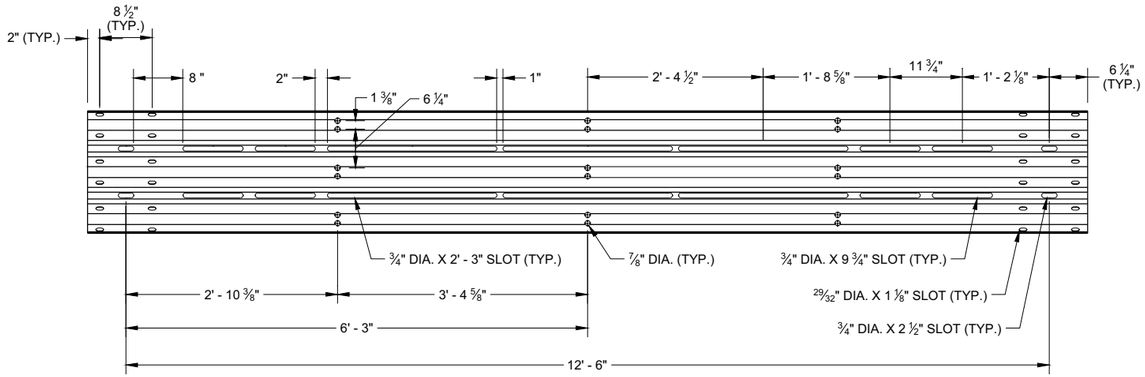
SDD 14B26 - 04e



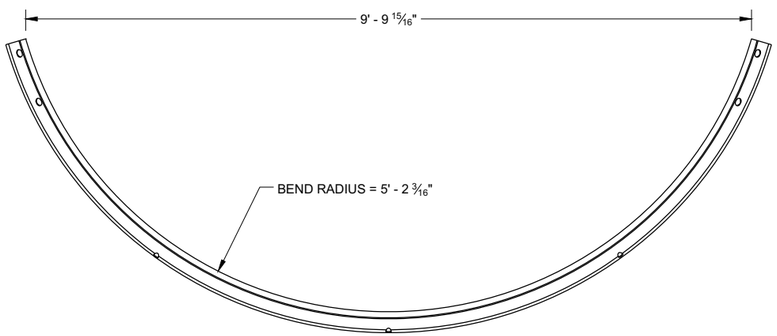
SLOTTED THRIE BEAM RAIL E1



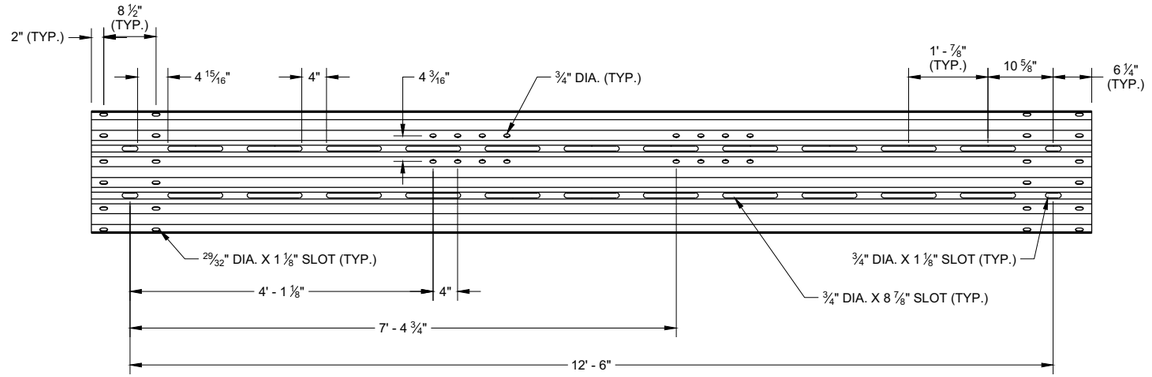
SLOTTED THRIE BEAM RAIL E3



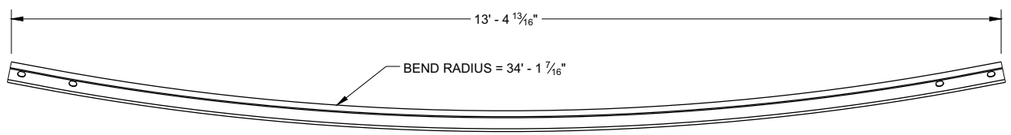
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



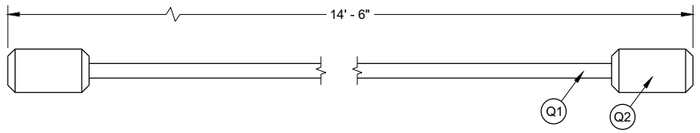
PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

STEEL THRIE BEAM BULLNOSE TERMINAL

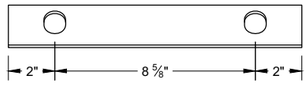
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

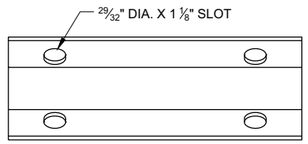
SDD 14B26 - 04f



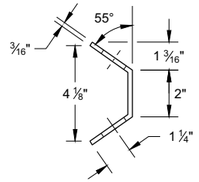
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

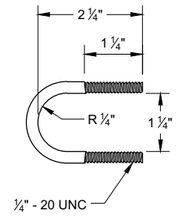


ELEVATION VIEW

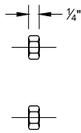


PROFILE VIEW

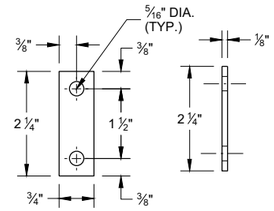
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

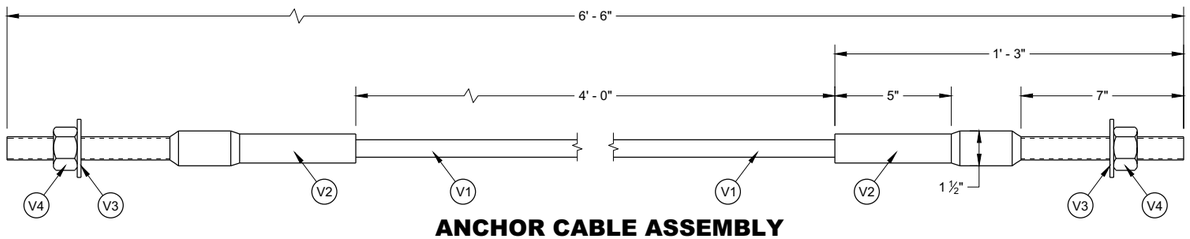


U - BOLT NUT (T3)

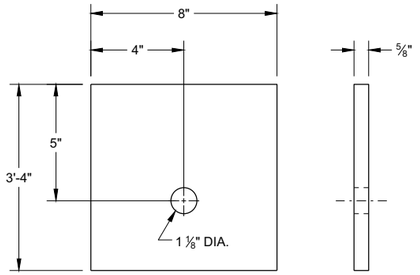


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

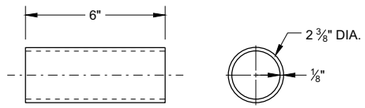


ANCHOR CABLE ASSEMBLY



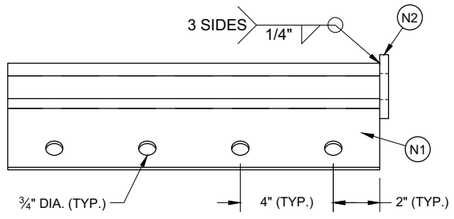
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

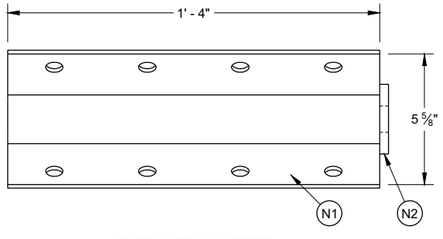


ELEVATION VIEW **PROFILE VIEW**

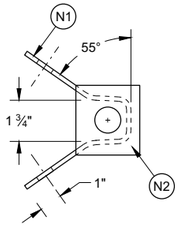
BCT POST SLEEVE (L2)



PLAN VIEW

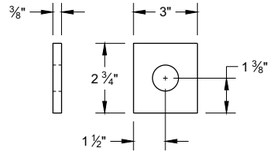


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 04g

6

SDD 14B26 - 04g

BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	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
B1	LOWER SLIP POST ASSEMBLY - 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
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - 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
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 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
N1	ANCHOR BRACKET	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
N2	ANCHOR BRACKET - BEARING 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

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	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
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM 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
V1	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	REFLECTOR	SEE SDD 15A4

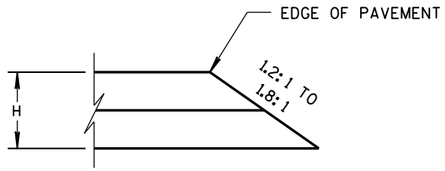
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

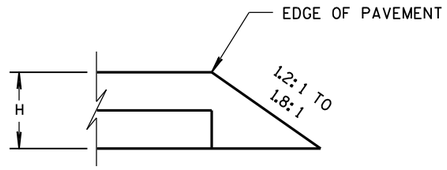
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SDD 14B26 - 04h



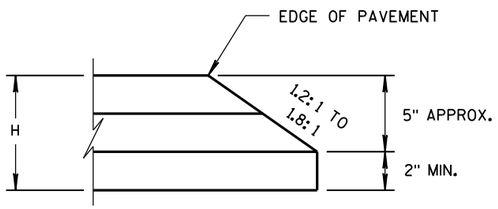
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



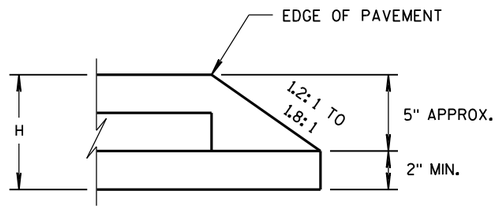
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

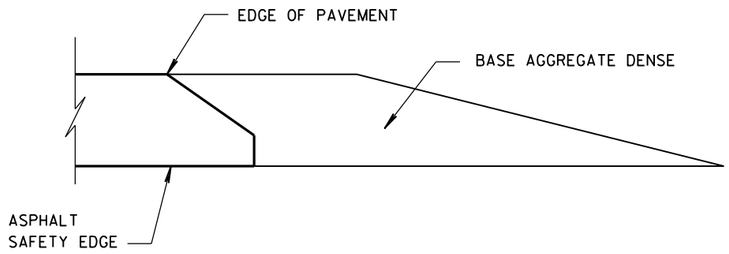
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(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.

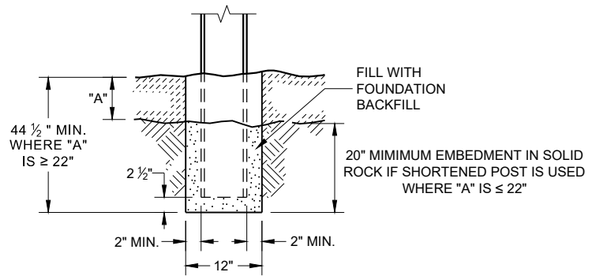
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

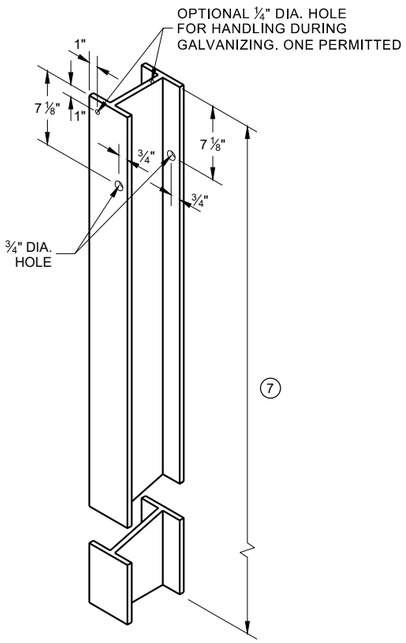
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

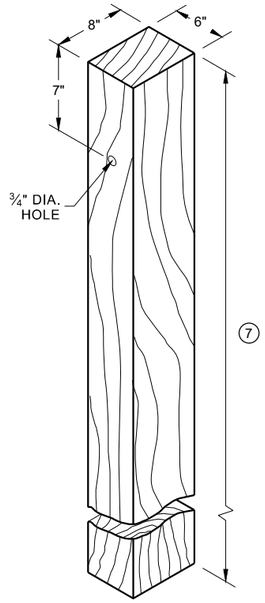
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



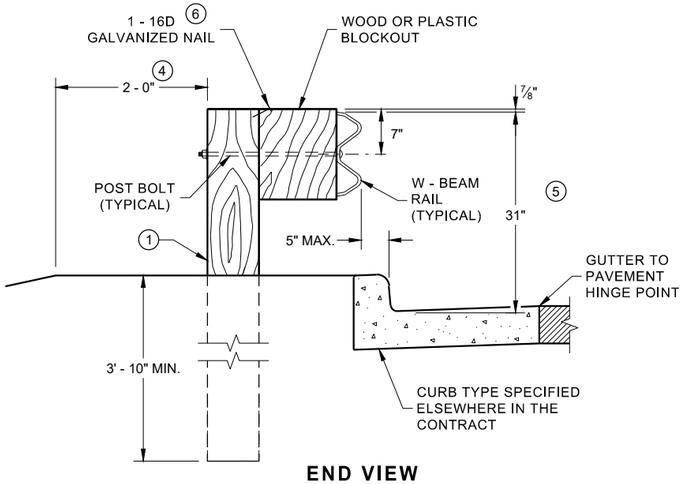
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



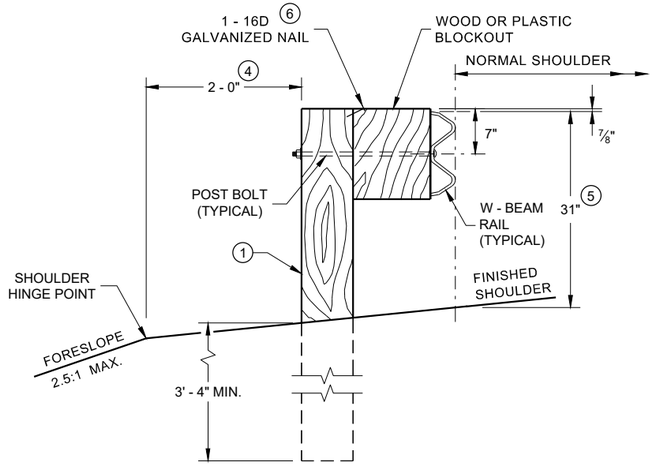
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



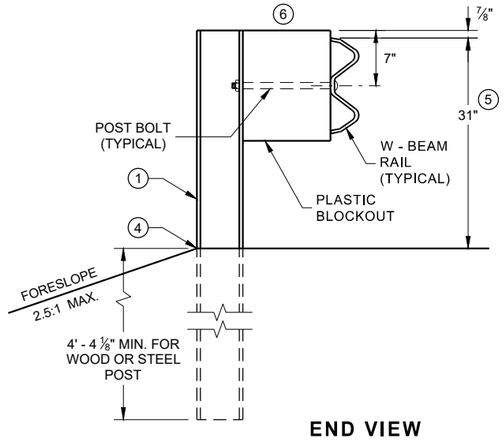
WOOD POST (6" X 8") NOMINAL (1)



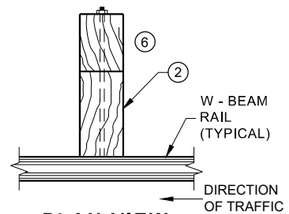
END VIEW
LOCATED ALONG A CURBED ROADWAY



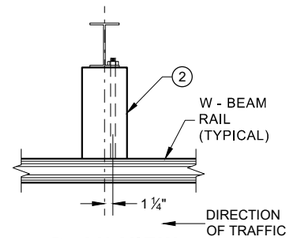
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



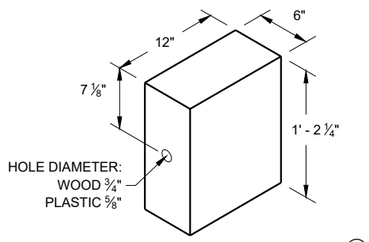
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

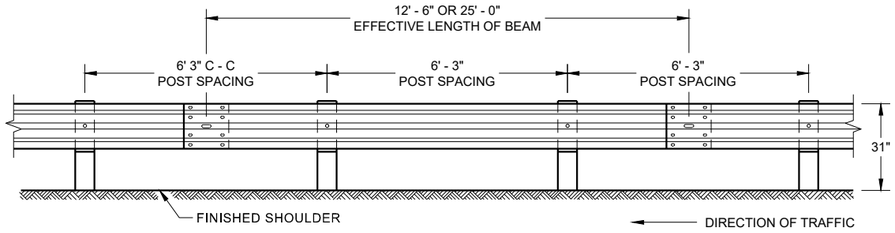
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

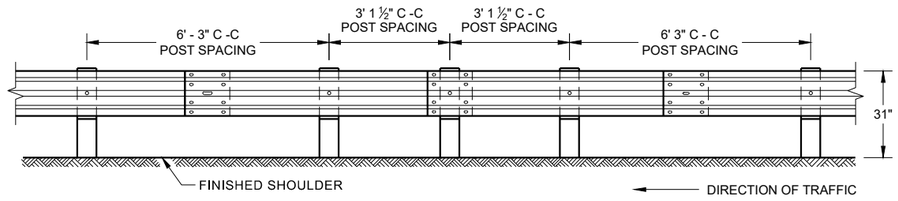
SDD 14B42 - 07a

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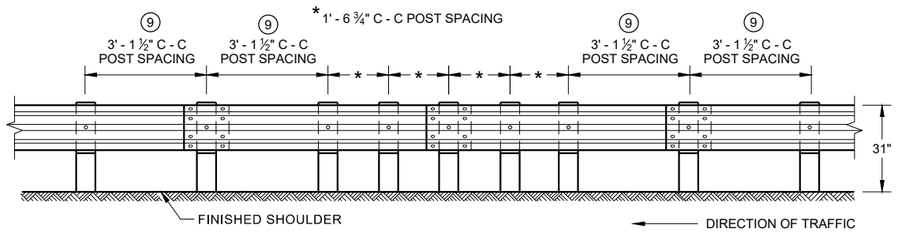
SDD 14B42 - 07a



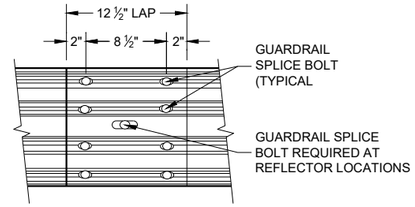
FRONT VIEW
POST SPACING STANDARD INSTALLATION



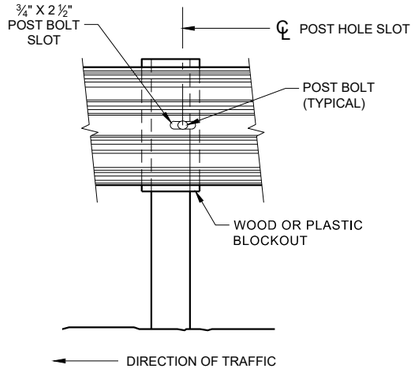
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



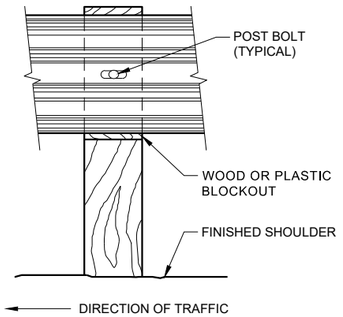
FRONT VIEW
QUARTER POST SPACING (QS)



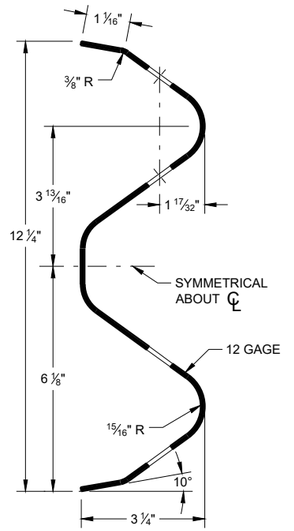
FRONT VIEW
MID-SPAN BEAM SPLICE



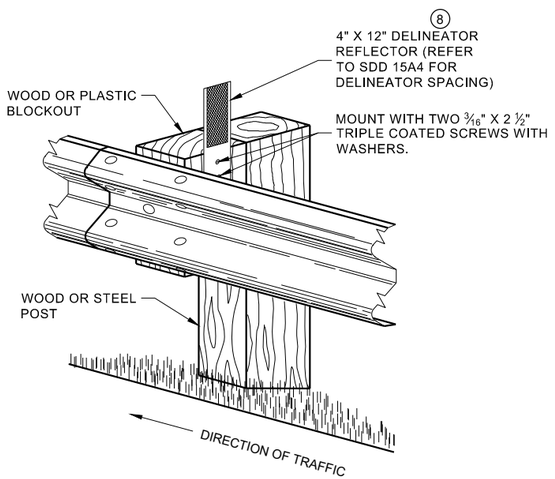
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

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.

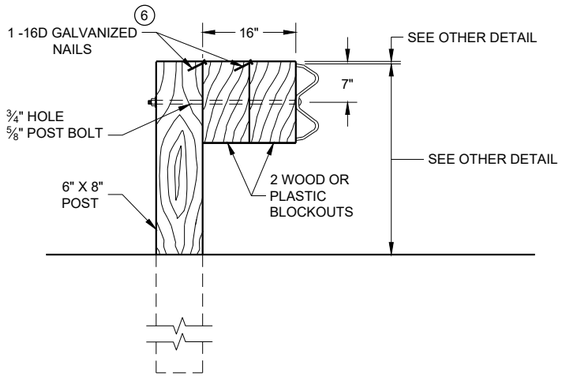
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

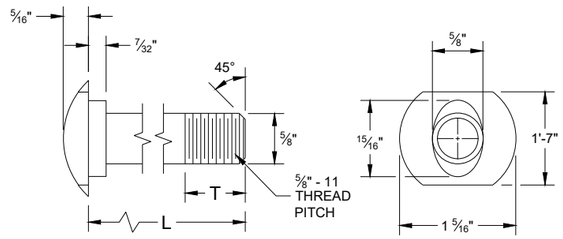


DETAIL FOR 16" BLOCKOUT DEPTH

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.

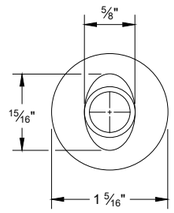
NOTE:

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.

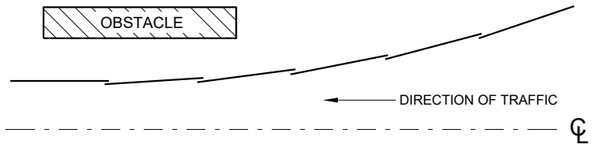


POST BOLT TABLE

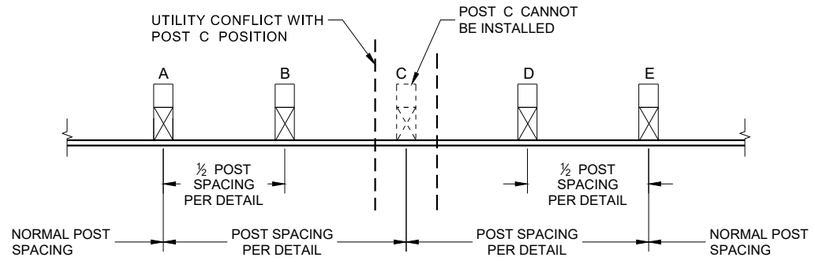
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



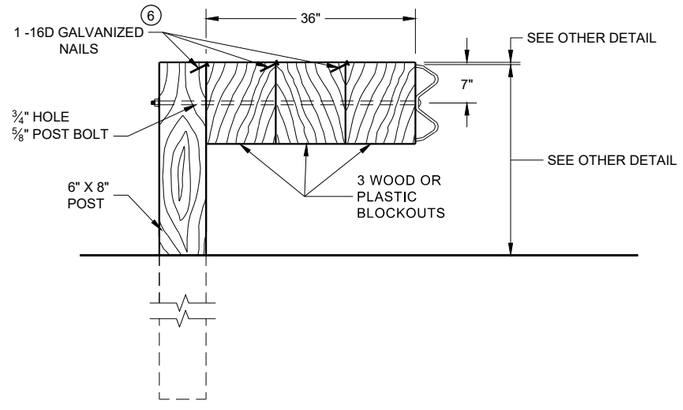
ALTERNATE BOLT HEAD



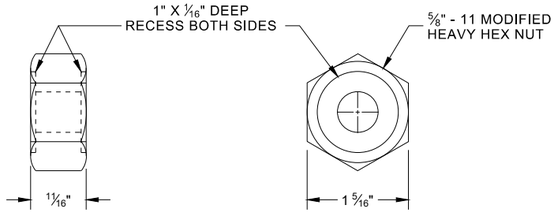
PLAN VIEW
BEAM LAPPING DETAIL



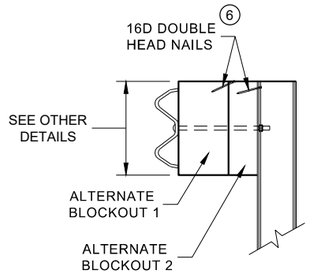
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



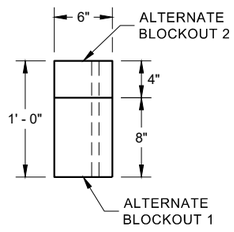
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

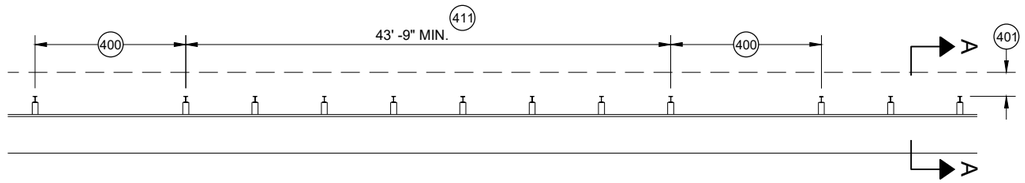
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

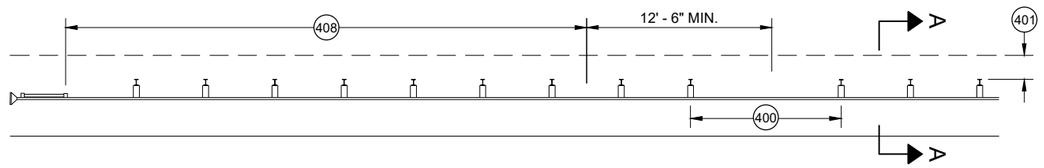
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

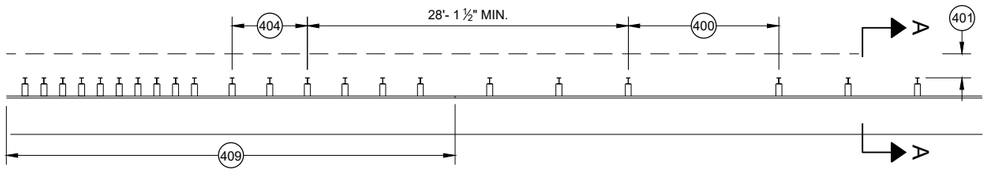
6
SDD 14B42 - 07c



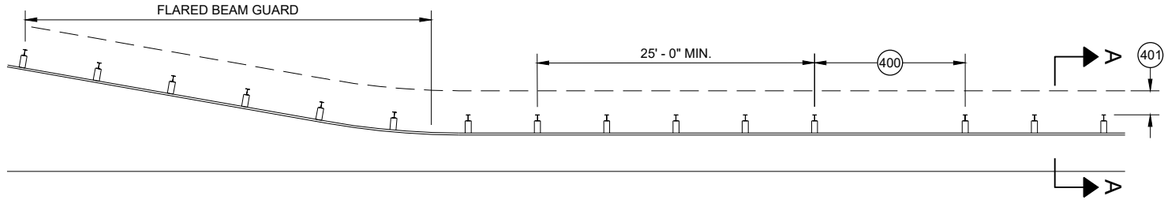
MISSING POST IN MGS GUARDRAIL



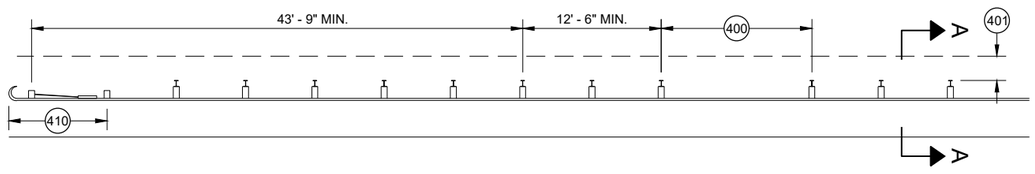
MISSING POST IN MGS GUARDRAIL NEAR EAT



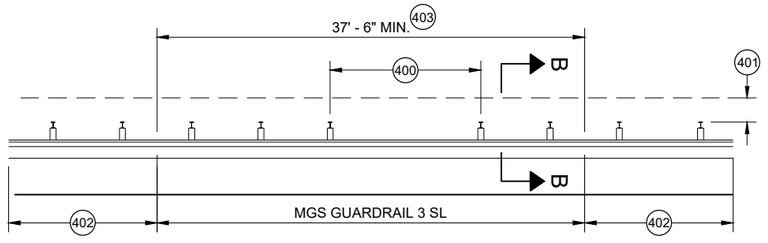
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

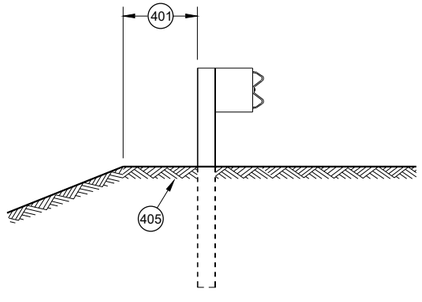


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

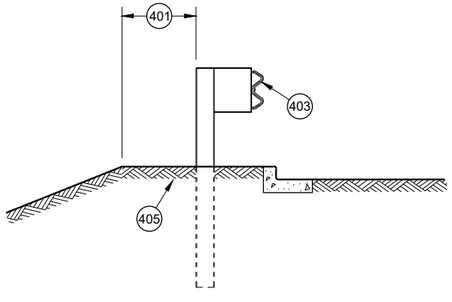


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

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.

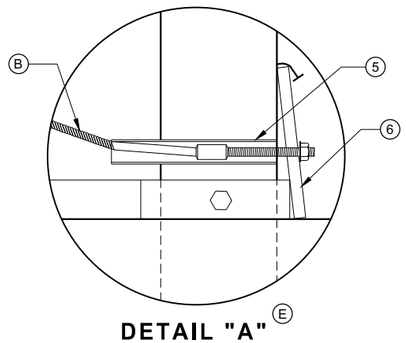
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

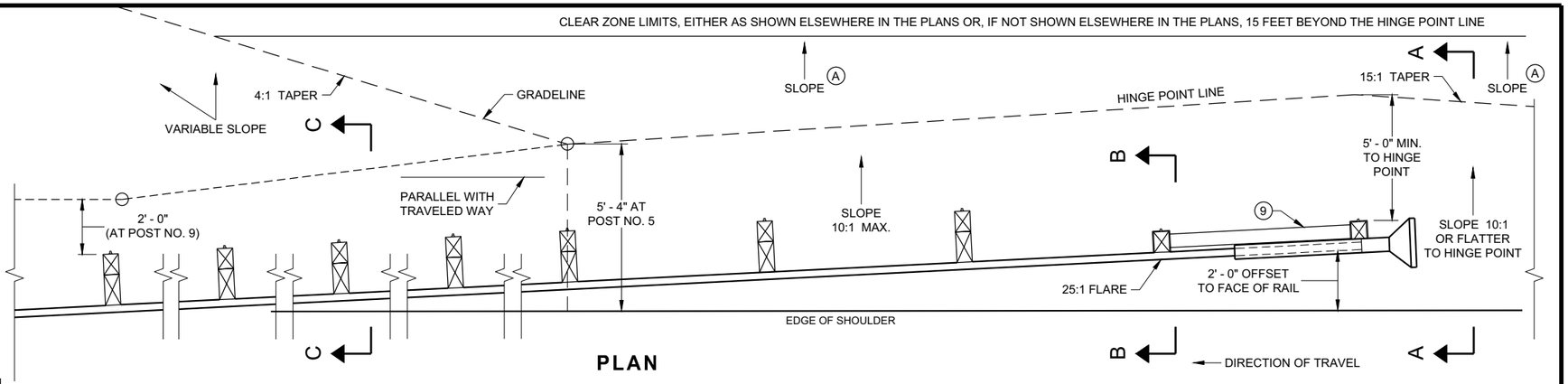
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

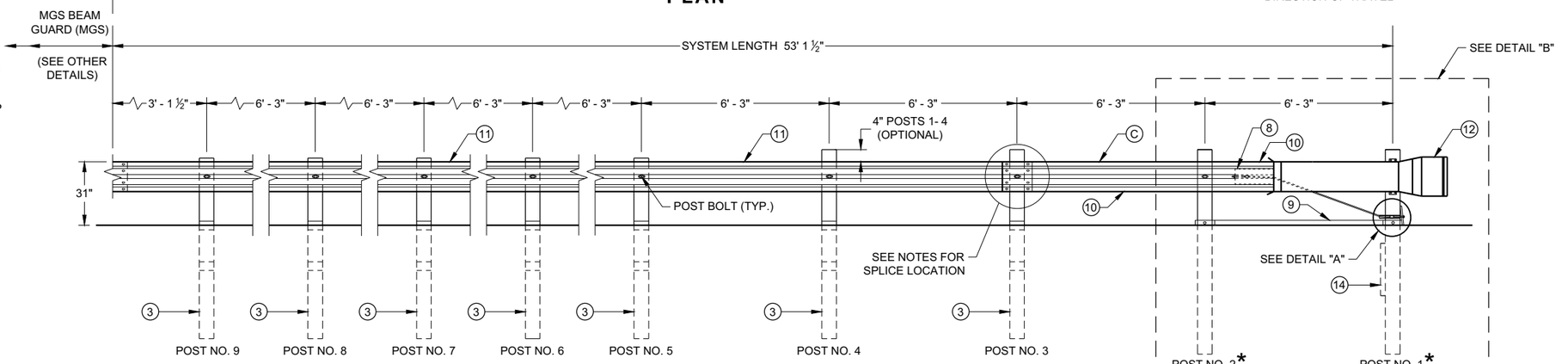
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



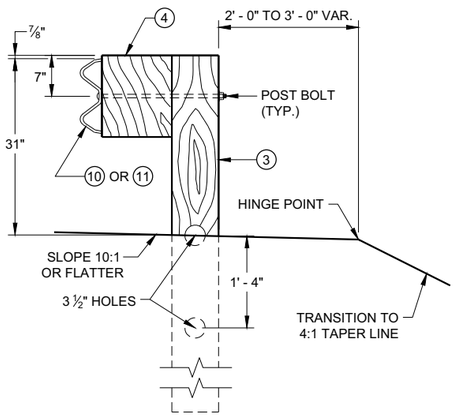
DETAIL "A" (E)



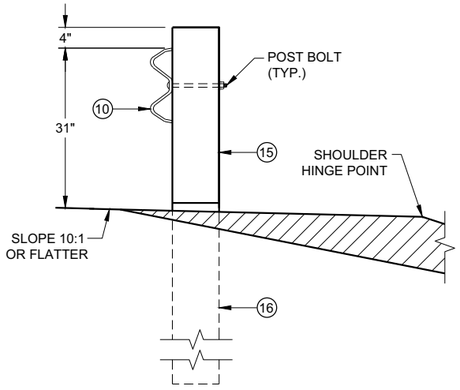
PLAN



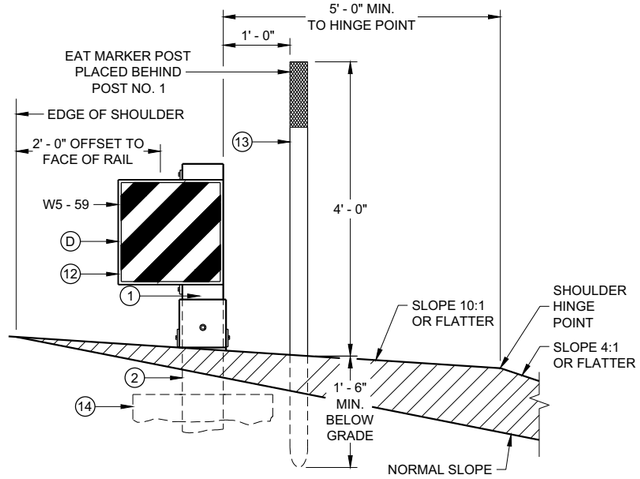
ELEVATION



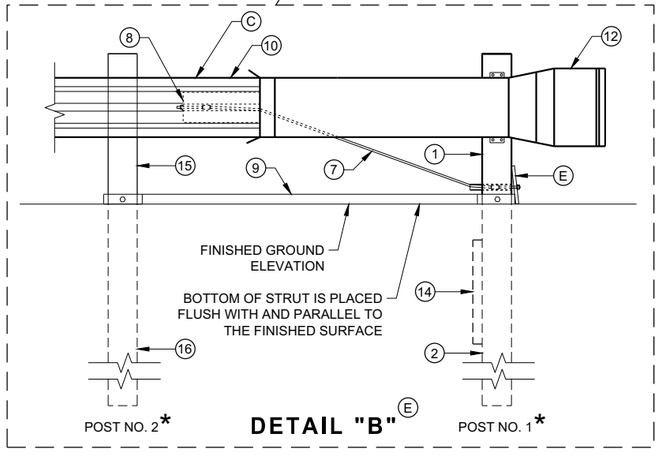
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



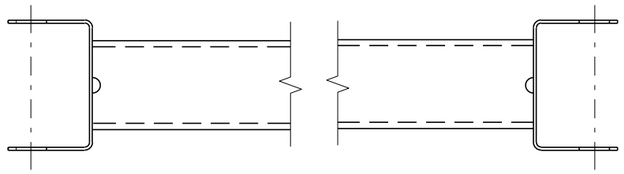
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

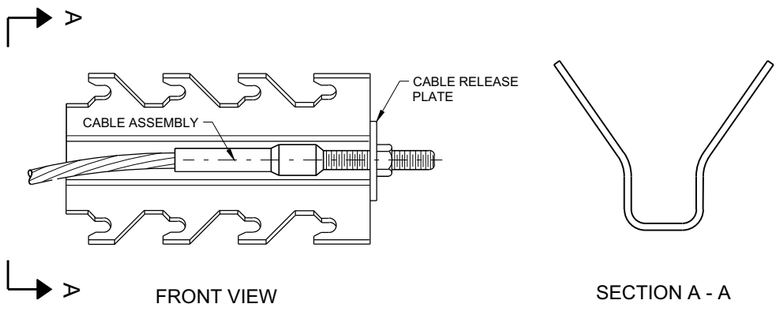
SDD 14B44 - 04a



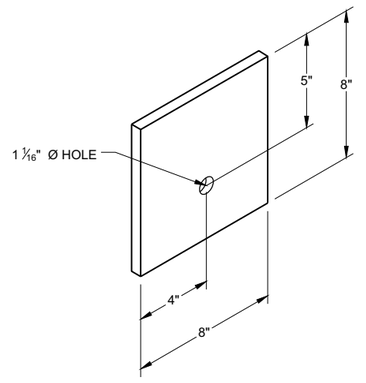
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

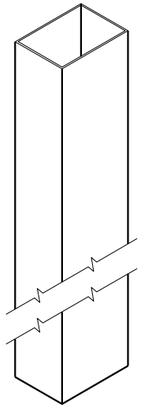
6

SDD 14B44 - 04b

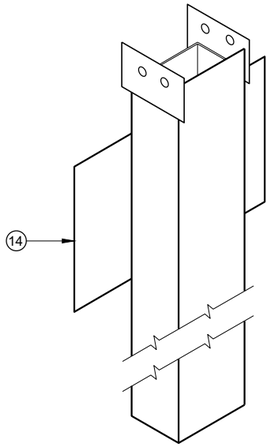
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

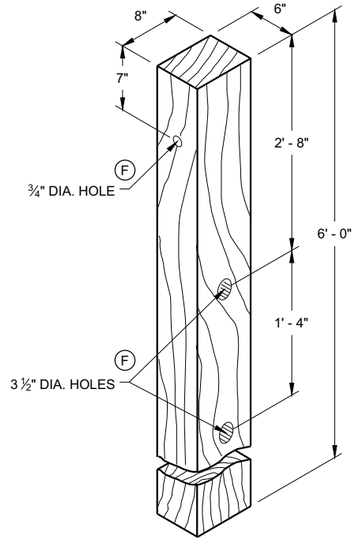
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



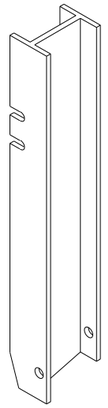
UPPER POST NO. 1 (1) (E)



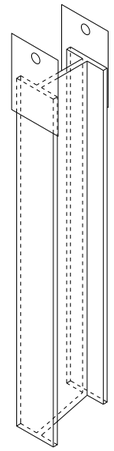
LOWER POST NO. 1 (2) (E)



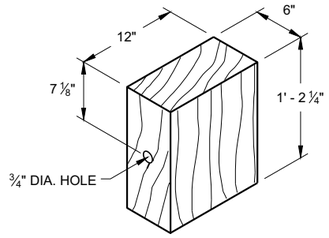
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



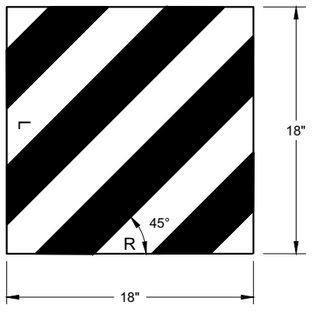
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

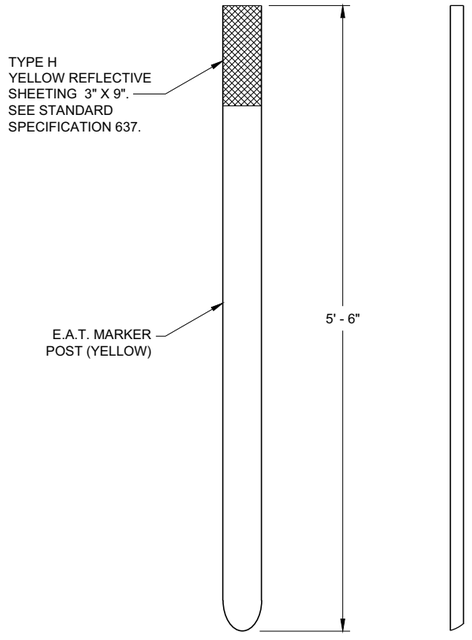


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



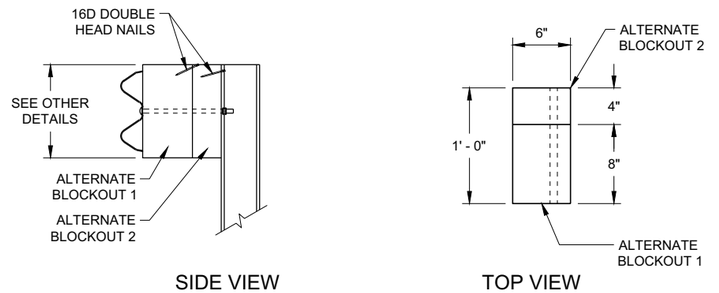
W5 - 59

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)

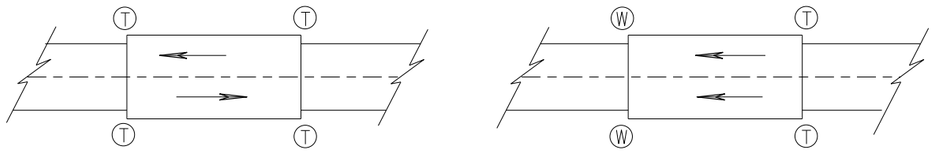
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

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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.

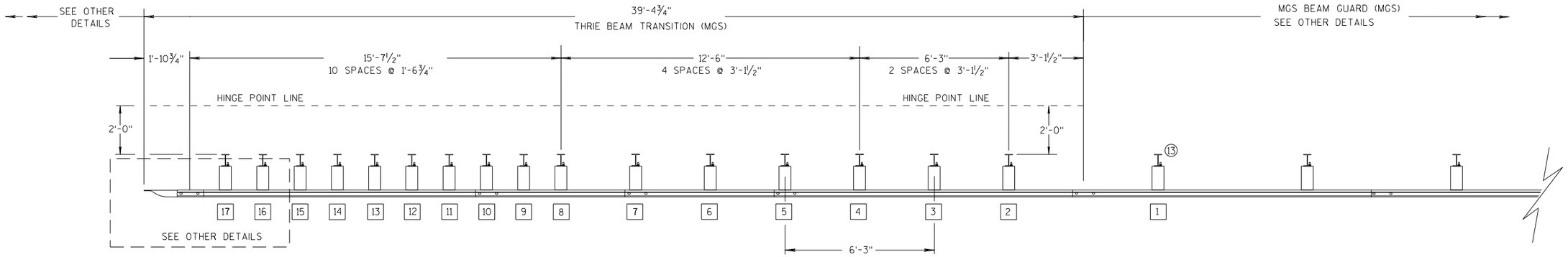
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

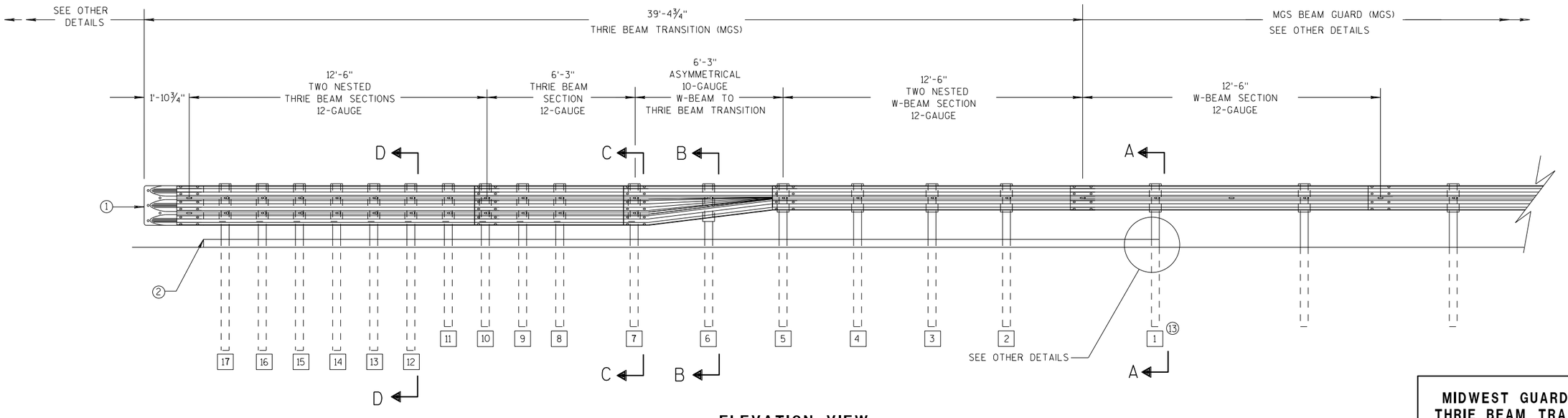
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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

6

S.D.D. 14 B 45-5a

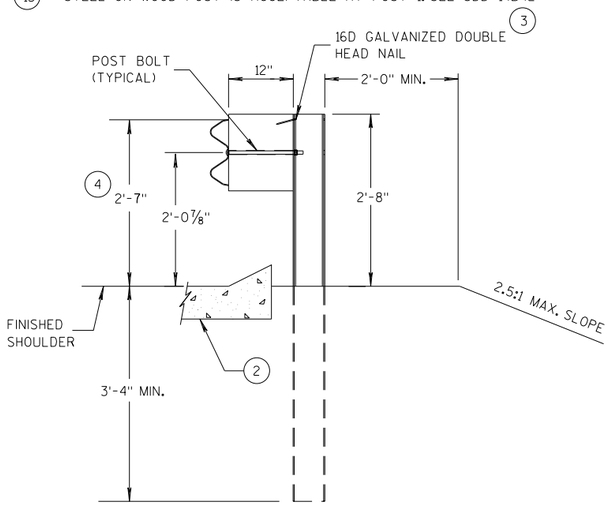
GENERAL NOTES

(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.

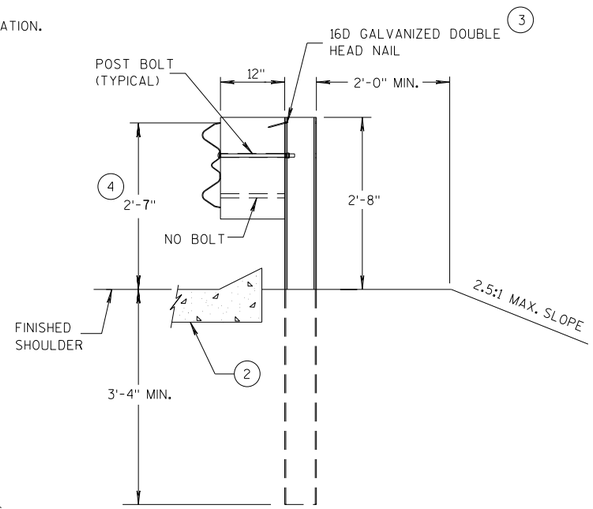
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



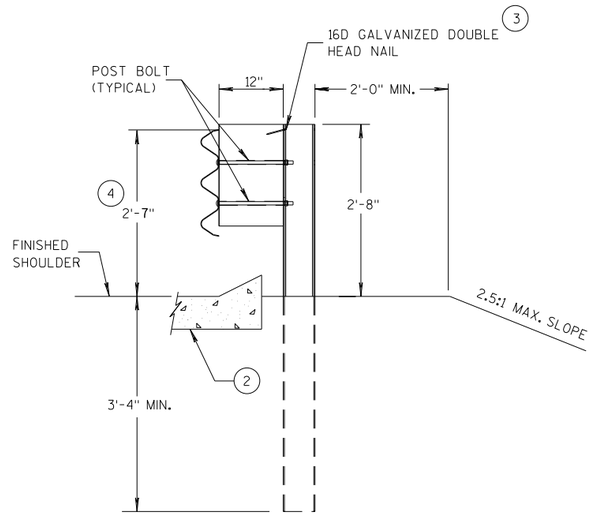
SECTION A-A (13)

POSTS 1-5



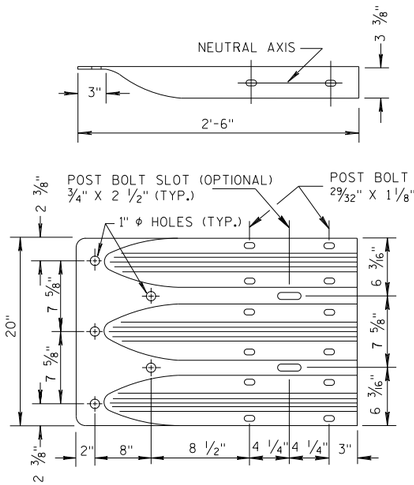
SECTION B-B

POST 6

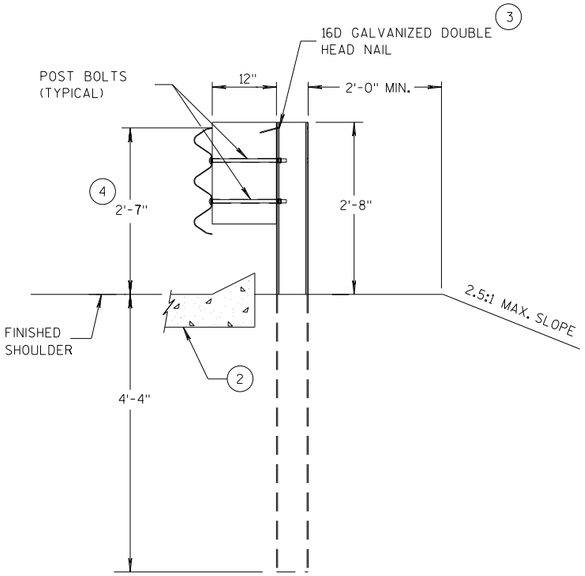


SECTION C-C

POSTS 7-11

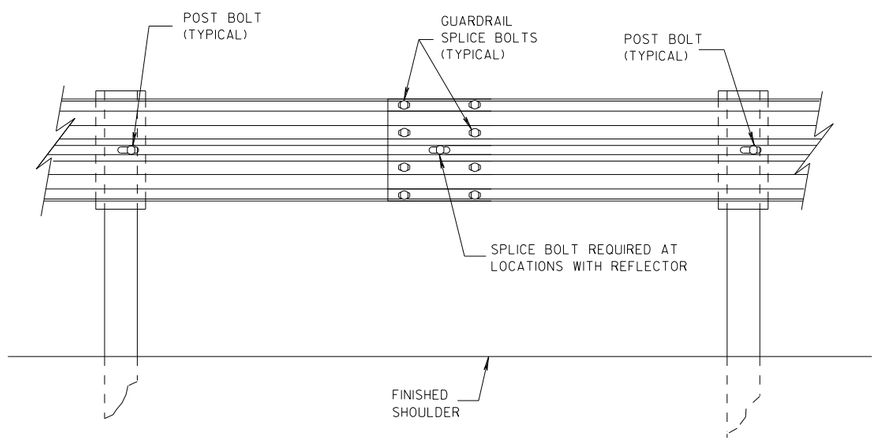


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

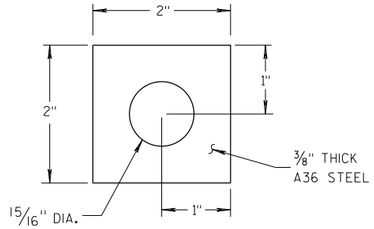
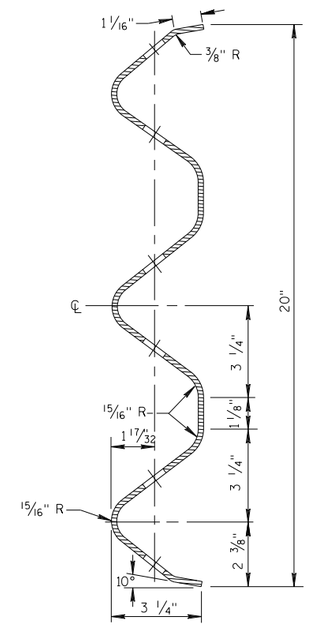


PLATE WASHER DETAIL

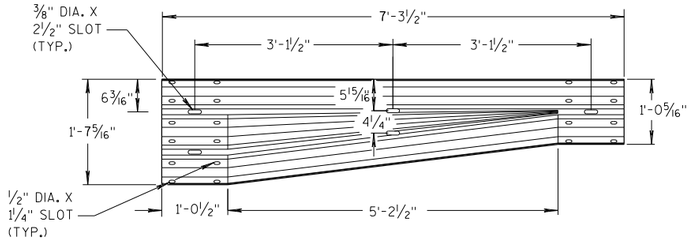


SECTION THRU THRIE BEAM RAIL ELEMENT

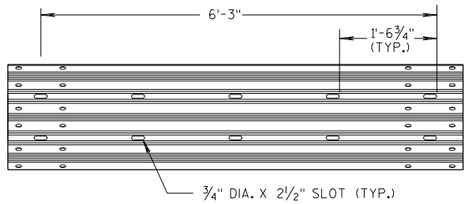
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

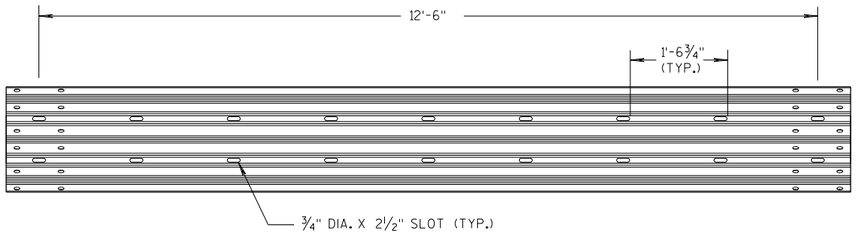
6
S.D.D. 14 B 45-5b



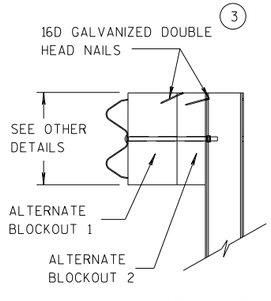
W-BEAM TO THRIE BEAM TRANSITION SECTION



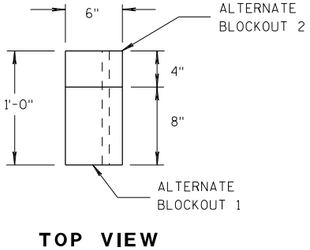
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

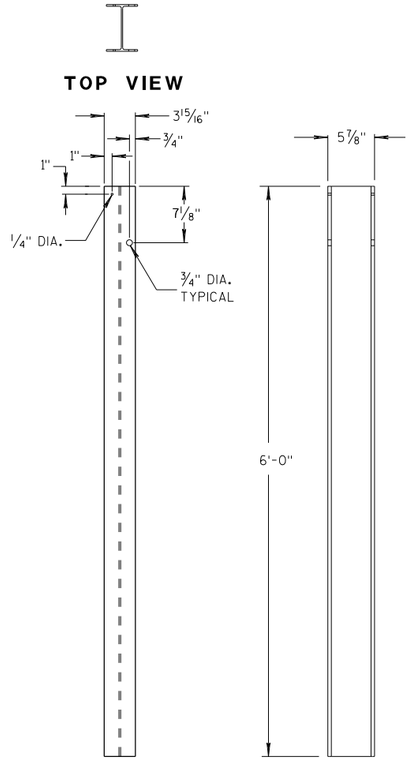


SIDE VIEW



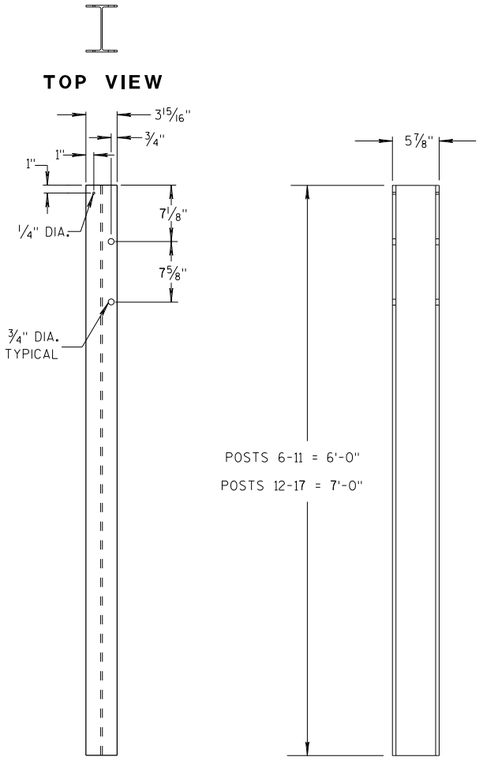
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



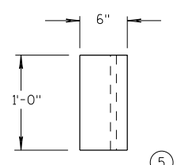
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

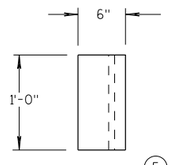


FRONT VIEW SIDE VIEW

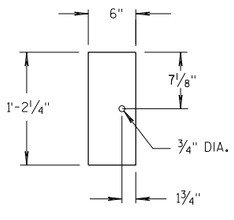
STEEL POSTS 6-17



TOP VIEW (5)

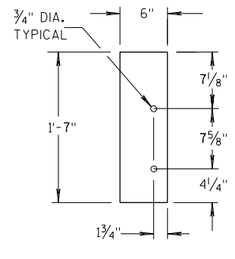


TOP VIEW (5)



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.

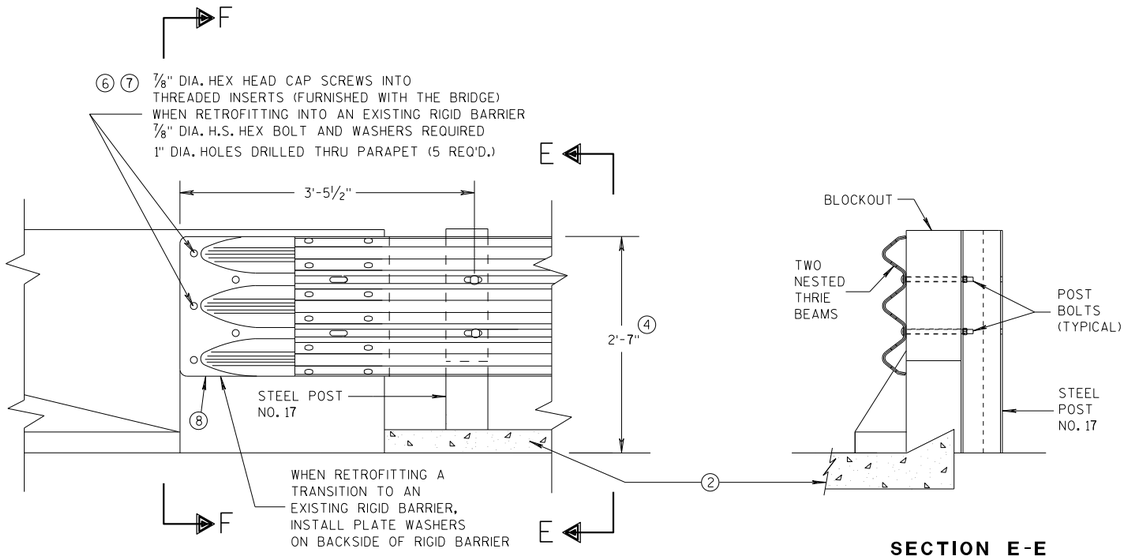
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(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 TRANSPOF

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

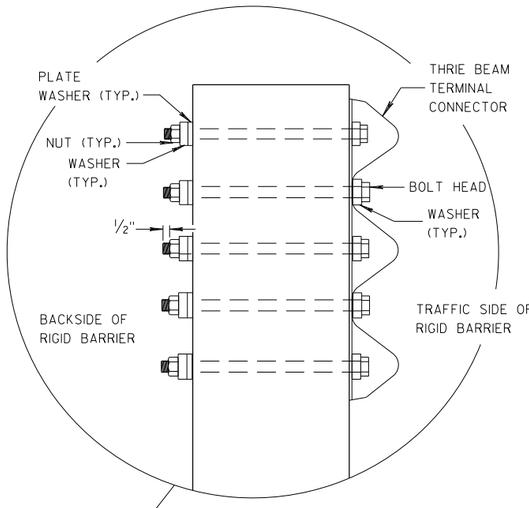
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

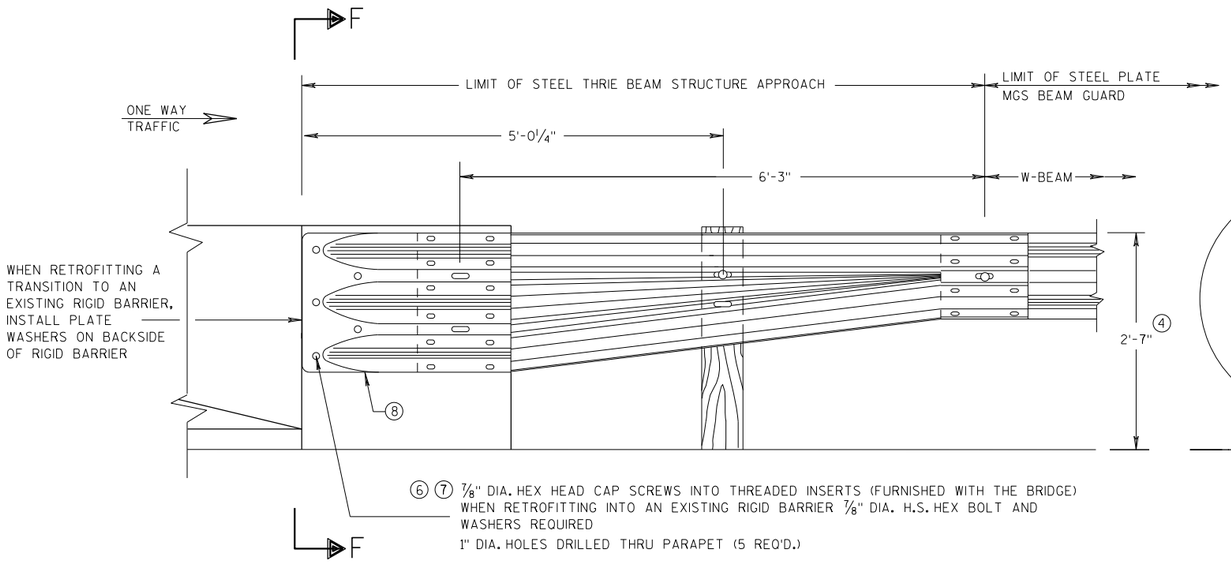
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

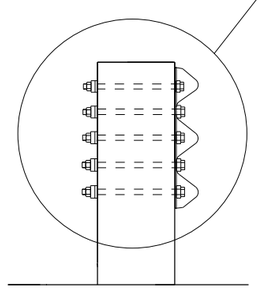
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

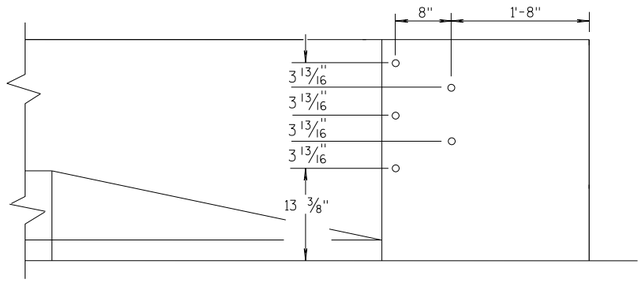




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

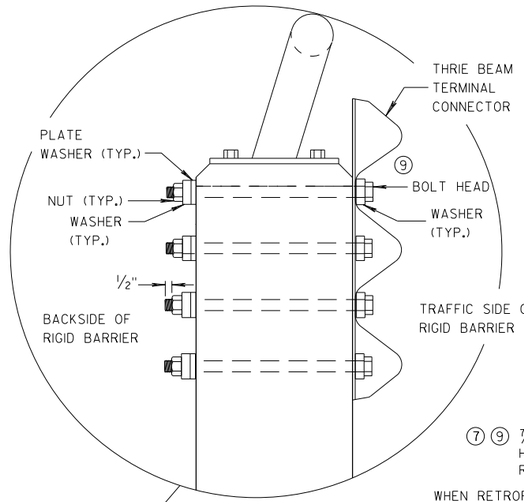
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

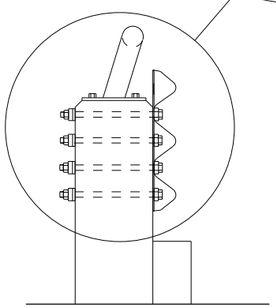
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

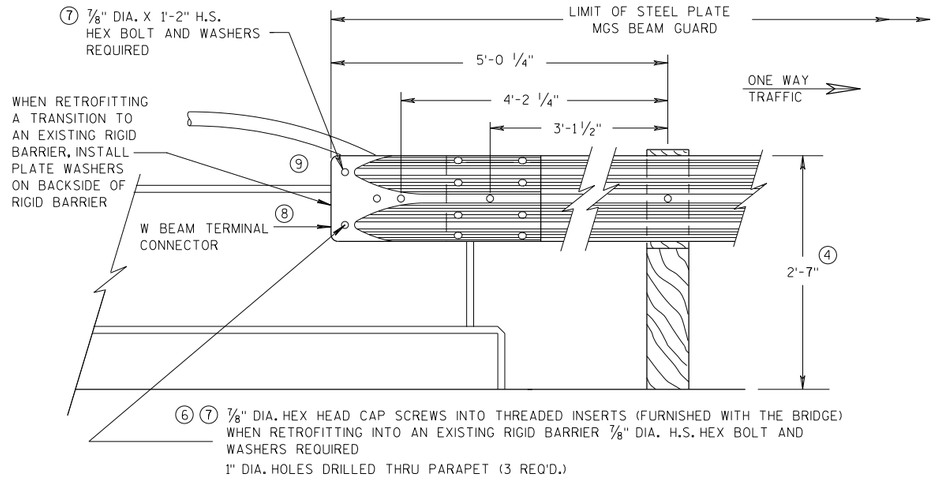
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





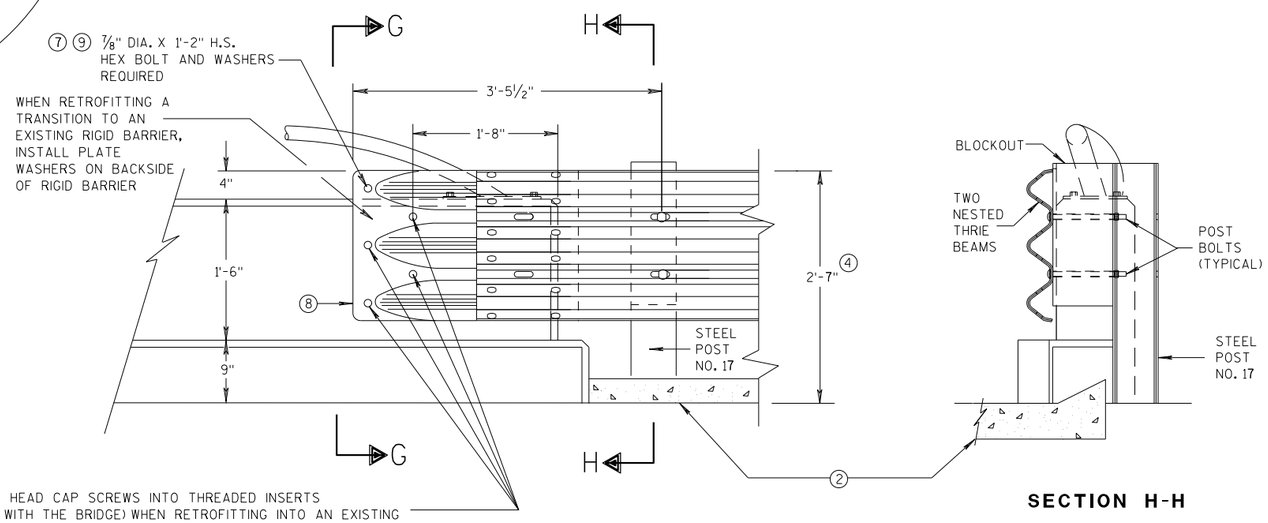
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

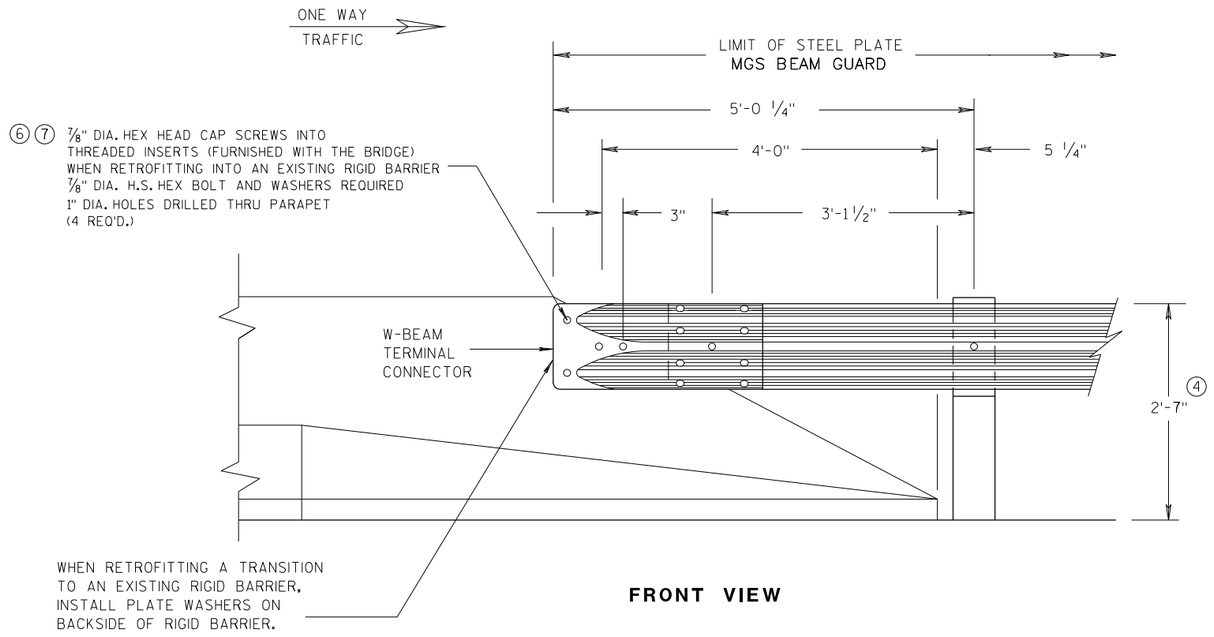
APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

6

S.D.D. 14 B 45-5e

6

S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

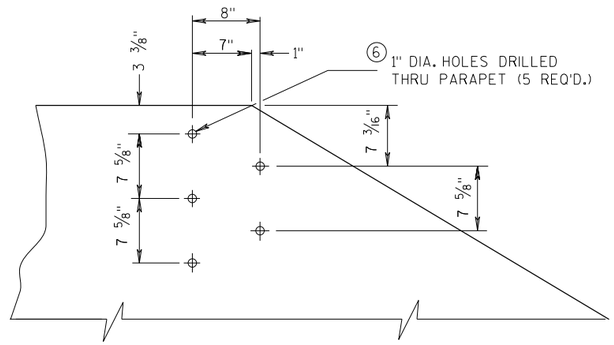
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

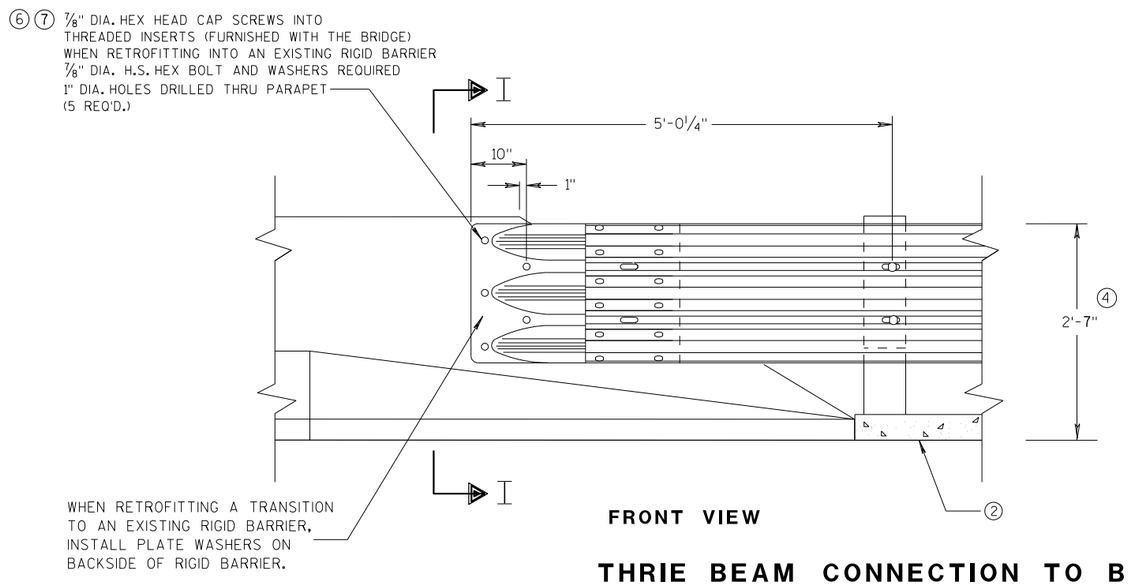
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

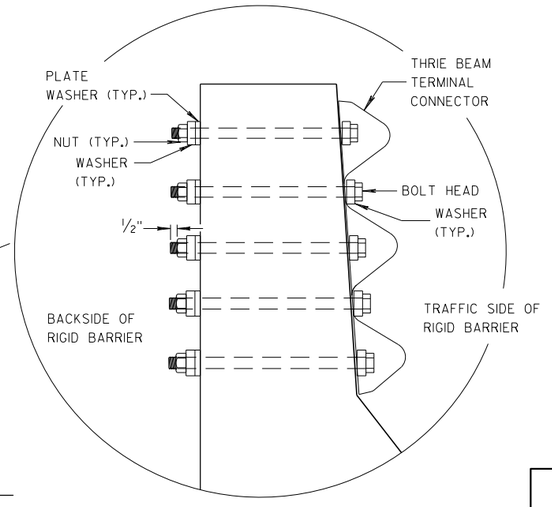


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

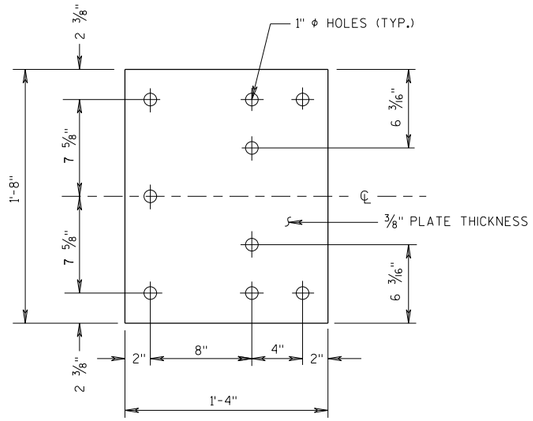
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07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

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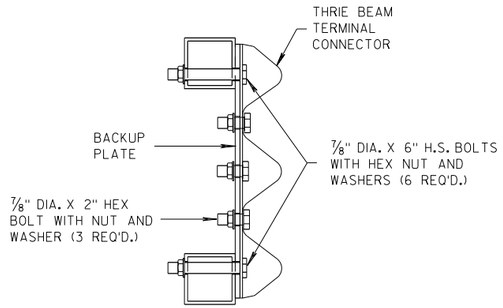
S.D.D. 14 B 45-5f

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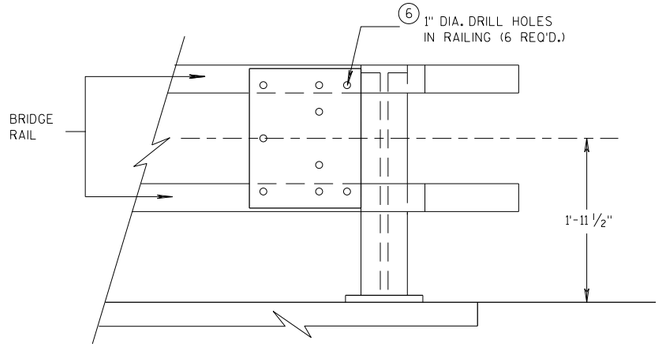
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

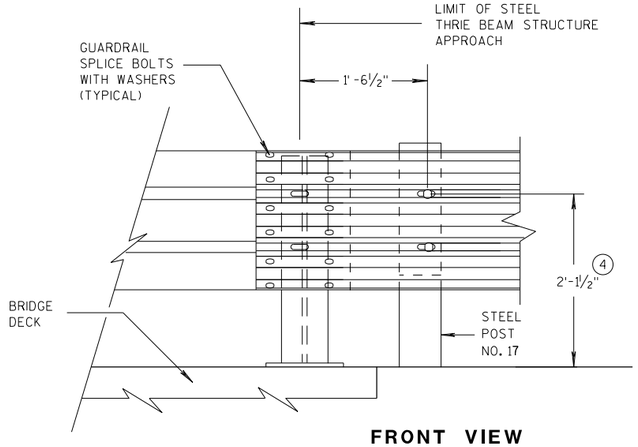


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

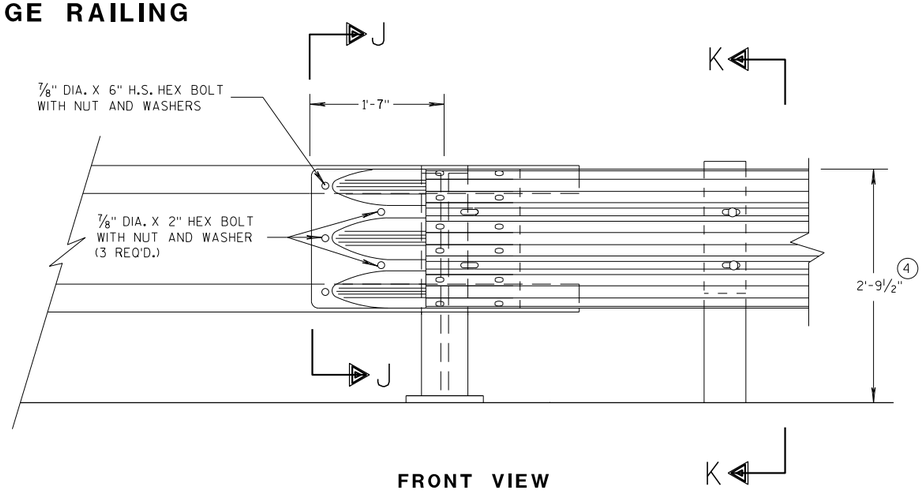
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

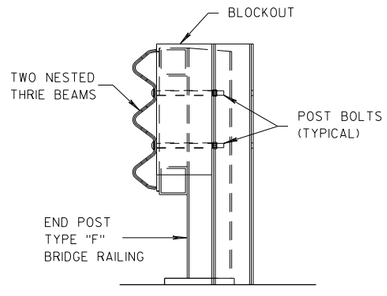


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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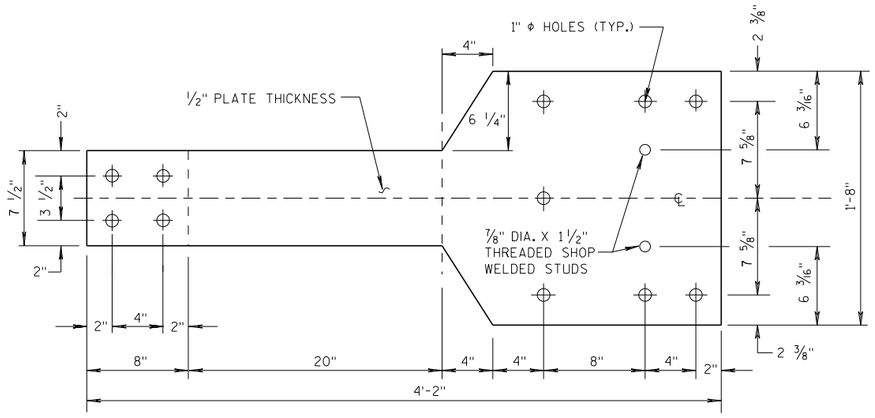
S.D.D. 14 B 45-5g

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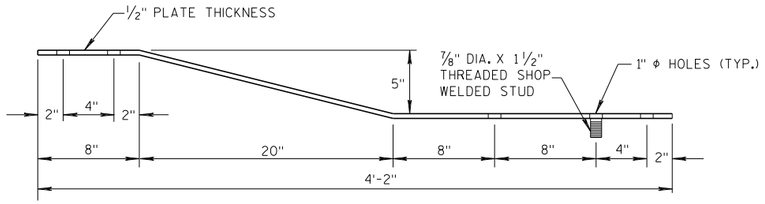
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

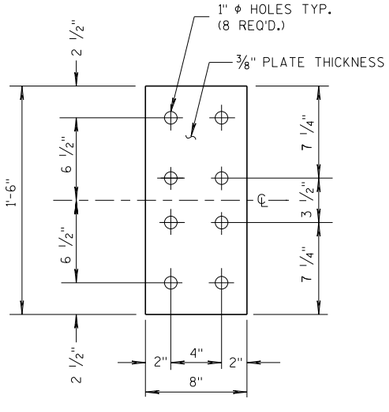


FRONT VIEW



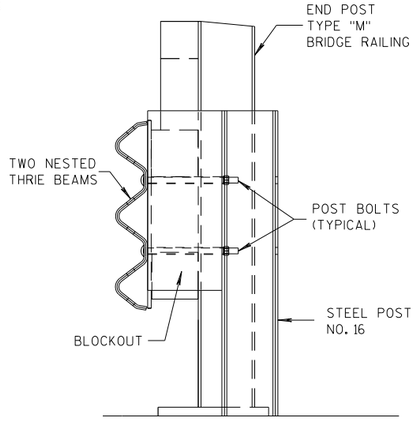
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

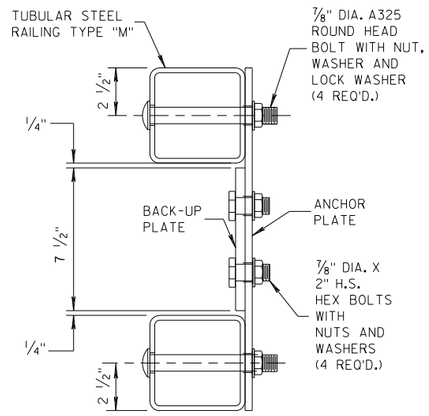


FRONT VIEW

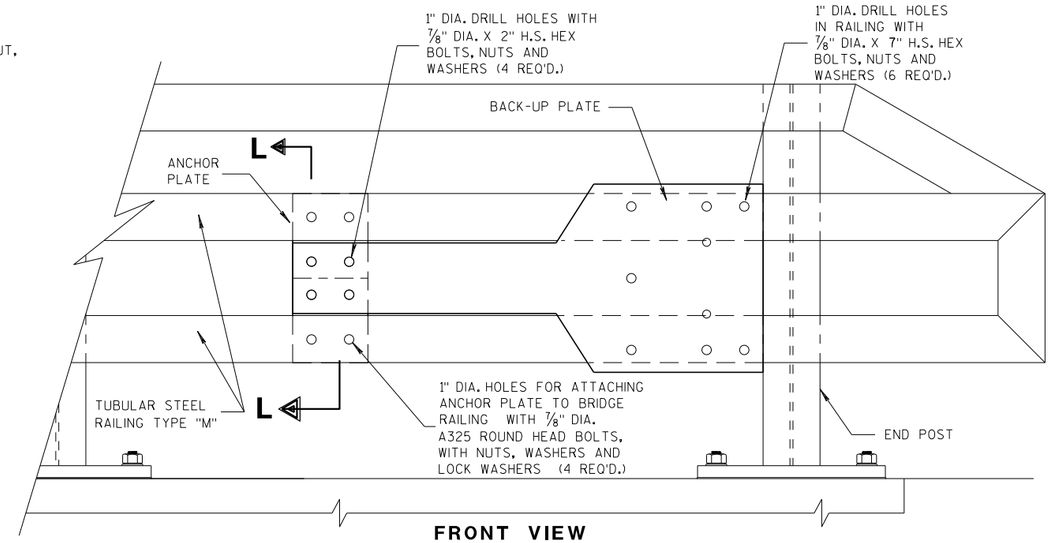
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

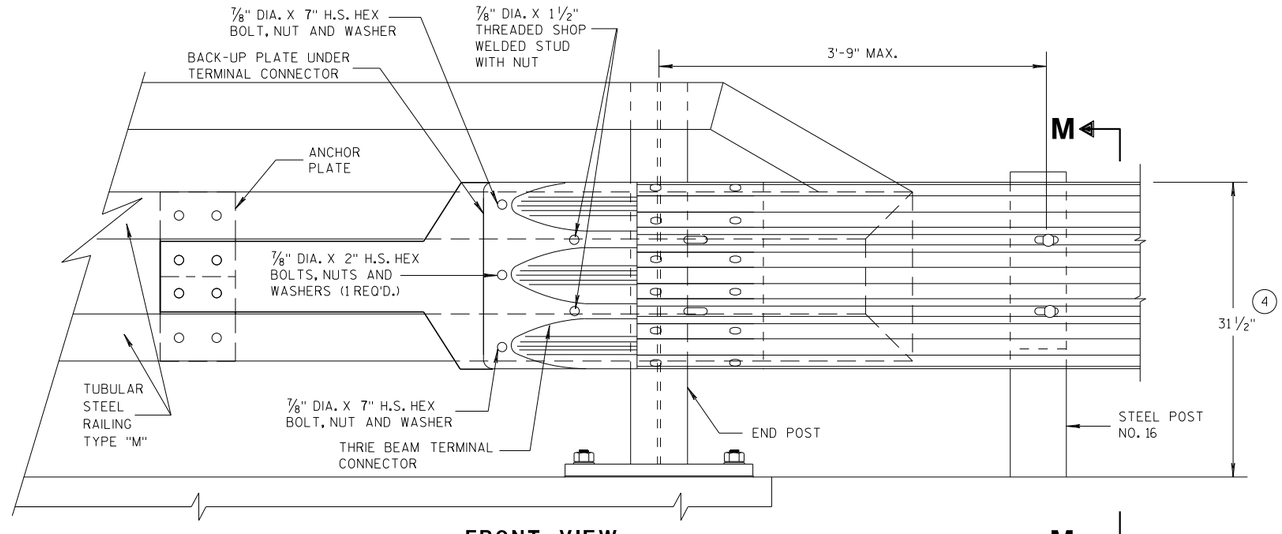


SECTION L-L

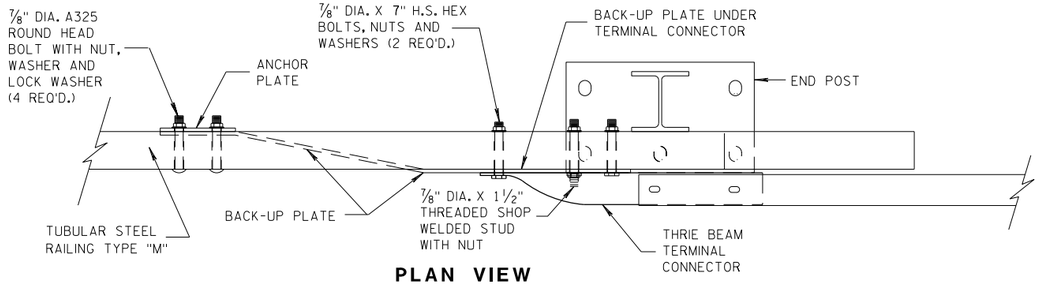


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
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S.D.D. 14 B 45-5h

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S.D.D. 14 B 45-5h

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.

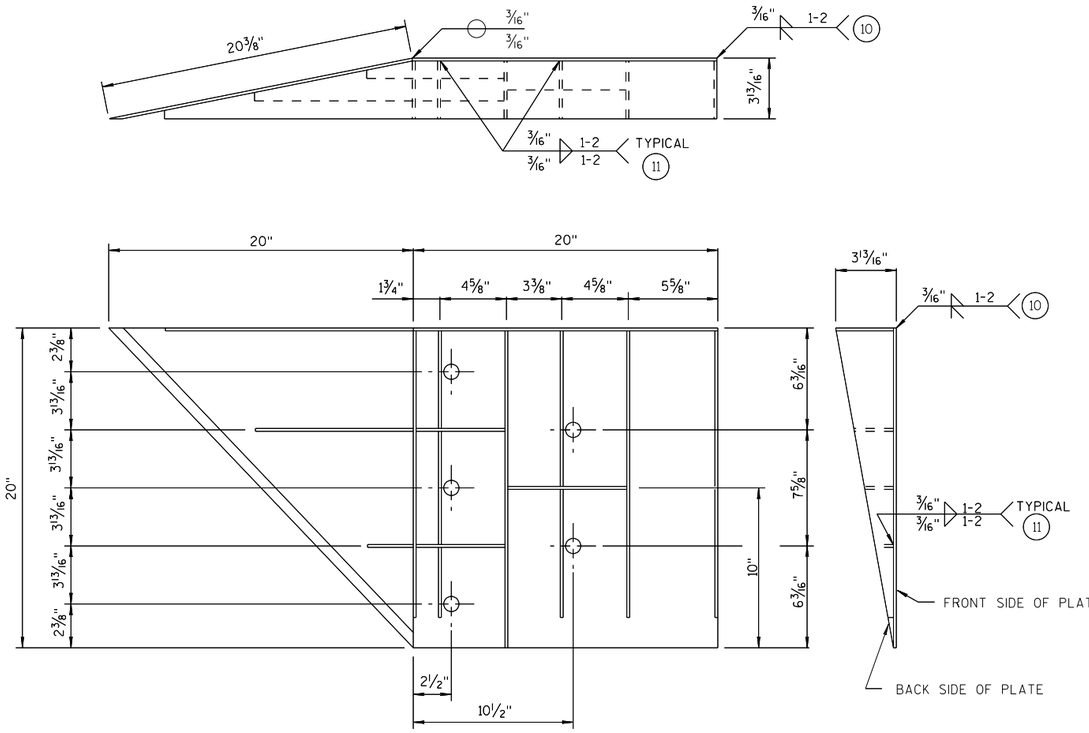
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

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".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

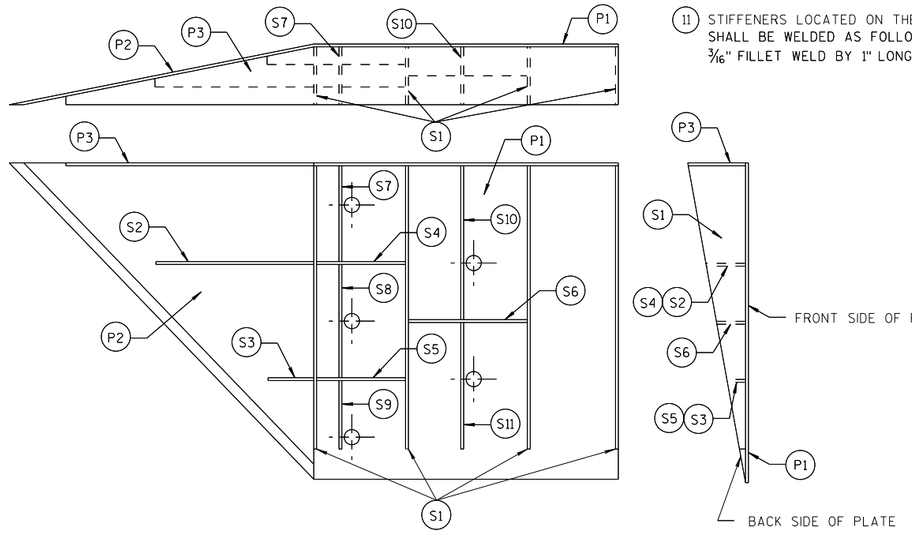


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

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)

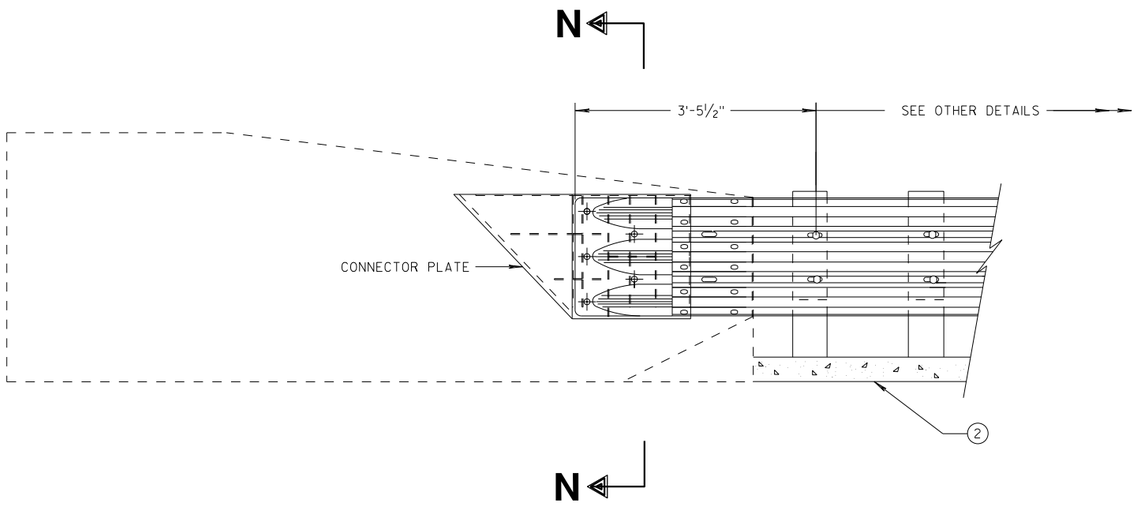
STATE OF WISCONSIN
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DATE
FHWA

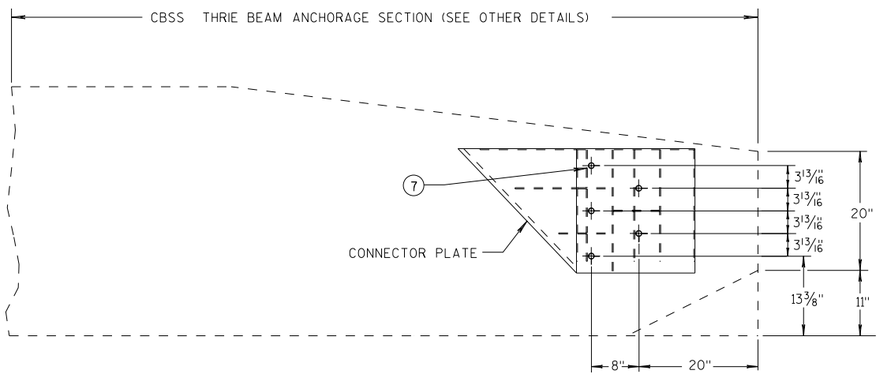
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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



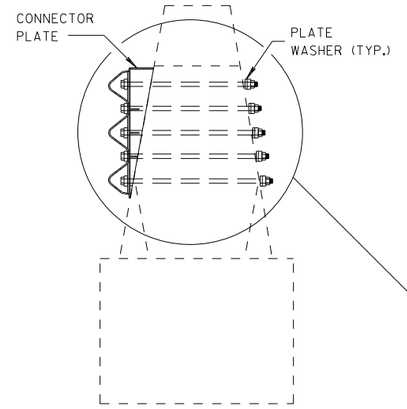
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

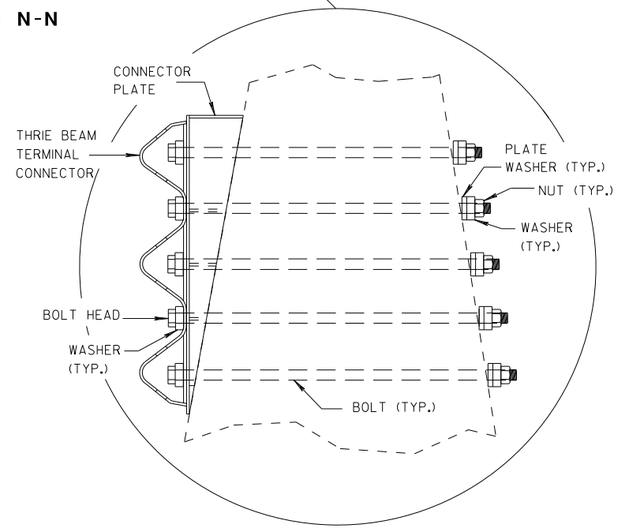
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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)

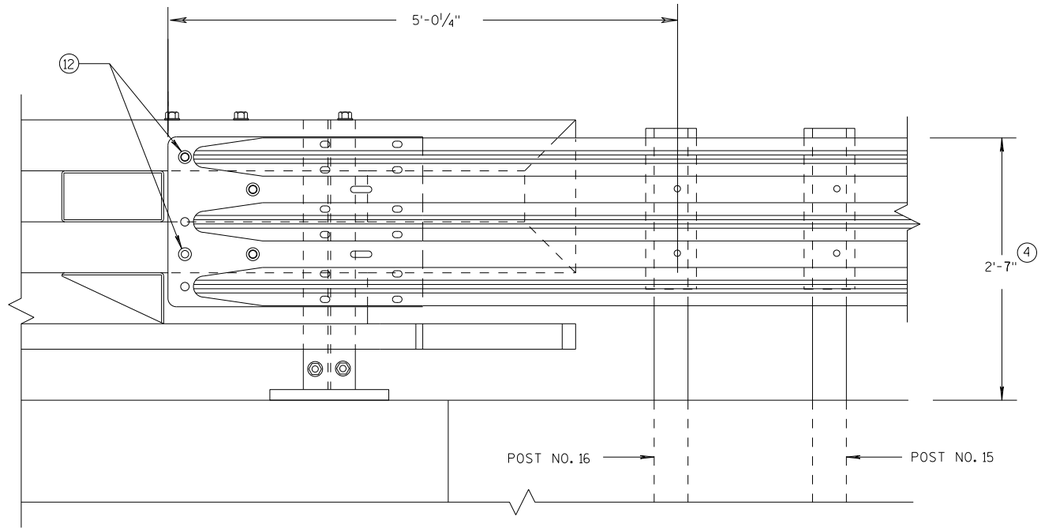
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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UNIT SUPERVIS

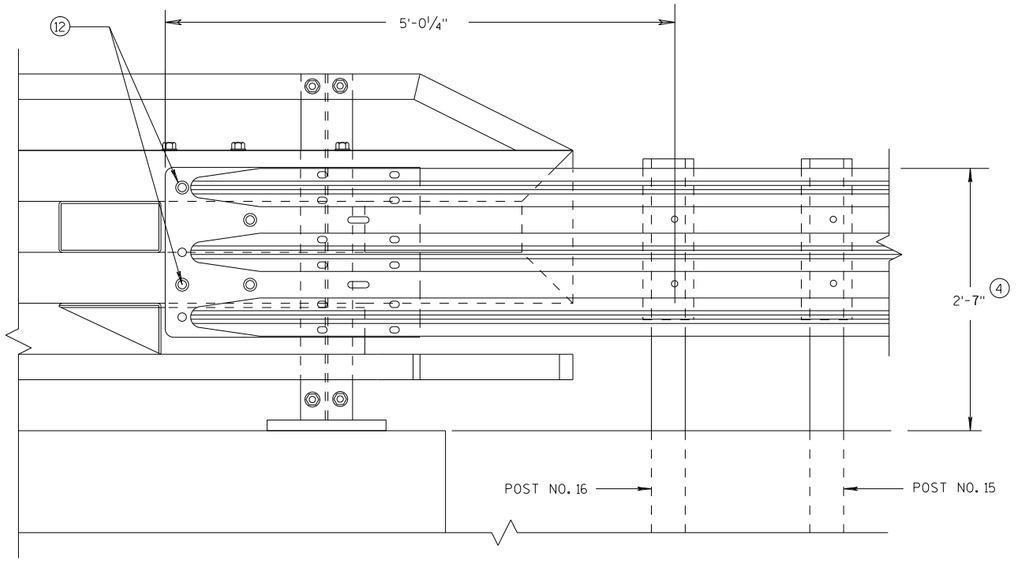
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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7/2018
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ROADWAY STANDARDS D
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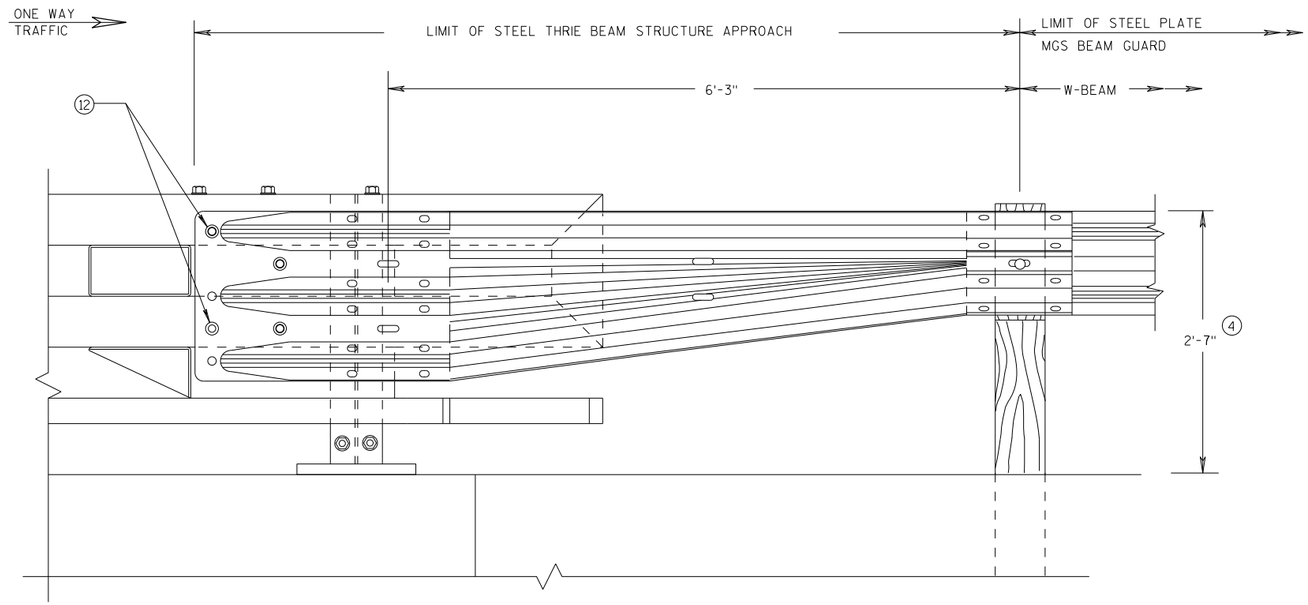
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S.D.D. 14 B 45-5k



FRONT VIEW

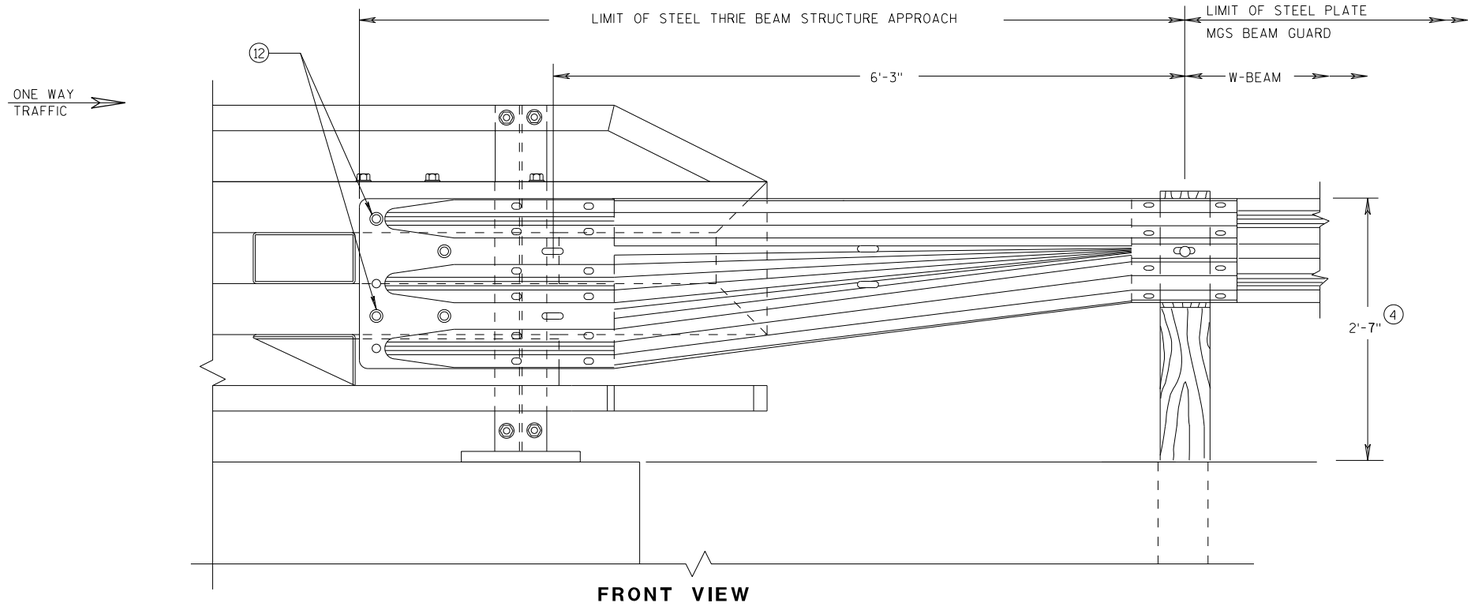
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

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FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

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ROADWAY STANDARDS D
UNIT SUPERVIS

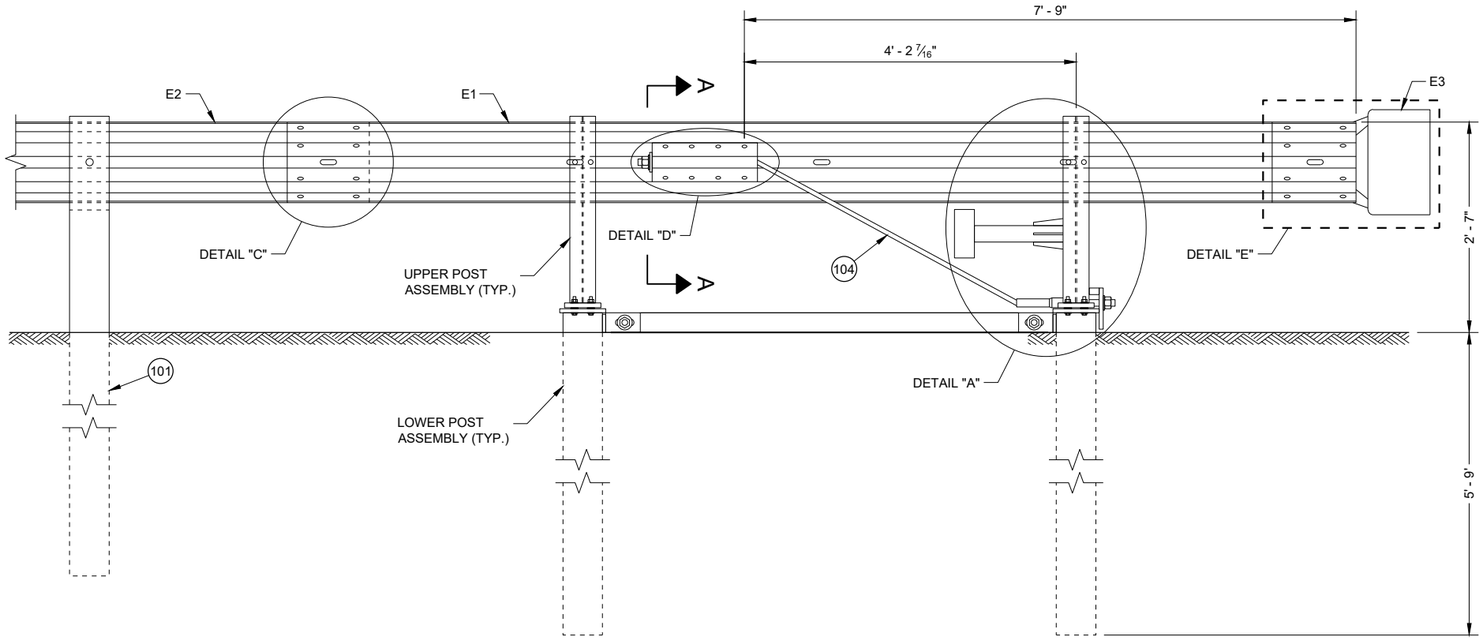
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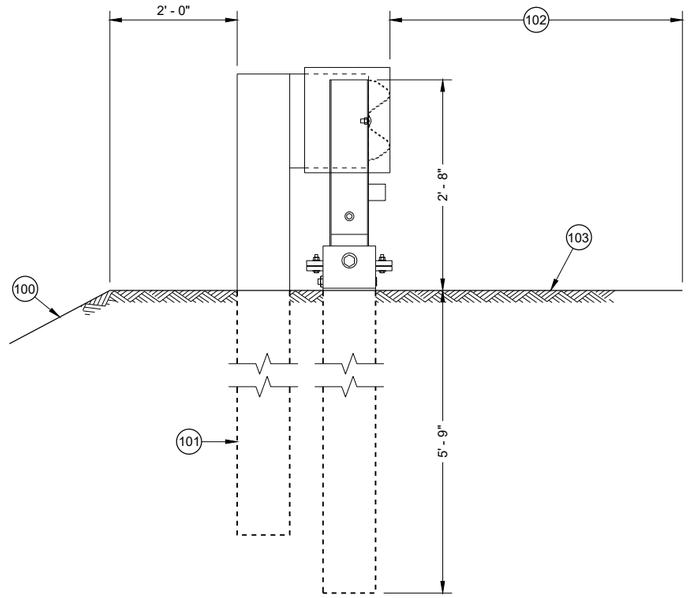
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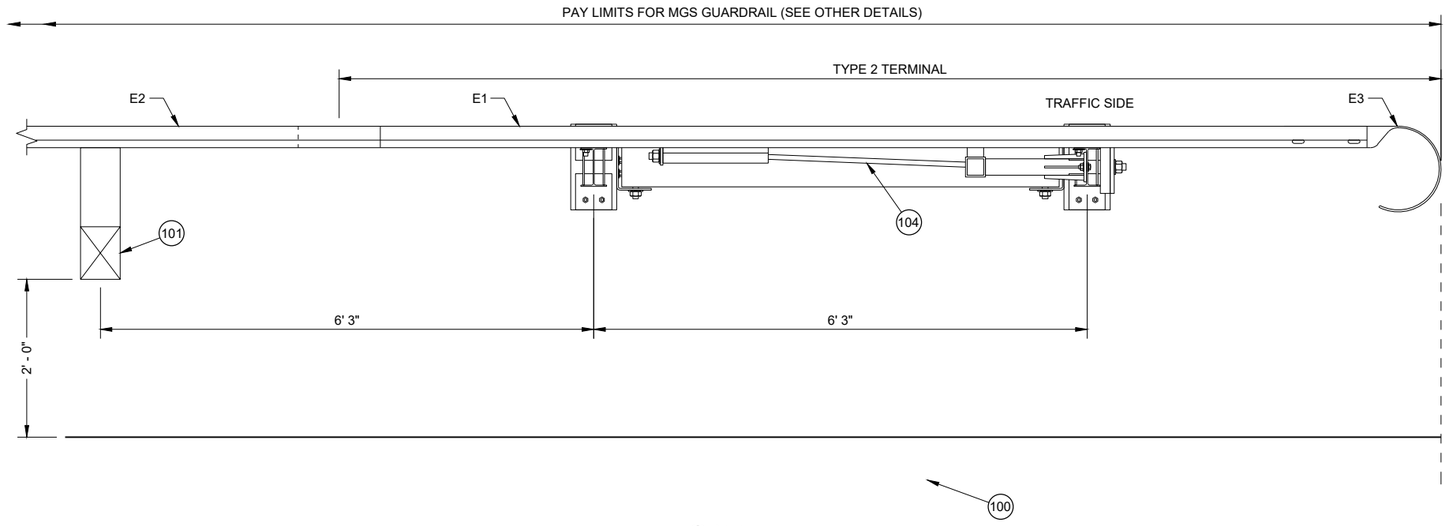
S.D.D. 14 B 45-5L



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

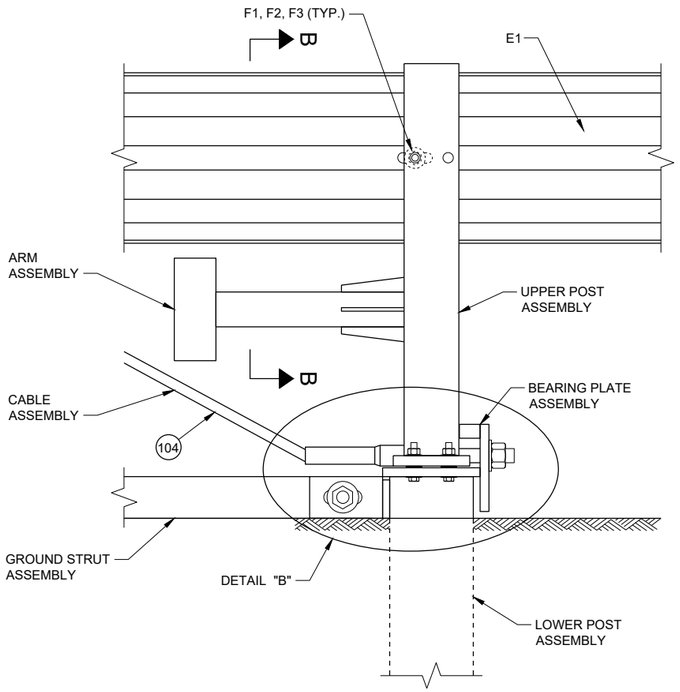
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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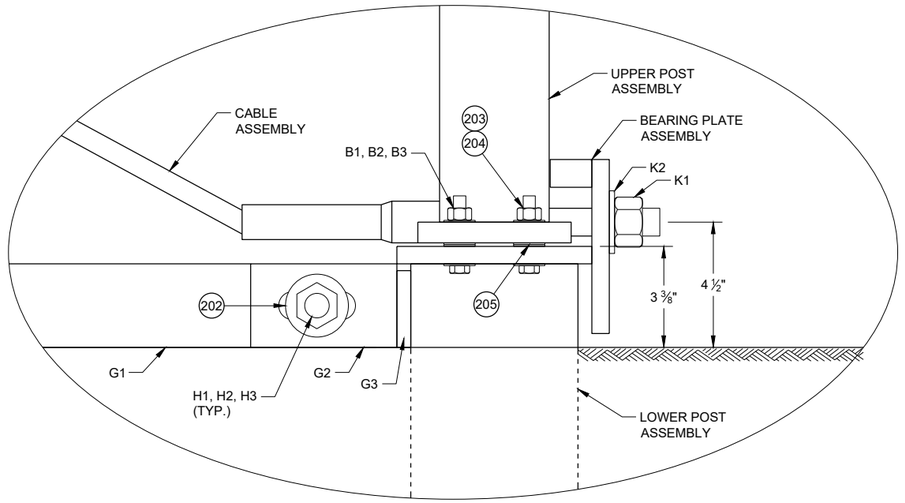
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SDD 14B47 - 03a

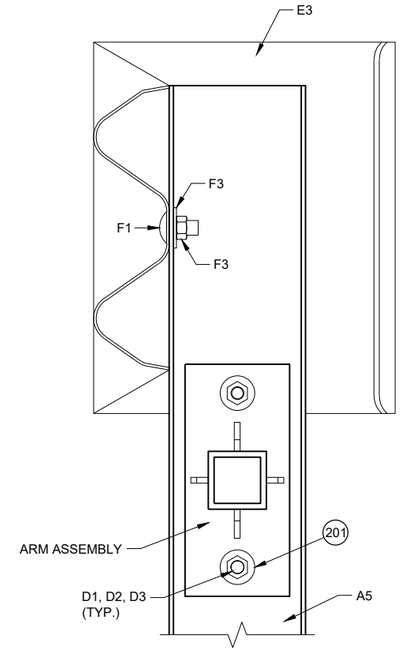
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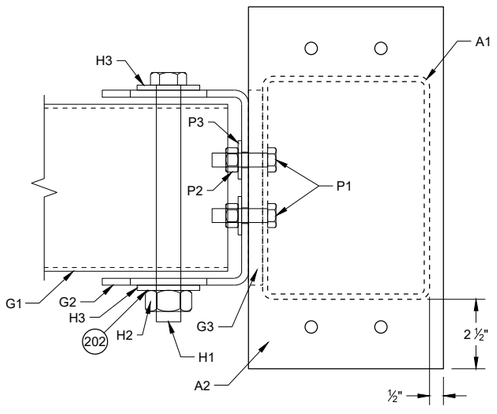
DETAIL "A"



DETAIL "B"

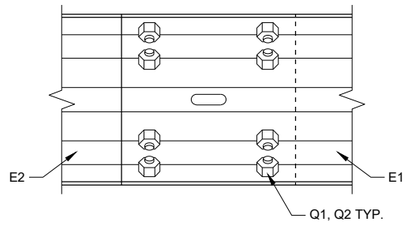


SECTION B - B

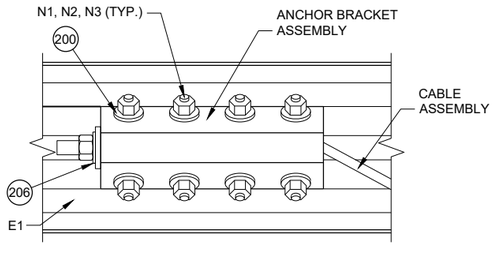


TOP VIEW

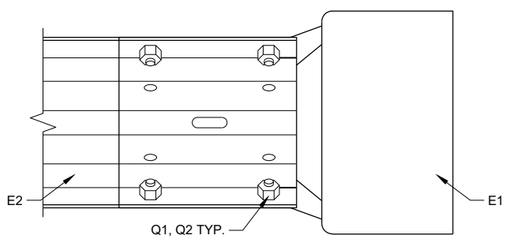
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

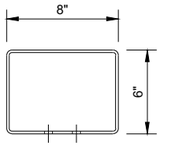
206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

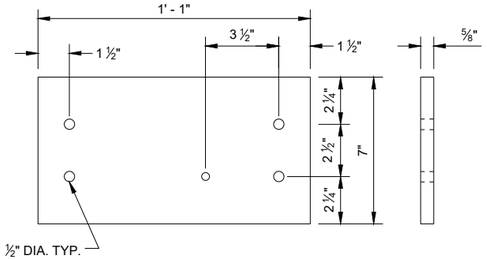
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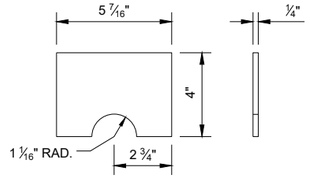
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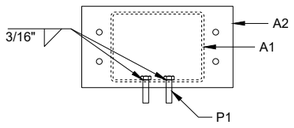
TOP VIEW



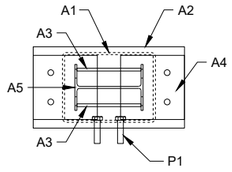
LOWER PLATE (A2)

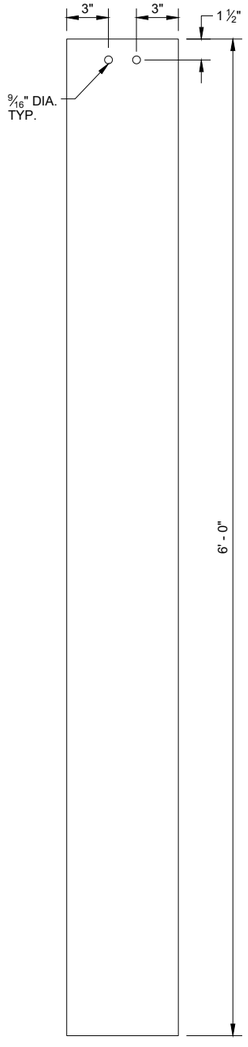


POST GUSSET (A3)



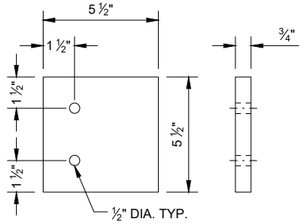
PLAN VIEW



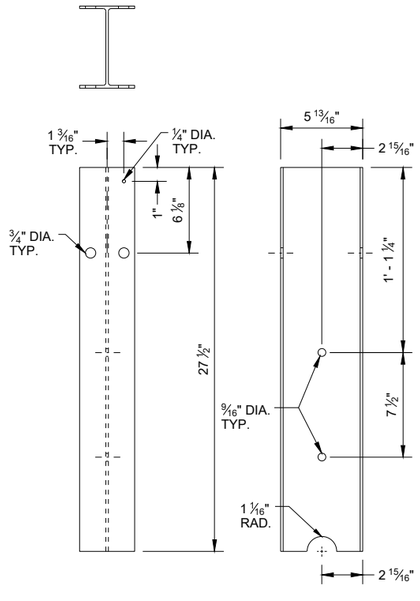


SIDE VIEW

FOUNDATION TUBE (A1)

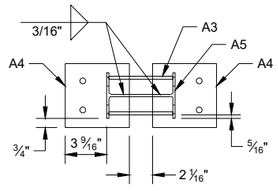


UPPER PLATE (A4)

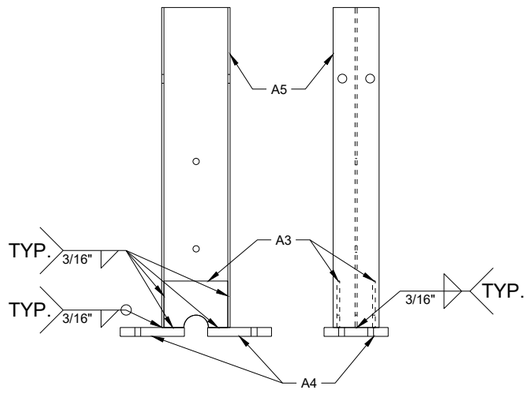


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

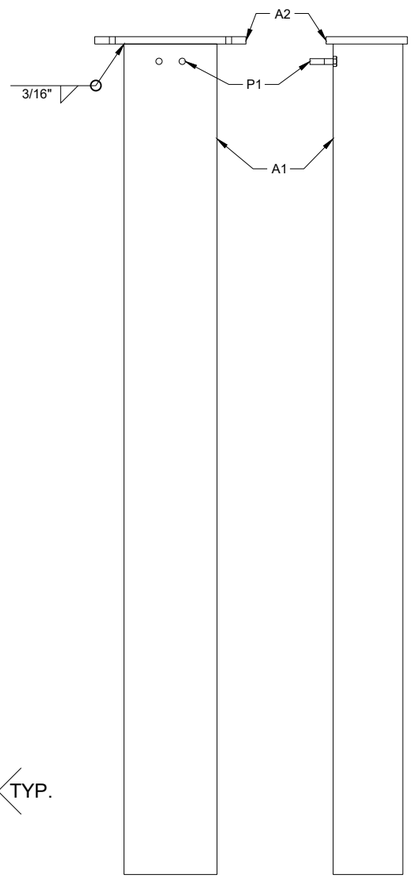


PLAN VIEW



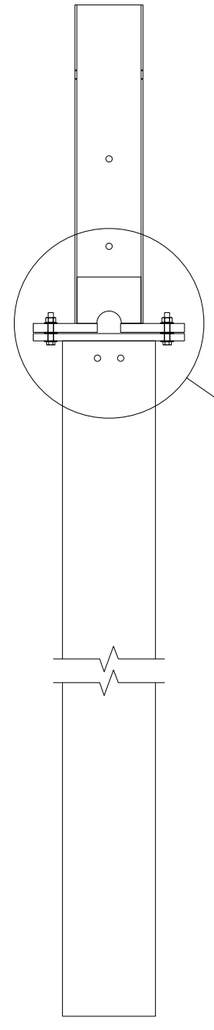
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

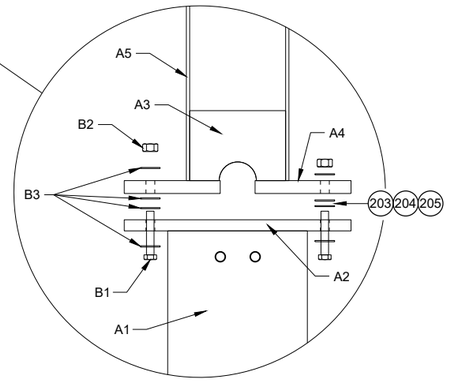


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY



ASSEMBLED POST



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

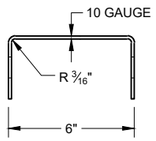
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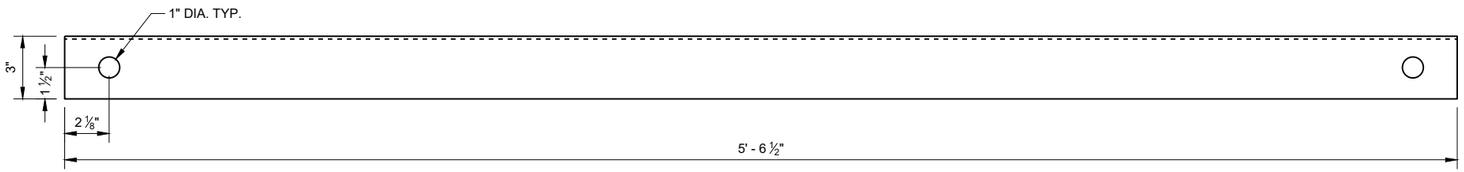
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SDD14B47 - 03c

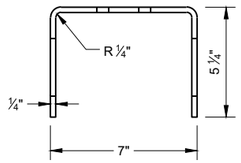


SIDE VIEW

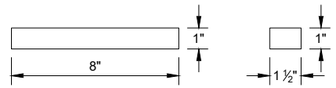


FRONT VIEW

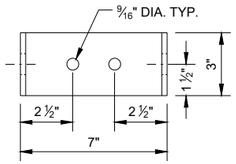
GROUND STRUT CHANNEL (G1)



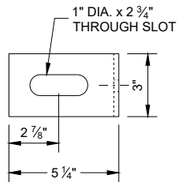
TOP VIEW



BEARING PLATE FLANGE (L2)

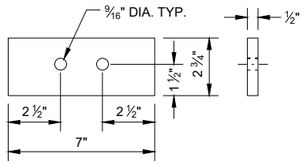


FRONT VIEW

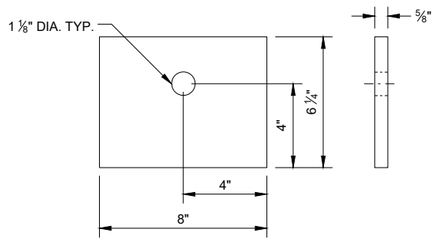


SIDE VIEW

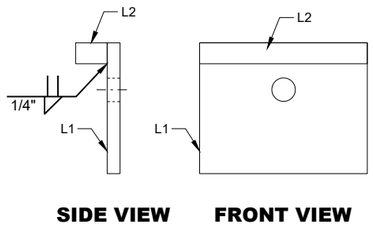
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

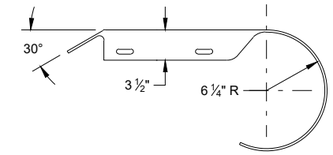


BEARING PLATE (L1)

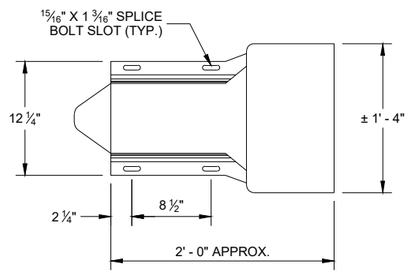


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

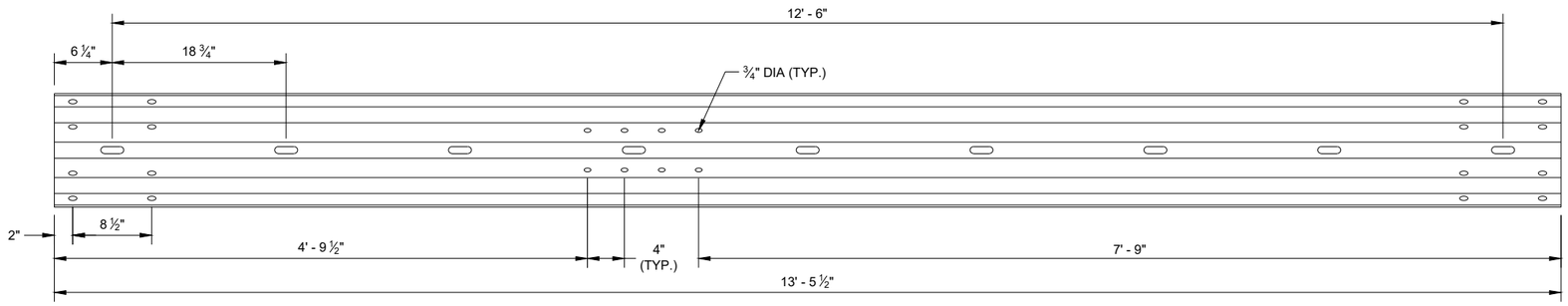


PLAN VIEW

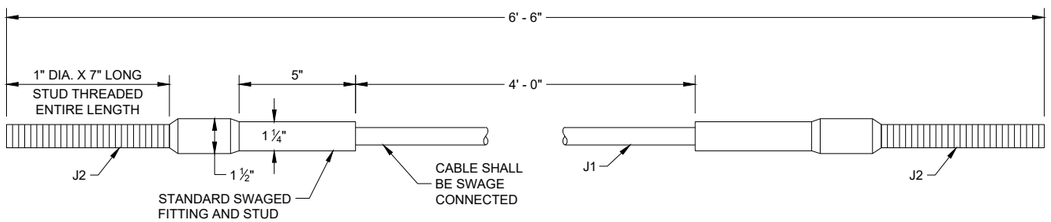


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

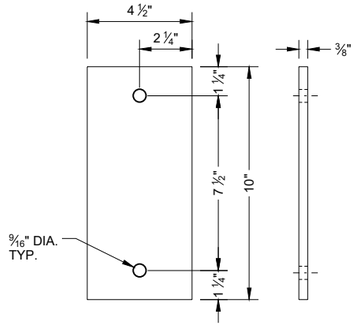
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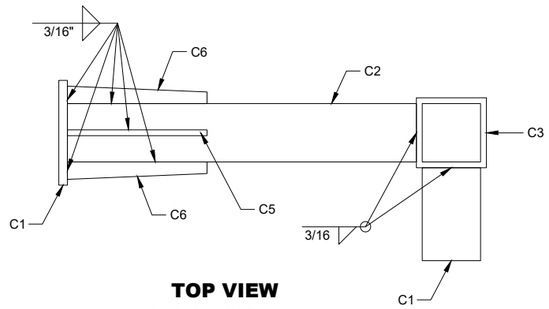
SDD 14B47 - 03d

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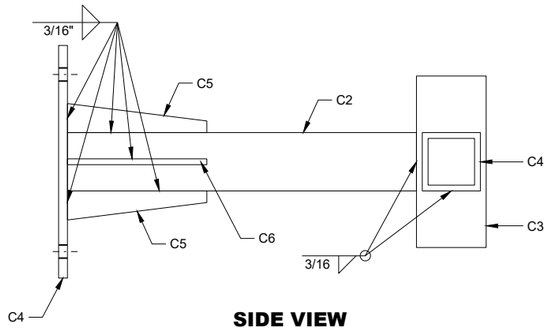
SDD 14B47 - 03d



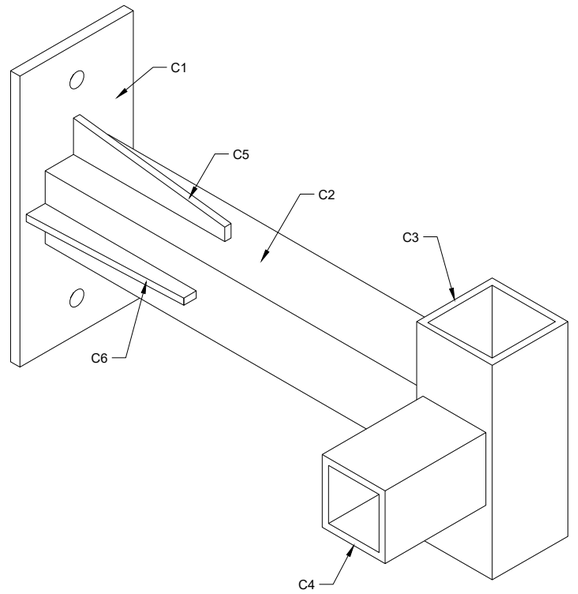
ARM PLATE (C1)



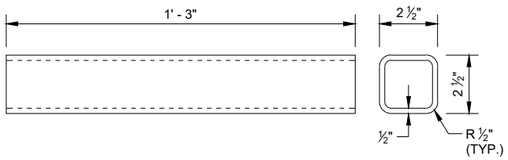
TOP VIEW
ARM ASSEMBLY



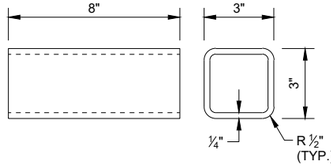
SIDE VIEW
ARM ASSEMBLY



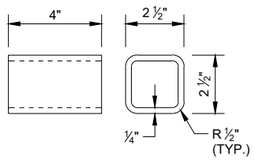
ISOMETRIC VIEW
ARM ASSEMBLY



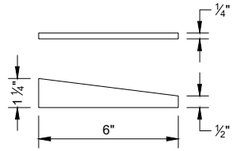
ARM TUBE 1 (C2)



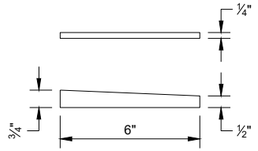
ARM TUBE 2 (C3)



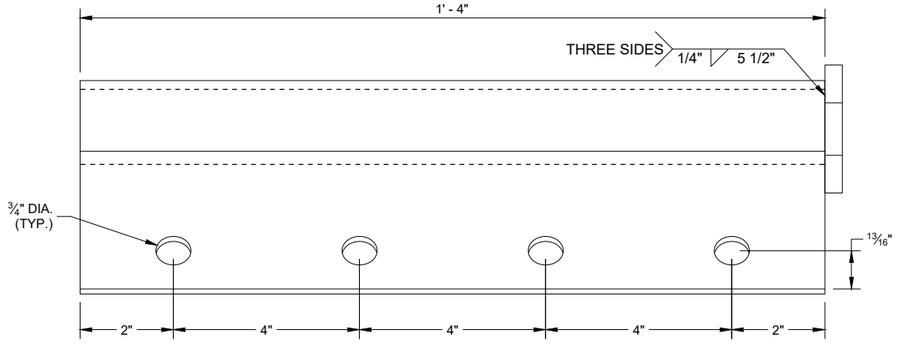
ARM TUBE 3 (C4)

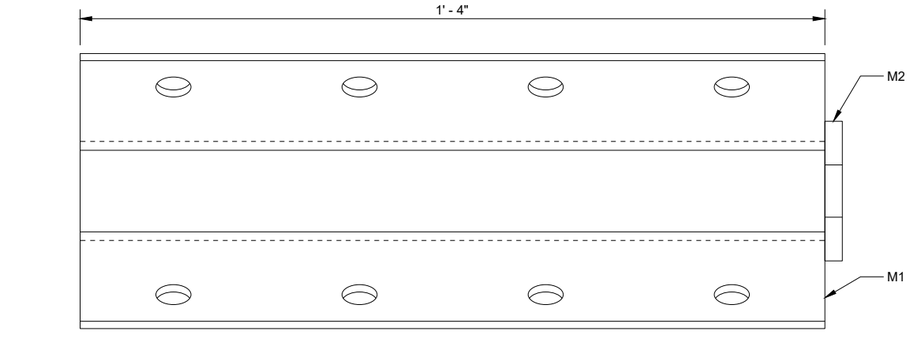


ARM GUSSET PLATE 1 (C5)

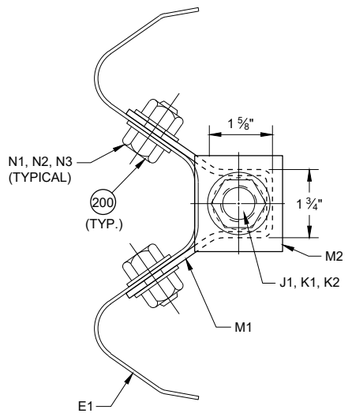


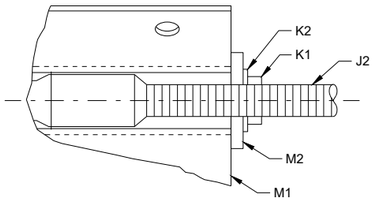
ARM GUSSET PLATE 2 (C6)



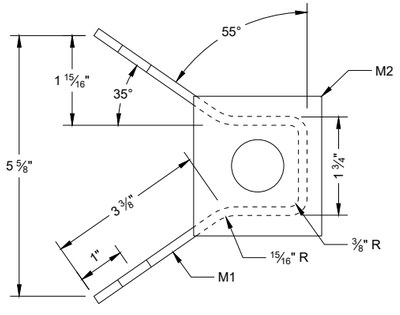


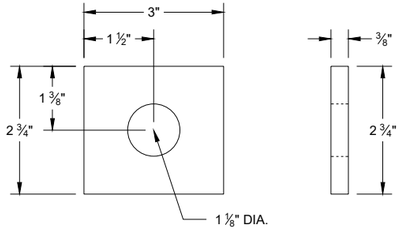
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER 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	5/8" THICKNESS
A3	POST GUSSET	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	1/4" THICKNESS
A4	UPPER 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	3/4" THICKNESS
A5	TYPE 2 POST	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	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX 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.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	
C1	ARM ASSEMBLY 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	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET 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	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET 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	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	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	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	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	1/4" THICKNESS
G3	GROUND STRUT 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	1/2" THICKNESS

6

SDD 14B47 - 03f

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 14B47 - 03f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING 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	5/8" THICKNESS
L2	BEARING PLATE FLANGE	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	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	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	
M2	BEAM GUARD ANCHOR 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	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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	1/2" DIA.
P2	FOUNDATION TUBE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDENED WASHER ONLY)	1/2" DIA.
P3	FOUNDATION TUBE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. 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 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

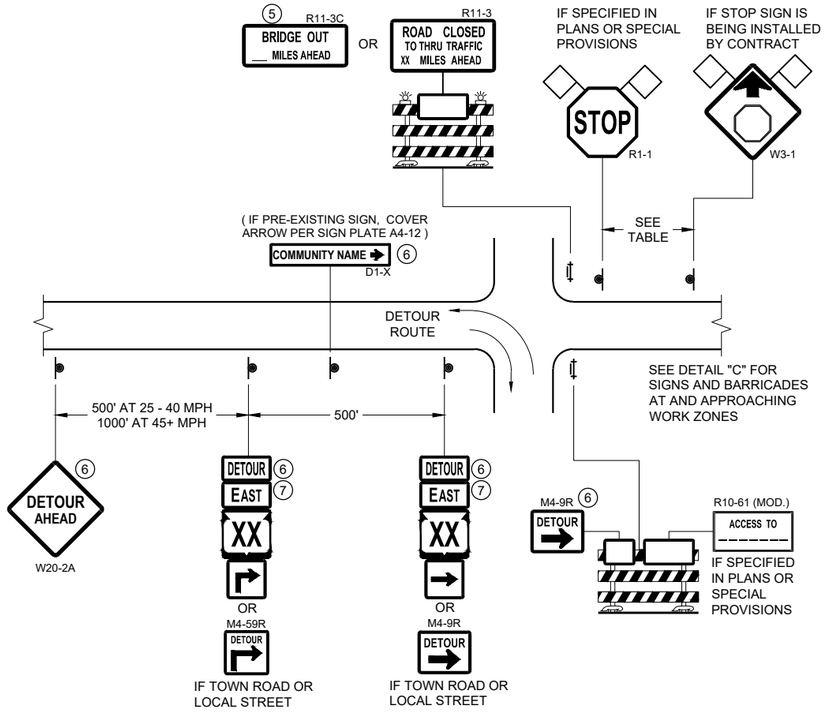
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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

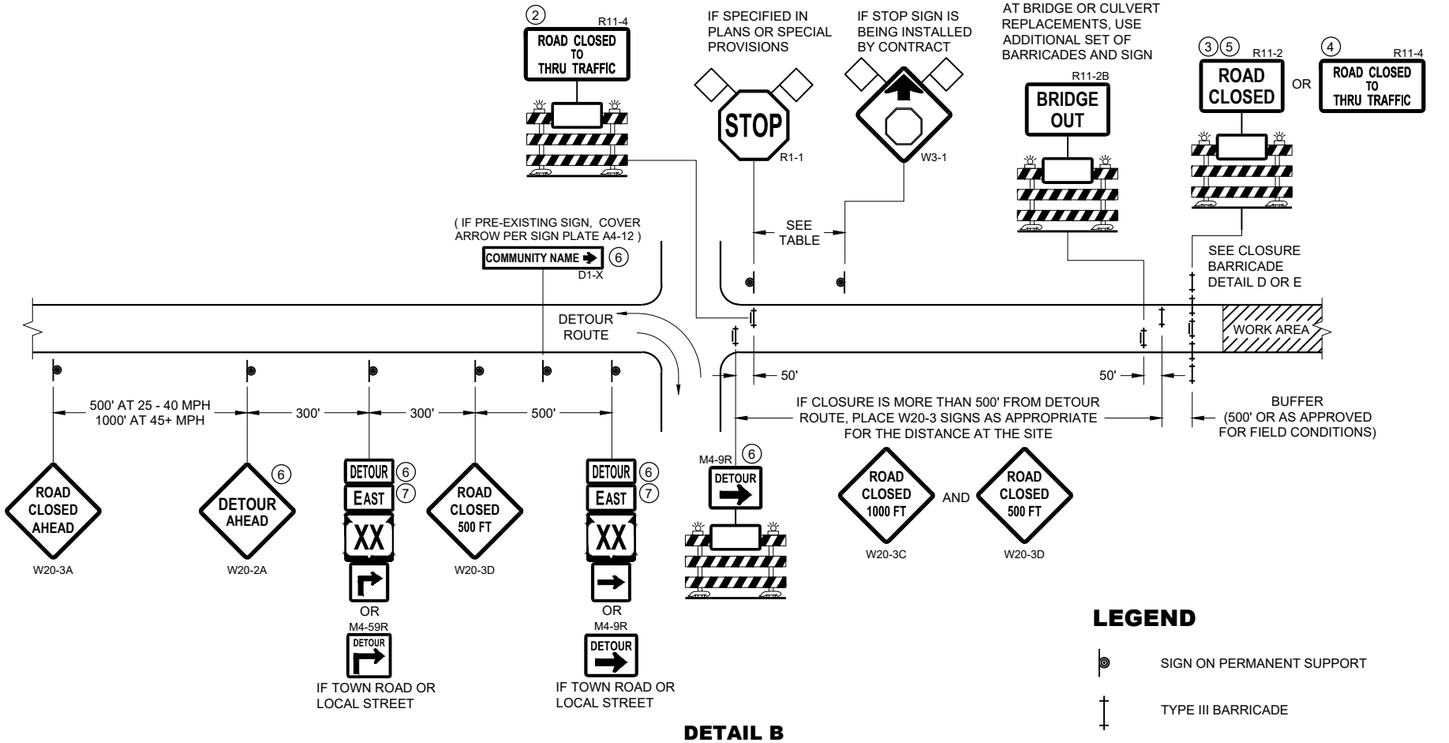
APPROVED
August 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 14B47 - 03g



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

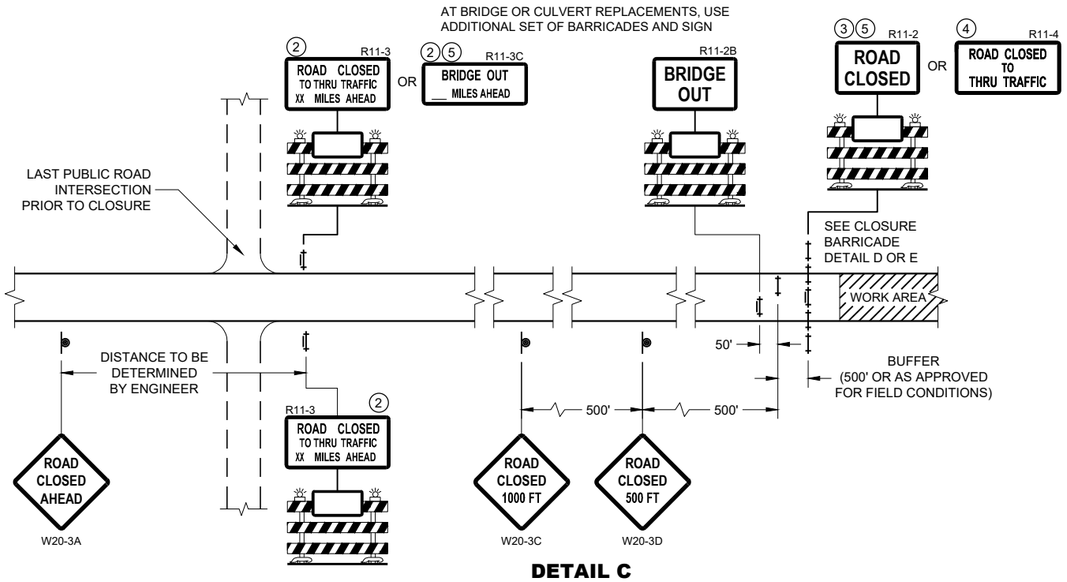
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

SDD 15C02 - 08a

SDD 15C02 - 08a

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.

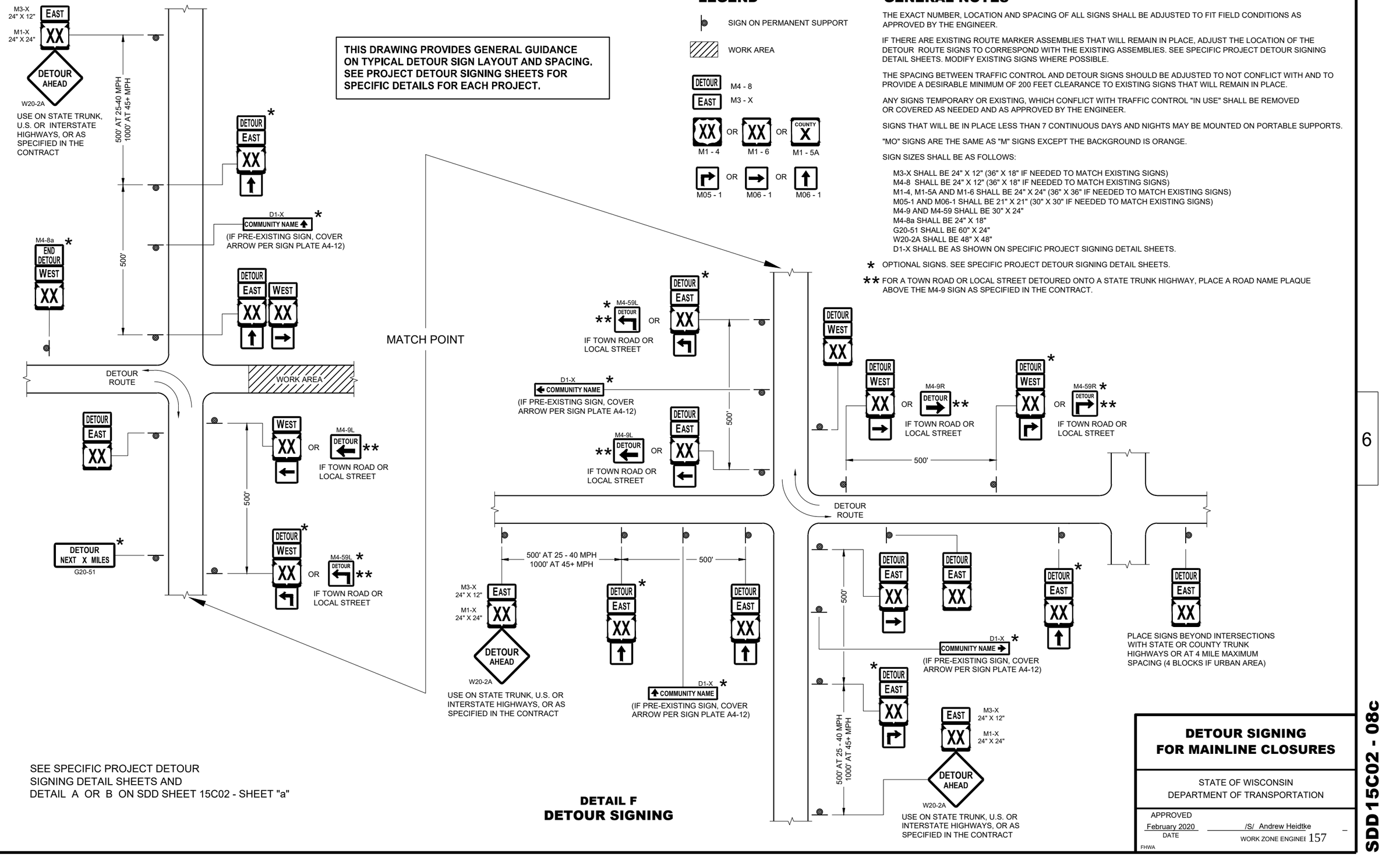
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

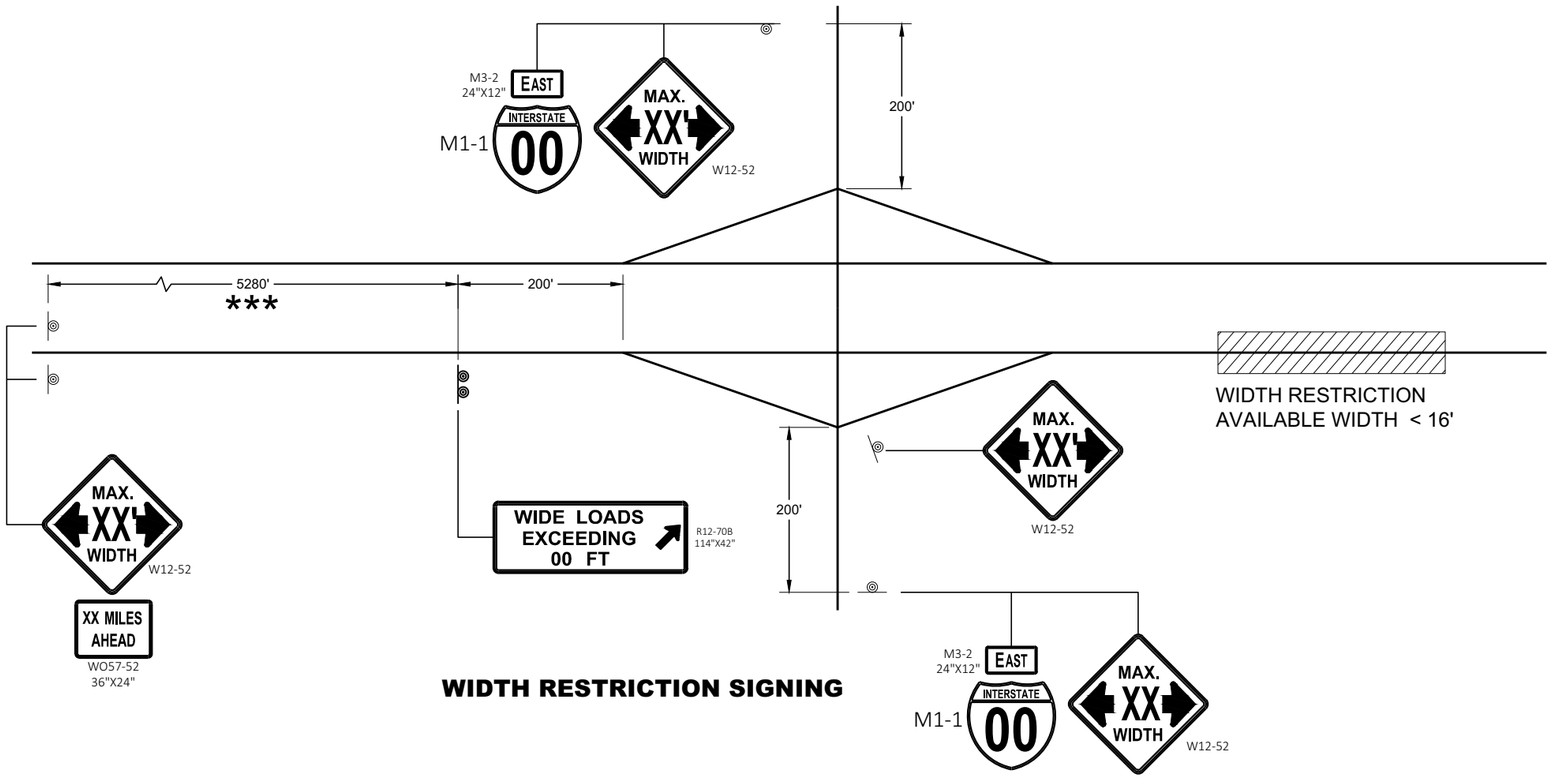
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

6



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.

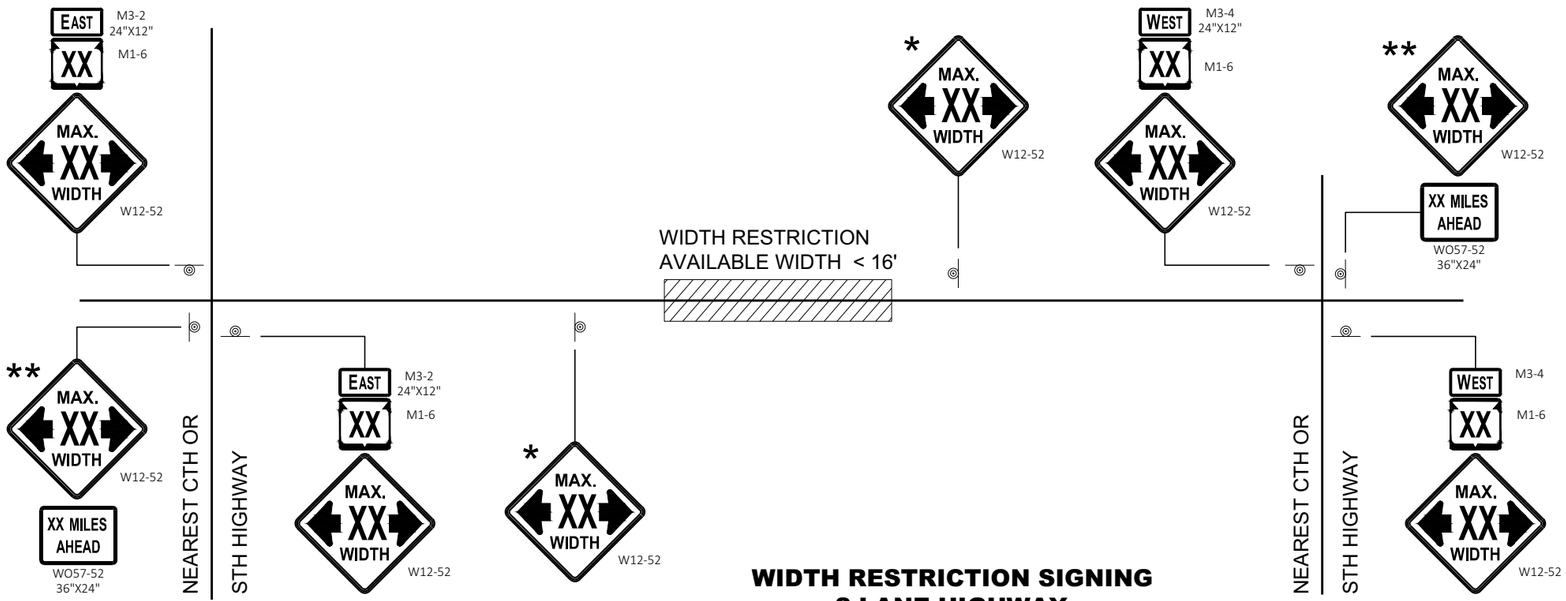
* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** 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

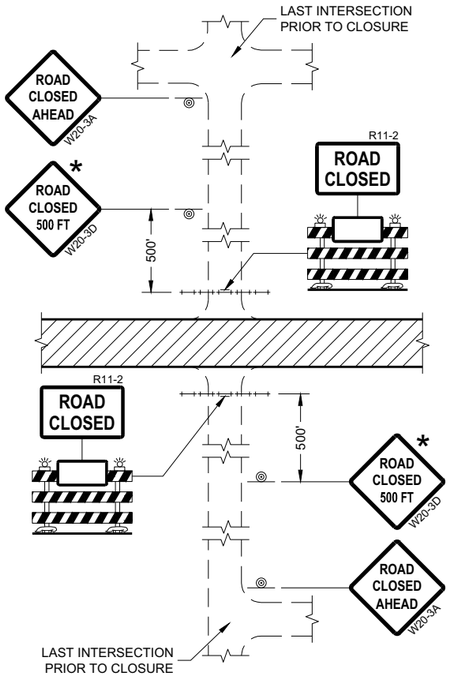
APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE 158

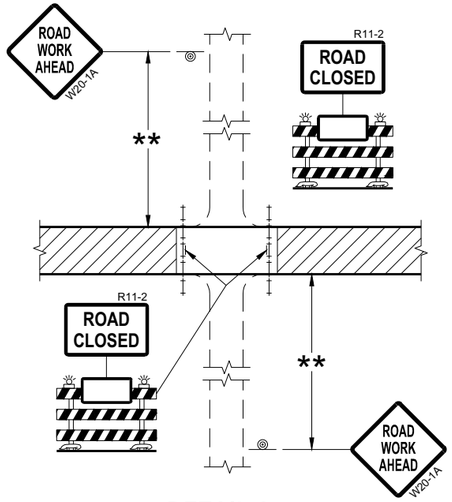
FHWA

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SDD 15C02 - 08f



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES 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.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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.

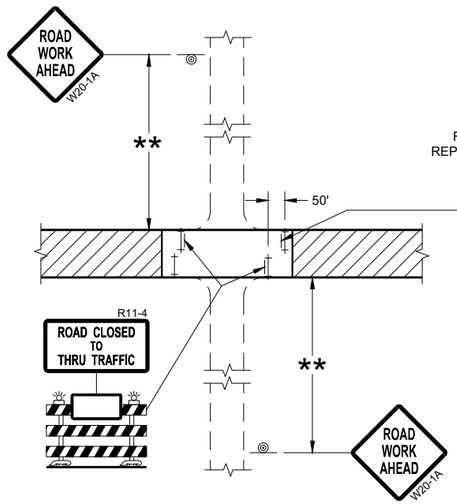
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

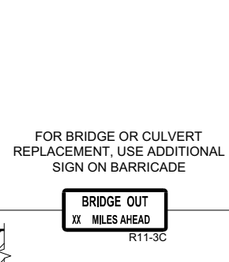
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

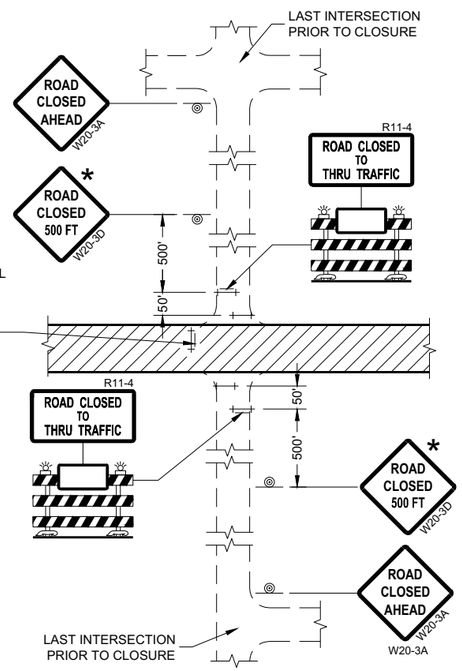
* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C03 - 05

GENERAL NOTES

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

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.

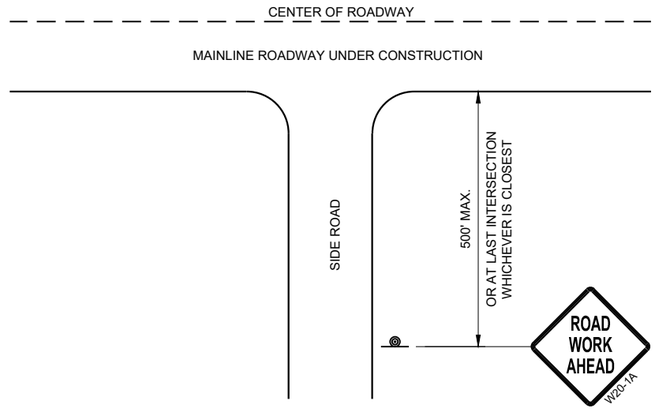
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

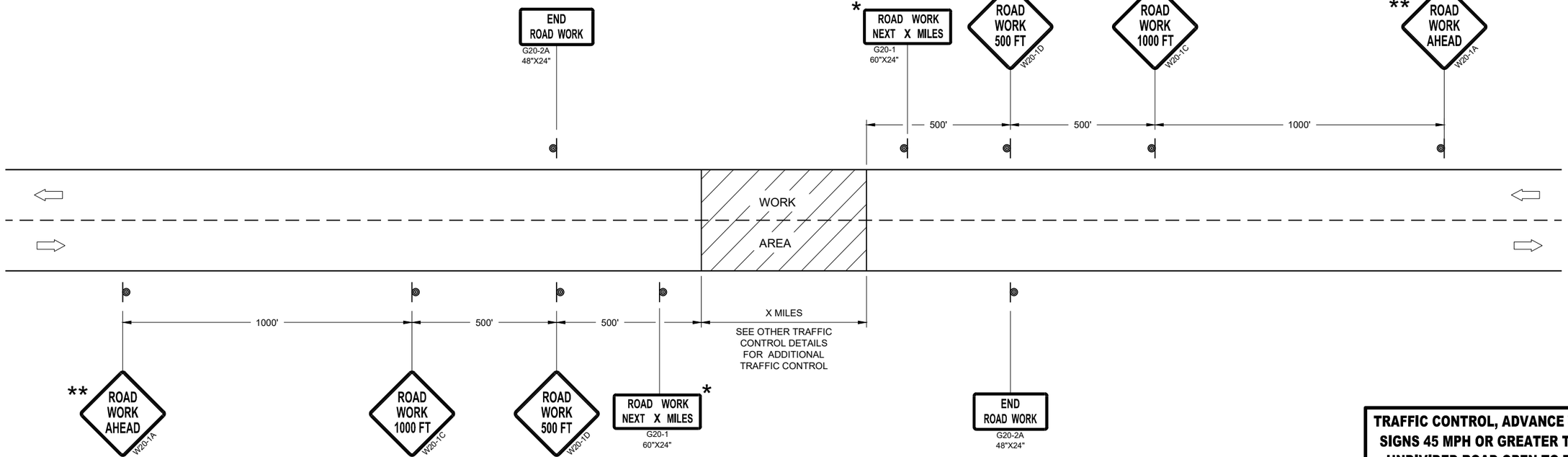
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

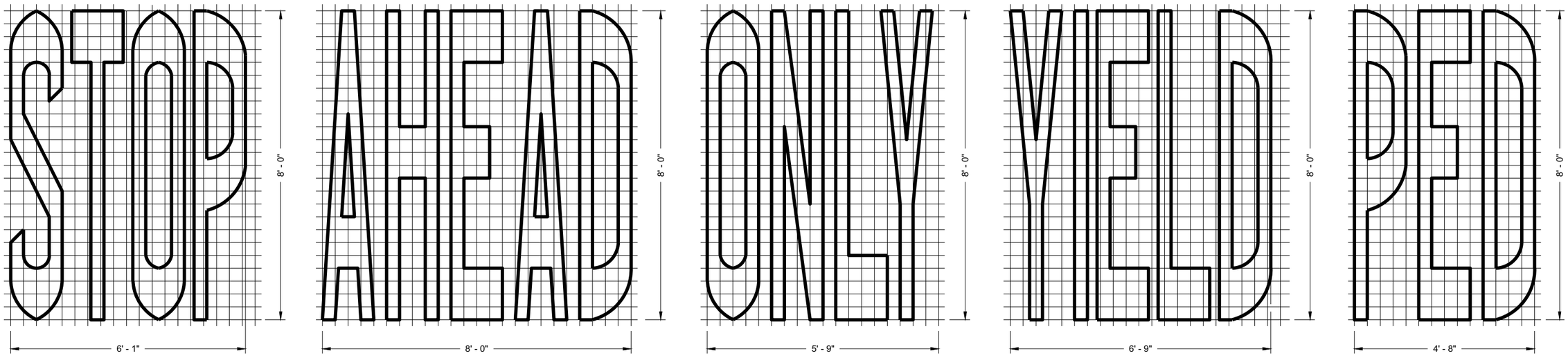
APPROVED
July 2018
DATE

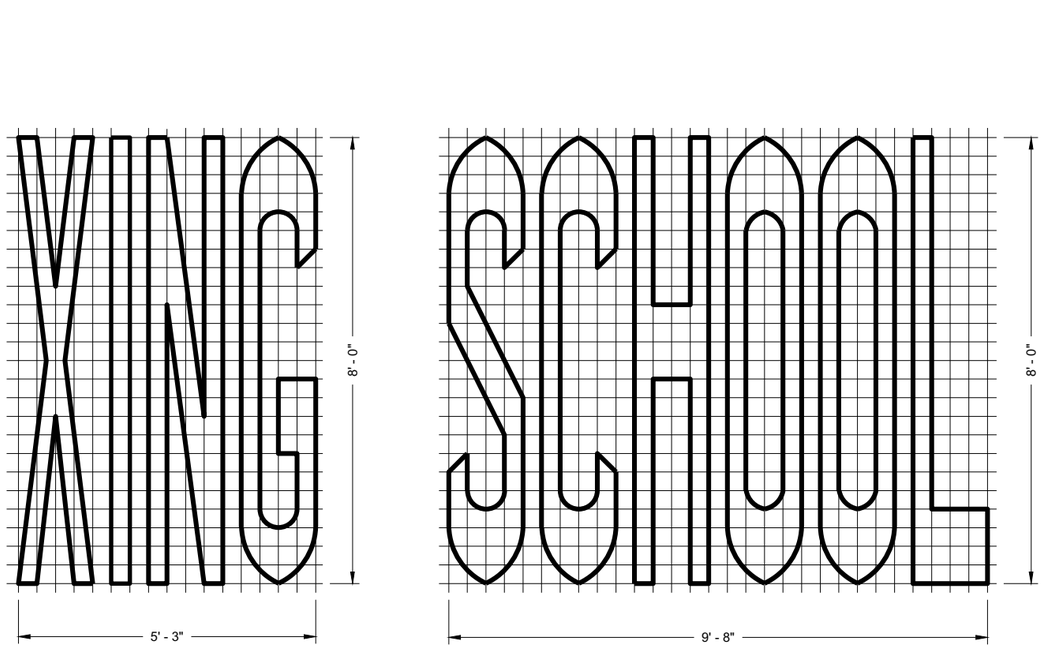
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

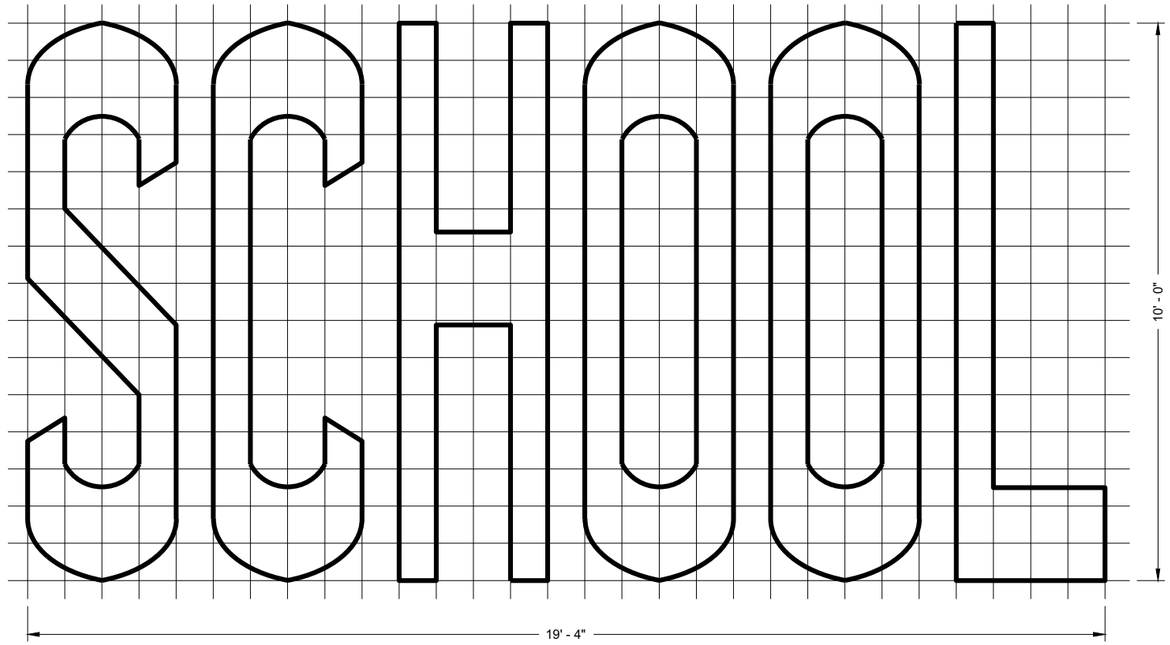
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SDD 15C04 - 05





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

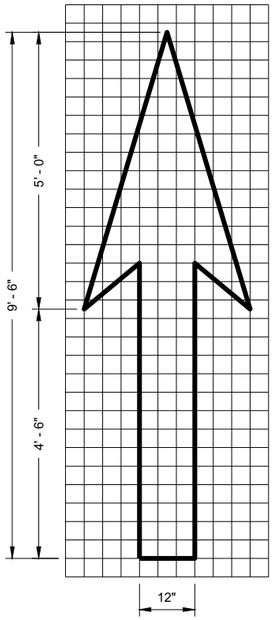
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SDD 15C07 - 15b

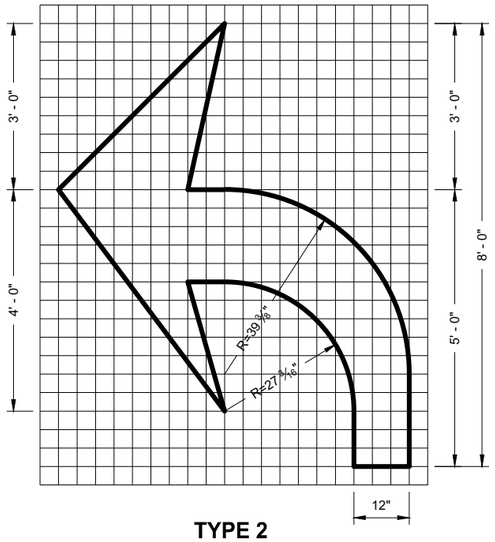
SDD 15C07 - 15b

GENERAL NOTES

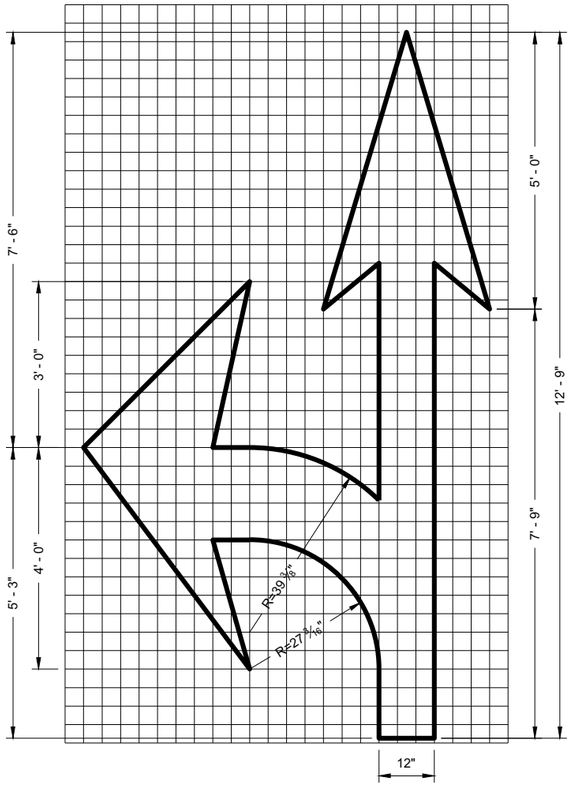
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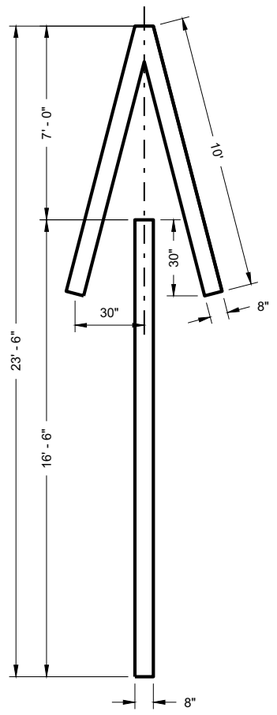
TYPE 1



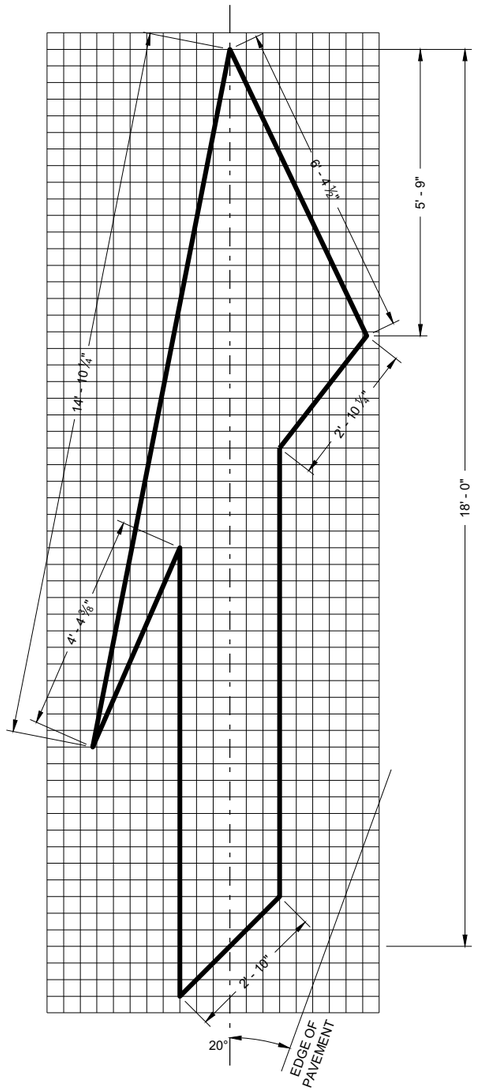
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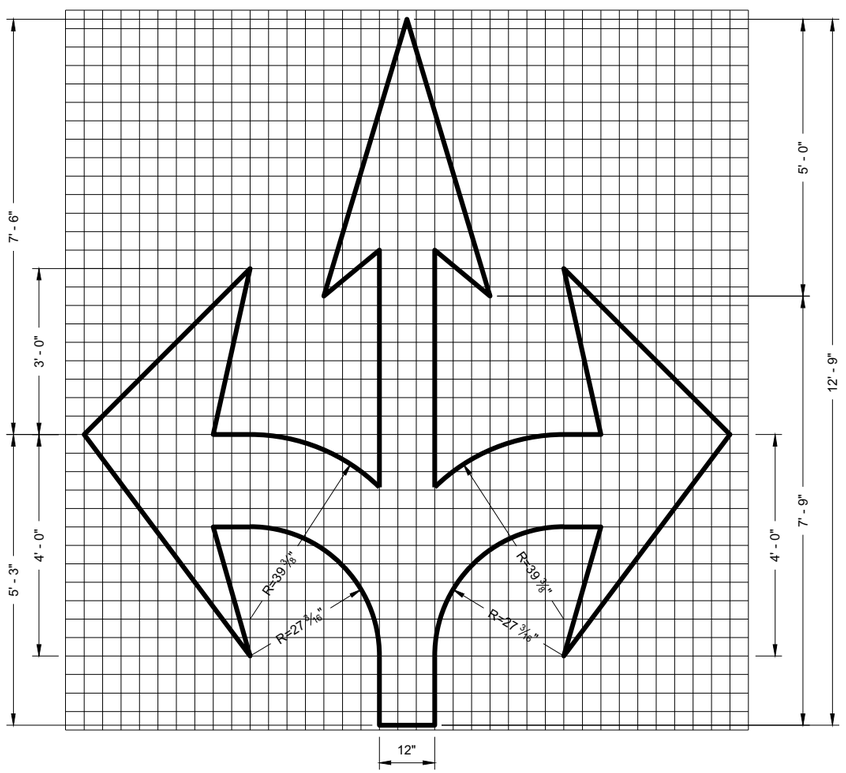
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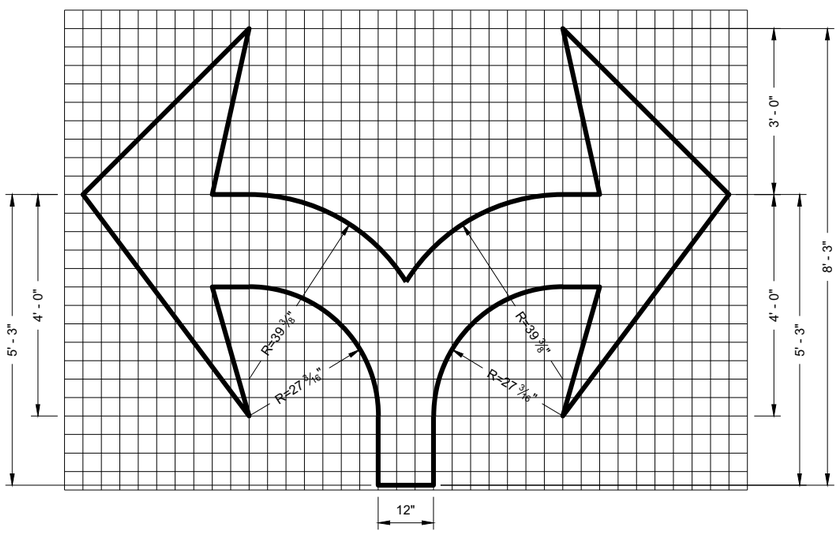
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

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DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

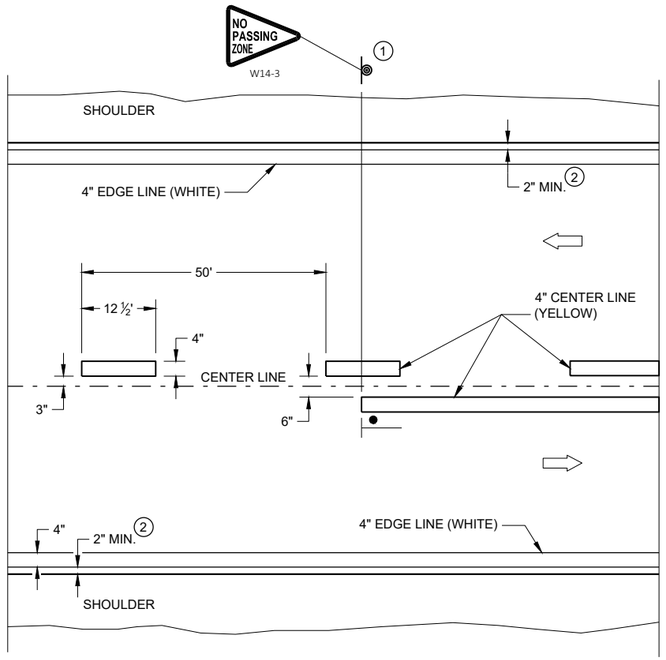
FHWA

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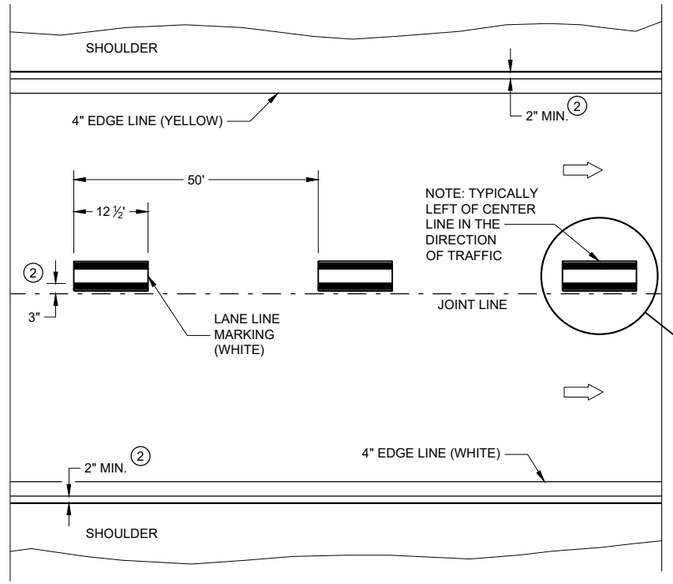
SDD 15C07 - 15c

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SDD 15C07 - 15c

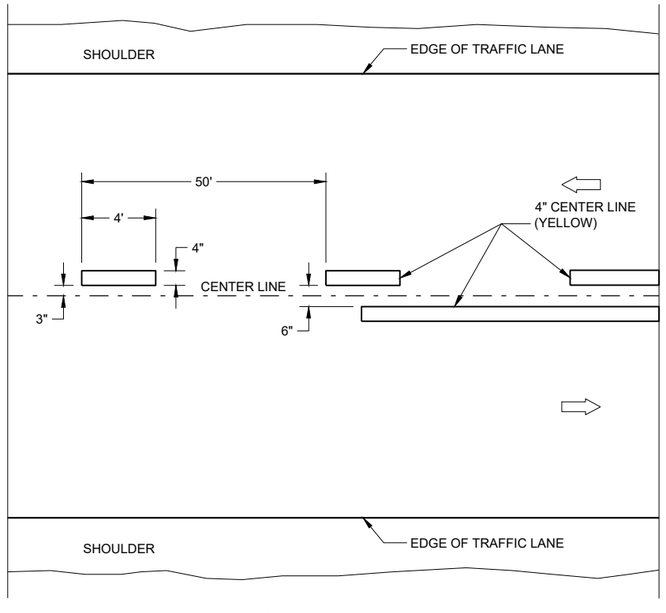


TWO WAY TRAFFIC

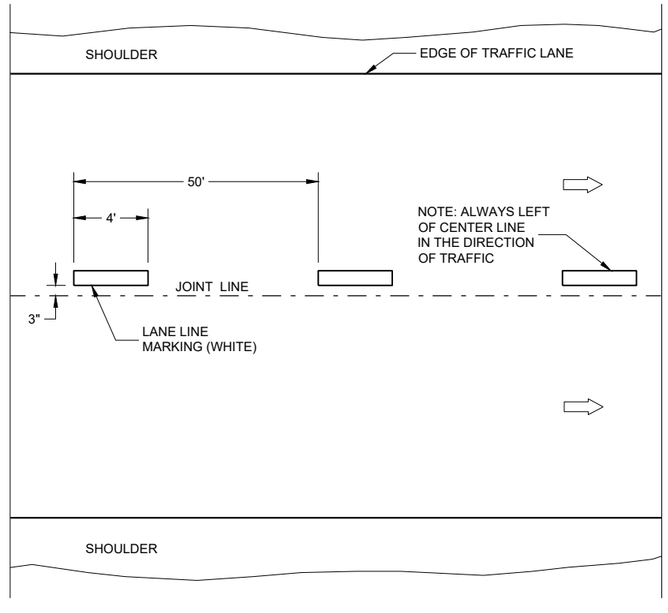


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

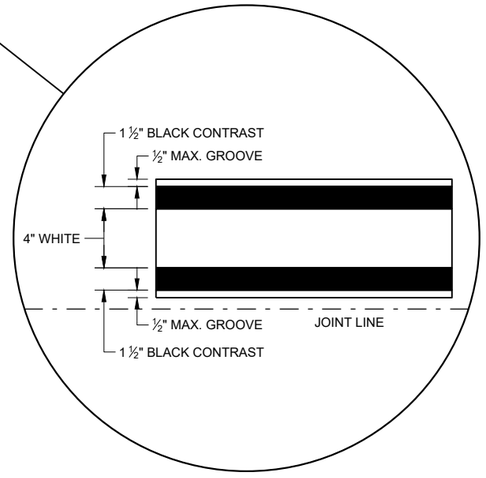
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

FHWA

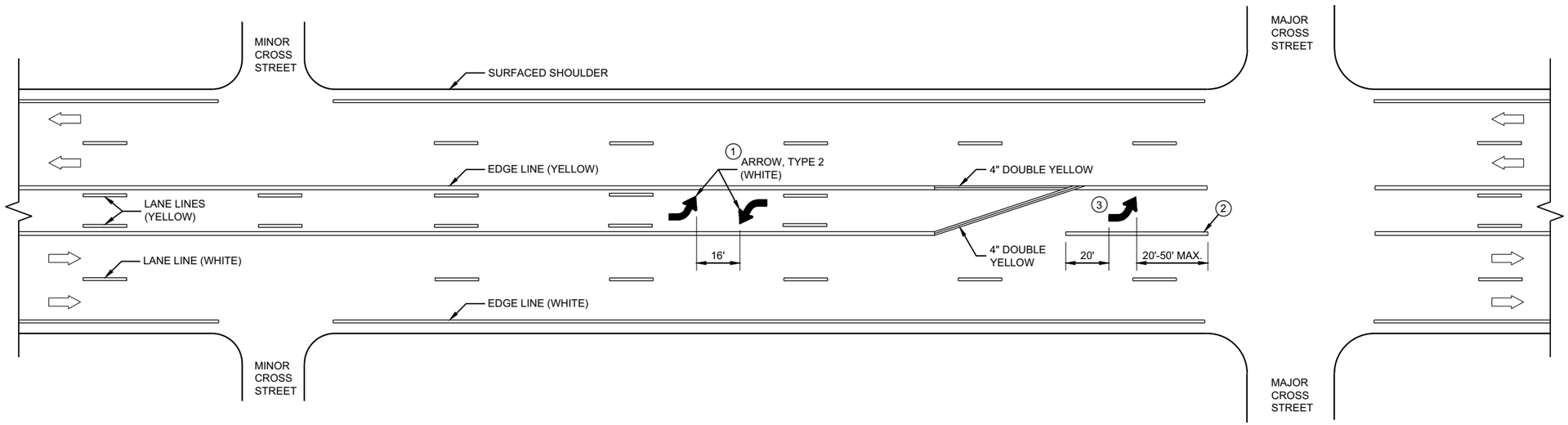
SDD 15C08 - 20a

SDD 15C08 - 20a

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

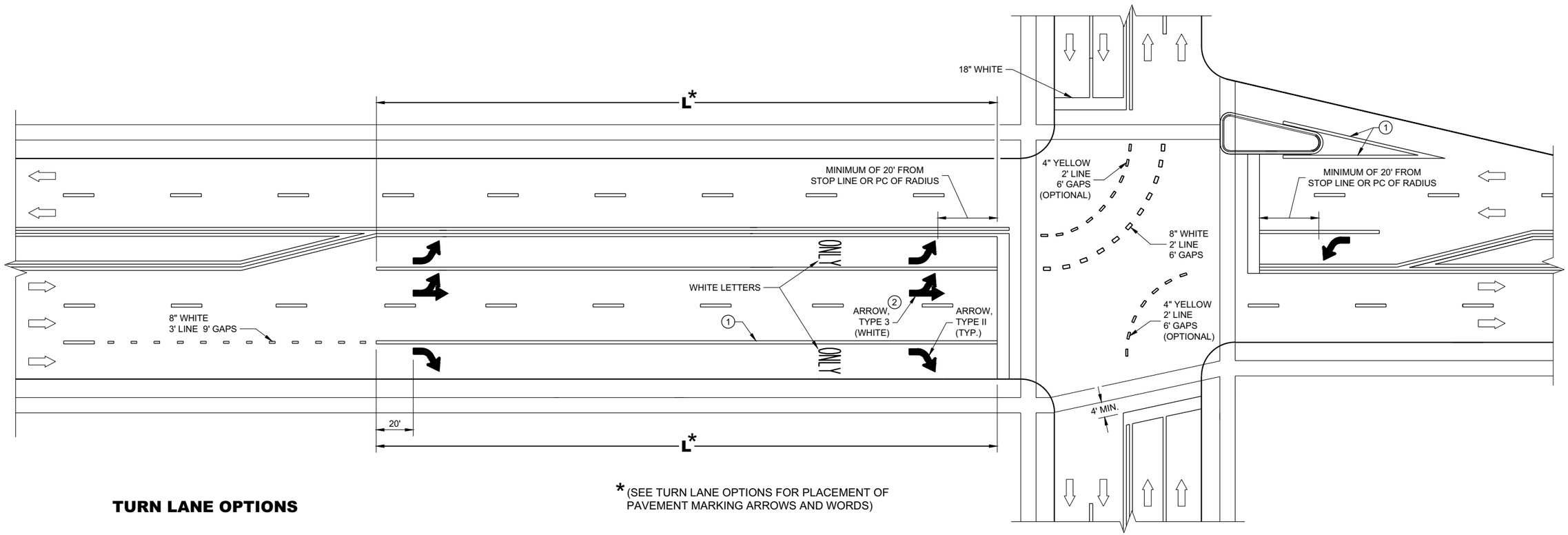
SDD 15C08 - 20b

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

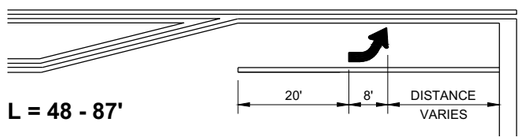
SDD 15C08 - 20b



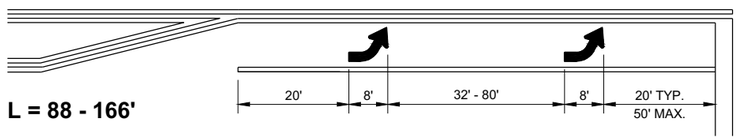
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

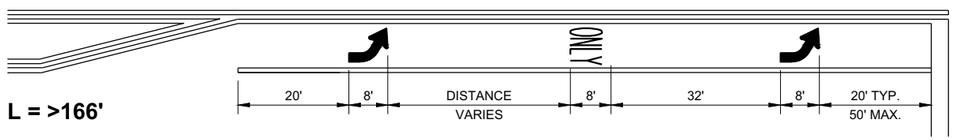
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



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)

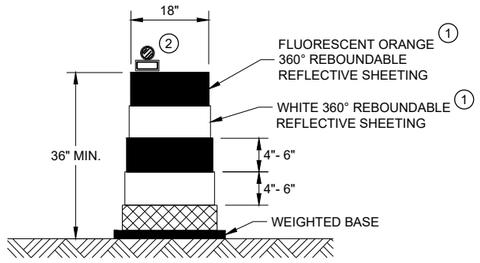
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

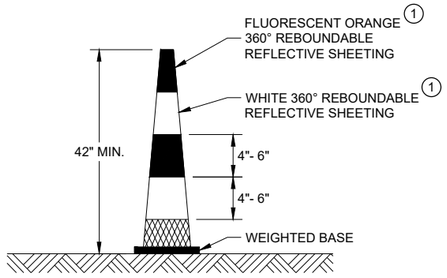
SDD 15C08 - 20c

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.

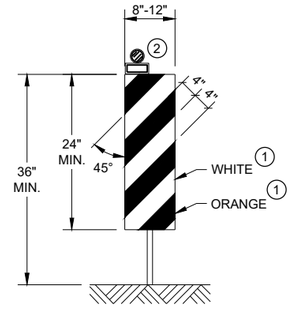


DRUM



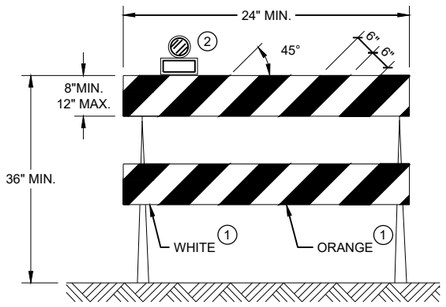
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



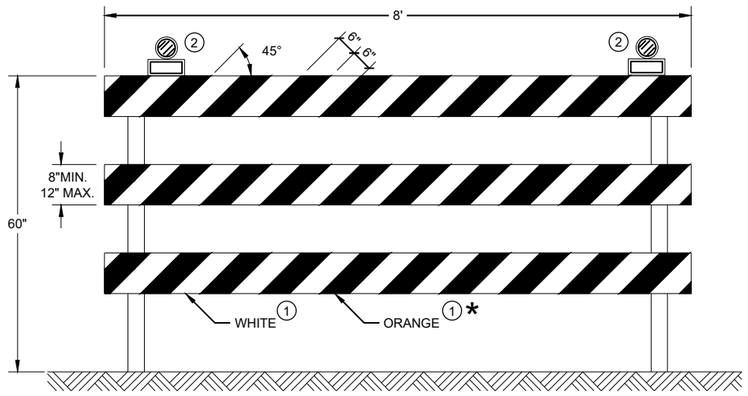
VERTICAL PANEL

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

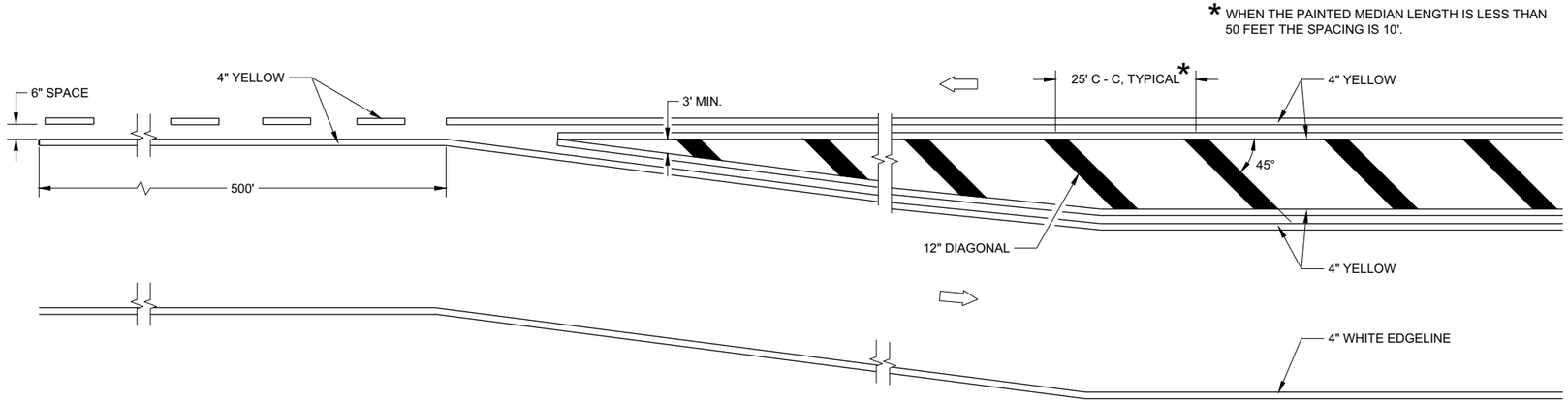
APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD15C11 - 09b

6

SDD15C11 - 09b

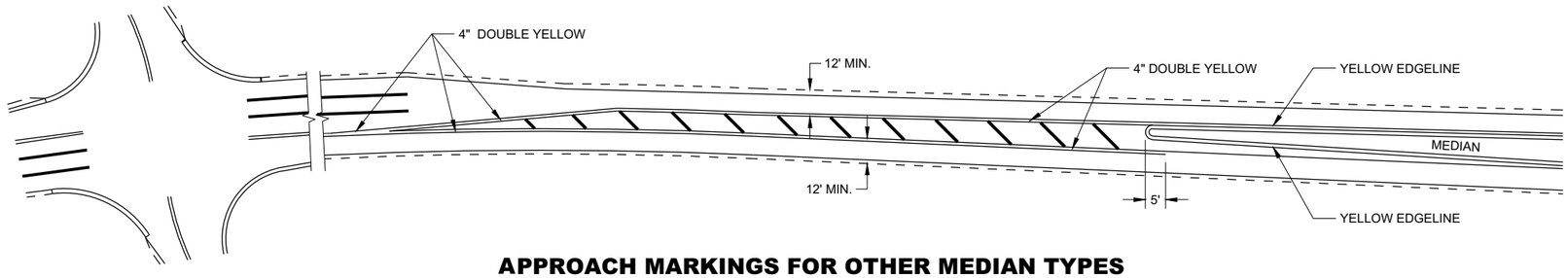


MEDIAN ISLAND DETAIL

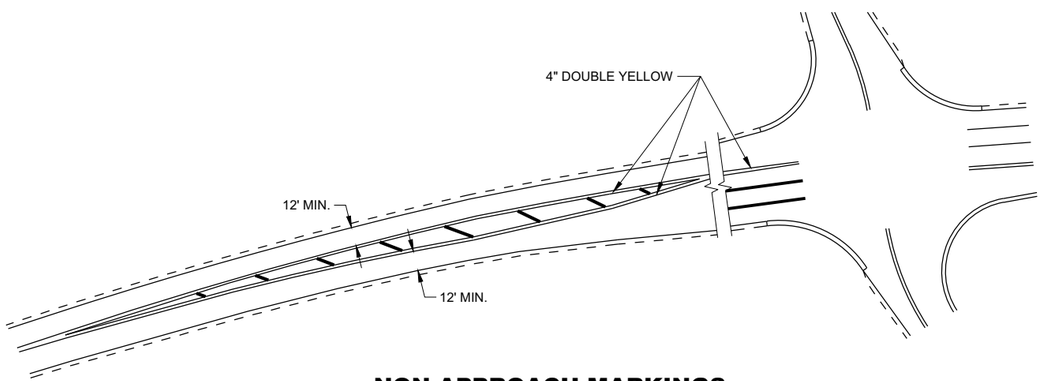
GENERAL NOTES

DIAGONALS ARE OPTIONAL WHEN PAINED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF ENGINEER

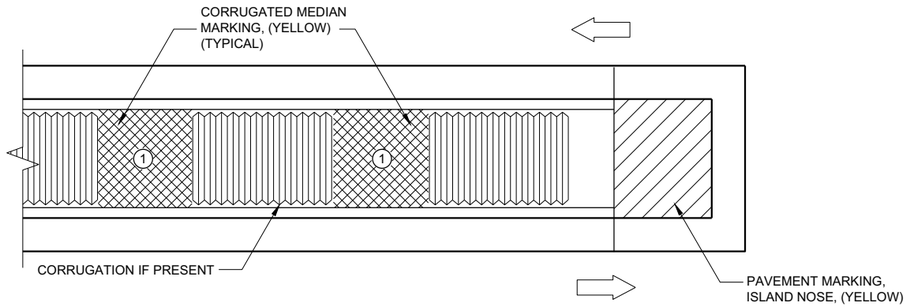
FHWA

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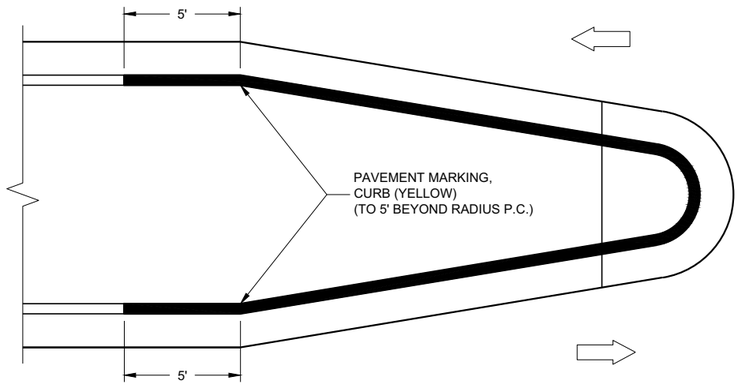
SDD 15C18 - 05a

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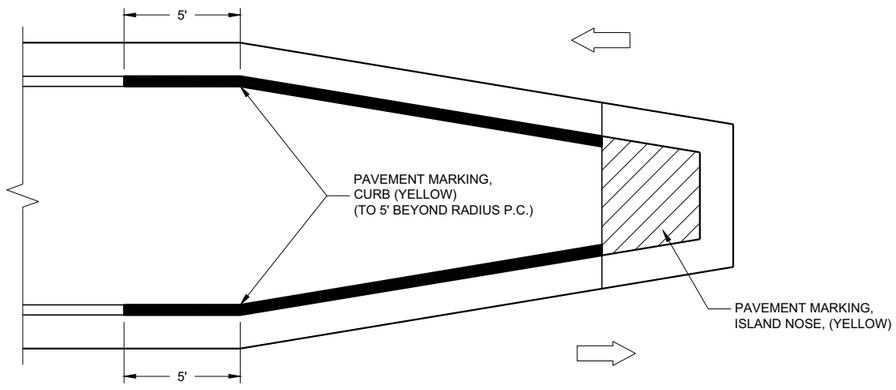
SDD 15C18 - 05a



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.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

FHWA

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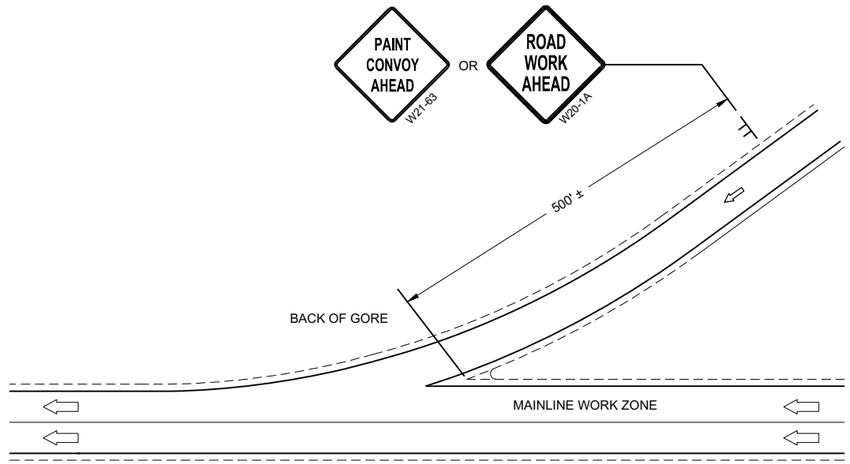
SDD 15C18 - 05b

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SDD15C18 - 05b

LEGEND

- V1 MARKING VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL 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.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

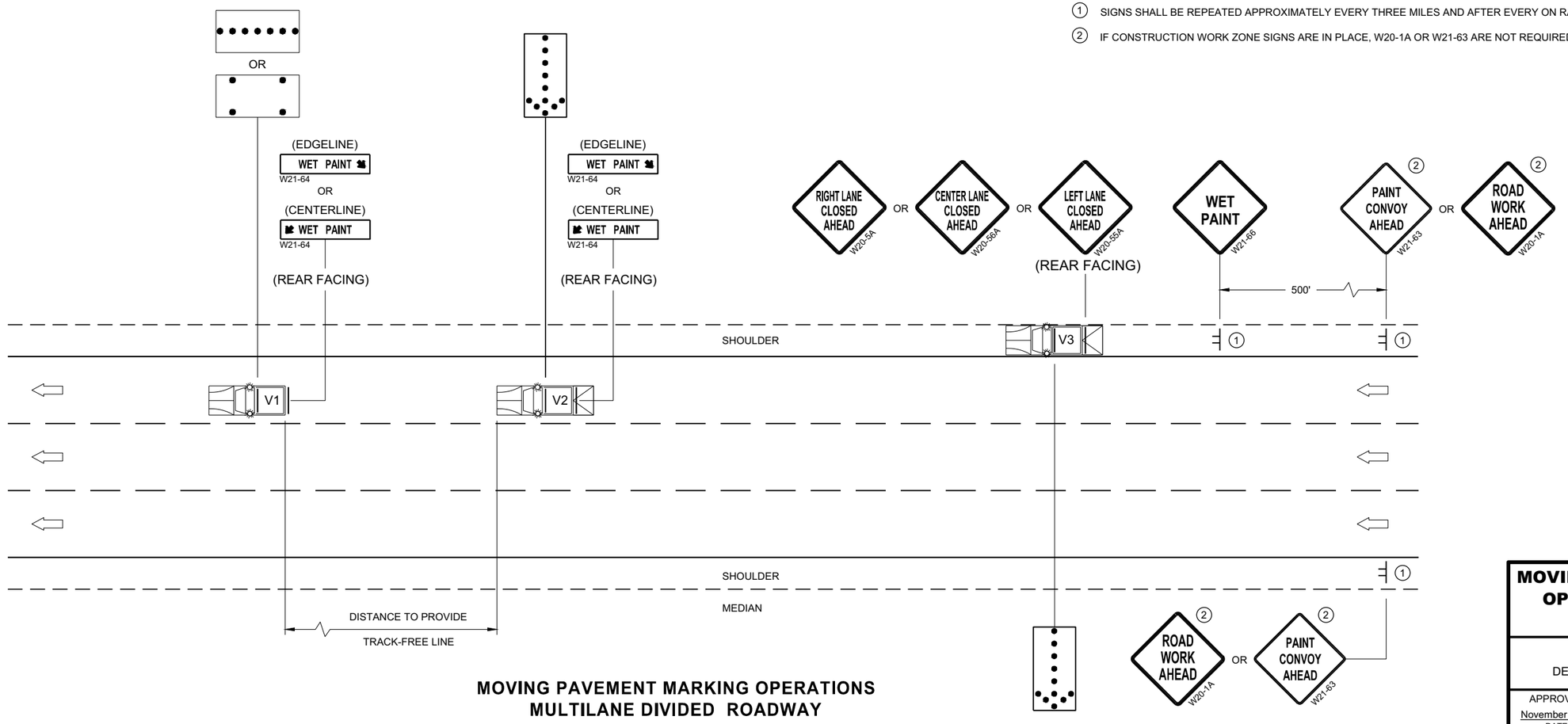
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE 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 BE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C19 - 06c

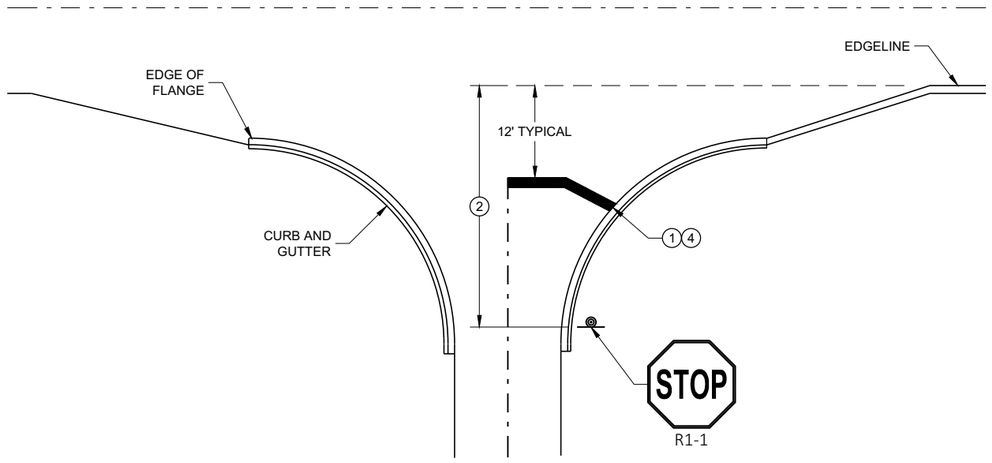
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SDD15C19 - 06c

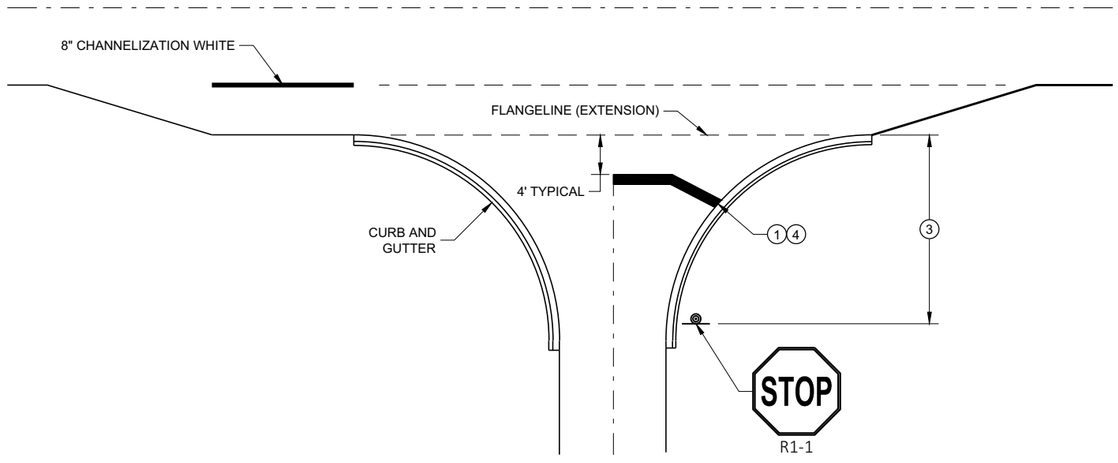
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

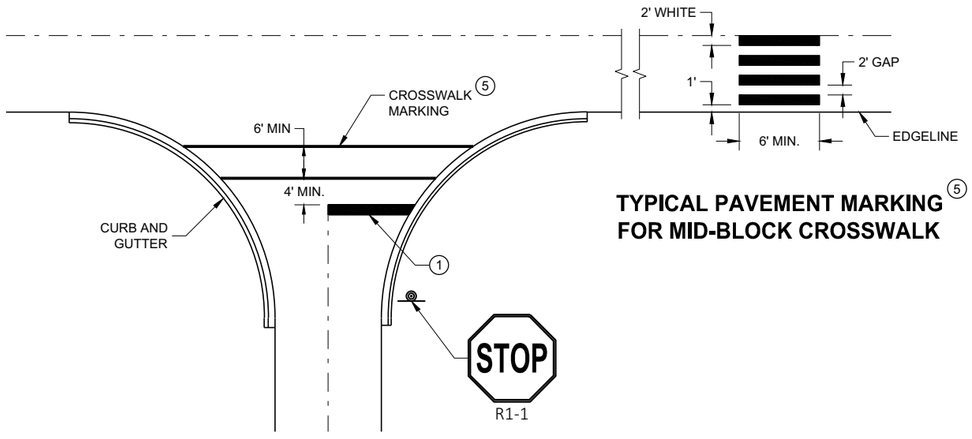
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

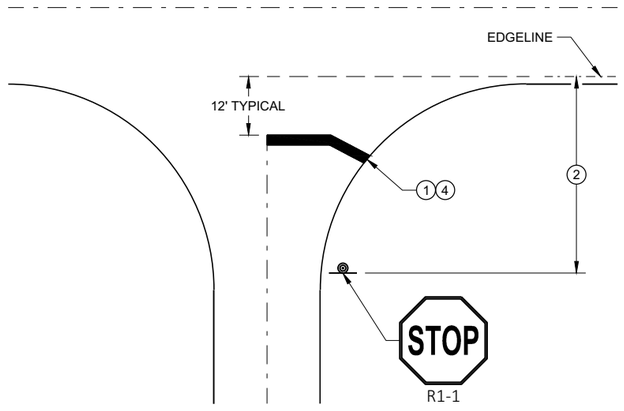


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



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
FHWA

6
SDD 15C33 - 04

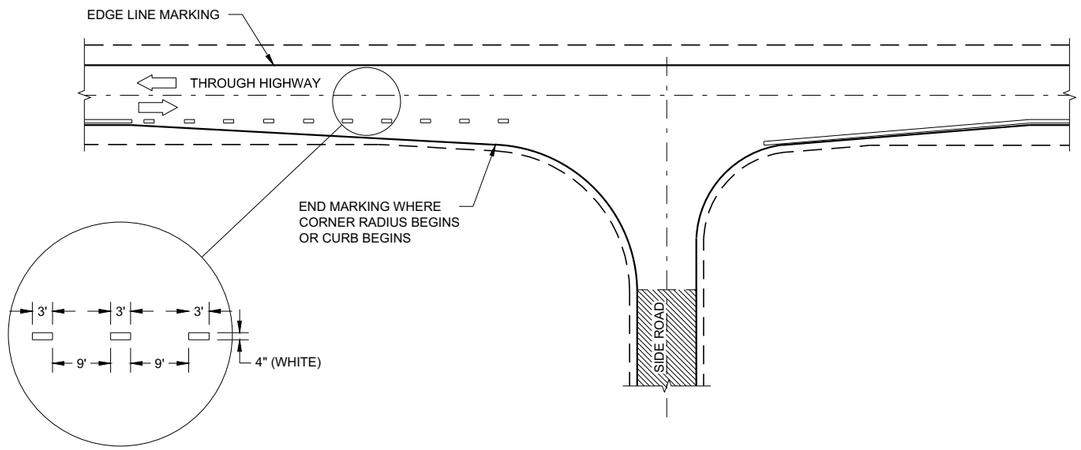
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

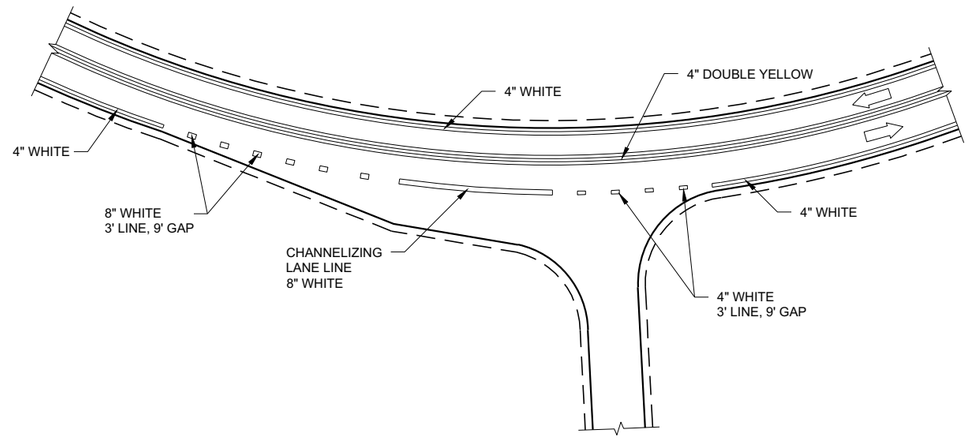
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

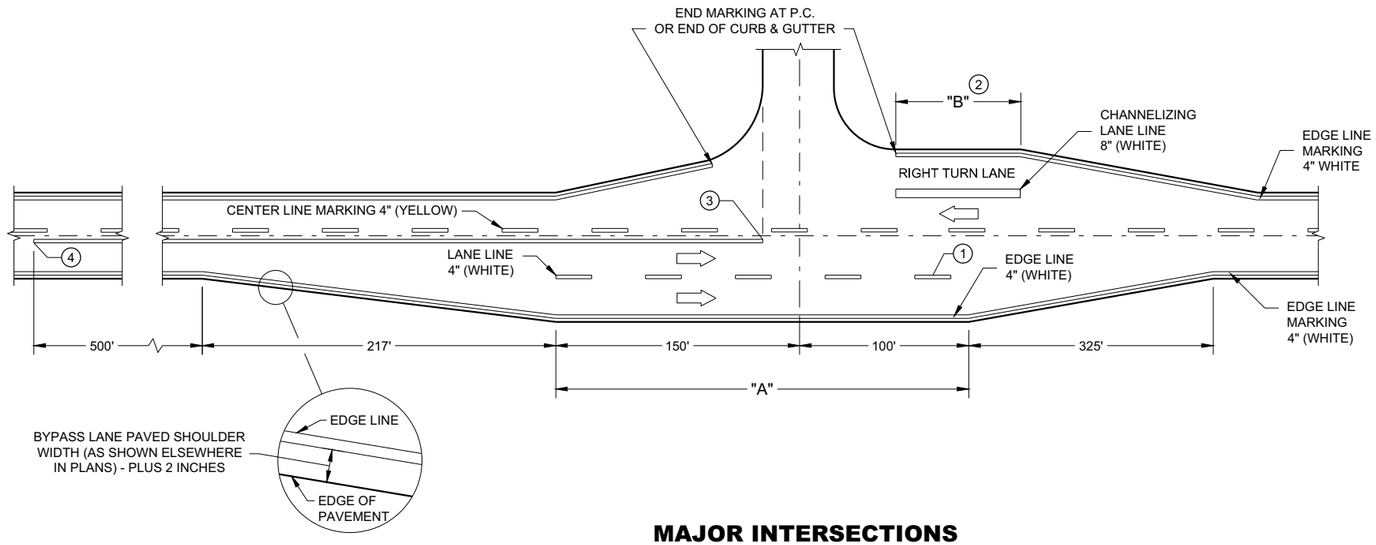
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C35 - 04a

6

SDD 15C35 - 04a

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 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.

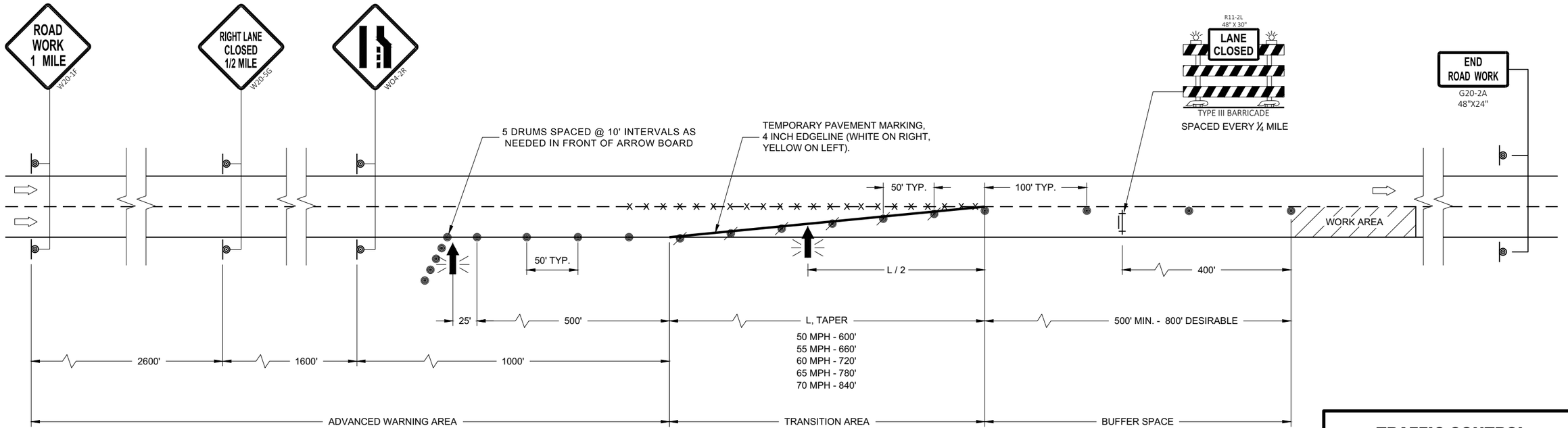
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D12 - 09a

6

SDD 15D12 - 09a

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.

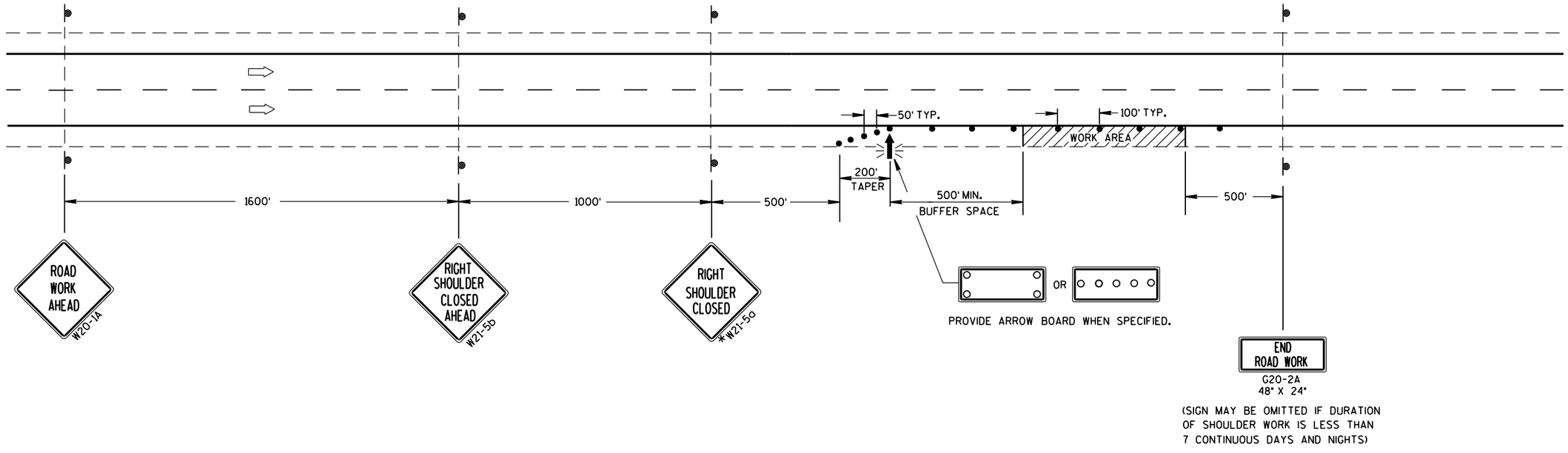
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

6

S.D.D. 15 D 27-3

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVE PAVEMENT MARKING

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 LEFT - REVERSE FOR SHIFTING RIGHT.

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. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

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 FEET IN FRONT OF DRUMS.

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 FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

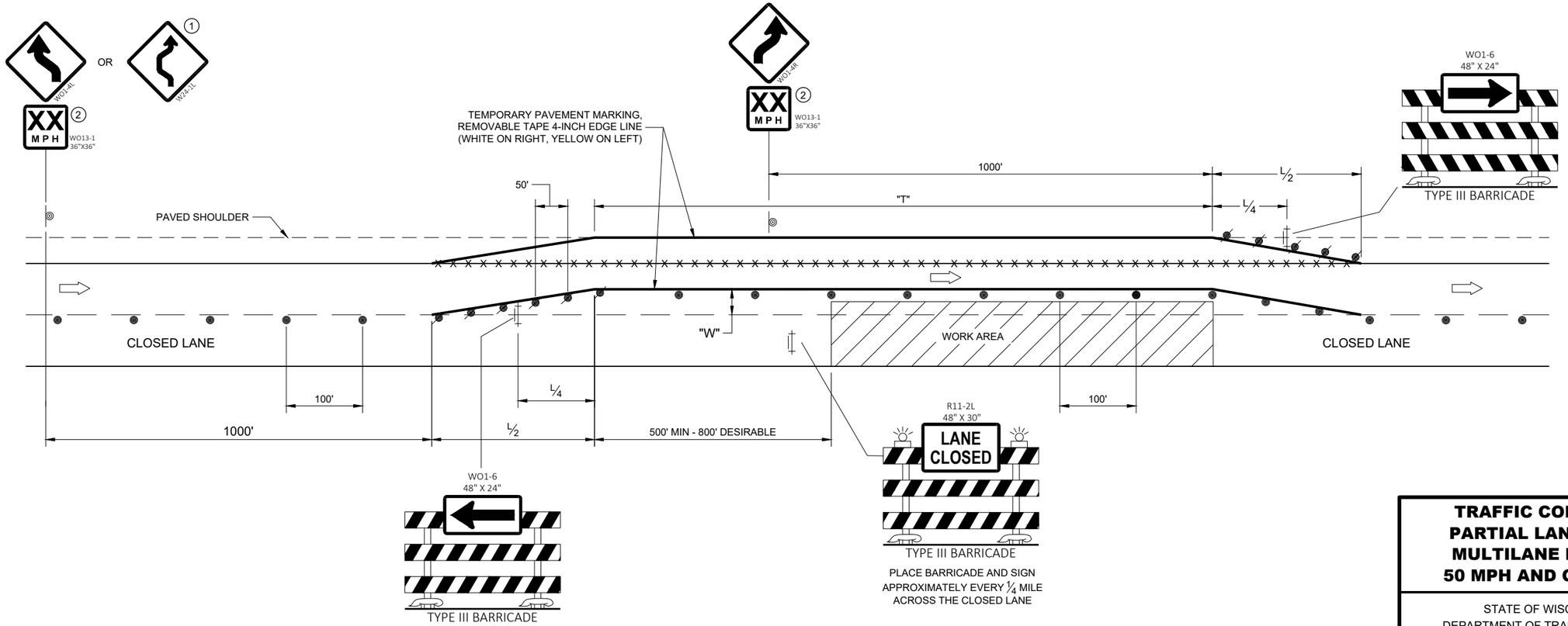
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE 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 WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315



TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 15D40 - 02d

6
SDD 15D40 - 02d

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.

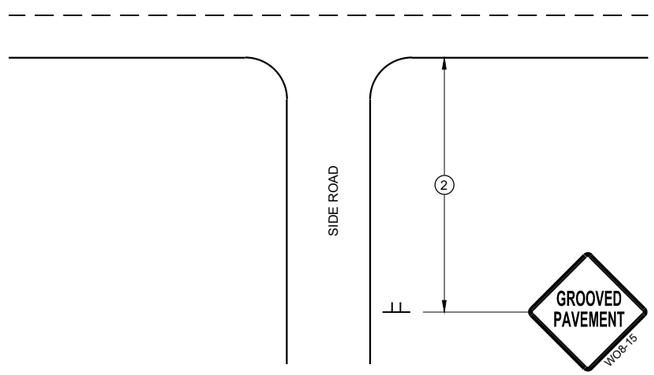
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

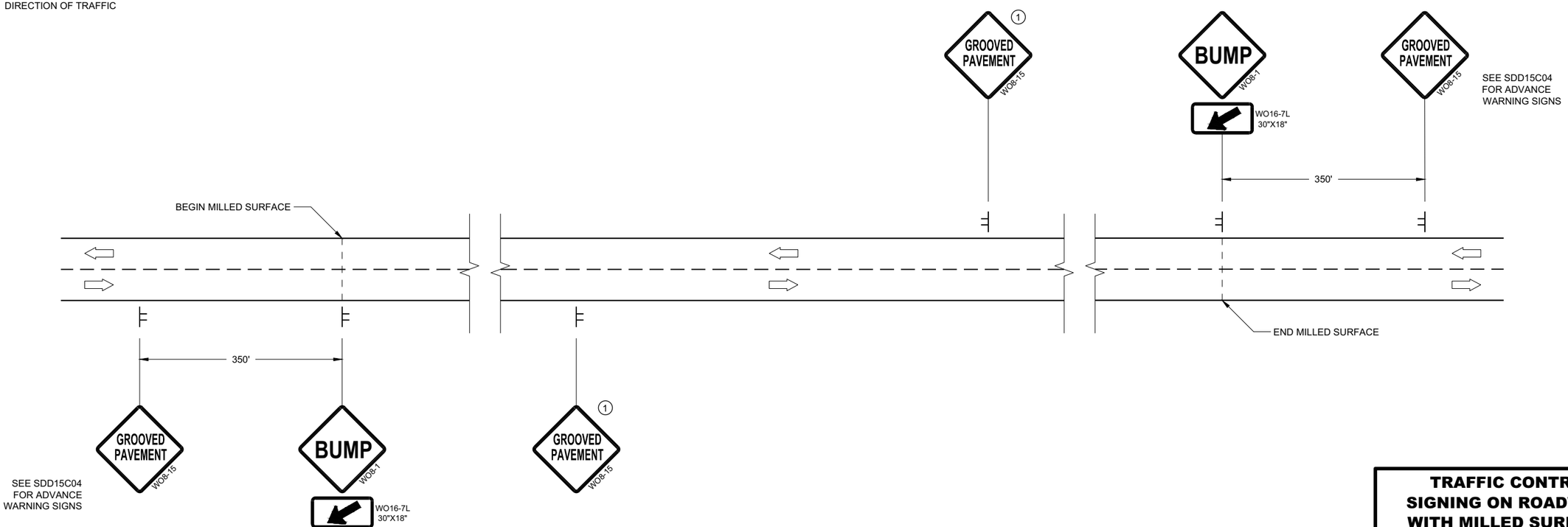
LEGEND

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 ENGINEER

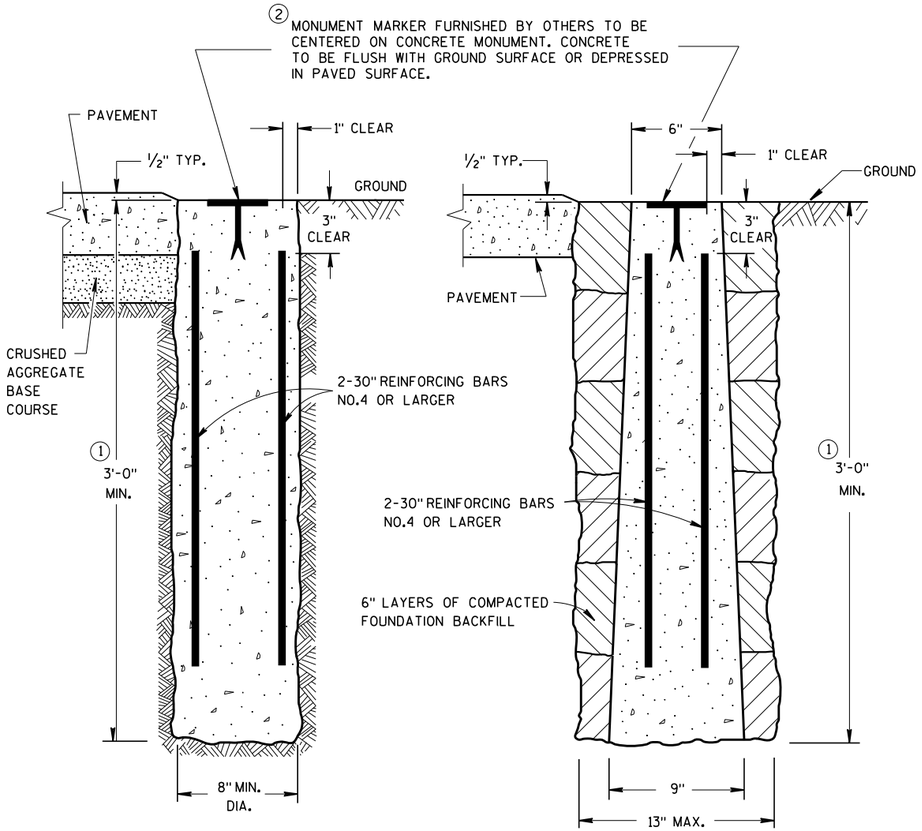
FHWA

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SDD 15D44 - 02

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SDD 15D44 - 02

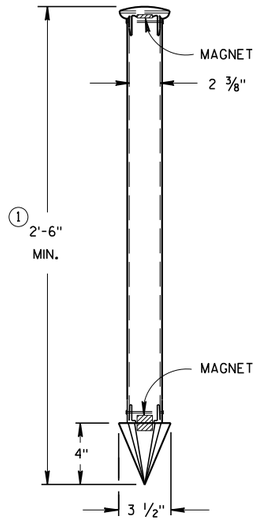


CAST-IN-PLACE

PRECAST

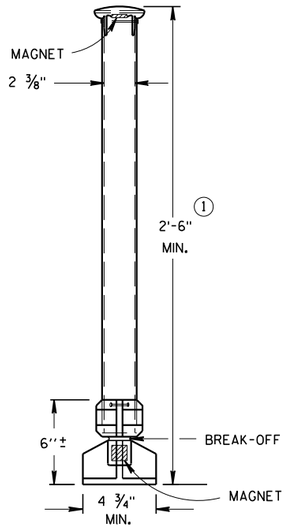
CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

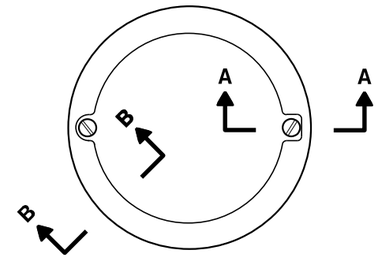
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

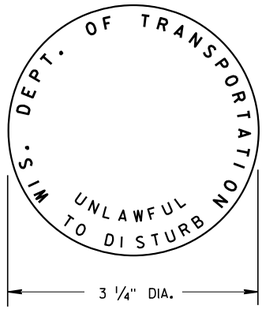
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

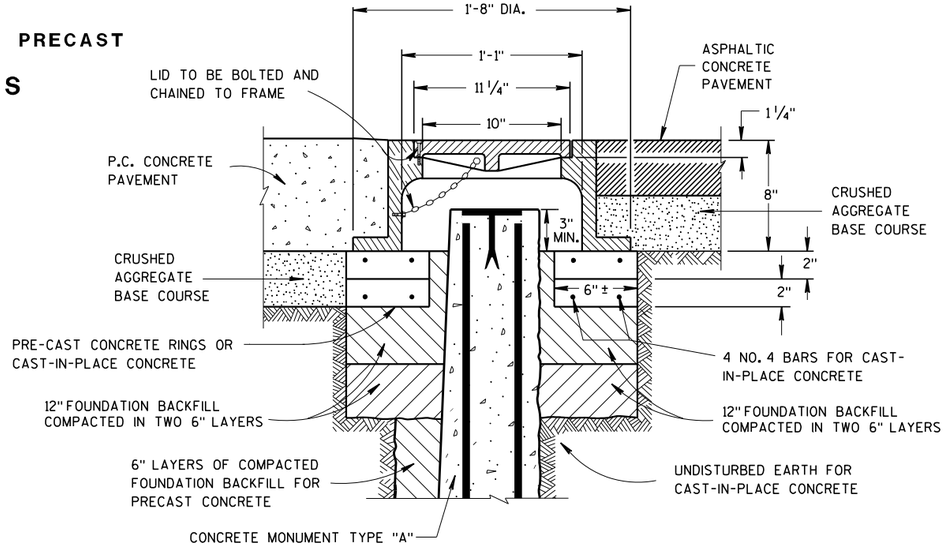


TOP VIEW



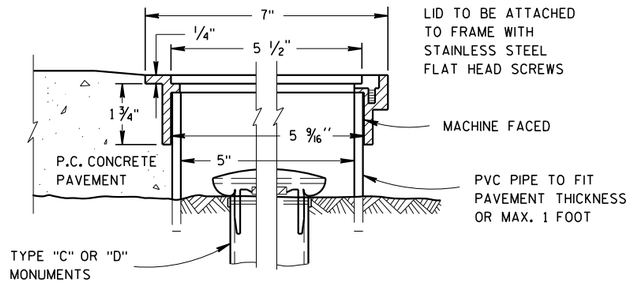
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C", & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

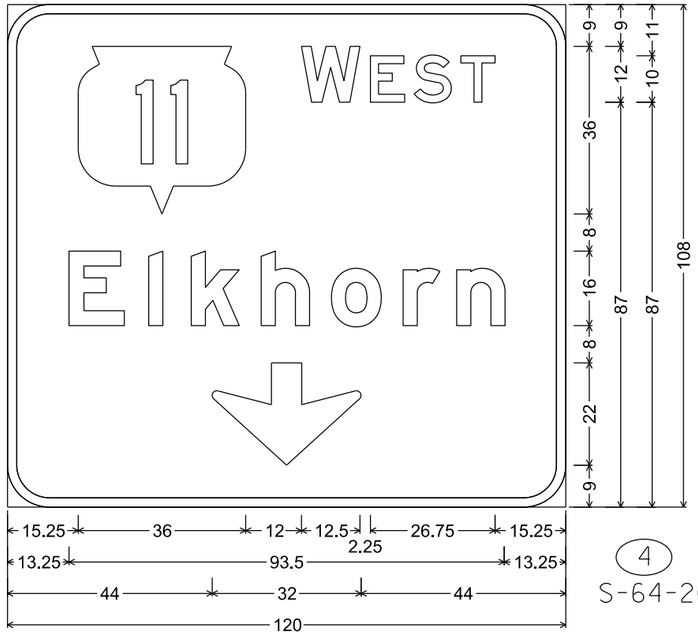
APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

6

S.D.D. 16 A 1-7

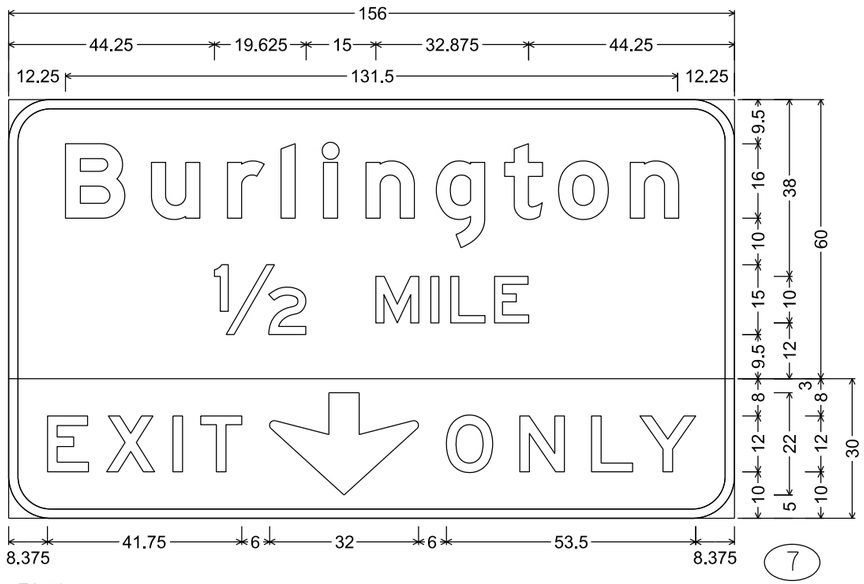
NOTES

1. All Signs 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 is on Type F Reflective Sheeting with Black Non-Relective Message



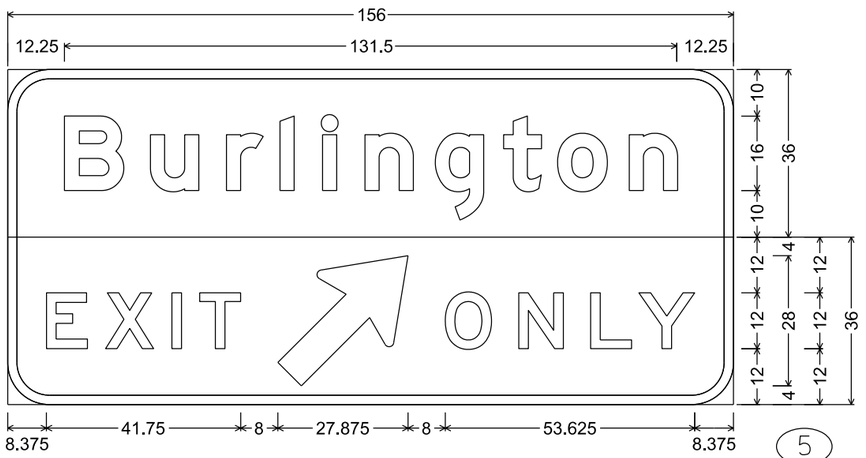
4
S-64-208

E6-51; 9.000" Radius, 2.000" Border



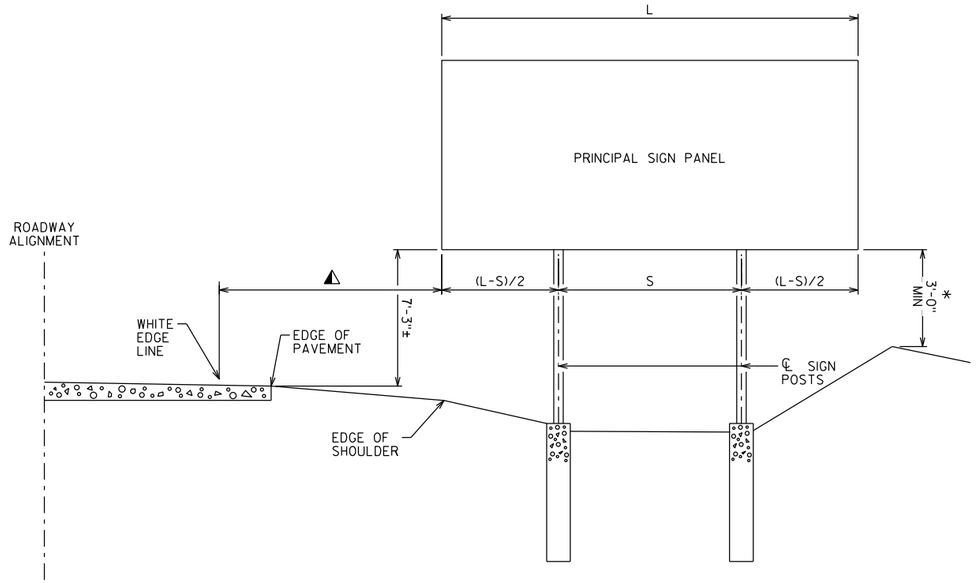
7
S-64-209

E6-51; 9.000" Radius, 2.000" Border, White on Green;
E11-1; 9.000" Radius, 2.000" Border, Black on Yellow

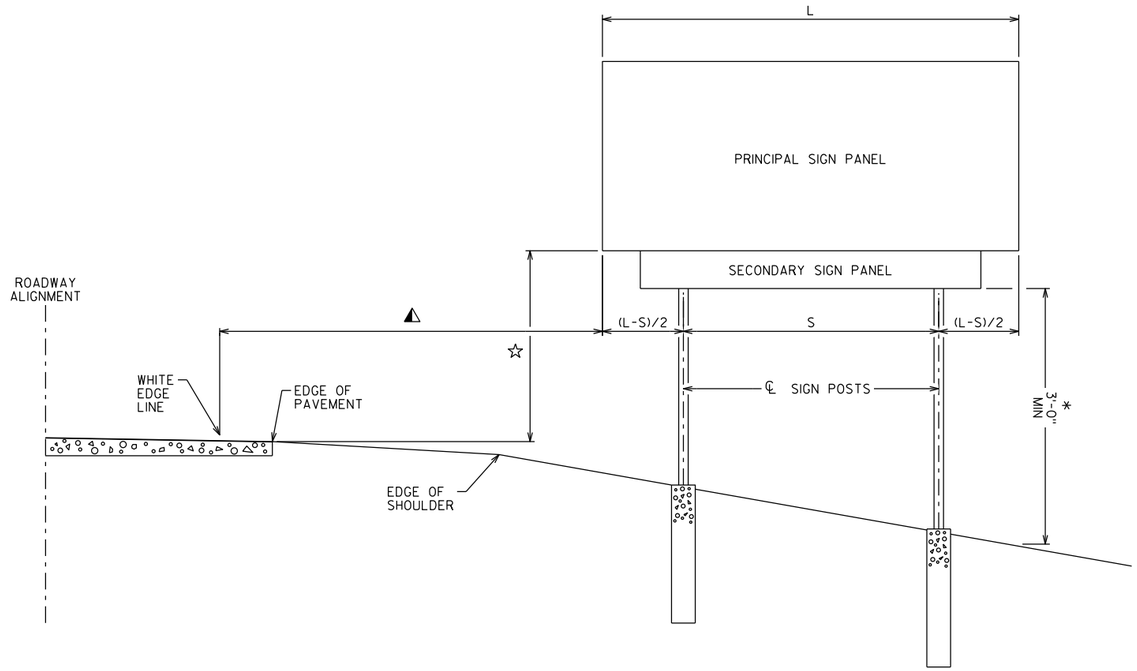


5
S-64-208

E6-1; 9.000" Radius, 2.000" Border, White on Green;
E11-1D; 9.000" Radius, 2.000" Border, Black on Yellow



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

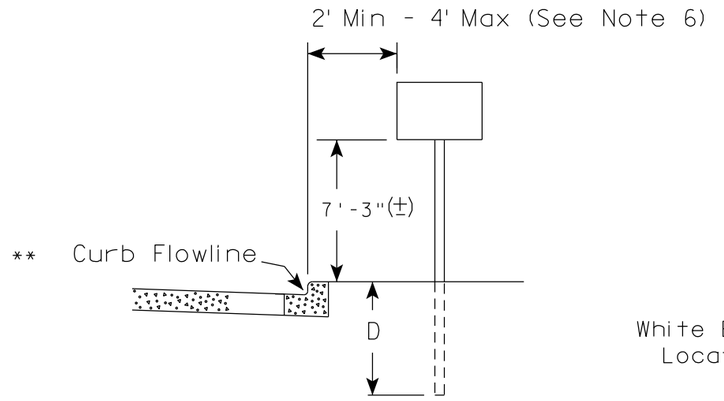
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

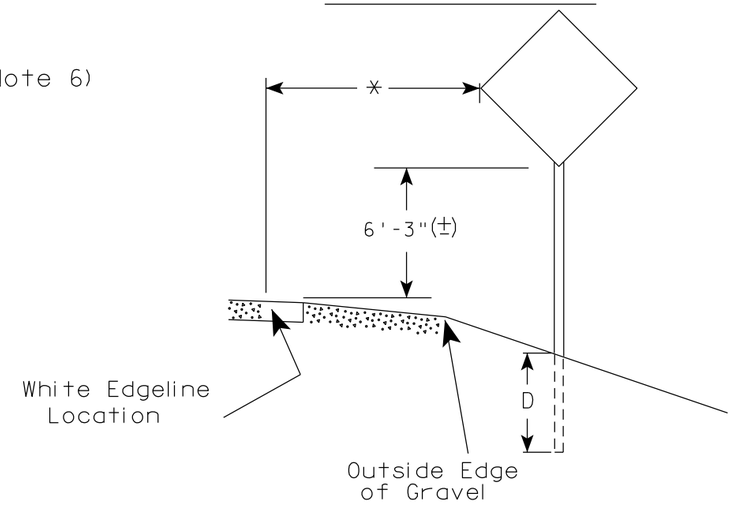
SHEET A4-1.10

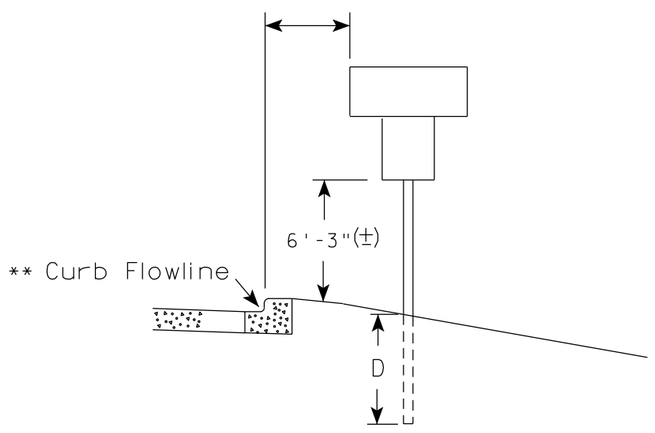
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 | E

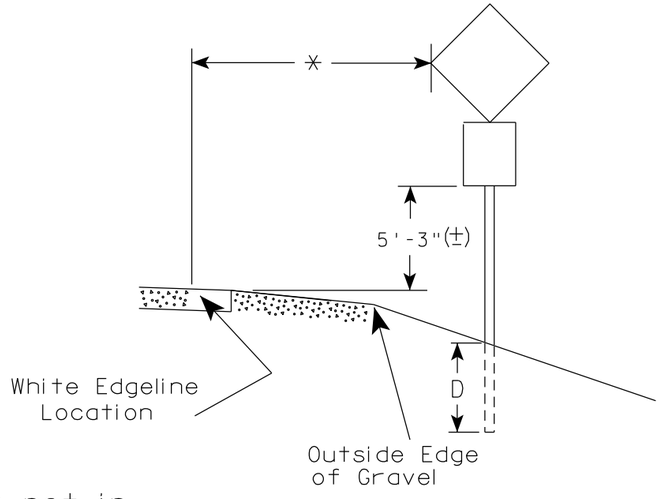
URBAN AREA



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.

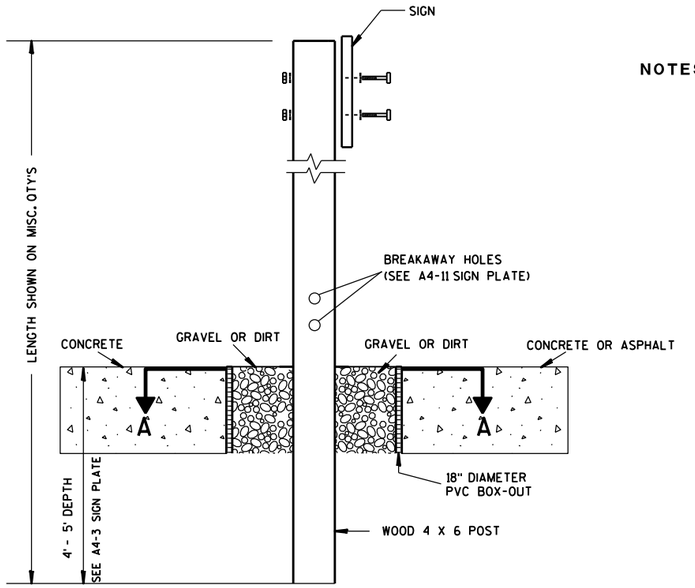
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

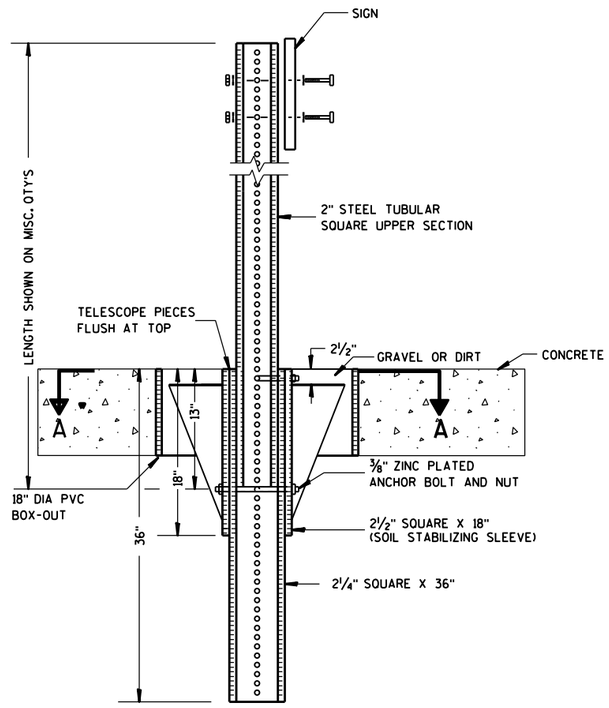
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E



ELEVATION VIEW

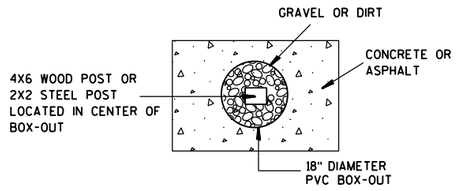
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

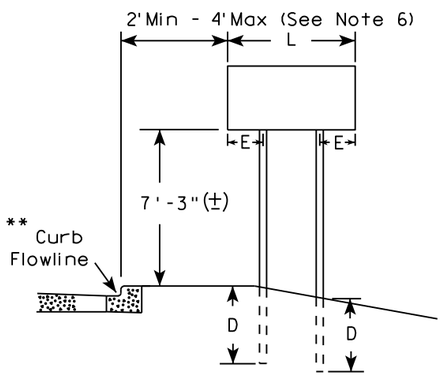
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

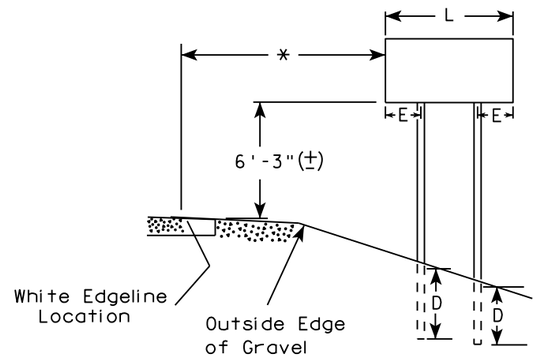
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

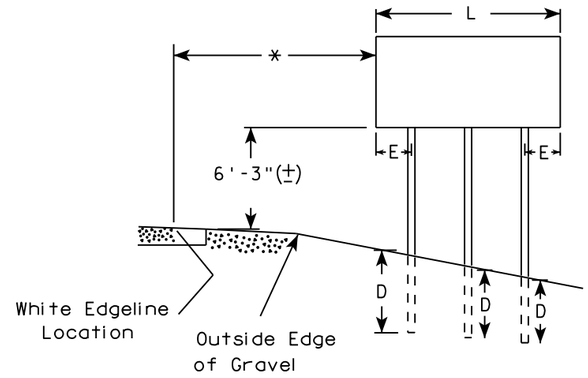
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

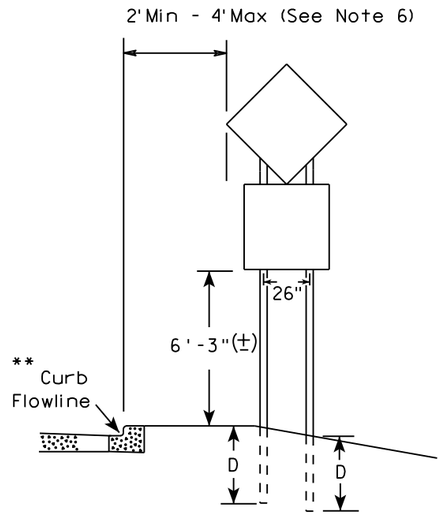
URBAN AREA



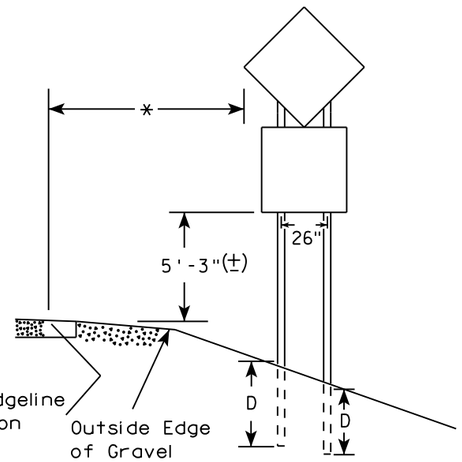
RURAL AREA (See Note 3)







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

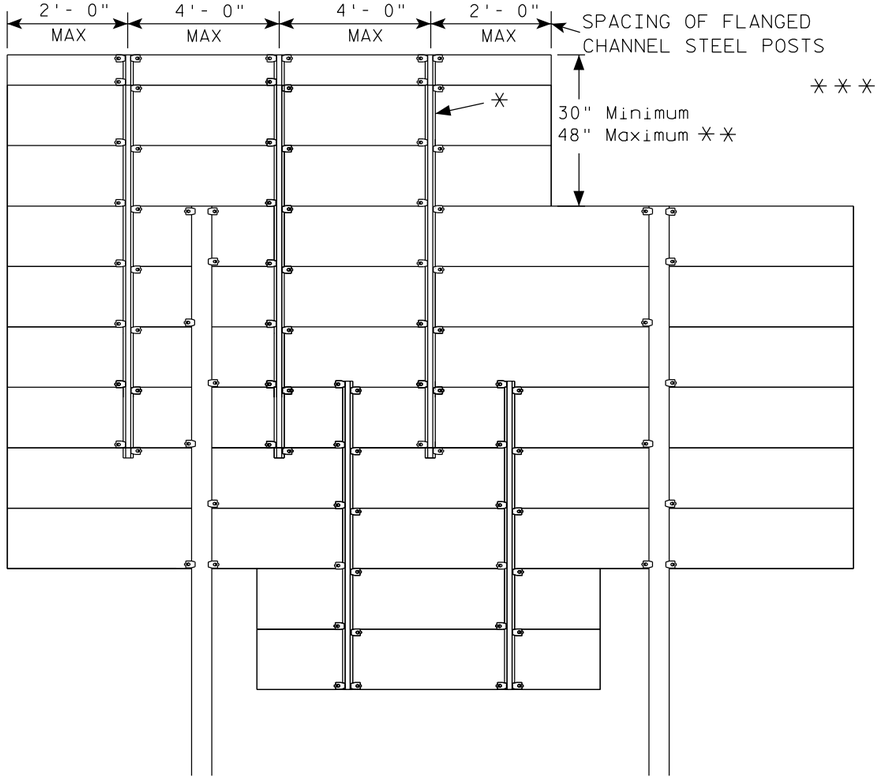
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 181	E

GROUND MOUNTED SIGN



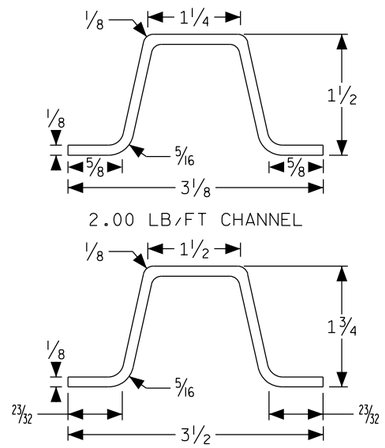
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=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

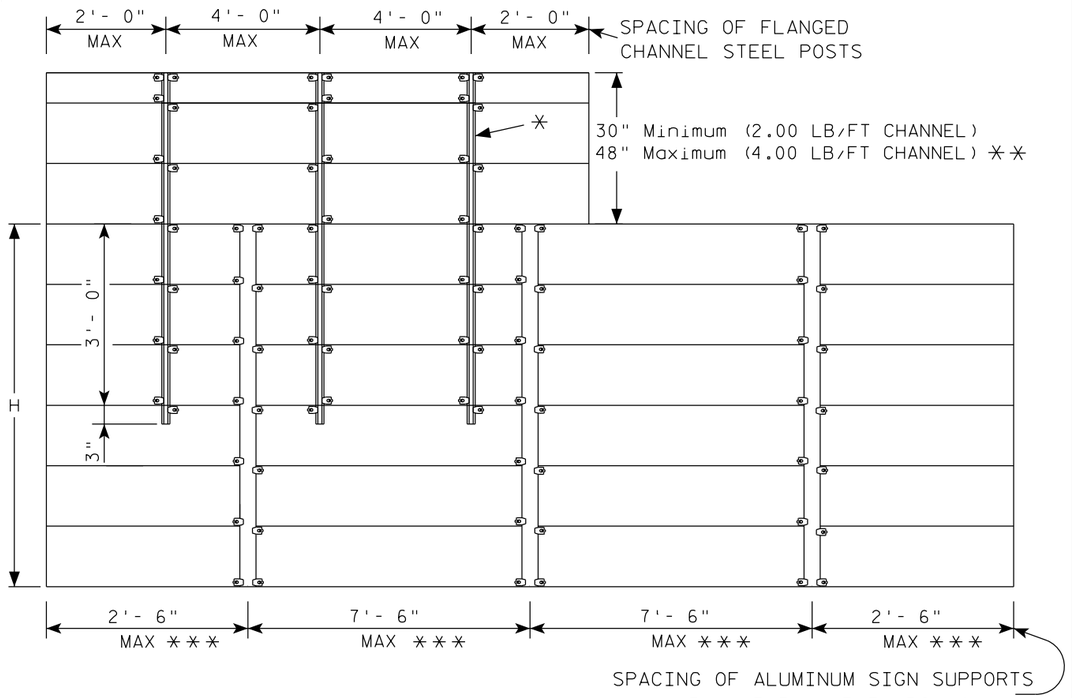
NOT TO SCALE



2.00 LB/FT CHANNEL

4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS 5" X 3.5" X 3.7 LBS./ft.

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

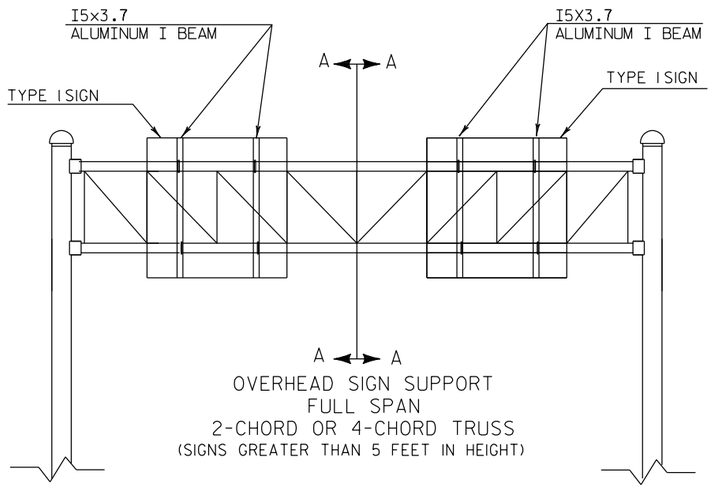
   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER 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

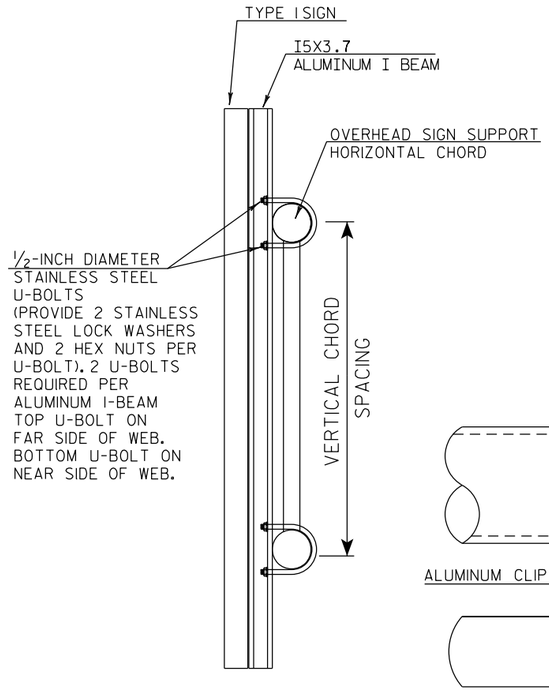
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

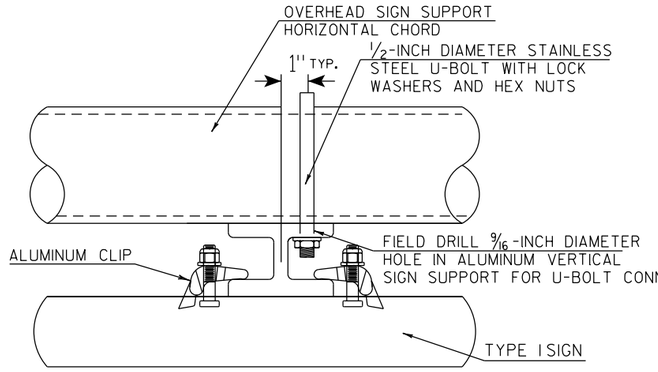
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



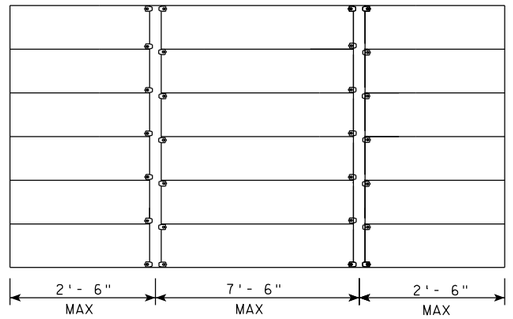
CUT SECTION A-A



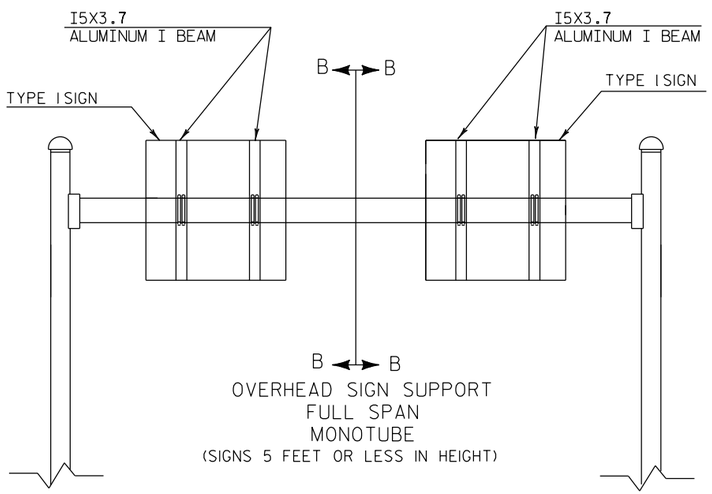
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

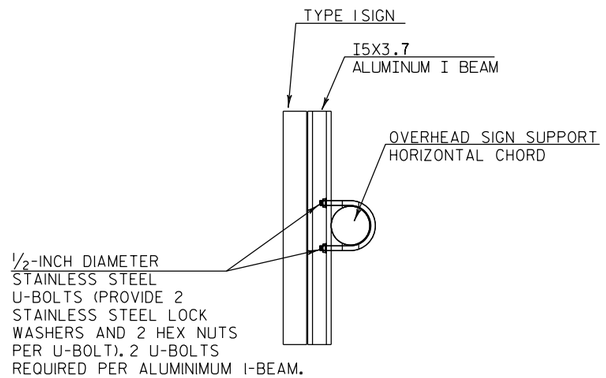
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE 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



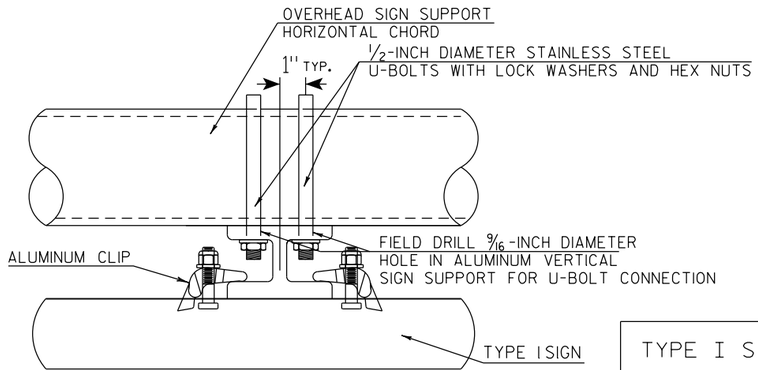
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

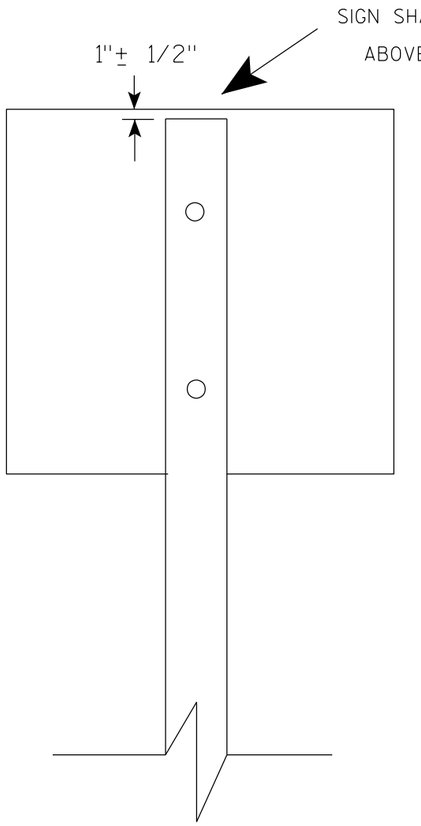
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

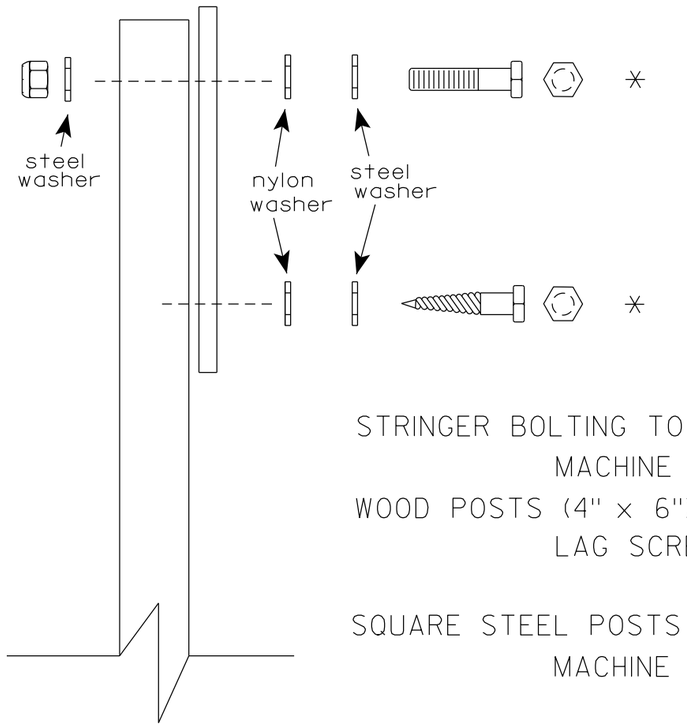
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 183	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

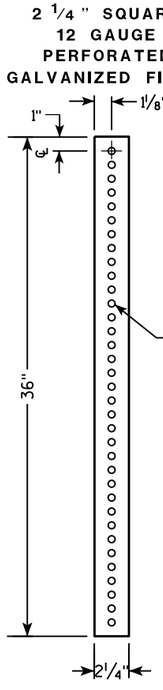
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

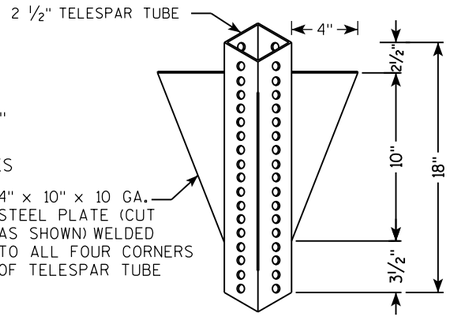
SHEET NO: 184 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

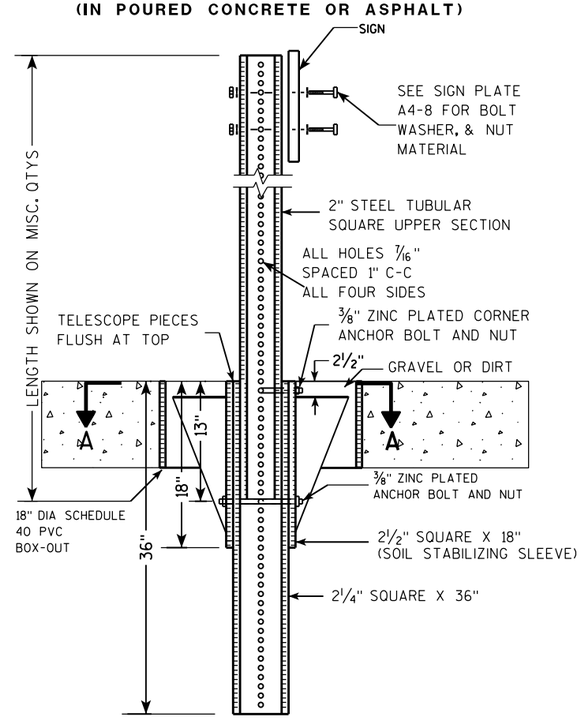
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



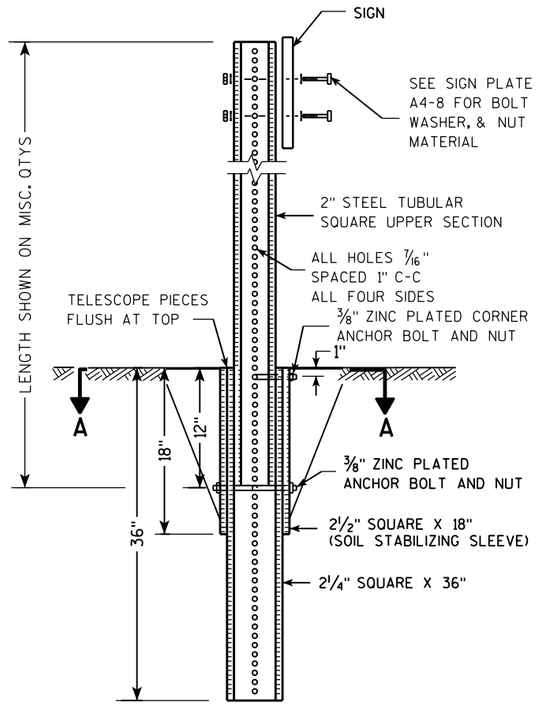
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

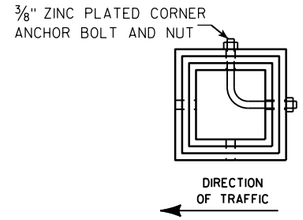


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

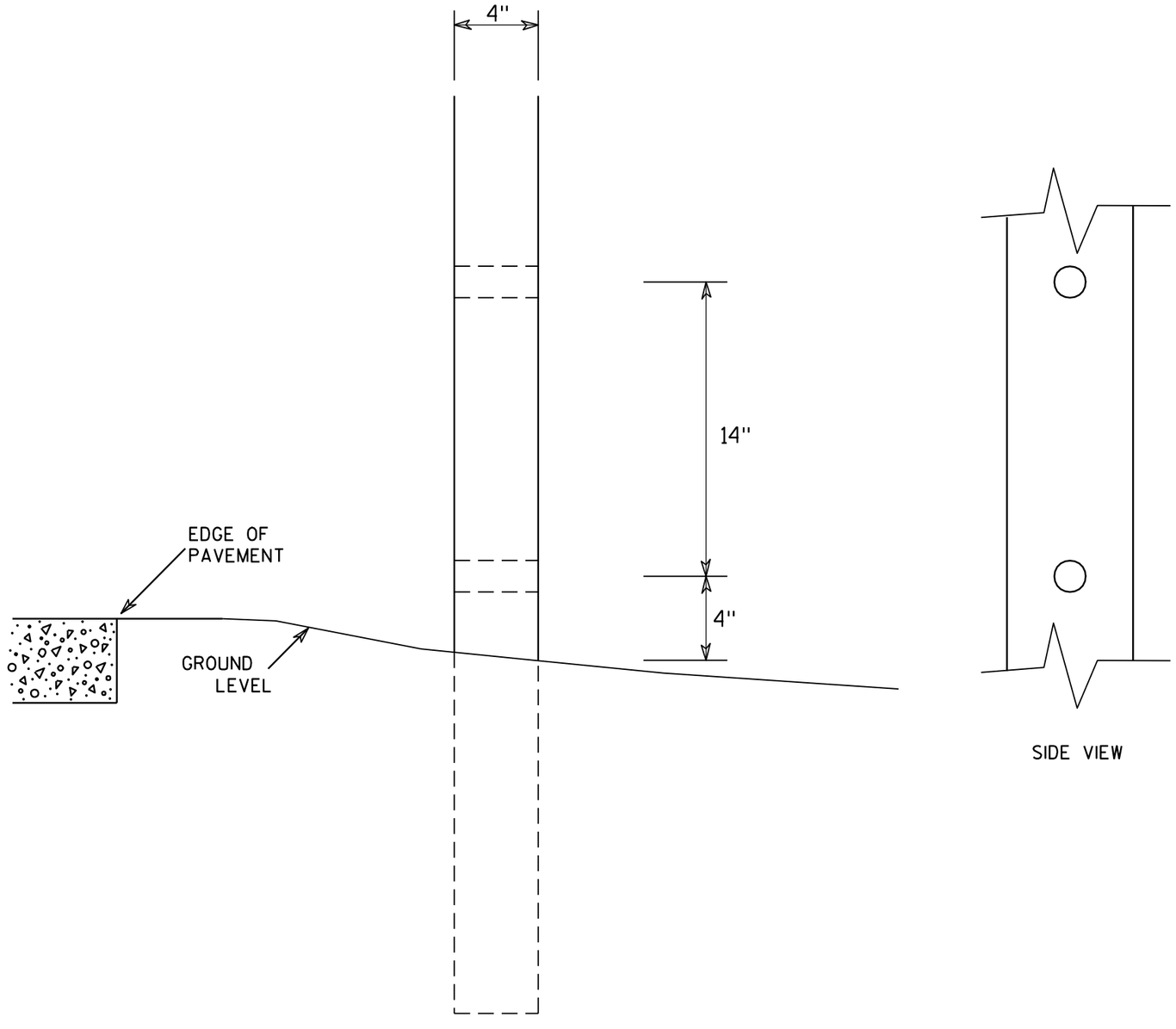
DATE 2/05/15 PLATE A4-9.9

185

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

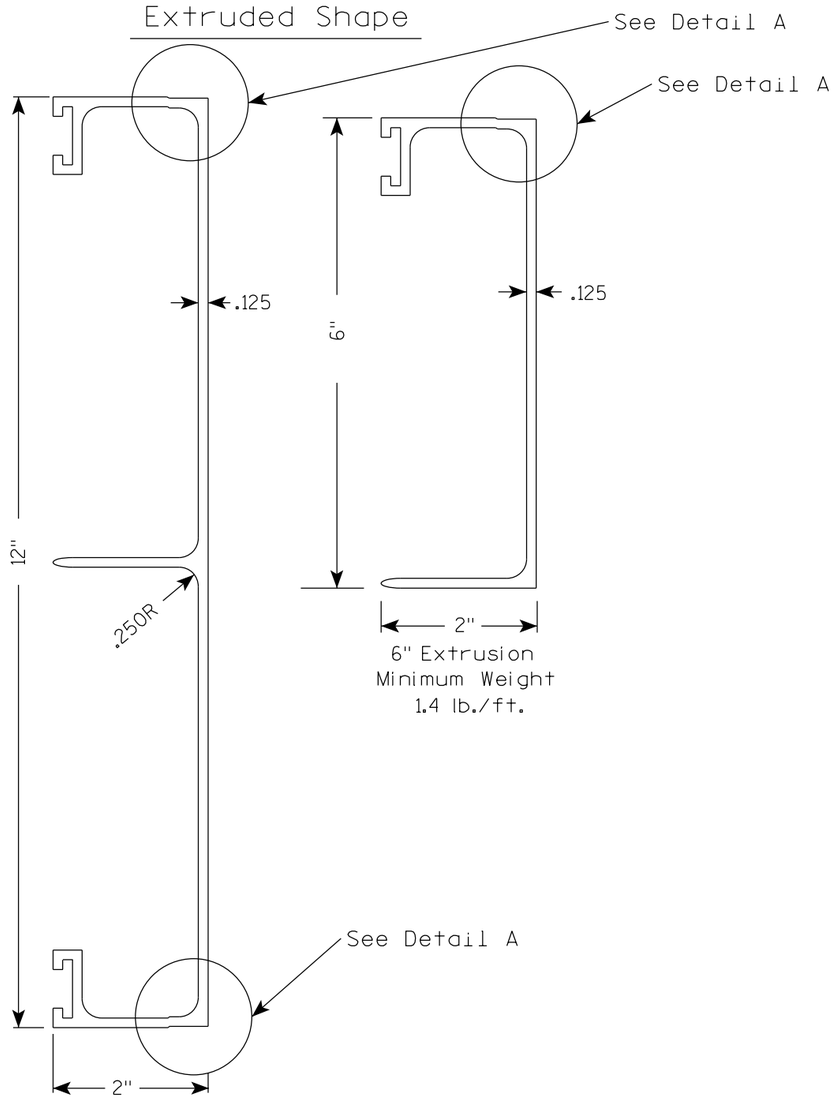
WISCONSIN DEPT OF TRANSPORTATION

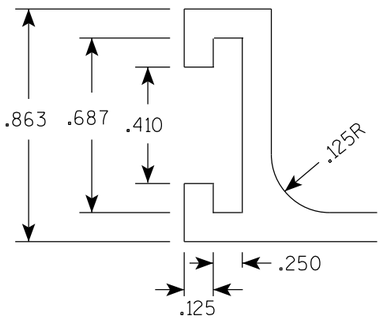
APPROVED Chester J Spang for State Traffic Engineer

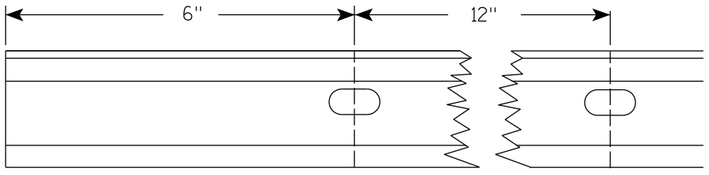
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 186	E

Extruded Shape







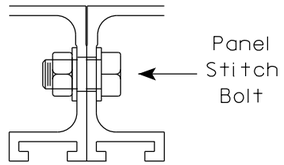
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

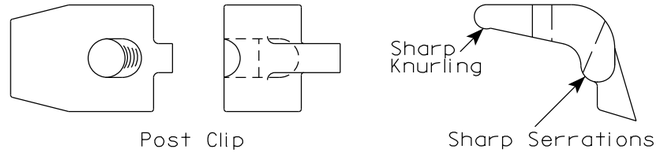
The hardware includes:

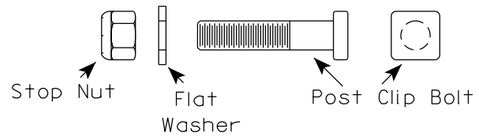
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

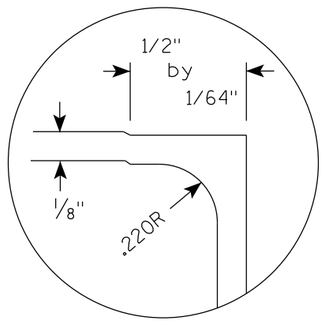
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





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

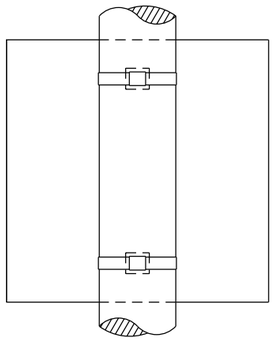
DATE 1/07/20 PLATE NO. A5-2.10

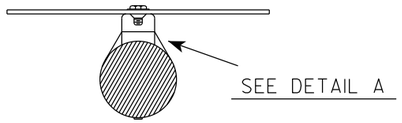
PROJECT NO:

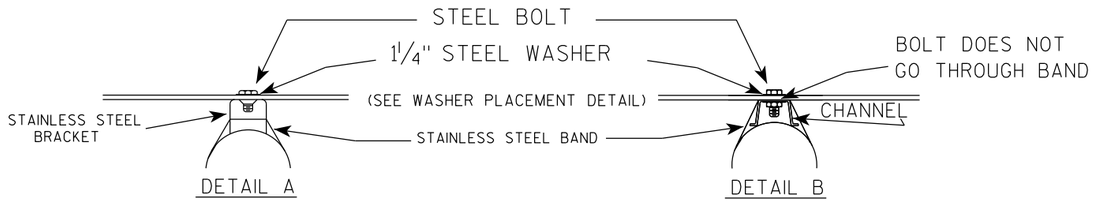
SHEET NO: 187 E

BANDING

SINGLE SIGN



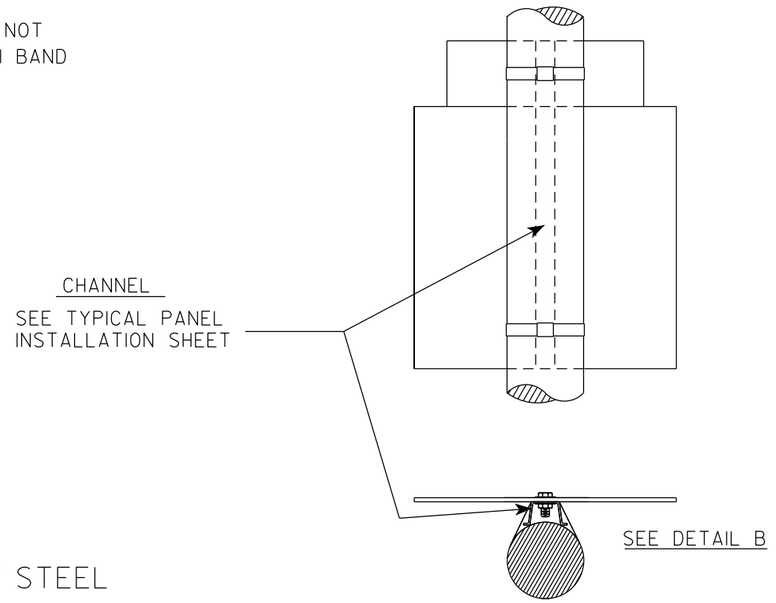




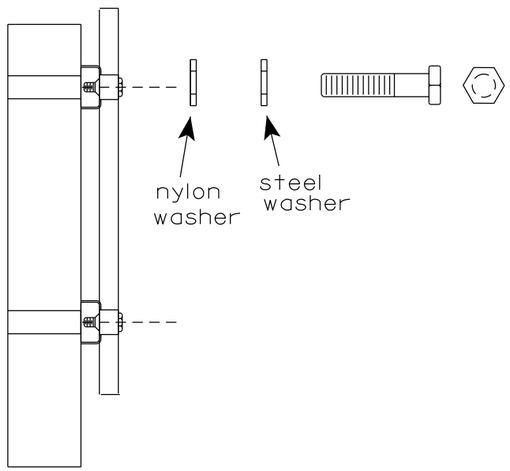
GENERAL NOTES

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

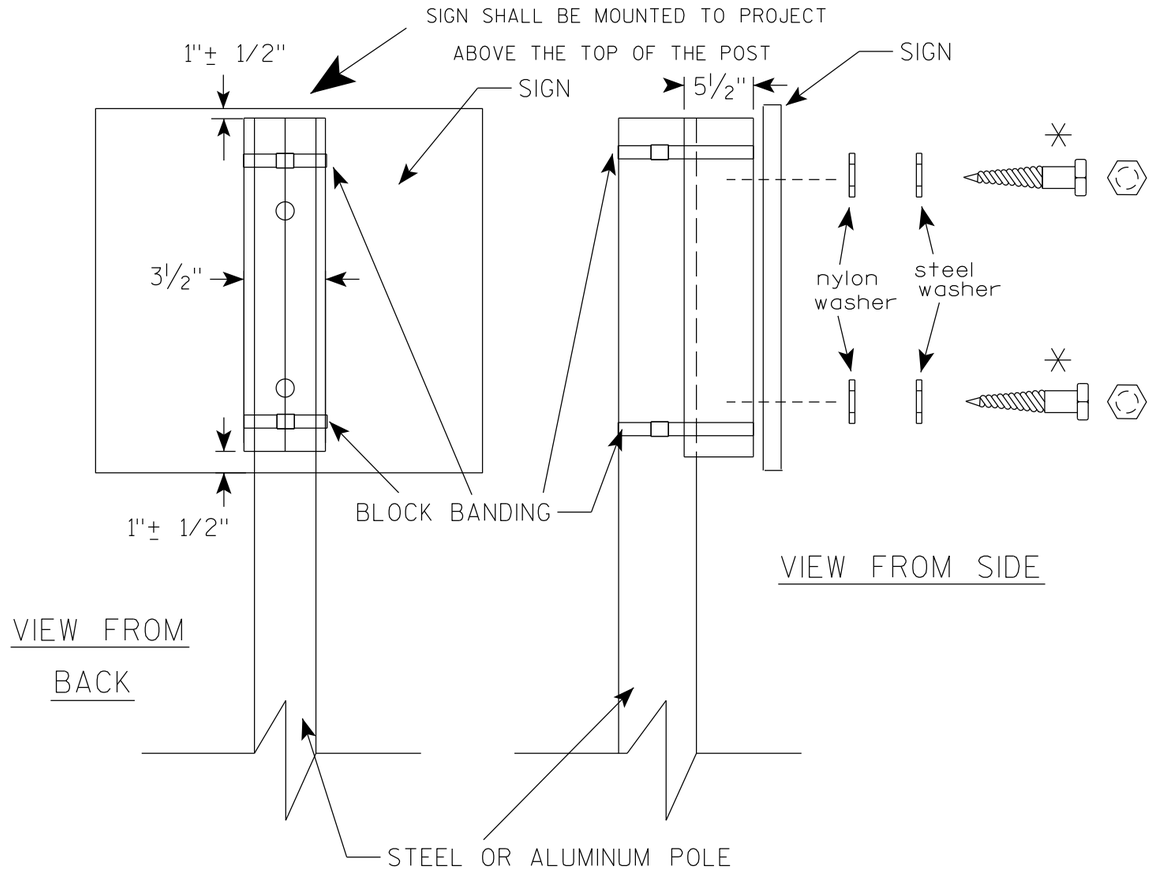
DATE 6/10/19 PLATE NO. A5-9.4

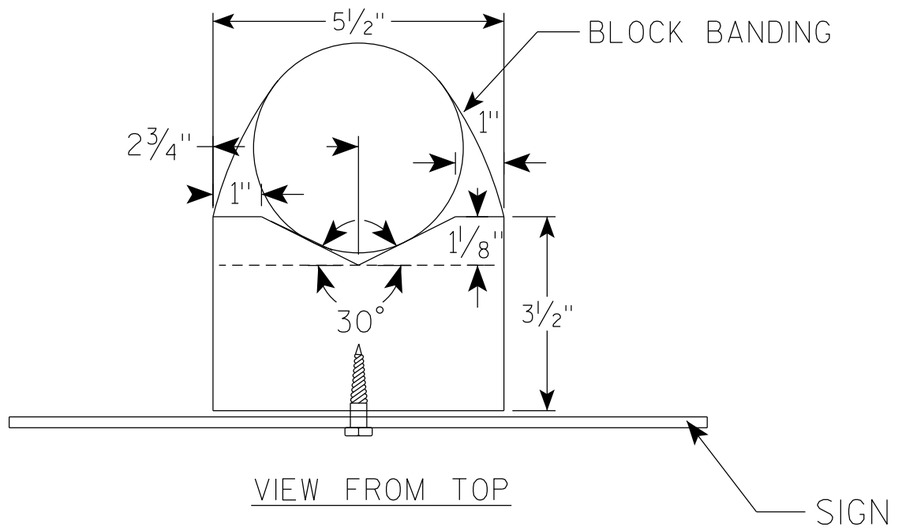
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	E

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

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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"

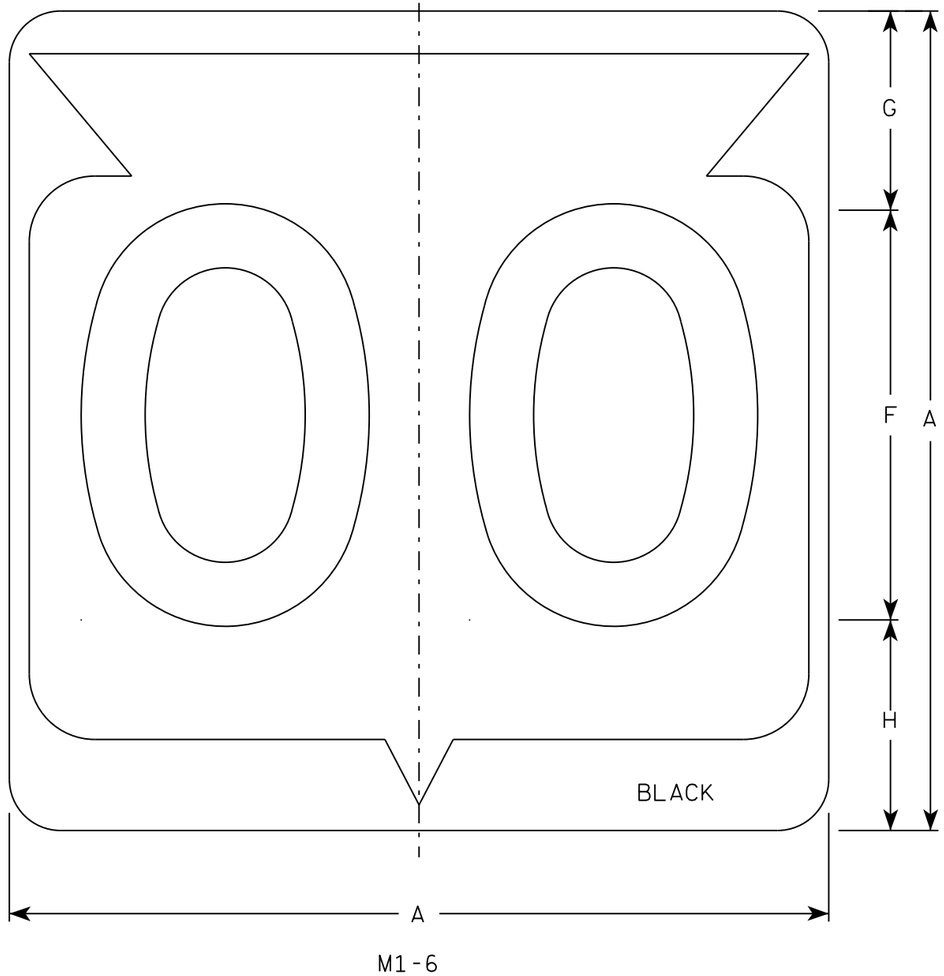
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

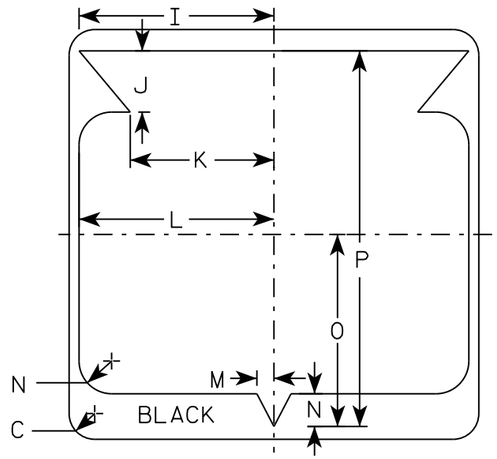
PROJECT NO: | SHEET NO: 189 | E



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

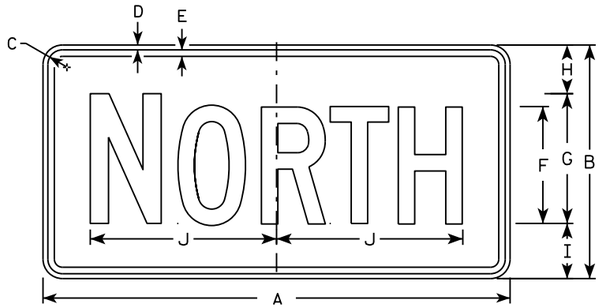
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

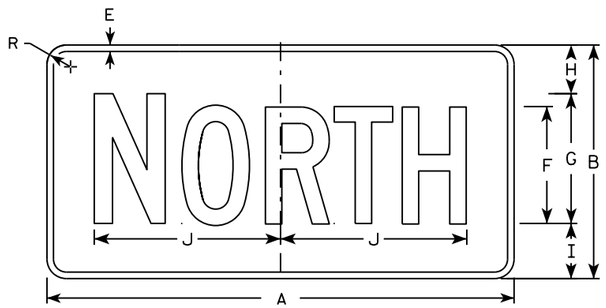
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 E



M3-1
MM3-1
MP3-1



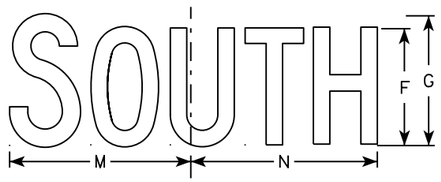
MB3-1
MK3-1
MN3-1



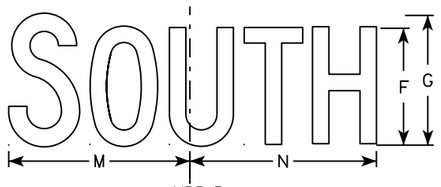
M3-2
MM3-2
MP3-2



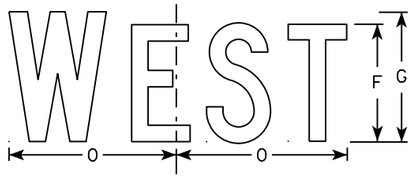
MB3-2
MK3-2
MN3-2



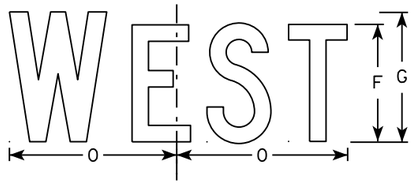
M3-3
MM3-3
MP3-3



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

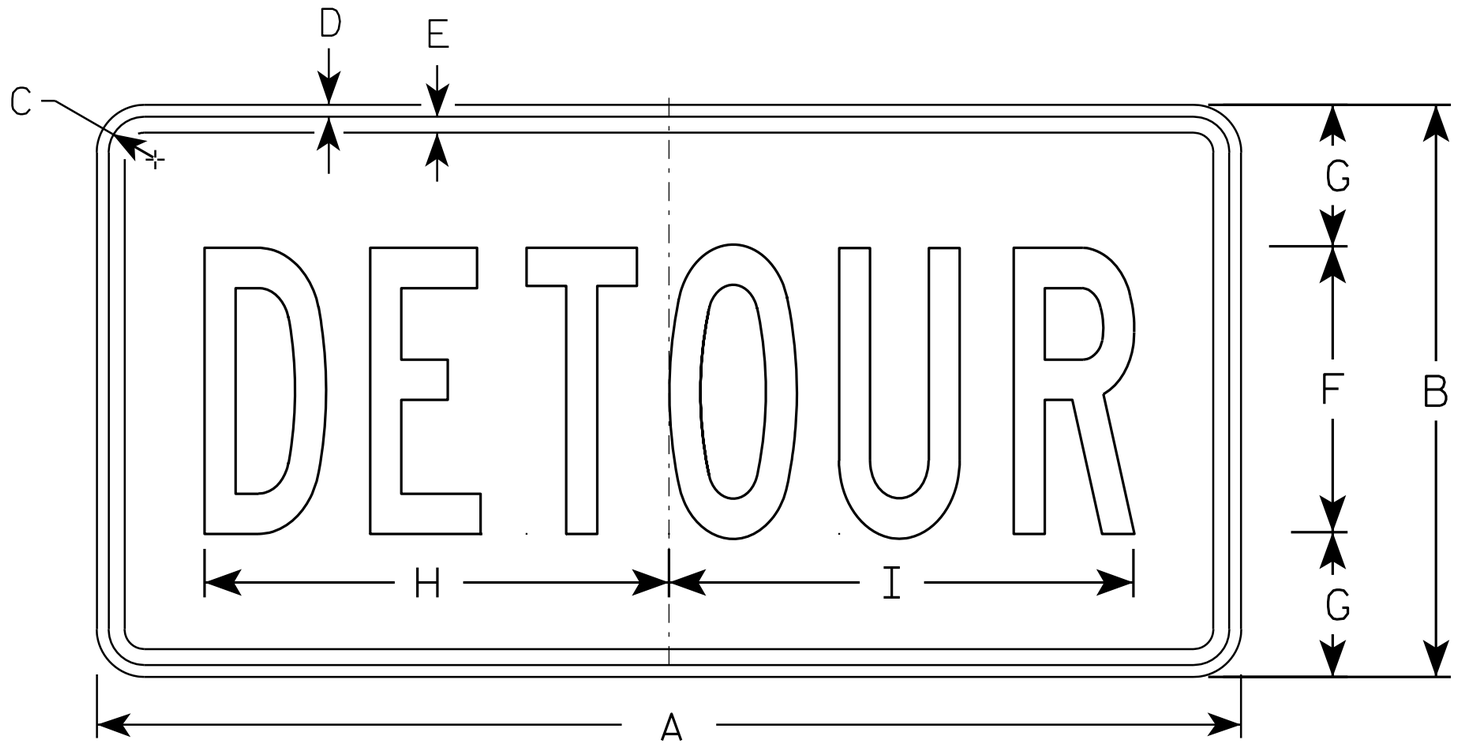
WISCONSIN DEPT OF TRANSPORTATION

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



M4-8

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																											

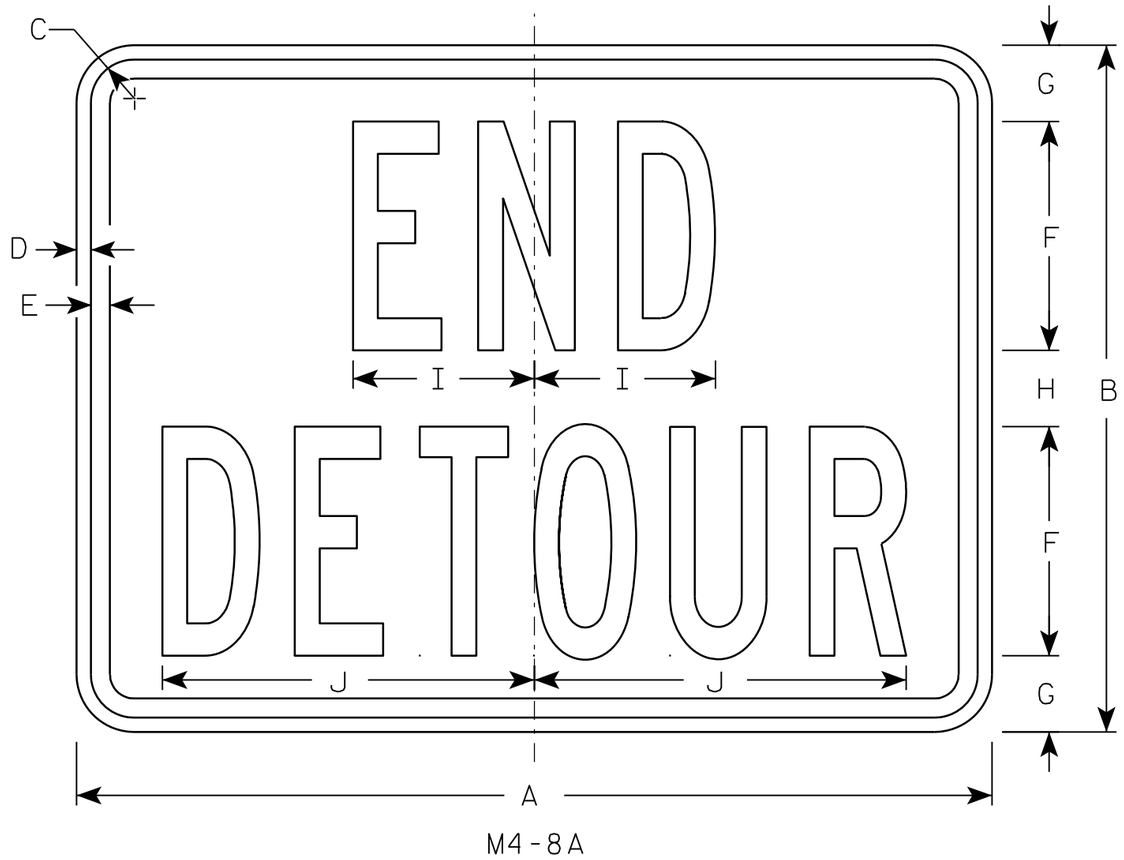
STANDARD SIGN
M4-8

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: 192	E



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																											

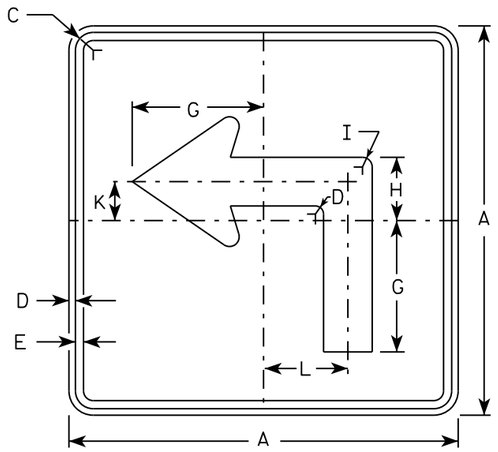
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

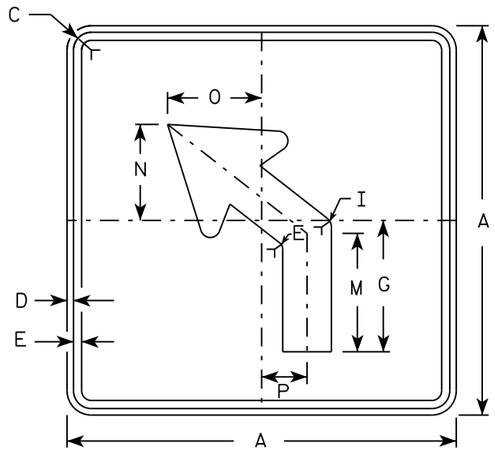
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

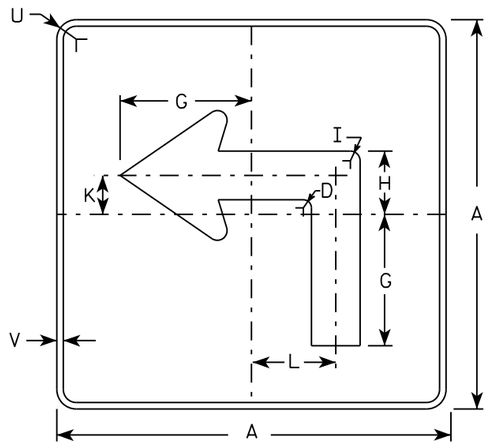
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 193	E



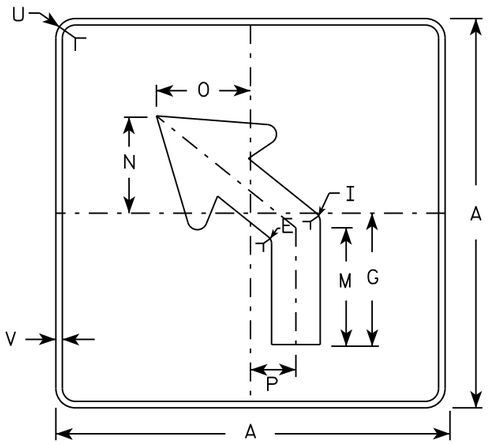
M5-1L
MM5-1L
MO5-1L
MP5-1L



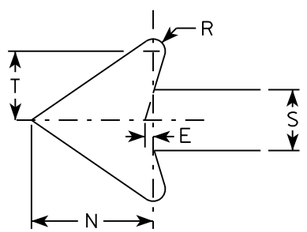
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

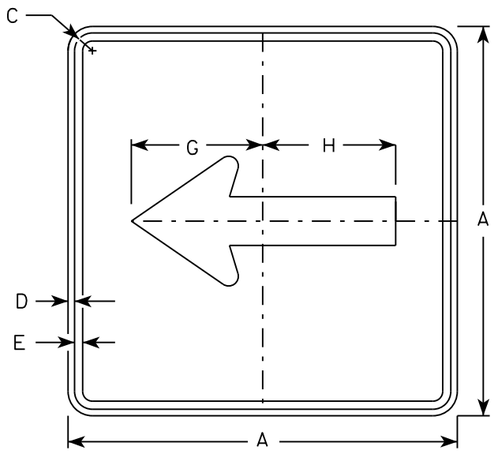
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

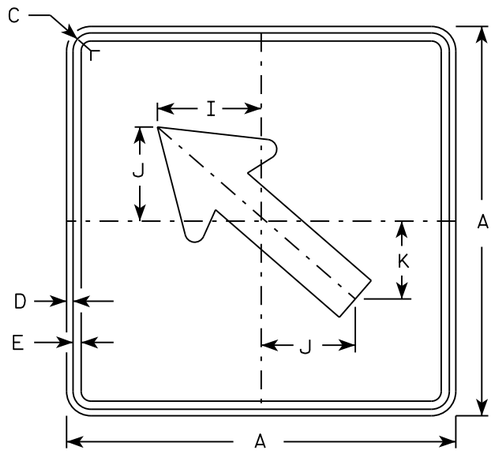
DATE 10/15/15 PLATE NO. M5-1.13

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



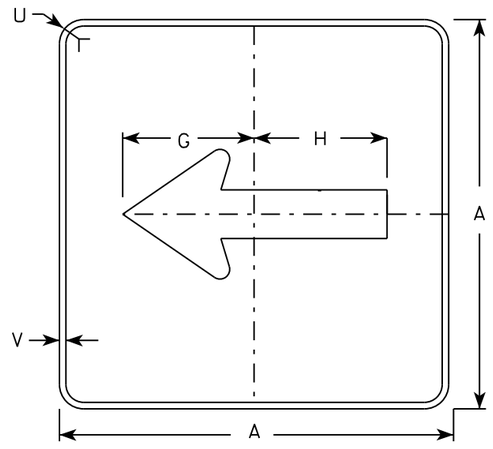
M6-1
MM6-1
MO6-1
MP6-1



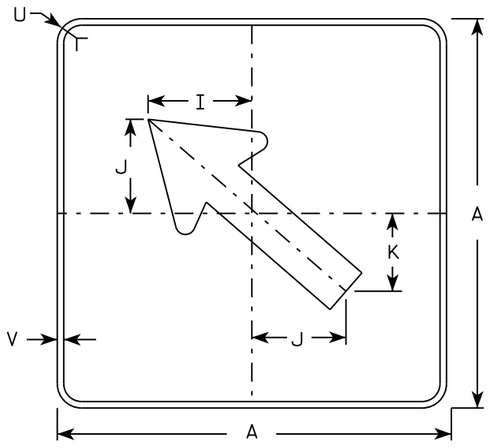
M6-2
MM6-2
MO6-2
MP6-2

NOTES

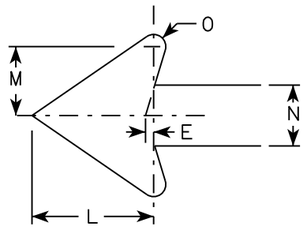
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

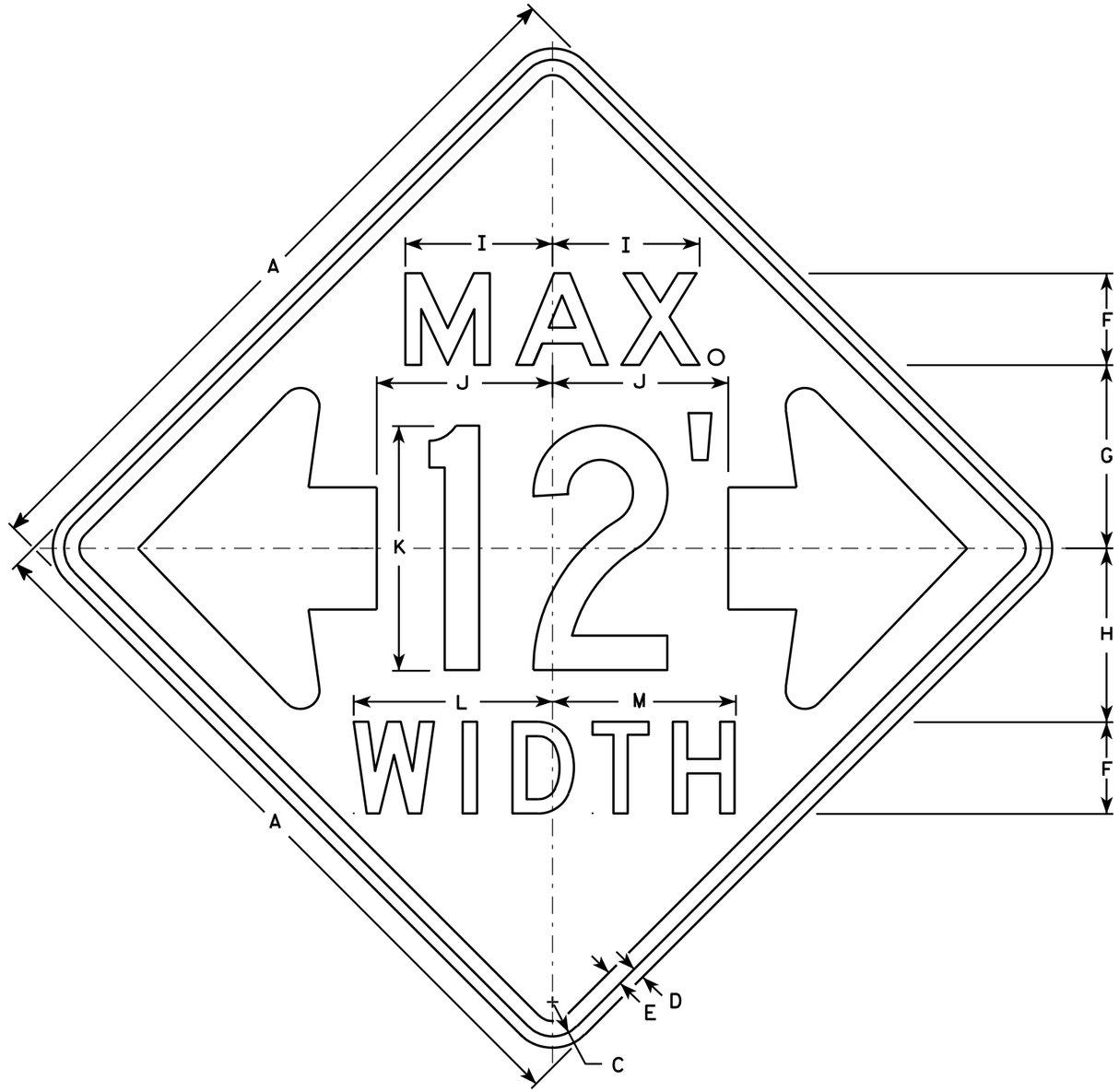
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 195 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

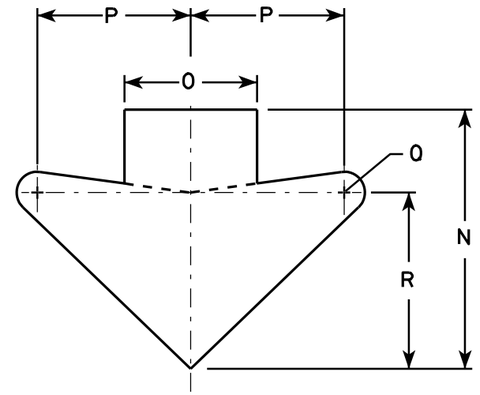
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



W12-52

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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

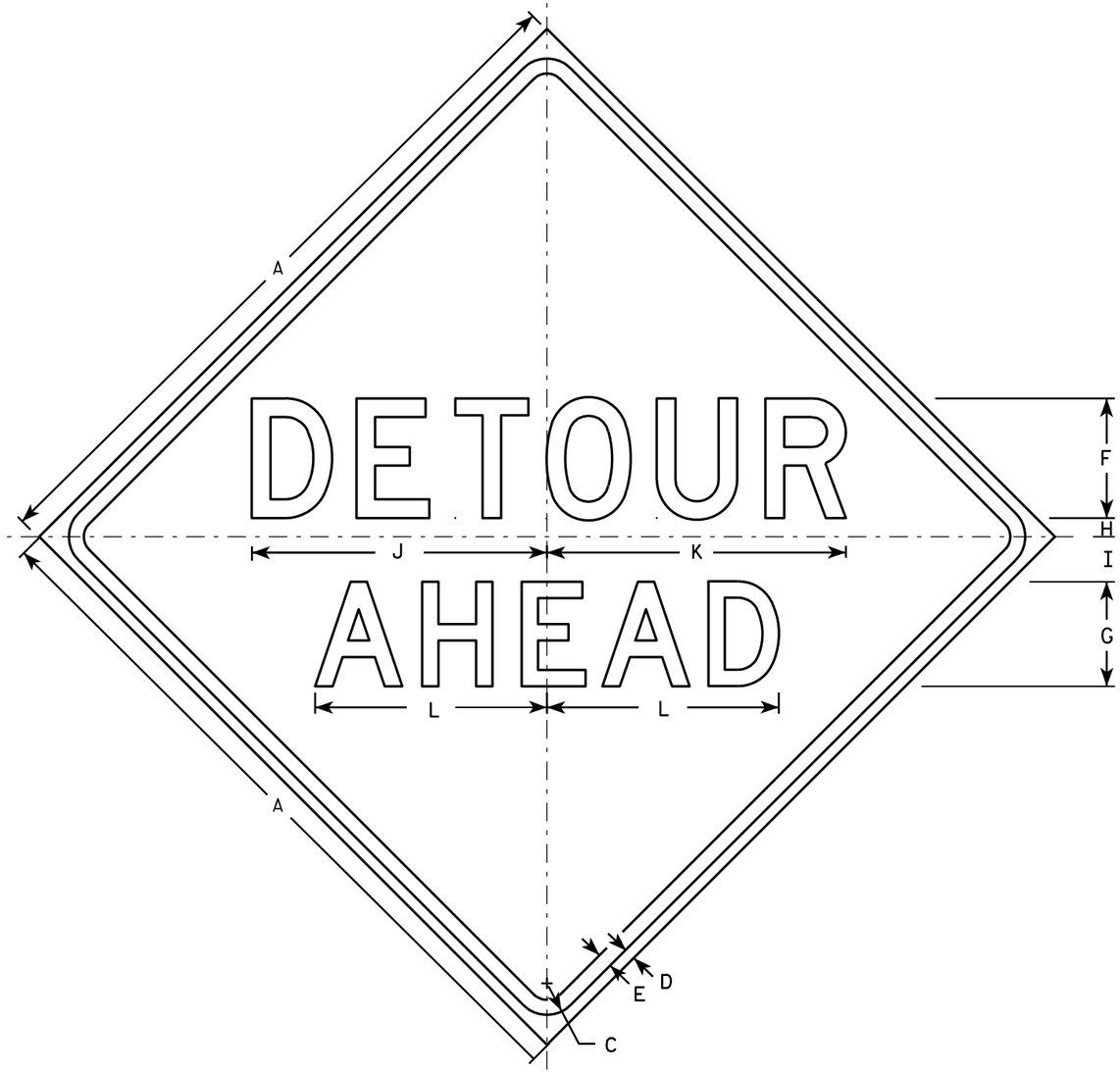
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

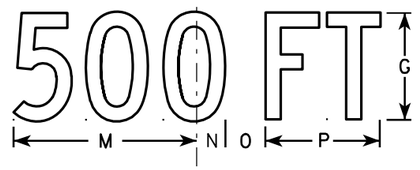
DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E

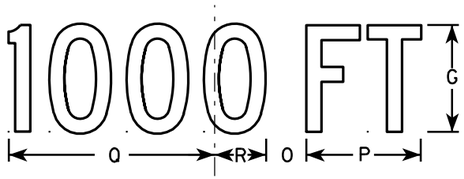
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



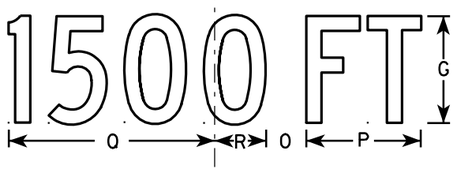
W20-2A



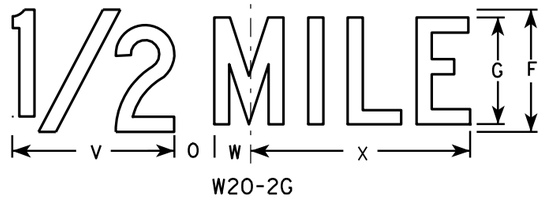
W20-2D



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

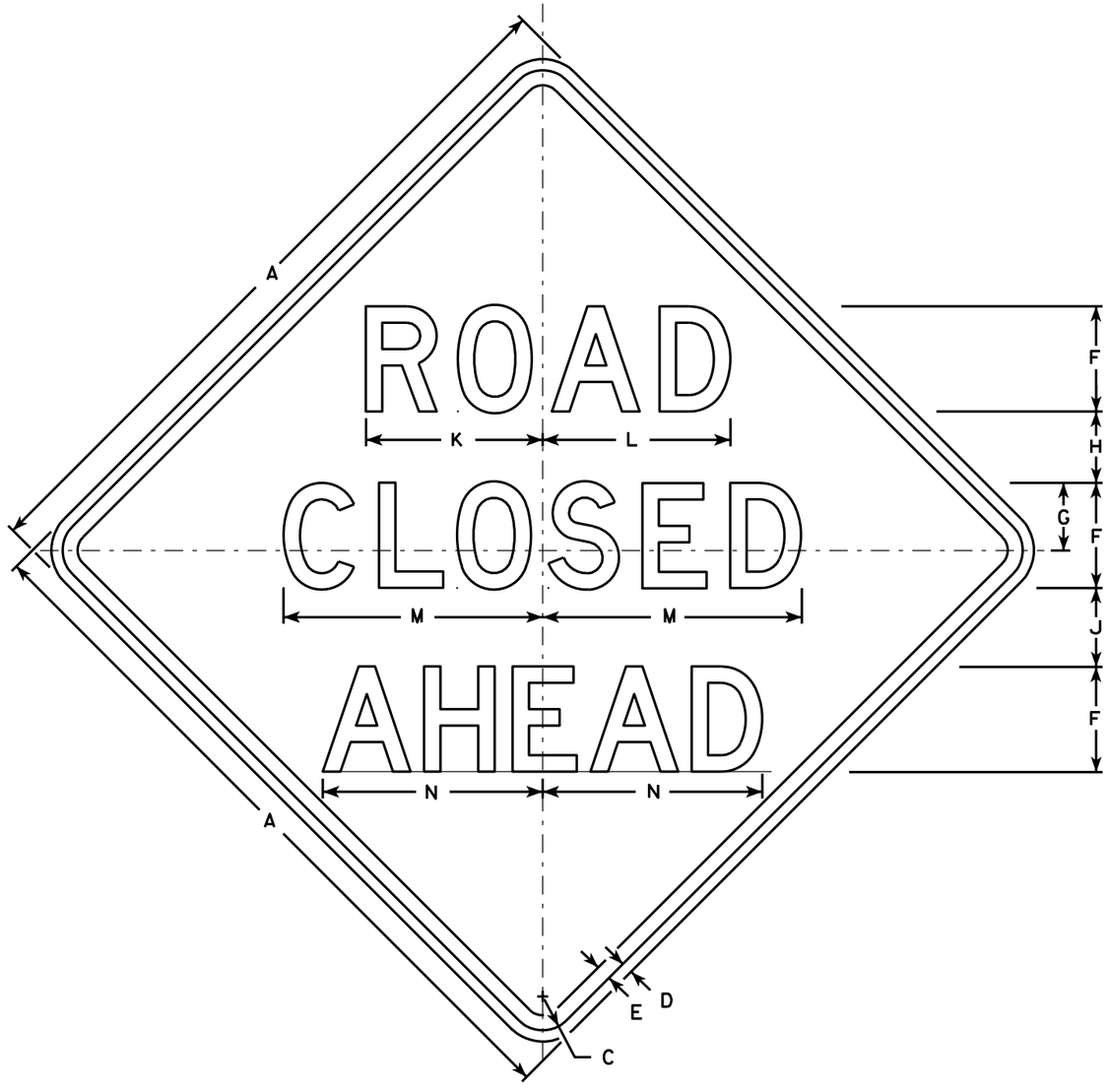
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

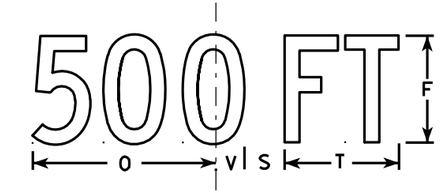
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

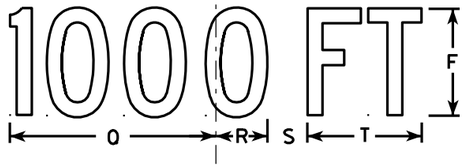
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 197 | E



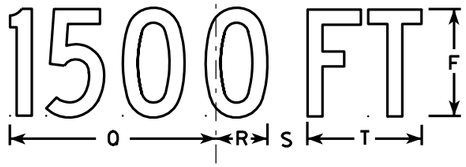
W20-3A



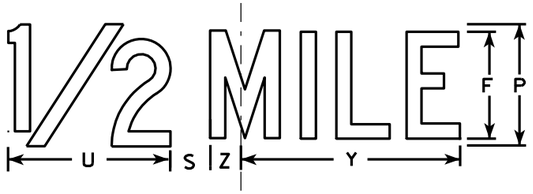
W20-3D



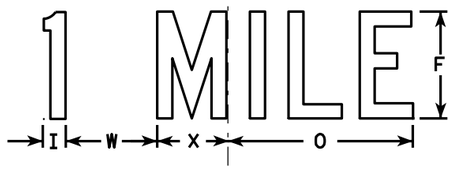
W20-3C



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.

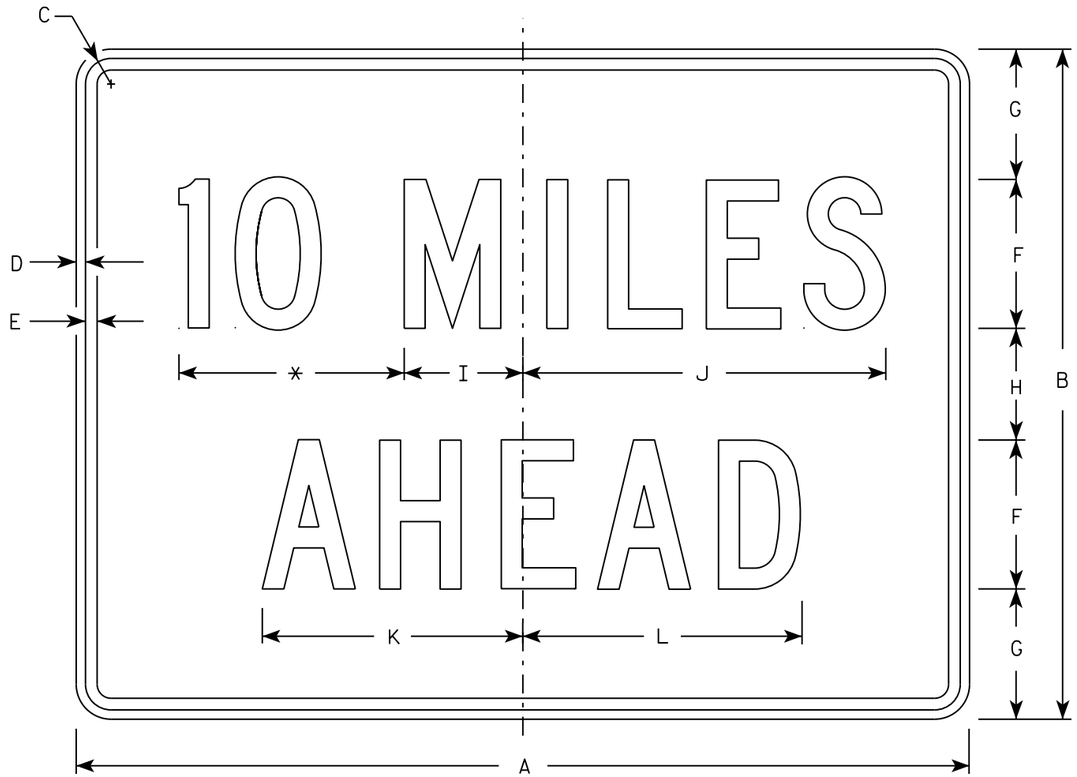
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	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

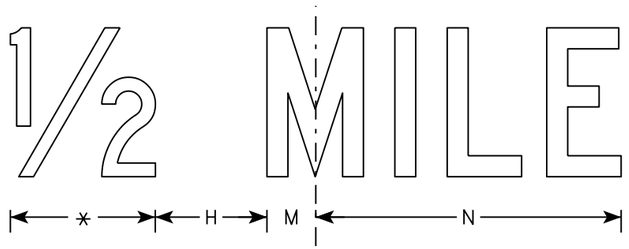
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 198 | E



W057-52



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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 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.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

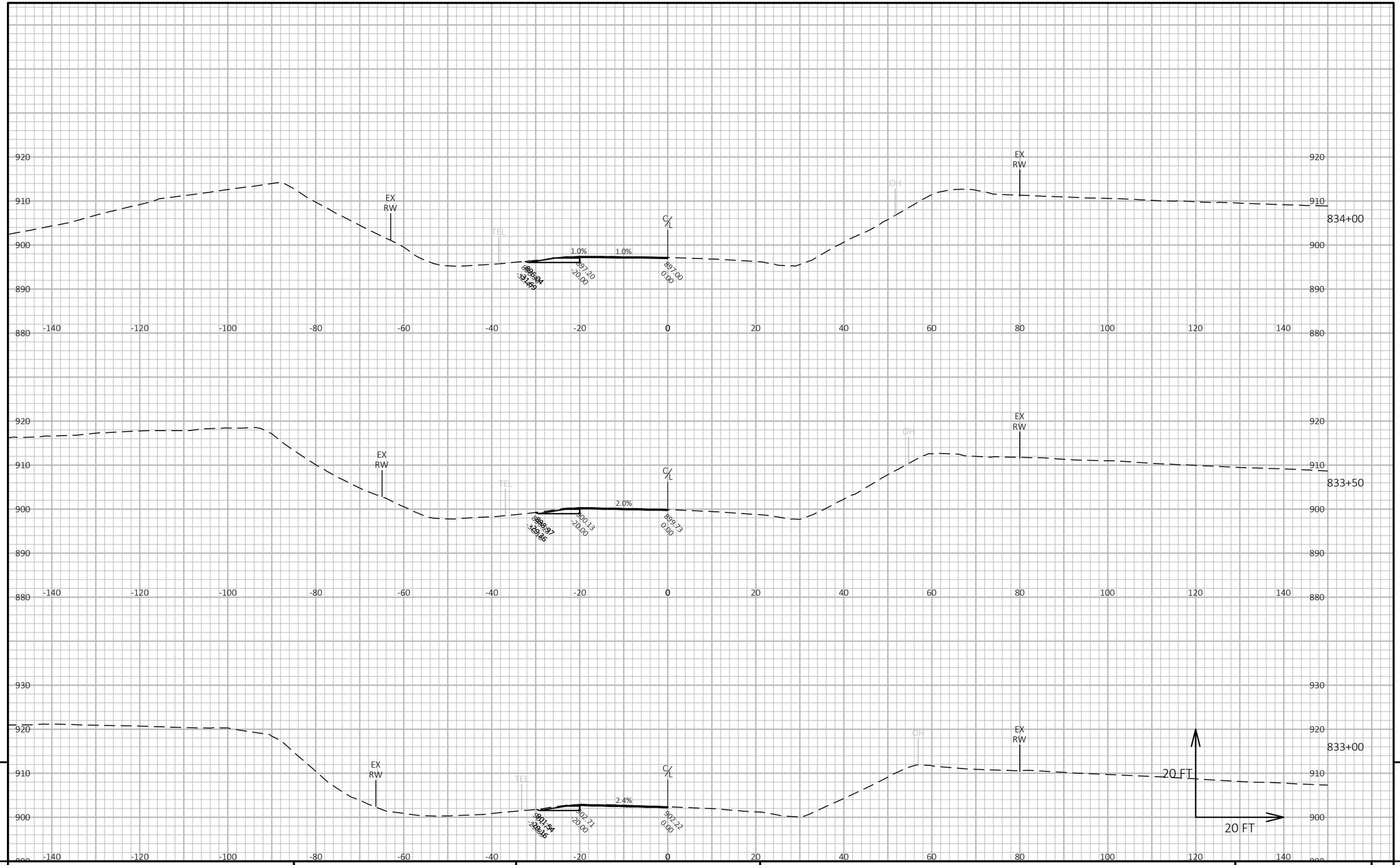
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 199	E



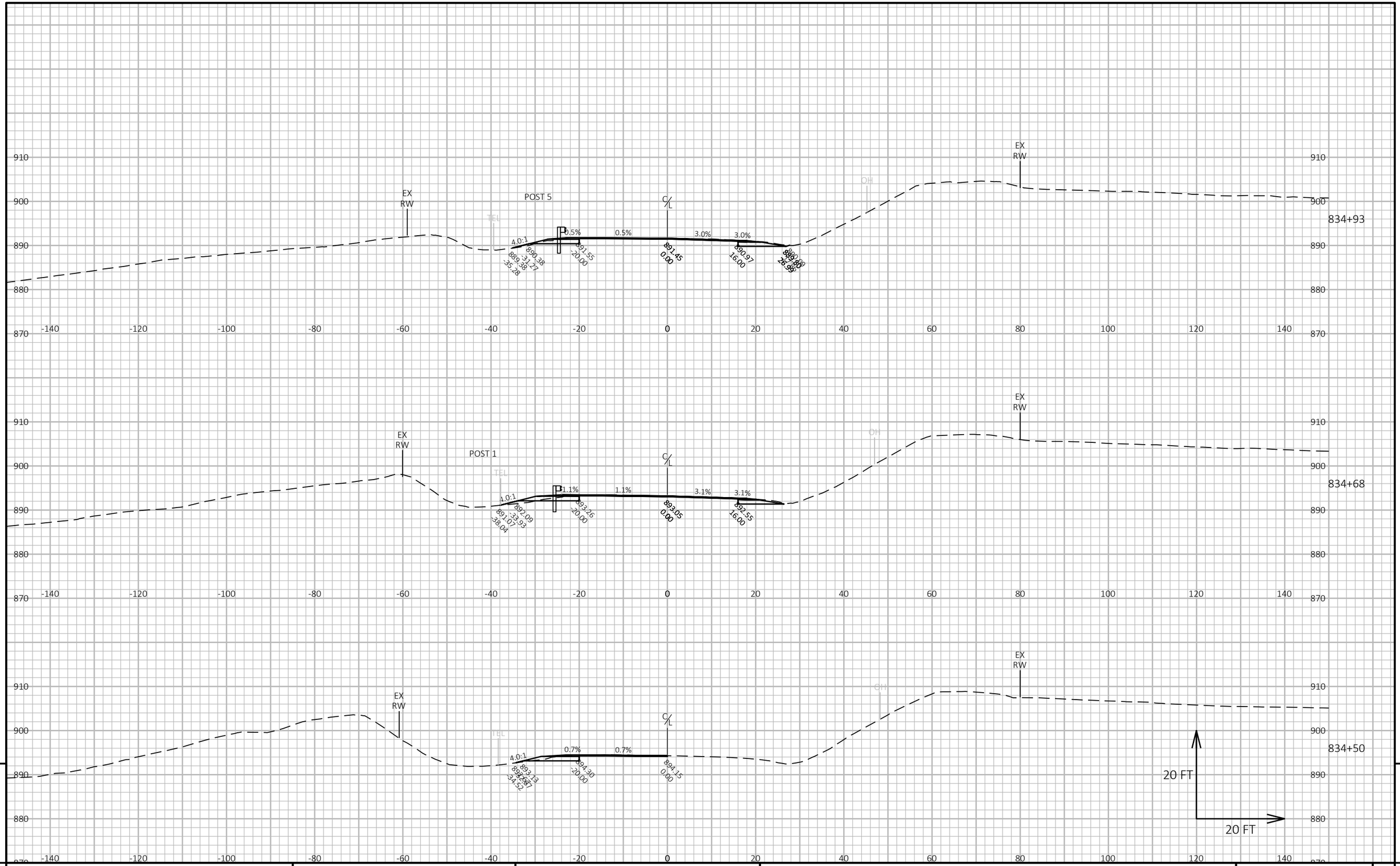
9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 200	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/17/2022 11:28 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

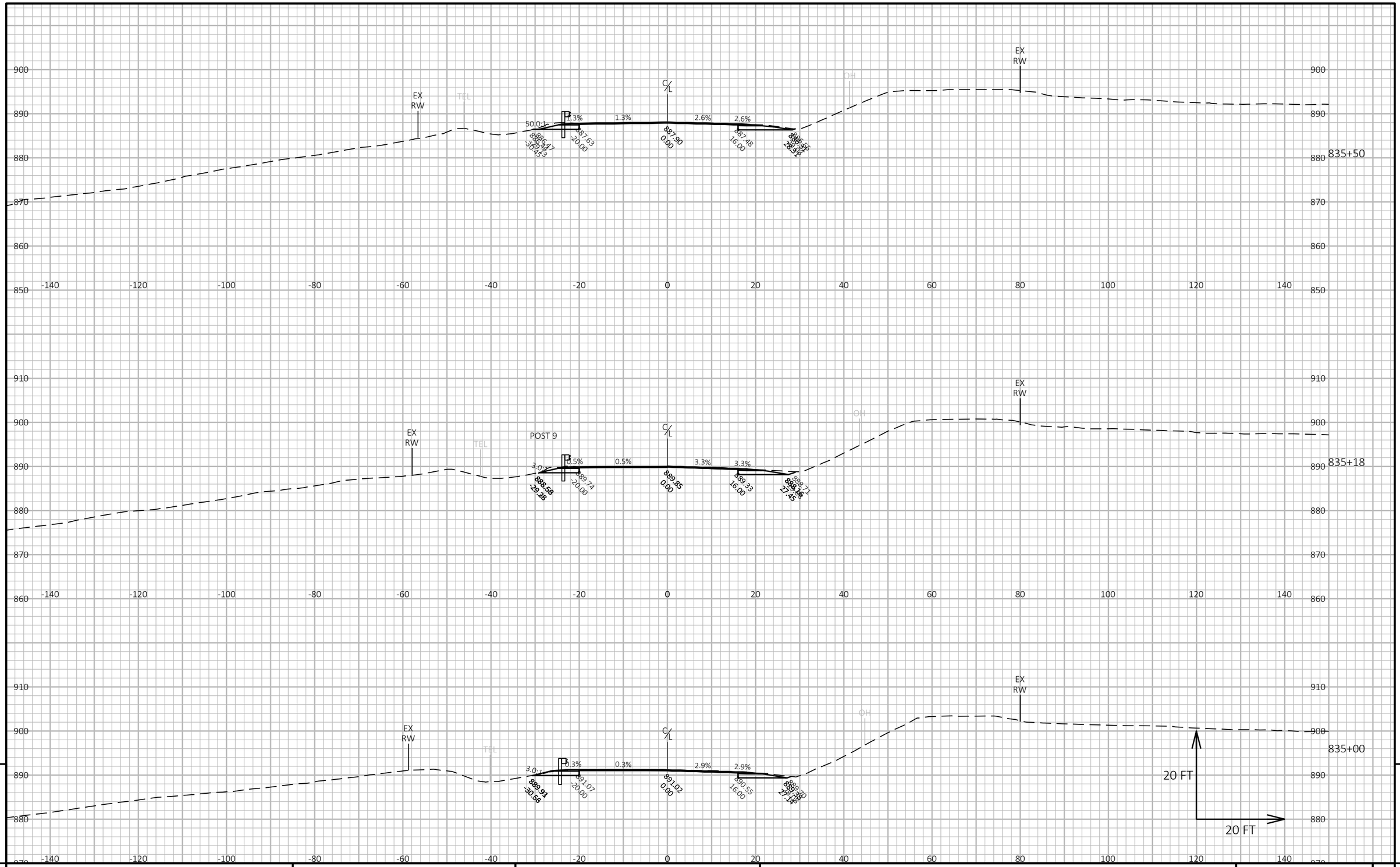
9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 201	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2022 11:31 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

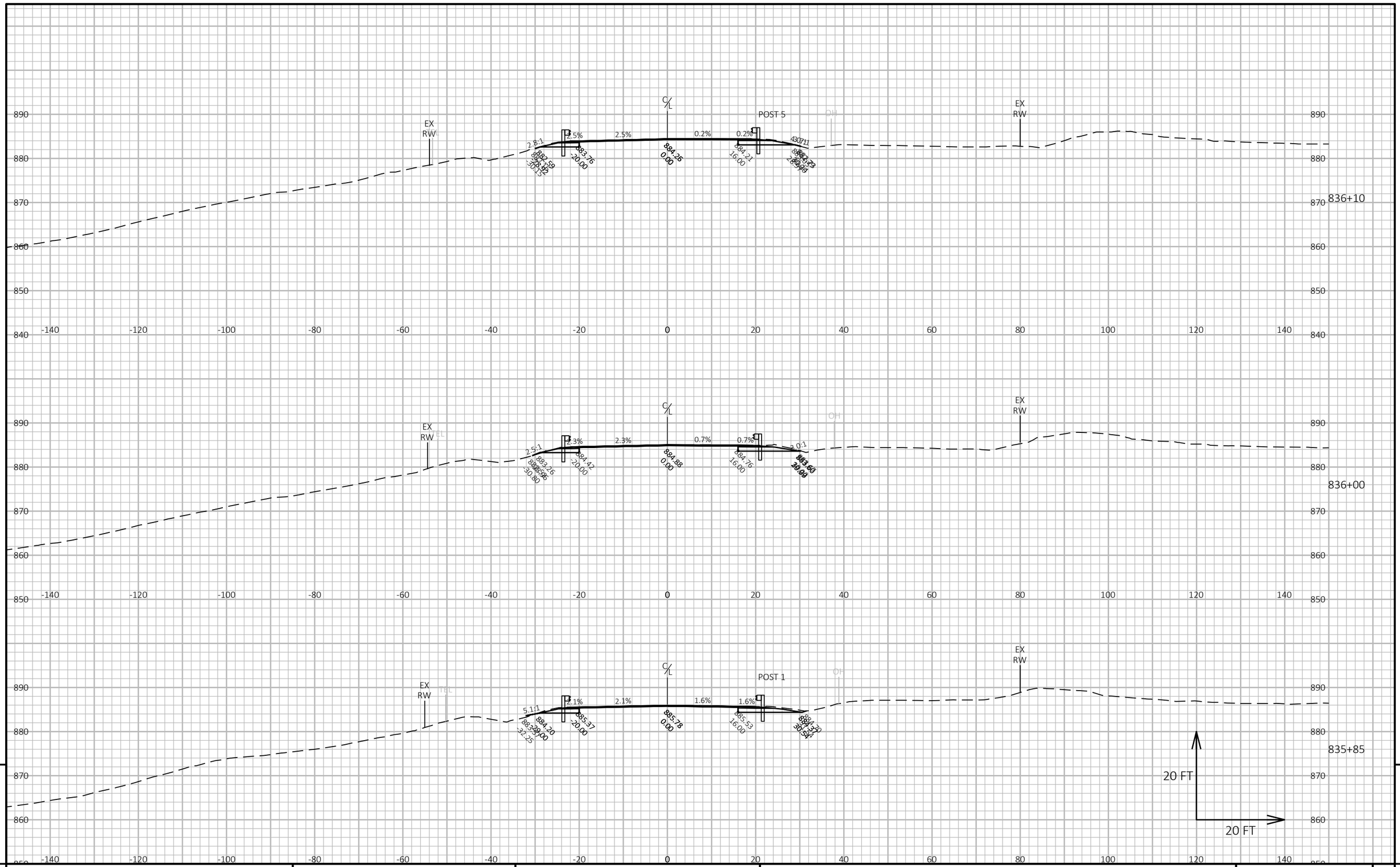


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 202	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/17/2022 11:34 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

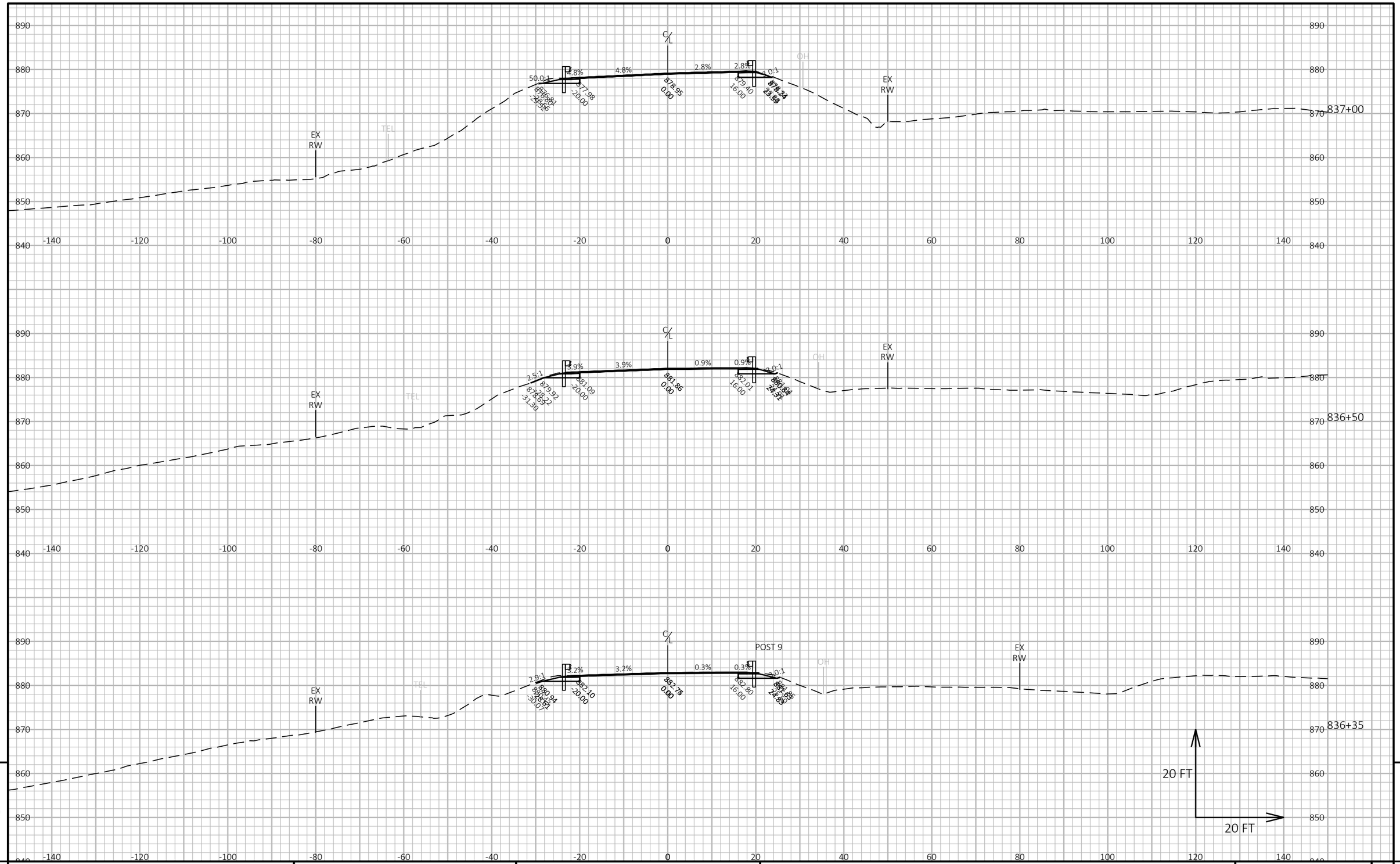
WISDOT/CADDS SHEET 49



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 203	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 1/17/2022 11:37 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

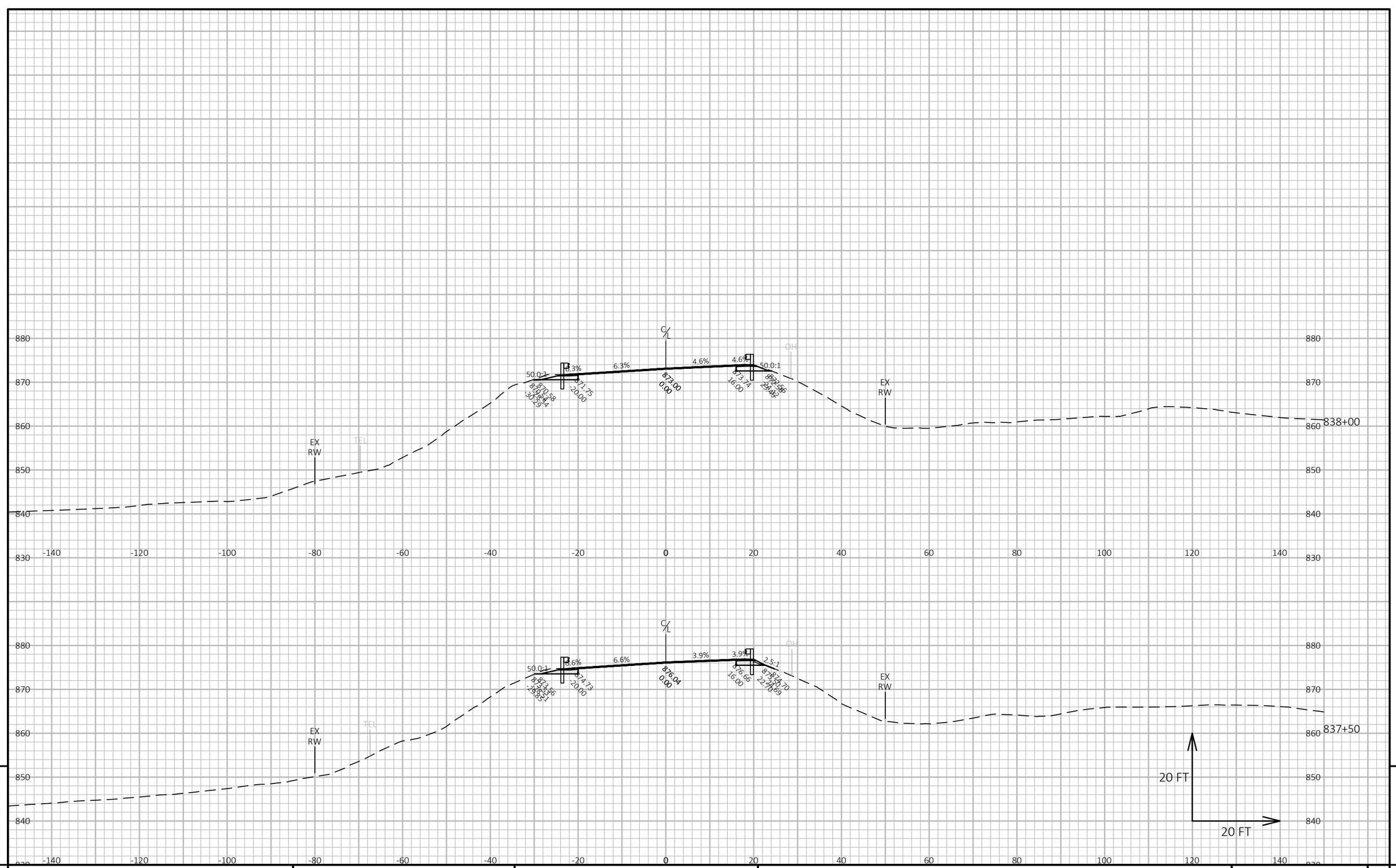


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 204	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 1/17/2022 11:40 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

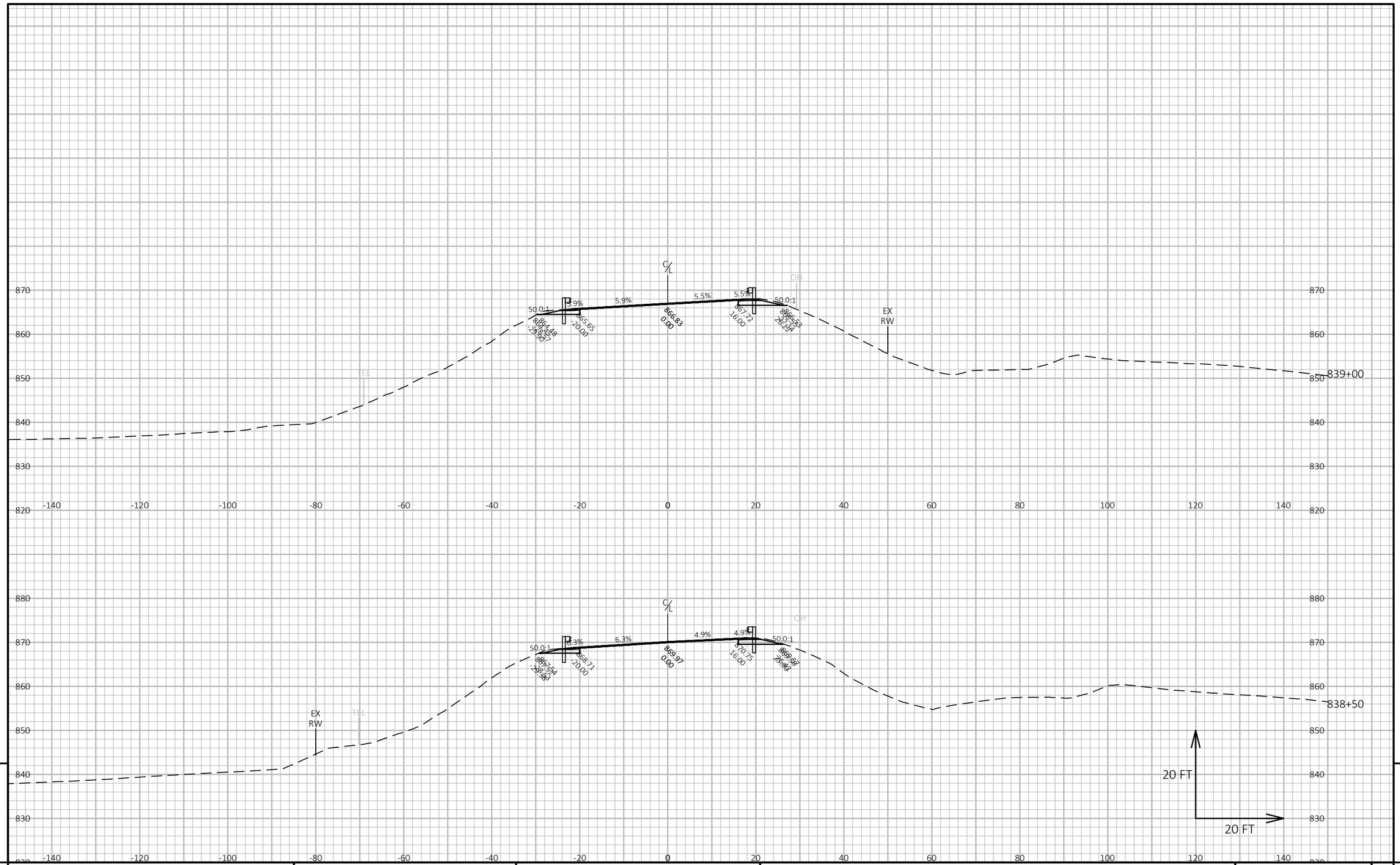
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 205	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 1/17/2022 11:43 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

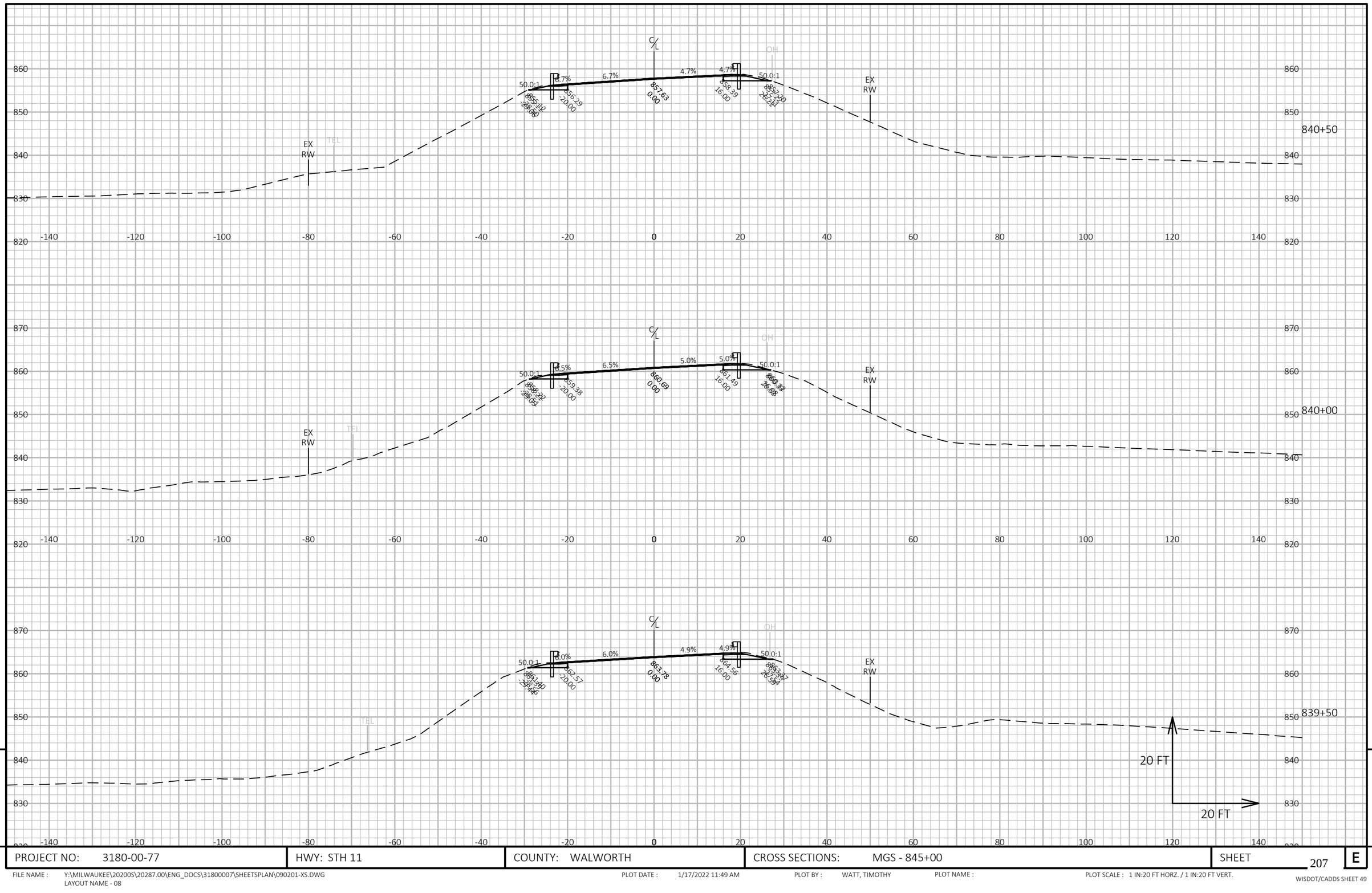
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 206	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 1/17/2022 11:46 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

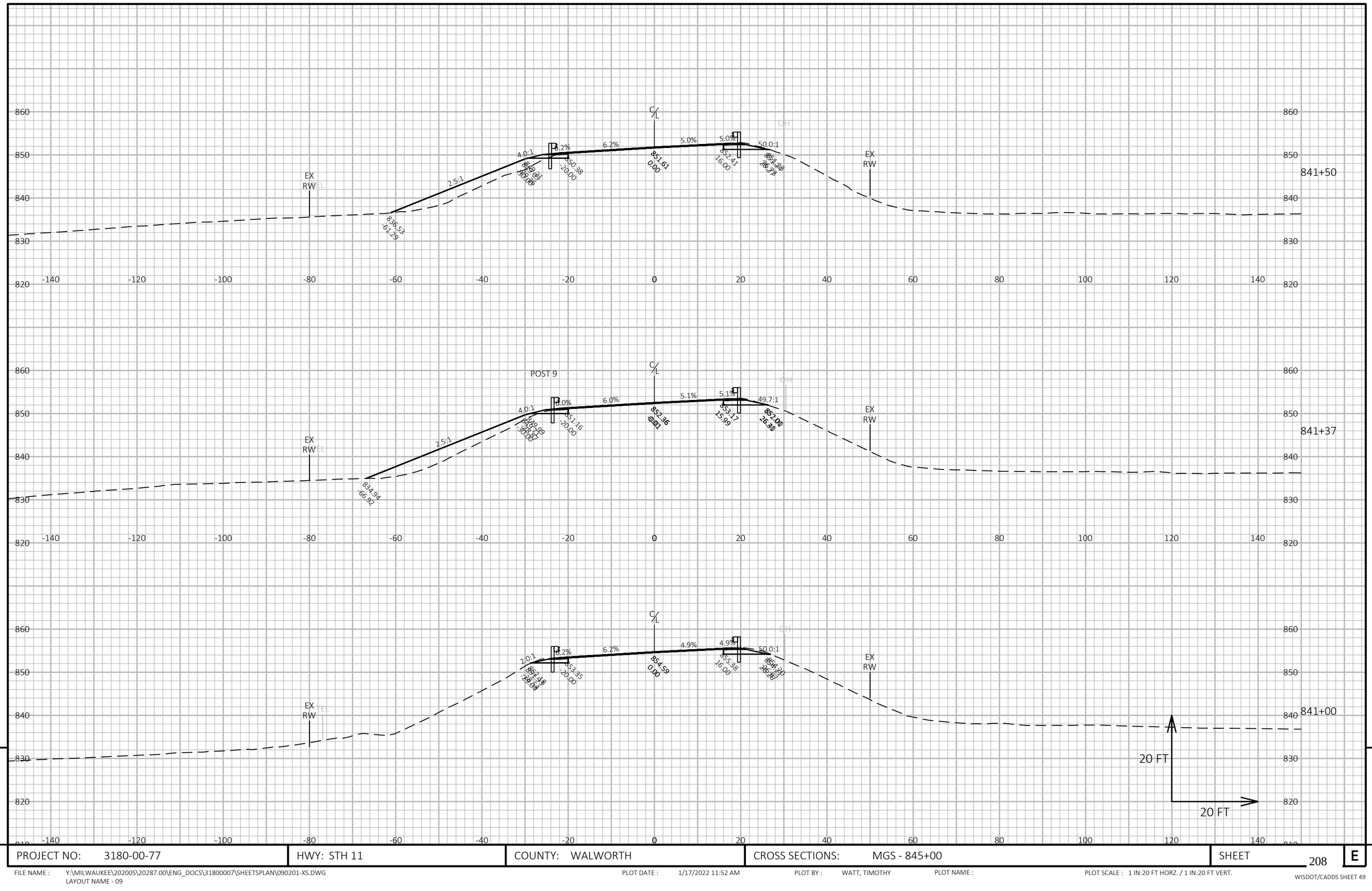


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 207	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 1/17/2022 11:49 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

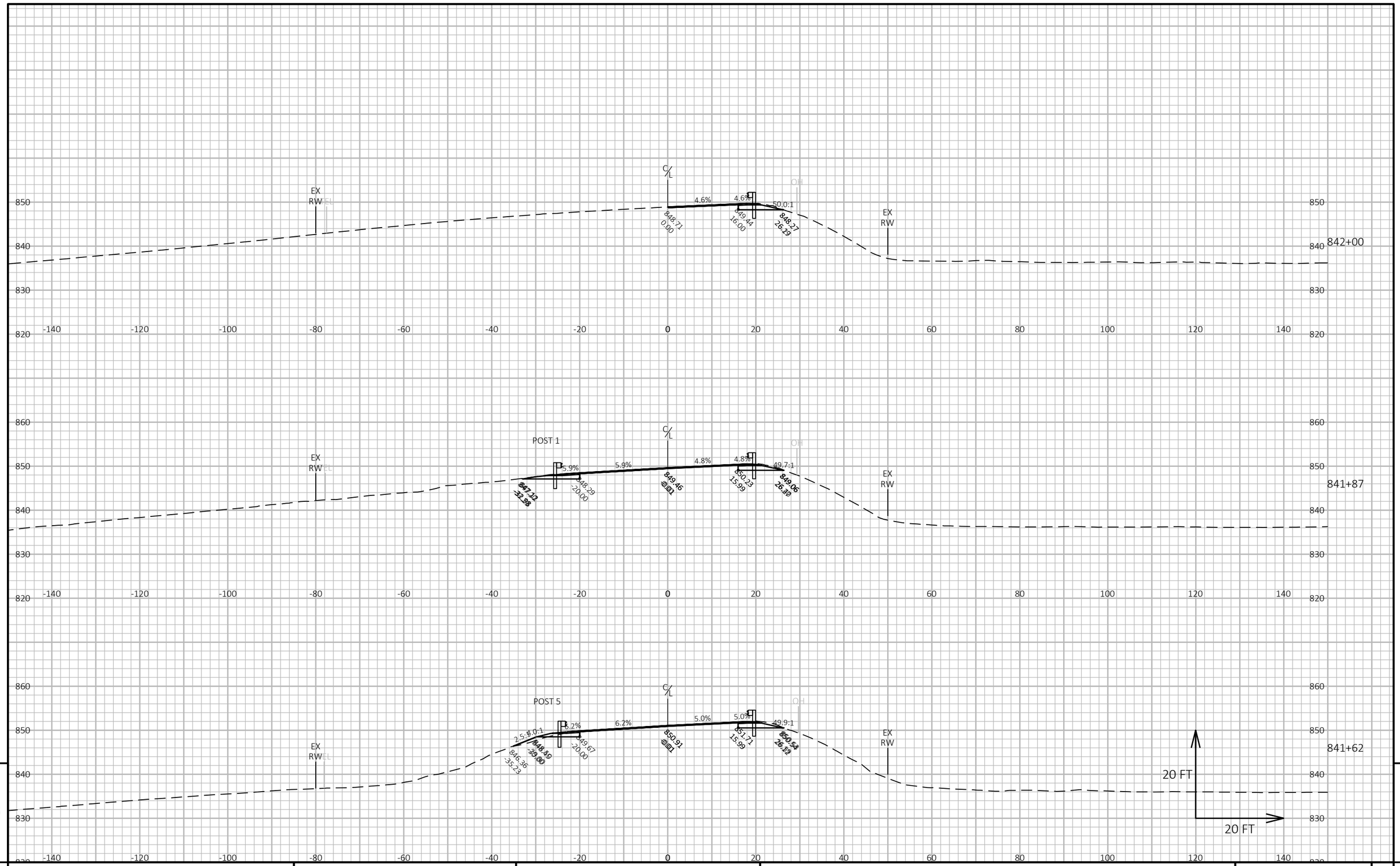
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 208	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 1/17/2022 11:52 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

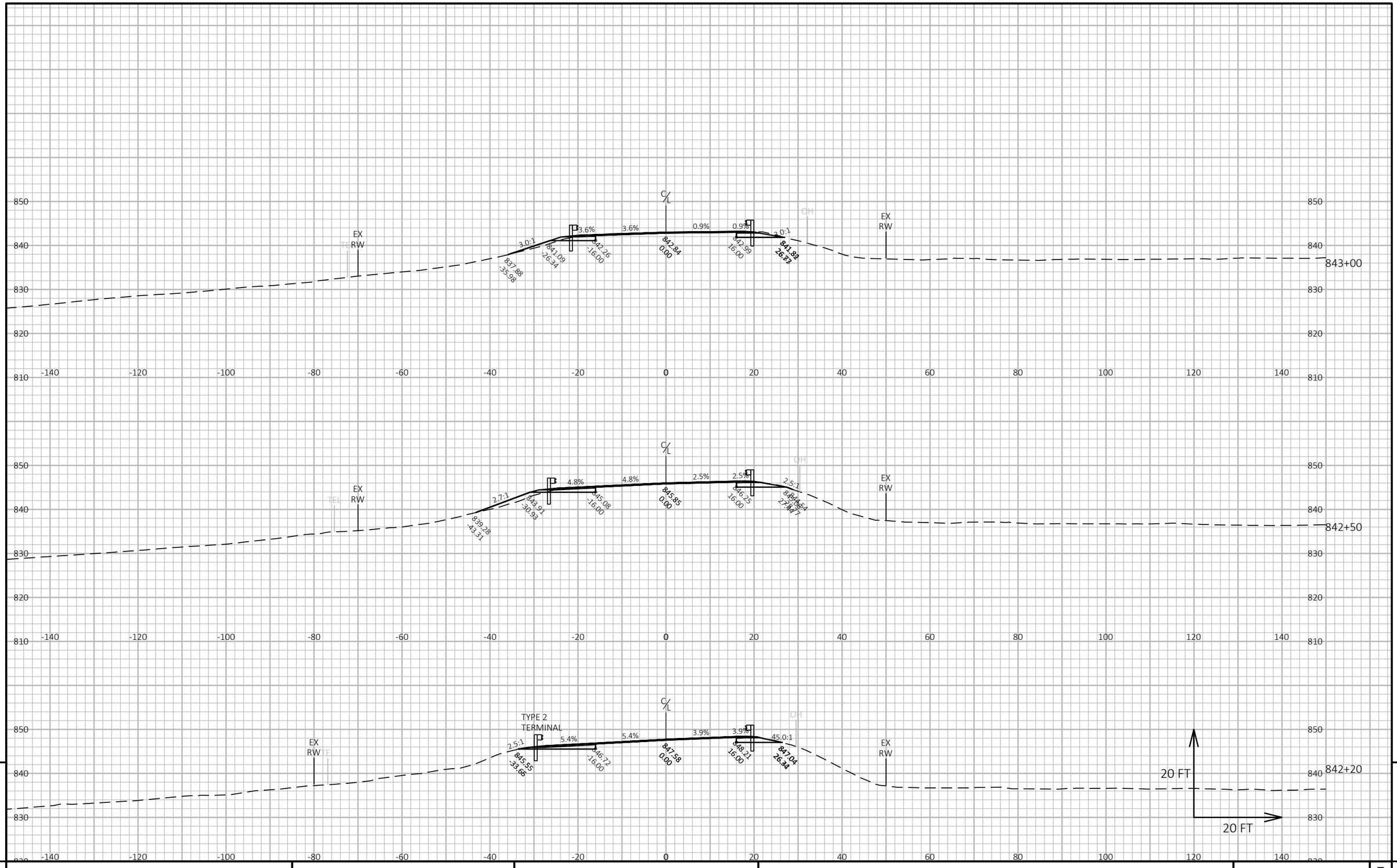
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 209	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 1/17/2022 11:55 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

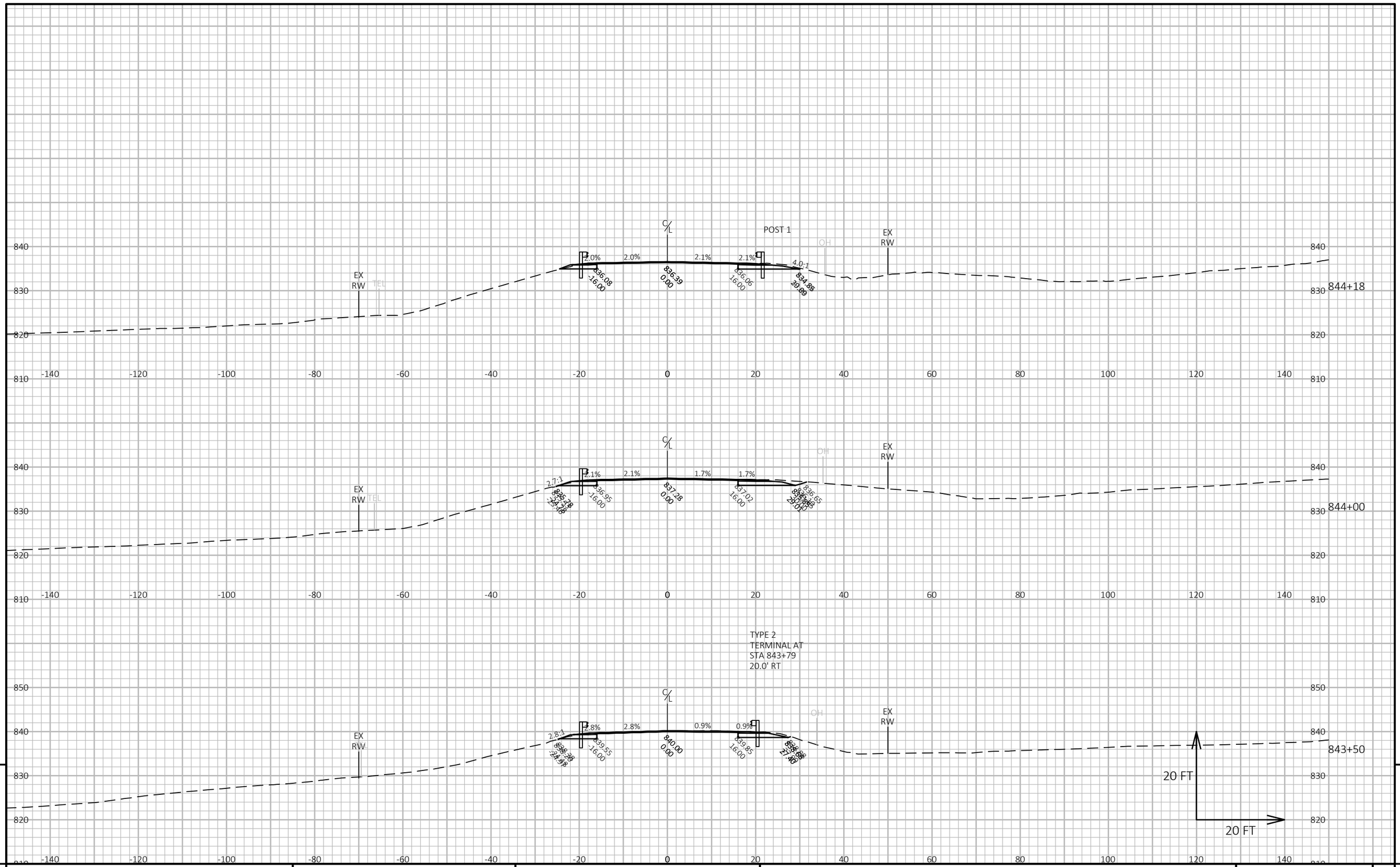
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 210	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 1/17/2022 11:58 AM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 211	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 1/17/2022 12:02 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

9

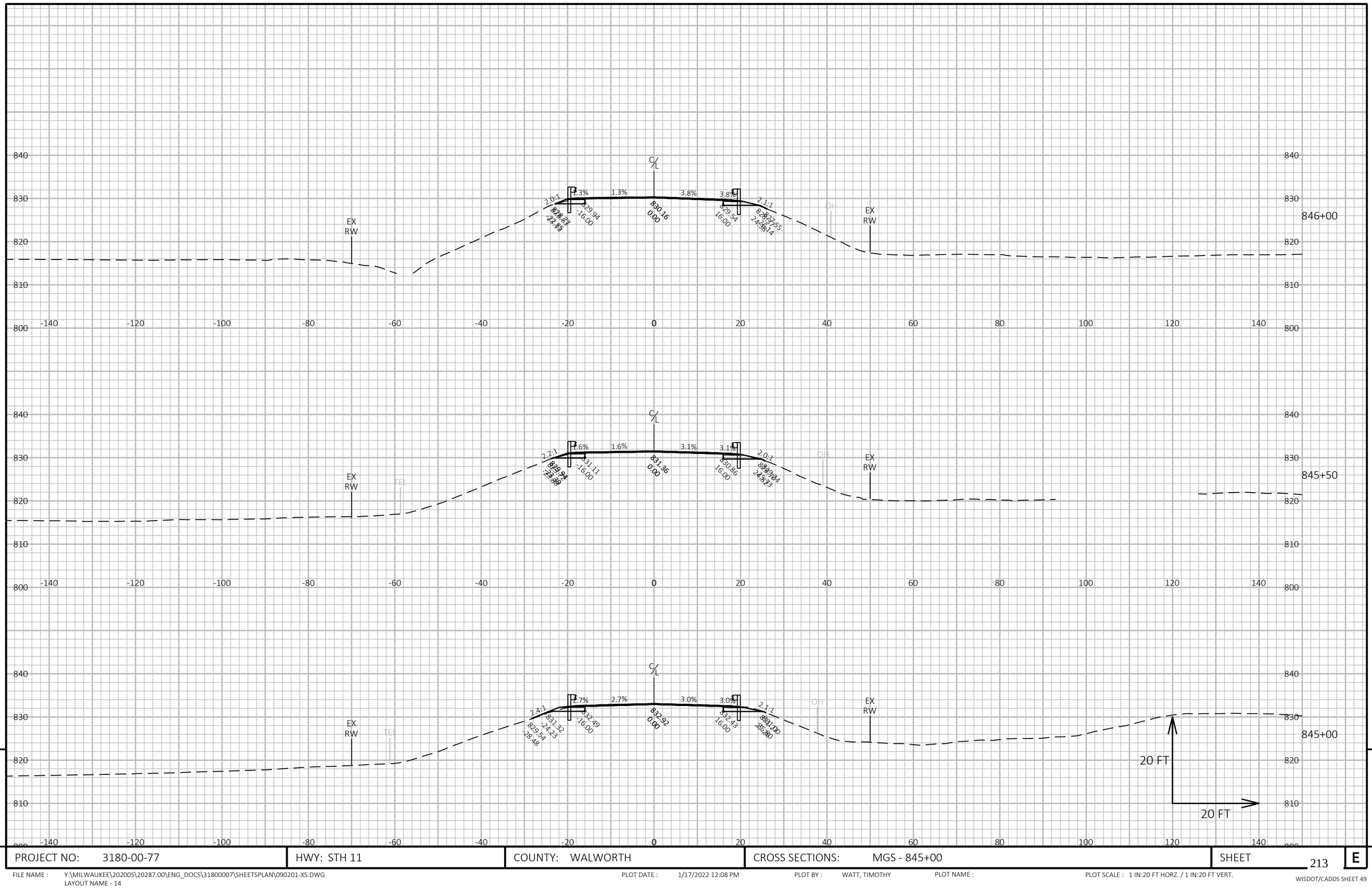
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 212	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 1/17/2022 12:05 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

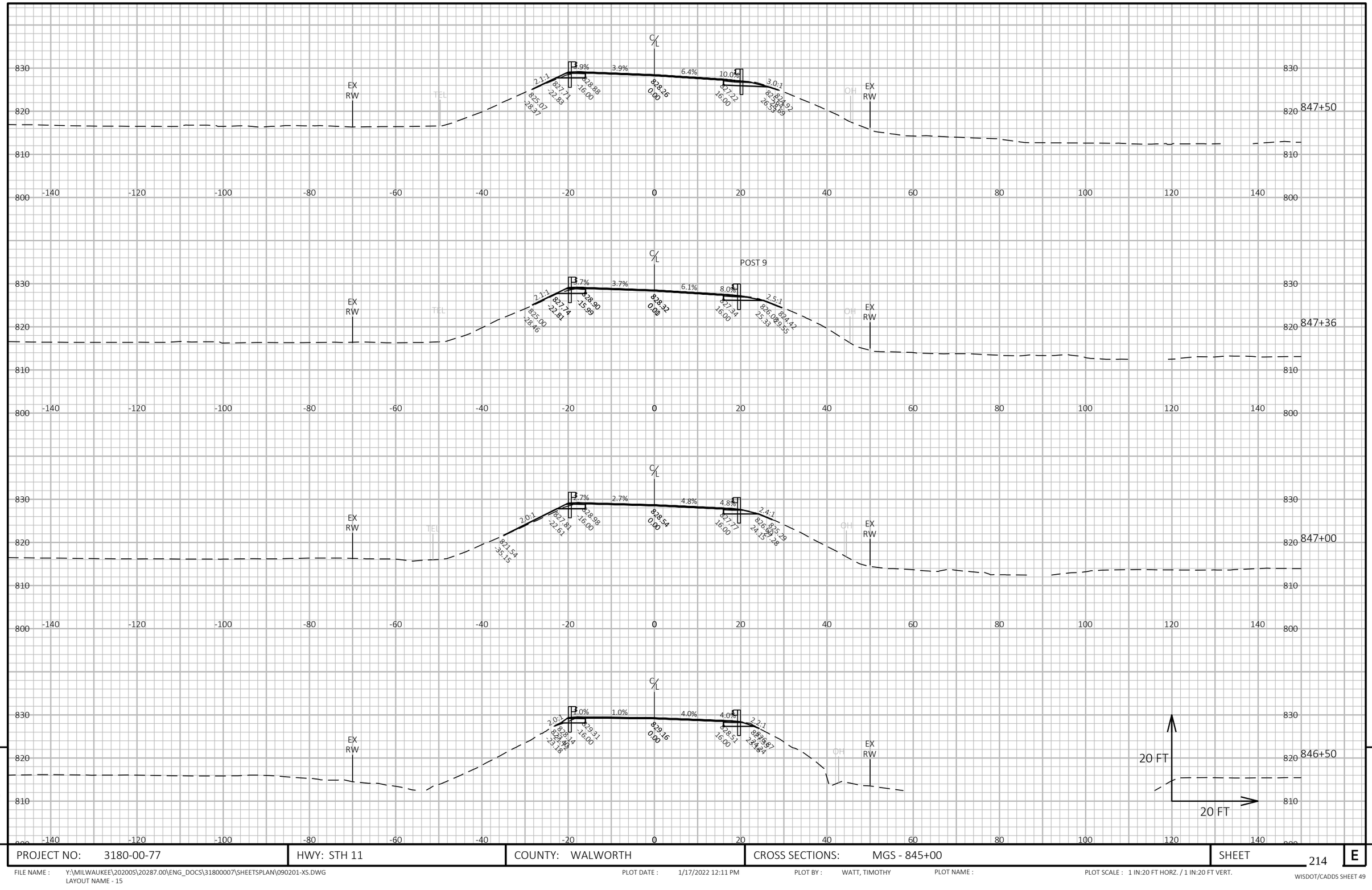


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9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 213	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 14
PLOT DATE : 1/17/2022 12:08 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49

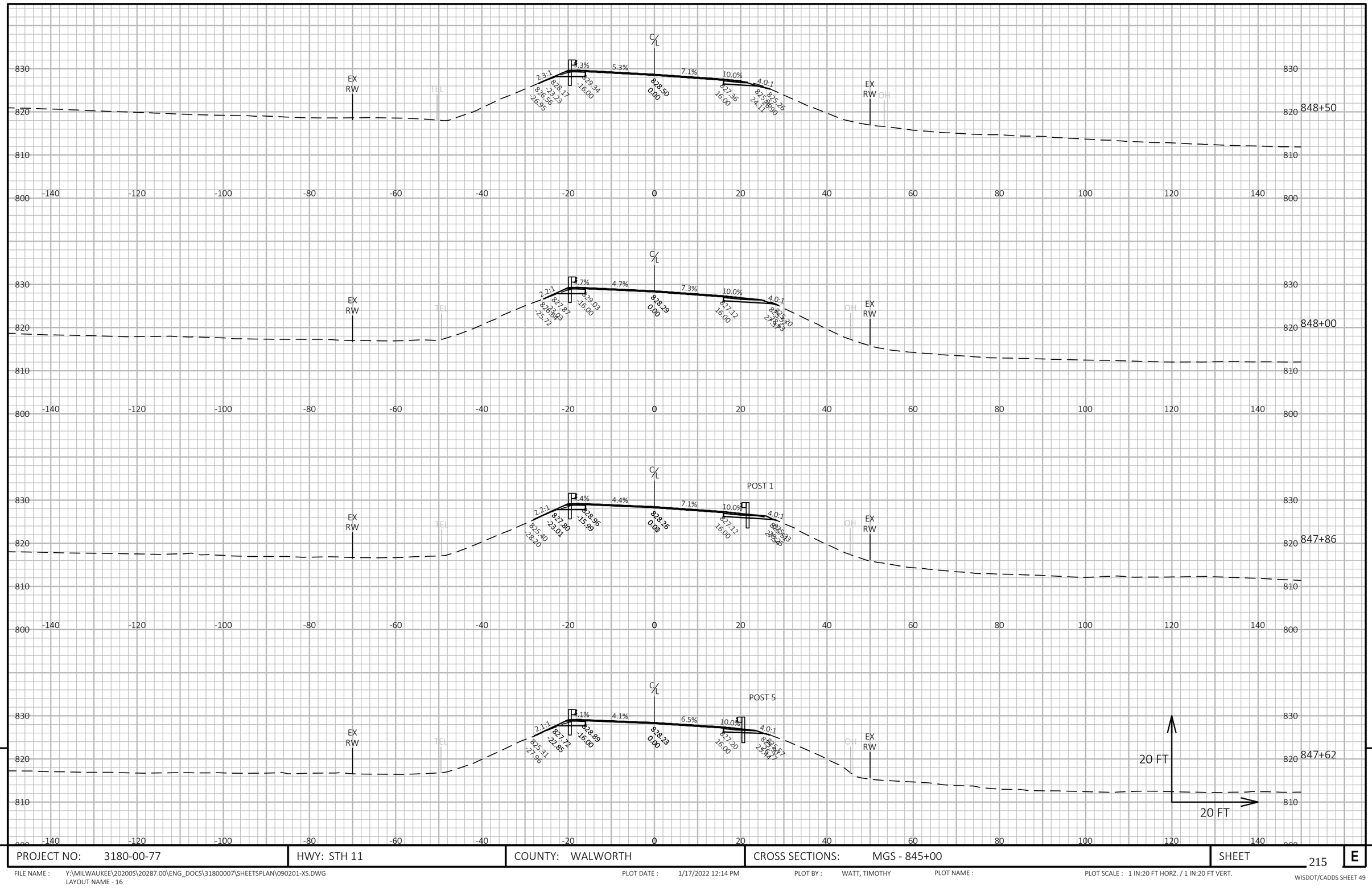


9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 214	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 15
PLOT DATE : 1/17/2022 12:11 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



9

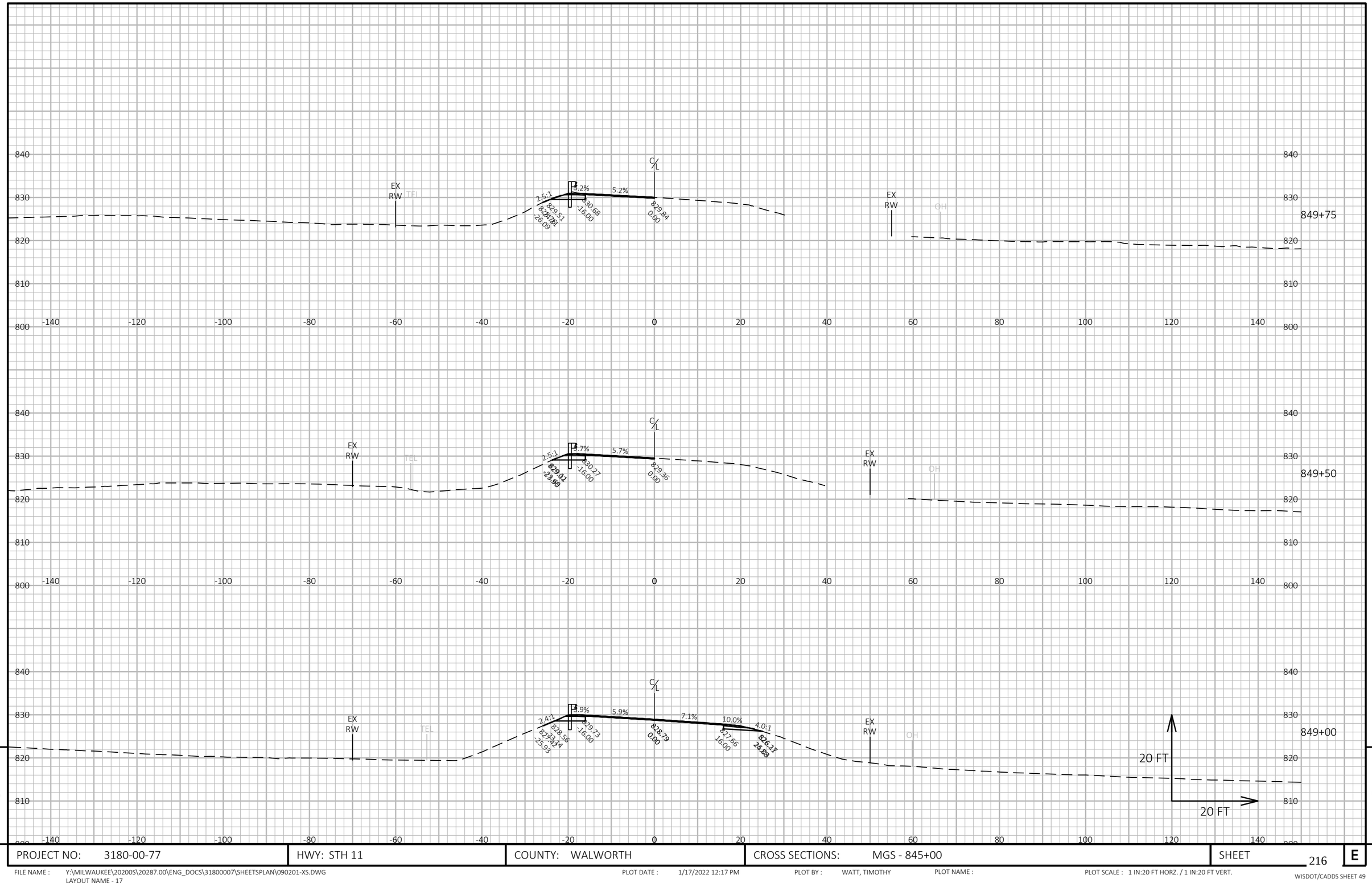
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 215	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 16

PLOT DATE : 1/17/2022 12:14 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

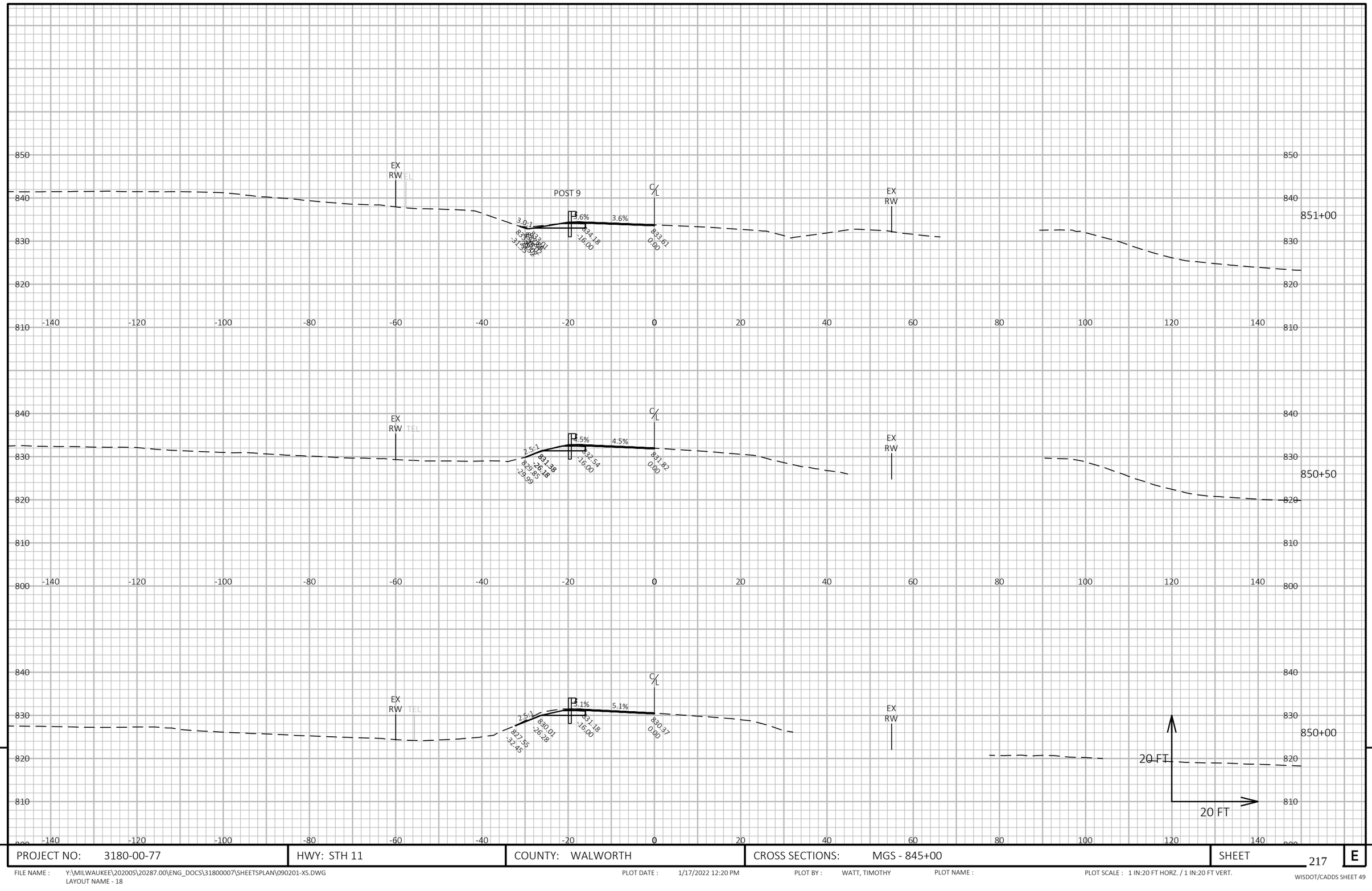
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 216	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 1/17/2022 12:17 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

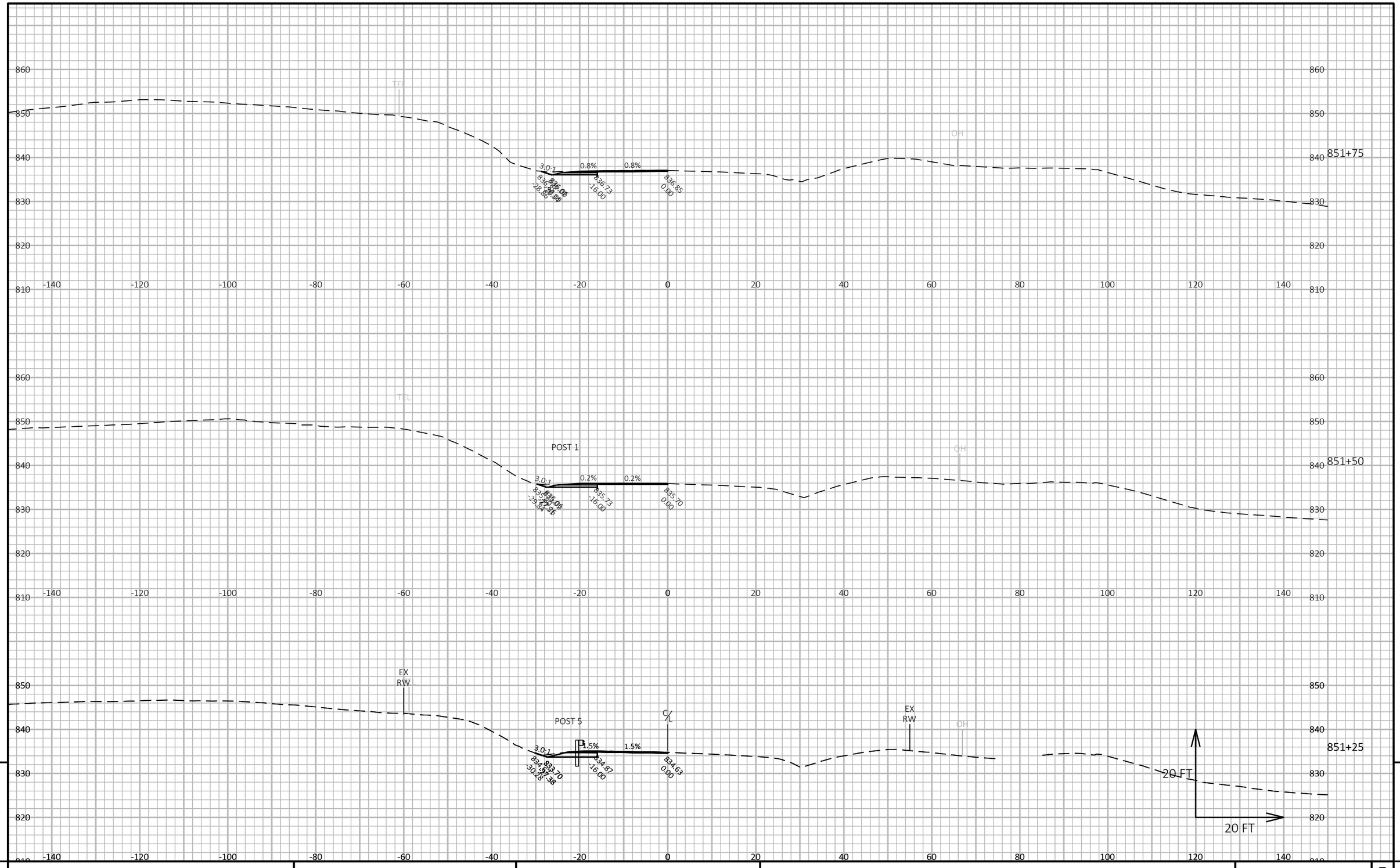
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 217	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 1/17/2022 12:20 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

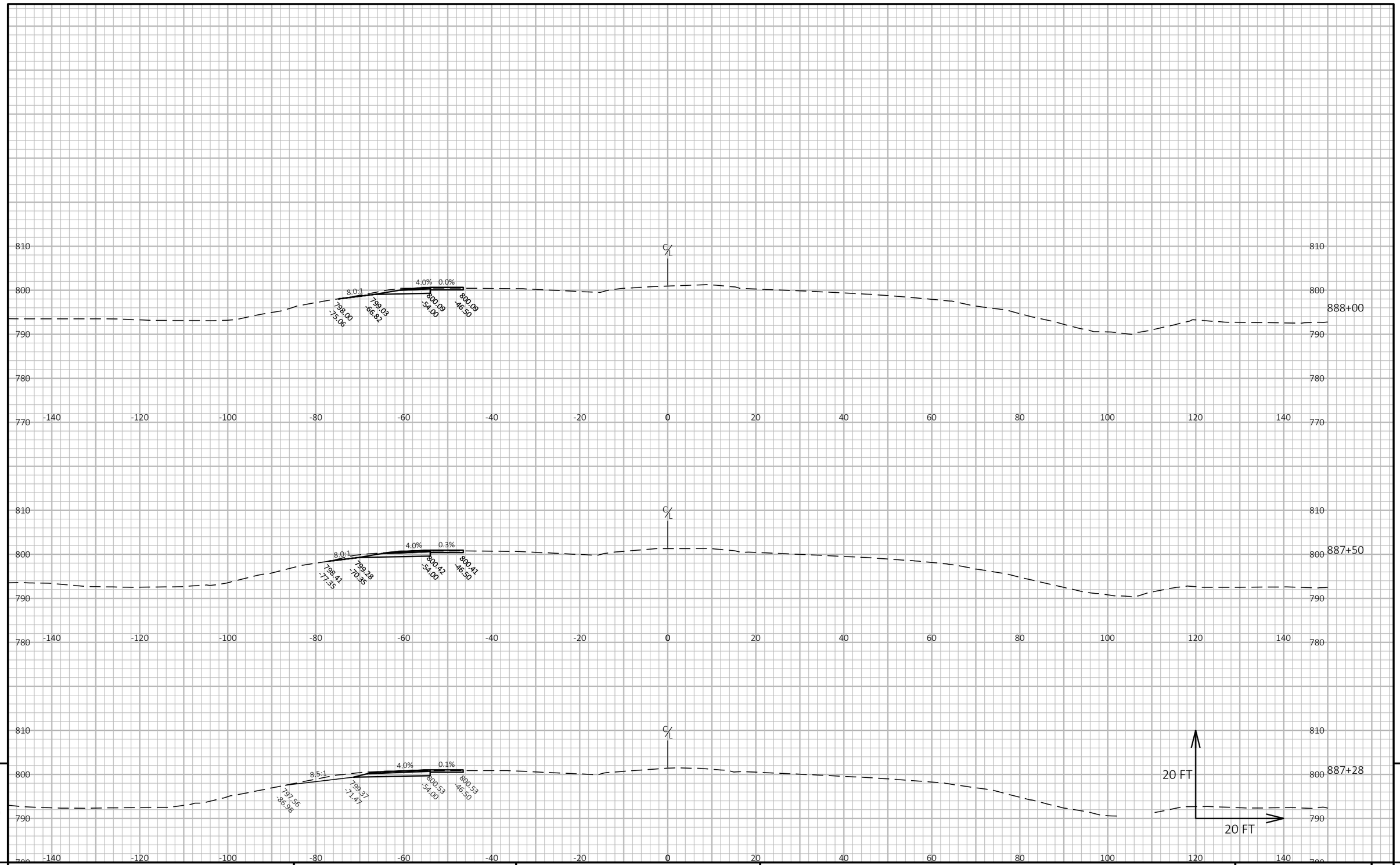
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 845+00	SHEET 218	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 1/17/2022 12:23 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

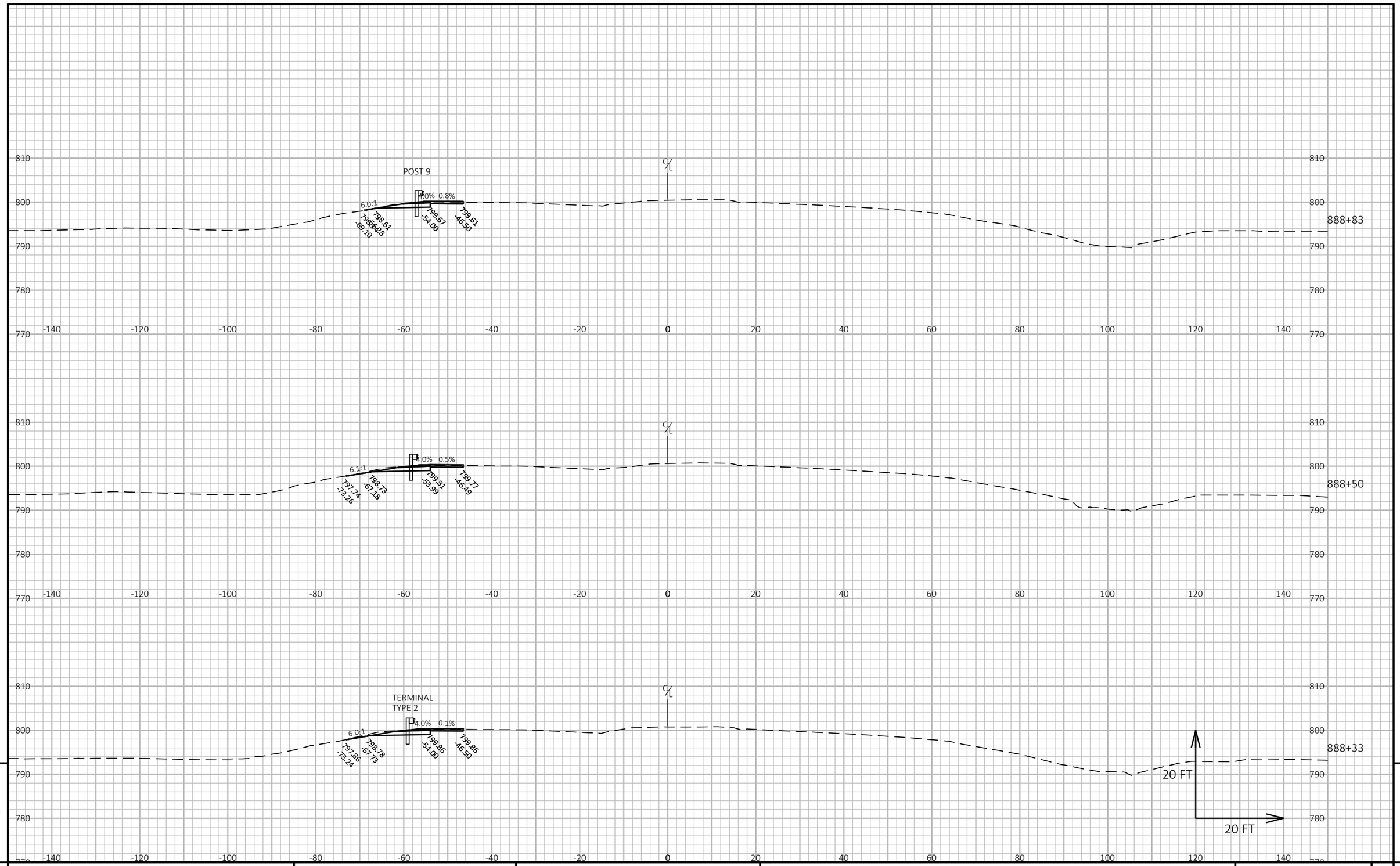


9 9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 888+83-LT	SHEET 219	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/17/2022 12:27 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



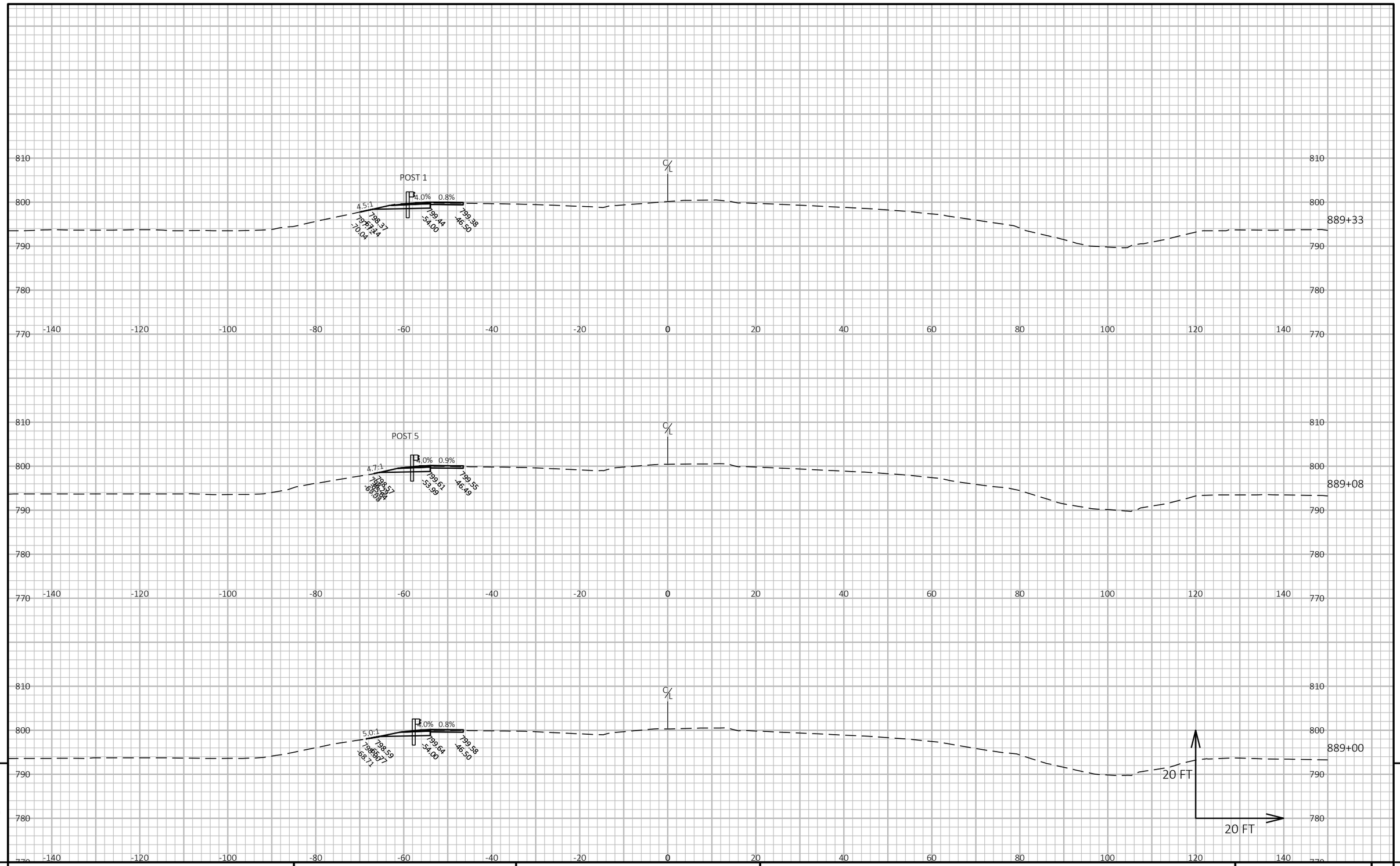
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 888+83-LT	SHEET 220	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2022 12:28 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



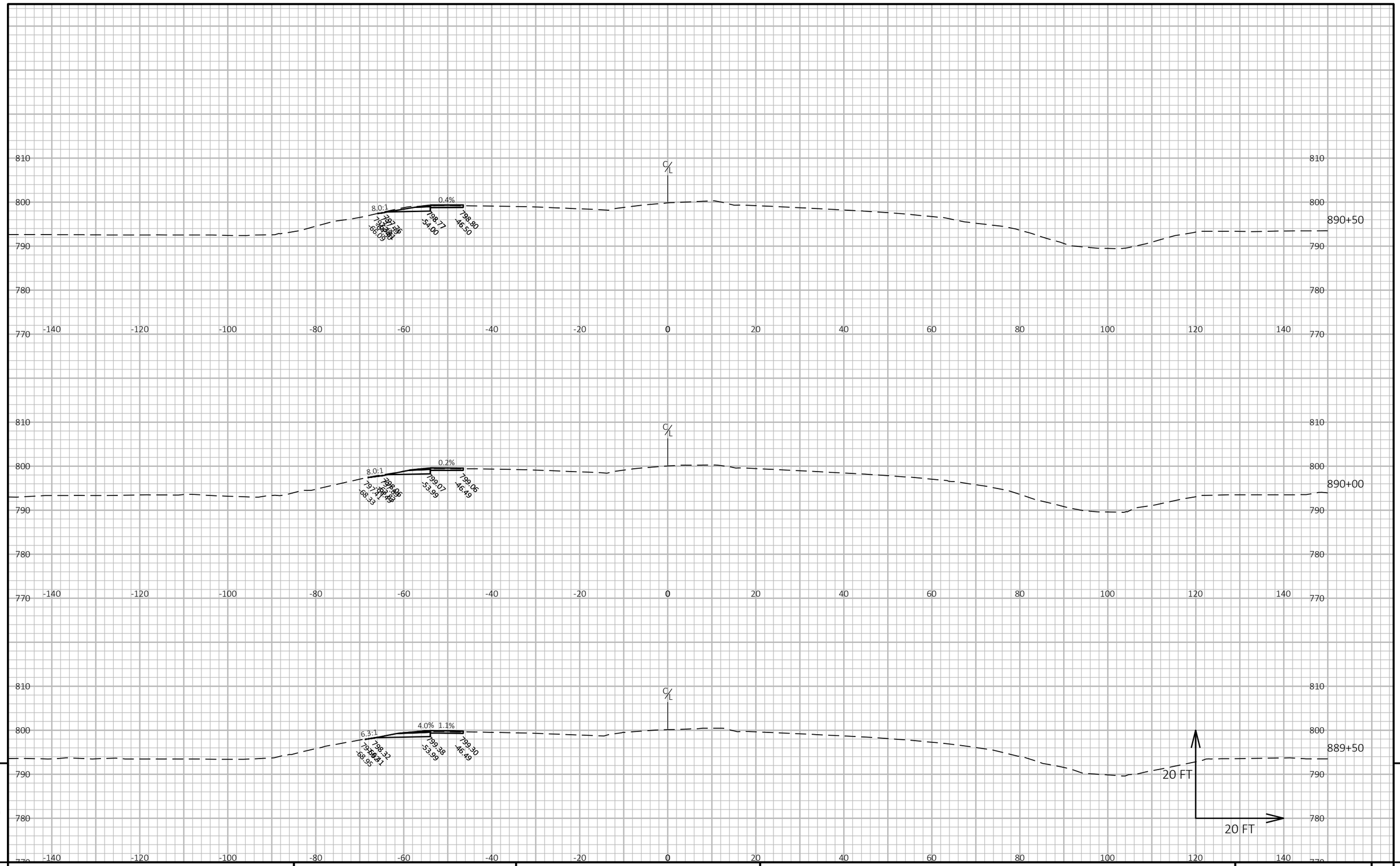
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9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 888+83-LT	SHEET 221	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/17/2022 12:29 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



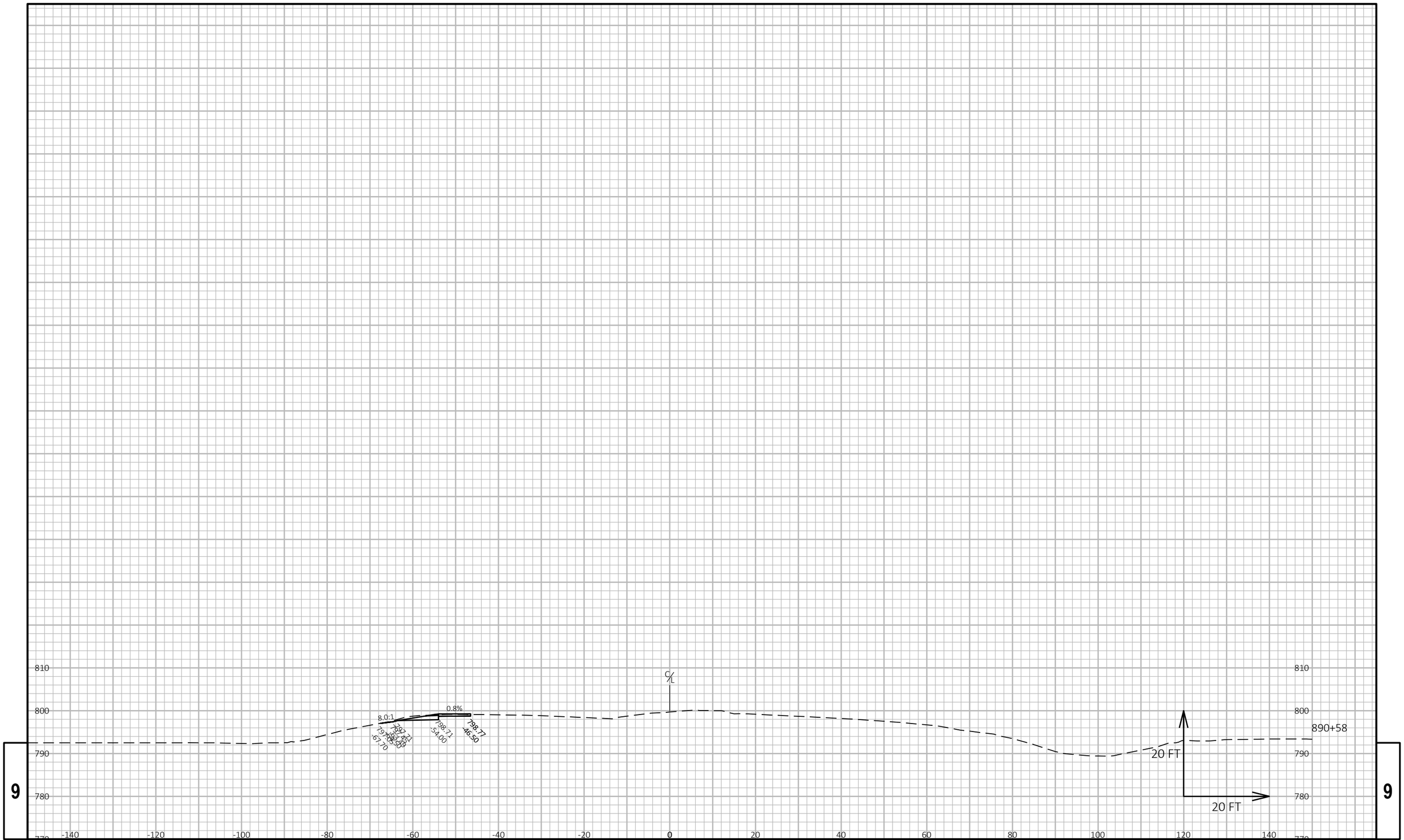
9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 888+83-LT	SHEET 222	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 1/17/2022 12:29 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

9

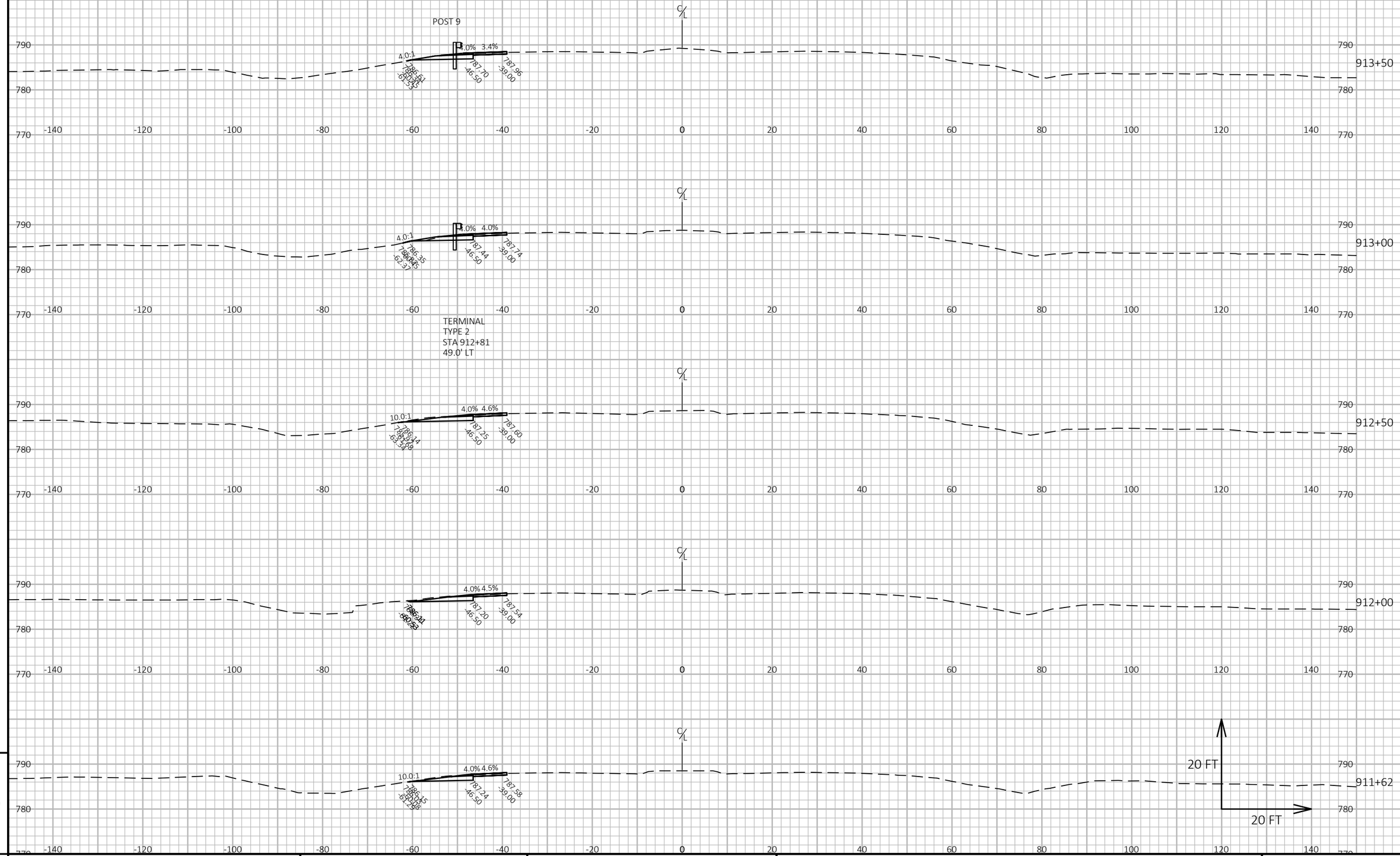
PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 888+83-LT	SHEET 223	E

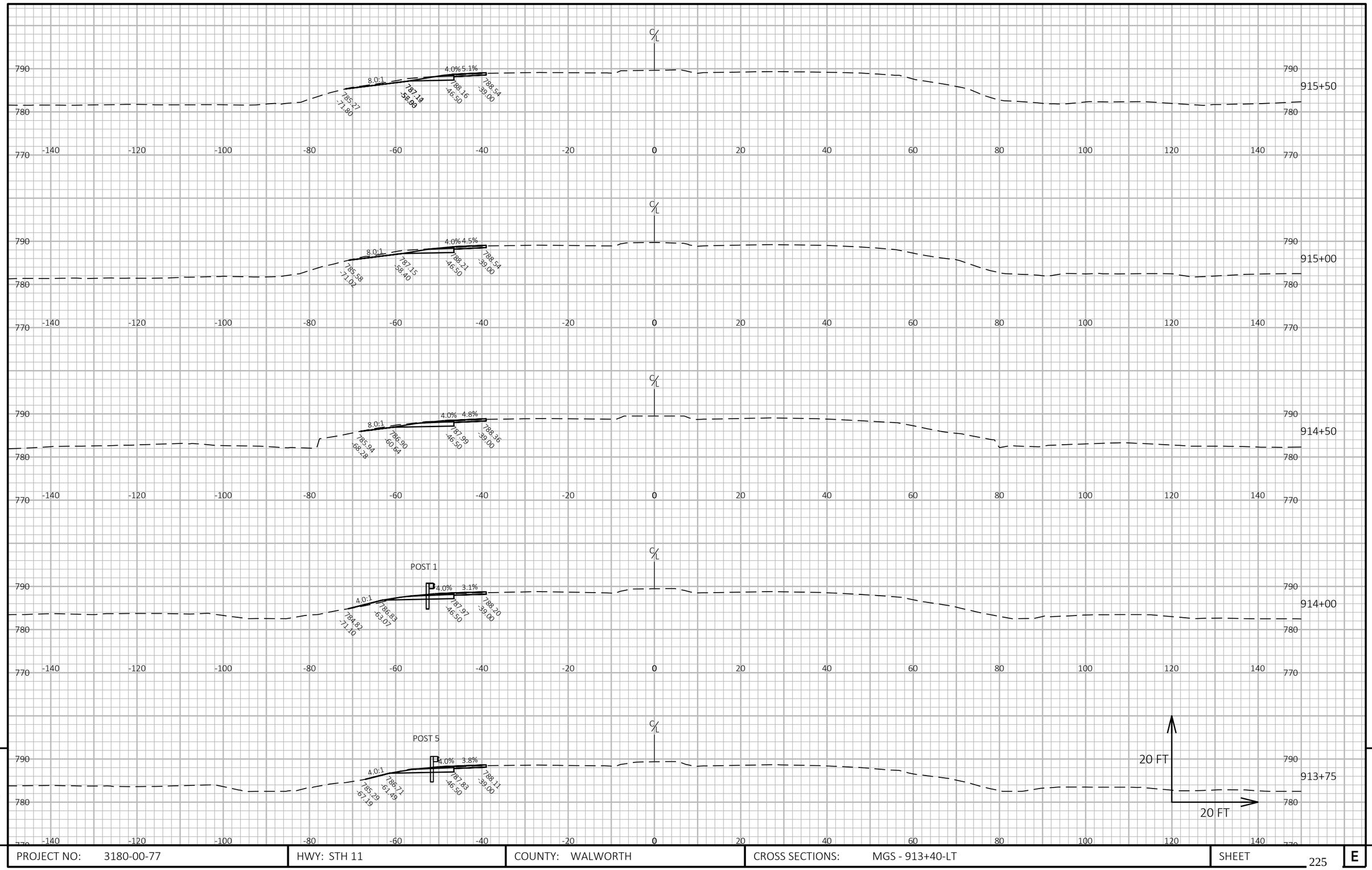
FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 1/17/2022 12:30 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

POST 9


C/L
4.0% 3.4%
4.0:1
787.96
787.70
787.61
786.35
786.01
786.00
786.00
786.00



9

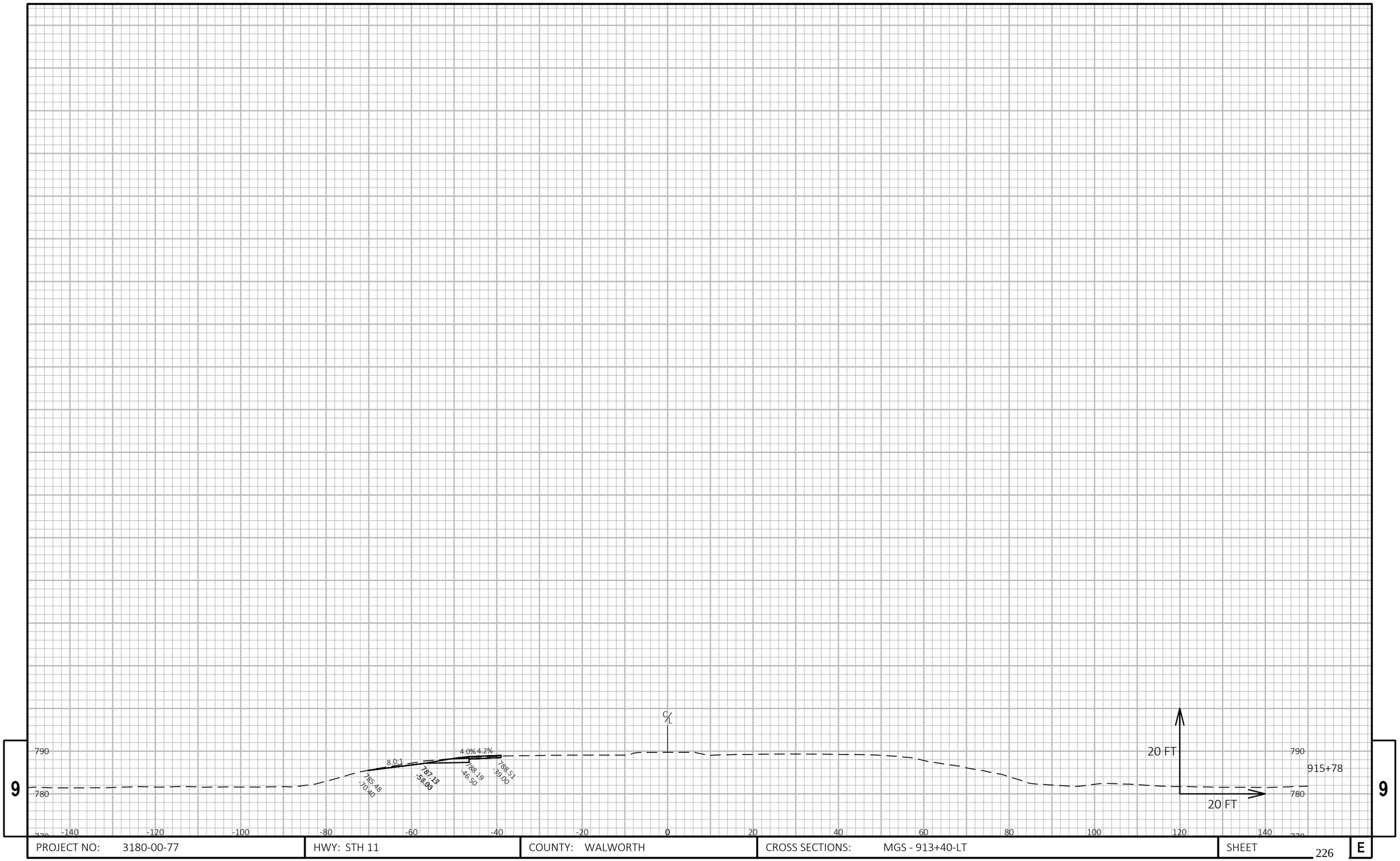
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 913+40-LT	SHEET 225	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2022 12:35 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



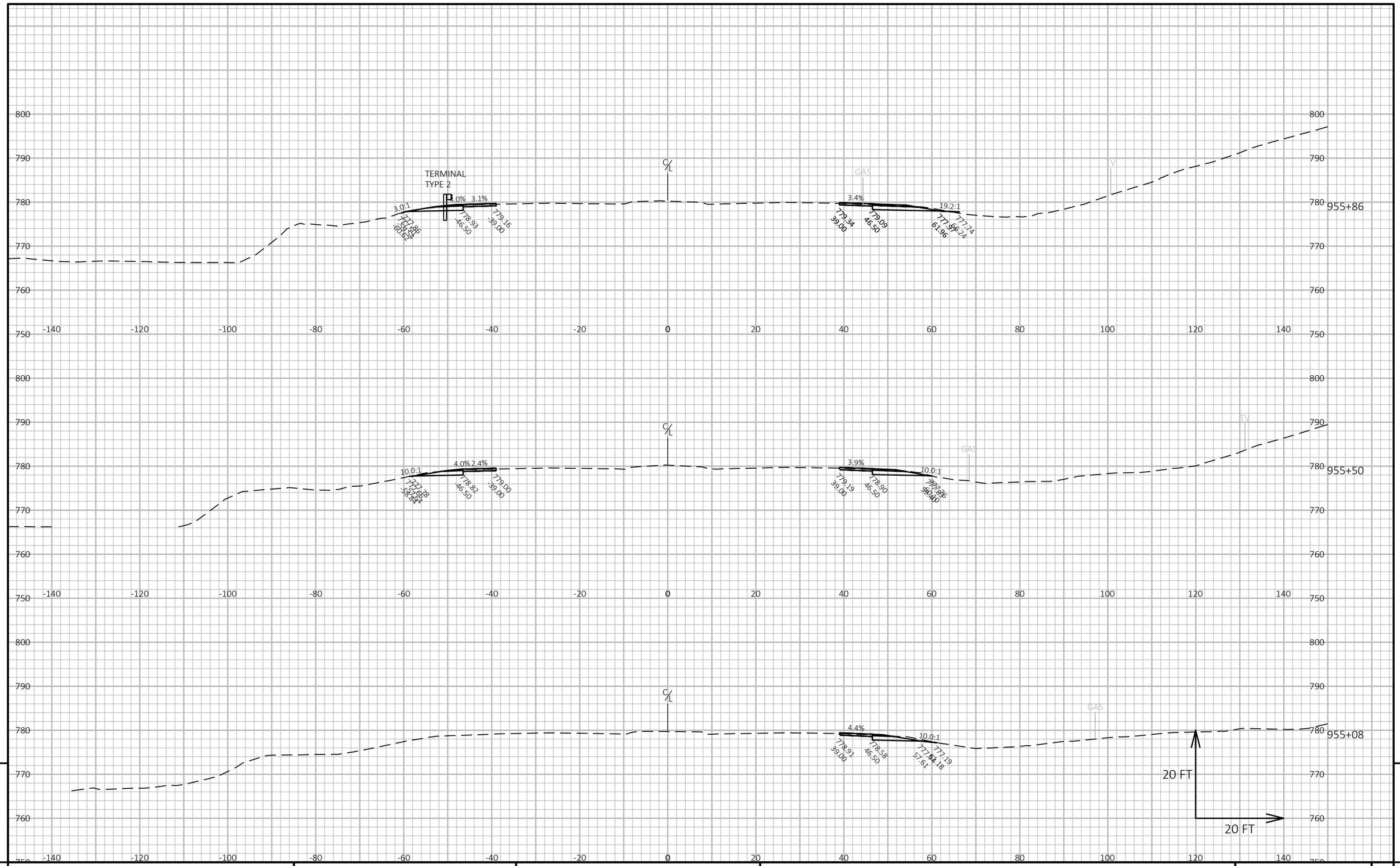
9 9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 913+40-LT	SHEET 226	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/17/2022 12:35 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

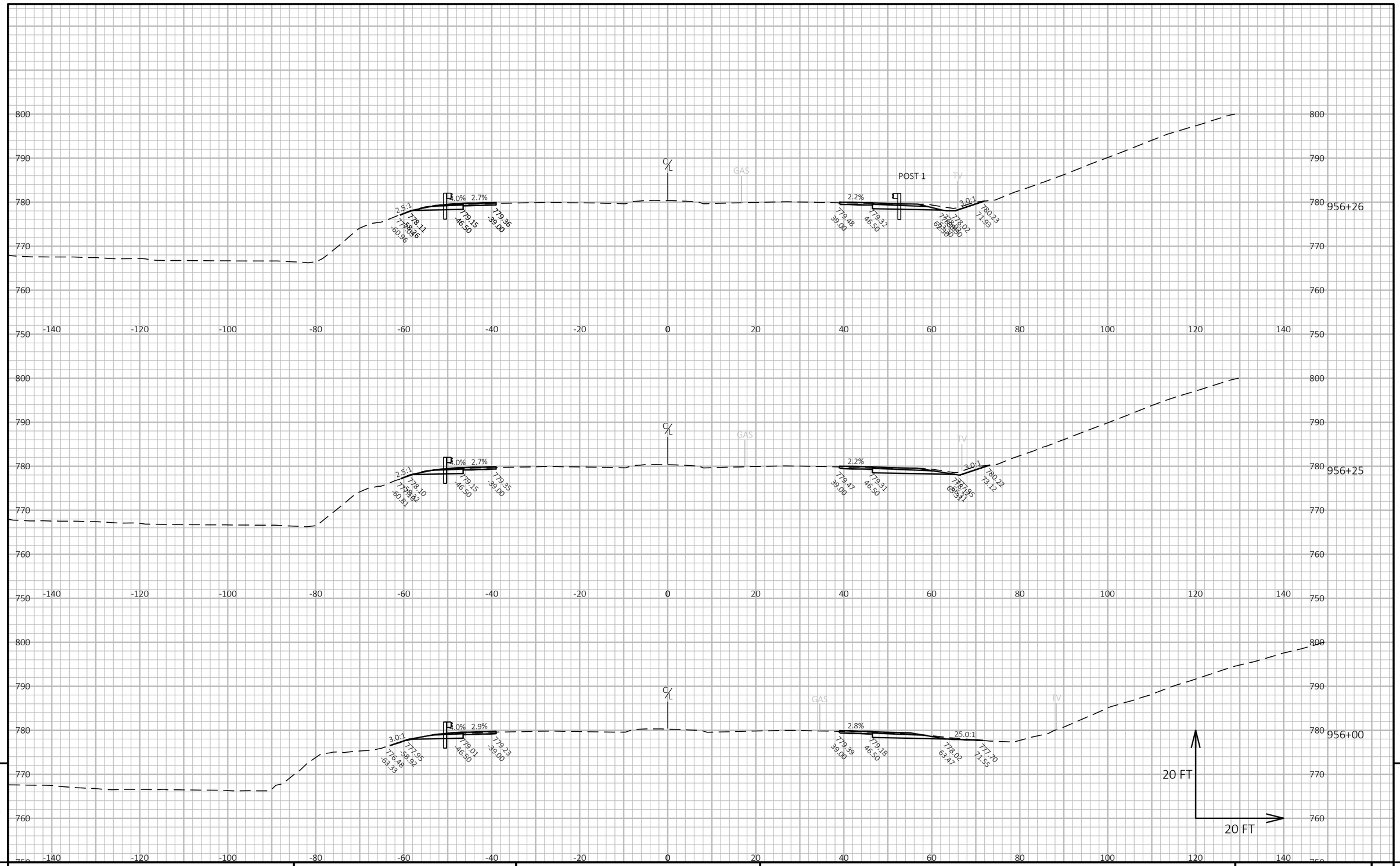


PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 227	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/17/2022 12:39 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

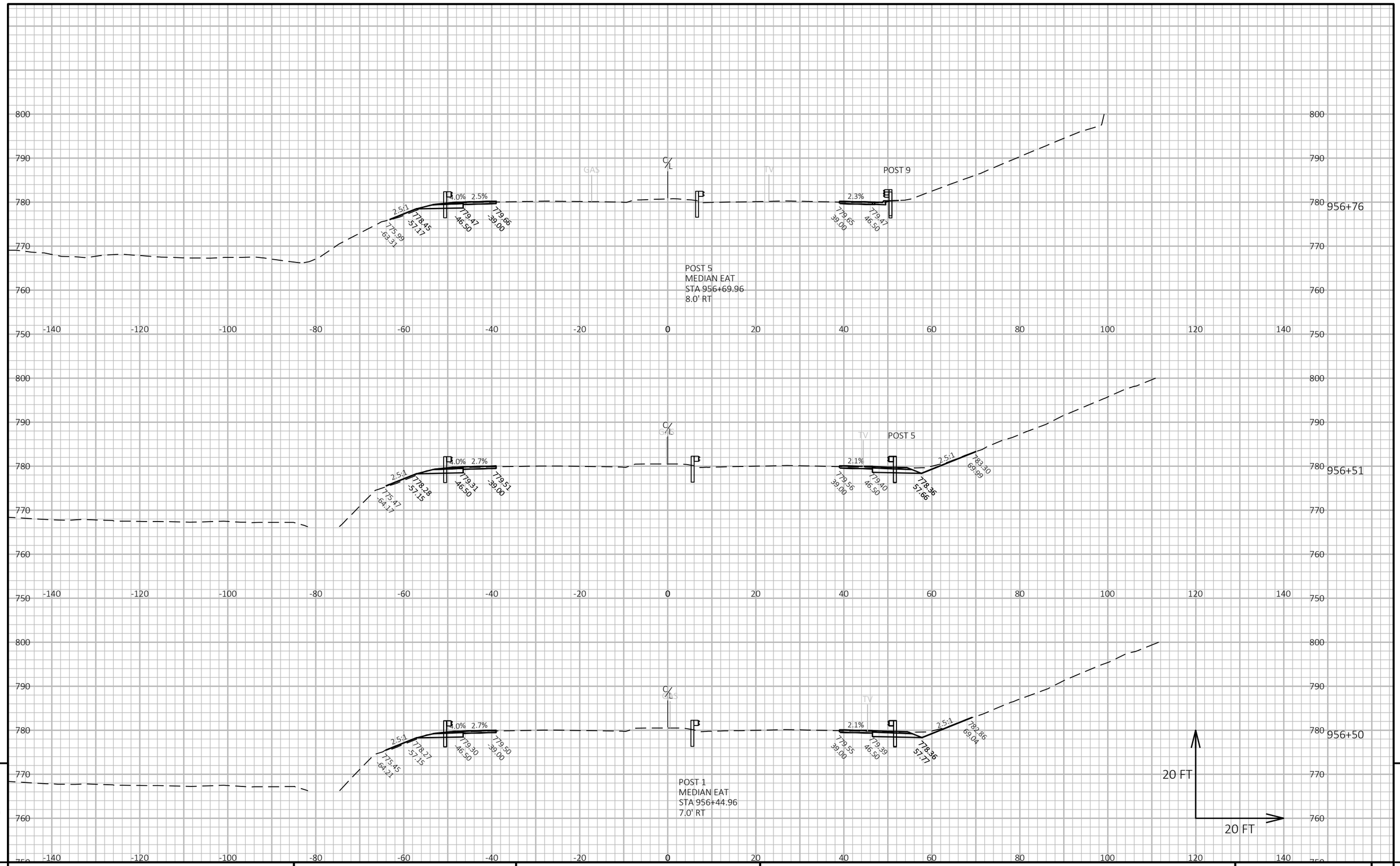
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PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 228	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 02

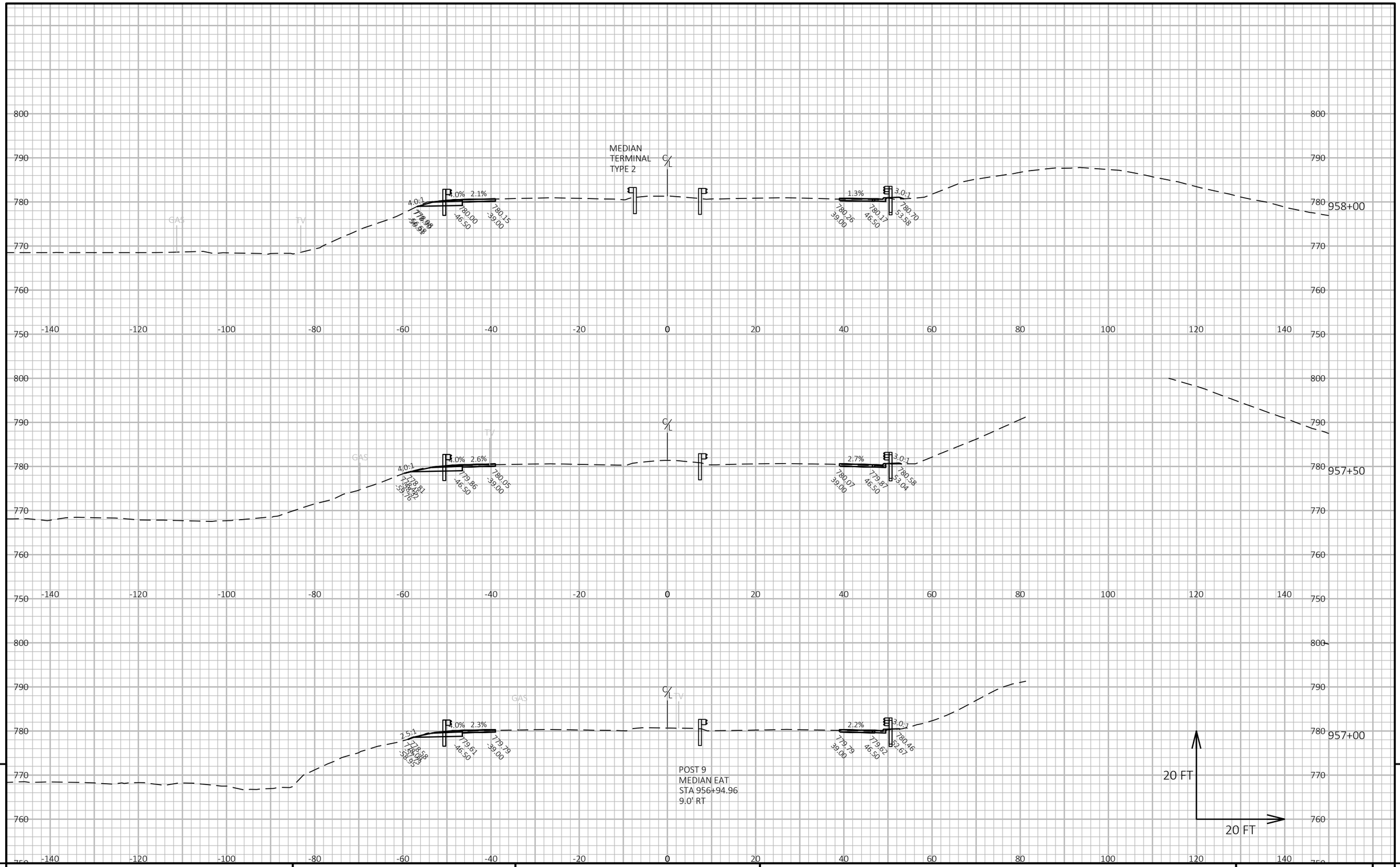
PLOT DATE : 1/17/2022 12:40 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 229	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 03
PLOT DATE : 1/17/2022 12:41 PM
PLOT BY : WATT, TIMOTHY
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 230	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 1/17/2022 12:42 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

959+50

959+00

958+50

C/L

2.5%
10.0:1
781.08
39.00
780.89
46.50
779.85
58.35
779.36
63.20

4.0%
3.0%
2.5:1
779.51
57.58
780.53
46.50
780.75
39.00

3.0%
10.0:1
780.91
39.00
780.69
46.50
779.60
58.35
779.12
63.55

4.0%
3.1%
4.0:1
779.46
57.73
780.29
46.50
780.53
39.00

3.3%
25.0:1
780.61
39.00
780.36
46.50
779.25
61.42
778.88
70.75

GAS
TEL
TEL
OH

TV

20 FT
20 FT

9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 231	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 1/17/2022 12:43 PM PLOT BY : WATT, TIMOTHY PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

961+50

4.0% 4.6%
2.5:1
781.79
-46.50
782.14
-39.00
C/L

961+07

4.0% 3.2%
2.5:1
772.16
-76.36
780.51
-55.49
781.50
-46.50
781.74
-39.00
C/L

960+00

C/L
3.2%
2.5:1
781.21
-39.00
780.97
-46.50
20 FT
20 FT

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 232	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 1/17/2022 12:44 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

MEDIAN POST 5
STA 962+80.39
8.0' LT

POST 9

10.0:1
4.0%
3.0%
781.69
782.77
782.99
781.54
782.50
782.99
782.78
-46.50
-39.00

962+74

MEDIAN POST 9
STA 962+55.39
9.0' LT

9.0:1
4.0%
3.2%
781.51
782.58
782.82
781.34
782.50
782.82
782.44
-46.50
-39.00

962+50

8.0:1
4.0%
3.8%
781.13
782.18
782.47
780.92
782.50
782.47
780.99
-46.50
-39.00

962+00

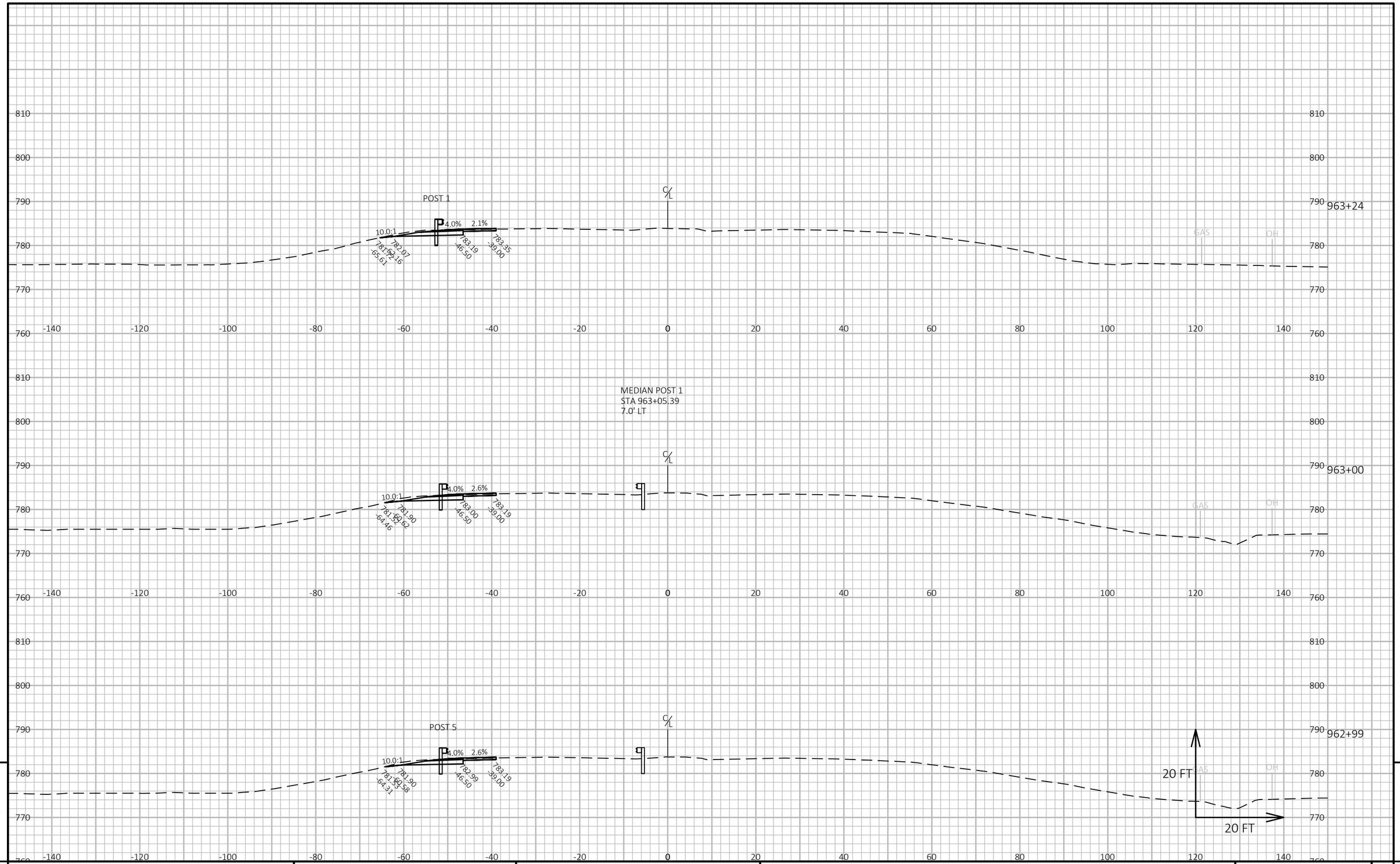
20 FT
20 FT

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 233	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 1/17/2022 12:45 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



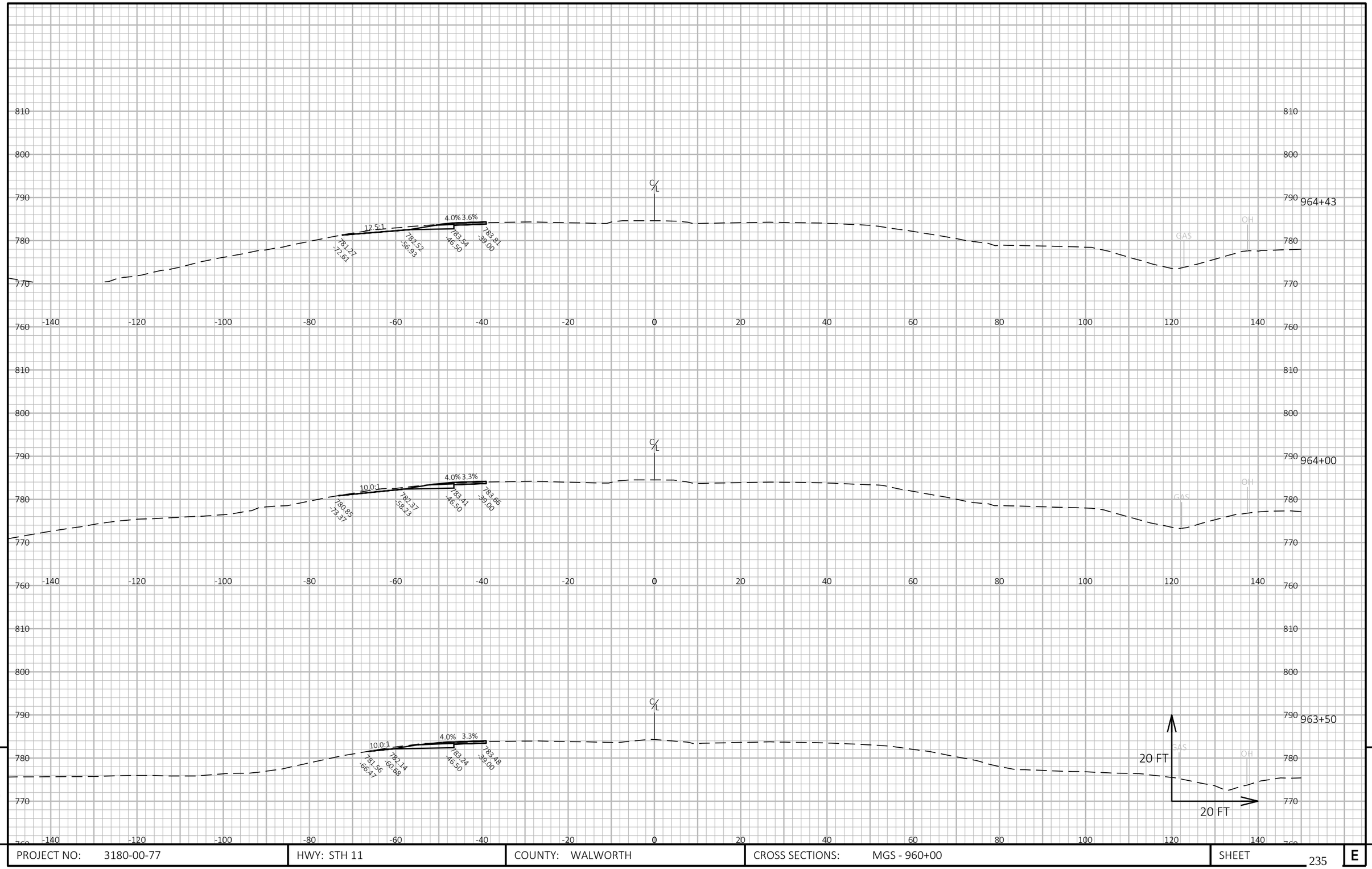
9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 234	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 1/17/2022 12:45 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



9

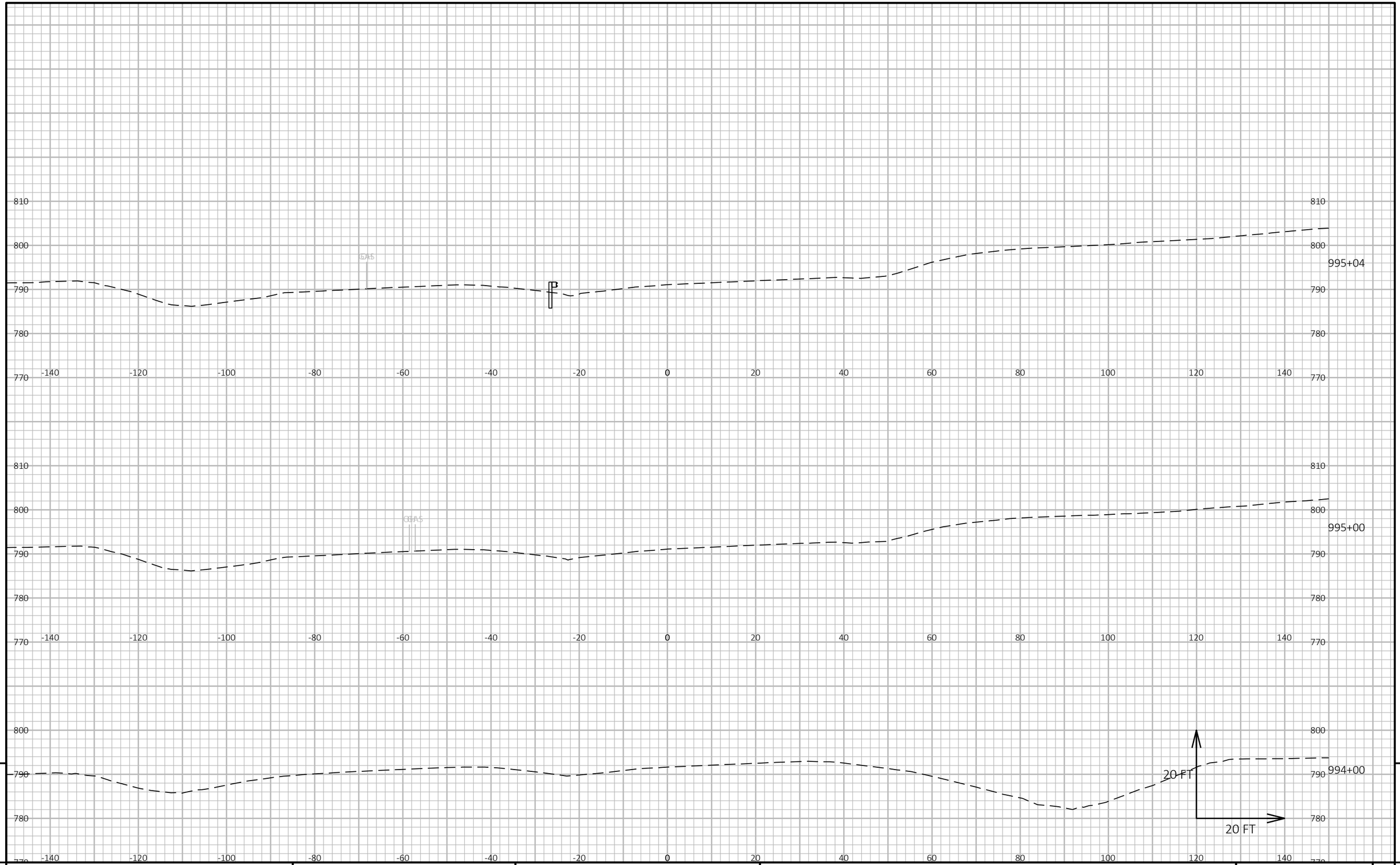
9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: MGS - 960+00	SHEET 235	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 1/17/2022 12:46 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: BULLNOSE - 966+00	SHEET 236	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090205-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/17/2022 12:52 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

997+00

996+98

996+00

20 FT

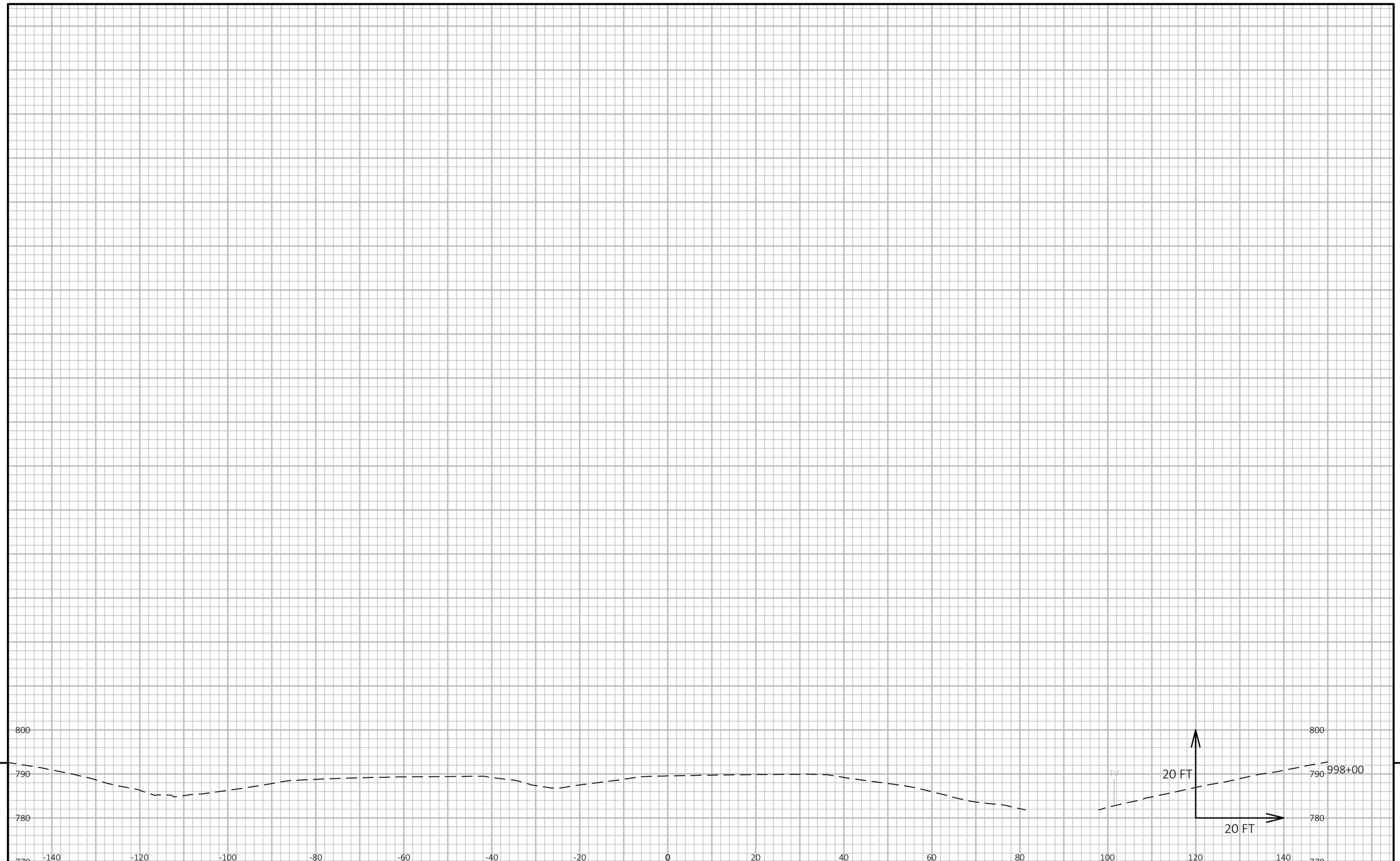
20 FT

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: BULLNOSE - 966+00	SHEET 237	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090205-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/17/2022 12:53 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 3180-00-77	HWY: STH 11	COUNTY: WALWORTH	CROSS SECTIONS: BULLNOSE - 966+00	SHEET 238	E

FILE NAME : Y:\MILWAUKEE\20200S\20287.00\ENG_DOCS\31800007\SHEETSPLAN\090205-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/17/2022 12:54 PM PLOT BY : WATT, TIMOTHY PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

http://www.dot.wisconsin.gov