LAX JUNE 2024

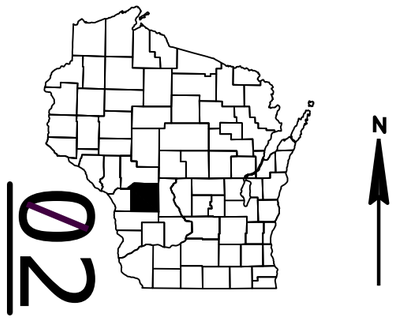
PROJECT ID: 1071-07-80
WITH: N/A

COUNTY: MONROE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 368



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LA CROSSE - SPARTA

SAFETY REST AREA 16 SPARTA - SITE

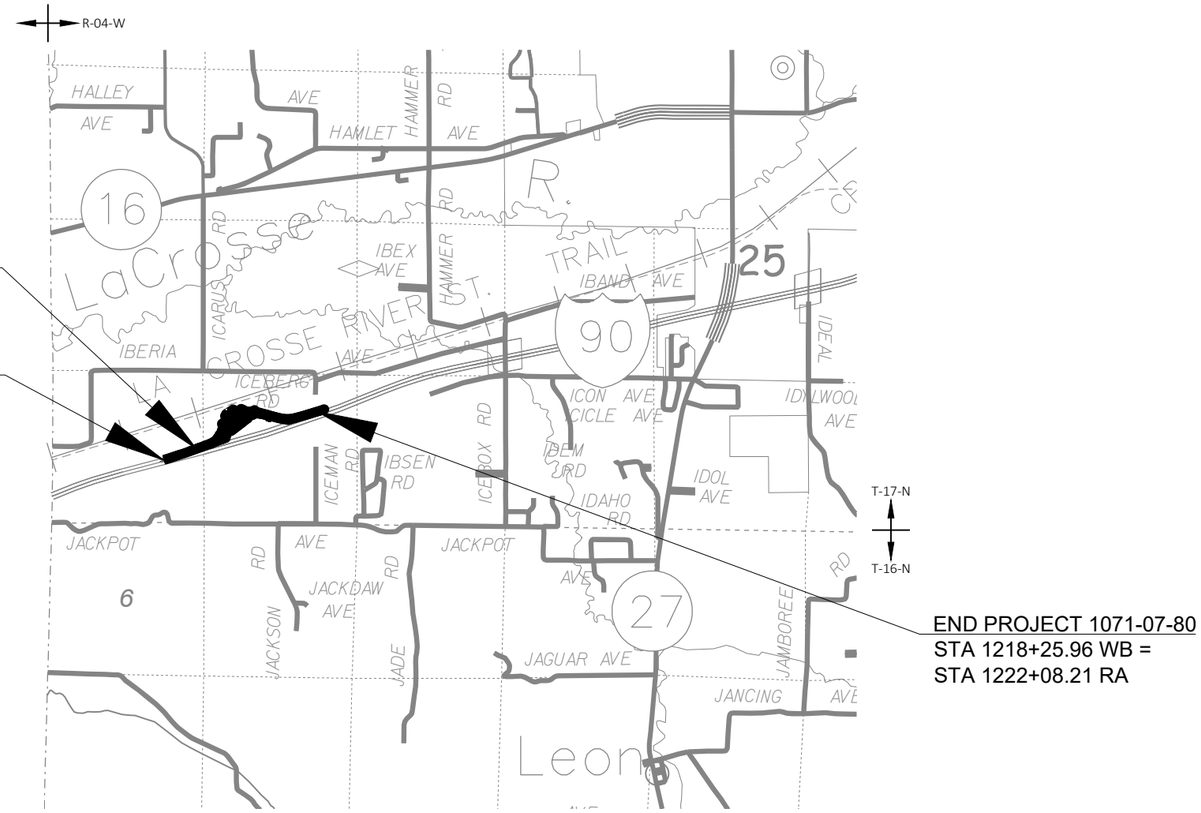
IH 90
MONROE COUNTY

STATE PROJECT NUMBER
1071-07-80

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1071-07-80	WISC 2024356	1

DESIGN DESIGNATION

			IH 90	REST AREA AMPS
A.A.D.T.	2024	=	24,500	460
A.A.D.T.	2044	=	26,200	490
D.H.V.		=	3,990	75
D.D.		=	58/42	NA
T.		=	25.5%	34.1%
DESIGN SPEED		=	70 MPH	70 MPH - 30 MPH
ESALS		=	29,000,000	1,700,000



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
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 1.0 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MONROE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
BRIAN J. ST. VINCENT
44329-6
FITCHBURG, WI
PROFESSIONAL ENGINEER

January 11, 2024 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/KL ENGINEERING
Designer	KL ENGINEERING
Project Manager	JOSEPH COUGHLIN & BIREN PATEL
Regional Examiner	
Regional Supervisor	THOMAS DEWINTER

APPROVED FOR THE DEPARTMENT

DATE: 01/25/2024 (Signature)

E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\010101-TI_80.DWG PLOT DATE : 1/22/2024 4:40 PM PLOT BY : KL ENGINEERING PLOT NAME :

STANDARD ABBREVIATIONS

AEW	APRON ENDWALL
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
BLDG.	BUILDING
CTR	CENTER
C/L	CENTERLINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CSW	CONCRETE SIDEWALK
CMCP	CORRUGATED METAL CULVERT PIPE
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CPT	CONSTRUCTION PERMIT
EB	EASTBOUND
ELEC	ELECTRIC
IE	INVERT ELEVATION
EX.	EXISTING
FO	FIBER OPTIC
F.E.	FIELD ENTRANCE
GAS	GAS
HMA	HOT MIX ASPHALT
HSE.	HOUSE
LHF	LEFT HAND FORWARD
MH	MANHOLE
MAX.	MAXIMUM
MIN.	MINIMUM
NOR.	NORMAL
NTS	NOT TO SCALE
PLE	PERMANENT LIMITED EASEMENT
P.E.	PRIVATE ENTRANCE
P.L.	PROPERTY LINE
PROP.	PROPOSED
PRW	PROPOSED RIGHT-OF-WAY
RAD	RADIUS
R/L	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REQ'D.	REQUIRED
RHF	RIGHT HAND FORWARD
RW	RIGHT-OF-WAY LINE
SAN	SANITARY SEWER
SHLD	SHOULDER
SW	SIDEWALK
SF	SQUARE FEET
SY	SQUARE YARD
S.D.D.	STANDARD DETAIL DRAWING
STA	STATION
SS	STORM SEWER
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
WAT	WATER
WB	WESTBOUND

UTILITIES

COMMUNICATIONS

BRIGHTSPEED OF MIDWEST WISCONSIN
TOM MURRAY
1905 WARD AVENUE
LA CROSSE, WI 54601
PHONE: 608-780-0895
EMAIL: TOM.L.MURRAY@BRIGHTSPEED.COM

COMMUNICATIONS

ROGERS TELECOM
JULIE PAULSON
4804 N 40TH STREET
SHEBOYGAN, WI 53083
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EMAIL: JPAULSON@GABES.COM

COMMUNICATIONS

WIN TECHNOLOGY
JOHN LOUIS
4955 BULLIS FARM ROAD
EAU CLAIRE, WI 53701
PHONE: 715-838-4012
EMAIL: JOHN.LOUIS@WINTECHNOLOGY.COM

ELECTRICITY

XCEL ENERGY
NATHAN ABBOTT
3215 COMMERCE ST
LA CROSSE, WI 54603
PHONE: 608-789-3790
EMAIL: NATHAN.J.ABBOTT@XCELENERGY.COM

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

REFERENCE ALIGNMENTS

WB	IH 90 WESTBOUND
RA	REST AREA RAMP A
RB	REST AREA RAMP B
MBD	MAINTENANCE BUILDING DRIVEWAY
MG	MAINTENANCE GARAGE
MGD	MAINTENANCE GARAGE DRIVEWAY
PC	PLAZA CENTERLINE SIDEWALK
WC	WALKING CIRCLE
OPE	OVAL PATH EAST
OPW	OVAL PATH WEST
SP	CIRCLE SIDE PATHS

GENERAL NOTES

ALL RADII DIMENSIONS WITH OR WITHOUT CURB AND GUTTER ARE MEASURED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

ALL GRADES PROVIDED ALONG RADII ARE ALONG EDGE OF PAVEMENT.

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

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.

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

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY, OR FLOODPLAIN OF ANY WATERWAY.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

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

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

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM "TRAFFIC CONTROL COVERING SIGNS TYPE 2".

5 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 5 FEET AND 6 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 6 FEET.

CLOSE COORDINATION WILL BE REQUIRED WITH PROJECT 1071-07-79 (BY OTHERS). LINEWORK SHOWING PROPOSED WORK FOR PROJECT 1071-07-79 IS SHOWN IN DARK GRAY ON THESE PLANS FOR REFERENCE. PROJECT 1071-07-79 GENERALLY INCLUDES WORK WITHIN THE REST AREA PLAZA STARTING AT THE BACK OF CURB, WITH A BOUNDARY BETWEEN THE PROJECTS SHOWN AND LABELED ON THE PLANS. WHERE ITEMS OR WORK MAY CROSS OVER THIS BOUNDARY, NOTES HAVE BEEN ADDED FOR CLARITY.

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS UNLESS OTHERWISE NOTED ON THE PLANS.

ROADWAY	TOTAL PAVEMENT THICKNESS	LOWER LAYER THICKNESS & TYPE	UPPER LAYER THICKNESS & TYPE
RAMP SHOULDERS	5 INCHES	3.00" 4 MT 58-28 S	2.00" 4 MT 58-28 S

ORDER OF DETAIL SHEETS

PROJECT OVERVIEW/SITE OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
DRAINAGE BASIN DETAIL
CONTINUOUS COUNTER DETAIL
REMOVAL PLAN
PLAN DETAILS
CURB RAMP DETAILS
PAVING DETAILS
EROSION CONTROL PLAN
STORM SEWER PLAN
SITE RESTORATION PLANS
PERMANENT SIGNING
LIGHTING REMOVAL PLAN
LIGHTING PLAN
FTMS PLANS
PAVEMENT MARKING
TRAFFIC CONTROL
FENCING PLAN
ALIGNMENT DIAGRAM
BENCHMARKS AND CONTROL POINTS
SOIL BORINGS

WISCONSIN DEPARTMENT OF TRANSPORTATION

ELECTRIC

WISDOT SOUTHWEST REGION
COLLIN WEBB, P.E.
TRAFFIC SIGNAL ENGINEER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
(608) 792-5824
COLLIN.WEBB@DOT.WI.GOV

ITS

WISDOT
JEFF MADSON
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STE. 300
MILWAUKEE, WI 53203
(414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
KAREN KALVELAGE
3550 MORMON COULEE RD
LA CROSSE, WI 54601
(608) 785-9115
(608) 406-7880
KAREN.KALVELAGE@WISCONSIN.GOV

DESIGN CONTACT

KL ENGINEERING, INC.
BRIAN ST. VINCENT, P.E.
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53711
(608) 663-1218
BSTVINCENT@KLENGINEERING.COM

WISDOT CONTACT

BUREAU OF HIGHWAY MAINTENANCE
JOSEPH COUGHLIN
4822 MADISON YARDS WAY
MADISON, WI 53705
(608) 261-8975
JOSEPH.COUGHLIN@DOT.WI.GOV

WISDOT CONTACT

BUREAU OF HIGHWAY MAINTENANCE
BIREN PATEL
4822 MADISON YARDS WAY
MADISON, WI 53705
(608) 266-7231
BIREN.PATEL@DOT.WI.GOV

2

N

TOWN OF SPARTA

LA CROSSE & MILWAUKEE RAIL ROAD COMPANY

LA CROSSE RIVER REC TRAIL - WIS DNR

DRAINAGE POND

REST AREA RAMP A 'RA'

ICEBERG RD

MAINTENANCE BUILDING DRIVEWAY 'MBD'

R/W

1195RA

1200RA

1195RB

1071-07-79/80 PROJECT BOUNDARY

501.00 DEG

1205RA

1215RA

1215WB

1220RA

1210WB

1210RA

1205WB

WISDOT REST AREA #16

1200WB

IH 90 WB

1195WB

IH 90 EB

1190RB

1185RB

1190WB

1185WB

REST AREA RAMP B 'RB'

PROPOSED REST AREA BUILDING BY OTHERS

PROPOSED MAINTENANCE BUILDING BY OTHERS

1180RA

1180RB

1180WB

END PROJECT 1071-07-80
STA 1222+08 RA =
STA 1218+26 WB

ENVIRONMENTALLY SENSITIVE AREA, DELINEATED WETLANDS (TYP.)

EXISTING R/W

EXISTING BOX CULVERT C-41-25 (TO REMAIN)

1175RA

1175WB

1170RA

1170WB

R/W

IH 90 WB 'WB'

END PROJECT 1071-07-79
BY OTHERS
STA 1193+46 RA =
STA 1191+61 WB

1165RA

1165WB

1160RA

1160WB

1155WB

EXISTING R/W

BEGIN PROJECT 1071-07-79
BY OTHERS
STA 1183+06 RA =
STA 1182+84 WB

BEGIN PROJECT 1071-07-80
STA 1159+36 RA =
STA 1159+39 WB

TOWN OF SPARTA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - -80

PLOT DATE : 1/31/2024 12:17 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:400 FT

WISDOT/CADDS SHEET 42

2

STORMWATER DETENTION AREA

HIGH MAST LIGHTING STRUCTURE L-41-0004

COMMERCIAL VEHICLE PARKING 70 STALLS

EXISTING SANITARY DRAINAGE FIELD TO REMAIN (SEE SPECIAL PROVISIONS)

SEPV

1190+00 RA

OSOW STAGING AREA

1185+00 RA

HIGH MAST LIGHTING STRUCTURE L-41-0003

CURB RAMP WITH DETECTABLE WARNING FIELD BY OTHERS

HIGH MAST LIGHTING STRUCTURE L-41-0005

MH

704+00 PC

PROPOSED REST AREA BUILDING (BY OTHERS)

702+00 PC

706+00 SP

1071-07-79/80 PROJECT BOUNDARY (BY OTHERS)

PROPOSED DUMPSTER PAD WITH FENCE (BY OTHERS)

PROPOSED LP TANK AND GENERATOR PAD (BY OTHERS)

PROPOSED MAINTENANCE GARAGE (BY OTHERS)

1185+00 RB

SMALL VEHICLE PARKING 50 STALLS (4 ACCESSIBLE)

1190+00 RB

CURB RAMP WITH DETECTABLE WARNING FIELD BY OTHERS

SLOPE INTERCEPTS (TYP.)

POST

FO

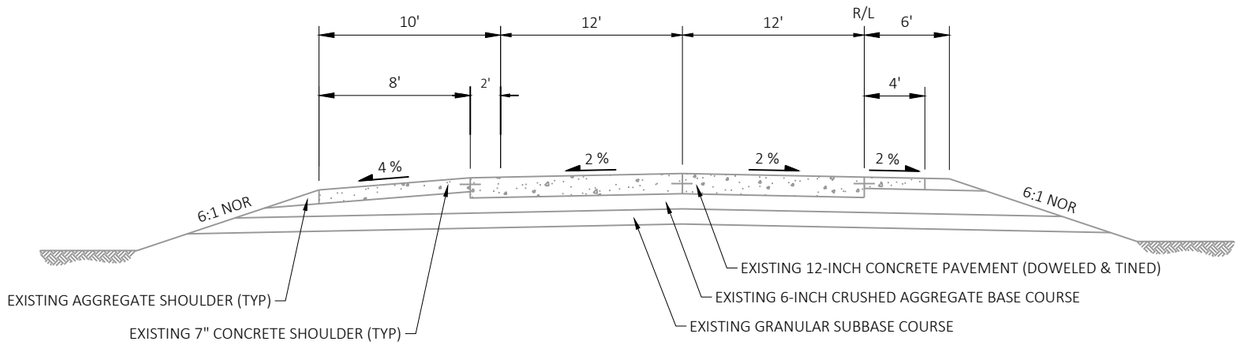
WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATIONAL PURPOSES ONLY.

WISDOT REST AREA #16

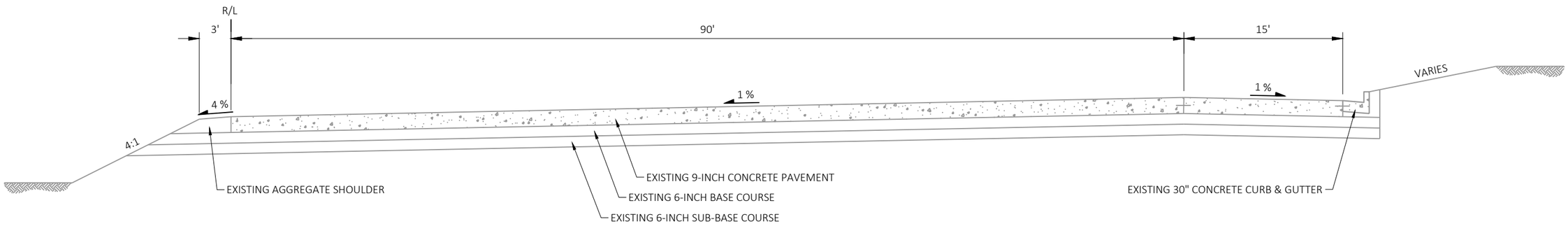
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE OVERVIEW	SHEET 4	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\020202-SO.DWG
LAYOUT NAME - -80
PLOT DATE : 1/31/2024 1:40 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1:75
WISDOT/CADDS SHEET 42

2



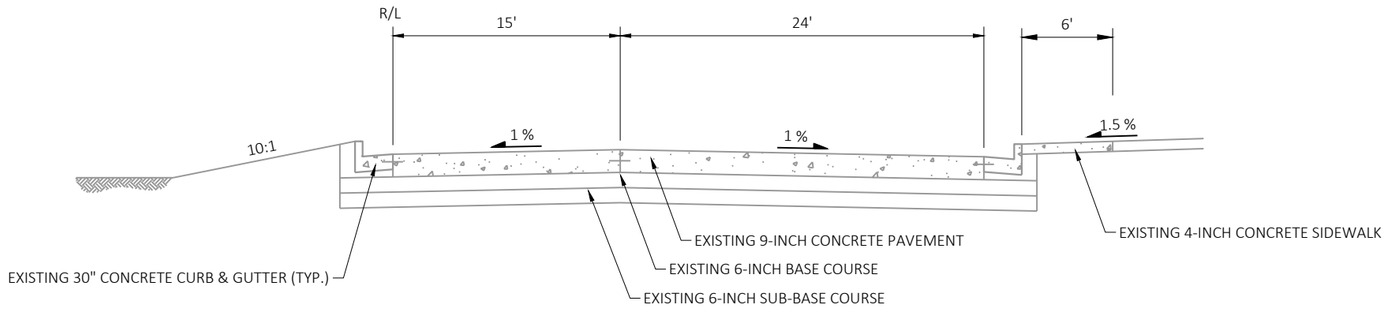
EXISTING TYPICAL SECTION - IH 90



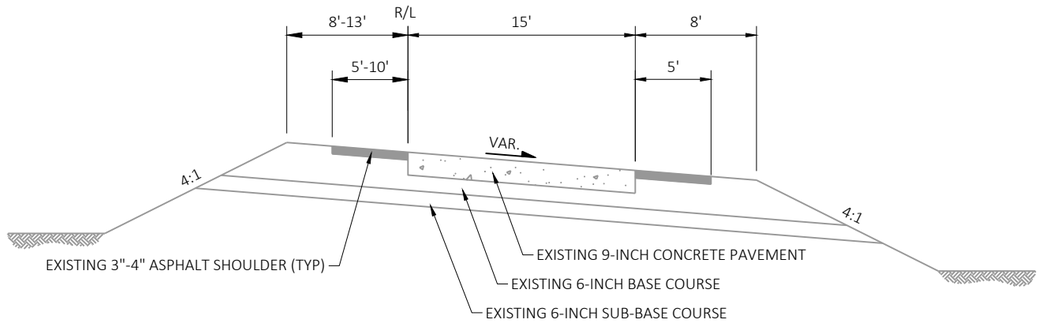
EXISTING TYPICAL SECTION - TRUCK PARKING AREA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EXISTING TYPICAL SECTIONS	SHEET 5	E

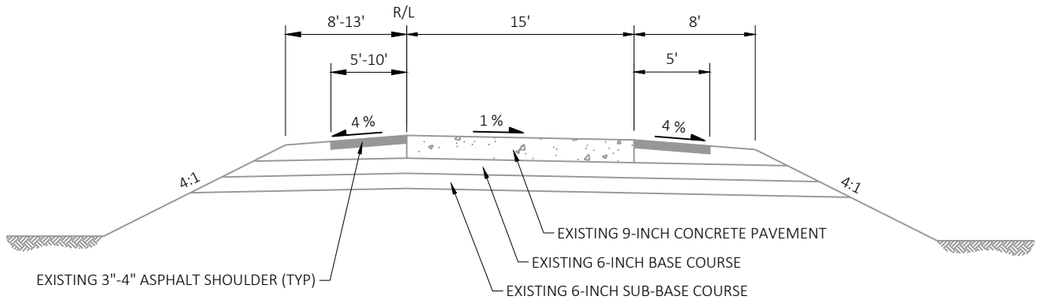
2



EXISTING TYPICAL SECTION - CAR PARKING AREA



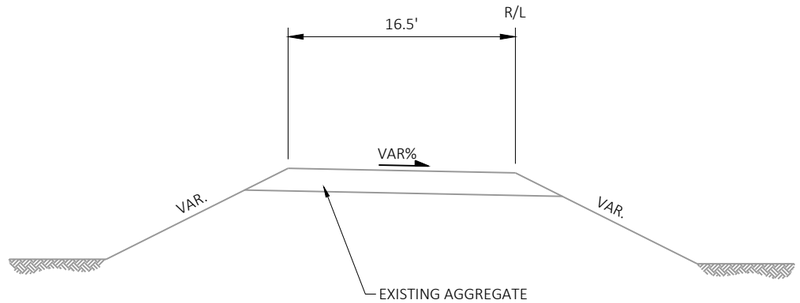
EXISTING TYPICAL SECTION - SUPERELEVATED REST AREA RAMP



EXISTING TYPICAL SECTION - REST AREA RAMP

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EXISTING TYPICAL SECTIONS	SHEET 6	E

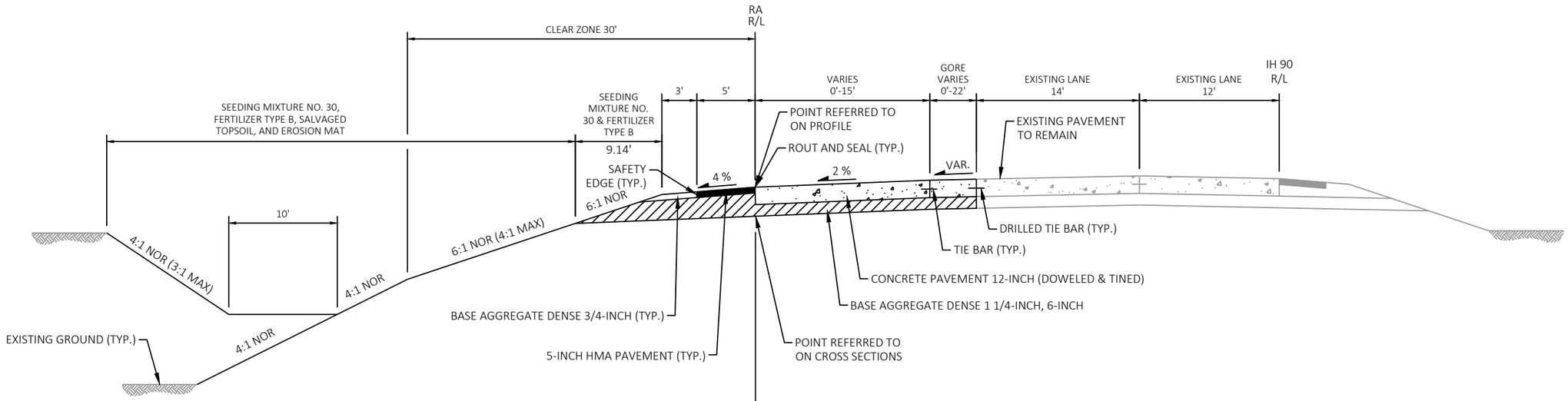
2



EXISTING TYPICAL SECTION - MAINTENANCE BUILDING DRIVEWAY

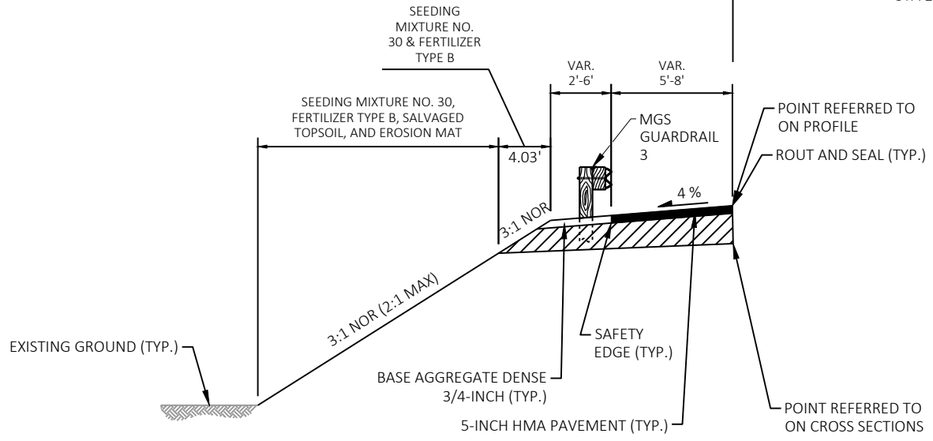
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EXISTING TYPICAL SECTIONS	SHEET 7	E

2



TYPICAL FINISHED SECTION - IH 90 RAMPS

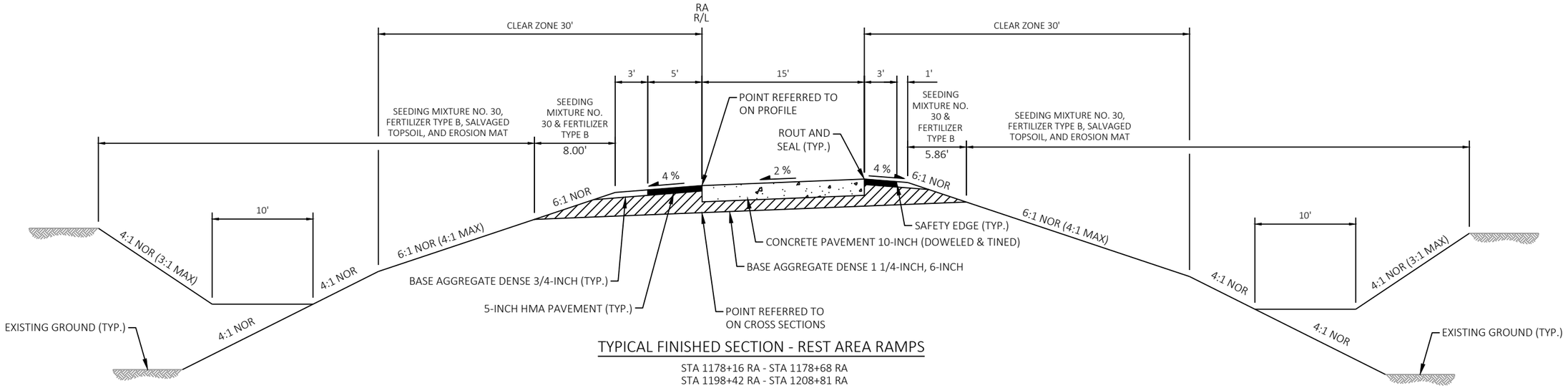
STA 1159+36 RA - STA 1178+16 RA
STA 1208+81 RA - STA 1222+08 RA



PARTIAL TYPICAL FINISHED SECTION

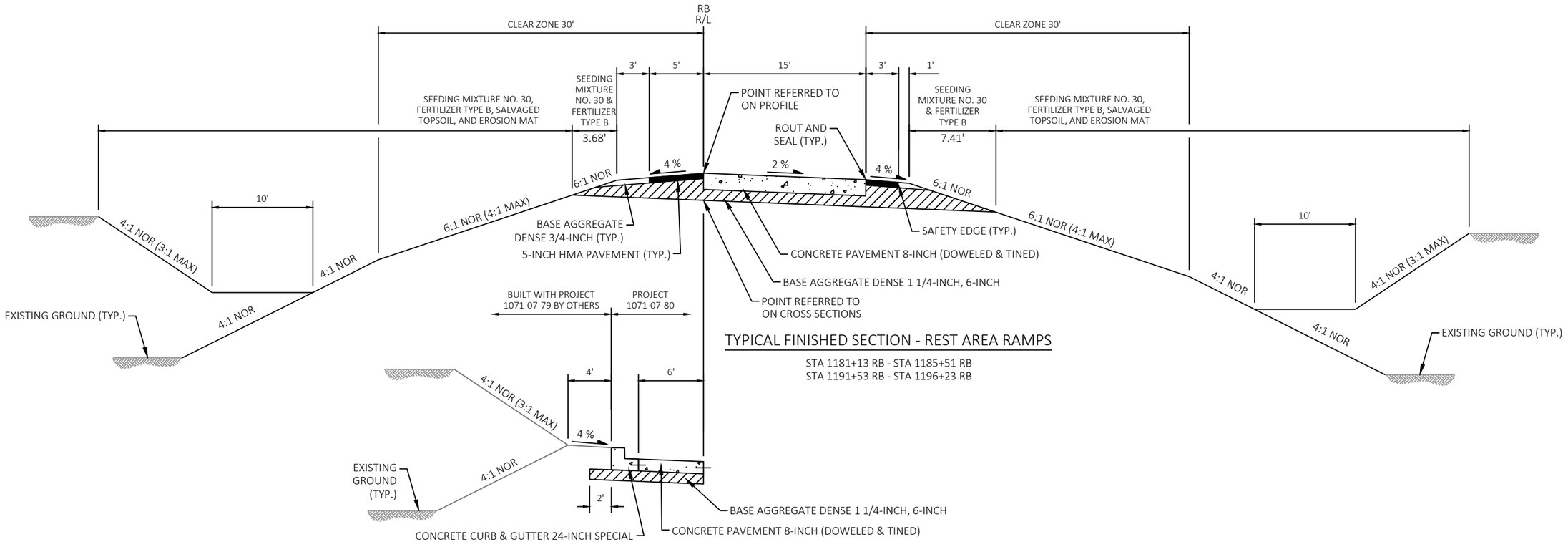
STA 1168+28 RA - STA 1172+06 RA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 8	E



TYPICAL FINISHED SECTION - REST AREA RAMPS

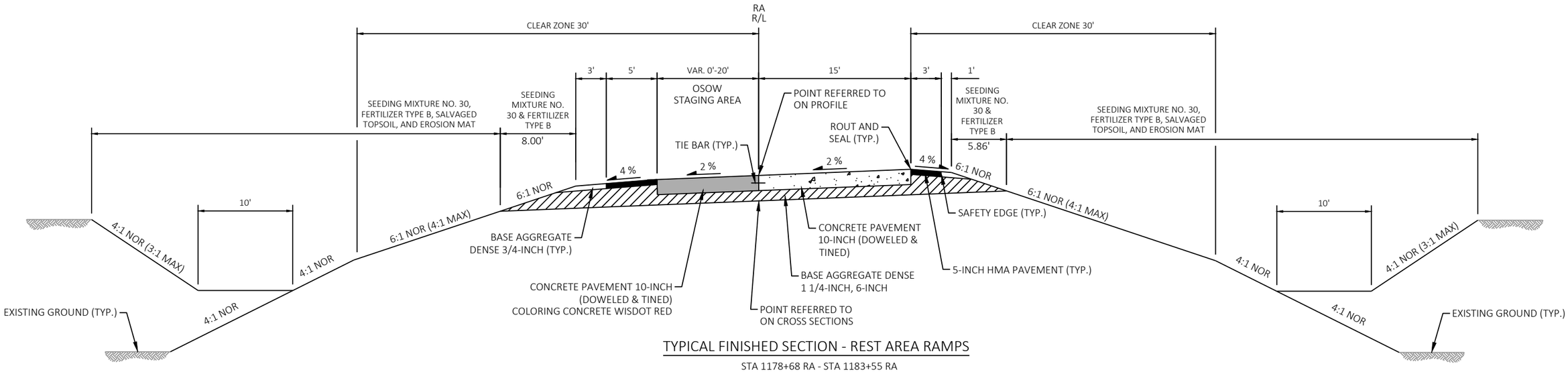
STA 1178+16 RA - STA 1178+68 RA
STA 1198+42 RA - STA 1208+81 RA



PARTIAL TYPICAL FINISHED SECTION - REST AREA RAMPS

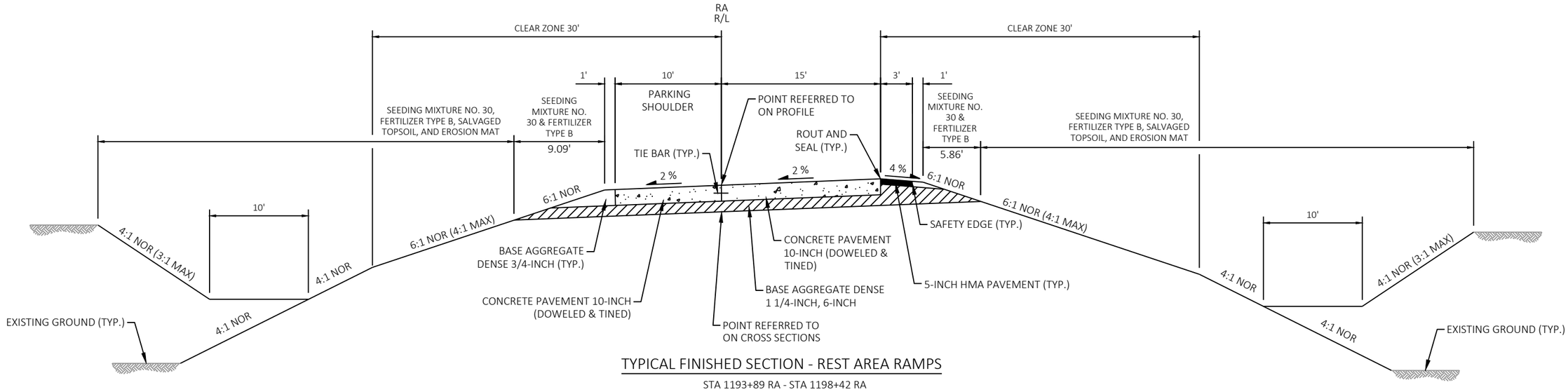
STA 1183+14 RB - STA 1185+51 RB
STA 1191+53 RB - STA 1192+42 RB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 9	E



TYPICAL FINISHED SECTION - REST AREA RAMPS

STA 1178+68 RA - STA 1183+55 RA

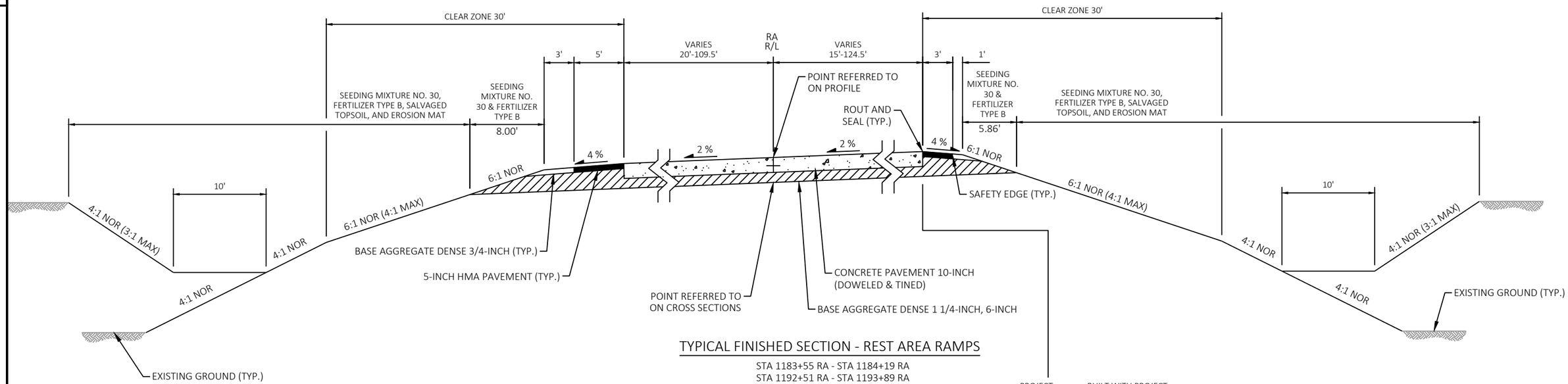


TYPICAL FINISHED SECTION - REST AREA RAMPS

STA 1193+89 RA - STA 1198+42 RA

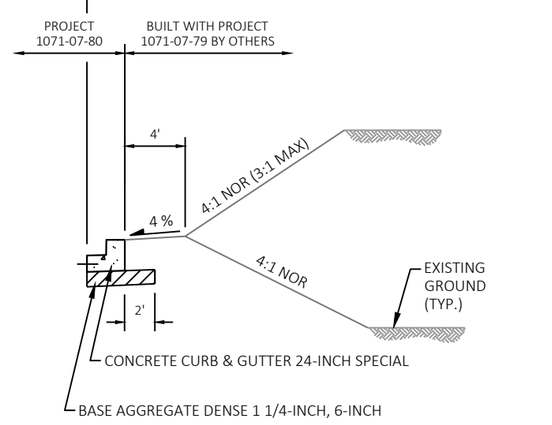
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 10	E

2



TYPICAL FINISHED SECTION - REST AREA RAMPS

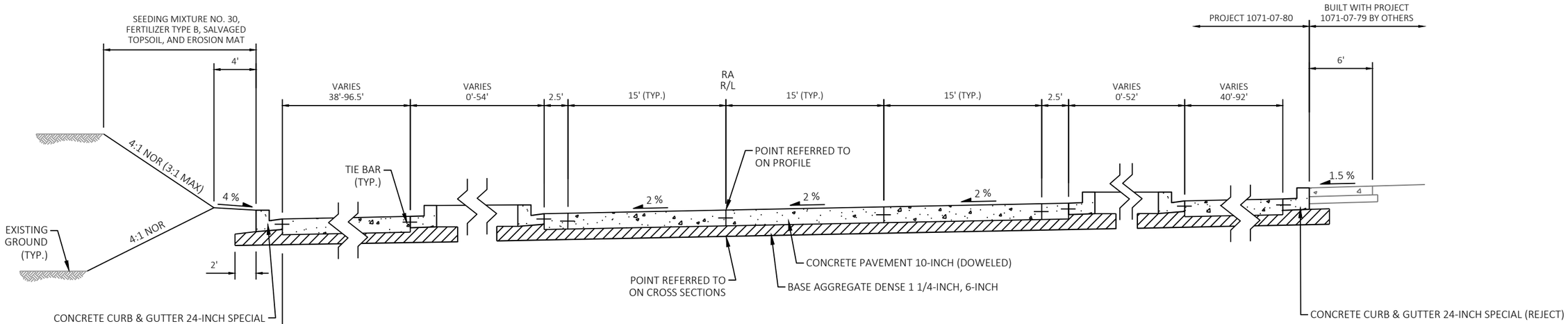
STA 1183+55 RA - STA 1184+19 RA
STA 1192+51 RA - STA 1193+89 RA



PARTIAL TYPICAL FINISHED SECTION - REST AREA RAMPS

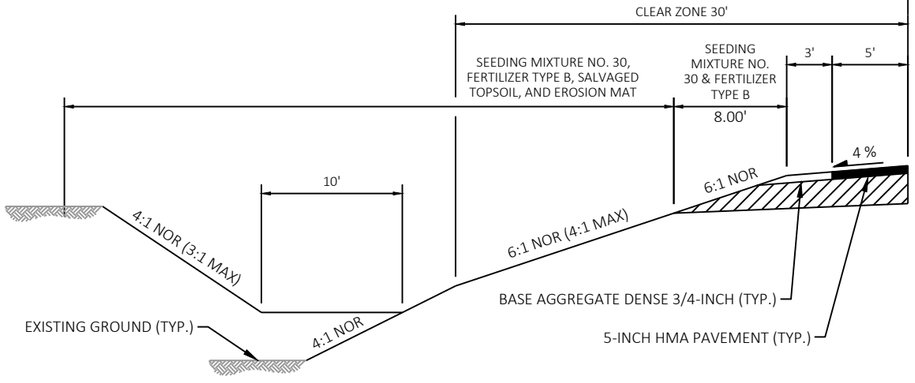
STA 1183+74 RA - STA 1184+19 RA
STA 1192+51 RA - STA 1193+44 RA

2



TYPICAL FINISHED SECTION - TRUCK PARKING AREA

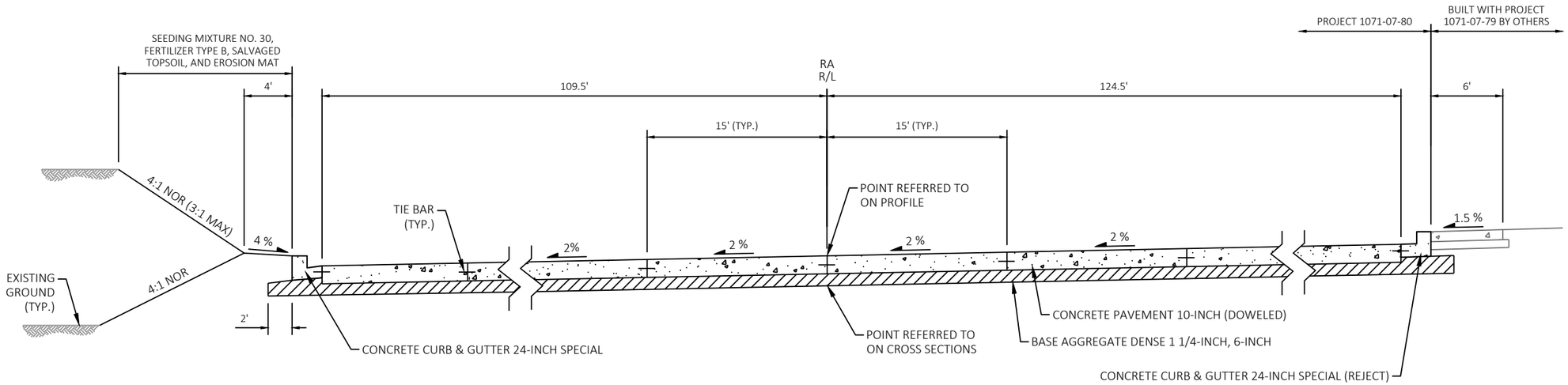
STA 1184+19 RA - STA 1185+42 RA



PARTIAL TYPICAL FINISHED SECTION - REST AREA RAMPS

STA 1184+19 RB - STA 1184+91 RB

2

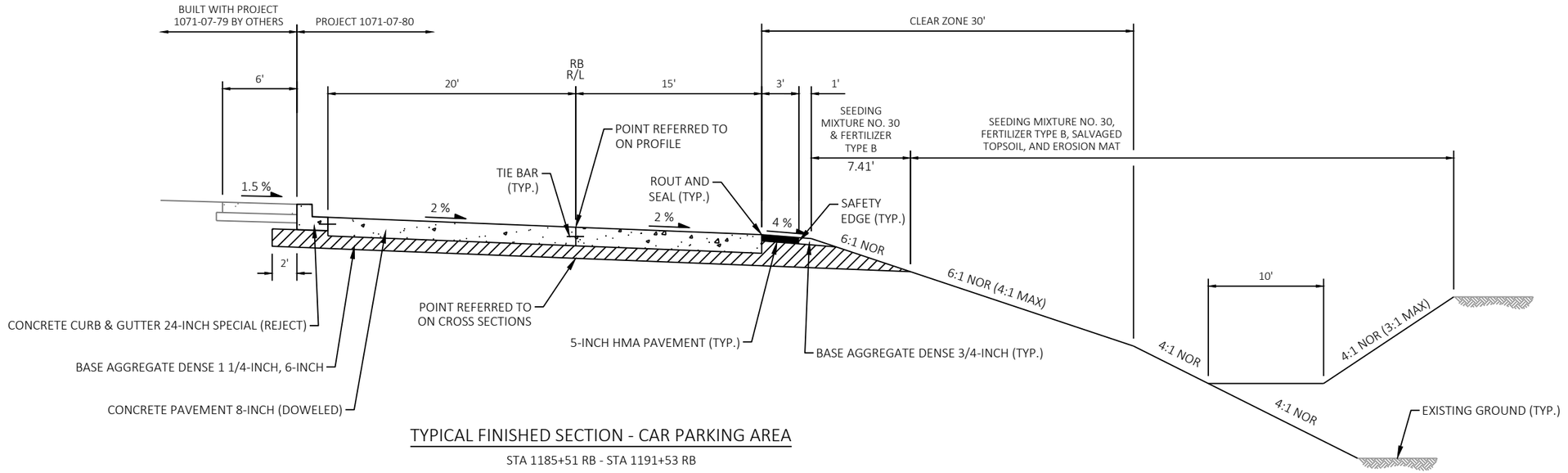


TYPICAL FINISHED SECTION - TRUCK PARKING AREA

STA 1185+42 RA - STA 1192+51 RA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 13	E

2

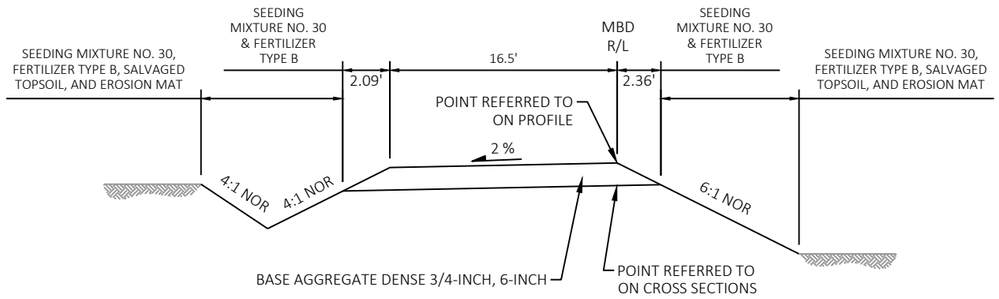


TYPICAL FINISHED SECTION - CAR PARKING AREA

STA 1185+51 RB - STA 1191+53 RB

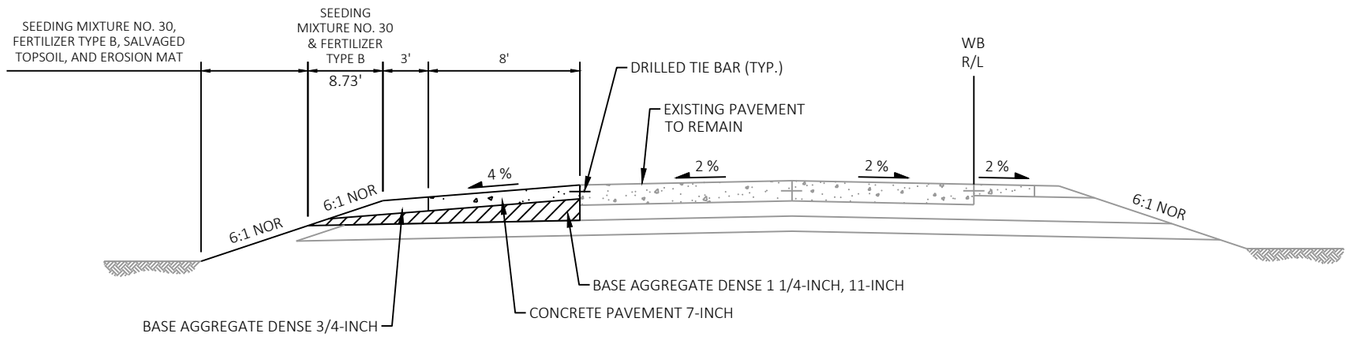
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 14	E

2



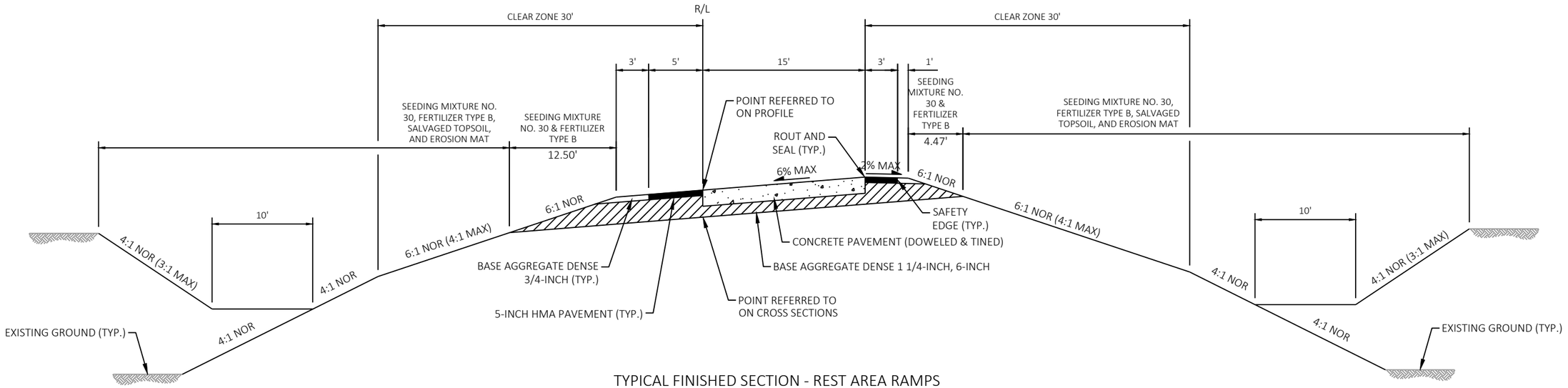
TYPICAL FINISHED SECTION - MAINTENANCE BUILDING DRIVEWAY

STA 500+25 MBD - STA 501+08 MBD



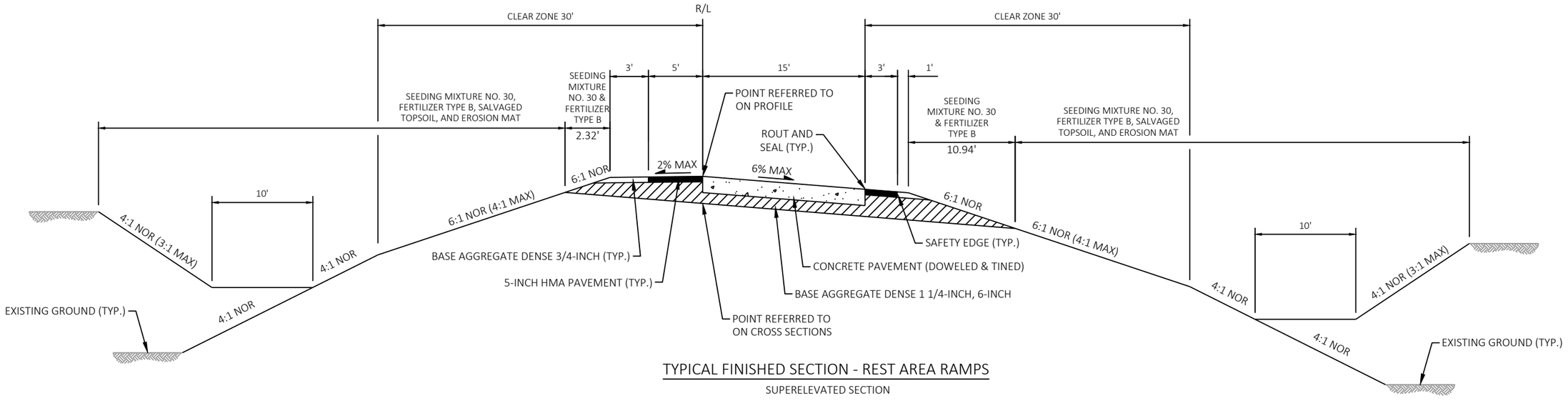
TYPICAL FINISHED SECTION - IH 90 WB

STA 1178+31 WB - STA 1182+59 WB



TYPICAL FINISHED SECTION - REST AREA RAMPS

SUPERELEVATED SECTION



TYPICAL FINISHED SECTION - REST AREA RAMPS

SUPERELEVATED SECTION

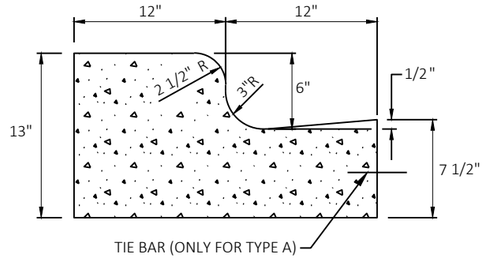
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 16	E

STATION	LEFT SHOULDER	LEFT LANE SLOPE	RIGHT LANE SLOPE	RIGHT SHOULDER	DESCRIPTION
1175+97.96 RA	-4.00%	-2.00%	2.00%	-4.00%	END NORMAL CROWN
1176+93.96 RA	-6.00%	-6.00%	6.00%	-2.00%	BEGIN FULL SUPER
1182+82.88 RA	-6.00%	-6.00%	6.00%	-2.00%	END FULL SUPER
1183+78.88 RA	-4.00%	-2.00%	2.00%	-4.00%	BEGIN NORMAL CROWN
1194+36.57 RA	-4.00%	-2.00%	2.00%	-4.00%	LANE ROTATE
1195+31.81 RA	-4.00%	2.00%	-2.00%	-4.00%	LANE ROTATE
1195+99.26 RA	-2.50%	5.50%	-5.50%	-5.50%	BEGIN FULL SUPER
1197+06.90 RA	-2.50%	5.50%	-5.50%	-5.50%	END FULL SUPER
1197+74.36 RA	-4.00%	2.00%	-2.00%	-4.00%	BEGIN NORMAL CROWN
1204+54.00 RA	-4.00%	2.00%	-2.00%	-4.00%	LANE ROTATE
1205+51.21 RA	-4.00%	-2.00%	2.00%	-4.00%	LANE ROTATE
1206+45.07 RA	-5.90%	-5.90%	5.90%	-2.10%	BEGIN FULL SUPER
1210+60.46 RA	-5.90%	-5.90%	5.90%	-2.10%	END FULL SUPER
1211+54.33 RA	-4.00%	-2.00%	2.00%	-4.00%	BEGIN NORMAL CROWN

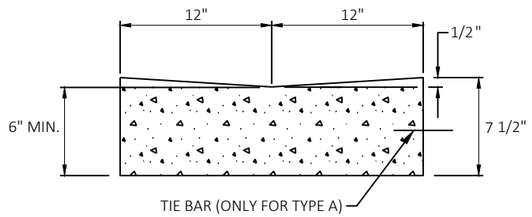
STATION	LEFT SHOULDER	LEFT LANE SLOPE	RIGHT LANE SLOPE	RIGHT SHOULDER	DESCRIPTION
1180+27.53 RB	-6.00%	-6.00%	6.00%	-2.00%	MATCH RAMP RA
1181+93.23 RB	-4.00%	2.00%	-2.00%	-4.00%	END NORMAL CROWN
1182+75.90 RB	-2.00%	6.00%	-6.00%	-6.00%	BEGIN FULL SUPER
1183+27.37 RB	-2.00%	6.00%	-6.00%	-6.00%	END FULL SUPER
1184+10.03 RB	-4.00%	2.00%	-2.00%	-4.00%	BEGIN NORMAL CROWN
1192+14.02 RB	-4.00%	2.00%	-2.00%	-4.00%	END NORMAL CROWN
1192+91.35 RB	6.00%	6.00%	-6.00%	-6.00%	BEGIN FULL SUPER
1196+46.62 RB	6.00%	6.00%	-6.00%	-6.00%	END FULL SUPER
1197+23.96 RB	-4.00%	2.00%	-2.00%	-4.00%	BEGIN NORMAL CROWN

SUPERELEVATION INFORMATION

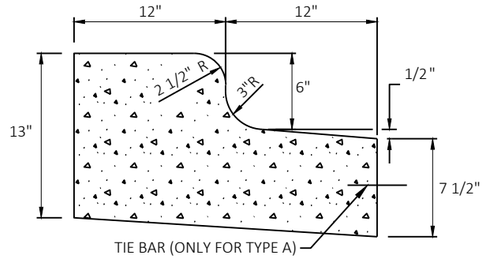
2



CATCH CURB & GUTTER



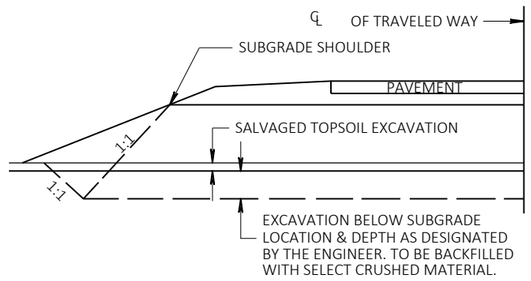
DRIVEWAY CURB & GUTTER



REJECT CURB & GUTTER

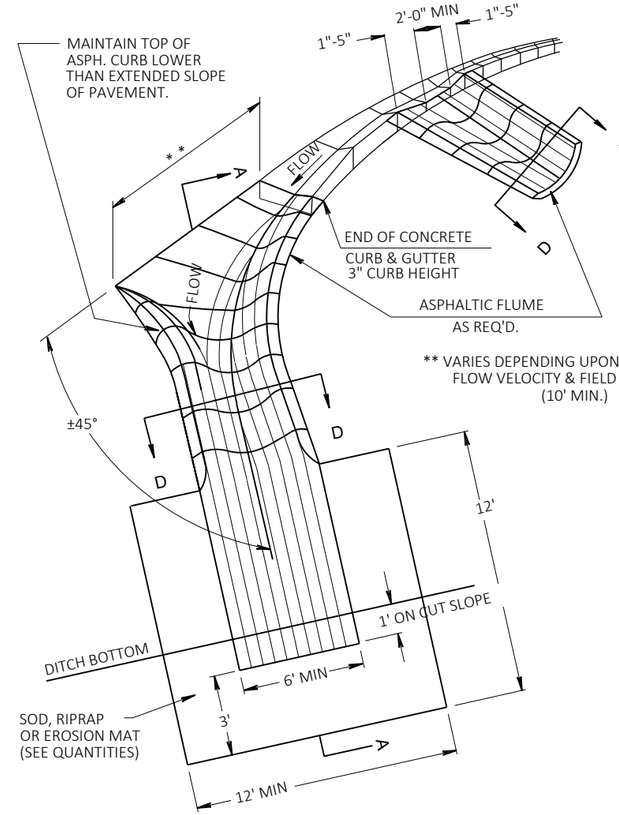
CONCRETE CURB & GUTTER 24-INCH TYPE A/D SPECIAL DETAIL

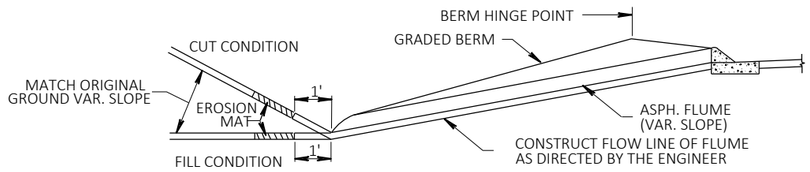
2



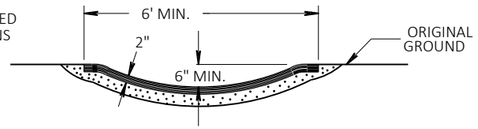
DETAIL FOR EXCAVATION BELOW SUBGRADE

2



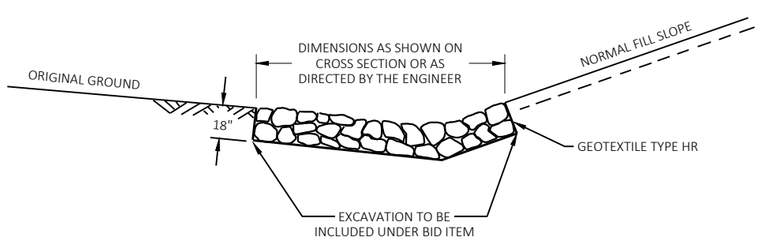


SECTION A-A

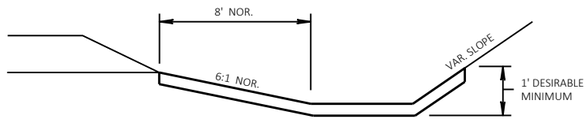


SECTION D-D

ASPHALTIC FLUME DETAIL



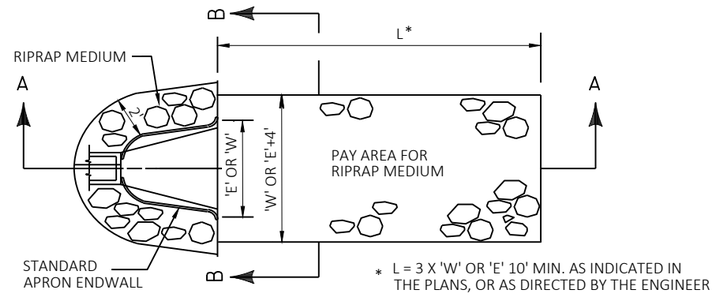
DETAIL FOR RIPRAP MEDIUM IN DITCHES

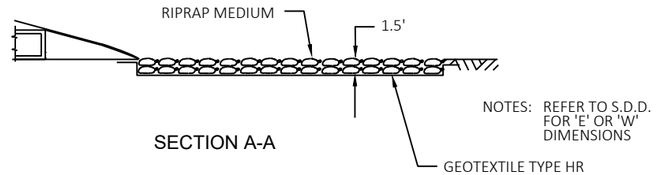


EROSION MAT DETAIL FOR DITCHES

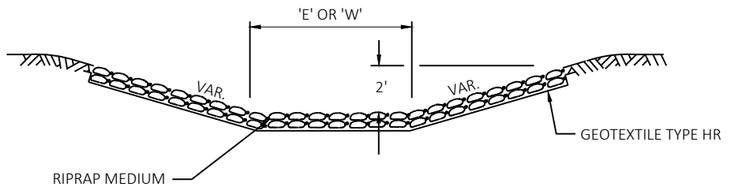
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CONSTRUCTION DETAILS	SHEET 20	E

2





SECTION A-A

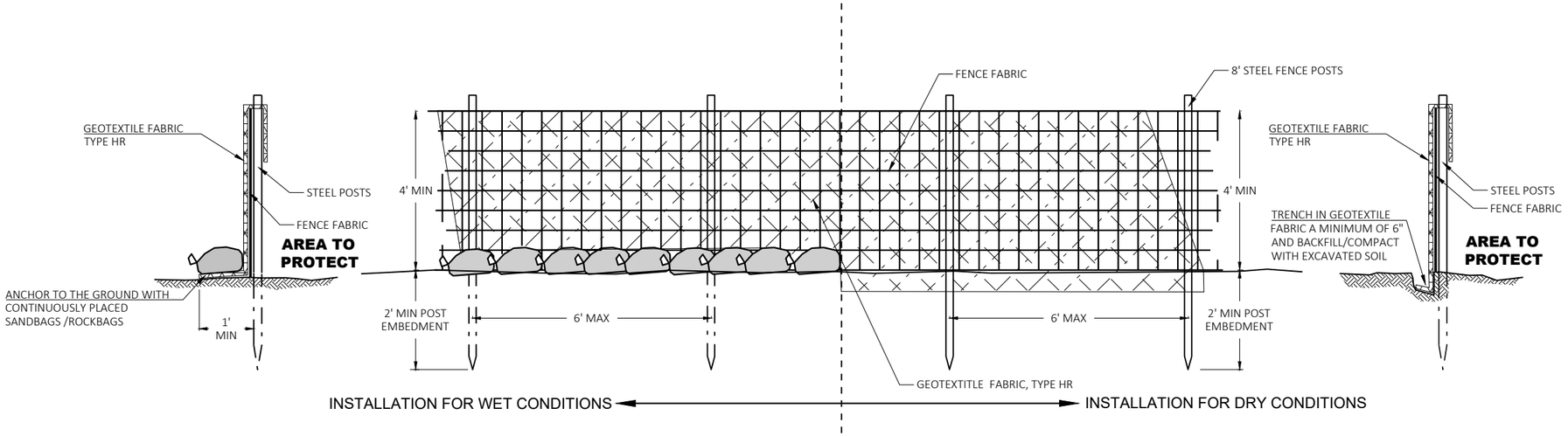


SECTION B-B

RIPRAP TREATMENT AT PIPE ENDWALL DETAIL

SEE EROSION CONTROL PLAN FOR LOCATIONS

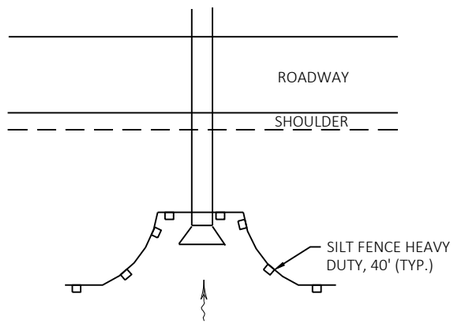
2



SILT FENCE HEAVY DUTY

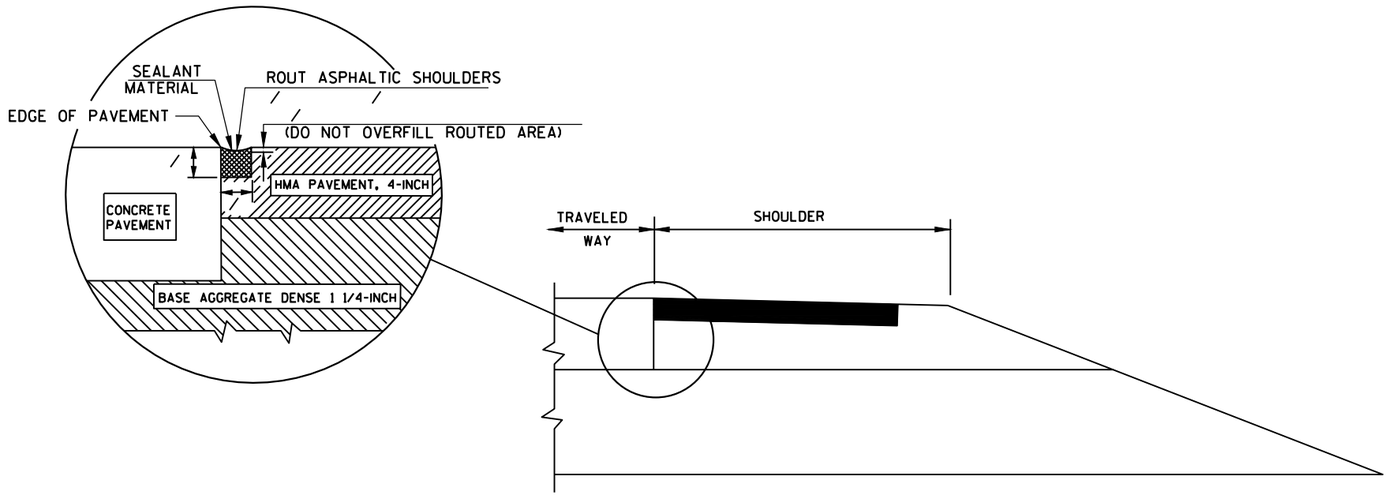
GENERAL NOTES:

1. ATTACH FENCE FABRIC TO POSTS A MINIMUM OF 3 TIES PER POST (TOP, MIDDLE, BOTTOM)
2. ATTACH GEOTEXTILE FABRIC TO FENCE FABRIC AND/OR POSTS AT A MAXIMUM SPACING OF EVERY 2 FEET ALONG THE TOP AND ADDITIONALLY AS NECESSARY TO PREVENT DISPLACEMENT BY WIND AND WAVE ACTIONS.



SILT FENCE AT PIPE INLET

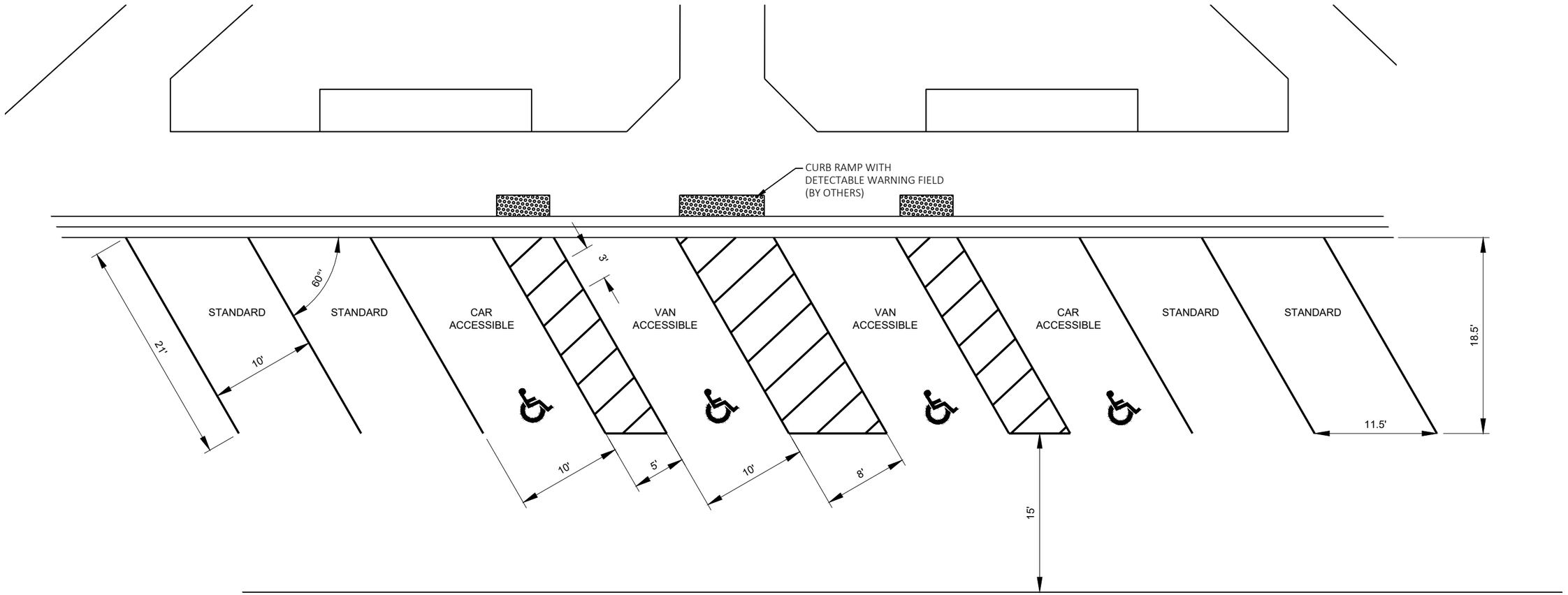
SEE EROSION CONTROL PLAN FOR LOCATIONS



ROUT AND SEAL DETAIL

SEE FINISHED TYPICAL SECTIONS FOR LOCATIONS

2



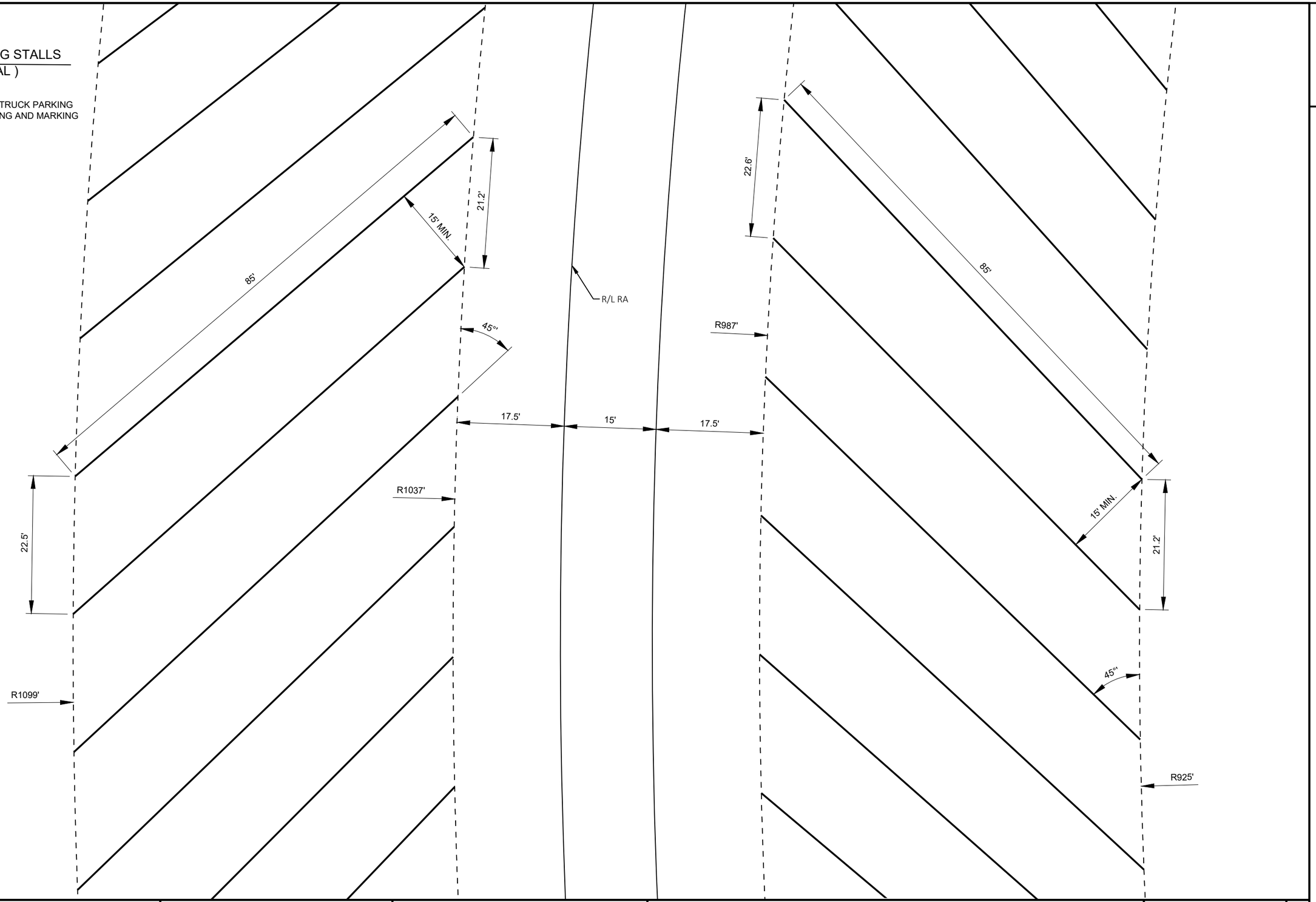
SMALL VEHICLE PARKING STALLS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CONSTRUCTION DETAILS	SHEET 23	E

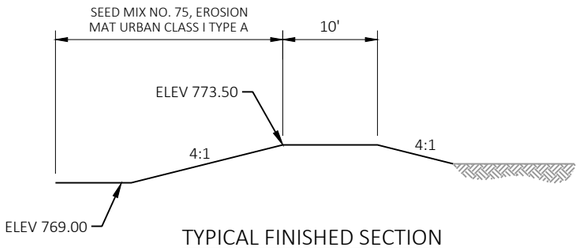
2

TRUCK PARKING STALLS
(TYPICAL)

NOTE: VERIFY LAYOUT OF TRUCK PARKING STALLS PRIOR TO FINALIZING AND MARKING



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CONSTRUCTION DETAILS	SHEET 24	E



TYPICAL FINISHED SECTION

DRAINAGE BASIN

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	ELEVATION
P-1	1187+14.51 RA	156.07' LT	769.00
P-2	1188+87.43 RA	177.05' LT	769.00
P-3	1190+53.08 RA	158.15' LT	769.00
P-4	1190+27.90 RA	218.66' LT	769.00
P-5	1187+92.19 RA	237.31' LT	769.00
P-6	1187+35.68 RA	218.59' LT	769.00
P-7	1188+45.01 RA	256.04' LT	772.50
P-8	1188+68.62 RA	252.75' LT	772.50
P-9	1188+43.26 RA	241.64' LT	772.50
P-10	1188+67.38 RA	238.11' LT	772.50

STA 1188+24, 281.5' LT
INV: 767.96

STA 1188+23, 275.4' LT
INV: 768.09

CPRC 12-INCH REQ'D

SLOPE INTERCEPTS (TYP.)

WETLAND BOUNDARY (TYP.)

TOP OF WEIR ELEV 772.5

TOP OF BERM ELEV 773.5

EXISTING SANITARY DRAINAGE FIELD TO REMAIN (SEE SPECIAL PROVISIONS)

FENCE SAFETY (TYP.)

STA 1188+19, 238.0' LT
INV: 768.87

STA 1188+18, 231.9' LT
INV: 769.00

REST AREA DRAINAGE BASIN
BOTTOM ELEV 769.00

ASPHALTIC FLUME (TYP.)

TRUCK PARKING AREA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	DRAINAGE BASIN	SHEET 25	E

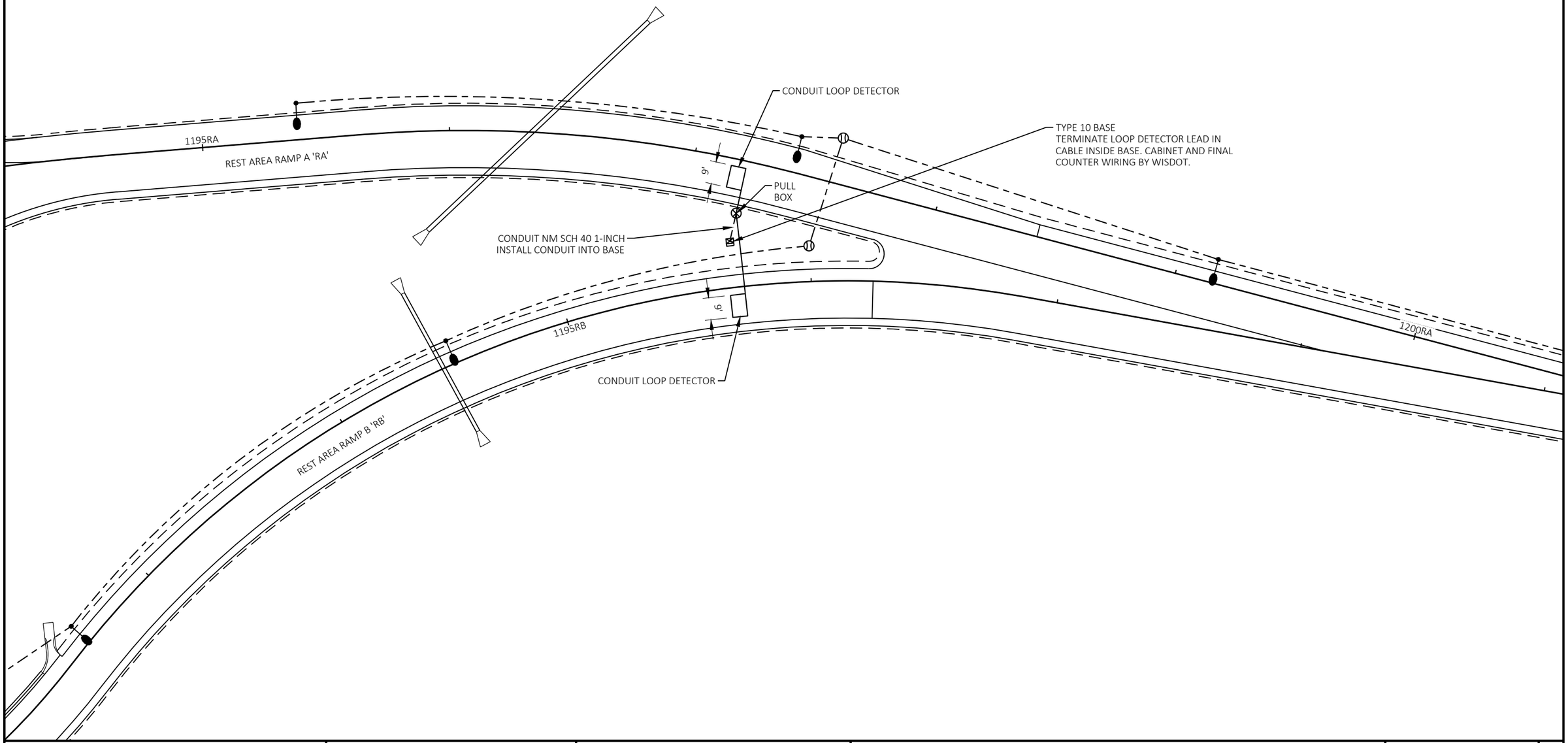
FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021003-CD-POND.DWG
LAYOUT NAME - Plan 1 IN 20 FT (2)

PLOT DATE : 1/26/2024 12:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CONTINUOUS COUNT STATION DETAIL	SHEET 26	E

2

2

N

NURSERY

R/W

SLOPE INTERCEPTS (TYP.)

POST

1160+00 RA

1162+00 RA

MATCH LINE 1163+00 RA

1158+00 WB

1160+00 WB

1162+00 WB

I 90

IH 90 WB

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

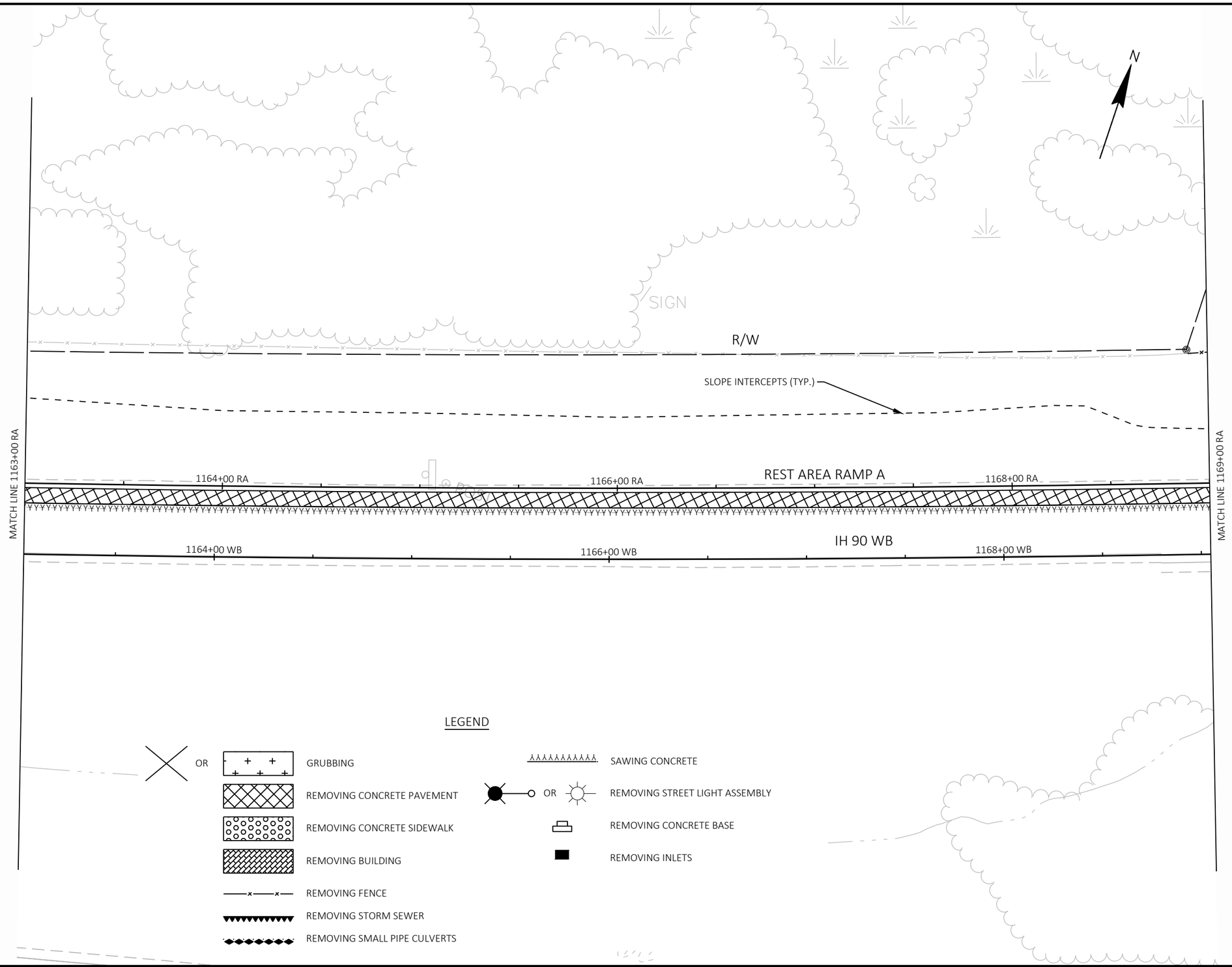
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 27	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 01

PLOT DATE : 1/25/2024 7:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 28	E

2

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

N

R/W

SLOPE INTERCEPTS (TYP.)

C-41-25 TO REMAIN

MP

MATCH LINE 1169+00 RA

1170+00 RA

1172+00 RA

REST AREA RAMP A

1174+00 RA

MATCH LINE 1175+00 RA

1170+00 WB

1172+00 WB

IH 90 WB

1174+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 29	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 03

PLOT DATE : 1/25/2024 7:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

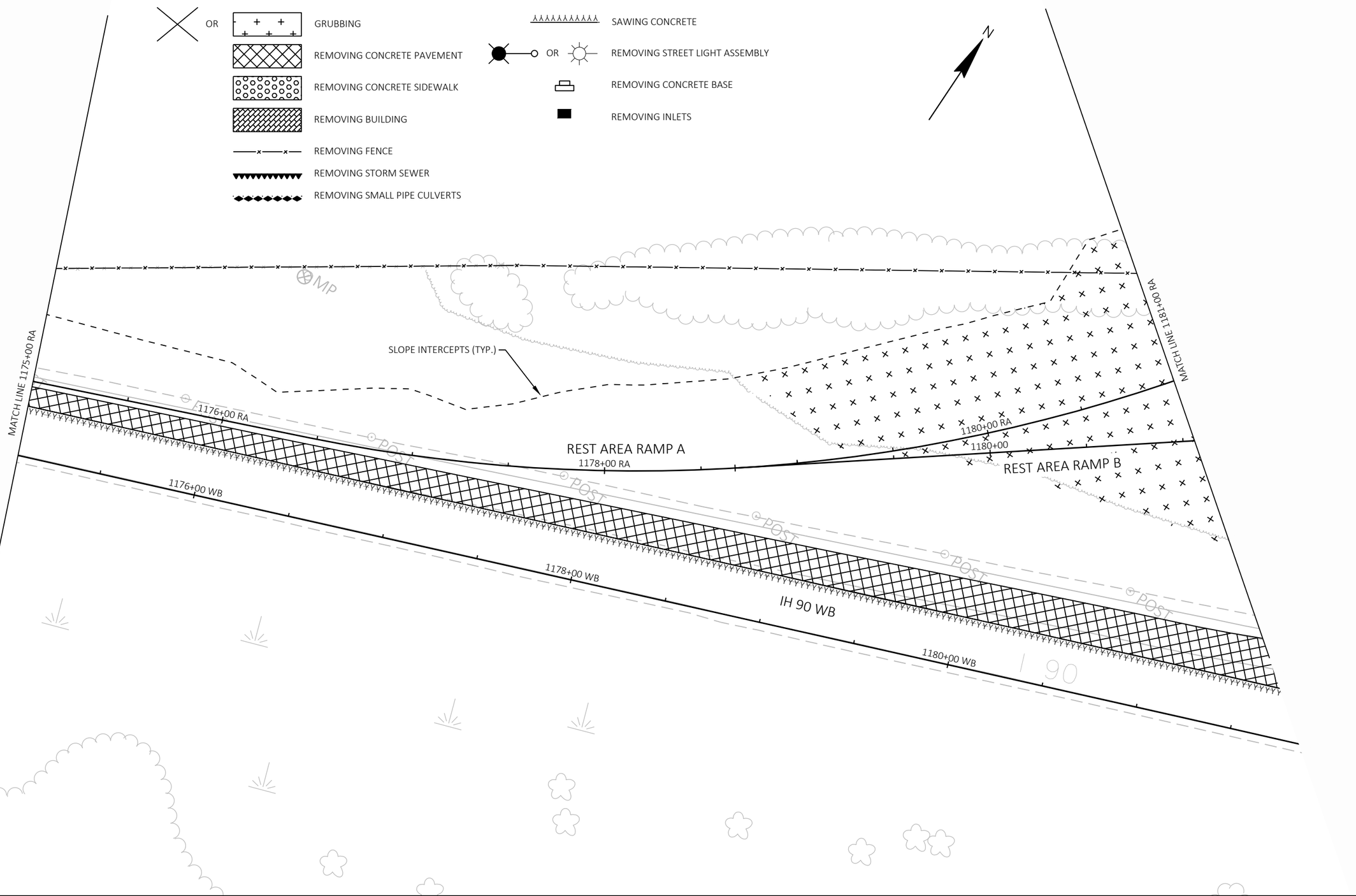
SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 30	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 04

PLOT DATE : 1/25/2024 7:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

OR — GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR — REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

N

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1181+00 RA

1182+00 RA

1184+00 RA

1186+00 RA.

MATCH LINE 1187+00 RA

REST AREA RAMP A

REST AREA RAMP A / TRUCK PARKING AREA

1182+00

1071-07-79/80
PROJECT BOUNDARY

REST AREA RAMP B

1184+00

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

1182+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 31	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 05

PLOT DATE : 1/25/2024 7:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

R/W

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1187+00 RA

1188+00 RA

REST AREA RAMP A / TRUCK PARKING AREA

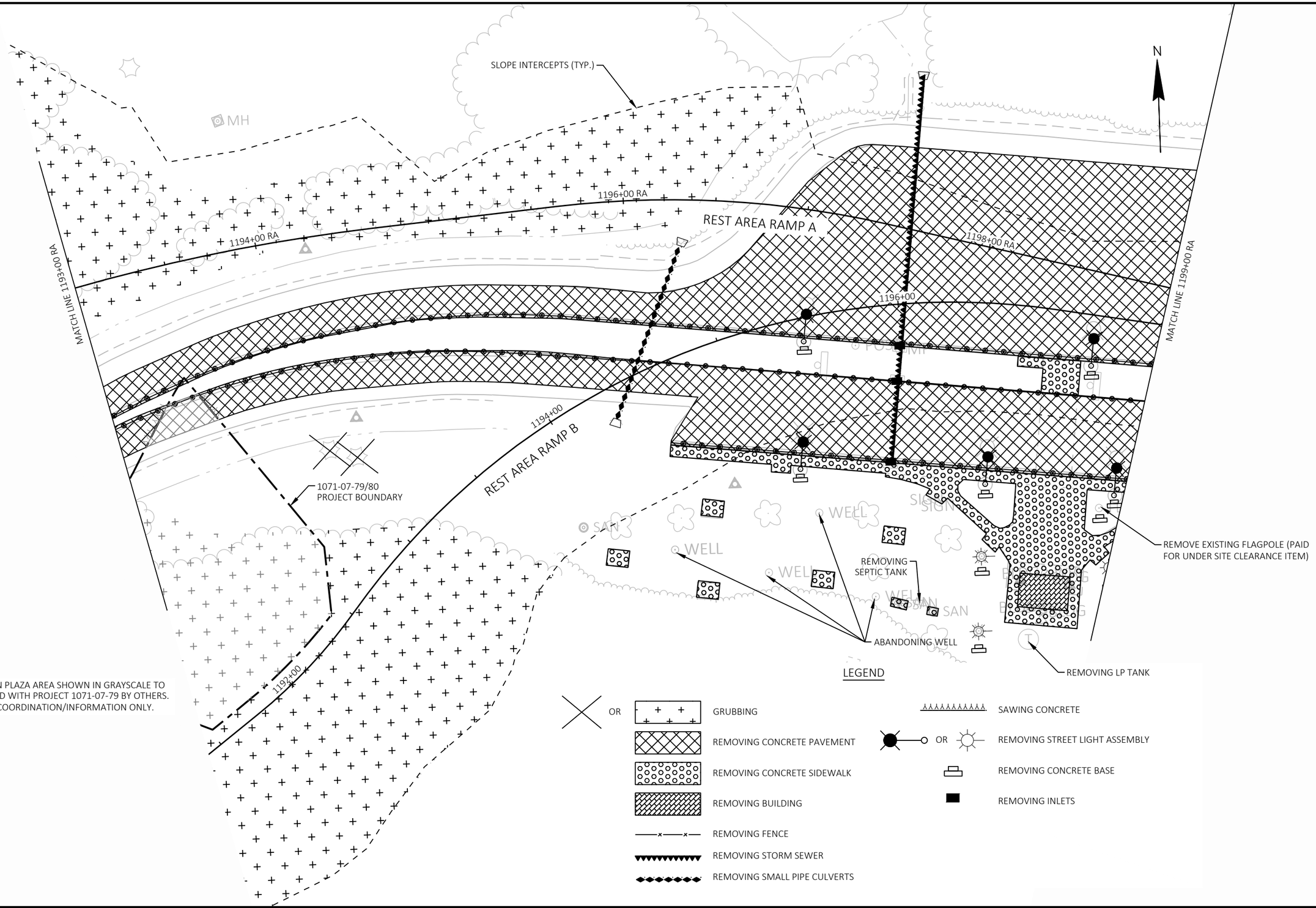
1190+00 RA

1192+00 RA

MATCH LINE 1193+00 RA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 32	E

2



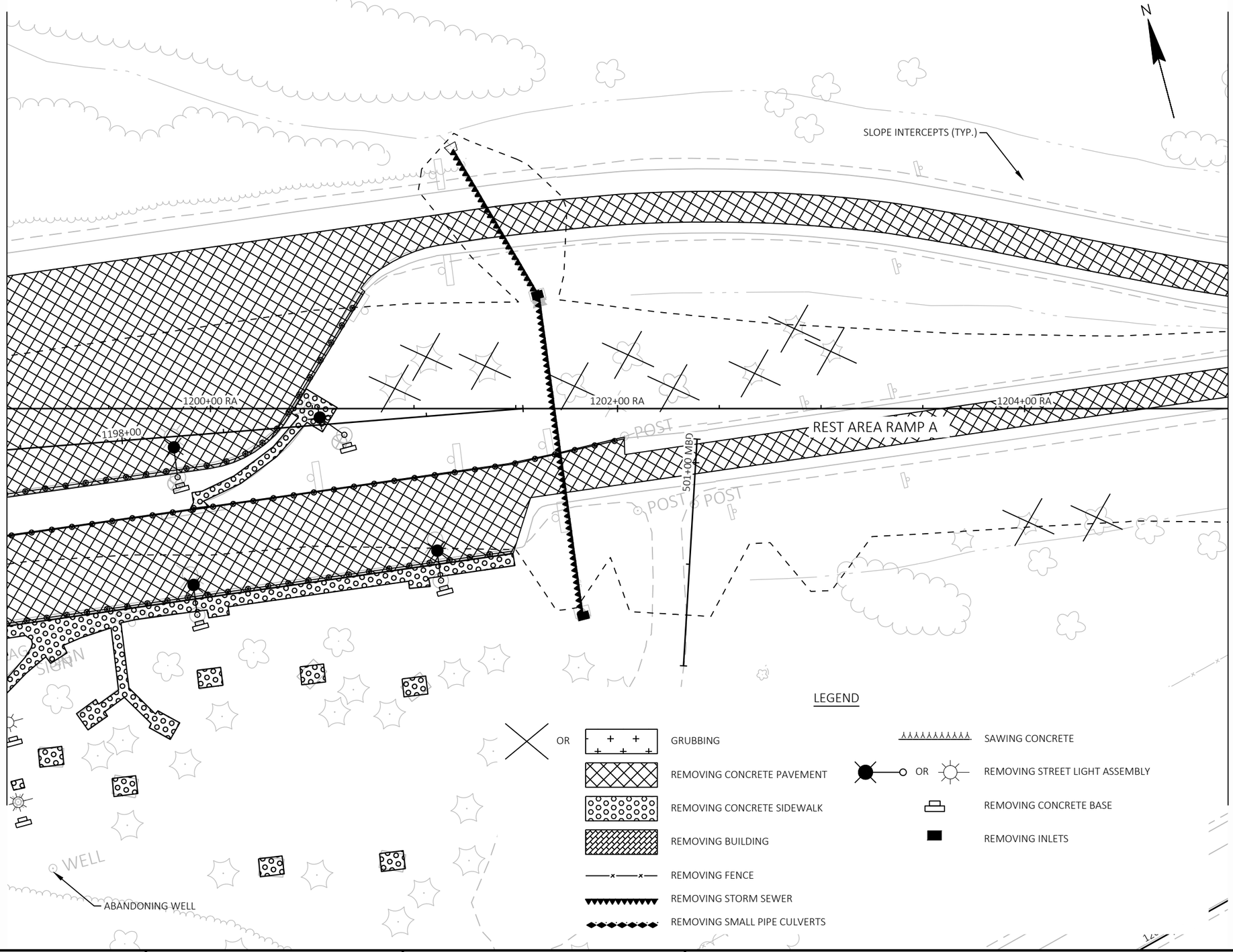
WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 33	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 07

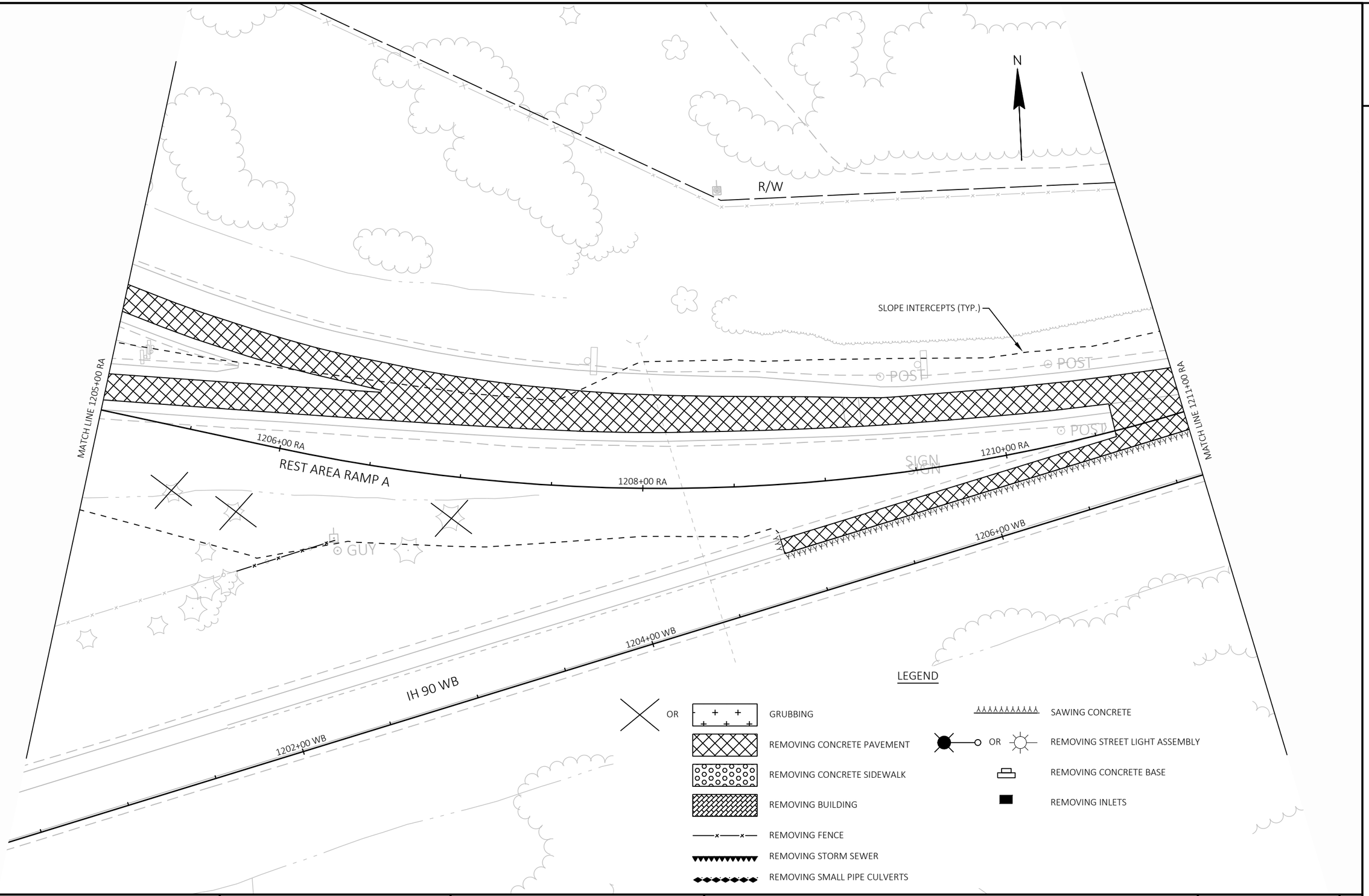
PLOT DATE : 1/25/2024 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 34	E

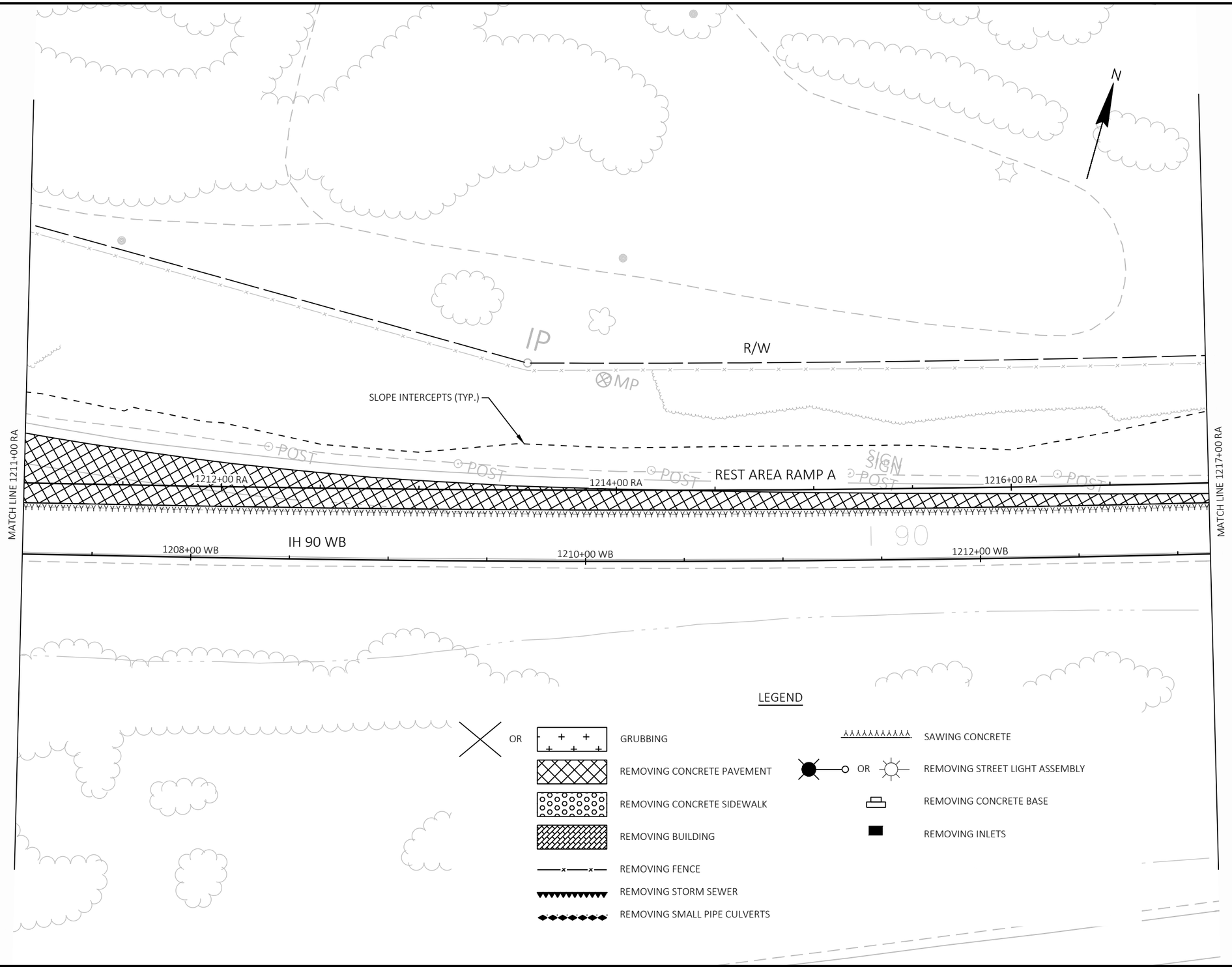
2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 35	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 09
PLOT DATE : 1/25/2024 7:33 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 36	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 10

PLOT DATE : 1/25/2024 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

N

R/W

SLOPE INTERCEPTS (TYP.)

SIGN

SIGN

POST

POST

REST AREA RAMP A

1218+00 RA

1220+00 RA

1222+00 RA

MATCH LINE 1217+00 RA

IH 90 WB

1214+00 WB

1216+00 WB

1218+00 WB

1220+00

I 90

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP A	SHEET 37	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 11

PLOT DATE : 1/25/2024 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

N

R/W

1168+00 RA

1168+00 WB

1170+00 RA

1170+00 WB

1172+00 RA

1172+00 WB

1174+00 RA

1174+00 WB

1176+00 RA

1178+00 RA

1180+00 RA

1180+00

1182+00 RA

1182+00

1184+00 RA

1184+00

1186+00 RA

1186+00

1188+00 RA

1188+00

1190+00 RA

1190+0

R/W

REST AREA RAMP A / TRUCK PARKING AREA

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

REST AREA RAMP B / CAR PARKING AREA

PROJECT NO: 1071-07-80	HWY: #####	COUNTY: ######	REMOVAL PLANS - WEST PARCEL FENCING	SHEET 38	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 06 (3)

PLOT DATE : 1/25/2024 7:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1:150

WISDOT/CADDS SHEET 42

2

2

N

MP

SLOPE INTERCEPTS (TYP.)

1176+00 RA

REST AREA RAMP A

1178+00 RA

1180+00 RA

1180+00 RB

1182+00 R

REST AREA RAMP A

REST AREA RAMP B

1182+

MATCH LINE 1182+00 RB

POST

IH 90 WB

I 90

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP B	SHEET 39	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - B1

PLOT DATE : 1/25/2024 7:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

1184+00 RA

REST AREA RAMP A

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

1071-07-79/80
PROJECT BOUNDARY

MATCH LINE 1182+00 RB

00 RB

REST AREA RAMP B

1184+00 RB

1186+00 RB

1188+

REST AREA RAMP B / CAR PARKING AREA

MATCH LINE 1188+00 RB

POST

POST

POST

POST

POST

IH 90 WB

SLOPE INTERCEPTS (TYP.)

LEGEND

OR

GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR

REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP B	SHEET 40	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - B2

PLOT DATE : 1/25/2024 7:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

SMALL PIPE CULVERT TO BE REMOVED
WITH PROJECT 1071-07-79 BY OTHERS

1194+00 RA

REST AREA RAMP A

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO
BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS.
SHOWN FOR COORDINATION/INFORMATION ONLY.

MATCH LINE 1188+00 RB

00 RB

1190+00 RB

1192+00 RB

1194+

REST AREA RAMP B / CAR PARKING AREA

REST AREA RAMP B

1071-07-79/80
PROJECT BOUNDARY

MATCH LINE 1194+00 RB

SLOPE INTERCEPTS (TYP.)

LEGEND

OR — GRUBBING

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING BUILDING

REMOVING FENCE

REMOVING STORM SEWER

REMOVING SMALL PIPE CULVERTS

SAWING CONCRETE

OR — REMOVING STREET LIGHT ASSEMBLY

REMOVING CONCRETE BASE

REMOVING INLETS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP B	SHEET 41	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - B3

PLOT DATE : 1/25/2024 7:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- OR
- GRUBBING
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING BUILDING
- REMOVING FENCE
- REMOVING STORM SEWER
- REMOVING SMALL PIPE CULVERTS
- SAWING CONCRETE
- OR
- REMOVING STREET LIGHT ASSEMBLY
- REMOVING CONCRETE BASE
- REMOVING INLETS

N

1196+00 RA

REST AREA RAMP A

1198+00 RA

1196+00 RB

REST AREA RAMP B

1198+00 RB

1200+00 RA

1202+00 RA

00 RB

MATCH LINE 1194+00 RB

REMOVE EXISTING FLAGPOLE (PAID FOR UNDER SITE CLEARANCE ITEM)

REMOVING SEPTIC TANK

ABANDONING WELL

REMOVING LP TANK

ABANDONING WELL

SLOPE INTERCEPTS (TYP.)

WELL

SIGN

POST

BLDG

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - REST AREA RAMP B	SHEET 42	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021102-RM.DWG
LAYOUT NAME - B4

PLOT DATE : 1/25/2024 7:36 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

FOR INFORMATION ONLY. EXISTING REST AREA BUILDING PLANS

2

2

SIDE ELEVATION OPPOSITE END SAME BUT REVERSED SCALE — 3/8"=1'-0"

SECTION "A-A" SCALE — 3/8"=1'-0"

FLOOR PLAN SCALE — 3/8"=1'-0"

REFLECTED CEIL. PLAN SCALE 3/8"=1'-0"

SIDE 11

TOP 12

BOTTOM 13

SCREEN DETAILS SCALE 1½"=1'-0"

HEAD 1

HEAD 2

SILL 3

SILL 4

TYPICAL GRILLE OPNG 14 SCALE 1½"=1'-0"

JOINT COVERS 15 FULL SIZE

CEILING MOULD 16 FULL SIZE

GABLE 5

EAVE 6

OPENING TO SUMMIT

SCALE ON ALL DETAILS ¾"=1'-0" EXCEPT AS NOTED

SAFETY REST AREA COMFORT STATION

STATE HIGHWAY COMMISSION OF WISCONSIN

WISCONSIN SHINJI YAMAMOTO MADISON ARCHITECT

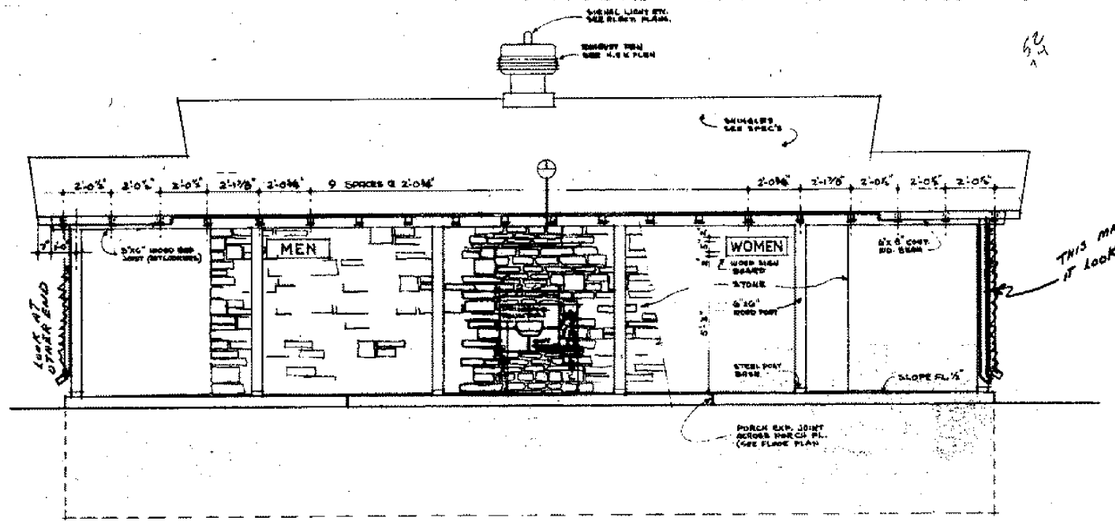
BUREAU OF ENGINEERING PROJECT # 1071-12

CutePDF - www.fastio.com

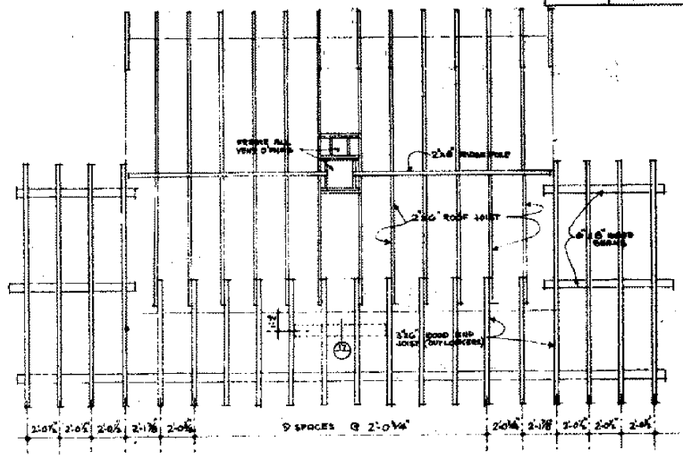
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REMOVAL PLANS - EXISTING BUILDING	SHEET 43	E

FOR INFORMATION ONLY. EXISTING
REST AREA BUILDING PLANS

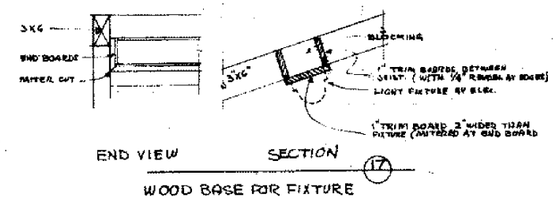
S.H.D. REGION DIVISION	PROJECT	SHEET NUMBER	TOTAL SHEETS
4 WIS.	I 90 (56)20 1071-1-84	2.11	9



FRONT ELEVATION SCALE ··· 3/8"=1'-0"

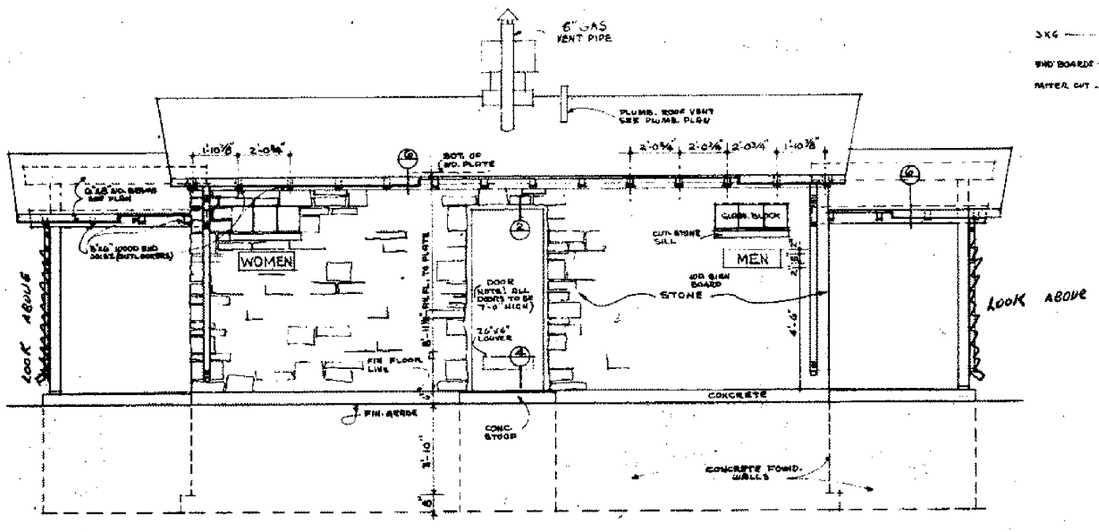


ROOF FRAMING PLAN SCALE ··· 1/8"=1'-0"



END VIEW SECTION 17

WOOD BASE FOR FIXTURE



BACK ELEVATION SCALE ··· 3/8"=1'-0"

BUREAU OF ENGINEERING
PROJECT # 4804-12

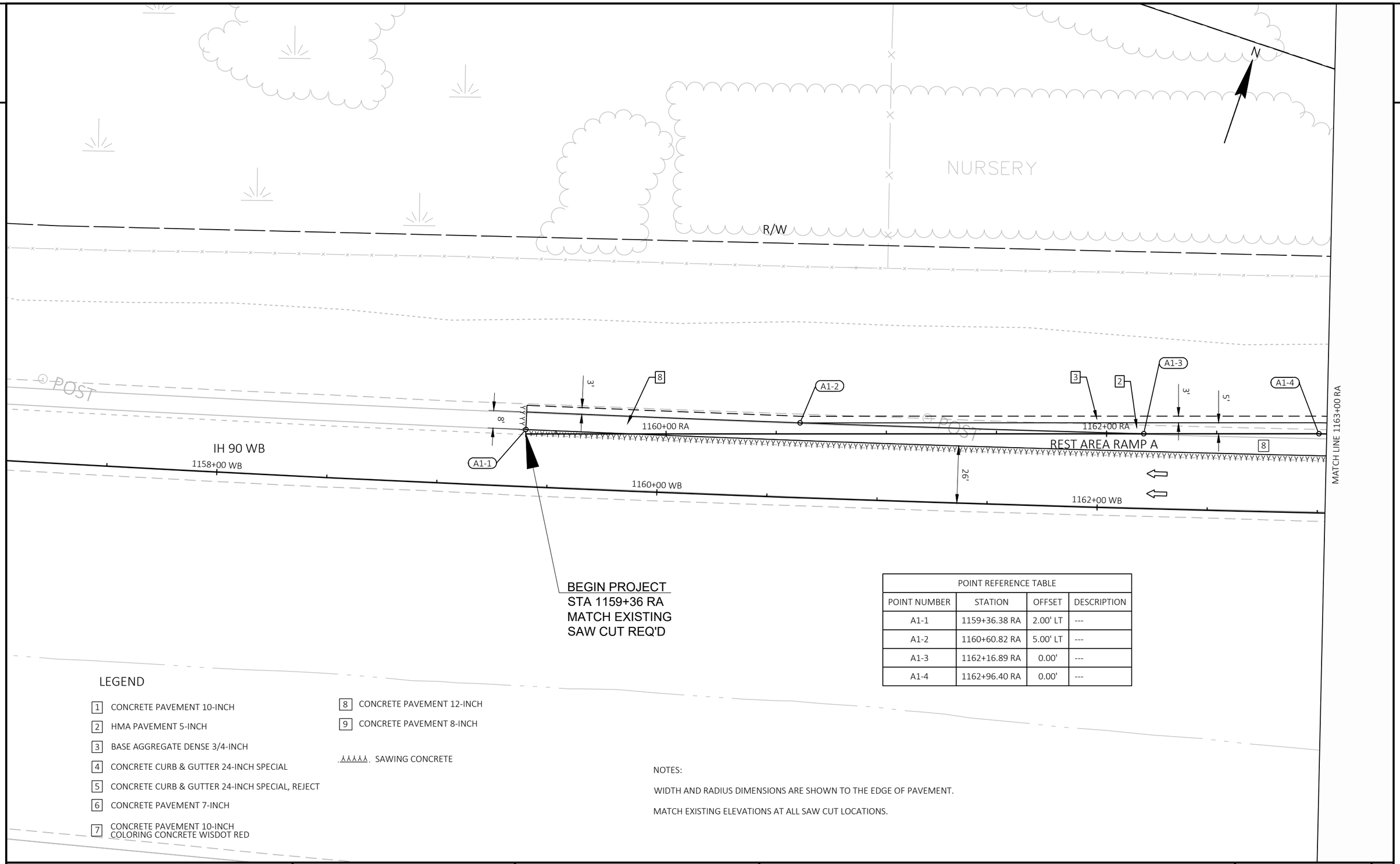
ClibPDF - www.fastio.com

WISCONSIN SHINJI YAMAMOTO MADISON ARCHITECT

SAFETY REST AREA
COMFORT STATION

STATE HIGHWAY COMMISSION OF WISCONSIN

2



POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A1-1	1159+36.38 RA	2.00' LT	---
A1-2	1160+60.82 RA	5.00' LT	---
A1-3	1162+16.89 RA	0.00'	---
A1-4	1162+96.40 RA	0.00'	---

LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

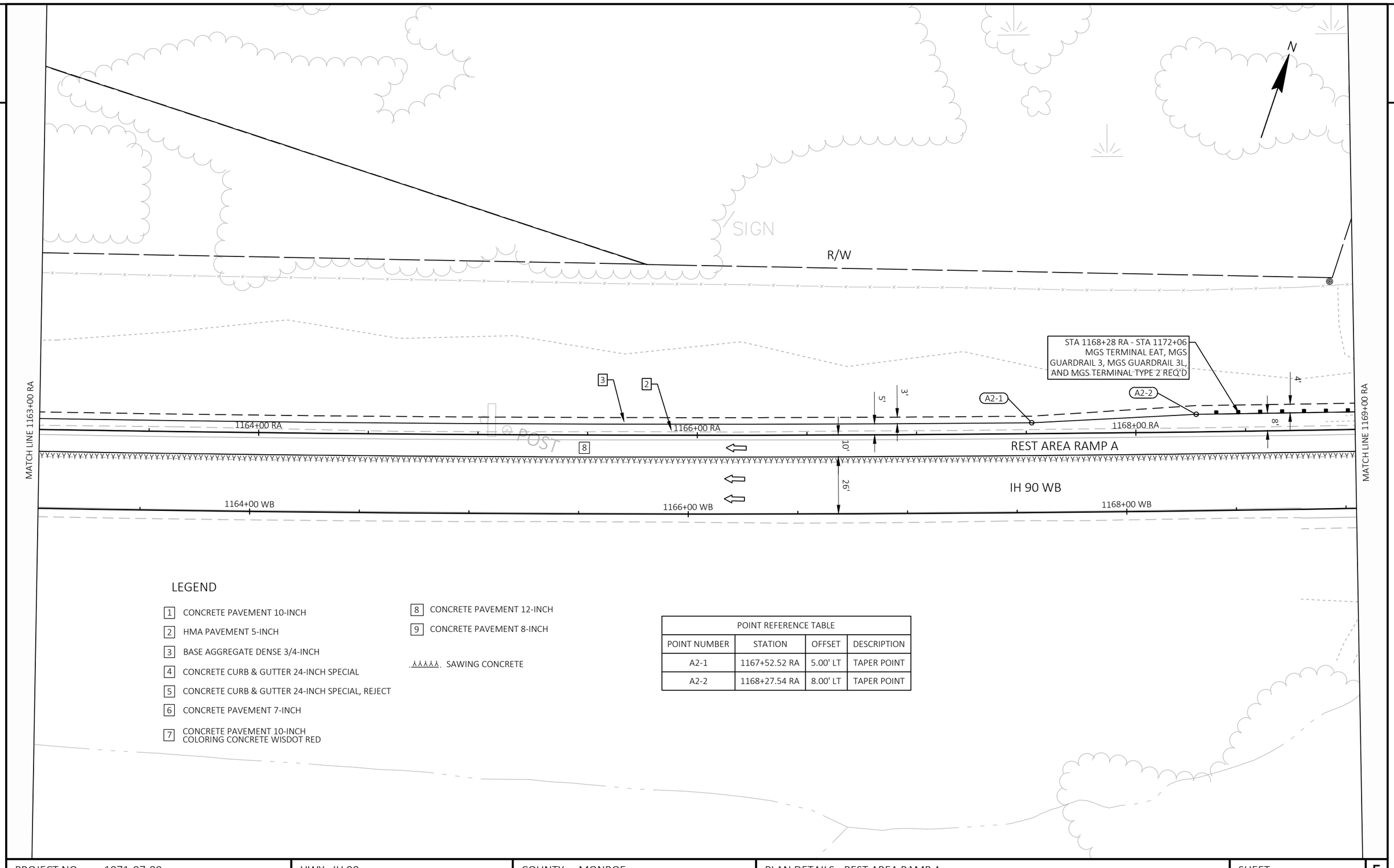
NOTES:

WIDTH AND RADIUS DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT.

MATCH EXISTING ELEVATIONS AT ALL SAW CUT LOCATIONS.

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 45	E

2



LEGEND

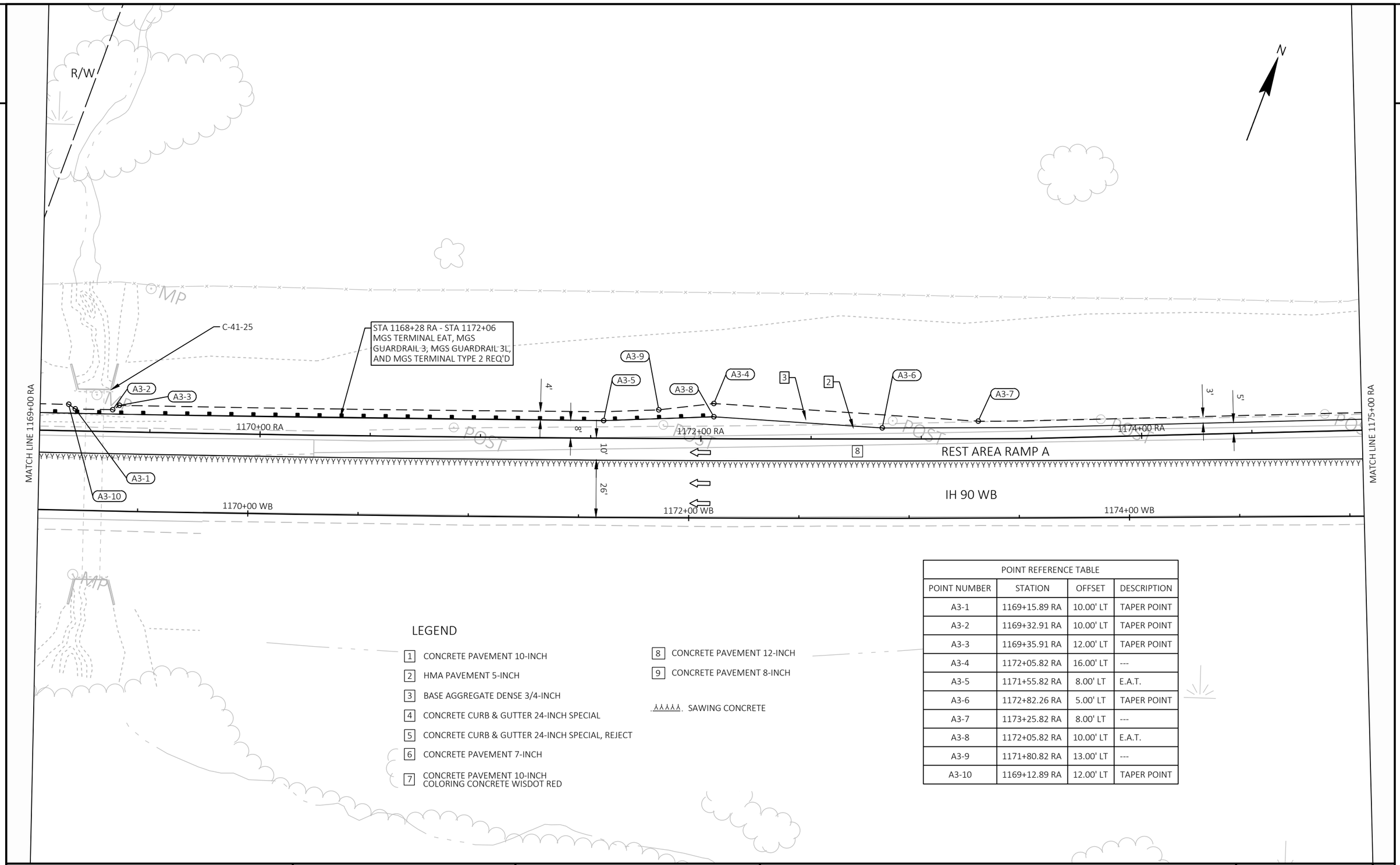
1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A2-1	1167+52.52 RA	5.00' LT	TAPER POINT
A2-2	1168+27.54 RA	8.00' LT	TAPER POINT

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 46	E

2



LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A3-1	1169+15.89 RA	10.00' LT	TAPER POINT
A3-2	1169+32.91 RA	10.00' LT	TAPER POINT
A3-3	1169+35.91 RA	12.00' LT	TAPER POINT
A3-4	1172+05.82 RA	16.00' LT	---
A3-5	1171+55.82 RA	8.00' LT	E.A.T.
A3-6	1172+82.26 RA	5.00' LT	TAPER POINT
A3-7	1173+25.82 RA	8.00' LT	---
A3-8	1172+05.82 RA	10.00' LT	E.A.T.
A3-9	1171+80.82 RA	13.00' LT	---
A3-10	1169+12.89 RA	12.00' LT	TAPER POINT

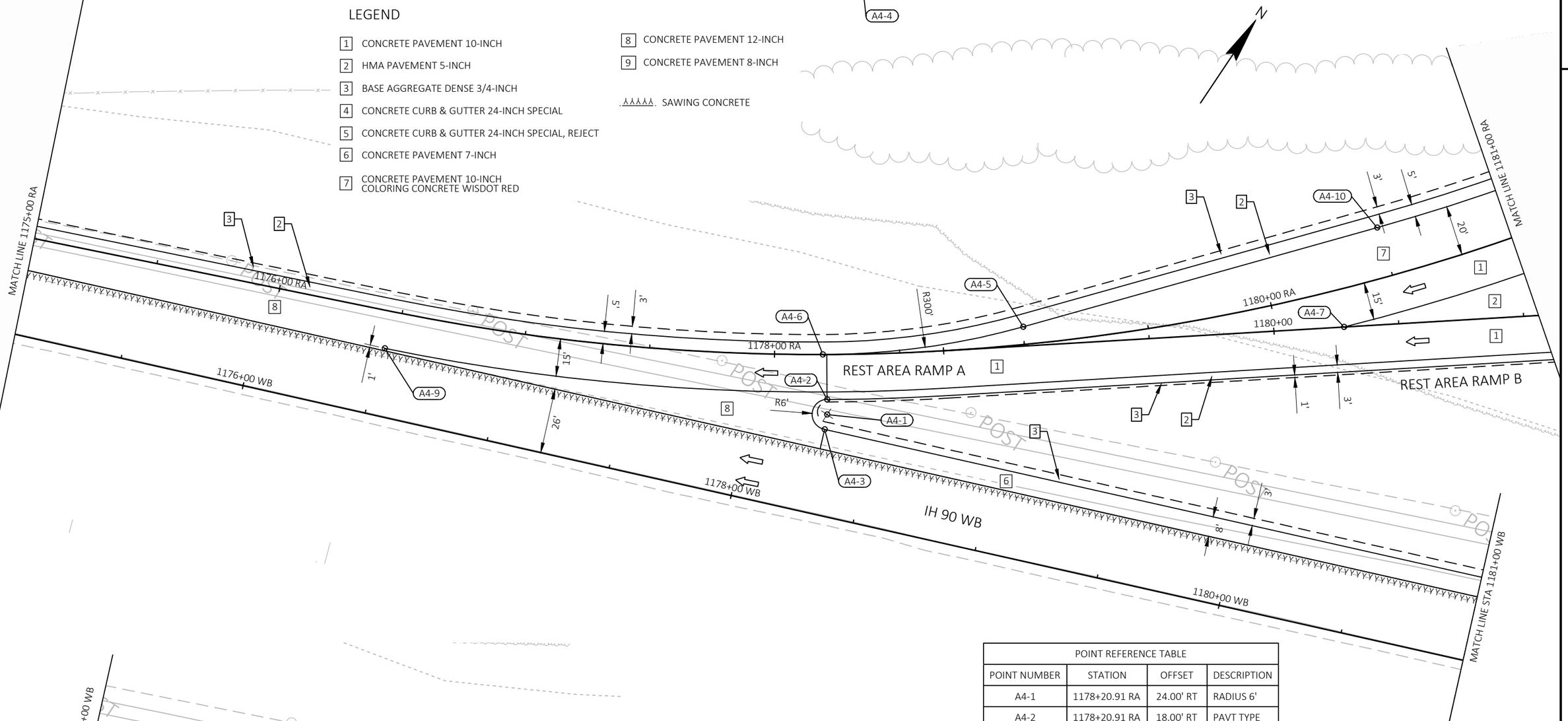
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 47	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 03
PLOT DATE : 4/2/2024 9:56 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

1 CONCRETE PAVEMENT 10-INCH
2 HMA PAVEMENT 5-INCH
3 BASE AGGREGATE DENSE 3/4-INCH
4 CONCRETE CURB & GUTTER 24-INCH SPECIAL
5 CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6 CONCRETE PAVEMENT 7-INCH
7 CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8 CONCRETE PAVEMENT 12-INCH
9 CONCRETE PAVEMENT 8-INCH
SAWING CONCRETE



POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A4-1	1178+20.91 RA	24.00' RT	RADIUS 6'
A4-2	1178+20.91 RA	18.00' RT	PAVT TYPE
A4-3	1178+19.91 RA	29.92' RT	SHOULDER
A4-4	1178+19.29 RA	300.00' LT	RADIUS 300'
A4-5	1179+00.25 RA	7.09' LT	PC
A4-6	1178+19.29 RA	0.00'	PT
A4-7	1180+26.14 RA	15.00' RT	---
A4-8	1181+60.04 RA	218.43' RT	---
A4-9	1176+45.97 RA	15.00' RT	---
A4-10	1180+49.21 RA	20.00' LT	PC

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A5-1	1181+08.98 RA	24.00' RT	RADIUS 6'
A5-2	1182+83.91 RA	165.00' RT	RADIUS 150'
A5-3	1183+55.40 RA	20.67' LT	---
A5-4	1184+30.46 RA	27.50' LT	RADIUS 10'
A5-5	1184+84.38 RA	21.88' LT	RADIUS 50'
A5-6	1185+32.23 RA	27.50' LT	RADIUS 10'
A5-7	1185+30.12 RA	42.50' RT	RADIUS 10'
A5-8	1184+78.49 RA	36.11' RT	RADIUS 50'
A5-9	1184+28.91 RA	42.50' RT	RADIUS 10'
A5-10	1184+82.80 RA	49.50' RT	RADIUS 75'

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A5-11	1184+90.75 RA	34.50' LT	RADIUS 75'
A5-12	1185+02.14 RA	114.50' LT	C&G
A5-13	1184+44.52 RA	91.23' LT	PC
A5-14	1183+73.54 RA	50.47' RT	---
A5-15	1184+17.27 RA	96.74' RT	---
A5-16	1182+72.99 RA	149.99' LT	RADIUS 150'
A5-17	1186+16.06 RA	114.50' LT	FLUME

A5-16

ASPHALTIC FLUME (TYP.)

10'

10'

N

MATCH LINE 1181+00 RA

MATCH LINE 1187+00 RA

1182+00 RA

1184+00 RA

1186+00 RA

1182+00

1184+00

REST AREA RAMP A

REST AREA RAMP A / TRUCK PARKING AREA

REST AREA RAMP B

1071-07-79/80 PROJECT BOUNDARY

TRANSITION TO REJECT

TRANSITION TO REJECT

TRANSITION TO REJECT

R150'

R10'

R10'

R10'

R10'

R75'

R50'

R50'

R75'

R150'

R6'

3'

5'

20'

15'

1'

3'

3'

5'

30'

30'

50'

A5-1

A5-2

A5-3

A5-4

A5-5

A5-6

A5-7

A5-8

A5-9

A5-10

A5-11

A5-12

A5-13

A5-14

A5-15

A5-17

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 49	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 05
PLOT DATE : 4/2/2024 9:56 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A6-1	1192+42.98 RA	49.50' RT	RADIUS 75'
A6-2	1192+51.32 RA	34.50' LT	RADIUS 75'
A6-3	1192+39.93 RA	114.50' LT	C&G
A6-4	1189+16.80 RA	114.50' LT	FLUME
A6-5	1187+20.79 RA	114.50' LT	FLUME
A6-6	1188+17.55 RA	114.50' LT	FLUME
A6-7	1190+79.33 RA	114.50' LT	FLUME
A6-8	1189+96.35 RA	114.50' LT	FLUME

LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

ASPHALTIC FLUME (TYP.)

ASPHALTIC FLUME

10'

114.5'

124.5'

R75'

1188+00 RA

1190+00 RA

1192+00 RA

MATCH LINE 1187+00 RA

MATCH LINE 1193+00 RA

REST AREA RAMP A / TRUCK PARKING AREA

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 50	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 06

PLOT DATE : 4/2/2024 9:56 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A7-1	1194+63.89 RA	165.00' RT	RADIUS 150'
A7-2	1194+39.48 RA	150.00' LT	RADIUS 145'
A7-3	1194+34.07 RA	155.00' LT	RADIUS 150'
A7-4	1193+89.44 RA	10.00' LT	---
A7-5	1194+34.07 RA	10.00' LT	PT
A7-6	1193+43.74 RA	59.55' RT	C&G
A7-7	1197+78.38 RA	24.00' RT	RADIUS 6'
A7-8	1198+42.17 RA	5.00' LT	---
A7-9	1197+42.23 RA	10.00' LT	---

N

A7-3
A7-2
A7-4
A7-5
A7-6
A7-7
A7-8
A7-9
A7-1

1196+00 RA
1194+00 RA
1198+00 RA
1196+00
1194+00

REST AREA RAMP A
REST AREA RAMP B

R145'
R150'
R6'

3'
5'
1'
10'
15'
3'
1'

ASPHALTIC FLUME

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR COORDINATION/INFORMATION ONLY.

MATCH LINE 1193+00 RA

MATCH LINE 1199+00 RA

SEPV
MH
SAN
WELL
POST MP
SIGN
BLDG

2

LEGEND

1 CONCRETE PAVEMENT 10-INCH
2 HMA PAVEMENT 5-INCH
3 BASE AGGREGATE DENSE 3/4-INCH
4 CONCRETE CURB & GUTTER 24-INCH SPECIAL
5 CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6 CONCRETE PAVEMENT 7-INCH
7 CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8 CONCRETE PAVEMENT 12-INCH
9 CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

N

MATCH LINE 1199+00 RA

MATCH LINE 1205+00 RA

1200+00 RA

1202+00 RA

1204+00 RA

1198+00

501+00 MED

REST AREA RAMP A

A8-1 A8-2 A8-3 A8-4 A8-5 A8-6

R25' R25'

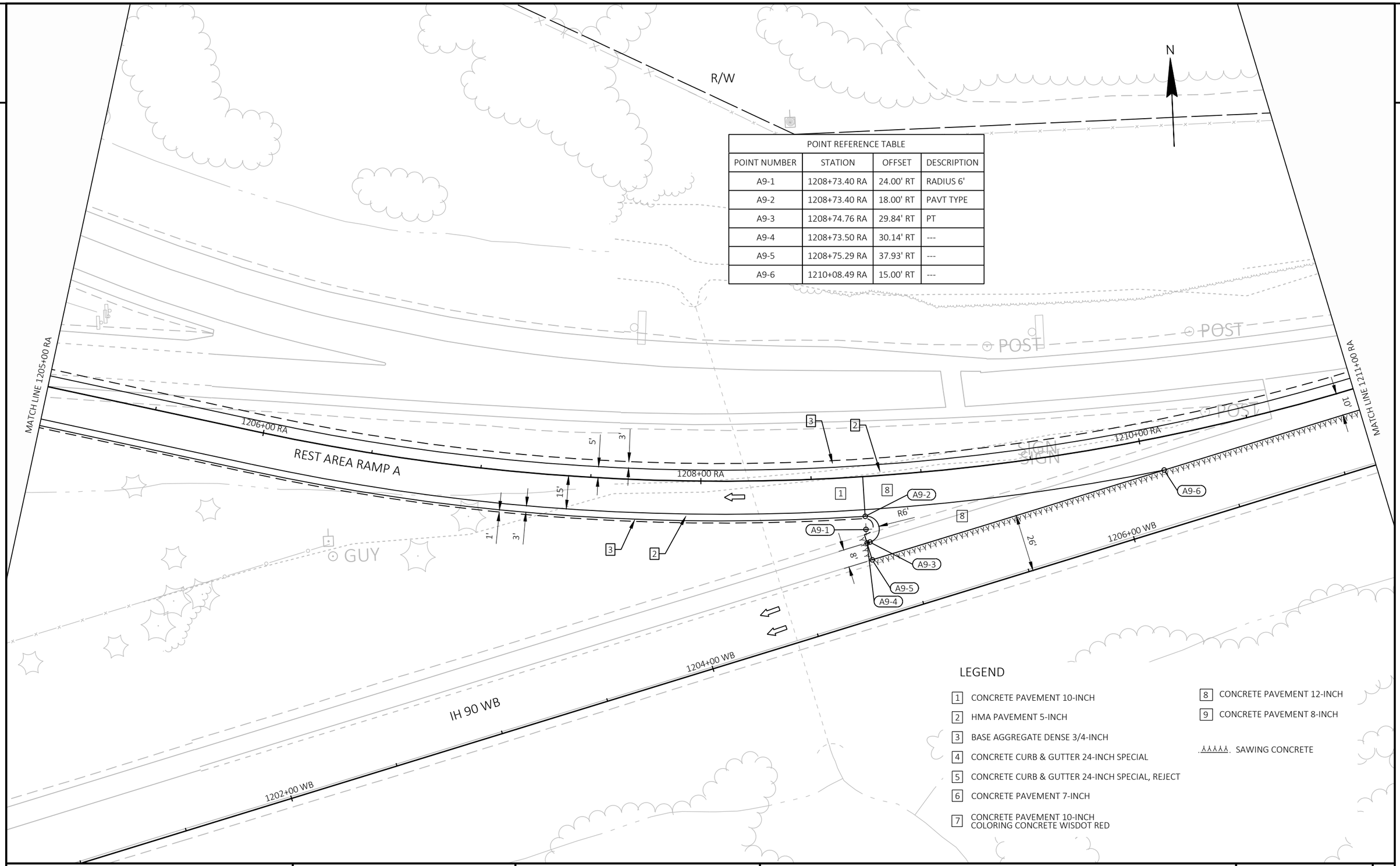
16.5'

5' 3' 15' 1' 3'

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A8-1	1199+66.03 RA	15.00' RT	---
A8-2	1201+54.12 RA	15.00' RT	---
A8-3	1201+95.74 RA	44.03' RT	RADIUS 25'
A8-4	1202+62.36 RA	44.00' RT	RADIUS 25'
A8-5	1202+62.36 RA	19.00' RT	---
A8-6	1201+95.74 RA	19.03' RT	---

2

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A9-1	1208+73.40 RA	24.00' RT	RADIUS 6'
A9-2	1208+73.40 RA	18.00' RT	PAVT TYPE
A9-3	1208+74.76 RA	29.84' RT	PT
A9-4	1208+73.50 RA	30.14' RT	---
A9-5	1208+75.29 RA	37.93' RT	---
A9-6	1210+08.49 RA	15.00' RT	---



LEGEND

- 1 CONCRETE PAVEMENT 10-INCH
- 2 HMA PAVEMENT 5-INCH
- 3 BASE AGGREGATE DENSE 3/4-INCH
- 4 CONCRETE CURB & GUTTER 24-INCH SPECIAL
- 5 CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
- 6 CONCRETE PAVEMENT 7-INCH
- 7 CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
- 8 CONCRETE PAVEMENT 12-INCH
- 9 CONCRETE PAVEMENT 8-INCH
- SAWING CONCRETE

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 53	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 09
PLOT DATE : 4/2/2024 9:56 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

1 CONCRETE PAVEMENT 10-INCH
2 HMA PAVEMENT 5-INCH
3 BASE AGGREGATE DENSE 3/4-INCH
4 CONCRETE CURB & GUTTER 24-INCH SPECIAL
5 CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6 CONCRETE PAVEMENT 7-INCH
7 CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8 CONCRETE PAVEMENT 12-INCH
9 CONCRETE PAVEMENT 8-INCH
SAWING CONCRETE

N

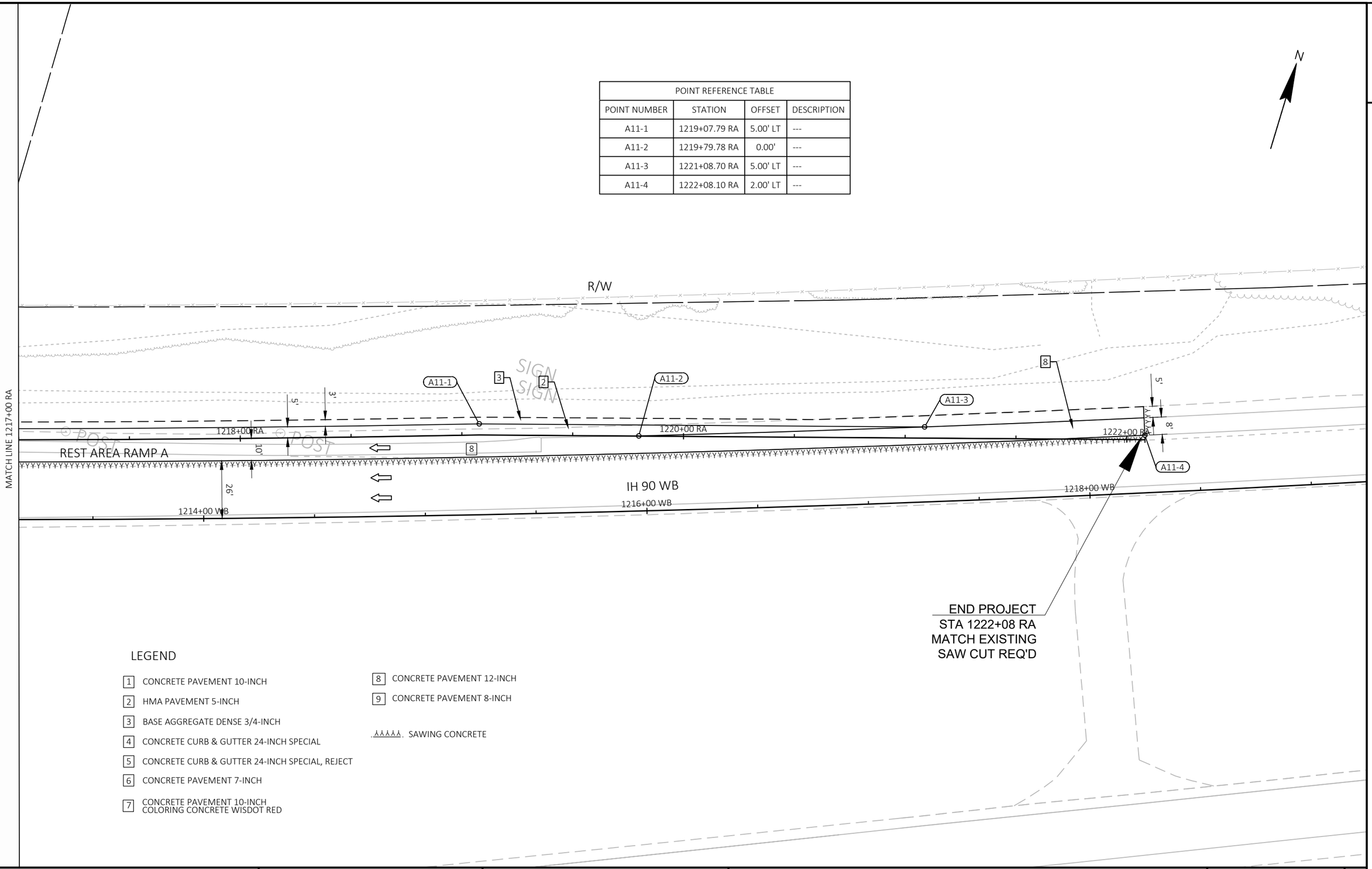
IP
MP
R/W
POST
SIGN
3'
5'
10'
26'
MATCH LINE 1211+00 RA
MATCH LINE 1217+00 RA
1212+00 RA
1214+00 RA
1216+00 RA
REST AREA RAMP A
IH 90 WB
1208+00 WB
1210+00 WB
1212+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 54	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 10
PLOT DATE : 4/2/2024 9:56 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
A11-1	1219+07.79 RA	5.00' LT	---
A11-2	1219+79.78 RA	0.00'	---
A11-3	1221+08.70 RA	5.00' LT	---
A11-4	1222+08.10 RA	2.00' LT	---



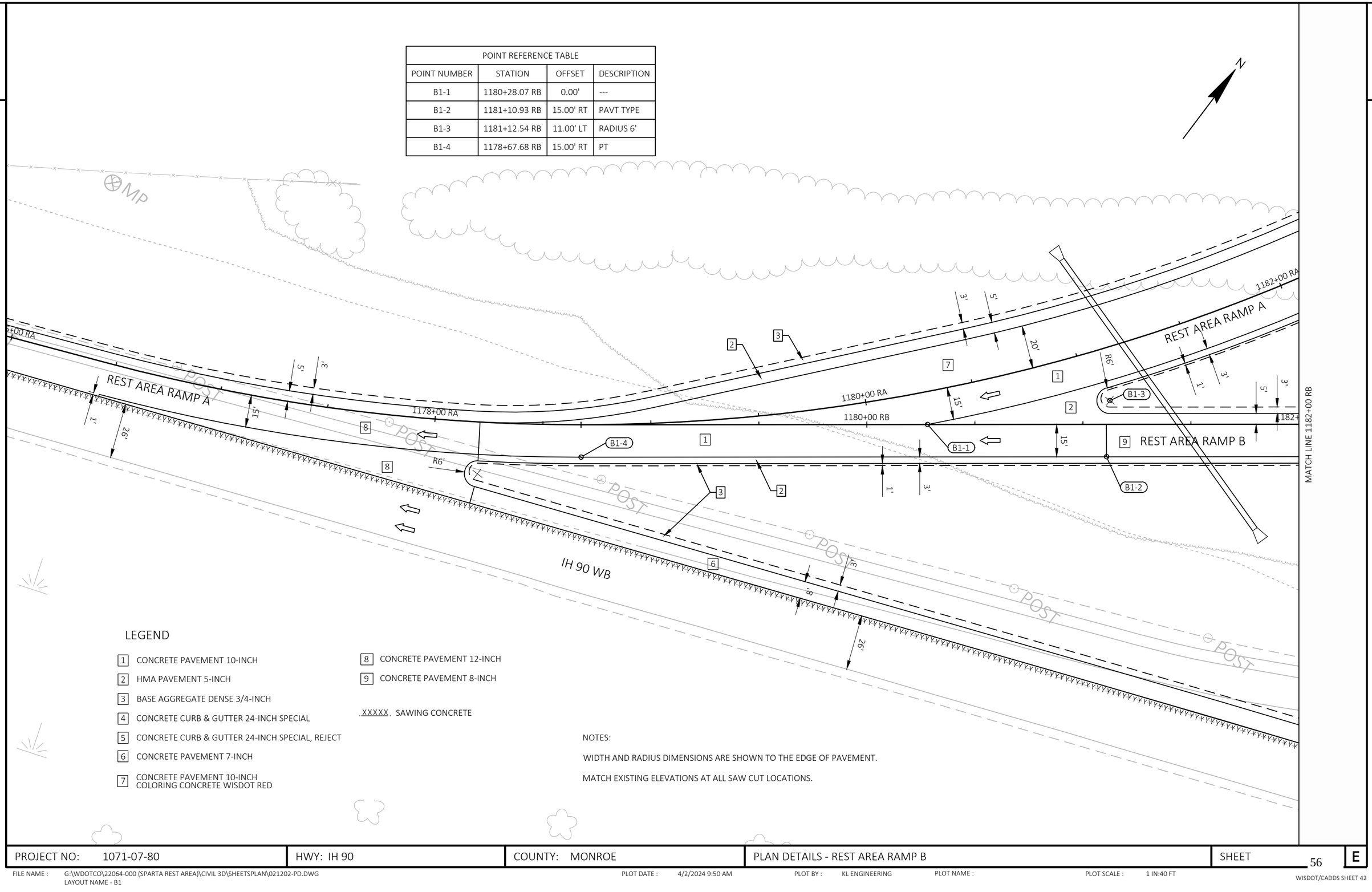
LEGEND

1 CONCRETE PAVEMENT 10-INCH
2 HMA PAVEMENT 5-INCH
3 BASE AGGREGATE DENSE 3/4-INCH
4 CONCRETE CURB & GUTTER 24-INCH SPECIAL
5 CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6 CONCRETE PAVEMENT 7-INCH
7 CONCRETE PAVEMENT 10-INCH
COLORING CONCRETE WISDOT RED
8 CONCRETE PAVEMENT 12-INCH
9 CONCRETE PAVEMENT 8-INCH

SAWING CONCRETE

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A	SHEET 55	E

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
B1-1	1180+28.07 RB	0.00'	---
B1-2	1181+10.93 RB	15.00' RT	PAVT TYPE
B1-3	1181+12.54 RB	11.00' LT	RADIUS 6'
B1-4	1178+67.68 RB	15.00' RT	PT



LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

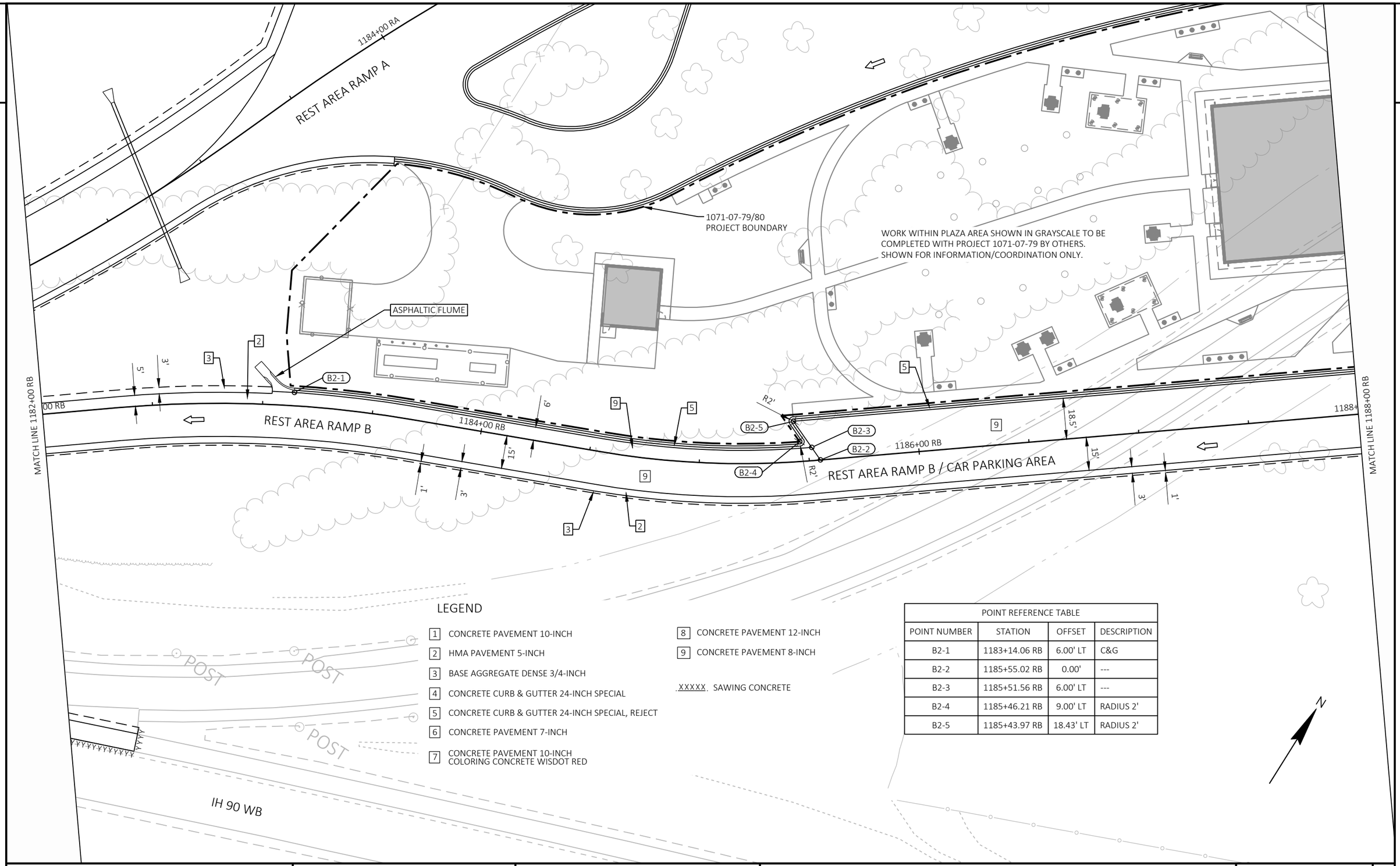
XXXXX. SAWING CONCRETE

NOTES:

WIDTH AND RADIUS DIMENSIONS ARE SHOWN TO THE EDGE OF PAVEMENT.

MATCH EXISTING ELEVATIONS AT ALL SAW CUT LOCATIONS.

2



LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

XXXXX. SAWING CONCRETE

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
B2-1	1183+14.06 RB	6.00' LT	C&G
B2-2	1185+55.02 RB	0.00'	---
B2-3	1185+51.56 RB	6.00' LT	---
B2-4	1185+46.21 RB	9.00' LT	RADIUS 2'
B2-5	1185+43.97 RB	18.43' LT	RADIUS 2'

N

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP B	SHEET 57	E

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

1071-07-79/80 PROJECT BOUNDARY

REST AREA RAMP A

1194+00 RA

REST AREA RAMP B / CAR PARKING AREA

REST AREA RAMP B

ASPHALTIC FLUME

MATCH LINE 1188+00 RB

MATCH LINE 1194+00 RB

1188+00 RB

1190+00 RB

1192+00 RB

B3-1

B3-2

B3-3

B3-4

B3-5

R2'

R3'

18.5'

15'

6'

3'

5'

1'

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
B3-1	1191+42.47 RB	18.50' LT	RADIUS 2'
B3-2	1191+49.69 RB	6.00' LT	---
B3-3	1191+53.15 RB	0.00'	---
B3-4	1191+52.00 RB	10.00' LT	RADIUS 3'
B3-5	1192+42.40 RB	6.00' LT	C&G

LEGEND

1. CONCRETE PAVEMENT 10-INCH
2. HMA PAVEMENT 5-INCH
3. BASE AGGREGATE DENSE 3/4-INCH
4. CONCRETE CURB & GUTTER 24-INCH SPECIAL
5. CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6. CONCRETE PAVEMENT 7-INCH
7. CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8. CONCRETE PAVEMENT 12-INCH
9. CONCRETE PAVEMENT 8-INCH

XXXXX. SAWING CONCRETE

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP B	SHEET 58	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - B3

PLOT DATE : 4/2/2024 9:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

POINT REFERENCE TABLE			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
B4-1	1196+23.18 RB	11.00' LT	RADIUS 2'
B4-2	1196+25.00 RB	15.00' RT	PAVT TYPE
B4-3	1198+09.48 RB	0.00'	---
B4-4	1199+96.98 RB	15.00' RT	---

N

1196+00 RA

1198+00 RA

1200+00 RA

REST AREA RAMP A

REST AREA RAMP B

1196+00 RB

1198+00 RB

B4-1

B4-2

B4-3

B4-4

R6'

1'

3'

5'

10'

15'

MATCH LINE 1194+00 RB

WELL

SIGN

FLAG

BLDG

SAN

T

SS

POSTEMP

LEGEND

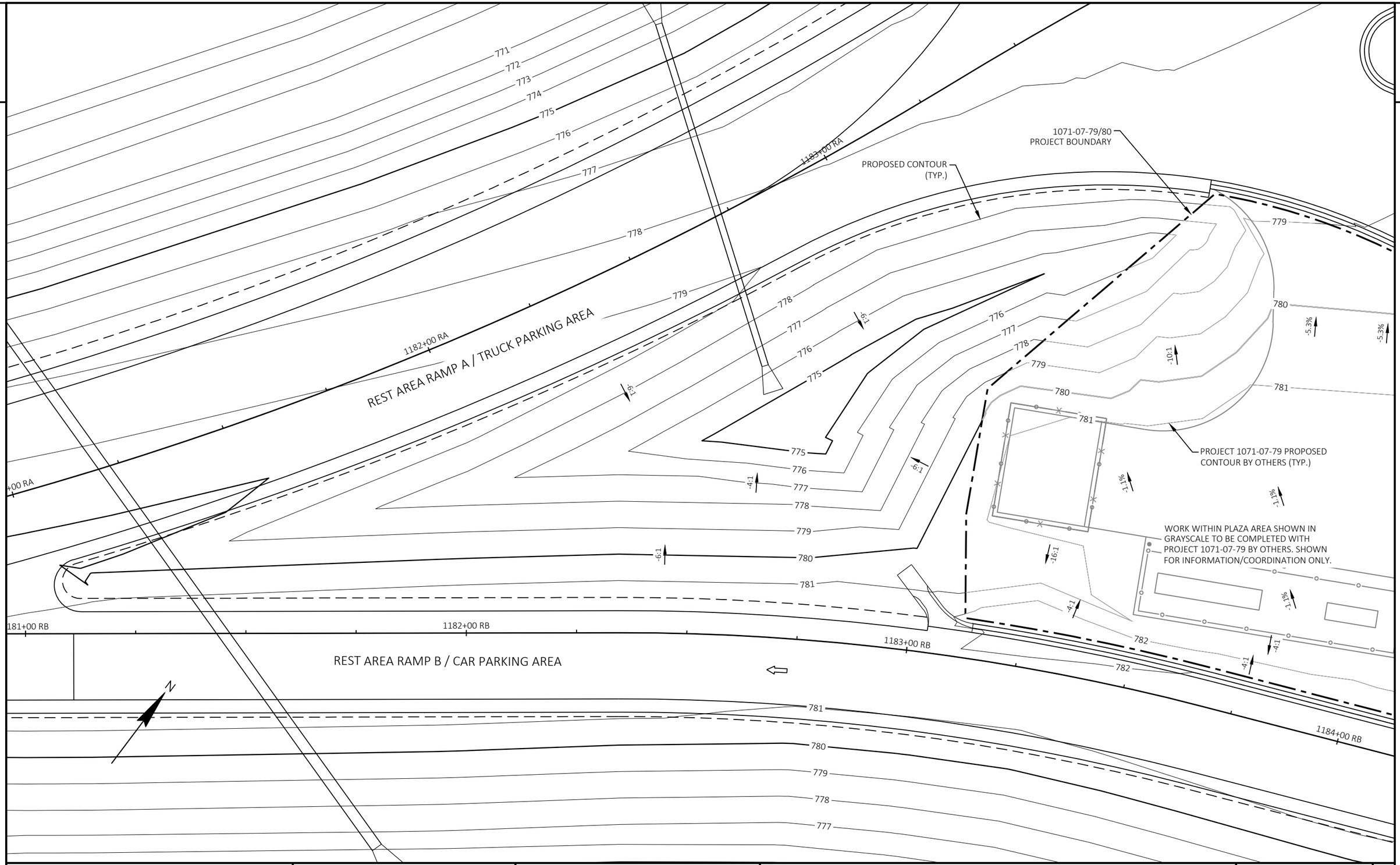
1	CONCRETE PAVEMENT 10-INCH
2	HMA PAVEMENT 5-INCH
3	BASE AGGREGATE DENSE 3/4-INCH
4	CONCRETE CURB & GUTTER 24-INCH SPECIAL
5	CONCRETE CURB & GUTTER 24-INCH SPECIAL, REJECT
6	CONCRETE PAVEMENT 7-INCH
7	CONCRETE PAVEMENT 10-INCH COLORING CONCRETE WISDOT RED
8	CONCRETE PAVEMENT 12-INCH
9	CONCRETE PAVEMENT 8-INCH
XXXXX	SAWING CONCRETE

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP B	SHEET 59	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021202-PD.DWG
LAYOUT NAME - B4

PLOT DATE : 4/2/2024 9:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA PLAZA GRADING	SHEET 60	E

2

REST AREA RAMP A / TRUCK PARKING AREA

1071-07-79/80
PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

PROPOSED CONTOUR
(TYP.)

-0.5%

1195+00 RA

1196+00 RA

1193+00 RB

1194+00 RB

1195+00 RB

REST AREA RAMP B / CAR PARKING AREA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA PLAZA GRADING	SHEET 61	E

2

N

771.20

EXISTING CONTOUR
(TYP.)

PROPOSED CONTOUR
(TYP.)

772.55

-1.4%

4:1

6:1

10'

1201+00 RA

1202+00 RA

1203+00 RA

1199+00 RB

REST AREA RAMP B

REST AREA RAMP A

POST

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A DITCH GRADING	SHEET 62	E

1201+00 RA

1202+00 RA

1203+00 RA

REST AREA RAMP B

REST AREA RAMP A

501+00 MBD

EXISTING CONTOUR (TYP.)

PROPOSED CONTOUR (TYP.)

MAINTENANCE BUILDING DRIVEWAY

N

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN DETAILS - REST AREA RAMP A DITCH GRADING	SHEET 63	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021203-PD.DWG
LAYOUT NAME - Grade (7)

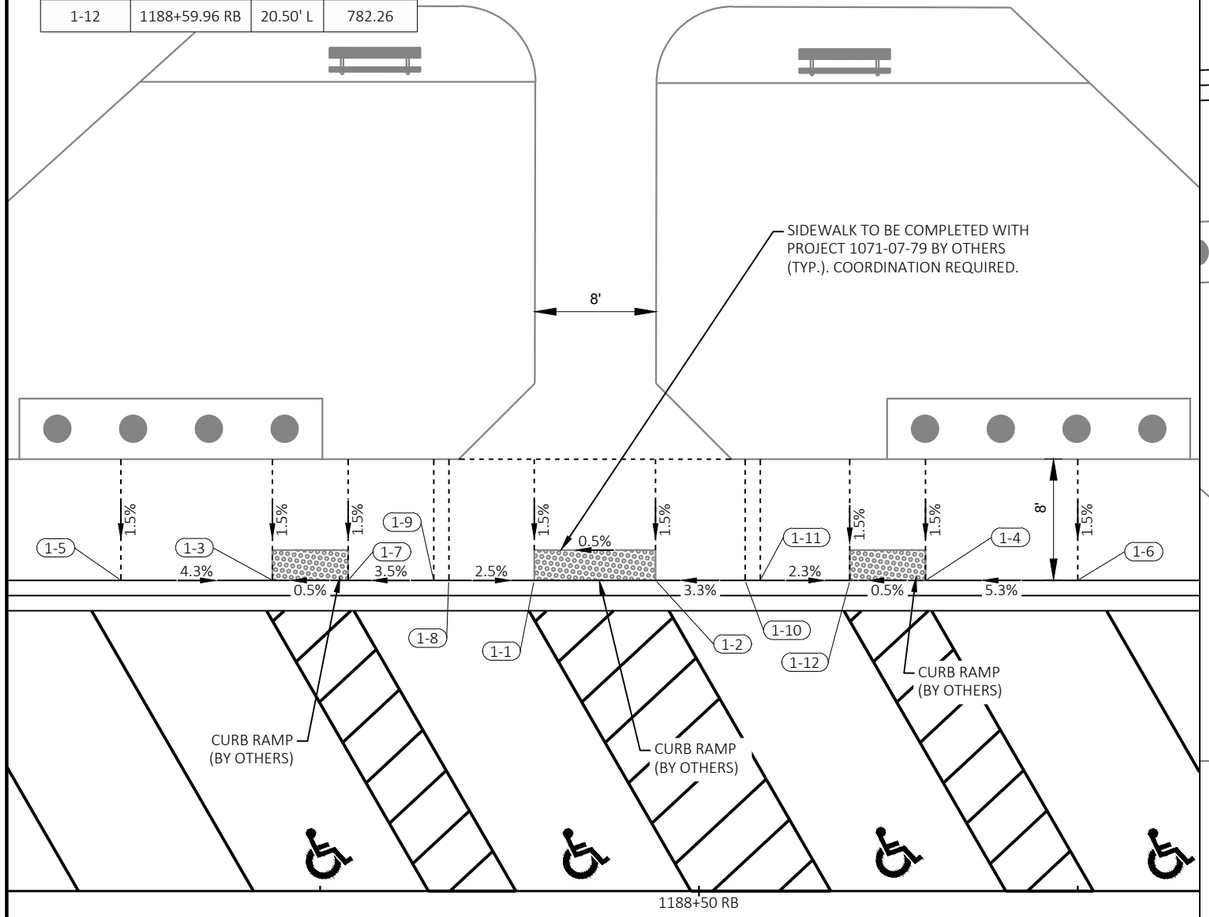
PLOT DATE : 1/31/2024 9:26 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

REFERENCE POINT TABLE			
POINT NO.	STATION	OFFSET	ELEVATION
1-1	1188+39.13 RB	20.50' L	782.15
1-2	1188+47.13 RB	20.50' L	782.19
1-3	1188+21.85 RB	20.50' L	782.07
1-4	1188+64.96 RB	20.50' L	782.28
1-5	1188+11.85 RB	20.50' L	782.50
1-6	1188+75.00 RB	20.50' L	782.82
1-7	1188+26.85 RB	20.50' L	782.09
1-8	1188+33.49 RB	20.50' L	782.29
1-9	1188+32.49 RB	20.50' L	782.29
1-10	1188+53.05 RB	20.50' L	782.39
1-11	1188+54.05 RB	20.50' L	782.39
1-12	1188+59.96 RB	20.50' L	782.26

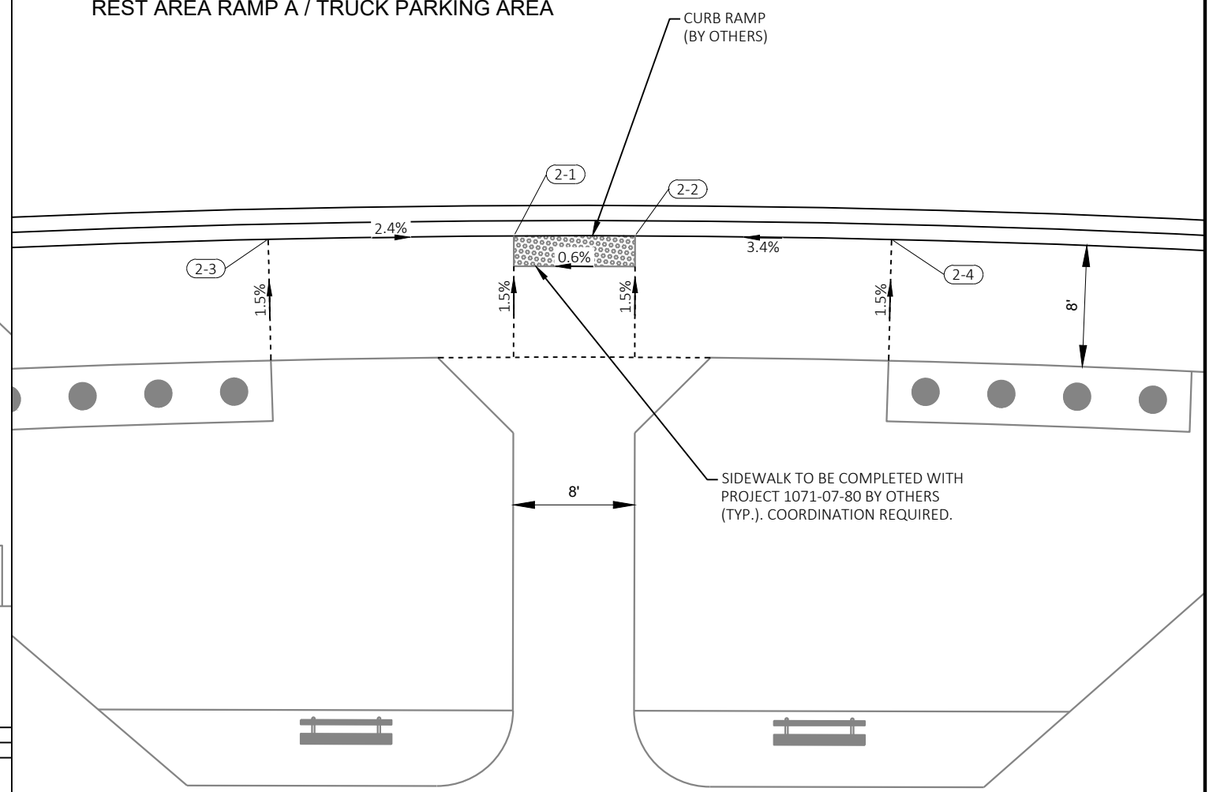
WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.



REST AREA RAMP B / CAR PARKING AREA

REFERENCE POINT TABLE			
POINT NO.	STATION	OFFSET	ELEVATION
2-1	1188+83.83 RA	126.50' R	782.18
2-2	1188+92.96 RA	126.50' R	782.22
2-3	1188+65.32 RA	126.50' R	782.57
2-4	1189+12.28 RA	126.50' R	782.80

REST AREA RAMP A / TRUCK PARKING AREA



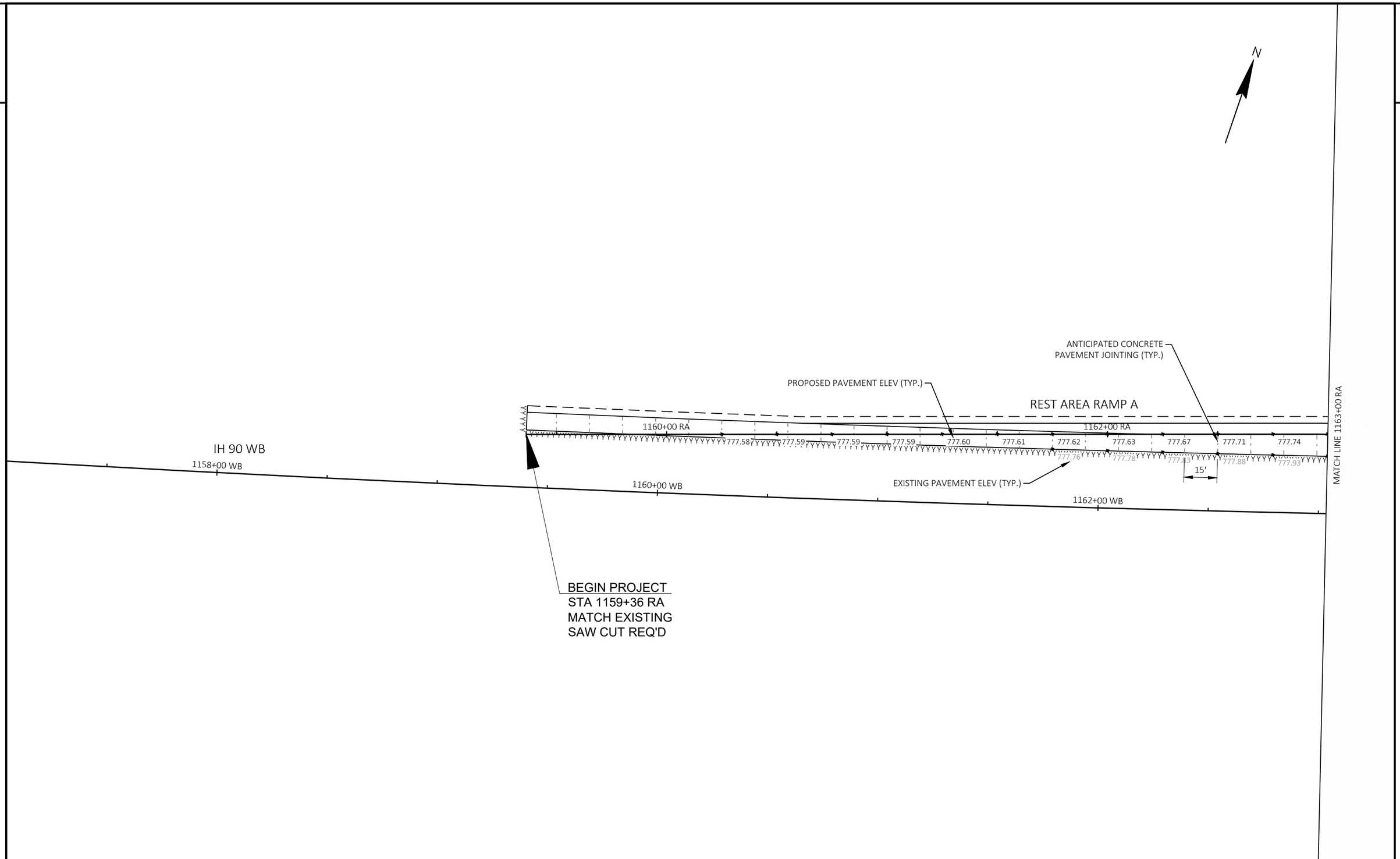
WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

2

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CURB RAMP DETAILS	SHEET 64	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 80
PLOT DATE : 1/25/2024 8:49 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 65	E

2

2

N

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

MATCH LINE 1163+00 RA

MATCH LINE 1169+00 RA

15'

REST AREA RAMP A

1164+00 RA

1166+00 RA

1168+00 RA

777.78 777.85 777.92 777.99 778.05 778.08 778.12 778.15 778.18 778.21 778.23 778.26 778.29 778.32 778.36 778.39 778.43 778.44 778.45 778.46 778.47 778.52 778.57 778.63

777.98 778.05 778.12 778.19 778.25 778.30 778.33 778.36 778.38 778.40 778.43 778.45 778.49 778.51 778.51 778.51 778.54 778.56 778.58 778.60 778.67 778.73 778.79 778.84

10'

IH 90 WB

1164+00 WB

1166+00 WB

1168+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 66	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 02

PLOT DATE : 1/31/2024 9:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

15'

10'

REST AREA RAMP A

MATCH LINE 1169+00 RA

MATCH LINE 1175+00 RA

1170+00 RA

1172+00 RA

1174+00 RA

778.68 778.72 778.77 778.81 778.85 778.88 778.91 778.94 778.97 779.01 779.05 779.09 779.13 779.16 779.18 779.21 779.24 779.27 779.30 779.33 779.37 779.41 779.45 779.49

778.88 778.92 778.97 779.02 779.05 779.05 779.07 779.16 779.16 779.18 779.19 779.24 779.29 779.33 779.38 779.42 779.46 779.50 779.53 779.55 779.57 779.63 779.69 779.75

IH 90 WB

1170+00 WB

1172+00 WB

1174+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 67	E

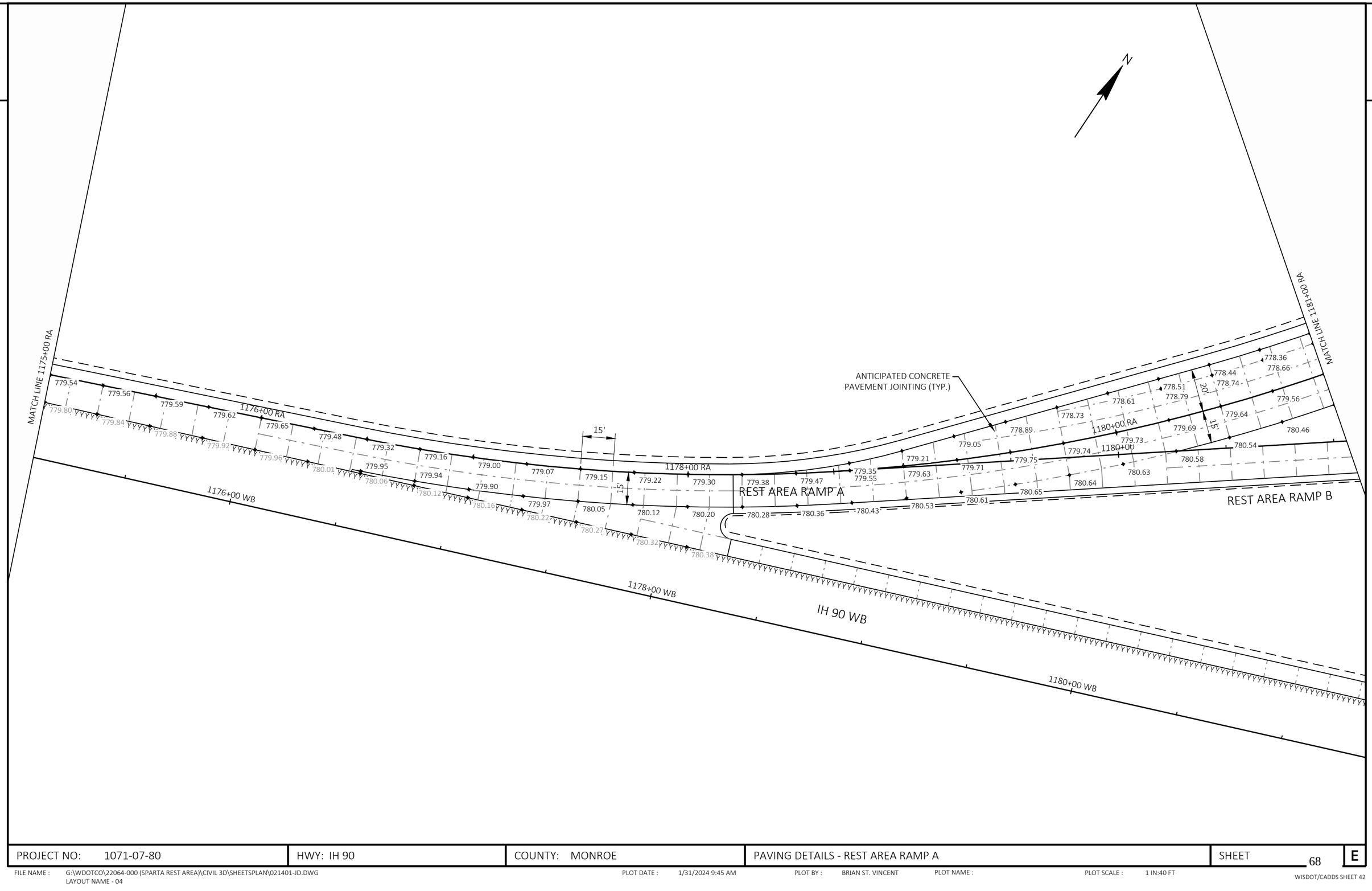
FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 03

PLOT DATE : 1/31/2024 9:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 68	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 04
PLOT DATE : 1/31/2024 9:45 AM
PLOT BY : BRIAN ST. VINCENT
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

15'

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

BEGIN CONCRETE PAVEMENT JOINT FILLING (TYP.)

MATCH LINE 1181+00 RA

1182+00 RA

1184+00 RA

1186+00 RA

MATCH LINE 1187+00 RA

REST AREA RAMP A

REST AREA RAMP A / TRUCK PARKING AREA

REST AREA RAMP B

1071-07-79/80
PROJECT BOUNDARY

1182+00

1184+00

114.5'

124.5'

117.5'

132.5'

15'

20'

15'

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. FOR INFORMATION/COORDINATION ONLY.

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 69	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 05

PLOT DATE : 1/31/2024 9:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

15'

115'

125'

1188+00 RA

1190+00 RA

1192+00 RA

MATCH LINE 1187+00 RA

MATCH LINE 1193+00 RA

REST AREA RAMP A / TRUCK PARKING AREA

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. FOR INFORMATION/COORDINATION ONLY.

1071-07-79/80 PROJECT BOUNDARY

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 70	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 06

PLOT DATE : 1/31/2024 9:45 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

END CONCRETE PAVEMENT
JOINT FILLING (TYP.)

1071-07-79/80
PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN
GRAYSCALE TO BE COMPLETED WITH
PROJECT 1071-07-79 BY OTHERS. FOR
INFORMATION/COORDINATION ONLY.

REST AREA RAMP A

REST AREA RAMP B

1194+00 RA

1196+00 RA

1198+00 RA

1196+00

1194+00

15'

10'

15'

MATCH LINE 1193+00 RA

MATCH LINE 1199+00 RA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 71	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 07

PLOT DATE : 1/31/2024 9:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

15'

MATCH LINE 1199+00 RA

1200+00 RA

1202+00 RA

1204+00 RA

777.41 777.36 777.31 777.30 777.29 777.32 777.35 777.42 777.49 777.59 777.70 777.84 777.99 778.18 778.36 778.57 778.81 779.06 779.33 779.63 779.93 780.27 780.61 780.99

1198+00

777.11 777.06 777.01 777.00 776.99 777.02 777.05 777.12 777.19 777.29 777.40 777.54 777.69 777.88 778.06 778.27 778.51 778.76 779.03 779.33 779.63 779.97 780.31 780.82

REST AREA RAMP A

15'

501+00 MONROE

MATCH LINE 1205+00 RA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 72	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 08

PLOT DATE : 1/31/2024 9:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCH LINE 1205+00 RA

781.37 781.78 782.19 782.60 783.02 783.44 783.84 784.27 784.67 785.08 785.48 785.88 786.24 786.60 786.93 787.26 787.56 787.87 788.13 788.41 788.64 788.88 789.10 789.32

781.35 781.91 782.48 783.05 783.62 784.18 784.73 785.13 785.55 785.96 786.37 786.74 787.12 787.46 787.82 788.14 788.45 788.75 789.02 789.29 789.53 789.67 789.77 789.87

1206+00 RA

REST AREA RAMP A

15'

15'

1208+00 RA

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

1210+00 RA

789.21 789.30 789.39 789.49 789.58

MATCH LINE 1211+00 RA

1206+00 WB

1204+00 WB

IH 90 WB

1202+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 73	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 09

PLOT DATE : 1/31/2024 9:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE 1211+00 RA

MATCH LINE 1217+00 RA

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

REST AREA RAMP A

15'

10'

1212+00 RA

1214+00 RA

1216+00 RA

789.53 789.68 789.83 790.00 790.12 790.26 790.39 790.53 790.67 790.80 790.93 791.06 791.19 791.31 791.43 791.55 791.67 791.79 791.91 792.03 792.15 792.26 792.37 792.48

789.96 790.04 790.12 790.21 790.32 790.46 790.60 790.74 790.87 791.01 791.15 791.27 791.39 791.51 791.63 791.75 791.87 791.99 792.11 792.23 792.35 792.48 792.61 792.70

IH 90 WB

1208+00 WB

1210+00 WB

1212+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 74	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 10

PLOT DATE : 1/31/2024 9:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

MATCH LINE 1217+00 RA

REST AREA RAMP A

15'

10'

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

1218+00 RA

1220+00 RA

1222+00 RA

792.59 792.70 792.81 792.92 793.02 793.14 793.25 793.36 793.47 793.59 793.72 793.84 793.96 794.10 794.25 794.39 794.53 794.65

792.79 792.89 793.00 793.11 793.22 793.33 793.45 793.56 793.67 793.78 793.89 793.99 794.10 794.23

IH 90 WB

1214+00 WB

1216+00 WB

1218+00 WB

END PROJECT
STA 1222+06 RA
MATCH EXISTING
SAW CUT REQ'D

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP A	SHEET 75	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021401-JD.DWG
LAYOUT NAME - 11

PLOT DATE : 1/31/2024 9:46 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

REST AREA RAMP A

1178+00 RA

1180+00 RA

1180+00 RB

1182+00 RA

REST AREA RAMP B

15'

780.54 780.61 780.65 780.87 781.03 781.22 781.45 781.55 781.58 781.62 781.60 781.55 781.51

780.60 780.81 781.03 781.25 781.41 781.54 781.67

780.64 780.63

MATCH LINE 1182+00 RB

IH 90 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP B	SHEET 76	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021402-JD.DWG
LAYOUT NAME - B1

PLOT DATE : 1/31/2024 9:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

REST AREA RAMP A

1184+00 RA

1071-07-79/80
PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. FOR INFORMATION/COORDINATION ONLY.

MATCH LINE 1182+00 RB

00 RB

781.79 781.85 781.88 781.91 781.90 781.85 782.16 782.08 781.78 781.90 781.68 781.70 781.56 781.52 781.40 781.34 781.22 781.15 781.03 781.00 780.88 780.76 780.69

781.44 781.32 781.19 781.02 781.00 780.95 781.05 781.13 781.18 781.10 780.92 780.73 780.58 780.46

REST AREA RAMP B

1184+0

15'

781.06 781.03 781.03 781.10 781.18 781.30 781.42 781.55 781.67 781.80

1186+00 RB

780.66 780.66 780.73 780.81 780.93 781.05 781.18 781.30 781.43

780.36 780.36 780.43 780.51 780.63 780.75 780.88 781.00 781.13

REST AREA RAMP B / CAR PARKING AREA

18.5'

15'

1188+

MATCH LINE 1188+00 RB

780.39

BEGIN CONCRETE PAVEMENT
JOINT FILLING (TYP.)

ANTICIPATED CONCRETE
PAVEMENT JOINTING (TYP.)

IH 90 WB

N

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP B	SHEET 77	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021402-JD.DWG
LAYOUT NAME - B2

PLOT DATE : 1/31/2024 9:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. FOR INFORMATION/COORDINATION ONLY.

1071-07-79/80 PROJECT BOUNDARY

REST AREA RAMP A

1194+00 RA

MATCH LINE 1188+00 RB

1188+00 RB

781.92 782.05 782.17 782.30 782.42 782.55 782.67 782.80 782.92 783.01 783.08 783.10 783.09 783.03 782.98

18.5'

781.55 781.68 781.80 781.93 782.05 782.18 782.30 782.43 782.55 782.64 782.71 782.73 782.72 782.66 782.58

1190+00 RB

15'

REST AREA RAMP B / CAR PARKING AREA

781.25 781.38 781.50 781.63 781.75 781.88 782.00 782.13 782.25 782.34 782.41 782.43 782.42 782.36 782.28

782.58 782.41

1192+00 RB

782.46 782.30 782.24 782.07

781.87 781.60

15'

REST AREA RAMP B

781.29 780.95 780.56 780.16

782.16 782.00 781.69 781.29 780.82 780.39 780.05 779.66 779.26

1194+

MATCH LINE 1194+00 RB

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

END CONCRETE PAVEMENT JOINT FILLING (TYP.)

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVING DETAILS - REST AREA RAMP B	SHEET 78	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021402-JD.DWG
LAYOUT NAME - B3

PLOT DATE : 1/31/2024 9:41 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

1196+00 RA

REST AREA RAMP A

1198+00 RA

1200+00 RA

ANTICIPATED CONCRETE PAVEMENT JOINTING (TYP.)

1196+00 RB

15'

REST AREA RAMP B

1198+00 RB

00 RB

MATCH LINE 1194+00 RB

| | | |

2

2

N

NURSERY

R/W

SLOPE INTERCEPTS (TYP.)

POST

POST

1160+00 RA

1162+00 RA

REST AREA RAMP A

MATCH LINE 1163+00 RA

IH 90 WB

1158+00 WB

1160+00 WB

1162+00 WB

BEGIN PROJECT
STA 1159+36 RA
MATCH EXISTING
SAW CUT REQ'D

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 80	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 4/2/2024 4:32 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

SIGN

R/W

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

POST

MATCH LINE 1163+00 RA

MATCH LINE 1169+00 RA

1164+00 RA

1166+00 RA

1168+00 RA

REST AREA RAMP A

IH 90 WB

1164+00 WB

1166+00 WB

1168+00 WB

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 81	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 4/2/2024 4:32 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

C-41-25

MP

POST

1170+00 RA

1172+00 RA

1174+00 RA

REST AREA RAMP A

MATCH LINE 1169+00 RA

MATCH LINE 1175+00 RA

IH 90 WB

1170+00 WB

1172+00 WB

1174+00 WB

Ramp

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 82	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 4/2/2024 4:32 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1175+00 RA

MATCH LINE 1181+00 RA

1176+00 RA

1178+00 RA

1180+00 RA

1180+00

1176+00 WB

1178+00 WB

1180+00 WB

IH 90 WB

REST AREA RAMP A

REST AREA RAMP B

MP

POST

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 83	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

SLOPE INTERCEPTS (TYP.)

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

MATCH LINE 1181+00 RA

1182+00 RA

1184+00 RA

1186+00 RA

MATCH LINE 1187+00 RA

REST AREA RAMP A

REST AREA RAMP A / TRUCK PARKING AREA

1182+00

REST AREA RAMP B

1184+00

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 84	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

SLOPE INTERCEPTS (TYP.)

N

1190+00 RA

1188+00 RA

1192+00 RA

1193+00 RA

MATCH LINE 1193+00 RA

REST AREA RAMP A / TRUCK PARKING AREA

MATCH LINE 1187+00 RA

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

1071-07-79/80 PROJECT BOUNDARY

- WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN
- FOR INFORMATION/COORDINATION ONLY.

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 85	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

N

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

LIMITS OF RESTORATION FOR REMOVING EXISTING RAMP PAVEMENT (TYP.)

1196+00 RA

REST AREA RAMP A

1194+00 RA

1198+00 RA

MATCH LINE 1193+00 RA

MATCH LINE 1199+00 RA

1196+00

1194+00

REST AREA RAMP B

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

SLOPE INTERCEPTS (TYP.)

LIMITS OF RESTORATION FOR REMOVING EXISTING PAVEMENT AND BUILDING (TYP.)

SEPV

MH

POS

WELL

SIGN

BLDG

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 86	E

2

2

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

LIMITS OF RESTORATION FOR REMOVING EXISTING RAMP PAVEMENT (TYP.)

N

MATCH LINE 1199+00 RA

1200+00 RA

1202+00 RA

1204+00 RA

MATCH LINE 1205+00 RA

1198+00

REST AREA RAMP A

501+00 MED

LIMITS OF RESTORATION FOR REMOVING EXISTING PAVEMENT AND BUILDING (TYP.)

SLOPE INTERCEPTS (TYP.)

SIGN

BLDG

BLDG

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 87	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

R/W

LIMITS OF RESTORATION FOR REMOVING EXISTING RAMP PAVEMENT (TYP.)

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1205+00 RA

1206+00 RA

REST AREA RAMP A

1208+00 RA

1210+00 RA

MATCH LINE 1211+00 RA

POST

INLET

SIGN

SIGN

POST

GUY

1206+00 WB

1204+00 WB

IH 90 WB

1202+00 WB

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 88	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 09

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

IP

MP

R/W

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

POST

POST

POST

SIGN

POST

POST

MATCH LINE 1211+00 RA

MATCH LINE 1217+00 RA

1212+00 RA

1214+00 RA

1216+00 RA

REST AREA RAMP A

IH 90 WB

1208+00 WB

1210+00 WB

1212+00 WB

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 89	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 10

PLOT DATE : 4/2/2024 4:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

R/W

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1217+00 RA

1218+00 RA

1220+00 RA

1222+00 RA

REST AREA RAMP A

IH 90 WB

1214+00 WB

1216+00 WB

1218+00 WB

END PROJECT
STA 1222+08 RA
MATCH EXISTING
SAW CUT REQ'D

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP A	SHEET 90	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 11

PLOT DATE : 4/2/2024 4:34 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

1182+00 RA

REST AREA RAMP A

1180+00 RA

1180+00 RB

1178+00 RA

REST AREA RAMP B

MATCH LINE 1182+00 RB

IH 90 WB

MP

POST

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP B	SHEET 91	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - B1 DNP

PLOT DATE : 4/2/2024 4:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

1184+00 RA

REST AREA RAMP A

REST AREA RAMP B

REST AREA RAMP B / CAR PARKING AREA

1071-07-79/80 PROJECT BOUNDARY

1184+00 RB

1186+00 RB

1188+

MATCH LINE 1182+00 RB

MATCH LINE 1188+00 RB

SLOPE INTERCEPTS (TYP.)

LIMITS OF RESTORATION FOR REMOVING EXISTING RAMP PAVEMENT (TYP.)

IH 90 WB

N

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP B	SHEET 92	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - B2 DNP

PLOT DATE : 4/2/2024 4:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

REST AREA RAMP A

1194+00 RA

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

1071-07-79/80
PROJECT BOUNDARY

MATCH LINE 1188+00 RB

00 RB

1190+00 RB

1192+00 RB

1194+

REST AREA RAMP B

PIPE AND ENDWALL PLACED WITH PROJECT 1071-07-79 BY OTHERS.
RIPRAP PLACED WITH PROJECT 1071-07-80.

REST AREA RAMP B / CAR PARKING AREA

MATCH LINE 1194+00 RB

SLOPE INTERCEPTS (TYP.)

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP B	SHEET 93	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 3

PLOT DATE : 4/2/2024 4:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

LIMITS OF RESTORATION FOR REMOVING EXISTING RAMP PAVEMENT (TYP.)

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

N

1196+00 RA

REST AREA RAMP A

1198+00 RA

1196+00 RB

REST AREA RAMP B

1198+00 RB

1200+00 RA

00 RB

MATCH LINE 1194+00 RB

LIMITS OF RESTORATION FOR REMOVING EXISTING PAVEMENT AND BUILDING (TYP.)

SLOPE INTERCEPTS (TYP.)

POST MP

WELL

SIGN

FLAG

BARRICADE

SAN

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - REST AREA RAMP B	SHEET 94	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - B4

PLOT DATE : 4/2/2024 4:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE A
- EROSION MAT CLASS I TYPE B
- EROSION MAT CLASS II TYPE C
- RIPRAP
- SILT FENCE HEAVY DUTY
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- EROSION BALES

N

R/W

EROSION BALES AT SILT FENCE RELIEF POINT (TYP.)

SLOPE INTERCEPTS (TYP.)

DRAINAGE POND

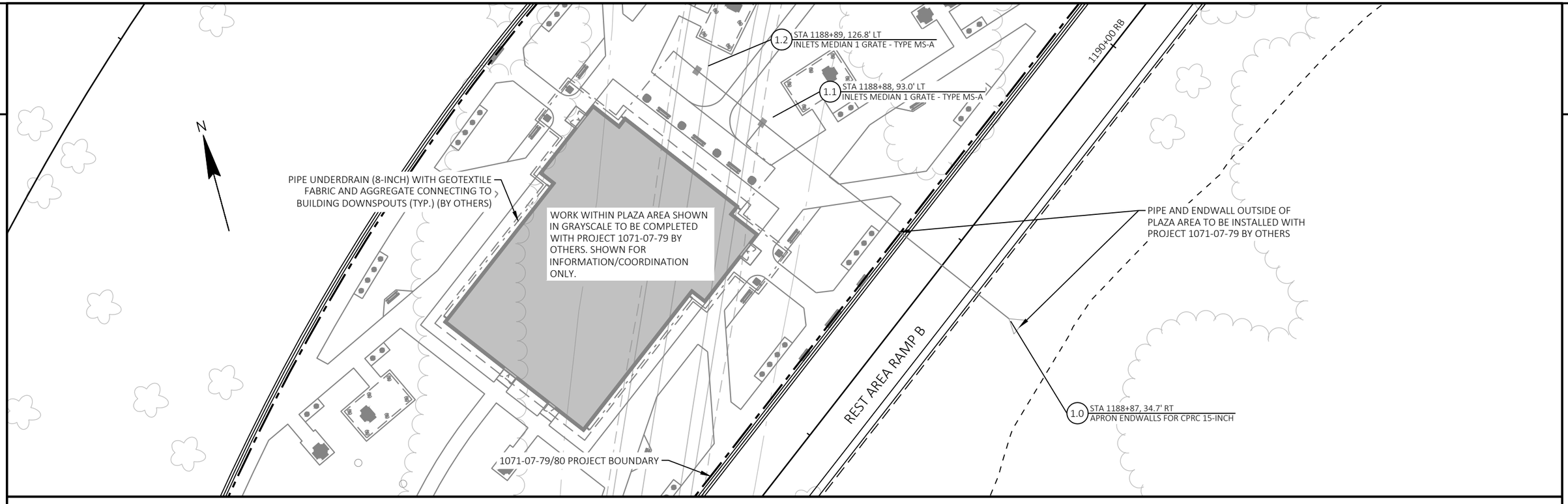
REST AREA RAMP A

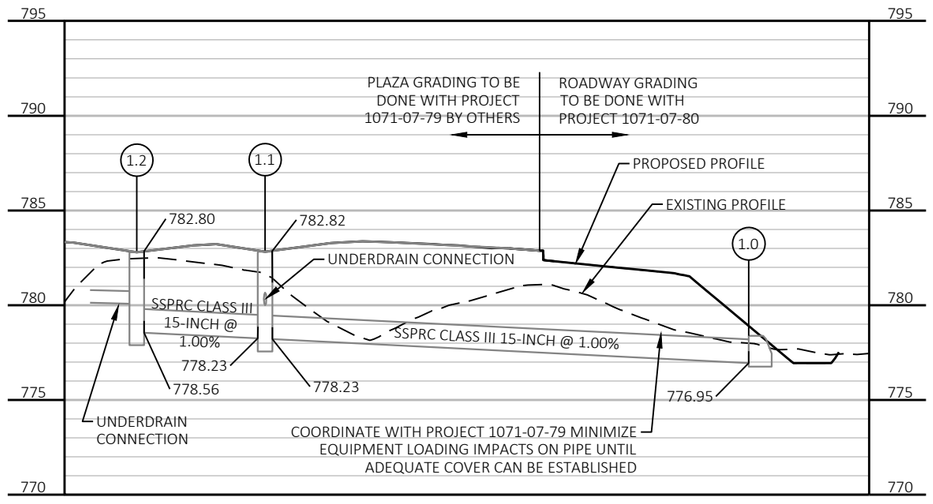
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EROSION CONTROL - DRAINAGE POND	SHEET 95	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\022003-EC.DWG
LAYOUT NAME - P1

PLOT DATE : 4/2/2024 4:37 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	STORM SEWER REST AREA RAMP B	SHEET 96	E

2

1190+00 RA

1185+00 RA

SANITARY LINE AND MANHOLES TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS (TYP.)

S.2 STA 1188+69, 145.0' RT
MANHOLES 4-J

ADJUSTING MANHOLE COVER (WITH PROJECT 1071-07-79 BY OTHERS)

P-2

P-3

P-4

P-5

P-1

PROPOSED REST AREA BUILDING (BY OTHERS)

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

S.3 STA 1192+68, 155.0' RT
MANHOLES 4-J

EX2 STA 1194+41, 100.0' RT
EXISTING MANHOLE 2

S.1 STA 1185+24, 62.0' LT
MANHOLES 4-J

1185+00 RB

1190+00 RB

PROPOSED MAINTENANCE GARAGE (BY OTHERS)

1071-07-79/80
PROJECT BOUNDARY

SANITARY LINE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS (COORDINATION REQ'D)

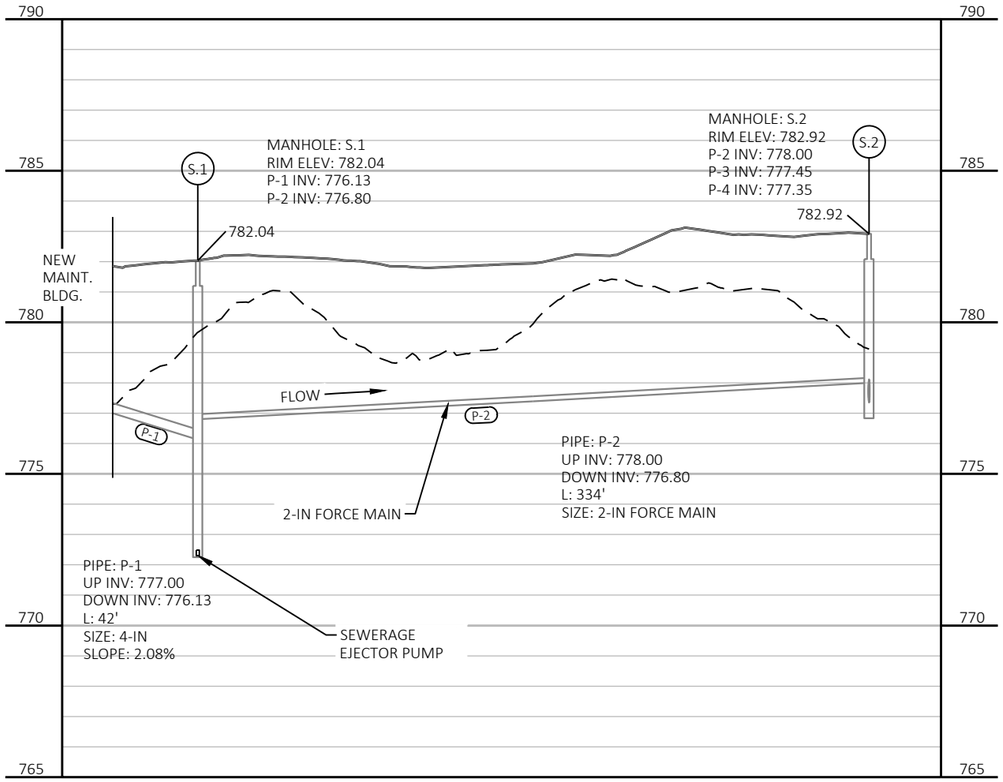
WISDOT REST AREA #16

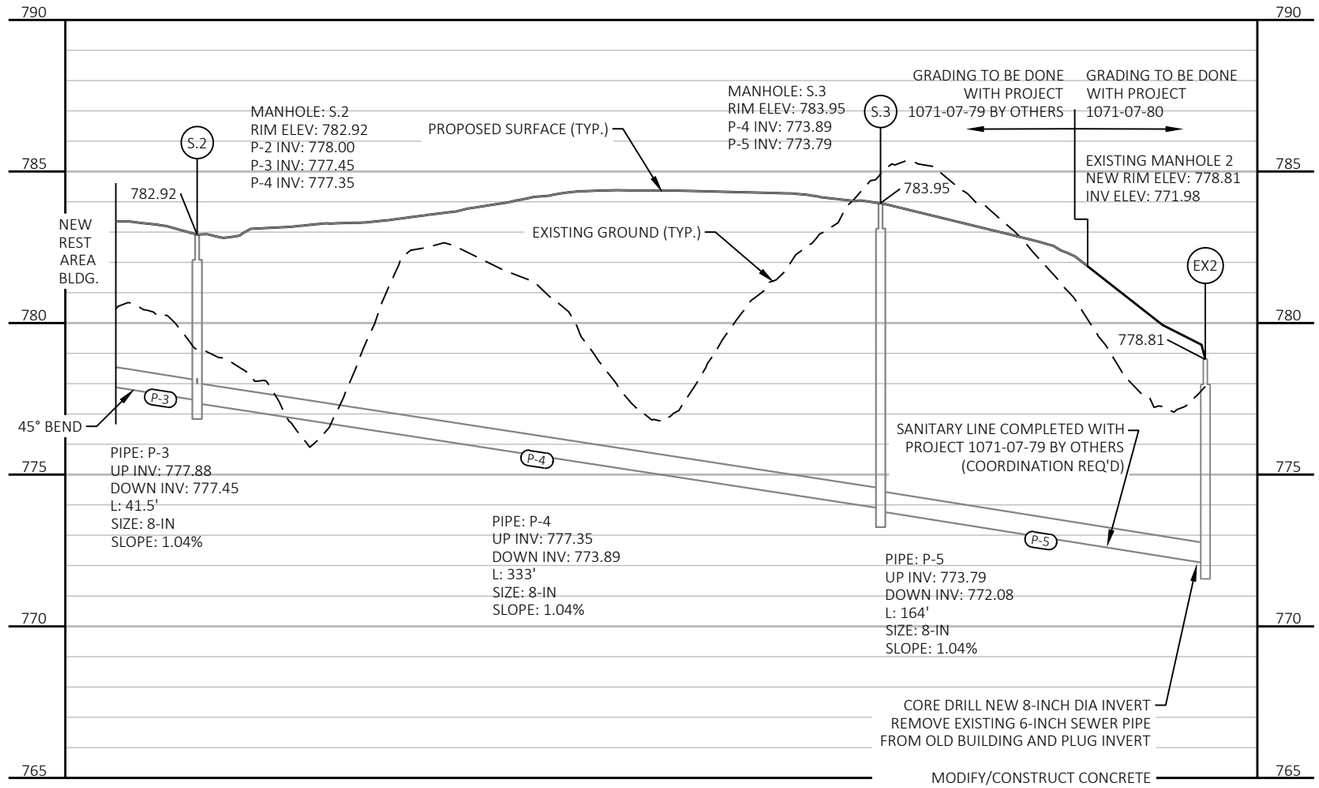
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	UTILITY PLANS - SANITARY	SHEET 97	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - SAN1

PLOT DATE : 1/31/2024 10:30 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1:75

2


790
785
780
775
770
765
S.1
MANHOLE: S.1
RIM ELEV: 782.04
P-1 INV: 776.13
P-2 INV: 776.80
782.04
NEW
MAINT.
BLDG.
MANHOLE: S.2
RIM ELEV: 782.92
P-2 INV: 778.00
P-3 INV: 777.45
P-4 INV: 777.35
S.2
782.92
FLOW
P-1
P-2
PIPE: P-2
UP INV: 778.00
DOWN INV: 776.80
L: 334'
SIZE: 2-IN FORCE MAIN
2-IN FORCE MAIN
PIPE: P-1
UP INV: 777.00
DOWN INV: 776.13
L: 42'
SIZE: 4-IN
SLOPE: 2.08%
SEWERAGE
EJECTOR PUMP


790
785
780
775
770
765
S.2
MANHOLE: S.2
RIM ELEV: 782.92
P-2 INV: 778.00
P-3 INV: 777.45
P-4 INV: 777.35
782.92
NEW
REST
AREA
BLDG.
PROPOSED SURFACE (TYP.)
EXISTING GROUND (TYP.)
MANHOLE: S.3
RIM ELEV: 783.95
P-4 INV: 773.89
P-5 INV: 773.79
S.3
783.95
GRADING TO BE DONE
WITH PROJECT
1071-07-79 BY OTHERS
GRADING TO BE DONE
WITH PROJECT
1071-07-80
EXISTING MANHOLE 2
NEW RIM ELEV: 778.81
INV ELEV: 771.98
EX2
778.81
45° BEND
P-3
P-4
P-5
PIPE: P-3
UP INV: 777.88
DOWN INV: 777.45
L: 41.5'
SIZE: 8-IN
SLOPE: 1.04%
PIPE: P-4
UP INV: 777.35
DOWN INV: 773.89
L: 333'
SIZE: 8-IN
SLOPE: 1.04%
SANITARY LINE COMPLETED WITH
PROJECT 1071-07-79 BY OTHERS
(COORDINATION REQ'D)
PIPE: P-5
UP INV: 773.79
DOWN INV: 772.08
L: 164'
SIZE: 8-IN
SLOPE: 1.04%
CORE DRILL NEW 8-INCH DIA INVERT
REMOVE EXISTING 6-INCH SEWER PIPE
FROM OLD BUILDING AND PLUG INVERT
MODIFY/CONSTRUCT CONCRETE
FLOWLINE TO DIRECT FLOW FROM NEW
CONNECTION TO EXISTING OUTLET

2

LIVING SNOW FENCE NOTES

REPLACING DEAD SEEDLING STOCK

1. MOW OUTSIDE EDGES OF WEED FABRIC TO A HEIGHT NO MORE THAN 6-INCHES.
2. APPLY PRE-EMERGENT TO OUTSIDE EDGES AND EXPOSED SOIL IN FABRIC OPENINGS.
3. REMOVE ANY DEAD OR DISEASED PLANT MATERIAL.
4. TILL SOIL TO A DEPTH OF 12-INCHES.
5. INSTALL SEEDLING STOCK REPLACEMENTS.
6. BEGIN CARE CYCLE MAINTENANCE.

CARE CYCLE MAINTENANCE

1. TO BE PERFORMED EVERY 2 WEEKS MIN AND MAX OF 10 TOTAL CARE CYCLES PER GROWING SEASON.
2. CONTROL WEEDS.
   - 2.1. HAND PULL WEEDS.
   - 2.2. SELECTIVE HERBICIDE TREATMENT WITH CAUTION.
   - 2.3. WEED EATERS WITH HACKERS ARE NOT RECOMMENDED DUE TO POTENTIAL OF DAMAGING SEEDLINGS.
3. WATER AS NEEDED.
4. MOW SEVERAL TIMES THROUGHOUT THE GROWING SEASON TO SUPPRESS WEED GROWTH.
   - 4.1. MOW OUTSIDE EDGES OF PLANTING AREA BY 3 TO 5-FEET.
5. SUBMIT CARE CYCLE REPORTS EVERY CARE EVENT.

ENDANGERED SPECIES

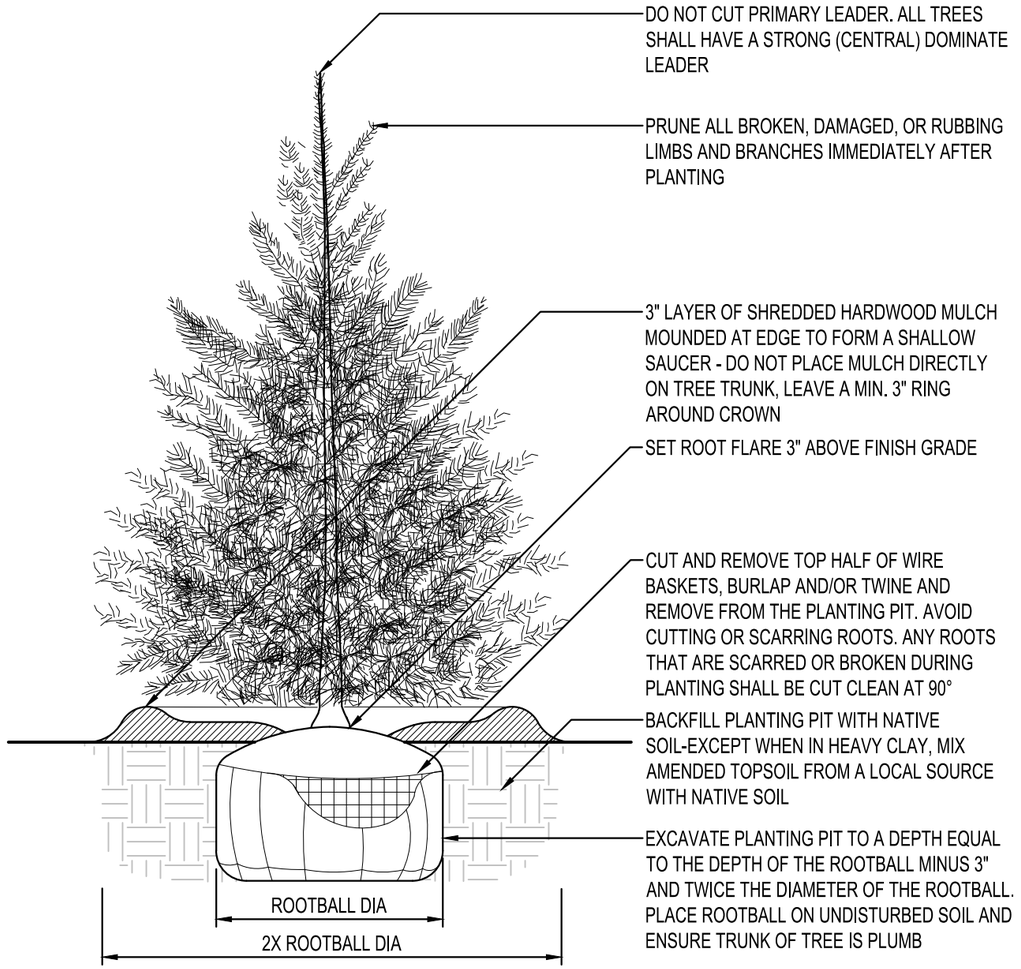
- MOWING MUST BEGIN THE FIRST WEEK OF APRIL, TO A MAX HEIGHT OF 6-INCHES.
- MAINTAIN SITE BY MOWING UP TO PLANT INSTALL DATE TO PREVENT NESTING OF ENDANGERED SPECIES.
- CONTRACTOR SHALL TAKE GREAT CARE TO WATCH FOR, AND REMOVE ANY TURTLES FOUND WITHIN THE LIMITS OF THE PROJECT SITE FOR THE DURATION OF THE PROJECT.

INITIAL PLANTING

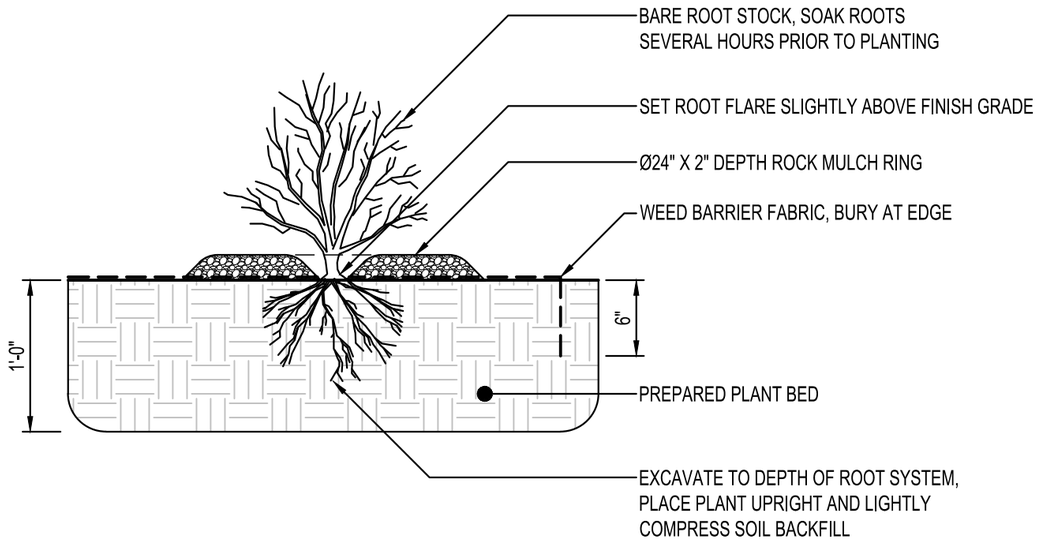
1. IF REQUIRED, CLEAR AND GRUB EXISTING WOODY VEGETATION.
2. APPLY HERBICIDE TO PLANTING SITE TO KILL EXISTING WEEDS.
   - 2.1. APPLY PRIOR TO CULTIVATING SITE BASED ON MANUFACTURER'S APPLICATION INSTRUCTIONS.
   - 2.2. APPLICATOR MUST BE CERTIFIED AND LICENSED.
3. MOW AND MAINTAIN SITE TO A HEIGHT NO MORE THAN 6-INCHES.
4. PREPARE PLANTING BED BY TILING WITHIN 7 DAYS OF SEEDLING STOCK INSTALLATION.
   - 4.1. MINIMUM SOIL DISTURBANCE TO BE 12-INCHES DEPTH AND 12-INCHES WIDTH PER ROW.
5. SOAK SEEDLING STOCK ROOTS FOR 7 TO 12 HOURS PRIOR TO PLANTING.
6. PLANT SEEDLING STOCK.
   - 6.1. PLACE WEED BARRIER FABRIC.
   - 6.2. HAND PLANT SEEDLING STOCK THROUGH THE FABRIC.

7. INSTALL WEED BARRIER FABRIC PER THE FOLLOWING GUIDELINES:
   - 7.1. FABRIC WIDTH SHALL BE THE WIDTH OF THE PLANTING BED.
   - 7.2. PLANTS SHALL BE INSTALLED A MINIMUM 18-INCHES FROM EDGE OF FABRIC.
   - 7.3. WHEN CUTTING HOLES IN THE FABRIC, INDIVIDUAL SLITS SHALL BE LARGE ENOUGH TO PULL PLANT THROUGH AND NO MORE. EXCESS CUTTING MAY LEAD TO WEED COMPETITION.
   - 7.4. STAPLES SHALL BE PLACED ACCORDING TO MANUFACTURER RECOMMENDATIONS.
   - 7.5. CONTRACTOR SHALL SECURE THE OUTSIDE EDGE OF FABRIC BY CREATING A 2-INCH SOIL BERM ON THE OUTSIDE 1-FOOT OF FABRIC OR BURY 6-INCHES OF OUTSIDE EDGE OF FABRIC BELOW FINISH GRADE TO PREVENT LIFTING.
8. APPLY PRE-EMERGENT HERBICIDE AROUND PLANT FABRIC OPENINGS AND OUTSIDE MOWED EDGE.
   - 8.1. APPLICATION MUST OCCUR AFTER THE FIRST RAIN EVENT AND SOIL SURFACE HAS DRIED.
   - 8.2. APPLICATOR MUST BE CERTIFIED AND LICENSED.
9. INSTALL PEA GRAVEL MULCH ON TOP OF FABRIC AROUND EACH PLANT.
   - 9.1. PEA GRAVEL MULCH SHALL BE USED TO PREVENT WEED GROWTH AT CUTS IN FABRIC.
   - 9.2. REMOVE SOIL AND DEBRIS OFF THE TOP OF FABRIC PRIOR TO PLACING PEA GRAVEL MULCH.
   - 9.3. APPLY MULCH AT 2-INCH DEPTH.
   - 9.4. USE 3/8-INCH WASHED CHIPS IN PLACE OF PEA GRAVEL FOR 4:1 SLOPES OR GREATER.

2

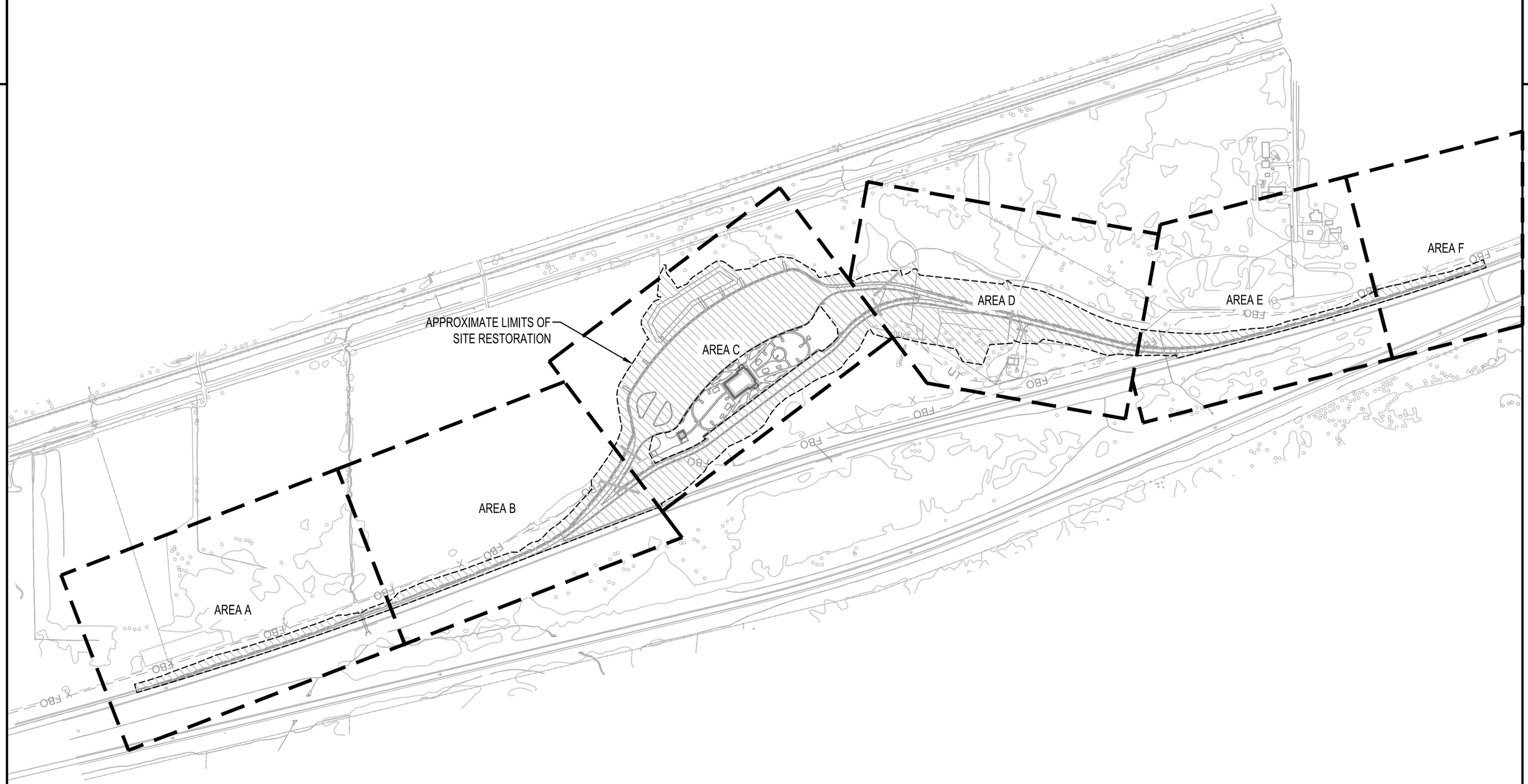


EVERGREEN TREE PLANTING



BARE ROOT SHRUB PLANTING

2



0 200 400
SCALE IN FEET

N

C5-10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	OVERALL SITE RESTORATION PLAN	SHEET 101	E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - OVERALL

PLOT DATE : 1/26/2024 12:59 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 400'

RESTORATION SCHEDULE	
SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130

SLOPE INTERCEPTS (TYP)

I 90

MATCHLINE, SEE SHEET C5-12

SCALE IN FEET 0 40 80

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA A	C5-11 SHEET 102 E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA A

PLOT DATE : 1/26/2024 12:59 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

2

2

RESTORATION SCHEDULE	
SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130

MATCHLINE, SEE SHEET C5-11

MATCHLINE, SEE SHEET C5-13

SLOPE INTERCEPTS (TYP)

FBO

I 90

0 40 80
SCALE IN FEET

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA B	C5-12
				SHEET 103 E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA B

PLOT DATE : 1/26/2024 1:00 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

2

2

RESTORATION SCHEDULE

SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130
	UPDATED SEED MIX NO. 75 SPV.0085.01

DETENTION BASIN

SLOPE INTERCEPTS (TYP)

1071-07-79 PROJECT BOUNDARY

SEED ALL DISTURBED AREAS (TYP)

MATCHLINE, SEE SHEET C5-12

MATCHLINE, SEE SHEET C5-14

0 40 80
SCALE IN FEET

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA C	C5-13
				SHEET 104 E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA C

PLOT DATE : 1/26/2024 1:00 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

2

2

RESTORATION SCHEDULE	
SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130

SEED ALL DISTURBED AREAS (TYP)

SLOPE INTERCEPTS (TYP)

MATCHLINE, SEE SHEET C5-13

PROTECT TREE (TYP)

MATCHLINE, SEE SHEET C5-15

SCALE IN FEET 0 40 80

N

C5-14

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA D	SHEET 105	E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA D

PLOT DATE : 1/26/2024 1:00 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

2

2

RESTORATION SCHEDULE	
SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130

MATCHLINE, SEE SHEET C5-14

SLOPE INTERCEPTS (TYP)

I 90

MATCHLINE, SEE SHEET C5-16

SCALE IN FEET 0 40 80

N

C5-15

SHEET 106 E

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA E

FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA E

PLOT DATE : 1/26/2024 1:00 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

2

2

RESTORATION SCHEDULE

SYMBOL	DESCRIPTION
	SEED MIX NO. 30 WISDOT 630.0130

SLOPE INTERCEPTS (TYP)

FBO

190

190

190

MATCHLINE, SEE SHEET C5-15

0 40 80
SCALE IN FEET

N

C5-16

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	SITE RESTORATION PLAN - AREA F	SHEET 107 E

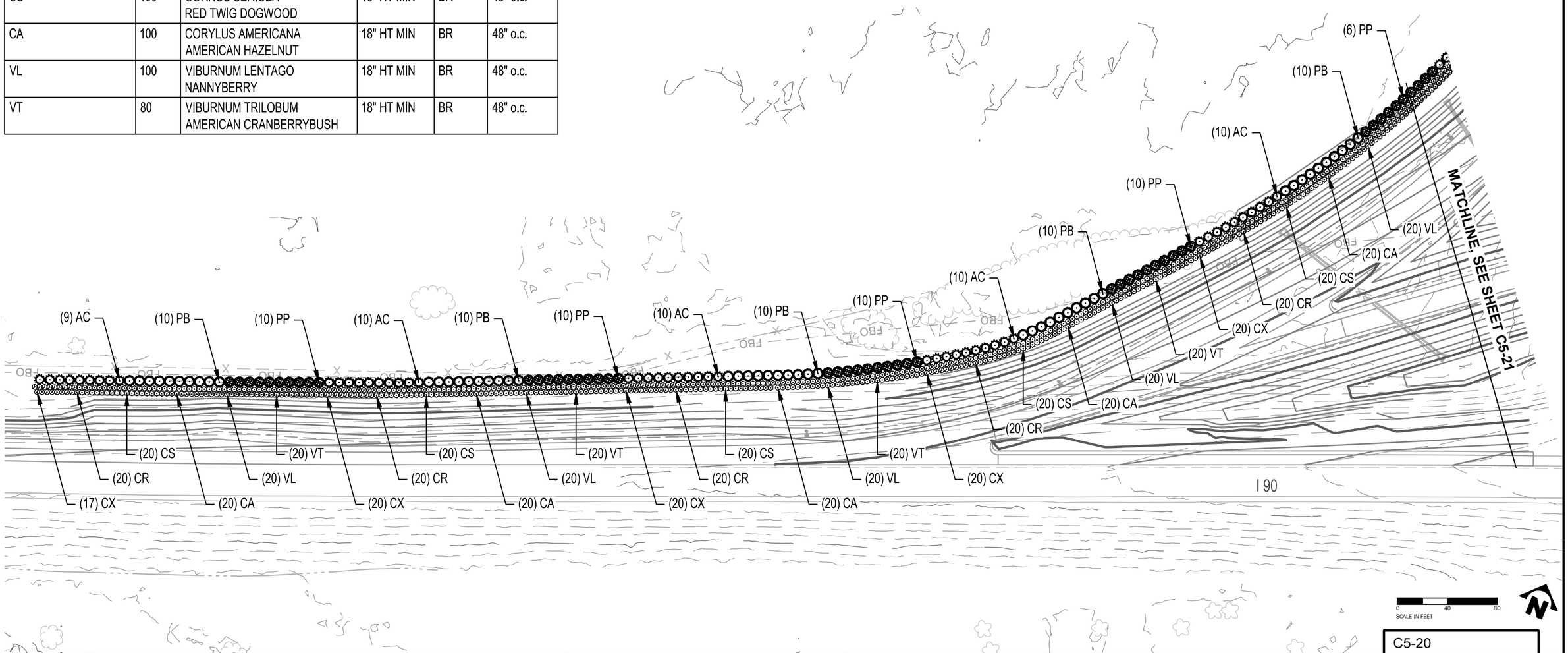
FILE NAME : 27044 C5-LAND (80).DWG
LAYOUT NAME - AREA F

PLOT DATE : 1/26/2024 1:00 PM PLOT BY : PAUL NELSON PLOT NAME : PLOT SCALE : 1" = 80'

WISDOT/CADDS SHEET 42

LIVING SNOW FENCE PLANT SCHEDULE - AREA 1

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING
AC	49	ABIES CONCOLOR WHITE FIR	3` HT MIN	B & B	96" o.c.
PP	46	PICEA PUNGENS COLORADO SPRUCE	3` HT MIN	B & B	96" o.c.
PB	50	PINUS BANKSIANA JACK PINE	3` HT MIN	B & B	96" o.c.
BARE ROOT SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING
CX	97	CORNUS AMOMUM SILKY DOGWOOD	18" HT MIN	BR	48" o.c.
CR	100	CORNUS RACEMOSA GRAY DOGWOOD	18" HT MIN	BR	48" o.c.
CS	100	CORNUS SERICEA RED TWIG DOGWOOD	18" HT MIN	BR	48" o.c.
CA	100	CORYLUS AMERICANA AMERICAN HAZELNUT	18" HT MIN	BR	48" o.c.
VL	100	VIBURNUM LENTAGO NANNYBERRY	18" HT MIN	BR	48" o.c.
VT	80	VIBURNUM TRILOBUM AMERICAN CRANBERRYBUSH	18" HT MIN	BR	48" o.c.

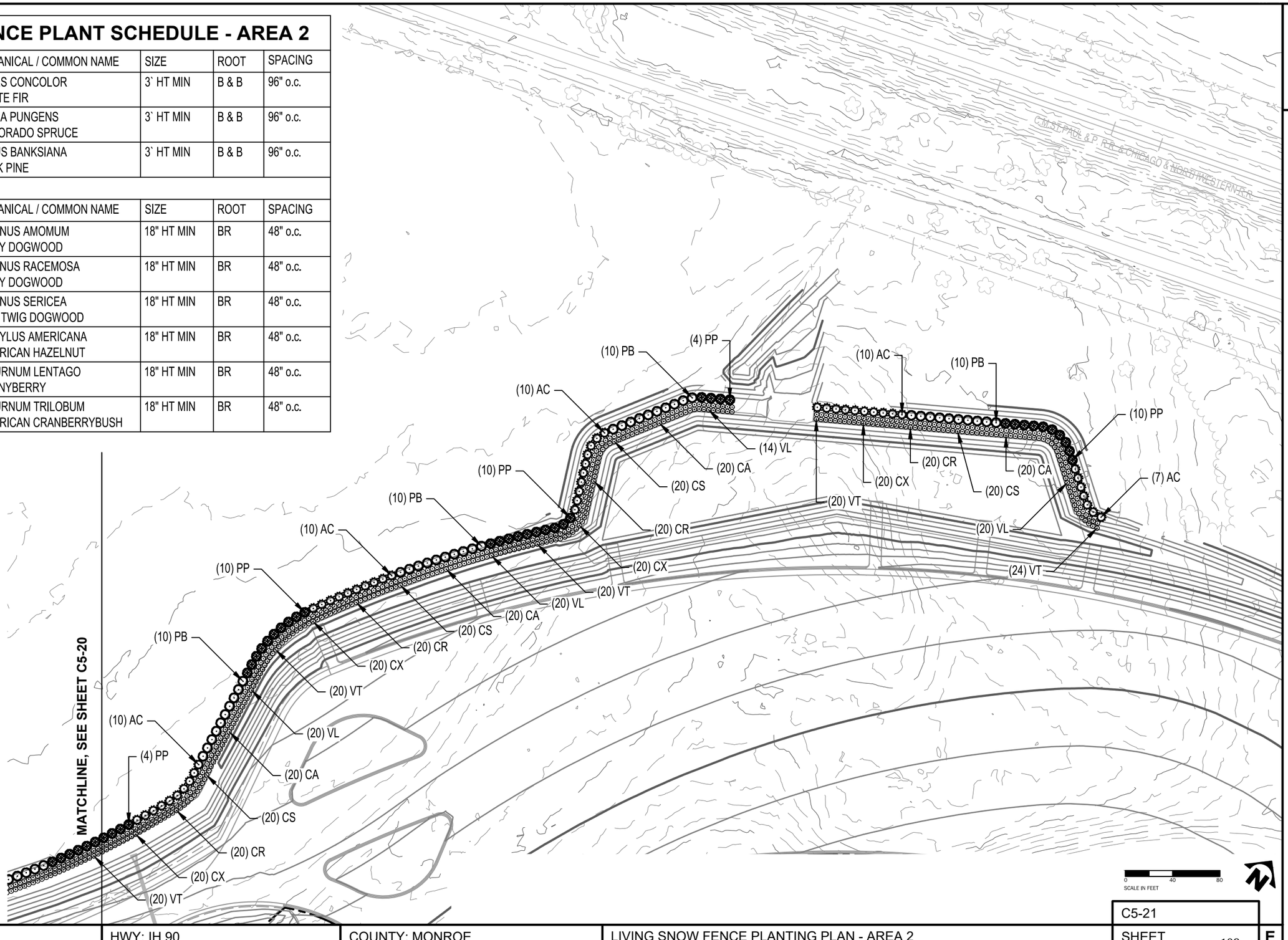


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIVING SNOW FENCE PLANTING PLAN - AREA 1	C5-20
				SHEET 108 E

LIVING SNOW FENCE PLANT SCHEDULE - AREA 2

EVERGREEN TREES	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING
AC	47	ABIES CONCOLOR WHITE FIR	3` HT MIN	B & B	96" o.c.
PP	38	PICEA PUNGENS COLORADO SPRUCE	3` HT MIN	B & B	96" o.c.
PB	40	PINUS BANKSIANA JACK PINE	3` HT MIN	B & B	96" o.c.

BARE ROOT SHRUBS	QTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING
CX	80	CORNUS AMOMUM SILKY DOGWOOD	18" HT MIN	BR	48" o.c.
CR	80	CORNUS RACEMOSA GRAY DOGWOOD	18" HT MIN	BR	48" o.c.
CS	80	CORNUS SERICEA RED TWIG DOGWOOD	18" HT MIN	BR	48" o.c.
CA	80	CORYLUS AMERICANA AMERICAN HAZELNUT	18" HT MIN	BR	48" o.c.
VL	74	VIBURNUM LENTAGO NANNYBERRY	18" HT MIN	BR	48" o.c.
VT	104	VIBURNUM TRILOBUM AMERICAN CRANBERRYBUSH	18" HT MIN	BR	48" o.c.



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIVING SNOW FENCE PLANTING PLAN - AREA 2	C5-21 SHEET 109 E

2

2

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- X-XX PROPOSED SIGN NUMBER
- XM-X SIGN AND SUPPORT(S) TO BE MOVED
- XR-X SIGN AND SUPPORT(S) TO BE REMOVED
- (X) INDICATES SIGN SIZE
- DELINEATOR SINGLE (WHITE)

N

MOVE EXISTING R2-1 SIGN ≈ 650' WEST OF CURRENT LOCATION TO KEEP CORRECT SPACING BETWEEN SIGNS.

SPEED LIMIT 70 R2-1

1M-01

WEST INTERSTATE 90 J4-1

1M-02

NURSERY

SIGN

MP

1160+00 RA

1160+00 WB

1165+00 RA

1165+00 WB

IH 90 WB

REST AREA RAMP A

1170+00 RA

1170+00 WB

MATCH LINE 1173+00 RA

IH 90 EB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PERMANENT SIGNING	SHEET 110	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - RA(PS)

PLOT DATE : 1/31/2024 10:41 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- X-XX — PROPOSED SIGN NUMBER
- XM-X — SIGN AND SUPPORT(S) TO BE MOVED
- XR-X — SIGN AND SUPPORT(S) TO BE REMOVED
- (X) — INDICATES SIGN SIZE
- ⊢ — DELINEATOR SINGLE (WHITE)

MATCH LINE 1173+00 RA

MOVE OVER OR SLOW DOWN FOR STOPPED VEHICLES WITH FLASHING LIGHTS
R5-60
48"X24"
2-01

NO PARKING EXCEPT OSOW VEHICLES
36"X36" (MOD)
(SEE DETAIL)
2-03

DO NOT ENTER
R5-1
36"X36"
2-11

NEXT TRUCK PARKING 6 MILES EXIT 15
D7-60
24"X36"
2-05

NO PARKING EXCEPT OSOW VEHICLES
36"X36" (MOD)
(SEE DETAIL)
2-06

EXIT
D52-54R
24"X24"
2-07

YIELD
R1-2
48"X42"
2-13

DO NOT ENTER
R5-1
36"X36"
2-14

NO PARKING ANY TIME
R7-1R
18"X24"
2-15

DO NOT ENTER
R5-1
36"X36"
2-16
2-17

NO PARKING ANY TIME
R7-1R
18"X24"
2-18

1175+00 RA

1175+00 WB

IH 90 WB

1180+00 RA
1180+00 RB

1180+00 WB

REST AREA RAMP A

1185+00 RA

REST AREA RAMP B

1071-07-79/80
PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

1185+00 RB

1185+00 WB

MATCH LINE 1188+00 RA

2-19
NO PARKING ANY TIME
R7-1L
18"X24"

2-08
EXIT
D52-54L
24"X24"

2-10
ONE WAY
R6-1L
36"X12"

2-04
YIELD
R1-2
48"X42"
2-12

2-02
NO PARKING ON RAMP
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R7-64
48"X30"

2-09
ONE WAY
R6-1L
36"X12"

IH 90 EB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PERMANENT SIGNING	SHEET 111	E

C.M. ST. PAUL & P. R.R. &
CHICAGO & NORTHWESTERN R.R.

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- X-XX PROPOSED SIGN NUMBER
- XM-X SIGN AND SUPPORT(S) TO BE MOVED
- XR-X SIGN AND SUPPORT(S) TO BE REMOVED
- (X) INDICATES SIGN SIZE
- DELINEATOR SINGLE (WHITE)

N

REST AREA RAMP A

REST AREA RAMP B

1190+00 RA

1195+00 RA

1200+00 RA

1190+00 RB

1195+00 RB

1071-07-79/80
PROJECT BOUNDARY

MATCH LINE 1188+00 RA

MATCH LINE 1203+00 RA

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

3-01 NO PARKING ANY TIME R7-1D 18"X24"

3-09 NO PARKING ANY TIME R7-1L 18"X24"

3-10 DO NOT ENTER R5-1 36"X36"

3-11

3-05 W11-2 30"X30"

AHEAD W16-9P 24"X12"

3-14

3-17 WRONG WAY R5-1A 42"X30"

3-18

3R-01

3R-02 NO PARKING ANY TIME

3-06

SPEED LIMIT 25 R2-1 30"X36"

3-19

CARS TRUCKS TRAILERS BUSES RV's R8-74 72"X54"

3-07

3R-04

SPEED LIMIT 25

3R-10

DO NOT ENTER

3R-11

ONE WAY R6-1L 36"X12"

3-13

3-20 DO NOT ENTER R5-1 36"X36"

3R-14 NO PARKING ANY TIME

PET WALKING AREA

3R-08

3-04 NEXT TRUCK PARKING 5 MILES EXIT 15 D7-60 24"X36"

3-15

3-16 WRONG WAY R5-1A 42"X30"

3R-05

3R-06

3R-03

SPEED LIMIT 25

3R-12

3R-07 NO PARKING ANY TIME

3R-09 NO PARKING ANY TIME

3-03 DO NOT ENTER R5-1 36"X36"

3-02

3-21 NO PARKING ANY TIME R7-1R 18"X24"

3M-01

3-12 ONE WAY R6-1L 36"X12"

3R-13

DO NOT ENTER

CARS TRUCKS TRAILERS BUSES RV's R8-74 72"X54"

3-08

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PERMANENT SIGNING	SHEET 112	E

2

LEGEND

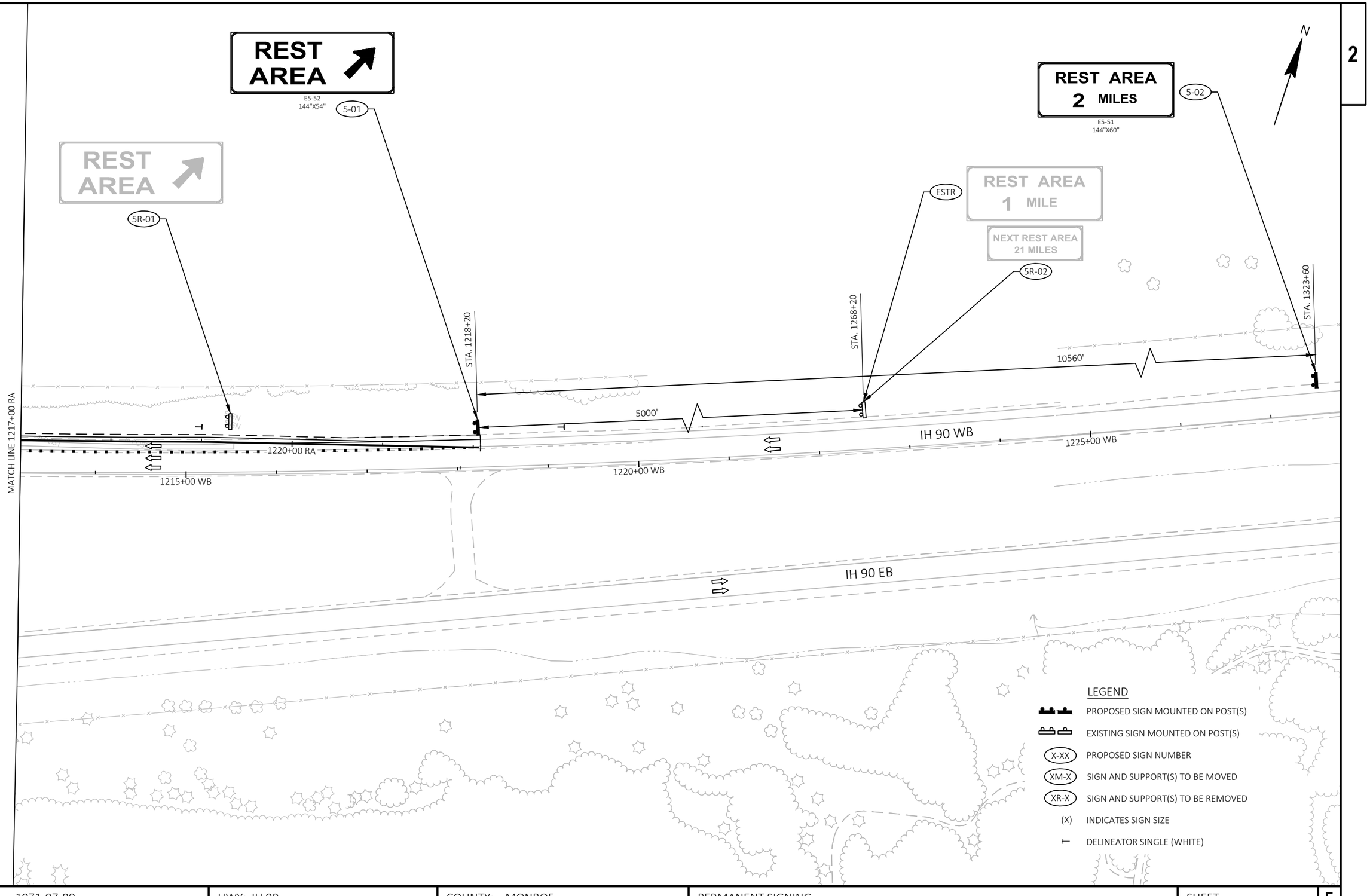
- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- X-XX PROPOSED SIGN NUMBER
- XM-X SIGN AND SUPPORT(S) TO BE MOVED
- XR-X SIGN AND SUPPORT(S) TO BE REMOVED
- (X) INDICATES SIGN SIZE
- DELINEATOR SINGLE (WHITE)

WRONG WAY
4R-01
SPEED LIMIT 25
4R-02
SPEED LIMIT 25
4R-03
NO PARKING ON RAMP
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R7-64
48"X30"
4-01
CARS
TRUCKS
TRAILERS
BUSES RV's
4R-05
SPEED LIMIT 25
W3-5
36"X36"
4-02
NO OVERNIGHT CAMPING
4R-07
SPEED LIMIT 25
4R-09
RAMP 30 MPH
4R-10
MATCH LINE 1203+00 RA
MATCH LINE 1217+00 RA
1215+00 RA
1205+00 RA
REST AREA RAMP A
1210+00 RA
1210+00 WB
4R-06
4R-04
WRONG WAY
NO PARKING ANY TIME
GUY
IH 90 WB
1205+00 WB
IH 90 EB
4R-08
REST AREA
1200+00 WB
REST AREA
E5-54
72"X72"
4-03
IP
MP
POST

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PERMANENT SIGNING	SHEET 113	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - RA3(PS)
PLOT DATE : 1/31/2024 10:42 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PERMANENT SIGNING	SHEET 114	E

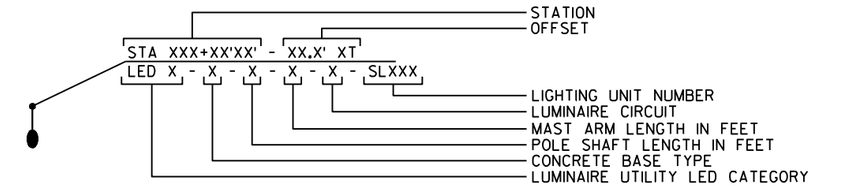
GENERAL STREET LIGHTING NOTES:

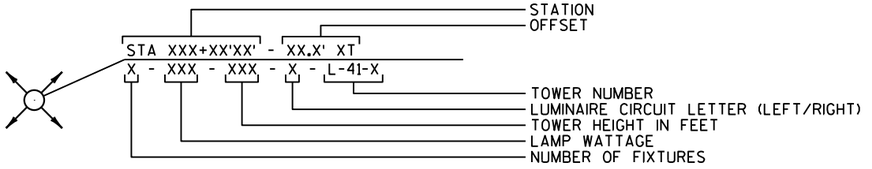
1) THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.

2) 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.

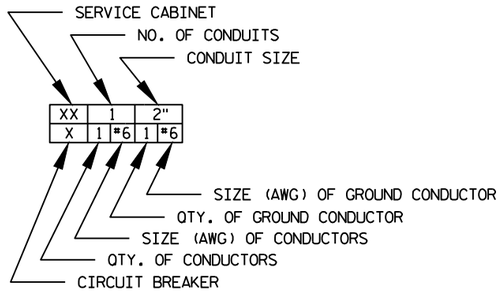
3) NO SPLICES ALLOWED IN PULLBOXES.

4) PHOTOCONTROL ON LIGHTING CABINET.





CONDUIT/CONDUCTOR LEGEND



PWO = PULL/TRACER WIRE ONLY

NEU = NEUTRAL

CONTROL CABINET LEGEND CB100

LIGHTING CONDUCTORS
D - RED E - BLACK F - RED G - BLACK H - RED I - BLACK J - RED
240V PHASE TO PHASE

LEGEND:

	SINGLE ARM LIGHTING UNIT
	EXISTING CONCRETE BASE
	HIGH-MAST LIGHT TOWER, ARROWS INDICATE NUMBER OF FIXTURES AND ORIENTATION
	EXISTING LIGHTING UNIT WALKWAY
	EXISTING CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE
	EXISTING PULL BOX NON-CONDUCTIVE (24"X42")
	PULL BOX NON-CONDUCTIVE (24"X42")
	LIGHTING CONDUIT (2" SCHEDULE 40 PVC UNLESS NOTED)
	EXISTING LIGHTING CONDUIT (2" SCHEDULE 40 PVC UNLESS NOTED)
	GEOTHERMAL FIELD BORE LOCATION

SHEET 1 OF 10

GENERAL NOTES (APPLIES TO THIS CONSTRUCTION DETAIL)

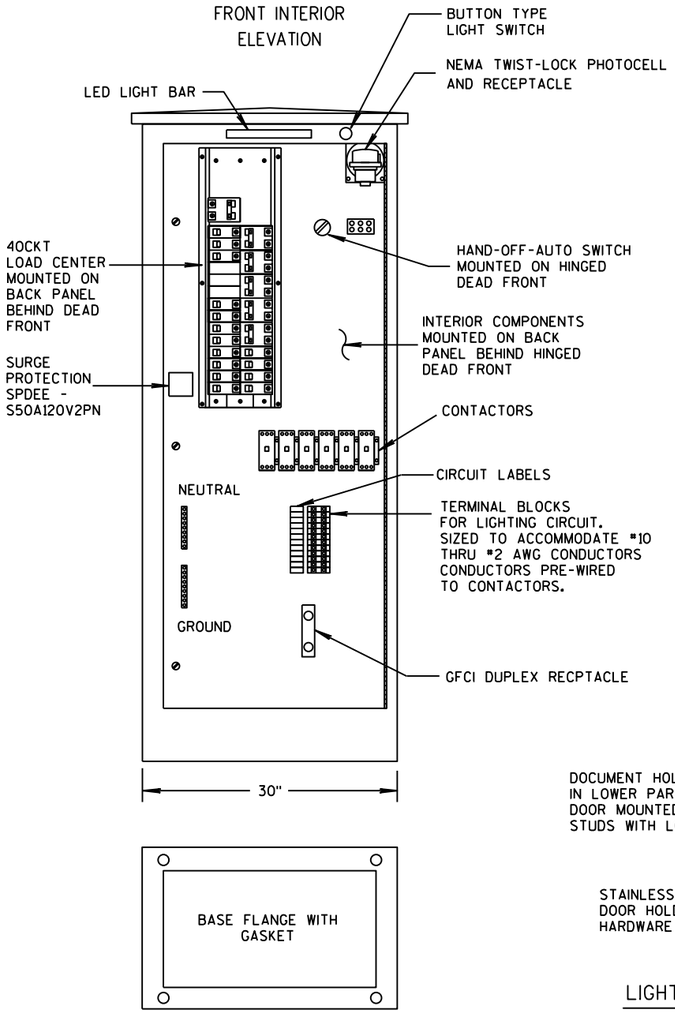
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

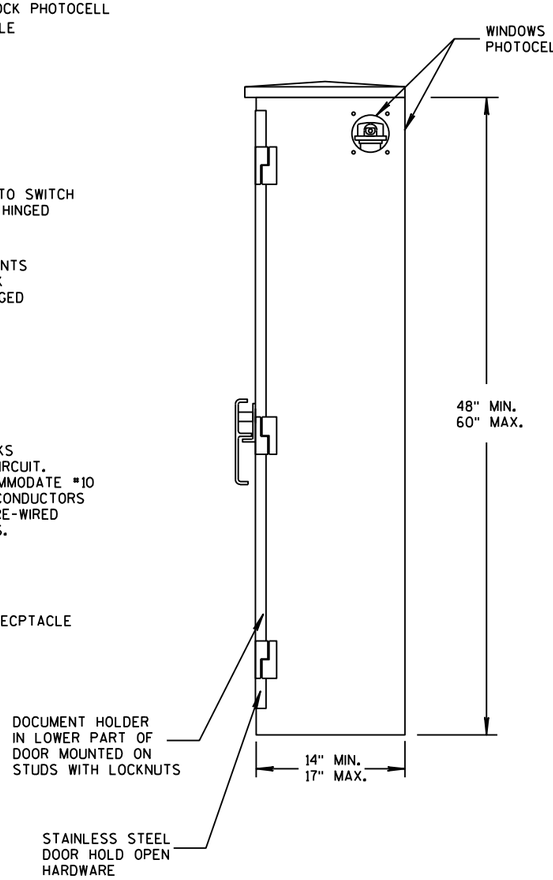
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

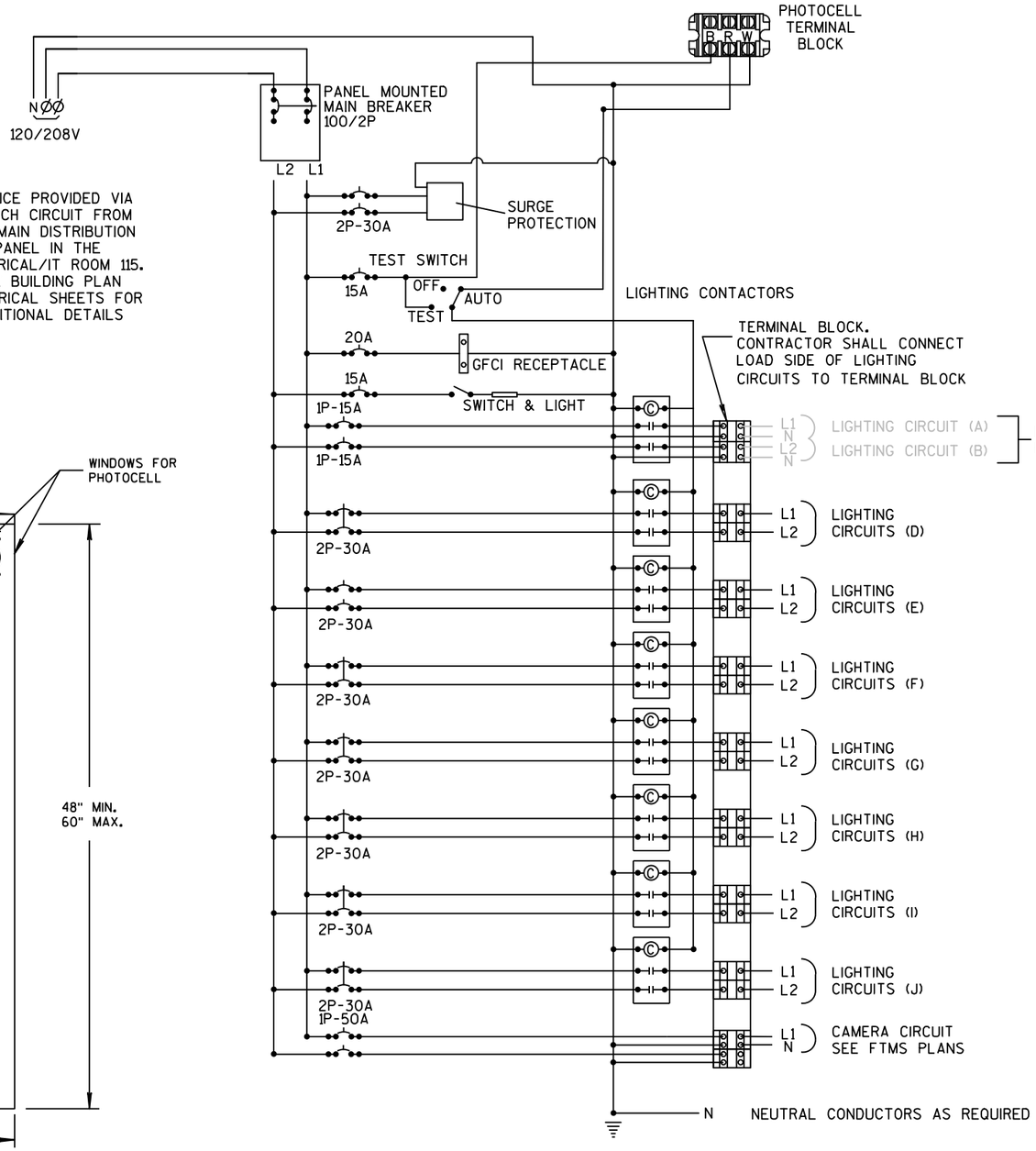
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.







*CIRCUIT C IS NOT USED

LIGHTING CONTROL CABINET - SCHEMATICS

CB100 659.2130

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - CONTROL CABINET SCHEMATICS	SHEET 116	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\021002-CD_CONTROL CABINET SCHEMATICS.DWG
LAYOUT NAME - CONTROL CABINET - 80
PLOT DATE : 1/31/2024 9:48 AM PLOT BY : ANDREW LOBDELL PLOT NAME : PLOT SCALE : XXXXXX
WISDOT/CADDS SHEET 42

2

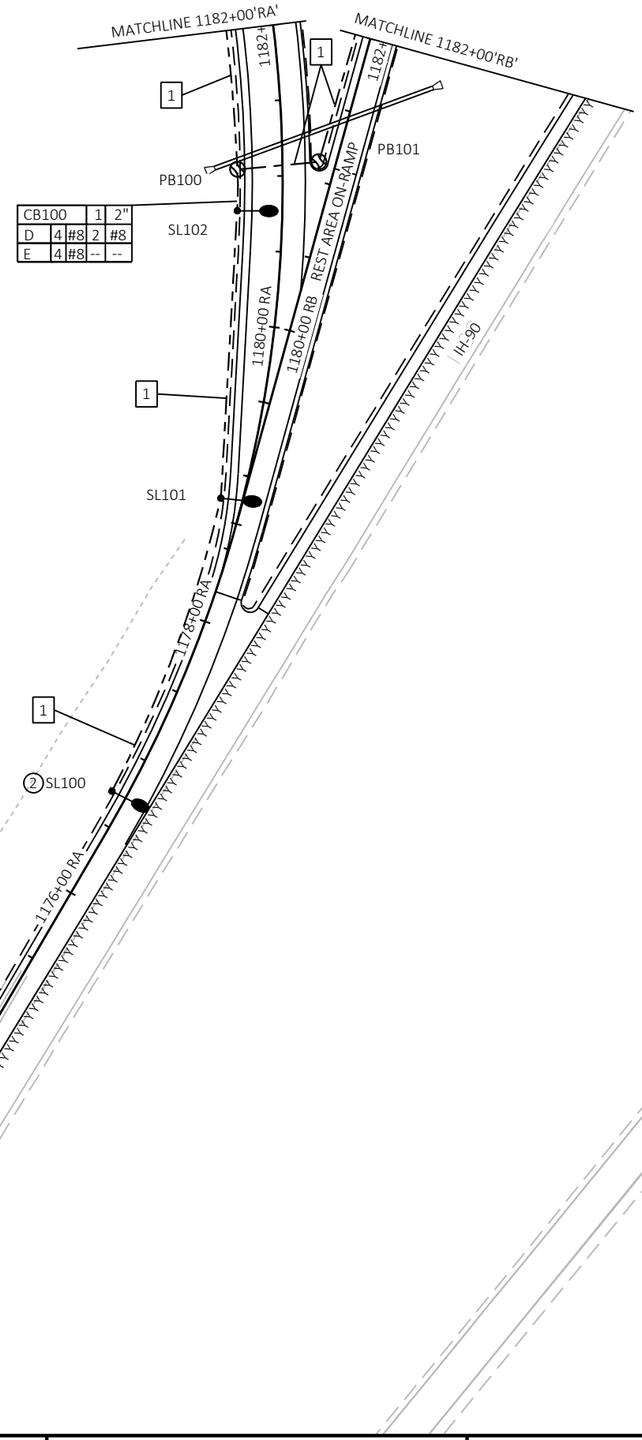
SHEET 3 OF 10

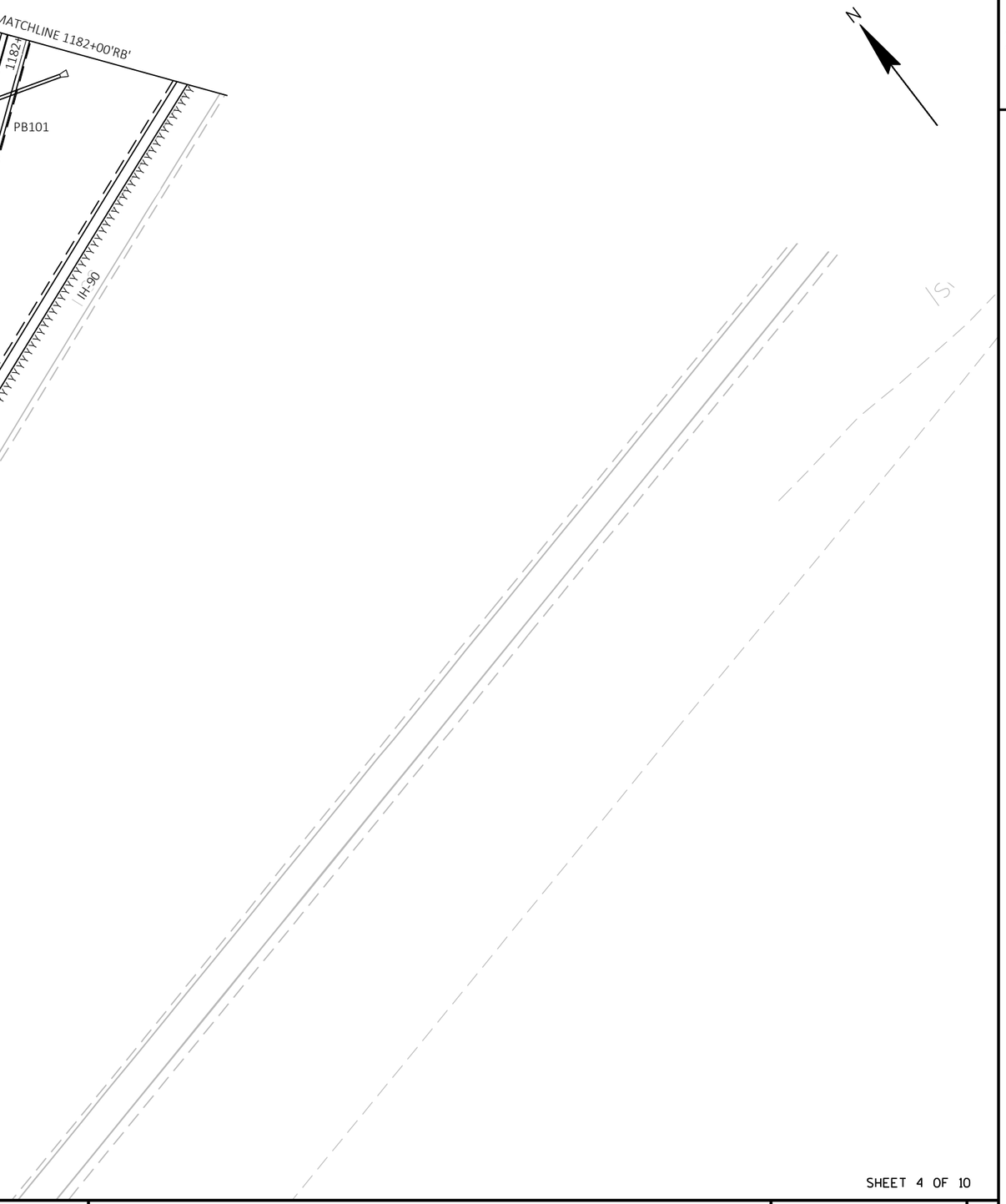
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS	SHEET 117	E

1 =	CB100		1	2"
	D	2	#8	1	#8
	E	2	#8	--	--

KEYED NOTES:

② CAP UNUSED CONDUCTORS IN STREET LIGHT HANDHOLE





SHEET 4 OF 10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - WIRING SHEETS	SHEET 118	E

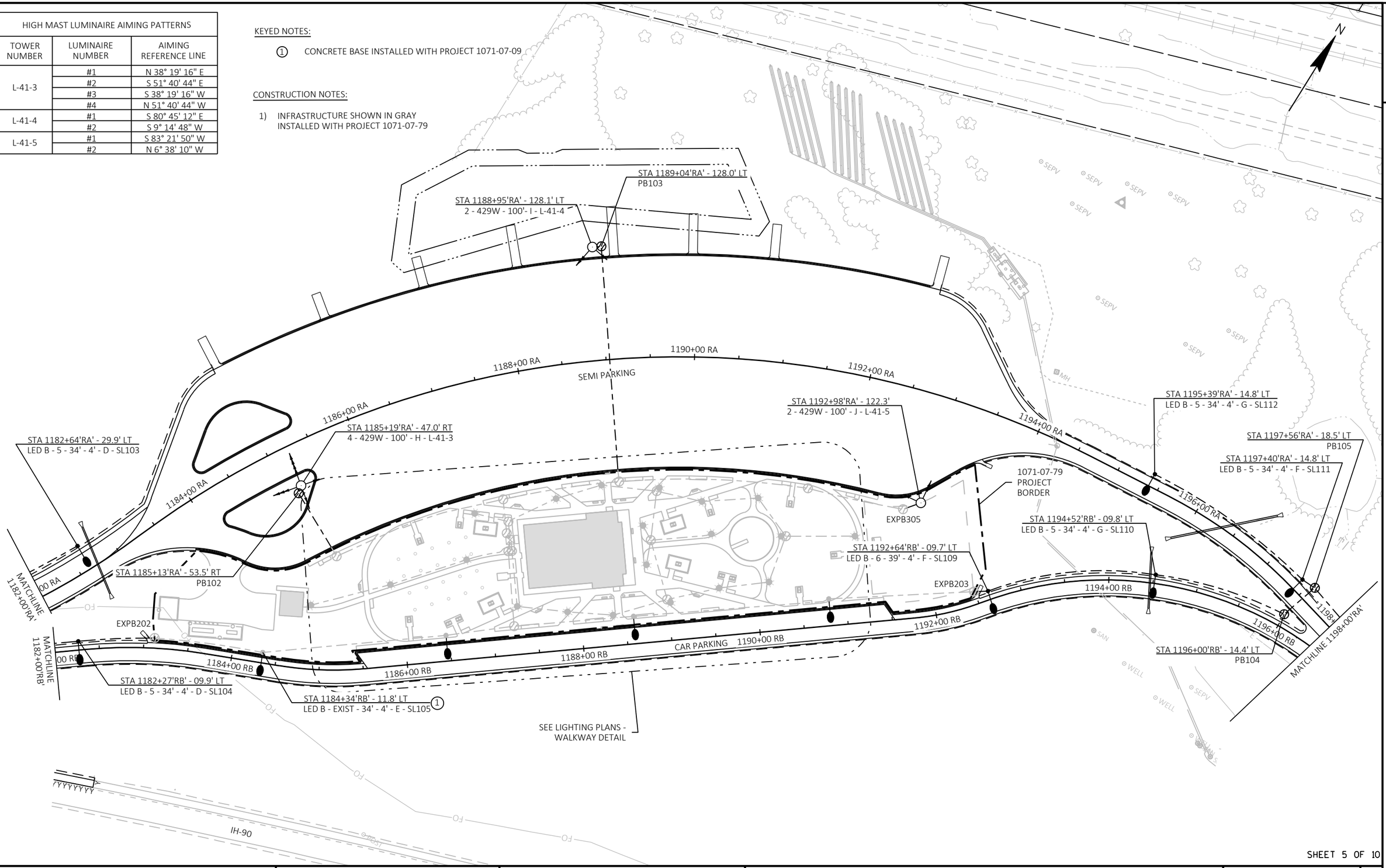
HIGH MAST LUMINAIRE AIMING PATTERNS		
TOWER NUMBER	LUMINAIRE NUMBER	AIMING REFERENCE LINE
L-41-3	#1	N 38° 19' 16" E
	#2	S 51° 40' 44" E
	#3	S 38° 19' 16" W
	#4	N 51° 40' 44" W
L-41-4	#1	S 80° 45' 12" E
	#2	S 9° 14' 48" W
L-41-5	#1	S 83° 21' 50" W
	#2	N 6° 38' 10" W

KEYED NOTES:

① CONCRETE BASE INSTALLED WITH PROJECT 1071-07-09

CONSTRUCTION NOTES:

1) INFRASTRUCTURE SHOWN IN GRAY INSTALLED WITH PROJECT 1071-07-79



SHEET 5 OF 10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS	SHEET 119	E

1 =	CB100		1	2"
	D	2 #8	1	#8
	E	2 #8	--	--

2 =	CB100		1	2"
	F	2 #8	1	#8
	G	2 #8	--	--

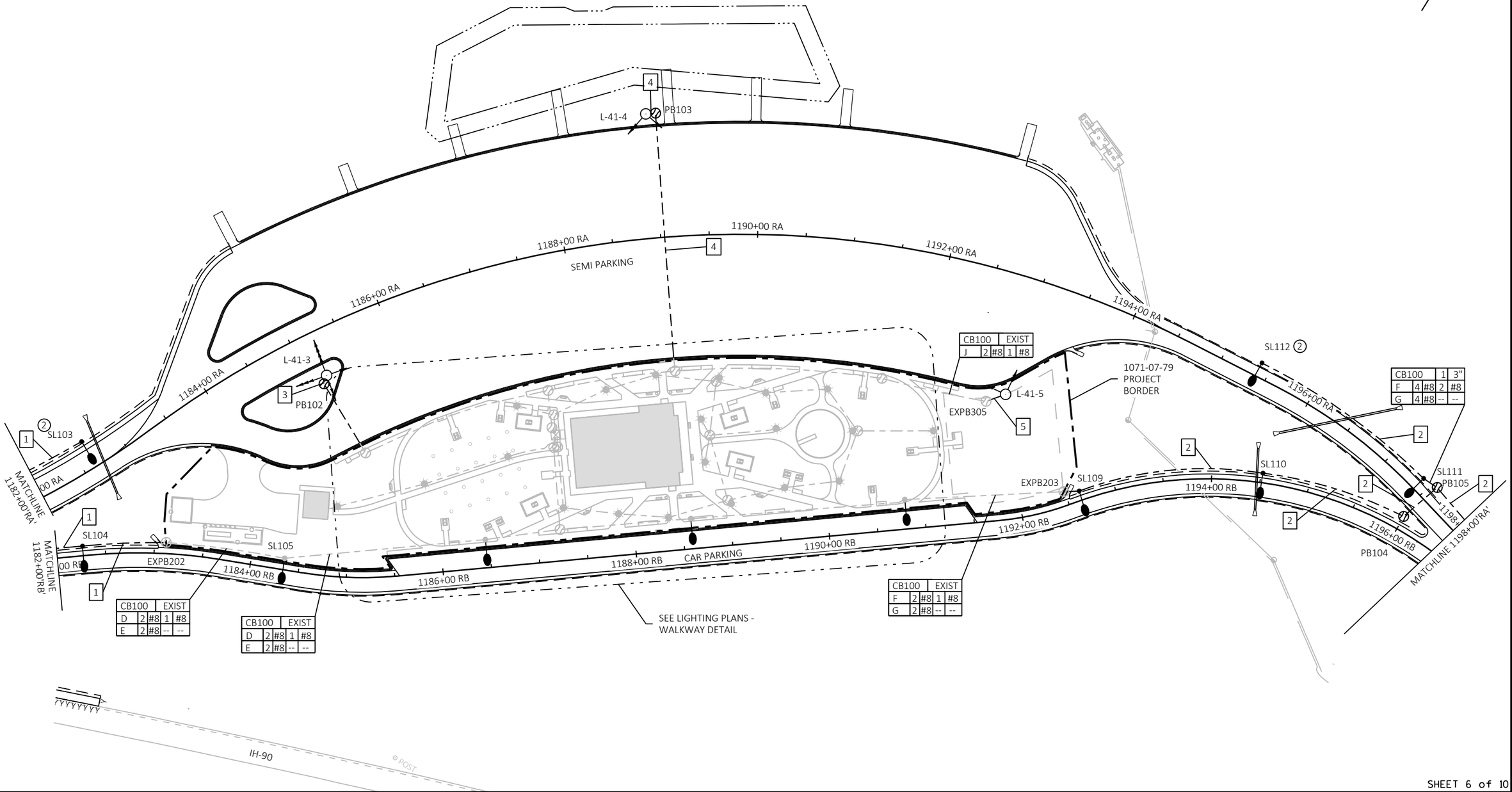
3 =	CB100		1	2"
	H	2 #8	1	#8

4 =	CB100		1	2"
	I	2 #8	1	#8

5 =	CB100		1	2"
	J	2 #8	1	#8

KEYED NOTES:

(2) CAP UNUSED CONDUCTORS IN STREET LIGHT HAND HOLE



SHEET 6 of 10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - WIRING SHEETS	SHEET 120 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023601-LP (80).DWG
LAYOUT NAME - 01 - A - 80

PLOT DATE : 2/2/2024 9:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

STA 1211+55'RA' - 09.8' LT
LED B - 5 - 34' - 4' - G - SL119

STA 1208+99'RA' - 09.8' LT
LED B - 5 - 34' - 4' - F - SL118

STA 1206+85'RA' - 09.8' LT
LED B - 5 - 34' - 4' - G - SL117

STA 1204+88'RA' - 09.8' LT
LED B - 5 - 34' - 4' - F - SL116

STA 1202+92'RA' - 09.8' LT
LED B - 5 - 34' - 4' - G - SL115

STA 1199+15'RA' - 09.8' LT
LED B - 5 - 34' - 4' - G - SL113

STA 1200+98'RA' - 09.8' LT
LED B - 5 - 34' - 4' - F - SL114

1212+00 RA

1210+00 RA

1208+00 RA

1206+00 RA

1204+00 RA

1202+00 RA

1200+00 RA

1198+00 RB

00 RA

REST AREA OFF-RAMP

IH-90

MATCHLINE 1198+00'RA'

N

GUY

WVS

SEPV

SHEET 7 of 10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS	SHEET 121	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023601-LP (80).DWG
LAYOUT NAME - TAIL_2 - 80

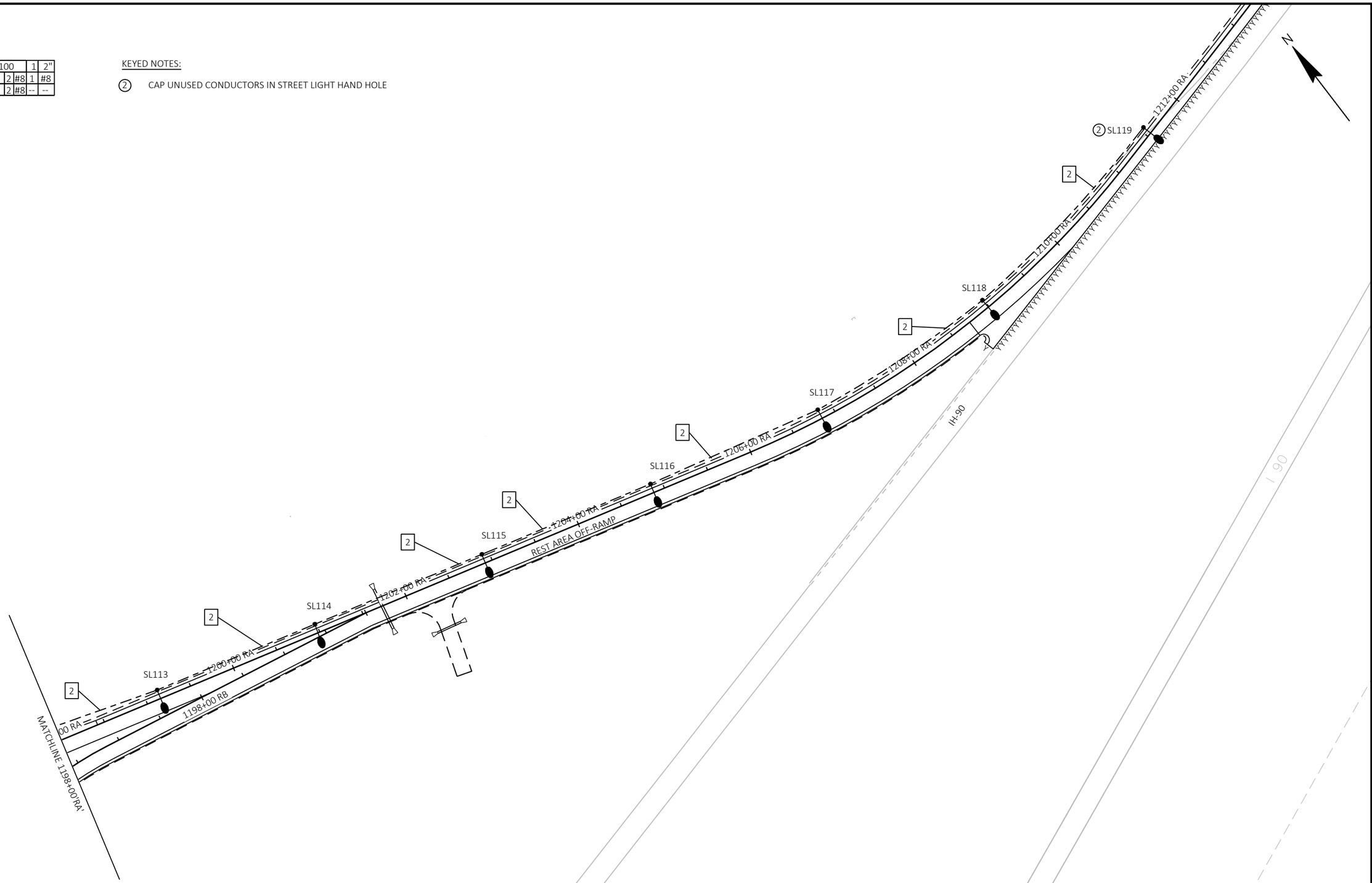
PLOT DATE : 2/2/2024 9:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2 =

CB100			1	2"
F	2	#8	1	#8
G	2	#8	--	--

KEYED NOTES:

(2) CAP UNUSED CONDUCTORS IN STREET LIGHT HAND HOLE



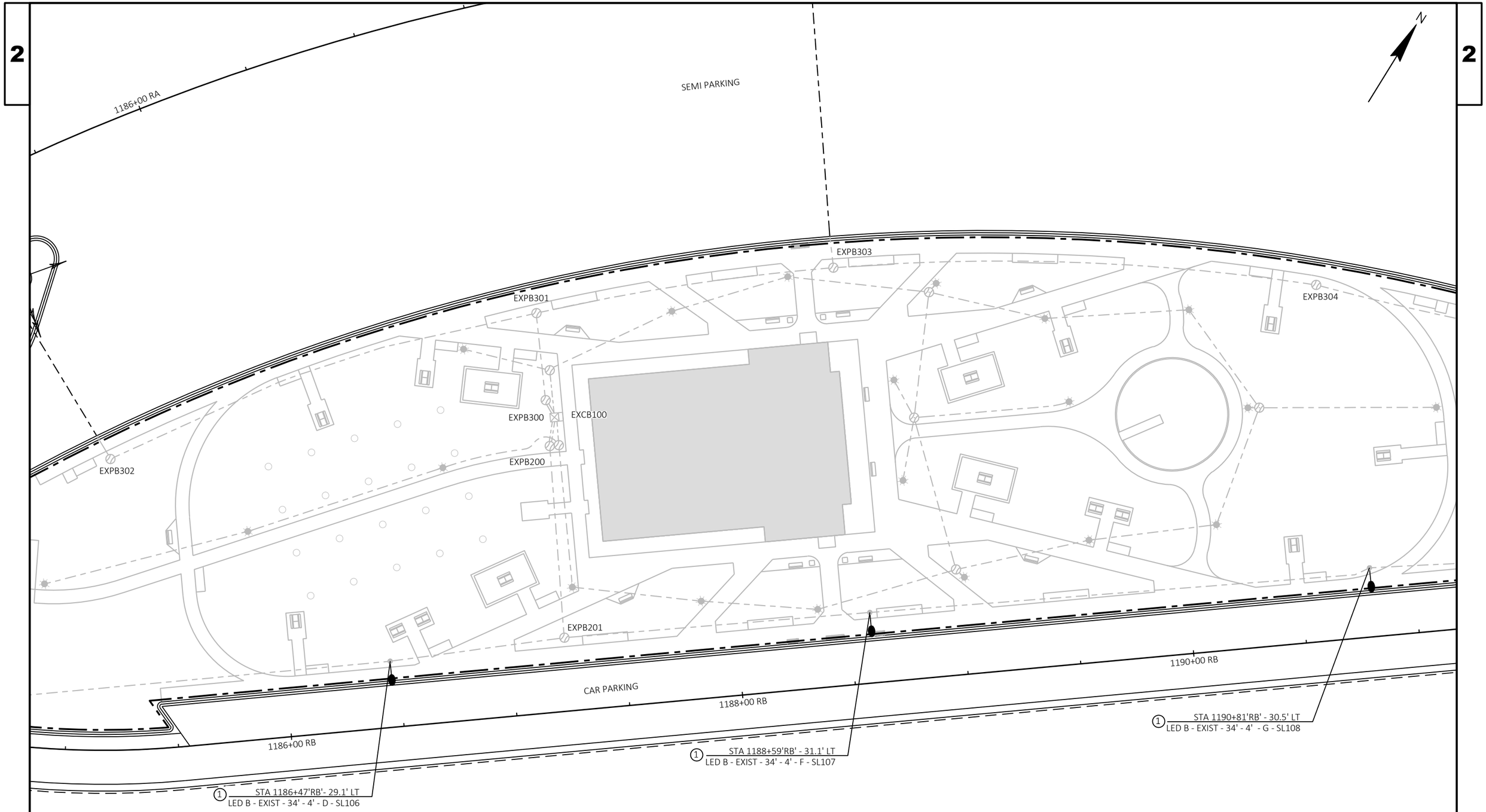
SHEET 8 of 10

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - WIRING SHEETS	SHEET 122 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023601-LP (80).DWG
LAYOUT NAME - TAIL_2 - A - 80

PLOT DATE : 2/2/2024 9:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



CONSTRUCTION NOTES:

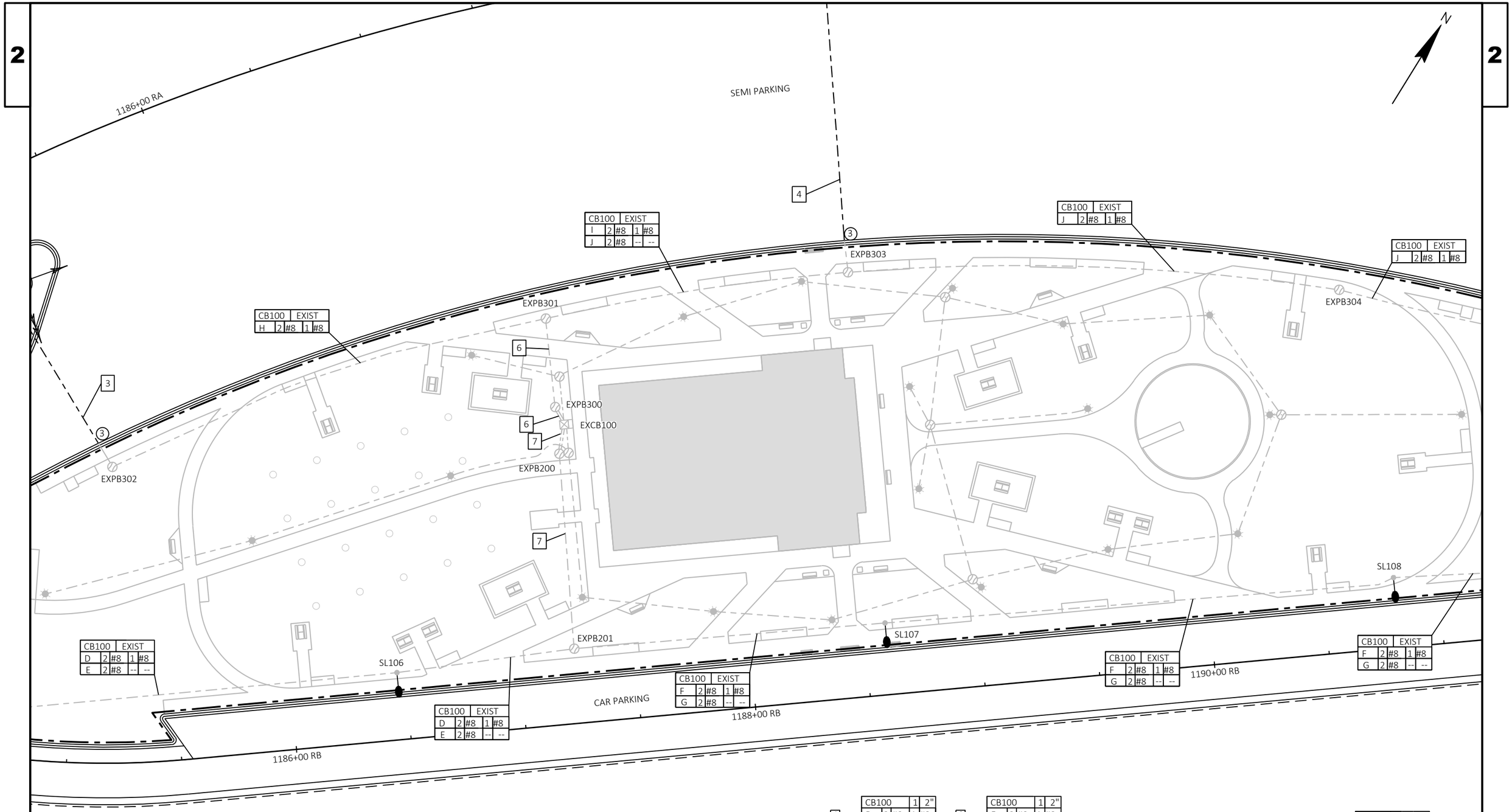
1) ELECTRICAL INFRASTRUCTURE SHOWN IN GRAY INSTALLED WITH PROJECT 1071-07-79

KEYED NOTES:

(1) CONCRETE BASE INSTALLED WITH PROJECT 1071-07-79

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - WALKWAY DETAIL	SHEET 123	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023601-LP (80).DWG
LAYOUT NAME - WALKWAY - 80
PLOT DATE : 2/2/2024 9:32 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



KEYED NOTES:

(3) CONNECT TO EXISTING CONDUIT WITH U.L. LISTED COUPLING

1 =

CB100		1	2"
D	2	#8	1 #8
E	2	#8	-- --

2 =

CB100		1	2"
F	2	#8	1 #8
G	2	#8	-- --

3 =

CB100		1	2"
H	2	#8	1 #8

4 =

CB100		1	2"
I	2	#8	1 #8

5 =

CB100		1	2"
J	2	#8	1 #8

6 =

CB100	EXIST		
H	2	#8	1 #8
I	2	#8	1 #8
J	2	#8	1 #8

7 =

CB100	EXIST		
D	2	#8	1 #8
E	2	#8	-- --
F	2	#8	1 #8
G	2	#8	-- --

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	LIGHTING PLANS - WALKWAY DETAIL - WIRING SHEETS	SHEET 124	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\023601-LP (80).DWG
LAYOUT NAME - WALKWAY - A - 80
PLOT DATE : 2/2/2024 9:33 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

LEGEND

FTMS CONVENTIONAL SYMBOLS	CONSTRUCTED IN 1071-07-80	BY OTHERS
POLE MOUNTED CABINET		
24" X 42" CSCP PULL BOX		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
CCTV BASE, POLE, AND CAMERA		
MICROWAVE VEHICLE DETECTOR		
TYPE 5 CONCRETE BASE AND POLE		
HYBRID DYNAMIC MESSAGE SIGN		

FTMS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION SITE
PB	PULL BOX
DP	DETECTOR POLE
S-F	STATE-FURNISHED

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

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

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

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

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

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

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

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

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

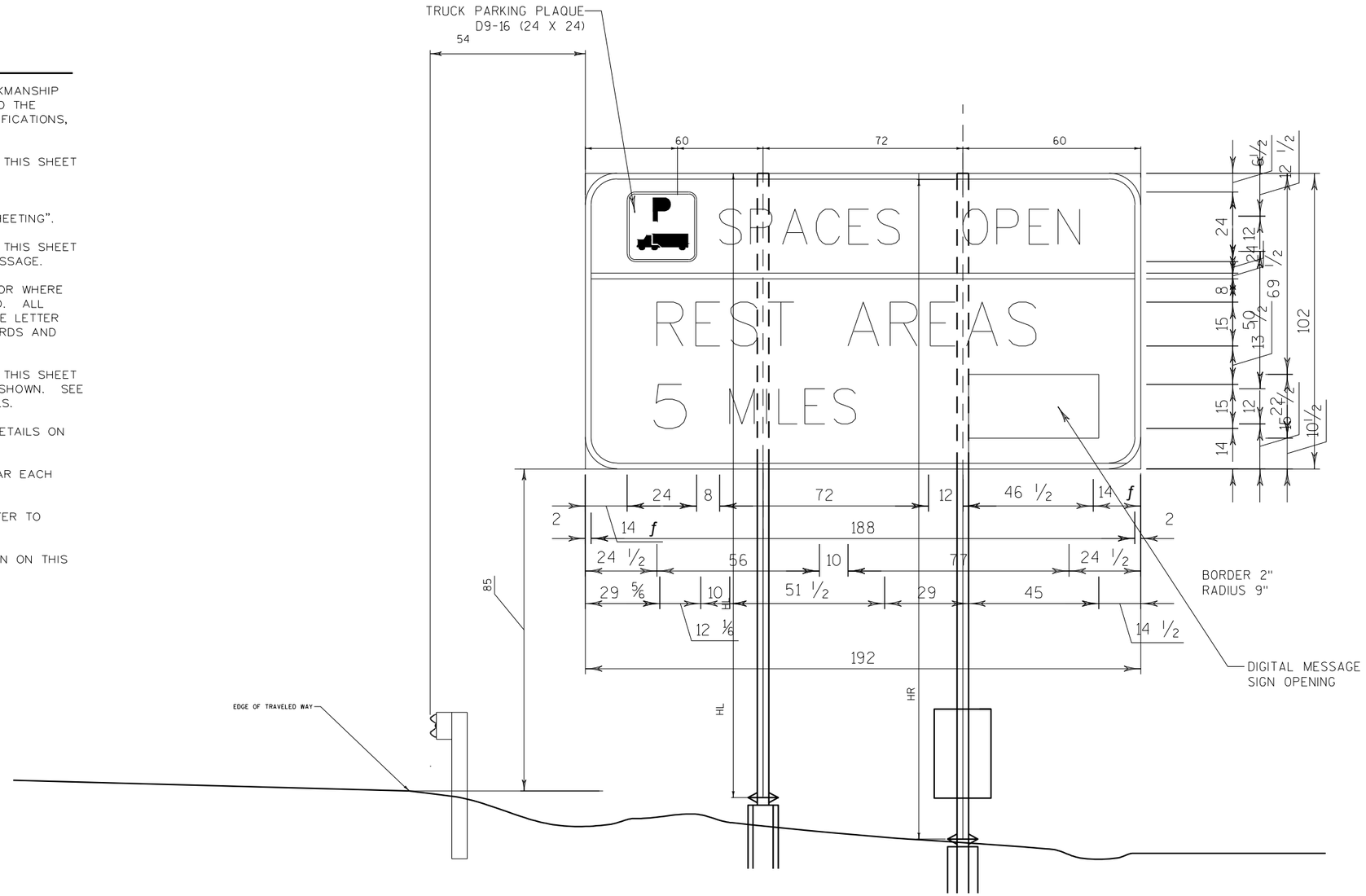
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.

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

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

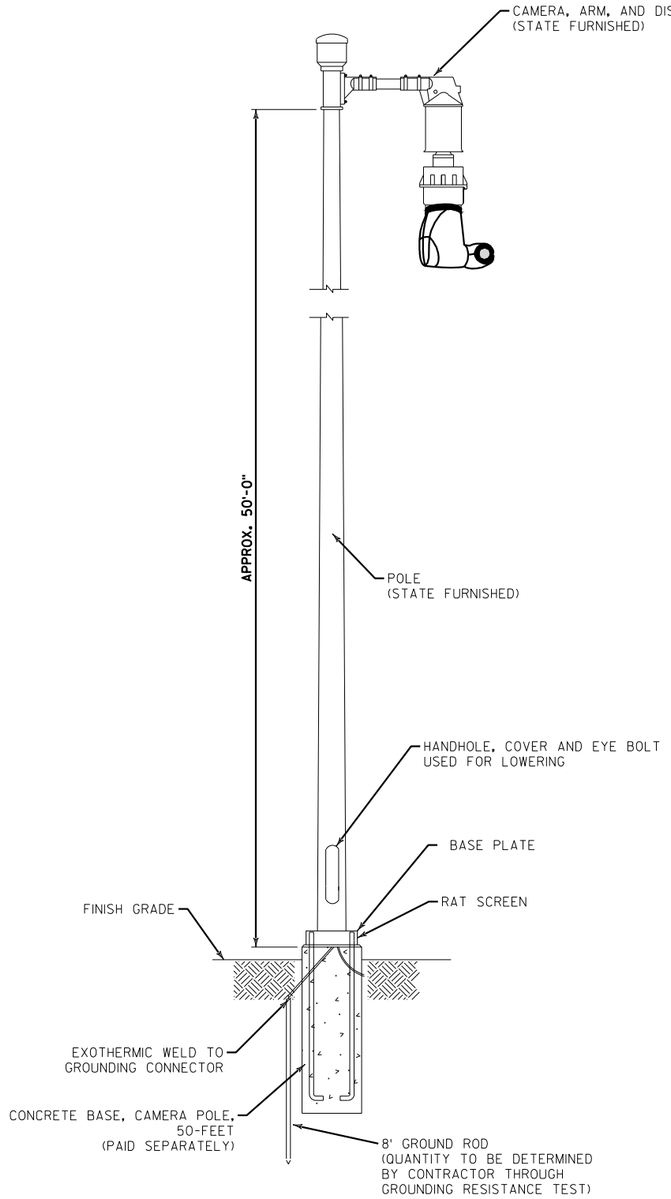
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIRMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE I SIGNS ON THIS SHEET SHALL HAVE "TYPE SH REFLECTIVE SHEETING".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A BLUE BACKGROUND AND WHITE MESSAGE.
5. ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAPITAL WORDS AND NUMBERS ARE SERIES "E".
6. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
7. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
8. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
9. DO NOT SCALE. SIGN NOT DRAWN TO SCALE, REFER TO DIMENSIONS FOR ACTUAL SIGN LAYOUT.
10. UNLESS OTHERWISE NOTED, ALL DIMENSIONS SHOWN ON THIS SHEET ARE INCHES.



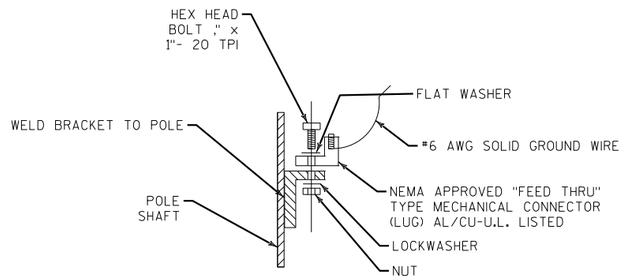
HYBRID DYNAMIC MESSAGE SIGN INSTALLATION (DMS-41-0073)
WESTBOUND IH 90 AT STH 71

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	FTMS CONSTRUCTION DETAILS	SHEET 126	E

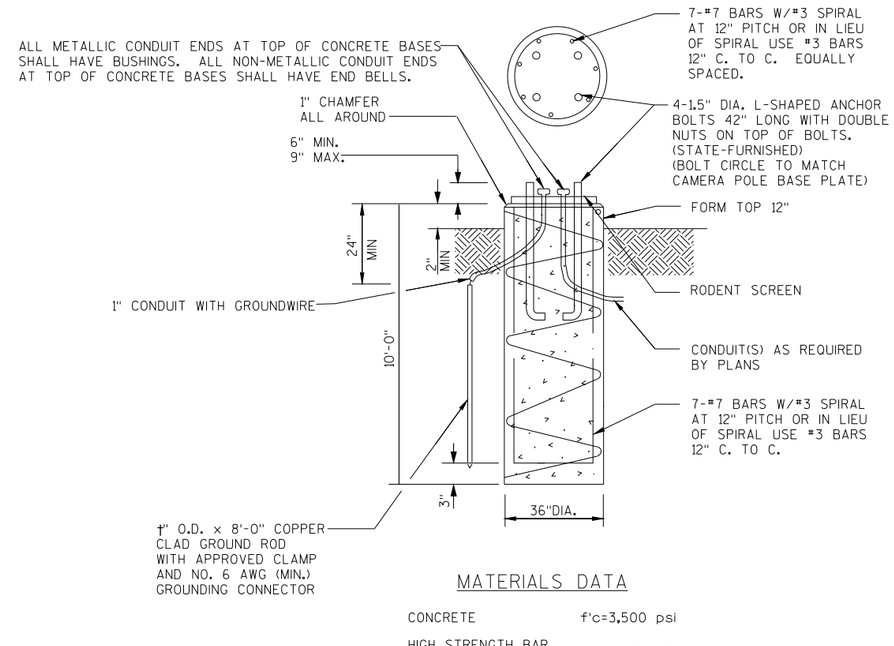


CAMERA POLE WITH CAMERA LOWERING HARDWARE

WITHOUT POLE MOUNTED CABINET



FIELD INSTALLED GROUNDING LUG



MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

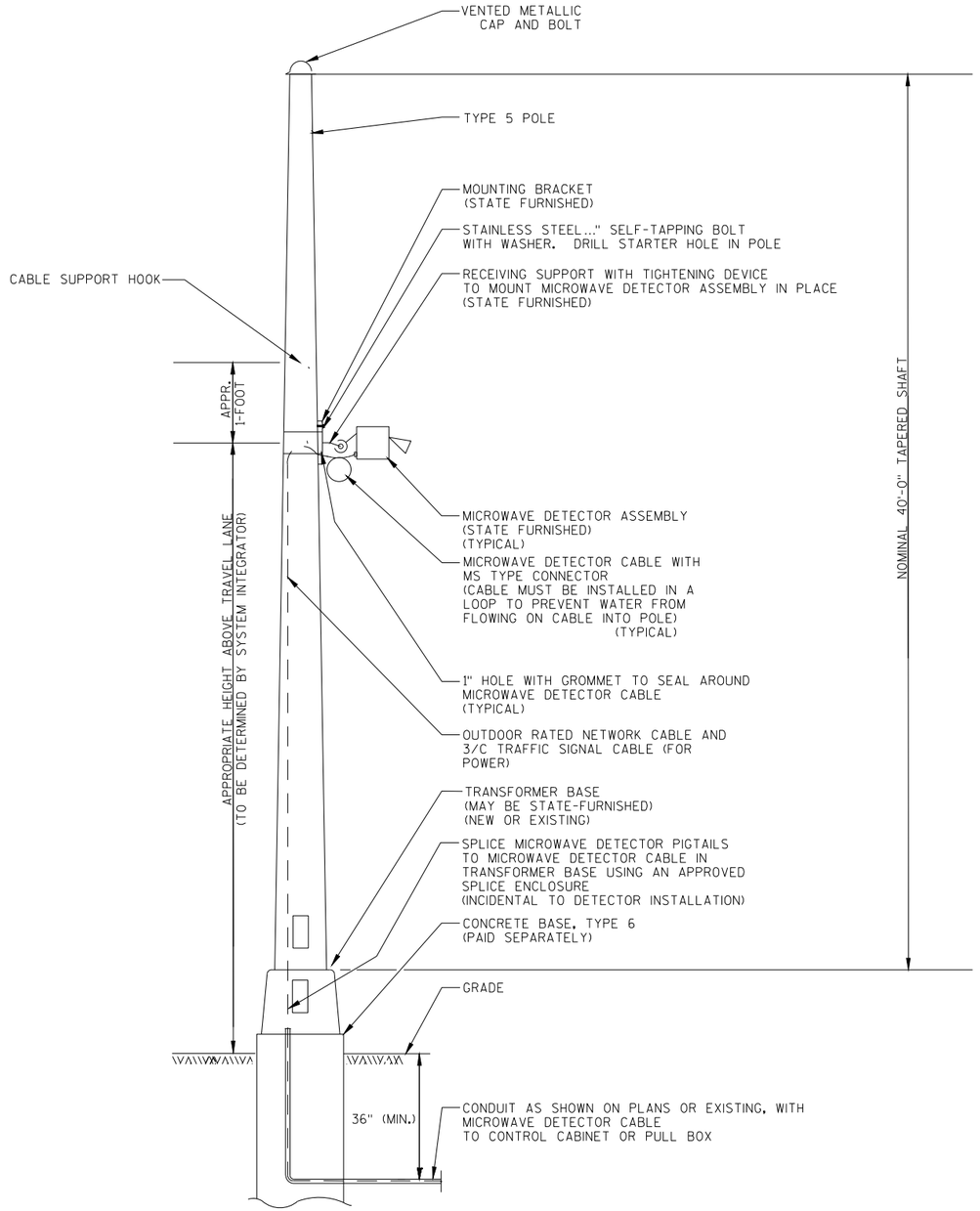
CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE

NOTES

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

2



MICROWAVE DETECTOR INSTALLATION
ON TYPE 6 POLE

2

(1) 2-INCH HDPE DUCT
WITH (1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

INSTALL IN CONDUIT INSTALLED BY OTHERS
1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

RAMP FROM TRUCK PARKING LOT

1180

1180

RAMP FROM CAR PARKING LOT

POST

POST

I 90

1185+00.00

PB1184
(BY OTHERS)

DP1183
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 5 POLE, ALUMINUM
(1) RADAR CAMERA VEHICLE DETECTOR (S-F)

PB1183

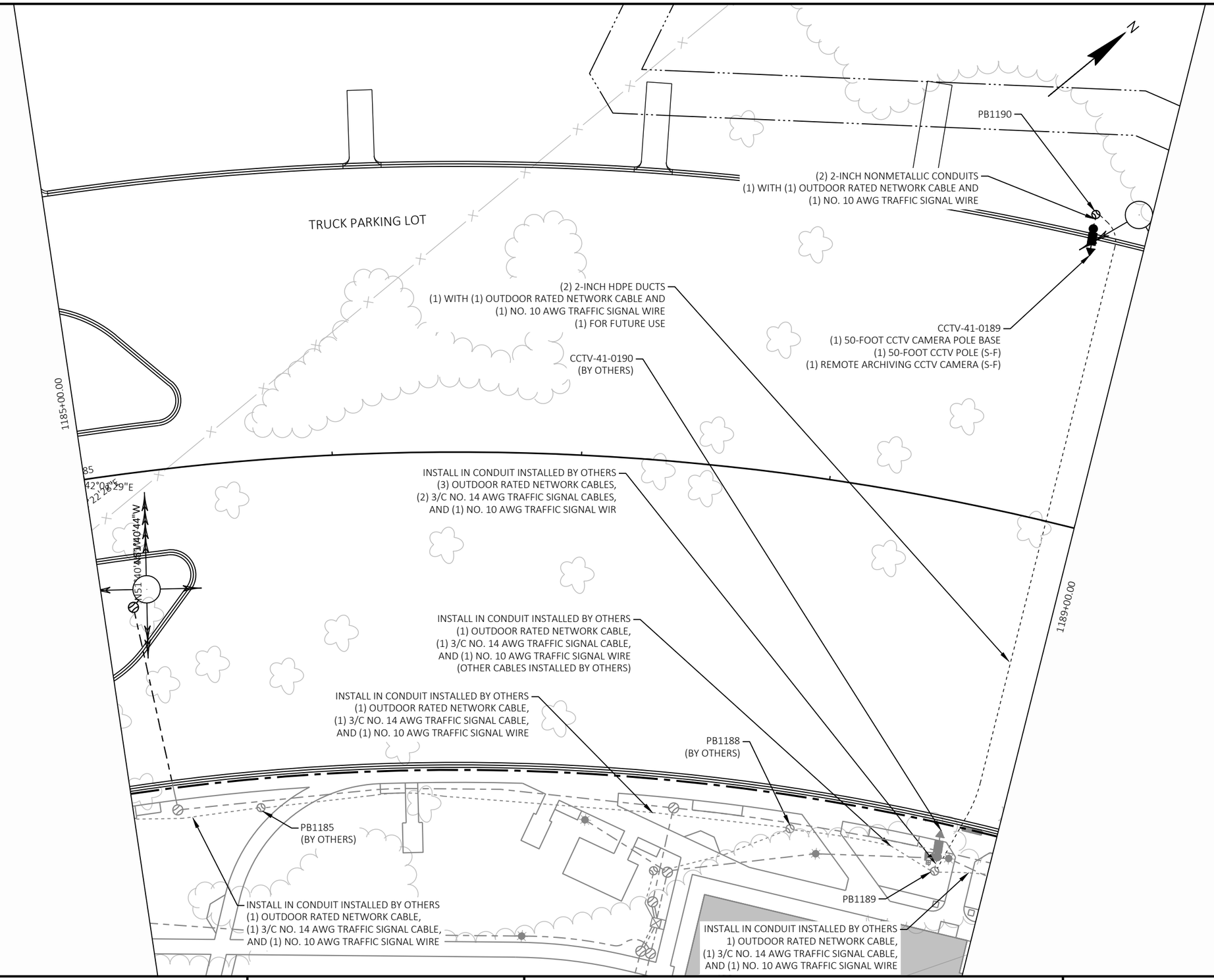
(1) 2-INCH NONMETALLIC CONDUIT
WITH (1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT LIMITS BETWEEN PROJECTS
1071-07-79 AND 1071-07-80

1185

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REST AREA 16 FTMS DESIGN	SHEET 129	E

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REST AREA 16 FTMS DESIGN	SHEET 130	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\FTMS\10710780_RESTARE16_FM.DWG
LAYOUT NAME - Sheet - (27)
PLOT DATE : 2/1/2024 5:35 PM
PLOT BY : JOSHUA MELBY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

SEPV

N

TRUCK PARKING LOT

MH

(1) 2-INCH HDPE DUCT
WITH (1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

DP1195
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) TYPE 5 POLE, ALUMINUM
(1) RADAR CAMERA VEHICLE DETECTOR (S-F)

1190

RAMP TO TRUCK PARKING LOT

1195

PB1193
(BY OTHERS)

PB1195

INSTALL IN CONDUIT INSTALLED BY OTHERS
1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

(1) 2-INCH NONMETALLIC CONDUIT
WITH (1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PB1191

INSTALL IN CONDUIT INSTALLED BY OTHERS
(1) OUTDOOR RATED NETWORK CABLE,
(1) 3/C NO. 14 AWG TRAFFIC SIGNAL CABLE,
AND (1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PROJECT LIMITS BETWEEN PROJECTS
1071-07-79 AND 1071-07-80

RAMP TO CAR PARKING LOT

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REST AREA 16 FTMS DESIGN	SHEET 131	E

2

2

STH 71

DMS-41-0073
(1) HYBRID DYNAMIC MESSAGE SIGN
(DMS IS S-F AND STATIC SIGN IS CONTRACTOR FURNISHED)
(1) POLE MOUNTED CABINET (S-F)
(1) CELLULAR MODEM (S-F)
(1) ELECTRICAL SERVICE BREAKER DISCONNECT BOX
(1) DMS POWER SUPPLY (S-F)

MB7101

(1) 2-INCH NONMETALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

PB7101

(1) 2-INCH HDPE DUCT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG TRAFFIC SIGNAL WIRES

PB7102

FACE OF EXISTING BEAMGUARD

75'

7.5°

END OF EXISTING BEAMGUARD
(APPROXIMATE GPS COORDINATES
43.933805, -90.778284)

IH 90 EB

IH 90 EB

HO

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	REST AREA 16 FTMS DESIGN	SHEET 132	E

FILE NAME : I:\77532\BASE\MONROE\10710709_RESTAREA16\10710780_RESTARE16_FM.DWG
LAYOUT NAME - Sheet - (32)

PLOT DATE : 2/13/2024 3:04 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

1	MARKING LINE EPOXY 6-INCH (WHITE)	11	MARKING REMOVAL LINE 4-INCH
2	MARKING LINE EPOXY 6-INCH (YELLOW)	12	MARKING REMOVAL LINE 8-INCH
3	MARKING LINE EPOXY 10-INCH (WHITE)	T	DELINEATOR SINGLE (WHITE)
4	MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL		
5	MARKING DIAGONAL EPOXY 6-INCH (WHITE)		
6	MARKING CHEVRON EPOXY 24-INCH (WHITE)		
7	MARKING PARKING STALL EPOXY (WHITE) (4-INCH)		
8	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)		
9	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)		
10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP		

N

SEE S.D.D. "PAVEMENT MARKING (RAMPS AND GORES)" FOR RAMP TAPER MARKING DETAILS

NURSERY

SIGN

MATCH DELINATOR SPACING TO EXISTING TO THE WEST

8

400' (TYP.)

10

8

REST AREA RAMP A

+36

1160+00 RA

1160+00 WB

1165+00 RA

1165+00 WB

IH 90 WB

+43

+50

+00

1170+00 RA

1170+00 WB

11

12

MATCH LINE 1173+00 RA

IH 90 EB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 133	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - RA

PLOT DATE : 1/31/2024 10:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

2

LEGEND

1. MARKING LINE EPOXY 6-INCH (WHITE)
2. MARKING LINE EPOXY 6-INCH (YELLOW)
3. MARKING LINE EPOXY 10-INCH (WHITE)
4. MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL
5. MARKING DIAGONAL EPOXY 6-INCH (WHITE)
6. MARKING CHEVRON EPOXY 24-INCH (WHITE)
7. MARKING PARKING STALL EPOXY (WHITE) (4-INCH)
8. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
9. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
10. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP
11. MARKING REMOVAL LINE 4-INCH
12. MARKING REMOVAL LINE 8-INCH

DELINEATOR SINGLE (WHITE)

SEE S.D.D. "PAVEMENT MARKING (RAMPS AND GORES)" FOR RAMP TAPER MARKING DETAILS

MATCH LINE 1173+00 RA

400' DELINEATOR SPACING

100' DELINEATOR SPACING

1175+00 RA

1175+00 WB

IH 90 WB

100'

1180+00 RA

1180+00 RB

REST AREA RAMP B

1180+00 WB

400'

IH 90 EB

1185+00 WB

REST AREA RAMP A

1185+00 RA

1185+00 RB

(TYP.)

30' (TYP.)

85° (TYP.)

STALLS AT 45°

15' MIN.

49' (TYP.)

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

1071-07-79/80 PROJECT BOUNDARY

MATCH LINE 1188+00 RA

SEE PLAZA PAVEMENT MARKING FOR ADDITIONAL PARKING DETAILS

SEE S.D.D. "PARKING STALL MARKING" FOR PARKING STALL LAYOUT DETAILS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 134	E

C.M. ST. PAUL & P. R.R. &
CHICAGO & NORTHWESTERN R.R.

LEGEND

1. MARKING LINE EPOXY 6-INCH (WHITE)
2. MARKING LINE EPOXY 6-INCH (YELLOW)
3. MARKING LINE EPOXY 10-INCH (WHITE)
4. MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL
5. MARKING DIAGONAL EPOXY 6-INCH (WHITE)
6. MARKING CHEVRON EPOXY 24-INCH (WHITE)
7. MARKING PARKING STALL EPOXY (WHITE) (4-INCH)
8. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
9. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
10. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP
11. MARKING REMOVAL LINE 4-INCH
12. MARKING REMOVAL LINE 8-INCH

DELINEATOR SINGLE (WHITE)

N

7 DOUBLE

7 (TYP.)

1 2 1

30'

30'

STALLS AT 45°

REST AREA RAMP A

15' MIN.

85' (TYP.)

1190+00 RA

1195+00 RA

15'

1071-07-79/80
PROJECT BOUNDARY

1 3

32'

1195+00 RB

1200+00 RA

1 2

100'

MATCH LINE 1188+00 RA

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

REST AREA RAMP B

1190+00 RB

2

7 (TYP.)

5

4

MATCH LINE 1203+00 RA

SEE PLAZA PAVEMENT MARKING FOR ADDITIONAL PARKING DETAILS

SEE S.D.D. "PARKING STALL MARKING" FOR PARKING STALL LAYOUT DETAILS

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 135	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - RA2

PLOT DATE : 1/31/2024 10:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

2

LEGEND

1. MARKING LINE EPOXY 6-INCH (WHITE)
2. MARKING LINE EPOXY 6-INCH (YELLOW)
3. MARKING LINE EPOXY 10-INCH (WHITE)
4. MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL
5. MARKING DIAGONAL EPOXY 6-INCH (WHITE)
6. MARKING CHEVRON EPOXY 24-INCH (WHITE)
7. MARKING PARKING STALL EPOXY (WHITE) (4-INCH)
8. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
9. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
10. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP
11. MARKING REMOVAL LINE 4-INCH
12. MARKING REMOVAL LINE 8-INCH

DELINEATOR SINGLE (WHITE)

N

SEE S.D.D. "PAVEMENT MARKING (RAMPS AND GORES)" FOR RAMP TAPER MARKING DETAILS

MATCH LINE 1203+00 RA

MATCH LINE 1217+00 RA

1205+00 RA

1215+00 RA

1210+00 RA

1205+00 WB

1210+00 WB

1200+00 WB

REST AREA RAMP A

100' DELINEATOR SPACING

400' DELINEATOR SPACING

400'

100'

15'

+23

25'

+55

+05

+30

12'

IP

MP

SIGN

POST

GUY

IH 90 WB

IH 90 EB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 136	E

2

2

N

SEE S.D.D. "PAVEMENT MARKING
(RAMPS AND GORES)"
FOR RAMP TAPER MARKING DETAILS

LEGEND

1	MARKING LINE EPOXY 6-INCH (WHITE)	11	MARKING REMOVAL LINE 4-INCH
2	MARKING LINE EPOXY 6-INCH (YELLOW)	12	MARKING REMOVAL LINE 8-INCH
3	MARKING LINE EPOXY 10-INCH (WHITE)	⊢	DELINEATOR SINGLE (WHITE)
4	MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL		
5	MARKING DIAGONAL EPOXY 6-INCH (WHITE)		
6	MARKING CHEVRON EPOXY 24-INCH (WHITE)		
7	MARKING PARKING STALL EPOXY (WHITE) (4-INCH)		
8	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)		
9	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)		
10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP		

MATCH LINE 1217+00 RA

8

400'

SIGN

SIGN

MATCH DELINATOR SPACING
TO EXISTING TO THE EAST

1220+00 RA

20

IH 90 WB

1225+00 WB

1215+00 WB

1220+00 WB

11

10

IH 90 EB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 137	E

LEGEND

1. MARKING LINE EPOXY 6-INCH (WHITE)
2. MARKING LINE EPOXY 6-INCH (YELLOW)
3. MARKING LINE EPOXY 10-INCH (WHITE)
4. MARKING SYMBOL EPOXY (WHITE) HANDICAPPED SYMBOL
5. MARKING DIAGONAL EPOXY 6-INCH (WHITE)
6. MARKING CHEVRON EPOXY 24-INCH (WHITE)
7. MARKING PARKING STALL EPOXY (WHITE) (4-INCH)
8. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
9. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
10. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) DASHED - 3 FT LINE, 9 FT GAP
11. MARKING REMOVAL LINE 4-INCH
12. MARKING REMOVAL LINE 8-INCH

T DELINEATOR SINGLE (WHITE)

TRUCK PARKING

1190+00 RA

SEE PREVIOUS PAVEMENT MARKING SHEETS FOR ADDITIONAL TRUCK PARKING DETAILS

7 (TYP.)

1071-07-79/80 PROJECT BOUNDARY

WORK WITHIN PLAZA AREA SHOWN IN GRAYSCALE TO BE COMPLETED WITH PROJECT 1071-07-79 BY OTHERS. SHOWN FOR INFORMATION/COORDINATION ONLY.

(TYP.) CENTER IN PARKING SPOT 4

5 (TYP.) 3' CENTER TO CENTER SPACING

1185+00 RB

10'

60° STALLS

21'

10'

8'

5'

50 STALLS

1190+00 RB

15'

CAR PARKING

7 (TYP.)

7 (TYP.)

2

SEE S.D.D. "PARKING STALL MARKING" FOR PARKING STALL LAYOUT DETAILS

N

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PAVEMENT MARKING	SHEET 138	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - PLAZA

PLOT DATE : 1/31/2024 10:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

2

MAINTENANCE OF TRAFFIC:

IH 90
- IH 90 WILL BE OPEN TO ALL LANES AT ALL TIMES EXCEPT SINGLE LANE CLOSURES AND SHOULDER CLOSURES AS SPECIFIED IN THE CONTRACT SPECIAL PROVISIONS.
- BASIC TRAFFIC QUEUE WARNING SYSTEM TO BE USED DURING SINGLE LANE CLOSURES ON IH 90

REST AREA #16
- REST AREA AND REST AREA RAMPS TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION.
- COORDINATION WITH PROJECT 1071-07-79 REQ'D. MAINTAIN CONSTRUCTION ACCESS TO PROJECT 1071-07-79 SITE AT ALL TIMES, AS NOTED IN THE CONTRACT SPECIAL PROVISIONS.

CONSTRUCTION TO BE COMPLETED:

REST AREA #16
- NEW REST AREA BUILDINGS AND PLAZA AREA TO BE CONSTRUCTED WITH PROJECT 1071-07-79, BY OTHERS
- EXISTING REST AREA BUILDING, RAMPS, AND PARKING LOTS TO BE REMOVED
- PROPOSED REST AREA RAMPS AND PARKING LOTS TO BE CONSTRUCTED

IH 90
- REST AREA RAMP CONNECTIONS TO BE COMPLETED

NOTES:

COORDINATION WITH PROJECT 1071-07-79 WILL BE REQUIRED. PROJECT 1071-07-79 WILL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL STAGING ON IH 90 AND THE REST AREA RAMPS UNTIL PROJECT 1071-07-80 BEGINS. ONCE PROJECT 1071-07-80 BEGINS IT WILL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL STAGING ON IH 90 AND THE REST AREA RAMPS.

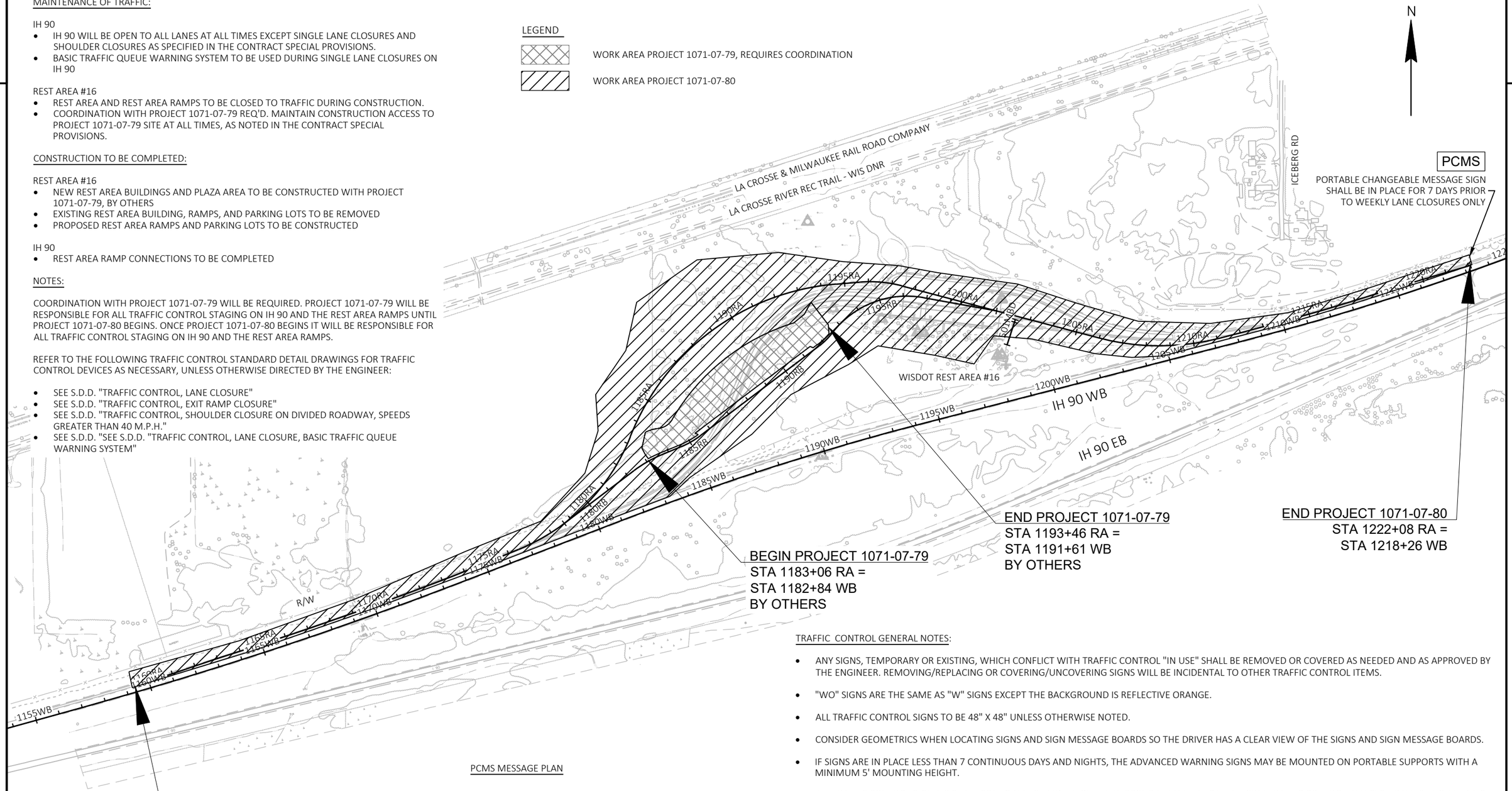
REFER TO THE FOLLOWING TRAFFIC CONTROL STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE"
- SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE"
- SEE S.D.D. "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H."
- SEE S.D.D. "SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM"

LEGEND

WORK AREA PROJECT 1071-07-79, REQUIRES COORDINATION

WORK AREA PROJECT 1071-07-80

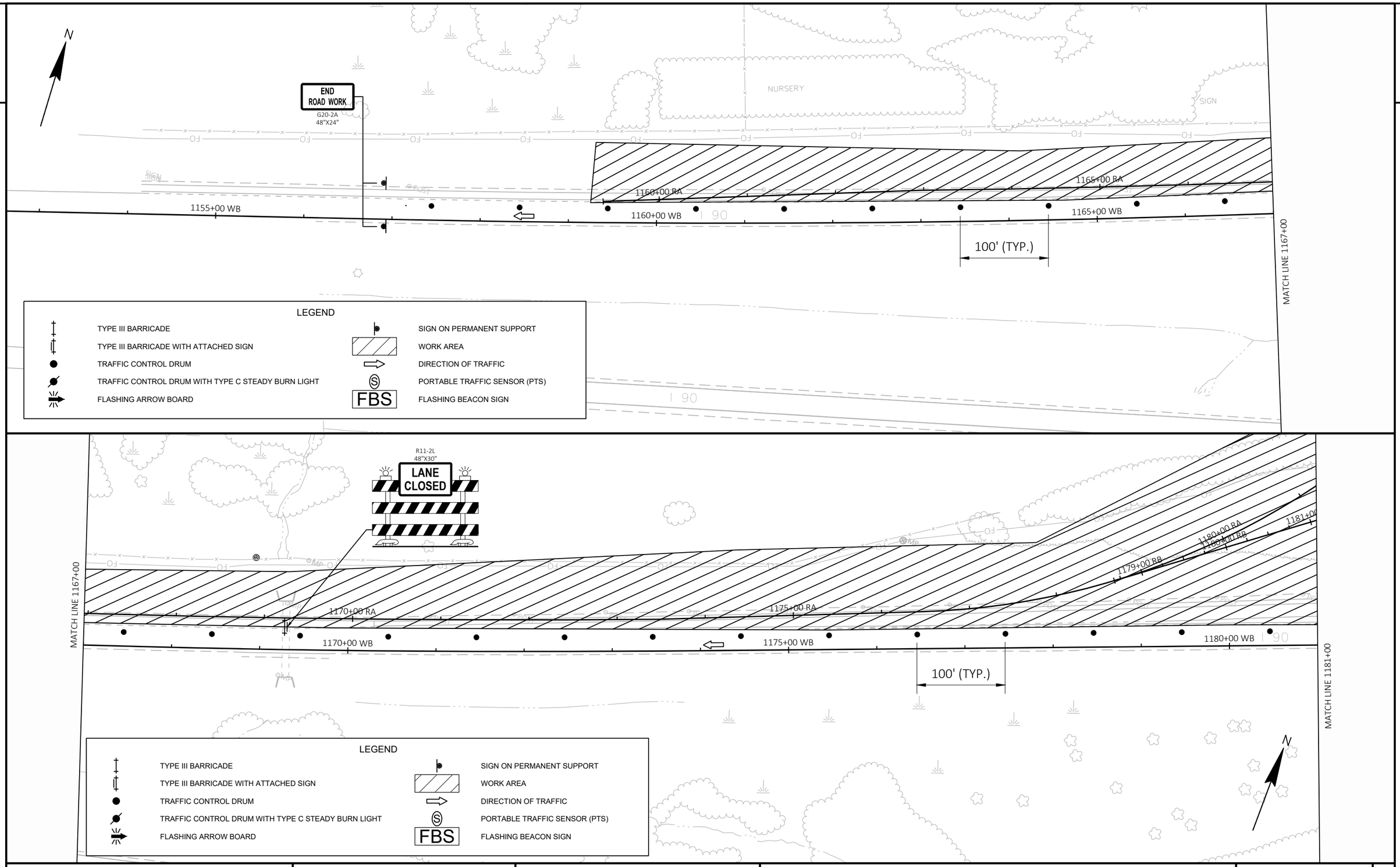


PCMS MESSAGE PLAN

EVENT/LOCATION	PANEL 1	PANEL 2
IH 90 WEEKLY LANE CLOSURES	WEEKLY LANE CLOSURES	BEGINS XXXXDAY XX/XX

TRAFFIC CONTROL GENERAL NOTES:

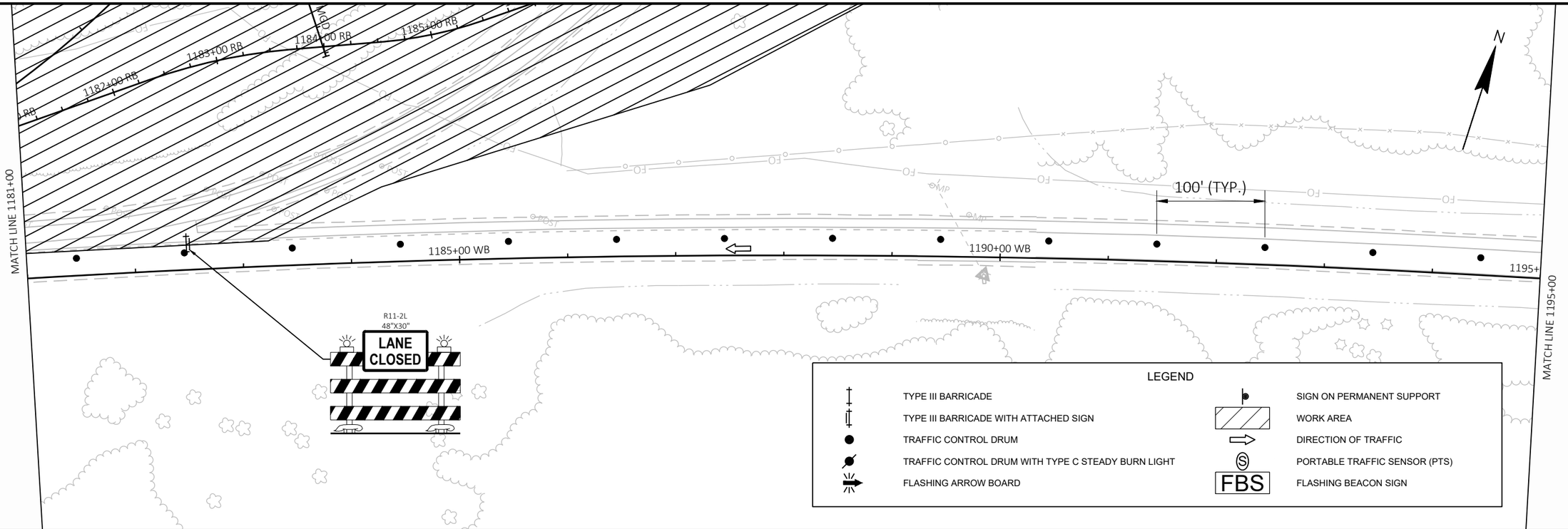
- ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- ALL TRAFFIC CONTROL SIGNS TO BE 48" X 48" UNLESS OTHERWISE NOTED.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE SIGNS AND SIGN MESSAGE BOARDS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.
- CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST.

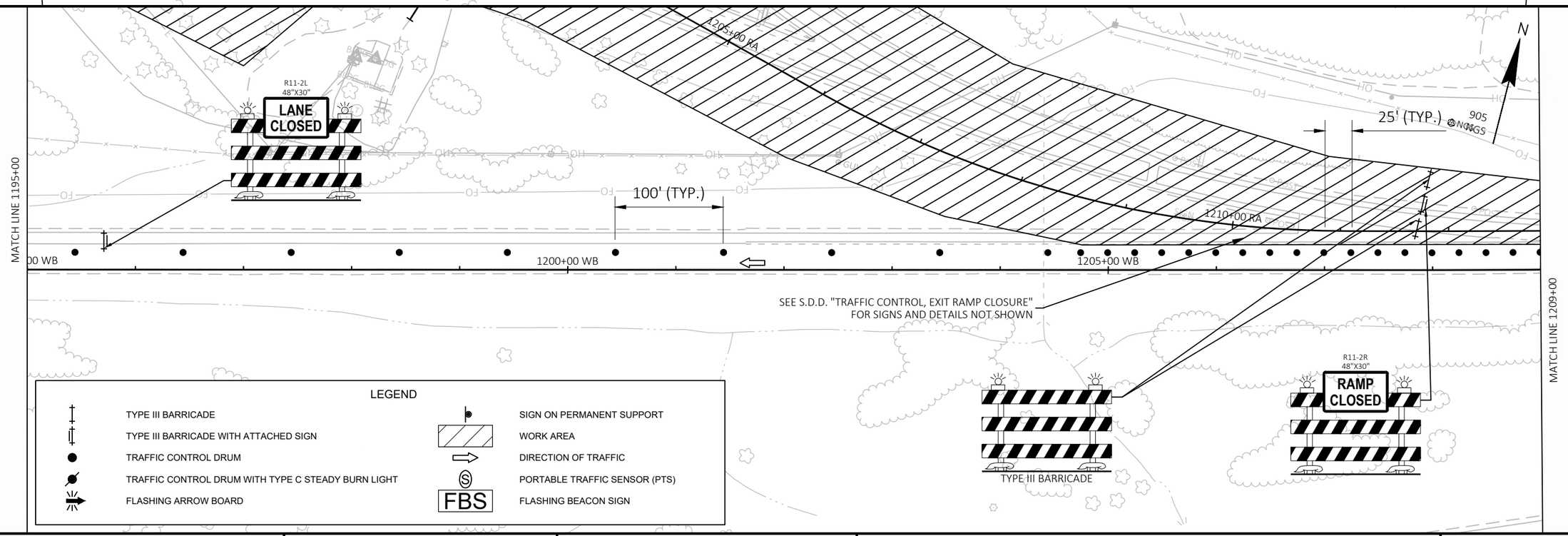


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SINGLE LANE CLOSURE WITH EXIT RAMP CLOSURE	SHEET 140	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/25/2024 11:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

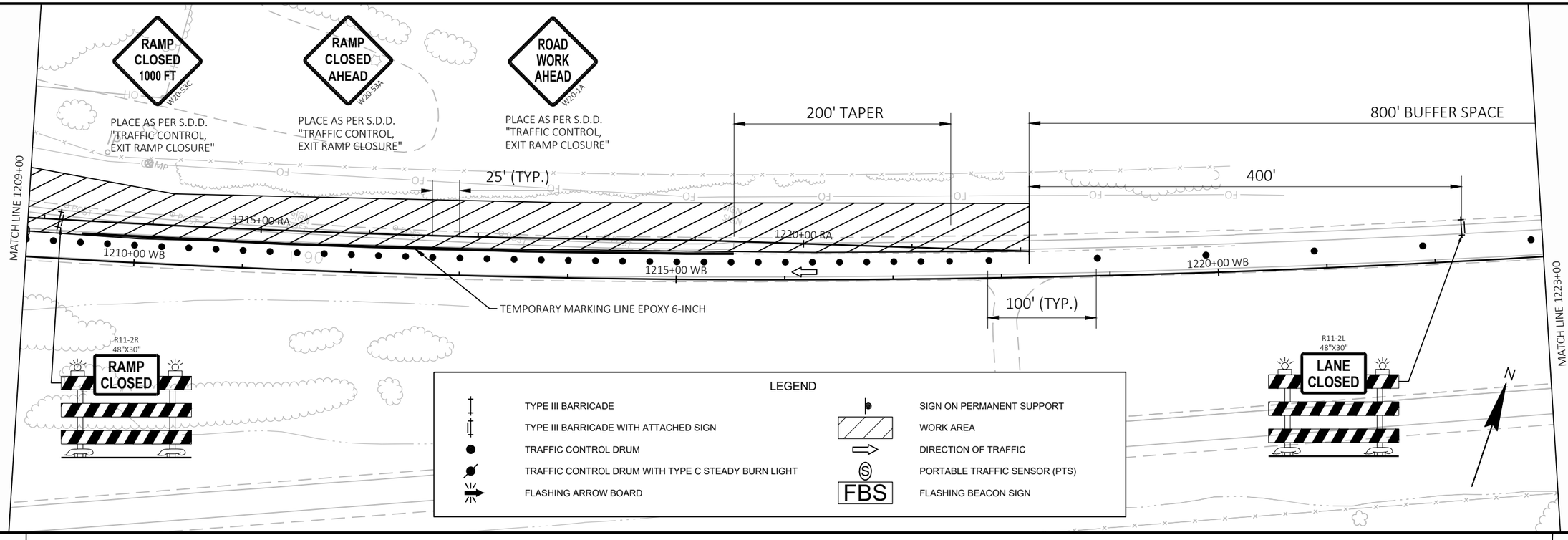
2

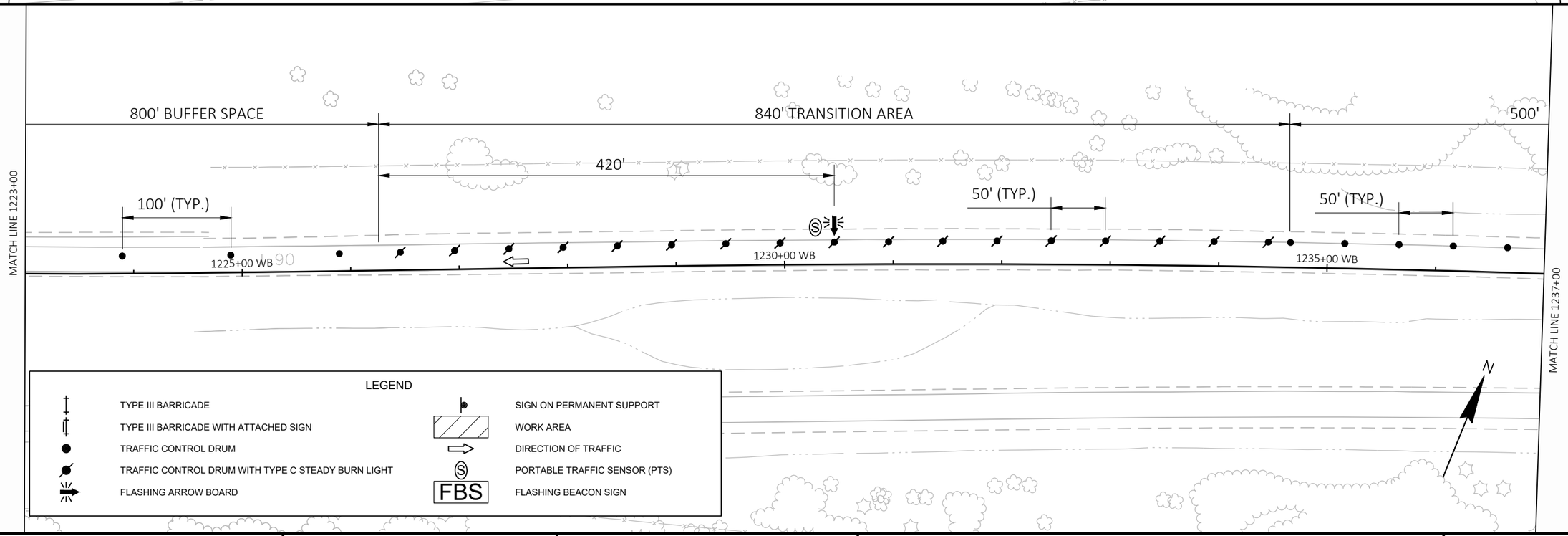




PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SINGLE LANE CLOSURE WITH EXIT RAMP CLOSURE	SHEET 141	E

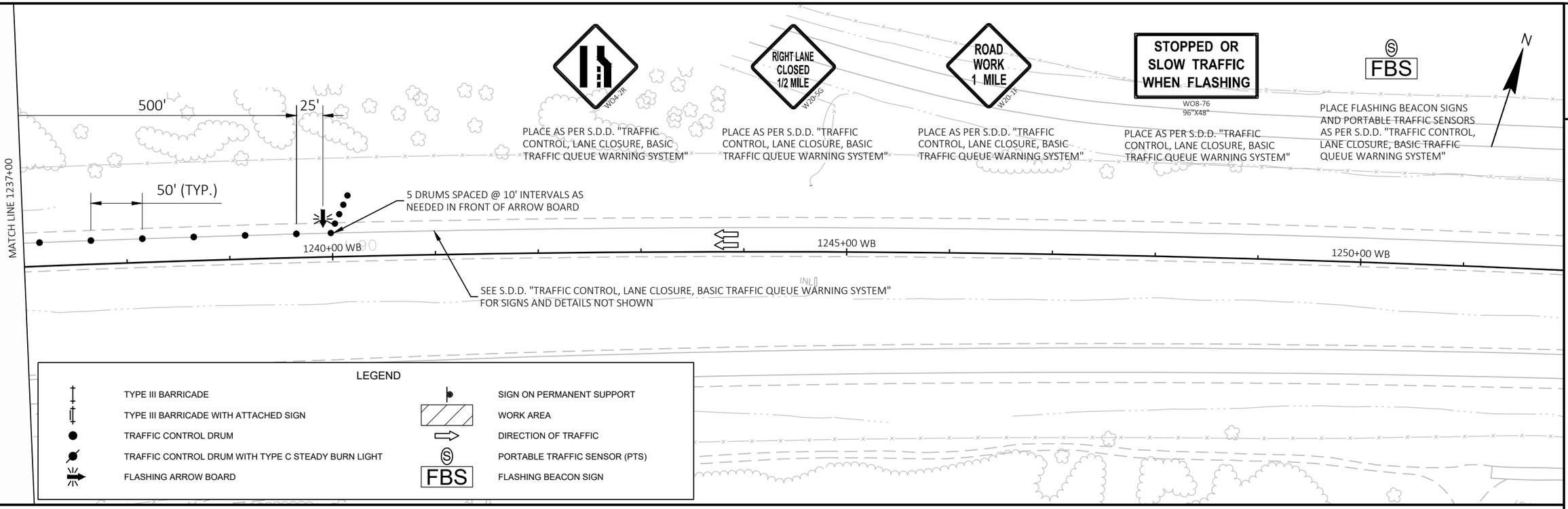
FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 1/25/2024 11:09 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SINGLE LANE CLOSURE WITH EXIT RAMP CLOSURE	SHEET 142	E

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SINGLE LANE CLOSURE WITH EXIT RAMP CLOSURE	SHEET 143	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025101-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 1/25/2024 11:10 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

END ROAD WORK
G20-2A
48"X24"

500'

NURSERY

SIGN

1155+00 WB

1160+00 RA

1160+00 WB

1165+00 RA

1165+00 WB

100' (TYP.)

MATCH LINE 1167+00

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

MATCH LINE 1167+00

1170+00 RA

1170+00 WB

1175+00 RA

1175+00 WB

1179+00 BB

1180+00 RA

1180+00 BB

1180+00 WB

1181+00

100' (TYP.)

MATCH LINE 1181+00

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SHOULDER CLOSURE WITH EXIT RAMP CLOSURE	SHEET 144	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/25/2024 11:13 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 1181+00

1182+00 RB

1183+00 RB

1184+00 RB

1185+00 RB

100' (TYP.)

1185+00 WB

1190+00 WB

1195+

MATCH LINE 1195+00

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

MATCH LINE 1195+00

1205+00 RA

COVERING SIGN

25' (TYP.)

100' (TYP.)

1210+00 RA

1200+00 WB

1205+00 WB

SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE"
FOR SIGNS AND DETAILS NOT SHOWN

R11-2R
48"X30"

RAMP
CLOSED

TYPE III BARRICADE

MATCH LINE 1209+00

LEGEND

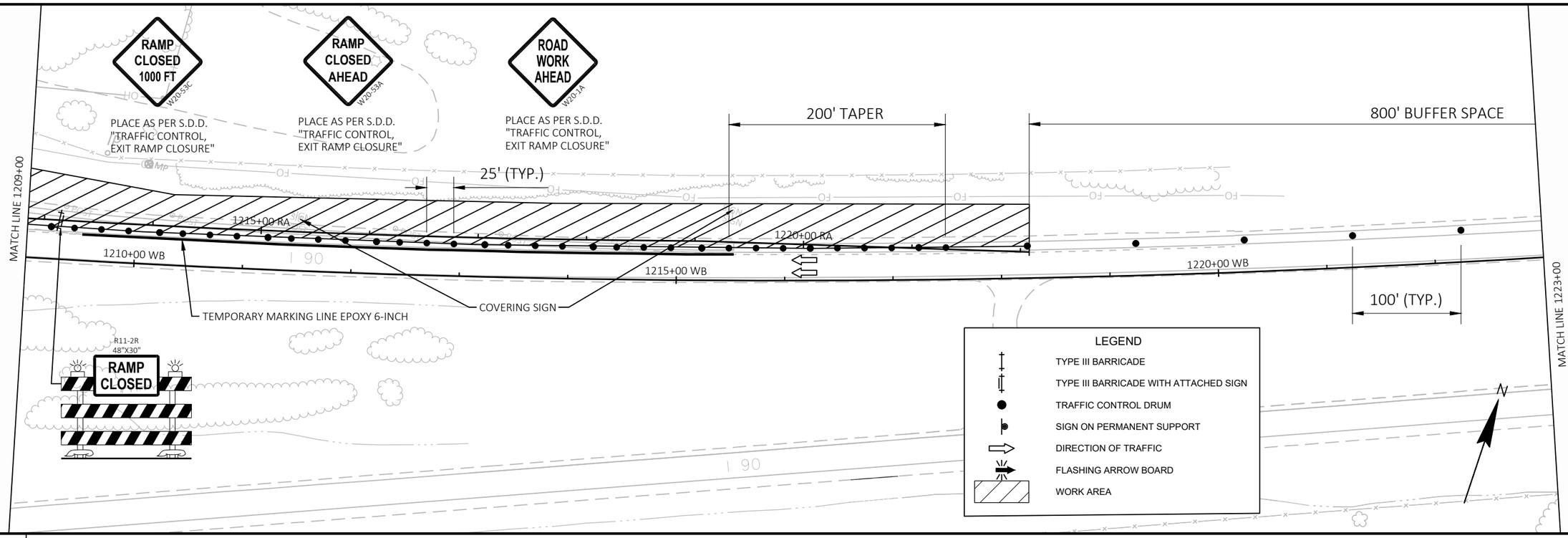
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

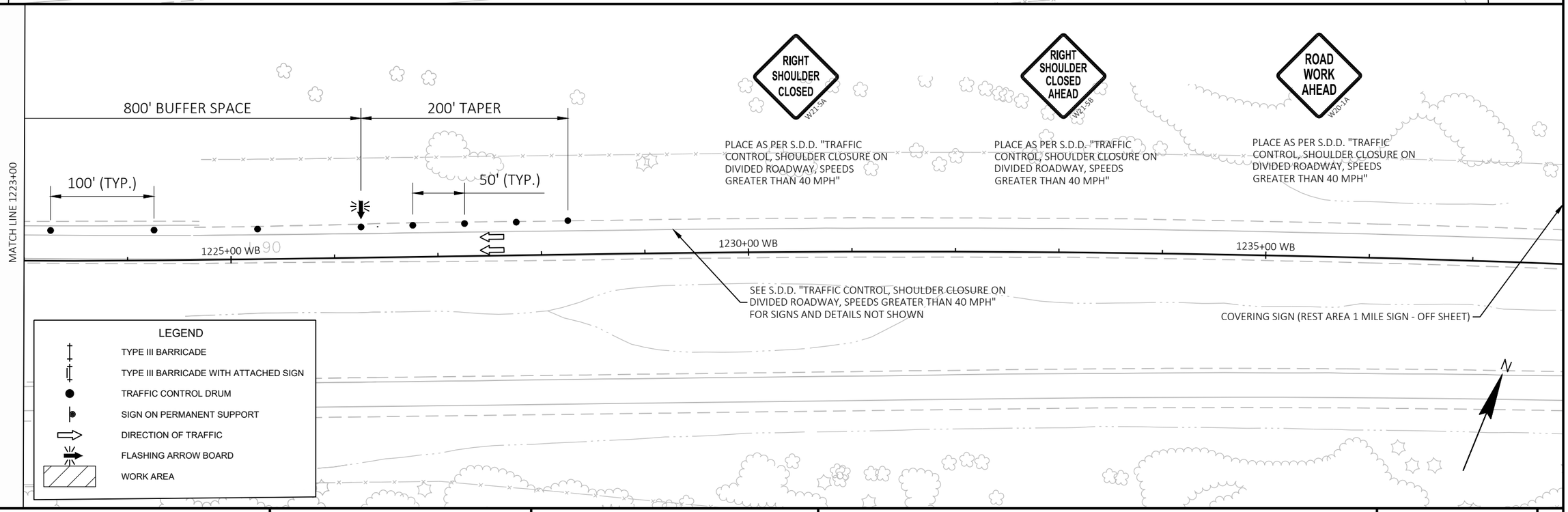
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SHOULDER CLOSURE WITH EXIT RAMP CLOSURE	SHEET 145	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/25/2024 11:14 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	TRAFFIC CONTROL SHOULDER CLOSURE WITH EXIT RAMP CLOSURE	SHEET 146	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 03

PLOT DATE : 1/25/2024 11:14 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

LEGEND

FENCE WOVEN WIRE 4-FT

N

FENCE OVER STREAM

STA 1172+50.91 RA
1041.14 LT

STA 1188+93.62 RA
409.23 LT

R/W

MATCH EXISTING
FENCE

MATCH EXISTING FENCE

3' OFFSET FROM R/W

R/W

1165+00 RA

STA 1168+91.63 RA
65.00 LT

FENCE OVER STREAM

1170+00 RA

STA 1175+12.60 RA
62.08 LT

IH 90 WB

1175+00 RA

STA 1182+92.44 RA
82.87 LT

SLOPE INTERCEPTS (TYP.)

1190+00 RA

1185+00 RA

REST AREA RAMP A

1180+00 RA
1180+00 RB

1185+00 RB

1190+00 RB

REST AREA RAMP B

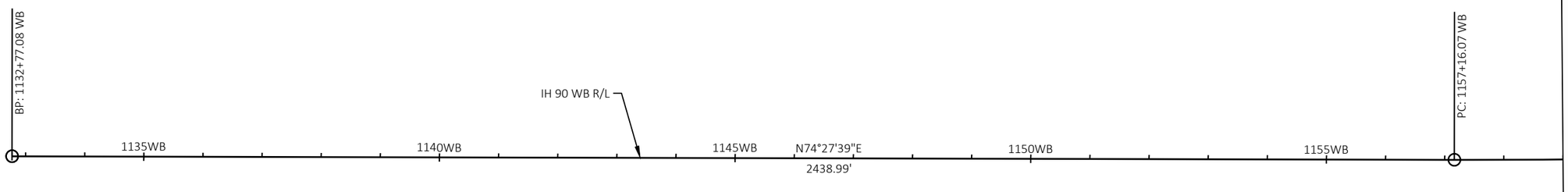
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	FENCING PLAN	SHEET 147	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\027101-FN.DWG
LAYOUT NAME - FN1 (2)

PLOT DATE : 1/31/2024 10:55 AM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2



R/L WB
STA = 1132+77.08 WB
Y=365033.3420
X=602067.9574

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	ALIGNMENT DIAGRAM	SHEET 148	E

2

N

R/L RB
STA = 1178+67.68 RB
Y=366455.3176
X=606427.4265

PI STA = 1183+02.00 RB
Y = 366717.390
X = 606773.764
DELTA = 14°38'14" RT
D = 10°54'49"
T = 67.43'
L = 134.12'
R = 525.00'
PC STA = 1182+34.57 RB
PT STA = 1183+68.69 RB
DB = N52°53'07"E
DA = N67°31'21"E

PI STA = 1185+03.56 RB
Y = 366794.733
X = 606960.692
DELTA = 14°31'51" LT
D = 15°04'40"
T = 48.45'
L = 96.37'
R = 380.00'
PC STA = 1184+55.12 RB
PT STA = 1185+51.49 RB
DB = N67°31'21"E
DA = N52°59'30"E

PI STA = 1189+63.92 RA
Y = 367407.778
X = 606938.158
DELTA = 63°40'33" RT
D = 5°37'12"
T = 633.05'
L = 1133.02'
R = 1019.50'
PC STA = 1183+30.87 RA
PT STA = 1194+63.89 RA
DB = N21°39'30"E
DA = N85°20'03"E

PI STA = 1180+08.24 RA
Y = 366482.731
X = 606570.814
DELTA = 46°10'01" LT
D = 6°44'26"
T = 362.26'
L = 684.90'
R = 850.00'
PC STA = 1176+45.97 RA
PT STA = 1183+30.87 RA
DB = N67°49'31"E
DA = N21°39'30"E

R/L RA
STA = 1159+36.30 RA
Y=365770.9915
X=604625.8169

R/L RA
STA = 1162+96.40 RA
Y=365887.0035
X=604966.7199

PI STA = 1168+21.54 RA
Y = 366044.788
X = 605467.600
DELTA = 3°30'26" LT
D = 0°20'02"
T = 525.14'
L = 1049.96'
R = 17153.16'
PC STA = 1162+96.40 RA
PT STA = 1173+46.36 RA
DB = N72°30'53"E
DA = N69°00'28"E

R/L RA
STA = 1173+46.36 RA
Y=366232.9170
X=605957.8903

MATCH LINE 1159+00 WB

MATCH LINE 1188+50 WB

BP: 1159+36.30 RA

PC: 1162+96.40 RA

PT: 1173+46.36 RA

PC: 1176+45.97 RA

PRC: 1183+30.87 RA

BP: 1178+67.68 RB

PC: 1182+34.57 RB

PT: 1183+68.69 RB

PC: 1184+55.12 RB

PT: 1185+51.49 RB

1160RA
1160WB

N71°12'22"E
360.10'

1165RA
1165WB

1170RA
1170WB

REST AREA
RAMP A R/L

1175RA
1175WB

N67°49'31"E
299.61'

N68°58'11"E
761.43'

1180RA
1180WB

1185RA
1185WB

N52°53'07"E
366.89'

N52°59'30"E
624.00'

REST AREA
RAMP B R/L

IH 90 WB R/L

PT: 1173+63.51 WB

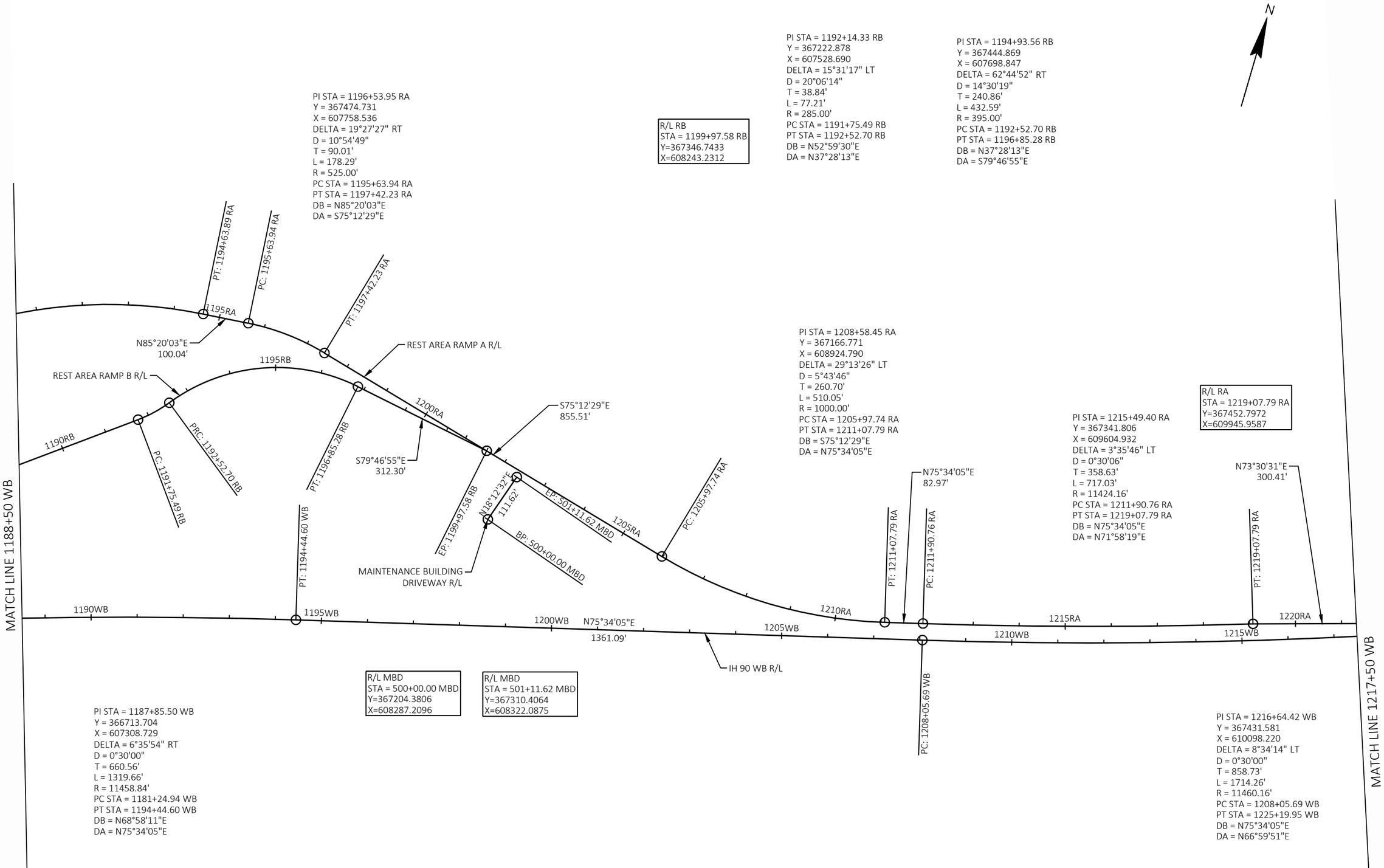
PC: 1181+24.94 WB

N67°31'21"E
86.42'

PI STA = 1165+40.42 WB
Y = 365907.575
X = 605212.015
DELTA = 5°29'29" LT
D = 0°20'00"
T = 824.35'
L = 1647.44'
R = 17189.16'
PC STA = 1157+16.07 WB
PT STA = 1173+63.51 WB
DB = N74°27'39"E
DA = N68°58'11"E

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	ALIGNMENT DIAGRAM	SHEET 149	E

2



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	ALIGNMENT DIAGRAM	SHEET 150	E

2

2

N

R/L RA
STA = 1222+08.21 RA
Y=367538.0756
X=610234.0136

MATCH LINE 1217+50 WB

EP: 1222+08.21 RA

PT: 1225+19.95 WB

PC: 1228+79.86 WB

1220WB

1225WB

N66°59'51"E
359.91'

1230WB

1235WB

1240WB

1245

IH 90 WB R/L

MATCH LINE 1245+00 WB

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	ALIGNMENT DIAGRAM	SHEET 151	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - AD (3)

PLOT DATE : 1/15/2024 4:21 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

2

N

MATCH LINE 1245+00 WB

1250WB

IH 90 WB R/L

1255WB

1260WB

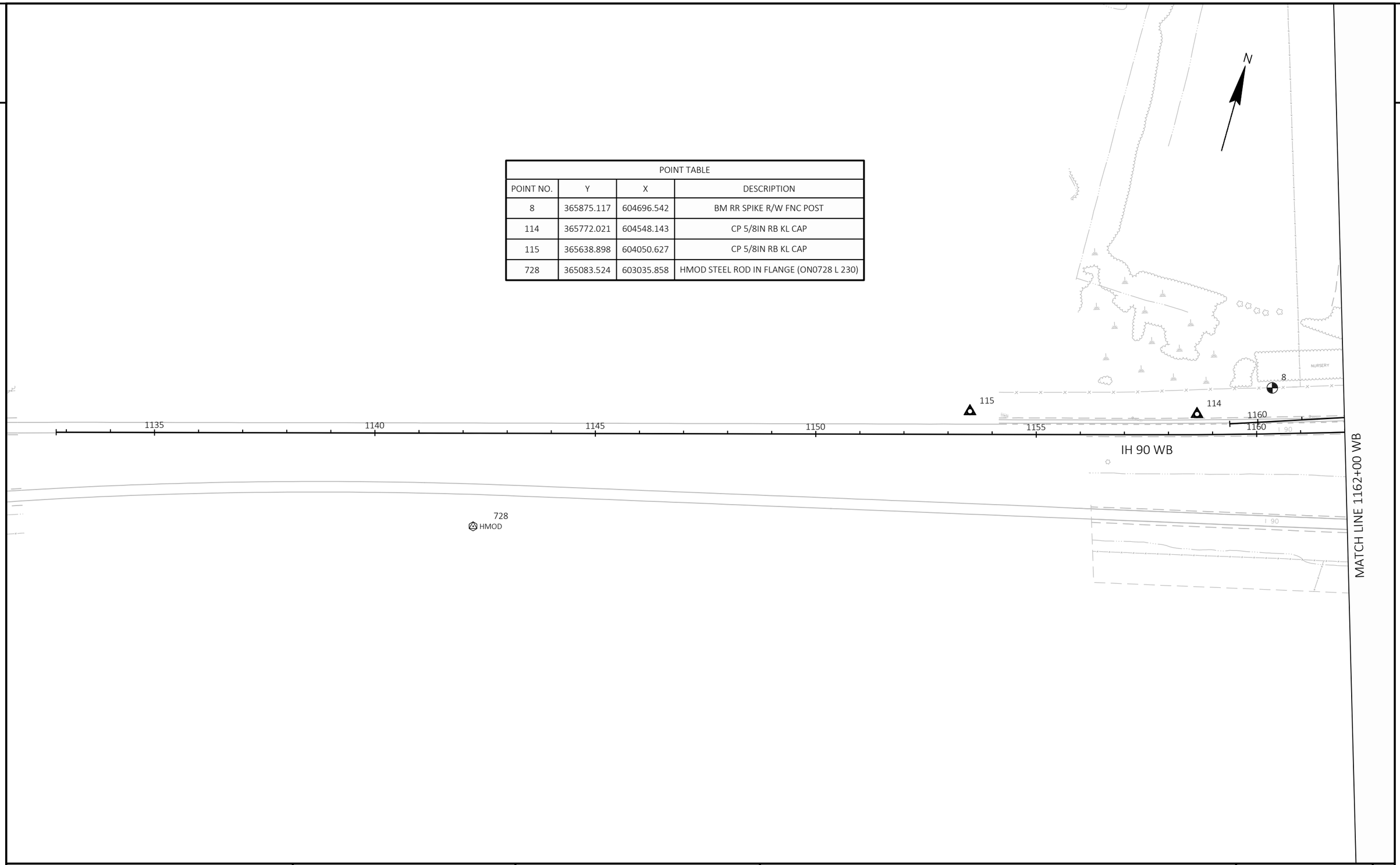
EP: 1261+78.89 WB

R/L WB
STA = 1261+78.89 WB
Y=368898.5298
X=614361.4055

PI STA = 1245+34.46 WB
Y = 368554.358
X = 612743.001
DELTA = 10°59'48" RT
D = 0°20'00"
T = 1654.60'
L = 3299.03'
R = 17188.80'
PC STA = 1228+79.86 WB
PT STA = 1261+78.89 WB
DB = N66°59'51"E
DA = N77°59'39"E

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	ALIGNMENT DIAGRAM	SHEET 152	E

POINT TABLE			
POINT NO.	Y	X	DESCRIPTION
8	365875.117	604696.542	BM RR SPIKE R/W FNC POST
114	365772.021	604548.143	CP 5/8IN RB KL CAP
115	365638.898	604050.627	CP 5/8IN RB KL CAP
728	365083.524	603035.858	HMOD STEEL ROD IN FLANGE (ON0728 L 230)



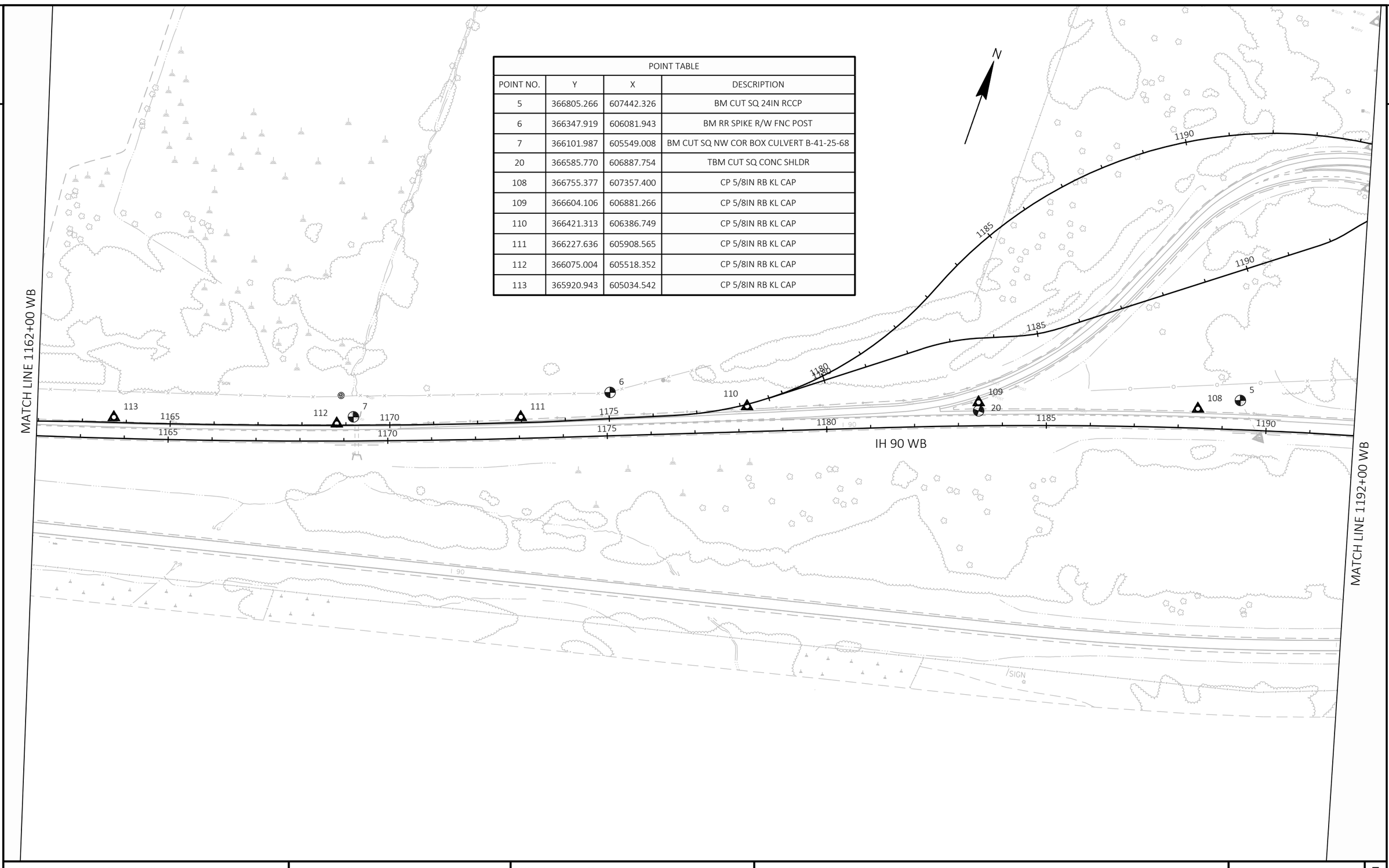
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	BENCHMARKS AND CONTROL POINTS	SHEET 153	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - CP1

PLOT DATE : 1/15/2024 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

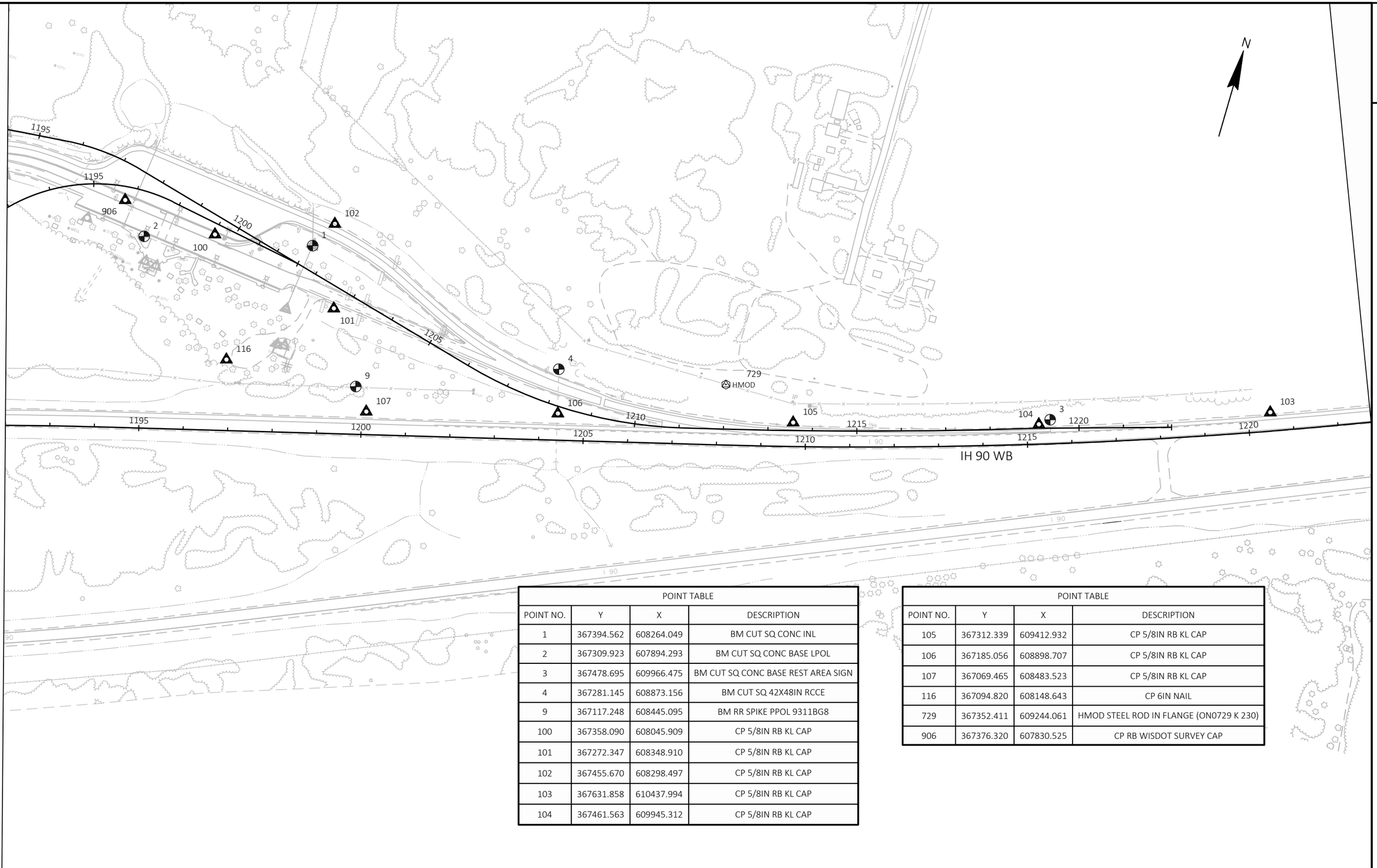
POINT TABLE			
POINT NO.	Y	X	DESCRIPTION
5	366805.266	607442.326	BM CUT SQ 24IN RCCP
6	366347.919	606081.943	BM RR SPIKE R/W FNC POST
7	366101.987	605549.008	BM CUT SQ NW COR BOX CULVERT B-41-25-68
20	366585.770	606887.754	TBM CUT SQ CONC SHLDR
108	366755.377	607357.400	CP 5/8IN RB KL CAP
109	366604.106	606881.266	CP 5/8IN RB KL CAP
110	366421.313	606386.749	CP 5/8IN RB KL CAP
111	366227.636	605908.565	CP 5/8IN RB KL CAP
112	366075.004	605518.352	CP 5/8IN RB KL CAP
113	365920.943	605034.542	CP 5/8IN RB KL CAP



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	BENCHMARKS AND CONTROL POINTS	SHEET 154	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - CP2

PLOT DATE : 1/15/2024 4:47 PM PLOT BY : BRIAN ST. VINCENT PLOT NAME : PLOT SCALE : 1 IN:200 FT



POINT TABLE			
POINT NO.	Y	X	DESCRIPTION
1	367394.562	608264.049	BM CUT SQ CONC INL
2	367309.923	607894.293	BM CUT SQ CONC BASE LPOL
3	367478.695	609966.475	BM CUT SQ CONC BASE REST AREA SIGN
4	367281.145	608873.156	BM CUT SQ 42X48IN RCCE
9	367117.248	608445.095	BM RR SPIKE PPOL 9311BG8
100	367358.090	608045.909	CP 5/8IN RB KL CAP
101	367272.347	608348.910	CP 5/8IN RB KL CAP
102	367455.670	608298.497	CP 5/8IN RB KL CAP
103	367631.858	610437.994	CP 5/8IN RB KL CAP
104	367461.563	609945.312	CP 5/8IN RB KL CAP

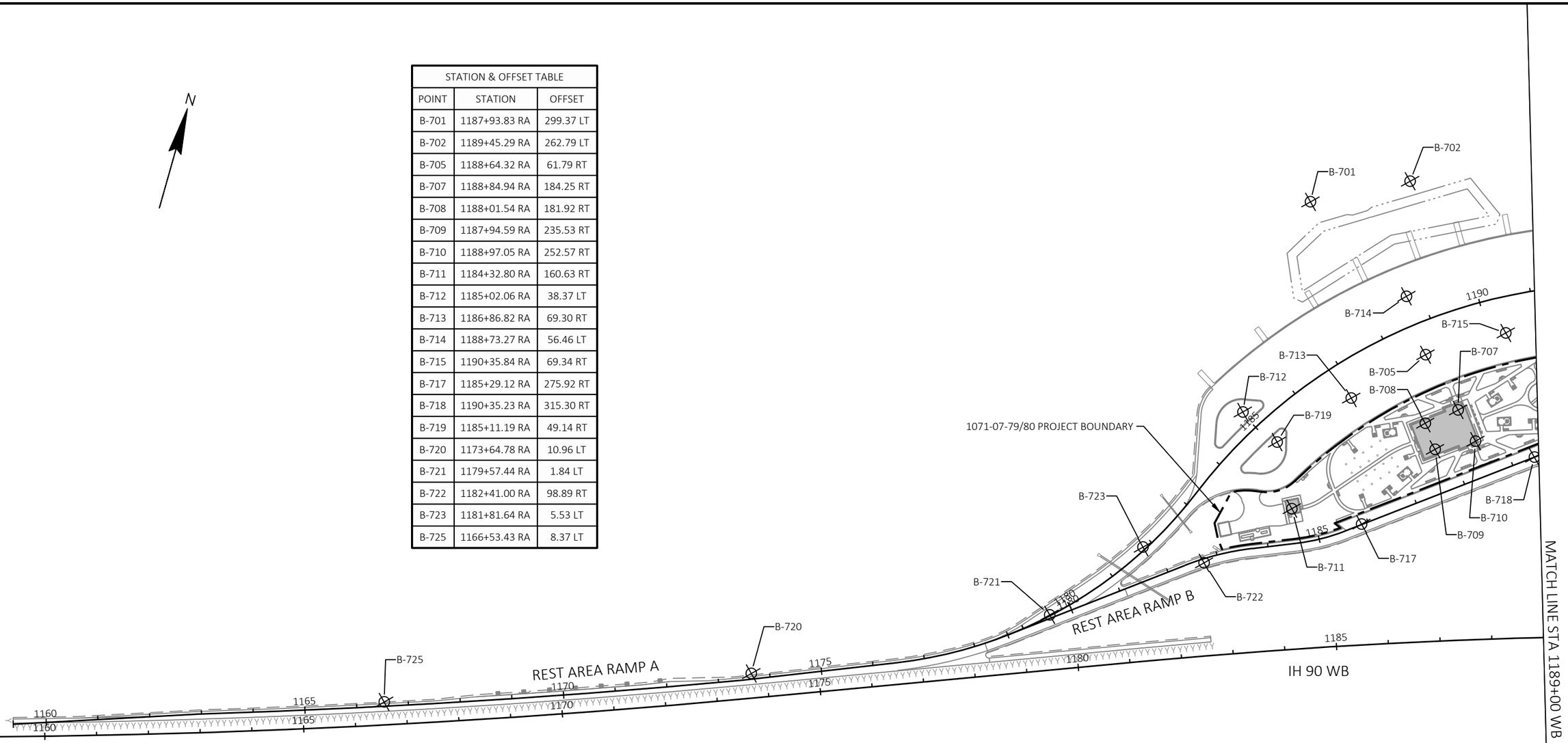
POINT TABLE			
POINT NO.	Y	X	DESCRIPTION
105	367312.339	609412.932	CP 5/8IN RB KL CAP
106	367185.056	608898.707	CP 5/8IN RB KL CAP
107	367069.465	608483.523	CP 5/8IN RB KL CAP
116	367094.820	608148.643	CP 6IN NAIL
729	367352.411	609244.061	HMOD STEEL ROD IN FLANGE (ON0729 K 230)
906	367376.320	607830.525	CP RB WISDOT SURVEY CAP

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	BENCHMARKS AND CONTROL POINTS	SHEET 155	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - CP3
PLOT DATE : 1/15/2024 4:47 PM
PLOT BY : BRIAN ST. VINCENT
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

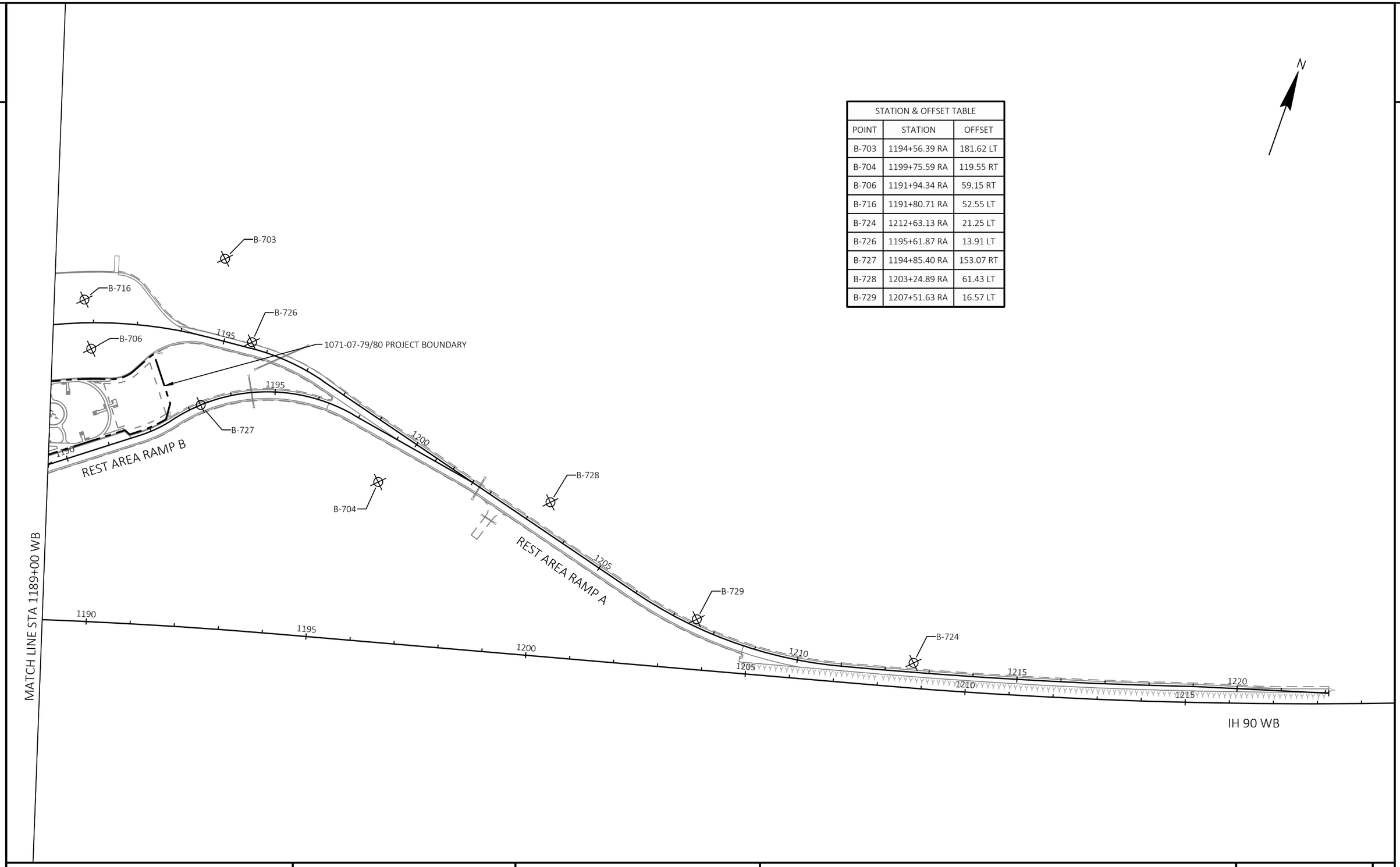
2

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
B-701	1187+93.83 RA	299.37 LT
B-702	1189+45.29 RA	262.79 LT
B-705	1188+64.32 RA	61.79 RT
B-707	1188+84.94 RA	184.25 RT
B-708	1188+01.54 RA	181.92 RT
B-709	1187+94.59 RA	235.53 RT
B-710	1188+97.05 RA	252.57 RT
B-711	1184+32.80 RA	160.63 RT
B-712	1185+02.06 RA	38.37 LT
B-713	1186+86.82 RA	69.30 RT
B-714	1188+73.27 RA	56.46 LT
B-715	1190+35.84 RA	69.34 RT
B-717	1185+29.12 RA	275.92 RT
B-718	1190+35.23 RA	315.30 RT
B-719	1185+11.19 RA	49.14 RT
B-720	1173+64.78 RA	10.96 LT
B-721	1179+57.44 RA	1.84 LT
B-722	1182+41.00 RA	98.89 RT
B-723	1181+81.64 RA	5.53 LT
B-725	1166+53.43 RA	8.37 LT



2

STATION & OFFSET TABLE		
POINT	STATION	OFFSET
B-703	1194+56.39 RA	181.62 LT
B-704	1199+75.59 RA	119.55 RT
B-706	1191+94.34 RA	59.15 RT
B-716	1191+80.71 RA	52.55 LT
B-724	1212+63.13 RA	21.25 LT
B-726	1195+61.87 RA	13.91 LT
B-727	1194+85.40 RA	153.07 RT
B-728	1203+24.89 RA	61.43 LT
B-729	1207+51.63 RA	16.57 LT



SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-701 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **769.5**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1		FILL, sand with silt and organics, fine to medium grained, dark brown, moist (SP-SM)	TOPSOIL / FILL	5	M	SS	16					
2	767.5	FILL, sand with silt, fine to medium grained, dark brown, moist (SP-SM)	FILL									
3	766.5	SAND WITH SILT, fine grained, brown, moist, loose, possible fill (SP-SM)	COARSE ALLUVIUM	5	M	SS	24					
4												
5				8	M	SS	18	7				6
6												
7	762.5	SAND, fine to medium grained, brown, moist to waterbearing, loose to medium dense, with lenses of silt from 7 to 8 feet (SP)		7	M/W	SS	24					
8												
9				13	W	SS	18					
10	759.5	SAND, fine grained, brown, waterbearing, loose to medium dense (SP)										
11				9	W	SS	21					
12												
13				15	W	SS	24					
14	755.5	*End of boring at 14.0 feet*										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-12.0' 3.25" HSA	**12/19/22**	**1452**	**14.0**	**12.0**	**10.2**	**None**	**8.3**
	12/19/22	**1508**	**14.0**	**12.0**	**8.8**	**None**	**8.0**
BORING COMPLETED: **12/19/22**							
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-702 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **770.2**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	769.6	FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	2	M	SS	15					
2		FILL, sand, fine to medium grained, brown to light brown, moist, with trace organics to 2 feet (SP)	FILL									
3				3	M	SS	16					
4	766.2	FILL, sand, fine grained, greenish brown, moist (SP)										
5	765.2	SILTY SAND, fine grained, grayish brown, moist, with trace roots (SM)	COARSE ALLUVIUM	4	M	SS	19					
6	764.7	SAND WITH SILT, fine to medium grained, orangish brown, moist, with laminations of silt (SP-SM)										
7	764.2			6	M	SS	16	13				18
8	762.2	SILTY SAND, fine grained, grayish brown and gray with brown mottling, moist, loose (SM)										
9		SAND, fine to medium grained, brown, moist to waterbearing, loose to medium dense (SP)		13	M/W	SS	15					
10												
11				15	W	SS	20					
12												
13				13	W	SS	21					
14												
15				5	W	SS	24					
16	754.2	*End of boring at 16.0 feet*										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14.0' 3.25" HSA	**12/19/22**	**1115**	**10.0**	**8.0**	**8.5**	**None**	**8.5**
	12/19/22	**1142**	**12.0**	**10.0**	**9.5**	**None**	**9.4**
BORING COMPLETED: **12/19/22**	**12/19/22**	**1144**	**12.0**	**10.0**	**9.5**	**None**	**9.3**
DR: **GM** LG: **TT** Rig: **67**	**12/19/22**	**1154**	**16.0**	**14.0**	**13.9**	**None**	**11.4**

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-703 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **770.9** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
	770.1	FILL, silty sand with organics, dark brown, moist (SM)	TOPSOIL									
1		FILL, sand with silt, fine to medium grained, brown, moist (SP-SM)	FILL	3	M	SS	17					
2												
3	767.9			3	M	SS	16					
4		FILL, sand, fine to medium grained, light brown, moist, with wood pieces from 3 to 4 feet and lenses of silty sand from 4 to 6 feet (SP)										
5				7	M	SS	18					
6												
7				12	M	SS	24					
8	763.2	SILT with sand, grayish brown with brown mottling, moist to waterbearing, loose, with trace roots (ML)	FINE ALLUVIUM									
9				5	M▼W	SS	21	25				83
10	760.9	SAND, fine grained, brown, waterbearing, loose to medium dense (SP)	COARSE ALLUVIUM									
11				9	W	SS	24					
12												
13				20	W	SS	20					
14												
15	755.7			16	W	SS	18					
16		SILTY SAND, fine to medium grained, reddish brown, waterbearing, medium dense, with laminations of silt from 16 to 18 feet (SM)										
17				21	W	SS	19					
18	752.9	SILTY SAND, fine to medium grained, brown, waterbearing, loose (SM)										
19				10	W	SS	24					
20	750.9	*End of boring at 20.0 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-18.0' 3.25" HSA	**12/19/22**	**1600**	**14.0**	**12.0**	**12.0**	**None**	**9.0**
	12/19/22	**1620**	**20.0**	**18.0**	**17.8**	**None**	**15.0**
BORING COMPLETED: **12/19/22**	**12/19/22**	**1630**	**20.0**	**18.0**	**17.6**	**None**	**14.4**
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-704 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **778.9** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
	778.2	FILL, sandy silt with organics, very dark brown, moist (OL)	TOPSOIL / FILL									
1		FILL, sand, fine to medium grained, brown, moist (SP)	FILL	6	M	SS	16					
2	776.9											
3		FILL, sand, fine grained, brown, moist (SP)		19	M	SS	22					
4	774.9											
5		FILL, sand, fine to medium grained, brown, moist, with wood pieces from 6 to 8 feet (SP)		25	M	SS	20	4				4
6												
7				29	M	SS	18					
8	770.9											
9	770.4	SILTY SAND, fine to medium grained, dark gray, moist, medium dense, with trace roots (SM)	COARSE ALLUVIUM	28	M	SS	24					
10	768.9	SAND WITH SILT, fine to medium grained, grayish brown, moist, medium dense (SP-SM)										
11		SILTY SAND, fine grained, blueish gray, moist to waterbearing, loose to medium dense, with lenses of fine grained sand (SM)		9	M▼W	SS	21					
12												
13				14	W	SS	17					
14	764.9											
15		SAND, fine grained, greenish brown to brown, waterbearing, medium dense (SP)		15	W	SS	16					
16												
17				16	W	SS	15					
18												
19				13	W	SS	12					
20	758.9	*End of boring at 20.0 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-10.0' 3.25" HSA							
10.0-18.0' HSA w/DM	**12/12/22**	**1120**	**14.0**	**12.0**	**12.3**	**None**	**12.2**
	12/12/22	**1150**	**14.0**	**12.0**	**12.0**	**None**	**11.5**
BORING COMPLETED: **12/12/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-705 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **774.5**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1		FILL, sand with silt and organics, fine to medium grained, dark brown, moist (SP-SM)	TOPSOIL / FILL	2	M	SS	15					
2												
3	771.5			3	M	SS	15					
4	770.0	FILL, sand with silt, fine to medium grained, brown, moist, with trace organics (SP-SM)	FILL									
5		FILL, sand, fine to medium grained, yellowish brown, moist (SP)		6	M	SS	17					
6												
7												
8				10	M	SS	20					
9	765.0											
10		SAND, fine grained, brown, moist to waterbearing, medium dense, possible fill (SP)	COARSE ALLUVIUM	20	M/W	SS	19					
11												
12	762.5											
13		SILT, brown, waterbearing, very loose (ML)	FINE ALLUVIUM	4	W	SS	24					
14	760.0											
15		SILTY SAND, fine grained, grayish brown, waterbearing, medium dense, with laminations of sand (SM)	COARSE ALLUVIUM	12	W	SS	18	20				44
16												
17												
18	756.5											
19		SAND, fine to medium grained, brown, waterbearing, medium dense (SP)										
20				26	W	SS	12					
21												

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-9.5'	**3.25" HSA**	**12/15/22**	**1000**	**11.5**	**9.5**	**10.2**	**None**	**10.2**
9.5-29.5'	**RD w/DM**	**12/15/22**	**1025**	**11.5**	**9.5**	**10.2**	**None**	**10.2**
BORING COMPLETED:	**12/15/22**							
DR: **GM**	LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-705 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23		SAND, fine to medium grained, brown, waterbearing, medium dense (SP) *(continued)*										
24												
25												
26				28	W	SS	15					
27												
28	746.5											
29		SAND WITH SILT, fine grained, brown, waterbearing, medium dense (SP-SM)										
30												
31				15	W	SS	18					
	743.0											
		End of boring at 31.5 feet										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-706 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **779.3**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	778.7 / 778.4	FILL, gravelly silty sand, fine to medium grained, brown to dark brown, moist (SM)	FILL	8	M	SS	18					
2		FILL, sand with silt, fine to medium grained, dark brown, moist (SP-SM)										
3		FILL, sand, fine to medium grained, yellowish brown, moist (SP-SM)		6	M	SS	21	4				1
4												
5				14	M	SS	24					
6												
7	772.3											
8		FILL, sand with silt, fine to medium grained, dark brown, moist (SP-SM)		22	M	SS	24					
9	769.8											
10		FILL, sand, fine to medium grained, yellowish brown, moist (SP)		11	M	SS	21					
11												
12	767.3											
13		FILL, sand, fine grained, brown, moist, with lenses of silt, possible coarse alluvium (SP)		11	M	SS	24					
14	764.8											
15		SILTY SAND, fine grained, brown, moist to waterbearing, loose, with laminations of sand (SM)	COARSE ALLUVIUM	7	M▼W	SS	24					
16												
17												
18	761.3											
19		SAND, fine grained, brown, waterbearing, medium dense (SP)										
20												
21				15	W	SS	21					

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-29.5' 3.25" HSA	**12/20/22**	**1200**	**31.5**	**29.5**	**27.1**	**None**	**17.3**
	12/20/22	**1215**	**31.5**	**29.5**	**25.2**	**None**	**15.6**
BORING COMPLETED: **12/20/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+OPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-706 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23	756.3	SAND, fine grained, brown, waterbearing, medium dense (SP) *(continued)*										
24		SAND, fine to medium grained, brown, waterbearing, loose to medium dense, with laminations of silt from 24.5 to 26.5 feet (SP)										
25				7	W	SS	24					
26												
27												
28												
29												
30				30	W	SS	24					
31	747.8	*End of boring at 31.5 feet*										

AET_CORP W-ELEV P-0018651.GPJ AET+OPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-707 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **777.3** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
	776.8	FILL, sand with silt and organics, fine to medium grained, dark brown, moist (SP-SM)	TOPSOIL / FILL									
1		FILL, sand, fine to medium grained, brown to yellowish brown, moist to waterbearing, with trace organics to 2 feet and lenses of silt from 12 to 14 feet (SP)	FILL	2	M	SS	16					
2												
3				12	M	SS	18					
4												
5				10	M	SS	21					
6												
7												
8				15	M	SS	17					
9												
10				22	M	SS	21					
11												
12												
13				10	M/W	SS	19					
14	762.8											
15		SILT with sand, dark gray and brown, waterbearing, loose (ML)	FINE ALLUVIUM	8	W	SS	14	22				72
16												
17												
18	759.3											
19		SAND, fine to medium grained, brown, waterbearing, medium dense (SP)	COARSE ALLUVIUM									
20												
21				28	W	SS	20					

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-12.0' 3.25" HSA							
12.0-39.5' RD w/DM	**12/13/22**	**1206**	**14.0**	**12.0**	**12.4**	**None**	**12.4**
	12/13/22	**1231**	**14.0**	**12.0**	**12.3**	**None**	**12.3**
BORING COMPLETED: **12/13/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-707 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23		SAND, fine to medium grained, brown, waterbearing, medium dense (SP) *(continued)*	COARSE ALLUVIUM *(continued)*									
24												
25				27	W	SS	17					
26												
27												
28												
29												
30				22	W	SS	20					
31												
32												
33	744.3	SILTY SAND, fine grained, brown, waterbearing, medium dense (SM)										
34												
35												
36				11	W	SS	6					
37												
38	739.3	SILT with sand, dark gray, waterbearing, very loose (ML)	FINE ALLUVIUM									
39												
40				4	W	SS	22					
41	735.8	*End of boring at 41.5 feet*										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-708 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **780.9**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	779.9	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	5	M	SS	18					
2		FILL, sand, fine to medium grained, brown to light brown, moist (SP)	FILL									
3				11	M	SS	18					
4												
5				7	M	SS	17					
6												
7												
8				10	M	SS	16	2				3
9												
10				13	M	SS	18					
11												
12	768.9	FILL, sand with silt, fine grained, brown, moist (SP-SM)										
13	767.7	SILTY SAND, fine grained, gray and brown, moist, medium dense (SM)	COARSE ALLUVIUM	11	M	SS	16					
14	766.4	SILT, gray and brown, moist to waterbearing, very loose (ML)	FINE ALLUVIUM									
15				3	M	SS	22					
16												
17												
18	762.9	SAND, fine to medium grained, brown, waterbearing, very loose to medium dense (SP)	COARSE ALLUVIUM									
19												
20												
21				3	W	SS	15					

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	WATER LEVEL MEASUREMENTS						
19.5-39.5' RD w/DM	**12/13/22**	**1557**	**21.5**	**19.5**	**19.3**	**None**	**17.3**
	12/13/22	**1615**	**21.5**	**19.5**	**18.5**	**None**	**17.1**
BORING COMPLETED: **12/13/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-708 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23		SAND, fine to medium grained, brown, waterbearing, very loose to medium dense (SP) *(continued)*	COARSE ALLUVIUM *(continued)*									
24												
25				23	W	SS	14					
26												
27												
28												
29												
30				16	W	SS	16					
31												
32												
33	747.9	SILT, dark gray, waterbearing, loose, with trace organics (ML)	FINE ALLUVIUM									
34												
35												
36				9	W	SS	24					
37												
38	742.9	Weathered bedrock: gravelly SILTY SAND, fine to medium grained, brown, waterbearing, very dense (SM)	WEATHERED BEDROCK									
39												
40	740.5	*End of boring at 40.4 feet*		50/.4	W	SS	6					

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-709 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **779.4** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	778.7	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	2	M	SS	19					
2		FILL, sand, fine to medium grained, brown, moist (SP)	FILL									
3				12	M	SS	21					
5				11	M	SS	17					
7	772.4	FILL, sand with silt, fine grained, brown, moist (SP-SM)		11	M	SS	18					
9	769.9	FILL, sandy silt, gray and brown, moist, with lenses of sand (SM)		6	M	SS	20	18				51
12	767.4	FILL, sand with silt, fine grained, dark grayish brown, moist to waterbearing (SP-SM)		4	W	SS	24					
14	764.9	SAND, fine to medium grained, brown, waterbearing, medium dense (SP)	COARSE ALLUVIUM	11	W	SS	16					
18	761.4	SAND WITH SILT, fine to medium grained, brown, waterbearing, medium dense (SP-SM)		14	W	SS	21					

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14.5' 3.25" HSA	**12/13/22**	**1420**	**16.5**	**14.5**	**14.1**	**None**	**13.8**
14.5-39.5' RD w/DM	**12/13/22**	**1430**	**16.5**	**14.5**	**13.9**	**None**	**13.4**
BORING COMPLETED: **12/13/22**							
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-709 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23	756.4	SILTY SAND, fine grained, brown, waterbearing, loose (SM)		10	W	SS	24					
28	751.4	SAND, fine to medium grained, brown, waterbearing, medium dense (SP)		25	W	SS	17					
33	746.4	Weathered bedrock: SILTY SAND, fine to medium grained, reddish brown, waterbearing, very dense (SM)	WEATHERED BEDROCK	50/.4	W	SS	10					
39	741.4	Weathered bedrock: CLAYEY GRAVEL with sand, brown, waterbearing, very dense (GC)		50/.3	W	SS	2					
	739.6	*End of boring at 39.8 feet*										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-710 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **781.9**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	780.9	FILL (about 12 inches), gravelly silty sand, fine to medium grained, brown, moist (SM)	FILL	19	M	SS	17					
2	779.9	FILL, sand, fine to medium grained, yellowish brown, moist (SP)										
3		FILL, sand with silt, fine to medium grained, dark brown, moist (SP-SM)		15	M	SS	24					
4	777.4											
5		FILL, sand, fine grained, yellowish brown, moist (SP)		10	M	SS	24	3				1
6												
7												
8				6	M	SS	18					
9	772.4											
10		FILL, sand, fine to medium grained, brown, moist, possible coarse alluvium (SP)		14	M	SS	21					
11												
12												
13				19	M	SS	17					
14												
15	766.4											
16		Sandy SILT, gray and brown, wet, loose, with laminations of sand (ML)	FINE ALLUVIUM	9	M/W	SS	20					
17												
18	763.9											
19		SAND, fine to medium grained, brown, waterbearing, medium dense to dense (SP)	COARSE ALLUVIUM									
20				15	W	SS	24					
21												

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA							
19.5-39.5' RD w/DM	**12/13/22**	**1010**	**21.5**	**19.5**	**19.2**	**None**	**18.4**
	12/13/22	**1023**	**21.5**	**19.5**	**18.8**	**None**	**17.8**
BORING COMPLETED: **12/13/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-710 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23		SAND, fine to medium grained, brown, waterbearing, medium dense to dense (SP) *(continued)*	COARSE ALLUVIUM *(continued)*									
24												
25												
26				35	W	SS	10					
27												
28	753.9											
29		SAND, fine grained, brown, waterbearing, medium dense to dense (SP)										
30												
31				21	W	SS	15					
32												
33												
34												
35				35	W	SS	10					
36												
37												
38	743.9											
39		SILT with sand, dark gray, waterbearing, loose, with trace organics (ML)	FINE ALLUVIUM									
40												
41	740.4			6	W	SS	24					
		End of boring at 41.5 feet										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-711 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation 777.1 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1		FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	4	M	SS	21					
2												
3	774.1											
		FILL, sand, fine to medium grained, brown, moist (SP)	FILL	3	M	SS	18					
4	772.6					P						
5		FILL, sand with silt, fine grained, yellowish brown, moist (SP-SM)		6	M	SS	17	2				7
6												
7						P						
8				10	M	SS	24					
9	767.6					P						
10		SAND, fine grained, brown, moist to waterbearing, loose, with lenses of silty sand (SP)	COARSE ALLUVIUM	7	M▼W	SS	18					
11												
12	765.1					P						
13		SAND, fine to medium grained, brown to greenish brown, waterbearing, loose to medium dense, with laminations of silty sand from 14.5 to 16.5 feet (SP)		7	W	SS	17					
14												
15				15	W	SS	15					
16												
17												
18												
19												
20				18	W	SS	17					
21	756.1											

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-12.0' 3.25" HSA								
12.0-39.5' RD w/DM	**12/14/22**	**1545**	**14.0**	**12.0**	**11.8**	**None**	**11.2**	
	12/14/22	**1645**	**14.0**	**12.0**	**11.7**	**None**	**10.8**	
BORING COMPLETED: **12/14/22**								
DR: **GM** LG: **TT** Rig: **67**								

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-711 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23	754.1	SAND WITH SILT, fine to medium grained, dark brown, waterbearing, medium dense (SP-SM) *(continued)*										
24		SAND, fine to medium grained, brown, waterbearing, medium dense to dense, with laminations of silty sand (SP)										
25												
26				30	W	SS	17					
27												
28												
29												
30												
31				33	W	SS	16					
32												
33	744.1											
34		Weathered bedrock: Gravelly SILTY SAND, fine to medium grained, yellowish brown, waterbearing, very dense (SM)	WEATHERED BEDROCK									
35				50/.5	W	SS	8					
36												
37												
38	739.1											
39		Weathered bedrock: GRAVEL, brown, waterbearing, very dense (GP)										
	737.4			50/.2	W	SS	1					
		End of boring at 39.7 feet										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-712 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **771.8**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	770.3	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	3	M	SS	22					
2		FILL, sand with silt, fine to medium grained, dark brown, moist, with trace organics (SP-SM)	FILL									
3	768.8			4	M	SS	21					
4	767.3	FILL, sand, fine to medium grained, yellowish brown, moist (SP)										
5		SAND, fine grained, brown, moist to waterbearing, loose, with laminations of silty sand from 9.5 to 11.5 feet (SP)	COARSE ALLUVIUM	9	~~M~~	SS	24					
6												
7												
8				8	M	SS	16					
9												
10				6	M/W	SS	15					
11												
12	759.8	SAND, fine to medium grained, brown, waterbearing, medium dense (SP)		13	W	SS	24					
13												
14	757.3	SAND, fine grained, brown, waterbearing, loose to medium dense (SP)										
15				13	W	SS	17					
16												
17												
18												
19												
20				8	W	SS	17					
21	750.3	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-19.5' 3.25" HSA	**12/19/22**	**1408**	**21.5**	**19.5**	**16.7**	**None**	**12.2**	
	12/19/22	**1428**	**21.5**	**19.5**	**14.0**	**None**	**5.5**	
BORING COMPLETED: **12/19/22**								
DR: **GM** LG: **TT** Rig: **67**								

AET_CORP W-ELEV P-0018651.GPJ AET+OPT+WELL.GDT 2/1/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-713 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **776.5**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	775.4	FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	1	M	SS	18					
2		FILL, sand with silt, fine to medium grained, brown, moist, with trace organics (SP-SM)	FILL									
3	773.5	FILL, sand, fine to medium grained, yellowish brown, moist (SP)		3	M	SS	18					
4												
5				5	M	SS	16					
6												
7												
8				13	M	SS	17					
9	767.0											
10	766.5	SAND, fine grained, brown, moist (SP)	COARSE ALLUVIUM									
11	766.0	Sandy SILT, gray and brown, moist, with trace organics (ML)	FINE ALLUVIUM	7	M/W	SS	24					
12	764.5	SAND, fine to medium grained, brown, moist to waterbearing (SP)	COARSE ALLUVIUM									
13	763.5	SILTY SAND, fine to medium grained, gray and brown, waterbearing, loose (SM)		7	W	SS	22					
14	762.0	SAND, fine to medium grained, brown, waterbearing, loose (SP)										
15		SAND, fine grained, brown, waterbearing, loose (SP)		10	W	SS	15					
16												
17												
18												
19												
20				6	W	SS	21					
21	755.0	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-12.0' 3.25" HSA								
12.0-19.5' HSA w/DM	**12/14/22**	**1430**	**14.0**	**12.0**	**12.6**	**None**	**12.1**	
	12/14/22	**1515**	**14.0**	**12.0**	**11.9**	**None**	**11.3**	
BORING COMPLETED: **12/14/22**								
DR: **GM** LG: **TT** Rig: **67**								

AET_CORP W-ELEV P-0018651.GPJ AET+OPT+WELL.GDT 2/1/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-714 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **775.9**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	775.3	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	2	M	SS	24					
2	773.9	FILL, sand with silt, fine to medium grained, brown, moist (SP-SM)	FILL									
3		FILL, sand, fine to medium grained, light yellowish brown, moist (SP)		7	M	SS	18					
4												
5				7	M	SS	24					
6												
7	768.9	SAND, fine to medium grained, light grayish brown, moist, medium dense, with lenses of silty sand from 9.5 to 11.5 feet (SP)	COARSE ALLUVIUM									
8				13	M	SS	20					
9												
10												
11				17	M	SS	21					
12	763.9	SAND, fine grained, grayish brown, moist to waterbearing, medium dense (SP)										
13				12	MW	SS	24					
14	761.4	SILT, gray and brown, waterbearing, very loose (ML)	FINE ALLUVIUM									
15				2	W	SS	20					
16												
17												
18	757.9	SAND, fine to medium grained, brown, waterbearing, medium dense (SP)	COARSE ALLUVIUM									
19												
20												
21	754.4			16	W	SS	18					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/19/22**	**1257**	**21.5**	**19.5**	**19.5**	**None**	**16.1**
	12/19/22	**1308**	**21.5**	**19.5**	**17.3**	**None**	**13.0**
BORING COMPLETED: **12/19/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-715 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **773.0**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	771.8	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	3	M	SS	24					
2	771.0	FILL, sand with silt, fine to medium grained, brown, moist, with trace organics (SP-SM)	FILL									
3		FILL, sand, fine to medium grained, light yellowish brown, moist (SP)		5	M	SS	18					
4	768.5											
5	767.5	FILL, sand, fine grained, gray, moist, with trace organics (SP)										
6		Sandy SILT, gray with brown mottling, moist, loose (ML)	FINE ALLUVIUM	8	M	SS	21					
7	766.0	SILTY SAND, fine grained, gray with brown mottling, moist, loose, with laminations of sand (SM)	COARSE ALLUVIUM									
8	765.0	SAND, fine to medium grained, brown, moist to waterbearing, loose (SP)		9	M	SS	19					
9												
10				10	M/W	SS	24					
11												
12												
13				10	W	SS	15					
14	758.5	SAND, fine grained, brown, waterbearing, loose (SP)										
15				9	W	SS	15					
16												
17												
18	755.0	SAND, fine to medium grained, brown, waterbearing, loose (SP)										
19												
20												
21	751.5			5	W	SS	19					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-9.5' 3.25" HSA							
9.5-19.5' HSA w/DM	**12/15/22**	**1100**	**11.5**	**9.5**	**9.7**	**None**	**9.6**
	12/15/22	**1202**	**11.5**	**9.5**	**9.6**	**None**	**9.6**
BORING COMPLETED: **12/15/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-716 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **774.6**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	773.9	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	2	M	SS	24					
2	772.6	FILL, sand with silt, fine to medium grained, brown, moist, with trace organics (SP-SM)	FILL									
3		FILL, sand, fine to medium grained, yellowish brown to light yellowish brown, with lenses of silty sand from 7 to 9 feet (SP)		2	M	SS	18					
4												
5				4	M	SS	21					
6												
7												
8				11	M	SS	19					
9	765.1											
10	764.1	SILT with sand, gray with brown mottling, moist to waterbearing, loose (ML)	FINE ALLUVIUM	5	M/W	SS	22					
11		SAND, fine to medium grained, brown, waterbearing, loose (SP)	COARSE ALLUVIUM									
12	762.6											
13		SAND, fine grained, brown, waterbearing, medium dense (SP)		13	W	SS	14					
14												
15				15	W	SS	16					
16												
17												
18	756.6	SILT, dark gray, waterbearing, very loose (ML)	FINE ALLUVIUM									
19												
20				3	W	SS	13					
21	753.1											
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-9.5' 3.25" HSA							
9.5-19.5' HSA w/DM	**12/15/22**	**1315**	**11.5**	**9.5**	**10.2**	**None**	**10.2**
	12/15/22	**1335**	**11.5**	**9.5**	**10.2**	**None**	**10.2**
BORING COMPLETED: **12/15/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-717 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **778.5**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	778.0	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	3	M	SS	17					
2		FILL, sand, fine grained, brown to yellowish brown, moist, with lenses of silty sand from 4.5 to 6.5 feet (SP)	FILL									
3				10	M	SS	16	8				4
4												
5												
6				10	M	SS	21					
7	771.5											
8		FILL, sand, fine to medium grained, brown, moist to waterbearing, with lenses of silty sand from 9.5 to 11.5 feet (SP)		12	M	SS	24					
9												
10												
11				14	M/W	SS	24					
12	766.5											
13		SAND, fine grained, brown, waterbearing, medium dense, with laminations of sandy silt (SP)	COARSE ALLUVIUM	13	W	SS	18					
14	764.0											
15		SAND, fine to medium grained, grayish green to brown, waterbearing, medium dense (SP)										
16				13	W	SS	20					
17												
18												
19												
20												
21	757.0			18	W	SS	21					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14.5' 3.25" HSA							
14.5-19.5' HSA w/DM	**12/14/22**	**0835**	**16.5**	**14.5**	**13.6**	**None**	**13.3**
	12/14/22	**0945**	**16.5**	**14.5**	**13.5**	**None**	**11.0**
BORING COMPLETED: **12/14/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-718 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **778.1**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
0	777.6	FILL, sand with silt and organics, fine to medium grained, dark brown, moist (SP-SM)	TOPSOIL / FILL	4	M	SS	21					
1–4		FILL, sand with silt, fine grained, yellowish brown, moist, with lenses of silty sand from 2 to 4 feet (SP-SM)		6	M	SS	16	4				7
5–8				7	M	SS	18					
9	768.6			9	M	SS	21					
10		SAND, fine grained, brown, moist, medium dense (SP)	COARSE ALLUVIUM	12	M	SS	17					
11	766.1											
12–13		SAND, fine to medium grained, brown, moist to waterbearing, loose (SP)		10	M/W	SS	18					
14	763.6											
15–20		SAND, fine grained, brown, waterbearing, loose, with laminations of sandy silt from 19.5 to 21.5 feet (SP)		6	W	SS	20					
				7	W	SS	10					
21	756.6	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/12/22**	**1445**	**14.0**	**12.0**	**12.3**	**None**	**12.3**
	12/12/22	**1500**	**16.5**	**14.5**	**14.5**	**None**	**14.1**
BORING COMPLETED: **12/12/22**	**12/12/22**	**1510**	**16.5**	**14.5**	**14.3**	**None**	**13.3**
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-719 (p. 1 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **774.2**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
0	773.7	FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	WH	M	SS	16					
1–2		FILL, sand with silt, fine to medium grained, dark brown, moist, with trace organics to 2 feet (SP-SM)	FILL									
3	771.2	FILL, sand with silt, fine grained, light brown and brown, moist to waterbearing, with lenses of silty sand from 4.5 to 6.5 feet (SP-SM)		3	M	SS	18					
4–7				7	M	SS	24	6				9
8				10	M/W	SS	16					
9	764.7											
10		SAND, fine to medium grained, brown, waterbearing, loose (SP)	COARSE ALLUVIUM	10	W	SS	24					
11	762.2											
12–13		SAND, fine grained, brown, waterbearing, loose to medium dense (SP)		13	W	SS	16					
14–15				10	W	SS	15					
16–20												
21				18	W	SS	16					

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-9.5' 3.25" HSA							
9.5-29.5' RD w/DM	**12/14/22**	**1030**	**11.5**	**9.5**	**9.3**	**None**	**9.0**
	12/15/22	**1040**	**11.5**	**9.5**	**9.2**	**None**	**8.3**
BORING COMPLETED: **12/14/22**							
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-719 (p. 2 of 2)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
23		SAND, fine grained, brown, waterbearing, loose to medium dense (SP) *(continued)*										
24												
25	749.2											
25		Sandy SILT, brown, waterbearing, medium dense (ML)	FINE ALLUVIUM	11	W	SS	18					
26												
27												
28	746.2											
28		SAND WITH SILT, fine to medium grained, brown, waterbearing, dense (SP-SM)	COARSE ALLUVIUM									
29												
30				32	W	SS	17					
31	742.7											
		End of boring at 31.5 feet										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-720 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **777.9**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	776.8	FILL (about 13.5 inches), gravelly silty sand, fine to medium grained, light brown, moist (SM)	FILL		F/M	DS						
	776.2	FILL (about 6.5 inches), gravelly silty sand, fine to medium grained, grayish brown, moist (SM)										
2												
3		FILL, sand with silt, fine grained, brown, moist, with lenses of silty sand (SP-SM)		35	M	SS	14	10				9
4	773.4											
5	772.4	FILL, silty sand, fine to medium grained, dark brown, moist, with trace organics (SM)		37	M	SS	16					
6		FILL, sand, fine to medium grained, gray, moist (SP)										
7	770.9	*Apparent cobbles from 6.2 to 9.2 feet*										
	770.4	FILL, sand with silt, fine to medium grained, gray, moist, with trace organics (SP-SM)		6	M	SS	18					
8	769.4											
9		FILL, silt, very dark brown, moist, with lenses of lean clay (ML)										
10	767.9	FILL, sand, fine to medium grained, gray, moist, with lenses of silty sand (SP)	BURIED TOPSOIL	5	M	SS	18					
11		SILT with organics, gray, moist to waterbearing, loose (OL)										
12	765.9	Sandy SILT, dark gray, waterbearing, loose (ML)	FINE ALLUVIUM	8	W	SS	16					
13												
14	763.4	SAND, fine to medium grained, dark gray, waterbearing, loose (SP)	COARSE ALLUVIUM	8	W	SS	12					
15												
16												
17												
18	759.9	SAND, fine grained, gray, waterbearing, medium dense (SP)										
19												
20	757.4			14	W	SS	14					
21	756.4	SILTY SAND, fine grained, brown and gray, waterbearing, medium dense (SM)										
		End of boring at 21.5 feet										

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/19/22**	**1340**	**14.0**	**12.0**	**13.2**	**None**	**12.8**
	12/19/22	**1350**	**14.0**	**12.0**	**13.4**	**None**	**10.9**
BORING COMPLETED: **12/19/22**							
DR: **KS** LG: **LD** Rig: **101**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-721 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **772.4** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	771.6	SILTY SAND with organics, fine to medium grained, very dark brown, moist, possible fill (SM)	TOPSOIL									
		SAND, fine to medium grained, gray to dark gray, moist to waterbearing, very loose to medium dense, with trace organics to 2 feet, possible fill (SP)	COARSE ALLUVIUM	2	M	SS	18					
3				11	M	SS	8					
5				8	M▼W	SS	20					
8				9	W	SS	16					
11				8	W	SS	18					
12	760.4	SAND, fine to medium grained, gray, loose to medium dense (SP)										
13				10	W	SS	24					
16				16	W	SS	24					
21	750.9			12	W	SS	24					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/20/22**	**1400**	**21.5**	**19.5**	**15.3**	**None**	**8.6**
	12/20/22	**1415**	**21.5**	**19.5**	**12.0**	**None**	**5.8**
BORING COMPLETED: **12/20/22**							
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-722 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **775.7** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1		FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	WH	M	SS	16					
3	772.7	FILL, sand, fine to medium grained, brown to light yellowish brown, moist, with trace organics to 4 feet (SP)	FILL	3	M	SS	18					
5				7	M	SS	22					
7	768.7	SAND, fine grained, grayish brown, moist to waterbearing, medium dense (SP)	COARSE ALLUVIUM	12	M▼W	SS	17					
9	766.2	SAND WITH SILT, fine to medium grained, brown, waterbearing, loose (SP-SM)		7	W	SS	17					
12	763.7	SAND, fine to medium grained, grayish brown, waterbearing, medium dense, with laminations of silt from 19.5 to 21.5 feet (SP)		15	W	SS	15					
15				12	W	SS	16					
21	754.2			14	W	SS	21					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-9.5' 3.25" HSA							
9.5-19.5' HSA w/DM	**12/14/22**	**1245**	**11.5**	**9.5**	**9.3**	**None**	**8.8**
	12/14/22	**1355**	**11.5**	**9.5**	**9.2**	**None**	**8.3**
BORING COMPLETED: **12/14/22**							
DR: **GM** LG: **TT** Rig: **67**							

WATER LEVEL MEASUREMENTS

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-723 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **772.1** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1		FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	3	M	SS	17					
2	770.1											
3		FILL, sand, fine to medium grained, yellowish brown, moist (SP)	FILL	8	M	SS	16					
4	767.6				▼							
5		SAND, fine to medium grained, gray, waterbearing, loose to medium dense (SP)	COARSE ALLUVIUM	14	W	SS	18					
6												
7												
8				19	W	SS	15					
9												
10				13	W	SS	17					
11												
12												
13				7	W	SS	15					
14												
15				10	W	SS	18					
16												
17												
18	754.1	SAND, fine grained, gray, waterbearing, loose (SP)										
19												
20				5	W	SS	15					
21	750.6											
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/14/22**	**1115**	**6.5**	**4.5**	**4.3**	**None**	**4.3**
	12/14/22	**1145**	**6.5**	**4.5**	**4.5**	**None**	**4.0**
BORING COMPLETED: **12/14/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-724 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **788.2** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
	788.0	3.0 inches of bituminous pavement	PAVEMENT									
1	787.1	FILL (about 10 inches), gravelly silty sand, fine to medium grained, brown, moist (SM)	FILL		F/M	DS						
2	786.2	FILL (about 11 inches), gravelly silty sand, fine to medium grained, dark grayish brown, moist (SM)		55	M	SS	18	11				4
3		FILL, sand, fine to medium grained, yellowish brown, moist, with lenses of silty sand from 2 to 4 feet (SP)										
4												
5				32	M	SS	18					
6												
7	781.2											
8	779.7	SILTY SAND with roots, fine to medium grained, very dark brown, moist (SM)	BURIED TOPSOIL	7	M	SS	18					
9		SAND, fine to medium grained, grayish brown to gray, moist to waterbearing, loose to medium dense (SP)	COARSE ALLUVIUM									
10				19	▼ M/W	SS	8					
11												
12	776.2	SAND, fine grained, grayish brown, waterbearing, medium dense (SP)		16	W	SS	16					
13												
14	773.7											
15		SAND, fine to medium grained, grayish brown, waterbearing, loose (SP)		5	W	SS	18					
16												
17												
18	770.2	SILT, dark gray, waterbearing, very loose (ML)	FINE ALLUVIUM									
19												
20				3	W	SS	17					
21	766.7											
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/19/22**	**1045**	**14.0**	**12.0**	**11.6**	**None**	**10.9**
	12/19/22	**1100**	**14.0**	**12.0**	**11.1**	**None**	**10.1**
BORING COMPLETED: **12/19/22**							
DR: **KS** LG: **LD** Rig: **101**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-725 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **776.7** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	776.1	FILL (about 7 inches), gravelly silty sand, fine to medium grained, brown, moist (SM)	FILL		F/M	DS						
	775.6	FILL (about 6 inches), gravelly silty sand, fine to medium grained, dark brown, moist (SM)										
3		FILL, sand, fine grained, orangish brown, moist, with trace organics from 7 to 9 feet (SP)		22	M	SS	14	11				5
6				40	M	SS	2					
8				14	M	SS	18					
9	767.2				▼							
10		FILL, sand with silt, fine to medium grained, gray and brown, waterbearing (SP-SM)		4	W	SS	14					
12	764.7	SAND, fine to medium grained, gray, waterbearing, loose, with trace organics from 12 to 14 feet (SP)	COARSE ALLUVIUM	8	W	SS	18					
15				7	W	SS	14					
18	758.7	SILT, dark gray, waterbearing, very loose (ML)	FINE ALLUVIUM									
21	755.2			4	W	SS	8					
		End of boring at 21.5 feet										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/19/22**	**1450**	**11.5**	**9.5**	**9.4**	**None**	**9.2**
	12/19/22	**1505**	**11.5**	**9.5**	**9.4**	**None**	**9.1**
BORING COMPLETED: **12/19/22**							
DR: **KS** LG: **LD** Rig: **101**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-726 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

DEPTH IN FEET	ELEV. FEET	Surface Elevation **774.8** MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	774.2	FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	3	M	SS	18	11				3
2	772.8	FILL, sand, fine to medium grained, brown, moist (SP)	FILL									
	772.3	FILL, sand with silt, fine to medium grained, dark brown and brown, moist (SP-SM)		14	M	SS	24					
5		FILL, sand, fine to medium grained, grayish brown to yellowish brown, moist, with lenses of silty sand from 4.5 to 6.5 feet (SP)		11	M	SS	20					
7	767.8	SILT, gray with brown mottling, moist, loose, with trace organics (ML)	FINE ALLUVIUM	9	M	SS	24					
	766.3	SAND, fine to medium grained, brown, moist to waterbearing, loose (SP)	COARSE ALLUVIUM									
10				10	M	SS	17					
13				8	M/W	SS	16					
14	760.3	SAND, fine grained, brown, waterbearing, loose (SP)		7	W	SS	14					
18	756.8	SAND, fine to medium grained, brown, waterbearing, medium dense, with laminations of silt (SP)		18	W	SS	18					
21	753.3	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/20/22**	**0940**	**21.5**	**19.5**	**18.1**	**None**	**15.0**
	12/20/22	**1000**	**21.5**	**19.5**	**17.9**	**None**	**12.7**
BORING COMPLETED: **12/20/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-727 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **782.7**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	782.0	FILL, silty sand with organics, fine to medium grained, dark brown, moist (SM)	TOPSOIL / FILL	4	M	SS	16					
	781.5	FILL, sand, fine to medium grained, brown, moist (SP)	FILL									
2	780.2	FILL, sand with silt, fine to medium grained, dark brown, moist, with trace organics (SP-SM)		13	M	SS	22					
3												
4	778.2	FILL, sand with silt, fine to medium grained, brown, moist (SP-SM)										
5		FILL, sand, fine to medium grained, yellowish brown, moist, with lenses of silty sand (SP)		8	M	SS	18					
6												
7	775.7	FILL, silty sand, fine grained, yellowish brown, moist, with trace roots (SM)		11	M	SS	19	7				22
8												
9	773.2	FILL, sand, fine to medium grained, yellowish brown, moist, with lenses of silty sand (SP)		20	M	SS	18					
10												
11	770.7	SAND, fine to medium grained, greenish brown to grayish brown and reddish brown, moist to waterbearing, loose to medium dense, with laminations of silty sand from 12 to 14 feet (SP)	COARSE ALLUVIUM	16	M	SS	16					
12												
13												
14												
15				10	M	SS	17					
16												
17												
18												
19												
20				9	W	SS	21					
21	761.2	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-19.5' 3.25" HSA	**12/12/22**	**1240**	**21.5**	**19.5**	**19.5**	**None**	**17.9**
	12/12/22	**1250**	**21.5**	**19.5**	**18.1**	**None**	**17.4**
BORING COMPLETED: **12/12/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-728 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **776.0**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
1	775.5	FILL, silty sand with organics, fine to medium grained, very dark brown, moist (SM)	TOPSOIL / FILL	6	M	SS	18					
		FILL, sand with silt, fine to medium grained, brown, moist (SP-SM)	FILL									
2	774.0	FILL, sand, fine to medium grained, grayish brown and gray, moist (SP)		12	M	SS	20					
3												
4	771.5	FILL, sand with silt, fine grained, very dark brown, moist to waterbearing (SP-SM)		15	M/W	SS	24	9				10
5												
6	769.0	FILL, sand with silt, fine to medium grained, dark gray, waterbearing, with wood pieces (SP-SM)		6	W	SS	24					
7	767.5	SILTY SAND with roots, fine to medium grained, dark gray, waterbearing, with laminations of silt (SM)	BURIED TOPSOIL									
8	766.5	SAND, fine to medium grained, gray, waterbearing, loose to medium dense (SP)	COARSE ALLUVIUM	20	W	SS	18					
9												
10				10	W	SS	14					
11												
12				20	W	SS	16					
13												
14												
15												
16												
17												
18												
19				19	W	SS	18					
20												
21	754.5	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-7.0' 3.25" HSA							
7.0-19.5' HSA w/DM	**12/12/22**	**0915**	**9.0**	**7.0**	**9.0**	**None**	**7.0**
	12/12/22	**0925**	**9.0**	**7.0**	**6.9**	**None**	**5.9**
BORING COMPLETED: **12/12/22**							
DR: **GM** LG: **TT** Rig: **67**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+CPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

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SUBSURFACE BORING LOG

AET No: **P-0018651** Log of Boring No. **B-729 (p. 1 of 1)**

Project: **Project ID 1071-07-09; Sparta Rest Area No. 16; IH-90; Monroe County**

Surface Elevation **784.8**

DEPTH IN FEET	ELEV. FEET	MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	qp	LL	PL	%-#200
	784.5	3.5 inches of bituminous pavement	PAVEMENT									
1	783.8	FILL (about 9 inches), gravelly silty sand, fine to medium grained, dark brown, moist (SM)	FILL		F/M	SS						
	783.5	FILL (about 3.5 inches), gravelly silty sand, fine to medium grained, light brown, moist (SM)		38	M	SS	14	5				6
4		FILL, sand with silt, fine to medium grained, orangish brown to yellowish brown, moist (SP-SM)		35	M	SS	16					
8	776.8	FILL, sand, fine to medium grained, gray and brown, moist, with lenses of silty sand (SP)		27	M	SS	18					
9	775.3	SAND, fine to medium grained, grayish brown, moist to waterbearing, loose to medium dense (SP)	COARSE ALLUVIUM	19	M/W	SS	16					
13				5	W	SS	12					
15				9	W	SS	16					
20				5	W	SS	14					
21	763.3	*End of boring at 21.5 feet*										

DEPTH: DRILLING METHOD	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
WATER LEVEL MEASUREMENTS							
0-19.5' 3.25" HSA	**12/19/22**	**1225**	**14.0**	**12.0**	**11.5**	**None**	**10.5**
	12/19/22	**1240**	**14.0**	**12.0**	**10.6**	**None**	**9.9**
BORING COMPLETED: **12/19/22**							
DR: **KS** LG: **LD** Rig: **101**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AET_CORP W-ELEV P-0018651.GPJ AET+OPT+WELL.GDT 2/11/23

03/2011 01-DHR-060

Estimate Of Quantities

1071-07-80

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	43.000	43.000
0004	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0006	203.0216.S	Abatement of Asbestos Containing Material (project) 01. 1071-07-80	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	16,700.000	16,700.000
0010	204.0155	Removing Concrete Sidewalk	SY	1,090.000	1,090.000
0012	204.0170	Removing Fence	LF	2,220.000	2,220.000
0014	204.0180	Removing Delineators and Markers	EACH	33.000	33.000
0016	204.0195	Removing Concrete Bases	EACH	16.000	16.000
0018	204.0220	Removing Inlets	EACH	5.000	5.000
0020	204.0225	Removing Septic Tanks	EACH	1.000	1.000
0022	204.0231	Removing Building (station) 01. STA 1198+70 RA	EACH	1.000	1.000
0024	204.0241	Site Clearance (parcel) 01. Existing Rest Area Site	EACH	1.000	1.000
0026	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	210.000	210.000
0028	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	242.000	242.000
0030	204.0265	Abandoning Wells	EACH	5.000	5.000
0032	204.9060.S	Removing (item description) 01. LP Tanks	EACH	1.000	1.000
0034	204.9060.S	Removing (item description) 02. Street Light Assembly	EACH	13.000	13.000
0036	205.0100	Excavation Common	CY	41,866.000	41,866.000
0038	208.0100	Borrow	CY	20,618.000	20,618.000
0040	213.0100	Finishing Roadway (project) 01. 1071-07-80	EACH	1.000	1.000
0042	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,500.000	1,500.000
0044	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	20,900.000	20,900.000
0046	312.0110	Select Crushed Material	TON	2,591.000	2,591.000
0048	405.0100	Coloring Concrete WisDOT Red	CY	250.000	250.000
0050	415.0070	Concrete Pavement 7-Inch	SY	400.000	400.000
0052	415.0080	Concrete Pavement 8-Inch	SY	4,000.000	4,000.000
0054	415.0100	Concrete Pavement 10-Inch	SY	29,300.000	29,300.000
0056	415.0120	Concrete Pavement 12-Inch	SY	4,100.000	4,100.000
0058	415.4100	Concrete Pavement Joint Filling	SY	22,000.000	22,000.000
0060	415.6000.S	Rout and Seal	LF	9,700.000	9,700.000
0062	416.0610	Drilled Tie Bars	EACH	1,770.000	1,770.000
0064	416.0620	Drilled Dowel Bars	EACH	32.000	32.000
0066	455.0605	Tack Coat	GAL	330.000	330.000
0068	460.2000	Incentive Density HMA Pavement	DOL	830.000	830.000
0070	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,300.000	1,300.000
0072	465.0315	Asphaltic Flumes	SY	425.000	425.000
0074	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	890.000	890.000
0076	522.0112	Culvert Pipe Reinforced Concrete Class III 12-Inch	LF	38.000	38.000
0078	522.0121	Culvert Pipe Reinforced Concrete Class III 21-Inch	LF	123.000	123.000
0080	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	146.000	146.000
0082	522.0421	Culvert Pipe Reinforced Concrete Class IV 21-Inch	LF	27.000	27.000
0084	522.0427	Culvert Pipe Reinforced Concrete Class IV 27-Inch	LF	47.000	47.000
0086	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	154.000	154.000
0088	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0090	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	4.000	4.000
0092	522.1021	Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch	EACH	4.000	4.000
0094	522.1027	Apron Endwalls for Culvert Pipe Reinforced Concrete 27-Inch	EACH	2.000	2.000
0096	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0098	531.1100	Concrete Masonry Ancillary Structures Type NS	CY	6.000	6.000
0100	531.1140	Steel Reinforcement HS Ancillary Structures Type NS	LB	730.000	730.000

Estimate Of Quantities

1071-07-80

Line	Item	Item Description	Unit	Total	Qty
0102	531.2024	Drilling Shaft 24-Inch	LF	29.000	29.000
0104	531.2036	Drilling Shaft 36-Inch	LF	10.000	10.000
0106	531.2048	Drilling Shaft 48-Inch	LF	45.000	45.000
0108	531.4050	Foundation Camera Pole 50-FT	EACH	1.000	1.000
0110	531.4500	Foundation High Mast 100-FT (structure) 01. L-41-0003	EACH	1.000	1.000
0112	531.4500	Foundation High Mast 100-FT (structure) 02. L-41-0004	EACH	1.000	1.000
0114	531.4500	Foundation High Mast 100-FT (structure) 03. L-41-0005	EACH	1.000	1.000
0116	532.4500	High Mast 100-FT (structure) 01. L-41-0003	EACH	1.000	1.000
0118	532.4500	High Mast 100-FT (structure) 02. L-41-0004	EACH	1.000	1.000
0120	532.4500	High Mast 100-FT (structure) 03. L-41-0005	EACH	1.000	1.000
0122	602.3210	Concrete Rumble Strips, Shoulder Divided Roadway	LF	680.000	680.000
0124	606.0200	Riprap Medium	CY	340.000	340.000
0126	614.2300	MGS Guardrail 3	LF	212.500	212.500
0128	614.2340	MGS Guardrail 3 L	LF	112.500	112.500
0130	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0132	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
0134	616.0100	Fence Woven Wire (height) 01. 4-FT	LF	3,750.000	3,750.000
0136	616.0700.S	Fence Safety	LF	1,000.000	1,000.000
0138	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1071-07-80	EACH	1.000	1.000
0140	619.1000	Mobilization	EACH	1.000	1.000
0142	623.0200	Dust Control Surface Treatment	SY	41,600.000	41,600.000
0144	624.0100	Water	MGAL	380.000	380.000
0146	625.0100	Topsoil	SY	500.000	500.000
0148	625.0500	Salvaged Topsoil	SY	63,300.000	63,300.000
0150	628.1104	Erosion Bales	EACH	115.000	115.000
0152	628.1530.S	Silt Fence Heavy Duty	LF	7,100.000	7,100.000
0154	628.1535.S	Silt Fence Heavy Duty Maintenance	LF	7,100.000	7,100.000
0156	628.1905	Mobilizations Erosion Control	EACH	8.000	8.000
0158	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0160	628.2004	Erosion Mat Class I Type B	SY	59,400.000	59,400.000
0162	628.2006	Erosion Mat Urban Class I Type A	SY	5,500.000	5,500.000
0164	628.2027	Erosion Mat Class II Type C	SY	7,050.000	7,050.000
0166	628.7504	Temporary Ditch Checks	LF	660.000	660.000
0168	628.7555	Culvert Pipe Checks	EACH	30.000	30.000
0170	628.7560	Tracking Pads	EACH	5.000	5.000
0172	628.7570	Rock Bags	EACH	50.000	50.000
0174	629.0210	Fertilizer Type B	CWT	60.000	60.000
0176	630.0130	Seeding Mixture No. 30	LB	1,500.000	1,500.000
0178	630.0200	Seeding Temporary	LB	2,300.000	2,300.000
0180	630.0500	Seed Water	MGAL	1,900.000	1,900.000
0182	632.0101	Trees (species, root, size) 01. Evergreen Tree, 3" Height, B&B	EACH	270.000	270.000
0184	632.0201	Shrubs (species, root, size) 01. Shrub, 18" Height, BR	EACH	1,075.000	1,075.000
0186	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	24.000	24.000
0188	633.0100	Delineator Posts Steel	EACH	31.000	31.000
0190	633.0500	Delineator Reflectors	EACH	31.000	31.000
0192	633.5200	Markers Culvert End	EACH	14.000	14.000
0194	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0196	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	33.000	33.000
0198	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	9.000	9.000
0200	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	2.000	2.000

Estimate Of Quantities

1071-07-80

Line	Item	Item Description	Unit	Total	Qty
0202	635.0200	Sign Supports Structural Steel HS	LB	2,913.400	2,913.400
0204	637.1220	Signs Type I Reflective SH	SF	250.000	250.000
0206	637.2210	Signs Type II Reflective H	SF	338.000	338.000
0208	637.2230	Signs Type II Reflective F	SF	17.250	17.250
0210	638.2102	Moving Signs Type II	EACH	3.000	3.000
0212	638.2601	Removing Signs Type I	EACH	2.000	2.000
0214	638.2602	Removing Signs Type II	EACH	24.000	24.000
0216	638.3000	Removing Small Sign Supports	EACH	29.000	29.000
0218	638.3100	Removing Structural Steel Sign Supports	EACH	4.000	4.000
0220	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0222	643.0300	Traffic Control Drums	DAY	23,200.000	23,200.000
0224	643.0420	Traffic Control Barricades Type III	DAY	930.000	930.000
0226	643.0705	Traffic Control Warning Lights Type A	DAY	1,860.000	1,860.000
0228	643.0715	Traffic Control Warning Lights Type C	DAY	1,030.000	1,030.000
0230	643.0800	Traffic Control Arrow Boards	DAY	240.000	240.000
0232	643.0900	Traffic Control Signs	DAY	2,870.000	2,870.000
0234	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000
0236	643.0920	Traffic Control Covering Signs Type II	EACH	2.000	2.000
0238	643.1050	Traffic Control Signs PCMS	DAY	7.000	7.000
0240	643.1205.S	Basic Traffic Queue Warning System	DAY	55.000	55.000
0242	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	601.000	601.000
0244	643.5000	Traffic Control	EACH	1.000	1.000
0246	645.0120	Geotextile Type HR	SY	1,350.000	1,350.000
0248	646.2020	Marking Line Epoxy 6-Inch	LF	9,500.000	9,500.000
0250	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	3,750.000	3,750.000
0252	646.4020	Marking Line Epoxy 10-Inch	LF	800.000	800.000
0254	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,800.000	1,800.000
0256	646.5220	Marking Symbol Epoxy	EACH	4.000	4.000
0258	646.7020	Marking Diagonal Epoxy 6-Inch	LF	130.000	130.000
0260	646.7220	Marking Chevron Epoxy 24-Inch	LF	110.000	110.000
0262	646.8320	Marking Parking Stall Epoxy	LF	7,500.000	7,500.000
0264	646.9000	Marking Removal Line 4-Inch	LF	1,700.000	1,700.000
0266	646.9100	Marking Removal Line 8-Inch	LF	2,000.000	2,000.000
0268	650.4500	Construction Staking Subgrade	LF	8,920.000	8,920.000
0270	650.5000	Construction Staking Base	LF	85.000	85.000
0272	650.6000	Construction Staking Pipe Culverts	EACH	7.000	7.000
0274	650.7000	Construction Staking Concrete Pavement	LF	8,835.000	8,835.000
0276	650.8501	Construction Staking Electrical Installations (project) 01. 1071-07-80	EACH	1.000	1.000
0278	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0280	650.9911	Construction Staking Supplemental Control (project) 01. 1071-07-80	EACH	1.000	1.000
0282	650.9920	Construction Staking Slope Stakes	LF	8,920.000	8,920.000
0284	652.0125	Conduit Rigid Metallic 2-Inch	LF	10.000	10.000
0286	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	20.000	20.000
0288	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	3,265.000	3,265.000
0290	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	125.000	125.000
0292	652.0800	Conduit Loop Detector	LF	110.000	110.000
0294	653.0135	Pull Boxes Steel 24x36-Inch	EACH	1.000	1.000
0296	653.0140	Pull Boxes Steel 24x42-Inch	EACH	5.000	5.000
0298	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	6.000	6.000
0300	654.0105	Concrete Bases Type 5	EACH	18.000	18.000

1071-07-80

Line	Item	Item Description	Unit	Total	Qty
0302	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
0304	655.0210	Cable Traffic Signal 3-14 AWG	LF	1,440.000	1,440.000
0306	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,430.000	1,430.000
0308	655.0610	Electrical Wire Lighting 12 AWG	LF	2,520.000	2,520.000
0310	655.0620	Electrical Wire Lighting 8 AWG	LF	27,732.000	27,732.000
0312	655.0625	Electrical Wire Lighting 6 AWG	LF	885.000	885.000
0314	655.0700	Loop Detector Lead In Cable	LF	20.000	20.000
0316	655.0800	Loop Detector Wire	LF	350.000	350.000
0318	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. MB7101	EACH	1.000	1.000
0320	656.0501	Electrical Service Breaker Disconnect Box (location) 01. DMS410073	EACH	1.000	1.000
0322	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	22.000	22.000
0324	657.0322	Poles Type 5-Aluminum	EACH	22.000	22.000
0326	657.0605	Luminaire Arms Single Member 4 1/2-Inch Clamp 4-FT	EACH	20.000	20.000
0328	659.0400	Luminaires High Mast Lighting LED	EACH	8.000	8.000
0330	659.1120	Luminaires Utility LED B	EACH	20.000	20.000
0332	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	13.000	13.000
0334	660.0500	High Mast Lowering Assembly (structure) 01. L-41-0003	EACH	1.000	1.000
0336	660.0500	High Mast Lowering Assembly (structure) 02. L-41-0004	EACH	1.000	1.000
0338	660.0500	High Mast Lowering Assembly (structure) 03. L-41-0005	EACH	1.000	1.000
0340	670.0101	Field System Integrator	EACH	1.000	1.000
0342	670.0201	ITS Documentation	EACH	1.000	1.000
0344	671.0112	Conduit HDPE 1-Duct 2-Inch	LF	560.000	560.000
0346	671.0122	Conduit HDPE 2-Duct 2-Inch	LF	280.000	280.000
0348	673.1225.S	Install Pole Mounted Cabinet	EACH	1.000	1.000
0350	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	2.000	2.000
0352	677.0150	Install Camera Pole 50-FT	EACH	1.000	1.000
0354	677.0200	Install Camera Assembly	EACH	1.000	1.000
0356	678.0501	Communication System Testing	EACH	1.000	1.000
0358	690.0250	Sawing Concrete	LF	3,750.000	3,750.000
0360	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	11,200.000	11,200.000
0362	740.0440	Incentive IRI Ride	DOL	3,060.000	3,060.000
0364	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,500.000	2,500.000
0366	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,520.000	3,520.000
0368	SPV.0060	Special 01. Ground Rod	EACH	4.000	4.000
0370	SPV.0060	Special 02. Install Cellular Modem	EACH	1.000	1.000
0372	SPV.0060	Special 03. Install Hybrid Dynamic Message Sign	EACH	1.000	1.000
0374	SPV.0085	Special 01. Updated Seed Mixture No. 75	LB	15.000	15.000
0376	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type A Special	LF	3,350.000	3,350.000
0378	SPV.0090	Special 02. Outdoor Rated Network Cable	LF	1,450.000	1,450.000

3

GRUBBING

PROJECT	CATEGORY	LOCATION	STATION - STATION	201.0205 GRUBBING (STA)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	6
		PARKING LOT	1184+91 RA - 1192+51 RA	8
		RAMP A	1192+51 RA - 1222+08 RA	11
		RAMP B	1181+13 RB - 1185+51 RB	7
		PARKING LOT	1185+51 RB - 1191+53 RB	6
		RAMP B	1191+53 RB - 1196+23 RB	5
PROJECT 1071-07-80 TOTAL				43

REMOVING SMALL PIPE CULVERTS

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	NOTES
1071-07-80						
	0010	PARKING LOT	1196+14 RA	RT	1	CPRC 24"
PROJECT 1071-07-80 TOTAL					1	

3

REMOVING CONCRETE PAVEMENT

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0100 REMOVING CONCRETE PAVEMENT (SY)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	3,345
		PARKING LOT	1184+91 RA - 1192+51 RA	676
		RAMP A	1192+51 RA - 1222+08 RA	12,634
PROJECT 1071-07-80 TOTAL				16,700

REMOVING FENCE

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0170 REMOVING FENCE (LF)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	1,424
		PARKING LOT	1184+91 RA - 1192+51 RA	739
		RAMP A	1192+51 RA - 1222+08 RA	57
PROJECT 1071-07-80 TOTAL				2,220

3

REMOVING DELINEATORS AND MARKERS

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0180 REMOVING DELINEATORS AND MARKERS (EACH)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	13
		RAMP A	1192+51 RA - 1222+08 RA	11
		RAMP B	1181+13 RB - 1185+51 RB	7
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	2
PROJECT 1071-07-80 TOTAL				33

REMOVING CONCRETE BASES

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0195 REMOVING CONCRETE BASES (EACH)
1071-07-80				
	0010	RAMP B	1191+53 RB - 1196+23 RB	14
		RAMP A	1192+51 RA - 1222+08 RA	2
PROJECT 1071-07-80 TOTAL				16

3

REMOVING INLETS

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0220 REMOVING INLETS (EACH)
1071-07-80				
	0010	RAMP B	1191+53 RB - 1196+23 RB	3
		RAMP A	1192+51 RA - 1222+08 RA	2
PROJECT 1071-07-80 TOTAL				5

REMOVING SEPTIC TANKS

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	204.0225 REMOVING SEPTIC TANKS (EACH)
1071-07-80					
	0010	RAMP B	1196+03 RB	RT	1
PROJECT 1071-07-80 TOTAL					1

3

REMOVING STORM SEWER

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0245.01 REMOVING STORM SEWER (12-INCH) (LF)	204.0245.02 REMOVING STORM SEWER (24-INCH) (LF)
1071-07-80					
	0010	RAMP A	1192+51 RA - 1222+08 RA	210	242
PROJECT 1071-07-80 TOTAL				210	242

ABANDONING WELLS

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	204.0265 ABANDONING WELLS (EACH)
1071-07-80					
	0010	RAMP B	1194+24 RB	RT	1
		RAMP B	1194+80 RB	RT	1
		RAMP B	1195+31 RB	RT	1
		RAMP B	1195+62 RB	RT	1
		RAMP B	1197+50 RB	RT	1
PROJECT 1071-07-80 TOTAL					5

3

REMOVING CONCRETE SIDEWALK

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.0155 REMOVING CONCRETE SIDEWALK (SY)
1071-07-80				
	0010	RAMP A	1192+51 RA - 1222+08 RA	1,090
PROJECT 1071-07-80 TOTAL				1,090

REMOVING LP TANKS

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	204.9060.S.01 REMOVING LP TANKS (EACH)
1071-07-80					
	0010	RAMP A	1197+00 RA	RT	1
PROJECT 1071-07-80 TOTAL					1

REMOVING STREET LIGHT

PROJECT	CATEGORY	LOCATION	STATION - STATION	204.9060.S.02 REMOVING STREET LIGHT ASSEMBLY (EACH)	659.5000.S.01 LAMP, BALLAST, LED, SWITCH DISPLOSAL BY CONTRACTOR (EACH)
1071-07-80					
	0010	RAMP B	1191+53 RB - 1196+23 RB	2	2
		RAMP A	1192+51 RA - 1222+08 RA	11	11
PROJECT 1071-07-80 TOTAL				13	13

REMOVING BUILDINGS AND SITE CLEARANCE

PROJECT	CATEGORY	LOCATION	203.0216.S.01 ABATEMENT OF ASBESTOS CONTAINING MATERIAL 1071-07-80 (EACH)	204.0231.01 REMOVING BUILDING STA 1198+70 RA (EACH)	204.0241.01 SITE CLEARANCE EXISTING REST AREA SITE (EACH)
1071-07-80					
	0010	PROJECT	1	1	1
PROJECT 1071-07-80 TOTAL			1	1	1

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (6) FACTOR 0.80	312.0110 SELECT CRUSHED MATERIAL, EXPANDED EBS BACKFILL (7) FACTOR 1.30	UNEXPANDED FILL	EXPANDED FILL (8) FACTOR 1.30	MASS ORDINATE +/- (9)	WASTE (10)	208.0100 BORROW	COMMENT
1	1159+36 RA - 1222+08 RA	RAMP A	20,114	1,004	2,198	17,916	803	1,305	40,477	51,576	-33,660	0	33,660	
	1180+28 RB - 1198+09 RB	RAMP B	18,789	941	942	17,847	753	1,223	4,915	5,411	12,436	12,436	-12,436	EXCESS MATERIAL USED AS FILL
	500+25 MBD - 501+08 MBD	MAINTENANCE BUILDING	373	18	0	373	14	23	0	-19	392	392	-392	EXCESS MATERIAL USED AS FILL
	1178+31 WB - 1182+59 WB	IH 90 WB	597	30	414	183	24	39	0	-31	214	214	-214	EXCESS MATERIAL USED AS FILL
DIVISION 1 SUBTOTAL			39,873	1,993	3,554	36,319	1,594	2,591	45,392	56,937	-20,618	13,042	20,618	
GRAND TOTAL			39,873	1,993	3,554	36,319	1,594	2,591	45,392	56,937	-20,618	13,042	**20,618**	
TOTAL COMMON EXC			**41,866**											

NOTES:

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

2 SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

3 EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL.

4 SALVAGED/UNUSABLE PAVEMENT MATERIAL

5 AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

6 REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.80

7 EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 312.0110

8 EXPANDED FILL FACTOR = 1.30, EXPANDED FILL = (UNEXPANDED FILL - REDUCED EBS) * FILL FACTOR

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.

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

3

BASE AGGREGATE DENSE

PROJECT	CATEGORY	LOCATION	STATION - STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)
1071-07-80					
	0010	RAMP A	1159+36 RA - 1184+91 RA	470	3,967
		PARKING LOT	1184+91 RA - 1192+51 RA	-	6,846
		RAMP A	1192+51 RA - 1222+08 RA	628	6,005
		RAMP B	1181+13 RB - 1185+51 RB	68	678
		PARKING LOT	1185+51 RB - 1191+53 RB	53	1,128
		RAMP B	1191+53 RB - 1196+23 RB	99	784
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	78	-
		IH 90	1178+31 WB - 1182+59 WB	104	1,492
PROJECT 1071-07-80 TOTAL				1,500	20,900

ROUT AND SEAL

PROJECT	CATEGORY	LOCATION	STATION - STATION	415.6000.S ROUT AND SEAL (LF)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	3,200
		RAMP A	1192+51 RA - 1222+08 RA	4,425
		RAMP B	1181+13 RB - 1185+51 RB	635
		PARKING LOT	1185+51 RB - 1191+53 RB	605
		RAMP B	1191+53 RB - 1196+23 RB	835
PROJECT 1071-07-80 TOTAL				9,700

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CONCRETE PAVEMENT ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	405.0100 WISDOT COLORING RED (CY)	415.0070 CONCRETE PAVEMENT 7-INCH (SY)	415.0080 CONCRETE PAVEMENT 8-INCH (SY)	415.0100 CONCRETE PAVEMENT 10-INCH (SY)	415.0120 CONCRETE PAVEMENT 12-INCH (SY)	415.4100 CONCRETE PAVEMENT JOINT FILLING (SY)	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)	602.3210 CONCRETE RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY (LF)
1071-07-80												
	0010	RAMP A	1159+36 RA - 1184+91 RA	250	-	-	3,900	2,435	-	950	8	250
		PARKING LOT	1184+91 RA - 1192+51 RA	-	-	-	19,710	-	19,745	-	-	-
		RAMP A	1192+51 RA - 1222+08 RA	-	-	-	5,690	1,665	-	675	16	-
		RAMP B	1181+13 RB - 1185+51 RB	-	-	900	-	-	-	-	-	-
		PARKING LOT	1185+51 RB - 1191+53 RB	-	-	2,255	-	-	2,255	-	-	-
		RAMP B	1191+53 RB - 1196+23 RB	-	-	845	-	-	-	-	-	-
		IH 90	1178+31 WB - 1182+59 WB	-	400	-	-	-	-	145	8	430
PROJECT 1071-07-80 TOTAL				250	400	4,000	29,300	4,100	22,000	1,770	32	680

3

HMA ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	455.0605 TACK COAT (GAL)	460.6224 HMA PAVEMENT 4 MT 58-28 S (TON)	465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER (LF)
1071-07-80						
	0010	RAMP A	1159+36 RA - 1184+91 RA	123	493	890
		PARKING LOT	1184+91 RA - 1192+51 RA	-	-	-
		RAMP A	1192+51 RA - 1222+08 RA	148	576	-
		RAMP B	1181+13 RB - 1185+51 RB	18	72	-
		PARKING LOT	1185+51 RB - 1191+53 RB	15	57	-
		RAMP B	1191+53 RB - 1196+23 RB	26	102	-
PROJECT 1071-07-80 TOTAL				330	1,300	890

ASPHALTIC FLUMES

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	465.0315 ASPHALTIC FLUMES (SY)
1071-07-80					
	0010	RAMP A	1184+96 RA	LT	43
		RAMP A	1186+16 RA	LT	42
		RAMP A	1187+21 RA	LT	42
		RAMP A	1188+18 RA	LT	55
		RAMP A	1189+17 RA	LT	71
		RAMP A	1189+98 RA	LT	55
		RAMP A	1190+79 RA	LT	47
		RAMP A	1192+47 RA	LT	43
		RAMP A	1193+48 RA	RT	9
		RAMP B	1183+08 RB	LT	9
		RAMP B	1192+47 RB	LT	9
PROJECT 1071-07-80 TOTAL					425

CONCRETE CURB & GUTTER

PROJECT	CATEGORY	LOCATION	STATION - STATION	SPV.0090.01 24-INCH TYPE A SPECIAL (LF)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	466
		PARKING LOT	1184+91 RA - 1192+51 RA	1,782
		RAMP A	1192+51 RA - 1222+08 RA	126
		RAMP B	1181+13 RB - 1185+51 RB	247
		PARKING LOT	1185+51 RB - 1191+53 RB	627
		RAMP B	1191+53 RB - 1196+23 RB	102
PROJECT 1071-07-80 TOTAL				3,350

3

CULVERTS

PROJECT	Y	FROM* STA	FROM* OFFSET	FROM* ALI	FROM* ELEV	TO* STA	TO* OFFSET	TO* ALI	TO* ELEV	%	522.0112 CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	522.0121 CULVERT PIPE REINFORCED CONCRETE CLASS III 21-INCH LF	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.0421 CULVERT PIPE REINFORCED CONCRETE CLASS IV 21-INCH LF	522.0427 CULVERT PIPE REINFORCED CONCRETE CLASS IV 27-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1021 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH EACH	522.1027 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
1071-07-80																							
	0010	1181+52	101.2' RT	RA	772.97	- 1181+06	44.8' LT	RA	771.44	0.99%	--	--	--	--	--	154	--	--	--	--	2	2	1
		1182+66	35.1' RT	RA	773.85	- 1182+81	44.7' LT	RA	770.73	3.80%	--	--	82	--	--	--	--	2	--	--	--	2	1
		1188+19	238.0' LT	RA	768.87	- 1188+23	275.4' LT	RA	768.09	2.08%	38	--	--	--	--	--	2	--	--	--	--	2	1
		1194+49	28.8' RT	RB	773.81	- 1194+44	34.4' LT	RB	772.82	1.55%	--	--	64	--	--	--	--	2	--	--	--	2	1
		1195+90	40.2' RT	RA	772.07	- 1196+74	48.7' LT	RA	768.56	2.85%	--	123	--	--	--	--	--	--	2	--	--	2	1
		1201+74	26.9' RT	RA	773.21	- 1201+71	19.8' LT	RA	772.71	1.06%	--	--	--	--	47	--	--	--	--	2	--	2	1
		500+79	6.4' RT	MBD	774.13	- 500+76	20.6' LT	MBD	773.72	1.52%	--	--	--	27	--	--	--	--	2	--	--	2	1
PROJECT 1071-07-80 TOTAL											38	123	146	27	47	154	2	4	4	2	2	14	7

*LOCATIONS ARE TO END OF PIPE

3

MGS GUARDRAIL

PROJECT	CATEGORY	LOCATION	STATION - STATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2340 MGS GUARDRAIL 3 L (LF)	614.2610 MGS GUARDRAIL TERMINAL EAT (EACH)	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 (EACH)
1071-07-80							
	0010	RAMP A	1168+32 RA - 1171+98 RA	212.5	112.5	1	1
PROJECT 1071-07-80 TOTAL				212.5	112.5	1	1

FENCING

PROJECT	CATEGORY	LOCATION	STATION - STATION	616.0100.01 FENCE WOVEN WIRE 4-FT (LF)
1071-07-80				
	0010	RAMP A	1168+92 RA - 1188+94 RA	3,750
PROJECT 1071-07-80 TOTAL				3,750

3

FENCE SAFETY

PROJECT	CATEGORY	LOCATION	STATION - STATION	616.0700.S FENCE SAFETY (LF)	REMARKS
1071-07-80					
	0010	PROJECT	1159+36 RA - 1184+91 RA	1,000	ENVIRONMENTAL PROTECTION, SITE DELINEATION, AND SANITARY DRAINAGE FIELD DELINEATION
PROJECT 1071-07-80 TOTAL				1,000	

ROADWAY ITEMS

PROJECT	CATEGORY	LOCATION	213.0100 FINISHING ROADWAY 1071-07-80 (EACH)	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS 1071-07-80 (EACH)	619.1000 MOBILIZATION (EACH)	643.5000 TRAFFIC CONTROL (EACH)
1071-07-80						
	0010	PROJECT	1	1	1	1
PROJECT 1071-07-80 TOTAL			1	1	1	1

3

DUST CONTROL AND WATER

PROJECT	CATEGORY	LOCATION	STATION - STATION	623.0200 DUST CONTROL SURFACE TREATMENT (SY)	624.0100 WATER (MGAL)
1071-07-80					
	0010	RAMP A	1159+36 RA - 1184+91 RA	5,893	84
		RAMP B	1181+13 RB - 1185+51 RB	1,261	13
		RAMP B	1191+53 RB - 1196+23 RB	1,248	16
		RAMP A	1192+51 RA - 1222+08 RA	9,418	109
		PARKING LOT	1184+91 RA - 1192+51 RA	20,506	129
		PARKING LOT	1185+51 RB - 1191+53 RB	2,712	20
		MAINTENANCE GARAGE	400+17 MGD - 401+20 MGD	0	0
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	180	2
		IH 90	1178+31 WB - 1182+59 WB	382	7
PROJECT 1071-07-80 TOTAL				41,600	380

RESTORATION ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	625.0100 TOPSOIL (SY)	625.0500 SALVAGED TOPSOIL (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIXTURE NO. 30 (LB)	SPV.0085.01 UPDATED SEED MIXTURE (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
1071-07-80										
	0010	RAMP A	1159+36 RA - 1184+91 RA	-	10,142	8	227	-	369	307
		PARKING LOT	1184+91 RA - 1192+51 RA	-	11,115	5	111	12	180	150
		RAMP A	1192+51 RA - 1222+08 RA	-	24,948	21	549	-	892	742
		RAMP B	1181+13 RB - 1185+51 RB	-	4,291	3	74	-	120	100
		PARKING LOT	1185+51 RB - 1191+53 RB	-	3,856	4	87	-	141	117
		RAMP B	1191+53 RB - 1196+23 RB	-	2,031	2	52	-	84	70
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	-	212	1	4	-	6	5
		IH 90	1178+31 WB - 1182+59 WB	-	925	1	20	-	31	26
			UNDISTRIBUTED	500	5,780	15	376	3	477	383
PROJECT 1071-07-80 TOTAL				500	63,300	60	1,500	15	2,300	1,900

EROSION CONTROL

PROJECT	CATEGORY	LOCATION	STATION - STATION	606.0200 RIPRAP MEDIUM (CY)	628.1104 EROSION BALES (EACH)	628.1530.S SILT FENCE HEAVY DUTY (LF)	628.1535.S SILT FENCE HEAVY DUTY MAINTENANCE (LF)	628.2004 EROSION MAT CLASS I TYPE B (SY)	628.2006 EROSION MAT URBAN CLASS I TYPE A (SY)	628.2027 EROSION MAT CLASS II TYPE C (SY)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7560 TRACKING PADS (EACH)	628.7570 ROCK BAGS (EACH)	645.0120 GEOTEXTILE TYPE HR (SY)
1071-07-80															
	0010	RAMP A	1159+36 RA - 1184+91 RA	26	36	2,596	2,596	9,518	-	624	60	2	-	-	102
		PARKING LOT	1184+91 RA - 1192+51 RA	44	18	765	765	5,938	4,391	786	100	2	-	-	174
		RAMP A	1192+51 RA - 1222+08 RA	89	36	2,311	2,311	22,234	-	2,714	260	7	-	-	354
		RAMP B	1181+13 RB - 1185+51 RB	28	-	-	-	3,715	-	576	40	5	-	-	112
		PARKING LOT	1185+51 RB - 1191+53 RB	-	-	-	-	3,320	-	536	20	-	-	-	-
		RAMP B	1191+53 RB - 1196+23 RB	81	-	-	-	1,634	-	397	40	2	-	-	322
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	-	-	-	-	212	-	-	-	4	-	-	-
		IH 90	1178+31 WB - 1182+59 WB	-	-	-	-	925	-	-	-	-	-	-	-
			UNDISTRIBUTED	72	25	1,428	1,428	11,904	1,109	1,417	140	8	5	50	286
PROJECT 1071-07-80 TOTAL				340	115	7,100	7,100	59,400	5,500	7,050	660	30	5	50	1,350

3

MOBILIZATIONS EROSION CONTROL

PROJECT	CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
1071-07-80				
	0010	PROJECT 1071-07-80	8	6
PROJECT 1071-07-80 TOTAL			8	6

PLANTING ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	632.0101.01 EVERGREEN TREE, 3' HEIGHT, B&B (EA)	632.0201.01 SHRUB, 18" HEIGHT, BR (EA)
1071-07-80					
	0010	RAMP A	1169+50 RA - 1191+00 RA	270	1,075
PROJECT 1071-07-80 TOTAL				270	1,075

3

DELINEATORS

PROJECT	CATEGORY	LOCATION	STATION - STATION	633.0100 DELINEATOR POSTS STEEL (EACH)	633.0500 DELINEATOR REFLECTORS (EACH)
1071-07-80					
	0010	RAMP A	1159+36 RA - 1184+91 RA	7	7
		RAMP A	1192+51 RA - 1222+20 RA	16	16
		IH 90	1178+31 WB - 1220+00 WB	8	8
PROJECT 1071-07-80 TOTAL				31	31

LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES

PROJECT	CATEGORY	LOCATION	NOTE	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES (EACH)	REMARKS
1071-07-80					
	0010	PROJECT	1 ST GROWING SEASON	8	CYCLES BASED ON ONE VISIT EVERY TWO
		PROJECT	2ND GROWING SEASON	8	WEEKS BETWEEN MAY 15 AND SEPTEMBER 15
		PROJECT	UNDISTRIBUTED	8	---
PROJECT 1071-07-80 TOTAL				24	

PERMANENT SIGNING TYPE I

SIGN #	SIGN CODE	SIGN SIZE WIDTH IN	X	SIGN SIZE HEIGHT IN	STEEL POST SHAPE	NUMBER OF POSTS REQUIRED	635.0200* SIGN SUPPORTS STRUCTURAL STEEL HS LB	531.1100* CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS CY	531.1140* STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS LB	531.2024 DRILLING SHAFT 24-INCH LF	637.1220* SIGNS TYPE I REFLECTIVE SH SF	SIGN MOUNTED ON SAME POST AS	REMARKS
CAT 0010													
5-01	E5-52	144	X	54	W6X15	2	581	1.6	150	13	54.00	---	REST AREA ARROW (ON SIDE) TAPER
5-02	E5-51	144	X	60	W8X21	2	1109	2	220	16	60.00	---	REST AREA 2 MILES
PROJECT 1071-07-80 TOTAL							1,690	3.6	370	29	114.00		

*ADDITIONAL QUANTITY FOUND IN DMS EQUIPMENT TABLE

PERMANENT SIGNING TYPE II

				637.2210	637.2230	634.0612	634.0614	634.0616	634.0618		
						POSTS WOOD 4X6-INCH					
SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE F SF	12 FT EACH	14 FT EACH	16 FT EACH	18 FT EACH	SIGN MOUNTED ON/SAME POST AS	REMARKS
CAT. 0010											
1M-01	R2-1	5	48X60	---	---	---	---	2	---	---	SPEED LIMIT 70 MPH
1M-02	J4-1	5	36X54	---	---	---	---	1	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
2-01	R5-60	Custom	48X24	8.00	---	---	1	---	---	---	MOVE OVER OR SLOW DOWN
2-02	R7-64	3	48X30	10.00	---	---	1	---	---	---	NO PARKING ON RAMP
2-03			36X36	9.00	---	---	1	---	---	---	NO PARKING EXCEPT OSOW VEHICLES
2-04	R1-2	2M	48X42	7.00	---	---	1	---	---	---	YIELD
2-05	D7-60	2S	24X36	6.00	---	---	1	---	---	---	NEXT TRUCK PARKING 6 MILES EXIT 15
2-06			36X36	9.00	---	---	1	---	---	---	NO PARKING EXCEPT OSOW VEHICLES
2-07	D52-54R	2S	24X24	4.00	---	---	1	---	---	---	EXIT WITH RIGHT DOWN ARROW
2-08	D52-54	2S	24X24	4.00	---	---	1	---	---	---	EXIT WITH DOWN ARROW
2-09	R6-1L	2S	36X12	3.00	---	1	---	---	---	---	ONE WAY LEFT ARROW (ROUNDABOUTS)
2-10	R6-1L	2S	36X12	3.00	---	1	---	---	---	---	ONE WAY LEFT ARROW (ROUNDABOUTS)
2-11	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
2-12	R1-2	2M	48X42	7.00	---	---	1	---	---	---	YIELD
2-13	R1-2	2M	48X42	7.00	---	---	1	---	---	---	YIELD
2-14	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
2-15	R7-1R	2S	18X24	3.00	---	---	1	---	---	---	NO PARKING ANY TIME (RIGHT ARROW)
2-16	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
2-17	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
2-18	R7-1D	2S	18X24	3.00	---	---	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
2-19	R7-1L	2S	18X24	3.00	---	---	1	---	---	---	NO PARKING ANY TIME (LEFT ARROW)
3-01	R7-1D	2S	18X24	3.00	---	1	---	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
3-02	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
3-03	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
3-04	D7-60	2S	24X36	6.00	---	---	1	---	---	---	NEXT TRUCK PARKING 6 MILES EXIT 15
3-05	W11-2	2S	30X30	---	6.25	---	1	---	---	3-14	PEDESTRIAN CROSSING SYMBOL
3-14	W16-9P	2S	24X12	---	2.00	---	---	---	---	3-05	AHEAD PLAQUE
3-06	R2-1	2M	30X36	7.50	---	---	1	---	---	---	SPEED LIMIT 25 MPH
3-07	R8-74	5	72X54	27.00	---	---	---	2	---	---	CARS, TRUCKS, TRAILER, BUSES, RV - LEFT & RIGHT ARROWS
3-08	R8-74	5	72X54	27.00	---	---	---	2	---	---	CARS, TRUCKS, TRAILER, BUSES, RV - LEFT & RIGHT ARROWS
3-09	R7-1L	2S	18X24	3.00	---	---	1	---	---	---	NO PARKING ANY TIME (LEFT ARROW)
3-10	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
3-11	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
3-12	R6-1L	2S	36X12	3.00	---	1	---	---	---	---	ONE WAY LEFT ARROW (ROUNDABOUTS)
3-13	R6-1L	2S	36X12	3.00	---	1	---	---	---	---	ONE WAY LEFT ARROW (ROUNDABOUTS)
3-15	R5-1A	2M	42X30	8.75	---	---	1	---	---	---	WRONG WAY
3-16	R5-1A	2M	42X30	8.75	---	---	1	---	---	---	WRONG WAY
3-17	R5-1A	2M	42X30	8.75	---	---	1	---	---	---	WRONG WAY
3-18	R5-1A	2M	42X30	8.75	---	---	1	---	---	---	WRONG WAY
3-19	R2-1	2M	30X36	7.50	---	---	1	---	---	---	SPEED LIMIT 25 MPH
3-20	R5-1	2M	36X36	9.00	---	---	1	---	---	---	DO NOT ENTER
3-21	R7-1R	2S	18X24	3.00	---	---	1	---	---	---	NO PARKING ANY TIME (RIGHT ARROW)
4-01	R7-64	3	48X30	10.00	---	---	1	---	---	---	NO PARKING ON RAMP
4-02	W3-5	2S	36X36	---	9.00	---	---	2	---	---	SPEED LIMIT 25 AHEAD (ARROW)
4-03	E5-54	5	72X72	36.00	---	---	---	---	2	---	REST AREA (RIGHT ARROW)
PROJECT 1071-07-80 TOTAL				338.00	17.25	5	33	9	2		

SIGNING REMOVALS

SIGN #	SIGN CODE	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.3100 REMOVING STRUCTURAL STEEL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	REMARKS
CAT. 0010								
1M-01	R2-1	1	---	---	---	---	---	SPEED LIMIT 70 MPH
1M-02	J4-1	1	---	---	---	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
3M-01	---	1	---	---	---	---	1	FIRE NUMBER SIGN
3R-01	R7-8A	---	---	1	1	---	---	RESERVED PARKING HANDICAPPED, THIS SPACE
3R-02	R7-1D	---	---	1	1	---	---	NO PARKING ANY TIME
3R-03	---	---	---	1	2	---	---	WISCONSIN HISTORICAL MARKER
3R-04	W11-2, W16-7	---	---	1	1	---	---	PEDESTRIAN CROSSING SYMBOL, CONVENTIONAL YELLOW DIAGONAL ARROWS
3R-05	---	---	---	1	2	---	---	WISCONSIN HISTORICAL MARKER
3R-06	R7-8A	---	---	1	1	---	---	RESERVED PARKING HANDICAPPED, THIS SPACE
3R-07	R7-1D	---	---	1	1	---	---	NO PARKING ANY TIME
3R-08	R55-65	---	---	1	1	---	---	PET WALKING AREA
3R-09	R7-1D	---	---	1	1	---	---	NO PARKING ANY TIME
3R-10	R2-1	---	---	1	1	---	---	SPEED LIMIT 25 MPH
3R-11	R5-1	---	---	1	1	---	---	DO NOT ENTER
3R-12	R2-1	---	---	1	1	---	---	SPEED LIMIT 25 MPH
3R-13	R5-1	---	---	1	1	---	---	DO NOT ENTER
3R-14	R7-1D	---	---	1	1	---	---	NO PARKING ANY TIME
4R-01	R5-1A	---	---	1	1	---	---	WRONG WAY
4R-02	R2-1	---	---	1	1	---	---	SPEED LIMIT 25 MPH
4R-03	R2-1	---	---	1	1	---	---	SPEED LIMIT 25 MPH
4R-04	R5-1A	---	---	1	1	---	---	WRONG WAY
4R-05	R8-74	---	---	1	2	---	---	CARS TRUCKS TRAILERS BUSES RV'S (ARROWS)
4R-06	R7-1L	---	---	1	1	---	---	NO PARKING ANYTIME (LEFT ARROW)
4R-07	R55-51	---	---	1	1	---	---	NO OVERNIGHT CAMPING
4R-08	E5-54	---	---	1	2	---	---	REST AREA (RIGHT ARROW)
4R-09	W3-5	---	---	1	1	---	---	SPEED REDUCTION AHEAD 25 MPH SYMBOL
4R-10	W13-3	---	---	1	2	---	---	RAMP SPEED 30 MPH
5R-01	E5-52	---	1	---	---	2	---	REST AREA ARROW (ON SIDE) TAPER
5R-02	E5-62	---	1	---	---	2	---	NEXT REST AREA 21 MILES
PROJECT 1071-07-80 TOTAL		3	2	24	29	4	1	

BASIC TRAFFIC QUEUE WARNING SYSTEM (BQWS)

PROJECT	CATEGORY	LOCATION	STATION - STATION	FLASHING BEACON SIGNS (FBS) (INFORMATION ONLY)	PORTABLE TRAFFIC SENSORS (PTS) (INFORMATION ONLY)	643.1205.S BASIC TRAFFIC QUEUE WARNING SYSTEM (DAY)
1071-07-80						
	0010	IH 90	1159+36 RA - 1184+91 RA	3	3	55
PROJECT 1071-07-80 TOTAL				3	3	55

TRAFFIC CONTROL

PROJECT	CATEGORY	LOCATION	DAYS	643.0300 DRUMS (DAY)	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0715 WARNING LIGHTS TYPE C (DAY)	643.0800 ARROW BOARDS (DAY)	643.0900 SIGNS (DAY)	643.0910 COVERING SIGNS TYPE I (EACH)	643.0920 COVERING SIGNS TYPE II (EACH)	643.1050 TRAFFIC CONTROL SIGNS PCMS (DAY)	REMARKS
1071-07-80													
	0010	IH 90 LANE CLOSURE	55	6,490	220	440	935	110	550	-	-	7	
		IH 90 SHOULDER CLOSURE	101	6,464	-	-	-	101	808	-	-	-	
		IH 90 EXIT RAMP CLOSURE	156	8,112	624	1,248	-	-	1,248	2	2	-	ONE CYCLE FOR COVERING SIGNS
		UNDISTRIBUTED	-	2,134	86	172	95	29	264	-	-	-	
PROJECT 1071-07-80 TOTAL				23,200	930	1,860	1,030	240	2,870	2	2	7	

TEMPORARY PAVEMENT MARKING

PROJECT	CATEGORY	LOCATION	STATION - STATION	643.3170 TEMPORARY MARKING LINE EPOXY 6-INCH WHITE SOLID (LF)	646.9000 MARKING REMOVAL LINE 4-INCH (LF)	646.9100 MARKING REMOVAL LINE 8-INCH (LF)
1071-07-80						
	0010	RAMP A	1159+36 RA - 1184+91 RA	-	821	1,000
		RAMP A	1192+51 RA - 1222+08 RA	-	878	520
		IH 90	1178+31 WB - 1182+59 WB	-	-	480
		IH 90	1209+51 WB - 1215+53 WB	610	-	-
PROJECT 1071-07-80 TOTAL				610	1,700	2,000

PAVEMENT MARKING

PROJECT	CATEGORY	LOCATION	STATION - STATION	646.2020 MARKING LINE EPOXY 6-INCH YELLOW SOLID (LF)	646.2020 MARKING LINE EPOXY 6-INCH WHITE SOLID (LF)	646.4020 MARKING LINE EPOXY 10-INCH WHITE SOLID (LF)	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE SOLID (LF)	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE SOLID (LF)	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE 3' SEG, 9' GAP (LF)	646.5220 MARKING SYMBOL EPOXY (EACH)	646.7020 MARKING DIAGONAL EPOXY 6-INCH (LF)	646.7220 MARKING CHEVRON EPOXY 24-INCH (LF)	646.8320 MARKING PARKING STALL EPOXY WHITE 4-INCH (LF)
1071-07-80													
	0010	RAMP A	1159+36 RA - 1184+91 RA	323	2,716	147	1,941	404	139	-	-	-	-
		RAMP B	1181+13 RB - 1185+51 RB	684	392	147	-	-	-	-	-	-	-
		RAMP B	1191+53 RB - 1196+23 RB	408	421	256	-	-	-	-	-	-	-
		RAMP A	1192+51 RA - 1222+08 RA	1,488	1,619	250	1,384	506	279	-	-	110	-
		PARKING LOT	1184+91 RA - 1192+51 RA	-	842	-	-	-	-	-	-	-	6,355
		PARKING LOT	1185+51 RB - 1191+53 RB	607	-	-	-	-	-	4	130	-	1,145
		IH 90	1178+31 WB - 1182+59 WB	-	-	-	425	472	-	-	-	-	-
PROJECT 1071-07-80 TOTAL				3,510	5,990	800	3,750	1,382	418	4	130	110	7,500
				9,500				1,800					

CONSTRUCTION STAKING

PROJECT	CATEGORY	LOCATION	STATION - STATION	650.4500 CONSTRUCTION STAKING SUBGRADE (LF)	650.5000 CONSTRUCTION STAKING BASE (LF)	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT (LF)	650.9000 CONSTRUCTION STAKING CURB RAMPS (EACH)	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1071-07-80 (EACH)	650.9920 CONSTRUCTION STAKING SLOPE STAKES (LF)
1071-07-80									
	0010	RAMP A	1159+36 RA - 1184+91 RA	2,555	-	2,555	-	-	2,555
		PARKING LOT	1184+91 RA - 1192+51 RA	760	-	760	1	-	760
		RAMP A	1192+51 RA - 1222+08 RA	2,960	-	2,960	-	-	2,960
		RAMP B	1181+13 RB - 1185+51 RB	680	-	680	-	-	680
		PARKING LOT	1185+51 RB - 1191+53 RB	605	-	605	3	-	605
		RAMP B	1191+53 RB - 1196+23 RB	845	-	845	-	-	845
		MAINTENANCE BUILDING	500+25 MBD - 501+08 MBD	85	85	-	-	-	85
		IH 90	1178+31 WB - 1182+59 WB	430	-	430	-	-	430
		PROJECT		-	-	-	-	1	-
PROJECT 1071-07-80 TOTAL				8,920	85	8,835	4	1	8,920

ATR ITEMS

PROJECT	CATEGORY	LOCATION	STATION	OFFSET	SIZE (FT)	SIZE (FT)	NO. OF TURNS	652.0210 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH (LF)	652.0800 CONDUIT LOOP DETECTOR (LF)	653.0135 PULL BOXES STEEL 24X36-INCH (EA)	654.0110 CONCRETE BASES TYPE 10 (EA)	655.0700 LOOP DETECTOR LEAD IN CABLE (LF)	655.0800 LOOP DETECTOR WIRE (LF)
1071-07-80													
	0010	RAMP A	1197+21.4	21.5' RT	6	9	5	-	40	1	-	-	160
		RAMP A	1197+21.3	32.9' RT	-	-	-	20	-	-	1	20	-
		RAMP A	1197+28.3	39.7' RT	6	9	5	-	70	-	-	-	190
PROJECT 1071-07-80 TOTAL								20	110	1	1	20	350

SAWING

PROJECT	CATEGORY	LOCATION	STATION - STATION	690.0250 SAWING CONCRETE (LF)
1071-07-80				
	0010	RAMP A	1159+36 RA - 1184+91 RA	1,945
		RAMP A	1192+51 RA - 1222+08 RA	1,365
		IH 90	1178+31 WB - 1182+59 WB	440
PROJECT 1071-07-80 TOTAL				3,750

STREET LIGHTS

	LIGHT NUMBER	STATION	OFFSET	R/L	654.0105* CONCRETE BASES TYPE 5 EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5 ALUMINUM EACH	657.0605 LUMINAIRE ARMS TRUSS TYPE 4 1//2-INCH CLAMP 4-FT EACH	659.1120 LUMINAIRES UTILITY LED B EACH	655.0610 ELECTRICAL WIRE LIGHTING 12AWG LF
CATEGORY 0010										
SL	100	1176+72'RA'	10.0'	LT	1	1	1	1	1	126
SL	101	1178+82'RA'	14.2'	LT	1	1	1	1	1	126
SL	102	1180+76'RA	29.8'	LT	1	1	1	1	1	126
SL	103	1185+64'RA'	29.9'	LT	1	1	1	1	1	126
SL	104	1182+27'RB'	9.9'	LT	1	1	1	1	1	126
SL	105	1184+34'RB'	11.8'	LT	--	1	1	1	1	126
SL	106	1186+47'RB'	29.1'	LT	--	1	1	1	1	126
SL	107	1188+59'RB'	31.1'	LT	--	1	1	1	1	126
SL	108	1190+81'RB'	30.5'	LT	--	1	1	1	1	126
SL	109	1192+64'RB'	9.7'	LT	1	1	1	1	1	126
SL	110	1194+52'RB'	9.8'	LT	1	1	1	1	1	126
SL	111	1197+40'RA'	14.8'	LT	1	1	1	1	1	126
SL	112	1195+39'RA'	14.8'	LT	1	1	1	1	1	126
SL	113	1199+15'RA'	9.8'	LT	1	1	1	1	1	126
SL	114	1200+98'RA'	9.8'	LT	1	1	1	1	1	126
SL	115	1202+92'RA'	9.8'	LT	1	1	1	1	1	126
SL	116	1204+88'RA'	9.8'	LT	1	1	1	1	1	126
SL	117	1206+85'RA'	9.8'	LT	1	1	1	1	1	126
SL	118	1208+99'RA'	9.8'	LT	1	1	1	1	1	126
SL	119	1211+55'RA'	9.8'	LT	1	1	1	1	1	126
PROJECT TOTAL					**16**	**20**	**20**	**20**	**20**	**2520**

*ADDITIONAL QUNATITY FOUND IN FTMS TABLES

HIGH MAST LIGHTING ITEMS

LIGHT UNIT	STATION	OFFSET	R/L	659.0400 LUMINAIRES HIGH MAST LIGHTING LED EACH	660.0500.01 HIGH MAST LOWERING ASSEMBLY (L-41-3) EACH	660.0500.02 HIGH MAST LOWERING ASSEMBLY (L-41-4) EACH	660.0500.03 HIGH MAST LOWERING ASSEMBLY (L-41-5) EACH
CATEGORY 0010							
L-41-3	1185+19'RA'	47.0'	RT	4	1	--	--
L-41-4	1188+95'RA'	128.1'	LT	2	--	1	--
L-41-5	1192+98'RA'	122.3'	RT	2	--	--	1
PROJECT TOTAL				**8**	**1**	**1**	**1**

LIGHTING PULLBOXES

PULLBOX NUMBER	STATION	OFFSET	R/L	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
CATEGORY 0010				
LPB 100	1181+05'RA'	29.8'	LT	1
LPB 101	1181+12'RB'	11.0'	LT	1
LPB 102	1185+13'RA'	53.5'	RT	1
LPB 103	1189+04'RA'	128.0'	LT	1
LPB 104	1196+00'RB'	14.4'	LT	1
LPB 105	1197+56'RA'	18.5'	LT	1
PROJECT TOTAL				**6**

LIGHTING CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	650.8501 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1071-07-80) EACH
CATEGORY 0010				
	PROJECT			1
PROJECT TOTAL				**1**

LIGHTING CONDUIT AND WIRE

FROM	-	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	REMARKS
CATEGORY 0010						
EXCB 100	-	EXPB 200	--	--	280	--
EXPB 200	-	EXPB 201	--	--	1060	--
EXPB 201	-	SL 106	--	--	465	--
SL 106	-	SL 105	--	--	1100	--
SL 105	-	EXPB 202	--	--	690	--
EXPB 202	-	SL 104	90	--	515	--
SL 104	-	PB 101	125	--	690	--
PB 101	-	PB 100	--	55	355	--
PB 100	-	SL 103	160	--	865	--
PB 100	-	SL 102	30	--	430	--
SL 102	-	SL 101	195	--	1025	--
SL 101	-	SL 100	220	--	1150	--
EXPB 201	-	SL 107	--	--	765	--
SL 107	-	SL 108	--	--	1200	--
SL 108	-	EXPB 203	--	--	915	--
EXPB 203	-	SL 109	15	--	140	--
SL 109	-	SL 110	200	--	1050	--
SL 110	-	PB 104	160	--	865	--
PB 104	-	PB 105	--	55	355	--
PB 105	-	SL 111	--	15	420	--
SL 111	-	SL 112	210	--	1100	--
PB 105	-	SL 113	165	--	890	--
SL 113	-	SL 114	185	--	975	--
SL 114	-	SL 115	200	--	1,050	--
SL 115	-	SL 116	200	--	1,050	--
SL 116	-	SL 117	200	--	1,050	--
SL 117	-	SL 118	220	--	1,150	--
SL 118	-	SL 119	260	--	1,350	--
EXCB 100	-	EXPB 300	--	--	252	--
EXPB 300	-	EXPB 301	--	--	504	--
EXPB 301	-	EXPB 302	--	--	648	--
EXPB 302	-	PB 102	75	--	318	--
PB 102	-	L-41-3	10	--	130	--
EXPB 301	-	EXPB 303	--	--	755	--
EXPB 303	-	PB 103	260	--	873	--
PB 103	-	L-41-4	10	--	78	--
EXPB 303	-	EXPB 304	--	--	723	--
EXPB 304	-	EXPB 305	--	--	378	--
EXPB 305	-	L-41-5	25	--	123	--
PROJECT TOTAL			**3215**	**125**	**27732**	

*ADDITIONAL QUNATITY FOUND IN FTMS TABLES

FTMS BASES AND POLES

CATEGORY	ROADWAY	ITEM ID.	LOCATION STATION	LOCATION OFFSET	654.0105* CONCRETE BASES TYPE 5 EACH	531.2036 DRILLING SHAFT 36-INCH LF	531.4050 FOUNDATION CAMERA POLE 50-FT EACH	653.0140 PULL BOXES STEEL 24 X 42 - INCH EACH	656.0201 ELECTRICAL SERVICE METER BREAKER PEDESTAL (MB7101) EACH	656.0501 SERVICE BREAKER DISCONNECT BOX (DMS410073) EACH	657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5-ALUMINUM EACH	675.0300 MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	677.0150 INSTALL CAMERA POLE 50-FT EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	SPV.0060.01 GROUND ROD EACH	SPV.0060.02 INSTALL CELLULAR MODEM EACH
0010	IH 90																
		DP1183	1182+40	22' RT	1	--	--	--	--	--	1	1	1	--	--	1	--
		PB1183	1182+48	22' RT	--	--	--	1	--	--	--	--	--	--	--	--	--
		PB1190	1188+80	125' LT	--	--	--	1	--	--	--	--	--	--	--	--	--
		CCTV-41-0189	1188+80	119' LT	--	10	1	--	--	--	--	--	--	1	1	1	--
		PB1195	1194+95	22' RT	--	--	--	1	--	--	--	--	--	--	--	--	--
		DP1195	1195+00	22' RT	1	--	--	--	--	--	1	1	1	--	--	1	--
		MB7101	--		--	--	--	--	1	--	--	--	--	--	--	--	--
		DMS-41-0073	--		--	--	--	--	--	1	--	--	--	--	--	1	1
		PB7101	--		--	--	--	1	--	--	--	--	--	--	--	--	--
		PB7102	--		--	--	--	1	--	--	--	--	--	--	--	--	--
		TOTALS			2	10	1	5	1	1	2	2	2	1	1	4	1

*ADDITIONAL QUANTITY FOUND IN LIGHTING TABLES

FTMS CONDUIT AND WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0210 CABLE TRAFFIC SIGNAL 3-14 AWG LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	671.0112 CONDUIT HDPE 1-DUCT 2-INCH LF	671.0122 CONDUIT HDPE 2-DUCT 2-INCH LF	SPV.0090.02 OUTDOOR RATED NETWORK CABLE LF
0010	IH 90										
		DP1183 - PB1183	10	--	10	10	10	--	--	--	10
		PB1183 - PB1184	130	--	--	130	130	--	130	--	130
		PB1184 - PB1185	205	--	--	205	205	--	--	--	205
		PB1185 - PB1188	210	--	--	210	210	--	--	--	210
		PB1188 - PB1189	65	--	--	65	65	--	--	--	65
		PB1189 - CCTV-41-0190	10	--	--	20	10	--	--	--	30
		PB1189 - PB1190	260	--	--	280	280	--	--	280	280
		PB1190 - CCTV-41-0189	10	--	20	10	10	--	--	--	10
		PB1189 - PB1191	245	--	--	155	155	--	--	--	155
		PB1191 - PB1193	190	--	--	190	190	--	--	--	190
		PB1193 - PB1195	155	--	--	155	155	--	155	--	155
		PB1195 - DP1195	10	--	10	10	10	--	--	--	10
		MB7101 - PB7101	10	--	10	--	--	30	--	--	--
		PB7101 - PB7102	275	--	--	--	--	825	275	--	--
		PB7102 - DMS-41-0073	10	10	--	--	--	30	--	--	--
		TOTALS		10	50	1,440	1,430	885	560	280	1,450

*ADDITIONAL QUANTITY FOUND IN LIGHTING TABLES

DMS EQUIPMENT

ITEM I.D.	LOCATION	STEEL POST TYPE	INFO-ONLY PLAQUES SEQUENCE IDENTIFICATION EACH	531.1100** CONCRETE MASONRY ANCILLARY STRUCTURES TYPE NS CY	531.1140** STEEL REINFORCEMENT HS ANCILLARY STRUCTURES TYPE NS LB	635.0200** SIGN SUPPORTS STRUCTURAL STEEL HS LB	637.1220** SIGNS TYPE 1 REFLECTIVE SH SF	673.1225.S INSTALL POLE MOUNTED CABINET EACH	SPV.0060.03 INSTALL HYBRID DYNAMIC MESSAGE SIGN EACH	INFO ONLY - POST LENGTHS TO BE VERIFIED BY CONTRACTOR POST NO. 1 LENGTH FT	POST NO. 2 LENGTH FT	SIGN OFFSET DISTANCE FT
DMS-41-0073	IH 94 WB AT CTH E (DUNN COUNTY)	W12X26	1	2.4	360	1223.4	136	1	1	17.31	18.05	4.5*
		TOTAL	1	2.4	360.0	1,223.4	136	1	1			

*OFFSET FROM FACE OF GUARDRAIL

**ADDITIONAL QUANTITY FOUND IN PERMANENT SIGNING TYPE I TABLE

MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0101 FIELD SYSTEM INTEGRATOR EACH	670.0201 ITS DOCUMENTATION EACH	678.0501 COMMUNICATION SYSTEM TESTING EACH
0010	IH 90 PROJECT	1	1	1
	TOTALS	1	1	1

KELLI & WARREN PAULSON

KELLI & WARREN PAULSON

NURSERY

SIGN

DELINEATED WETLANDS (TYP.)

WIS DEPT TRANSPORTATION

N

C-41-25
EXISTING TWIN 7'X6' BOX CULVERTS TO REMAIN

R/W

WIN

SLOPE INTERCEPTS (TYP.)

3'
5'
10'
2'
4'
8'
10'

1160+00 RA
1165+00 RA
REST AREA RAMP A
1170+00 RA

1160+00 WB
IH 90 WB
1165+00 WB
1170+00 WB

26'

MGS GUARDRAIL 3 L
STA 1169+12-1169+37, LT

STA 1168+28 - STA 1172+06, LT
MGS GUARDRAIL 3, MGS GUARDRAIL 3 L, MGS GUARDRAIL TERMINAL EAT, AND MGS GUARDRAIL TERMINAL TYPE 2 REQ'D. SEE CROSS SECTIONS AND DETAILS FOR POST LOCATIONS AND APPROACH TAPER LENGTH.

MATCH LINE 1173+00 RA

WIS DEPT TRANSPORTATION

I 90

I 90

BEGIN CONSTRUCTION
STA 1159+36 RA
MATCH EXISTING
SAW CUT REQ'D

5

5

STA 1159+36 RA - STA 1177+00 RA
MATCH EXISTING ROADWAY

EXISTING

777.60	777.57	777.53	777.52	777.50	777.47	777.46	777.46	777.59	777.69	777.76	777.87	777.97	777.98	778.01	778.01	778.11	778.18	778.23	778.38	778.48	778.57	778.70	778.81	778.93	779.04	779.13	779.26

800 795 790 785 780 775 770 765

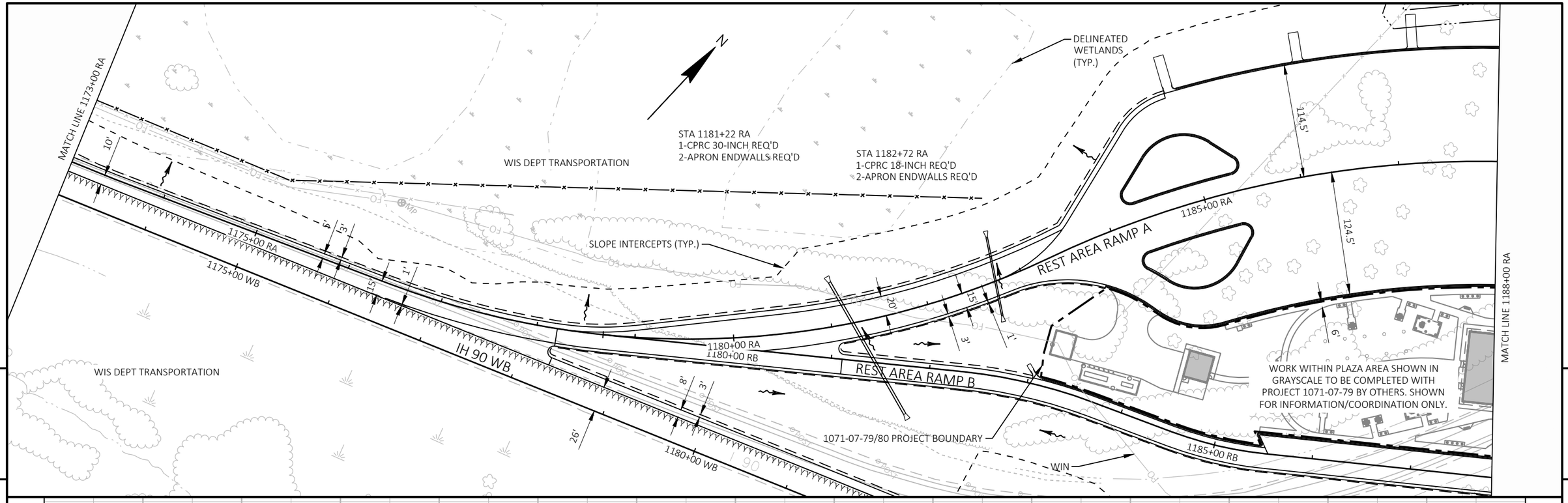
1159 1160 1161 1162 1163 1164 1165 1166 1167 1168 1169 1170 1171 1172 1173

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP A	SHEET 198	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - PPA

PLOT DATE : 1/31/2024 11:28 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

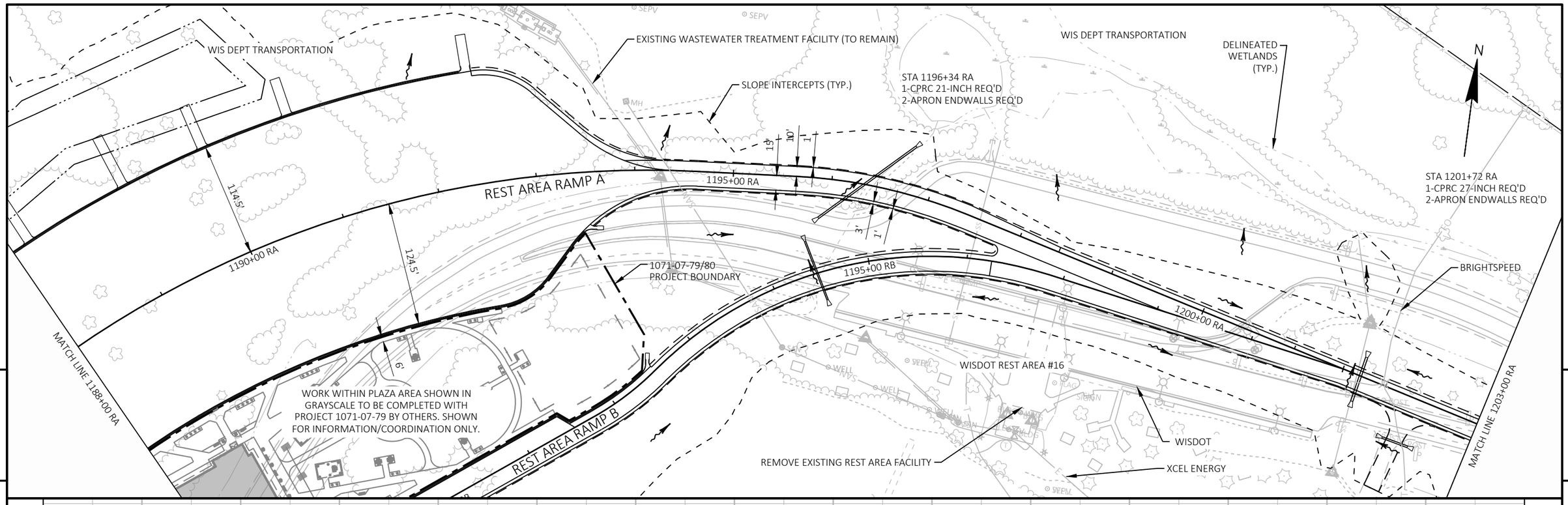
WISDOT/CADDS SHEET 44

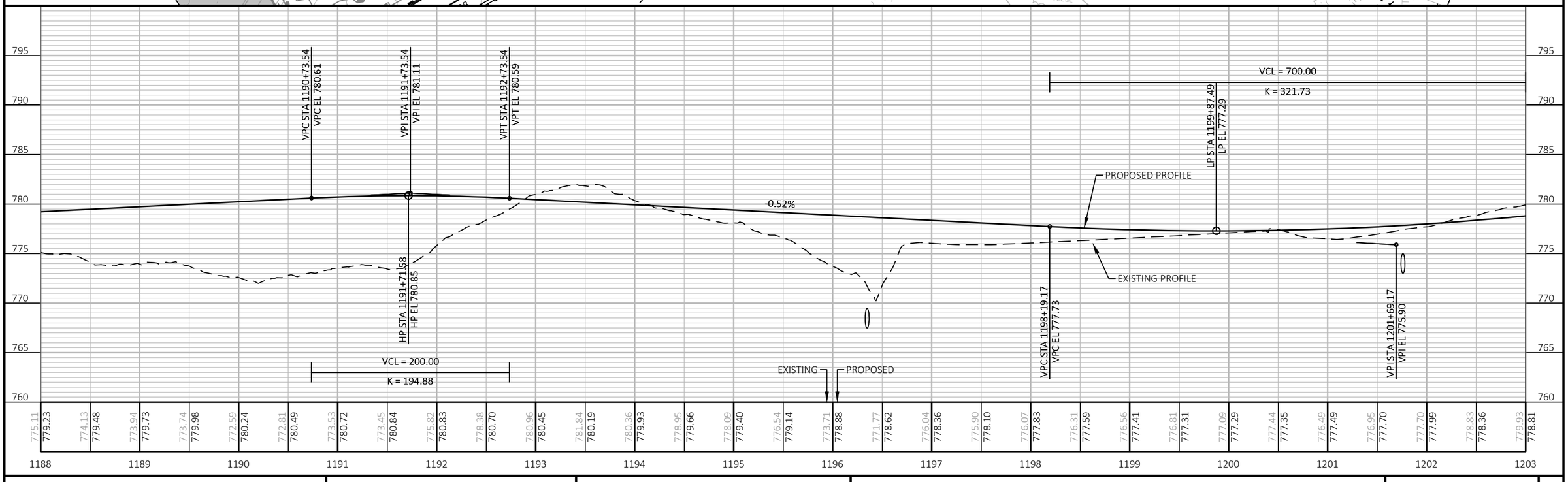


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP A	SHEET 199	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - PPA (1)

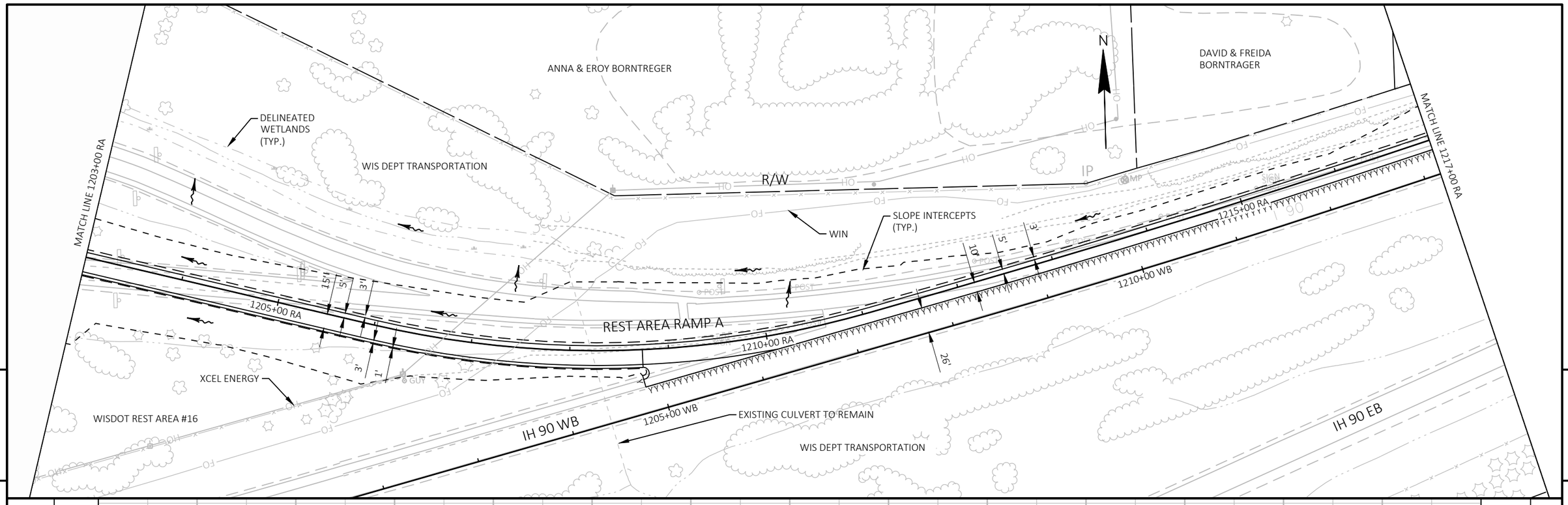
PLOT DATE : 1/31/2024 11:29 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

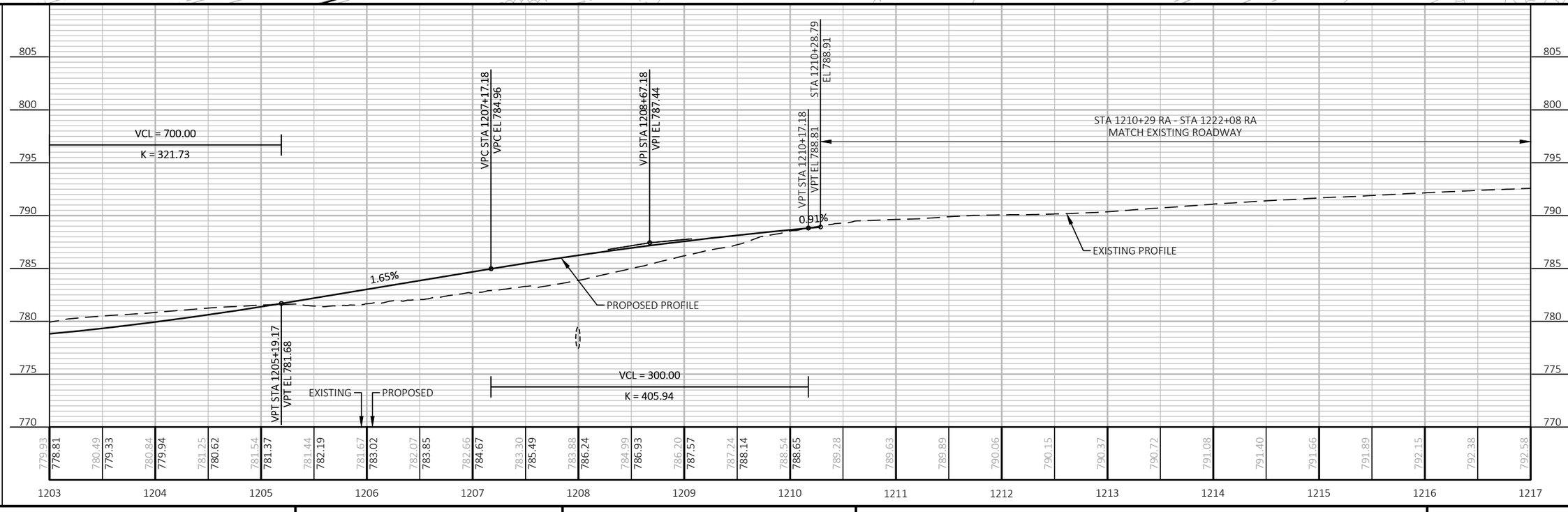




PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP A	SHEET 200	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - PPA (2)
PLOT DATE : 1/31/2024 11:29 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



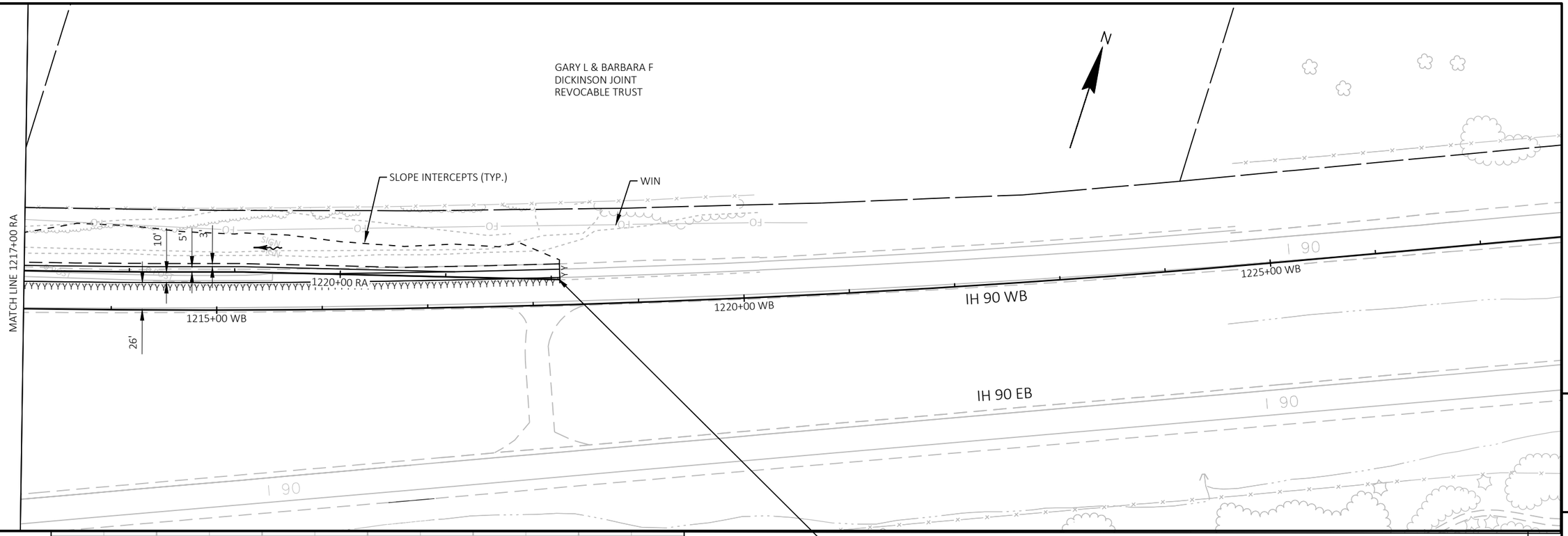


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP A	SHEET 201 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - PPA (3)

PLOT DATE : 1/31/2024 11:29 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

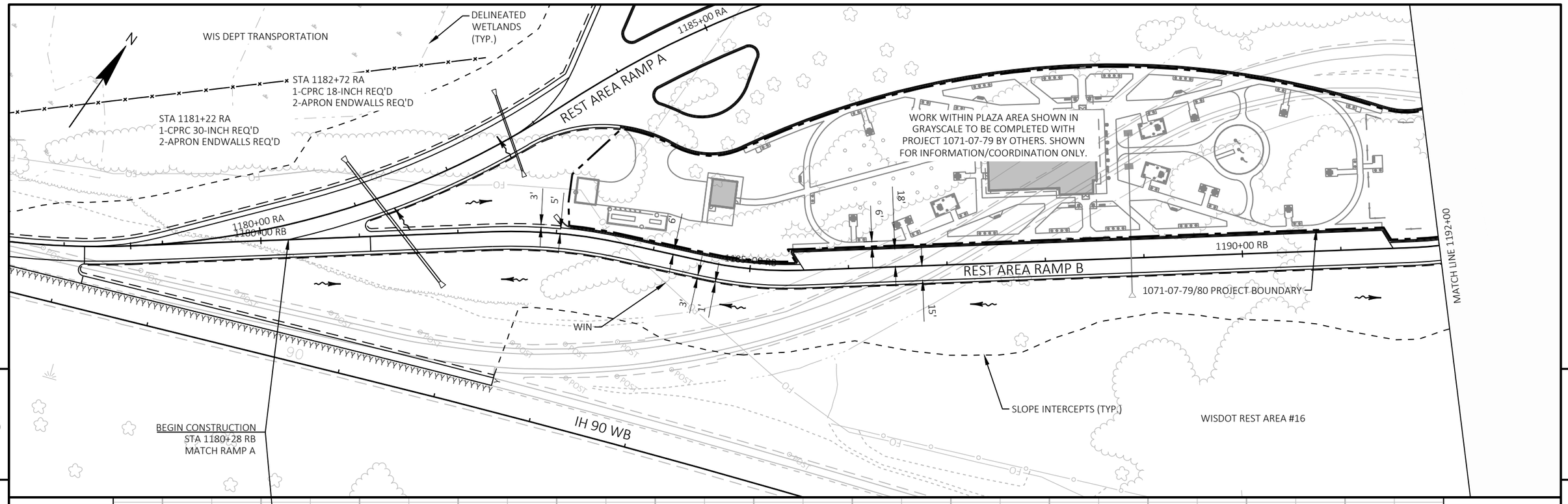
WISDOT/CADDS SHEET 44

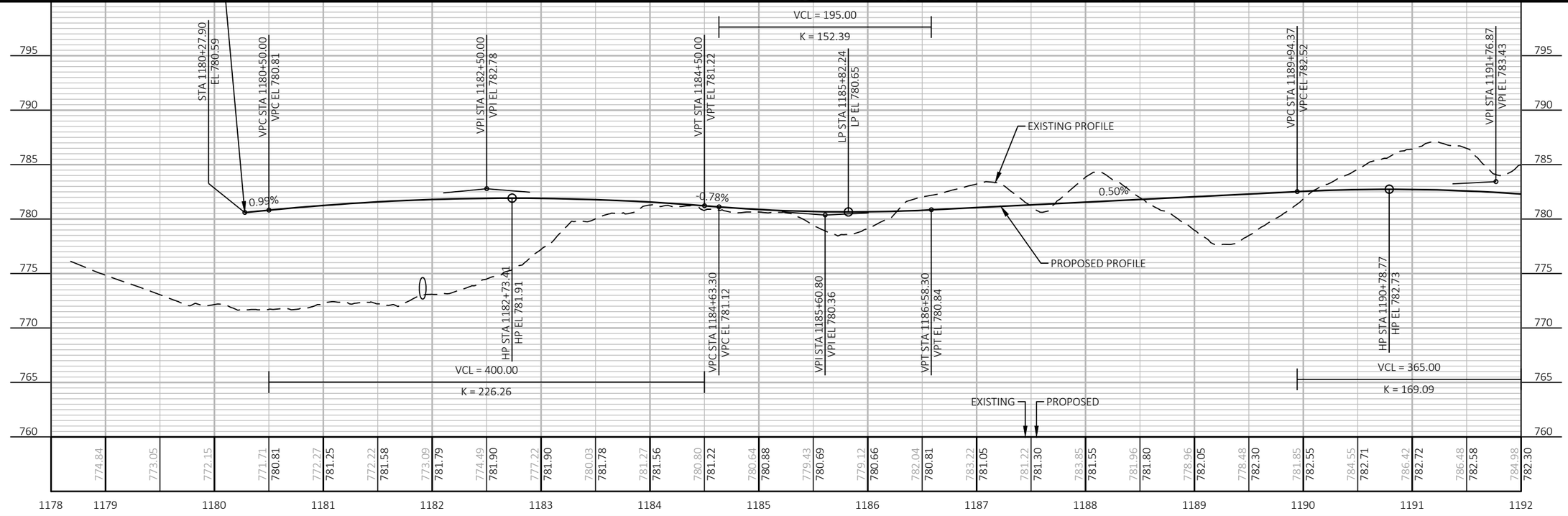


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP A	SHEET 202	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - PPA (4)

PLOT DATE : 1/31/2024 11:30 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP B	SHEET 203	E

EXISTING WASTEWATER TREATMENT FACILITY (TO REMAIN)

1195+00 RA

1071-07-79/80 PROJECT BOUNDARY

REST AREA RAMP B

1195+00 RB

REST AREA RAMP A

1280+00 RA

DELINEATED WETLANDS (TYP.)

WIS DEPT TRANSPORTATION

ANNA & LEROY BORNTREGER

R/W

N

BRIGHTSPEED

SLOPE INTERCEPTS (TYP.)

MATCH LINE 1192+00

REMOVE EXISTING REST AREA FACILITY

STA 1194+50 RB
1-CPRC 18-INCH REQ'D
2-APRON ENDWALLS REQ'D

WISDOT

WISDOT REST AREA #16

XCEL ENERGY

XCEL ENERGY

BRIGHTSPEED

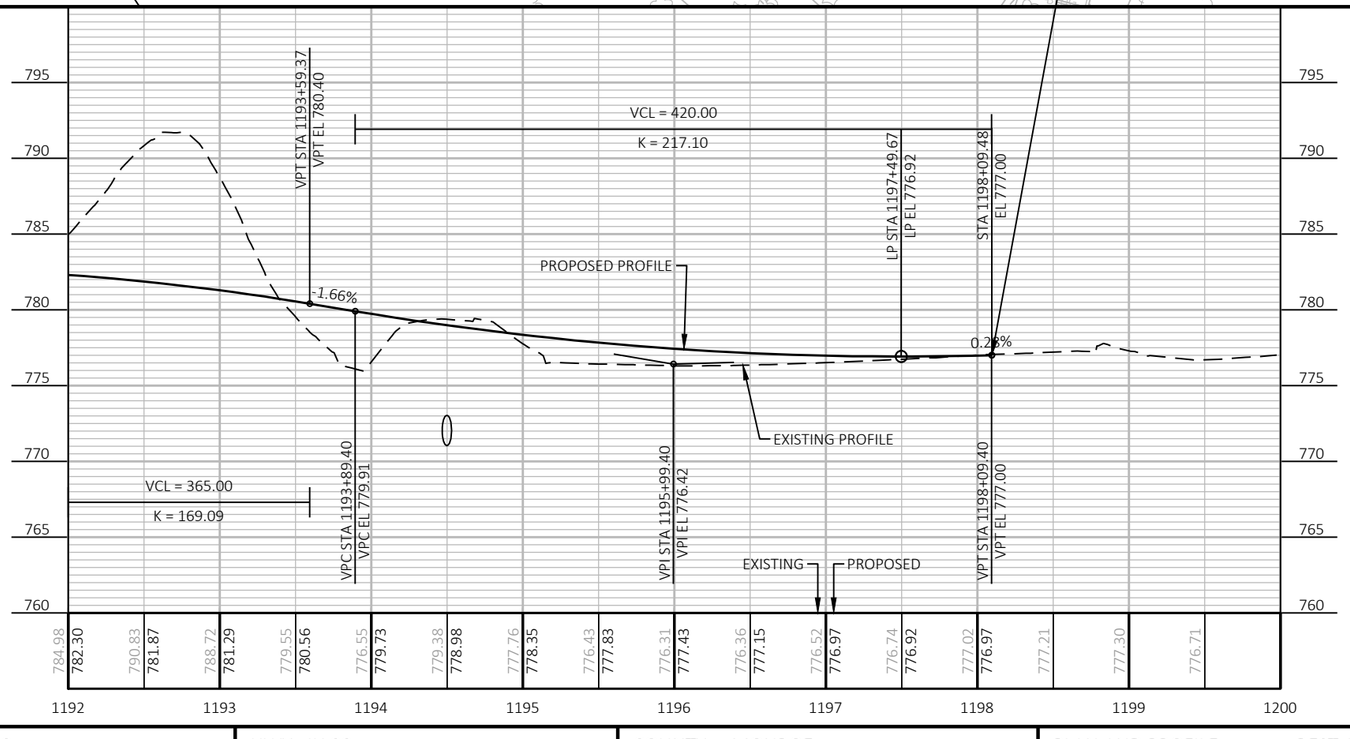
1295+00 RA

END CONSTRUCTION
STA 1198+09 RB
MATCH RAMP RA

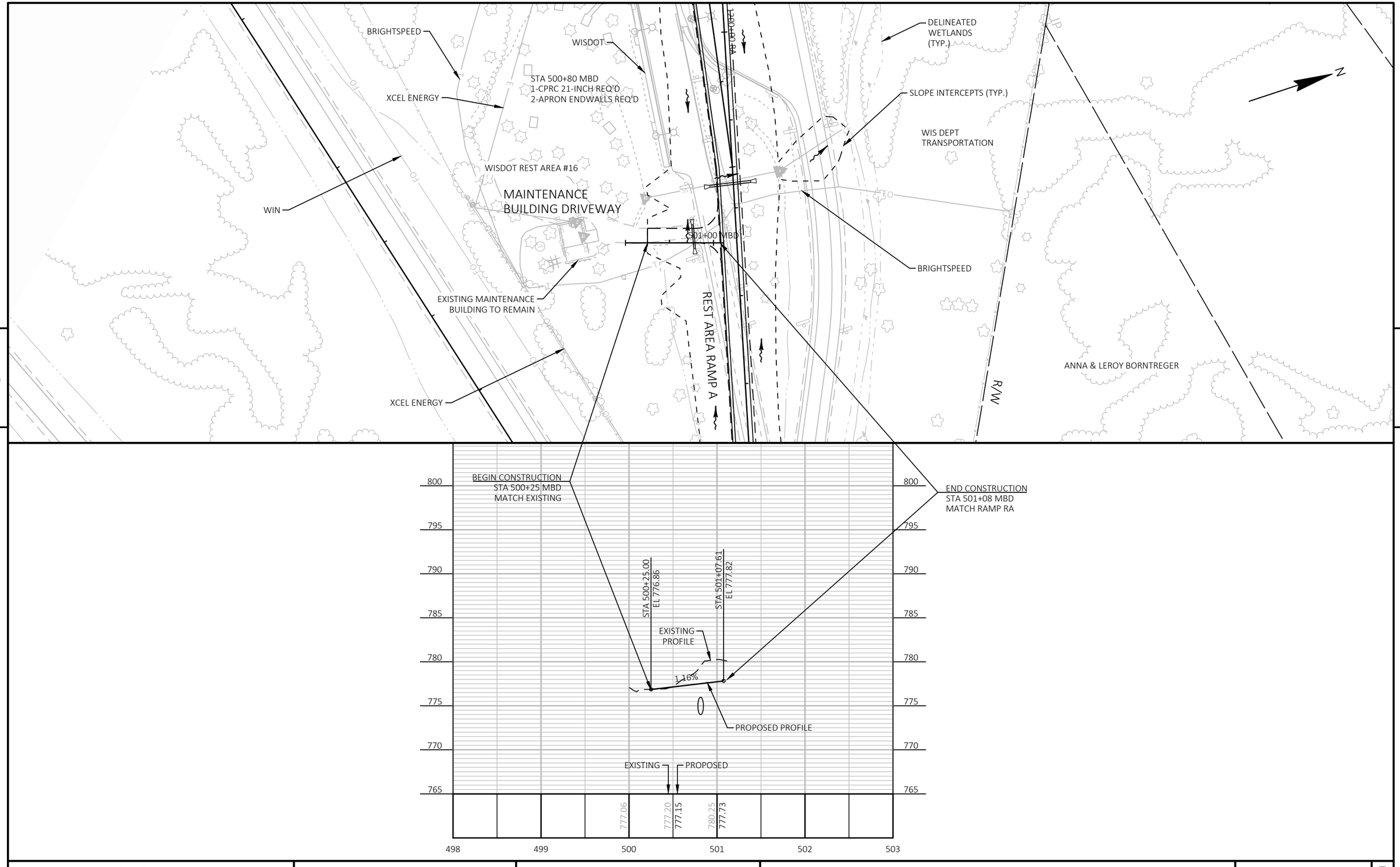
BRIGHTSPEED

5

5



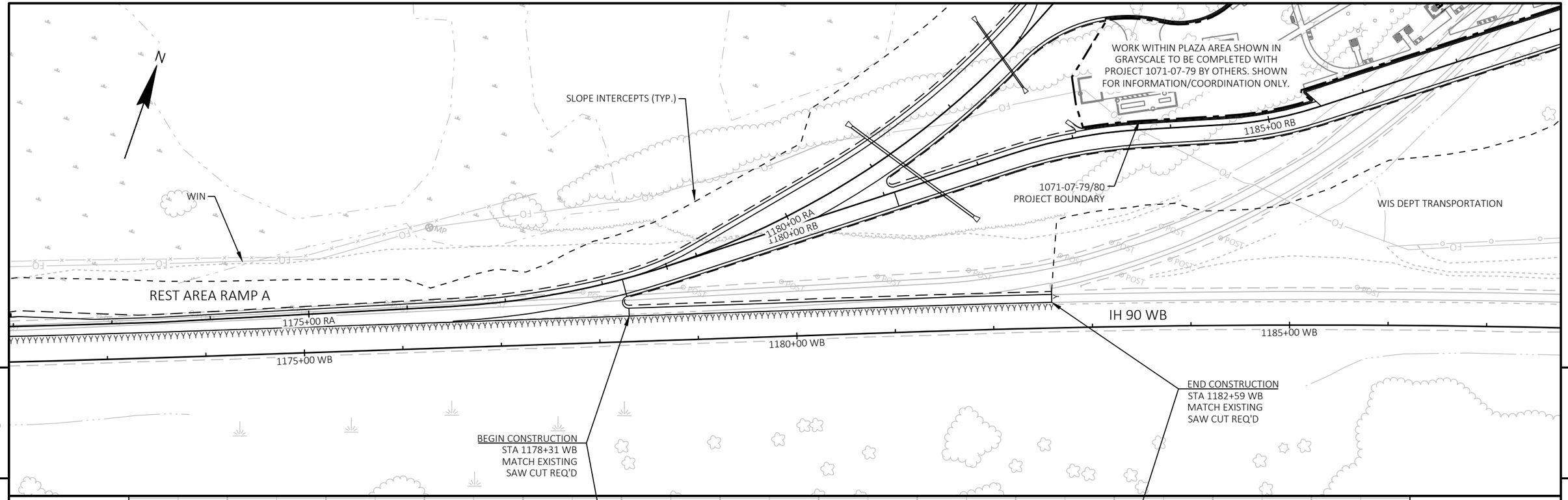
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: REST AREA RAMP B	SHEET 204	E



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: MAINTENANCE BUILDING DRIVEWAY	SHEET 205	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050103_PP.DWG
LAYOUT NAME - PP (5)

PLOT DATE : 1/25/2024 1:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	PLAN AND PROFILE: IH 90 WB	SHEET 206	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\050106_PP.DWG
LAYOUT NAME - PPA

PLOT DATE : 1/31/2024 11:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

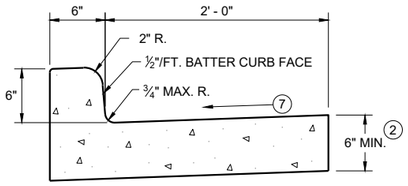
Standard Detail Drawing List

08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
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
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
10A04-03	IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING
10A14-03A	ELECTRICAL DETAILS HIGH MAST LIGHTING
10A14-03B	ELECTRICAL DETAILS HIGH MAST LIGHTING
13A03-07	CONCRETE PAVEMENT SHOULDERS
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL 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
13C18-08G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
14A01-03	TREE PRESERVATION DETAILS
14A02-01	TREE PLANTING DETAIL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-04A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-04C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-05A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-05G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-07C	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C07-15A	PAVEMENT MARKING SYMBOLS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C31-06A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-06C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C36-01	PARKING STALL MARKING

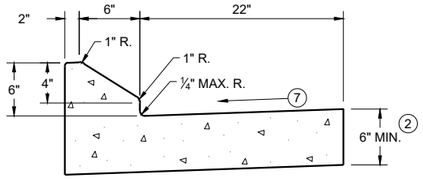
6

Standard Detail Drawing List

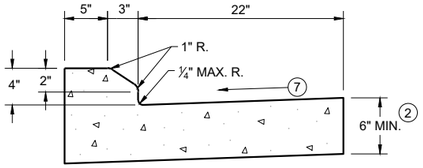
15D12-12A	TRAFFIC CONTROL, LANE CLOSURE, WITH TEMPORARY RUMBLE STRIPS
15D12-12D	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D29-06	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D47-03B	TRAFFIC CONTROL, INGRESS/EGRESS WITHOUT BARRIER



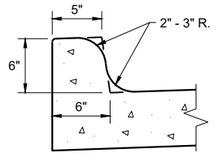
TYPES A (1) & D



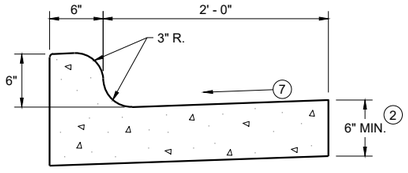
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

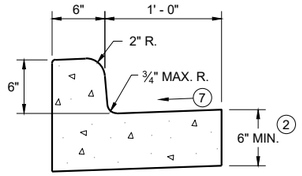


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



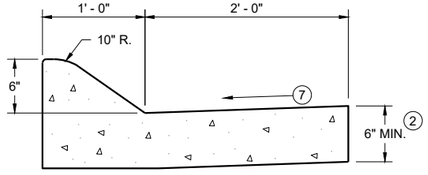
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

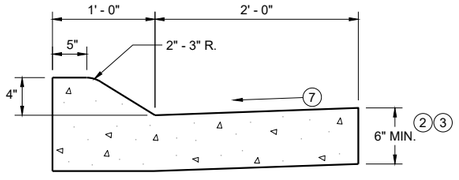


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

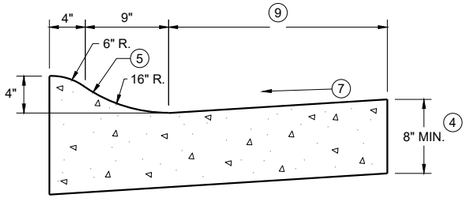


6" SLOPED CURB TYPES A (1) & D



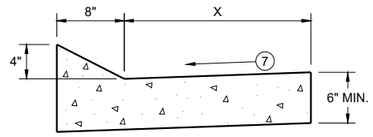
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

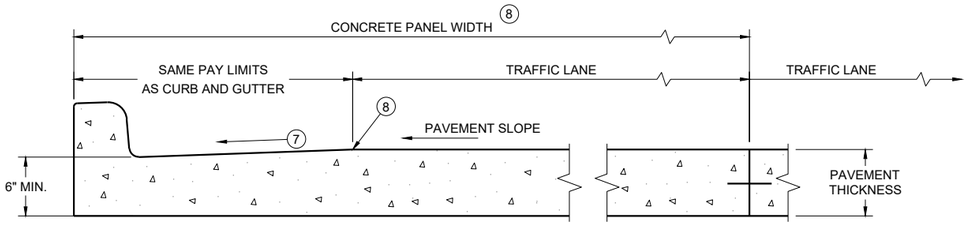


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

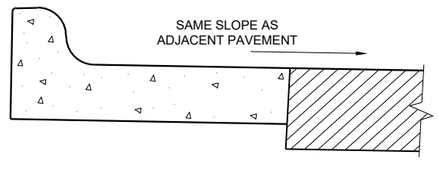
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

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

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

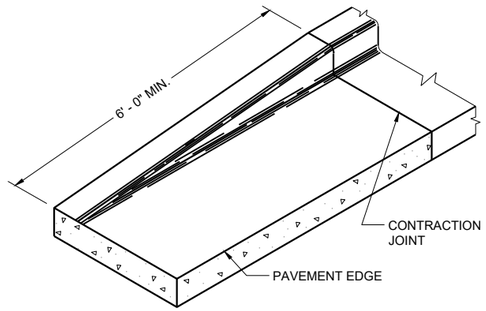
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

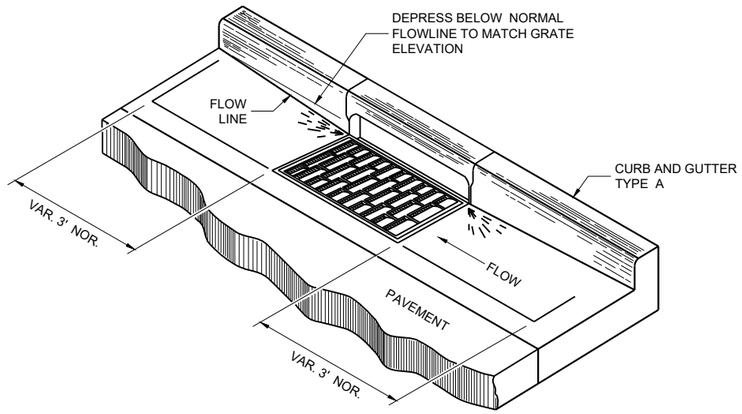
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

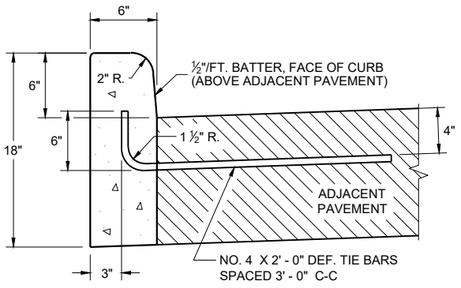
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

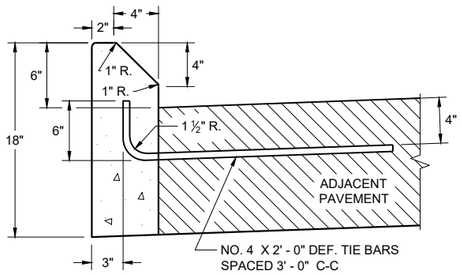
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

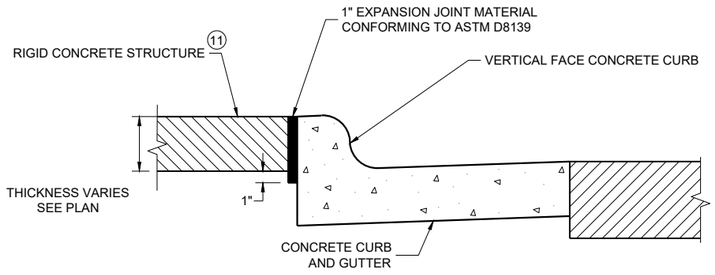


TYPES A (1) & D

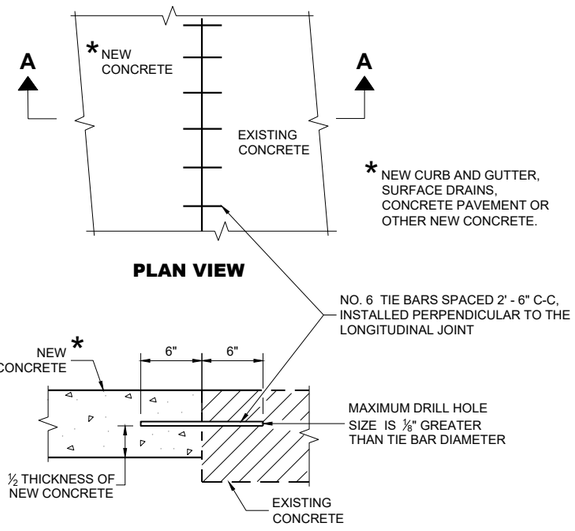


TYPES G (1) & J

CONCRETE CURB



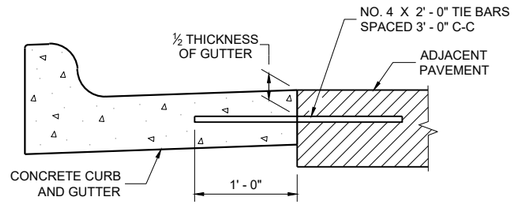
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



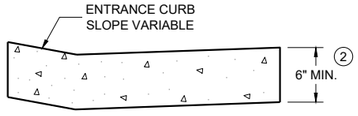
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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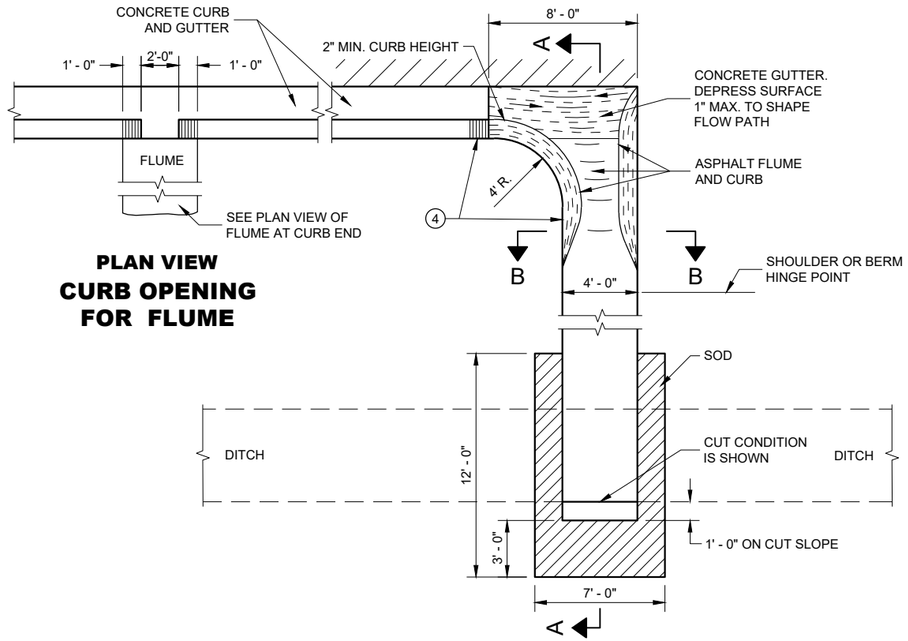
SDD 08D01-23b

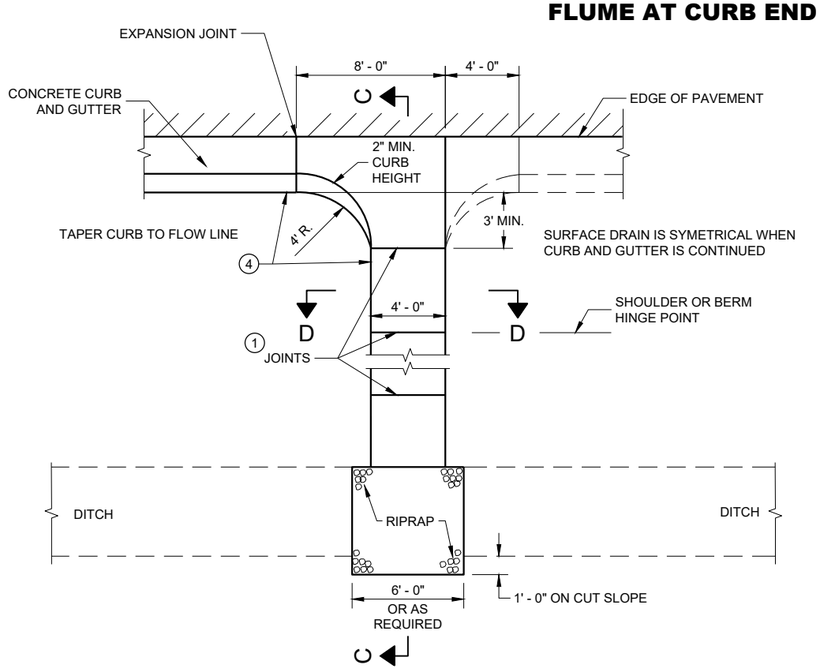
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



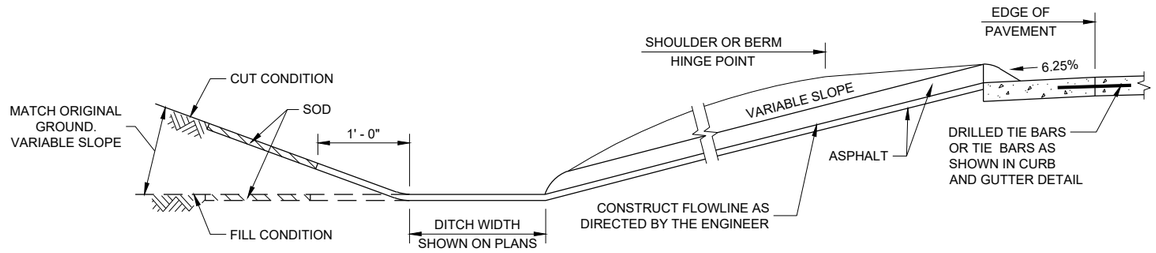
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

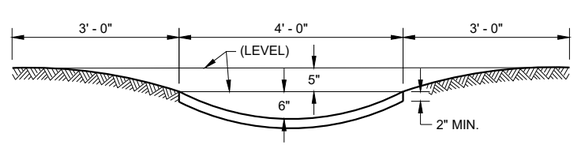
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

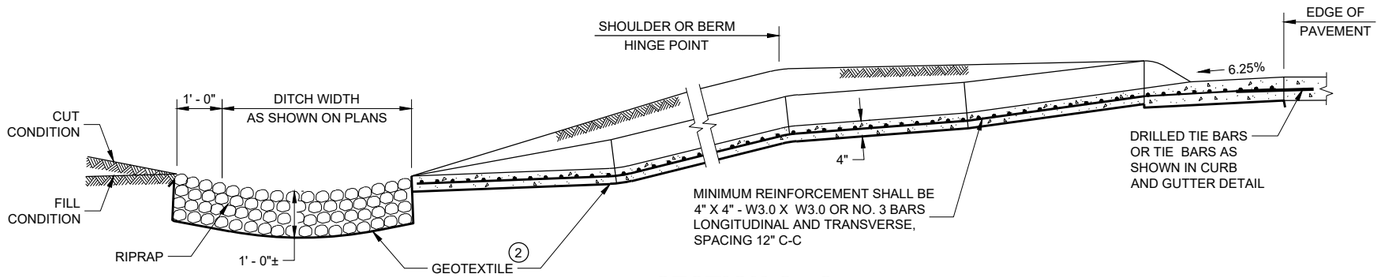
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



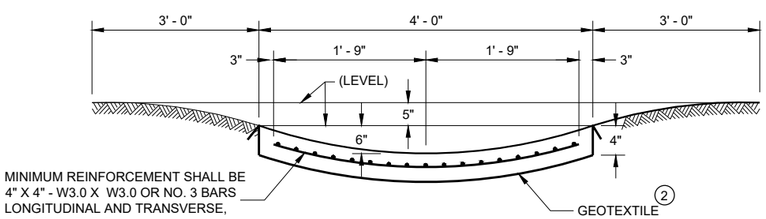
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

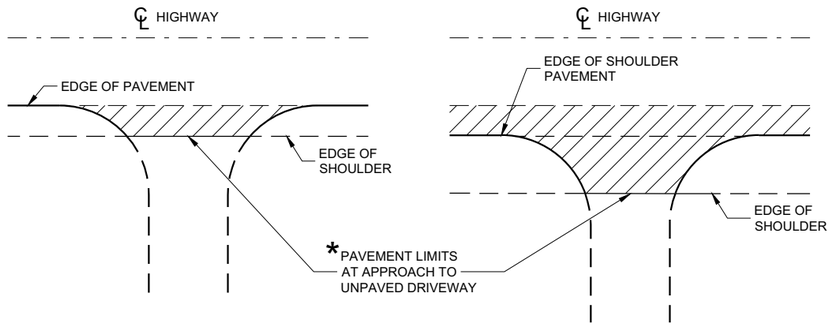
FHWA

6

SDD 08D04 - 07

6

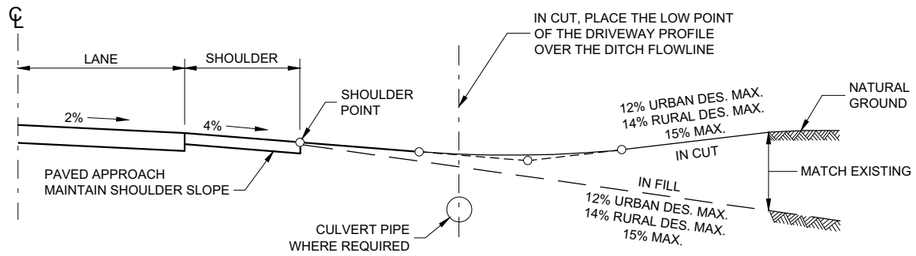
SDD 08D04 - 07



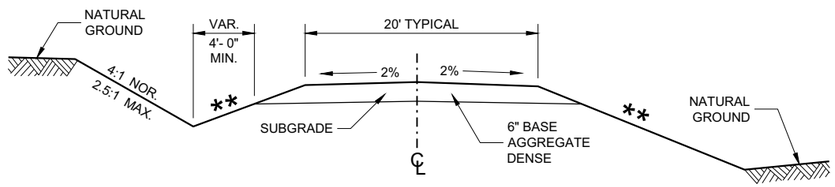
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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



TYPICAL DRIVEWAY PROFILES

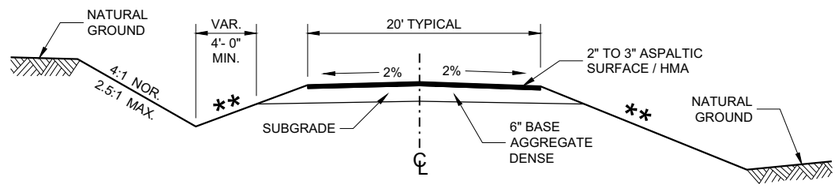


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

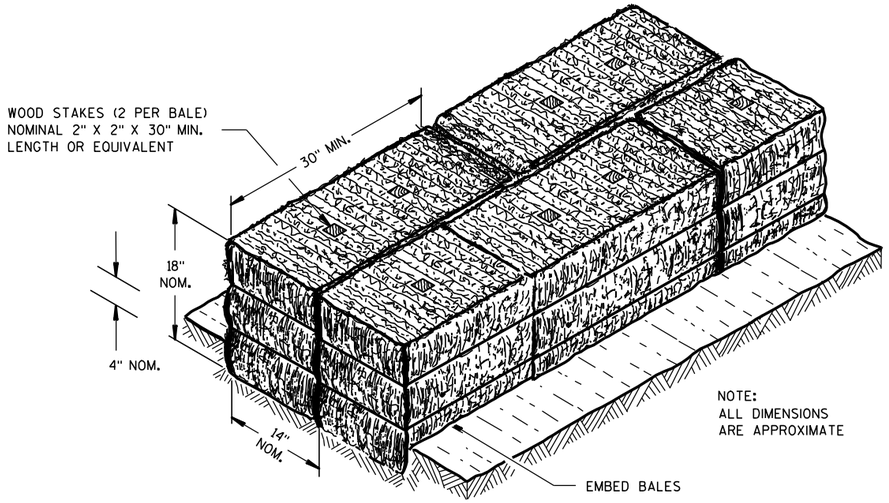
SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

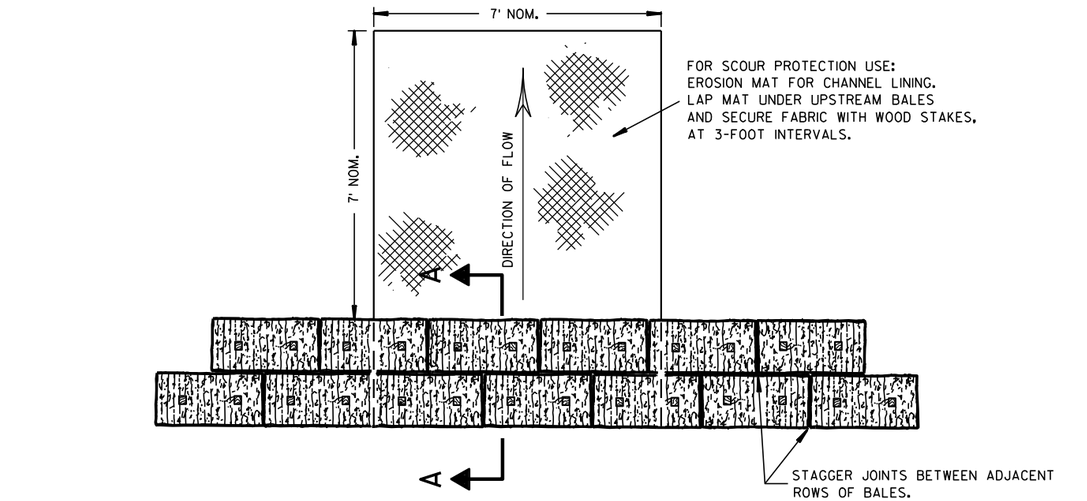
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

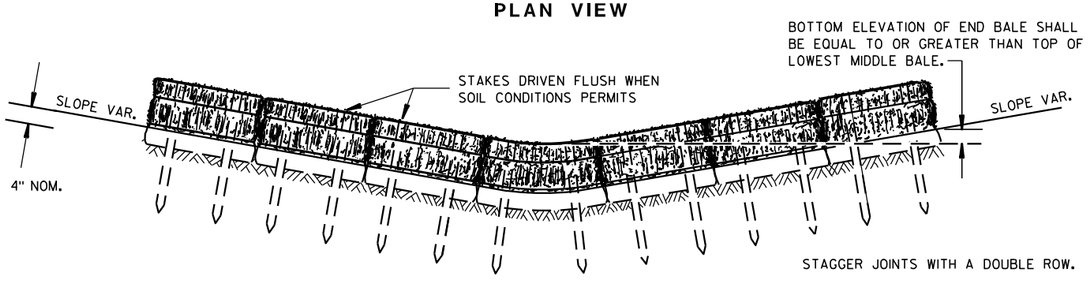
FHWA



SECTION A-A



PLAN VIEW



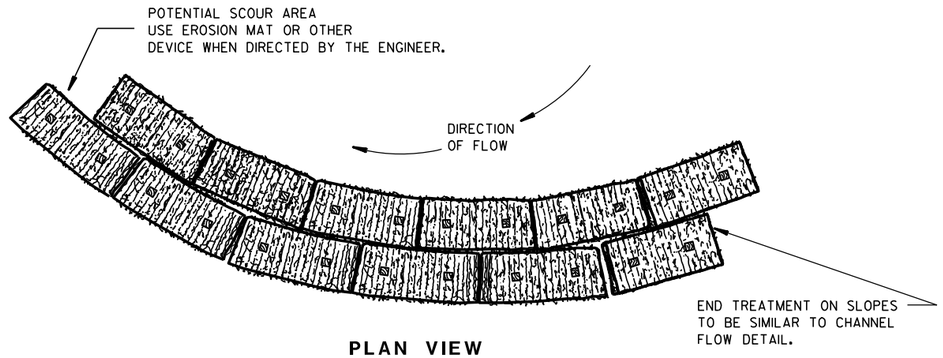
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

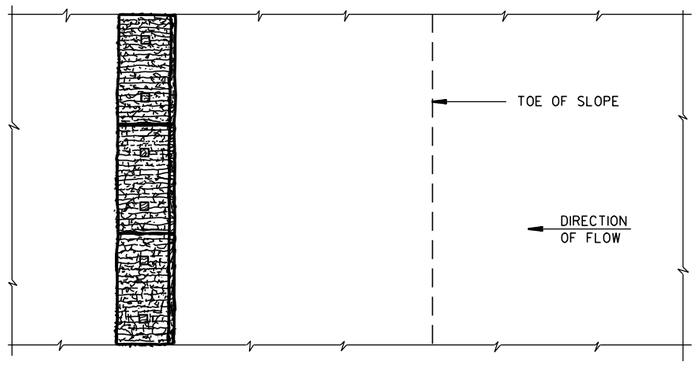
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

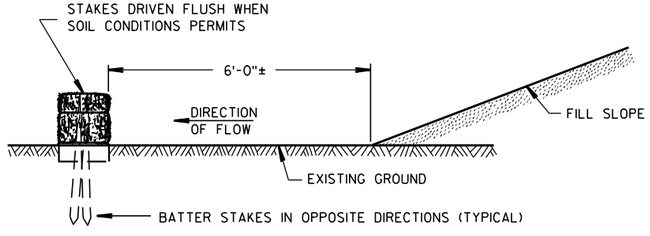


PLAN VIEW

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

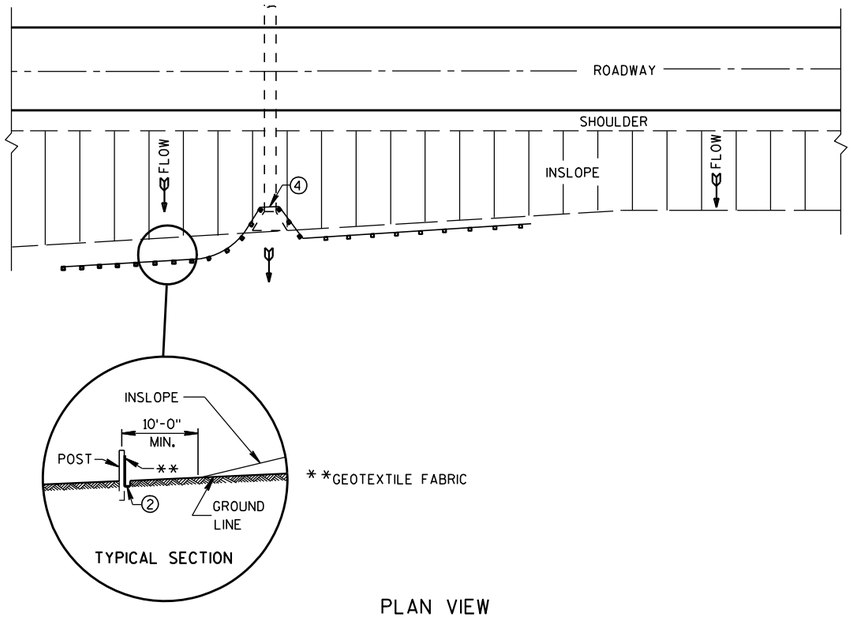
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

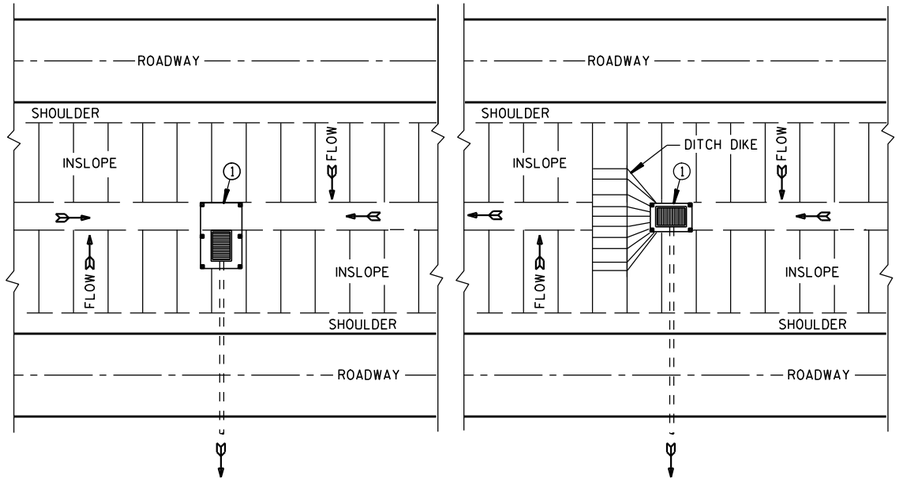
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



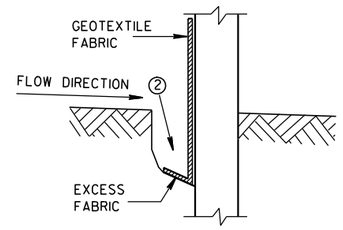
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

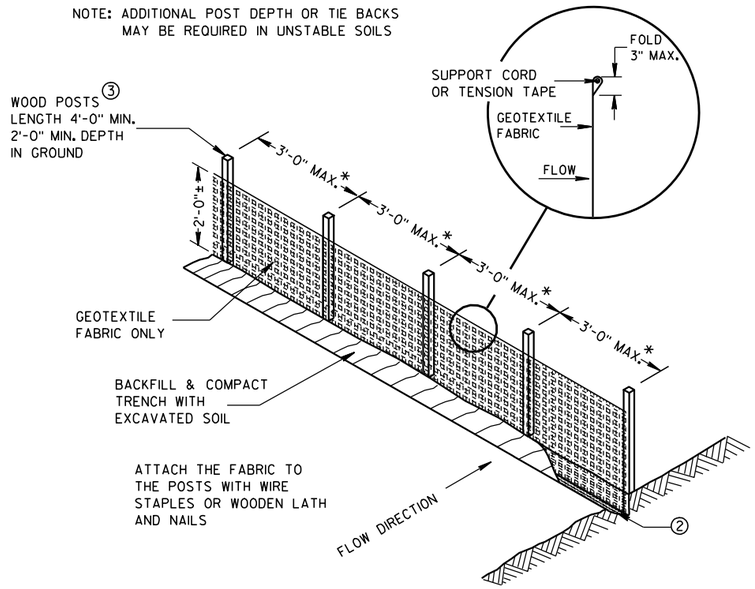
GENERAL NOTES

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

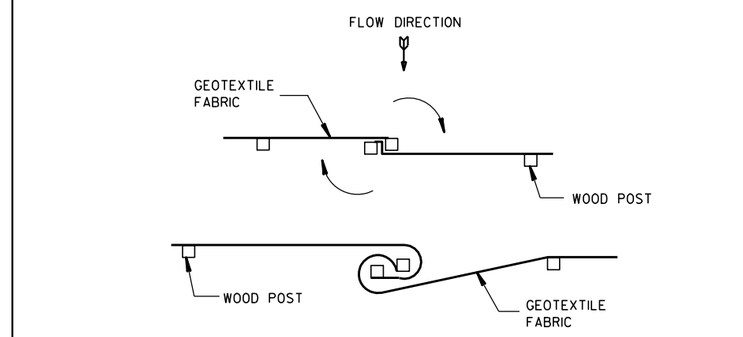
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



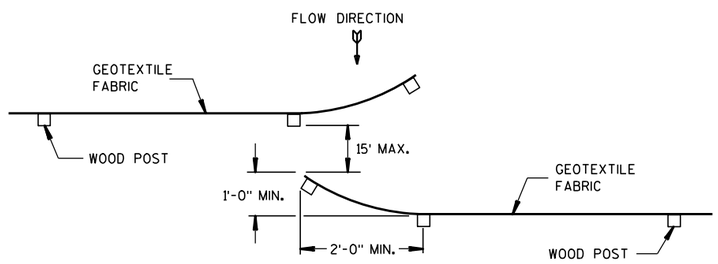
TRENCH DETAIL



SILT FENCE

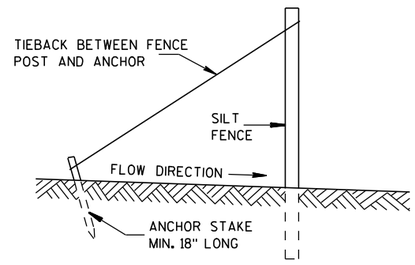


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

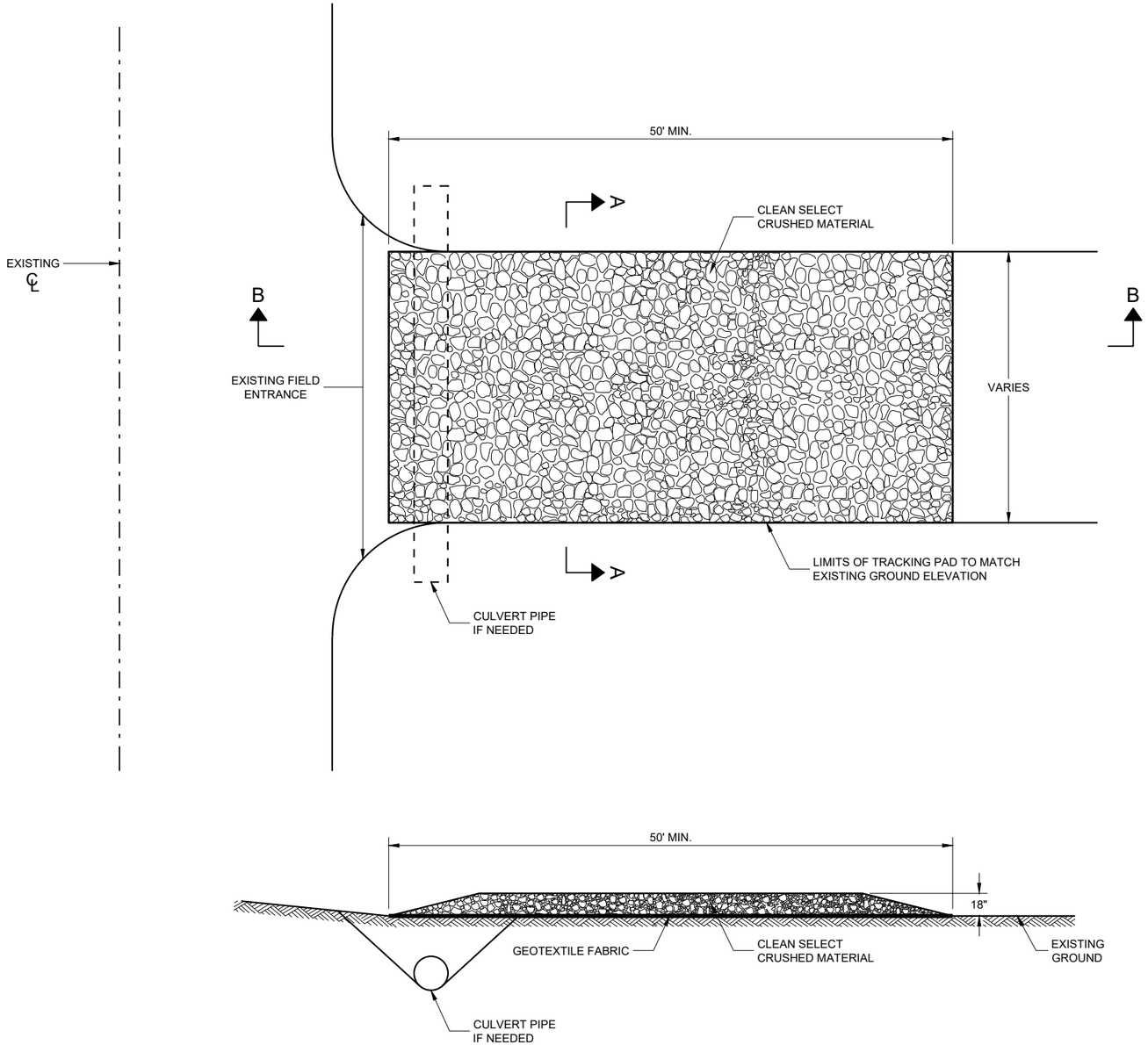
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



SECTION B - B

GENERAL NOTES

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

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

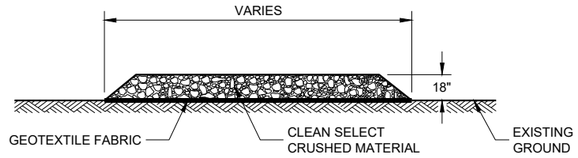
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

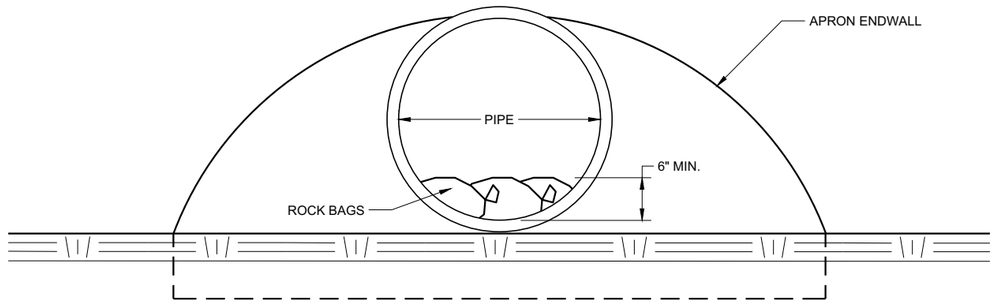
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

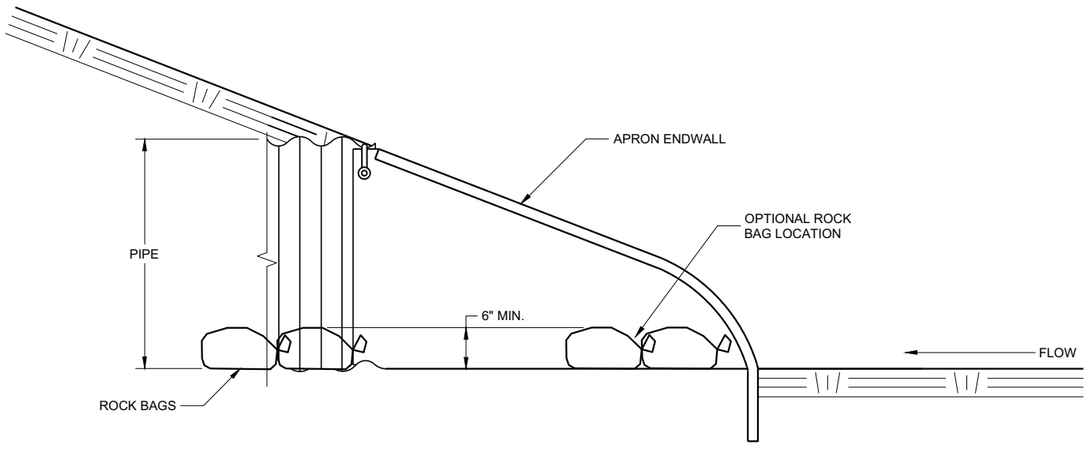
FHWA

6

SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

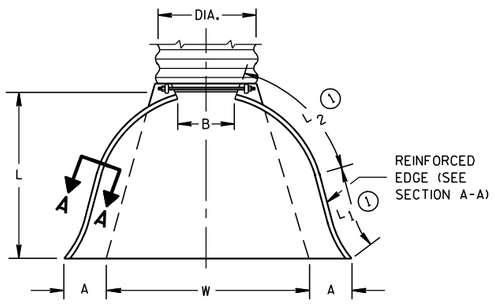
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

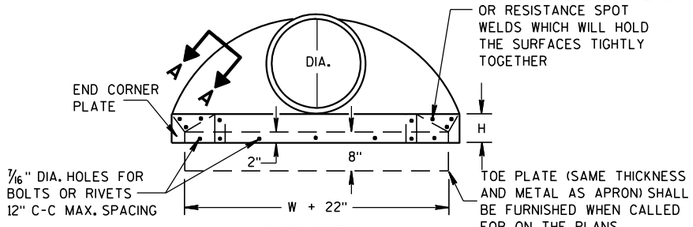
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

*MINIMUM
**MAXIMUM



PLAN VIEW



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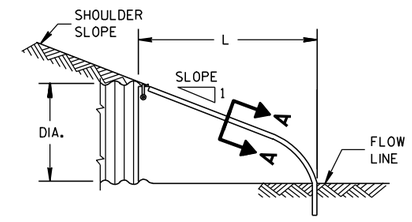
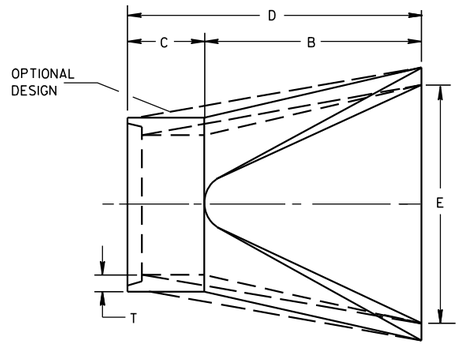
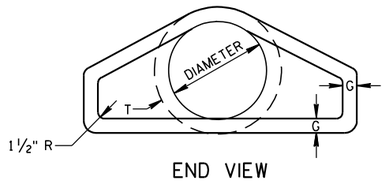


SIDE ELEVATION

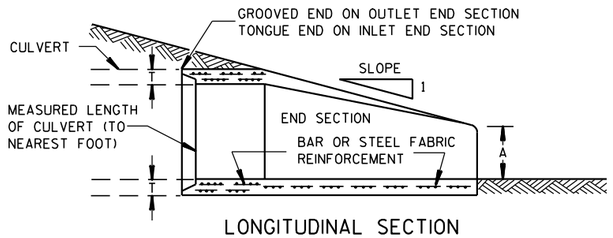
METAL ENDWALLS



PLAN

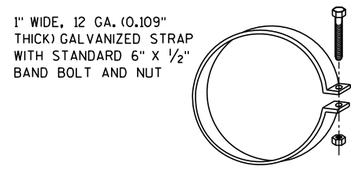


END VIEW



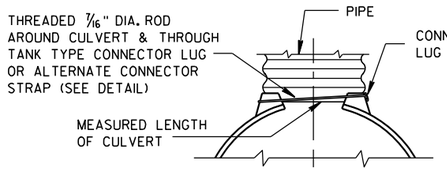
LONGITUDINAL SECTION

CONCRETE ENDWALLS

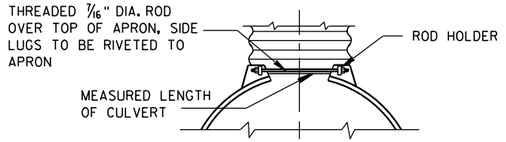


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

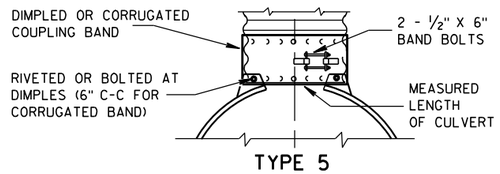


TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

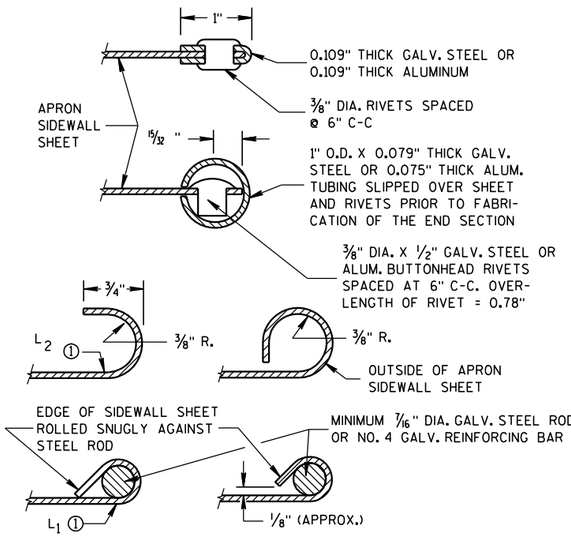
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

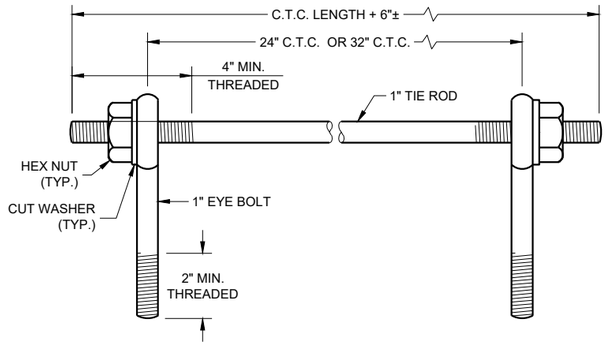
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

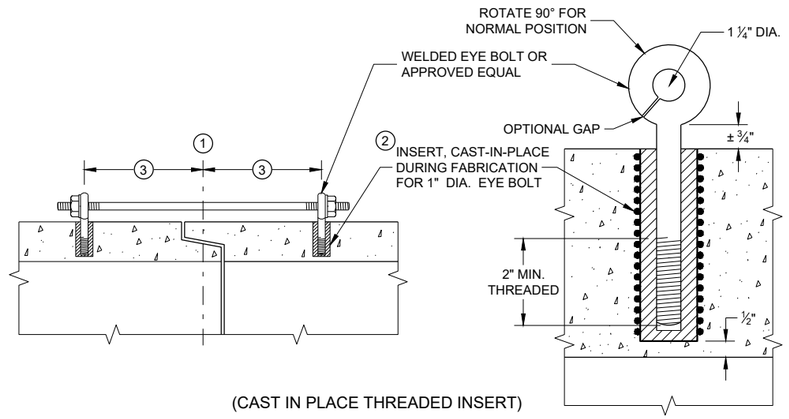
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

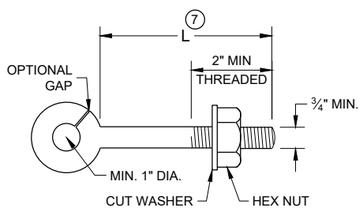
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

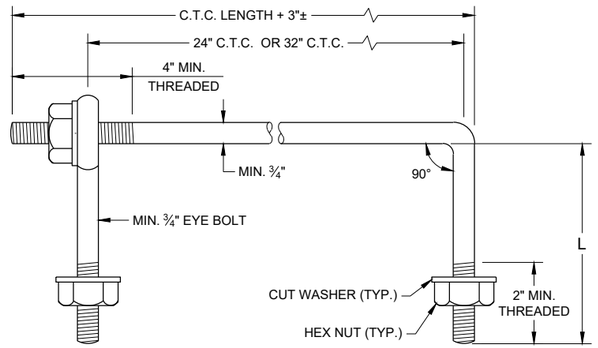
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

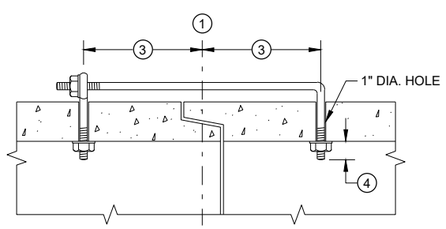


EYE BOLT (7)

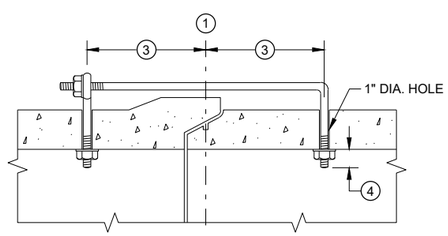
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

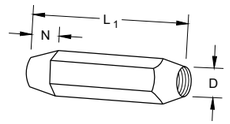
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

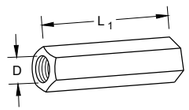
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

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

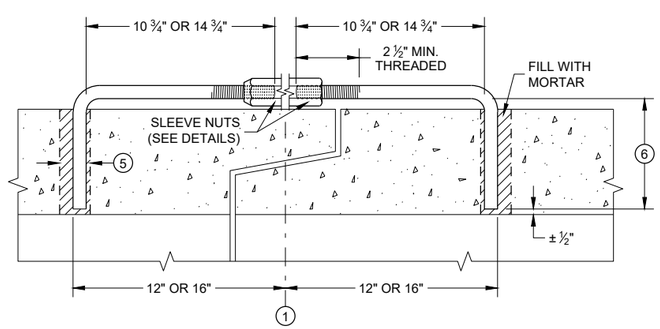
DIMENSIONS SHOWN ARE IN INCHES





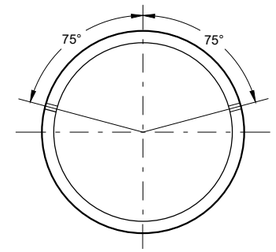
RIGHT AND LEFT THREADS

SLEEVE NUTS



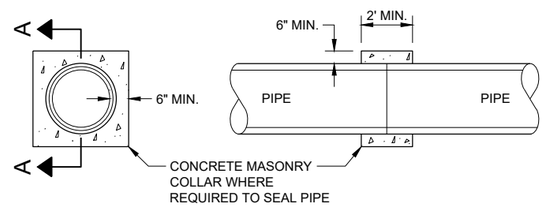
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

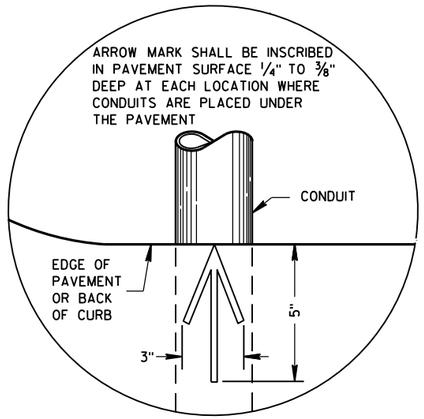
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

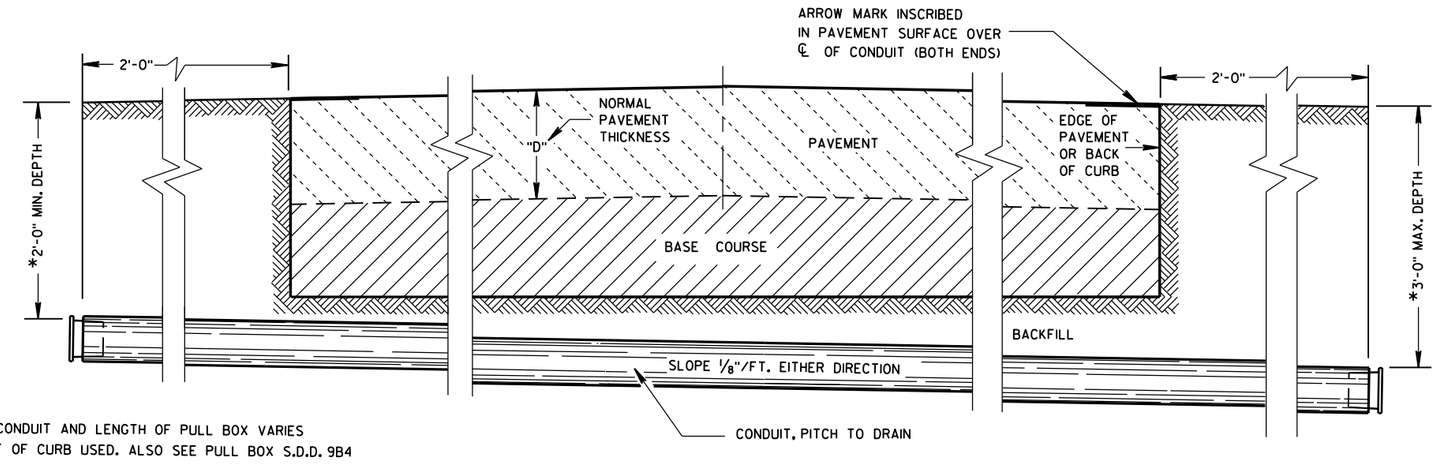
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

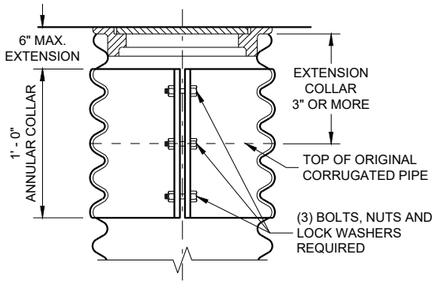
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

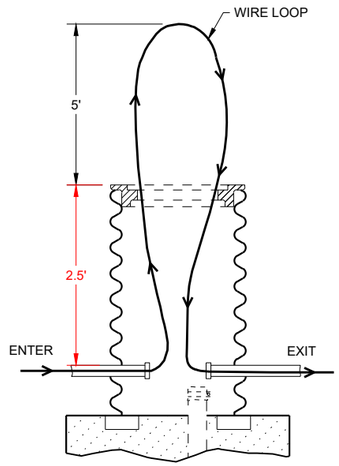
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

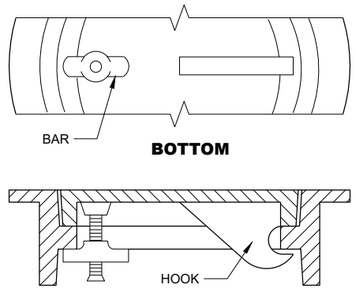
S.D.D. 9 B 2-10



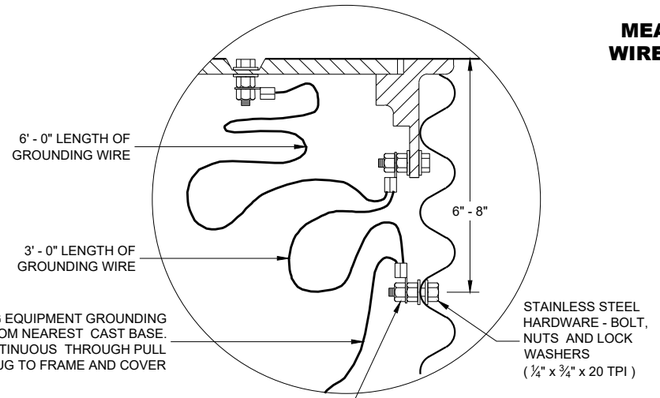
CORRUGATED PIPE EXTENDER



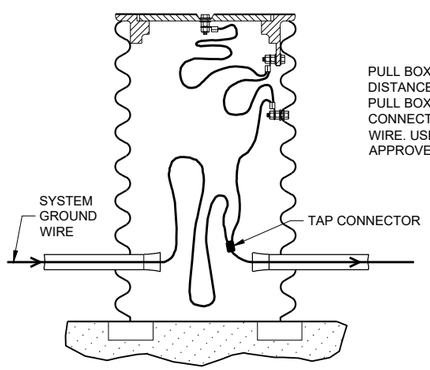
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

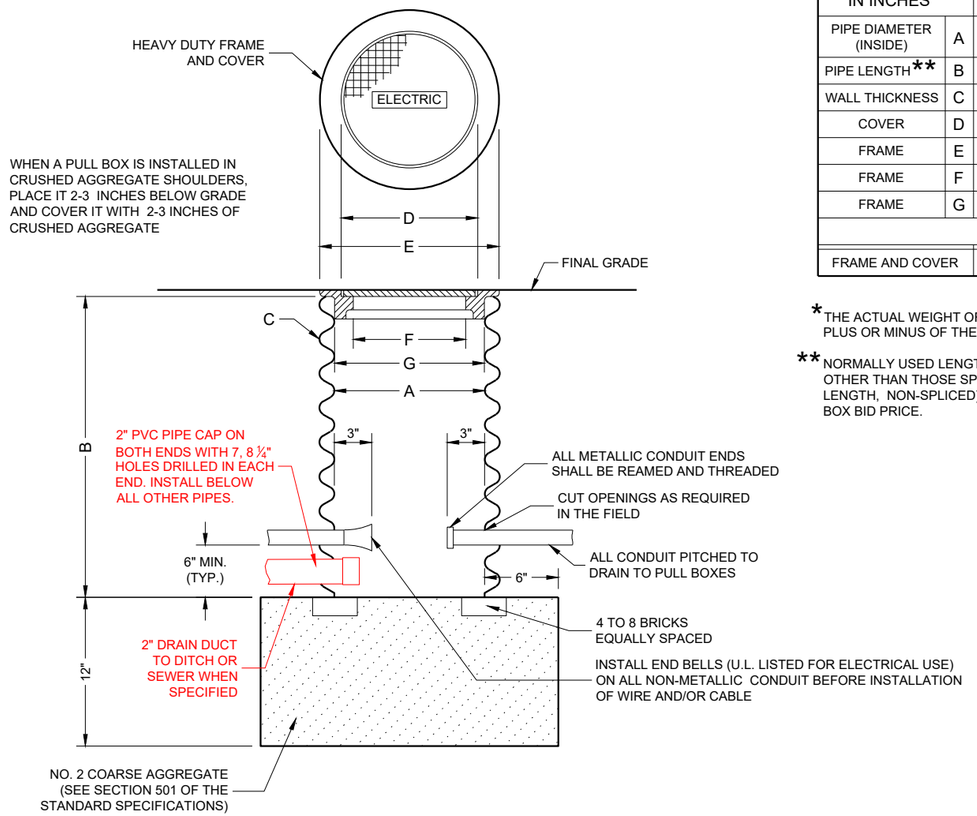


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



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

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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

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

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

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

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

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

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

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

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

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 220

FHWA

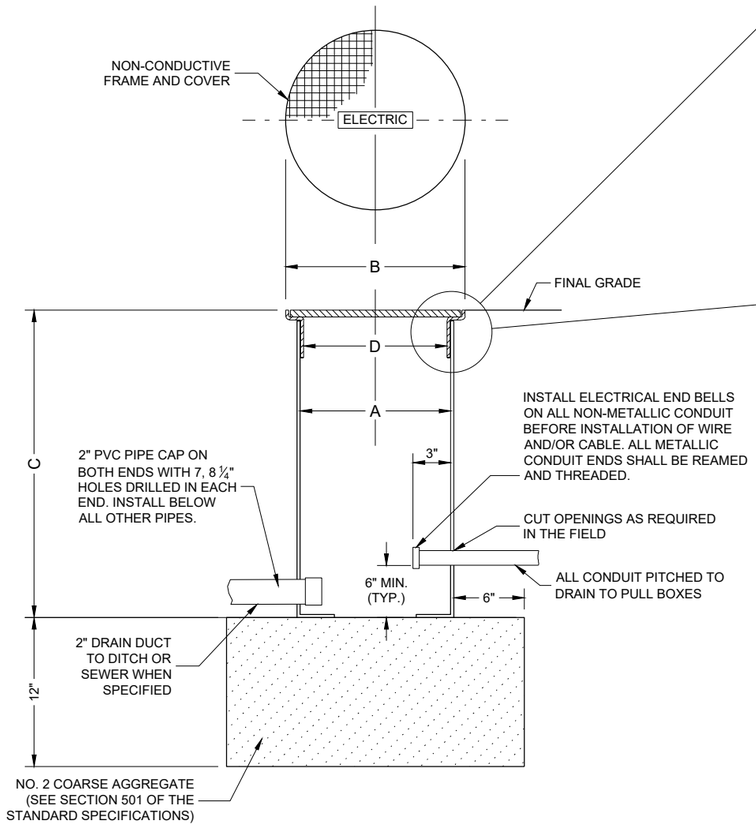
6
SDD 09B04-12

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

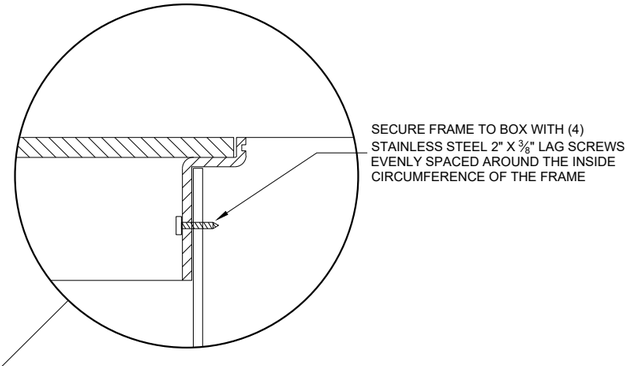
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

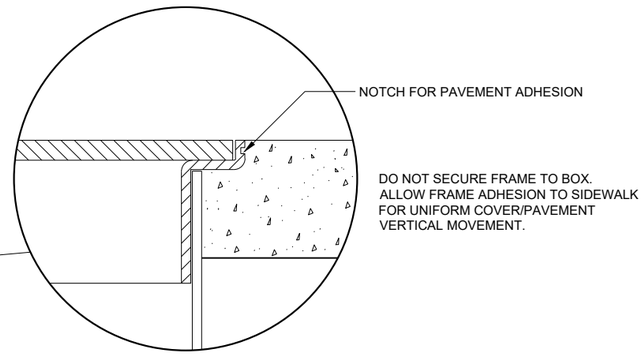
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



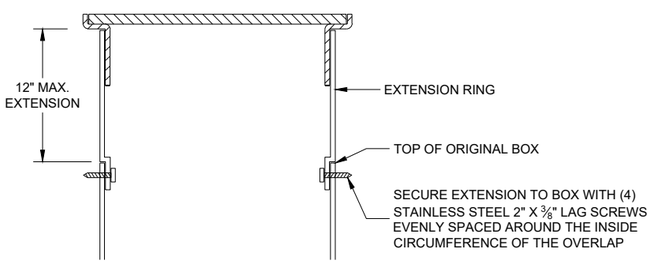
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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".

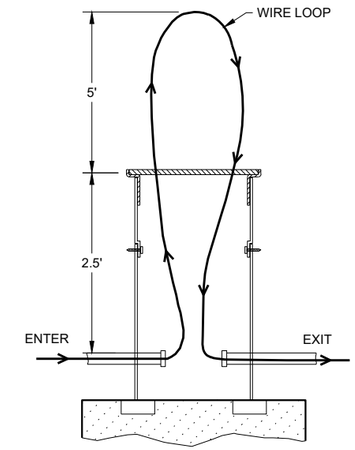
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

PULL BOXES NON-CONDUCTIVE

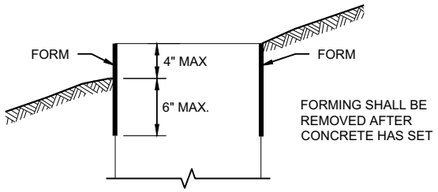
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 221

FHWA

6
SDD 09B16 - 02

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

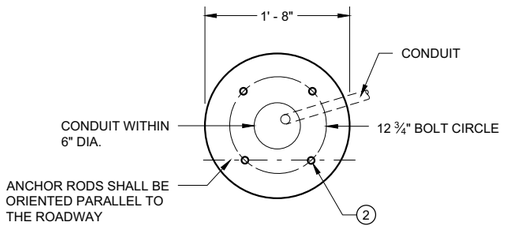
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

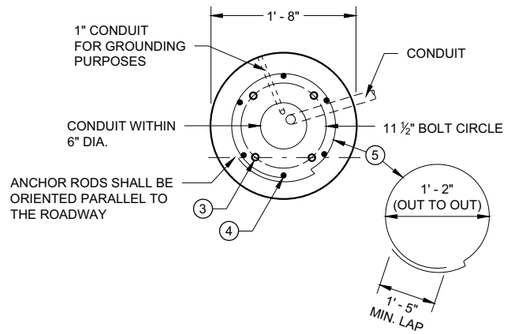
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

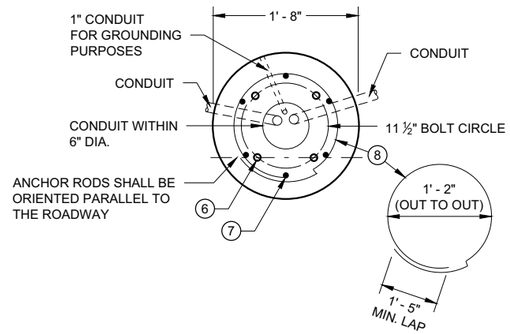
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







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

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

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

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

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

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

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

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

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

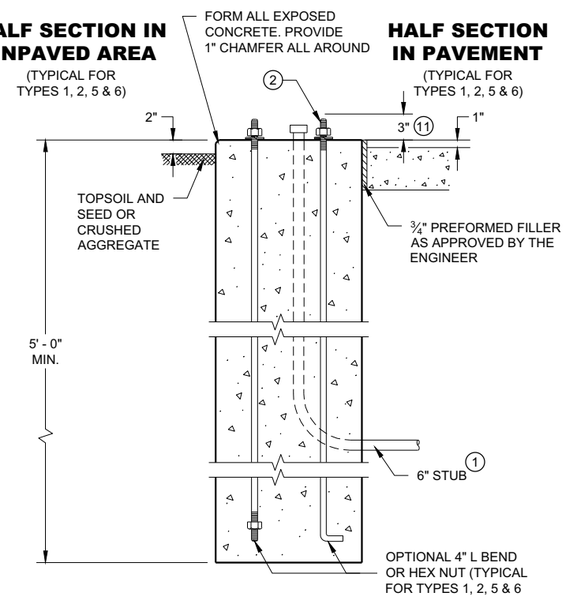
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

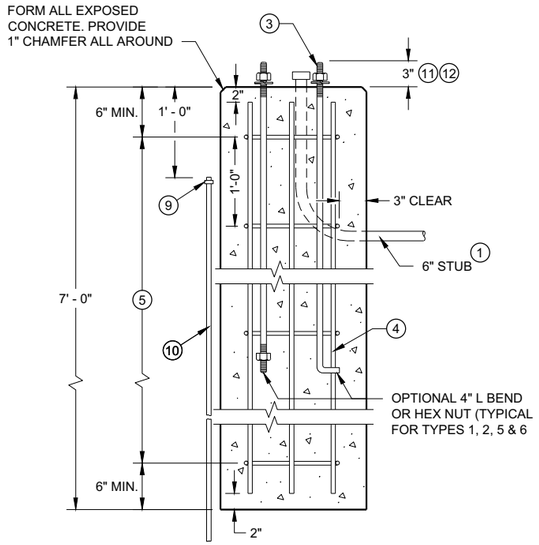
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



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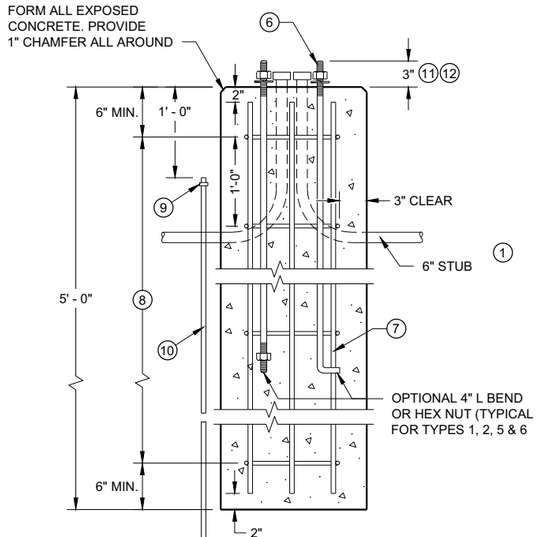


TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 222
FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

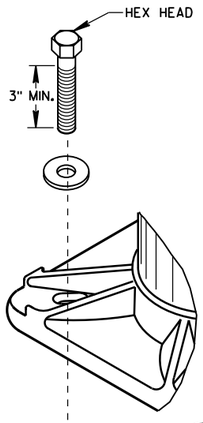
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

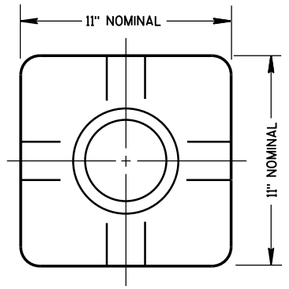
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

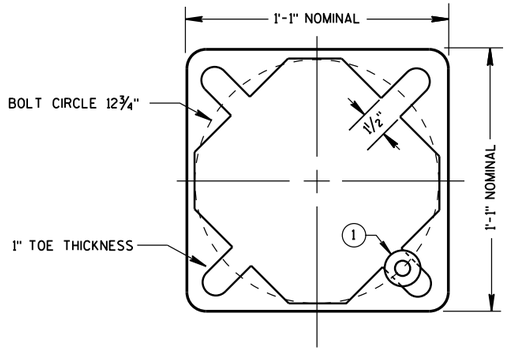
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

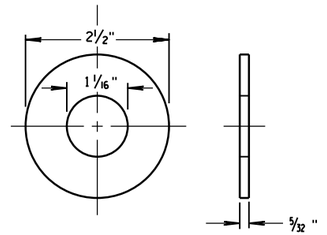




TOP VIEW
(PEDESTAL BASE)

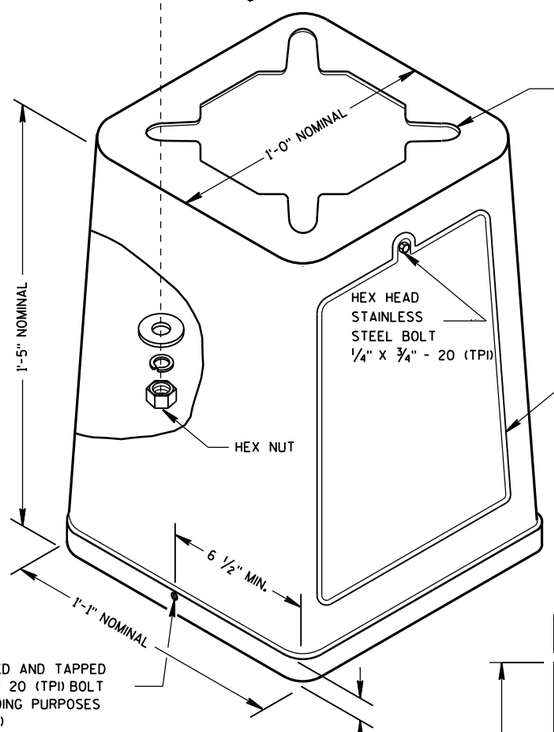


BOTTOM VIEW
(PEDESTAL BASE)

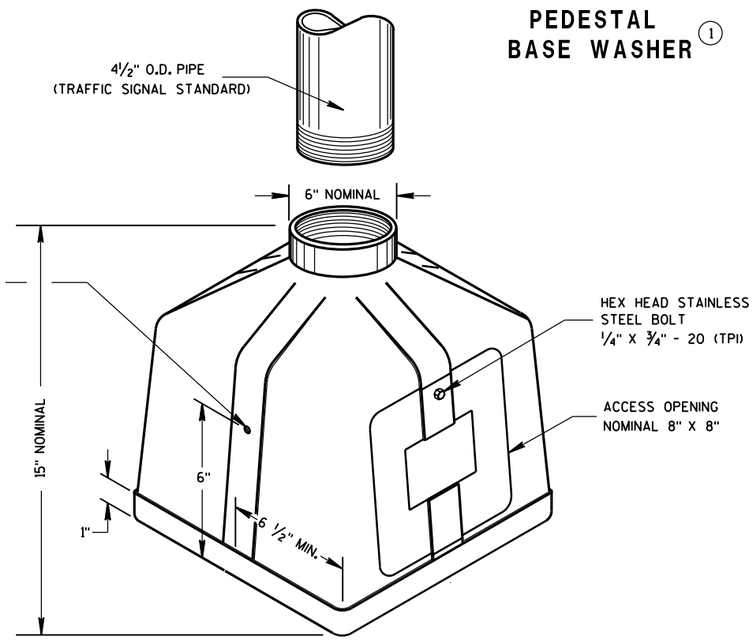


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

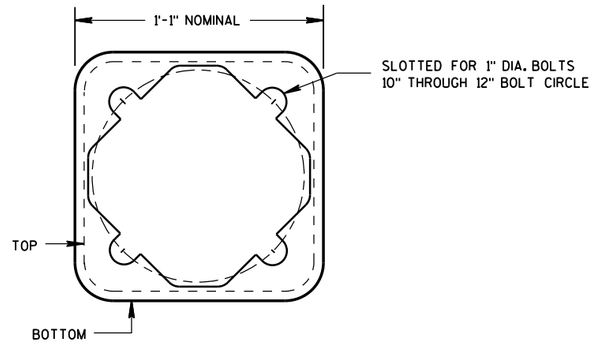


ISOMETRIC VIEW

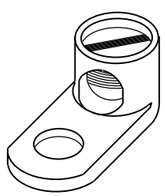


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

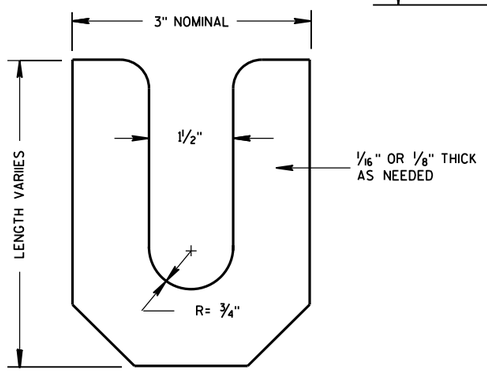


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 3-4

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S.D.D. 9 C 3-4

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

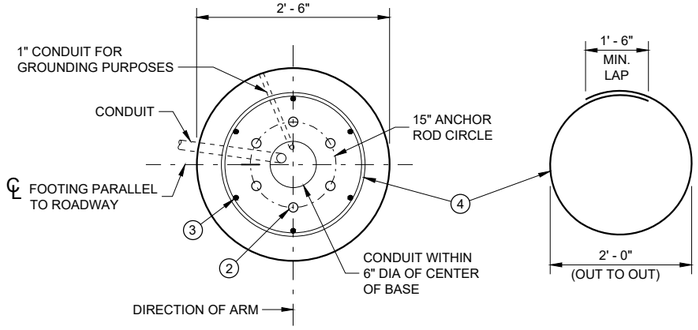
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

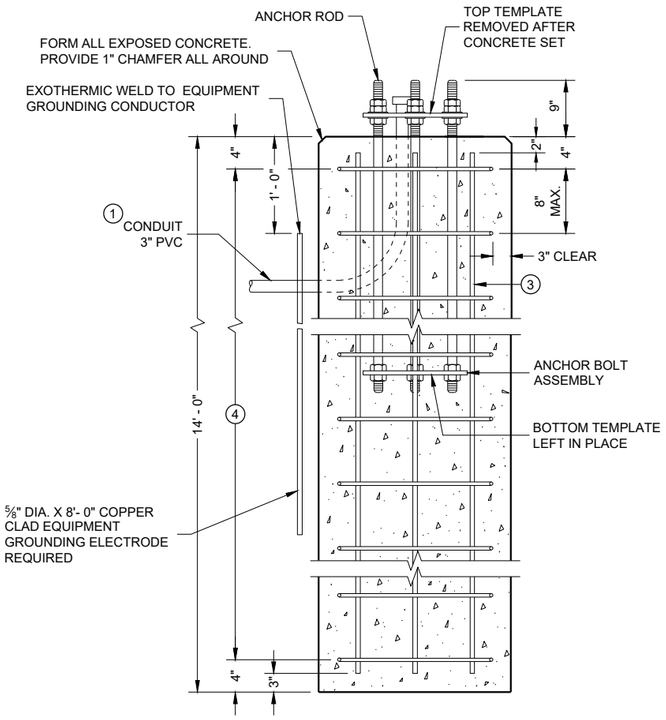
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

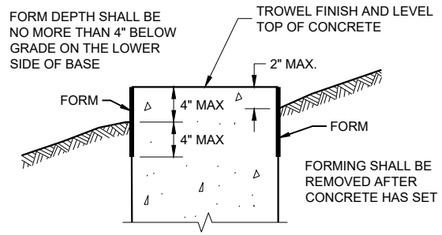
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



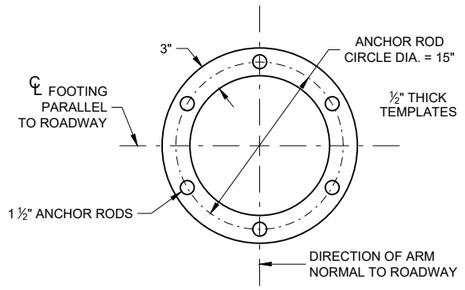


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

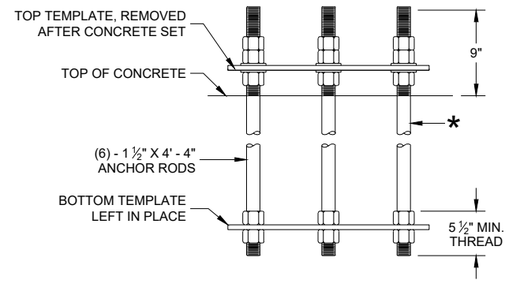
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

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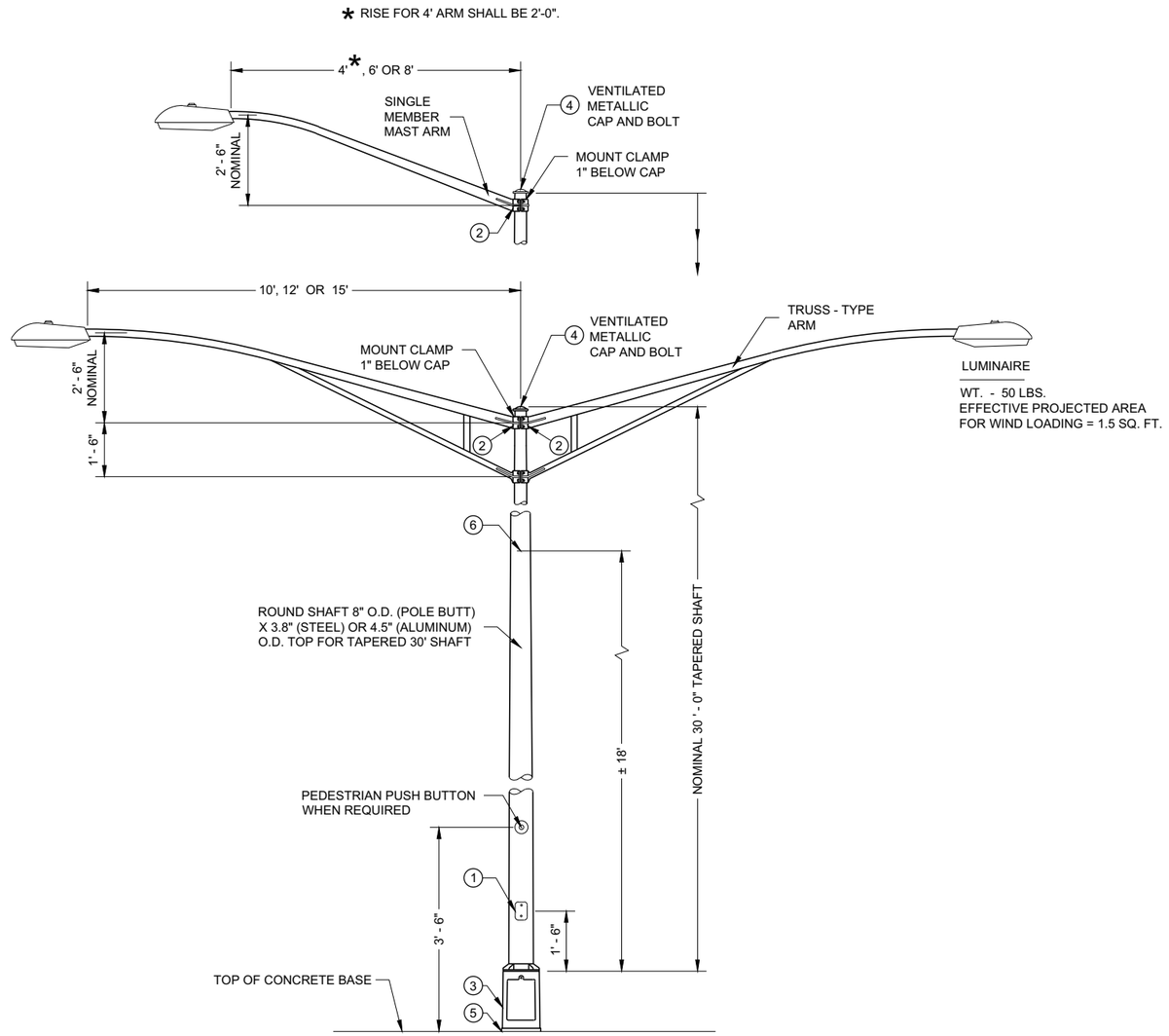
SDD 09C11 - 10



TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

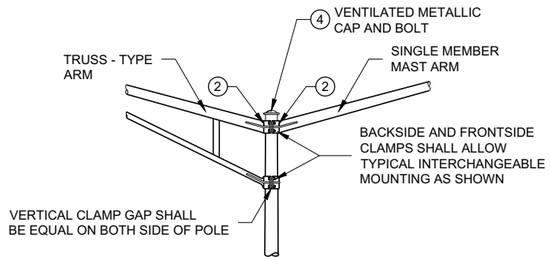
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

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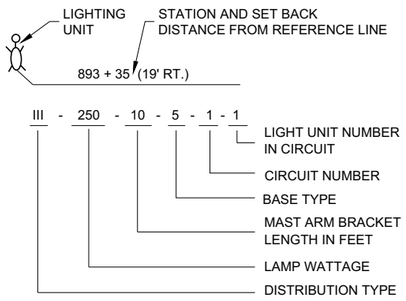
SDD 09E01 - 15d

GENERAL NOTES

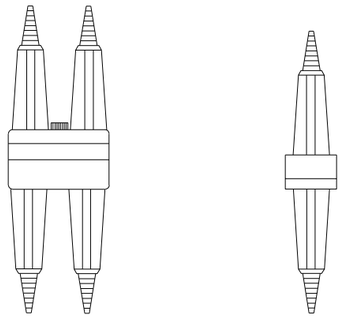
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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.

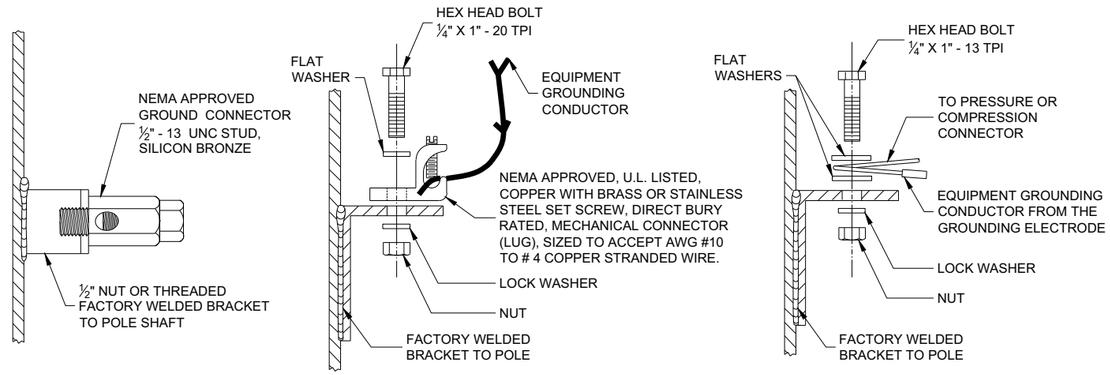


LIGHTING UNIT CODE
(TYPICAL)

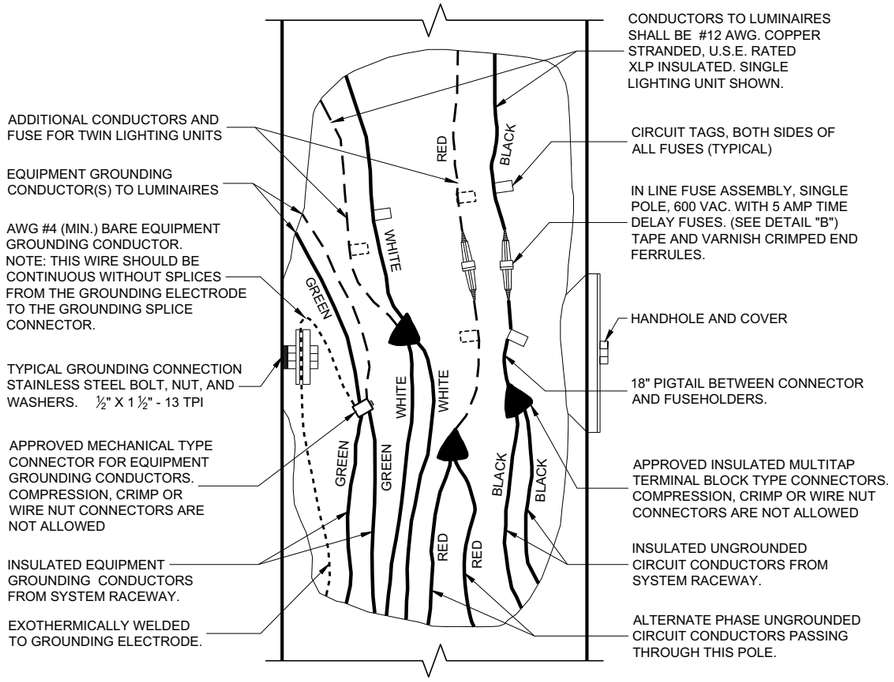


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

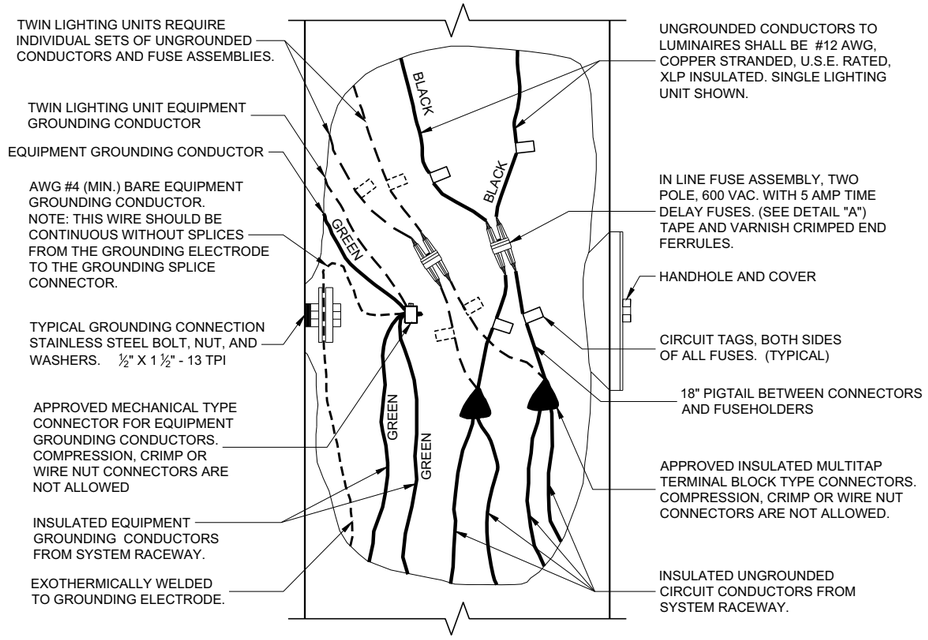
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



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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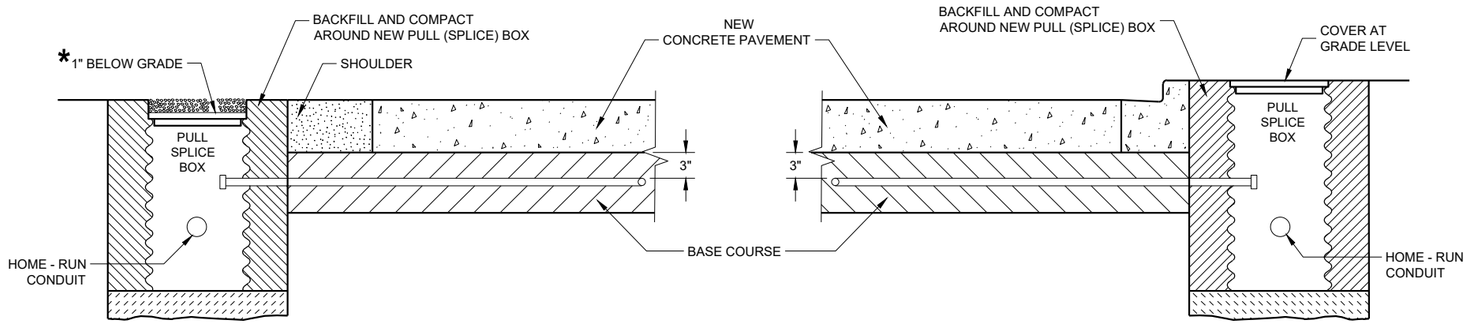
SDD 09E03 - 06



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

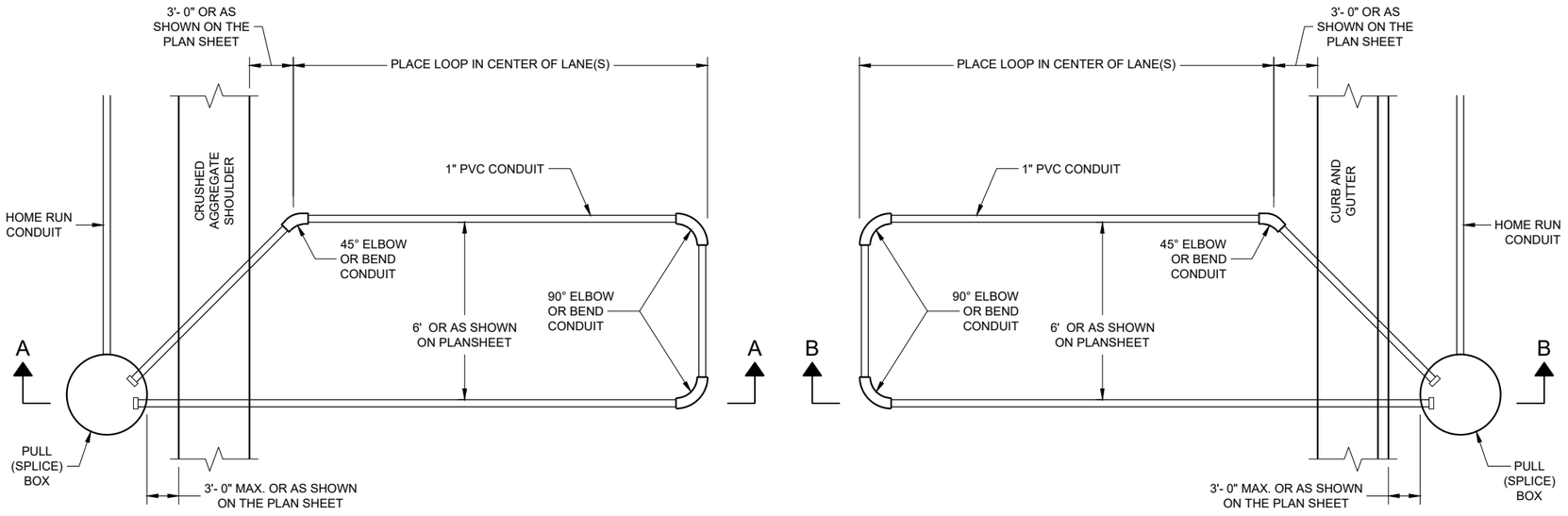
THE #12 AWG LOOP WIRE IN THE ROADSIDE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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SDD 09F15 - 04a

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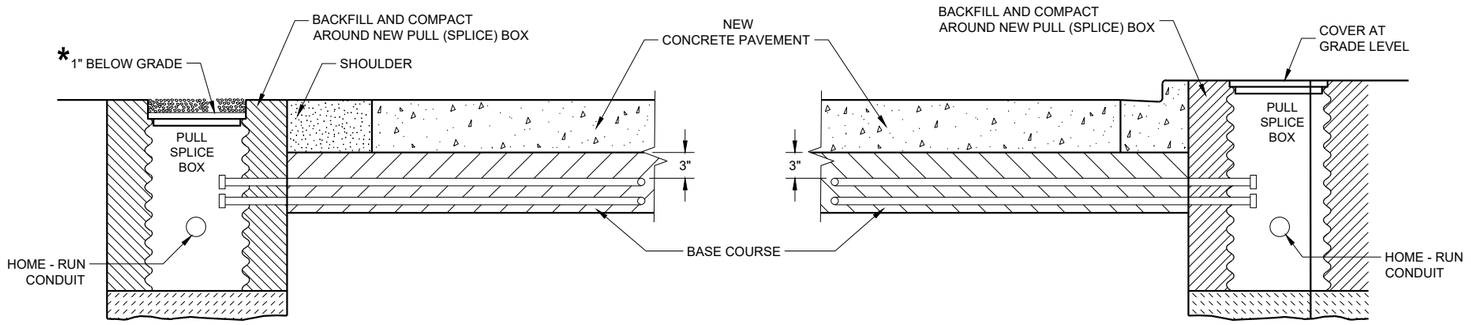
SDD 09F15 - 04a



SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

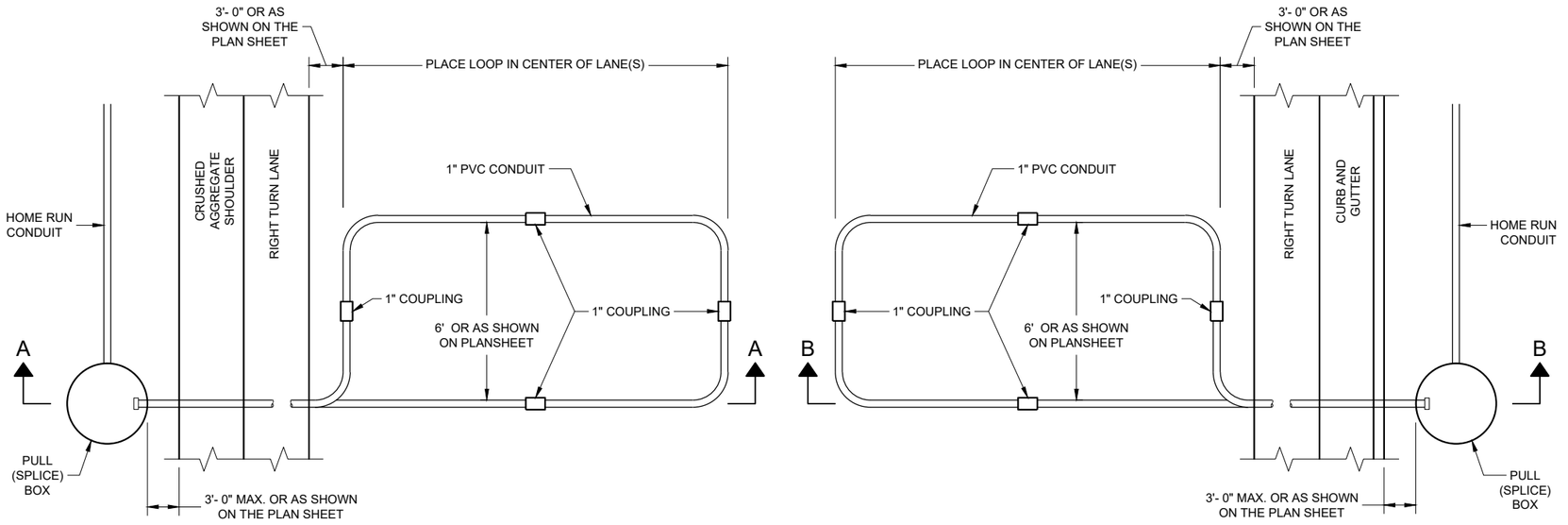
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

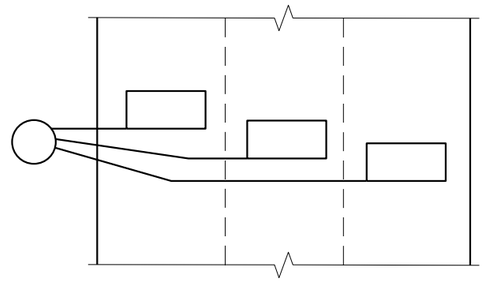
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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SDD 09F15 - 04b

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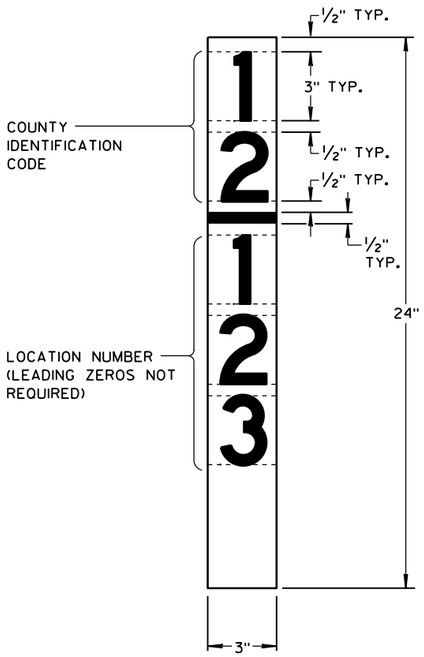
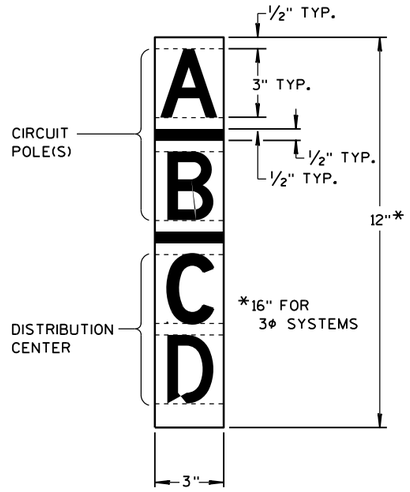
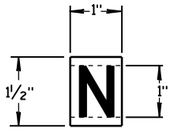


HIGH MAST LIGHT TOWER STRUCTURE PLAQUE

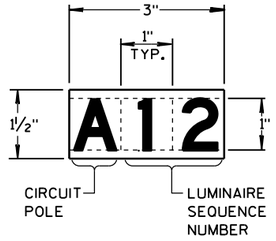


UNDERDECK LIGHTING OR HIGH MAST LIGHT TOWER CIRCUIT PLAQUE



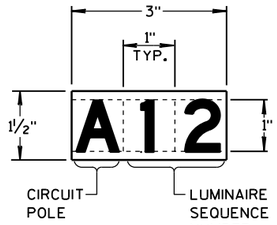
HIGH MAST LIGHT TOWER NORTH PLAQUE

(MOUNT ON LOWERING RING - INDICATING NORTH HEADING ^{2} ± 10°^{3} WHEN RING IS RAISED AND LATCHED)



HIGH MAST LIGHT TOWER LUMINAIRE SEQUENCE PLAQUE

(MOUNT ON LUMINAIRE RING)



UNDER DECK LUMINAIRE SEQUENCE DECAL

(MOUNT ON LUMINAIRE)

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

CONCRETE SURFACE - MASONRY ANCHORS

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

PLAQUE MATERIALS:

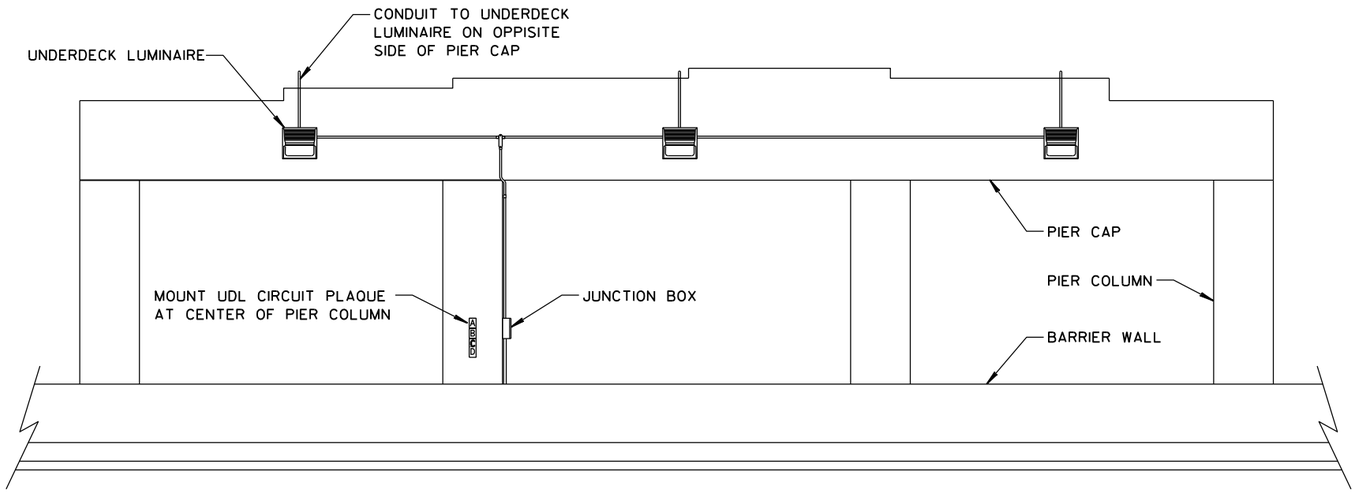
BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

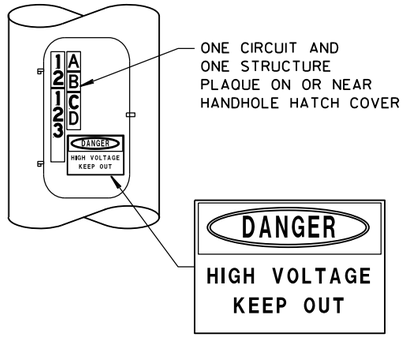
LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.



LOCATION OF UNDERDECK LIGHTING CIRCUIT PLAQUE

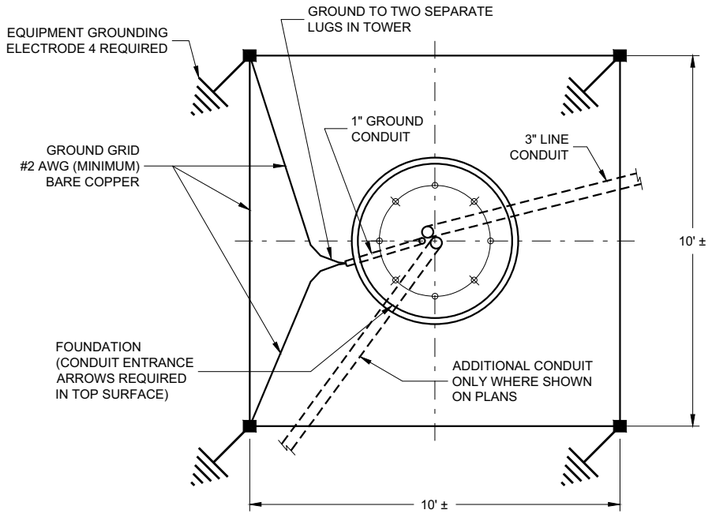


NOTE: NEMA PLAQUE SHOWN ABOVE IS REQUIRED ONLY IN PARK AND RIDE LOTS OR IN OTHER PEDESTRIAN ACCESSIBLE AREAS.

LOCATION OF HIGH MAST LIGHT TOWER STRUCTURE PLAQUE AND CIRCUIT PLAQUE

IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE FHWA	/S/ Ahmet Demriblek STATE ELECTRICAL

6 S.D.D. 10 A 4-3



EQUIPMENT GROUNDING GRID AND FOUNDATION ELECTRICAL DETAILS

OVER CURRENT AND POWER CORD SCHEDULE

LINE VOLTAGE		HAND HOLE BREAKERS	INDIVIDUAL LUMINAIRE FUSES	POWER CORD	PRONGS ON LOAD BREAK DISCONNECT
1 - ϕ 120 / 240VAC:	3 WIRE	2 - 30A, 1P, 277VAC	20A	10 - 3 + GND "SO"	A, B, N, GND
1 - ϕ 240 / 480VAC:	3 WIRE	2 - 30A, 1P, 277VAC	10A	10 - 3 + GND "SO"	A, B, N, GND
3 - ϕ 480Y / 277VAC:	4 WIRE	3 - 30A, 1P, 277VAC	10A	10 - 4 + GND "SO"	X, Y, Z, N, GND
3 - ϕ 208Y/ 120VAC:	4 WIRE	3 - 30A, 1P, 277VAC	20A	10 - 4 + GND "SO"	X, Y, Z, N, GND
1 - ϕ 480VAC:	2 WIRE	1 - 20A, 2P, 600VAC	5A	10 - 3 + GND "SO"	A, B, N, GND

GENERAL NOTES

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

IN CASES WHERE THE PLANS SHOW LINE IN/LINE OUT DISTRIBUTION SYSTEMS, FURNISH FEED-THROUGH LUGS IN THE CIRCUIT BREAKER ENCLOSURE.

THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

FIELD RECODING OF UNGROUNDED CONDUCTORS IN TYPE "SO" CABLE MAY BE REQUIRED TO CONFORM TO SYSTEM COLOR CODING AS SHOWN IN THE PLANS.

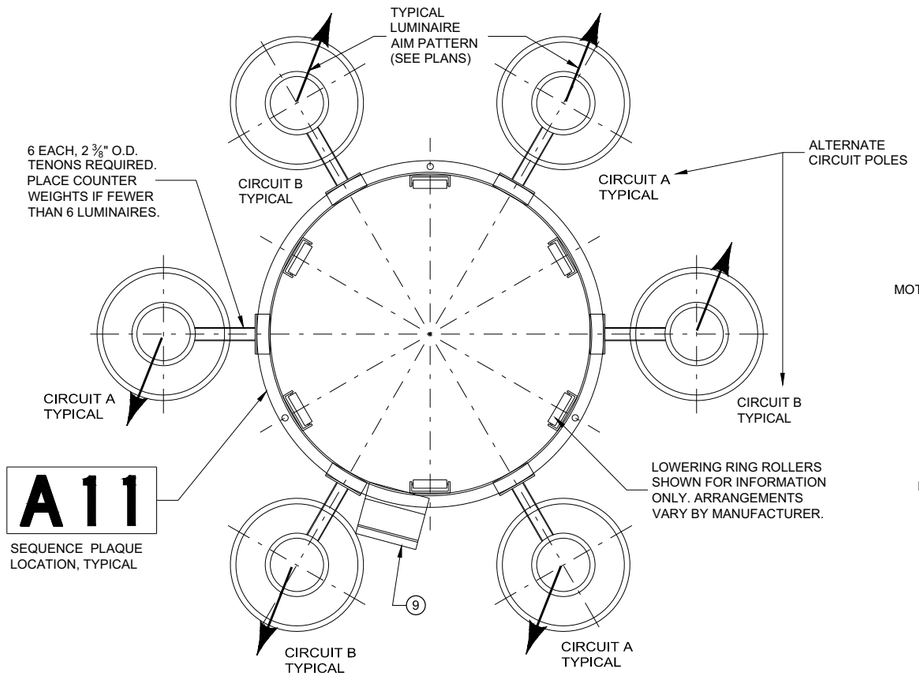
USE TIME DELAY FUSE PER LUMINAIRE MANUFACTURER RECOMMENDATION.

CIRCUIT BREAKERS SHALL BE MINIMUM 14 kAIC AT THE VOLTAGE SHOWN.

LOADBREAK DISCONNECTS SHALL BE MELTRIC TYPE "DR", 30 AMP, 600 VOLT. DO NOT SUBSTITUTE. FURNISH "FDP" FINGER/PALM DRAW PLATES (APPLIES TO THE PLUG AND RECEPTACLE ONLY, NOT TO THE APPLIANCE INLET). FURNISH "LP" MOISTURE PROTECTION (APPLIES TO THE PLUG ONLY, NOT TO THE RECEPTACLE OR THE APPLIANCE INLET).

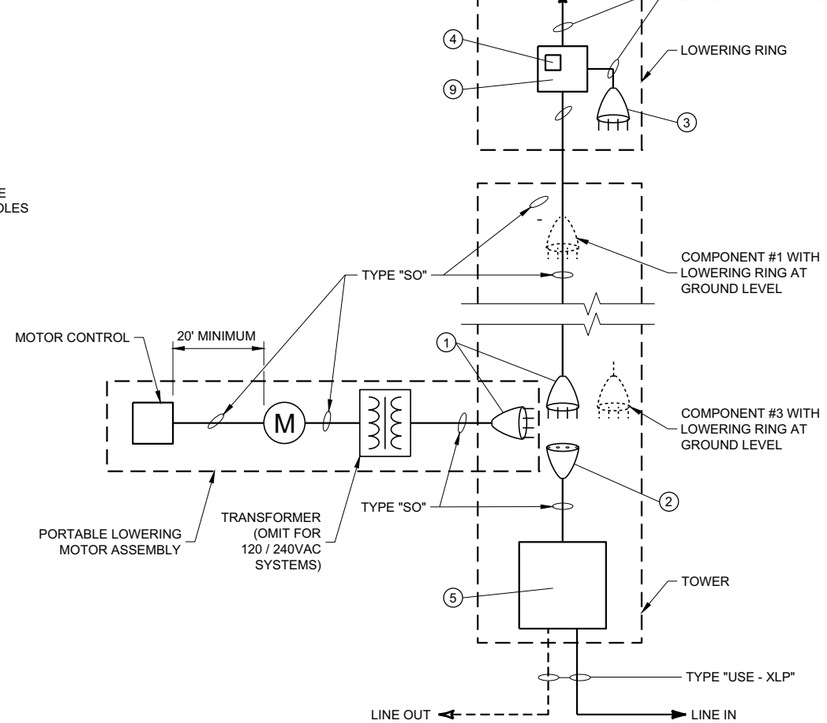
SURGE ARRESTORS SHALL BE 650 VAC, 2P OR 3P AS REQUIRED.

CIRCUIT BREAKER ENCLOSURES SHALL BE NEMA 1, 100 AMP, 600 VOLT, 2P OR 3P AS REQUIRED, SURFACE MOUNT. IN ALL SYSTEMS, FURNISH A MINIMUM 4 - TERMINAL GROUND BUS. IN ISOLATED NEUTRAL SYSTEMS, ADDITIONALLY FURNISH A MINIMUM 1-TERMINAL NEUTRAL BUS. BUSSES SHALL BE RATED FOR NO. 10 AWG THROUGH NO. 2 AWG CU.



LOWERING RING OPTICS PLAN

1 - ϕ CASE SHOWN; 3 - ϕ CASE SIMILAR



ONE LINE DIAGRAM

ANY LINE VOLTAGE PER OVER CURRENT AND POWER CORD SCHEDULE

LEGEND

P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
	EQUIPMENT GROUNDING ELECTRODE
■	EXOTHERMIC WELD

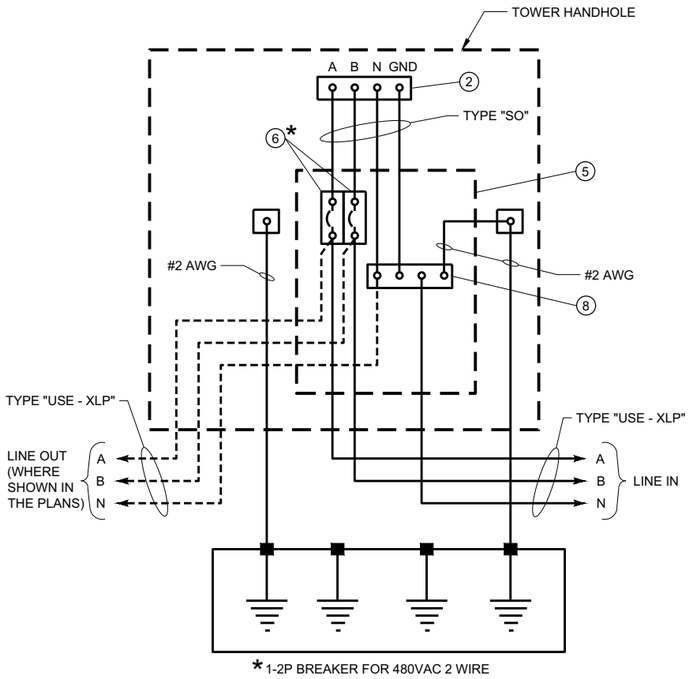
1. LOADBREAK DISCONNECT - MALE PLUG
2. LOADBREAK DISCONNECT - FEMALE RECEPTACLE
3. LOADBREAK DISCONNECT - MALE APPLIANCE INLET
4. SURGE ARRESTOR - 2P OR 3P AS REQUIRED
5. CIRCUIT BREAKER ENCLOSURE
6. CIRCUIT BREAKER
7. CIRCUIT BREAKER ENCLOSURE NEUTRAL BUS
8. CIRCUIT BREAKER ENCLOSURE EQUIPMENT GROUNDING BUS
9. LOWERING RING JUNCTION BOX (WEEP HOLE REQUIRED)
10. TERMINAL STRIP

ELECTRICAL DETAILS
HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 10A14 - 03a
SDD 10A14 - 03a

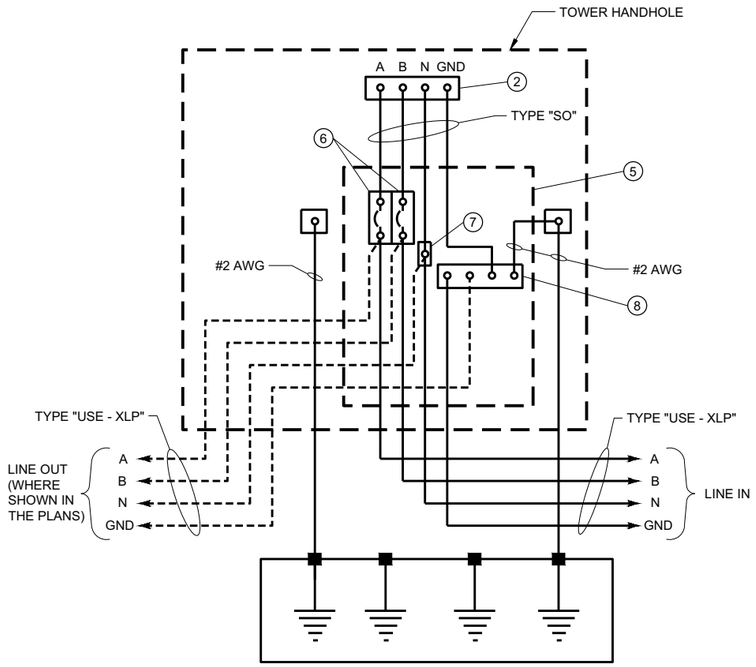


*1-2P BREAKER FOR 480VAC 2 WIRE

TYPICAL WIRING DIAGRAM-HANDHOLE

GROUNDED NEUTRAL SYSTEM

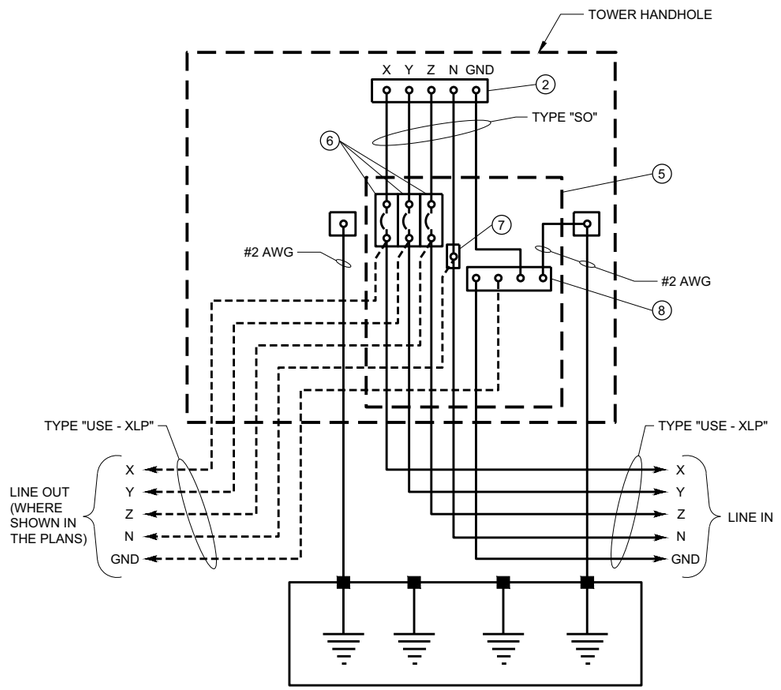
1 - ϕ 240 / 480VAC 3 WIRE OR 480VAC 2 WIRE



TYPICAL WIRING DIAGRAM-HANDHOLE

ISOLATED NEUTRAL SYSTEM

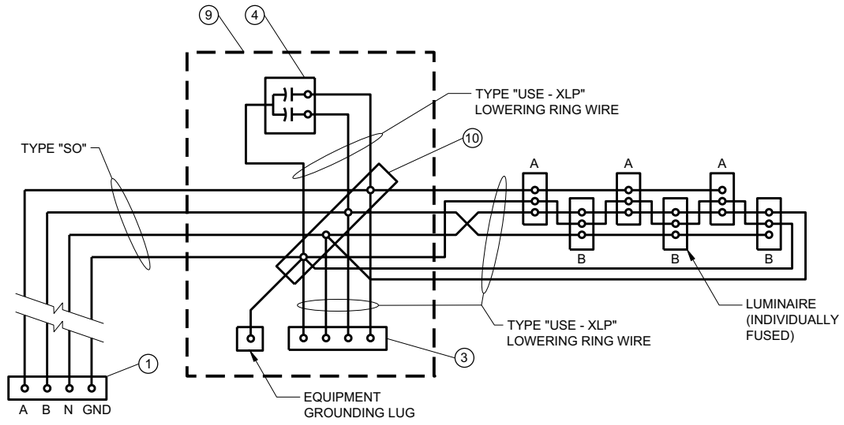
1 - ϕ 120 / 240VAC OR 240 / 480VAC 3 WIRE



TYPICAL WIRING DIAGRAM-HANDHOLE

ISOLATED NEUTRAL SYSTEM

3 - ϕ 480 / 277VAC 4 WIRE OR 3 - ϕ 208Y / 120VAC 4 WIRE



LOWERING RING JUNCTION BOX WIRING DIAGRAM

TYPICAL 1 - ϕ CASE SHOWN; 3 - ϕ CASE SIMILAR

LEGEND

A, B, X, Y, Z,	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
ϕ	PHASE (ELECTRICAL CURRENT)
AIC	AMPERE INTERUPTING CAPACITY
	HANDHOLE GROUND LUG
	CIRCUIT BREAKER 1P
	SURGE ARRESTOR
	FUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD

1. LOADBREAK DISCONNECT - MALE PLUG
2. LOADBREAK DISCONNECT - FEMALE RECEPTACLE
3. LOADBREAK DISCONNECT - MALE APPLIANCE INLET
4. SURGE ARRESTOR - 2P OR 3P AS REQUIRED
5. CIRCUIT BREAKER ENCLOSURE
6. CIRCUIT BREAKER
7. CIRCUIT BREAKER ENCLOSURE NEUTRAL BUS
8. CIRCUIT BREAKER ENCLOSURE EQUIPMENT GROUNDING BUS
9. LOWERING RING JUNCTION BOX (WEEP HOLE REQUIRED)
10. TERMINAL STRIP

ELECTRICAL DETAILS HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

SDD 10A14 - 03b

SDD 10A14 - 03b

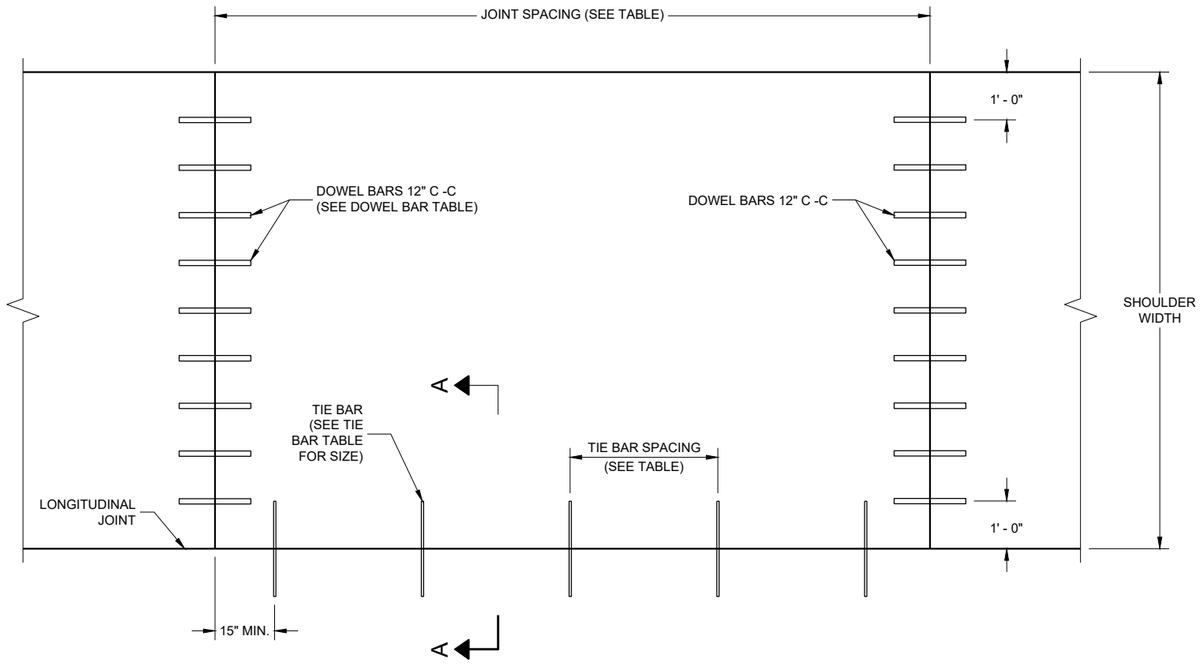
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

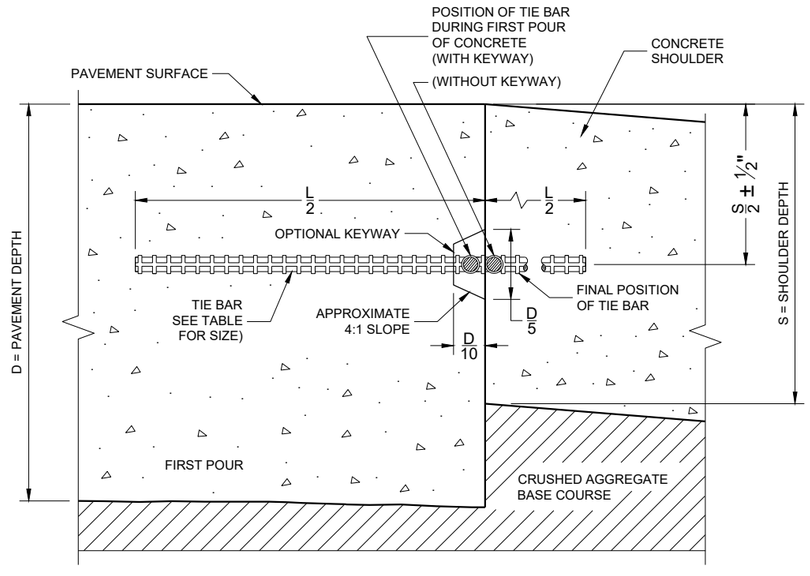
FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



PLAN VIEW

CONCRETE PAVEMENT SHOULDER



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

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 BATS 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.

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"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Peter Kemp — PAVEMENT SUPERVIS

FHWA

SDD 13A03 - 07

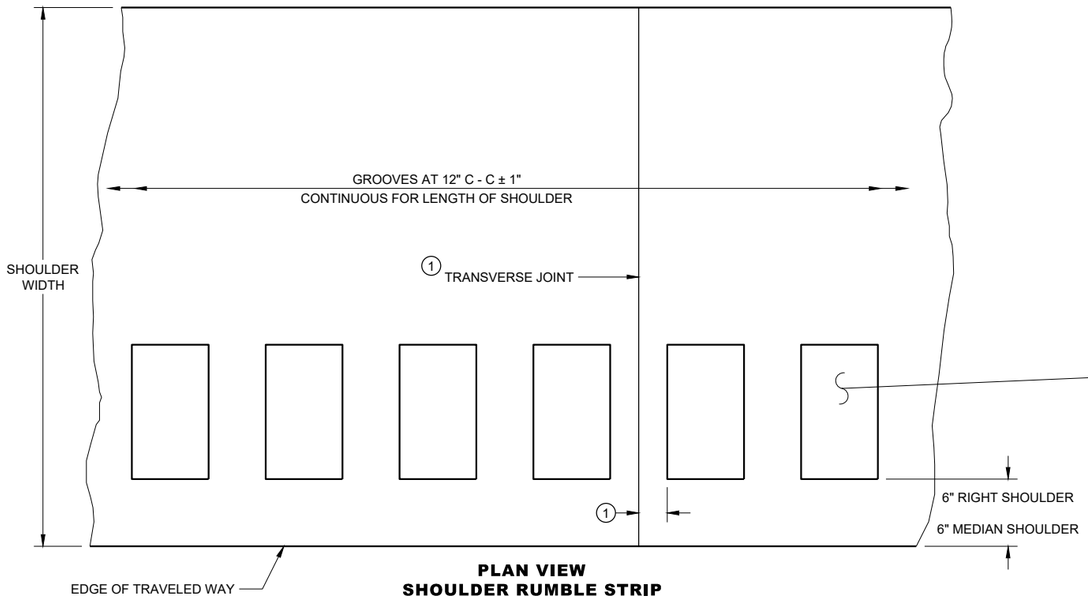
SDD 13A03 - 07

GENERAL NOTES

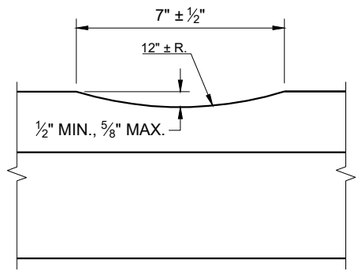
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

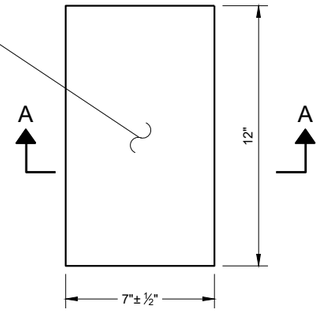
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



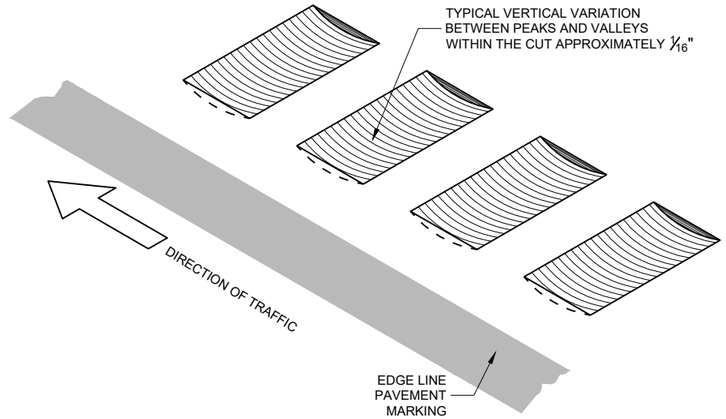
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

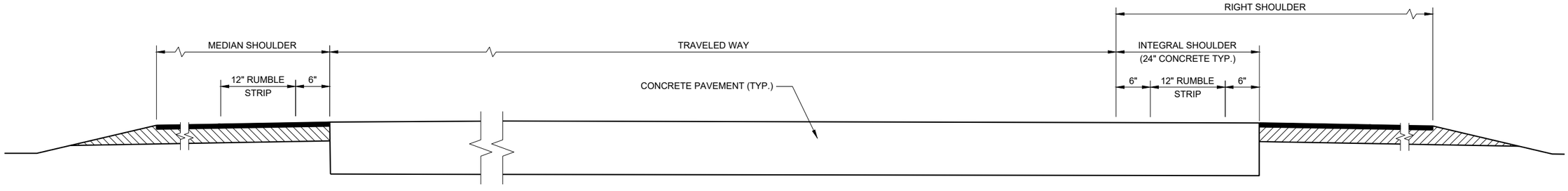


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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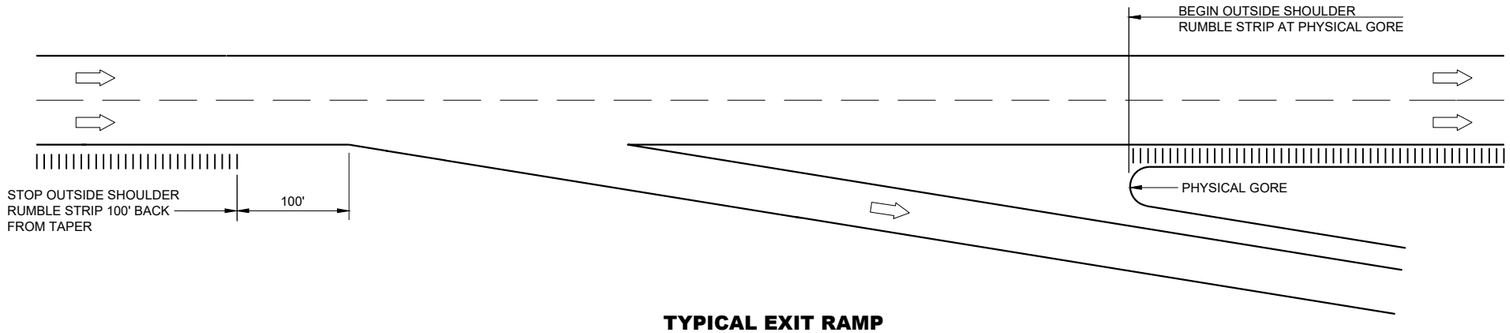
SDD 13A05-06a

SDD 13A05-06a



TYPICAL EXIT RAMP

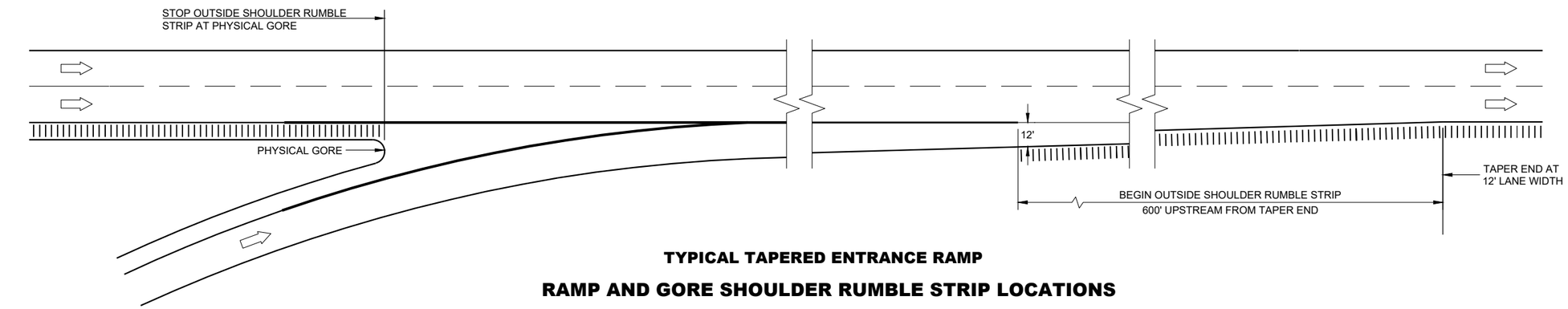
GENERAL NOTES

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

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

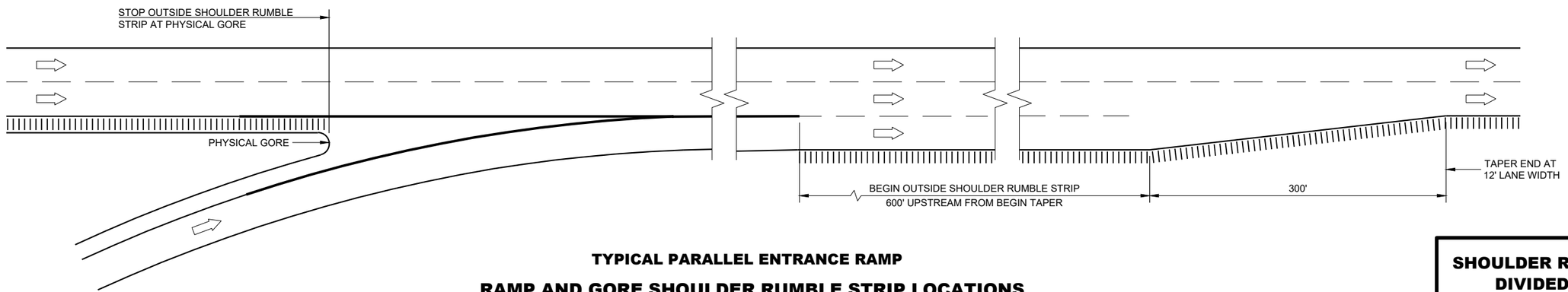
LEGEND

DIRECTION OF TRAFFIC



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

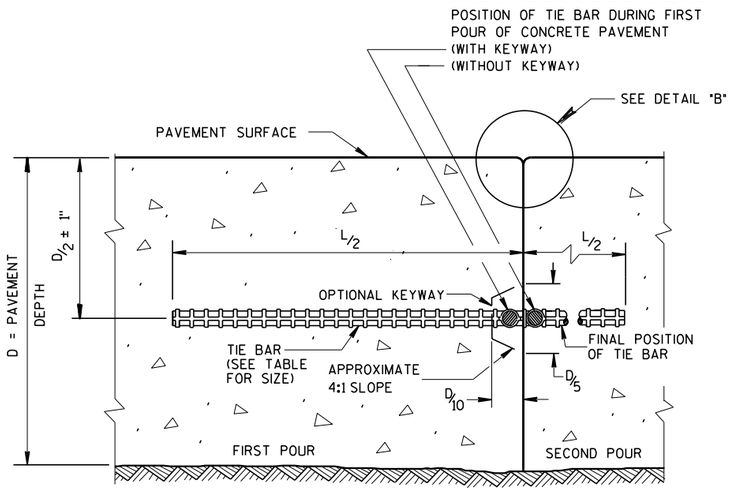
APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY DESIGN STANI
UNIT SUPERVISOR

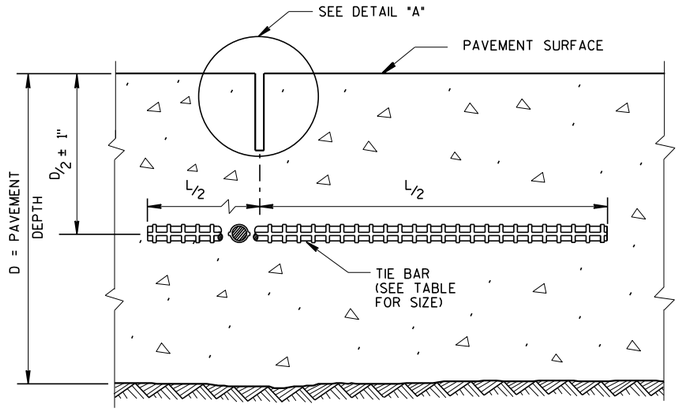
FHWA

6

SDD 13A05-06b



CONSTRUCTION JOINT



SAWED JOINT

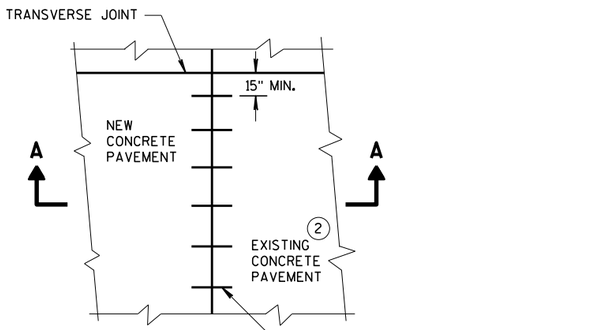
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

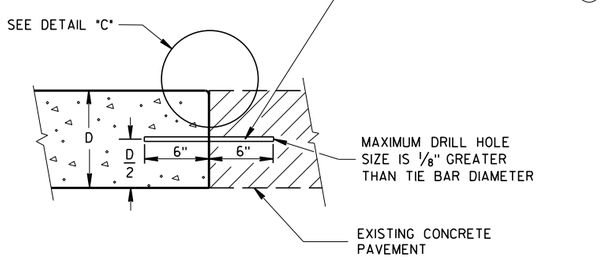
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

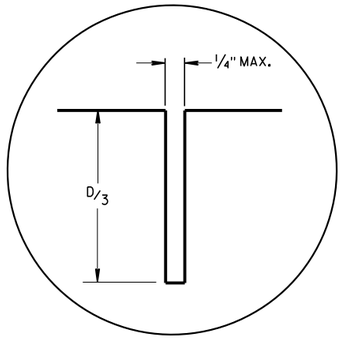


PLAN VIEW

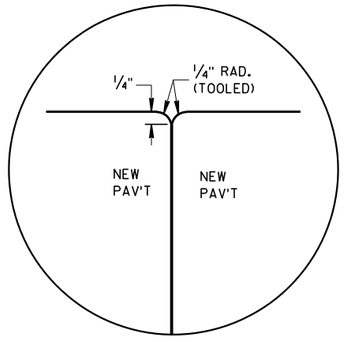


SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



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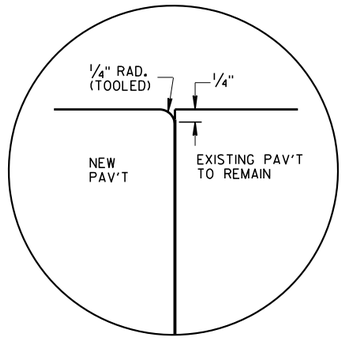


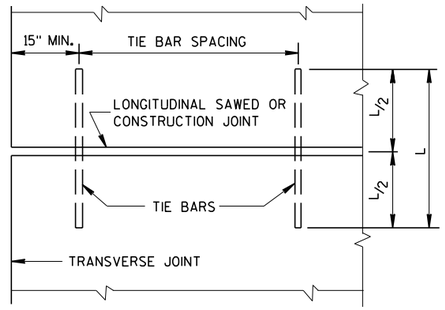
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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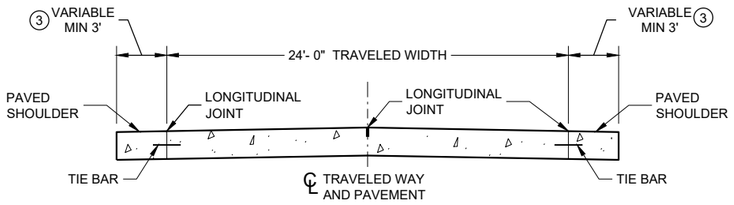
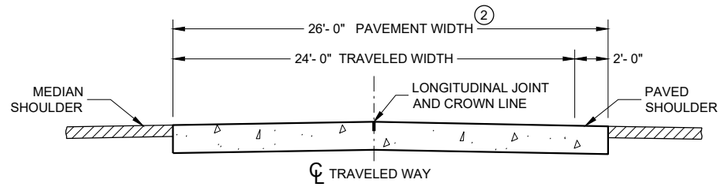
S.D.D. 13 C 1-19

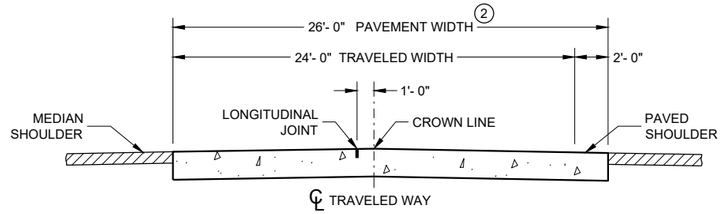


SECTION A - A

TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B - B



ALTERNATIVE SECTION B - B

DIVIDED HIGHWAY (1)

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.

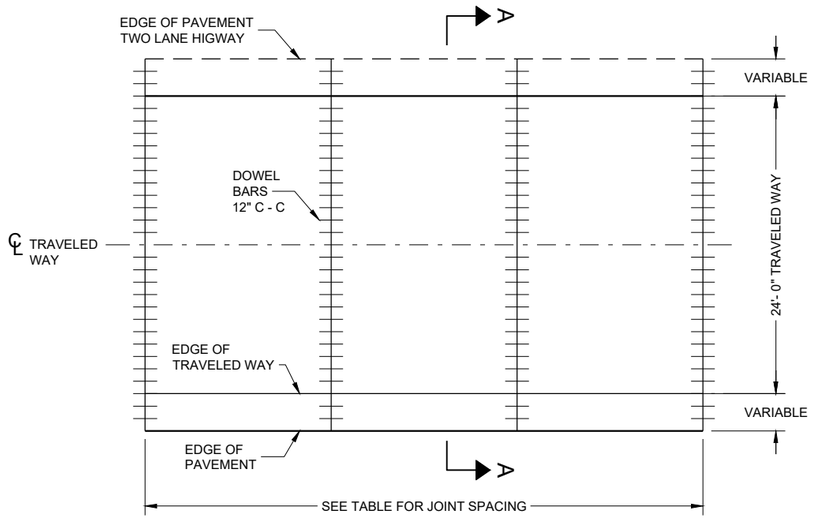
(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

(2) MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.

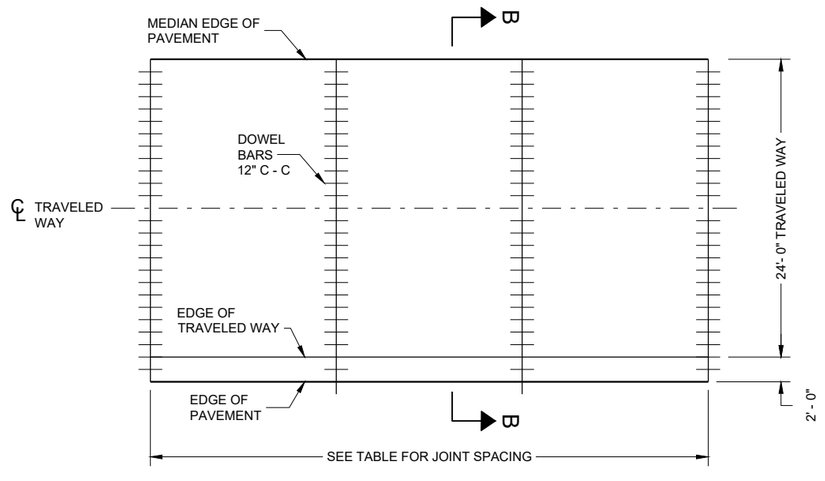
(3) SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

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'



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C11 - 14a

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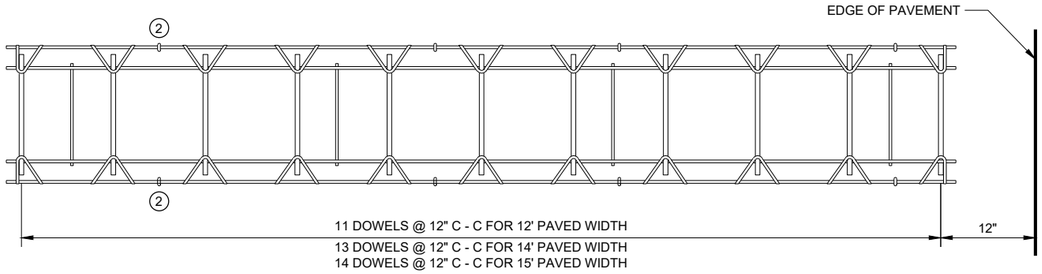
SDD13C11 - 14a



PLAN VIEW

SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY (1)

GENERAL NOTES

(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.

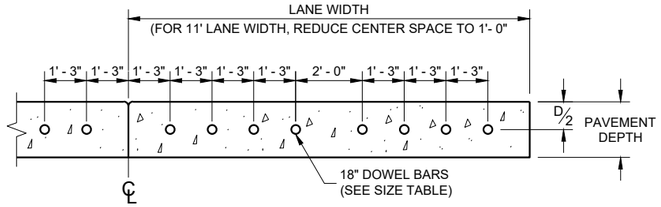
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

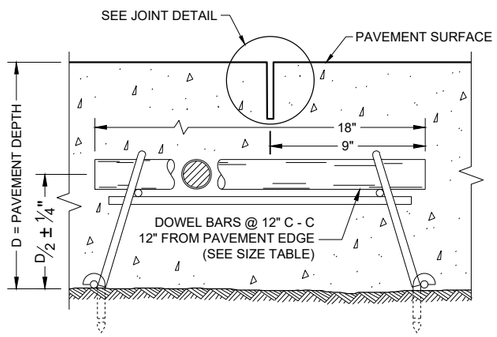
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

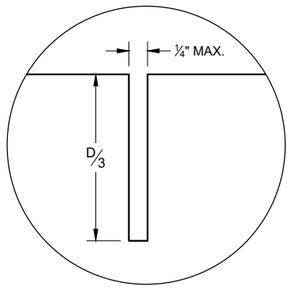
(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



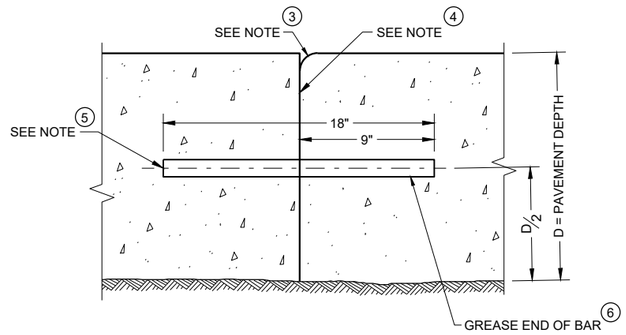
DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



DOWELED CONTRACTION JOINT



JOINT DETAIL



TRANSVERSE CONSTRUCTION JOINT

RURAL 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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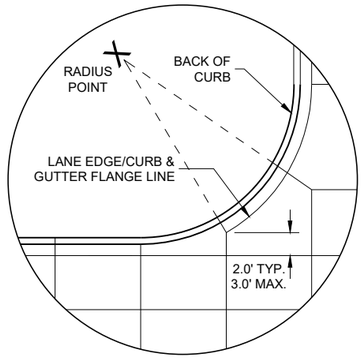
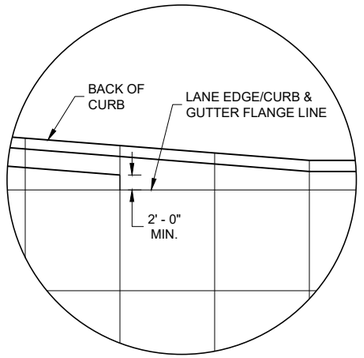
SDD 13C11 - 14b

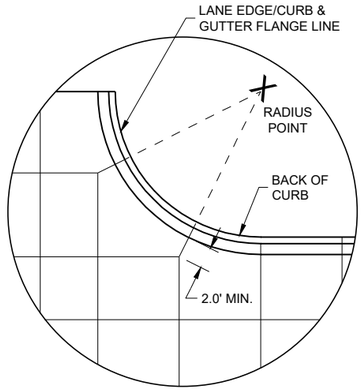
SDD 13C11 - 14b



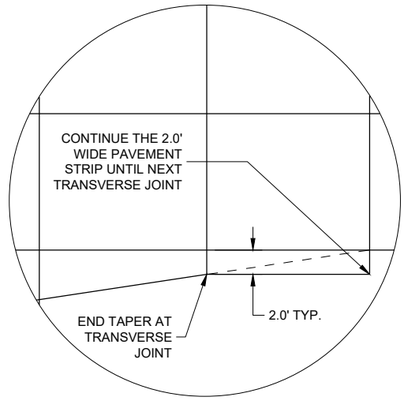
DETAIL "A"



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.

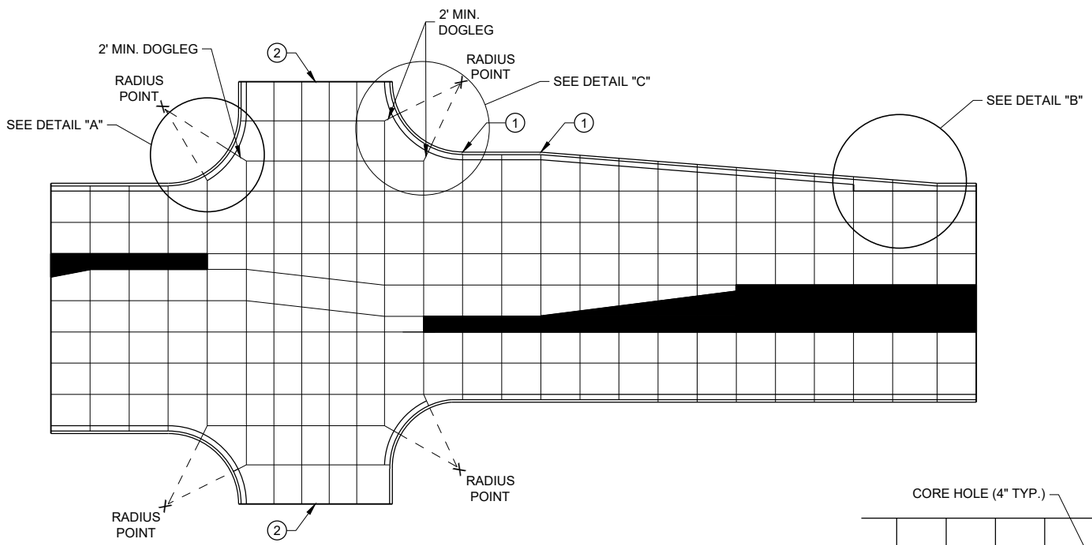
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

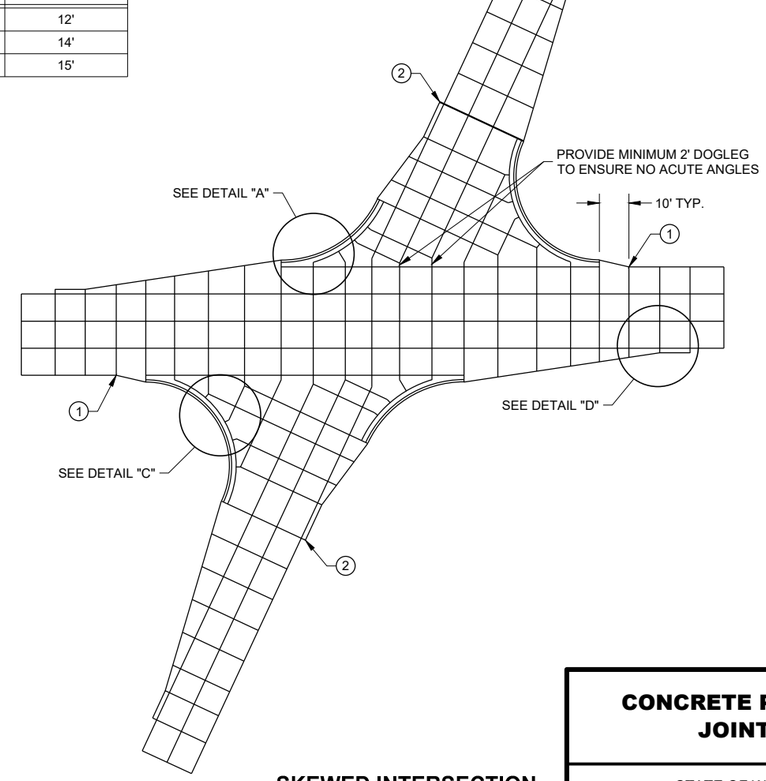
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



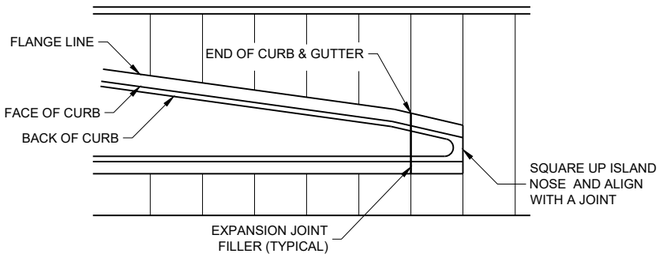
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

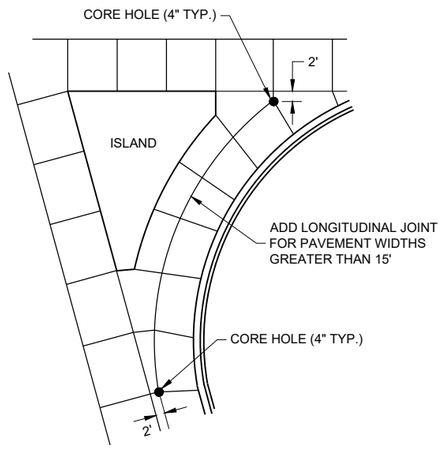
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

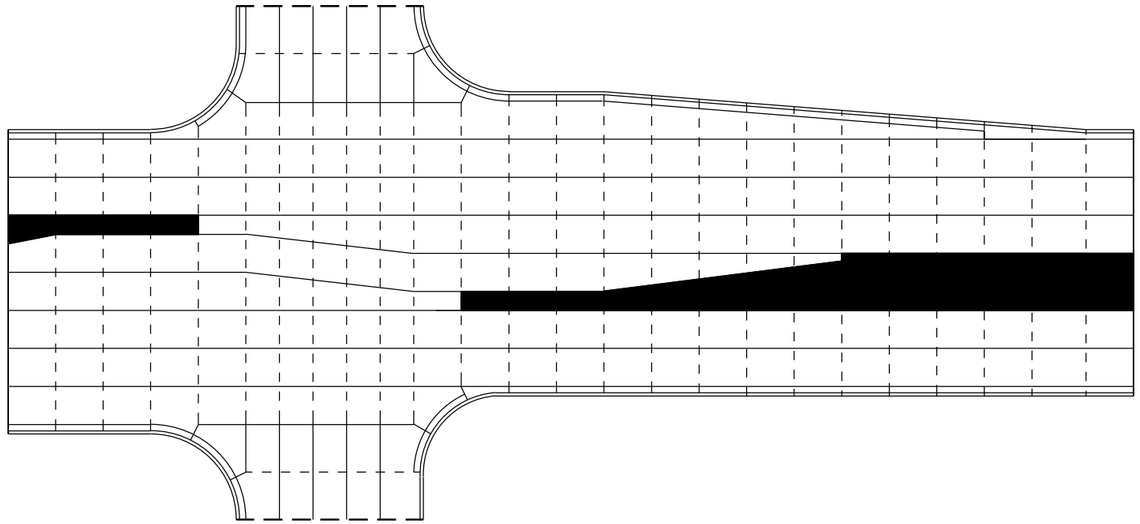
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

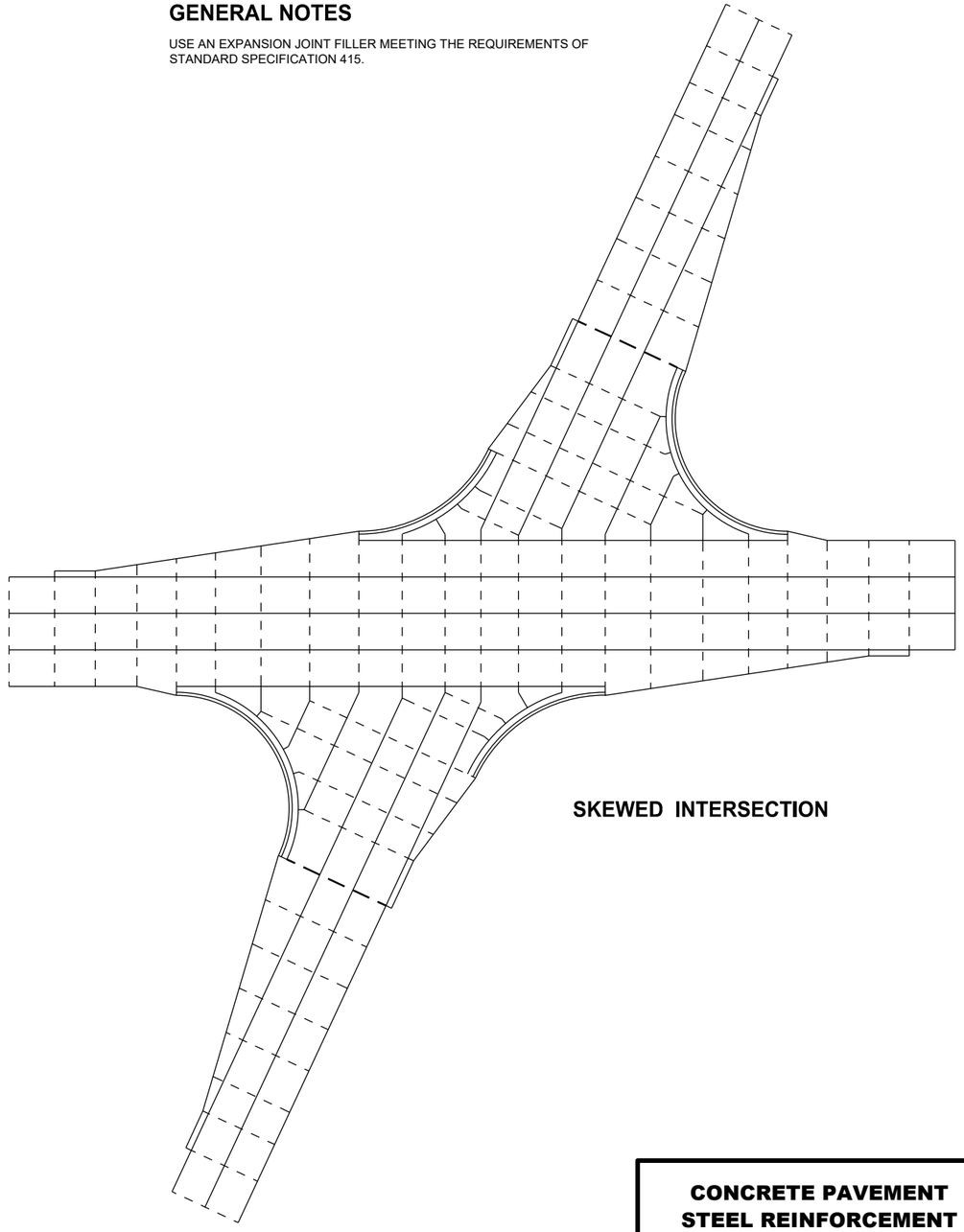
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

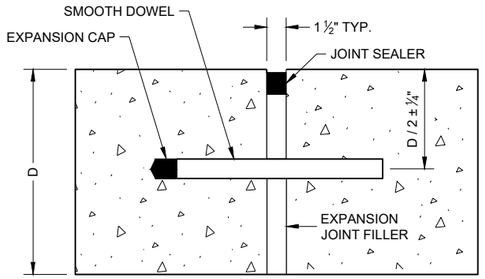
6

SDD 13C18 - 08b

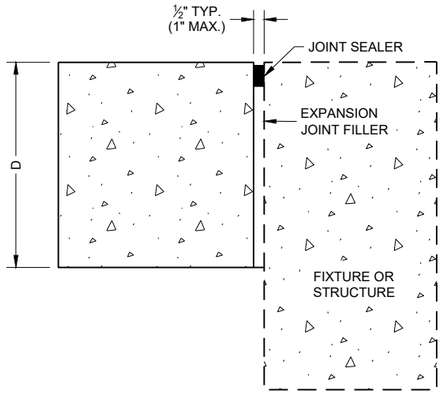
CONCRETE PAVEMENT STEEL REINFORCEMENT

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

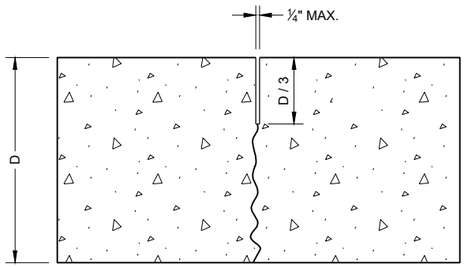
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

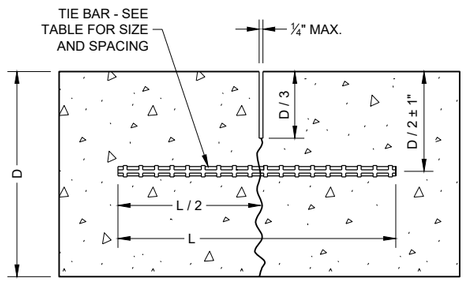
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

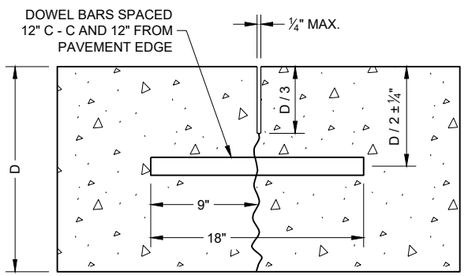
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM 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

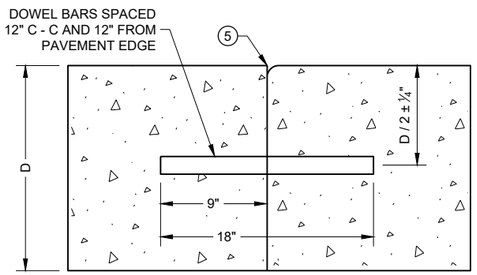


TIED LONGITUDINAL

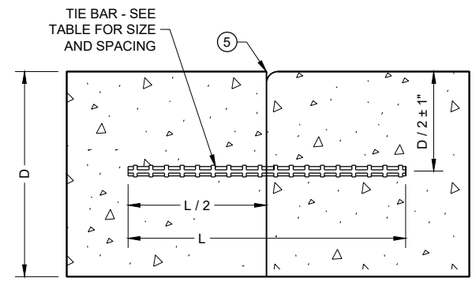


DOWELED TRANSVERSE

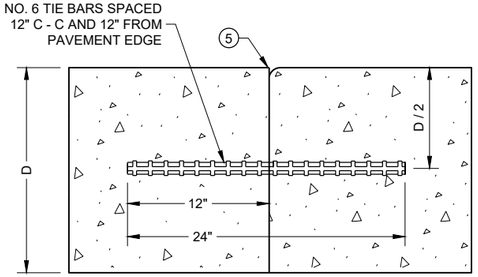
CONTRACTION JOINTS (2)



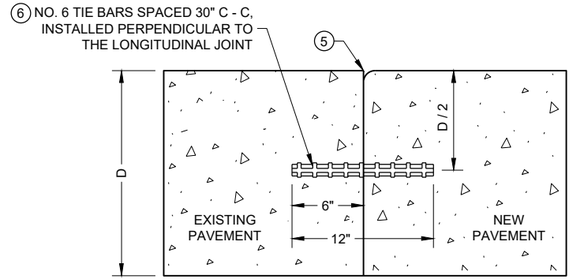
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

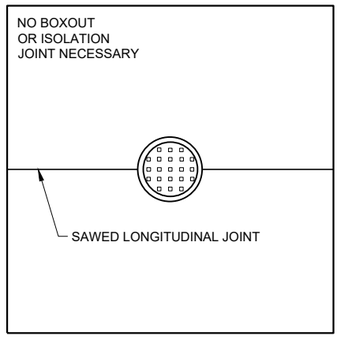
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

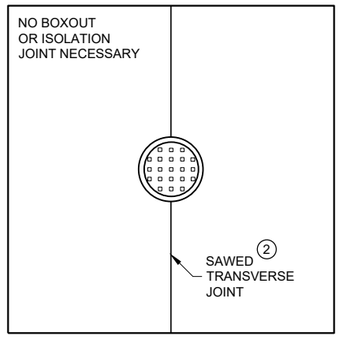
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

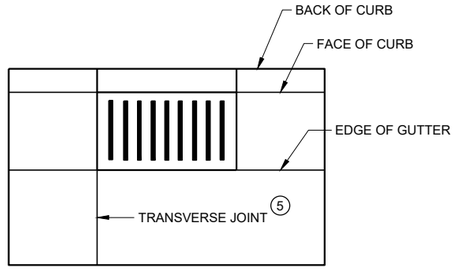
SDD 13C18 - 08c



MANHOLE WITH LONGITUDINAL JOINT



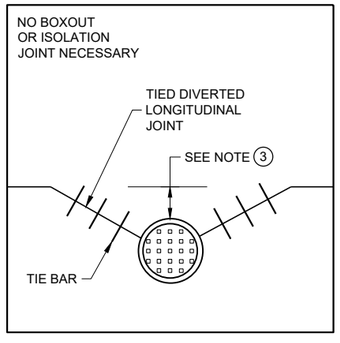
MANHOLE WITH TRANSVERSE JOINT



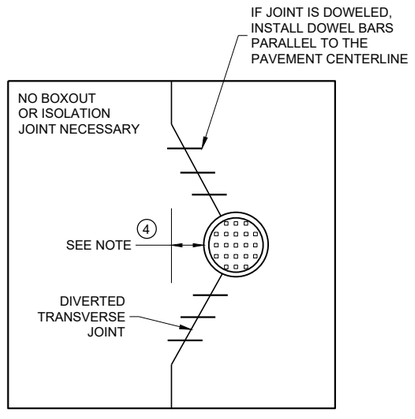
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

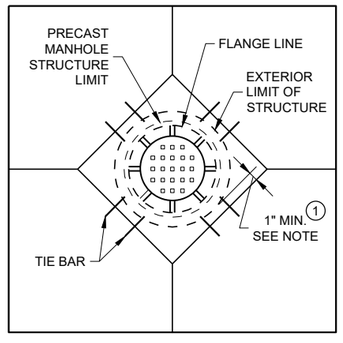
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF 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 SUPERVIS

FHWA

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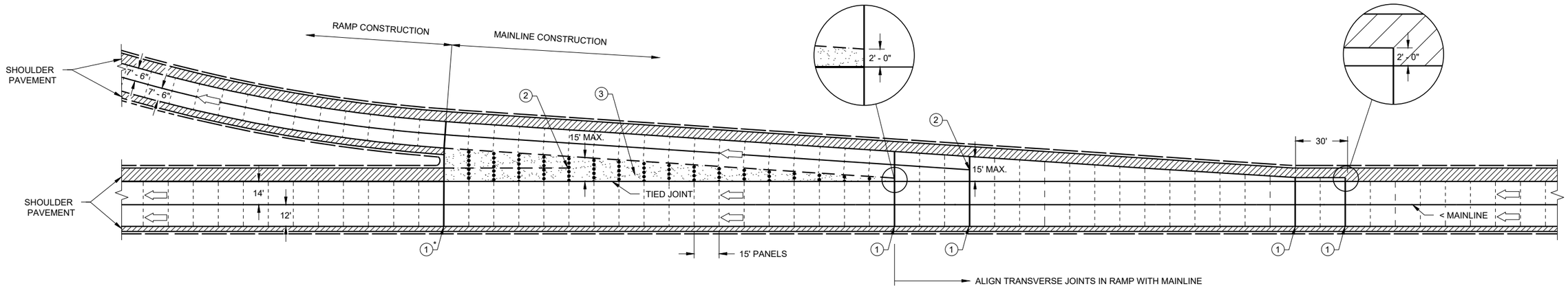
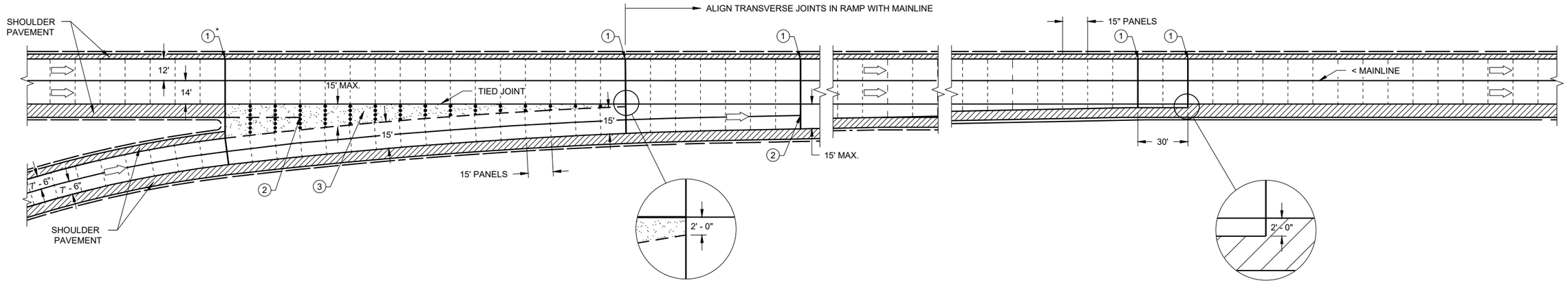
SDD13C18 - 08d

SDD13C18 - 08d



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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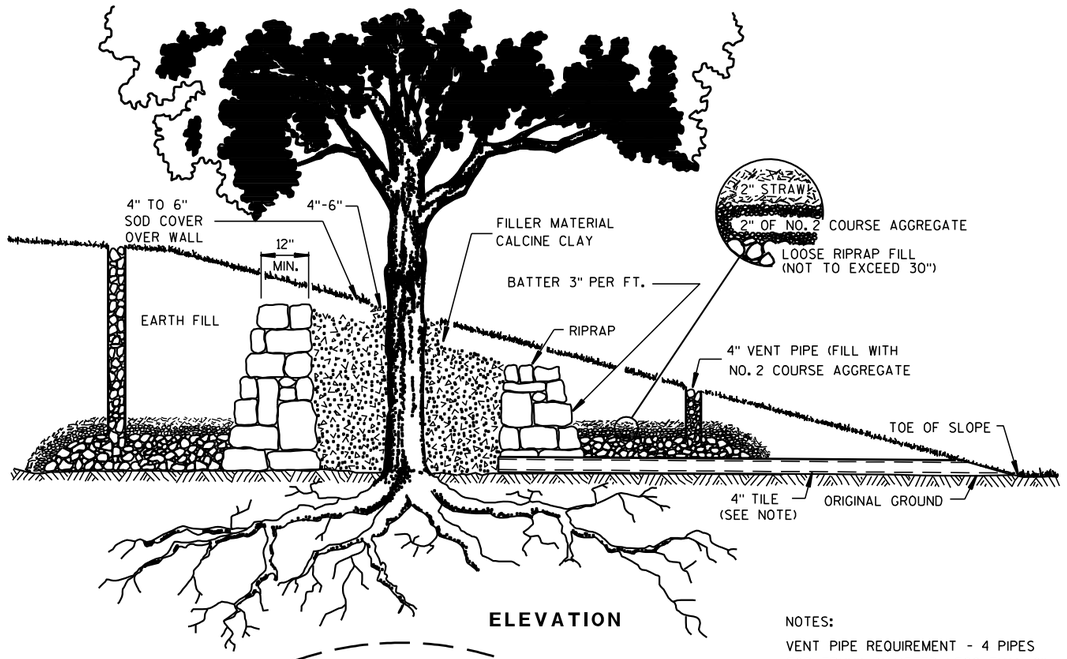


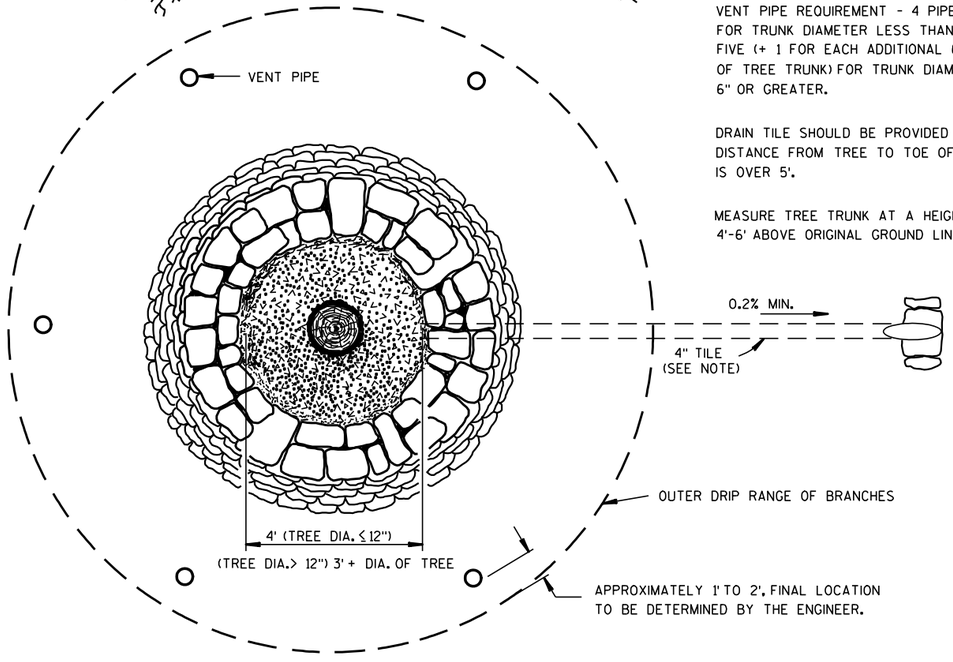
ELEVATION

NOTES:

VENT PIPE REQUIREMENT - 4 PIPES FOR TRUNK DIAMETER LESS THAN 6". FIVE (+ 1 FOR EACH ADDITIONAL 6" OF TREE TRUNK) FOR TRUNK DIAMETER 6" OR GREATER.

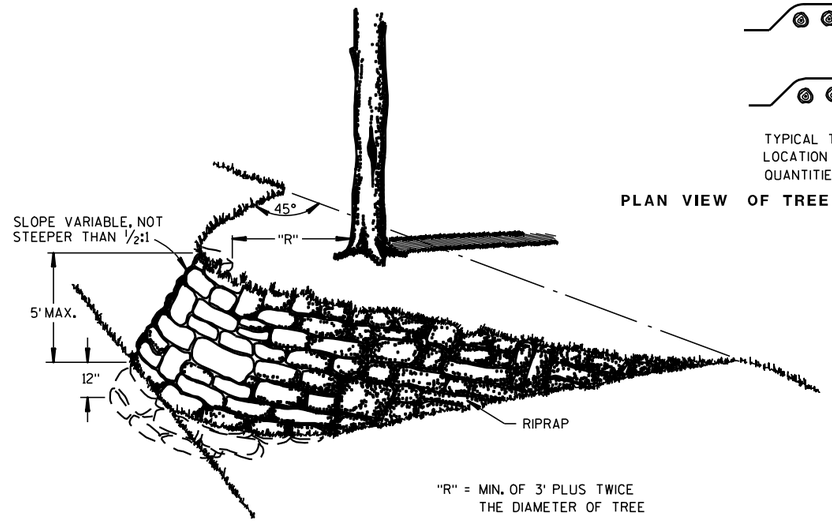
DRAIN TILE SHOULD BE PROVIDED IF DISTANCE FROM TREE TO TOE OF SLOPE IS OVER 5'.

MEASURE TREE TRUNK AT A HEIGHT 4'-6' ABOVE ORIGINAL GROUND LINE.



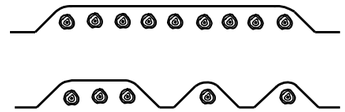
PLAN

FULL TREE WELL WITH RIPRAP WALL



"R" = MIN. OF 3' PLUS TWICE THE DIAMETER OF TREE

DETAILS OF TREE ISLAND AND ROOT PROTECTION



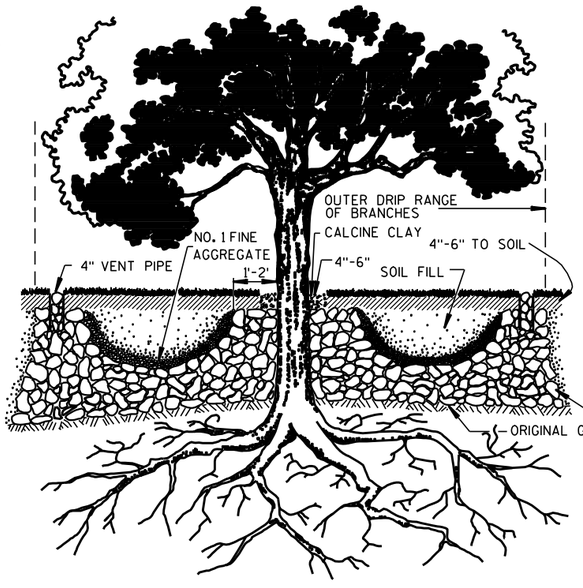
TYPICAL TREATMENTS OF ROOT PROTECTION. LOCATION SHOWN ON MISCELLANEOUS QUANTITIES SHEET.

PLAN VIEW OF TREE ISLANDS FOR ONE OR MORE TREES

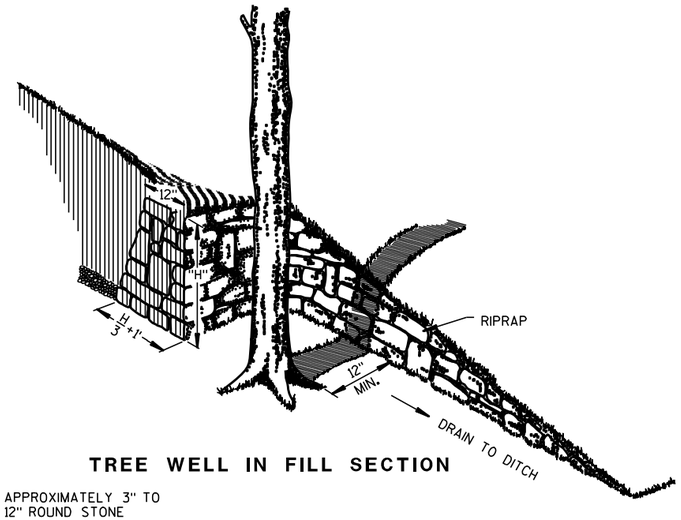
GENERAL NOTES

WALLS TO BE BUILT TO APPROXIMATE SHAPE AND DIMENSIONS SHOWN. STONE TO CONFORM TO SPECIFICATIONS FOR RIPRAP.

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



TREE WELL WITHOUT WALL



TREE WELL IN FILL SECTION

DETAILS FOR TREE WELLS

TREE PRESERVATION DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/25/76 DATE

/S/ D. L. Strand STATE DESIGN ENGINEER

243

WYS

FHWA

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S.D.D. 14 A 1-3

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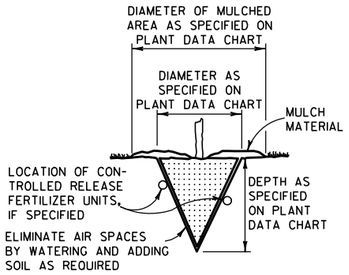
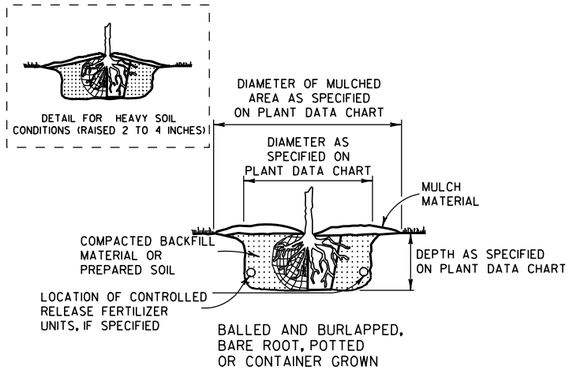
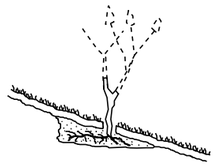
S.D.D. 14 A 1-3



MACHINE MOVED

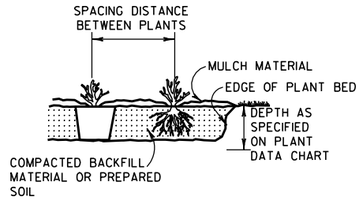


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



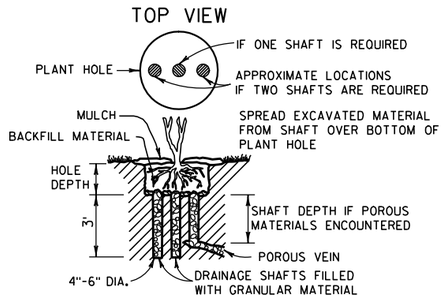
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



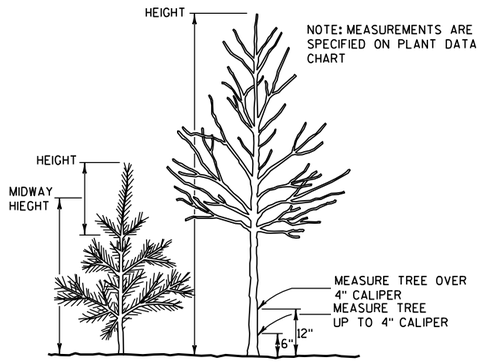
PREPARED BED (BARE ROOT AND POTTED)

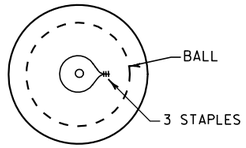
PLANTING



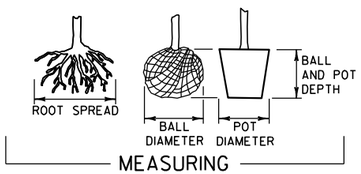
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

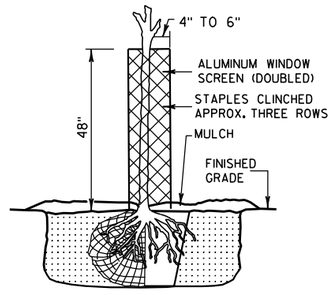




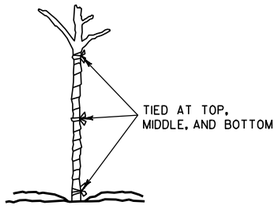
TOP VIEW



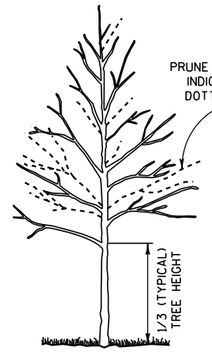
MEASURING



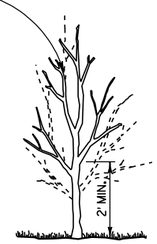
RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



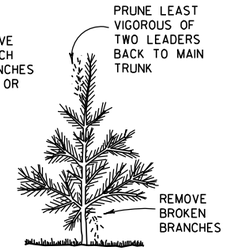
SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

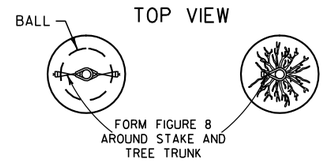
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

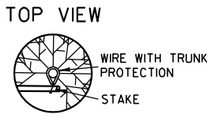
SUMAC

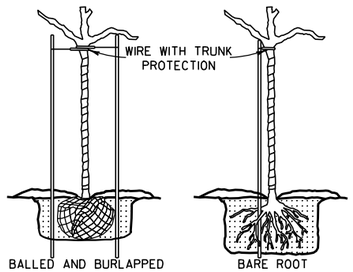


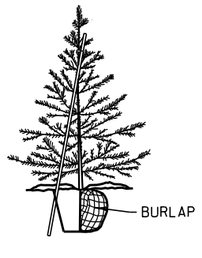
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



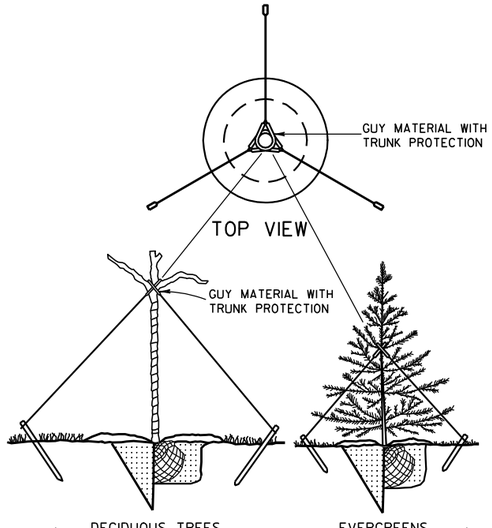






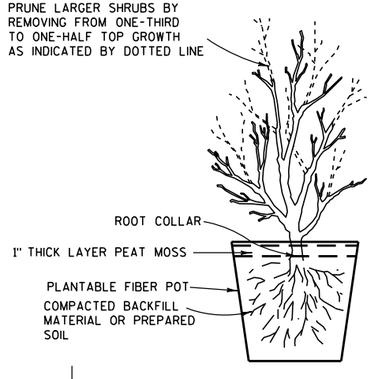
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

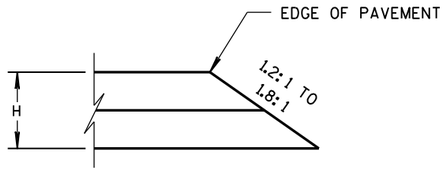
4/11/94
DATE

/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER

FHWA

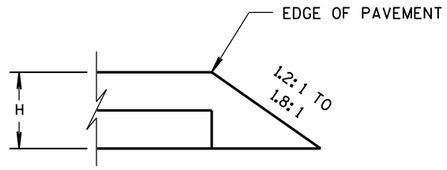
6

S.D.D. 14 A 2-1



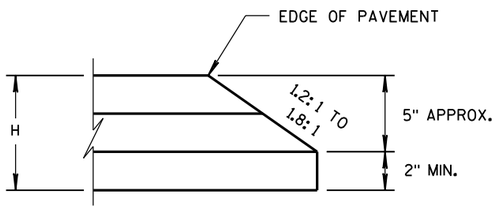
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



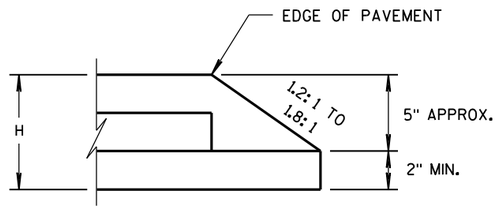
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

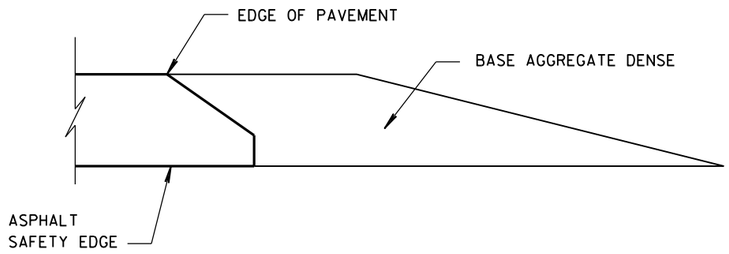
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

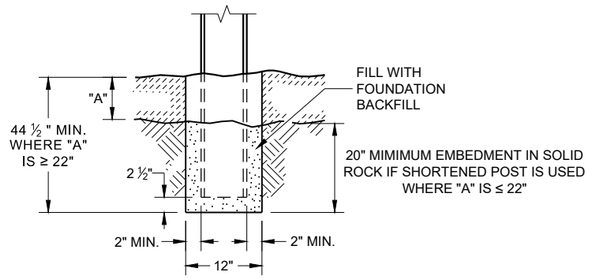
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

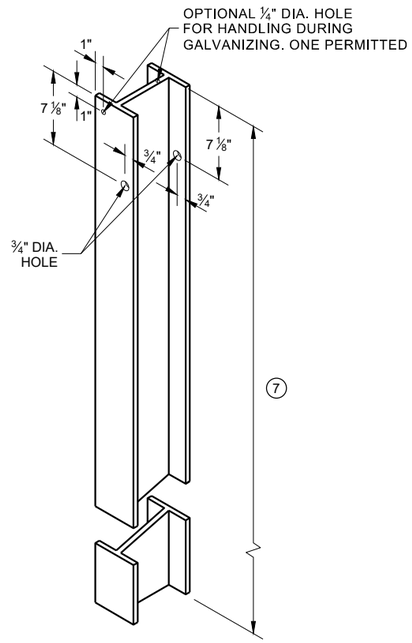
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

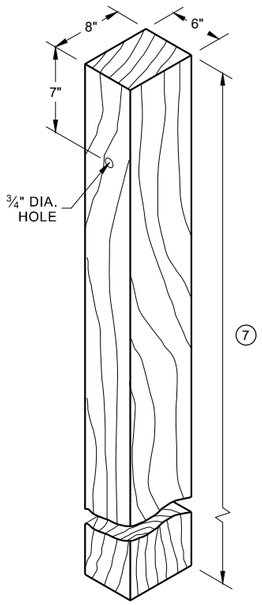
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



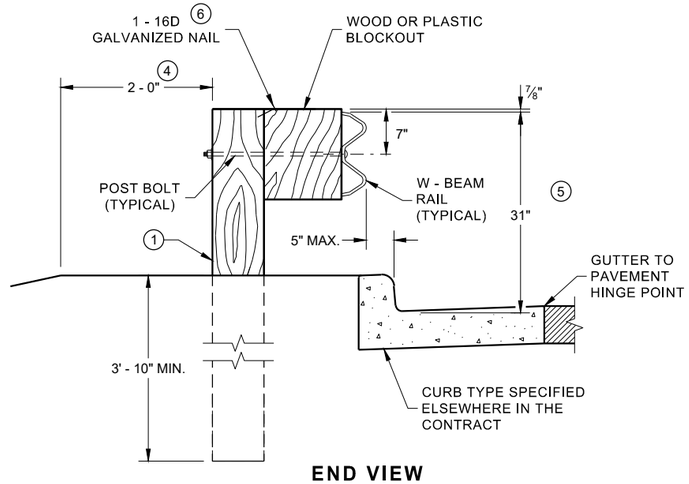
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



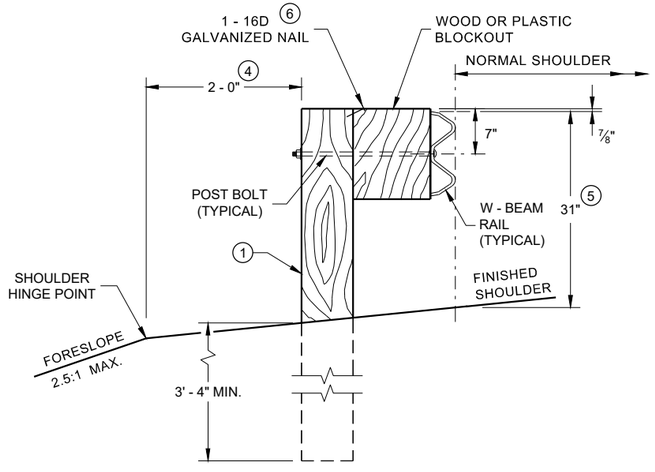
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



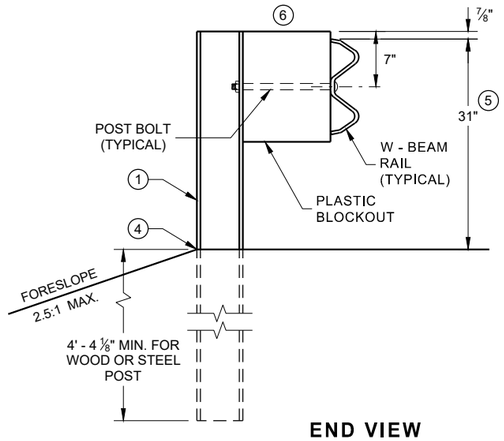
WOOD POST (6" X 8") NOMINAL (1)



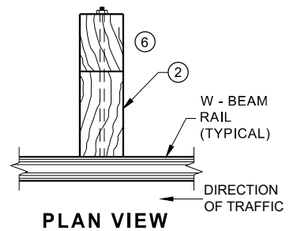
END VIEW
LOCATED ALONG A CURBED ROADWAY



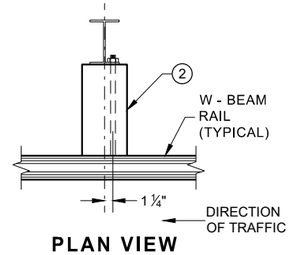
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



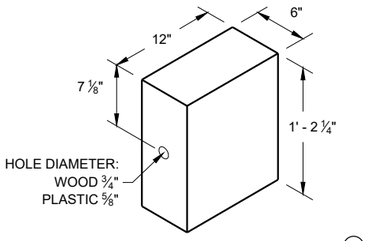
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

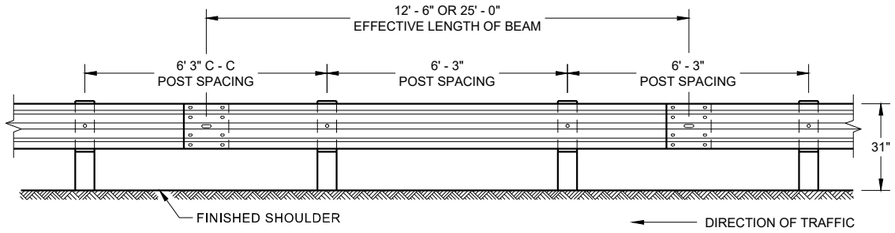
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

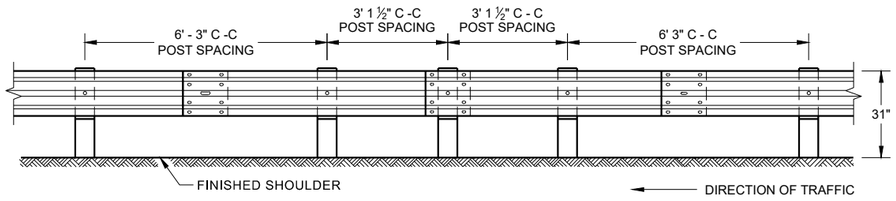
SDD 14B42 - 07a

6

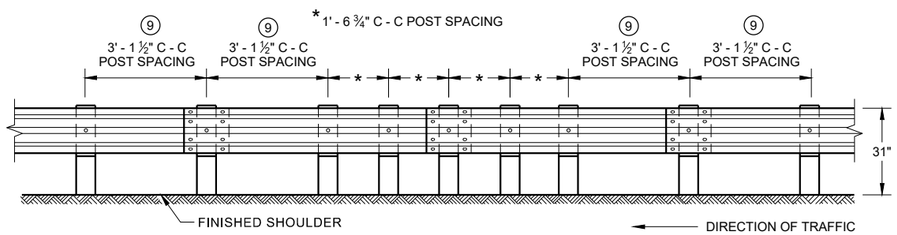
SDD 14B42 - 07a



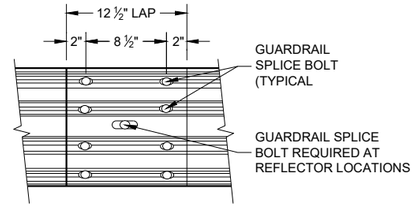
FRONT VIEW
POST SPACING STANDARD INSTALLATION



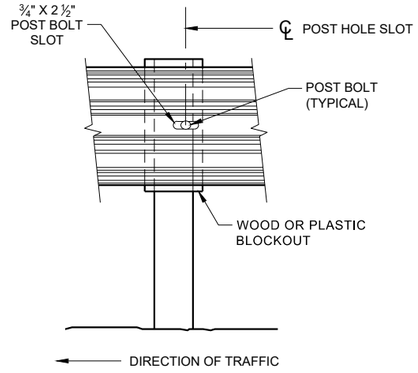
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



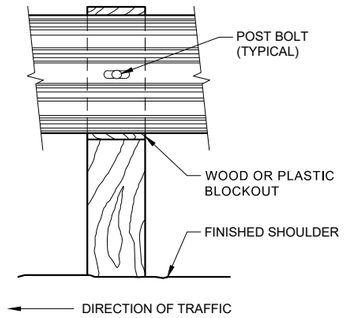
FRONT VIEW
QUARTER POST SPACING (QS)



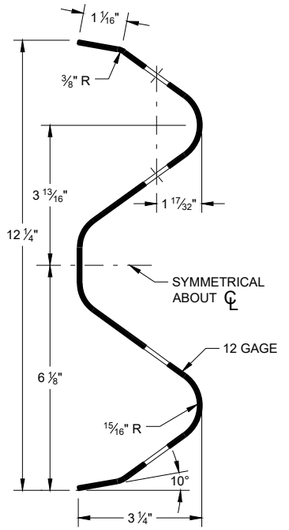
FRONT VIEW
MID-SPAN BEAM SPLICE



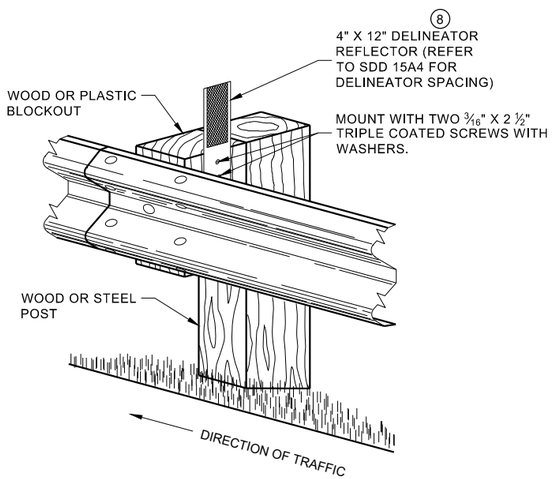
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

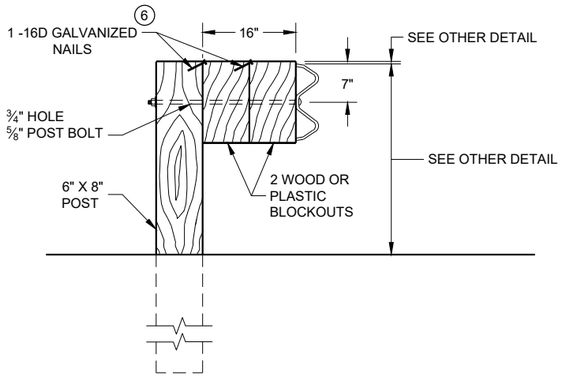
POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 07b

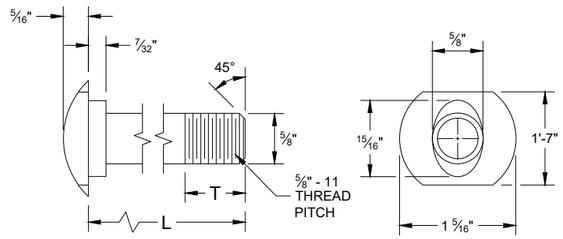


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

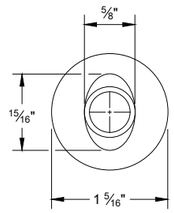
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

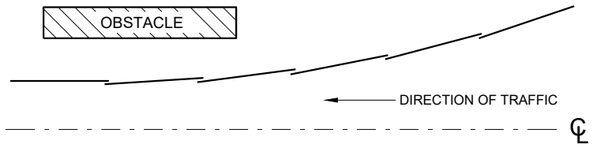


POST BOLT TABLE

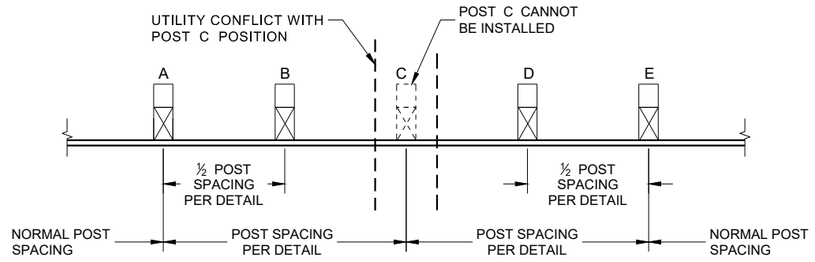
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



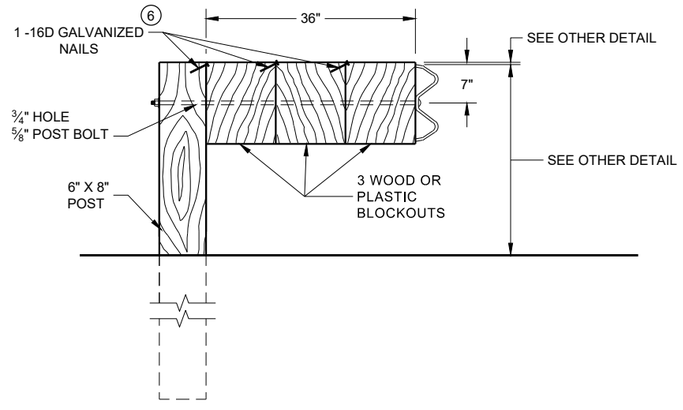
ALTERNATE BOLT HEAD



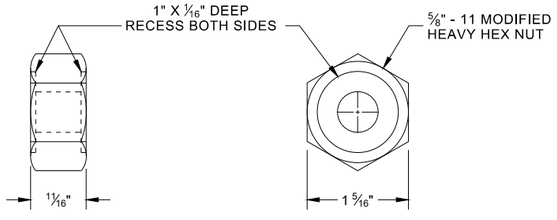
PLAN VIEW
BEAM LAPPING DETAIL



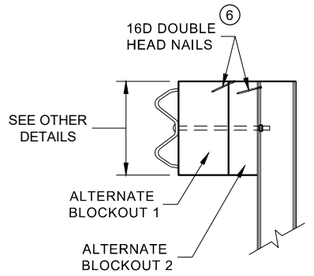
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



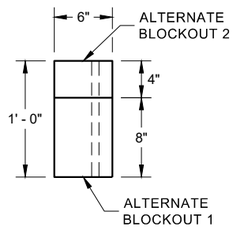
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

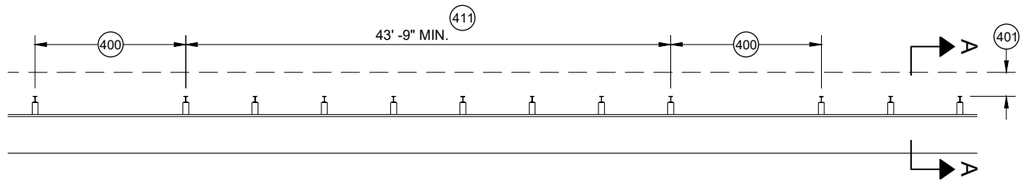
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

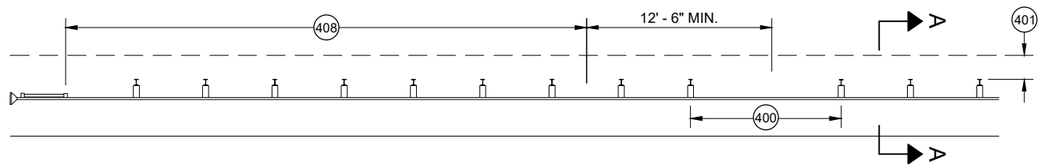
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

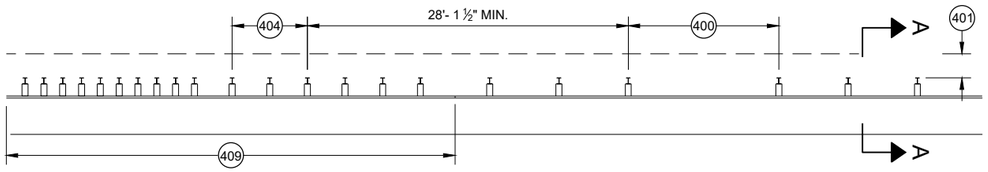
SDD 14B42 - 07c



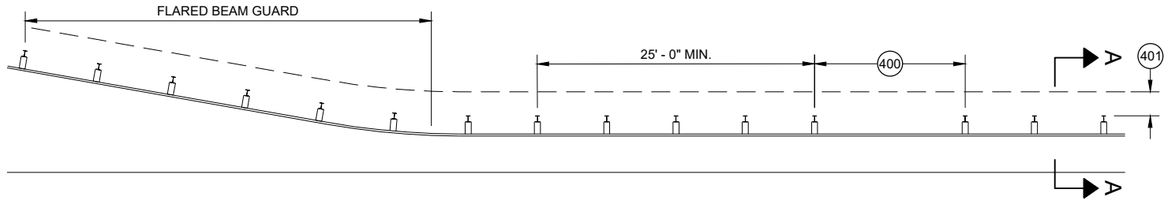
MISSING POST IN MGS GUARDRAIL



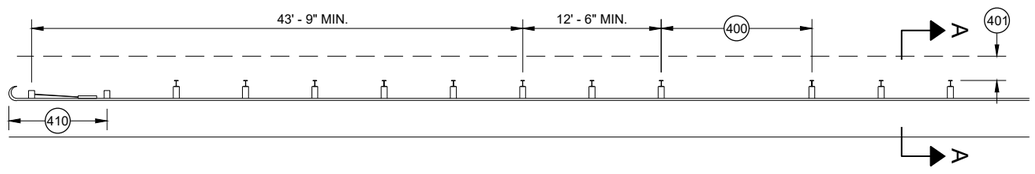
MISSING POST IN MGS GUARDRAIL NEAR EAT



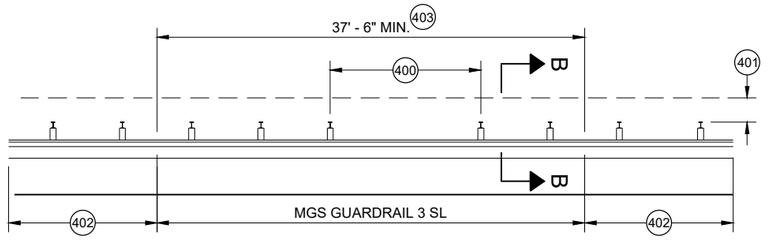
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

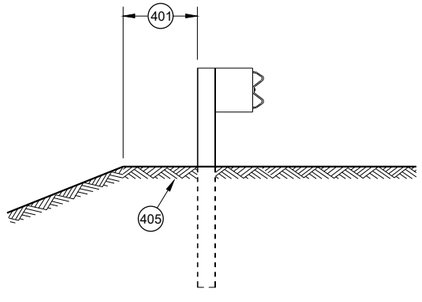


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

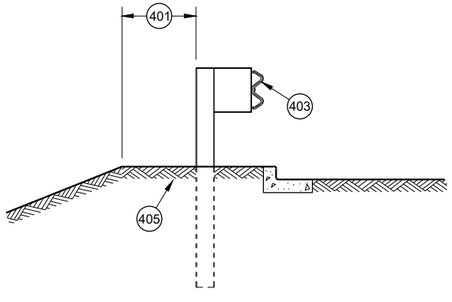


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

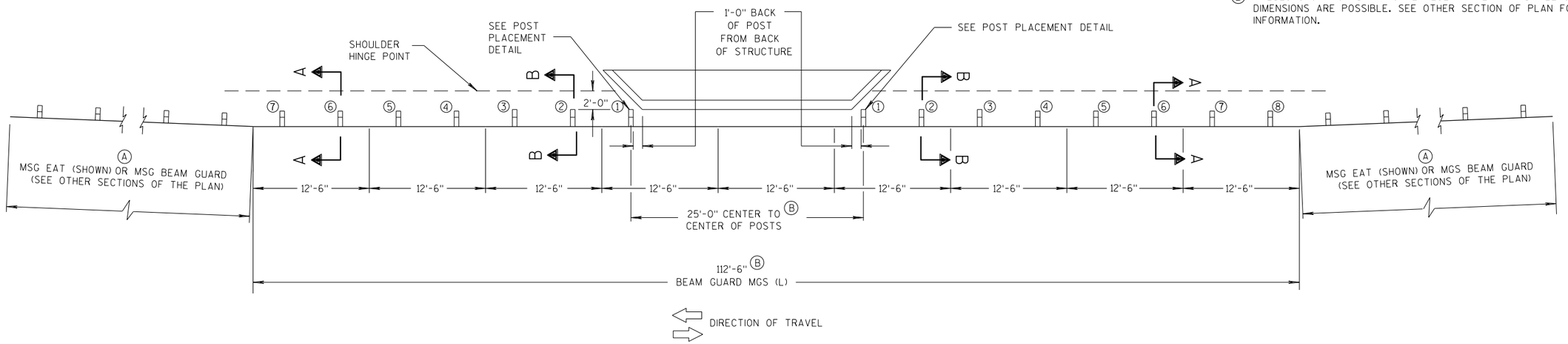
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

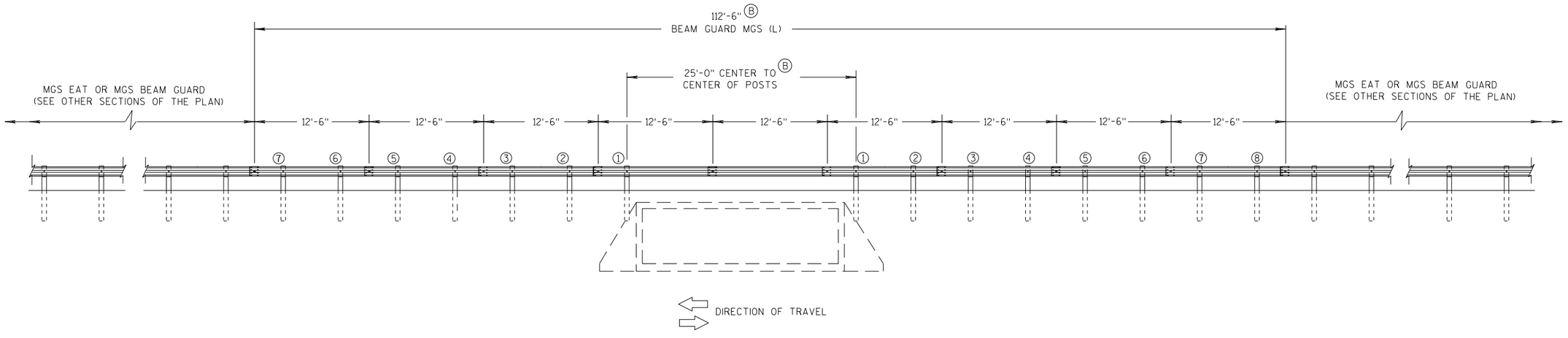
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 43-4a

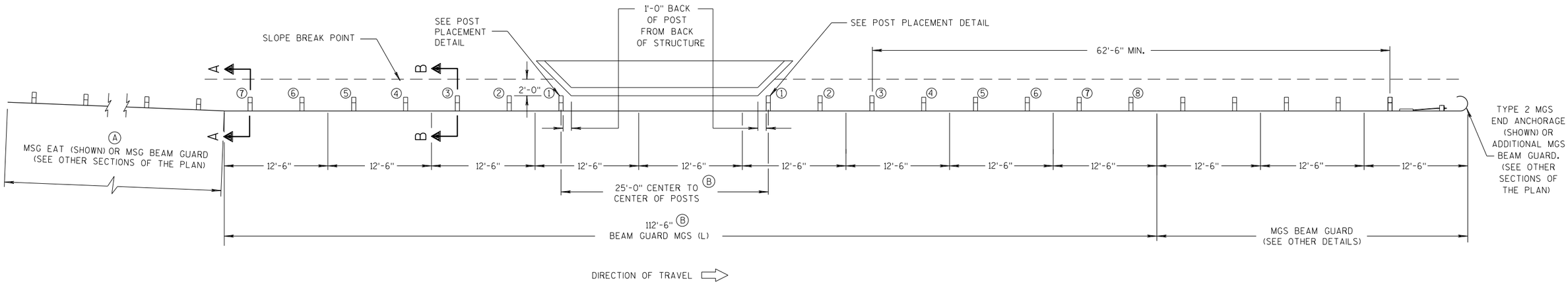
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

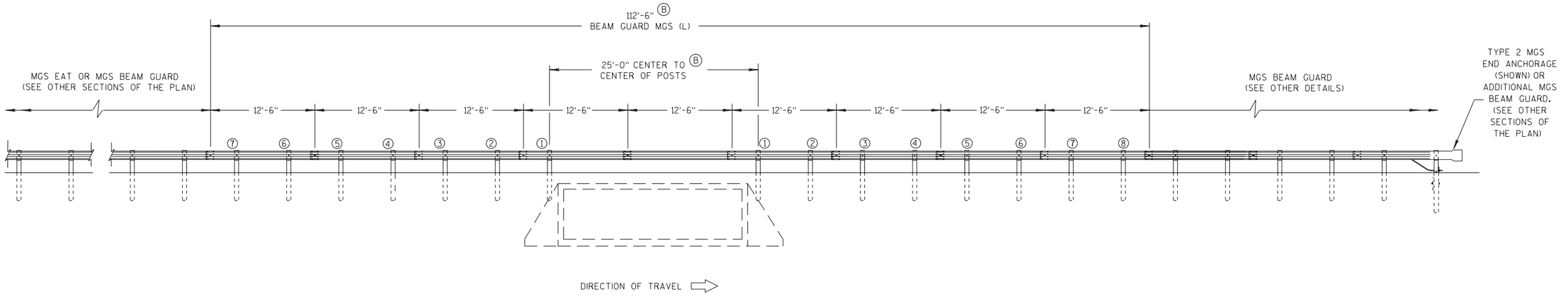
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

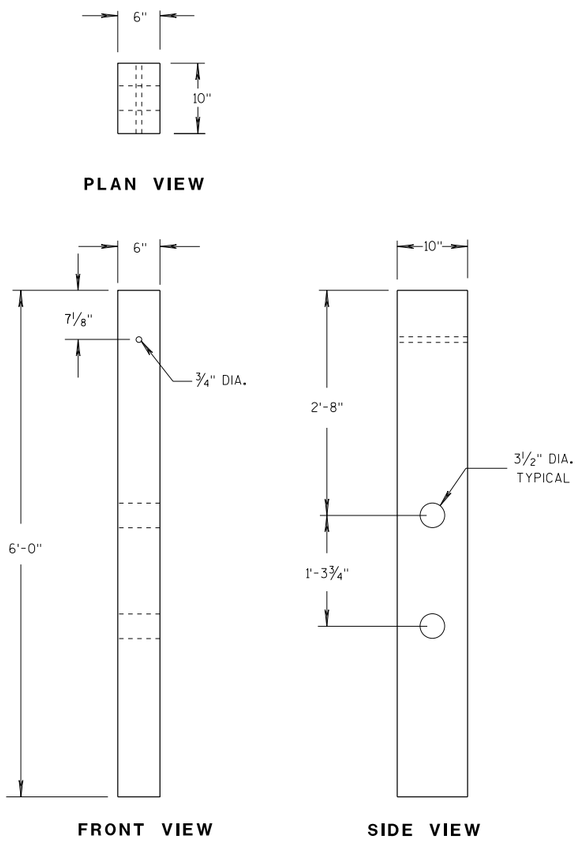
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)

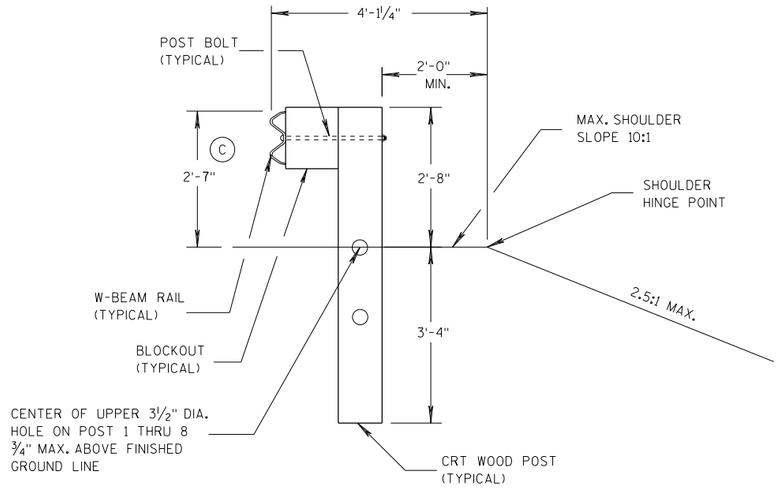
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 43-4b



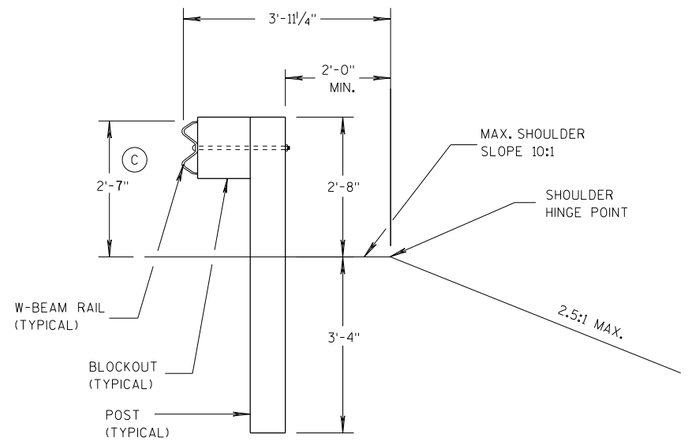
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



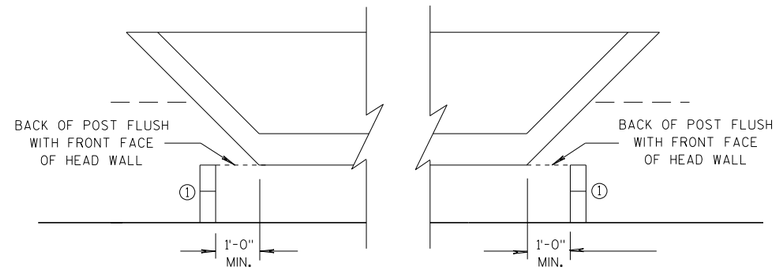
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

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



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS ENGINEER

D 252 NT

6

S.D.D. 14 B 43-4c

6

S.D.D. 14 B 43-4c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

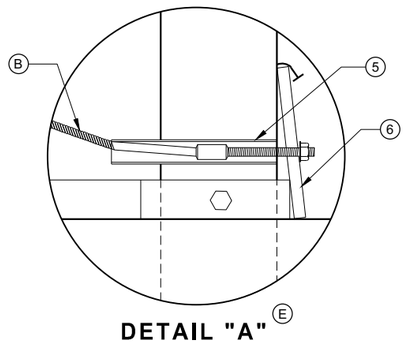
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

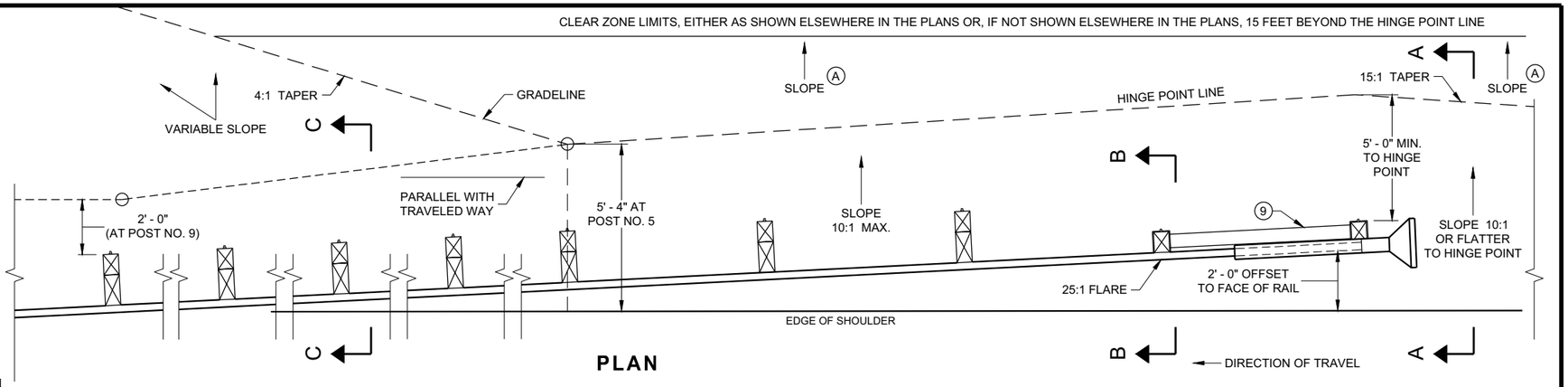
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

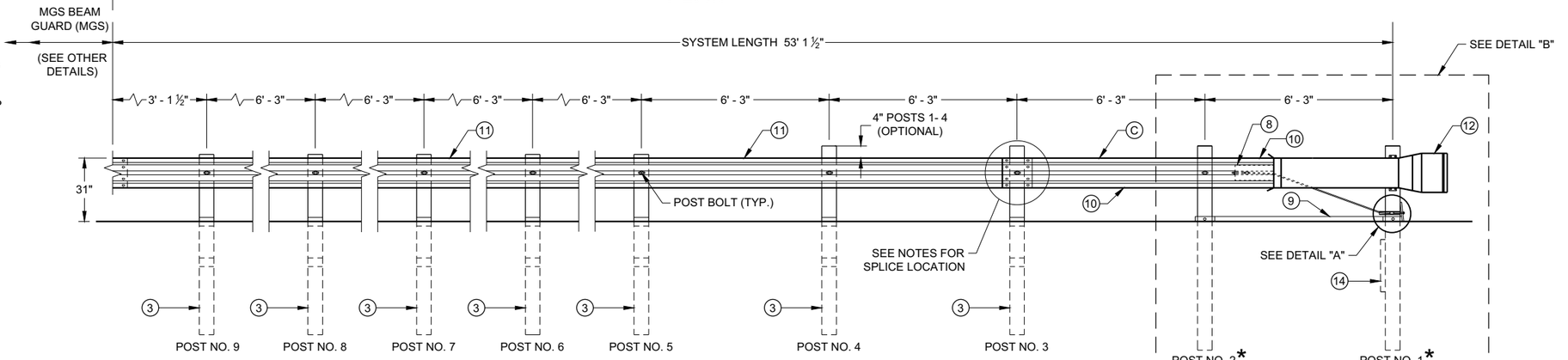
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



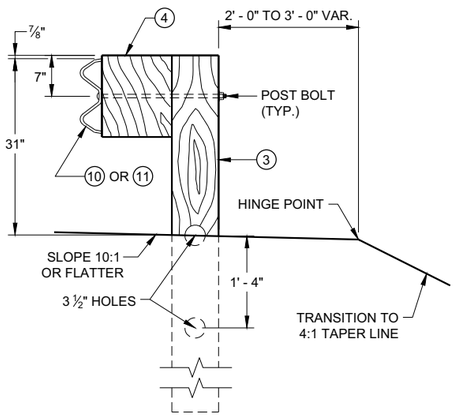
DETAIL "A" (E)



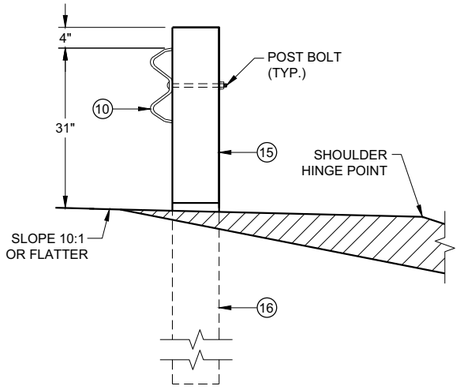
PLAN



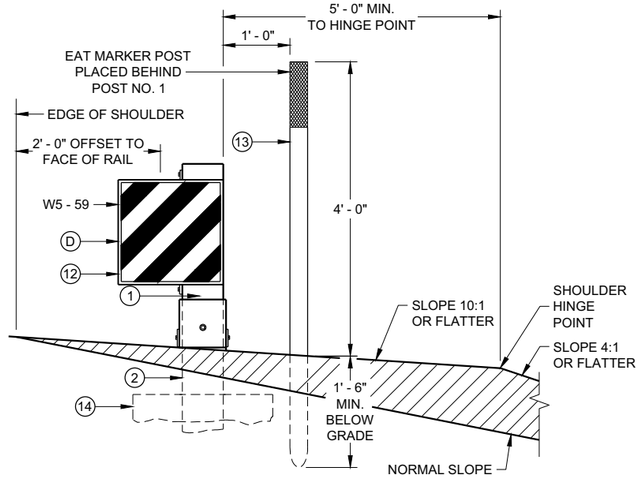
ELEVATION



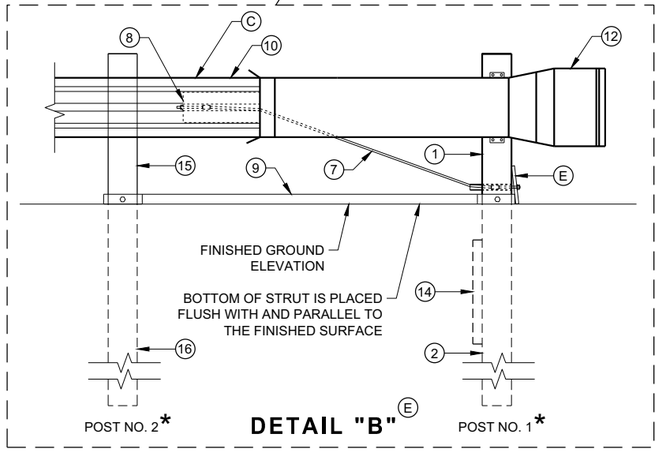
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



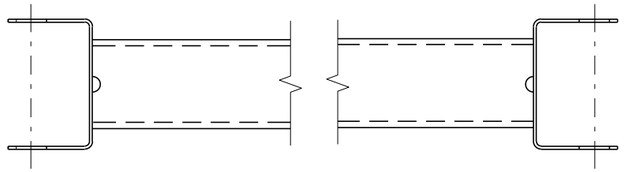
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

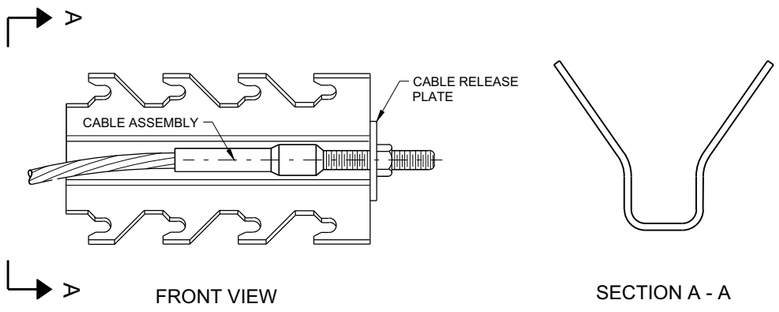
SDD 14B44 - 04a



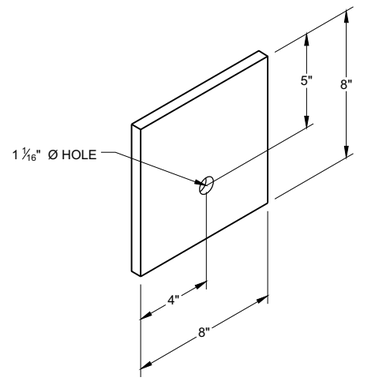
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

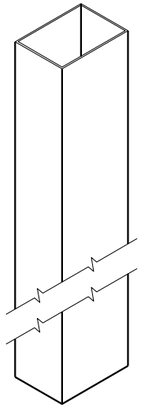
6

SDD 14B44 - 04b

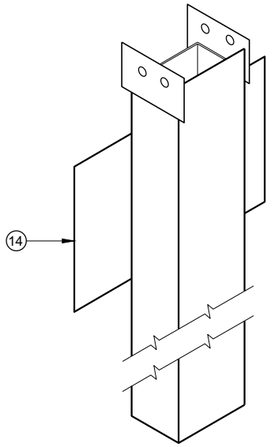
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

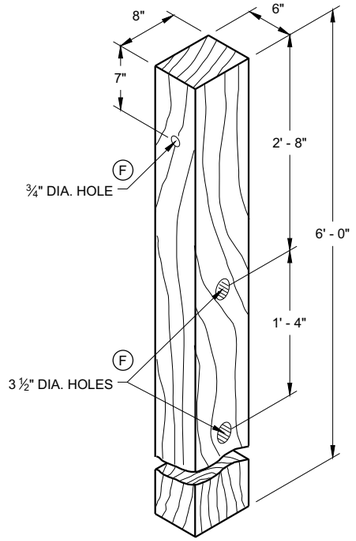
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



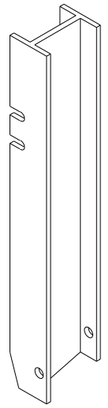
UPPER POST NO. 1 (1) (E)



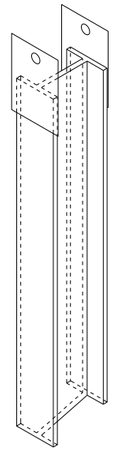
LOWER POST NO. 1 (2) (E)



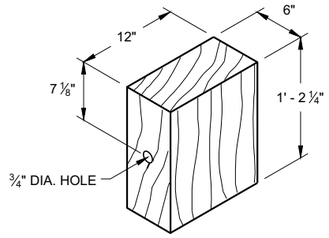
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



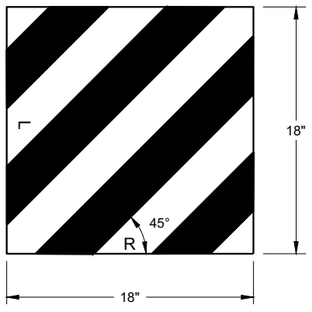
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

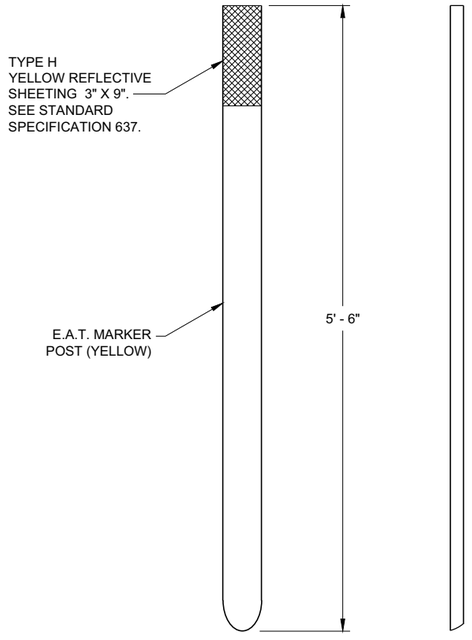


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



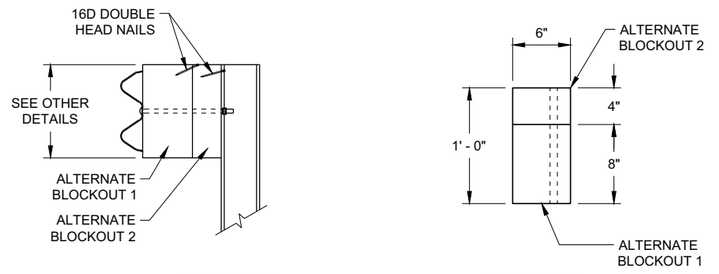
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

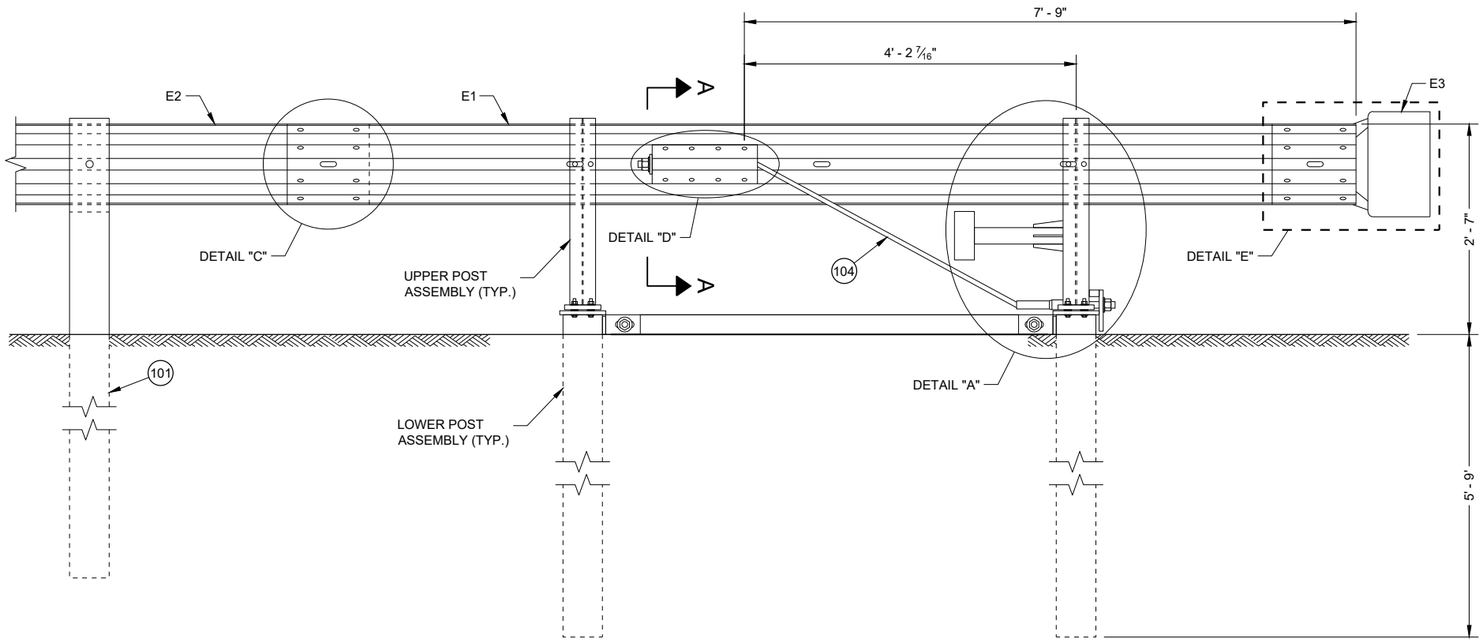
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

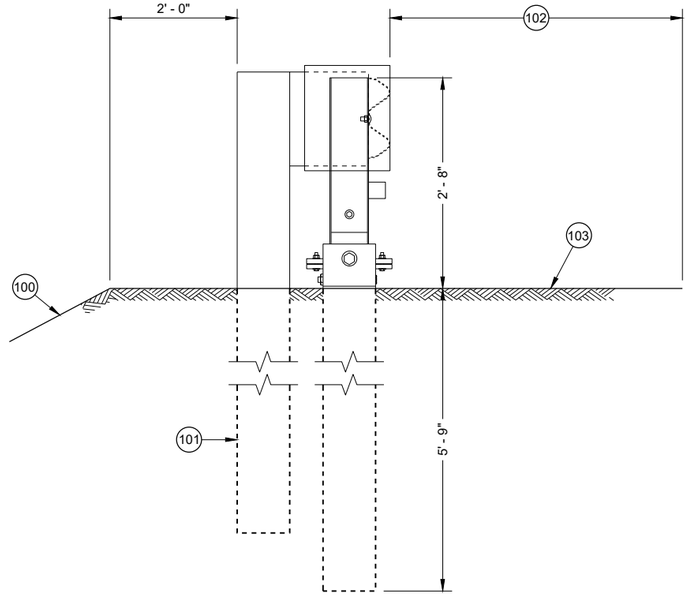
FHWA

6

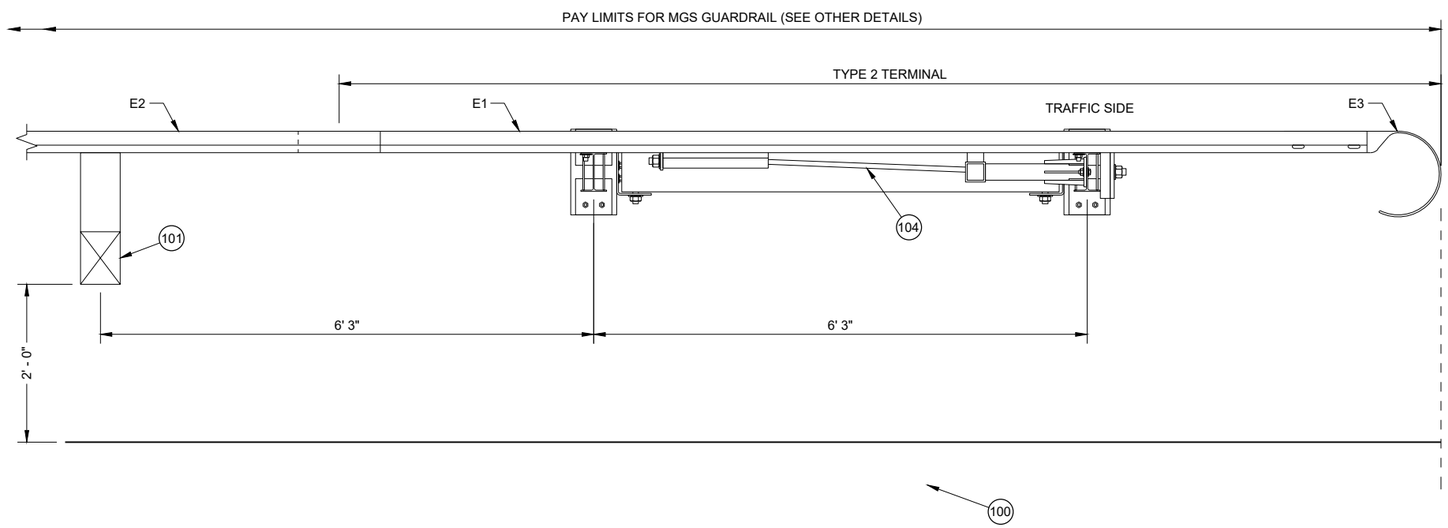
SDD 14B44 - 04c



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

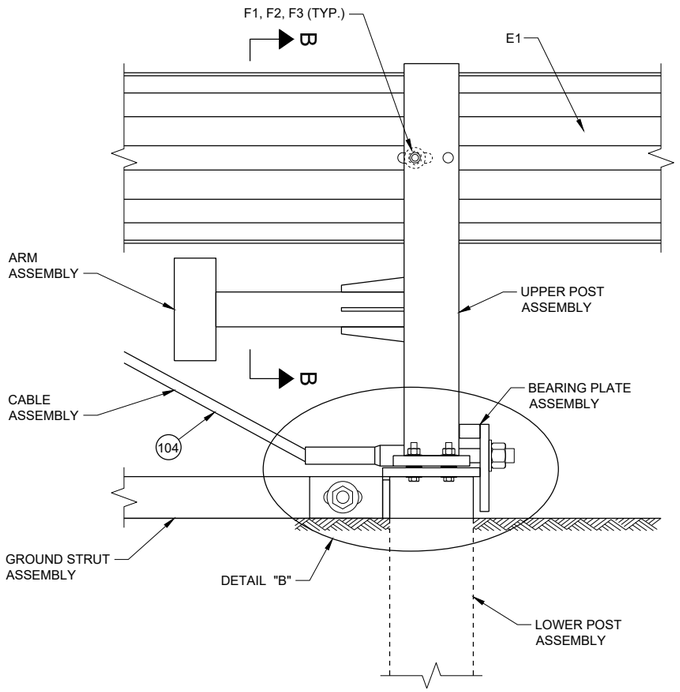
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

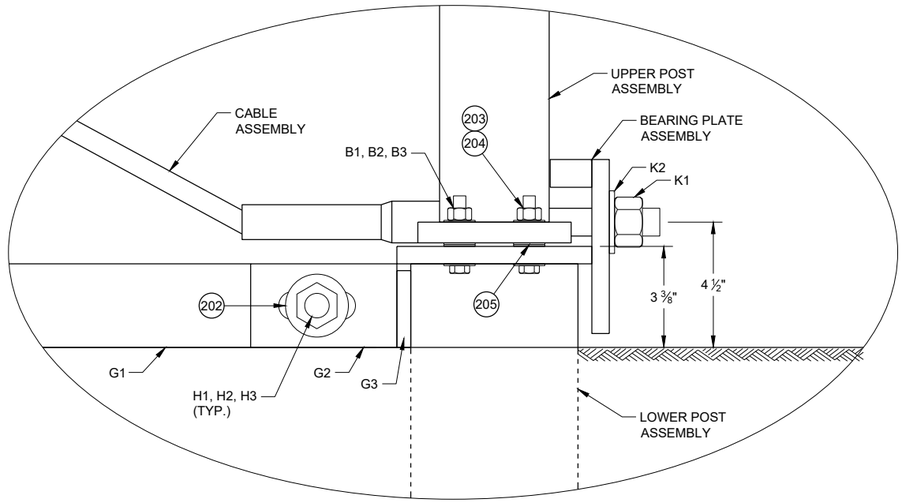
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

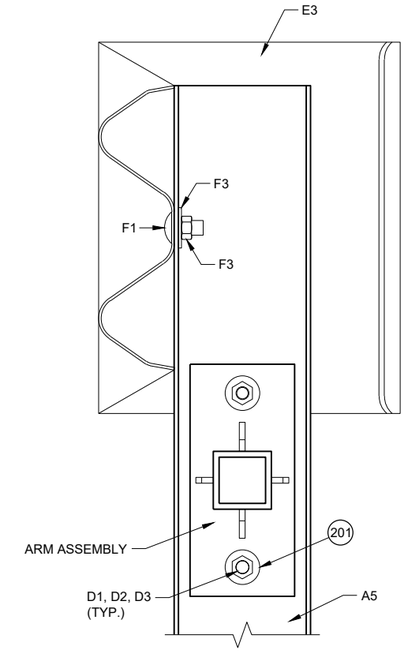
SDD 14B47 - 05a



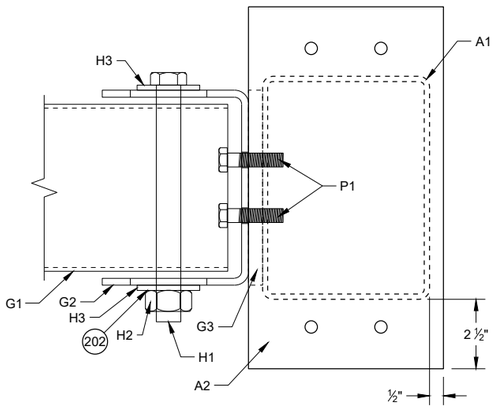
DETAIL "A"



DETAIL "B"

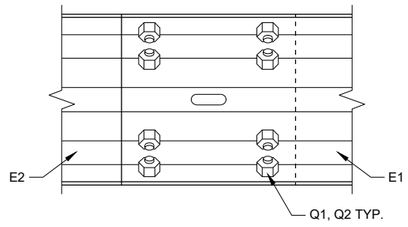


SECTION B - B



TOP VIEW

GROUND STRUT CONNECTION DETAIL



DETAIL "C"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

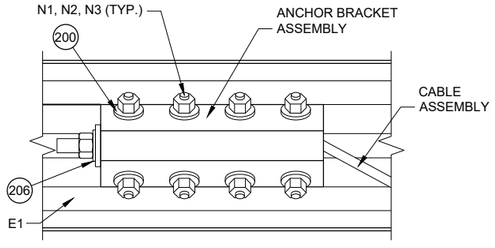
202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

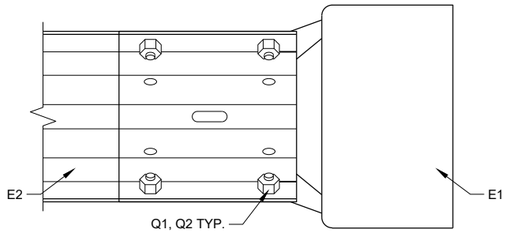
204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.



DETAIL "D"



DETAIL "E"

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

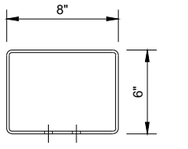
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

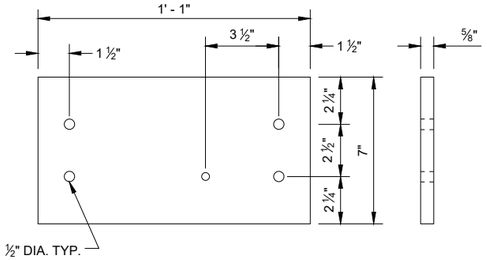
SDD 14B47 - 05b

GENERAL NOTES

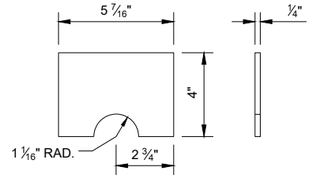
(300) TAP FOR 1/2" AFTER GALVANIZATION



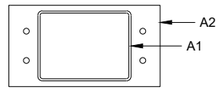
TOP VIEW



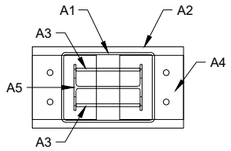
LOWER PLATE (A2)

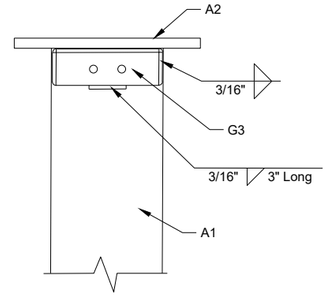


POST GUSSET (A3)

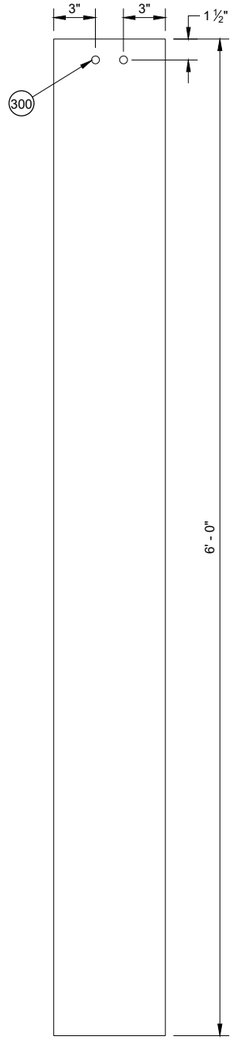


PLAN VIEW



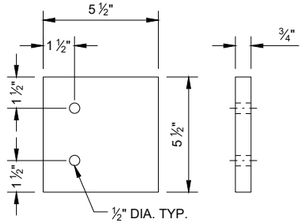


WELDING DETAIL
G3 AND A1

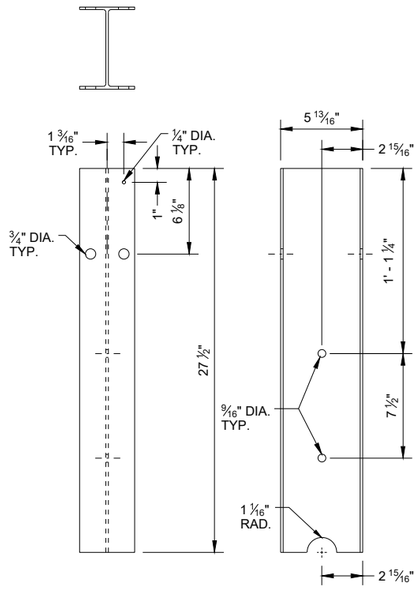


SIDE VIEW

FOUNDATION
TUBE (A1)

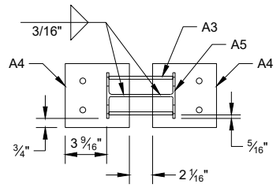


UPPER PLATE (A4)

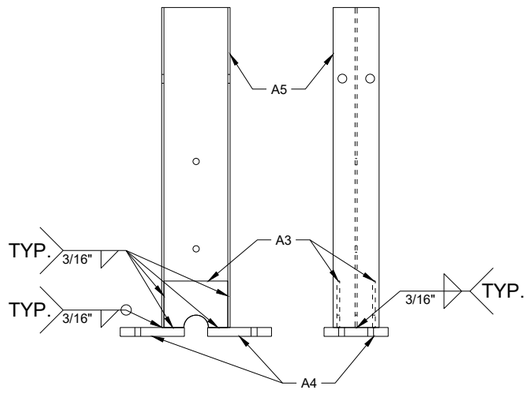


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

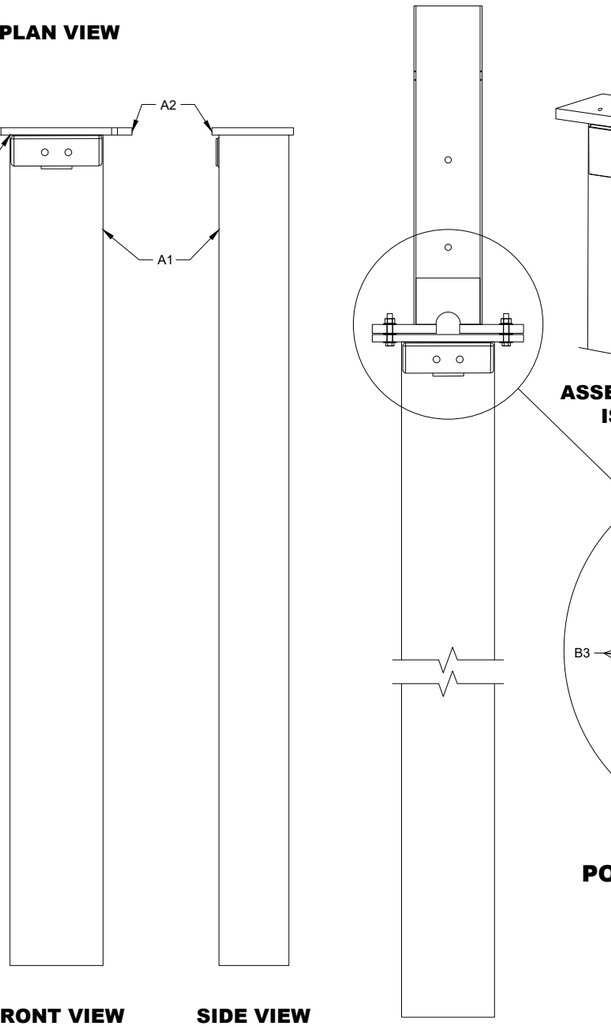


PLAN VIEW



SIDE VIEW FRONT VIEW

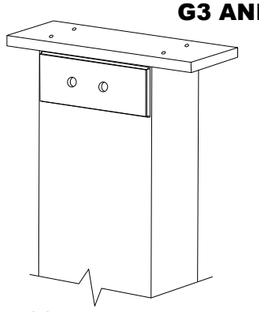
UPPER POST ASSEMBLY



FRONT VIEW SIDE VIEW

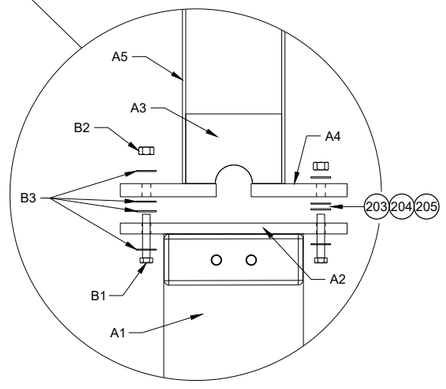
LOWER POST ASSEMBLY

ASSEMBLED POST



ASSEMBLY DETAIL
ISOMETRIC

A1



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

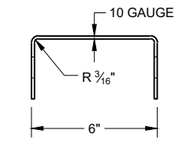
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

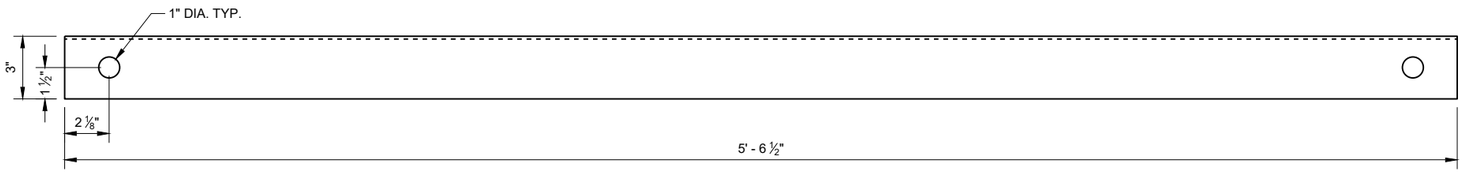
SDD14B47 - 05c

6

SDD14B47 - 05c

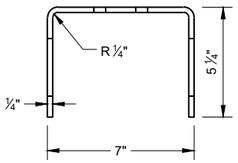


SIDE VIEW

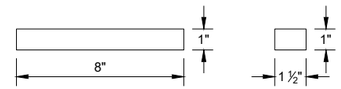


FRONT VIEW

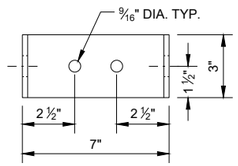
GROUND STRUT CHANNEL (G1)



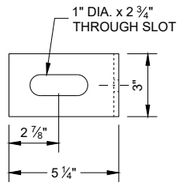
TOP VIEW



BEARING PLATE FLANGE (L2)

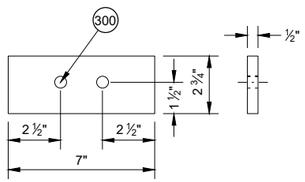


FRONT VIEW

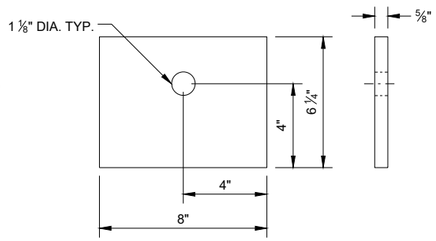


SIDE VIEW

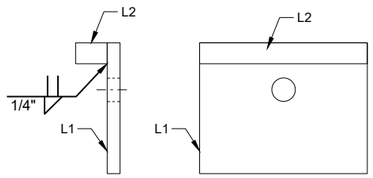
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

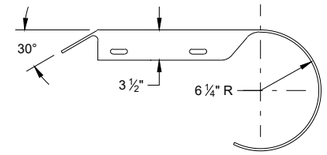


BEARING PLATE (L1)

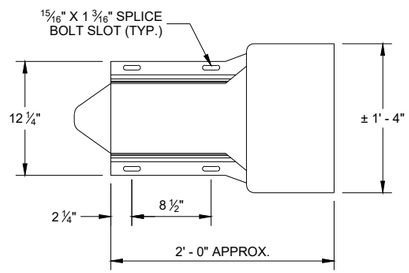


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

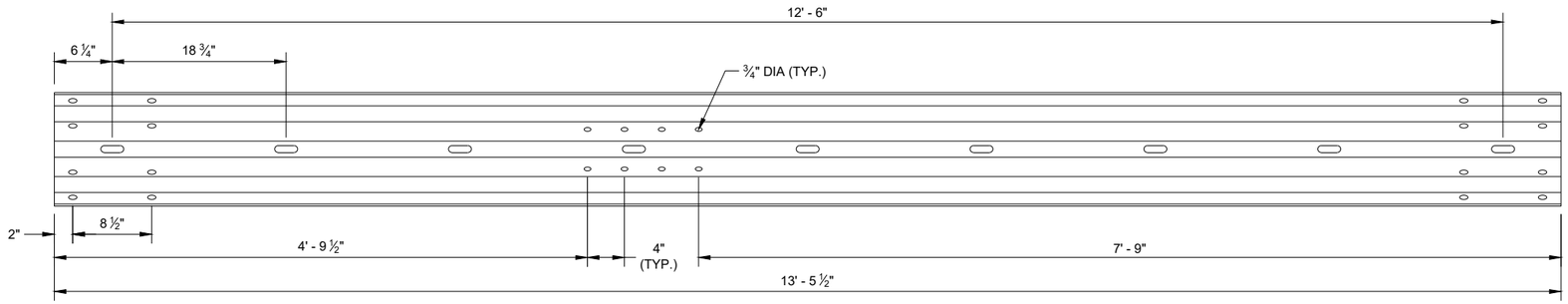


PLAN VIEW

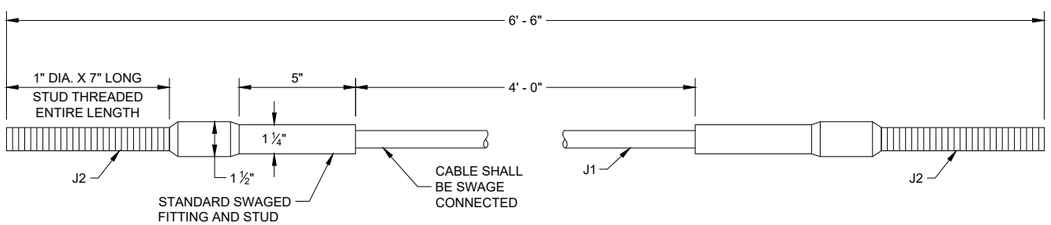


ELEVATION VIEW

ROUNDED BUFFER END (E3)



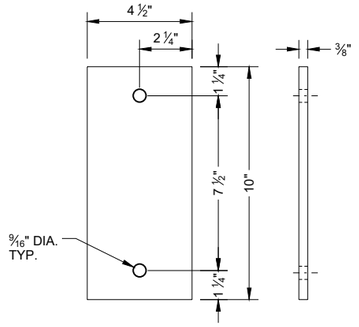
TYPE 2 GUARDRAIL (E1)



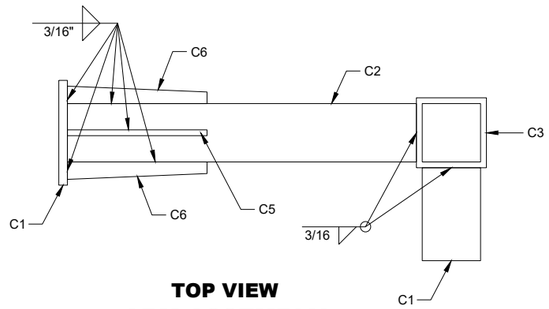
CABLE ASSEMBLY

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

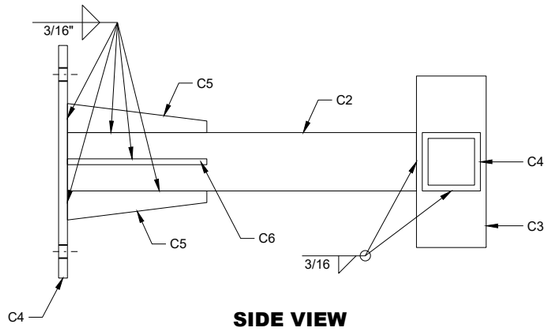
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



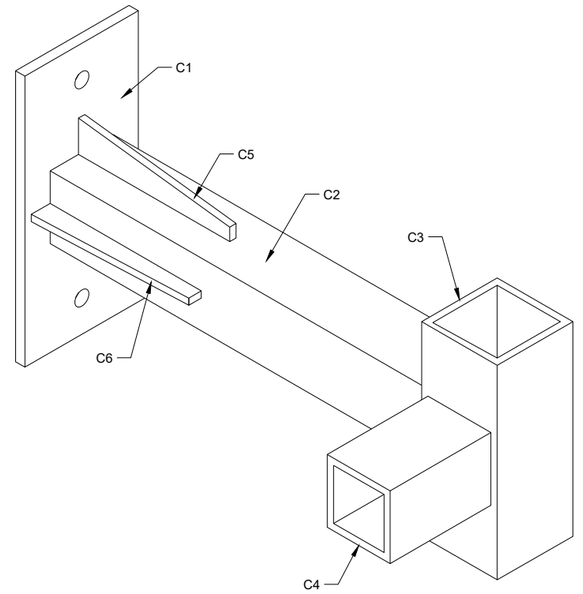
ARM PLATE (C1)



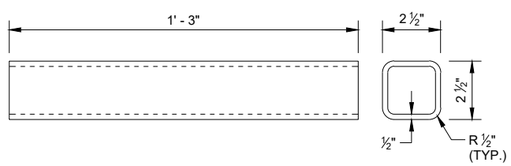
TOP VIEW
ARM ASSEMBLY



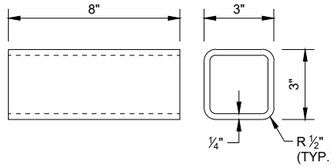
SIDE VIEW
ARM ASSEMBLY



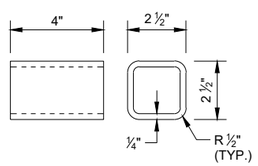
ISOMETRIC VIEW
ARM ASSEMBLY



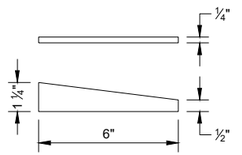
ARM TUBE 1 (C2)



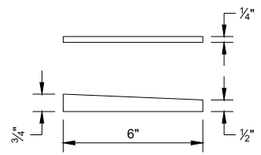
ARM TUBE 2 (C3)



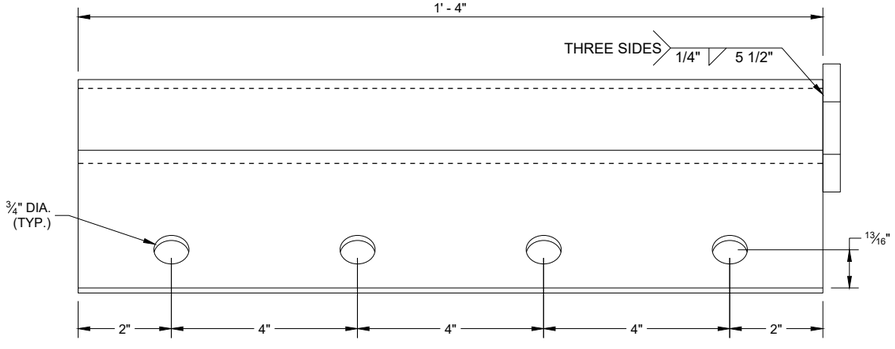
ARM TUBE 3 (C4)

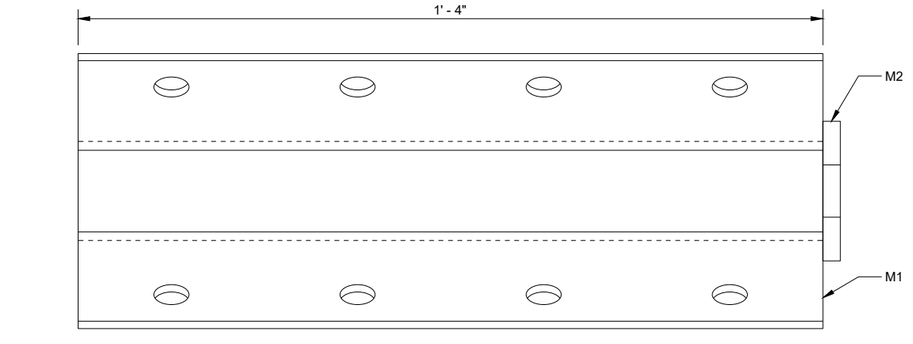


ARM GUSSET PLATE 1 (C5)

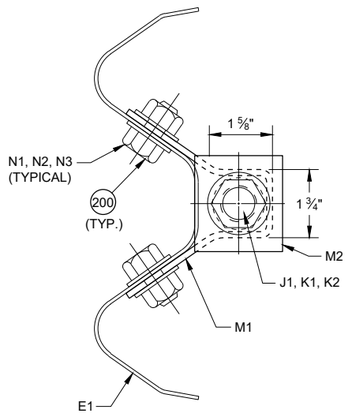


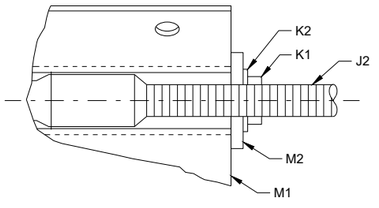
ARM GUSSET PLATE 2 (C6)



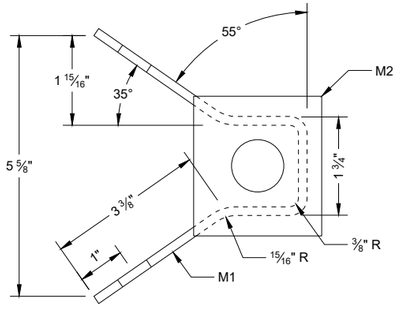


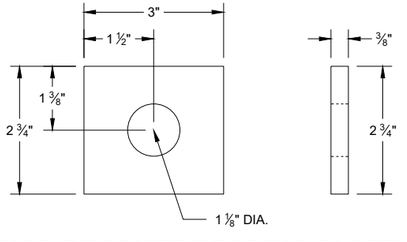
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD14B47 - 05e

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI, w6x9 or w6x8.5	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

6

SDD 14B47 - 05g

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

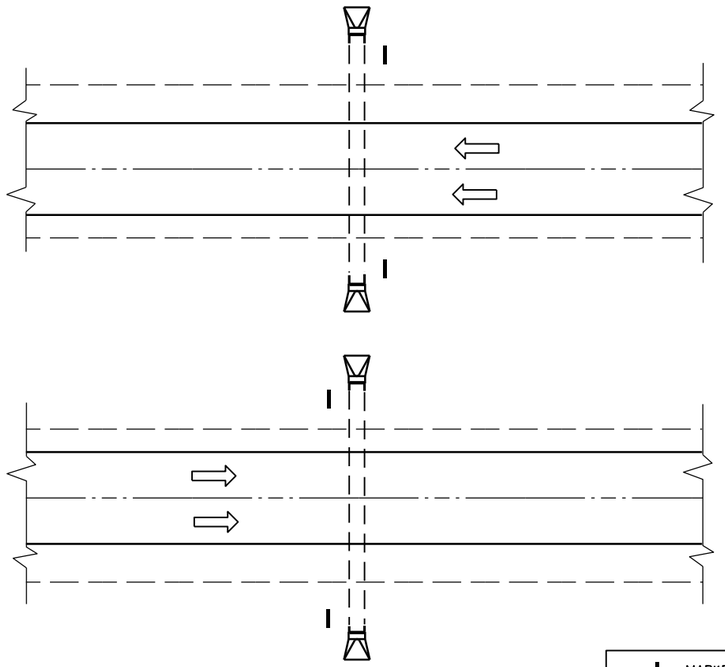
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

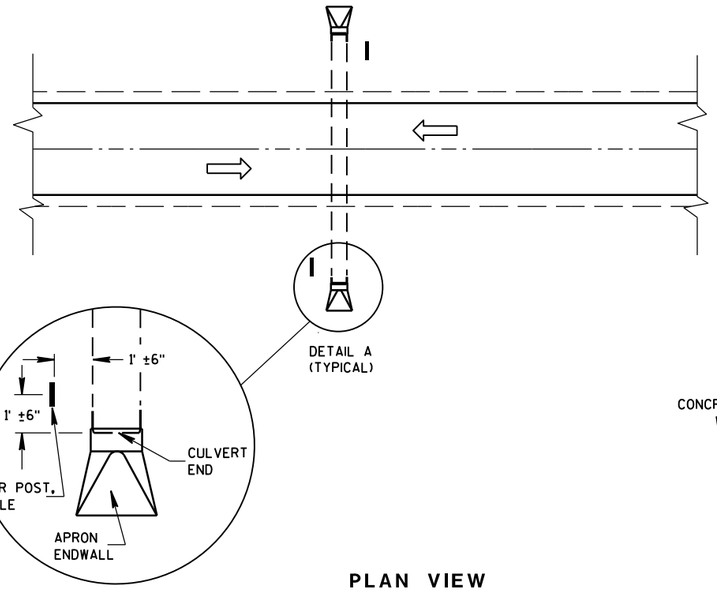
6

SDD 14B47 - 05g



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

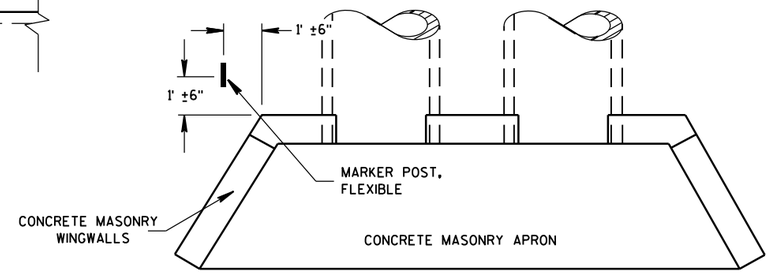
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

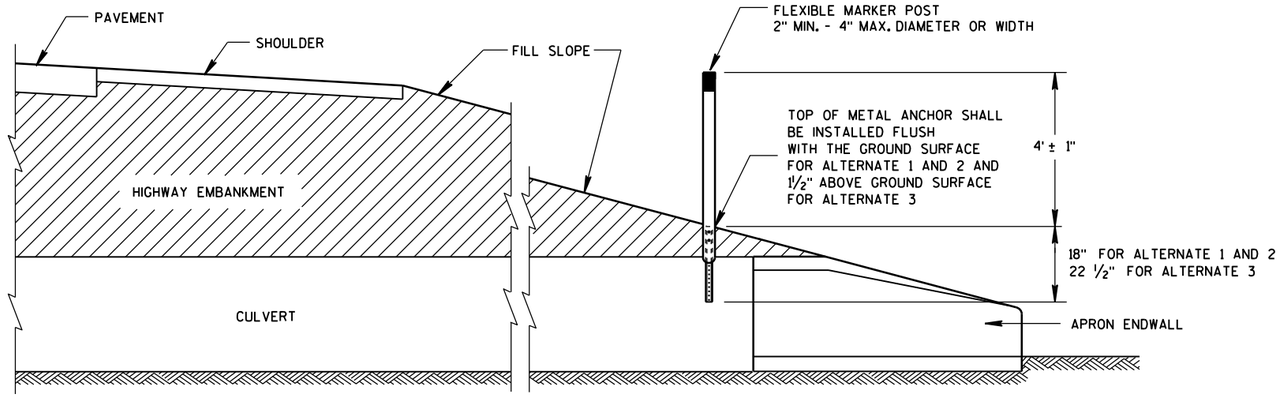
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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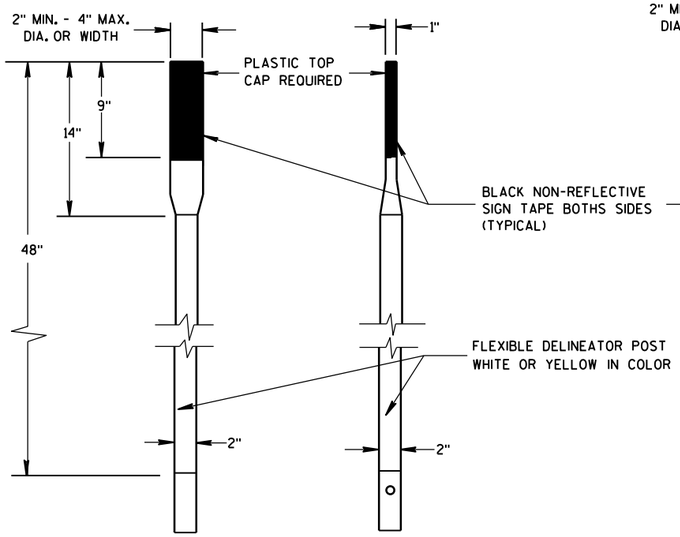
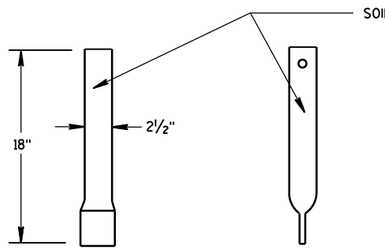
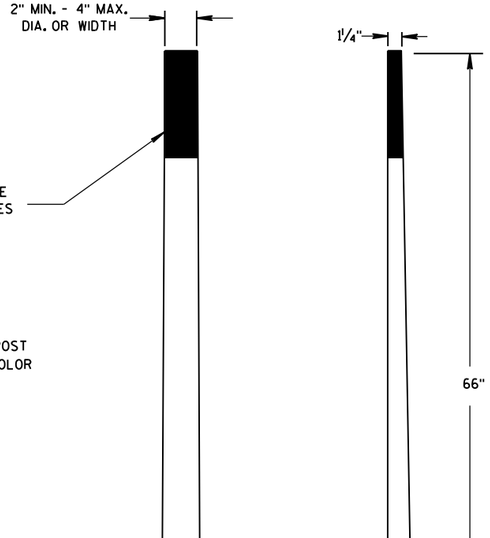
S.D.D. 15 A 3-2a





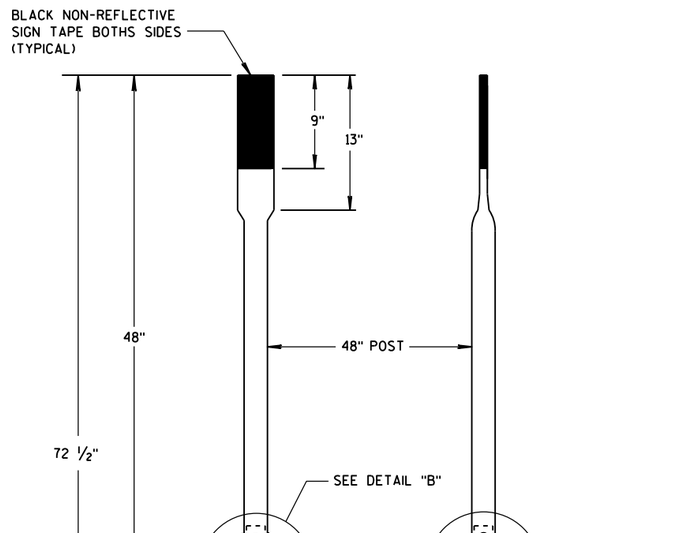
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

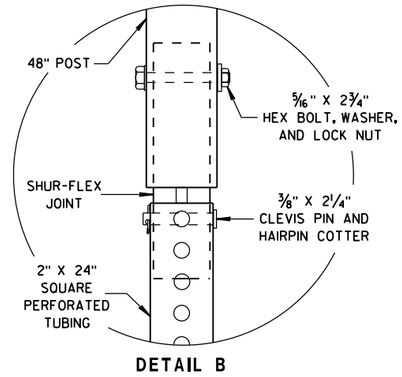
ALTERNATE 2



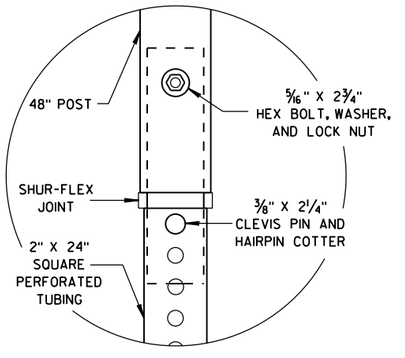
FRONT VIEW SIDE VIEW

ALTERNATE 3

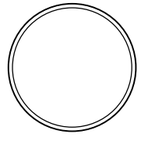
FLEXIBLE MARKER POSTS



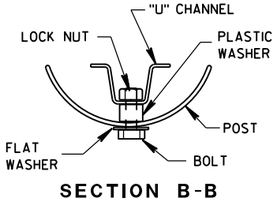
DETAIL B



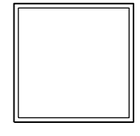
DETAIL C



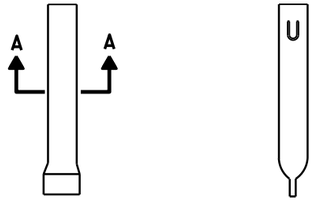
SECTION A-A



SECTION B-B

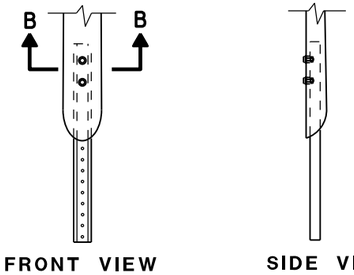


SECTION C-C



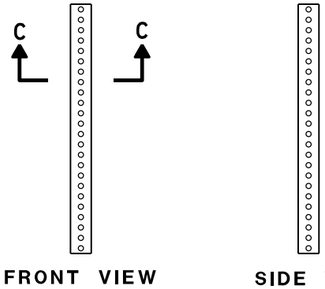
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 A 3-2b

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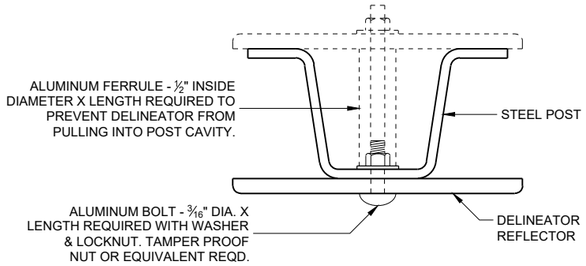
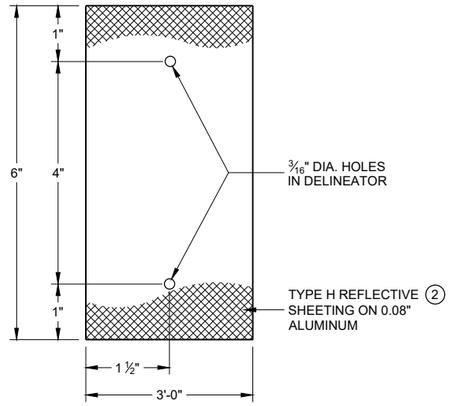
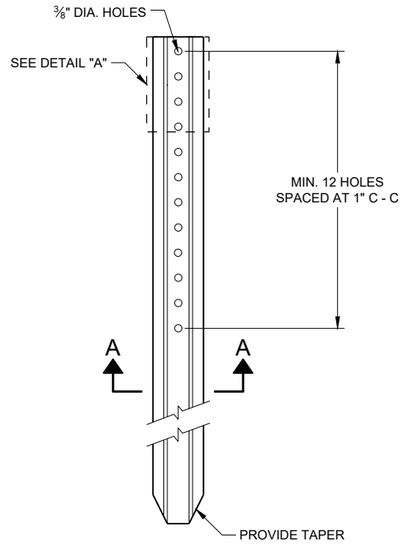
S.D.D. 15 A 3-2b



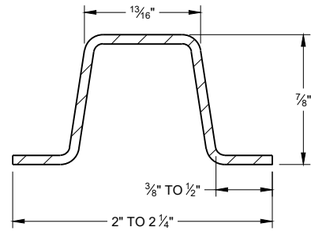
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



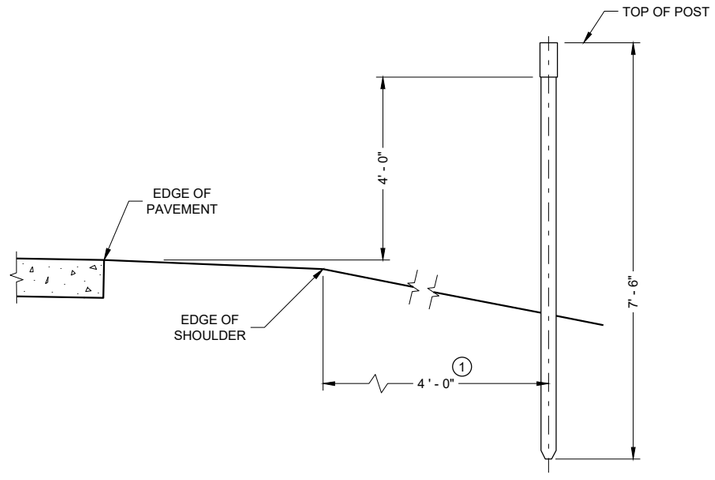
SECTION A - A

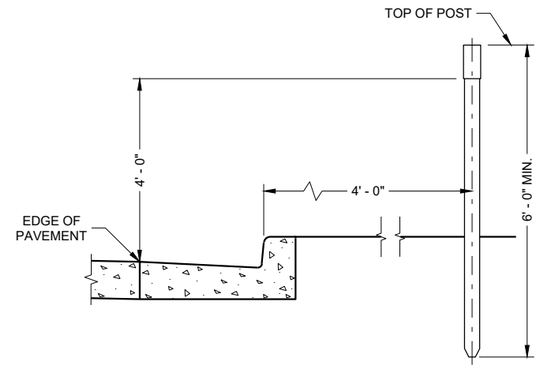
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

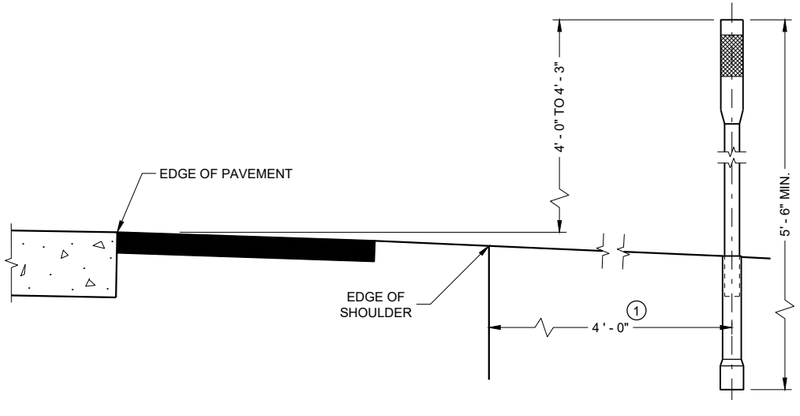
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

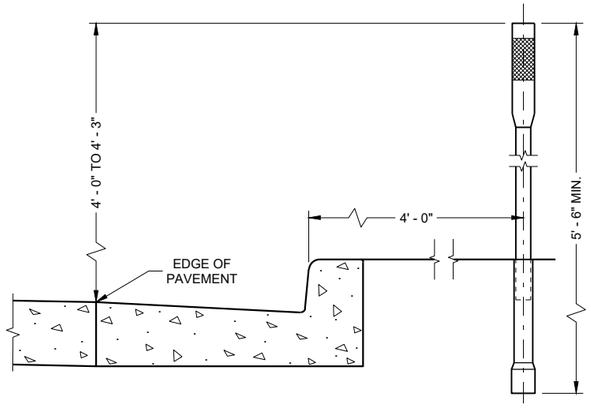
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

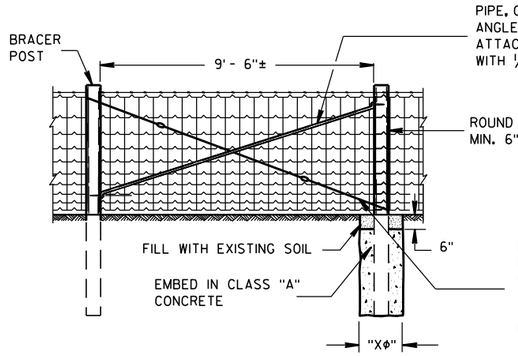
FHWA

SDD 15A04 - 07c

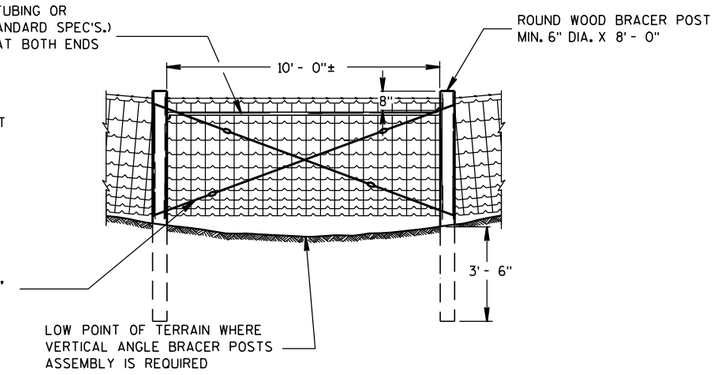
SDD 15A04 - 07c

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

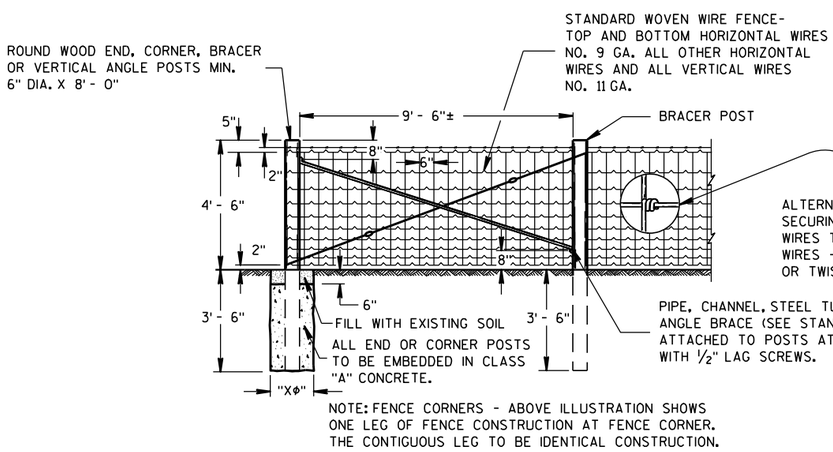
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

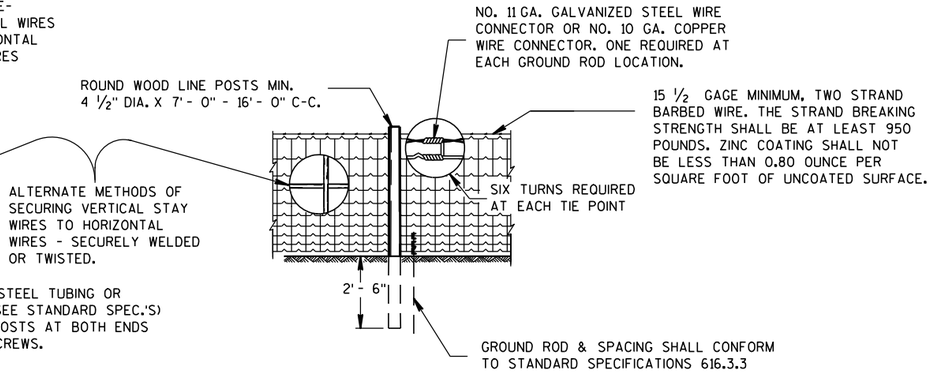
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



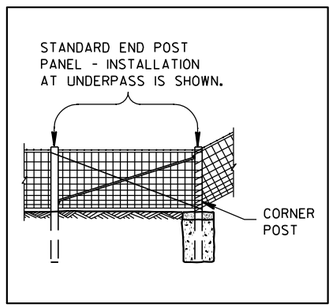
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

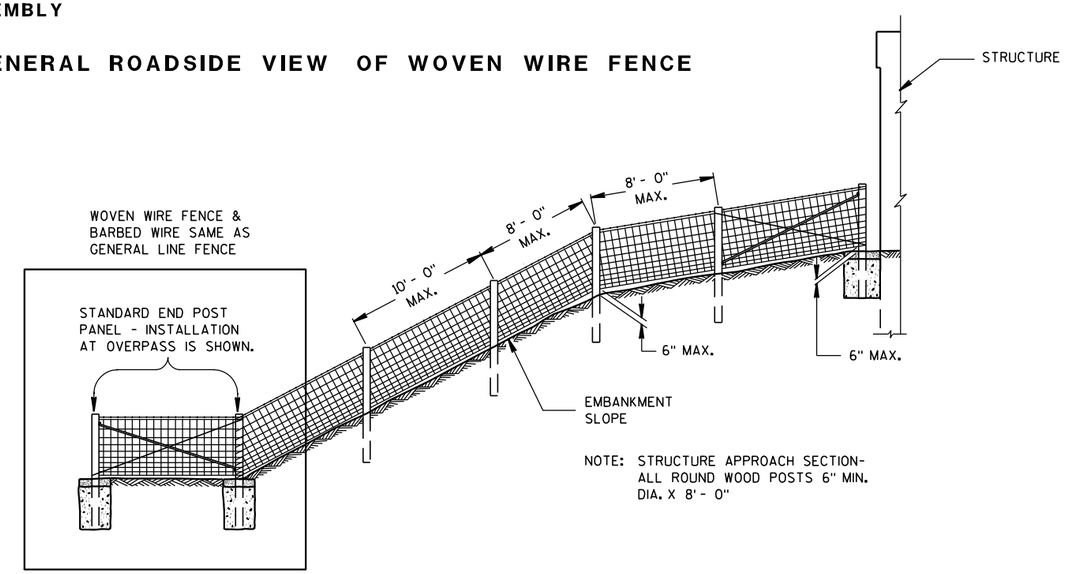


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

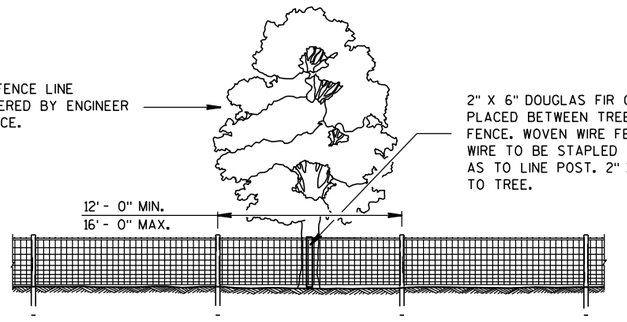
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

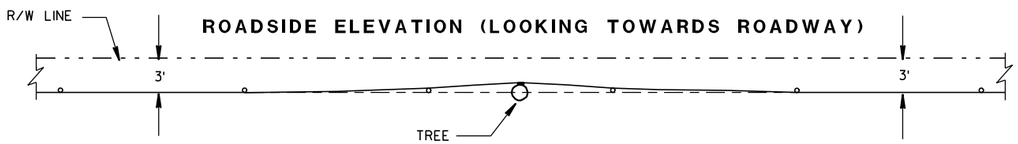
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

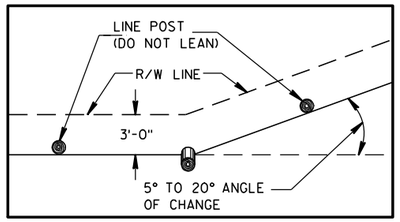


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

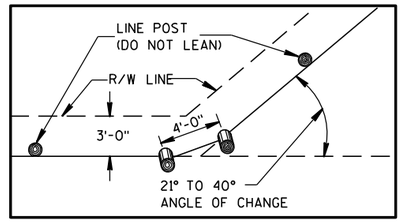


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

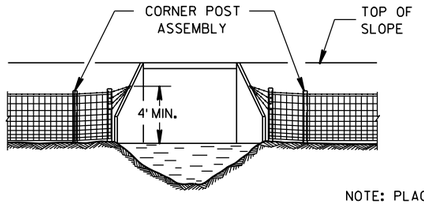


PLAN VIEW
DOUBLE POST CORNER

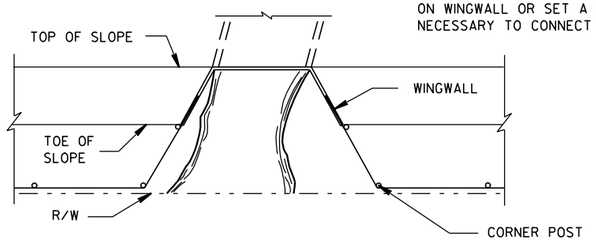
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

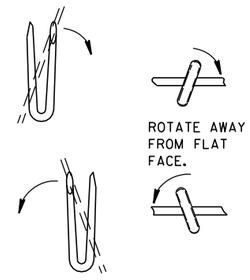
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



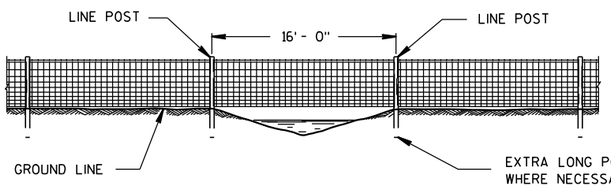
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

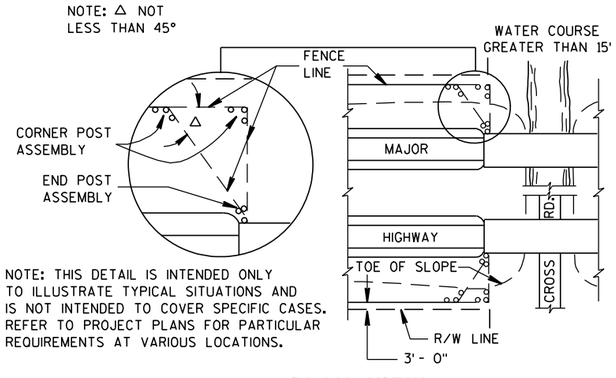


LINE POST



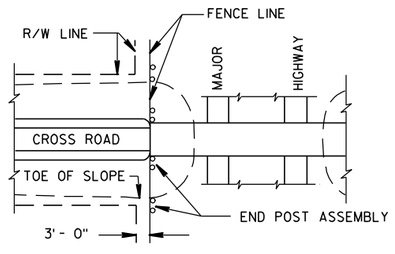
FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

NOTE: △ NOT LESS THAN 45°



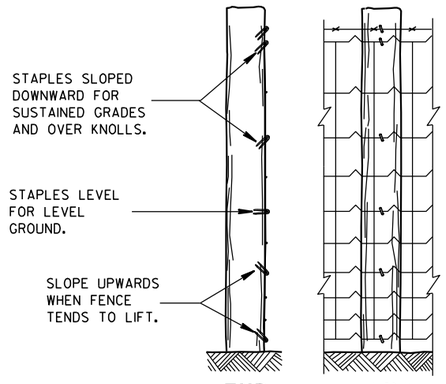
NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION

FARM SIDE ELEVATION

FENCE MOUNTING DETAIL

FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

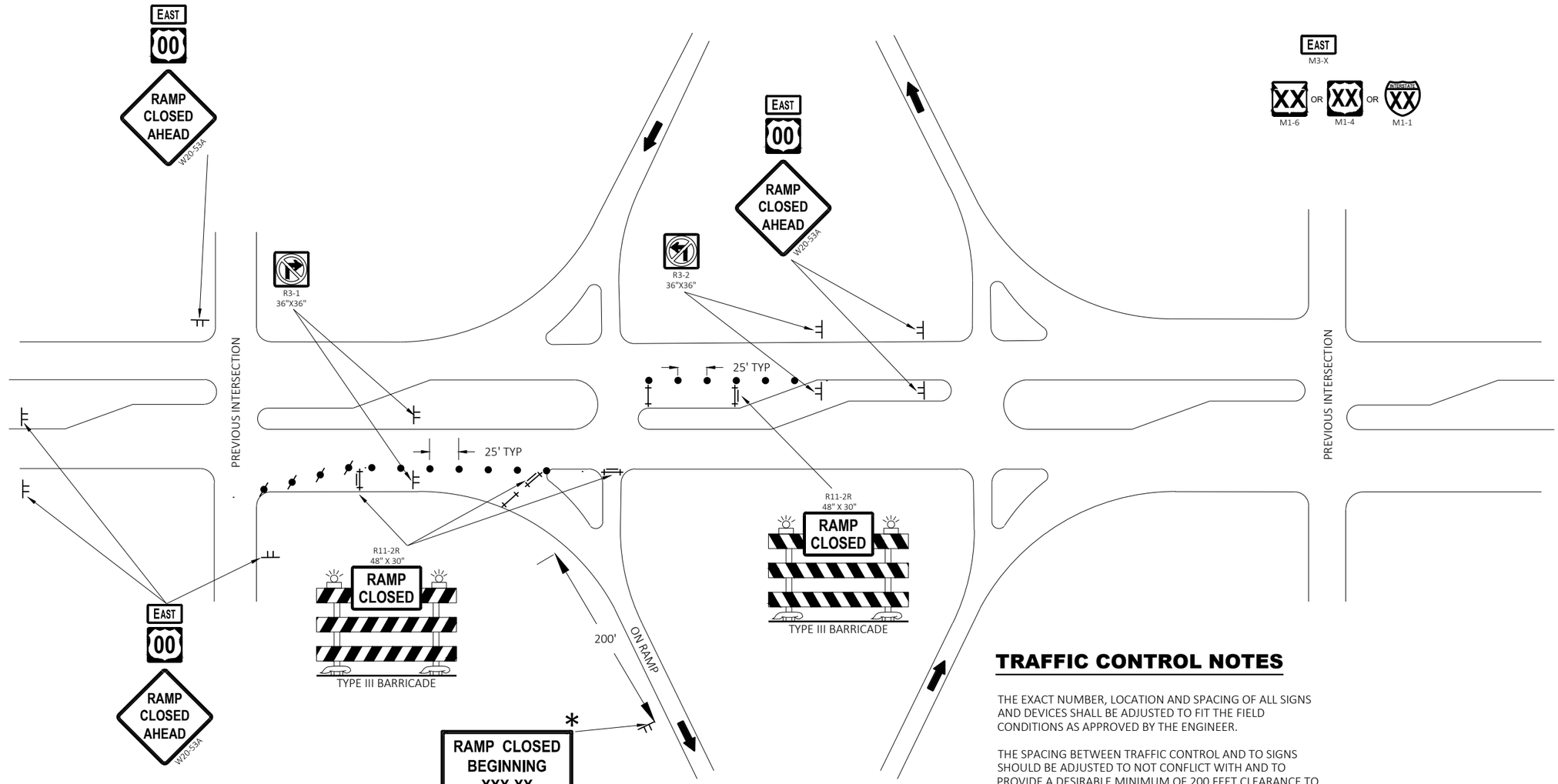
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 15 B 1-8b



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT SHALL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

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

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

6

SDD 15C02-09g

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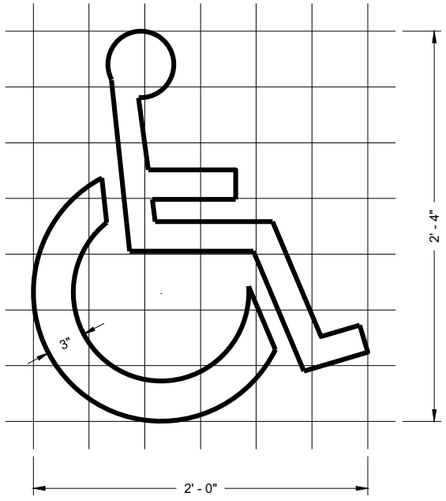
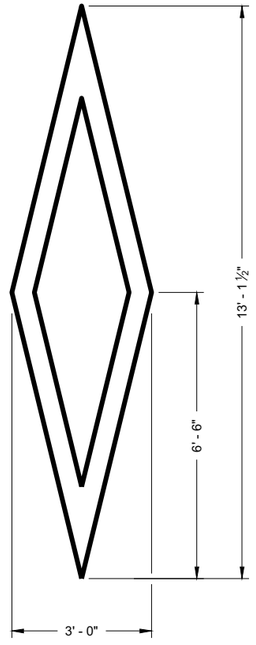
SDD 15C02-09g

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

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SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

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.

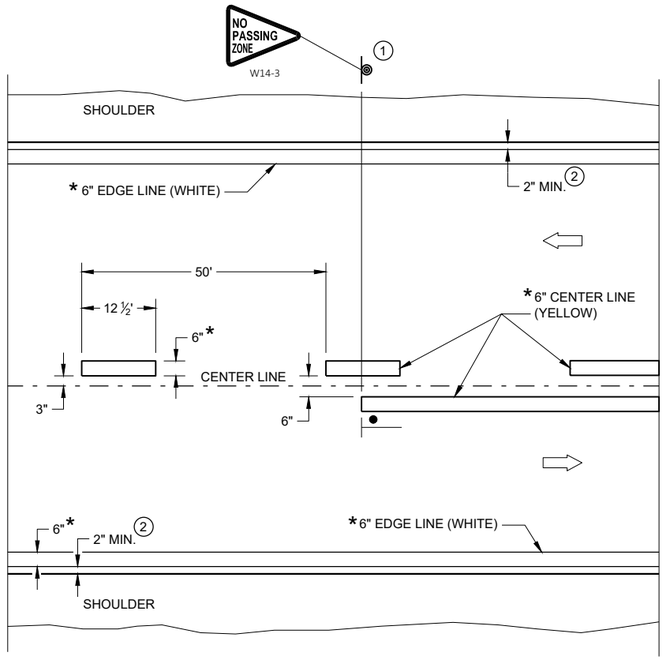
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

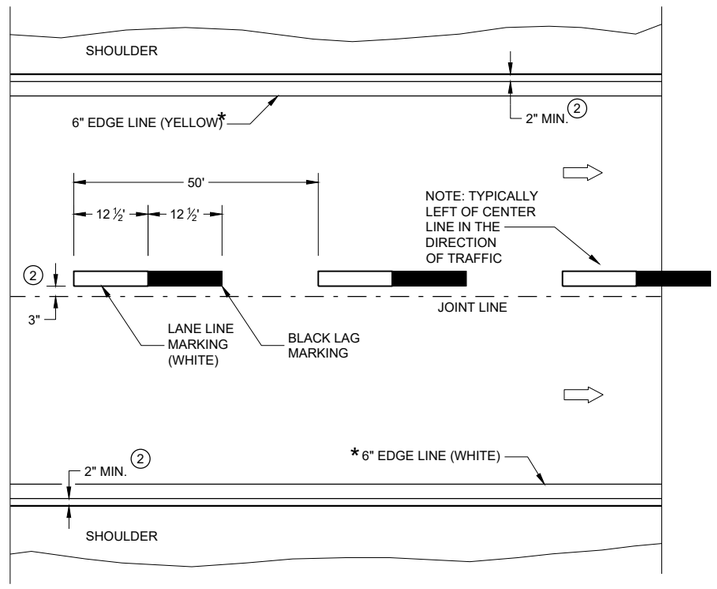
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

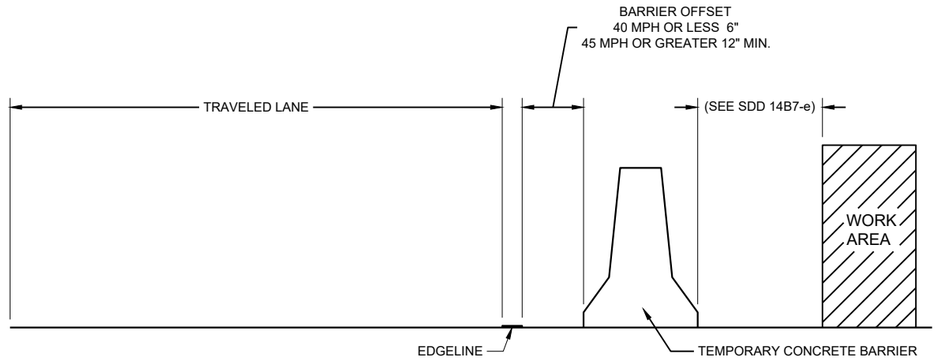
May 2023 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

SDD 15C08-23a

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

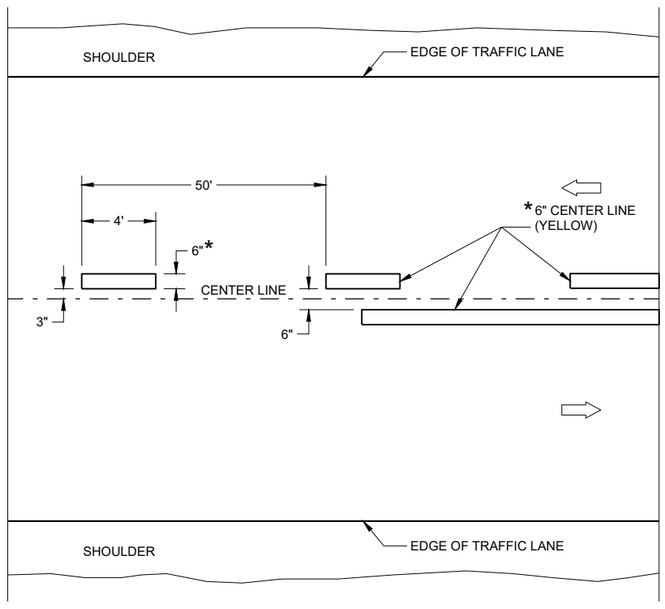
GENERAL NOTES

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

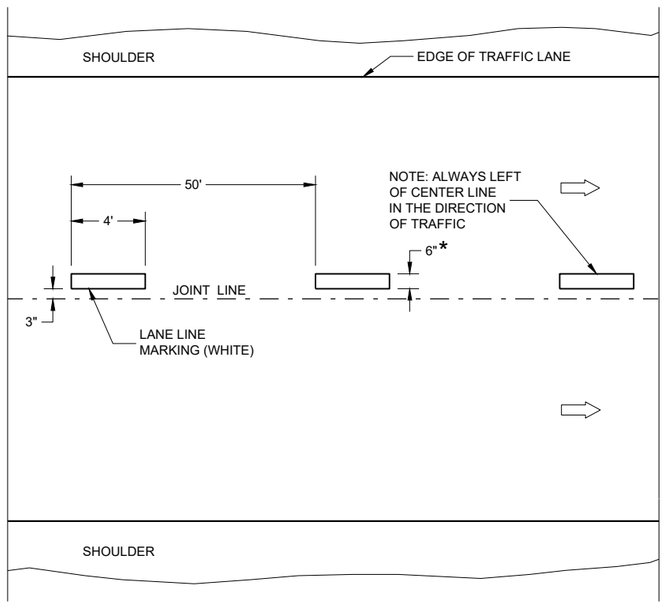
LEGEND

⇨ DIRECTION OF TRAFFIC

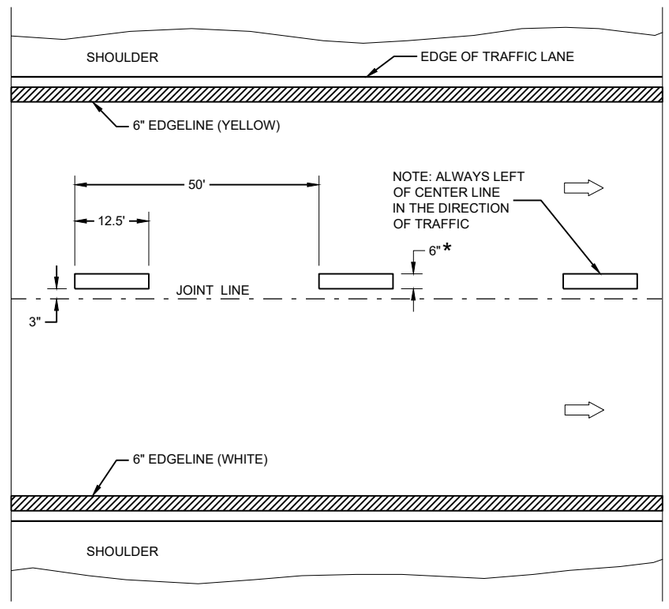
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

6

SDD 15C08-23b

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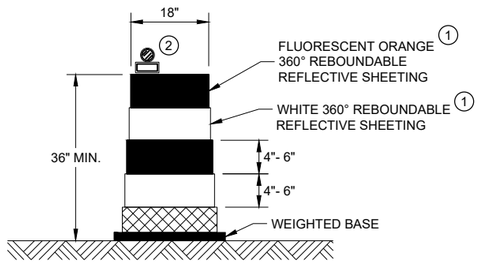
SDD 15C08-23b

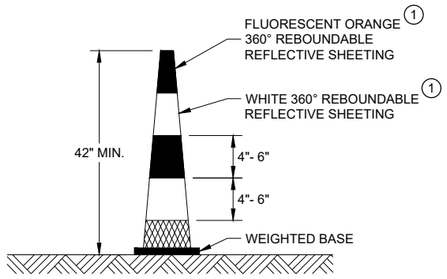
GENERAL NOTES

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

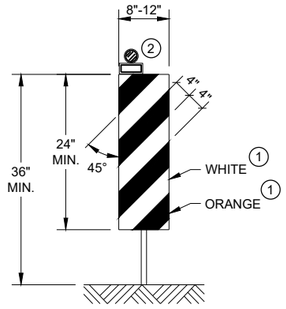
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

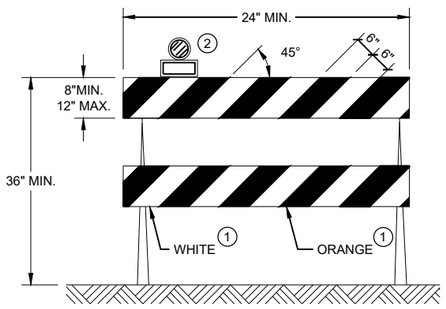
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



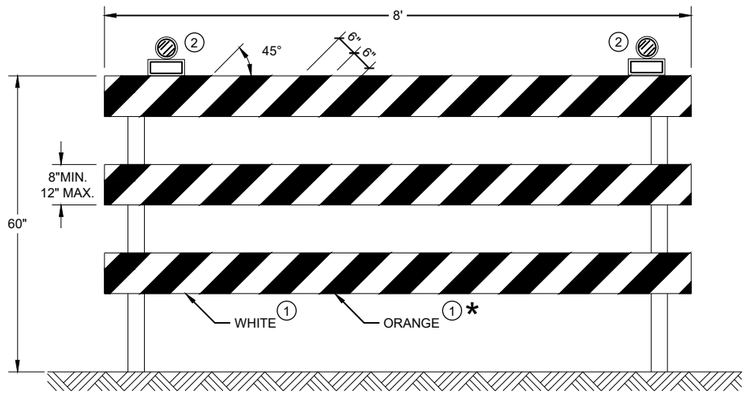
VERTICAL PANEL

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

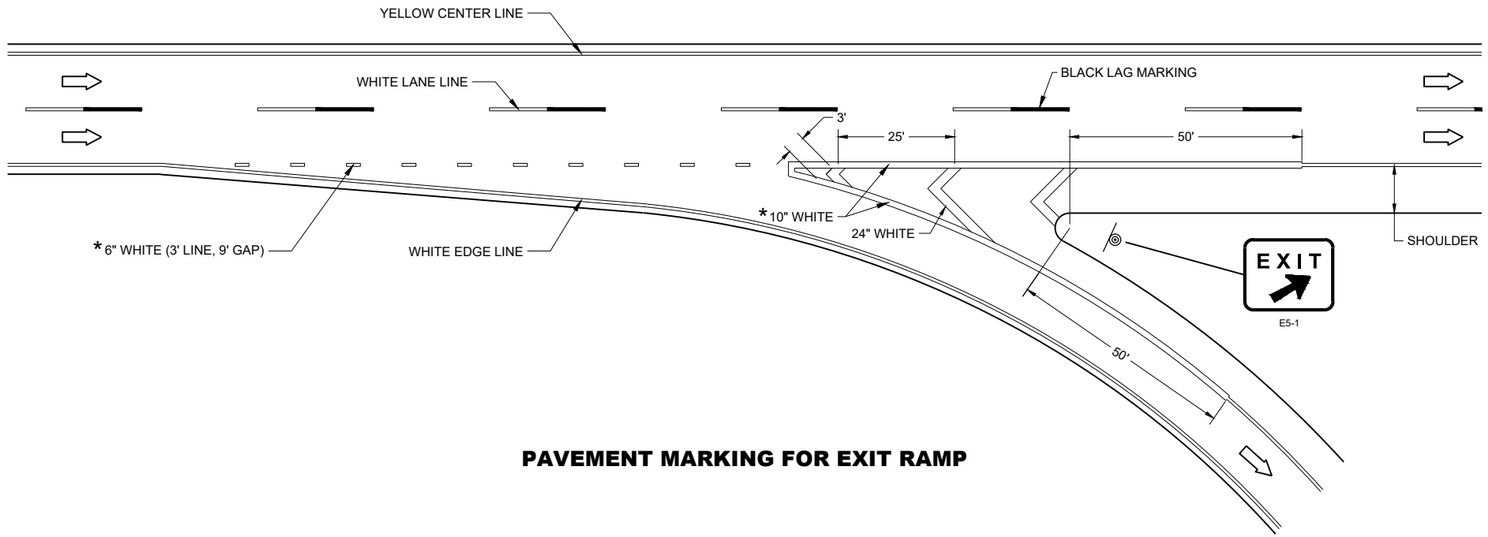
APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

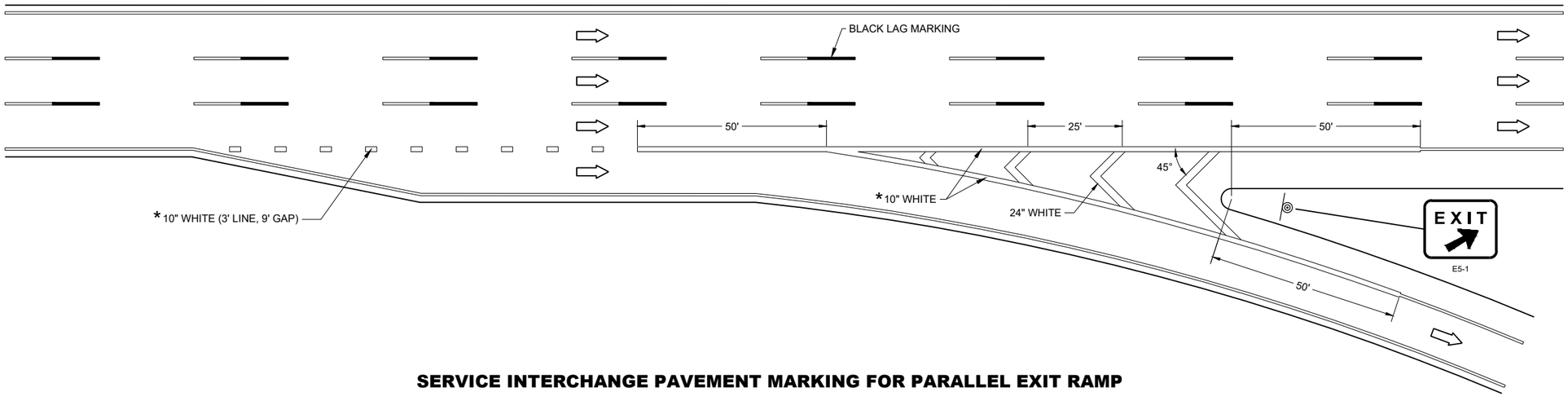
FHWA

6

SDD 15C11 - 10b



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

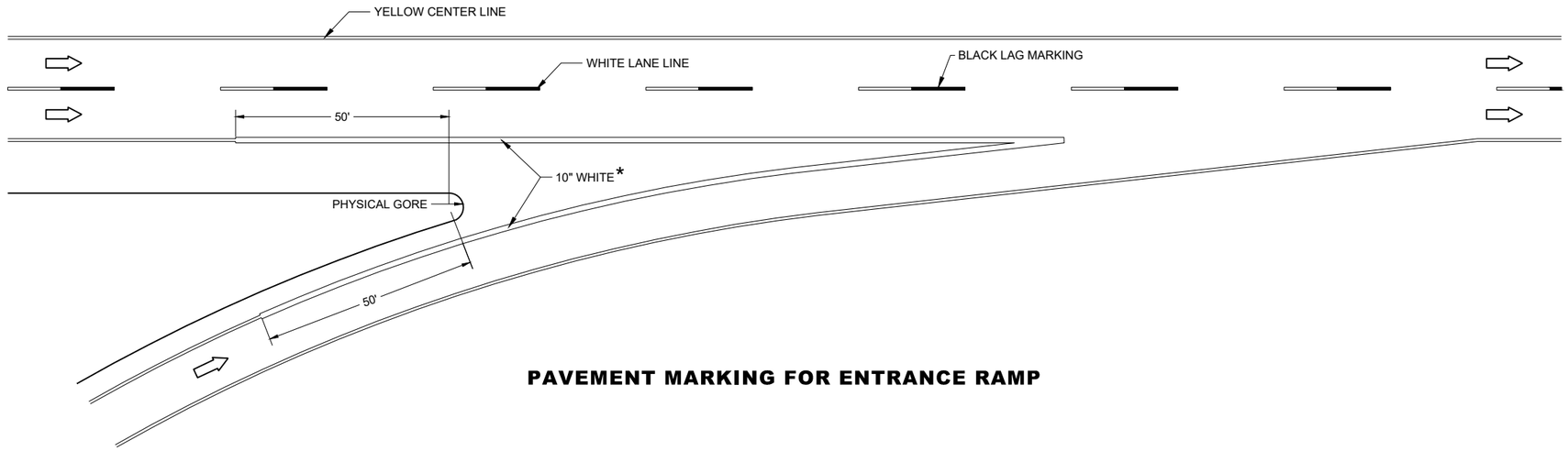
PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C31-06a

SDD 15C31-06a



PAVEMENT MARKING FOR ENTRANCE RAMP

GENERAL NOTES

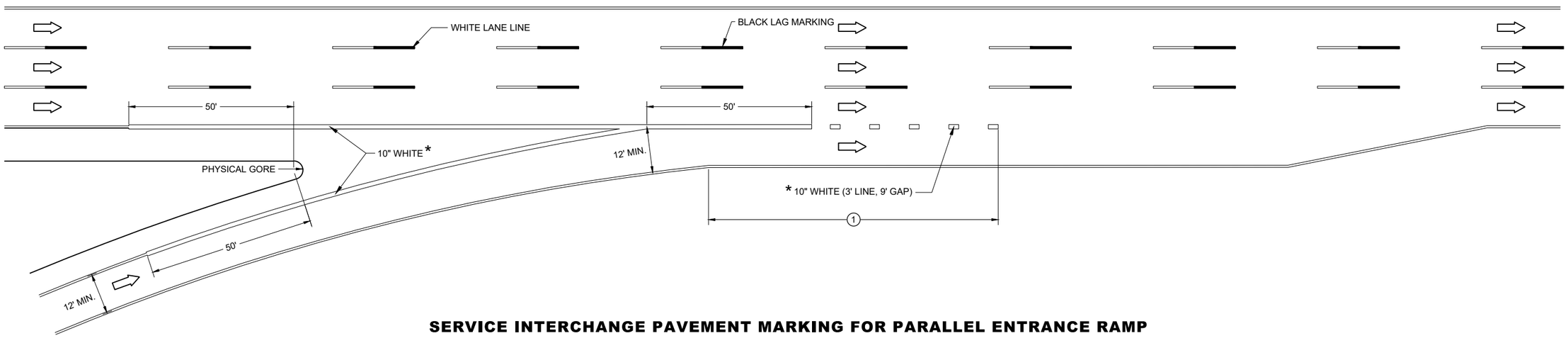
PLACE GROOVE 3 INCHES LEFT OF JOINT.

(1) ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

LEGEND

DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

6

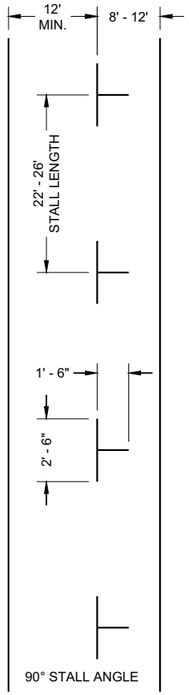
SDD 15C31-06c

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

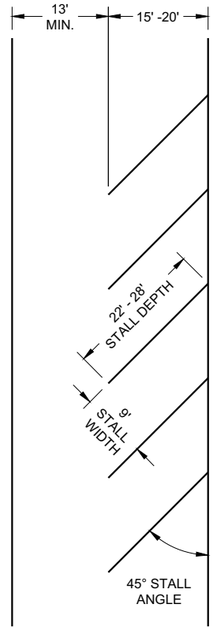
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

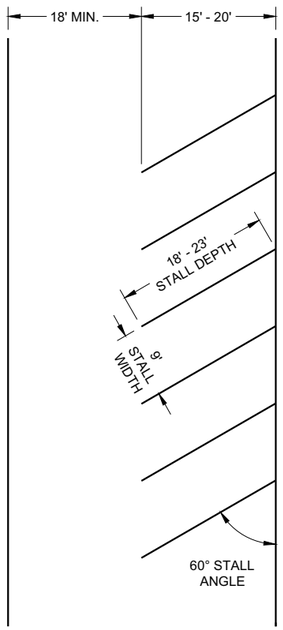
6

SDD 15C31-06c



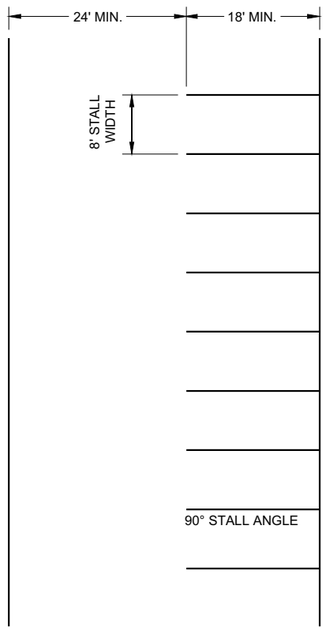
PARALLEL PARKING





ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

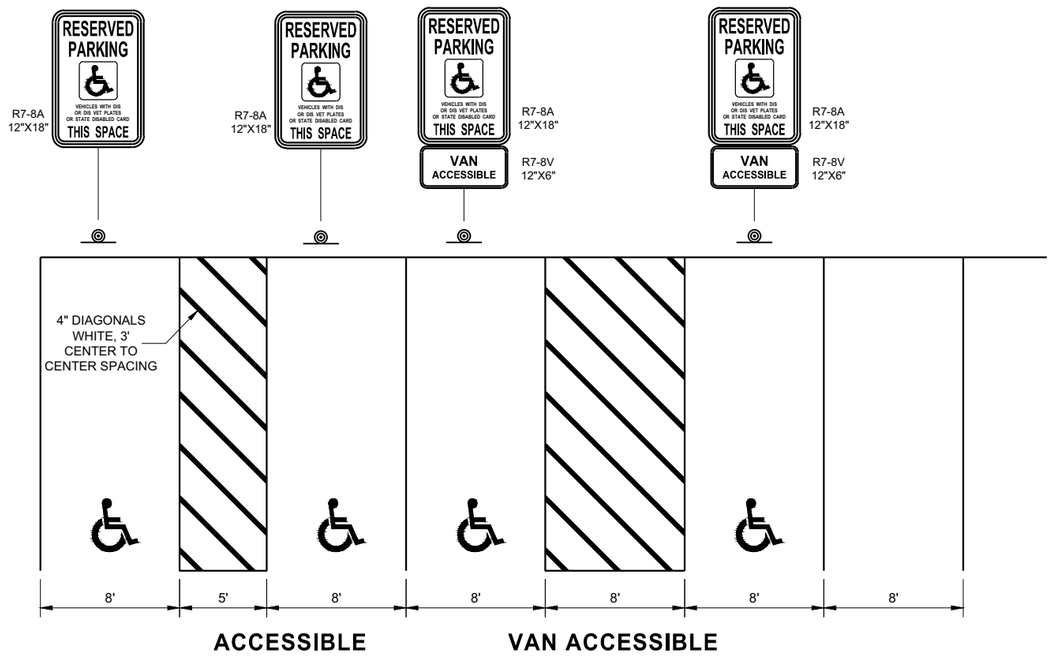
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.

LEGEND

SIGN ON PERMANENT SUPPORT



ACCESSIBLE

VAN ACCESSIBLE

PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C36 - 01
SDD 15C36 - 01

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

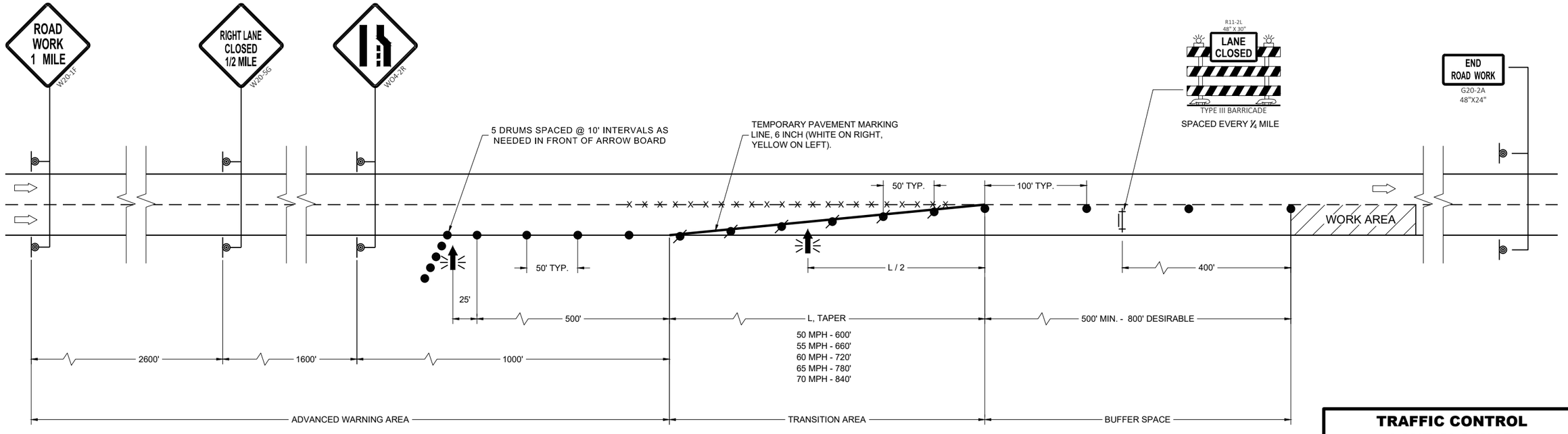
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-12a

6

SDD 15D12-12a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- S — PORTABLE TRAFFIC SENSOR (PTS)
- FBS — FLASHING BEACON SIGN

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS. WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

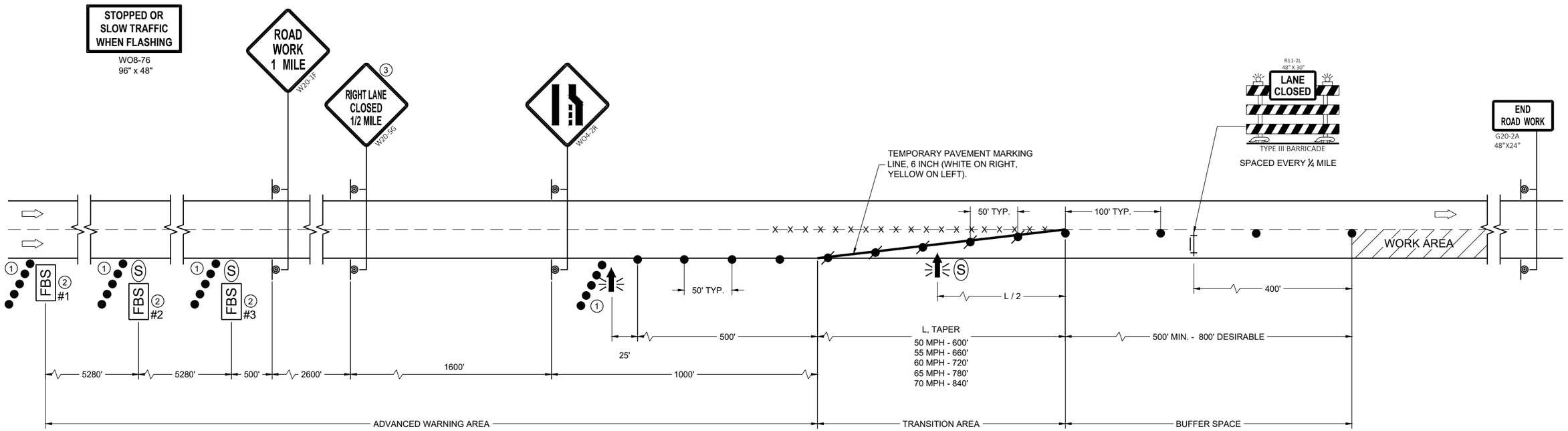
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

(1) 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.

(2) IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.

(3) IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Erin Schwark
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-12d

SDD 15D12-12d

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

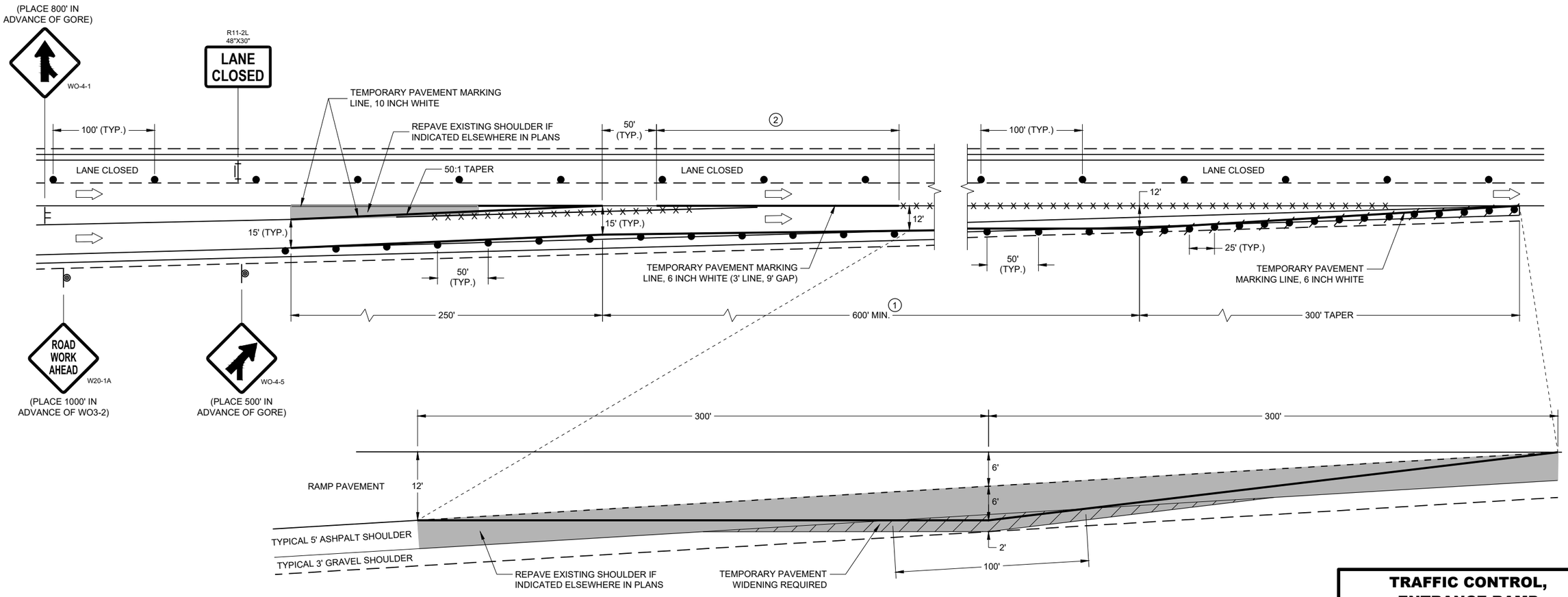
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY, ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15D15-07b

6

SDD 15D15-07b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

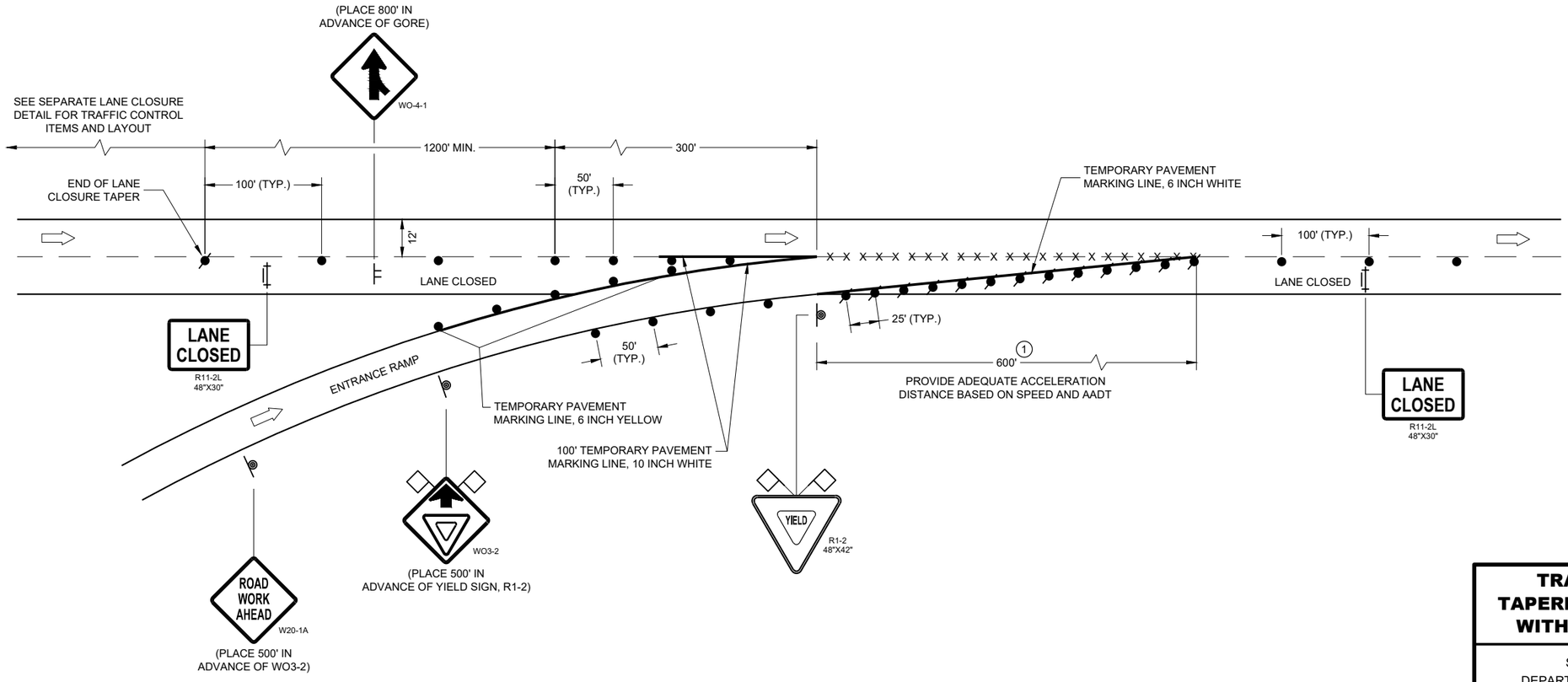
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07c

6

SDD 15D15-07c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

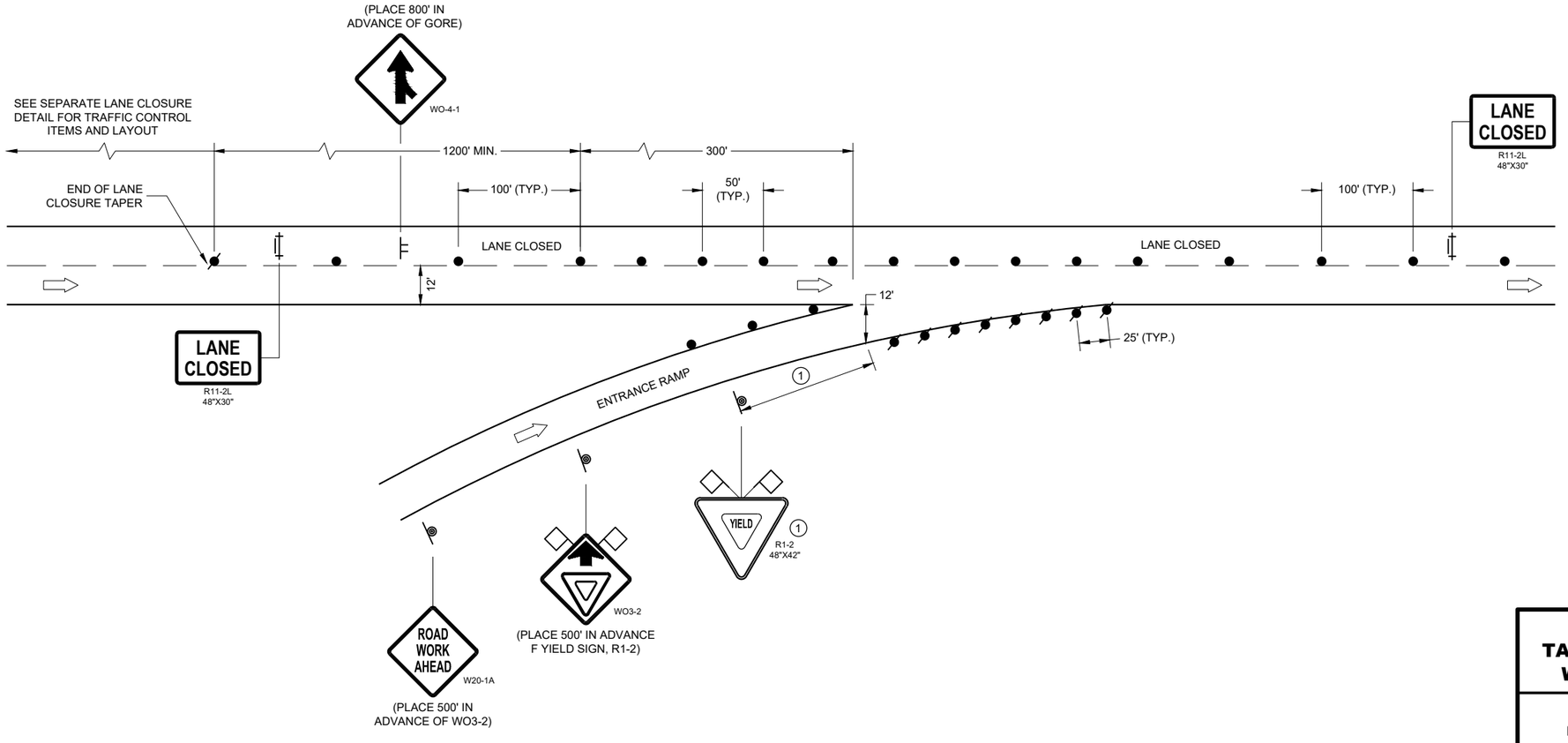
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07d

6

SDD 15D15-07d

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

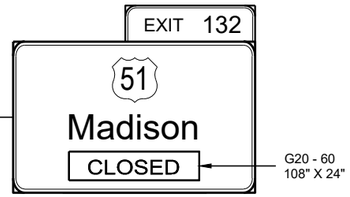
WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

(1) W20 - 1A AND G20 - 2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

OR



PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)

G20 - 61
120 ' X 30"

OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16-06

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

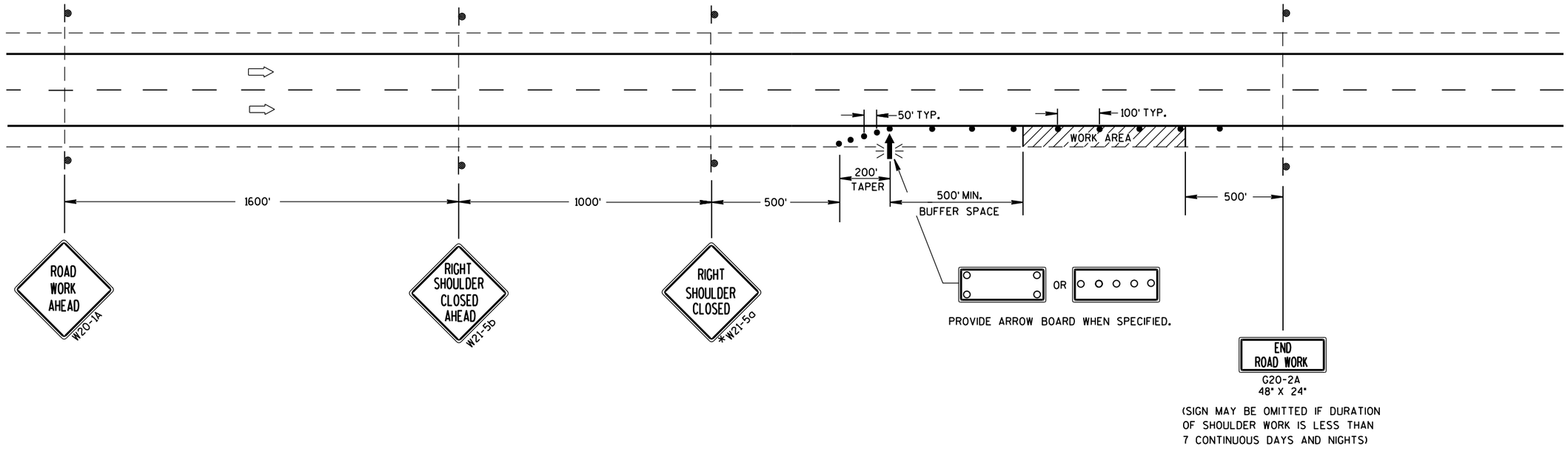
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET
0-30	200'
35-40	350'
45-55	500'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

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

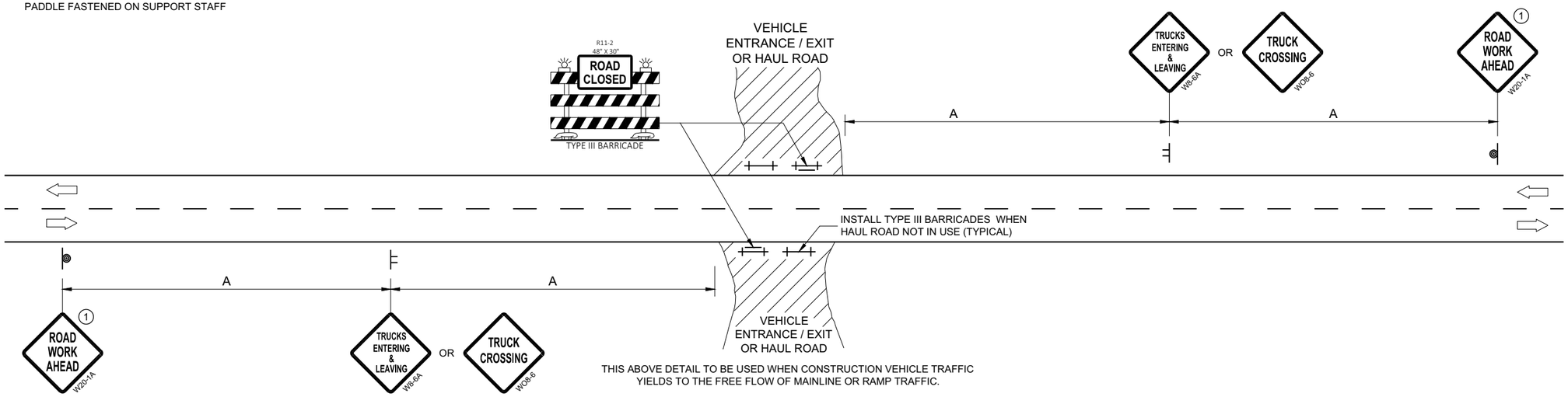
WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

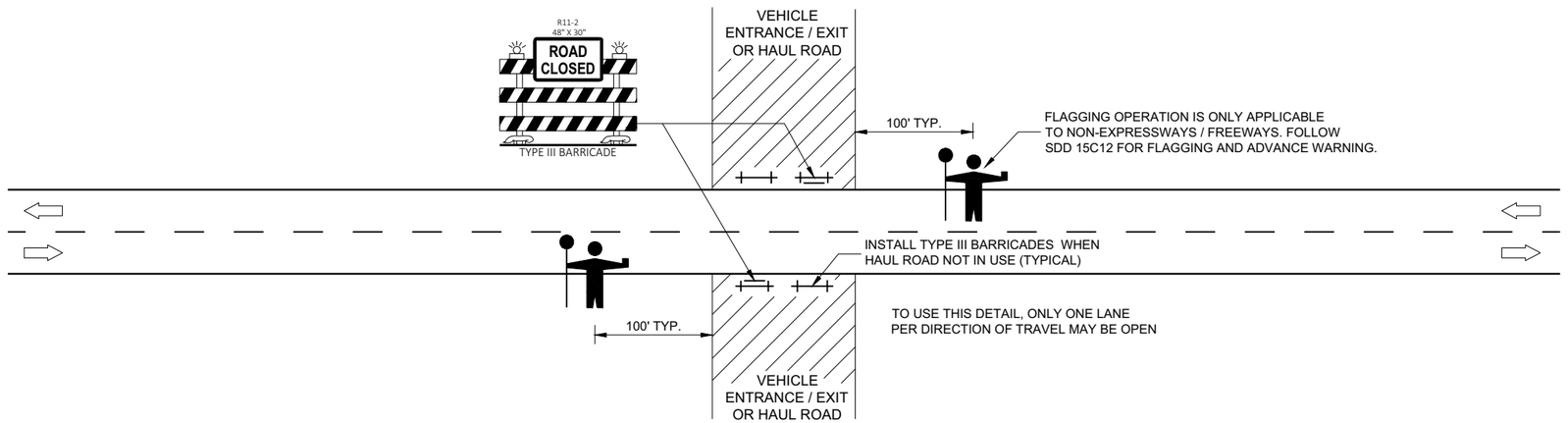
WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

(1) THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.



THIS ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC.



TO USE THIS DETAIL, ONLY ONE LANE PER DIRECTION OF TRAVEL MAY BE OPEN

THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

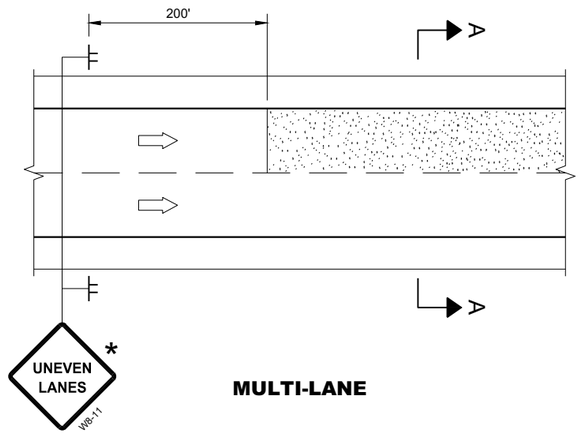
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

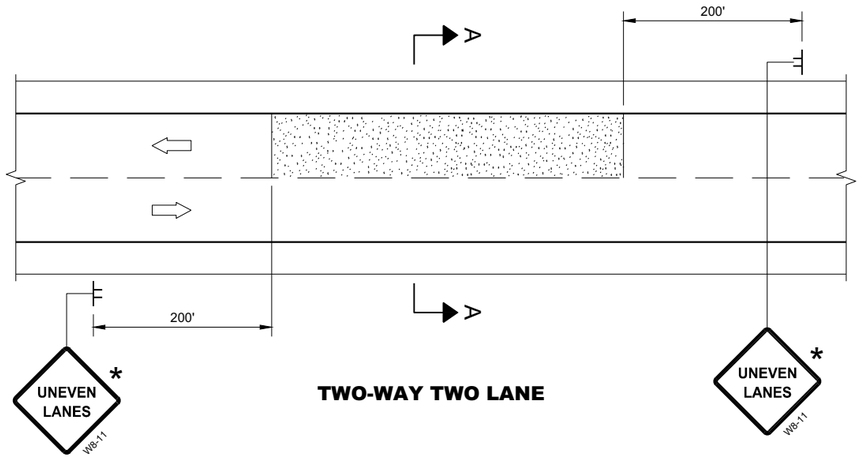
FHWA

6

SDD 15D29 - 06



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

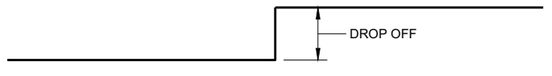
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

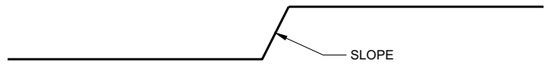
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

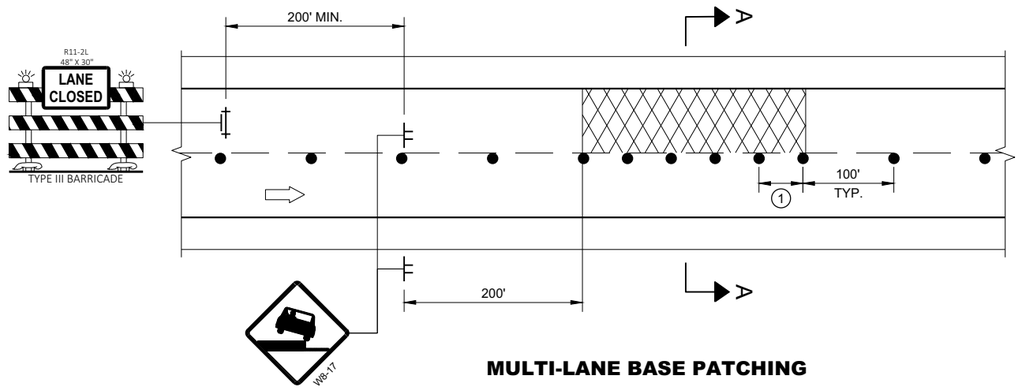


SECTION A - A

OR

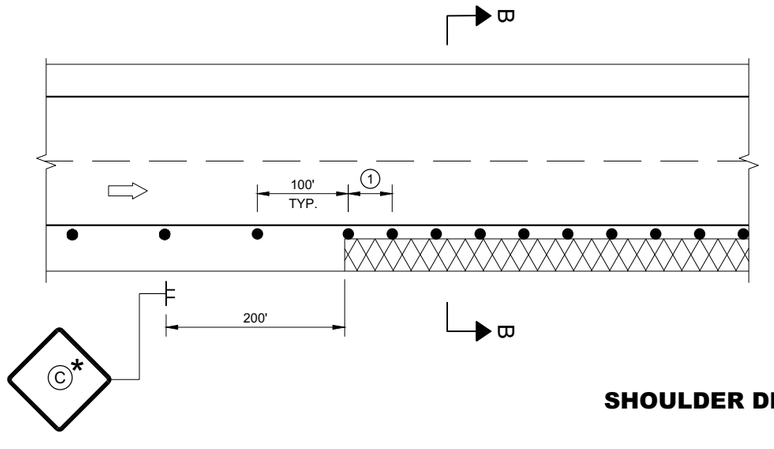


SECTION A - A

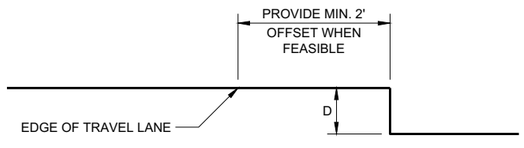


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK AREA

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'

LEGEND

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

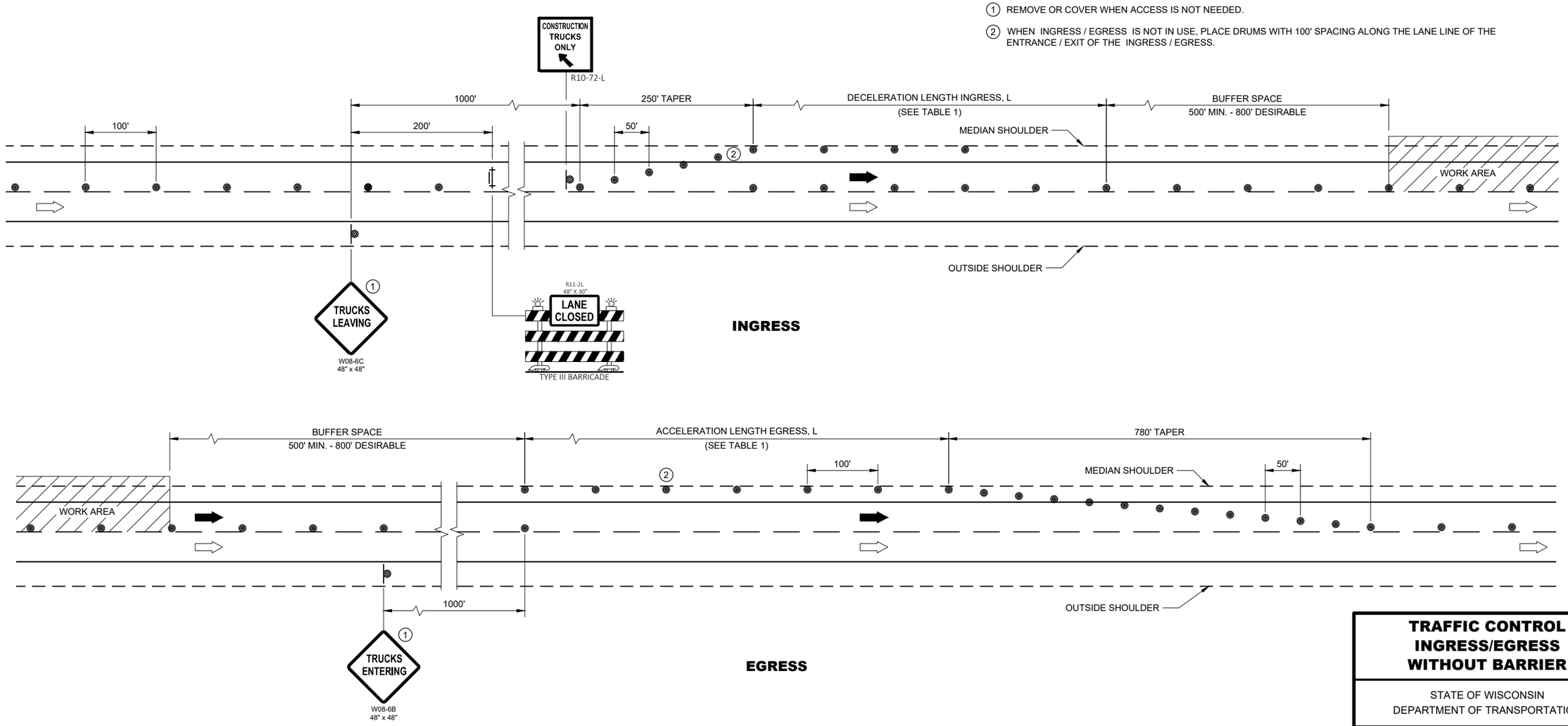
THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

(1) REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

(2) WHEN INGRESS / EGRESS IS NOT IN USE, PLACE DRUMS WITH 100' SPACING ALONG THE LANE LINE OF THE ENTRANCE / EXIT OF THE INGRESS / EGRESS.



TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D47-03b

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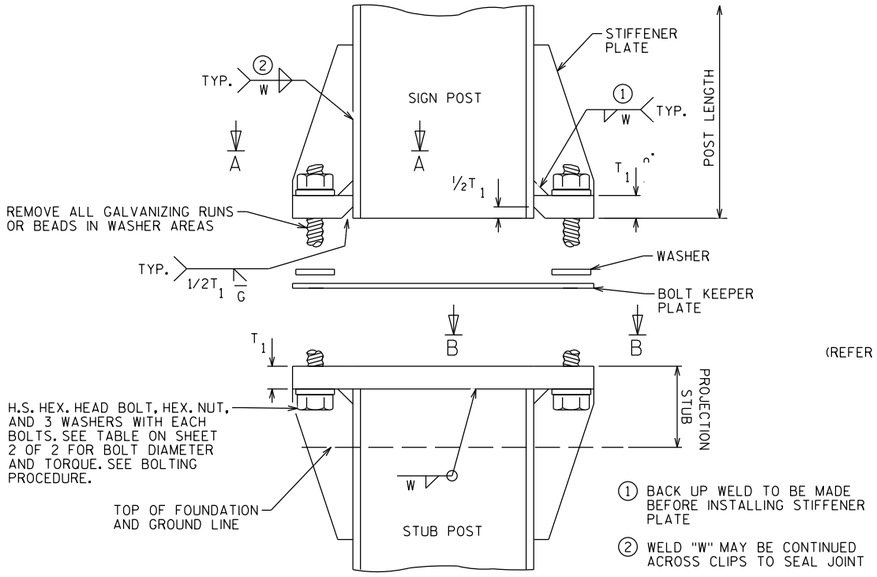
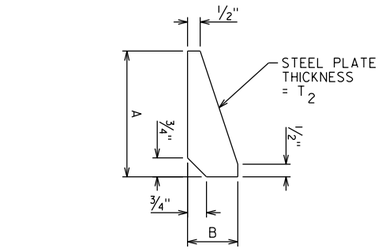
SDD 15D47-03b

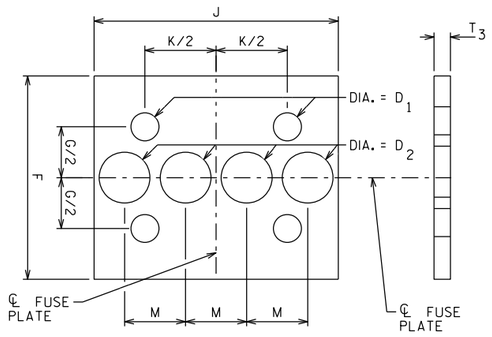


SIGN POST & STUB POST ELEVATION



STIFFENER PLATE DETAIL

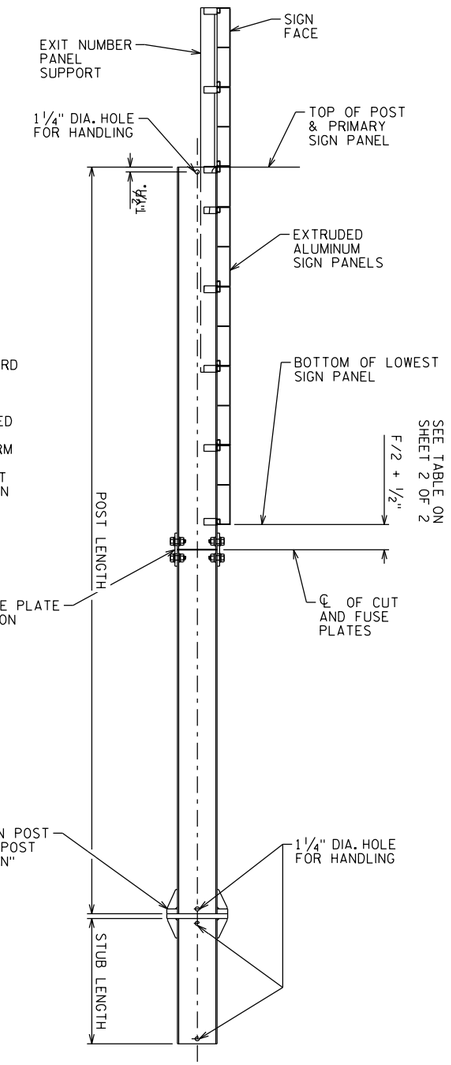
(REFER TO TABLE ON SHEET 2 OF 2 FOR DIMENSIONS)



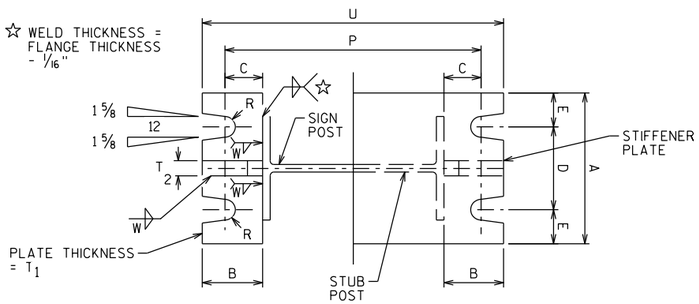
PERFORATED FUSE PLATE DETAIL

USE H.S. HEX HEAD BOLTS, HEX HEAD NUT AND FLAT WASHER UNDER NUT. INSTALL BOLTS PER THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION SECTION 506.3.12.3.

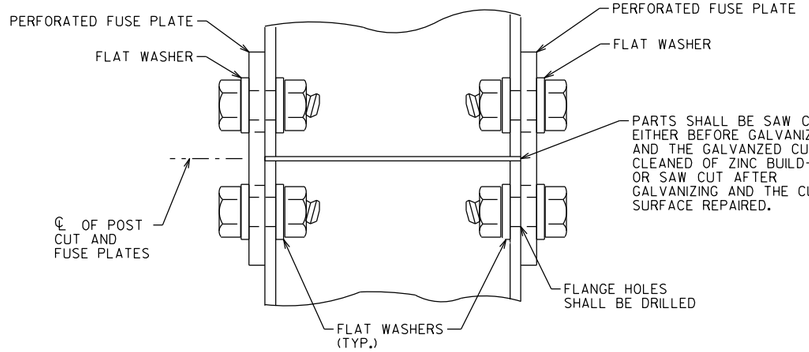
ALL HOLES SHALL BE DRILLED, SUB-PUNCHED AND REAMED. ALL PLATE CUTS SHALL PREFERABLY BE SAW CUTS. HOWEVER, FLAME CUTTING WILL BE PERMITTED PROVIDED ALL EDGES ARE GROUND. METAL PROJECTING BEYOND THE PLANE OF THE PLATE FACE WILL NOT BE PERMITTED. STEEL FUSE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36. ASTM A572 GRADE 50 OR ASTM A588 MAY BE SUBSTITUTED FOR A36 AT THE OPTION OF THE FABRICATOR. MILL TEST REPORTS SHALL BE SUBMITTED FOR FUSE PLATES. STEEL USED SHALL HAVE AN ULTIMATE TENSILE STRENGTH NOT TO EXCEED 80 KSI.



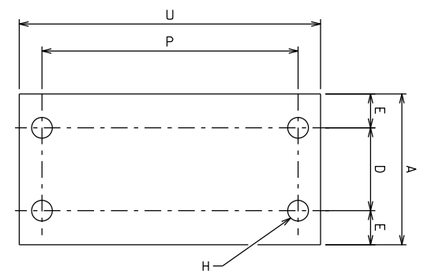
POST DETAIL



SECTION A-A SECTION B-B



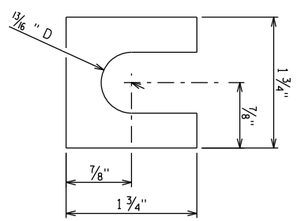
FUSE PLATE CONNECTION DETAIL



H = BOLT DIA. + 1/8"

BOLT KEEPER PLATE DETAIL

30 GA GALVANIZED SHEET STEEL



SHIM DETAIL

FURNISH TWO .012"± THICK AND TWO .032"± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO ASTM B36.

BOLTING PROCEDURE FOR BASE CONNECTION

1. ASSEMBLE SIGN POST, BOLT KEEPER PLATE, AND STUB POST WITH BOLTS AND THREE FLAT WASHERS PER BOLT AS SHOWN.
2. SHIM AS REQUIRED TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING, LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH A 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS.
5. LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PERSCRIBED TORQUE. (SEE TABLE FOR PERSCRIBED TORQUE). DO NOT OVER-TIGHTEN.
6. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

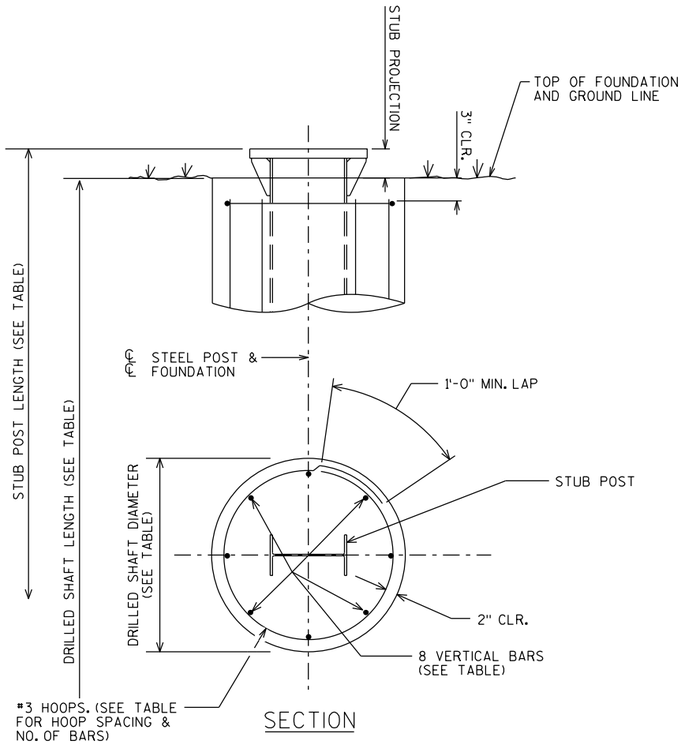
CONNECTION & FOUNDATION DETAILS 1 OF 2

SHEET A3-1.20

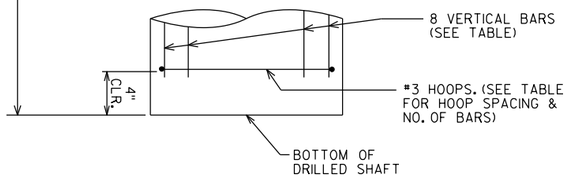
286

7

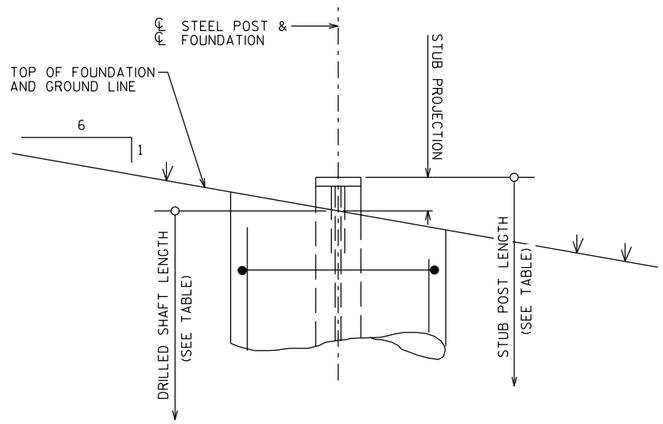
7



SECTION



FOUNDATION DETAIL



SHAFT PLACEMENT

FOUNDATION DATA TABLE

POST SHAPE	STUB LENGTH	STUB PROJECTION	DRILLED SHAFT DIAMETER	DRILLED SHAFT LENGTH	VERTICAL BARS		HOOPS		CONCRETE VOLUME ◆	TOTAL REINF. WEIGHT ◆
					SIZE	LENGTH	MAX SPA.	NO.		
W6X15	2'-6"	3"	24"	6'-6"	#5	5'-11"	10"	9	0.8 CY	71 LB
W8X18	2'-6"	3"	24"	7'-6"	#6	6'-11"	12"	8	0.9 CY	102 LB
W8X21	3'-0"	2½"	24"	8'-0"	#6	7'-5"	12"	9	1.0 CY	110 LB
W10X22	3'-0"	2½"	24"	8'-6"	#7	7'-11"	12"	9	1.0 CY	151 LB
W12X26	3'-0"	2½"	24"	10'-0"	#7	9'-5"	12"	11	1.2 CY	180 LB

◆ QUANTITIES SHOWN ARE FOR ONE DRILLED SHAFT

BASE CONNECTION & FUSE PLATE DATA TABLE

POST SHAPE	WEIGHT PER FOOT	BASE CONNECTION DATA: BOLT SIZE & TORQUE	A	B	C	D	E	T1	T2	W	R	BOLT KEEPER PLATE DATA: P	U	PERFORATED FUSE PLATE DATA: F	G	J	K	M	D1	D2	T3	BOLT DIA.	WGT. EA. LBS	BOLT LENGTH	V ◪
W6X15	15 LB	5/8" DIA. X 4" 36 TO 38 FT-LB	5"	2"	1¼"	2¾"	1⅛"	1¼"	½"	¼"	11/32"	8½"	10"	5"	2½"	6"	3½"	1½"	11/16"	1¼"	⅜"	⅝"	2.4	2	73.0 LB
W8X18	18 LB											10⅝"	12⅛"	5"	2½"	5¼"	2¾"	1¼"	11/16"	1 1/16"	⅜"	⅝"	2.0	2	83.0 LB
W8X21	21 LB	¾" DIA. X 4¾" 62 TO 63 FT-LB	6"	2¼"	1⅜"	3½"	1¼"	1½"	¾"	5/16"	13/32"	11"	12¾"	5½"	2½"	5¼"	2¾"	1¼"	13/16"	1"	½"	¾"	3.1	2¼"	124.0 LB
W10X22	22 LB											12⅞"	14⅝"	6"	3"	5¾"	2¾"	1⅜"	13/16"	1⅛"	½"	¾"	3.9	2¼"	134.0 LB
W12X26	26 LB											15"	16¾"	6"	3"	6½"	3½"	1⅝"	13/16"	1 5/16"	½"	¾"	4.5	2¼"	152.0 LB

◪ TOTAL STRUCTURAL CARBON STEEL WEIGHT FOR ONE POST = V + (POST LENGTH X POST WEIGHT PER FOOT)

"V" INCLUDES STUB POST, BASE PLATES, STIFFENER PLATES, PERFORATED FUSE PLATES, BOLTS, NUTS, AND WASHERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

MATERIALS SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506, UNLESS NOTED OTHERWISE.

FABRICATION SHALL CONFORM TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 506.

ALL POST, POST STUBS & ATTACHMENTS SHALL BE ASTM A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123.

THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST, FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.

H.S. BOLTS, WASHERS, & NUTS SHALL BE A325 GALVANIZED.

FOUNDATION MATERIAL PROPERTIES

CONCRETE MASONRY	F'C = 3,500 P.S.I.
BAR STEEL REINFORCEMENT (UNCOATED), GRADE 60	FY = 60,000 P.S.I.

DESIGN DATA

DESIGN CONFORMS TO AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 1ST EDITION 2015 (WITH 2017 & 2018 INTERIM REVISIONS).

DEAD LOADS (DL):

- STEEL POST SELF WEIGHT
- SIGN PANEL WEIGHT = 3 PSF

WIND LOADS (WL):

WIND LOADS WERE APPLIED TO THE PROJECTED AREAS OF THE SIGN PANELS AND THE STEEL SIGN POSTS.

- BASIC WIND SPEED = 76 MPH
- MEAN RECURRANCE INTERVAL (MRI) = 10 YEARS
- HEIGHT & EXPOSURE FACTOR = 1.00
- DIRECTIONALITY FACTOR = 0.85
- GUST EFFECT FACTOR = 1.14

WIND LOAD CASES:

- WL CASE 1: 1.0 X NORMAL WIND
- WL CASE 2: 1.0 X TRANSVERSE WIND
- WL CASE 3: 0.75 X NORMAL WIND + 0.75 X TRANSVERSE WIND

LOAD COMBINATIONS:

LOAD COMBINATION	TYPE	DL FACTOR	WL FACTOR
STRENGTH I	GRAVITY	1.25	-
EXTREME I	WIND	1.10	1.0
		0.9	1.0
SERVICE I	DEFLECTION	1.0	1.0

FOUNDATION DESIGN DATA

THE FOUNDATION DESIGN ASSUMED COHESIONLESS SOILS (LOOSE SAND) ABOVE THE WATER TABLE WITH THE FOLLOWING PROPERTIES:

- SOIL UNIT WEIGHT = 115 PCF
- ANGLE OF INTERNAL FRICTION = 24 DEGREES
- SOIL MODULUS PARAMETER = 25 LB/IN3

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY | PLANS CK'D.

CONNECTION & FOUNDATION DETAILS 2 OF 2

SHEET A3-1.20

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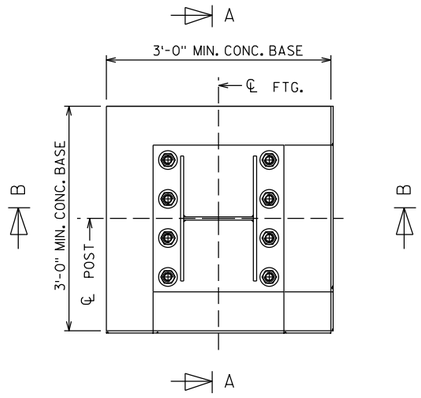
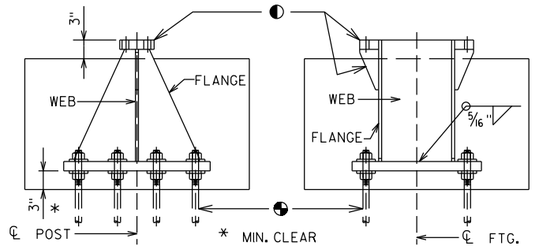
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 3-MAR-2020 PLOT BY : dotc4c

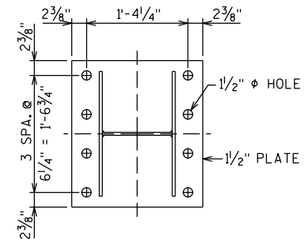
STUB AND ADHESIVE ANCHOR DETAILS



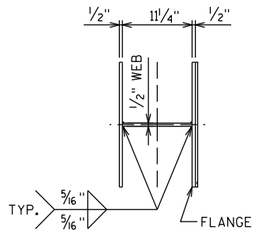
STUB SECTION



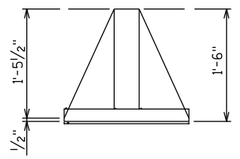
SECTION A-A SECTION B-B



BASE PLATE



STUB



FLANGE

◐ SEE BASE CONNECTION DETAILS ON "CONNECTIONS & FOUNDATION DETAILS" SHEETS.

◔ ADHESIVE ANCHORS 1¼-INCHES. ALLOWABLE PULL OUT CAPACITY = 15 KIPS. EMBED 1'-3" INTO ROCK.

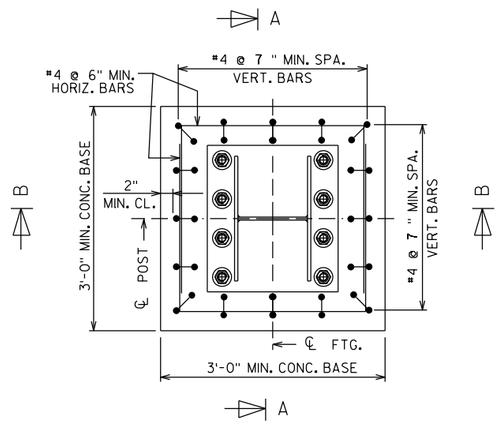
GENERAL NOTES:

QUANTITIES PER BASE:
REINFORCING STEEL = 62 LB
CONCRETE = 0.6 CY
STRUCTURAL STEEL = 335 LB

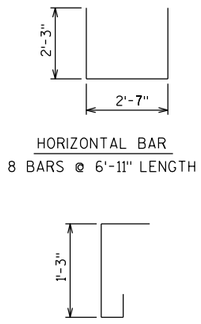
ALL MATERIALS, EXCEPT FOR ANCHOR ROD, NUTS, AND WASHERS, SHALL BE ASTM A709 GRADE 50. ALL MATERIALS TO BE GALVANIZED AFTER FABRICATION.

IF ROCK IS ENCOUNTERED PRIOR TO REACHING THE MINIMUM DRILLED SHAFT EMBEDMENT DEPTH DEFINED ON THE FOUNDATION DATA TABLE OF THE "CONNECTIONS & FOUNDATION DETAILS 2 OF 2" SHEET, THE CONTRACTOR SHALL INSTALL A TEST ADHESIVE ANCHOR AND DETERMINE THE PULL-OUT CAPACITY. IF THE FIELD TEST RESULTS IN A PULL-OUT CAPACITY GREATER THAN OR EQUAL TO 15 KIPS, THE CONTRACTOR MAY INSTALL THE ALTERNATE CONCRETE BASE AND BREAK-WAY STUB PER THE DETAILS ON THIS SHEET.

CONCRETE BASE DETAILS

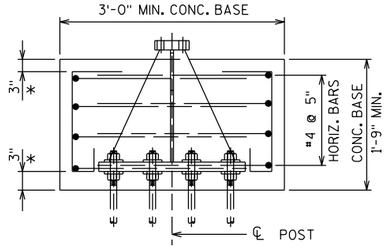


CONCRETE BASE PLAN

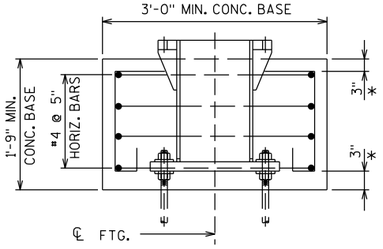


HORIZONTAL BAR
8 BARS @ 6'-11" LENGTH

VERTICAL BARS
16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A-A



SECTION B-B

* MIN. CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

DRAWN BY	PLANS CK'D.

ALTERNATE BREAK-AWAY BASE ON ROCK

SHEET A3-1M.2

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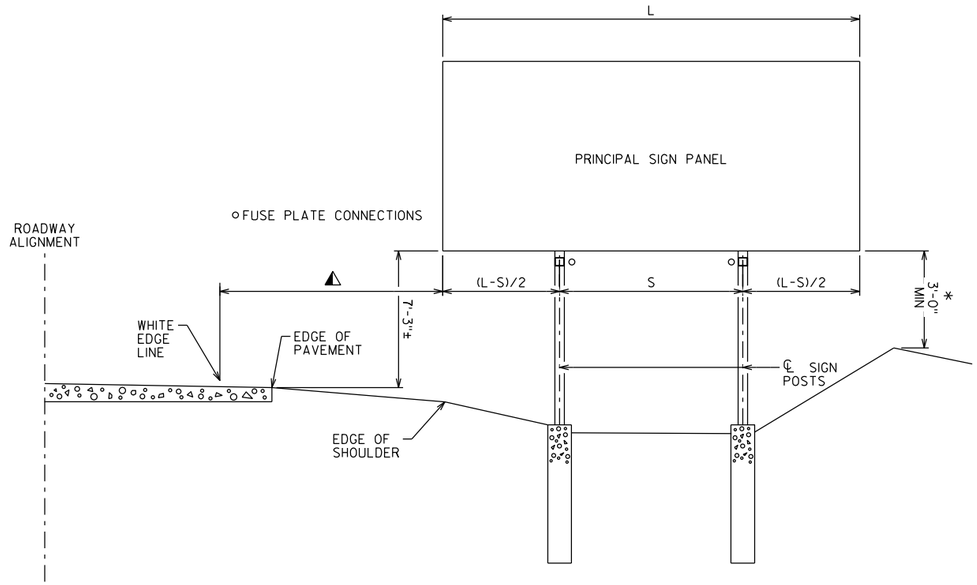
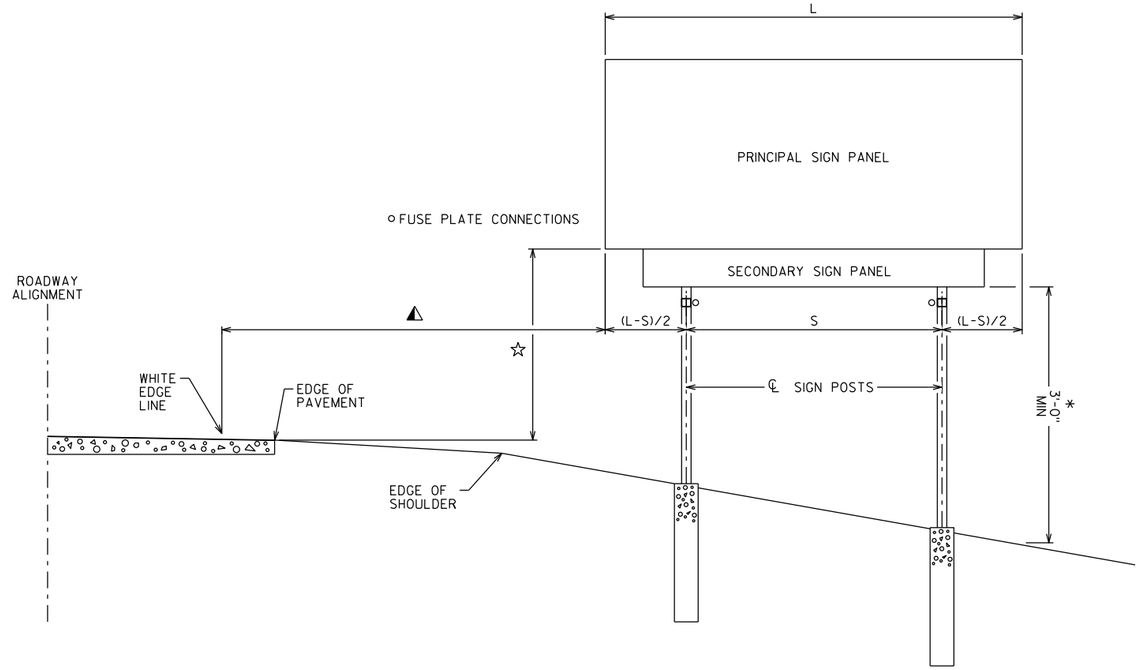


INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

◭ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

WHERE SIGNS ARE MOUNTED BEHIND CRASH WORTHY PROTECTION SUCH AS GUARDRAIL OR BARRIER WALL, THE LATERAL OFFSET MAY BE 4'-6" BEHIND THE GUARDRAIL OR BARRIER WALL.

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

○ FOR 2-POST SIGNS, IF THERE IS A SECONDARY SIGN THAT IS NOT AS WIDE AS THE POSTS, INSTALL FUSE PLATES BENEATH PRINCIPAL SIGN.

FOR SECONDARY SIGNS THAT ARE NOT AS WIDE AS THE EXTERIOR POSTS, SECURE SIGN WITH CHANNEL STEEL AS DESCRIBED IN A4-6.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY
	2/29/24		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

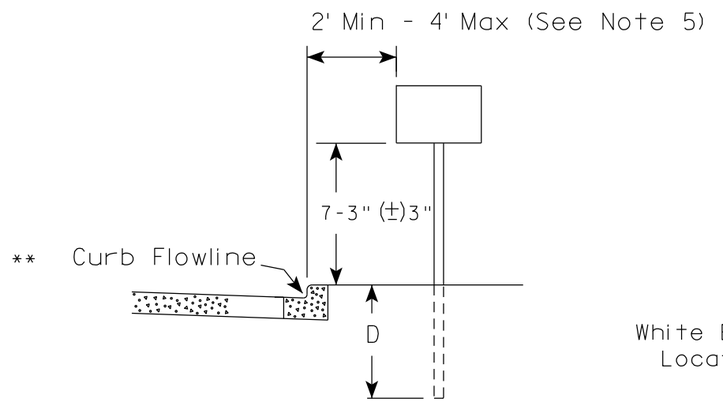
DRAWN BY	PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

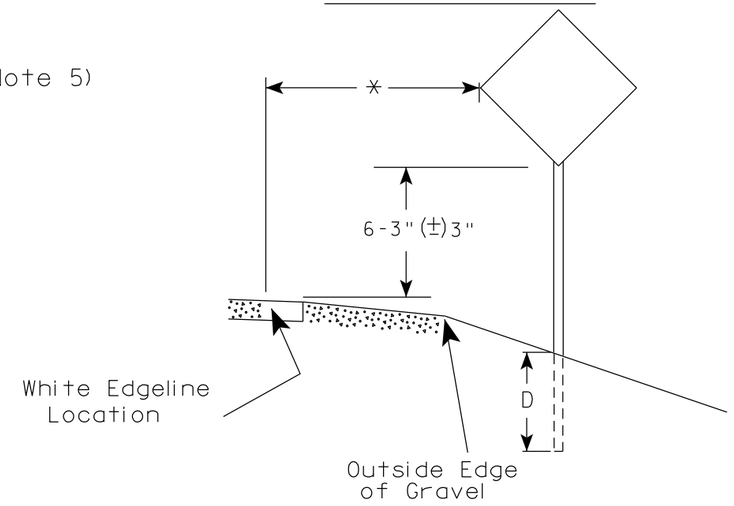
SHEET A4-1.11

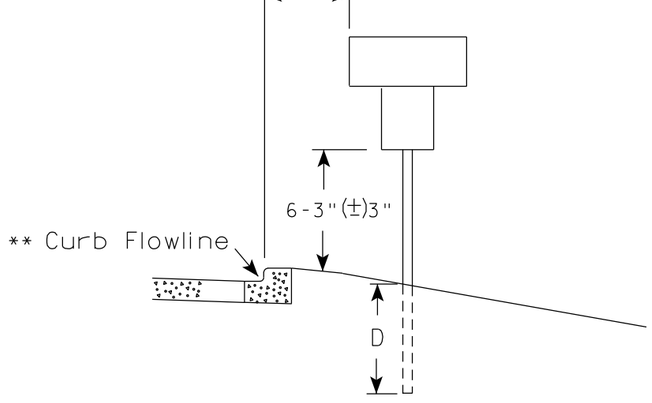
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 289	E

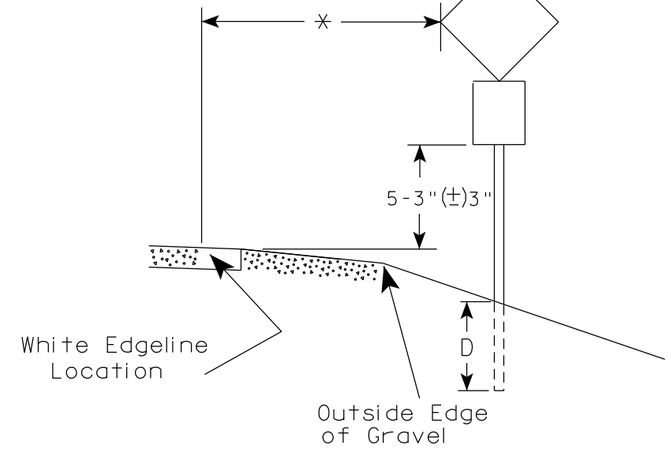
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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.

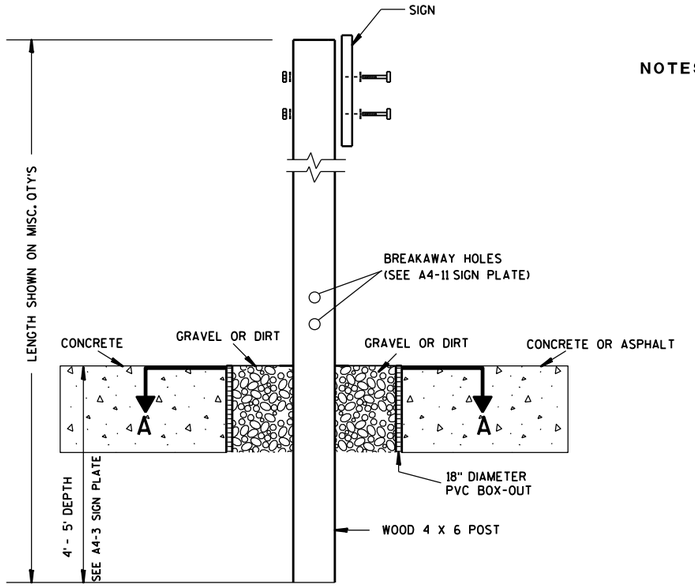
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

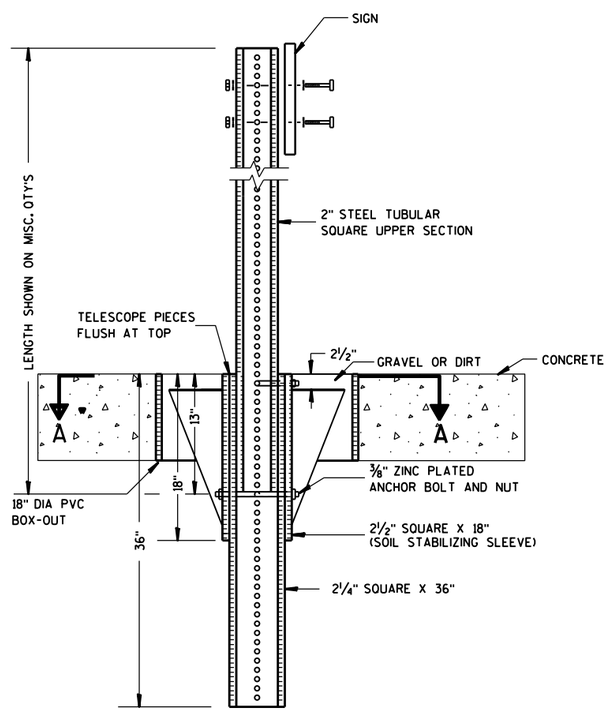
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 290	E



ELEVATION VIEW

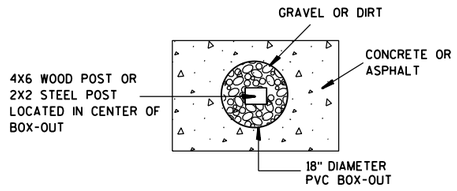
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

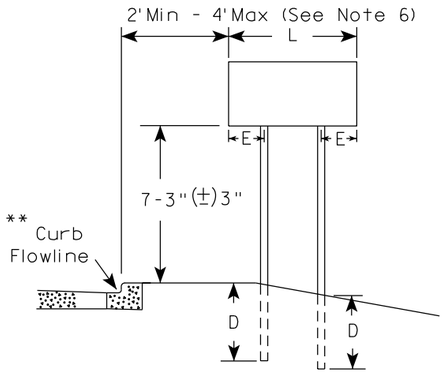
APPROVED Matthew R Rauch
for State Traffic Engineer

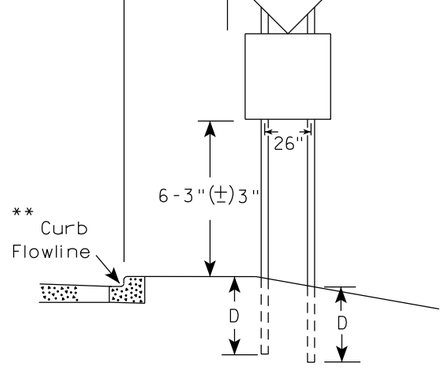
DATE 1/27/14 PLATE NO. A4-3B.1

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

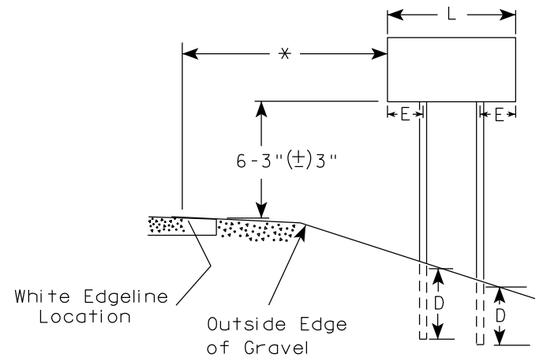
URBAN AREA

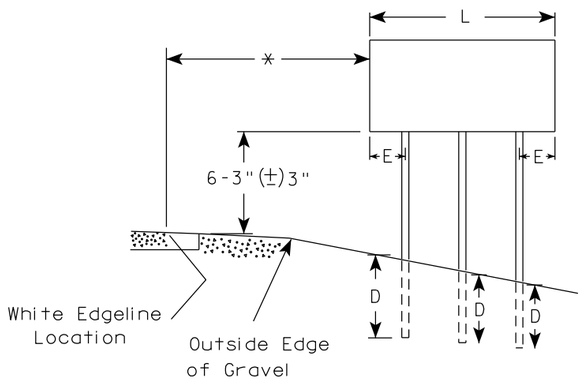


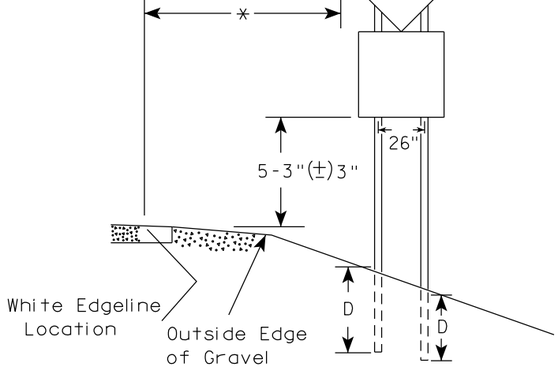


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

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.

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"

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

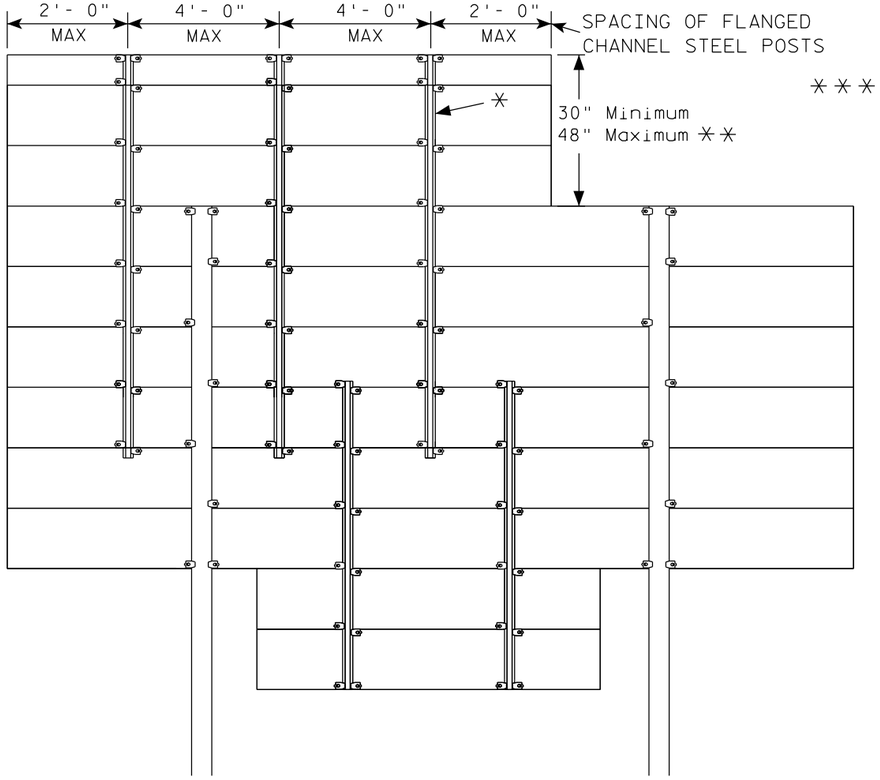
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 292	E

GROUND MOUNTED SIGN



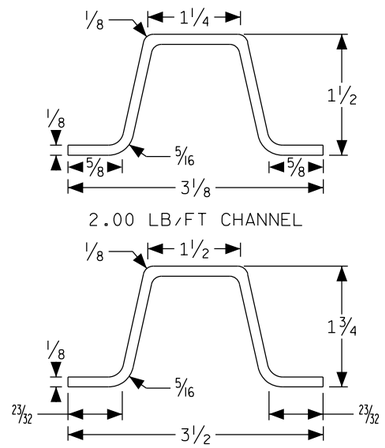
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

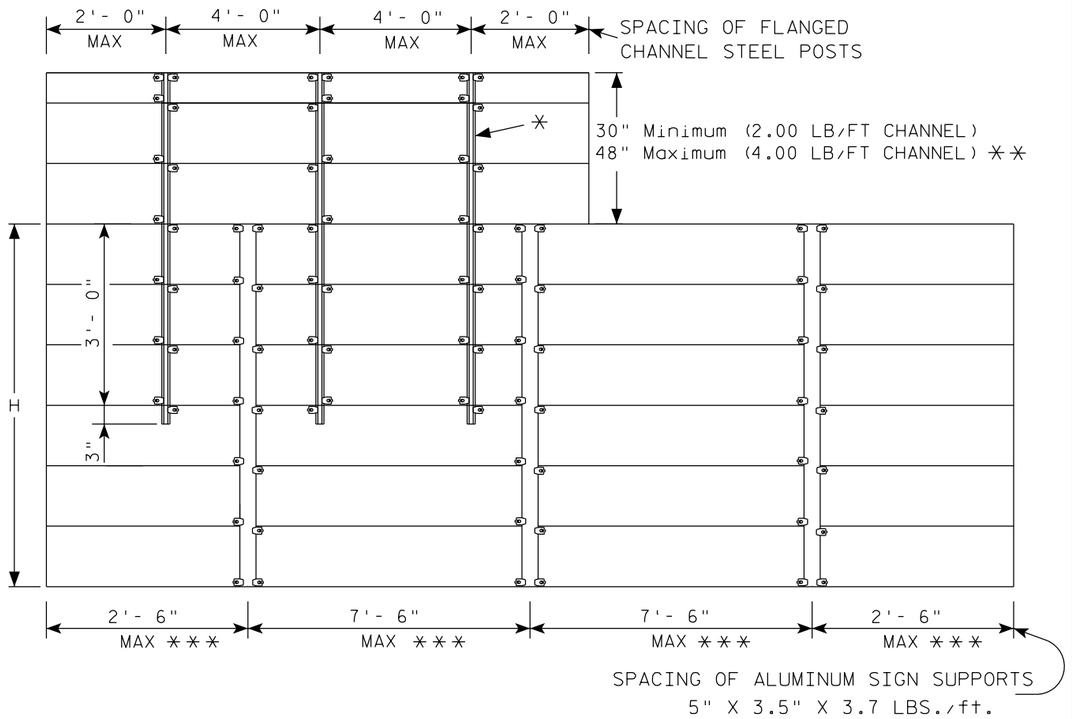
NOT TO SCALE



2.00 LB/FT CHANNEL

4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.

2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.

5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

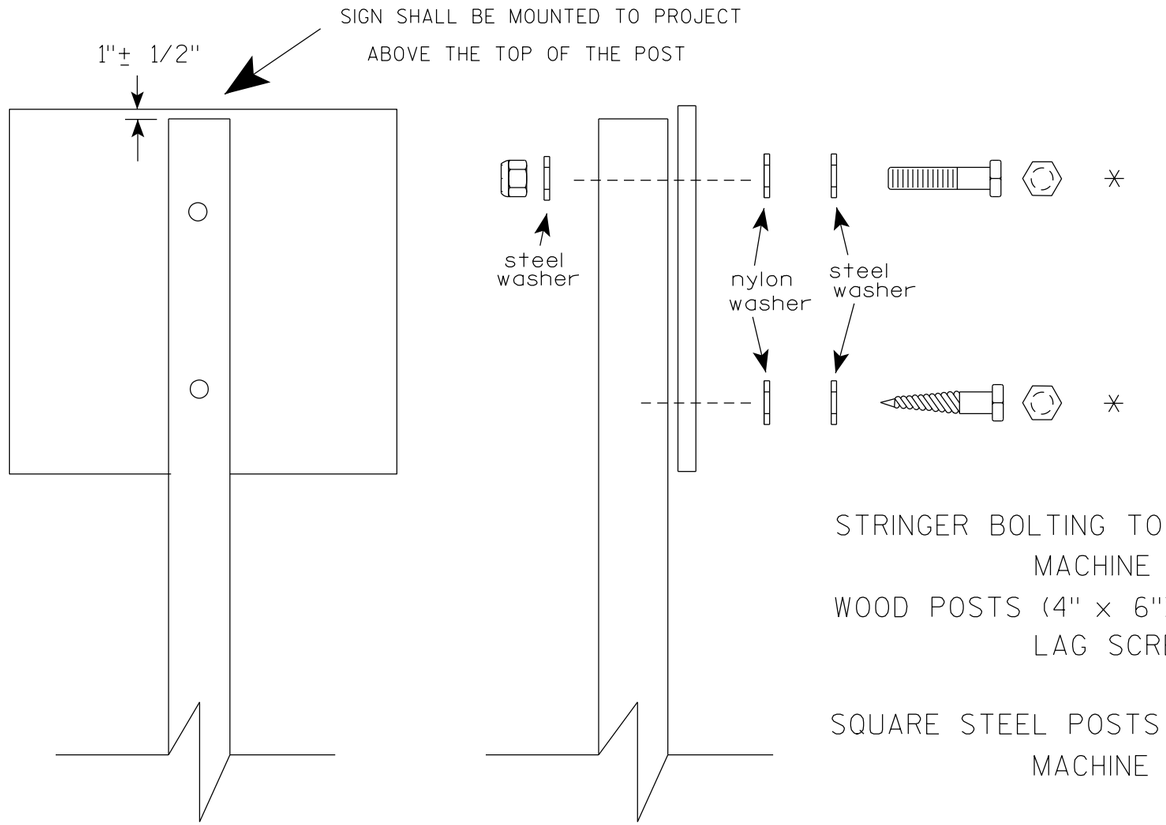
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-6.12



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 294 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

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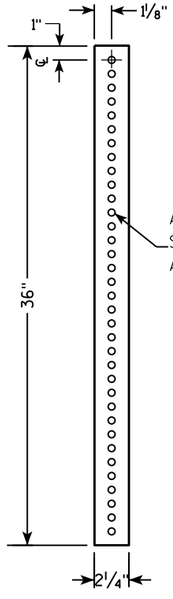
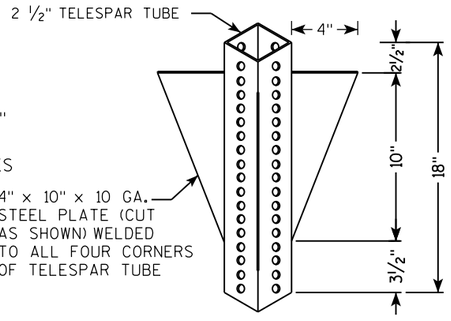
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

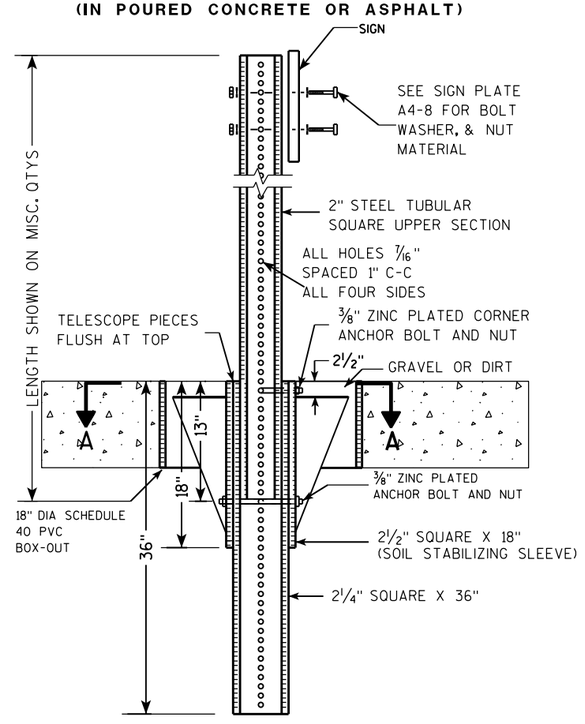
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



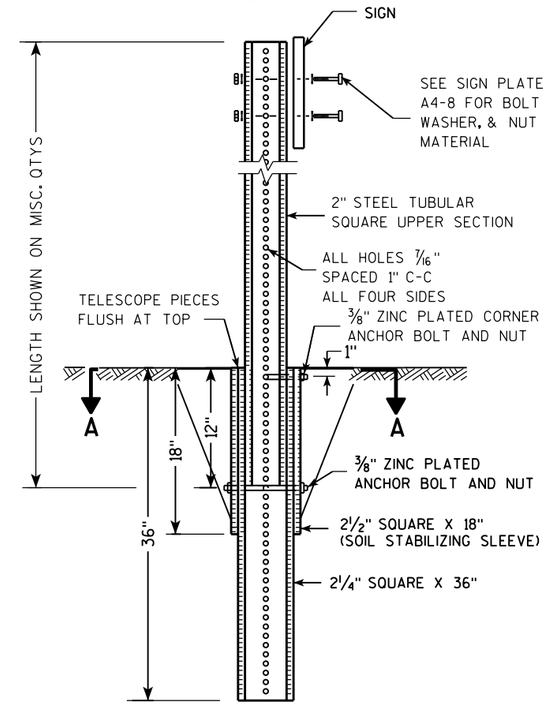
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

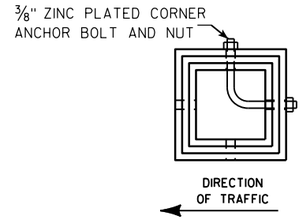


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

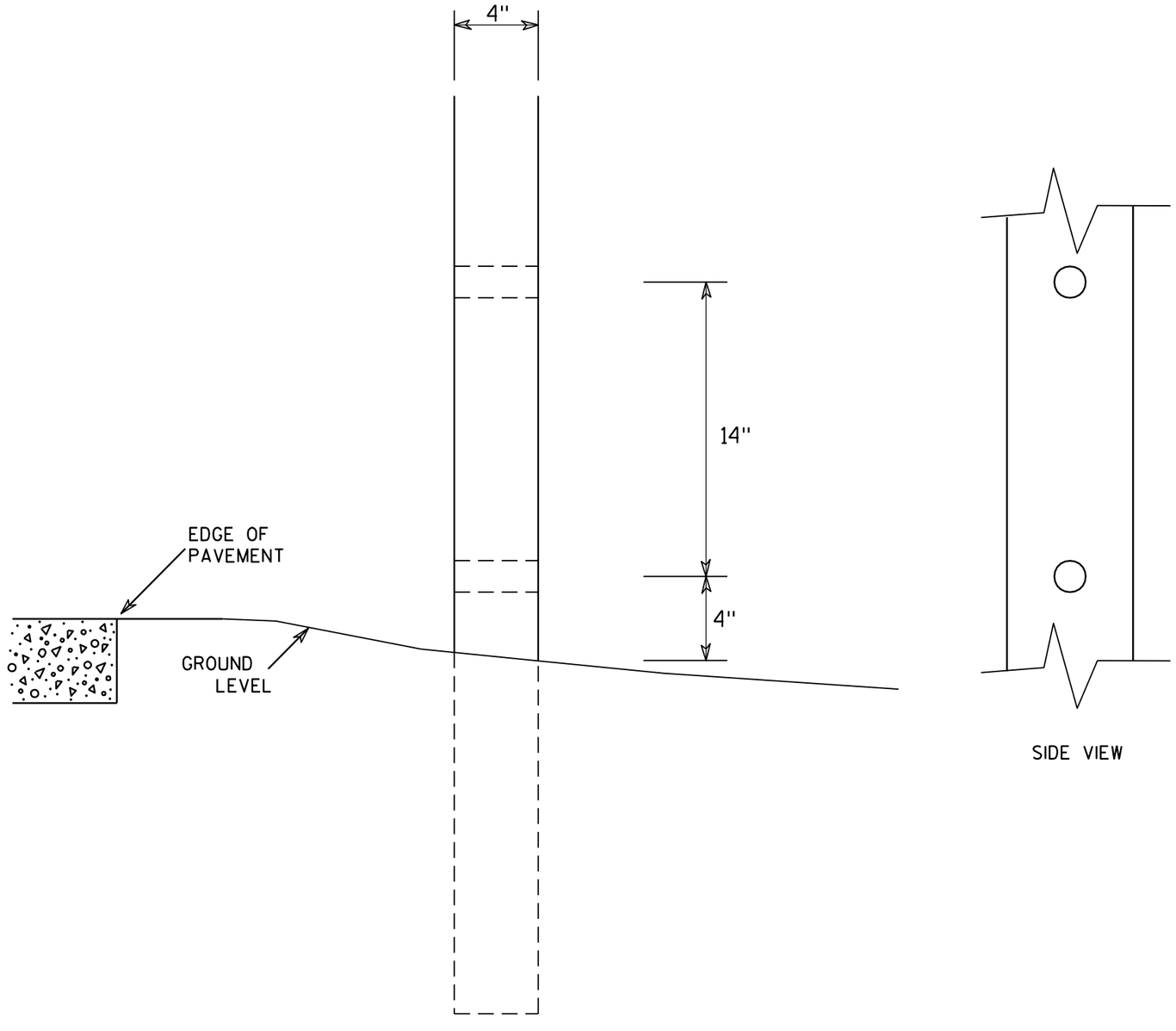
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 295 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

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4 X 6 WOOD POST MODIFICATIONS

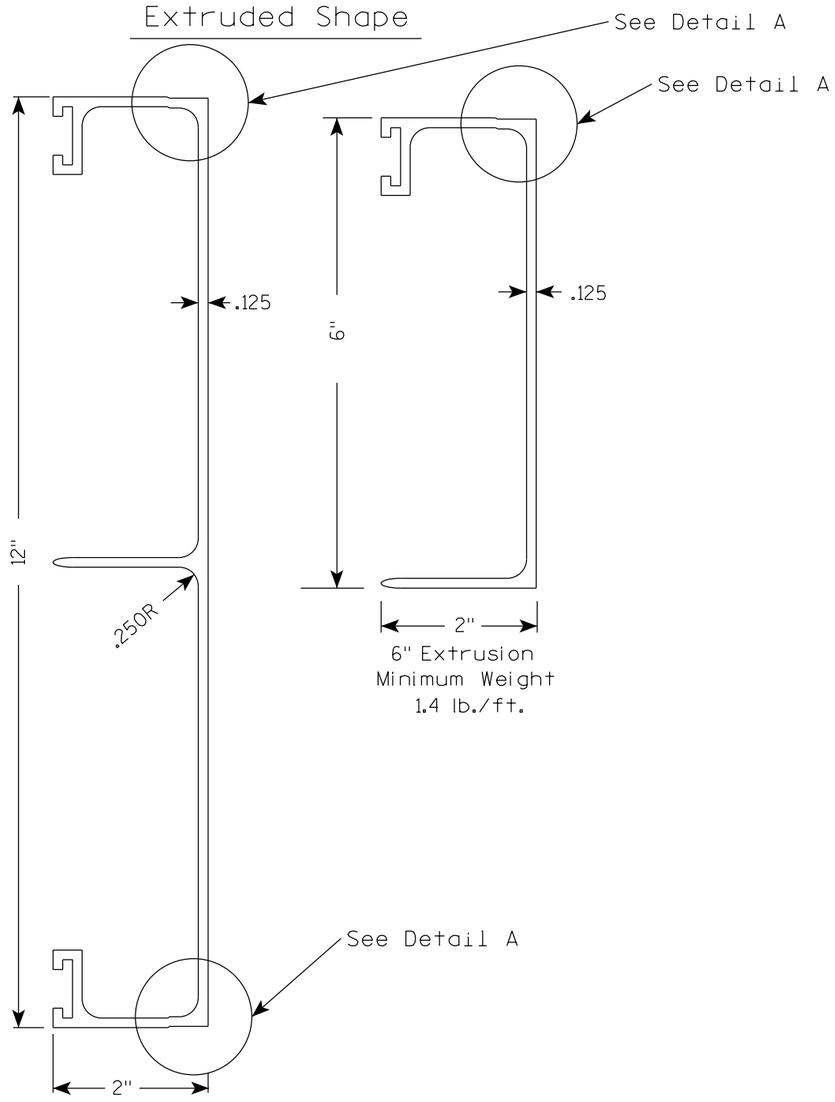
WISCONSIN DEPT OF TRANSPORTATION

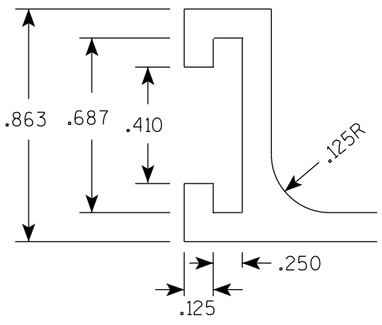
APPROVED Chester J Spang
for State Traffic Engineer

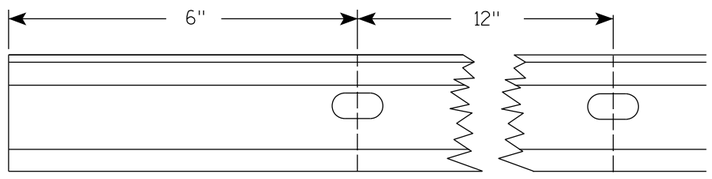
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 296	E

Extruded Shape







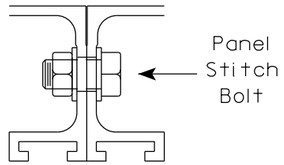
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

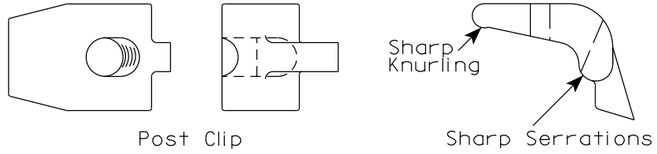
The hardware includes:

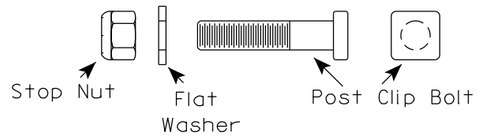
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

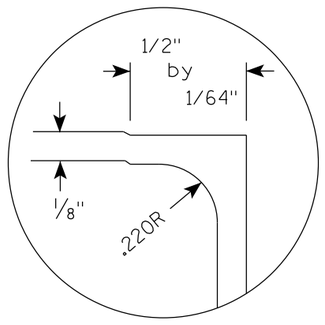
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

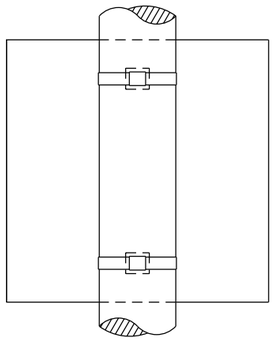
DATE 1/07/20 PLATE NO. A5-2.10

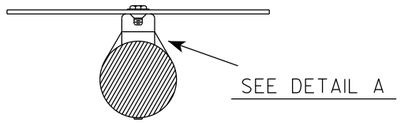
PROJECT NO:

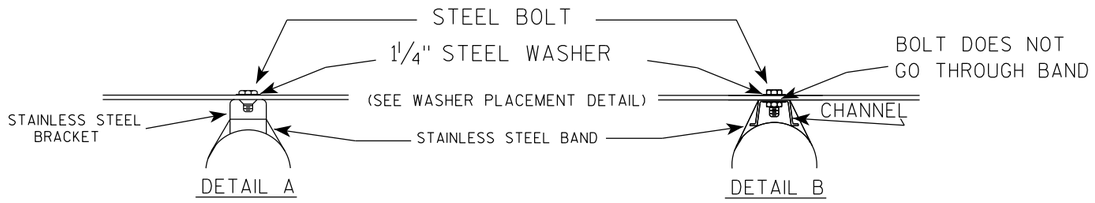
SHEET NO: 297 E

BANDING

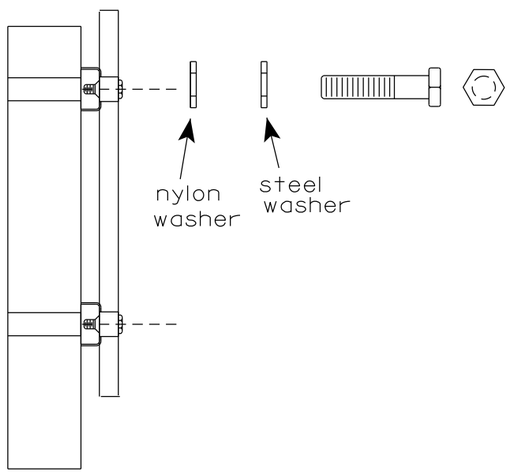
SINGLE SIGN







WASHER PLACEMENT

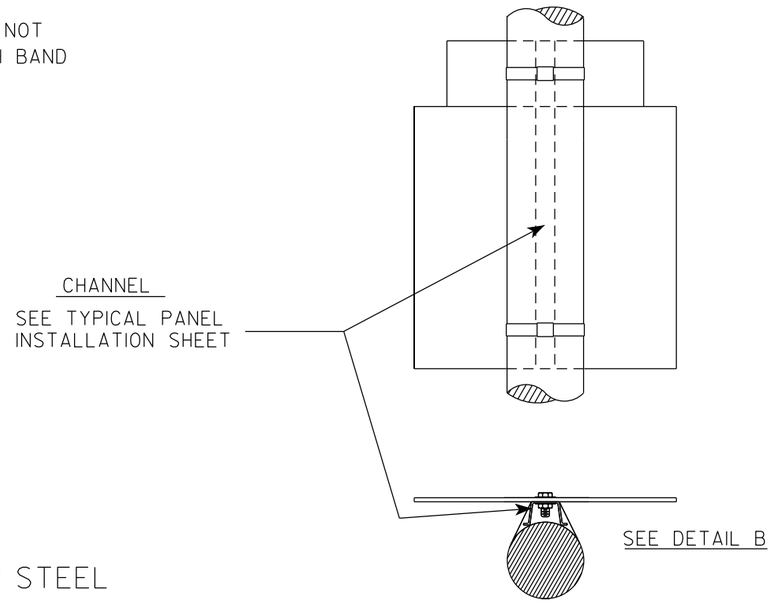


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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



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: 298	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

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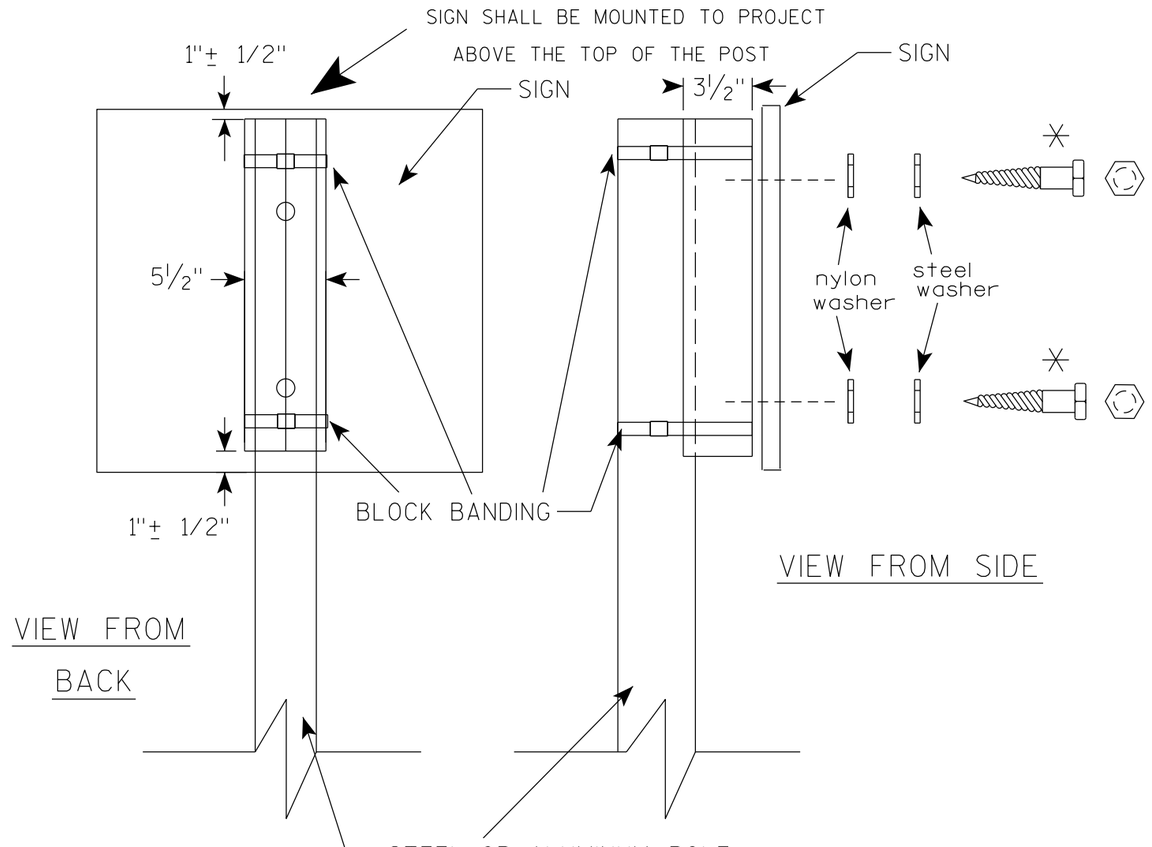
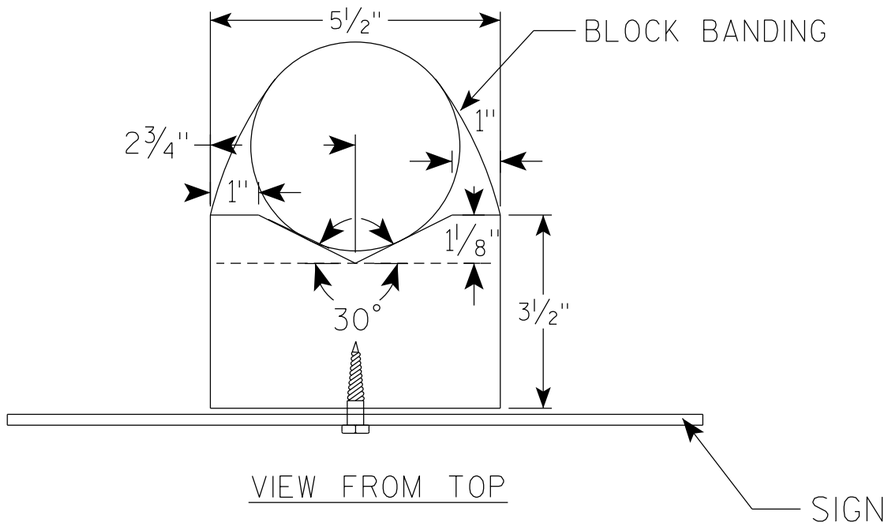




GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

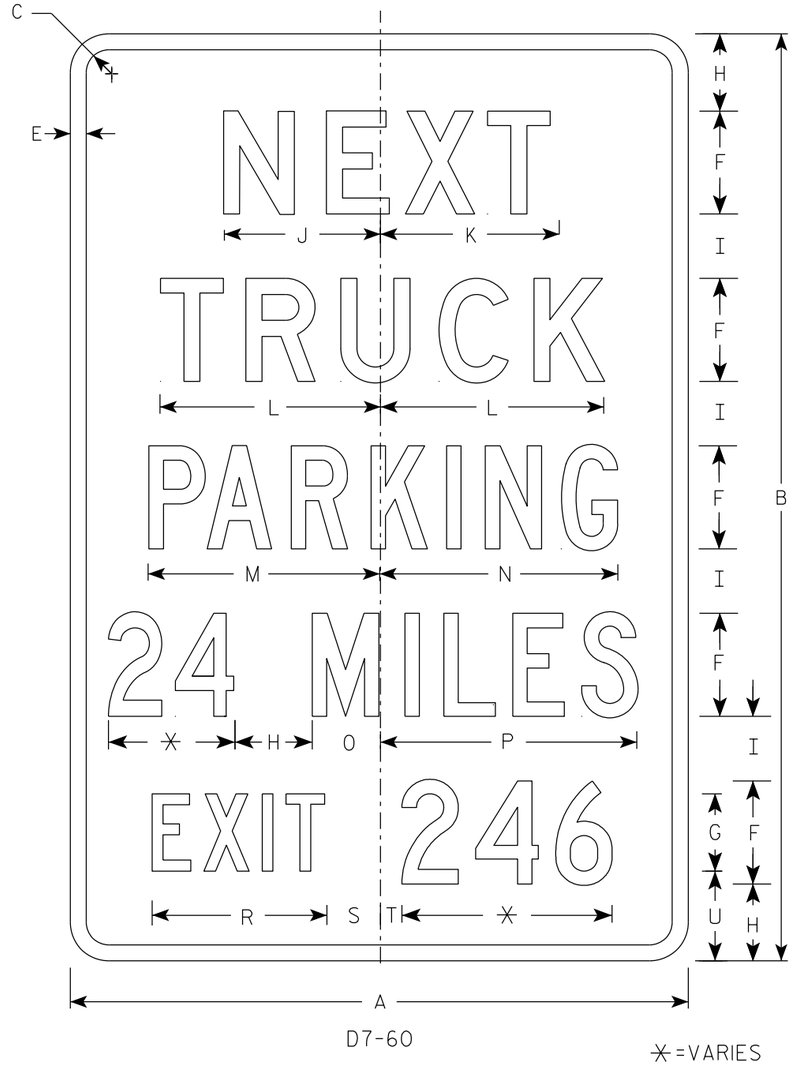
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 299 E



D7-60

✳=VARIES

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - See Note 5
4. Lines 1 & 2 Series D, lines 3, 4, & 5 Series C
5. Line 4 - Apply proper Mileage Number(s) and optically adjust spacing to achieve proper balance
6. Line 5 - Apply proper Exit Numbers and Letters, 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																											
2S	24	36	1 1/2		5/8	4	3	3	2 1/2	6	6 1/2	8 1/2	9	9 1/4	2 5/8	10		6 3/4	2	1	3 1/2						6.0
2M	24	36	1 1/2		5/8	4	3	3	2 1/2	6	6 1/2	8 1/2	9	9 1/4	2 5/8	10		6 3/4	2	1	3 1/2						6.0
3																											
4																											
5																											

STANDARD SIGN
D7-60

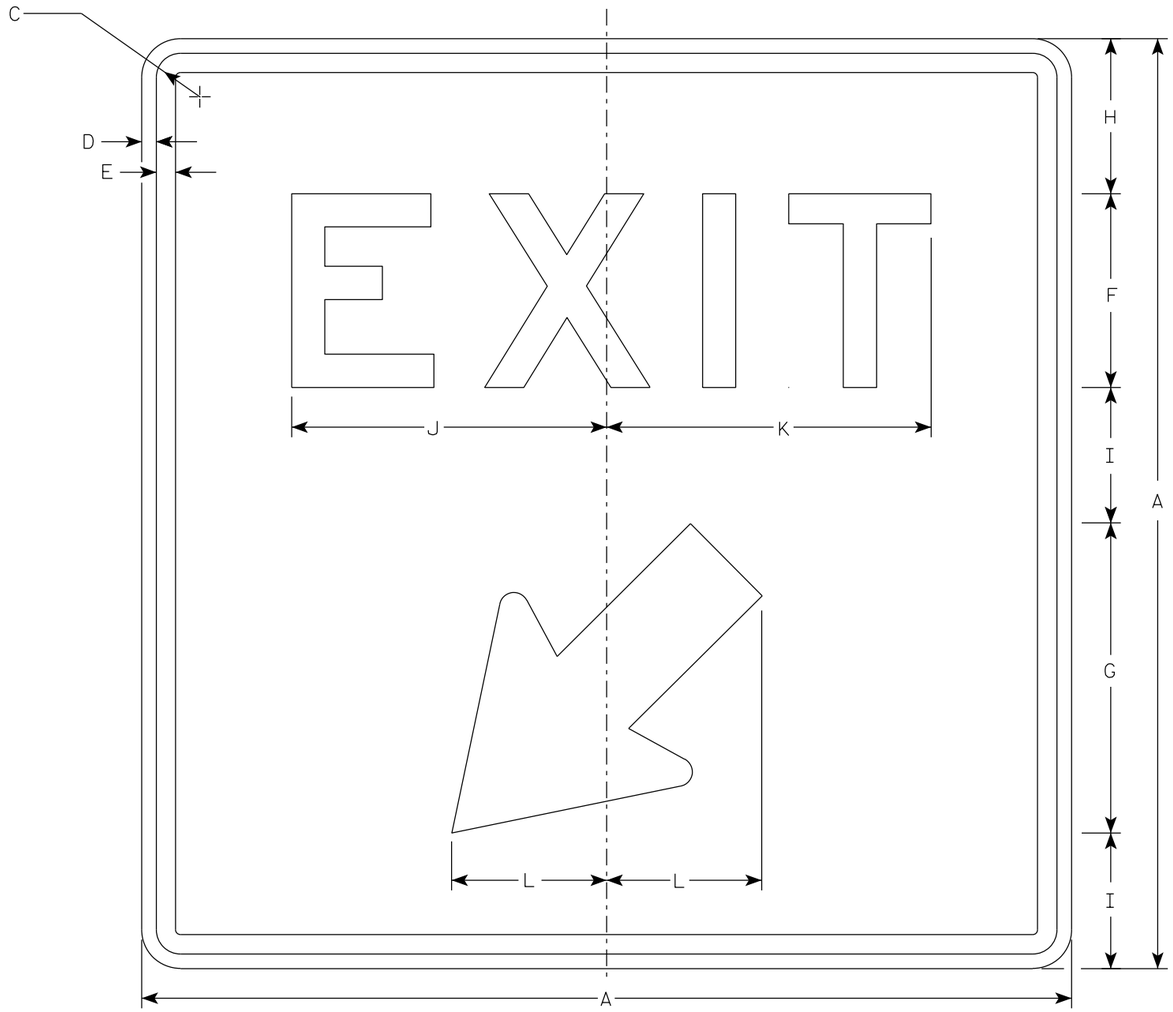
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2023 PLATE NO. D7-60.5

PROJECT NO:

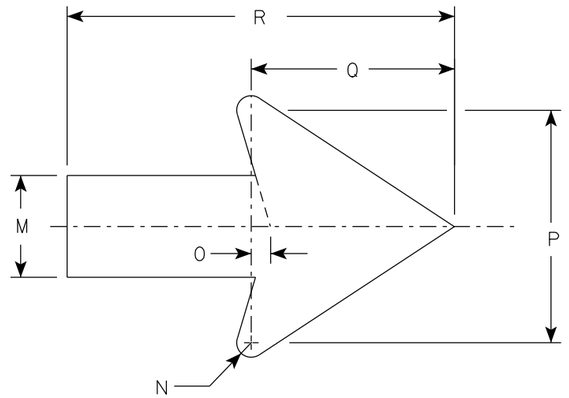
SHEET NO: 300 E



D52-54L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. D52-54R is the same as D52-54L except that the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	5	8	4	3 1/2	8 1/8	8 3/8	4	2 5/8	3/8	1/2	6	5 1/4	10									4.0
2S	24		1 1/2	3/8	1/2	5	8	4	3 1/2	8 1/8	8 3/8	4	2 5/8	3/8	1/2	6	5 1/4	10									4.0
2M	24		1 1/2	3/8	1/2	5	8	4	3 1/2	8 1/8	8 3/8	4	2 5/8	3/8	1/2	6	5 1/4	10									4.0
3																											
4																											
5																											

STANDARD SIGN
D52-54

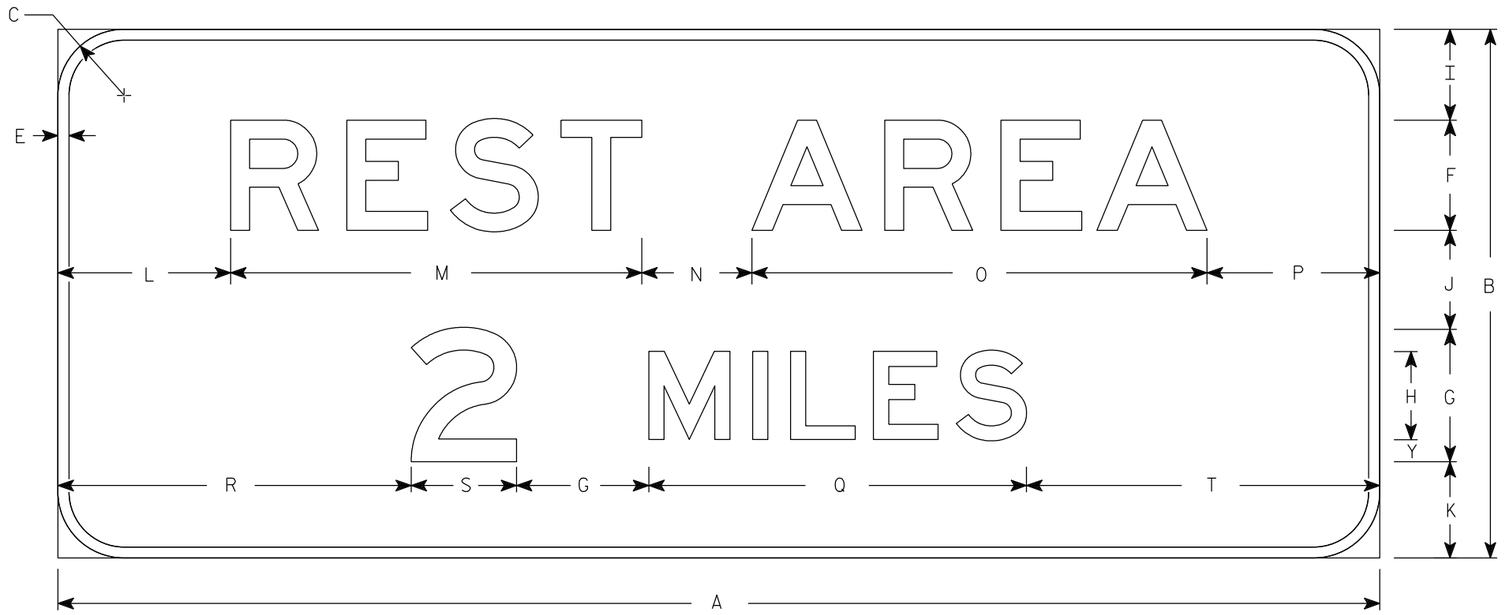
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

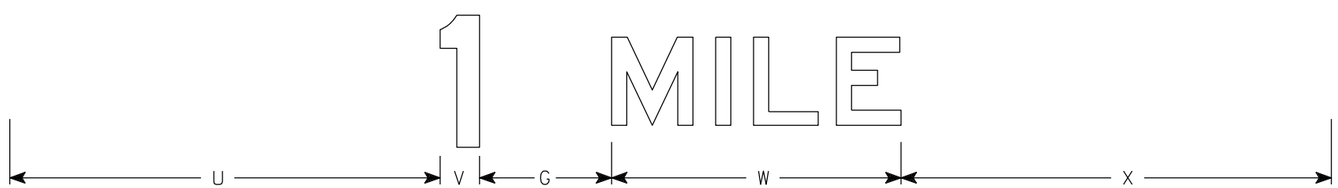
DATE 1/25/2023 PLATE NO. D52-54.9

PROJECT NO:

SHEET NO: 301 E



E5-51



NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Substitute appropriate numeral and 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																											
2																											
3																											
4	120	48	6		1	10	12	8	8 1/4	9	8 3/4	15 5/8	37 3/8	10	41 3/8	15 5/8	34 1/4	32 1/8	9 1/2	32 1/8	39 1/8	3 1/2	26 1/4	39 1/8	2		40.0
5	144	60	6		2	13 1/4	15	10	10 7/8	10	10 7/8	12 7/8	49 3/4	13 3/8	55 1/8	12 7/8	42 7/8	37 1/8	11 7/8	37 1/8	45 7/8	4 3/8	32 7/8	45 7/8	2 1/2		60.0

STANDARD SIGN
E5-51

WISCONSIN DEPT OF TRANSPORTATION

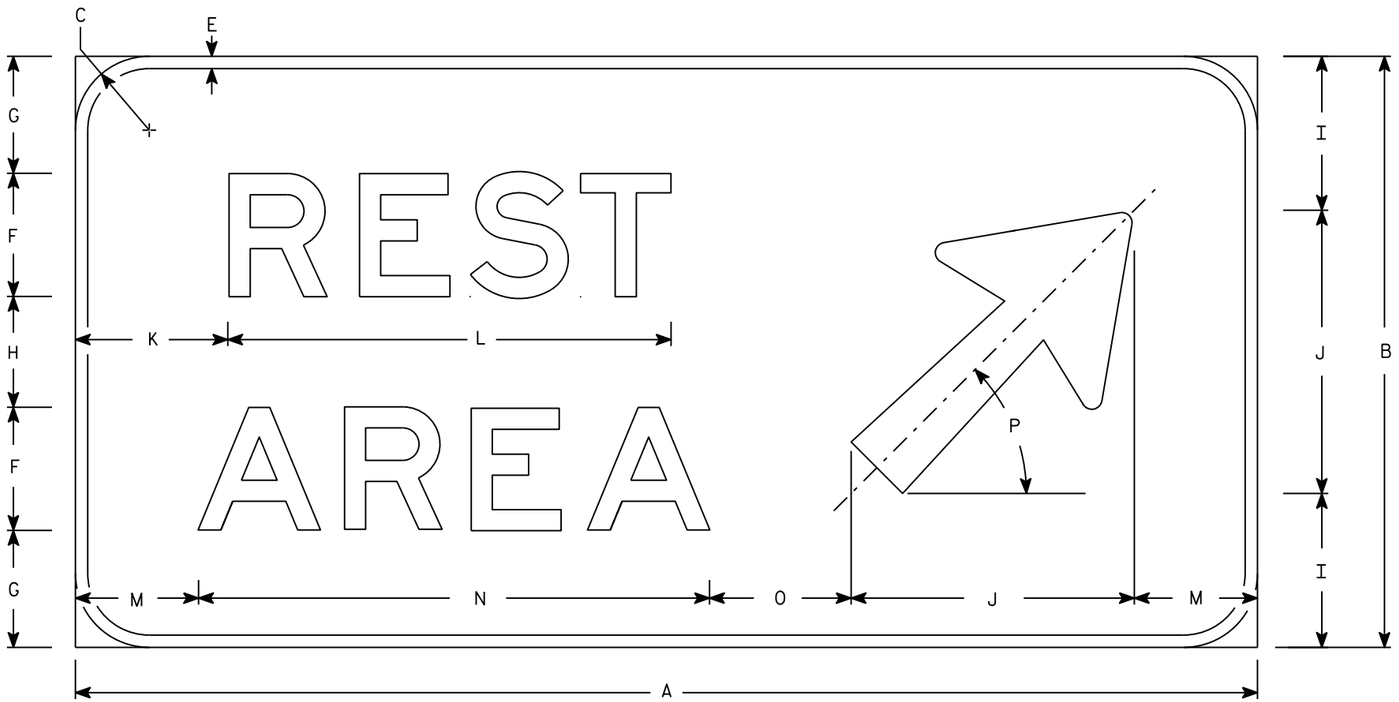
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/2022 PLATE NO. E5-51.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 302 | E

NOTES

1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is standard Interstate Type A.



E5-52

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	144	54	6		2	15	8	8	13	28	20 1/4	62	16 1/4	68	15 1/2	45°											54.0
5	144	54	6		2	15	8	8	13	28	20 1/4	62	16 1/4	68	15 1/2	45°											54.0

STANDARD SIGN
E5-52

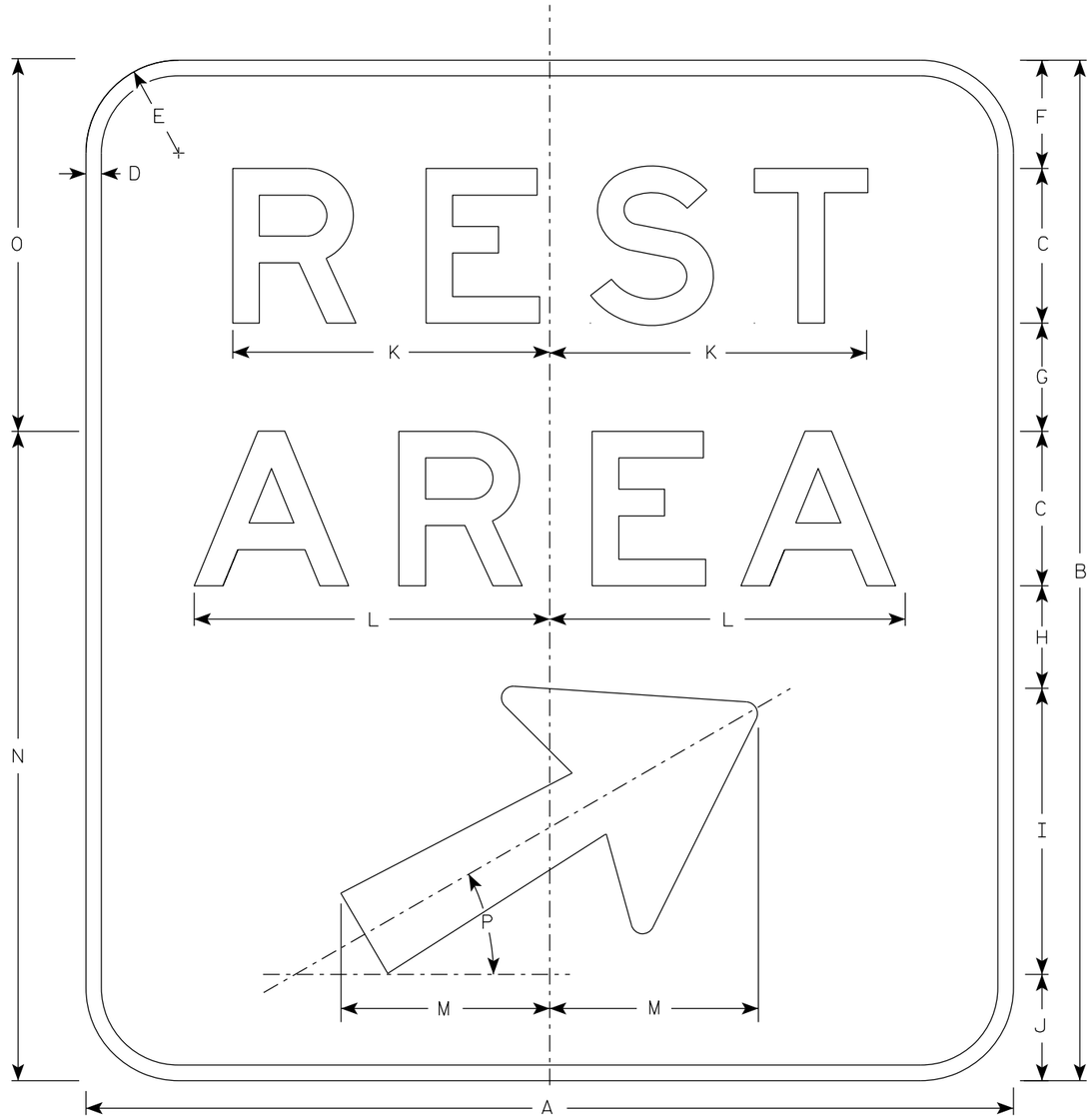
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/17 PLATE NO. E5-52.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 303 | E

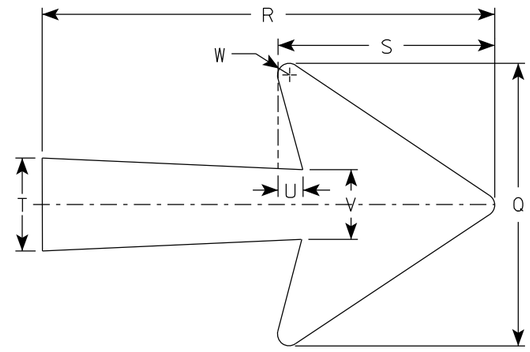
7



E5-54R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Arrow is Type A as per A1-1 standard
5. Dimensions N & O Indicate cutting lines for splice.
6. E5-54L is the same as E5-54R 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																											
3																											
4	60	66	10	1	6	7	7	6 5/8	18 1/2	6 7/8	21	23	13 1/2	42	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				27.5
5	72	72	12	1	9	7 1/4	7	8	18 1/2	7 1/4	25	27	13 1/2	48	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				36.0

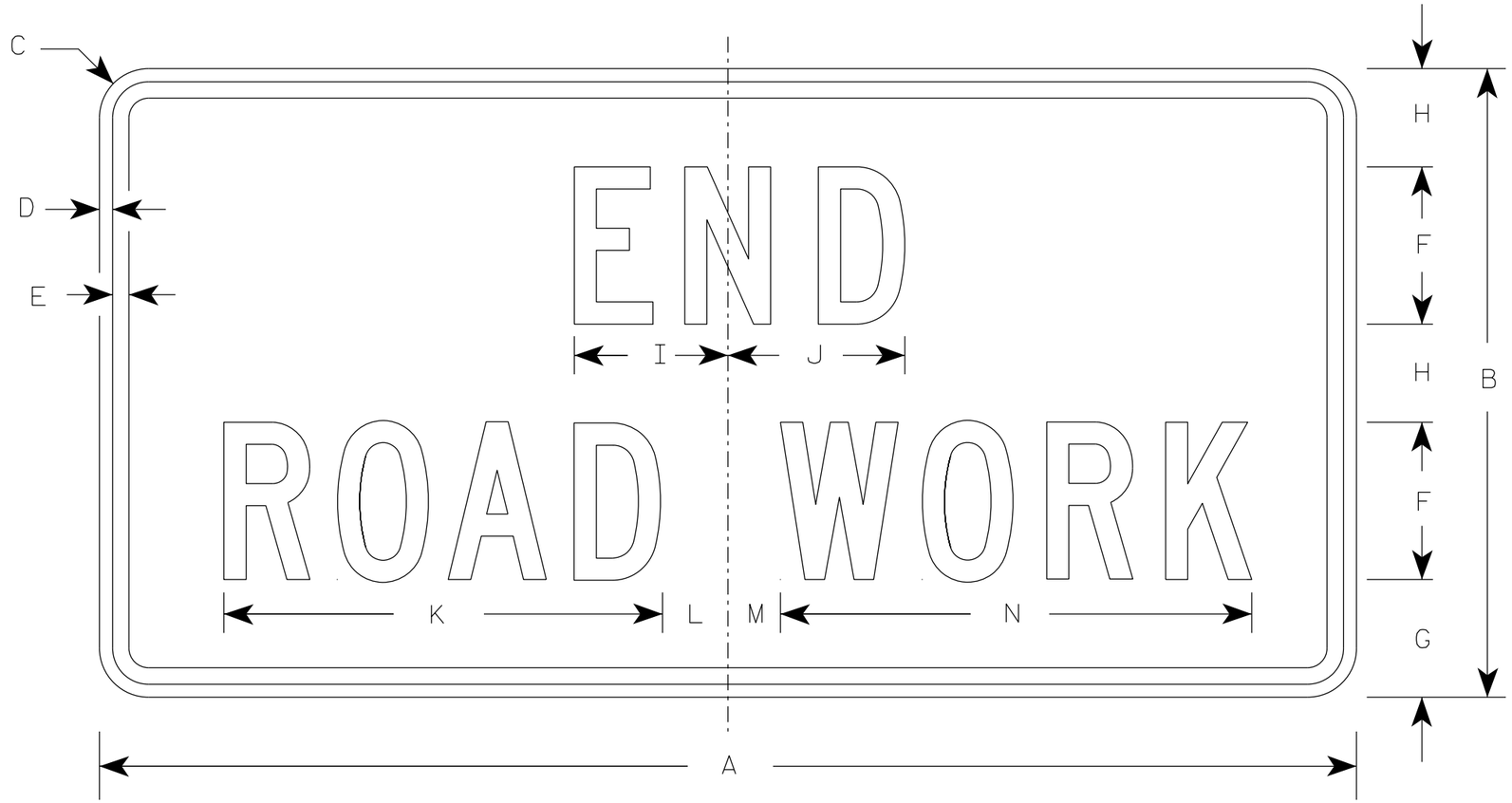
STANDARD SIGN
E5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/23/2021 PLATE NO. E5-54.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 304 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

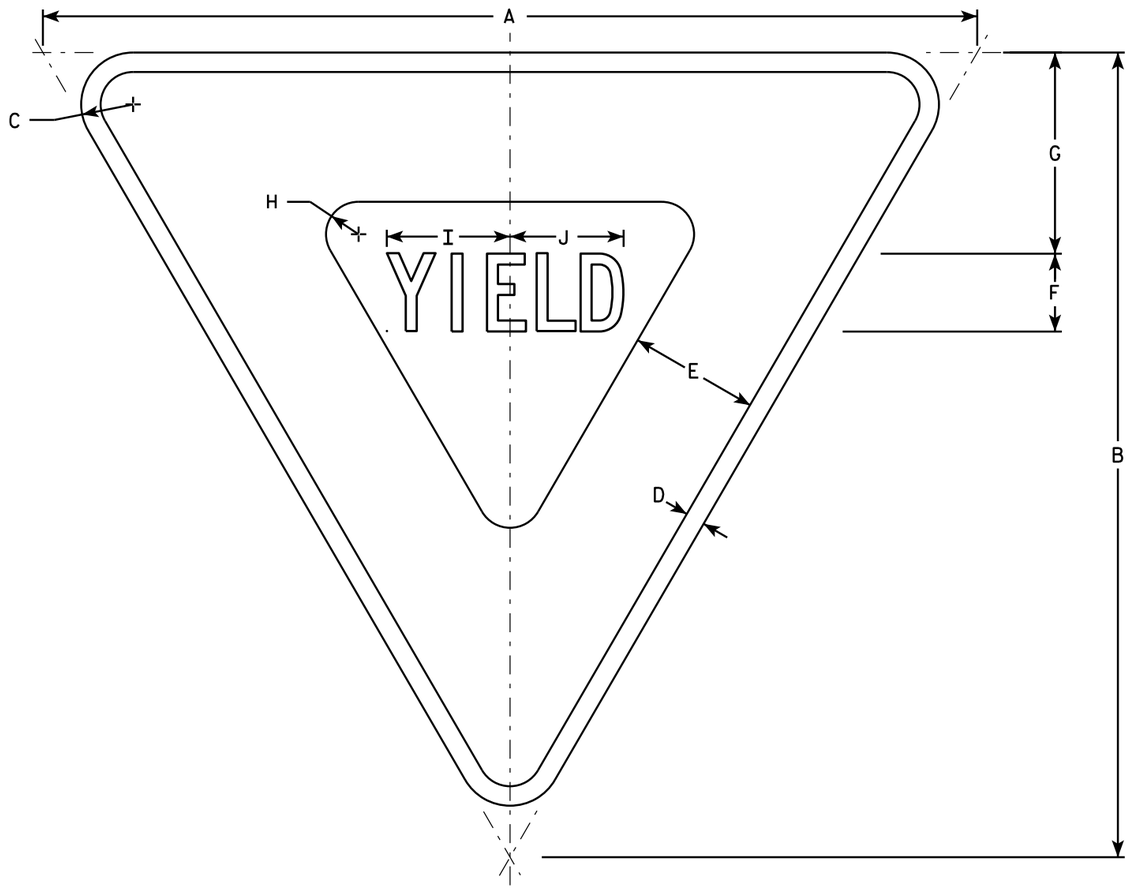
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 305 E

7

7



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

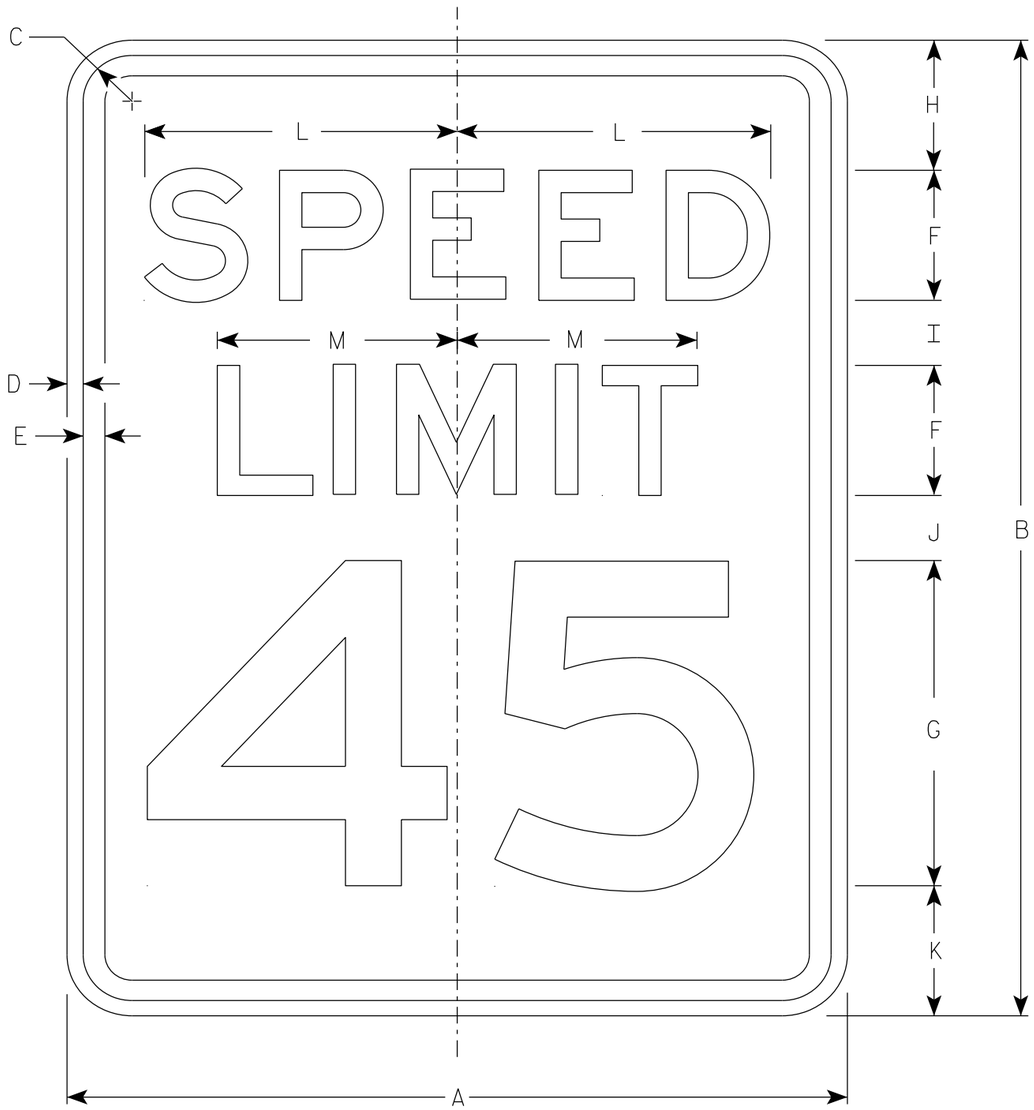
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective
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

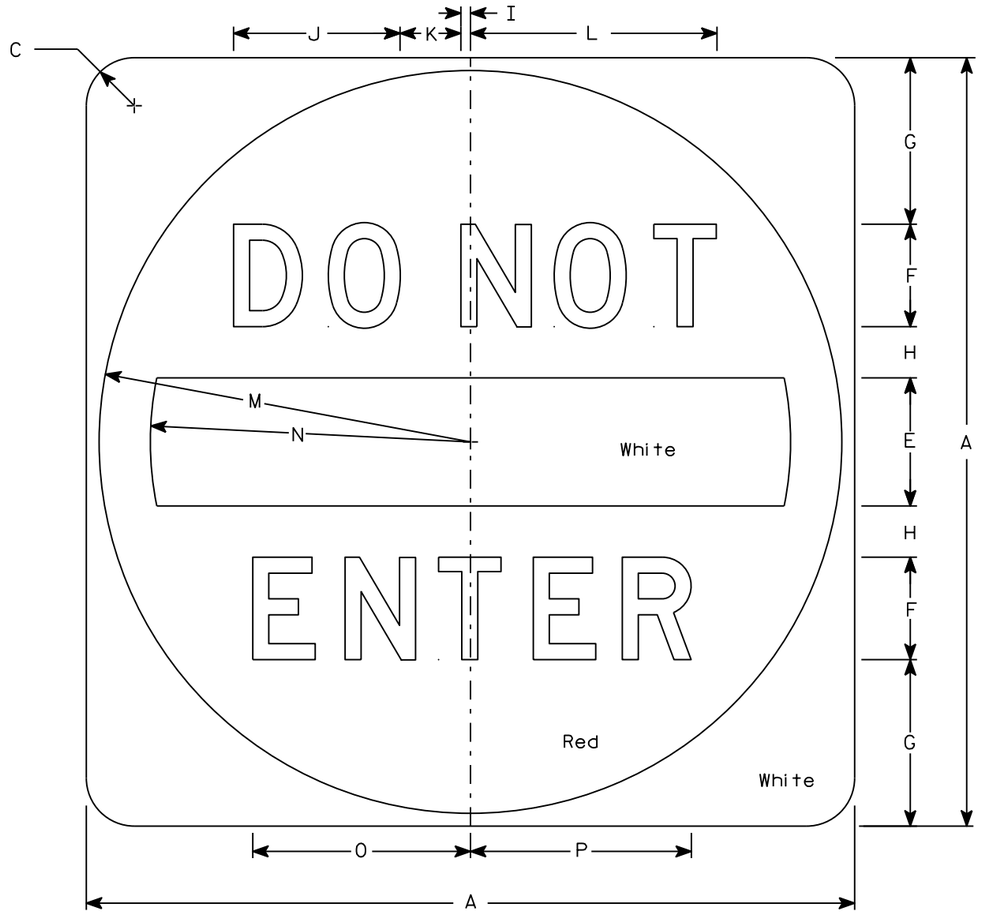
STANDARD SIGN
R2-1

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: 307 | E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

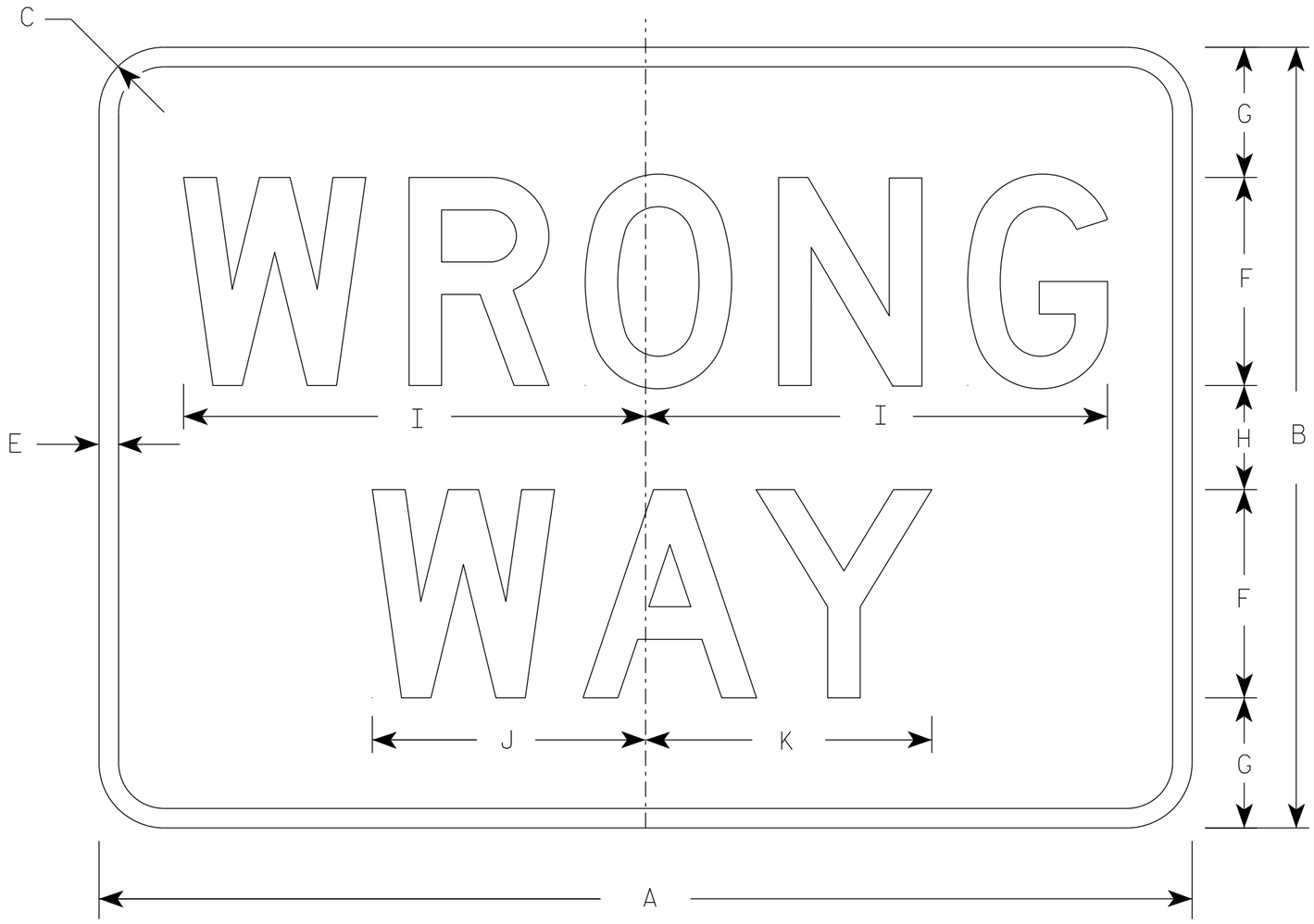
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 308 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Red
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	1 1/2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	1 7/8		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

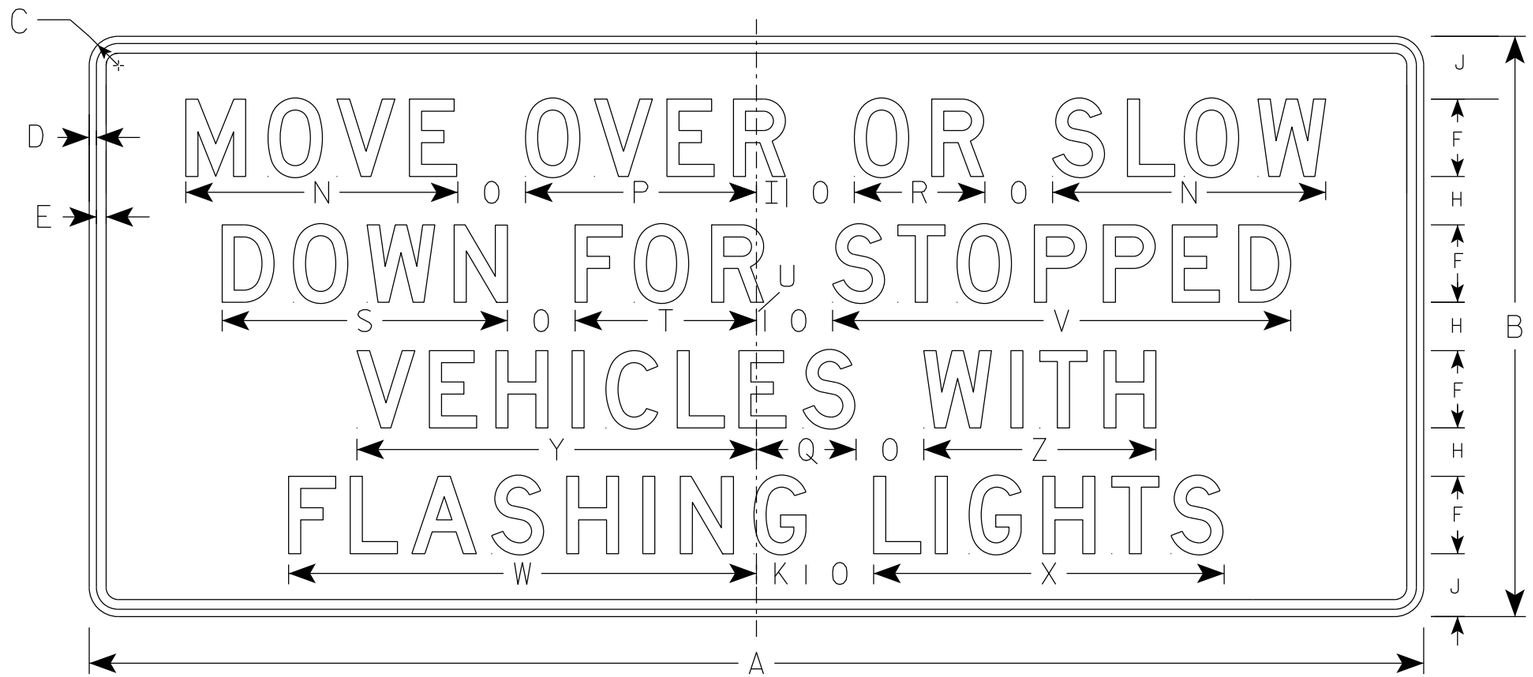
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/23 PLATE NO. R5-1A.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 309 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color: Background - White
   Message - Black
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	3/8	3/8	3		2 1/4	1 1/4	2 5/8	1 3/4			10 1/4	2 1/2	8 5/8	3 3/4	4 7/8	10 5/8	6 7/8	1/4	17 1/4	17 1/2	13 1/4	15 1/8	8 7/8	8.0
2M	48	24	1 7/8	3/8	3/8	3		2 1/4	1 1/4	2 5/8	1 3/4			10 1/4	2 1/2	8 5/8	3 3/4	4 7/8	10 5/8	6 7/8	1/4	17 1/4	17 1/2	13 1/4	15 1/8	8 7/8	8.0
3																											
4	138	60	3	3/4	1	8		5	3 1/8	6 1/2	5			28 1/4	7	23 7/8	10 3/8	13 1/2	29 1/2	18 3/4	7/8	47 3/8	48 3/8	36 1/4	41 3/8	24	57.5
5	138	60	3	3/4	1	8		5	3 1/8	6 1/2	5			28 1/4	7	23 7/8	10 3/8	13 1/2	29 1/2	18 3/4	7/8	47 3/8	48 3/8	36 1/4	41 3/8	24	57.5

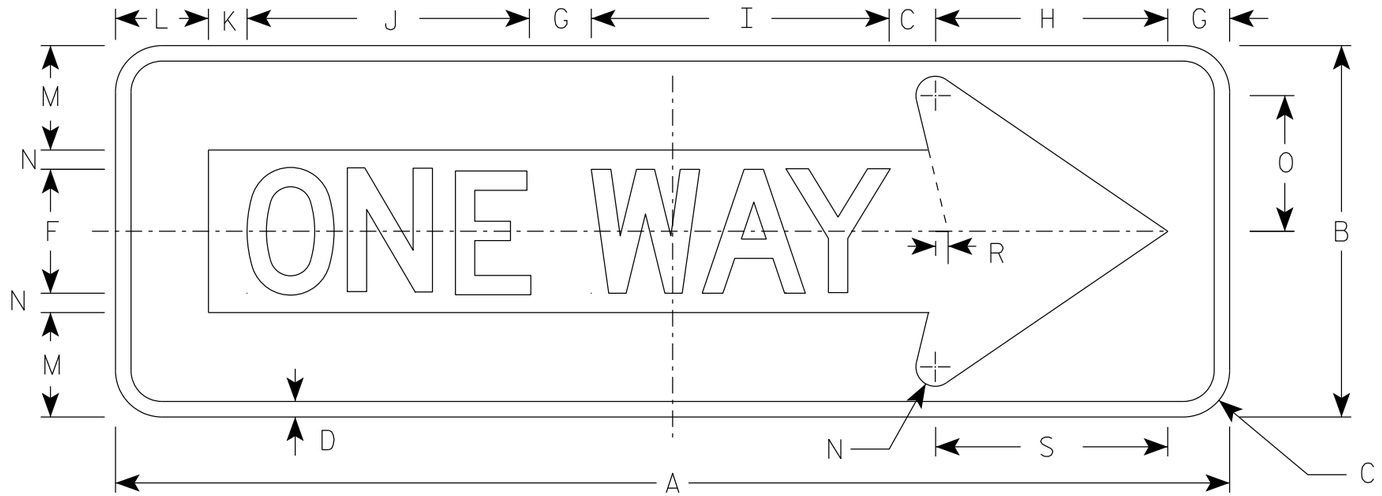
STANDARD SIGN
R5-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/30/23 PLATE NO. R5-60.5

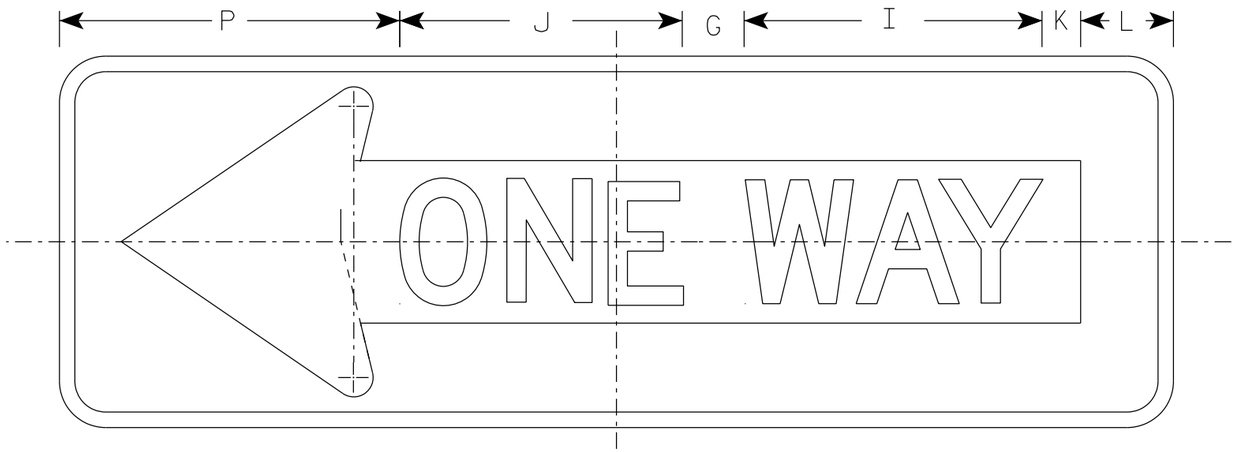
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 310	E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Black
   Message - Black Legend & White Arrow & Border
3. Message Series - D



R6-1L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 ½	½		4	2	7 ½	9 ⅝	9 ⅛	1 ¼	3	3 ⅜	⅝	4 ⅜	11		⅜	7 ½								3.0
2M	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
3	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
4	54	18	1 ½	¾		6	3	11 ¼	13 ⅝	14 ½	1 ⅞	4 ½	5	1	6 ½	16 ½		⅝	11 ¼								6.75
5																											

STANDARD SIGN
R6-1 L&R

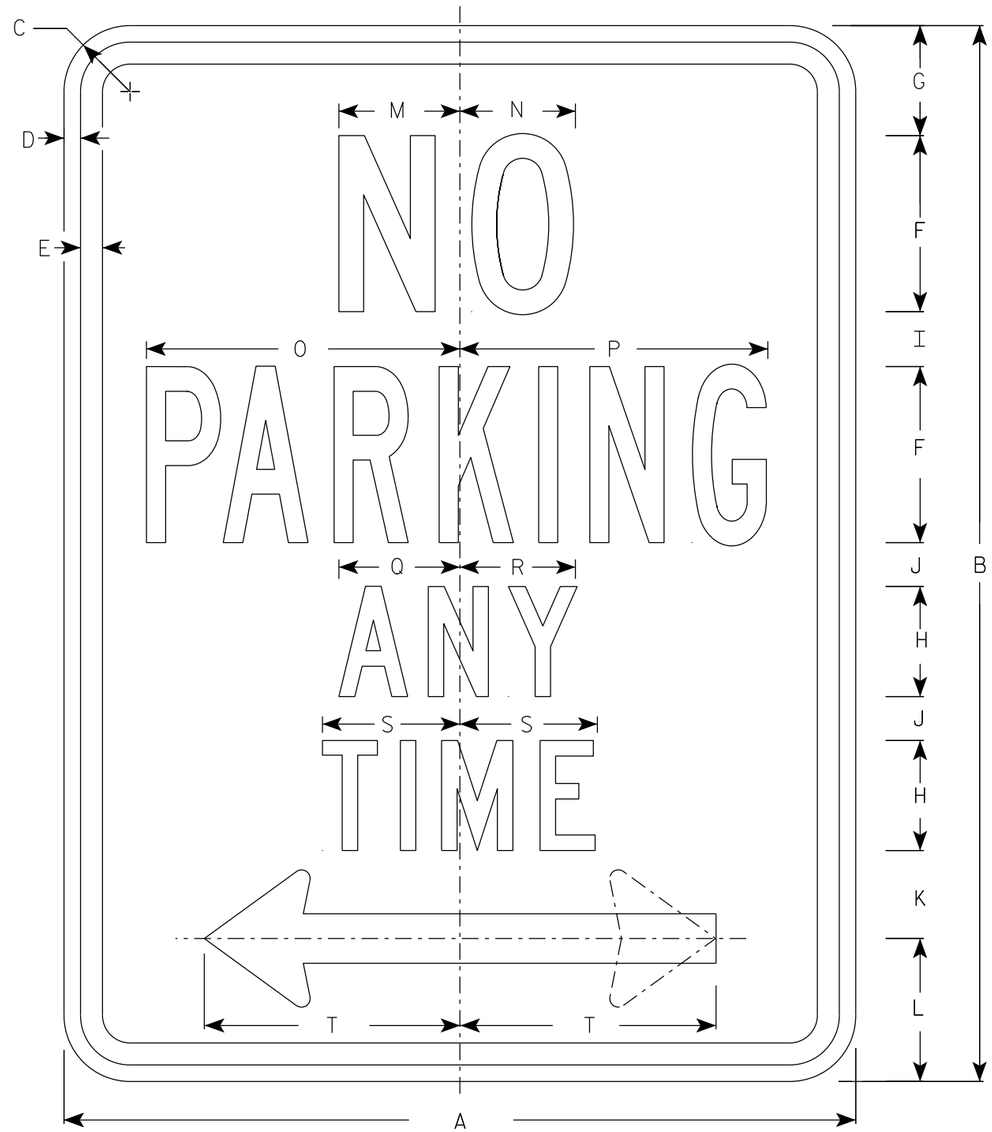
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/30/23 PLATE NO. R6-1.4

PROJECT NO:

SHEET NO: 311 E

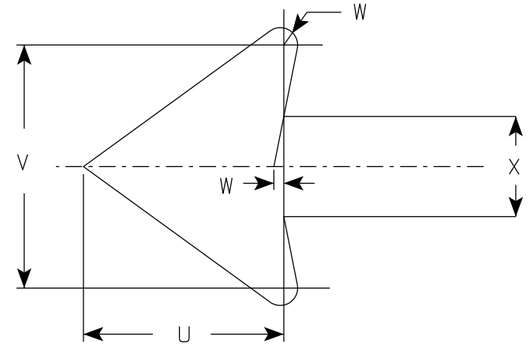


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)

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	12	18	1 ½	⅜	⅜	3	1 ⅞	2	⅞	⅝	1 ½	2 ½	2	2	4 ⅞	4 ⅞	2 ¼	2 ⅛	2 ½	3 ⅞	1 ½	1 ¾	⅛	¾			1.5
2S	18	24	1 ½	⅜	½	4	2 ½	2 ½	1 ¼	1	2	3 ¼	2 ¾	2 ⅝	7 ⅛	7	2 ¾	2 ⅝	3 ⅛	5 ⅞	2 ¼	2 ⅝	¼	1 ⅛			3.0
2M	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
3	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
4																											
5																											

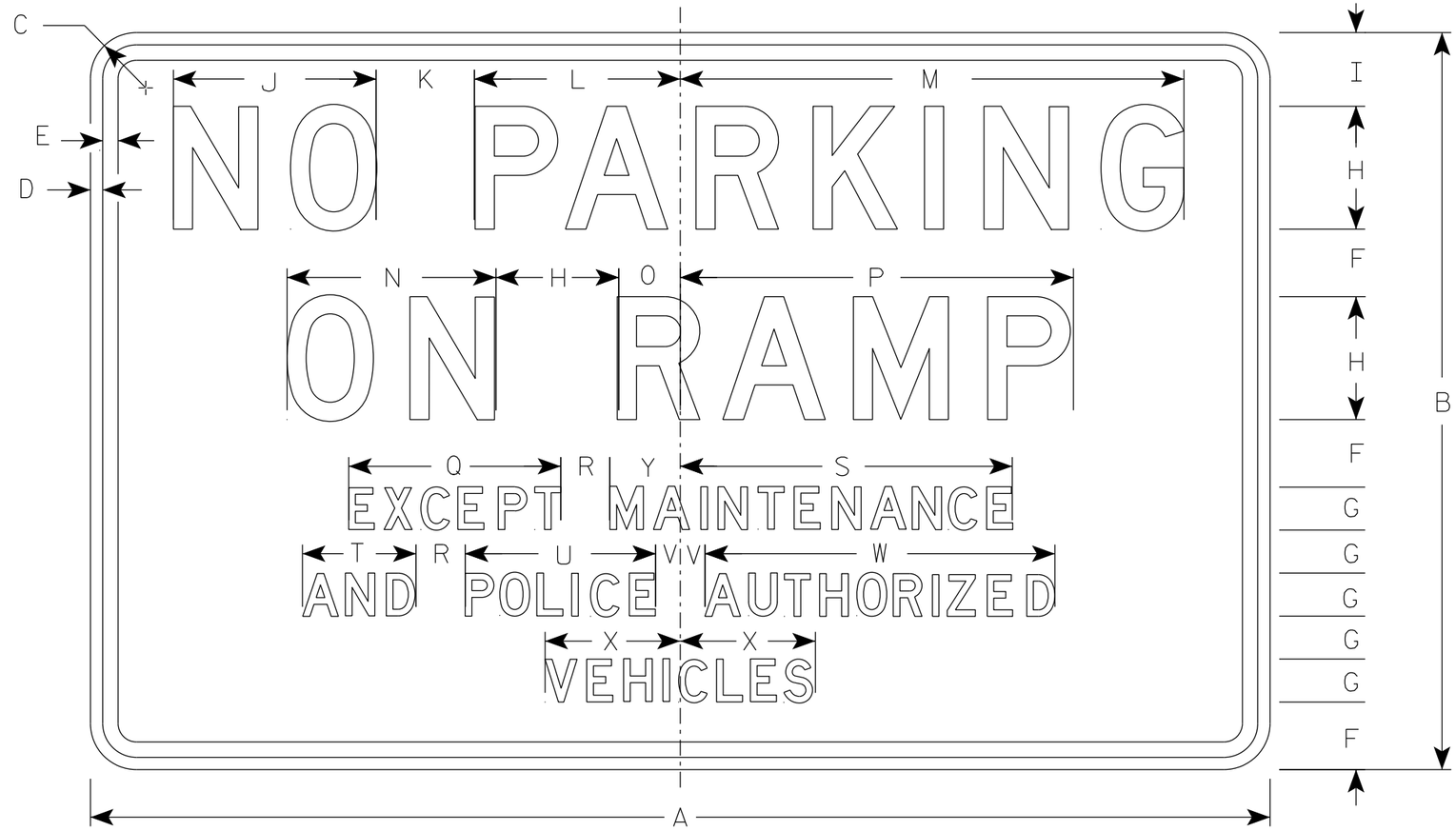
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 312	E



R7-64

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - Lines 1& 2 and Border are RED
   Lines 3, 4, & 5 are BLACK
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3	48	30	1 7/8	1/2	5/8	2 3/4	1 3/4	5	3	8 1/4	4	8 3/8	20 1/2	8 1/2	2 1/2	16	8 5/8	2	13 5/8	4 5/8	7 3/4	1	14 1/4	5 1/2			10.0
4	48	30	1 7/8	1/2	5/8	2 3/4	1 3/4	5	3	8 1/4	4	8 3/8	20 1/2	8 1/2	2 1/2	16	8 5/8	2	13 5/8	4 5/8	7 3/4	1	14 1/4	5 1/2			10.0
5	48	30	1 7/8	1/2	5/8	2 3/4	1 3/4	5	3	8 1/4	4	8 3/8	20 1/2	8 1/2	2 1/2	16	8 5/8	2	13 5/8	4 5/8	7 3/4	1	14 1/4	5 1/2			10.0

STANDARD SIGN
R7-64

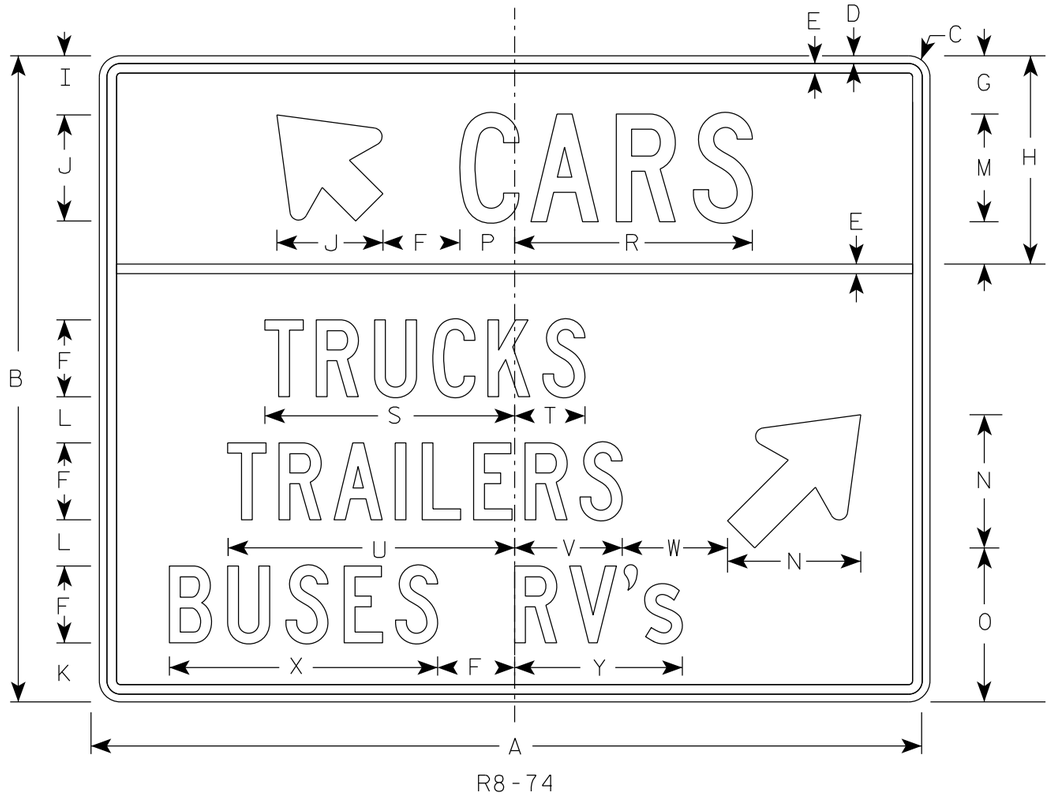
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/24 PLATE NO. R7-64.4

PROJECT NO:

SHEET NO: 313 E

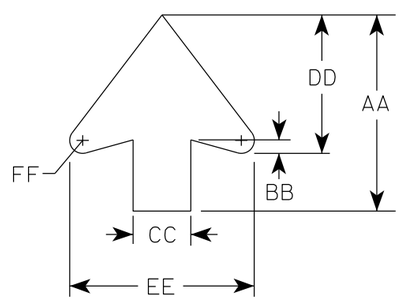


R8-74

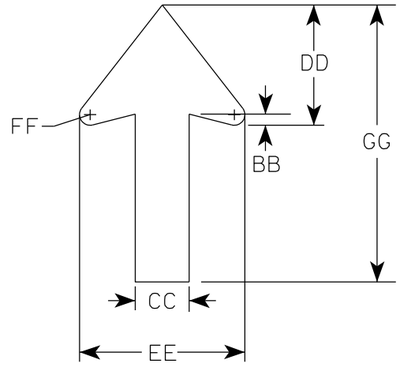
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C

Arrow Details



Top Arrow



Bottom Arrow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	54	42	1 7/8	1/2	5/8	5	3 3/4	13 1/2	3 7/8	7	3 7/8	3	7	8 5/8	10	3 1/2		15 1/2	16 1/4	4 5/8	18 5/8	7	6 7/8	7 1/2	10 7/8		15.75
2M	54	42	1 7/8	1/2	5/8	5	3 3/4	13 1/2	3 7/8	7	3 7/8	3	7	8 5/8	10	3 1/2		15 1/2	16 1/4	4 5/8	18 5/8	7	6 7/8	7 1/2	10 7/8		15.75
3	72	54	3	3/4	1	7	4 3/8	16 3/4	4 3/8	9 7/8	4 3/4	3 5/8	9	14	11 7/8	4 1/2		20 1/8	22 1/2	6 5/8	26	10	6 7/8	24 3/4	17 7/8		27.00
4	72	54	3	3/4	1	7	4 3/8	16 3/4	4 3/8	9 7/8	4 3/4	3 5/8	9	14	11 7/8	4 1/2		20 1/8	22 1/2	6 5/8	26	10	6 7/8	24 3/4	17 7/8		27.00
5	72	54	3	3/4	1	7	4 3/8	16 3/4	4 3/8	9 7/8	4 3/4	3 5/8	9	14	11 7/8	4 1/2		20 1/8	22 1/2	6 5/8	26	10	6 7/8	24 3/4	17 7/8		27.00

SIZE	AA	BB	CC	DD	EE	FF	GG
1							
2S	8 1/2	3/8	2 5/8	5 1/2	8	3/8	11
2M	8 1/2	3/8	2 5/8	5 1/2	8	3/8	11
3	12	1/2	3 1/2	7 3/8	10 3/4	1/2	18
4	12	1/2	3 1/2	7 3/8	10 3/4	1/2	18
5	12	1/2	3 1/2	7 3/8	10 3/4	1/2	18

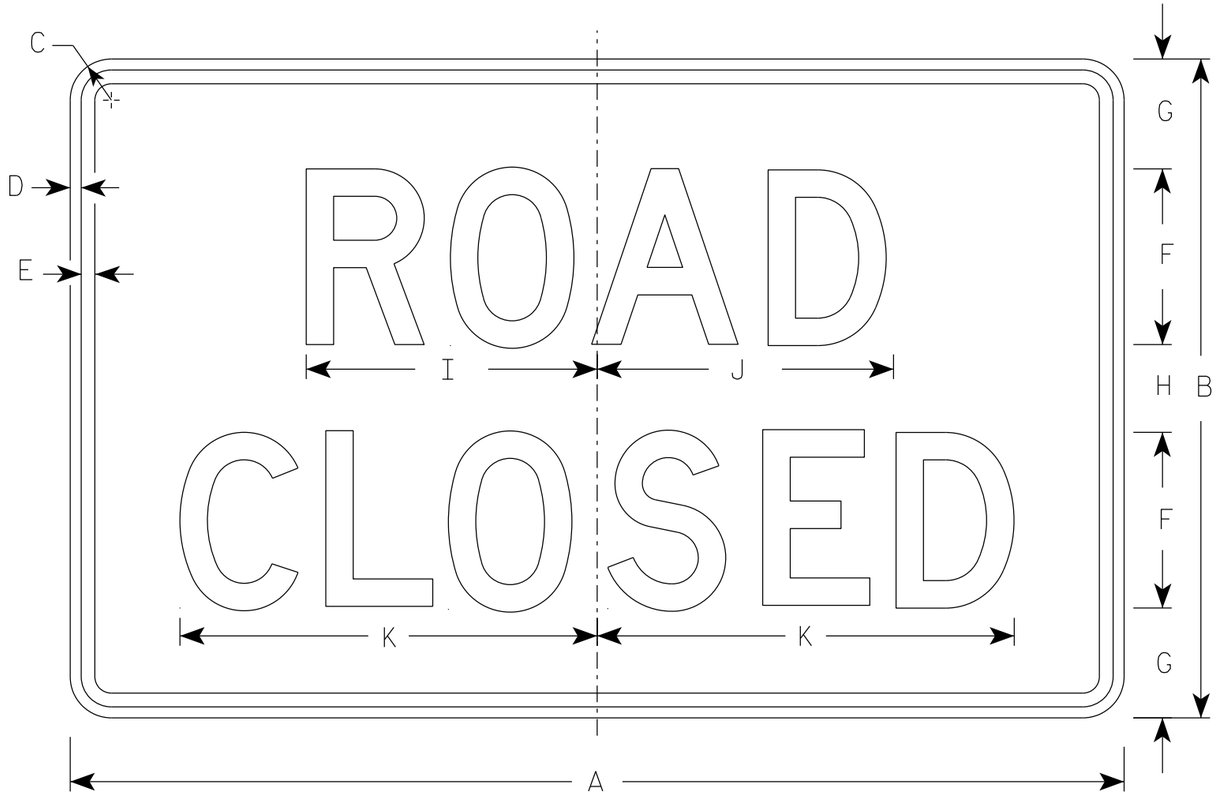
STANDARD SIGN
R8-74

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/12/24 PLATE NO. R8-74.10

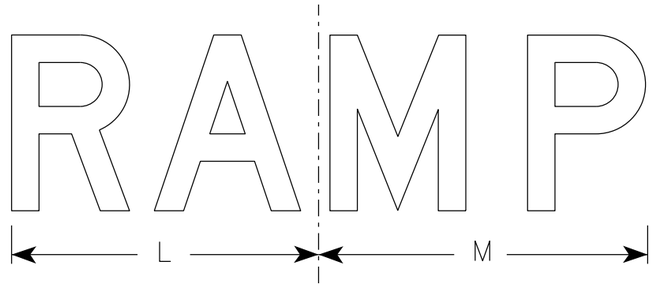
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 314	E



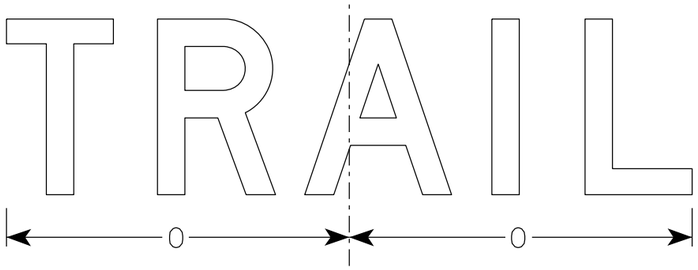
R11-2

NOTES

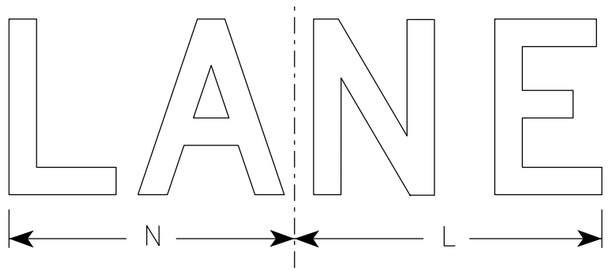
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

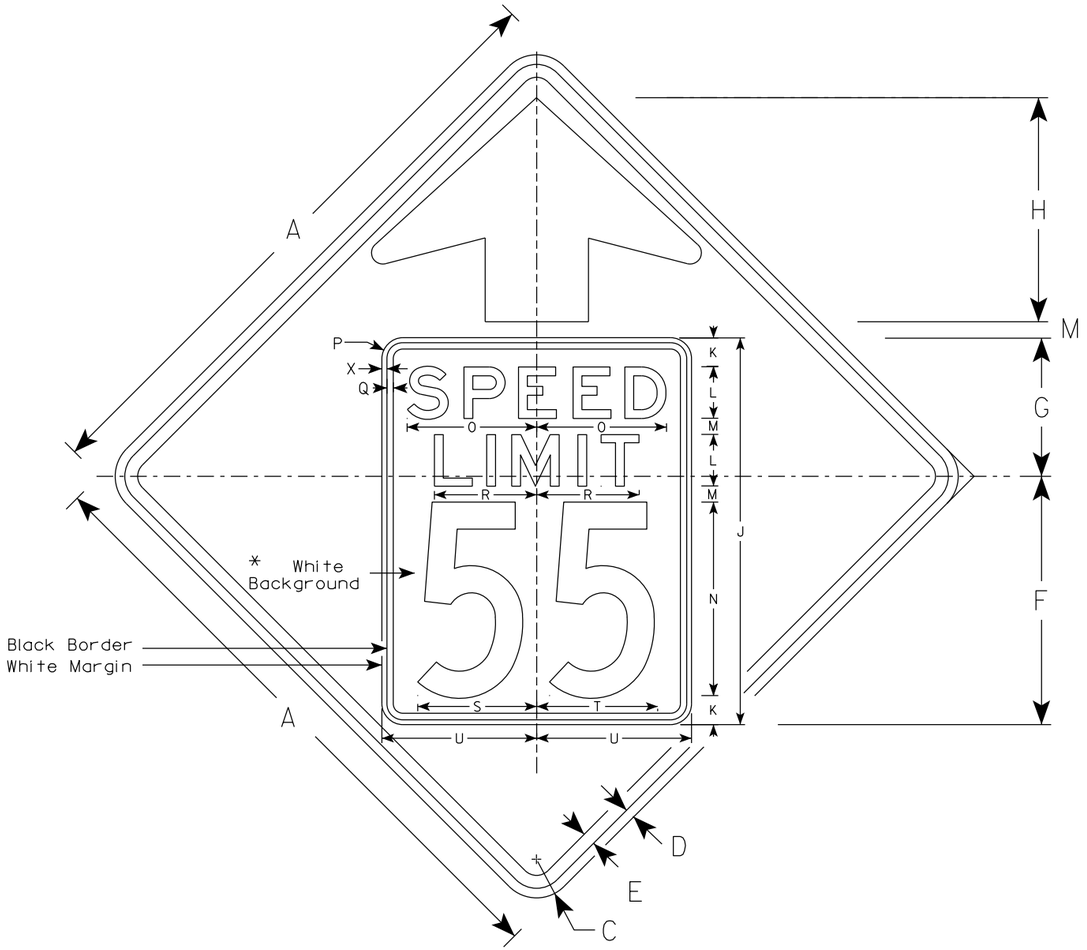
STANDARD SIGN
R11-2

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: 315	E

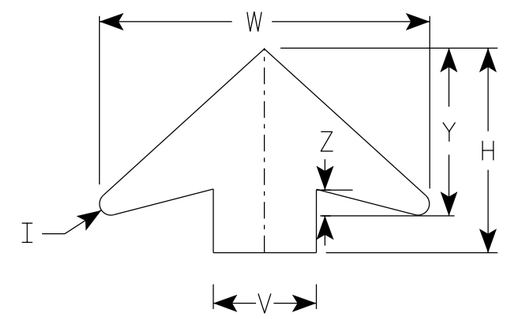


W3-5

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
   Background - Yellow* (Type F Reflective)
   Message - Black
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



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	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

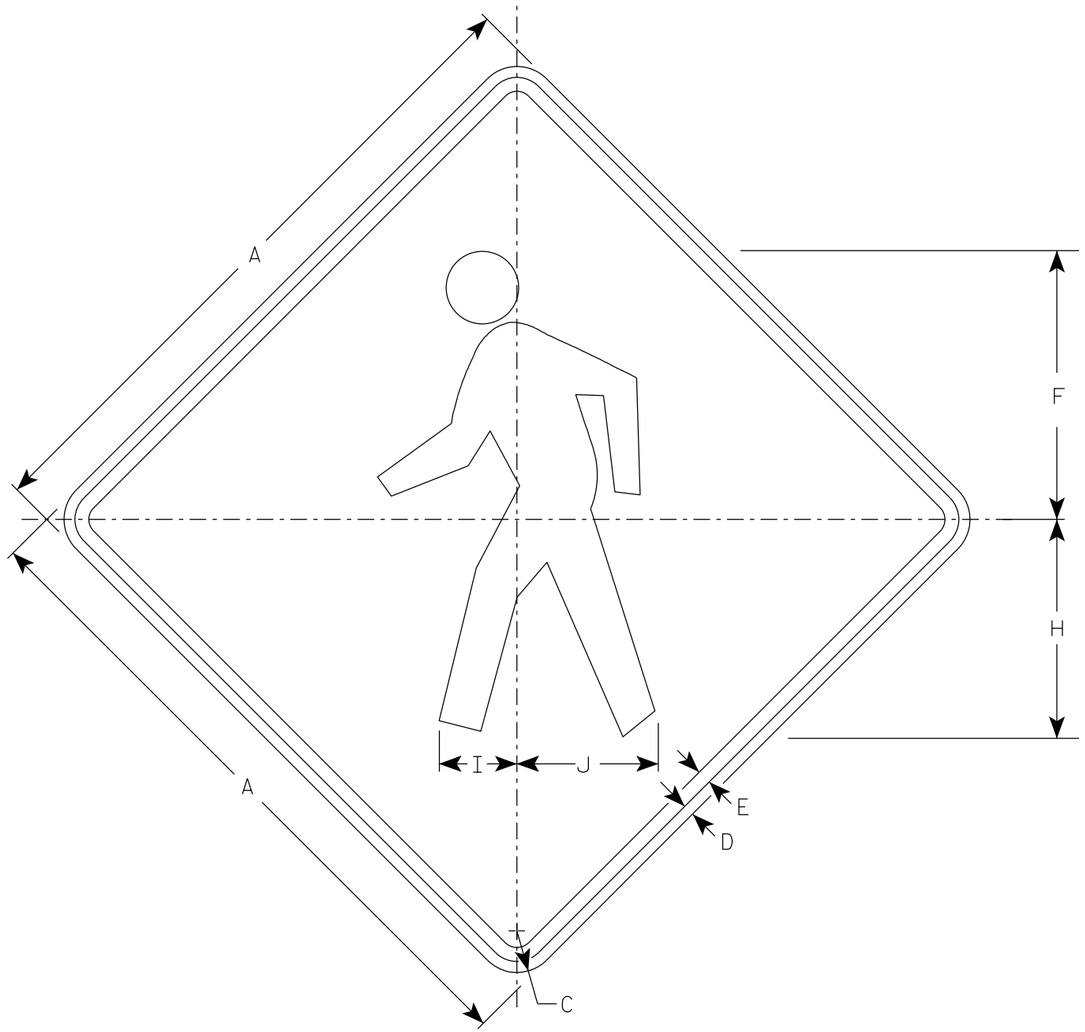
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/30/2023 PLATE NO. W3-5.7

PROJECT NO:

SHEET NO: 316 E



W11-2

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

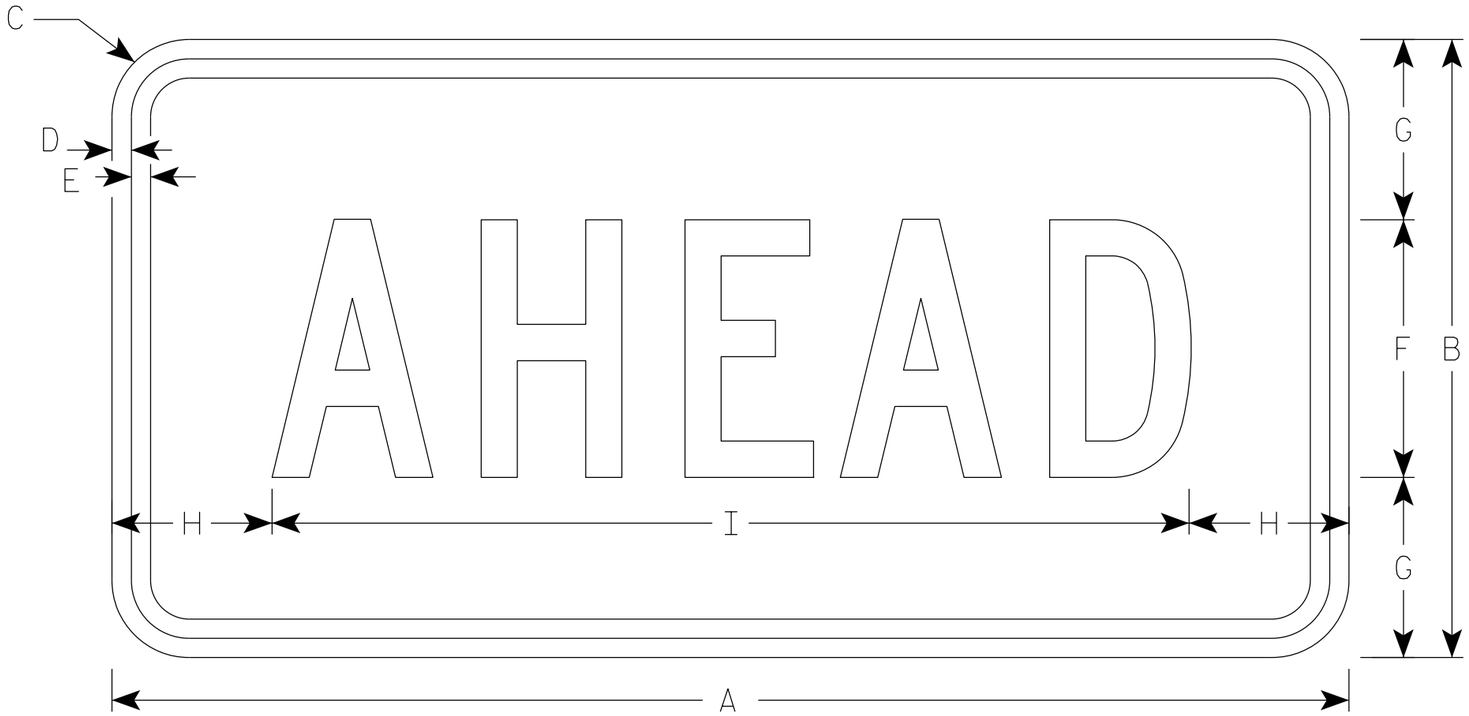
For State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 317 E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C



W16-9P

* For 36" x 36" Warning Signs, use 30" x 18" W16-9P signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-9P signs.

	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	5	3 1/2	3 1/8	17 3/4																		2.0
*	2M	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
*	3	30	18	1 1/2	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
*	4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
	5																											

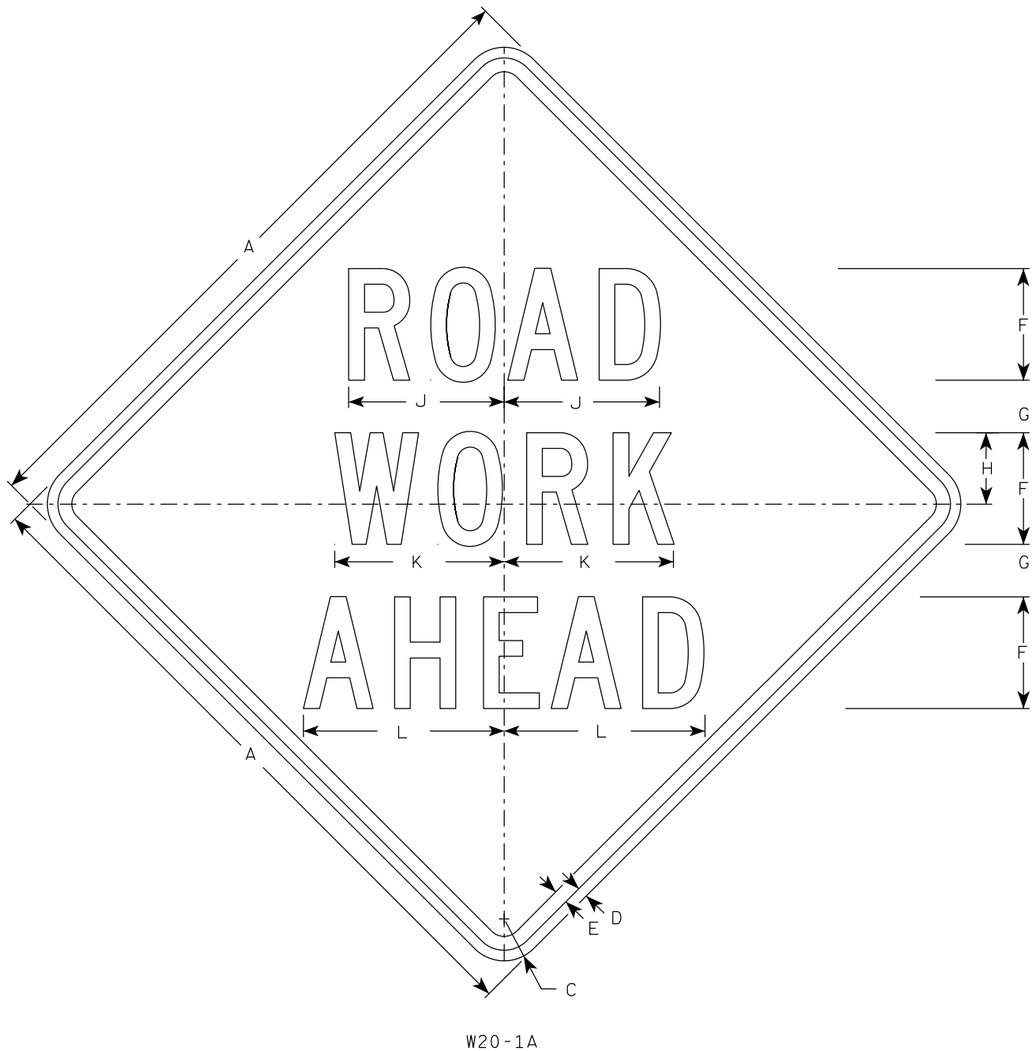
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

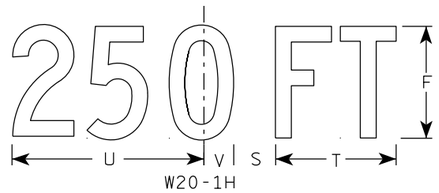
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-9P.9

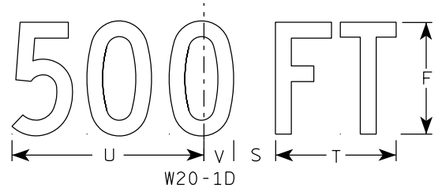
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 318 E



W20-1A

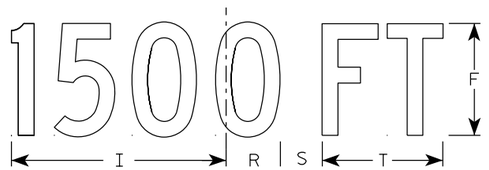


W20-1H



W20-1D

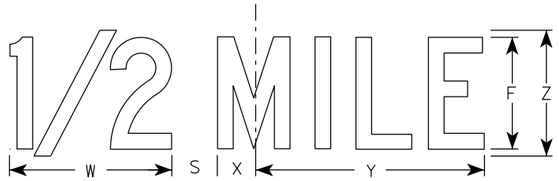
W20-1C



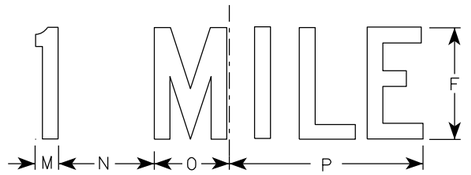
W20-1B

NOTES

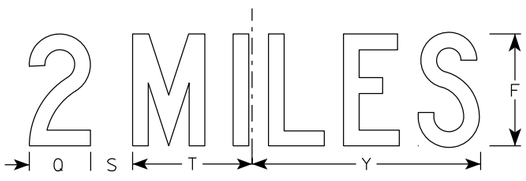
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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

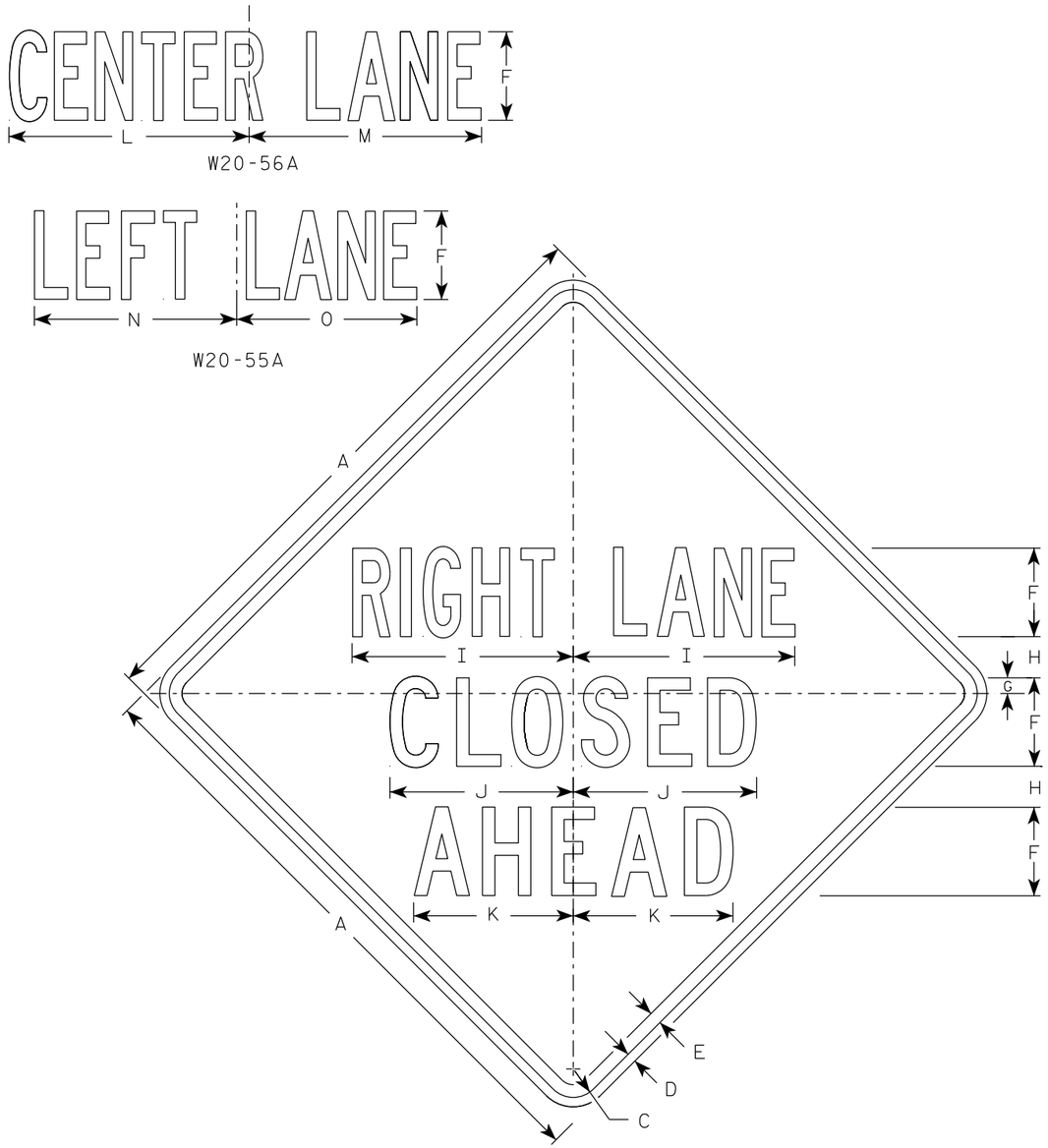
PROJECT NO:

SHEET NO: 319 E

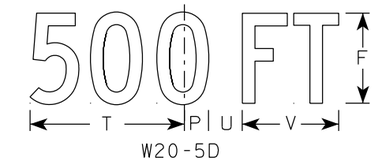
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

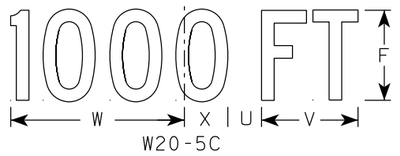
7



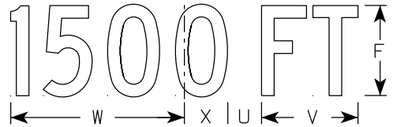
W20-5A



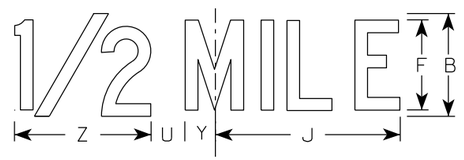
W20-5D



W20-5C



W20-5B



W20-5G

W20-5F

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. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

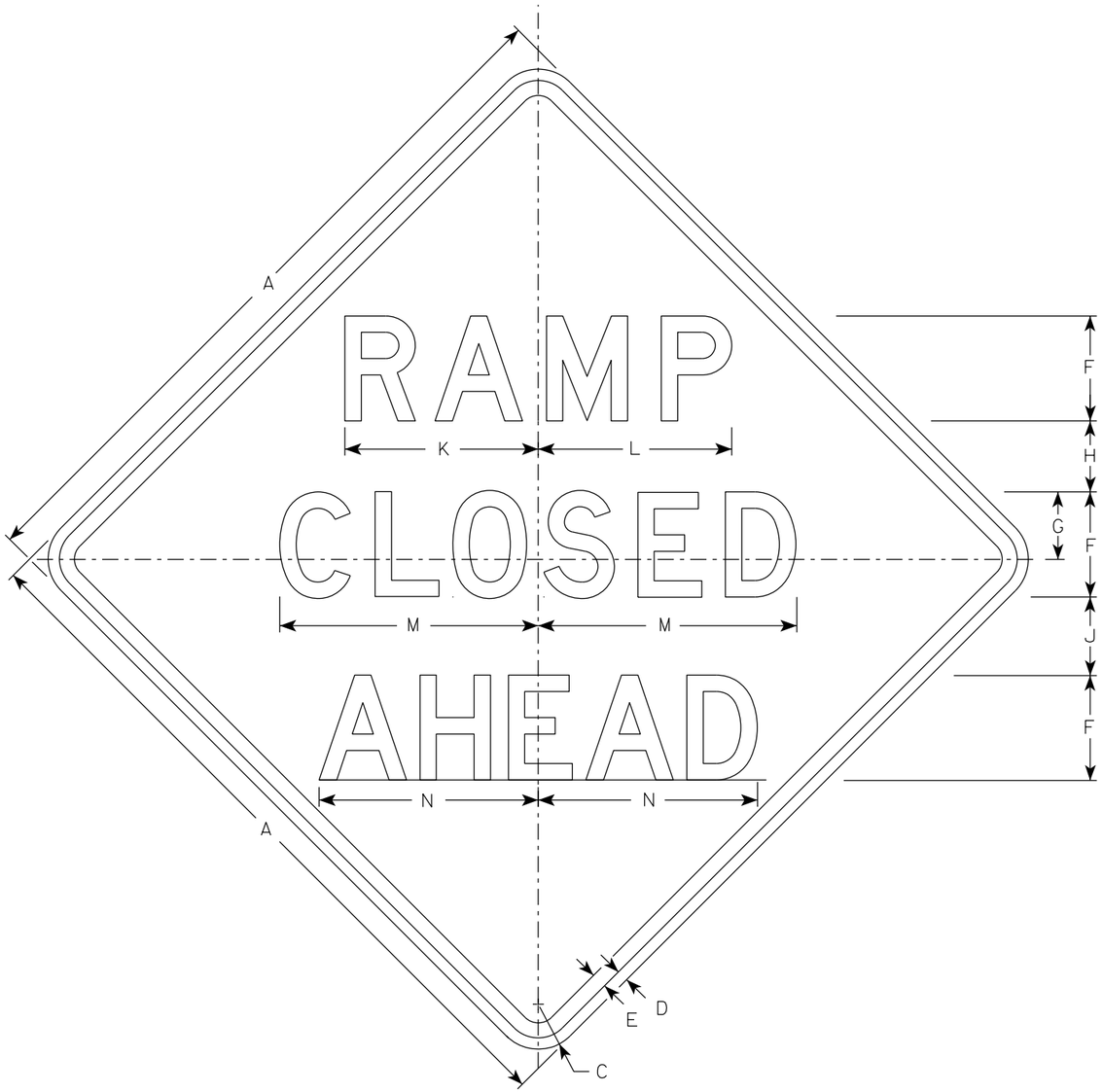
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

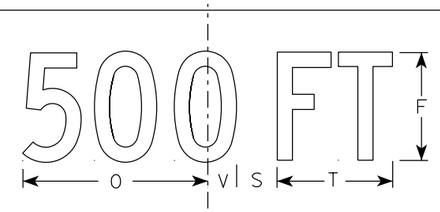
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

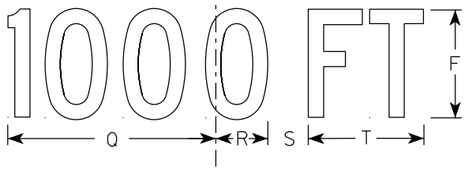
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 320	E



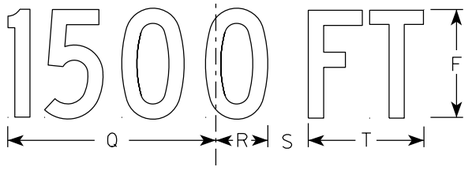
W20-53A



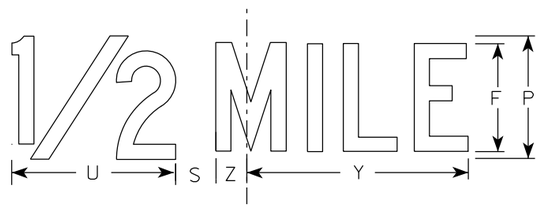
W20-53D



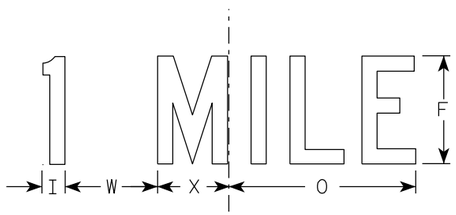
W20-53C



W20-53B



W20-53G



W20-53F

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	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

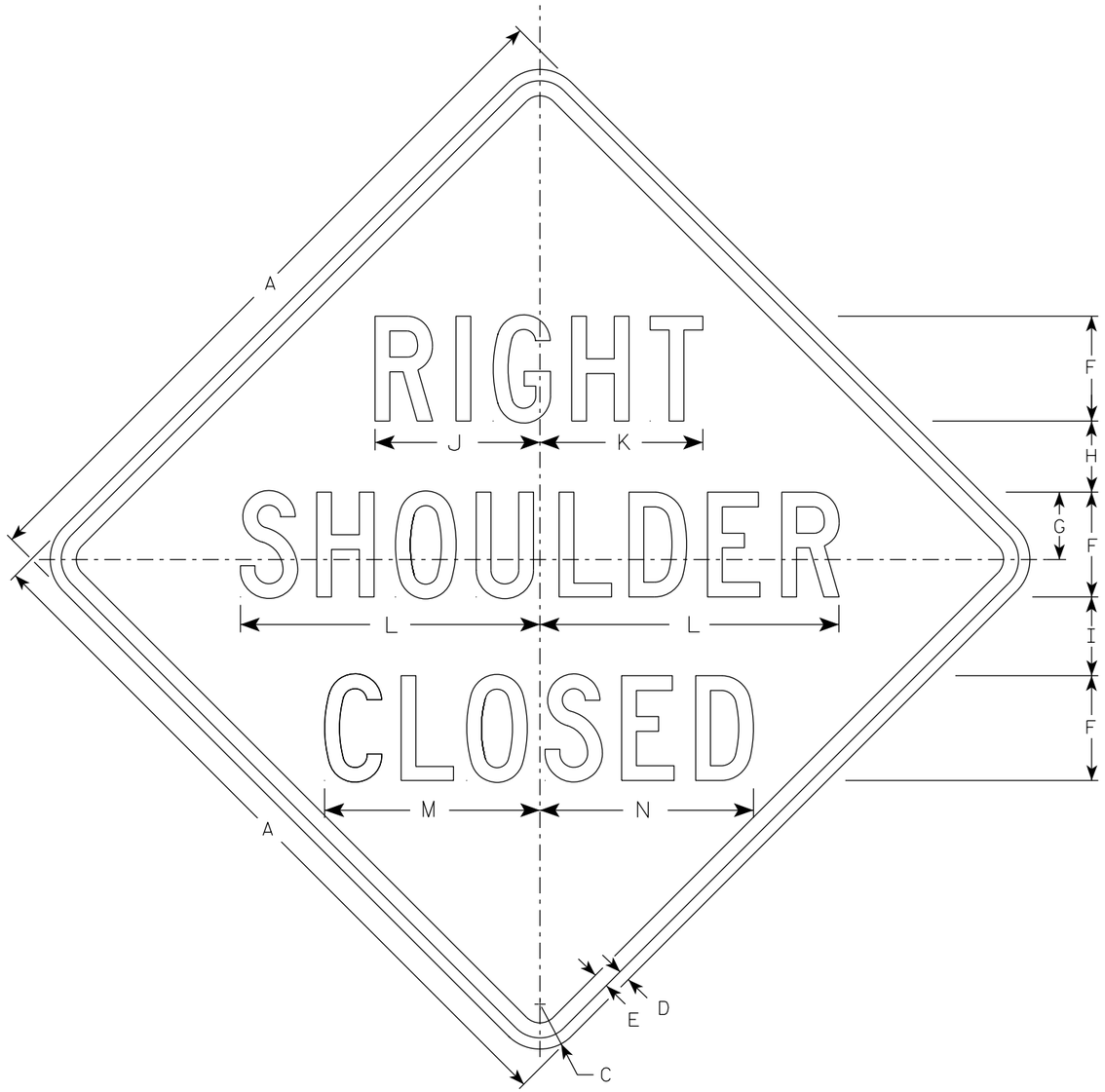
STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

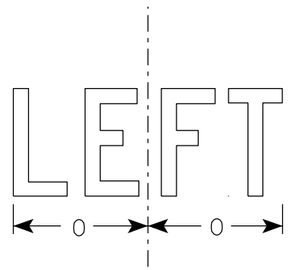
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W21-5A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



W21-5AL

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	4	7 7/8	7 3/4	14 1/4	10 1/4	10 1/8	6 1/4												9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0

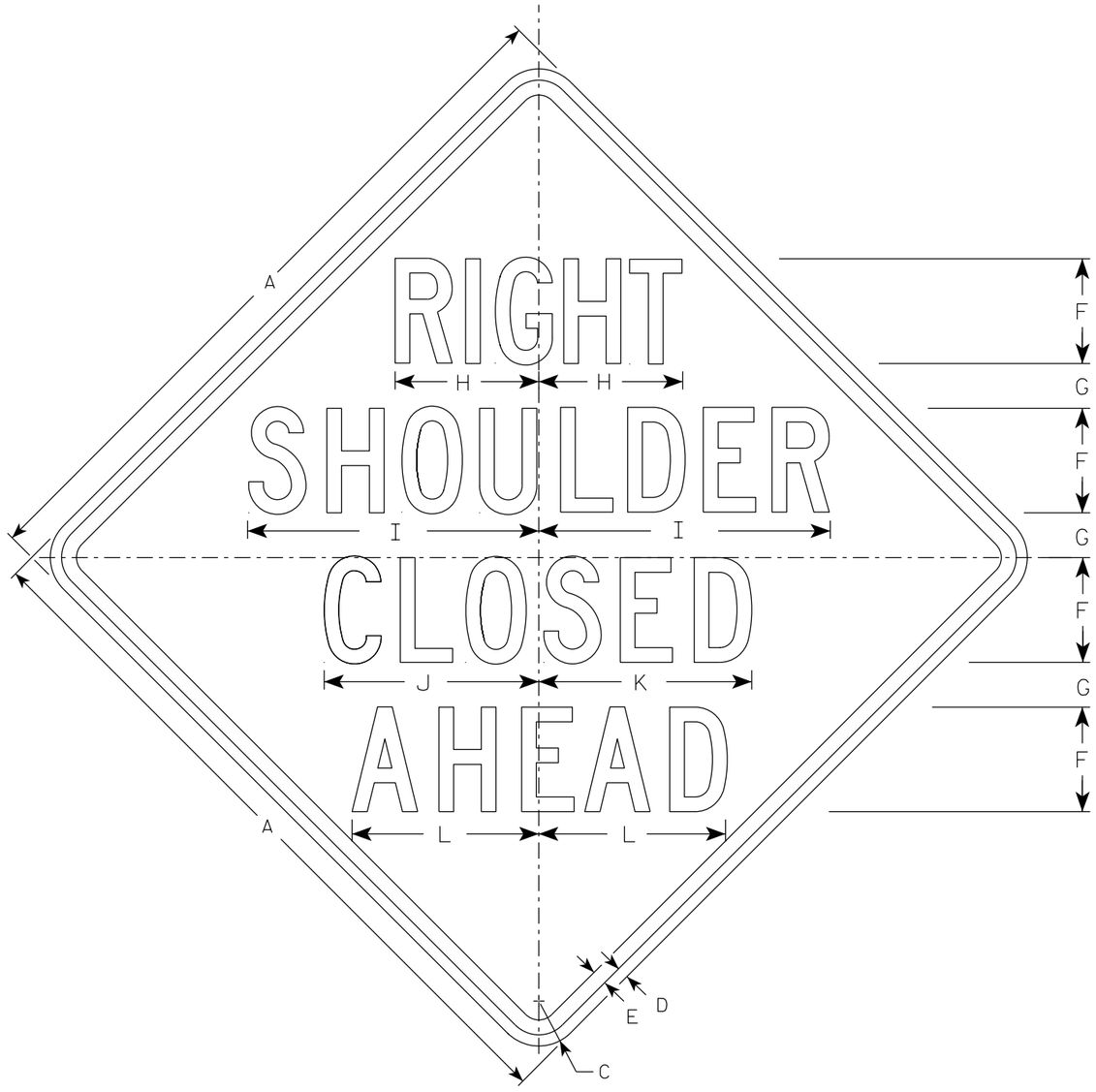
STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/11/2024 PLATE NO. W21-5A.4

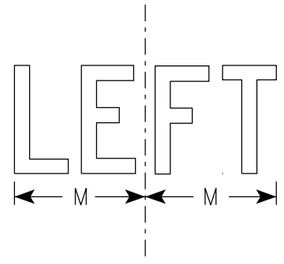
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 322 | E



W21-5B

NOTES

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



W21-5BL

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 1/4	7 3/8	14 1/4	10 1/4	10 1/8	8 7/8	6 1/4														9.0
2S	48		3	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
2M	48		3	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
3	48		3	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
4	48		3	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
5	48		3	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0

STANDARD SIGN
W21-5B

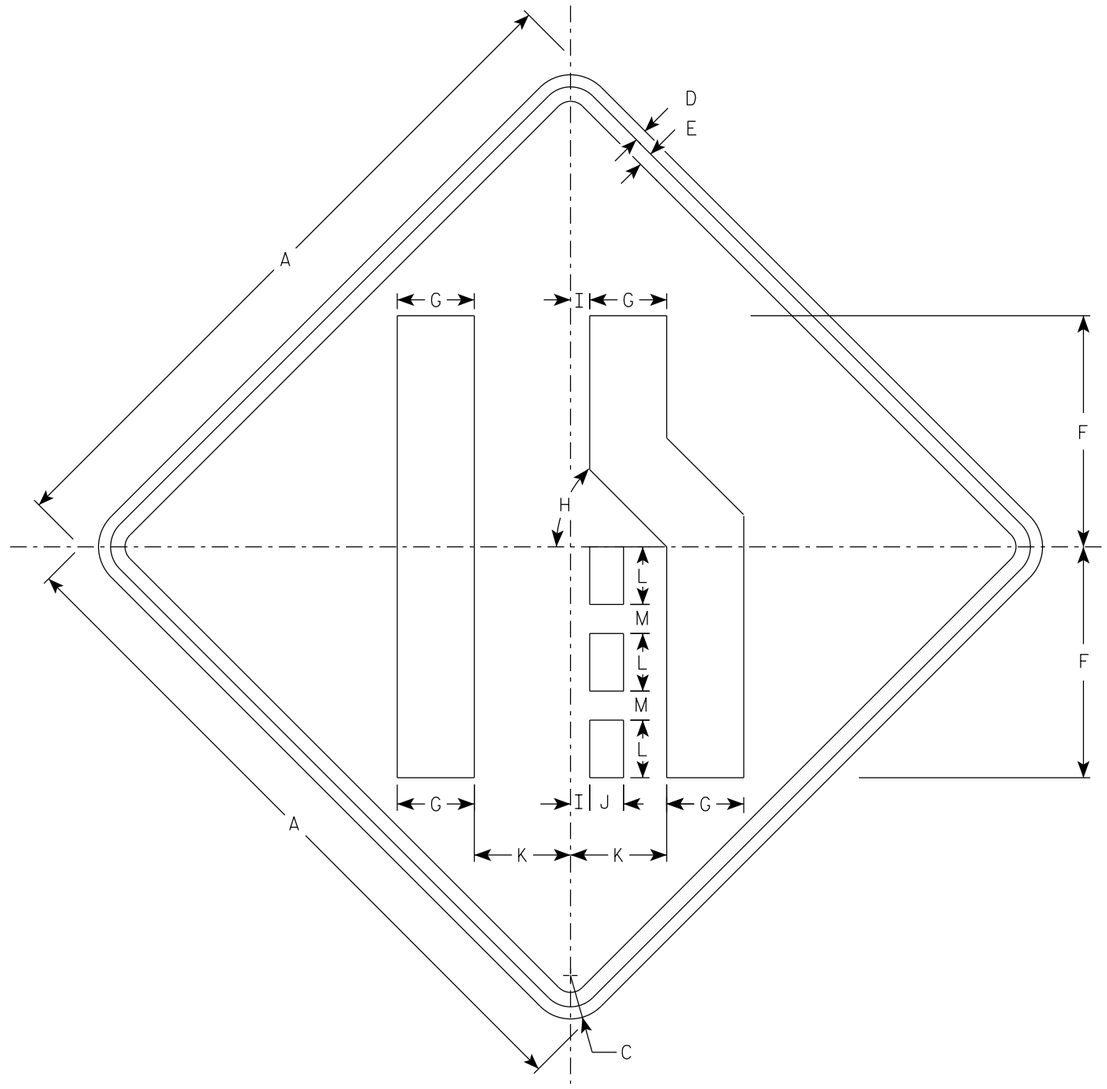
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/16/2024 PLATE NO. W21-5B.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 323 | E

7



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

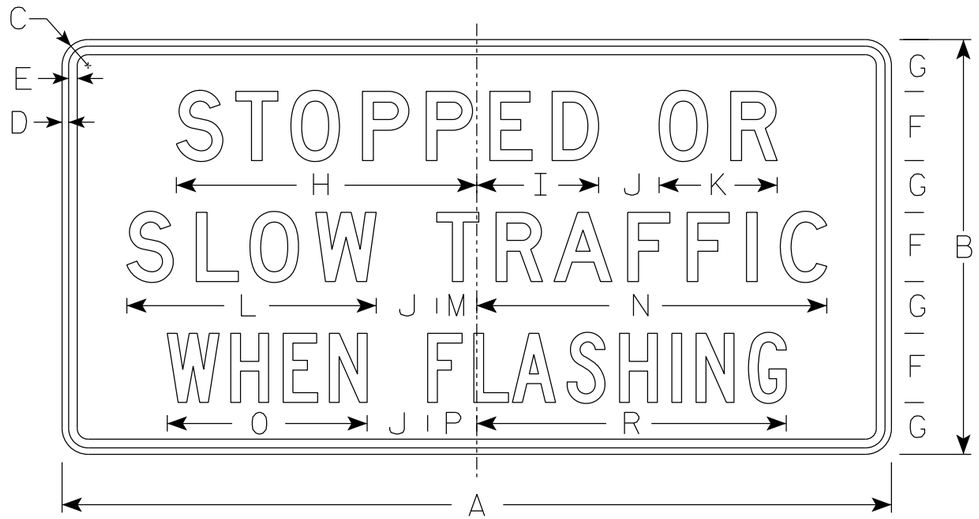
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: 324 E



W08-76

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Lines 1 and 2 are series D
   Line 3 is series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	96	48	3	3/4	1	8	6	34 3/4	14 1/8	7	13 5/8	28 7/8	4 5/8	40 1/2	23 1/8	5 3/4		35 7/8									32.0
5																											

STANDARD SIGN

W08-76

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

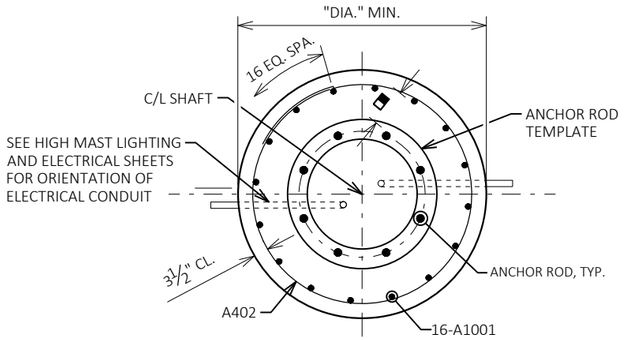
DATE 3/13/2024 PLATE NO. W08-76.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 325 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0876.dgn PLOT DATE : 13-MARCH 2024 11:58 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

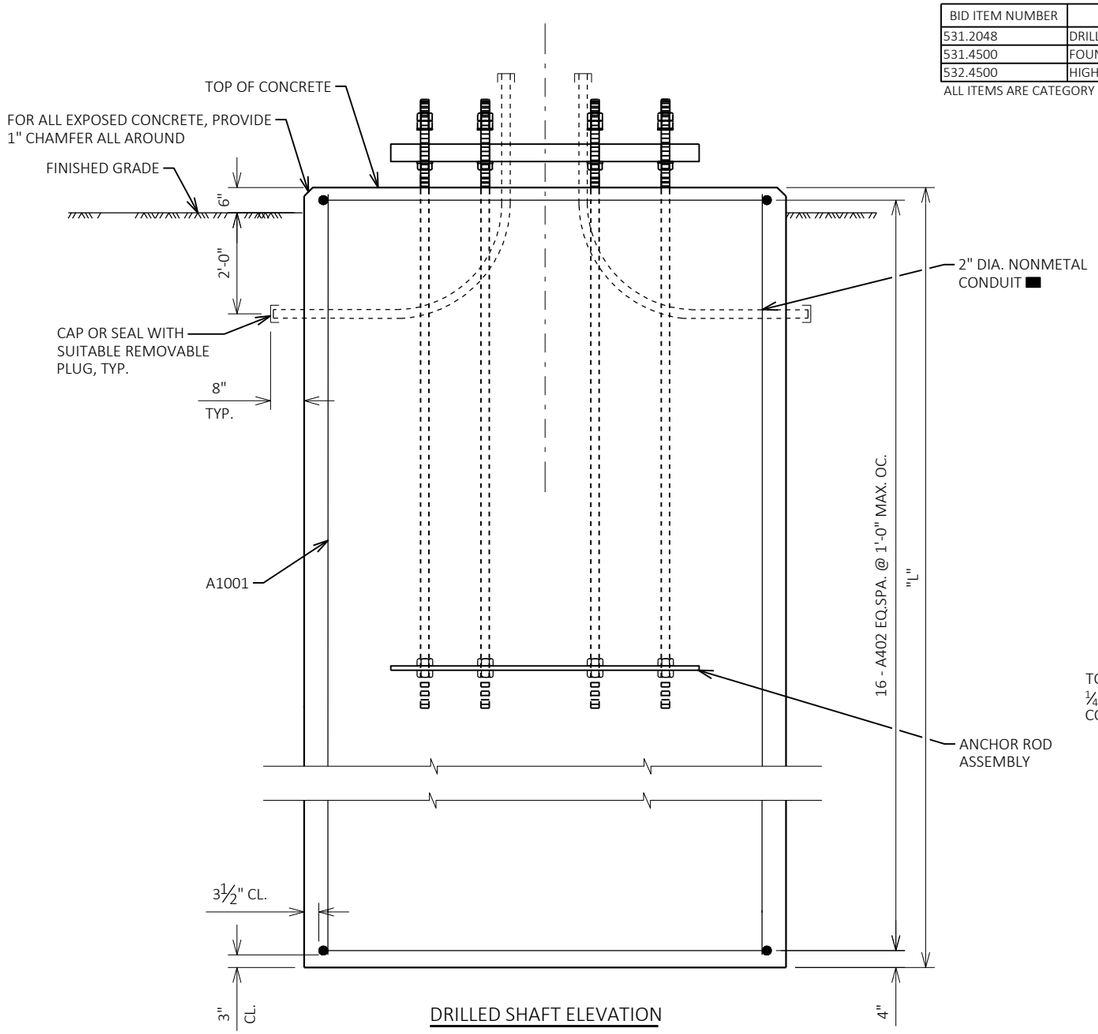
7

7



DRILLED SHAFT PLAN

■ REINFORCEMENT TO CLEAR ANCHOR RODS BY ½" MIN.



DRILLED SHAFT ELEVATION

SHAFT CASINGS, IF USED, SHALL BE REMOVED WHILE THE CONCRETE REMAINS WORKABLE.

■ SEE HIGHMAST LIGHTING AND ELECTRICAL SHEETS FOR ORIENTATION OF ELECTRICAL CONDUIT

BILL OF BARS L-41-3/4/5

BAR MARK	L-41-3	L-41-4	L-41-5	NO. REQ'D.	LENGTH	BENT	LOCATION
A1001	16	16	16	48	14'-6"		FOUNDATION VERT. BARS
A402	16	16	16	48	12'-2"	X	TIES FOR VERT. BARS

THE FIRST DIGIT OR FIRST TWO DIGITS OF A BAR MARK INDICATES THE BAR SIZE

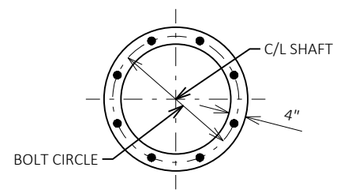
FOUNDATION QUANTITIES

POLE HEIGHT FEET	TOWER NUMBER	HML STATION	HML COORDINATES	"L" FEET	"DIA." FEET	CONCRETE MASONRY C.Y.	HIGH STRENGTH BAR STEEL REINFORCEMENT LB.
100	L-41-3	1185RA+19.20 47.04' RT.	N = 366961.96 E = 606829.53	15.0	4.00	7.0	1140
100	L-41-4	1188RA+95.28 128.11' LT.	N = 367364.22 E = 606967.45	15.0	4.00	7.0	1140
100	L-41-5	1192RA+97.88 122.34' RT.	N = 367314.06 E = 607435.37	15.0	4.00	7.0	1140
					TOTAL	21.0	3420

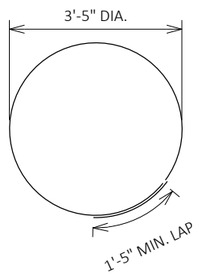
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	L-41-3	L-41-4	L-41-5
531.2048	DRILLING SHAFT 48-INCH	LF	15	15	15
531.4500	FOUNDATION HIGH MAST 100-FT	EA	1	1	1
532.4500	HIGH MAST 100-FT	EA	1	1	1

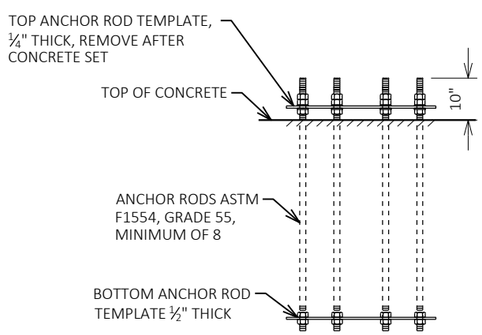
ALL ITEMS ARE CATEGORY 0010



ANCHOR ROD TEMPLATES



A402



ANCHOR ROD DETAILS

STATE PROJECT NUMBER

1071-07-80

LIST OF DRAWINGS:

1. HIGH MAST LIGHT POLE FOUNDATIONS
2. SUBSURFACE EXPLORATION (1 OF 2)
3. SUBSURFACE EXPLORATION (2 OF 2)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE FOUNDATION DESIGNS ARE NOT ALLOWED.

ALL STRUCTURAL STEEL MEMBERS, PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTIONS 531 AND 532 OF THE WISDOT STANDARD SPECIFICATIONS.

CONTRACTOR SHALL VERIFY DIMENSIONS PRIOR TO FABRICATION OF STRUCTURE.

WELD TEST AS PER AWS D1.1.

CONTRACTOR SHALL VERIFY CONFLICTS PRIOR TO CONSTRUCTION OF FOOTINGS.

POLE AND ANCHOR RODS TO BE DESIGNED TO AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS. LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

POLE FABRICATOR TO DESIGN AND SUPPLY POLE, ANCHOR RODS AND TEMPLATES IN ACCORDANCE WITH THE PLANS AND STANDARD SPECIFICATIONS.

MAINTAIN 3½" MIN. COVER OF REINFORCEMENT.

INSTALL STRUCTURE ID PLAQUE PER S.D.D. 10 A 4-3

SEE HIGH MAST LIGHT ELECTRICAL SHEETS FOR LUMINAIRE AND HARDWARE INFORMATION.

CONCRETE AND REINFORCEMENT QUANTITIES PROVIDED IS FOR INFORMATIONAL PURPOSES ONLY. CONCRETE AND REINFORCEMENT QUANTITIES ARE INCLUDED IN BID ITEM "FOUNDATION HIGH MAST 100-FT"

MATERIAL PROPERTIES:

CONCRETE MASONRY — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.

STRUCTURAL CARBON STEEL:
ASTM A709, GRADE 36 — fy = 36,000 P.S.I.

ANCHOR RODS, ASTM F1554, GRADE 55 - — fy = 55,000 P.S.I.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.

STRUCTURE DESIGN CONTACTS:

BRIDGE OFFICE: AARON BONK (608) 261-0261
CONSULTANT: CHRIS KADERA (414) 359-2300

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
HNTB
250 E WISCONSIN AVE #2000
MILWAUKEE, WI 53202
(414) 359-2300

STATE OF WISCONSIN DEPARTMENT OF TRANSPORATION

ACCEPTED SDR 04/02/24
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE L-41-3/4/5

COUNTY	CITY
MONROE	SPARTA

DESIGN SPEC.
AASHTO LRFD LTS 1 W/ INTERIMS

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
MMD	JWO/CNK	MMD	JWO/CNK

HIGH MAST LIGHT POLE FOUNDATIONS

SHEET 1 OF 3
326

SCALE =

I.D.

DATE:

WISCONSIN
CHRISTOPHER N. KADERA
41791
BROOKFIELD, WI
PROFESSIONAL ENGINEER
December 1, 2023

8

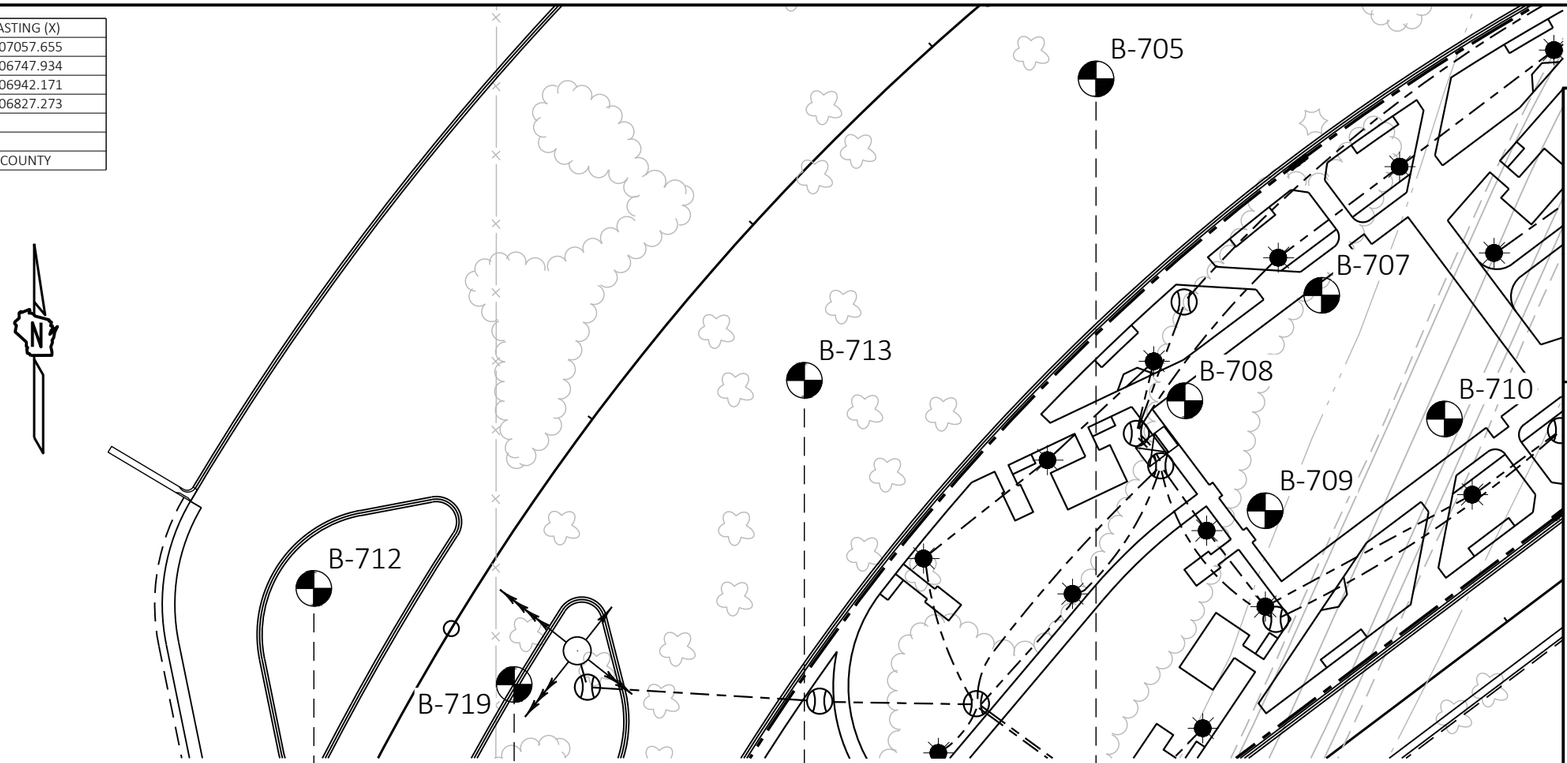
8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
705	DECEMBER 15, 2022	367194.097	607057.655
712	DECEMBER 19, 2022	366992.410	606747.934
713	DECEMBER 14, 2022	367074.792	606942.171
719	DECEMBER 14, 2022	366954.368	606827.273
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WISCRS NAD 83(2011) MONROE COUNTY			

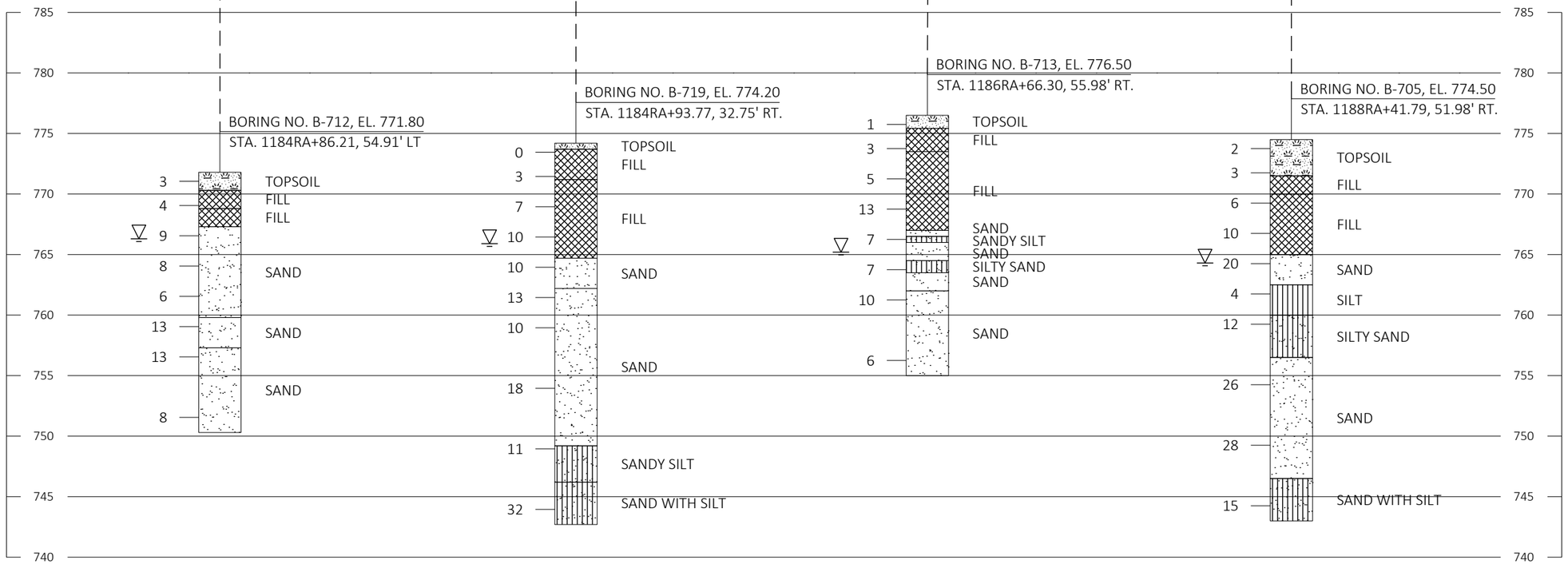
NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

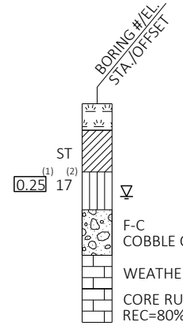
STATE PROJECT NUMBER

1071-07-80

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 ASTM D1586, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE L-41-3/4/5

DRAWN BY DMLJ | PLANS CK'D JWO

SUBSURFACE EXPLORATION (1 OF 2)

SHEET 2 OF 3

327

SCALE =

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
706	DECEMBER 20, 2022	367346.631	607326.510
714	DECEMBER 19, 2022	367292.642	606991.700
715	DECEMBER 15, 2022	367276.410	607195.443
716	DECEMBER 15, 2022	367446.778	607275.202
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: HNTB CORP.			
ALL COORDINATES REFERENCED TO WISCRS NAD 83(2011) MONROE COUNTY			

NOTE:

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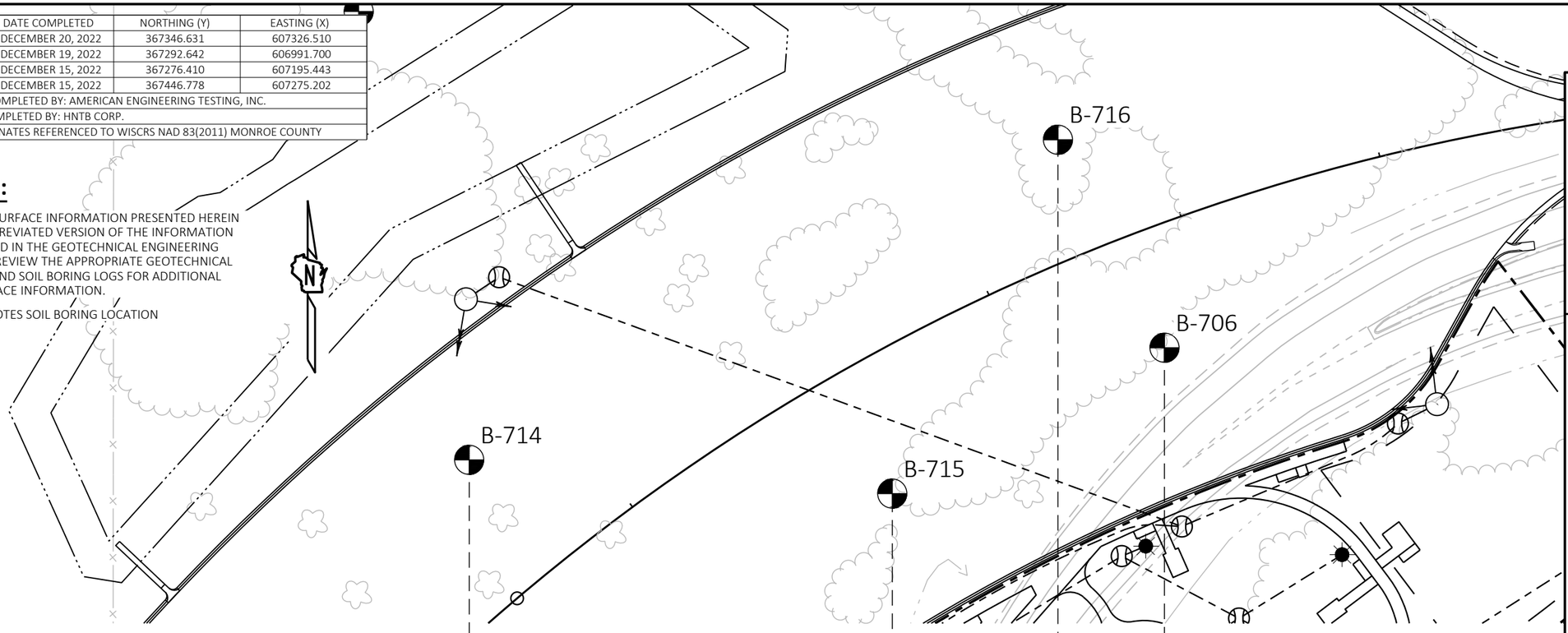
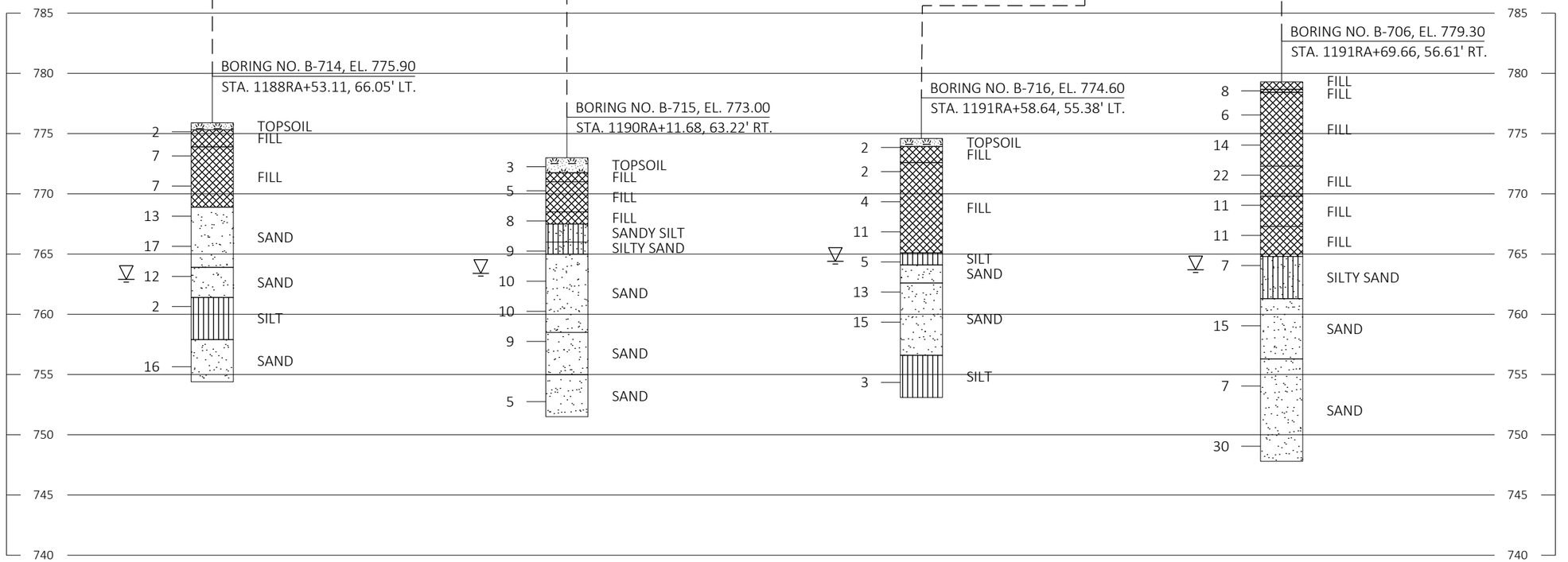
DENOTES SOIL BORING LOCATION



PLAN



ELEVATION

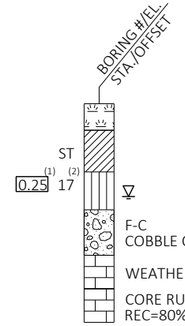
STATE PROJECT NUMBER

1071-07-80

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



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GROUND WATER ELEVATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE L-41-3/4/5

DRAWN BY DMLJ | PLANS CK'D JWO

SUBSURFACE EXPLORATION (2 OF 2)

SHEET 3 OF 3

328

SCALE =

8

8

DIVISION 1 - RAMP A														
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.30	EXPANDED EBS BACKFILL 1.30	REDUCED EBS IN FILL 0.80	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3		NOTE 1		NOTE 5	NOTE 7	NOTE 8
1159+36	0	19.12	4.67	4.52	0.96	0	0	0	0	0	0	0	0	0
1160+00	64	19.12	4.67	4.52	0.96	45	11	11	2	45	12	3	2	22
1161+00	100	19.71	4.67	9.13	0.99	72	17	25	4	117	41	8	5	48
1162+00	100	20.26	4.67	17.49	1.01	74	17	49	4	191	100	13	8	46
1163+00	100	19.23	4.67	38.76	0.96	73	17	104	4	264	231	18	11	-29
1164+00	100	19.09	4.67	19.74	0.95	71	17	108	4	335	367	23	14	-111
1165+00	100	19.44	4.67	24.69	0.97	71	17	82	4	406	470	29	18	-160
1166+00	100	19.66	4.67	20.22	0.98	72	17	83	4	478	574	34	21	-209
1167+00	100	17.81	4.67	26.99	0.89	69	17	87	3	547	684	38	23	-267
1168+00	100	18.75	4.67	44.13	0.94	68	17	132	3	615	852	42	26	-384
1169+00	100	17.81	4.67	21.53	0.89	68	17	122	3	683	1,008	46	28	-489
1169+12	12	18.21	4.67	28.16	0.91	8	2	11	0	691	1,022	46	28	-497
1169+25	13	19.69	4.67	5.70	0.98	9	2	8	0	700	1,032	46	28	-500
1169+37	12	19.61	4.67	19.12	0.98	9	2	6	0	709	1,040	46	28	-501
1170+00	75	19.97	4.67	11.86	1.00	55	13	43	3	764	1,093	49	30	-512
1171+00	100	23.47	4.30	39.39	1.17	80	17	95	4	844	1,212	55	34	-568
1171+56	56	24.89	5.00	44.26	1.24	50	10	87	3	894	1,322	59	36	-638
1171+81	25	25.31	5.40	46.29	1.27	23	5	42	1	917	1,376	60	37	-674
1172+00	19	25.85	5.70	52.12	1.29	18	4	35	1	935	1,420	61	38	-704
1172+06	6	25.89	5.70	53.60	1.29	6	1	12	0	941	1,436	61	38	-715
1173+00	94	28.94	7.70	32.28	1.45	95	23	149	5	1,036	1,624	68	42	-831
1173+18	18	29.59	8.00	24.20	1.48	20	5	19	1	1,056	1,648	69	42	-840
1174+00	82	31.76	9.70	13.28	1.59	93	27	57	5	1,149	1,717	75	46	-843
1175+00	100	34.48	11.70	7.97	1.72	123	40	39	6	1,272	1,761	83	51	-804
1175+98	98	37.11	11.70	1.33	1.86	130	42	17	6	1,402	1,777	91	56	-732
1176+00	2	37.17	12.60	1.22	1.86	3	1	0	0	1,405	1,777	91	56	-730
1176+94	94	70.69	14.30	0.00	3.53	188	47	2	9	1,593	1,770	103	63	-582
1177+00	6	71.66	14.30	0.00	3.58	16	3	0	1	1,609	1,769	104	64	-568
1178+00	100	41.99	15.90	38.41	2.10	210	56	71	11	1,819	1,850	118	73	-495
1179+00	100	0.00	0.00	241.84	0.00	78	29	519	4	1,897	2,521	124	76	-1,117
1180+00	100	29.59	0.00	559.13	1.48	55	0	1,483	3	1,952	4,445	127	78	-2,986
1181+00	100	8.24	0.00	353.12	0.41	70	0	1,689	4	2,022	6,637	133	82	-5,108
1181+03	3	8.25	0.00	350.34	0.41	1	0	39	0	2,023	6,688	133	82	-5,158
1182+00	97	6.99	0.00	391.97	0.35	27	0	1,333	1	2,050	8,420	134	82	-6,863
1182+50	50	14.21	0.00	334.44	0.71	20	0	673	1	2,070	9,293	135	83	-7,716
1182+65	15	15.07	0.00	311.37	0.75	8	0	179	0	2,078	9,526	135	83	-7,941
1182+83	18	15.52	0.00	298.51	0.78	10	0	203	1	2,088	9,789	137	84	-8,194
1183+00	17	17.07	0.00	289.01	0.85	10	0	185	1	2,098	10,028	138	85	-8,423
1183+79	79	14.79	0.00	397.14	0.74	47	0	1,004	2	2,145	11,332	140	86	-9,680
1184+00	21	15.54	0.00	449.50	0.78	12	0	329	1	2,157	11,758	142	87	-10,094
1185+00	100	12.14	0.00	913.64	0.61	51	0	2,524	3	2,208	15,036	146	90	-13,321
1186+00	100	14.83	0.00	816.02	0.74	50	0	3,203	2	2,258	19,198	148	91	-17,433
1187+00	100	75.62	0.00	771.25	3.78	168	0	2,939	8	2,426	23,011	159	98	-21,078
1188+00	100	502.09	0.00	410.06	25.10	1,070	0	2,188	53	3,496	25,800	228	140	-22,797
1189+00	100	784.13	0.00	1009.24	39.21	2,382	0	2,628	119	5,878	29,092	382	235	-23,707
1190+00	100	104.92	0.00	1729.63	5.25	1,646	0	5,072	82	7,524	35,601	489	301	-28,570

DIVISION 1 - RAMP A (CONTINUED)															
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)					
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT 1.00	EXPANDED FILL 1.30	EXPANDED EBS BACKFILL 1.30	REDUCED EBS IN FILL 0.80	MASS ORDINATE	
						NOTE 1	NOTE 2	NOTE 3		NOTE 1		NOTE 5	NOTE 7	NOTE 8	
						CONTINUED									
1191+00	100	28.30	7.13	1521.57	1.42	247	13	6,021	12	7,771	43,416	504	310	-36,151	
1192+00	100	186.98	24.68	474.48	9.35	399	59	3,696	20	8,170	48,200	530	326	-40,595	
1193+00	100	264.21	30.30	21.69	13.21	836	102	919	42	9,006	49,351	585	360	-41,012	
1194+00	100	237.61	11.40	0.00	11.88	929	77	40	46	9,935	49,355	645	397	-40,164	
1195+00	100	113.82	13.43	12.71	5.69	651	46	24	33	10,586	49,352	688	423	-39,556	
1195+32	32	93.55	12.90	62.58	4.68	123	16	45	6	10,709	49,404	696	428	-39,501	
1195+72	40	75.42	6.23	153.69	3.77	125	14	160	6	10,834	49,606	703	433	-39,592	
1195+99	27	51.63	0.00	241.76	2.58	64	3	198	3	10,898	49,860	707	435	-39,785	
1196+00	1	50.87	0.00	244.19	2.54	2	0	9	0	10,900	49,872	707	435	-39,795	
1196+86	86	11.06	0.00	124.16	0.55	99	0	587	5	10,999	50,630	714	439	-40,454	
1197+00	14	8.12	0.00	83.63	0.41	5	0	54	0	11,004	50,700	714	439	-40,519	
1197+07	7	7.81	0.00	88.89	0.39	2	0	22	0	11,006	50,728	714	439	-40,545	
1197+74	67	0.36	0.00	66.60	0.02	10	0	193	1	11,016	50,978	715	440	-40,785	
1198+00	26	0.00	0.00	43.86	0.00	0	0	53	0	11,016	51,047	715	440	-40,854	
1199+00	100	30.95	30.60	12.00	1.55	57	57	103	3	11,073	51,178	719	442	-40,985	
1200+00	100	238.06	71.03	0.00	11.90	498	188	22	25	11,571	51,180	751	462	-40,677	
1201+00	100	272.29	26.18	2.71	13.61	945	180	5	47	12,516	51,138	813	500	-39,870	
1201+70	70	410.83	18.45	3.12	20.54	886	58	8	44	13,402	51,103	870	535	-39,007	
1201+75	5	403.04	18.68	2.38	20.15	75	3	1	4	13,477	51,100	875	538	-38,932	
1202+00	25	303.86	21.08	0.70	15.19	327	18	1	16	13,804	51,085	896	551	-38,608	
1203+00	100	303.15	11.25	0.00	15.16	1,124	60	1	56	14,928	51,028	969	596	-37,487	
1204+00	100	197.93	11.25	0.00	9.90	928	42	0	46	15,856	50,980	1,028	633	-36,553	
1204+54	54	156.59	11.25	0.00	7.83	355	23	0	18	16,211	50,961	1,052	647	-36,202	
1205+00	46	112.19	11.25	0.00	5.61	229	19	0	11	16,440	50,950	1,066	656	-35,981	
1205+51	51	83.38	11.25	25.36	4.17	185	21	24	9	16,625	50,971	1,078	663	-35,838	
1206+00	49	84.63	11.25	64.74	4.23	152	20	82	8	16,777	51,070	1,088	670	-35,805	
1206+45	45	79.18	15.98	87.38	3.96	137	23	127	7	16,914	51,228	1,097	675	-35,849	
1207+00	55	77.88	13.20	65.52	3.89	160	30	156	8	17,074	51,422	1,108	682	-35,913	
1208+00	100	107.70	15.68	29.20	5.38	344	53	175	17	17,418	51,632	1,130	695	-35,832	
1209+00	100	151.11	17.56	0.00	7.56	479	62	54	24	17,897	51,677	1,161	714	-35,460	
1210+00	100	123.21	15.92	0.00	6.16	508	62	0	25	18,405	51,651	1,193	734	-34,988	
1210+60	60	104.01	15.92	0.00	5.20	252	35	0	13	18,657	51,638	1,210	745	-34,758	
1211+00	40	74.12	35.40	0.00	3.71	132	38	0	7	18,789	51,630	1,219	750	-34,656	
1211+54	54	53.35	27.80	0.00	2.67	127	63	0	6	18,916	51,624	1,227	755	-34,586	
1212+00	46	41.49	22.60	0.00	2.07	81	43	0	4	18,997	51,620	1,232	758	-34,544	
1213+00	100	27.63	13.80	0.00	1.38	128	67	0	6	19,125	51,614	1,240	763	-34,477	
1214+00	100	30.07	11.50	0.62	1.50	107	47	1	5	19,232	51,610	1,247	767	-34,413	
1215+00	100	31.16	9.10	0.53	1.56	113	38	2	6	19,345	51,606	1,255	772	-34,334	
1216+00	100	29.72	6.70	0.16	1.49	113	29	1	6	19,458	51,601	1,262	777	-34,245	
1217+00	100	31.85	5.00	0.42	1.59	114	22	1	6	19,572	51,596	1,270	782	-34,148	
1218+00	100	35.17	3.50	0.31	1.76	124	16	1	6	19,696	51,591	1,278	786	-34,035	
1219+00	100	31.86	2.00	1.19	1.59	124	10	3	6	19,820	51,589	1,286	791	-33,919	
1220+00	100	25.96	4.67	0.00	1.30	107	12	2	5	19,927	51,586	1,292	795	-33,821	
1221+00	100	23.67	4.67	0.00	1.18	92	17	0	5	20,019	51,581	1,299	799	-33,741	
1222+08	108	23.67	4.67	0.00	1.18	95	19	0	5	20,114	51,576	1,305	803	-33,660	
						20,114	2,198	40,477	1,004						

NOTES:

1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

2 - THIS DOES NOT SHOW UP IN CROSS SECTIONS

3 - DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

4 - WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)

5 - WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)

6 - REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL

7 - REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL

8 - IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

9

9

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	EARTHWORK DATA TABLES	SHEET 331	E

DIVISION 1 - RAMP B														
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)				
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.30	EXPANDED EBS BACKFILL 1.30 NOTE 5	REDUCED EBS IN FILL 0.80 NOTE 7	MASS ORDINATE NOTE 8
1180+28	0	38.25	0.00	257.51	1.91	0	0	0	0	0	0	0	0	0
1181+00	72	17.28	0.00	343.50	0.86	74	0	801	4	74	1,037	5	3	-963
1181+93	93	16.92	0.00	532.70	0.85	59	0	1,509	3	133	2,996	9	6	-2,863
1182+00	7	16.74	0.00	526.50	0.84	4	0	137	0	137	3,174	9	6	-3,037
1182+76	76	79.48	0.00	306.05	3.97	135	0	1,172	7	272	4,690	18	11	-4,418
1183+00	24	121.96	0.00	158.35	6.10	90	0	206	4	362	4,954	23	14	-4,592
1183+25	25	132.16	0.00	59.15	6.61	118	0	101	6	480	5,079	31	19	-4,599
1183+27	2	132.58	0.00	52.61	6.63	10	0	4	0	490	5,084	31	19	-4,594
1184+00	73	171.04	0.00	5.49	8.55	410	0	79	21	900	5,165	59	36	-4,265
1184+10	10	166.99	0.00	3.66	8.35	63	0	2	3	963	5,164	62	38	-4,201
1185+00	90	260.18	22.88	6.27	13.01	712	38	17	36	1,675	5,149	109	67	-3,512
1186+00	100	327.84	24.60	14.49	16.39	1,089	88	38	54	2,764	5,142	179	110	-2,504
1187+00	100	552.40	32.18	3.93	27.62	1,630	105	34	82	4,394	5,101	286	176	-938
1188+00	100	519.54	0.00	12.17	25.98	1,985	60	30	99	6,379	5,037	415	255	1,051
1189+00	100	4.55	0.00	121.37	0.23	971	0	247	49	7,350	5,307	478	294	1,752
1190+00	100	131.45	0.00	28.15	6.57	252	0	277	13	7,602	5,654	495	305	1,657
1191+00	100	581.65	0.00	0.00	29.08	1,321	0	52	66	8,923	5,653	581	358	2,979
1192+00	100	399.56	0.00	0.00	19.98	1,817	0	0	91	10,740	5,558	699	430	4,891
1192+14	14	487.03	0.00	0.00	24.35	230	0	0	11	10,970	5,547	714	439	5,132
1192+91	77	1202.91	0.00	0.00	60.15	2,410	0	0	120	13,380	5,422	870	535	7,667
1193+00	9	1021.85	0.00	0.00	51.09	371	0	0	19	13,751	5,402	894	550	8,058
1194+00	100	333.53	22.65	55.71	16.68	2,510	42	103	125	16,261	5,406	1,057	650	10,522
1194+50	50	304.79	45.98	0.00	15.24	591	64	52	30	16,852	5,443	1,096	674	11,012
1195+00	50	219.45	63.68	11.97	10.97	485	102	11	24	17,337	5,432	1,127	694	11,406
1196+00	100	113.36	41.48	7.67	5.67	616	195	36	31	17,953	5,446	1,167	718	11,813
1196+47	47	113.30	30.30	0.00	5.66	197	62	7	10	18,150	5,445	1,180	726	11,949
1197+00	53	104.64	42.90	0.00	5.23	214	72	0	11	18,364	5,434	1,195	735	12,102
1197+24	24	107.32	29.25	0.00	5.37	94	32	0	5	18,458	5,429	1,201	739	12,169
1198+00	76	127.52	28.95	0.00	6.38	331	82	0	17	18,789	5,411	1,223	753	12,436
						18,789	942	4,915	941					

NOTES:

1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

2 - THIS DOES NOT SHOW UP IN CROSS SECTIONS

3 - DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

4 - WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)

5 - WILL BE BACKFILLED WITH GRANULAR BACKFILL (OR CUT, OR BORROW)

6 - REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL

7 - REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL

8 - IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - MAINTENANCE BUILDING DRIVEWAY															
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)					
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.30	EXPANDED EBS BACKFILL 1.30 NOTE 5	REDUCED EBS IN FILL 0.80 NOTE 7	MASS ORDINATE NOTE 8
500+25	0	22.07	0.00	0.00	1.10	0	0	0	0	0	0	0	0	0
500+50	25	79.53	0.00	0.00	3.98	47	0	0	2	47	-2	3	2	49
500+70	20	151.20	0.00	0.00	7.56	85	0	0	4	132	-6	8	5	138
500+80	10	174.95	0.00	0.00	8.75	60	0	0	3	192	-9	12	7	201
501+08	28	174.95	0.00	0.00	8.75	181	0	0	9	373	-19	23	14	392
						373	0	0	18					

NOTES:

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7 - REDUCED EBS EXCAVATION THAT CAN BE USED IN FILL

8 - IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTO

DIVISION 1 - IH 90 WB															
STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)					
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	EBS	CUT 1.00 NOTE 1	EXPANDED FILL 1.30	EXPANDED EBS BACKFILL 1.30 NOTE 5	REDUCED EBS IN FILL 0.80 NOTE 7	MASS ORDINATE NOTE 8	
1178+31	0	23.06	22.50	0.00	1.15	0	0	0	0	0	0	0	0	0	
1179+00	69	23.06	22.50	0.00	1.15	59	58	0	3	59	-3	4	2	4	
1180+00	100	41.13	24.30	0.00	2.06	119	87	0	6	178	-9	12	7	42	
1181+00	100	40.63	26.80	0.00	2.03	151	95	0	8	329	-18	22	14	107	
1182+00	100	47.68	30.80	0.00	2.38	164	107	0	8	493	-26	33	20	172	
1182+59	59	47.68	30.80	0.00	2.38	104	67	0	5	597	-31	39	24	214	
						597	414	0	30						

NOTES:

1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL

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3 - DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME

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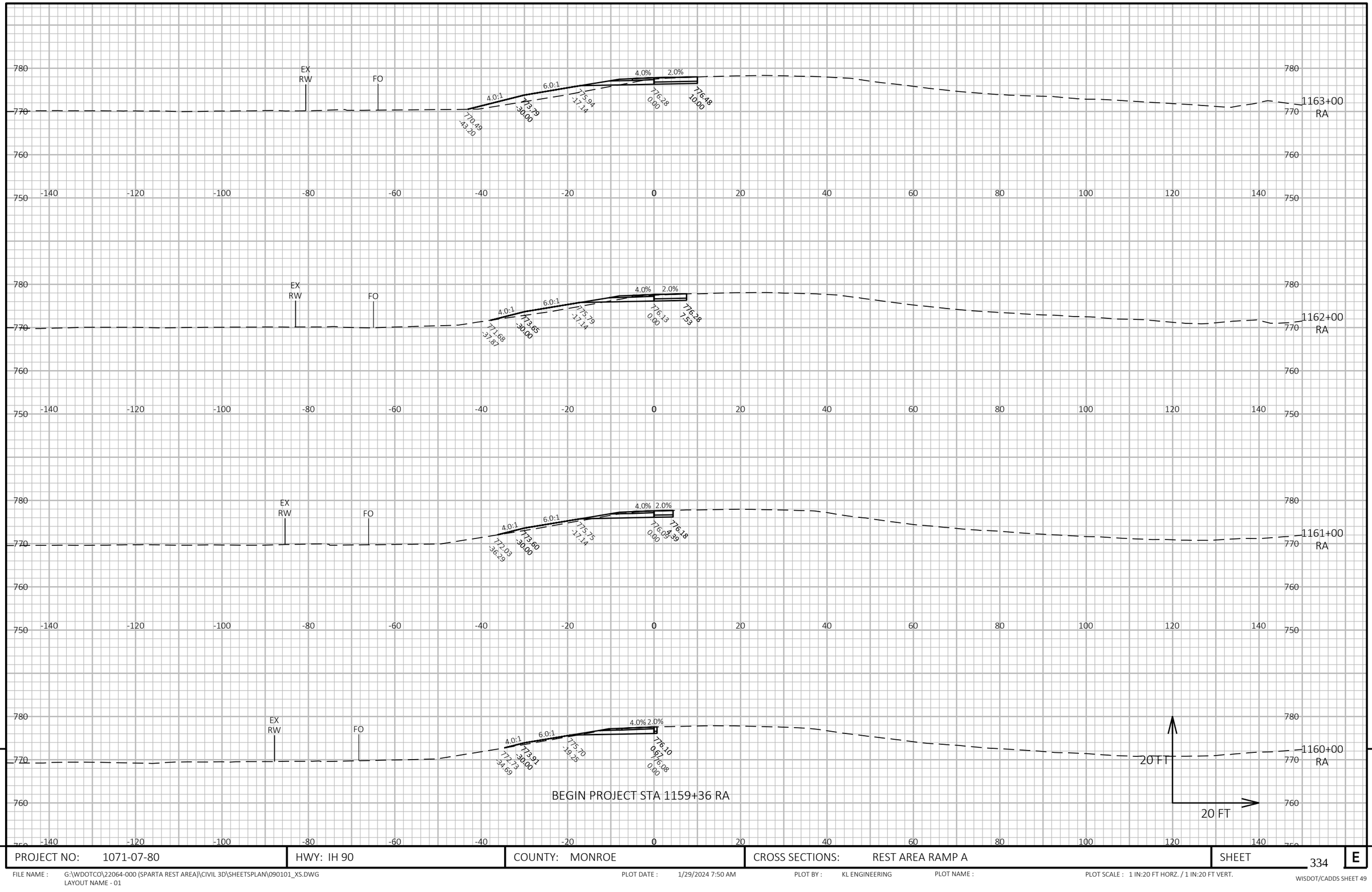

9

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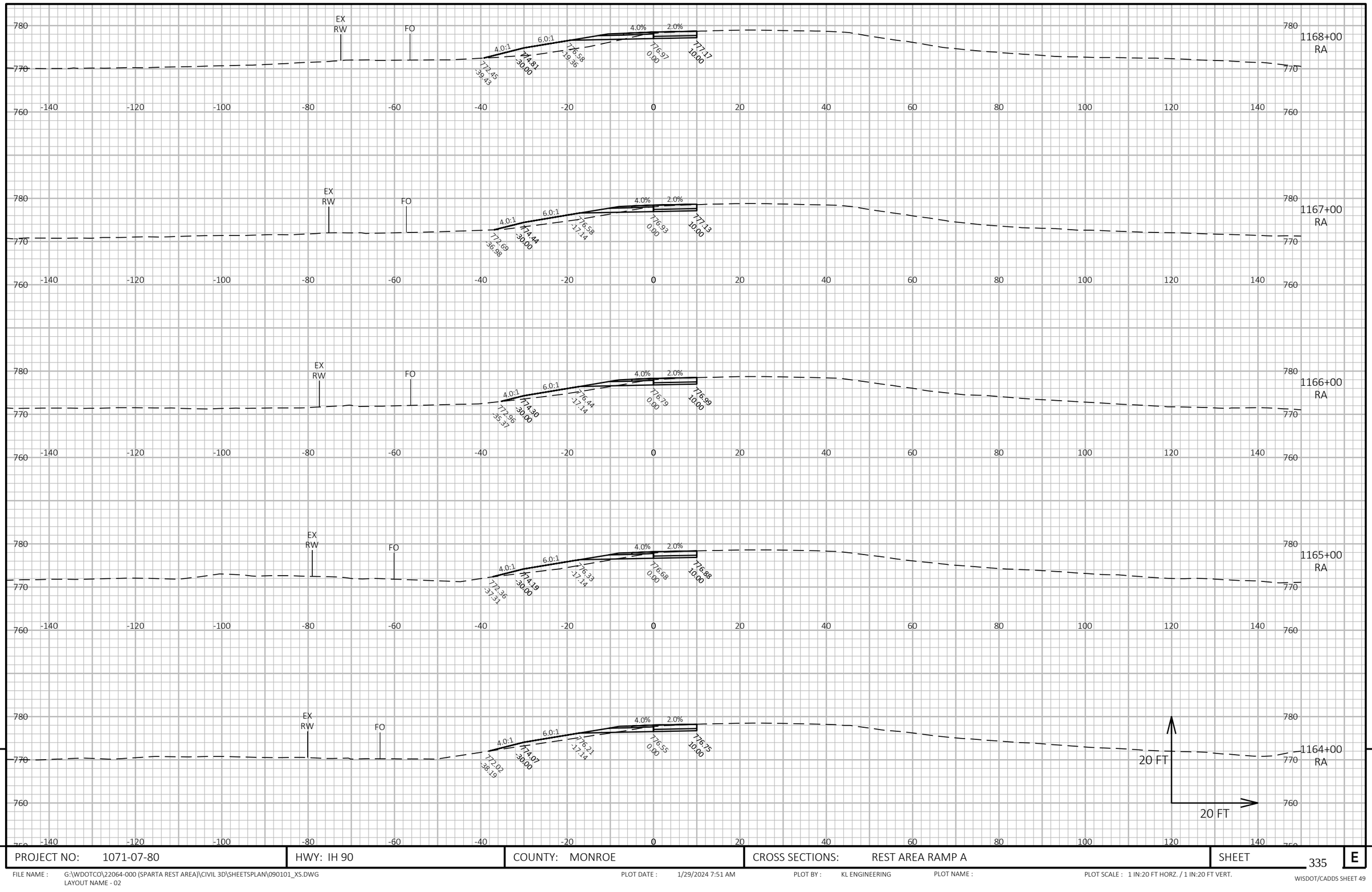
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 334	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/29/2024 7:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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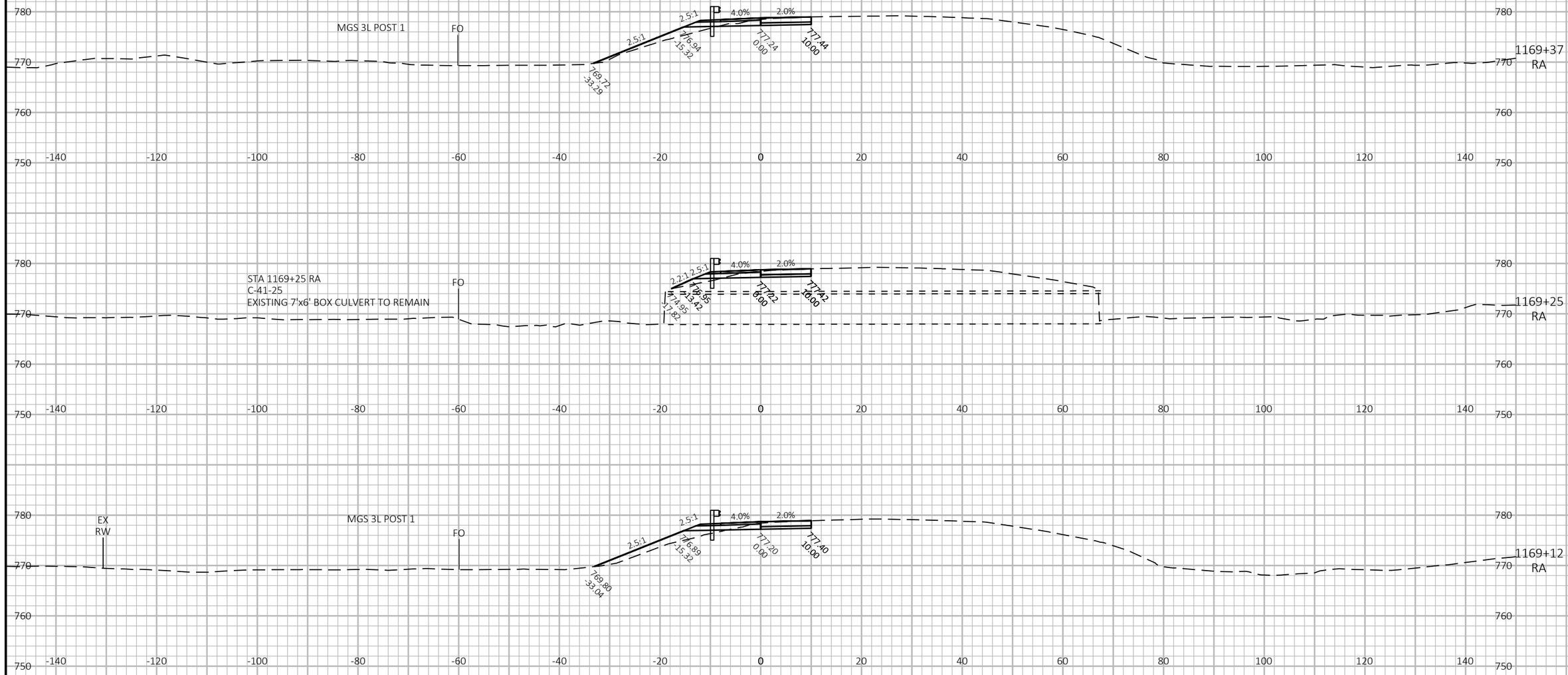
9

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 335	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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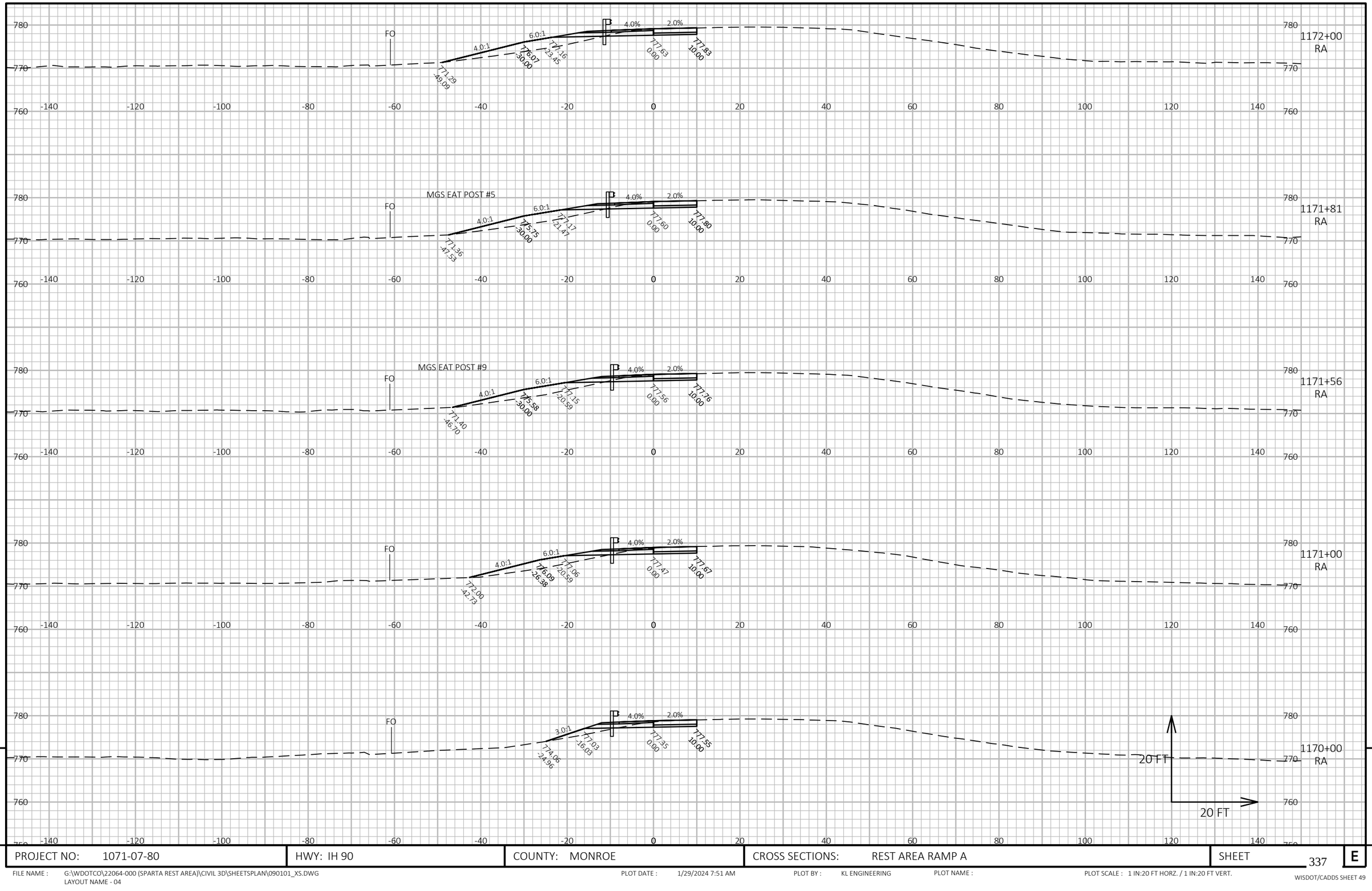
9

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 336	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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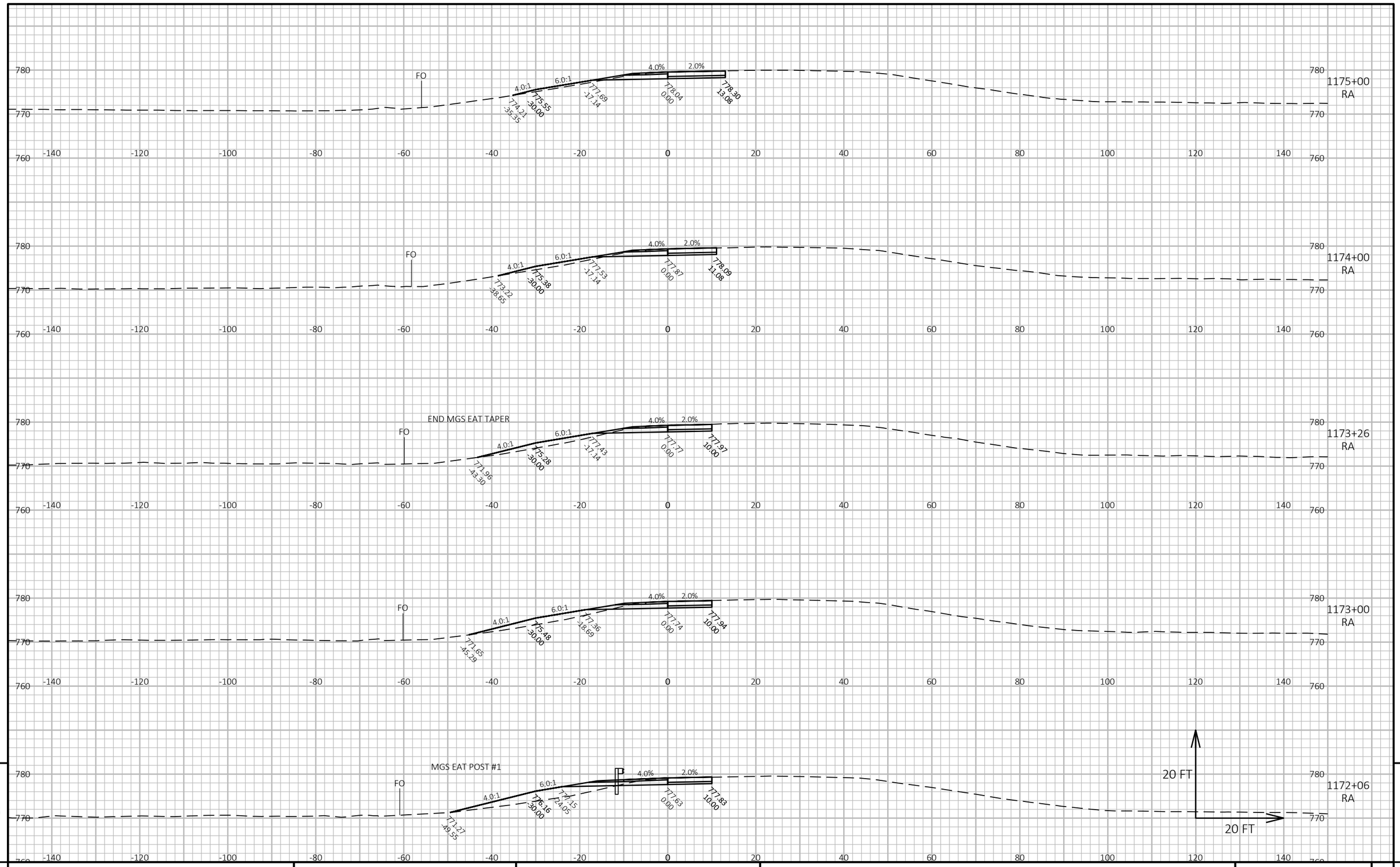
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 337	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 04

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

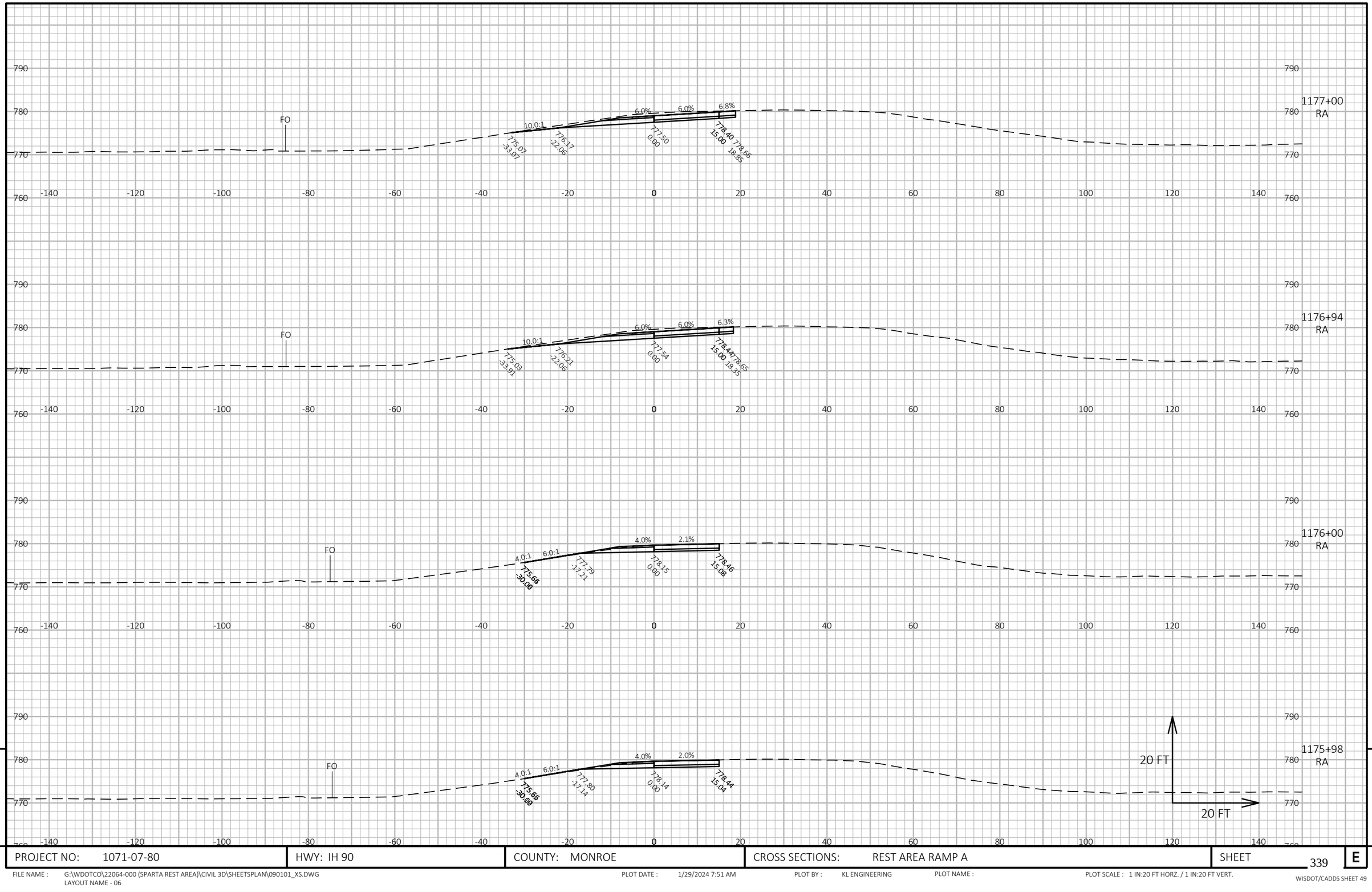


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 338	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 05

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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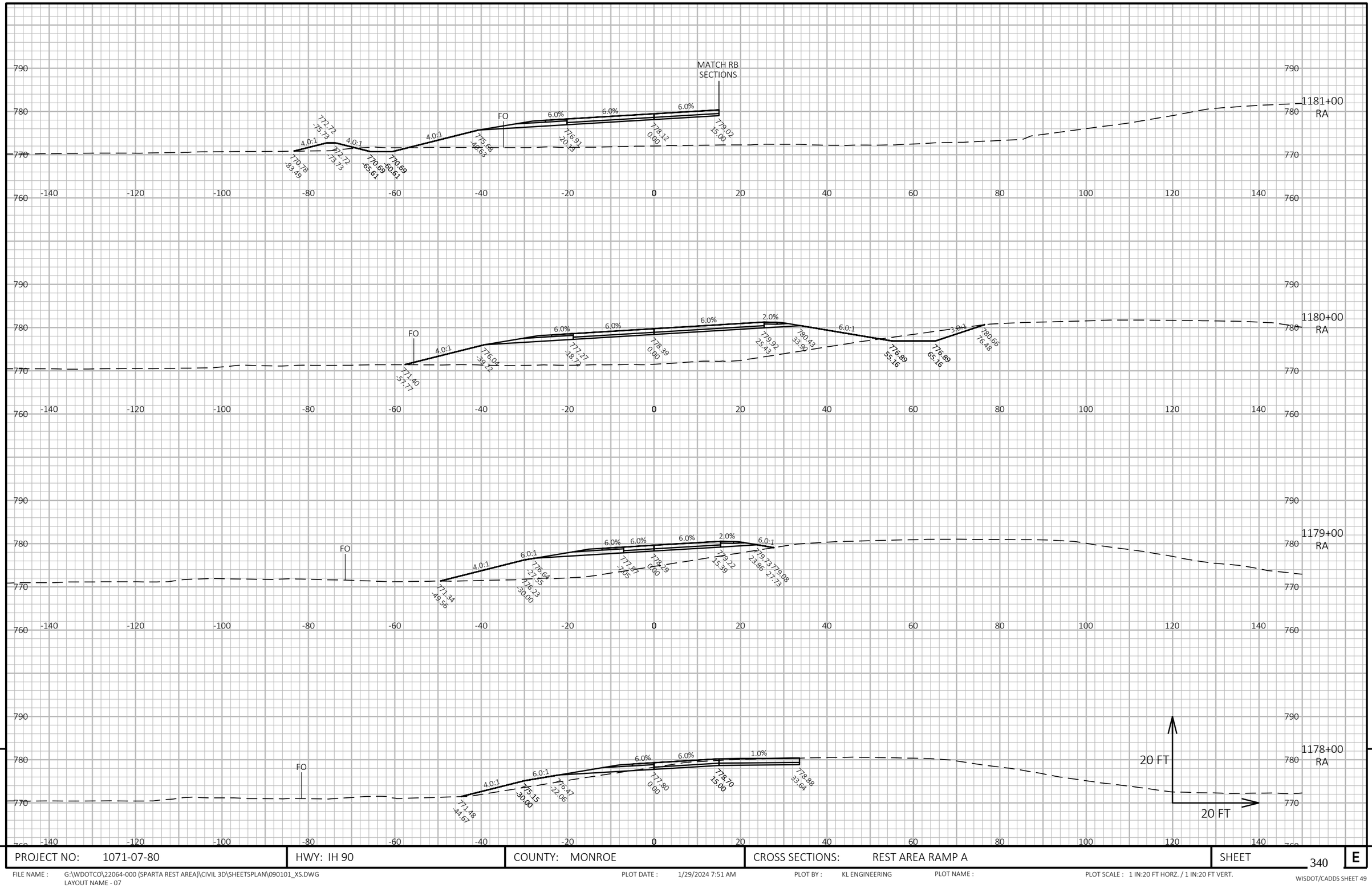
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 339	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 06

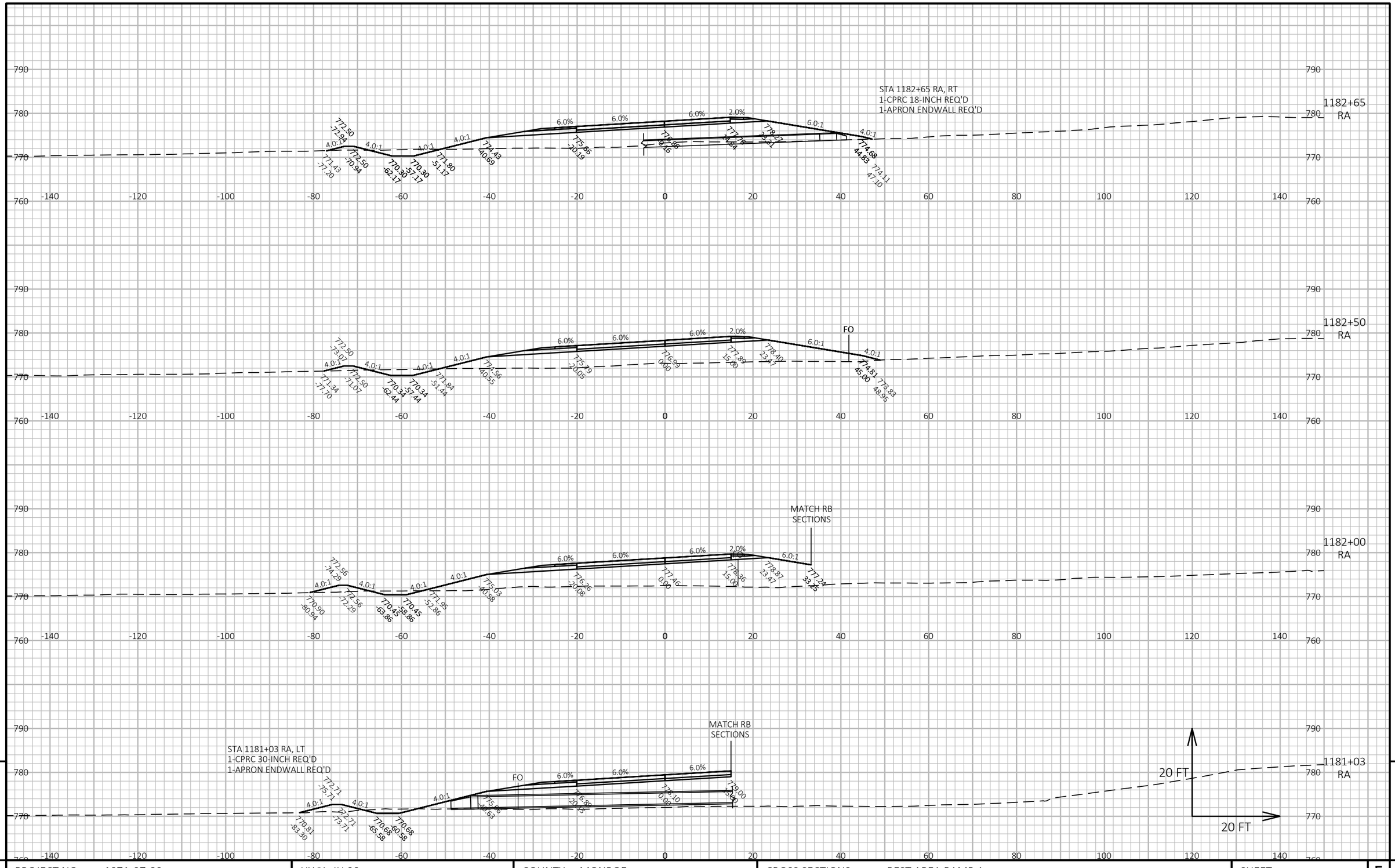
PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 340 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 07

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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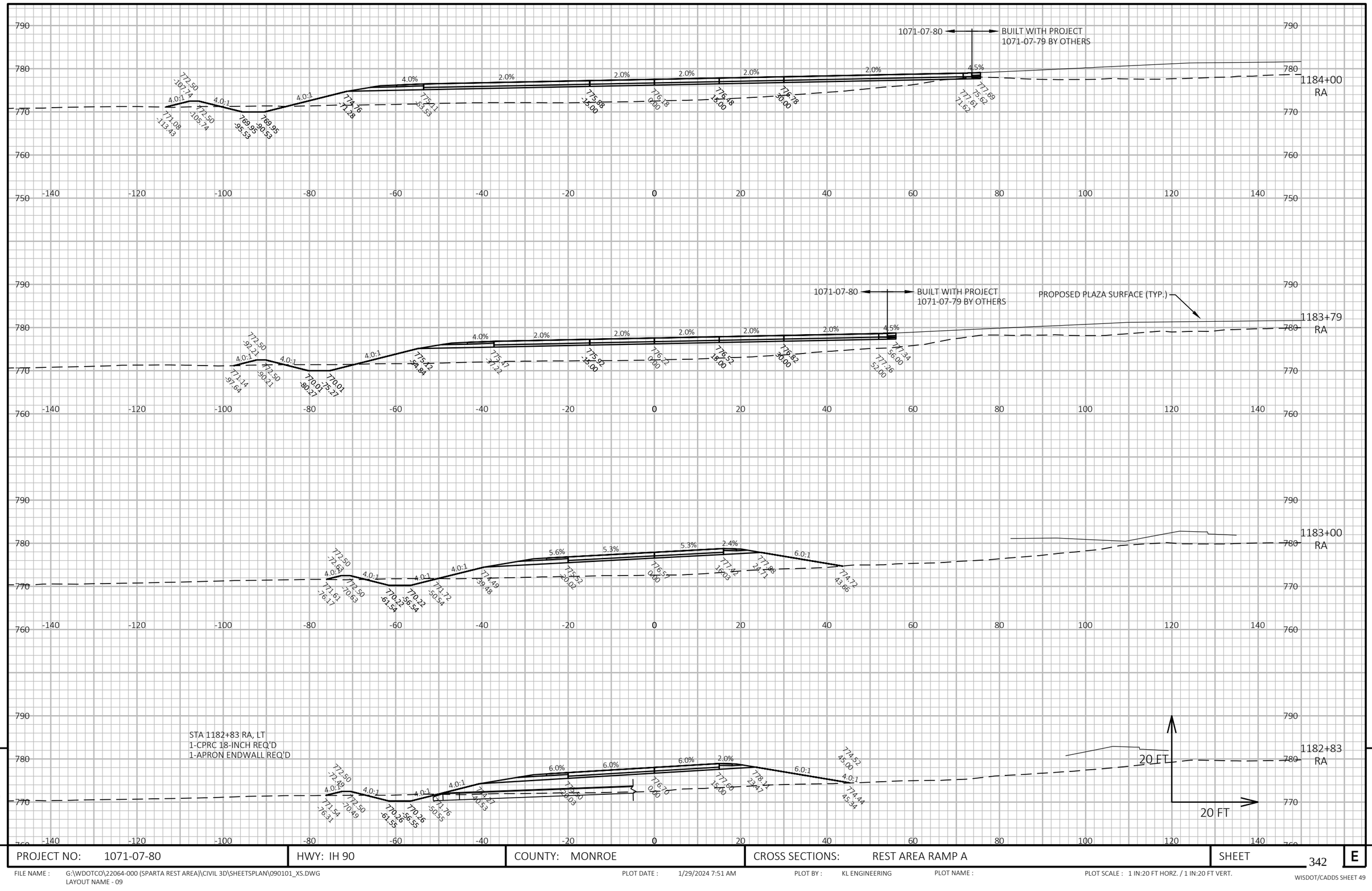
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 341	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 08

PLOT DATE : 1/29/2024 7:51 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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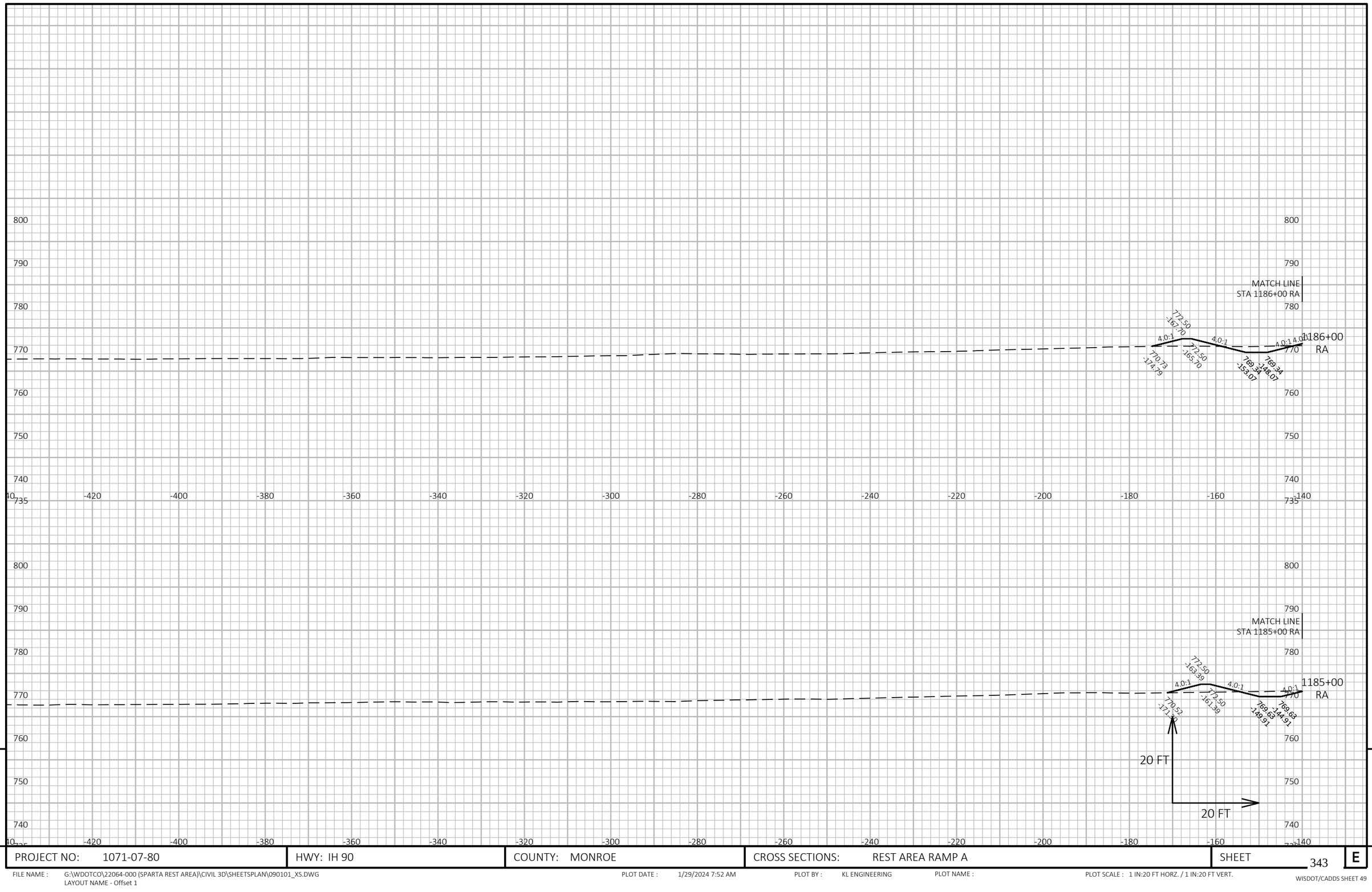
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 342	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 09
PLOT DATE : 1/29/2024 7:51 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49

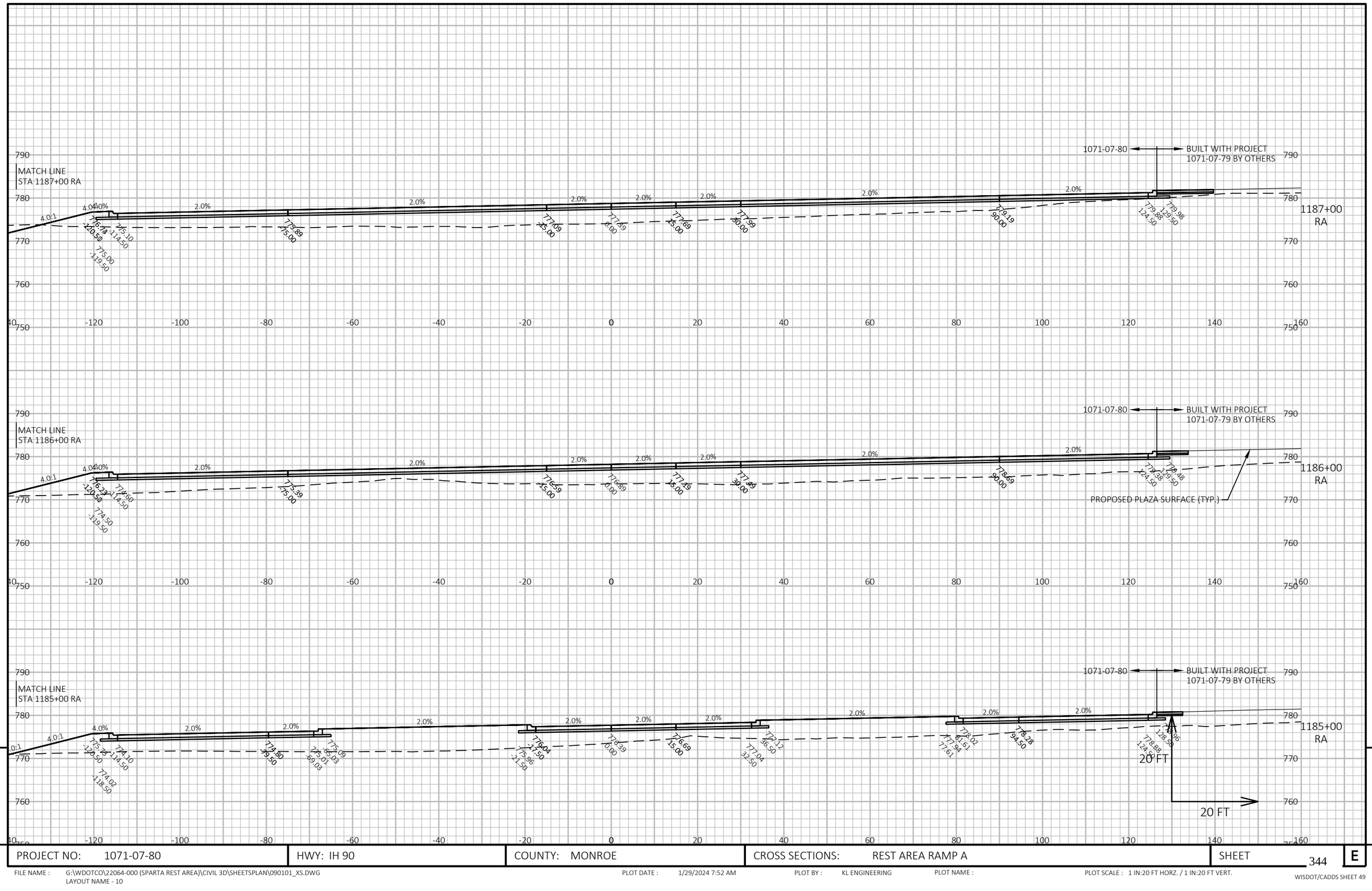


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 343 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - Offset 1

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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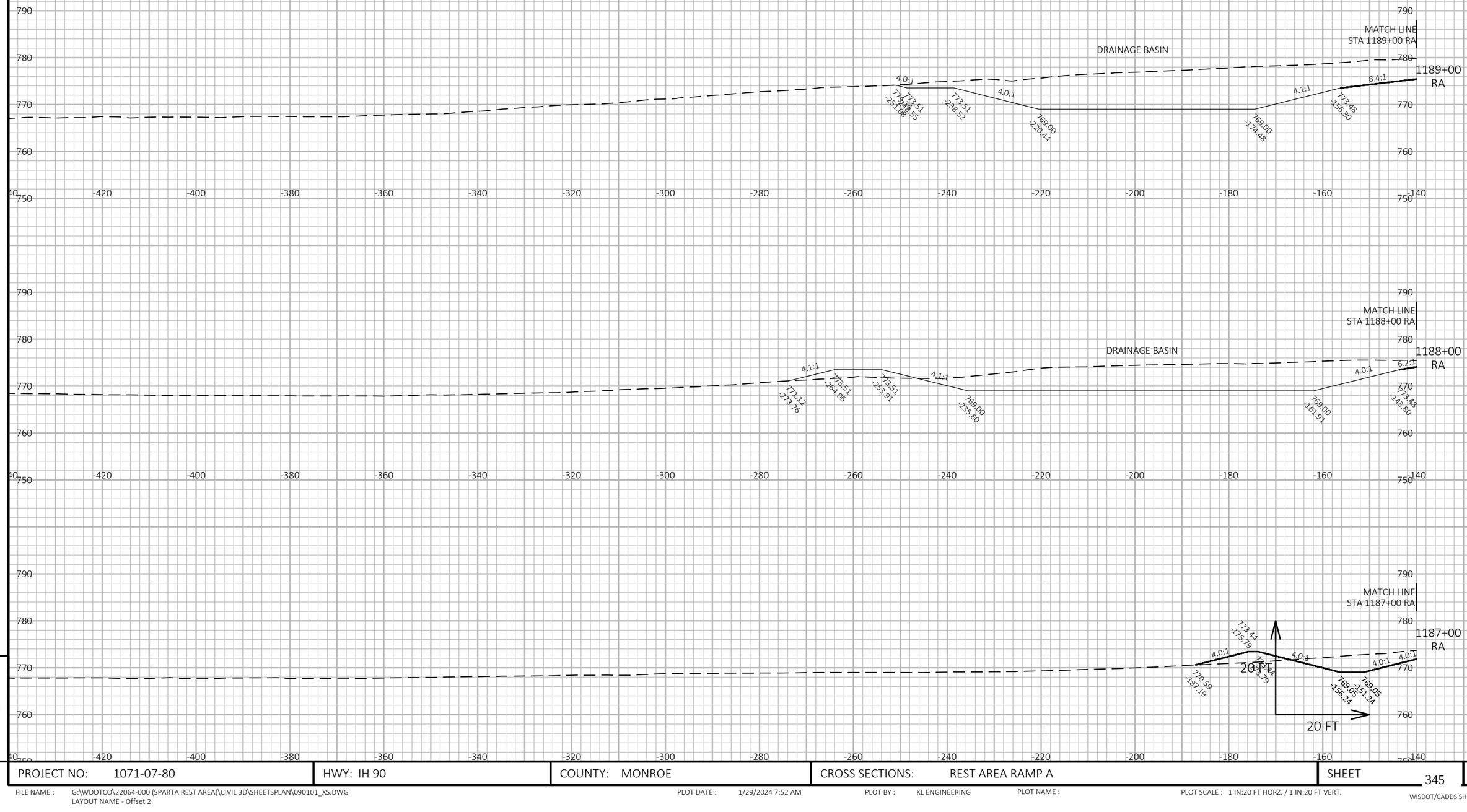
9

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 344	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 10
PLOT DATE : 1/29/2024 7:52 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



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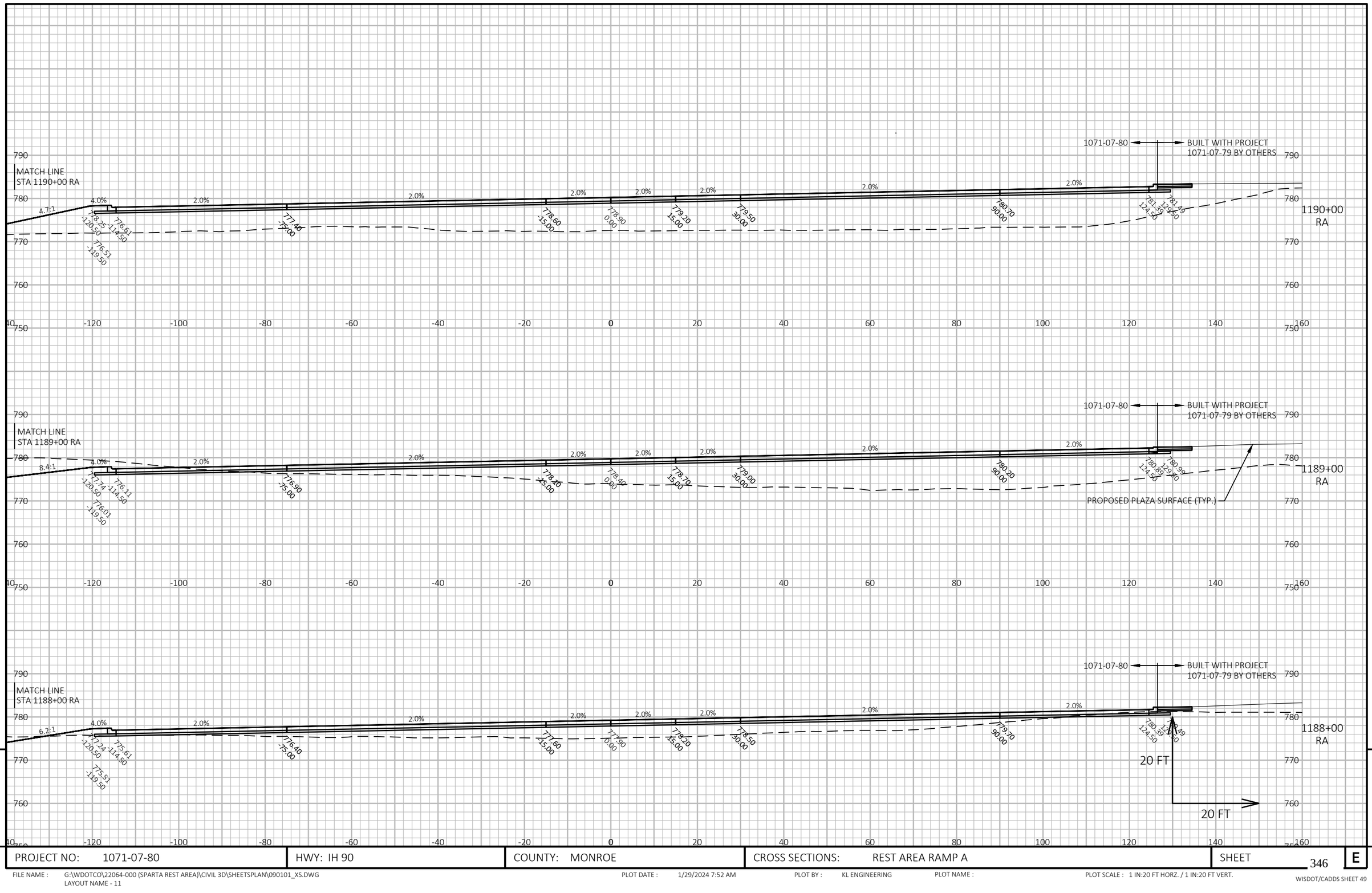
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 345	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - Offset 2

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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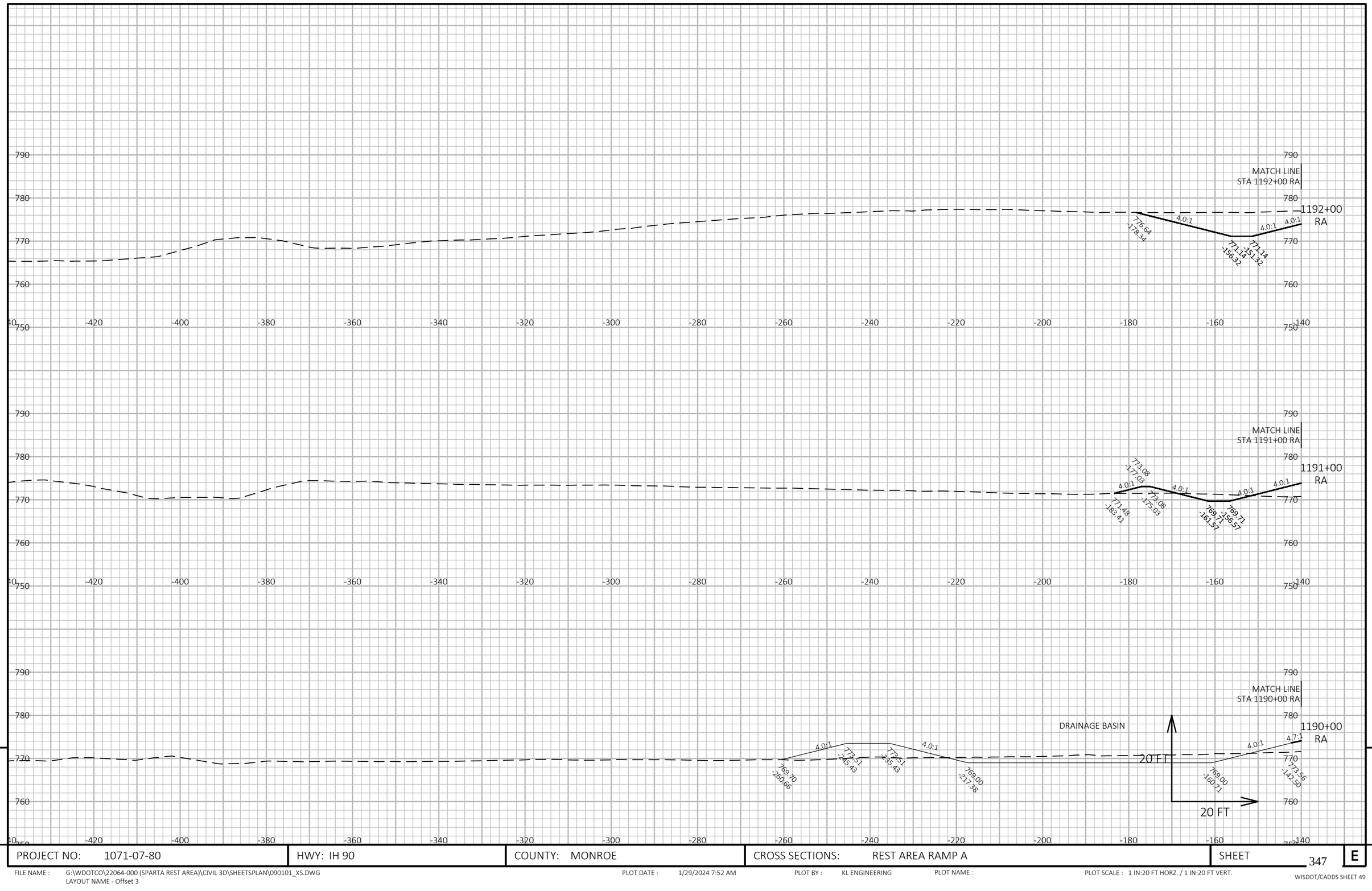
9

PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 346	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 11

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

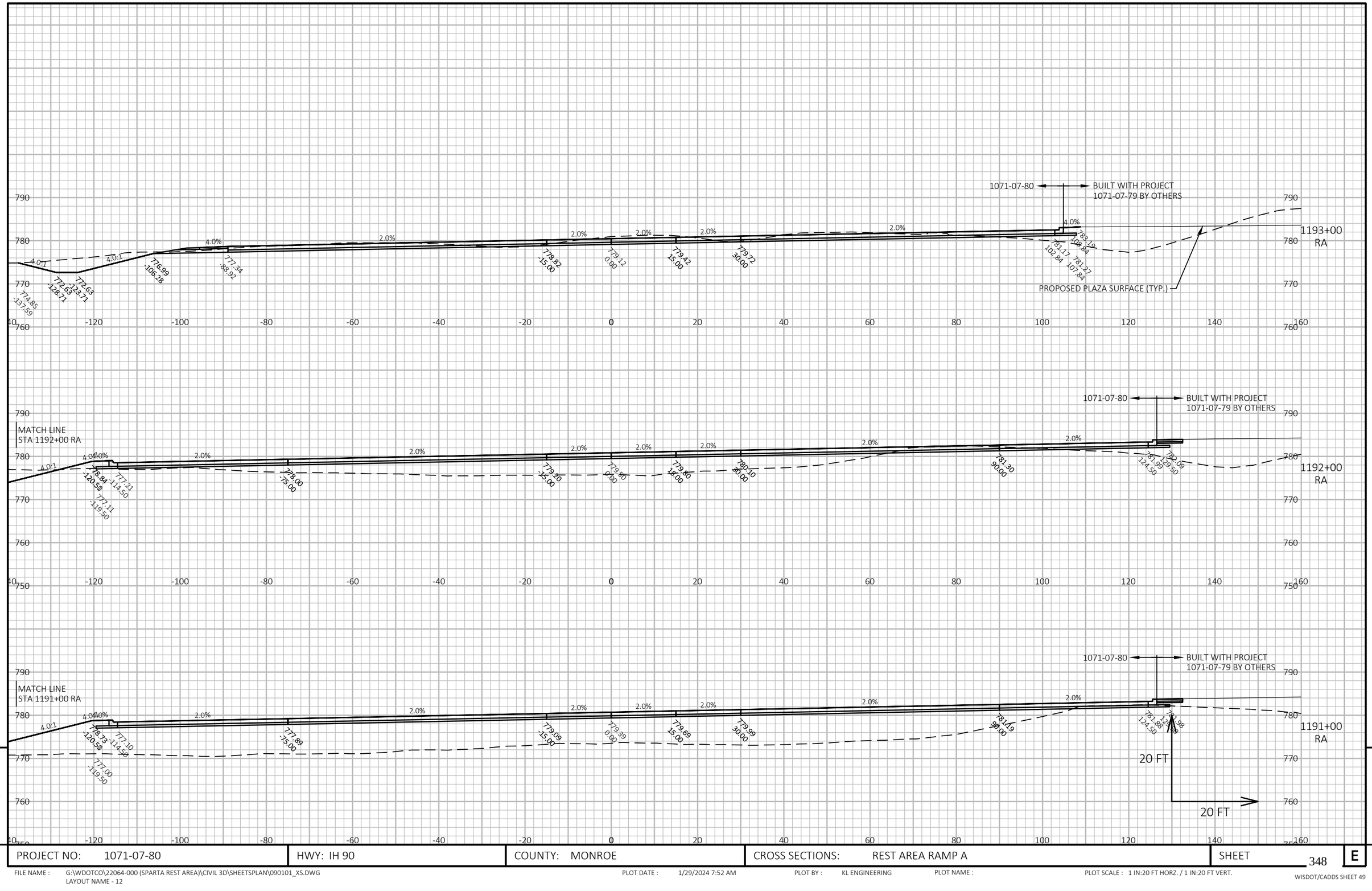


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 347	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - Offset 3

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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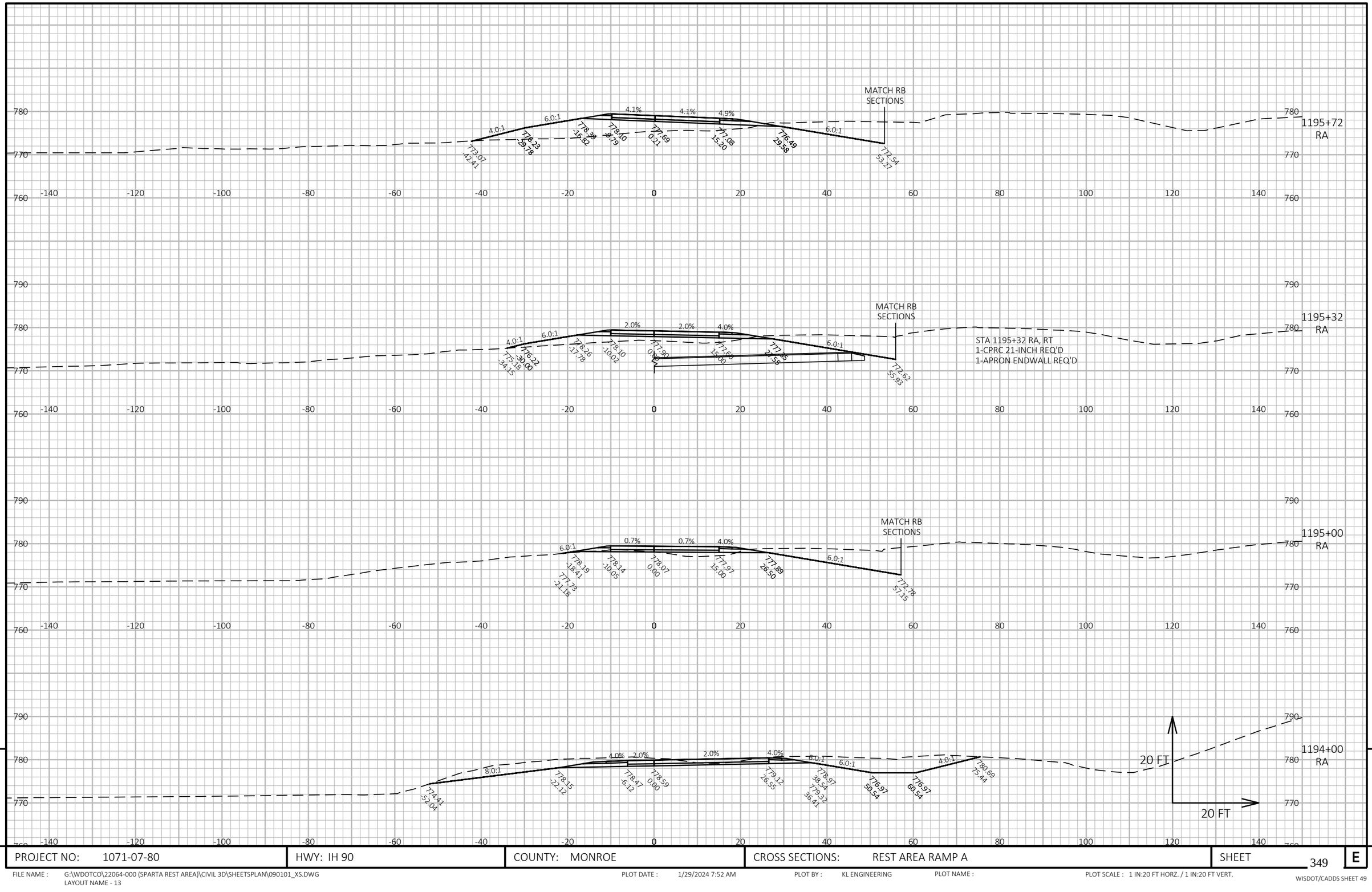
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 348	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 12

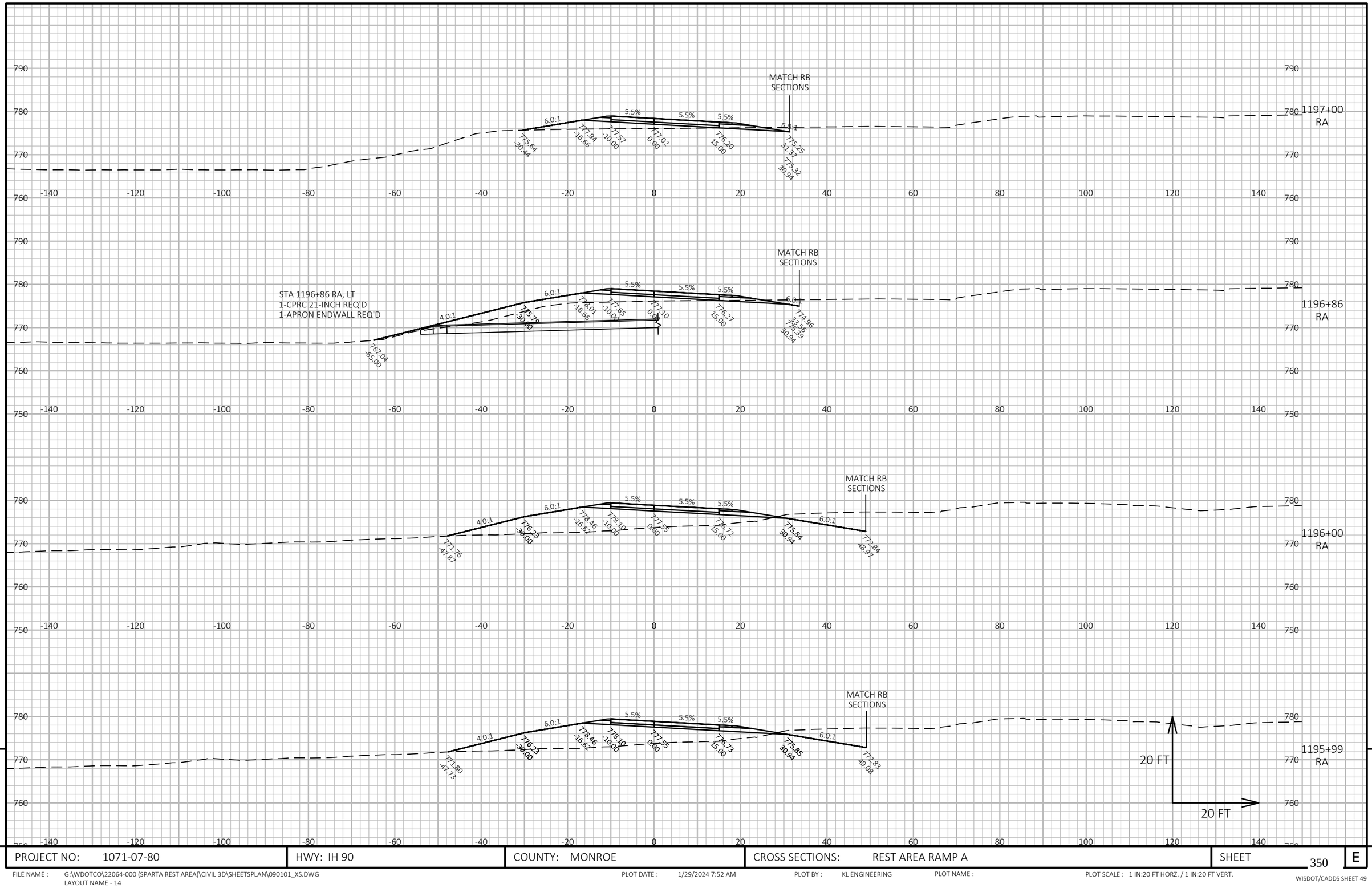
PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 349	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 13

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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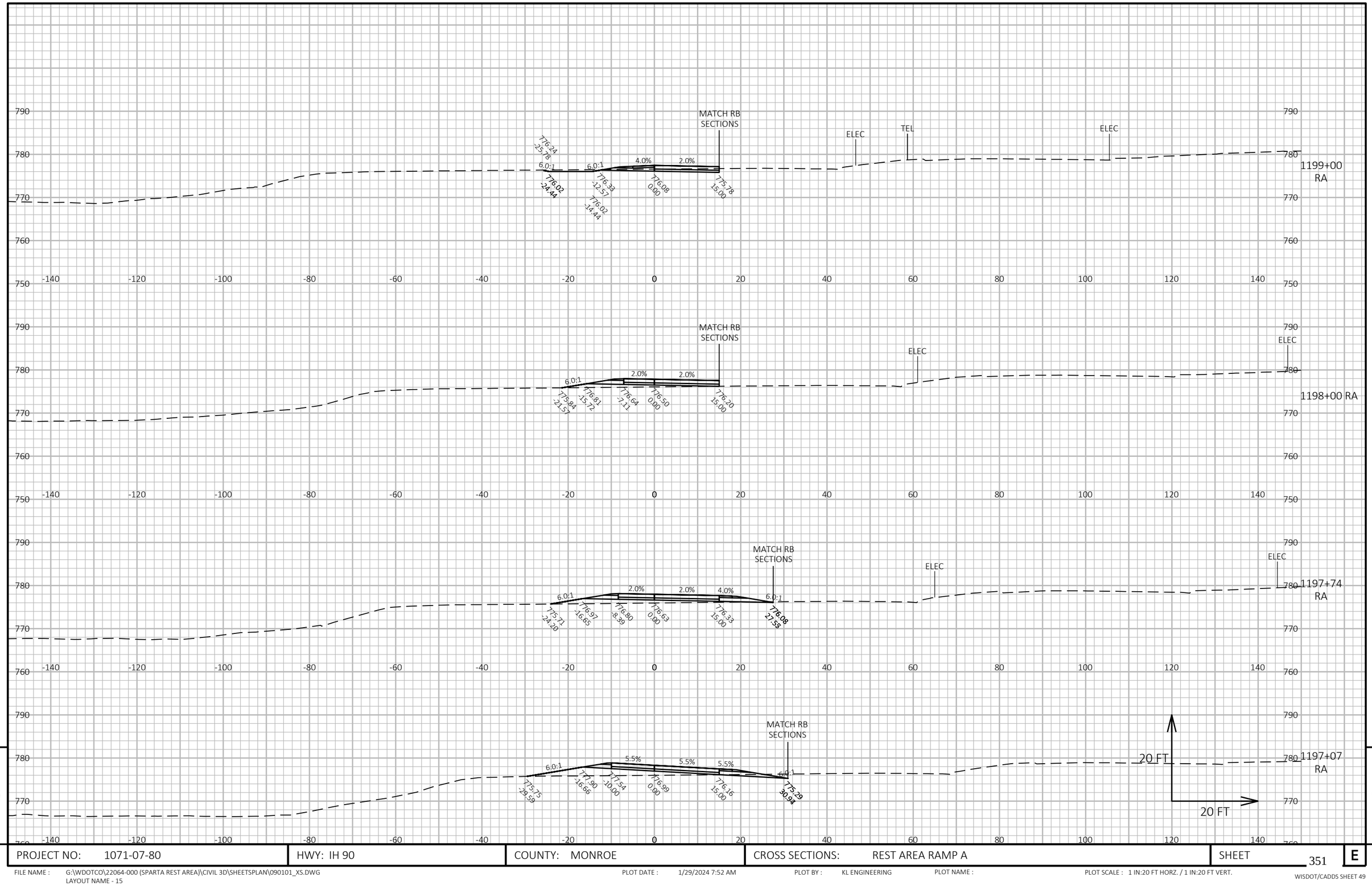
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 350	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 14

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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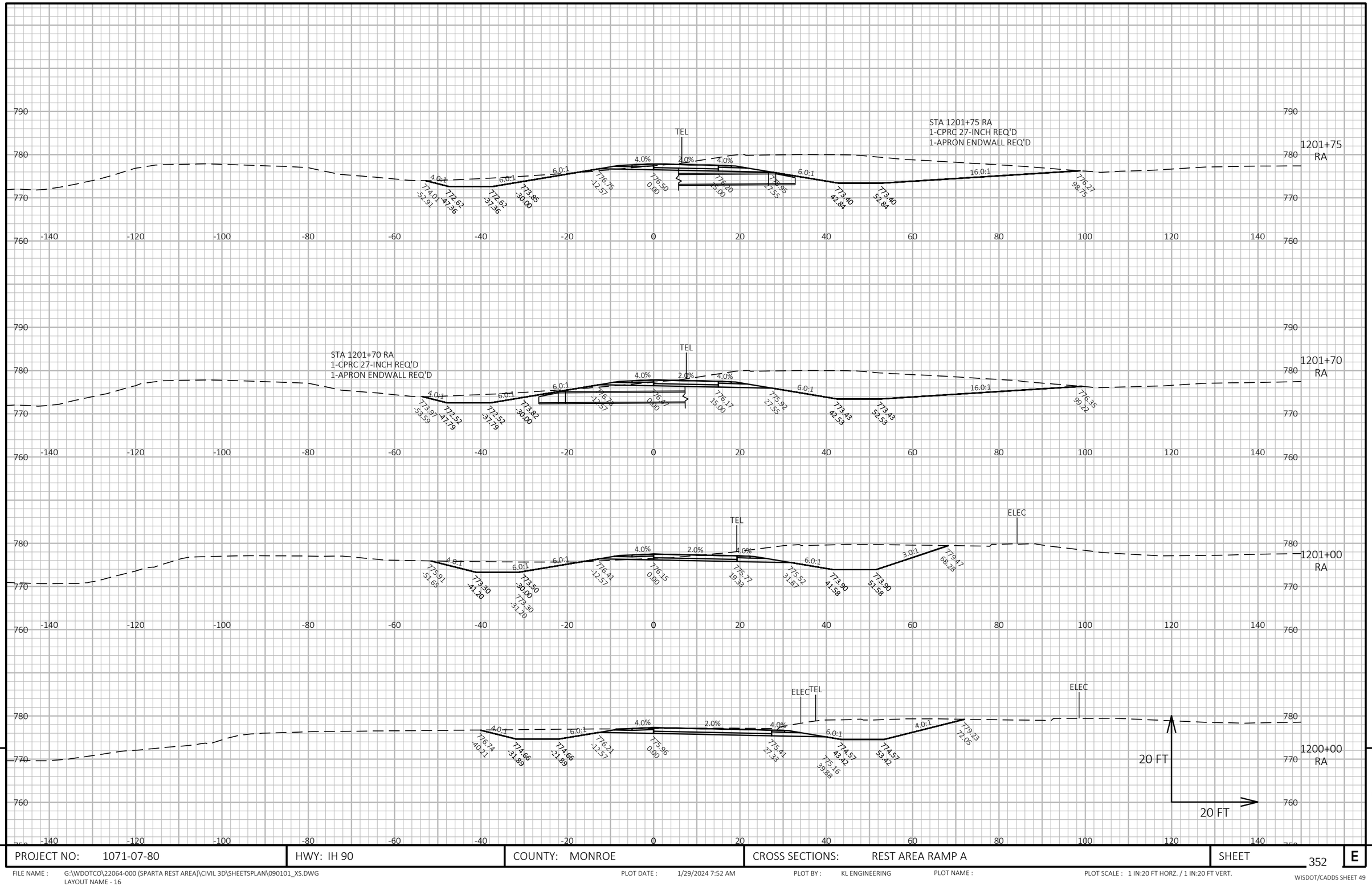
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 351	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 15

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

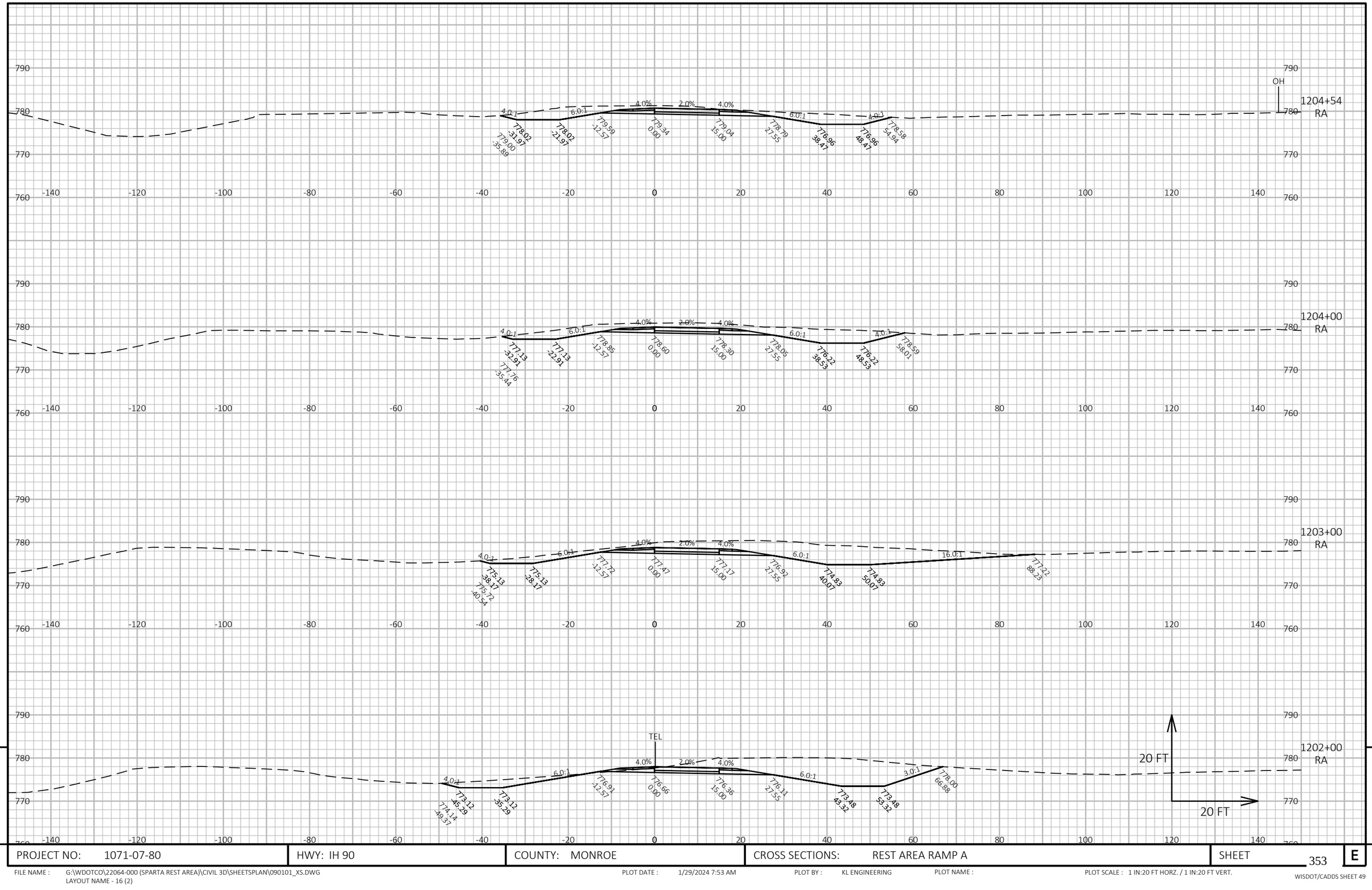


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 352	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16

PLOT DATE : 1/29/2024 7:52 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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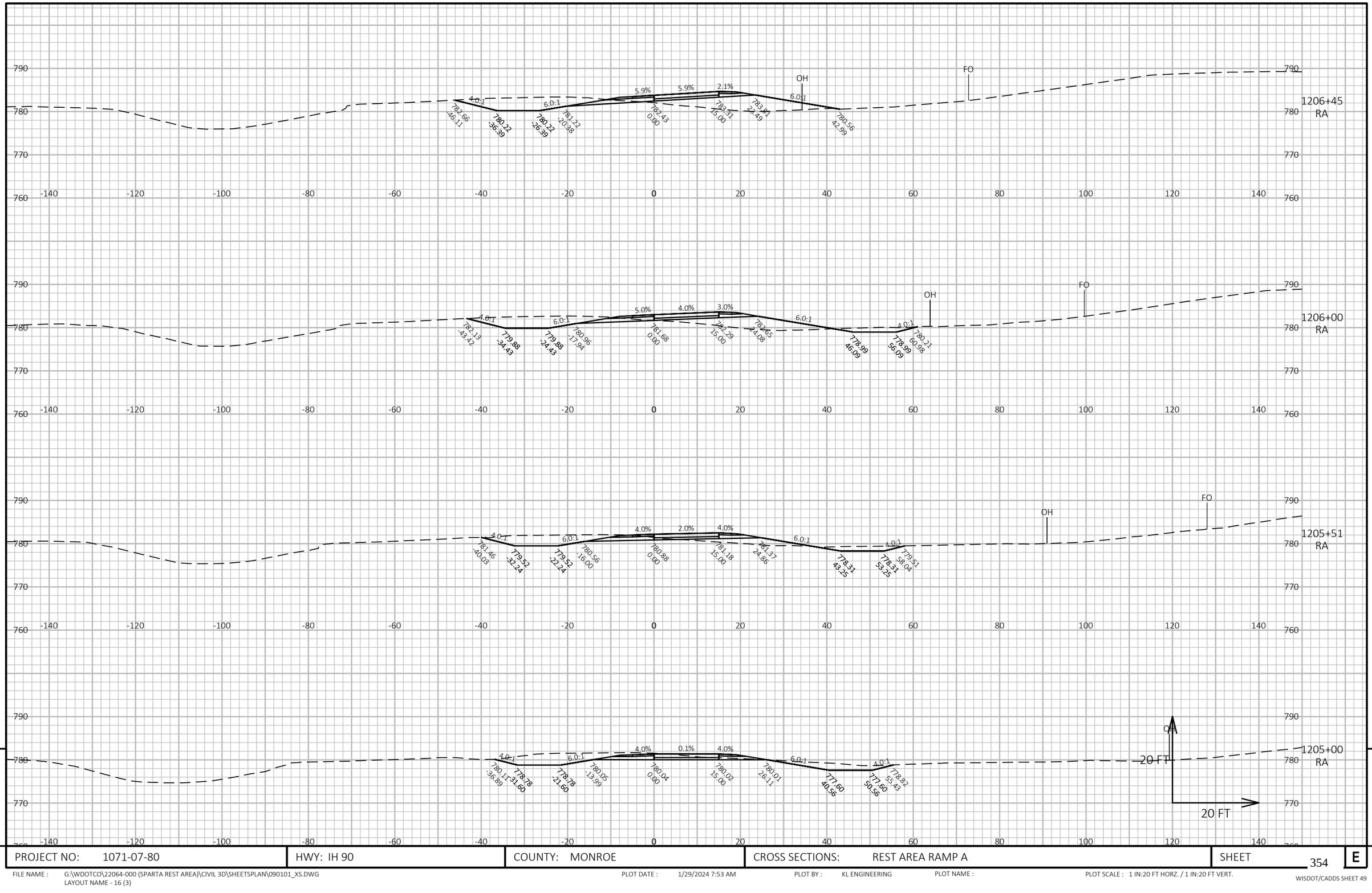
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 353	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (2)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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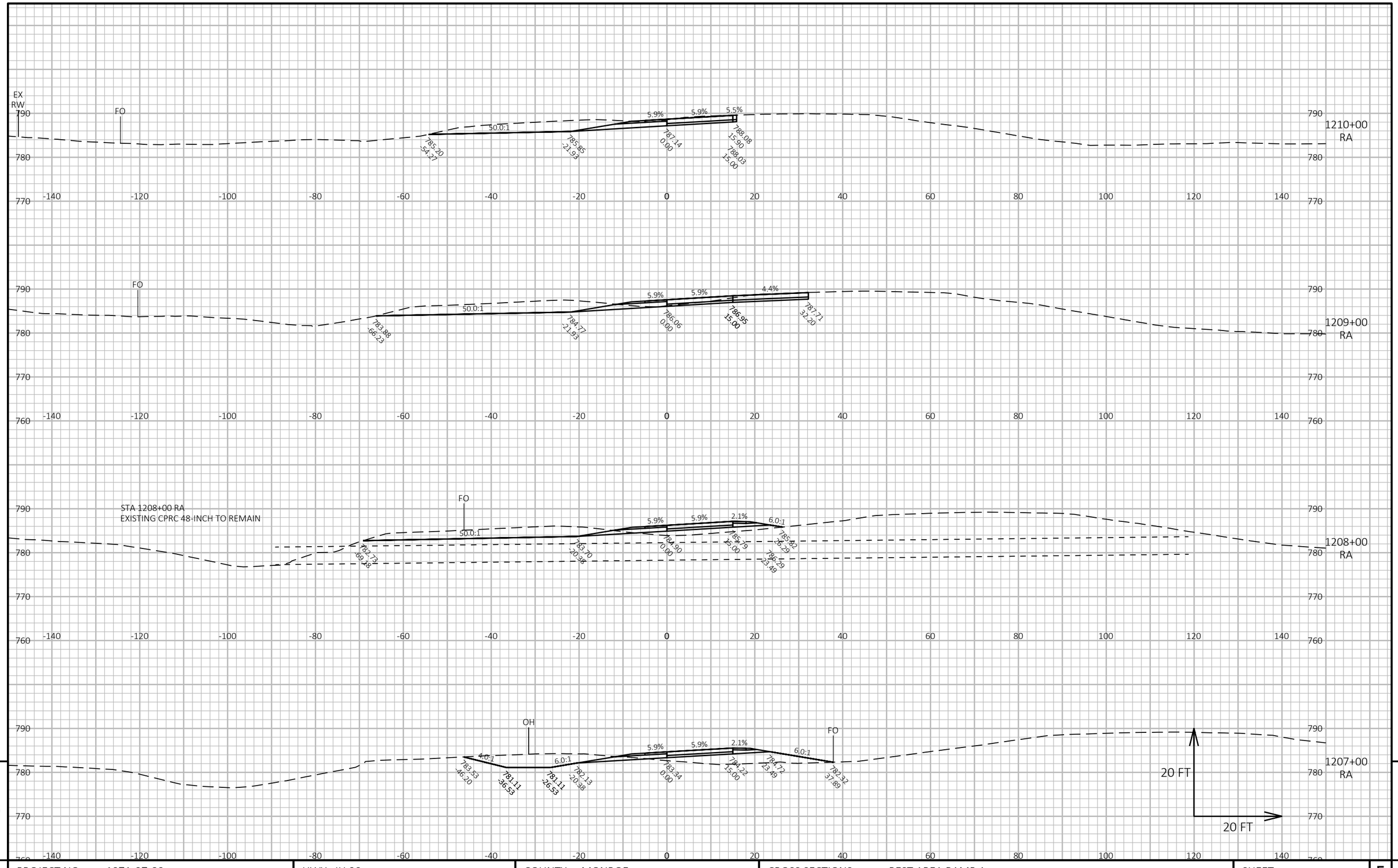
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 354	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (3)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

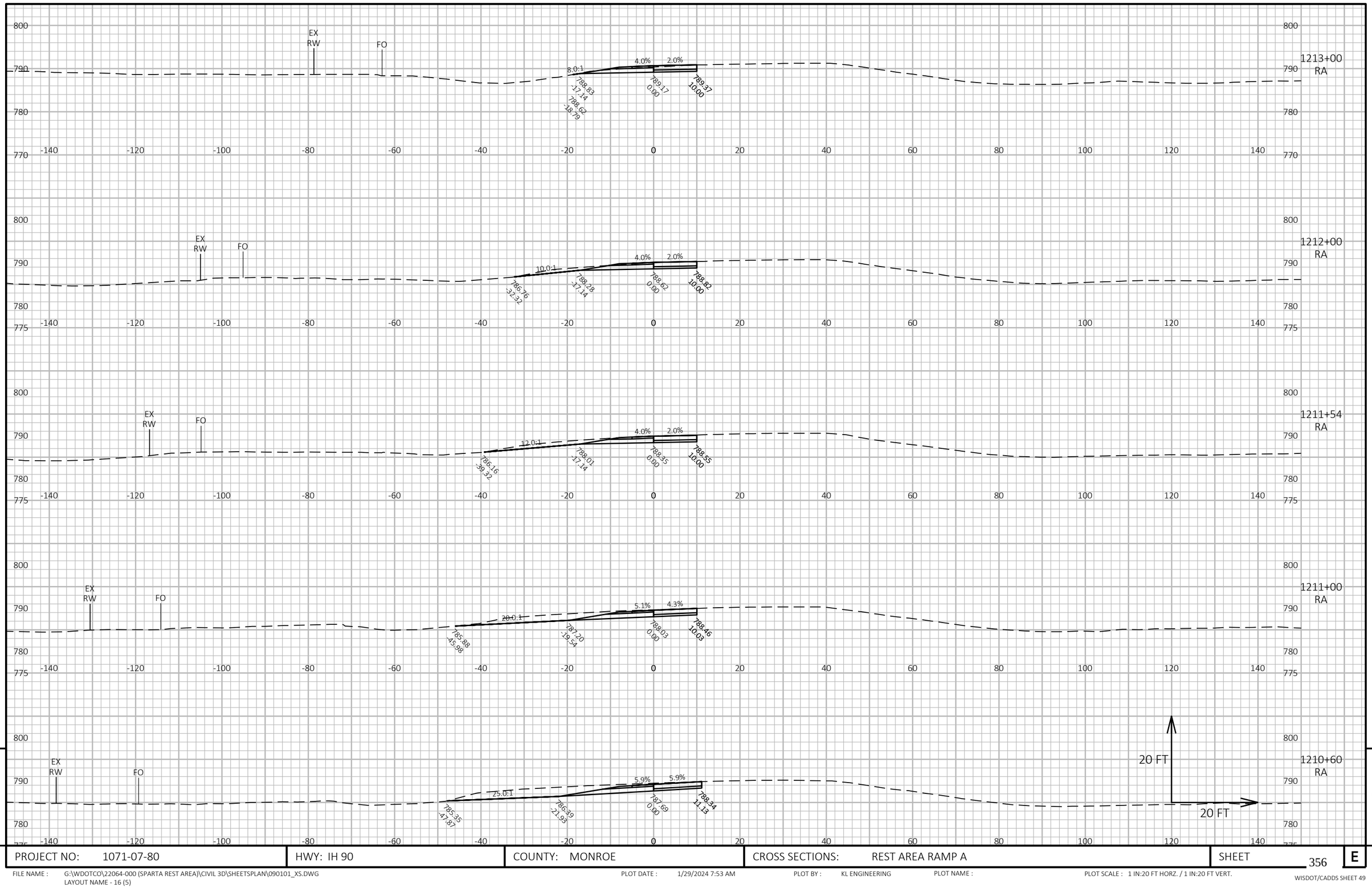


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 355	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (4)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

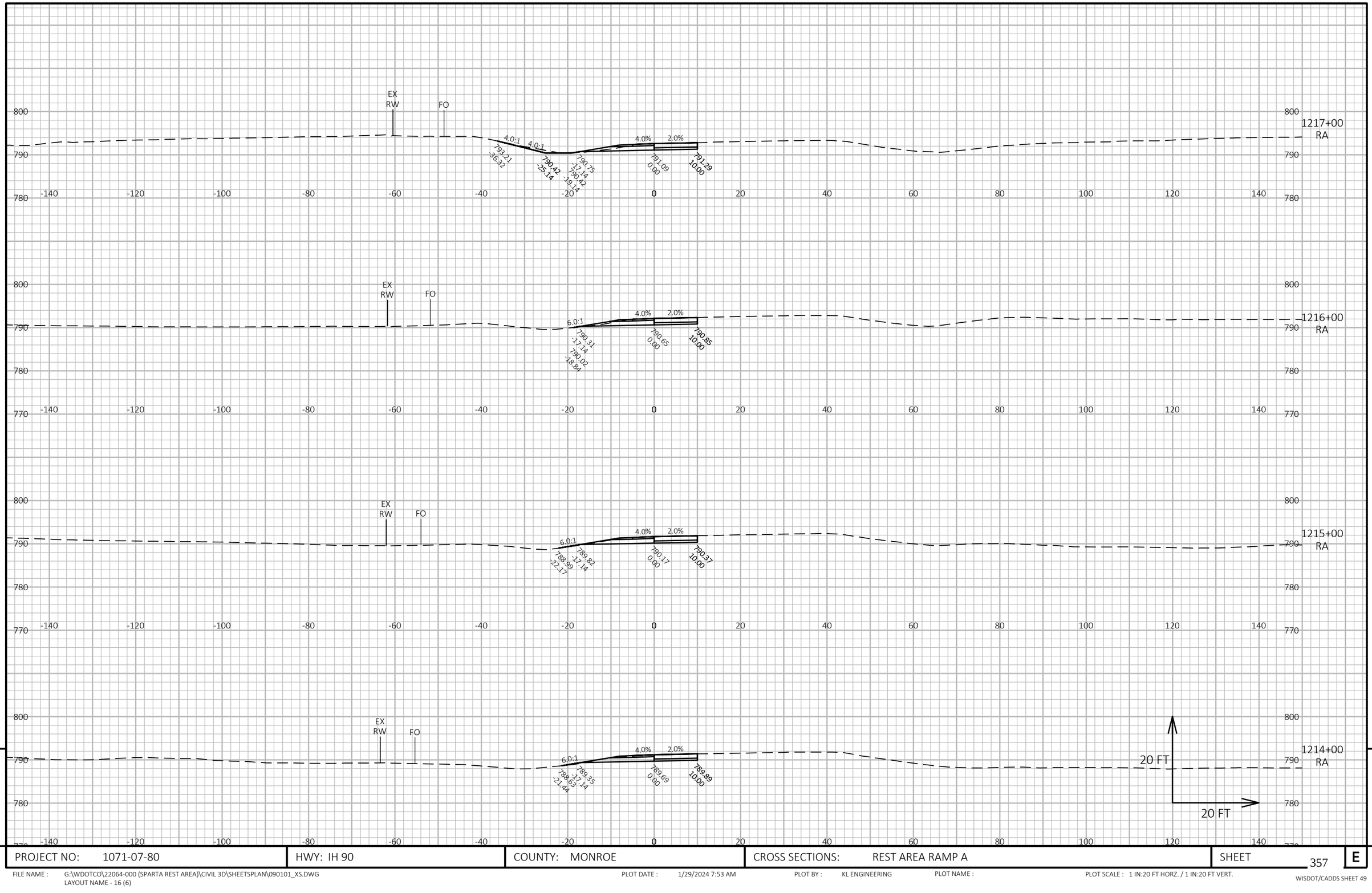


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 356	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (5)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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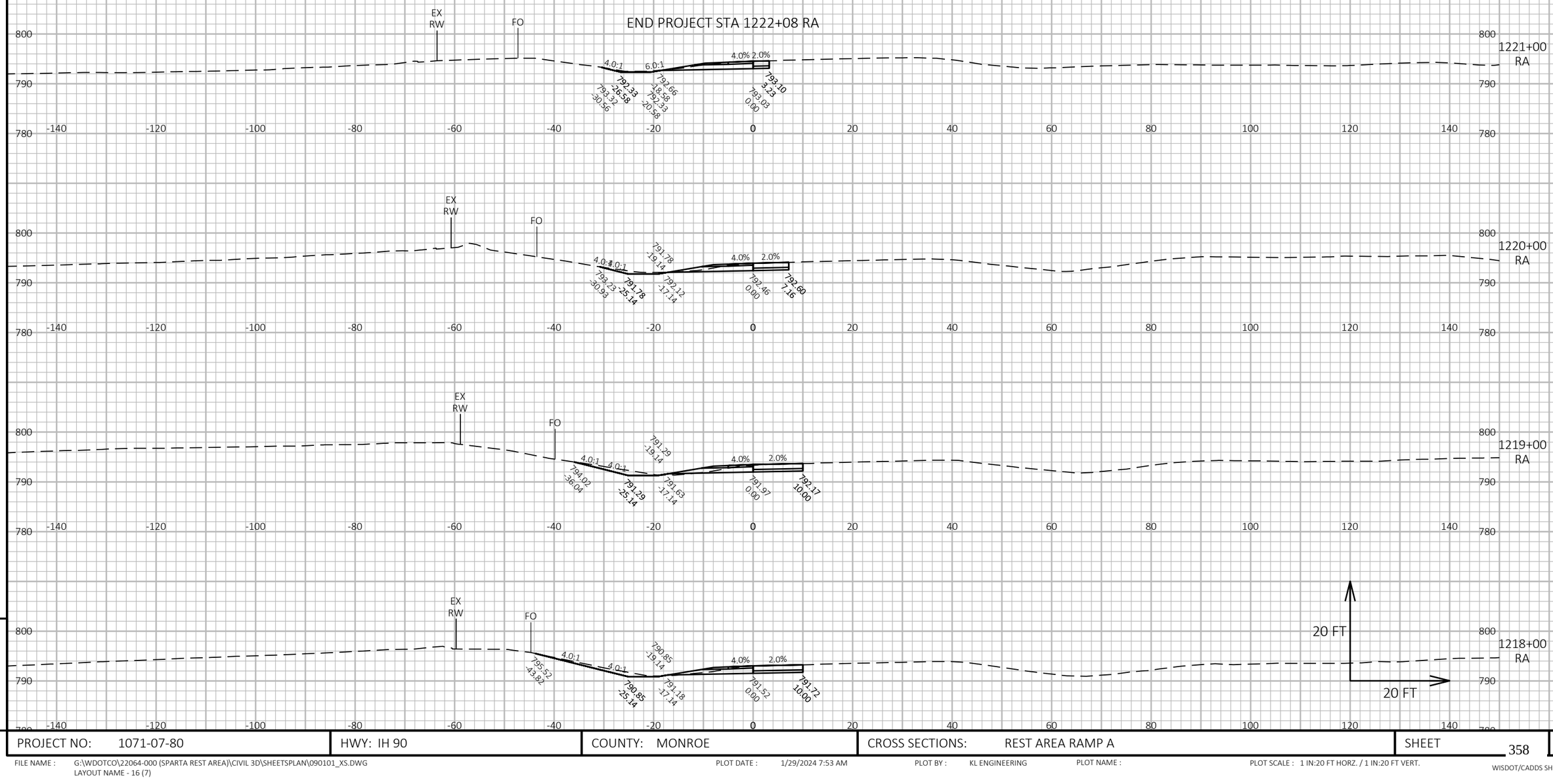
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 357	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (6)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

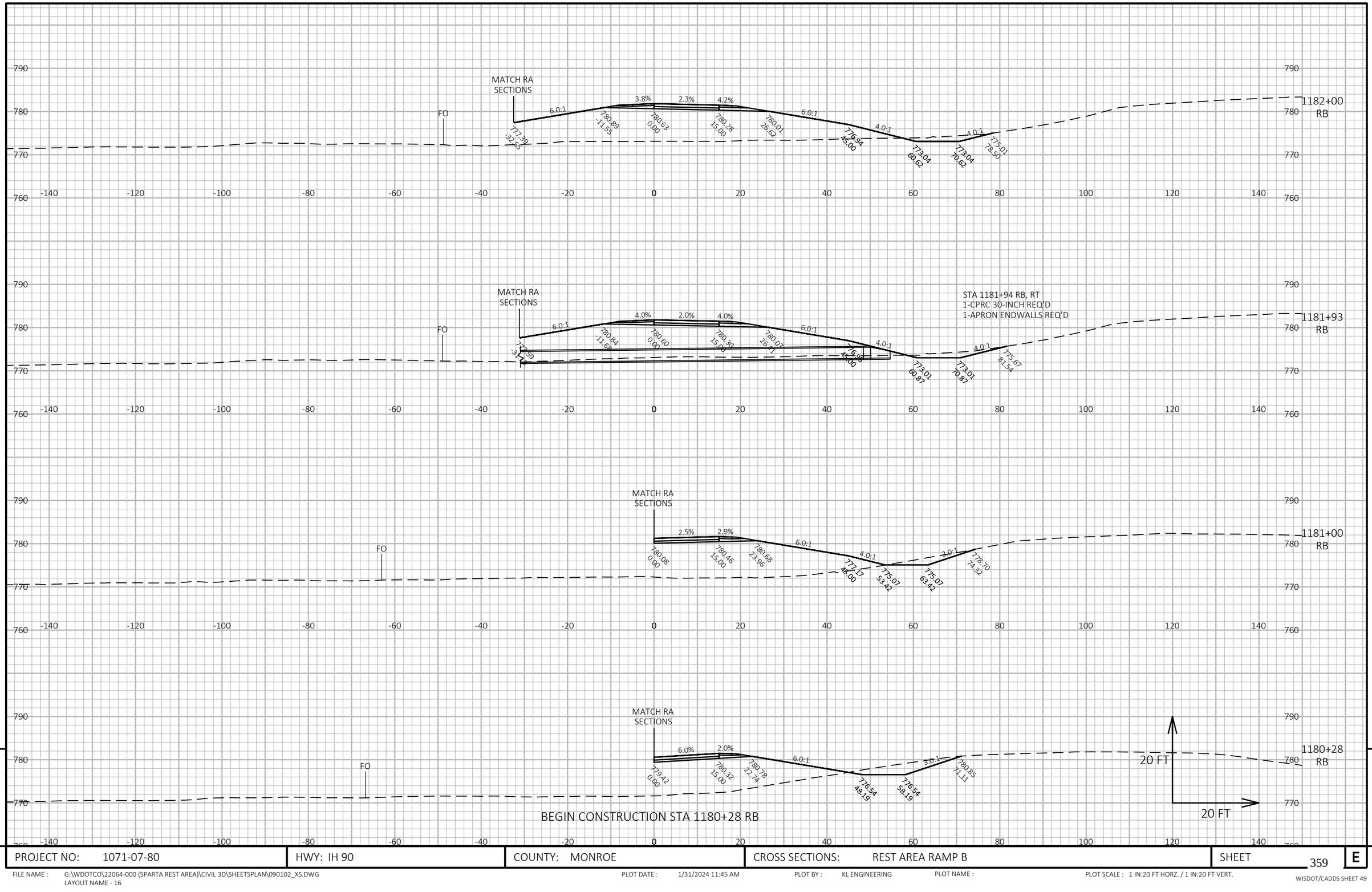
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP A	SHEET 358	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090101_XS.DWG
LAYOUT NAME - 16 (7)

PLOT DATE : 1/29/2024 7:53 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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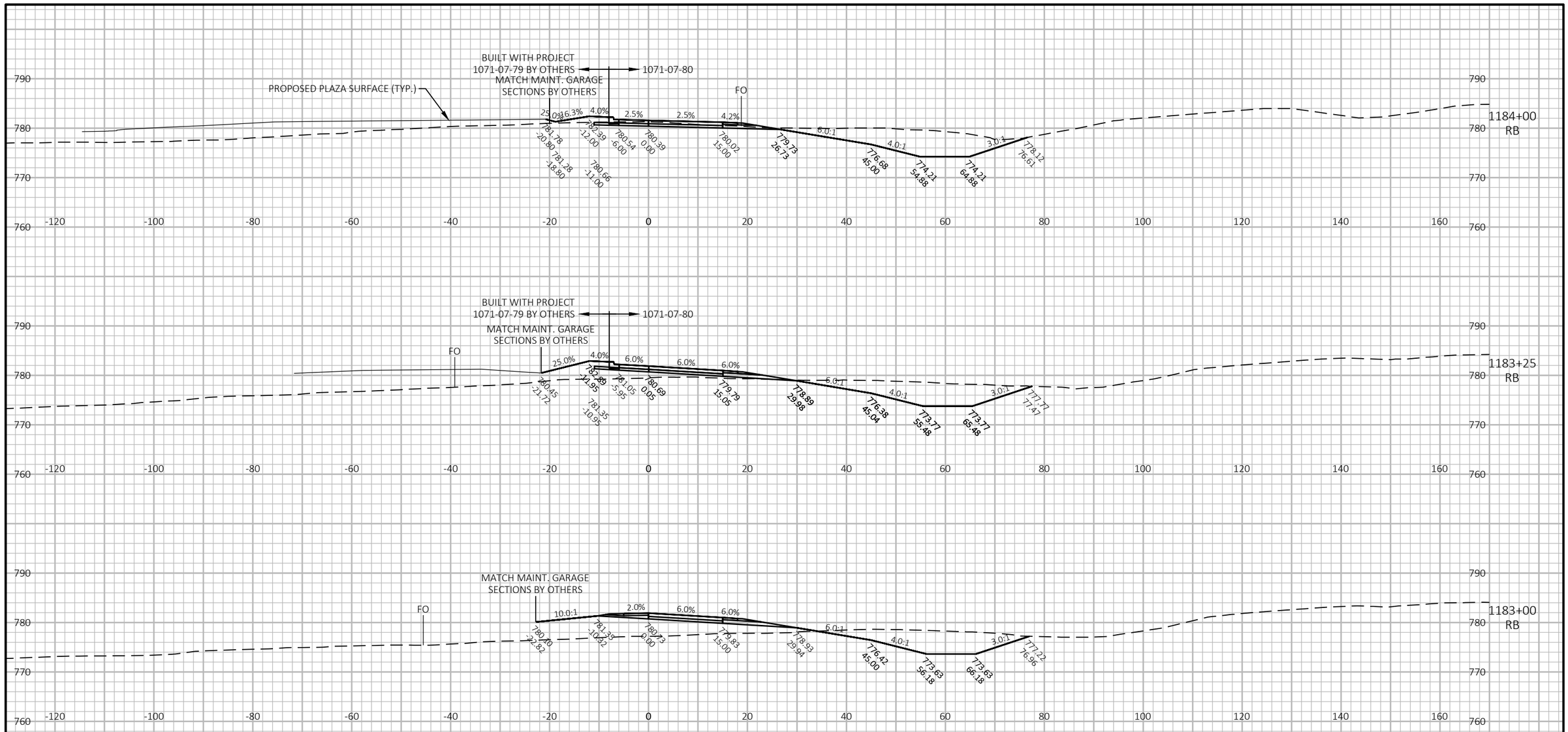
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 359	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 16

PLOT DATE : 1/31/2024 11:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

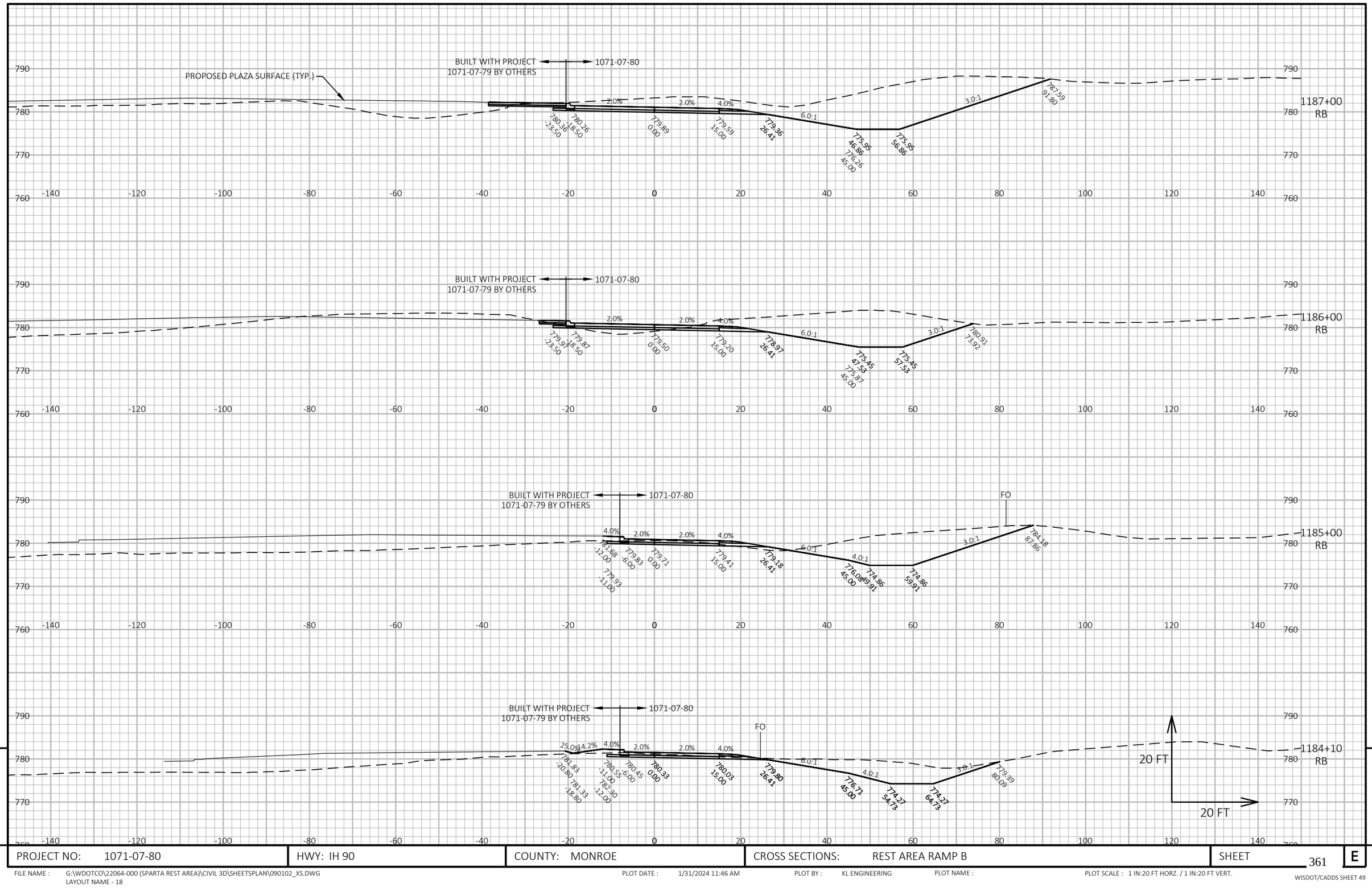


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 360 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 17

PLOT DATE : 1/31/2024 11:45 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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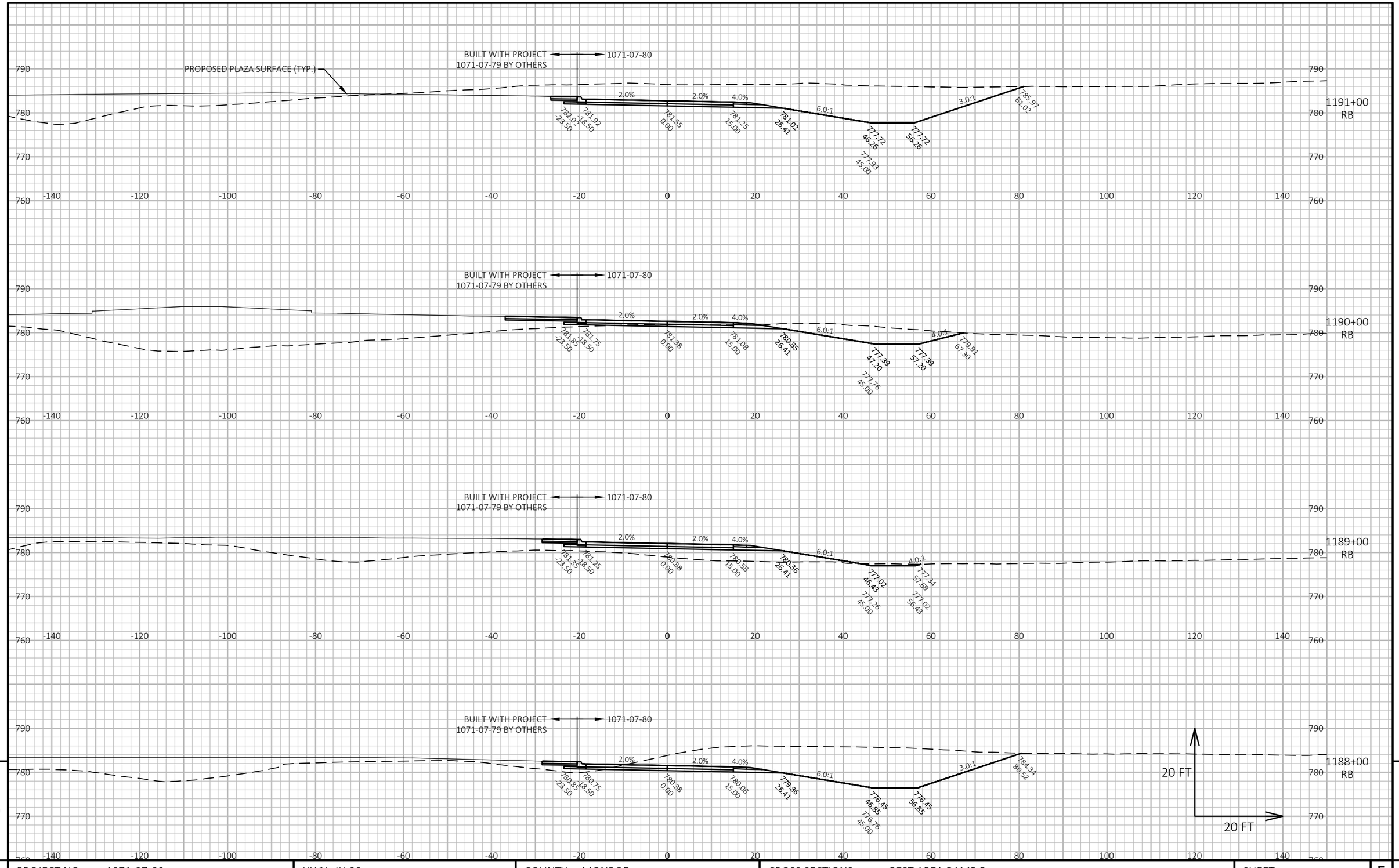
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 361	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 18

PLOT DATE : 1/31/2024 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

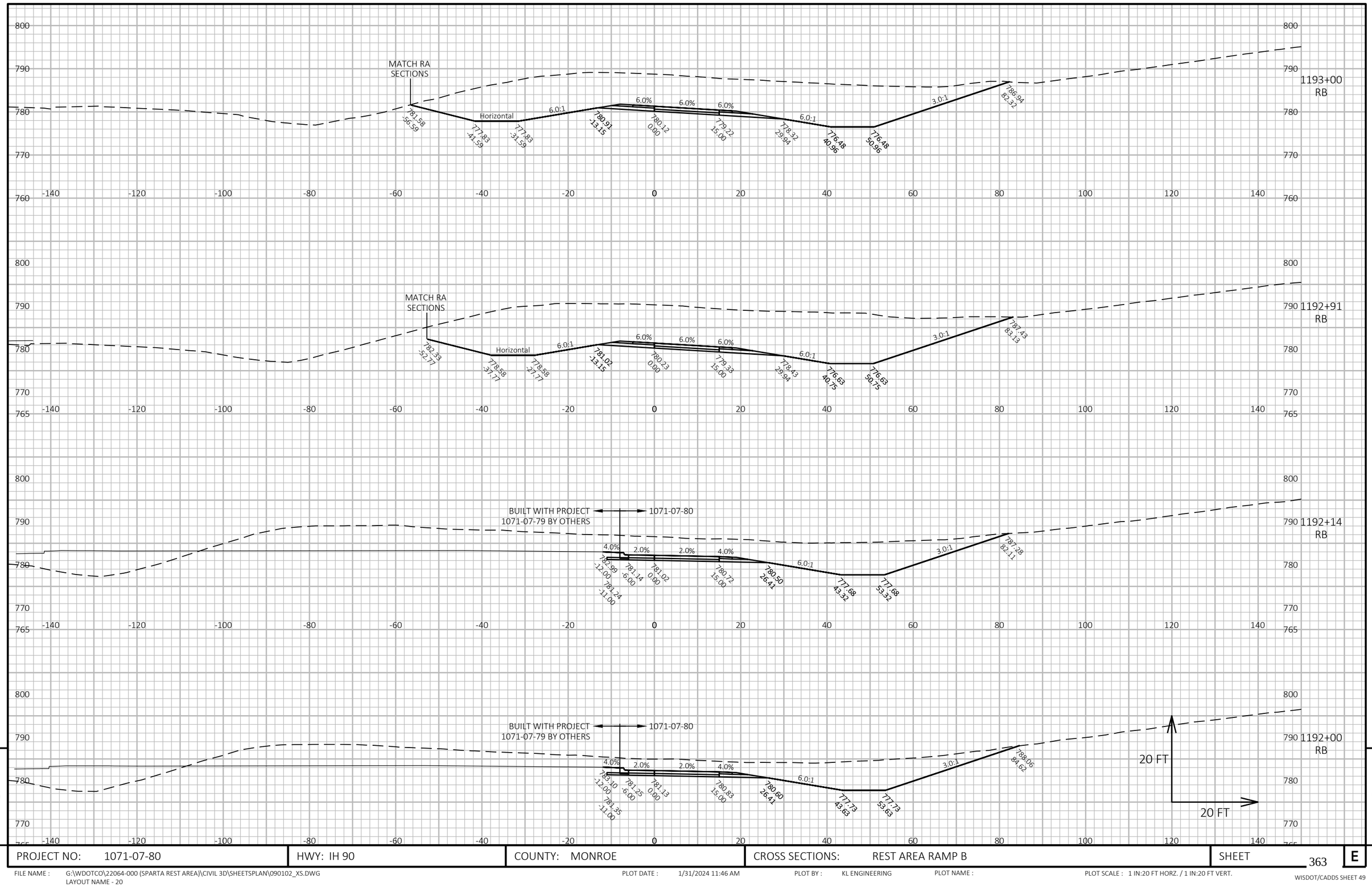


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 362 E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 19

PLOT DATE : 1/31/2024 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

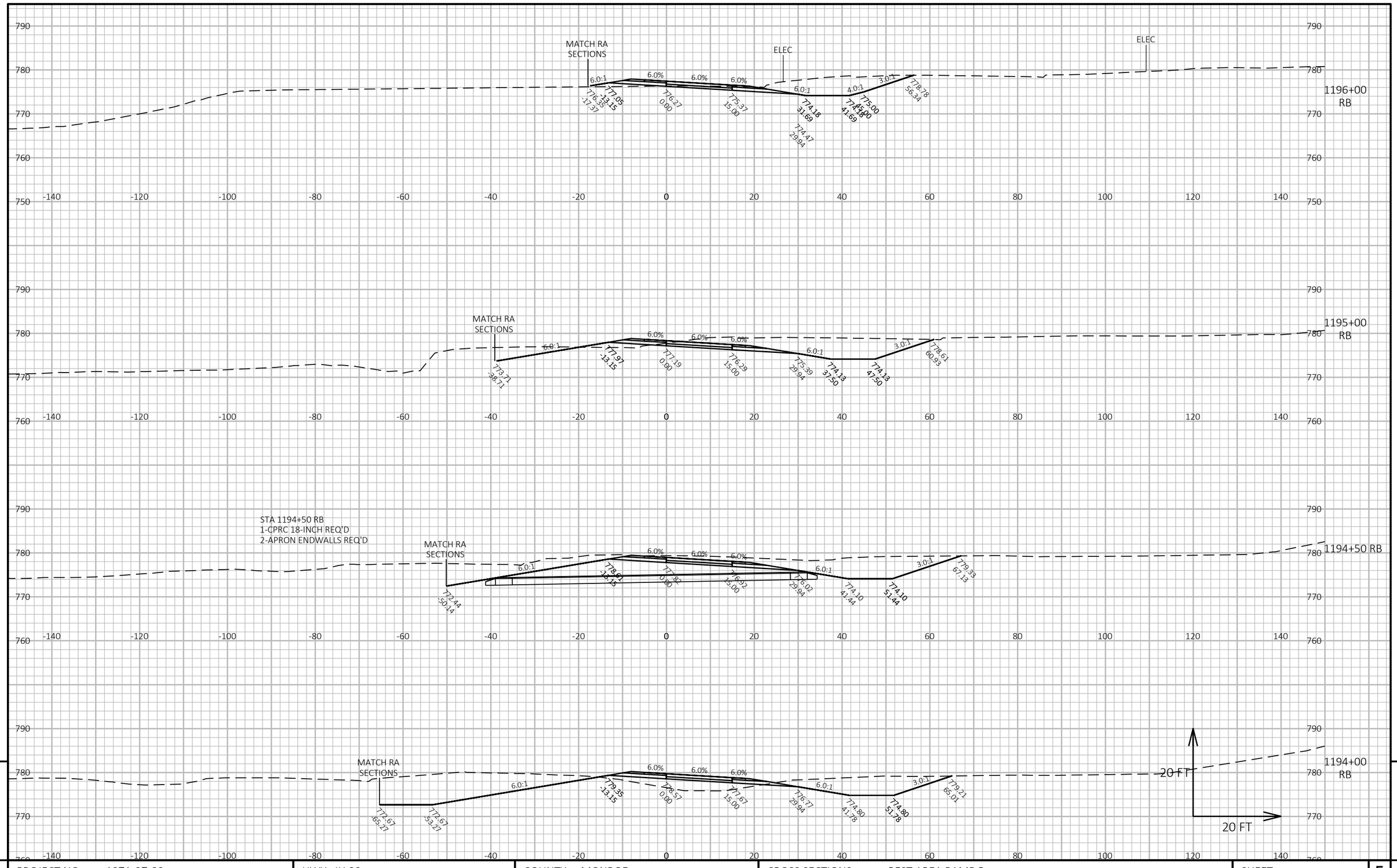


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 363	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 20

PLOT DATE : 1/31/2024 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

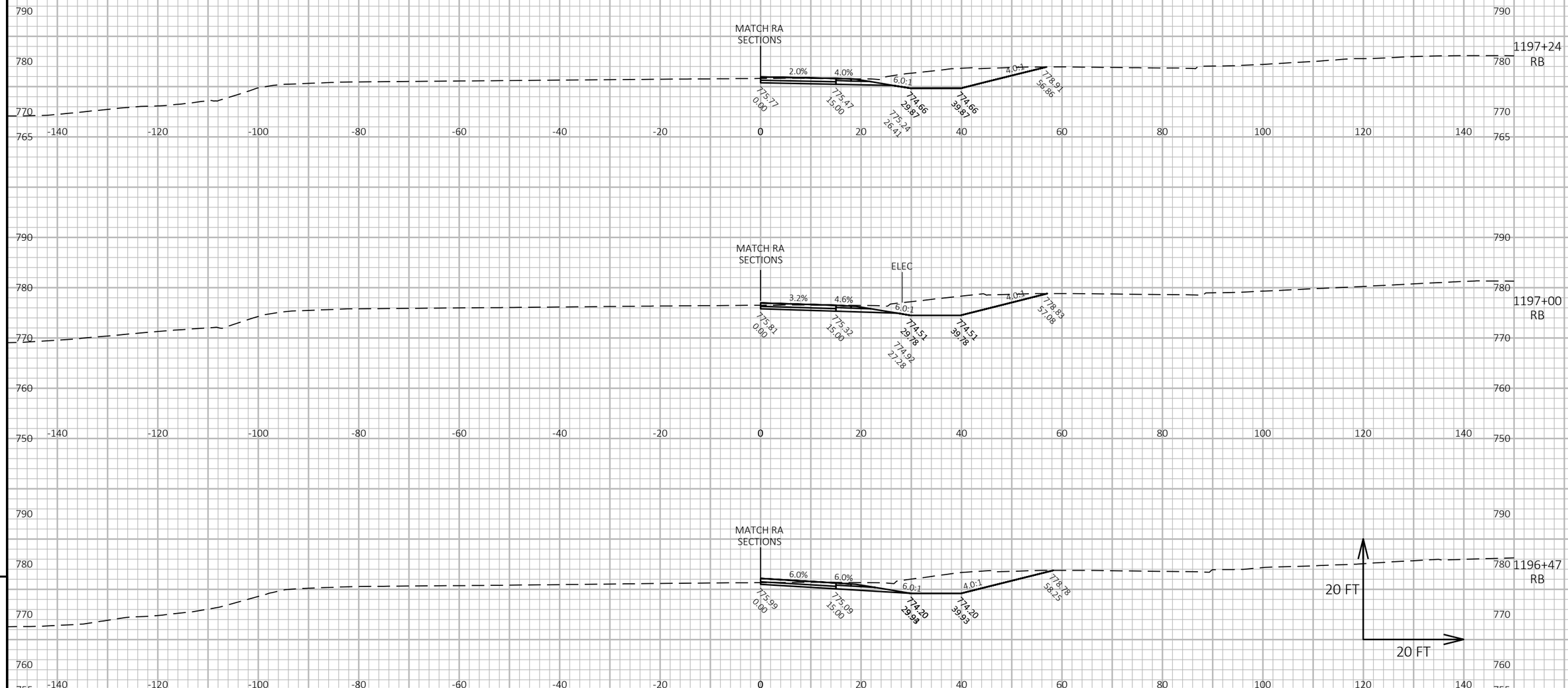
WISDOT/CADDS SHEET 49



PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 364	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 20 (2)
PLOT DATE : 1/31/2024 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

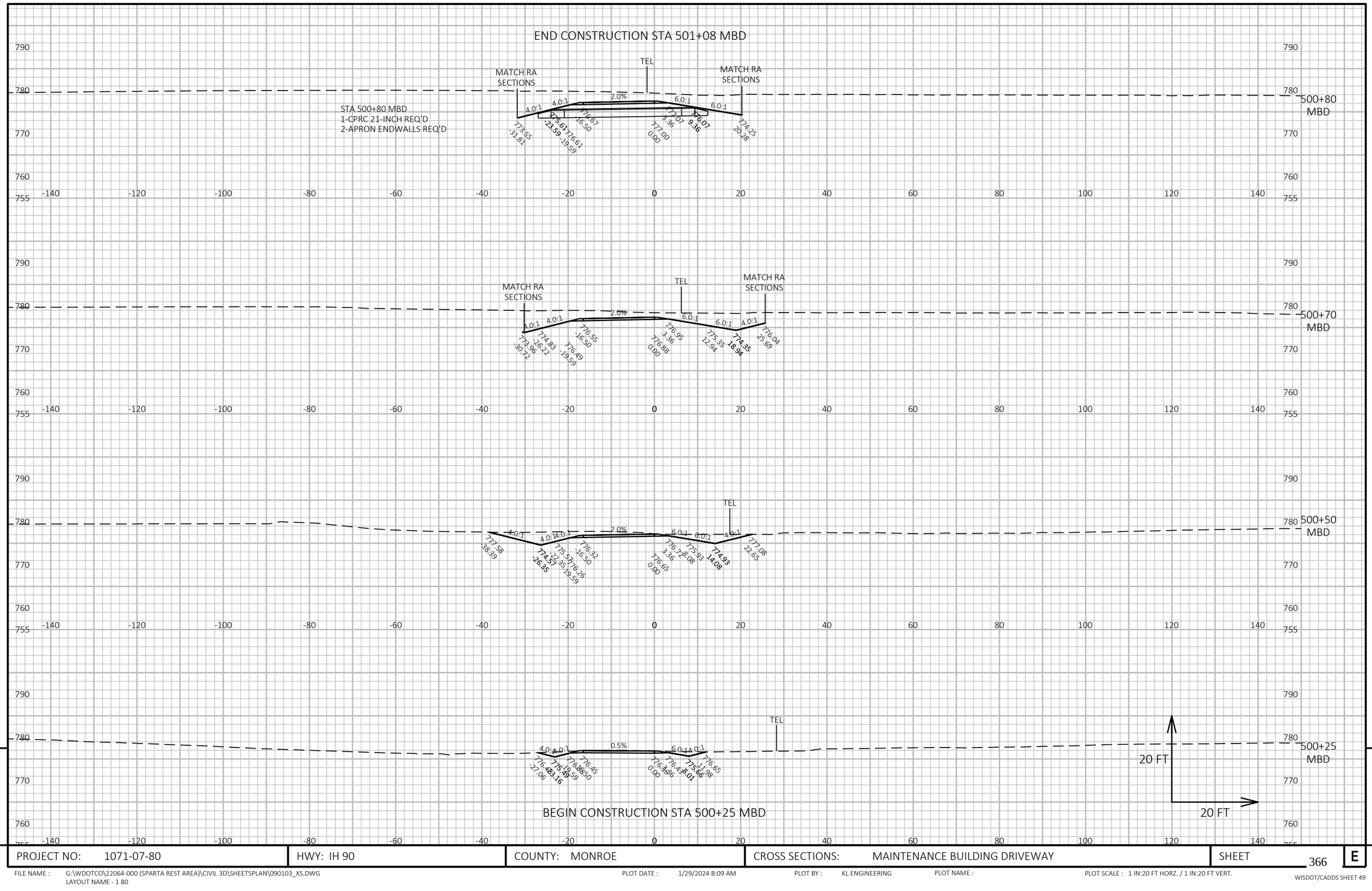


PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: REST AREA RAMP B	SHEET 365	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090102_XS.DWG
LAYOUT NAME - 20 (3)

PLOT DATE : 1/31/2024 11:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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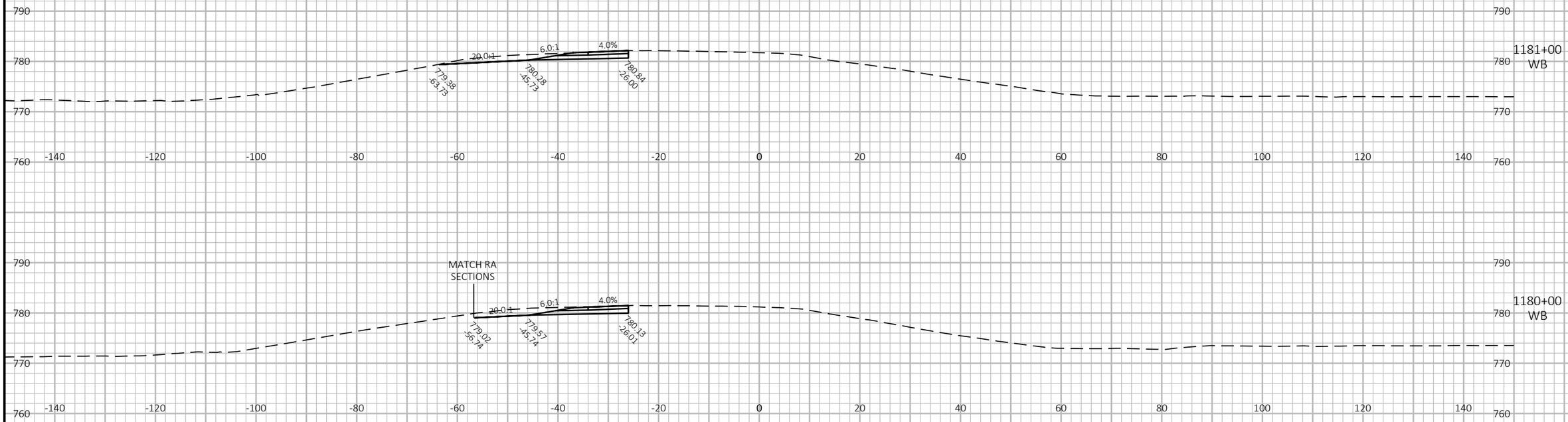
PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: MAINTENANCE BUILDING DRIVEWAY	SHEET 366	E

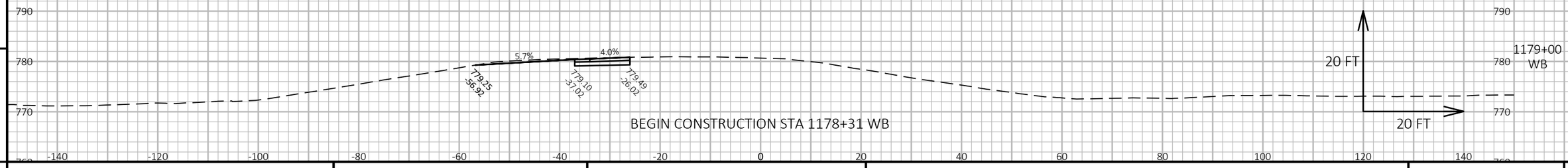
FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090103_XS.DWG
LAYOUT NAME - 1 80

PLOT DATE : 1/29/2024 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA 1182+59 WB





BEGIN CONSTRUCTION STA 1178+31 WB

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PROJECT NO: 1071-07-80	HWY: IH 90	COUNTY: MONROE	CROSS SECTIONS: IH 90 WB	SHEET 367	E

FILE NAME : G:\WDOTCO\22064-000 (SPARTA REST AREA)\CIVIL 3D\SHEETSPLAN\090103_XS.DWG
LAYOUT NAME - 2 80

PLOT DATE : 1/29/2024 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

Wisconsin Department of Transportation

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