WKE

PROJECT ID: 2190-10-71

WITH: 2190-10-70

COUNTY: MILWAUKEE

FEBRUARY 2025

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 = 256



15

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2190-10-70		
2190-10-71		

C WAUWATOSA W WISCONSIN AVENUE

BRIDGE OVER HONEY CREEK P-40-776

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT NUMBER

2190-10-70

C WAUWATOSA W WISCONSIN AVENUE

BRIDGE OVER HONEY CREEK P-40-776

CONST/WATERMAIN

MILWAUKEE COUNTY

STATE PROJECT NUMBER

2190-10-71

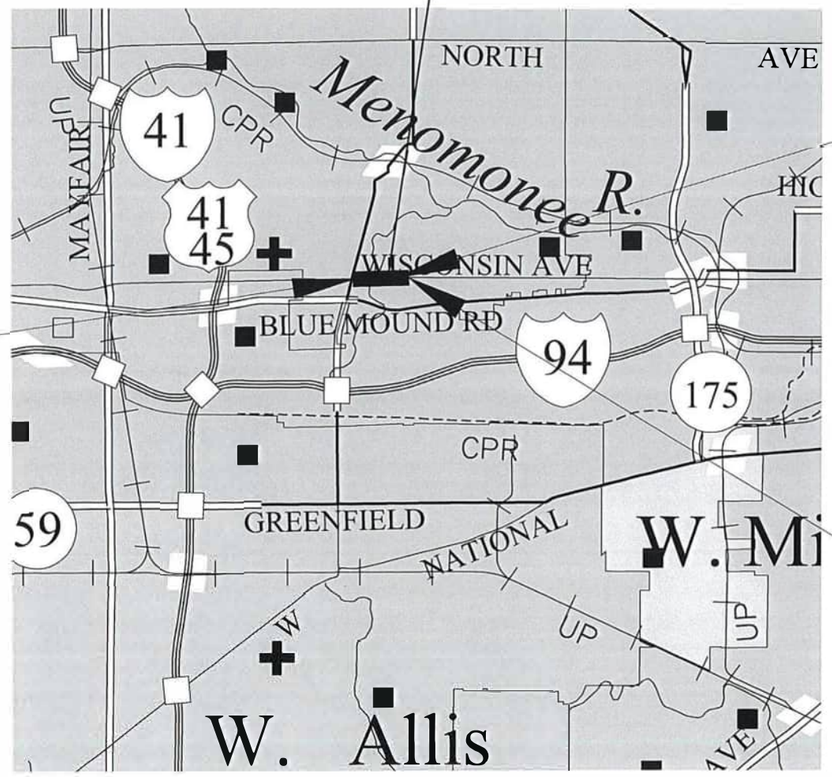
DESIGN DESIGNATION

A.A.D.T.	2021	=	7,600
A.A.D.T.	2045	=	8,200
D.H.V.		=	440
D.D.		=	64/36
T.		=	3.0%
DESIGN SPEED		=	35 MPH
ESALS		=	2,136,000

BEGIN PROJECT 2190-10-70 & 2190-10-71
STA 1+46.97
Y=299613.389
X=577718.256

STRUCTURE B-40-1033
STA 8+28.14 - STA 9+11.30

R-21-E



T-7-N

END PROJECT 2190-10-71
STA 11+44.89
Y=299639.123
X=578715.840

END PROJECT 2190-10-70
STA 12+41.00
Y=299641.601
X=578811.919

T-6-N

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE (2190-10-70)= 0.207 MI
TOTAL NET LENGTH OF CENTERLINE (2190-10-71) = 0.185 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, 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.

ACCEPTED FOR

CITY OF WAUWATOSA

Date 10/1/24 (Signature and Title of Official) CITY ENGINEER

ORIGINAL PLANS PREPARED BY

kapur

WISCONSIN
AARON J. BUBB
E-36994
FOX POINT, WI
PROFESSIONAL ENGINEER

DATE: 10/01/24 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	KAPUR & ASSOCIATES
Project Manager	MICHAEL BAIRD
Regional Examiner	
Regional Supervisor	AMY TAETSCH

APPROVED FOR THE DEPARTMENT

DATE: 10/8/2024 (Signature)

E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 10/2/2024 7:00 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

GENERAL NOTES

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

PRIVATE SPRINKLER SYSTEMS EXIST IN THE PROJECT AREA. CONSULT THE ENGINEER PRIOR TO DISTURBING ANY PRIVATE SPRINKLERS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXISTING UTILITIES ARE SHOWN FROM FIELD LOCATES AND AS-BUILT PLANS PROVIDED BY THE UTILITY. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH BACKFILL GRANULAR GRADE 1.

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

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE PLACED WITH 6-INCH TYPICAL DEPTH.
SEE BRIDGE PLAN FOR DEPTH OF TOPSOIL PLACED AT BRIDGE.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND ENGINEER IN THE FIELD.

ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED. SEWER MANHOLES, WATER MANHOLES, WATER VALVE BOXES, AND HYDRANTS WILL BE ADJUSTED AND PAID FOR AS NON-PARTICIPATING ITEMS.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER. BACKFILL EBS AREAS WITH GRANULAR BACKFILL GRADE 2.

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP OR EBS BACKFILL.

CONCRETE CURB AND GUTTER GRADES ARE TO THE FLANGE OF CURB AND GUTTER OR THE THEORETICAL FLANGE POINT OF INTEGRAL CURB AND GUTTER. DISTANCES SHOWN FOR CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE LINE OR THEORETICAL FLANGE LINE.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED BY THE ENGINEER AND REPLACED IN KIND UNLESS NOTED OTHERWISE.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL “IN USE” WILL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER ITEM “TRAFFIC CONTROL COVERING SIGNS TYPE II.”

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

CONTRACTOR SHALL CONTACT PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO CONDUCTING WORK NEAR ANY PUBLIC SURVEY MONUMENT

A SAWED JOINT IS REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

LOCATIONS OF SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

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

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

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS:

7.25-INCH HMA PAVEMENT
2" UPPER LAYER 4 MT 58-28 S
2.25" MIDDLE LAYER 3 MT 58-28 S
3" LOWER LAYER 3 MT 58-28 S

5-INCH HMA PAVEMENT
2" UPPER LAYER 4 MT 58-28 S
3" LOWER LAYER 3 MT 58-28 S

3-INCH HMA PAVEMENT
2" UPPER LAYER 4 MT 58-28 S
1" LEVELING LAYER 4 MT 58-28 S

STANDARD ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
BTWN	BETWEEN
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

2

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE
JAY BULANEK
435 S 95TH ST
MILWAUKEE, WI 53214
PHONE: (414) 491-2855
EMAIL: JB5175@ATT.COM

EVERSTREAM – COMMUNICATION LINE
JOE HINES
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (847) 525-3511
EMAIL: JHINES@EVERSTREAM.NET

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT – SEWER
MICHAEL LEE
260 W SEEBOTH STREET
MILWAUKEE, WI 53204
PHONE: (414) 225-2241
EMAIL: MLEE@MMSD.COM

SPECTRUM – COMMUNICATION LINE
BEAU ABUYA
1320 NORTH DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 908-1343
EMAIL: BEAU.ABUYA@CHARTER.COM

VERIZON BUSINESS – COMMUNICATION LINE
RJ CICATELLO JR.
15725 WEST RYERSON ROAD
NEW BERLIN, WI 53151
PHONE: (262) 782-9836
EMAIL: RANDY.CICATELLO@VERIZON.COM

WAUWATOSA, CITY OF – SEWER
NICK DEMING
7725 W NORTH AVENUE
WAUWATOSA, WI 53213
PHONE: (414) 479-3541
EMAIL: NDEMING@WAUWATOSA.NET

WAUWATOSA, CITY OF – WATER
ADAM FLORIN
7725 W NORTH AVENUE
WAUWATOSA, WI 53213
PHONE: (414) 831-0805
EMAIL: AFLORIN@WAUWATOSA.NET

WE ENERGIES – ELECTRIC
STEPHEN KOPP
W140 N9100 LILLY RD
MENOMONEE FALLS, WI 53051
PHONE: (262) 365-6441
EMAIL: STEPHEN.KOPP@WE-ENERGIES.COM

WE ENERGIES - ELECTRIC EMERGENCY
PHONE: (800) 662-4797

UTILITY CONTACTS (CONTINUED)

WE ENERGIES – GAS/PETROLEUM
JOE DABLE
500 S 116TH AVE
WEST ALLIS, WI 53214
PHONE: (414) 303-0310
EMAIL: JOE.DABLE@WE-ENERGIES.COM

WE ENERGIES - GAS EMERGENCY
PHONE: (800) 261-5325

STATE AGENCIES

WISCONSIN DNR
RYAN PAPPAS
1027 WEST ST. PAUL AVE
MILWAUKEE, WI 53233
PHONE: (414) 750-7495
EMAIL: RYAN.PAPPAS@WISCONSIN.GOV

WISDOT SE REGION – PROJECT MANAGER
MICHAEL BAIRD
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
PHONE: (262) 548-5918
EMAIL: MICHAEL.BAIRD@DOT.WI.GOV

OTHER CONTACTS

KAPUR & ASSOCIATES, INC.
AARON BUBB
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WI 53217
PHONE: (414) 751-7230
EMAIL: ABUBB@KAPURINC.COM

MILWAUKEE COUNTY PARKS
SARAH TOOMSEN
9480 W. WATERTOWN PLANK RD
WAUWATOSA, WI 53226
EMAIL: SARAH.TOOMSEN@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY PARKS – LIGHTING
TONY CRIVELLO
1150 N. 68TH ST
WAUWATOSA, WI 53213
PHONE: (414) 640-5195
EMAIL: TONY.CRIVELLO@MILWAUKEECOUNTYWI.GOV

FOR UTILITY LOCATES
EMAIL: PARKSHOTLINE@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY SHERIFF DEPARTMENT
COLIN BRIGGS
10320 WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 454-4084
EMAIL: COLIN.BRIGGS@MILWAUKEECOUNTYWI.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM
MELANIE FLYNN
1942 N. 17TH STREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1764
EMAIL: MFLYNN@MCTS.ORG

MILWAUKEE REGIONAL MEDICAL CENTER
SHERI SCHMIT
8700 W. WATERTOWN PLANK ROAD
WAUWATOSA, WI 53213
EMAIL: SSCHMIT@MRMCFFL.ORG

SEWRPC
ROB MERRY
W239 N1812 ROCKWOOD DRIVE
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
EMAIL: RMERRY@SEWRPC.ORG

WAUWATOSA, CITY OF – FIRE DEPARTMENT
JAMES CASE
1601 UNDERWOOD AVE
WAUWATOSA, WI 53213
PHONE: (414) 471-8490 EXT. 5407
EMAIL: JCASE@WAUWATOSA.NET

WAUWATOSA, CITY OF – FIBER COMMUNICATIONS
NICK DEMING
7725 W NORTH AVENUE
WAUWATOSA, WI 53213
PHONE: (414) 479-3541
EMAIL: NDEMING@WAUWATOSA.NET

WAUWATOSA, CITY OF – LIGHTING
RANDY MICHELZ
7725 W NORTH AVENUE
WAUWATOSA, WI 53213
PHONE: (414) 471-8429
EMAIL: RMICHELZ@WAUWATOSA.NET

OTHER CONTACTS (CONTINUED)

WAUWATOSA, CITY OF – POLICE DEPARTMENT
JAMES MACGILLIS
1700 N 116TH STREET
WAUWATOSA, WI 53226
PHONE: (414) 471-8430
EMAIL: JMACGILLIS@WAUWATOSA.NET

WAUWATOSA, CITY OF – SIGNALS
MICHAEL MAY
7725 W NORTH AVENUE
WAUWATOSA, WI 53213
PHONE: (414) 479-8930
EMAIL: MMAY@WAUWATOSA.NET

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
CURB RAMP DETAILS
PAVING GRADES
CONTOUR PLAN
EROSION CONTROL PLAN
STORM SEWER PLANS
WATERMAIN PLAN
SIGNING PLAN
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
PAVEMENT MARKING PLAN
TRAFFIC CONTROL PLAN
DETOUR PLAN
ALIGNMENT PLAN

2

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

2

N

END CONSTRUCTION
STA 27+50.00

BEGIN PROJECT 2190-10-70 & 2190-10-71
STA 1+46.97

BEGIN CONSTRUCTION
STA 22+90.00

END PROJECT 2190-10-71
STA 11+44.89

END PROJECT 2190-10-70
STA 12+41.00

GLENVIEW AVE

HONEY CREEK

N HONEY CREEK PKWY

W WISCONSIN AVE

R/L HONEY CREEK

R/L N HONEY CREEK PKWY

R/L W WISCONSIN AVE

SLOPE INTERCEPT (TYP)

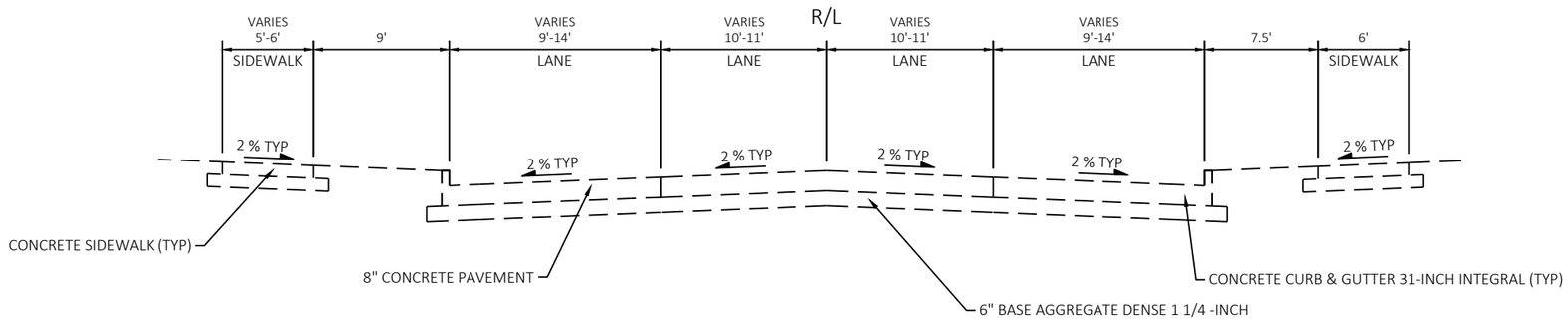
EXISTING R/W (TYP)

B-40-1033

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4 E

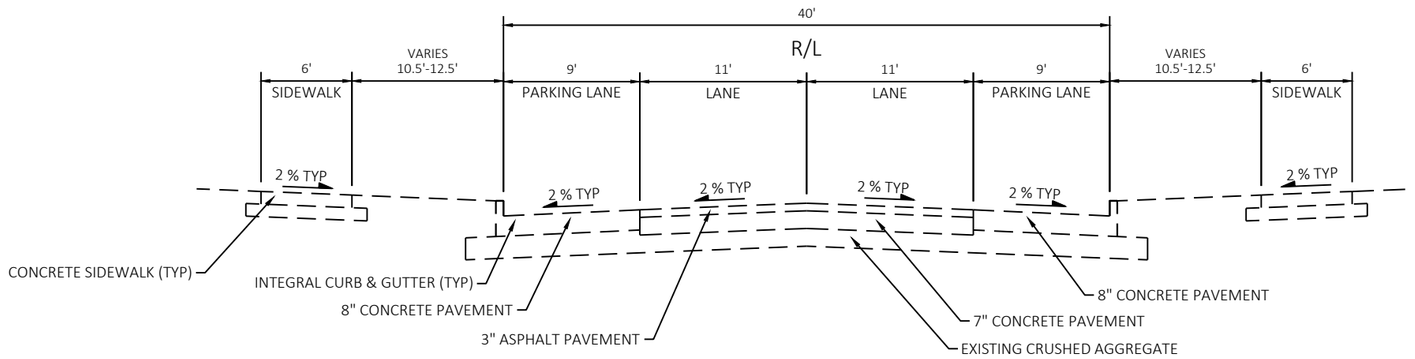
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LAYOUT NAME - 020201-PO
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WISDOT/CADDS SHEET 42

2



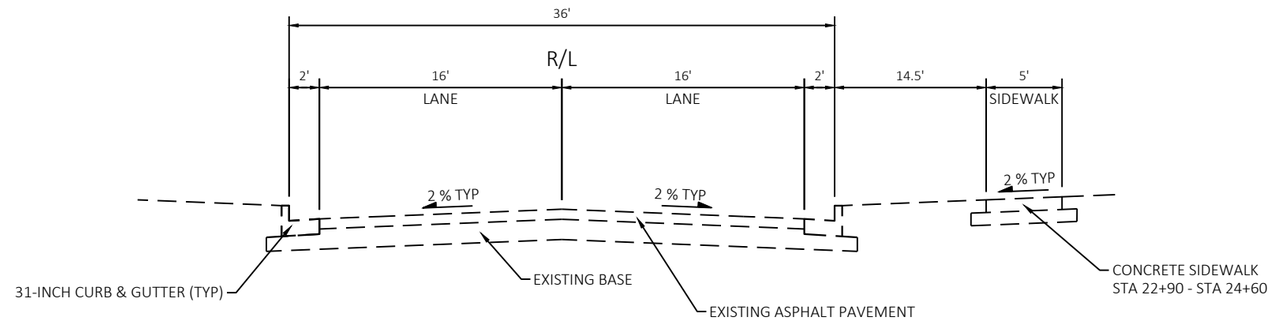
EXISTING TYPICAL SECTION W WISCONSIN AVENUE

STA 1+50 - STA 3+31



EXISTING TYPICAL SECTION W WISCONSIN AVENUE

STA 3+31 - STA 12+41

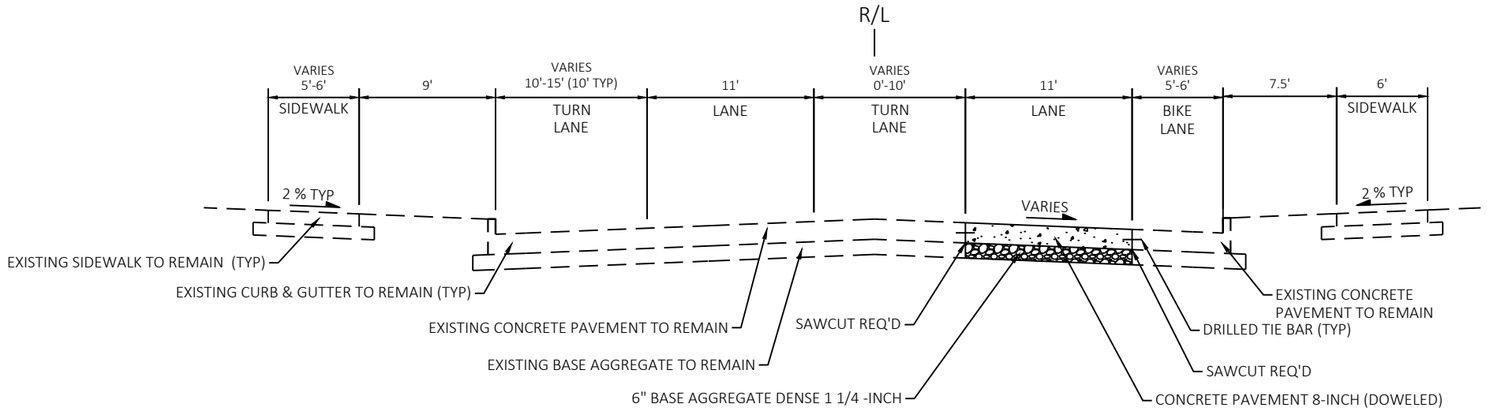


EXISTING TYPICAL SECTION N HONEY CREEK PARKWAY

STA 22+90 - STA 27+50

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	EXISTING TYPICAL SECTION	SHEET 5	E

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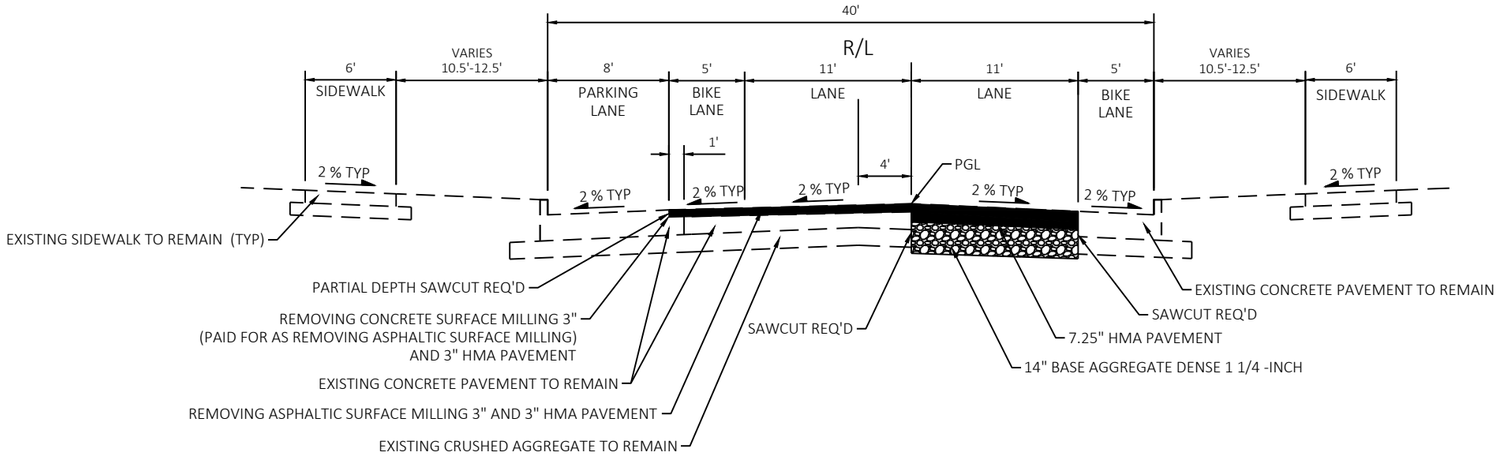


PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 1+50 - STA 3+31

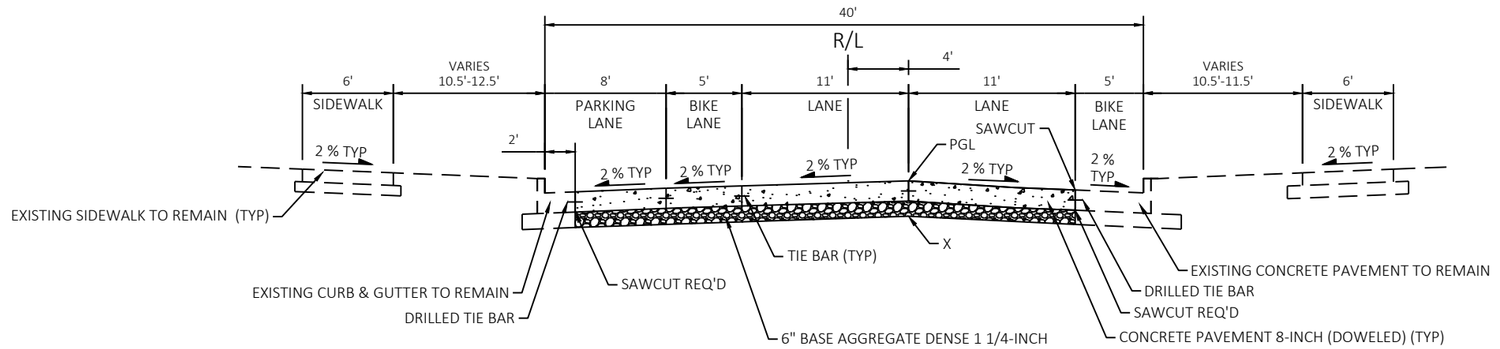
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2



PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 3+31 - STA 6+09



PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 6+09 - STA 6+44

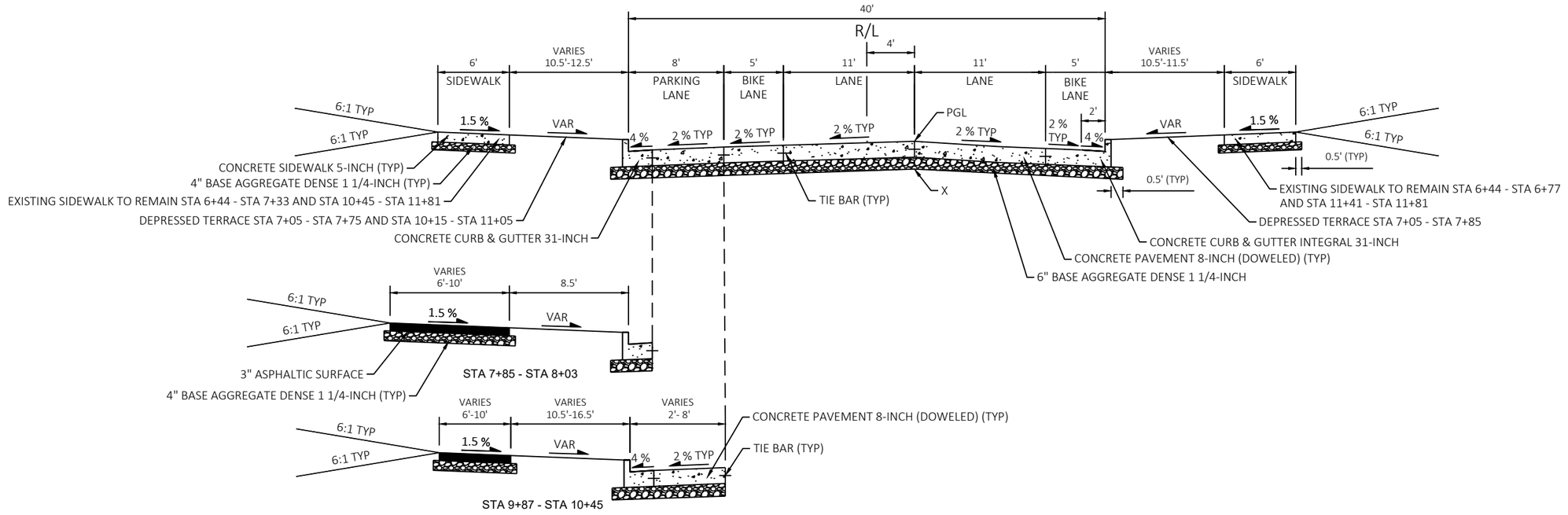
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PGL = POINT REFERENCED ON PROFILE

X= POINT REFERENCED ON CROSS SECTION

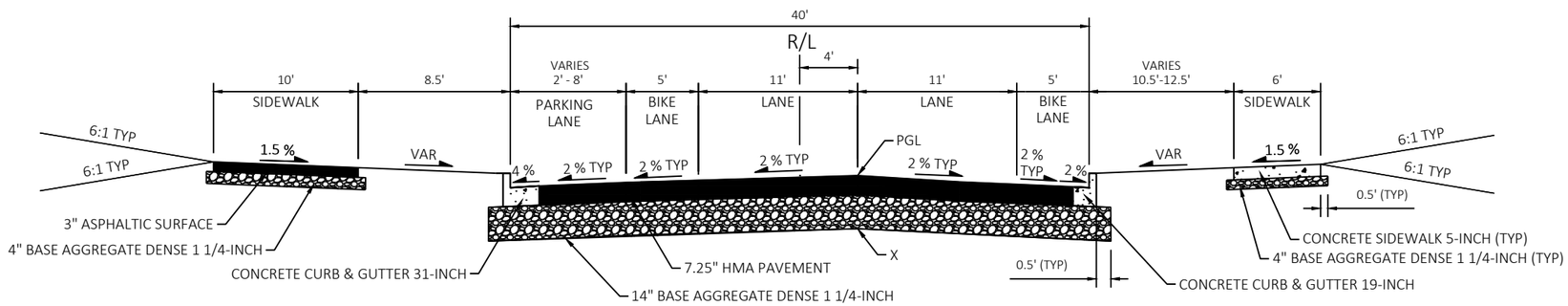
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2



PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 6+44 - STA 8+03
STA 9+87 - STA 11+81



PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 8+03 - STA 8+28
STA 9+11 - STA 9+87

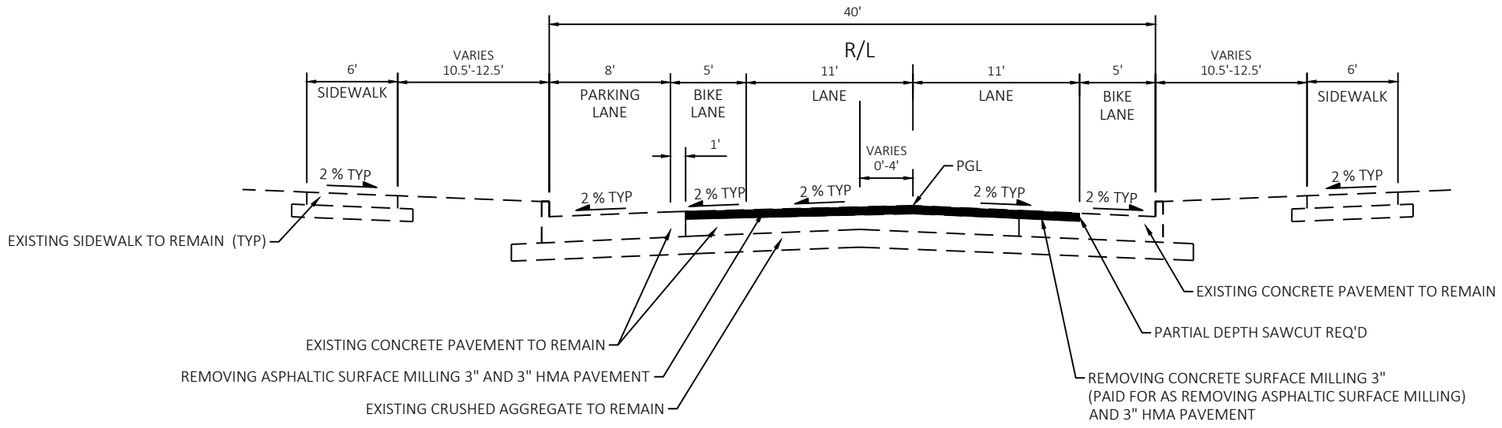
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PGL = POINT REFERENCED ON PROFILE

X= POINT REFERENCED ON CROSS SECTION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTIONS	SHEET 8	E

2



PROPOSED TYPICAL SECTION W WISCONSIN AVENUE

STA 11+81 - STA 12+41

LEGEND:

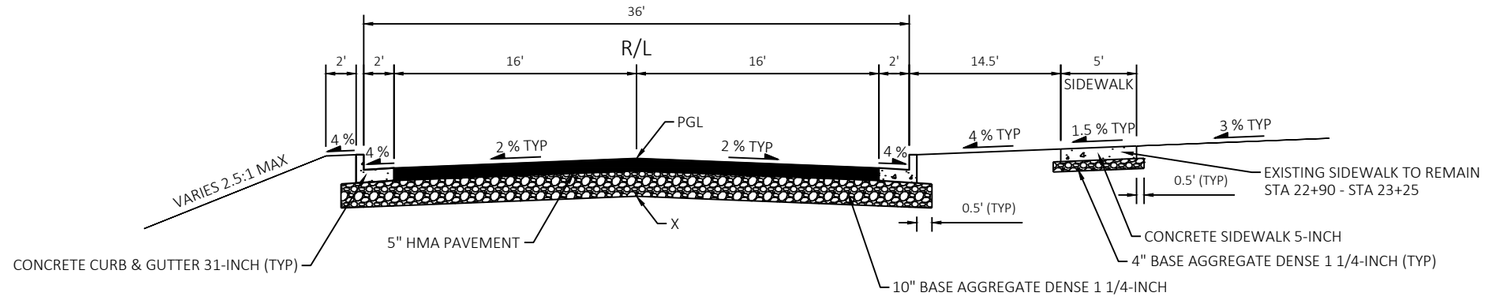
PGL = POINT REFERENCED ON PROFILE

X= POINT REFERENCED ON CROSS SECTION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTIONS	SHEET 9	E

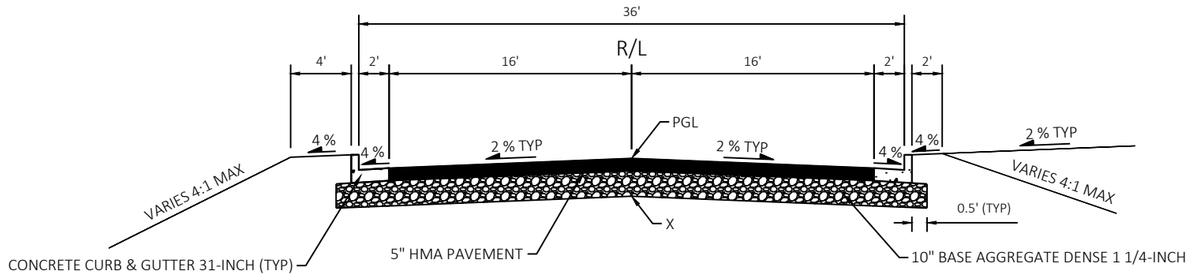
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LAYOUT NAME - 05
PLOT DATE : 12/18/2024 4:35 PM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



PROPOSED TYPICAL SECTION N HONEY CREEK PARKWAY

STA 22+90 - STA 24+59



PROPOSED TYPICAL SECTION N HONEY CREEK PARKWAY

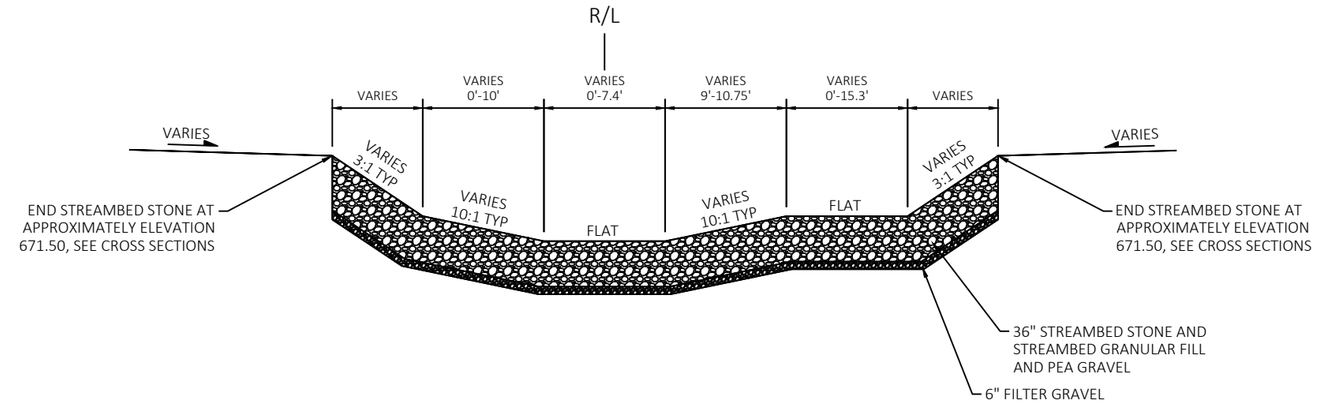
STA 25+38 - STA 27+50

LEGEND:

PGL = POINT REFERENCED ON PROFILE

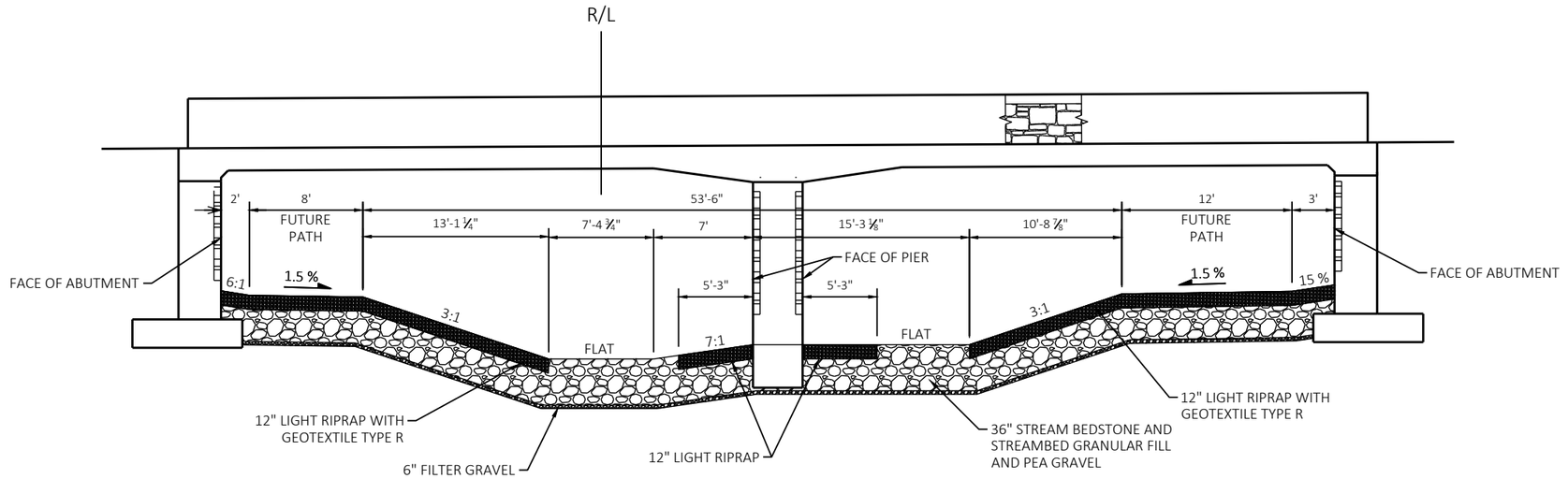
X= POINT REFERENCED ON CROSS SECTION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTIONS	SHEET 10	E



PROPOSED TYPICAL SECTION HONEY CREEK

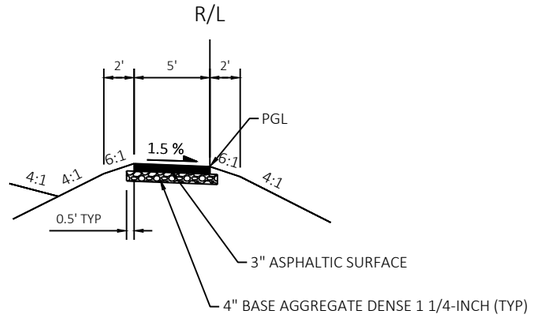
STREAM REALIGNMENT
STA 136+19 - STA 137+50
STA 138+75 - STA 139+81



NOTE:
REPLACE TOP 12" OF STREAMBED STONE WITH RIPRAP WHERE SHOWN

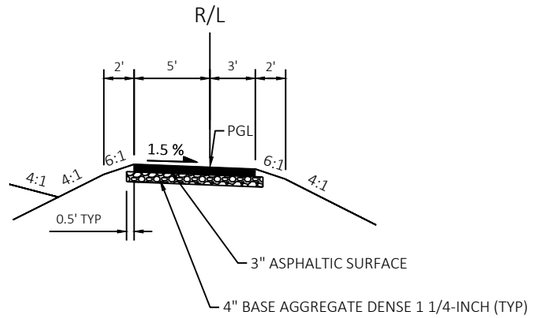
PROPOSED TYPICAL SECTION HONEY CREEK

STA 137+50 - STA 138+75



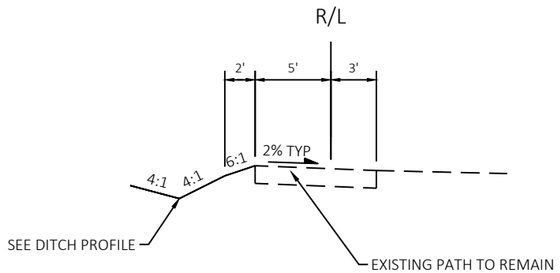
PROPOSED TYPICAL SECTION PATH SOUTH

STA 57+87.02 - STA 59+00.00



PROPOSED TYPICAL SECTION PATH NORTH

STA 61+00.00 - STA 62+73.93



PROPOSED TYPICAL SECTION PATH NORTH

STA 62+73.93 - STA 63+51.60

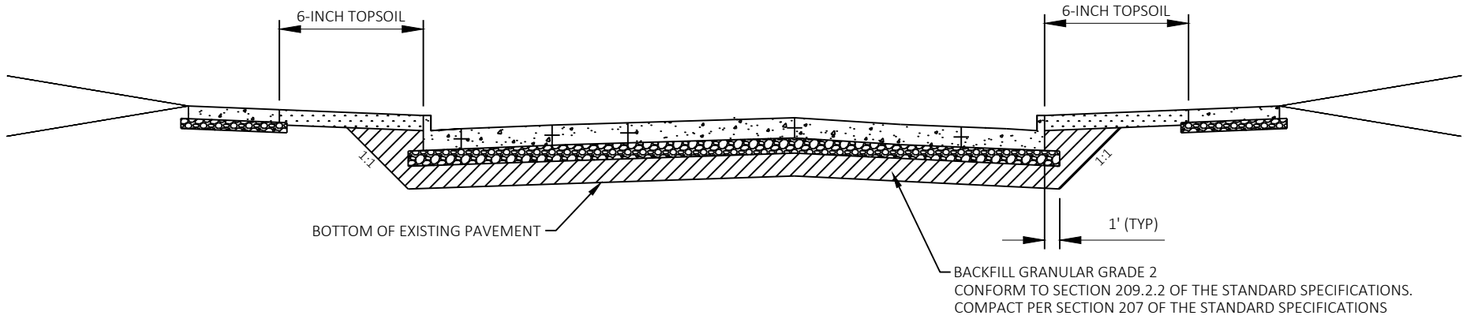
LEGEND:

PGL = POINT REFERENCED ON PROFILE

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PROPOSED TYPICAL SECTIONS	SHEET 12	E

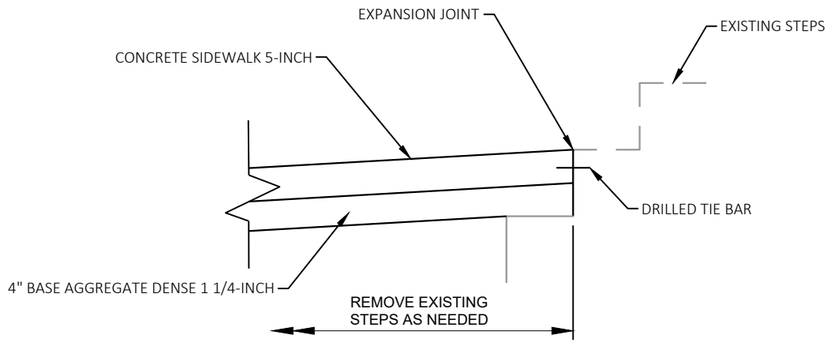
NOTE:

1) FOR STATION RANGE STA 8+16 TO STA 9+22 ON W. WISCONSIN AVE, SEE BACKFILL DETAIL ON THE GENERAL NOTES AND QUANTITIES SHEET OF B-40-1033 STRUCTURE PLANS FOR STRUCTURE BACKFILL LIMITS.



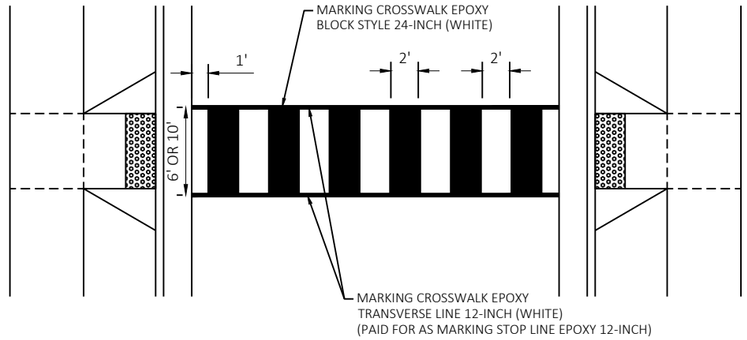
ROADWAY FILL DETAIL

STA 6+09 TO STA 11+81 W. WISCONSIN AVE (SEE NOTE 1)
STA 22+90 TO STA 27+50 N. HONEY CREEK PARKWAY



SIDEWALK TIE-IN TO EXISTING STEPS

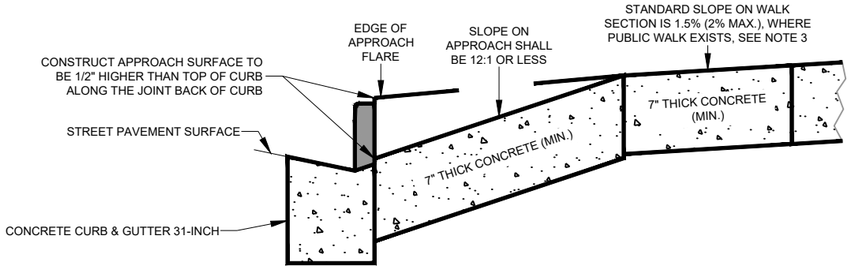
STA 10+76 RT
STA 23+91 RT



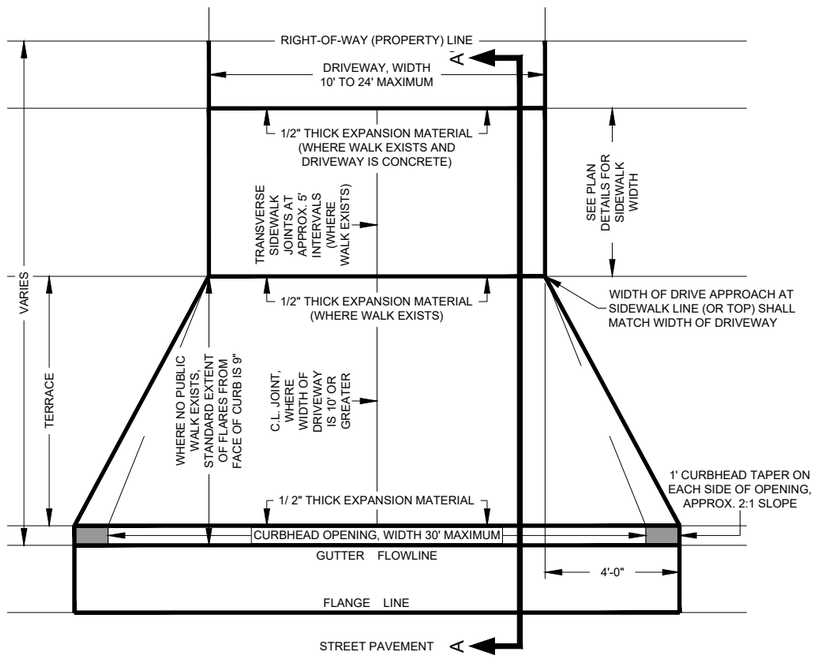
BLOCK STYLE CROSSWALK PAVEMENT MARKING DETAIL

SEE PAVEMENT MARKING PLAN FOR LOCATIONS AND MARKING TYPES

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 13	E

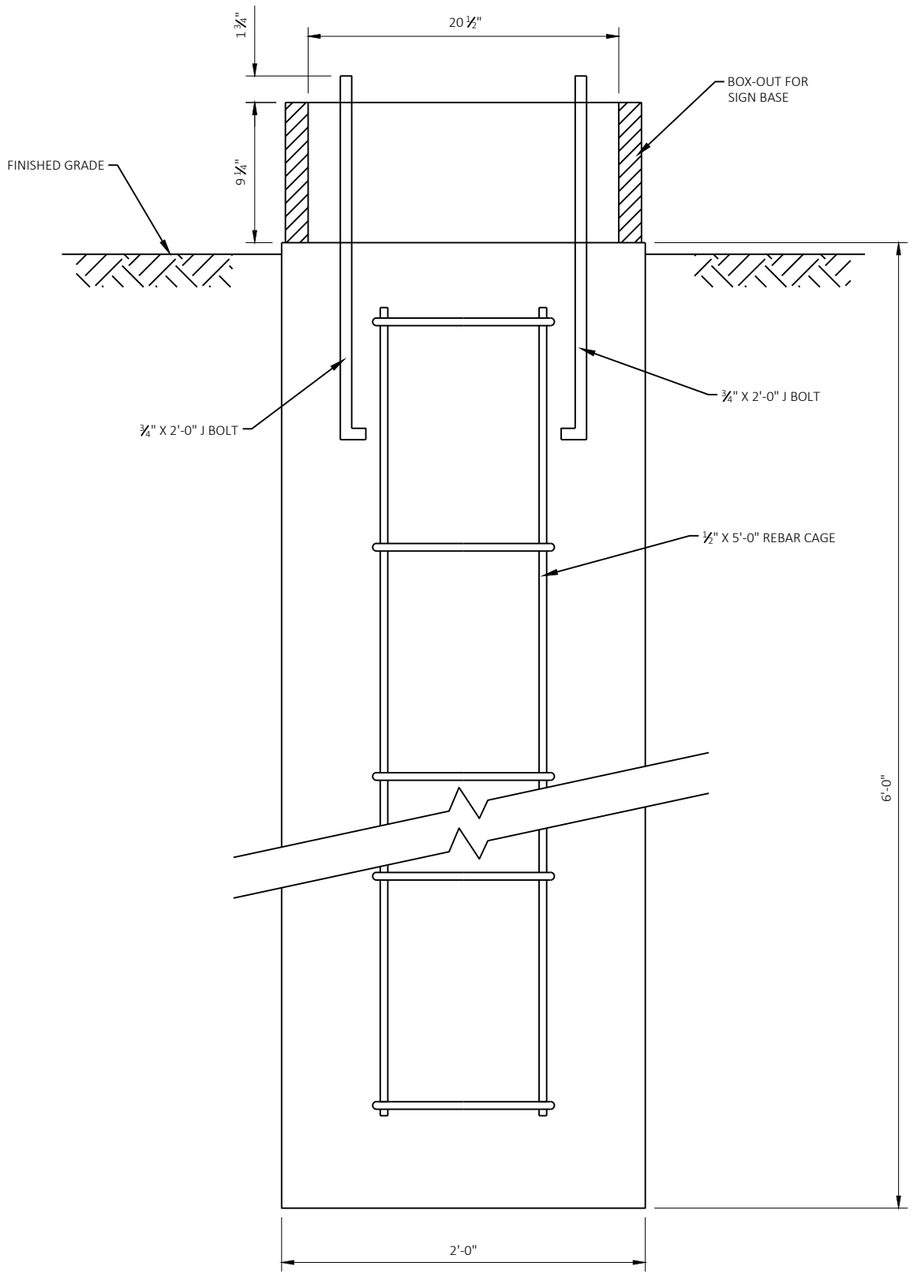


SECTION A - A'
(VERTICAL DIMENSION EXAGGERATED FOR CLARITY)

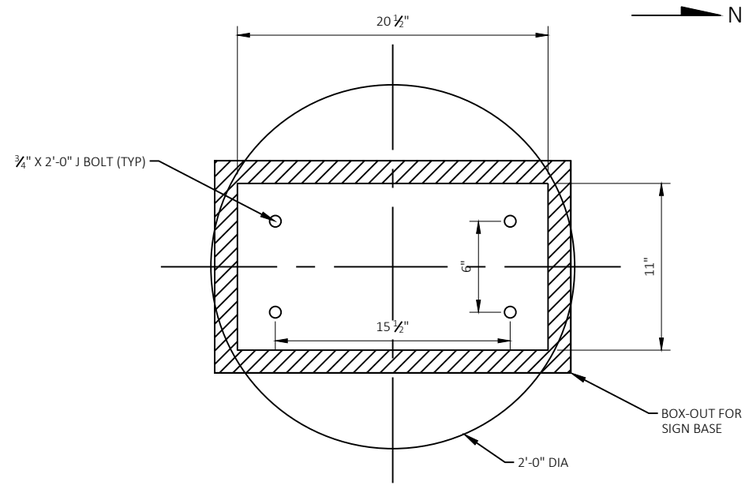


PLAN VIEW
NOT TO SCALE

CITY OF WAUWATOSA DRIVE APPROACH DETAIL



ELEVATION VIEW - LOOKING EAST



PLAN VIEW

CONCRETE BASE SPECIAL

HONEY CREEK PARKWAY SIGN
NTS

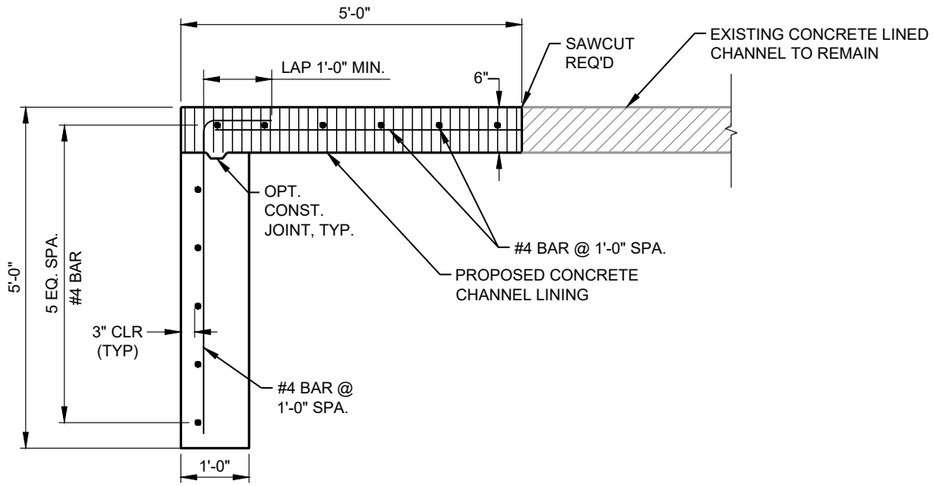
2

NOTES

1) CUTOFF WALL SHALL BE UNFORMED BELOW GRADE, POURED AGAINST UNDISTURBED SOIL.

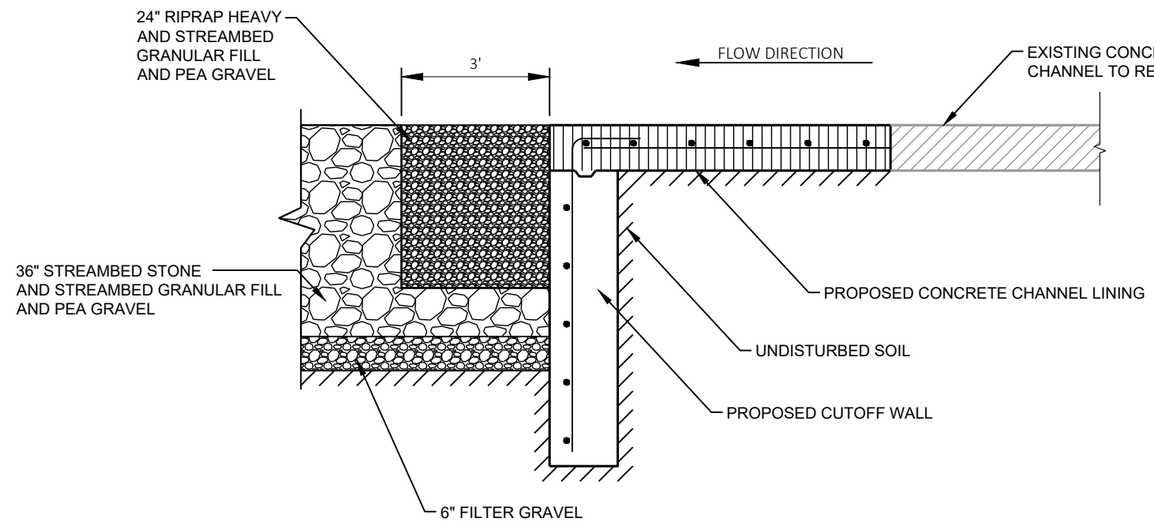
2) CONCRETE IN CUTOFF WALL MAY BE PLACED UNDERWATER IF EXCAVATION CANNOT BE DEWATERED.

3) MATCH WIDTH OF EXISTING CONCRETE CHANNEL.



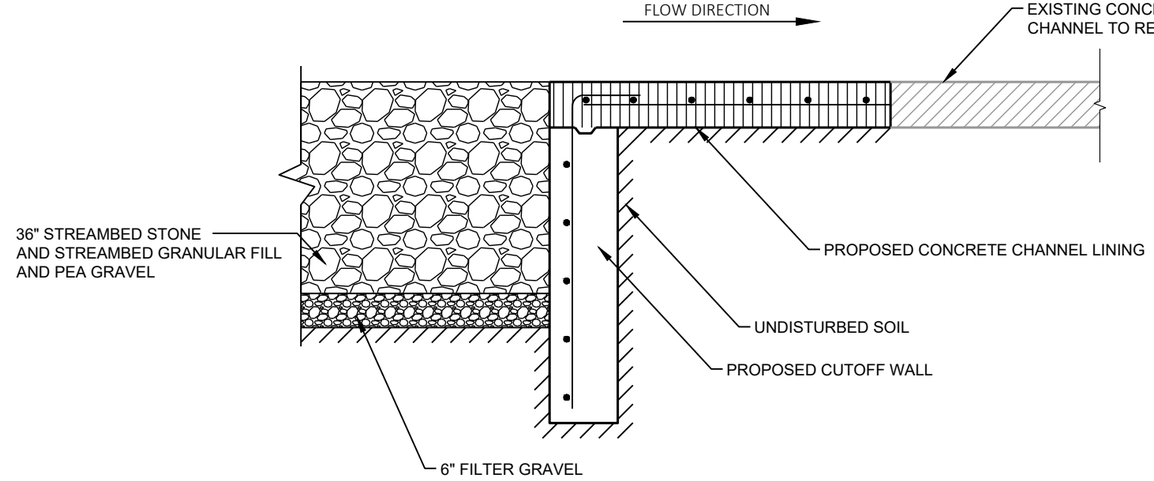
REINFORCED CONCRETE CUTOFF WALL AND CONCRETE CHANNEL LINING AT EXISTING CHANNEL DETAIL

N.T.S.
STA 136+18.60 (LOOKING EAST)
STA 139+81.05 (LOOKING WEST)



RIPRAP AT CUTOFF WALL 136+18.60 (LOOKING EAST)

N.T.S.



CHANNEL AT CUTOFF WALL 139+81.05 (LOOKING WEST)

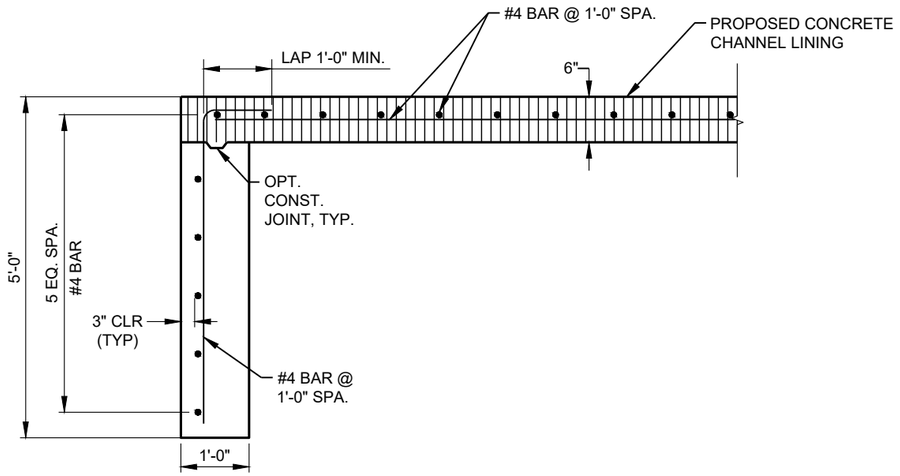
N.T.S.

NOTES

1) CUTOFF WALL SHALL BE UNFORMED BELOW GRADE, POURED AGAINST UNDISTURBED SOIL.

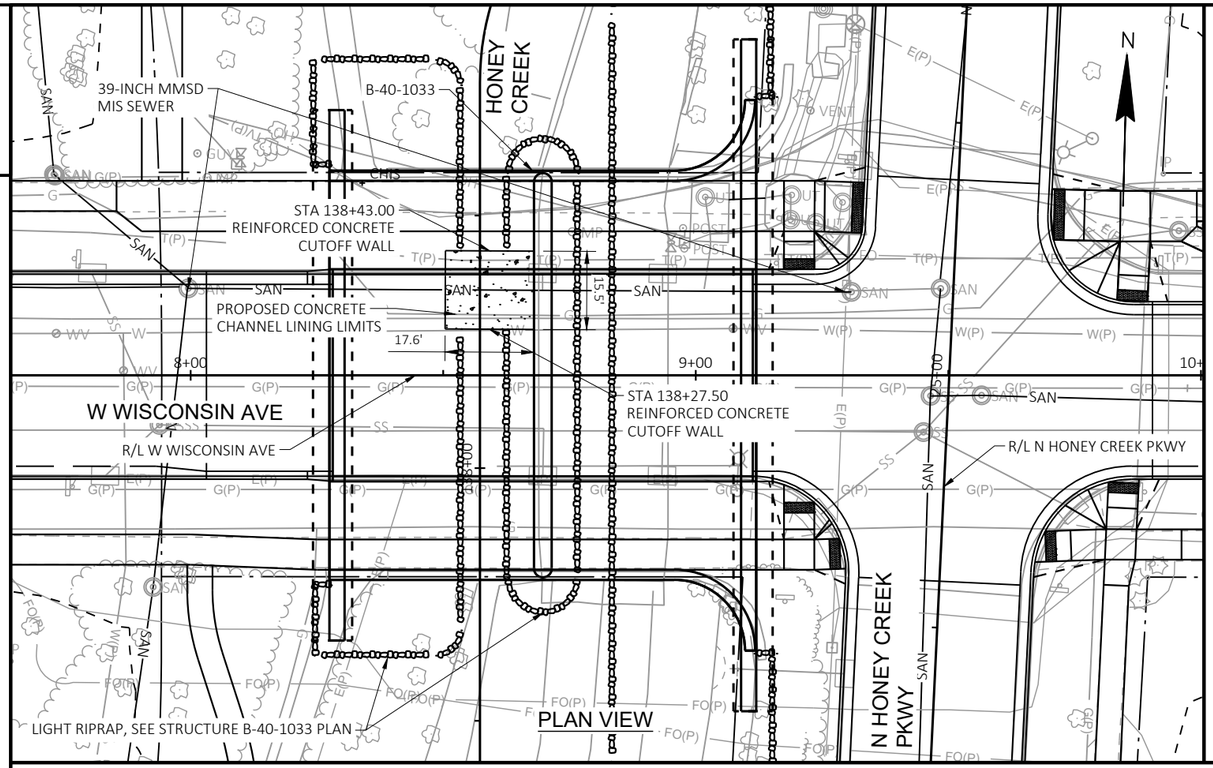
2) CONCRETE IN CUTOFF WALL MAY BE PLACED UNDERWATER IF EXCAVATION CANNOT BE DEWATERED.

3) SEE NEXT SHEET FOR ADDITIONAL DETAILS.

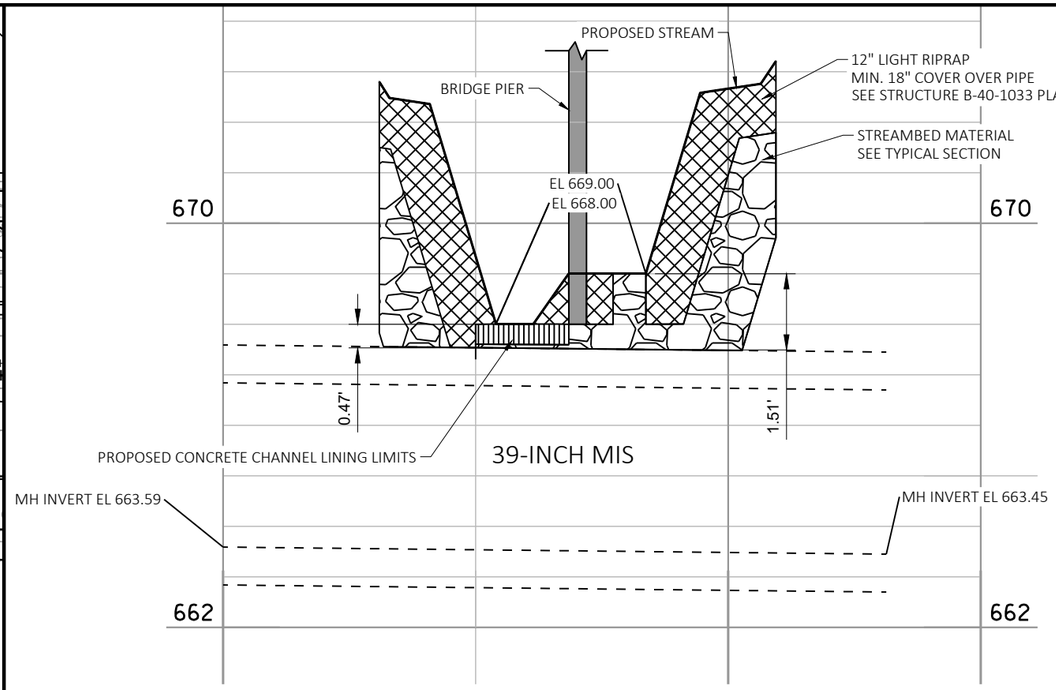


REINFORCED CONCRETE CUTOFF WALL AND CONCRETE CHANNEL LINING AT MMSD PIPE DETAIL

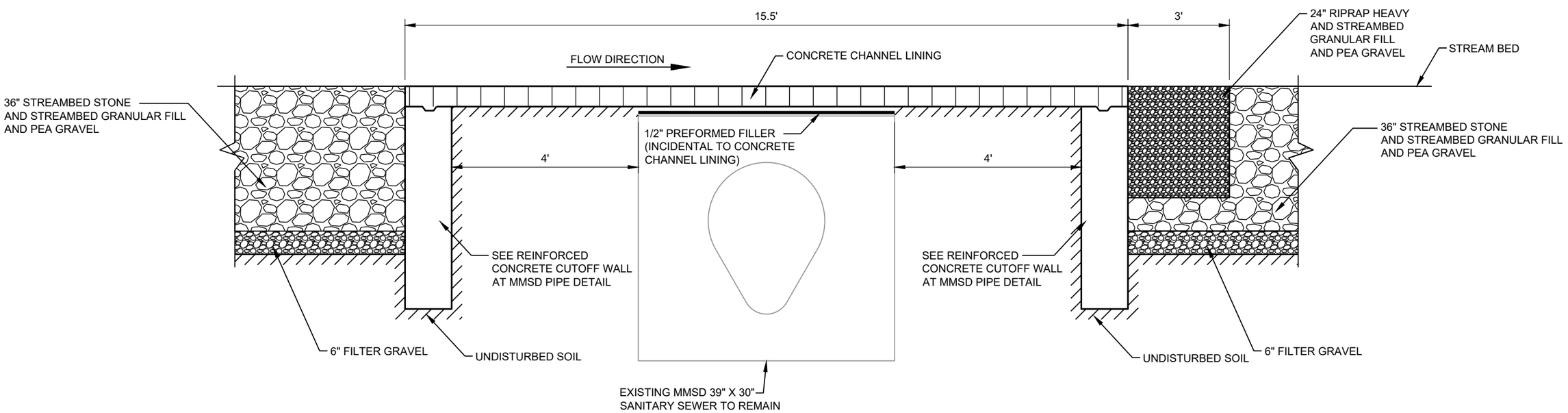
N.T.S.
STA 138+27.50 (LOOKING WEST)
STA 138+43.00 (LOOKING EAST)



PLAN VIEW



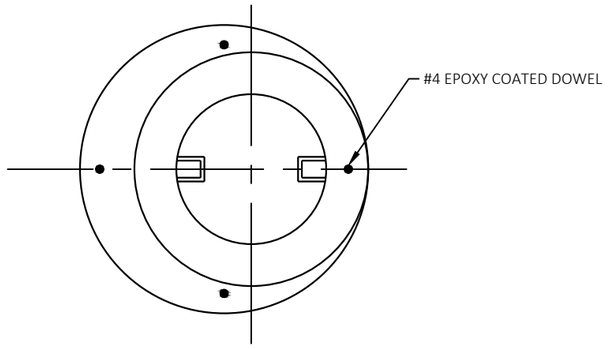
PROFILE VIEW
(LOOKING NORTH)



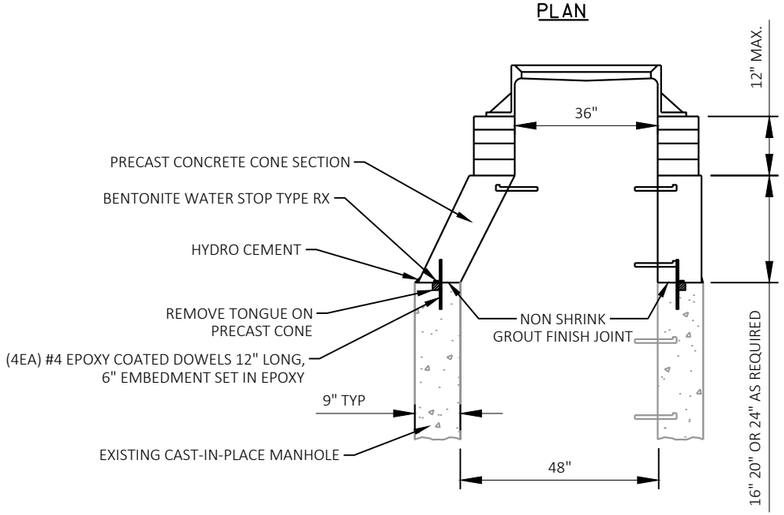
SECTION VIEW
N.T.S.
(LOOKING WEST)

MMSD MIS PROTECTION DETAIL

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 18	E



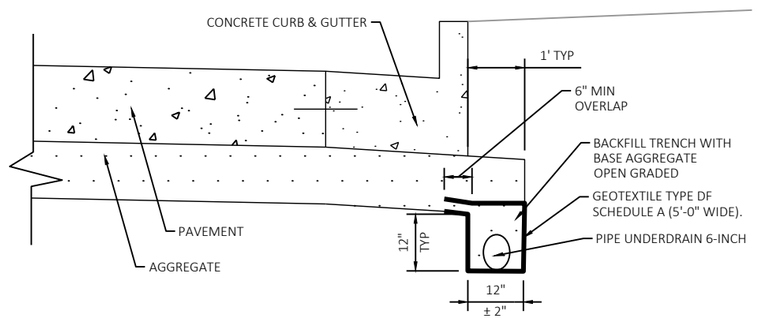
PLAN



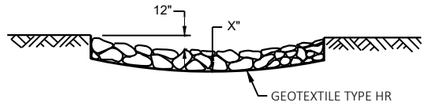
RECONSTRUCT MMSD MANHOLE

NOTE

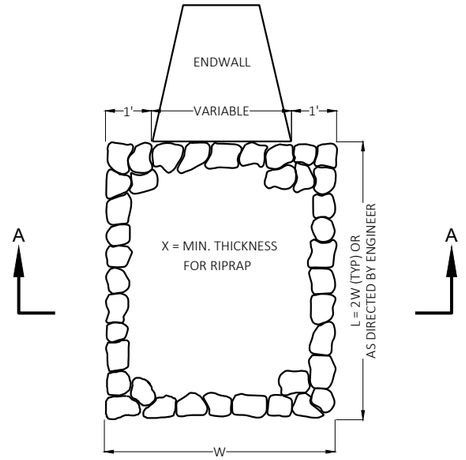
1) INSTALL UNDERDRAIN 50 FEET UPSTREAM OF INLETS/CATCH BASINS AT LOWPOINTS INLETS/CATCH BASINS 13, 14, 15, 18, 19, 39, 46, 47, 48, 49, & 51.



PIPE UNDERDRAIN TRENCH DETAIL



SECTION A-A



X = 18" MIN FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

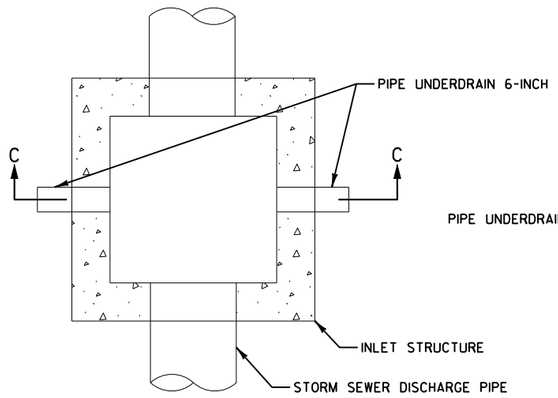
RIPRAP TREATMENT AT CULVERTS

NOTES

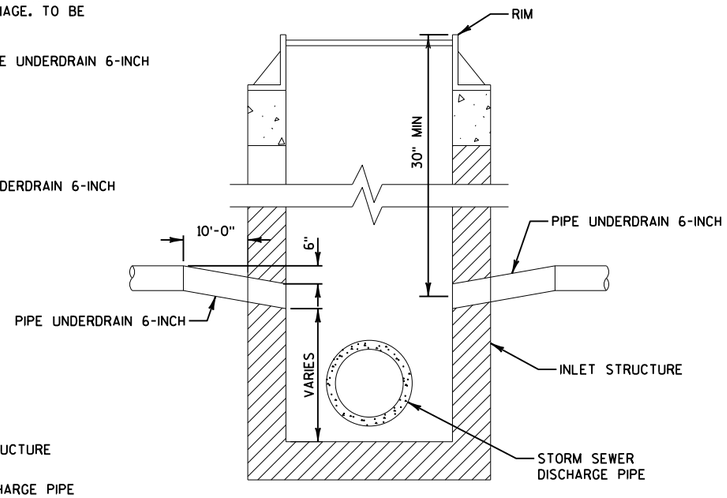
1) PROVIDE 6-INCH DIAMETER OPENINGS AS NEEDED FOR PIPE UNDERDRAIN A MINIMUM OF 30-INCH BELOW THE RIM ELEVATION.

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

3) CONNECTION TO INLET IS INCIDENTAL TO THE PIPE UNDERDRAIN 6-INCH BID ITEM.

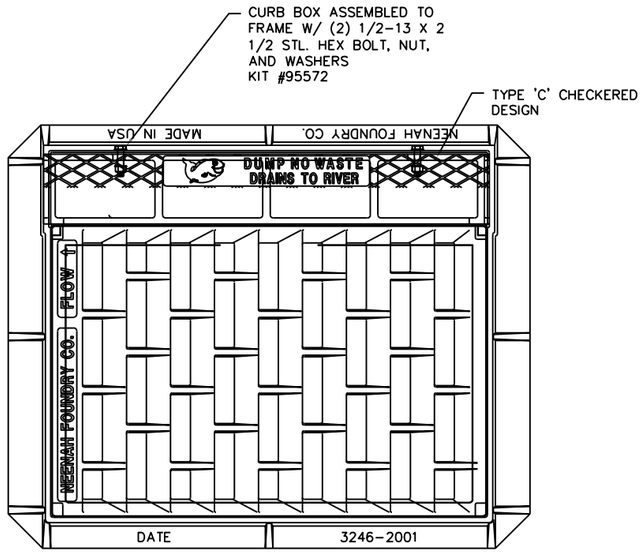


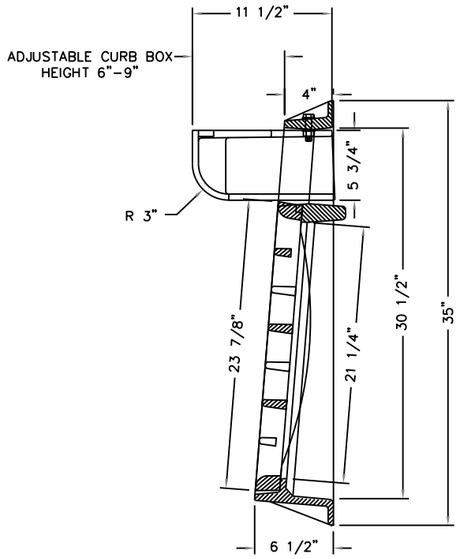
PLAN VIEW

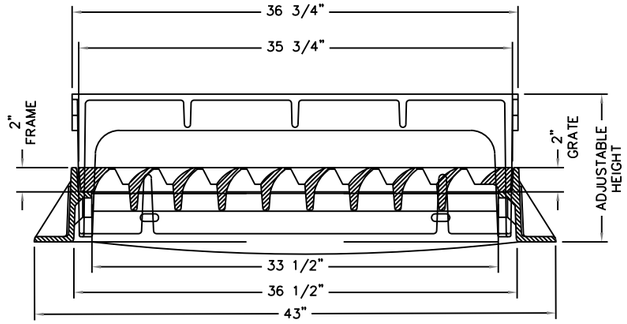


SECTION C-C

UNDERDRAIN OUTFALL AT INLET

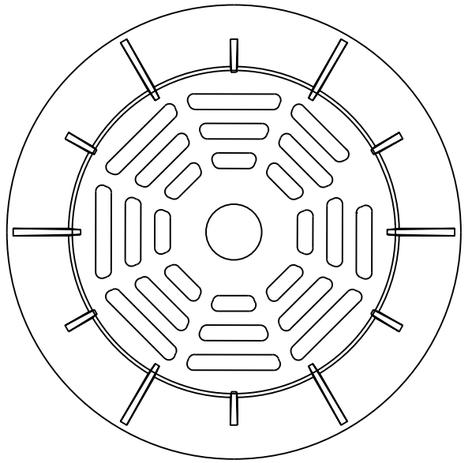


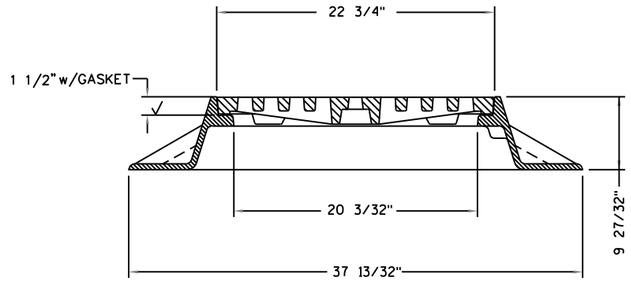




INLET COVER R-3246-AL DETAIL

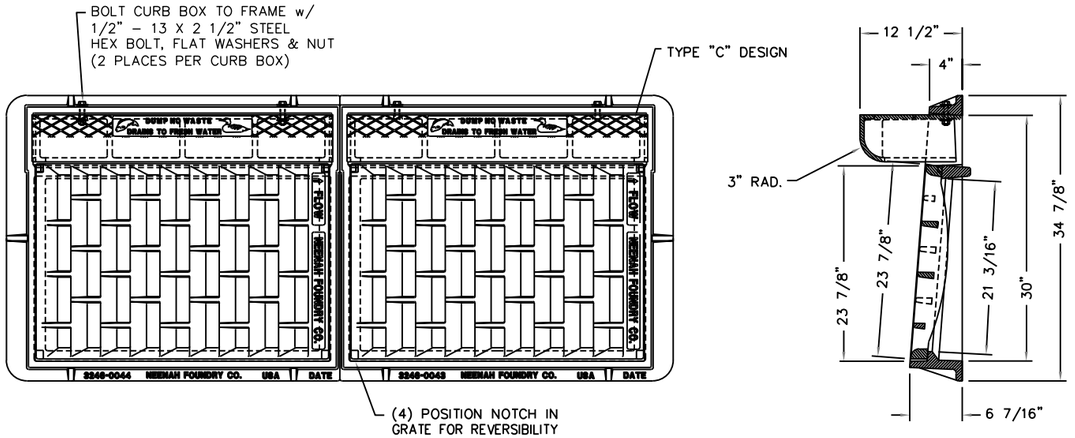
N.T.S.





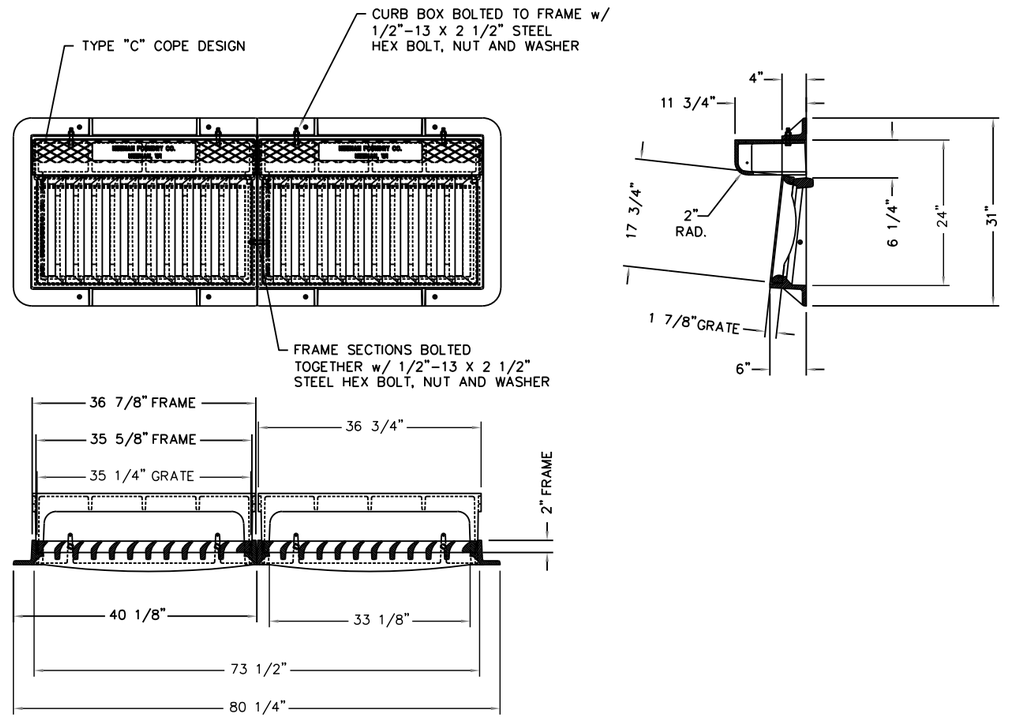
MANHOLE COVER R-1661-B DETAIL

NEENAH R-1661-B FRAME AND R-2471-D OPEN GRATE
N.T.S.



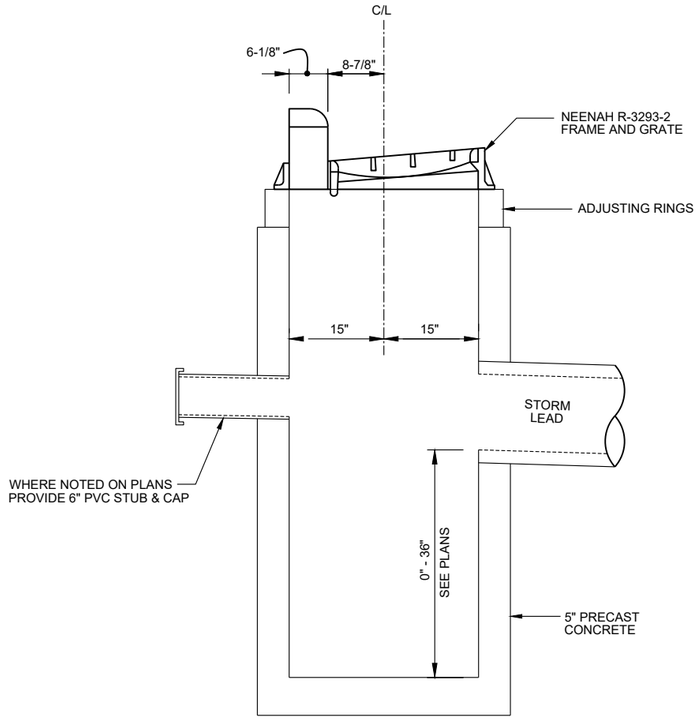
INLET COVER R-3293-2 DETAIL

N.T.S.



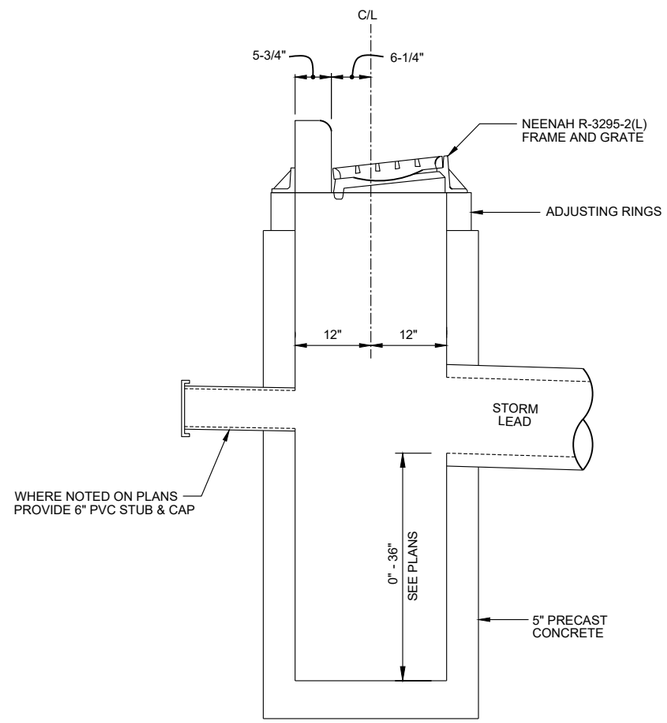
INLET COVER R-3295-2(L) DETAIL

N.T.S.



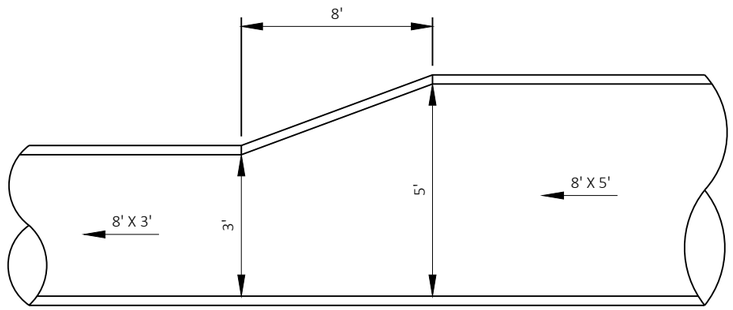
30" X 72" STORM SEWER CATCH BASIN

N.T.S.



24" X 72" STORM SEWER CATCH BASIN

N.T.S.

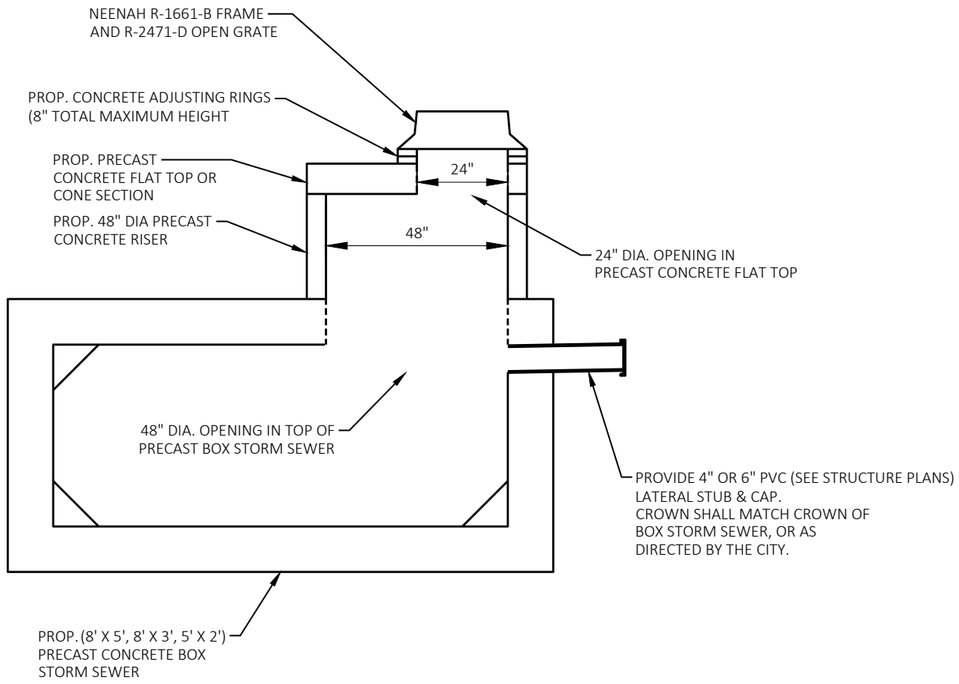


STORM SEWER BOX PIPE TRANSITION FROM 5' HEIGHT TO 3' HEIGHT

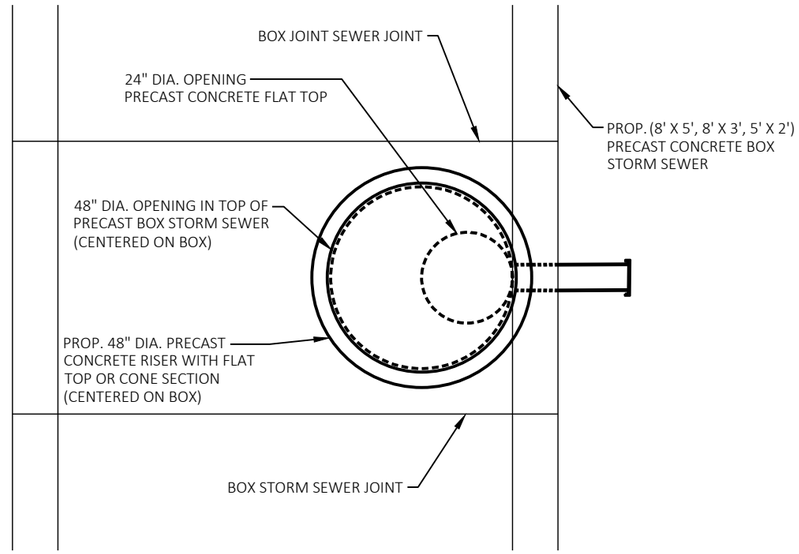
NOT TO SCALE

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 22	E

2



SECTION VIEW



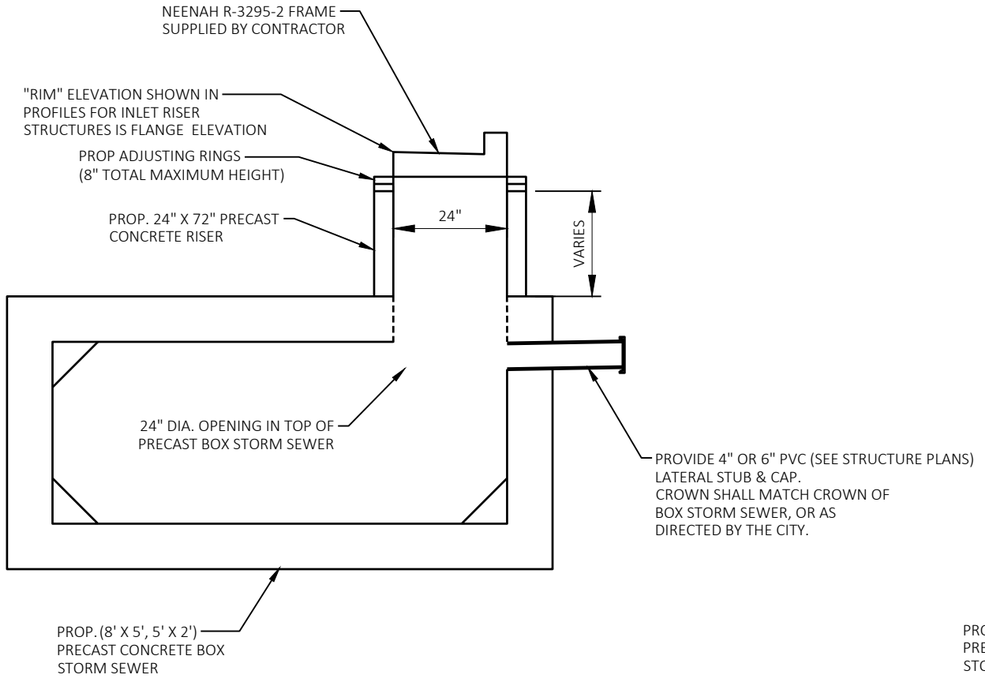
PLAN VIEW

MANHOLE 4-FT RISER DETAIL

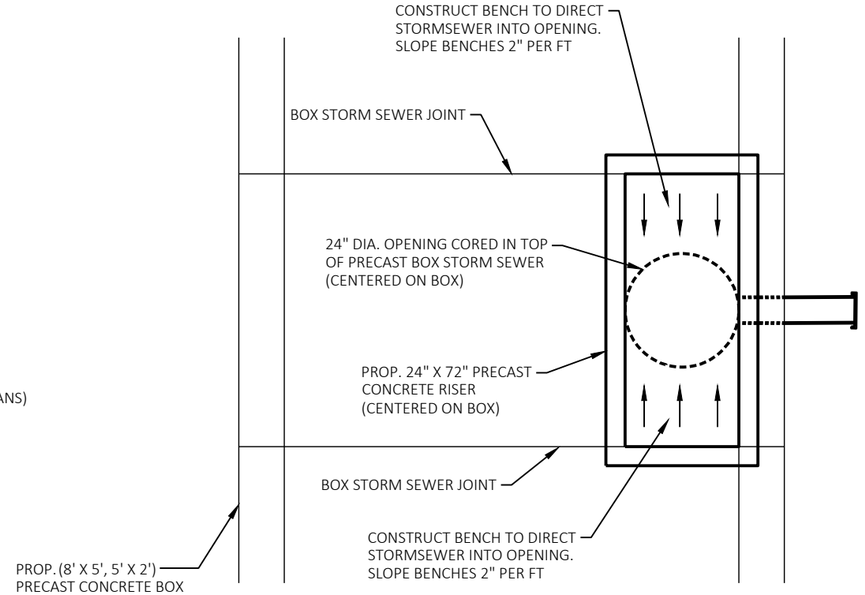
N.T.S.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 23	E

2



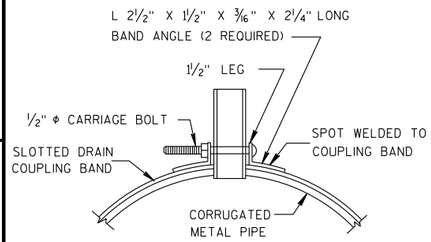
SECTION VIEW



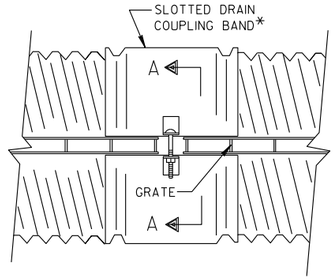
PLAN VIEW

24" X 72" RISER INLET DETAIL

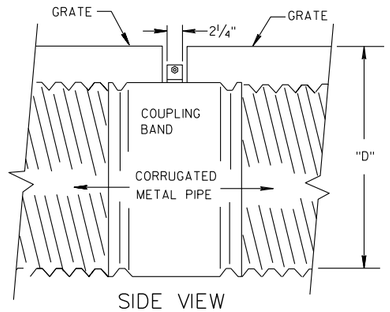
N.T.S.



SECTION A–A



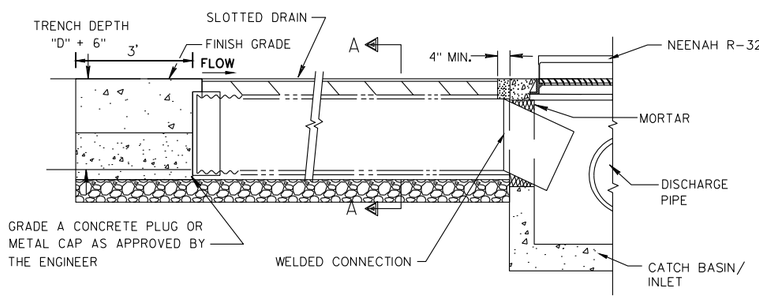
PLAN VIEW



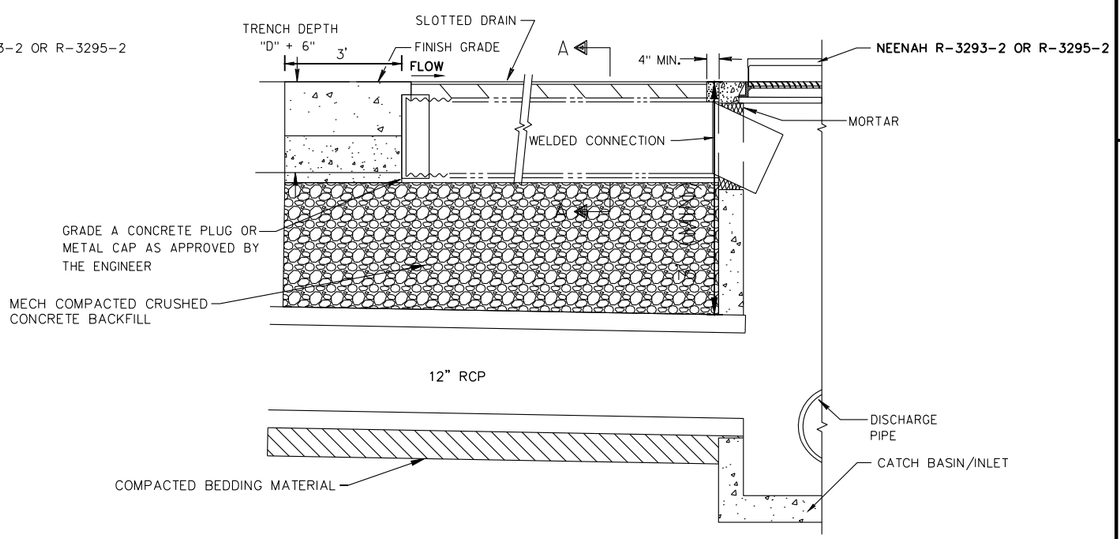
SIDE VIEW

*TYPICAL COUPLING BAND
FOR SLOTTED DRAIN

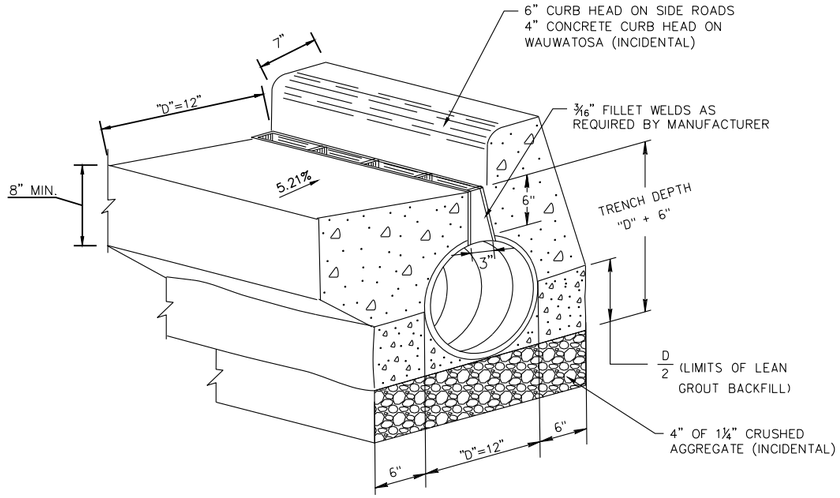
(ALTERNATIVES PERMITTED AS APPROVED BY THE ENGINEER)



1. CMP SLOTTED DRAIN CONNECTION TO CATCH BASIN/INLET



2. CMP SLOTTED DRAIN CONNECTION TO CATCH BASIN/INLET, INSTALLED OVER PROPOSED STORM SEWER.



SECTION A–A

SLOTTED DRAIN INSTALLATION IN FLOW LINE OF CURB & GUTTER "CG4" ON ROADWAY PLANS

GENERAL NOTES

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

BACKFILL MATERIAL

THE LEAN GROUT BACKFILL MATERIAL SHALL BE A FINE AGGREGATE, IN ACCORDANCE WITH SUBSECTION 501.2.5 AND 501.3.6 OF THE STANDARD SPECIFICATIONS MIXED WITH 150 POUNDS OF CEMENT AND APPROXIMATELY 30 GALLONS OF WATER FOR EACH 3000 POUNDS OF FINE AGGREGATE.

THE PIPE FOR THE SLOTTED DRAIN SHALL MEET AASHTO DESIGNATION M–36, AND THE GRATE ASSEMBLIES SHALL BE MADE FROM STRUCTURAL STEEL SUITABLY WELDED TO FORM THE OPEN SLOT AND HOT–DIP GALVANIZED TO MEET THE PROVISIONS OF AASHTO DESIGNATION M–111.

NORMAL PIPE SIZES ARE 12–INCH THROUGH 24–INCH DIAMETER IN 0.064 INCH THICKNESS, AND 30–INCH DIAMETER PIPE IN 0.079 INCH THICKNESS.

NOTE:
TO PREVENT "FLOATING" OF THE SLOTTED DRAIN DURING BACKFILL OPERATIONS PROVIDE ADEQUATE WEDGES, OR POUR THE LEAN GROUT ON TOP OF THE PLUGGED SLOT ALLOWING IT TO SLOUGH TO THE SIDES OF THE PIPE. THIS WILL PROVIDE ENOUGH WEIGHT ON TOP TO KEEP THE PIPE FROM FLOATING.

NOTE:
FOR SCREEDING DIRECTLY OVER THE SLOTTED DRAIN WITH ASPHALT PAVER, FOR CONCRETE SURFACE USE 3" WIDE TAPE OVER THE SLOT TO KEEP MATERIAL OUT OF THE PIPE.

NOTE:
THAT THE SLOTTED DRAIN MUST FALL IN THE FLOW LINE OF THE CURB AND GUTTER. HOLES WHERE ENTERING STRUCTURES MAY NEED TO BE OFFSET TO ACCOMMODATE THE SLOTTED DRAIN LOCATION.

SLOTTED CORRUGATED METAL DRAINS (CMP)

N.T.S.

NOTE:

1) THE END OF THIS ENDWALL IS BELOW EL 671.50. ALL AREA BELOW THAT ELEVATION IS COVERED WITH STREAMBED MATERIAL.

R/L N HONEY CREEK PATH (NORTH)

SLOPE INTERCEPT (TYP)

R/L HONEY CREEK

HONEY CREEK

B-40-1033

61+50

139+00

139+50

138+50

138+00

8+00

56

55

35

15

14

14A

15A

19

39

37

34" x 53"

42"

24"

12"

30"

47"

NOTES:

1) THE RIPRAP AT THESE ENDWALLS STOPS AT EL 671.50, BELOW WHICH IS STREAMBED MATERIAL.

2) PLACE RIPRAP HEAVY AT 24" DEPTH OVER GEOTEXTILE TYPE HR.

R/L HONEY CREEK

RIPRAP HEAVY

7.52'

15.27'

74

63

62B

62

62A

STORM SEWER BOX PIPE 8X3-FT

STORM SEWER BOX PIPE 8X5-FT

N HONEY CREEK PKWY

W WISCONSIN AVE

R/L W WISCONSIN AVE

EXISTING R/W

SLOPE INTERCEPT (TYP)

42

73

72

58

58A

21

18"

24"

30"

26+50

26+00

25+50

25+00

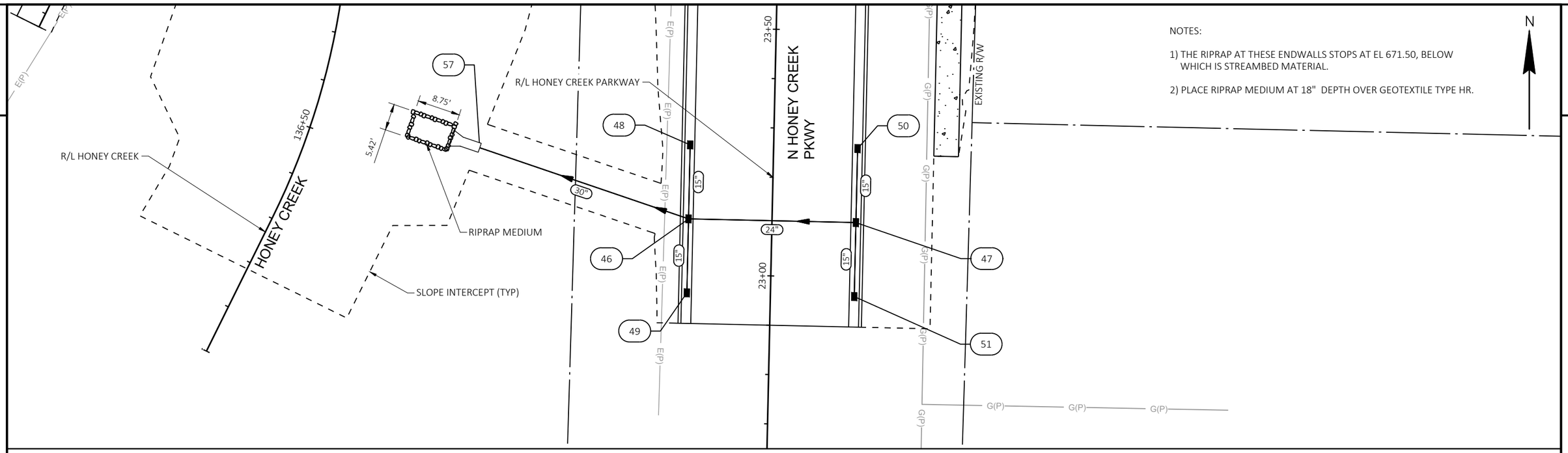
9+00

10+00

RIPRAP AT STORM SEWER OUTFALLS DETAIL

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 26	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - SS 1
PLOT DATE : 12/19/2024 4:14 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 41



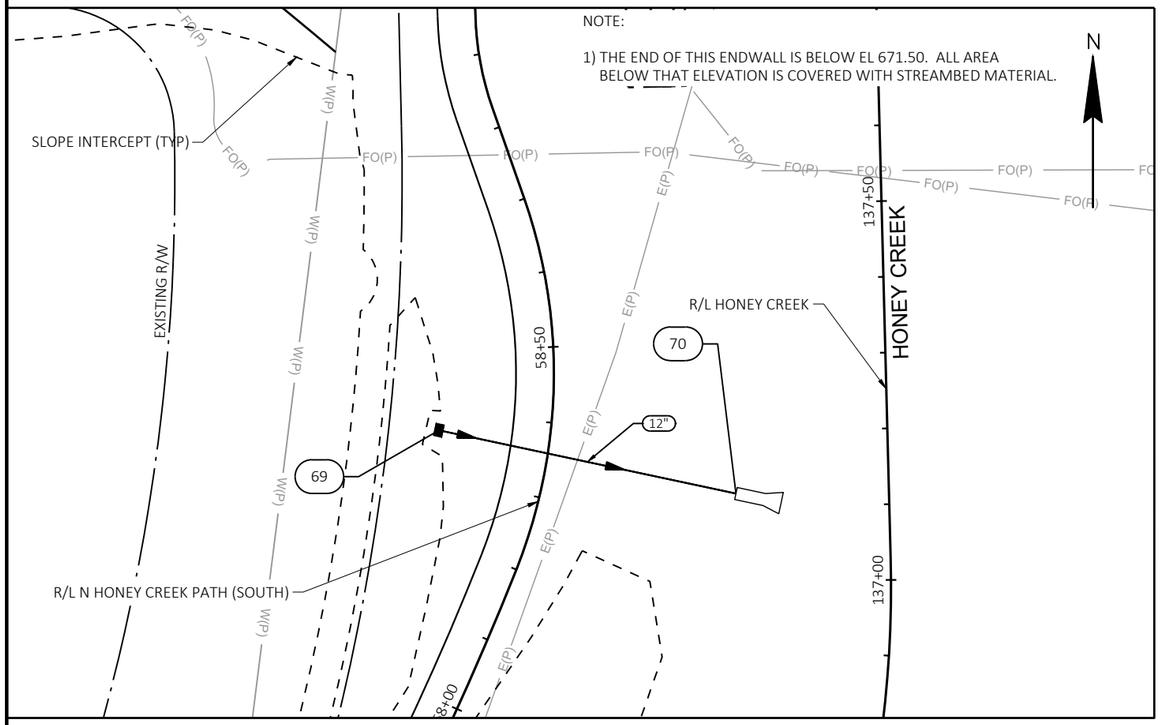
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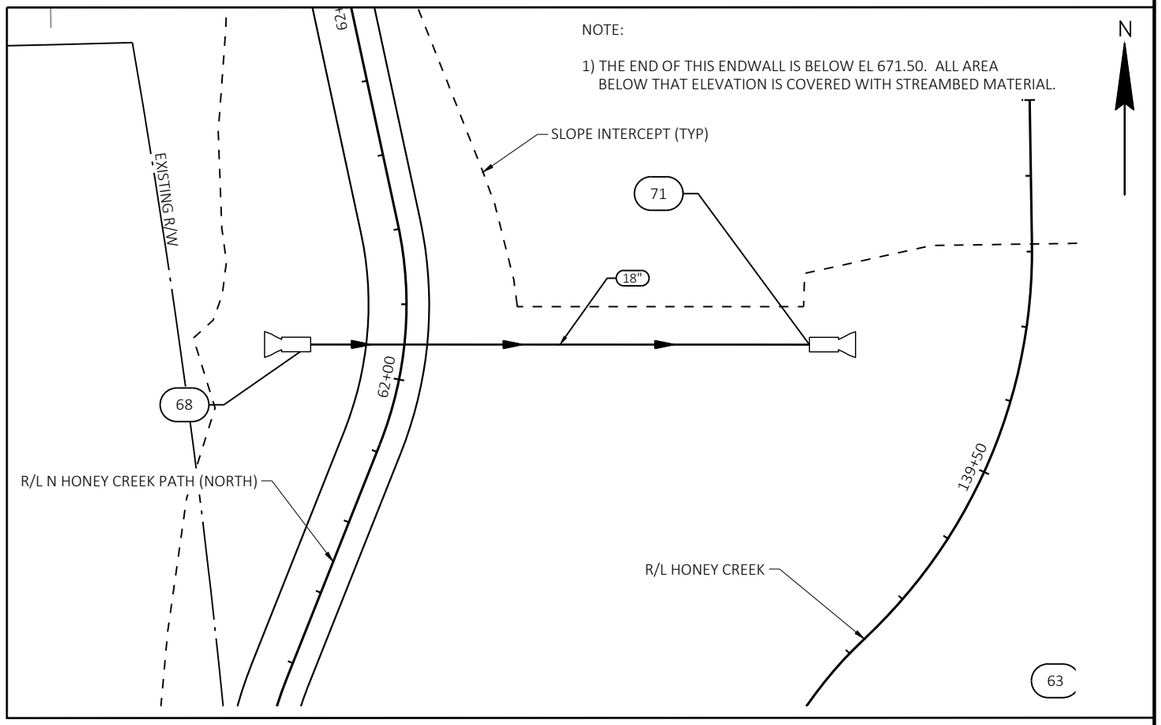
1) THE RIPRAP AT THESE ENDWALLS STOPS AT EL 671.50, BELOW WHICH IS STREAMBED MATERIAL.

2) PLACE RIPRAP MEDIUM AT 18" DEPTH OVER GEOTEXTILE TYPE HR.

N

2

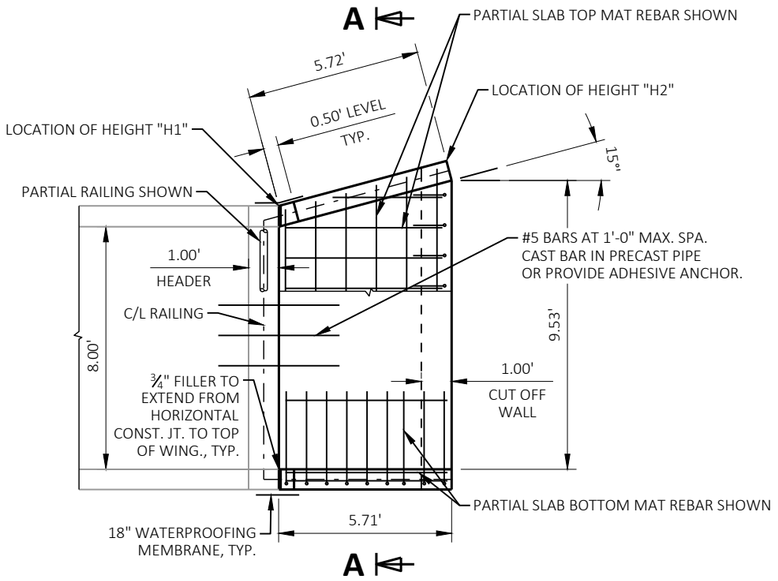




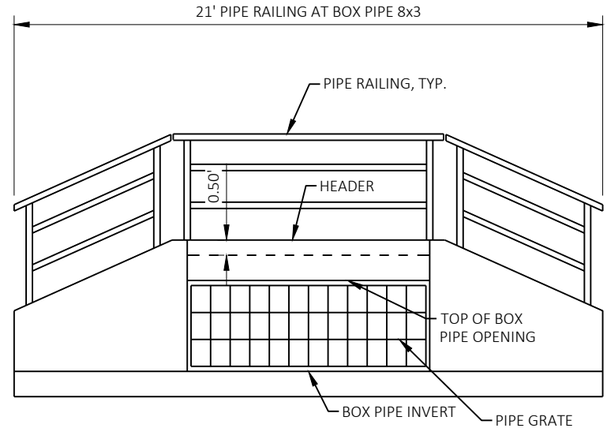
RIPRAP AT STORM SEWER OUTFALLS DETAIL

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 27	E

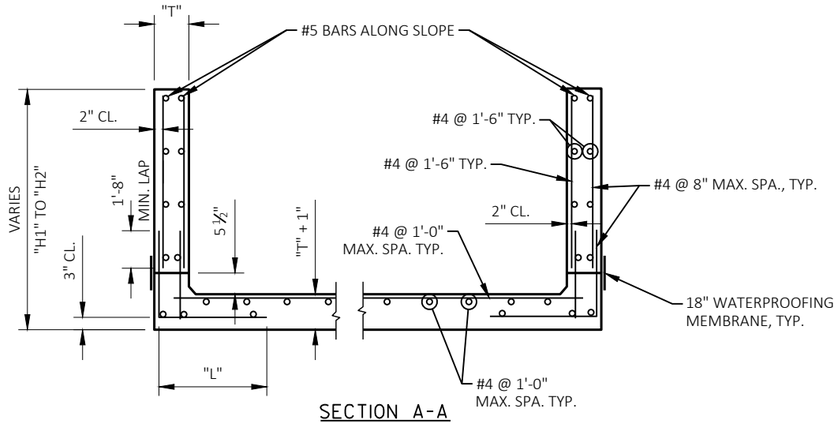
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\021004-CD.DWG
LAYOUT NAME - SS 2
PLOT DATE : 12/18/2024 4:38 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 41



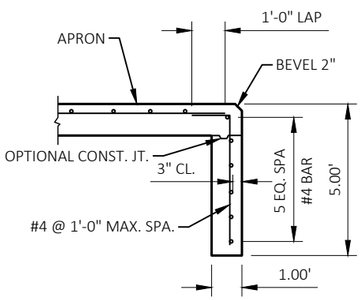
PLAN - OUTLET STRUCTURE 63



ELEVATION VIEW



SECTION A-A



SECTION AT CUT OFF WALL

PIPE SIZE	"T" *	"H1" *	"H2" *	"L"
8x3-FT	8"	5'-1"	2'-9"	5'-2"

* DIMENSIONS ARE BASED ON A BOX PIPE SLAB THICKNESS OF 10" AND A WALL THICKNESS OF 8". DIMENSIONS TO BE ADJUSTED FOR ACTUAL SLAB AND WALL THICKNESSES EXCEPT THE DIMENSION "T" SHOWN MAY NOT BE REDUCED BELOW 8"

OUTLET STRUCTURE DETAILS

NOTES:

THESE DETAILS SHOWN ARE FOR A CAST IN PLACE APRON ENDWALL OUTLET STRUCTURES. THE CONTRACTOR MAY FURNISH PRECAST APRON ENDWALLS IN LIEU OF THE CAST IN PLACE APRON ENWALLS. THE PRECAST CONCRETE ELEMENTS SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST APRON ENDWALLS SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "MISCELLANEOUS QUANTITIES" TABLES. ADDITIONAL ITEMS REQUIRED FOR THE PRECAST SYSTEM SHALL BE INCIDENTAL TO "OUTLET STRUCTURE 63".

CONCRETE f'c = 3,500 PSI

ALL BAR STEEL SHALL BE GRADE 60. BAR STEEL FOR CAST IN PLACE APRON FLOORS SHALL BE UNCOATED. WINGWALL DOWELS AND WINGWALL BAR STEEL SHALL BE EPOXY COATED.

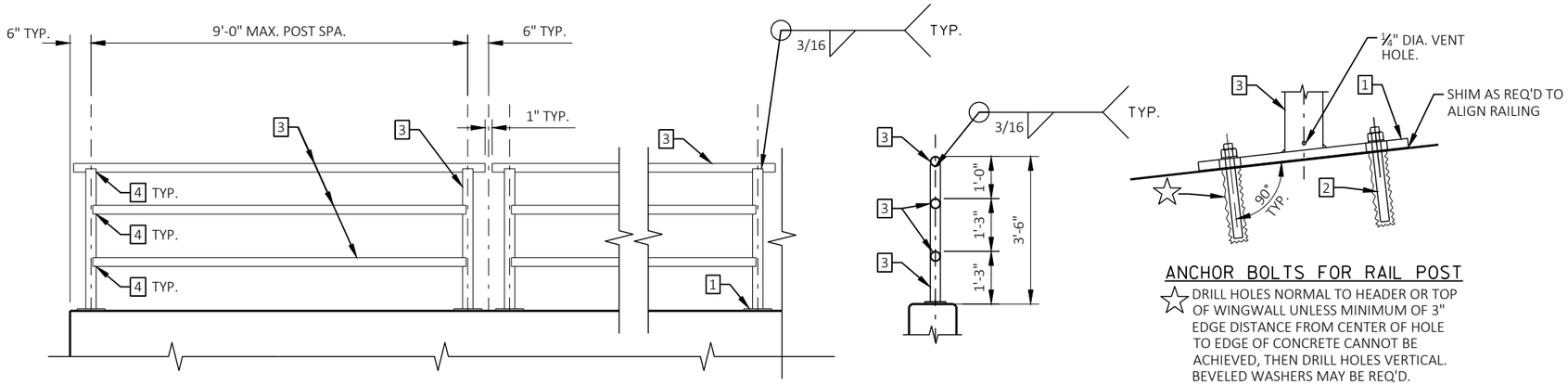
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

PIPE GRATE ASSEMBLY SHALL BE INCIDENTAL TO "OUTLET STRUCTURE 63". CONFORM TO SECTION 506 OF THE STANDARD SPEC FOR STEEL. AFTER GRATE FABRICATION, HOT DIP GALVANIZE THE GRATE ASSEMBLY.

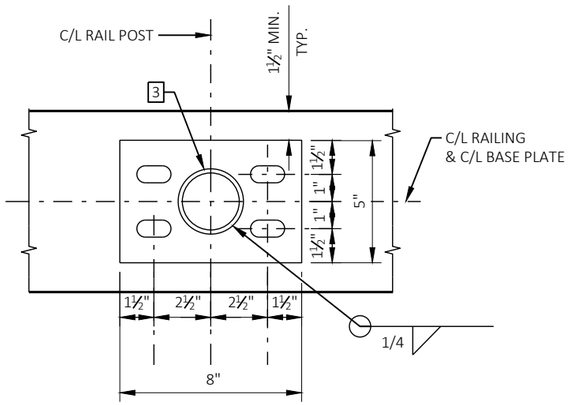
PIPE RAILING PAID UNDER ITEM "RAILING PIPE".

SEE "PIPE RAILING AND PIPE GRATE ASSEMBLY AT OUTLET STRUCTURES" FOR ADDITIONAL INFORMATION.

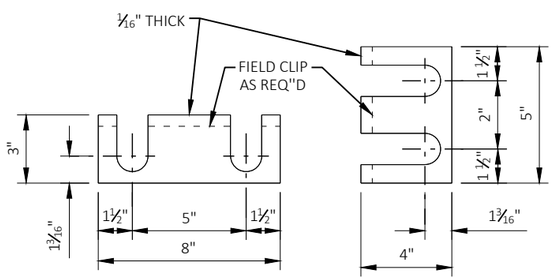


ANCHOR BOLTS FOR RAIL POST

☆ DRILL HOLES NORMAL TO HEADER OR TOP OF WINGWALL UNLESS MINIMUM OF 3" EDGE DISTANCE FROM CENTER OF HOLE TO EDGE OF CONCRETE CANNOT BE ACHIEVED, THEN DRILL HOLES VERTICAL. BEVELED WASHERS MAY BE REQ'D.

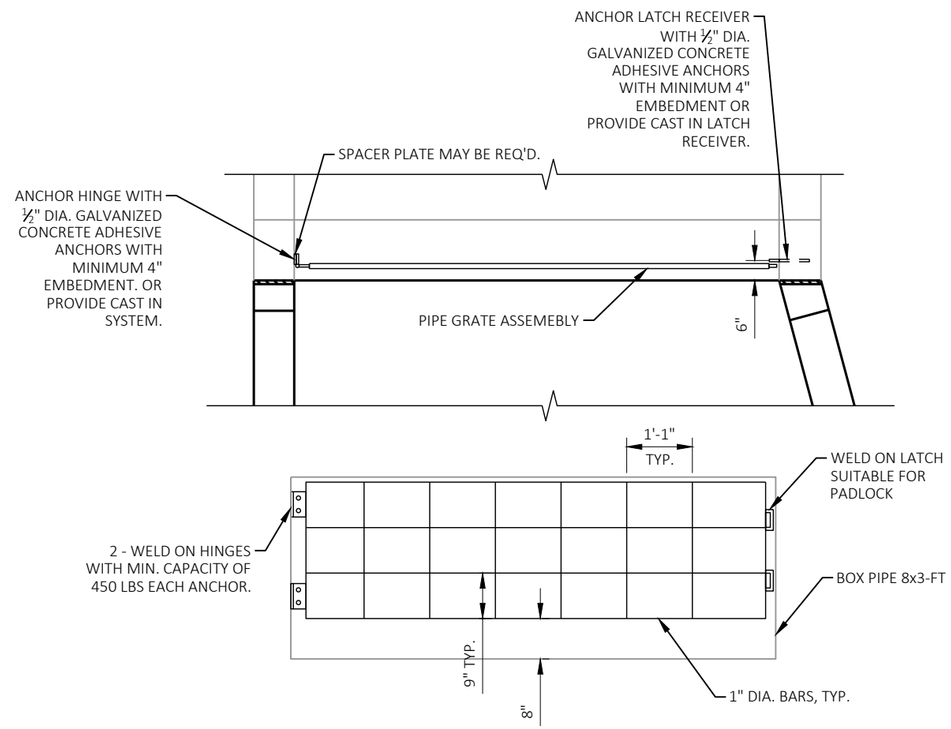


RAIL POST BASE PLATE



RAIL POST SHIM DETAIL

(2 SETS PER POST)



PIPE GRATE ASSEMBLIES

PIPE RAILING AND PIPE GRATE ASSEMBLIES AT OUTLET STRUCTURES

LEGEND:

1 PLATE ⅝" x 5" x 8" WITH ⅝" X 1 ½" SLOTTED HOLES

2 STAINLESS STEEL CONCRETE ANCHORS, ½" DIA. X 8 ¾" LONG WITH NUT AND WASHER. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

3 2 ½" DIA. STANDARD PIPE RAIL (2.875" O.D.) PLACE POSTS VERTICAL. WELD TO 1. PLACE RAILS PARALLEL TO TOP OF WINGWALL OR TOP OF HEADER. WELD TO 3.

4 ½" DIA. DRAIN HOLE AT BOTTOM OF EACH RAIL END.

RAILING NOTES:

BID ITEM "RAILING PIPE" INCLUDES ALL STEEL ITEMS SHOWN, CONCRETE ANCHORS, GALVANIZING, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1 SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO. 3).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION. STEEL SHIMS SHALL BE PROVIDED AND USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO. 1 AND CAULK AROUND PERIMETER OF PLATE NO. 1 WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE STANDARD SPECIFICATIONS.
SHIMS SHALL BE GALVANIZED PER ASTM 123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

PIPE GRATE ASSEMBLY NOTES:

PROVIDE AND INSTALL HINGE TO ALLOW 90 DEGREE SWING FROM CLOSED POSITION TO OPEN POSITION.

INCLUDE ADDITIONAL LATCH RECEIVER FOR GATE OPEN POSITION ANCHORED IN WINGWALL.

2

2

REMOVAL PLAN LEGEND

	REMOVING CONCRETE PAVEMENT
	REMOVING CONCRETE CHANNEL
	REMOVING CONCRETE SIDEWALK
	REMOVING ASPHALTIC SURFACE MILLING
	ASPHALT PAVEMENT REMOVAL (TO BE PAID FOR AS EXCAVATION COMMON)
XXXXXX	SAWING ASPHALT
YYYYYY	SAWING CONCRETE
	REMOVING CURB & GUTTER
- – – -	SLOPE INTERCEPT
	REMOVING CATCH BASINS
	REMOVING MANHOLES
–RM —RM —RM —	REMOVING STORM SEWER
—AB —AB —AB —	ABANDONING STORM SEWER
—T-RM —T-RM —	REMOVING EXISTING UTILITY DUCT PACKAGE (SEE NOTE 5)
—G-RM —G-RM —	REMOVING EXISTING UTILITY PIPE (SEE NOTE 5)
-G-X —G-X —G-X —	ABANDONED GAS MAIN TO BE REMOVED BY OTHERS (SEE NOTE 6)

NOTES:

1) FOR LIGHTING REMOVALS REFER TO LIGHTING PLANS.

2) FOR SIGN REMOVALS REFER TO SIGNING PLANS.

3) FOR WATER MAIN REMOVALS REFER TO WATER MAIN PLANS.

4) NO TREES WILL BE REMOVED.

5) EXISTING UTILITY DUCT AND PIPE REMOVAL WITHIN LIMITS OF STRUCTURE EXCAVATION IS INCIDENTAL TO EXCAVATION FOR STRUCTURE BRIDGE B-40-1033.

6) WE ENERGIES TO REMOVE ABANDONED GAS MAINS, INCLUDING ASBESTOS ABATEMENT.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - LEGEND	SHEET 30	E

2

2

N

MATCHLINE 7+25.00

GLENVIEW AVE

BEGIN PROJECT 2190-10-70 & 2190-10-71
STA 1+46.97

EXISTING R/W

R/L W WISCONSIN AVE

PARTIAL DEPTH SAWCUT
REMOVING CONCRETE SURFACE MILLING
PAID AS REMOVING ASPHALTIC SURFACE MILLING

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

W WISCONSIN AVE

2+00 3+00 4+00 5+00 6+00 7+00

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 31	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - RM-1

PLOT DATE : 12/18/2024 4:39 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MATCHLINE "A"

STONE WALL REMOVAL
INCIDENTAL REMOVING
STRUCTURE OVER WATERWAY
DEBRIS CAPTURE
P-40-776

REMOVING STRUCTURE OVER
WATERWAY DEBRIS CAPTURE
P-40-776

SLOPE INTERCEPT (TYP)

HONEY CREEK

R/L N HONEY CREEK PKWY

ABANDON MMSD PUMP STATION
SEE REMOVAL PLAN DETAILS

EXISTING R/W

END PROJECT 2190-10-71
STA 11+44.89

SLOPE INTERCEPT (TYP)

W WISCONSIN AVE

R/L W WISCONSIN AVE

EXISTING R/W

SLOPE INTERCEPT (TYP)

END PROJECT 2190-10-70
STA 12+41.00

PARTIAL DEPTH SAWCUT
REMOVING CONCRETE SURFACE MILLING
PAID AS REMOVING ASPHALTIC SURFACE MILLING

R/L HONEY CREEK

SLOPE INTERCEPT (TYP)

N HONEY CREEK PKWY

MATCHLINE 7+25.00

SLOPE INTERCEPT (TYP)

BEGIN CONSTRUCTION
STA 22+90.00

END CONSTRUCTION
STA 27+50.00

R/L N HONEY CREEK PKWY

SLOPE INTERCEPT (TYP)

HONEY CREEK

MATCHLINE "A"

EXISTING R/W

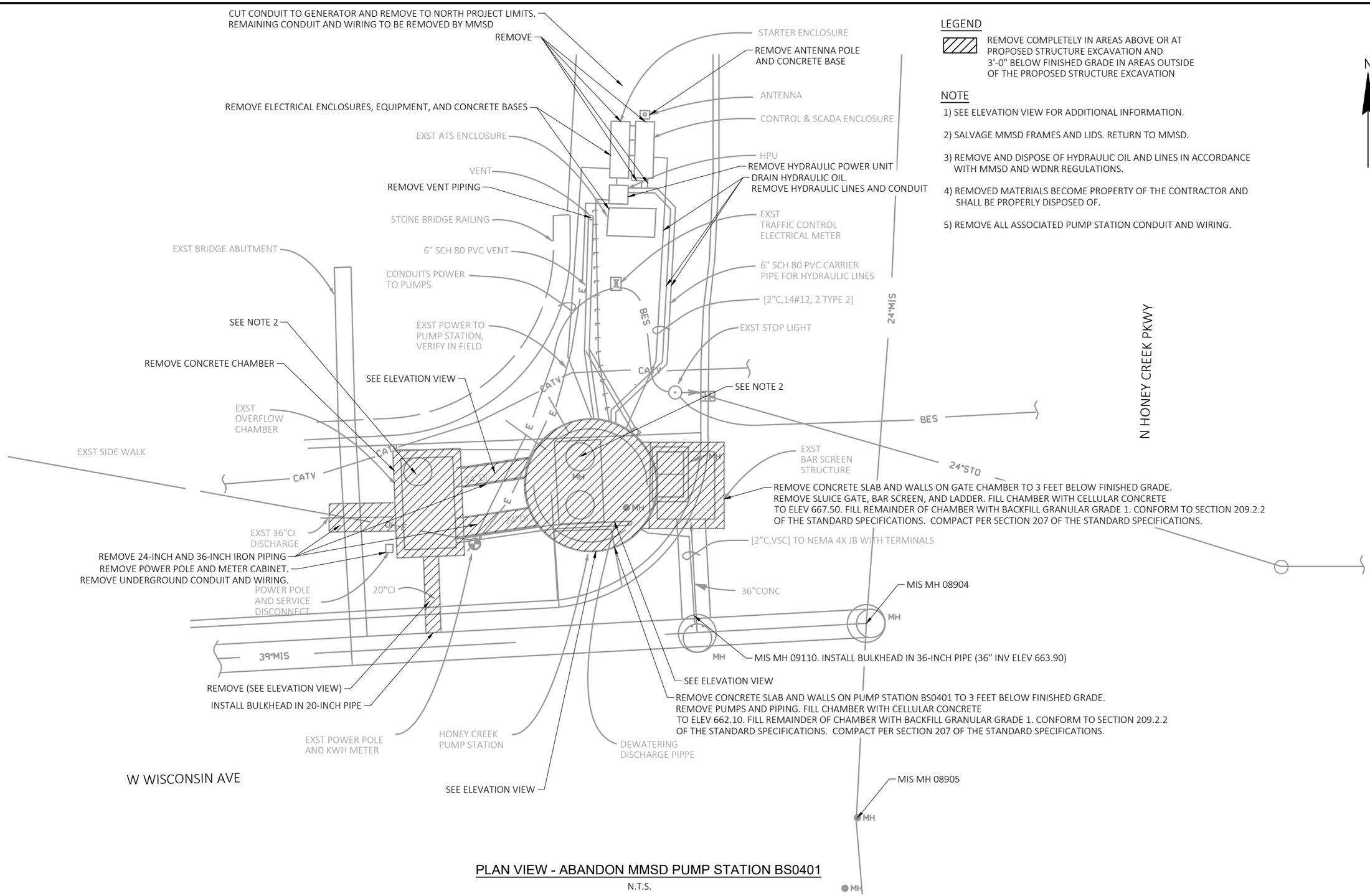
8+00 9+00 10+00 11+00 12+00 13+00

23+00 24+00 25+00 26+00 27+00

N

2

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 32	E



LEGEND

REMOVE COMPLETELY IN AREAS ABOVE OR AT PROPOSED STRUCTURE EXCAVATION AND 3'-0" BELOW FINISHED GRADE IN AREAS OUTSIDE OF THE PROPOSED STRUCTURE EXCAVATION

NOTE

1) SEE ELEVATION VIEW FOR ADDITIONAL INFORMATION.

2) SALVAGE MMSD FRAMES AND LIDS. RETURN TO MMSD.

3) REMOVE AND DISPOSE OF HYDRAULIC OIL AND LINES IN ACCORDANCE WITH MMSD AND WDNR REGULATIONS.

4) REMOVED MATERIALS BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF.

5) REMOVE ALL ASSOCIATED PUMP STATION CONDUIT AND WIRING.

PLAN VIEW - ABANDON MMSD PUMP STATION BS0401

N.T.S.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	REMOVAL PLAN DETAILS	SHEET 33	E

2

LEGEND

REMOVE COMPLETELY IN AREAS ABOVE OR AT PROPOSED STRUCTURE EXCAVATION AND 3'-0" BELOW FINISHED GRADE IN AREAS OUTSIDE OF THE PROPOSED STRUCTURE EXCAVATION

FILL WITH BACKFILL GRANULAR GRADE 1 OR CELLULAR CONCRETE

N

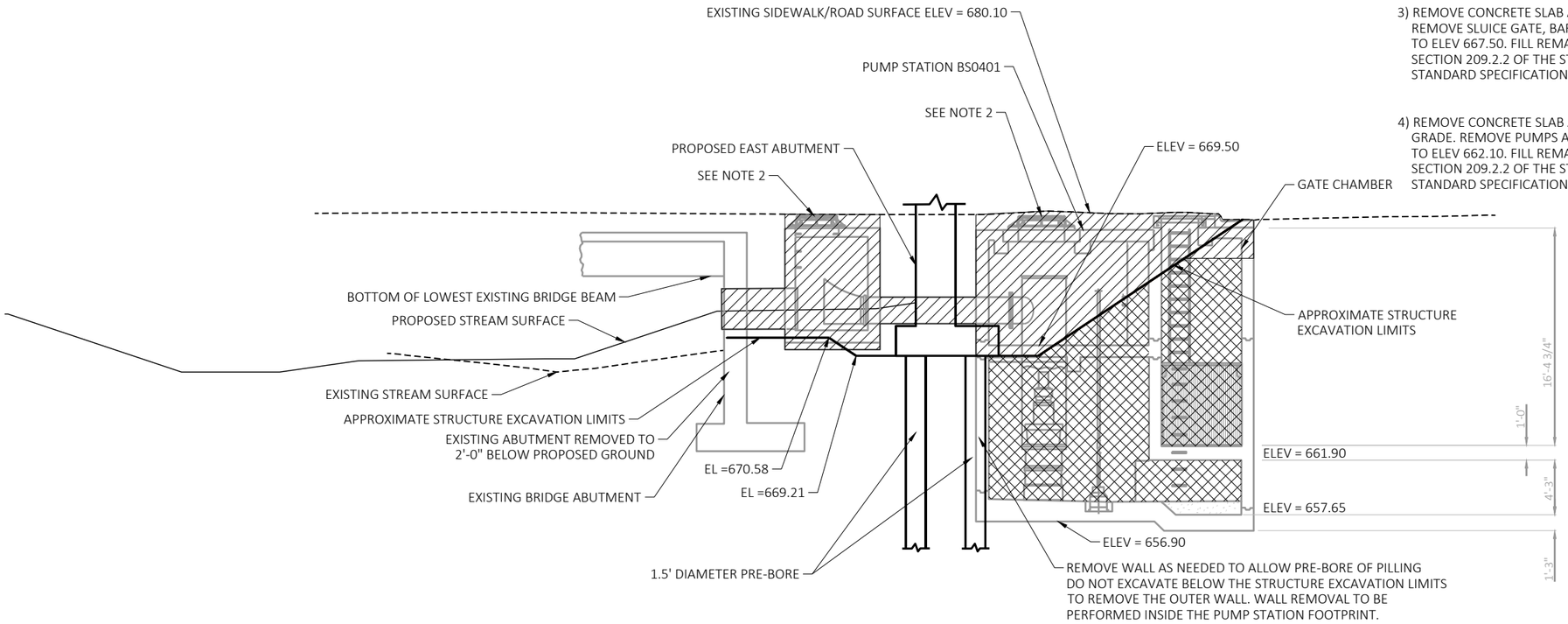
NOTE

1) SEE PLAN VIEW FOR ADDITIONAL INFORMATION.

2) SALVAGE MMSD FRAMES AND LIDS. RETURN TO MMSD.

3) REMOVE CONCRETE SLAB AND WALLS ON GATE CHAMBER TO 3 FEET BELOW FINISHED GRADE. REMOVE SLUICE GATE, BAR SCREEN, AND LADDER. FILL CHAMBER WITH CELLULAR CONCRETE TO ELEV 667.50. FILL REMAINDER OF CHAMBER WITH BACKFILL GRANULAR GRADE 1. CONFORM TO SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS. COMPACT PER SECTION 207 OF THE STANDARD SPECIFICATIONS.

4) REMOVE CONCRETE SLAB AND WALLS ON PUMP STATION BS0401 TO 3 FEET BELOW FINISHED GRADE. REMOVE PUMPS AND PIPING. FILL CHAMBER WITH CELLULAR CONCRETE TO ELEV 662.10. FILL REMAINDER OF CHAMBER WITH BACKFILL GRANULAR GRADE 1. CONFORM TO SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS. COMPACT PER SECTION 207 OF THE STANDARD SPECIFICATIONS.



ELEVATION VIEW - ABANDON MMSD PUMP STATION BS0401

N.T.S.

2

LEGEND

GRUBBING (SY)

X GRUBBING (ID)

SAFETY FENCE FOR TREE PROTECTION

NOTE

1) TREES WITHIN THE PROJECT LIMITS HAVE BEEN PREVIOUSLY CLEARED, EXCEPT FOR THOSE MARKED TO REMAIN.



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	REMOVAL PLAN - GRUBBING AND TREE PROTECTION	SHEET 35	E

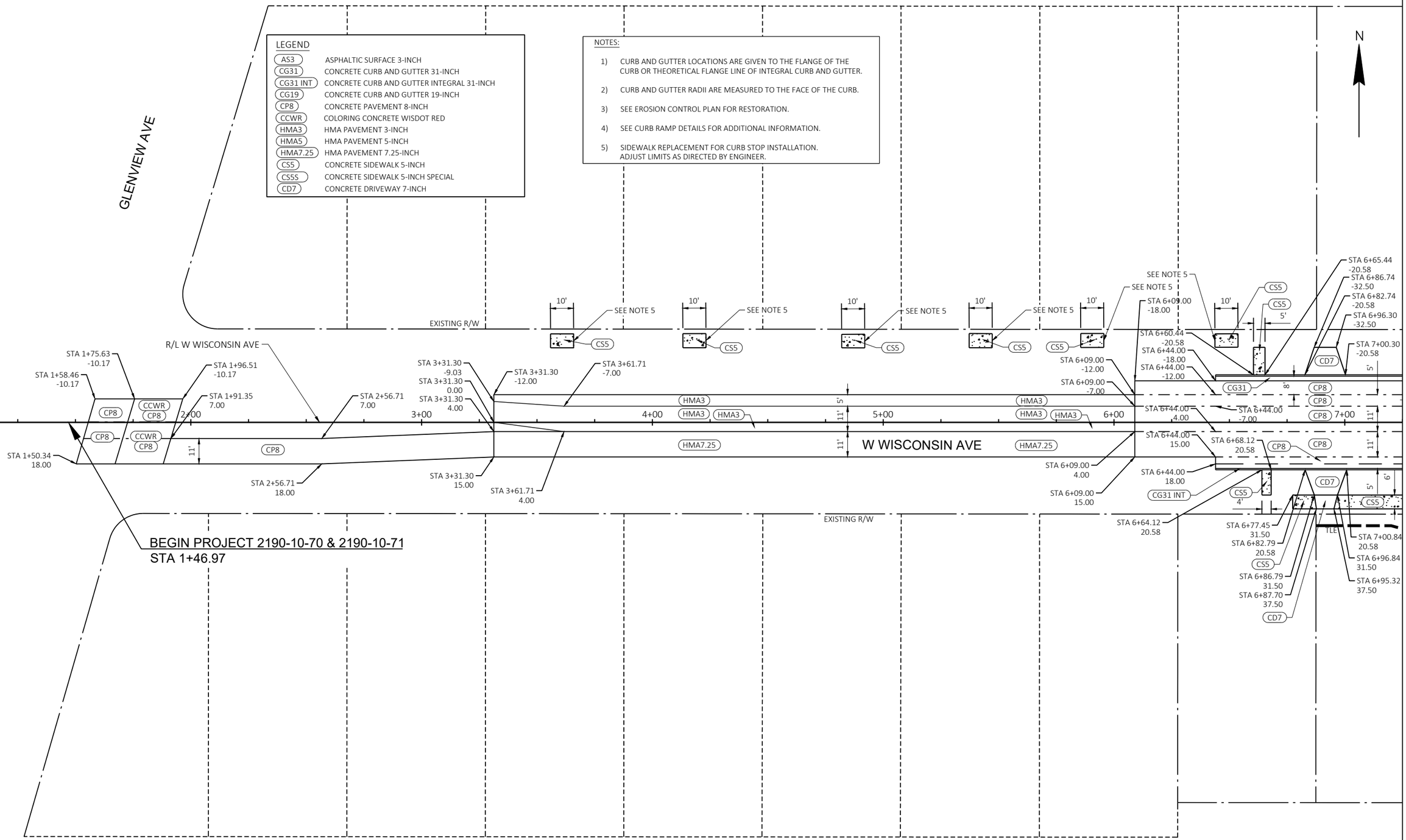
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LAYOUT NAME - 01
PLOT DATE : 12/18/2024 4:41 PM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

LEGEND

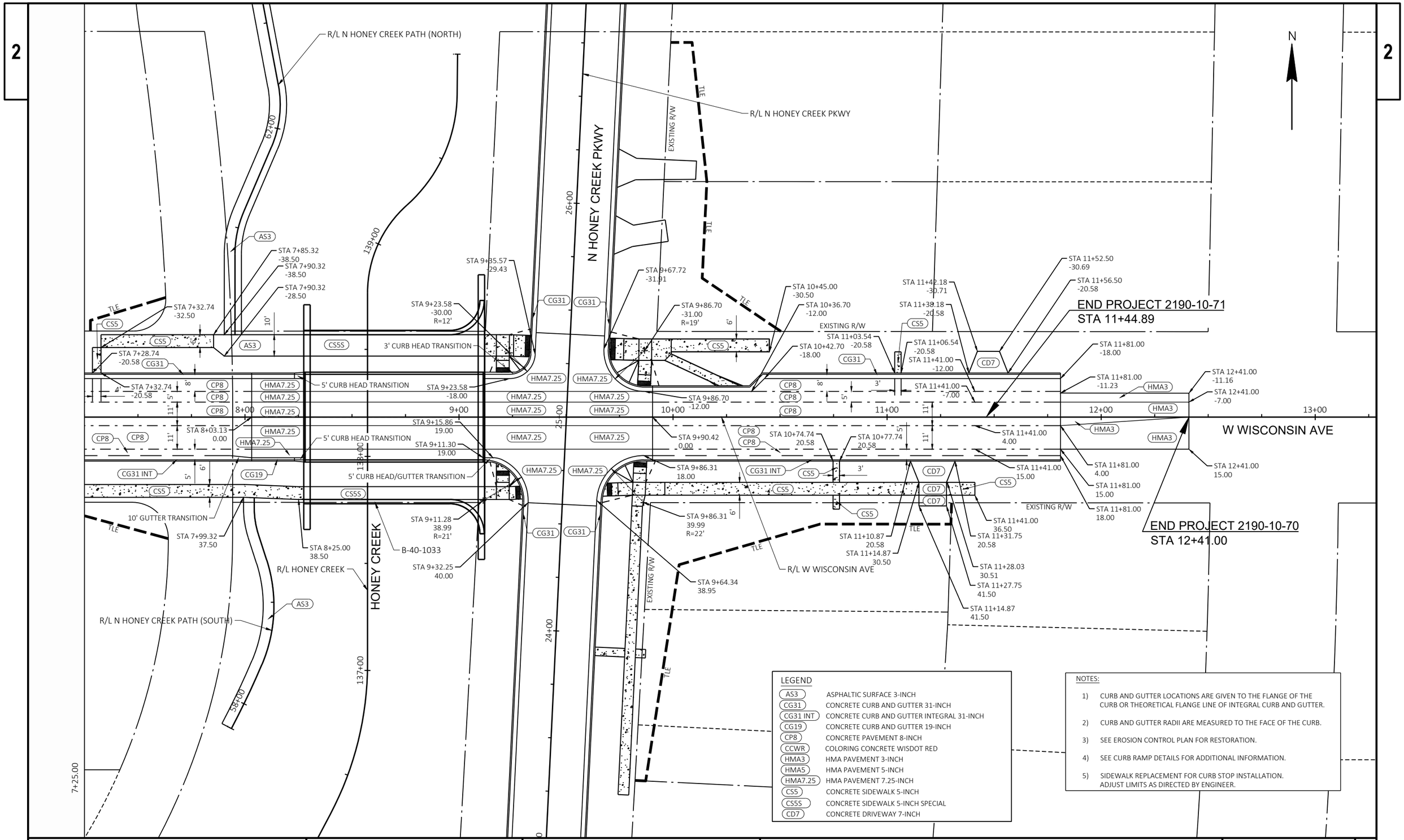
AS3	ASPHALTIC SURFACE 3-INCH
CG31	CONCRETE CURB AND GUTTER 31-INCH
CG31 INT	CONCRETE CURB AND GUTTER INTEGRAL 31-INCH
CG19	CONCRETE CURB AND GUTTER 19-INCH
CP8	CONCRETE PAVEMENT 8-INCH
CCWR	COLORING CONCRETE WISDOT RED
HMA3	HMA PAVEMENT 3-INCH
HMA5	HMA PAVEMENT 5-INCH
HMA7.25	HMA PAVEMENT 7.25-INCH
CS5	CONCRETE SIDEWALK 5-INCH
CS5S	CONCRETE SIDEWALK 5-INCH SPECIAL
CD7	CONCRETE DRIVEWAY 7-INCH

NOTES:

1) CURB AND GUTTER LOCATIONS ARE GIVEN TO THE FLANGE OF THE CURB OR THEORETICAL FLANGE LINE OF INTEGRAL CURB AND GUTTER.
2) CURB AND GUTTER RADII ARE MEASURED TO THE FACE OF THE CURB.
3) SEE EROSION CONTROL PLAN FOR RESTORATION.
4) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
5) SIDEWALK REPLACEMENT FOR CURB STOP INSTALLATION. ADJUST LIMITS AS DIRECTED BY ENGINEER.



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN DETAIL - W WISCONSIN AVE	SHEET 36	E



LEGEND

AS3	ASPHALTIC SURFACE 3-INCH
CG31	CONCRETE CURB AND GUTTER 31-INCH
CG31 INT	CONCRETE CURB AND GUTTER INTEGRAL 31-INCH
CG19	CONCRETE CURB AND GUTTER 19-INCH
CP8	CONCRETE PAVEMENT 8-INCH
CCWR	COLORING CONCRETE WISDOT RED
HMA3	HMA PAVEMENT 3-INCH
HMA5	HMA PAVEMENT 5-INCH
HMA7.25	HMA PAVEMENT 7.25-INCH
CS5	CONCRETE SIDEWALK 5-INCH
CS5S	CONCRETE SIDEWALK 5-INCH SPECIAL
CD7	CONCRETE DRIVEWAY 7-INCH

NOTES:

1) CURB AND GUTTER LOCATIONS ARE GIVEN TO THE FLANGE OF THE CURB OR THEORETICAL FLANGE LINE OF INTEGRAL CURB AND GUTTER.
2) CURB AND GUTTER RADII ARE MEASURED TO THE FACE OF THE CURB.
3) SEE EROSION CONTROL PLAN FOR RESTORATION.
4) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
5) SIDEWALK REPLACEMENT FOR CURB STOP INSTALLATION. ADJUST LIMITS AS DIRECTED BY ENGINEER.

PROJECT NO:	HWY:	COUNTY:	PLAN DETAIL	SHEET	
2190-10-70 & 2190-10-71	W. WISCONSIN AVE	MILWAUKEE	W WISCONSIN AVE	37	E

NOTES:

1) CURB AND GUTTER LOCATIONS ARE GIVEN TO THE FLANGE OF THE CURB OR THEORETICAL FLANGE LINE OF INTEGRAL CURB AND GUTTER.
2) CURB AND GUTTER RADII ARE MEASURED TO THE FACE OF THE CURB.
3) SEE EROSION CONTROL PLAN FOR RESTORATION.
4) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
5) SIDEWALK REPLACEMENT FOR CURB STOP INSTALLATION. ADJUST LIMITS AS DIRECTED BY ENGINEER.

N

STA 22+87.15
-197.05

STA 22+90.95
-193.79

STA 22+84.41
-193.98

STA 22+88.14
-190.65

AS3

EXISTING R/W

TLE

58+00

8+00

62+00

63+00

R/L N HONEY CREEK PATH (SOUTH)

R/L N HONEY CREEK PATH (NORTH)

137+00

HONEY CREEK

138+00

139+00

R/L HONEY CREEK

B-40-1033

9+00

BEGIN CONSTRUCTION
STA 22+90.00

END CONSTRUCTION
STA 27+50.00

R/L N HONEY CREEK PKWY

STA 22+90.00
-16.00

CG31

HMA5

18'

23+00

24+00

25+00

26+00

27+00

28+00

HMA7.25

STA 25+38.74
0.00

N HONEY CREEK PKWY

STA 27+50.00
-16.00

STA 24+59.19
0.00

4'

STA 22+90.00
16.00

5'

STA 23+89.31
18.58

STA 23+93.31
18.58

CS5

STA 25+95.05
18.58

STA 25+77.05
18.58

STA 26+08.29
18.58

STA 26+26.29
18.58

STA 27+50.00
16.00

STA 25+81.05
27.00

CD7

STA 25+91.05
27.00

STA 26+22.29
27.00

STA 25+84.24
43.61

STA 26+12.29
27.00

STA 25+94.20
41.75

STA 23+25.00
37.50

STA 23+89.31
42.20

STA 23+93.31
42.20

TLE

STA 26+13.85
55.00

STA 26+22.38
55.00

10+00

W WISCONSIN AVE

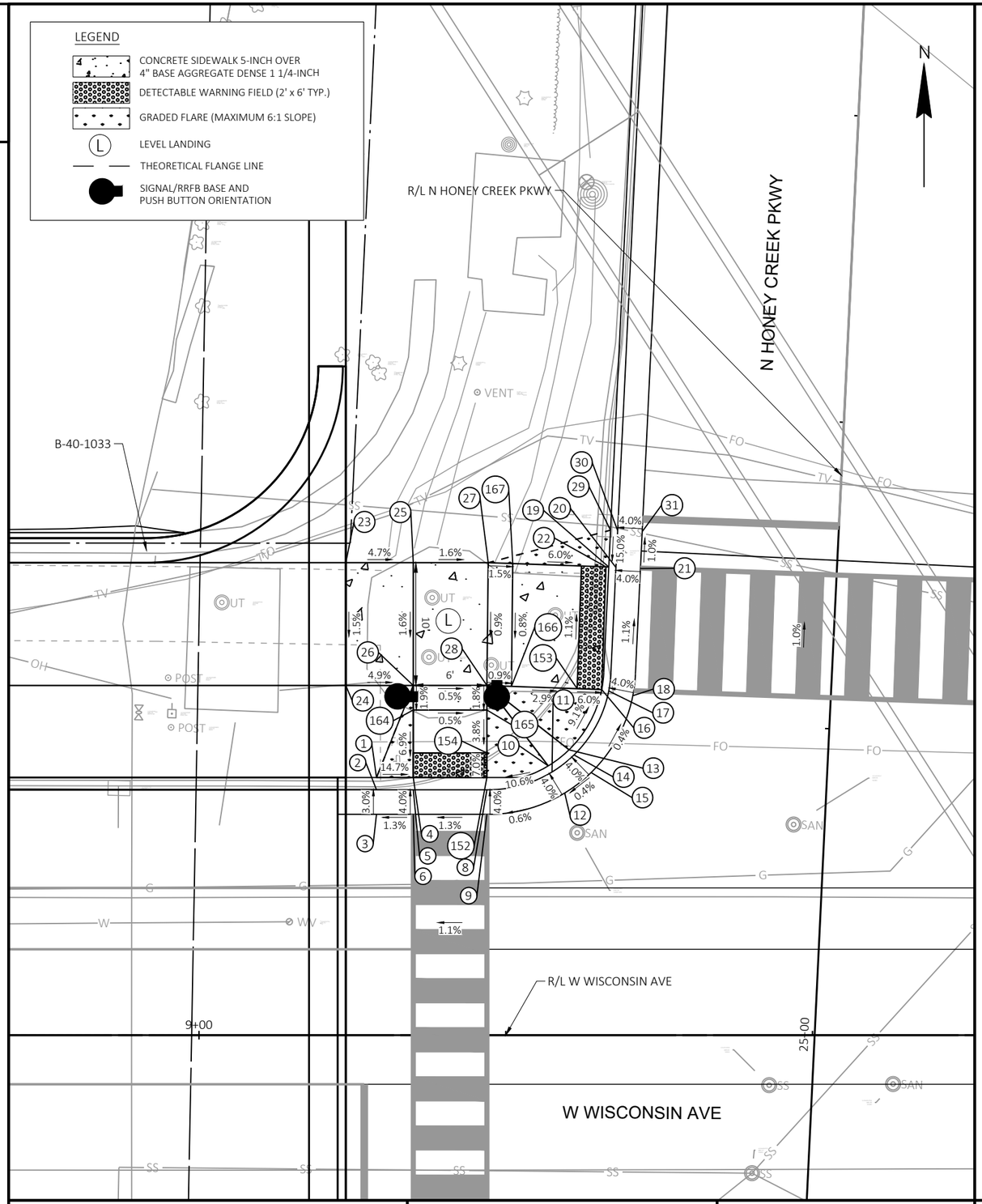
11+00

R/L W WISCONSIN AVE

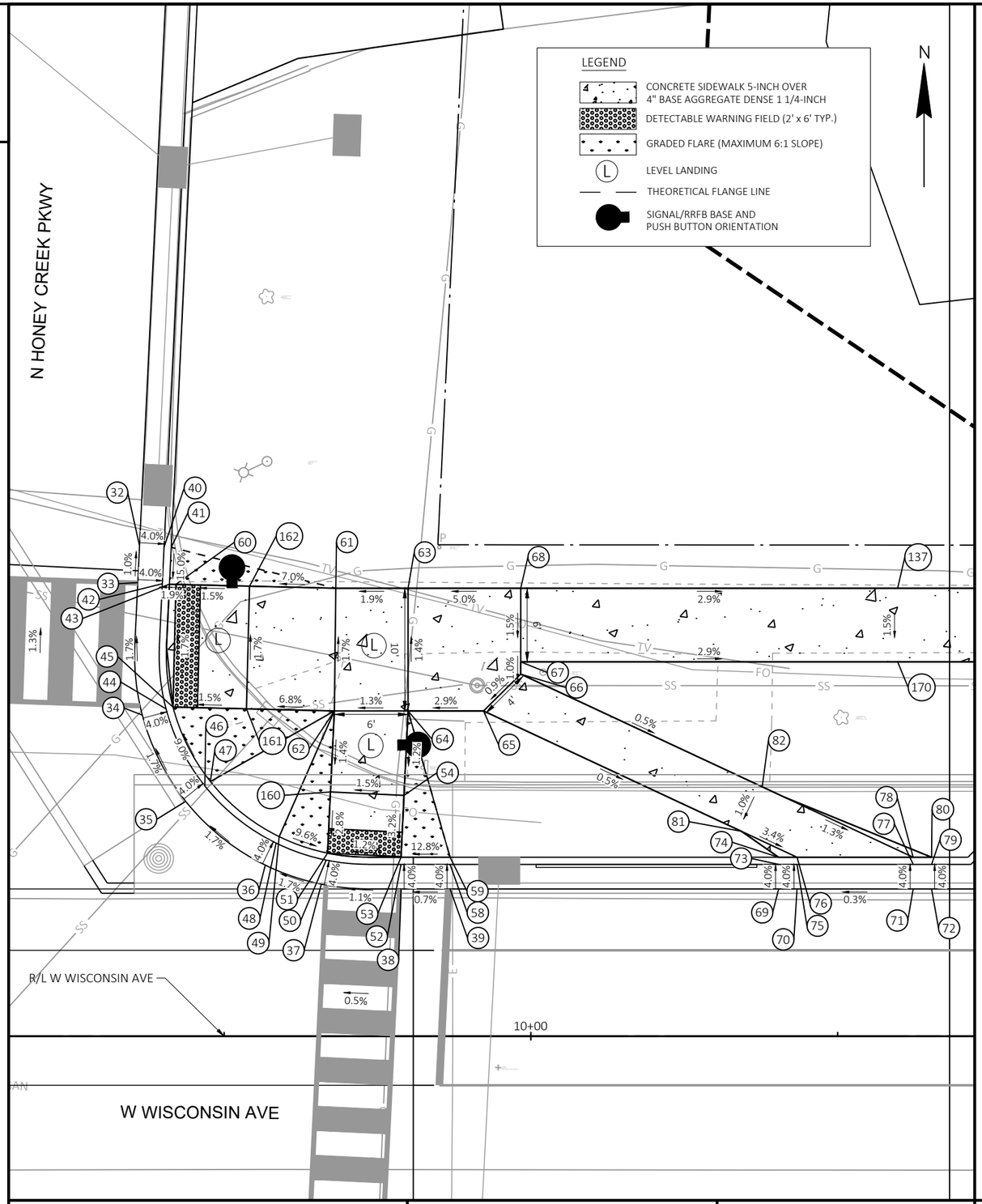
LEGEND

AS3	ASPHALTIC SURFACE 3-INCH
CG31	CONCRETE CURB AND GUTTER 31-INCH
CG31 INT	CONCRETE CURB AND GUTTER INTEGRAL 31-INCH
CG19	CONCRETE CURB AND GUTTER 19-INCH
CP8	CONCRETE PAVEMENT 8-INCH
CCWR	COLORING CONCRETE WISDOT RED
HMA3	HMA PAVEMENT 3-INCH
HMA5	HMA PAVEMENT 5-INCH
HMA7.25	HMA PAVEMENT 7.25-INCH
CS5	CONCRETE SIDEWALK 5-INCH
CS5S	CONCRETE SIDEWALK 5-INCH SPECIAL
CD7	CONCRETE DRIVEWAY 7-INCH

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN DETAIL - N HONEY CREEK PRWY	SHEET 38	E



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
1	9+14.46	21.00	299654.17	578484.95	683.360
2	9+14.46	20.00	299653.17	578484.98	682.880
3	9+14.46	18.00	299651.17	578485.03	682.940
4	9+17.46	21.00	299654.25	578487.95	682.920
5	9+17.46	20.00	299653.25	578487.98	682.900
6	9+17.46	18.00	299651.25	578488.03	682.980
8	9+23.46	20.00	299653.41	578493.97	682.980
9	9+23.46	18.00	299651.41	578494.03	683.060
10	9+28.46	21.95	299655.48	578498.92	683.540
11	9+28.77	21.45	299654.99	578499.24	683.020
12	9+29.81	19.74	299653.31	578500.32	683.100
13	9+30.15	23.26	299656.84	578500.58	683.530
14	9+30.56	22.84	299656.43	578500.99	683.030
15	9+31.96	21.41	299655.03	578502.43	683.110
16	9+32.82	28.17	299661.81	578503.11	683.020
17	9+33.39	28.05	299661.71	578503.69	683.000
18	9+35.35	27.66	299661.37	578505.66	683.080
19	9+33.40	38.15	299671.81	578503.43	682.910
20	9+33.98	38.12	299671.80	578504.02	682.890
21	9+35.98	38.03	299671.75	578506.02	682.970
22	9+33.17	38.16	299671.81	578503.21	682.910
23	9+11.96	38.50	299671.60	578482.00	683.760
24	9+11.96	28.50	299661.61	578482.26	683.610
25	9+17.46	38.50	299671.75	578487.50	683.500
26	9+17.46	28.50	299661.75	578487.76	683.340
27	9+23.57	38.50	299671.90	578493.60	683.400
28	9+23.46	28.50	299661.90	578493.75	683.310
29	9+33.54	41.15	299674.81	578503.50	683.360
30	9+34.12	41.12	299674.80	578504.08	682.860
31	9+36.12	41.03	299674.75	578506.08	682.940
152	9+23.46	21.00	299654.41	578493.95	683.000
153	9+30.82	28.24	299661.83	578501.11	683.140
154	9+23.46	23.00	299656.41	578493.90	683.140
164	9+17.46	26.50	299659.75	578487.81	683.301
165	9+23.46	26.50	299659.90	578493.81	683.274
166	9+25.46	28.43	299661.88	578495.76	683.293
167	9+25.57	38.43	299671.88	578495.60	683.369



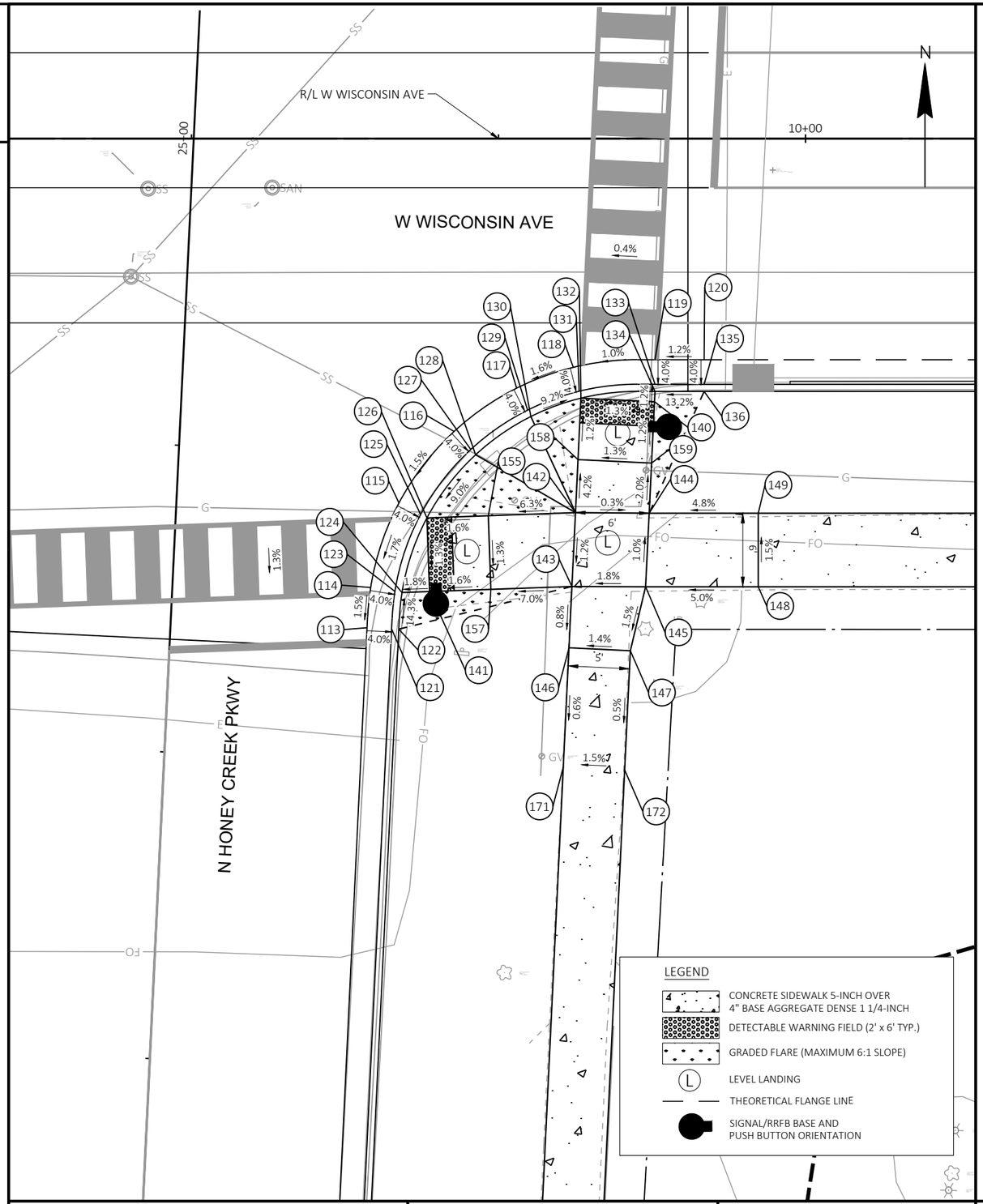
STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
32	9+68.10	39.96	299674.51	578538.08	682.940
33	9+67.96	36.96	299671.51	578538.02	682.970
34	9+68.32	26.16	299660.72	578538.66	683.150
35	9+71.86	19.13	299653.79	578542.38	683.280
36	9+78.35	13.93	299648.75	578549.00	683.420
37	9+82.91	12.38	299647.32	578553.60	683.500
38	9+89.42	12.00	299647.11	578560.11	683.570
39	9+93.42	12.00	299647.21	578564.11	683.600
40	9+70.10	39.86	299674.46	578540.08	682.860
41	9+70.69	39.83	299674.45	578540.67	683.360
42	9+69.96	36.87	299671.46	578540.02	682.890
43	9+70.54	36.84	299671.45	578540.60	682.910
44	9+70.26	26.67	299661.28	578540.58	683.070
45	9+70.82	26.82	299661.45	578541.14	683.090
46	9+73.42	20.38	299655.07	578543.91	683.200
47	9+73.88	20.75	299655.45	578544.35	683.700
48	9+79.23	15.73	299650.57	578549.83	683.340
49	9+79.49	16.25	299651.10	578550.07	683.840
50	9+83.31	14.34	299649.29	578553.95	683.420
51	9+83.43	14.91	299649.87	578554.05	683.440
52	9+89.42	14.00	299649.11	578560.06	683.490
53	9+89.42	14.58	299649.69	578560.05	683.510
54	9+89.66	19.62	299654.73	578560.16	683.670
58	9+93.42	14.00	299649.21	578564.06	683.520
59	9+93.42	14.58	299649.80	578564.04	684.020
60	9+71.07	36.82	299671.45	578541.13	682.920
61	9+84.10	36.50	299671.46	578554.17	683.500

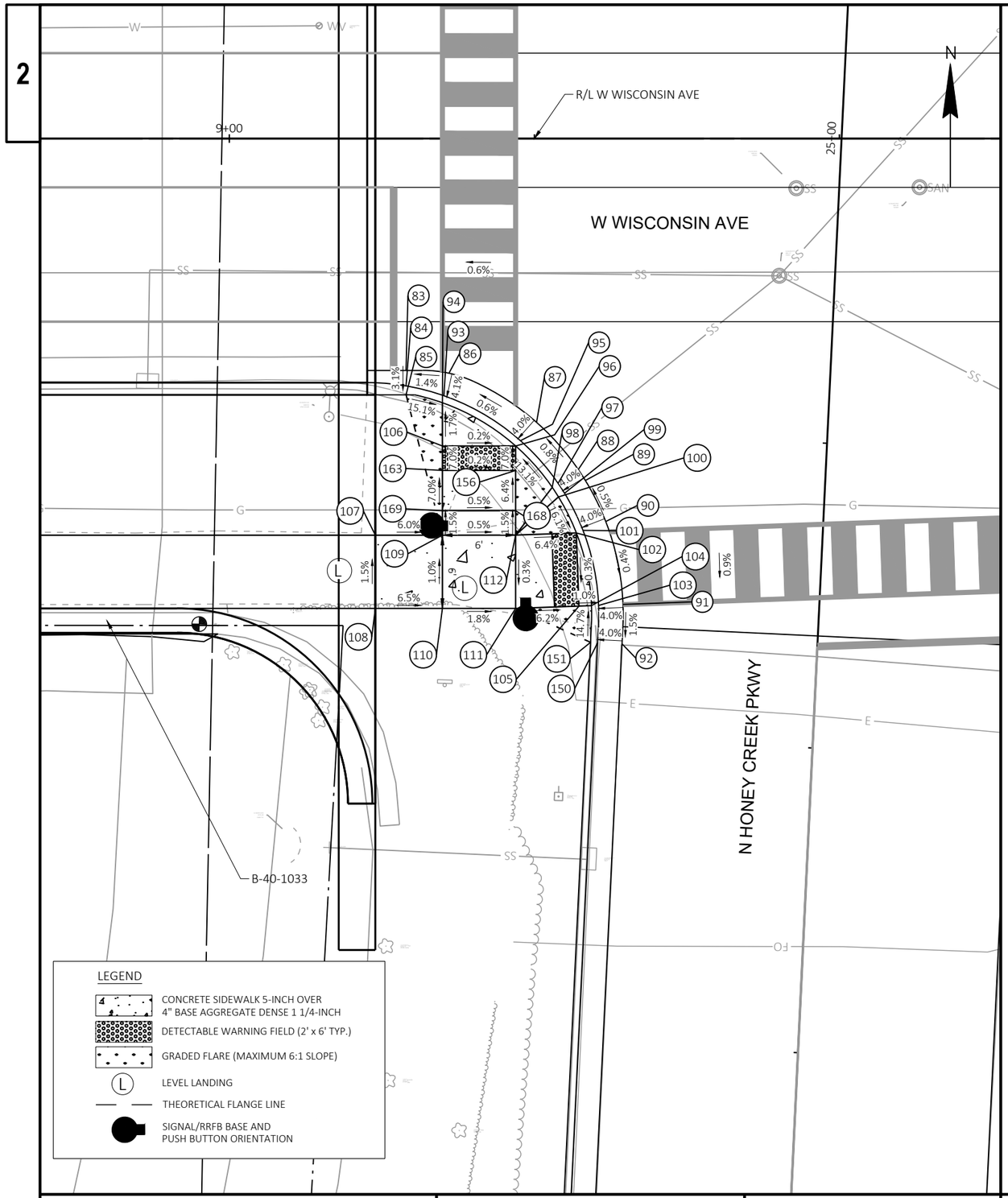
STATION & OFFSET TABLE

POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
62	9+83.98	26.50	299661.46	578554.30	683.670
63	9+89.99	36.50	299671.62	578560.05	683.610
64	9+89.99	26.50	299661.62	578560.31	683.750
65	9+96.14	26.50	299661.78	578566.46	683.930
66	9+99.17	29.50	299664.86	578569.41	683.970
67	9+99.17	30.50	299665.85	578569.38	683.980
68	9+99.17	36.50	299671.85	578569.23	684.070
69	10+20.19	12.00	299647.90	578590.88	683.700
70	10+21.69	12.00	299647.94	578592.38	683.710
71	10+31.16	12.00	299648.19	578601.84	683.740
72	10+32.66	12.00	299648.22	578603.34	683.750
73	10+20.19	14.00	299649.90	578590.83	683.620
74	10+20.19	14.58	299650.49	578590.81	684.120
75	10+21.69	14.00	299649.94	578592.33	683.630
76	10+21.69	14.58	299650.52	578592.31	683.650
77	10+31.16	14.00	299650.19	578601.79	683.660
78	10+31.16	14.58	299650.77	578601.77	683.680
79	10+32.66	14.00	299650.22	578603.29	683.670
80	10+32.66	14.58	299650.81	578603.27	684.170
81	10+17.16	16.70	299652.52	578587.73	683.820
82	10+18.85	20.32	299656.19	578589.32	683.860
137	9+99.17	36.50	299672.65	578599.94	683.191
160	9+83.67	19.91	299654.87	578554.16	683.580
161	9+76.82	26.67	299661.45	578547.14	683.180
162	9+77.07	36.67	299671.45	578547.13	683.010
170	9+99.17	30.50	299666.65	578600.10	683.101

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE		PLAN DETAIL - CURB RAMPS	SHEET 40	E



STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
113	9+64.30	39.82	299594.65	578536.33	683.030
114	9+64.58	36.55	299597.93	578536.54	683.080
115	9+66.89	29.67	299604.87	578538.66	683.200
116	9+71.38	23.84	299610.81	578543.01	683.310
117	9+76.48	20.32	299614.46	578548.01	683.410
118	9+81.09	18.63	299616.28	578552.58	683.490
119	9+87.74	18.00	299617.08	578559.21	683.560
120	9+91.74	18.00	299617.18	578563.21	683.610
121	9+66.29	39.92	299594.61	578538.33	682.950
122	9+66.88	39.95	299594.60	578538.92	683.450
123	9+66.56	36.87	299597.67	578538.52	683.000
124	9+67.14	36.96	299597.59	578539.10	683.020
125	9+68.65	30.61	299603.98	578540.45	683.120
126	9+69.17	30.88	299603.72	578540.98	683.140
127	9+72.74	25.31	299609.38	578544.40	683.230
128	9+73.14	25.75	299608.96	578544.81	683.730
129	9+77.37	22.11	299612.70	578548.95	683.330
130	9+77.63	22.63	299612.18	578549.22	683.830
131	9+81.57	20.57	299614.35	578553.10	683.410
132	9+81.71	21.14	299613.78	578553.26	683.430
133	9+87.74	20.00	299615.08	578559.26	683.480
134	9+87.74	20.58	299614.49	578559.27	683.500
135	9+91.74	20.00	299615.18	578563.26	683.530
136	9+91.74	20.58	299614.60	578563.27	684.030
140	9+87.70	21.42	299613.65	578559.26	683.510
141	9+69.38	36.88	299597.73	578541.34	683.060
142	9+81.26	30.46	299604.46	578553.05	683.670
143	9+80.98	36.47	299598.44	578552.92	683.600
144	9+87.27	30.50	299604.57	578559.06	683.650
145	9+85.98	36.50	299598.57	578558.92	683.710
146	9+80.74	41.46	299593.44	578552.81	683.560
147	9+85.73	41.70	299593.33	578557.81	683.630
148	9+91.98	36.50	299598.81	578568.09	684.168
149	9+91.98	30.50	299604.80	578567.94	684.078
155	9+74.17	30.71	299604.02	578545.97	683.220
157	9+74.38	36.70	299598.04	578546.33	683.140
158	9+81.47	26.13	299608.79	578553.15	683.490
159	9+87.46	26.42	299608.65	578559.15	683.570
171	9+80.74	41.46	299583.73	578552.60	683.506
172	9+85.73	41.70	299583.62	578557.60	683.581

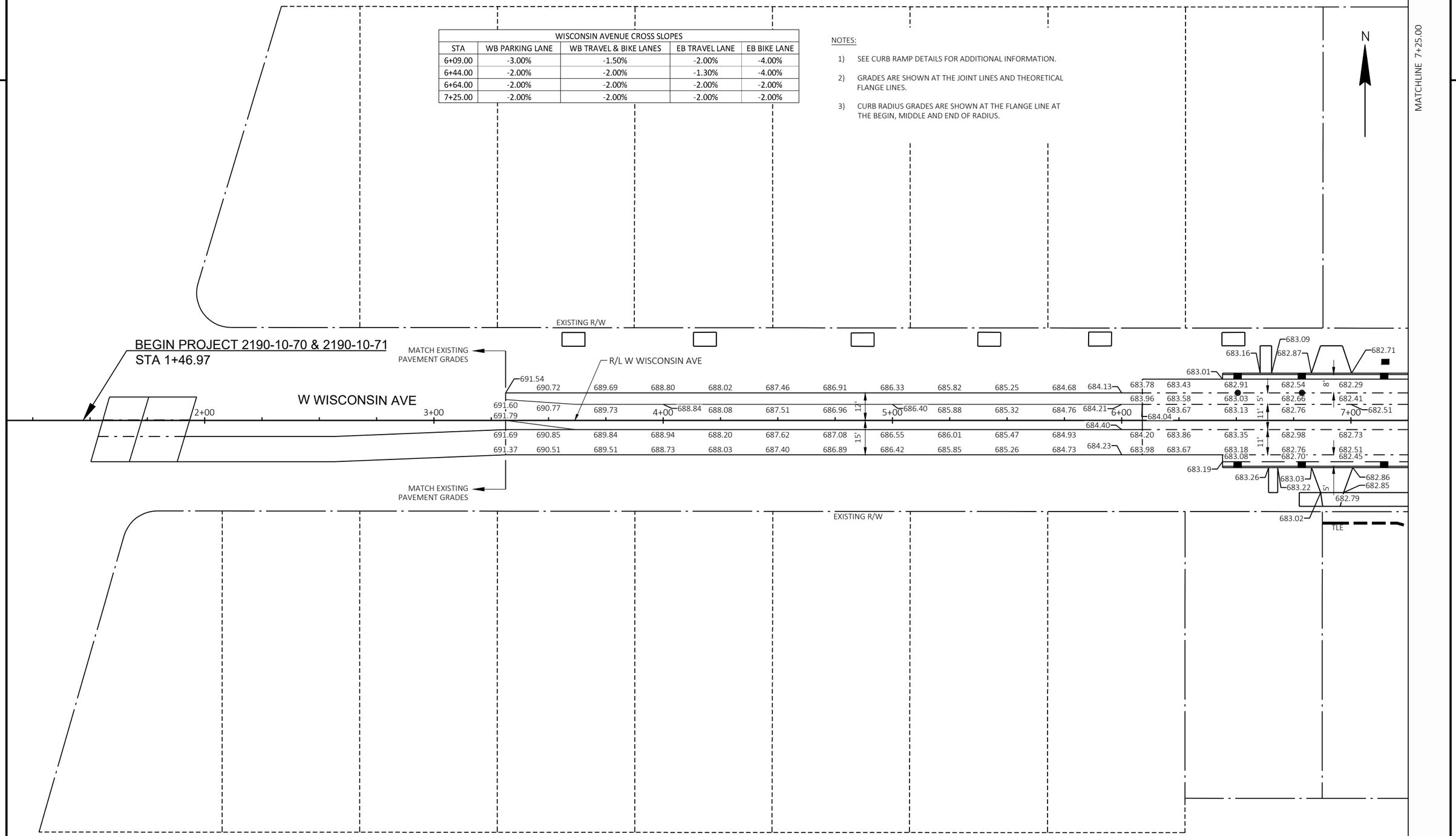


STATION & OFFSET TABLE					
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION
83	9+14.48	19.00	299614.19	578486.00	683.050
84	9+14.48	20.27	299612.92	578486.03	683.010
85	9+14.48	21.00	299612.19	578486.05	683.500
86	9+18.00	19.23	299614.05	578489.52	683.100
87	9+25.17	23.26	299610.21	578496.80	683.150
88	9+28.60	27.13	299606.43	578500.32	683.190
89	9+29.18	28.02	299605.55	578500.92	683.190
90	9+30.85	31.38	299602.23	578502.68	683.210
91	9+32.26	38.18	299595.47	578504.27	683.180
92	9+32.18	41.41	299592.24	578504.27	683.130
93	9+17.59	21.08	299612.19	578489.16	683.023
94	9+17.46	21.65	299611.61	578489.05	683.040
95	9+23.85	24.76	299608.67	578495.51	683.070
96	9+23.46	25.19	299608.23	578495.14	683.090
97	9+26.95	28.26	299605.26	578498.70	683.110
98	9+26.46	28.59	299604.91	578498.23	683.684
99	9+27.47	29.07	299604.46	578499.24	683.110
100	9+26.97	29.37	299604.14	578498.76	683.680
101	9+28.98	32.11	299601.46	578500.83	683.130
102	9+28.44	32.32	299601.23	578500.29	683.150
103	9+30.26	38.26	299595.34	578502.27	683.100
104	9+29.68	38.28	299595.30	578501.69	683.120
105	9+28.65	38.32	299595.24	578500.66	683.130
106	9+17.46	25.19	299608.07	578489.14	683.100
107	9+11.96	32.50	299600.63	578483.83	683.830
108	9+11.96	38.50	299594.63	578483.99	683.920
109	9+17.46	32.50	299600.77	578489.33	683.500
110	9+17.46	38.50	299594.77	578489.48	683.560
111	9+23.46	38.50	299594.93	578495.48	683.450
112	9+23.46	32.50	299600.93	578495.33	683.470
150	9+30.19	41.31	299592.29	578502.27	683.050
151	9+29.60	41.29	299592.30	578501.69	683.561
156	9+23.46	27.19	299606.23	578495.19	683.230
163	9+17.46	27.19	299606.07	578489.19	683.240
168	9+23.46	30.50	299602.93	578495.28	683.440
169	9+17.46	30.50	299602.77	578489.28	683.470

WISCONSIN AVENUE CROSS SLOPES				
STA	WB PARKING LANE	WB TRAVEL & BIKE LANES	EB TRAVEL LANE	EB BIKE LANE
6+09.00	-3.00%	-1.50%	-2.00%	-4.00%
6+44.00	-2.00%	-2.00%	-1.30%	-4.00%
6+64.00	-2.00%	-2.00%	-2.00%	-2.00%
7+25.00	-2.00%	-2.00%	-2.00%	-2.00%

NOTES:

1) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
2) GRADES ARE SHOWN AT THE JOINT LINES AND THEORETICAL FLANGE LINES.
3) CURB RADIUS GRADES ARE SHOWN AT THE FLANGE LINE AT THE BEGIN, MIDDLE AND END OF RADIUS.



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PAVING GRADES - W WISCONSIN AVE	SHEET 43	E

2

NOTES:

1) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.
2) GRADES ARE SHOWN AT THE JOINT LINES AND THEORETICAL FLANGE LINES.
3) CURB RADIUS GRADES ARE SHOWN AT THE FLANGE LINE AT THE BEGIN, MIDDLE AND END OF RADIUS.

N

R/L N HONEY CREEK PKWY

N HONEY CREEK PKWY

EXISTING R/W

TLE

END PROJECT 2190-10-71
STA 11+44.89

EXISTING R/W

R/L N HONEY CREEK PATH (NORTH)

62+00

139+00

26+00

681.47 681.43 681.34 682.56 682.20 683.11 682.55 683.08 683.20 683.06 683.06 683.11 683.31 683.56 683.58 683.96 683.24 684.82 684.88 685.62 686.28 686.56 686.76 687.00 687.03 687.70 688.49 688.93 688.96

682.16 682.13 682.22 8' 682.35 682.49 682.90 683.06 683.75 8' 683.98 684.33 684.87 685.61 686.78 687.69 4' 688.49

682.28 682.25 5' 682.34 682.47 682.61 683.02 683.17 683.38 683.50 683.63 683.71 683.84 684.08 5' 684.45 684.99 685.76 686.80

682.38 682.35 11' 682.44 8+00 682.57 682.71 683.12 683.25 683.43 683.55 683.63 683.68 683.77 683.91 684.17 11' 684.55 685.09 685.84 687.03 12+00 689.01 13+00

682.60 682.57 11' 682.66 682.79 682.93 683.34 683.41 683.54 683.66 683.70 683.79 683.91 684.08 684.36 684.77 685.31 686.01 20' 686.83 687.03 688.48 687.66

682.38 682.35 682.44 682.57 682.71 683.12 683.25 683.43 683.55 683.63 683.68 683.77 683.91 684.17 684.55 685.09 685.79 686.58 687.38 688.16

682.32 682.29 5' 682.38 682.48 682.63 683.04 683.07 683.57 683.65 683.74 683.87 684.12 5' 684.49 685.03 685.72 686.78 686.71 688.63

W WISCONSIN AVE

25+00

13+00

683.31 683.60 684.53 684.57 685.13 685.13 685.61 685.53 686.52

682.43 682.31 682.87 683.33 683.41 683.19 683.16 683.04 684.27 684.60 684.74 684.88 685.02 685.44

R/L W WISCONSIN AVE

EXISTING R/W

TLE

END PROJECT 2190-10-70
STA 12+41.00

TLE

B-40-1033

R/L N HONEY CREEK PATH (SOUTH)

HONEY CREEK

R/L HONEY CREEK

58+00

137+00

24+00

EXISTING R/W

TLE

MATCHLINE 7+25.00

WISCONSIN AVENUE CROSS SLOPES		
STA	WB LANES	EB LANES
7+25.00	-2.00%	-2.00%
9+12.00	-2.00%	-2.00%

WISCONSIN AVENUE CROSS SLOPES			
STA	WB PARKING LANE	WB TRAVEL & BIKE LANES	EB LANES
9+12.00	N/A	-2.00%	-2.00%
9+37.00	N/A	-1.00%	-1.00%
10+00.00	N/A	-1.00%	-1.00%
10+36.70	-1.40%	-1.40%	-1.00%
11+00.00	-2.00%	-2.00%	-2.00%
11+41.00	-2.00%	-2.00%	-2.00%
11+81.00	-4.00%	0.00%	-2.30%

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PAVING GRADES - W WISCONSIN AVE	SHEET 44	E

2

2

N

EXISTING R/W

TLE

EXISTING R/W

TLE

58+00

8+00

62+00

63+00

R/L N HONEY CREEK PATH (SOUTH)

R/L N HONEY CREEK PATH (NORTH)

137+00

HONEY CREEK

138+00

139+00

R/L HONEY CREEK

BEGIN CONSTRUCTION
STA 22+90.00

B-40-1033

R/L N HONEY CREEK PKWY

9+00

EXISTING R/W

EXISTING R/W

END CONSTRUCTION
STA 27+50.00

680.59 680.56 680.59 680.79 681.16 681.66 682.32 682.98 683.16

682.84 682.36 681.72 680.99 680.15 679.39 678.79 678.36 678.08

18'

23+00 24+00 25+00 26+00 27+00 28+00

680.91 680.88 680.91 681.11 681.48 681.98 682.48 682.98 683.16

683.00 682.60 682.04 681.31 680.47 679.71 679.11 678.68 678.40

18'

N HONEY CREEK PKWY

680.59 680.56 680.59 680.79 681.16 681.66 682.24 682.82 683.00

682.96 682.84 682.36 681.72 680.99 680.15 679.39 678.79 678.36 678.08

EXISTING R/W

EXISTING R/W

TLE

TLE

TLE

TLE

TLE

W WISCONSIN AVE

10+00

11+00

R/L W WISCONSIN AVE

NOTES:

1) SEE CURB RAMP DETAILS FOR ADDITIONAL INFORMATION.

2) GRADES ARE SHOWN AT THE JOINT LINES AND THEORETICAL FLANGE LINES.

3) CURB RADIUS GRADES ARE SHOWN AT THE FLANGE LINE AT THE BEGIN, MIDDLE AND END OF RADIUS.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PAVING GRADES - N HONEY CREEK PRWY	SHEET 45	E

2

R/L N HONEY CREEK PATH (SOUTH)

58+00

W WISCONSIN AVE

8+00

R/L N HONEY CREEK PATH (NORTH)

62+00

137+00

HONEY CREEK

138+00

139+00

R/L HONEY CREEK

B-40-1033

9+00

EXISTING R/W

EXISTING R/W

24+00

25+00

26+00

R/L W WISCONSIN AVE

R/L N HONEY CREEK PKWY

N HONEY CREEK PKWY

682 680 678 676 674 672 670 668

NOTES:

1) CONTOURS SHOWN AT 0.5' INTERVALS.

2) SEE PLAN AND PROFILES, PAVING GRADES, AND CROSS SECTIONS FOR DETAILS.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CONTOUR PLAN	SHEET 46	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\021701-CM.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 4:45 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A WITH SEED MIX NO. 40
- EROSION MAT CLASS II TYPE C WITH SEED MIX NO. 75
- SOD LAWN
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE D
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALE, BARRIER

N

END CONSTRUCTION
STA 27+50.00

END CONSTRUCTION
STA 139+81.05

R/L N HONEY CREEK PKWY

R/L N HONEY CREEK PATH (NORTH)

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

N HONEY CREEK PKWY

EXISTING R/W

EXISTING R/W

EXISTING R/W

END PROJECT 2190-10-71
STA 11+44.89

W WISCONSIN AVE

W WISCONSIN AVE

EXISTING R/W

EXISTING R/W

SLOPE INTERCEPT (TYP)

R/L W WISCONSIN AVE

SLOPE INTERCEPT (TYP)

END PROJECT 2190-10-70
STA 12+41.00

R/L N HONEY CREEK PATH (SOUTH)

SLOPE INTERCEPT (TYP)

HONEY CREEK

R/L HONEY CREEK

BEGIN CONSTRUCTION
STA 136+18.60

BEGIN CONSTRUCTION
STA 22+90.00

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	EROSION CONTROL - EXISTING	SHEET 47	E

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A WITH SEED MIX NO. 40
- EROSION MAT CLASS II TYPE C WITH SEED MIX NO. 75
- SOD LAWN
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE D
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALE, BARRIER

N

HONEY CREEK

N HONEY CREEK PKWY

R/L N HONEY CREEK PKWY

R/L N HONEY CREEK PATH (NORTH)

R/L N HONEY CREEK PATH (SOUTH)

R/L HONEY CREEK

R/L W WISCONSIN AVE

W WISCONSIN AVE

W WISCONSIN AVE

B-40-1033

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

SLOPE INTERCEPT (TYP)

END CONSTRUCTION
STA 139+81.05

END CONSTRUCTION
STA 27+50.00

BEGIN CONSTRUCTION
STA 136+18.60

BEGIN CONSTRUCTION
STA 22+90.00

END PROJECT 2190-10-70
STA 12+41.00

END PROJECT 2190-10-71
STA 11+44.89

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

TLE

28+00

27+00

26+00

25+00

24+00

23+00

139+00

138+00

137+00

5+00

6+00

7+00

8+00

9+00

10+00

11+00

12+00

13+00

NOTE:

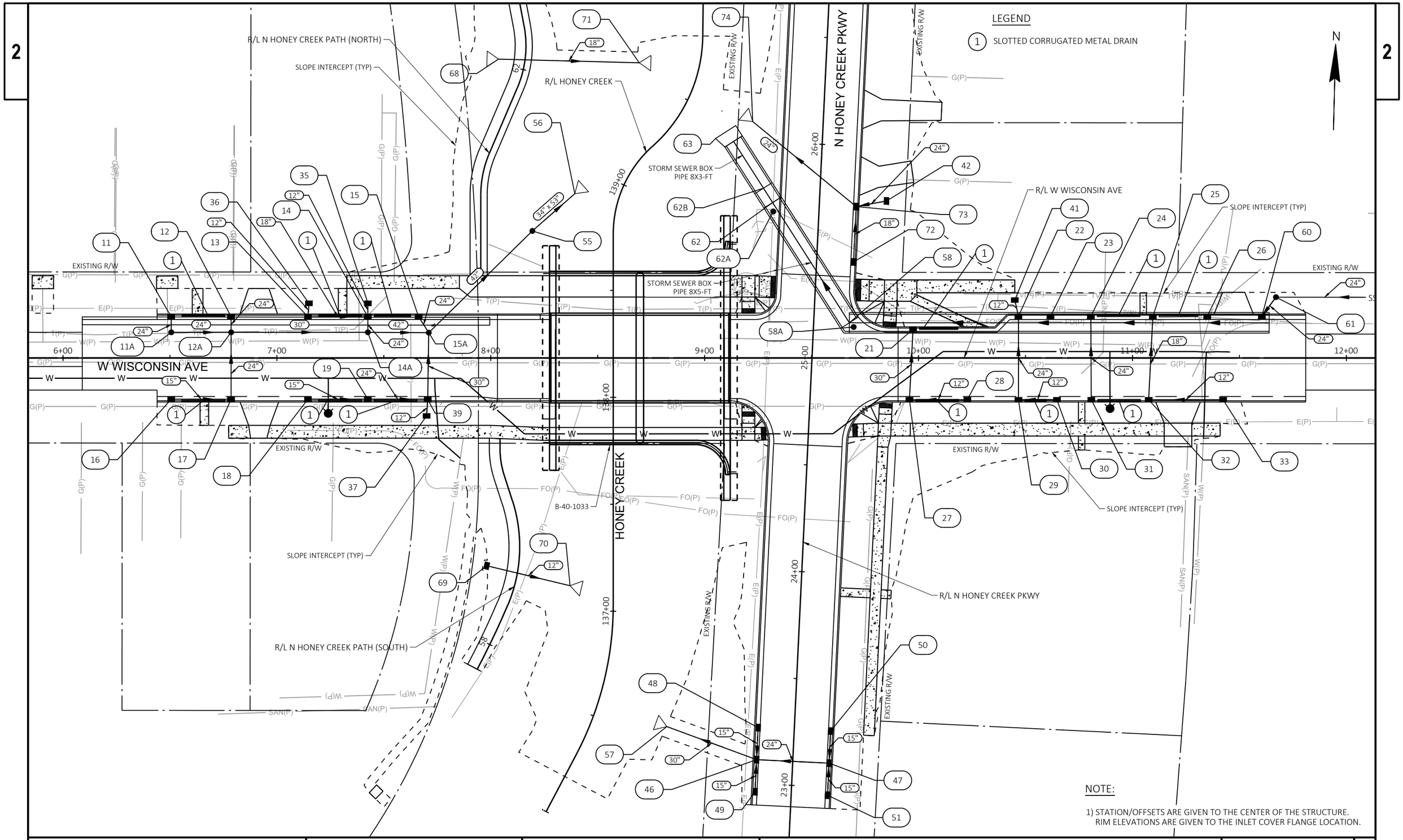
1) SEE CONSTRUCTION DETAIL - RIPRAP AT STORM SEWER OUTFALLS DETAIL FOR ADDITIONAL INFORMATION.

2) SEE BRIDGE PLAN FOR ADDITIONAL RIPRAP.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	EROSION CONTROL - PROPOSED	SHEET 48	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\022201-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 4:46 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:60 FT



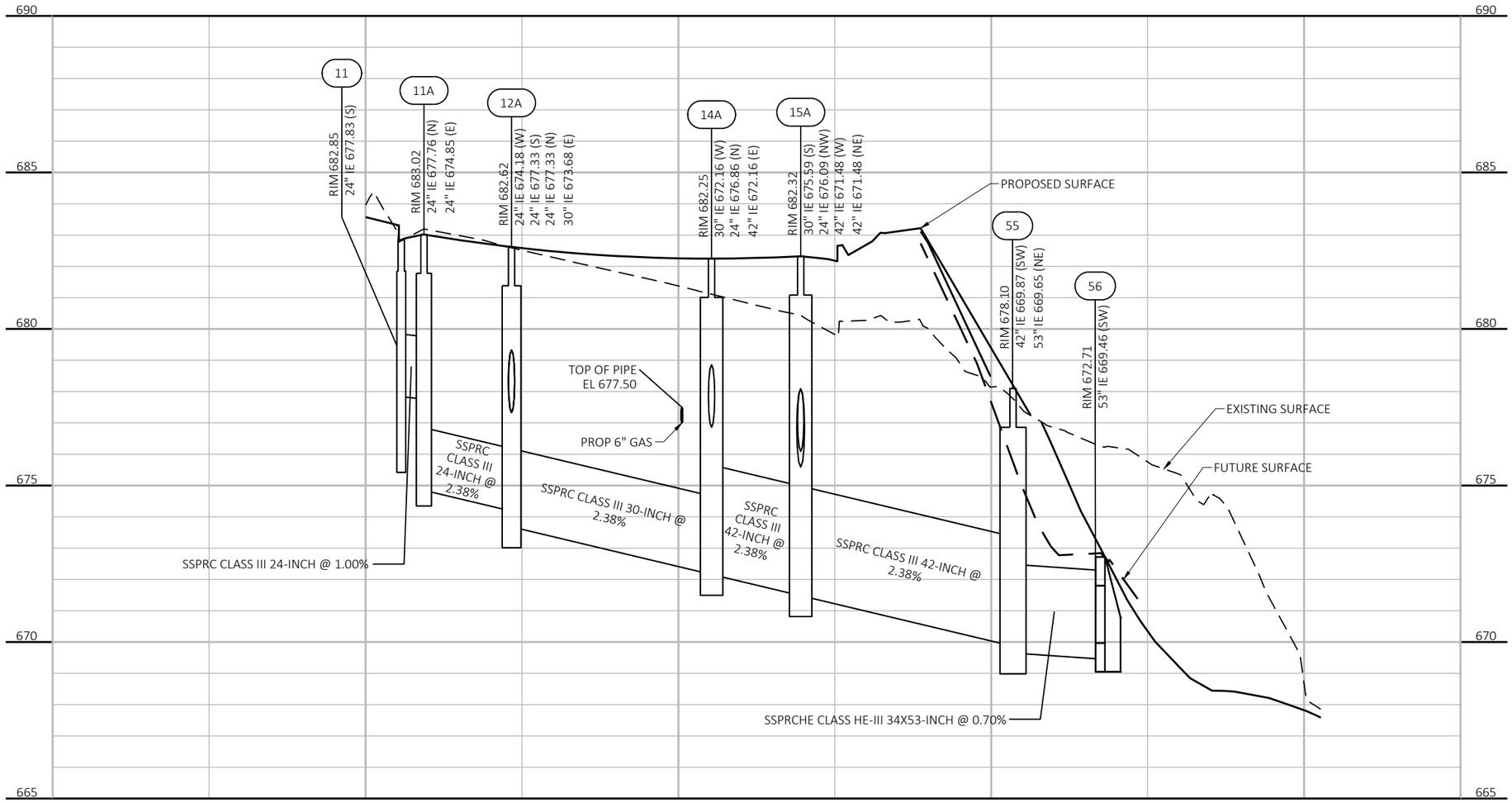
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FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\022509-SS.DWG
LAYOUT NAME - SS01

PLOT DATE : 12/19/2024 8:55 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

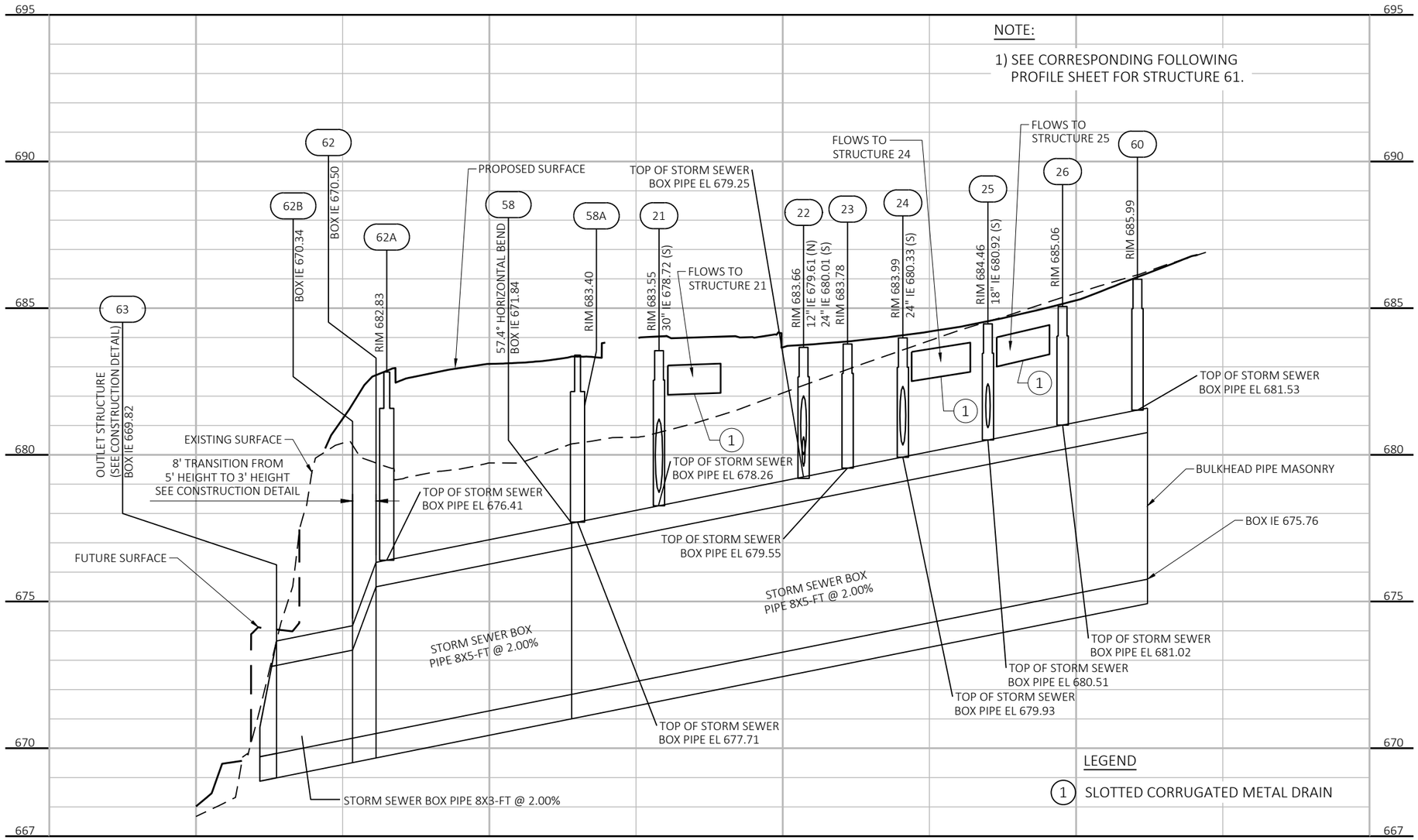
WISDOT/CADDS SHEET 42

2



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 50	E

2

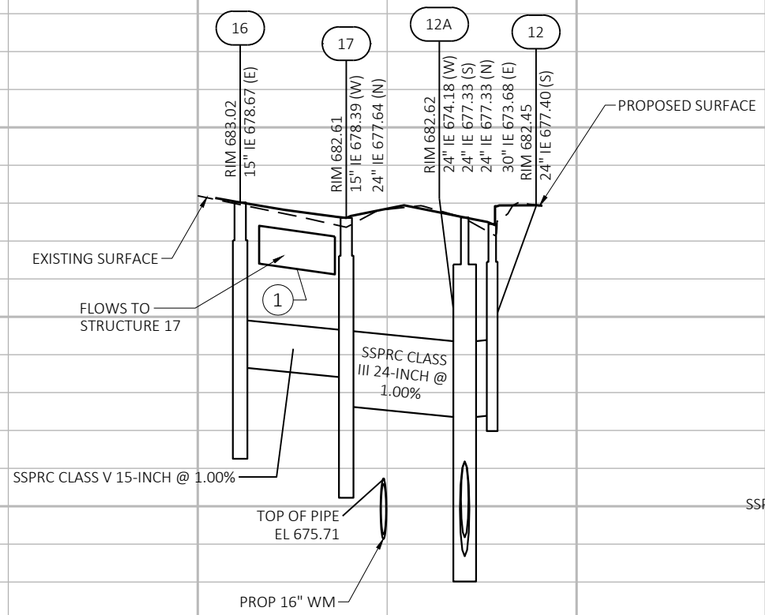


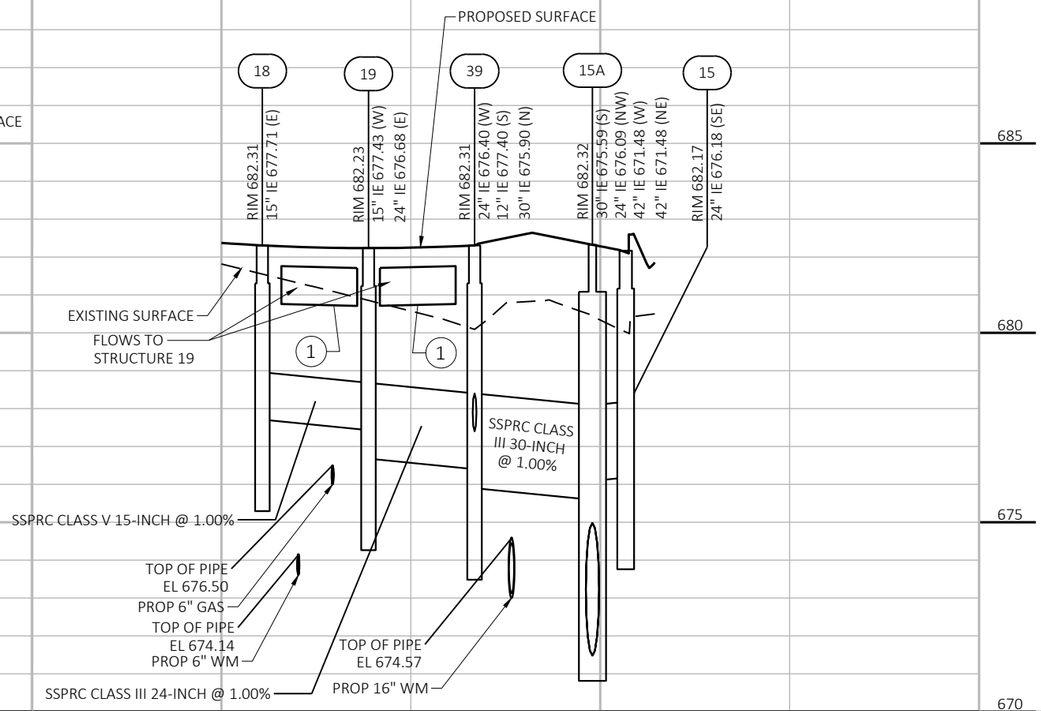
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 51	E

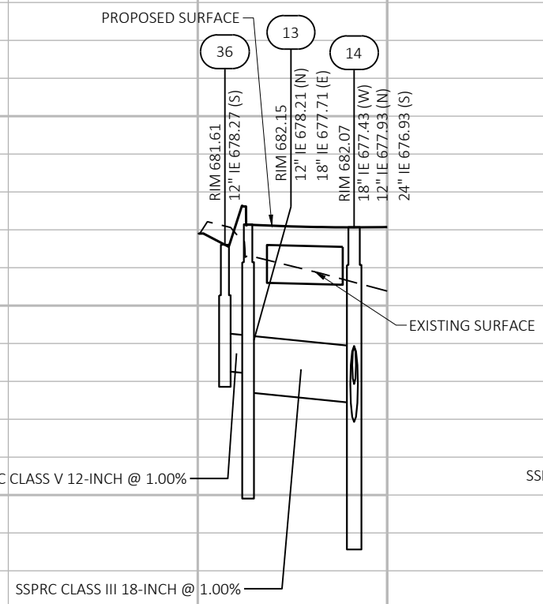
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\022509-SS.DWG
LAYOUT NAME - SS06

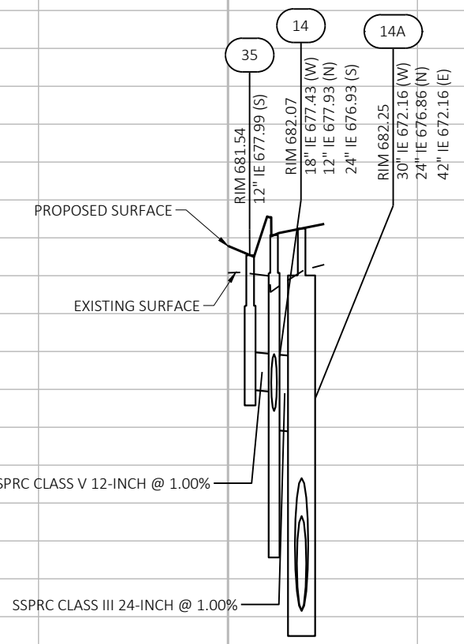
PLOT DATE : 12/19/2024 8:56 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

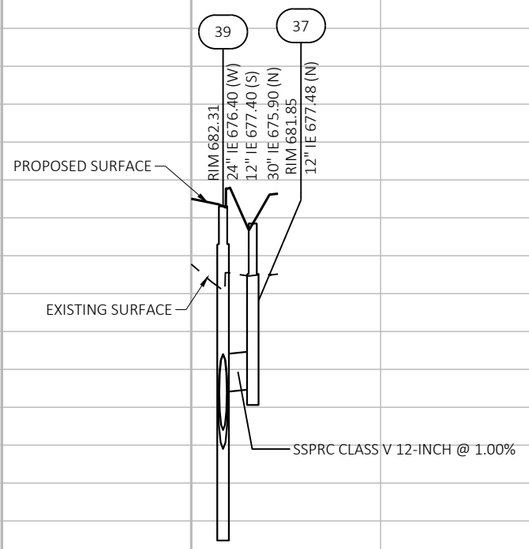
WISDOT/CADDS SHEET 42









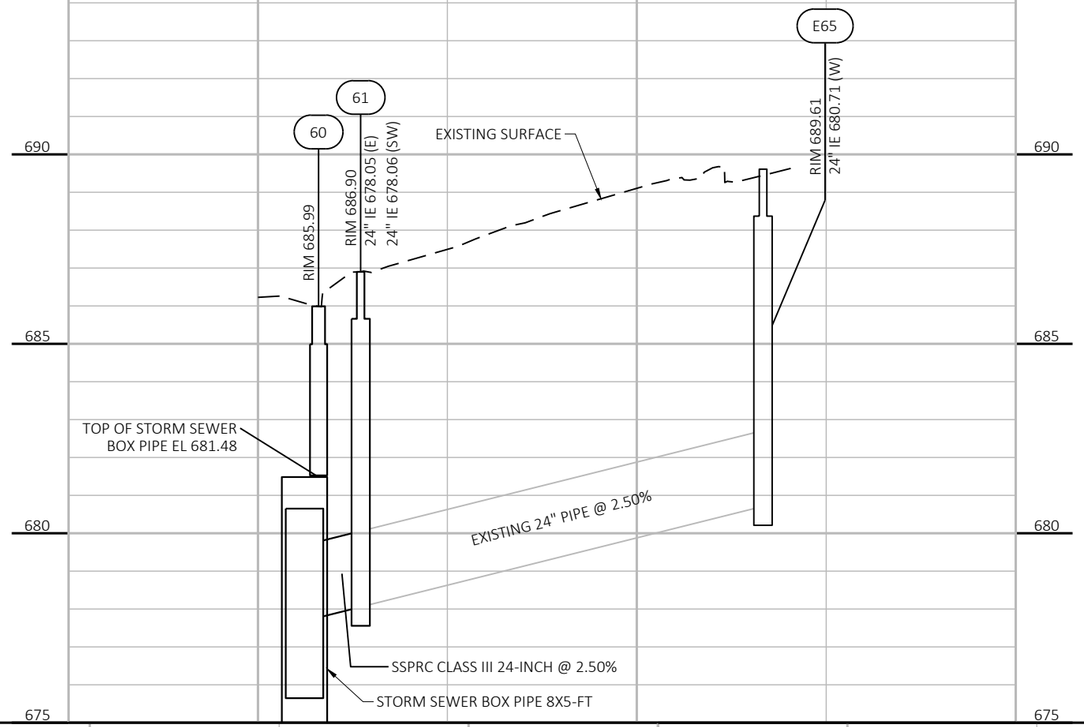


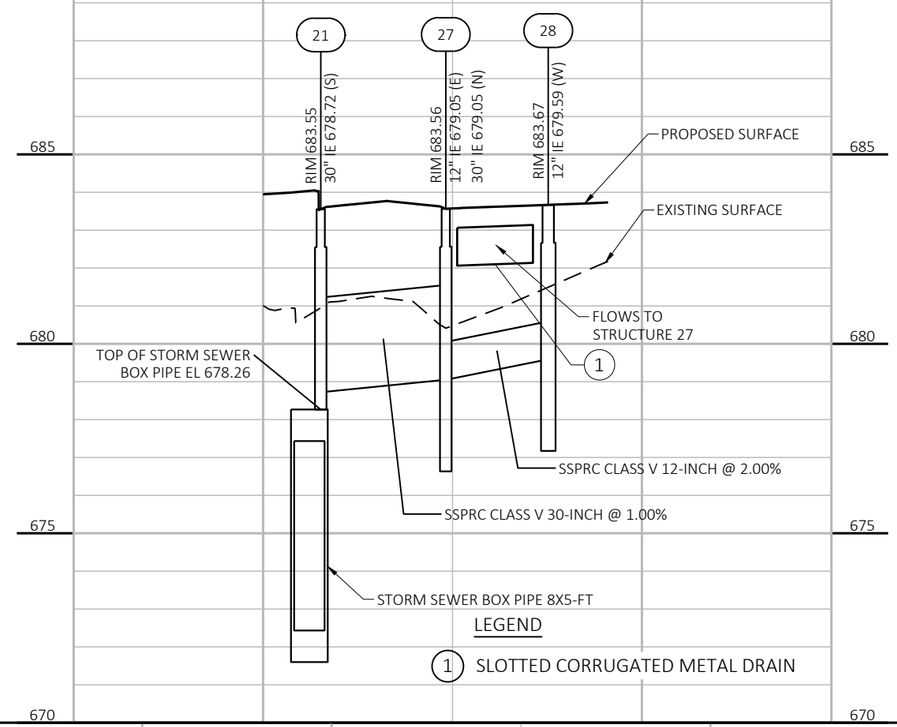
LEGEND

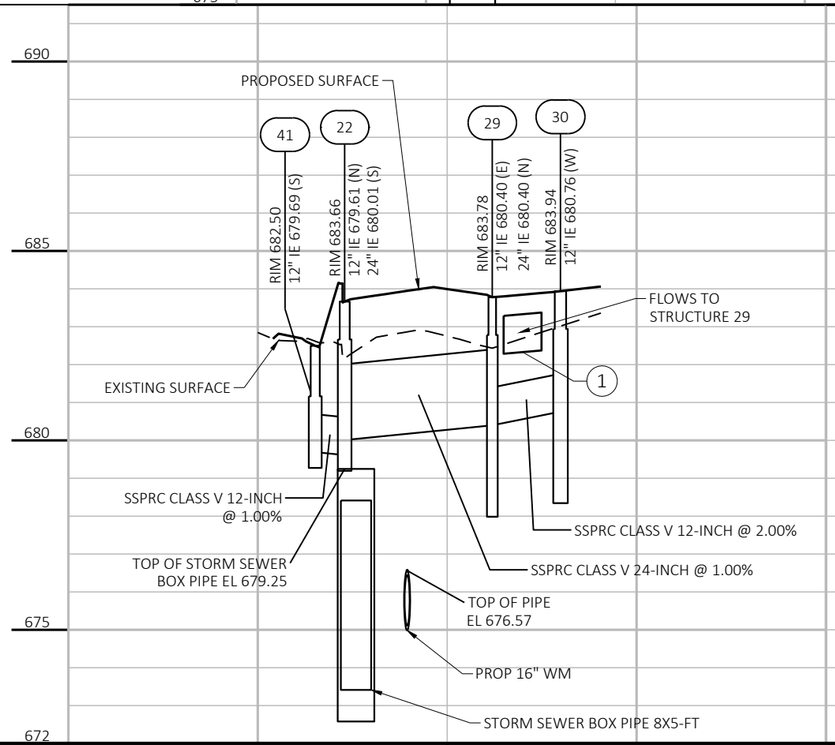
1 SLOTTED CORRUGATED METAL DRAIN

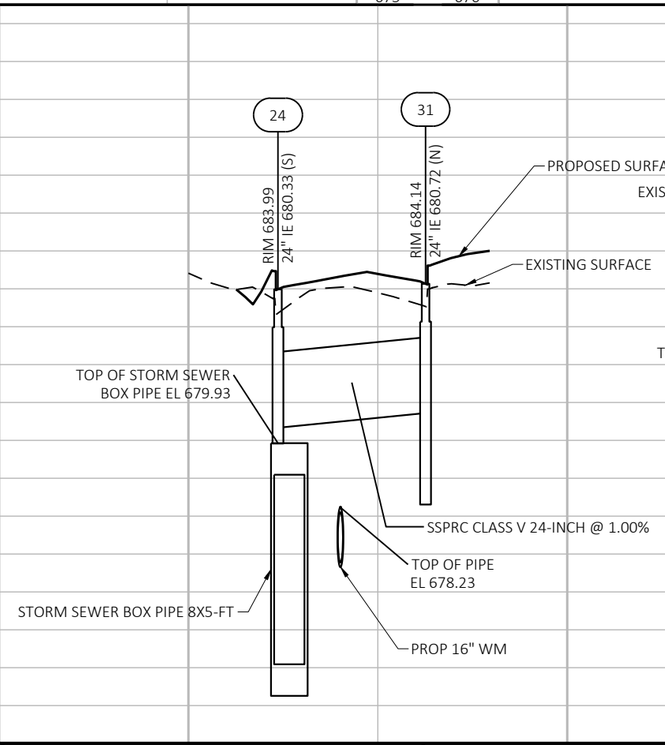
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 52	E

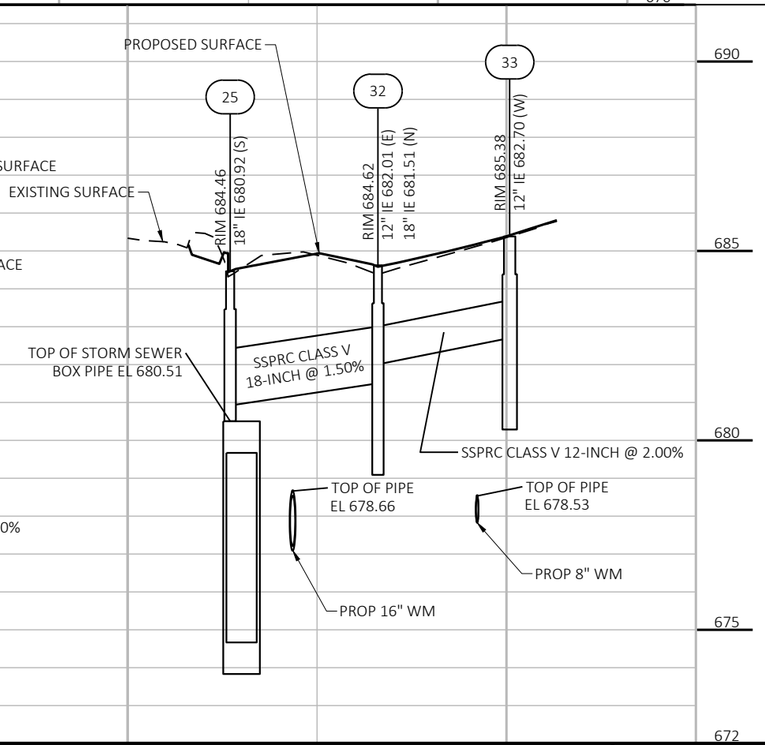
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\022509-SS.DWG
LAYOUT NAME - SS07
PLOT DATE : 12/19/2024 8:56 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 41



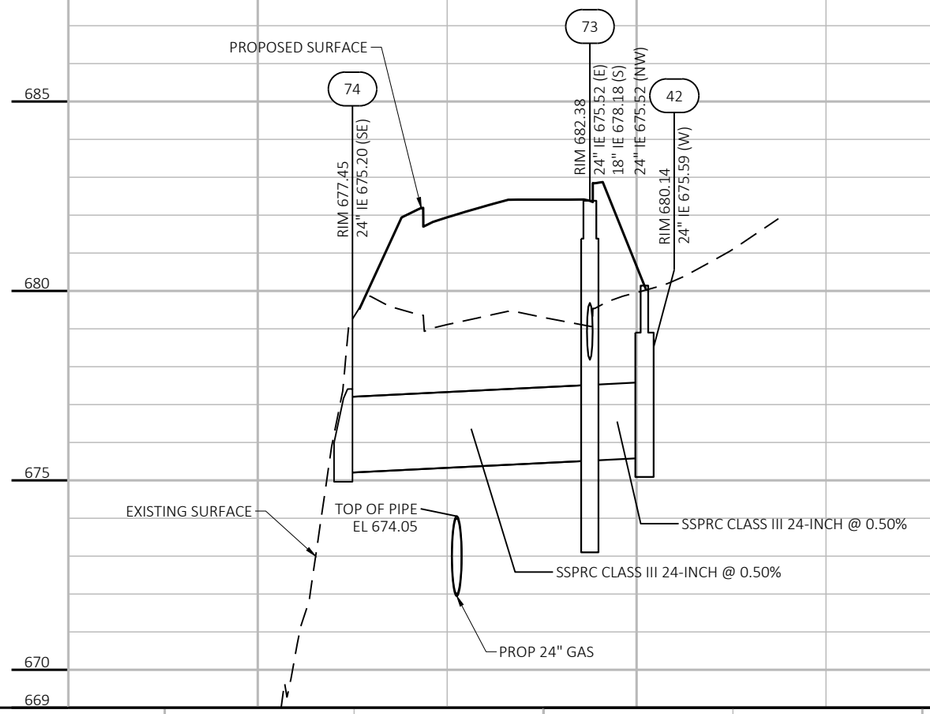


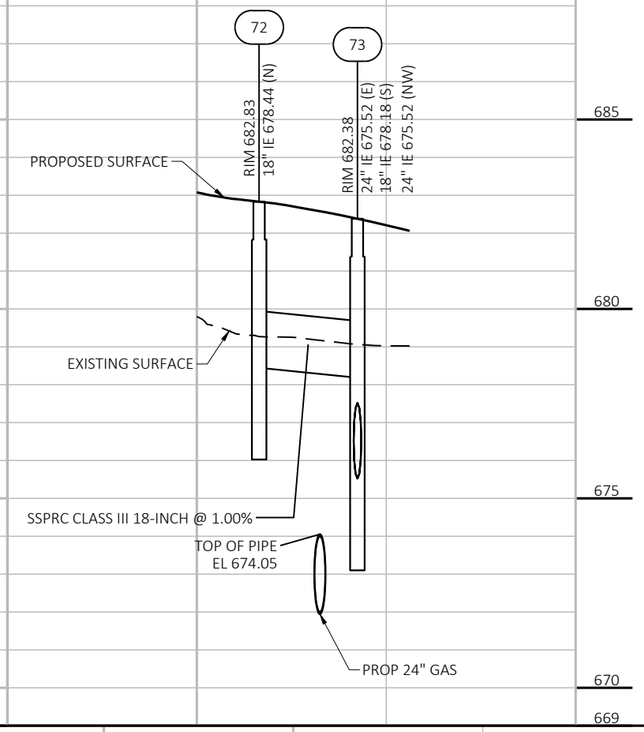


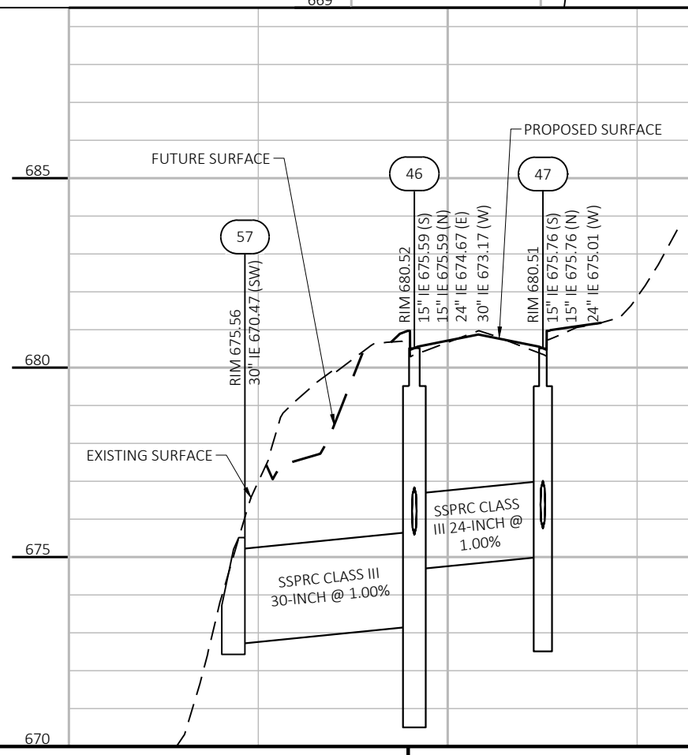


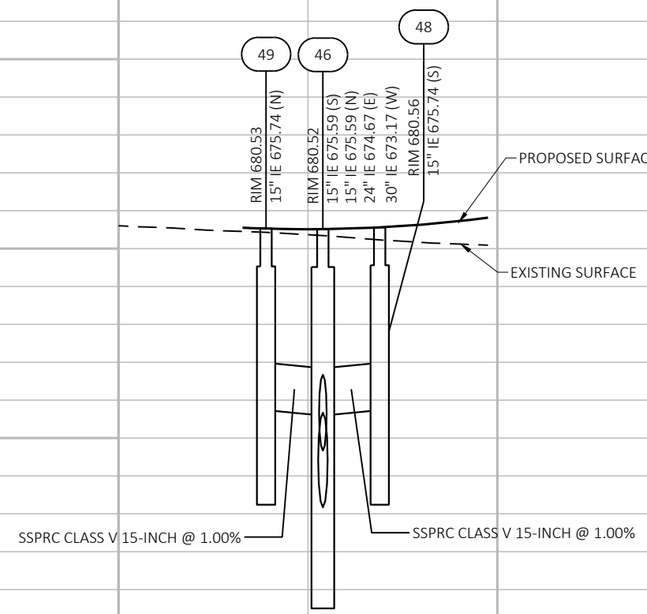


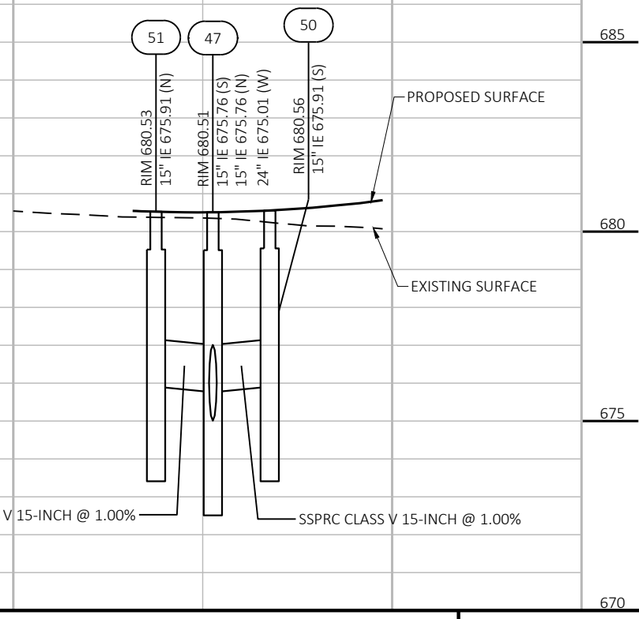
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 53	E





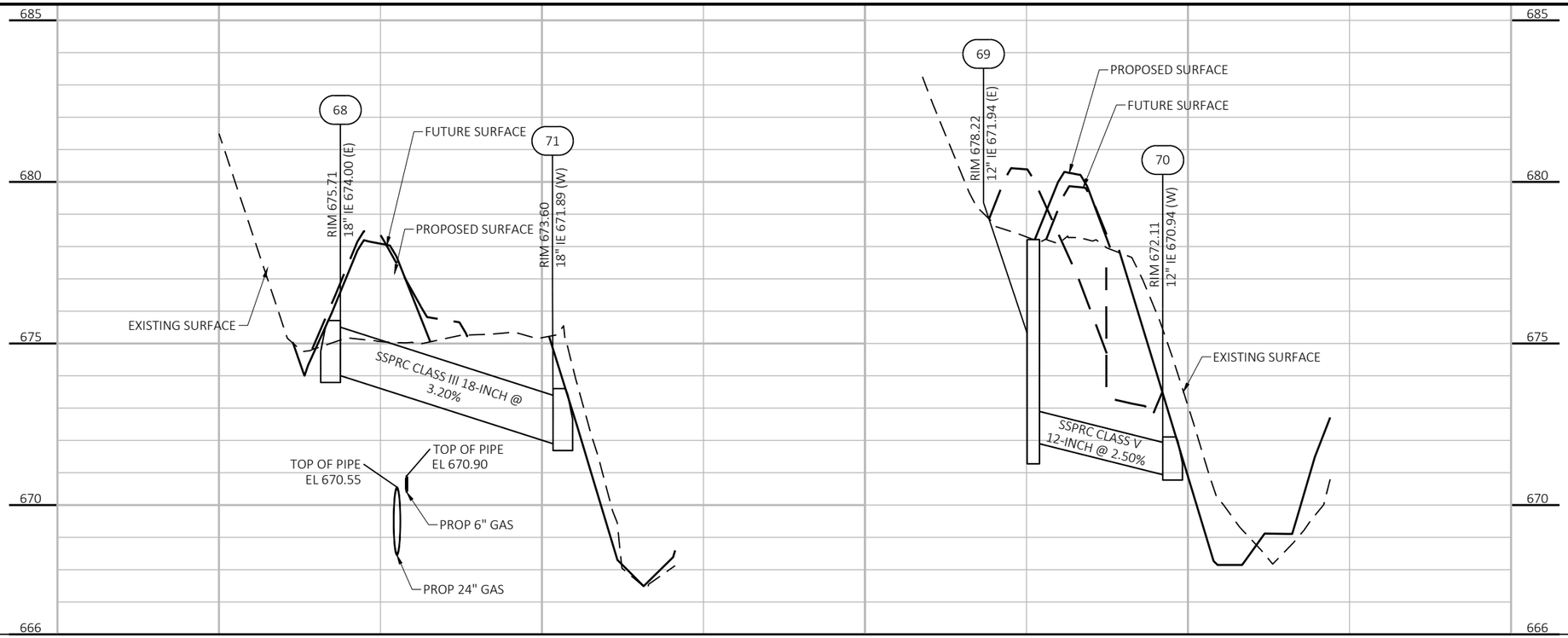






PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 54	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\022509-SS.DWG
LAYOUT NAME - SS09
PLOT DATE : 12/19/2024 8:56 AM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 41



2

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 55	E

WATERMAIN GENERAL NOTES

ALL CONSTRUCTION SHALL MEET STANDARDS IN THE CONTRACT DOCUMENTS, "WISCONSIN STANDARD SPECIFICATIONS FOR SEWER AND WATER" AND "DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION," LATEST EDISTIONS AND AMENDMENTS.

NO TREES OF SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER OR OWNER.

THE INFORMATION IN THIS PLAN SET REPRESENTS THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IN THE FIELD VERIFICATION OF ALL INFORMATION.

THE LOCATIONS OF UTILITIES, AS NOTED ON THE PLANS ARE APPROXIMATE, THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTRACTOR IS RESPONSIBLE FOR VERIFYING DEPTHS OF UTILITIES.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE BACKFILLED WITH GRANULAR BACKFILL, SLURRY, OR FLOWABLE FILL, AS DIRECTED BY THE ENGINEER OR OWNER.

ALL RIGHT OF WAY IS APPROXIMATE.

EROSION CONTROL MEASURES ARE TO BE IN PLACE BEFORE WORK COMMENCES AND MAINTAINED DURING CONSTRUCTION. ALL EROSION AND SEDIMENT CONTROL SHALL BE PREOVIDED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE WDNR "TECHNICAL STANDARDS"

EROSION CONTROL FEATURES ARE AT SUGGESTED LOCATIONS. THEY SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION.

ALL WATERMAIN VALVES SHALL OPEN TO THE RIGHT. VALVES 12" AND SMALLER SHALL BE RESILIENT WEDGE GATE VALVES. VALVES 16" AND LARGER SHALL BE BUTTERFLY VALVES.

ALL WATERMAINS WITH LESS THAN 5' OF COVER SHALL BE INSULATED TRENCHWALL TO TRENCHWALL WITH 2" RIGID BLUE STYROFOAM.

RETURN ALL EXISTING MANHOLE CASTINGS, INLET CASTINGS, AND HYDRANTS PLANNED TO BE ABANDONED TO OWNER.

CONTRACTOR SHALL REMOVE HYDRANTS AND CUT HYDRANT BARREL 2' BELOW THE FINISH GRADE SURFACE AND FILL WITH GRANULAR MATERIAL. THIS WORK IS INCIDENTAL TO THE PROJECT.

COST OF ALL FITTINGS TO CONNECT TO EXISTING PIPES ARE INCIDENTAL TO THE COST OF THE PIPE ITEM.

GRANULAR BACKFILL IS REQUIRED FOR ALL SANITARY SEWER, WATERMAIN, STORM SEWER, AND LATERALS INSTALLED OR RELAYED UNDER THIS CONTRACT. GRANULAR BACKFILL SHALL BE COMPACTED IN 12" LIFTS.

CONTRACTOR SHALL FOLLOW ALL REGULATORY REQUIREMENTS REGARDING THE HANDLING, TRANSPORTING, AND DISPOSING OF LEAD WATER SERVICES.

WATERMAIN SHALL BE RESTRAINED ACCORDING TO THE TABLE BELOW:

Fitting	Minimum Length–Ft
90 Degree Bend (≤ 6 inches)	36
90 Degree Bend (8 inches to 10 inches)	54
90 Degree Bend (12 inches to 14 inches)	72
90 Degree Bend (16 inches)	84
45 Degree Bend (≤ 8 inches)	18
45 Degree Bend (10 inches to 16 inches)	36
22 1/2 Degree Bend ≤ 16 inches	18
11 1/4 Degree Bend ≤ 16 inches	9
Fire Hydrant Leads	All Joints
End of Line Tees (≤ 4 inches)*	18 (Along Branch)
End of Line Tees (6 inches to 8 inches)*	36 (Along Branch)
End of Line Tees (10 inches to 12 inches)*	54 (Along Branch)
End of Line Tees (14 inches to 16 inches)*	72 (Along Branch)
Dead End and Valves (8 inches)	66

LEGEND

EXISTING WATER MAIN, HYDRANT, VALVE & CURB STOP
PROPOSED WATER MAIN, HYDRANT, VALVE & CURB STOP
HYDRANT EXISTING, PROPOSED
WATER VALVE EXISTING, PROPOSED
CURB STOP EXISTING, PROPOSED

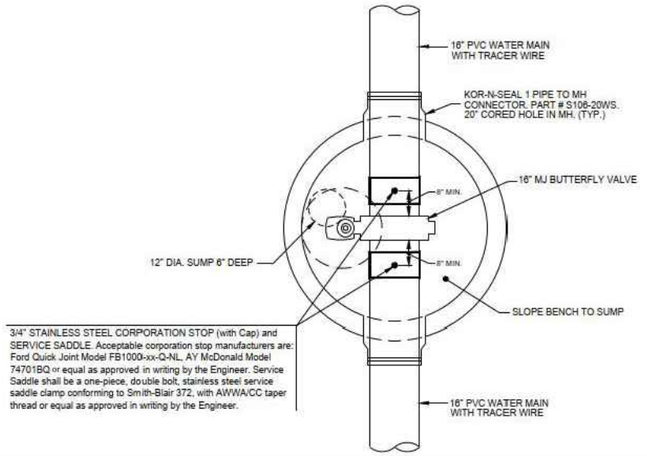
WISCONSIN
JEREMY L. SCHWARTZ
E - 40478
MILWAUKEE, WISCONSIN
PROFESSIONAL ENGINEER
10-30-2024

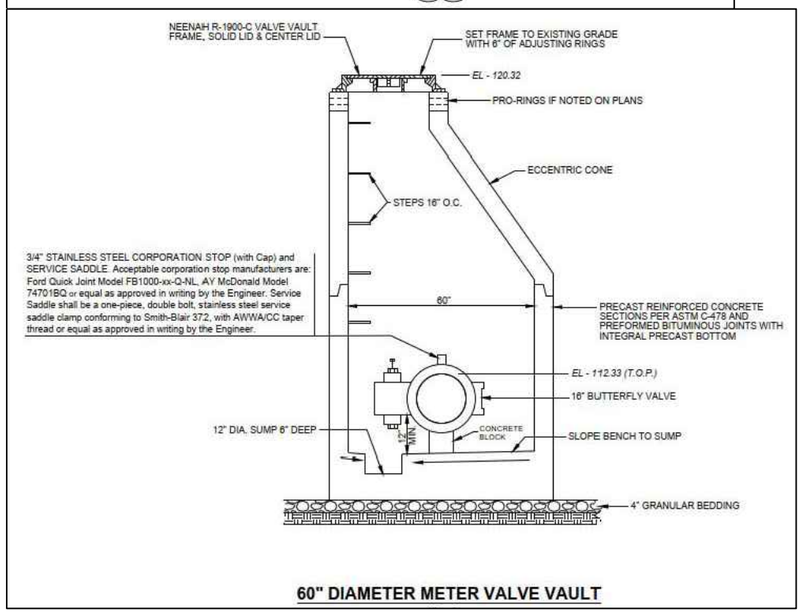
2

WATERMAIN CONSTRUCTION PHASING

1. BEGIN CONSTRUCTION EITHER AT THE EAST OR WEST END OF THE PROJECT.
   a) IF STARTING AT THE EAST, INSTALL THE TEE AT 11+34, THE 3 VALVES, AIR RELEASE VALVE, AND PLUG PRIOR TO SHUTTING THE THE EXISTING WATERMAIN DOWN AND CONNECTING TO EXISTING. CAP THE EXISTING WATERMAIN AT 11+33 AND CONNECT TO THE EXISTING WATERMAIN AT 11+33, 31' RT.
   b) IF STARTING AT THE WEST INSTALL THE VALVE AT 1+61, THEN SHUT DOWN THE EXISTING MAIN, REMOVE THE EXISTING TEE AT 1+61,7.9' LT, CAP THE EXISTING MAIN AT 1+62,7.8' RT, AND INSTALL THE NEW TEE AT 1+58.
2. INSTALL ENTIRE MAINLINE INCLUDING ALL FITTINGS, HYDRANTS, HYDRANT LEADS, VALVES, THE WATER TESTING MANHOLE, AND SADDLES FOR LATERALS.
3. INSTALL CASING PIPE FROM 8+08 TO 9+58. IT IS RECOMMENDED TO DRILL FROM THE WEST WITH THE RECEIVING PIT AT THE EAST SINCE THERE IS MORE SPACE AT THE WEST.
4. PRESSURE TEST AND TAKE SAFE DRINKING WATER SAMPLES. A MINIMUM OF 2 TESTS ARE REQUIRED. FIELD ENGINEER MUST BE PRESENT FOR ALL PRESSURE TESTS AND RESULTS OF THE SAFE DRINKING WATER SAMPLES SHOULD BE FORWARDED TO FIELD ENGINEER.
5. INSTALL NEW LATERALS.
6. TIE IN NEW WATERMAIN AT THE WEST/EAST.

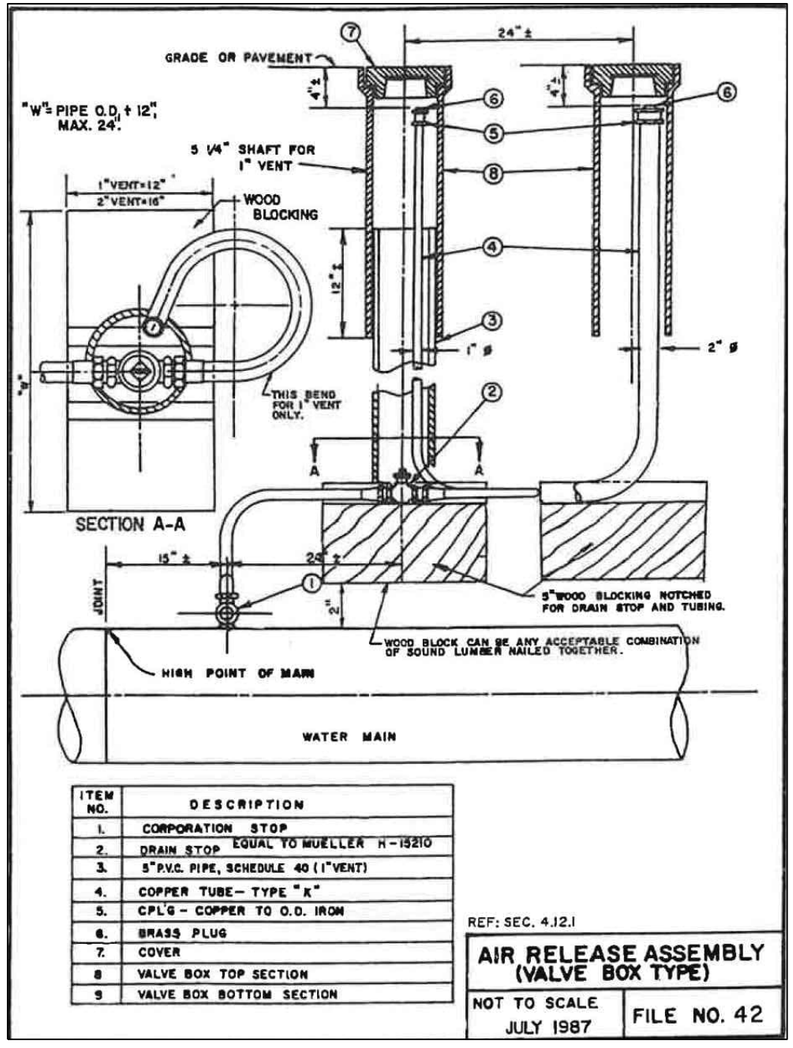
2





WATER MAIN TESTING MANHOLE

SCALE: NONE



ITEM NO.	DESCRIPTION
1.	CORPORATION STOP
2.	DRAIN STOP EQUAL TO MUELLER H-15210
3.	5"P.V.C. PIPE, SCHEDULE 40 (1"VENT)
4.	COPPER TUBE- TYPE "K"
5.	CPL'G - COPPER TO O.D. IRON
6.	BRASS PLUG
7.	COVER
8	VALVE BOX TOP SECTION
9	VALVE BOX BOTTOM SECTION

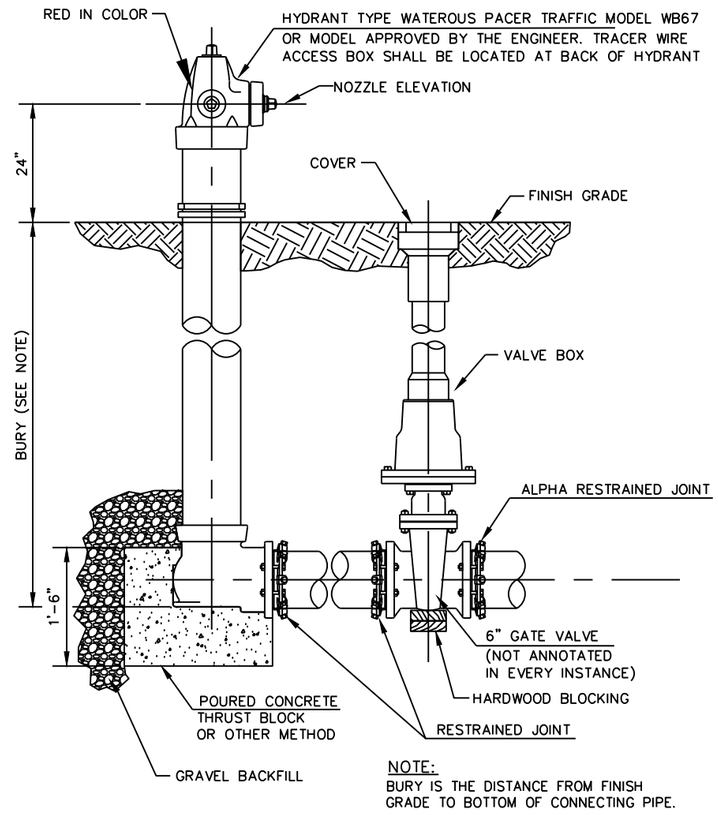
REF: SEC. 4.12.1

AIR RELEASE ASSEMBLY (VALVE BOX TYPE)

NOT TO SCALE JULY 1987 | FILE NO. 42

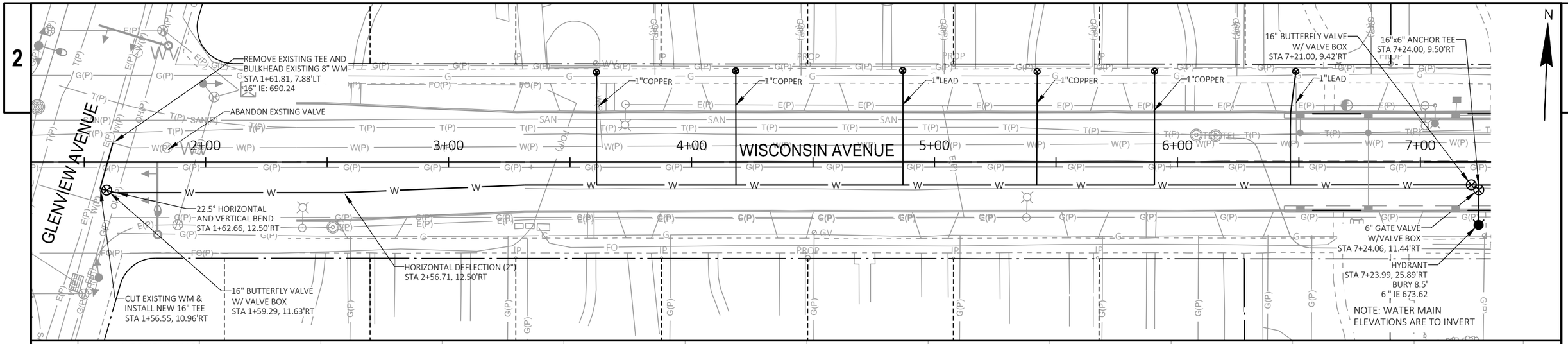
AIR RELEASE VALVE

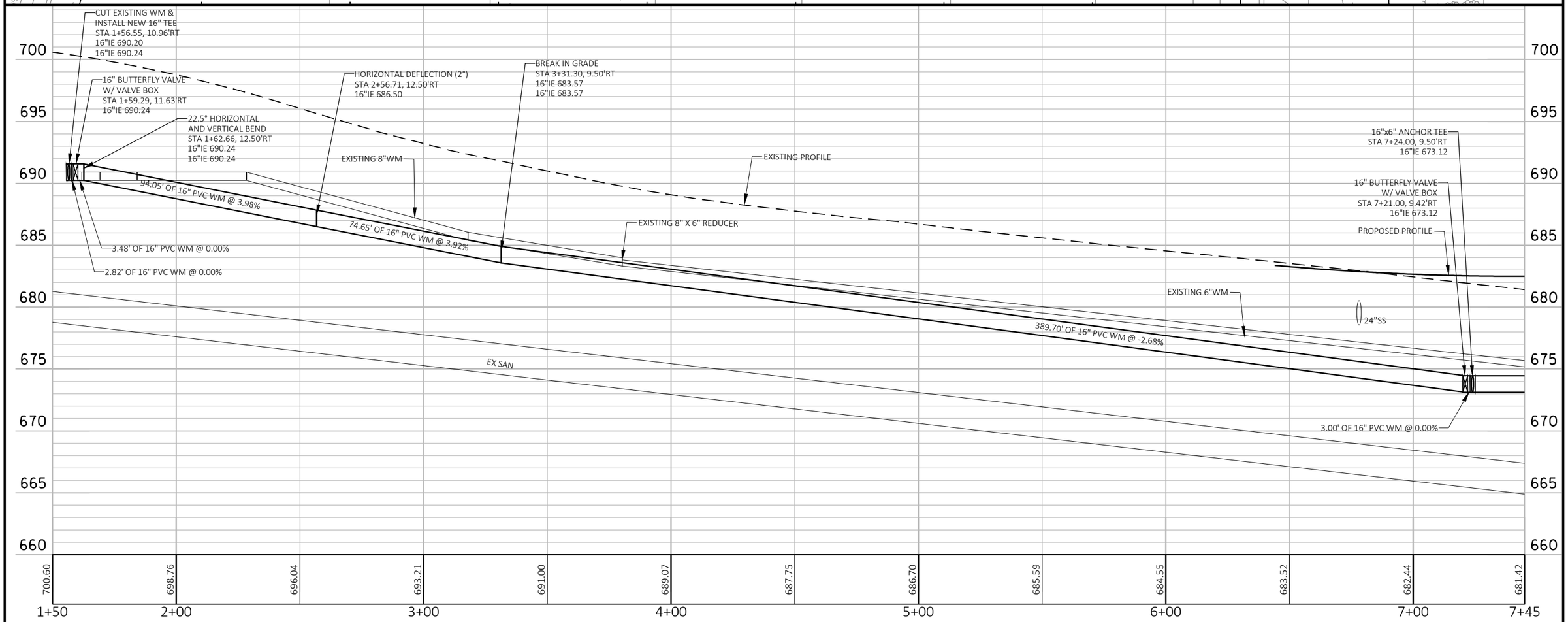
SCALE: NONE



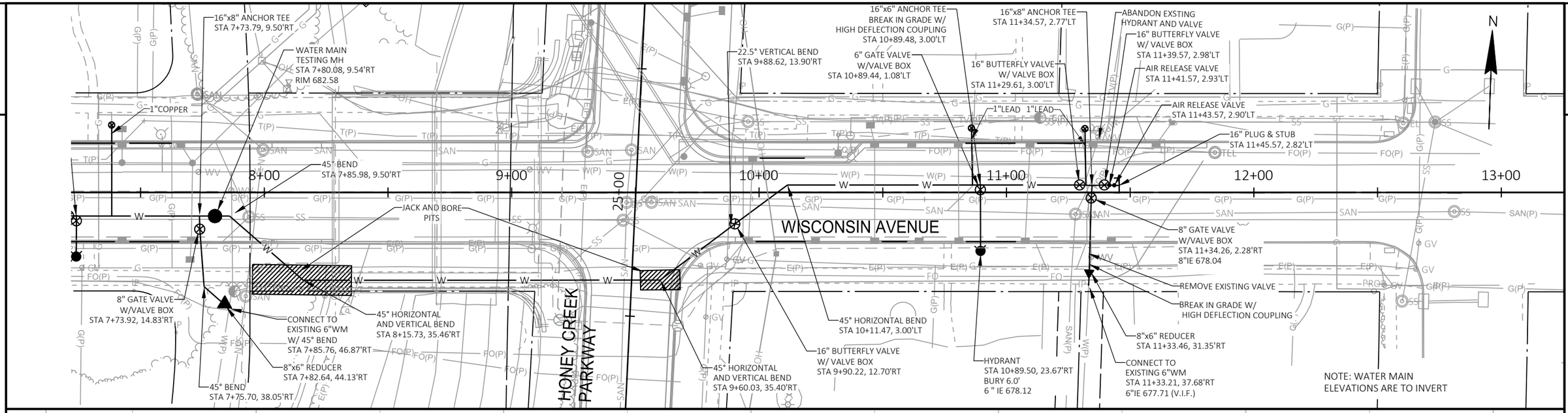
HYDRANT

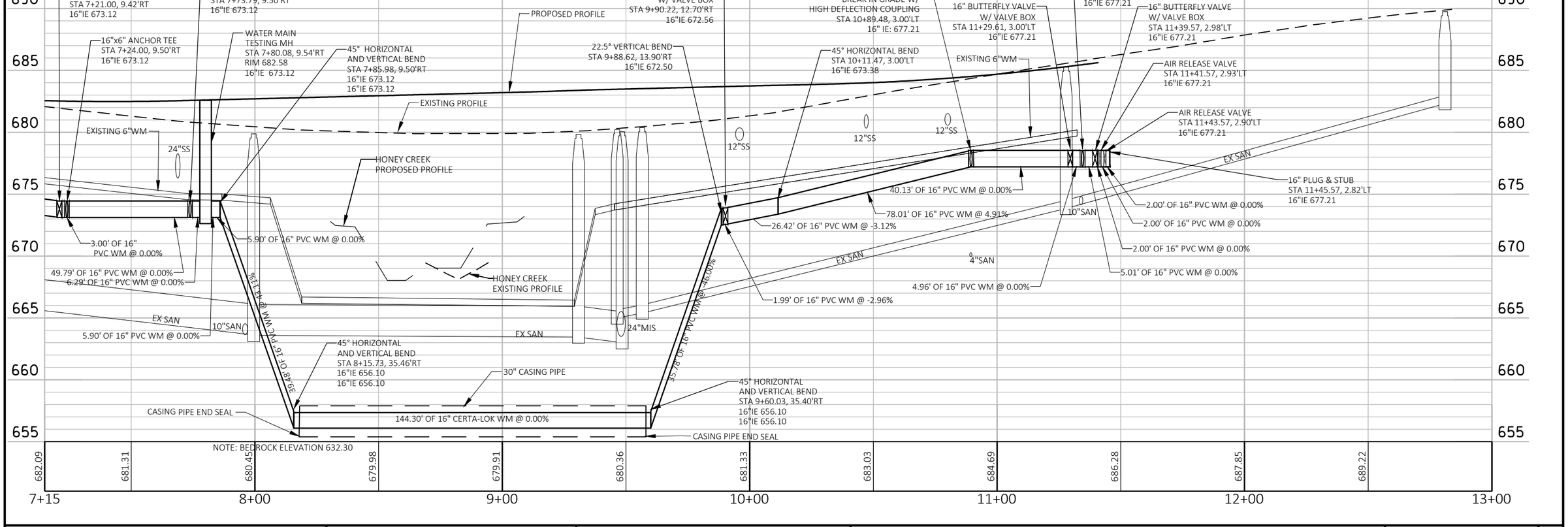
SCALE: NONE





PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	WATERMAIN PLAN AND PROFILE	SHEET 59	E





PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	WATERMAIN PLAN AND PROFILE	SHEET 60	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\PIPENETWORKS\PIPENTWRK-WISAVE-WM.DWG
LAYOUT NAME - WM-2

PLOT DATE : 12/19/2024 4:03 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : ##########

2

SIGNING REMOVAL LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- (RXXX) EXISTING SIGN TO BE REMOVED
- (RCW) EXISTING SIGN TO BE REMOVED BY THE CITY OF WAUWATOSA
- (MXXX) EXISTING SIGN TO BE MOVED

N

R/L N HONEY CREEK PKWY

N HONEY CREEK PKWY

R/L W WISCONSIN AVE

W WISCONSIN AVE

HONEY CREEK

HONEY CREEK PARKWAY SIGN REMOVED BY OTHERS COORDINATE WITH MILWAUKEE COUNTY PARKS

6+00 7+00 8+00 9+00 25+00 26+00 10+00 11+00 12+00

24+00

0

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 61	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\023101_SR.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 4:54 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

SIGNING LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON EXISTING POST(S)
- (MXXX) EXISTING SIGN TO BE MOVED
- (PXXX) PROPOSED SIGN
- ** CITY PROVIDED SIGN TO BE INSTALLED

NOTE: ADDITIONAL SIGNING TO BE INSTALLED BY CITY OF WAUWATOSA.

N

R/L N HONEY CREEK PKWY

N HONEY CREEK PKWY

W WISCONSIN AVE

R/L W WISCONSIN AVE

HONEY CREEK PKWY

HONEY CREEK

B-40-1033

P101 SPEED LIMIT 30 R2-1 24"X30"

P102 S1-1 36"X36"
P103 S16-7L 30"X18"
P104 STOP R1-1F 30"X30"

P105 ** HONEY CREEK PKWY

P106 S1-1 36"X36"
P107 S16-7L 30"X18"
P108 STOP R1-1F 30"X30"

P109 ** W WISCONSIN AVE

P110 **

P111 S1-1 36"X36"
P112 S16-7L 30"X18"
P113 STOP R1-1F 30"X30"

P114 **

P115 S1-1 36"X36"
P116 S16-7L 30"X18"
P117 STOP R1-1F 30"X30"

M21

M22

CONCRETE BASE SPECIAL
HONEY CREEK PARKWAY SIGN
REPLACED BY OTHERS
COORDINATE WITH
MILWAUKEE COUNTY PARKS

6+00 7+00 8+00 9+00 25+00 26+00 10+00 11+00 12+00 24+00

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET 62	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 4:55 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR NOT BACKFEEDING CIRCUITS PRIOR TO DISCONNECTING ANY BRANCH CIRCUITS FROM OLD SOURCE.

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION. THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE AND A MINIMUM OF 3 INCHES BELOW ALL PAVEMENT BASE MATERIALS. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING AT THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	10-FT	LIGHTING CONTROL CENTERS:	10-FT
EMBEDDED JUNCTION BOXES:	3-FT	POLES:	5-FT IN AND 5-FT OUT

WIRE AND CONDUIT IS LISTED IN THE MISCELLANEOUS QUANTITIES BASED UPON THE EARLIEST STAGE SHOWN. CONTRACTOR MAY INSTALL LATER WHEN LOAD NEEDS TO BE ENERGIZED.

FOR CITY OF WAUWATOSA, REMOVED ALUMINUM POLES AND LED LUMINAIRES TO BE SALVAGED AND PICKED UP BY CITY OF WAUWATOSA. CONTRACTOR TO CONTACT THE CITY OF WAUWATOSA TRAFFIC & ELECTRICAL DEPT. SUPERINTENDENT, RANDY MICHELZ (414-471-8429) 7 DAYS PRIOR TO THE REMOVAL FOR EQUIPMENT DROP OFF COORDINATION.

SUBSTATIONS "UU" AND "RR" WIRING DELIVERS 240 / 480 V POWER TO THE FIELD CIRCUITS AND AS NOTED THERE ARE FOUR CONDUCTORS (1-BLACK, 1-RED, 1-WHITE, AND 1-GREEN).

PULL BOXES WHERE EXISTING STREET LIGHTING WIRES SPLICE INTO NEW WIRING WILL REQUIRE A GROUND ROD TO LAND THE GROUND WIRE UNTIL A FUTURE DATE WHEN IT CAN BE BROUGHT BACK TO THE SUBSTATION.

LEGEND - LIGHTING

- CABLE IN CONDUIT - 2", UNLESS NOTED IN PLAN
- PROPOSED MUNICIPAL LIGHTING UNIT
- EXISTING MUNICIPAL LIGHTING UNIT
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36" EXCEPT INDICATED IN PLAN
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- STUBOUT

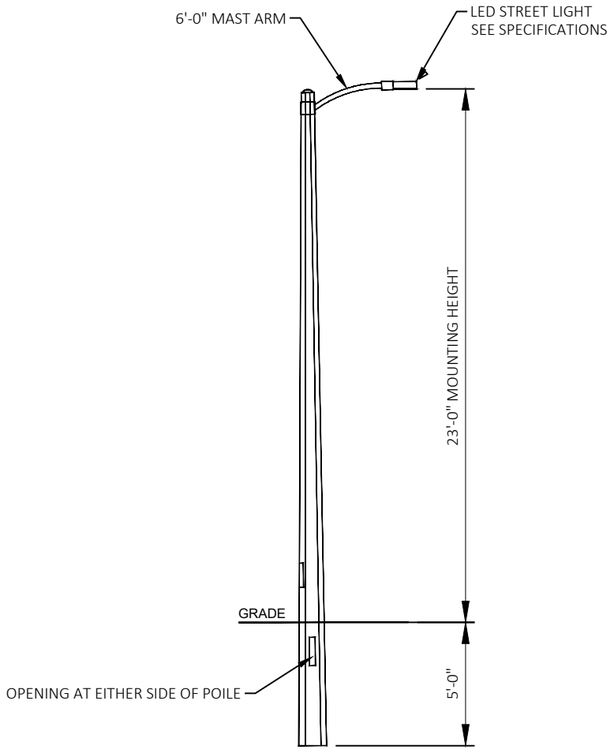
EX	EXISTING
LP	LIGHT POLE
LPB	LIGHTING PULL BOX

MUNICIPAL LUMINAIRE WITH DECO POLE IDENTIFICATION

STATION - OFFSET
LED-A1

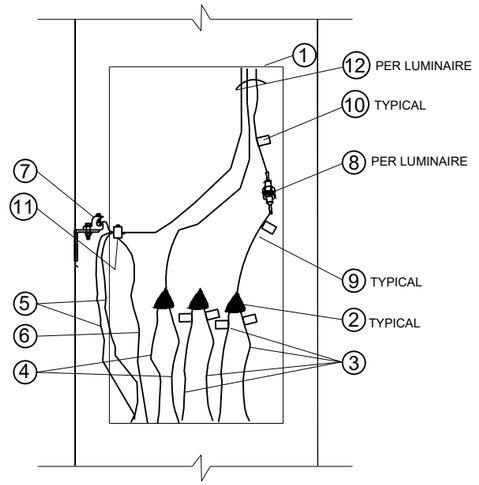
- LUMINAIRE NUMBER
- CIRCUIT
- LUMINAIRE TYPE SOURCE

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN - GENERAL NOTES	SHEET 63	E



CONCRETE POLE DETAIL

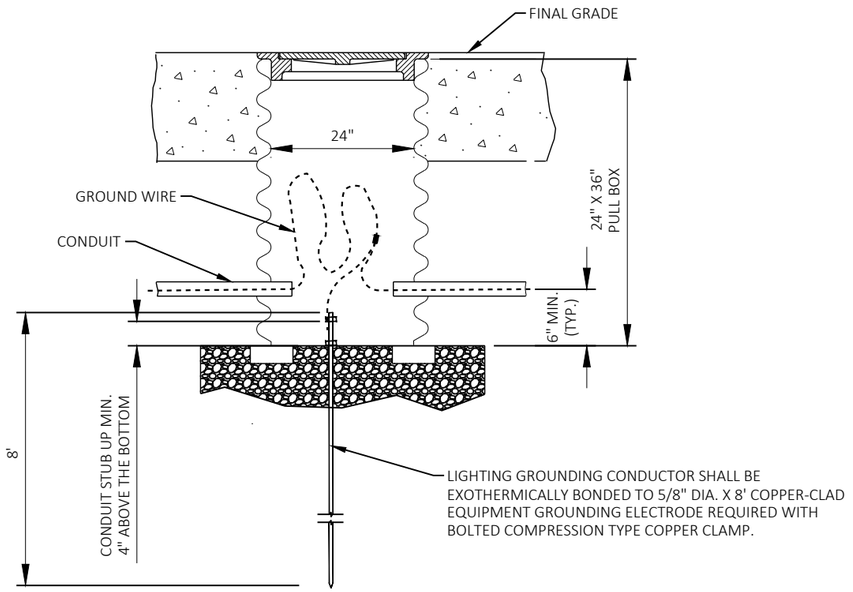
NTS



1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED CONDUCTORS
4. GROUNDED CONDUCTORS
5. SYSTEM GROUNDING CONDUCTORS
6. GROUND CONDUCTOR TO GROUND ROD
7. HANDHOLE GROUNDING LUG
8. INLINE FUSE ASSEMBLY W/5A KTK FUSE WITH WEATHERPROOF BOOTS
9. 12" PIGTAIL BETWEEN SPLICE AND FUSE ASSEMBLY
10. CIRCUIT TAG
11. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTION (NOT INSULATED)
12. 3#12 RHW/USE TO LUMINAIRE

STANDARD POLE WIRING DETAIL

NTS



GROUND ROD DETAIL

NTS

2

N

HONEY CREEK

N HONEY CREEK PKWY

EXISTING R/W

R/L N HONEY CREEK PKWY

STA 9+78, 46.8' LT
EXISTING MILWAUKEE COUNTY LIGHTING TO BE SALVAGED (SEE MILWAUKEE COUNTY LIGHTING REMOVAL PLAN)

STA 9+30, 42.3' LT
REMOVE EXISTING CONCRETE BASE (NOTE 5)

STA 7+02, 23.2' LT
EX-UU-D-12
REMOVE EXISTING LIGHTING UNIT (NOTE 4)

STA 9+16, 22.2' LT
SEE NOTE 5

STA 9+91, 21.9' LT
SEE NOTE 5

STA 10+37, 23.0' LT
EX-UU-B-26
REMOVE EXISTING LIGHTING UNIT (NOTE 4)

STA 12+60, 28.0' LT
EX-UU-B-16JB
EXISTING PULL BOX TO REMAIN

7+00 8+00 9+00 10+00 11+00 12+00

26+00 25+00 24+00 23+00

STA 9+08, 22.8' RT
EX-UU-B-15
REMOVE AND SALVAGE EXISTING LIGHTING UNIT (NOTE 4 & 5)

STA 9+18, 44.8' RT
REMOVE EXISTING CONCRETE BASE (NOTE 5)

STA 7+76, 22.1' RT
REMOVE CONCRETE BASE (NOTE 5)

STA 9+27, 53.9' RT
EXISTING MILWAUKEE COUNTY LIGHTING TO BE SALVAGED (SEE MILWAUKEE COUNTY LIGHTING REMOVAL PLAN)

DISCONNECT EXISTING LIGHTING WIRES AT EXISTING POLE UU-B-14 LOCATED AT BROOKSIDE PL (NOTE 3)

STA 9+89, 23.1' RT
SEE NOTE 5

STA 9+72, 41.6' RT
REMOVE EXISTING CONCRETE BASE (NOTE 5)

R/L W WISCONSIN AVE

SLOPE INTERCEPT (TYP)

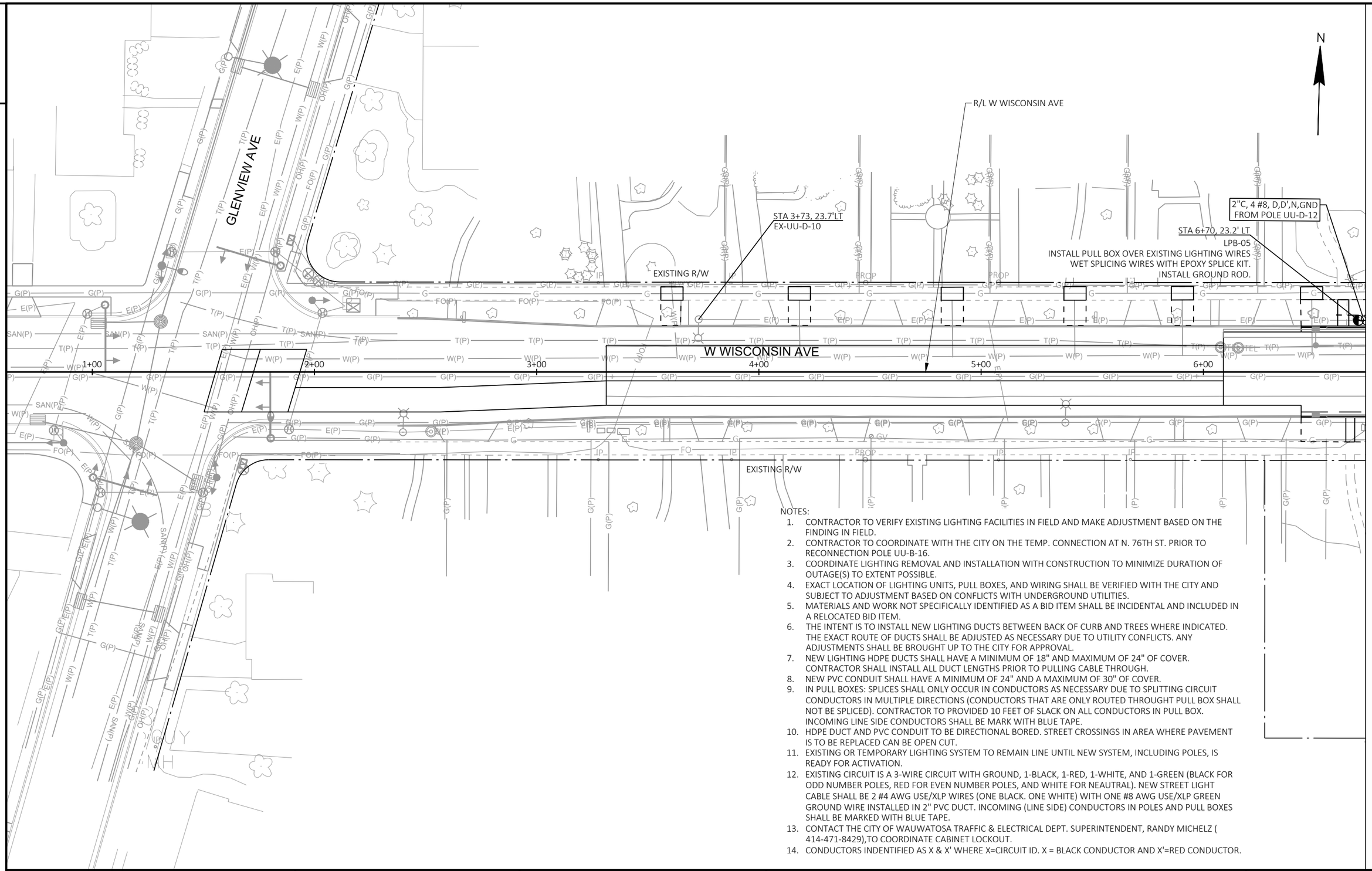
U-BB-16
EXISTING LIGHT POLE TO REMAIN

NOTE:

1. EXISTING INFORMATION IS BASED ON AVAILABLE ORIGINAL PLANS AND SITE OBSERVATIONS AND IS NOT GURANTEED 100% ACCURATE. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND ADJUST REMOVAL AND INSTALLATION ACCORDINGLY.
2. LIGHT POLES (BEING REMOVED) AND UNDERGROUND CABLES (TO BE ABANDONED) AREA DIRECT BURY. UNLESS OTHERWISE NOTED.
3. CABINET "UU" (240/480V) IS LOCATED AT THE MEDIAN ON W. BLUEMOUND RD BETWEEN ELM SPRING AVE AND ROBERTSON ST. CABINET "RR" IS LOCATION AT THE SW QUADRANT OF W. WISCONSIN AVE. AND N. 68TH ST. INTERSECTION.
4. AFTER REMOVAL, ALUMINUM POLE AND ASSOCIATED ARM, POLE CAPS, LED FIXTURES AND HANDHOLE COVERS ARE TO BE RETURN TO THE CITY OF WAUWATOSA PUBLIC WORKS YARD LOCATED AT 11100 W WALNUT RD. CONTACT THE CITY ELECTRICAL DEPT. 7 DAYS PRIOR TO THE CONSTRUCTION FOR COORDINATION. CONCRETE POLES AND ASSOCIATED ARMS ARE TO BE DISPOSED OF BY THE CONTRACTOR.
5. LED BLINKER STOP SIGNS, FLASHERS, SOLAR PANELS, PUSHBUTTON, SIGNS POSTS, AND ANCHORS ARE TO BE REMOVED BY THE CITY OF WAUWATOSA. CONTRACTOR TO COORDINATE WITH THE CITY OF WAUWATOSA ELECTRICAL DEPT. 7 DAYS PRIOR TO THE CONSTRUCTION.
6. DO NOT DISCONNECT OR REMOVE EXISTING UNITS UNTIL THE TEMPORARY CONNECTION AT N. 76TH ST. IS OPERATIONAL.
7. CONTRACTOR TO COORDINATE WITH THE CITY TRAFFIC AND ELECTRICAL SUPERINTENDENT, RANDY MICHELZ (414-471-8429), PRIOR TO ENERGIZE THE SUBSTATION "UU" AND "RR" AND TO USE LOCK OUT TAG OUT METHODS.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVALS	SHEET 65	E

2



NOTES:

1. CONTRACTOR TO VERIFY EXISTING LIGHTING FACILITIES IN FIELD AND MAKE ADJUSTMENT BASED ON THE FINDING IN FIELD.
2. CONTRACTOR TO COORDINATE WITH THE CITY ON THE TEMP. CONNECTION AT N. 76TH ST. PRIOR TO RECONNECTION POLE UU-B-16.
3. COORDINATE LIGHTING REMOVAL AND INSTALLATION WITH CONSTRUCTION TO MINIMIZE DURATION OF OUTAGE(S) TO EXTENT POSSIBLE.
4. EXACT LOCATION OF LIGHTING UNITS, PULL BOXES, AND WIRING SHALL BE VERIFIED WITH THE CITY AND SUBJECT TO ADJUSTMENT BASED ON CONFLICTS WITH UNDERGROUND UTILITIES.
5. MATERIALS AND WORK NOT SPECIFICALLY IDENTIFIED AS A BID ITEM SHALL BE INCIDENTAL AND INCLUDED IN A RELOCATED BID ITEM.
6. THE INTENT IS TO INSTALL NEW LIGHTING DUCTS BETWEEN BACK OF CURB AND TREES WHERE INDICATED. THE EXACT ROUTE OF DUCTS SHALL BE ADJUSTED AS NECESSARY DUE TO UTILITY CONFLICTS. ANY ADJUSTMENTS SHALL BE BROUGHT UP TO THE CITY FOR APPROVAL.
7. NEW LIGHTING HDPE DUCTS SHALL HAVE A MINIMUM OF 18" AND MAXIMUM OF 24" OF COVER. CONTRACTOR SHALL INSTALL ALL DUCT LENGTHS PRIOR TO PULLING CABLE THROUGH.
8. NEW PVC CONDUIT SHALL HAVE A MINIMUM OF 24" AND A MAXIMUM OF 30" OF COVER.
9. IN PULL BOXES: SPLICES SHALL ONLY OCCUR IN CONDUCTORS AS NECESSARY DUE TO SPLITTING CIRCUIT CONDUCTORS IN MULTIPLE DIRECTIONS (CONDUCTORS THAT ARE ONLY ROUTED THROUGHT PULL BOX SHALL NOT BE SPLICED). CONTRACTOR TO PROVIDED 10 FEET OF SLACK ON ALL CONDUCTORS IN PULL BOX. INCOMING LINE SIDE CONDUCTORS SHALL BE MARK WITH BLUE TAPE.
10. HDPE DUCT AND PVC CONDUIT TO BE DIRECTIONAL BORED. STREET CROSSINGS IN AREA WHERE PAVEMENT IS TO BE REPLACED CAN BE OPEN CUT.
11. EXISTING OR TEMPORARY LIGHTING SYSTEM TO REMAIN LINE UNTIL NEW SYSTEM, INCLUDING POLES, IS READY FOR ACTIVATION.
12. EXISTING CIRCUIT IS A 3-WIRE CIRCUIT WITH GROUND, 1-BLACK, 1-RED, 1-WHITE, AND 1-GREEN (BLACK FOR ODD NUMBER POLES, RED FOR EVEN NUMBER POLES, AND WHITE FOR NEAUTRAL). NEW STREET LIGHT CABLE SHALL BE 2 #4 AWG USE/XLP WIRES (ONE BLACK. ONE WHITE) WITH ONE #8 AWG USE/XLP GREEN GROUND WIRE INSTALLED IN 2" PVC DUCT. INCOMING (LINE SIDE) CONDUCTORS IN POLES AND PULL BOXES SHALL BE MARKED WITH BLUE TAPE.
13. CONTACT THE CITY OF WAUWATOSA TRAFFIC & ELECTRICAL DEPT. SUPERINTENDENT, RANDY MICHELZ (414-471-8429),TO COORDINATE CABINET LOCKOUT.
14. CONDUCTORS INDENTIFIED AS X & X' WHERE X=CIRCUIT ID. X = BLACK CONDUCTOR AND X'=RED CONDUCTOR.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 66	E

NOTES:

1. CONTRACTOR TO VERIFY EXISTING LIGHTING FACILITIES IN FIELD AND MAKE ADJUSTMENT BASED ON THE FINDING IN FIELD.
2. CONTRACTOR TO COORDINATE WITH THE CITY ON THE TEMP. CONNECTION AT N. 76TH ST. PRIOR TO RECONNECTION POLE UU-B-16.
3. COORDINATE LIGHTING REMOVAL AND INSTALLATION WITH CONSTRUCTION TO MINIMIZE DURATION OF OUTAGE(S) TO EXTENT POSSIBLE.
4. EXACT LOCATION OF LIGHTING UNITS, PULL BOXES, AND WIRING SHALL BE VERIFIED WITH THE CITY AND SUBJECT TO ADJUSTMENT BASED ON CONFLICTS WITH UNDERGROUND UTILITIES.
5. MATERIALS AND WORK NOT SPECIFICALLY IDENTIFIED AS A BID ITEM SHALL BE INCIDENTAL AND INCLUDED IN A RELOCATED BID ITEM.
6. THE INTENT IS TO INSTALL NEW LIGHTING DUCTS BETWEEN BACK OF CURB AND TREES WHERE INDICATED. THE EXACT ROUTE OF DUCTS SHALL BE ADJUSTED AS NECESSARY DUE TO UTILITY CONFLICTS. ANY ADJUSTMENTS SHALL BE BROUGHT UP TO THE CITY FOR APPROVAL.
7. NEW LIGHTING HDPE DUCTS SHALL HAVE A MINIMUM OF 18" AND MAXIMUM OF 24" OF COVER. CONTRACTOR SHALL INSTALL ALL DUCT LENGTHS PRIOR TO PULLING CABLE THROUGH.
8. NEW PVC CONDUIT SHALL HAVE A MINIMUM OF 24" AND A MAXIMUM OF 30" OF COVER.
9. IN PULL BOXES: SPLICES SHALL ONLY OCCUR IN CONDUCTORS AS NECESSARY DUE TO SPLITTING CIRCUIT CONDUCTORS IN MULTIPLE DIRECTIONS (CONDUCTORS THAT ARE ONLY ROUTED THROUGHT PULL BOX SHALL NOT BE SPLICED). CONTRACTOR TO PROVIDED 10 FEET OF SLACK ON ALL CONDUCTORS IN PULL BOX. INCOMING LINE SIDE CONDUCTORS SHALL BE MARK WITH BLUE TAPE.
10. HDPE DUCT AND PVC CONDUIT TO BE DIRECTIONAL BORED. STREET CROSSINGS IN AREA WHERE PAVEMENT IS TO BE REPLACED CAN BE OPEN CUT.
11. EXISTING OR TEMPORARY LIGHTING SYSTEM TO REMAIN LINE UNTIL NEW SYSTEM, INCLUDING POLES, IS READY FOR ACTIVATION.
12. EXISTING CIRCUIT IS A 3-WIRE CIRCUIT WITH GROUND, 1-BLACK, 1-RED, 1-WHITE, AND 1-GREEN (BLACK FOR ODD NUMBER POLES, RED FOR EVEN NUMBER POLES, AND WHITE FOR NEAUTRAL). NEW STREET LIGHT CABLE SHALL BE 2 #4 AWG USE/XLP WIRES (ONE BLACK. ONE WHITE) WITH ONE #8 AWG USE/XLP GREEN GROUND WIRE INSTALLED IN 2" PVC DUCT. INCOMING (LINE SIDE) CONDUCTORS IN POLES AND PULL BOXES SHALL BE MARKED WITH BLUE TAPE.
13. CONTACT THE CITY OF WAUWATOSA TRAFFIC & ELECTRICAL DEPT. SUPERINTENDENT, RANDY MICHELZ (414-471-8429),TO COORDINATE CABINET LOCKOUT.
14. CONDUCTORS INDENTIFIED AS X & X' WHERE X=CIRCUIT ID. X = BLACK CONDUCTOR AND X'=RED CONDUCTOR.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 67	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\023620-LP.DWG
LAYOUT NAME - LPPERM2
PLOT DATE : 12/18/2024 4:58 PM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

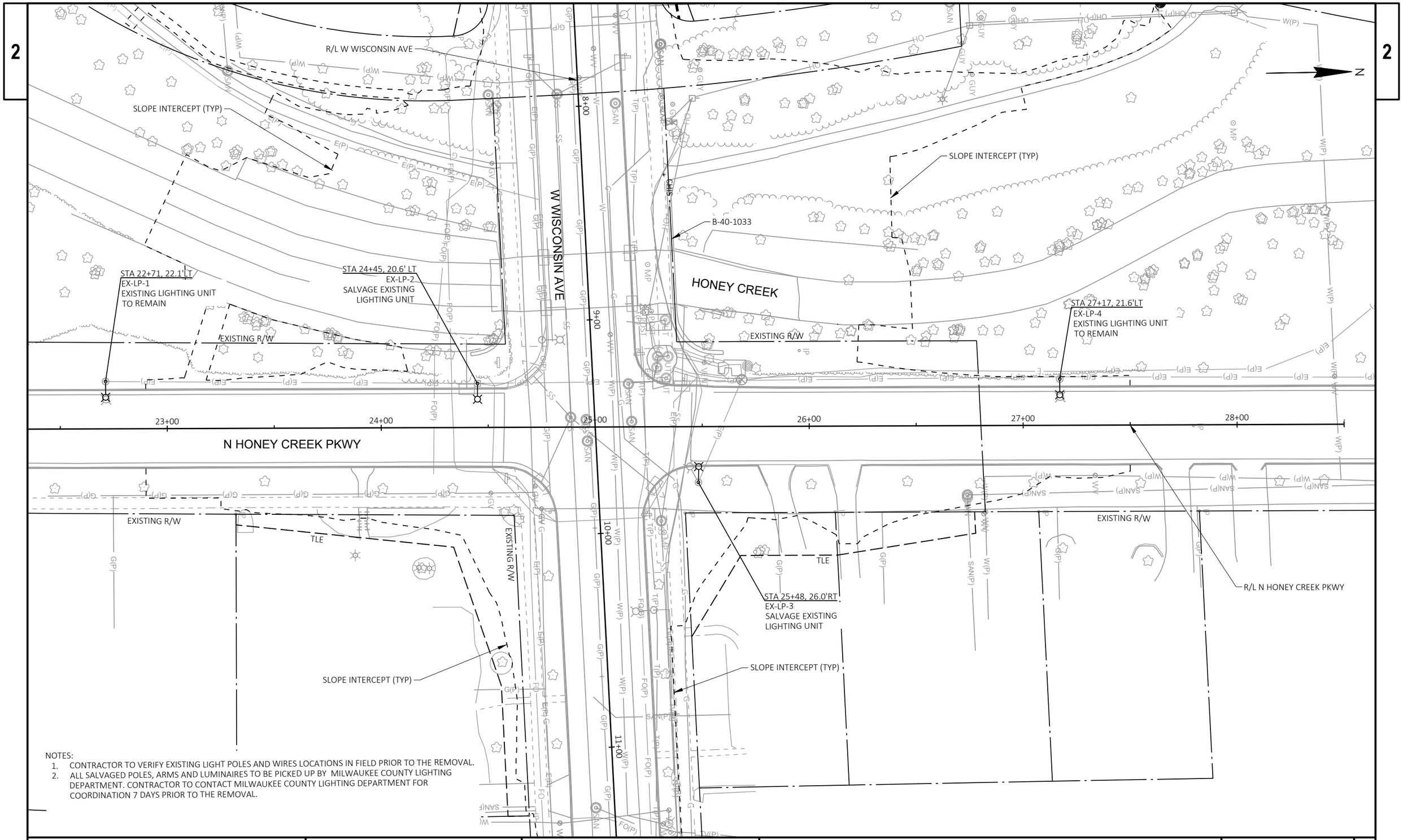




NOTE:

1. EXISTING INFORMATION IS BASED ON AVAILABLE ORIGINAL PLANS AND SITE OBSERVATIONS AND IS NOT GURANTEED 100% ACCURATE. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND ADJUST REMOVAL AND INSTALLATION ACCORDINGLY.
2. CONTRACTOR TO COORDINATE WITH THE CITY TRAFFIC AND ELECTRICAL SUPERINTENDENT, RANDY MICHELZ (414-471-8429), PRIOR TO ENERGIZE THE SUBSTATION "UU" AND "RR" AND TO USE LOCK OUT TAG OUT METHODS.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 68	E



NOTES:

1. CONTRACTOR TO VERIFY EXISTING LIGHT POLES AND WIRES LOCATIONS IN FIELD PRIOR TO THE REMOVAL.
2. ALL SALVAGED POLES, ARMS AND LUMINAIRES TO BE PICKED UP BY MILWAUKEE COUNTY LIGHTING DEPARTMENT. CONTRACTOR TO CONTACT MILWAUKEE COUNTY LIGHTING DEPARTMENT FOR COORDINATION 7 DAYS PRIOR TO THE REMOVAL.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL - MILWAUKEE COUNTY LIGHTING	SHEET 69	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\023621-LP-RM.DWG
LAYOUT NAME - 01
PLOT DATE : 12/18/2024 5:00 PM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

R/L W WISCONSIN AVE

SLOPE INTERCEPT (TYP)

W WISCONSIN AVE

8+00

9+00

10+00

11+00

B-40-1033

HONEY CREEK

EXISTING MILWAUKEE COUNTY LIGHTING
TO REMAIN

STA 22+71, 22.1'LT
EX-LP-1
SPLICE #4 AL TRIPLEX
AT TOP OF THE POLE

EXISTING R/W

#4 AL TRIPLEX
TO TOP OF POLE EX-LP-1, AND SPLICE TO
LIGHTING WIRES AT TOP OF THE POLE

23+00

24+00

25+00

26+00

27+00

28+00

N HONEY CREEK PKWY

STA 26+25, 32.0'LT
WP-04
TEMPORARY POLE

STA 27+17, 21.6'LT
EX-LP-4
SPLICE #4 AL TRIPLEX
AT TOP OF THE POLE

#4 AL TRIPLEX

EXISTING R/W

EXISTING R/W

TLE

STA 23+27, 39.1' RT
WP-01
TEMPORARY POLE

#4 AL TRIPLEX

STA 24+78, 57.9' RT
WP-02
TEMPORARY POLE

SLOPE INTERCEPT (TYP)

STA 25+79, 38.6'RT
WP-03
TEMPORARY POLE

#4 AL TRIPLEX

SLOPE INTERCEPT (TYP)

EXISTING R/W

R/L N HONEY CREEK PKWY

NOTES:

1. CONTRACTOR TO VERIFY THE EXISTING LIGHTING WIRES LOCATION AND MAKE ADJUSTMENT BASED ON THE FINDING IN FIELD.
2. CONTRACTOR TO COORDINATE WITH THE MILWAUKEE COUNTY PARK LIGHTING DEPARTMENT ON TEMPORARY CONNECTIONS.
3. CONTRACTOR TO ADJUST TEMPORARY POLES AND OVERHEAD WIRES LOCATIONS IN FIELD TO AVOID TREES.
4. EXISTING OR TEMPORARY LIGHTING SYSTEM TO REMAIN LIVE UNTIL NEW SYSTEM, INCLUDING POLES, IS READY FOR ACTIVATION.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - MILWAUKEE COUNTY LIGHTING	SHEET 70	E

2

N

R/L W WISCONSIN AVE

SLOPE INTERCEPT (TYP)

EX-LP-1
EXISTING MILWAUKEE COUNTY LIGHTING

STA 22+89, 22.0'LT
LPB-10
PULL BOX 12"X12"X12"
(NOTE 1)

2"C, 3 #4 AWG LIGHTING WIRES

EXISTING R/W

B-40-1033

STA 25+54, 26.6'LT
LPB-11
PULL BOX 12"X12"X12"

EXISTING R/W

SLOPE INTERCEPT (TYP)

HONEY CREEK

EXISTING MILWAUKEE COUNTY LIGHTING

2"C, 3 #4 AWG LIGHTING WIRES

STA 27+17, 21.6'LT
EX-LP-4
EXISTING MILWAUKEE
COUNTY LIGHTING

8+00

9+00

10+00

11+00

23+00

24+00

25+00

26+00

27+00

28+00

N HONEY CREEK PKWY

W WISCONSIN AVE

EXISTING R/W

TLE

EXISTING R/W

SLOPE INTERCEPT (TYP)

TLE

SLOPE INTERCEPT (TYP)

EXISTING R/W

R/L N HONEY CREEK PKWY

NOTES:

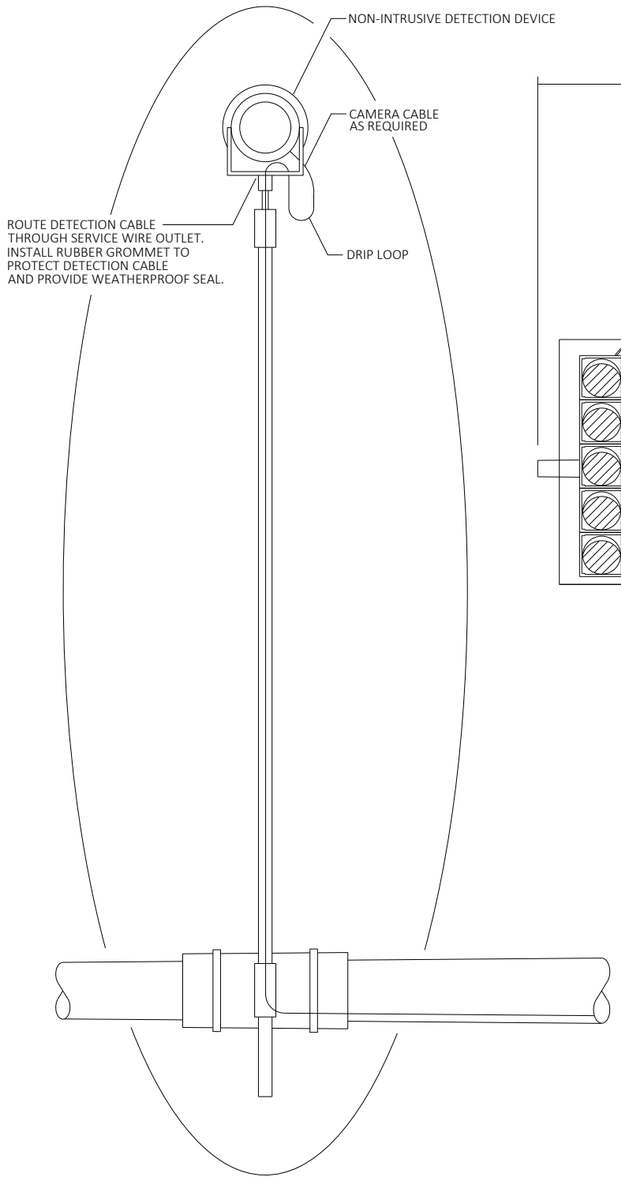
1. INSTALL PULL BOX LPB-12 OVER EXISTING MILWAUKEE COUNTY LIGHTING WIRES PRIOR TO THE REMOVAL AND SPLICE LIGHTING WIRES IN PULL BOX.
2. CONTRACTOR TO VERIFY THE EXISTING LIGHTING WIRES LOCATION AND MAKE ADJUSTMENT BASED ON THE FINDING IN FIELD.

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	LIGHTING PLAN - MILWAUKEE COUNTY LIGHTING	SHEET 71	E

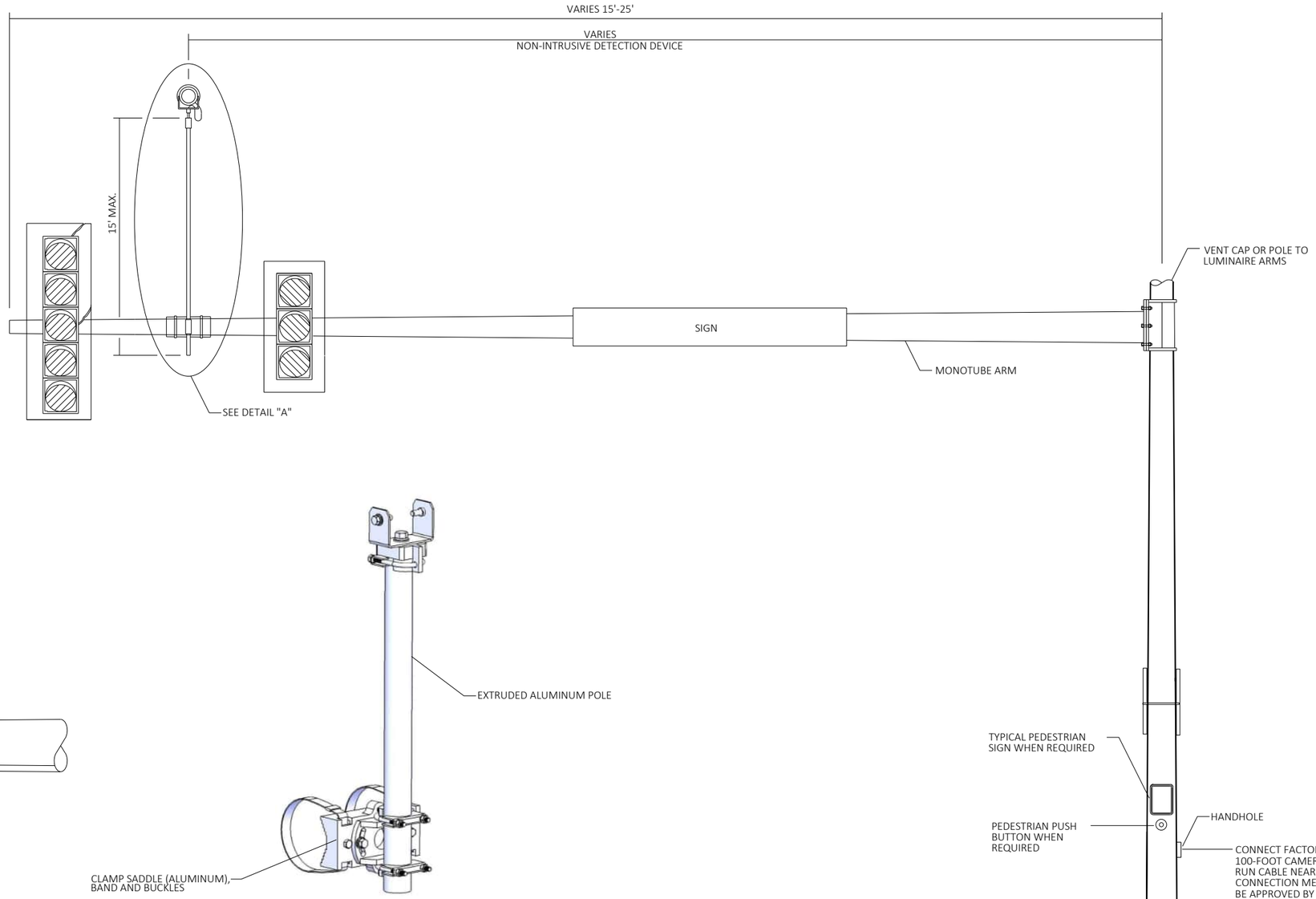
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\023623-LP.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 5:03 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

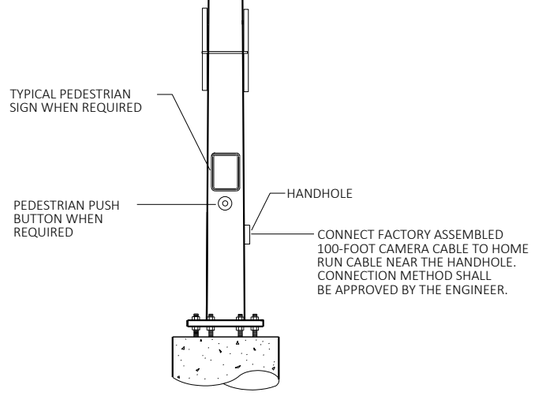
2



DETAIL "A"



EXTENSION ARM



VIDEO DETECTION MOUNTING DETAIL
(MAST ARM MOUNT)

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAIL	SHEET 72	E

2

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURES INSTRUCTIONS.

2. THE CITY OR IT'S ORIGINAL CONTRACTOR WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.

3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, 20 FEET OF SLACK IN THE NEAREST PULL BOX TO THE SIGNAL BASE WHERE THE EVP DETECTOR HEAD IS MOUNTED AND 2 FEET OF EXTRA CABLE EXTENDING OUT OF THE MOUNTING BRACKET.

4. CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLANS (I.E. EVP-A-B-C-D).

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT RANDY MICHELZ, TRAFFIC AND ELECTRICAL SUPERINTENDENT AT (414) 471-8429

2. THE LOCATIONS OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

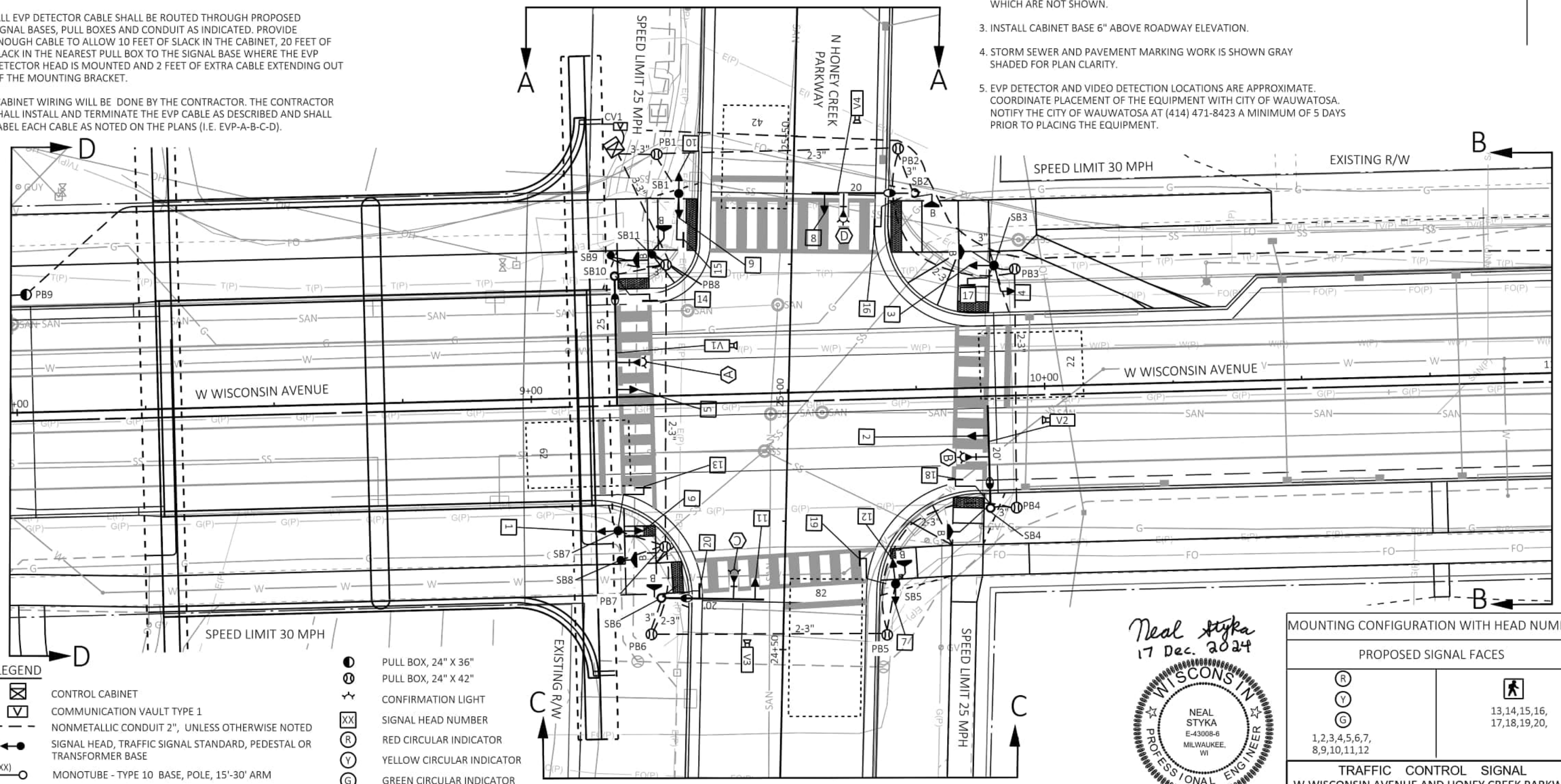
3. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.

4. STORM SEWER AND PAVEMENT MARKING WORK IS SHOWN GRAY SHADED FOR PLAN CLARITY.

5. EVP DETECTOR AND VIDEO DETECTION LOCATIONS ARE APPROXIMATE. COORDINATE PLACEMENT OF THE EQUIPMENT WITH CITY OF WAUWATOSA. NOTIFY THE CITY OF WAUWATOSA AT (414) 471-8423 A MINIMUM OF 5 DAYS PRIOR TO PLACING THE EQUIPMENT.

N

2



LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT TYPE 1
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL OR TRANSFORMER BASE
- (XX) MONOTUBE - TYPE 10 BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- B ACCESIBLE PEDESTRIAN PUSH BUTTON
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- CONFIRMATION LIGHT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LUMINAIRE AND ARM

Neal Styka
17 Dec. 2024

WISCONSIN
NEAL STYKA
E-43008-6
MILWAUKEE, WI
PROFESSIONAL ENGINEER

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

STRUCTURE NUMBERS

SB2 = S-40-2144-01
SB4 = S-40-2144-02
SB7 = S-40-2144-03
SB11 = S-40-2144-04

MOUNTING CONFIGURATION WITH HEAD NUMBER

PROPOSED SIGNAL FACES

R Y G	walk
1,2,3,4,5,6,7, 8,9,10,11,12	13,14,15,16, 17,18,19,20,

TRAFFIC CONTROL SIGNAL
W.WISCONSIN AVENUE AND HONEY CREEK PARKWAY
CITY OF WAUWATOSA
MILWAUKEE COUNTY
CABINET TYPE:TS2
CONTROLLER TYPE:SWARCO MCCAIN

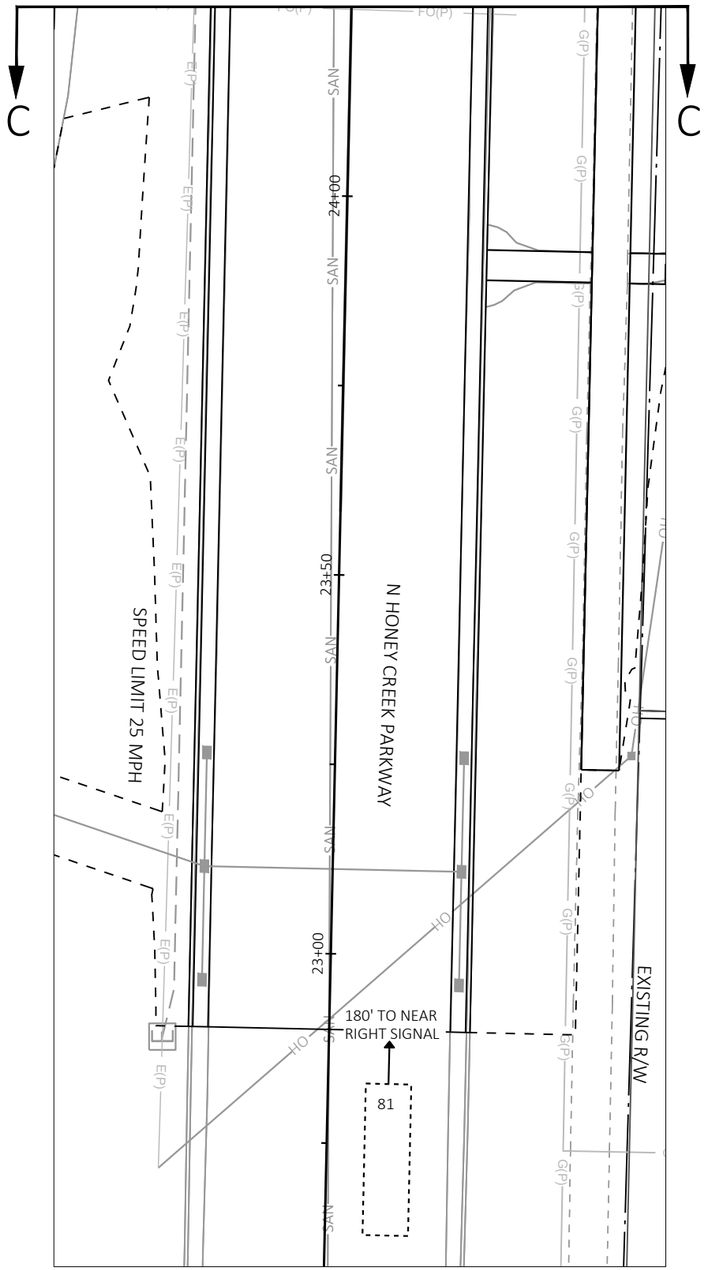
REGION CONTACT: RANDY MICHELZ
DESIGNED BY: KAPUR & ASSOCIATES, INC.
REVISED BY:

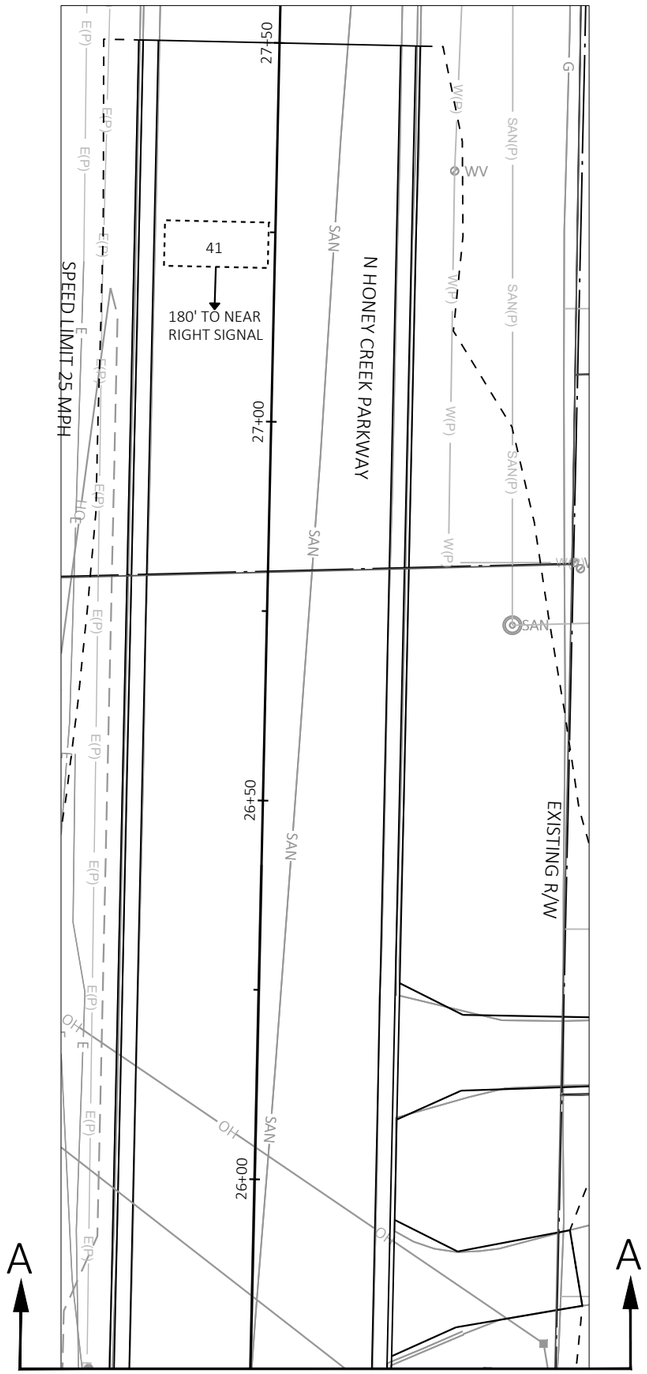
PAGE 01 OF 05

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 73	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\024201_SP.DWG
LAYOUT NAME - 024201_sp - 01
PLOT DATE : 12/17/2024 7:35 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42





N

2

LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT TYPE 1
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL OR TRANSFORMER BASE
- (XX) MONOTUBE - TYPE 10 BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- B ACCESIBLE PEDESTRIAN PUSH BUTTON
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- CONFIRMATION LIGHT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LUMINAIRE AND ARM

TRAFFIC CONTROL SIGNAL
W.WISCONSIN AVENUE AND HONEY CREEK PARKWAY
CITY OF WAUWATOSA
MILWAUKEE COUNTY

CABINET TYPE: TS2
CONTROLLER TYPE: SWARCO MCCAIN

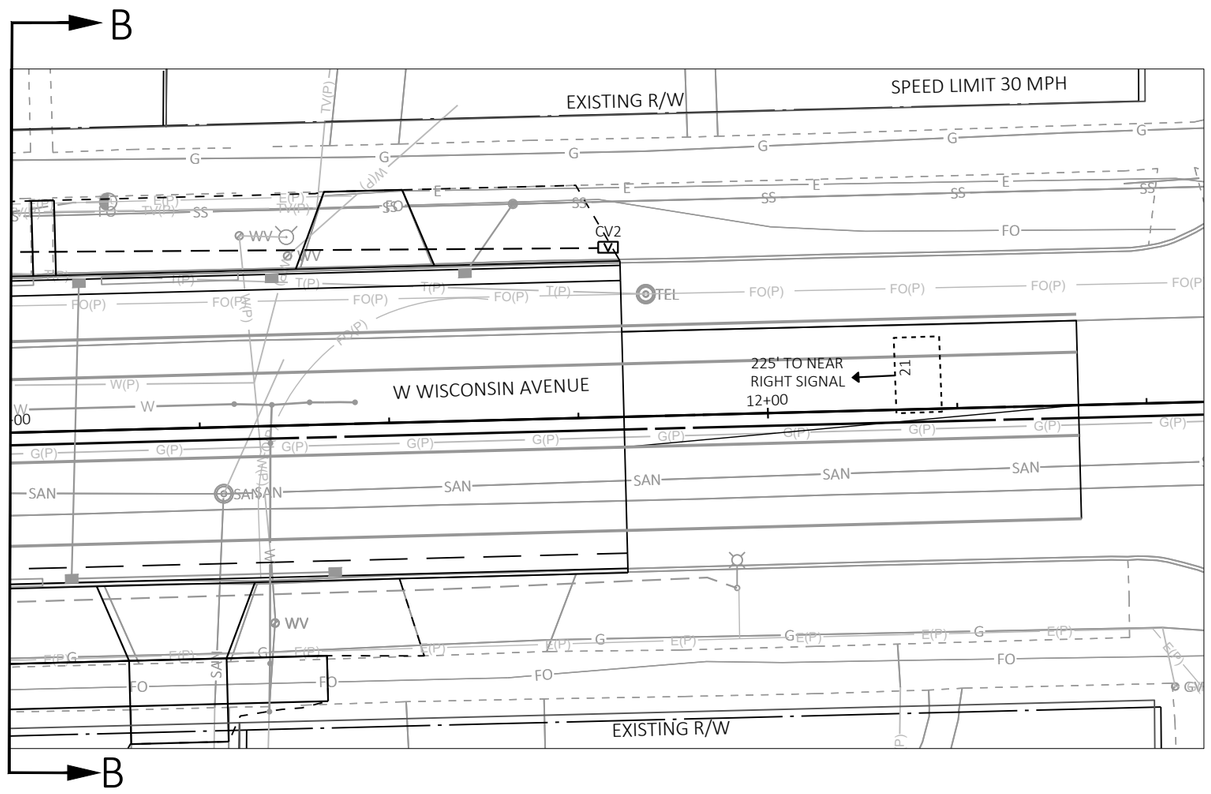
REGION CONTACT: RANDY MICHELZ
DESIGNED BY: KAPUR & ASSOCIATES, INC.
REVISED BY:

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 74	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\024201_SP.DWG
LAYOUT NAME - 024201_sp - 02
PLOT DATE : 12/16/2024 3:19 PM
PLOT BY : WALTER A. WOLAK II
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N



LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT TYPE 1
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL OR TRANSFORMER BASE
- (XX) MONOTUBE - TYPE 10 BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- B ACCESIBLE PEDESTRIAN PUSH BUTTON
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- CONFIRMATION LIGHT
- XX SIGNAL HEAD NUMBER
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- Y YELLOW CIRCULAR INDICATOR
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- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LUMINAIRE AND ARM

TRAFFIC CONTROL SIGNAL
W.WISCONSIN AVENUE AND HONEY CREEK PARKWAY
CITY OF WAUWATOSA
MILWAUKEE COUNTY
CABINET TYPE: TS2
CONTROLLER TYPE: SWARCO MCCAIN

REGION CONTACT: RANDY MICHELZ
DESIGNED BY: KAPUR & ASSOCIATES, INC.
REVISED BY:

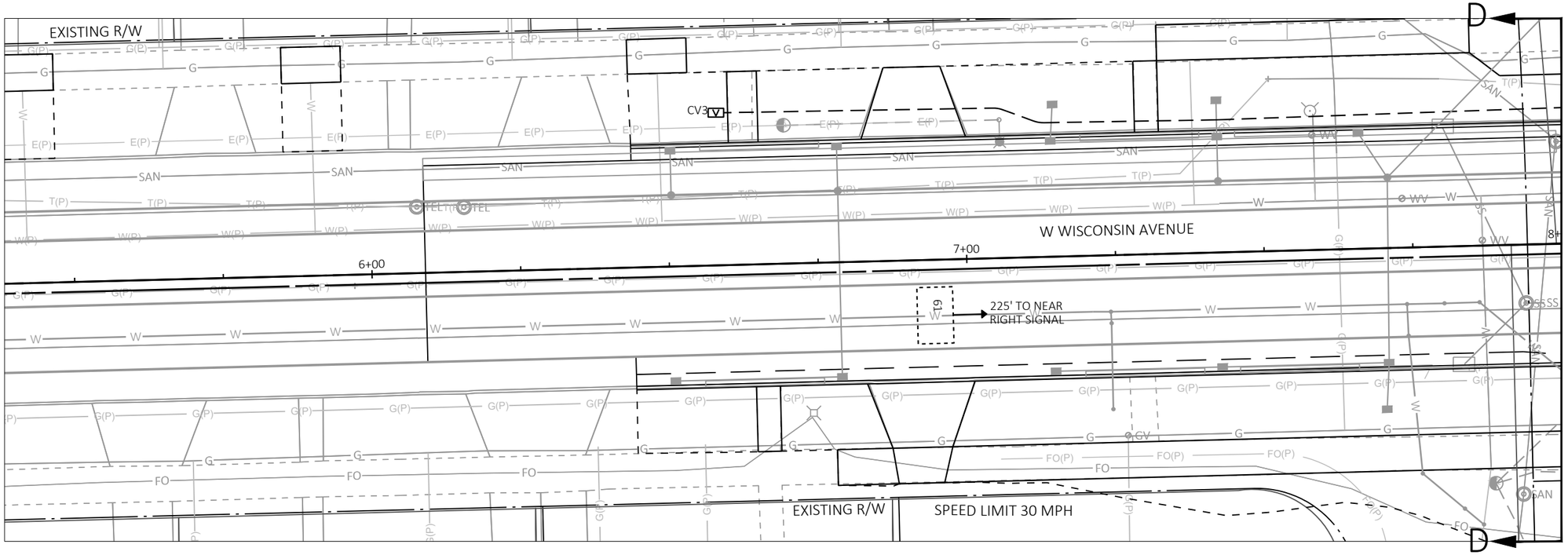
PAGE 03 OF 05

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 75	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\024201_SP.DWG
LAYOUT NAME - 024201_sp - 03
PLOT DATE : 12/16/2024 3:19 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : ##########

2

N



LEGEND

- CONTROL CABINET
- COMMUNICATION VAULT TYPE 1
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL OR TRANSFORMER BASE
- (XX) MONOTUBE - TYPE 10 BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD
- B ACCESIBLE PEDESTRIAN PUSH BUTTON
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- CONFIRMATION LIGHT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LUMINAIRE AND ARM

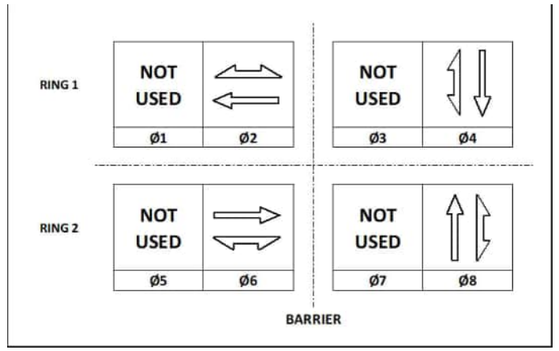
TRAFFIC CONTROL SIGNAL
W.WISCONSIN AVENUE AND HONEY CREEK PARKWAY
CITY OF WAUWATOSA
MILWAUKEE COUNTY
CABINET TYPE: TS2
CONTROLLER TYPE: SWARCO MCCAIN

REGION CONTACT: RANDY MICHELZ
DESIGNED BY: KAPUR & ASSOCIATES, INC.
REVISED BY:

PAGE 04 OF 05

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 76	E

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P	15,16	
Ø4P	13,14	
Ø6P	19,20	
Ø8P	17,18	
OLE		
OLF		
OLG		
OLH		



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2 OR 6 CONTROLLER SHALL RETURN TO PHASE 2 + 6
AFTER PREEMPTION SEQUENCE 4 OR 8 CONTROLLER SHALL RETURN TO PHASE 4 + 8
WHEN AN OPPOSING PHASE IS CALLED THE SIGNALS SHALL ENTER AN ALL RED PHASE BEFORE SERVICING THE CONFLICTING PHASE

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8	---	X
5				
6	X	2	MIN	X
7				
8		4	---	X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

* FUTURE FIBER CONNECTION

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE CITY LIGHTING CABINET	X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	X
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	1	3	5	7	9	11	13	15
PLAN LOOP DETECTOR*(S)	21	41	61	81				
CALLED PHASE	2	4	6	8				
CALL OPTION	X		X					
DELAY TIME								
EXTENTION OPTION	X	X	X	X				
EXTEND TIME		X		X				
USE ADDED INITIAL	X		X					
CROSS SWITCH PHASE								

17	19	21	23	25	27	29	31	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	2	4	6	8	10	12	14	16
PLAN LOOP DETECTOR*(S)	22	42	62	82				
CALLED PHASE	2	4	6	8				
CALL OPTION	X	X	X	X				
DELAY TIME	X	X	X	X				
EXTENTION OPTION	X	X	X	X				
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

18	20	22	24	26	28	30	32	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

TRAFFIC CONTROL SIGNAL
W.WISCONSIN AVENUE AND HONEY CREEK PARKWAY
CITY OF WAUWATOSA
MILWAUKEE COUNTY
CABINET TYPE: TS2
CONTROLLER TYPE: SWARCO MCCAIN

REGION CONTACT: RANDY MICHELZ
DESIGNED BY: KAPUR & ASSOCIATES, INC.
REVISED BY:
PAGE 05 OF 05

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 77	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\024201_SP.DWG
LAYOUT NAME - 024201_sp SignalPhasing
PLOT DATE : 12/16/2024 3:20 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : ##############
WISDOT/CADDS SHEET 42

PROJECT ID:	2190-10-70
INTERSECTION:	W. WISCONSIN AVENUE AND HONEY CREEK PARKWAY

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED NEUTRAL	OTHER
SB1	12	9	RED	ORANGE	GREEN								
		15								BLU	BLK		
		10	RED/BLK	ORG/BLK	GRN/BLK								
SB2	12	8	RED	ORANGE	GREEN								
		16								BLU	BLK		
		BUTTON										WHT/BLK	BLU/BLK
SB3	12	3	RED	ORANGE	GREEN								
		4	RED/BLK	ORG/BLK	GRN/BLK								
		17								BLU	BLK		
		BUTTON										WHT/BLK	BLU/BLK
SB4	12	2	RED	ORANGE	GREEN								
		18								BLU	BLK		
		BUTTON										WHT/BLK	BLU/BLK
SB5	12	7	RED	ORANGE	GREEN								
		12	RED/BLK	ORG/BLK	GRN/BLK								
		19								BLU	BLK		
		BUTTON										WHT/BLK	BLU/BLK
SB6	12	11	RED	ORANGE	GREEN								
		20								BLU	BLK		
		BUTTON										WHT/BLK	BLU/BLK
SB7	12	1	RED	ORANGE	GREEN								
		6	RED/BLK	ORG/BLK	GRN/BLK								
		13								BLU	BLK		
SB8	7	BUTTON										BLU	BLK
SB9	7	BUTTON										BLU	BLK
SB10	7	5	RED	ORANGE	GREEN								
		14								BLU	BLK		
SB11	7	BUTTON										BLU	BLK

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ON TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

(CONTINUED ON NEXT SHEET)

(CONTINUED)

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB2
PB3	SB3
PB4	SB4
PB5	SB5
PB6	SB6
PB7	SB7
PB8	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB10 (HEAD A)
CB1	SB4 (HEAD B)
CB1	SB6 (HEAD C)
CB1	SB2 (HEAD D)

CONFIRMATION BEACON CABLE TRAFFIC SIGNAL 3-14 AWG	
FROM	TO
CB1	SB10 (HEAD A)
CB1	SB4 (HEAD B)
CB1	SB6 (HEAD C)
CB1	SB2 (HEAD D)

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB2 (V4)
CB1	SB4 (V2)
CB1	SB6 (V3)
CB1	SB10 (V1)

LIGHTING UF #12 W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB4
SB10	SB6
CB1	SB10

PAGE 2 OF 2

2

LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. MARKING LINE EPOXY 8-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
7. MARKING STOP LINE EPOXY 18-INCH (WHITE)
8. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE) (PAID AS MARKING STOP LINE EPOXY 12-INCH)
10. MARKING CROSSWALK EPOXY BLOCK STYLE 12-INCH (WHITE)

N

7+25.00

2

GLENVIEW AVE

BEGIN PROJECT 2190-10-70 & 2190-10-71
STA 1+46.97

MARKING WEST OF GLENVIEW BY OTHERS

R/L W WISCONSIN AVE

W WISCONSIN AVE

DOUBLE (1)

REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH NEW MARKINGS

+02 +12 +57 +65 +31 +62

2+00 3+00 4+00 5+00 6+00 7+00

IP PROP

10' 3 11' 10' 11' 4' 8' 5' 11' 11' 5'

GUY MH

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 80	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 12/18/2024 5:06 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. MARKING LINE EPOXY 8-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
7. MARKING STOP LINE EPOXY 18-INCH (WHITE)
8. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
9. MARKING CROSSWALK EPOXY TRANSVERSE LINE 12-INCH (WHITE) (PAID AS MARKING STOP LINE EPOXY 12-INCH)
10. MARKING CROSSWALK EPOXY BLOCK STYLE 12-INCH (WHITE)

N

HONEY CREEK

N HONEY CREEK PKWY

R/L N HONEY CREEK PKWY

+41

DOUBLE (1)

26+00

(10) (TYP)

(9)

(7)

4'

10'

6'

(2)

8'

5'

11'

4'

25+00

8+00

9+00

10+00

W WISCONSIN AVE

11+00

12+00

13+00

+37

END PROJECT 2190-10-71
STA 11+44.89

MARKING TO EAST BY OTHERS

(1) DOUBLE

R/L W WISCONSIN AVE

END PROJECT 2190-10-70
STA 12+41.00

B-40-1033

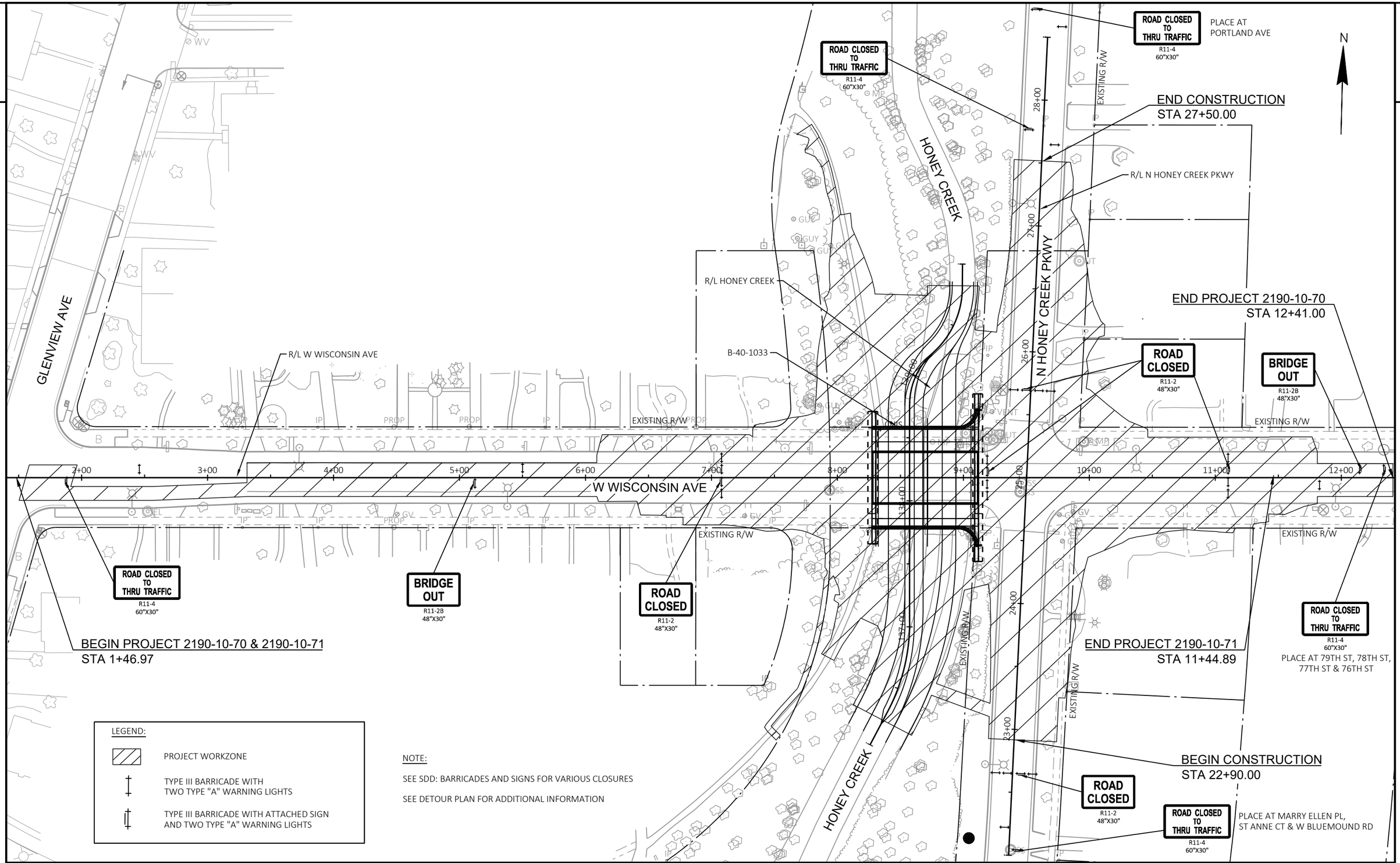
24+00

+58

7+25.00

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PAVEMENT MARKING PLAN	SHEET 81	E

2



LEGEND:

- PROJECT WORKZONE
- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS

NOTE:

SEE SDD: BARRICADES AND SIGNS FOR VARIOUS CLOSURES

SEE DETOUR PLAN FOR ADDITIONAL INFORMATION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL OVERVIEW	SHEET 82	E

2

LEGEND

- TYPE III BARRICADE WITH TWO TYPE "A" WARNING LIGHTS
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL 42-INCH CONE
- (W) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (Y) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (M) COVER EXISTING ARROWS AND WORDS, PAID AS TEMPORARY MARKING REMOVABLE MASK OUT TAPE 12-INCH
- PROJECT WORKZONE
- DIRECTION OF TRAFFIC

N

ROBERTSON ST

END ROAD WORK
G20-2A
48"X24"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

LANE CLOSED
R11-2L
48"X30"

ROAD WORK AHEAD
W20-1A

105'

200'

10' (TYP)

11'

GLENVIEW AVE

25' TYP

M4-60L
30"X24"

M4-60R
30"X24"

95'

100'

ROAD WORK AHEAD
W20-1A

PLACE AT ROCKWAY PL

BROOKSIDE PL

180'

125'

1+00

2+00

3+00

4+00

R/L W WISCONSIN AVE

W WISCONSIN AVE

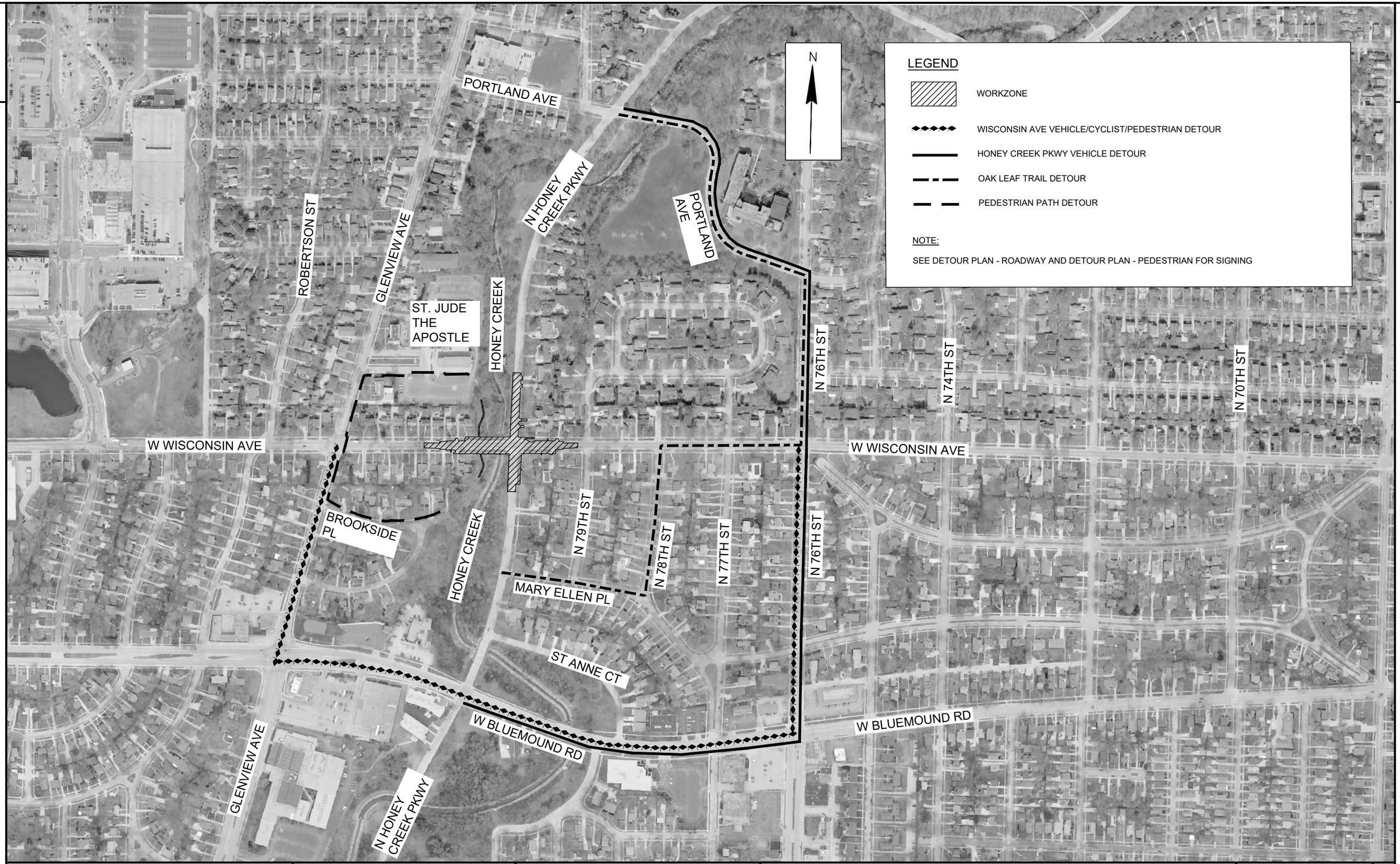
END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	TRAFFIC CONTROL GLENVIEW AVE	SHEET 83	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\025010-TC.DWG
LAYOUT NAME - GV TC

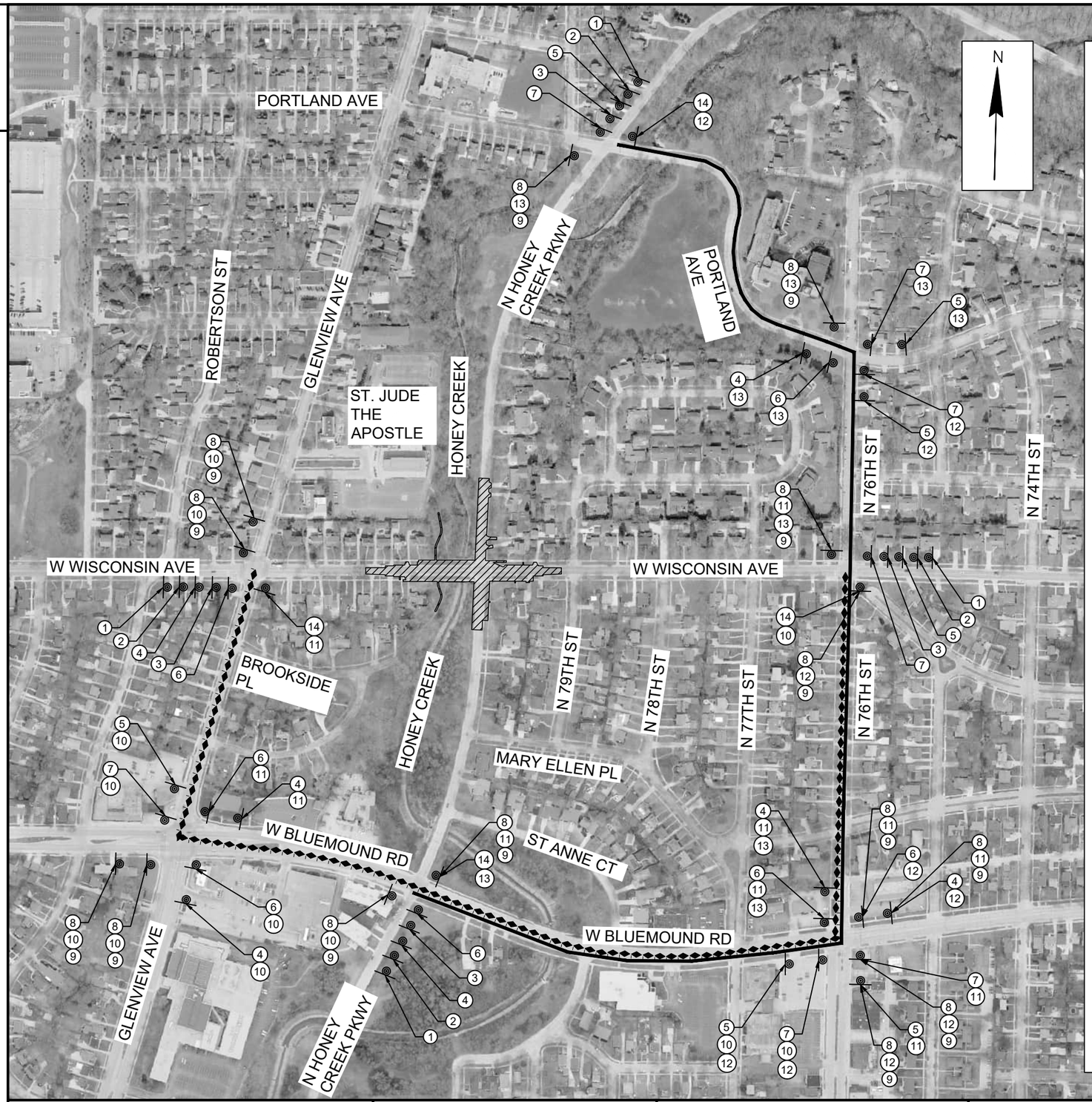
PLOT DATE : 12/18/2024 5:08 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : ##########

2



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	DETOUR PLAN OVERVIEW	SHEET 84	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\027010-DT.DWG
LAYOUT NAME - DET
PLOT DATE : 12/18/2024 5:08 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42



LEGEND

- WORKZONE
- W WISCONSIN AVE VEHICLE / CYCLIST DETOUR
- N HONEY CREEK PKWY VEHICLE DETOUR
- SIGN ON PERMANENT SUPPORT

1. ROAD CLOSED AHEAD — W20-3A
2. DETOUR AHEAD — W20-2A
3. ROAD CLOSED 500 FT — W20-3D
4. DETOUR — M4-59R 30"X30"
5. DETOUR — M4-59L 30"X30"
6. DETOUR — M4-9R 30"X24"
7. DETOUR — M4-9L 30"X24"
8. DETOUR — M4-8 24"X12"
9. M6-1 21"X21"
10. EAST — M3-2 24"X12" — W WISCONSIN AVE — FMS (SEE CONSTRUCTION DETAILS)
11. WEST — M3-4 24"X12" — W WISCONSIN AVE — FMS (SEE CONSTRUCTION DETAILS)
12. NORTH — M3-1 24"X12" — N HONEY CREEK PKWY — FMS (SEE CONSTRUCTION DETAILS)
13. SOUTH — M3-3 24"X12" — N HONEY CREEK PKWY — FMS (SEE CONSTRUCTION DETAILS)
14. END DETOUR — M4-8A 24"X18"

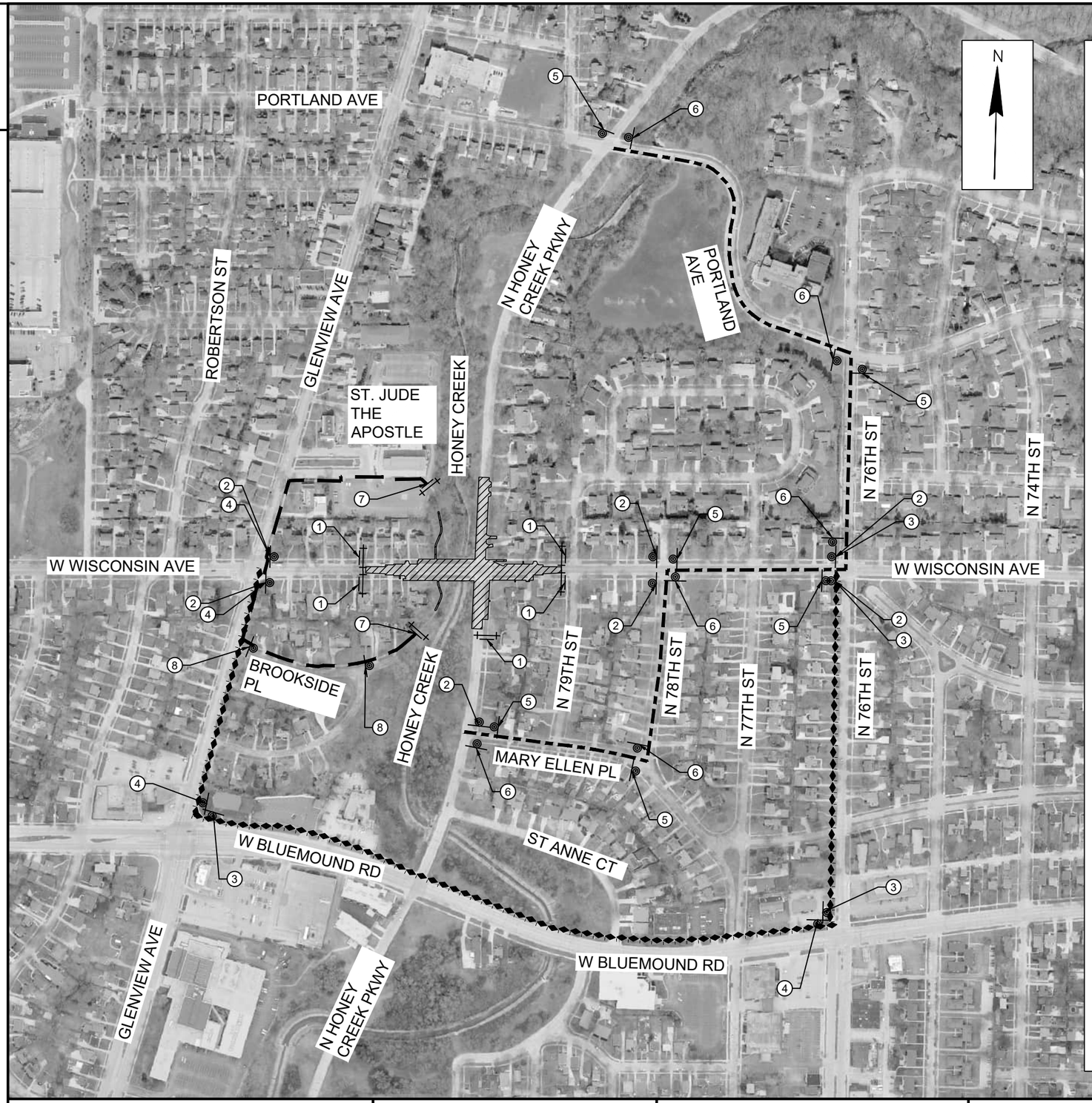
NOTES:

- SEE SDD: BARRICADES AND SIGNS FOR MAINLINE CLOSURES
- SEE SDD: BARRICADES AND SIGNS FOR VARIOUS CLOSURES
- SEE SDD: BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES
- SEE TRAFFIC CONTROL OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	DETOUR PLAN - ROADWAY	SHEET 85	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\027011-DT.DWG
LAYOUT NAME - DET
PLOT DATE : 12/18/2024 5:09 PM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- WORKZONE
- W WISCONSIN AVE PEDESTRIAN DETOUR
- OAK LEAF TRAIL DETOUR
- PEDESTRIAN PATH DETOUR
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE "A" WARNING LIGHTS

① SIDEWALK CLOSED
R9-9
24"X12"

② SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

③ DETOUR
M4-9BL
30"X24"

④ DETOUR
M4-9BR
30"X24"

⑤ DETOUR
M4-9CL
30"X24"

OAK LEAF TRAIL
FMS (SEE CONSTRUCTION DETAILS)

⑥ DETOUR
M4-9CR
30"X24"

OAK LEAF TRAIL
FMS (SEE CONSTRUCTION DETAILS)

⑦ TRAIL CLOSED
R11-2T
48"X30"

USE GLENVIEW AVE
FMS (SEE CONSTRUCTION DETAILS)

⑧ TRAIL CLOSED AHEAD
FMS (SEE CONSTRUCTION DETAILS)

NOTES:

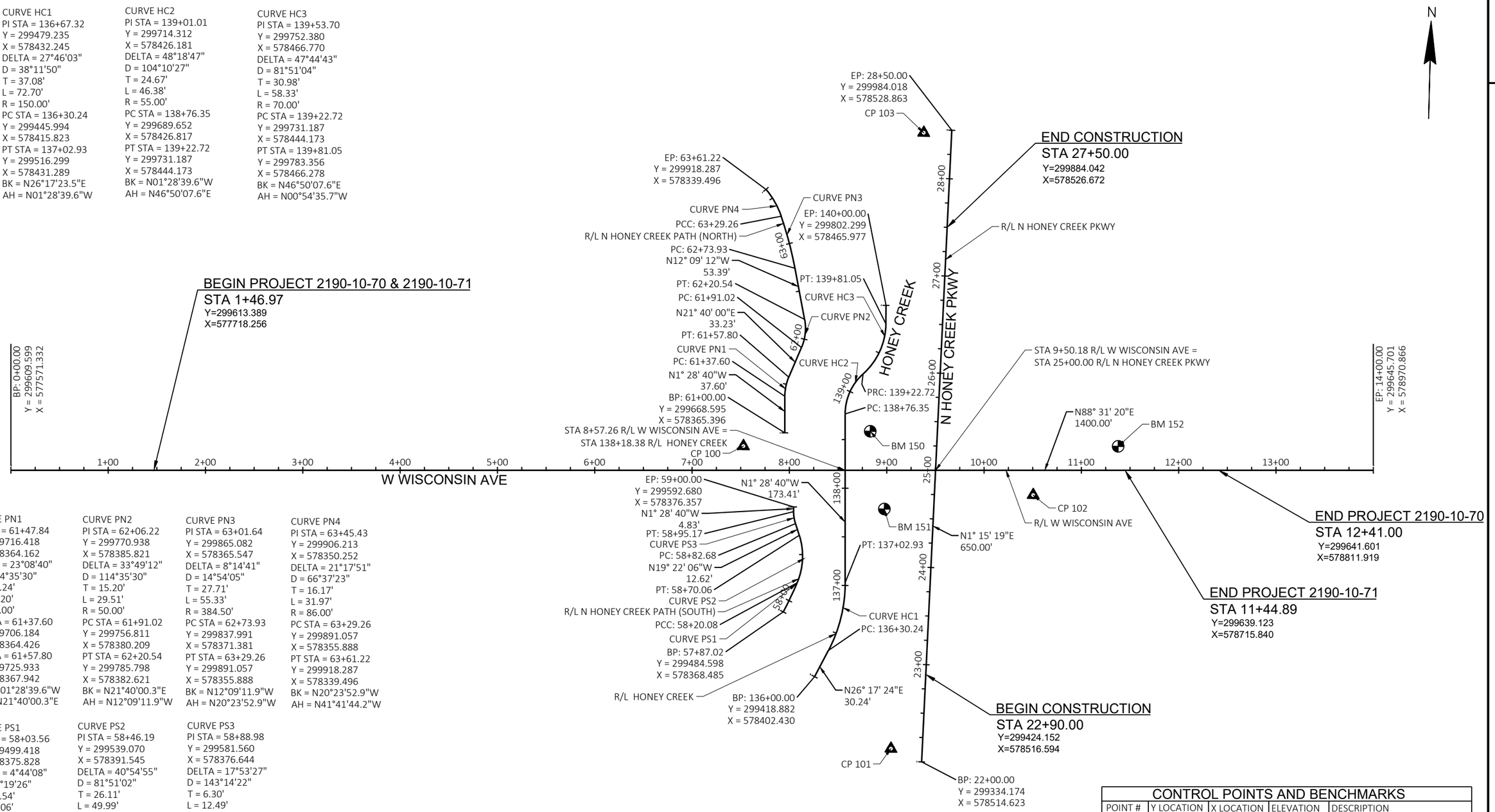
- SEE SDD: TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
- SEE TRAFFIC CONTROL OVERVIEW FOR ADDITIONAL INFORMATION

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	DETOUR PLAN - PEDESTRIAN	SHEET 86	E

CURVE HC1
PI STA = 136+67.32
Y = 299479.235
X = 578432.245
DELTA = 27°46'03"
D = 38°11'50"
T = 37.08'
L = 72.70'
R = 150.00'
PC STA = 136+30.24
Y = 299445.994
X = 578415.823
PT STA = 137+02.93
Y = 299516.299
X = 578431.289
BK = N26°17'23.5"E
AH = N01°28'39.6"W

CURVE HC2
PI STA = 139+01.01
Y = 299714.312
X = 578426.181
DELTA = 48°18'47"
D = 104°10'27"
T = 24.67'
L = 46.38'
R = 55.00'
PC STA = 138+76.35
Y = 299689.652
X = 578426.817
PT STA = 139+22.72
Y = 299731.187
X = 578444.173
BK = N01°28'39.6"W
AH = N46°50'07.6"E

CURVE HC3
PI STA = 139+53.70
Y = 299752.380
X = 578466.770
DELTA = 47°44'43"
D = 81°51'04"
T = 30.98'
L = 58.33'
R = 70.00'
PC STA = 139+22.72
Y = 299731.187
X = 578444.173
PT STA = 139+81.05
Y = 299783.356
X = 578466.278
BK = N46°50'07.6"E
AH = N00°54'35.7"W



CURVE PN1
PI STA = 61+47.84
Y = 299716.418
X = 578364.162
DELTA = 23°08'40"
D = 114°35'30"
T = 10.24'
L = 20.20'
R = 50.00'
PC STA = 61+37.60
Y = 299706.184
X = 578364.426
PT STA = 61+57.80
Y = 299725.933
X = 578367.942
BK = N01°28'39.6"W
AH = N21°40'00.3"E

CURVE PN2
PI STA = 62+06.22
Y = 299770.938
X = 578385.821
DELTA = 33°49'12"
D = 114°35'30"
T = 15.20'
L = 29.51'
R = 50.00'
PC STA = 61+91.02
Y = 299756.811
X = 578380.209
PT STA = 62+20.54
Y = 299785.798
X = 578382.621
BK = N21°40'00.3"E
AH = N12°09'11.9"W

CURVE PN3
PI STA = 63+01.64
Y = 299865.082
X = 578365.547
DELTA = 8°14'41"
D = 14°54'05"
T = 27.71'
L = 55.33'
R = 384.50'
PC STA = 62+73.93
Y = 299837.991
X = 578371.381
PT STA = 63+29.26
Y = 299891.057
X = 578355.888
BK = N12°09'11.9"W
AH = N20°23'52.9"W

CURVE PN4
PI STA = 63+45.43
Y = 299906.213
X = 578350.252
DELTA = 21°17'51"
D = 66°37'23"
T = 16.17'
L = 31.97'
R = 86.00'
PC STA = 63+29.26
Y = 299891.057
X = 578355.888
PT STA = 63+61.22
Y = 299918.287
X = 578339.496
BK = N20°23'52.9"W
AH = N41°41'44.2"W

CURVE PS1
PI STA = 58+03.56
Y = 299499.418
X = 578375.828
DELTA = 4°44'08"
D = 14°19'26"
T = 16.54'
L = 33.06'
R = 400.00'
PC STA = 57+87.02
Y = 299484.598
X = 578368.485
PT STA = 58+20.08
Y = 299514.794
X = 578381.922
BK = N26°21'26.3"E
AH = N21°37'18.4"E

CURVE PS2
PI STA = 58+46.19
Y = 299539.070
X = 578391.545
DELTA = 40°54'55"
D = 81°51'02"
T = 26.11'
L = 49.99'
R = 70.00'
PC STA = 58+20.08
Y = 299514.794
X = 578381.922
PT STA = 58+70.06
Y = 299563.716
X = 578382.917
BK = N21°37'18.2"E
AH = N19°17'36.8"W

CURVE PS3
PI STA = 58+88.98
Y = 299581.560
X = 578376.644
DELTA = 17°53'27"
D = 143°14'22"
T = 6.30'
L = 12.49'
R = 40.00'
PC STA = 58+82.68
Y = 299575.620
X = 578378.732
PT STA = 58+95.17
Y = 299587.854
X = 578376.481
BK = N19°22'06.3"W
AH = N01°28'39.6"W

CONTROL POINTS AND BENCHMARKS

POINT #	Y LOCATION	X LOCATION	ELEVATION	DESCRIPTION
CP 100	299653.871	578323.157	680.718	CP FENO
CP 101	299346.875	578482.709	680.983	CP FENO
CP 102	299611.237	578622.091	683.238	CP FENO
CP 103	299980.635	578500.077	677.780	CP FENO
BM 150	299672.477	578453.046	682.994	BM CC TOP N WALL CL STREAM
BM 151	299592.962	578469.589	683.099	BM CC TOPS RWALL
BM 152	299663.513	578708.131	687.818	BM CC SE BOLT HYD

PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 87	E

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	2190-10-70 Qty	2190-10-71 Qty
0002	201.0210	Grubbing	SY	1,872.000	1,872.000	
0004	201.0220	Grubbing	ID	186.000	186.000	
0006	203.0270	Removing Structure Over Waterway Debris Capture (structure) 01. P-40-776	EACH	1.000	1.000	
0008	204.0100	Removing Concrete Pavement	SY	3,598.000	3,598.000	
0010	204.0120	Removing Asphaltic Surface Milling	SY	669.000	669.000	
0012	204.0150	Removing Curb & Gutter	LF	639.000	639.000	
0014	204.0155	Removing Concrete Sidewalk	SY	555.000	555.000	
0016	204.0195	Removing Concrete Bases	EACH	5.000	5.000	
0018	204.0210	Removing Manholes	EACH	3.000	3.000	
0020	204.0215	Removing Catch Basins	EACH	7.000	7.000	
0022	204.0245	Removing Storm Sewer (size) 04.12-Inch	LF	174.000	174.000	
0024	204.0245	Removing Storm Sewer (size) 05. 18-Inch	LF	151.000	151.000	
0026	204.0245	Removing Storm Sewer (size) 06. 24-Inch	LF	101.000	101.000	
0028	204.0280	Sealing Pipes	EACH	1.000	1.000	
0030	204.0291.S	Abandoning Sewer	CY	20.000	20.000	
0032	204.9060.S	Removing (item description) 01. Lighting Units	EACH	2.000	2.000	
0034	205.0100	Excavation Common	CY	1,895.000	1,895.000	
0036	206.1001	Excavation for Structures Bridges (structure) 01. B-40-1033	EACH	1.000	1.000	
0038	206.5001	Cofferdams (structure) 01. B-40-1033	EACH	1.000	1.000	
0040	208.0100	Borrow	CY	760.000	760.000	
0042	209.1100	Backfill Granular Grade 1	CY	1,525.000	1,525.000	
0044	209.2100	Backfill Granular Grade 2	CY	1,487.000	1,487.000	
0046	210.1500	Backfill Structure Type A	TON	1,427.000	1,427.000	
0048	213.0100	Finishing Roadway (project) 01. 2190-10-70	EACH	1.000	1.000	
0050	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,109.000	3,109.000	
0052	310.0110	Base Aggregate Open-Graded	TON	34.000	34.000	
0054	405.0100	Coloring Concrete WisDOT Red	CY	15.000	15.000	
0056	415.0080	Concrete Pavement 8-Inch	SY	1,787.000	1,787.000	
0058	416.0610	Drilled Tie Bars	EACH	146.000	146.000	
0060	416.0620	Drilled Dowel Bars	EACH	117.000	117.000	
0062	455.0605	Tack Coat	GAL	507.000	507.000	
0064	460.2000	Incentive Density HMA Pavement	DOL	580.000	580.000	
0066	460.6223	HMA Pavement 3 MT 58-28 S	TON	517.000	517.000	
0068	460.6224	HMA Pavement 4 MT 58-28 S	TON	382.000	382.000	
0070	465.0105	Asphaltic Surface	TON	49.000	49.000	
0072	502.0100	Concrete Masonry Bridges	CY	1,020.000	1,020.000	
0074	502.3200	Protective Surface Treatment	SY	394.000	394.000	
0076	502.3210	Pigmented Surface Sealer	SY	73.000	73.000	
0078	505.0400	Bar Steel Reinforcement HS Structures	LB	37,460.000	37,460.000	
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	113,460.000	113,460.000	
0082	513.2001	Railing Pipe	LF	21.000	21.000	
0084	513.8011	Railing Steel Pedestrian Type C2	LF	48.000	48.000	
0086	516.0500	Rubberized Membrane Waterproofing	SY	68.000	68.000	
0088	516.0610.S	Sheet Membrane Waterproofing for Buried Structures 01. B-40-1033	SY	370.000	370.000	
0090	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000	
0092	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	1.000	1.000	
0094	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000	
0096	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000	
0098	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000	

					2190-10-70	2190-10-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0100	522.2634	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	EACH	1.000	1.000	
0102	550.0020	Pre-Boring Rock or Consolidated Materials	LF	4,230.000	4,230.000	
0104	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	4,230.000	4,230.000	
0106	601.0319	Concrete Curb & Gutter 19-Inch	LF	25.000	25.000	
0108	601.0331	Concrete Curb & Gutter 31-Inch	LF	1,281.000	1,281.000	
0110	602.0410	Concrete Sidewalk 5-Inch	SF	4,728.000	4,728.000	
0112	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	112.000	112.000	
0114	602.0815	Concrete Driveway 7-Inch	SY	164.000	164.000	
0116	606.0100	Riprap Light	CY	342.000	342.000	
0118	606.0200	Riprap Medium	CY	43.000	43.000	
0120	606.0300	Riprap Heavy	CY	20.000	20.000	
0122	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	120.000	120.000	
0124	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	238.000	238.000	
0126	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	140.000	140.000	
0128	608.0342	Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	LF	96.000	96.000	
0130	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	148.000	148.000	
0132	608.0515	Storm Sewer Pipe Reinforced Concrete Class V 15-Inch	LF	116.000	116.000	
0134	608.0518	Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	LF	39.000	39.000	
0136	608.0524	Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	LF	78.000	78.000	
0138	608.0530	Storm Sewer Pipe Reinforced Concrete Class V 30-Inch	LF	33.000	33.000	
0140	608.2334	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	LF	26.000	26.000	
0142	611.0606	Inlet Covers Type B	EACH	4.000	4.000	
0144	611.0612	Inlet Covers Type C	EACH	1.000	1.000	
0146	611.0642	Inlet Covers Type MS	EACH	1.000	1.000	
0148	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000	
0150	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000	
0152	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000	
0154	611.2007	Manholes 7-FT Diameter	EACH	1.000	1.000	
0156	611.3004	Inlets 4-FT Diameter	EACH	6.000	6.000	
0158	611.3220	Inlets 2x2-FT	EACH	4.000	4.000	
0160	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000	
0162	612.0106	Pipe Underdrain 6-Inch	LF	400.000	400.000	
0164	612.0204	Pipe Underdrain Unperforated 4-Inch	LF	100.000	100.000	
0166	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	53.000	53.000	
0168	612.0404	Pipe Underdrain Wrapped 4-Inch	LF	200.000	200.000	
0170	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	245.000	245.000	
0172	612.0804	Apron Endwalls for Underdrain Reinforced Concrete 4-Inch	EACH	4.000	4.000	
0174	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	2.000	2.000	
0176	616.0700.S	Fence Safety	LF	1,760.000	1,760.000	
0178	618.0100	Maintenance and Repair of Haul Roads (project) 01. 2190-10-70	EACH	1.000	1.000	
0180	619.1000	Mobilization	EACH	1.000	1.000	
0182	623.0200	Dust Control Surface Treatment	SY	6,063.000	6,063.000	
0184	624.0100	Water	MGAL	17.000	17.000	
0186	625.0100	Topsoil	SY	5,373.000	5,373.000	
0188	627.0200	Mulching	SY	5,373.000	5,373.000	
0190	628.1104	Erosion Bales	EACH	303.000	303.000	
0192	628.1504	Silt Fence	LF	1,694.000	1,694.000	
0194	628.1520	Silt Fence Maintenance	LF	1,694.000	1,694.000	
0196	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000	

					2190-10-70	2190-10-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0198	628.1910	Mobilizations Emergency Erosion Control	EACH	16.000	16.000	
0200	628.2006	Erosion Mat Urban Class I Type A	SY	1,090.000	1,090.000	
0202	628.2027	Erosion Mat Class II Type C	SY	898.000	898.000	
0204	628.6510	Soil Stabilizer Type B	ACRE	1.000	1.000	
0206	628.7010	Inlet Protection Type B	EACH	8.000	8.000	
0208	628.7020	Inlet Protection Type D	EACH	54.000	54.000	
0210	628.7555	Culvert Pipe Checks	EACH	2.000	2.000	
0212	628.7560	Tracking Pads	EACH	4.000	4.000	
0214	629.0210	Fertilizer Type B	CWT	4.000	4.000	
0216	630.0140	Seeding Mixture No. 40	LB	20.000	20.000	
0218	630.0175	Seeding Mixture No. 75	LB	7.000	7.000	
0220	630.0200	Seeding Temporary	LB	147.000	147.000	
0222	630.0400	Seeding Nurse Crop	LB	8.000	8.000	
0224	630.0500	Seed Water	MGAL	182.000	182.000	
0226	631.0300	Sod Water	MGAL	1,369.000	1,369.000	
0228	631.1000	Sod Lawn	SY	3,388.000	3,388.000	
0230	633.5200	Markers Culvert End	EACH	6.000	6.000	
0232	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	2.000	2.000	
0234	637.2210	Signs Type II Reflective H	SF	5.000	5.000	
0236	637.2215	Signs Type II Reflective H Folding	SF	20.720	20.720	
0238	637.2230	Signs Type II Reflective F	SF	42.000	42.000	
0240	638.2102	Moving Signs Type II	EACH	2.000	2.000	
0242	638.2602	Removing Signs Type II	EACH	1.000	1.000	
0244	638.3620	Erecting State Owned Signs Type II	EACH	4.000	4.000	
0246	642.5201	Field Office Type C	EACH	1.000	1.000	
0248	643.0300	Traffic Control Drums	DAY	5,490.000	5,490.000	
0250	643.0420	Traffic Control Barricades Type III	DAY	11,310.000	11,310.000	
0252	643.0705	Traffic Control Warning Lights Type A	DAY	22,620.000	22,620.000	
0254	643.0715	Traffic Control Warning Lights Type C	DAY	147.000	147.000	
0256	643.0800	Traffic Control Arrow Boards	DAY	14.000	14.000	
0258	643.0900	Traffic Control Signs	DAY	41,108.000	41,108.000	
0260	643.0920	Traffic Control Covering Signs Type II	EACH	5.000	5.000	
0262	643.1000	Traffic Control Signs Fixed Message	SF	253.500	253.500	
0264	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000	
0266	643.1070	Traffic Control Cones 42-Inch	DAY	794.000	794.000	
0268	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	890.000	890.000	
0270	643.3990	Temporary Marking Removable Mask Out Tape 12-Inch	LF	360.000	360.000	
0272	643.5000	Traffic Control	EACH	1.000	1.000	
0274	645.0111	Geotextile Type DF Schedule A	SY	1,006.000	1,006.000	
0276	645.0120	Geotextile Type HR	SY	25.000	25.000	
0278	645.0130	Geotextile Type R	SY	827.000	827.000	
0280	645.0220	Geogrid Type SR	SY	325.000	325.000	
0282	646.1020	Marking Line Epoxy 4-Inch	LF	4,993.000	4,993.000	
0284	646.3020	Marking Line Epoxy 8-Inch	LF	164.000	164.000	
0286	646.5020	Marking Arrow Epoxy	EACH	2.000	2.000	
0288	646.6020	Marking Stop Line Epoxy 12-Inch	LF	270.000	270.000	
0290	646.6120	Marking Stop Line Epoxy 18-Inch	LF	95.000	95.000	
0292	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	107.000	107.000	
0294	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	224.000	224.000	

Line	Item	Item Description	Unit	Total	2190-10-70 Qty	2190-10-71 Qty
0296	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	300.000	300.000	
0298	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	60.000	60.000	
0300	646.9210	Marking Removal Line Water Blasting Wide	LF	22.000	22.000	
0302	646.9310	Marking Removal Special Marking Water Blasting	EACH	2.000	2.000	
0304	650.4000	Construction Staking Storm Sewer	EACH	50.000	50.000	
0306	650.5000	Construction Staking Base	LF	815.000	815.000	
0308	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	954.000	954.000	
0310	650.6501	Construction Staking Structure Layout (structure) 01. B-40-1033	EACH	1.000	1.000	
0312	650.7000	Construction Staking Concrete Pavement	LF	566.000	566.000	
0314	650.8000	Construction Staking Resurfacing Reference	LF	338.000	338.000	
0316	650.8501	Construction Staking Electrical Installations (project) 01. 2190-10-70	EACH	1.000	1.000	
0318	650.9000	Construction Staking Curb Ramps	EACH	8.000	8.000	
0320	650.9500	Construction Staking Sidewalk (project) 01. 2190-10-70	EACH	1.000	1.000	
0322	650.9911	Construction Staking Supplemental Control (project) 01. 2190-10-70	EACH	1.000	1.000	
0324	650.9920	Construction Staking Slope Stakes	LF	1,524.000	1,524.000	
0326	652.0125	Conduit Rigid Metallic 2-Inch	LF	120.000	120.000	
0328	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	374.000	374.000	
0330	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,520.000	1,520.000	
0332	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	394.000	394.000	
0334	652.0615	Conduit Special 3-Inch	LF	389.000	389.000	
0336	653.0135	Pull Boxes Steel 24x36-Inch	EACH	3.000	3.000	
0338	653.0140	Pull Boxes Steel 24x42-Inch	EACH	10.000	10.000	
0340	653.0222	Junction Boxes 18x12x6-Inch	EACH	8.000	8.000	
0342	654.0101	Concrete Bases Type 1	EACH	7.000	7.000	
0344	654.0110	Concrete Bases Type 10	EACH	4.000	4.000	
0346	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000	
0348	655.0230	Cable Traffic Signal 5-14 AWG	LF	469.000	469.000	
0350	655.0240	Cable Traffic Signal 7-14 AWG	LF	341.000	341.000	
0352	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,162.000	1,162.000	
0354	655.0320	Cable Type UF 2-10 AWG Grounded	LF	527.000	527.000	
0356	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	642.000	642.000	
0358	655.0610	Electrical Wire Lighting 12 AWG	LF	804.000	804.000	
0360	655.0615	Electrical Wire Lighting 10 AWG	LF	300.000	300.000	
0362	655.0620	Electrical Wire Lighting 8 AWG	LF	568.000	568.000	
0364	655.0630	Electrical Wire Lighting 4 AWG	LF	4,516.000	4,516.000	
0366	655.0900	Traffic Signal EVP Detector Cable	LF	577.000	577.000	
0368	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. W Wisconsin Ave & Honey Creek Pkwy	EACH	1.000	1.000	
0370	657.0100	Pedestal Bases	EACH	7.000	7.000	
0372	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	3.000	3.000	
0374	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000	
0376	658.0173	Traffic Signal Face 3S 12-Inch	EACH	12.000	12.000	
0378	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000	
0380	658.5070	Signal Mounting Hardware (location) 01. W Wisconsin Ave & Honey Creek Pkwy	EACH	1.000	1.000	
0382	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	2.000	2.000	
0384	673.0105	Communication Vault Type 1	EACH	3.000	3.000	
0386	673.0200	Tracer Wire Marker Posts	EACH	2.000	2.000	
0388	690.0150	Sawing Asphalt	LF	157.000	157.000	
0390	690.0250	Sawing Concrete	LF	2,133.000	2,133.000	

					2190-10-70	2190-10-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0392	715.0502	Incentive Strength Concrete Structures	DOL	6,120.000	6,120.000	
0394	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	541.000	541.000	
0396	999.1501.S	Crack and Damage Survey	EACH	13.000	13.000	
0398	SPV.0035	Special 01. Streambed Stone	CY	1,509.000	1,509.000	
0400	SPV.0035	Special 02. Streambed Granular Fill	CY	378.000	378.000	
0402	SPV.0035	Special 03. Filter Gravel	CY	369.000	369.000	
0404	SPV.0035	Special 04. Pea Gravel	CY	378.000	378.000	
0406	SPV.0035	Special 05. Reinforced Concrete Cutoff Wall	CY	18.000	18.000	
0408	SPV.0060	Special 03. Reconstruct MMSD Manhole	EACH	4.000	4.000	
0410	SPV.0060	Special 04. Abandon MMSD Pump Station BS0401	EACH	1.000	1.000	
0412	SPV.0060	Special 05. Exposing MMSD MIS	EACH	3.000	3.000	
0414	SPV.0060	Special 06. Exposing AT&T Duct Package	EACH	3.000	3.000	
0416	SPV.0060	Special 07. Adjusting Sanitary Manholes	EACH	2.000	2.000	
0418	SPV.0060	Special 08. Reconstructing Sanitary Manholes	EACH	3.000	3.000	
0420	SPV.0060	Special 09. Concrete Base Special	EACH	1.000	1.000	
0422	SPV.0060	Special 30. Outlet Structure 63	EACH	1.000	1.000	
0424	SPV.0060	Special 31. 24"x72" Catch Basin	EACH	7.000	7.000	
0426	SPV.0060	Special 32. 30"x72" Catch Basin	EACH	12.000	12.000	
0428	SPV.0060	Special 33. 24"x72" Riser Inlet	EACH	7.000	7.000	
0430	SPV.0060	Special 34. Manhole 4-Ft Riser	EACH	2.000	2.000	
0432	SPV.0060	Special 35. Inlet Cover R-3246-AL	EACH	6.000	6.000	
0434	SPV.0060	Special 36. Inlet Cover R-3293-2	EACH	12.000	12.000	
0436	SPV.0060	Special 37. Inlet Cover R-3295-2(L)	EACH	14.000	14.000	
0438	SPV.0060	Special 38. Manhole Cover R-1661-B	EACH	8.000	8.000	
0440	SPV.0060	Special 40. Hydrant Assembly	EACH	2.000		2.000
0442	SPV.0060	Special 41. Gate Valve & Valve Box 6-Inch	EACH	2.000		2.000
0444	SPV.0060	Special 42. Gate Valve & Valve Box 8-Inch	EACH	2.000		2.000
0446	SPV.0060	Special 43. Butterfly Valve & Valve Box 16-Inch	EACH	5.000		5.000
0448	SPV.0060	Special 44. Water Testing Manhole	EACH	1.000		1.000
0450	SPV.0060	Special 45. Air Release Valve	EACH	1.000		1.000
0452	SPV.0060	Special 50. Remove and Salvage Existing Lighting Units	EACH	3.000	3.000	
0454	SPV.0060	Special 51. Luminaire LED Medium	EACH	6.000	6.000	
0456	SPV.0060	Special 52. Install Concrete Pole	EACH	2.000	2.000	
0458	SPV.0060	Special 53. Install Milwaukee County Furnished Pull Box 12x12x12-Inch	EACH	2.000	2.000	
0460	SPV.0060	Special 54. Wood Pole 60-Foot	EACH	4.000	4.000	
0462	SPV.0060	Special 55. Removing 60-Foot Wood Pole	EACH	4.000	4.000	
0464	SPV.0060	Special 61. Retroreflective Backplate 3S	EACH	12.000	12.000	
0466	SPV.0060	Special 62. Furn & Ins Traf Sig Cab & Ctrl at WI Ave & Honey Cr Pkwy	EACH	1.000	1.000	
0468	SPV.0060	Special 63. Furn & Ins Access Ped Push Button Sys at WI Ave & Honey Cr Pkwy	EACH	1.000	1.000	
0470	SPV.0060	Special 64. Furn & Ins Emerg Veh Preemption Sys at WI Ave & Honey Cr Pkwy	EACH	1.000	1.000	
0472	SPV.0060	Special 65. Battery Backup Sys for Traffic Intersection at WI Ave & Honey Cr Pkwy	EACH	1.000	1.000	
0474	SPV.0060	Special 66. Non-Intrusive Vehicle Detection System	EACH	1.000	1.000	
0476	SPV.0060	Special 68. Transport & Install City Furnished Poles Type 10	EACH	4.000	4.000	
0478	SPV.0060	Special 70. Transport & Install City Furnished Monotube Arms 20-Ft	EACH	3.000	3.000	
0480	SPV.0060	Special 71. Transport & Install City Furnished Monotube Arms 25-Ft	EACH	1.000	1.000	
0482	SPV.0060	Special 72. Transport & Install City Furnished Luminaire Arms Steel 15-Ft	EACH	4.000	4.000	
0484	SPV.0060	Special 80. Junction Boxes 18x6x6-Inch Special Watertight	EACH	4.000	4.000	
0486	SPV.0060	Special 82. Salvaging Stone P-40-776	EACH	1.000	1.000	
0488	SPV.0075	Special 01. Pavement Cleanup Project 2190-10-70	HRS	40.000	40.000	

					2190-10-70	2190-10-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0490	SPV.0075	Special 02. Boulder Obstructions	HRS	8.000	8.000	
0492	SPV.0090	Special 01. Concrete Curb & Gutter Integral 31-Inch	LF	350.000	350.000	
0494	SPV.0090	Special 02. Removing Existing Utility Duct Package	LF	415.000	415.000	
0496	SPV.0090	Special 03. Removing Existing Utility Pipe	LF	173.000	173.000	
0498	SPV.0090	Special 32. Storm Sewer Box Pipe 8x5-Ft	LF	271.000	271.000	
0500	SPV.0090	Special 33. Storm Sewer Box Pipe 8x3-Ft	LF	26.000	26.000	
0502	SPV.0090	Special 34. Slotted Corrugated Metal Drain 12-Inch	LF	223.000	223.000	
0504	SPV.0090	Special 35. Pipe Underdrain Exploration	LF	100.000	100.000	
0506	SPV.0090	Special 36. Storm Sewer Lateral Exploration	LF	100.000	100.000	
0508	SPV.0090	Special 40. PVC Hydrant Lead 6-Inch	LF	42.000		42.000
0510	SPV.0090	Special 41. PVC Watermain 6-Inch	LF	10.000		10.000
0512	SPV.0090	Special 42. PVC Water Main 8-Inch	LF	80.000		80.000
0514	SPV.0090	Special 43. PVC Water Main 16-Inch	LF	960.000		960.000
0516	SPV.0090	Special 44. PVC Water Main 16-Inch Within Casing Pipe	LF	154.000		154.000
0518	SPV.0090	Special 45. HDPE Water Service 1-Inch	LF	380.000		380.000
0520	SPV.0090	Special 46. 30-Inch Casing Pipe	LF	150.000		150.000
0522	SPV.0090	Special 47. Construction Staking Water Main	LF	1,100.000		1,100.000
0524	SPV.0090	Special 50. Cable Aerial Aluminum 4 AWG Triplex	LF	575.000	575.000	
0526	SPV.0135	Special 01. Vibration Monitoring	MON	8.000	8.000	
0528	SPV.0165	Special 01. Concrete Sidewalk 5-Inch Special	SF	1,352.000	1,352.000	
0530	SPV.0180	Special 01. Removing Concrete Channel	SY	1,596.000	1,596.000	
0532	SPV.0180	Special 02. Concrete Channel Lining	SY	70.000	70.000	
0534	SPV.0180	Special 81. Installing Salvaged Stone Facing	SY	88.000	88.000	
0536	SPV.0180	Special 82. Stone Facing	SY	265.000	265.000	
0538	SPV.0180	Special 83. Anti Graffiti Coating	SY	470.000	470.000	
0540	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Sediment	TON	1,486.000	1,486.000	

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REMOVALS CAT 0010

CATEGORY	ROADWAY	* 204.0100 REMOVING CONCRETE PAVEMENT SY	* 204.0155 REMOVING CONCRETE SIDEWALK SY	SPV.0180.01 REMOVING CONCRETE CHANNEL SY
0010	WISCONSIN AVE	2,592	430	1,596
	TOTAL 0010	2,592	430	1,596

REMOVALS CAT 0020

CATEGORY	LOCATION	* 204.0100 REMOVING CONCRETE PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	* 204.0155 REMOVING CONCRETE SIDEWALK SY
0020	HONEY CREEK PKWY	292	639	85
0020	WATERMAIN	631	--	40
0020	UNDISTRIBUTED - WATER SERVICE LATERALS	83	--	--
	TOTAL 0020	1,006	639	125

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REMOVE ASPHALT SURFACE CAT 0010

CATEGORY	LOCATION	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0010	WISCONSIN AVE	175
	TOTAL 0010	175

REMOVE ASPHALT SURFACE CAT 0020

CATEGORY	LOCATION	* 204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0020	WATERMAIN	494
	TOTAL 0020	494

GRUBBING

CATEGORY	PROJECT	201.0210 GRUBBING SY	201.0220 GRUBBING ID
0010	2190-10-70	1,872	186
	TOTAL 0010	1,872	186

COFFERDAM

CATEGORY	LOCATION	206.5001.01 COFFERDAMS (B-40-1033) EACH
0010	HONEY CREEK	1
	TOTAL 0010	1

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

	FROM/TO STATION	205.0100 EXCAVATION COMMON (1) CUT (2)	205.0100 EXCAVATION COMMON (1) EBS EXCAVATION (3)	REMOVAL OF CONTAMINATED MATERIAL (4)	SPV.0195.01 EXCAVATION, HAULING, AND DISPOSAL OF SEDIMENT (5)	AVAILABLE MATERIAL (6)	UNEXPANDED FILL	EXPANDED FILL (7) FACTOR 1.00	209.2100 BACKFILL GRANULAR GRADE 2 (8) FACTOR 1.00	MASS ORDINATE +/- (9)	WASTE	208.0100 BORROW	COMMENT
		CY	CY	CY	TON	CY	CY	CY	CY	CY	CY	CY	
CAT 0010													
WISCONSIN AVE	6+09.00/11+81.00	442		0	0	442	457	457	690	-15			
PATH SOUTH	57+87.03/59+00.00	3		0	0	3	126	126	0	-123			
PATH NORTH	61+00.00/63+51.00	19		0	0	19	374	374	0	-355			
HONEY CREEK STREAM	136+18.61/139+81.00	1,131		874	1,486	1,131	68	68	0		1,063		
UNDISTRIBUTED			60						60		60		
2190-10-70 CAT 0010 TOTALS		1,655		874	1,486	1,595	1,025	1,025	750	-493	1,123	493	
CAT 0020													
HONEY CREEK PARKWAY SOUTH	22+90.00/24+59.00	102		0	0	102	228	228	263	-126			
HONEY CREEK PARKWAY NORTH	25+38.00/27+50.00	88		0	0	88	229	229	424	-141			
UNDISTRIBUTED			50						50		50		
2190-10-70 CAT 0020 TOTALS		240		0	0	190	457	457	737	-267	50	267	

NOTES:

(1) EXCAVATION COMMON DOES NOT INCLUDE REMOVAL OF CONTAMINATED MATERIAL.

(2) NO ADDITIONS OR SUBTRACTIONS HAVE BEEN MADE FOR SALVAGED/UNSUABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL. EXISTING CONCRETE CHANNEL IS ASSUMED TO BE 8 INCHES THICK.

(3) EBS EXCAVATION TO BE BACKFILLED WITH BACKFILL GRANULAR GRADE 2.

(4) MATERIAL REMOVED FROM THE EXISTING STREAMBED BELOW THE CONCRETE CHANNEL IS ASSUMED TO BE CONTAMINATED. ANY MATERIAL DETERMINED NOT CONTAMINATED SHALL BE REMOVED UNDER ITEM 205.0100 EXCAVATION COMMON. MATERIAL EXCAVATED FOR STREAM CONSTRUCTION MAY BE USED AS FILL WITHIN THE STREAM AREA, BUT SHALL NOT BE USED AS FILL IN OTHER AREAS OF THE PROJECT.

(5) CONTAMINATED SEDIMENT ASSUMED DENSITY OF 1.7 TON/CY

(6) AVAILABLE MATERIAL = CUT (NO ADJUSTMENTS HAVE BEEN MADE FOR SALVAGED/UNUSUABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL). MATERIAL EXCAVATED ALONG HONEY CREEK STREAM SHALL NOT BE USED AS FILL FOR ANY OTHER DIVISION.

(7) EXPANDED FILL FACTOR = 1.00

(8) BACKFILL GRANULAR GRADE 2 TO BE USED AS ROADWAY FILL. SEE CONSTRUCTION DETAIL.

(9) 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. EXCESS MATERIAL FROM HONEY CREEK STREAM EXCAVATION IS EXCLUDED FROM THE MASS ORDINATE AND SHOWN AS WASTE.

(10) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

(11) STORM SEWER AND WATER MAIN EXCAVATION ARE NOT INCLUDED IN THIS TABLE AND SHOULD BE CONSIDERED ADDITIONAL WASTE. EXCAVATION FOR THESE ITEMS IS INCIDENTAL TO THE RESPECTIVE BID ITEMS.

3

BACKFILL GRANULAR - SS

CATEGORY	LOCATION	* 209.1100 BACKFILL GRANULAR GRADE 1 CY
0010	STORM SEWER REMOVALS	555
	TOTAL 0010	555

BACKFILL GRANULAR - MMSD

CATEGORY	LOCATION	* 209.1100 BACKFILL GRANULAR GRADE 1 CY	SPV.0060.04 ABANDON MMSD PUMP STATION BS0401 EACH
0050	MMSD PUMP STATION BS0401	185	1
	TOTAL 0050	185	1

3

AGGREGATE CAT 0010

CATEGORY	LOCATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	WISCONSIN AVE	680
0010	BRIDGE APPROACH	598
0010	DRIVEWAYS	35
0010	SIDEWALKS	128
0010	PATH	65
0010	TEMPORARY ROADWAY & DRIVEWAY RAMPING	46
	TOTAL 0010	1,552

AGGREGATE CAT 0020

CATEGORY	LOCATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0020	HONEY CREEK PKWY	1,058
0020	DRIVEWAYS	29
0020	SIDEWALKS	39
0020	WATERMAIN	416
0020	TEMPORARY ROADWAY & DRIVEWAY RAMPING	15
	TOTAL 0020	1,557

CONCRETE CAT 0010

CATEGORY	LOCATION	* 415.0080 CONCRETE PAVEMENT 8-INCH SY
0010	WISCONSIN AVE	1,495
	TOTAL 0010	1,495

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE CAT 0020

CATEGORY	LOCATION	405.0100 COLORING CONCRETE WISDOT RED CY	* 415.0080 CONCRETE PAVEMENT 8-INCH SY
0020	WATER MAIN	15	292
	TOTAL 0020	15	292

PROJECT NO: 2190-10-70	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 96	E

3

DRILLED BAR ITEMS CAT 0010

CATEGORY	OFFSET	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH
0010	WISCONSIN AVE	24	56
0010	SIDEWALK STEPS	2	--
	TOTAL 0010	26	56

DRILLED BAR ITEMS CAT 0020

CATEGORY	LOCATION	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH
0020	WATERMAIN	118	57
0020	HONEY CREEK PKWY	--	4
0020	SIDEWALK STEPS	2	--
	TOTAL 0020	120	61

3

HMA PAVEMENT CAT 0010

CATEGORY	ROADWAY	* 455.0605 TACK COAT GAL	* 460.6223 HMA PAVEMENT 3 MT 58-28 S TON	* 460.6224 HMA PAVEMENT 4 MT 58-28 S TON
0010	WISCONSIN AVE 3-INCH HMA	26	--	31
0010	WISCONSIN AVE 7.25-INCH HMA	132	180	69
	TOTAL 0010	158	180	100

HMA PAVEMENT CAT 0020

CATEGORY	LOCATION	* 455.0605 TACK COAT GAL	* 460.6223 HMA PAVEMENT 3 MT 58-28 S TON	* 460.6224 HMA PAVEMENT 4 MT 58-28 S TON
0020	HONEY CREEK PARKWAY	200	234	156
0020	WATER MAIN 3-INCH HMA	74	--	86
0020	WATER MAIN 7.25-INCH HMA	75	103	40
	TOTAL 0020	349	337	282

ASPHALTIC SURFACE

CATEGORY	LOCATION	465.0105 ASPHALTIC SURFACE TON
0010	SIDEWALK	9
0010	PATH	40
	TOTAL 0010	49

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

UNDERDRAIN

CATEGORY	STATION	LOCATION	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	* 645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	REMARKS
0010	7+42	WISCONSIN AVENUE	17	200	112	50' UPSTREAM OF INLETS AT LOW POINTS
0010	23+11	HONEY CREEK PARKWAY	17	200	112	50' UPSTREAM OF INLETS AT LOW POINTS
		TOTAL 0010	34	400	224	

3

CURB & GUTTER CAT 0010

CATEGORY	LOCATION	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	* 601.0331 CONCRETE CURB & GUTTER 31-INCH LF	SPV.0090.01 CONCRETE CURB & GUTTER INTERGRAL 31-INCH LF
0010	WISCONSIN AVE	25	520	350
	TOTAL 0010	25	520	350

CURB & GUTTER CAT 0020

CATEGORY	LOCATION	* 601.0331 CONCRETE CURB & GUTTER 31-INCH LF
0020	HONEY CREEK PKWY	761
	TOTAL 0020	761

3

CONCRETE SIDEWALK CAT 0010

CATEGORY	LOCATION	* 602.0410 CONCRETE SIDEWALK 5-INCH SF	* 602.0815 CONCRETE DRIVEWAY 7-INCH SY	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	SPV.0165.01 CONCRETE SIDEWALK 5-INCH SPECIAL SF
0010	WISCONSIN AVE	3,590	91	112	1,352
	TOTAL 0010	3,590	91	112	1,352

CONCRETE SIDEWALK CAT 0020

CATEGORY	LOCATION	* 602.0815 CONCRETE DRIVEWAY 7-INCH SY	* 602.0410 CONCRETE SIDEWALK 5-INCH SF
0020	HONEY CREEK PKWY	73	778
0020	WATERMAIN LATERALS	--	360
	TOTAL 0020	73	1,138

RIPRAP

CATEGORY	LOCATION	STATION	606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE TYPE HR SY	REMARKS
0010	DRAINAGE OUTFALLS		3	5	25	
0010	REINFORCED CONCRETE CUTOFF WALL	136+19	--	11	--	
0010	REINFORCED CONCRETE CUTOFF WALL	138+28	--	--	--	
0010	REINFORCED CONCRETE CUTOFF WALL	138+43	--	4	--	
0010	REINFORCED CONCRETE CUTOFF WALL	139+81	--	--	--	
	TEMPORARY RIPRAP	--	40	--	--	TO BE PLACED AS DIRECTED BY ENGINEER
	TOTAL 0010	TOTAL 0010	43	20	25	

FENCE SAFETY

CATEGORY	LOCATION	616.0700.S FENCE SAFETY LF
0010	HONEY CREEK	920
0010	TREE PROTECTION	840
	TOTAL 0010	1,760

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

MAINT REPAIR HAUL ROADS

CATEGORY	PROJECT	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (2190-10-70) EACH
0020	2190-10-70	1
	TOTAL 0020	1

DUST CONTROL

CATEGORY	PROJECT	623.0200 DUST CONTROL SURFACE TREATMENT SY
0010	2190-10-70	6,063
	TOTAL 0010	6,063

WATER

LOCATION	624.0100 WATER MGAL
PROJECT-BASE AGGREGATE	6
PROJECT- EXCAVATION	11
TOTAL 0010	17

3

EROSION CONTROL

CATEGORY	STAGE	625.0100 TOPSOIL SY	627.0200 MULCHING SY	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	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7010 INLET PROTECTION TYPE B EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0175 SEEDING MIXTURE NO. 75 LB	630.0200 SEEDING TEMPORARY LB	630.0400 SEEDING NURSE CROP LB	630.0500 SEED WATER MGAL	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
0010	PROPOSED	4,298	4,298	242	921	921	--	--	872	718	1	6	32	1	2	3	16	5	117	6	145	1,095	2,710
0010	EXISTING	--	--	--	434	434	--	--	--	--	--	--	11	--	2	--	--	--	--	--	--	--	--
SUBTOTAL 0010		4,298	4,298	242	1,355	1,355	--	--	872	718	1	6	43	1	4	3	16	5	117	6	145	1,095	2,710
UNDISTRIBUTED		1,075	1,075	61	339	339	6	16	218	180	--	2	11	1	--	1	4	2	30	2	37	274	678
TOTAL 0010		5,373	5,373	303	1,694	1,694	6	16	1,090	898	1	8	54	2	4	4	20	7	147	8	182	1,369	3,388

SIGNING

CATEGORY	SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.3620 ERECTING STATE OWNED SIGNS TYPE II EACH	REMARKS / NEW SIGN LOCATION
0010	P101	R2-1	SPEED LIMIT 30	24.00 x 30.00	--	5.00	--	--	--	--	INSTALL ON LIGHTING POLE
0010	P102	S1-1	SCHOOL ZONE	36.00 x 36.00	--	--	--	6.75	--	--	INSTALL ON SIGNAL POLE
0010	P103	S16-7L	ANGLED DOWN ARROW SYMBOL	30.00 x 18.00	--	--	--	3.75	--	--	INSTALL ON SIGNAL POLE
0010	P104	R1-1F	STOP (FOLDING)	30.00 x 30.00	--	--	5.18	--	--	--	INSTALL ON SIGNAL POLE
0010	P105		HONEY CREEK PKWY		--	--	--	--	--	1	INSTALL ON SIGNAL ARM
0010	P106	S1-1	SCHOOL ZONE	36.00 x 36.00	--	--	--	6.75	--	--	INSTALL ON SIGNAL POLE
0010	P107	S16-7L	ANGLED DOWN ARROW SYMBOL	30.00 x 18.00	--	--	--	3.75	--	--	INSTALL ON SIGNAL POLE
0010	P108	R1-1F	STOP (FOLDING)	30.00 x 30.00	--	--	5.18	--	--	--	INSTALL ON SIGNAL POLE
0010	P109		WISCONSIN AVE		--	--	--	--	--	1	INSTALL ON SIGNAL ARM
0010	P110		WISCONSIN AVE		--	--	--	--	--	1	INSTALL ON SIGNAL ARM
0010	P111	S1-1	SCHOOL ZONE	36.00 x 36.00	--	--	--	6.75	--	--	INSTALL ON SIGNAL POLE
0010	P112	S16-7L	ANGLED DOWN ARROW SYMBOL	30.00 x 18.00	--	--	--	3.75	--	--	INSTALL ON SIGNAL POLE
0010	P113	R1-1F	STOP (FOLDING)	30.00 x 30.00	--	--	5.18	--	--	--	INSTALL ON SIGNAL POLE
0010	P114		HONEY CREEK PKWY		--	--	--	--	--	1	INSTALL ON SIGNAL ARM
0010	P115	S1-1	SCHOOL ZONE	36.00 x 36.00	--	--	--	6.75	--	--	INSTALL ON SIGNAL POLE
0010	P116	S16-7L	ANGLED DOWN ARROW SYMBOL	30.00 x 18.00	--	--	--	3.75	--	--	INSTALL ON SIGNAL POLE
0010	P117	R1-1F	STOP (FOLDING)	30.00 x 30.00	--	--	5.18	--	--	--	INSTALL ON SIGNAL POLE
0010	M21		OAK LEAF TRAIL		1	--	--	--	1	--	INSTALL ON NEW POST
0010	M22		OAK LEAF TRAIL		1	--	--	--	1	--	INSTALL ON NEW POST
			TOTAL 0010		2	5.00	20.72	42.00	2	4	

REMOVING SIGNS

CATEGORY	SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II EACH	REMARKS / NEW SIGN LOCATION
0010	R11	R2-1	SPEED LIMIT 30	1	
			TOTAL 0010	1	

GEOTEXTILES CAT 0010

CATEGORY	LOCATION	* 645.0220 GEOGRID TYPE SR SY
0010	AS DETERMINED BY ENGINEER	175
	TOTAL 0010	175

GEOTEXTILES CAT 0020

CATEGORY	LOCATION	* 645.0220 GEOGRID TYPE SR SY
0020	AS DETERMINED BY ENGINEER	150
	TOTAL 0020	150

TEMP PAVEMENT MARKING

CATEGORY	STAGE	LOCATION	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH WHITE LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH YELLOW LF	643.3990 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 12-INCH LF
0010	GLENVIEW AVE	WIS AVE BRIDGE	381	509	360
		TOTAL 0010	890		360

TRAFFIC CONTROL

CATEGORY	STAGE	STAGE DURATION DAYS	LOCATION	643.0300 TRAFFIC CONTROL DRUMS EACH**	643.0300 DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420 DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715 DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800 DAY	643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH^	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE EACH**	643.1000 SF	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	643.1050 DAY	643.1070 TRAFFIC CONTROL CONES 42-INCH EACH**	643.1070 DAY
0010	TC OVERVIEW	235	WIS AVE BRIDGE	--	--	38	8,930	76	17,860	--	--	--	--	17	3,995	--	--	--	--	--	--	--
0010	GLENVIEW AVE	14	WIS AVE BRIDGE	35	490	14	196	28	392	10	140	1	14	10	140	--	--	--	--	--	54	756
0010	ROADWAY DETOUR	235	WIS AVE BRIDGE	--	--	--	--	--	--	--	--	--	--	115	27,025	--	43	193.50	--	--	--	--
0010	PED DETOUR	235	WIS AVE BRIDGE	--	--	7	1,645	14	3,290	--	--	--	--	34	7,990	--	16	60.00	--	--	--	--
			SUBTOTAL		490		10,771		21,542		140		14		39,150	--		253.50		--		756
			UNDISTRIBUTED		5,000		539		1,078		7		--		1,958	5		--		28		38
			TOTAL 0010		5,490		11,310		22,620		147		14		41,108	5		253.50		28		794

**FOR INFORMATION ONLY

^ = ONE CYCLE

PAVEMENT MARKING CAT 0010

CATEGORY	LOCATION	* 646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.6020 MARKING STOP LINE EPOXY 12-INCH LF	* 646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7520 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH LF
0010	WISCONSIN AVE	1,106	1,627	270	32	224
	SUBTOTAL 0010	1,106	1,627	270	32	224
	TOTAL 0010	2,733		270	32	224

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT MARKING CAT 0020

CATEGORY	LOCATION	* 646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.3020 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP) LF	646.5020 MARKING ARROW EPOXY EACH	* 646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF
0020	HONEY CREEK PKWY	400	--	--	--	--	32	--
0020	WISCONSIN AVE - 1+46.97 TO 6+09	795	1,065	111	53	2	31	107
	SUBTOTAL 0020	1,195	1,065	111	53	2	63	107
	TOTAL 0020	2,260		164		2	63	107

3

PAVEMENT MARKING REMOVAL

CATEGORY	STATION	TO	STATION	LOCATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE LF	646.9310 MARKING REMOVAL SPECIAL MARKING WATER BLASTING EACH
0020	1+90	-	3+31	WISCONSIN AVENUE	300	60	22	2
				TOTAL 0020	300	60	22	2

STREAM

CATEGORY	LOCATION	SPV.0035.01 STREAMBED STONE CY	SPV.0035.02 STREAMBED GRANULAR FILL CY	SPV.0035.03 FILTER GRAVEL CY	SPV.0035.04 PEA GRAVEL CY
0010	HONEY CREEK STREAMBED	1,509	378	369	378
	TOTAL 0010	1,509	378	369	378

SAWING CAT 0010

CATEGORY	LOCATION	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF
0010	WISCONSIN AVE	93	703
	TOTAL 0010	93	703

SAWING CAT 0020

CATEGORY	LOCATION	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF
0020	HONEY CREEK PKWY/WATERMAIN	64	1,180
0020	UNDISTRIBUTED - WATER SERVICE LATERAL	--	250
	TOTAL 0020	64	1,430

CRACK AND DAMAGE SURVEY

CATEGORY	LOCATION	999.1501.S CRACK AND DAMAGE SURVEY EACH
0010	8042 W WISCONSIN AVE	1
0010	8043 W WISCONSIN AVE	1
0010	8034 W WISCONSIN AVE	1
0010	8035 W WISCONSIN AVE	1
0010	8025 W WISCONSIN AVE	1
0010	8026 W WISCONSIN AVE	1
0010	7907 W WISCONSIN AVE	1
0010	7910 W WISCONSIN AVE	1
0010	644 N HONEY CREEK PKWY	1
0010	660 N HONEY CREEK PKWY	1
0010	700 N HONEY CREEK PKWY	1
0010	714 N HONEY CREEK PKWY	1
0010	732 N HONEY CREEK PKWY	1
	TOTAL 0010	13

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONSTRUCTION STAKING

CATEGORY	PROJECT	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-40-1033) EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.8501.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (2190-10-70) EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500.01 CONSTRUCTION STAKING SIDEWALK (2190-10-70) EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (2190-10-70) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	2190-10-70	50	815	954	--	566	338	1	8	1	1	1,524
	TOTAL 0010	50	815	954	--	566	338	1	8	1	1	1,524
0030	2190-10-70	--	--	--	1	--	--	--	--	--	--	--
	TOTAL 0030	--	--	--	1	--	--	--	--	--	--	--

3

REINFORCED CONCRETE CUTOFF WALLS

CATEGORY	STATION	LOCATION	SPV.0035.05 REINFORCED CONCRETE CUTOFF WALL CY	SPV.0180.02 CONCRETE CHANNEL LINING SY
0010	136+19	HONEY CREEK	8	26
0010	138+28	HONEY CREEK	3	16
0010	138+43	HONEY CREEK	3	16
0010	139+81	HONEY CREEK	4	12
		TOTAL 0010	18	70

MMSD

CATEGORY	STATION	OFFSET	EXIST ELEV	PROP ELEV	SPV.0060.03 RECONSTRUCT MMSD MANHOLE EACH	SPV.0060.05 EXPOSING MMSD MIS EACH
0050	8+00	17.2' LT	679.75'	682.36'	1	--
0050	9+31	16.5' LT	697.80'	683.17'	1	--
0050	9+46	4.0' RT	680.26'	683.52'	1	--
0050	9+48	17.0' LT	680.04'	683.31'	1	--
0050					--	3
				TOTAL 0050	4	3

3

EXPOSING AT&T DUCT PACKAGE

CATEGORY	LOCATION	SPV.0060.06 EXPOSING AT&T DUCT PACKAGE EACH
0010	BRIDGE PIER & ABUTMENTS	3
	TOTAL 0010	3

REMOVING EXISTING UTILITY DUCT PACKAGE

CATEGORY	STATION	TO	STATION	* 209.1100 BACKFILL GRANULAR GRADE 1 CY	SPV.0090.02 REMOVING EXISTING UTILITY DUCT PACKAGE LF
0010	6+40	-	8+08	234	175
0010	9+35	-	11+75	320	240
			TOTAL 0010	554	415

SANITARY MANHOLES

CATEGORY	STATION	OFFSET	EXIST ELEV	PROP ELEV	SPV.0060.07 ADJUSTING SANITARY MANHOLES EACH	SPV.0060.08 RECONSTRUCTING SANITARY MANHOLES EACH
0020	7+73	40.0' LT	680.66'	682.88'	--	1
0020	7+93	42.0' RT	680.40'	682.29'	--	1
0020	9+57	4.0' RT	680.42'	683.57'	--	1
0020	11+28	8.8' RT	685.35'	685.28'	1	--
0020	26+74	32.4' RT	679.76'	680.00'	1	--
				TOTAL 0020	2	3

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING EXISTING UTILITY PIPE

CATEGORY	STATION	TO	STATION	* 209.1100 BACKFILL GRANULAR GRADE 1 CY	SPV.0090.03 REMOVING EXISTING UTILITY PIPE LF
0010	7+45	-	8+08	84	63
0010	8+05	-	8+20	87	65
0010	9+35	-	9+75	60	45
			TOTAL 0010	231	173

3

CONCRETE BASE SPECIAL

CATEGORY	STATION	OFFSET	ROADWAY	SPV.0060.09 CONCRETE BASE SPECIAL EACH
0020	24+54	30' LT	HONEY CREEK PARKWAY	1
			TOTAL 0020	1

PAVEMENT CLEANUP PROJECT

CATEGORY	LOCATION	SPV.0075.01 PAVEMENT CLEANUP PROJECT 2190-10-70 HRS
0020	2190-10-70	40
	TOTAL 0020	40

BOULDER OBSTRUCTIONS

CATEGORY	PROJECT	SPV.0075.02 BOULDER OBSTRUCTIONS HRS
0010	2190-10-70	8
	TOTAL 0010	8

VIBRATION MONITORING

CATEGORY	PROJECT	SPV.0135.01 VIBRATION MONITORING MON
0010	2190-10-70	8
	TOTAL 0010	8

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONDUIT

FROM	TO	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	24	--
PB1	SB1	9	--	--
PB1	PB2	--	--	94
PB2	SB2	--	9	--
PB2	PB3	--	84	--
PB3	SB3	4	--	--
PB3	PB4	--	--	93
PB4	SB4	--	5	--
PB4	PB5	--	90	--
PB5	SB5	10	--	--
PB5	PB6	--	--	92
PB6	SB6	--	8	--
PB6	PB7	--	36	--
PB7	SB7	10	--	--
PB7	SB8	10	--	--
PB7	PB8	--	--	110
PB8	SB9	12	--	--
PB8	SB10	--	10	--
PB8	SB11	4	--	--
PB8	CB1	--	75	--
CB1	CV1	5	--	--
CV1	CV2	--	273	--
CV1	PB9	32	--	--
PB9	CV3	144	--	--
	TOTAL 0040	240	341	389

PULL BOX

PULL BOX	STATION	OFFSET	* 653.0135 PULL BOXES STEEL 24X36-INCH EACH	* 653.0140 PULL BOXES STEEL 24X42-INCH EACH
PB1	9+26	47.0' LT	--	1
PB2	9+73	47.0' LT	--	1
PB3	9+95	22.9' LT	--	1
PB4	9+94	23.5' RT	--	1
PB5	9+68	47.6' RT	--	1
PB6	9+22	46.3' RT	--	1
PB7	9+25	29.4' RT	--	1
PB8	9+27	25.5' LT	--	1
PB9	8+02	22.9' LT	1	--
		TOTAL 0040	1	8

LIGHTING WIRE

FROM	TO	655.0320 CABLE TYPE UF 2-10 AWG GROUNDED LF	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	SB2	116	--
SB2	LUMIN (1)	--	144
SB2	SB4	169	--
SB4	LUMIN (1)	--	144
SB10	SB6	169	--
SB6	LUMIN (1)	--	144
CB1	SB10	73	--
SB10	LUMIN (1)	--	144
	TOTAL 0040	527	576

ABOVE GROUND SIGNAL CABLE

FROM	TO HEAD NO.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF
SB1	9	27
SB1	10	27
SB1	15	23
SB2	8	48
SB2	16	23
SB2	BUTTON	6
SB3	3	27
SB3	4	27
SB3	17	23
SB3	BUTTON	6
SB4	2	43
SB4	18	23
SB4	BUTTON	6
SB5	BUTTON	6
SB5	7	27
SB5	12	27
SB5	19	23
SB6	11	48
SB6	20	23
SB6	BUTTON	6
SB7	1	27
SB7	6	27
SB7	13	23
SB8	BUTTON	6
SB9	BUTTON	6
SB10	5	53
SB10	14	23
SB11	BUTTON	6
	TOTAL 0040	469

EVP DETECTOR CABLE

CATEGORY	SIGNAL BASE NO.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
0010	SB10 (HEAD A)	94
0010	SB4 (HEAD B)	201
0010	SB6 (HEAD C)	161
0010	SB2 (HEAD D)	121
	TOTAL 0040	577

CONCRETE BASE

BASE NO	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
SB1	9+30	39.0' LT	1	--	--
SB2	9+76	38.2' LT	--	1	--
SB3	9+91	23.7' LT	1	--	--
SB4	9+89	23.5' RT	--	1	--
SB5	9+69	37.7' RT	1	--	--
SB6	9+24	39.3' RT	1	--	--
SB7	9+16	26.1' RT	--	1	--
SB8	9+17	31.7' RT	1	--	--
SB9	9+16	27.6' LT	1	--	--
SB10	9+17	23.6' LT	--	1	--
SB11	9+24	27.5' LT	1	--	--
CB1	9+18	48.2' LT	--	--	1
		TOTAL 0040	7	4	1

UNDERGROUND CABLE

FROM	TO	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF
CB1	SB1	--	52
CB1	SB2	--	114
CB1	SB3	--	166
CB1	SB4	--	228
CB1	SB5	--	294
CB1	SB6	--	169
CB1	SB7	--	139
CB1	SB8	138	--
CB1	SB9	71	--
CB1	SB10	69	--
CB1	SB11	63	--
	TOTAL 0040	341	1,162

ELECTRICAL WIRE

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	52
SB1	SB2	104
SB2	SB3	94
SB3	SB4	94
SB4	SB5	81
SB5	SB6	102
SB6	SB7	73
SB7	SB8	42
SB8	SB9	112
SB9	SB10	43
SB10	SB11	37
SB11	CB1	63
PB1	CB1	38
PB2	SB2	29
PB3	SB3	24
PB4	SB4	24
PB5	SB5	30
PB6	PB6	27
PB7	PB7	30
PB8	CB1	59
	TOTAL 0040	642

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

W WISCONSIN AVE. AND N HONEY CREEK PKWY.
CITY OF WAUWATOSA
MILWAUKEE COUNTY
2190-10-70
CATEGORY 0040

3

METER BREAKER PEDESTAL

LOCATION	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (WISCONSIN AVE. & HONEY CREEK PKWY.) EACH
W WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

SIGNAL MOUNTING

LOCATION	658.5070.01 SIGNAL MOUNTING HARDWARE (W WISCONSIN AVE. & HONEY CREEK PKWY.) EACH
WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

SIGNAL FACES

SIGNAL HEAD NO	SIGNAL BASE NO	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	SPV.0060.61 RETROREFLECTIVE BACKPLATE 3S EACH
9	SB1	1	--	1
10	SB1	1	--	1
15	SB1	--	1	--
8	SB2	1	--	1
16	SB2	--	1	--
3	SB3	1	--	1
4	SB3	1	--	1
17	SB3	--	1	--
2	SB4	1	--	1
18	SB4	--	1	--
7	SB5	1	--	1
12	SB5	1	--	1
19	SB5	--	1	--
11	SB6	1	--	1
20	SB6	--	1	--
1	SB7	1	--	1
6	SB7	1	--	1
13	SB7	--	1	--
5	SB10	1	--	1
14	SB10	--	1	--
	TOTAL 0040	12	8	12

COMMUNICATION VAULTS

STATION	OFFSET	673.0105 COMMUNICATION VAULT TYPE 1 EACH	673.0200 TRACER WIRE MARKER POSTS EACH
9+19	52.8' LT	1	--
11+80	22.3' LT	1	1
6+59	25.1' LT	1	1
	TOTAL 0040	3	2

LIGHTING

SIGNAL BASE NO.	* SPV.0060.51 LUMINAIRE LED MEDIUM EACH	SPV.0060.72 TRANSPORT AND INSTALL CITY FURNISHED LUMINAIRE ARMS STEEL 15-FT EACH
SB2	1	1
SB4	1	1
SB6	1	1
SB10	1	1
TOTAL 0040	4	4

VEHICLE DETECTION SYSTEM

LOCATION	SPV.0060.66 NON-INTRUSIVE VEHICLE DETECTION SYSTEM EACH
WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM

LOCATION	SPV.0060.63 FURNISH AND INSTALL ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM AT WISCONSIN AVE & HONEY CREEK PKWY EACH
WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

EVP SYSTEM

LOCATION	SPV.0060.64 FURNISH AND INSTALL EMERGENCY VEHICLE PREEMPTION SYSTEM AT WISCONSIN AVE. & HONEY CREEK PKWY. EACH
WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

BATTERY BACKUP SYSTEM

LOCATION	SPV.0060.65 BATTERY BACKUP SYSTEM FOR TRAFFIC INTERSECTION AT WISCONSIN AVE & HONEY CREEK PKWY EACH
WISCONSIN AVE. & HONEY CREEK PKWY.	1
TOTAL 0040	1

TRAFFIC SIGNAL CABINET & CONTROLLER

LOCATION	SPV.0060.62 FURNISH AND INSTALL TRAFFIC SIGNAL CABINET & CONTROLLER AT WISCONSIN AVE. & HONEY CREEK PKWY. EACH
WISCONSIN AVE. & HONEY CREEK PKWY	1
TOTAL 0040	1

MONOTUBE

SIGNAL BASE NO	657.0100 PEDESTAL BASES EACH	SPV.0060.68 TRANSPORT AND INSTALL CITY FURNISHED POLES TYPE 10 EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.70 TRANSPORT AND INSTALL CITY FURNISHED MONOTUBE ARMS 20-FT EACH	SPV.0060.71 TRANSPORT AND INSTALL CITY FURNISHED MONOTUBE ARMS 25-FT EACH
SB1	1	--	--	1	--	--
SB2	--	1	--	--	1	--
SB3	1	--	--	1	--	--
SB4	--	1	--	--	1	--
SB5	1	--	--	1	--	--
SB6	--	1	--	--	1	--
SB7	1	--	--	1	--	--
SB8	1	--	1	--	--	--
SB9	1	--	1	--	--	--
SB10	--	1	--	--	--	1
SB11	1	--	1	--	--	--
TOTAL 0040	7	4	3	4	3	1

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

W WISCONSIN AVE. AND N HONEY CREEK PKWY.
CITY OF WAUWATOSA
MILWAUKEE COUNTY
2190-10-70
CATEGORY 0040

3

REMOVING MANHOLES

CATEGORY	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH
0010	WISCONSIN AVENUE			
		7+94	10' RT	1
		9+45	11' RT	1
		9+96	29' LT	1
	TOTAL 0010			3

REMOVING CATCH BASINS

CATEGORY	ROADWAY	STATION	OFFSET	204.0215 REMOVING CATCH BASINS EACH
0010	WISCONSIN AVENUE			
		7+81	20' LT	1
		7+83	20' RT	1
		9+25	28' RT	1
		9+75	26' RT	1
		9+79	26' LT	1
	HONEY CREEK PARKWAY			
		24+40	18' LT	1
		25+41	19' LT	1
	TOTAL 0010			7

3

STORM SEWER PIPE REMOVALS - CAT 0010

CATEGORY	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.04 REMOVING STORM SEWER 12-INCH LF	204.0245.05 REMOVING STORM SEWER 18-INCH LF	204.0245.06 REMOVING STORM SEWER 24-INCH LF
0010	WISCONSIN AVENUE								
		7+81	20' LT	-	7+94	10' RT	33	--	--
		7+83	20' RT	-	7+94	10' RT	15	--	--
		7+94	10' RT	-	8+70	11' RT	--	76	--
		8+93	11' RT	-	9+45	11' RT	--	52	--
		9+25	28' RT	-	9+45	11' RT	26	--	--
		9+29	59' RT	-	9+06	58' RT	--	23	--
		9+33	42' LT	-	8+96	44' LT	--	--	37
		9+75	26' RT	-	9+45	11' RT	33	--	--
		9+79	26' LT	-	9+45	11' RT	51	--	--
		9+79	26' LT	-	9+96	29' LT	16	--	--
		9+96	29' LT	-	9+33	42' LT	--	--	64
	TOTAL 0010						174	151	101

ABANDONING SEWER

CATEGORY	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	PIPE ID INCH	204.0291.S ABANDONING SEWER CY
0010	WISCONSIN AVENUE							
		9+96	29' LT	-	11+67	28' LT	24	20
	TOTAL 0010							20

PROJECT NO: 2190-10-70	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 106	E

STORM SEWER PIPES

FROM	-	TO	LOCATION	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE %	608.0318 SSPRC CLASS III 18-INCH LF	608.0324 SSPRC CLASS III 24-INCH LF	608.0330 SSPRC CLASS III 30-INCH LF	608.0342 SSPRC CLASS III 42-INCH LF	608.0512 SSPRC CLASS V 12-INCH LF	608.0515 SSPRC CLASS V 15-INCH LF	608.0518 SSPRC CLASS V 18-INCH LF	608.0524 SSPRC CLASS V 24-INCH LF	608.0530 SSPRC CLASS V 30-INCH LF	608.2334 SSPRCHE CLASS HE-III 34X53-INCH LF
11	-	11A	WISCONSIN AVE	677.83	677.76	1.00%	--	7	--	--	--	--	--	--	--	--
11A	-	12A	WISCONSIN AVE	674.85	674.18	2.38%	--	28	--	--	--	--	--	--	--	--
12	-	12A	WISCONSIN AVE	677.40	677.33	1.00%	--	7	--	--	--	--	--	--	--	--
12A	-	14A	WISCONSIN AVE	673.68	672.16	2.38%	--	--	64	--	--	--	--	--	--	--
13	-	14	WISCONSIN AVE	677.71	677.43	1.00%	28	--	--	--	--	--	--	--	--	--
14	-	14A	WISCONSIN AVE	676.93	676.86	1.00%	--	7	--	--	--	--	--	--	--	--
14A	-	15A	WISCONSIN AVE	672.16	671.48	2.38%	--	--	--	28	--	--	--	--	--	--
15	-	15A	WISCONSIN AVE	676.18	676.09	1.00%	--	9	--	--	--	--	--	--	--	--
15A	-	55	WISCONSIN AVE	671.48	669.87	2.38%	--	--	--	68	--	--	--	--	--	--
16	-	17	WISCONSIN AVE	678.67	678.39	1.00%	--	--	--	--	--	28	--	--	--	--
17	-	12A	WISCONSIN AVE	677.64	677.33	1.00%	--	31	--	--	--	--	--	--	--	--
18	-	19	WISCONSIN AVE	677.71	677.43	1.00%	--	--	--	--	--	28	--	--	--	--
19	-	39	WISCONSIN AVE	676.68	676.40	1.00%	--	28	--	--	--	--	--	--	--	--
27	-	21	WISCONSIN AVE	679.05	678.72	1.00%	--	--	--	--	--	--	--	--	33	--
28	-	27	WISCONSIN AVE	679.59	679.05	2.00%	--	--	--	--	27	--	--	--	--	--
29	-	22	WISCONSIN AVE	680.40	680.01	1.00%	--	--	--	--	--	--	--	39	--	--
30	-	29	WISCONSIN AVE	680.76	680.40	2.00%	--	--	--	--	18	--	--	--	--	--
31	-	24	WISCONSIN AVE	680.72	680.33	1.00%	--	--	--	--	--	--	--	39	--	--
32	-	25	WISCONSIN AVE	681.51	680.92	1.50%	--	--	--	--	--	--	39	--	--	--
33	-	32	WISCONSIN AVE	682.70	682.01	2.00%	--	--	--	--	35	--	--	--	--	--
35	-	14	WISCONSIN AVE	677.99	677.93	1.00%	--	--	--	--	6	--	--	--	--	--
36	-	13	WISCONSIN AVE	678.27	678.21	1.00%	--	--	--	--	6	--	--	--	--	--
37	-	39	WISCONSIN AVE	677.48	677.40	1.00%	--	--	--	--	8	--	--	--	--	--
39	-	15A	WISCONSIN AVE	675.90	675.59	1.00%	--	--	31	--	--	--	--	--	--	--
41	-	22	WISCONSIN AVE	679.69	679.61	1.00%	--	--	--	--	8	--	--	--	--	--
42	-	73	HONEY CREEK PKWY	675.59	675.52	0.50%	--	14	--	--	--	--	--	--	--	--
46	-	57	HONEY CREEK PKWY	673.17	672.72	1.00%	--	--	45	--	--	--	--	--	--	--
47	-	46	HONEY CREEK PKWY	675.01	674.67	1.00%	--	34	--	--	--	--	--	--	--	--
48	-	46	HONEY CREEK PKWY	675.74	675.59	1.00%	--	--	--	--	--	15	--	--	--	--
49	-	46	HONEY CREEK PKWY	675.74	675.59	1.00%	--	--	--	--	--	15	--	--	--	--
50	-	47	HONEY CREEK PKWY	675.91	675.76	1.00%	--	--	--	--	--	15	--	--	--	--
51	-	47	HONEY CREEK PKWY	675.91	675.76	1.00%	--	--	--	--	--	15	--	--	--	--
55	-	56	WISCONSIN AVE	669.65	669.46	0.70%	--	--	--	--	--	--	--	--	--	26
61	-	BOX	WISCONSIN AVE	678.06	677.81	2.50%	--	10	--	--	--	--	--	--	--	--
68	-	71	WISCONSIN AVE	674.00	671.89	3.20%	66	--	--	--	--	--	--	--	--	--
69	-	70	WISCONSIN AVE	671.94	670.94	2.50%	--	--	--	--	40	--	--	--	--	--
72	-	73	HONEY CREEK PKWY	678.44	678.18	1.00%	26	--	--	--	--	--	--	--	--	--
73	-	74	HONEY CREEK PKWY	675.52	675.20	0.50%	--	63	--	--	--	--	--	--	--	--
E65	-	61	WISCONSIN AVE	680.71	678.06	2.50%	--	--	--	--	--	--	--	--	--	--
			TOTAL 0010				120	238	140	96	148	116	39	78	33	26

STORM SEWER BOX PIPE

CATEGORY	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	INLET ELEVATION	OUTLET ELEVATION	SLOPE %	SPV.0090.32 STORM SEWER BOX PIPE 8x5-FT LF	SPV.0090.33 STORM SEWER BOX PIPE 8x3-FT LF	NOTES
0010	WISCONSIN AVENUE											
		11+63.92	16.48' LT	--	9+67.66	16.48' LT	675.76	671.84	2.00%	196	--	ENDS AT 57.4° BEND
		9+67.66	16.48' LT	--	9+31.78	72.68' LT	671.84	670.50	2.00%	67	--	ENDS AT START OF REDUCTION 8'x5' BOX TO 8'x3' BOX
		9+31.78	72.68' LT	--	9+27.47	79.42' LT	670.50	670.34	2.00%	8	--	ENDS AT END OF REDUCTION 8'x5' BOX TO 8'x3' BOX
		9+27.47	79.42' LT	--	9+13.53	101.27' LT	670.34	669.82	2.00%	--	26	ENDS AT OUTFALL 63
	TOTAL 0010									271	26	

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	LOCATION	522.1012 AEW FOR CPRC 12-INCH EACH	522.1018 AEW FOR CPRC 18-INCH EACH	522.1024 AEW FOR CPRC 24-INCH EACH	522.1030 AEW FOR CPRC 30-INCH EACH	522.2634 AEW FOR CPRCHE 34x53-INCH EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3220 INLETS 2X2-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	NOTES
11	6+50.59	19.26' LT	682.85	675.83	6.01	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
11A	6+50.59	12.00' LT	683.02	674.85	7.18	WISCONSIN AVE	--	--	--	--	--	1	--	--	--	--	--	--	
12	6+78.59	19.26' LT	682.45	677.40	4.30	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
12A	6+78.59	12.00' LT	682.62	673.68	7.99	WISCONSIN AVE	--	--	--	--	--	--	1	--	--	--	--	--	
13	7+14.53	19.26' LT	682.15	675.33	5.82	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
14	7+42.52	19.26' LT	682.07	673.98	7.09	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
14A	7+42.53	12.00' LT	682.25	672.16	9.22	WISCONSIN AVE	--	--	--	--	--	--	--	1	--	--	--	--	
15	7+66.28	19.26' LT	682.13	674.18	6.94	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
15A	7+71.01	11.86' LT	682.32	671.48	9.98	WISCONSIN AVE	--	--	--	--	--	--	--	1	--	--	--	--	
16	6+50.59	19.26' RT	683.02	676.67	5.35	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
17	6+78.59	19.26' RT	682.61	675.64	5.97	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
18	7+14.53	19.26' RT	682.31	675.71	5.60	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
19	7+42.53	19.26' RT	682.23	674.68	6.55	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
21	9+97.42	13.48' LT	683.55	678.72	4.12	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
22	10+46.70	19.48' LT	683.66	679.61	3.22	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
23	10+61.70	19.48' LT	683.78	679.97	2.81	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
24	10+80.54	19.48' LT	683.99	680.33	2.90	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
25	11+09.54	19.48' LT	684.46	680.92	2.75	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
26	11+34.99	19.48' LT	685.06	681.43	2.62	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
27	9+95.74	19.48' RT	683.56	677.05	5.51	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
28	10+22.79	19.48' RT	683.67	677.59	5.08	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
29	10+46.70	19.48' RT	683.78	678.40	4.38	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
30	10+64.70	19.48' RT	683.94	678.76	4.18	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
31	10+80.74	19.48' RT	684.14	678.72	4.41	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
32	11+07.58	19.48' RT	684.62	679.51	4.11	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
33	11+42.37	19.48' RT	685.38	680.70	3.68	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
35	7+42.55	25.58' LT	681.54	677.99	2.38	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	--	
36	7+15.00	25.58' LT	681.61	678.27	2.17	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	--	
37	7+70.00	27.09' RT	681.85	677.48	3.20	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	--	
39	7+70.53	19.26' RT	682.31	673.90	7.41	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
41	10+45.00	27.08' LT	682.50	679.69	1.64	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	--	
42	25+75.00	31.30' RT	680.14	675.59	3.56	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
46	23+11.20	16.92' LT	680.52	671.17	8.34	HONEY CREEK PKWY	--	--	--	--	--	--	1	--	--	--	--	--	
47	23+11.19	17.01' RT	680.51	673.01	6.50	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
48	23+26.20	16.92' LT	680.56	673.74	5.82	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
49	22+96.20	16.92' LT	680.53	673.74	5.79	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
50	23+26.19	17.02' RT	680.56	673.91	5.65	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
51	22+96.19	17.00' RT	680.53	673.91	5.62	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	1	--	--	
55	8+19.43	59.42' LT	678.10	669.65	7.62	WISCONSIN AVE	--	--	--	--	--	--	--	--	1	--	--	--	
56	8+39.29	76.85' LT		669.46		WISCONSIN AVE	--	--	--	--	1	--	--	--	--	--	--	--	
57	23+24.66	59.56' LT		672.72		HONEY CREEK PKWY	--	--	--	1	--	--	--	--	--	--	--	--	
58	25+17.29	16.67' RT		671.84		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	57.4° BEND
58A	25+15.39	18.76' RT	683.40	678.21	3.95	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	
60	11+60.50	19.48' LT	685.99	681.94	3.05	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
61	11+67.07	28.45' LT	686.90	678.05	7.86	WISCONSIN AVE	--	--	--	--	--	1	--	--	--	--	--	--	
62	25+71.72	21.84' LT		670.50		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	BEGIN REDUCTION 8'x5' TO 8'x3' BOX
62A	25+67.58	21.37' LT	682.83	676.91	4.68	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	
62B	25+78.25	26.47' LT		670.34		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	END REDUCTION 8'x5' TO 8'x3' BOX
63	25+99.40	41.44' LT		669.82		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	AEW FOR 8'x3' BOX STORM SEWER
68	8+03.64	139.74' LT		674.00		WISCONSIN AVE	--	1	--	--	--	--	--	--	--	--	--	--	
69	7+98.10	97.11' RT	678.22	671.94	6.44	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	1	
70	8+37.08	106.46' RT		670.94		WISCONSIN AVE	1	--	--	--	--	--	--	--	--	--	--	--	
71	8+69.43	138.05' LT		671.89		WISCONSIN AVE	--	1	--	--	--	--	--	--	--	--	--	--	
72	25+45.77	17.26' RT	682.83	676.44	5.39	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	
73	25+71.72	17.26' RT	682.38	673.52	7.86	HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	--	
74	26+09.13	32.98' LT		675.20		HONEY CREEK PKWY	--	--	1	--	--	--	--	--	--	--	--	--	
E65	12+73.27	28.37' LT	689.61	680.71	7.91	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	--	
						TOTAL 0010	1	2	1	1	1	2	2	2	1	6	4	1	

REMARKS:
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	LOCATION	SPV.0060.31 24"X72" CATCH BASIN EACH	SPV.0060.32 30"X72" CATCH BASIN EACH	SPV.0060.33 24"X72" RISER INLET EACH	SPV.0060.34 MANHOLE 4-FT RISER EACH	611.0606 INLET COVERS TYPE B EACH	611.0612 INLET COVERS TYPE C EACH	611.0642 INLET COVERS TYPE MS EACH	SPV.0060.35 INLET COVER R-3246-AL EACH	SPV.0060.36 INLET COVER R-3293-2 EACH	SPV.0060.37 INLET COVER R-3295-2(L) EACH	SPV.0060.38 MANHOLE COVER R-1661-B EACH	NOTES
11	6+50.59	19.26' LT	682.85	675.83	6.01	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
11A	6+50.59	12.00' LT	683.02	674.85	7.18	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
12	6+78.59	19.26' LT	682.45	677.40	4.30	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
12A	6+78.59	12.00' LT	682.62	673.68	7.99	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
13	7+14.53	19.26' LT	682.15	675.33	5.82	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
14	7+42.52	19.26' LT	682.07	673.98	7.09	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
14A	7+42.53	12.00' LT	682.25	672.16	9.22	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
15	7+66.28	19.26' LT	682.13	674.18	6.94	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
15A	7+71.01	11.86' LT	682.32	671.48	9.98	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
16	6+50.59	19.26' RT	683.02	676.67	5.35	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
17	6+78.59	19.26' RT	682.61	675.64	5.97	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
18	7+14.53	19.26' RT	682.31	675.71	5.60	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
19	7+42.53	19.26' RT	682.23	674.68	6.55	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
21	9+97.42	13.48' LT	683.55	678.72	4.12	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
22	10+46.70	19.48' LT	683.66	679.61	3.22	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
23	10+61.70	19.48' LT	683.78	679.97	2.81	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
24	10+80.54	19.48' LT	683.99	680.33	2.90	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
25	11+09.54	19.48' LT	684.46	680.92	2.75	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
26	11+34.99	19.48' LT	685.06	681.43	2.62	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
27	9+95.74	19.48' RT	683.56	677.05	5.51	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
28	10+22.79	19.48' RT	683.67	677.59	5.08	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
29	10+46.70	19.48' RT	683.78	678.40	4.38	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
30	10+64.70	19.48' RT	683.94	678.76	4.18	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
31	10+80.74	19.48' RT	684.14	678.72	4.41	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
32	11+07.58	19.48' RT	684.62	679.51	4.11	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
33	11+42.37	19.48' RT	685.38	680.70	3.68	WISCONSIN AVE	1	--	--	--	--	--	--	--	--	1	--	
35	7+42.55	25.58' LT	681.54	677.99	2.38	WISCONSIN AVE	--	--	--	--	1	--	--	--	--	--	--	
36	7+15.00	25.58' LT	681.61	678.27	2.17	WISCONSIN AVE	--	--	--	--	1	--	--	--	--	--	--	
37	7+70.00	27.09' RT	681.85	677.48	3.20	WISCONSIN AVE	--	--	--	--	1	--	--	--	--	--	--	
39	7+70.53	19.26' RT	682.31	673.90	7.41	WISCONSIN AVE	--	1	--	--	--	--	--	--	1	--	--	
41	10+45.00	27.08' LT	682.50	679.69	1.64	WISCONSIN AVE	--	--	--	--	1	--	--	--	--	--	--	
42	25+75.00	31.30' RT	680.14	675.59	3.56	HONEY CREEK PKWY	--	--	--	--	--	1	--	--	--	--	--	
46	23+11.20	16.92' LT	680.52	671.17	8.34	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
47	23+11.19	17.01' RT	680.51	673.01	6.50	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
48	23+26.20	16.92' LT	680.56	673.74	5.82	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
49	22+96.20	16.92' LT	680.53	673.74	5.79	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
50	23+26.19	17.02' RT	680.56	673.91	5.65	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
51	22+96.19	17.00' RT	680.53	673.91	5.62	HONEY CREEK PKWY	--	--	--	--	--	--	--	1	--	--	--	
55	8+19.43	59.42' LT	678.10	669.65	7.62	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
56	8+39.29	76.85' LT		669.46		WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	
57	23+24.66	59.56' LT		672.72		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	
58	25+17.29	16.67' RT		671.84		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	57.4° BEND
58A	25+15.39	18.76' RT	683.40	678.21	3.95	HONEY CREEK PKWY	--	--	--	1	--	--	--	--	--	--	1	
60	11+60.50	19.48' LT	685.99	681.94	3.05	WISCONSIN AVE	--	--	1	--	--	--	--	--	--	1	--	
61	11+67.07	28.45' LT	686.90	678.05	7.86	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	1	
62	25+71.72	21.84' LT		670.50		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	BEGIN REDUCTION 8'x5' TO 8'x3' BOX
62A	25+67.58	21.37' LT	682.83	676.91	4.68	HONEY CREEK PKWY	--	--	--	1	--	--	--	--	--	--	1	
62B	25+78.25	26.47' LT		670.34		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	END REDUCTION 8'x5' TO 8'x3' BOX
63	25+99.40	41.44' LT		669.82		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	AEW FOR 8'x3' BOX STORM SEWER
68	8+03.64	139.74' LT		674.00		WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	
69	7+98.10	97.11' RT	678.22	671.94	6.44	WISCONSIN AVE	--	--	--	--	--	--	1	--	--	--	--	
70	8+37.08	106.46' RT		670.94		WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	
71	8+69.43	138.05' LT		671.89		WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	
72	25+45.77	17.26' RT	682.83	676.44	5.39	HONEY CREEK PKWY	--	1	--	--	--	--	--	--	1	--	--	
73	25+71.72	17.26' RT	682.38	673.52	7.86	HONEY CREEK PKWY	--	1	--	--	--	--	--	--	1	--	--	
74	26+09.13	32.98' LT		675.20		HONEY CREEK PKWY	--	--	--	--	--	--	--	--	--	--	--	
E65	12+73.27	28.37' LT	689.61	680.71	7.91	WISCONSIN AVE	--	--	--	--	--	--	--	--	--	--	--	
						TOTAL 0010	7	12	7	2	4	1	1	6	12	14	8	

REMARKS:

*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION

***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

3

OUTLET STRUCTURES

CATEGORY	ROADWAY	STATION	OFFSET	513.2001 RAILING PIPE LF	SPV.0060.30 OUTLET STRUCTURE 63 EACH
0010	HONEY CREEK PARKWAY				
		25+99	41' RT	21	1
	TOTALS 0010			21	1

SEALING PIPES

CATEGORY	ROADWAY	STATION	OFFSET	SIZE (FT)	204.0280 SEALING PIPES EACH
0010	WISCONSIN AVENUE				
		11+64	16' RT	8 X 5	1
	TOTAL 0010				1

3

CONCRETE COLLARS FOR PIPE

CATEGORY	ROADWAY	STATION	OFFSET	SIZE (IN)	520.8000 CONCRETE COLLARS FOR PIPE EACH
0010	WISCONSIN AVENUE				
		11+67	28' LT	24	1
	TOTAL 0010				1

SUBSURFACE EXPLORATION

CATEGORY	LOCATION	SPV.0090.35 PIPE UNDERDRAIN EXPLORATION LF	SPV.0090.36 STORM SEWER LATERAL EXPLORATION LF
0010	UNDISTRIBUTED	100	100
	TOTAL 0010	100	100

SLOTTED CORRUGATED METAL DRAIN 12-INCH

CATEGORY	ROADWAY	STATION UPSTREAM END	OFFSET UPSTREAM END	TO STRUCTURE	SPV.0090.34 SLOTTED CORRUGATED METAL DRAIN 12-INCH LF
0010	WISCONSIN AVENUE				
		6+56	19.9' LT	12	20
		6+56	19.9' RT	17	20
		7+20	19.9' LT	14	20
		7+20	19.9' RT	19	20
		7+63	19.9' LT	14	17
		7+66	19.9' RT	19	20
		10+18	13.9' LT	21	18
		10+19	19.9' RT	27	20
		10+60	19.9' RT	29	10
		11+04	19.9' LT	24	20
		11+04	19.9' RT	31	20
		11+31	19.9' LT	25	18
	TOTAL 0010				223

MARKERS CULVERT END

CATEGORY	ROADWAY	STATION	OFFSET	STRUCTURE	633.5200 MARKERS CULVERT END EACH
0010	WISCONSIN AVENUE				
		8+39.29	76.85' LT	56	1
		8+03.64	139.74' LT	68	1
		8+37.08	106.46' RT	70	1
		8+69.43	138.05' LT	71	1
	HONEY CREEK PARKWAY				
		23+24.66	59.56' LT	57	1
		26+09.13	32.98' LT	74	1
	TOTAL 0010				6

3

LIGHTING - REMOVAL

CATEGORY	STAGE	DESCRIPTION	LOCATION STATION	LOCATION OFFSET	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S REMOVING LIGHTING UNITS EACH	659.5000.S LAMP, BALLAST LED, SWITCH DISPOSAL BY CONTRACTOR EACH	SPV.0060.50 REMOVE AND SALVAGE EXISTING LIGHTING UNITS EACH	REMARKS
0040		EX-UU-D-12	7+02	23.2'LT	--	1	1	--	
		EX-UU-B-15	9+08	22,.8'RT	1	--	--	1	TO BE RETURNED TO THE CITY
		EX-UU-B-26	10+37	23.0'LT	--	1	1	--	
		EX-FLASHER	7+76	22.1'RT	1	--	--	--	
		EX-FLASHER	9+30	42.3'RT	1	--	--	--	
		EX-FLASHER	9+18	44.8'RT	1	--	--	--	
		EX-SIGN POST	9+89	23.1'RT	1	--	--	--	
		EX-LP-2	24+45	20.6'LT	--	--	--	1	TO BE RETURNED TO THE COUNTY
		EX-LP-3	25+48	26.0'RT	--	--	--	1	TO BE RETURNED TO THE COUNTY
			TOTAL 0040		5	2	2	3	

LIGHTING AND MISCELLANEOUS

CATEGORY	STAGE	DESCRIPTION	LOCATION	* 653.0135 PULL BOXES STEEL 24x36-INCH EACH	* 653.0140 PULL BOXES STEEL 24x42-INCH EACH	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	* SPV.0060.51 LUMINAIRE LED MEDIUM EACH	SPV.0060.52 INSTALL CONCRETE POLE EACH	SPV.0060.53 INSTALL MILWAUKEE COUNTY FURNISHED PULL BOX 12X12X12-INCH EACH	REMARKS
0040		UU-D-12	7+06, 23.2'LT	--	--	114	--	1	1	--	
		LPB-1	7+51, 206.0'RT	1	--	--	50	--	--	--	
		LPB-2	7+91, 27.5'RT	1	--	--	50	--	--	--	
		LPB-3	9+18, 67.1'RT	--	1	--	50	--	--	--	
		LPB-4	9+70, 69.1'RT	--	1	--	50	--	--	--	
		UU-B-26	10+32, 22.7'RT	--	--	114	--	1	1	--	
		LPB-10	22+89, 22.0'LT	--	--	--	50	--	--	1	MILWAUKEE CO
		LPB-11	25+54, 26.6'LT	--	--	--	50	--	--	1	MILWAUKEE CO
			TOTAL 0040	2	2	228	300	2	2	2	

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PROJECT NO: 2190-10-70	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 111	E

3

LIGHTING - WIRE AND CONDUIT

CATEGORY	STAGE	FROM	TO	652.0215 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4 -INCH LF	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 -INCH LF	652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3 -INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	REMARKS
0040		LPB-05	UU-D-12	41	--	--	192	--	
		LPB-01	LPB-02	--	188	--	--	780	
		LPB-02	LPB-03	--	46	--	--	212	
		LPB-02	LPB-03	--	SM	--	--	440	IN STRUCTURE
		LPB-03	LPB-04	--	--	53	--	240	
		LPB-04	EX-UU-B-16	246	--	--	--	1012	
		LPB-06	UU-B-26	87	--	--	376	--	
		LPB-02	BRIDGE	--	41	--	--	--	EMPTY
		LPB-03	BRIDGE	--	29	--	--	--	EMPTY
		LPB-10	LPB-11	--	274	--	--	1124	MILWAUKEE CO
		LPB-11	EX-LP-4	--	170	--	--	708	MILWAUKEE CO
							--		
			TOTAL 0040	374	748	53	568	4,516	

LIGHTING AND MISCELLANEOUS - TEMPORARY

CATEGORY	DESCRIPTION	LOCATION	SPV.0060.54 WOOD POLE 60-FOOT EACH	SPV.0060.55 REMOVING 60-FOOT WOOD POLE EACH
0040	WP-01	1063+31.62, 79.17'RT	1	1
	WP-02	1063+22.52, 73.87'LT	1	1
	WP-03	1063+49.63, 68.73'RT	1	1
	WP-04	1063+38.01, 73.45'LT	1	1
		TOTAL 0040	4	4

* - ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING - WIRE AND CONDUIT - TEMPORARY

CATEGORY	FROM	TO	SPV.0090.50 CABLE AERIAL ALUMINUM 4 AWG TRIPLEX LF
0040	EX-LP-1	WP-01	95
	WP-01	WP-02	164
	WP-02	WP-03	115
	PB-TFS-1	WP-04	96
	WP-04	EX-LP-4	105
		TOTAL 0040	575

3

WATER MAIN - HYDRANT

CATEGORY	ROADWAY	PROJECT	SPV.0060.40 HYDRANT ASSEMBLY EACH	SPV.0090.40 PVC HYDRANT LEAD 6-INCH LF
0010	WISCONSIN AVENUE	2190-10-71	2	42
		TOTAL 0010	2	42

WATER MAIN - PIPE

CATEGORY	ROADWAY	PROJECT	SPV.0090.41 PVC WATER MAIN 6-INCH LF	SPV.0090.42 PVC WATER MAIN 8-INCH LF	SPV.0090.43 PVC WATER MAIN 16-INCH LF	SPV.0090.44 PVC WATER MAIN 16-INCH WITHIN CASING PIPE LF	SPV.0090.45 HDPE WATER SERVICE 1-INCH LF	SPV.0090.46 30-INCH CASING PIPE LF	SPV.0090.47 CONSTRUCTION STAKING WATER MAIN LF
0010	WISCONSIN AVENUE	2190-10-71	10	80	960	154	380	150	1,100
		TOTAL 0010	10	80	960	154	380	150	1,100

WATER MAIN - VALVES

CATEGORY	ROADWAY	PROJECT	SPV.0060.41 GATE VALVE & VALVE BOX 6-INCH EACH	SPV.0060.42 GATE VALVE & VALVE BOX 8-INCH EACH	SPV.0060.43 BUTTERFLY VALVE & VALVE BOX 16-INCH EACH	SPV.0060.44 WATER TESTING MANHOLE EACH	SPV.0060.45 AIR RELEASE VALVE EACH
0010	WISCONSIN AVENUE	2190-10-71	2	2	5	1	1
		TOTAL 0010	2	2	5	1	1

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMP. LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING (TO BE REMOVED)
BRIDGE

PARCEL NUMBER (25)
SECTION CORNER
NOTATION FOR COMBUSTIBLE FLUIDS (CAUTION)
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES (CAUTION)

UTILITY NUMBER (40)
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN (IP)
VALVE (GAS, WATER, ETC.) (TYPE)
SIGN
OFF-PREMISE SIGN (#1-25)

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
ELECTRIC TOWER		
	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EAESMENT RIGHTS	ER	SECTION	SEC
EXISTING	EX	SEPTIC VENT	SEPV
GAS VALVE	GV	SQUARE FEET	SF
GRID NORTH	GN	STATE TRUNK HIGHWAY	STH
HIGHWAY EASEMENT	HE	STATION	STA
IDENTIFICATION	ID	TELEPHONE PEDESTAL	TP
LAND CONTRACT	LC	TEMPORARY LIMITED EASEMENT	TLE
LEFT	LT	TRANSPORTATION PROJECT PLAT	TPP
MONUMENT	MON	UNITED STATES HIGHWAY	USH
NATIONAL GEODETIC SURVEY	NGS	VOLUME	V
NUMBER	NO		

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

THE EXISTING RIGHT OF WAY SHOWN HEREIN IS BASED ON EXISTING PLATS AND OTHER SURVEYS OF PUBLIC RECORD.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES. AS DEFINED HEREIN. INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON. THE RIGHT OF INGRESS AND EGRESS. AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

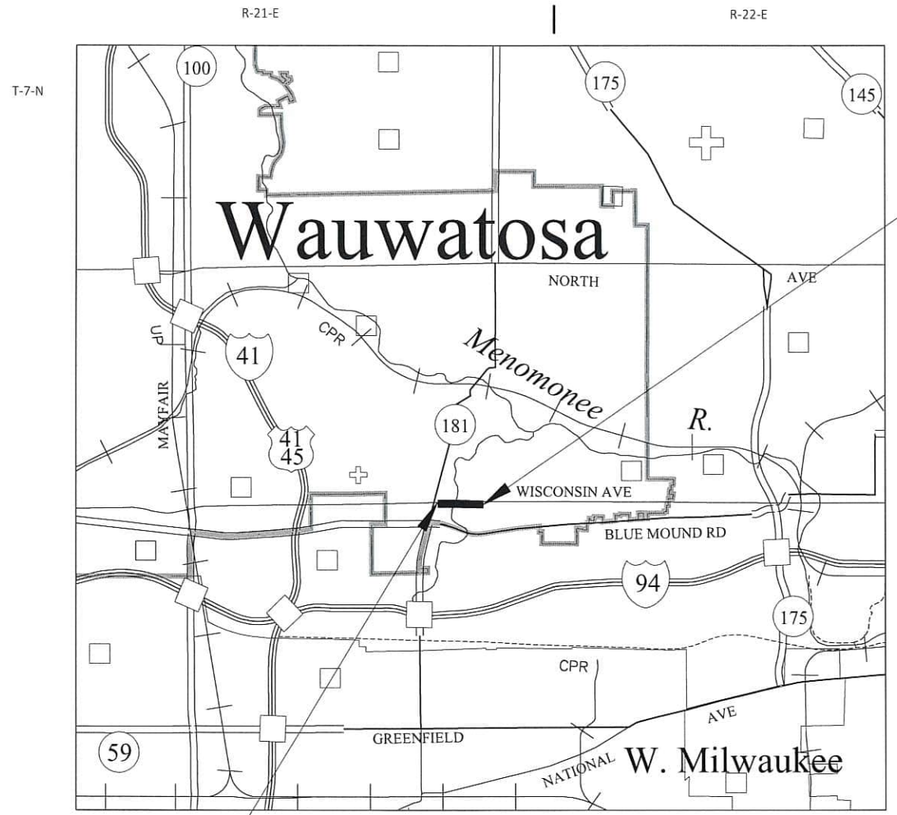
R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2190-10-00	4.01	3

PLAT OF RIGHT OF WAY REQUIRED FOR
WISCONSIN AVENUE BRIDGE

BRIDGE OVER HONEY CREEK

CITY OF WAUWATOSA — MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER 2190-10-70



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.096 MI.

END RELOCATION ORDER
STA 11+51.00
28.36' SOUTH AND 1099.54' WEST OF THE EAST 1/4 CORNER OF SECTION 28, T7N, R21E
Y = 299637.57
X = 578720.65

N

BEGIN RELOCATION ORDER
STA 6+44.00
28.27' NORTH AND 1095.75' EAST OF THE CENTER 1/4 CORNER OF SECTION 28, T7N, R21E
Y = 299624.50
X = 578213.82

kapur
7711 N. Port Washington Road
Milwaukee, Wisconsin 53217
414.751.7200
kapurinc.com

ORIGINAL PLAT PREPARED BY

WISCONSIN
SCOTT D. WARNER
S-2524
RICHLAND CENTER WI
LAND SURVEYOR

MARCH 18, 2024
(Date)

SCOTT D. WARNER
KAPUR & ASSOCIATES
P.L.S. NUMBER 2524

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

REVISION DATE

CITY OF WAUWATOSA

APPROVED FOR THE CITY OF WAUWATOSA

DATE: 7-31-24 STEVEN KRAAZ, CITY CLERK

DATE: 7/31/24 DENNIS MCBRIDE

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND AND INTERESTS TO THE CITY OF WAUWATOSA.

4

4

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL AREA (ACRES)	TLE AREA (ACRES)	PARCEL NUMBER
2	4.03	STEVEN PLATT & SARAH PLATT	TLE		0.013	2
3		ELIMINATED				3
5	4.03	JOAN L. MILOTT	TLE		0.007	5
8	4.03	PETER GERHARDT & ERIN GERHARDT	TLE		0.076	8
9	4.03	ANN LOUISE AYERS LIVING TRUST	TLE		0.043	9
10	4.03	ALAN BALL & COLLEEN BALL	TLE		0.022	10

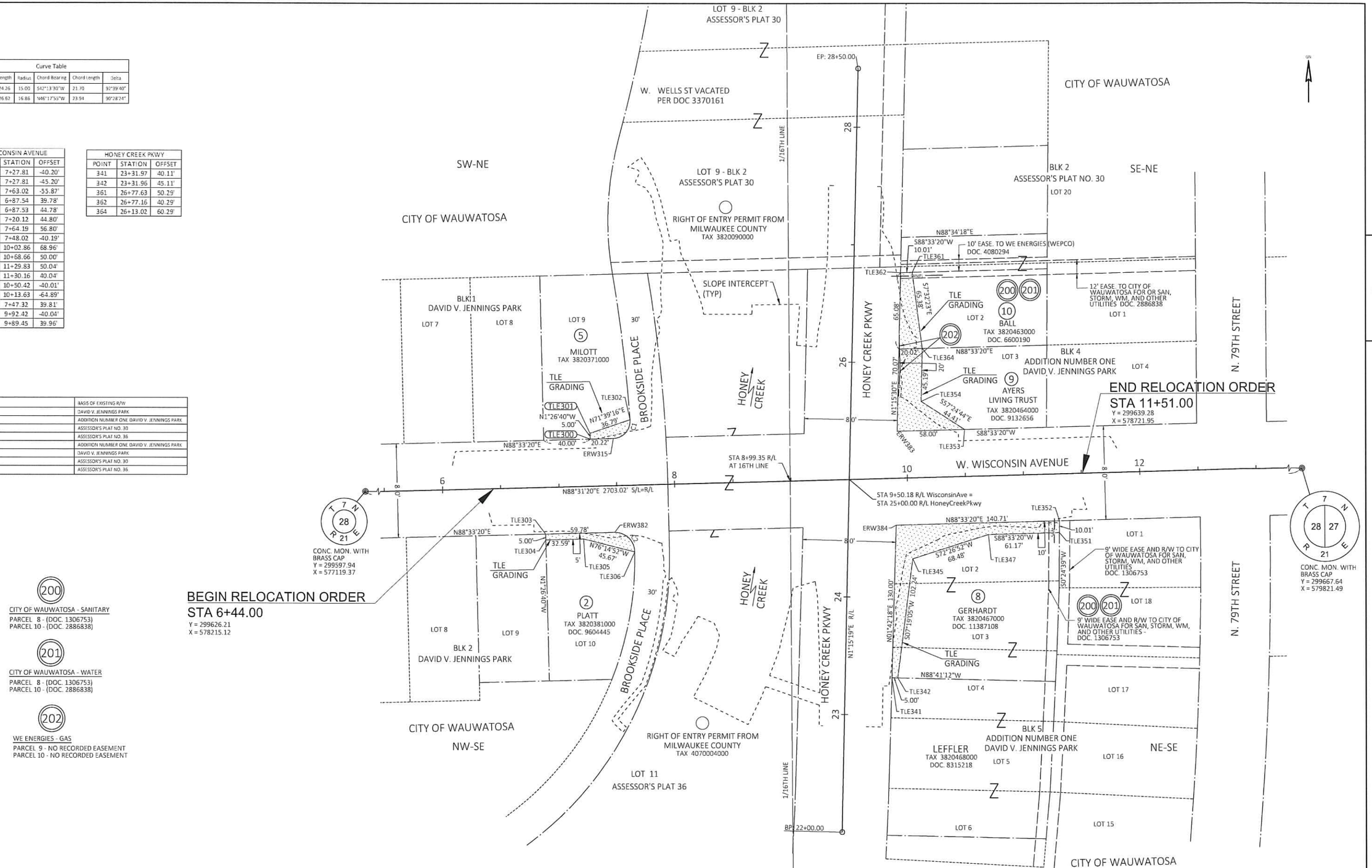
200	4.03	CITY OF WAUWATOSA - SANITARY	RELEASE OF RIGHTS		200
201	4.03	CITY OF WAUWATOSA - WATER	RELEASE OF RIGHTS		201
202	4.03	WE ENERGIES - GAS	RELEASE OF RIGHTS		202

Curve Table					
Curve #	Length	Radius	Chord Bearing	Chord Length	Delta
C1	24.26	15.00	S42°13'30"W	21.70	92°39'40"
C2	26.62	16.86	N46°17'53"W	23.94	90°28'24"

WISCONSIN AVENUE		
POINT	STATION	OFFSET
300	7+27.81	-40.20'
301	7+27.81	-45.20'
302	7+63.02	-55.87'
303	6+87.54	39.78'
304	6+87.53	44.78'
305	7+20.12	44.80'
306	7+64.19	56.80'
315	7+48.02	-40.19'
345	10+02.86	68.96'
347	10+68.66	50.00'
351	11+29.83	50.04'
352	11+30.16	40.04'
353	10+50.42	-40.01'
354	10+13.63	-64.89'
382	7+47.32	39.81'
383	9+92.42	-40.04'
384	9+89.45	39.96'

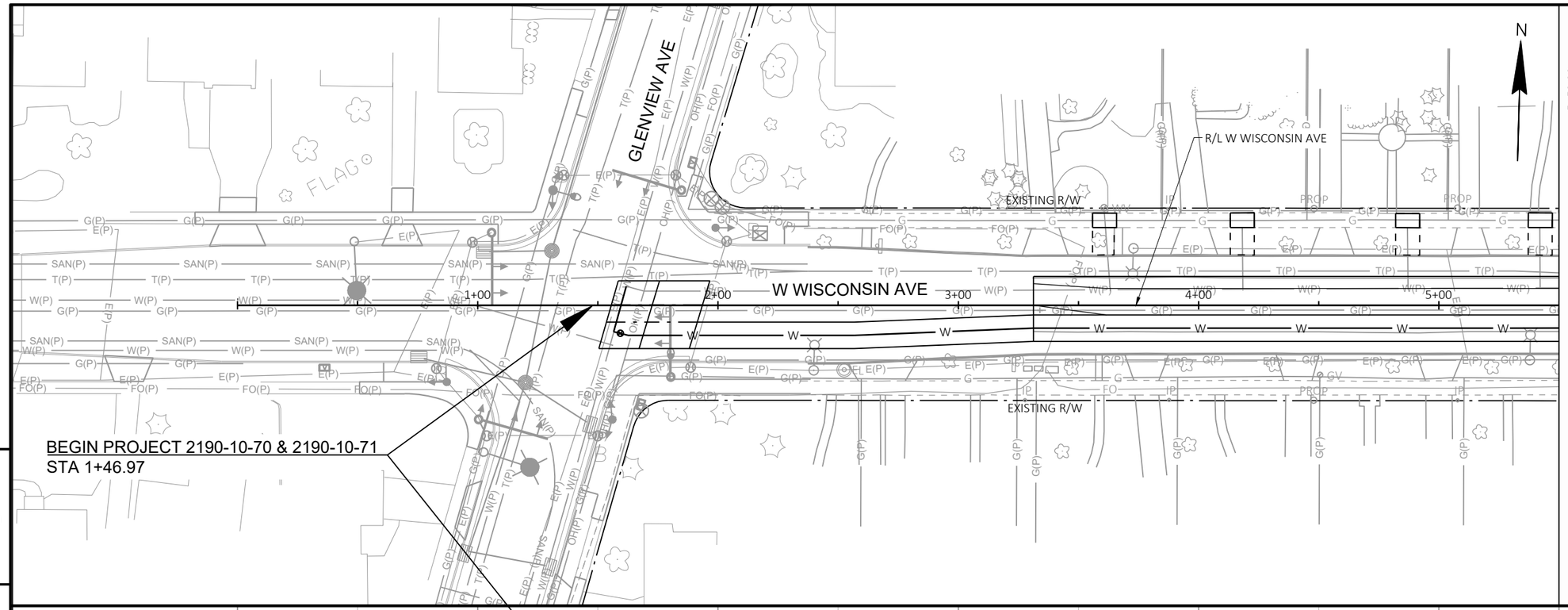
HONEY CREEK PKWY		
POINT	STATION	OFFSET
341	23+31.97	40.11'
342	23+31.96	45.11'
361	26+77.63	50.29'
362	26+77.16	40.29'
364	26+13.02	60.29'

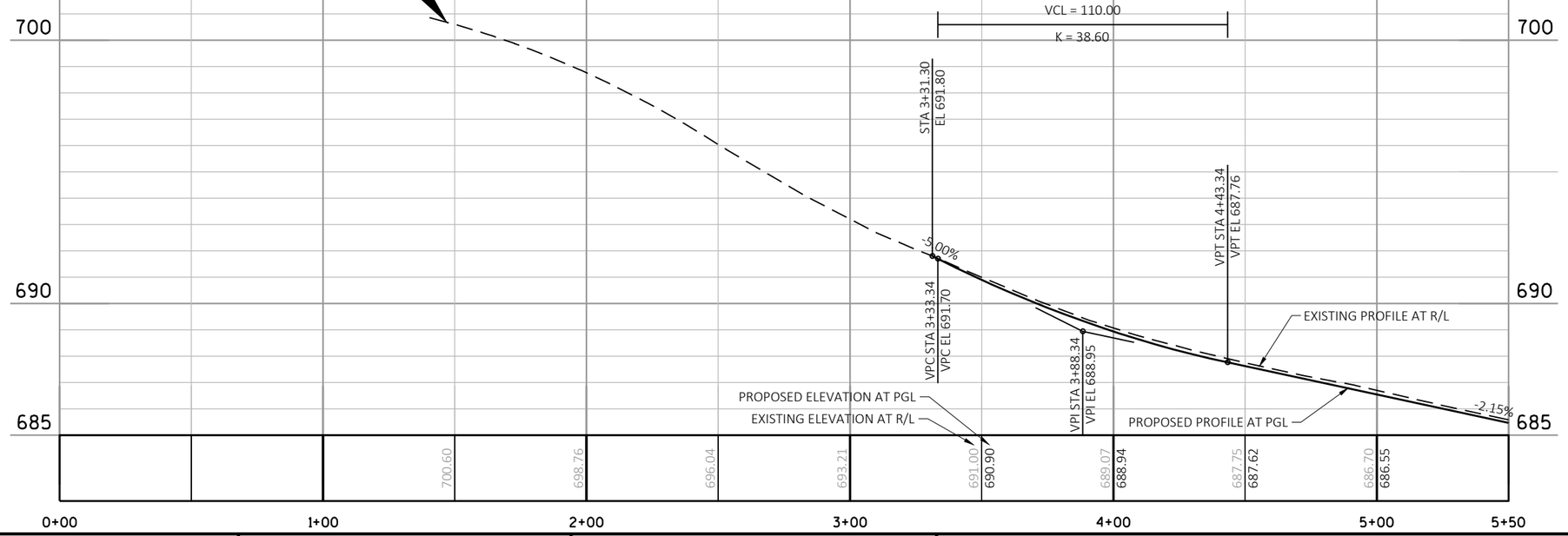
ROAD NAME	BASIS OF EXISTING R/W
W. WISCONSIN AVENUE	DAVID V. JENNINGS PARK
	ADDITION NUMBER ONE DAVID V. JENNINGS PARK
HONEY CREEK PARKWAY	ASSESSOR'S PLAT NO. 30
	ASSESSOR'S PLAT NO. 36
	ADDITION NUMBER ONE DAVID V. JENNINGS PARK
	DAVID V. JENNINGS PARK
BROOKSIDE PLACE	ASSESSOR'S PLAT NO. 30
	ASSESSOR'S PLAT NO. 36



REVISION DATE	DATE 3/18/2024	SCALE, FEET 0 40 80	HWY: WISCONSIN AVENUE	STATE R/W PROJECT NUMBER 2190-10-00	PLAT SHEET 4.03	
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2190-10-70	PS&E SHEET 116	E

FILE NAME : 210102_RW_PLAT-02-03.DWG
LAYOUT NAME - 4.03
PLOT DATE : 3/18/2024 3:49 PM PLOT BY : RAISA KHAYTINA PLOT NAME : PLOT SCALE :





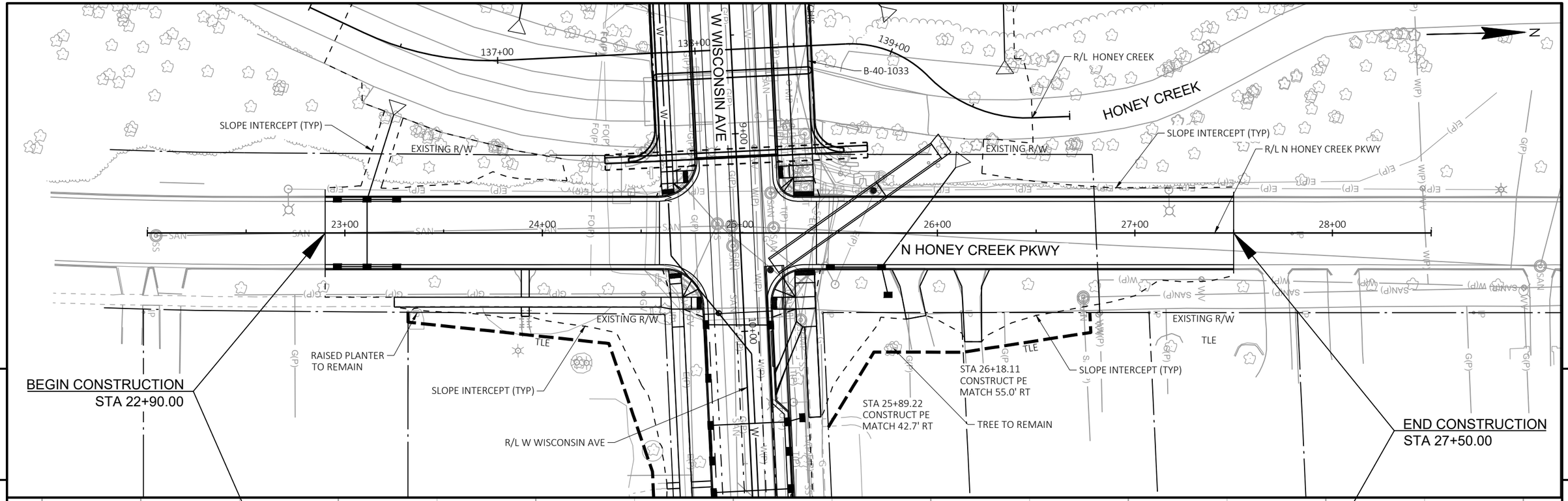
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. WISCONSIN AVE	SHEET 117 E

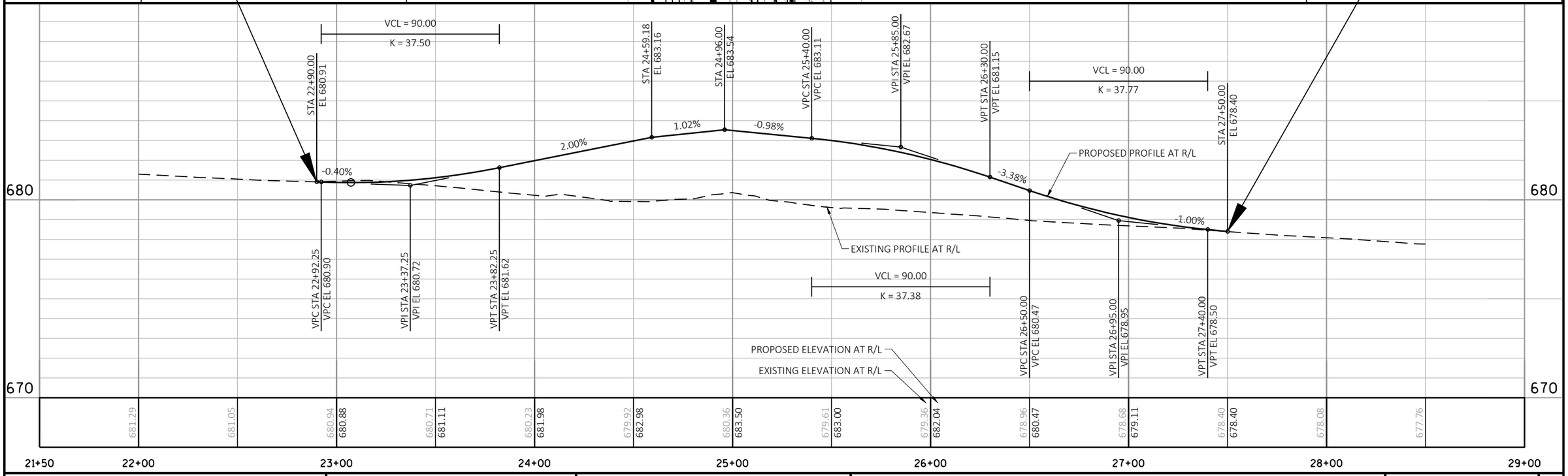
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\050101-PP-RAISED.DWG
LAYOUT NAME - 050101 - (Raised)
PLOT DATE : 12/20/2024 9:29 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

R/L N HONEY CREEK PATH (NORTH)
R/L HONEY CREEK
SLOPE INTERCEPT (TYP)
B-40-1033
STA 6+91.52
CONSTRUCT PE
MATCH -32.5' LT
EXISTING R/W
R/L N HONEY CREEK PKWY
TREE TO REMAIN
R/L W WISCONSIN AVE
SLOPE INTERCEPT (TYP)
STA 11+50.00
CONSTRUCT PE
MATCH 30.5' LT
EXISTING R/W
W WISCONSIN AVE
DO NOT IMPACT
STAMPED CONCRETE
DRIVEWAY
STA 6+91.51
CONSTRUCT PE
MATCH 37.5' RT
EXISTING R/W
STA 11+60.00
EXISTING PE
TO REMAIN
STA 11+21.31
CONSTRUCT PE
MATCH 41.5' RT
TREE AND STONE
BORDER TO REMAIN
SLOPE INTERCEPT (TYP)
R/L N HONEY CREEK PATH (SOUTH)
HONEY CREEK
N HONEY CREEK PKWY
END PROJECT 2190-10-70
STA 12+41.00
N
5
5
6+00
7+00
8+00
9+00
10+00
11+00
12+00
5+50.00
139+00
138+00
137+00
26+00
25+00
24+00

690
680
675
VCL = 120.00
K = 54.78
VCL = 105.00
K = 50.37
STA 6+44.00
EL 683.45
STA 11+41.00
EL 685.71
STA 12+41.00
EL 689.01
-2.15%
-1.69%
0.50%
2.58%
3.29%
PROPOSED PROFILE AT PGL
EXISTING PROFILE AT R/L
STA 8+28.14 TO 9+11.30
STRUCTURE B-40-1033 REQUIRED
2-SPAN HAUNCHED SLAB SPAN STRUCTURE
SKEW 0 °
VPC STA 6+49.92
VPC EL 683.35
VPI STA 7+09.92
VPI EL 682.34
VPT STA 7+69.92
VPT EL 682.64
VPC STA 10+29.89
VPC EL 683.94
VPI STA 10+82.39
VPI EL 684.20
VPT STA 11+34.89
VPT EL 685.55
EXISTING ELEVATION AT R/L
PROPOSED ELEVATION AT PGL

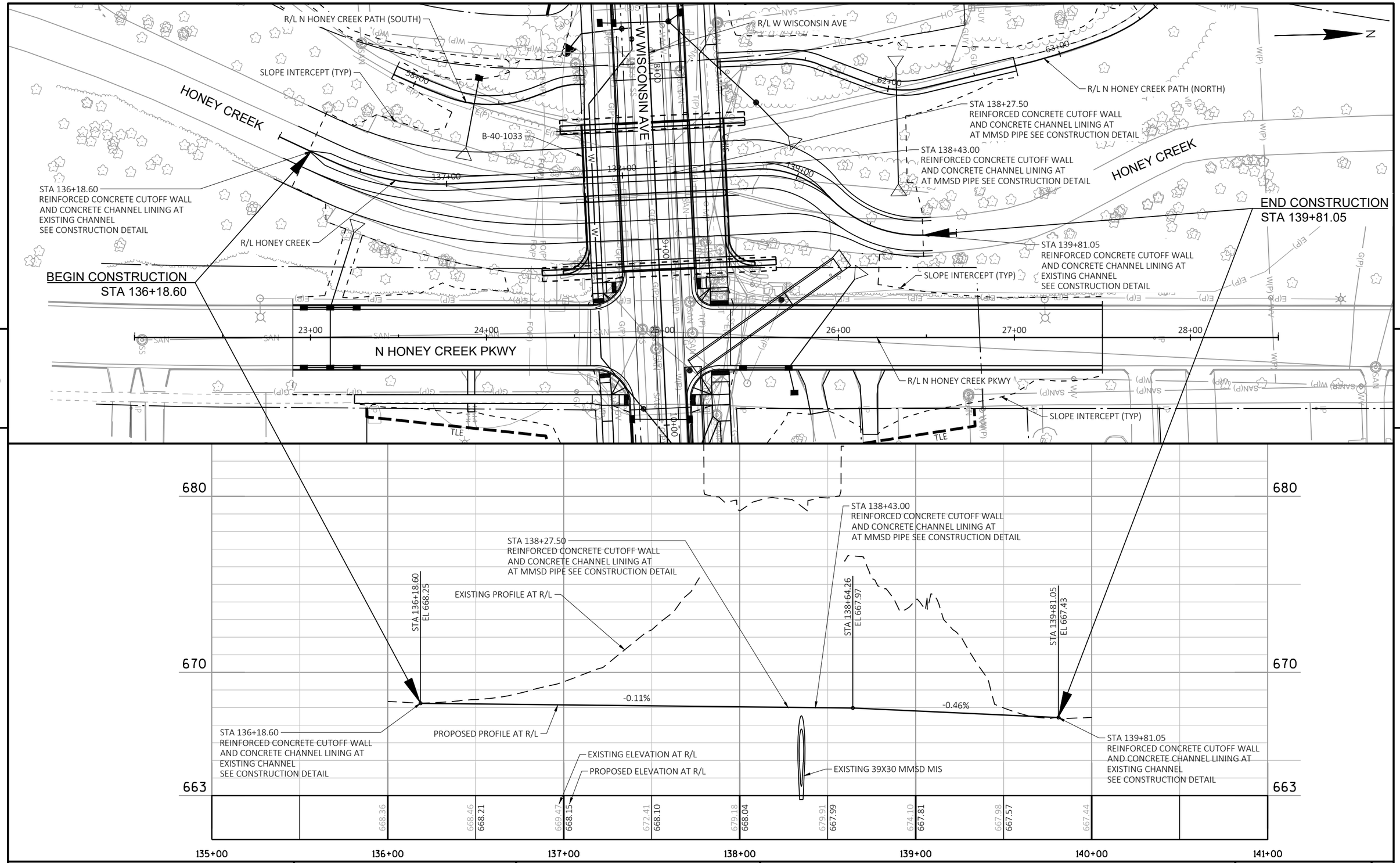
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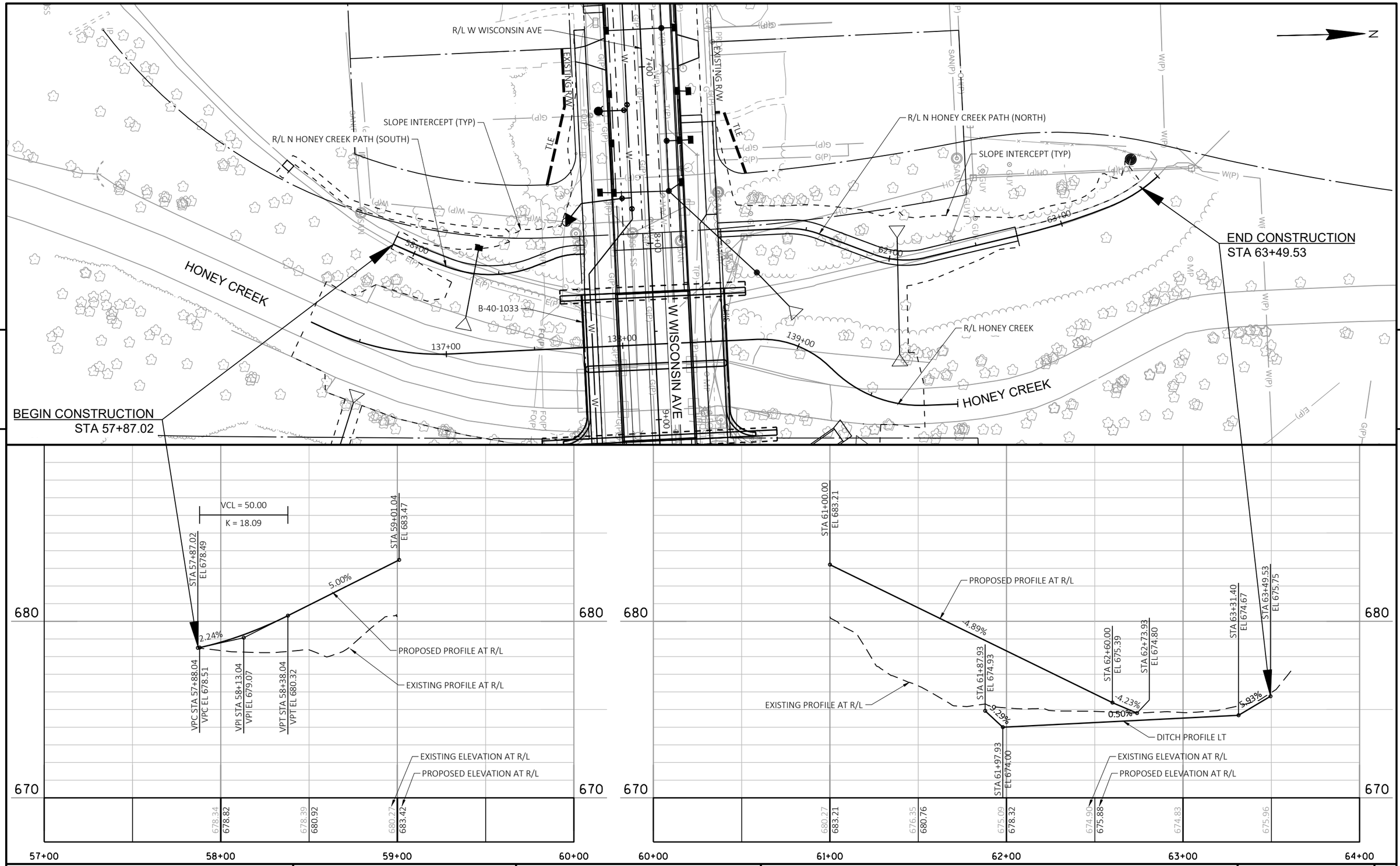
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. HONEY CREEK PARKWAY	SHEET 119	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\050102-PP-HONEY CR RAISED.DWG
LAYOUT NAME - 050102 - Honey Crk Pkwy (Raised)
PLOT DATE : 12/20/2024 9:20 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: HONEY CREEK STREAM REALIGNMENT	SHEET 120	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\050103-PP-CREEK.DWG
LAYOUT NAME - 050101 - (1)CREEK
PLOT DATE : 12/20/2024 9:23 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



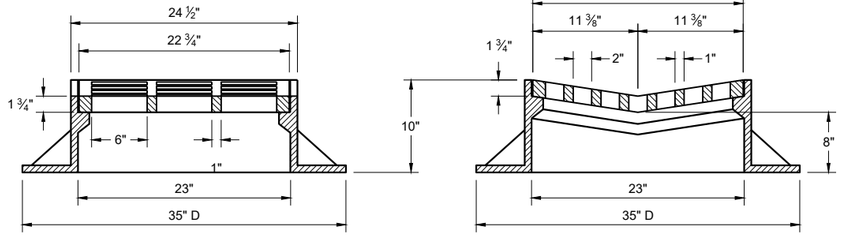
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	PLAN AND PROFILE: HONEY CREEK PATHS	SHEET 121	E

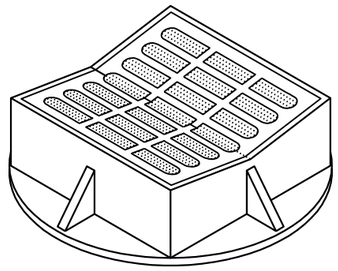
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\050104-PP-PATH.DWG
LAYOUT NAME - PATHS
PLOT DATE : 12/20/2024 9:26 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

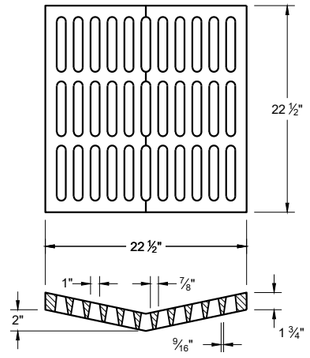
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09E	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

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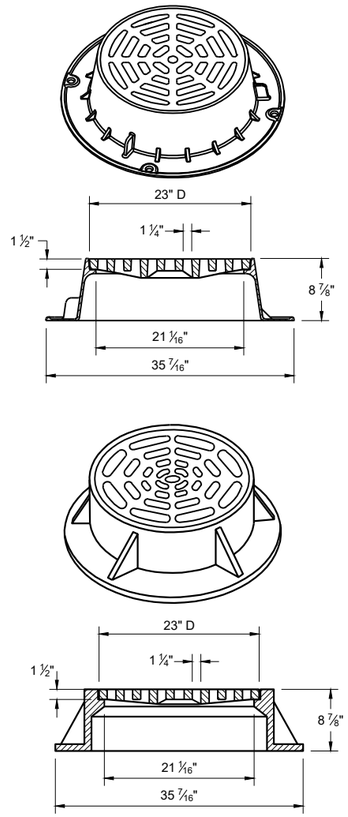
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

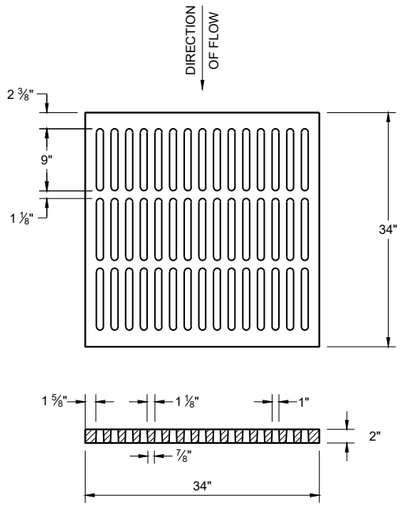
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

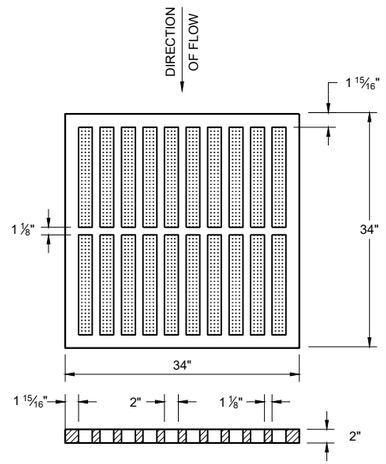
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

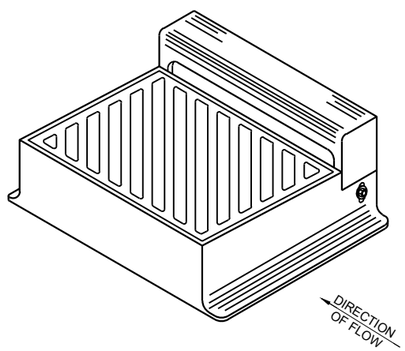
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



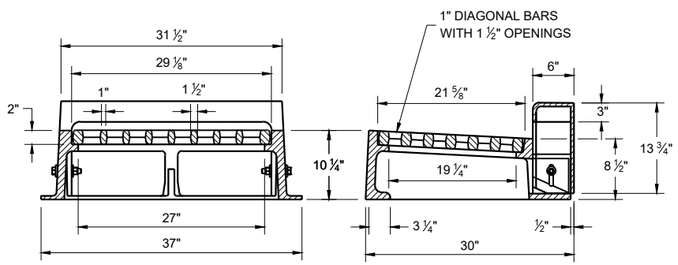
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 08A05-21b

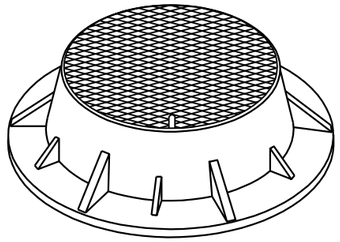
SDD 08A05-21b

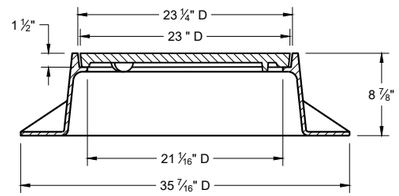
GENERAL NOTES

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

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

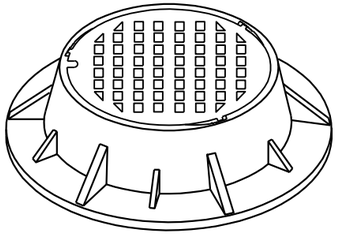
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

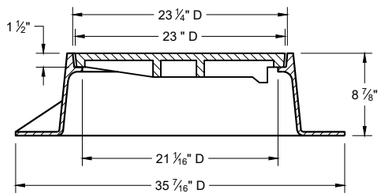




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

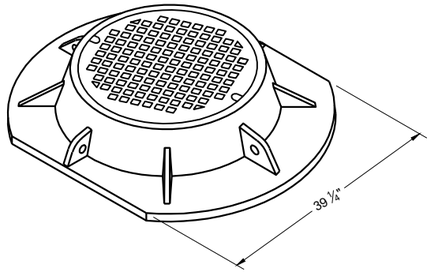


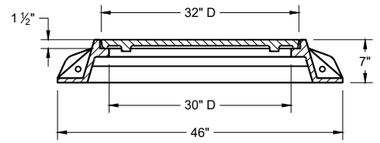


TYPE "J" SPECIAL

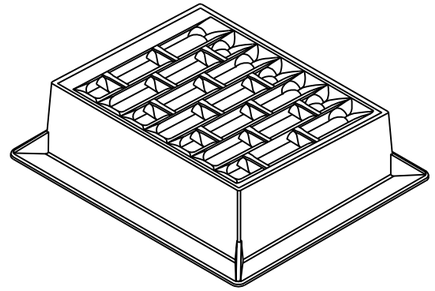
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

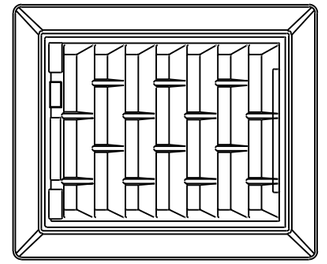
NOTE: EITHER CASTING IS ACCEPTABLE

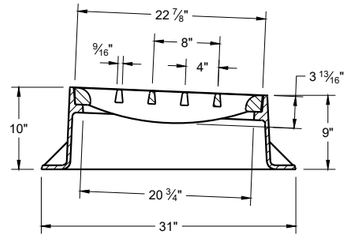


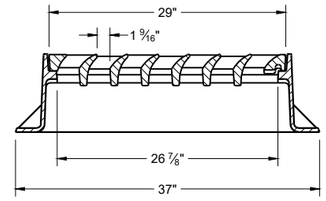


TYPE "K"

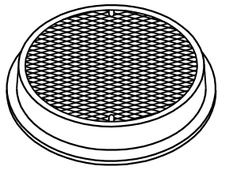


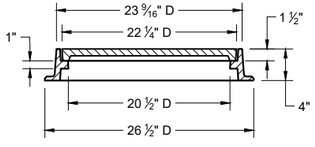




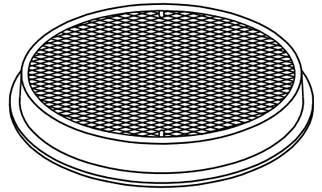


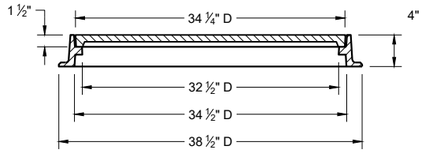
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

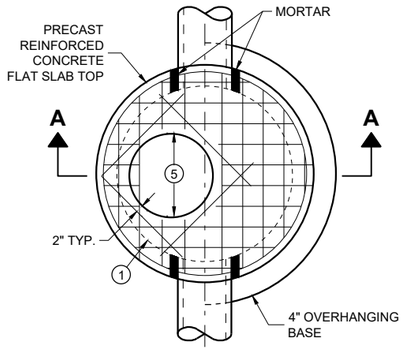
INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

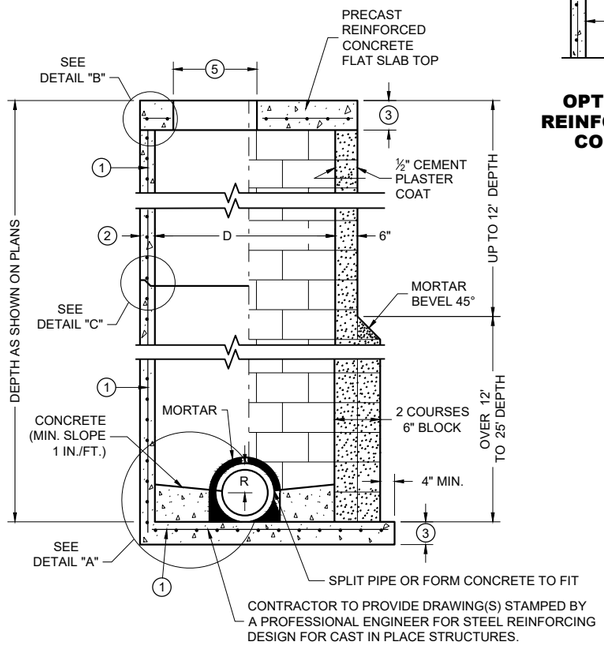
FHWA

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SDD 08A05-21e



PLAN VIEW

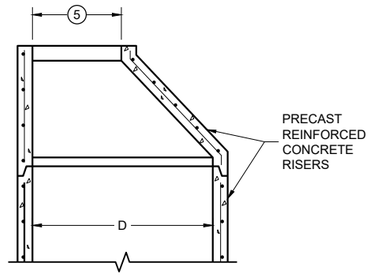
CIRCULAR OPENING



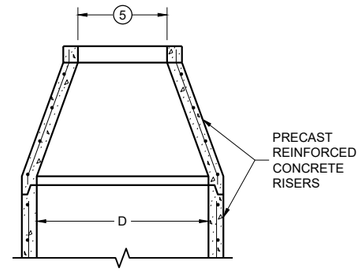
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

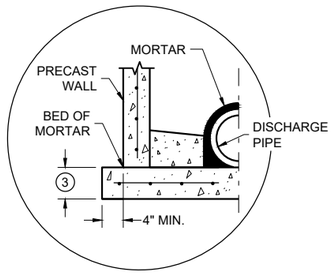
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



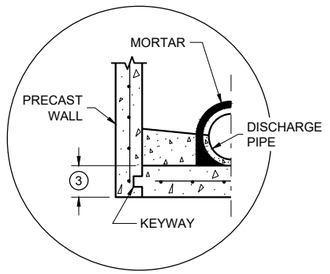
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

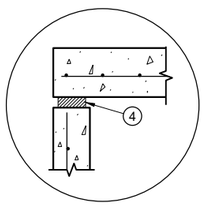


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

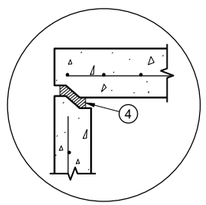


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

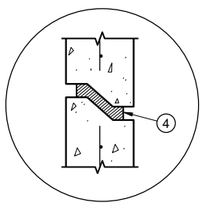
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

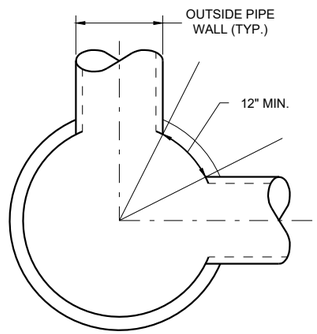
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

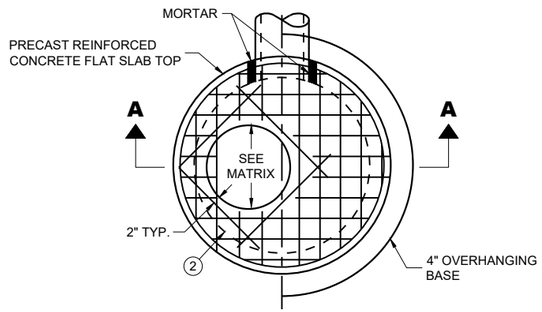
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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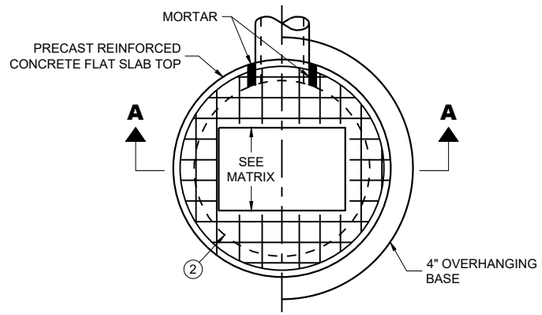
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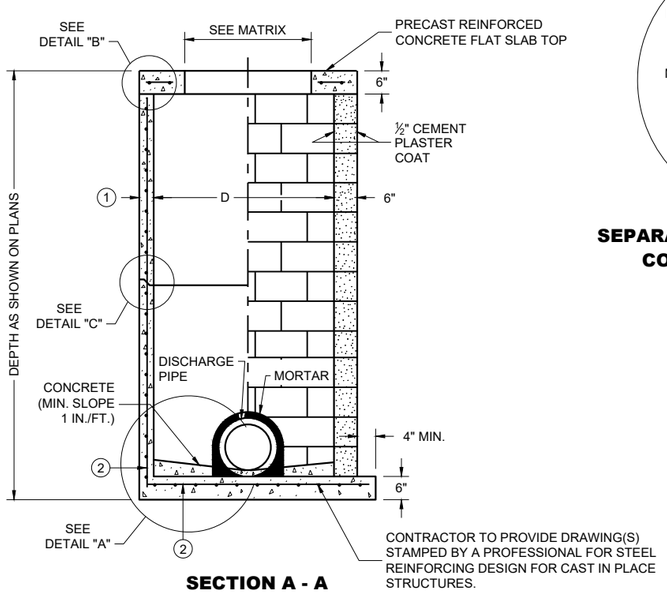
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PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

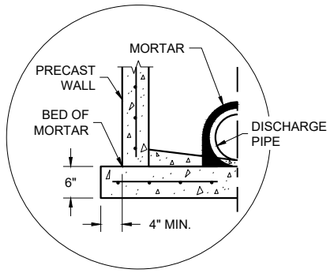
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

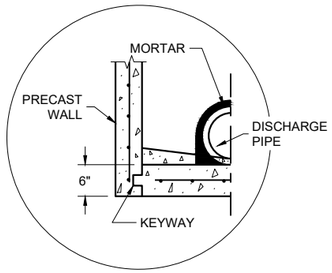
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

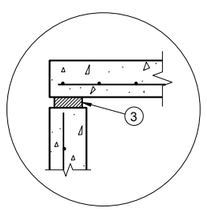


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

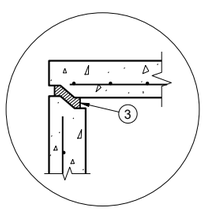


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

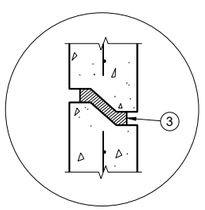
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

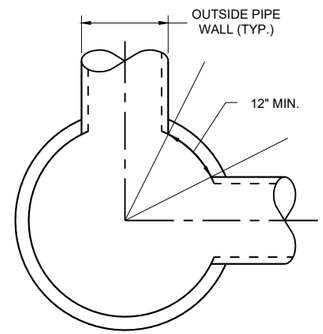
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

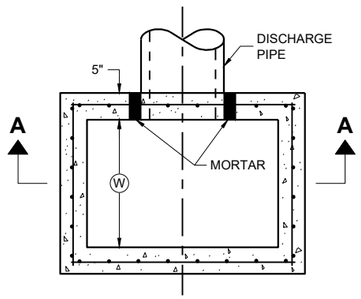
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

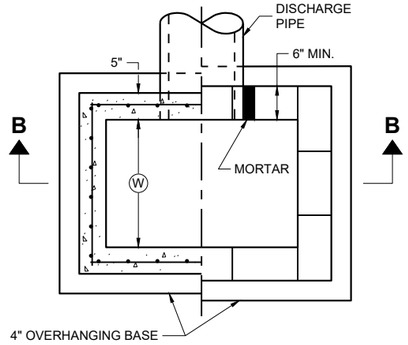
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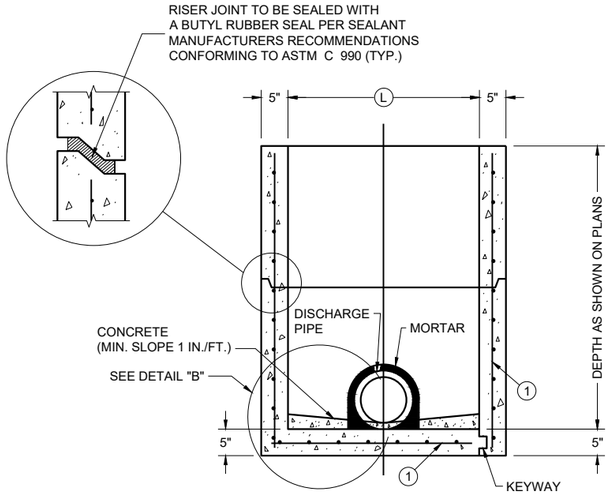
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PLAN VIEW



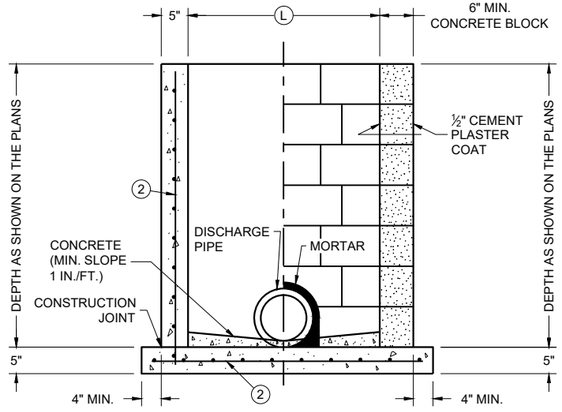
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

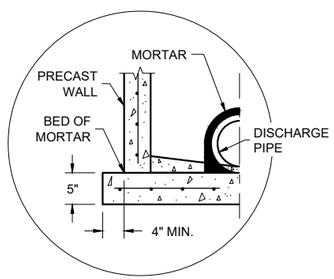
SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

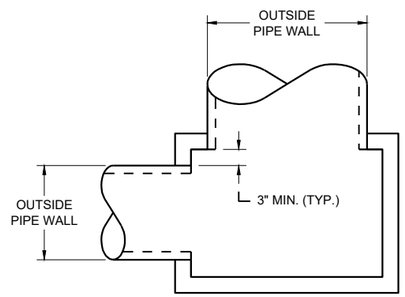
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

SECTION B - B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2 X 3.5-FT

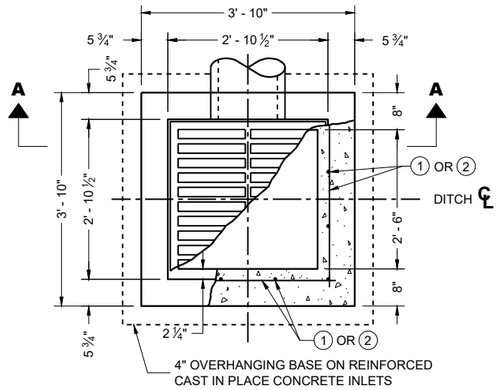
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE

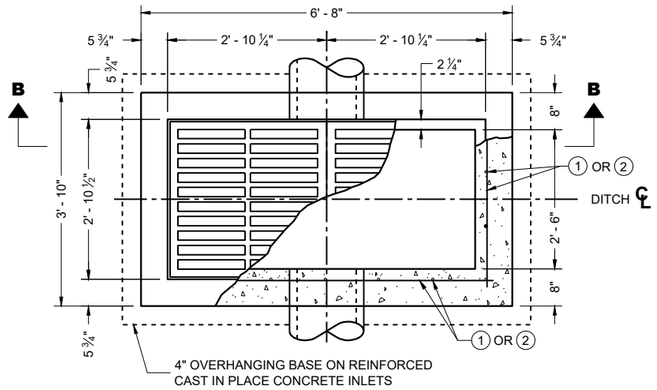
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

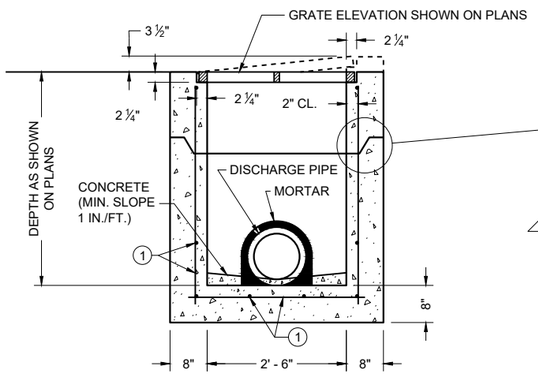
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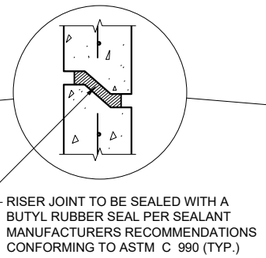
PLAN VIEW

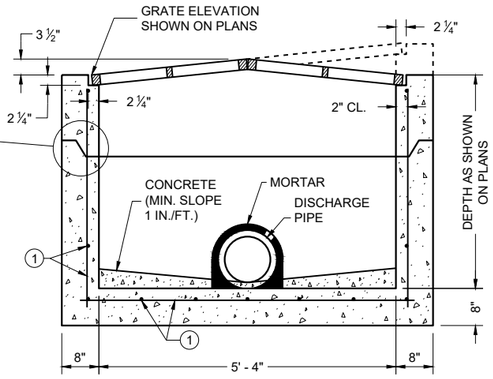


PLAN VIEW

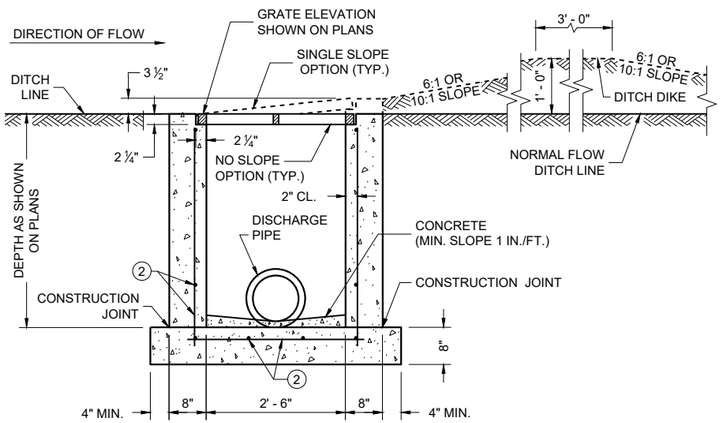


PRECAST REINFORCED CONCRETE SECTION A - A



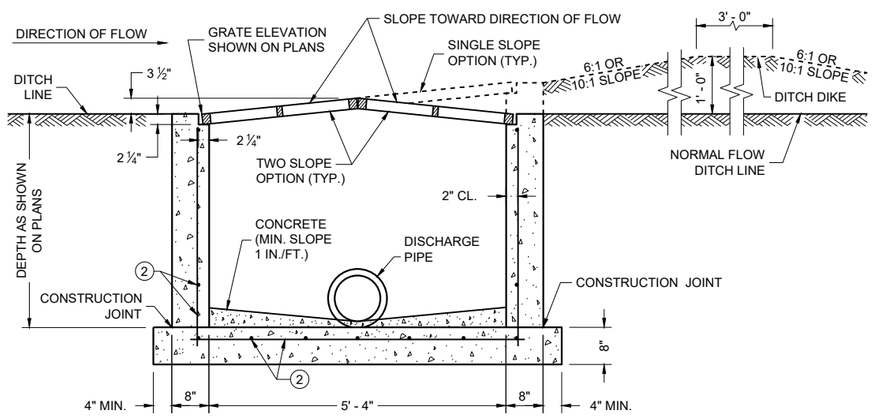


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

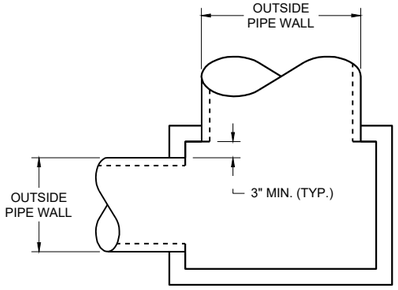
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

(2) CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.



DETAIL "A"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

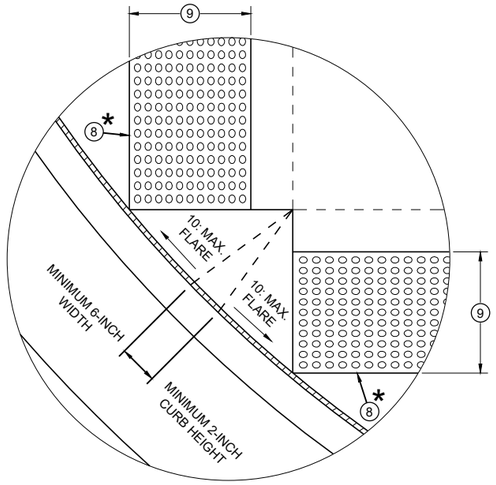
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
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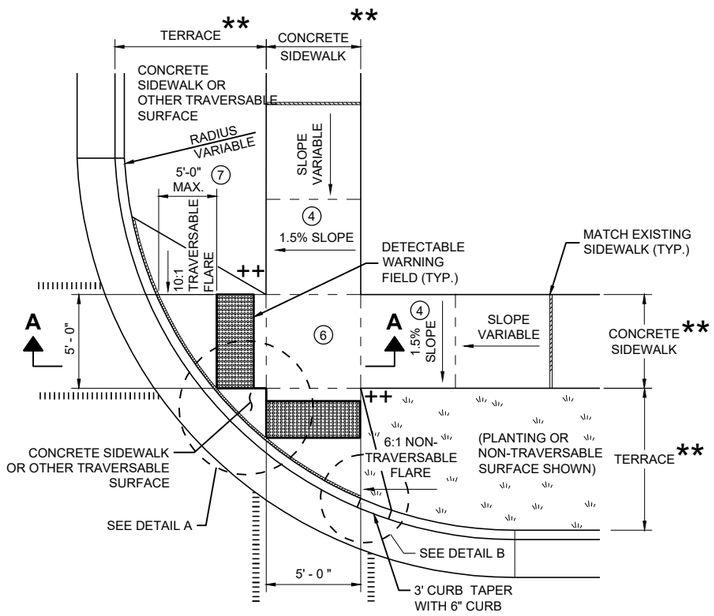
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FHWA

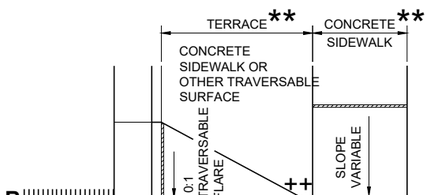
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SDD 08C08-03

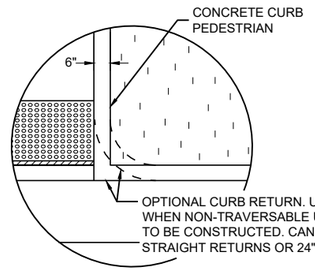


DETAIL A

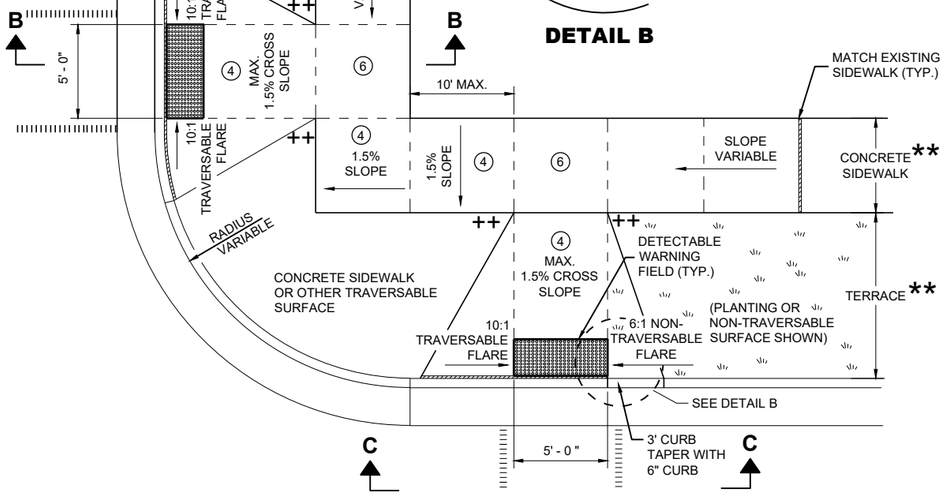


PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)





DETAIL B



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

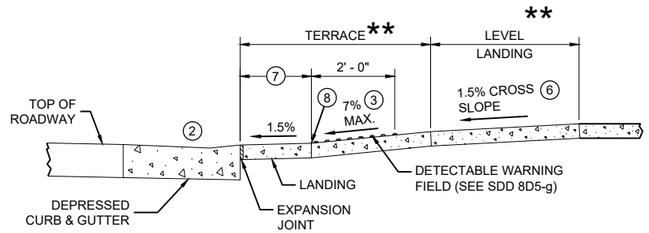
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

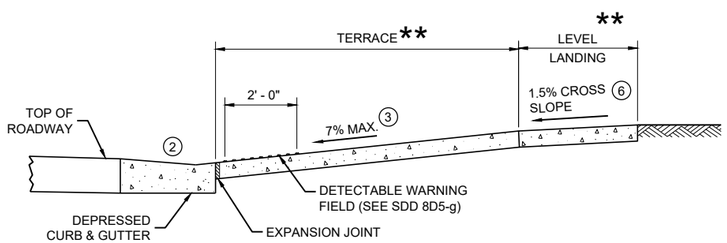


SECTION A - A FOR TYPE 2

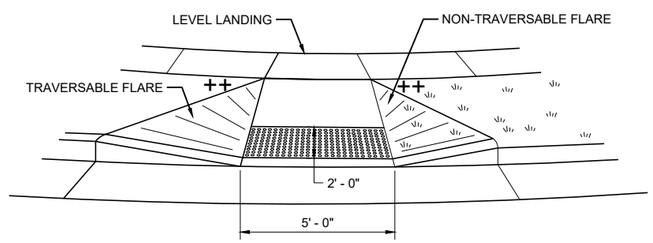
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

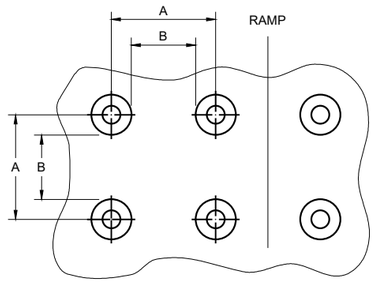
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

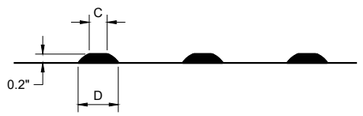
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

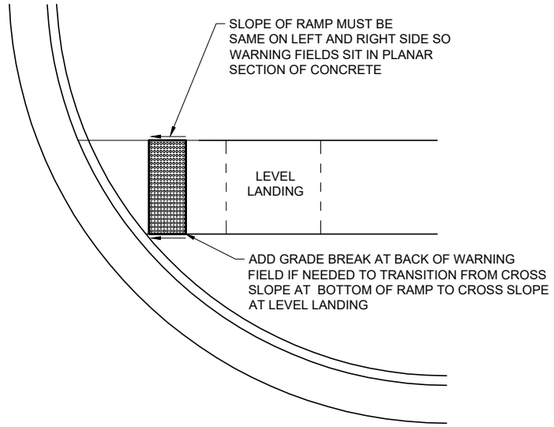
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

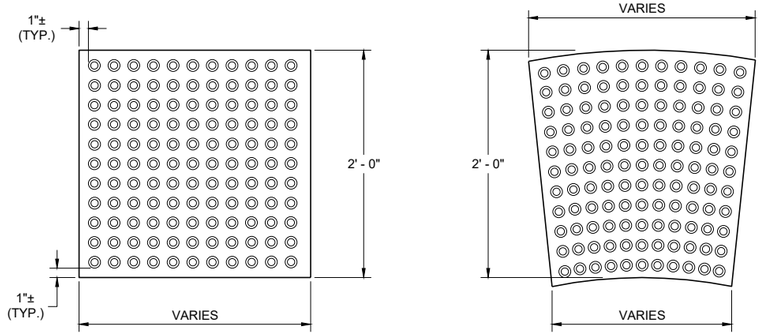
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

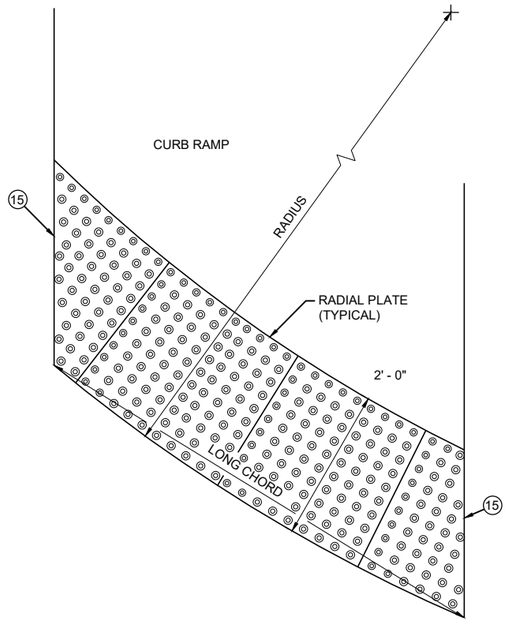
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



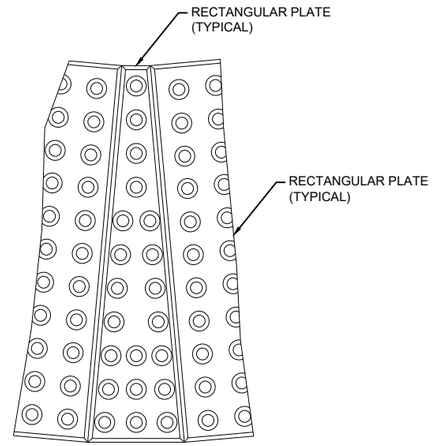
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

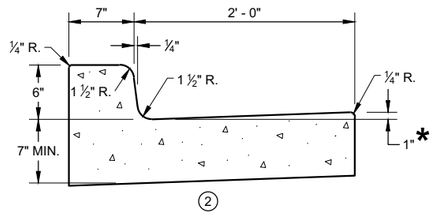
July 2023 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

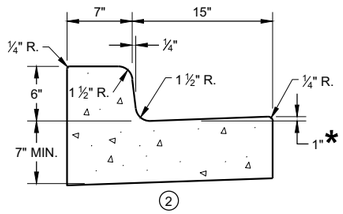
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SDD 08D05-21g

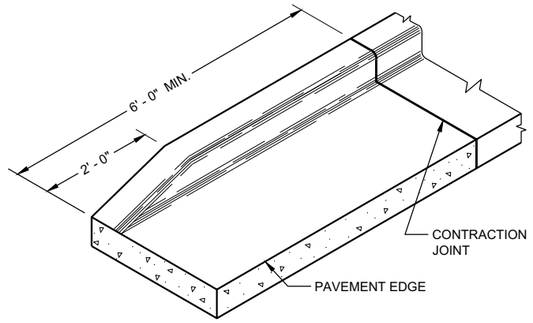


CONCRETE CURB AND GUTTER 31" ①

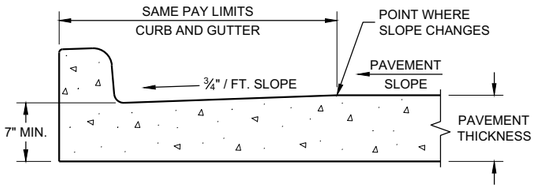
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



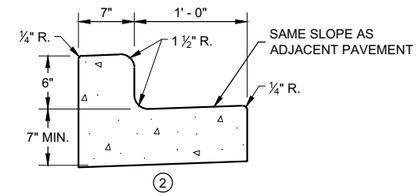
CONCRETE CURB AND GUTTER 22" ①



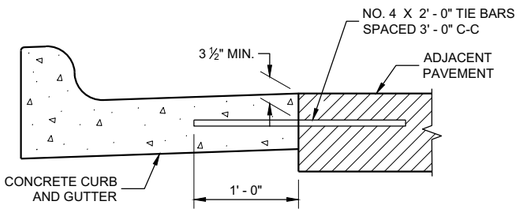
END SECTIONCURB AND GUTTER



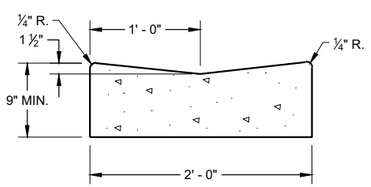
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



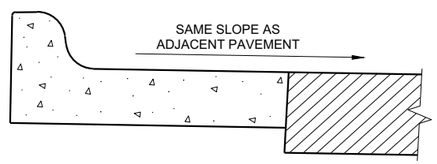
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

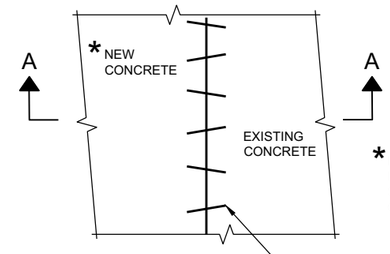
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

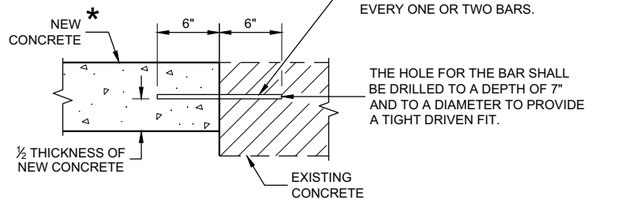
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

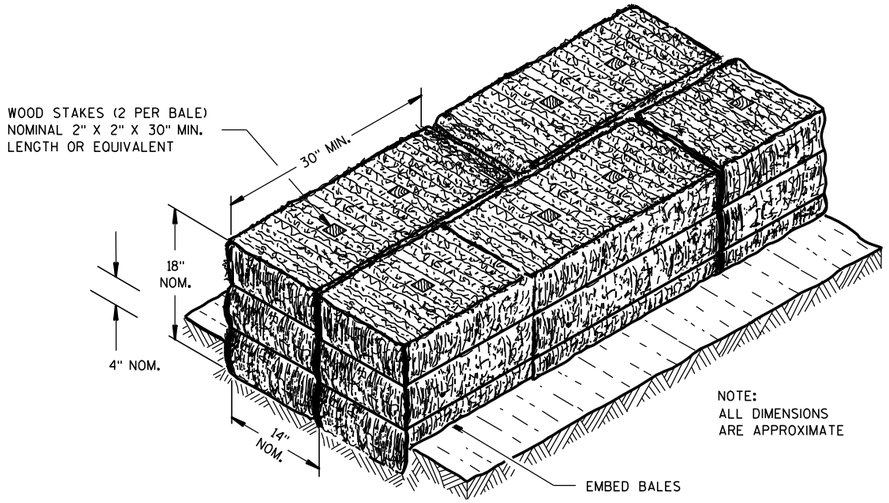
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

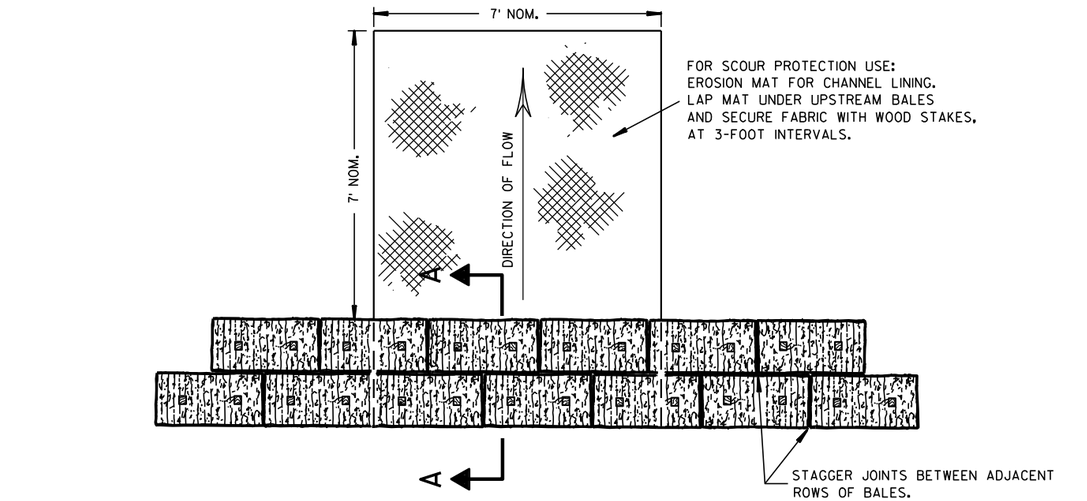
APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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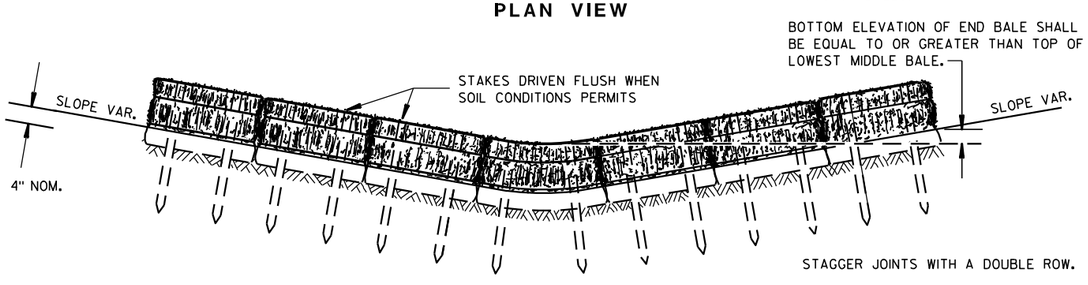
SDD 08D16 - 11
SDD 08D16 - 11



SECTION A-A



PLAN VIEW



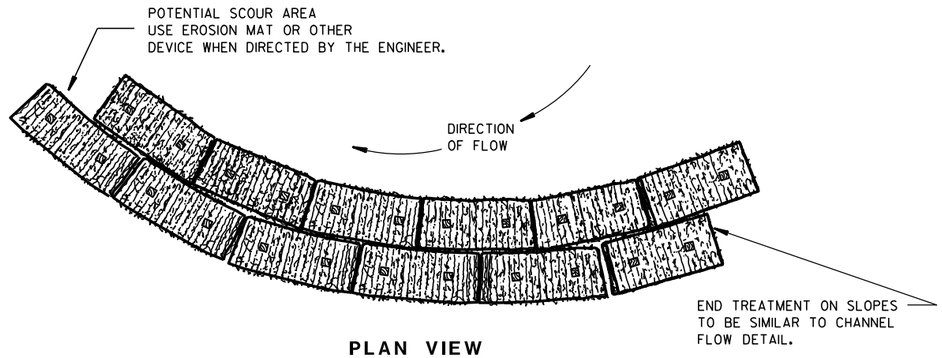
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

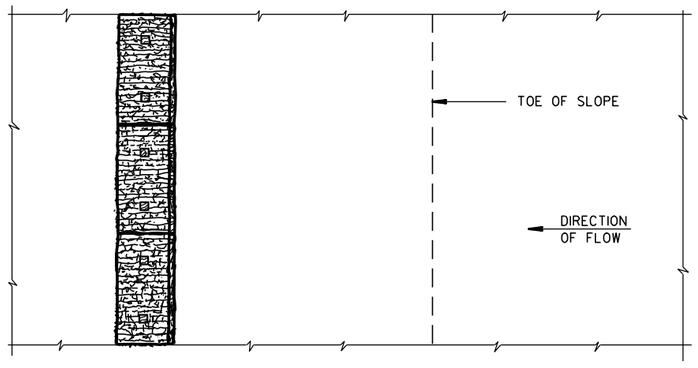
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

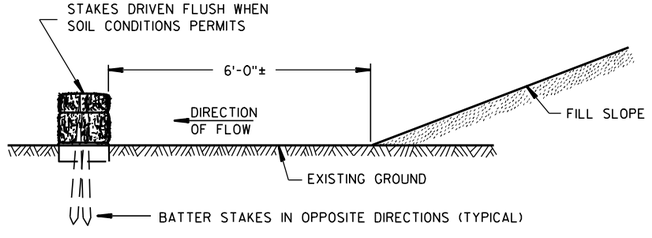


PLAN VIEW

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

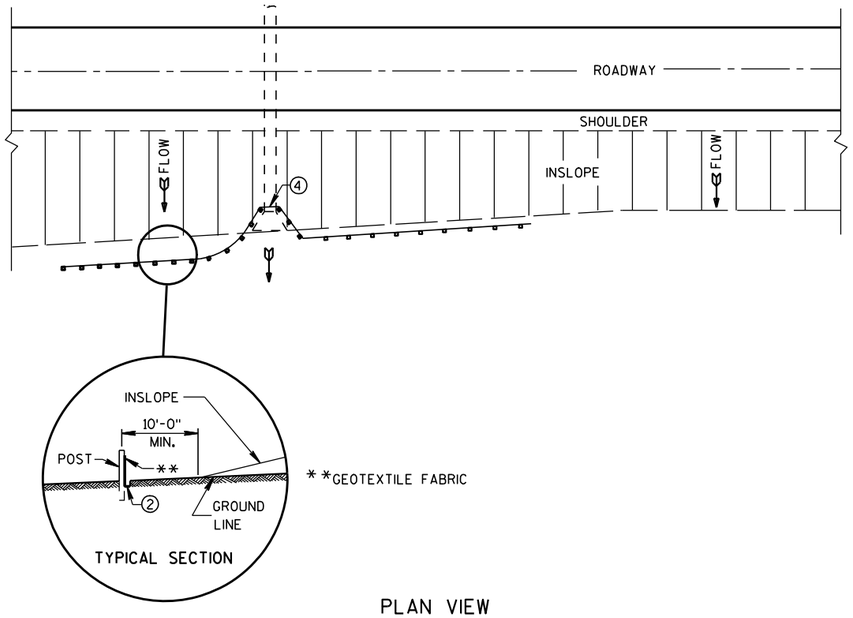
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

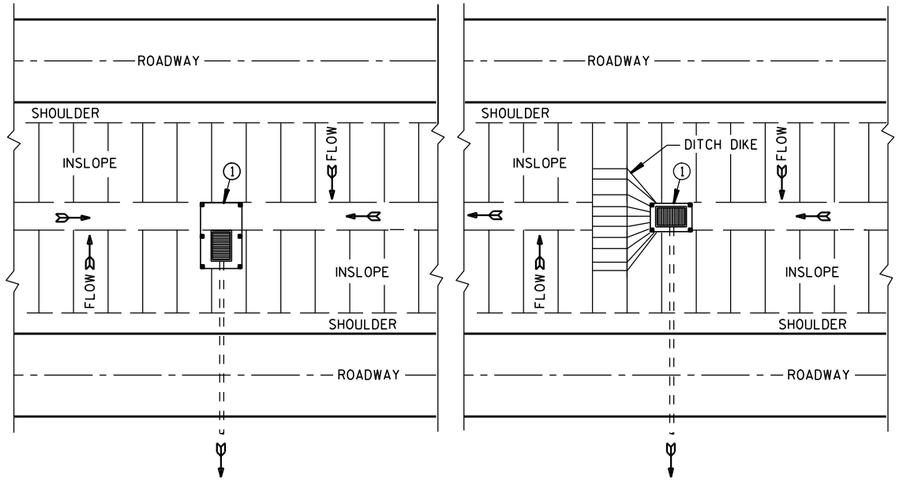
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



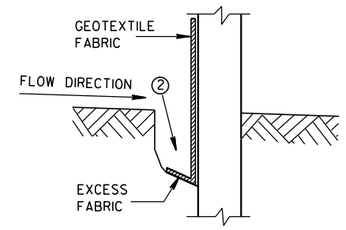
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

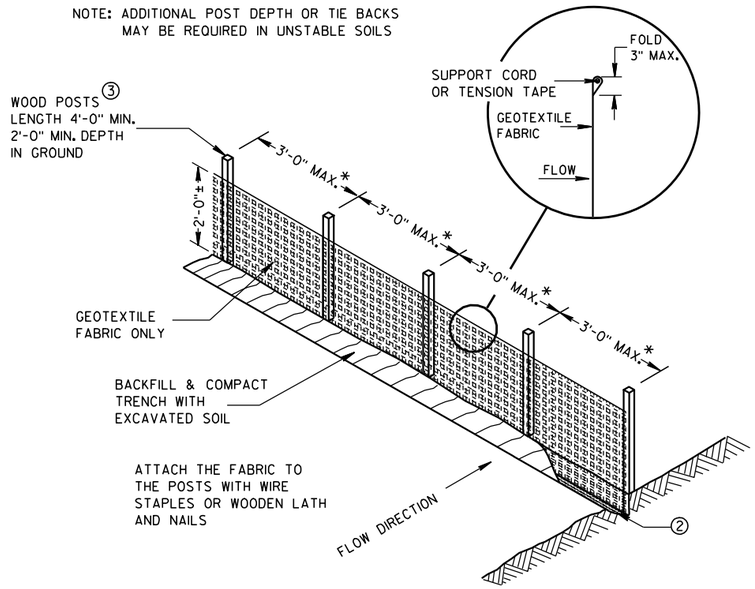
GENERAL NOTES

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

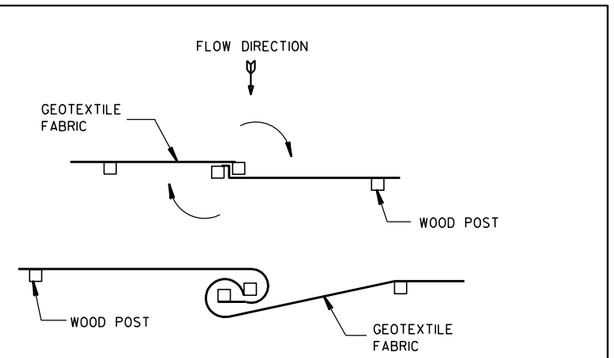
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



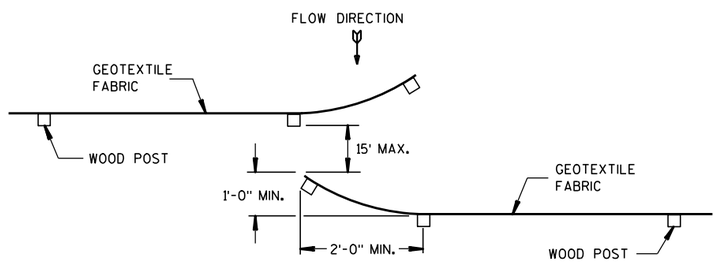
TRENCH DETAIL



SILT FENCE

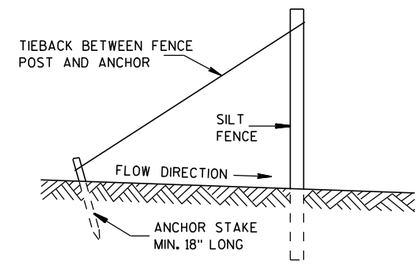


TWIST METHOD



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

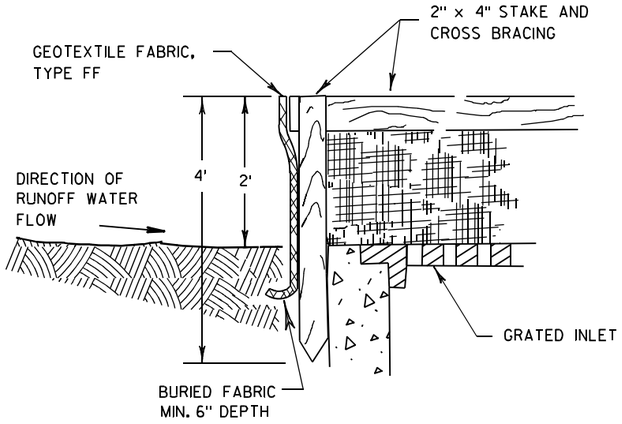
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

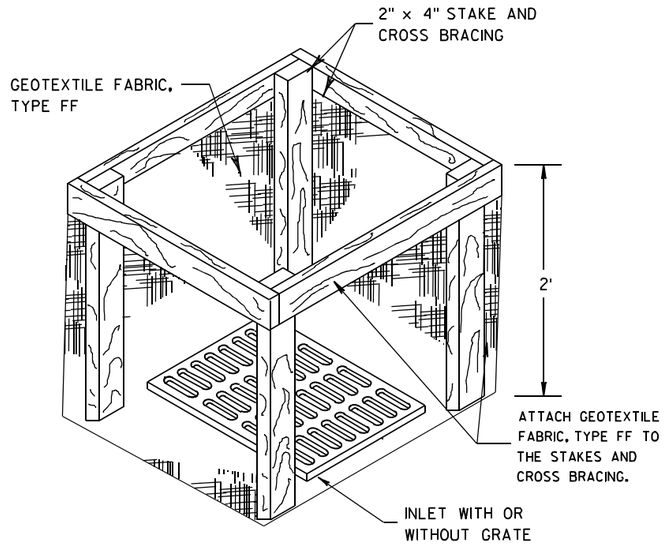
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S.D.D. 8 E 9-6

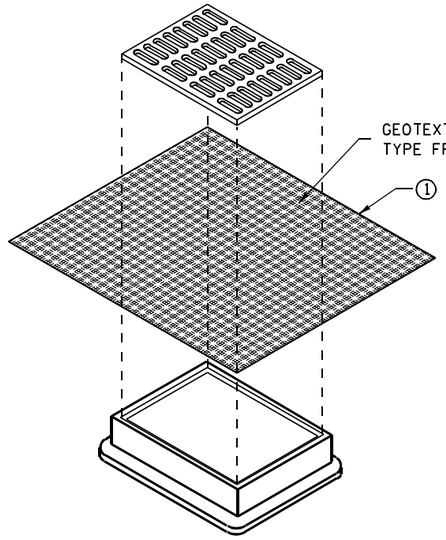
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S.D.D. 8 E 9-6



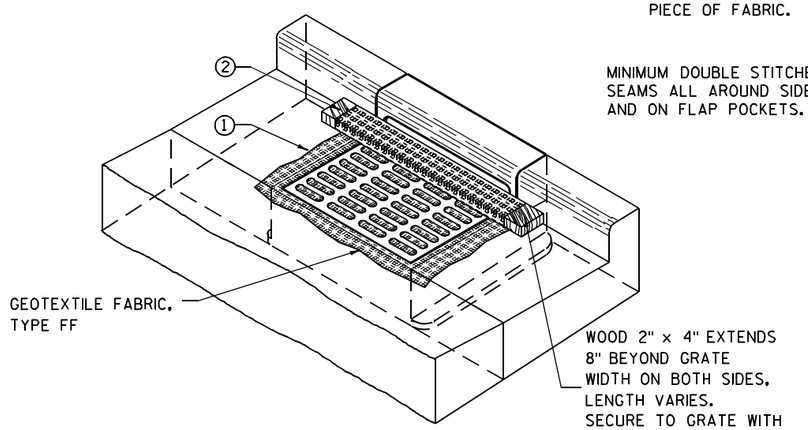


INLET PROTECTION, TYPE A

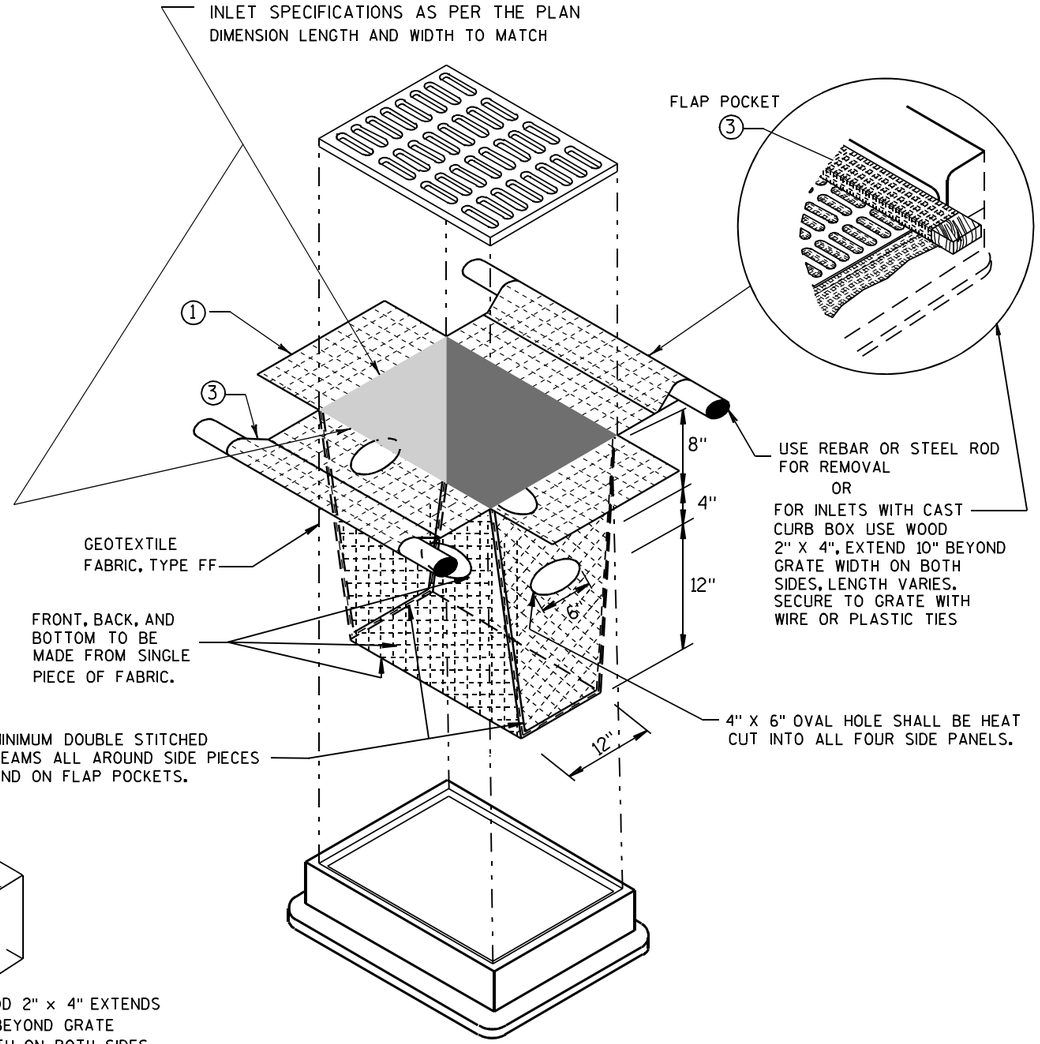


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

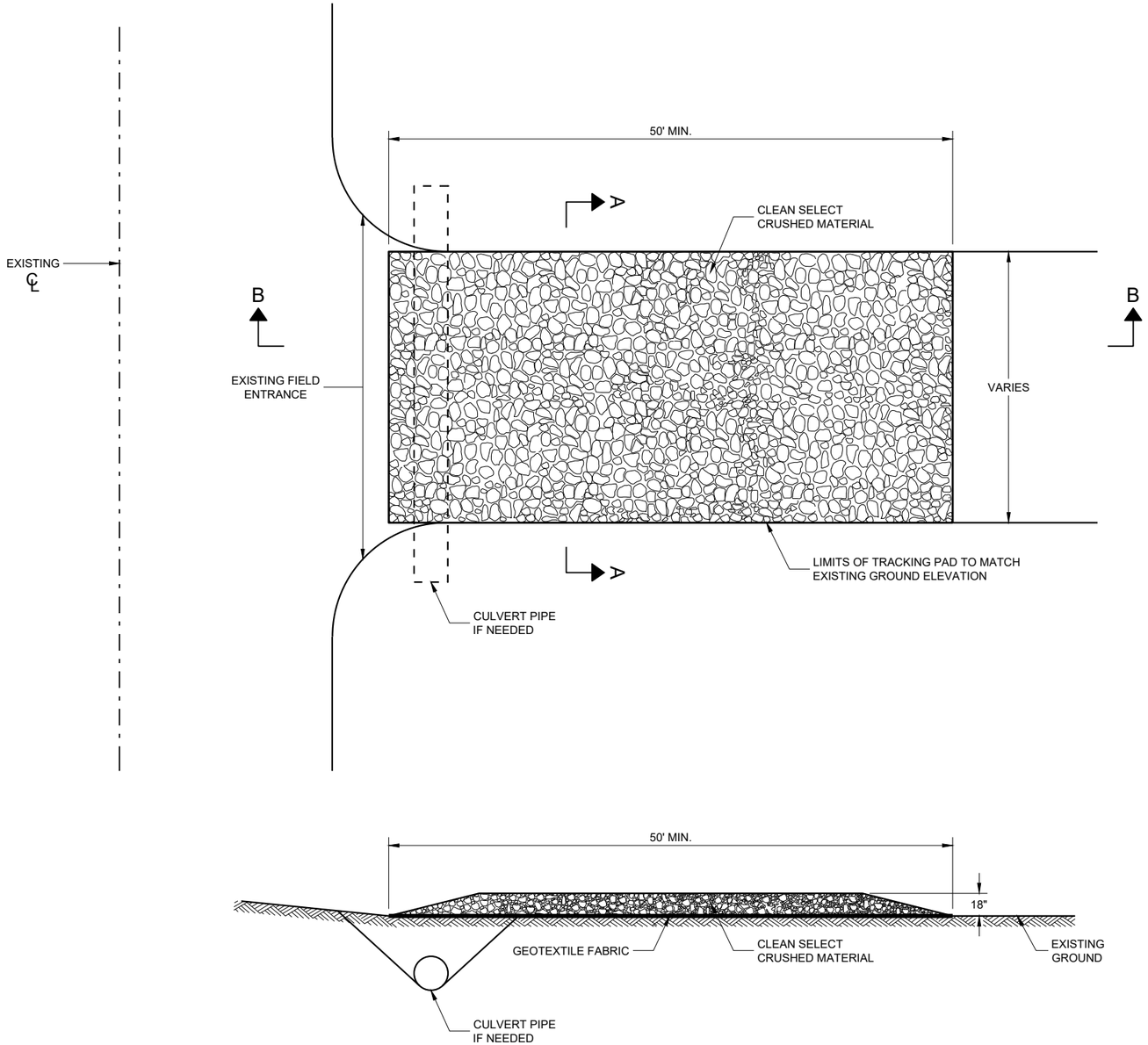
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



SECTION B - B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

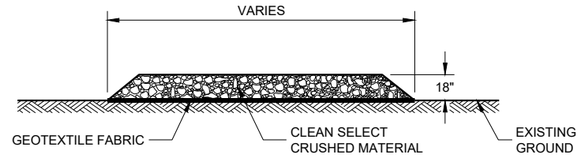
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

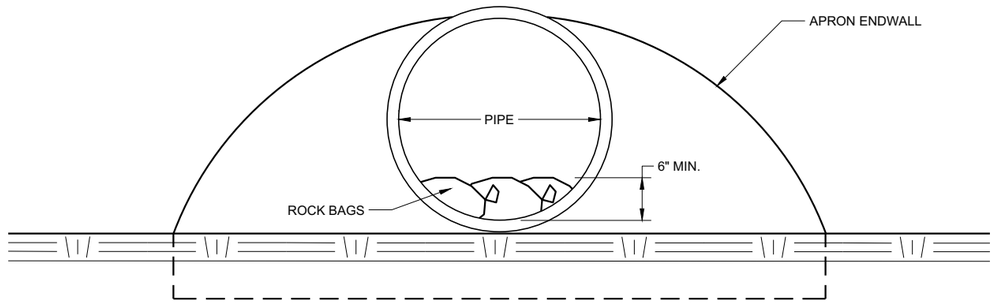
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

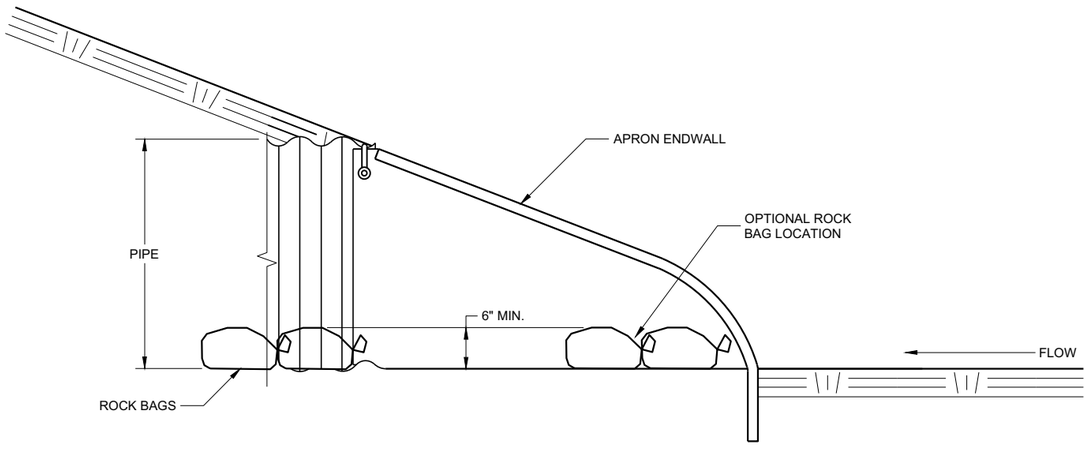
FHWA

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SDD 08E14 - 01



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	

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SDD 08E15 - 01

METAL APRON ENDWALLS

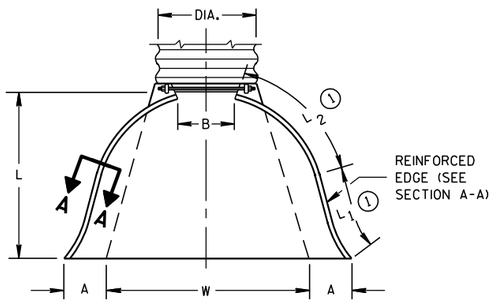
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

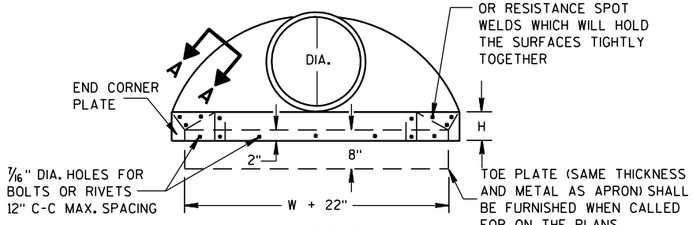
REINFORCED CONCRETE APRON ENDWALLS

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

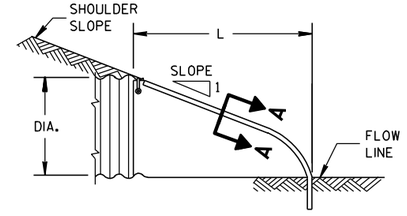
*MINIMUM
**MAXIMUM



PLAN VIEW

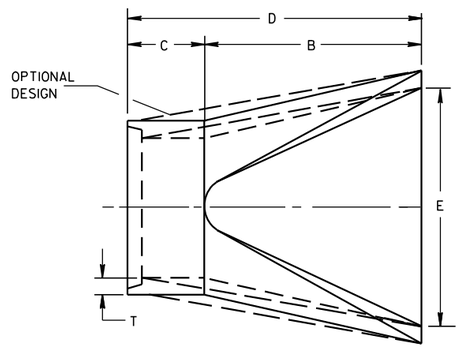


END VIEW

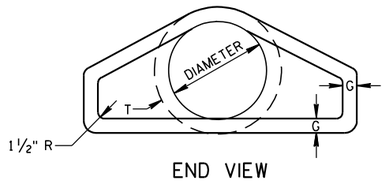


SIDE ELEVATION

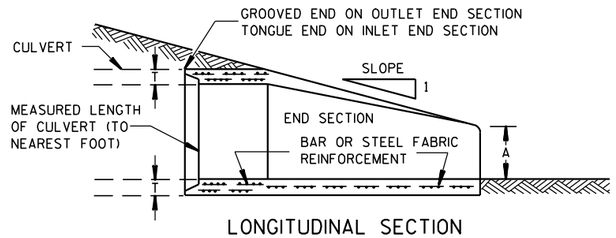
METAL ENDWALLS



PLAN

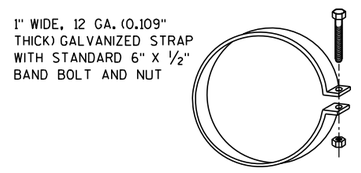


END VIEW



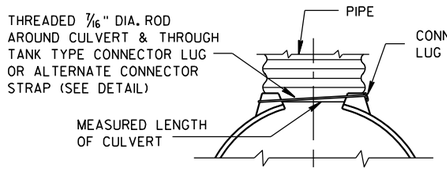
LONGITUDINAL SECTION

CONCRETE ENDWALLS

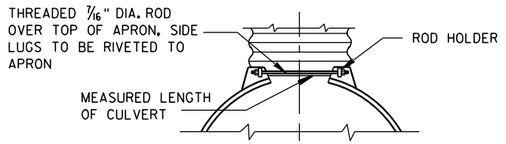


ALTERNATE FOR TYPE 1 CONNECTION

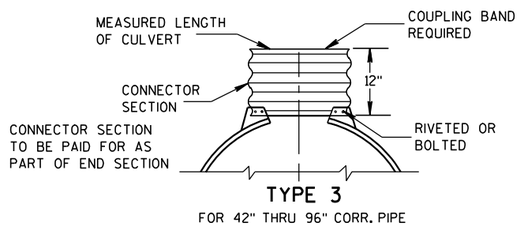
END SECTION CONNECTOR STRAP



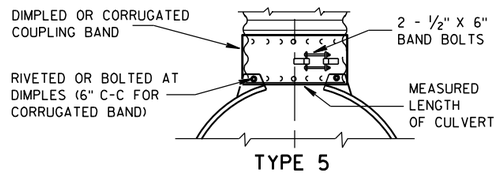
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

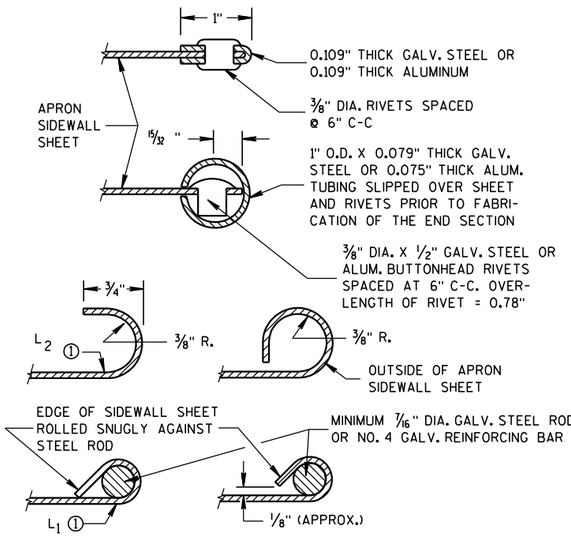
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

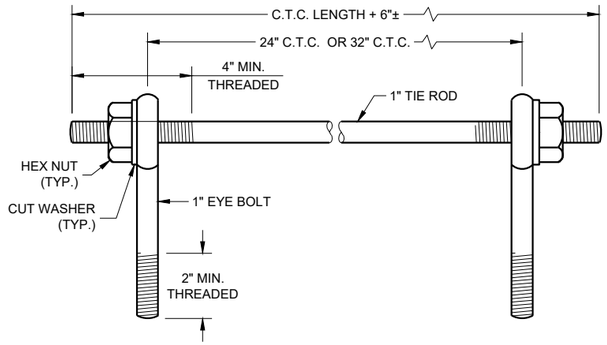
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

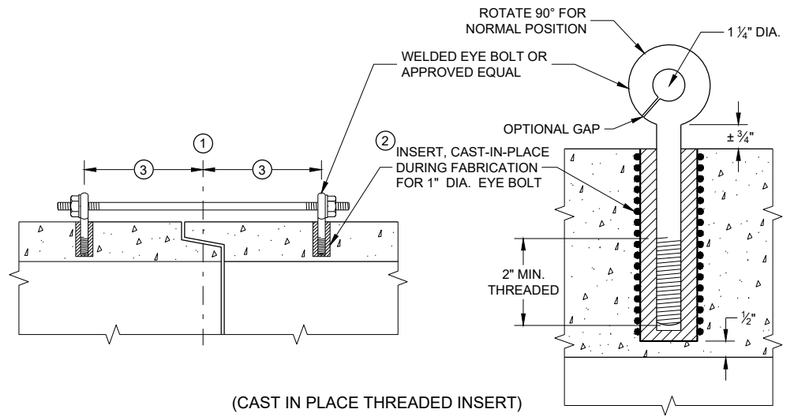
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

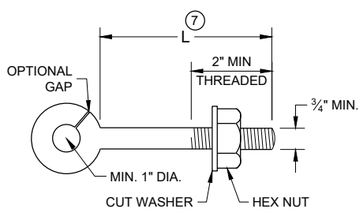
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

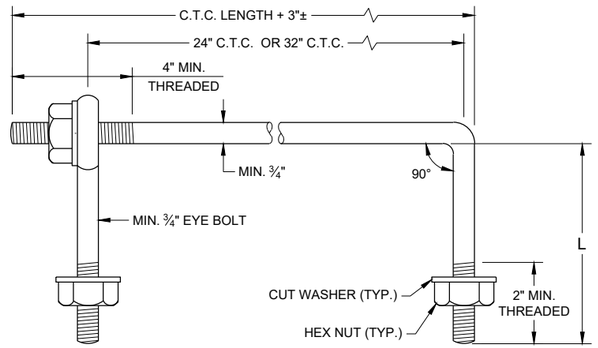
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

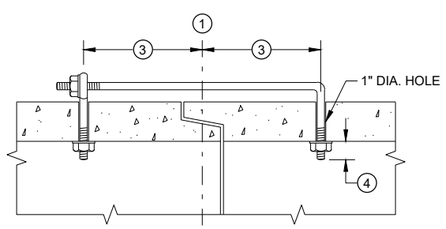


EYE BOLT (7)

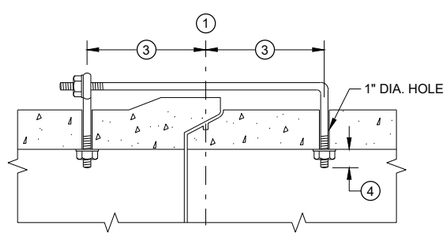
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

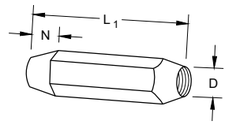
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

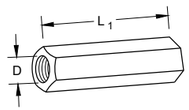
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



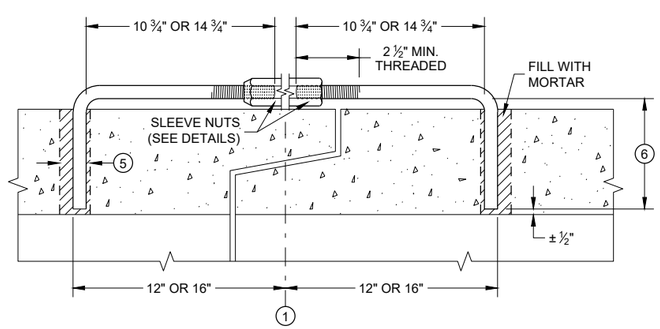
TAPERED



PLAIN

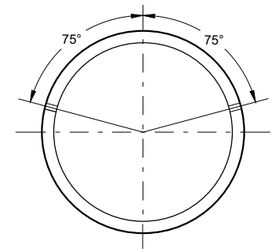
RIGHT AND LEFT THREADS

SLEEVE NUTS



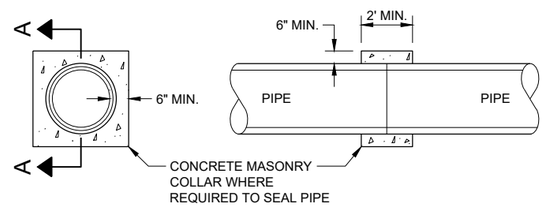
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

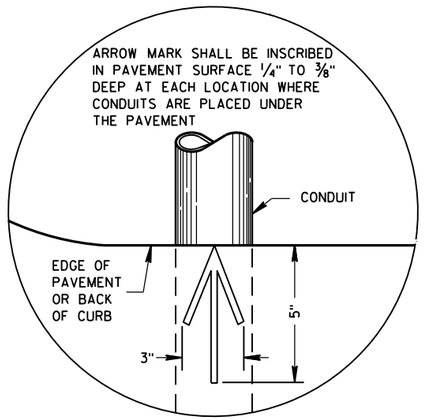
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

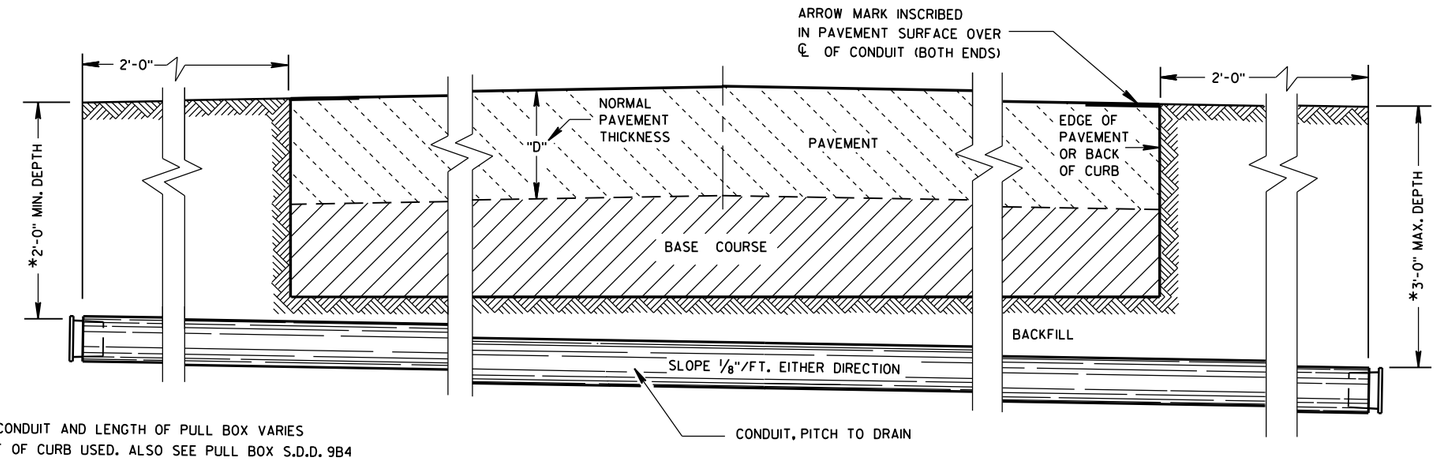
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

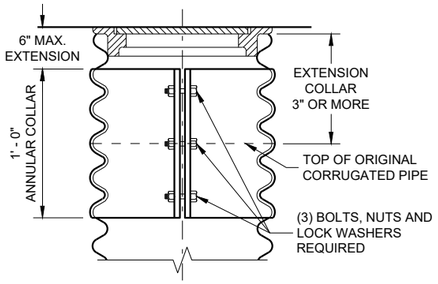
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

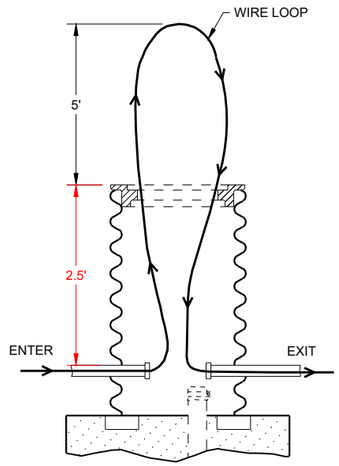
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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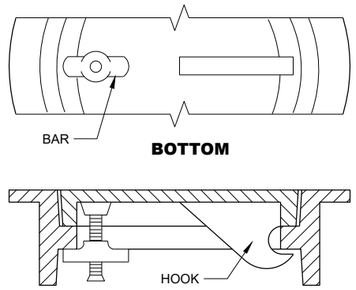
S.D.D. 9 B 2-10



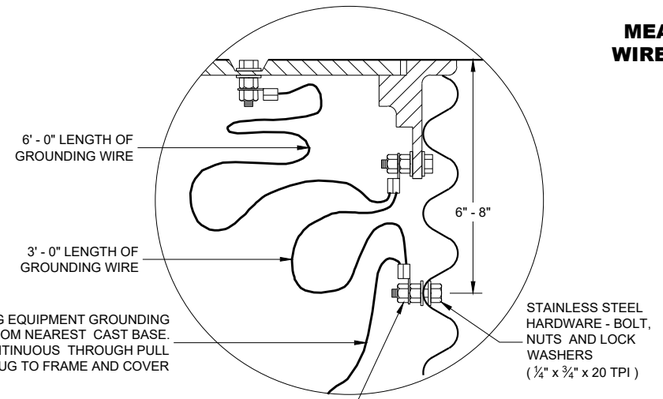
CORRUGATED PIPE EXTENDER



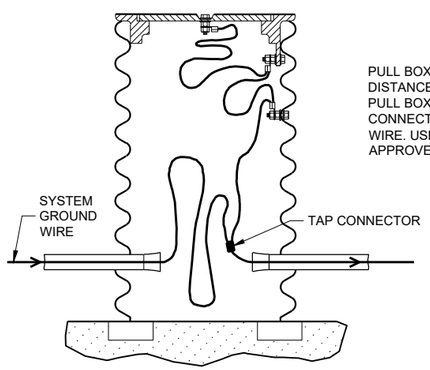
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

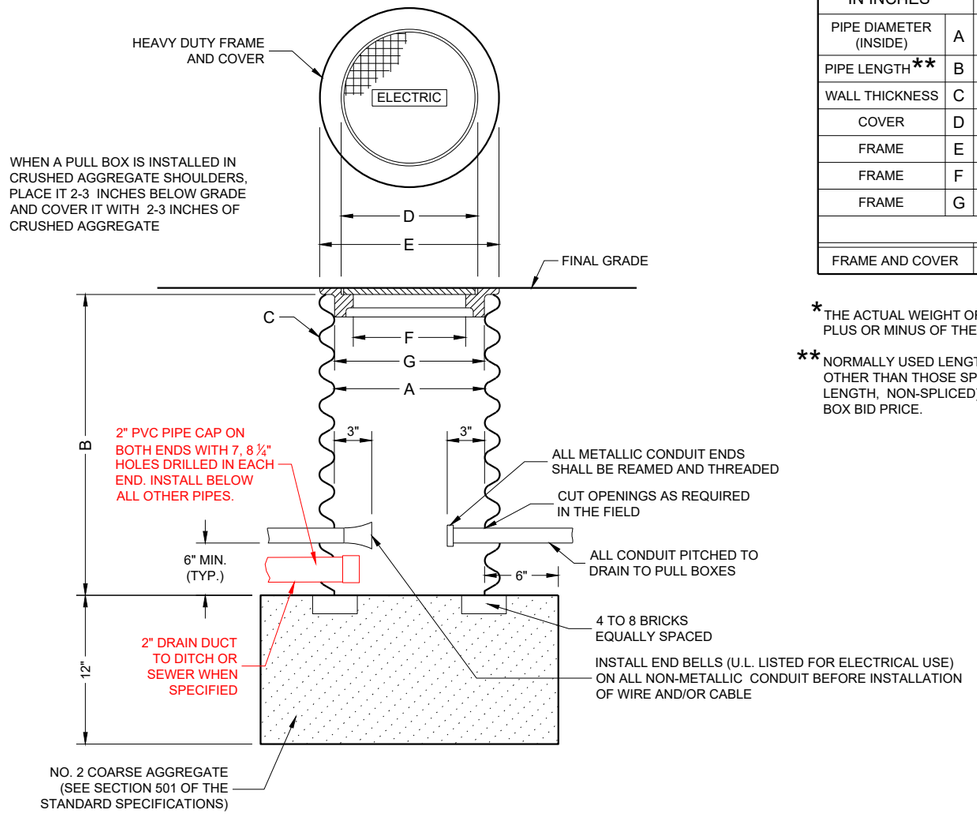


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH**	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

**NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

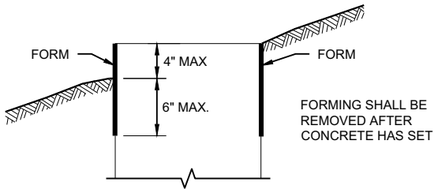
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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SDD 09B04 -12

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

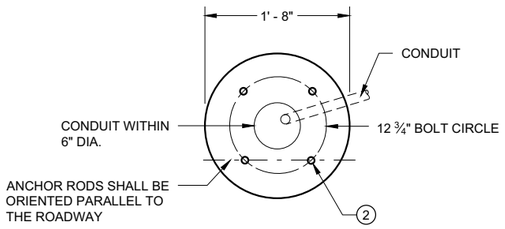
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

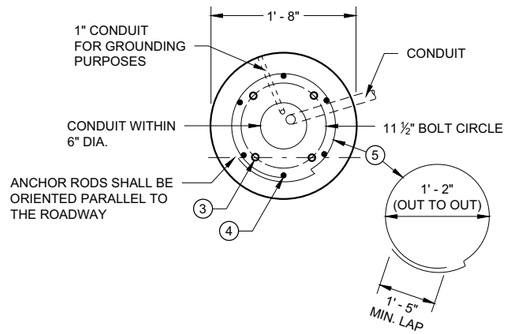
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

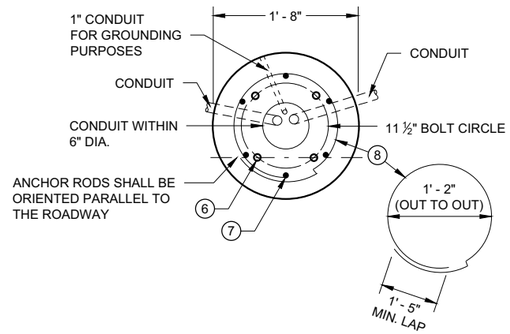
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

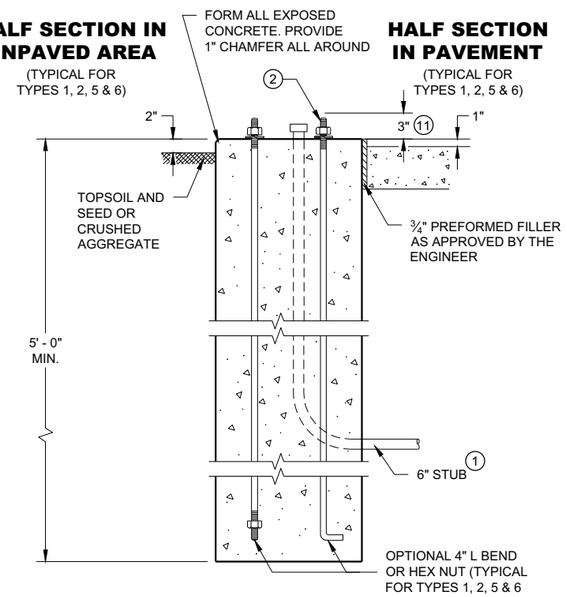
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

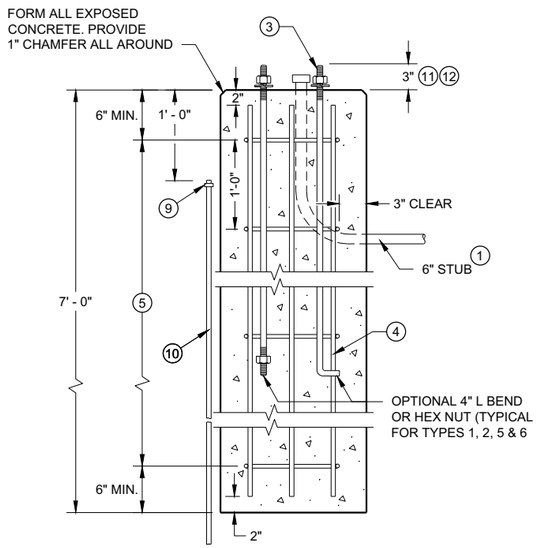
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

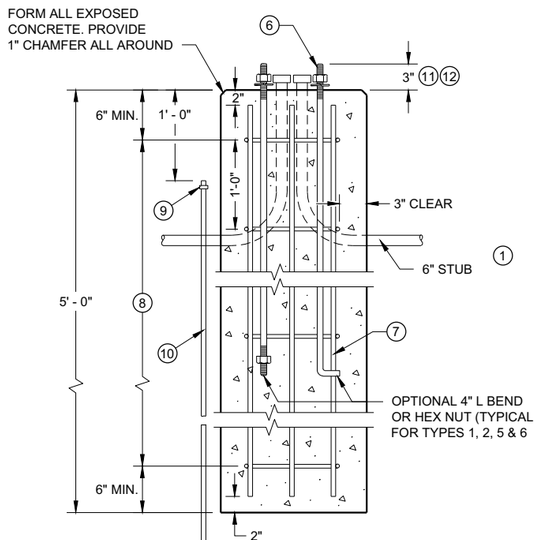
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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SDD 09C02 - 09

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

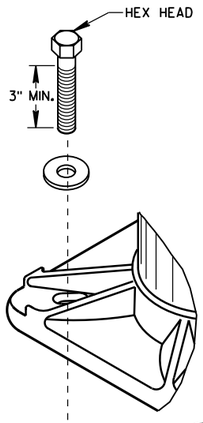
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

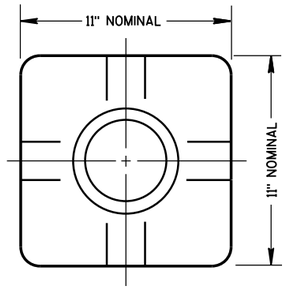
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

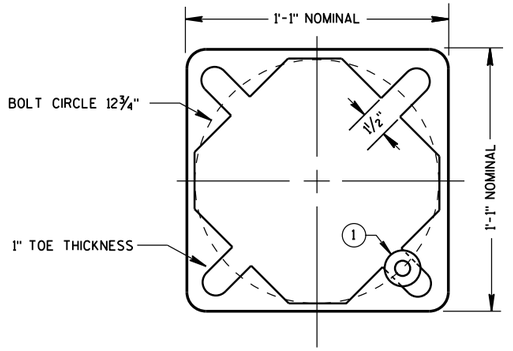
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

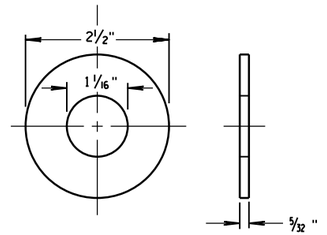




TOP VIEW
(PEDESTAL BASE)

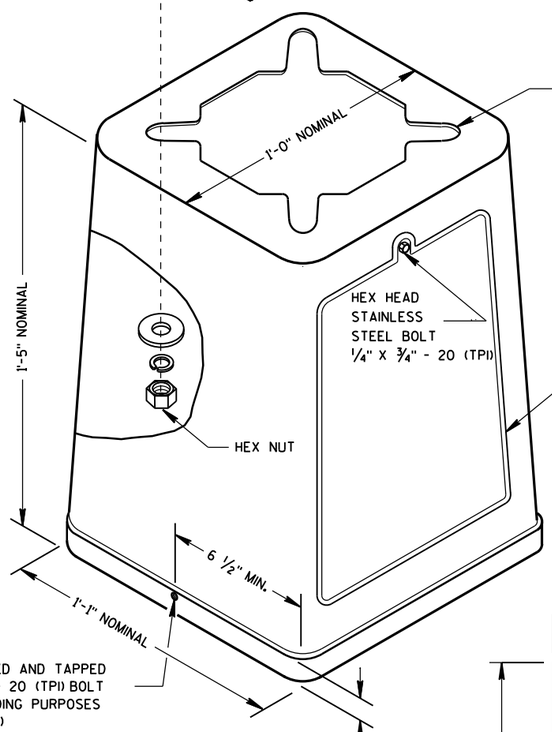


BOTTOM VIEW
(PEDESTAL BASE)

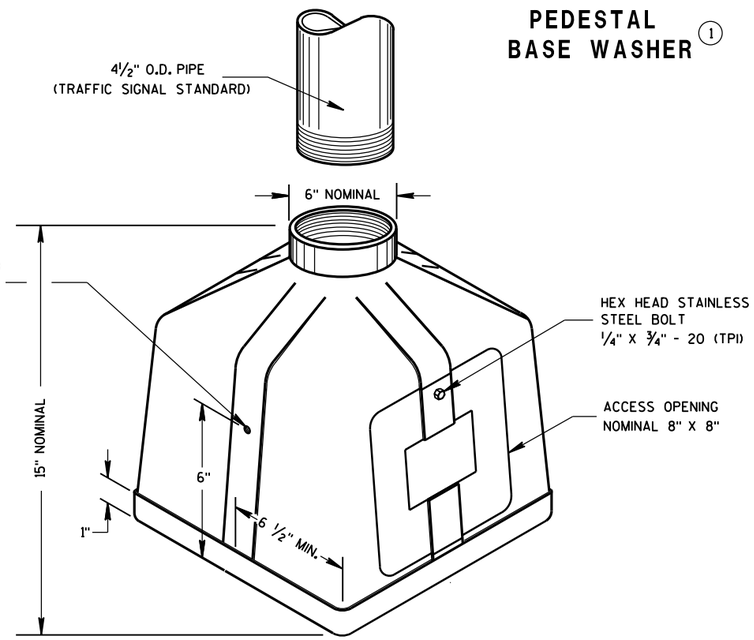


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

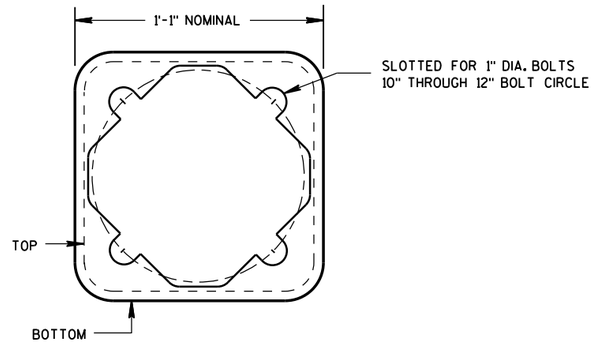


ISOMETRIC VIEW

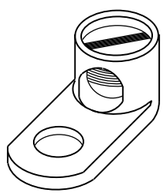


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

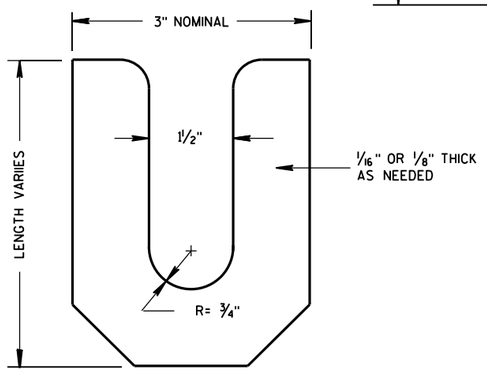


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

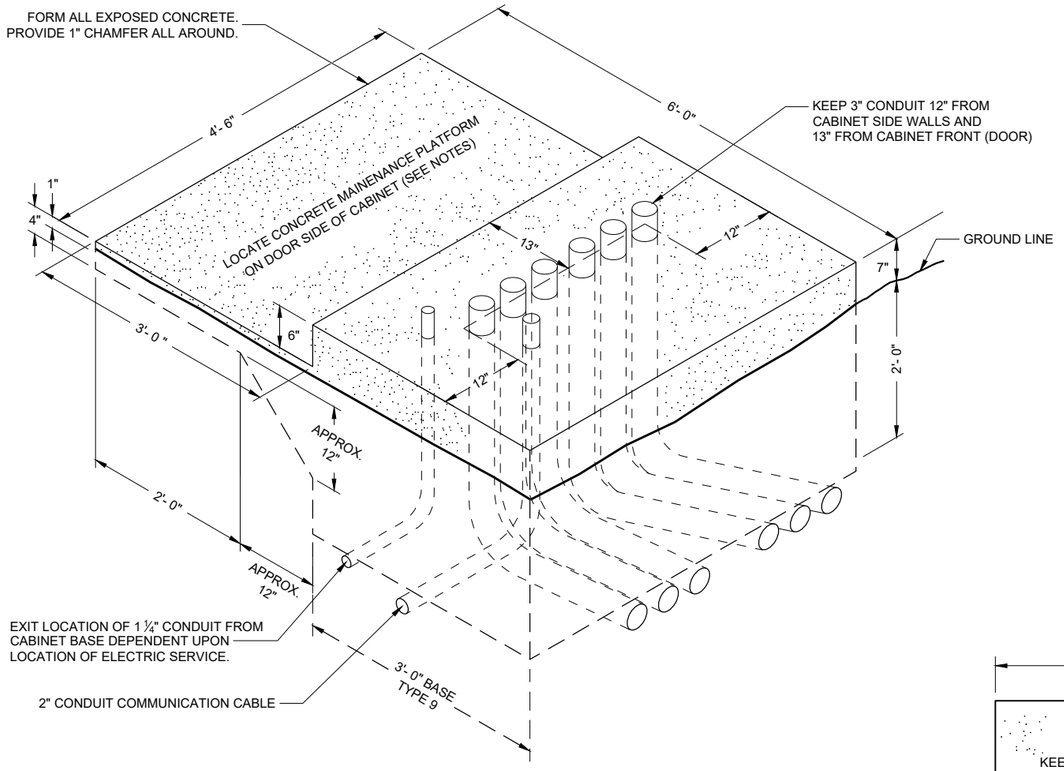
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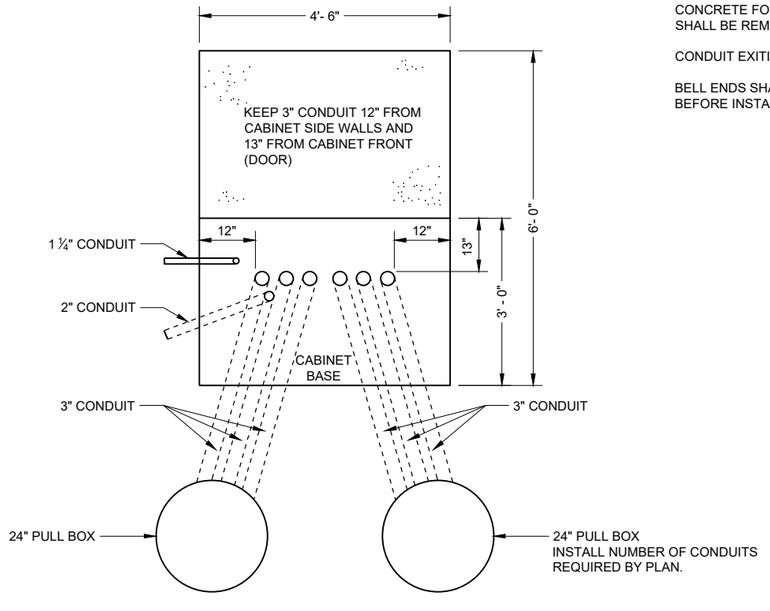
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW

TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demerbilek
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SDD 09C06 - 07

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

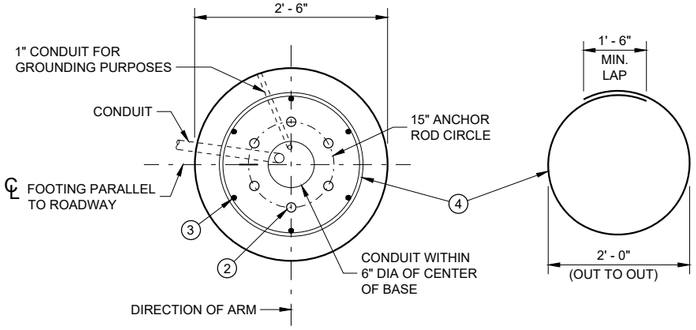
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

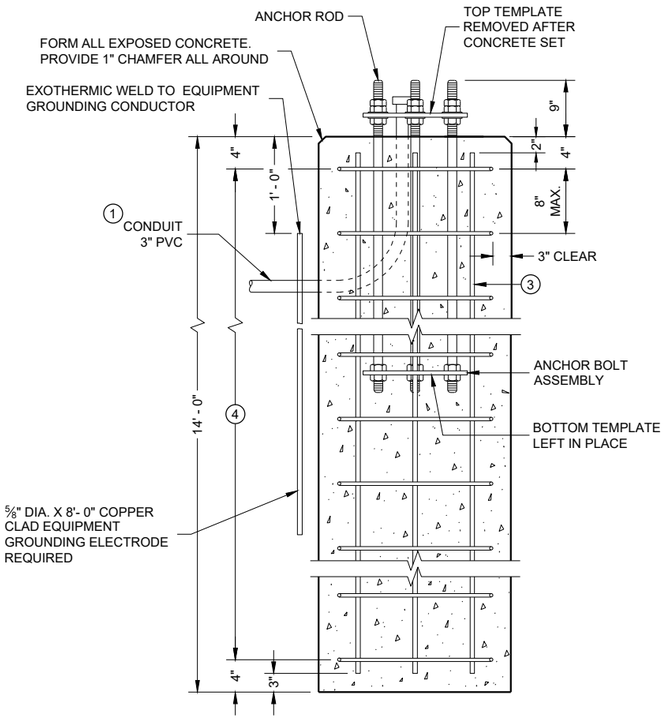
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

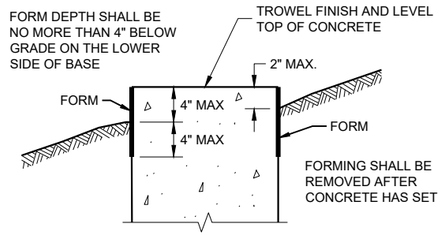
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



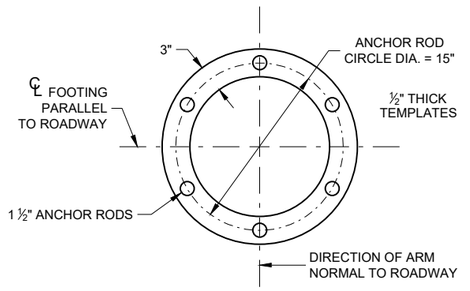


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

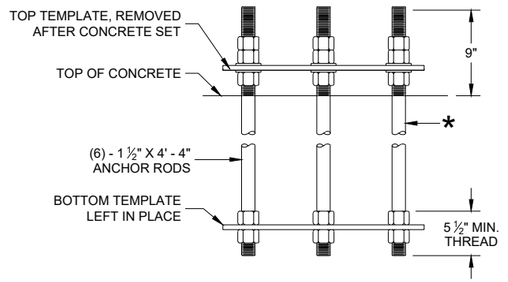
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

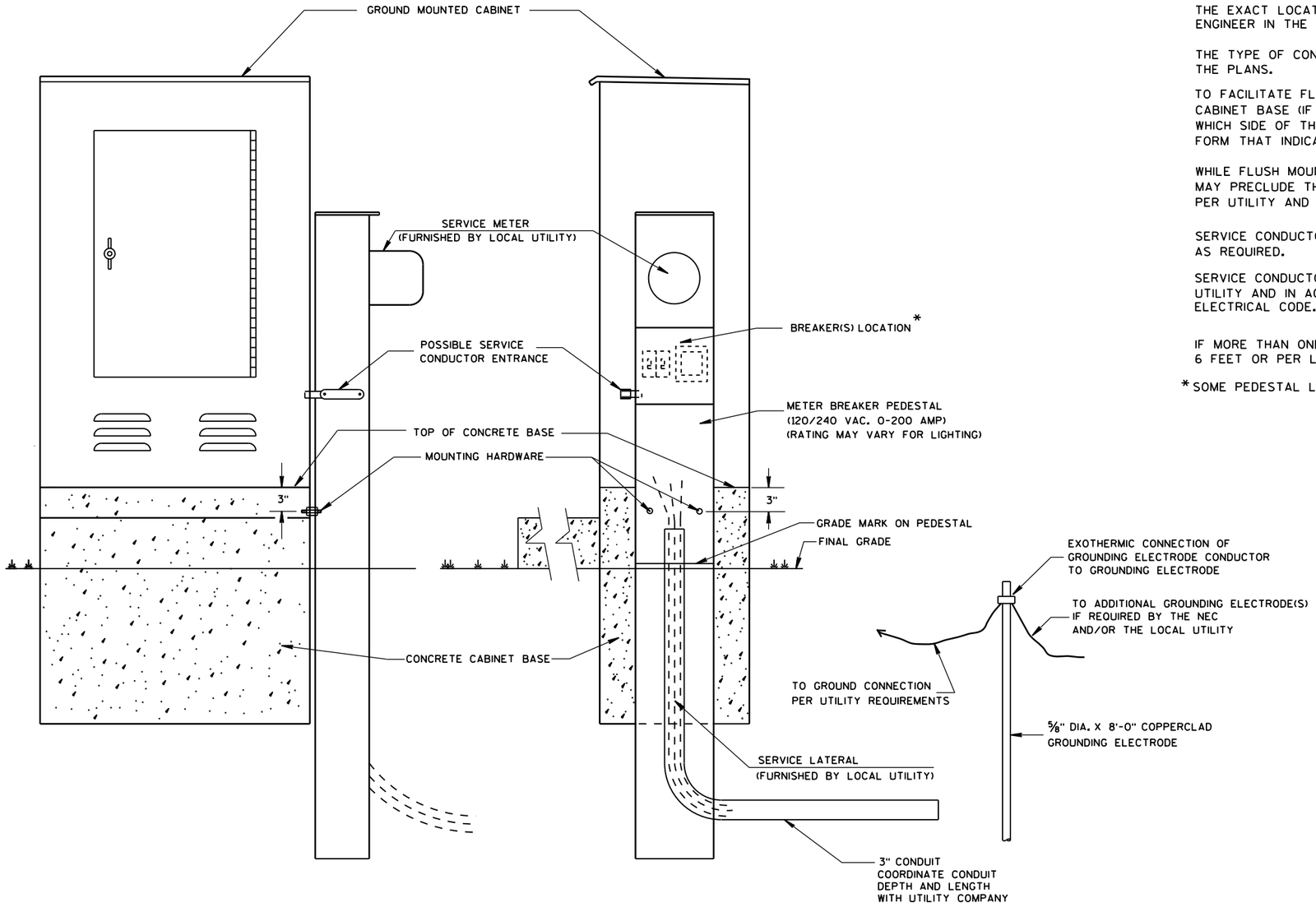
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
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SDD 09C11 - 10



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

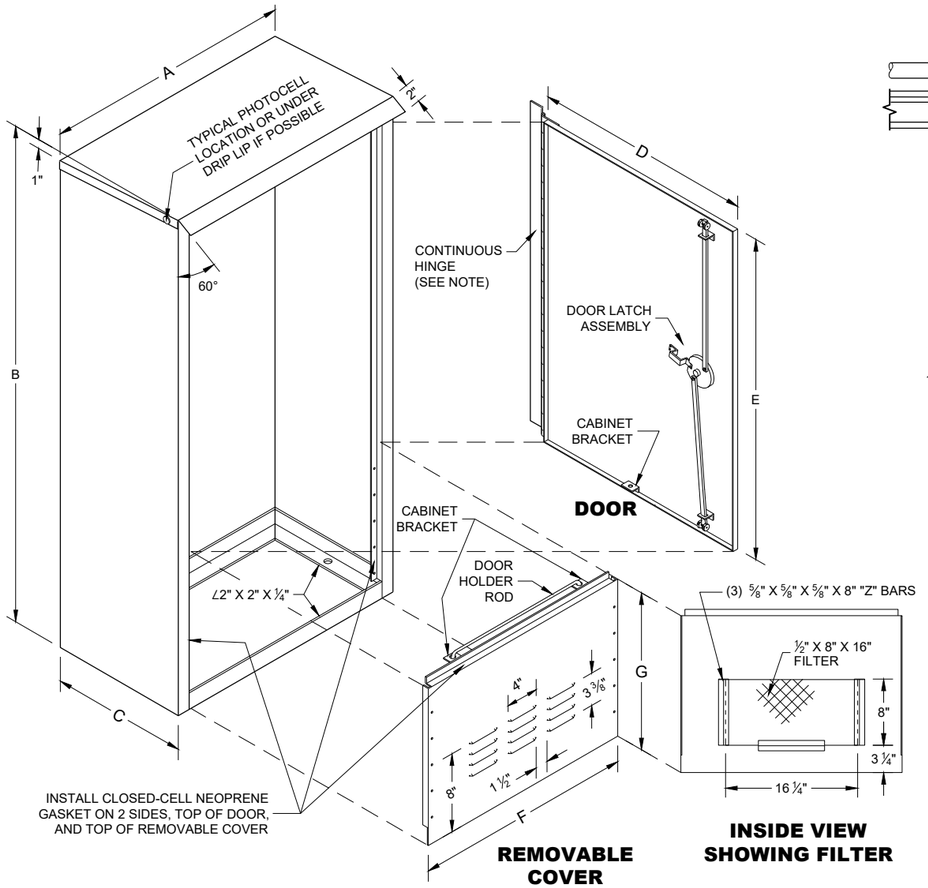
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

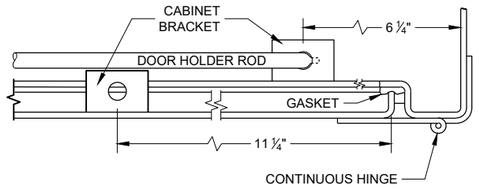
FHWA



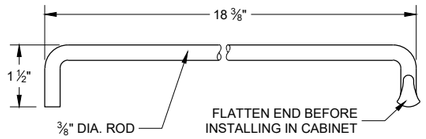
DOOR

REMOVABLE COVER

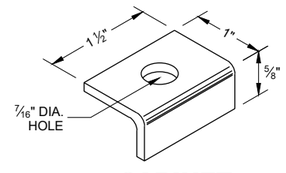
INSIDE VIEW SHOWING FILTER



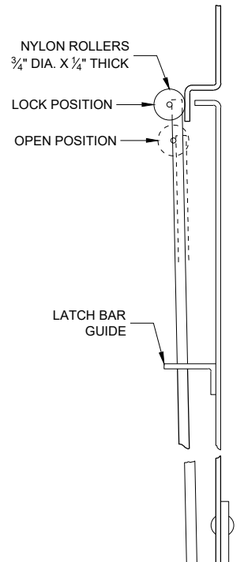
HINGE AND DOOR HOLDER

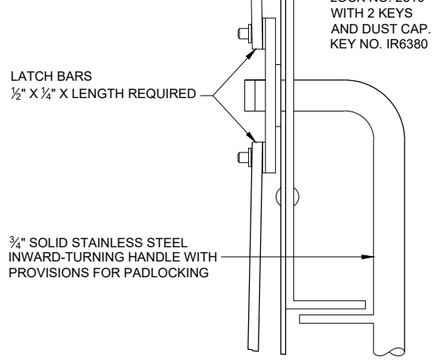


HOLDER ROD

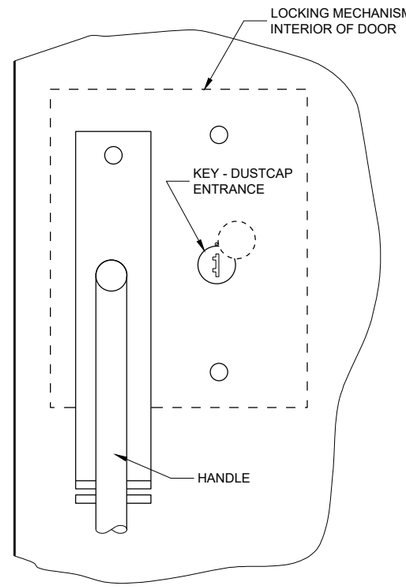


CABINET BRACKET





SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

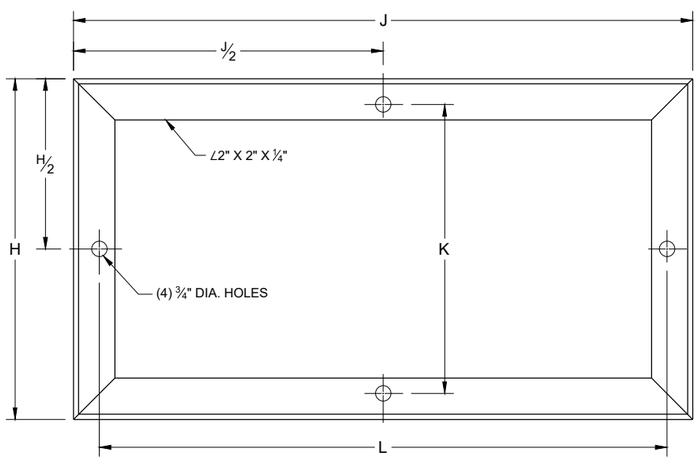
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

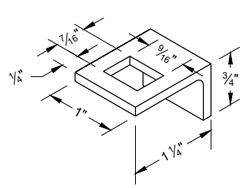
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

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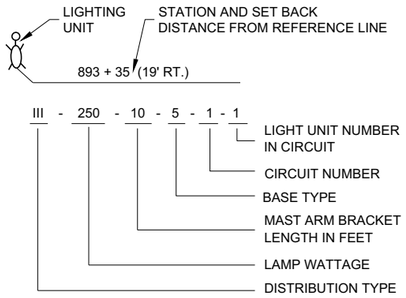
SDD 09D02 - 03

GENERAL NOTES

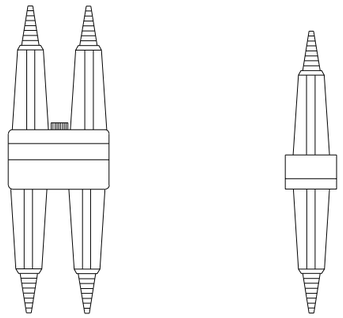
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

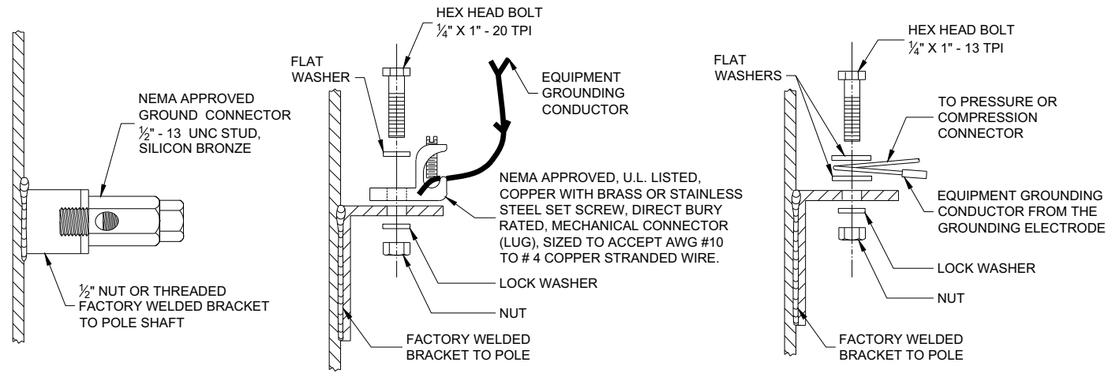


LIGHTING UNIT CODE
(TYPICAL)

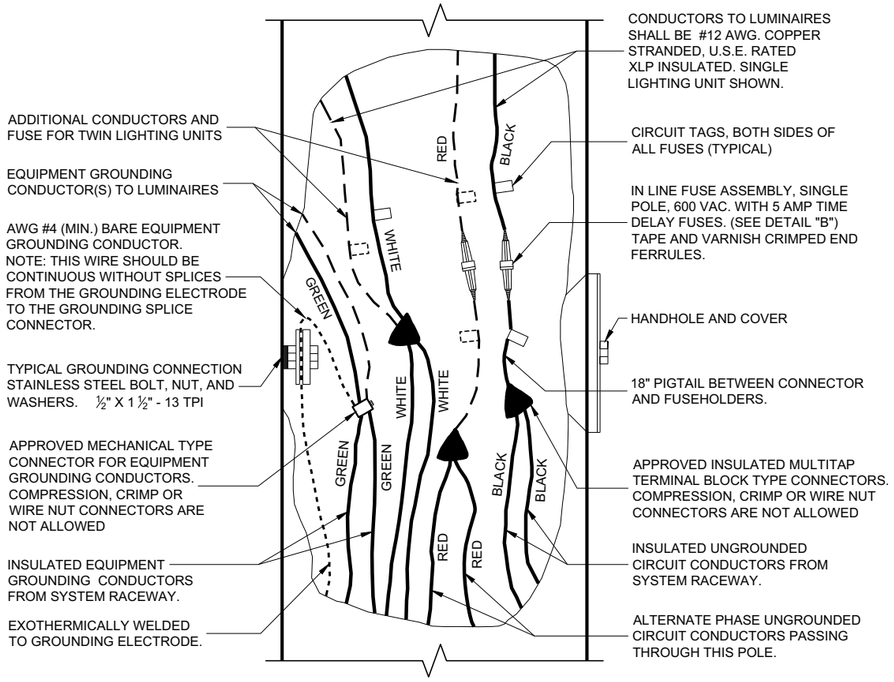


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

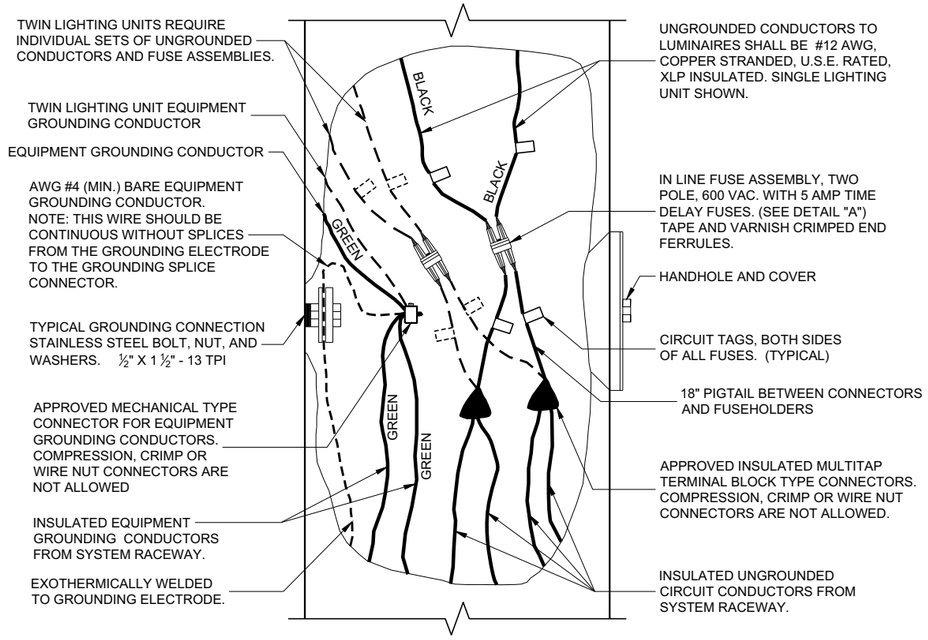
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

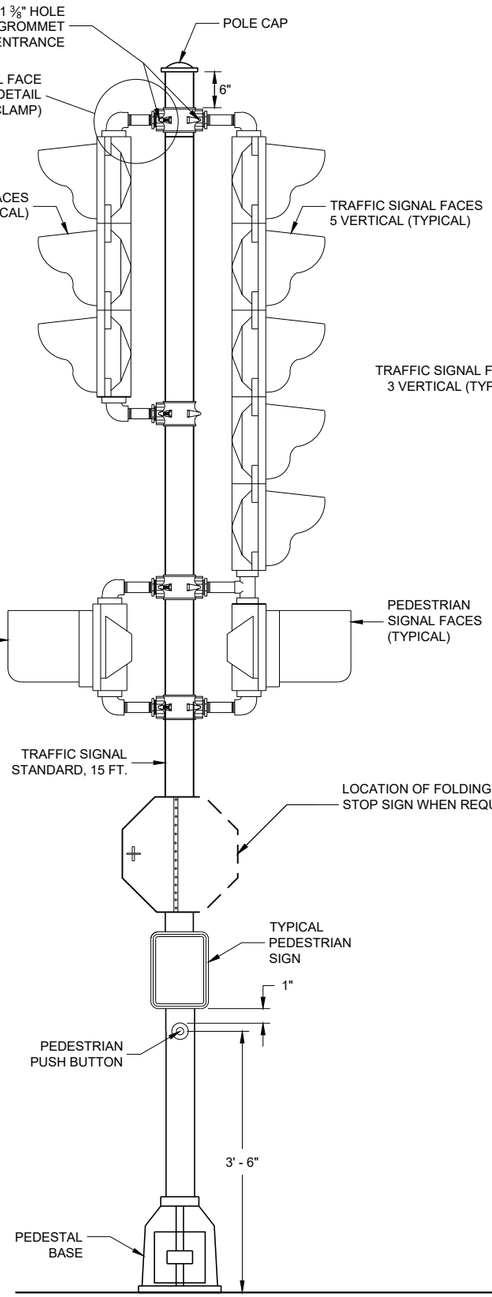
NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

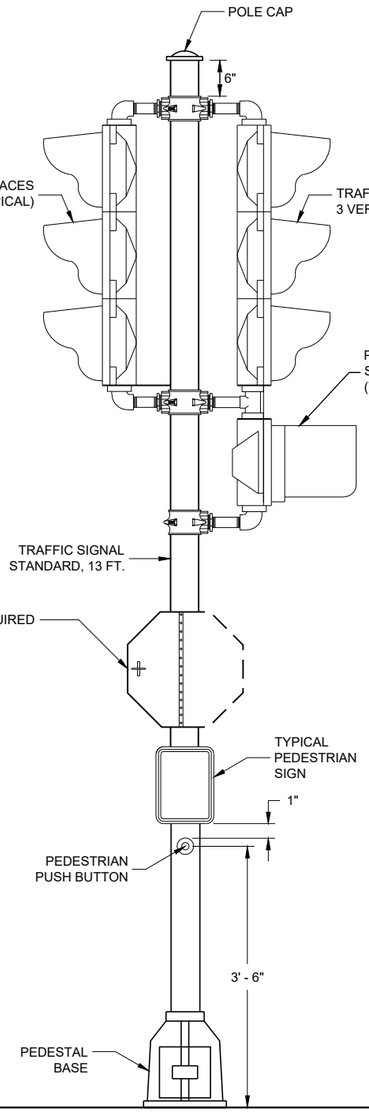
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

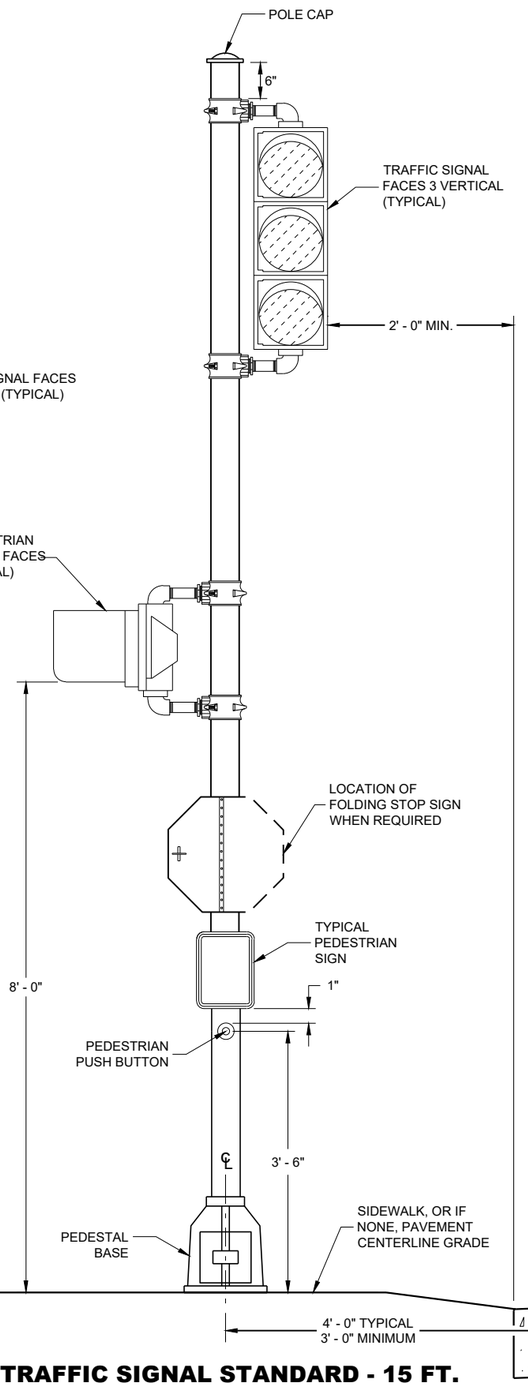
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SDD 09E03 - 06



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL STANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

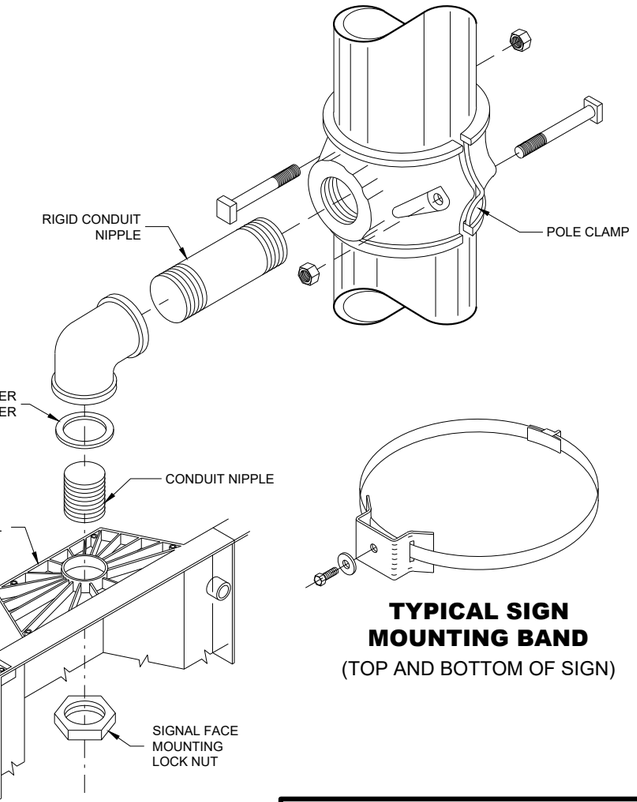
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL (ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

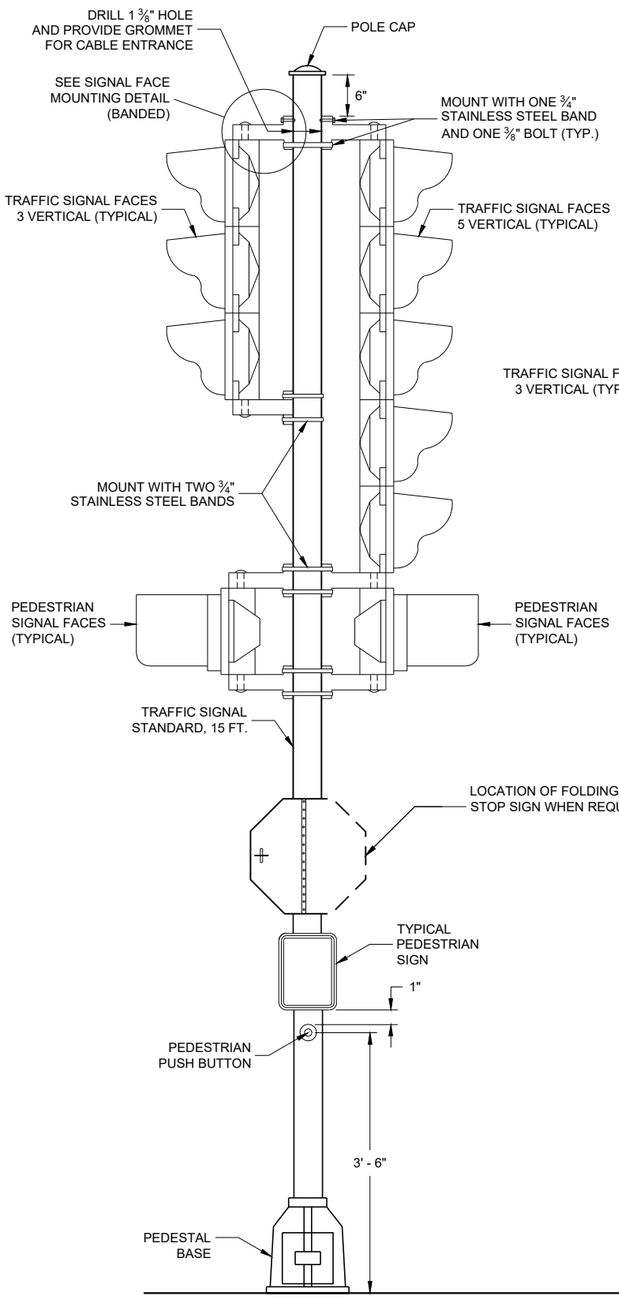
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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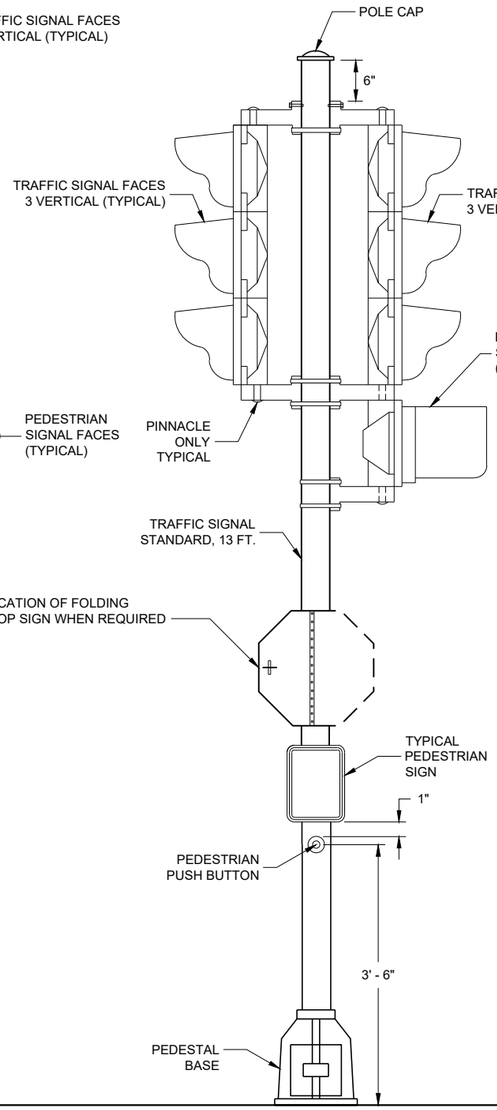
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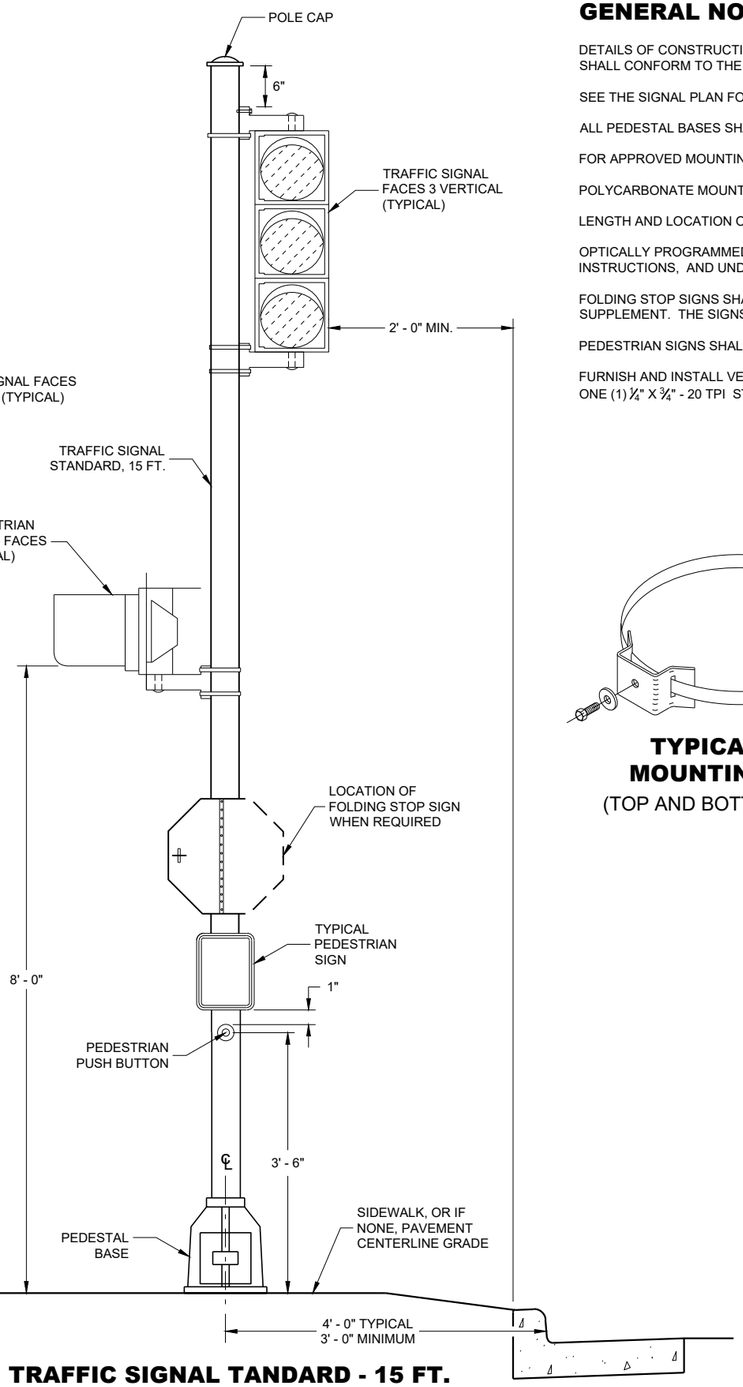
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TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

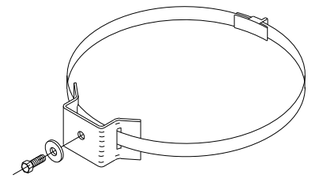
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

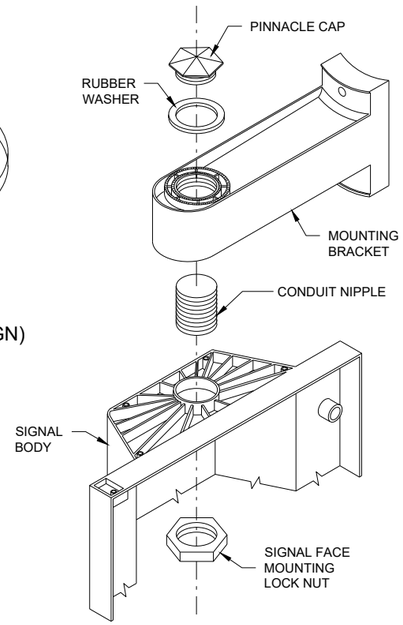
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

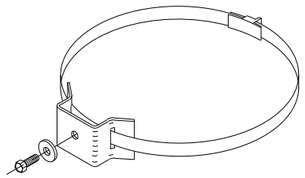
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

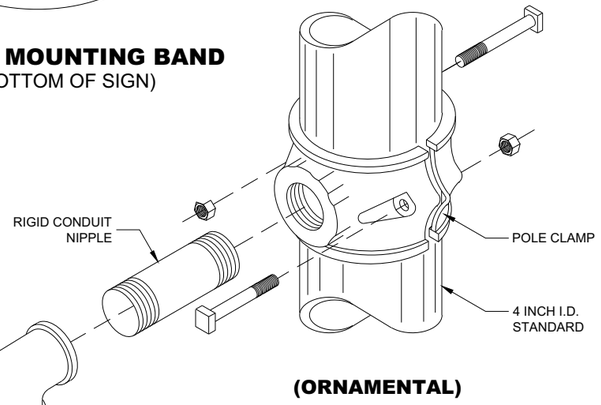
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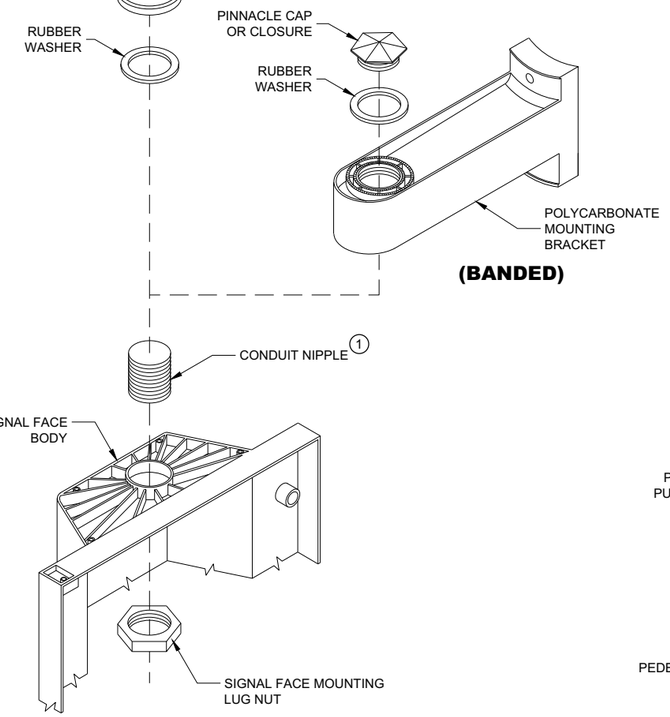
SDD 09E06 - 05



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

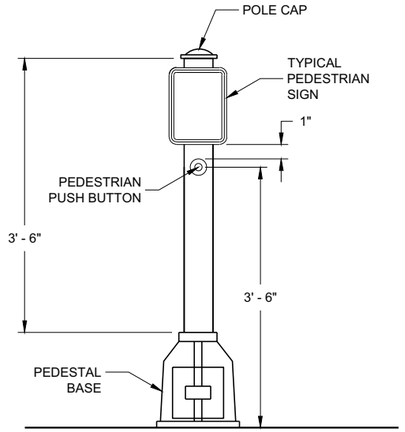


(ORNAMENTAL)



(BANDED)

SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

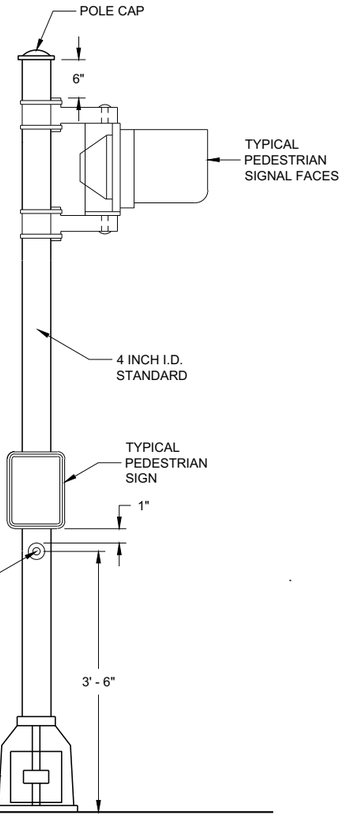
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

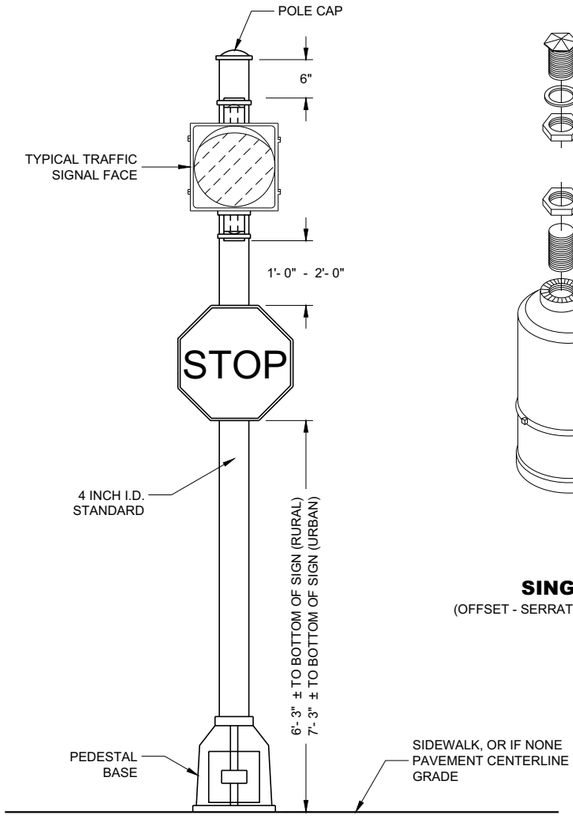
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

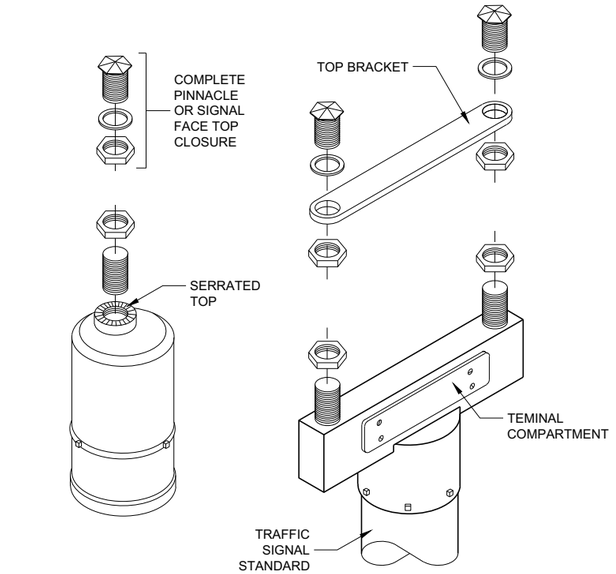
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

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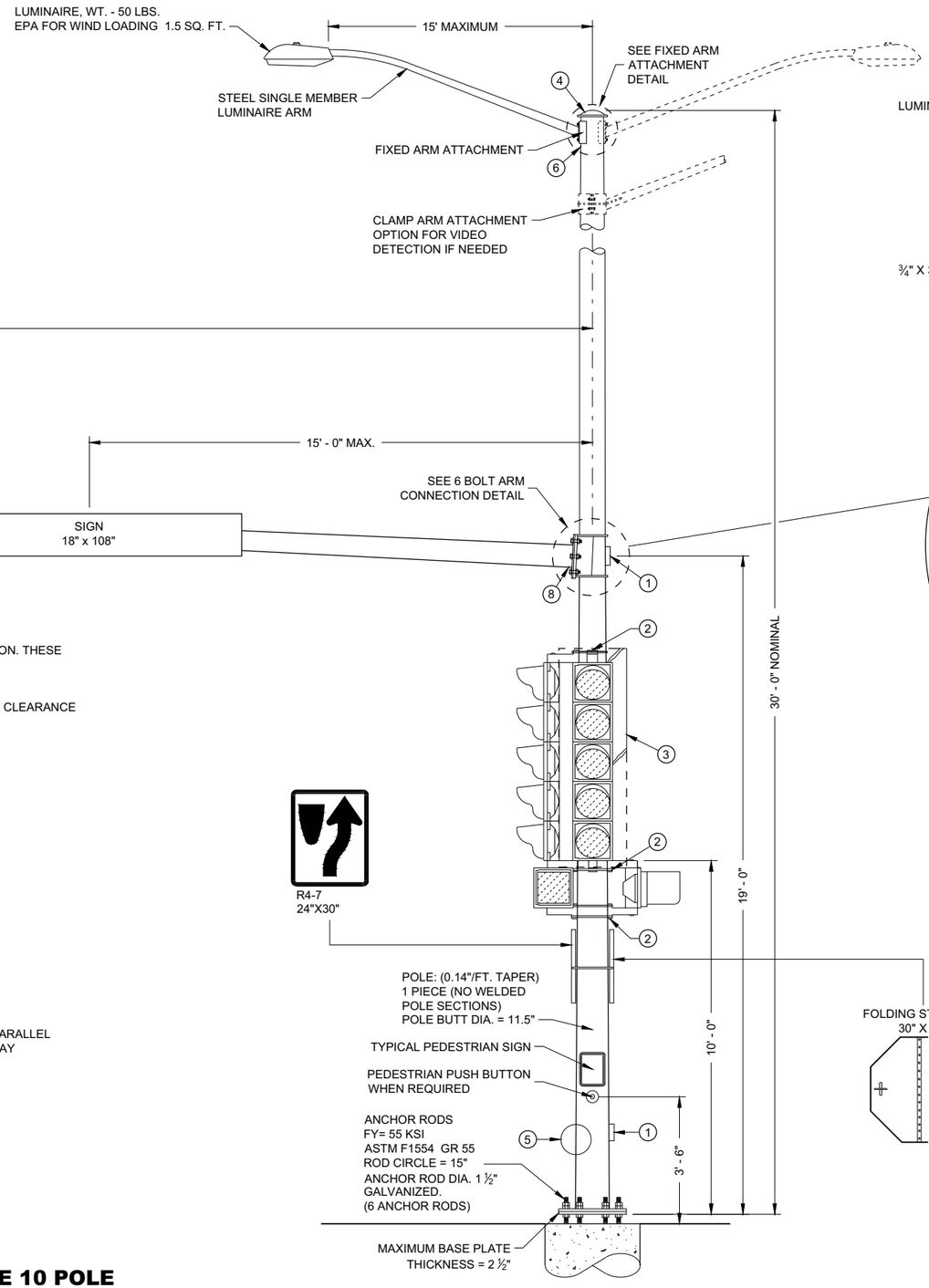
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
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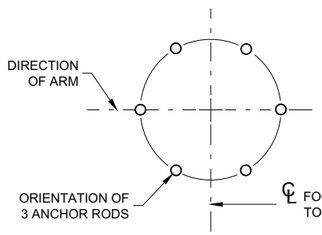
SDD 09E07 - 06

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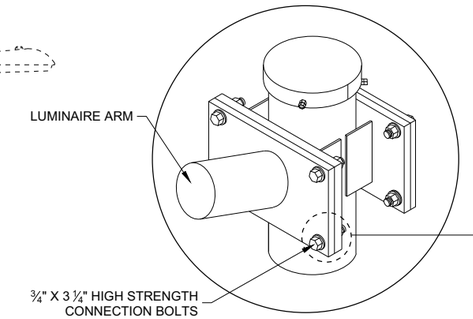


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

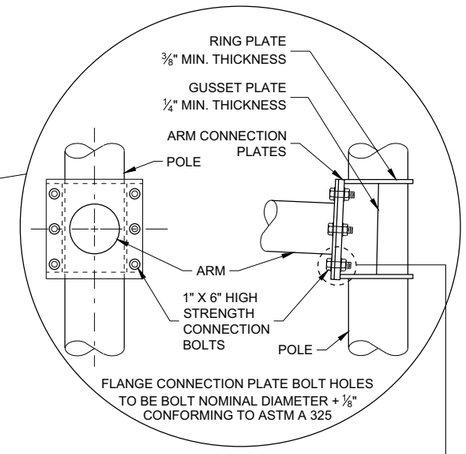
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



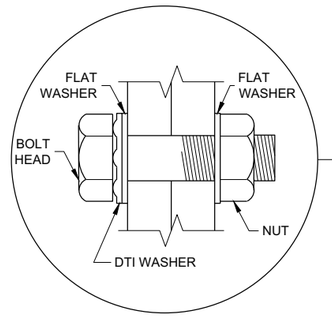
ANCHOR ROD LOCATION



FIXED ARM ATTACHMENT DETAIL



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

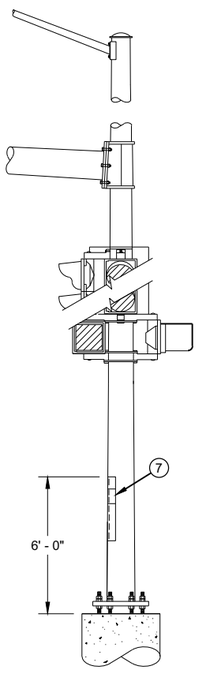
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

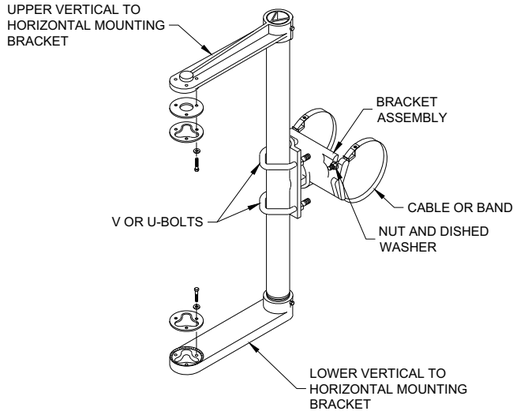
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.



STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

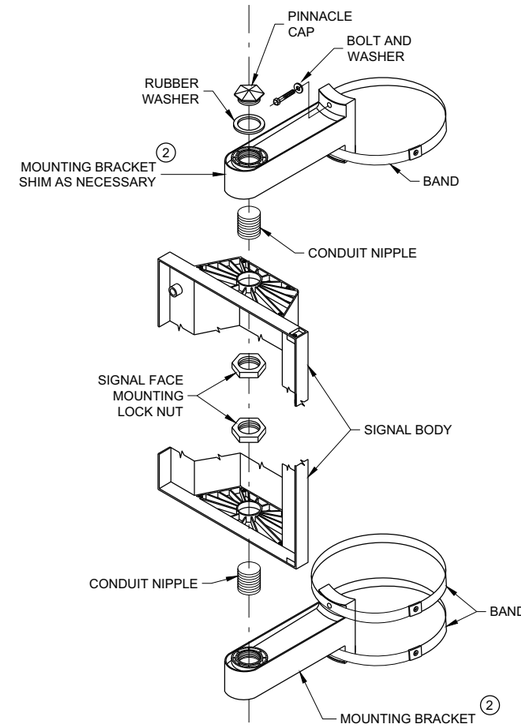


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

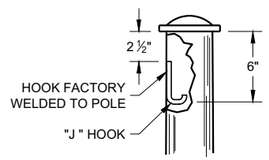
(MOUNT PER MANFACTURER'S RECOMMENDATION)

TYPICAL GROUNDING (5) CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK (6) WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

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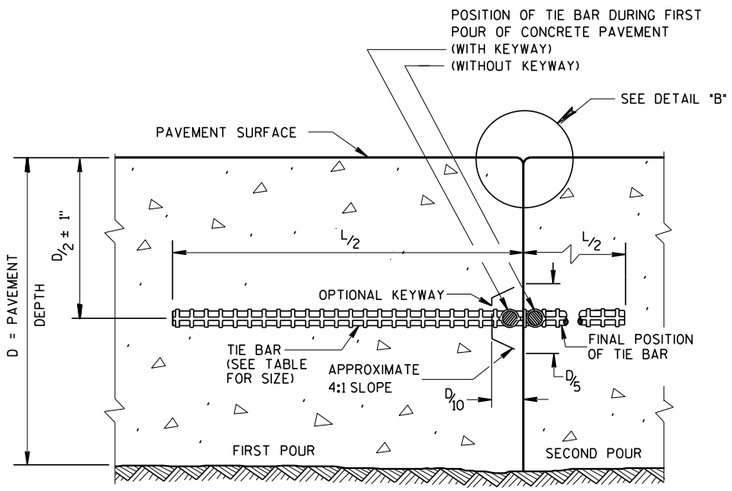
APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

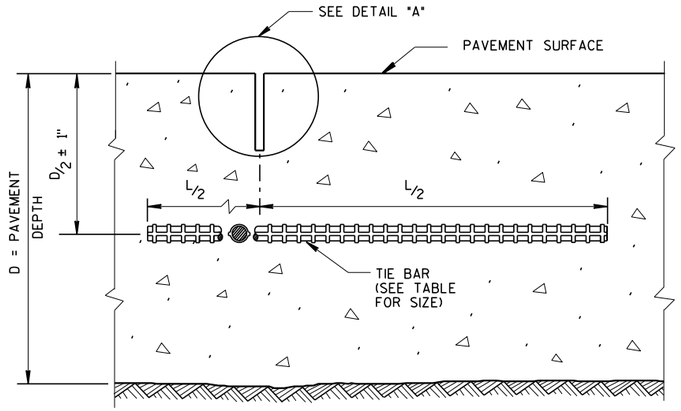
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SDD 09E08 - 09k



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

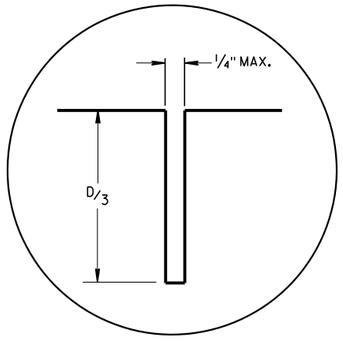
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

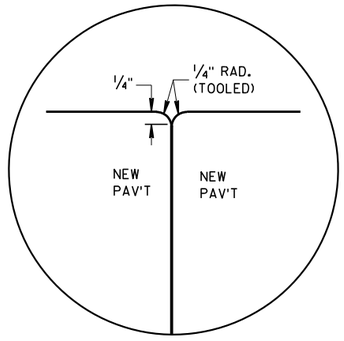
PLAN VIEW

SECTION A-A

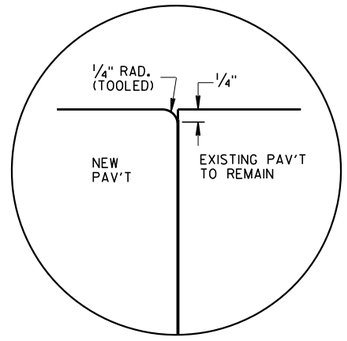
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



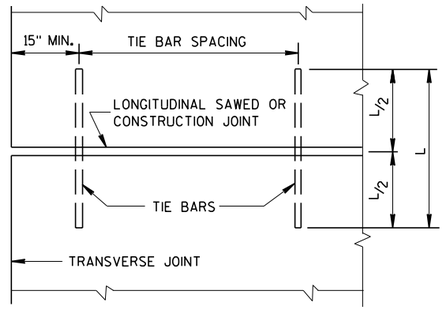
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



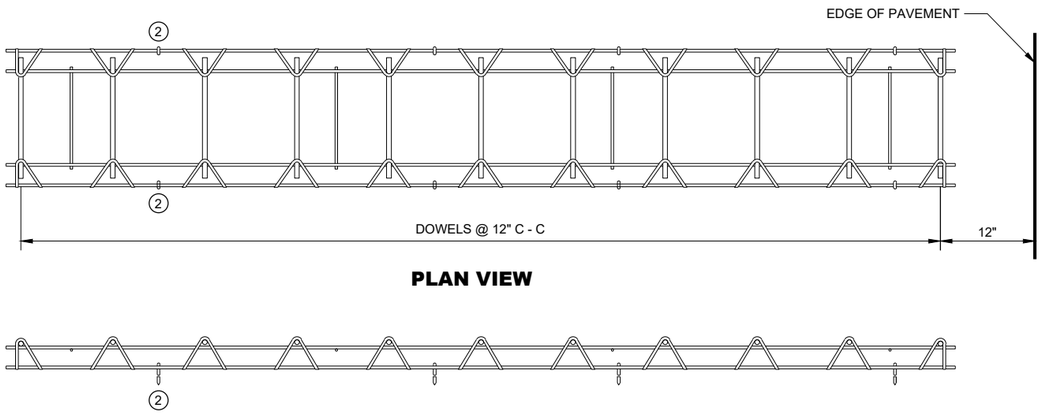
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

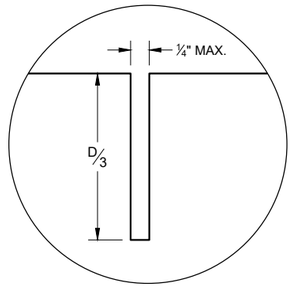
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PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

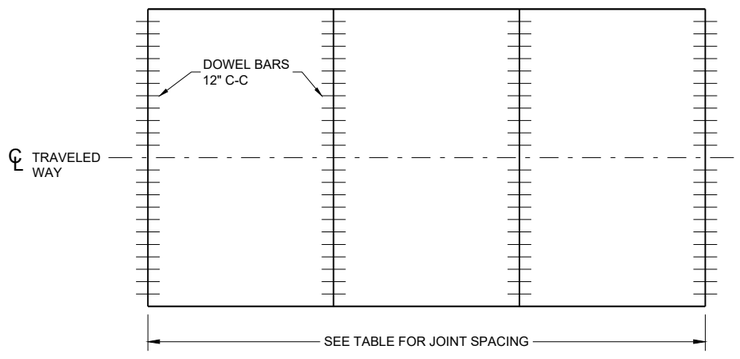
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

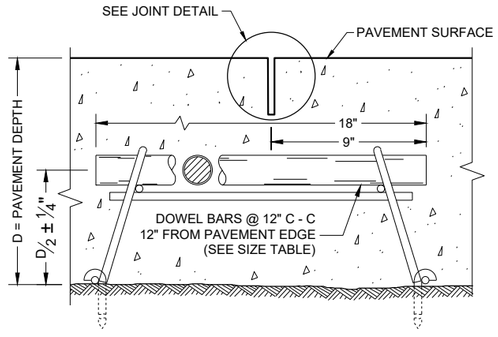
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



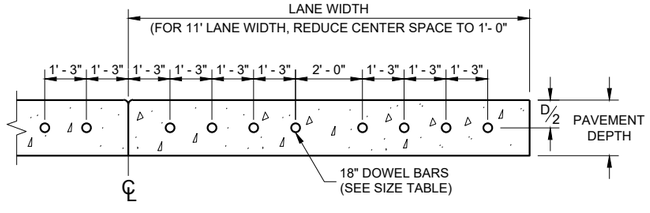
CONTRACTION JOINT LOCATIONS



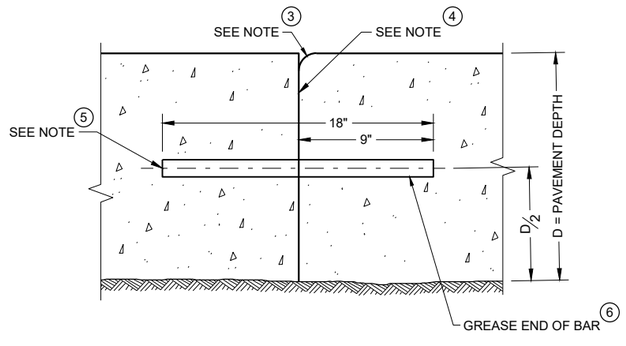
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

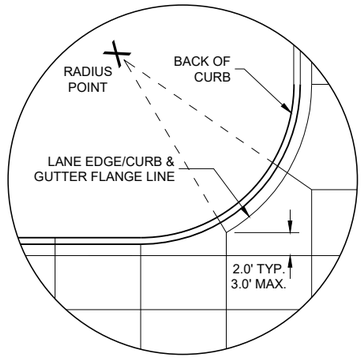
FHWA

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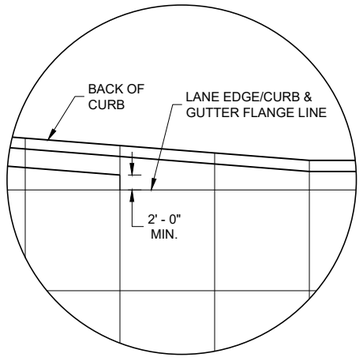
SDD 13C13 - 11

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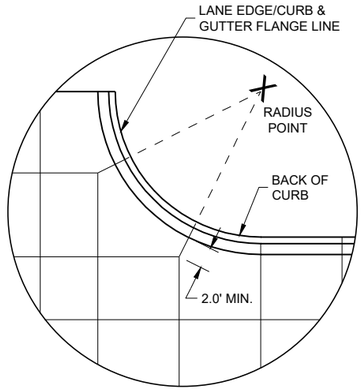
SDD 13C13 - 11



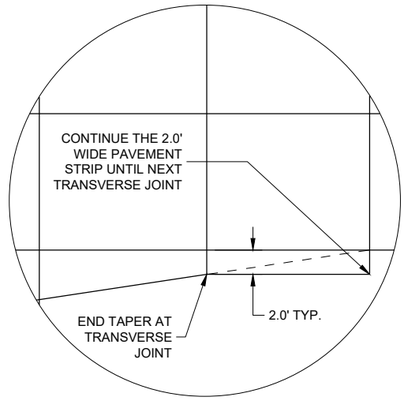
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

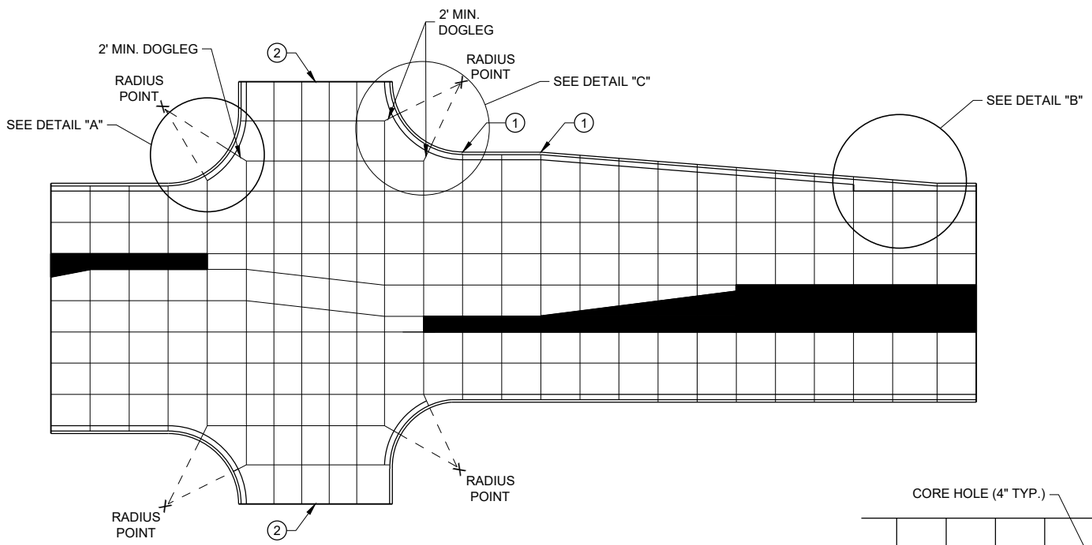
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

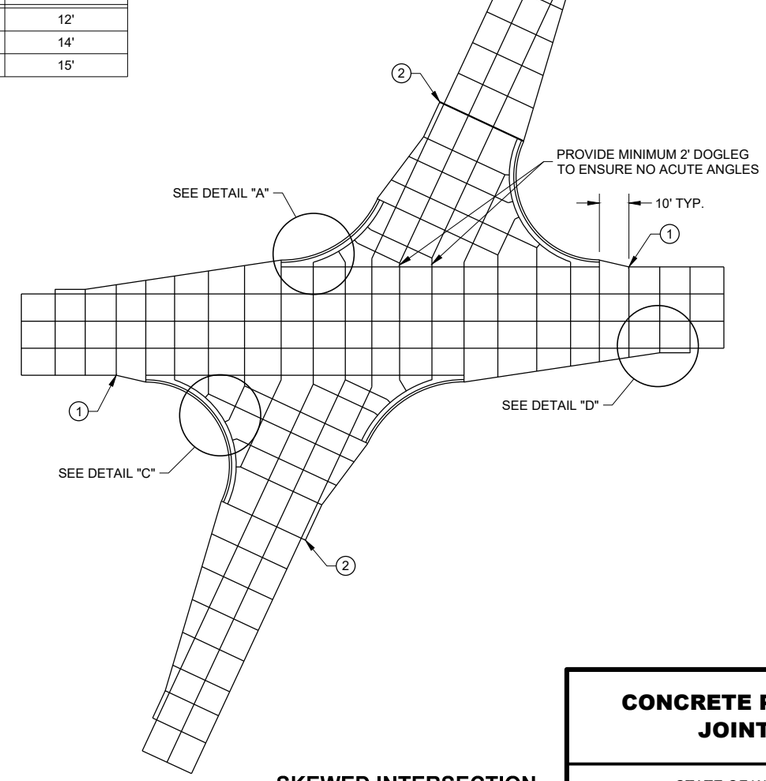
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



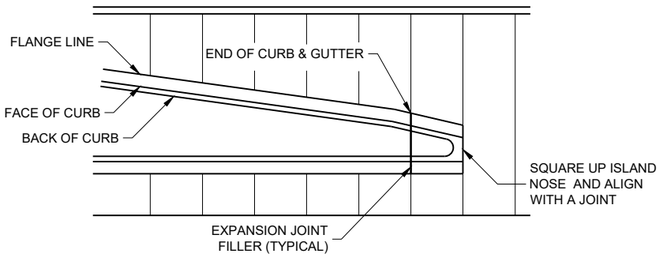
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

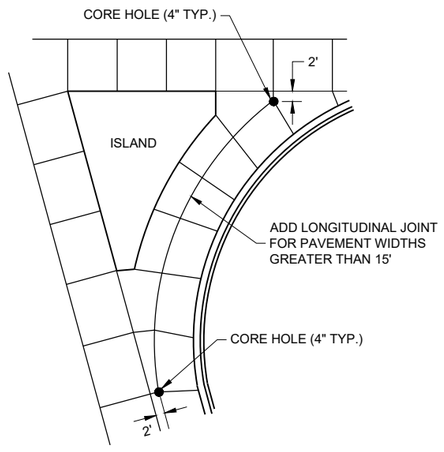
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 08a

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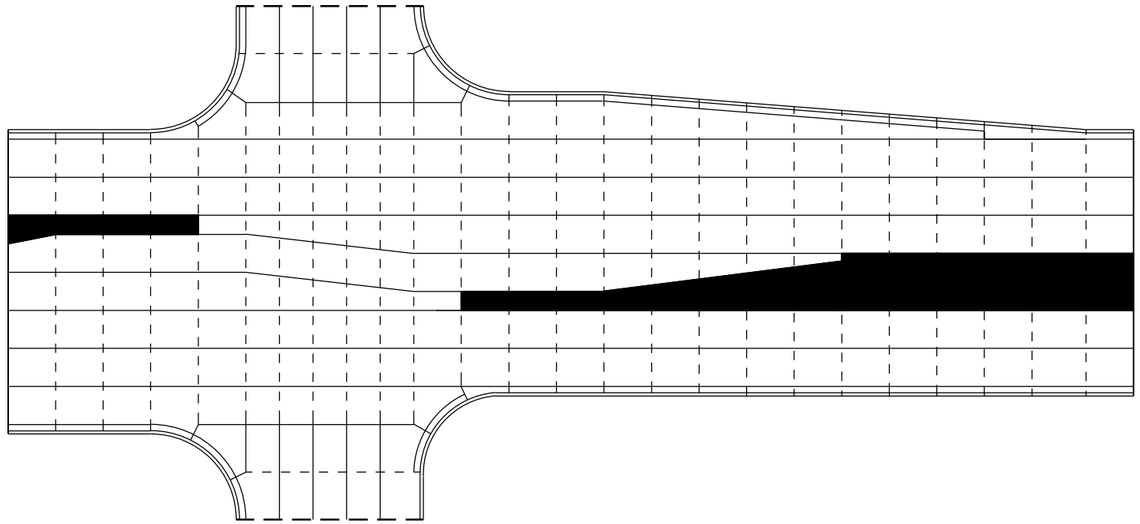
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

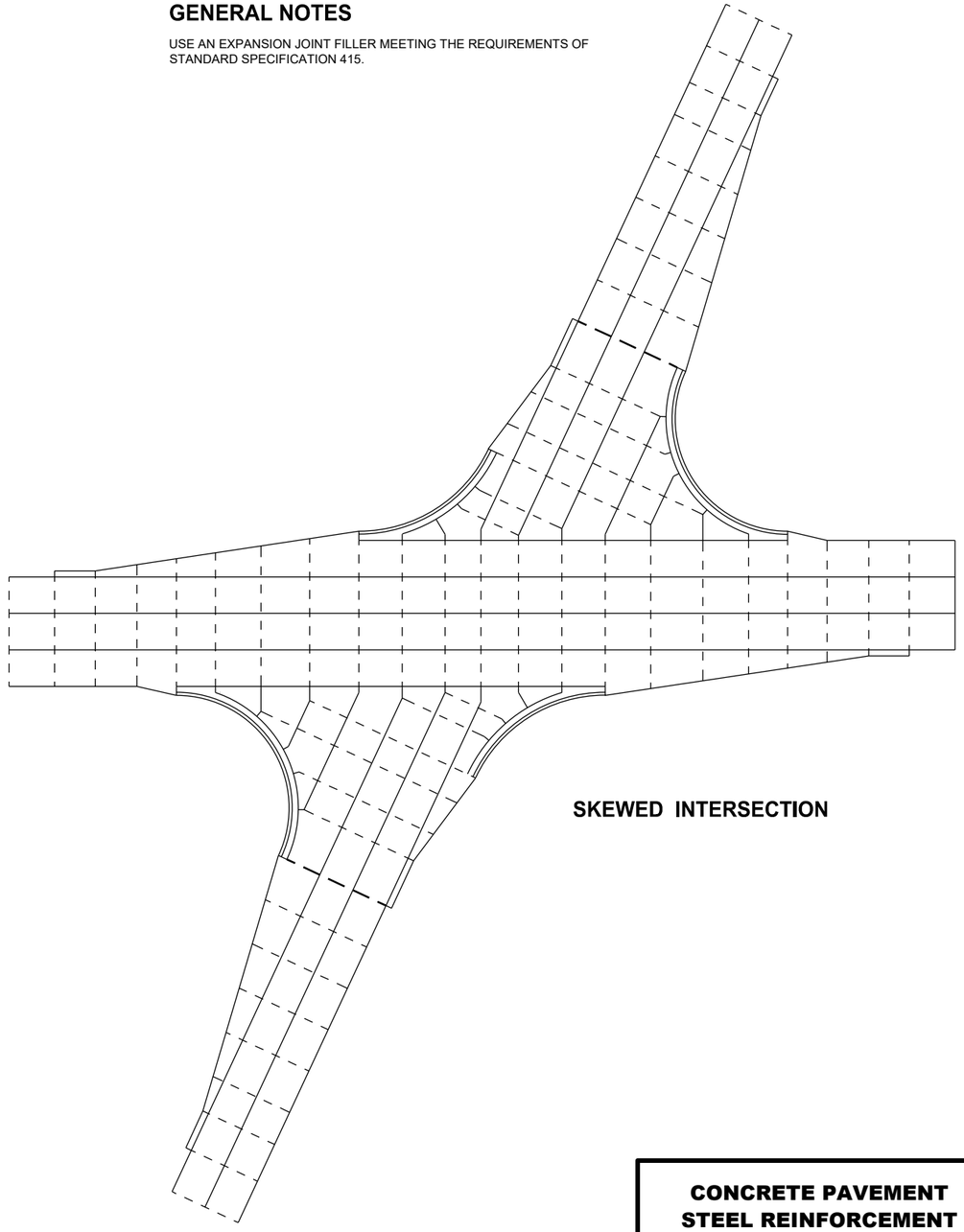
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

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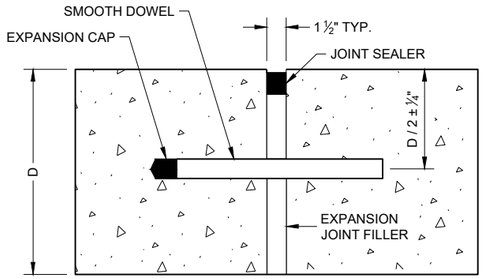
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

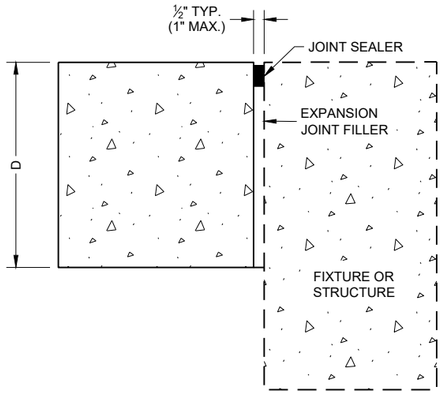
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

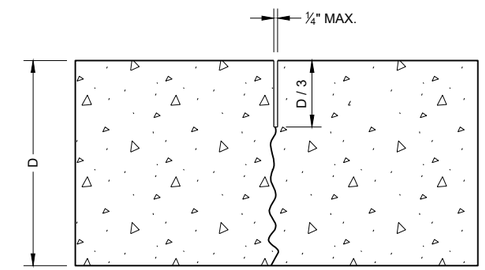
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

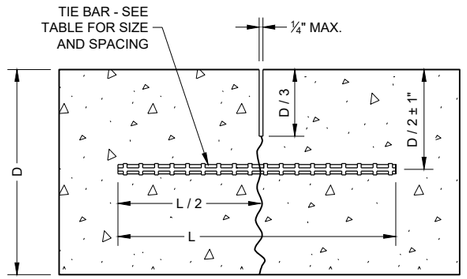
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

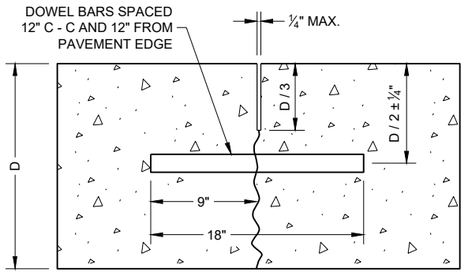
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

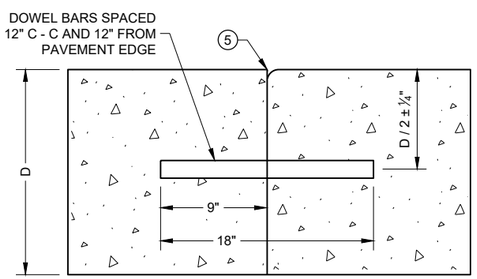


TIED LONGITUDINAL

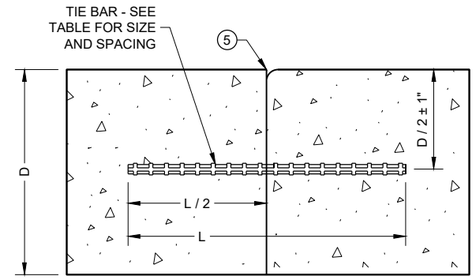


DOWELED TRANSVERSE

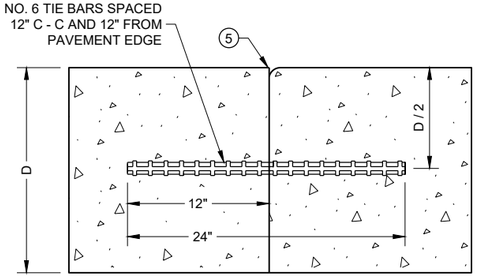
CONTRACTION JOINTS (2)



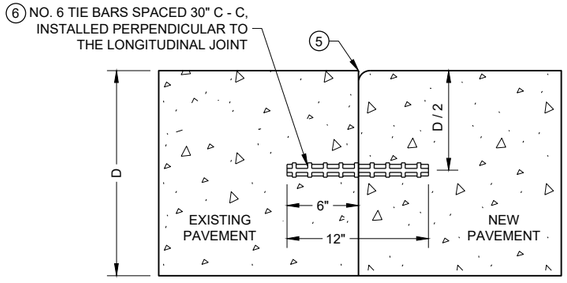
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



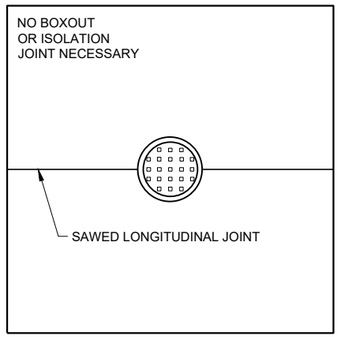
TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



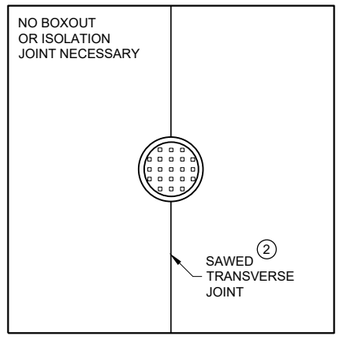
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

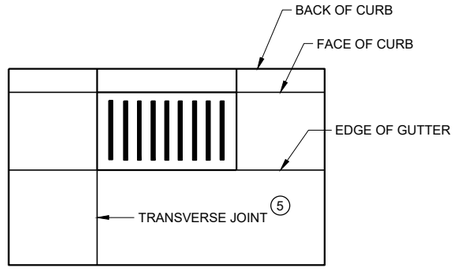
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



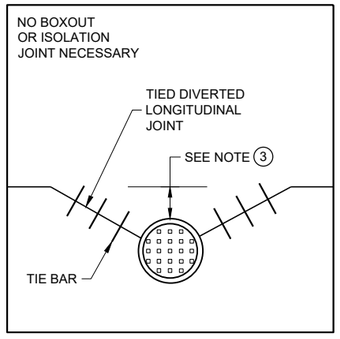
MANHOLE WITH TRANSVERSE JOINT



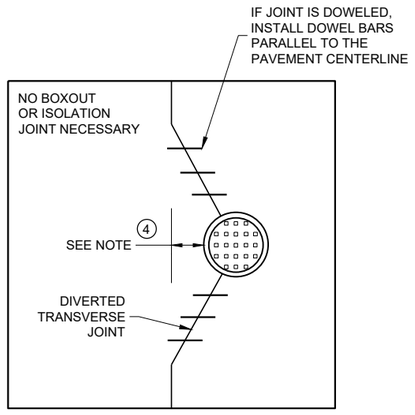
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

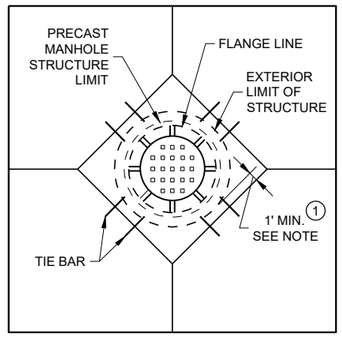
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

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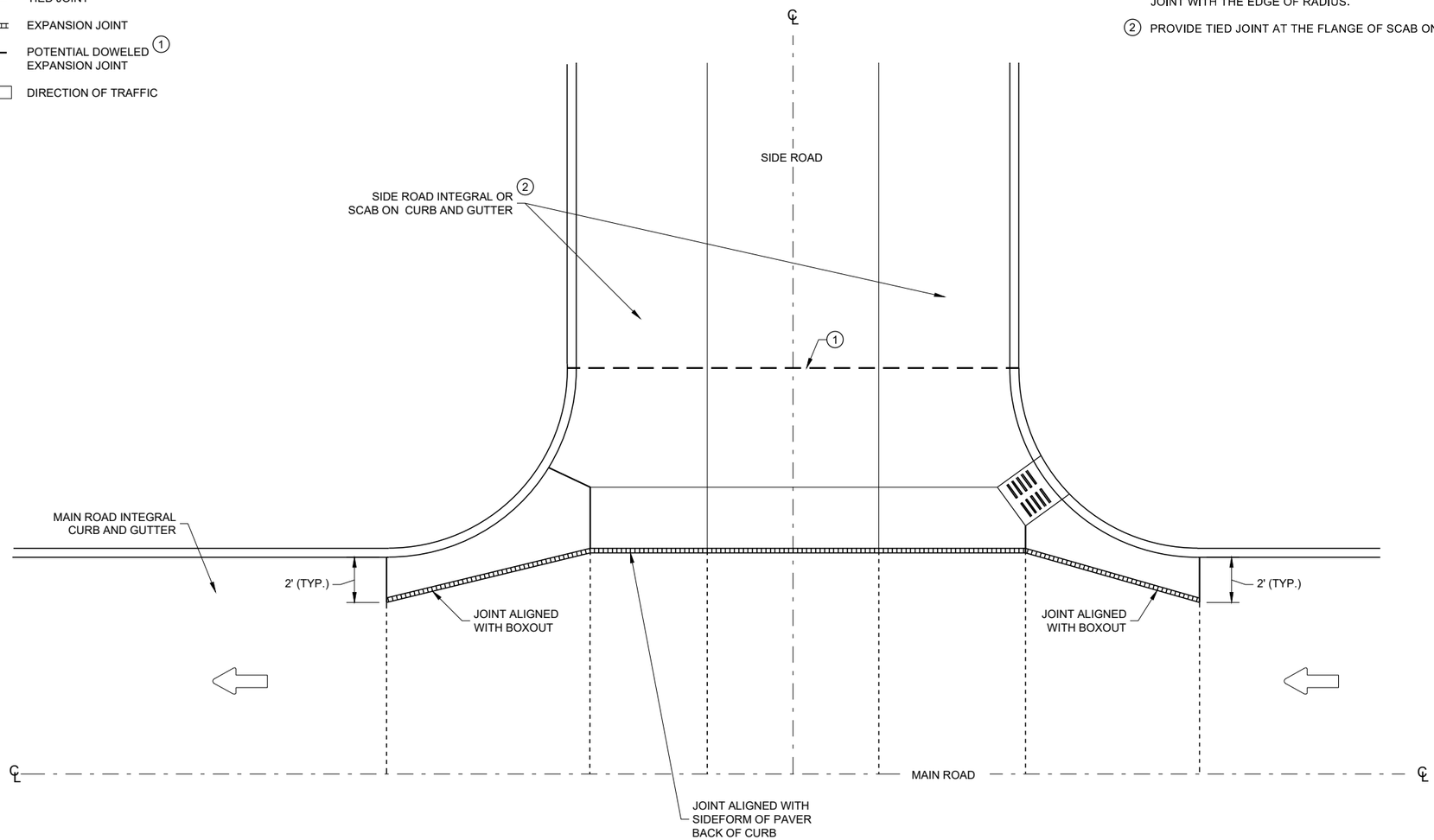
SDD13C18 - 08d

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SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

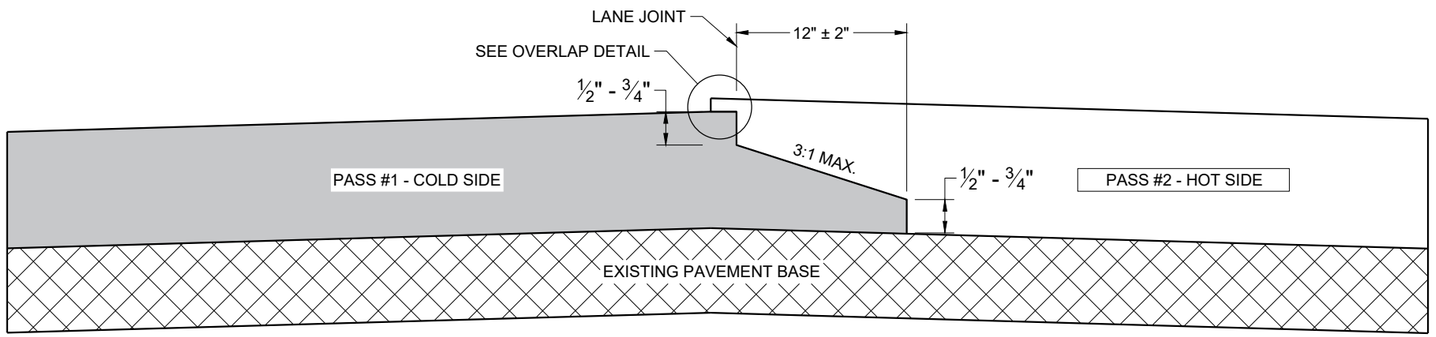
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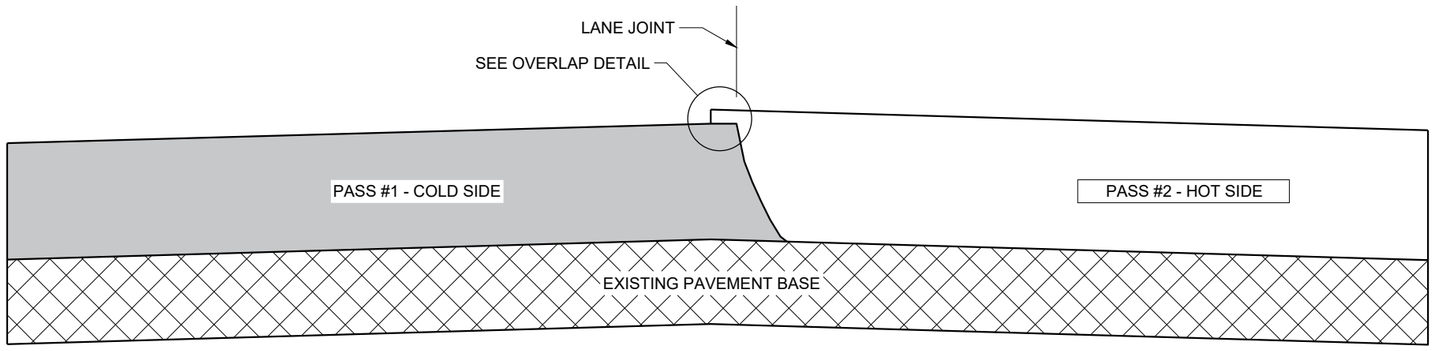
SDD 13C18 - 08f

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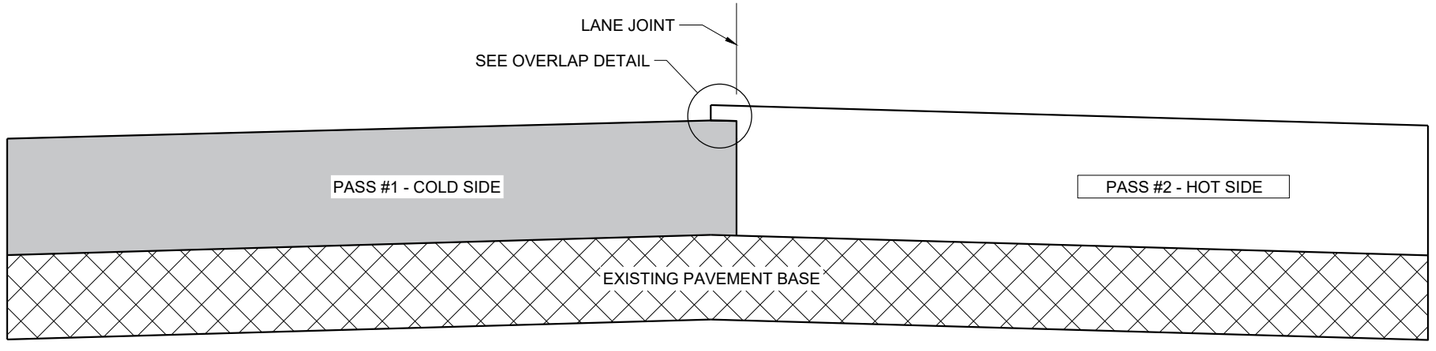
SDD 13C18 - 08f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

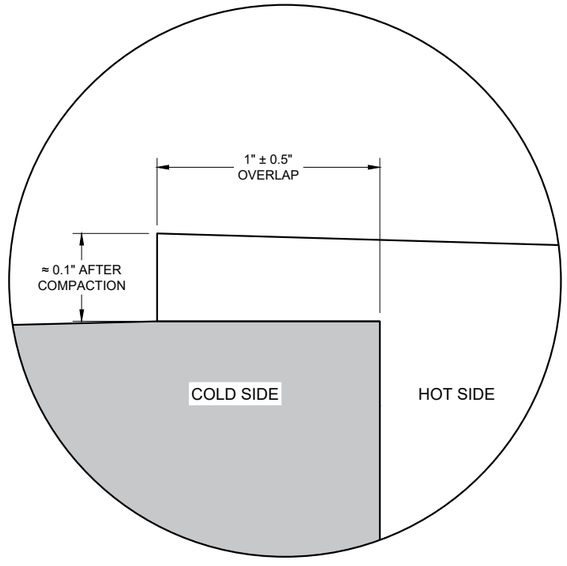
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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)

6

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SDD 13C19 - 03

SDD 13C19 - 03

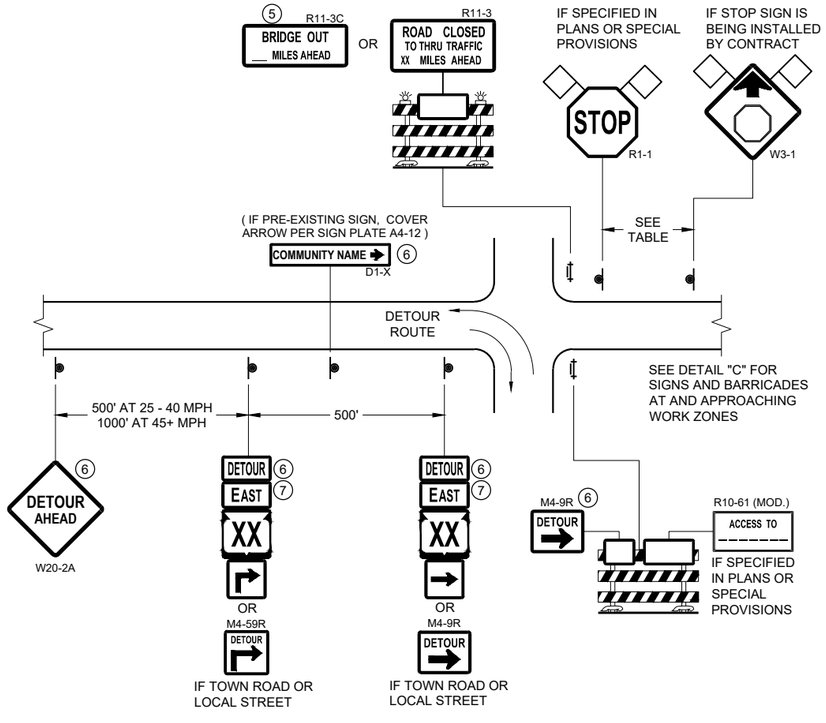
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

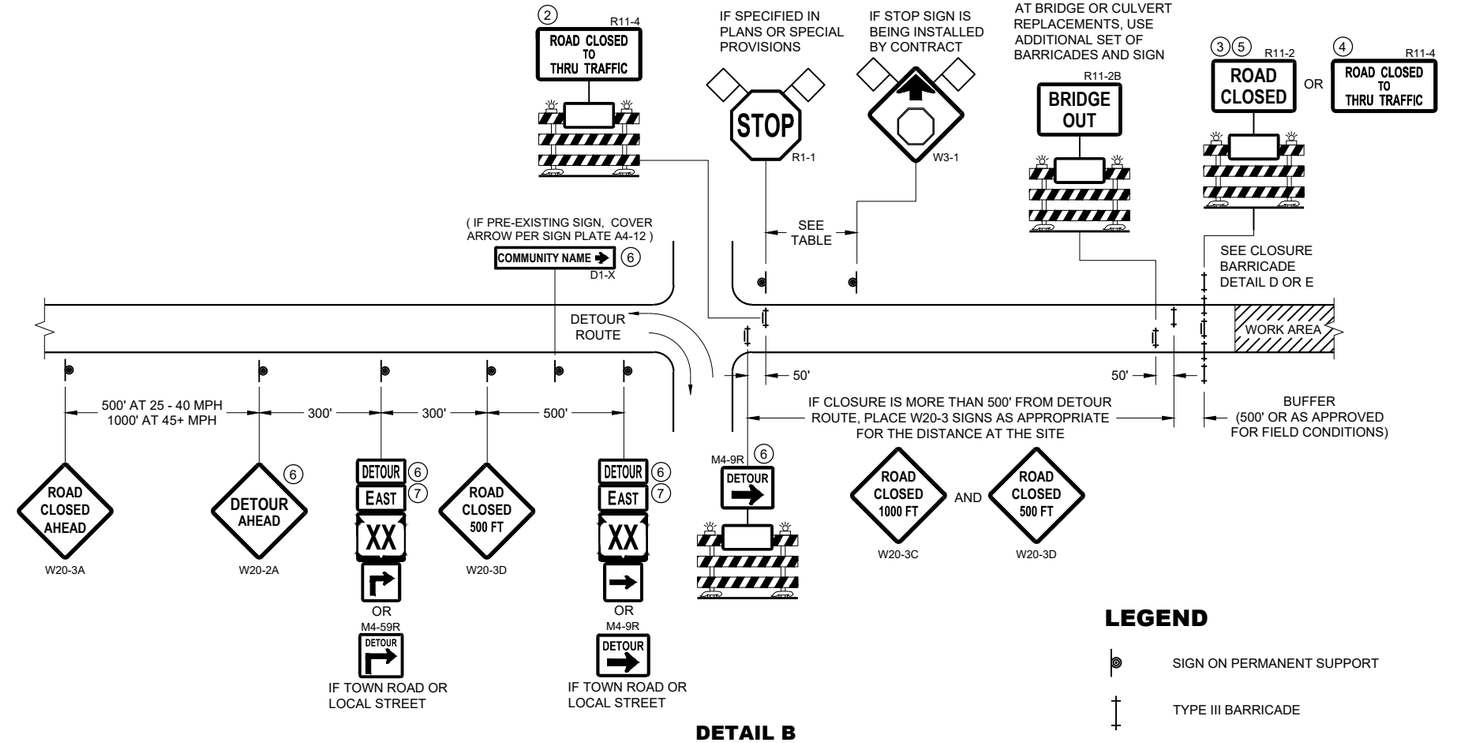
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



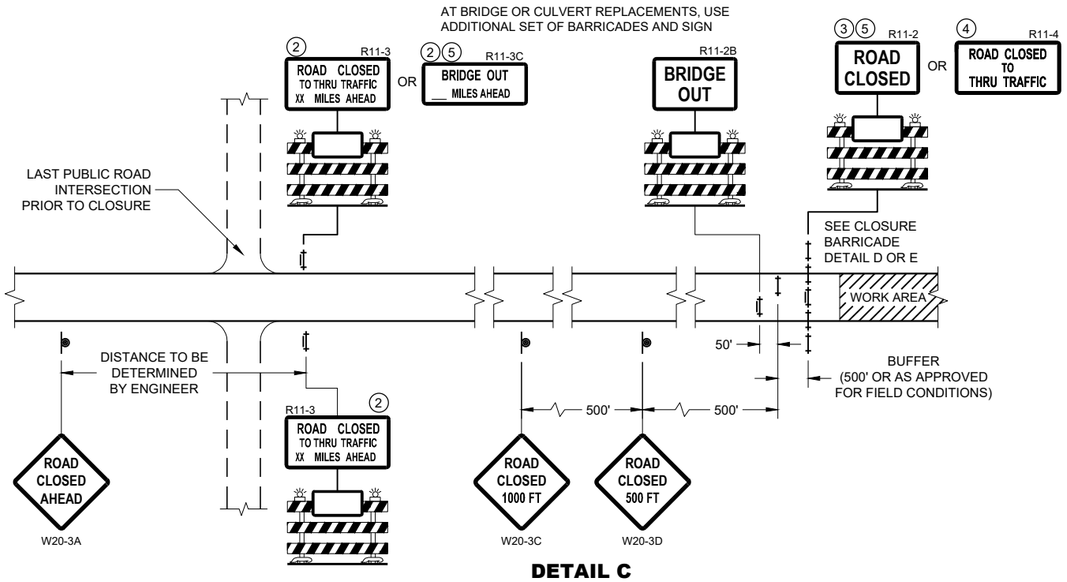
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

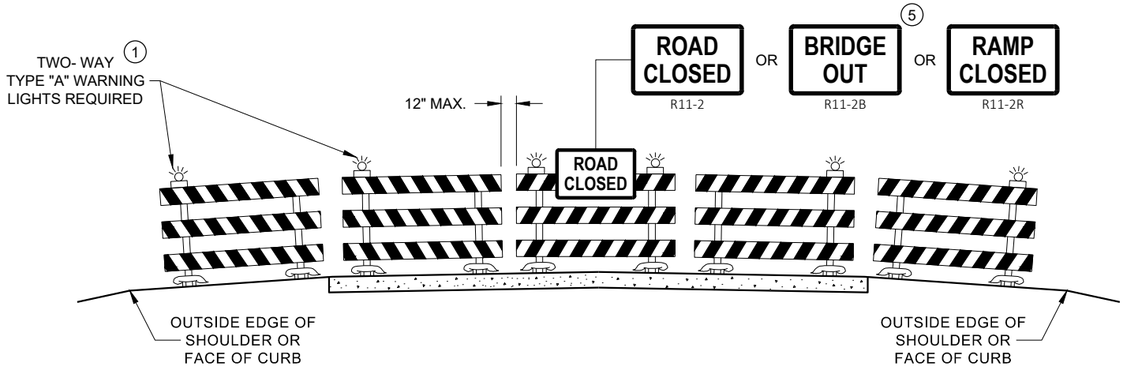
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

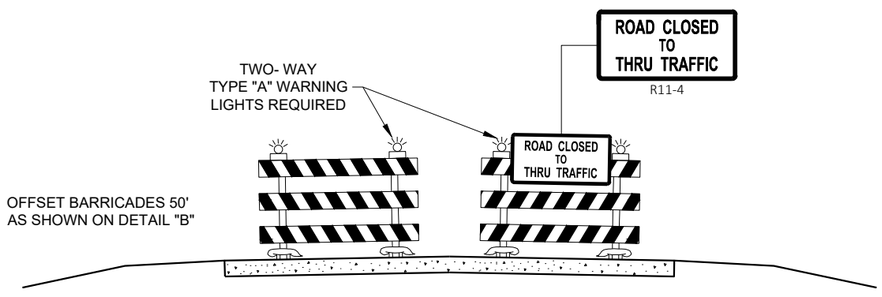
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SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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 / EAST — M4 - 8, 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.

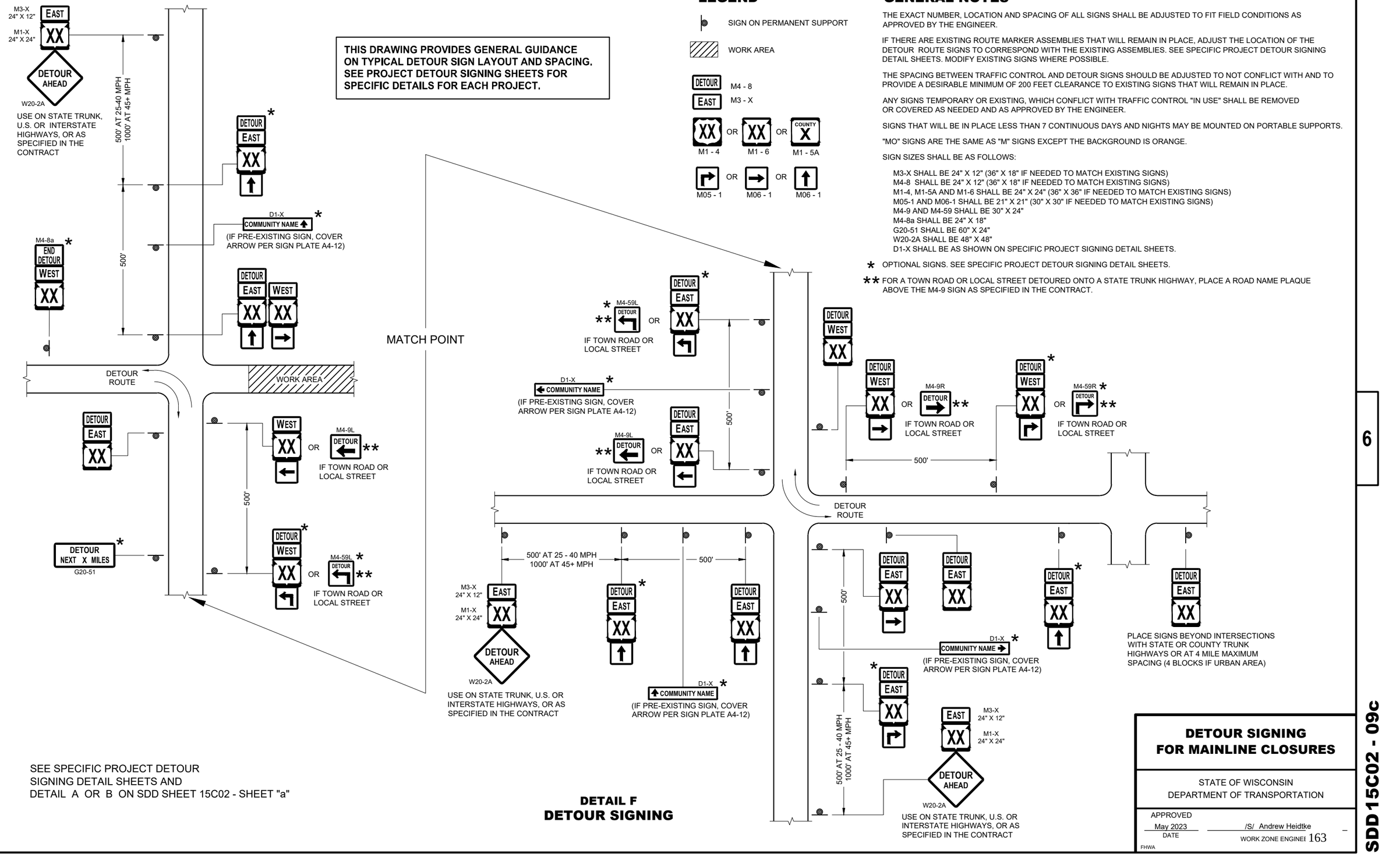
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

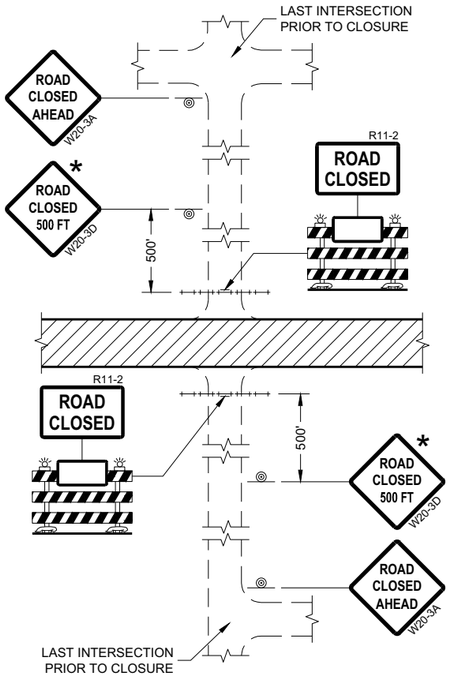
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

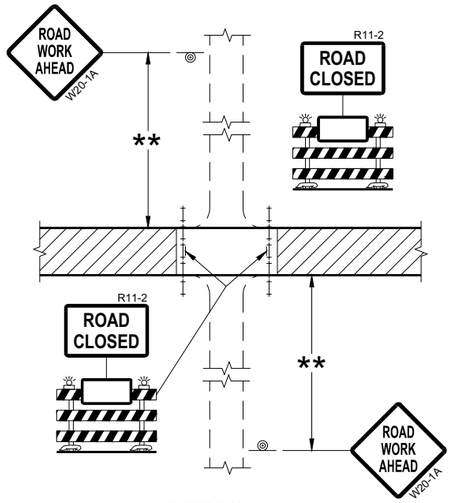
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

SDD 15C02 - 09c
6



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.

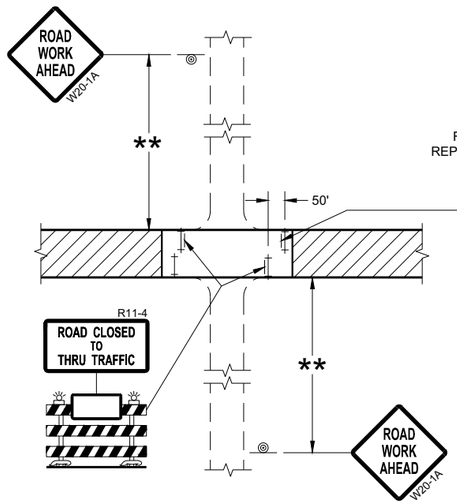
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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.

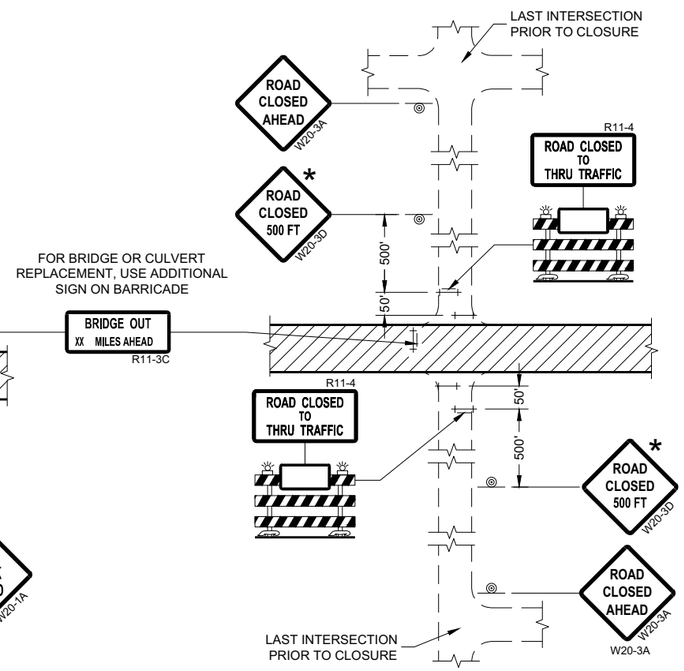
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* 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

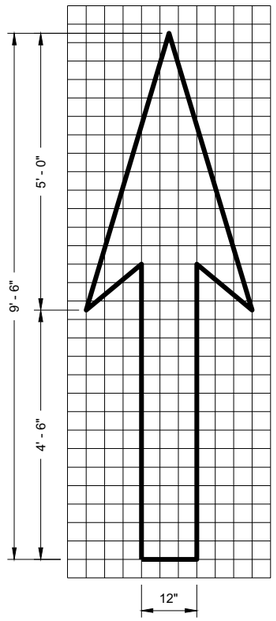
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

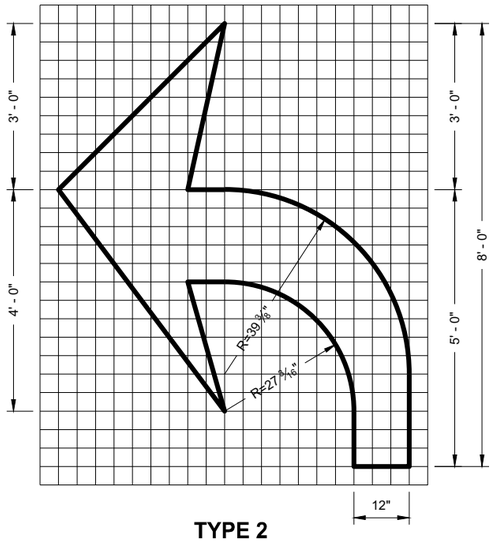
FHWA

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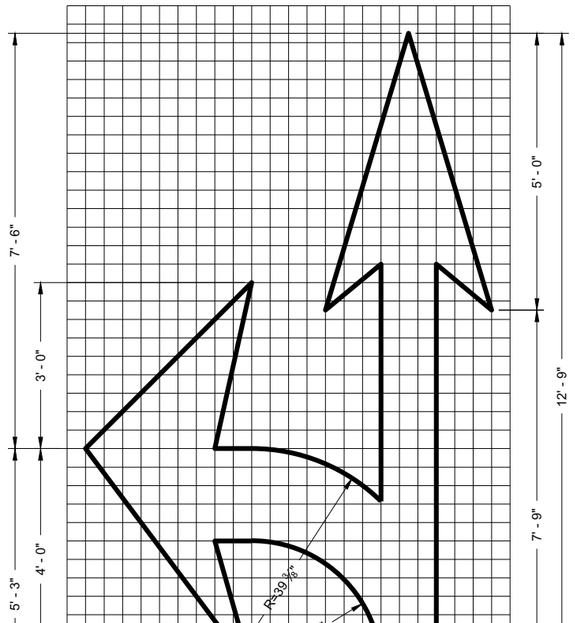
SDD 15C03 - 05



TYPE 1



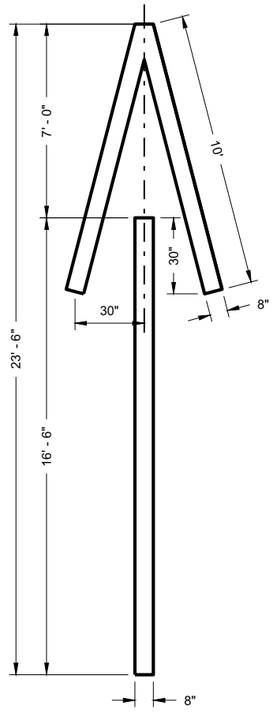
TYPE 2



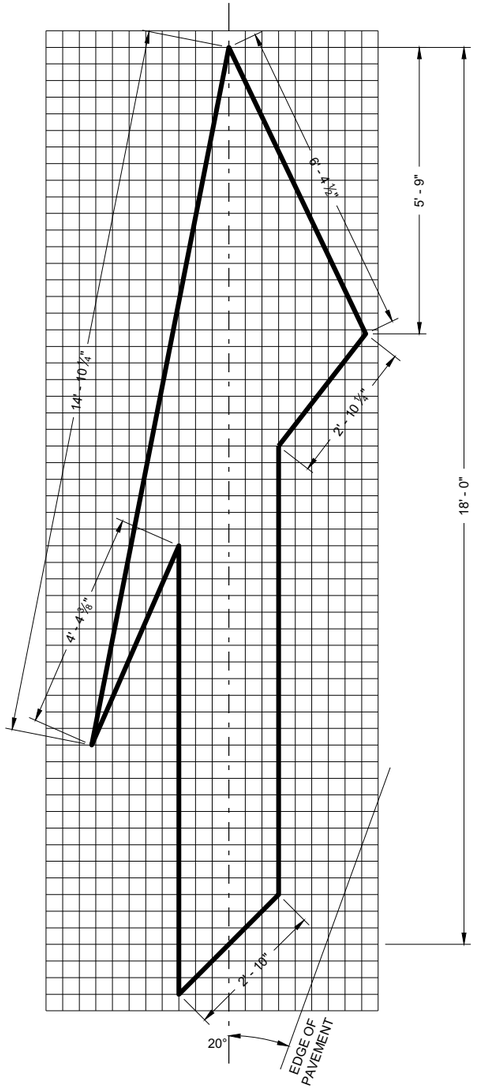
TYPE 3

GENERAL NOTES

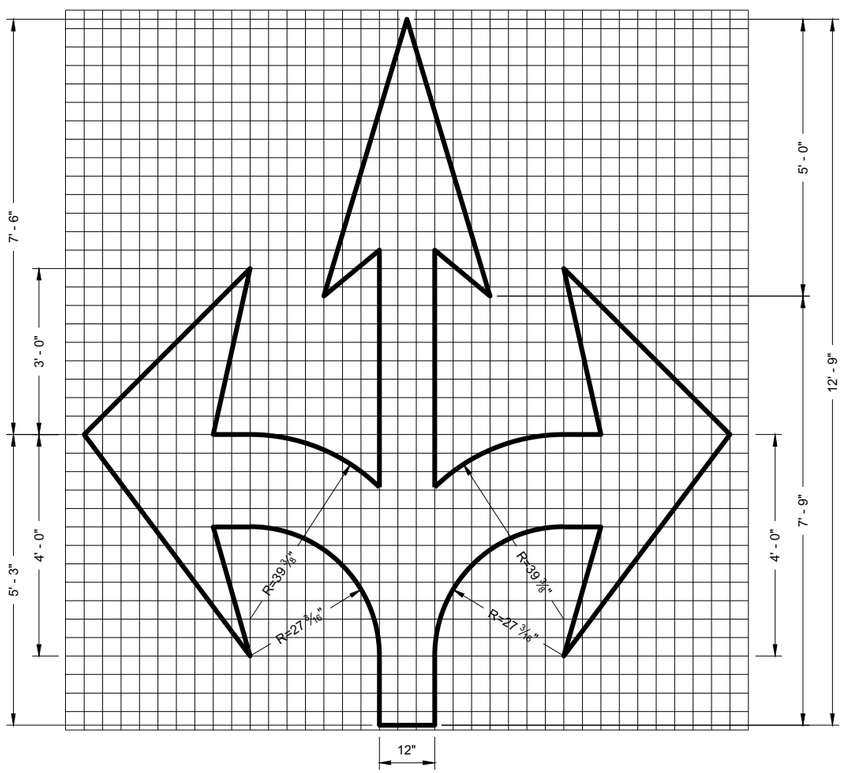
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



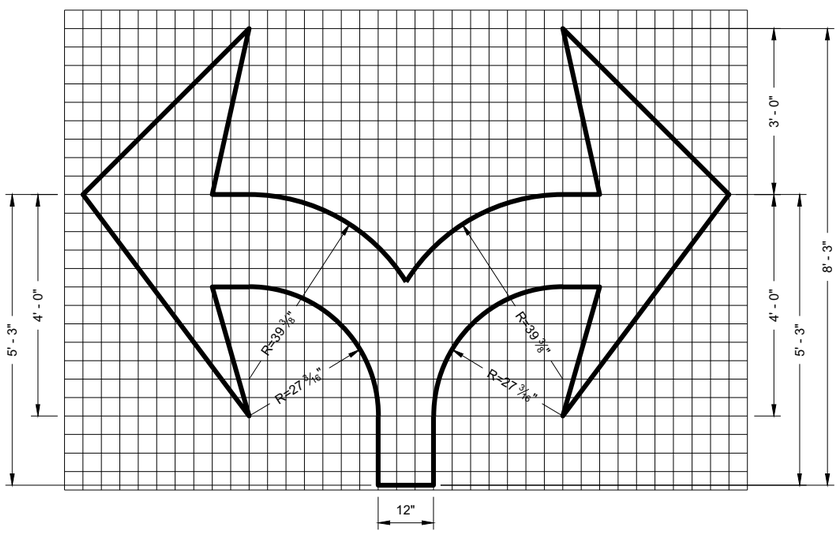
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15c

6

SDD 15C07 - 15c

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

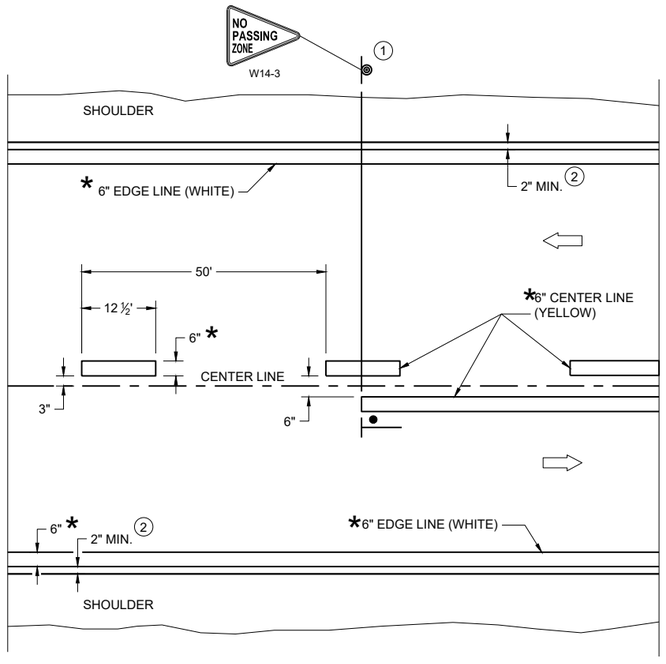
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

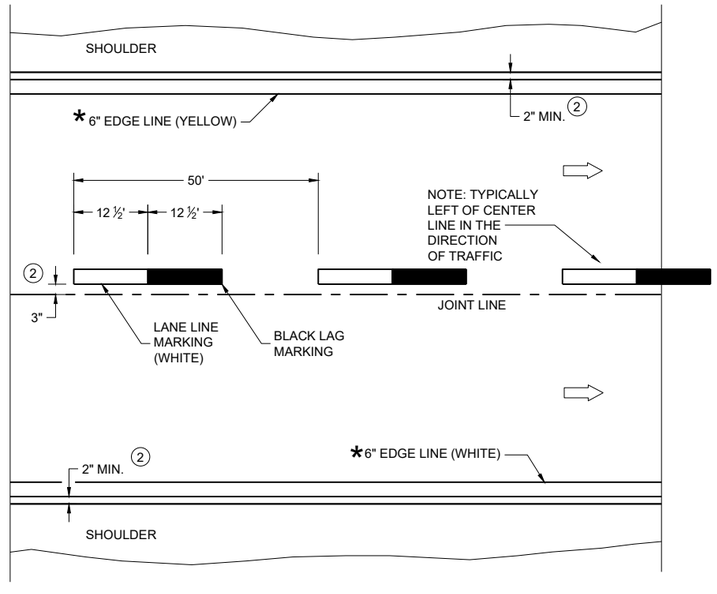
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

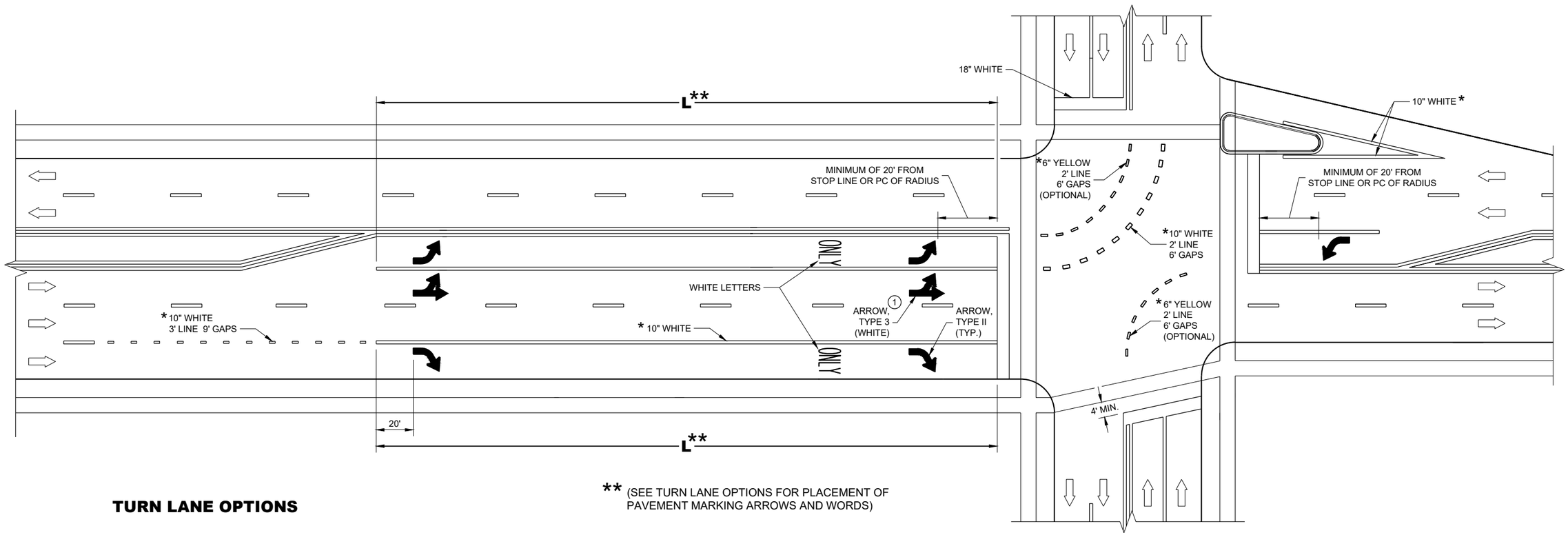
PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	

6

SDD 15C08-23a

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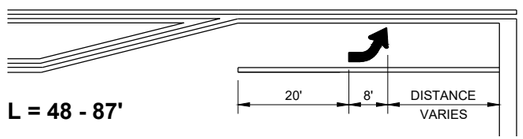
SDD 15C08-23a



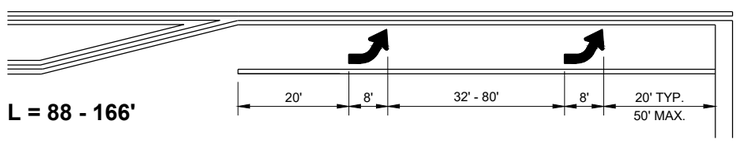
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

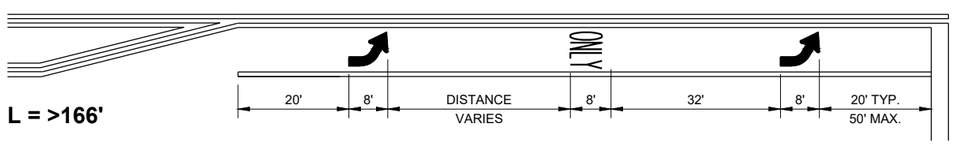
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 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

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

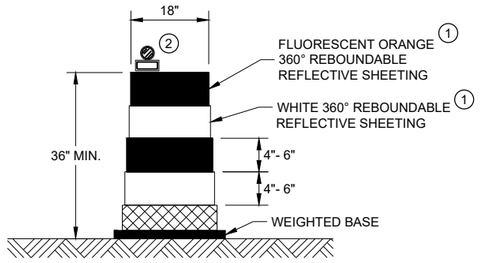
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SDD 15C08-23d

GENERAL NOTES

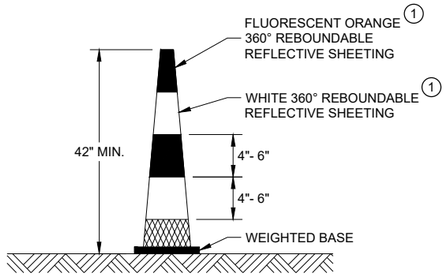
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

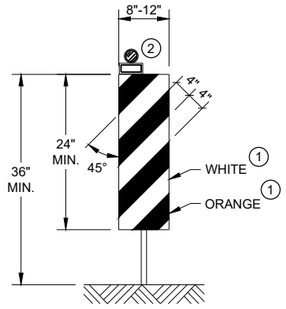
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

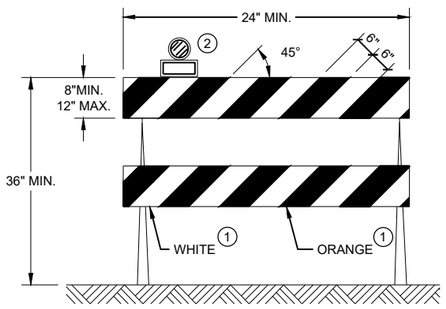
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



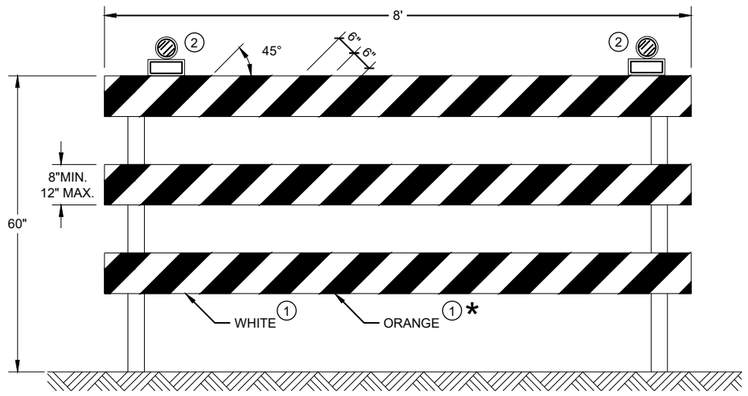
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C11 - 10b

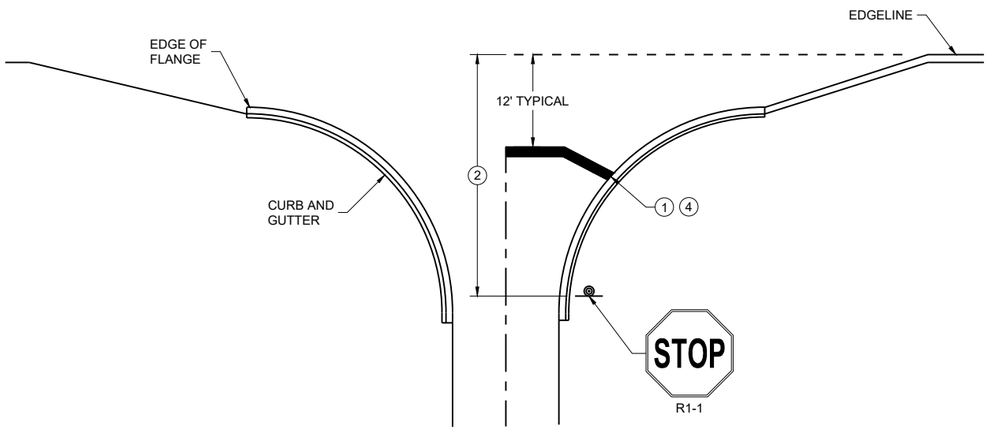
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SDD 15C11 - 10b

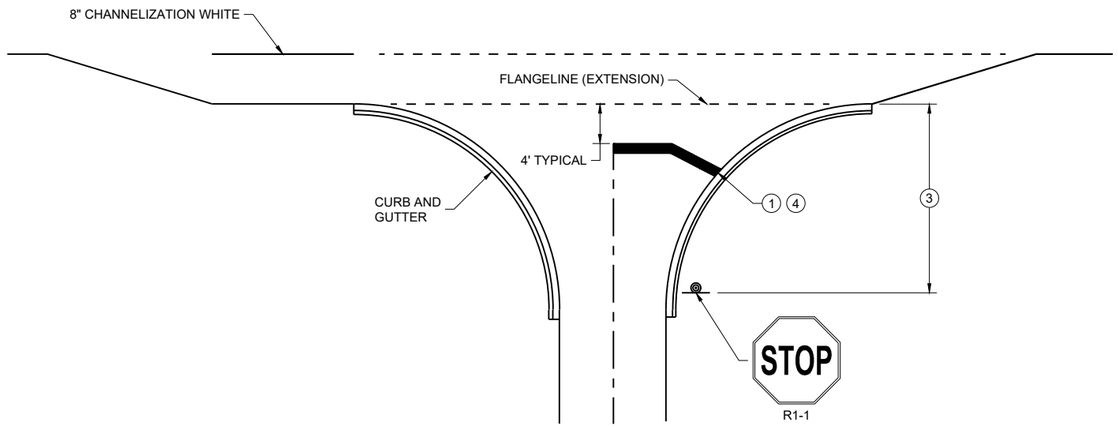
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

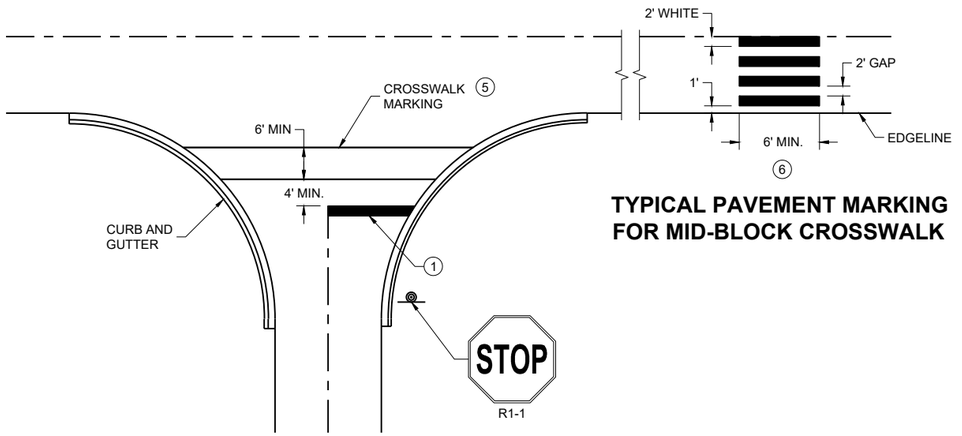
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

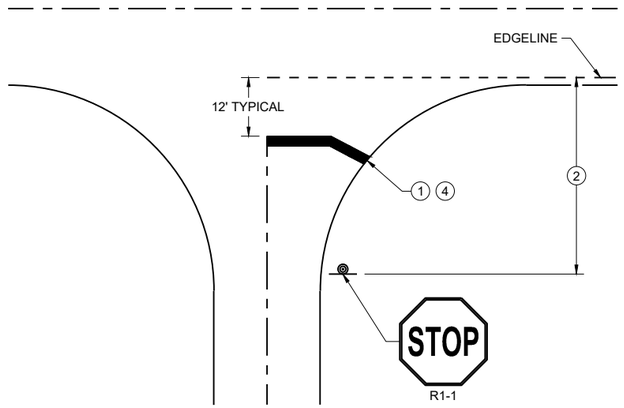


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK (5)

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS 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

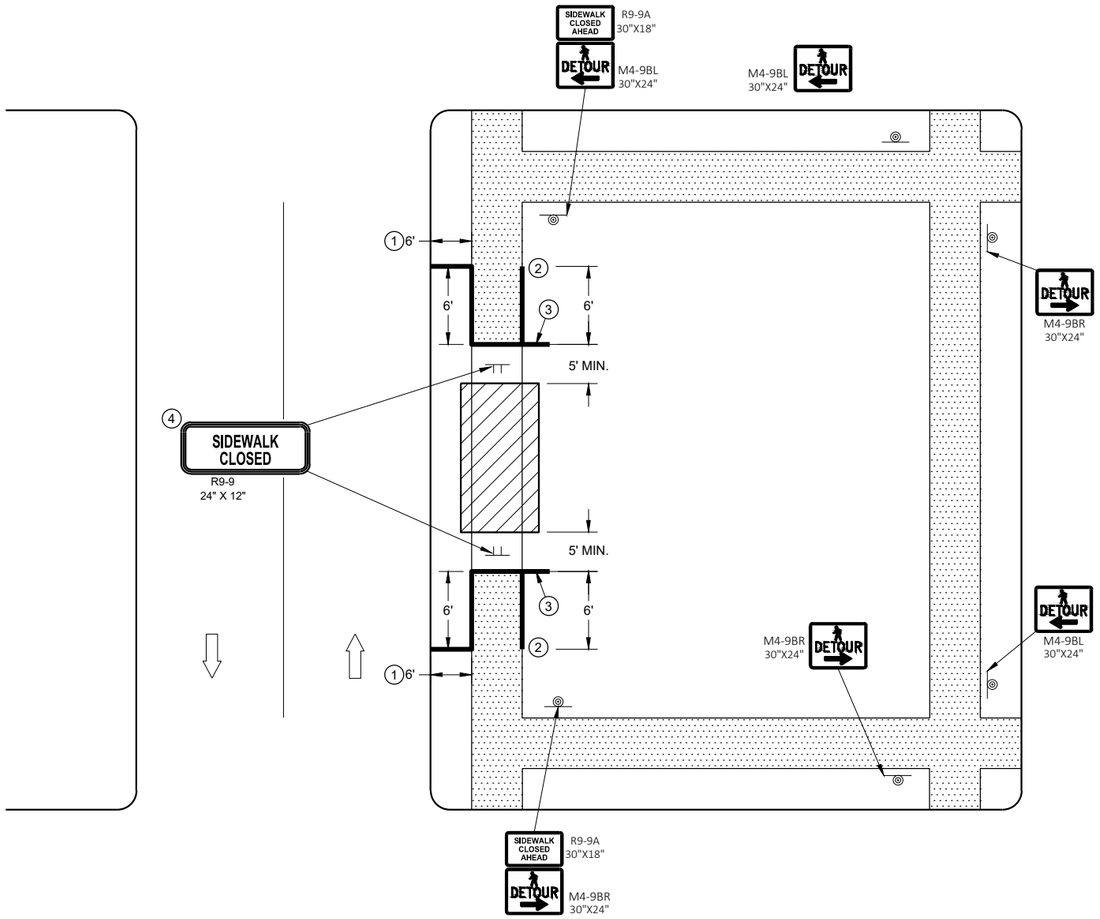
March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

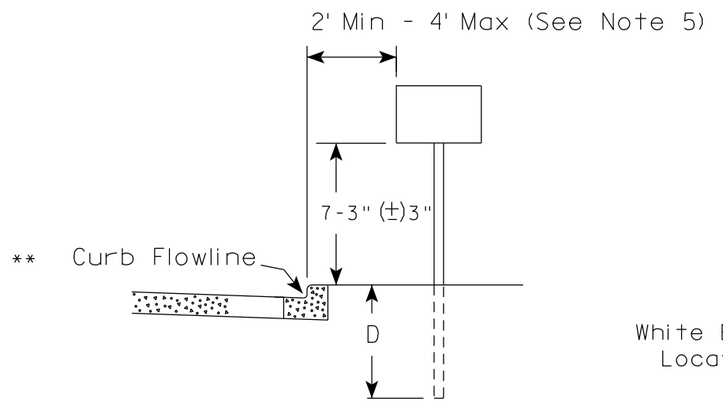
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

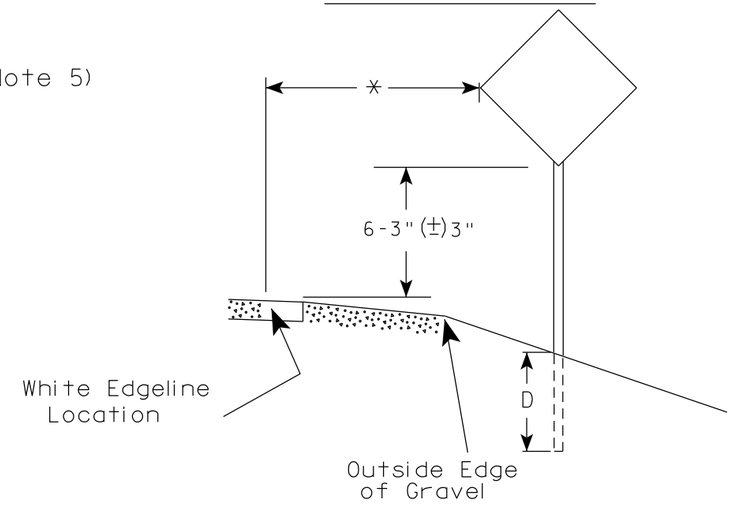
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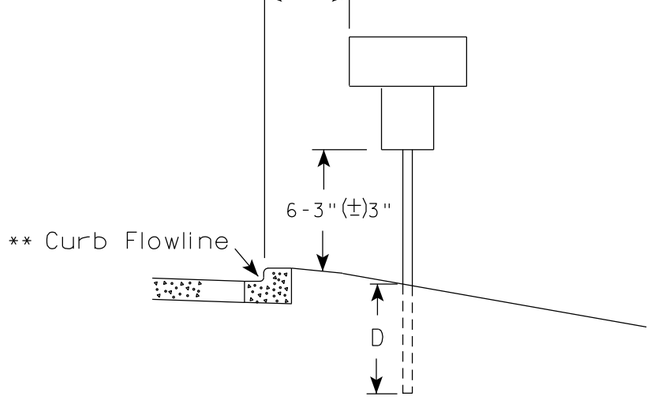
SDD 15D30 - 09f

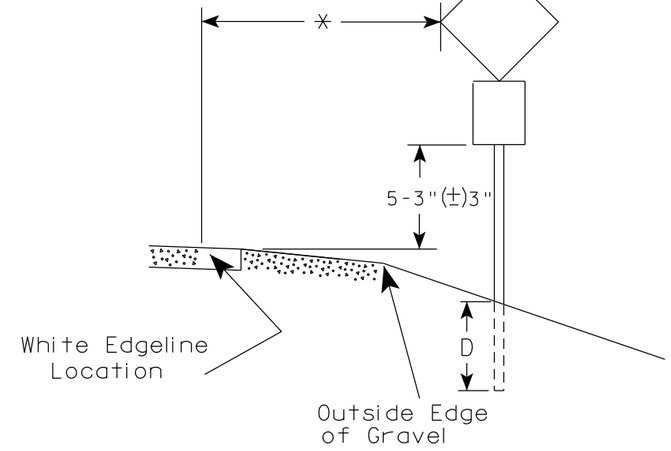
URBAN AREA



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" (±) 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".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

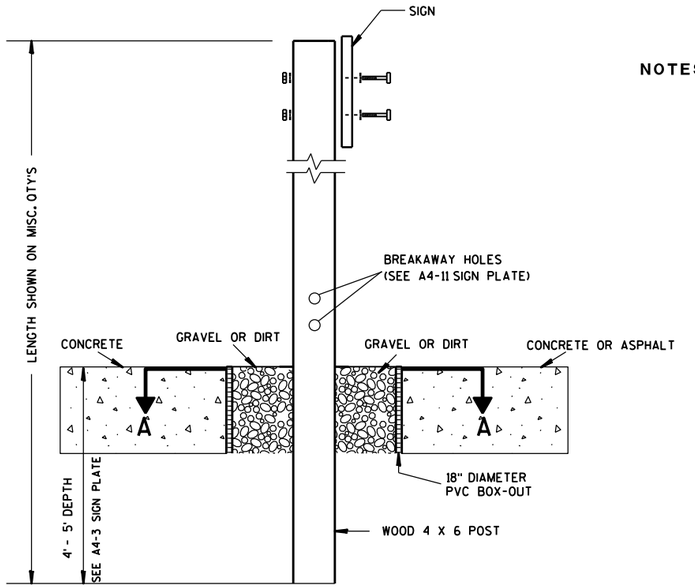
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

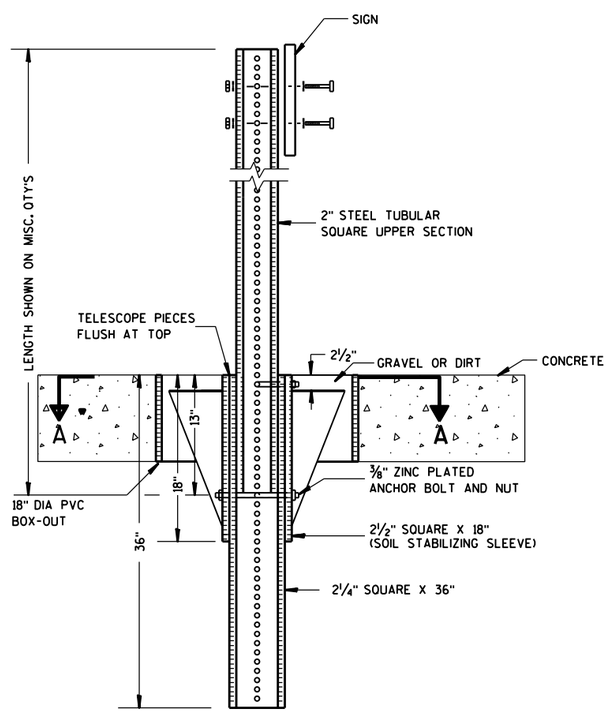
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E



ELEVATION VIEW

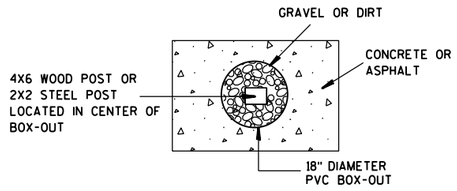
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

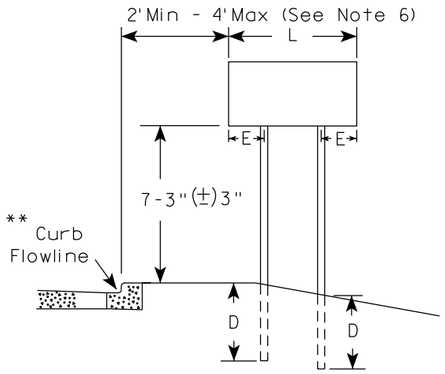
APPROVED Matthew R Rauch
for State Traffic Engineer

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

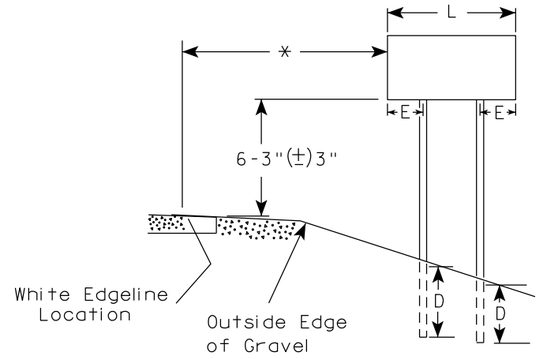
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

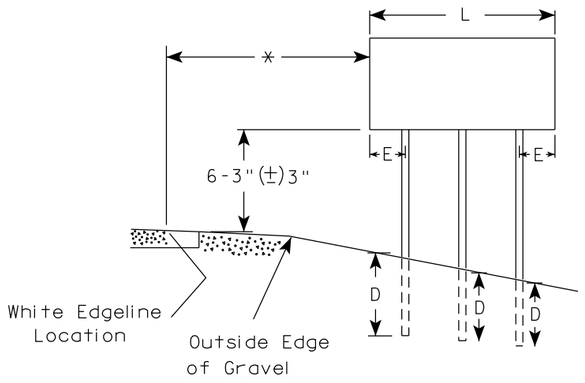
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

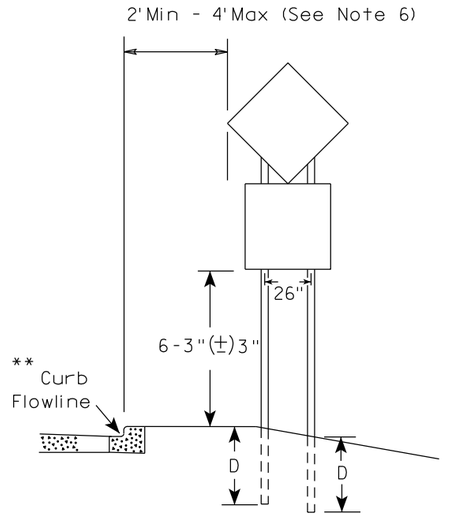
URBAN AREA



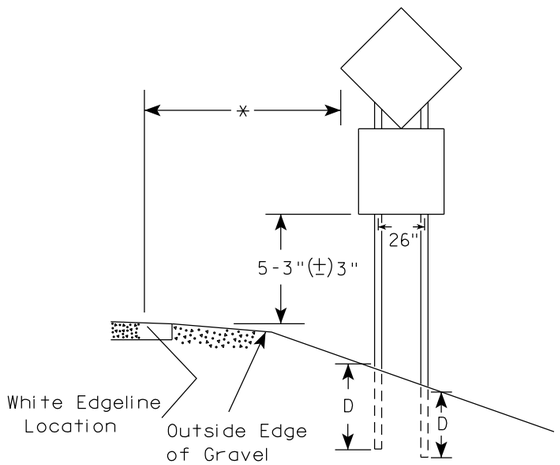
RURAL AREA (See Note 3)







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" (±) 3" or 6'-3" (±) 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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'

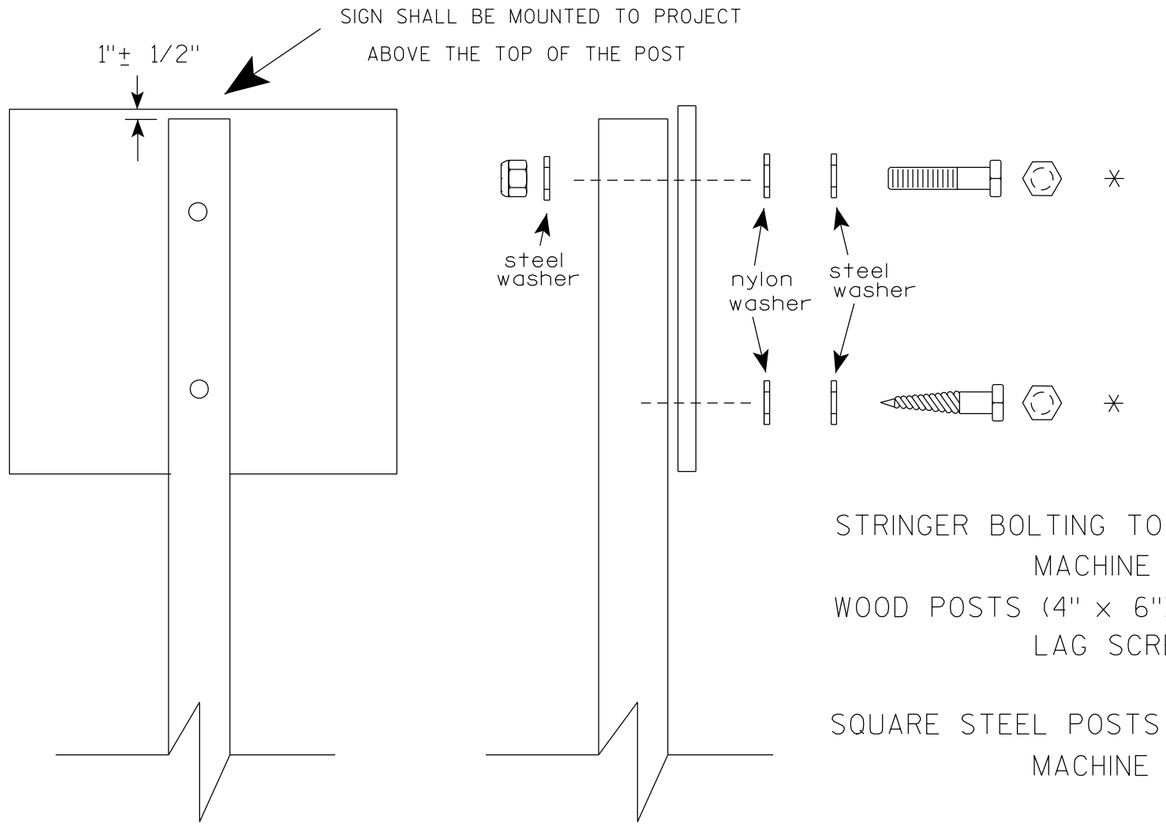
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 173	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

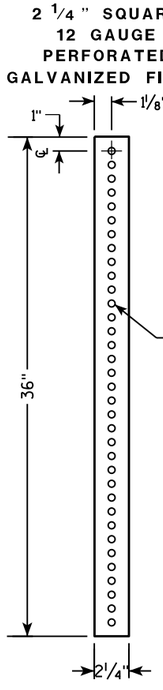
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

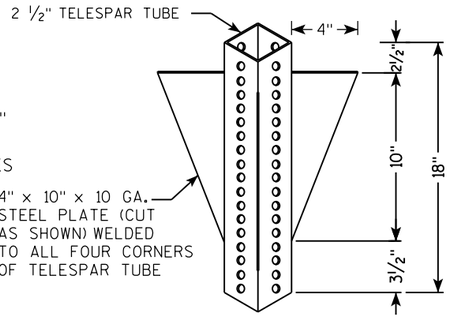
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

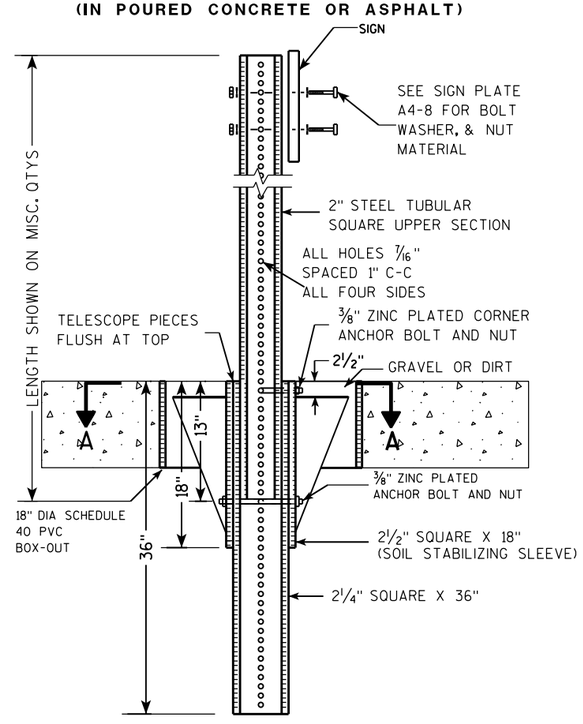
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



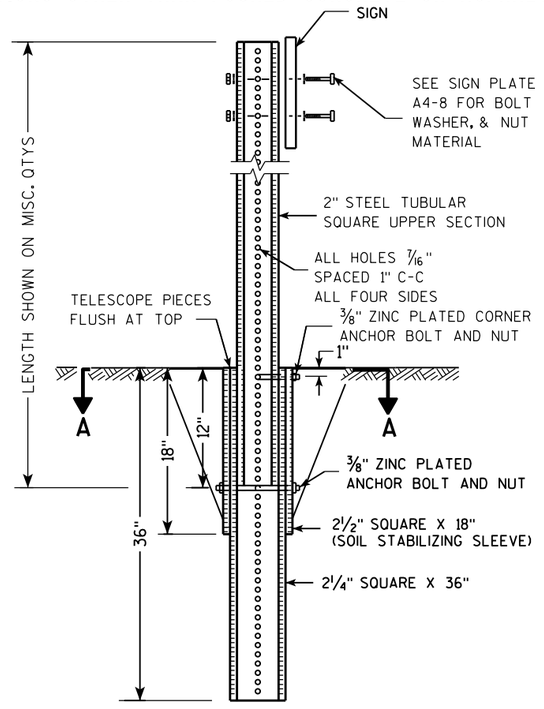
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

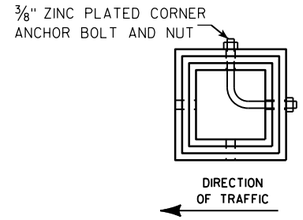


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

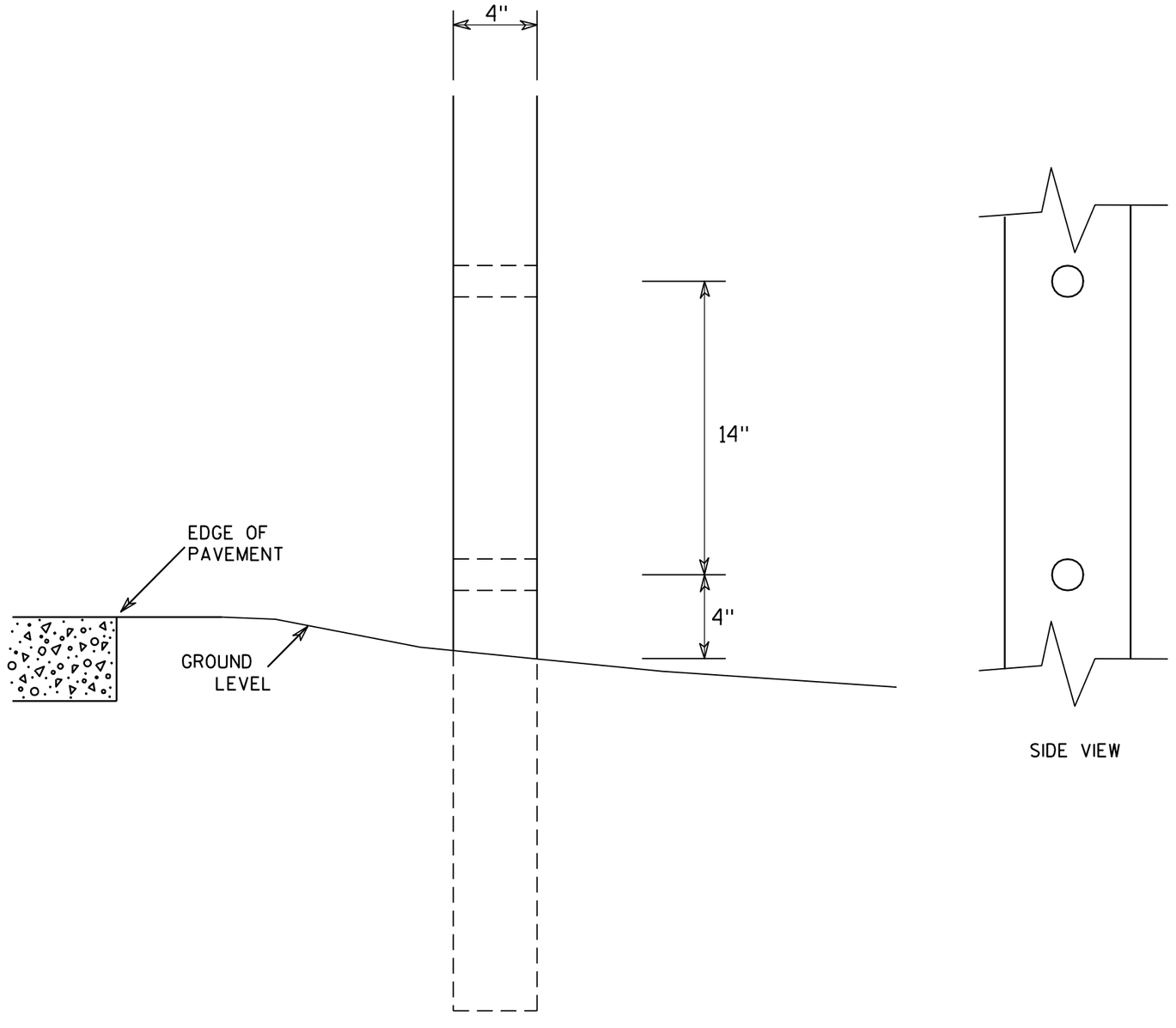
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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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

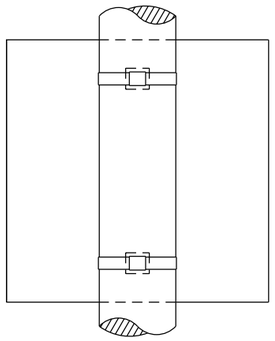
APPROVED Chester J Spang for State Traffic Engineer

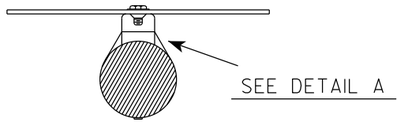
DATE 3/27/97 PLATE NO. A4-11.2

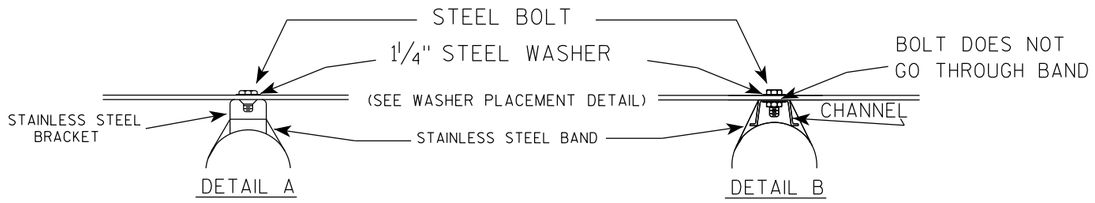
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E

BANDING

SINGLE SIGN



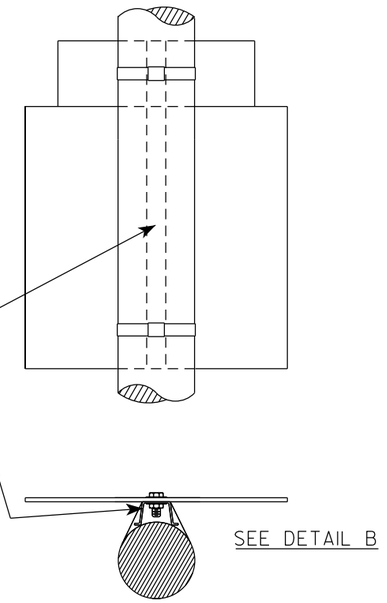




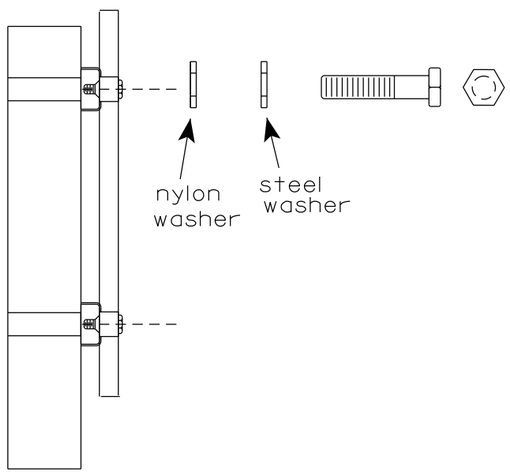
GENERAL NOTES

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

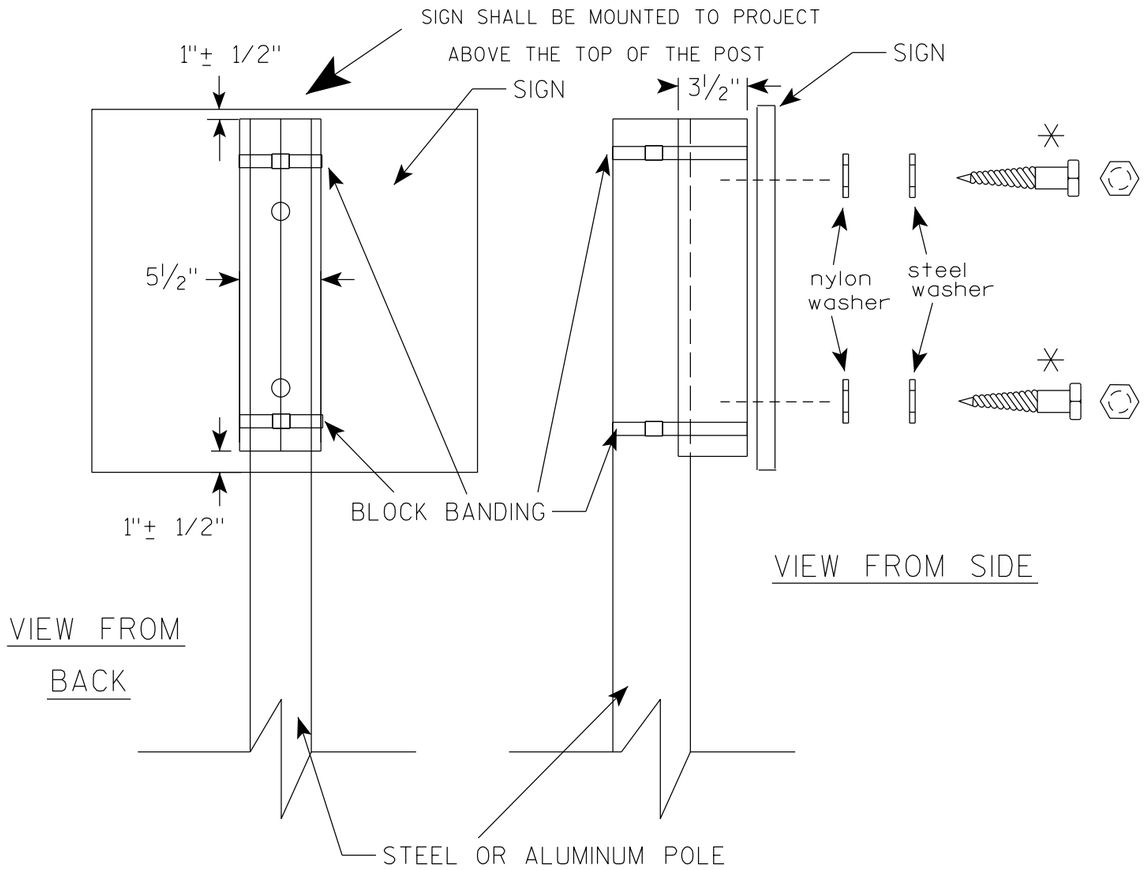
DATE 6/10/19 PLATE NO. A5-9.4

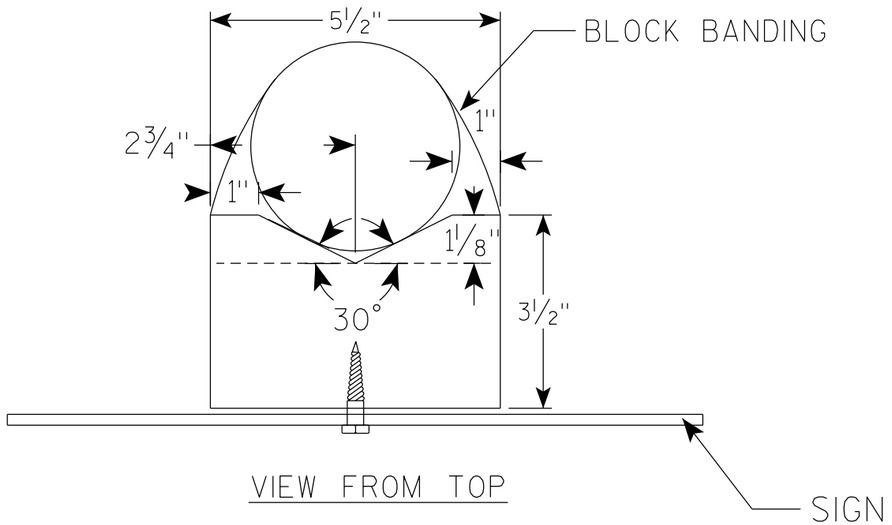
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 177	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

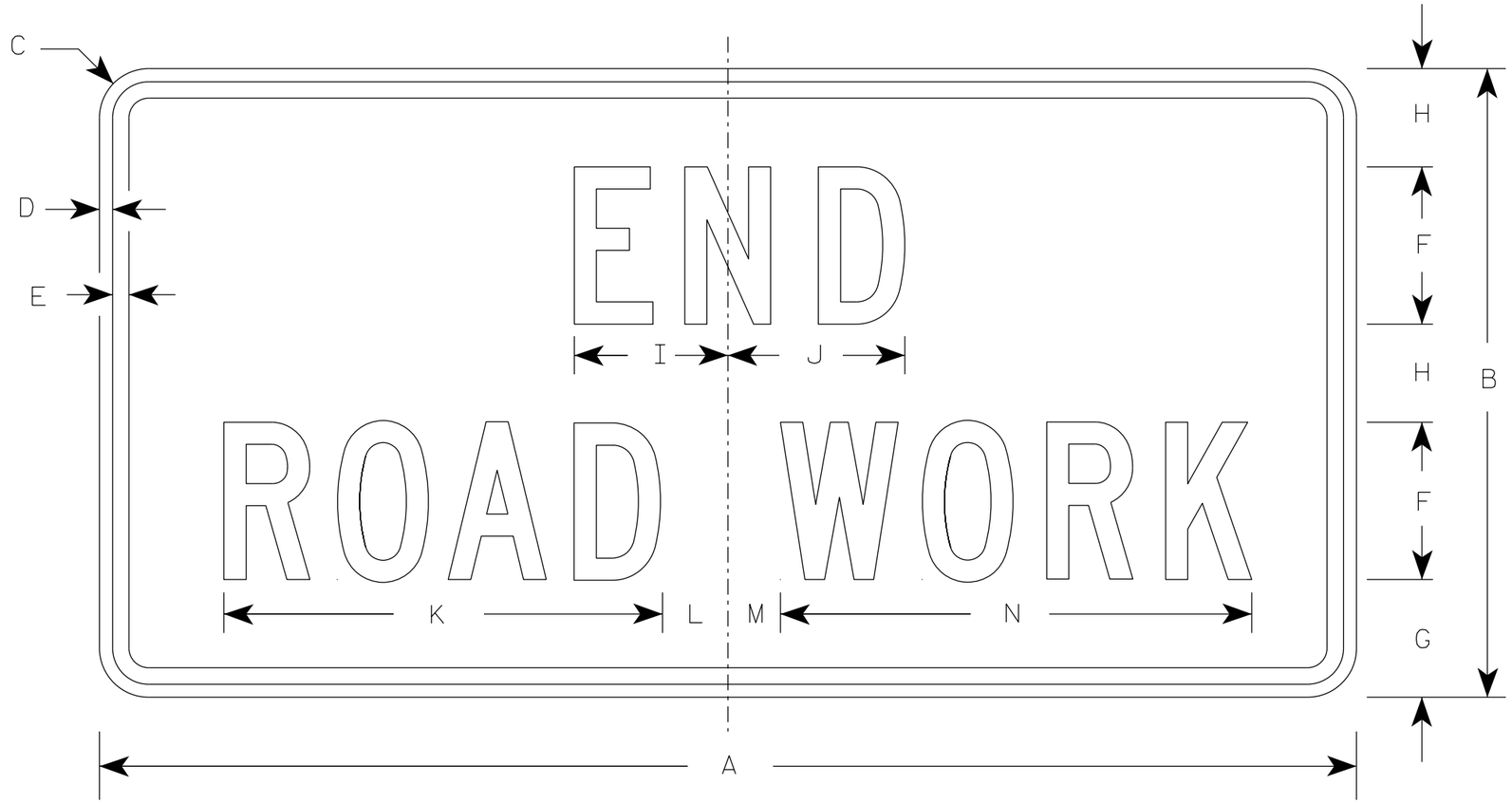
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 178 E



G20-2A

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.

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 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

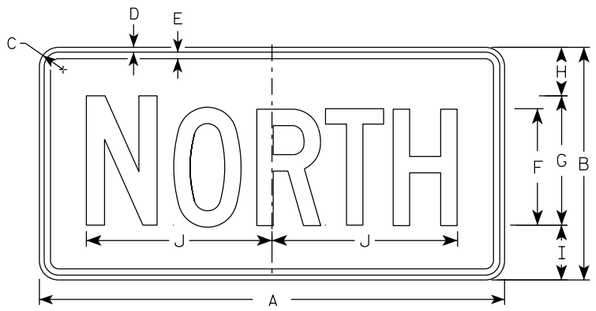
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

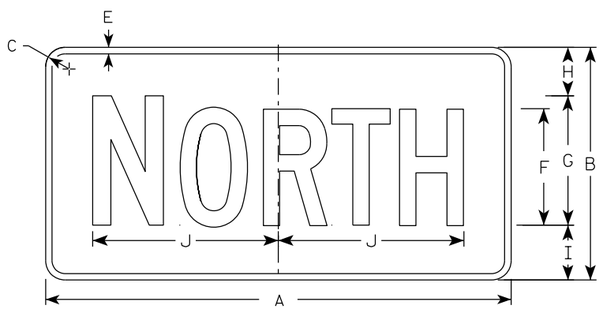
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 179 E

7

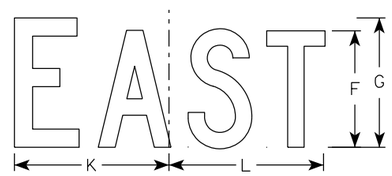
7



M3-1
MM3-1
MP3-1



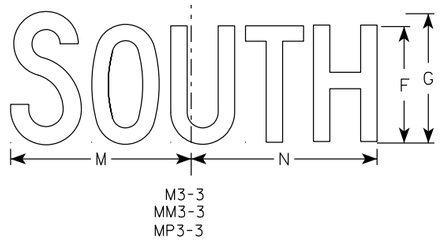
MB3-1
MK3-1
MN3-1



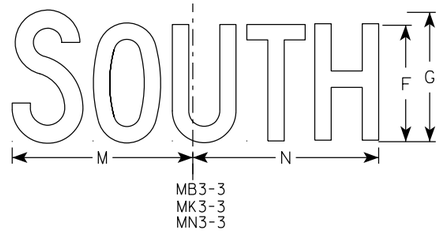
M3-2
MM3-2
MP3-2



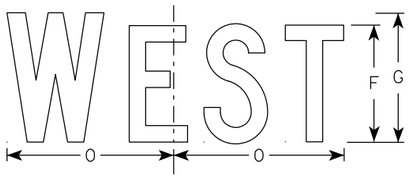
MB3-2
MK3-2
MN3-2



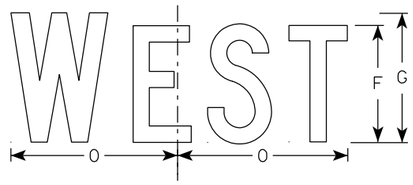
M3-3
MM3-3
MP3-3



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 Reflective
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																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

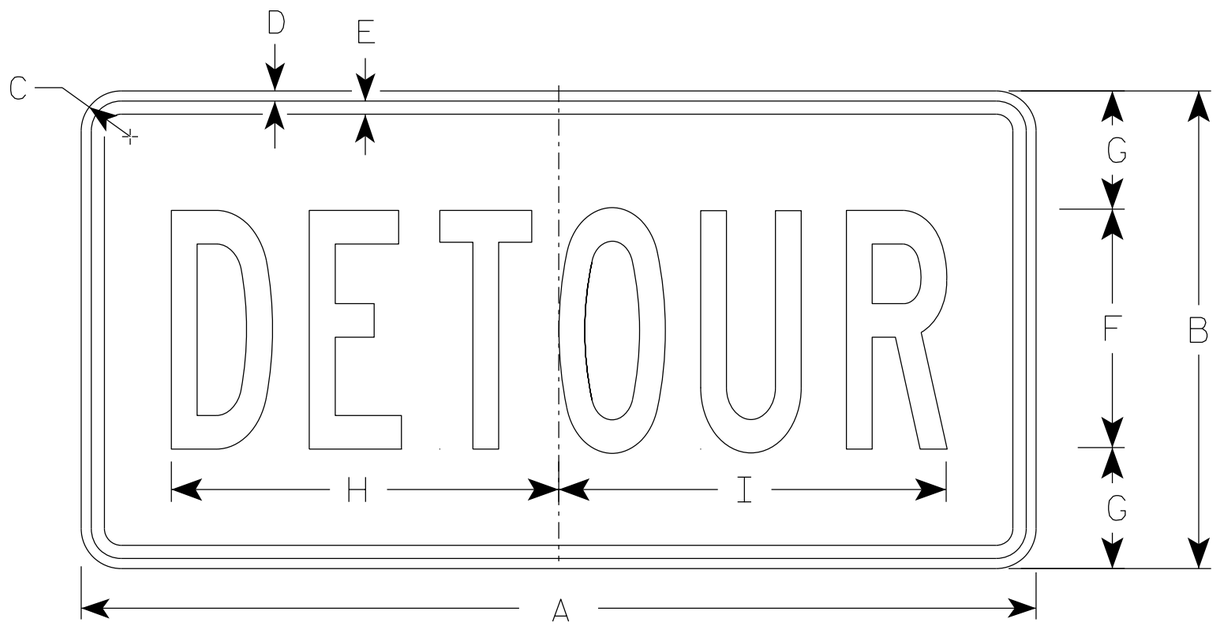
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | E

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

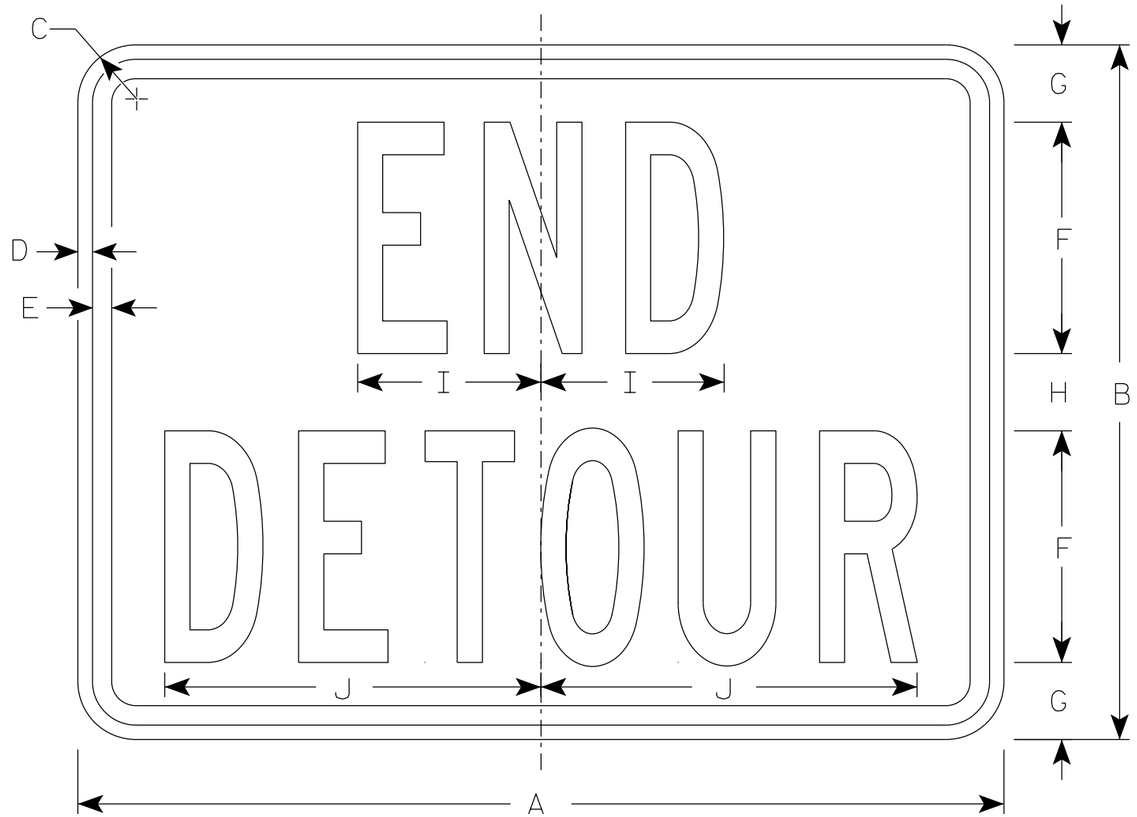
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective
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 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
2M	24	18	1 ½	⅜	½	6	2	2	4 ¾	9 ¾																	3.0
3	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
4	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0
5	30	24	1 ½	⅜	½	8	2 ½	3	6 ¾	13																	5.0

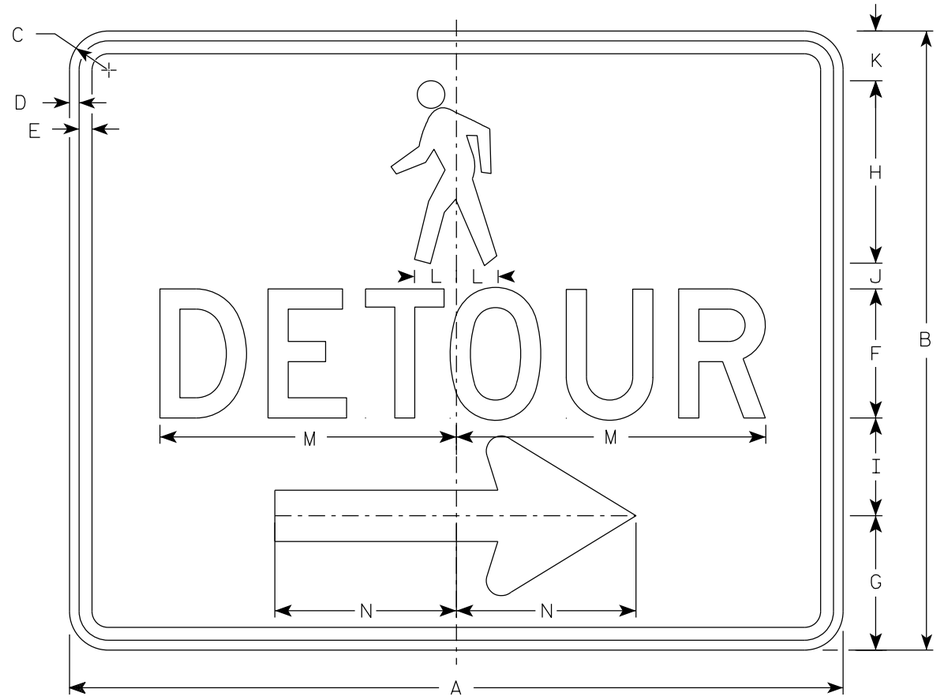
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8A.4

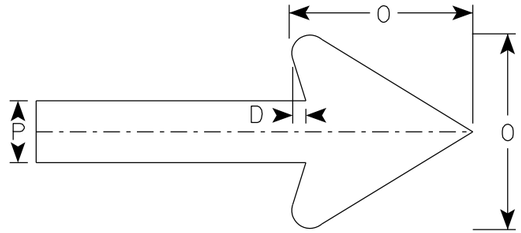
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 | E



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

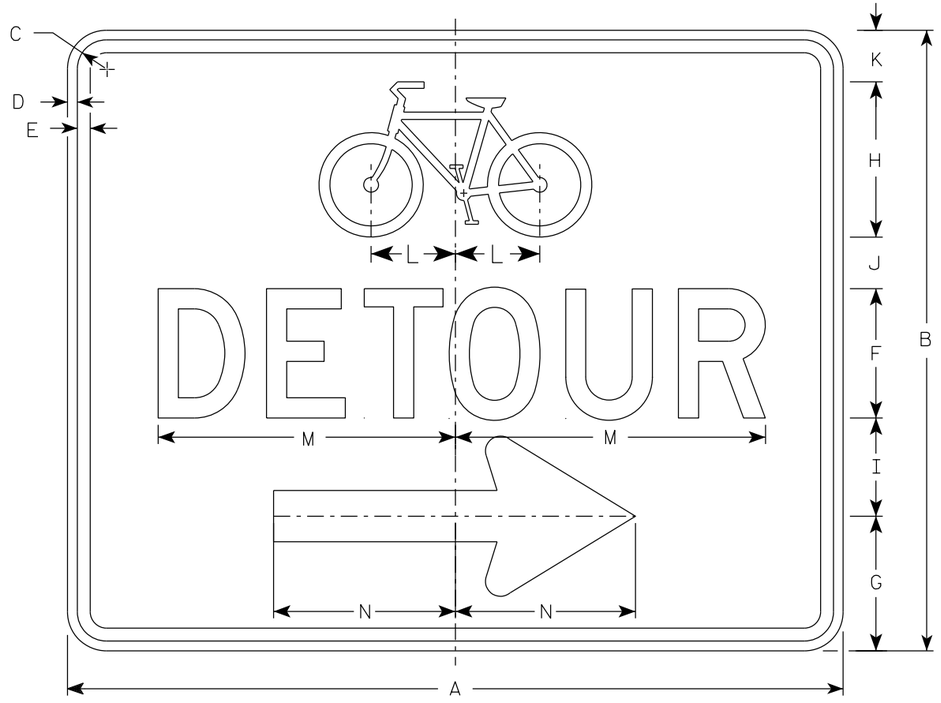
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4

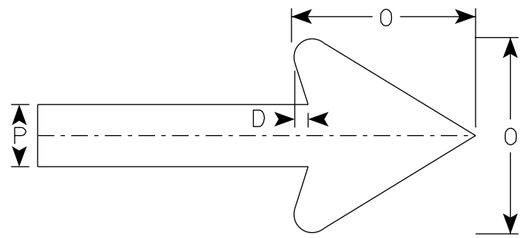
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 183 | E



M4-9CR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9CL is the same as M4-9CR 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																											
2S	30	24	1 1/8	3/8	1/2	5	5 1/4	6	3 3/4	2	2	3 1/4	11 3/4	7	6	2											5.00
2M	30	24	1 1/8	3/8	1/2	5	5 1/4	6	3 3/4	2	2	3 1/4	11 3/4	7	6	2											5.00
3																											
4																											
5																											

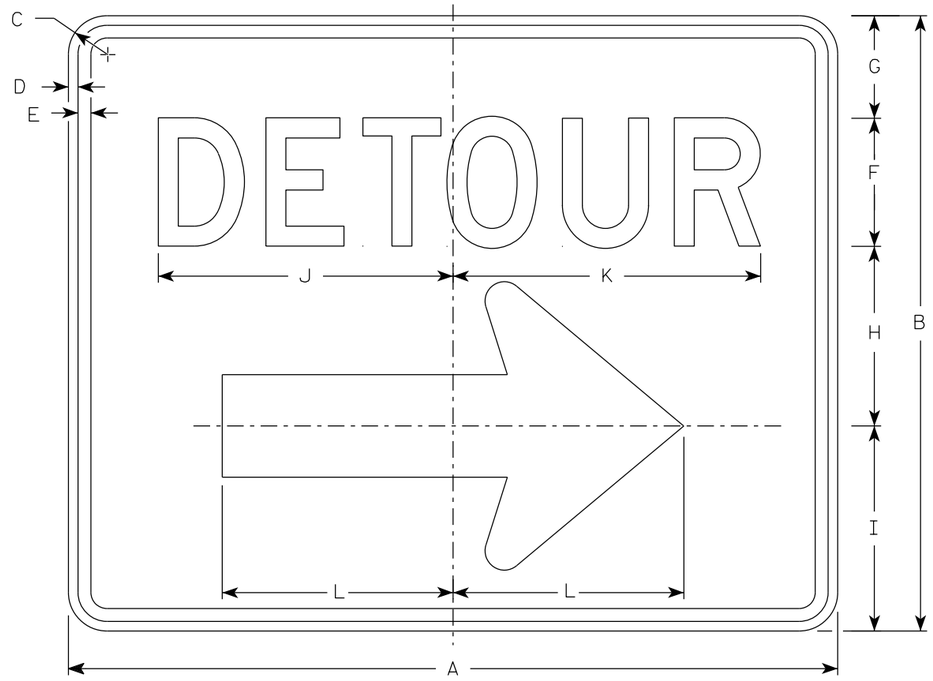
STANDARD SIGN
M4-9C L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/18/2023 PLATE NO. M4-9C.2

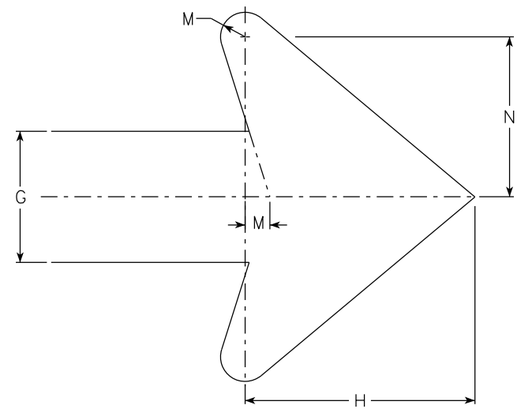
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	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 7/8	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

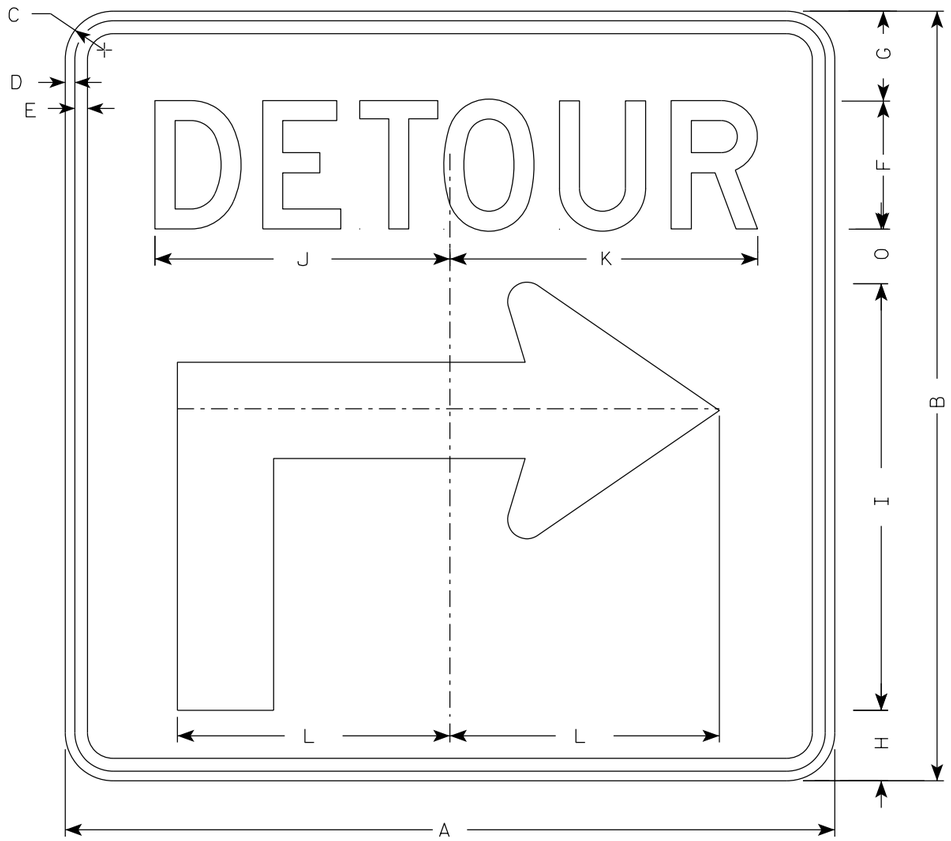
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

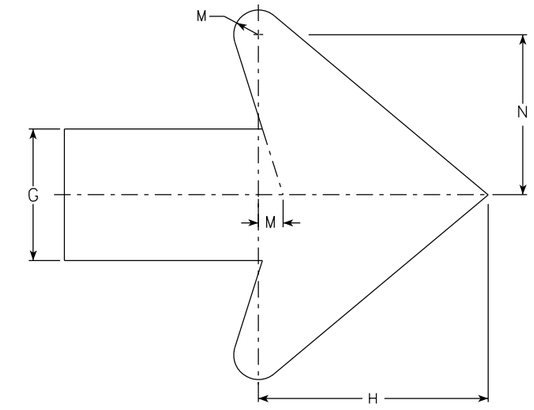
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M49R.dgn PLOT DATE : 21-MARCH 2023 1:40 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



M4-59R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
5. M4-59L is the same as M4-59R 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																											
2S	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
2M	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

STANDARD SIGN
M4-59 L&R

WISCONSIN DEPT OF TRANSPORTATION

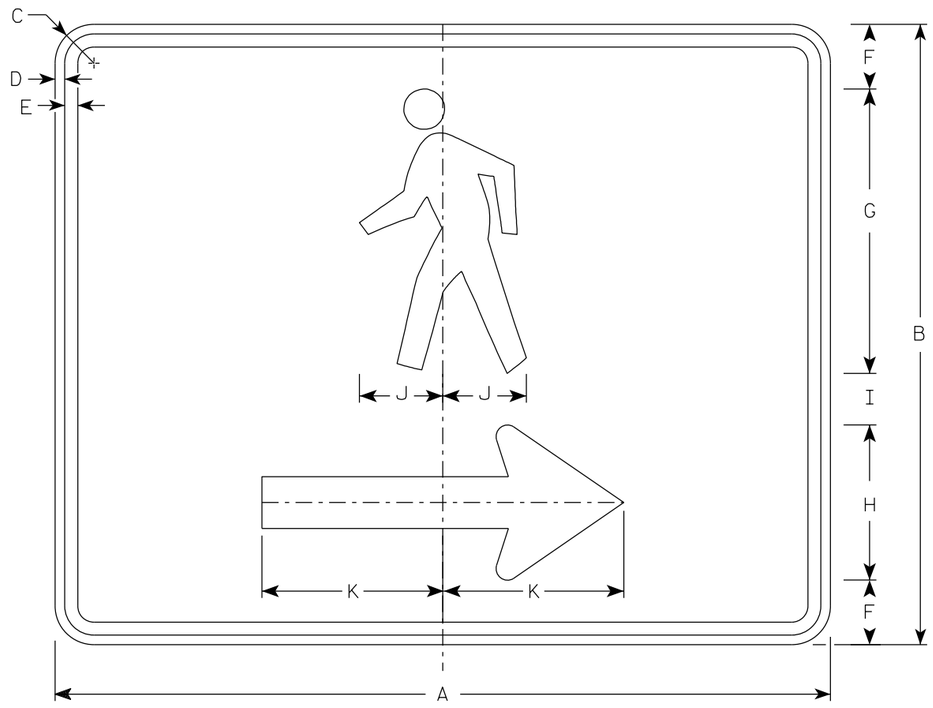
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M4-59.2

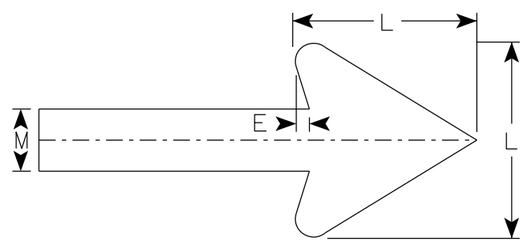
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 ½	⅜	½	2 ½	11	6	2	3 ¼	7	6	2														5.00
2M	30	24	1 ½	⅜	½	2 ½	11	6	2	3 ¼	7	6	2														5.00
3																											
4																											
5																											

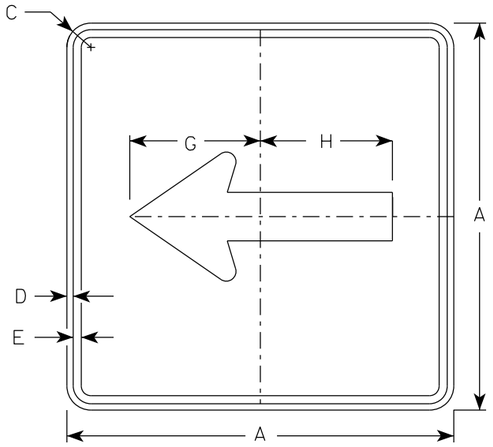
STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

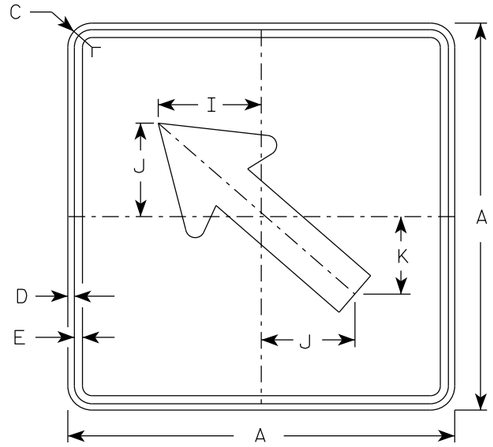
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/14/2023 PLATE NO. M4-60.2

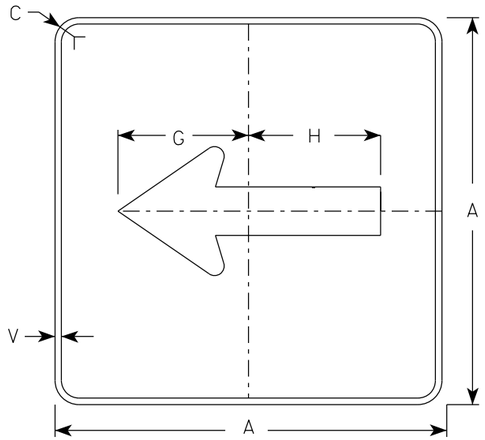
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 187 | E



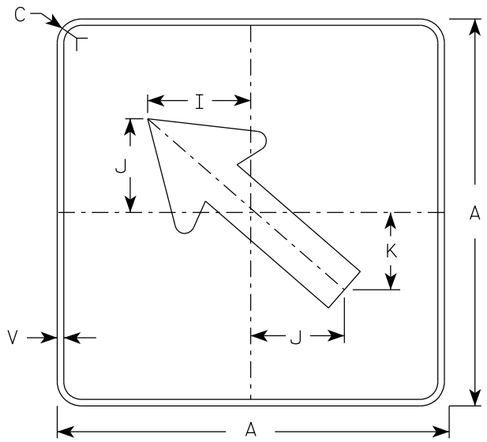
M6-1
MM6-1
MO6-1
MP6-1



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



MB6-1
MK6-1
MN6-1
MR6-1

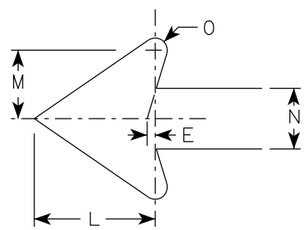


MB6-2
MK6-2
MN6-2
MR6-2

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. 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

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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

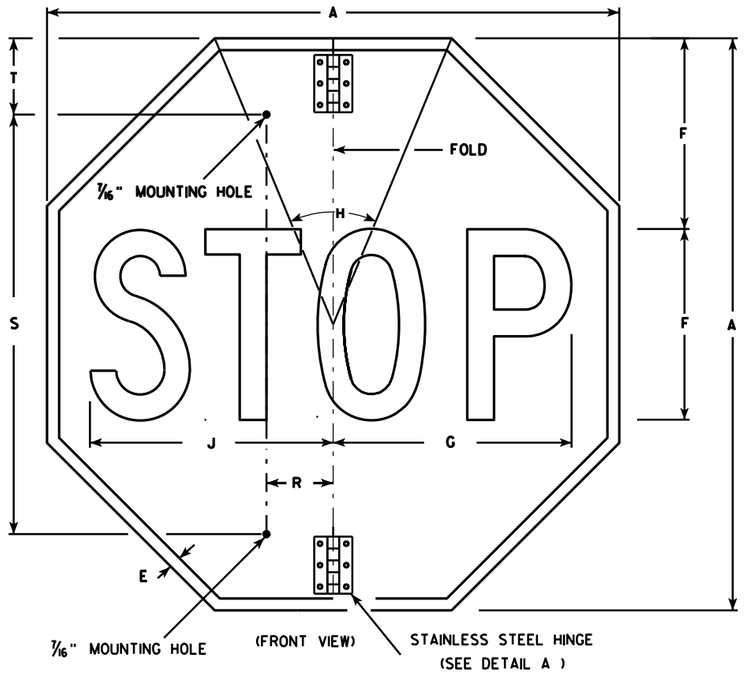
STANDARD SIGN
M6-1 & M6-2
SERIES

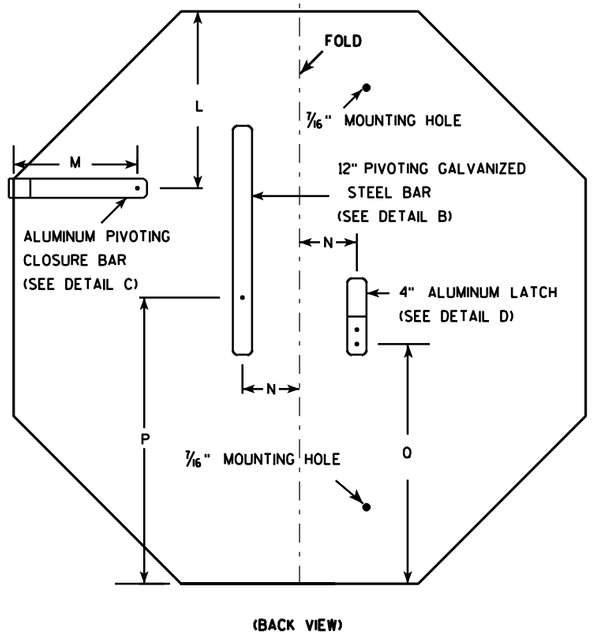
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

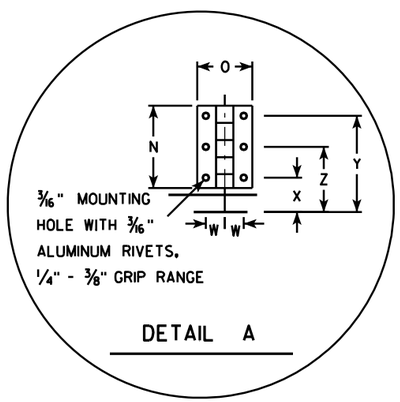
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 188 | E



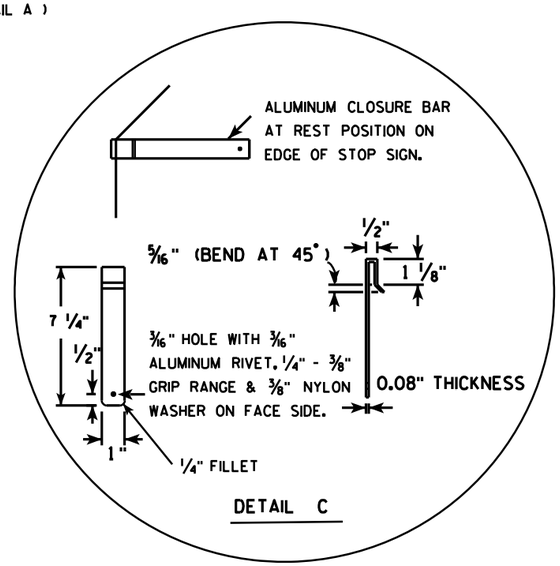


NOTES

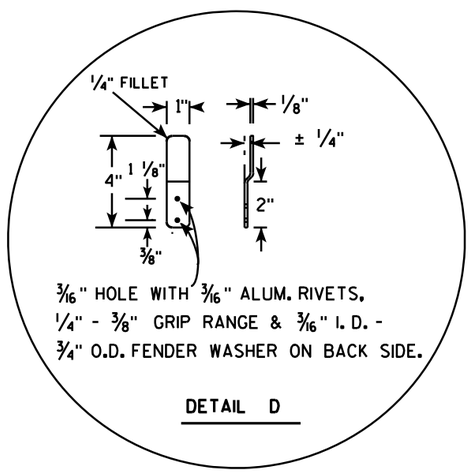
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



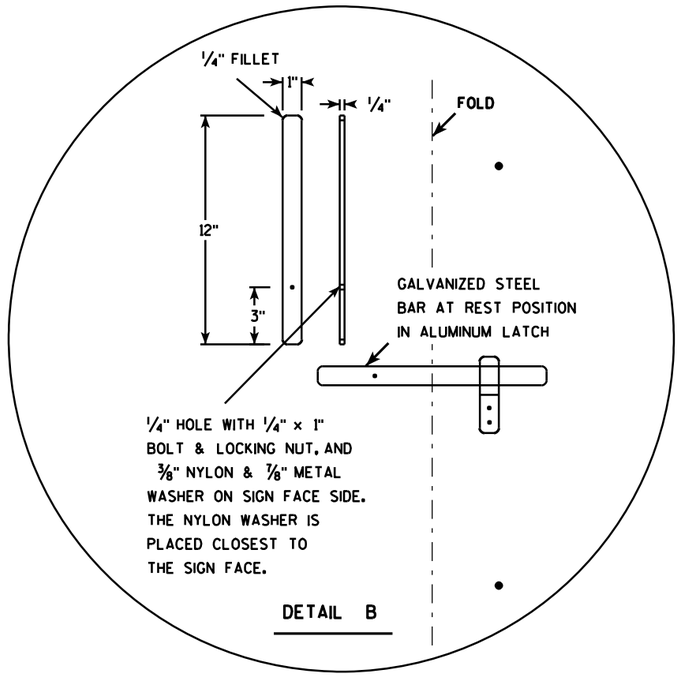
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

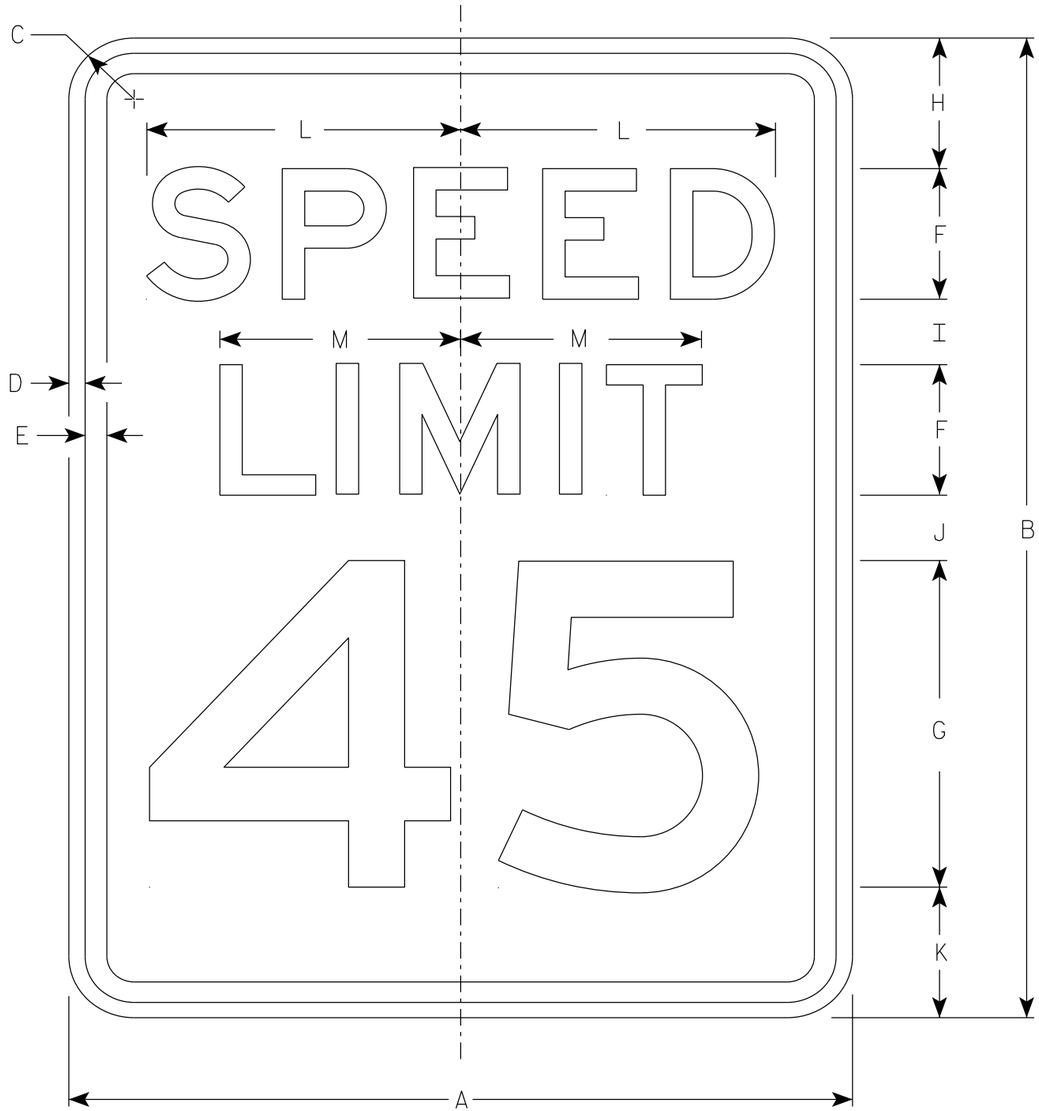
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 189	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

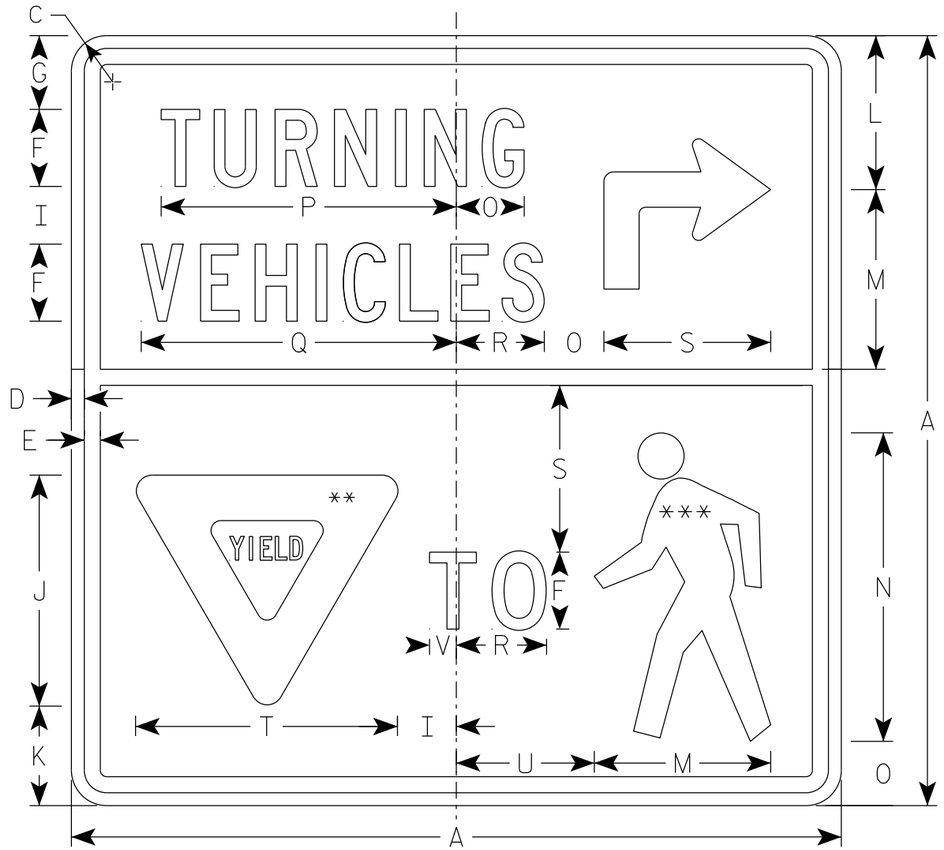
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E



R10-15R

NOTES

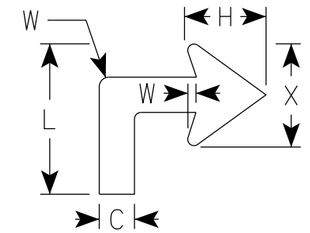
1. Sign is Type II - See Note 2 for Sheeting Type

2. Color:
   Background - Top Half - Yellow (Type F Reflective)
   Bottom Half - White (Type SH Reflective)
   Message - Black
   Yield Symbol - Red on White (Type SH Reflective)
   Ped Symbol - Black on White (Type SH Reflective)

3. Message Series - C except "TO" Series D

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 7/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

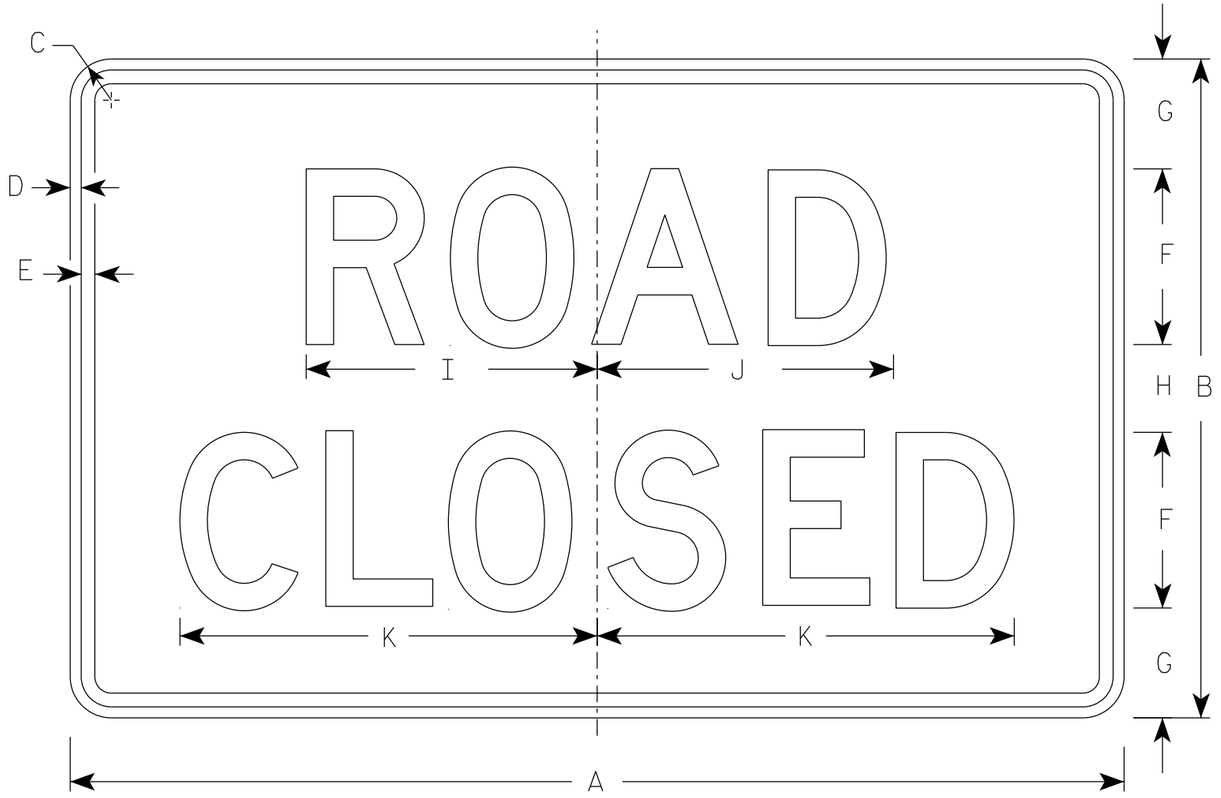
STANDARD SIGN
R10-15R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/24 PLATE NO. R10-15R.3

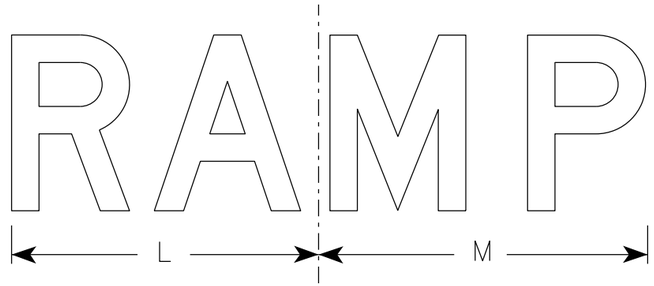
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 E



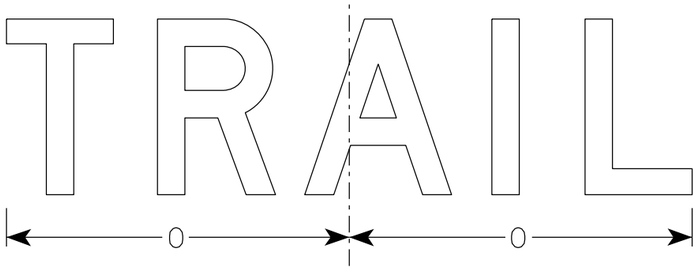
R11-2

NOTES

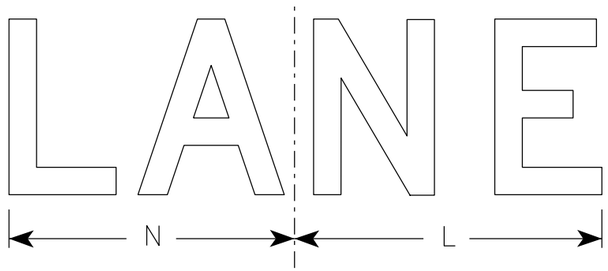
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	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 7/8	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 7/8	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 7/8	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 7/8	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

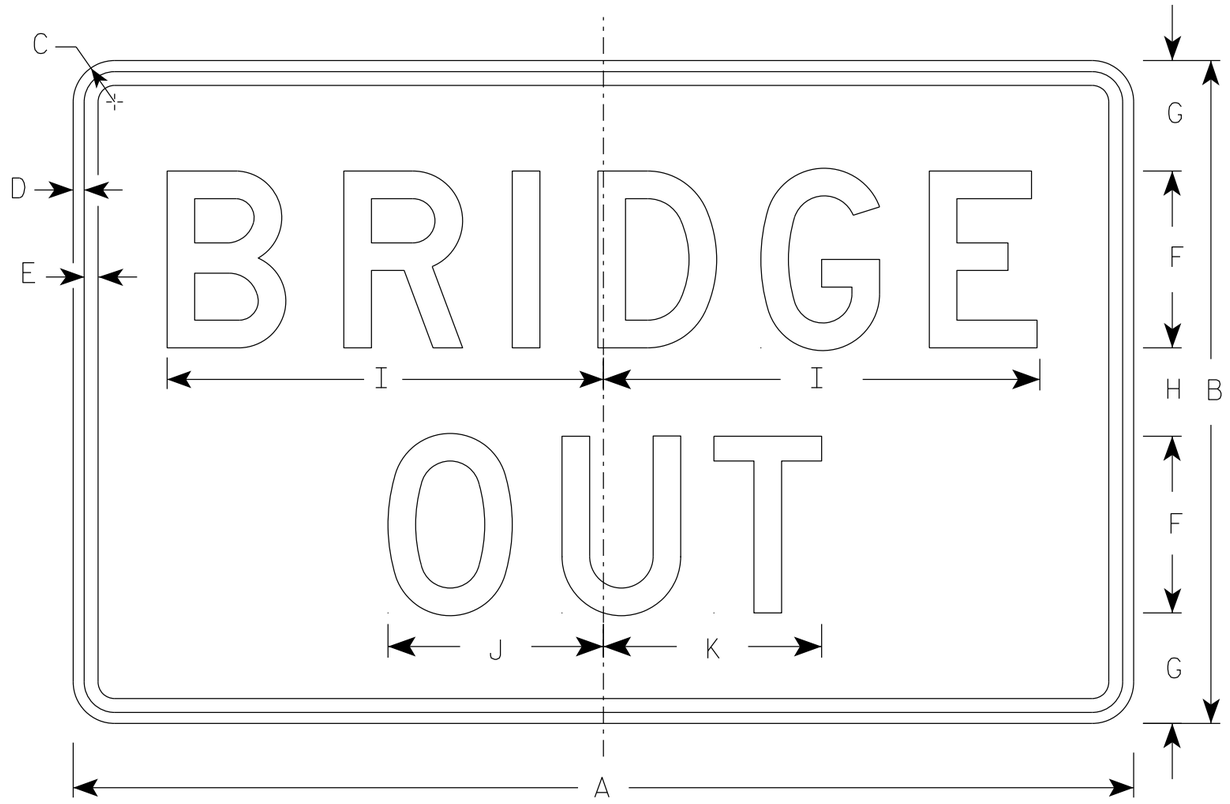
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

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

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 5-FEB 2024 2:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

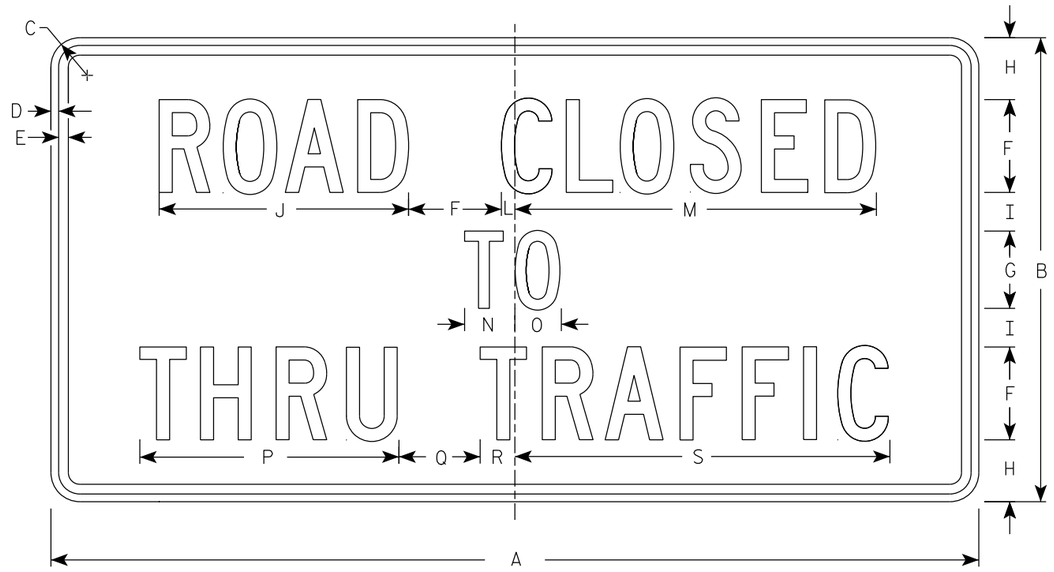
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 193 E



R11-4

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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 7/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

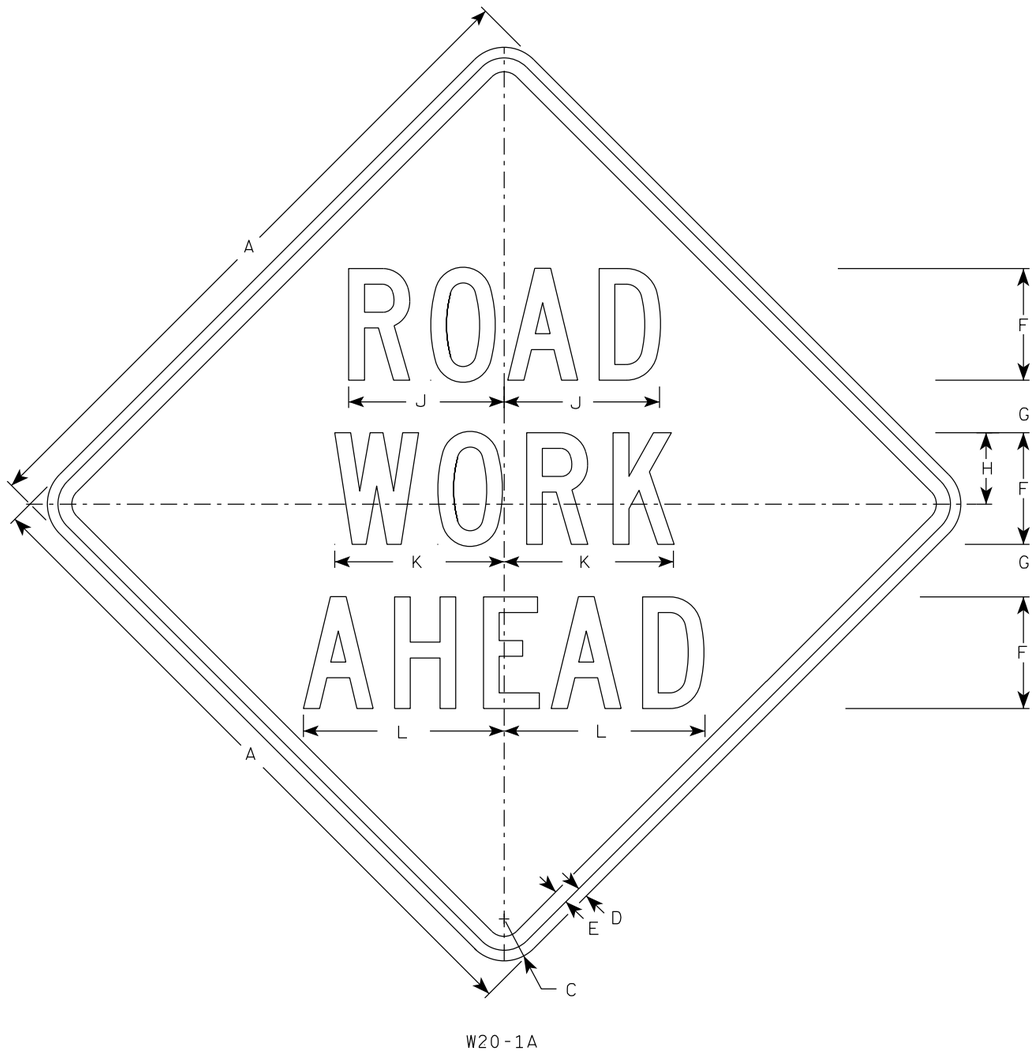
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

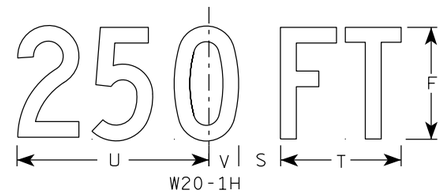
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-4.4

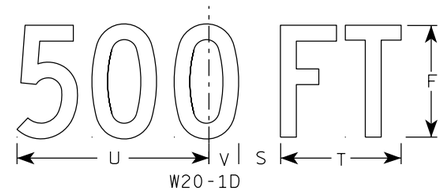
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E



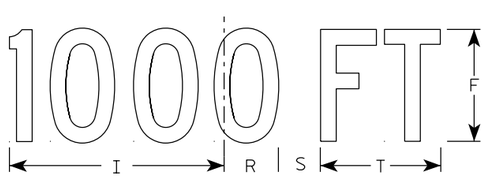
W20-1A



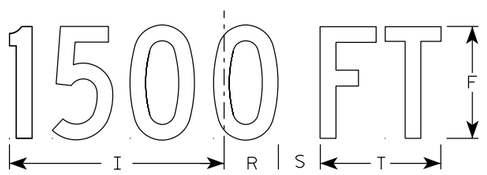
W20-1H



W20-1D



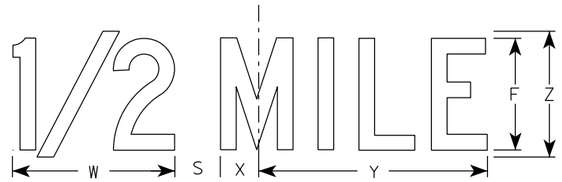
W20-1C



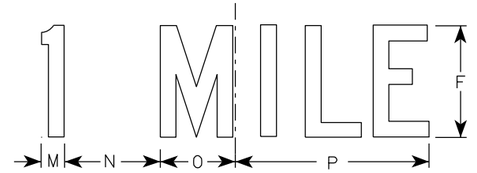
W20-1B

NOTES

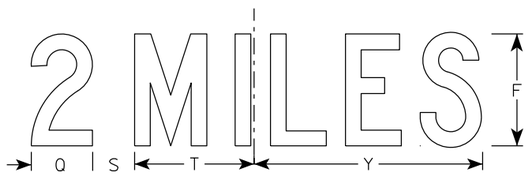
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

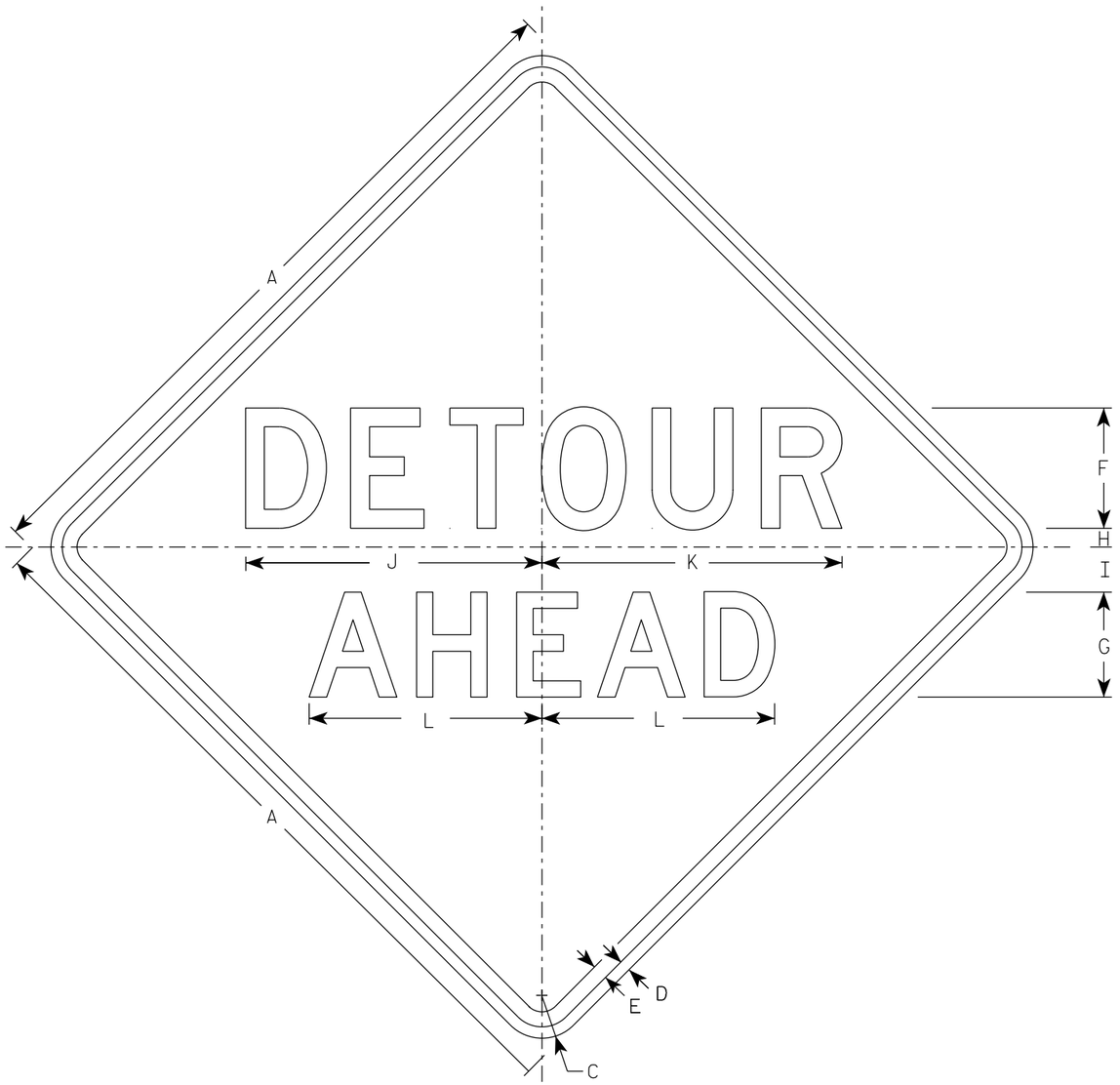
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

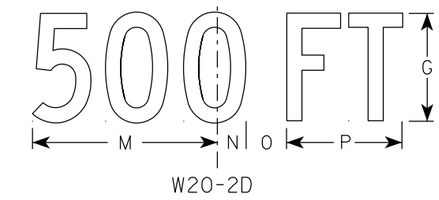
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

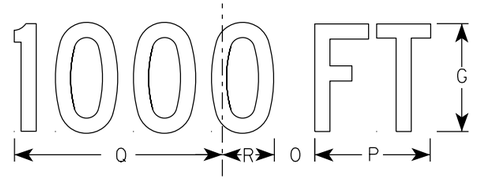
SHEET NO: 195 E



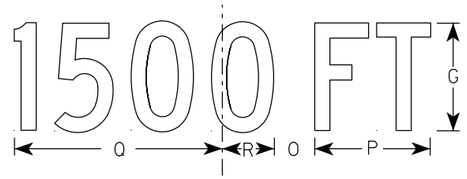
W20-2A



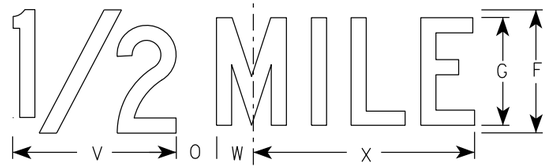
W20-2D



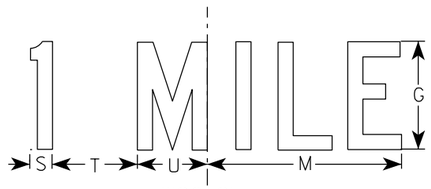
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	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		3	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		3	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		3	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		3	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		3	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

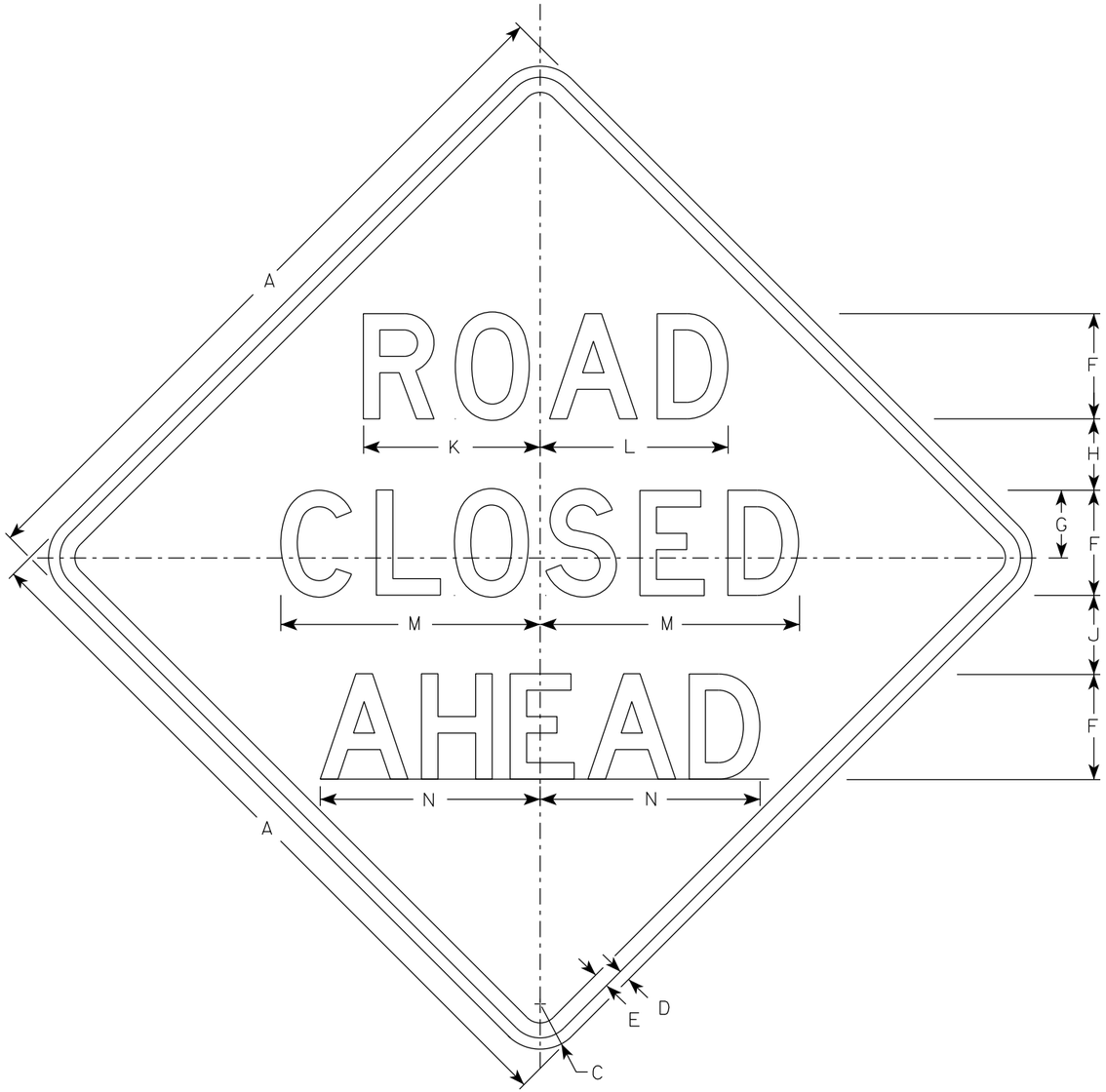
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

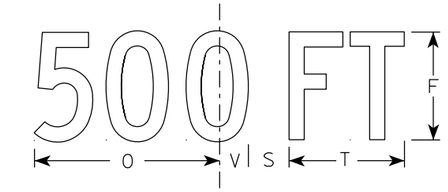
DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

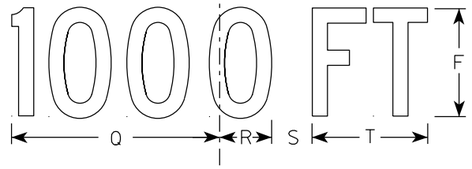
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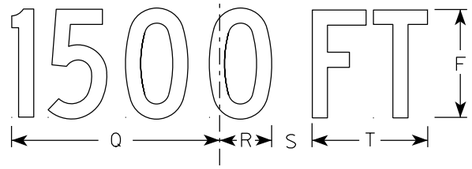
W20-3A



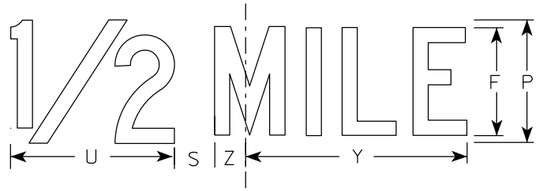
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

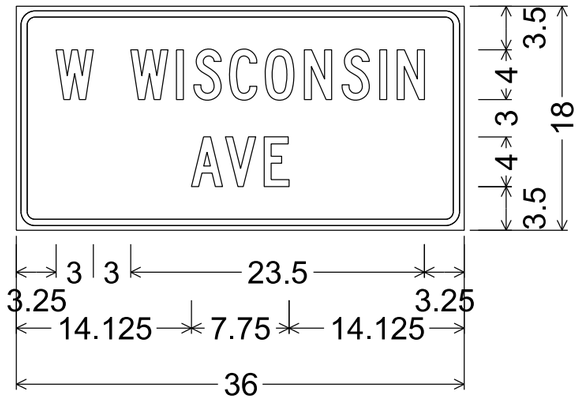
DATE 1/10/2024 PLATE NO. W20-3.8

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

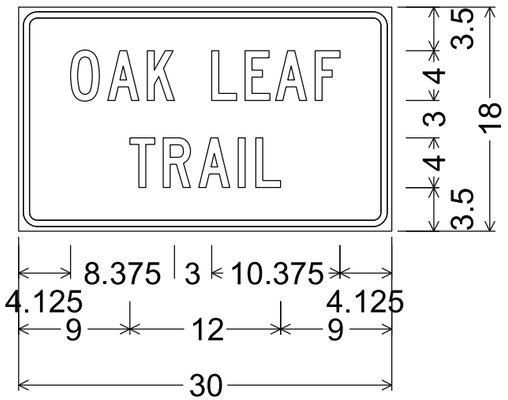
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NOTES

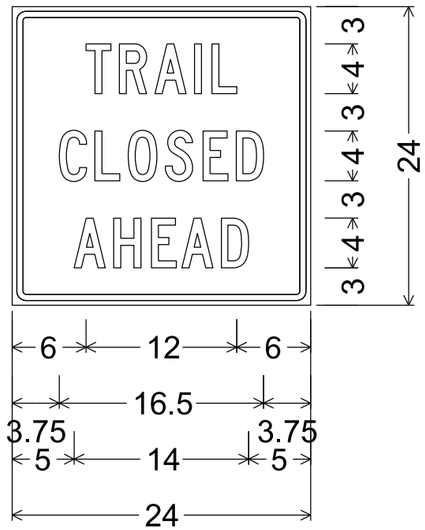
1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C or as noted



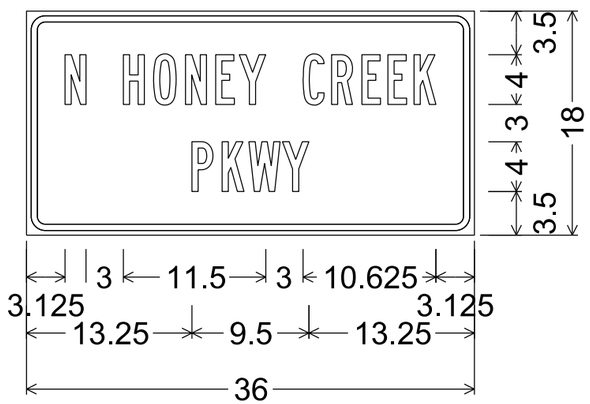
1.500" Radius, 0.500" Border, 0.375" Indent



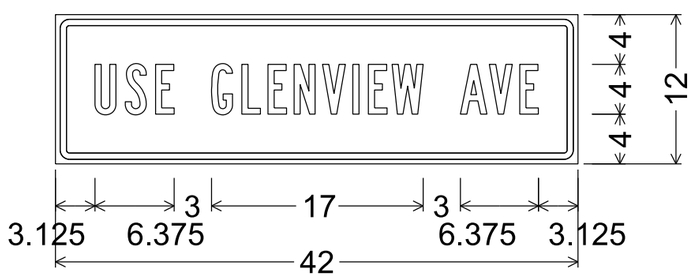
1.500" Radius, 0.500" Border, 0.375" Indent



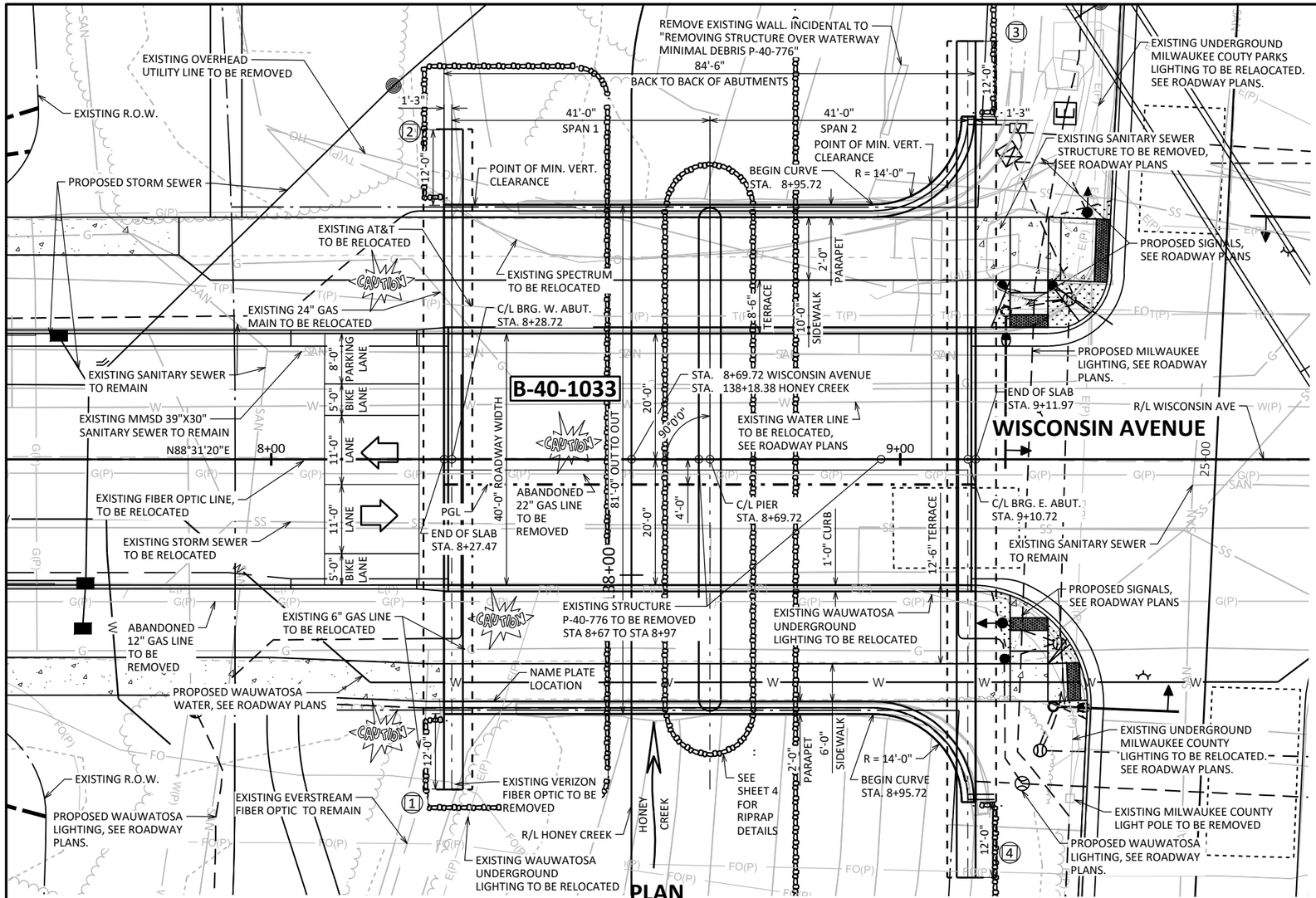
1.125" Radius, 0.500" Border, 0.375" Indent



1.500" Radius, 0.500" Border, 0.375" Indent
"N", B; "HONEY", B;
"CREEK", B; "PKWY", B;

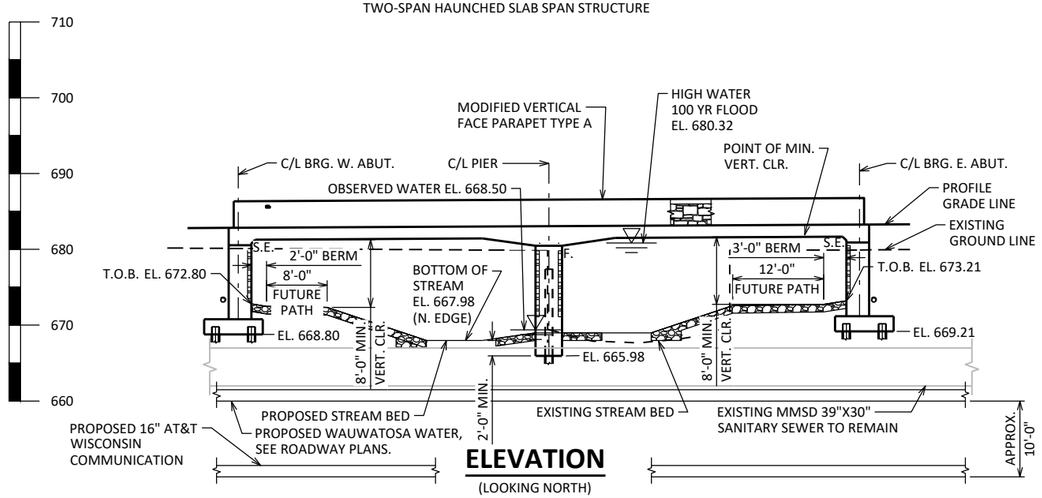


1.125" Radius, 0.500" Border, 0.375" Indent
"USE", B; "GLENVIEW", B;
"AVE", B;



PLAN

TWO-SPAN HAUNCHED SLAB SPAN STRUCTURE



ELEVATION

(LOOKING NORTH)

LEGENDS

- DIRECTION OF TRAFFIC
- (X) WINGWALL NUMBER
- T.O.B TOP OF BERM

LIST OF DRAWING

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION & PROFILE GRADE LINE
3. GENERAL NOTES & QUANTITIES
4. RIPRAP & STREAM DETAILS
5. SUBSURFACE EXPLORATION
6. WEST ABUTMENT
7. WEST ABUTMENT DETAILS (1 OF 2)
8. WEST ABUTMENT DETAILS (2 OF 2)
9. WEST ABUTMENT WINGWALL DETAILS
10. EAST ABUTMENT
11. EAST ABUTMENT DETAILS (1 OF 2)
12. EAST ABUTMENT DETAILS (2 OF 2)
13. EAST ABUTMENT WINGWALL DETAILS
14. ALTERNATE CONSTRUCTION JOINT
15. ABUTMENT AESTHETIC DETAILS
16. PIER
17. PIER DETAILS
18. PIER AESTHETIC DETAILS
19. CONCRETE SLAB DETAILS
20. SLAB REINFORCEMENT PLAN
21. SLAB REINFORCEMENT DETAILS
22. SLAB BILL OF BARS
23. SLAB TAPER DETAILS
24. MODIFIED VERTICAL FACE PARAPET A
25. PARAPET AESTHETIC DETAIL
26. CONDUIT PLAN
27. CONDUIT DETAILS
28. COMBINATION RAILING ON WINGS

STATE PROJECT NUMBER

2190-10-70

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.26
OPERATING RATING: RF = 1.63
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE — f'_c = 4,000 PSI
- ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
- GRADE 60 — f_y = 60,000 PSI

STEEL PILING — f_y = 50,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12x53 PILING SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
WEST ABUTMENT - ESTIMATED 50'-0" LONG.
EAST ABUTMENT - ESTIMATED 40'-0" LONG.

PIER TO BE SUPPORTED ON HP 12x53 PILING SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
ESTIMATED 50'-0" LONG.

PILES PLACED IN PREBORED HOLES BORED INTO ROCK DO NOT REQUIRE DRIVING. PILING SHALL BE FIRMLY SEATED AFTER PLACEMENT. THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS 220 TONS MULTIPLIED BY A RESISTANCE FACTOR OF 0.5.

HYDRAULIC DATA

100-YEAR FREQUENCY:

Q_{100}= 3090 C.F.S.
V_{100}= 5.18 F.P.S.
HW_{100}= EL. 680.32
WATERWAY AREA = 596 SQ. FT.
DRAINAGE AREA = 10 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

Q_2= 1230 C.F.S.
V_2= 3.5 F.P.S.
HW_2= EL. 676.64

TRAFFIC DATA

FEATURE ON:

ADT = 8,200 (2045)
R.D.S. = 35 MPH

STRUCTURE DESIGN CONTACTS:

ANDREW ASCHENBRENNER 414-751-7200
AARON BONK 608-261-0261

NO.	DATE	REVISION	BY

kapur

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 12/16/24
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-1033

WISCONSIN AVENUE OVER HONEY CREEK

COUNTY	CITY
MILWAUKEE	WAUWATOSA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
AJA	SMC	SK	MHZ

WISCONSIN — ANDREW J. ASCHENBRENNER — E-45272-6 — OREGON, WI — 12/13/2024 — PROFESSIONAL ENGINEER

GENERAL PLAN & ELEVATION

SHEET 1 OF 28
199

SCALE =

I.D.

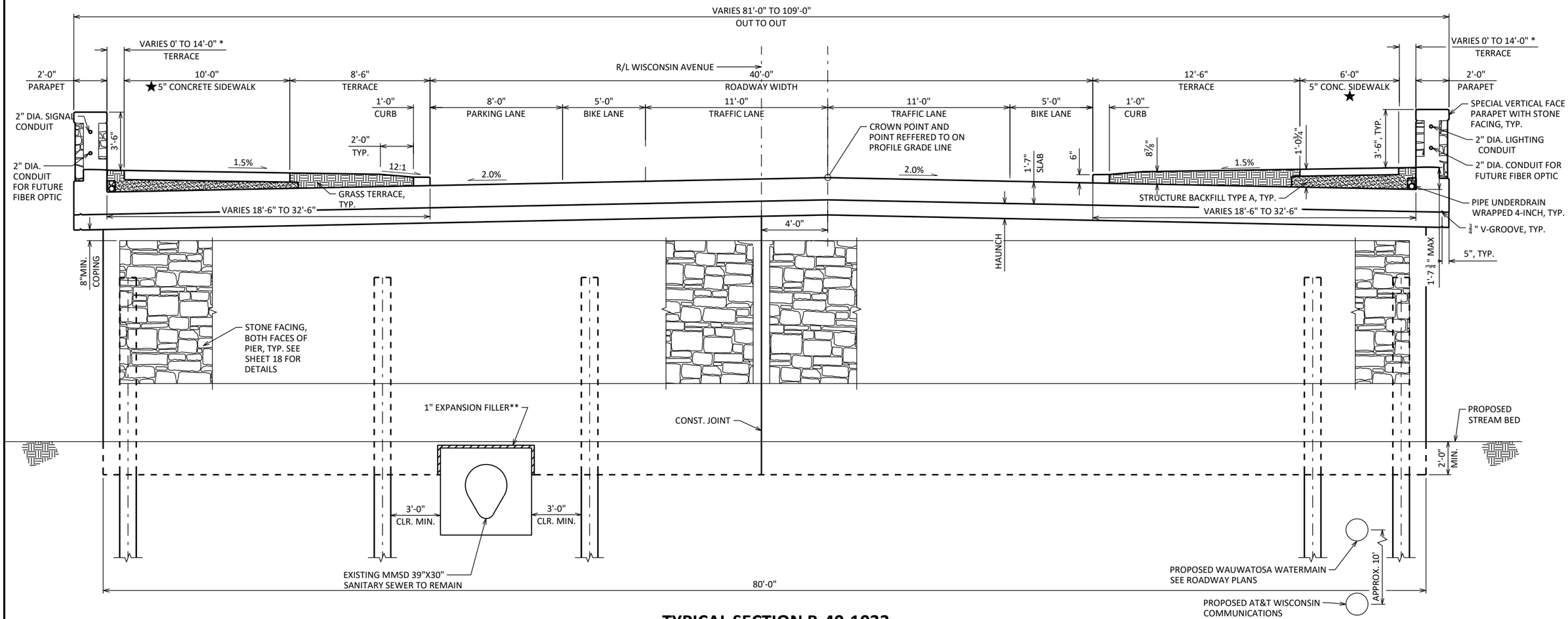
DATE:

8

8

STATE PROJECT NUMBER

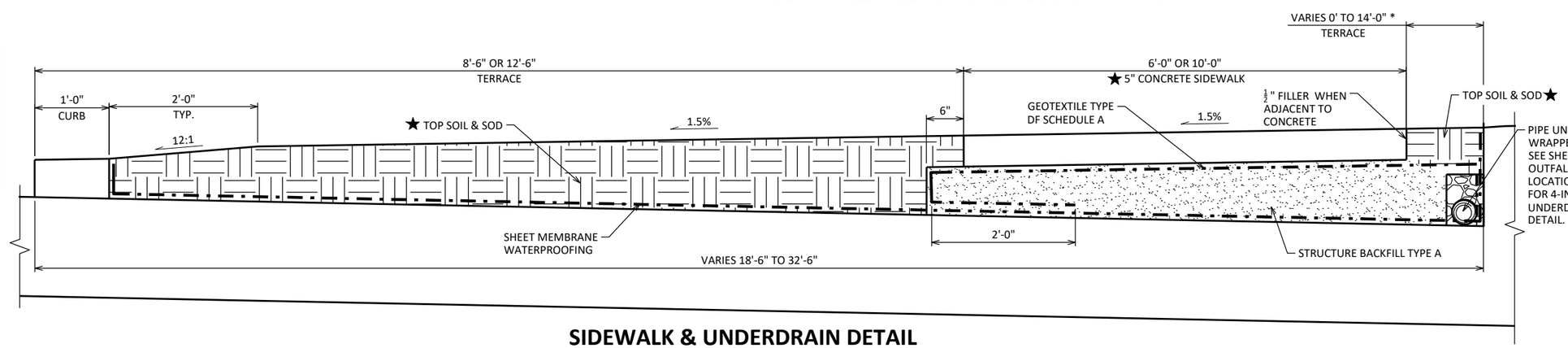
2190-10-70



TYPICAL SECTION B-40-1033

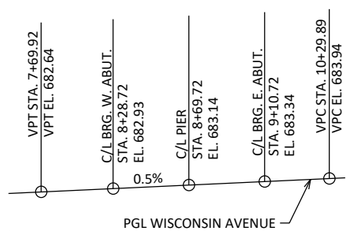
(LOOKING EAST AT THE PIER)

* STA 8+28.72 TO STA 8+95.72, DIM = 0'-0", STA 9+11.72, DIM. = 14'-0"
** 1" EXPANSION FILLER INCIDENTAL TO ITEM "CONCRETE MASONRY STRUCTURES"



SIDEWALK & UNDERDRAIN DETAIL

★ INDICATES ITEM PAID FOR UNDER ROADWAY BID ITEMS. SEE ROADWAY PLANS



PROFILE GRADE LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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TYPICAL SECTION & PROFILE GRADE LINE

SHEET 2 OF 28

SCALE = 200

8

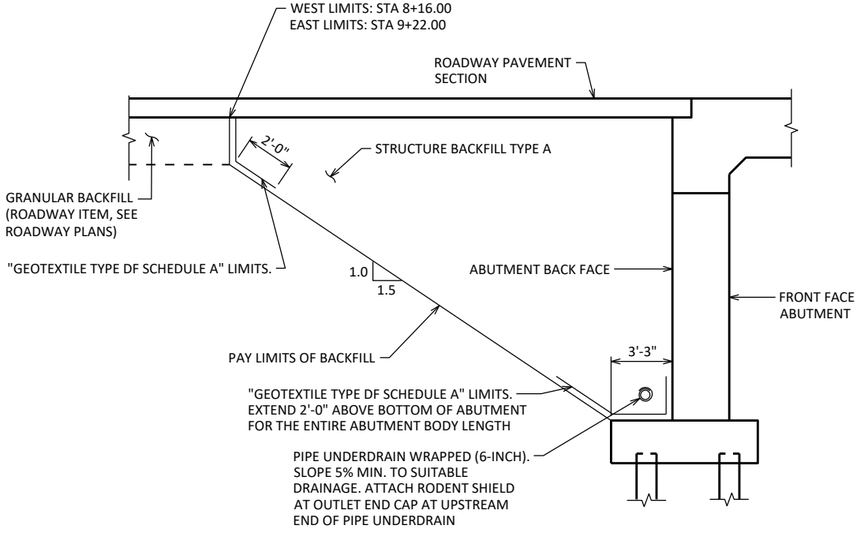
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STATE PROJECT NUMBER

2190-10-70

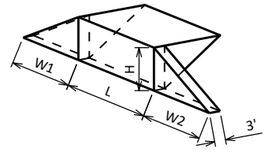
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUTMENT	PIER	E. ABUTMENT	SUPERSTRUCTURE	TOTALS
203.0270	REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE P-40-776	EACH	-	-	-	-	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-40-1033	EACH	-	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	604	-	735	88	1,427
502.0100	CONCRETE MASONRY BRIDGES	CY	175.2	123.2	221.3	499.8	1,020
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	394	394
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	-	73	73
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	12,180	9,040	16,240	-	37,460
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,540	-	3,540	106,380	113,460
513.8011	RAILING STEEL PEDESTRIAN TYPE C2	LF	24	-	24	-	48
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	24	-	28	16	68
516.0610.S	SHEET MEMBRANE WATERPROOFING FOR BURIED STRUCTURES	SY	-	-	-	370	370
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	1,700	850	1,680	-	4,230
550.1120	PILING STEEL 12-INCH X 53 LB	LF	1,700	850	1,680	-	4,230
606.0100	RIPRAP LIGHT	CY	127	37	178	-	342
612.0204	PIPE UNDERDRAIN UNPERFORATED 4-INCH	LF	-	-	-	100	100
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	25	-	28	-	53
612.0404	PIPE UNDERDRAIN WRAPPED 4-INCH	LF	-	-	-	200	200
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	110	-	135	-	245
612.0804	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 4-INCH	EACH	2	-	2	-	4
612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	1	-	1	-	2
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	146	-	188	448	782
645.0130	GEOTEXTILE TYPE R	SY	346	-	481	-	827
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	20	-	20	80	120
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	78	-	78	376	532
653.0222	JUNCTION BOXES 18X12X6	EACH	-	-	-	8	8
SPV.0060.80	JUNCTION BOXES 18X6X6-INCH SPECIAL WATERTIGHT	EACH	2	-	2	-	4
SPV.0060.82	SALVAGING STONE P-40-776	EACH	-	-	-	-	1
SPV.0180.81	INSTALLING SALVAGED STONE FACING	SY	13	27	16	32	88
SPV.0180.82	STONE FACING	SY	54	106	63	42	265
SPV.0180.83	ANTI-GRAFFITI COATING	SY	90	192	114	74	470
	NON-BID ITEMS						
	FILLER	SIZE					½",¾",1"
	NAME PLATE	EACH					1



BACKFILL LIMITS

(DIMENSIONS ARE MEASURED NORMAL TO ABUTMENT)



ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
W1 = WING 1 LENGTH (FT)
W2 = WING 2 LENGTH (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H) + (3')(0.5)(W1 + W2)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-1033" SHALL BE THE EXISTING GROUNDLINE & THE EXISTING STREAM BED.

SEE ROADWAY PLANS FOR STREAM ALIGNMENT, CROSS SECTIONS AND EARTHWORK. EXCAVATION FOR PIER AND ABUTMENTS BEYOND LIMITS SHOWN IN THE ROADWAY CROSS SECTIONS SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES BRIDGES B-40-1033".

PLACE "SHEET MEMBRANE WATERPROOFING FOR BURIED STRUCTURES" ON BURIED PORTION OF TOP SLAB UNDER TERRACE AND SIDEWALK AS SHOWN IN THE PLANS. EXTEND SHEET MEMBRANE OVER THE BACK OF ABUTMENT, 1'-0" PAST JOINT BETWEEN SLAB AND ABUTMENT.

FINISH ALL CONCRETE SURFACES THAT WILL BE IN CONTACT WITH THE SHEET MEMBRANE WATERPROOFING WITH A MAGNESIUM FLOAT FINISH. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

COORDINATES ON THIS PLAN ARE REFERANCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS). MILWAUKEE COUNTY ZONE, NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATION REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF NAVD 88 (2012).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAYBE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION TO BE DETERMINED BY THE CONTRACTOR.

THE STREAM BED IN FRONT OF THE ABUTMENT SHALL BE COVERED WITH LIGHT RIPRAP AND GEOTEXTILE FABRIC "R" TO THE EXTENT SHOWN ON THE RIPRAP AND STREAM DETAILS SHEET.

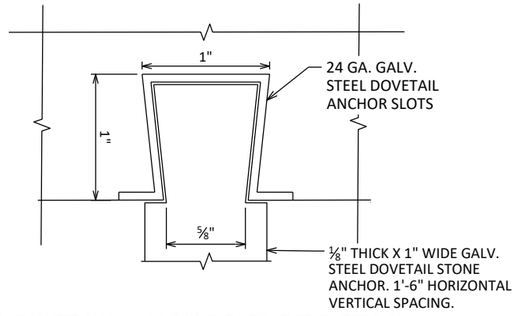
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACES, TOP AND EXPOSED VERTICAL FACES OF CURB, AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER IS TO BE APPLIED TO THE TOP AND INSIDE FACE OF PARAPETS NOT COVERED BY STONE FACING.

ANTI-GRAFFITI COATING TO BE APPLIED TO STONE FACING.

THE EXISTING STRUCTURE P-40-776, IS A REINFORCED CONCRETE DECK GIRDER BRIDGE ON RETAINING TYPE ABUTMENTS. THE ENTIRE STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH PROJECT CONSTRUCTION PLANS. RETAINING WALL AT NORTHEAST WING SHALL BE REMOVED AND IS INCIDENTAL TO STRUCTURE REMOVAL. REMOVAL OF FILL, ROADWAY PAVEMENT, CURB AND GUTTER, AND SIDEWALK OVER THE EXISTING STRUCTURE AND WITHIN THE EXISTING STRUCTURE LIMITS SHALL BE INCIDENTAL TO "REMOVING STRUCTURE OVER WATERWAY DEBRIS CAPTURE P-40-776." STONE FACING MATERIALS SHALL BE SALVAGED PER THE SPECIFICATIONS AND INCORPORATED AS SHOWN IN THE PLANS. SALVAGING STONE PAID UNDER ITEM "SALVAGING STONE P-40-776". SALVAGED STONE SHALL BE USED IN THE INSIDE FACE OF PARAPET. PAID FOR UNDER ITEM "INSTALLING SALVAGED STONE". REMAINING SALVAGED STONE SHALL BE UTILIZED AS THE PLANS AND SPECIFICATIONS SHOW. MMSD MIS UTILITY SHALL BE PROTECTED PER THE SPECIFICATIONS.

TEMPORARY CASING MAY BE REQUIRED FOR PREBORING. THE COST FOR PROVIDING, INSTALLING AND REMOVING THE TEMPORARY CASING SHALL BE INCIDENTAL TO THE BID ITEM "PRE-BORING ROCK OR CONSOLIDATED MATERIALS".



DOVETAIL ANCHOR SLOT DETAIL

FOR USE AT ALL STONE FACING LOCATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

GENERAL NOTES & QUANTITIES

SHEET 3 OF 28

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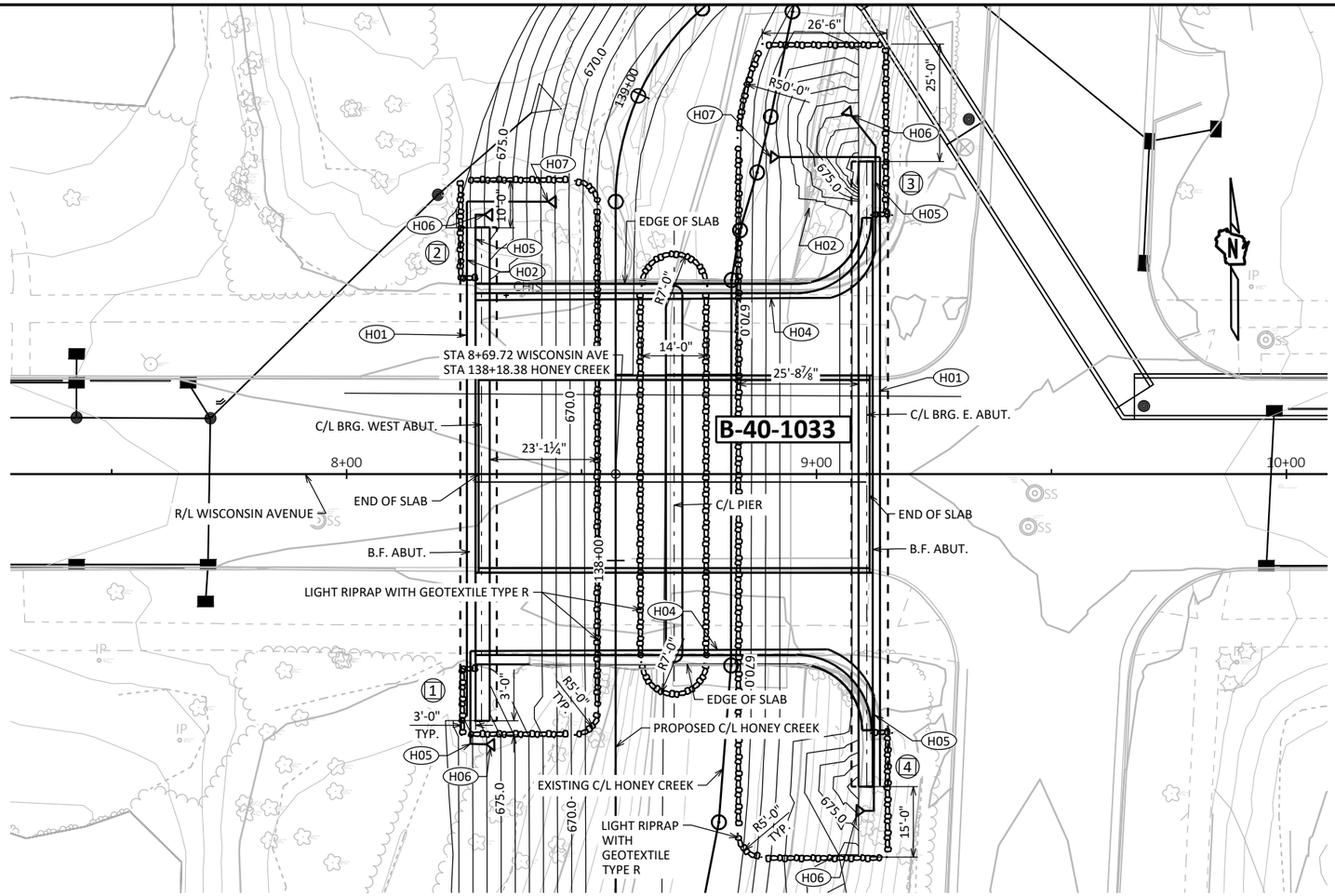
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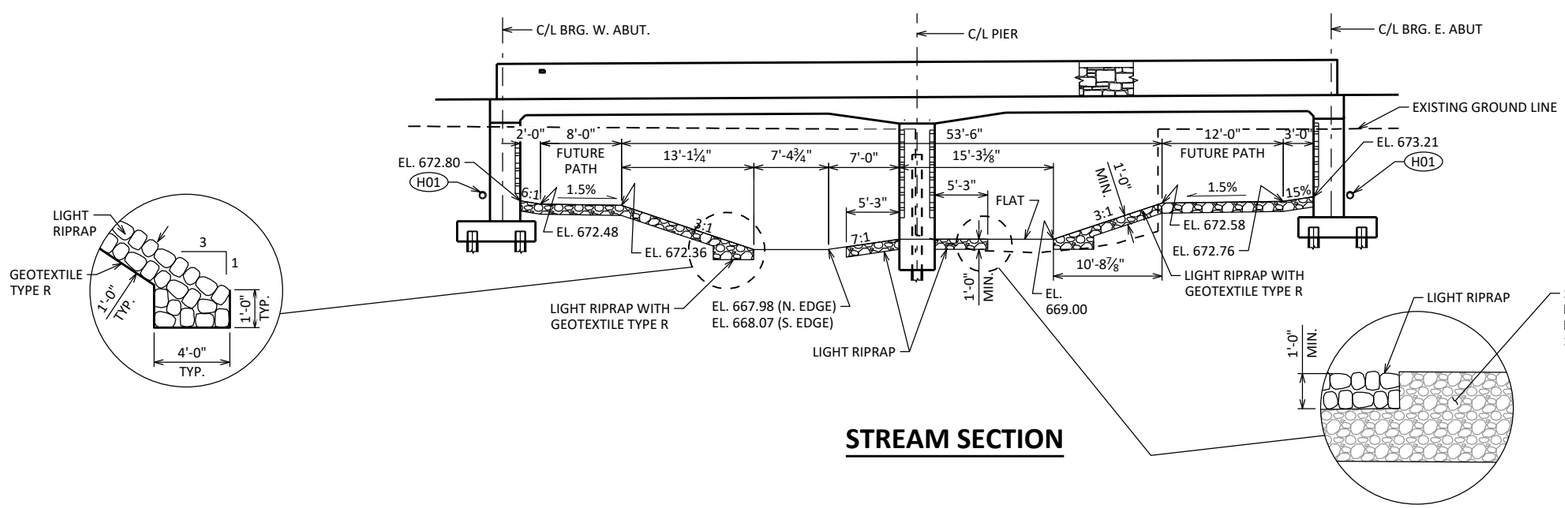
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STATE PROJECT NUMBER

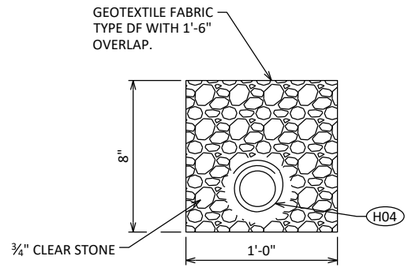
2190-10-70



PLAN



STREAM SECTION



4-INCH PIPE UNDERDRAIN DETAIL

FABRIC AND CLEAR STONE INCIDENTAL TO BID ITEM "PIPE UNDERDRAIN WRAPPED 4-INCH"

LEGEND

- (H01) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. CAP & RODENT SHIELD REQ'D. SEE SHEETS 6 THRU 12 FOR ADDITIONAL DETAILS
- (H02) PIPE UNDERDRAIN UNPERFORATED (6-INCH). SLOPE OF 0.5% MIN.
- (H04) PIPE UNDERDRAIN WRAPPED (4-INCH). SLOPE 0.5% MIN. CAP & RODENT SHIELD REQ'D. SEE SHEET 8 FOR ADDITIONAL DETAILS.
- (H05) PIPE UNDERDRAIN UNPERFORATED (4-INCH). SLOPE OF 0.5% MIN.
- (H06) APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 4-INCH. INV. EL. = 676.00
- (H07) APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH W. ABUT. INV. EL. = 671.50 E. ABUT. INV. EL. = 671.75
- (X) WINGWALL NUMBER

NOTES

STREAM DETAILS SHOWN FOR INFORMATION. SEE ROADWAY PLANS FOR STREAM ALIGNMENT, CROSS SECTIONS AND EARTHWORK.

SEE SPECIAL PROVISIONS FOR MATERIAL MODIFICATION TO BID ITEM "RIPRAP LIGHT"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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RIPRAP & STREAM DETAILS

SHEET 4 OF 28

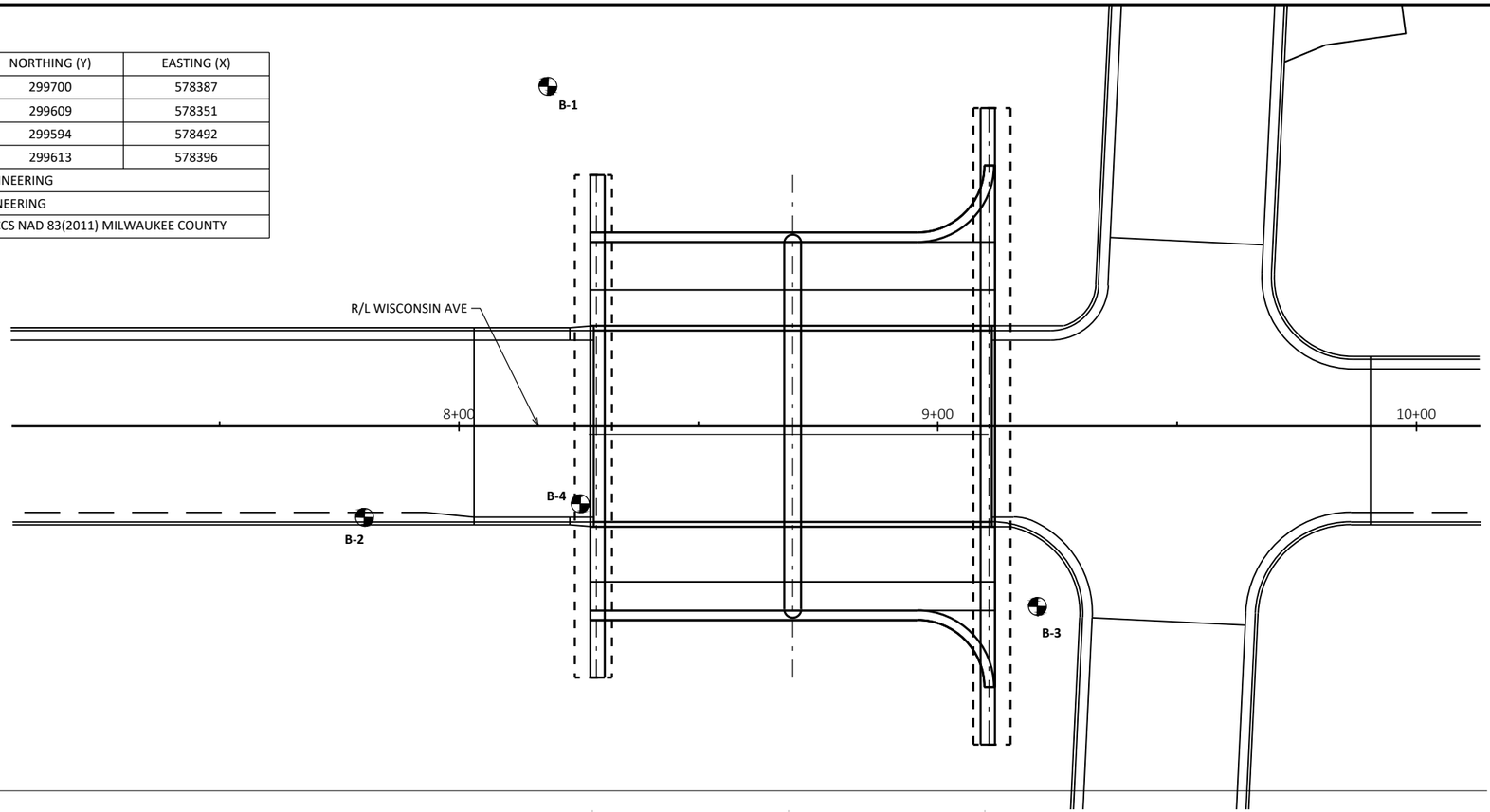
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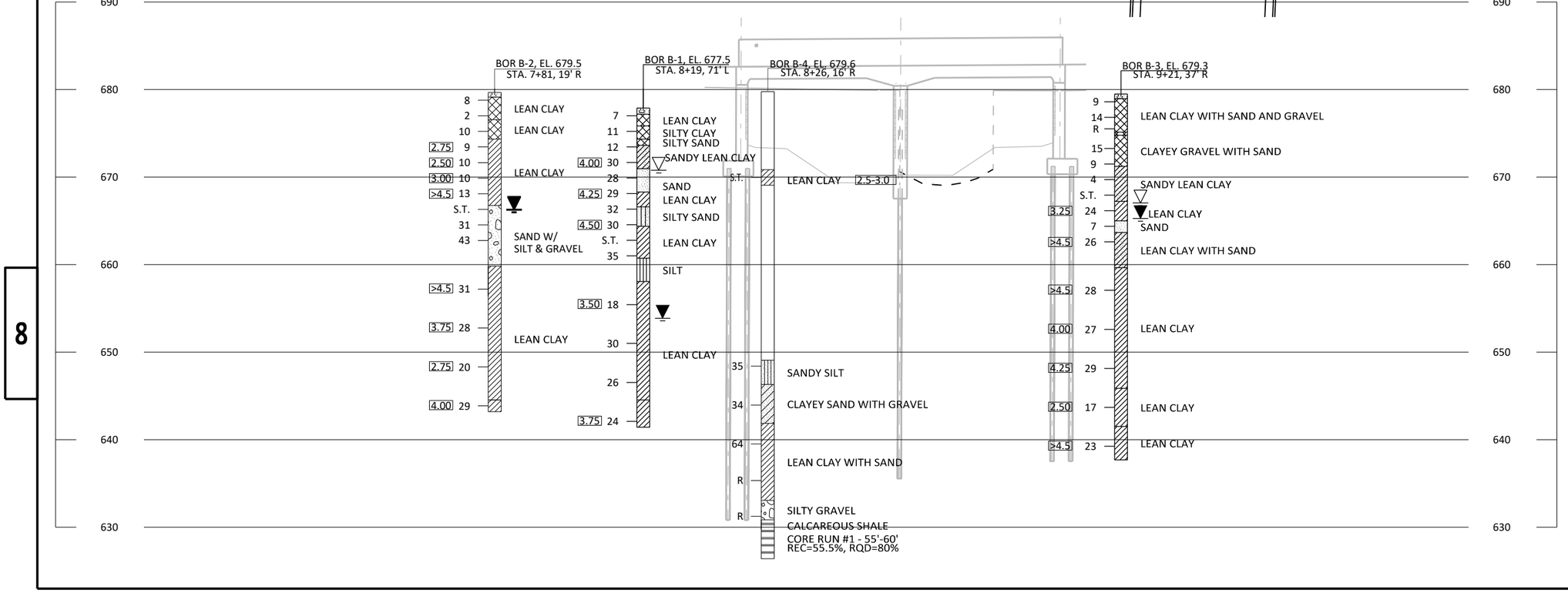
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	2/02/2021	299700	578387
B-2	2/02/2021	299609	578351
B-3	2/03/2021	299594	578492
B-4	2/20/2023	299613	578396
BORINGS COMPLETED BY: GESTRA ENGINEERING			
REPORT COMPLETED BY: GESTRA ENGINEERING			
ALL COORDINATES REFERENCED TO WCCS NAD 83(2011) MILWAUKEE COUNTY			





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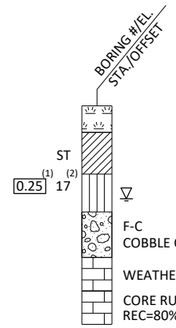
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MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SMC PLANS CK'D AJA

SUBSURFACE EXPLORATION

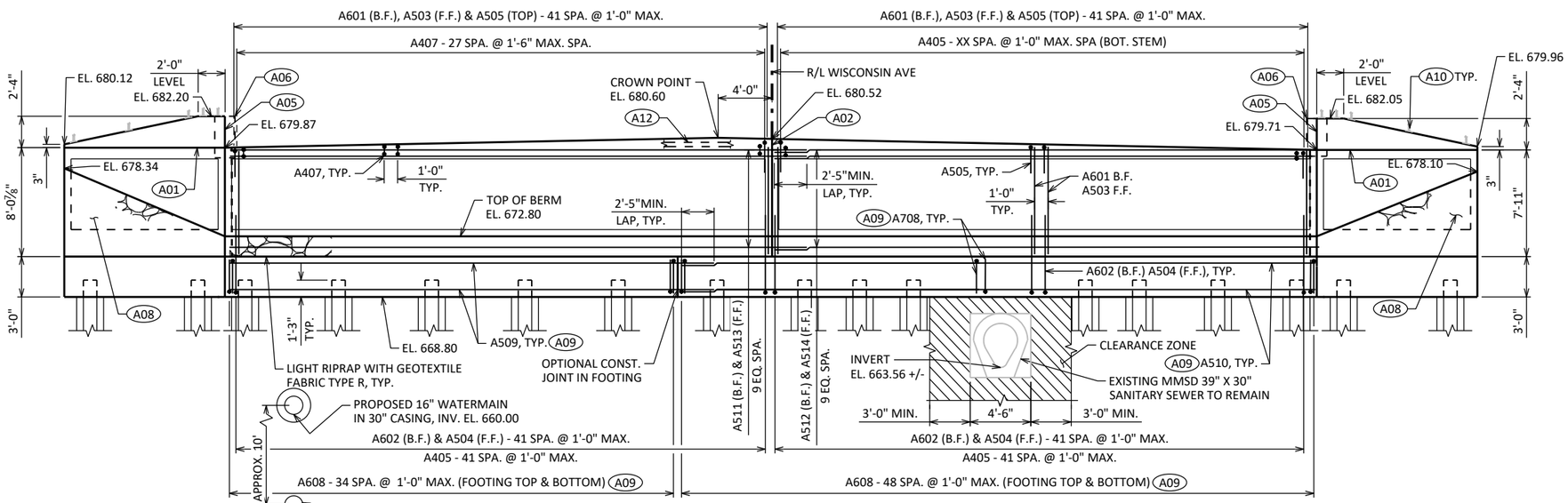
SHEET 5 OF 28

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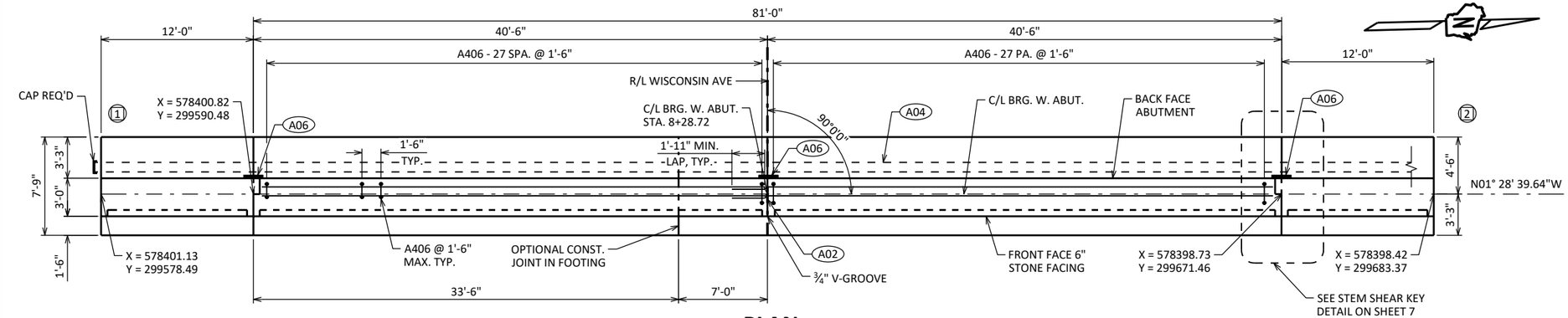
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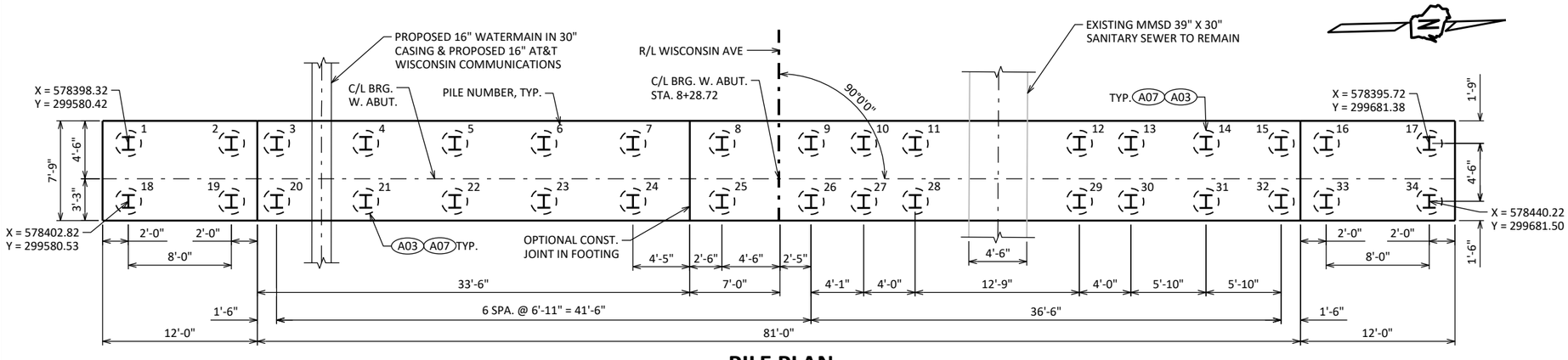
ELEVATION

(LOOKING WEST)



PLAN

(DIMENSIONS GIVEN ALONG C/L BEARING)



PILE PLAN

(DIMENSIONS GIVEN ALONG C/L BEARING)

LEGEND

- (A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A02) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- (A03) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 50'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- (A04) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO APRON ENDWALL. RODENT SHIELD REQUIRED. SEE SHEET 8 FOR RODENT SHIELD DETAIL. SEE SHEET 4 FOR OUTFALL LOCATIONS
- (A05) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A06) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A07) PILES SHALL BE PRE-BORED
- (A08) FOAM & GEOTEXTILE TYPE R TO BE PLACED OVER STONE FACING BELOW THE LIGTH RIPRAP AT THE WINGWALLS. FOAM SHALL BE INCIDENTAL TO BID ITEM "STONE FACING".
- (A09) SPACE REINFORCEMENT AROUND THE PILES
- (A10) RAILING STEEL PEDESTRIAN TYPE C2, SEE SHEET 28 FOR DETAILS.
- (A12) 2" DIA. CONDUIT IN ABUTMENT, SEE SHEETS 26 & 27 FOR DETAILS.
- (X) WINGWALL NUMBER
- HP 12x53 STEEL PILING

NOTES

ELEVATIONS ARE GIVEN AT TOP OF CONCRETE AT THE C/L BEARING.

THE CONTRACTOR SHALL DEVELOP AN EXCAVATION PLAN.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

FOR TYPICAL SECTION THRU ABUTMENT BODY, SEE SHEET 7.

FOR ABUTMENT BILL OF BARS, SEE SHEET 8.

FOR WINGWALL REINFORCEMENT AND BIILL OF BARS, SEE SHEET 9.

FOR ALTERNATE CONSTRUCTION JOINT DETAIL, SEE SHEET 14.

FOR ABUTMENT CONDUIT DETAILS, SEE SHEETS 26 & 27.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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WEST ABUTMENT

SHEET 6 OF 28

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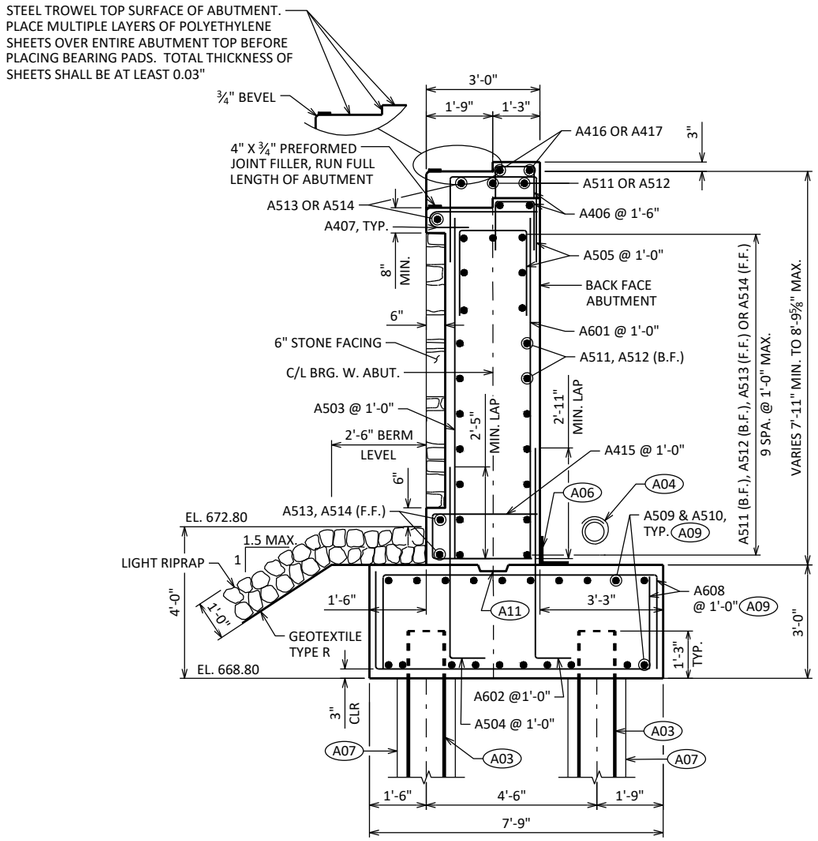
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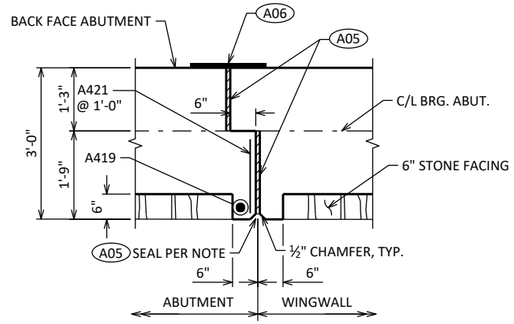
STATE PROJECT NUMBER

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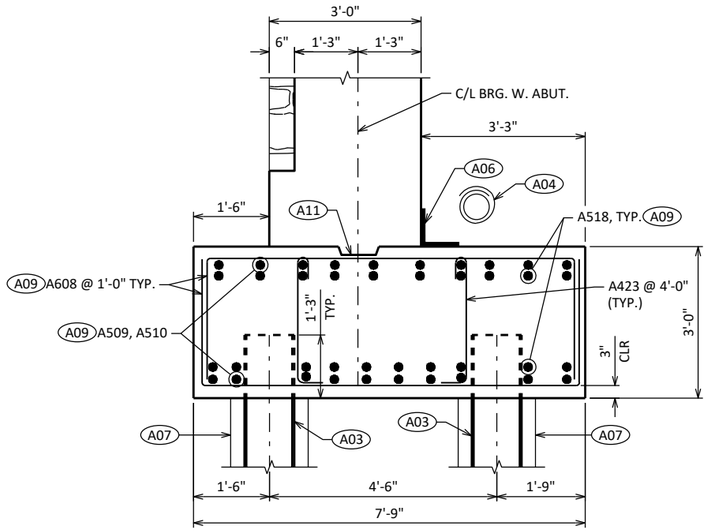
SECTION THRU ABUTMENT

(LOOKING SOUTH)
(CONDUIT NOT SHOWN FOR CLARITY, SEE SHEETS 26 & 27)



STEM SHEAR KEY DETAIL

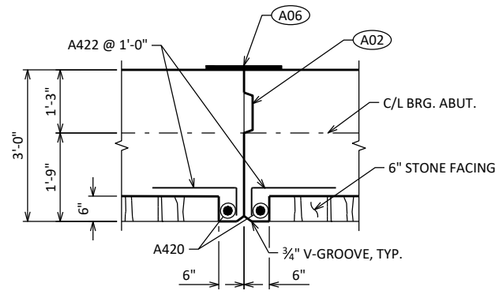
(FOOTING & REINFORCEMENT NOT SHOWN FOR CLARITY)



SECTION A-A

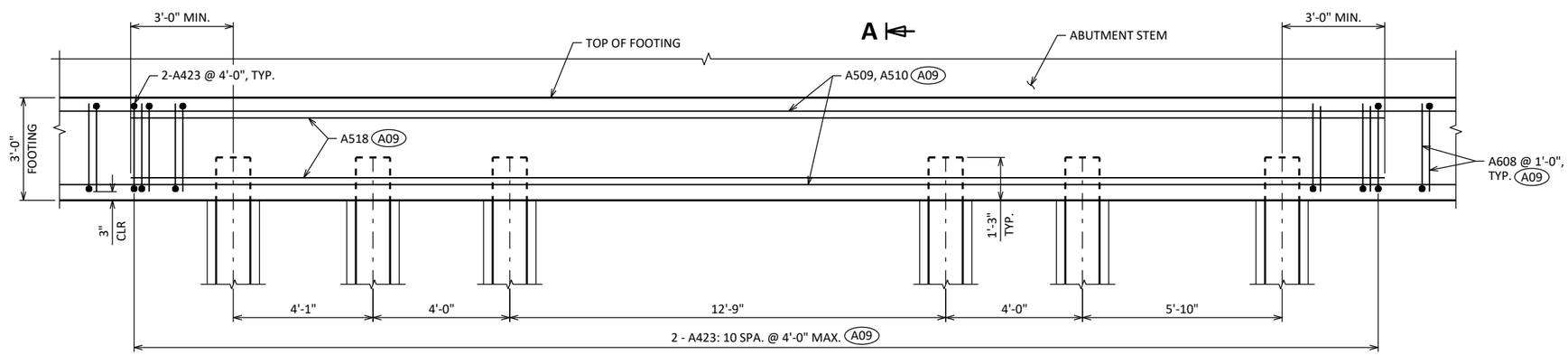
LEGEND

- (A02) VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- (A03) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 50'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- (A04) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED. SEE SHEET 8 FOR RODENT SHIELD DETAIL. SEE SHEET 4 FOR OUTFALL LOCATIONS.
- (A05) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A06) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (A07) PILES SHALL BE PRE-BORED
- (A09) SPACE REINFORCEMENT AROUND THE PILES
- (A11) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6"



CONSTRUCTION JOINT DETAIL

(FOOTING & REINFORCEMENT NOT SHOWN FOR CLARITY)



PARTIAL ELEVATION OVER MMSD PIPE

(LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

WEST ABUTMENT DETAILS (1 OF 2)

SHEET 7 OF 28

205

SCALE =

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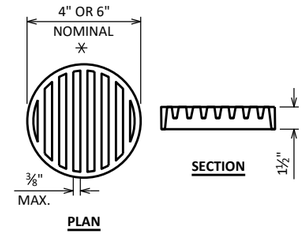
STATE PROJECT NUMBER

2190-10-70

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A601	-	84	7'-7"	-	-	ABUTMENT BODY BACK FACE - VERT.
A602	-	84	6'-8"	X	-	ABUTMENT BODY BACK FACE - VERT.
A503	-	84	7'-7"	-	-	ABUTMENT BODY FRONT FACE - VERT.
A504	-	84	6'-3"	X	-	ABUTMENT BODY FRONT FACE - VERT.
A505	-	84	6'-11"	X	-	ABUTMENT BODY TOP ADDITONAL VERT.
A406	-	56	5'-9"	X	-	ABUTMENT BODY TOP
A407	-	56	3'-2"	X	-	ABUTMENT BODY TOP
A608	-	168	12'-3"	X	-	ABUTMENT FOOTING TOP & BOTTOM - TRANS.
A509	-	20	35'-11"	-	-	ABUTMENT FOOTING TOP & BOTTOM - LONG.
A510	-	20	47'-2"	-	-	ABUTMENT FOOTING TOP & BOTTOM - LONG.
A511	-	11	39'-8"	-	-	ABUTMENT BODY BACK FACE - LONG.
A512	-	11	42'-5"	-	-	ABUTMENT BODY BACK FACE - LONG.
A513	-	13	40'-2"	-	-	ABUTMENT BODY FRONT FACE - LONG.
A514	-	13	42'-11"	-	-	ABUTMENT BODY FRONT FACE - LONG.
A415	-	84	6'-4"	X	-	ABUTMENT BODY BOTTOM
A416	-	2	42'-5"	-	-	ABUTMENT BODY TOP - LONG.
A417	-	2	40'-2"	-	-	ABUTMENT BODY TOP - LONG.
A518	-	20	36'-8"	-	-	ABUTMENT FOOTING TOP & BOTTOM OVER MMSD - LONG.
A419	-	2	7'-7"	-	-	ABUTMENT SHEAR KEY AT STONE FACE EDGE - VERT.
A420	-	2	8'-4"	-	-	ABUTMENT CONSTRUCTION JOING AT STONE FACE EDGE - VERT.
A421	-	20	1'-4"	-	-	ABUTMENT STONE FACE EDGE - HORIZ.
A422	-	20	1'-7"	X	-	ABUTMENT STONE FACE EDGE AT CONST. JOINT - HORIZ.
A423	-	22	3'-4"	X	-	ABUTMENT FOOTING VERT. TIE AT MMSD



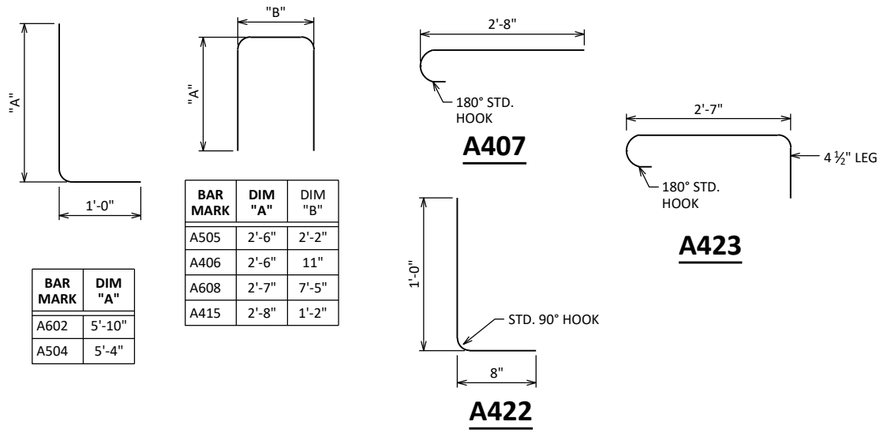
PLAN

RODENT SHIELD DETAIL

⚹ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH" OR "PIPE UNDERDRAIN WRAPPED 4-INCH"

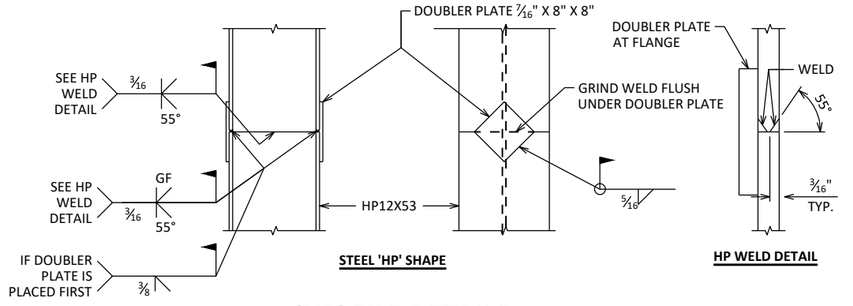
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



BAR MARK	DIM "A"
A602	5'-10"
A504	5'-4"

BAR MARK	DIM "A"	DIM "B"
A505	2'-6"	2'-2"
A406	2'-6"	11"
A608	2'-7"	7'-5"
A415	2'-8"	1'-2"

BENDING DIAGRAM



STEEL 'HP' SHAPE

HP WELD DETAIL

'HP' PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

WEST ABUTMENT DETAILS (2 OF 2)

SHEET 8 OF 28

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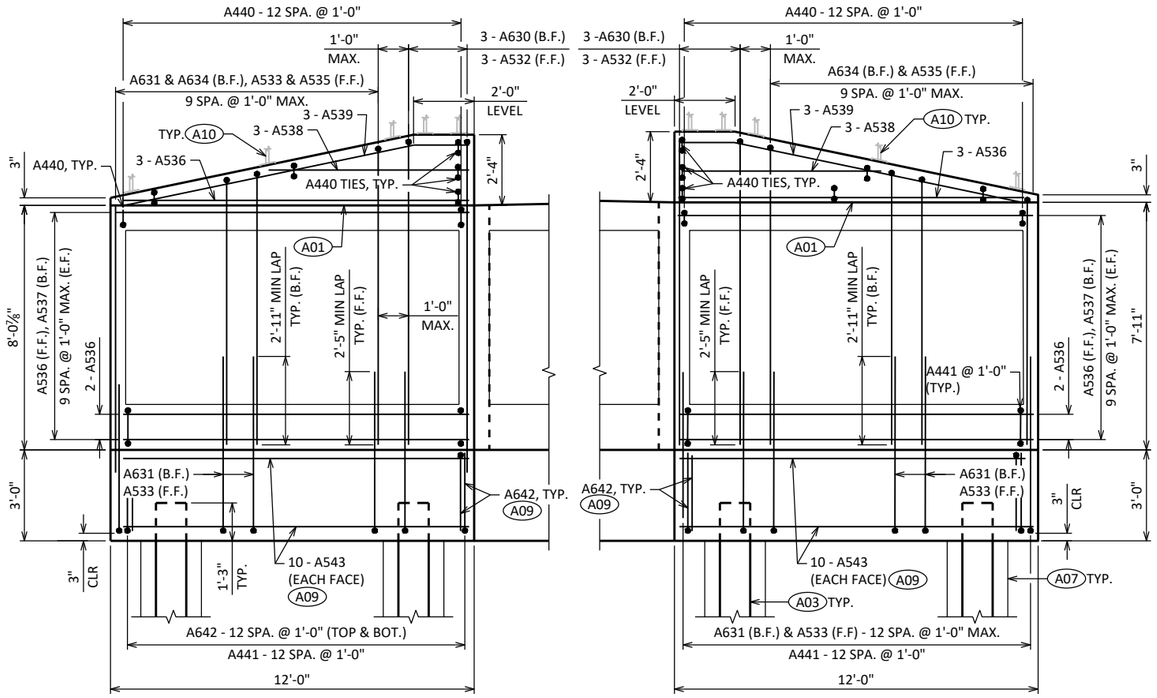
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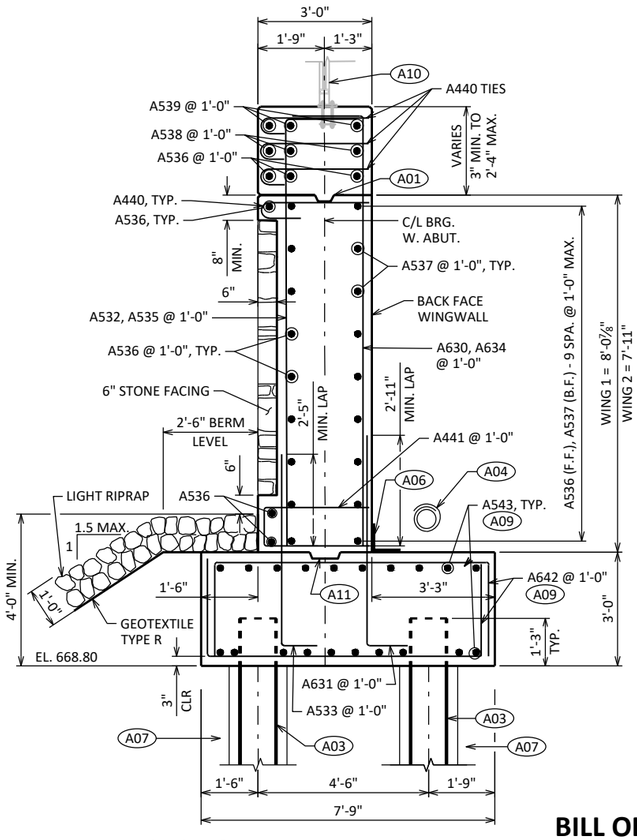
STATE PROJECT NUMBER

2190-10-70



WINGWALL ELEVATION

(LOOKING WEST)



SECTION THRU WINGWALL

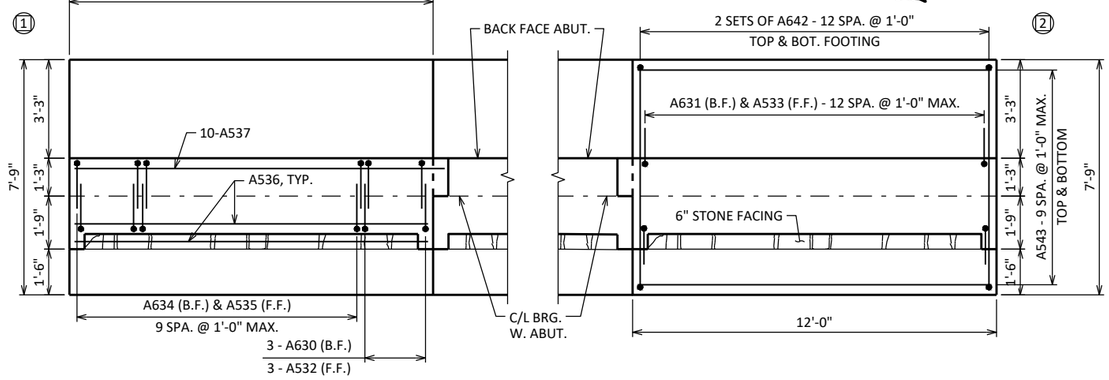
(LOOKING SOUTH)

LEGEND

- (A01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A03) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 50'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- (A04) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A05) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A07) PILES SHALL BE PRE-BORED
- (A08) FOAM & GEOTEXTILE TYPE HR TO BE PLACED OVER STONE FACING BELOW THE HEAVY RIPRAP AT THE WINGWALLS. FOAM SHALL BE INCIDENTAL TO BID ITEM "STONE FACING".
- (A09) SPACE REINFORCEMENT AROUND THE PILES
- (A10) RAILING STEEL PEDESTRIAN TYPE C2, SEE SHEET 28 FOR DETAILS.
- (A11) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6"
- (X) WINGWALL NUMBER

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A634	2 SERIES OF 10	9'-10" TO 11'-8"
A535	2 SERIES OF 10	9'-11" TO 11'-9"



STEM REINFORCEMENT
(WINGWALL 1 SHOWN, WINGWALL 2 SIMILAR)

FOOTING REINFORCEMENT
(WINGWALL 2 SHOWN, WINGWALL 1 SIMILAR)

WINGWALL PLAN

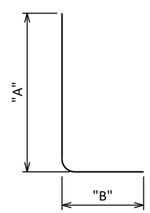
(PILES NOT SHOWN FOR CLARITY)

BILL OF BARS

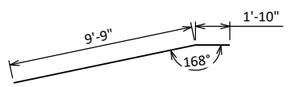
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A630	X	6	11'-11"	X	-	WINGWALL BACK FACE - VERT.
A631	X	26	6'-6"	X	-	WINGWALL BACK FACE - VERT.
A532	X	6	12'-0"	X	-	WINGWALL FRONT FACE - VERT.
A533	X	26	5'-11"	X	-	WINGWALL FRONT FACE - VERT.
A634	X	20	10'-9"	X	△	WINGWALL BACK FACE - SERIES
A535	X	20	10'-10"	X	△	WINGWALL FRONT FACE - SERIES
A536	X	32	11'-8"	-	-	WINGWALL FRONT FACE - LONG.
A537	X	20	12'-2"	-	-	WINGWALL BACK FACE - LONG.
A538	X	6	6'-7"	-	-	WINGWALL TOP - LONG
A539	X	6	11'-7"	X	-	WINGWALL TOP - LONG.
A440	X	38	3'-2"	X	-	WINGWALL FRONT FACE - LONG.
A441	X	26	6'-4"	X	-	WINGWALL BOTTOM - TRANS.
A642	X	52	12'-3"	X	-	WINGWALL FOOTING - LONG.
A543	X	40	11'-8"	-	-	WINGWALL FOOTING - VERT.

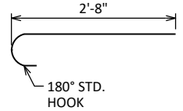
△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR MARK	DIM "A"	DIM "B"
A630	9'-11"	2'-2"
A631	5'-8"	1'-0"
A532	9'-11"	2'-2"
A533	5'-2"	10"
A634	7'-10" TO 9'-8"	2'-2"
A635	7'-10" TO 9'-8"	2'-2"

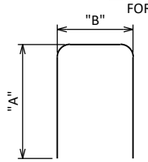


A539



A440

BENDING DIAGRAM



BAR MARK	DIM "A"	DIM "B"
A441	2'-8"	1'-2"
A642	2'-7"	7'-5"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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WEST ABUTMENT WINGWALL DETAILS

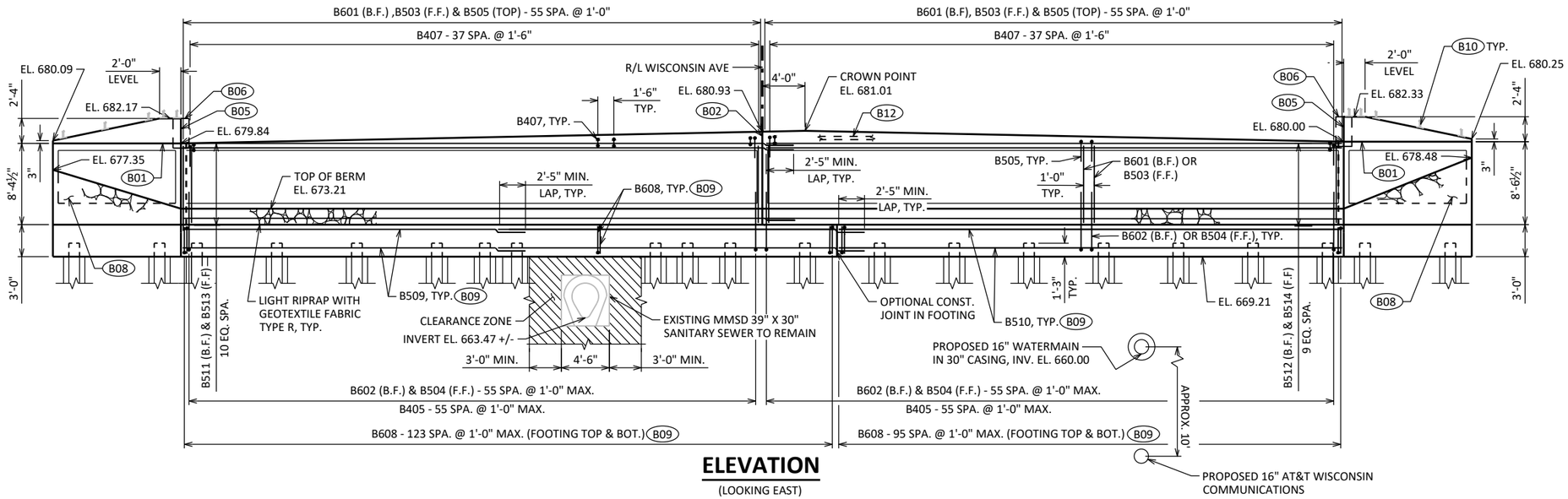
SHEET 9 OF 28

207

SCALE =

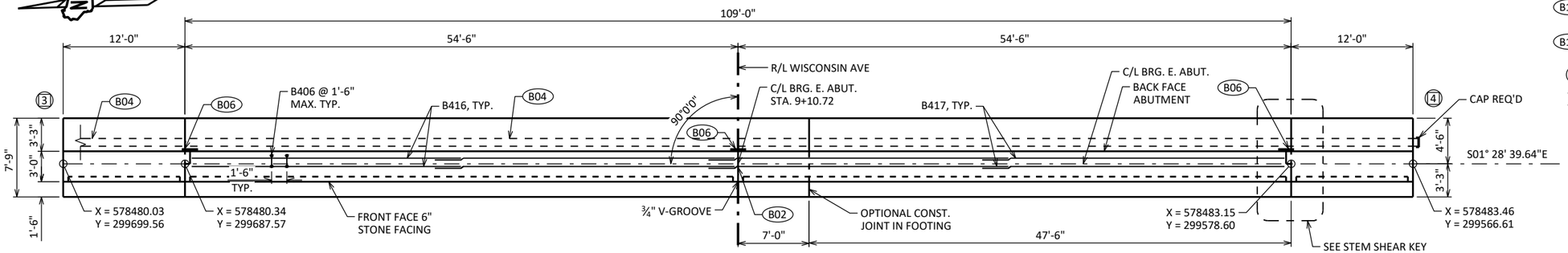
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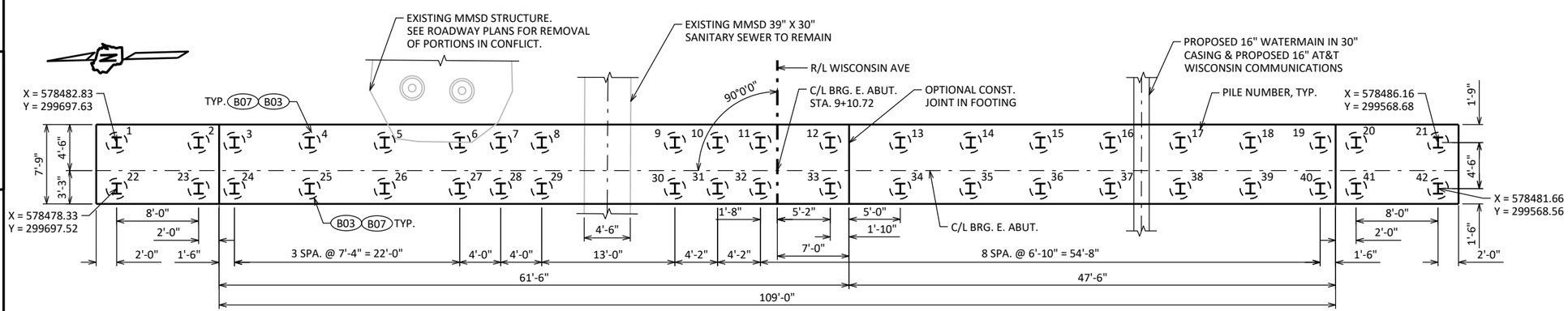
ELEVATION

(LOOKING EAST)



PLAN

(DIMENSIONS GIVEN ALONG C/L BEARING)



PILE PLAN

(DIMENSIONS GIVEN ALONG C/L BEARING)

LEGEND

- B01 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- B02 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- B03 SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 40'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- B04 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO APRON ENDWALL. RODENT SHIELD REQUIRED. SEE SHEET 12 FOR RODENT SHIELD DETAIL.SEE SHEET 4 FOR OUTFALL LOCATIONS.
- B05 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- B06 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- B07 PILES SHALL BE PRE-BORED
- B08 FOAM & GEOTEXTILE TYPE R TO BE PLACED OVER STONE FACING BELOW THE LIGHT RIPRAP AT THE WINGWALLS. FOAM SHALL BE INCIDENTAL TO BID ITEM "STONE FACING".
- B09 SPACE REINFORCEMENT AROUND THE PILES
- B10 RAILING STEEL PEDESTRIAN TYPE C2, SEE SHEET 28 FOR DETAILS.
- B12 2" DIA. CONDUIT IN ABUTMENT, SEE SHEETS 26 & 27 FOR DETAILS.
- (X) WINGWALL NUMBER
- HP 12x53 STEEL PILING

NOTES

ELEVATIONS ARE GIVEN AT TOP OF CONCRETE AT THE C/L BEARING.

THE CONTRACTOR SHALL DEVELOP AN EXCAVATION PLAN.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

FOR TYPICAL SECTION THRU ABUTMENT BODY, SEE SHEET 11.

FOR ABUTMENT BILL OF BARS, SEE SHEET 12.

FOR WINGWALL REINFORCEMENT AND BIILL OF BARS, SEE SHEET 13.

FOR ALTERNATE CONSTRUCTION JOINT DETAIL, SEE SHEET 14.

STATE PROJECT NUMBER

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

EAST ABUTMENT

SHEET 10 OF 28

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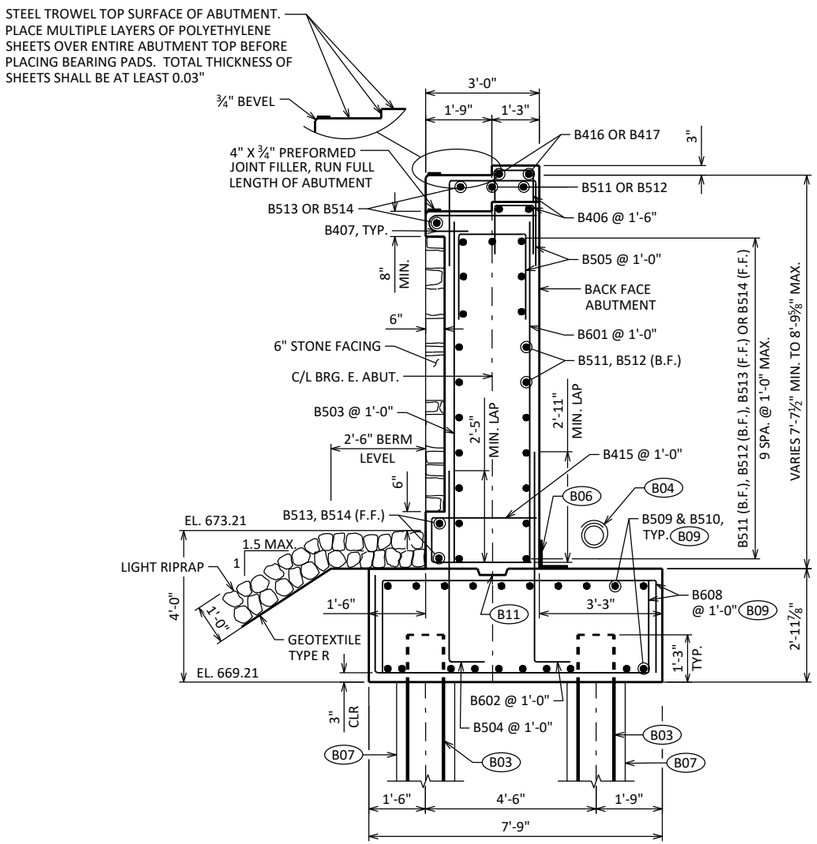
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STATE PROJECT NUMBER

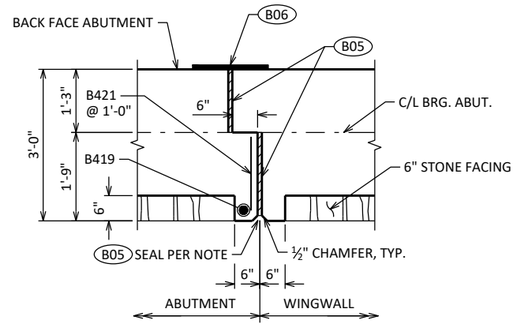
2190-10-70



SECTION THRU ABUTMENT

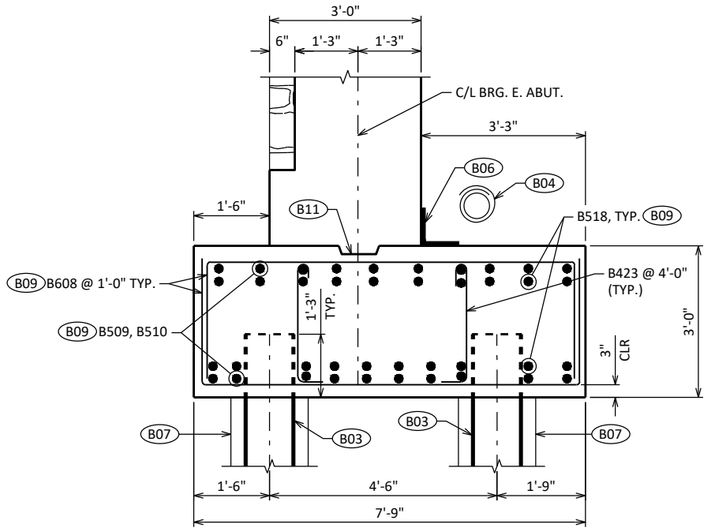
(LOOKING NORTH)

(CONDUIT NOT SHOWN FOR CLARITY, SEE SHEETS 26 & 27)

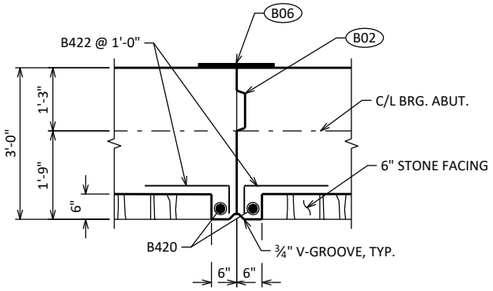


STEM SHEAR KEY DETAIL

(FOOTING & REINFORCEMENT NOT SHOWN FOR CLARITY)



SECTION B-B

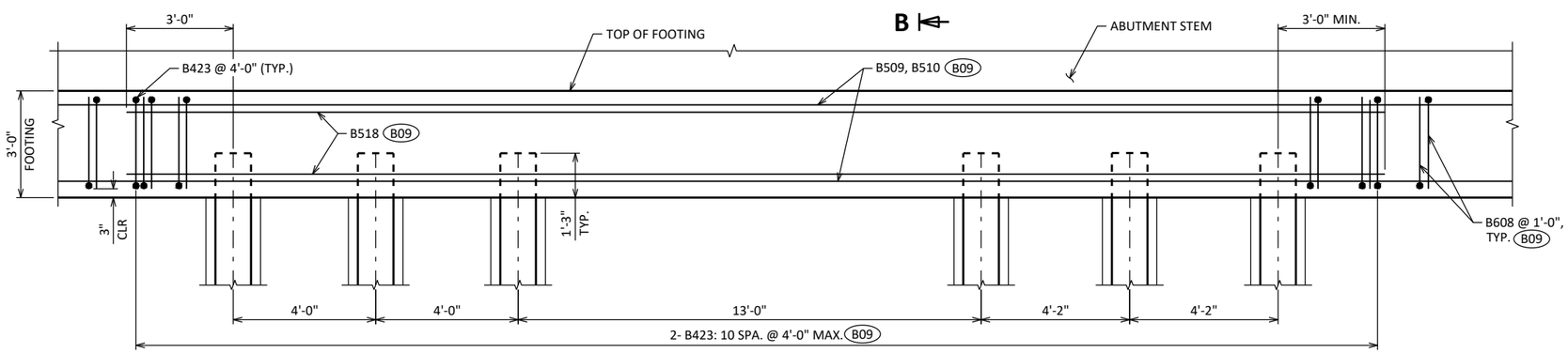


CONSTRUCTION JOINT DETAIL

(FOOTING & REINFORCEMENT NOT SHOWN FOR CLARITY)

LEGEND

- B02 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACK FACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- B03 SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 40'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLE AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- B04 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. CAP & RODENT SHIELD REQ'D. SEE SHEET 12 FOR RODENT SHIELD DETIAL. SEE SHEET 4 FOR OUTFALL LOCATIONS.
- B05 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- B06 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- B07 PILES SHALL BE PRE-BORED
- B09 SPACE REINFORCEMENT AROUND THE PILES
- B11 KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6"



PARTIAL ELEVATION OVER MMSD PIPE

(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

EAST ABUTMENT DETAILS (1 OF 2)

SHEET 11 OF 28

209

SCALE =

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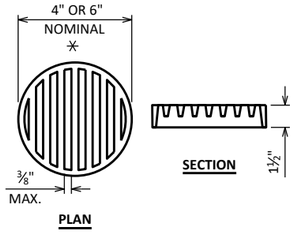
STATE PROJECT NUMBER

2190-10-70

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601	-	112	8'-0"	-	-	ABUTMENT BODY BACK FACE VERT.
B602	-	112	6'-8"	X	-	ABUTMENT BODY BACK FACE- VERT.
B503	-	112	8'-0"	-	-	ABUTMENT BODY FRONT FACE - VERT.
B504	-	112	6'-3"	X	-	ABUTMENT BODY FRONT FACE - VERT.
B505	-	112	7'-11"	X	-	ABUTMENT BODY TOP - VERT.
B406	-	76	6'-9"	X	-	ABUTMENT BODY TOP
B407	-	76	3'-2"	X	-	ABUTMENT BODY TOP
B608	-	224	12'-3"	X	-	ABUTMENT FOOTING TOP & BOTTOM-TRANS.
B509	-	40	31'-10"	-	-	ABUTMENT FOOTING TOP & BOTTOM- LONG.
B510	-	20	47'-2"	-	-	ABUTMENT FOOTING TOP & BOTTOM - LONG.
B511	-	11	53'-8"	-	-	ABUTMENT BODY BACK FACE - LONG.
B512	-	11	56'-5"	-	-	ABUTMENT BODY BACK FACE - LONG.
B513	-	13	54'-2"	-	-	ABUTMENT BODY FRONT FACE - LONG.
B514	-	13	56'-11"	-	-	ABUTMENT BODY FRONT FACE - LONG.
B415	-	112	6'-4"	X	-	ABUTMENT BODY BOTTOM
B416	-	4	28'-1"	-	-	ABUTMENT BODY TOP - LONG.
B417	-	4	29'-2"	-	-	ABUTMENT BODY TOP - LONG.
B518	-	20	35'-4"	-	-	ABUTMENT FOOTING TOP & BOTTOM OVER MMSD - LONG.
B419	-	2	8'-0"	-	-	ABUTMENT SHEAR KEY AT STONE FACE EDGE - VERT.
B420	-	2	8'-4"	-	-	ABUTMENT CONSTRUCTION JOING AT STONE FACE EDGE - VERT.
B421	-	20	1'-4"	-	-	ABUTMENT STONE FACE EDGE AT SHEAR KEY - HORIZ.
B422	-	20	1'-7"	X	-	ABUTMENT STONE FACE EDGE AT CONST. JOINT - HORIZ.
B423	-	22	3'-4"	X	-	ABUTMENT FOOTING VERT. TIE AT MMSD

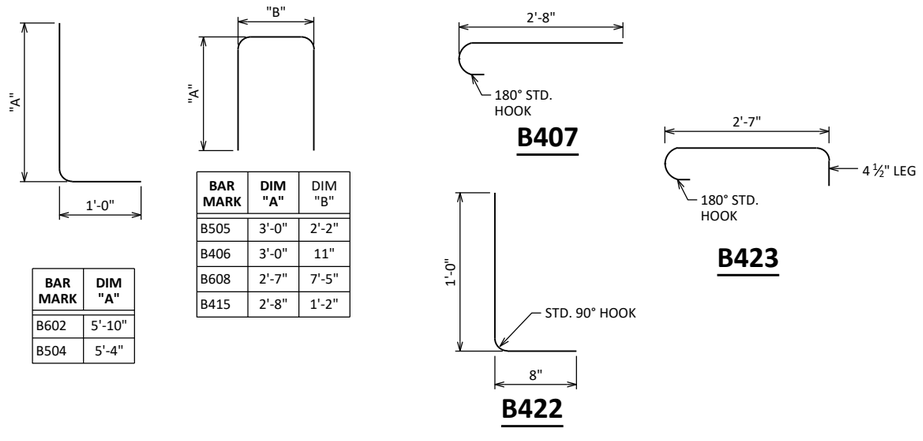


RODENT SHIELD DETAIL

✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH" OR "PIPE UNDERDRAIN 4-INCH".

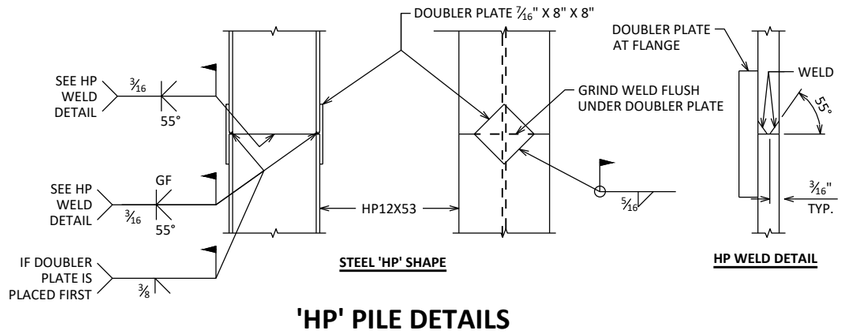
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



BAR MARK	DIM "A"
B602	5'-10"
B504	5'-4"

BAR MARK	DIM "A"	DIM "B"
B505	3'-0"	2'-2"
B406	3'-0"	11"
B608	2'-7"	7'-5"
B415	2'-8"	1'-2"

BENDING DIAGRAM



'HP' PILE DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

EAST ABUTMENT DETAILS (2 OF 2)

SHEET 12 OF 28

210

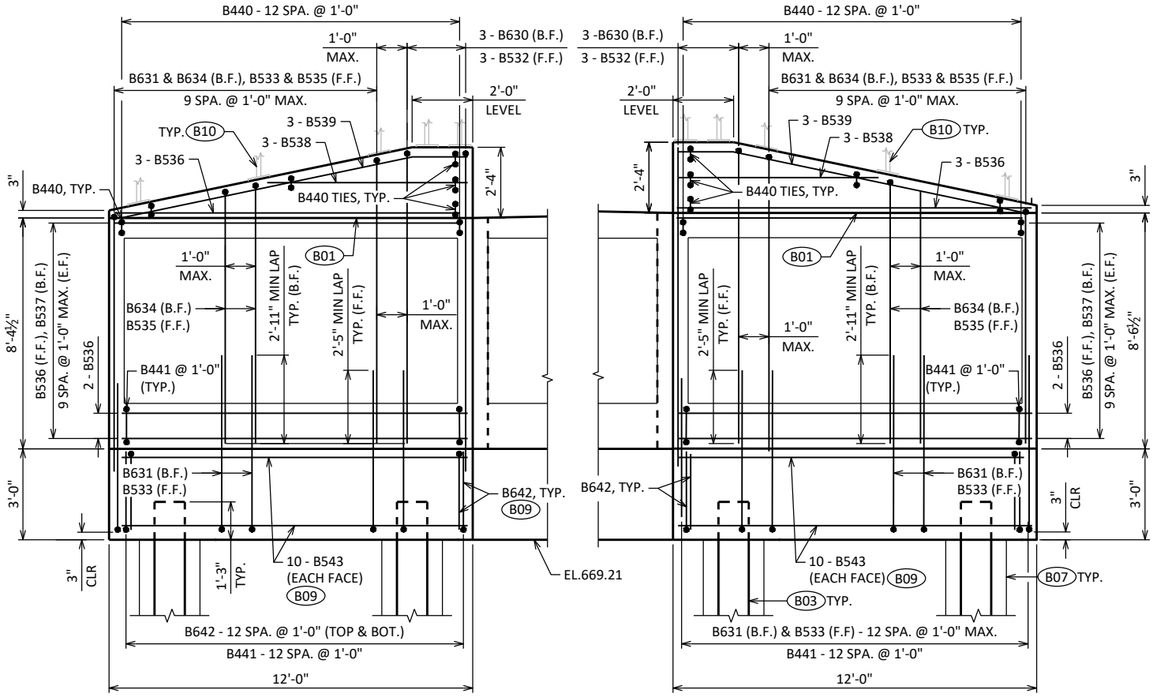
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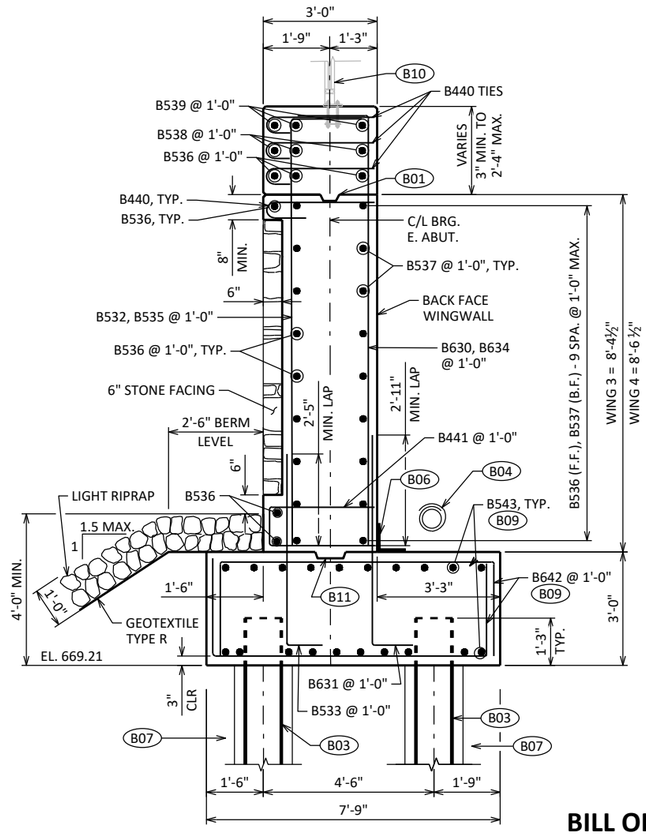
STATE PROJECT NUMBER

2190-10-70



WINGWALL ELEVATION

(LOOKING EAST)



SECTION THRU WINGWALL

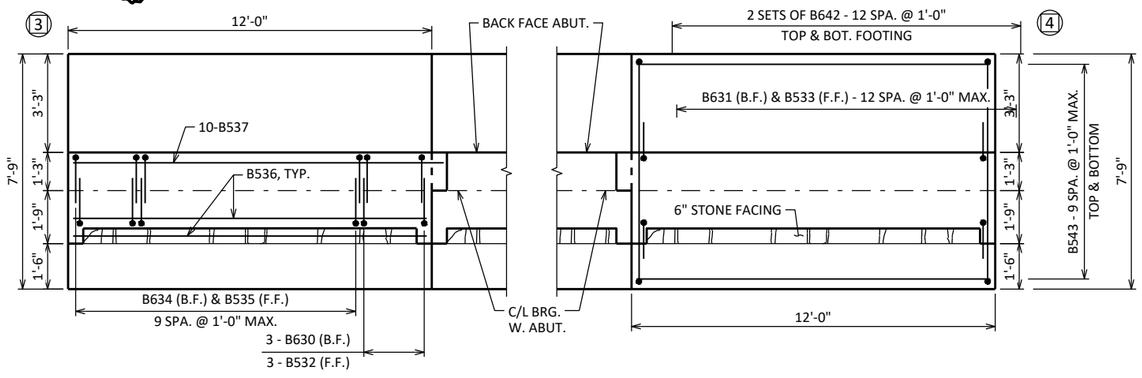
(LOOKING NORTH)

LEGEND

- (B01) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (B03) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 40'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE PREBORED HOLE AND THE FILING TO BE BACKFILLED WITH CONCRETE.
- (B04) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. CAP & RODENT SHIELD REQ'D. SEE SHEET 12 FOR ADDITIONAL DETAILS.
- (B05) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (B07) PILES SHALL BE PRE-BORED
- (B08) FOAM & GEOTEXTILE TYPE HR TO BE PLACED OVER STONE FACING BELOW THE HEAVY RIPRAP AT THE WINGWALLS. FOAM SHALL BE INCIDENTAL TO BID ITEM "STONE FACING".
- (B09) SPACE REINFORCEMENT AROUND THE PILES
- (B10) RAILING STEEL PEDESTRIAN TYPE C2, SEE SHEET 28 FOR DETAILS.
- (B11) KEYED CONSTRUCTION JOINT FORMED BY A BEVELED 2" X 6"
- (X) WINGWALL NUMBER

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
B634	2 SERIES OF 10	10'-2" TO 11'-6"
B535	2 SERIES OF 10	10'-3" TO 11'-7"



STEM REINFORCEMENT

(WINGWALL 3 SHOWN, WINGWALL 4 SIMILAR)

FOOTING REINFORCEMENT

(WINGWALL 4 SHOWN, WINGWALL 3 SIMILAR)

WINGWALL PLAN

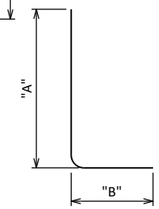
(PILES NOT SHOWN FOR CLARITY)

BILL OF BARS

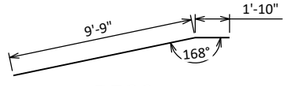
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B630	X	6	11'-9"	X	-	WINGWALL BACK FACE - VERT.
B631	X	26	6'-6"	X	-	WINGWALL BACK FACE - VERT.
B532	X	6	11'-10"	X	-	WINGWALL FRONT FACE - VERT.
B533	X	26	5'-11"	X	-	WINGWALL FRONT FACE - VERT.
B634	X	20	10'-10"	X	△	WINGWALL BACK FACE - SERIES
B535	X	20	10'-11"	X	△	WINGWALL FRONT FACE - SERIES
B536	X	32	11'-8"	-	-	WINGWALL FRONT FACE - LONG.
B537	X	20	12'-2"	-	-	WINGWALL BACK FACE - LONG.
B538	X	6	6'-7"	-	-	WINGWALL TOP - LONG.
B539	X	6	11'-7"	X	-	WINGWALL TOP - LONG.
B440	X	38	3'-2"	X	-	WINGWALL FRONT FACE - LONG.
B441	X	26	6'-4"	X	-	WINGWALL BOTTOM - TRANS.
B642	X	52	12'-3"	X	-	WINGWALL FOOTING - LONG.
B543	X	40	11'-8"	-	-	WINGWALL FOOTING - VERT.

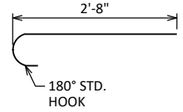
△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



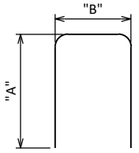
BAR MARK	DIM "A"	DIM "B"
B630	9'-9"	2'-2"
B631	5'-8"	1'-0"
B532	9'-9"	2'-2"
B533	5'-2"	10"
B634	8'-2" TO 9'-6"	2'-2"
B535	8'-2" TO 9'-6"	2'-2"



B539



B440



BAR MARK	DIM "A"	DIM "B"
B441	2'-8"	1'-2"
B642	2'-7"	7'-5"

BENDING DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

EAST ABUTMENT WINGWALL DETAILS

SHEET 13 OF 28

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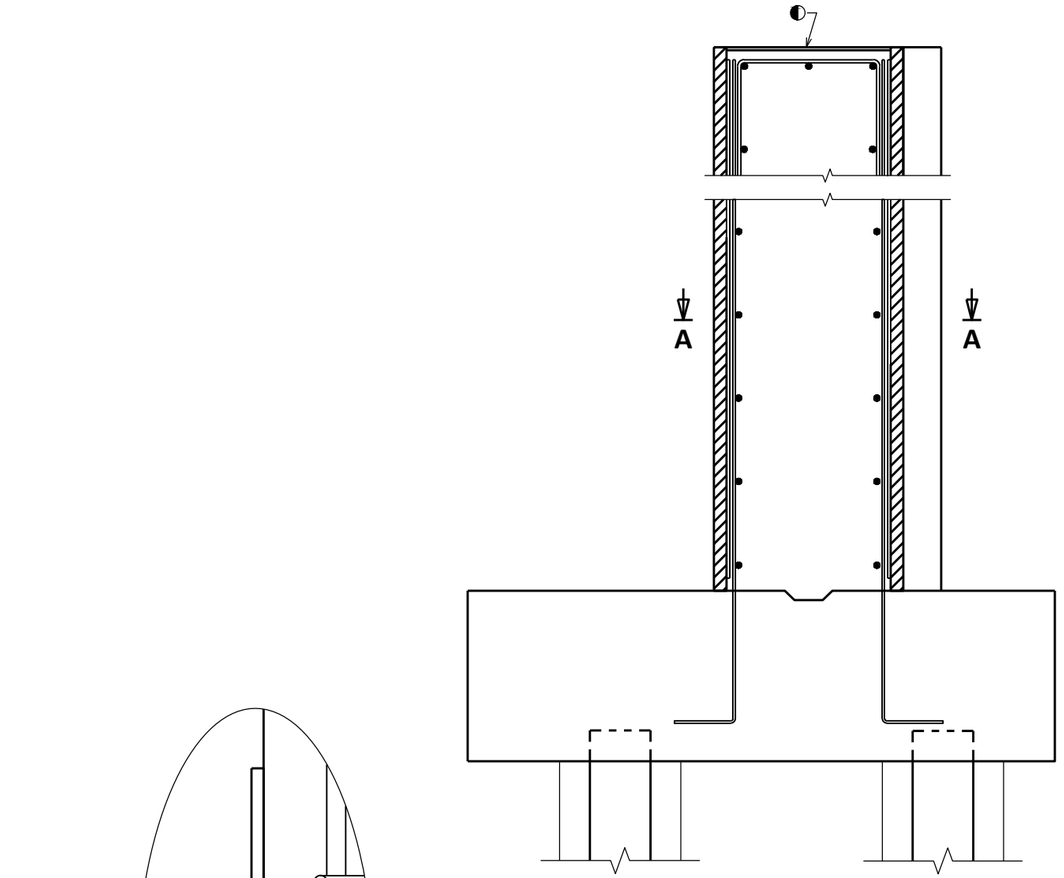
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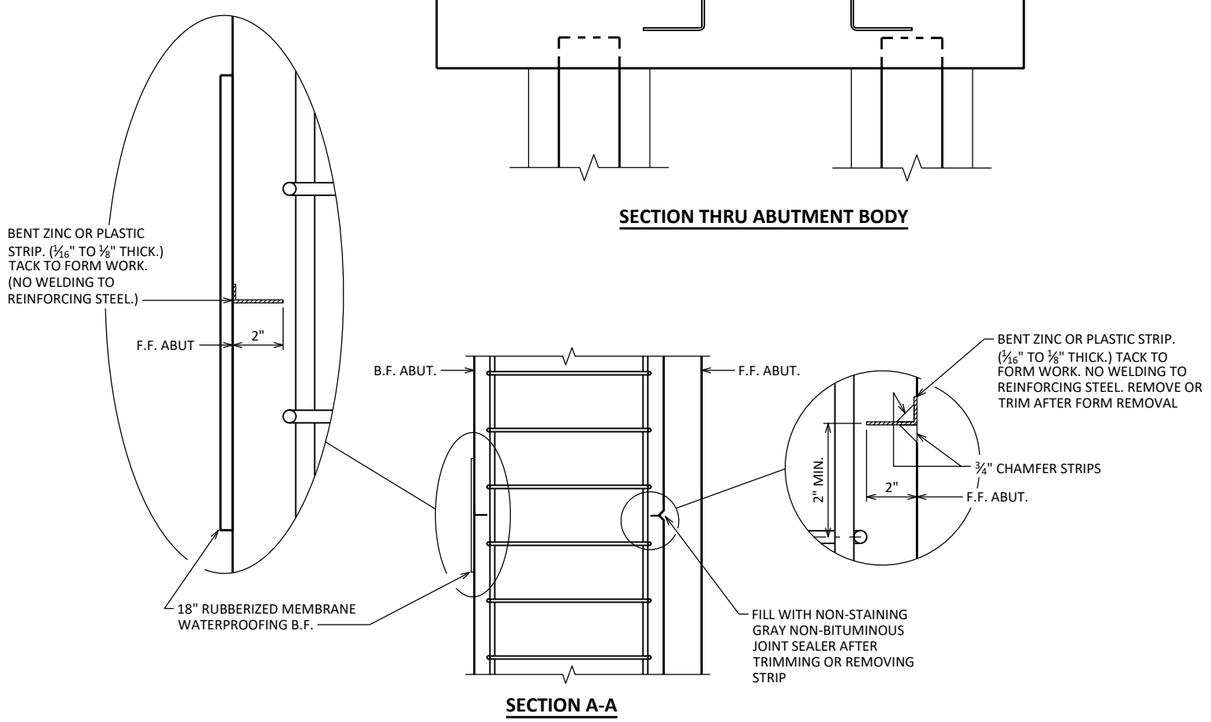
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STATE PROJECT NUMBER

2190-10-70



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATIVE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◐ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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ALTERNATE CONSTRUCTION JOINT

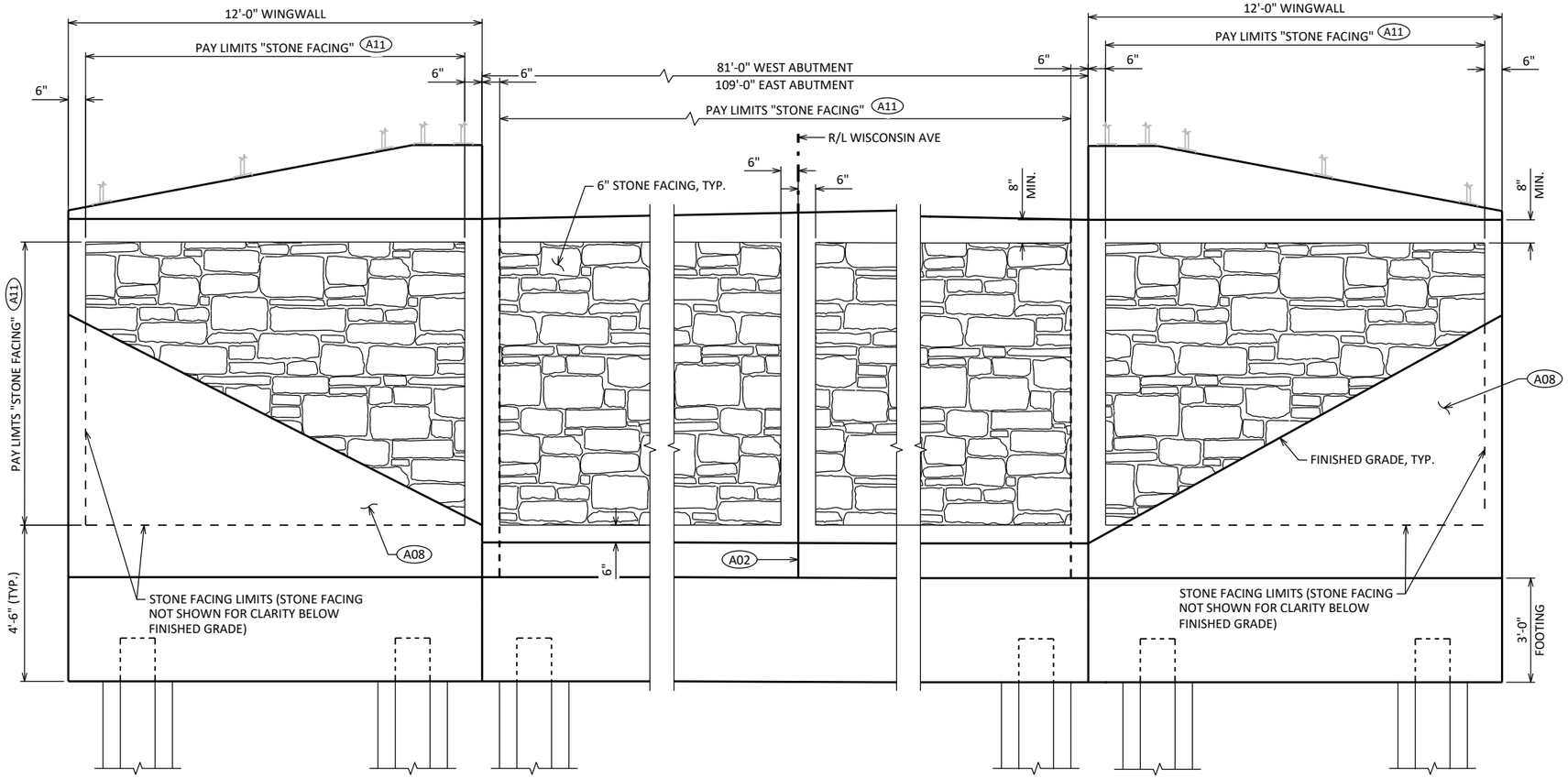
SHEET 14 OF 28

8

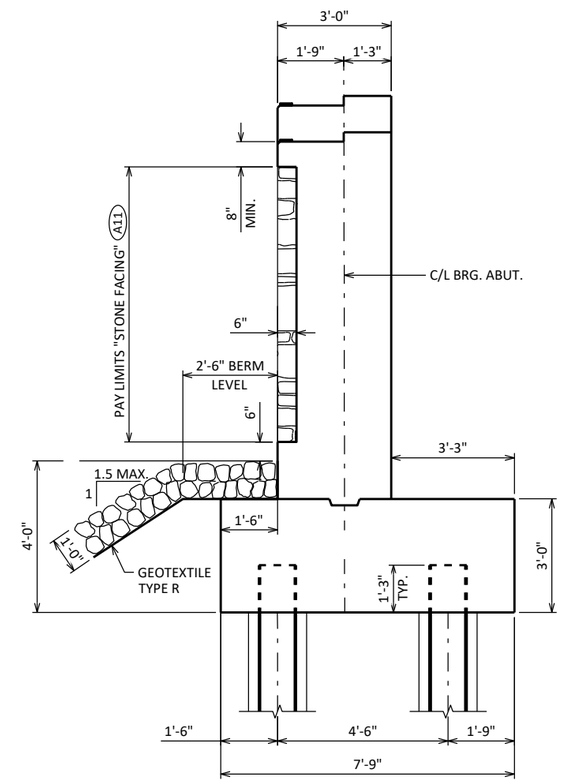
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STATE PROJECT NUMBER

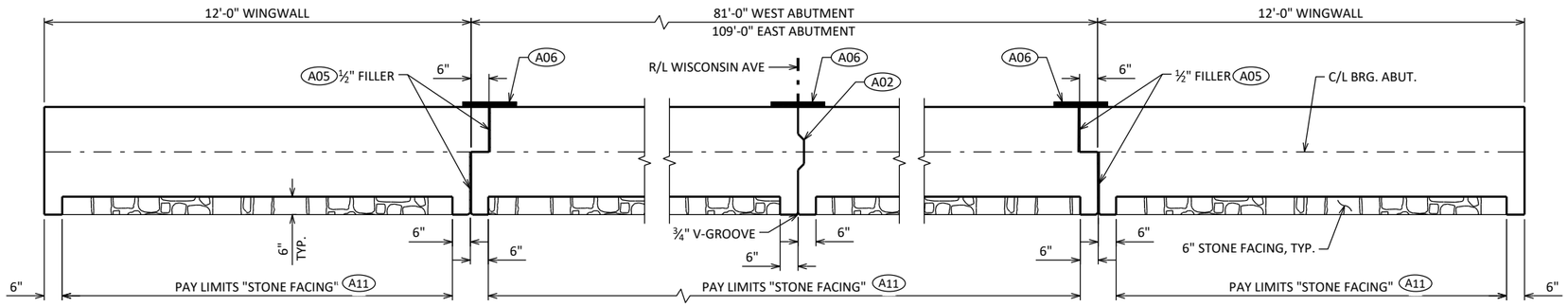
2190-10-70



ABUTMENT PARTIAL ELEVATION



SECTION THRU ABUTMENT



ABUTMENT PARTIAL PLAN

(FOOTING & PILES NOT SHOWN FOR CLARITY)

LEGEND

- A02 VERT. CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. ¾" "V" GROOVE @ THE FRONT FACE AND 18" RMW @ BACKFACE. FOR OPTIONAL DETAILS SEE "ALTERNATE CONSTRUCTION JOINT" SHEET.
- A05 ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A06 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- A08 FOAM & GEOTEXTILE TYPE R TO BE PLACED OVER STONE FACING BELOW THE LIGHT RIPRAP AT THE WINGWALLS. FOAM SHALL BE INCIDENTAL TO BID ITEM "STONE FACING".
- A11 INSTALL SALVAGE STONE FACING PER THE SPECIFICATIONS WITHIN STONE FACING LIMITS. SALVAGED STONE FACING TO BE SUBTRACTED FROM PAY LIMITS "STONE FACING" AND PAID UNDER ITEM "INSTALLING SALVAGED STONE FACING".

NOTES

ANCHOR STONE TO CONCRETE UTILIZING GALVANIZED STEEL DOVETAIL STONE ANCHOR AT 1'-6" VERTICAL AND HORIZONTAL SPACING. SEE DETAIL ON SHEET 3. ANCHOR IS INCIDENTAL TO BID ITEM "STONE FACING" OR "INSTALLING SALVAGED STONE FACING".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY AJA | PLANS CK'D SMC

ABUTMENT AESTHETIC DETAILS

SHEET 15 OF 28

213

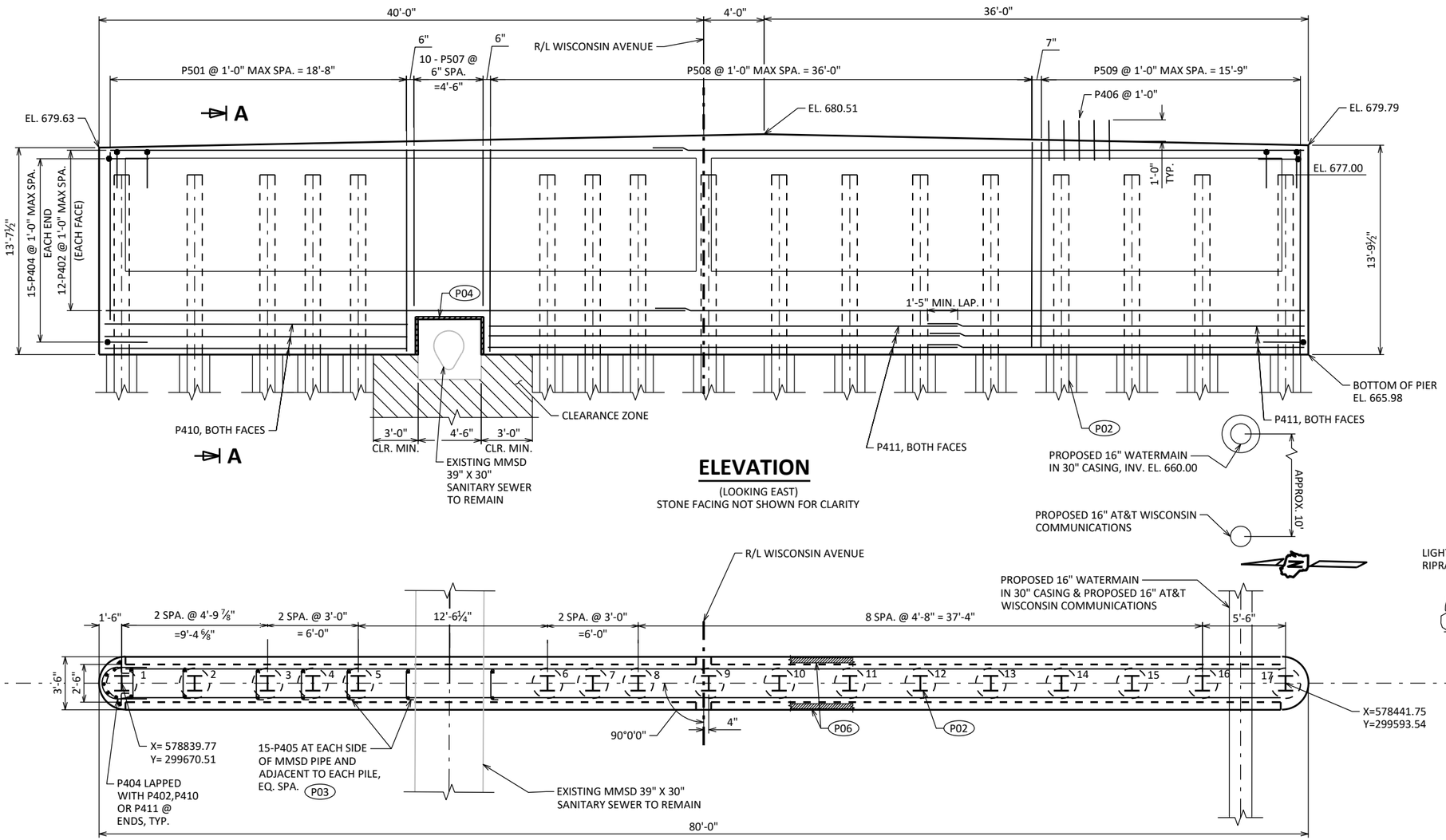
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STATE PROJECT NUMBER

2190-10-70

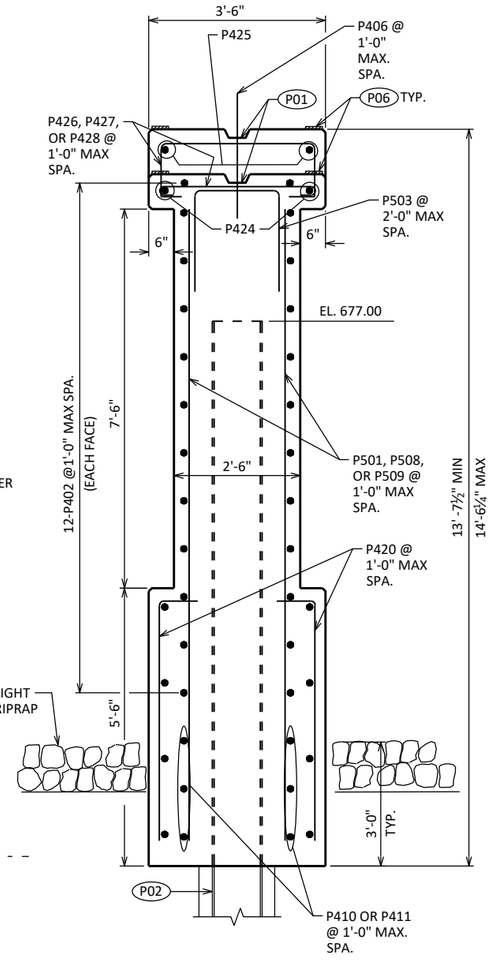


ELEVATION

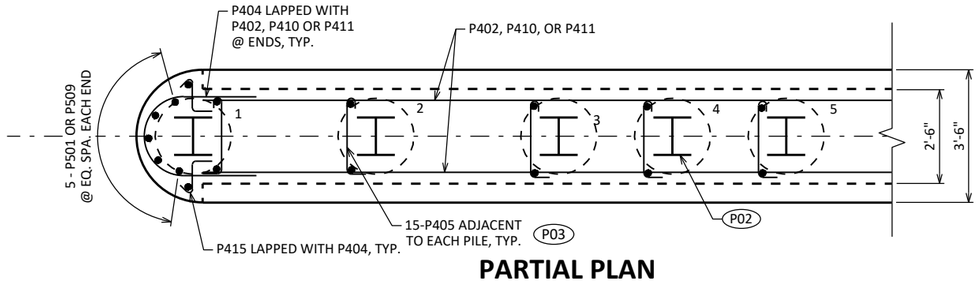
(LOOKING EAST)
STONE FACING NOT SHOWN FOR CLARITY

PLAN

(DIMENSIONS GIVEN ALONG C/L BEARING)



SECTION A-A



PARTIAL PLAN

NOTES

AT PIER CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH STANDARD SPEC 502.3.5.3. CONCRETE POURED UNDERWATER SHALL NOT EXCEED 10.0 FEET IN DEPTH, UNLESS APPROVED OTHERWISE.

SEE SHEET 17 FOR PIER DETAILS OVER MMSD PIPE

SEE SHEET 18 FOR AESTHETIC DETAILS

LEGEND

- P01 — 2" X 6" BEVELED KEYWAY.
- P02 — SUPPORT PIER ON HP 12 X 53 STEEL PILING, ESTIMATED 50'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLES AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- P03 — TIE TO NEAREST VERTICAL BAR. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
- P04 — 1" EXPANSION FILLER. INCIDENTAL TO ITEM "CONCRETE MASONRY STRUCTURES". MATERIAL TO BE PER THE SPECIAL PROVISION ARTICLES.
- P06 — 4" X ¾" FILLER, RUN FULL LENGTH OF PIER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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PIER

SHEET 16 OF 28

214

8

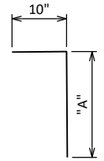
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STATE PROJECT NUMBER

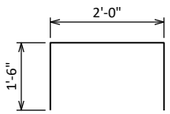
2190-10-70

BILL OF BARS

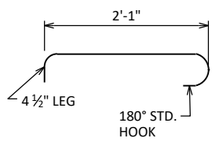
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P501	-	38	13'-0"	-	-	PIER BODY - VERT.
P402	-	48	39'-0"	-	-	PIER BODY - LONG.
P503	-	136	4'-10"	X	-	PIER BODY - TOP - VERT.
P404	-	30	7'-2"	X	-	PIER BODY - AT ENDS
P405	-	285	3'-1"	X	-	PIER BODY TIES - TRANS.
P406	-	78	2'-0"	-	-	DOWEL
P507	-	20	11'-3"	-	-	PIER BODY - VERT. OVER MMSD
P508	-	74	13'-6"	-	-	PIER BODY VERT. FROM MMSD TO PILE 14
P509	-	37	13'-2"	-	-	PIER BODY - VERT. @ SOUTH END
P410	-	6	19'-0"	-	-	PIER BODY LONG @ BOTTOM, NORTH OF MMSD
P411	-	12	27'-0"	-	-	PIER BODY LONG @ BOTTOM, SOUTH OF MMSD
P612	-	26	26'-0"	-	-	PIER BODY LONG. OVER MMSD
P513	-	40	13'-2"	-	-	PIER BODY - VERT. ADDITIONAL @ MMSD
P714	-	6	26'-0"	-	-	PIER BODY - STM TIE REINF.
P415	-	60	1'-10"	X	-	PIER BODY - AT ENDS
P420	-	148	5'-6"	X	-	PIER - VERT. @ BOTTOM BORDER
P421	-	10	3'-4"	X	-	PIER - VERT @ BOTTOM BORDER OVER MMSD
P422	-	6	19'-0"	-	-	PIER - LONG @ BOTTOM BORDER - N. OF MMSD
P423	-	12	27'-0"	-	-	PIER - LONG @ BOTTOM BORDER - S. OF MMSD
P424	-	20	39'-0"	-	-	PIER - LONG @ BOTTOM + TOP BORDER
P425	-	4	34'-0"	-	-	PIER - LONG @ TOP BORDER - ALONG INCLINE
P426	-	29	4'-1"	X	-	PIER - TOP BORDER
P427	-	24	4'-10"	X	-	PIER - TOP BORDER
P428	-	25	5'-4"	X	-	PIER - TOP BORDER



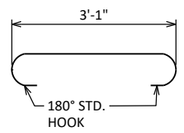
BAR MARK	DIM "A"
P420	4'-9"
P421	2'-7"



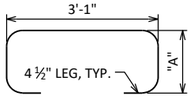
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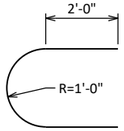
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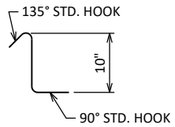
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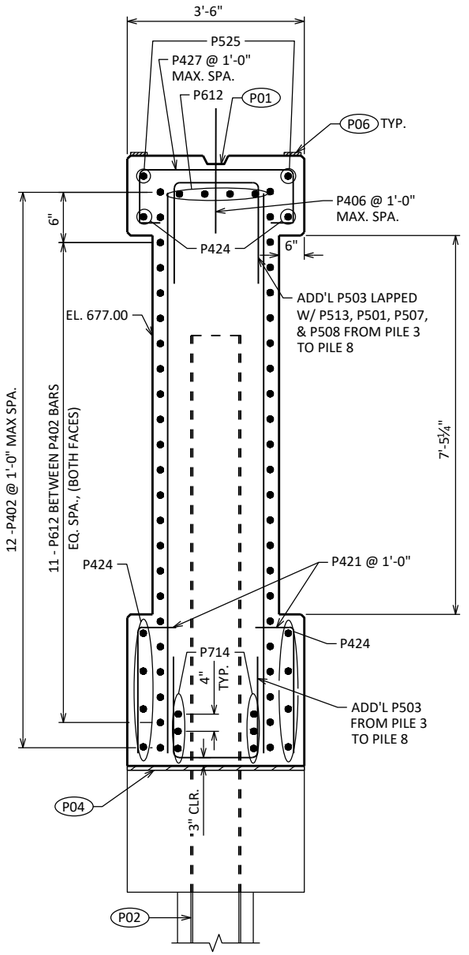
BAR MARK	DIM "A"
P427	8"
P428	11"



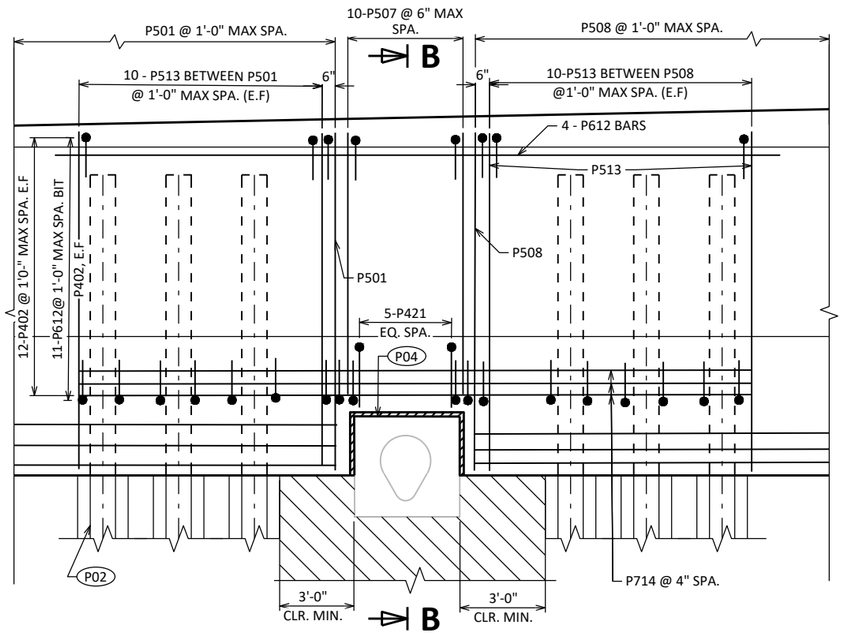
P404



P415



SECTION B-B



PARTIAL ELEVATION OVER MMSD PIPE

(LOOKING EAST)

LEGEND

- P01 — 2" X 6" BEVELED KEYWAY
- P02 — SUPPORT PIER ON HP 12 X 53 STEEL PILING, ESTIMATED 50'-0" LONG SEATED IN PREBORED HOLES CORED A MINIMUM OF 3 FEET INTO SOUND BEDROCK. THE ANNULAR SPACE BETWEEN THE WALL OF THE PREBORED HOLES AND THE PILING TO BE BACKFILLED WITH CONCRETE.
- P03 — TIE TO NEAREST VERTICAL BAR. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.
- P04 — 1" EXPANSION FILLER. INCIDENTAL TO ITEM "CONCRETE MASONRY STRUCTURES" MATERIAL TO BE PER THE SPECIAL PROVISION ARTICLES.
- P06 — 4" X ¾" FILLER, RUN FULL LENGTH OF PIER

NOTES

SEE SHEET 18 FOR AESTHETIC DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SMC | PLANS CK'D AJA

PIER DETAILS

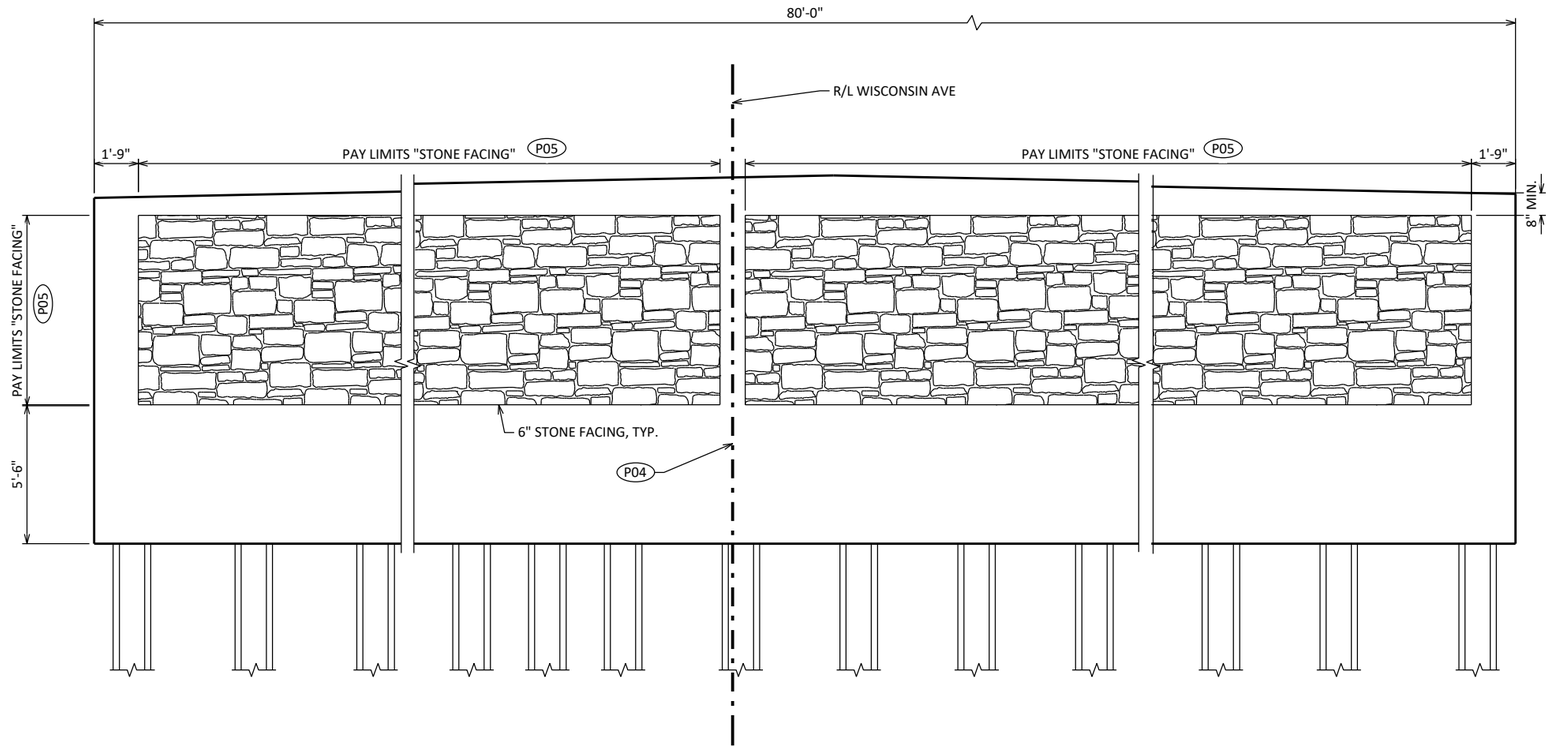
SHEET 17 OF 28

8

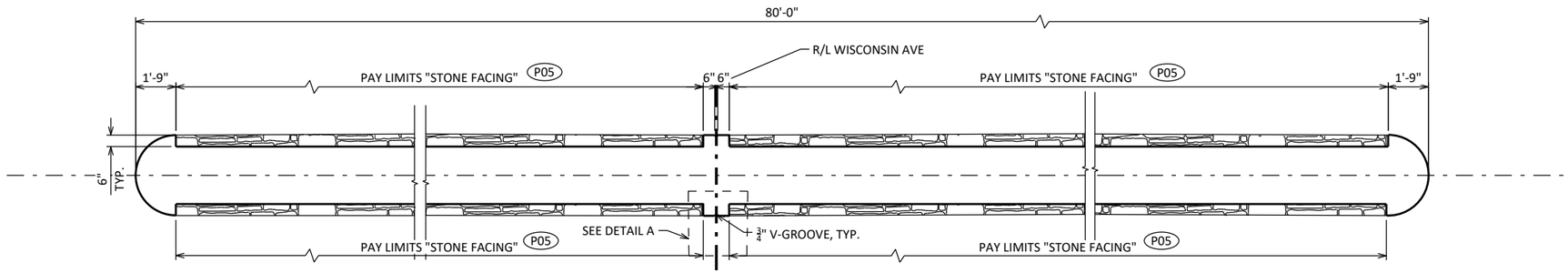
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STATE PROJECT NUMBER

2190-10-70

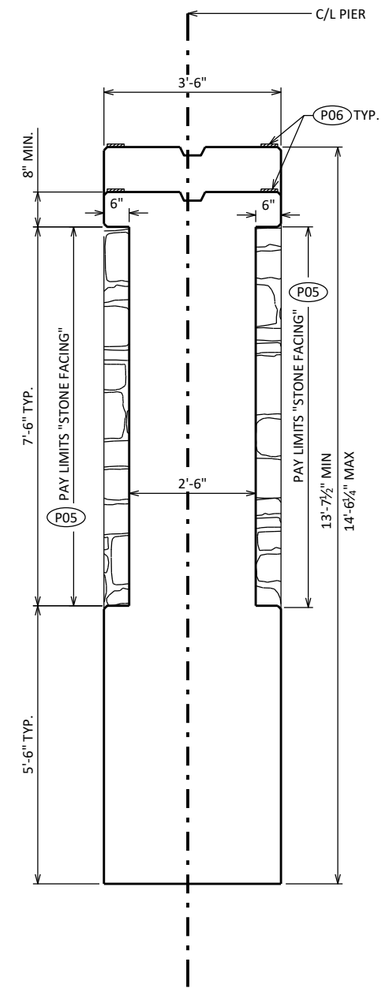


PIER PARTIAL ELEVATION

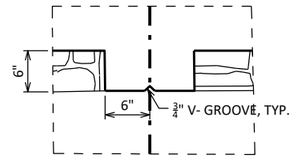


PIER PARTIAL PLAN

(PILES NOT SHOWN FOR CLARITY)



SECTION THRU PIER



DETAIL A

NOTES

ANCHOR STONE TO CONCRETE UTILIZING GALVANIZED STEEL DOVETAIL STONE ANCHOR AT 1'-6" VERITCAL AND HORIZONTAL SPACING. SEE DETAIL ON SHEET 3. ANCHOR IS INCIDENTAL TO BID ITEM "STONE FACING"

LEGEND

P05 INSTALL SALVAGED STONE FACING PER THE SPECIFICATIONS WITHIN STONE FACING LIMITS. SALVAGED STONE FACING TO BE SUBTRACTED FROM PAY LIMITS "STONE FACING" AND PAID UNDER ITEM 'INSTALLING SALVAGED STONE FACING"

P06 4" X ¾" RUN FULL LENGTH OF PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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PIER AESTHETIC DETAILS

SHEET 18 OF 28

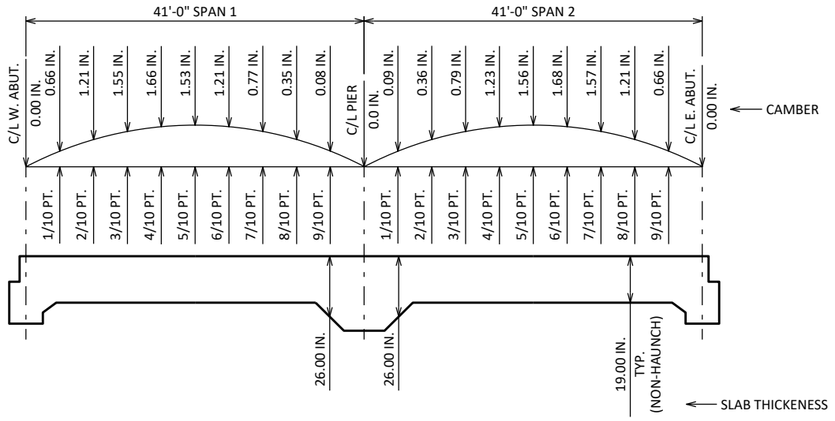
216

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CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.
PARAPETS, SIDEWALKS, EDGE BEAMS, CURBS AND TERRACES PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

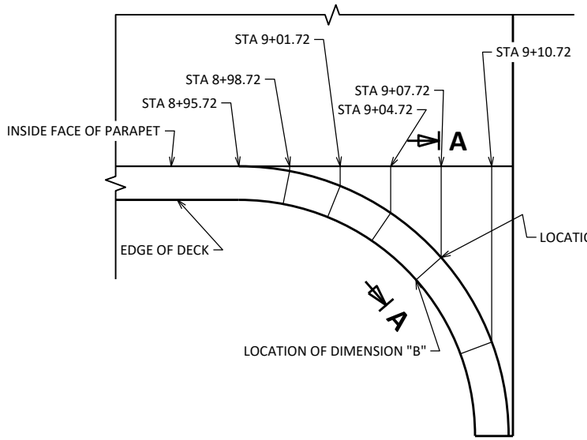
TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

TOP OF SLAB ELEVATIONS

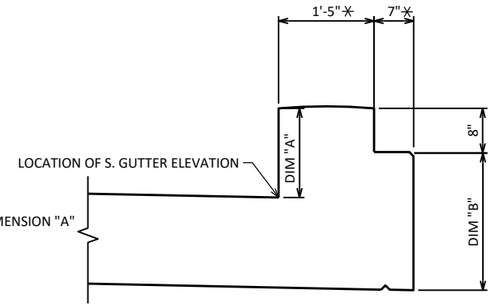
SPAN	LOCATION	C/L BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L PIER
1	N. GUTTER	682.08	682.10	682.13	682.15	682.17	682.19	682.21	682.23	682.25	682.27	682.29
	R/L WISCONSIN AVE	682.85	682.87	682.90	682.92	682.94	682.96	682.98	683.00	683.02	683.04	683.06
	CROWN/PGL	682.93	682.95	682.98	683.00	683.02	683.04	683.06	683.08	683.10	683.12	683.14
	S. GUTTER	682.24	682.26	682.29	682.31	682.33	682.35	682.37	682.39	682.41	682.43	682.45

SPAN	LOCATION	C/L PIER	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. E. ABUT.
2	N. GUTTER	682.29	682.31	682.33	682.35	682.37	682.39	682.41	682.43	682.42	682.39	682.29
	R/L WISCONSIN AVE	683.06	683.08	683.10	683.12	683.14	683.16	683.18	683.20	683.22	683.24	683.26
	CROWN/PGL	683.14	683.16	683.18	683.20	683.22	683.24	683.26	683.28	683.30	683.32	683.34
	S. GUTTER	682.45	682.47	682.49	682.51	682.53	682.55	682.57	682.59	682.58	682.55	682.45



EDGE BEAM DETAIL AT TAPER

✳ DIMENSION TAKEN PERPENDICULAR TO FACE OF PARAPET. SOUTH EDGE BEAM SHOWN, NORTH EDGE BEAM SIMILAR.



SECTION A

STATION	DIM. "A"	DIM "B"
STA. 8+95.72	1'-3 1/2"	2'-2 1/2"
STA. 8+98.72	1'-3 3/4"	2'-2 1/2"
STA. 9+01.72	1'-4 1/2"	2'-3"
STA. 9+04.72	1'-5 1/2"	2'-3 1/2"
STA. 9+07.72	1'-6 1/4"	2'-4 1/2"
STA. 9+10.72	1'-7 3/4"	2'-6 1/2"

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	5/10 PT.	C/L PIER	5/10 PT.	C/L BRG. E. ABUT.
N. GUTTER					
R/L WISCONSIN AVE					
CROWN/PGL					
S. GUTTER					

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS, THE C/L OF PIERS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NOTES

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY AJA | PLANS CK'D SMC

CONCRETE SLAB DETAILS

SHEET 19 OF 28

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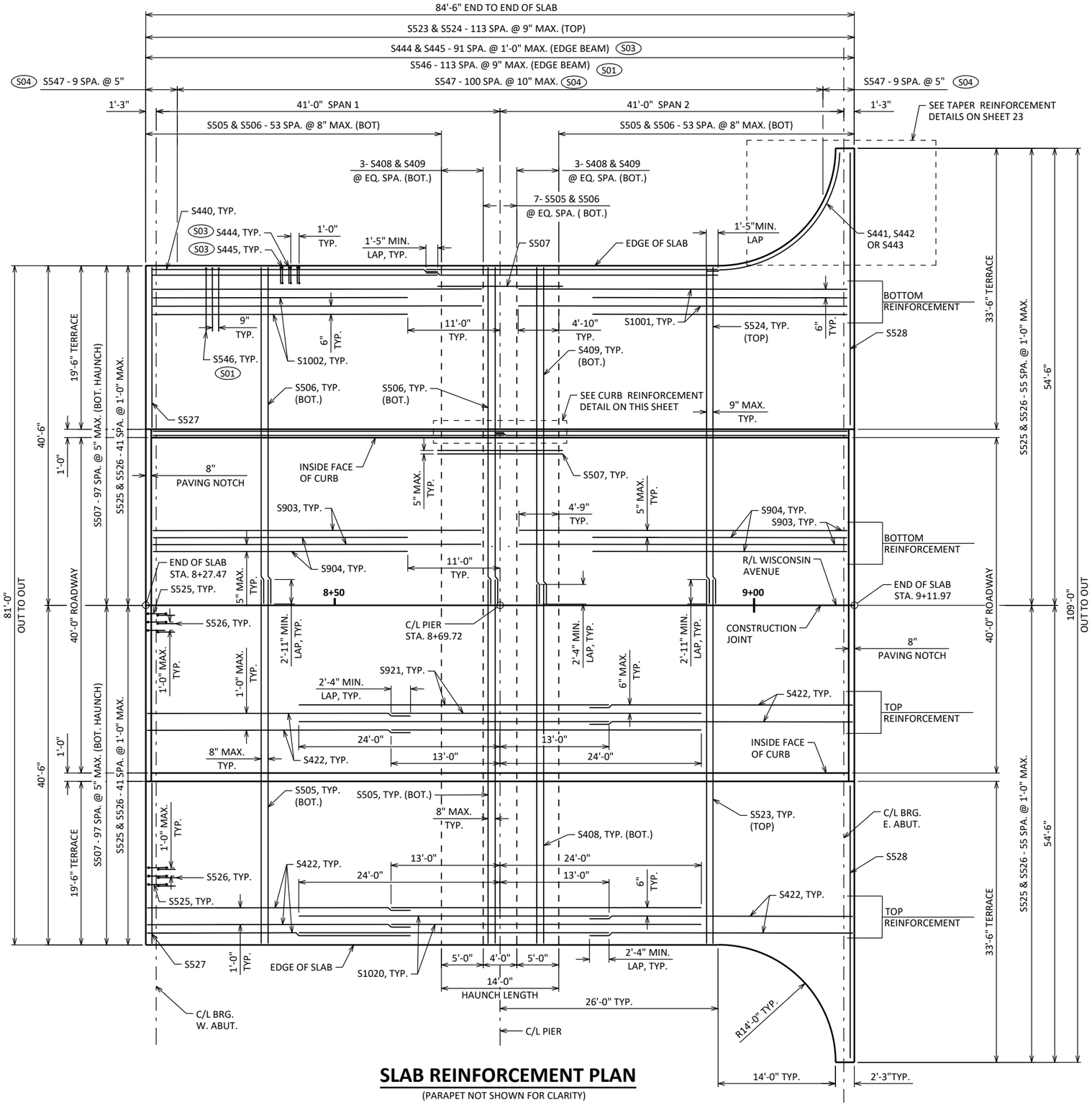
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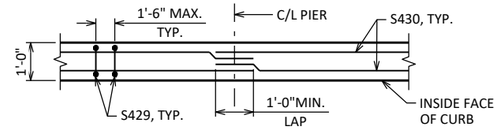
STATE PROJECT NUMBER

2190-10-70



SLAB REINFORCEMENT PLAN

(PARAPET NOT SHOWN FOR CLARITY)



CURB REINFORCEMENT DETAIL

LEGEND

- (S01) BARS SHALL BE PLACED ALONG THE EDGE OF SLAB PERPENDICULAR TO THE REFERENCE LINE.
- (S03) BARS SHALL BE PLACED PERPENDICULAR TO FACE OF EDGE BEAM/PARAPET.
- (S04) BARS SHALL BE PLACED PERPENDICULAR TO FACE OF PARAPET. BAR LAYOUT TO MATCH R501 ON SHEET 24.

NOTES

FOR SECTION THRU SLAB, SEE SHEET 21.

FOR EDGE BEAM DETAIL, SEE SHEET 22.

FOR BILL OF BARS, SEE SHEET 22.

FOR TAPER REINFORCEMENT DETAILS, SEE SHEET 23.

FOR PARAPET DETAILS, SEE SHEETS 24 & 25.

FOR CONDUIT DETAILS, SEE SHEETS 26 & 27.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

SLAB REINFORCEMENT PLAN

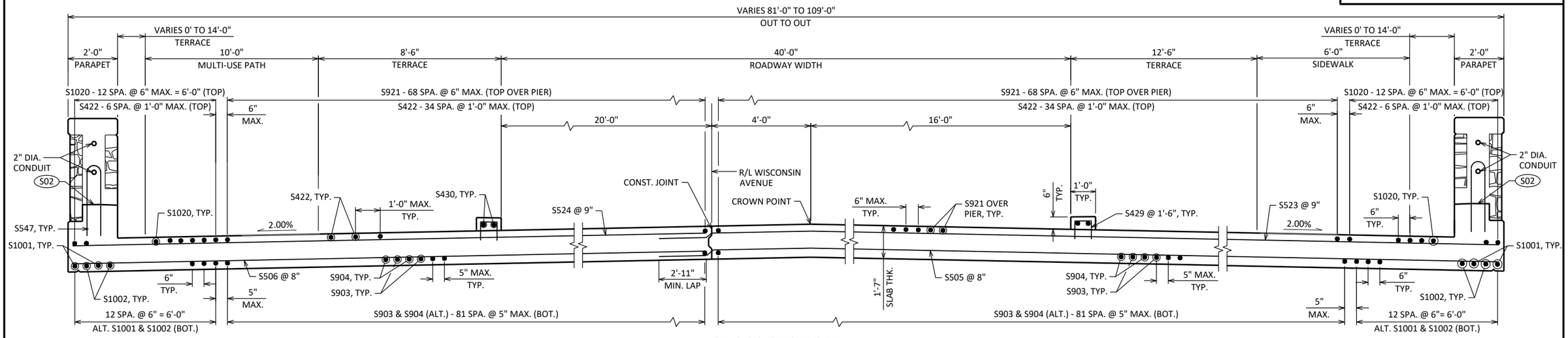
SHEET 20 OF 28

8

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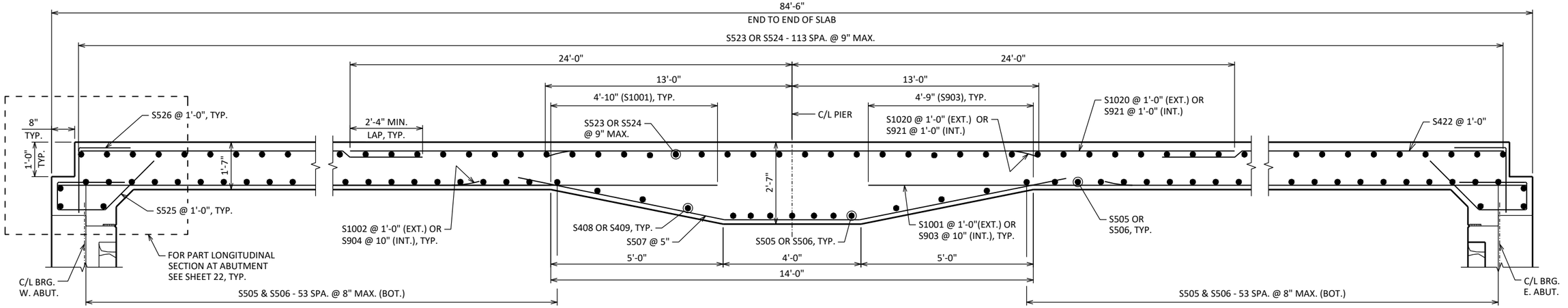
STATE PROJECT NUMBER

2190-10-70



CROSS SECTION

(LOOKING EAST)
(TERRACE FILL AND SIDEWALK NOT SHOWN FOR CLARITY)



LONGITUDINAL SECTION

(LOOKING NORTH)

LEGEND

(S02) CONSTRUCTION JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH

NOTES

FOR SLAB REINFORCEMENT PLAN, SEE SHEET 20.

FOR EDGE BEAM DETAIL, SEE SHEET 22.

FOR BILL OF BARS, SEE SHEET 22.

FOR TAPER REINFORCEMENT DETAILS, SEE SHEET 23.

FOR PARAPET DETAILS, SEE SHEETS 24 & 25.

FOR CONDUIT DETAILS, SEE SHEETS 26 & 27.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

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SLAB REINFORCEMENT DETAILS

SHEET 21 OF 28

8

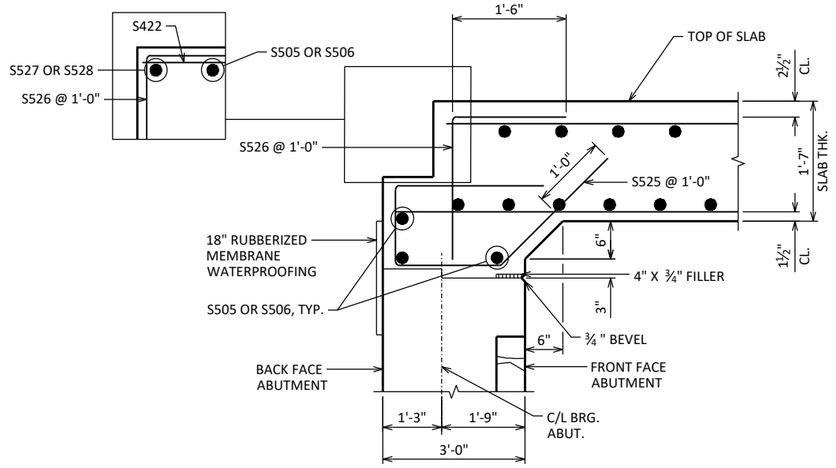
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STATE PROJECT NUMBER

2190-10-70

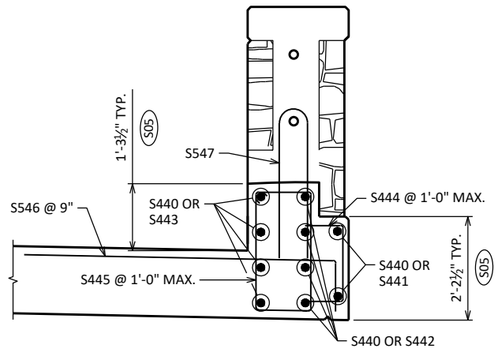
BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S1001	X	28	39'-11"	-		EXTERIOR STRIP-LONG. BOT.
S1002	X	24	31'-1"	-		EXTERIOR STRIP-LONG. BOT.
S903	X	164	39'-10"	-		INTERIOR STRIP-LONG. BOT.
S904	X	164	31'-1"	-		INTERIOR STRIP-LONG. BOT.
S505	X	121	43'-5"	-		TRANSVERSE BOTTOM
S506	X	121	40'-2"	-		TRANSVERSE BOTTOM
S507	X	196	16'-3"	X		HAUNCH LONG.
S408	X	6	42'-10"	-		TRANSVERSE IN HAUNCH SLOPE
S409	X	6	40'-2"	-		TRANSVERSE IN HAUNCH SLOPE
S1020	X	26	37'-0"	-		EXTERIOR STRIP LONG. TOP OVER PIER
S921	X	138	37'-0"	-		INTERIOR STRIP LONG. TOP OVER PIER
S422	X	168	31'-5"	-		TOP LONG.
S523	X	114	43'-5"	-		TOP TRANSVERSE
S524	X	114	40'-2"	-		TOP TRANSVERSE
S525	X	196	7'-1"	X		ABUTMENT DIAPHRAGM STIRRUP
S526	X	196	3'-1"	X		SLAB ENDS - VERTICAL
S527	X	2	19'-2"	-		WEST EDGE OF SLAB OUTSIDE PAVING NOTCH
S528	X	2	33'-2"	-		EAST EDGE OF SLAB OUTSIDE PAVING NOTCH
S429	X	114	3'-6"	X		CURB VERT.
S430	X	8	41'-11"	-		CURB LONG.
S440	X	40	34'-9"	-		EDGE BEAM BOTTOM LONG.
S441	X	4	23'-8"	X		EDGE BEAM ALONG THE CURVE
S442	X	8	24'-7"	X		EDGE BEAM ALONG THE CURVE
S443	X	8	26'-0"	X		EDGE BEAM ALONG THE CURVE
S444	X	184	3'-0"	X		EDGE BEAM TRANSVERSE
S445	X	184	7'-10"	X		EDGE BEAM STIRRUPS
S546	X	228	6'-9"	X		EDGE BEAM TRANSVERSE OVERHANG
S547	X	240	6'-0"	X		EDGE BEAM PARAPET DOWEL



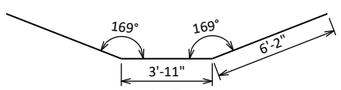
PART LONGITUDINAL SECTION AT ABUTMENT

(LOOKING NORTH AT WEST ABUTMENT)
(LOOKING SOUTH AT EAST ABUTMENT)

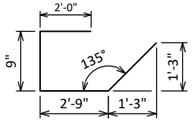


EDGE BEAM DETAIL

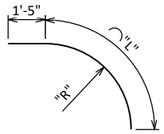
(TERRACE FILL AND SIDE WALK NOT SHOWN FOR CLARITY)



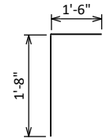
S507



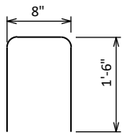
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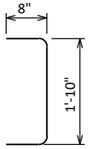
BAR MARK	RADIUS 'R'	LENGTH 'L'
S441	14'-3"	22'-3"
S442	14'-10"	23'-2"
S443	15'-9"	24'-7"



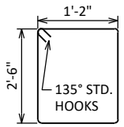
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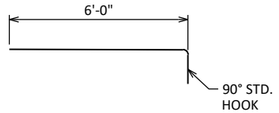
S429



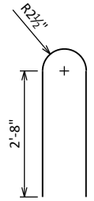
S444



S445



S546



S547

BENDING DIAGRAMS

NOTES

FOR SLAB REINFORCEMENT PLAN, SEE SHEET 20.

FOR BILL OF BARS, SEE SHEET 22.

FOR TAPER REINFORCEMENT DETAILS, SEE SHEET 23.

FOR PARAPET DETAILS, SEE SHEETS 24 & 25.

FOR CONDUIT DETAILS, SEE SHEETS 26 & 27.

LEGEND

(S05) FOR DIMENSIONS OF EDGE BEAM AT TAPER, SEE SHEET 219.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

SLAB BILL OF BARS

SHEET 22 OF 28

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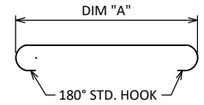
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BILL OF BARS - CONT.

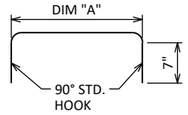
BAR MARK	COAT	NO. REQ'D	DIM "A"	LENGTH	BENT	BAR SERIES	LOCATION
T401	X	4	1'-11"	3'-1"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T402	X	4	2'-0"	3'-2"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T403	X	2	2'-1"	3'-3"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T404	X	2	2'-2"	3'-4'	X		SLAB TAPER - BOTTOM LONGITUDINAL
T405	X	2	2'-3"	3'-5"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T406	X	2	2'-5"	3'-7"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T407	X	2	2'-6"	3'-8"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T408	X	2	2'-8"	3'-10"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T409	X	2	2'-11"	4'-1"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T410	X	2	3'-1"	4'-3"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T411	X	2	3'-4"	4'-6"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1012	X	2	3'-7"	6'-5"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1013	X	2	3'-10"	6'-8"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1014	X	2	4'-2"	7'-0"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1015	X	2	4'-6"	7'-4"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1016	X	2	4'-10"	7'-8"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1017	X	2	5'-3"	8'-1"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1018	X	2	5'-9"	8'-7"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1019	X	2	6'-3"	9'-1"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1020	X	2	6'-9"	9'-7"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1021	X	2	7'-4"	10'-2"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1022	X	2	8'-0"	10'-10"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1023	X	2	8'-10"	11'-8"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1024	X	2	9'-9"	12'-7"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1025	X	2	10'-10"	13'-8"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T1026	X	2	12'-4"	15'-2"	X		SLAB TAPER - BOTTOM LONGITUDINAL
T530	X	6	13'-10"	17'-6"	X		SLAB TAPER - BOTTOM TRANSVERSE
T531	X	2	12'-6"	15'-5"	X		SLAB TAPER - BOTTOM TRANSVERSE
T532	X	2	9'-5"	12'-4"	X		SLAB TAPER - BOTTOM TRANSVERSE
T533	X	2	7'-10"	10'-9'	X		SLAB TAPER - BOTTOM TRANSVERSE
T534	X	2	6'-7"	9'-6"	X		SLAB TAPER - BOTTOM TRANSVERSE
T535	X	2	5'-7"	8'-6"	X		SLAB TAPER - BOTTOM TRANSVERSE
T536	X	2	4'-9"	7'-8"	X		SLAB TAPER - BOTTOM TRANSVERSE
T537	X	2	4'-1"	7'-0"	X		SLAB TAPER - BOTTOM TRANSVERSE
T538	X	2	3'-5"	6'-4"	X		SLAB TAPER - BOTTOM TRANSVERSE
T539	X	2	2'-10"	5'-9"	X		SLAB TAPER - BOTTOM TRANSVERSE
T540	X	2	2'-5"	5'-4"	X		SLAB TAPER - BOTTOM TRANSVERSE
T541	X	2	1'-11"	4'-10'	X		SLAB TAPER - BOTTOM TRANSVERSE
T542	X	2	1'-7"	4'-6"	X		SLAB TAPER - BOTTOM TRANSVERSE
T543	X	2	1'-3"	4'-2"	X		SLAB TAPER - BOTTOM TRANSVERSE
T544	X	2	11"	3'-10"	X		SLAB TAPER - BOTTOM TRANSVERSE
T545	X	2	8"	3'-7"	X		SLAB TAPER - BOTTOM TRANSVERSE
T546	X	2	6"	3'-3"	X		SLAB TAPER - BOTTOM TRANSVERSE

BILL OF BARS - CONT.

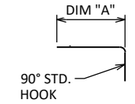
BAR MARK	COAT	NO. REQ'D	DIM "A"	LENGTH	BENT	BAR SERIES	LOCATION
T450	X	2	2'-6"	3-1"	X		SLAB TAPER - TOP LONGITUDINAL
T451	X	2	2'-7"	3'-2"	X		SLAB TAPER - TOP LONGITUDINAL
T452	X	2	2'-8"	3'-3"	X		SLAB TAPER - TOP LONGITUDINAL
T453	X	2	2'-10"	3'-5"	X		SLAB TAPER - TOP LONGITUDINAL
T454	X	2	3'-2"	3'-9"	X		SLAB TAPER - TOP LONGITUDINAL
T455	X	2	3'-6"	4'-1"	X		SLAB TAPER - TOP LONGITUDINAL
T456	X	2	3'-11"	4'-6"	X		SLAB TAPER - TOP LONGITUDINAL
T457	X	2	4'-5"	5'-0"	X		SLAB TAPER - TOP LONGITUDINAL
T458	X	2	5'-2"	5'-8"	X		SLAB TAPER - TOP LONGITUDINAL
T459	X	2	5'-10"	6'-5"	X		SLAB TAPER - TOP LONGITUDINAL
T460	X	2	6'-10"	7'-5"	X		SLAB TAPER - TOP LONGITUDINAL
T461	X	2	7'-11"	8'-6"	X		SLAB TAPER - TOP LONGITUDINAL
T462	X	2	9'-5"	10'-0"	X		SLAB TAPER - TOP LONGITUDINAL
T463	X	2	11'-5"	12'-0"	X		SLAB TAPER - TOP LONGITUDINAL
T464	X	2	12'-7"	13'-2"	X		SLAB TAPER - TOP LONGITUDINAL
T570	X	6	17'-4"	18'-0"	X		SLAB TAPER - TOP TRANSVERSE
T571	X	2	14'-4"	15'-1"	X		SLAB TAPER - TOP TRANSVERSE
T572	X	2	11'-11"	12'-8"	X		SLAB TAPER - TOP TRANSVERSE
T573	X	2	10'-5"	11'-2"	X		SLAB TAPER - TOP TRANSVERSE
T574	X	2	9'-3"	10'-0"	X		SLAB TAPER - TOP TRANSVERSE
T575	X	2	8'-3"	9'-0"	X		SLAB TAPER - TOP TRANSVERSE
T576	X	2	7'-5"	8'-2"	X		SLAB TAPER - TOP TRANSVERSE
T577	X	2	6'-10"	7'-6"	X		SLAB TAPER - TOP TRANSVERSE
T578	X	2	6'-2"	6'-11"	X		SLAB TAPER - TOP TRANSVERSE
T579	X	2	5'-7"	6'-4"	X		SLAB TAPER - TOP TRANSVERSE
T580	X	2	5'-1"	5'-10"	X		SLAB TAPER - TOP TRANSVERSE
T581	X	2	4'-9"	5'-6"	X		SLAB TAPER - TOP TRANSVERSE
T582	X	2	4'-5"	5'-2"	X		SLAB TAPER - TOP TRANSVERSE
T583	X	2	4'-2"	4'-10"	X		SLAB TAPER - TOP TRANSVERSE
T584	X	2	3'-10"	4'-7"	X		SLAB TAPER - TOP TRANSVERSE
T585	X	2	3'-8""	4'-5"	X		SLAB TAPER - TOP TRANSVERSE



T1012 THRU T1026

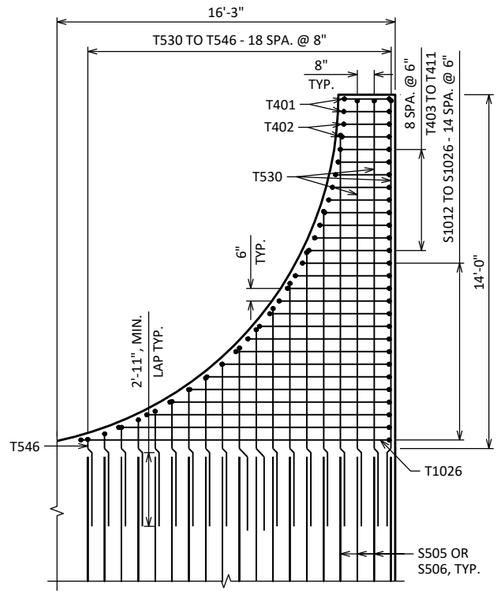


T401 THRU T411

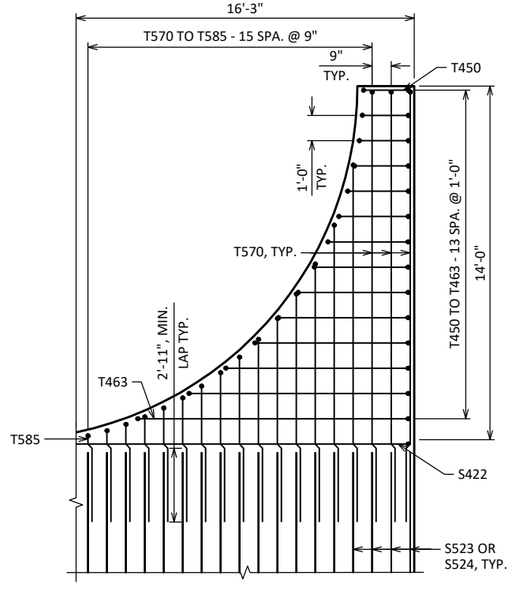


T450 THRU T464 & T530 THRU T546 & T570 THRU T585

BENDING DIAGRAMS



BOTTOM REINFORCEMENT TAPER DETAIL



TOP REINFORCEMENT TAPER DETAIL

NOTES

FOR SLAB REINFORCEMENT PLAN, SEE SHEET 20.

FOR SECTION THRU SLAB, SEE SHEET 21.

FOR EDGE BEAM DETAIL, SEE SHEET 22.

FOR BILL OF BARS, SEE SHEET 22.

FOR PARAPET DETAILS, SEE SHEETS 24 & 25.

FOR CONDUIT DETAILS, SEE SHEETS 26 & 27.

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STRUCTURE B-40-1033

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SLAB TAPER DETAILS

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STATE PROJECT NUMBER

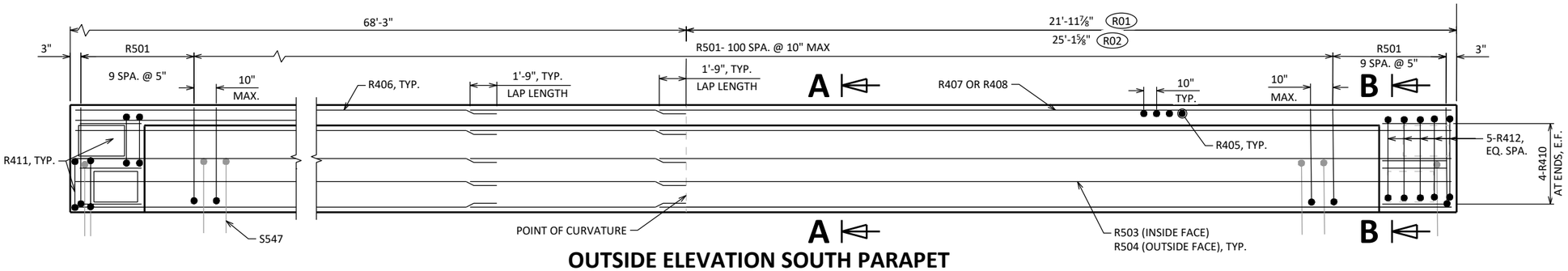
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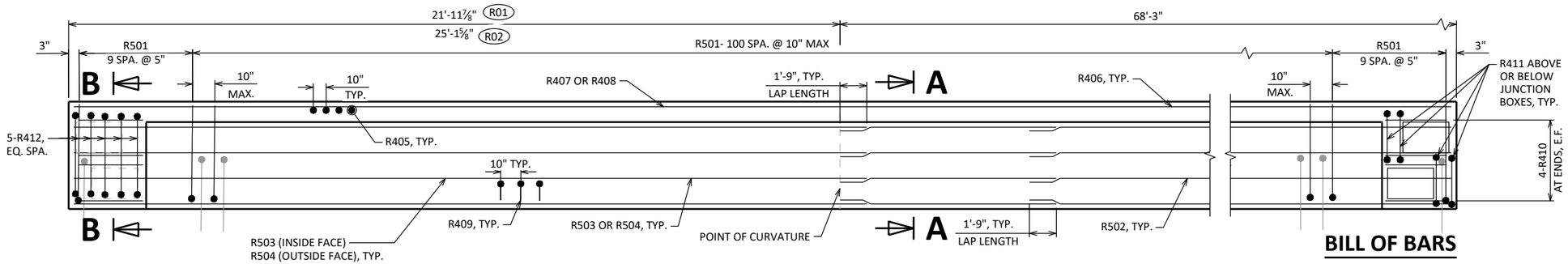
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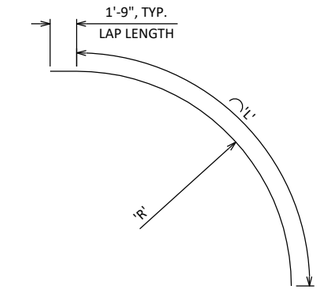
OUTSIDE ELEVATION SOUTH PARAPET

(LOOKING NORTH)



OUTSIDE ELEVATION NORTH PARAPET

(LOOKING SOUTH)

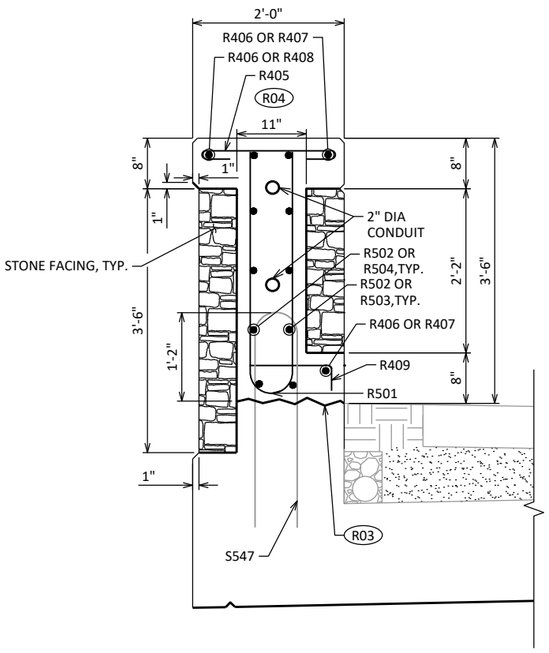


BAR MARK	RADIUS 'R'	LENGTH 'L'
R503	15'-4"	23'-11"
R504	14'-9"	23'-0"
R407	15'-10"	24'-11"
R408	14'-2"	22'-3"

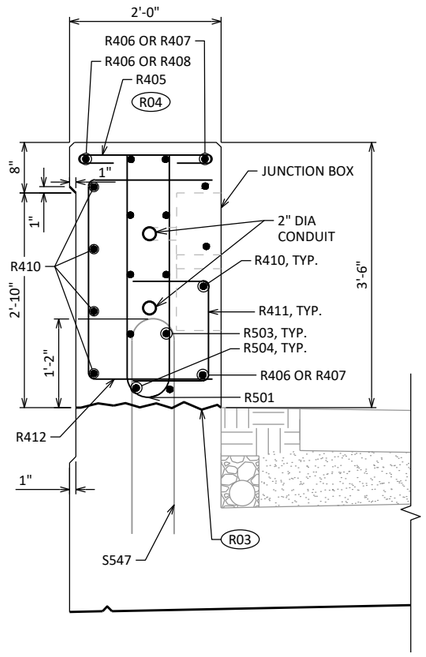
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

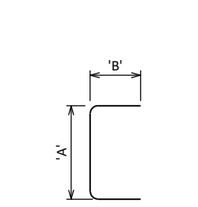
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	240	6'-4"	X	-	PARAPET VERTICAL
R502	X	40	35'-0"	-	-	PARAPET LONGITUDNAL
R503	X	10	25'-5"	X	-	PARAPET LONGITUDINAL ALONG THE CURVE - FF
R504	X	10	24'-10"	X	-	PARAPET LONGITUDINAL ALONG THE CURVE - BF
R405	X	240	2'-8"	X	-	PARAPET TOP VERTICAL
R406	X	8	35'-0"	-	-	PARAPET TOP LONGITUDNAL
R407	X	4	26'-3"	X	-	PARAPET TOP LONGITUDINAL ALONG THE CURVE
R408	X	4	23'-11"	X	-	PARAPET TOP LONGITUDINAL ALONG THE CURVE
R409	X	220	1'-11"	X	-	PARAPET BOTTOM - TRANSVERSE
R410	X	32	2'-1"	-	-	PARAPET AT JUNCTION BOXES
R411	X	16	2'-10"	X	-	PARAPET AT JUNCTION BOXES
R412	X	20	5'-8"	X	-	PARAPET AT JUNCTION BOXES



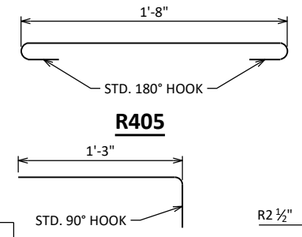
SECTION A-A

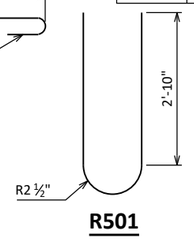


SECTION B-B



BAR MARK	'A'	'B'
R411	1'-6"	8"
R412	2'-6"	1'-7"





BENDING DIAGRAM

LEGEND

- (R01) DIMENSIONS ALONG OUTSIDE FACE OF PARAPET
- (R02) DIMENSIONS ALONG INSIDE FACE OF PARAPET
- (R03) HORIZONTAL CONSTRUCTION JOINT- STRIKE OFF AS SHOWN AND LEAVE ROUGH
- (R04) R405 SHALL BE SPACED WITH R501 AT 10" MAX. SPACING

NOTES

FOR SUPERSTRUCTURE REINFORCEMENT, SEE SHEET 20 THRU 22.

FOR STONE FACING DETAILS, SEE SHEET 25.

FOR CONDUIT DETAILS, SEE SHEET 26 & 27.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D AJA

MODIFIED VERTICAL FACE PARAPET A

SHEET 24 OF 28

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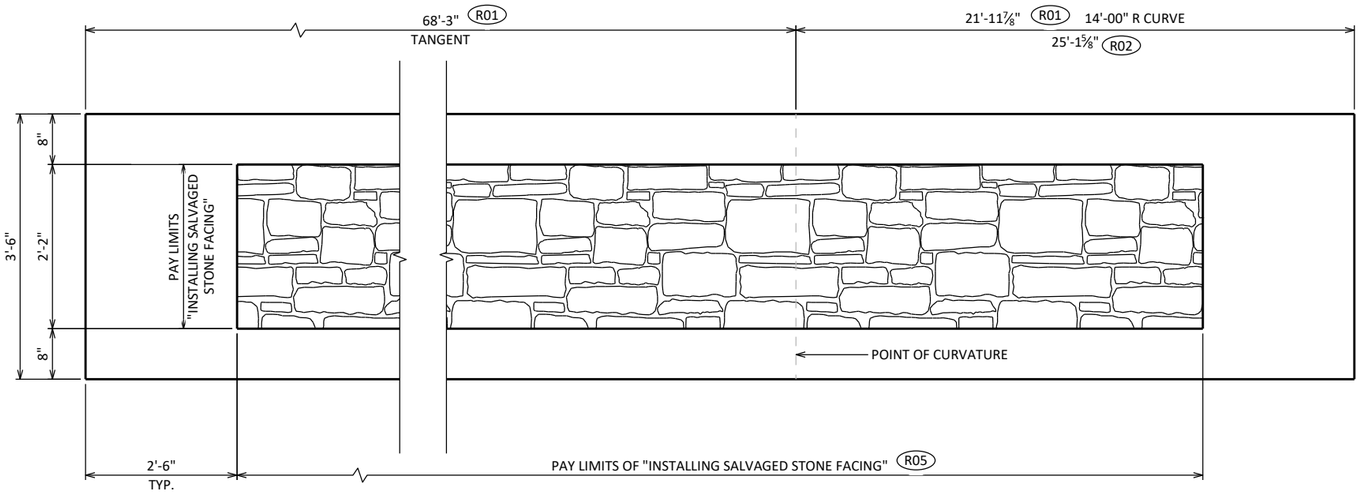
SCALE =

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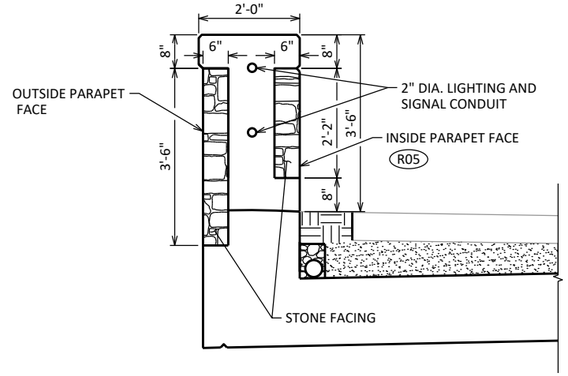
STATE PROJECT NUMBER

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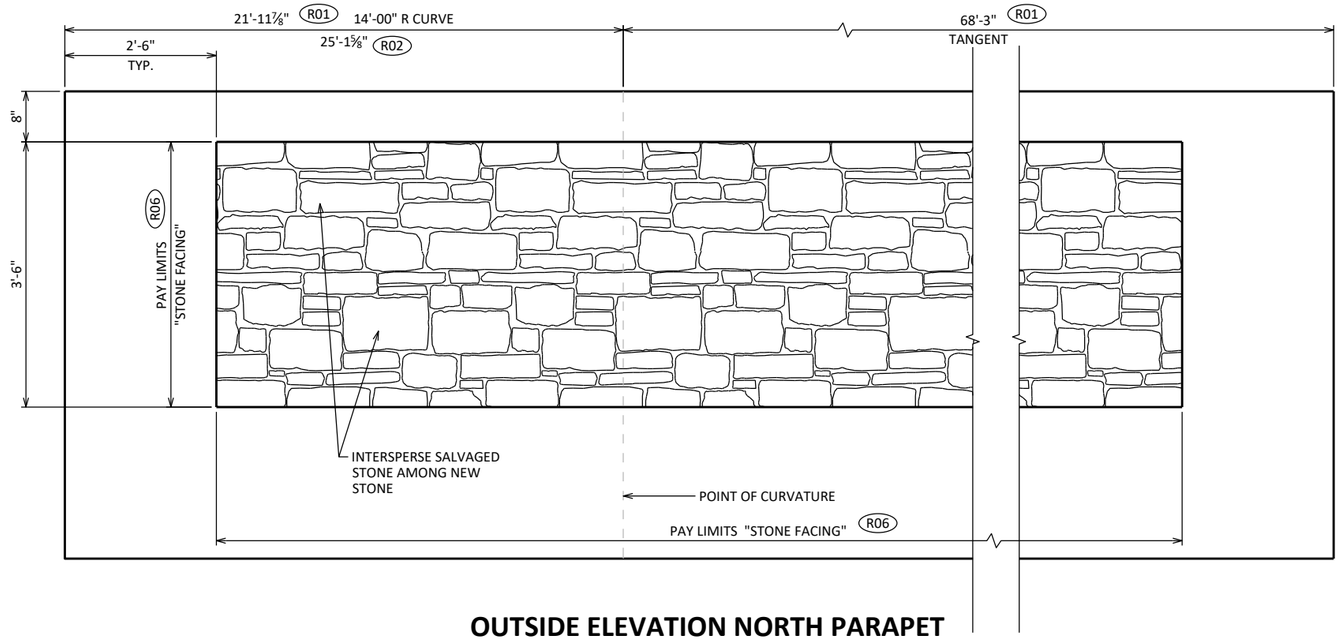


INSIDE ELEVATION SOUTH PARAPET

(LOOKING SOUTH, NORTH PARAPET SIMILAR)
(CONDUITS AND JUNCTION BOX NOT SHOWN FOR CLARITY)

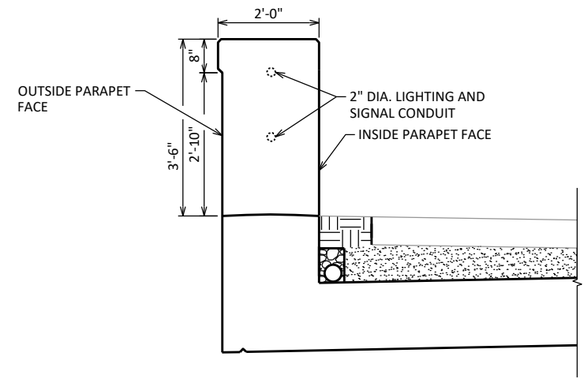


SECTION THRU PARAPET



OUTSIDE ELEVATION NORTH PARAPET

(LOOKING SOUTH, SOUTH PARAPET SIMILAR)
(CONDUITS NOT SHOWN FOR CLARITY)



END SECTION PARAPET

LEGEND

- R01 DIMENSIONS ALONG OUTSIDE FACE OF PARAPET
- R02 DIMENSIONS ALONG INSIDE FACE OF PARAPET
- R05 UTILIZE SALVAGED STONE FROM EXISTING BRIDGE ON INSIDE FACES
- R06 INSTALL SALVAGED STONE FACING PER THE SPECIFICATIONS WITHIN STONE FACING LIMITS. SALVAGED STONE FACING TO BE SUBTRACTED FROM PAY LIMITS "STONE FACING"AND PAID UNDER ITEM "INSTALLING SALVAGED STONE FACING."

NOTES

ANCHOR STONE TO CONCRETE UTILIZING GALVANIZED STEEL DOVETAIL STONE ANCHOR AT 1'-6" VERTICAL AND HORIZONTAL SPACING. SEE DETAIL ON SHEET 3. ANCHOR IS INCIDENTAL TO BID ITEM "STONE FACING"

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STATE OF WISCONSIN
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STRUCTURE B-40-1033

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PARAPET AESTHETIC DETAIL

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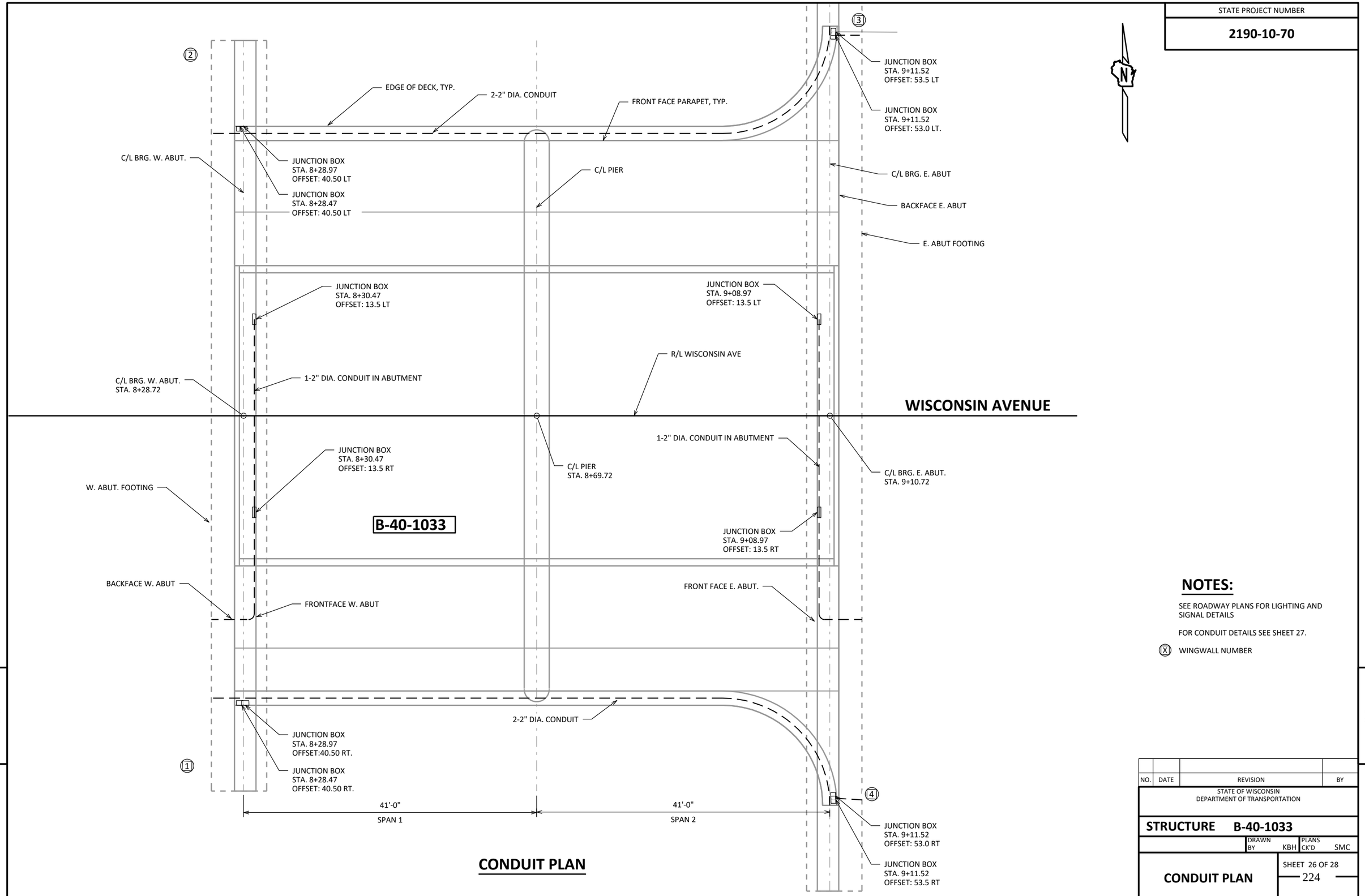
SCALE =

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CONDUIT PLAN

NOTES:

SEE ROADWAY PLANS FOR LIGHTING AND SIGNAL DETAILS

FOR CONDUIT DETAILS SEE SHEET 27.

(X) WINGWALL NUMBER

8

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY KBH | PLANS CK'D SMC

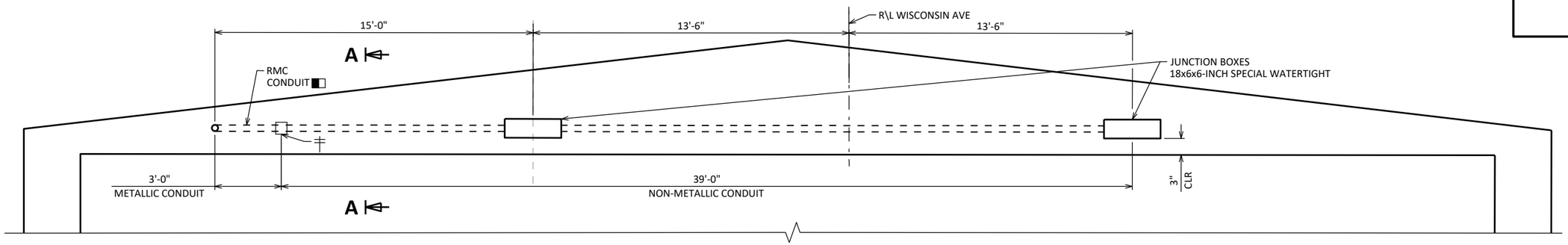
CONDUIT PLAN

SHEET 26 OF 28

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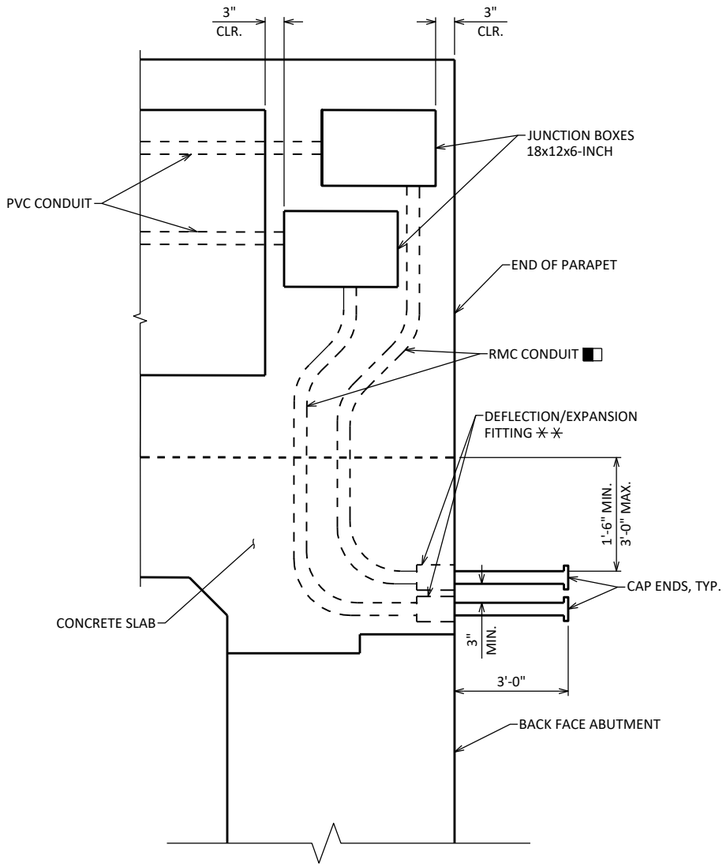
STATE PROJECT NUMBER

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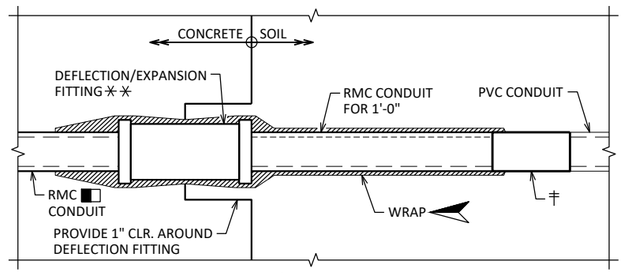
ABUTMENT JUNCTION BOX ELEVATION

(LOOKING WEST)
(WEST ABUT. SHOWN, EAST ABUT. SIMILAR)



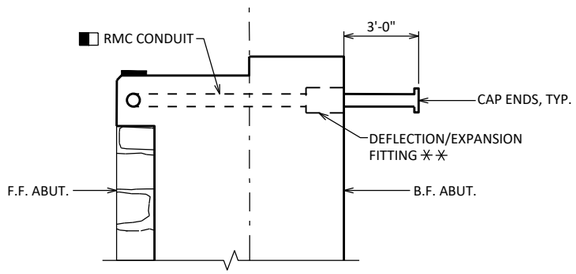
WEST JUNCTION BOX ELEVATION - OUTSIDE PARAPET FACE

(LOOKING SOUTH)
(NORTH PARAPET SHOWN, SOUTH PARAPET SIMILAR)



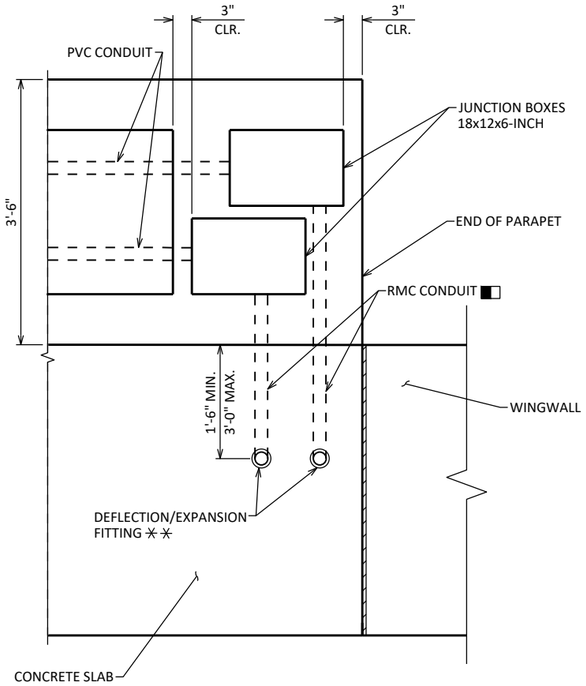
DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF $\frac{3}{4}$" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION
BOND JUMPER NOT SHOWN FOR CLARITY



SECTION A-A

(SLAB NOT SHOWN FOR CLARITY)



EAST JUNCTION BOX ELEVATION - INSIDE PARAPET FACE

(LOOKING WEST)
(NORTH PARAPET SHOWN, SOUTH PARAPET SIMILAR)

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

LEGEND

- USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.
- NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).
- SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - $\frac{1}{4}$" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".
- DEFLECTION/EXPANSION FITTING REQUIREMENTS:
  - UP TO $\frac{3}{4}$" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30° OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

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CONDUIT DETAILS

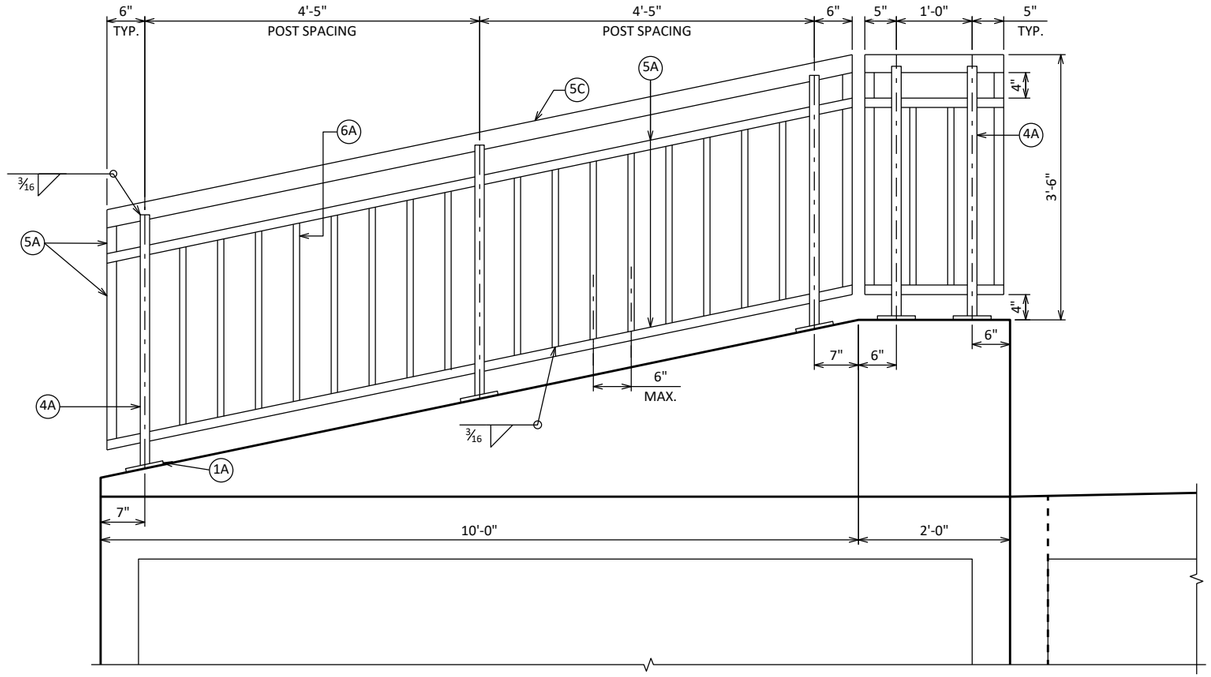
SHEET 27 OF 28
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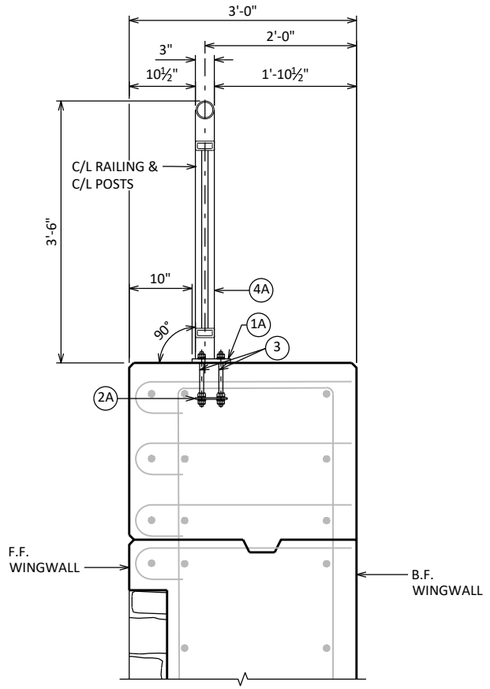
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ELEVATION OF WINGWALL 1

(WINGWALL 2,3 & 4 SIMILAR)
(LOOKING EAST)



SECTION THRU WINGWALL

LEGEND

(1A) PLATE ⅝" X 6" X 8" WITH ¾" X 1½" SLOTTED HOLES.

(2A) ¼" X 5" X 7" ANCHOR PLATE WITH $^{11}/_{16}$" DIA. HOLES FOR THR'D RODS NO. 3.

(3) ⅝" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ⅝-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 OF THE STANDARD SPECIFICATIONS.

(4A) STRUCTURAL TUBING 3" X 1½" X $^{3}/_{16}$". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5A) STRUCTURAL TUBING 3" X 1½" X $^{3}/_{16}$" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(5C) STRUCTURAL TUBING 2½" DIA. (STANDARD SIZE) (2.875" O.D.). WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C2", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

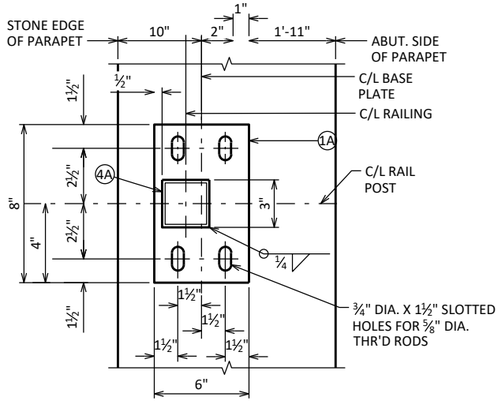
CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

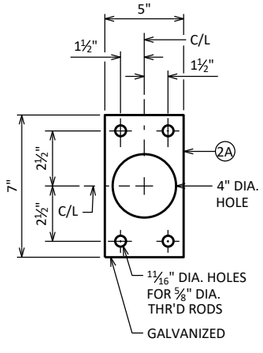
CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE ARE TO BE VERTICAL.

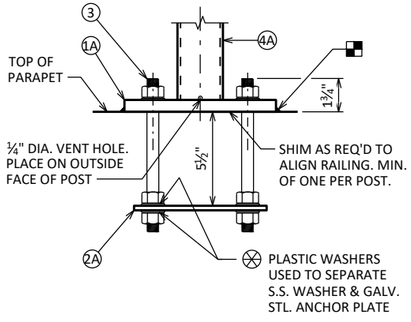
ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE RAILING SHALL BE PAINTED AMS STD. COLOR NO. 27038, BLACK.



TYPICAL RAIL POST BASE PLATE

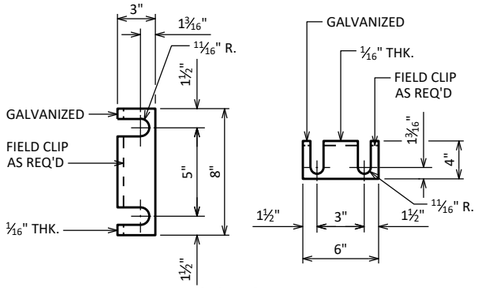


ANCHOR PLATE



ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQUIRED
WHEN ADHESIVE ANCHORS ARE USED.



RAIL POST SHIM DETAIL

(2 SETS PER POST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-1033

DRAWN BY SK | PLANS CK'D SMC

COMBINATION RAILING DETAIL

SHEET 28 OF 28

226

8

8

CAT 0010 - WISCONSIN AVE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			
			CUT	FILL	GRANULAR BACKFILL	CUT	FILL	GRANULAR BACKFILL	CUT	EXPANDED FILL	EXPANDED BACKFILL GRANULAR	MASS ORDINATE
									1.00	1.00	1.00	
						NOTE 1	NOTE 3	NOTE 4	NOTE 1		NOTE 4	NOTE 5
6+09.00	609.00	0.00	42.09	0.00	0.00	0	0	0	0	0	0	0
6+44.00	644.00	35.00	59.61	0.12	0.00	66	0	0	66	0	0	66
6+50.00	650.00	6.00	60.18	0.08	0.00	13	0	0	79	0	0	79
7+00.00	700.00	50.00	39.26	3.57	10.66	92	3	10	171	3	10	168
7+50.00	750.00	50.00	0.04	27.51	54.74	36	29	61	207	32	71	175
8+00.00	800.00	50.00	0.00	118.04	111.63	0	135	154	207	167	225	40
8+08.00	808.00	8.00	0.00	141.35	89.69	0	38	30	207	205	255	2
STRUCTURE EXCAVATION/BACKFILL												
9+32.00	932.00	0.00	0.00	0.00	68.52	0	0	0	207	205	255	2
9+50.00	950.00	18.00	0.00	0.00	64.14	0	0	44	207	205	299	2
10+00.00	1000.00	50.00	0.00	109.65	132.76	0	102	182	207	307	481	-100
10+50.00	1050.00	50.00	4.25	21.84	42.74	4	122	163	211	429	644	-218
11+00.00	1100.00	50.00	52.25	3.47	3.60	52	23	43	263	452	687	-189
11+41.00	1141.00	41.00	63.57	1.06	0.00	88	3	3	351	455	690	-104
11+50.00	1150.00	9.00	68.34	0.62	0.00	22	0	0	373	455	690	-82
11+81.00	1181.00	31.00	52.15	2.18	0.00	69	2	0	442	457	690	-15

NOTES:	
1 - CUT	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
2 - REMOVAL OF CONTAMINATED MATERIAL	ASSUMED CONTAMINATED MATERIAL IS EXCLUDED FROM CUT AND MASS ORDINATE
3 - FILL	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
4 - GRANULAR BACKFILL	GRANULAR BACKFILL PER CONSTRUCTION DETAIL IS EXCLUDED FROM FILL AND MASS ORDINATE
5 - MASS ORDINATE	CUT - (FILL* FILL FACTOR)

9

9

PROJECT NO: 2190-10-70 & 2190-10-71 | HWY: W. WISCONSIN AVE | COUNTY: MILWAUKEE | EARTHWORK DATA | SHEET 227 | E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 01

PLOT DATE : 12/19/2024 8:46 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1" = 1'

CAT 0020 - HONEY CREEK PKWY NORTH

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			
			CUT	FILL	GRANULAR BACKFILL	CUT	FILL	GRANULAR BACKFILL	CUT	EXPANDED FILL	EXPANDED BACKFILL GRANULAR	MASS ORDINATE
									1.00	1.00	1.00	
						NOTE 1	NOTE 3	NOTE 4	NOTE 1		NOTE 4	NOTE 5
25+38.00	2538.00	0.00	0.00	0.00	104.78	0	0	0	0	0	0	0
25+50.00	2550.00	12.00	0.00	98.91	133.20	0	22	53	0	22	53	-22
26+00.00	2600.00	50.00	0.00	35.97	93.59	0	125	210	0	147	263	-147
26+50.00	2650.00	50.00	0.19	22.24	40.27	0	54	124	0	201	387	-201
27+00.00	2700.00	50.00	26.96	3.59	0.00	25	24	37	25	225	424	-200
27+50.00	2750.00	50.00	41.13	0.42	0.00	63	4	0	88	229	424	-141

CAT 0020 - HONEY CREEK PKWY SOUTH

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			
			CUT	FILL	GRANULAR BACKFILL	CUT	FILL	GRANULAR BACKFILL	CUT	EXPANDED FILL	EXPANDED BACKFILL GRANULAR	MASS ORDINATE
									1.00	1.00	1.00	
						NOTE 1	NOTE 3	NOTE 4	NOTE 1		NOTE 4	NOTE 5
22+90.00	2290.00	0.00	42.41	1.51	0.00	0	0	0	0	0	0	0
23+00.00	2300.00	10.00	43.27	1.34	0.00	16	1	0	16	1	0	15
23+50.00	2350.00	50.00	25.10	9.16	4.31	63	10	4	79	11	4	68
24+00.00	2400.00	50.00	0.00	33.11	53.85	23	39	54	102	50	58	52
24+50.00	2450.00	50.00	0.00	109.61	121.05	0	132	162	102	182	220	-80
24+59.00	2459.00	9.00	0.00	168.99	136.45	0	46	43	102	228	263	-126

NOTES:	
1 - CUT	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
2 - REMOVAL OF CONTAMINATED MATERIAL	ASSUMED CONTAMINATED MATERIAL IS EXCLUDED FROM CUT AND MASS ORDINATE
3 - FILL	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
4 - GRANULAR BACKFILL	GRANULAR BACKFILL PER CONSTRUCTION DETAIL IS EXCLUDED FROM FILL AND MASS ORDINATE
5 - MASS ORDINATE	CUT - (FILL* FILL FACTOR)

CAT 0010 - PATH NORTH

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.00	
					NOTE 1	NOTE 3	NOTE 1		NOTE 5
61+00.00	6100.00	0.00	0.00	56.51	0	0	0	0	0
61+50.00	6150.00	50.00	0.00	98.15	0	143	0	143	-143
62+00.00	6200.00	50.00	2.57	67.97	2	154	2	297	-295
62+50.00	6250.00	50.00	3.86	7.53	6	70	8	367	-359
63+00.00	6300.00	50.00	1.59	0.00	5	7	13	374	-361
63+50.00	6350.00	50.00	4.61	0.00	6	0	19	374	-355
63+51.00	6351.00	1.00	5.38	0.00	0	0	19	374	-355

CAT 0010 - PATH SOUTH

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.00	
					NOTE 1	NOTE 3	NOTE 1		NOTE 5
57+87.03	5787.03	0.00	5.19	0.00	0	0	0	0	0
58+00.00	5800.00	12.97	1.07	0.69	2	0	2	0	2
58+50.00	5850.00	50.00	0.00	39.13	1	37	3	37	-34
59+00.00	5900.00	50.00	0.00	56.70	0	89	3	126	-123

NOTES:	
1 - CUT	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
2 - REMOVAL OF CONTAMINATED MATERIAL	ASSUMED CONTAMINATED MATERIAL IS EXCLUDED FROM CUT AND MASS ORDINATE
3 - FILL	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
4 - GRANULAR BACKFILL	GRANULAR BACKFILL PER CONSTRUCTION DETAIL IS EXCLUDED FROM FILL AND MASS ORDINATE
5 - MASS ORDINATE	CUT - (FILL* FILL FACTOR)

CAT 0010 - HONEY CREEK STREAM

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)			
			CUT	REMOVAL OF CONTAMINATED MATERIAL	FILL	CUT	REMOVAL OF CONTAMINATED MATERIAL	FILL	CUT	REMOVAL OF CONTAMINATED MATERIAL	EXPANDED FILL	MASS ORDINATE
									1.00	1.00	1.00	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1	NOTE 2		NOTE 5
136+18.61	13618.61	0.00	26.17	107.56	1.18	0	0	0	0	0	0	0
136+50.00	13650.00	31.39	25.61	117.44	6.25	30	131	4	30	131	4	26
137+00.00	13700.00	50.00	36.83	135.60	23.76	58	234	28	88	365	32	56
137+50.00	13750.00	50.00	161.51	171.63	0.00	184	284	22	272	649	54	218
137+60.00	13760.00	10.00	210.32	168.68	0.04	69	63	0	341	712	54	287
STRUCTURE EXCAVATION/BACKFILL												
138+75.00	13875.00	0.00	393.16	31.86	1.43	0	0	0	341	712	54	287
139+00.00	13900.00	25.00	321.44	22.00	9.62	331	25	5	672	737	59	613
139+50.00	13950.00	50.00	97.52	56.55	0.00	388	73	9	1,060	810	68	992
139+81.00	13981.00	31.00	25.54	55.35	0.00	71	64	0	1,131	874	68	1,063

NOTES:	
1 - CUT	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
2 - REMOVAL OF CONTAMINATED MATERIAL	ASSUMED CONTAMINATED MATERIAL IS EXCLUDED FROM CUT AND MASS ORDINATE
3 - FILL	NO ADJUSTMENT HAS BEEN MADE FOR SALVAGED/UNUSABLE PAVEMENT OR CONCRETE CHANNEL MATERIAL
4 - GRANULAR BACKFILL	GRANULAR BACKFILL PER CONSTRUCTION DETAIL IS EXCLUDED FROM FILL AND MASS ORDINATE
5 - MASS ORDINATE	CUT - (FILL* FILL FACTOR)

9

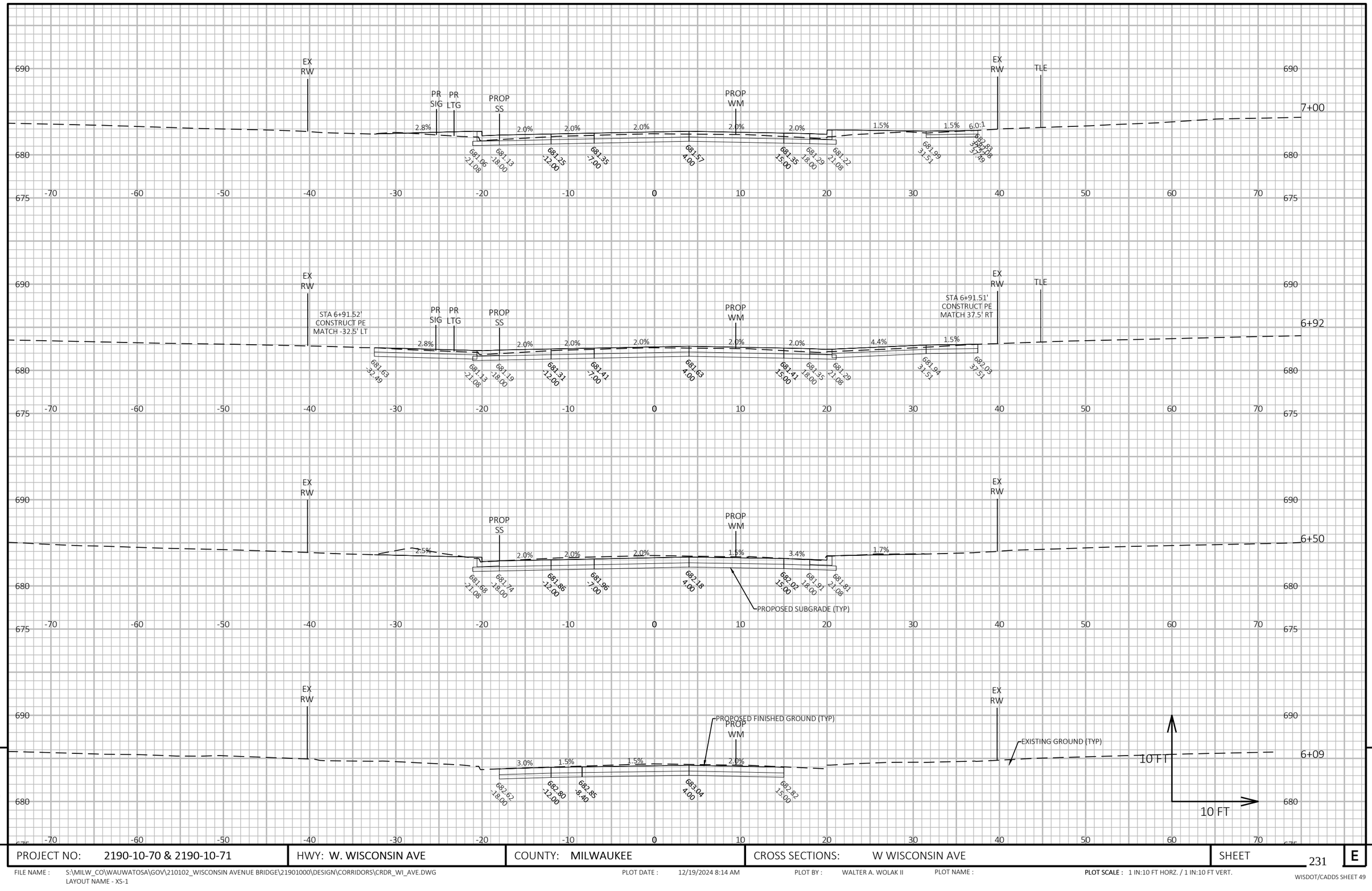
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PROJECT NO: 2190-10-70 & 2190-10-71 | HWY: W. WISCONSIN AVE | COUNTY: MILWAUKEE | EARTHWORK DATA | SHEET 230 | E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\SHEETSPLAN\090101-EW.DWG
LAYOUT NAME - 04

PLOT DATE : 12/19/2024 8:46 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 49

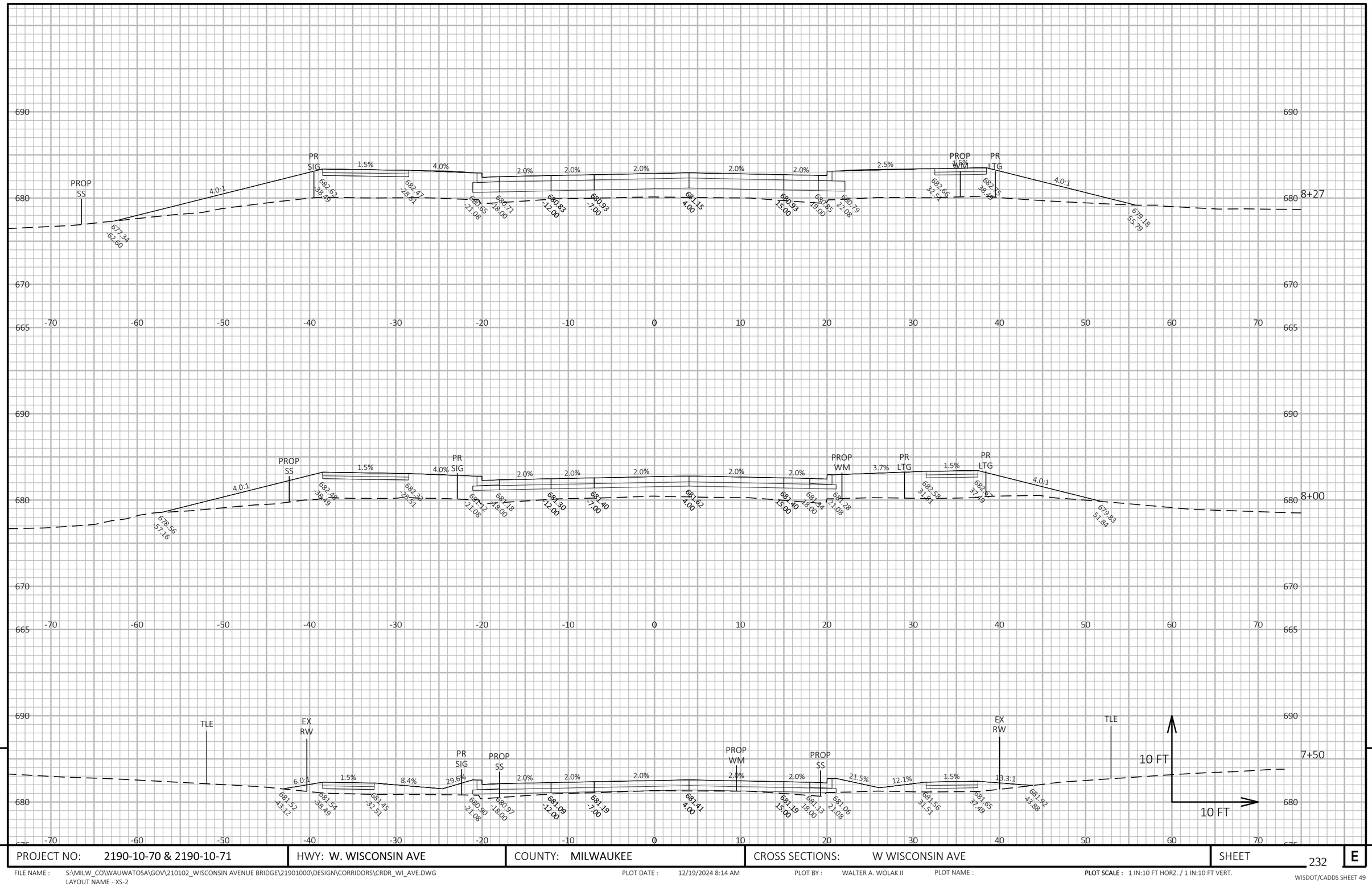


PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W WISCONSIN AVE	SHEET 231	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-1

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



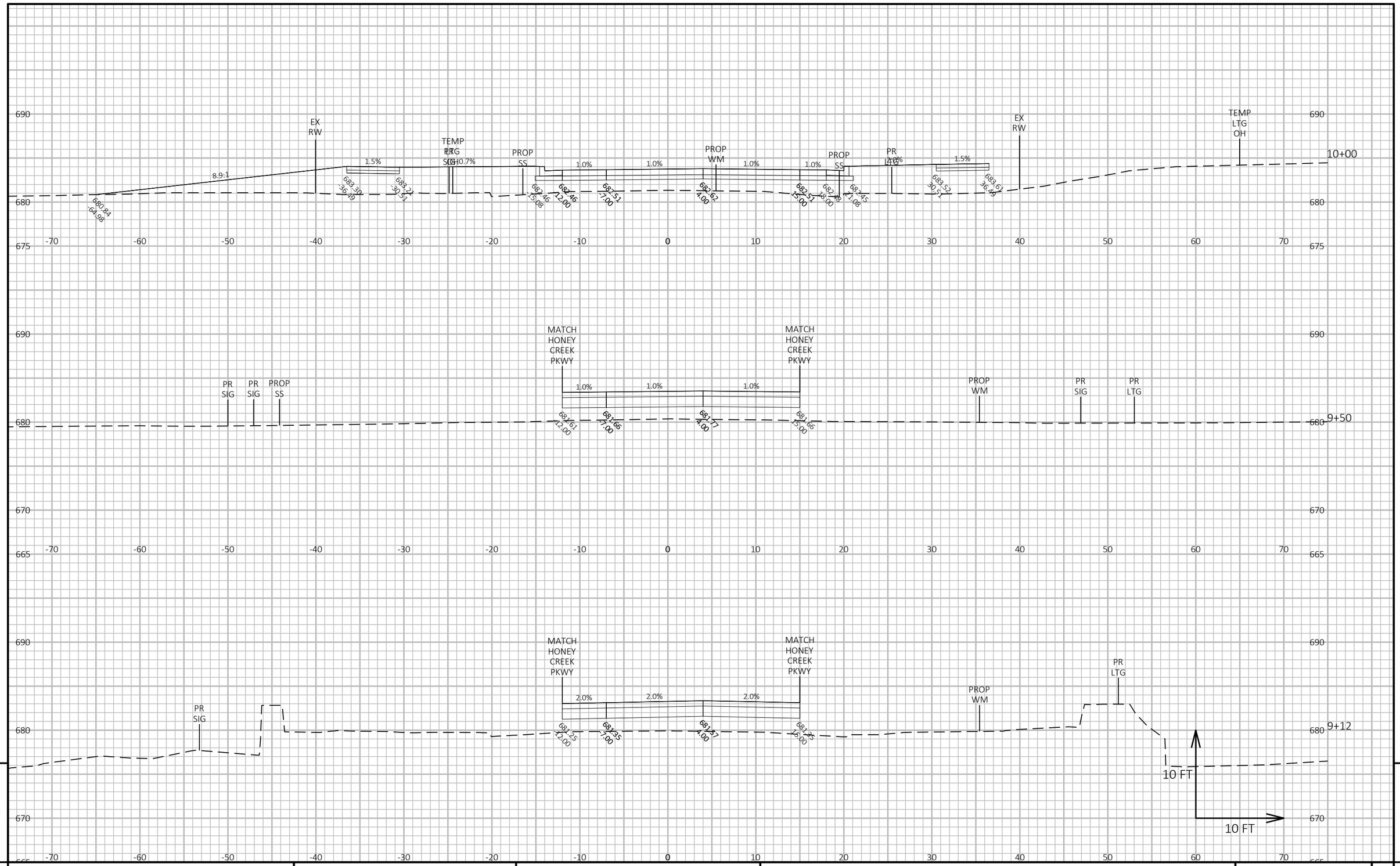
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W WISCONSIN AVE	SHEET 232	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-2

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49



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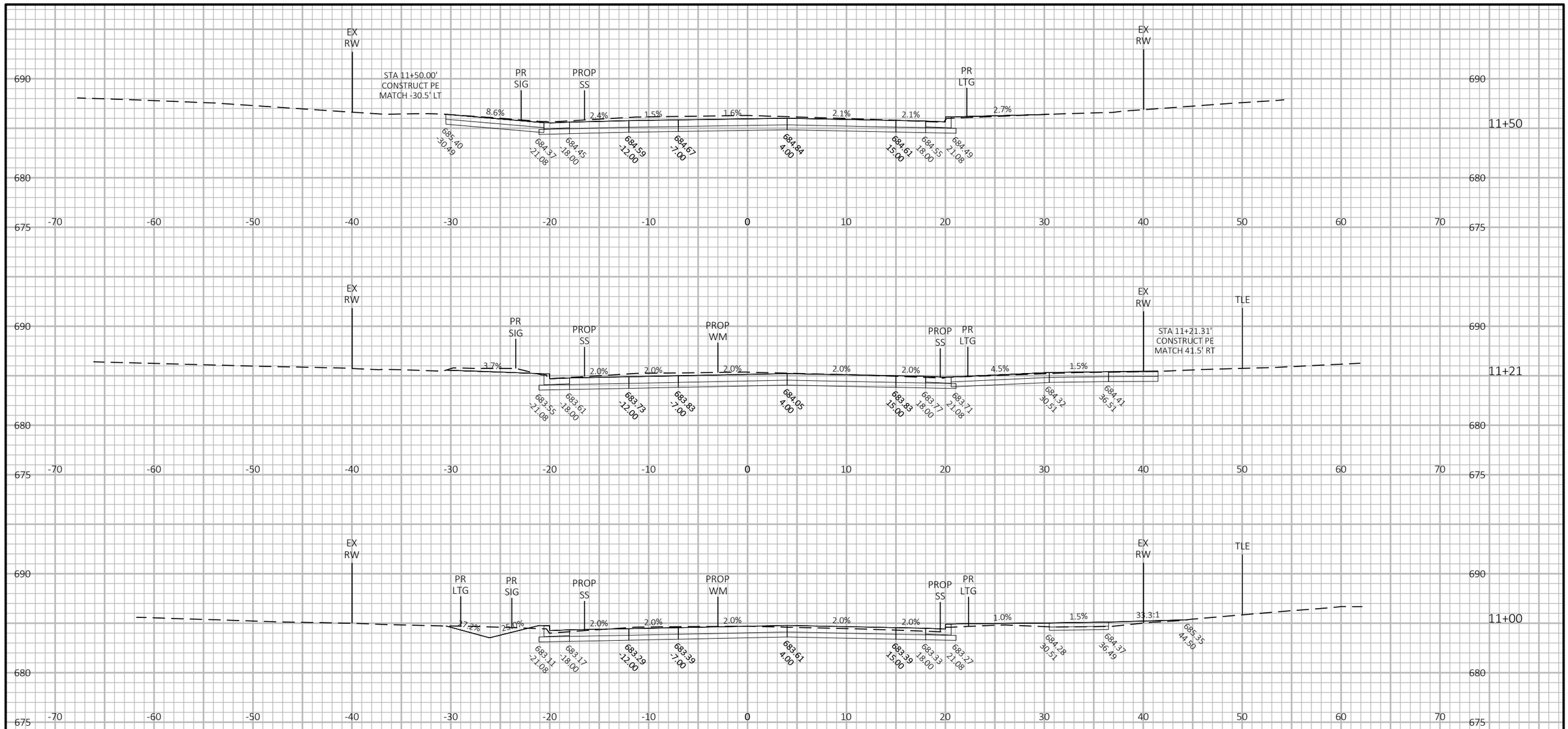
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W WISCONSIN AVE	SHEET 233	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-3

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49



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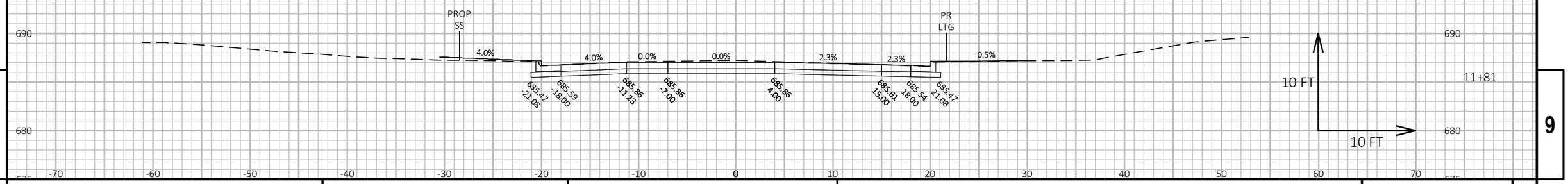
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W WISCONSIN AVE	SHEET 234	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-4

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END PROJECT 2190-10-70 STA 12+41.00



9

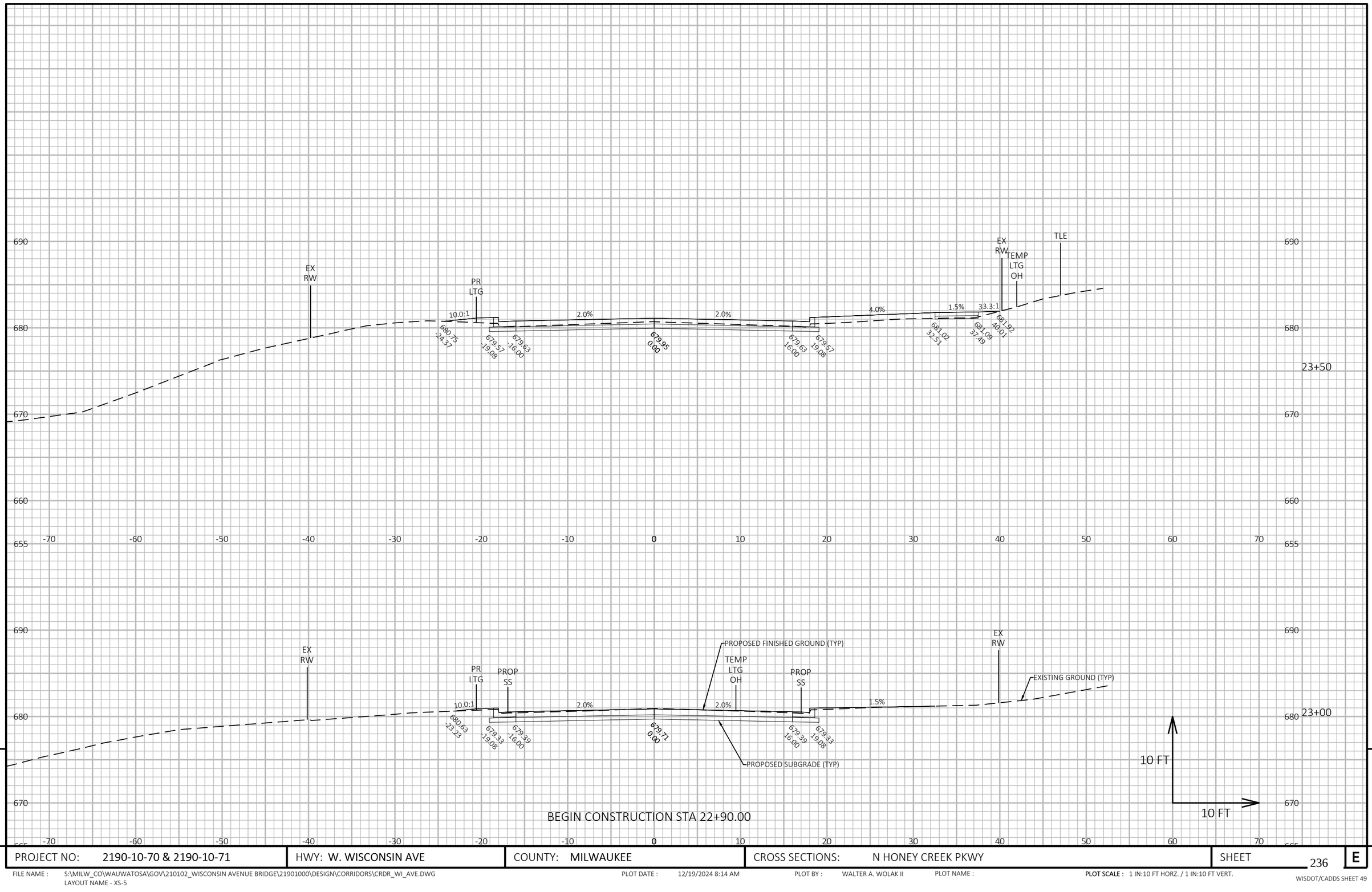
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: W WISCONSIN AVE	SHEET 235	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-4A

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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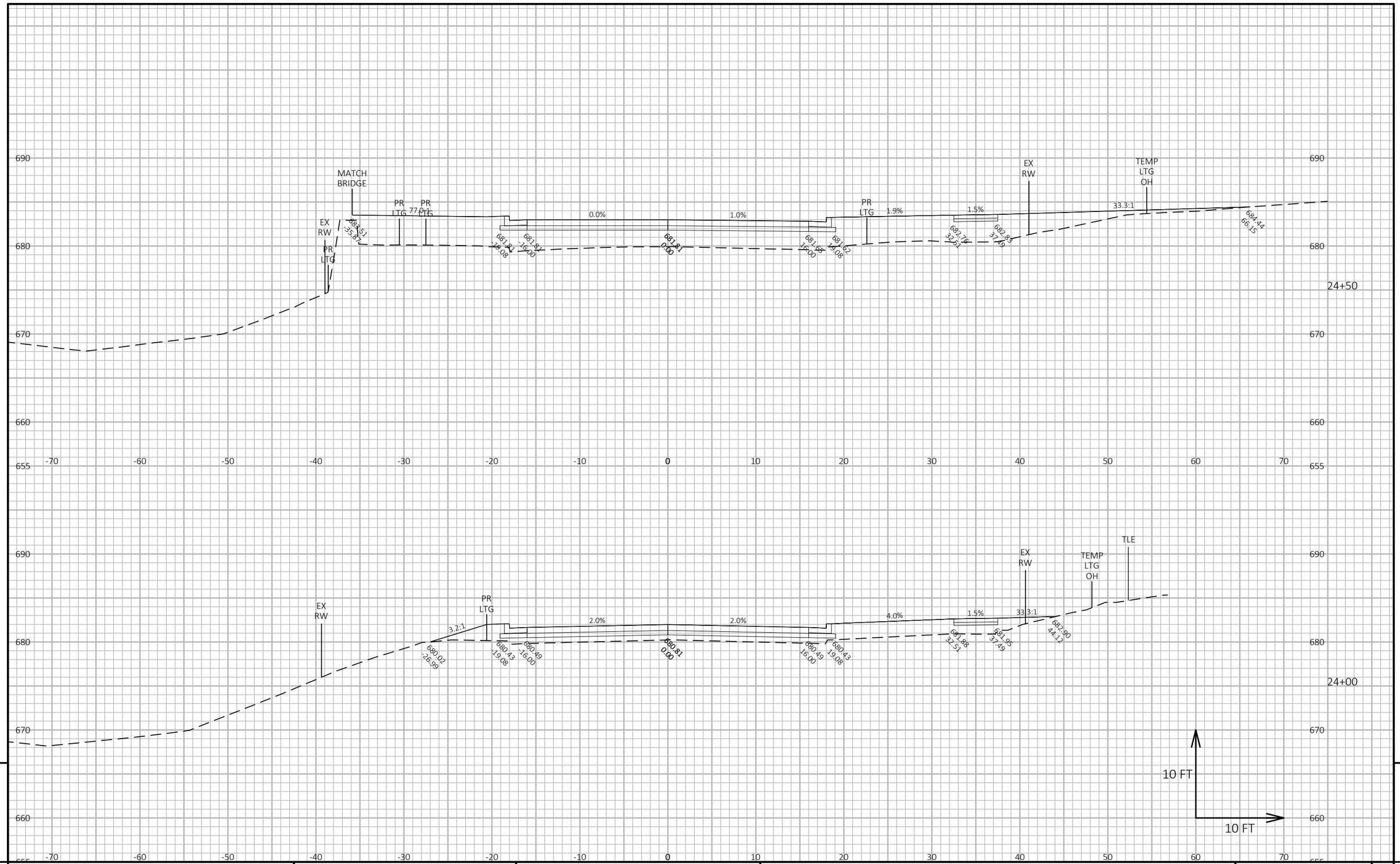
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 236	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-5

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49

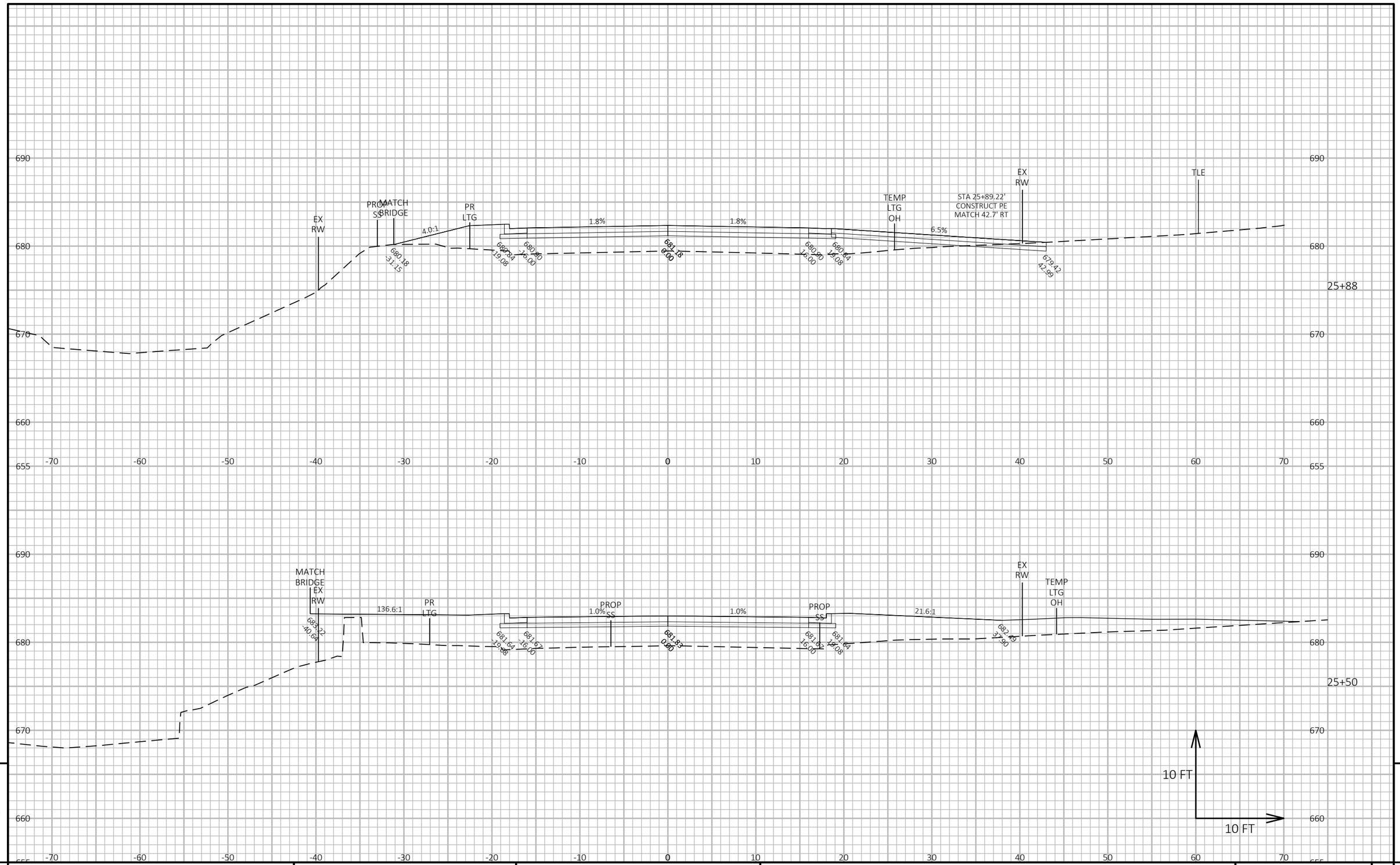


PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 237 E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-6

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

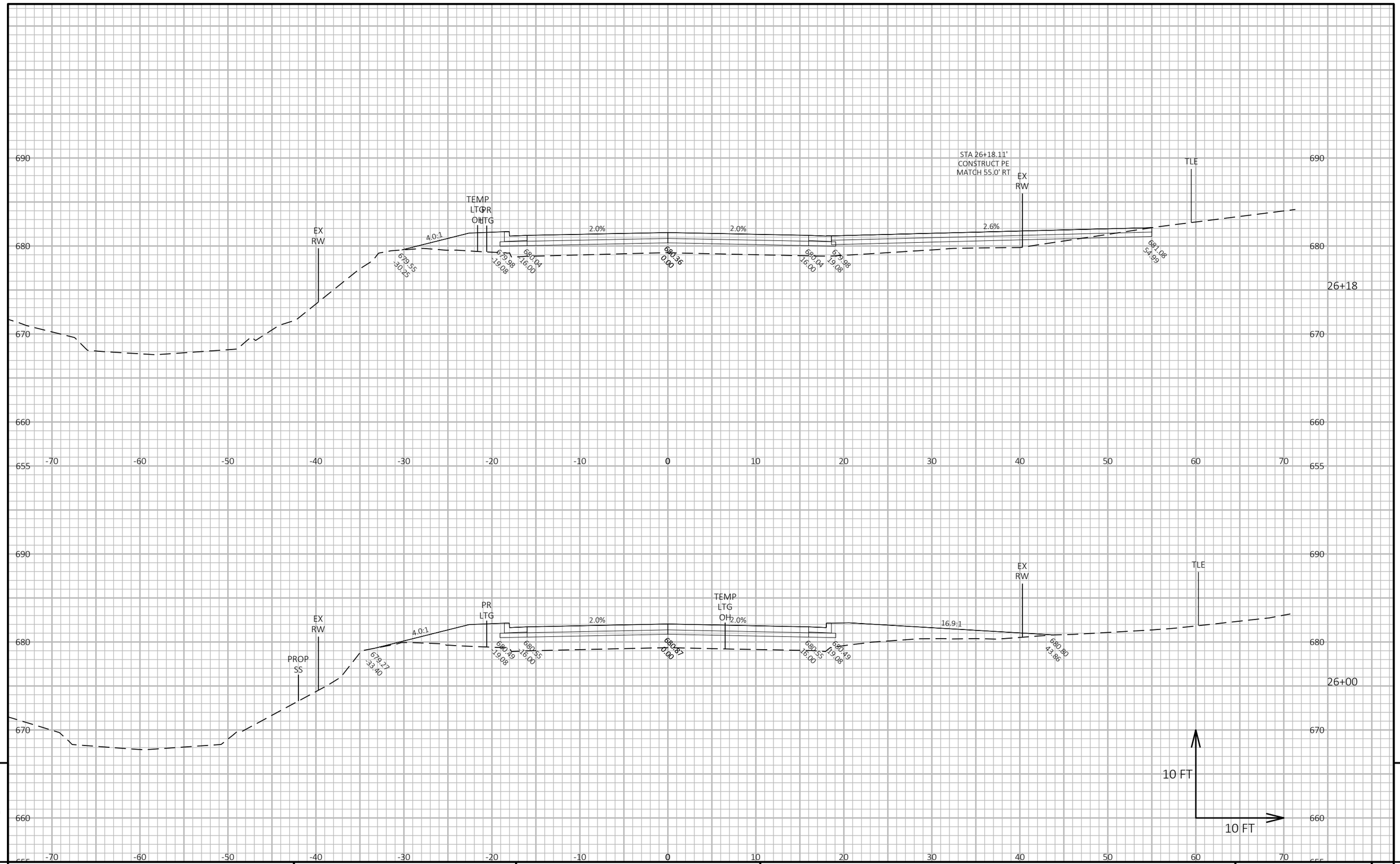
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 238	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-7

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



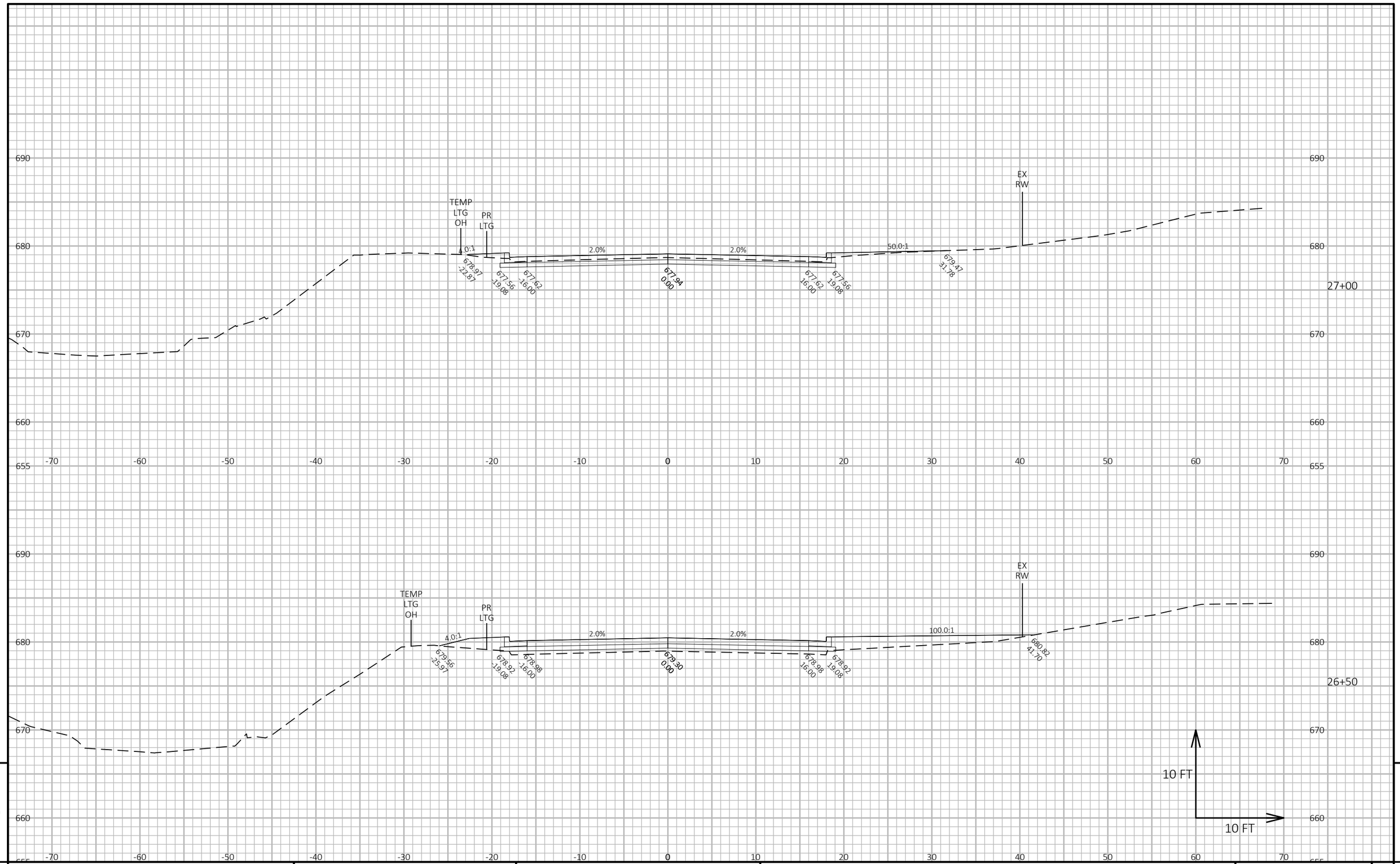
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 239	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-8

PLOT DATE : 12/19/2024 8:14 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 240	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-9

PLOT DATE : 12/19/2024 8:15 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA 27+50.00

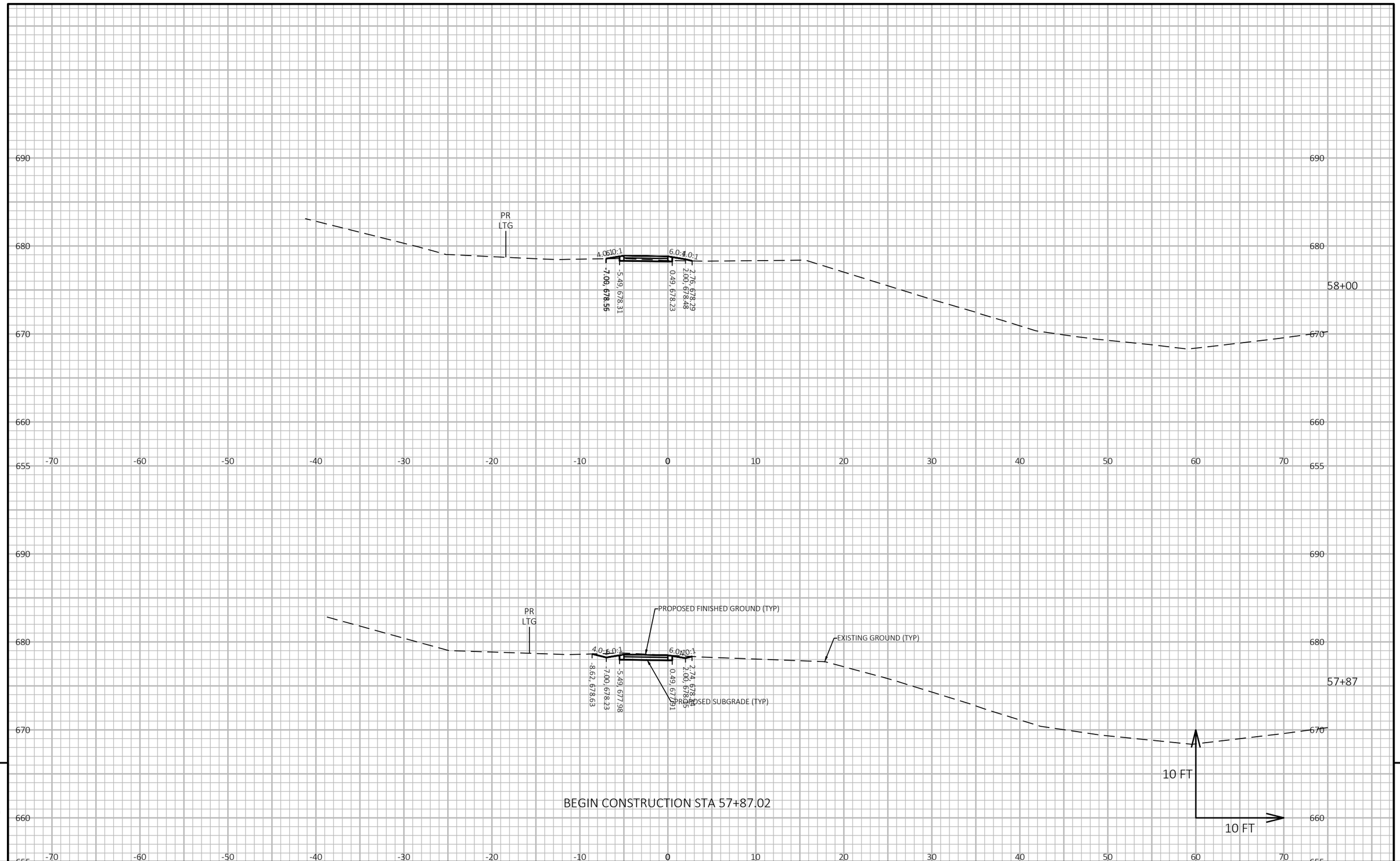


PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: N HONEY CREEK PKWY	SHEET 241	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_WI_AVE.DWG
LAYOUT NAME - XS-10

PLOT DATE : 12/19/2024 8:15 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

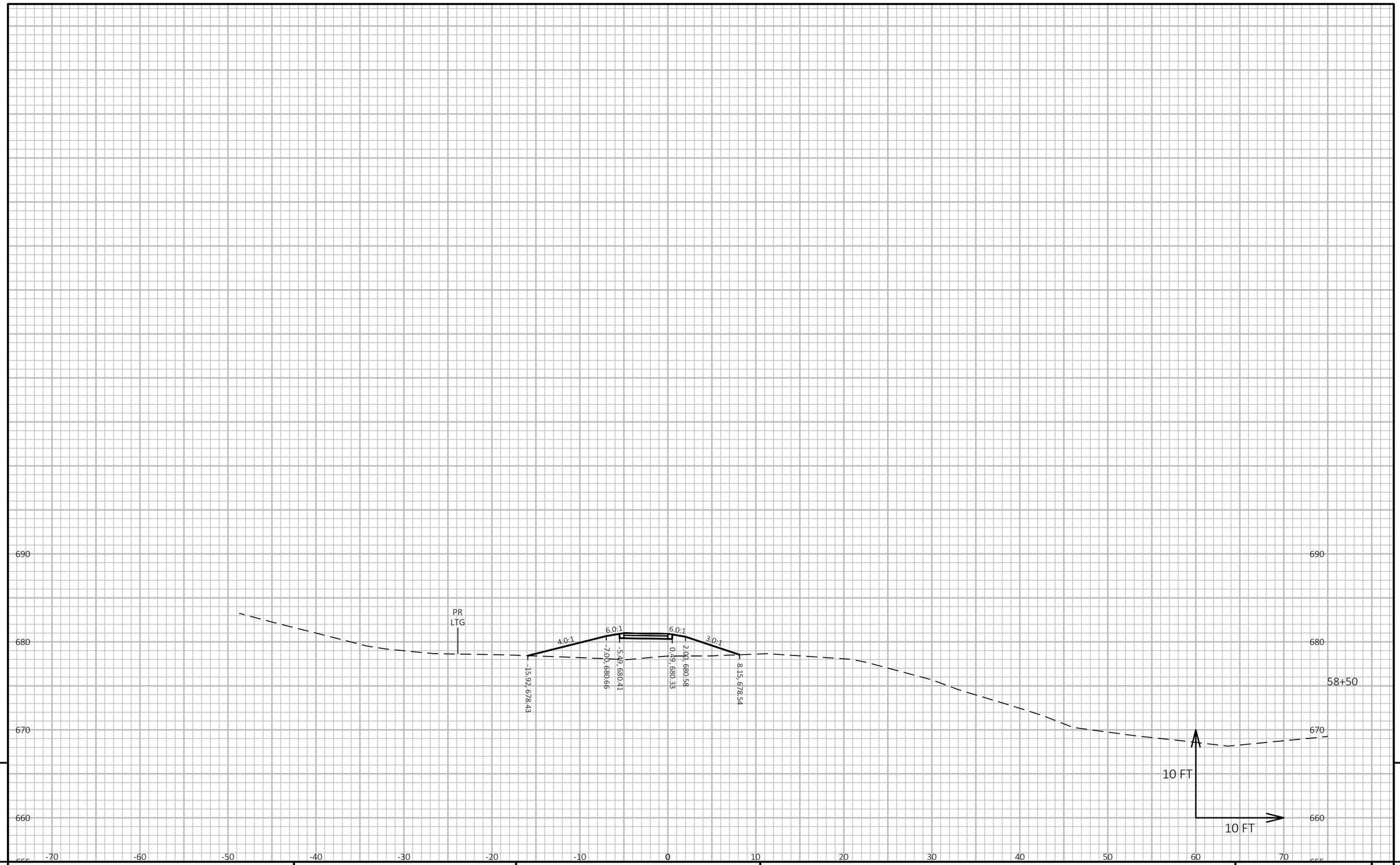


PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: PATH SOUTH	SHEET 242	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_PATH.DWG
LAYOUT NAME - XS-PATH-1

PLOT DATE : 12/19/2024 8:16 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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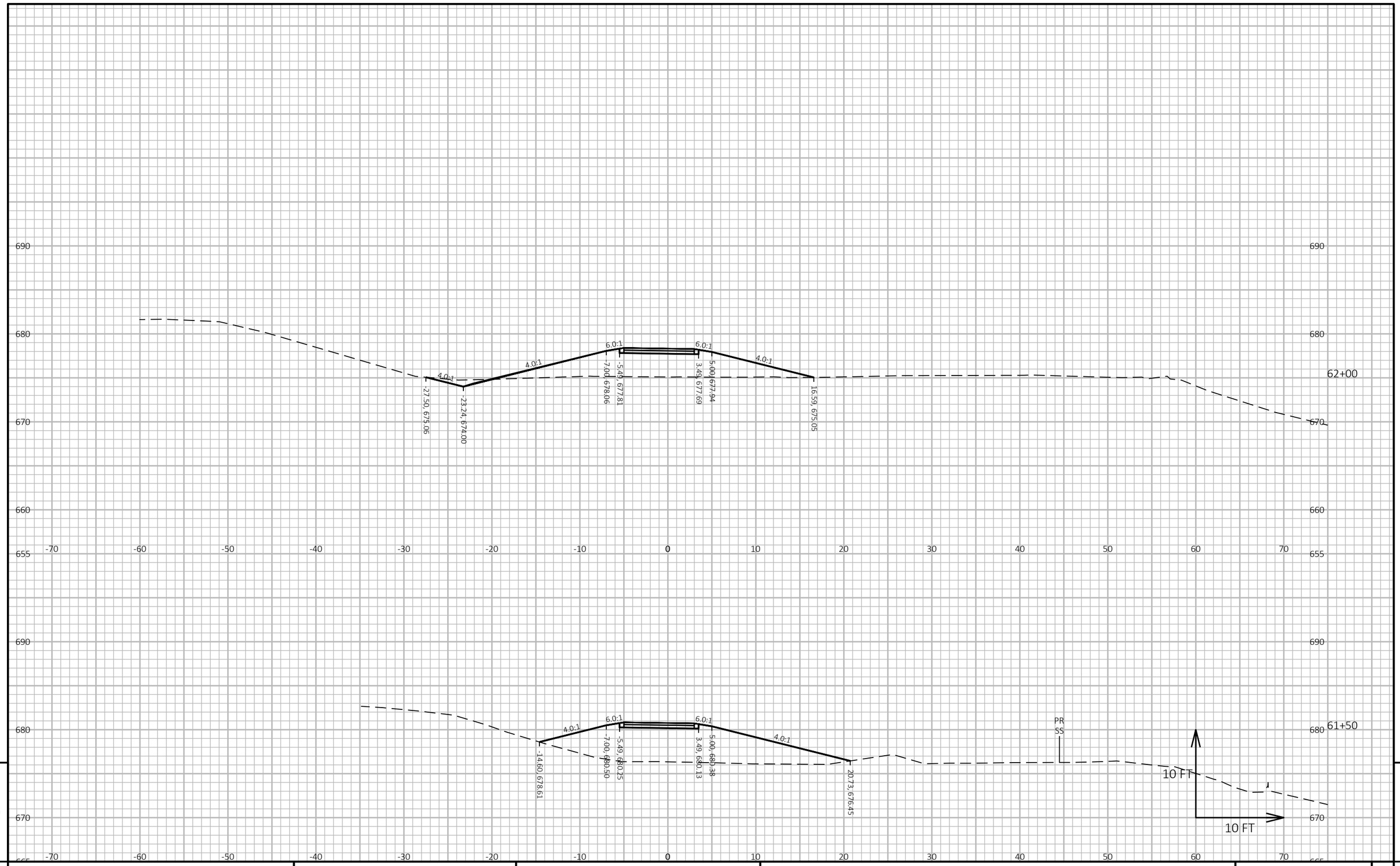
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: PATH SOUTH	SHEET 243	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_PATH.DWG
LAYOUT NAME - XS-PATH-2

PLOT DATE : 12/19/2024 8:16 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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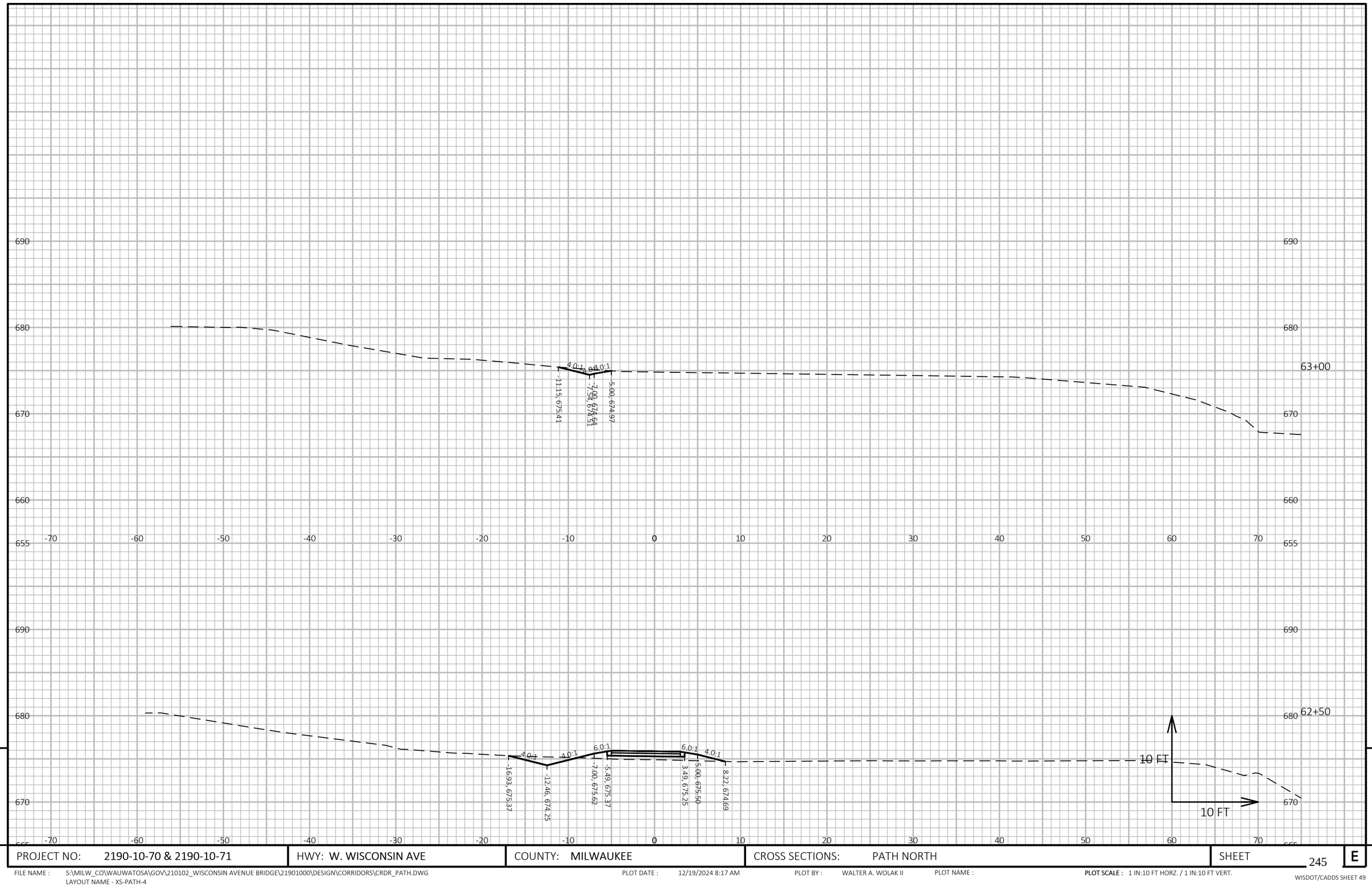
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: PATH NORTH	SHEET 244	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_PATH.DWG
LAYOUT NAME - XS-PATH-3

PLOT DATE : 12/19/2024 8:16 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49



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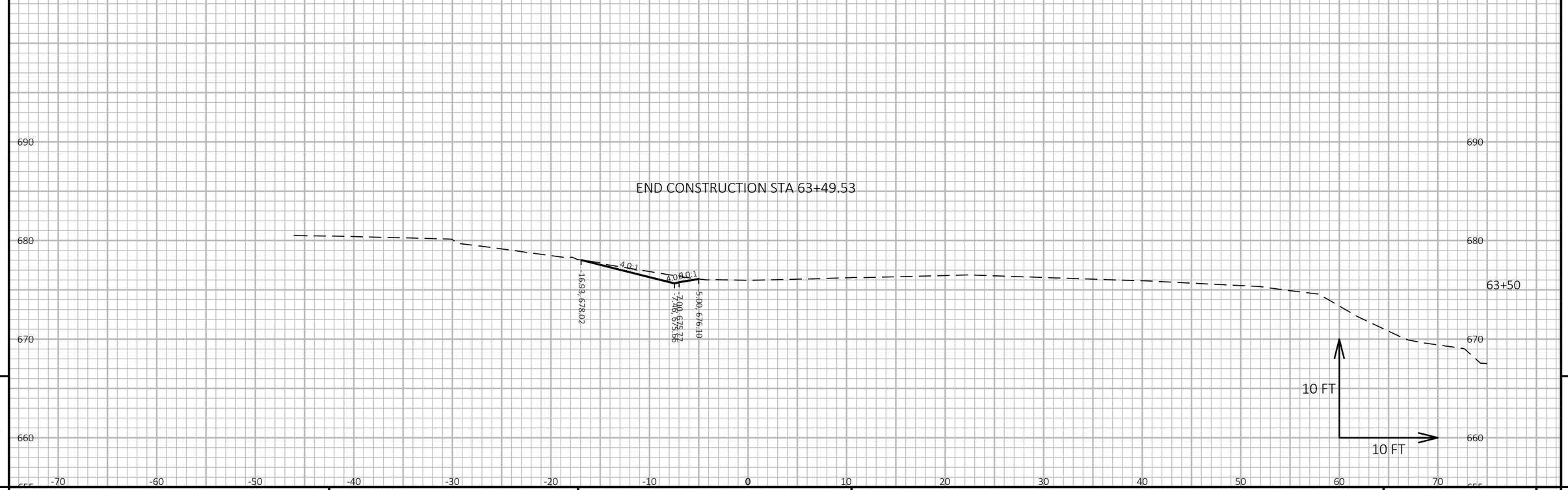
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: PATH NORTH	SHEET 245	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_PATH.DWG
LAYOUT NAME - XS-PATH-4

PLOT DATE : 12/19/2024 8:17 AM PLOT BY : WALTER A. WOLAK II PLOT NAME :

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

WISDOT/CADDS SHEET 49



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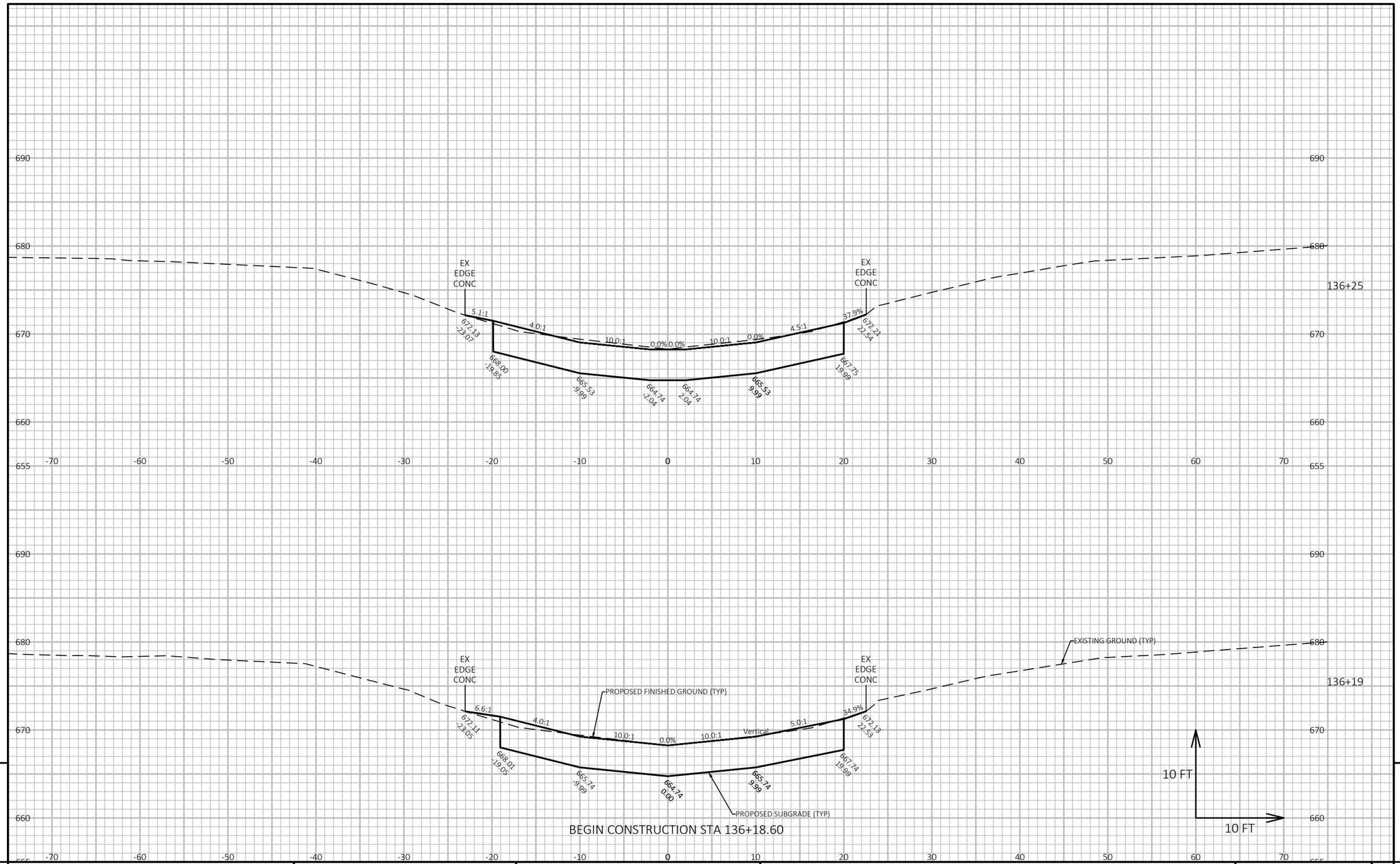
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: PATH NORTH	SHEET 246	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_PATH.DWG
LAYOUT NAME - XS-PATH-5

PLOT DATE : 12/19/2024 8:17 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

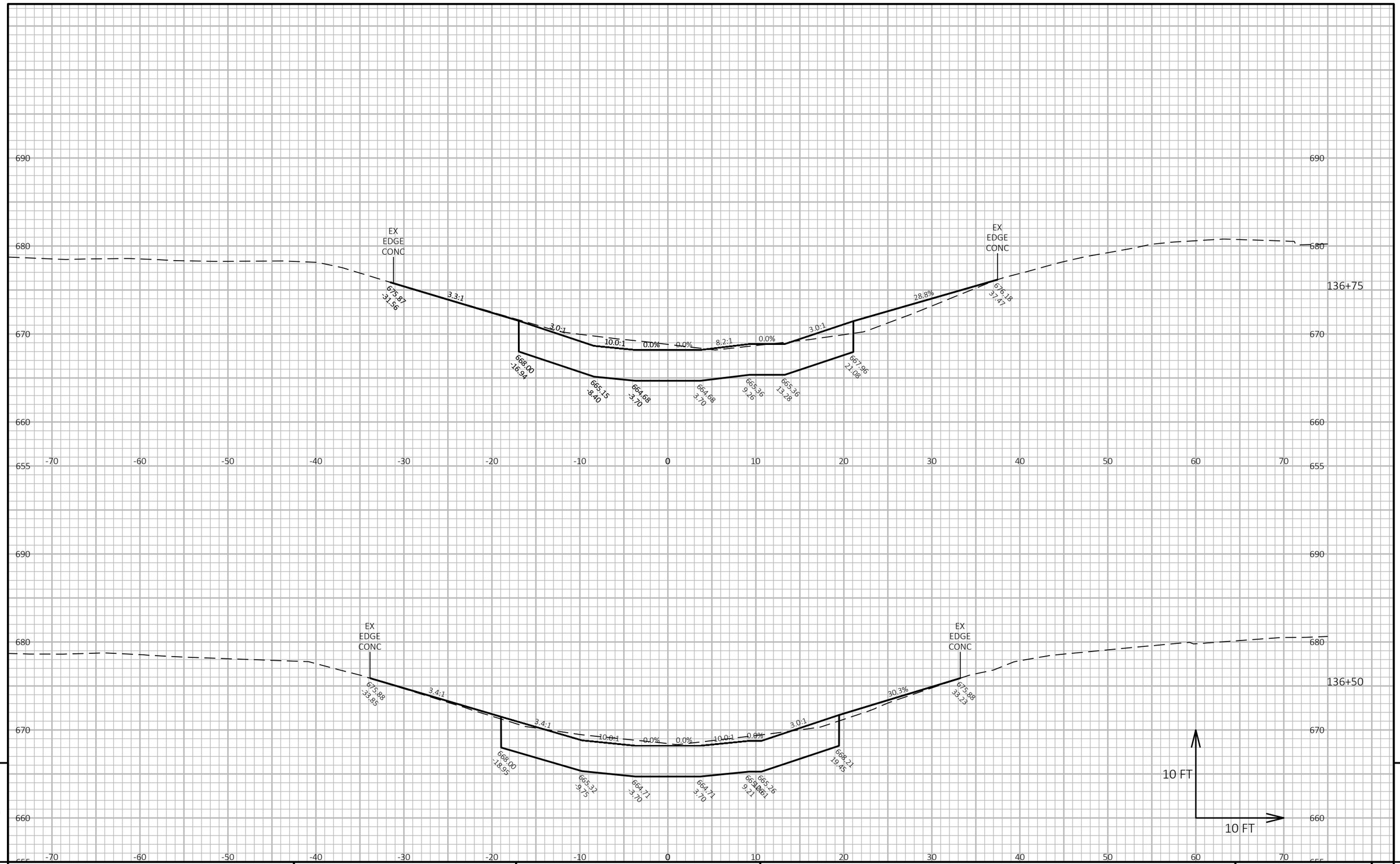


PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 247	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-1

PLOT DATE : 12/19/2024 8:18 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



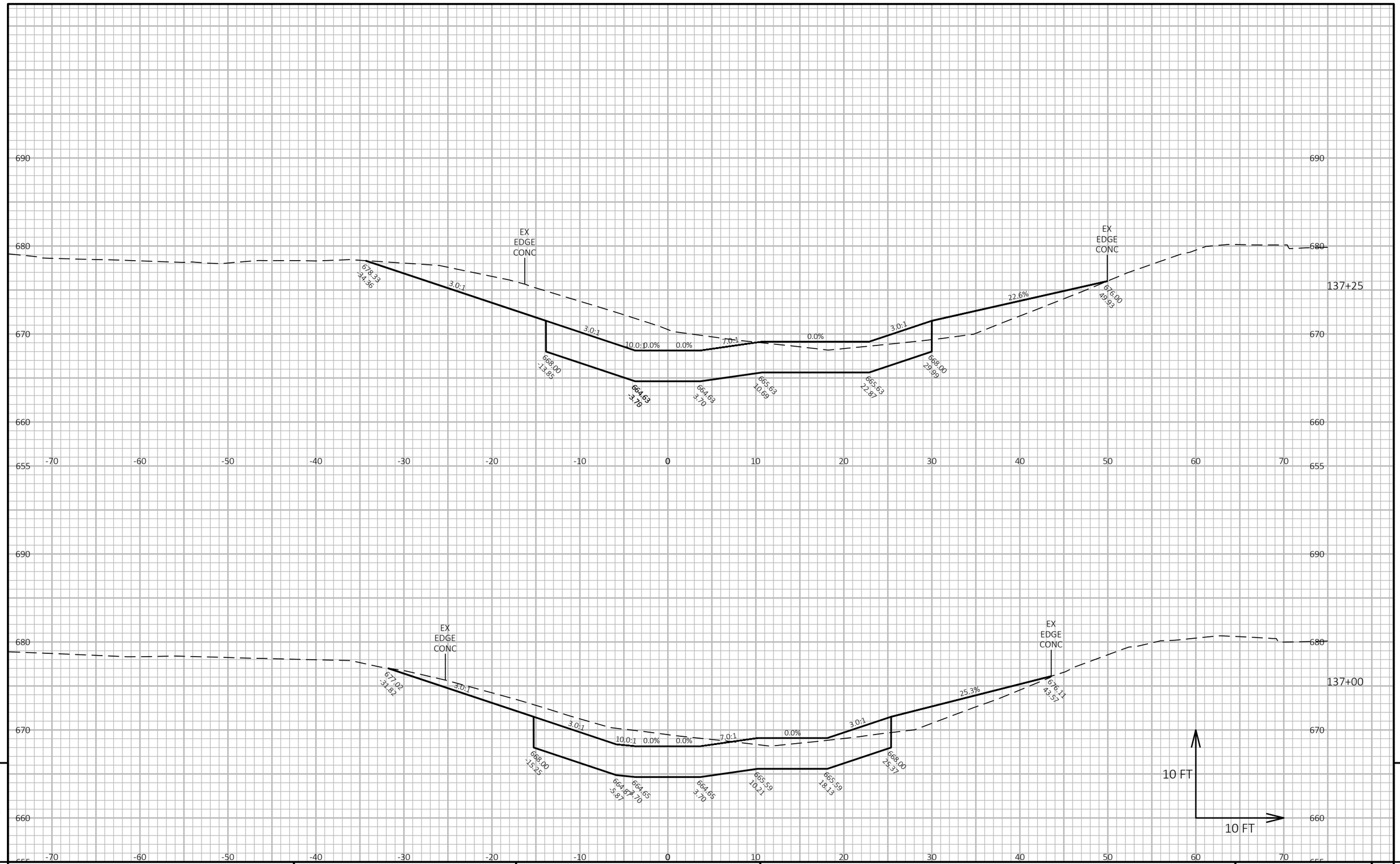
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 248	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-2

PLOT DATE : 12/19/2024 8:18 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



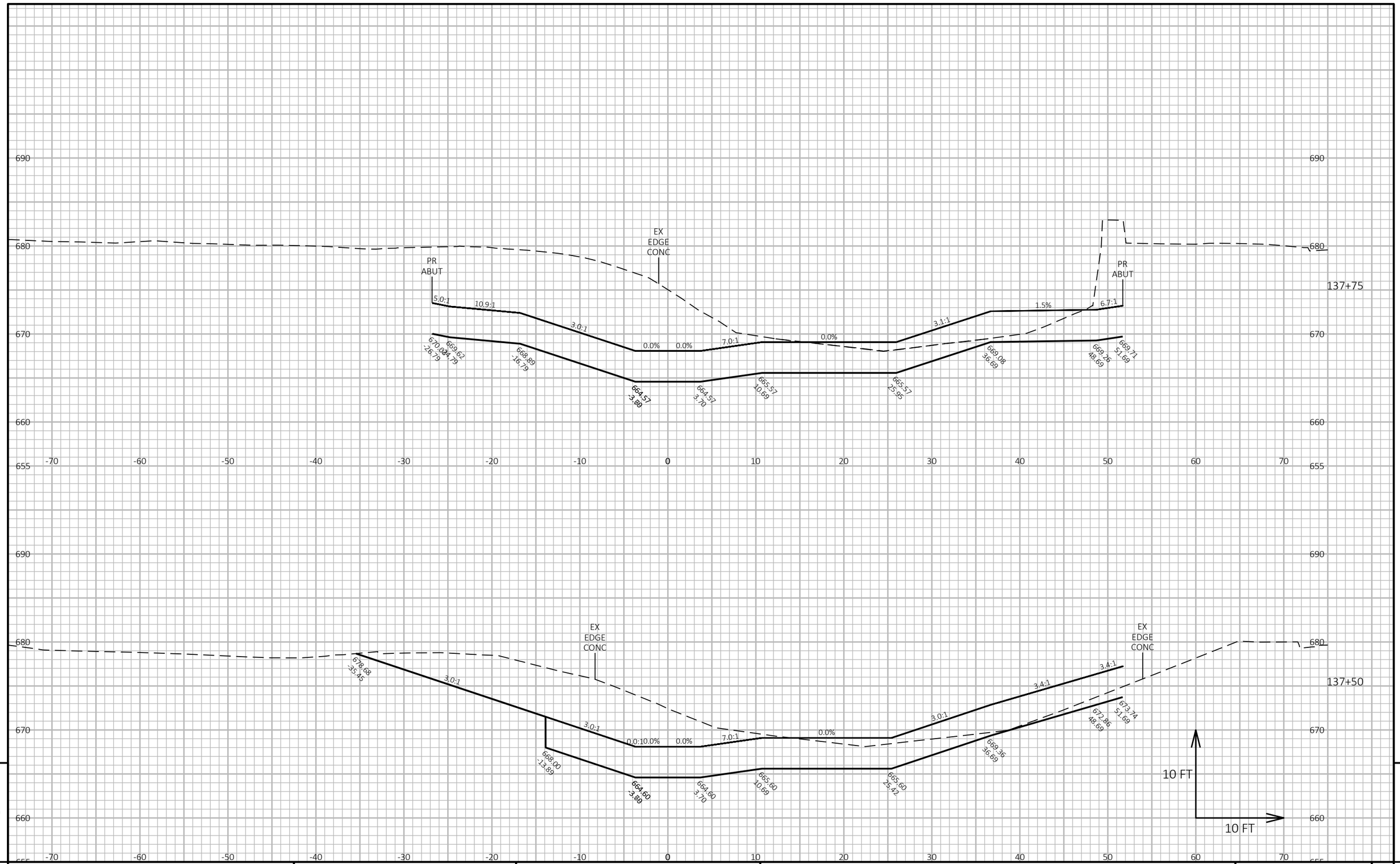
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 249	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-3

PLOT DATE : 12/19/2024 8:18 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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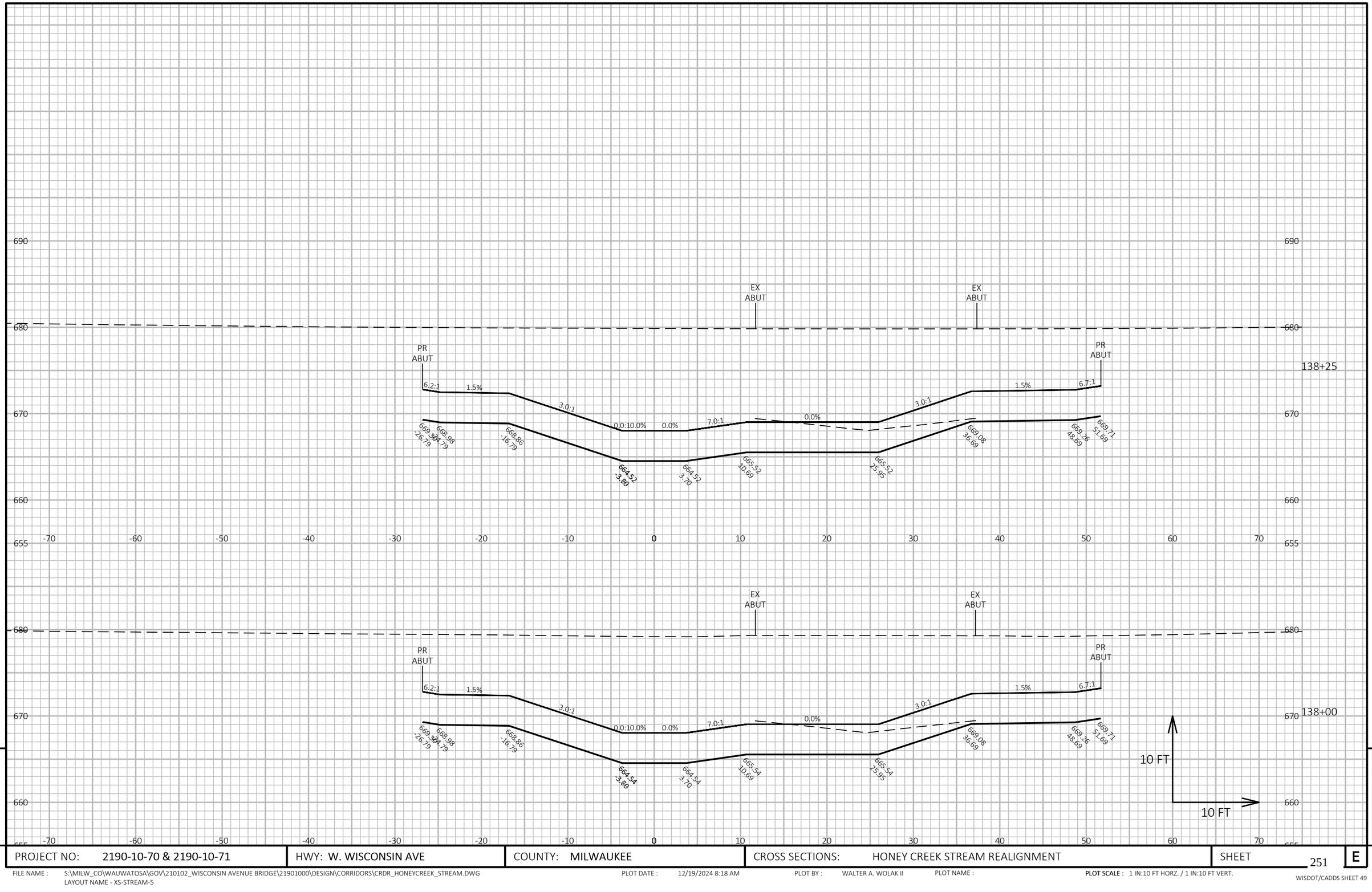
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 250	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-4

PLOT DATE : 12/19/2024 8:18 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

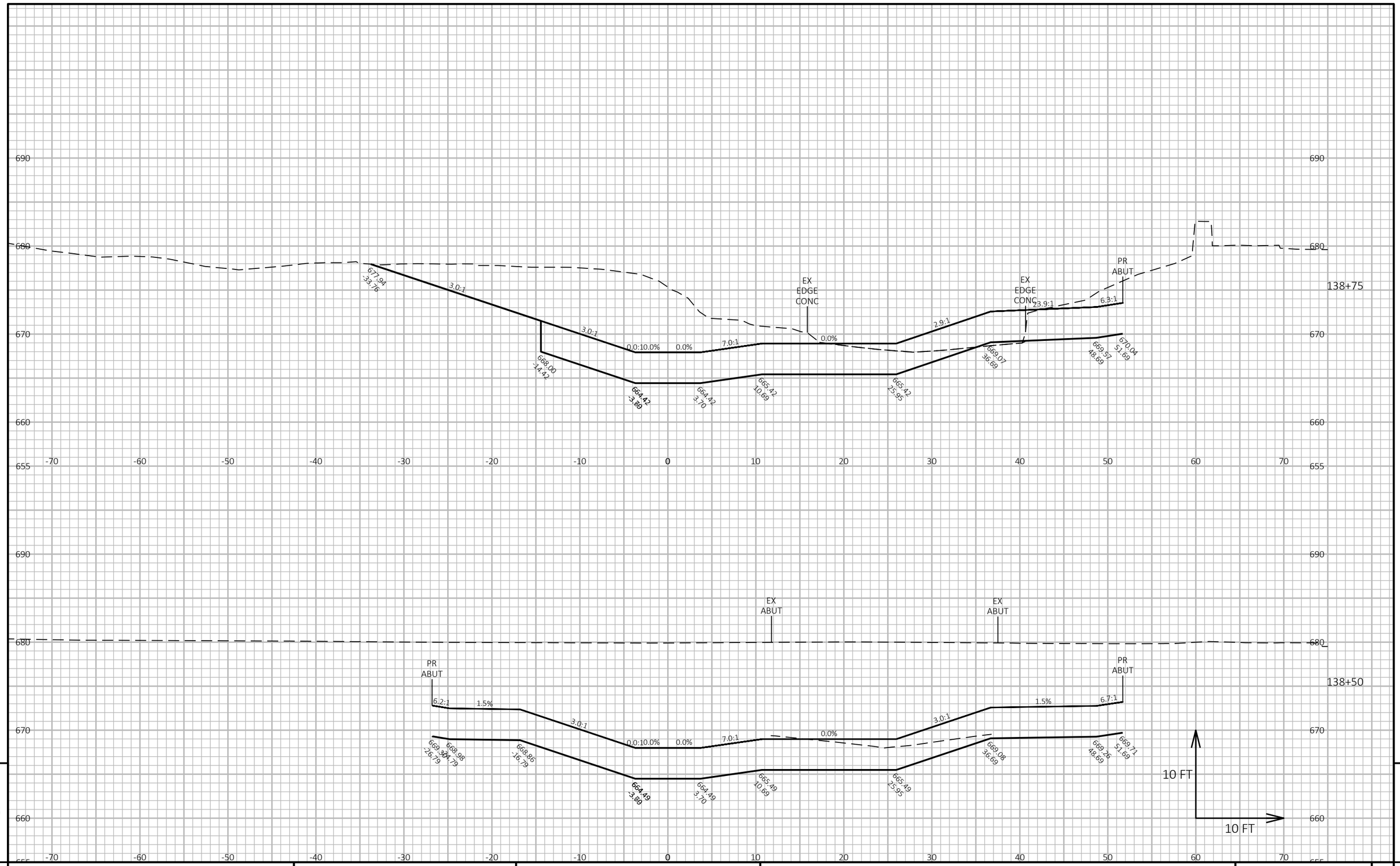
WISDOT/CADDS SHEET 49



PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 251	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-5

PLOT DATE : 12/19/2024 8:18 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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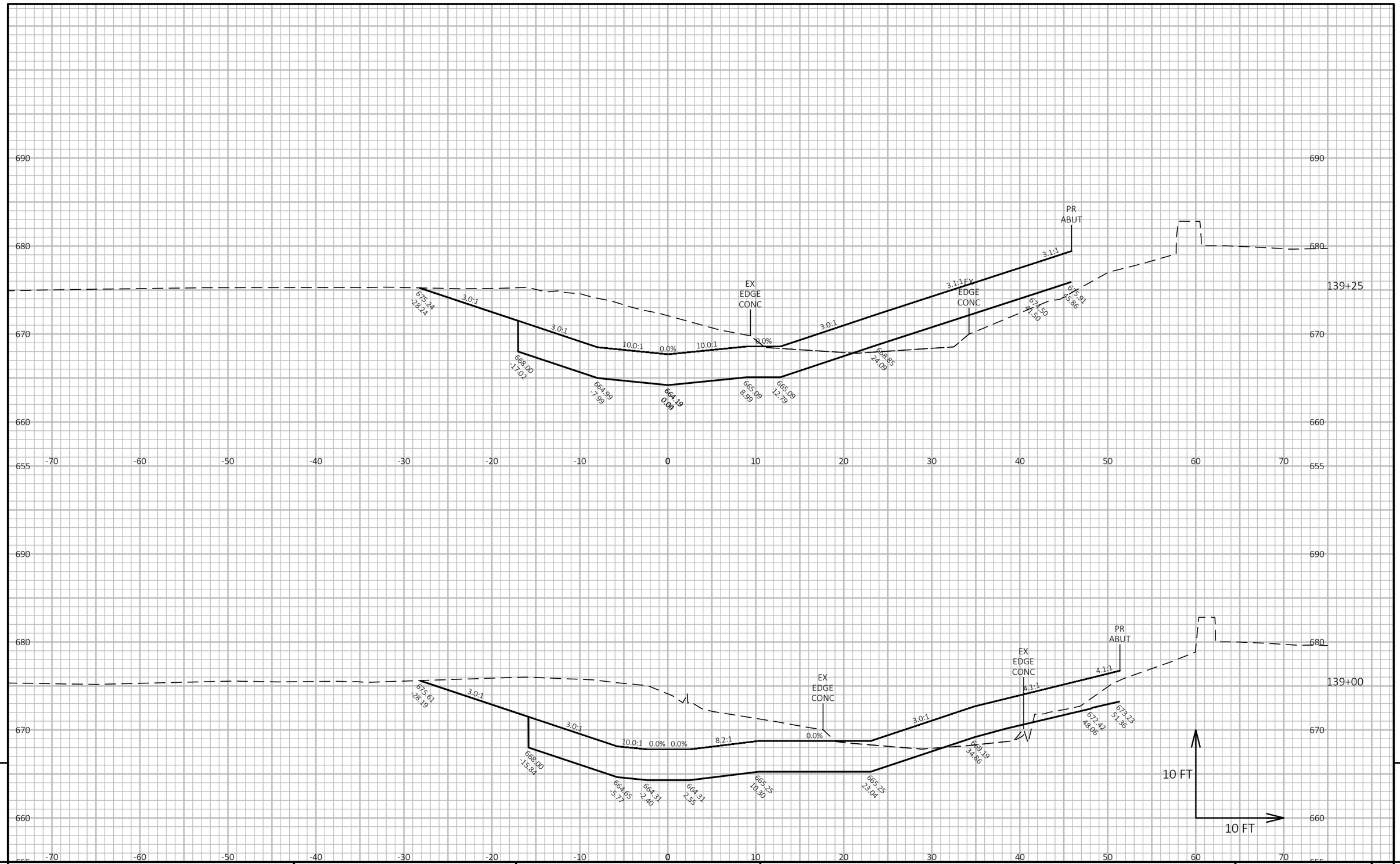
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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 252	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-6

PLOT DATE : 12/19/2024 8:19 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



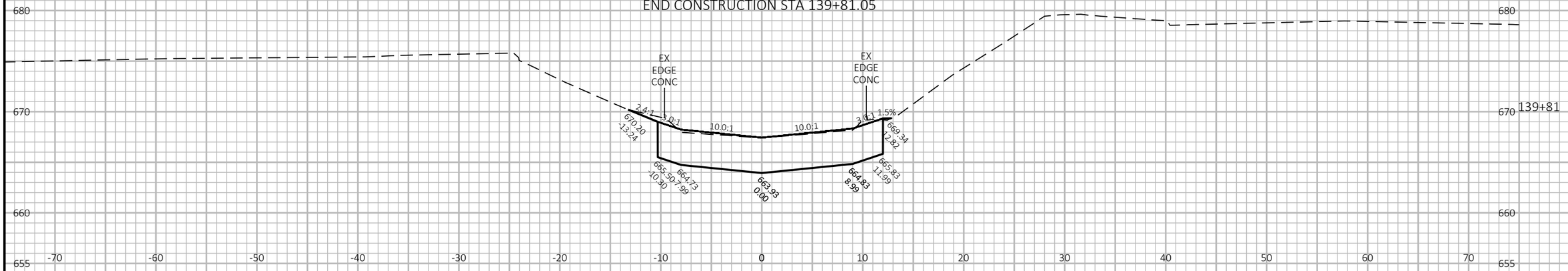
PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 253	E

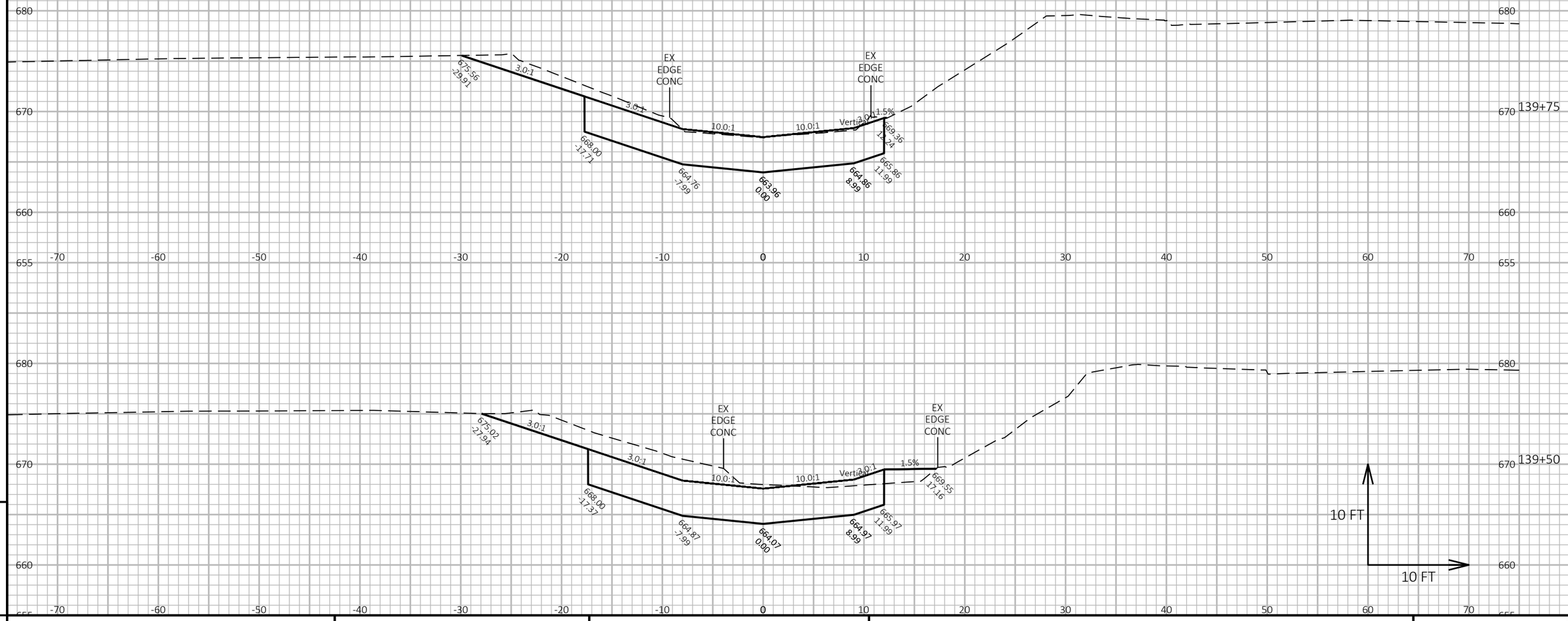
FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-7

PLOT DATE : 12/19/2024 8:19 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA 139+81.05





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PROJECT NO: 2190-10-70 & 2190-10-71	HWY: W. WISCONSIN AVE	COUNTY: MILWAUKEE	CROSS SECTIONS: HONEY CREEK STREAM REALIGNMENT	SHEET 254	E

FILE NAME : S:\MILW_CO\WAUWATOSA\GOV\210102_WISCONSIN AVENUE BRIDGE\21901000\DESIGN\CORRIDORS\CRDR_HONEYCREEK_STREAM.DWG
LAYOUT NAME - XS-STREAM-8

PLOT DATE : 12/19/2024 8:19 AM PLOT BY : WALTER A. WOLAK II PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov