SUP

PROJECT ID: 8160-00-73

WITH:

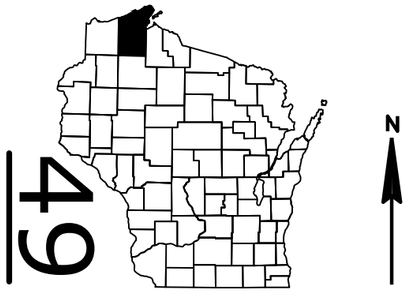
COUNTY: BAYFIELD

JANUARY 2026

ORDER OF SHEETS

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

TOTAL SHEETS = 104



N

DESIGN DESIGNATION 8160-00-03

A.A.D.T.	2026	=	7900
A.A.D.T.	2046	=	8900
D.H.V.		=	2670
D.D.		=	60/40
T.		=	13.4
DESIGN SPEED		=	60
ESALS		=	1,790,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ASHLAND - BAYFIELD

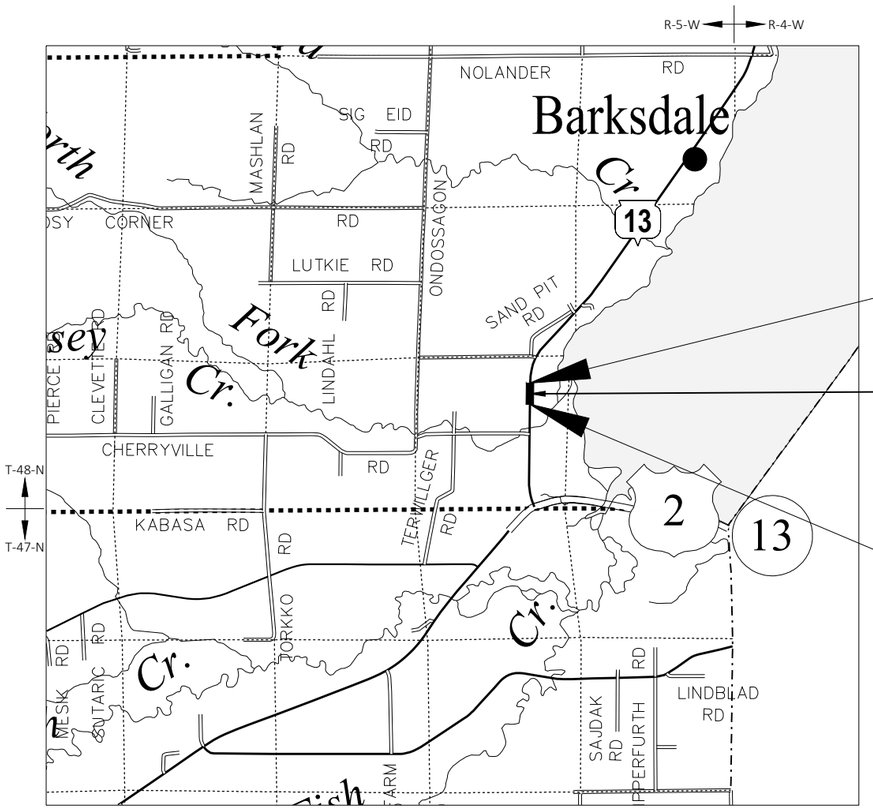
LITTLE WHITTLESEY CREEK BRIDGE B-04-0126

STH 13

BAYFIELD COUNTY

STATE PROJECT NUMBER
8160-00-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8160-00-73	WISC 2026165	1



END PROJECT
STA 44+50
X = 799725.3842
Y = 461446.7950

BRIDGE B-04-0126
X=799720.6722
Y=461208.47723

BEGIN PROJECT
STA 34+50
X = 799715.2474
Y = 460746.6596

LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.189 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), {BAYFIELD} COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2007). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS2
Designer	MIKE PEARSON
Project Manager	ADAM HETRICK
Regional Examiner	MITCH FINNEGAN
Regional Supervisor	JEFF OLSON

APPROVED FOR THE DEPARTMENT

DATE: 07/08/2025 Adam Hetrick (Signature)

E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_TITLE.DWG PLOT DATE : 7/2/2025 1:48 PM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

STANDARD ABBREVIATIONS

ABUT	ABUTMENT	LT	LEFT
AC	ACRE	L	LENGTH OF CURVE
AGG	AGGREGATE	LF	LINEAR FOOT
AH	AHEAD	LC	LONG CHORD OF CURVE
∠	ANGLE	LS	LUMP SUM
AADT	ANNUAL AVERAGE DAILY TRAFFIC	MGAL	ONE THOUSAND GALLONS
AEW	APRON ENDWALL	MH	MANHOLE
ASPH	ASPHALTIC	ML OR M/L	MATCH LINE
BK	BACK	NOM	NOMINAL
BC	BACK OF CURB	NC	NORMAL CROWN
BAD	BASE AGGREGATE DENSE	NB	NORTHBOUND
BL OR B/L	BASE LINE	NO	NUMBER
BM	BENCH MARK	OD	OUTSIDE DIAMETER
CL OR C/L	CENTER LINE	PAVT	PAVEMENT
CE	COMMERCIAL ENTRANCE	PLE	PERMANENT LIMITED EASEMENT
CONC	CONCRETE	PC	POINT OF CURVATURE
CONST	CONSTRUCTION	PI	POINT OF INTERSECTION
CP	CONTROL POINT	PT	POINT OF TANGENCY
CO	COUNTY	PCC	PORTLAND CEMENT CONCRETE
CTH	COUNTY TRUCK HIGHWAY	LB	POUND
CY	CUBIC YARD	PSI	POUNDS PER SQUARE INCH
CP	CULVERT PIPE	PE	PRIVATE ENTRANCE
D	DEGREE OF CURVE	PROJ	PROJECT
DHV	DESIGN HOUR VOLUME	PL	PROPERTY LINE
DIA	DIAMETER	PRW	PROPOSED RIGHT OF WAY
DD	DIRECTIONAL DISTRIBUTION	R	RADIUS
DWY	DRIVEWAY	RL OR R/L	REFERENCE LINE
EA	EACH	REQD	REQUIRED
EB	EASTBOUND	RT	RIGHT
EL OR ELEV	ELEVATION		
EMB	EMBANKMENT	R/W	RIGHT OF WAY
EW	ENDWALL	RD	ROAD
EAT	ENERGY ABSORBING TERMINAL	RDWY	ROADWAY
ESALS	EQUIVALENT SINGLE AXLE LOADS	SHLDR	SHOULDER
EXC	EXCAVATION		
EBS	EXCAVATION BELOW SUBGRADE	SB	SOUTHBOUND
EXIST	EXISTING	SPECS	SPECIFICATIONS
FERT	FERTILIZER	SF	SQUARE FEET
FE	FIELD ENTRANCE	SY	SQUARE YARD
FL OR F/L	FLOW LINE	SDD	STANDARD DETAIL DRAWINGS
FT	FOOT	STH	STATE TRUNK HIGHWAY
FWS	US FISH AND WILDLIFE SERVICE	STA	STATION
CWT	HUNDRED WEIGHT	SSPC	STORM SEWER PIPE COMPOSITE
IN DIA	INCH DIAMETER	SE	SUPERELEVATION
INV	INVERT	SL OR S/L	SURVEY LINE
JT	JOINT	TEMP	TEMPORARY
VAR	VARIABLE	TI	TEMPORARY INTEREST
VC	VERTICAL CURVE	TLE	TEMPORARY LIMITED EASEMENT
VPC	VERTICAL POINT OF CURVATURE	TC	TOP OF CURB
VPI	VERTICAL POINT OF INTERSECTION	TL OR T/L	TRANSIT LINE
VPT	VERTICAL POINT OF TANGENCY	T	TRUCKS (PERCENT OF)
W	WEST	TYP	TYPICAL
WB	WESTBOUND	USH	UNITED STATES HIGHWAY

WISCONSIN DNR LIAISON

SHAWN HASELEU
NW REGION
810 W. MAPLE ST
SPOONER, WI 54540
PHONE: 715-416-0478
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

UTILITIES CONTACTS

BRIGHTSPEED OF NORTH CENTRAL WI
COMMUNICATION
TAYLOR AYLESWORTH
135 N. 21ST STREET
SUPERIOR, WI 54880
PHONE: 980-376-1577
EMAIL: TAYLOR.AYLESWORTH@BRIGHTSPEED.COM

NORVADO
UTILITY TYPE
GUY FOLSOM
P.O. BOX 67
CABLE, WI 54821
PHONE: 715-580-8123 (MOBILE)
EMAIL: GFOLSOM@NORVADO.COM

SPECTRUM
CUMMUNICATION
RYAN NELSON
1810 LAKE SHORE DRIVE
ASHLAND, WI 54806
PHONE: 715-931-0238 (MOBILE)
EMAIL: RYAN.NELSON@CHARTER.COM

XCEL ENERGY
ELECTRICITY
BEN KOZAK
2400 FARM ROAD
ASHLAND, WI 54806
PHONE: 715-682-6915
EMAIL: BENJAMIN.KOZAK@XCELENERGY.COM

XCEL ENERGY
GAS
CHERI MARCHELLO
1751 LIBERTY STREET
IRONWOOD, MI 49938
PHONE: 906-767-5125
EMAIL: CHERI.J.MARCHELLO@XCELENERGY.COM

DESIGN PROJECT MANAGER

ADAM HETRICK
NW REGION-EAU CLAIRE
718 W. CLAIREMONT AVE.
EAU CLAIRE, WI 54701
PHONE: 715-836-2065
EMAIL: ADAM.HETRICK@DOT.WI.GOV

DESIGN PROJECT LEADER

MICHAEL PEARSON
WISDOT NW REGION-SUPERIOR
1701 N. 4TH ST.
SUPERIOR, WI 54880
PHONE: 715-395-3024
EMAIL: MICHAEL.PEARSON@DOT.WI.GOV

COUNTY HIGHWAY COMMISSIONER

JAKE BENSON
BAYFIELD COUNTY
311 S. 1ST. AVE E.
WASHBURN, WI 54891
PHONE: 715-373-6115
EMAIL: JAKE.BENSON@bayfieldcounty.wi.gov

US FISH AND WILDLIFE SERVICE

BRIDGET OLSON
ST. CROIX WETLAND MGT DISTRICT
1764 95TH ST.
NEW RICHMOND, WI 54017
PHONE: 715-246-7784
EMAIL: BRIDGET.OLSON@FWS.GOV

TOWN OF BARKSDALE

JOHN NYARA
BARKSDALE TOWN CHAIRMAN
73430 ONDOSSAGON RD
WASHBURN, WI 54891
PHONE: 715-373-2087
EMAIL: JFNSHOOTER@CENTURYTEL.NET

REGION SURVEY COORDINATOR

TOM ARMSTRONG
NW REGION-SUPERIOR
1701 N. 4TH ST.
SUPERIOR, WI 54880
PHONE: 715-392-7955
EMAIL: THOMAS.ARMSTRONG@DOT.WI.GOV

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS. WITH THE EXCEPTION OF THE TEMPORARY BYPASS FOOTPRINT. ONCE THE SOIL SEPARATION FABRIC IS REMOVED AND GROUND ELEVATIONS RESTORED, THE SURFACE SHALL BE ALLOWED TO RECOVER NATURALLY.

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

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

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

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

CURVE DATA IS BASED ON THE ARC DEFINITION.

PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.

PRIOR TO PLACING THE NEW BASE AGGREGATE DENSE COURSE OR PAVED SHOULDERS EXISTING UNCOMPACTED SHOULDER MATERIAL SHALL BE REMOVED OR DEPOSITED ON THE OUTER PORTION OF THE EXISTING SHOULDER OR AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND. COMMERCIAL DRIVEWAYS SHALL BE A MINIMUM OF 30 FEET WIDE UNLESS SHOWN OTHERWISE IN THE PLANS. ALL RESIDENTIAL DRIVEWAYS SHALL BE A MAXIMUM OF 20 FEET WIDE.

PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR'S PAVING OPERATION SHALL BE CONSISTENT WITH THE TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

PRIOR TO PLACEMENT OF BEAM GUARD THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

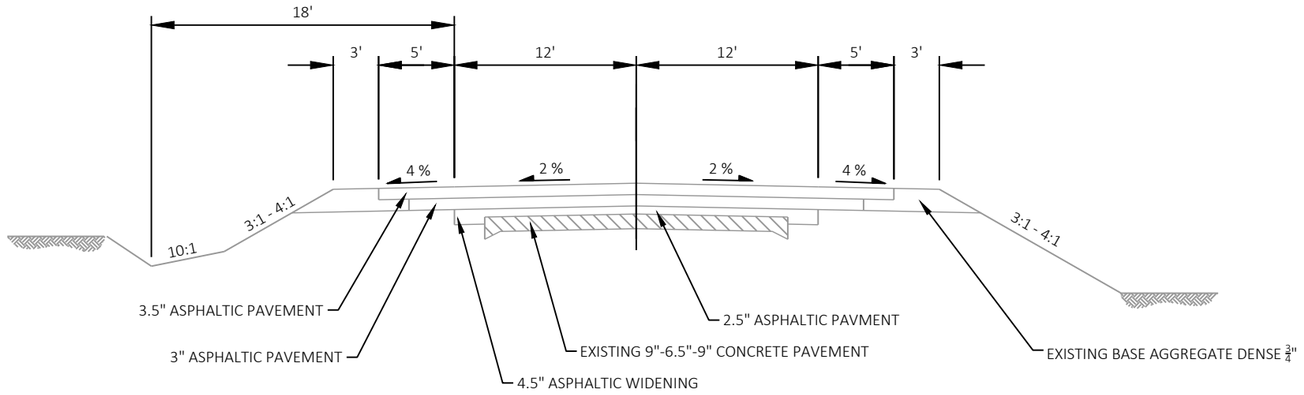
TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

BEARINGS SHOWN ON THE PLAN ARE TRUE BEARINGS.

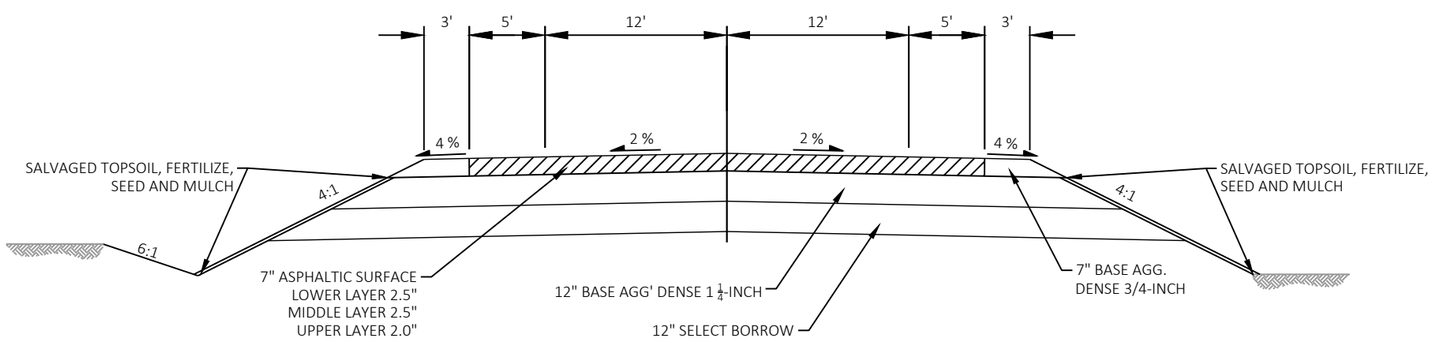
DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS, OR ON ANY ADJACENT PRIVATE PROPERTY UNLESS SPECIFIC PERMISSION IS GRANTED.

2



EXISTING TYPICAL SECTION - STH 13

STA 32+00 - 52+00



PROPOSED TYPICAL SECTION - RECONSTRUCTED

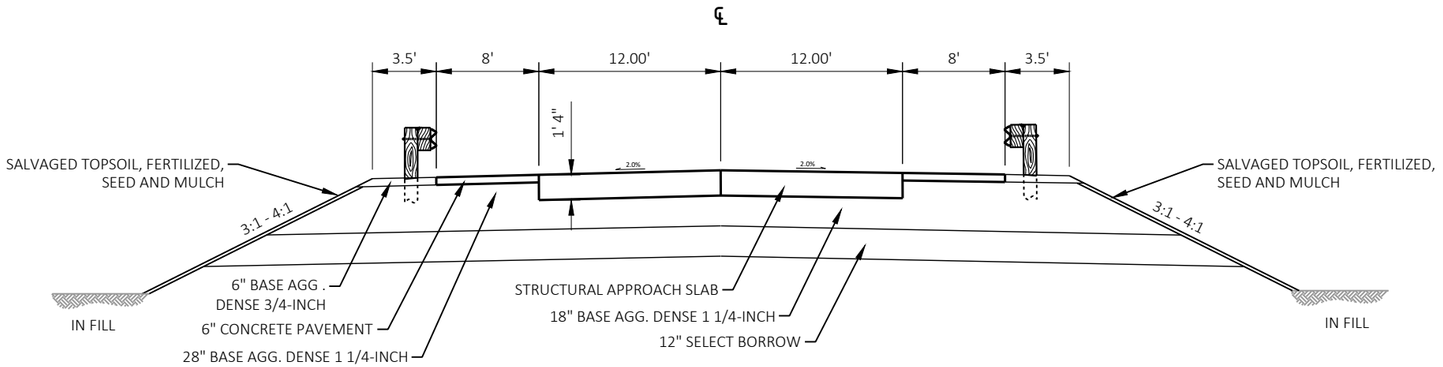
STA 38+33 - 39+59.42
STA 40+63.58 - 41+15

PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 3	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_TS.DWG
LAYOUT NAME - TS-1

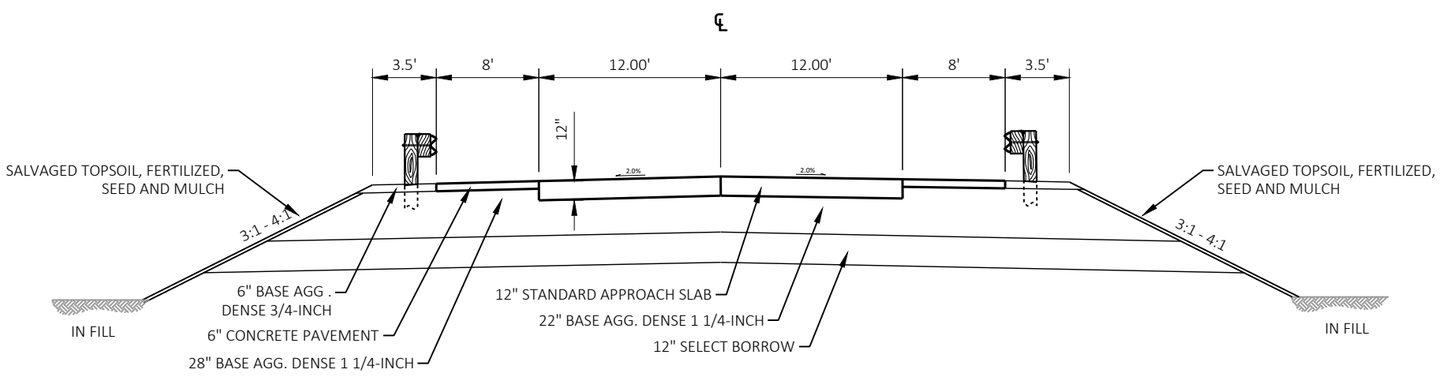
PLOT DATE : 11/19/2025 8:23 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT

2



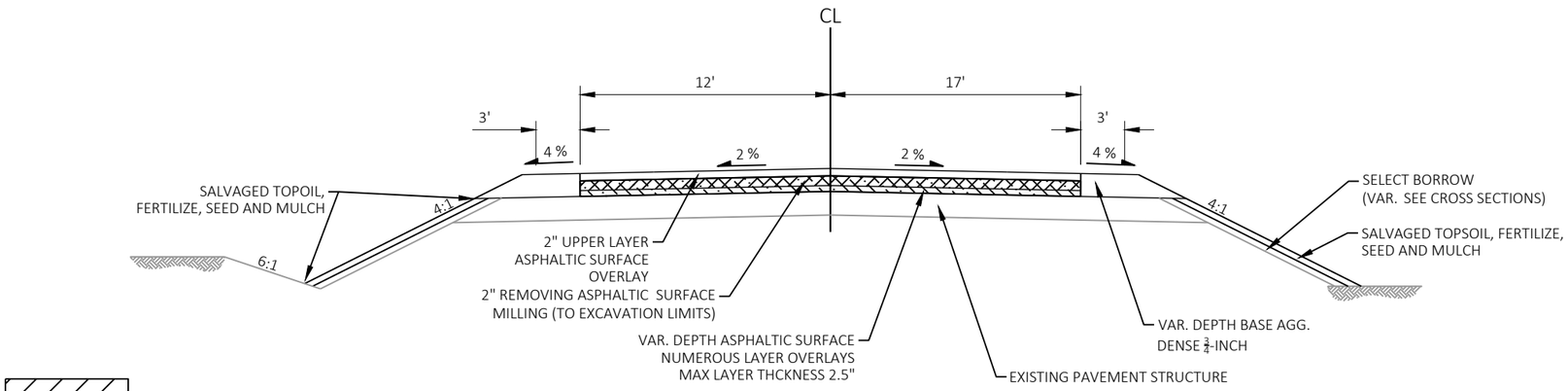
PROPOSED TYPICAL SECTION - STRUCTURAL APPROACH SLAB

STA 39+74.42 - 39+94.42
STA 40+28.58 - 40+48.58



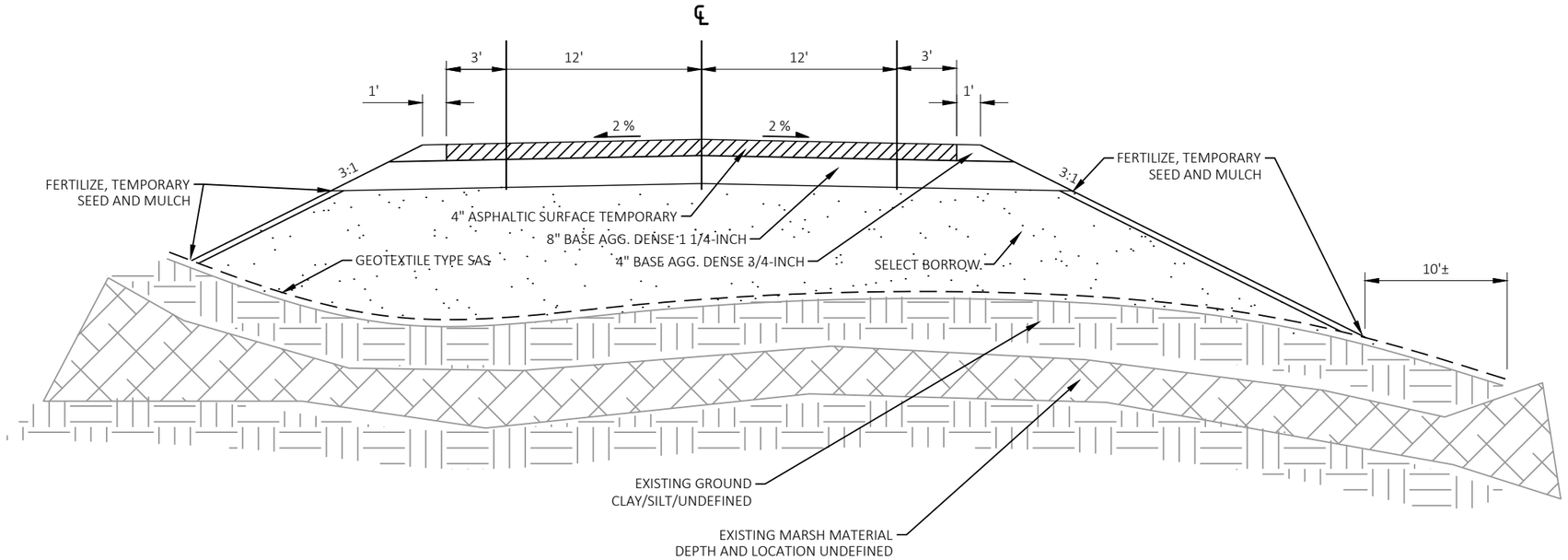
PROPOSED TYPICAL SECTION - APPROACH SLAB

STA 39+59.42 - 39+74.42
STA 40+48.58 - 40+63.58



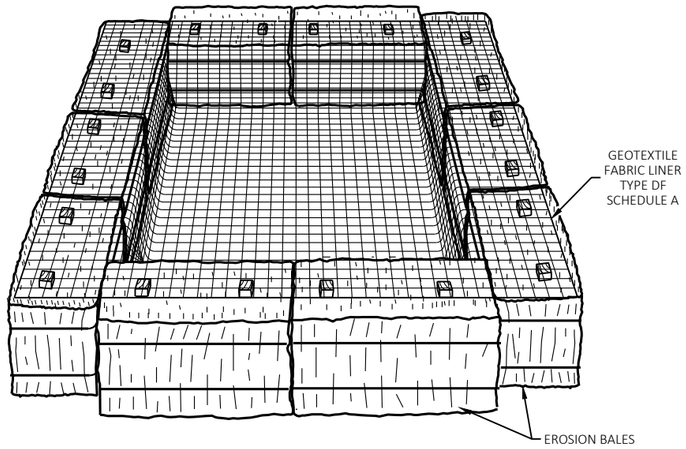
PROPOSED TYPICAL SECTION - OVERLAY

STA 34+50 - 39+49.42
STA 40+73.58 - 44+50



TEMPORARY BYPASS TYPICAL SECTION

PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 5	E



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)
(FOR REFERENCE: OTHER DEWATERING OPTIONS AVAILABLE)

STORAGE VOLUME (CF) = 16 X GPM (PUMP RATE)

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

SOLUTION:
SV (CF) = 16 X 50
SV = 800 CF

$\frac{800\ CF}{1.5\ FT}$ = 533 SF

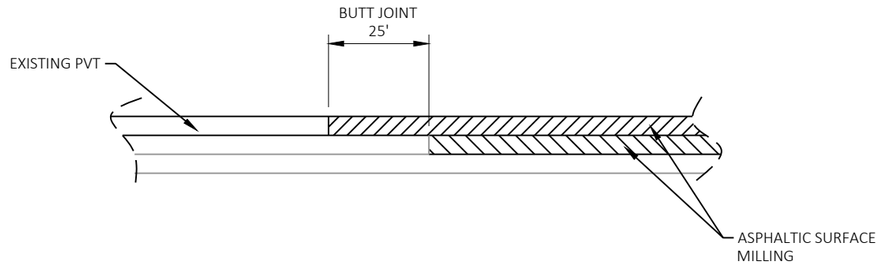
USE A 20 FT X 27 FT BASIN

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	OVER 6	0-2	2-6	OVER 6	0-2	2-6	OVER 6	0-2	2-6	OVER 6
ROW CROPS	0.08-0.22	0.16-0.30	0.22-0.38	0.12-0.26	0.20-0.34	0.27-0.44	0.15-0.30	0.24-0.37	0.33-0.50	0.19-0.34	0.28-0.41	0.38-0.56
MEDIAN STRIP TURF	0.19-0.24	0.20-0.26	0.24-0.30	0.19-0.25	0.22-0.28	0.26-0.33	0.20-0.26	0.23-0.30	0.30-0.37	0.20-0.27	0.25-0.32	0.30-0.40
SIDE SLOPE TURF			0.25-0.32			0.27-0.34			0.28-0.36			0.30-0.38
PAVEMENT:												
ASPHALT	0.70-0.95											
CONCRETE	0.80-0.95											
BRICK	0.70-0.80											
DRIVES, WALKS	0.75-0.85											
ROOFS	0.75-0.95											
GRAVEL ROADS, SHOULDERS	0.40-0.60											

UPPER LAYER ASPHALTIC SURFACE

LOWER LAYERS ASPHALTIC SURFACE



TERMINAL BUTT JOINT

STA 34+50 AND STA 44+50

2

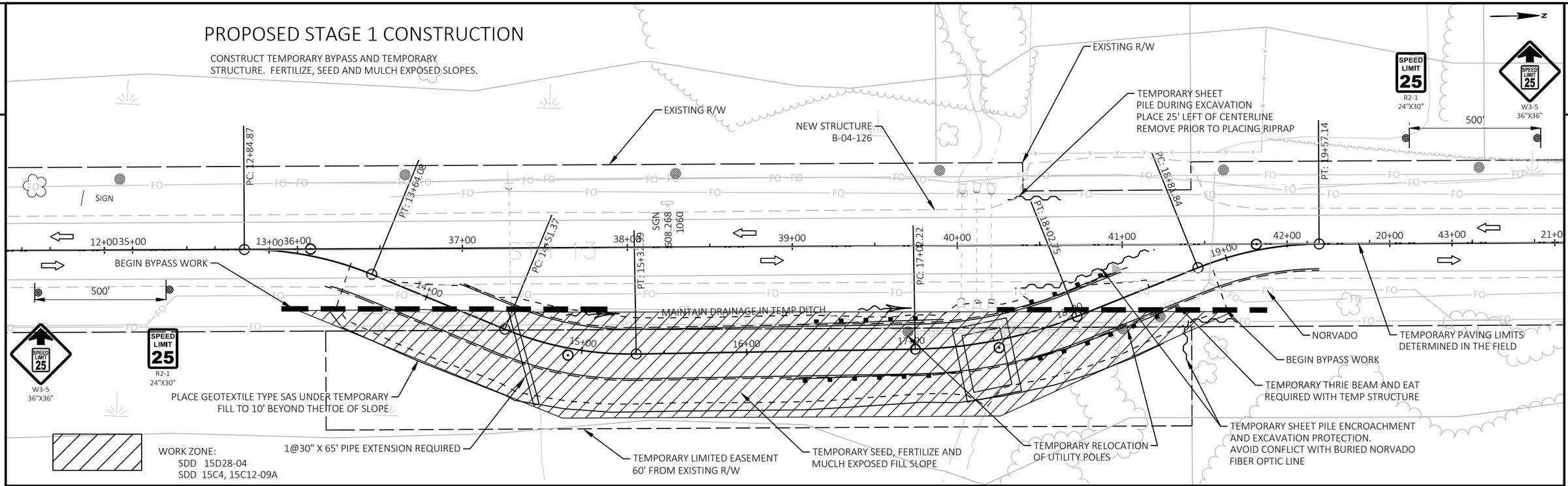
CONTROL POINTS

NO.	STATION	OFFSET	SIDE	ELEVATION	NORTHING	EASTING	DESCRIPTION
500	32+10.75	57.426	LT	610.055	460408.198	799653.467	CP-500
3	36+47.98	22.892	RT	610.059	460844.400	799739.181	CP-3
1	UNKNOWN	UNKNOWN		607.100	457339.538	803910.525	CP-5003 CHECK
407	36+47.89	22.883	RT	610.034	460844.312	799739.171	CP-3 CHECK
278	36+47.92	22.906	RT	610.052	460844.335	799739.194	CP-3 CHECK
151	36+47.93	22.924	RT	610.030	460844.345	799739.212	CP-3 CHECK
1000	36+47.94	22.909	RT	610.047	460844.354	799739.197	CP-3 CHECK
1059	36+96.54	51.986	LT	604.836	461193.855	799668.614	RWGP
1058	39+98.60	49.814	LT	605.304	461195.892	799670.812	PROP 1 ½ AC MONUMENT FISH AND WILDLIFE
2	40+77.44	65.422	LT	603.924	461274.914	799656.179	CP-2
1053	41+47.92	51.011	RT	604.613	461343.953	799773.474	PROP 1 ½ AC MONUMENT FISH AND WILDLIFE
1054	42+01.34	51.020	RT	603.977	461397.369	799744.142	RWGP
1057	43+24.36	48.747	LT	605.797	461521.612	799675.903	PROP 1 ½ AC MONUMENT FISH AND WILDLIFE
1055	43+47.37	39.907	RT	603.901	461543.529	799764.834	RWGP
451	41+75.46	1345.291	RT	603.142	460844.335	799739.194	PROP 1 ½ AC MONUMENT FISH AND WILDLIFE
1056	44+39.94	41.582	LT	604.721	461637.089	799684.495	RWGP
446	51+06.09	1391.113	LT	641.985	462671.230	798459.119	QTR NAIL PK NAIL
447	27+79.71	1320.277	LT	614.314	459992.784	801026.767	QTR CENTER SURVEY SPIKE
448	28+19.26	1320.815	RT	603.062	459999.709	801026.767	QTR EAST 3 ½ AC MONUMENT

BYPASS SUPERELEVATION TABLE						
CURVE	STATION	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Lane	Right Outside Shoulder
	10+00.00'	Begin Alignment	-4.00%	-2.00%	-4.00%	-2.00%
1	11+50.59'	End Normal Shoulder	-4.00%	-2.00%	-4.00%	-2.00%
1	11+84.72'	End Normal Crown	-2.00%	-2.00%	-4.00%	-2.00%
1	12+18.86'	Level Crown	0.00%	0.00%	-4.00%	-2.00%
1	12+53.00'	Reverse Crown	2.00%	2.00%	-4.00%	-2.00%
1	12+87.14'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
1	13+17.86'	Begin Full Super	5.80%	5.80%	-5.80%	-5.80%
1	13+31.09'	End Full Super	5.80%	5.80%	-5.80%	-5.80%
2	14+84.36'	Begin Full Super	-5.80%	-5.80%	5.80%	5.80%
2	14+99.99'	End Full Super	-5.80%	-5.80%	5.80%	5.80%
3	17+31.89'	Begin Full Super	-5.20%	-5.20%	5.20%	5.20%
3	17+73.09'	End Full Super	-5.20%	-5.20%	5.20%	5.20%
4	19+14.84'	Begin Full Super	5.80%	5.80%	-5.80%	-5.80%
4	19+24.15'	End Full Super	5.80%	5.80%	-5.80%	-5.80%
4	19+54.87'	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
4	19+89.01'	Reverse Crown	2.00%	2.00%	-4.00%	-2.00%
4	20+23.15'	Level Crown	0.00%	0.00%	-4.00%	-2.00%
4	20+57.28'	Begin Normal Crown	-2.00%	-2.00%	-4.00%	-2.00%
4	20+91.42'	Begin Normal Shoulde	-4.00%	-2.00%	-4.00%	-2.00%
	21+87.22'	End Alignment	-4.00%	-2.00%	-4.00%	-2.00%

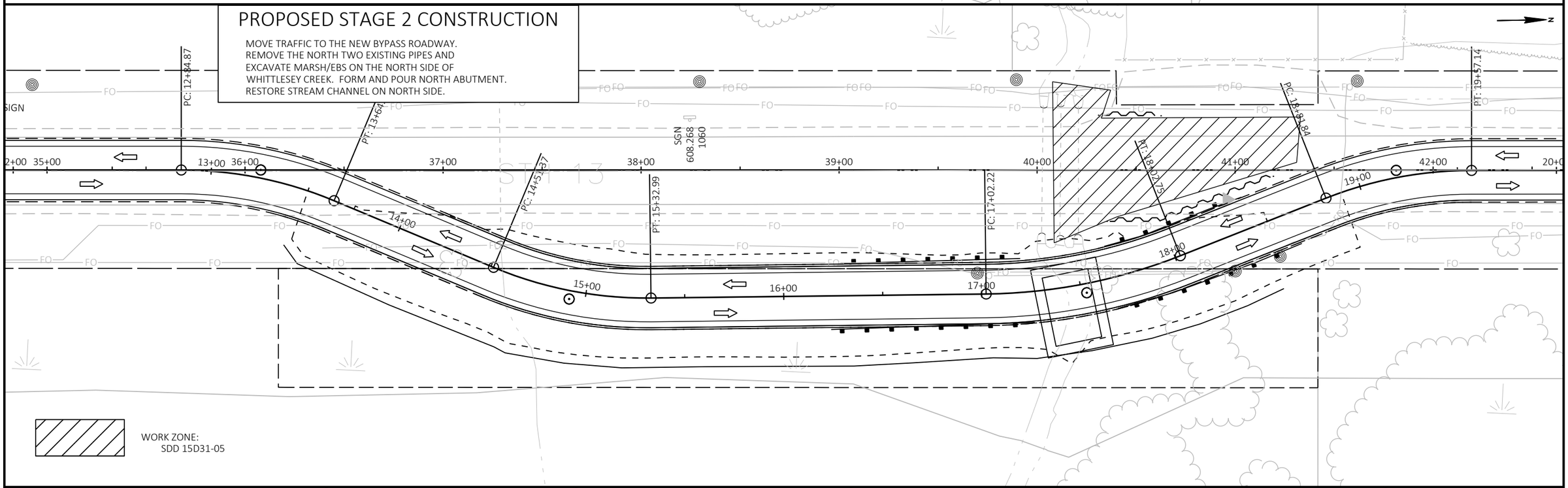
PROPOSED STAGE 1 CONSTRUCTION

CONSTRUCT TEMPORARY BYPASS AND TEMPORARY STRUCTURE. FERTILIZE, SEED AND MULCH EXPOSED SLOPES.



PROPOSED STAGE 2 CONSTRUCTION

MOVE TRAFFIC TO THE NEW BYPASS ROADWAY.
REMOVE THE NORTH TWO EXISTING PIPES AND EXCAVATE MARSH/EBS ON THE NORTH SIDE OF WHITTLESEY CREEK. FORM AND POUR NORTH ABUTMENT.
RESTORE STREAM CHANNEL ON NORTH SIDE.

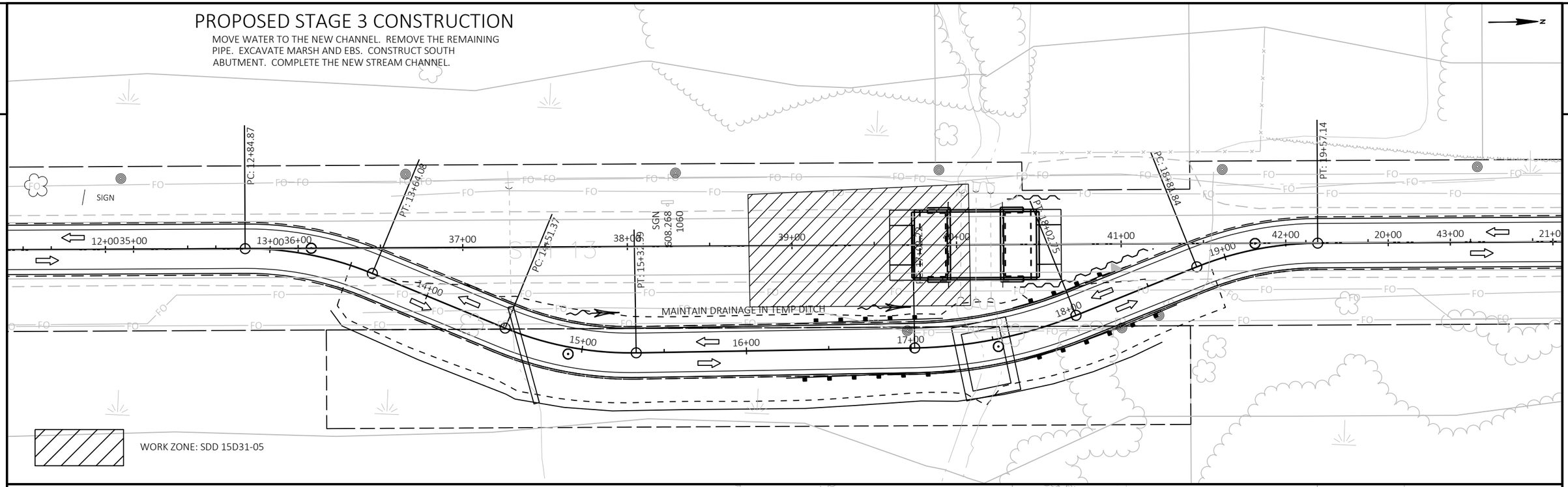


PROJECT NO: 8160-0073	HWY: STH 13	COUNTY: BAYFIELD	CONSTRUCTION STAGING	SHEET 8	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_STAGES.DWG
LAYOUT NAME - ST1-2
PLOT DATE : 11/14/2025 10:01 AM
PLOT BY : PEARSON, MICHAEL R
PLOT NAME :
PLOT SCALE : Custom
WISDOT/CADDS SHEET 44

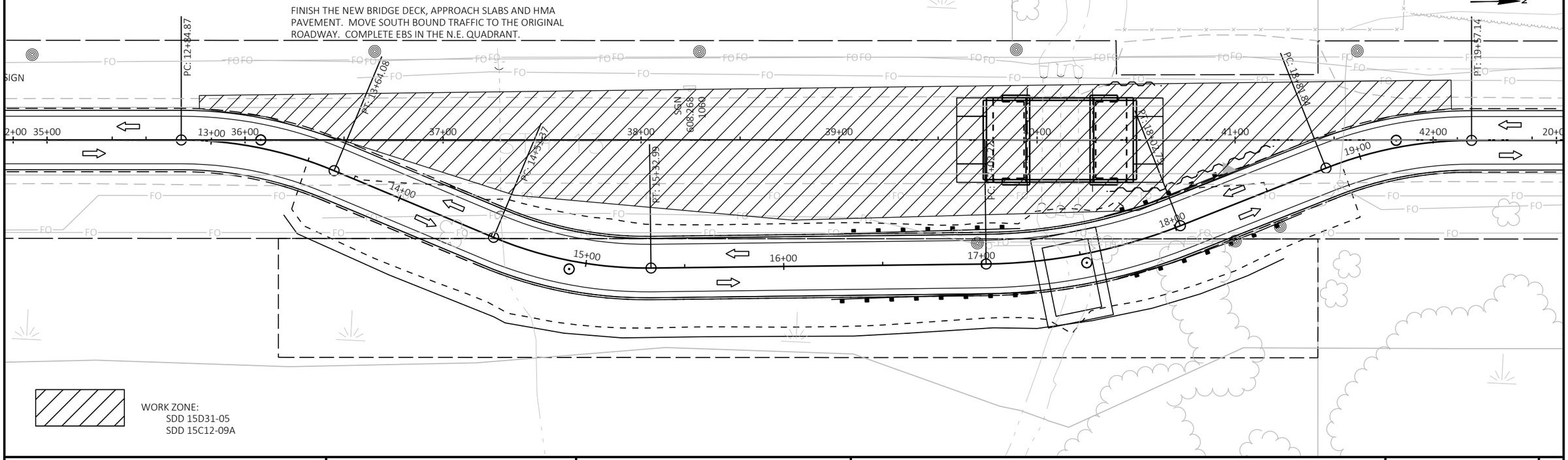
PROPOSED STAGE 3 CONSTRUCTION

MOVE WATER TO THE NEW CHANNEL. REMOVE THE REMAINING PIPE. EXCAVATE MARSH AND EBS. CONSTRUCT SOUTH ABUTMENT. COMPLETE THE NEW STREAM CHANNEL.



PROPOSED STAGE 4 CONSTRUCTION

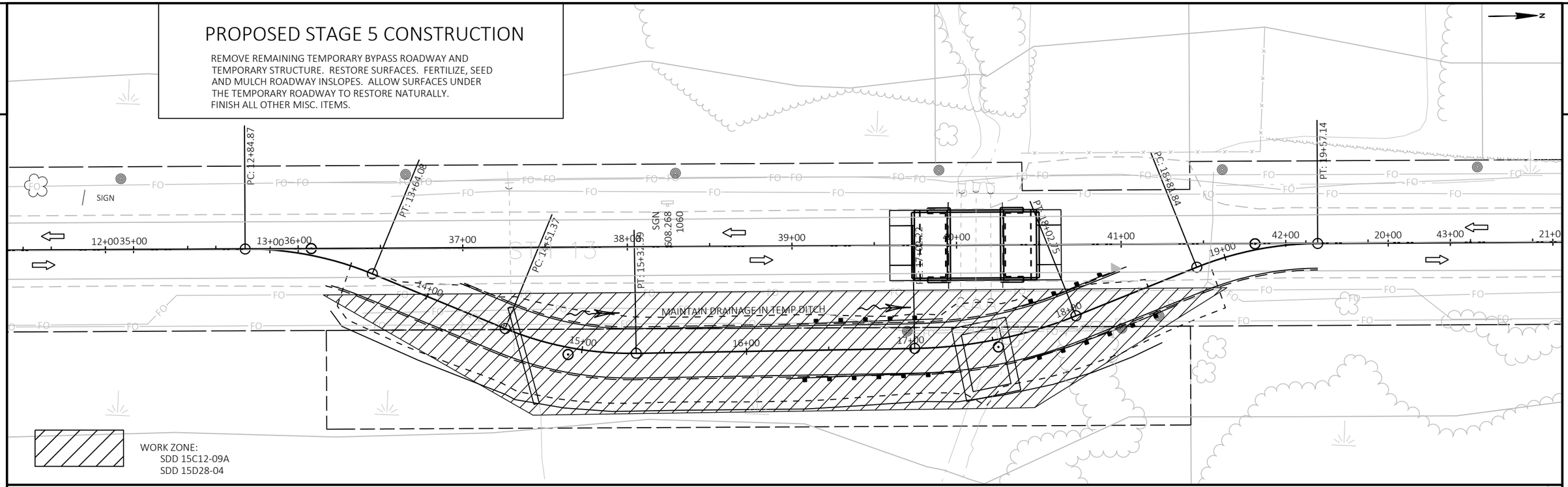
FINISH THE NEW BRIDGE DECK, APPROACH SLABS AND HMA PAVEMENT. MOVE SOUTH BOUND TRAFFIC TO THE ORIGINAL ROADWAY. COMPLETE EBS IN THE N.E. QUADRANT.



PROJECT NO: 8160-0073	HWY: STH 13	COUNTY: BAYFIELD	CONSTRUCTION STAGING	SHEET 9	E

PROPOSED STAGE 5 CONSTRUCTION

REMOVE REMAINING TEMPORARY BYPASS ROADWAY AND TEMPORARY STRUCTURE. RESTORE SURFACES. FERTILIZE, SEED AND MULCH ROADWAY INSLOPES. ALLOW SURFACES UNDER THE TEMPORARY ROADWAY TO RESTORE NATURALLY. FINISH ALL OTHER MISC. ITEMS.



PROJECT NO: 8160-0073	HWY: STH 13	COUNTY: BAYFIELD	CONSTRUCTION STAGING	SHEET 10	E

NOTE:
SEE TYPICAL SECTIONS FOR PAVEMENT STRUCTURE DETAILS.

TEMPORARY PAVING LIMITS DETERMINED IN THE FIELD

TEMPORARY BEAMGUARD

EXISTING R/W

XCEL ENERGY GAS

SPECTRUM FO

XCEL ENERGY OVERHEAD

NEW STRUCTURE B-04-126

EXISTING R/W

COFFERDAMS

TEMPORARY SHORING SEE STRUCTURE PLANS FOR DETAILS

MAINTAIN DRAINAGE IN TEMP DITCH

CAUTION

TEMPORARY PAVING LIMITS DETERMINED IN THE FIELD

NORVADO FO

BRIGHTSPEED TEL

PLACE GEOTEXTILE TYPE SAS UNDER TEMPORARY FILL TO 10' BEYOND THE TOE OF SLOPE

1@30" X 65' PIPE EXTENSION REQUIRED

TEMPORARY LIMITED EASEMENT 60' FROM EXISTING R/W

TEMPORARY SEED, FERTILIZE AND MUCLH EXPOSED FILL SLOPE

PILING STEEL SHEET TEMPORARY, ENCROACHMENT AND EXCAVATION PROTECTION. AVOID CONFLICT WITH BURIED NORVADO FIBER OPTIC LINE

COORDINATE TEMPORARY STRUCTURE CONSTRUCTION WITH BRIGHTSPEED TO AVOID CONFLICT WITH THE BURIED FIBER OPTIC LINE

TEMPORARY THRIE BEAM AND EAT REQUIRED WITH TEMP STRUCTURE

NOTE:
ADDITIONAL INFORMATION IN TYPICAL SECTIONS
ADDITIONAL INFORMATION IN: STANDARD DETAIL 15D31-05, TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

SPEED LIMIT 25 — R2-1 24"X30"

SPEED LIMIT 25 — W3-5 36"X36"

500'

PC: 12+84.87

PT: 13+64.08

PC: 14+51.37

PT: 15+33.56

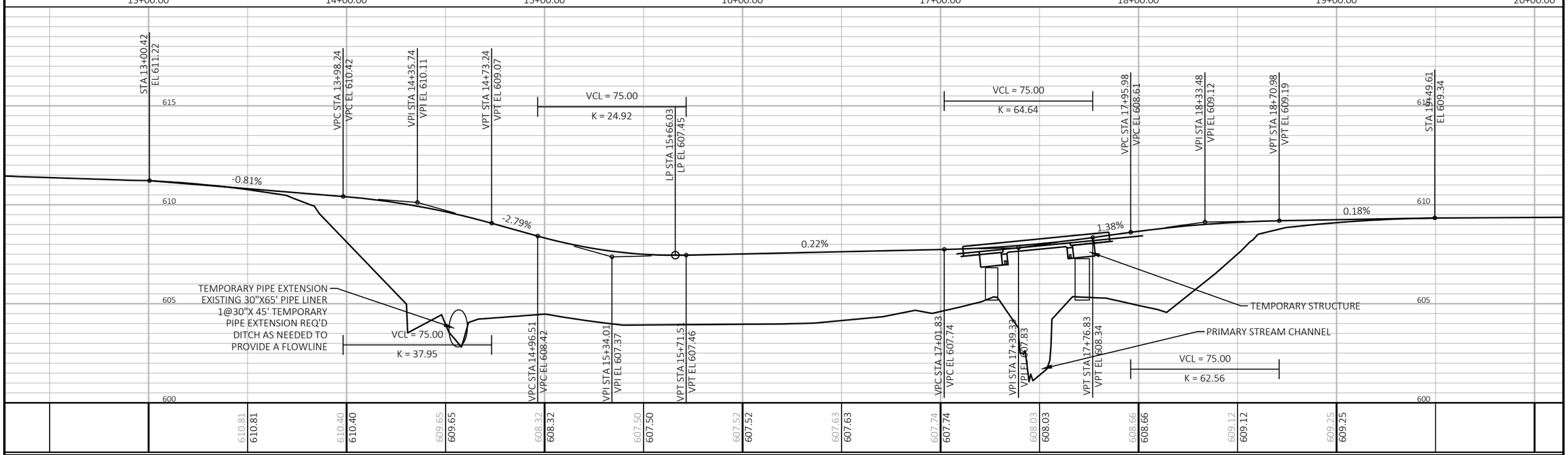
PC: 17+02.27

PT: 18+02.15

PC: 18+81.84

PT: 19+57.14

SGN 608.268 1060

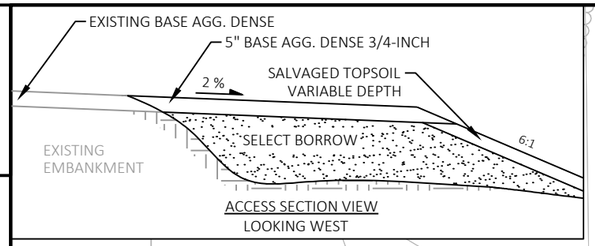


PROJECT NO: 8160-0073	HWY: STH 13	COUNTY: BAYFIELD	BYPASS PLAN AND PROFILE	SHEET 11	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_PP-BYPASS.DWG
LAYOUT NAME - Plan Dbl 1 IN 100 FT

PLOT DATE : 11/14/2025 7:35 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 44



2

2

EXISTING BASE AGG. DENSE

EXISTING FISH AND WILDLIFE FENCE
TEMPORARY ACCESS FOR DRIVEWAY
AND GATE CONSTRUCTION PERMITTED

N

EXISTING BASE AGG. DENSE

MOVE OR REPLACE POSTS TO
PROVIDE A CONTINUOUS BARRIER

RELOCATE ACCESS: MOVE
POSTS AND HARDWARE,
SIGNS AND REFLECTORS
OR REPLACE AS NEEDED

BP: 0+00.00

STA 41+57.16
OFFSET 84.89' LT

FINISHED DRIVEWAY TOP SURFACE

POSTS:
BROWN TREATED
5.5" X 5.5" SQUARE
BEVEL TOP TO MATCH EXISTING
IMBED TO MATCH EXISTING

35'

10'

EXISTING FISH AND WILDLIFE FENCE

STA 41+39.7
OFF 55.75' LT

STA 41+74.6
OFF 55.78' LT

EXISTING R/W

SALVAGED TOPSOIL, FERTILIZE,
SEED AND MULCH

EXISTING BASE AGG. DENSE

EXISTING POWER POLE TO BE RELOCATED

7.5' RAD

EDGE OF NEW BASE AGG. SHOULDER

15' RAD

POST #1
STA 41+31.16
OFF 22.27' LT

STA 41+89.6
OFF 17' LT

NEW BEAMGUARD

40+00

41+00

42+00

EP: 0+84.89

STA 41+57.16
OFFSET 0.0'

NEW STRUCTURE

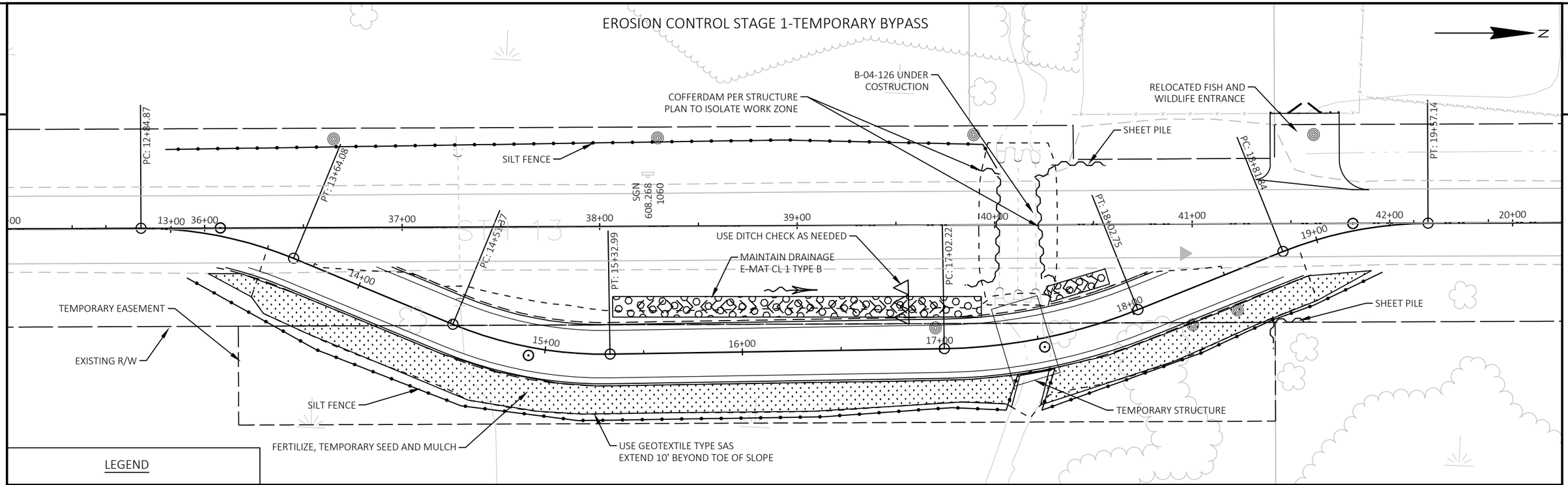
QUANTITY ESTIMATE
FOR REFRENCE ONLY

SELECT BORROW = 16 CY
BASE AGG. DENSE 3/4-INCH = 60 TON
SALVAGED TOPSOIL = 95 SY

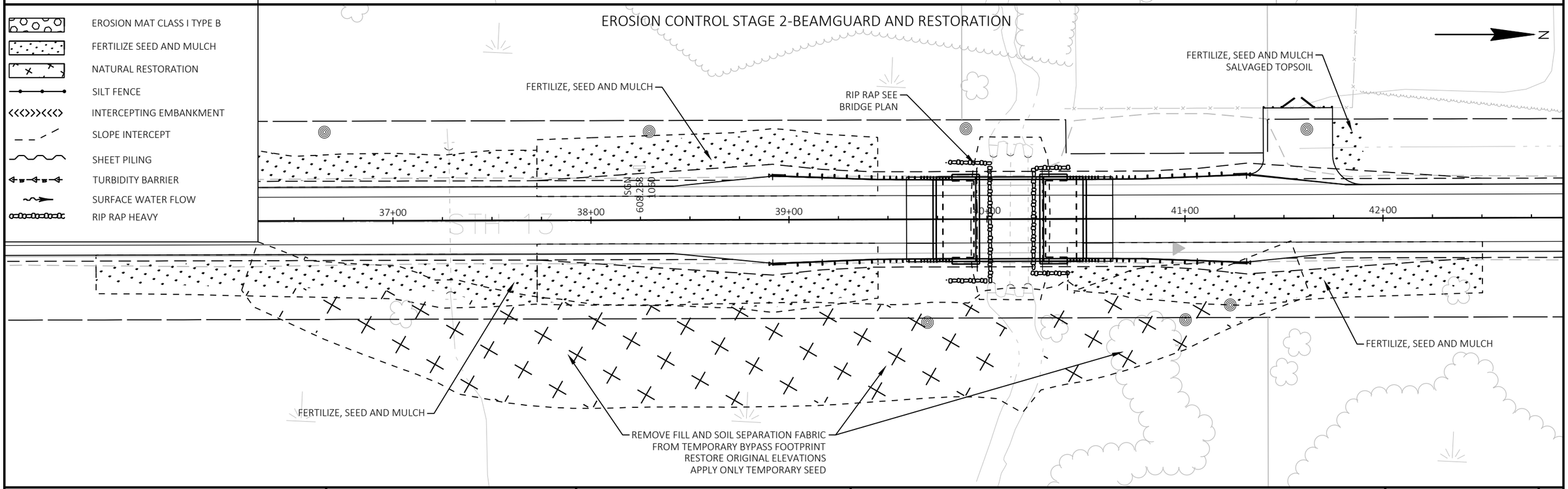
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CONSTRUCTION DETAILS - RELOCATE ACCESS	SHEET 12	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_CD_NEW DRIVE.DWG
LAYOUT NAME - DRIVE
PLOT DATE : 11/18/2025 8:54 AM
PLOT BY : PEARSON, MICHAEL R
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

EROSION CONTROL STAGE 1-TEMPORARY BYPASS



EROSION CONTROL STAGE 2-BEAMGUARD AND RESTORATION



LEGEND

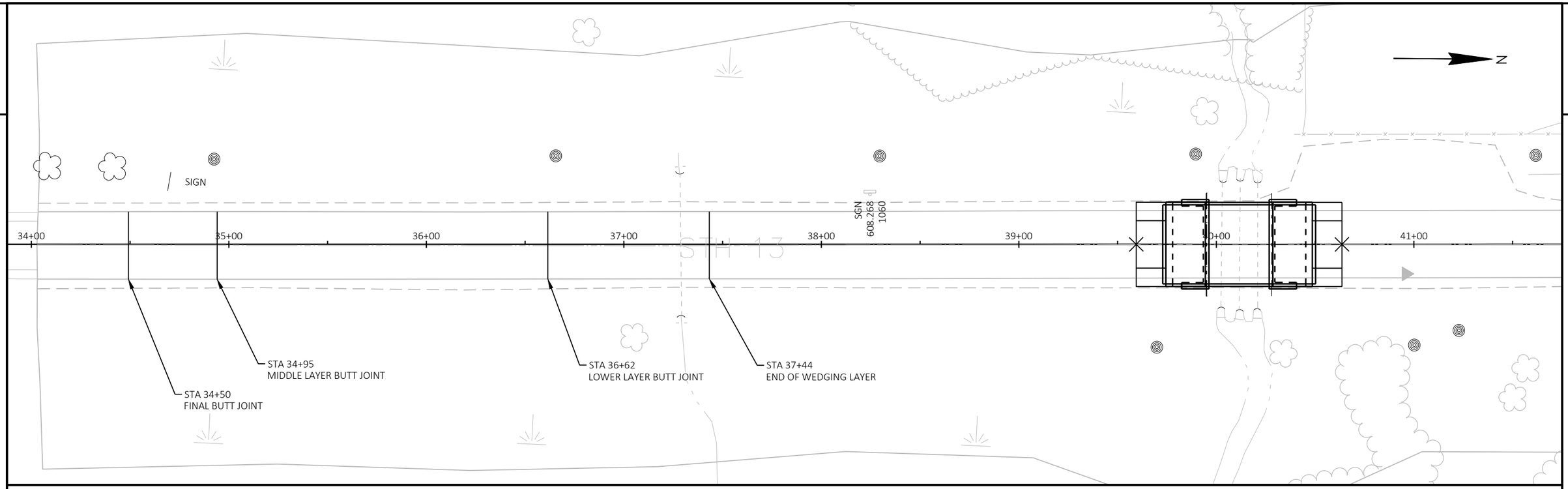
- EROSION MAT CLASS I TYPE B
- FERTILIZE SEED AND MULCH
- NATURAL RESTORATION
- SILT FENCE
- INTERCEPTING EMBANKMENT
- SLOPE INTERCEPT
- SHEET PILING
- TURBIDITY BARRIER
- SURFACE WATER FLOW
- RIP RAP HEAVY

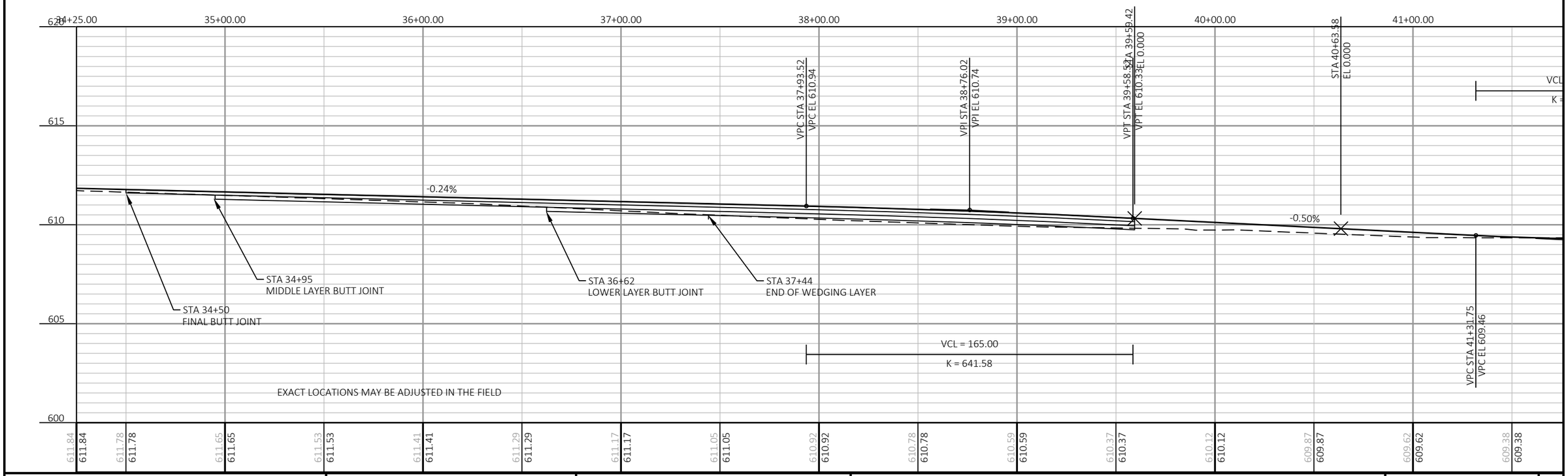
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL	SHEET 13	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_EC1.DWG
LAYOUT NAME - EC-DUAL

PLOT DATE : 11/17/2025 8:08 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:50 FT

2





PROJECT NO: 860-00-73	HWY: STH 13	COUNTY: BAYFIELD	PROPOSED WEDGING AND PAVING PROFILE	SHEET 14	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_.LAYERS.DWG
LAYOUT NAME - Plan Dbl 1 IN 50 FT
PLOT DATE : 11/17/2025 9:34 AM
PLOT BY : PEARSON, MICHAEL R
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Estimate Of Quantities

8160-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0006	203.0220	Removing Structure (structure) 01. B-04-0037	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	253.000	253.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	859.000	859.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	1,957.000	1,957.000
0014	205.0100	Excavation Common	CY	5,843.000	5,843.000
0016	206.1001	Excavation for Structures Bridges (structure) 01. B-04-0126	EACH	1.000	1.000
0018	206.5001	Cofferdams (structure) 01. B-04-0126	EACH	1.000	1.000
0020	208.1100	Select Borrow	CY	6,731.000	6,731.000
0022	210.1500	Backfill Structure Type A	TON	1,184.000	1,184.000
0024	213.0100	Finishing Roadway (project) 01. 8160-00-73	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	100.000	100.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,940.000	1,940.000
0030	415.0060	Concrete Pavement 6-Inch	SY	126.000	126.000
0032	415.0410	Concrete Pavement Approach Slab	SY	80.000	80.000
0034	455.0605	Tack Coat	GAL	453.000	453.000
0036	465.0105	Asphaltic Surface	TON	608.000	608.000
0038	465.0125	Asphaltic Surface Temporary	TON	460.000	460.000
0040	502.0100	Concrete Masonry Bridges	CY	308.000	308.000
0042	502.3200	Protective Surface Treatment	SY	352.000	352.000
0044	502.3210	Pigmented Surface Sealer	SY	72.000	72.000
0046	505.0400	Bar Steel Reinforcement HS Structures	LB	5,180.000	5,180.000
0048	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	42,090.000	42,090.000
0050	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	390.000	390.000
0052	511.1200	Temporary Shoring (structure) 01. B-04-0126	SF	225.000	225.000
0054	512.1000	Piling Steel Sheet Temporary	SF	180.000	180.000
0056	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0058	520.2030	Culvert Pipe Temporary 30-Inch	LF	65.000	65.000
0060	526.0101	Temporary Structure (station) 01. 40+25	EACH	1.000	1.000
0062	550.2106	Piling CIP Concrete 10 3/4 X 0.365-Inch	LF	1,680.000	1,680.000
0064	606.0300	Riprap Heavy	CY	67.000	67.000
0066	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0068	614.1000	MGS Guardrail Temporary	LF	420.000	420.000
0070	614.1100	MGS Guardrail Temporary Thrie Beam Transition	LF	156.000	156.000
0072	614.1200	MGS Guardrail Temporary Terminal EAT	EACH	4.000	4.000
0074	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0076	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0078	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8160-00-73	EACH	1.000	1.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	625.0105	Topsoil	CY	17.000	17.000
0084	625.0500	Salvaged Topsoil	SY	1,579.000	1,579.000
0086	627.0200	Mulching	SY	1,634.000	1,634.000
0088	628.1104	Erosion Bales	EACH	10.000	10.000
0090	628.1504	Silt Fence	LF	960.000	960.000
0092	628.1520	Silt Fence Maintenance	LF	960.000	960.000
0094	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0098	628.2004	Erosion Mat Class I Type B	SY	223.000	223.000

8160-00-73

Line	Item	Item Description	Unit	Total	Qty
0100	628.6005	Turbidity Barriers	SY	44.000	44.000
0102	629.0210	Fertilizer Type B	CWT	2.510	2.510
0104	630.0110	Seeding Mixture No. 10	LB	30.000	30.000
0106	630.0200	Seeding Temporary	LB	50.000	50.000
0108	630.0500	Seed Water	MGAL	40.000	40.000
0110	633.1100	Delineators Temporary	EACH	44.000	44.000
0112	633.5200	Markers Culvert End	EACH	2.000	2.000
0114	642.5201	Field Office Type C	EACH	1.000	1.000
0116	643.0300	Traffic Control Drums	DAY	1,300.000	1,300.000
0118	643.0420	Traffic Control Barricades Type III	DAY	1,040.000	1,040.000
0120	643.0715	Traffic Control Warning Lights Type C	DAY	1,300.000	1,300.000
0122	643.0900	Traffic Control Signs	DAY	2,080.000	2,080.000
0124	643.3165	Temporary Marking Line Paint 6-Inch	LF	3,000.000	3,000.000
0126	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	32.000	32.000
0128	643.5000	Traffic Control	EACH	1.000	1.000
0130	645.0111	Geotextile Type DF Schedule A	SY	40.000	40.000
0132	645.0120	Geotextile Type HR	SY	81.000	81.000
0134	645.0140	Geotextile Type SAS	SY	2,598.000	2,598.000
0136	646.2020	Marking Line Epoxy 6-Inch	LF	3,600.000	3,600.000
0138	646.9000	Marking Removal Line 4-Inch	LF	450.000	450.000
0140	650.4500	Construction Staking Subgrade	LF	728.000	728.000
0142	650.5000	Construction Staking Base	LF	728.000	728.000
0144	650.6501	Construction Staking Structure Layout (structure) 01. B-04-0126	EACH	1.000	1.000
0146	650.8000	Construction Staking Resurfacing Reference	LF	1,446.000	1,446.000
0148	650.9911	Construction Staking Supplemental Control (project) 01. 8160-00-73	EACH	1.000	1.000
0150	650.9920	Construction Staking Slope Stakes	LF	550.000	550.000
0152	690.0150	Sawing Asphalt	LF	136.000	136.000
0154	715.0502	Incentive Strength Concrete Structures	DOL	1,848.000	1,848.000
0156	715.0603	Incentive Strength Concrete Barrier	DOL	58.000	58.000
0158	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0160	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000
0162	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0164	SPV.0060	Special 01. Relocate Access	EACH	1.000	1.000

3

CLEARING AND GRUBBING

CAT	STATION	LOC	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
0010	42+00	RT	1	1	
0010					
		TOTAL 0010	1	1	

REMOVING CONCRETE PAVEMENT

CAT	STATION	TO	STATION	LOC	204.0100 REMOVING CONCRETE PAVEMENT SY	REMARKS
0010	39+49	-	39+97	LT&RT	117	
0010	40+27	-	40+83	LT&RT	136	
				TOTAL 0010	253	

COMMON EXCAVATION

CAT	STATION	TO	STATION	LOC	205.0100 EXCAVATION COMMON CY	REMARKS
0010	35+50	-	42+50		2,696	TEMP BYPASS REMOVAL
0010	35+50	-	42+50		100	UNDISTRIBUTED
0010	38+33	-	39+95		1,111	N. MARSH EBS
0010	40+28	-	41+15		1,936	S. MARSH EBS
				TOTAL 0010	5,843	

CONCRETE APPROACH SLAB SUMMARY

CAT	STATION	TO	STATION	LOC	415.0060 CONCRETE PAVEMENT 6-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	REMARKS
0010	39+59.42	-	39+74.42			40	STANDARD SLAB
0010	40+48.58	-	40+63.58			40	STANDARD SLAB
0010	39+59.42	-	39+74.42	LT&RT	63		SURFACE DRAINS
0010	40+48.58	-	40+63.58	LT&RT	63		SURFACE DRAINS
				TOTAL 0010	126	80	

SELECT BORROW

CAT	STATION	TO	STATION	LOC	208.1100 SELECT BORROW CY	REMARKS
0010	35+50	-	42+50	RT	2,696	TEMP BYPASS
0010	35+50	-	42+50		100	UNDISTRIBUTED
0010	38+33		39+95	RT&LT	1,349	S MARSH EBS
0010	40+28		41+15	RT&LT	2,406	N MARSH EBS
0010	34+50		36+50	RT&LT	180	SLOPE FILL
				TOTAL 0010	6,731	

MILLING SUMMARY

CAT	STATION	TO	STATION	LOC	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
0010	34+50	-	35+20		264		FINAL UPPER 2 LAYERS
0010	36+62		36+87		94		LOWER LAYER
0010	42+50	-	43+00		167		FINAL
0010	35+00	-	35+50		167		TEMP
0010	42+50	-	43+00		167		TEMP
0010	34+50	-	38+33			1,447	S. APPROACH
0010	41+15	-	42+50			510	N. APPROACH
				TOTAL 0010	859	1,957	

BASE AGGREGATE SUMMARY

CAT	STATION	TO	STATION	LOC	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
0010	37+50	-	39+94	LT&RT	44		SHLDR
0010	40+28	-	42+50	RT	14		SHLDR
0010	13+50	-	19+00	LT&RT	33	882	TEMP BYPASS
0010	39+59.42	-	39+74.42	ALL		27	STANDARD SLAB
0010	40+48.58	-	40+63.58	ALL		27	STANDARD SLAB
0010	39+59.42	-	39+74.42	LT&RT		78	SURFACE DRAINS
0010	40+48.58	-	40+63.58	LT&RT		78	SURFACE DRAINS
0010	39+59	-	39+90	LT&RT	4.5		SHLDR AT SLABS
0010	40+33	-	40+64	LT&RT	4.5		SHLDR AT SLABS
0010	38+33	-	39+59	LT&RT		411	
0010	40+63	-	41+15	LT&RT		169	
				TOTAL 0010	100	1,672	

NOTE: ADDITIONAL QUANTITIES OF BASE AGGREGATE DENSE 1 1/4-INCH IN OTHER LOCATIONS

HMA SUMMARY

CAT	STATION	TO	STATION	LOC	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
0010	35+00.00	-	38+31.98		195	141		TOP LAYER FULL WIDTH
0010	38+31.98	-	39+49.00		114	35		TOP BEAMGUARD SECTION LANES
0010	38+31.98	-	39+49.00	LT&RT		54		SHOULDERS BEAMGUARD SECTION
0010	35+50.00	-	38+31.98			162		WEDGING
0010	38+31.98	-	39+49.00			72		WEDGING
0010	39+49.00		39+59.42			11		RCSTRCT SECTION
0010	40+63.58		40+73.00			10		RCSTRCT SECTION
0010	40+73.00		41+91.00			44		BEAMGUARD SECTION LANES
0010	40+73.00		41+91.00	LT		27		SHOULDER LT
0010	40+73.00		41+91.00	RT		27		SHOULDER RT
0010	41+91.00		42+50.00			25		BUTT JOINT
0010	13+00.00	-	19+00.00		144		460	BYPASS
				TOTAL 0010	453	608	460	

SHEET PILING TEMPORARY

CAT	STATION	TO	STATION	LOC	512.1000 PILING STEEL SHEET TEMPORARY SF	REMARKS
0010	42+50	-	42+60	LT	180	PROP CORNER
				TOTAL 0010	180	

TEMPORARY CULVERT PIPE 30-INCH

CAT	STATION	TO	STATION	LOC	520.2030 CULVERT PIPE TEMPORARY 30-INCH LF	REMARKS
0010	37+25	-	37+25	RT	65	UNDER BYPASS
				TOTAL 0010	65	

PERMANENT BEAMGUARD SUMMARY

CAT	STATION	TO	STATION	LOC	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	38+80	-	39+72	LT	39	1	
0010	38+80	-	39+72	RT	39	1	
0010	40+48	-	41+41	LT	39	1	
0010	40+48	-	41+41	RT	39	1	
				TOTAL 0010	156	4	

3

TEMPORARY BEAMGUARD SUMMARY

CAT	STATION	TO	STATION	LOC	614.1000 MGS GUARDRAIL TEMPORARY LF	614.1100 MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION LF	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT EACH	REMARKS
0010	14+00	-	17+10	RT	220	39	1	
0010	14+00	-	17+10	LT	200	39	1	
0010	17+25	-	18+50	RT		39	1	
0010	17+25	-	18+50	LT		39	1	
TOTAL 0010					420	156	4	

EROSION BAILS

CAT	STATION	LOC	628.1104 EROSION BALES EACH	REMARKS
0010	PROJECT		10	SETTLING BASIN
TOTAL 0010			10	

MAINTENANCE AND REPAIR OF HAUL ROADS

CAT	STATION	TO	STATION	LOC	618.0100.01 MAINTENANCE AND REPAIR OF HAUL ROADS (01. 8160-00-73) EACH	REMARKS
0010	34+50	-	44+50		1	PROJECT
TOTAL 0010					1	

TOPSOIL SUMMARY

CAT	STATION	TO	STATION	LOC	625.0105 TOPSOIL CY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	REMARKS
0010	14+00	-	18+00	RT			1,214	OUTSIDE BYPASS
0010	37+75	-	39+72	LT		500	80	EAT GRADING
0010	37+75	-	39+72	RT		512	80	EAT GRADING
0010	40+48	-	42+50	RT		387	80	EAT GRADING
0010	35+50	-	44+50		17	180	180	UNDIST.&34+50-36+50
TOTAL 0010					17	1,579	1,634	

TURBIDITY BARRIER

CAT	STATION	TO	STATION	LOC	628.6005 TURBIDITY BARRIERS SY	628.2004 EROSION MAT CLASS 1 TYPE B SY	REMARKS
0010	40+00	-	40+00	LT&RT	22		
0010	40+20	-	40+20	LT&RT	22		
	38+00		40+00	RT		178	BYPASS
	40+25		40+75	RT		45	BYPASS
TOTAL 0010					44	223	

EROSION MOBILIZATION SUMMARY

CAT	STATION	TO	STATION	LOC	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	REMARKS
0010	35+50	-	42+50	LT&RT	2	1	
TOTAL 0010					2	1	

SILT FENCE SUMMARY

CAT	STATION	TO	STATION	LOC	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	REMARKS
0010	35+00	-	43+00	RT	500	500	BYPASS
0010	38+00	-	39+72	RT	170	170	FINAL SLOPE
0010	38+00	-	39+72	LT	170	170	FINAL SLOPE
0010	40+48	-	41+41	RT	120	120	FINAL SLOPE
TOTAL 0010					960	960	

SEEDING SUMMARY

CAT	STATION	TO	STATION	LOC	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
0010	14+00	-	18+00	RT	0.90	17	17	21	BYPASS INSTALLED
0010	37+75	-	39+72	LT	0.10	1	1	4	BMGRD GRADING
0010	37+75	-	39+72	RT	0.10	1	1	4	BMGRD GRADING
0010	40+48	-	42+50	RT	0.10	1	1	4	BMGRD GRADING
0010	14+00		18+00	RT	0.90		20	0	BYPASS REMOVED
			41+56	LT	0.01	1	1	0	NEW DRIVE
0010	34+50		36+50	LT&RT	0.40	9	9	7	SLOPE FILLS
TOTAL 0010					2.51	30	50	40	

MARKERS CULVERT END

CAT	STATION	TO	STATION	LOC	633.5200 MARKERS CULVERT END EACH	REMARKS
0010	37+31	-	37+31	RT&LT	2	EXISTING PIPE
TOTAL 0010					2	

FIELD OFFICE TYPE C

CAT	STATION	TO	STATION	LOC	642.5201 FIELD OFFICE TYPE C EACH	REMARKS
0010	35+50	-	43+00		1	PROJECT
TOTAL 0010					1	

TRAFFIC CONTROL SUMMARY

CAT	STATION	TO	STATION	LOC	633.1100 DELINEATORS TEMPORARY EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.3760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I EACH	643.5000 TRAFFIC CONTROL EACH	REMARKS
0010	35+50	-	42+50		44	1,300	1,040	1,300	2,080	32	1	
				TOTAL 0010	44	1,300	1,040	1,300	2,080	32	1	

GEOTEXTILE TYPE DF SCHEDULE A

CAT	STATION	LOC	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	REMARKS
0010	PROJECT		40	SETTLING BASIN
		TOTAL 0010	40	

SAWING CONCRETE

CAT	STATION	TO	STATION	LOC	690.0150 SAWING ASPHALT LF	REMARKS
0010	35+50	-	35+50	LT&RT	34	BUTT
0010	39+75	-	39+75	LT&RT	34	STRUCT
0010	41+00	-	41+00	LT&RT	34	STRUCT
0010	43+00	-	43+00	LT&RT	34	BUTT
			TOTAL 0010		136	

PAVEMENT MARKING SUMMARY

CAT	STATION	TO	STATION	LOC	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH LF	646.2020 MARKING LINE EPOXY 6-INCH LF	646.2020 MARKING LINE EPOXY 6-INCH LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	REMARKS
0010	34+00	-	43+00	CTR	YELLOW		1,800			MAINLINE
0010	34+00	-	43+00	EDGE		WHITE		1800.00		MAINLINE
0010	35+50	-	36+50						225	"
0010	41+50	-	42+50						225	"
0010	12+50	-	20+00	CTR	1,500	1,500				BYPASS
				TOTAL 0010	1,500	1,500	1,800	1,800	450	
					3000		3600			

CONSTRUCTION STAKING SUMMARY

CAT	STATION	TO	STATION	LOC	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	650.6501.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-4-126) EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8160-00-73) EACH	REMARKS
0010	13+00	-	18+00	RT	550	550	550		550		BYPASS
0010	39+95	-	40+28	LT&RT				1			B-04-0126
0010	38+33	-	39+59	LT&RT	126	126					MAINLINE
0010	40+63	-	41+15	LT&RT	52	52					MAINLINE
0010	34+50	-	39+59	LT&RT					509		MAINLINE
0010	40+63	-	44+50	LT&RT					387		MAINLINE
0010	34+50	-	44+50	LT&RT						1	PROJECT
				TOTAL 0010	728	728	550	1	1,446	1	

GEOTEXTILE FABRIC TYPE SAS

CAT	STATION	TO	STATION	LOC	645.0140 GEOTEXTILE TYPE SAS SY	REMARKS
0010	13+50	-	19+00		2,598	BYPASS ALIGNMENT
				TOTAL 0010	2,598	

RELOCATE ACCESS

CAT	STATION	TO	STATION	LOC	SPV.0060.01 SPECIAL (01. RELOCATE ACCESS) EACH	REMARKS
0010	41+40	-	41+80	LT	1	
				TOTAL 0010	1	

4

R/W PROJECT NUMBER: 8160-00-23	EXHIBIT NUMBER: 1

TLE ACQUISITION EXHIBIT
LITTLE WHITTLESEY CREEK
BRIDGE

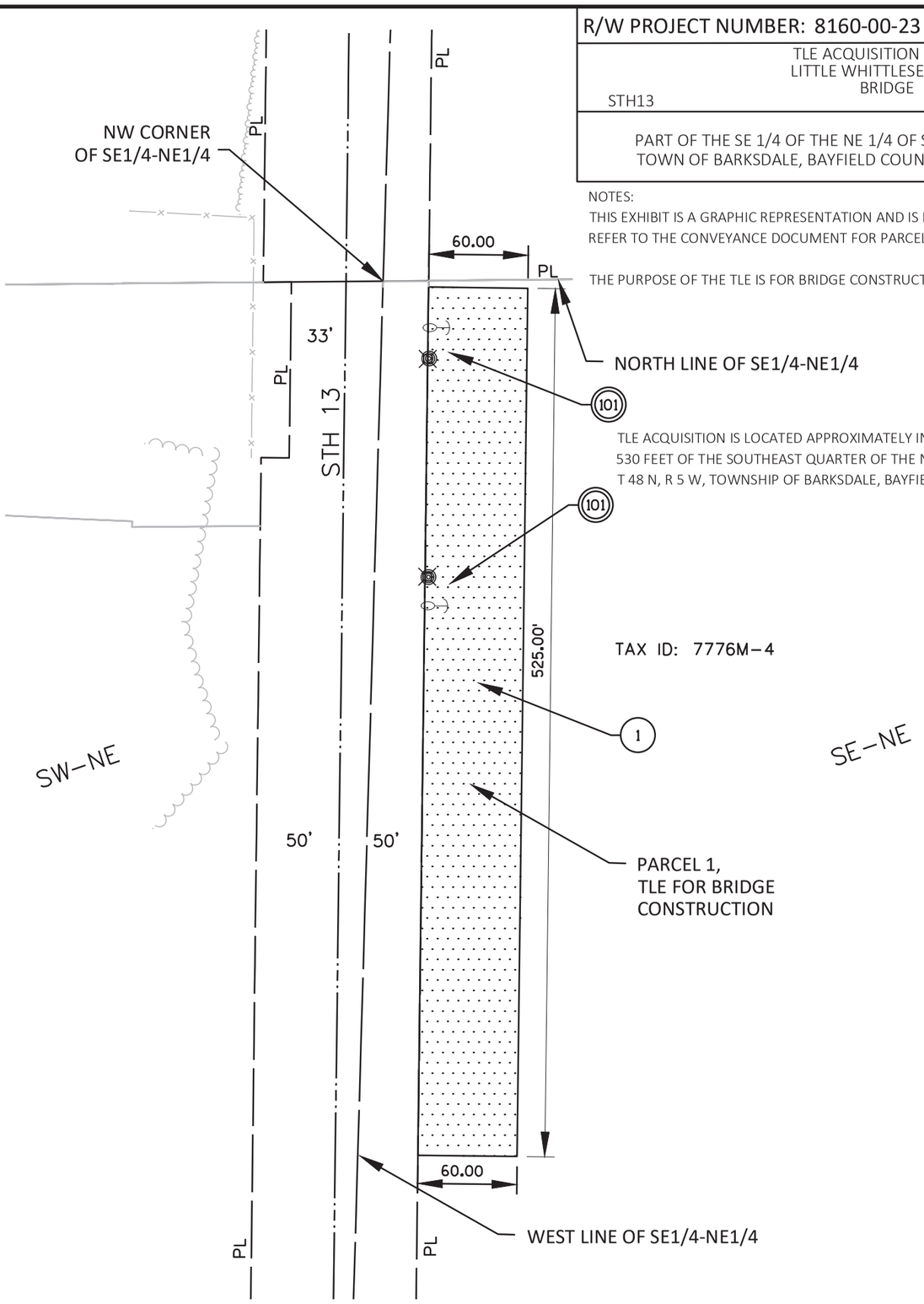
STH13 BAYFIELD COUNTY

PART OF THE SE 1/4 OF THE NE 1/4 OF SECTION 35, T48N R5W,
TOWN OF BARKSDALE, BAYFIELD COUNTY WISCONSIN.

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

THE PURPOSE OF THE TLE IS FOR BRIDGE CONSTRUCTION ROAD ROUTE.

TLE ACQUISITION IS LOCATED APPROXIMATELY IN THE WEST 100 FEET OF THE NORTH 530 FEET OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 35, T 48 N, R 5 W, TOWNSHIP OF BARKSDALE, BAYFIELD COUNTY, WISCONSIN.



GN

SCALE, FEET
0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TLE S.F.
1	MARY M. DUSENBERY	TLE	31,500

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
101	BRIGHTSPEED OF NORTH CENTRAL WISCONSIN, LLC	TCE

FILE NAME : 8160-00-23 STH 13 LITTLE WHITTLESEY BRIDGE TLE.DWG PLOT DATE : 7/18/2023 11:42 AM R/W PROJECT: R/W PROJ NO

SPECTRUM FO
XCEL ENERGY GAS
XCEL ENERGY OVERHEAD
MARKER CULVERT END
EXISTING R/W
FERTILIZE, SEED AND MULCH TO TOE OF SLOPE
BRIDGE B-04-126
EDGE OF GRAVEL DRIVE
RELOCATE ACCESS SEE DETAILS
EXISTING FENCE TO BE RESTORED
RIPRAP FLUME
PROP 3 1/2 AC MON FISH AND WILDLIFE
1059 604.836 RWGP
1057 605.797
1055 603.901 RWGP
1054 603.977 RWGP
1053 604.613
STA 38+91.83 OFF 22' LT
STA 39+44.92 OFF 20' LT
STA 40+78.08 OFF 20' LT
STA 41+31.17 OFF 22' LT
SLOPE INTERCEPT
EXPECTED EBS LIMITS
STA 38+91.83 OFF 22' RT
STA 39+44.92 OFF 20' RT
STA 40+78.08 OFF 20' RT
EXPECTED EBS LIMIT
STA 41+31.17 OFF 22' RT
BRIGHTSPEED TEL
END OF STRUCTURAL SLAB
END OF APPROACH SLAB
NORVADO FO
FERTILIZE, SEED AND MULCH TO TOE OF SLOPE
EXISTING PIPE, RESTORE TO ORIGINAL AND MAINTAIN DITCH FLOWLINE
MARKER CULVERT END
NEW UTILITY LINE
SLOPE INTERCEPT
BRIGHTSPEED TEL
END PROJECT
STA 44+50
SAW CUT REQ'D
EXISTING R/W
AREAS AFFECTED BY THE TEMPORARY BYPASS TO BE RESTORED TO ORIGINAL ELEVATIONS
TEMPORARY RIGHT OF WAY LIMIT
STH 13
37+00
38+00
39+00
40+00
41+00
42+00
43+00
44+00
5
5
N

BEGIN PROJECT
STA 34+50
SAW CUT REQ'D
VPC STA 37+93.52
VPC EL 610.94
VPI STA 38+76.02
VPI EL 610.74
VPT STA 39+58.52
VPT EL 610.33
STA 39+59.42 EL 0.000
STA 39+74.42 EL 0.000
STA 39+94.42 EL 0.000
STA 40+28.58 EL 0.000
STA 40+48.58 EL 0.000
STA 40+63.58 EL 0.000
STA 41+15.32 EL 609.35
STA 41+31.94 EL 609.34
K = 155.10
-0.36%
-0.50%
-0.01%
0.14%
PROJECT EXTENDS BEYOND PLAN SHEET
NEW STH 13 ℄ ELEVATION
EXISTING STH 13 ℄ ELEVATION
VCL = 165.00
K = 641.58
-10.00%
20.00%
0.00%
MARSH AND EBS EXCAVATION PROFILE
STA 39+74.42 EL 596.00
STA 40+48.58 EL 596.00
VPC STA 41+31.75 VPC EL 609.46
VPI STA 41+81.75 VPI EL 609.21
LP STA 42+09.37 LP EL 609.27
VPT STA 42+31.75 VPT EL 609.28
PROJECT EXTENDS BEYOND PLAN SHEET
615
610
605
600
595
610.82 610.82
610.70 610.70
610.48 610.48
610.27 610.27
610.09 610.09
609.92 609.92
609.84 609.84
609.73 609.73
609.58 609.58
609.38 609.38
609.34 609.34
609.33 609.33
609.36 609.36
609.38 609.38
609.46 609.46
609.55 609.55
609.58 609.58

PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	PLAN AND PROFILE	SHEET 21	E

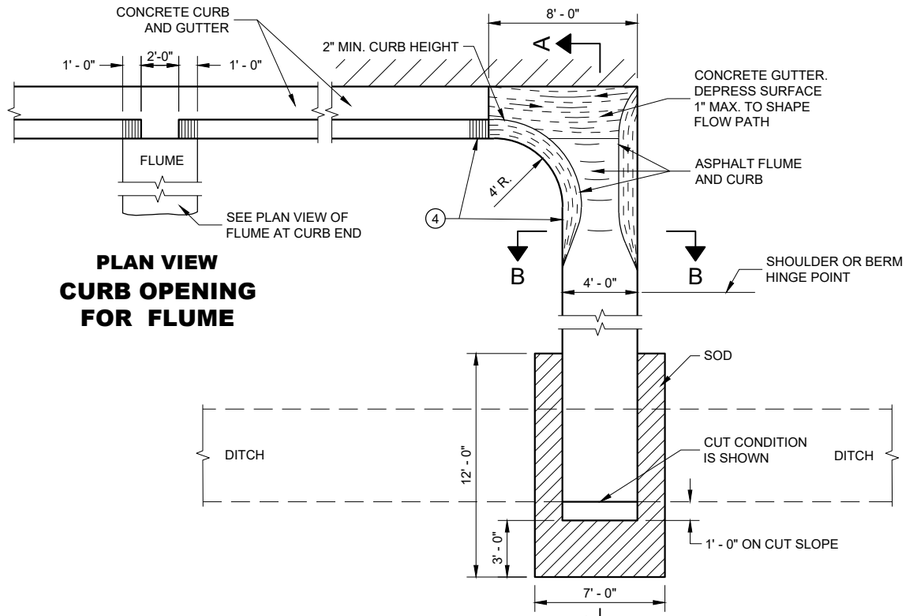
FILE NAME : C:\CIVIL 3D PROJECTS\81600003\SHEETS PLAN\81600003_PP.DWG
LAYOUT NAME - PLAN PP
PLOT DATE : 11/18/2025 1:24 PM
PLOT BY : PEARSON, MICHAEL R
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14C01-03	TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-08A	FLEXIBLE DELINEATOR POST
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C34-05	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE II
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D31-05	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

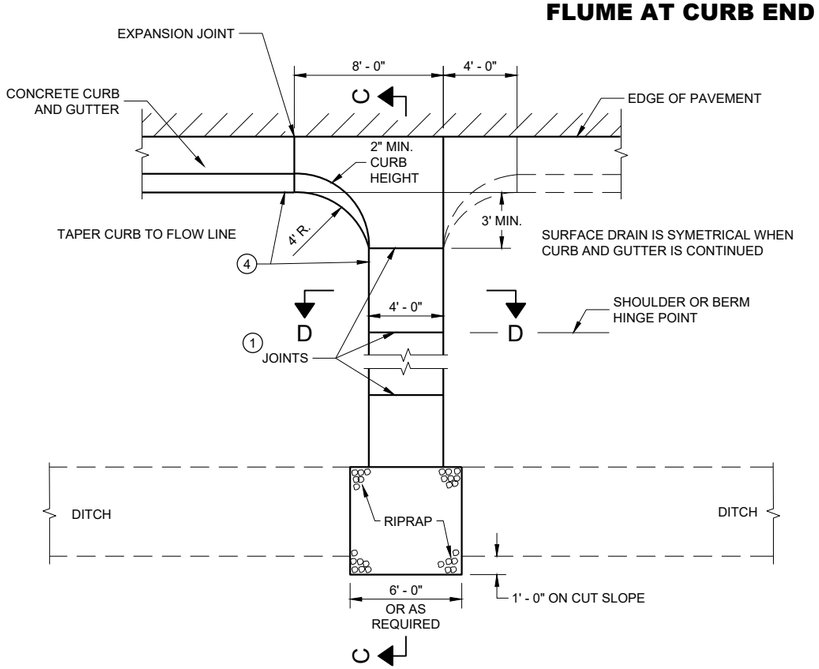
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



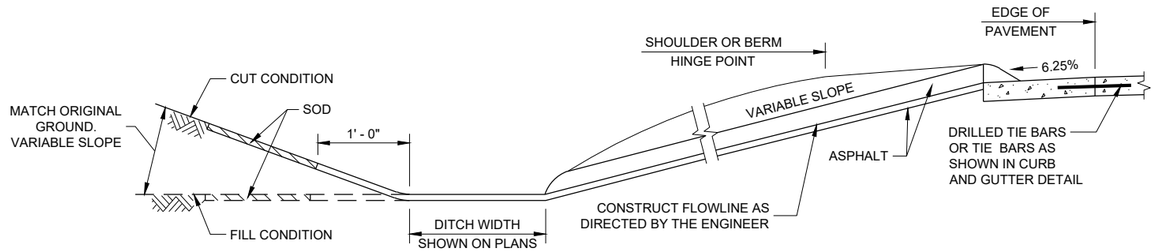
PLAN VIEW
CONCRETE SURFACE DRAIN

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.

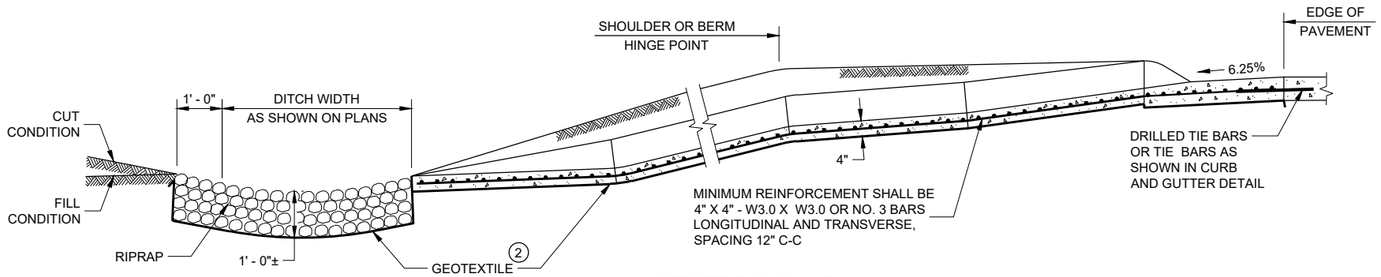
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

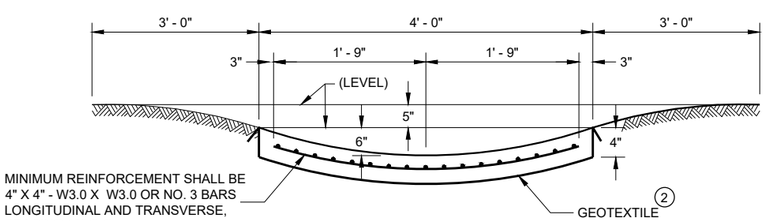


SECTION A - A

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

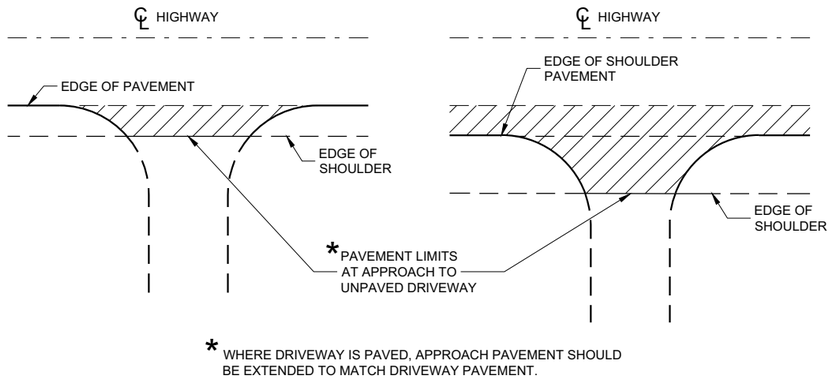
FHWA

6

SDD 08D04 - 07

6

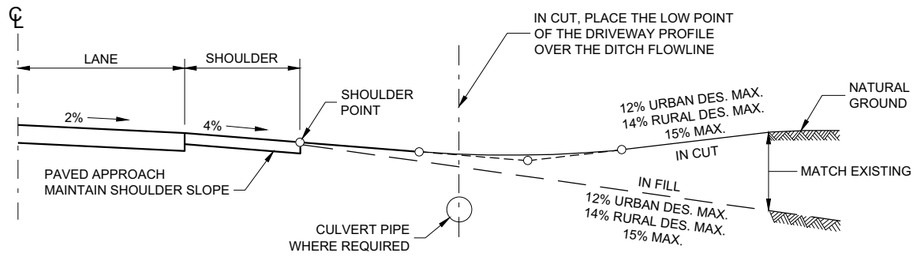
SDD 08D04 - 07



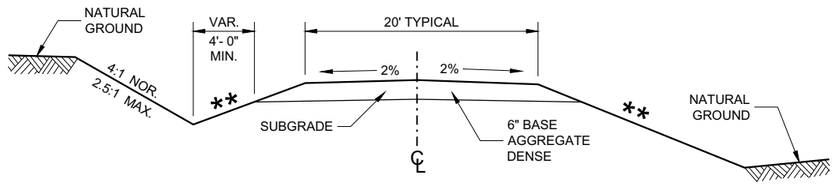
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

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



TYPICAL DRIVEWAY PROFILES

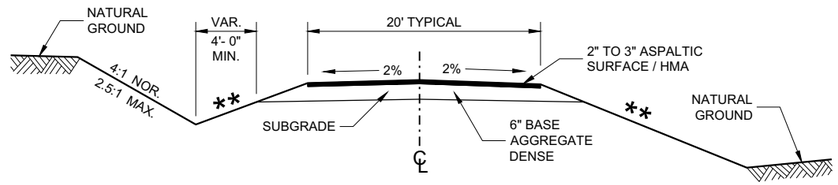


IN CUT **IN FILL**

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

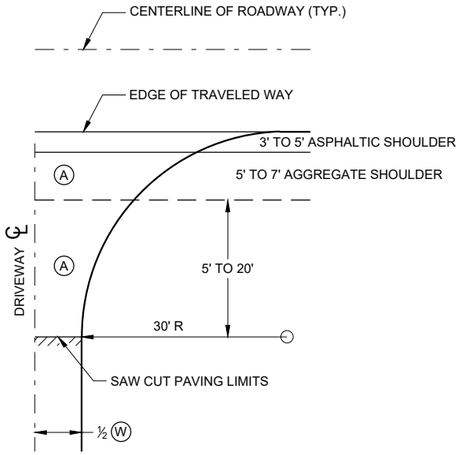
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

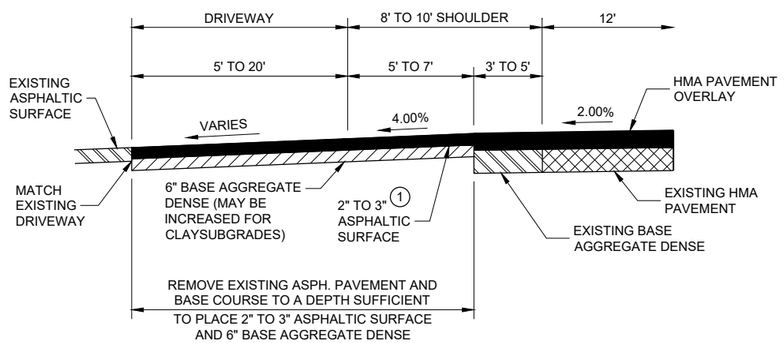
GENERAL NOTES

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



PLAN VIEW

HALF SECTION



PROFILE VIEW

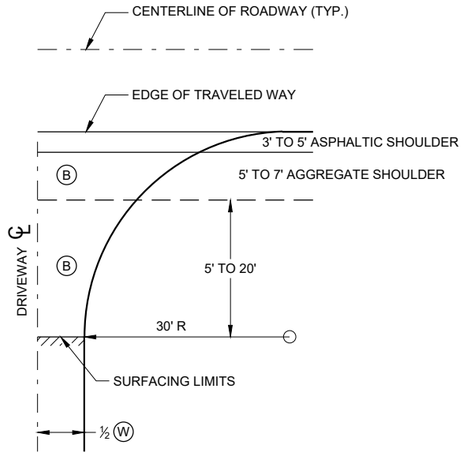
RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS

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

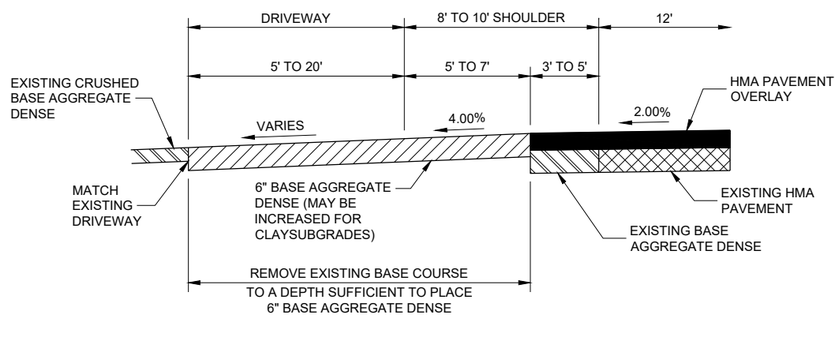
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

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



PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE

RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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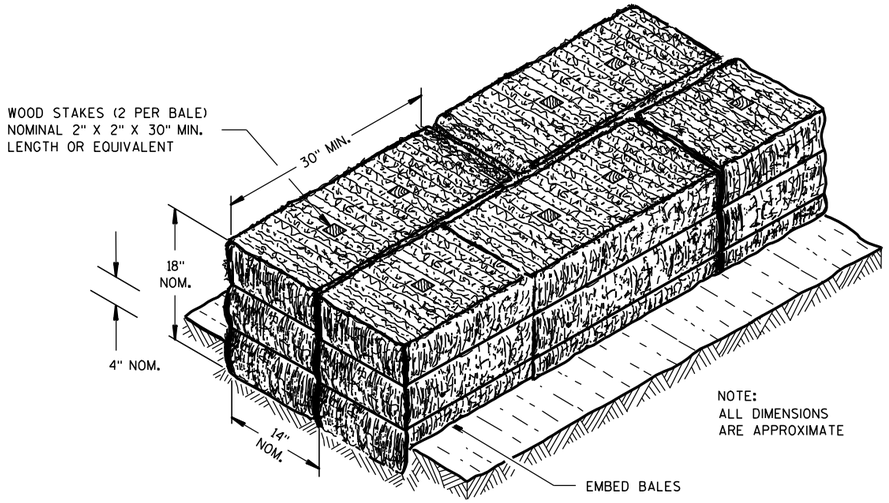
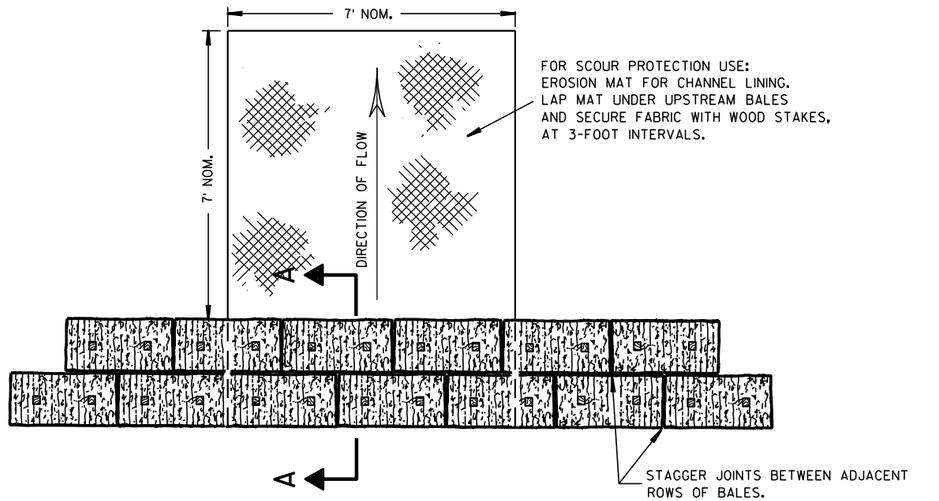
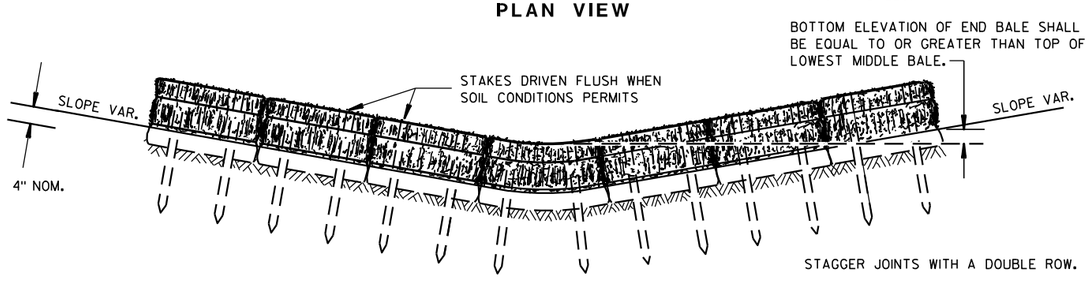
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



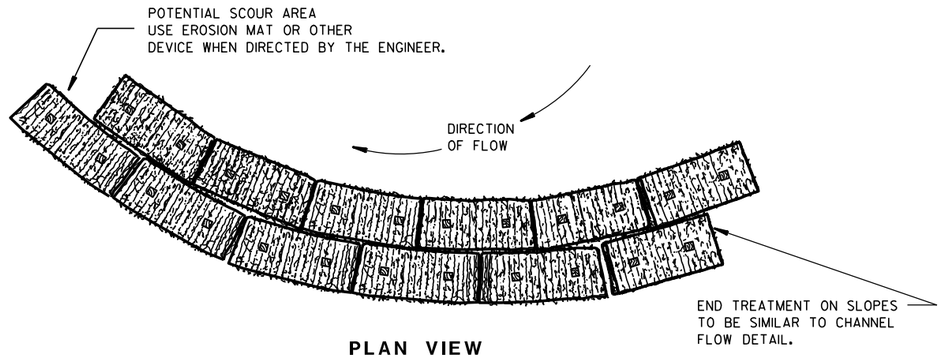
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

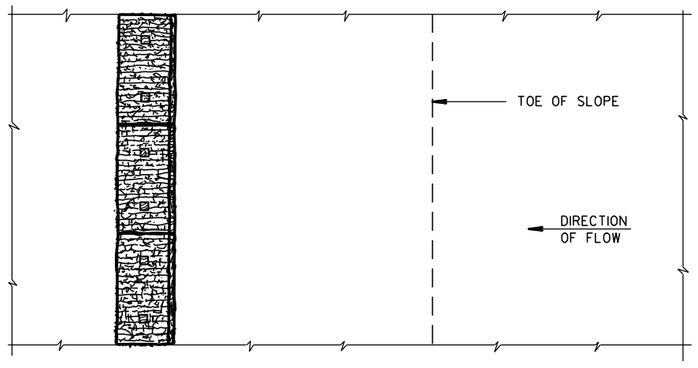
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

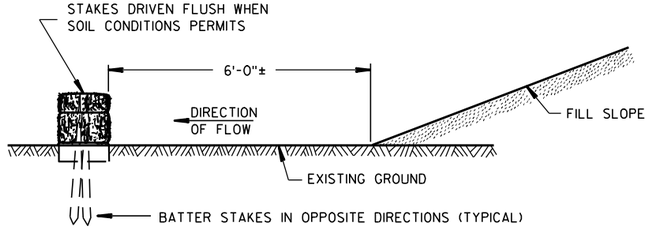


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

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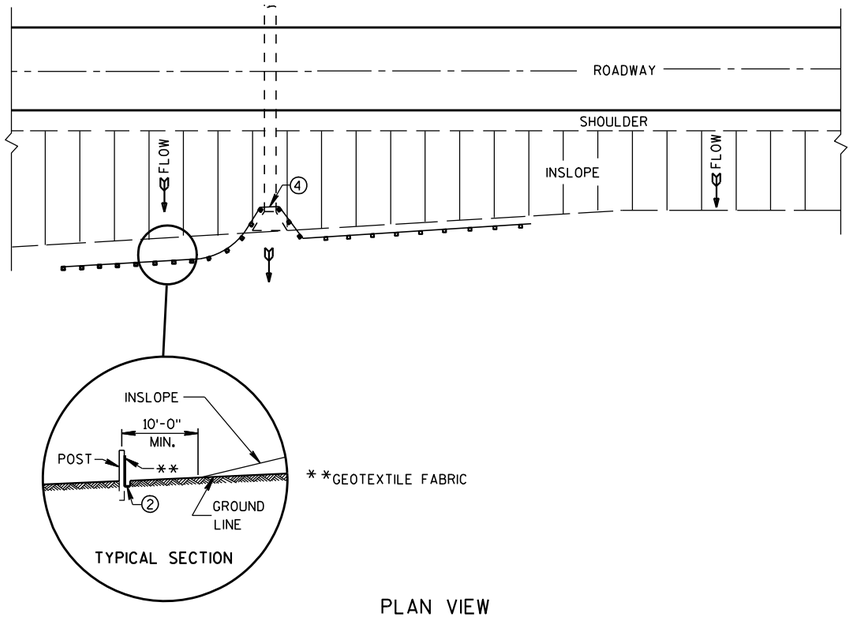
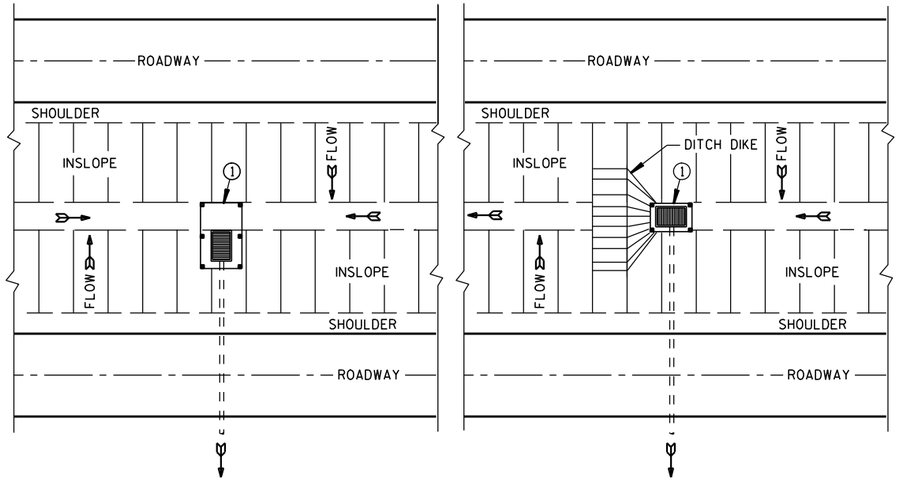
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

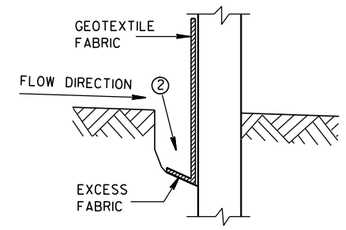
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

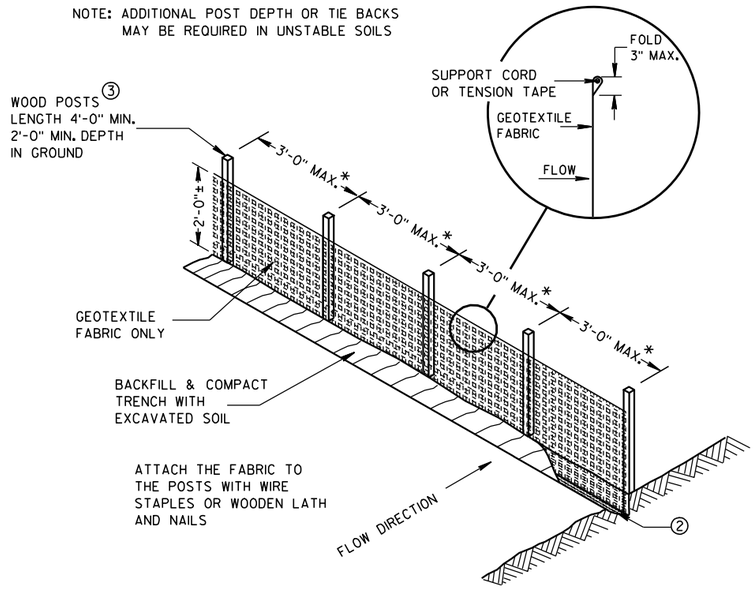
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

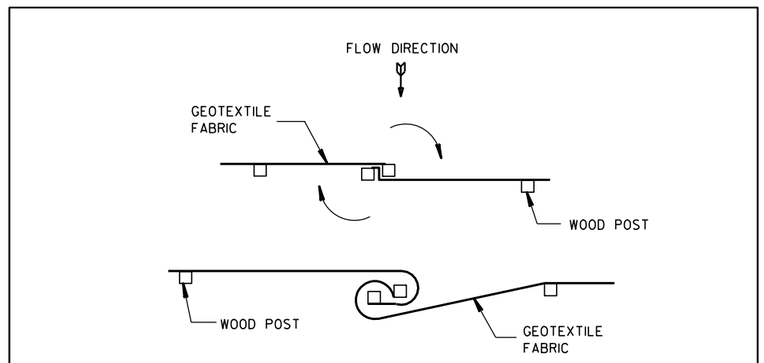
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



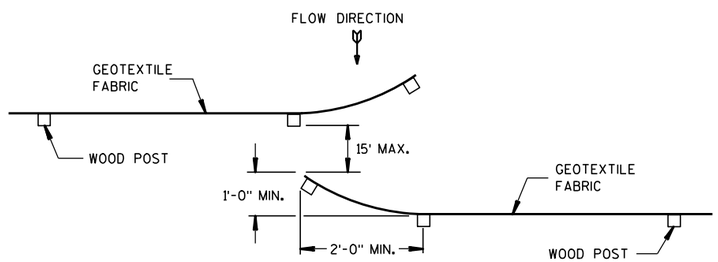
TRENCH DETAIL



SILT FENCE

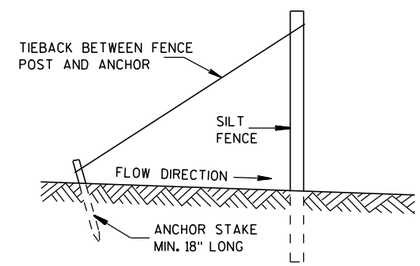


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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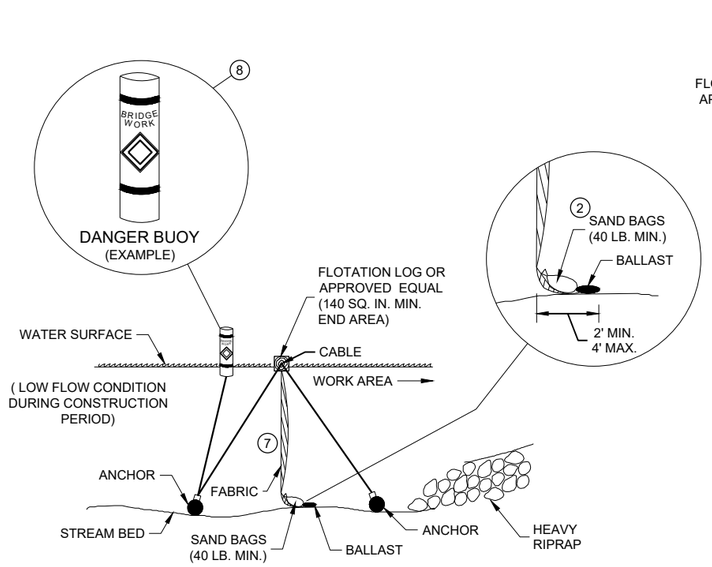
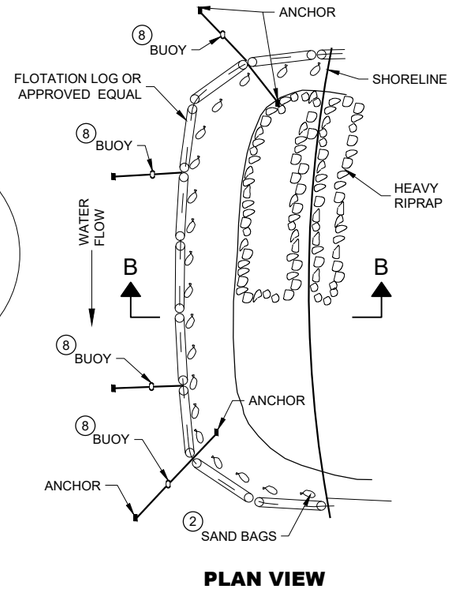
S.D.D. 8 E 9-6

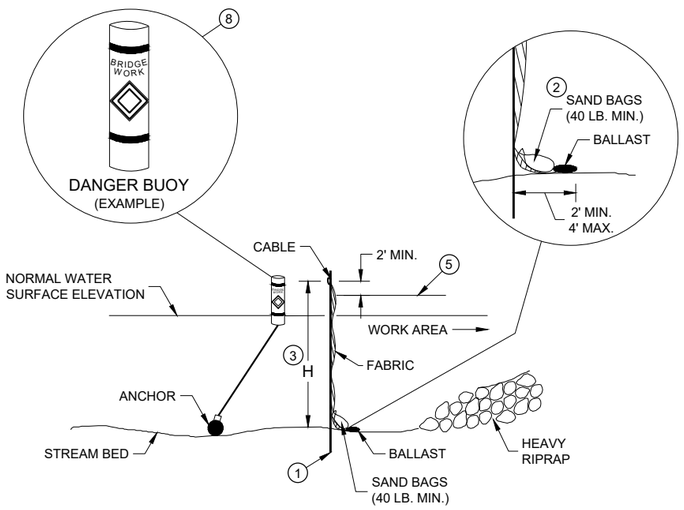


SECTION B - B

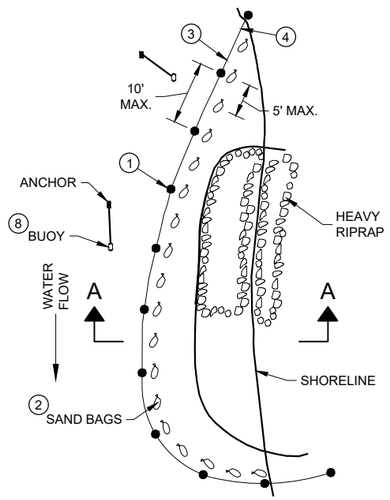


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

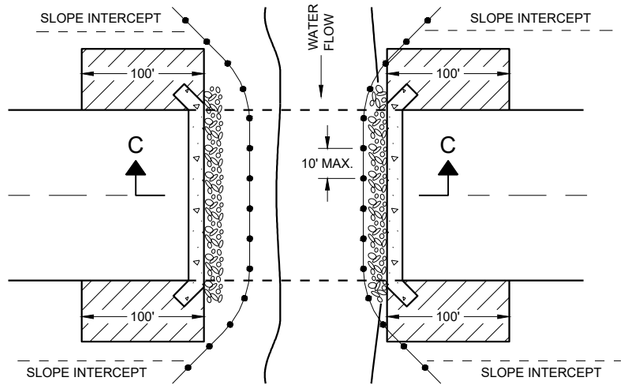
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

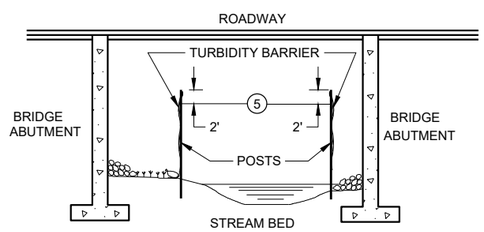
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

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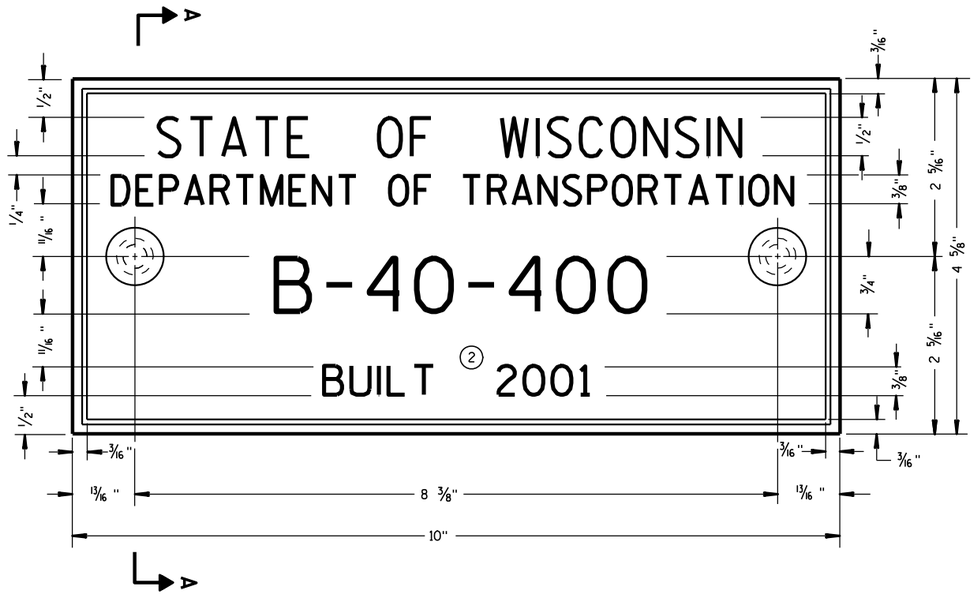
SDD 08E11 - 02



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

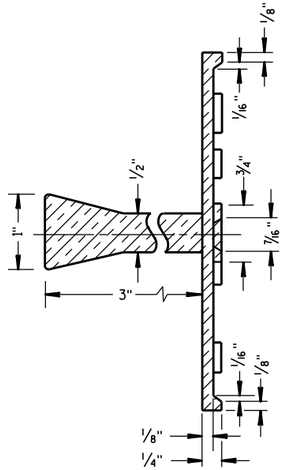
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

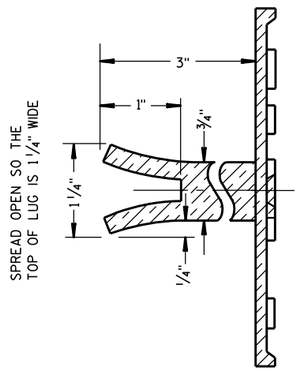
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

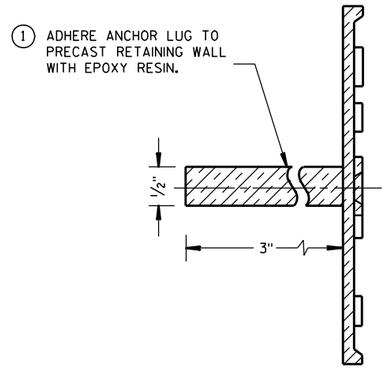
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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S.D.D. 12 A 3-10

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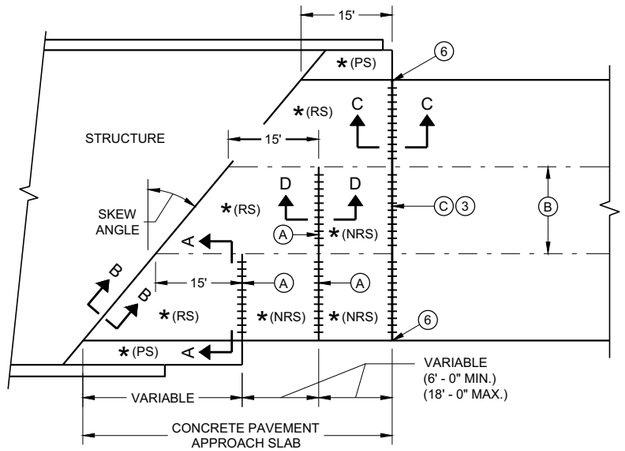
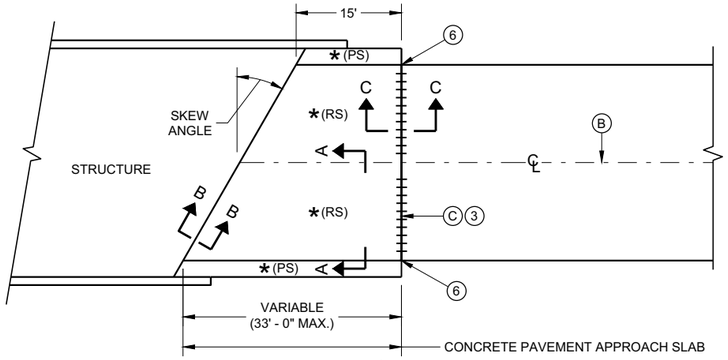
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')

SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

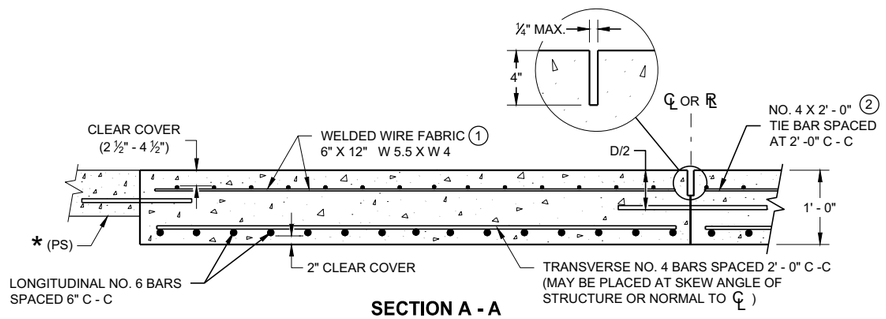
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

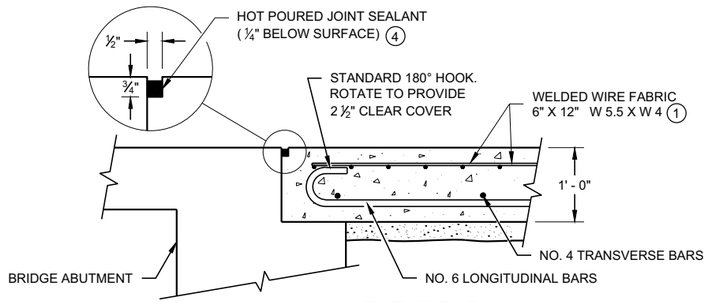
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

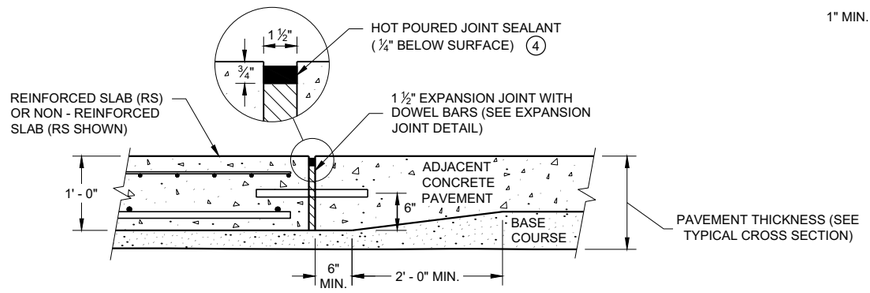
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

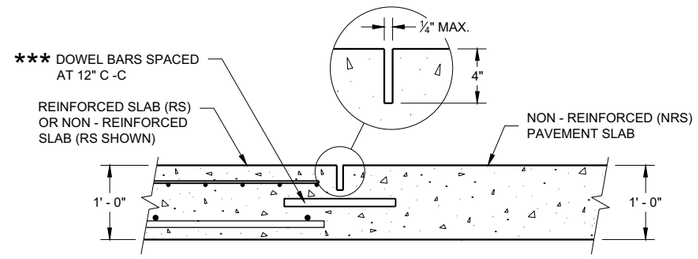
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

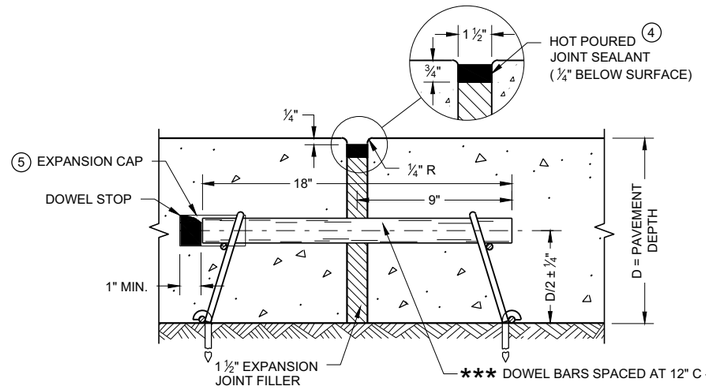
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

FHWA

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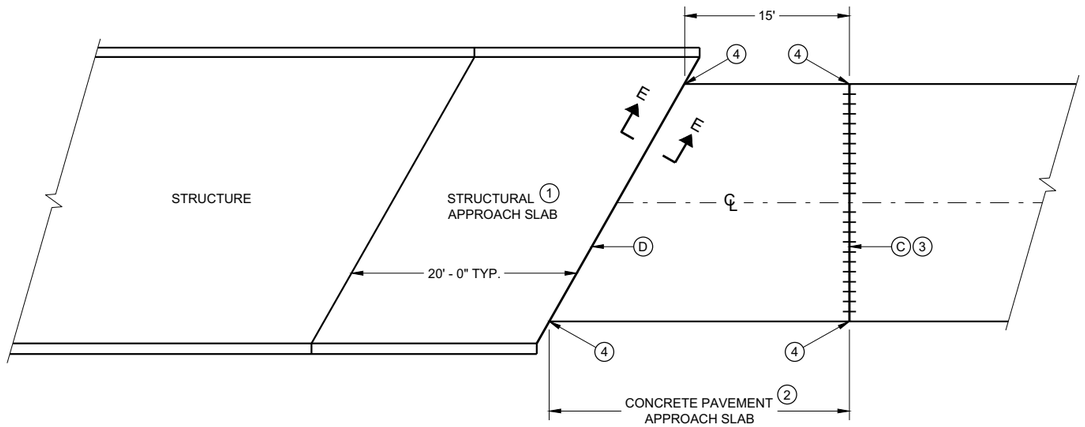
SDD 13B02 - 09a



BRIDGE APPROACHES

GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

(1) SEE BRIDGE PLAN.

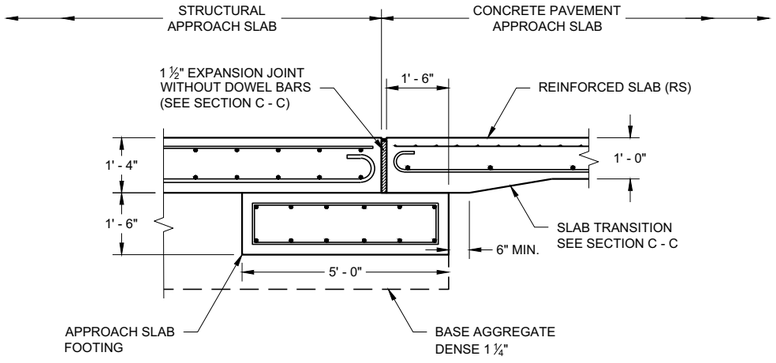
(2) CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

(D) 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13B02 - 09b

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SDD 13B02 - 09b

(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.

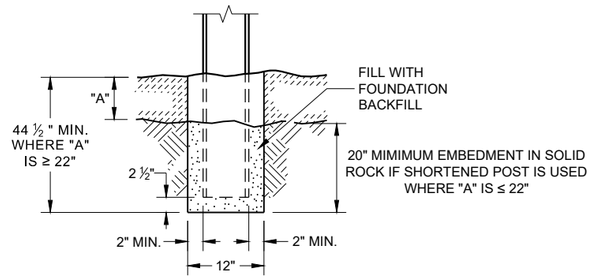
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

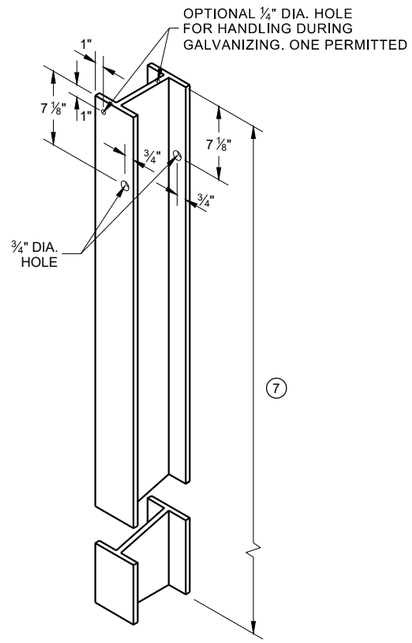
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

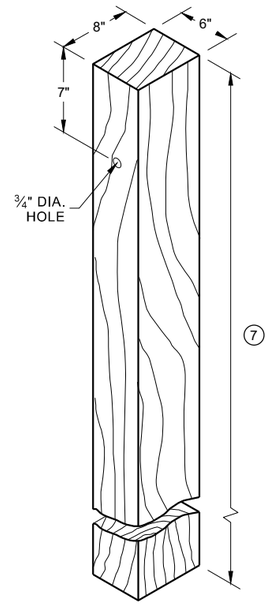
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



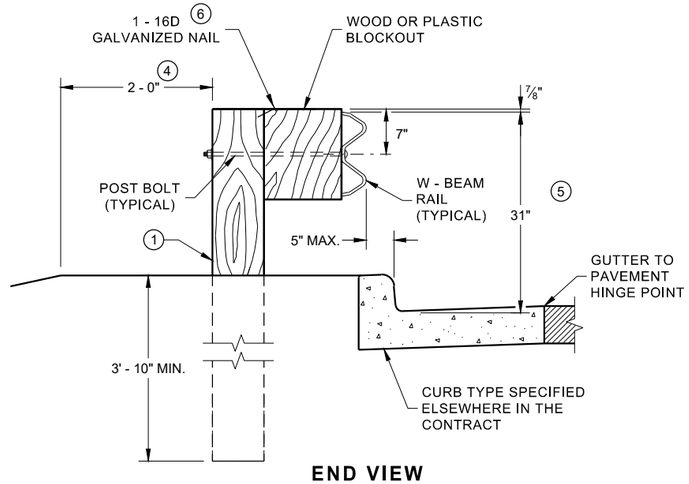
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



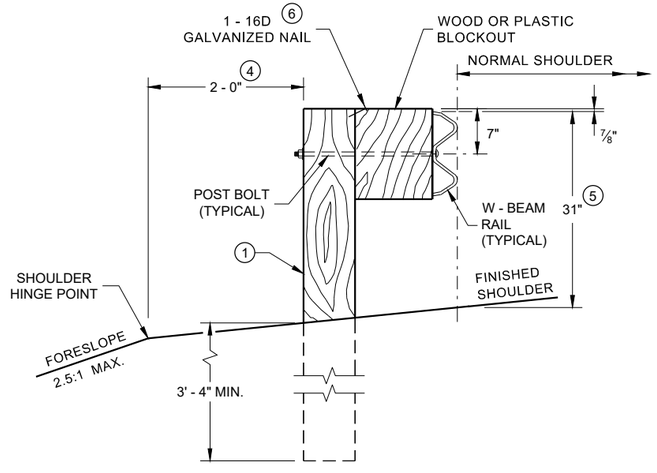
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



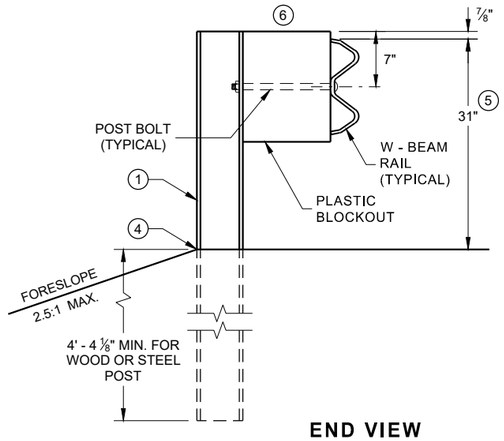
WOOD POST (6" X 8") NOMINAL (1)



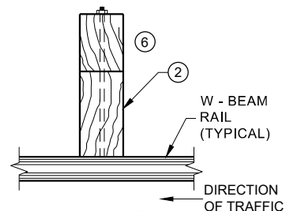
END VIEW
LOCATED ALONG A CURBED ROADWAY



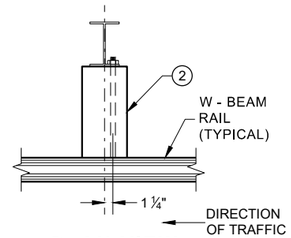
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



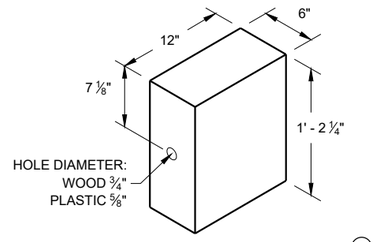
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



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

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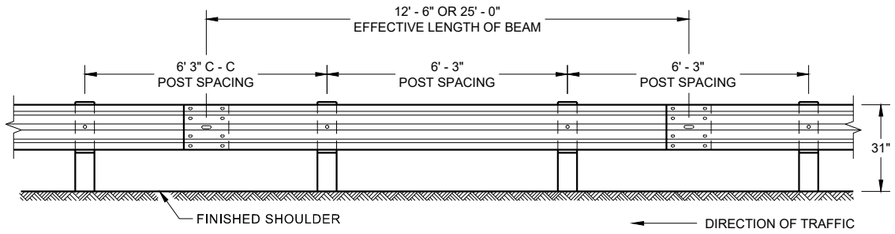
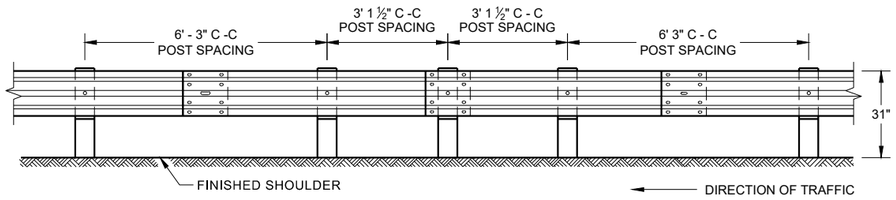
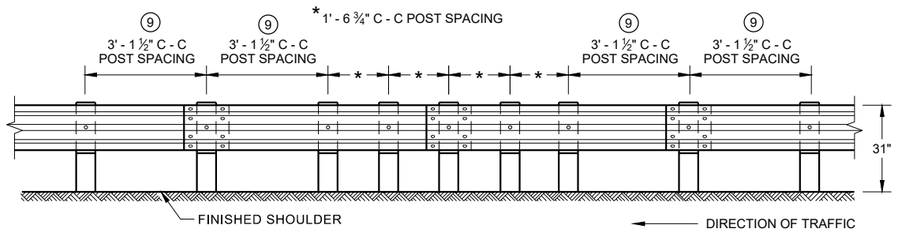


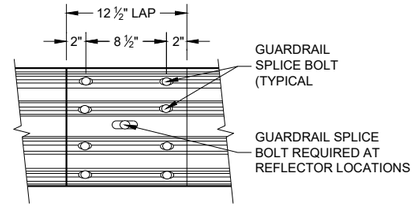
FRONT VIEW
POST SPACING STANDARD INSTALLATION



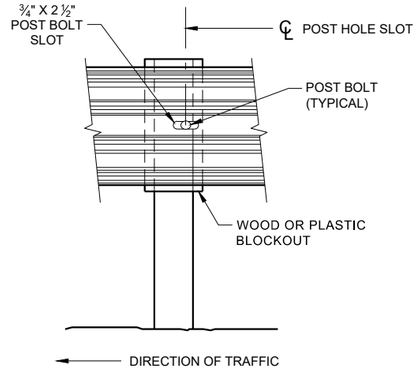
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



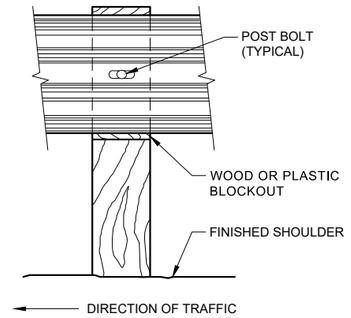
FRONT VIEW
QUARTER POST SPACING (QS)



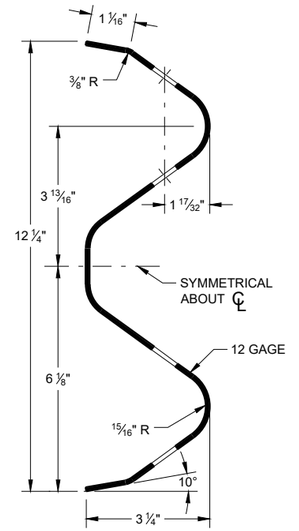
FRONT VIEW
MID-SPAN BEAM SPLICE



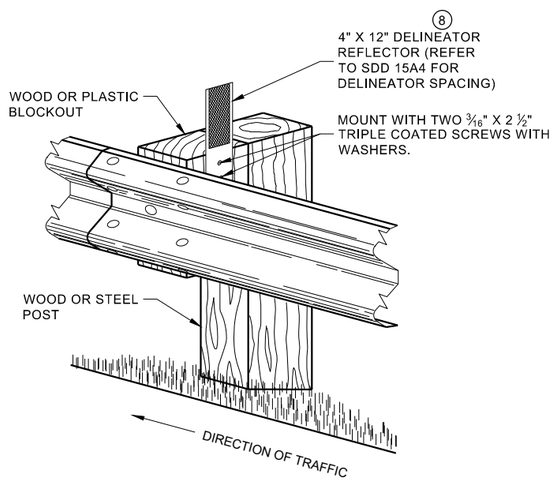
FRONT VIEW AT STEEL POST



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
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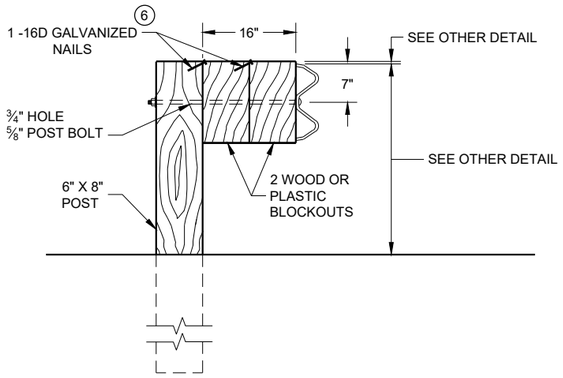
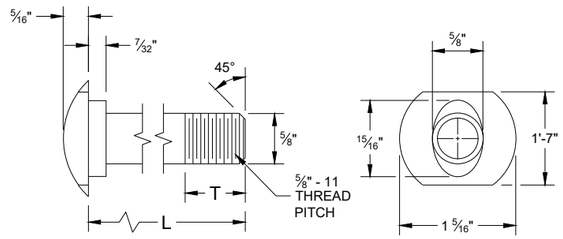


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

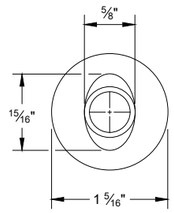
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

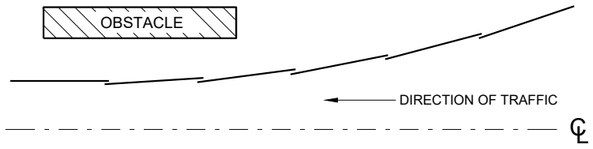


POST BOLT TABLE

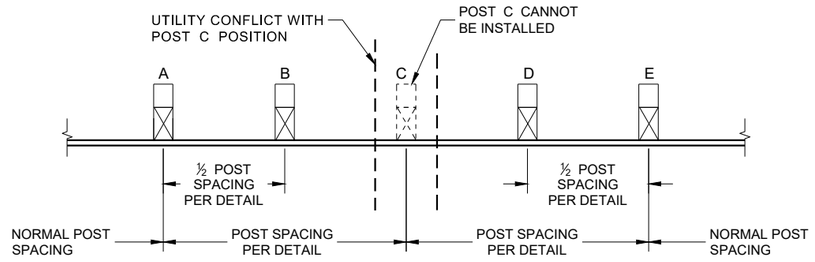
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



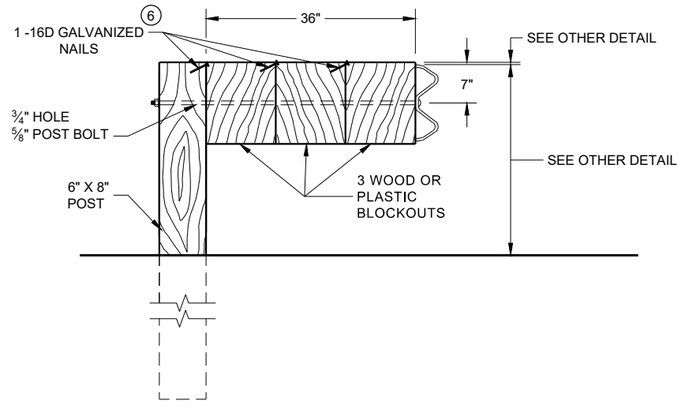
ALTERNATE BOLT HEAD



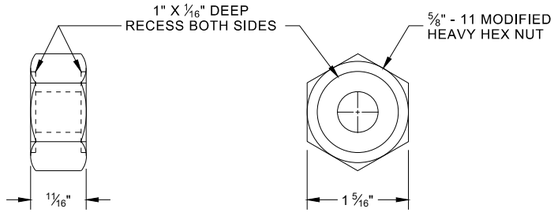
PLAN VIEW
BEAM LAPPING DETAIL



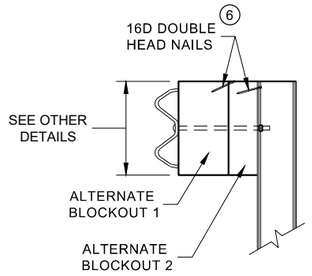
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



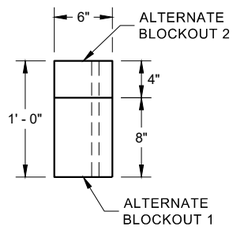
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

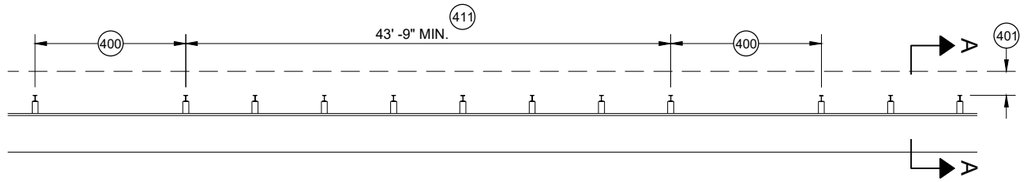
ALTERNATE WOOD BLOCKOUT DETAIL

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

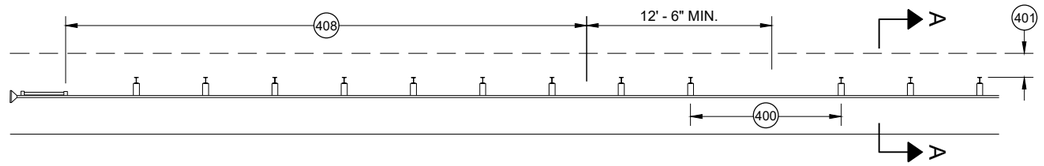
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

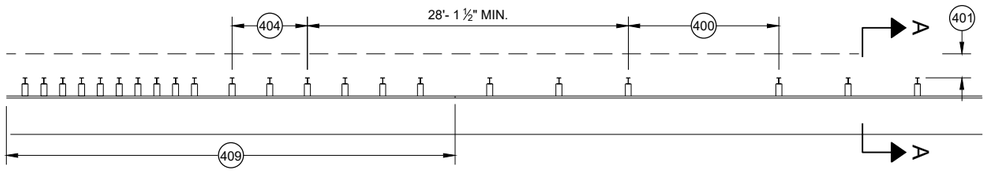
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



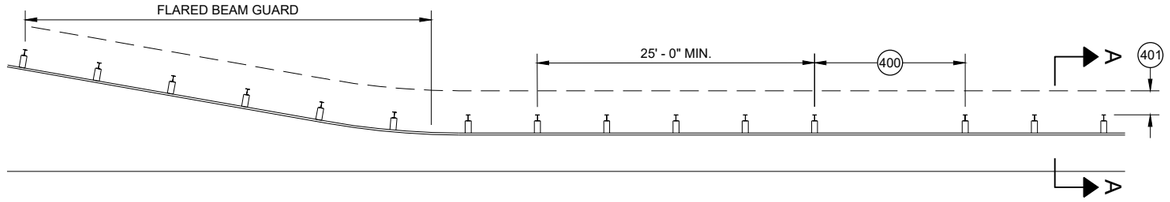
MISSING POST IN MGS GUARDRAIL



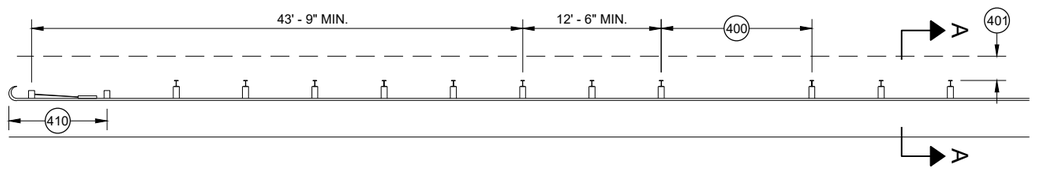
MISSING POST IN MGS GUARDRAIL NEAR EAT



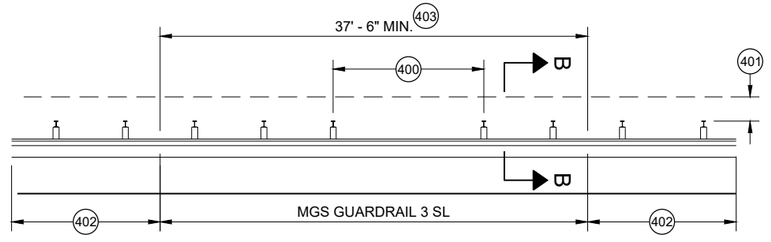
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

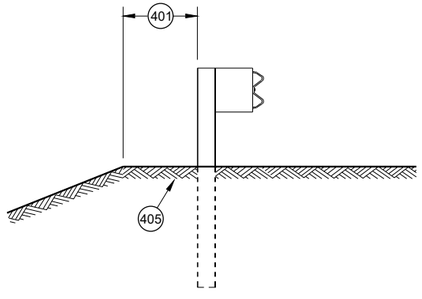


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

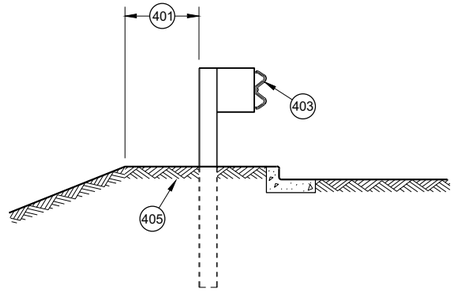


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

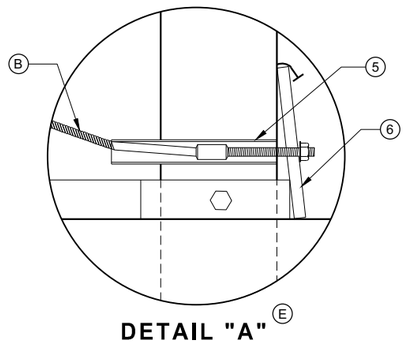
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

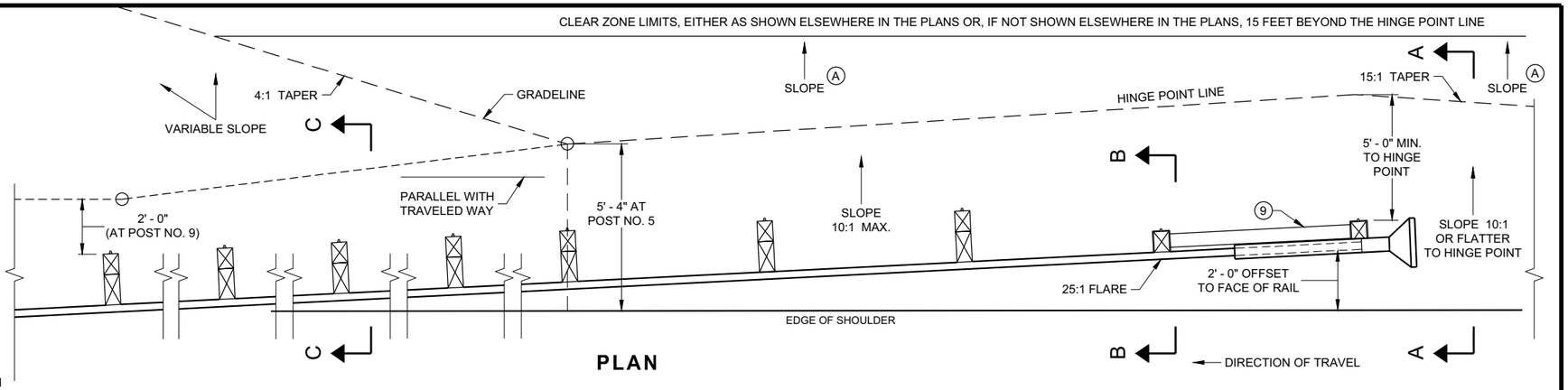
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

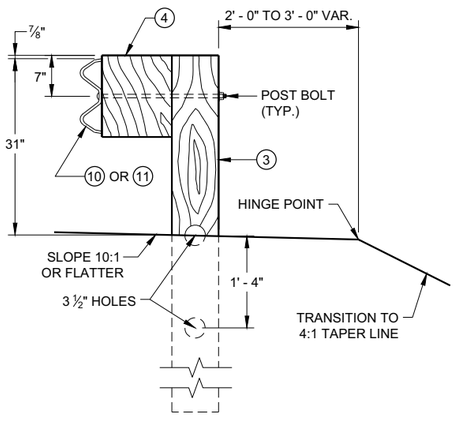
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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

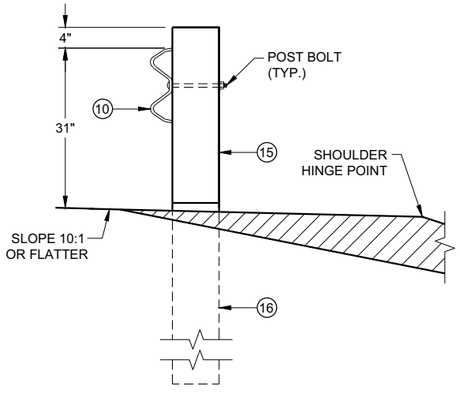


DETAIL "A" (E)

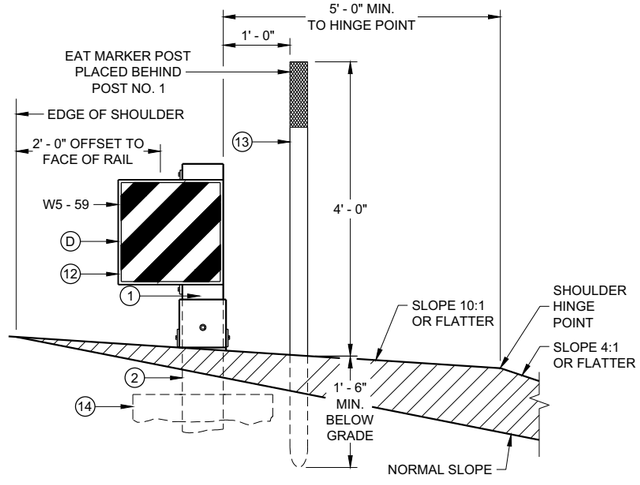




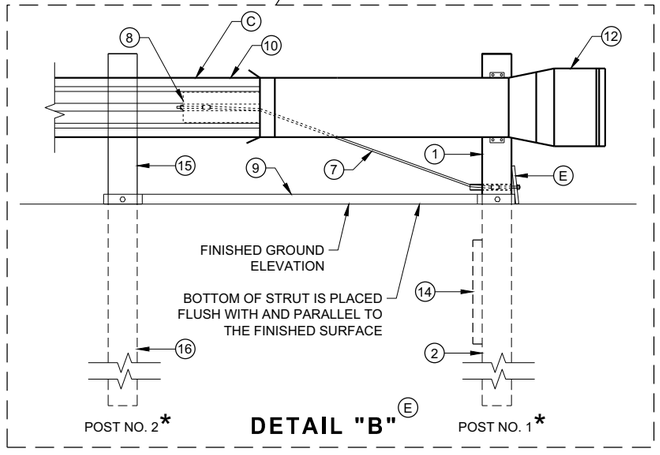
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



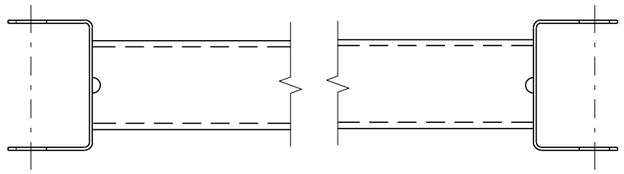
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

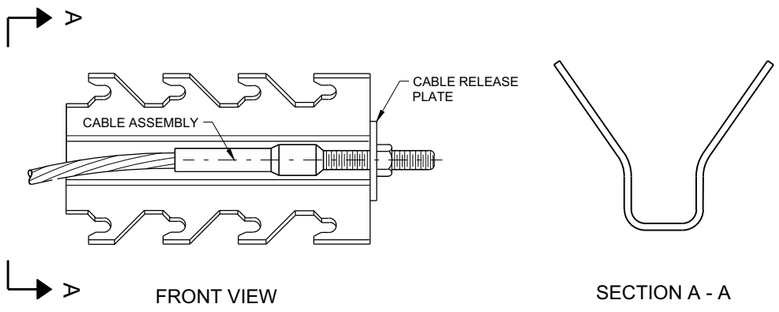
SDD 14B44 - 04a



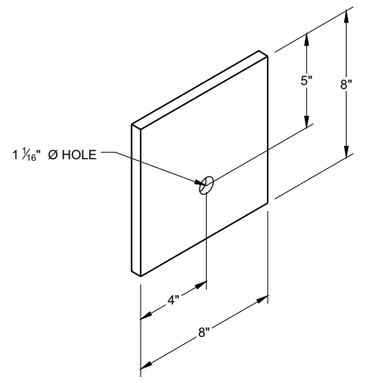
GENERIC GROUND STRUT ⑨ Ⓔ

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

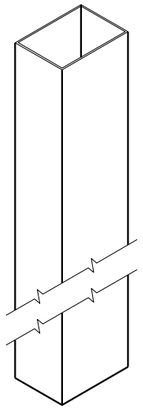
6

SDD 14B44 - 04b

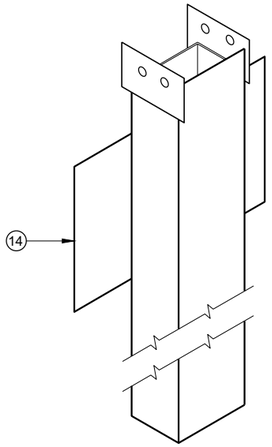
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

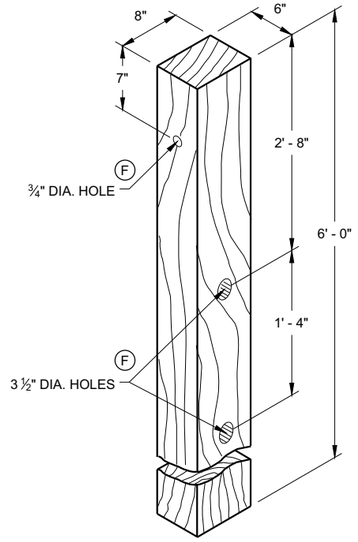
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



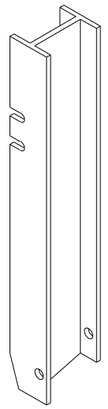
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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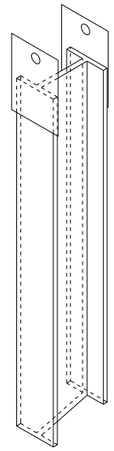

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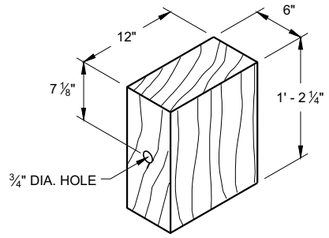
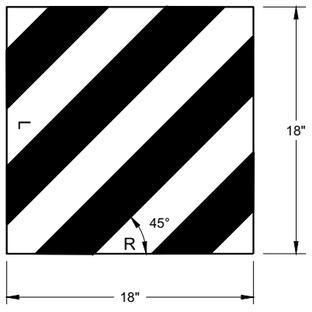
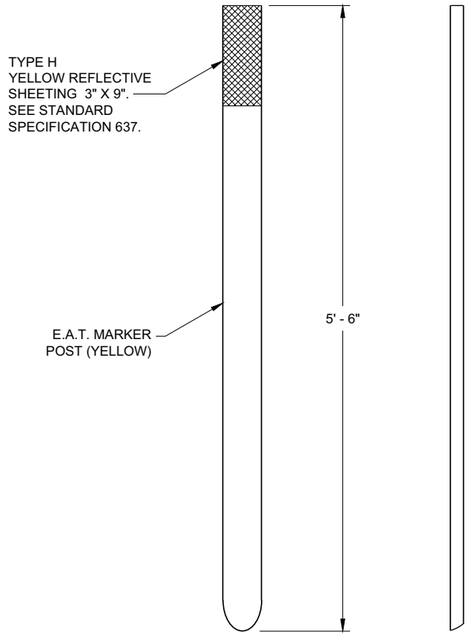


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



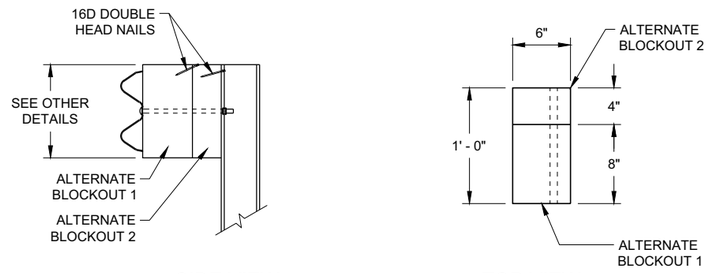
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

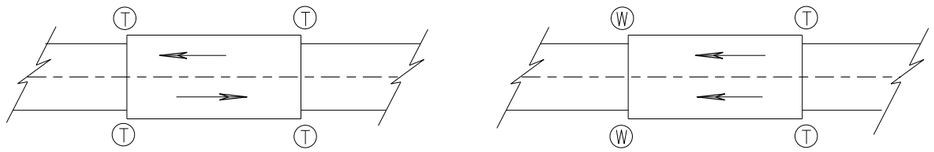
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

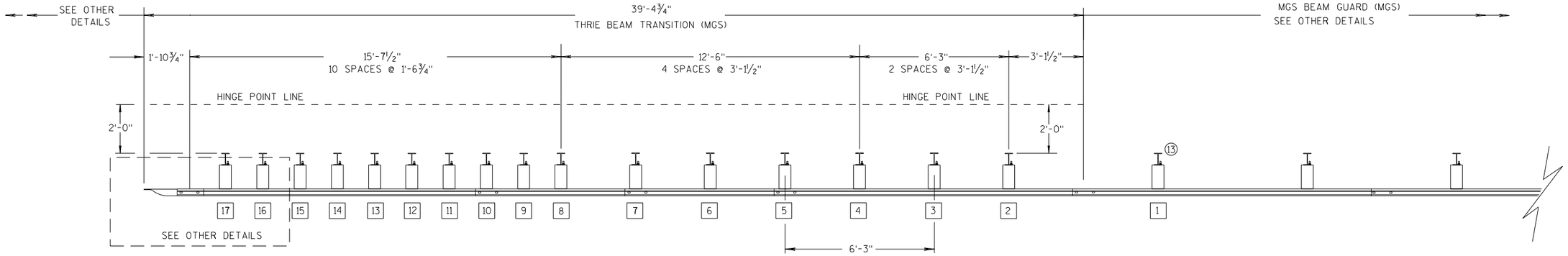
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

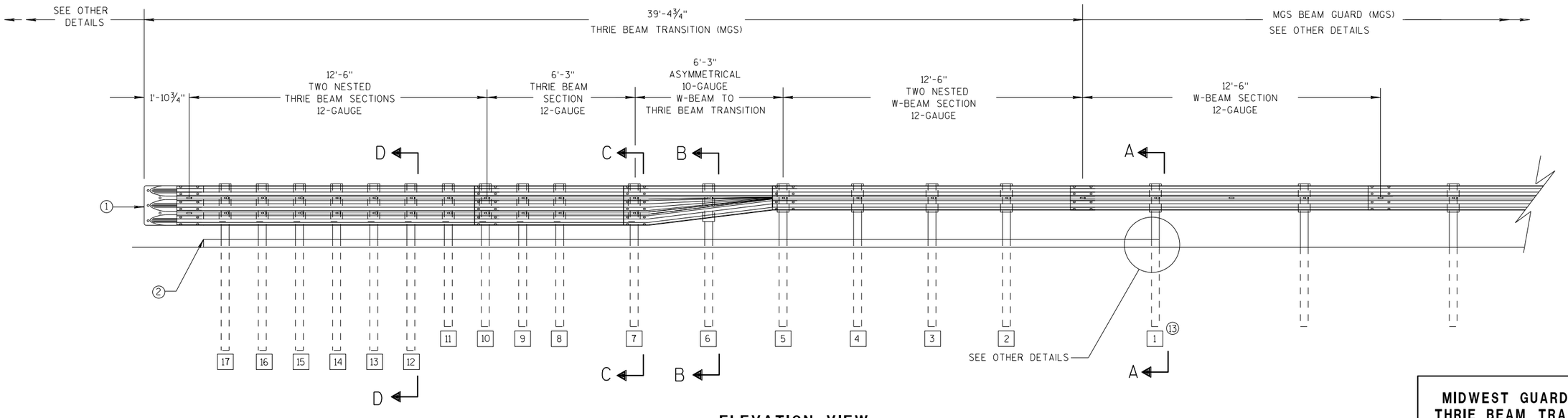
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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

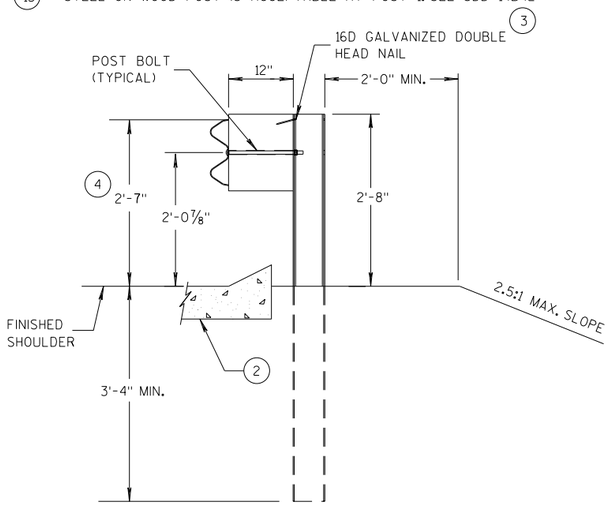
GENERAL NOTES

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

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

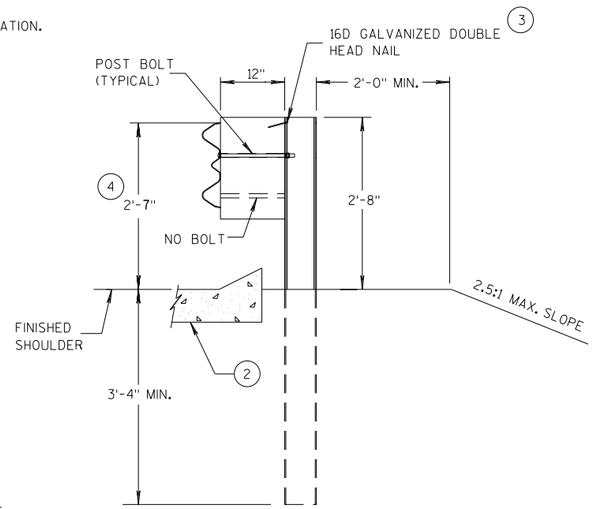
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



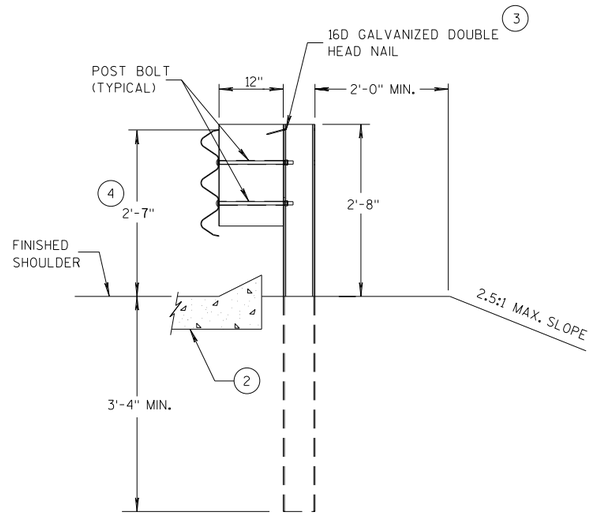
SECTION A-A (13)

POSTS 1-5



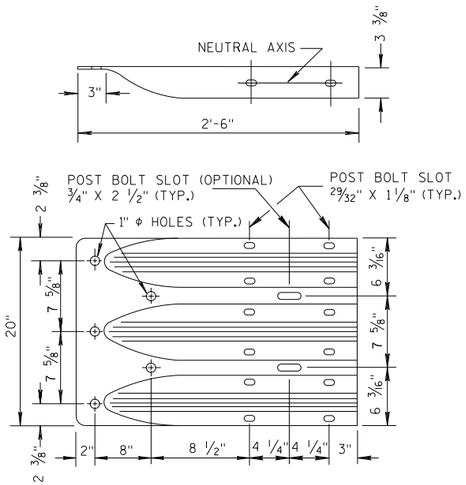
SECTION B-B

POST 6

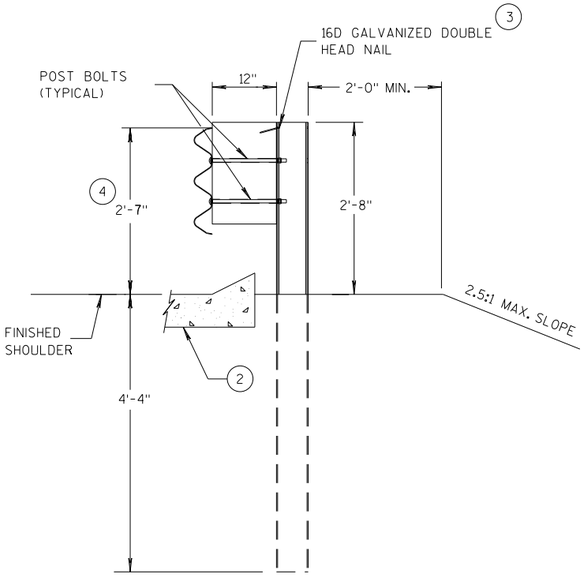


SECTION C-C

POSTS 7-11

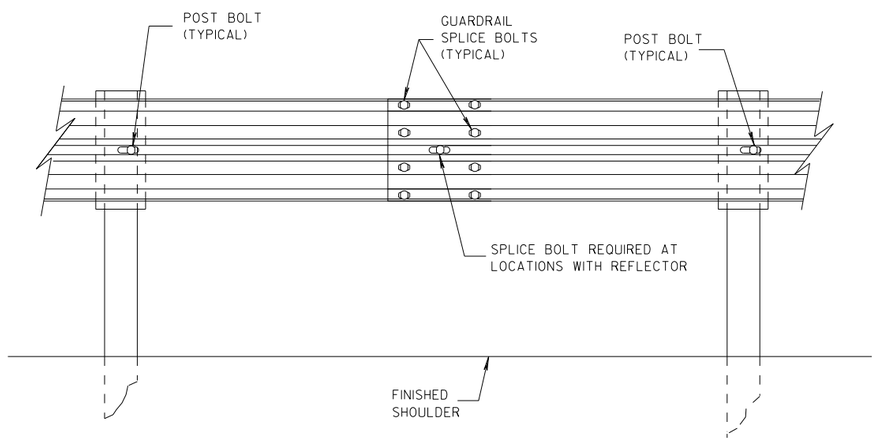


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

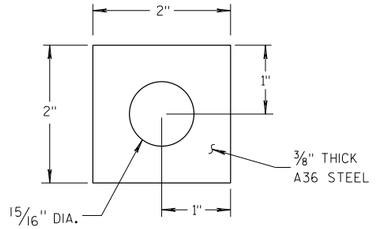
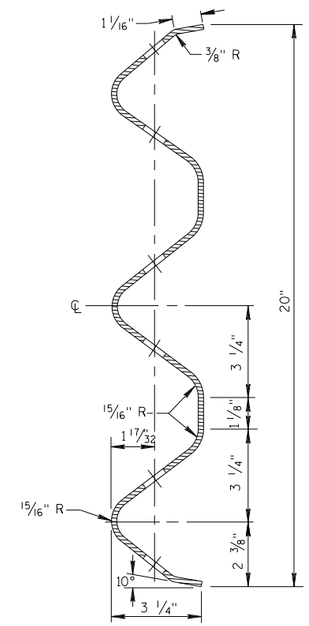


PLATE WASHER DETAIL



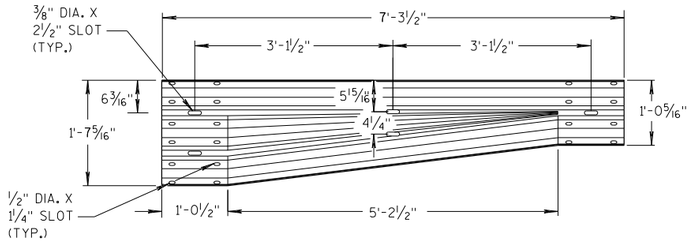
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

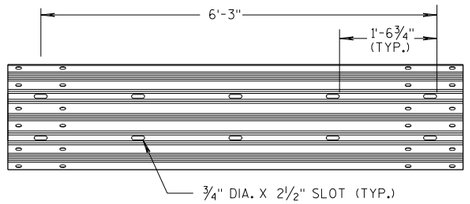
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

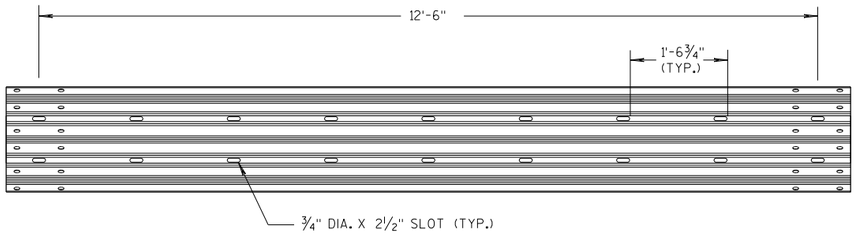
S.D.D. 14 B 45-5b



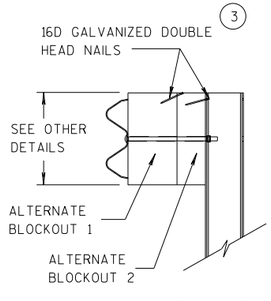
W-BEAM TO THRIE BEAM TRANSITION SECTION



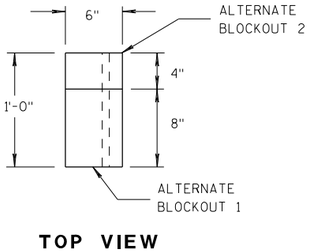
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

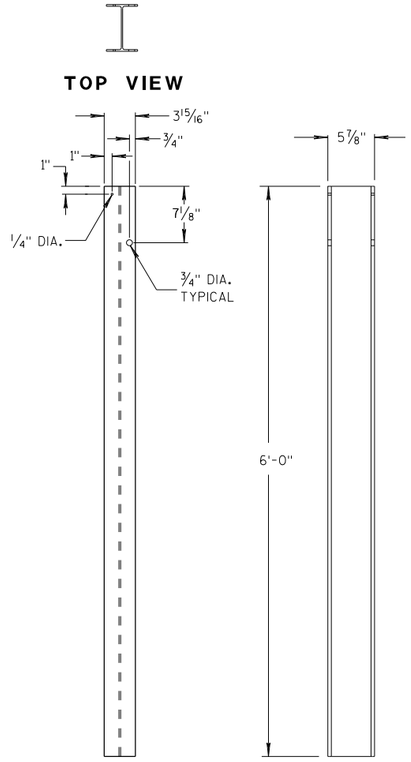


SIDE VIEW



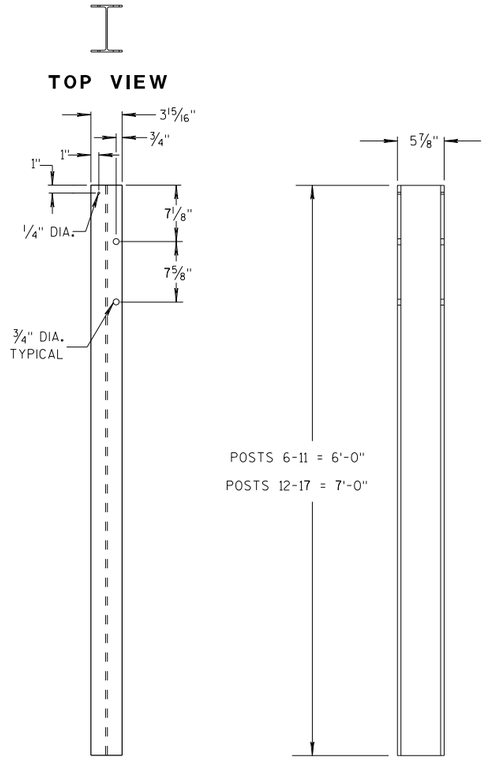
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



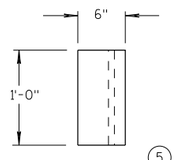
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

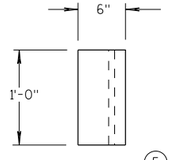


FRONT VIEW SIDE VIEW

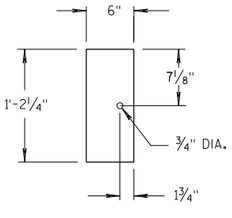
STEEL POSTS 6-17



TOP VIEW (5)

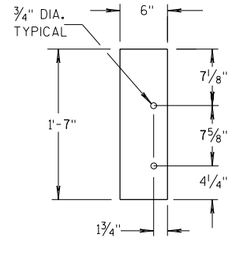


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

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

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

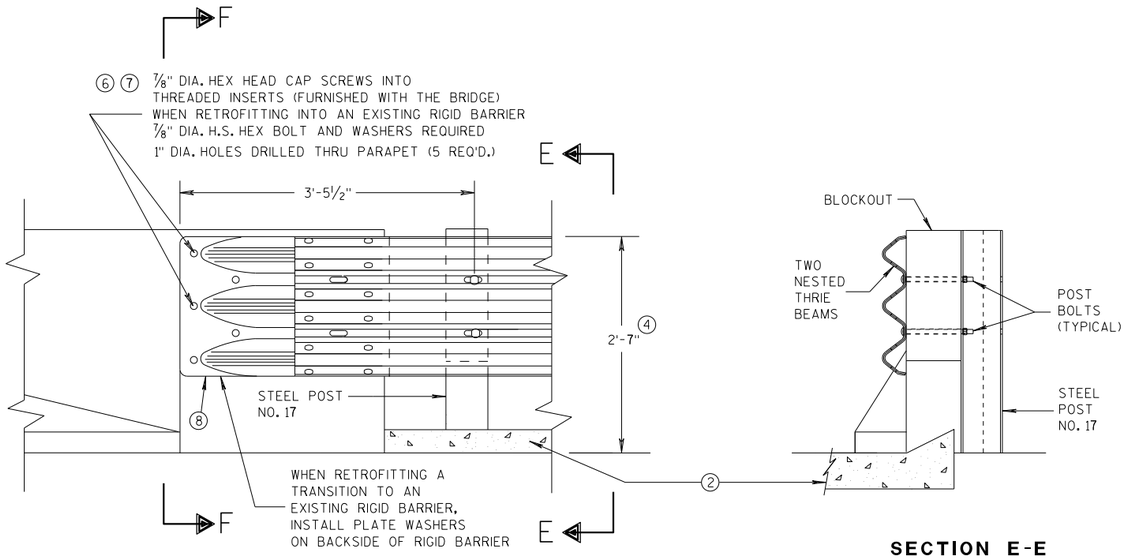
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

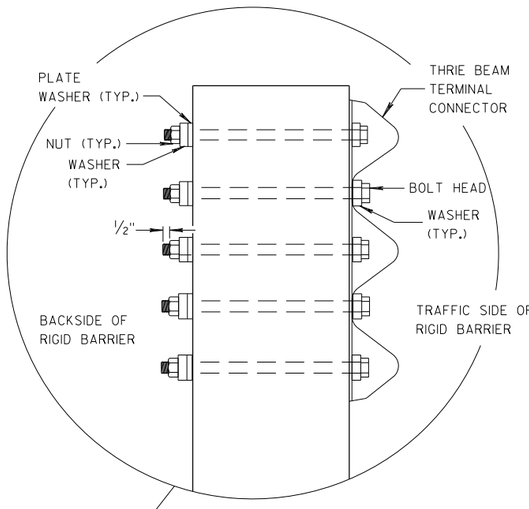
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

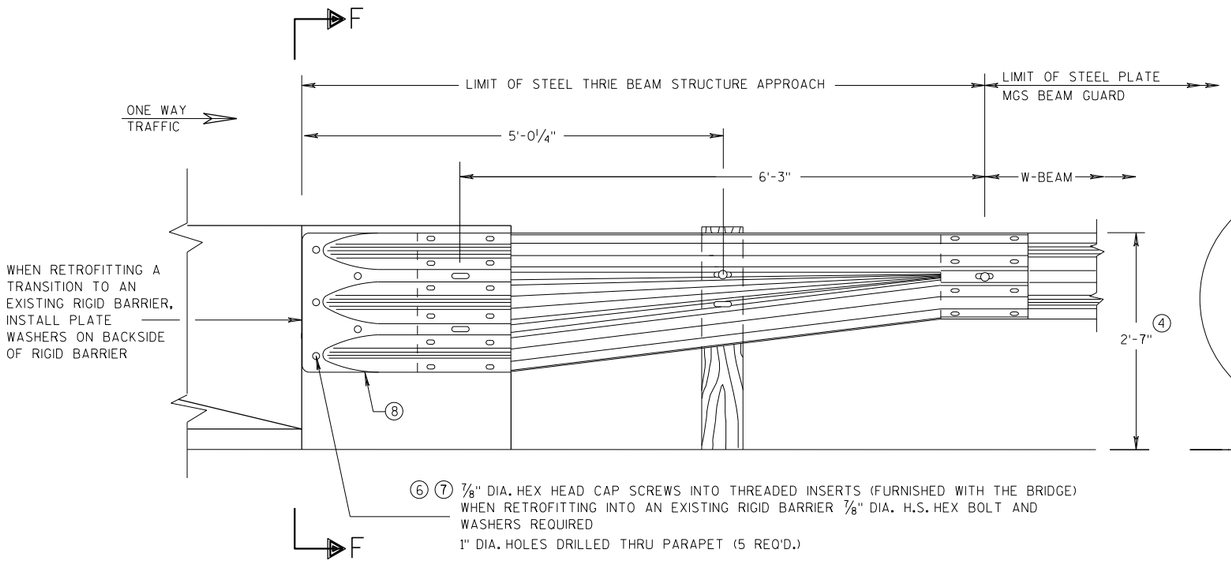
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

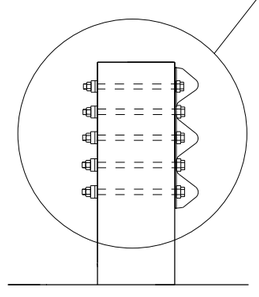
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

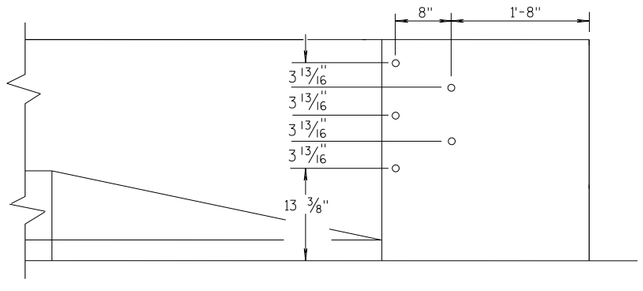




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

6

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

GENERAL NOTES

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

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

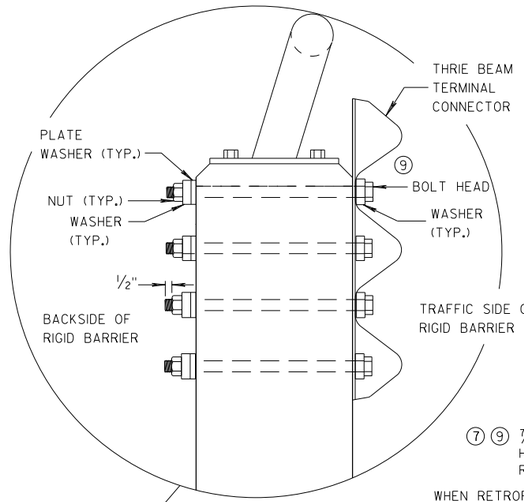
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

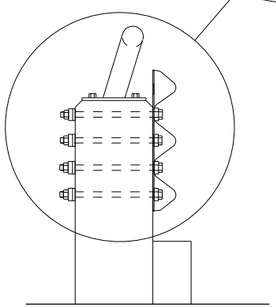
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

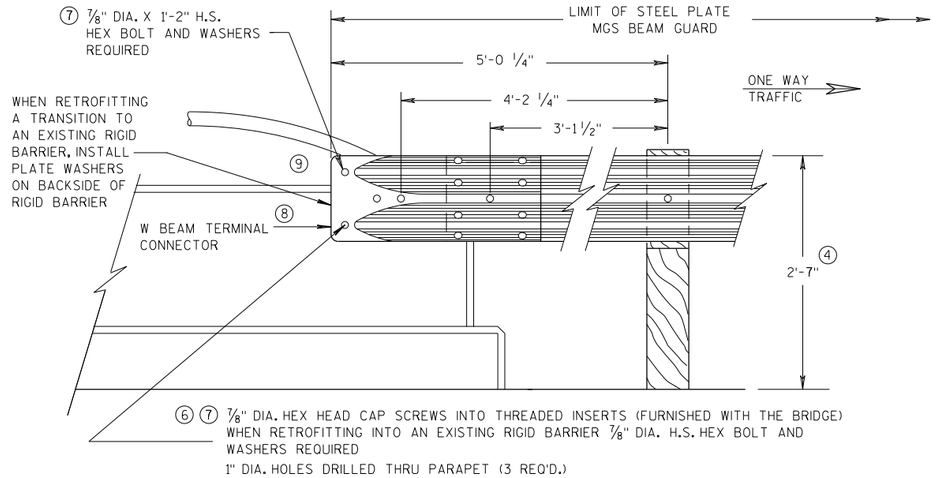
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





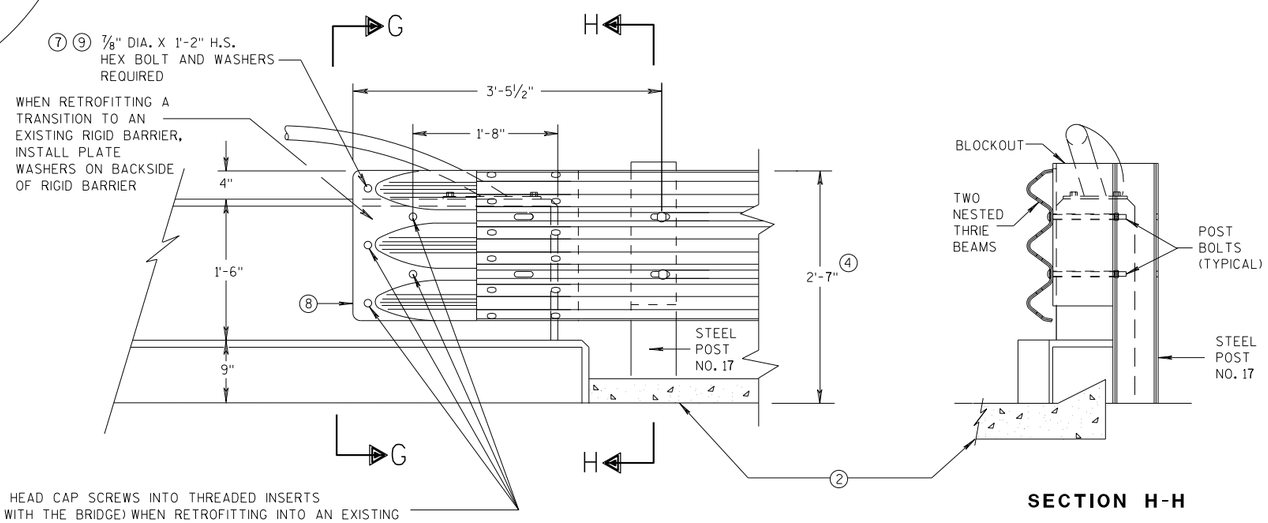
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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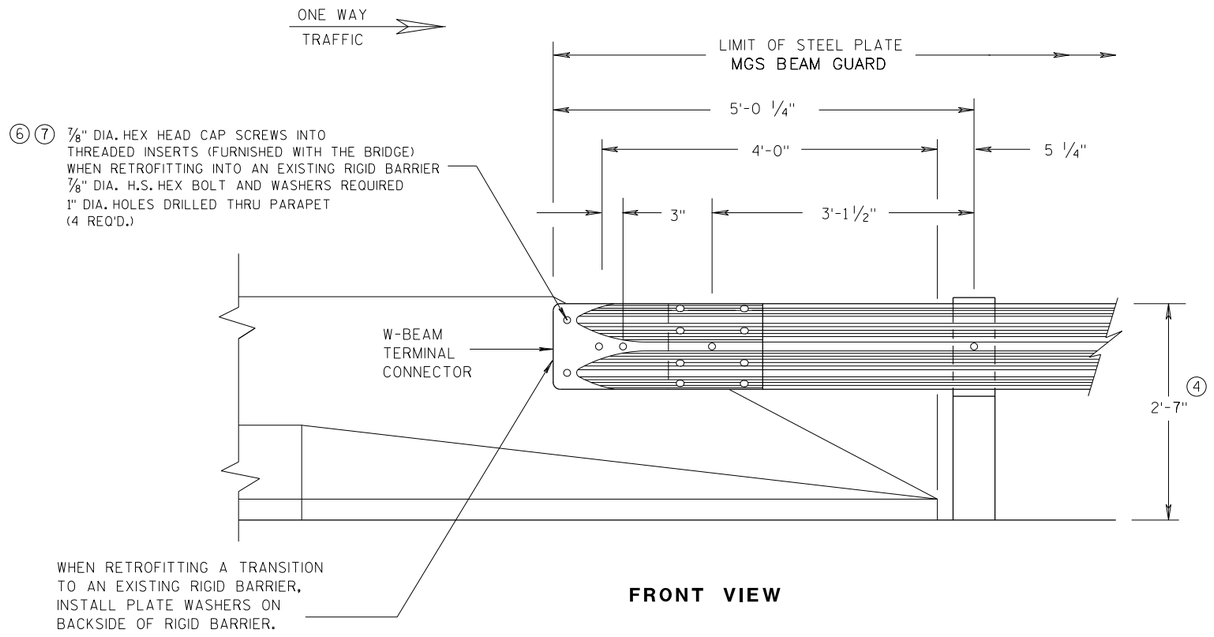
S.D.D. 14 B 45-5e

6

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

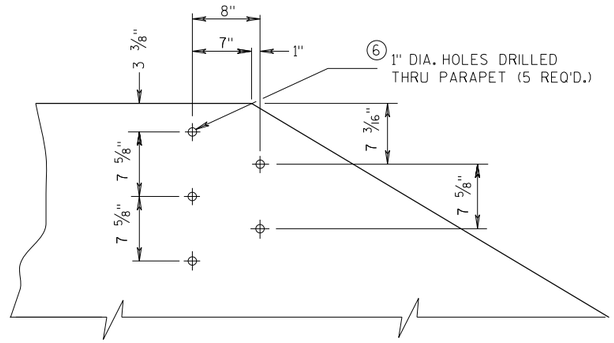
GENERAL NOTES

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

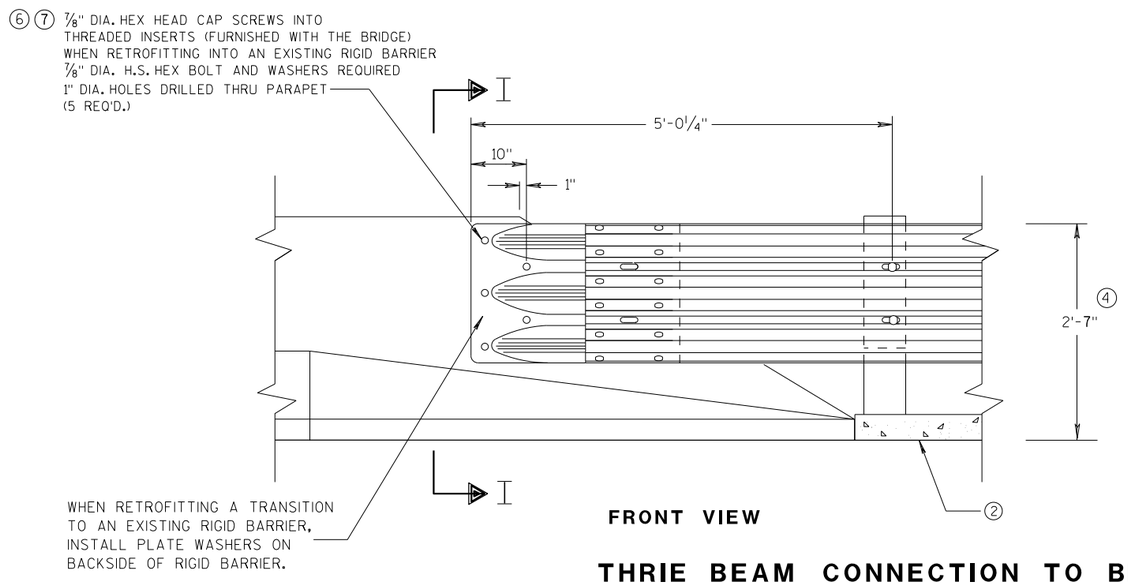
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

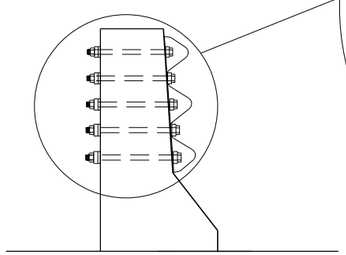
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



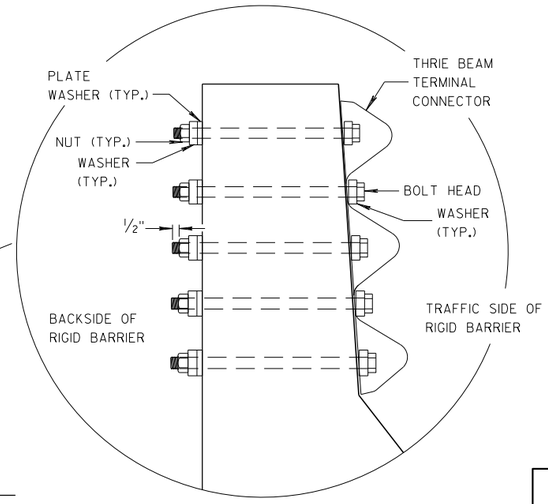
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS [illegible]ENT
UNIT SUPERVI
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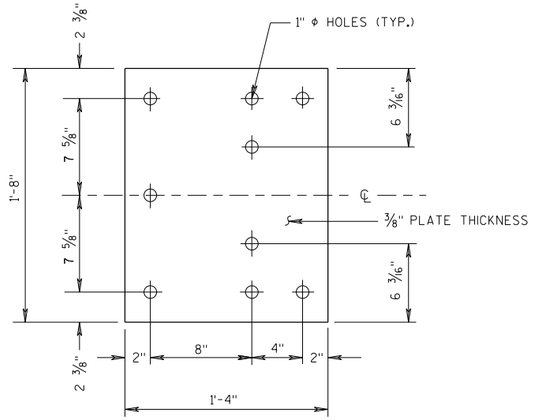
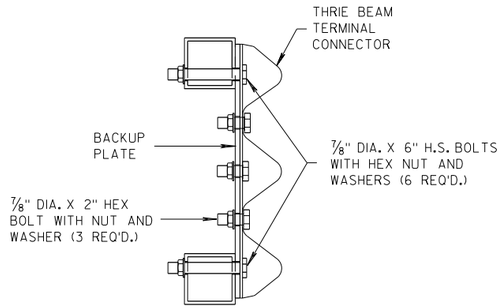
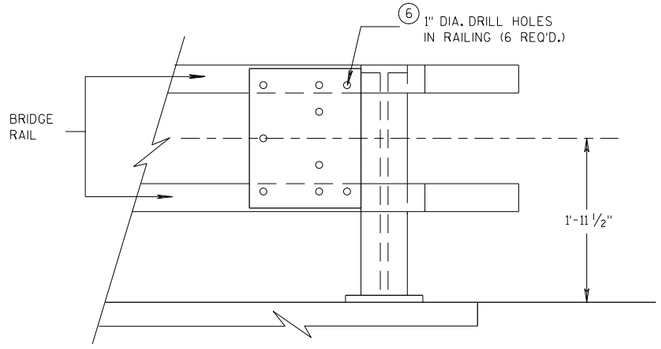


BACK-UP PLATE DETAIL



SECTION J-J

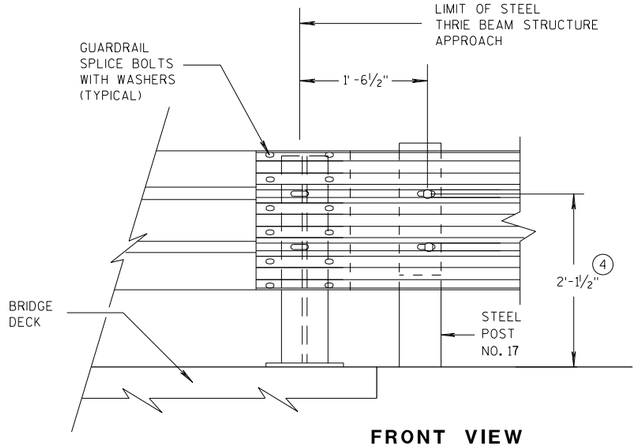


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

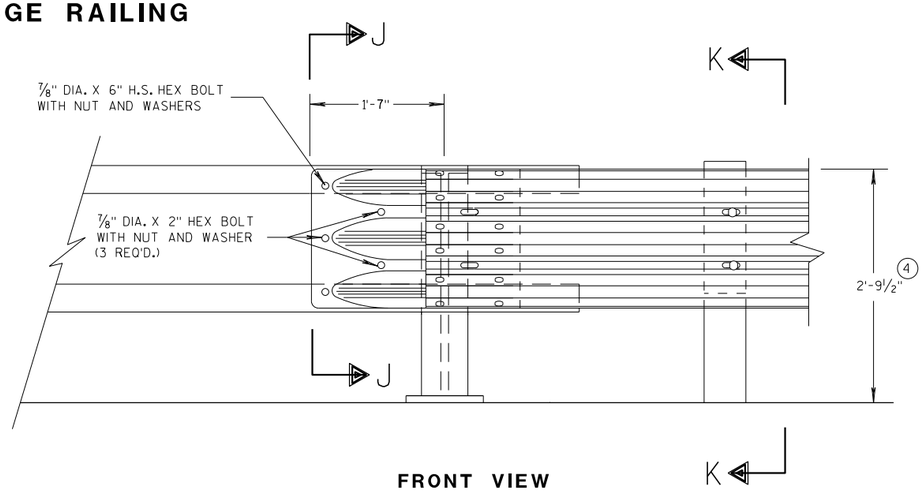
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

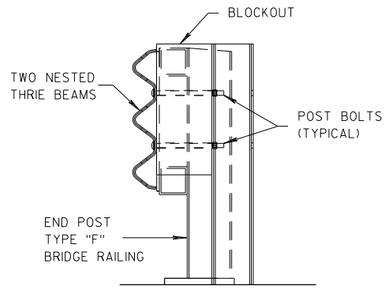


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor 45
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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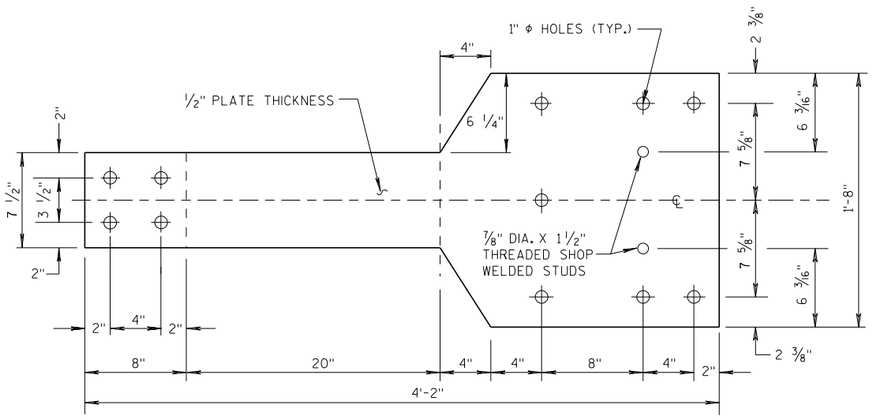
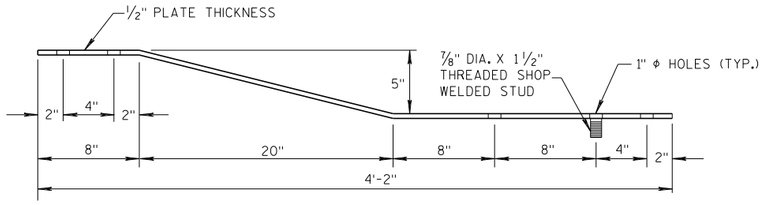
GENERAL NOTES

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

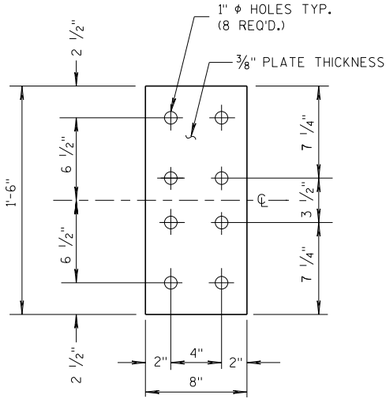


FRONT VIEW



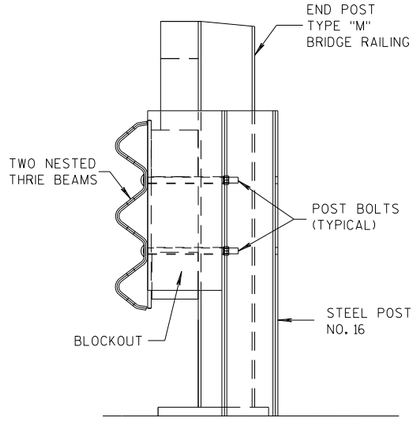
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

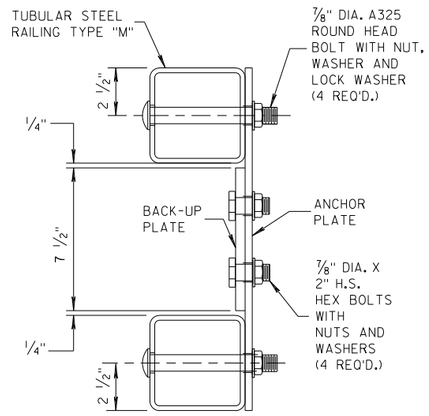


FRONT VIEW

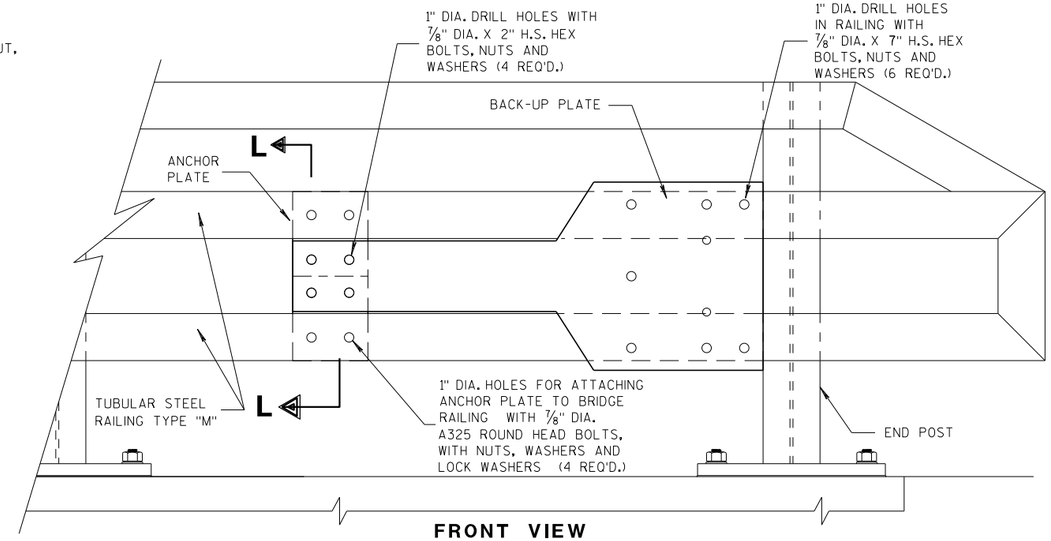
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

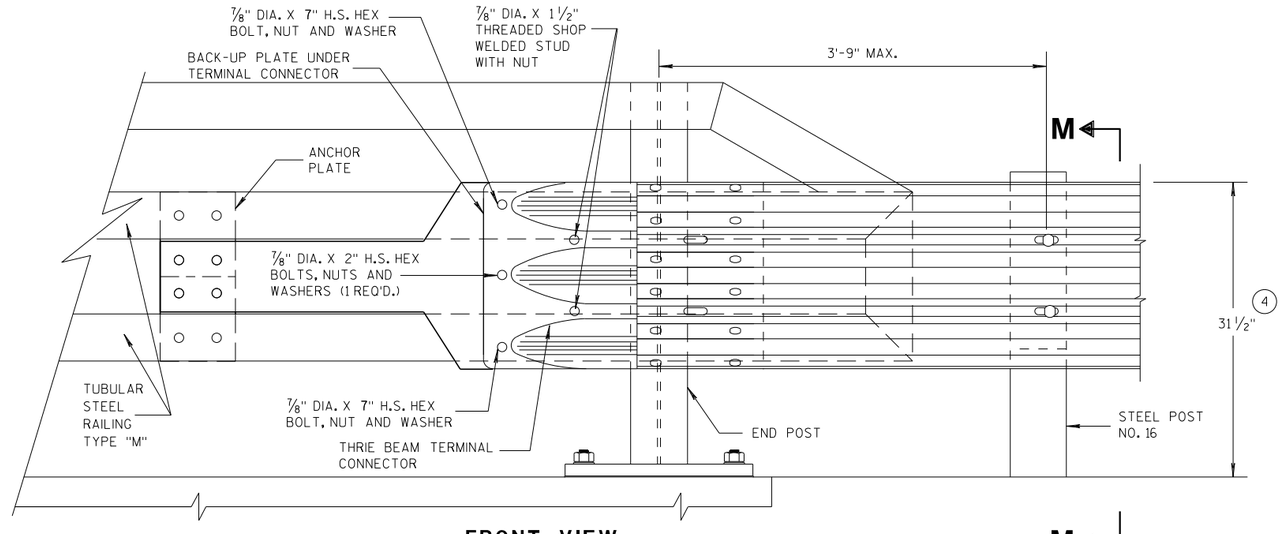


SECTION L-L

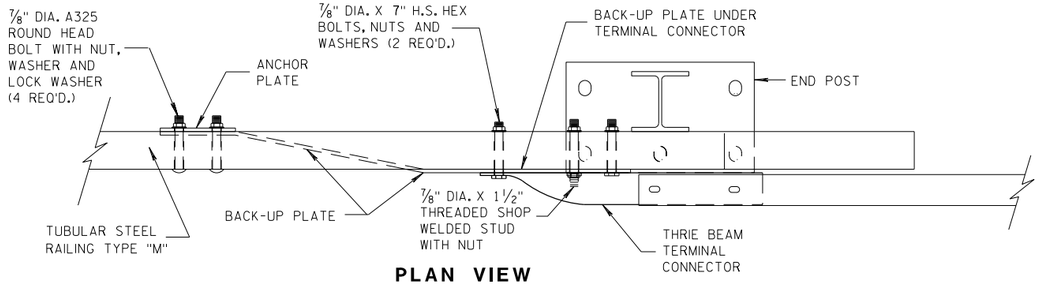


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
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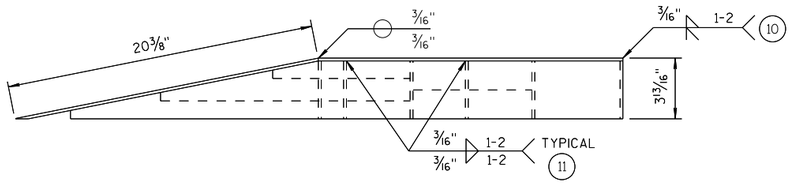

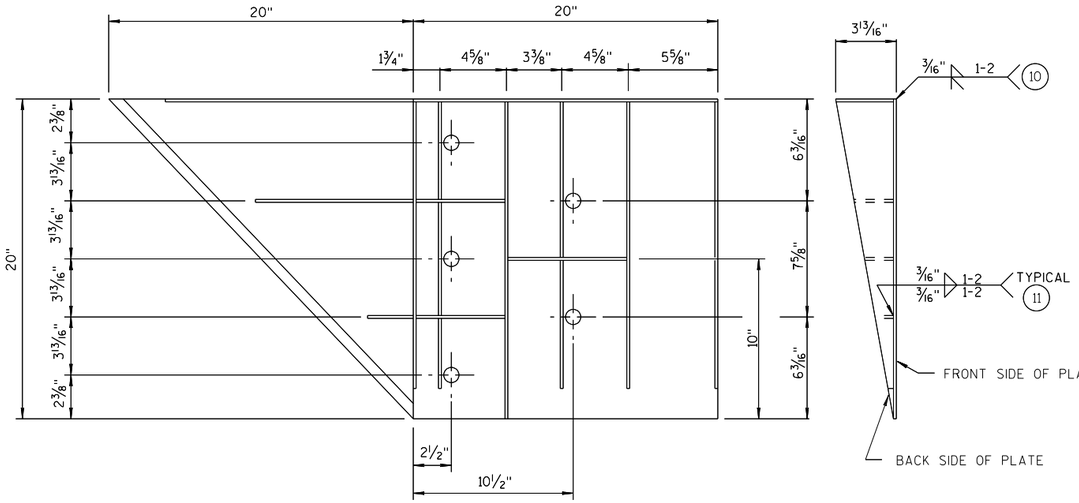

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

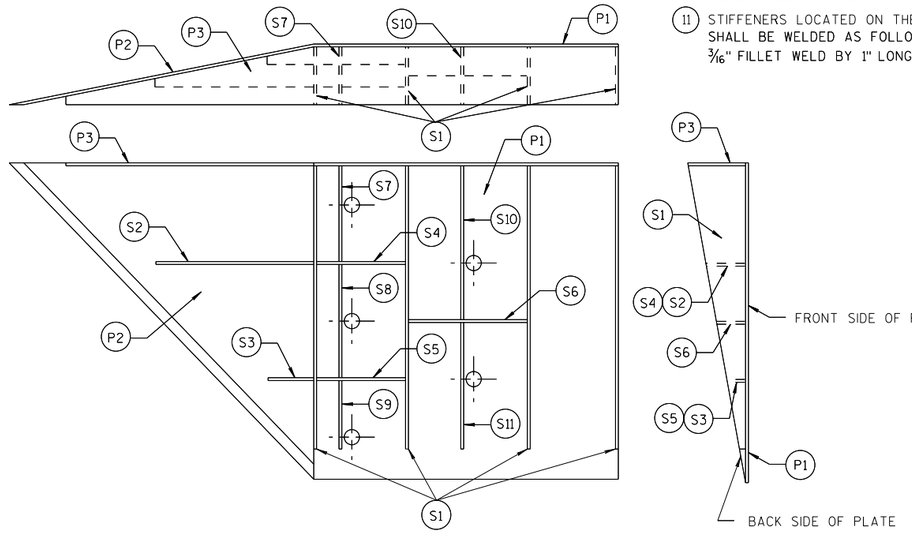

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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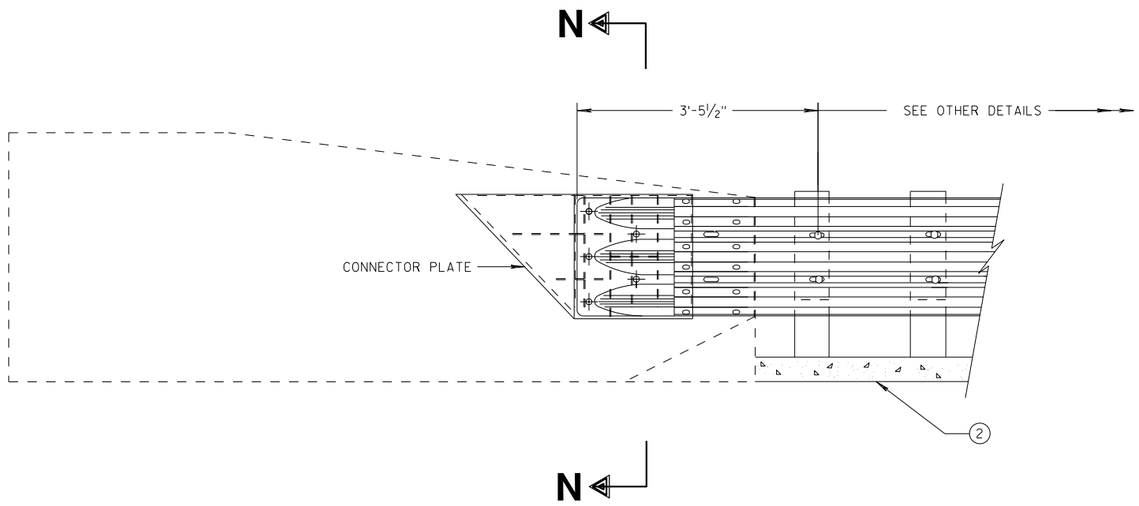
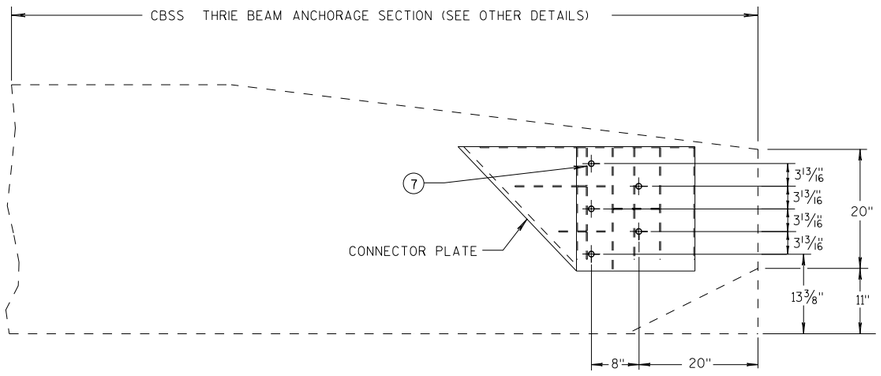


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



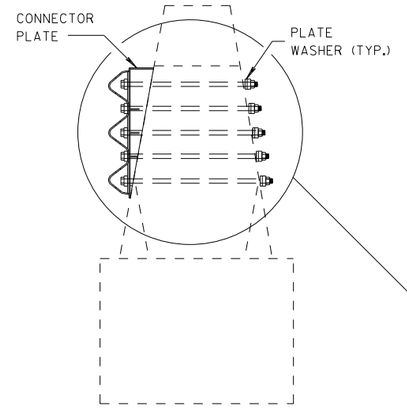
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

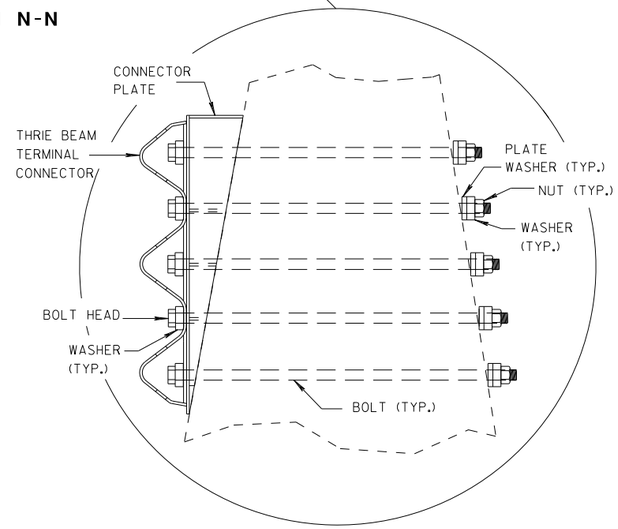
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
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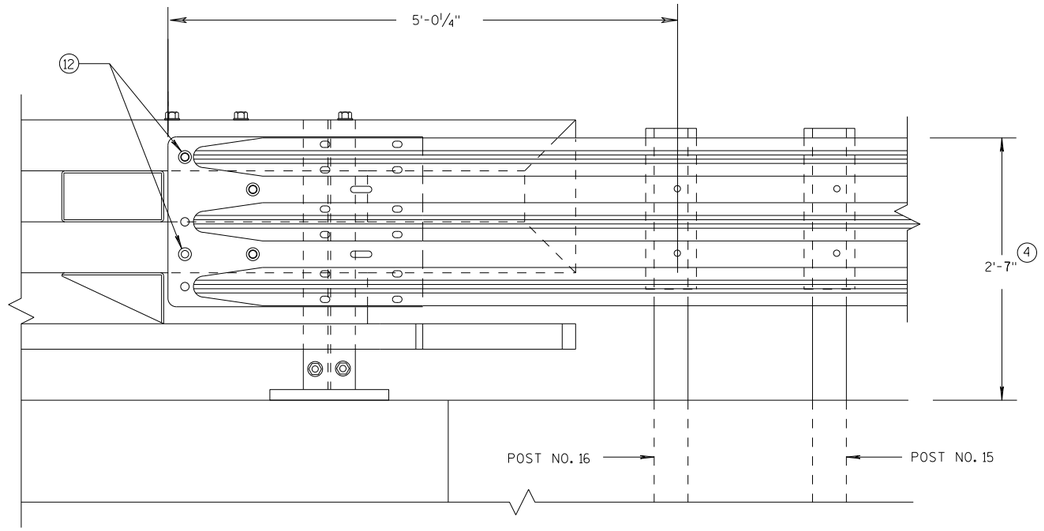
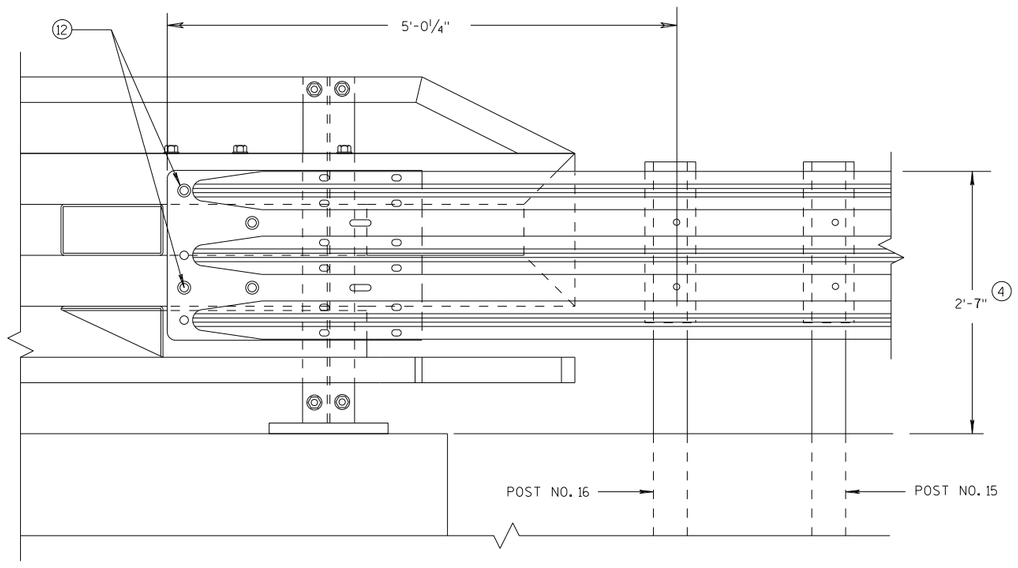


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
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FHWA

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ROADWAY STANDARDS D
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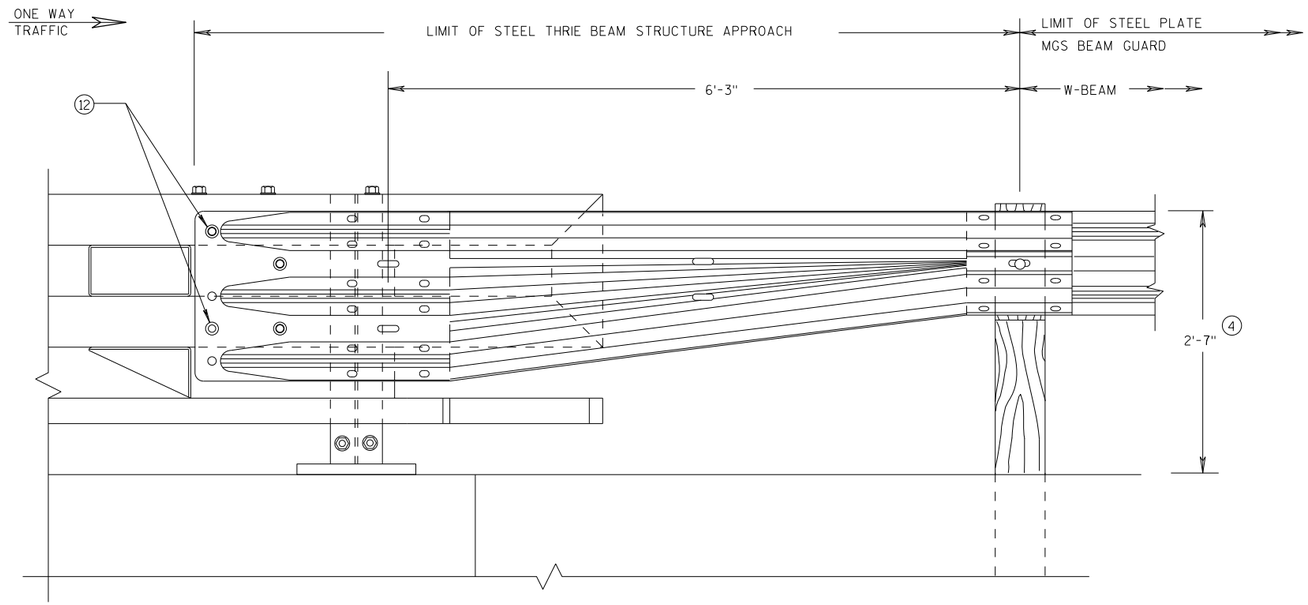


FRONT VIEW

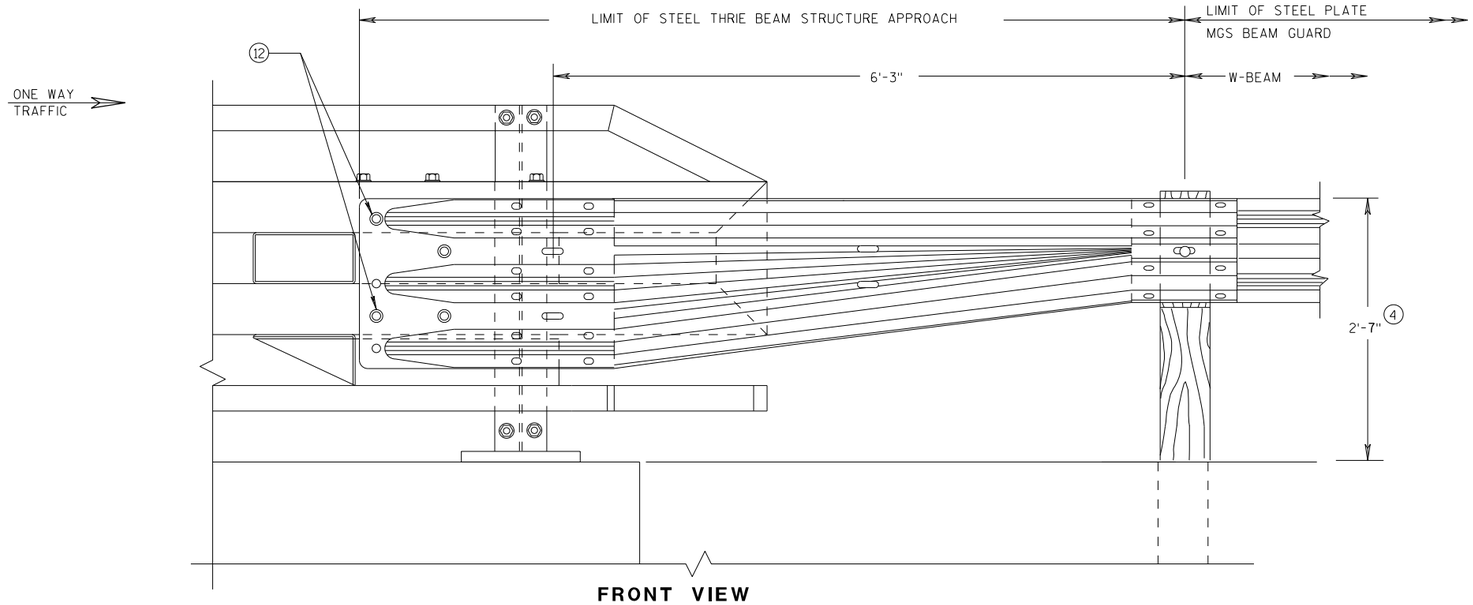
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
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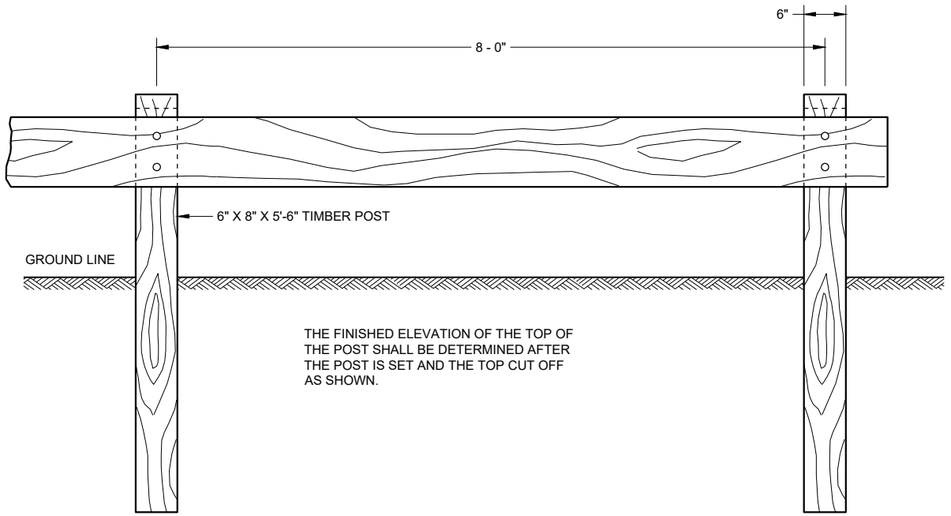
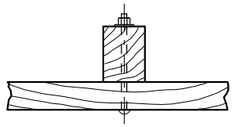
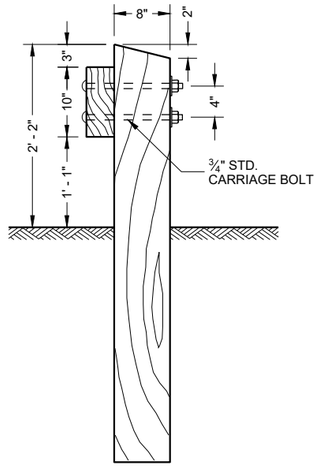


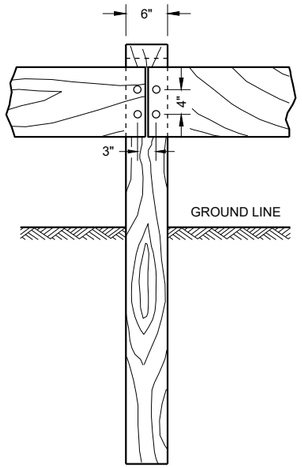
FRONT VIEW



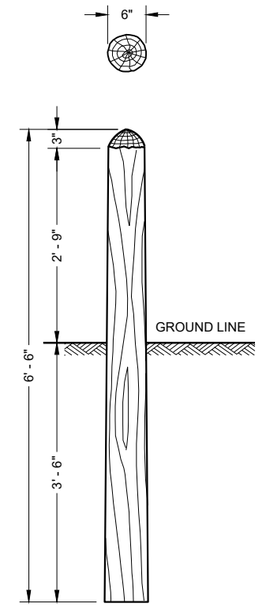
TOP VIEW



SIDE VIEW



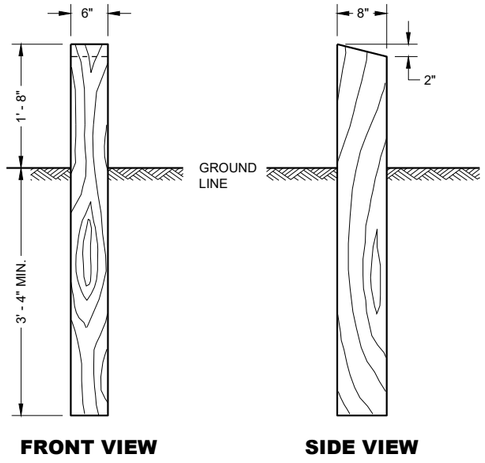
SPLICE POST



RUSTIC MARKER POST

TIMBER RAIL GUARD FENCE

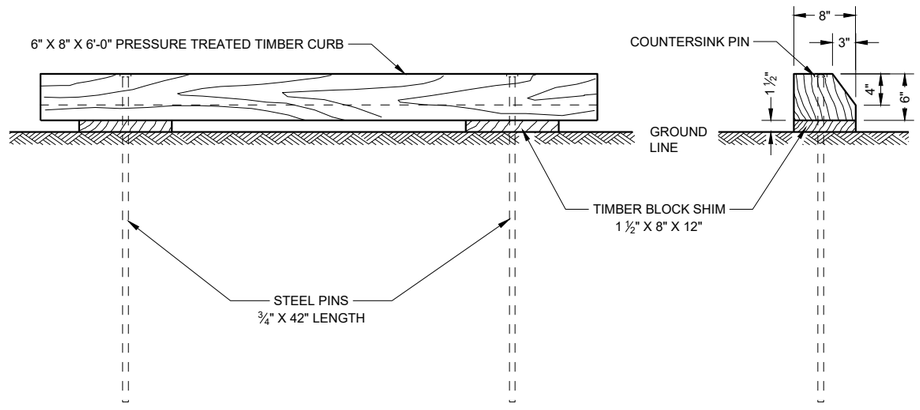
(PARKING LOT PROTECTION)



FRONT VIEW **SIDE VIEW**

TIMBER RAIL GUARD POST

(REQUIREMENTS SHALL BE THE SAME AS POSTS FOR TIMBER RAIL GUARD FENCE)



FRONT VIEW **SIDE VIEW**

TREATED TIMBER CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATION SECTION 615. ALL POST AND RAIL DIMENSIONS ARE NOMINAL DIMENSIONS.

TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Joseph Coughlin — ROADSIDE FACILITIES ENG

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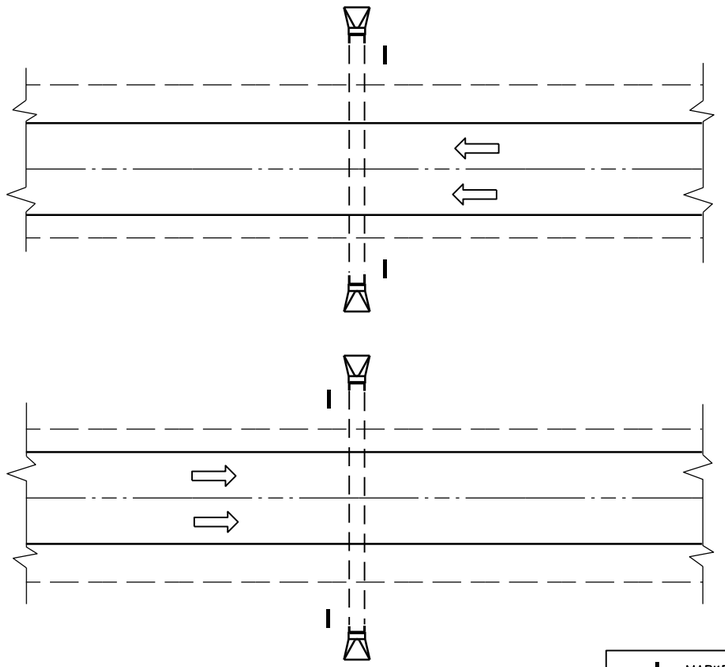
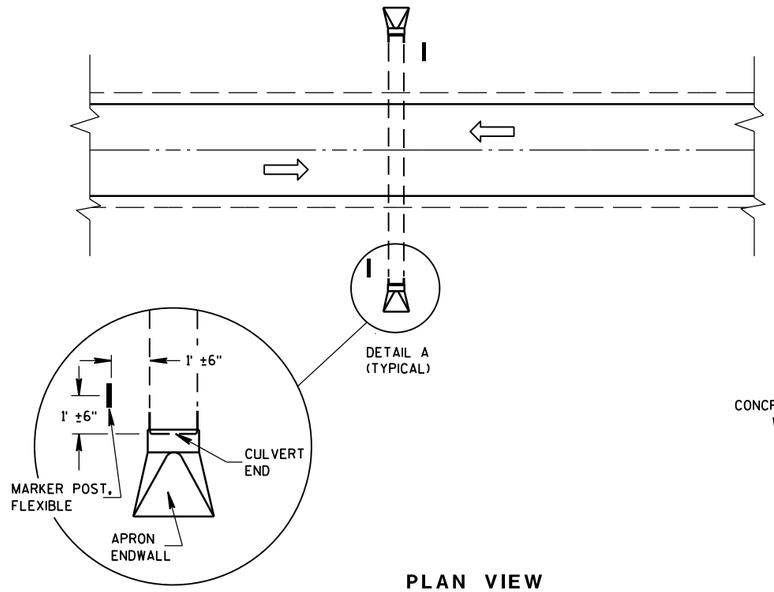


PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

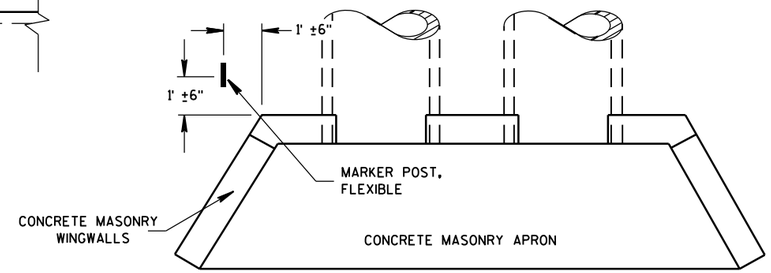
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

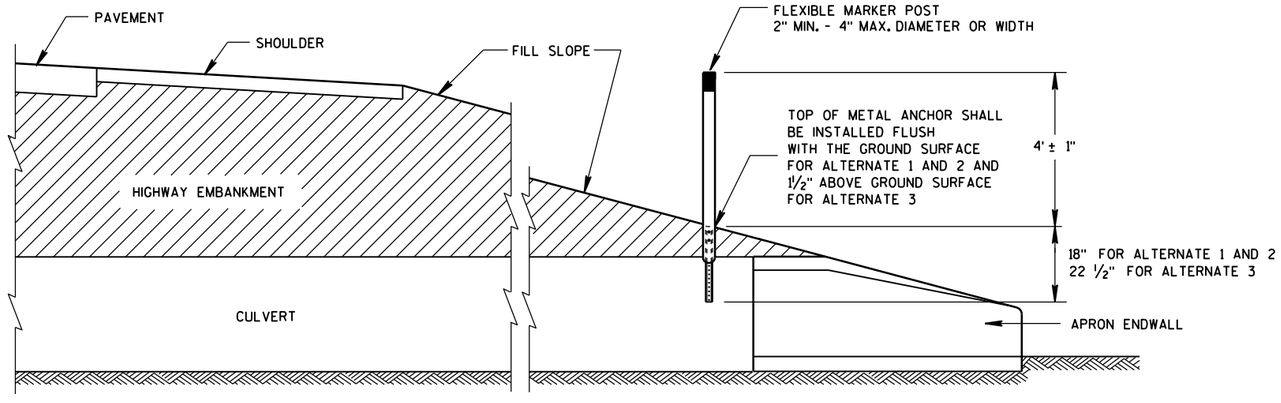
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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 TRANSPOR

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S.D.D. 15 A 3-2a

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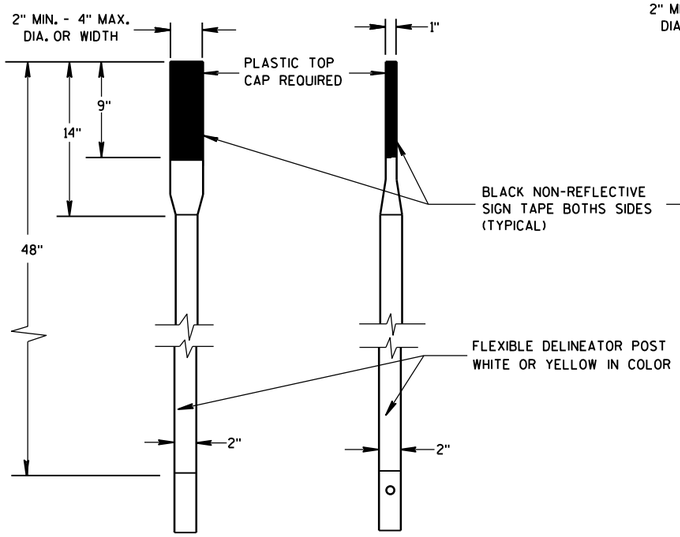
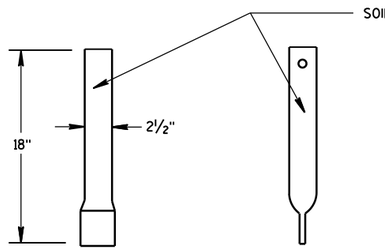
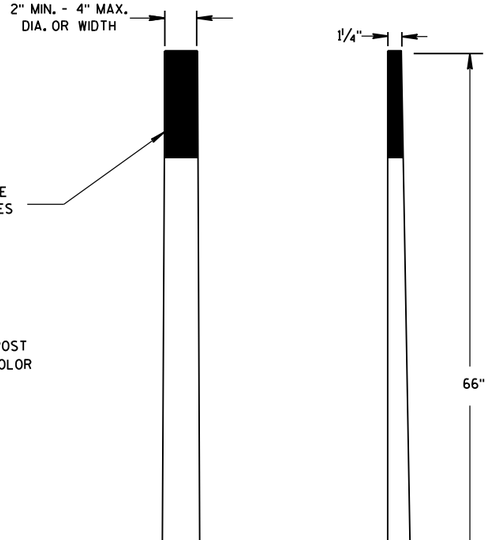
S.D.D. 15 A 3-2a





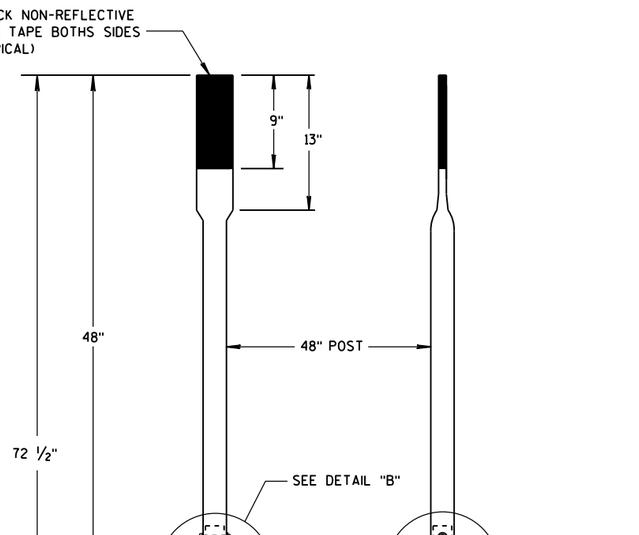
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

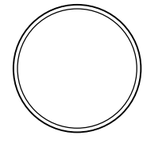
ALTERNATE 2



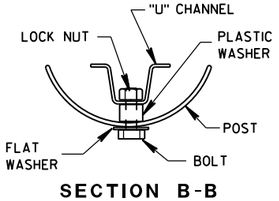
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS



SECTION A-A



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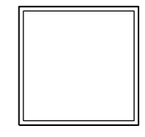
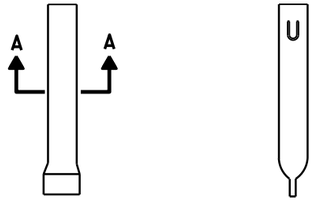
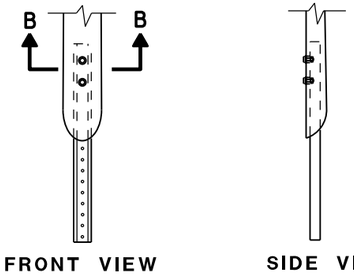


SECTION C-C



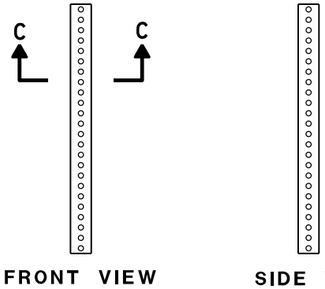
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

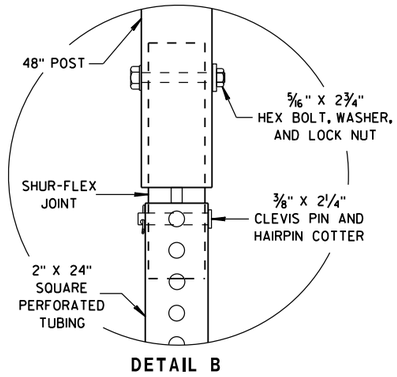
ALTERNATE 2



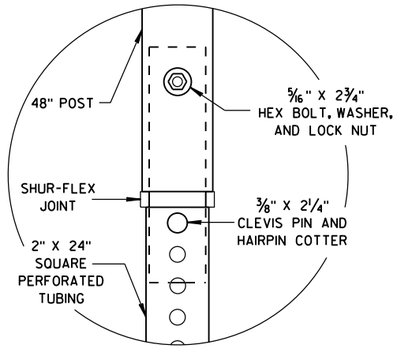
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

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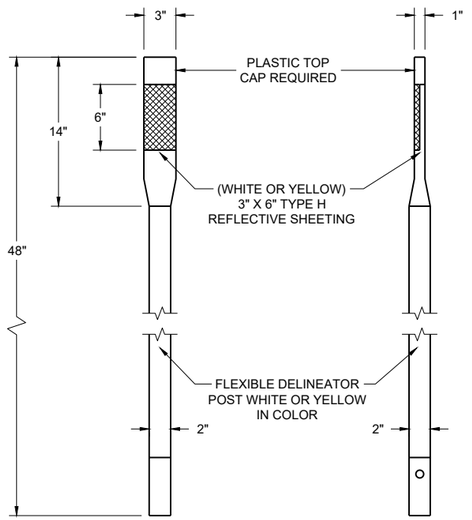
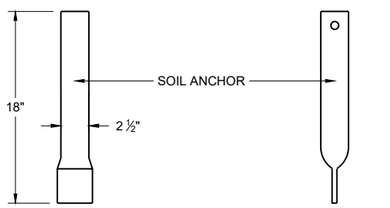
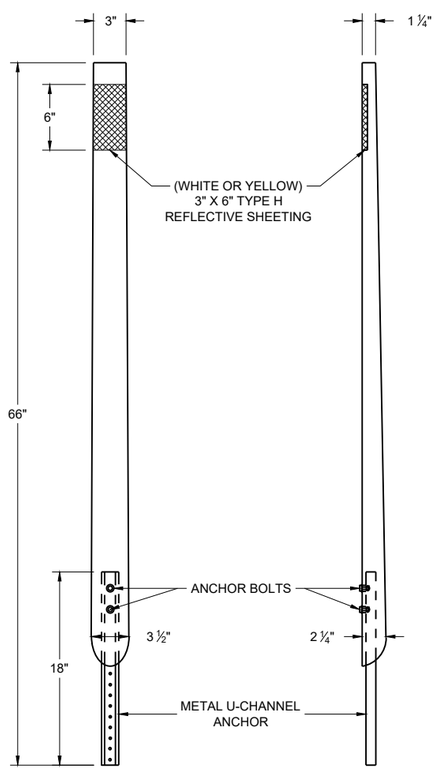
S.D.D. 15 A 3-2b





FRONT VIEW SIDE VIEW

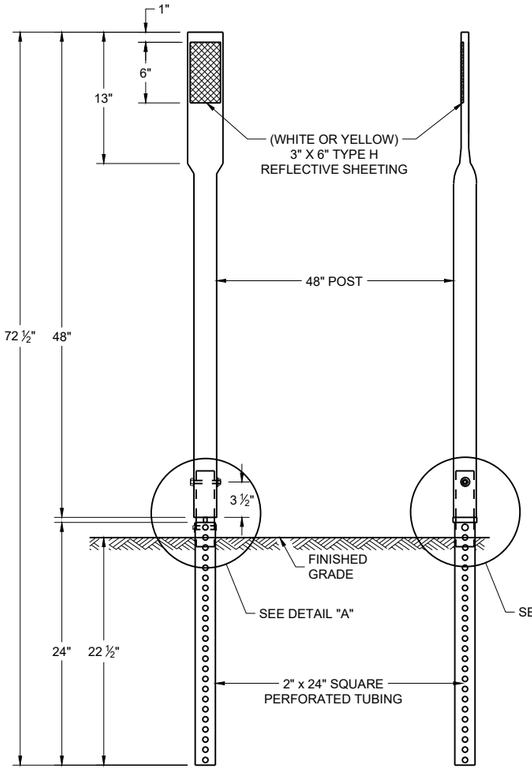
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE DELINEATOR POSTS

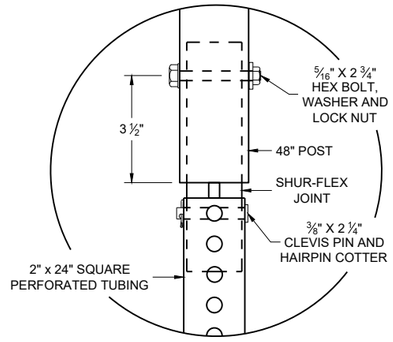


FRONT VIEW SIDE VIEW

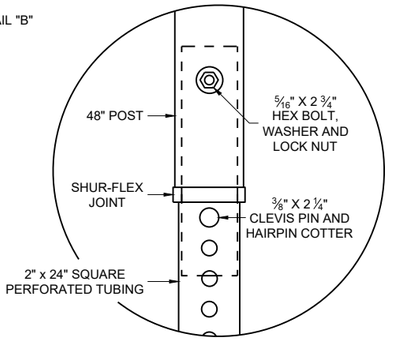
ALTERNATE 3

GENERAL NOTES

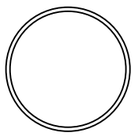
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



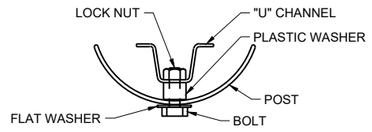
DETAIL A



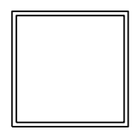
DETAIL B



SECTION A - A



SECTION B - B

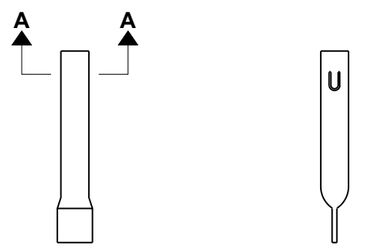


SECTION C - C

REFLECTOR SPACING TABLE

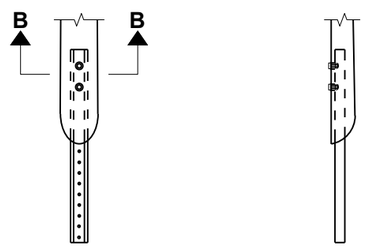
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER



FRONT VIEW SIDE VIEW

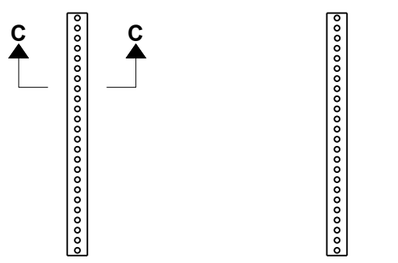
ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

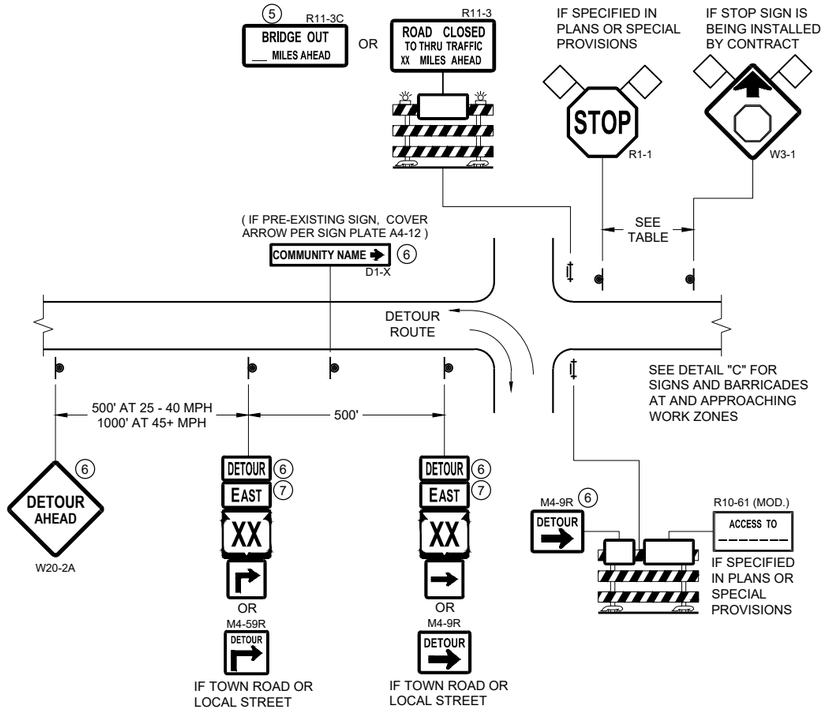
APPROVED
March 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

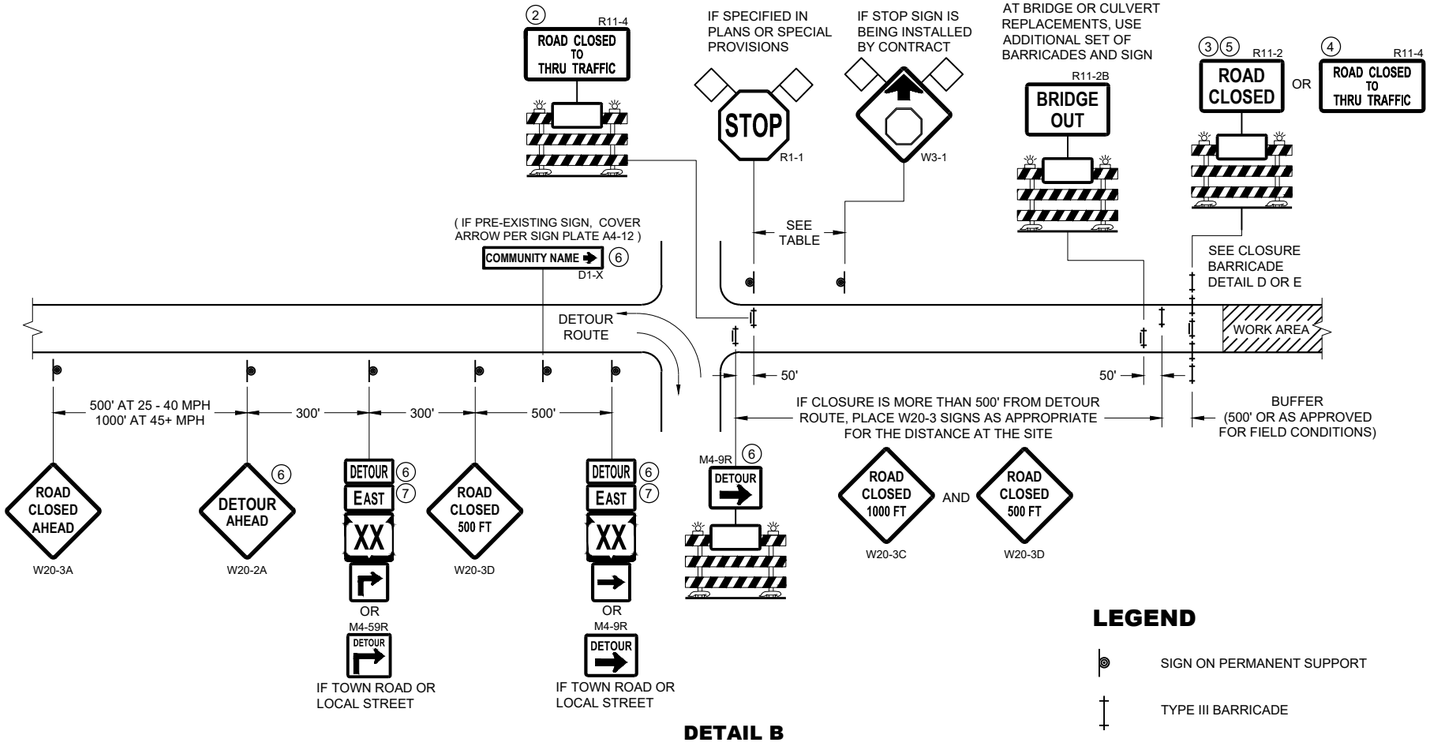
6

SDD 15A04-08a



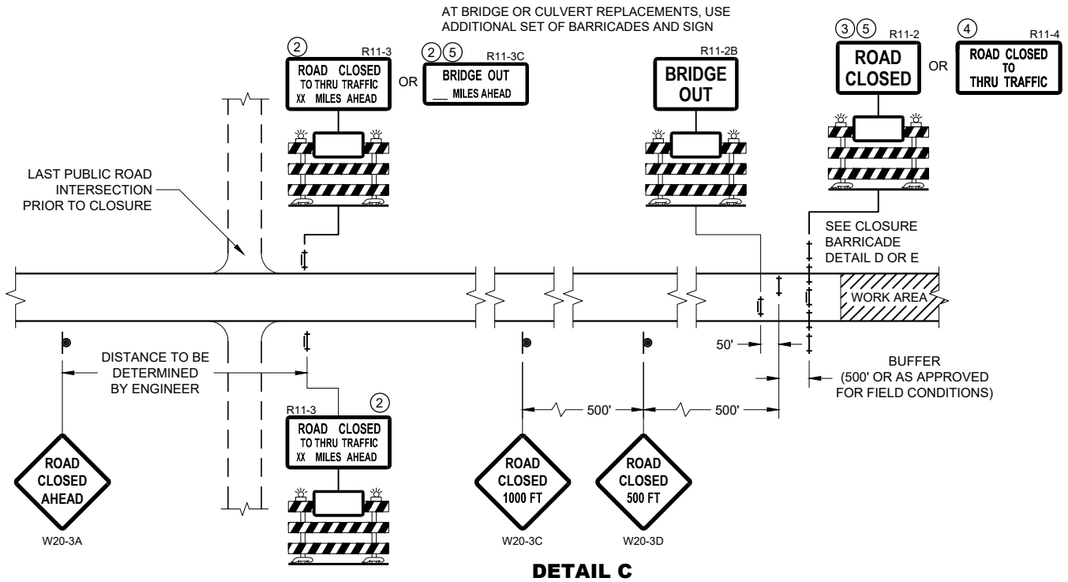
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

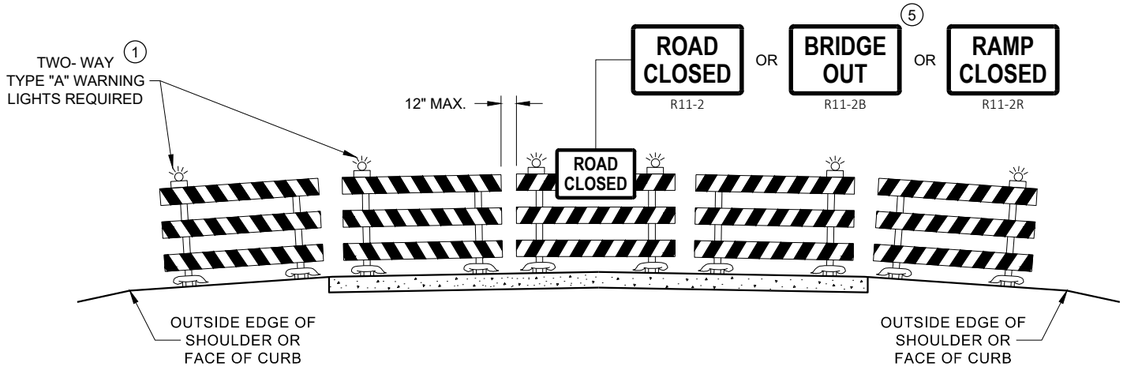
APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

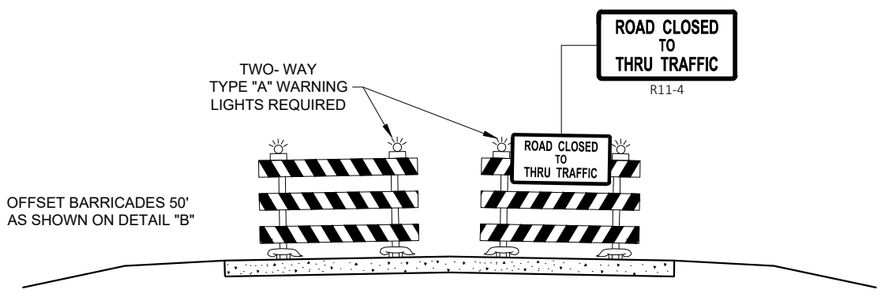
6

SDD 15C02 - 09a

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

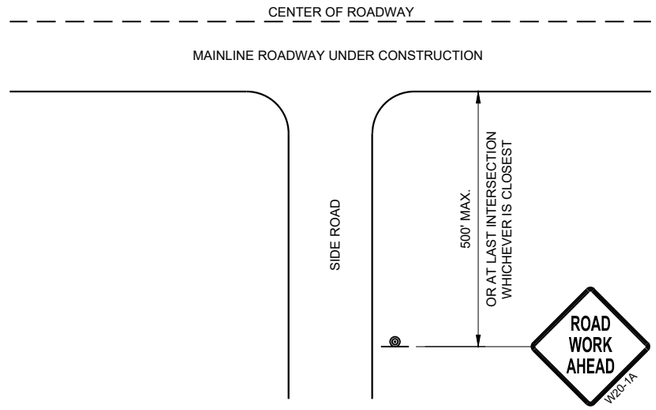
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



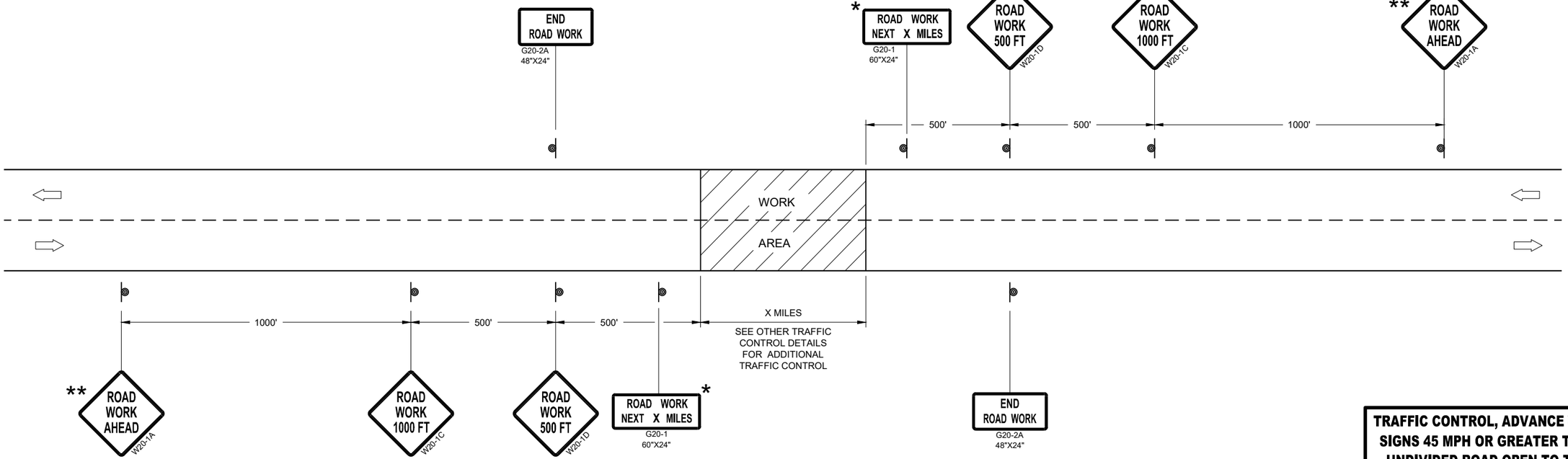
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

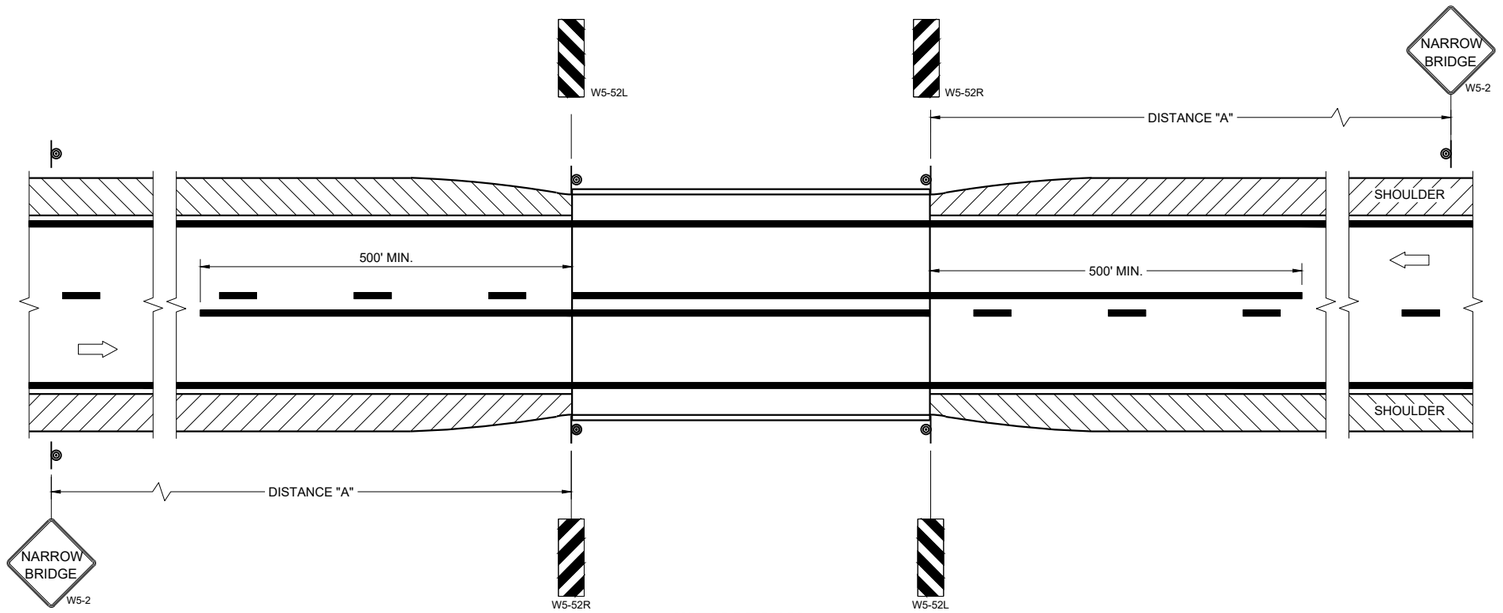
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

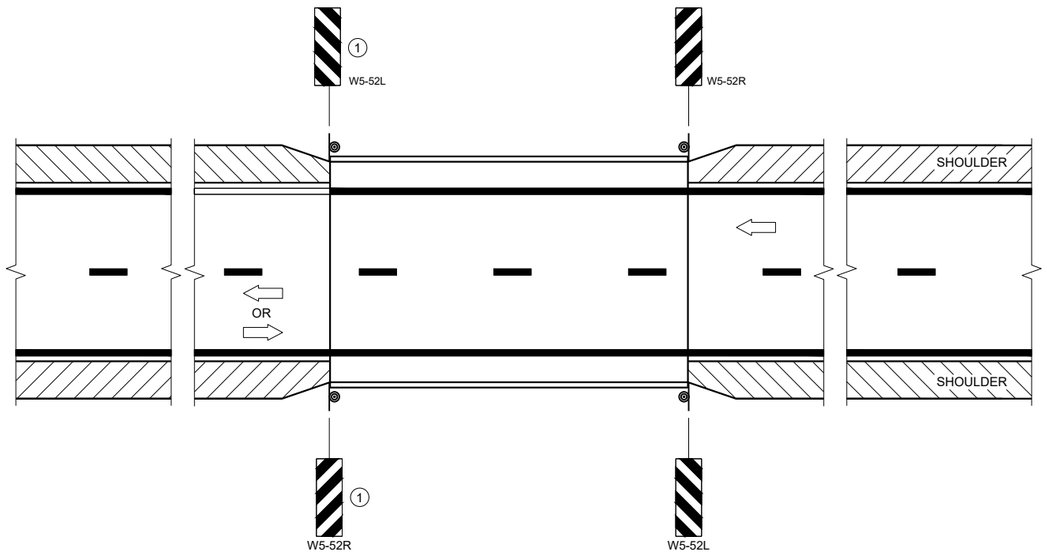
6

SDD 15C04 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6
SDD 15C06-12

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

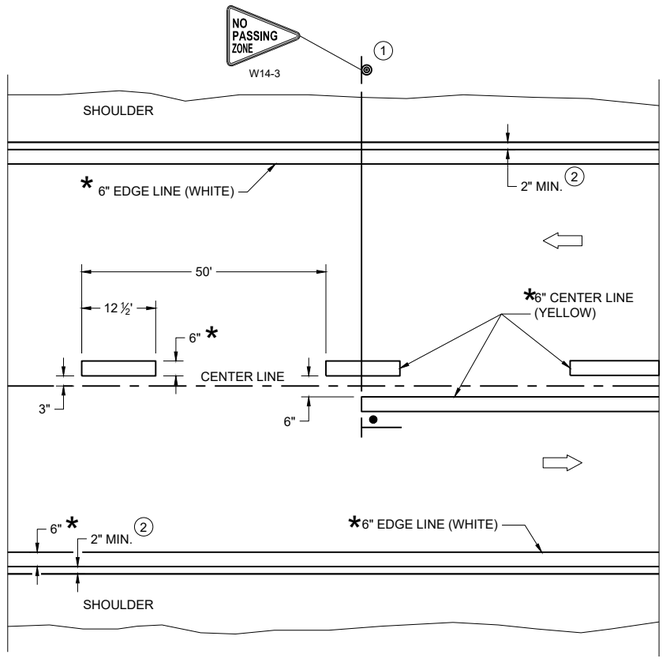
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

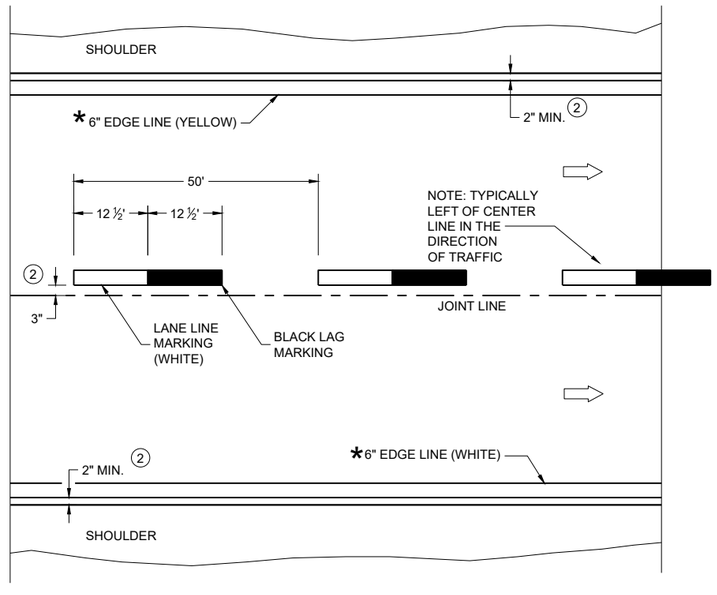
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

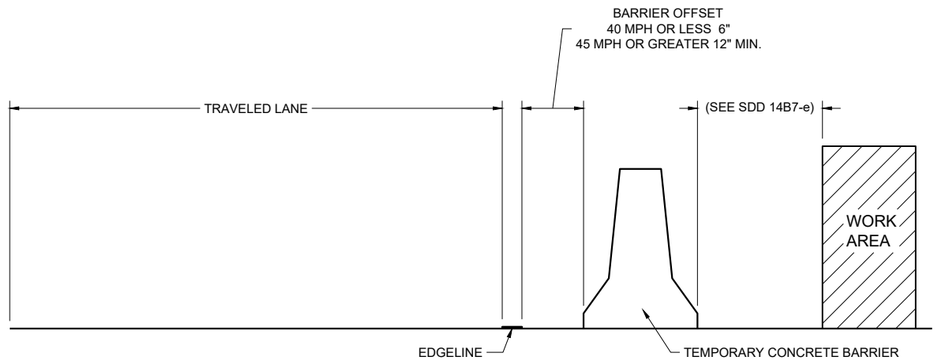
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6
SDD 15C08-24a



TEMPORARY BARRIER OFFSET FROM EDGELINE

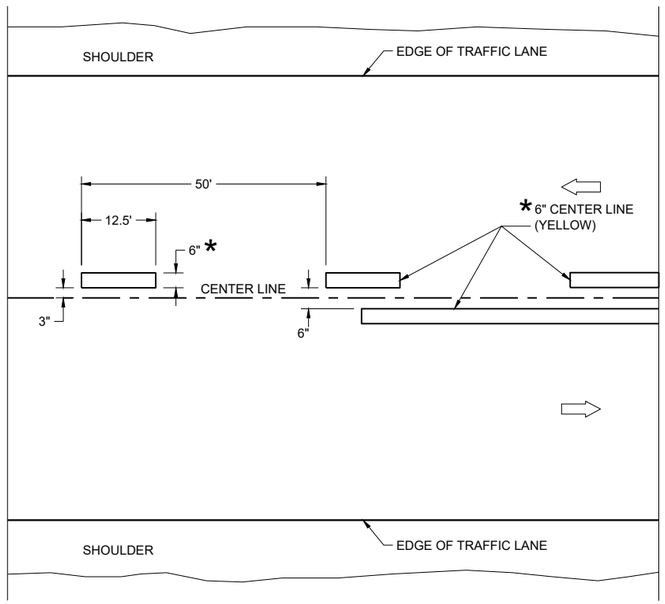
GENERAL NOTES

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

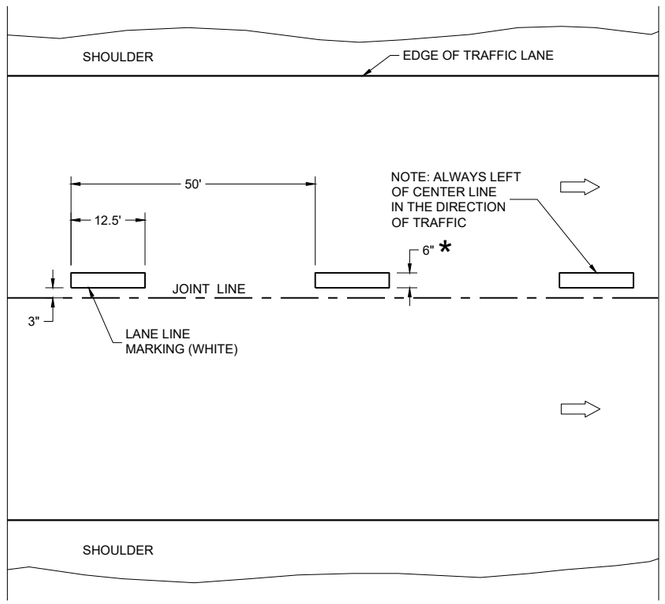
LEGEND

DIRECTION OF TRAFFIC

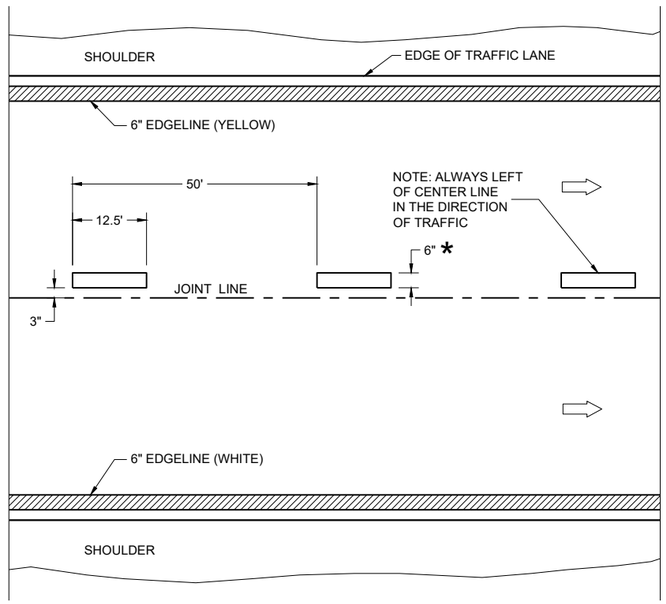
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6

SDD 15C08-24b

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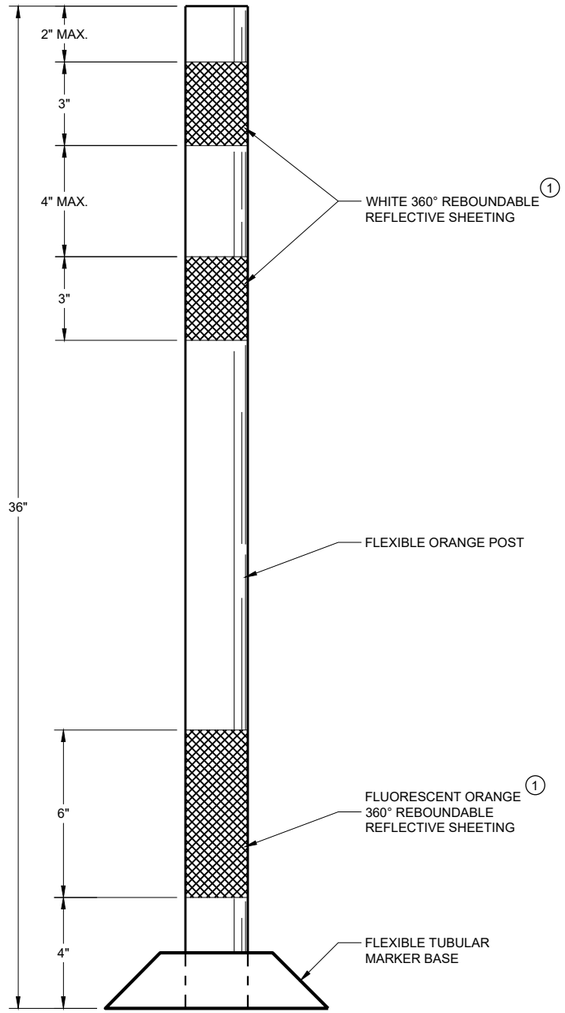
SDD 15C08-24b



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

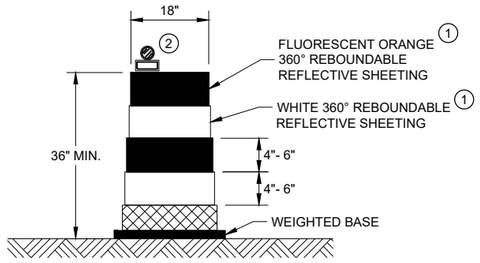
APPROVED
November 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C11 - 10a

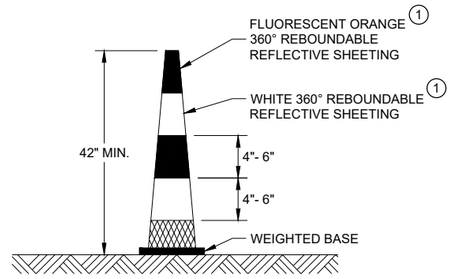
GENERAL NOTES

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

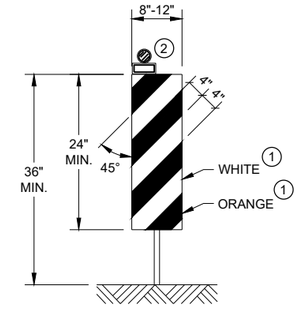
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

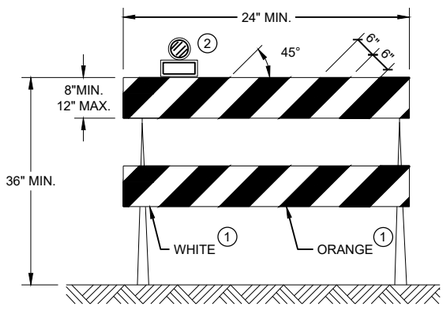
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



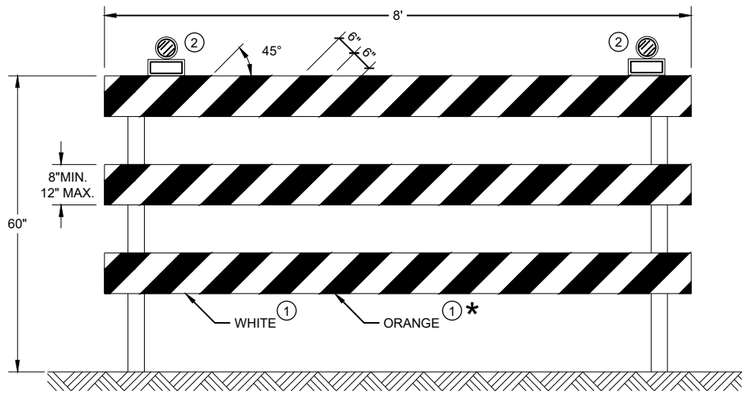
VERTICAL PANEL

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

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SDD 15C11 - 10b

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SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

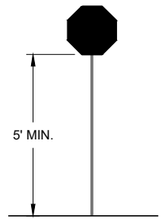
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



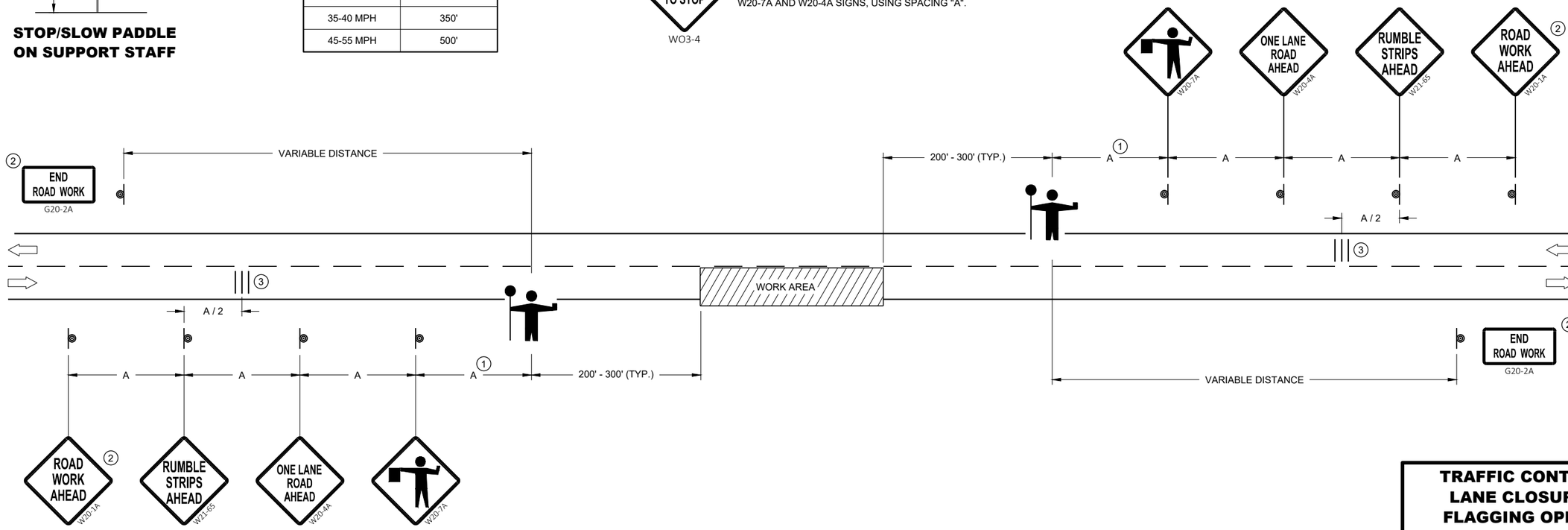
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C12 - 09a

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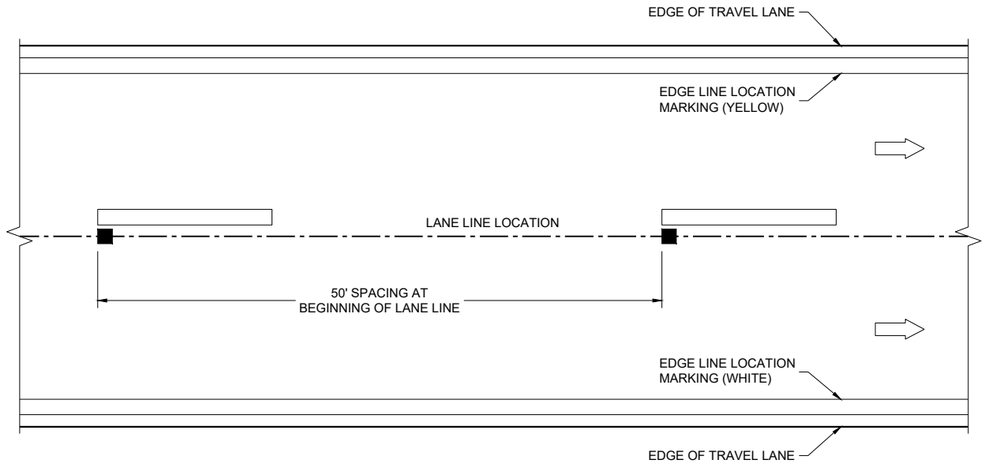
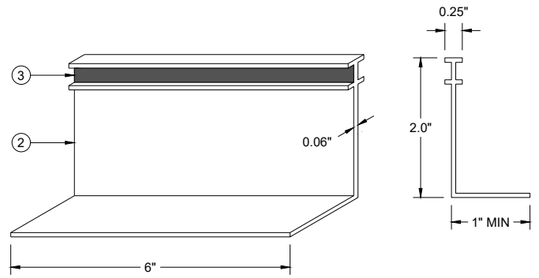
SDD 15C12 - 09a



LONGITUDINAL PLACEMENT 6 - INCH LANE LINE



ISOMETRIC VIEW **SIDE VIEW**

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

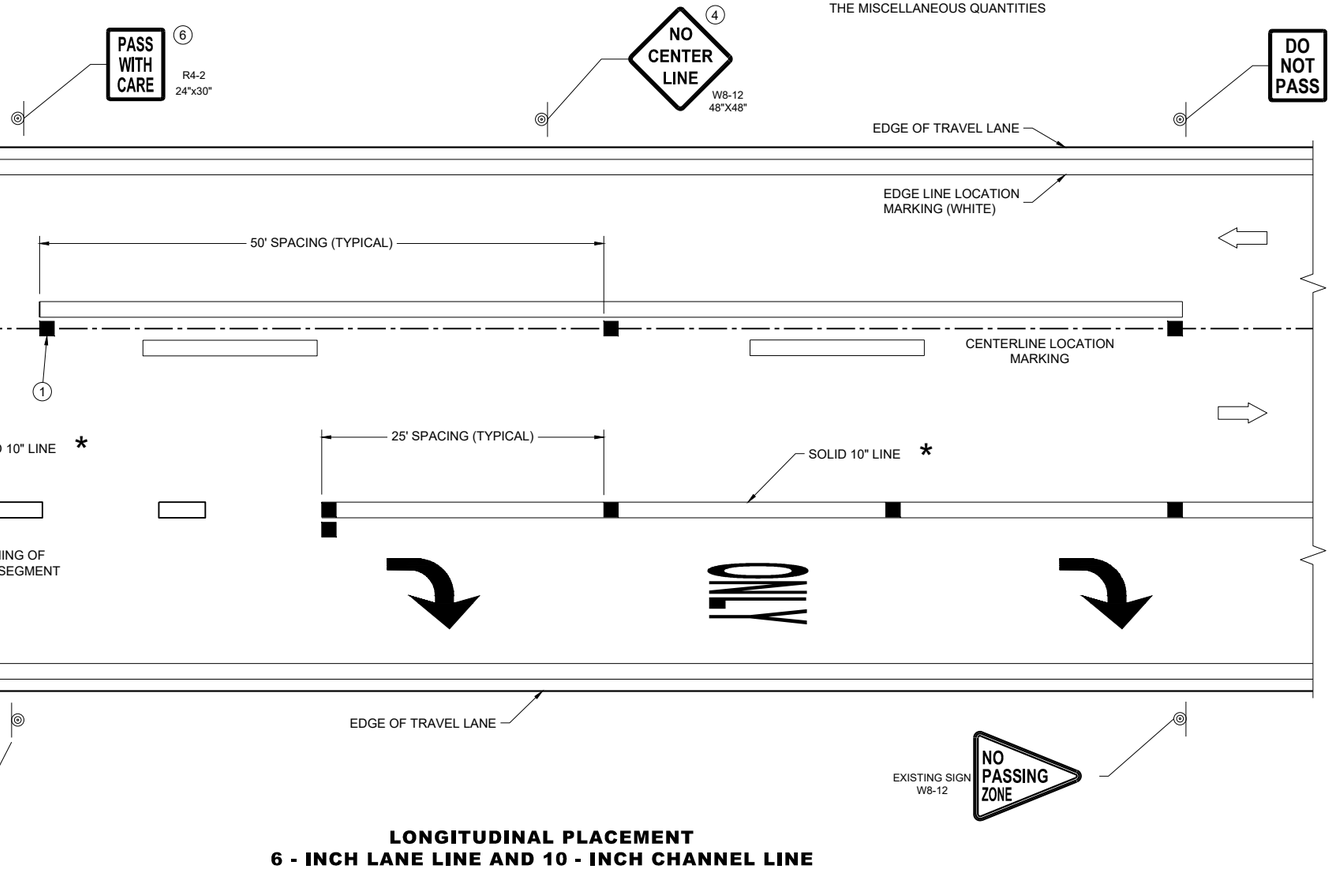
SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS, "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LONGITUDINAL PLACEMENT
6 - INCH LANE LINE AND 10 - INCH CHANNEL LINE

1. FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
2. MARKERS SHALL BE OF POLYURETHANE MATERIAL.
3. MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 6-INCH WIDTH X 0.25 INCH HEIGHT.
4. "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
5. "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
6. "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC.

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6
SDD 15C34-06

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

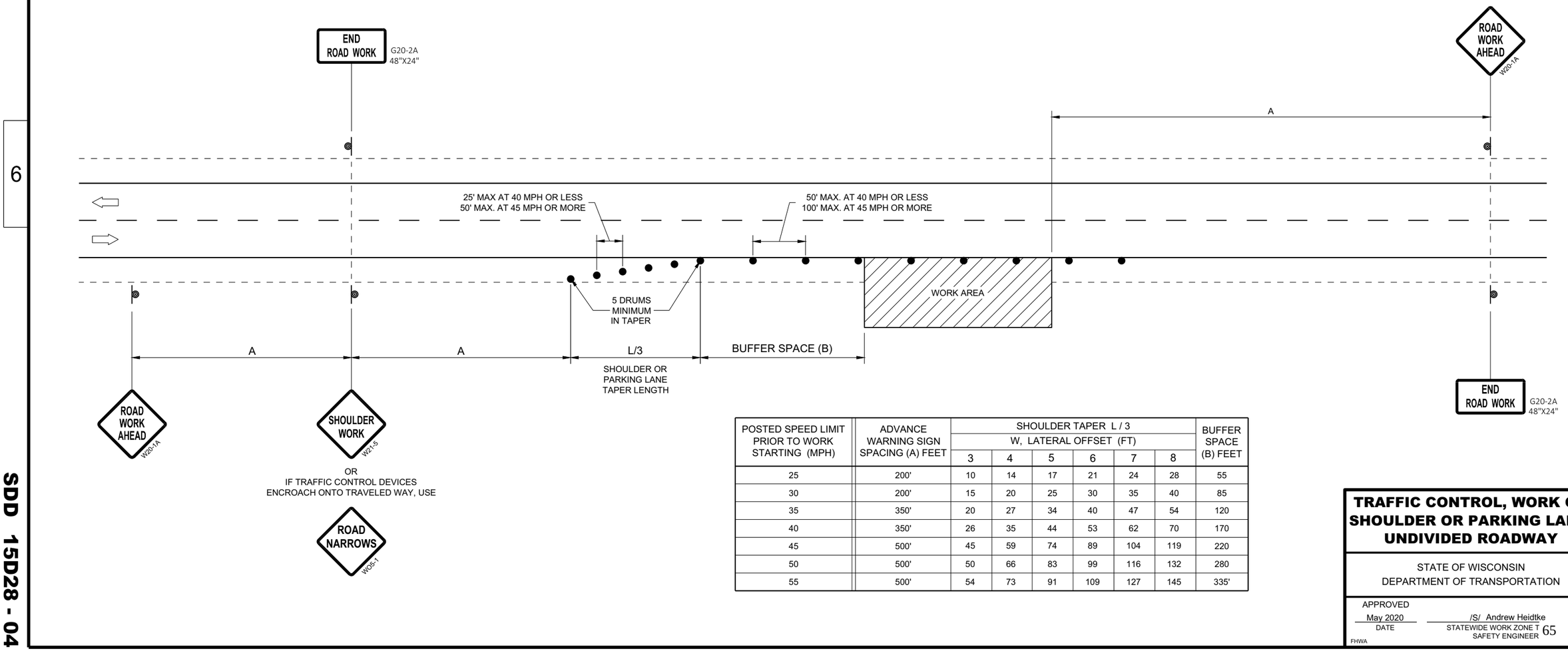
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

(1) IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.

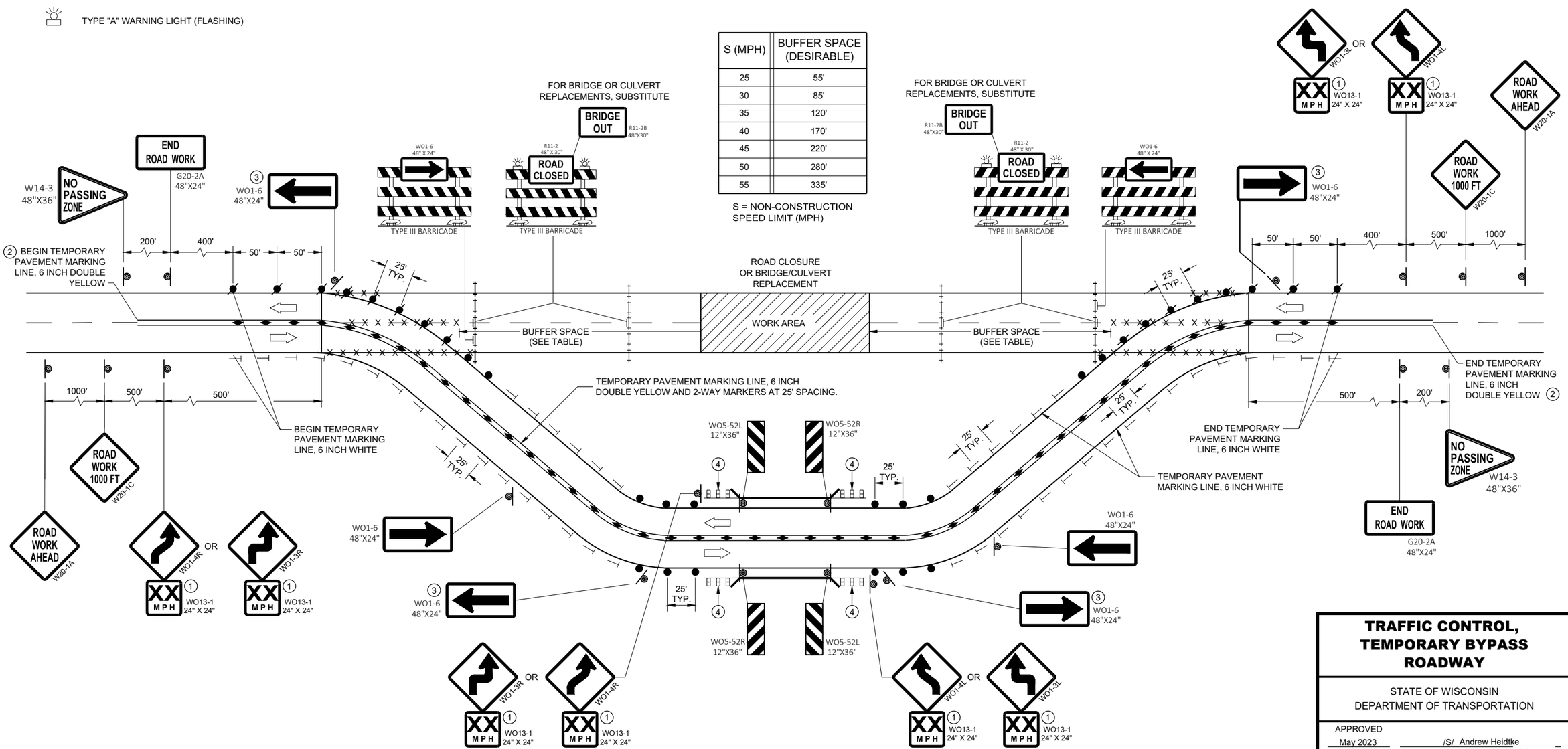
(2) WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(3) OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

(4) TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)



TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

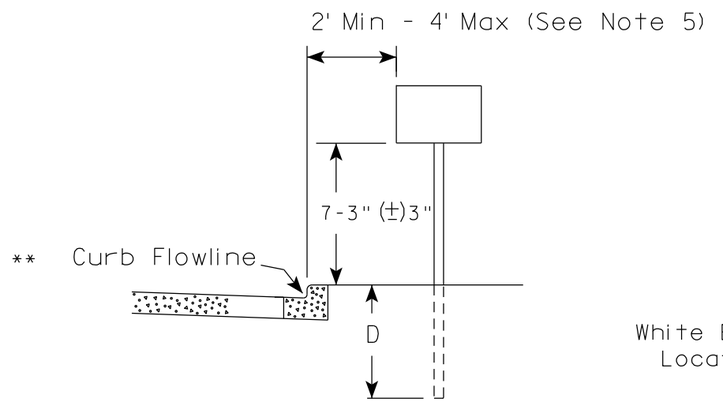
APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

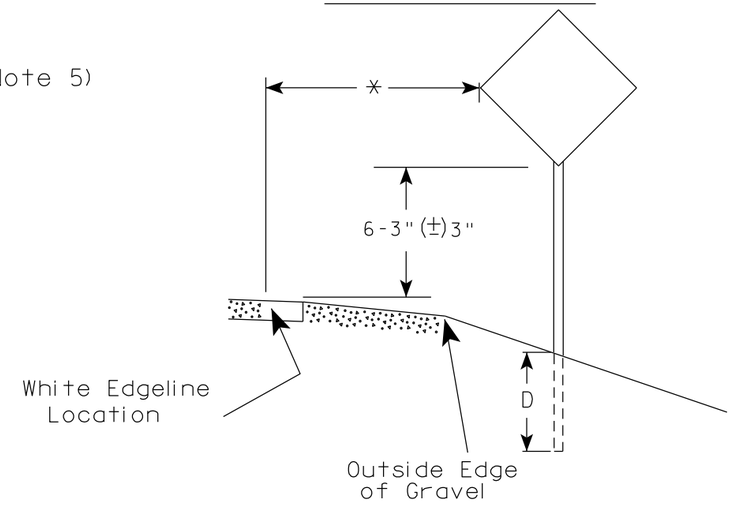
FHWA

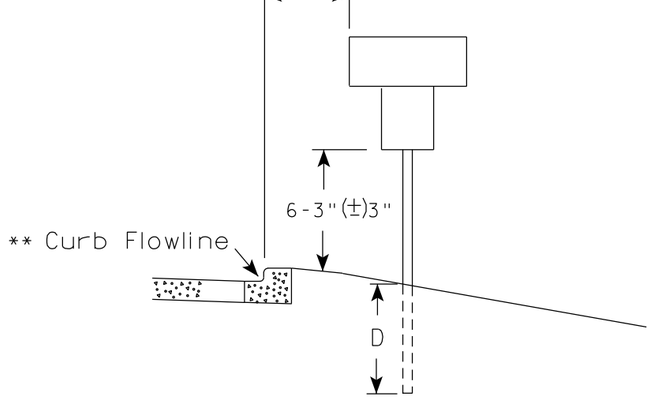
6
SDD 15D31-05

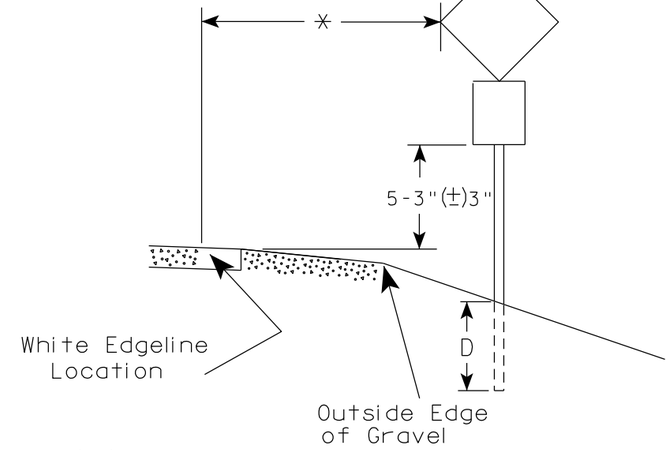
URBAN AREA



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.

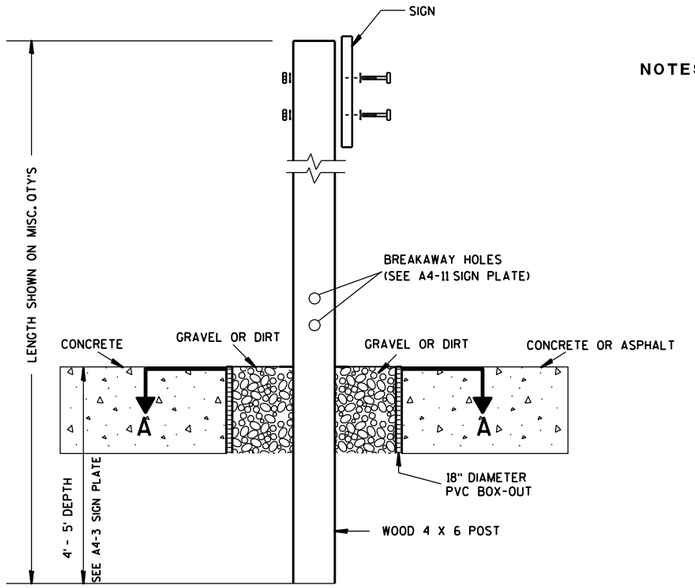
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

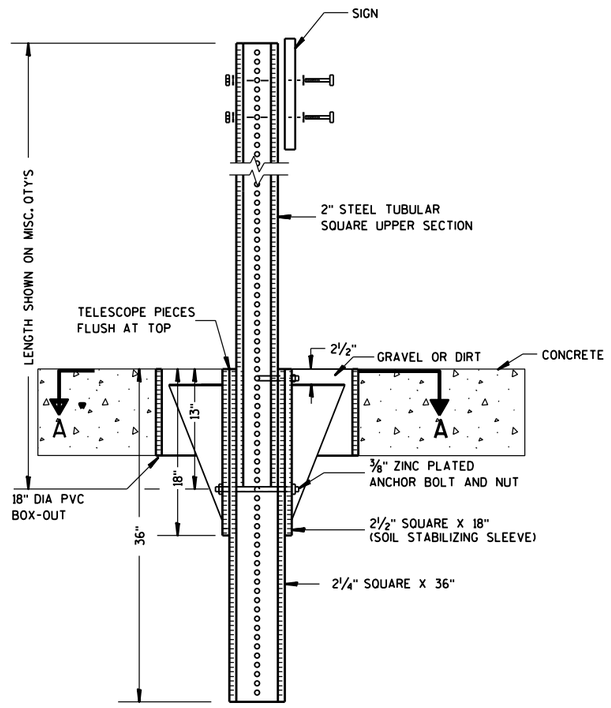
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 67	E



ELEVATION VIEW

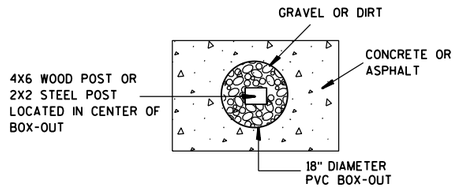
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

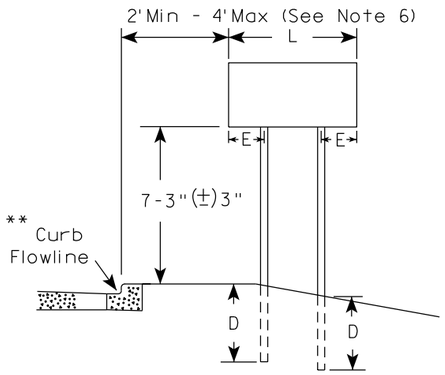
APPROVED Matthew R Rauch
for State Traffic Engineer

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

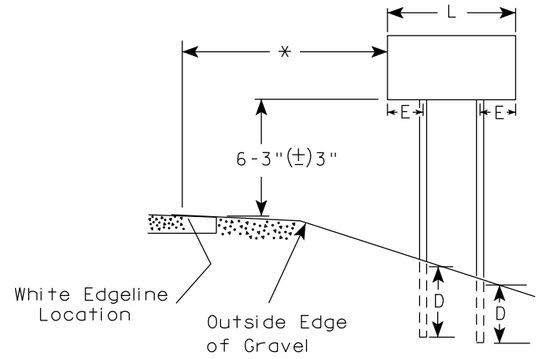
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

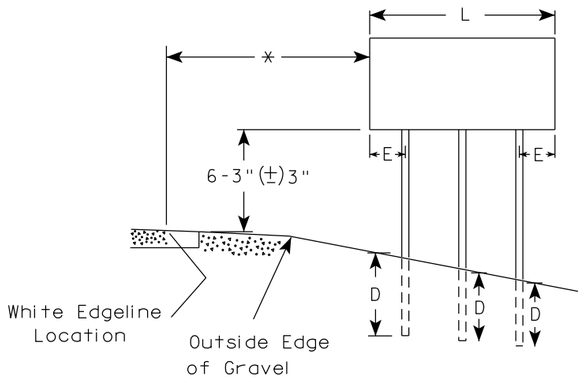
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

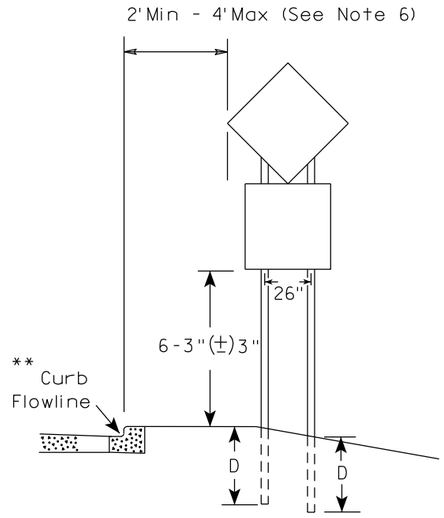
URBAN AREA



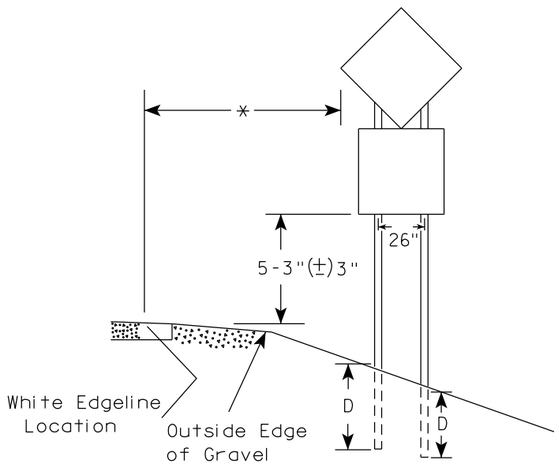
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

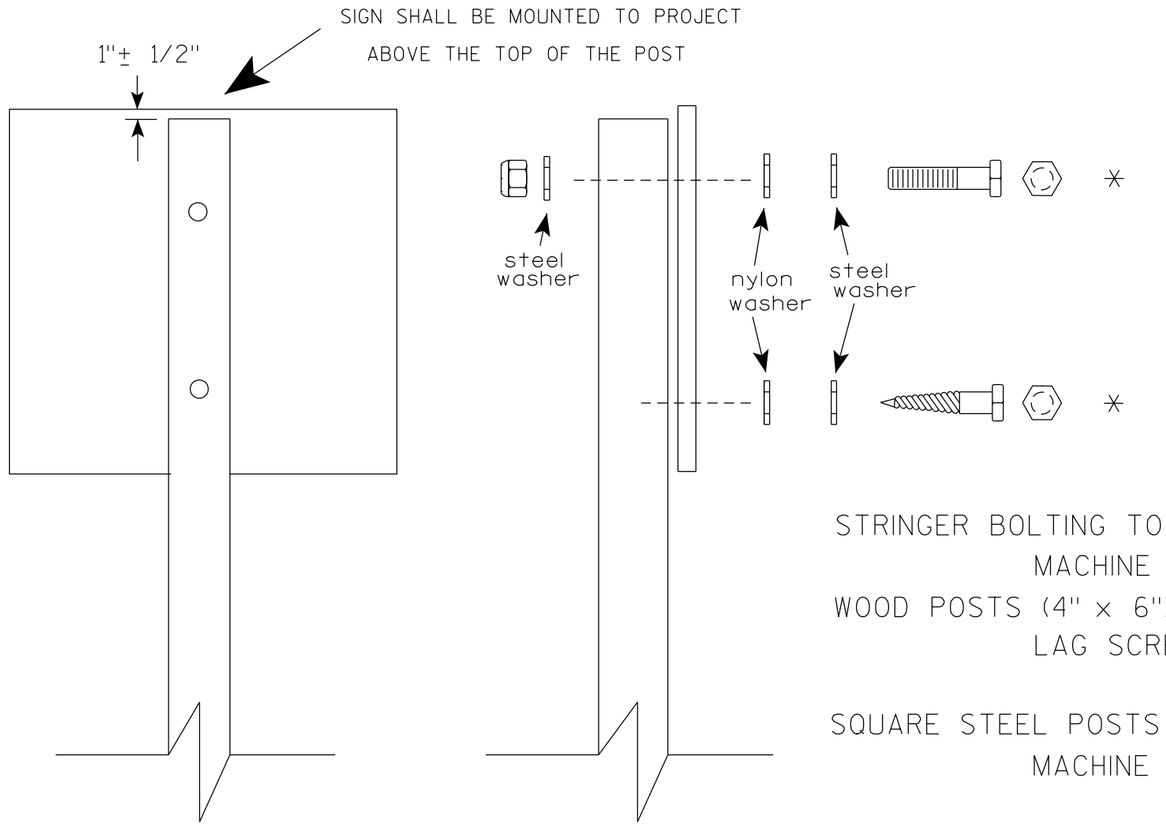
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 69	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

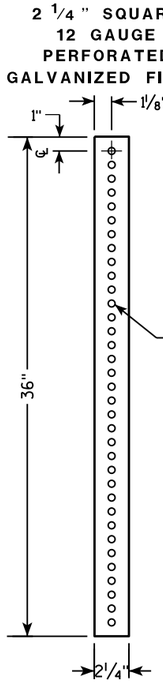
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

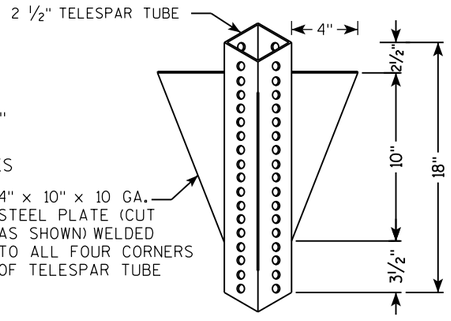
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

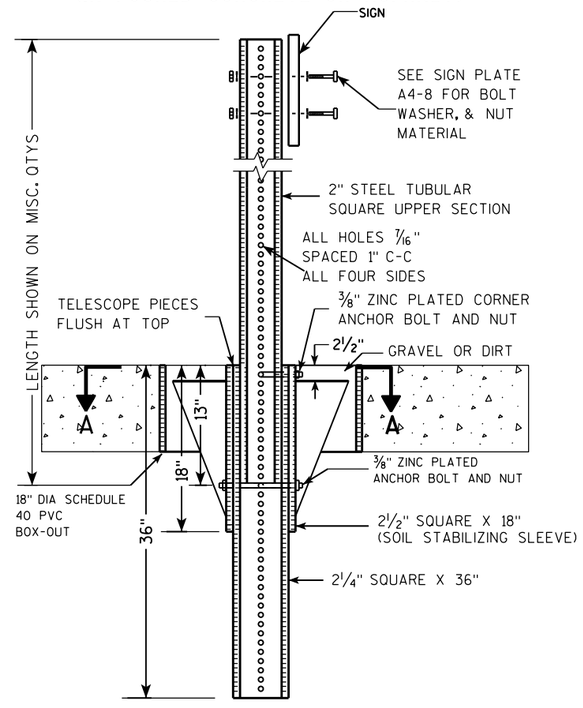
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



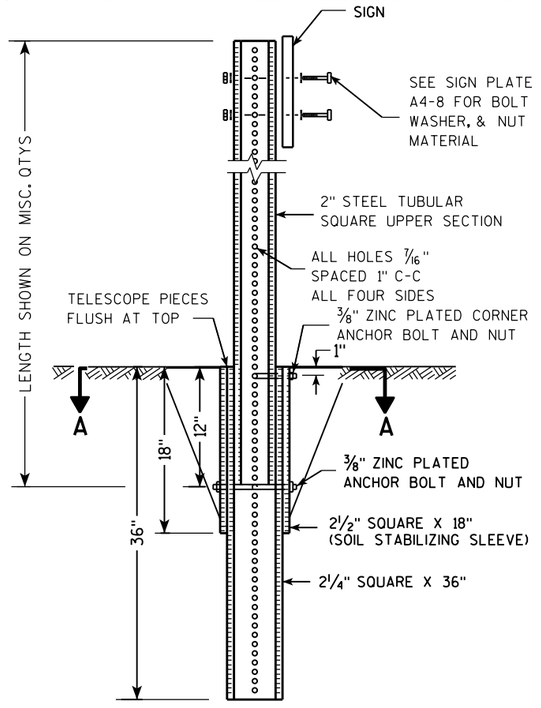
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

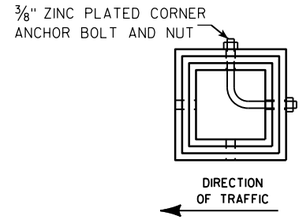


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

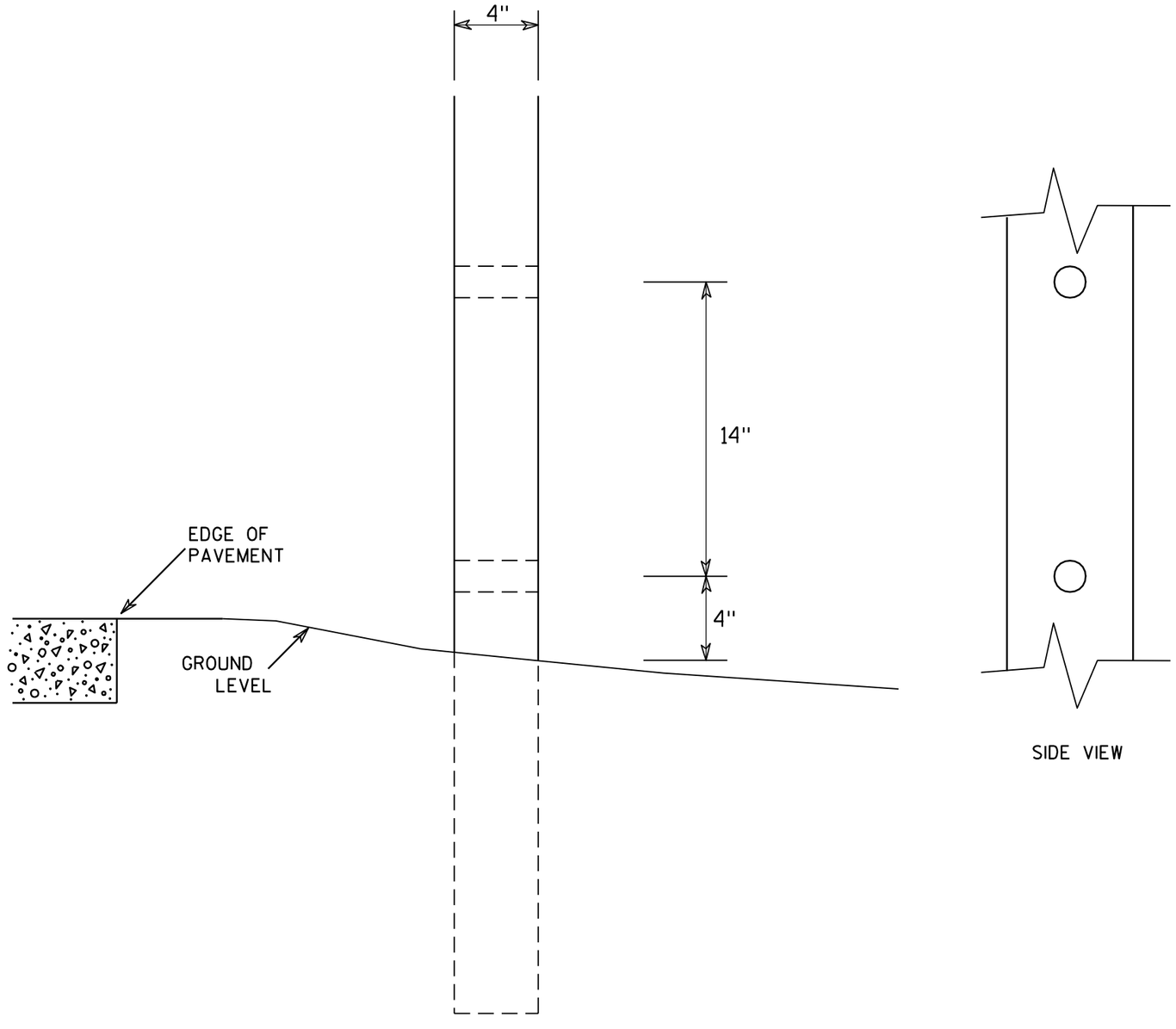
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 71 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

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4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

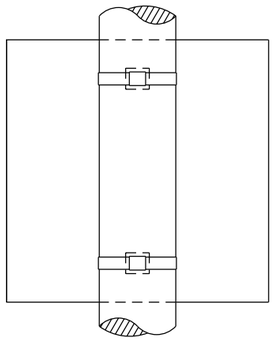
APPROVED Chester J Spang
for State Traffic Engineer

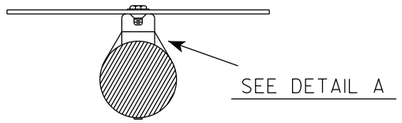
DATE 3/27/97 PLATE NO. A4-11.2

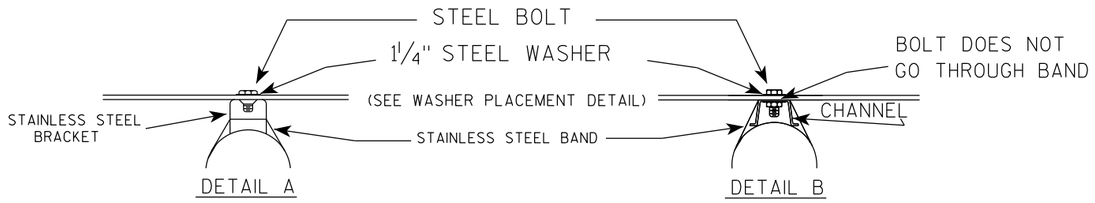
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 72	E

BANDING

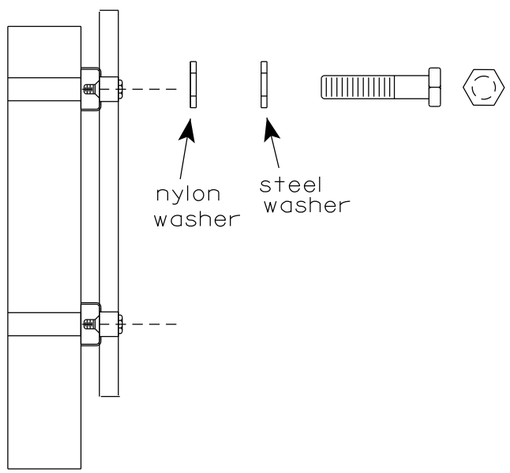
SINGLE SIGN







WASHER PLACEMENT

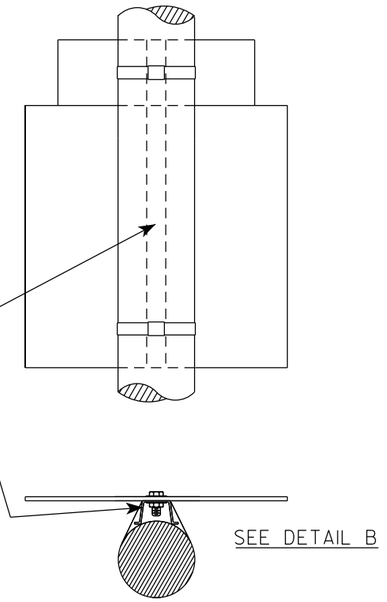


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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

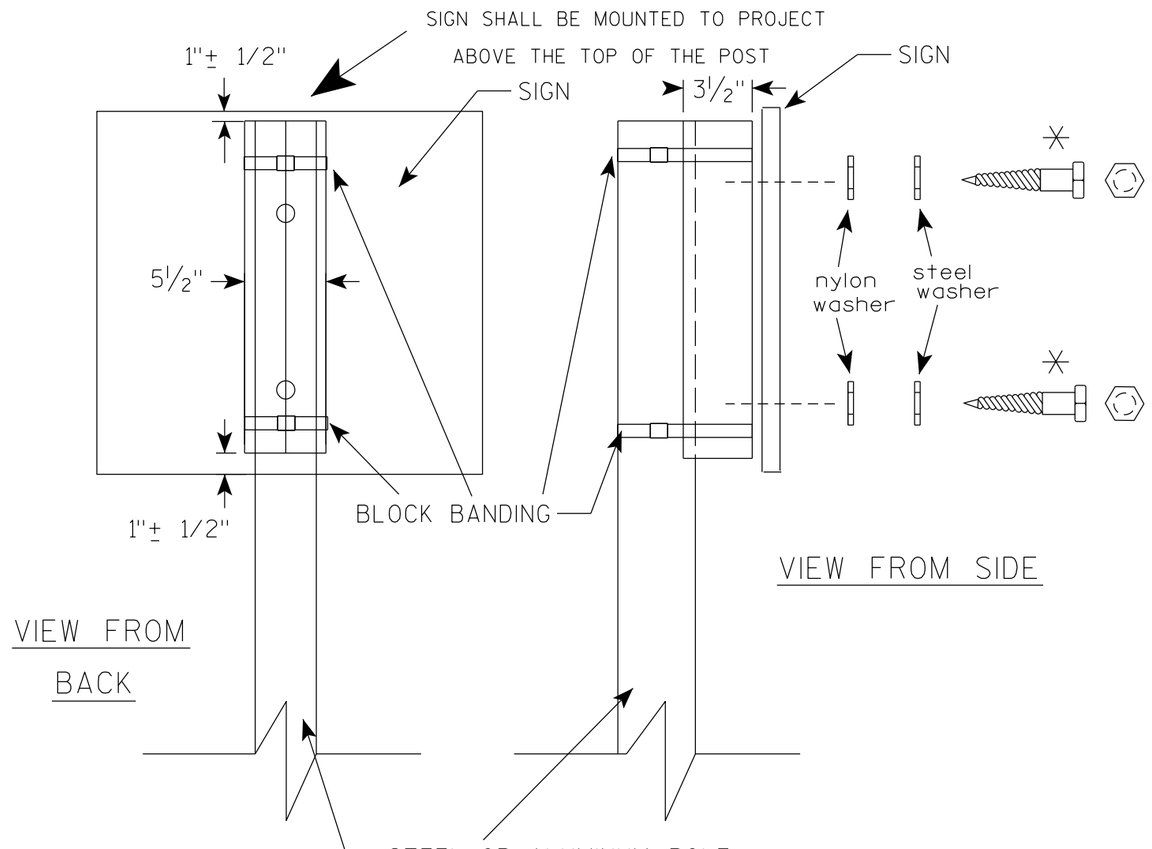
DATE 6/10/19 PLATE NO. A5-9.4

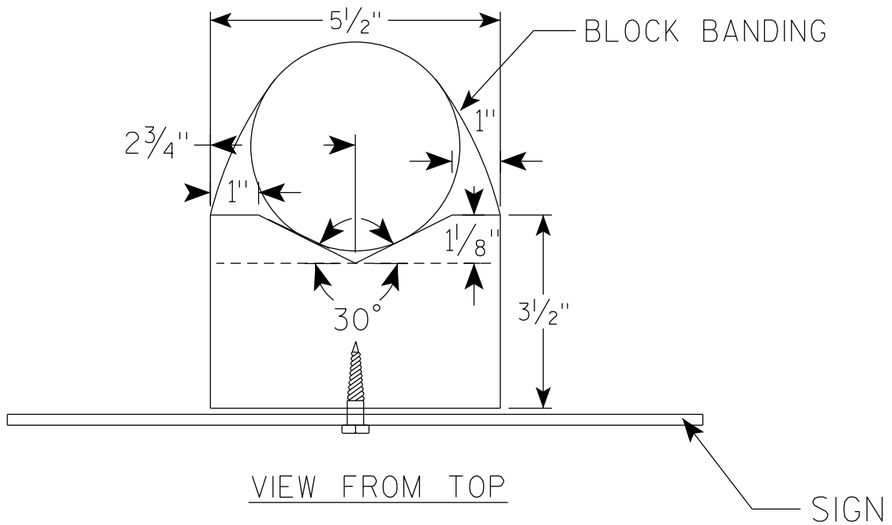
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 73	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

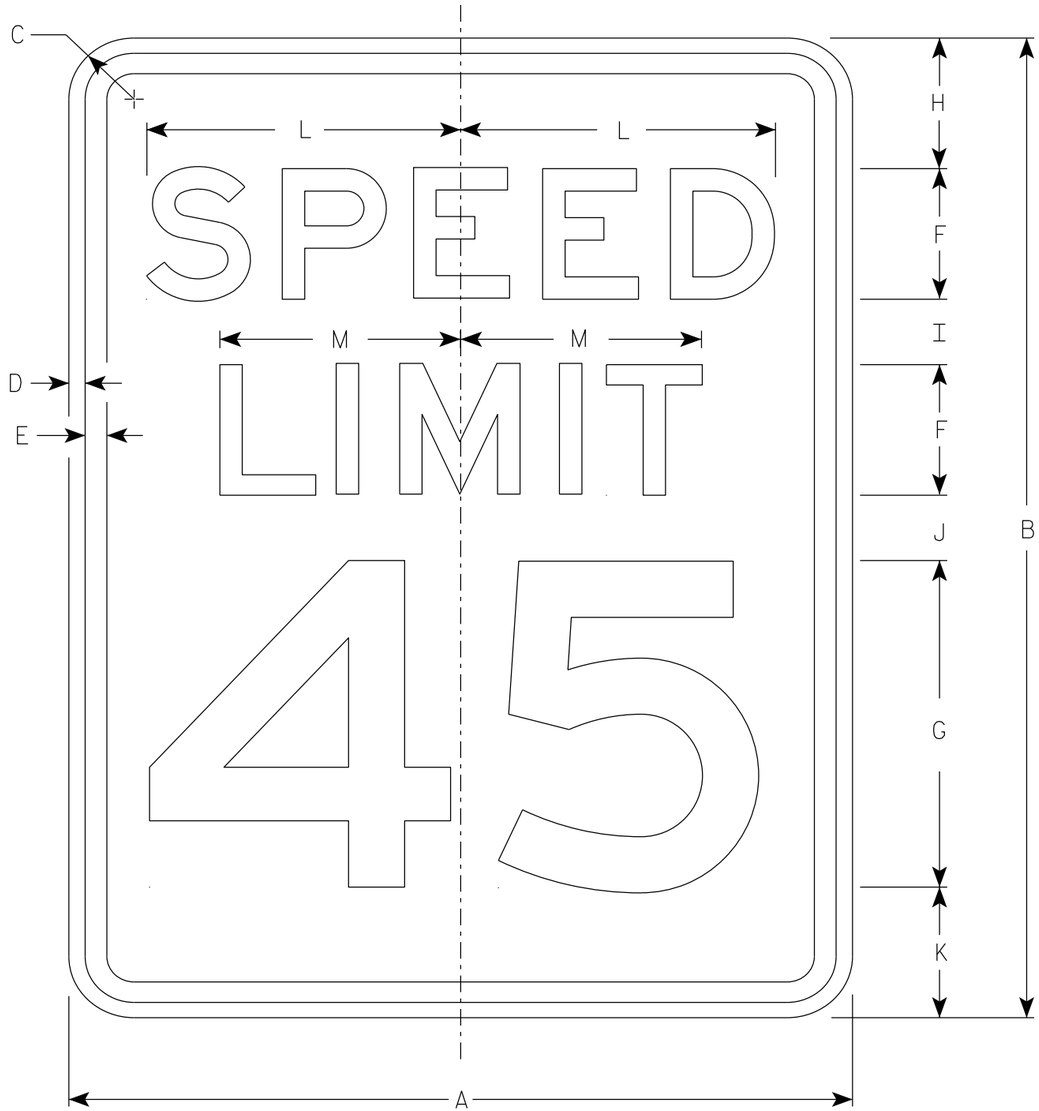
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 74 E



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

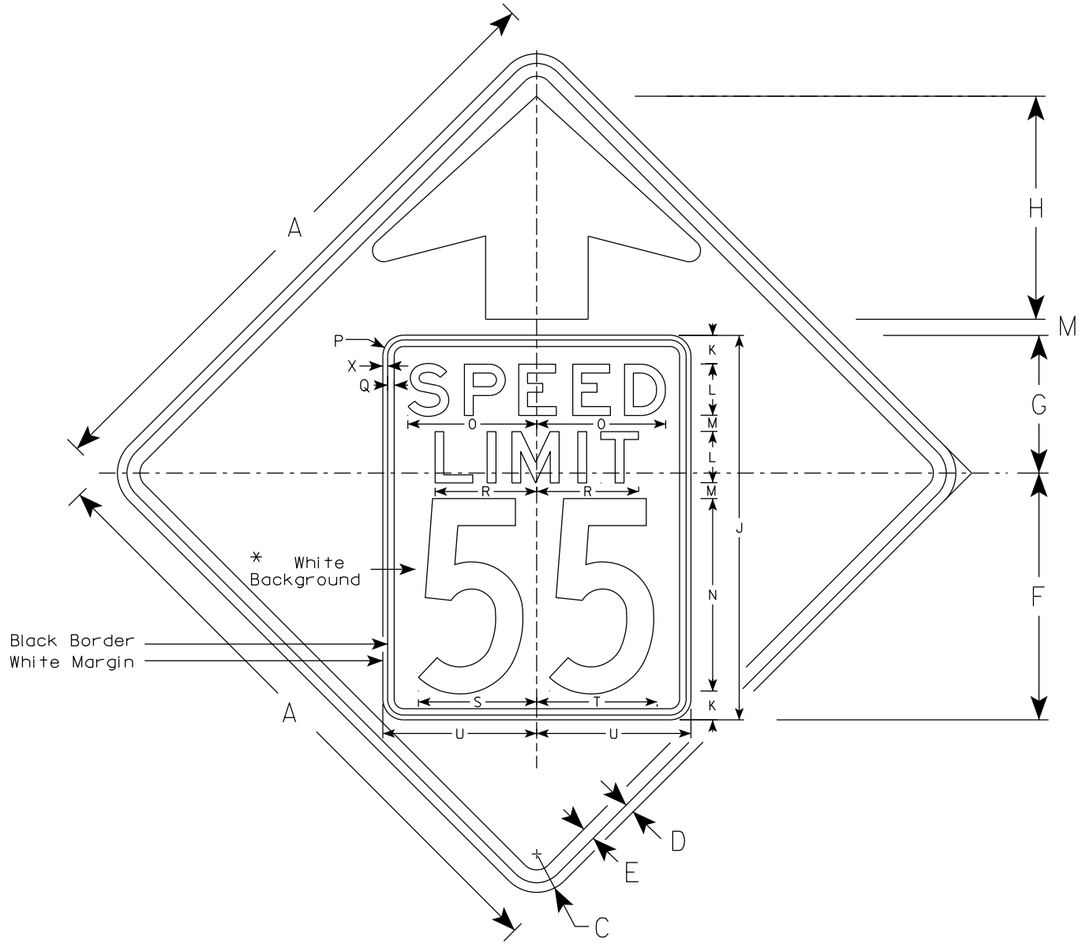
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 75 | E

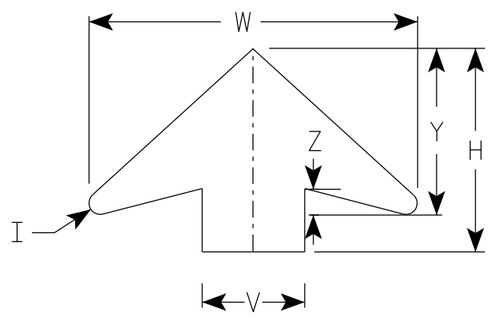


W03-5

NOTES

1. Sign is Type II - Type F Reflective
2. Color: *
   Background - ORANGE*
   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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		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
2S	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
2M	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
3	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
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
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W03-5.2

PROJECT NO:

SHEET NO: 76 E

STATE PROJECT NUMBER

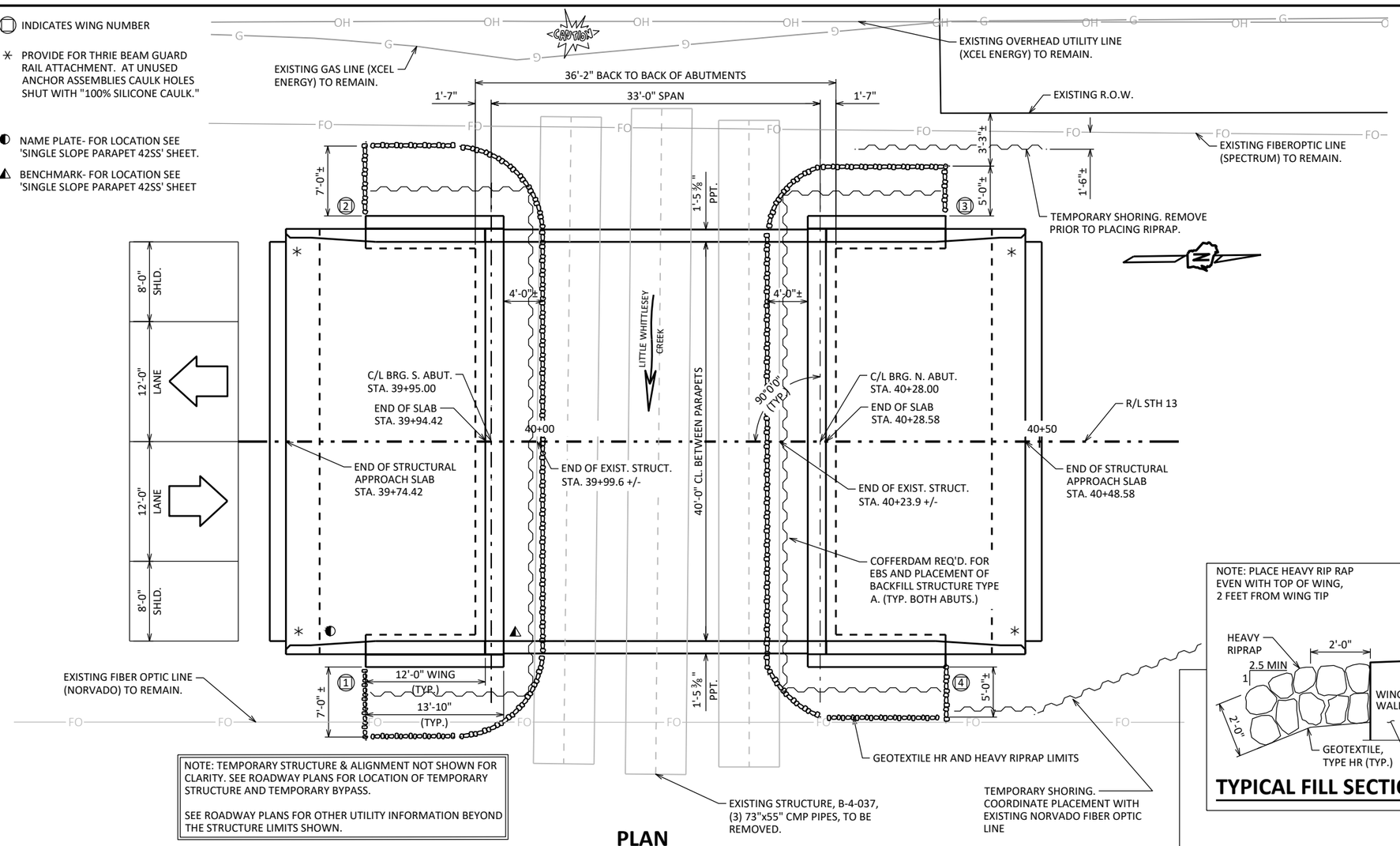
8160-00-73

INDICATES WING NUMBER

PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT. AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK."

NAME PLATE- FOR LOCATION SEE 'SINGLE SLOPE PARAPET 42SS' SHEET.

BENCHMARK- FOR LOCATION SEE 'SINGLE SLOPE PARAPET 42SS' SHEET

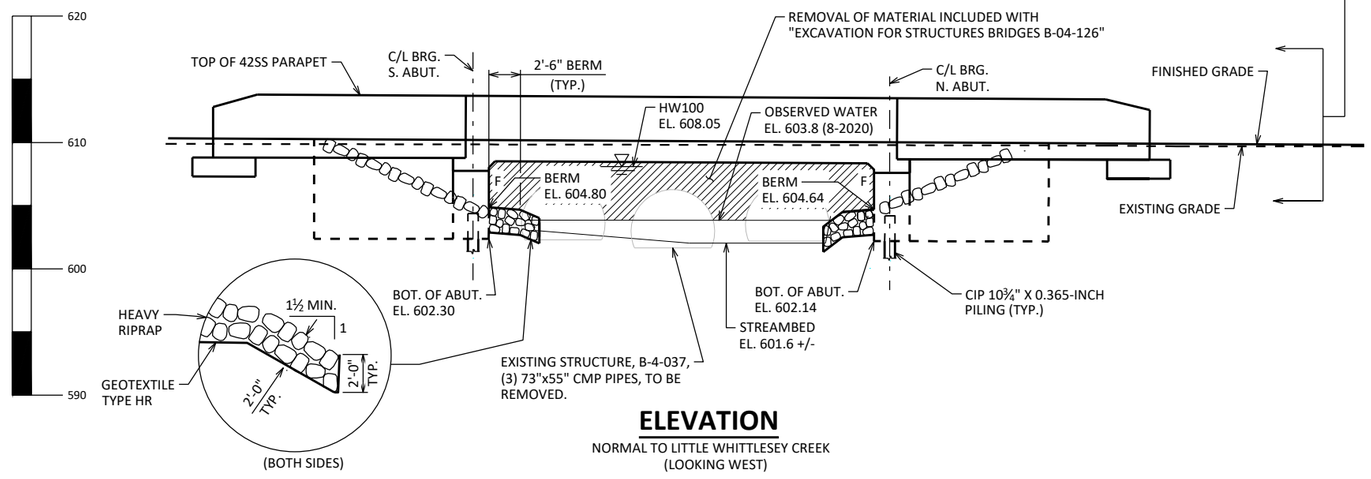


NOTE: TEMPORARY STRUCTURE & ALIGNMENT NOT SHOWN FOR CLARITY. SEE ROADWAY PLANS FOR LOCATION OF TEMPORARY STRUCTURE AND TEMPORARY BYPASS.

SEE ROADWAY PLANS FOR OTHER UTILITY INFORMATION BEYOND THE STRUCTURE LIMITS SHOWN.

PLAN

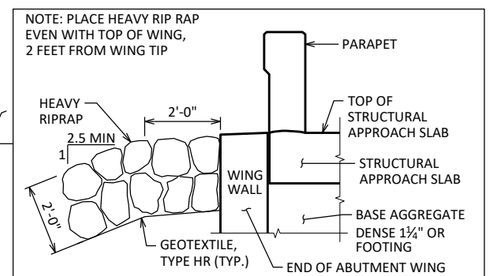
SINGLE SPAN FLAT REINFORCED CONCRETE SLAB



ELEVATION

NORMAL TO LITTLE WHITTLESEY CREEK (LOOKING WEST)

NOTE: PLACE HEAVY RIP RAP EVEN WITH TOP OF WING, 2 FEET FROM WING TIP



TYPICAL FILL SECTION AT WING TIPS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.11
OPERATING RATING: RF = 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
- SUPERSTRUCTURE & STRUCTURAL APPROACH SLAB — f'_c = 4,000 PSI
- ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
- GRADE 60 — f_y = 60,000 PSI
- STAINLESS, GRADE 60 — f_y = 60,000 PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 10¾" X 0.365-INCH CIP PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 150 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
- ESTIMATED 120-'0" LONG.
- ESTIMATED 120-'0" LONG.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

TRAFFIC DATA

STH 13:
ADT = 8,900 (2046)
R.D.S. = 60 MPH

HYDRAULIC DATA

100-YEAR FREQUENCY:
Q_{100}= 545 C.F.S.
V_{100}= 7.9 F.P.S.
HW_{100}= EL. 608.05
WATERWAY AREA = 69 SQ. FT.
DRAINAGE AREA = 1.4 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:
Q_2= 115 C.F.S.
V_2= 5.5 F.P.S.
HW_2= EL. 605.57

5-YEAR FREQUENCY (TEMP. STRUCT.):
Q_5= 200 C.F.S.
HW_5= EL. 606.71
MIN. AREA = 36 FT^2

LIST OF DRAWINGS:

STRUCTURE DESIGN CONTACTS:
DAN MONROE 608-266-8490
KYLE BUSCH 608-267-0465

NO.	DATE	REVISION	BY

BUREAU OF STRUCTURES

ACCEPTED KHB 7/28/25
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-04-126

STH 13 OVER LITTLE WHITTLESEY CREEK

COUNTY	TOWN
BAYFIELD	BARKSDALE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGNED CK'D	DRAWN BY	PLANS CK'D
DLM	VS	DLM	ARC

GENERAL PLAN

SHEET 1 OF 12
77

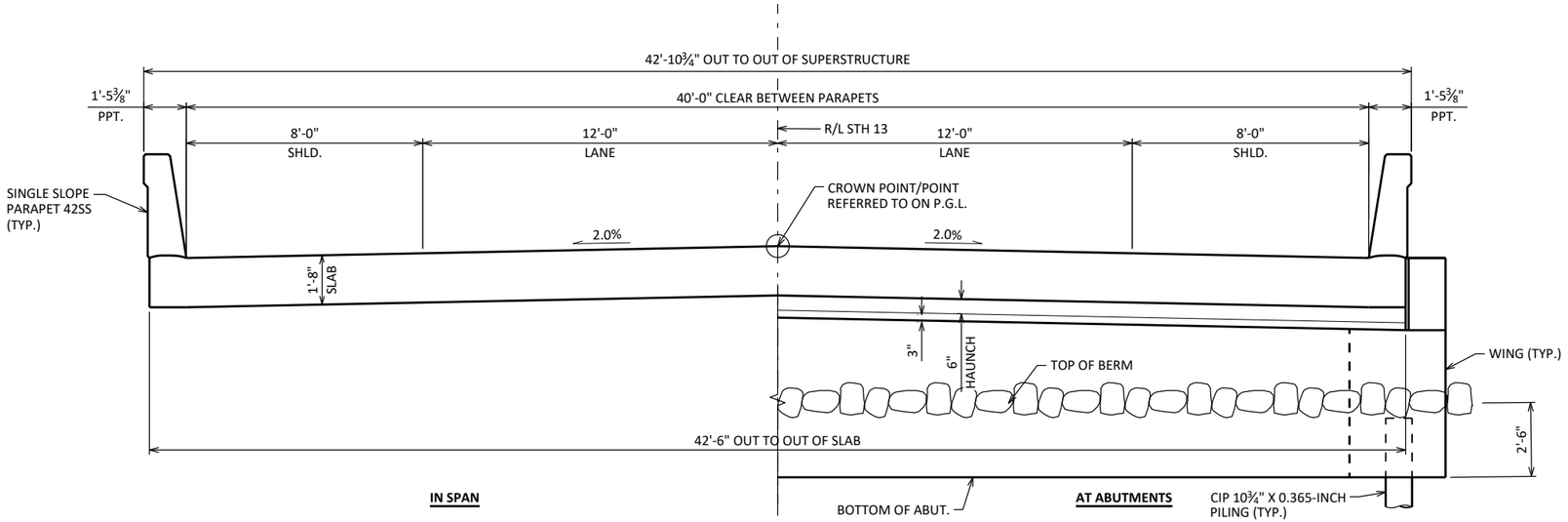
SCALE = 10

I.D. 8160-00-03A

DATE: FEB. 2024

8

8



CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	S. STRUCT. APP. SLAB	S. ABUT.	N. ABUT.	N. STRUCT. APP. SLAB	TOTALS
203.0220	REMOVING STRUCTURE B-04-037	EACH	--	--	--	--	--	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-04-126	EACH	--	--	--	--	--	1
206.5001	COFFERDAMS B-04-126	EACH	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	--	--	592	592	--	1,184
305.0120	BASE AGGREGATE DENSE 1 ¼ -INCH	TON	--	134	--	--	134	268
502.0100	CONCRETE MASONRY BRIDGES	CY	107.3	59.3	40.8	40.7	59.3	308
502.3200	PROTECTIVE SURFACE TREATMENT	SY	174	89	--	--	89	352
502.3210	PIGMENTED SURFACE SEALER	SY	34	19	--	--	19	72
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	--	2,590	2,590	--	5,180
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	18,970	10,040	1,520	1,520	10,040	42,090
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	390	--	--	--	--	390
511.1200	TEMPORARY SHORING B-04-126	SF	--	--	--	225	--	225
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	12	12	--	24
526.0101	TEMPORARY STRUCTURE STA. 40+25	EACH	--	--	--	--	--	1
550.2106	PILING CIP CONCRETE 10 ¾ X 0.365-INCH	LF	--	--	840	840	--	1,680
606.0300	RIPRAP HEAVY	CY	--	--	36	31	--	67
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	--	--	--	--	4
645.0120	GEOTEXTILE TYPE HR	SY	--	--	44	37	--	81
	NON-BID ITEMS							
	FILLER	SIZE						½", ¾", 1½ "

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-4-126" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 1/4-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK AND APPROACH SLAB SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON APPROACH SLABS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE "HR" TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE, UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

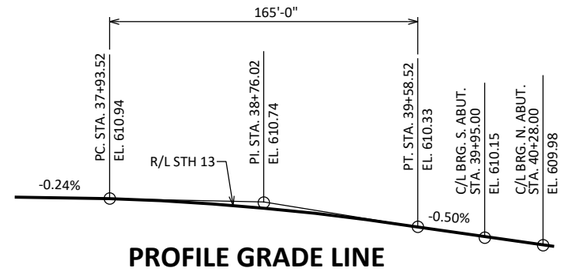
AT ABUTMENTS CONCRETE POURED UNDER WATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH SECTION 502.3.5.3 OF THE STANDARD SPECIFICATIONS.

EXCAVATION BELOW SUBGRADE (EBS) WILL BE REQUIRED APPROXIMATELY 6 FEET BELOW THE BOTTOM OF ABUTMENT TO REMOVE THE PEAT LAYER. THE SOILS SHALL BE EVALUATED BY THE REGIONAL SOILS ENGINEER DURING EXCAVATION TO DETERMINE THE DEPTH AND EXTENT OF EBS. EBS IS INCLUDED IN 'EXCAVATION FOR STRUCTURES' BID ITEM.

ANY EBS REQUIRED TO SUPPORT STABILITY DURING CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EBS AREAS SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

DUE TO ARTESIAN CONDITIONS ENCOUNTERED DURING SOIL BORINGS, THE BOTTOM END PLATE SHALL BE THE SAME DIAMETER AS THE CIP STEEL PILE SHELL, AS SHOWN ON THE PLANS.



PROFILE GRADE LINE

STATE PROJECT NUMBER

8160-00-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

CROSS SECTION & QUANTITIES

SHEET 2
78

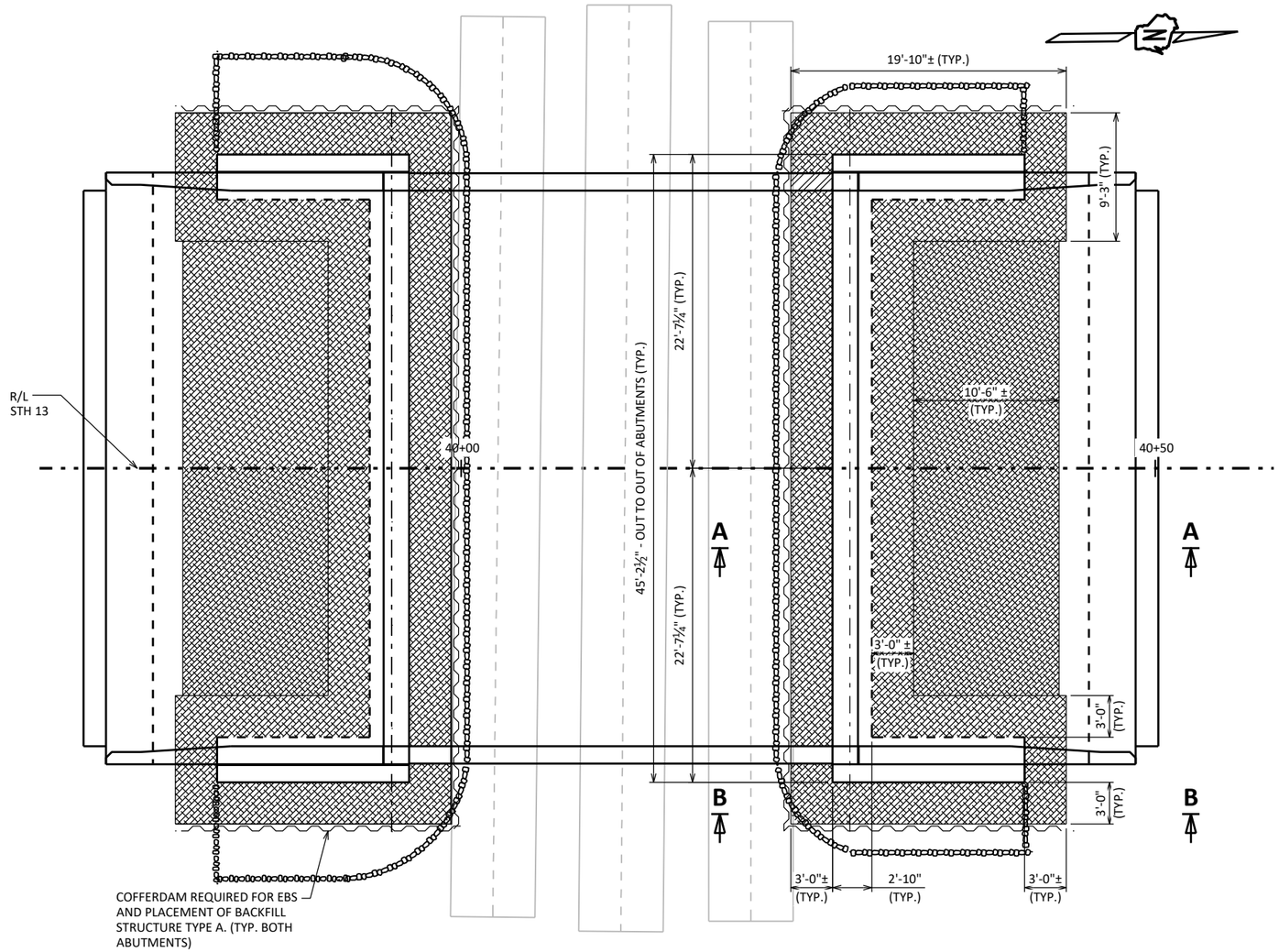
SCALE = 5

8

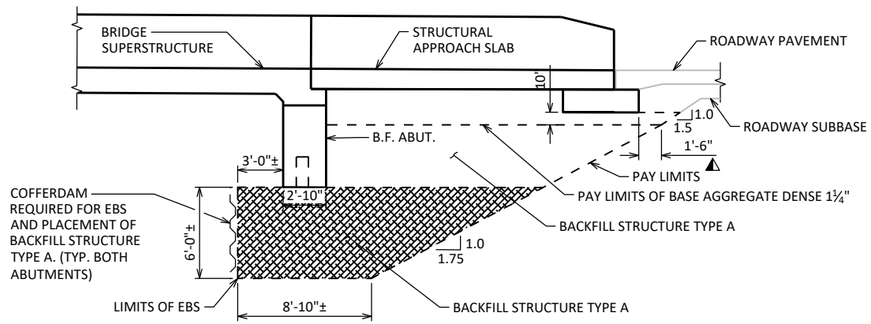
8

STATE PROJECT NUMBER

8160-00-73



EXCAVATION PLAN DETAIL AT ABUTMENT AND WINGS



SECTION A-A THRU ABUTMENT

NORTH ABUTMENT SHOWN. SOUTH ABUTMENT SIMILAR.

SECTION B-B AT WINGS

NORTH ABUTMENT SHOWN. SOUTH ABUTMENT SIMILAR.

NOTES:

EXCAVATION BELOW SUBGRADE (EBS) WILL BE REQUIRED APPROXIMATELY 6 FEET BELOW THE BOTTOM OF ABUTMENT TO REMOVE THE PEAT LAYER. THE SOILS SHALL BE EVALUATED BY THE REGIONAL SOILS ENGINEER DURING EXCAVATION TO DETERMINE THE DEPTH AND EXTENT OF EBS. EBS IS INCLUDED IN 'EXCAVATION FOR STRUCTURES' BID ITEM.

ANY EBS REQUIRED TO SUPPORT STABILITY DURING CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

EBS AREAS SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR AND AS DIRECTED BY THE REGIONAL SOILS ENGINEER.

▨ INDICATES LIMITS OF EXCAVATION BELOW SUBGRADE (EBS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

EXCAVATION AND BACKFILL DETAILS

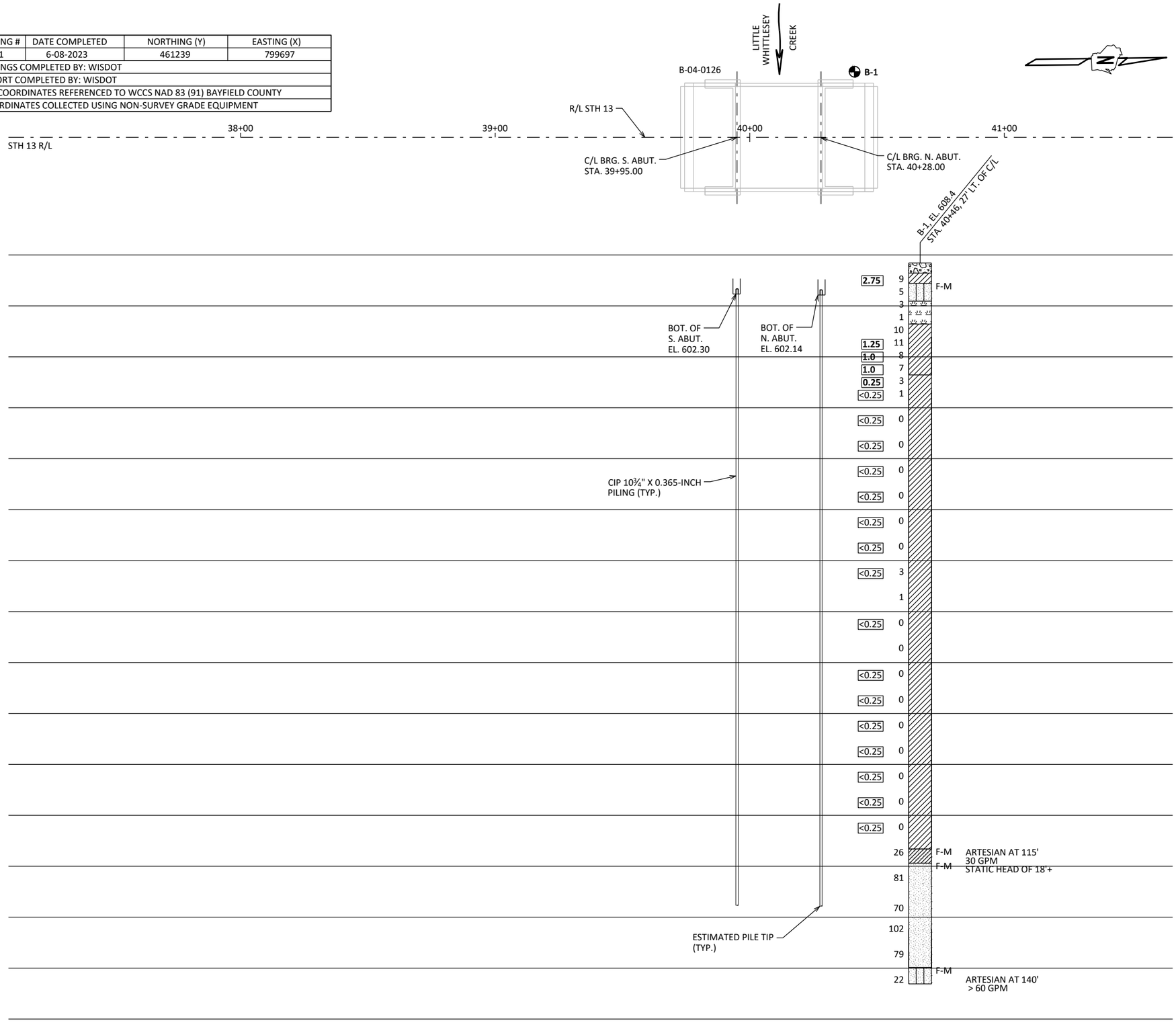
SHEET 3
79

SCALE =

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	6-08-2023	461239	799697
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83 (91) BAYFIELD COUNTY			
COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT			



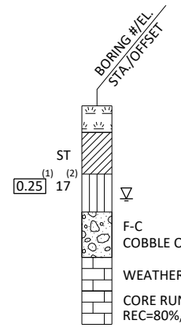
STATE PROJECT NUMBER

8160-00-73

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY JJ/DLM PLANS CK'D ARC

SUBSURFACE EXPLORATION

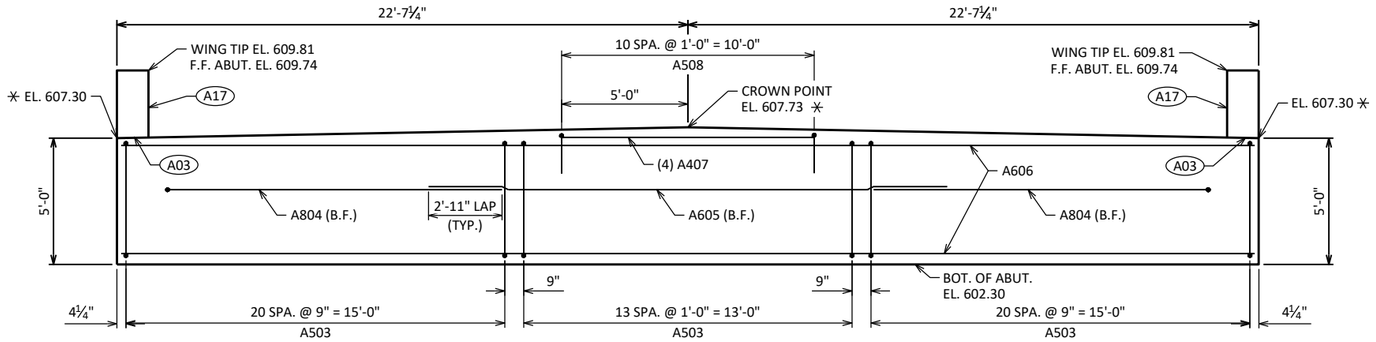
SHEET 4
80

8

8

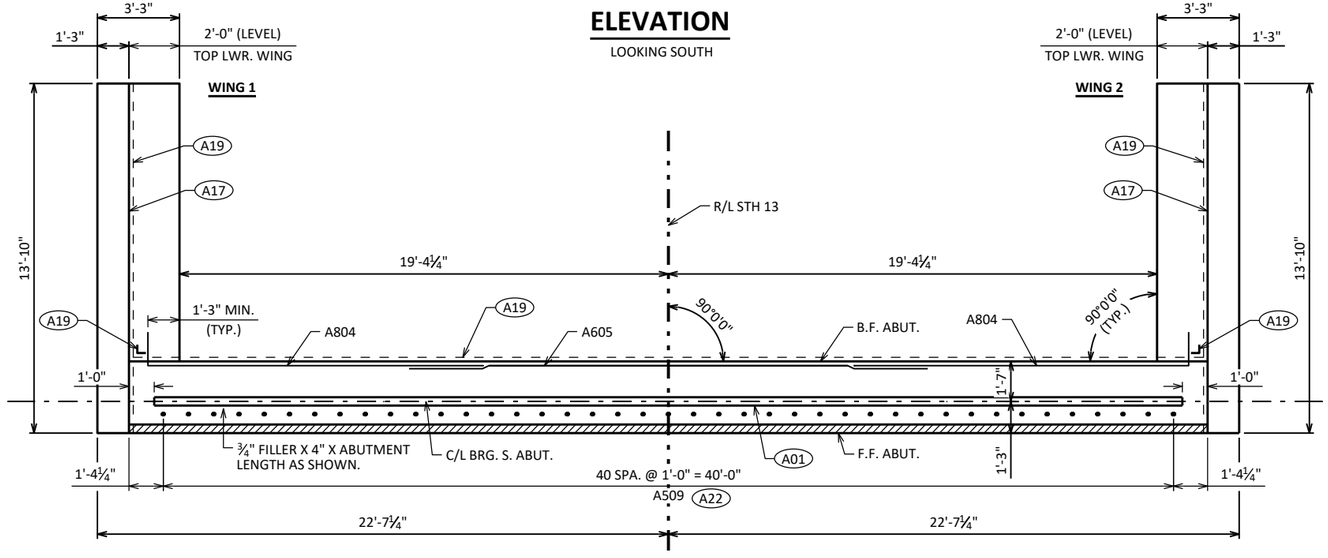
STATE PROJECT NUMBER

8160-00-73

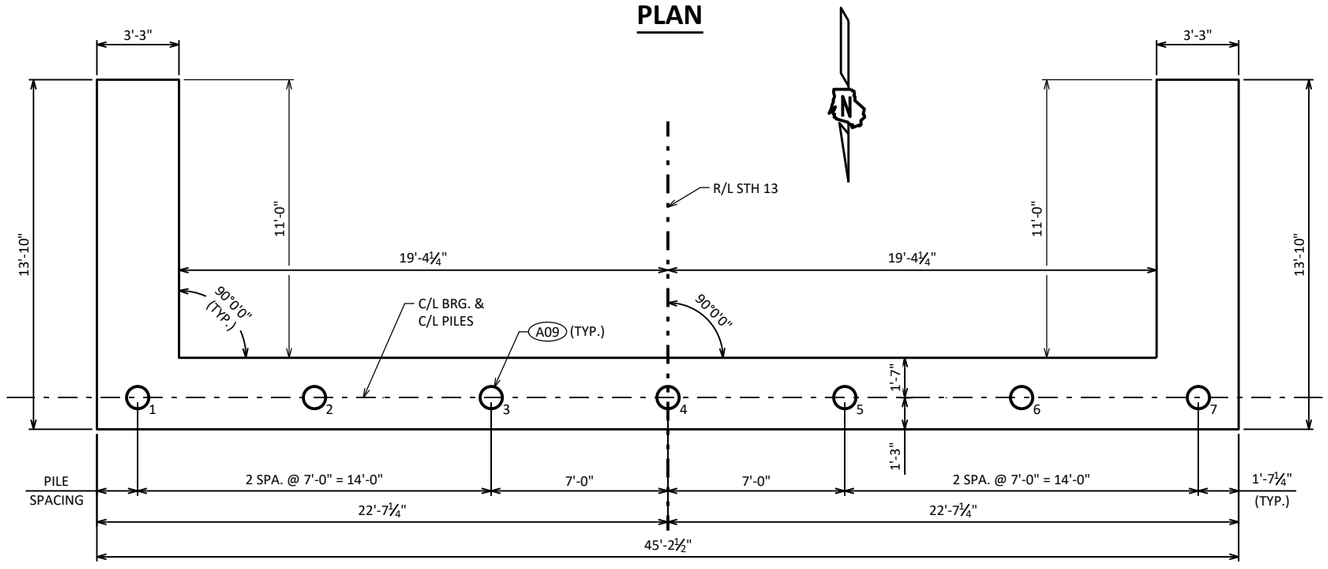


ELEVATION

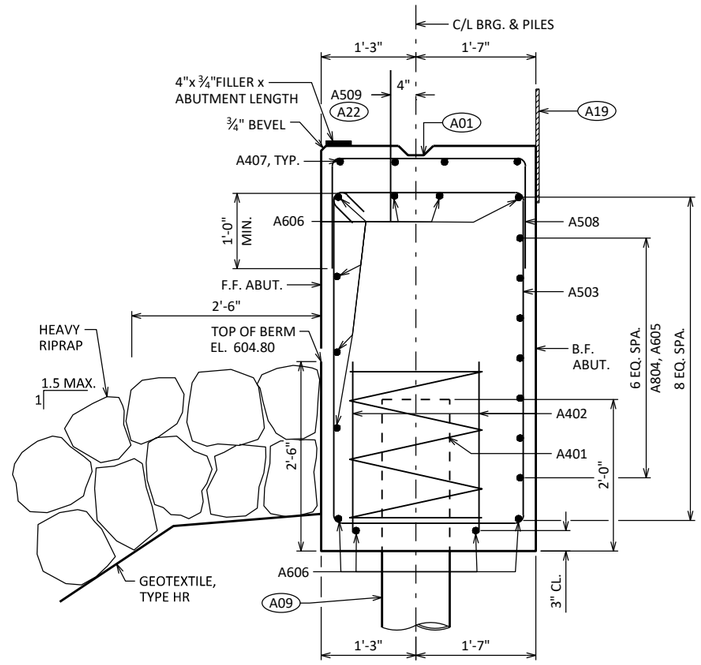
LOOKING SOUTH



PLAN



PILE PLAN



SECTION THRU BODY

✳ ELEVATIONS & DIMENSIONS ARE GIVEN AT THE C/L OF BEARING

(A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

(A09) SUPPORT ABUTMENT ON 10¾" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 120'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A17) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) A509 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

SOUTH ABUTMENT

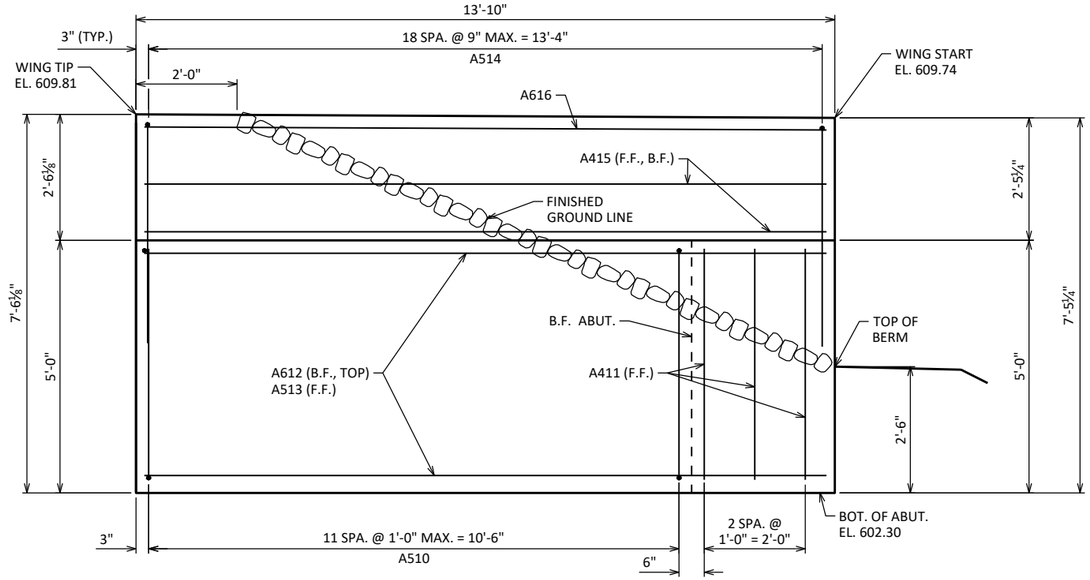
SHEET 5
81

8

8

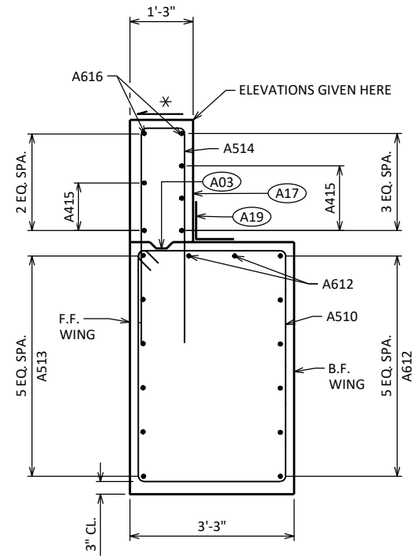
STATE PROJECT NUMBER

8160-00-73



WING 1 & 2 ELEVATION

LOOKING AT FRONT FACE
WING 1 SHOWN, WING 2 SIMILAR



WING 1 & 2 SECTION

LOOKING SOUTH
WING 1 SHOWN, WING 2 SIMILAR

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

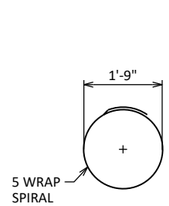
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A401		7	28'-0"	X		PILES - 1 PER BODY PILE
A402		14	2'-3"			PILES - 2 PER BODY PILE
A503		56	14'-8"	X		STIRRUP
A804		14	14'-5"	X		BODY - HORIZ. - B.F. - ENDS
A605		7	20'-7"			BODY - HORIZ. - B.F.
A606		11	44'-10"			BODY - HORIZ.
A407		4	10'-2"			BODY - HORIZ. - TOP
A508		11	5'-5"	X		BODY - VERT. - UPPER
A509	X	41	2'-0"			DOWEL - UPPER
A510	X	24	15'-8"	X		WING 1 & 2 - STIRRUP
A411	X	6	4'-7"			WING 1 & 2 - VERT. - F.F. - END ABUT.
A612	X	16	12'-11"			WING 1 & 2 - HORIZ. - B.F.
A513	X	12	13'-6"			WING 1 & 2 - HORIZ. - F.F.
A514	X	38	9'-4"	X		WING 1 & 2 - VERT. - TOP
A415	X	10	13'-6"			WING 1 & 2 - HORIZ. -TOP
A616	X	4	13'-6"			WING 1 & 2 - HORIZ. -TOP

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

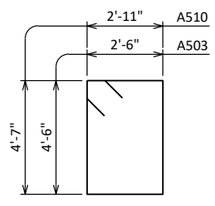
(A17) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

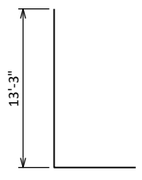
⚹ SLOPE TO DRAIN.



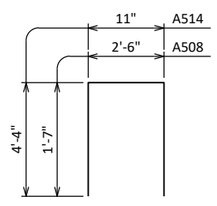
A401



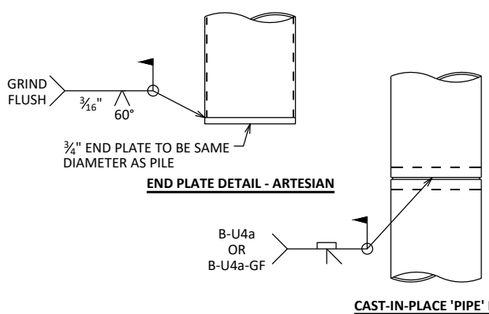
A503, A510

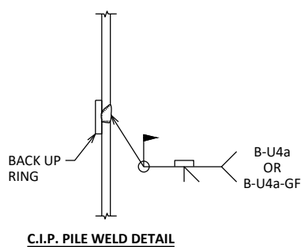


A804



A508, A514





CIP PILE DETAILS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

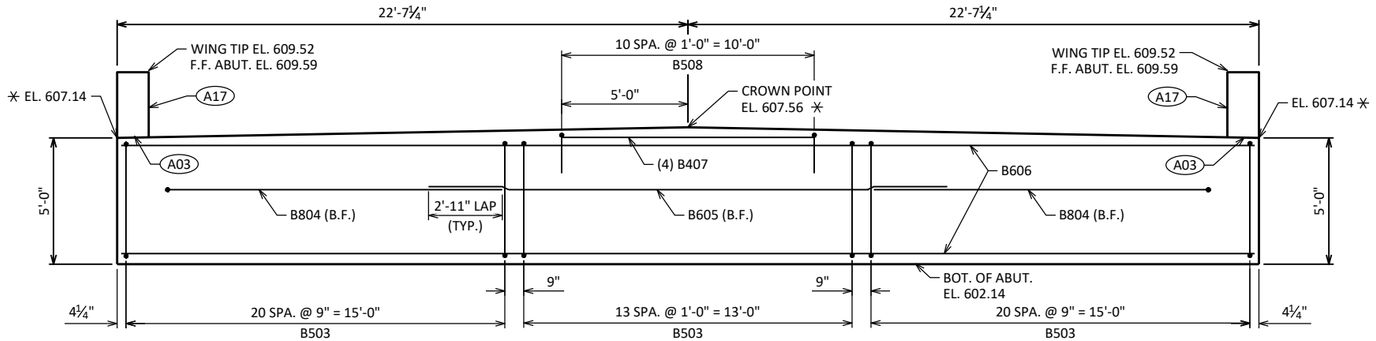
DRAWN BY DLM | PLANS CK'D ARC

SOUTH ABUTMENT DETAILS

SHEET 6
82

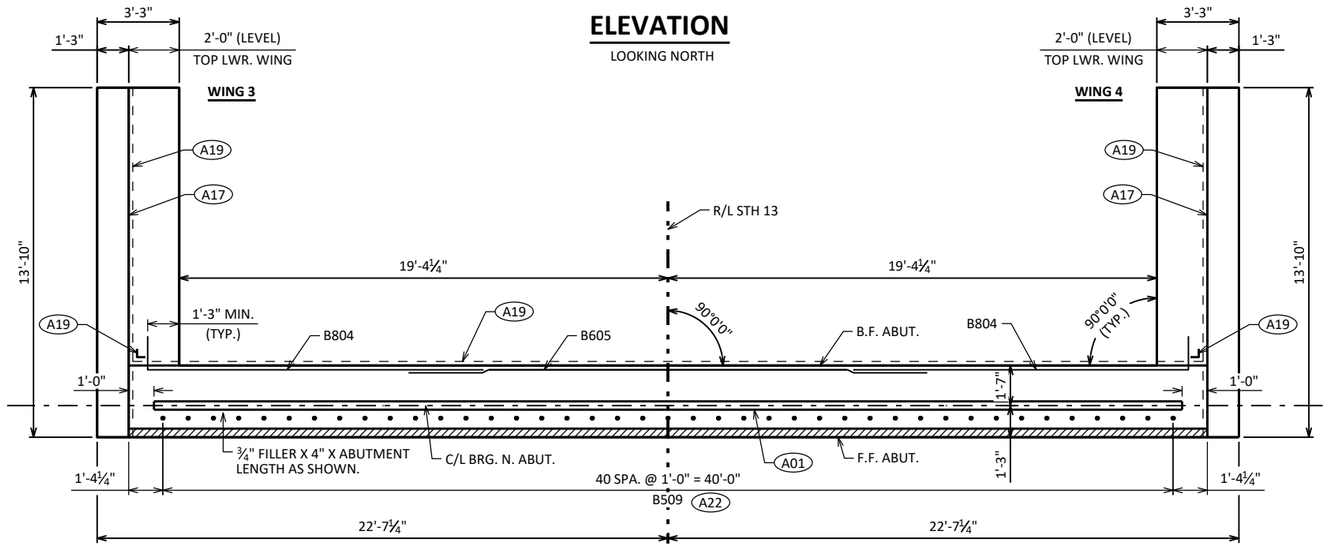
STATE PROJECT NUMBER

8160-00-73

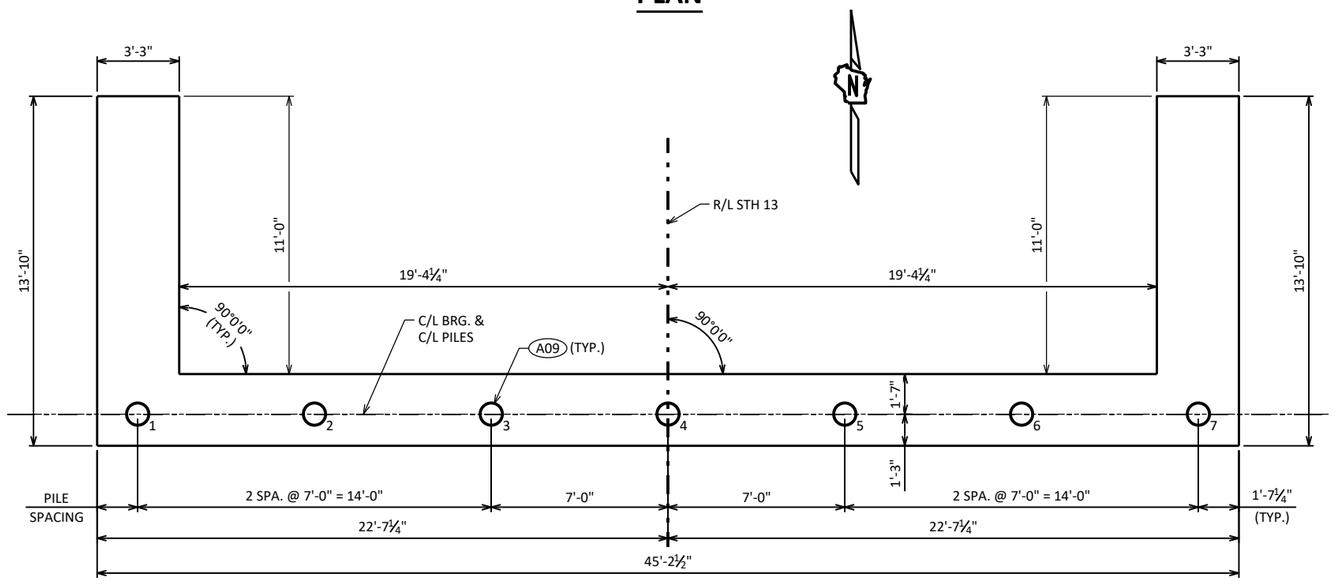


ELEVATION

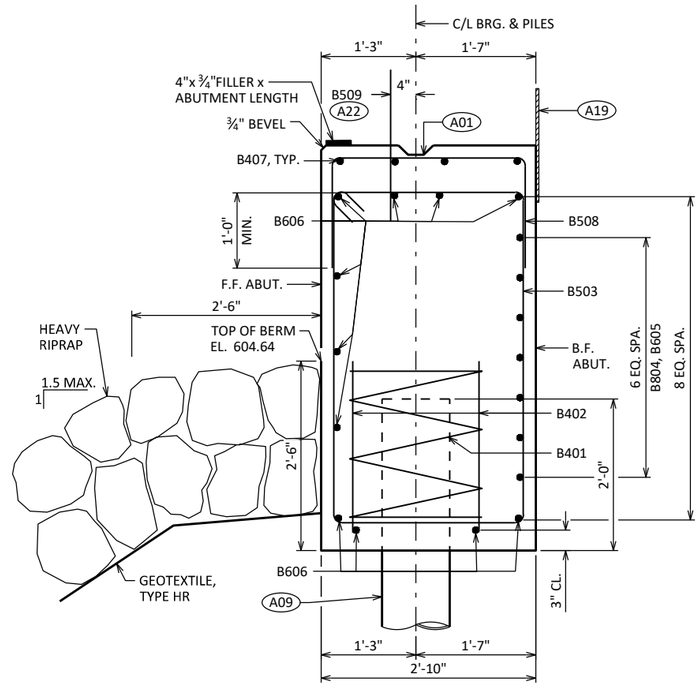
LOOKING NORTH



PLAN



PILE PLAN



SECTION THRU BODY

✳ ELEVATIONS & DIMENSIONS ARE GIVEN AT THE C/L OF BEARING

(A01) CONST. JOINT: KEYWAY FORMED BY A BEVELED 2 x 6.

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

(A09) SUPPORT ABUTMENT ON 10¾" DIA. X 0.365" CIP CONCRETE PILING, ESTIMATED 120'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 150 TONS PER PILE.

(A17) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A22) B509 BARS @ 1'-0" CTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

NORTH ABUTMENT

SHEET 7
83

8

8

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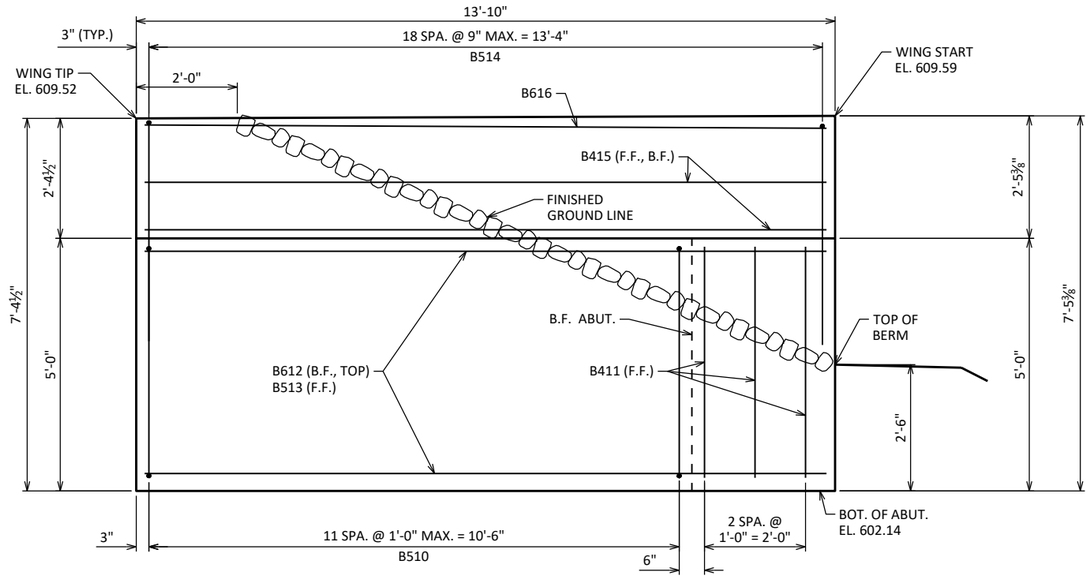
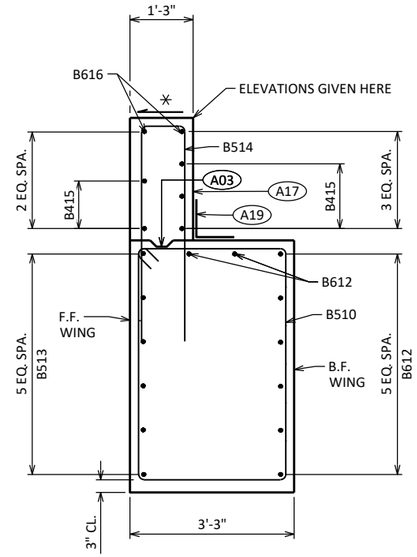


WING 3 & 4 ELEVATION

LOOKING AT FRONT FACE
WING 3 SHOWN, WING 4 SIMILAR



WING 3 & 4 SECTION

LOOKING NORTH
WING 3 SHOWN, WING 4 SIMILAR

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

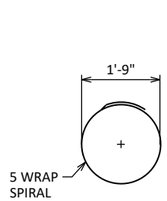
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		7	28'-0"	X		PILES - 1 PER BODY PILE
B402		14	2'-3"			PILES - 2 PER BODY PILE
B503		56	14'-8"	X		STIRRUP
B804		14	14'-5"	X		BODY - HORIZ. - B.F. - ENDS
B605		7	20'-7"			BODY - HORIZ. - B.F.
B606		11	44'-10"			BODY - HORIZ.
B407		4	10'-2"			BODY - HORIZ. - TOP
B508		11	5'-5"	X		BODY - VERT. - UPPER
B509	X	41	2'-0"			DOWEL - UPPER
B510	X	24	15'-8"	X		WING 3 & 4 - STIRRUP
B411	X	6	4'-7"			WING 3 & 4 - VERT. - F.F. - END ABUT.
B612	X	16	12'-11"			WING 3 & 4 - HORIZ. - B.F.
B513	X	12	13'-6"			WING 3 & 4 - HORIZ. - F.F.
B514	X	38	9'-4"	X		WING 3 & 4 - VERT. - TOP
B415	X	10	13'-6"			WING 3 & 4 - HORIZ. -TOP
B616	X	4	13'-6"			WING 3 & 4 - HORIZ. -TOP

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).

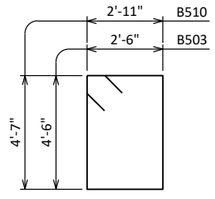
(A17) ½" FILLER: SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

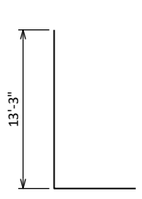
✳ SLOPE TO DRAIN.



B401



B503, B510



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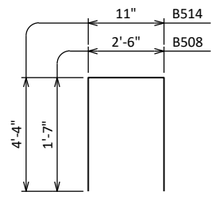
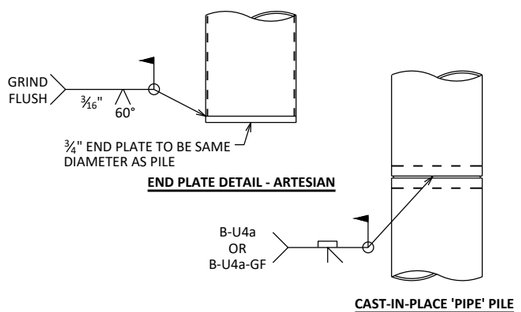
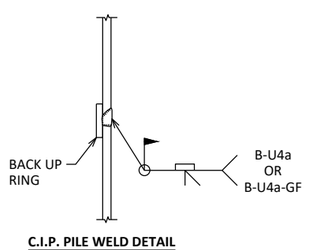


B508, B514



END PLATE DETAIL - ARTESIAN

CAST-IN-PLACE 'PIPE' PILE



C.I.P. PILE WELD DETAIL

CIP PILE DETAILS

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STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

NORTH ABUTMENT DETAILS

SHEET 8
84

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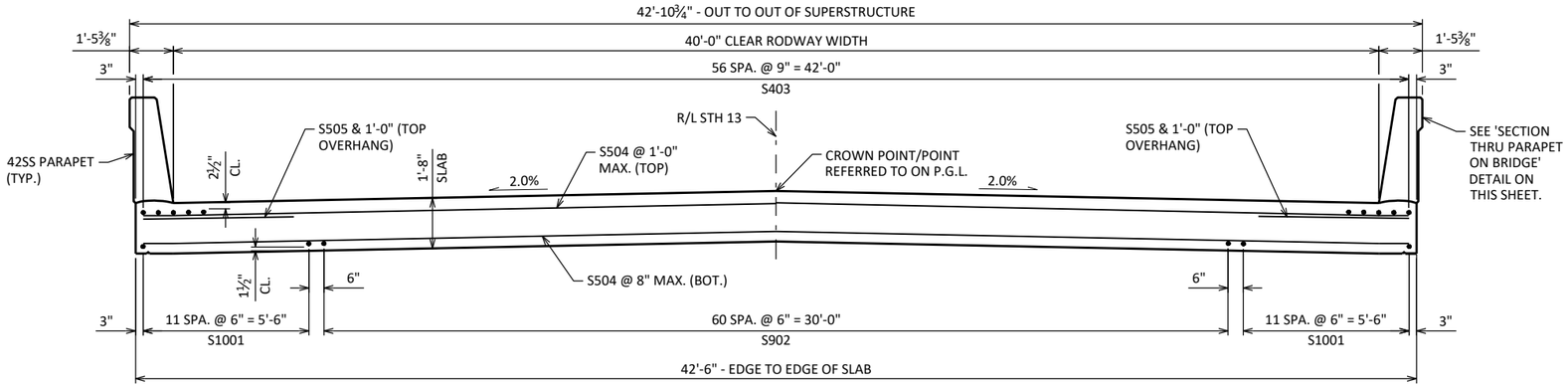
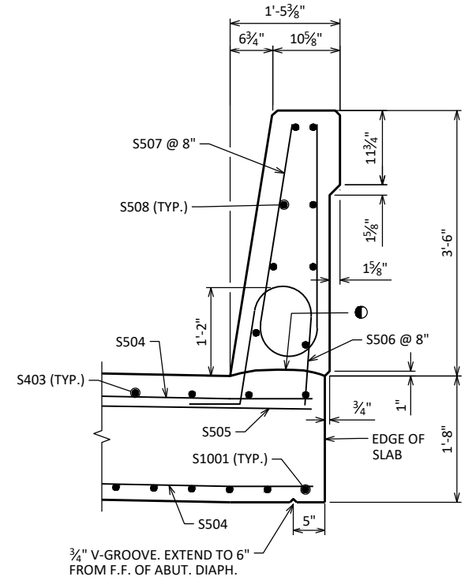
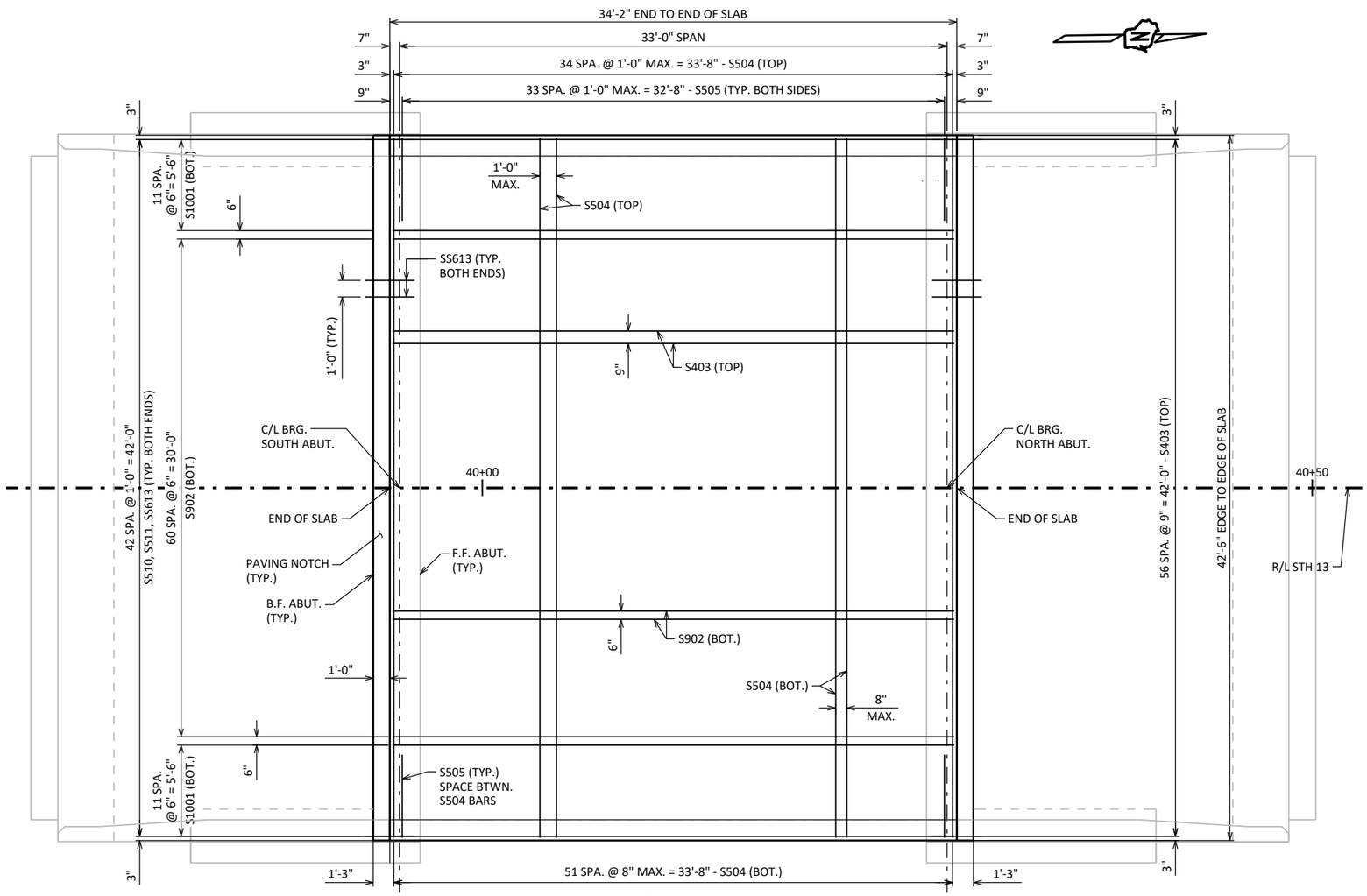


CROSS SECTION THRU BRIDGE

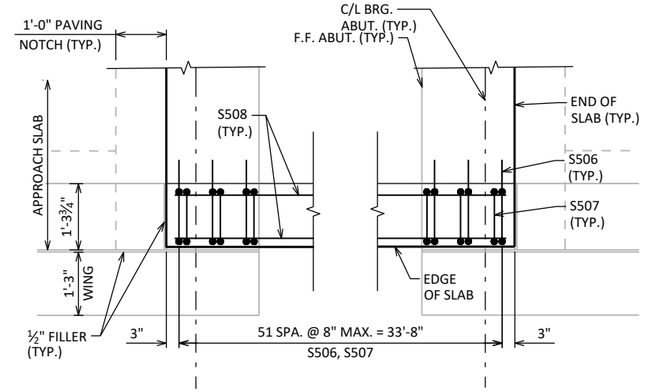


SECTION THRU PARAPET ON BRIDGE

◐ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN.



PLAN



PARTIAL PLAN DETAIL OF PARAPET REINF.

SHOWING EAST CORNERS OF NORTH AND SOUTH ABUTMENTS.
DETAIL TYP. OF BOTH EDGES OF SUPERSTRUCTURE.
DECK STEEL NOT SHOWN FOR CLARITY.

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SUPERSTRUCTURE

SHEET 9
85

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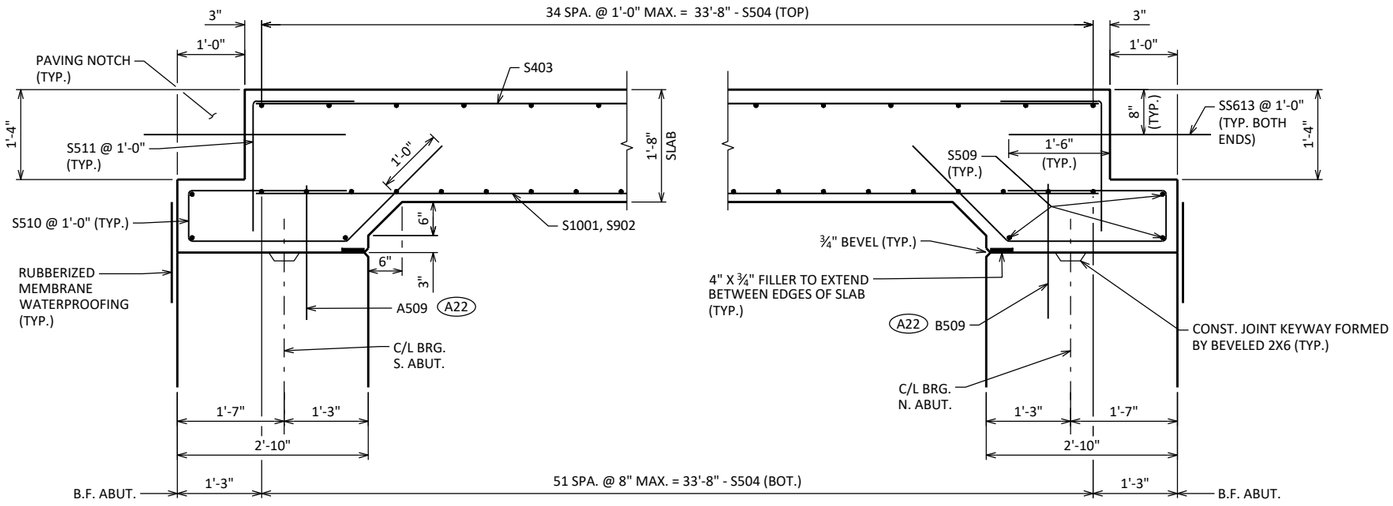


LONGITUDINAL SECTION

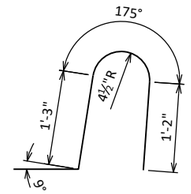
(A22) A509, B509 BARS SPACED @ 1'-0" CNTRS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.) SEE ABUTMENT SHEETS FOR MORE DETAILS.

BILL OF BARS

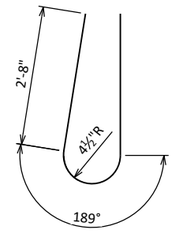
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	S1001	X	24	33'-10"			BOT. LONGIT. - EXTERIOR
	S902	X	61	33'-10"			BOT. LONGIT. - INTERIOR
	S403	X	57	33'-10"			TOP LONGIT.
	S504	X	87	42'-2"			TOP & BOT. - TRANSVERSE
	S505	X	68	5'-0"			TOP TRANSVERSE - EXTERIOR
	S506	X	104	4'-5"	X		PARAPETS TO SLAB - VERTICAL
	S507	X	104	6'-8"	X		PARAPETS - VERTICAL
	S508	X	16	33'-10"			PARAPETS - HORIZ.
	S509	X	6	42'-2"			DIAPHRAGM - HORIZ.
	S510	X	86	7'-4"	X		DIAPHRAGM - VERT.
	S511	X	86	3'-4"	X		DIAPHRAGM - VERT.
**	SS613		86	3'-0"			STRUCTURE SLAB TO APPROACH SLAB

** STAINLESS STEEL REINFORCEMENT



S506



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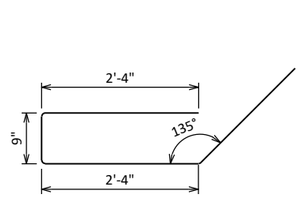
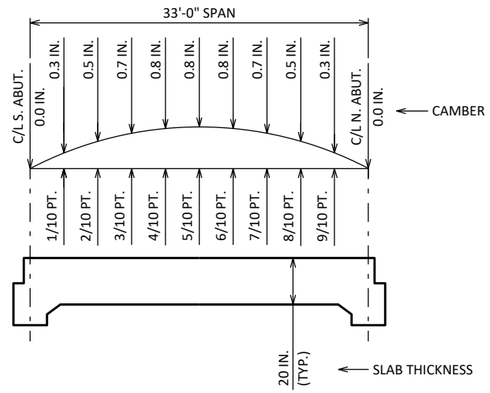


S510

S511

TOP OF SLAB ELEVATIONS

LOCATION	C/L BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	C/L BRG. N. ABUT.
W. GUTTER	609.75	609.73	609.71	609.70	609.68	609.66	609.65	609.63	609.61	609.60	609.58
R/L CROWN	610.15	610.13	610.11	610.10	610.08	610.06	610.05	610.03	610.01	610.00	609.98
E. GUTTER	609.75	609.73	609.71	609.70	609.68	609.66	609.65	609.63	609.61	609.60	609.58



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTION.

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
MINUS.....	SLAB THICKNESS
PLUS.....	CAMBER
PLUS.....	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION

SURVEY TOP OF SLAB ELEVATIONS

LOCATION	SOUTH ABUTMENT	5/10 PT.	NORTH ABUTMENT
W. GUTTER			
CROWN & R/L			
E. GUTTER			

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C/L OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR C/L. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NOTES

FILL IN THE TABLE OF "SURVEY TOP OF SLAB ELEVATIONS" FOR EACH SPAN ON AS BUILT PLANS.

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

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SUPERSTRUCTURE DETAILS

SHEET 10
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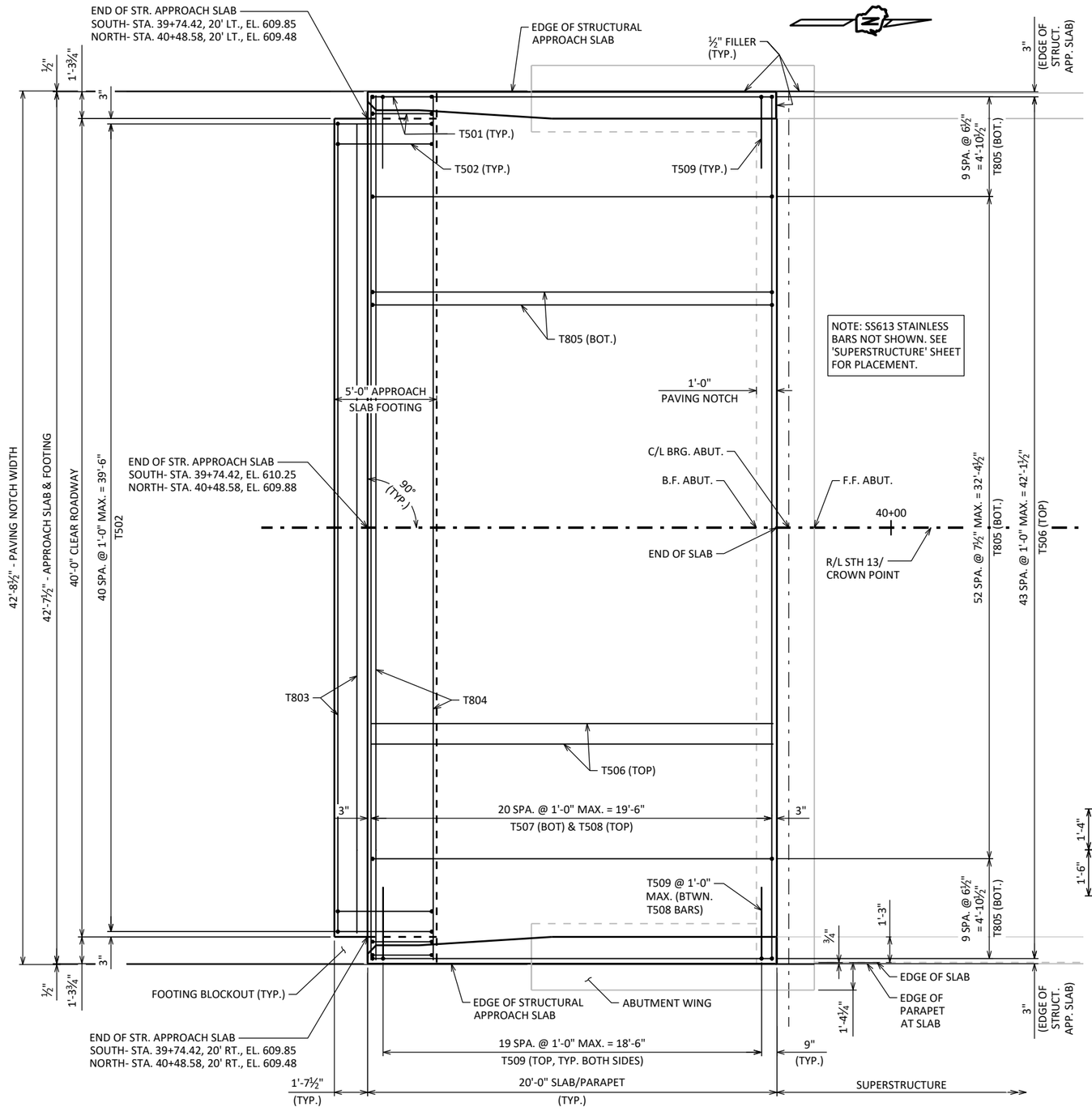


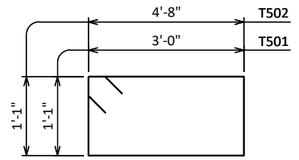
PLAN

SOUTH APPROACH SLAB SHOWN.
NORTH APPROACH SLAB SIMILAR.

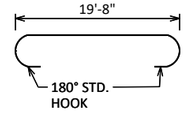
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

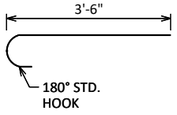
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
T501	X	8	8'-10"	X		FOOTING - STIRRUP - ENDS
T502	X	82	12'-2"	X		FOOTING - STIRRUP
T803	X	8	39'-8"			FOOTING - TRANS.
T804	X	16	42'-3"			FOOTING - TRANS.
T805	X	142	21'-6"	X		SLAB - LONGIT. -BOT.
T506	X	88	19'-8"			SLAB - LONGIT. - TOP
T507	X	42	42'-3"			SLAB - TRANSVERSE - BOT.
T508	X	42	42'-3"			SLAB - TRANSVERSE - TOP
T509	X	80	4'-1"	X		SLAB - TRANSVERSE - TOP - ENDS



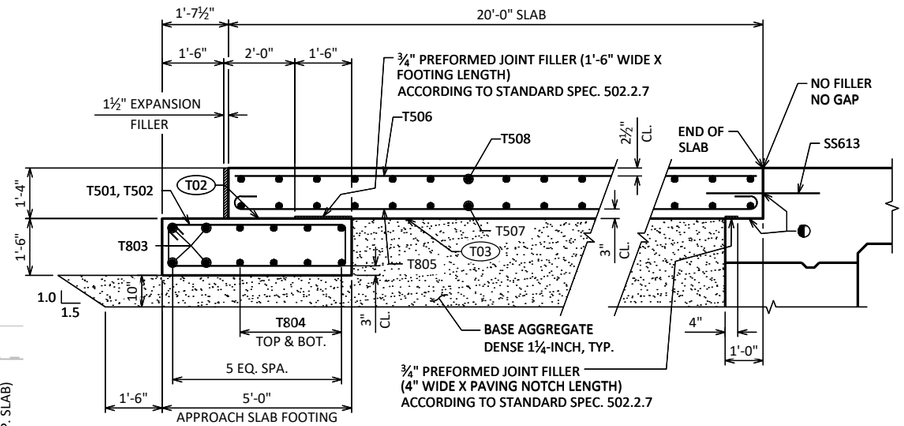
T501, T502



T805



T509



SECTION THRU APPROACH SLAB

◐ APPLY PROTECTIVE SURFACE TREATMENT TO PAVING NOTCH SURFACES PRIOR TO POURING STRUCTURAL APPROACH SLAB.

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE BENEATH SLAB.

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STRUCTURAL APPROACH SLABS

SHEET 11
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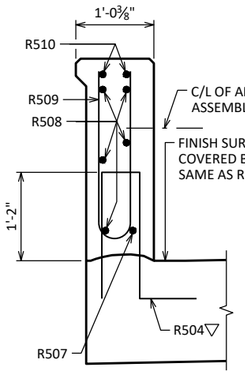
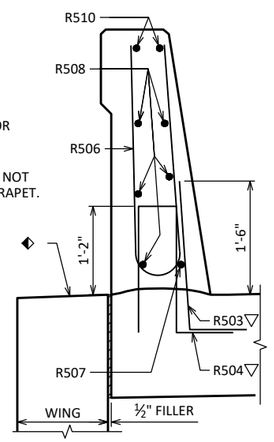
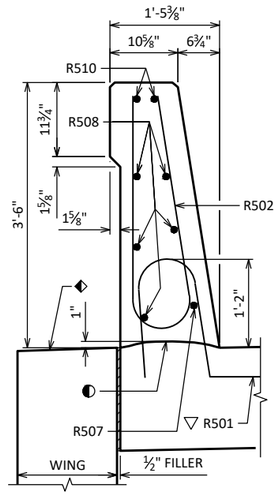


SECTION A-A



SECTION B-B



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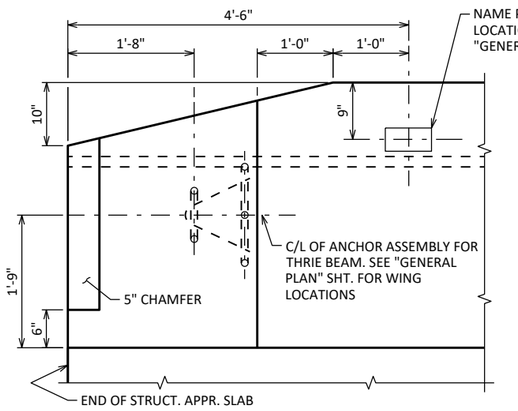


PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

BILL OF BARS

FOR STRUCTURAL APPOACH SLAB PARAPETS

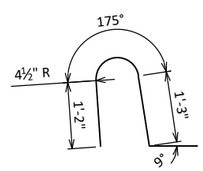
BAR MARK	COAT	SOUTH ABUT.	NORTH ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4'-5"	X		PARAPET VERT.
R502	X	34	34	6'-8"	X		PARAPET VERT.
R503	X	24	24	2'-9"	X		PARAPET VERT.
R504	X	34	34	4'-4"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	19'-6"	X		PARAPET HORIZ.
R508	X	10	10	19'-6"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4	4	19'-6"	X		PARAPET HORIZ.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

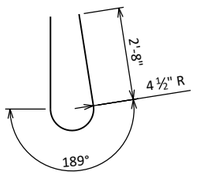
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

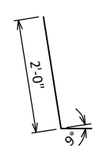
BAR MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"



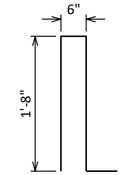
R501



R502



R503



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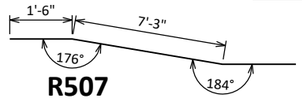
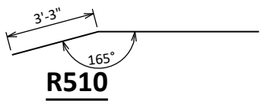
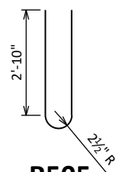


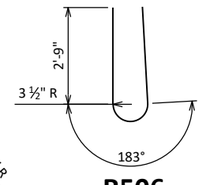
R507



R510



R505



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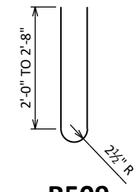
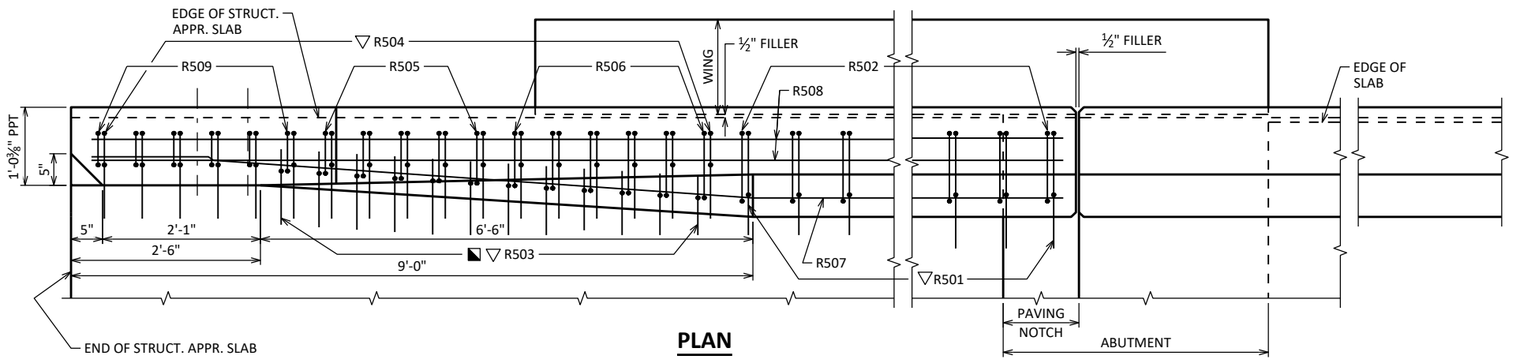
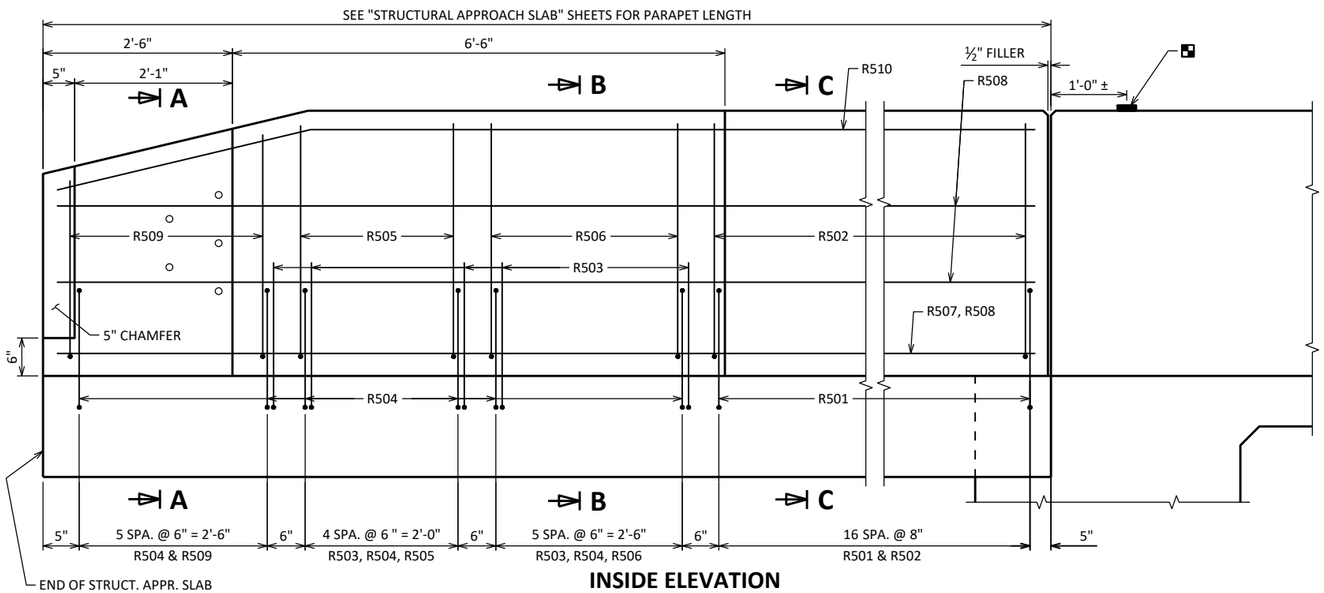


R509



PLAN

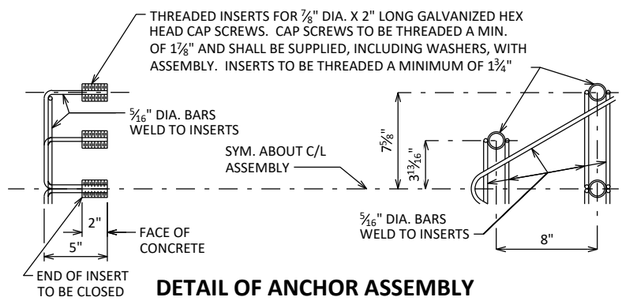
SW CORNER SHOWN, OTHERS SIMILAR



INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR
WING & STRUCTURAL APPROACH SLAB FOOTING NOT SHOWN FOR CLARITY

■ BENCH MARK CAP (WHEN SUPPLIED).



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH ASTM F2329.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◆ SLOPE FOR DRAINAGE

◪ USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501, R503, AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-04-126

DRAWN BY DLM | PLANS CK'D ARC

SINGLE SLOPE PARAPET 42SS

SHEET 12
88

SCALE = 2.00

8

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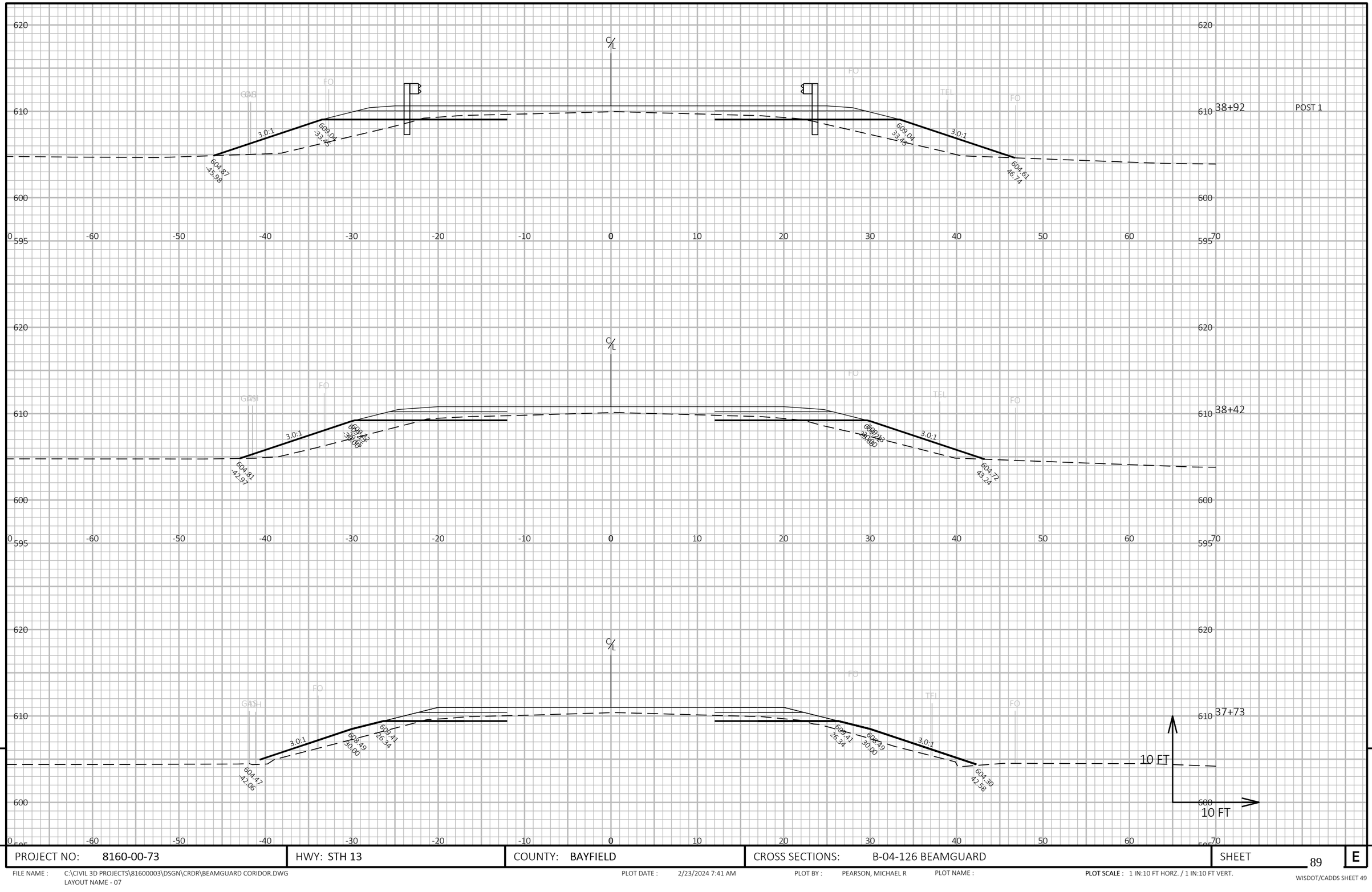

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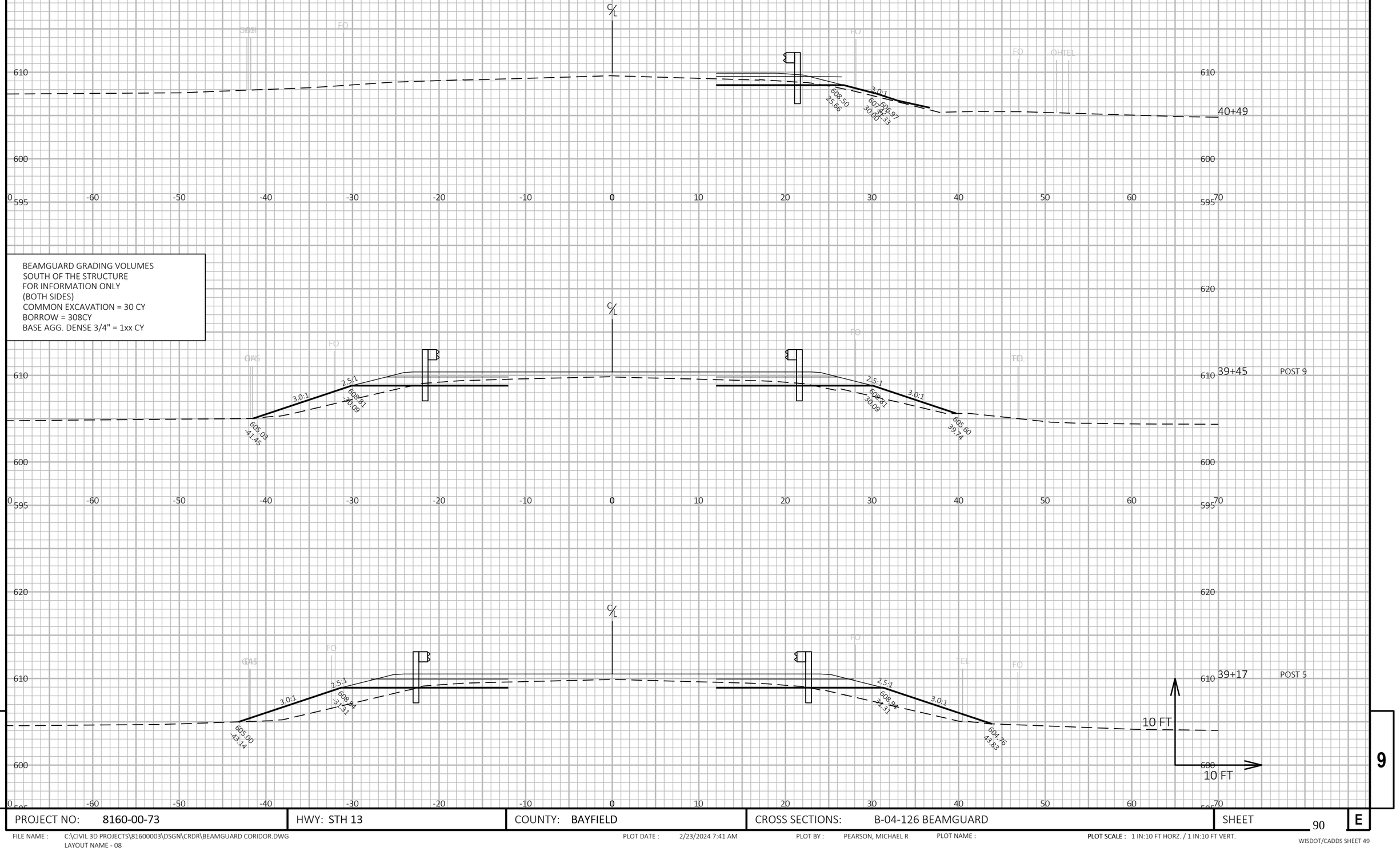
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: B-04-126 BEAMGUARD	SHEET 89	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - 07

PLOT DATE : 2/23/2024 7:41 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

BEAMGUARD GRADING VOLUMES
SOUTH OF THE STRUCTURE
FOR INFORMATION ONLY
(BOTH SIDES)
COMMON EXCAVATION = 30 CY
BORROW = 308CY
BASE AGG. DENSE 3/4" = 1xx CY



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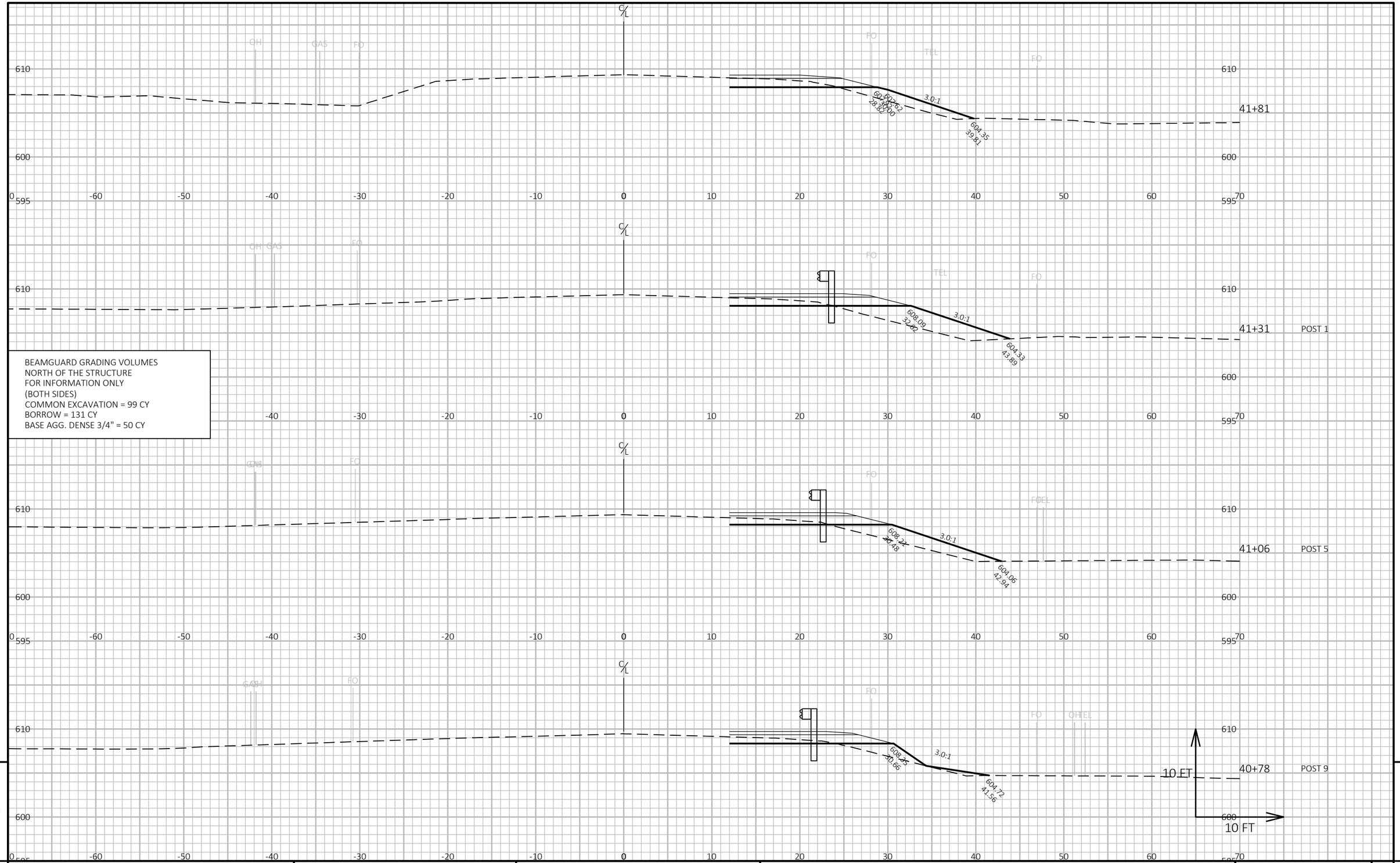
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: B-04-126 BEAMGUARD	SHEET 90	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - 08

PLOT DATE : 2/23/2024 7:41 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



BEAMGUARD GRADING VOLUMES
NORTH OF THE STRUCTURE
FOR INFORMATION ONLY
(BOTH SIDES)
COMMON EXCAVATION = 99 CY
BORROW = 131 CY
BASE AGG. DENSE 3/4" = 50 CY

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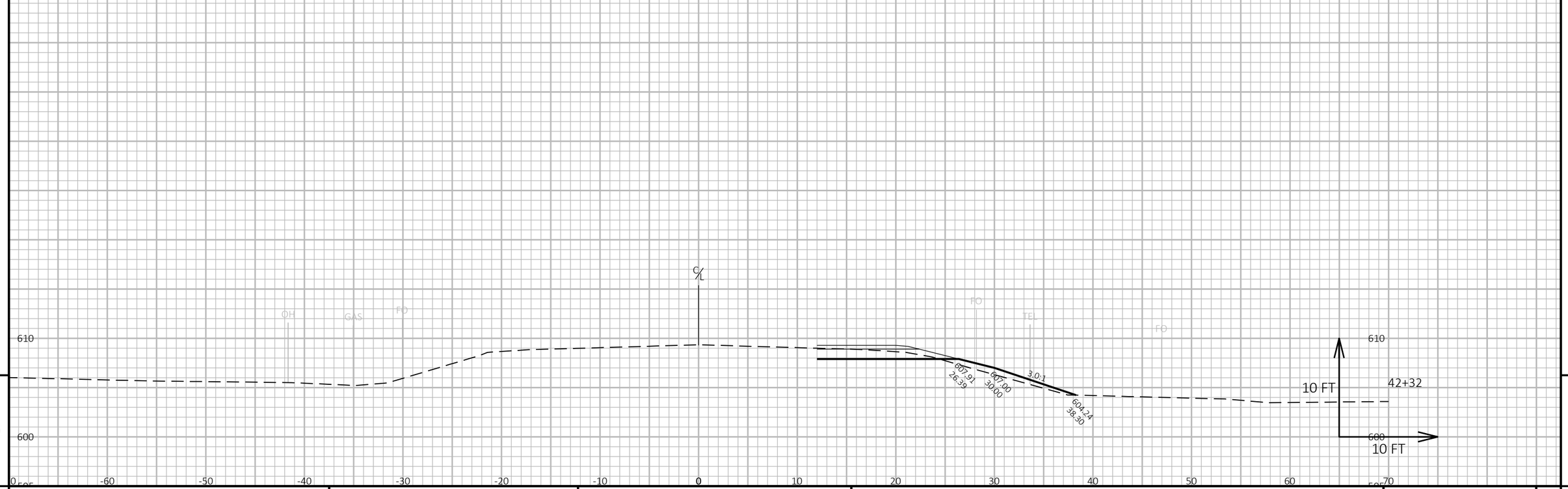
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: B-04-126 BEAMGUARD	SHEET 91	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - 09

PLOT DATE : 7/11/2025 10:20 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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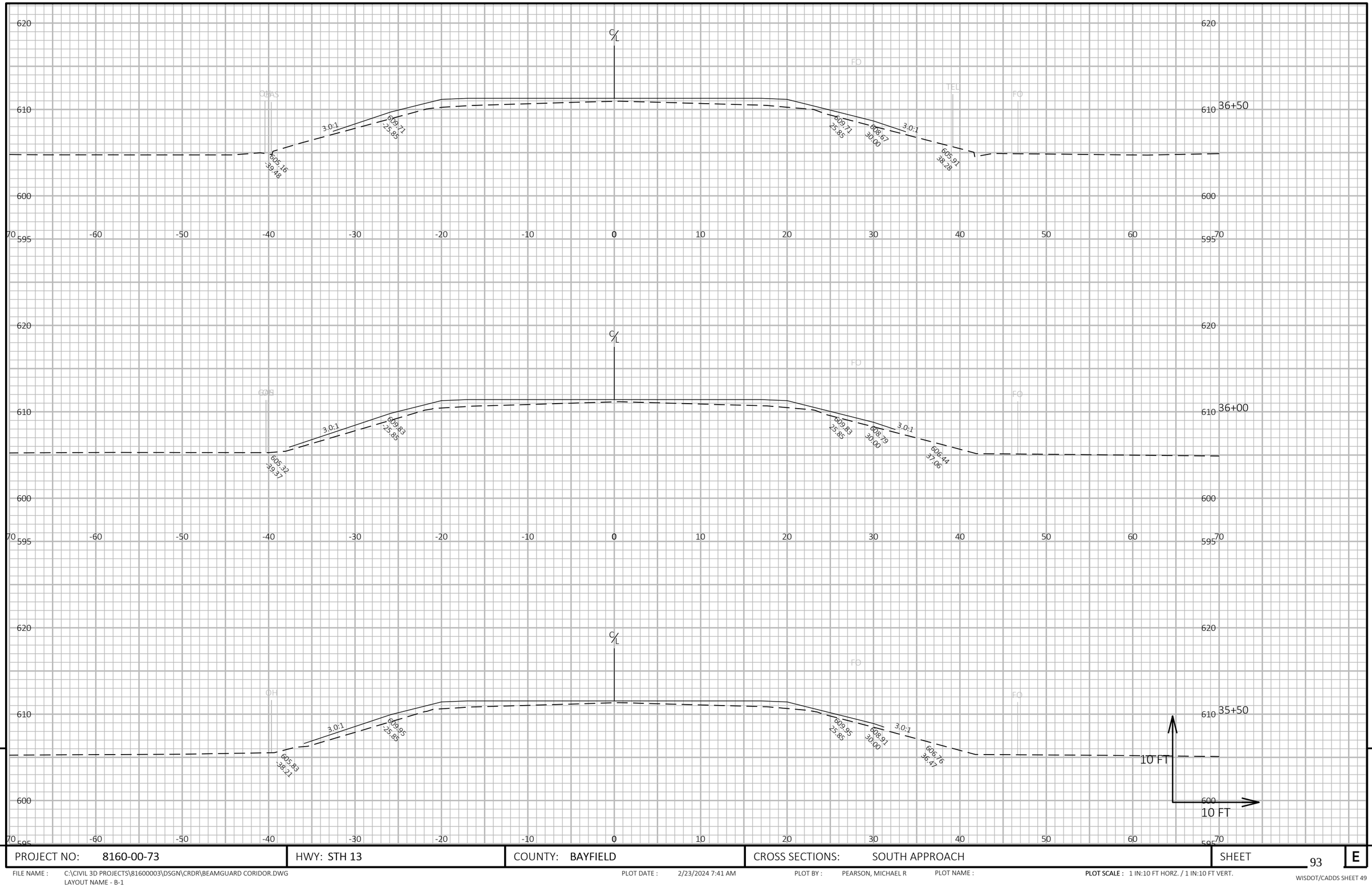
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: B-04-126 BEAMGUARD	SHEET 92	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - 10

PLOT DATE : 7/11/2025 10:21 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

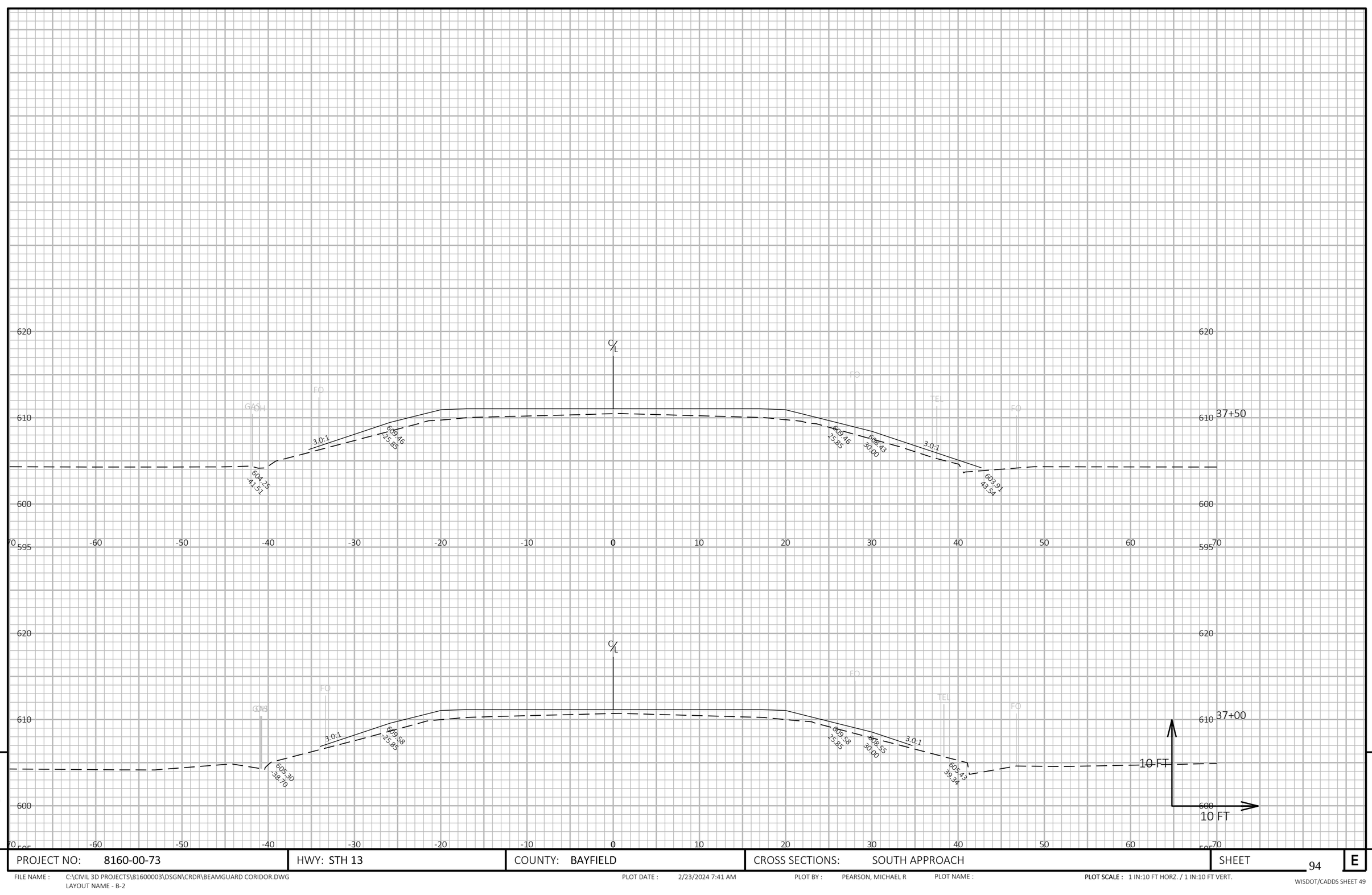


PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: SOUTH APPROACH	SHEET 93	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - B-1

PLOT DATE : 2/23/2024 7:41 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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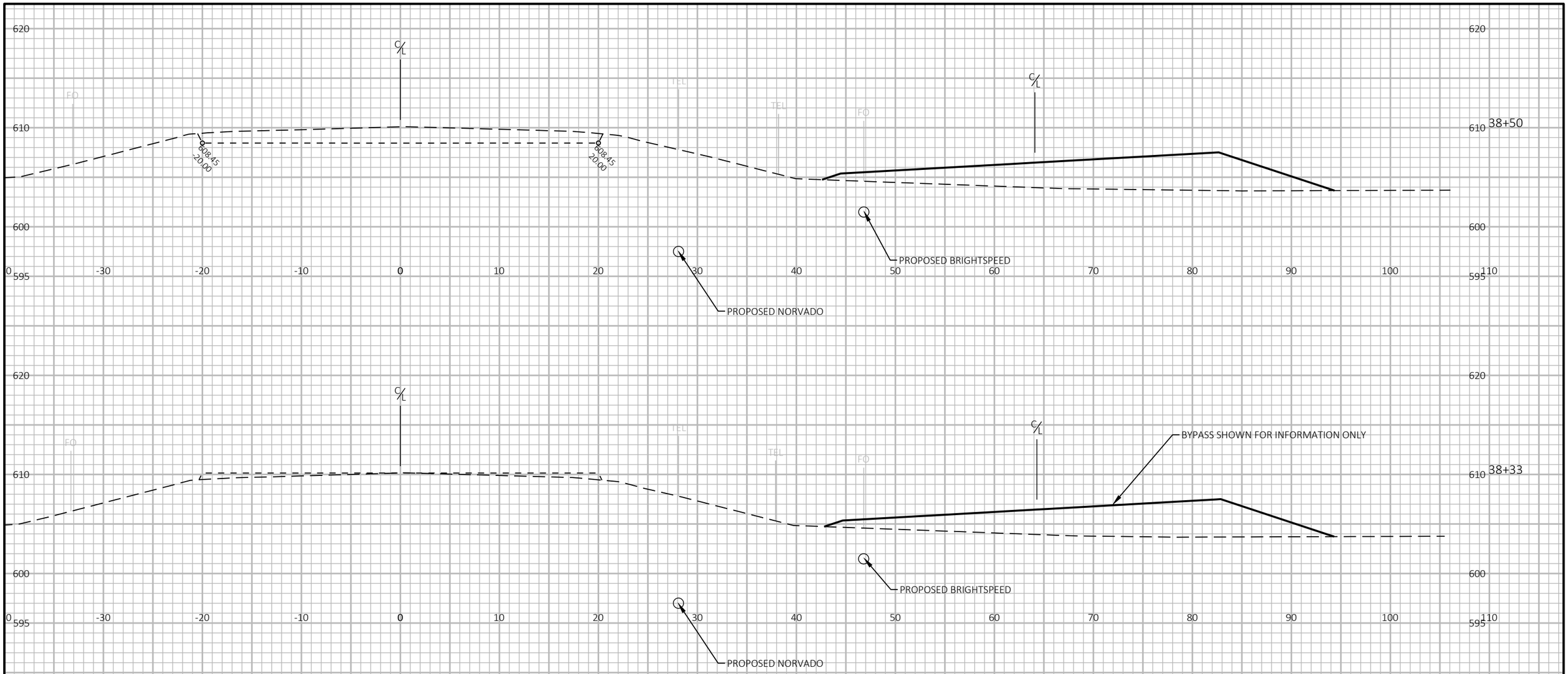
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: SOUTH APPROACH	SHEET 94	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BEAMGUARD CORIDOR.DWG
LAYOUT NAME - B-2

PLOT DATE : 2/23/2024 7:41 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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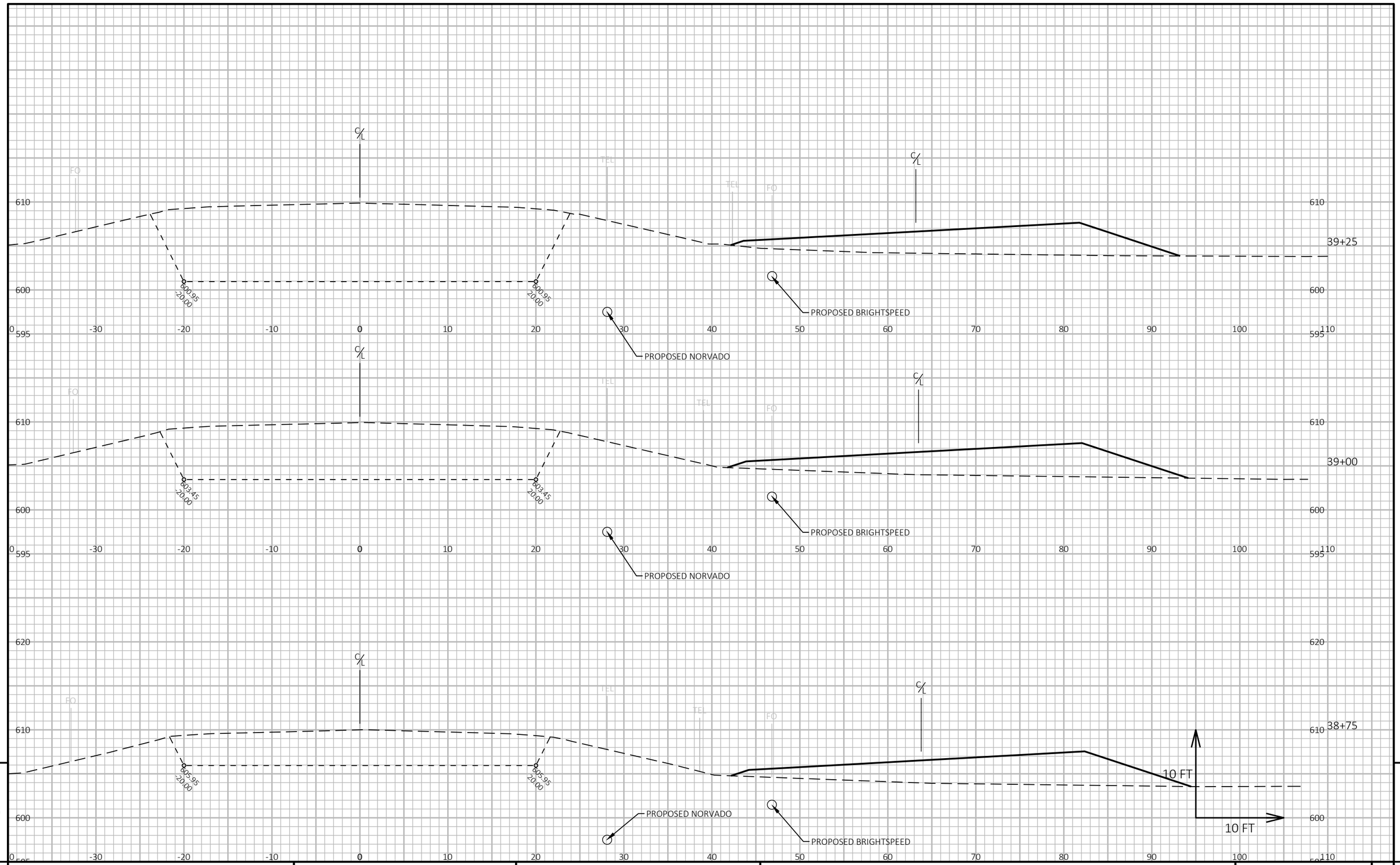
PROJECT NO: 9925-00-70	HWY: STH 169	COUNTY: ASHLAND	CROSS SECTIONS: MARSH AND EBS	SHEET 95	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\COR-MARSH EX.DWG
LAYOUT NAME - 01

PLOT DATE : 2/26/2024 9:05 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 9925-00-70	HWY: STH 169	COUNTY: ASHLAND	CROSS SECTIONS: MARSH AND EBS	SHEET 96	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\COR-MARSH EX.DWG
LAYOUT NAME - 02

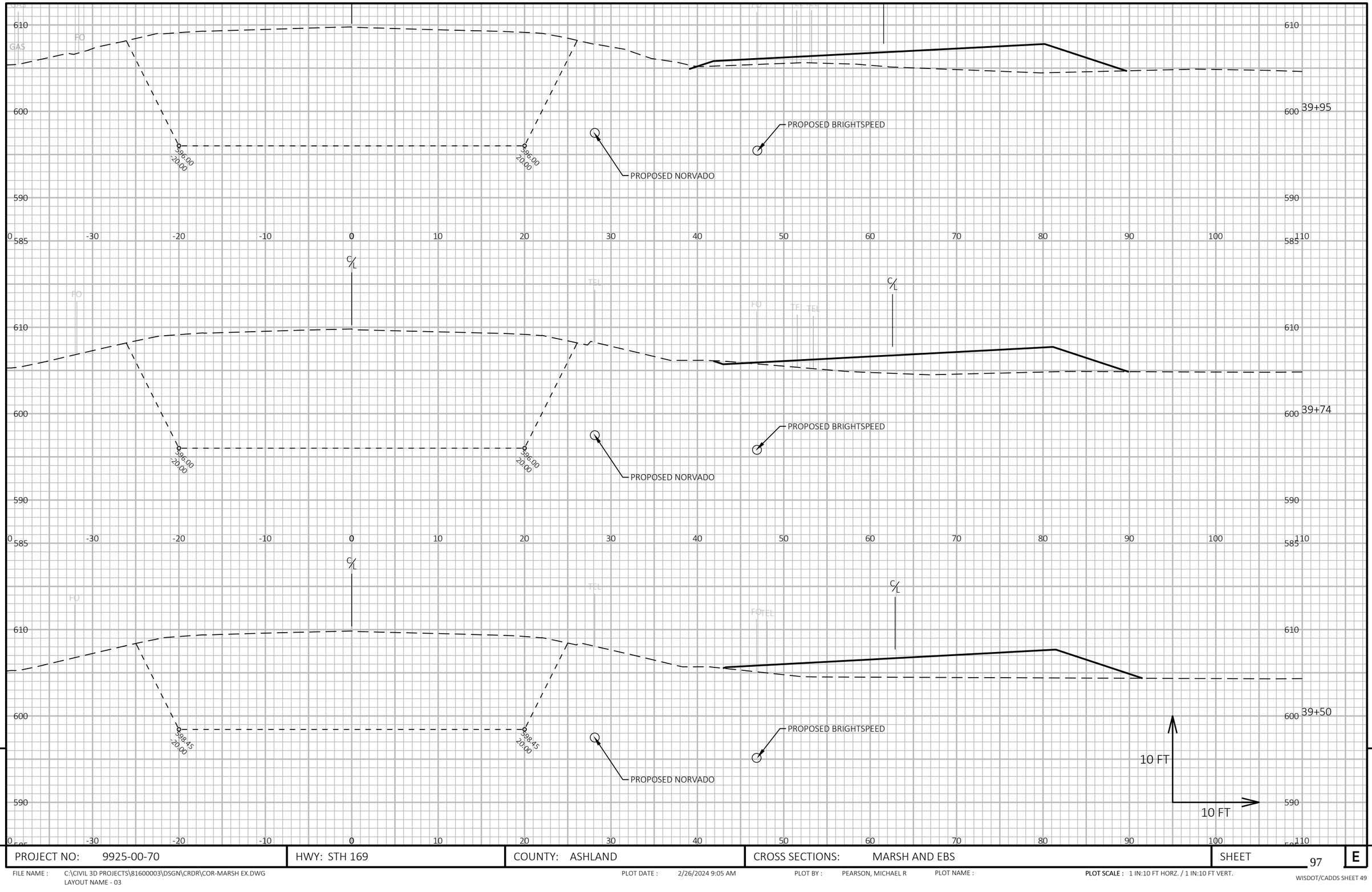
PLOT DATE : 2/26/2024 9:05 AM

PLOT BY : PEARSON, MICHAEL R

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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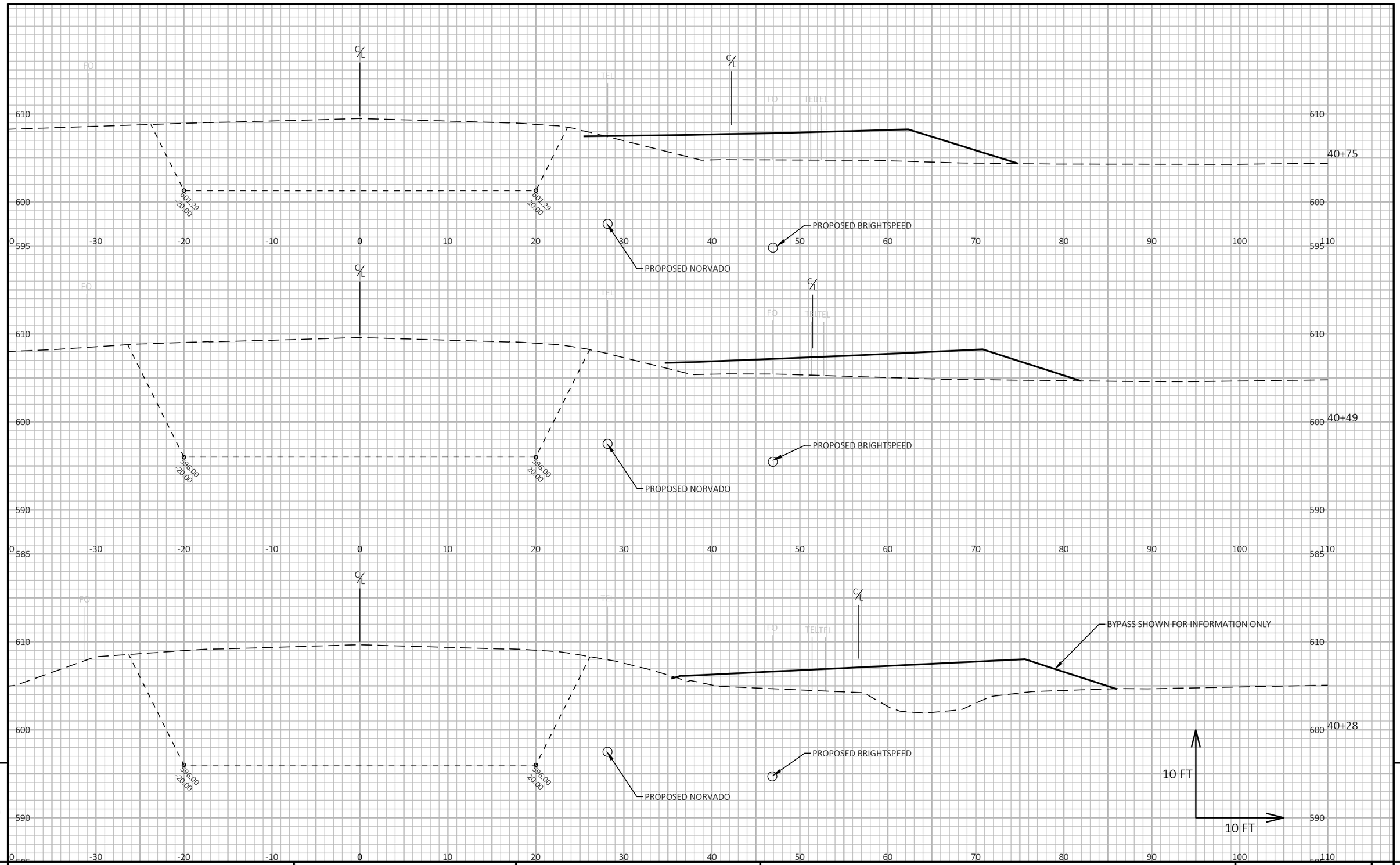
PROJECT NO: 9925-00-70	HWY: STH 169	COUNTY: ASHLAND	CROSS SECTIONS: MARSH AND EBS	SHEET 97	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\COR-MARSH EX.DWG
LAYOUT NAME - 03

PLOT DATE : 2/26/2024 9:05 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 9925-00-70	HWY: STH 169	COUNTY: ASHLAND	CROSS SECTIONS: MARSH AND EBS	SHEET 98	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\COR-MARSH EX.DWG
LAYOUT NAME - 04

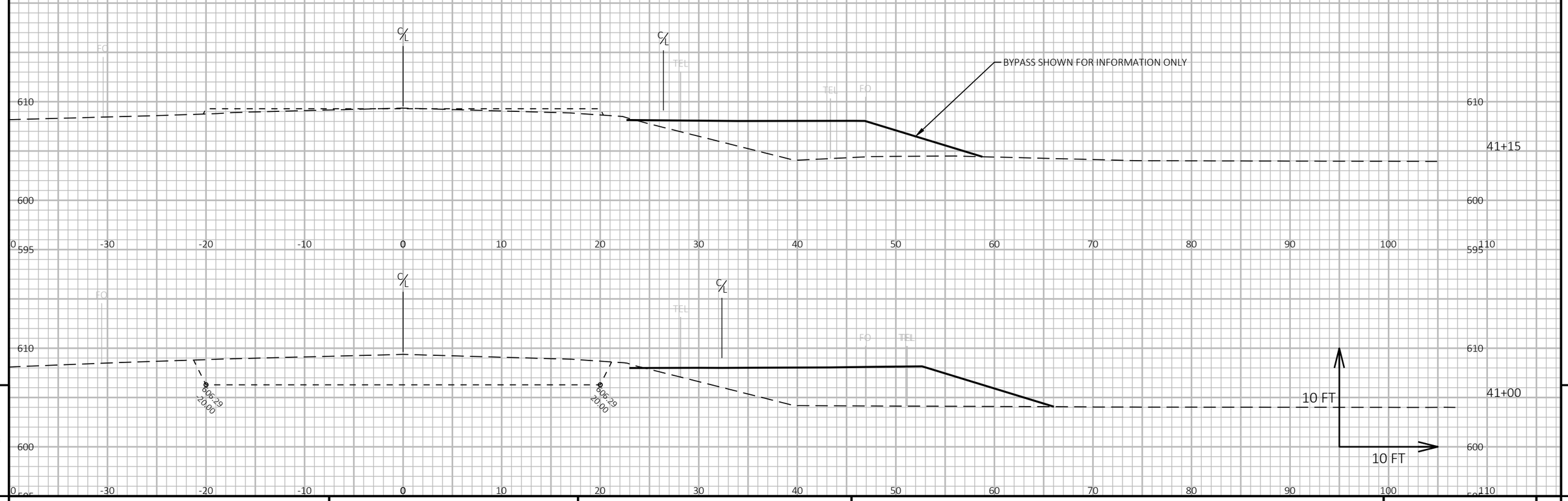
PLOT DATE : 2/26/2024 9:06 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

EBS VOLUMES (W/O STRUCTURAL EBS VOLUMES)

NORTH EBS = 1349 CY
SOUTH EBS = 2406 CY

APPROXIMATELY 50 CY NORTH
OF STRUCTURE TO BE REMOVED
AFTER THE TEMPORARY BYPASS
IS REMOVED.
PIPE EXCAVATION AND ADJACENT MATERIAL
PAID UNDER "REMOVING STRUCTURE OVER
WATERWAY".



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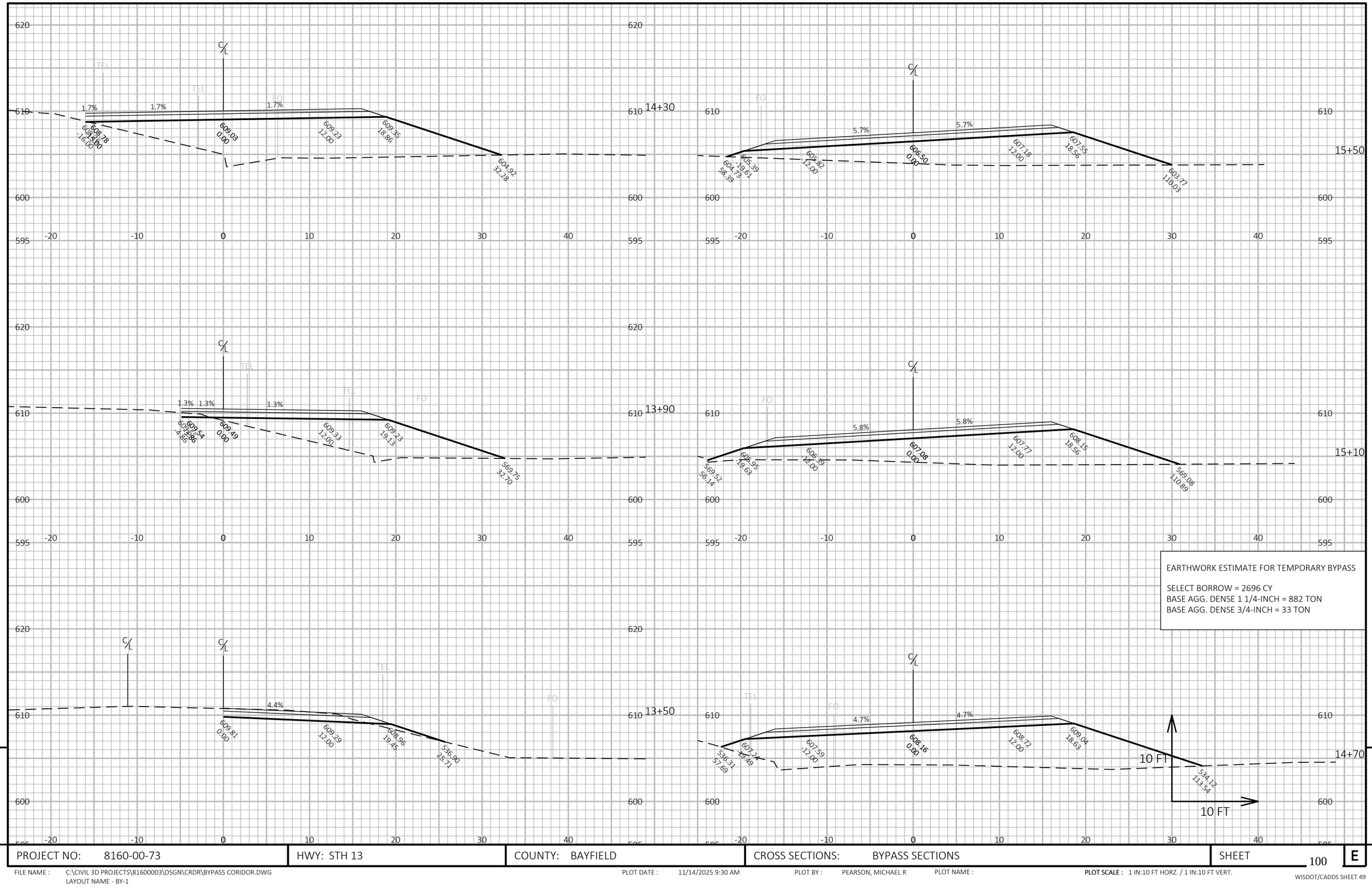
PROJECT NO: 9925-00-70	HWY: STH 169	COUNTY: ASHLAND	CROSS SECTIONS: MARSH AND EBS	SHEET 99	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\COR-MARSH EX.DWG
LAYOUT NAME - 05

PLOT DATE : 2/26/2024 9:06 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: BYPASS SECTIONS	SHEET 100	E

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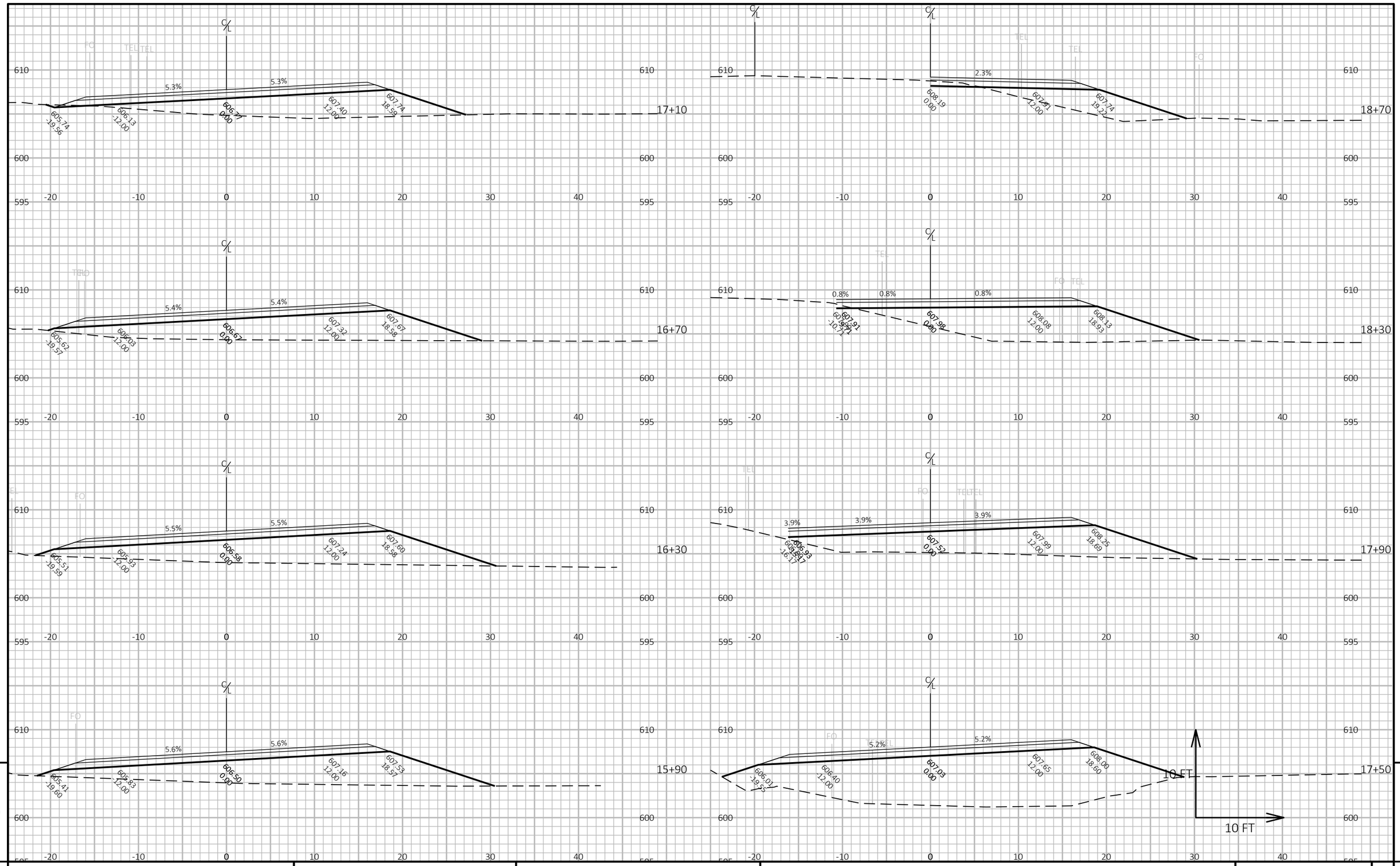
FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BYPASS CORIDOR.DWG
LAYOUT NAME - BY-1

PLOT DATE : 11/14/2025 9:30 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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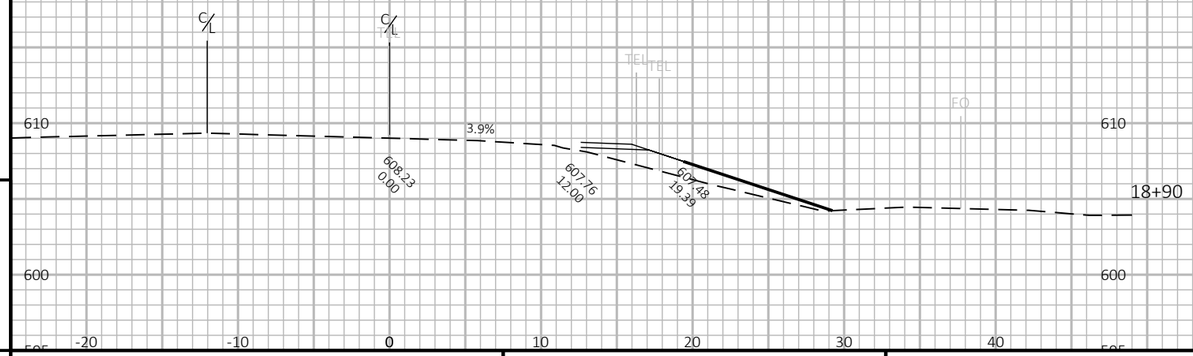
PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: BYPASS SECTIONS	SHEET 101	E

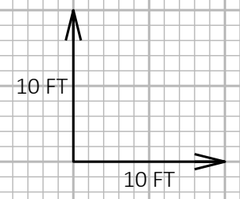
FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BYPASS CORIDOR.DWG
LAYOUT NAME - BY-2

PLOT DATE : 11/14/2025 9:30 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

EARTHWORK ESTIMATE FOR TEMPORARY BYPASS

SELECT BORROW = 2696 CY
BASE AGG. DENSE 1 1/4-INCH = 882 TON
BASE AGG. DENSE 3/4-INCH = 33 TON





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PROJECT NO: 8160-00-73	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: BYPASS SECTIONS	SHEET 102	E

FILE NAME : C:\CIVIL 3D PROJECTS\81600003\DSGN\CRDR\BYPASS CORIDOR.DWG
LAYOUT NAME - BY-3

PLOT DATE : 11/14/2025 9:30 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov