

SUP

PROJECT ID: 1550-21-71

WITH: N/A

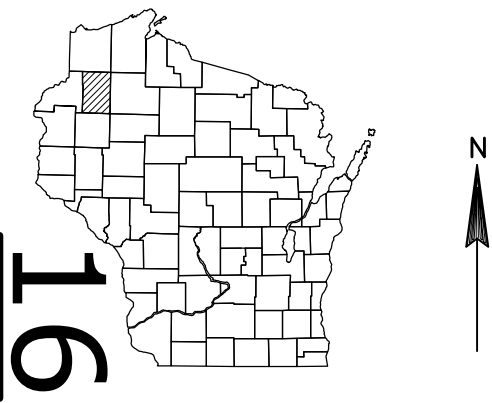
COUNTY: WASHBURN

NOV 2014

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 = 140



DESIGN DESIGNATION

A.A.D.T. (2014)	=	3200
A.A.D.T. (2034)	=	4000
D.H.V. -----	=	14.0%
D.D.	=	63/37 %
T. (DHV)	=	5.4%
DESIGN SPEED	=	60 MPH
ESALS	=	795,700

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	
EXISTING RIGHT OF WAY		GRADE ELEVATION	
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	
EXISTING CULVERT		FIBER OPTIC	
PROPOSED CULVERT (Box or Pipe)		GAS	
COMBUSTIBLE FLUIDS		SANITARY SEWER	
MARSH AREA		STORM SEWER	
WOODED OR SHRUB AREA		TELEPHONE	
		WATER	
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CUMBERLAND - SPOONER

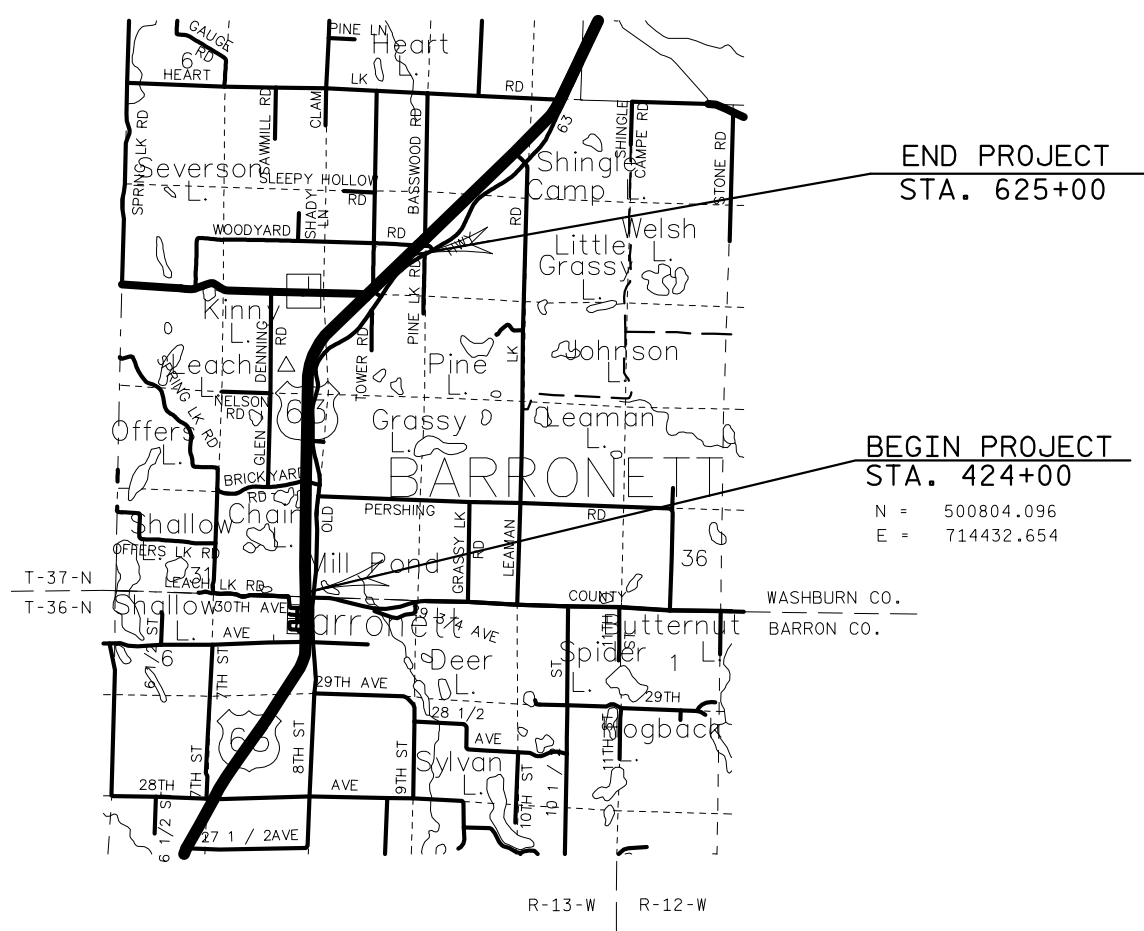
SOUTH COUNTY LINE TO WOODYARD ROAD

USH 63

WASHBURN COUNTY

STATE PROJECT NUMBER

1550-21-71



LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.807 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WASHBURN COUNTY.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1550-21-71	WISC 2014397	1
-----	-----	---
-----	-----	---
-----	-----	---

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/NWBE
Designer	GREG PESOLA
Project Manager	PHIL KEPPERS
Regional Examiner	DAN OJIBWAY
Regional Supervisor	DAVE OSTROWSKI
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 7/31/2014 Philip S. Kappera (Signature)

E

GENERAL NOTES

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

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

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

CURB AND GUTTER RADII ARE SHOWN TO THE FLAG OF THE GUTTER.

CURVE DATA SHOWN ON THE PLAN IS "ARC DEFINITION".

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS BETWEEN THE SUBGRADE SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND EROSION MATTED.

THE EXACT LOCATION OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.

HMA PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE PLACED IN WHEEL PATHS.

HMA PAVEMENT CENTERLINE JOINT SHALL NOT BE OFFSET IN THE LOWER LAYERS.

PAVEMENT CORE LOG

CORE NO.	STATION	OFFSET	DEPTH (INCHES)
C-1	425+00	10' RT	7 3/8
C-2	440+00	9' LT	4 1/4
C-3	455+00	5' RT	4 1/8
C-4	470+00	4' LT	6
C-5	485+00	9' RT	5 1/4
C-6	585+00	5' RT	4 1/2
C-7	600+00	5' LT	3 1/4
C-8	615+00	8' RT	4 3/4

RAILROAD CONTACT
UNION PACIFIC RAILROAD COMPANY
JOHN VENICE, MANAGER SPECIAL PROJECTS
101 NORTH WACKER DRIVE - SUITE 1920
CHICAGO, IL 60606
TELEPHONE (312) 777-2043
FAX (402) 233-2769
EMAIL: JNVENICE@UP.COM

DESIGN CONTACT
WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: GREG PESOLA
NW REGION
1701 N. 4TH STREET
SUPERIOR, WI 54880
PHONE (715) 392-7998

WDNR CONTACT
WDNR - NORTHERN REGION
ATTN: SHAWN HASELEU
810 WEST MAPLE STREET
SPOONER, WI 54801
PHONE (715) 635-4228
EMAIL: SHAWN.HASELEU@WI.GOV

TOWN OF BARRONETT
TOWN CHAIRPERSON
MR. JERRY CHARTRAW
PHONE: (715) 468-2904

UTILITIES

BARRON ELECTRIC COOPERATIVE
ATTN: DALLAS SLOAN
1434 N. STH 25
P.O. BOX 40
BARRON, WI 54812
PHONE: (800) 322-1008

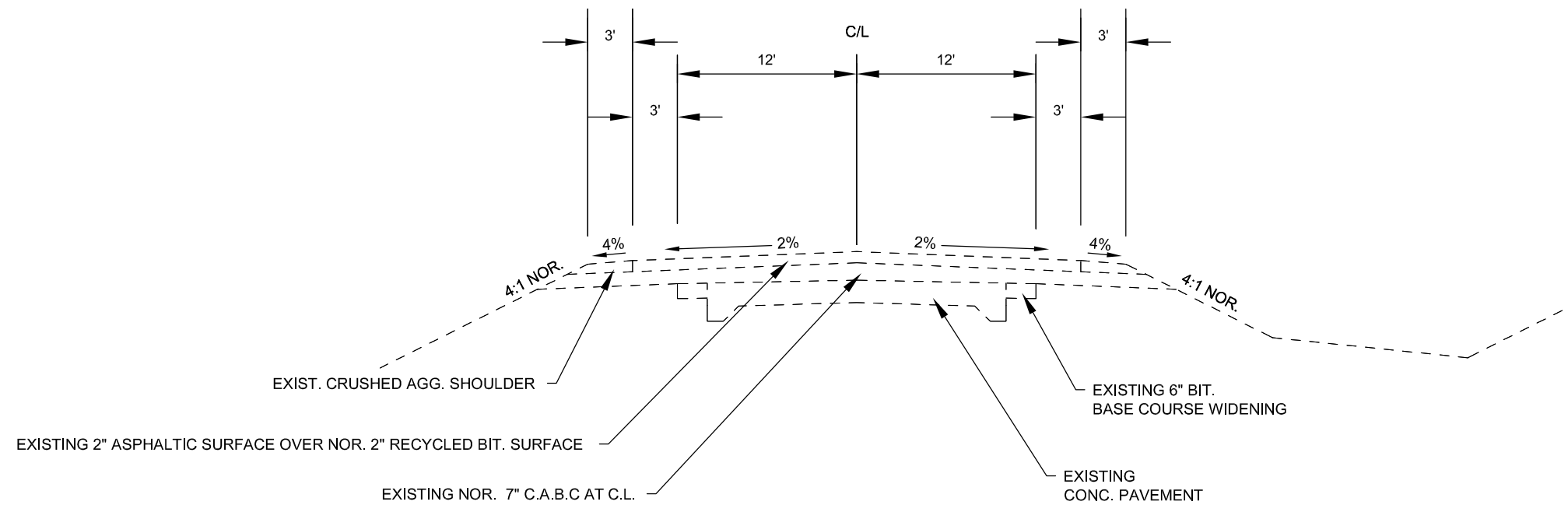
CENTURYLINK
ATTN: MONTY PARKER
20 SOUTH WILSON AVE
RICE LAKE, WI 54868
PHONE: (715) 234-5528

CHARTER COMMUNICATIONS
ATTN: THOMAS HAASE
2304 S MAIN STREET
RICE LAKE, WI 54868
PHONE: (715) 236-5005

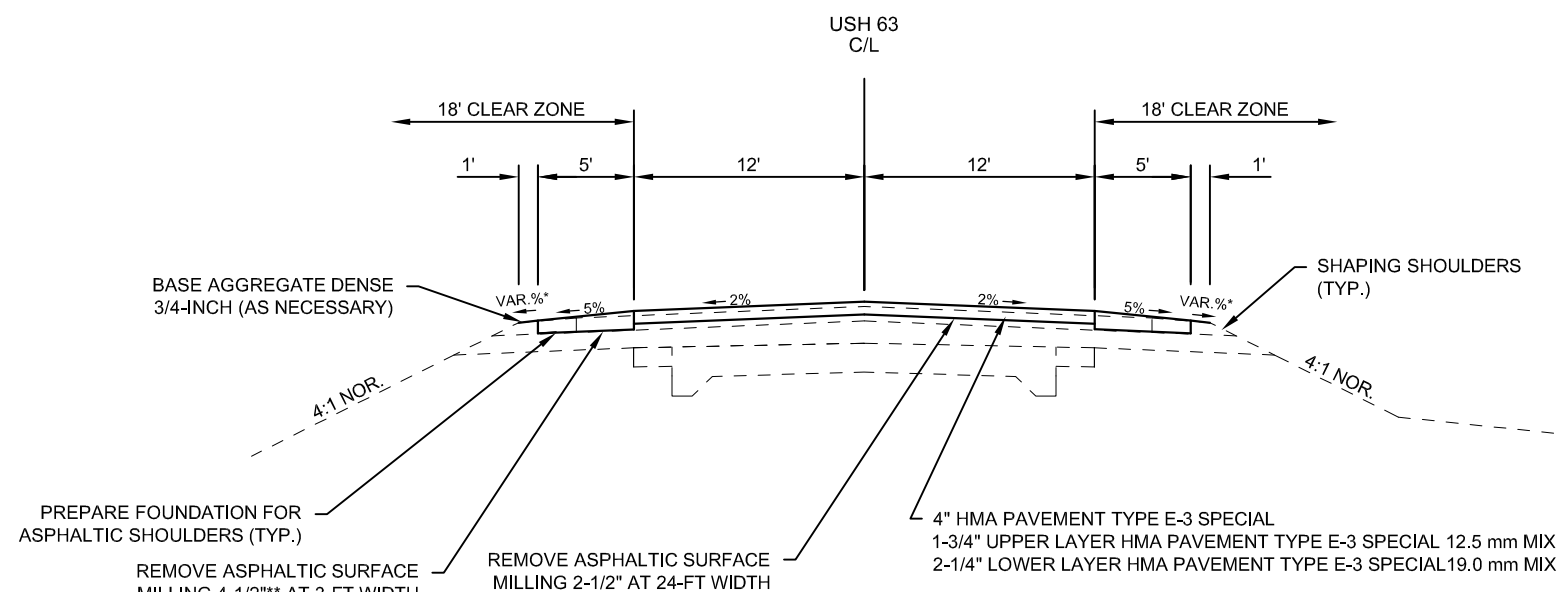
XCEL ENERGY
2911 S. PIONEER AVE.
RICE LAKE, WI 54868
ATTN: STACEY HAUGEN
PHONE: (715)-236-5721

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT	L.H.F.	LEFT-HAND FORWARD
AGG.	AGGREGATE	L.F.	LINEAR FOOT
AH.	AHEAD	L.S.	LUMP SUM
AADT	ANNUAL AVERAGE DAILY TRAFFIC	MAX.	MAXIMUM
APPROX.	APPROXIMATE	MISC.	MISCELLANEOUS
A.E.W.	APRON END WALL	N.	NORTH
ASPH.	ASPHALTIC	Y	NORTH GRID COORDINATE
BK.	BACK	N.E.	NORTHEAST
BEG.	BEGIN	N.W.	NORTHWEST
B.M.	BENCH MARK	PAVT.	PAVEMENT
C/L OR $\overline{C}$	CENTER LINE	P.C.	POINT OF CURVATURE
C.E.	COMMERCIAL ENTRANCE	P.I.	POINT OF INTERSECTION
CONC.	CONCRETE	P.T.	POINT OF TANGENCY
CONSTR.	CONSTRUCTION	P.O.T.	POINT ON TANGENT
CO.	COUNTY	P.E.	PRIVATE ENTRANCE
C.T.H.	COUNTY TRUNK HIGHWAY	PROJ.	PROJECT
X-SEC.	CROSS SECTION	R.	RANGE
CR.	CRUSHED	REQD.	REQUIRED
CULV.	CULVERT	R/L	REFERENCE LINE
C.P.	CULVERT PIPE	RT.	RIGHT
D.O.T.	DEPARTMENT OF TRANSPORTATION	R.H.F.	RIGHT-HAND FORWARD
D.H.V.	DESIGN HOUR VOLUME	R/W	RIGHT-OF-WAY
DIA.	DIAMETER	RD.	ROAD
DISCH. OR DIS.	DISCHARGE	SHLD.	SHOULDER
E.	EAST	S.	SOUTH
X	EAST GRID COORDINATE	S.D.D.	STANDARD DETAIL DRAWINGS
EB	EASTBOUND	S.T.H.	STATE TRUNK HIGHWAYS
EA.	EACH	STA.	STATION
ELEC.	ELECTRIC	STRUCT.	STRUCTURE
EL. OR ELEV.	ELEVATION	TEL.	TELEPHONE
ESALS	EQUIVALENT SINGLE AXLE LOADS	TEMP.	TEMPORARY
E.B.S.	EXCAVATION BELOW SUBGRADE	TN.	TOWN
EXIST.	EXISTING	T.	TRUCKS (PERCENT OF)
FERT.	FERTILIZE	TYP.	TYPICAL
F.E.	FIELD ENTRANCE	U.G.	UNDERGROUND
FIN.	FINISHED	VAR.	VARIABLE
F.L. OR $\overline{F}$	FLOW LINE	V.	VELOCITY OR DESIGN SPEED
HORIZ.	HORIZONTAL	V.C.	VERTICAL CURVE
INL.	INLET	W.	WEST
INT.	INTERSECTION	WB	WESTBOUND
INV.	INVERT	W.A.	WORKING DAY
LT.	LEFT	WZ	WORK ZONE

EXISTING TYPICAL SECTION

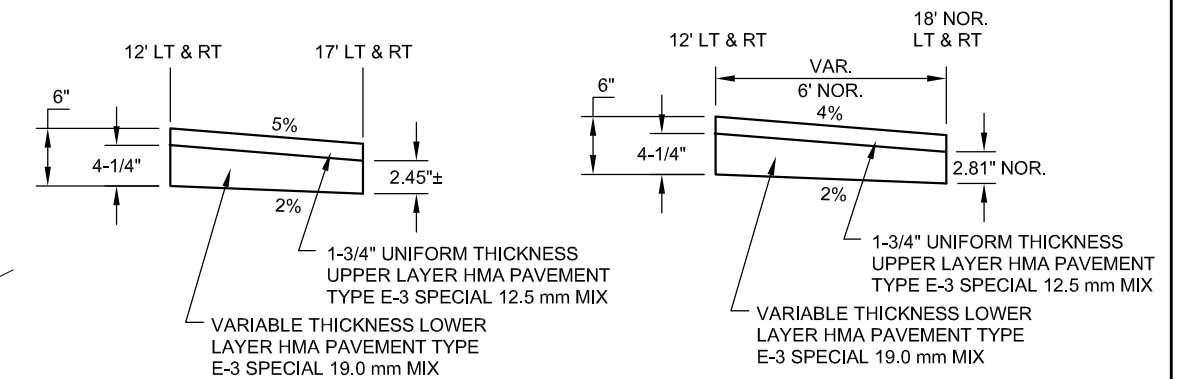
424+00 - 625+00

TYPICAL FINISHED SECTION

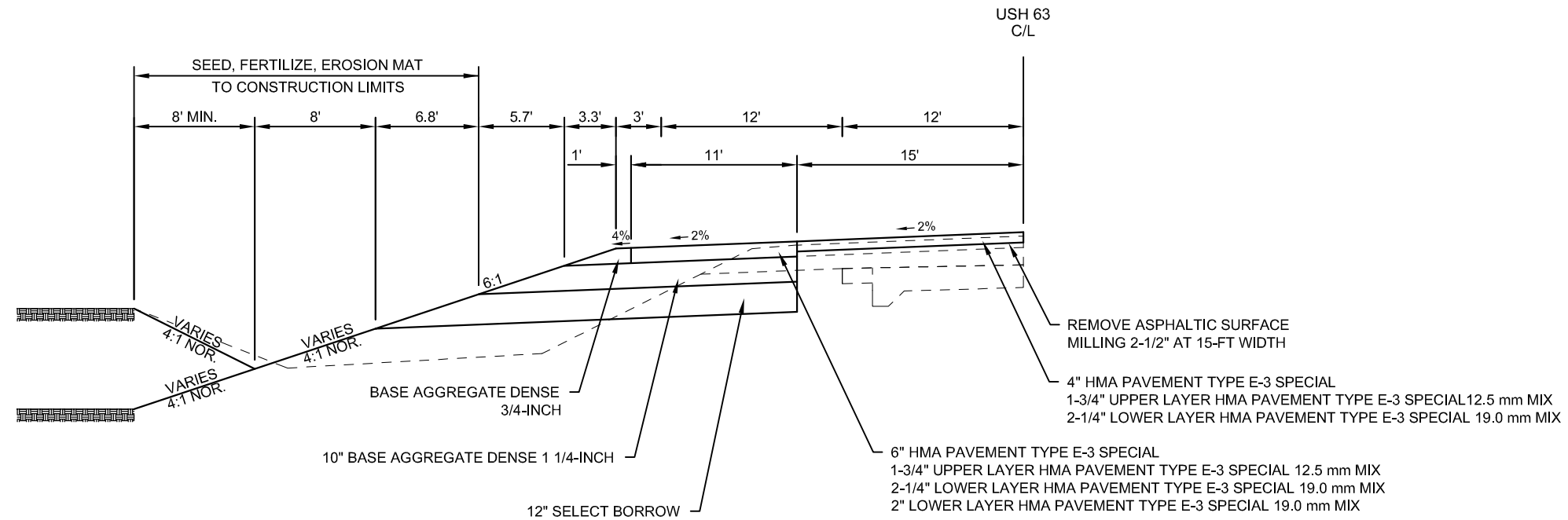
424+00 - 625+00

*NOTE: VARY FINISHED BASE AGGREGATE DENSE SHOULDER SLOPE AS NEEDED TO MATCH EXISTING SHOULDER POINT.

**NOTE: MEASURE MILLING DEPTH AT EDGE OF EXISTING 12' TRAFFIC LANE.

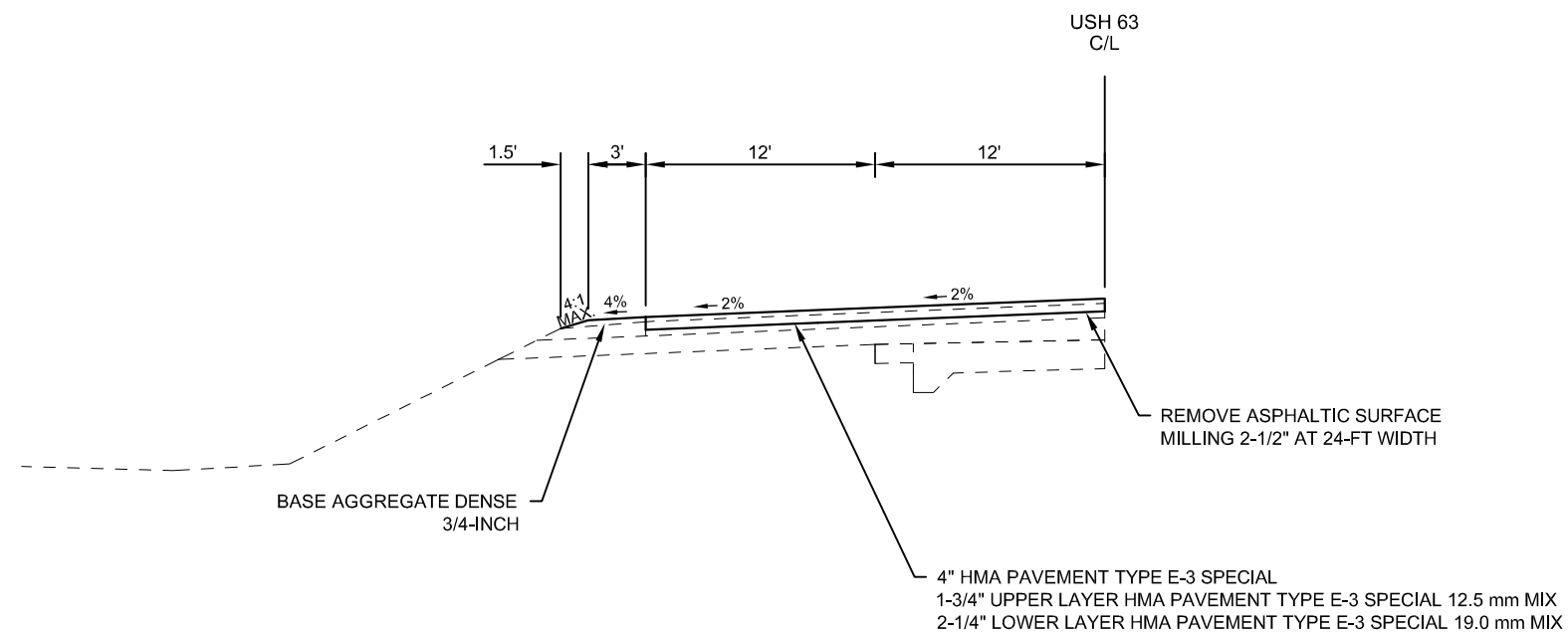
PAVED SHOULDER DETAILPAVED SHOULDER DETAIL

STA. 468+96 - 478+47.75 LT
STA. 468+52.25 - 477+79 RT



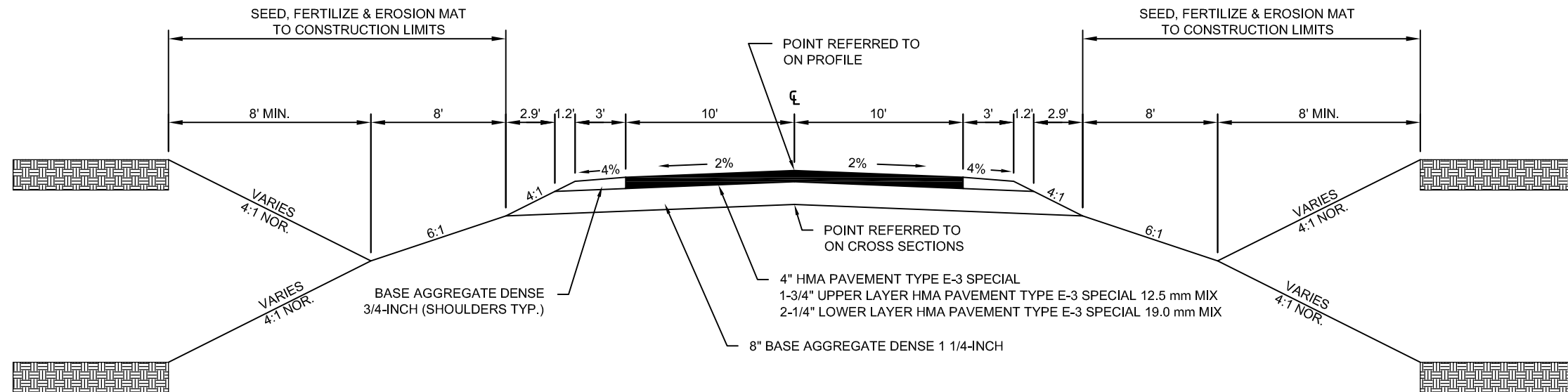
TYPICAL FINISHED HALF SECTION THRU RIGHT TURN LANE

481+99 - 487+54 LT



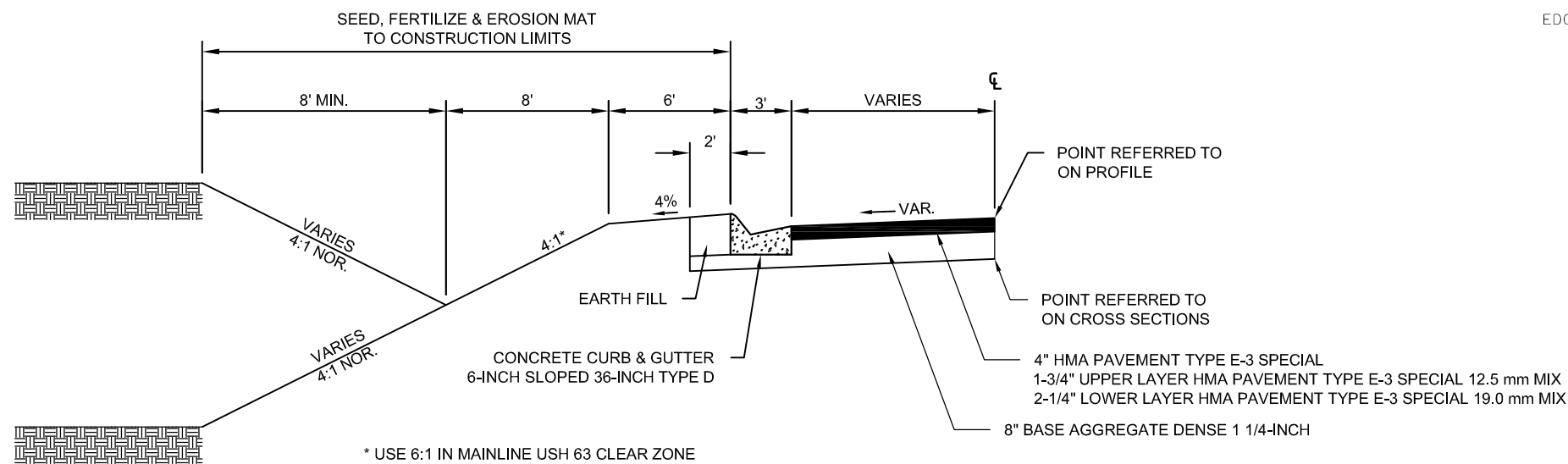
TYPICAL FINISHED HALF SECTION THRU RIGHT TURN LANE

589+83 - 592+20 LT

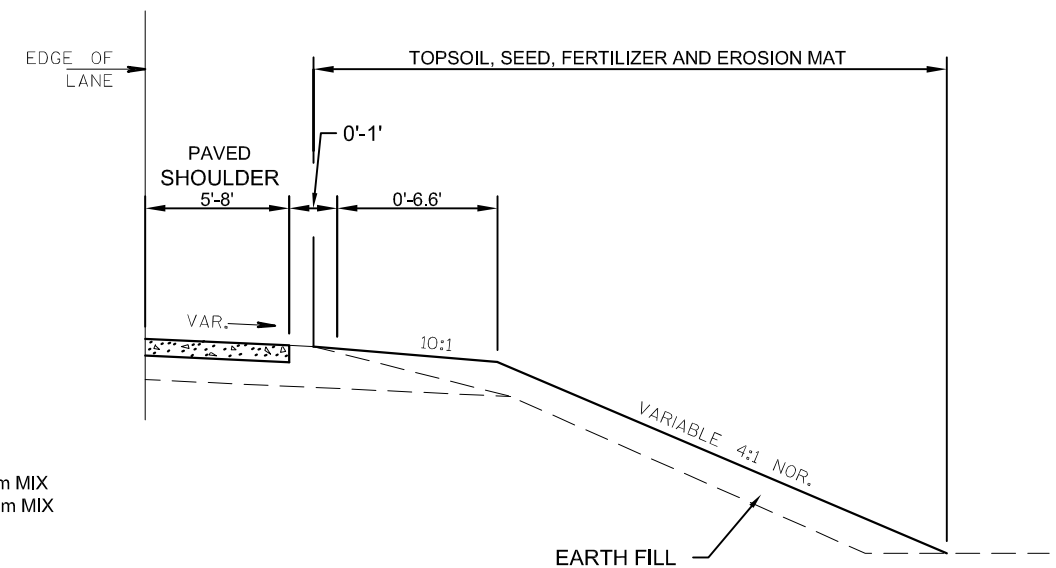


TYPICAL SECTION FOR PAVED SIDEROADS

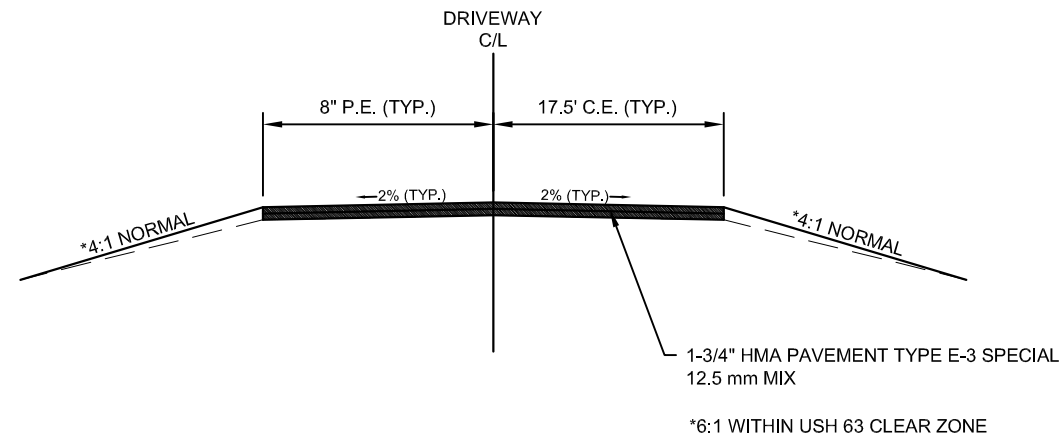
8+36 - 9+76 (BRICKYARD ROAD - WEST)



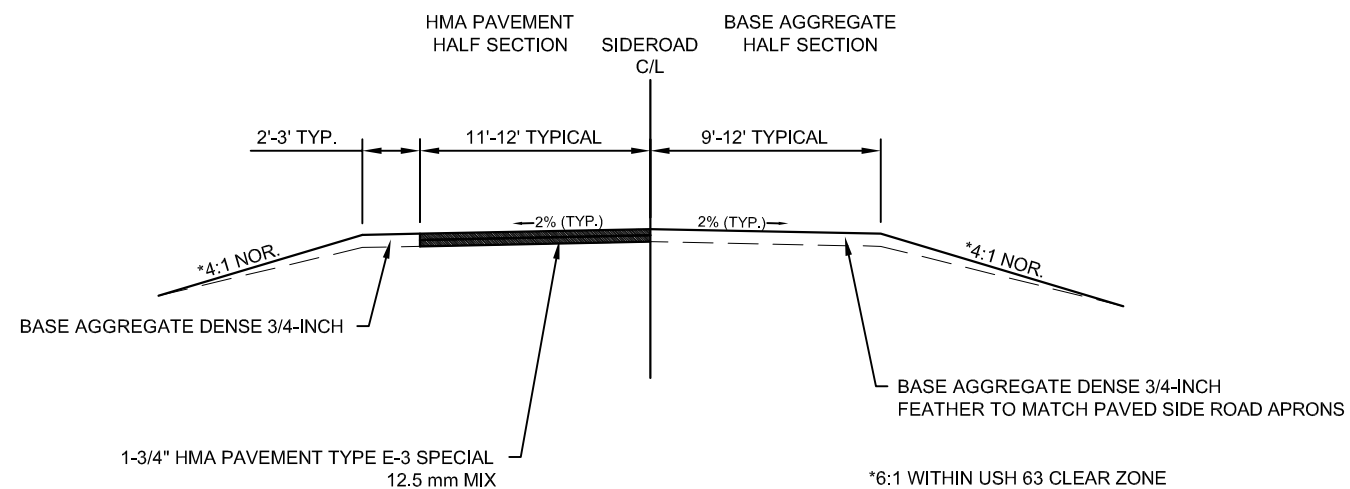
TYPICAL CURB & GUTTER HALF SECTION FOR PAVED SIDEROADS



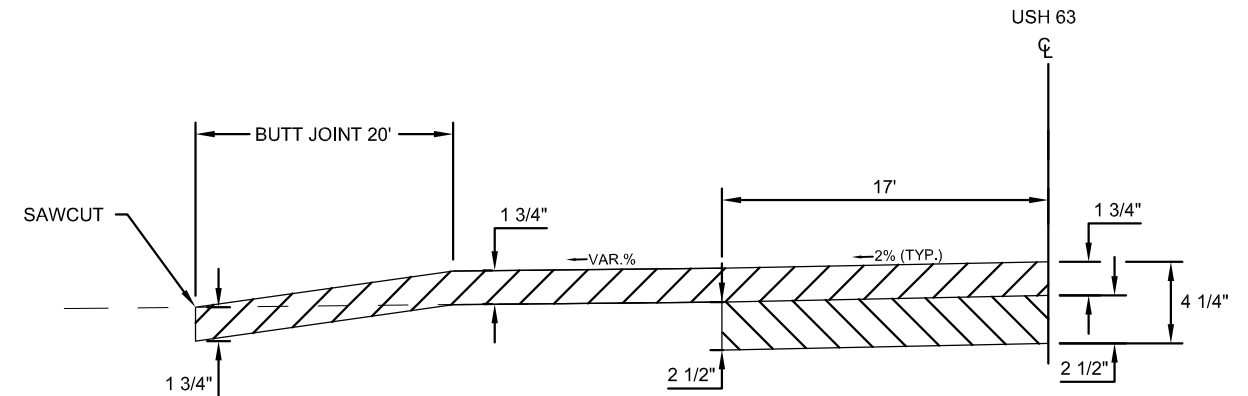
TYPICAL GRADING HALF SECTION FOR MGS TERMINALS



TYPICAL PAVED DRIVEWAY SECTION



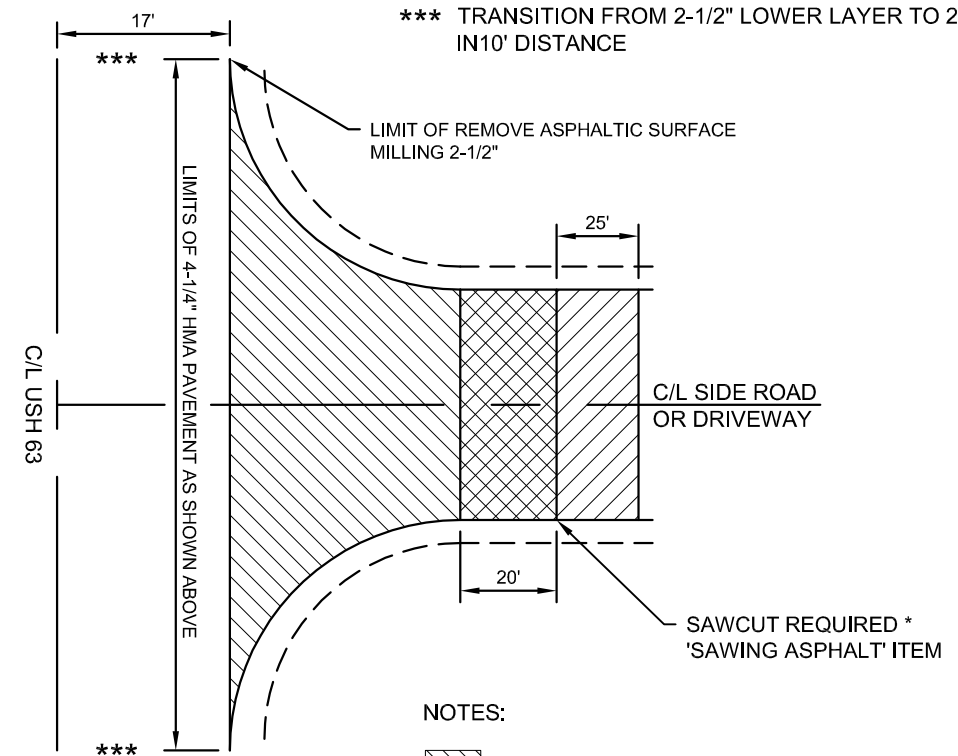
TYPICAL SIDE ROAD SECTION



NOTES:

- UPPER LAYER 1-3/4" HMA PAVEMENT TYPE E-3 SPECIAL 12.5 mm MIX
- LOWER LAYER 2-1/2" HMA PAVEMENT TYPE E-3 SPECIAL 19.0 mm MIX

*** TRANSITION FROM 2-1/2" LOWER LAYER TO 2-1/4" LOWER LAYER IN 10' DISTANCE



NOTES:

- 1-3/4" HMA PAVEMENT TYPE E-3 SPECIAL 12.5 mm MIX
- REMOVING ASPHALTIC SURFACE BUTT JOINT
- 3/4-INCH BASE AGGREGATE DENSE,** FEATHER TO MATCH PAVED SIDE ROAD APRONS.

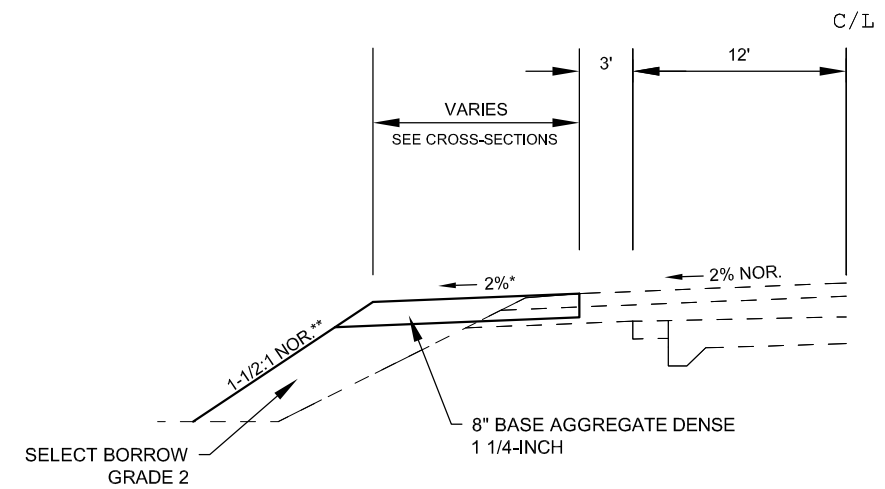
MATCH EXISTING PAVED SURFACE RADII AND TAPERS.
 * REQUIRED ON PAVED SIDE ROADS AND DRIVEWAYS ONLY.
 **REQUIRED ON UN-PAVED SIDE ROADS ONLY.

PAVED AND UN-PAVED SIDE ROAD
AND PAVED DRIVEWAY DETAIL



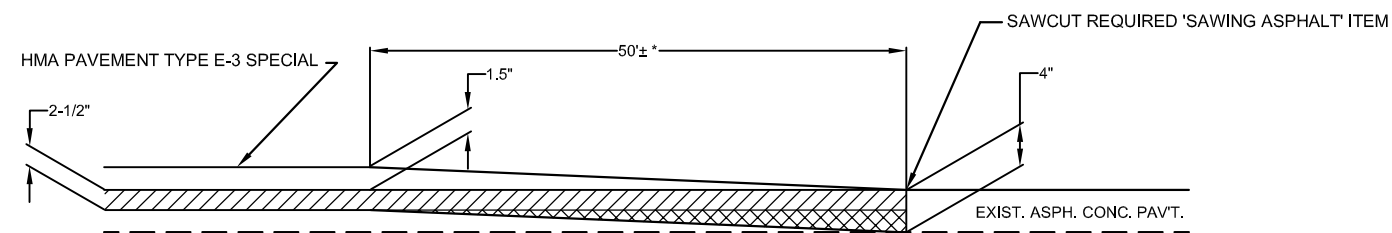
* VARY CROSS SLOPE TO MATCH SUPERELEVATION WHERE NECESSARY.

** STEEPEN TEMPORARY FILL SLOPES AT CULVERT ENDS AS SHOWN ON THE CROSS SECTIONS.



TYPICAL HALF SECTION FOR TEMPORARY WIDENING
FOR CULVERT REPLACEMENT

STA. 492+40 - 495+75 LT
STA. 492+21 - 496+00 RT
STA. 538+13 - 542+20 LT
STA. 538+58 - 541+70 RT



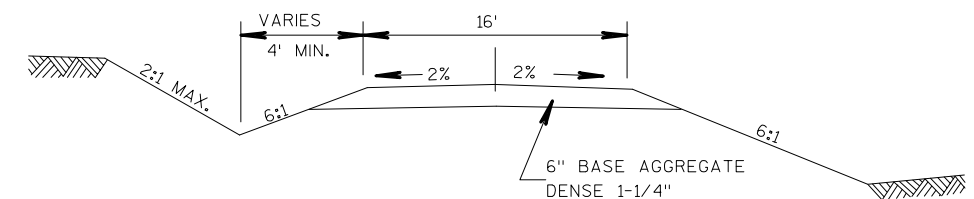
* EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN THE FIELD.

 REMOVE ASPHALTIC SURFACE BUTT JOINTS

 REMOVE ASPHALTIC SURFACE MILLING 2-1/2"

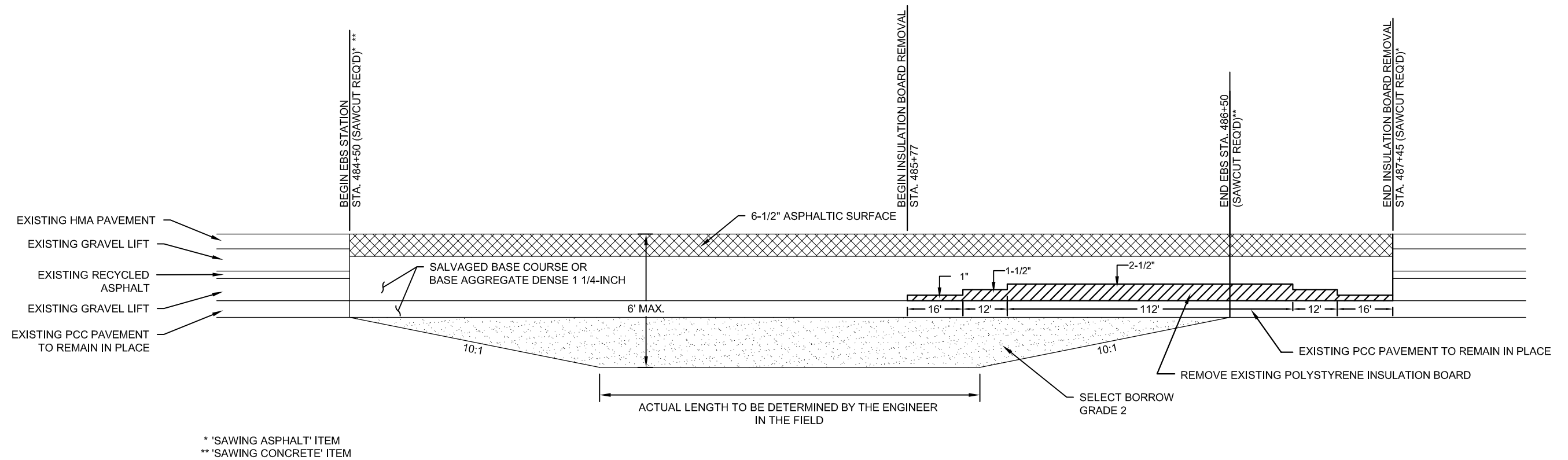
DETAIL OF BUTTED JOINT

STA 424+00 USH 63
STA 625+00 USH 63



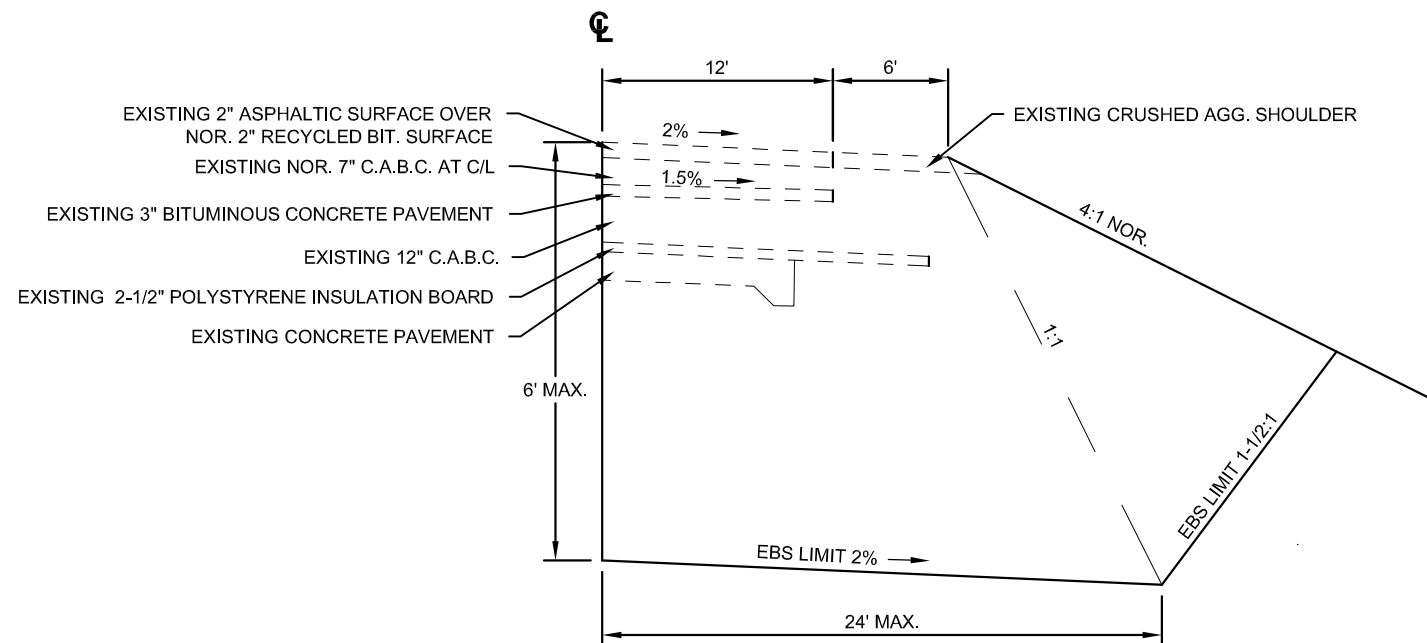
TYPICAL SECTION FOR FIELD ENTRANCE
STA. 484+85.8 LT

NOTE: DRIVEWAY PROFILES NOT TO EXCEED 10%.



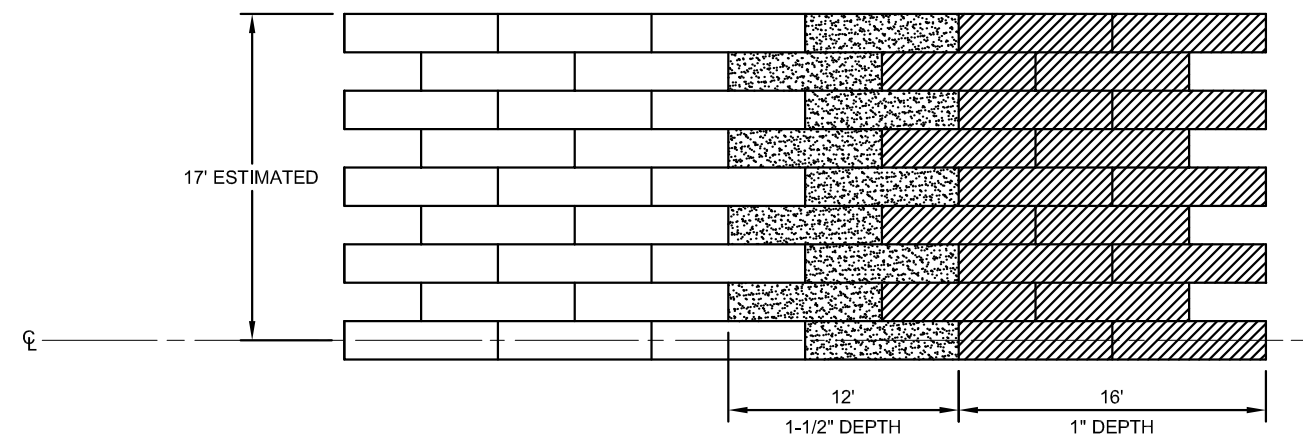
EBS AND POLYSTYRENE INSULATION BOARD REMOVAL DETAIL

STA. 484+50 - 486+50 (EBS)
STA. 485+77 - 487+45 (INSULATION BOARD REMOVAL)



TYPICAL HALF SECTION SHOWING EBS LATERAL LIMITS

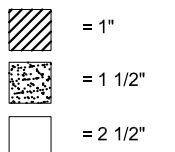
STA. 484+50 - 486+50
STA. 491+15 - 492+55

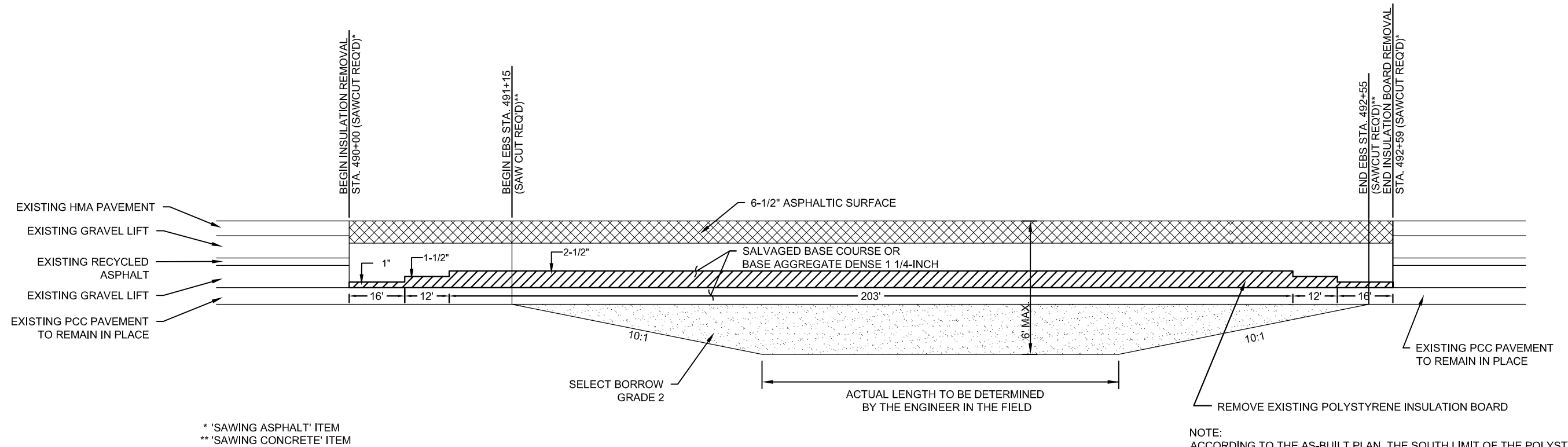


PLAN VIEW OF INSULATION BOARD

NOTES:
ASPHALTIC SURFACE IN THE EBS/INSULATION BOARD REMOVAL AREAS SHALL BE 6-1/2" THICK AND SHALL MATCH THE TOP OF THE EXISTING HMA PAVEMENT PROFILE PRIOR TO REMOVE ASPHALTIC SURFACE MILLING 2-1/2".

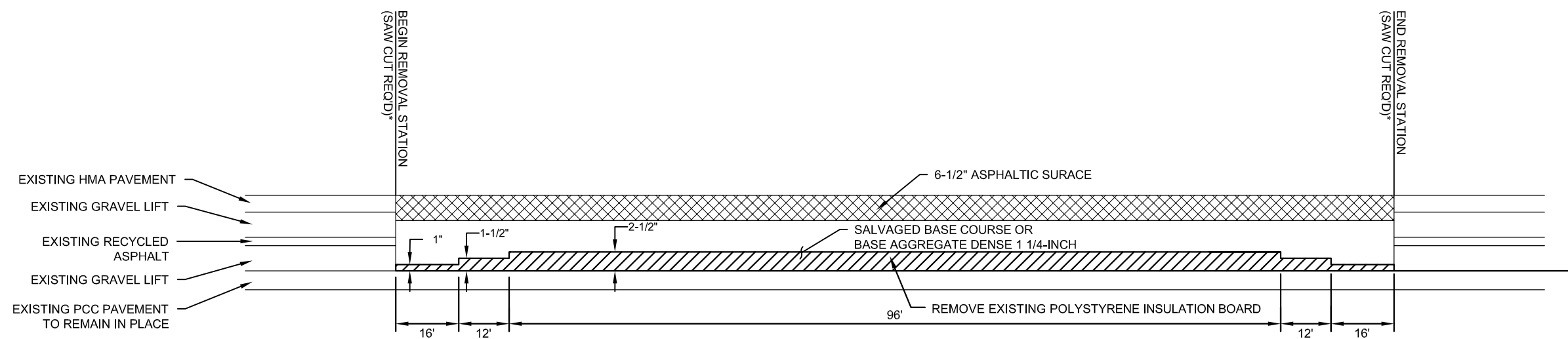
PAVE ASPHALTIC SURFACE IN 2 LAYERS MINIMUM.





EBS AND POLYSTYRENE INSULATION BOARD REMOVAL DETAIL

STA. 491+15 - 492+55 (EBS)
STA. 490+00 - 492+59 (INSULATION BOARD REMOVAL)



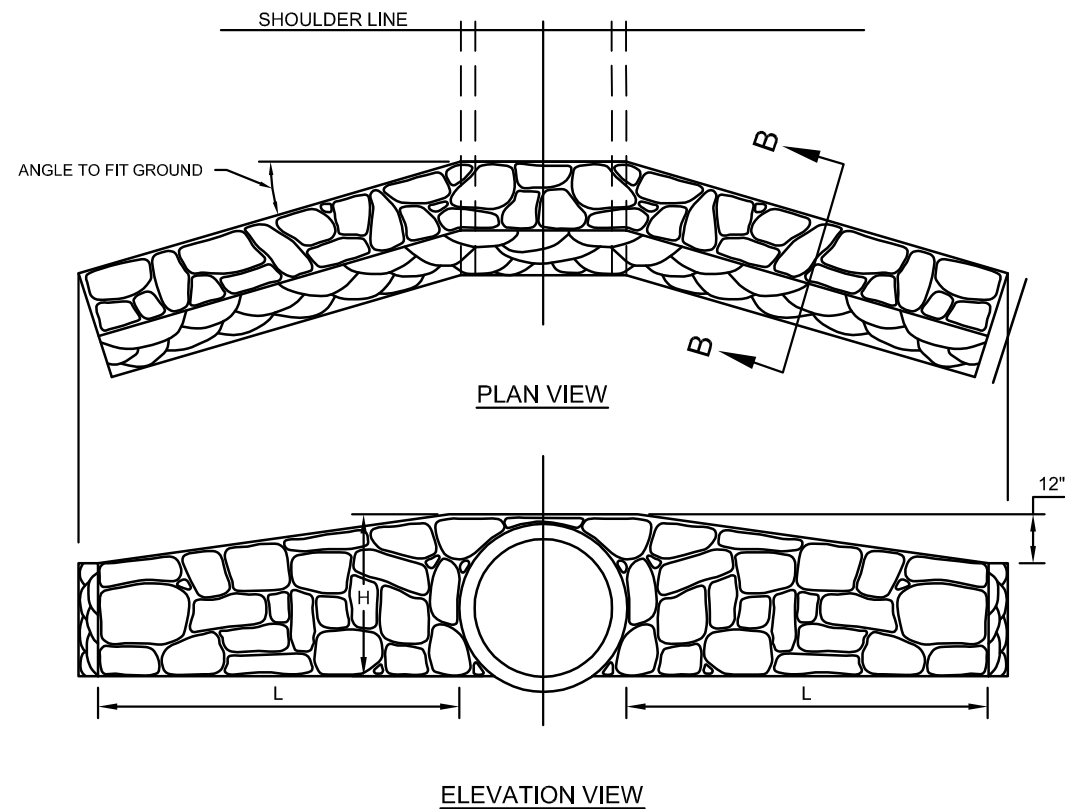
POLYSTYRENE INSULATION BOARD REMOVAL DETAIL

STA. 599+68 - 601+20

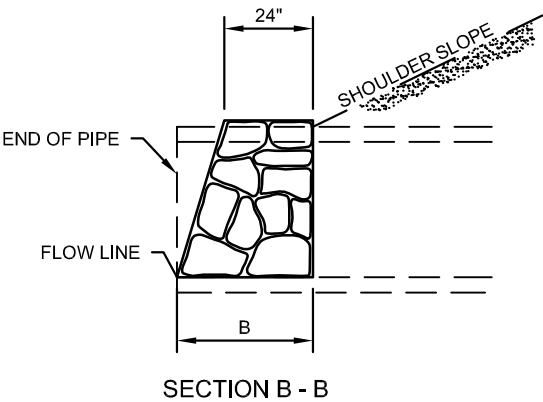
* 'SAWING ASPHALT' ITEM

NOTES:
ASPHALTIC SURFACE IN THE EBS/INSULATION BOARD REMOVAL AREAS SHALL BE 6-1/2" THICK AND SHALL MATCH THE TOP OF THE EXISTING HMA PAVEMENT PROFILE PRIOR TO REMOVE ASPHALTIC SURFACE MILLING 2-1/2".

PAVE ASPHALTIC SURFACE IN 2 LAYERS MINIMUM.

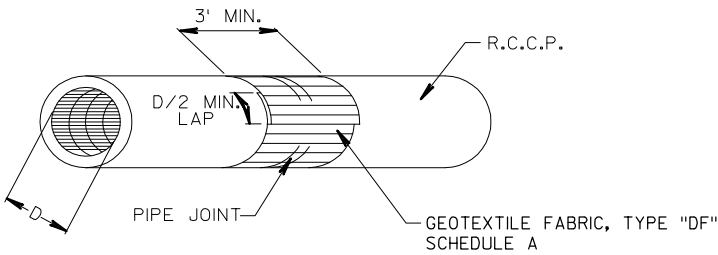
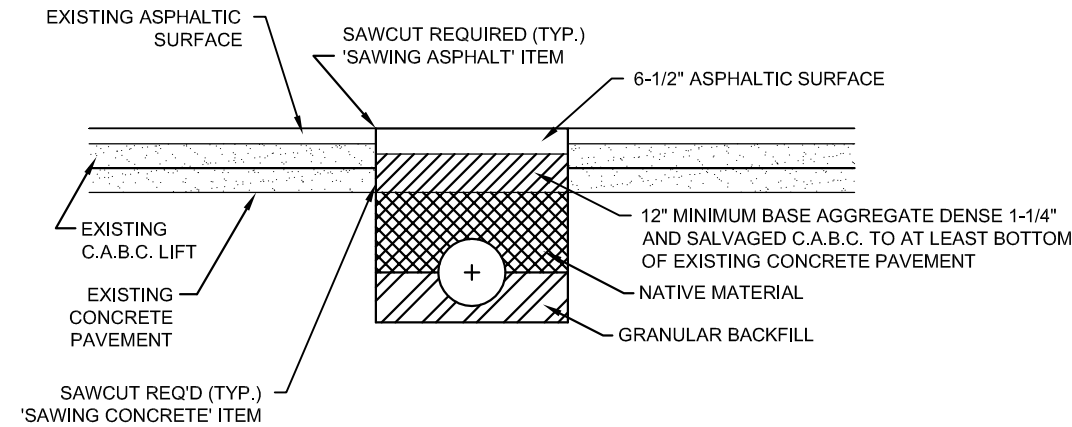


DIAMETER OF PIPE	DIMENSIONS		
	H	L	B
18"	24"	8'-0"	30"
24"	30"	8'-0"	30"
30"	36"	8'-0"	33"
36"	42"	8'-0"	36"
42"	48"	8'-0"	39"
48"	54"	8'-0"	42"
60"	66"	10'-0"	48"
72"	78"	12'-0"	54"



DETAIL OF ROCK HEADWALLS FOR PIPE CULVERTS*

* NOTE: USE THIS DETAIL AS A GUIDE FOR RESETTNG ROCK HEADWALLS USING EXISTING ROCKS AT EACH LOCATION AFTER EXCAVATING AND RESETTNG PIPE CULVERT END SECTIONS AT THE LOCATIONS SHOWN ON THE PLAN. RESETTNG ROCK HEADWALLS AT PIPE CULVERT ENDS IS INCIDENTAL TO THE RECONDITIONING CULVERT ENDS ITEM.



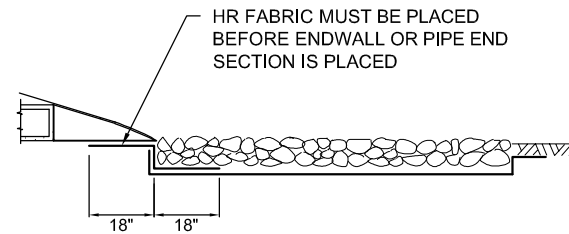
GEOTEXTILE FABRIC REQUIRED FOR PIPE JOINTS

PIPE DIA. (IN.)	PIPE O.D. (IN.)	FABRIC/JOINT (S.Y.)
18	23	2.3
21	26.5	2.6
24	30	3.0
27	33.5	3.3
30	37	3.6
36	44	4.3
42	51	5.0
48	58	5.7
54	65	6.4
60	72	7.1
66	79	7.8
72	86	8.5

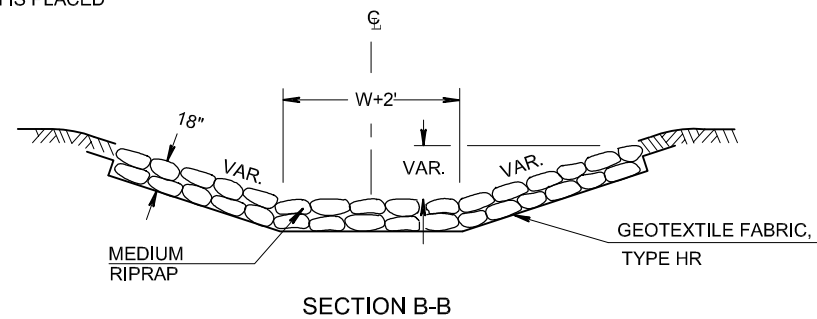
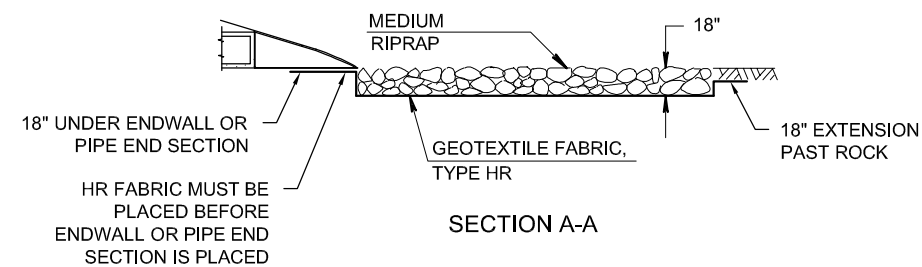
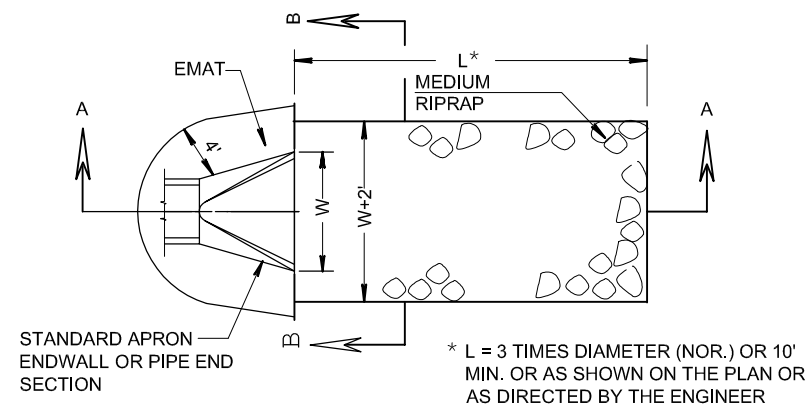
DETAIL OF WRAPPED PIPE JOINT
WRAP ALL JOINTS

DETAIL FOR MAINLINE CULVERT PIPE INSTALLATION

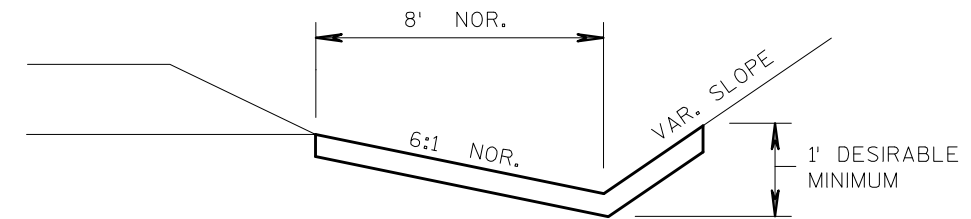
HR FABRIC MAY BE INSTALLED AS TWO SEPARATE PIECES, OVERLAPPING AS SHOWN OR AS APPROVED BY THE ENGINEER IN THE FIELD. EXTRA QUANTITY FOR OVERLAP IS INCIDENTAL TO THE CONTRACT.



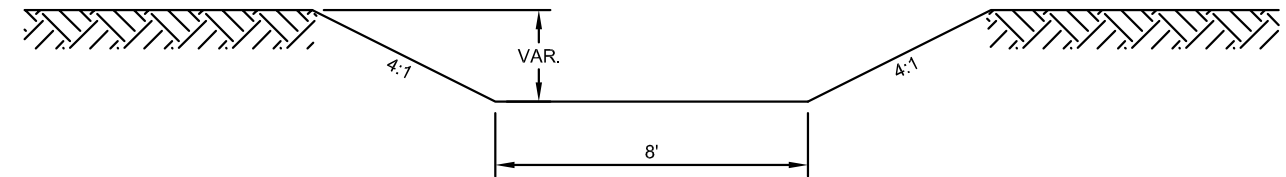
ALTERNATE HR FABRIC INSTALLATION



MEDIUM RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS AND PIPE END SECTIONS



EROSION MAT DETAIL FOR DITCHES



SECTION FOR DITCH CLEANING

STA. 570+67 - 571+00 LT

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	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 99.2 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.9 ACRES

TEMPORARY SETTLING BASIN

The temporary settling basin shall be completed prior to the beginning of pumping operations. Contractor shall pump water to basin prior to discharge into adjacent wetlands, lakes or streams.

Temporary settling basins shall be placed in a locations not to impede traffic flow or affect wetlands or flood plains.

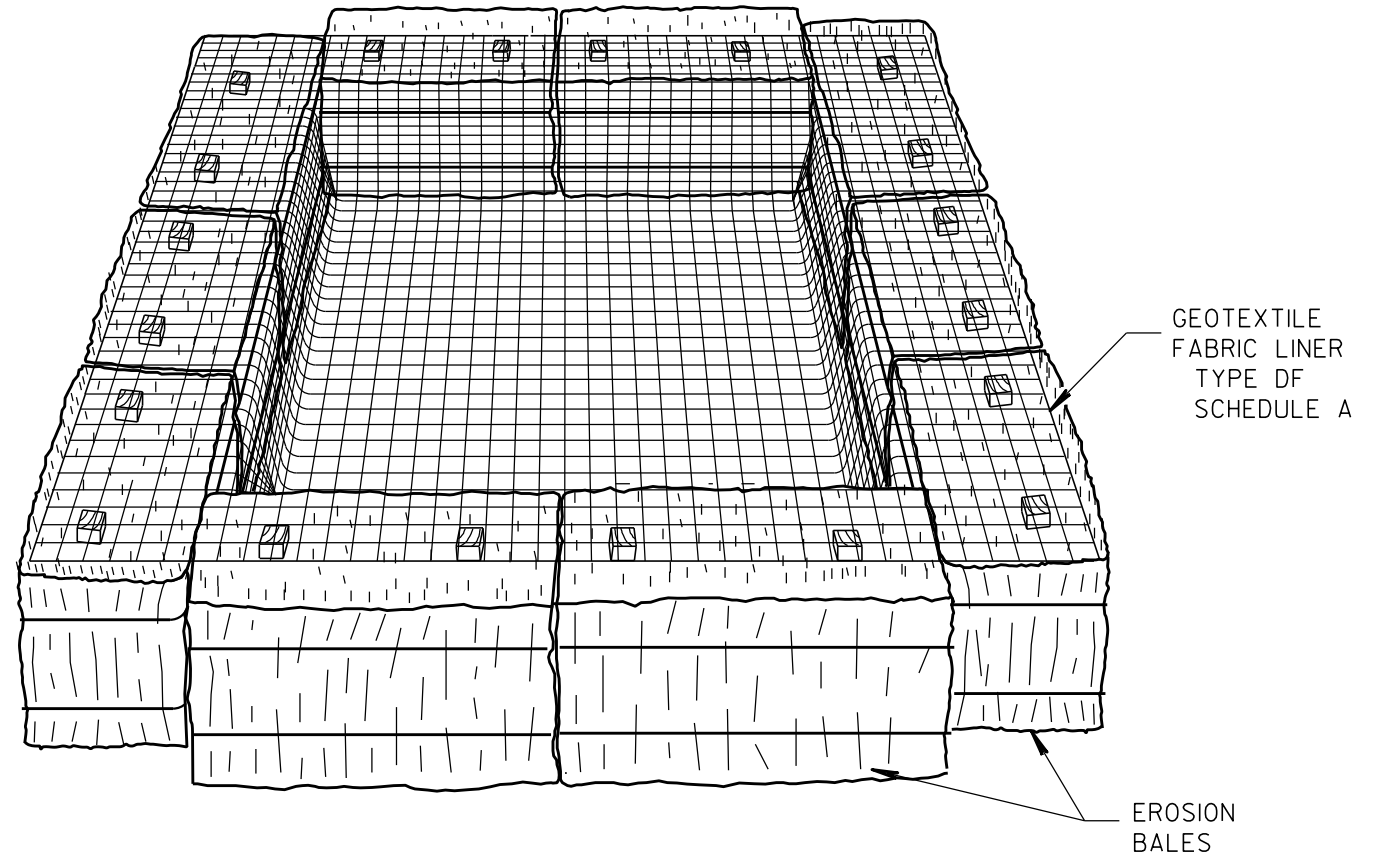
Basins shall be sized so that the turbidity of the water leaving the settling basin does not exceed the turbidity of the receiving waters or cause any deposition of materials into any adjacent wetland or flood plain.

Maintain the temporary settling basin as required including removing and disposing of sediment deposits. Basin shall be kept less than 10% full of sediment. Remove and replace any portion of the settling basin no longer fit for use, as the engineer directs.

Upon completion of the work, remove the temporary settling basin and return area to pre-construction conditions. Dispose of bales, geotextile fabric and sediments off the project site in a manner acceptable to the engineer.

Payment is full compensation for furnishing, placing, maintaining and removing all materials needed to construct the temporary settling basin; and for furnishing all labor, tools, equipment and incidentals necessary to complete the contract work.

Paid for as erosion bales and geotextile fabric type DF.



TEMPORARY SETTLING BASIN

SIZE TO BE DETERMINED BY WATER QUANTITY AND QUALITY

EROSION CONTROL GENERAL NOTES

IN WETLAND AREAS, SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE PROPOSED SLOPE.

TURBIDITY BARRIER SHALL BE INSTALLED NO FURTHER THAN THREE(3) FEET FROM THE TOE OF THE PROPOSED SLOPE.

USE BEST MANAGEMENT PRACTICES FOR PROJECT'S EROSION CONTROL.

AT LOCATIONS THAT FREEON, VERY STONEY AND HAUGEN SANDY LOAM SOILS ARE ENCOUNTERED, LONGER RETENTION TIME AND SOIL STABILIZERS SHALL BE USED FOR TEMPORARY SETTLING BASINS.

USE BEST MANAGEMENT PRACTICES FOR GRADING OR CULVERT WORK WITHIN THE STREAM THREAD OF THE YELLOW RIVER.

AVOID, MINIMIZE WETLAND IMPACTS DURING CULVERT WORK AT UNNAMED LAKE 32-1 AND UNNAMED LAKE 32-2.

BEGIN PROJECT 1550-21-71
STATION 424+00

422+00

424+00

426+00

428+00

430+00

432+00

434+00

PI 422+48.72

30TH AVE.

SIGN

SIGN

wet 1 M

wet 2 SS

wet 3 SM

wet 4 M

PC 434+06.8

LEGEND

- ##### EROSION MAT URBAN CL I, TYPE B
- SILT FENCE
- RIPRAP
- △△△ TEMPORARY DITCH CHECK
- ←—→ TURBIDITY BARRIER
- - - SLOPE INTERCEPT
- ~> SURFACE WATER FLOW

Z

PI 435+89.34

436+00

438+00

440+00

442+00

444+00

446+00

448+00

450+00

USH 63

USH 63

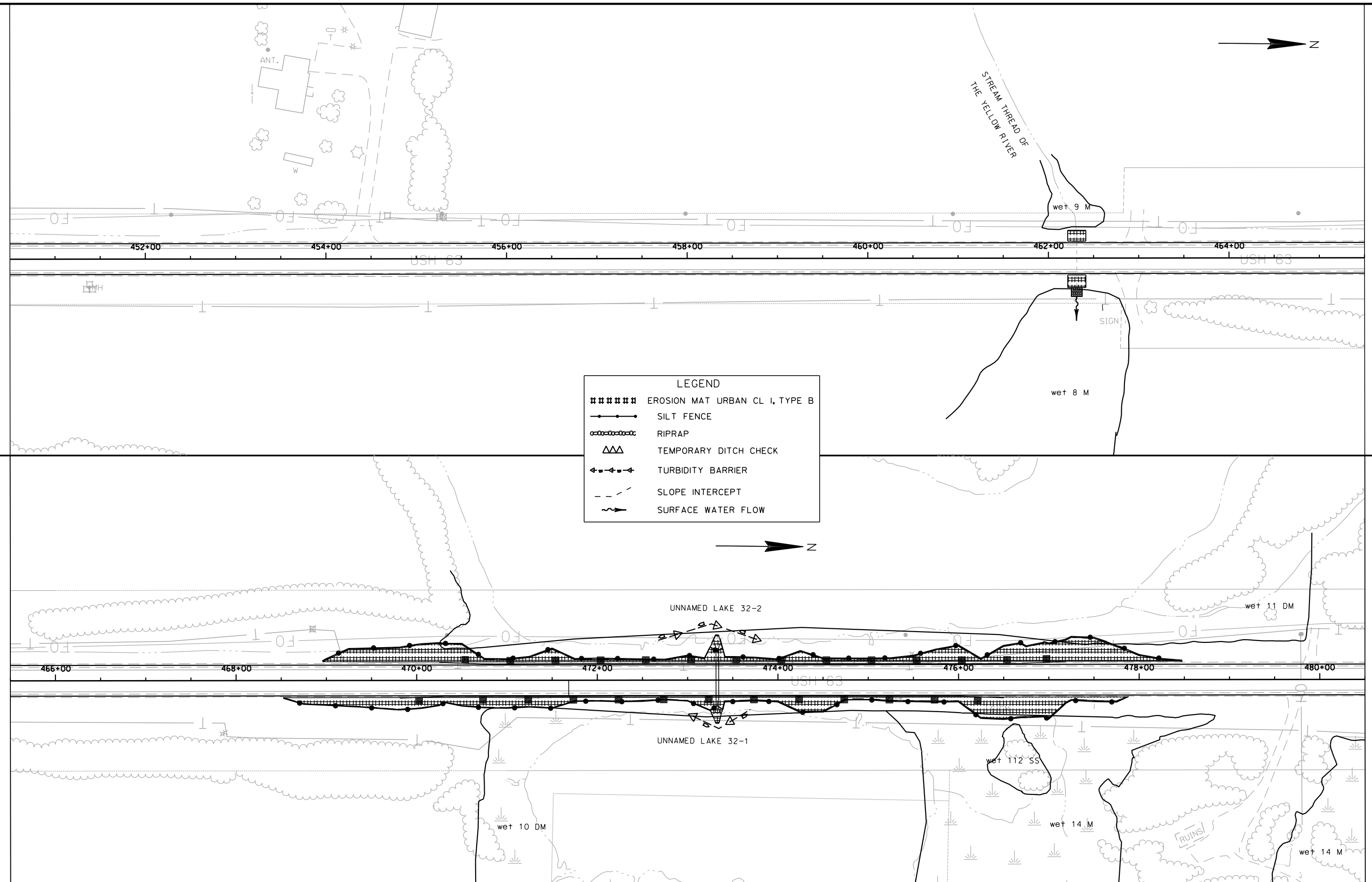
PT 437+71.96

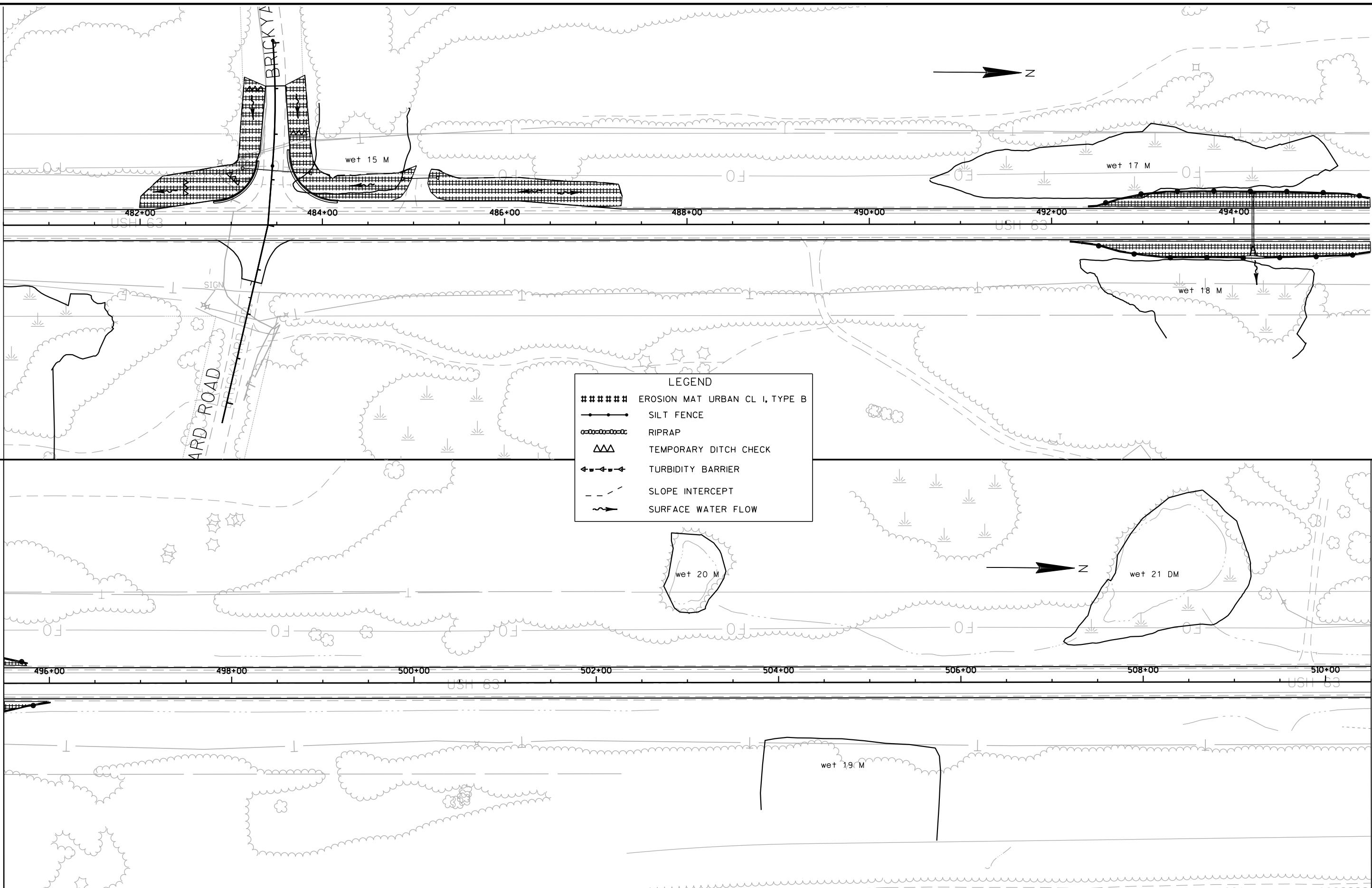
ABANDONED RAILROAD

ABANDONED RAILROAD

wet 6 M

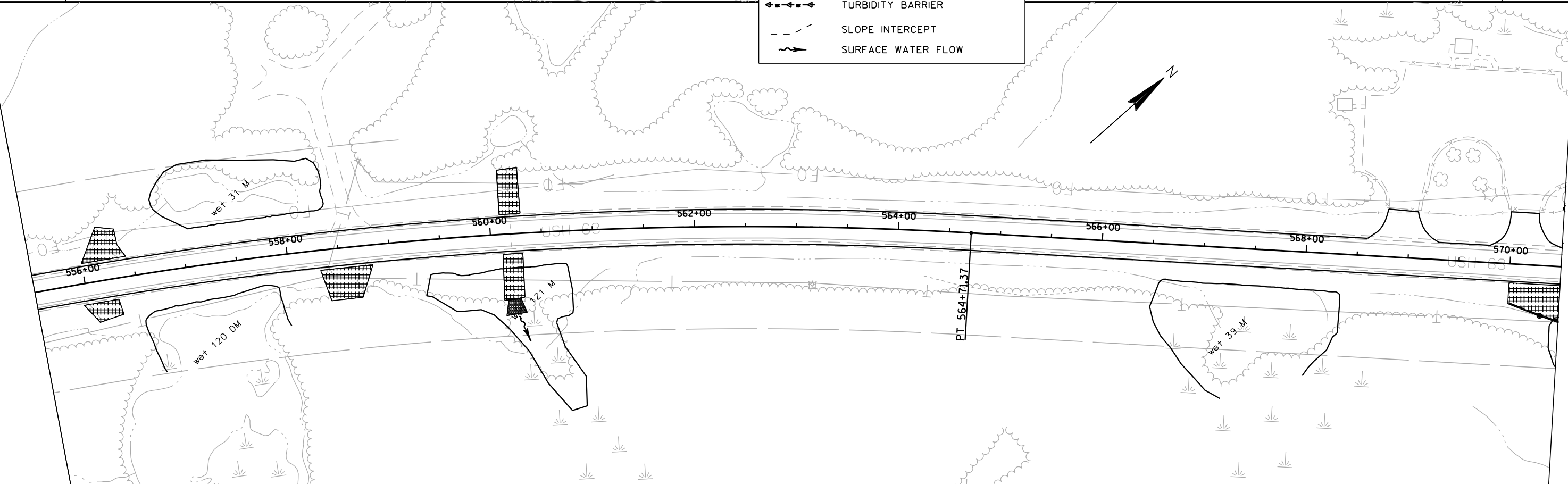
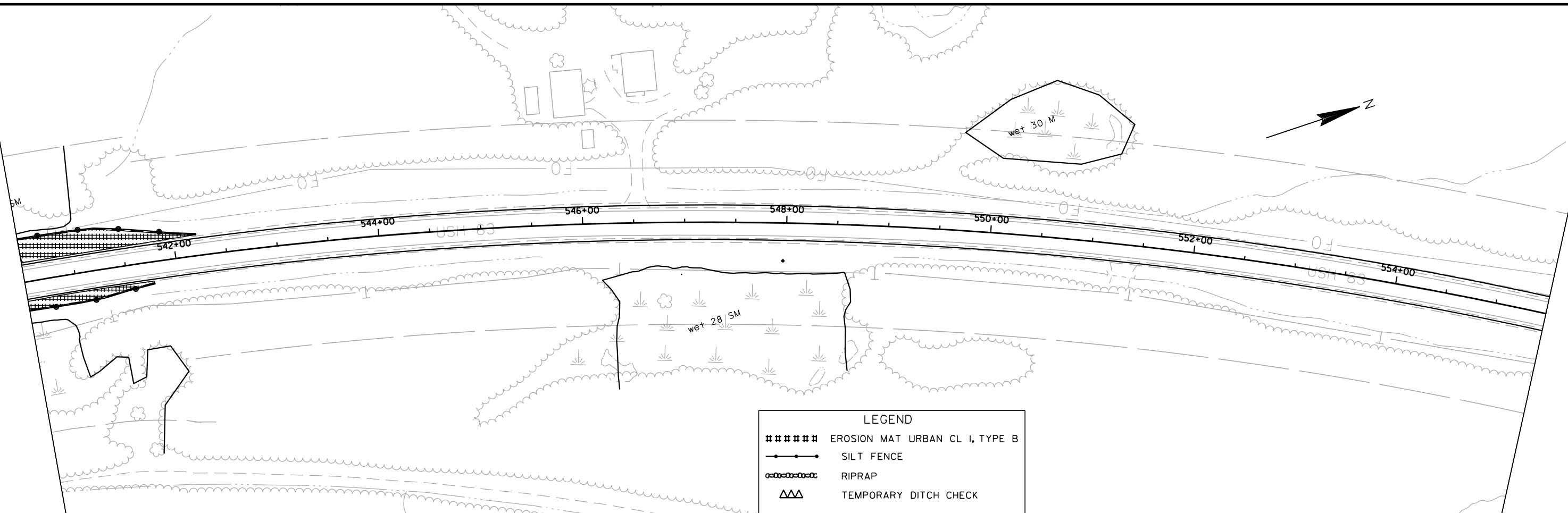
wet 7 M

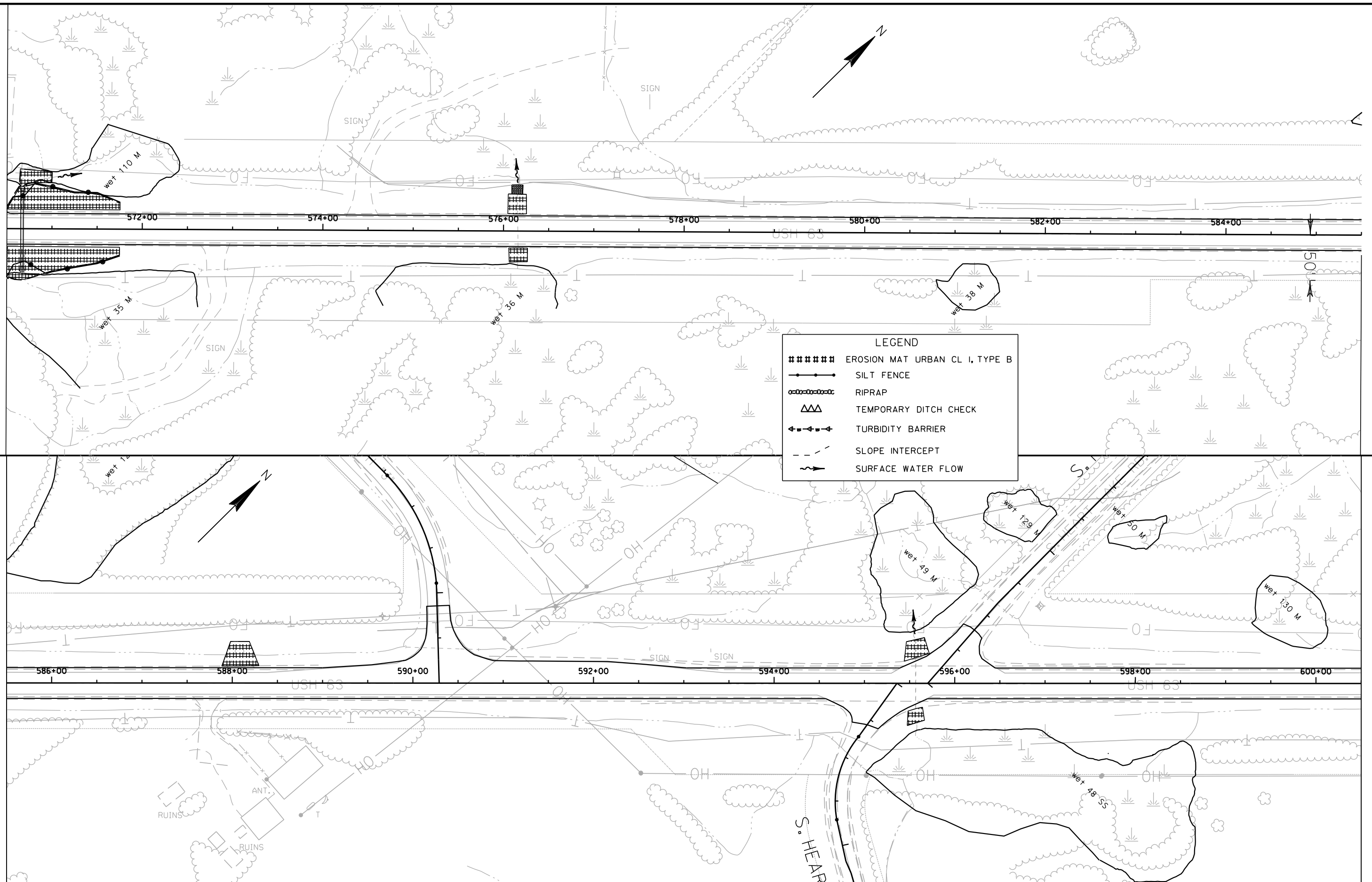




LEGEND

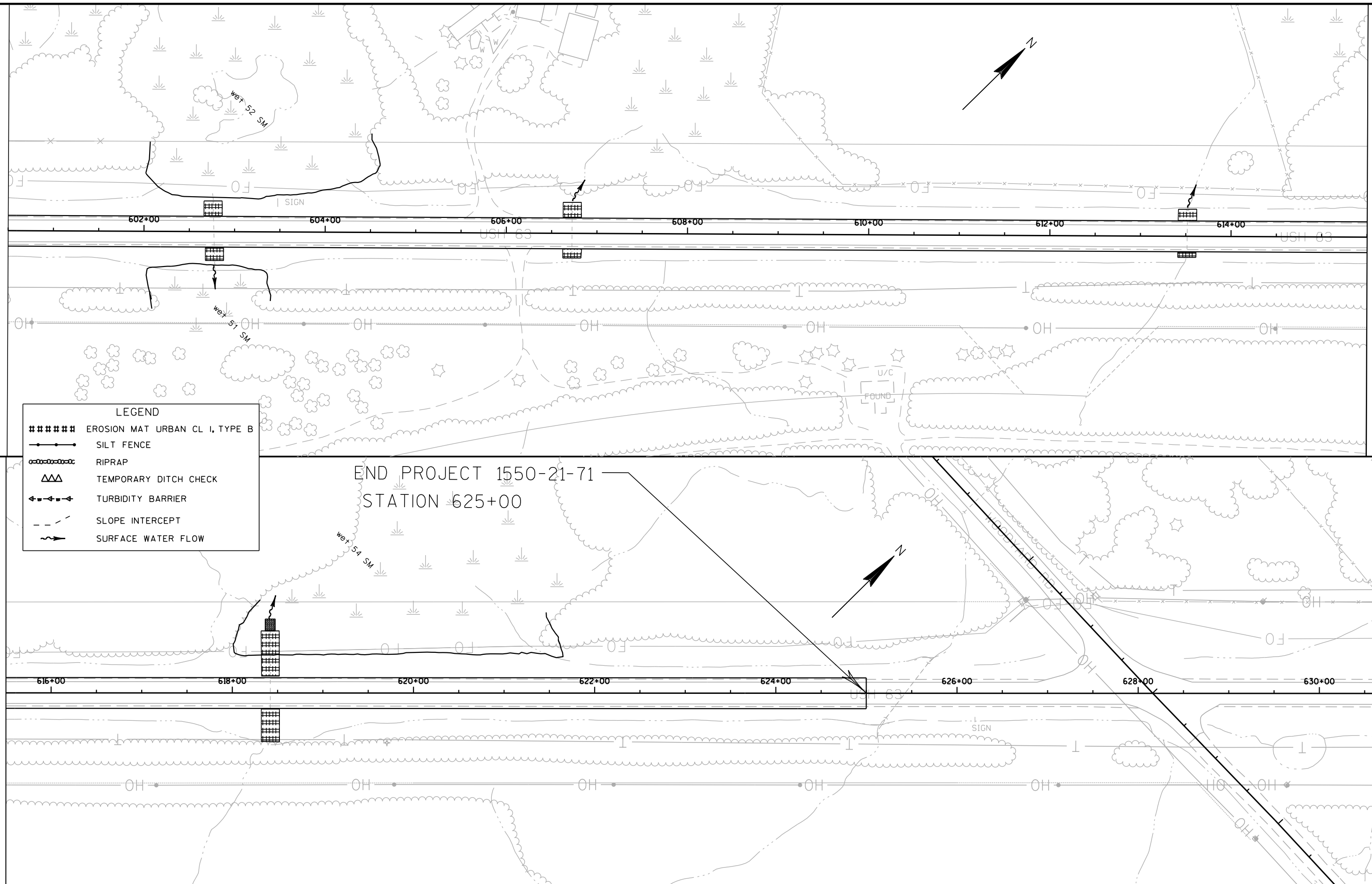
#####	EROSION MAT URBAN CL I, TYPE B
—●—●—●—	SILT FENCE
-o-o-o-o-o-	RIPRAP
△△△	TEMPORARY DITCH CHECK
←-←-←-←	TURBIDITY BARRIER
- - -	SLOPE INTERCEPT
→	SURFACE WATER FLOW





2

2



PROJECT NO:1550-21-71

HWY: USH 63

COUNTY: WASHBURN

EROSION CONTROL

SHEET

E

PLOT DATE : 30-JUL-2014 09:59

PLOT BY : dotr7m

PLOT NAME :

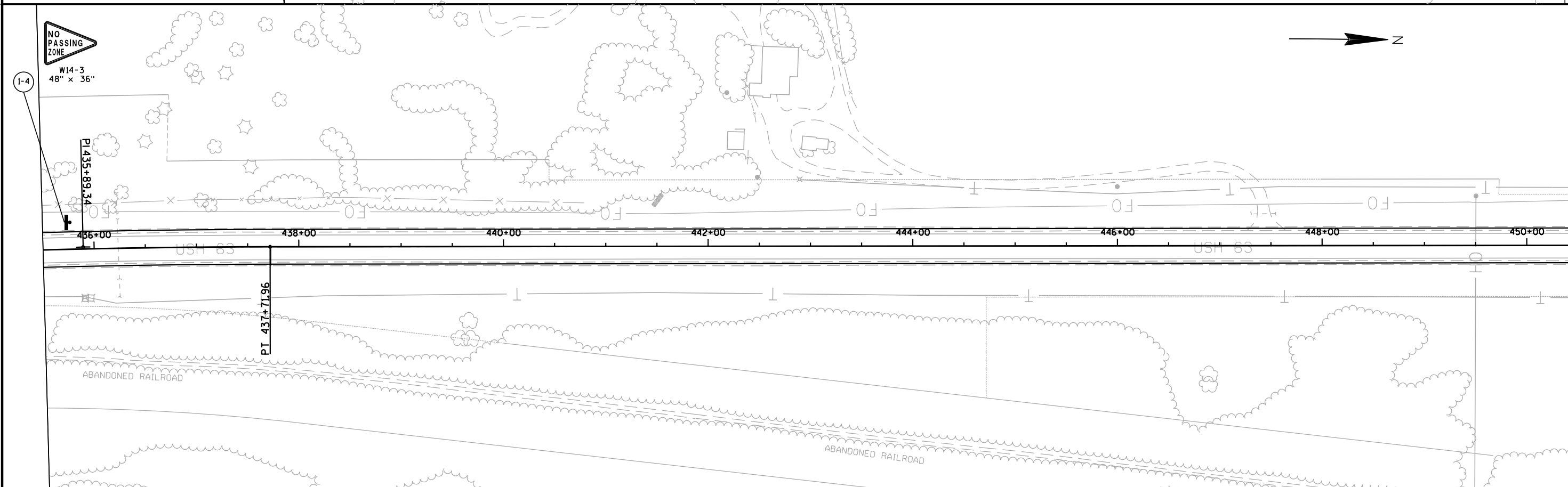
PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

BILL OF MATERIALS															
ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING															
SIGN	SIGN CODE	SIGN SIZE	NO REQ'D.	SIGN	SIGN CODE	SIGN SIZE	NO REQ'D.	SIGN	SIGN CODE	SIGN SIZE	NO REQ'D.	SIGN	SIGN CODE	SIGN SIZE	NO REQ'D.
	R1-1	36" x 36"	2		W3-5	36" x 36"	1		D5-61	48" x 24"	2				
	R1-1	30" x 30"	6		D7-81	108" x 30"	1		D5-62-L	48" x 24"	1				
	W14-3	48" x 36"	10		D7-81A	108" x 21"	1		D5-62-R	48" x 24"	1				
	I2-2	72" x 15"	1		R5-53-A	18" x 24"	2					GENERAL NOTES FOR SIGNING: * SEE SIGN DETAIL SHEETS FOR SPECIFIC SIGN FABRICATION DETAILS. ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF TRAFFIC CONTROL DEVICES. (WMUTCD) BEFORE INSTALLING ANY SIGN POSTS, LOCATIONS ARE TO BE CLEARED WITH UTILITIES THROUGH DIGGER'S HOTLINE 1-800-242-8511 THE LOCATIONS OF ALL NO PASSING ZONE SIGNS WILL BE DETERMINED AFTER THE NO PASSING ZONE SPOTTING IS DONE. LAYOUT AND ACTUAL PLACEMENT OF THE SIGNS SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH THE WMUTCD. NO PERMANENT SIGNING WORK SHALL BE PERFORMED WITHOUT THE APPROVAL OF THE ENGINEER.			
	D1-61	90" x 24"	2		J1-1	24" X 39"	2								
	D1-61	72" x 24"	1		J13-1	24" X 45"	1								
	D1-61	78" x 24"	2		J13-1	24" X 45"	1								

BEGIN PROJECT 1550-21-71
STATION 424+00

NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED
AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE
NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.



PROJECT NO:1550-21-71

HWY: USH 63

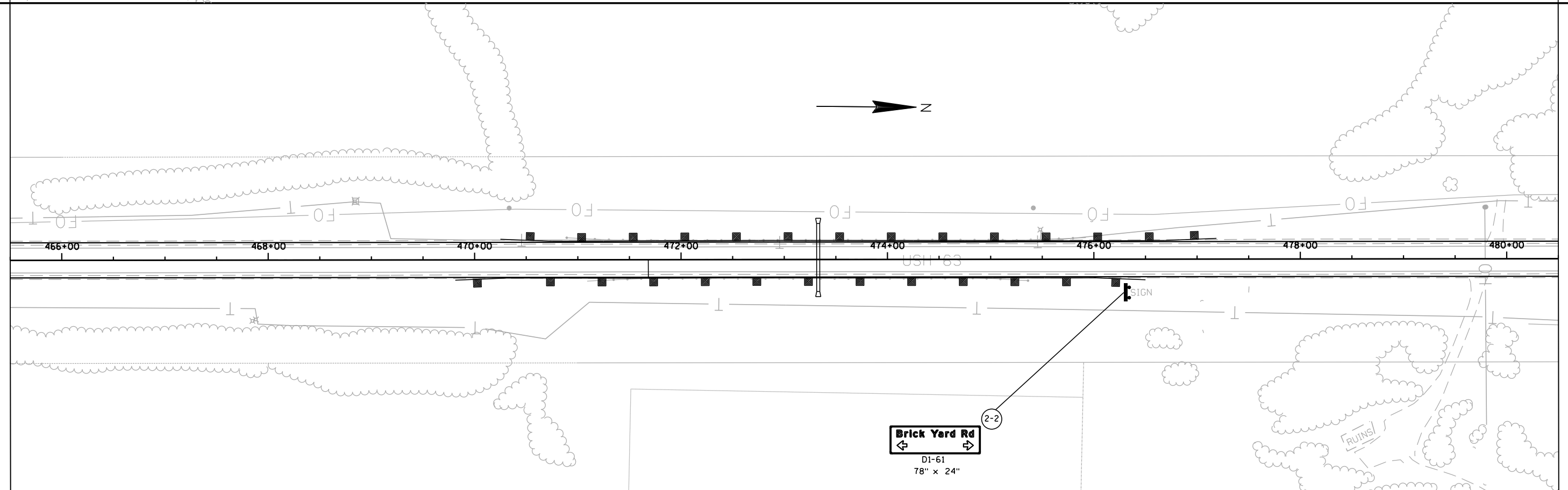
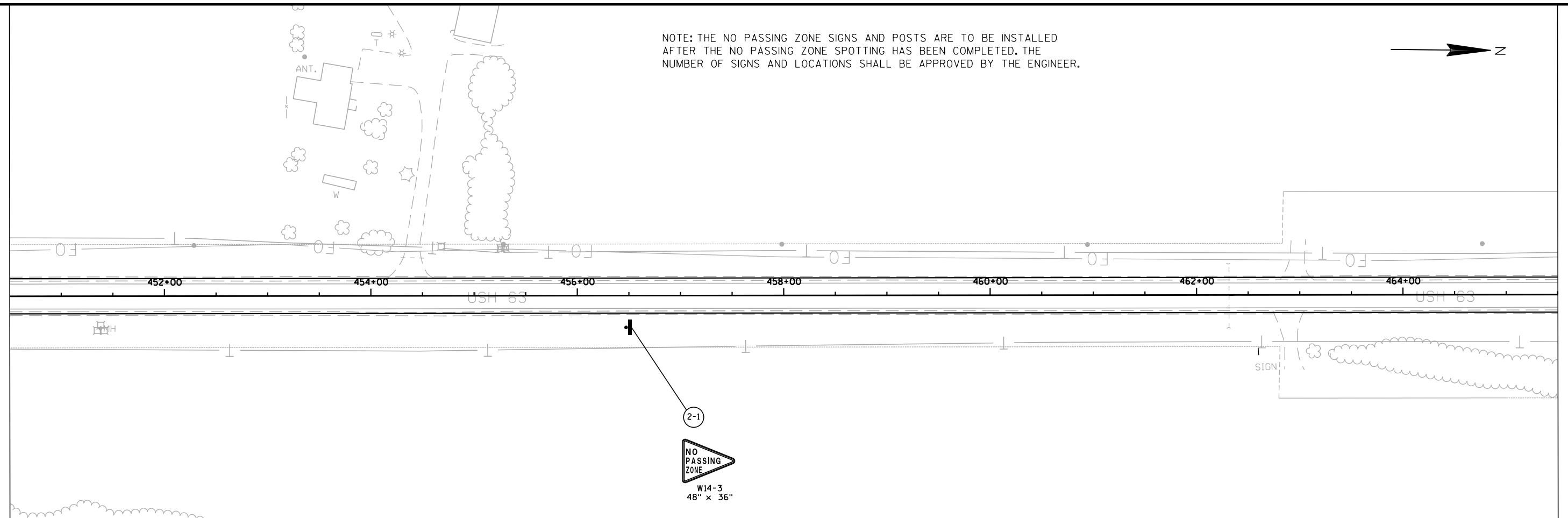
COUNTY: WASHBURN

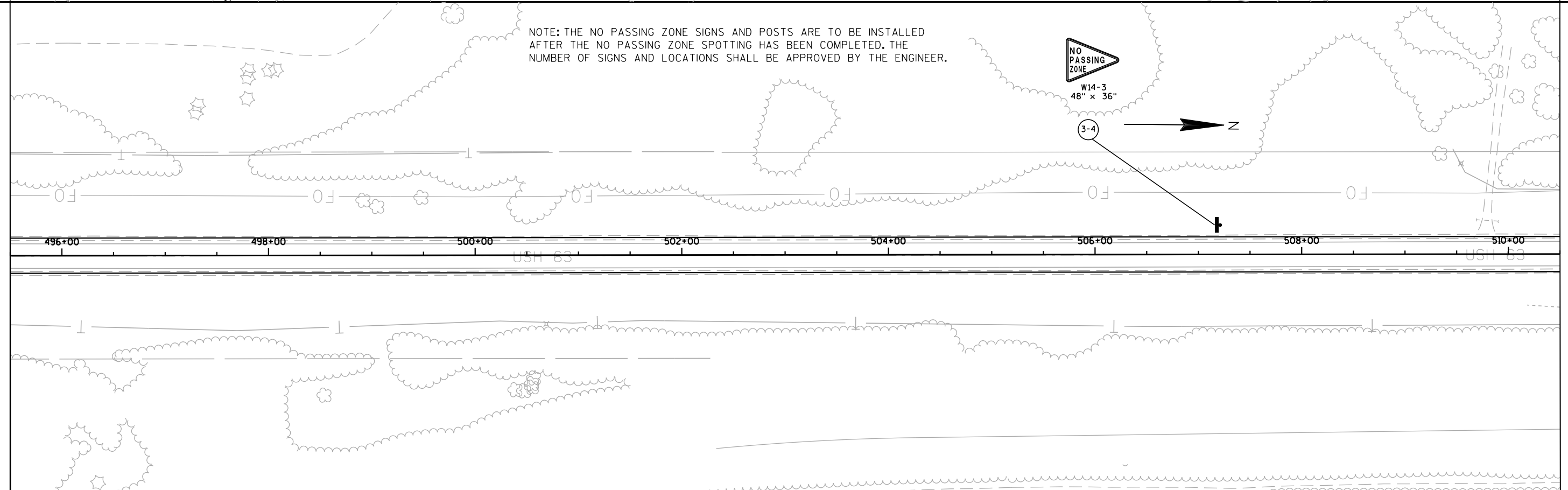
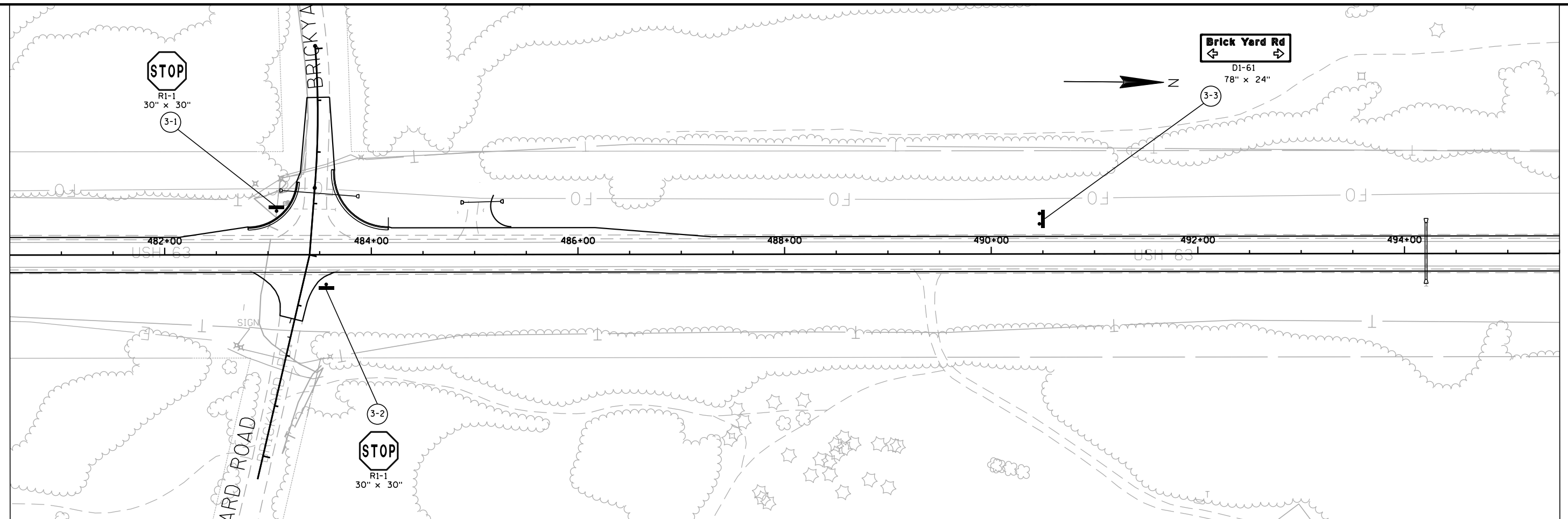
PERMANENT SIGNING

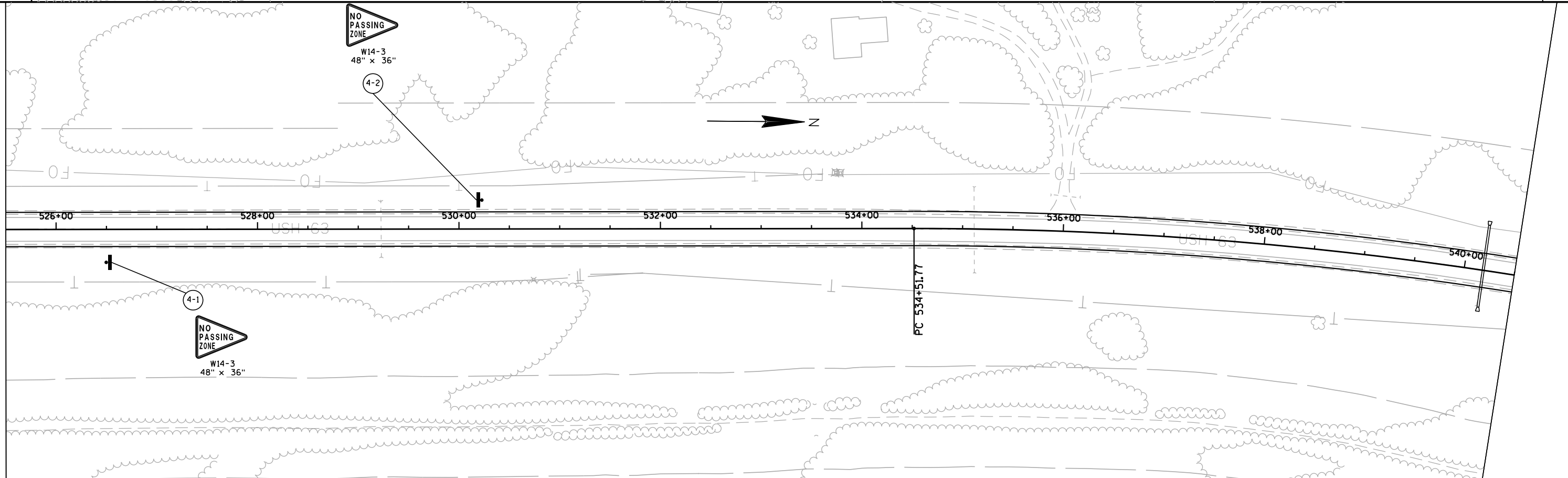
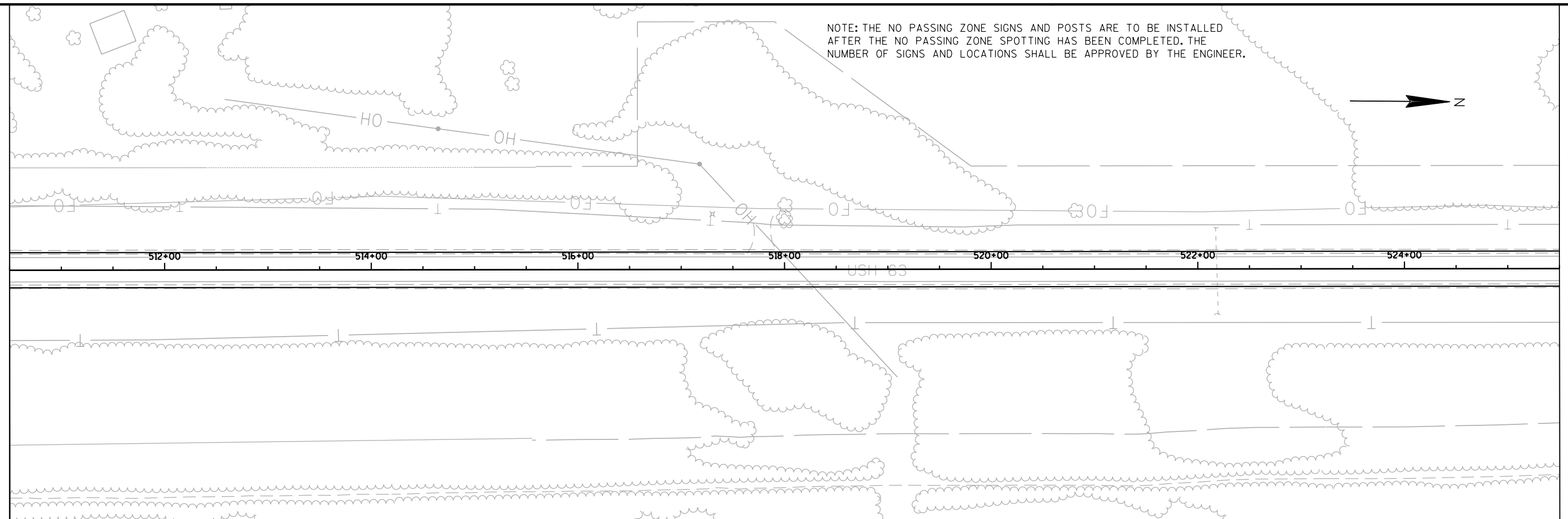
SHEET

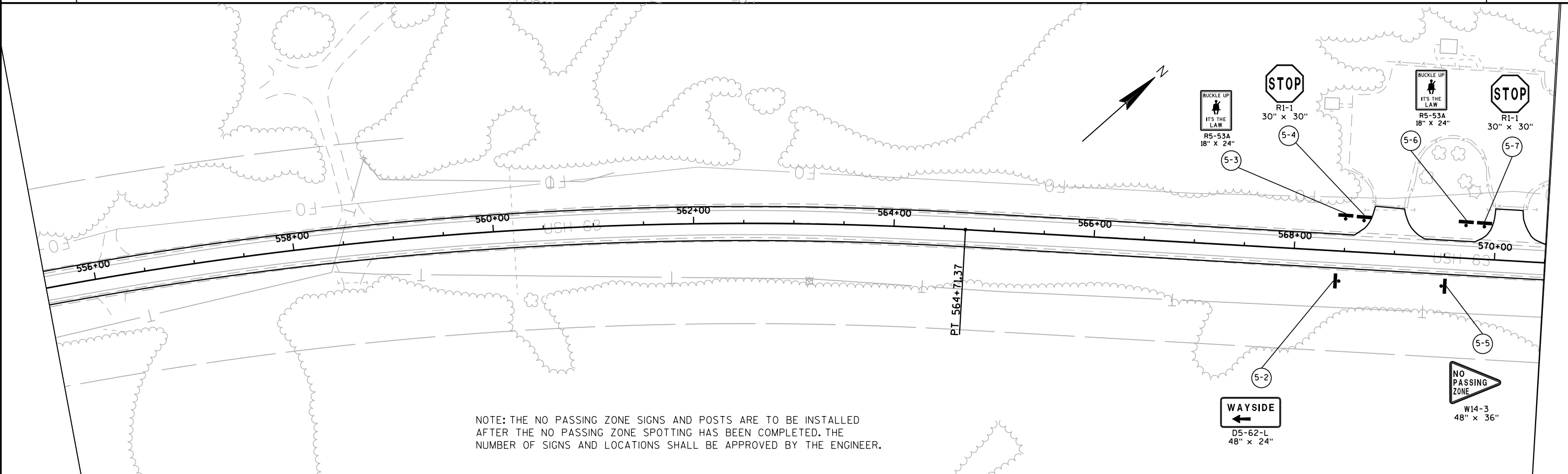
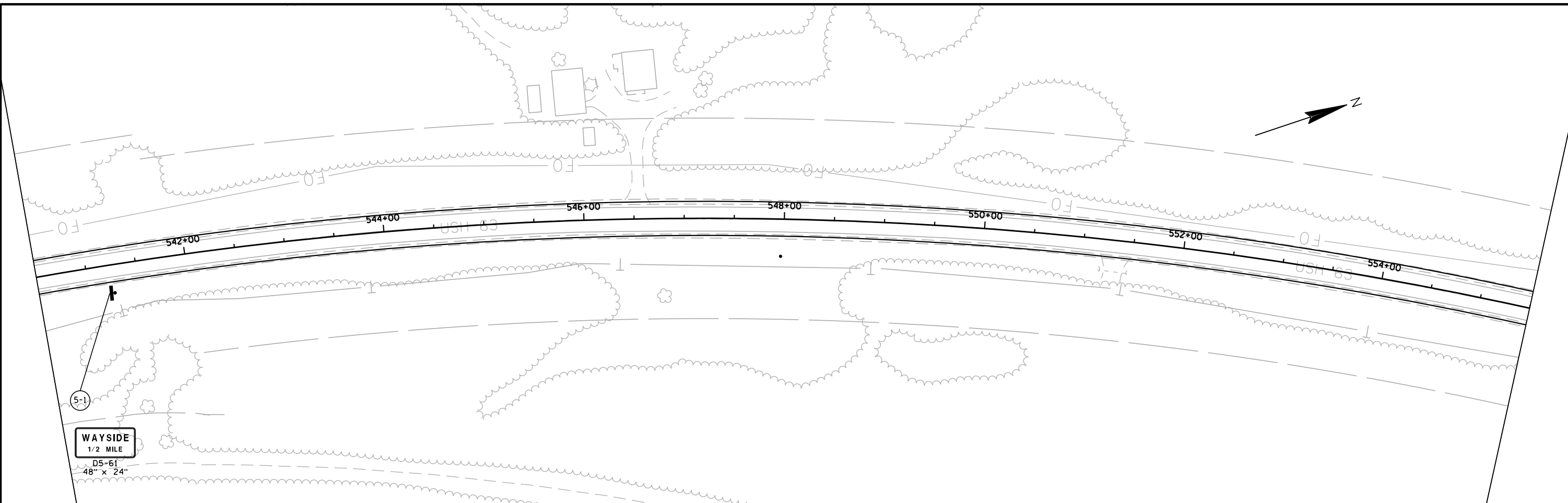
E

NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

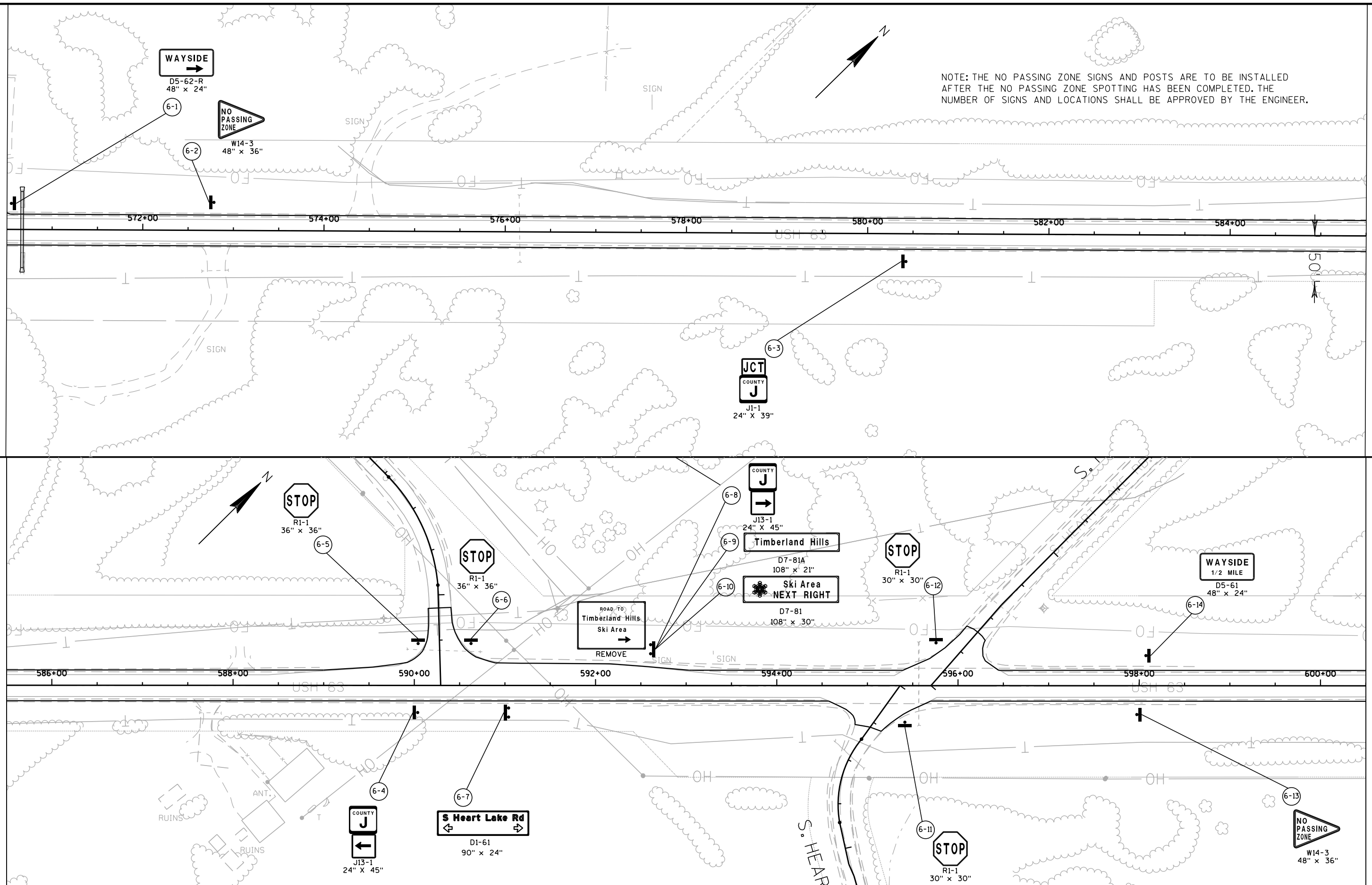


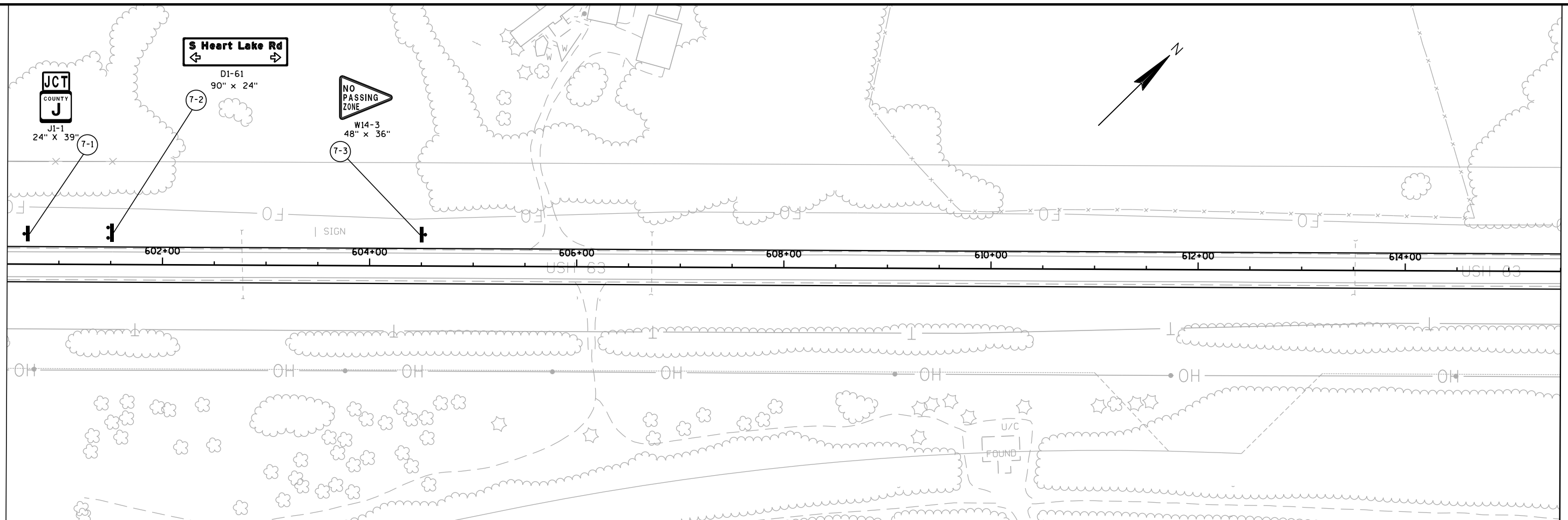




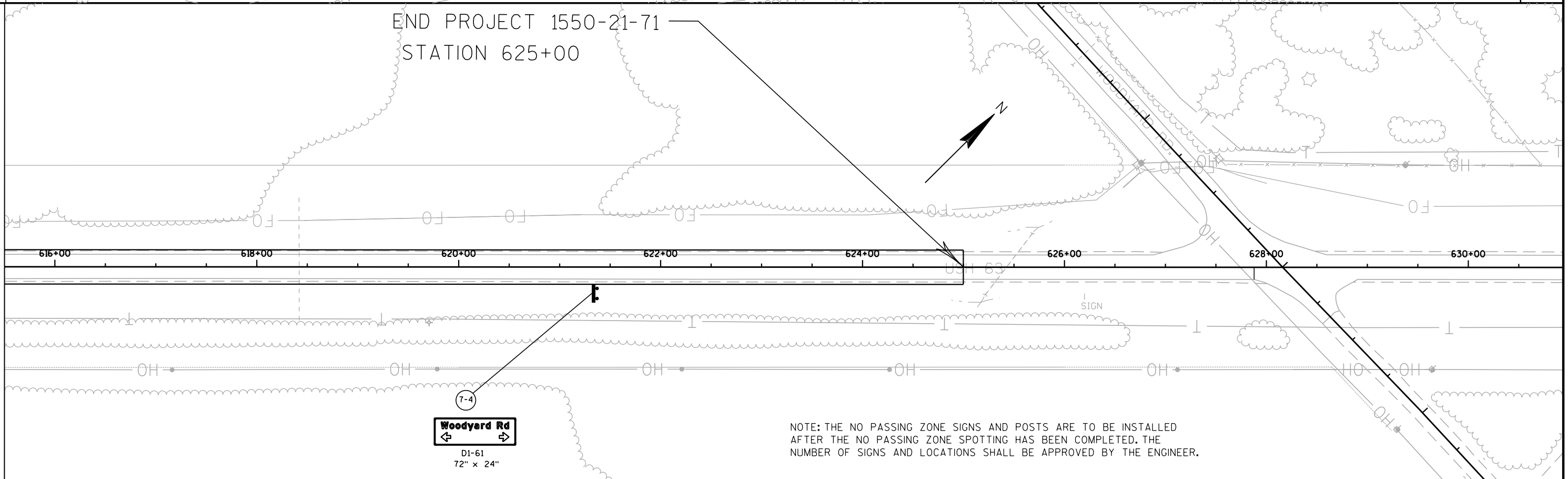


NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.





END PROJECT 1550-21-71
STATION 625+00



NOTE: THE NO PASSING ZONE SIGNS AND POSTS ARE TO BE INSTALLED
AFTER THE NO PASSING ZONE SPOTTING HAS BEEN COMPLETED. THE
NUMBER OF SIGNS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.

DATE 25AUG14		E S T I M A T E O F Q U A N T I T I E S			
LINE					1550-21-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	4.000	4.000
0020	201.0205	GRUBBING	STA	4.000	4.000
0030	202.0105	ROADSIDE CLEARING	STA	25.000	25.000
0040	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	8.000	8.000
0050	204.0100	REMOVING PAVEMENT	SY	885.000	885.000
0060	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	516.000	516.000
0070	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	66,428.000	66,428.000
0080	204.0170	REMOVING FENCE	LF	650.000	650.000
0090	205.0100	EXCAVATION COMMON	CY	5,428.000	5,428.000
0100	208.0100	BORROW	CY	707.000	707.000
0110	208.1100	SELECT BORROW	CY	2,572.000	2,572.000
0120	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	395.000	395.000
0130	213.0100	FINISHING ROADWAY (PROJECT) 01.1550-21-71	EACH	1.000	1.000
0140	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	2,605.000	2,605.000
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	5,845.000	5,845.000
0160	305.0500	SHAPING SHOULDERS	STA	395.000	395.000
0170	440.4410.S	INCENTIVE IRI RIDE	DOL	15,000.000	15,000.000
0180	455.0605	TACK COAT	GAL	3,670.000	3,670.000
0190	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	11,200.000	11,200.000
0200	465.0105	ASPHALTIC SURFACE	TON	858.000	858.000
0210	465.0110	ASPHALTIC SURFACE PATCHING	TON	321.000	321.000
0220	465.0425	ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL	LF	37,635.000	37,635.000
0230	465.0475	ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL	LF	18,164.000	18,164.000
0240	520.0118	CULVERT PIPE CLASS III 18-INCH	LF	108.000	108.000
0250	520.1018	APRON ENDWALLS FOR CULVERT PIPE 18-INCH	EACH	4.000	4.000
0260	520.4024	CULVERT PIPE TEMPORARY 24-INCH	LF	4.000	4.000
0270	520.8000	CONCRETE COLLARS FOR PIPE	EACH	2.000	2.000
0280	521.1036	APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH	EACH	2.000	2.000
0290	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	144.000	144.000
0300	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	62.000	62.000
0310	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	7.000	7.000
0320	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	2.000	2.000
0330	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	159.000	159.000
0340	606.0200	RIPRAP MEDIUM	CY	41.000	41.000
0350	614.0920	SALVAGED RAIL	LF	725.000	725.000
0360	614.0925	SALVAGED GUARDRAIL END TREATMENTS	EACH	4.000	4.000
0370	614.2300	MGS GUARDRAIL 3	LF	900.000	900.000
0380	614.2330	MGS GUARDRAIL 3 K	LF	250.000	250.000
0390	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0400	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01.1550-21-71	EACH	1.000	1.000
0410	619.1000	MOBILIZATION	EACH	1.000	1.000
0420	625.0100	TOPSOIL	SY	6,445.000	6,445.000
0430	628.1104	EROSION BALES	EACH	150.000	150.000
0440	628.1504	SILT FENCE	LF	4,170.000	4,170.000
0450	628.1520	SILT FENCE MAINTENANCE	LF	4,170.000	4,170.000

DATE 25AUG14		E S T I M A T E O F Q U A N T I T I E S			
LINE				1550-21-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0470	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0480	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	7,381.000	7,381.000
0490	628.6005	TURBIDITY BARRIERS	SY	115.000	115.000
0500	628.6510	SOIL STABILIZER TYPE B	ACRE	0.500	0.500
0510	628.7504	TEMPORARY DITCH CHECKS	LF	108.000	108.000
0520	629.0210	FERTILIZER TYPE B	CWT	6.200	6.200
0530	630.0120	SEEDING MIXTURE NO. 20	LB	206.000	206.000
0540	630.0200	SEEDING TEMPORARY	LB	116.000	116.000
0550	633.5200	MARKERS CULVERT END	EACH	36.000	36.000
0560	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	39.000	39.000
0570	634.0620	POSTS WOOD 4X6-INCH X 20-FT	EACH	2.000	2.000
0580	637.2210	SIGNS TYPE II REFLECTIVE H	SF	225.750	225.750
0590	637.2230	SIGNS TYPE II REFLECTIVE F	SF	69.000	69.000
0600	638.2602	REMOVING SIGNS TYPE II	EACH	35.000	35.000
0610	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	41.000	41.000
0620	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0630	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01.1550-21-71	DAY	65.000	65.000
0640	643.0300	TRAFFIC CONTROL DRUMS	DAY	786.000	786.000
0650	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	102.000	102.000
0660	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	100.000	100.000
0670	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,471.000	1,471.000
0680	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	42.000	42.000
0690	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	120.000	120.000
0700	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	80.000	80.000
0710	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	58,940.000	58,940.000
0720	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	350.000	350.000
0730	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	19,140.000	19,140.000
0740	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	16.000	16.000
0750	648.0100	LOCATING NO-PASSING ZONES	MI	3.810	3.810
0760	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	32,284.000	32,284.000
0770	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	1,804.000	1,804.000
0780	650.5000	CONSTRUCTION STAKING BASE	LF	1,401.000	1,401.000
0790	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	159.000	159.000
0800	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	6.000	6.000
0810	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	20,100.000	20,100.000
0820	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.1550-21-71	LS	1.000	1.000
0830	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	2,595.000	2,595.000
0840	690.0150	SAWING ASPHALT	LF	673.000	673.000
0850	690.0250	SAWING CONCRETE	LF	200.000	200.000
0860	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	1,200.000	1,200.000
0870	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	300.000	300.000
0880	SPV.0060	SPECIAL 01. RECONDITIONING CULVERT ENDS	EACH	15.000	15.000
0890	SPV.0060	SPECIAL 02. CLEANING CULVERT PIPES MINIMAL	EACH	17.000	17.000
0900	SPV.0060	SPECIAL 03. CLEANING CULVERT PIPES FULL	EACH	5.000	5.000
0910	SPV.0060	SPECIAL 04. COFFERDAMS	EACH	4.000	4.000
0920	SPV.0060	SPECIAL 05. TREE TRIMMING	EACH	1.000	1.000

DATE 25AUG14		E S T I M A T E O F Q U A N T I T I E S			
LINE					1550-21-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0930	SPV.0090	SPECIAL 01. CATTLE PASS LINER 36-INCH	LF	84.000	84.000
0940	SPV.0090	SPECIAL 02. CONCRETE CURB AND GUTTER	LF	159.000	159.000
		CURE AND SEAL TREATMENT			
0950	SPV.0090	SPECIAL 03. SALVAGE AND REINSTALL BEAM	LF	100.000	100.000
		GUARD RAIL			
0960	SPV.0105	SPECIAL 01. MILLING AND REMOVING	LS	1.000	1.000
		TEMPORARY JOINT			
0970	SPV.0105	SPECIAL 02. MATERIAL TRANSFER VEHICLE	LS	1.000	1.000
0980	SPV.0105	SPECIAL 03. REMOVING WOOD FRAMED STAIRS	LS	1.000	1.000
		AND PIPE RAILING			
0990	SPV.0105	SPECIAL 04. PREPARE FOUNDATION FOR	LS	1.000	1.000
		ASPHALTIC PAVING SPECIAL			
1000	SPV.0170	SPECIAL 01. REHEATING HMA PAVEMENT	STA	201.000	201.000
		LONGITUDINAL JOINTS SPECIAL			
1010	SPV.0180	SPECIAL 01. REMOVING POLYSTYRENE	SY	2,187.000	2,187.000
		INSULATION BOARD			
1020	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE E-3	TON	9,765.000	9,765.000
		SPECIAL 19.0-MM MIX			
1030	SPV.0195	SPECIAL 02. HMA PAVEMENT TYPE E-3	TON	7,720.000	7,720.000
		SPECIAL 12.5-MM MIX			

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	CLEARING	GRUBBING
					201.0105 STA	201.0205 STA
0010	8+00	-	10+00	BRICK YARD RD	2	2
0010	485+00	-	487+00	MANILINE LT	2	2
PROJECT TOTAL					4	4

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	LOCATION	204.0115
			SY
0010	424+00	MAINLINE	167
0010		WAYSIDE	67
0010		WAYSIDE	62
0010		CTH J	53
0010	625+00	MAINLINE	167
PROJECT TOTAL			516

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION	TO	STATION	LOCATION	204.0120
					SY
0010	425+50	-	624+50	MAINLINE	66333
0010	589+83	-	592+20	TURN LANE	95
PROJECT TOTAL					66428

ROADSIDE CLEARING

CATEGORY	STATION	TO	STATION	LOCATION	202.0105
					STA
0010	428+00	-	431+00	LT	3
0010	434+00	-	442+00	LT	8
0010	518+00	-	521+00	LT	3
0010	541+00	-	546+00	RT	5
0010	548+00	-	550+00	RT	2
0010	550+00	-	552+00	LT & RT	2
0010	552+00	-	553+00	LT	1
0010	558+00	-	559+00	RT	1
PROJECT TOTAL					25

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION	TO	STATION	LOCATION	211.0400
					STA
0010	424+00	-	481+81	LT	58
0010	487+29	-	568+59	LT	82
0010	569+30	-	569+82	LT	1
0010	570+50	-	589+88	LT	20
0010	590+90	-	595+32	LT	5
0010	596+46	-	625+00	LT	29
0010	424+00	-	482+82	RT	59
0010	483+69	-	594+54	RT	111
0010	595+72	-	625+00	RT	30
PROJECT TOTAL					395

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	204.0170
					LF
0010	434+29	-	440+79	MAINLINE LT	650
PROJECT TOTAL					650

REMOVING PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	204.0100	REMARKS
					SY	
0010	473+33			MAINLINE	49	CULVERT REPLACEMENT
0010	484+50	-	486+50	MAINLINE	445	EBS AREA
0010	491+15	-	492+55	MAINLINE	311	EBS AREA
0010	494+21			MAINLINE	36	CULVERT REPLACEMENT
0010	540+18			MAINLINE	44	CULVERT REPLACEMENT
PROJECT TOTAL					885	

SHAPING SHOULDERS

CATEGORY	STATION	TO	STATION	LOCATION	305.0500
					STA
0010	424+00	-	481+81	LT	58
0010	487+29	-	568+59	LT	82
0010	569+30	-	569+82	LT	1
0010	570+50	-	589+88	LT	20
0010	590+90	-	595+32	LT	5
0010	596+46	-	625+00	LT	29
0010	424+00	-	482+82	RT	59
0010	483+69	-	594+54	RT	111
0010	595+72	-	625+00	RT	30
PROJECT TOTAL					395

REMOVING POLYSTYRENE INSULATION BOARD

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.01
					SY
0010	485+77	-	487+45	MAINLINE	635
0010	490+00	-	492+59	MAINLINE	978
0010	599+68	-	601+20	MAINLINE	574
PROJECT TOTAL					2187

EARTHWORK SUMMARY																	
From / To Station	Location	205.0100 Common Excavation (1)		Salvaged / Unusable Pavement Material (4)	Available Material (5)	205.0500 Marsh Excavation (6)	205.0200 Rock Excavation (7)	Reduced Marsh in Fill (8)	Reduced EBS in Fill (9)	Expanded Marsh Backfill (10)	Expanded EBS Backfill (11)	Expanded Rock (12)	Unexpanded Fill	Expanded Fill (13)	Waste	208.0100 Borrow	208.1100 Select Borrow
		Cut (2) CY	EBS (3) CY					Factor 0.60	Factor 0.80	Factor 1.50	Factor 1.15	Factor 1.10		Factor 1.25		CY	Factor 1.15 CY
468+52 to 478+48	Mainline	51	0	0	51	0	0	0	0	0	0	0	217	271	0	220	0
482+00 to 487+00	Mainline Lt	382	0	9	373	0	0	0	0	0	0	0	399	499	0	126	0
482+00 to 487+00	Subbase Lt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	447
484+50 to 487+45	Mainline	1223	711	167	1056	0	0	0	0	0	818	0	0	0	1056	0	818
490+00 to 492+59	Mainline	976	440	117	859	0	0	0	0	0	506	0	0	0	859	0	506
492+75 to 495+75	Temp Widening	62	0	0	62	0	0	0	0	0	0	0	431	0	0	0	434
492+75 to 495+75	Mainline	431	0	0	431	0	0	0	0	0	0	0	0	0	431	0	0
538+50 to 542+00	Temp Widening	85	0	0	85	0	0	0	0	0	0	0	393	0	0	0	367
538+50 to 542+00	Mainline	393	0	0	393	0	0	0	0	0	0	0	0	0	393	0	0
570+00 to 571+75	Mainline	2	0	0	2	0	0	0	0	0	0	0	239	299	0	297	0
599+68 to 601+20	Mainline	476	0	122	354	0	0	0	0	0	0	0	0	0	354	0	0
8+36 to 9+70	Brick Yard Road	193	0	38	155	0	0	0	0	0	0	0	175	219	0	64	0
570+67 to 571+00	Mainline Lt	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	0
Totals		4277	1151	453	3824	0	0	0	0	0	1324	0	1854	1288	3096	707	2572
Total Common Exc		5428															

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unusable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusable Pavement Material
- 6) Marsh Excavation - to be backfilled with Select Borrow Material. Item number 205.0500
- 7) Rock Excavation item number 205.0200
- 8) Reduced Marsh in Fill - Excavated Marsh material is usable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
- 9) Reduced EBS in Fill - Excavated EBS material is usable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
- 10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.1100
- 11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.15. Item number 208.1100
- 12) Expanded Rock - Factor = 1.1.
- 13) Expanded Fill. Factor = 1.25
- Depending on selections:
- Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor

BASE AGGREGATE DENSE 3/4-INCH					305.0110
CATEGORY	STATION TO	STATION	LOCATION		TON
0010	424+00 -	625+00	MAINLINE SHOULDER RT		880
0010	424+00 -	625+00	MAINLINE SHOULDER LT		845
0010	481+99 -	487+54	BRICK YARD TURN LANE SHOULDER		60
0010	589+83	592+20	CTH J TURN LANE SHOULDER		25
0010	8+36 -	9+76	BRICK YARD RD SHOULDER LT & RT		30
0010	469+81 -	476+50	GUARD RAIL SHOULDER RT		55
0010	470+25 -	477+19	GUARD RAIL SHOULDER LT		60
0010			INTERSECTIONS		150
0010			DRIVEWAYS AND FIELD ENTRANCES		500
PROJECT TOTAL					2605

BASE AGGREGATE DENSE 1 1/4-INCH					305.0120
CATEGORY	STATION TO	STATION	LOCATION		TON
0010	481+99 -	487+54	MAINLINE		425
0010	8+36 -	9+76	BRICK YARD RD		200
0010	484+50 -	487+45	MAINLINE		2060
0010	490+00 -	492+59	MAINLINE		1620
0010	492+21 -	496+00	TEMP WIDENING RT		190
0010	492+40 -	495+75	TEMP WIDENING LT		145
0010	538+13 -	542+20	TEMP WIDENING LT		270
0010	538+58 -	541+70	TEMP WIDENING RT		125
0010	599+68 -	601+20	MAINLINE		710
0010			MAINLINE		100
PROJECT TOTAL					5845

ASPHALT SHOULDER RUMBLE STRIP 2-LANE RURAL

465.0425					
CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	424+00 -	481+10	LT SHOULDER	5710	TYPE 1
0010	424+80 -	482+00	RT SHOULDER	5720	TYPE 1
0010	484+80 -	593+80	RT SHOULDER	10900	TYPE 1
0010	487+70 -	567+50	LT SHOULDER	7980	TYPE 1
0010	571+40 -	588+10	LT SHOULDER	1670	TYPE 1
0010	593+35 -	594+40	LT SHOULDER	105	TYPE 1
0010	597+20 -	625+00	RT SHOULDER	2780	TYPE 1
0010	597+30 -	625+00	LT SHOULDER	2770	TYPE 1
PROJECT TOTAL				37635	

ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL

465.0475				
CATEGORY	STATION TO	STATION	LF	
0010	424+75 -	481+40	5665	
0010	485+40 -	567+00	8160	
0010	572+20 -	588+29	1609	
0010	597+70 -	625+00	2730	
PROJECT TOTAL			18164	

SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

SPV.0170.01					
CATEGORY	STATION TO	STATION	LOCATION	STA	
0010	424+00 -	625+00	MAINLINE	201	
PROJECT TOTAL				201	

HMA PAVEMENT TYPE E-3 SPECIAL AND TACK COAT

				HMA PAVEMENT TYPE E-3 SPECIAL 19.0 MM MIX SPV.0195.01 TON	HMA PAVEMENT TYPE E-3 SPECIAL 12.5 MM MIX SPV.0195.02 TON	TACK COAT 455.0605 GAL
CATEGORY	STATION TO	STATION	LOCATION			
0010	424+00 -	625+00	MAINLINE	9568		1675
0010	424+00 -	625+00	MAINLINE		7441	1898
0010	481+99 -	487+54	TURN LANE	95		10
0010	481+99 -	487+54	TURN LANE		39	10
0010	589+83 -	592+20	TURN LANE	33		7
0010	589+83 -	592+20	TURN LANE		26	7
0010			BRICK YARD RD WEST	69		14
0010			BRICK YARD RD WEST		53	14
0010			BRICK YARD RD EAST		18	5
0010			WAYSIDE ENTRANCE		13	3
0010			WAYSIDE ENTRANCE		14	4
0010			CTH J		26	7
0010			S HEART LAKE RD RT		20	5
0010			S HEART LAKE RD LT		25	6
0010			BEAM GUARD		45	5
PROJECT TOTAL				9765	7720	3670

ASPHALTIC SURFACE

465.0105				
CATEGORY	STATION TO	STATION	LOCATION	TON
0010	484+50 -	487+45	LT & RT	359
0010	490+00 -	492+59	LT & RT	314
0010	599+68 -	601+20	LT & RT	185
PROJECT TOTAL				858

ASPHALTIC SURFACE PATCHING

465.0110					
CATEGORY	STATION	LOCATION	TON	REMARKS	
0010	473+33	MAINLINE	27	CULVERT REPLACEMENT	
0010	494+21	MAINLINE	20	CULVERT REPLACEMENT	
0010	540+18	MAINLINE	24	CULVERT REPLACEMENT	
0010		UNDISTRIBUTED	250	PREP OF FOUNDATION	
PROJECT TOTAL			321		

MAINLINE CULVERT SUMMARY											SPECIAL 01. CATTLE PASS LINER 36-INCH SPV.0090.01
CATEGORY	STATION	LOCATION	CULVT PIPE TEMPORARY 24-INCH 520.4024 LF	CONCRETE COLLARS FOR PIPE 520.8000 EACH	APRON ENDWALLS STEEL, 36" 521.1036 EACH	CULVT PIPE REINF CONC CL III, 24" 522.0124 LF	CULVT PIPE REINF CONC CL III, 36" 522.0136 LF	APRON ENDWALLS CPRC, 24" 522.1024 EACH	APRON ENDWALLS CPRC, 36" 522.1036 EACH	MARKERS CULVERT END 633.5200 EACH	
0010	427+34	LT & RT								2	
0010	433+92	LT & RT								2	
0010	436+23	LT & RT								2	
0010	462+31	LT & RT								2	
0010	473+33	LT & RT					62		2	2	
0010	494+21	LT & RT				60		2		2	
0010	494+21	LT	4								
0010	522+19	LT & RT								2	
0010	529+23	LT & RT		2				2		2	
0010	535+11	LT & RT								2	
0010	540+18	LT & RT				78		2		2	
0010	560+20	LT & RT								2	
0010	570+67	LT & RT			2					2	84
0010	576+16	LT & RT								2	
0010	595+57	LT & RT								2	
0010	602+77	LT				6		1		2	
0010	606+73	LT & RT								2	
0010	613+52	LT & RT								2	
0010	618+42	LT & RT								2	
PROJECT TOTAL			4	2	2	144	62	7	2	36	84

CULVERT PIPE CLASS III 18-INCH AND APRON ENDWALLS FOR CULVERT PIPE 18-INCH					SPECIAL 04. COFFERDAMS				
CATEGORY	STATION	LOCATION	520.0118 LF	520.1018 EACH	CATEGORY	STATION	LOCATION	SPV.0060.04 EACH	REMARKS
0010	484+86	FE LT	36	2	0010	473+03	LT & RT	2	CULVERT PIPE REPLACEMENT
0010	9+40	BRICKYARD ROAD WEST	72	2	0010	540+18	LT & RT	2	CULVERT PIPE REPLACEMENT
PROJECT TOTAL			108	4	PROJECT TOTAL				

REMOVING SMALL PIPE CULVERTS				SPECIAL 01. RECONDITIONING CULVERT ENDS				
CATEGORY	STATION	LOCATION	203.0100 EACH	CATEGORY	STATION	LOCATION	SPV.0060.01 EACH	REMARKS
0010	473+33	MAINLINE	1	0010	433+92	LT	1	RESET 1 SECTION
0010	9+55	BRICK YARD RD	1	0010	436+23	LT & RT	2	RESET 20' LT & 4 SECTIONS (EST. 24') RT
0010	484+86	FE LT	1	0010	462+31	LT & RT	2	RESET 12' LT & 2 SECTIONS RT; RESET ROCK HEADWALLS LT & RT
0010	494+21	MAINLINE	1	0010	529+23	LT	1	RESET 8' LT
0010	540+18	MAINLINE	1	0010	560+20	LT	1	RESET 3 SECTIONS & ROCK HEADWALL
0010	556+17	FE RT	1	0010	576+16	LT & RT	2	RESET 3 SECTIONS LT; RESET 2 SECTIONS & ROCK HEADWALL RT
0010	558+55	FE RT	1	0010	595+57	LT & RT	2	RESET 4 SECTIONS LT & 2 SECTIONS RT
0010	588+08	FE LT	1	0010	602+77	LT & RT	2	RESET 2ND SECTION FROM LT END (1ST SECTION REPLACED) & 2 SECTIONS RT
				0010	606+73	LT & RT	2	RESET 1 SECTION & ROCK HEADWALL LT; REMOVE ROCK ON INVERT & RESET 1 SECTION RT
PROJECT TOTAL			8	PROJECT TOTAL			15	

3

3

SALVAGED RAIL AND SALVAGED GUARDRAIL END TREATMENTS

					SALVAGED RAIL 614.0920 LF	SALVAGED GUARDRAIL END TREATMENTS 614.0925 EACH
CATEGORY	STATION	TO	STATION	LOCATION		
0010	470+88	-	471+38	LT		1
0010	471+09	-	471+59	RT		1
0010	471+38	-	475+38	LT	400	
0010	471+59	-	474+84	RT	325	
0010	474+84	-	475+34	RT		1
0010	475+38	-	475+88	LT		1
PROJECT TOTALS =					725	4

MGS GUARDRAIL, AND TERMINAL

					MGS GUARDRAIL 3 614.2300 LF	MGS GUARDRAIL 3 K 614.2330 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH
PROJECT ID	STATION	TO	STATION	LOCATION			
0010	469+81	-	470+34	RT			1
0010	470+25	-	470+78	LT			1
0010	470+34	-	472+09	RT	175.0		
0010	470+78	-	476+66	LT	587.5		
0010	472+09	-	472+97	RT		87.5	
0010	472+97	-	473+47	RT	50.0		
0010	473+47	-	475+09	RT		162.5	
0010	475+09	-	475+97	RT	87.5		
0010	475+97	-	476+50	RT			1
0010	476+66	-	477+19	LT			1
PROJECT TOTALS =					900.0	250.0	4

SPECIAL 03. SALVAGE AND REINSTALL BEAM GUARD RAIL

				SPV.0090.03 LF
CATEGORY	STATION	TO	LOCATION	
0010	473+33		LT	50
0010	473+33		RT	50
PROJECT TOTAL				100

CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D

					601.0557 LF
CATEGORY	STATION TO	STATION	LOCATION		
0010	482+81 -	483+31	LT		72
0010	483+61 -	484+17	LT		87
PROJECT TOTAL					159

SPECIAL 02. CLEANING CULVERT PIPES MINIMAL

				SPV.0060.02 EACH
CATEGORY	STATION	LOCATION		
0010	433+92	LT & RT		2
0010	436+23	LT		1
0010	462+31	LT & RT		2
0010	522+19	LT & RT		2
0010	529+23	LT & RT		2
0010	560+20	LT		1
0010	576+16	RT		1
0010	595+57	RT		1
0010	602+77	LT & RT		2
0010	606+73	RT		1
0010	613+52	RT		1
0010	618+42	LT		1
PROJECT TOTAL				17

PROJECT TOTAL 17

SPECIAL 03. CLEANING CULVERT PIPES FULL

				SPV.0060.03 EACH
CATEGORY	STATION	LOCATION		
0010	560+20	RT		1
0010	576+16	LT		1
0010	595+57	LT		1
0010	606+73	LT		1
0010	613+52	LT		1
PROJECT TOTAL				5

PROJECT TOTAL 5

TEMPORARY DITCH CHECKS

				628.7504 LF
CATEGORY	STATION	LOCATION		
0010	441+30	MAINLINE LT		12
0010	441+50	MAINLINE LT		12
0010	482+50	MAINLINE LT		12
0010	8+50	BRICKYARD RD RT		12
0010	9+00	BRICKYARD RD LT		12
0010	9+50	BRICKYARD RD RT		12
0010		UNDISTRIBUTED		36
PROJECT TOTAL				108

PROJECT TOTAL 108

SPECIAL 02. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT

					SPV.0090.02 LF
CATEGORY	STATION TO	STATION	LOCATION		
0010	482+81 -	483+31	LT		72
0010	483+61 -	484+17	LT		87
PROJECT TOTAL					159

PROJECT TOTAL 159

RIPRAP MEDIUM AND GEOTEXTILE FABRIC TYPE HR

CATEGORY	STATION	LOCATION	606.0200 CY	645.0120 SY
0010	462+31	RT	7	13
0010	540+18	RT	6	11
0010	560+20	RT	13	27
0010	576+16	LT	7	13
0010	618+42	LT	8	16
PROJECT TOTAL			41	80

TURBIDITY BARRIERS

CATEGORY	STATION	LOCATION	LENGTH FT	HEIGHT FT	628.6005 SY	REMARKS
0010	473+03	LT	60	6.5	44	CULVERT REPLACEMENT
0010	473+03	RT	60	5.5	37	CULVERT REPLACEMENT
0010	540+18	RT	60	5.0	34	CULVERT REPLACEMENT
PROJECT TOTAL					115	

EROSION BALES AND GEOTEXTILE FABRIC TYPE DF

		EROSION BALES	GEOTEXTILE FABRIC TYPE DF SCHEDULE A
CATEGORY	LOCATION	628.1104 EACH	645.0111 SY
0010	TEMPORARY SETTLING BASINS	150	120
PROJECT TOTAL		150	120

SILT FENCE

		SILT FENCE	SILT FENCE MAINTENANCE
CATEGORY	STATION TO STATION LOCATION	628.1504 LF	628.1520 LF
0010	433+92	155	155
0010	468+52 - 478+00	950	950
0010	469+00 - 478+50	950	950
0010	492+00 - 496+00	400	400
0010	492+40 - 496+75	435	435
0010	538+00 - 542+20	420	420
0010	538+40 - 541+70	330	330
0010	570+00 - 572+00	200	200
0010	570+70 - 572+00	130	130
0010	UNDISTRIBUTED	200	200
PROJECT TOTAL		4170	4170

TOPSOIL, EMAT, FERTILIZER, AND SEED SUMMARY

				TOPSOIL 625.0100 SY	EROSION MAT URBAN TYPE I CL B 628.2008 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIX NO. 20 630.0120 LB	SEEDING TEMPORARY 630.0200 LB
CATEGORY	STATION TO STATION	LOCATION						
0010	433+92		MAINLINE LT	30	69	0.1	2	2
0010	433+40 - 434+50		MAINLINE RT	182	182	0.1	5	3
0010	436+23		MAINLINE LT	70	104	0.1	3	2
0010	436+23		MAINLINE RT	75	110	0.1	3	2
0010	441+47 - 441+55		MAINLINE LT	20	76	0.1	2	1
0010	462+31		MAINLINE LT	30	56	0.1	2	1
0010	462+31		MAINLINE RT	15	33	0.1	1	1
0010	468+52 - 477+79		MAINLINE RT	481	481	0.3	13	7
0010	468+96 - 478+48		MAINLINE LT	734	734	0.5	20	10
0010	482+00 - 483+00		MAINLINE LT	314	314	0.2	9	5
0010	8+36 - 9+76		BRICK YARD RD LT	253	253	0.2	7	4
0010	8+36 - 9+76		BRICK YARD RD RT	240	240	0.2	7	4
0010	484+00 - 487+29		MAINLINE LT	757	757	0.5	21	11
0010	492+21 - 496+00		MAINLINE RT	389	389	0.3	11	6
0010	492+40 - 495+75		MAINLINE LT	327	327	0.2	9	5
0010	522+19		MAINLINE LT	25	67	0.1	2	1
0010	522+19		MAINLINE RT	30	78	0.1	2	1
0010	529+23		MAINLINE LT	15	44	0.1	1	1
0010	529+23		MAINLINE RT	20	49	0.1	1	1
0010	538+13 - 542+20		MAINLINE LT	643	643	0.4	17	9
0010	538+58 - 541+70		MAINLINE RT	157	157	0.1	4	2
0010	556+17		MAINLINE RT	102	102	0.1	3	2
0010	556+21		MAINLINE LT	58	58	0.1	2	1
0010	558+55		MAINLINE RT	140	140	0.1	4	2
0010	560+20		MAINLINE LT	50	167	0.1	5	3
0010	560+20		MAINLINE RT	30	133	0.1	4	2
0010	570+00 - 571+75		MAINLINE RT	430	430	0.3	12	6
0010	570+50 - 571+75		MAINLINE LT	310	310	0.2	8	4
0010	576+16		MAINLINE LT	30	45	0.1	1	1
0010	576+16		MAINLINE RT	55	83	0.1	2	1
0010	588+08		MAINLINE LT	93	93	0.1	3	2
0010	595+57		MAINLINE LT	60	89	0.1	3	2
0010	595+57		MAINLINE RT	40	67	0.1	2	1
0010	602+77		MAINLINE LT	60	93	0.1	3	2
0010	602+77		MAINLINE RT	45	71	0.1	2	1
0010	606+73		MAINLINE LT	35	100	0.1	3	2
0010	606+73		MAINLINE RT	30	44	0.1	1	1
0010	613+52		MAINLINE LT	20	60	0.1	2	1
0010	613+52		MAINLINE RT	20	33	0.1	1	1
0010	618+42		MAINLINE LT	30	100	0.1	3	2
PROJECT TOTAL				6445	7381	6.2	206	116

TRAFFIC CONTROL DRUMS

TRAFFIC CONTROL BARRICADES TYPE III AND WARNING LIGHTS TYPE A

643.0300						
CATEGORY	STATION TO	STATION	LOCATION	DAY	REMARKS	
0010	465+50 -	477+50	RT	81	GUARDRAIL	REPLACEMENT
0010	469+25 -	481+50	LT	81	GUARDRAIL	REPLACEMENT
0010	BRICK YARD RD			60	SIDEROAD	RECONSTRUCTION
0010	484+00 -	491+35	LT	53	TURN LANE	CONSTRUCTION
0010	487+65 -	497+00	RT	88	TEMP. WIDENING	CONSTRUCTION
0010	494+21			44	CULVERT	REPLACEMENT
0010	491+00 -	500+35	LT	88	TEMP. WIDENING	CONSTRUCTION
0010	534+15 -	543+00	RT	84	TEMP. WIDENING	CONSTRUCTION
0010	540+18			44	CULVERT	REPLACEMENT
0010	537+00 -	546+35	LT	88	TEMP. WIDENING	CONSTRUCTION
0010	598+18 -	602+70		75	INSULATION	REMOVAL
PROJECT TOTAL				786		

TRAFFIC CONTROL SIGNS PCMS

643.1050		
CATEGORY	LOCATION	DAY
0010	USH 63 & STH 48 INTERSECTION,CUMBERLAND	21
0010	USH 63 & STH 253 INTERSECTION,SPOONER	21
PROJECT TOTAL		42

PAVEMENT MARKING

					TEMPORARY				
					SAME DAY	STOP LINE	PAVT MARKING		
					EPOXY	EPOXY	REFLECT PAINT		
					4-INCH	8-INCH	4-INCH		
					646.0106	646.0126	646.0406	647.0566	649.0200
CATEGORY	STATION TO	STATION	LOCATION	LF	LF	LF	LF	LF	REMARKS
0010	424+00 -	625+00	MAINLINE			19140			CENTERLINE. (SEE NOTE)
0010	424+00 -	625+00	MAINLINE	19140					CENTERLINE. (SEE NOTE)
0010	424+00 -	625+00	MAINLINE					16142	CENTERLINE MILLED SURFACE
0010	424+00 -	625+00	MAINLINE					16142	CENTERLINE HMA LOWER LAYER
0010	424+00 -	625+00	MAINLINE	39600					EDGE LINE
0010			CTH J	100					CENTERLINE
0010			CTH J	100					EDGE LINE
0010	RIGHT TURN LANE AT BRICK YARD RD				200				
0010	RIGHT TURN LANE AT CTH J				150				SPECIAL
0010	CTH J						16		
PROJECT TOTAL				58940	350	19140	16	32284	CATEGORY

NOTE: SEE SPECIAL PROVISIONS FOR APPLICATION RATE.

643.0420					WARNING	
					BARRICADES	LIGHTS
					TYPE III	TYPE A
					643.0420	643.0705
CATEGORY	STATION	DAY	DAY	REMARKS		
0010	472+33	8	10	CULVERT REPLACEMENT		
0010	474+33	8	10	CULVERT REPLACEMENT		
0010	BRICK YARD		8	SIDEROAD RECONSTRUCTION		
0010	484+00	16	20	EBS AND INSULATION REMOVAL		
0010	488+45	16	20	EBS AND INSULATION REMOVAL		
0010	489+89	16	20	EBS AND INSULATION REMOVAL		
0010	493+59	16	20	EBS AND INSULATION REMOVAL		
0010	493+71	2		CULVERT REPLACEMENT		
0010	494+71	2		CULVERT REPLACEMENT		
0010	539+68	2		CULVERT REPLACEMENT		
0010	540+68	2		CULVERT REPLACEMENT		
0010	599+18	3		INSULATION REMOVAL		
0010	601+70	3		INSULATION REMOVAL		
PROJECT TOTAL		102	100			

LOCATING NO-PASSING ZONES

648.0100			
CATEGORY	STATION TO	STATION	MI
0010	424+00 -	625+00	3.81
PROJECT TOTAL			3.81

SPECIAL 03. REMOVING WOOD FRAMED STAIRS AND PIPE RAILING

SPV.0105.03				
CATEGORY	STATION TO	STATION	LOCATION	LS
0010	441+47 -	441+55	40' TO 51' LT	1
PROJECT TOTAL				1

3

CONSTRUCTION STAKING SUBGRADE

CATEGORY	STATION TO	STATION	LOCATION	650.4500 LF
0010	481+99 -	487+54	TURN LANE SUBGRADE	555
0010	481+99 -	487+54	TURN LANE SELECT BORROW	555
0010	8+36 -	9+76	BRICK YARD RD WEST	140
0010	484+50 -	487+45	MAINLINE	295
0010	490+00 -	492+59	MAINLINE	259
PROJECT TOTAL				1804

CONSTRUCTION STAKING BASE

CATEGORY	STATION TO	STATION	LOCATION	650.5000 LF
0010	481+99 -	487+54	TURN LANE	555
0010	8+36 -	9+76	BRICK YARD RD WEST	140
0010	484+50 -	487+45	MAINLINE	295
0010	490+00 -	492+59	MAINLINE	259
0010	599+68 -	601+20	MAINLINE	152
PROJECT TOTAL				1401

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	650.5500 LF
0010				
0010	482+81 -	483+31	LT	72
0010	483+61 -	484+17	LT	87
PROJECT TOTAL				159

CONSTRUCTION STAKING PIPE CULVERTS

CATEGORY	STATION	LOCATION	650.6000 EACH
0010	473+33	MAINLINE	1
0010	9+40	BRICK YARD RD WEST	1
0010	484+85	FE LT	1
0010	494+21	MAINLINE	1
0010	540+18	MAINLINE	1
0010	570+67	MAINLINE	1
PROJECT TOTAL			6

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION TO	STATION	LOCATION	650.8000 LF
0010	424+00 -	625+00	MAINLINE	20100
PROJECT TOTAL				20100

CONSTRUCTION STAKING SLOPE STAKES

CATEGORY	STATION TO	STATION	LOCATION	650.9920 LF
0010	468+52 -	478+47	MAINLINE	995
0010	482+00 -	487+00	MAINLINE	500
0010	570+00 -	571+75	MAINLINE	175
0010	8+36 -	9+75	BRICK YARD RD WEST	139
0010	492+21 -	496+00	MAINLINE	379
0010	538+13 -	542+20	MAINLINE	407
PROJECT TOTAL				2595

SAWING ASPHALT

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010	424+00		MAINLINE	30	
0010	473+33		MAINLINE	60	CULVERT REPLACEMENT
0010	8+36		BRICK YARD RD WEST	22	
0010	8+36 -	9+85	BRICK YARD RD WEST CENTERLINE	149	
0010	484+50		MAINLINE	30	
0010	487+45		MAINLINE	30	
0010	490+00		MAINLINE	30	
0010	492+59		MAINLINE	30	
0010	494+21		MAINLINE	60	CULVERT REPLACEMENT
0010	540+18		MAINLINE	60	CULVERT REPLACEMENT
0010			WAYSIDE	30	
0010			WAYSIDE	28	
0010			CTH J	24	
0010	599+68		MAINLINE	30	
0010	601+20		MAINLINE	30	
0010	625+00		MAINLINE	30	
PROJECT TOTAL				673	

SAWING CONCRETE

CATEGORY	STATION	LOCATION	690.0250 LF	REMARKS
0010	484+50	MAINLINE	20	EBS AREA
0010	486+50	MAINLINE	20	EBS AREA
0010	491+15	MAINLINE	20	EBS AREA
0010	492+55	MAINLINE	20	EBS AREA
0010	473+33	MAINLINE	40	CULVERT REPLACEMENT
0010	494+21	MAINLINE	40	CULVERT REPLACEMENT
0010	540+18	MAINLINE	40	CULVERT REPLACEMENT
PROJECT TOTAL			200	

SPECIAL 05. TREE TRIMMING

CATEGORY	STATION	LOCATION	SPV.0060.05 EACH
0010	583+16	39.5' RT	1
PROJECT TOTAL			1

3

TRAFFIC CONTROL SIGNS							
643.0900							
CATEGORY	STATION	LOC	SIGN CODE	SIGN MESSAGE	SIZE	DAYS	REMARKS
0010	409+00	RT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	414+00	RT	W20-1C	ROAD WORK 1000 FT	48x48	65	PROJECT ADVANCED WARNING
0010	419+00	RT	W20-1D	ROAD WORK 500 FT	48x48	65	PROJECT ADVANCED WARNING
0010	421+50	RT	G20-1	ROAD WORK NEXT 4 MILES	60x24	65	PROJECT ADVANCED WARNING
0010	421+50	LT	G20-2A	END ROAD WORK	42x24	65	PROJECT ADVANCED WARNING
0010	30th Ave	RT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	Brick Yard Rd	LT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	Brick Yard Rd	RT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	CTH J	LT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	S Heart Rd	RT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	S Heart Rd	LT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	Woodyard Rd	LT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	Woodyard Rd	RT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	627+00	LT	G20-1	ROAD WORK NEXT 4 MILES	60x24	65	PROJECT ADVANCED WARNING
0010	627+00	RT	G20-2A	END ROAD WORK	42x24	65	PROJECT ADVANCED WARNING
0010	630+00	LT	W20-1D	ROAD WORK 500 FT	48x48	65	PROJECT ADVANCED WARNING
0010	635+00	LT	W20-1C	ROAD WORK 1000 FT	48x48	65	PROJECT ADVANCED WARNING
0010	640+00	LT	W20-1	ROAD WORK AHEAD	48x48	65	PROJECT ADVANCED WARNING
0010	BRICK YARD RD		W20-1	ROAD WORK AHEAD	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W20-4	ONE LANE ROAD AHEAD	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W3-4	BE PREPARED TO STOP	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W20-7a	FLAGMAN SYMBOL	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W01-6	NIGHT ARROW	48x24	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W01-6	NIGHT ARROW	48x24	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W20-7a	FLAGMAN SYMBOL	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W3-4	BE PREPARED TO STOP	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W20-4	ONE LANE ROAD AHEAD	48x48	4	SIDEROAD RECONSTRUCTION
0010	BRICK YARD RD		W20-1	ROAD WORK AHEAD	48x48	4	SIDEROAD RECONSTRUCTION
0010	471+71	RT	W20-1	ROAD WORK AHEAD	48x48	2	CULVERT REPLACEMENT
0010	476+71	RT	W20-4	ONE LANE ROAD AHEAD	48x48	2	CULVERT REPLACEMENT
0010	481+71	RT	W3-4	BE PREPARED TO STOP	48x48	2	CULVERT REPLACEMENT
0010	486+71	RT	W20-7a	FLAGMAN SYMBOL	48x48	2	CULVERT REPLACEMENT
0010	493+71		W01-6	NIGHT ARROW	48x24	2	CULVERT REPLACEMENT
0010	494+71		W01-6	NIGHT ARROW	48x24	2	CULVERT REPLACEMENT
0010	501+71	LT	W20-7a	FLAGMAN SYMBOL	48x48	2	CULVERT REPLACEMENT
0010	506+71	LT	W3-4	BE PREPARED TO STOP	48x48	2	CULVERT REPLACEMENT
0010	511+71	LT	W20-4	ONE LANE ROAD AHEAD	48x48	2	CULVERT REPLACEMENT
0010	516+71	LT	W20-1	ROAD WORK AHEAD	48x48	2	CULVERT REPLACEMENT
0010	517+68	RT	W20-1	ROAD WORK AHEAD	48x48	2	CULVERT REPLACEMENT
0010	522+68	RT	W20-4	ONE LANE ROAD AHEAD	48x48	2	CULVERT REPLACEMENT
0010	527+68	RT	W3-4	BE PREPARED TO STOP	48x48	2	CULVERT REPLACEMENT
0010	532+68	RT	W20-7a	FLAGMAN SYMBOL	48x48	2	CULVERT REPLACEMENT
0010	539+68		W01-6	NIGHT ARROW	48x24	2	CULVERT REPLACEMENT
0010	540+68		W01-6	NIGHT ARROW	48x24	2	CULVERT REPLACEMENT
0010	547+68	LT	W20-7a	FLAGMAN SYMBOL	48x48	2	CULVERT REPLACEMENT
0010	552+68	LT	W3-4	BE PREPARED TO STOP	48x48	2	CULVERT REPLACEMENT
0010	557+68	LT	W20-4	ONE LANE ROAD AHEAD	48x48	2	CULVERT REPLACEMENT
0010	562+68	LT	W20-1	ROAD WORK AHEAD	48x48	2	CULVERT REPLACEMENT
0010	577+18	RT	W20-1	ROAD WORK AHEAD	48x48	3	INSULATION REMOVAL
0010	582+18	RT	W20-4	ONE LANE ROAD AHEAD	48x48	3	INSULATION REMOVAL
0010	587+18	RT	W3-4	BE PREPARED TO STOP	48x48	3	INSULATION REMOVAL
0010	592+18	RT	W20-7a	FLAGMAN SYMBOL	48x48	3	INSULATION REMOVAL
0010	599+18		W01-6	NIGHT ARROW	48x24	3	INSULATION REMOVAL
0010	601+70		W01-6	NIGHT ARROW	48x24	3	INSULATION REMOVAL
0010	608+70	LT	W20-7a	FLAGMAN SYMBOL	48x48	3	INSULATION REMOVAL
0010	613+70	LT	W3-4	BE PREPARED TO STOP	48x48	3	INSULATION REMOVAL
0010	618+70	LT	W20-4	ONE LANE ROAD AHEAD	48x48	3	INSULATION REMOVAL
0010	623+70	LT	W20-1	ROAD WORK AHEAD	48x48	3	INSULATION REMOVAL

TRAFFIC CONTROL SIGNS							
643.0900							
CATEGORY	STATION	LOC	SIGN CODE	SIGN MESSAGE	SIZE	DAYS	REMARKS
0010	457+33	RT	W20-3A	ROAD CLOSED AHEAD	48x48	2	CULVERT REPLACEMENT
0010	462+33	RT	W20-3C	ROAD CLOSED 1000 FT	48x48	2	CULVERT REPLACEMENT
0010	467+33	RT	W20-3D	ROAD CLOSED 500 FT	48x48	2	CULVERT REPLACEMENT
0010	472+33		R11-2	ROAD CLOSED	48x30	2	CULVERT REPLACEMENT
0010	474+33		R11-2	ROAD CLOSED	48x30	2	CULVERT REPLACEMENT
0010	479+33	LT	W20-3D	ROAD CLOSED 500 FT	48x48	2	CULVERT REPLACEMENT
0010	484+33	LT	W20-3C	ROAD CLOSED 1000 FT	48x48	2	CULVERT REPLACEMENT
0010	489+33	LT	W20-3A	ROAD CLOSED AHEAD	48x48	2	CULVERT REPLACEMENT
0010	469+00	RT	W20-3A	ROAD CLOSED AHEAD	48x48	4	EBS AND INSULATION REMOVAL
0010	474+00	RT	W20-3C	ROAD CLOSED 1000 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	479+00	RT	W20-3D	ROAD CLOSED 500 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	484+00		R11-2	ROAD CLOSED	48x30	4	EBS AND INSULATION REMOVAL
0010	488+45		R11-2	ROAD CLOSED	48x30	4	EBS AND INSULATION REMOVAL
0010	493+45	LT	W20-3D	ROAD CLOSED 500 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	498+45	LT	W20-3C	ROAD CLOSED 1000 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	503+45	LT	W20-3A	ROAD CLOSED AHEAD	48x48	4	EBS AND INSULATION REMOVAL
0010	474+89	RT	W20-3A	ROAD CLOSED AHEAD	48x48	4	EBS AND INSULATION REMOVAL
0010	479+89	RT	W20-3C	ROAD CLOSED 1000 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	484+89	RT	W20-3D	ROAD CLOSED 500 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	489+89		R11-2	ROAD CLOSED	48x30	4	EBS AND INSULATION REMOVAL
0010	493+59		R11-2	ROAD CLOSED	48x30	4	EBS AND INSULATION REMOVAL
0010	498+59	LT	W20-3D	ROAD CLOSED 500 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	503+59	LT	W20-3C	ROAD CLOSED 1000 FT	48x48	4	EBS AND INSULATION REMOVAL
0010	508+59	LT	W20-3A	ROAD CLOSED AHEAD	48x48	4	EBS AND INSULATION REMOVAL
0010	446+46	RT	W20-1	ROAD WORK AHEAD	48x48	3	GUARDRAIL REPLACEMENT
0010	461+46	RT	W05-1	ROAD NARROWS	48x48	3	GUARDRAIL REPLACEMENT
0010	486+50	LT	W20-1	ROAD WORK AHEAD	48x48	3	GUARDRAIL REPLACEMENT
0010	460+25	RT	W20-1	ROAD WORK AHEAD	48x48	3	GUARDRAIL REPLACEMENT
0010	485+54	LT	W05-1	ROAD NARROWS	48x48	3	GUARDRAIL REPLACEMENT
0010	500+54	LT	W20-1	ROAD WORK AHEAD	48x48	3	GUARDRAIL REPLACEMENT
0010	474+00	RT	W20-1	ROAD WORK AHEAD	48x48	3	TURN LANE CONSTRUCTION
0010	495+35	LT	W05-1	ROAD NARROWS	48x48	3	TURN LANE CONSTRUCTION
0010	510+35	LT	W20-1	ROAD WORK AHEAD	48x48	3	TURN LANE CONSTRUCTION
0010	468+65	RT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	483+65	RT	W05-1	ROAD NARROWS	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	506+00	LT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	482+00	RT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	504+35	LT	W05-1	ROAD NARROWS	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	519+35	LT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	514+65	RT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	529+65	RT	W05-1	ROAD NARROWS	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	552+00	LT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	528+00	RT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	550+35	LT	W05-1	ROAD NARROWS	48x48	4	TEMP. WIDENING CONSTRUCTION
0010	565+35	LT	W20-1	ROAD WORK AHEAD	48x48	4	TEMP. WIDENING CONSTRUCTION
0010			W12-52	MAX 10' WIDTH	48x48	6	USH 63 & STH 48 INTERSECTION, CUMBERLAND
0010			W057-52	XX MILES AHEAD	36x24	6	USH 63 & STH 48 INTERSECTION, CUMBERLAND
0010			W12-52	MAX 10' WIDTH	48x48	6	USH 63 & CTH B/CTH H INTERSECTION NORTH OF CUMBERLAND
0010			W057-52	XX MILES AHEAD	36x24	6	USH 63 & CTH B/CTH H INTERSECTION NORTH OF CUMBERLAND
0010			W12-52	MAX 10' WIDTH	48x48	6	USH 63 & STH 253 INTERSECTION, SPOONER
0010			W057-52	XX MILES AHEAD	36x24	6	USH 63 & STH 253 INTERSECTION, SPOONER

PROJECT TOTAL 1471

3

		NOTE: STATIONING SHOWN FOR ALL SIGNS IS APPROXIMATE. LAYOUT AND ACTUAL PLACEMENT SHALL BE DONE BY THE CONTRACTOR IN ACCORDANCE WITH THE WMUTCD.								637.2210 SIGNS TYPE II REFL. H		637.2230 SIGNS TYPE II REFL. F		634.0616 POSTS WOOD 4x6-IN x16FT		634.0620 POSTS WOOD 4x6-IN x20FT		638.2602 REMOVE SIGNS TYPE II		638.3000 REM SMALL SIGN SUPPORTS					
SIGN LOCATION																									
NUMBER	STATION	LOCATION	CODE	CODE DESCRIPTION	VARIABLE MESSAGE	W	x	H	SF		SF			EACH		EACH		EACH		EACH		EACH		COMMENTS	
1-1	424+15	Right	I2-2	County Line Name	Washburn Co	72	x	15	7.50	ft²				2				1		2					
1-2	424+15	Right	W14-3	No Passing Zone		48	x	36			6.00	ft²		0				0		0					
1-3	428+40	Left	W3-5	Speed Limit _ Ahead [Arrow]	40	36	x	36			9.00	ft²		1				1		1					
1-4	435+75	Left	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
2-1	456+50	Right	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
2-2	476+30	Right	D1-61	Type 2 street sign w/ arrows	Brick Yard Rd	78	x	24	13.00	ft²				2				1		2					
3-1	483+15	Left	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
3-2	483+55	Right	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
3-3	490+50	Left	D1-61	Type 2 street sign w/ arrows	Brick Yard Rd	78	x	24	13.00	ft²				2				1		2					
3-4	507+20	Left	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
4-1	526+50	Right	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
4-2	530+20	Left	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
5-1	541+20	Right	D5-61	Wayside [1/2] Mile		48	x	24	8.00	ft²				1				1		1					
5-2	568+40	Right	D5-62-L	Wayside (LEFT Arrow)		48	x	24	8.00	ft²				1				1		1					
5-3	568+65	Left	R5-53-A	Buckle Up - Its The Law		18	x	24	3.00	ft²				1				1		1					
5-4	568+70	Left	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
5-5	569+50	Right	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
5-6	569+85	Left	R5-53-A	Buckle Up - Its The Law		18	x	24	3.00	ft²				1				1		1					
5-7	569+90	Left	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
6-1	570+55	Left	D5-62-R	Wayside (RIGHT Arrow)		48	x	24	8.00	ft²				1				1		1					
6-2	572+75	Left	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
	580+40	Right	M2-1	Junction Marker		21	x	15						0				1		1			REPLACED BY J PANEL ASSEMBLY		
	580+40	Right	M1-5-A	County Marker	J	24	x	24						0				0		0			REPLACED BY J PANEL ASSEMBLY		
6-3	580+40	Right	J1-1	County Marker, Jct	Jct J	24	x	39	6.50	ft²				1				0		0			M2-1,M1-5-A		
	590+00	Right	M1-5-A	County Marker		24	x	24						0				1		1			REPLACED BY J PANEL ASSEMBLY		
	590+00	Right	M6-1	Arrow - RIGHT, LEFT, OR AHEAD		21	x	21						0				0		0			REPLACED BY J PANEL ASSEMBLY		
6-4	590+00	Right	J13-1	County Marker, Arrow	J (LA)	24	x	45	7.50	ft²				1				0		0			M6-1,M1-5-A		
6-5	590+05	Left	R1-1	Stop		36	x	36	7.46	ft²				1				1		1					
6-6	590+65	Left	R1-1	Stop		36	x	36	7.46	ft²				1				1		1					
6-7	591+00	Right	D1-61	Type 2 street sign w/ arrows	S Heart Lake Rd	90	x	24	15.00	ft²				2				1		2					
	592+60	Left	M1-5-A	County Marker		24	x	24						0				1		0			REPLACED BY J PANEL ASSEMBLY		
	592+60	Left	M6-1	Arrow - RIGHT, LEFT, OR AHEAD		21	x	21						0				0		0			REPLACED BY J PANEL ASSEMBLY		
6-8	592+60	Left	J13-1	County Marker, Arrow	J (RA)	24	x	45	7.50	ft²				0				0		0			M6-1,M1-5-A		
	592+60	Left	SP	Road to Timberland Hills (RA)		78	x	42						0				1		2			Remove Sign		
6-9	592+60	Left	D7-81A	Ski Area Name	Timberland Hills	108	x	21	15.75	ft²				0		2		0		0					
6-10	592+60	Left	D7-81	Ski Area Next Right w/ Symbol		108	x	30	22.50	ft²				0				0		0					
6-11	595+50	Right	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
6-12	595+75	Left	R1-1	Stop		30	x	30	5.18	ft²				1				1		1					
6-13	598+00	Right	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
6-14	598+10	Left	D5-61	Wayside [1/2] Mile		48	x	24	8.00	ft²				1				1		1					
	600+75	Left	M2-1	Junction Marker		21	x	15						0				1		1			REPLACED BY J PANEL ASSEMBLY		
	600+75	Left	M1-5-A	County Marker	J	24	x	24						0				0		0			REPLACED BY J PANEL ASSEMBLY		
7-1	600+75	Left	J1-1	County Marker, Jct	Jct J	24	x	39	6.50	ft²				1				0		0			M2-1,M1-5-A		
7-2	601+50	Left	D1-61	Type 2 street sign w/ arrows	S Heart Lake Rd	90	x	24	15.00	ft²				2				1		2					
7-3	604+50	Left	W14-3	No Passing Zone		48	x	36			6.00	ft²		1				1		1					
7-4	621+35	Right	D1-61	Type 2 street sign w/ arrows	Woodyard Rd	72	x	24	12.00	ft²				2				1		2					
ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.					PROJECT TOTALS =					225.75		69.00		39		2		35		41					

3

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			PLE, TLE ACRES
			NEW	EXISTING	TOTAL	
16	BARRONETT LAKESIDE CEMETERY ASSOCIATION	FEE	0.03	0	0.03	
17	STEVE AND SUE TRULEN	FEE	0.04	0.07	0.11	

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WASHBURN COUNTY, NAD 83(91) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY A 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR U.S.H. 63 ESTABLISHED FROM PREVIOUS PROJECT DIVISION JOB No. 8613. EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS.

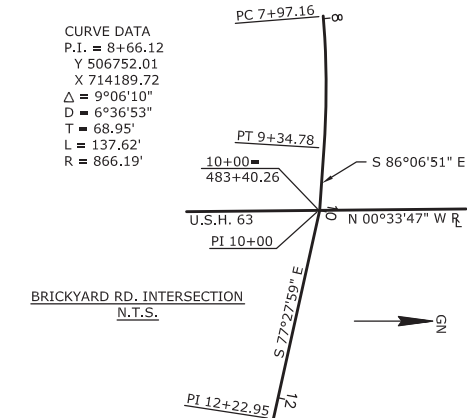
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

SECTION/QUARTER CORNER COORDINATES AND DESCRIPTIONS PER WASHBURN COUNTY SURVEYOR DATABASE; LOCATIONS HAVE BEEN FIELD VERIFIED IN THIS SURVEY.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGIONAL OFFICE.

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

STATION/OFFSET TABLE - U.S.H. 63		
POINT	STATION	OFFSET
90101	475+94.40	-100.00'
101	477+00.00	-100.00'
102	482+78.16	-100.00'
103	483+12.20	-178.14'
104	483+77.45	-201.94'
106	484+17.30	-100.00'
107	488+00.00	-100.00'
90103	489+16.55	-100.00'
90104	475+92.20	0.00'
90106	489+14.51	0.00'
90107	475+90.01	100.00'
151	477+00.00	100.00'
152	482+83.11	100.00'
153	483+50.91	100.00'
154	488+00.00	100.00'
90109	489+12.46	100.00'
108	483+14.80	-100.00'
109	483+80.83	-100.00'
STATION/OFFSET TABLE BRICKYARD ROAD		
90102	8+08.98	0.00'
90108	11+02.67	0.00'



PARCEL #	UTILITY EASEMENT INFORMATION		RECORDING DATA
	COMPANY NAME		
16, 17	WISCONSIN HYDRO ELECTRIC COMPANY D/B/A NORTHERN STATES POWER COMPANY		MISC. V.23 P.604
17	BARRON ELECTRIC COOPERATIVE		V.180 P.294
16, 17	SHELL LAKE TELEPHONE CO., INC. D/B/A CENTURYLINK		V.302 P.274

UTILITY INTERESTS REQUIRED		
UTILITY #	OWNER(S)	INTEREST REQ'D.
41	NORTHERN STATES POWER COMPANY D/B/A XCEL ENERGY	RELEASE OF RIGHTS
42	CENTURYLINK	RELEASE OF RIGHTS
43	BARRON ELEC. COOPERATIVE	RELEASE OF RIGHTS

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS REMAINING	ROR
ACCESS RIGHTS	AR	RIGHT-OF-WAY	REM.
ACRES	AC.	STATION	R/W
AND OTHERS	ET.AL.	TEMPORARY LIMITED EASEMENT	STA.
CENTERLINE	C/L	VOLUME	V.
CERTIFIED SURVEY MAP	CSM		
CORNER	COR.		
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	1" (1" UNLESS NOTED)
R/W MONUMENT	• (SET)
R/W STANDARD	▲ (SET)
SIGN	ISIGN
SECTION CORNER MONUMENT	SECTION CORNER SYMBOL
FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	
PERMANENT LIMITED EASEMENT	
R/W BOUNDARY POINT	
PARCEL NUMBER	
SIGN NUMBER (OFF PREMISE)	
BUILDING	

CONVENTIONAL UTILITY SYMBOLS

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

TRANSPORTATION PROJECT PLAT NO: 1550-21-21 - 4.01

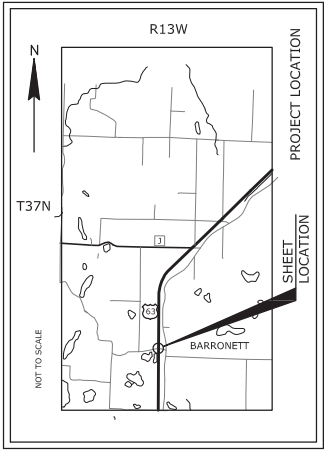
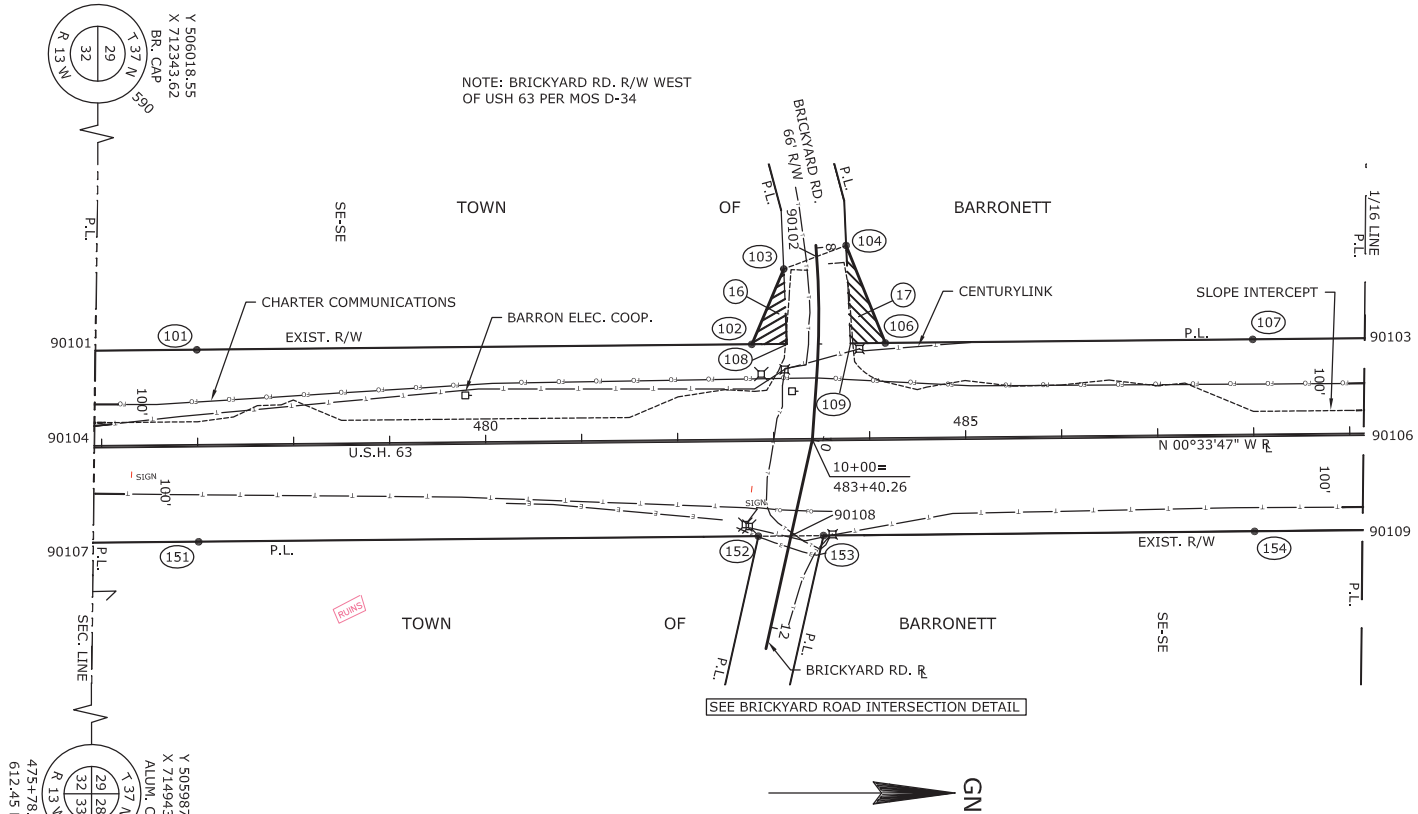
THAT PART OF THE SE-SE OF SECTION 29, T37N-R13W, TOWN OF BARRONETT, WASHBURN COUNTY, WISCONSIN

RELOCATION ORDER U.S.H. 63 CUMBERLAND - SPOONER SCL - WOODYARD ROAD WASHBURN COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



ALIGNMENT TIE: POINT #573 TO STA. 475+92.20 U.S.H. 63=612.60', N 89°18'26" W

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN Washburn COUNTY, WISCONSIN AT 9:50AM ON June 27, 2014 AS DOCUMENT # 363477 AND FILED IN Env # 225

Renee M. Bell - deputy
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 15502121-4.01
AMENDMENT NO: _____

COURSE TABLE		
COURSE	BEARING	DISTANCE
573-590	N 89°18'26" W	2600.04'
573-90107	N 89°18'26" W	512.58'
90107-90104	N 89°18'26" W	100.02'
90104-90101	N 89°18'26" W	100.02'
90101-101	N 0°33'47" W	105.60'
101-102	N 0°33'47" W	578.16'
102-103	N 67°01'15" W	85.23'
103-90102	N 20°36'32" W	36.67'
90102-104	N 20°36'32" W	32.79'
104-106	N 68°05'01" E	109.46'
106-107	N 0°33'47" W	382.70'
107-90103	N 0°33'47" W	116.55'
90103-90106	S 89°23'29" E	100.02'
90106-90109	S 89°23'29" E	100.02'
90109-154	S 0°33'47" E	112.46'
154-153	S 0°33'47" E	449.09'
153-90108	S 0°33'47" E	33.91'
90108-152	S 0°33'47" E	33.89'
152-151	S 0°33'47" E	583.11'
151-90107	S 0°33'47" E	109.99'
102-108	N 0°33'47" W	36.64'
108-103	S 87°32'06" W	78.18'
104-109	N 87°32'06" E	102.00'
109-106	N 0°33'47" W	36.47'



COOPER ENGINEERING COMPANY, INC.
2600 COLLEGE DRIVE, P.O. BOX 230
RICE LAKE, WI. 54868
(715)234-7008

I, WAYNE M. RADO, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1550-21-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Wayne M. Rado DATE 6/12/14

WAYNE M. RADO, AGENT FOR COOPER ENGINEERING CO., INC., RICE LAKE, WI.

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE 06/13/2014

Michael Pillar
MICHAEL PILLER, T.S.S. SUPERVISOR

FILE NAME : \$\$....designfile....\$\$

APPRAISAL PLAT DATE : _____

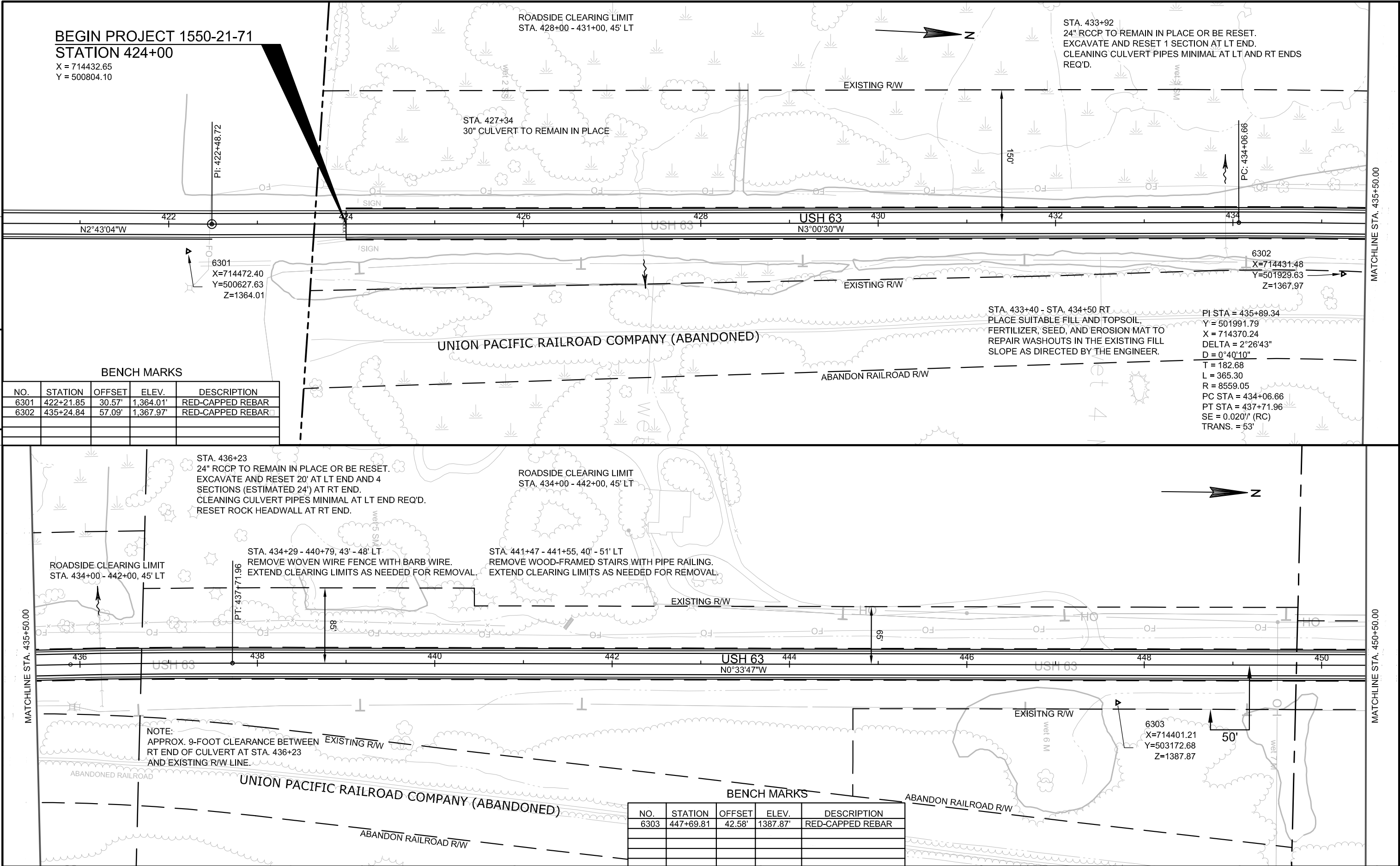
PLOT DATE : \$\$...plottingdate...\$\$

PLOT BY : \$\$...plotuser...\$\$

PLOT NAME : _____

PLOT SCALE : \$\$....plotscale....\$\$

1550-21-21 4.01



BEGIN PROJECT 1550-21-71
STATION 424+00
X = 714432.65
Y = 500804.10

ROADSIDE CLEARING LIMIT
STA. 428+00 - 431+00, 45' LT

STA. 433+92
24" RCCP TO REMAIN IN PLACE OR BE RESET.
EXCAVATE AND RESET 1 SECTION AT LT END.
CLEANING CULVERT PIPES MINIMAL AT LT AND RT ENDS
REQ'D.

STA. 427+34
30" CULVERT TO REMAIN IN PLACE

EXISTING R/W

150'

PC: 434+06.66

N2°43'04"W

USH 63
N3°00'30"W

6301
X=714472.40
Y=500627.63
Z=1364.01

6302
X=714431.48
Y=501929.63
Z=1367.97

UNION PACIFIC RAILROAD COMPANY (ABANDONED)

STA. 433+40 - STA. 434+50 RT
PLACE SUITABLE FILL AND TOPSOIL,
FERTILIZER, SEED, AND EROSION MAT TO
REPAIR WASHOUTS IN THE EXISTING FILL
SLOPE AS DIRECTED BY THE ENGINEER.

PI STA = 435+89.34
Y = 501991.79
X = 714370.24
DELTA = 2°26'43"
D = 0°40'10"
T = 182.68
L = 365.30
R = 8559.05
PC STA = 434+06.66
PT STA = 437+71.96
SE = 0.0201" (RC)
TRANS. = 53'

BENCH MARKS

NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6301	422+21.85	30.57'	1,364.01'	RED-CAPPED REBAR
6302	435+24.84	57.09'	1,367.97'	RED-CAPPED REBAR

STA. 436+23
24" RCCP TO REMAIN IN PLACE OR BE RESET.
EXCAVATE AND RESET 20' AT LT END AND 4
SECTIONS (ESTIMATED 24') AT RT END.
CLEANING CULVERT PIPES MINIMAL AT LT END REQ'D.
RESET ROCK HEADWALL AT RT END.

ROADSIDE CLEARING LIMIT
STA. 434+00 - 442+00, 45' LT

ROADSIDE CLEARING LIMIT
STA. 434+00 - 442+00, 45' LT

STA. 434+29 - 440+79, 43' - 48' LT
REMOVE WOVEN WIRE FENCE WITH BARB WIRE.
EXTEND CLEARING LIMITS AS NEEDED FOR REMOVAL.

STA. 441+47 - 441+55, 40' - 51' LT
REMOVE WOOD-FRAMED STAIRS WITH PIPE RAILING.
EXTEND CLEARING LIMITS AS NEEDED FOR REMOVAL.

EXISTING R/W

USH 63
N0°33'47"W

USH 63

NOTE:
APPROX. 9-FOOT CLEARANCE BETWEEN
RT END OF CULVERT AT STA. 436+23
AND EXISTING R/W LINE.

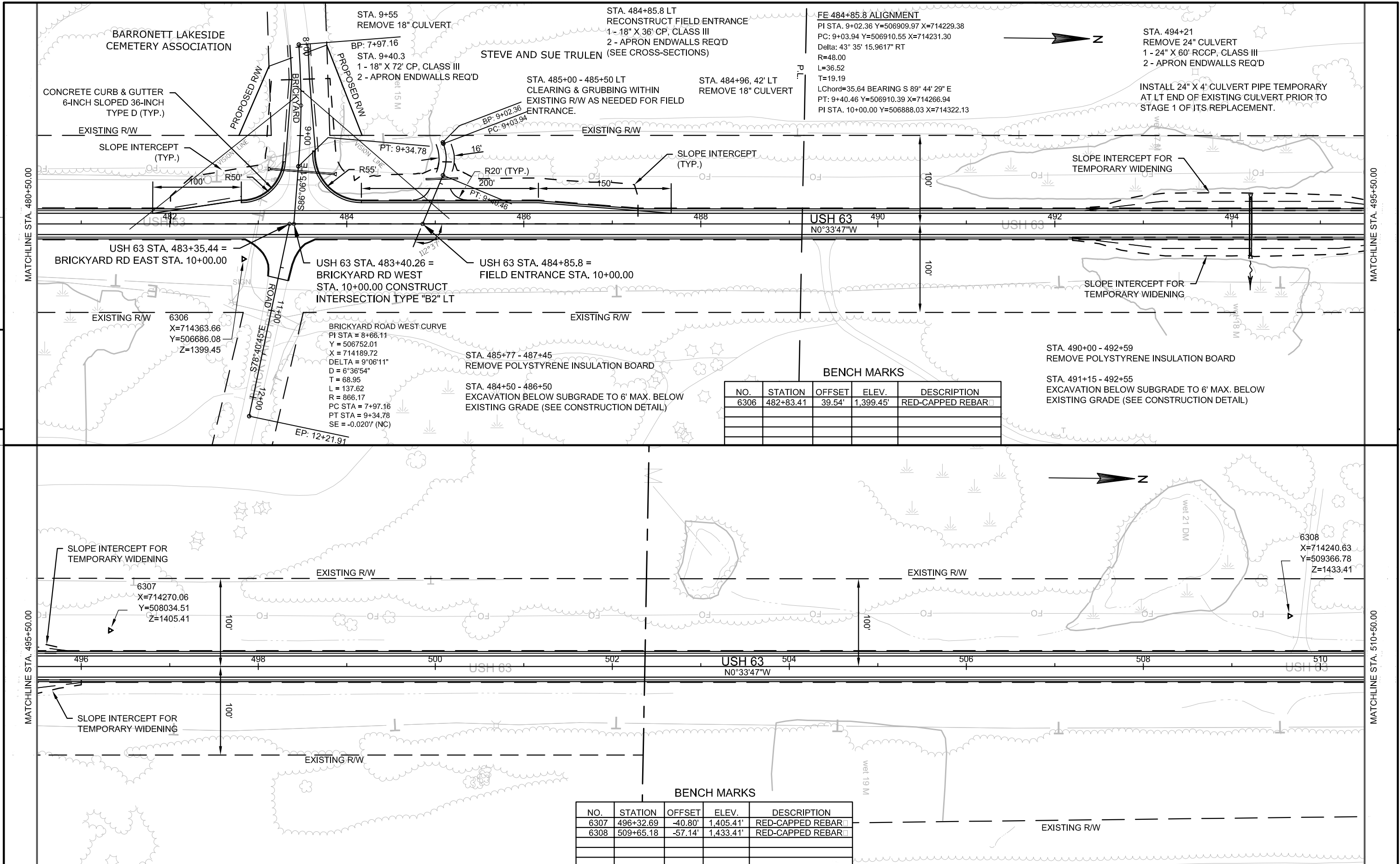
UNION PACIFIC RAILROAD COMPANY (ABANDONED)

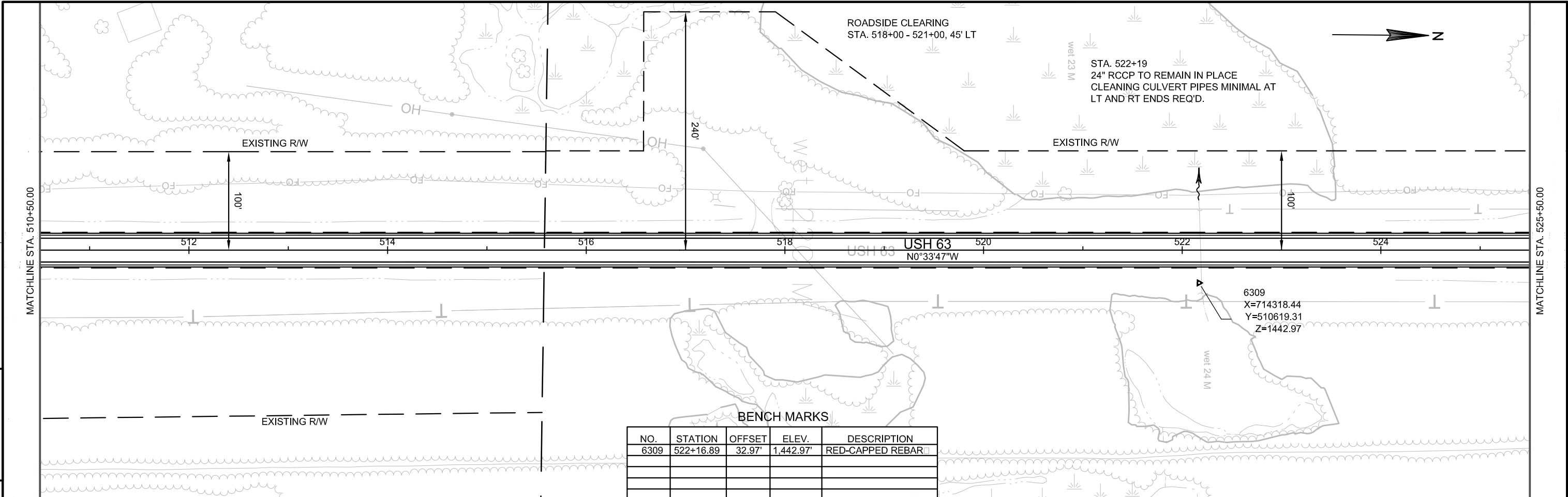
BENCH MARKS

NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6303	447+69.81	42.58'	1387.87'	RED-CAPPED REBAR

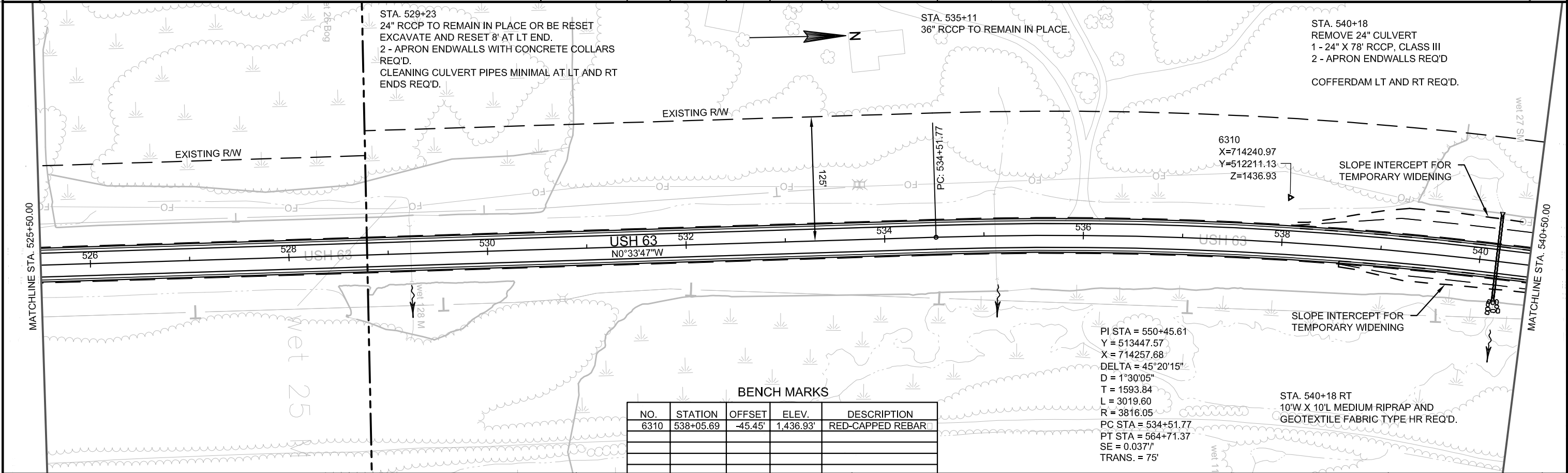
6303
X=714401.21
Y=503172.68
Z=1387.87

50'



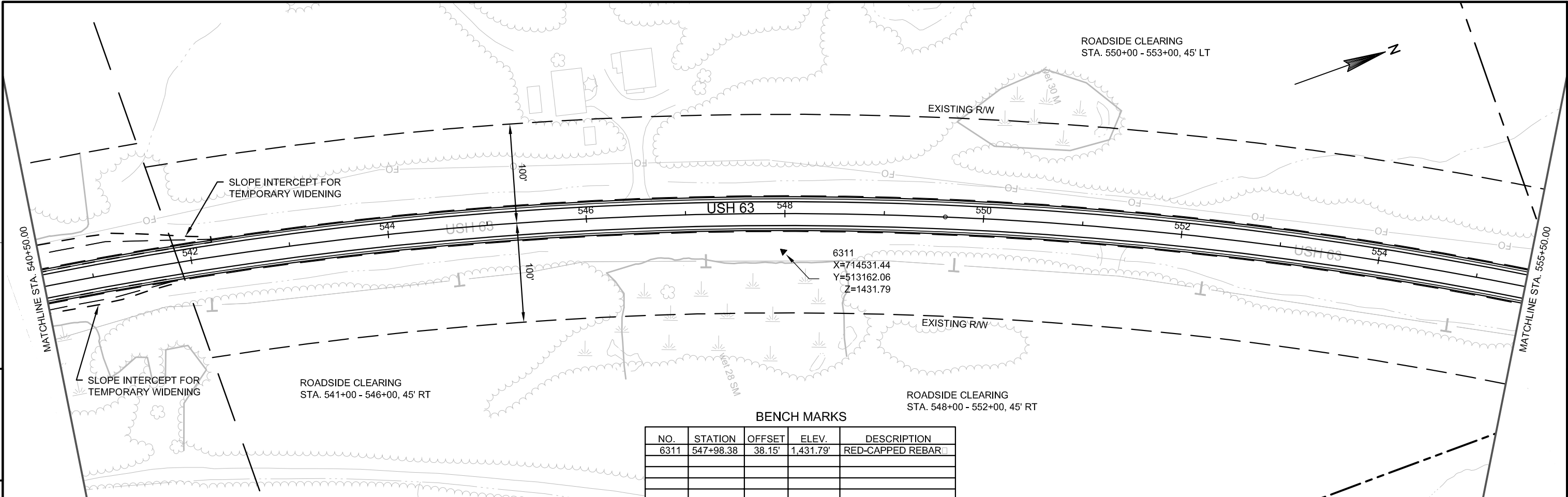


NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6309	522+16.89	32.97'	1,442.97'	RED-CAPPED REBAR

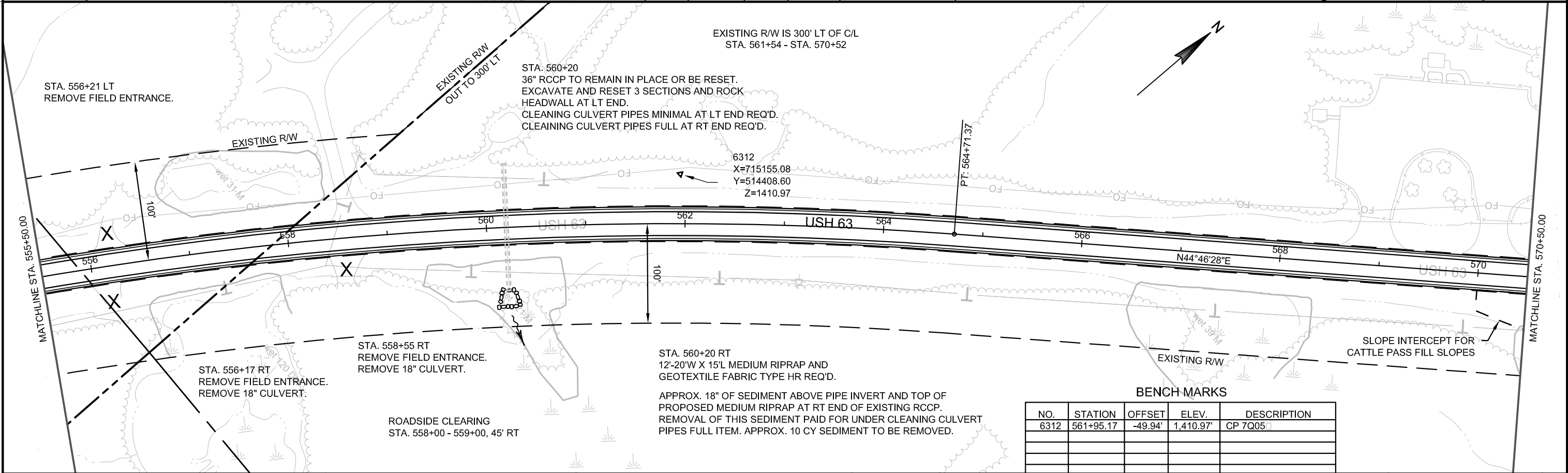


NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6310	538+05.69	-45.45'	1,436.93'	RED-CAPPED REBAR

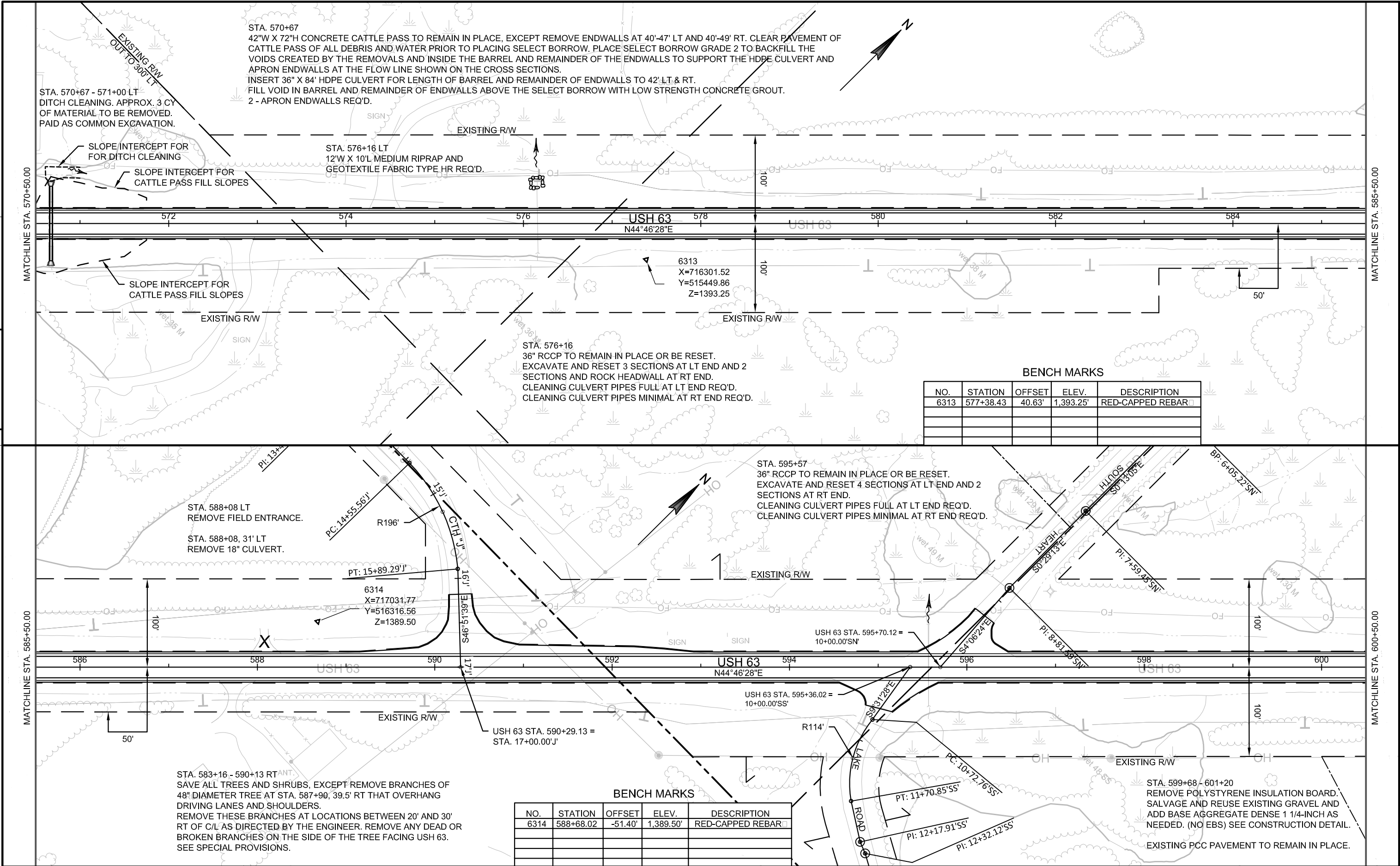
PI STA = 550+45.61
Y = 513447.57
X = 714257.68
DELTA = 45°20'15"
D = 1°30'05"
T = 1593.84
L = 3019.60
R = 3816.05
PC STA = 534+51.77
PT STA = 564+71.37
SE = 0.037"
TRANS. = 75'

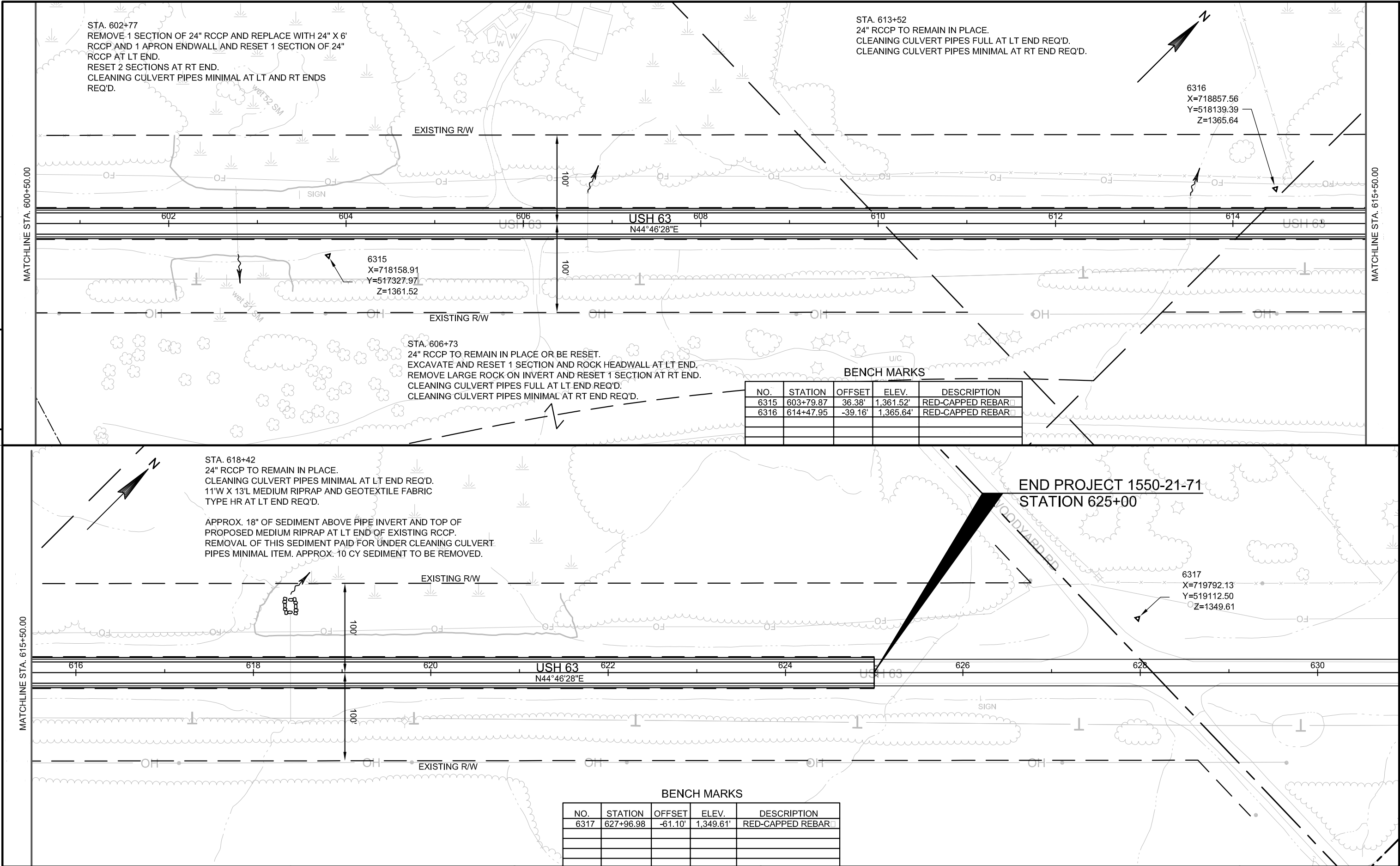


BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6311	547+98.38	38.15'	1,431.79'	RED-CAPPED REBAR



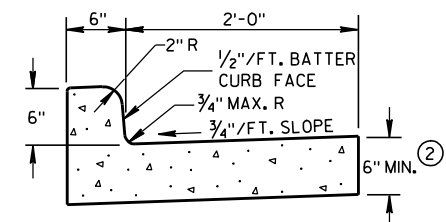
BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
6312	561+95.17	-49.94'	1,410.97'	CP 7Q05



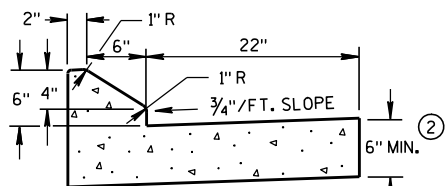


Standard Detail Drawing List

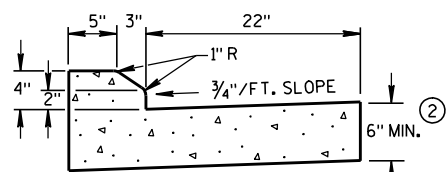
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D32-03	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION



TYPES A & D ①



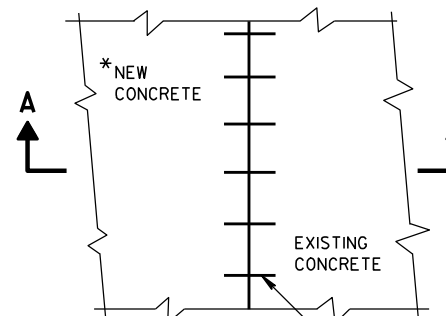
6" SLOPED CURB TYPES G & J ①



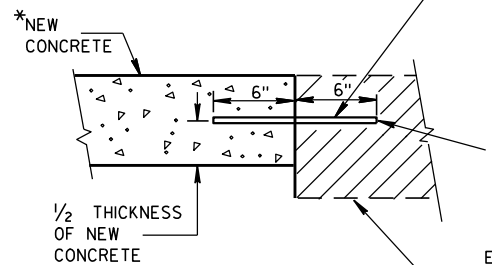
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.



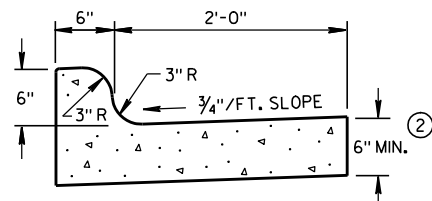
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

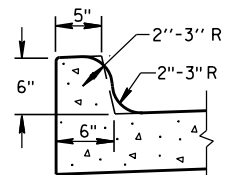
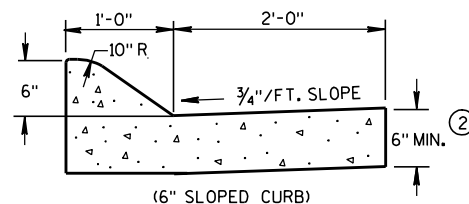
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

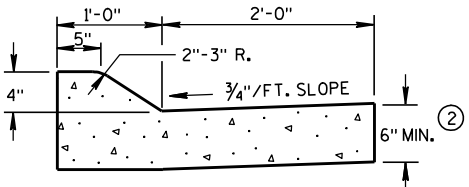
EXISTING
CONCRETE



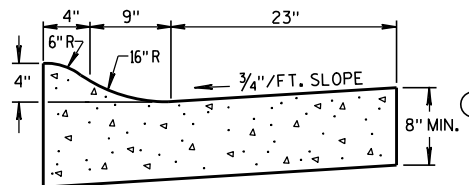
TYPES K & L ①

OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

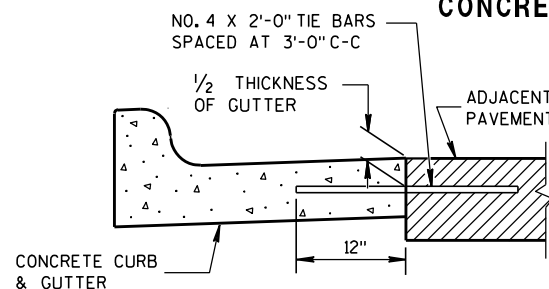


TYPES A & D ①

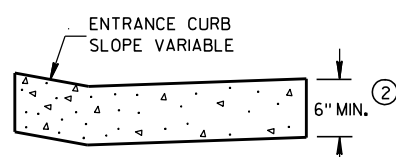


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

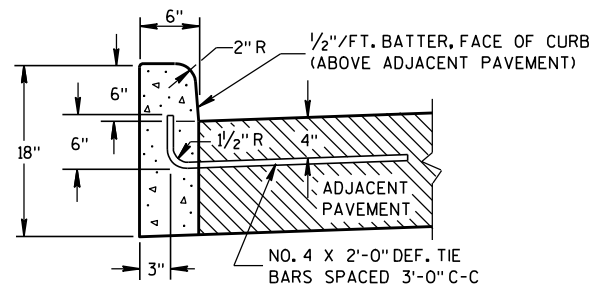


TYPICAL TIE BAR LOCATION ①



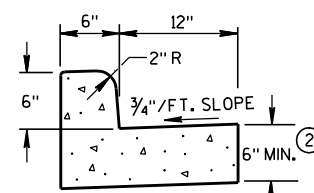
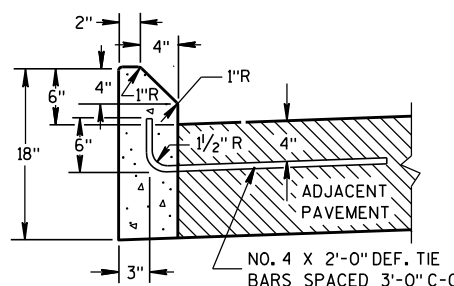
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

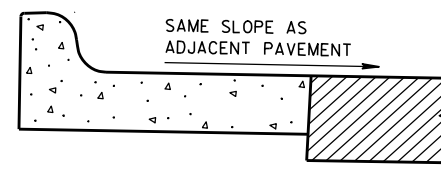
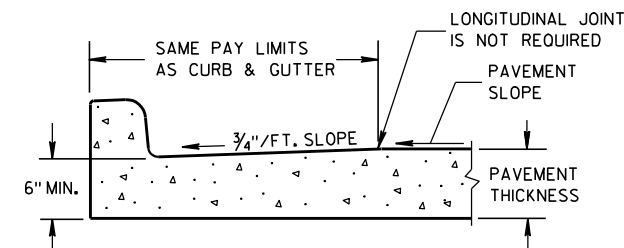
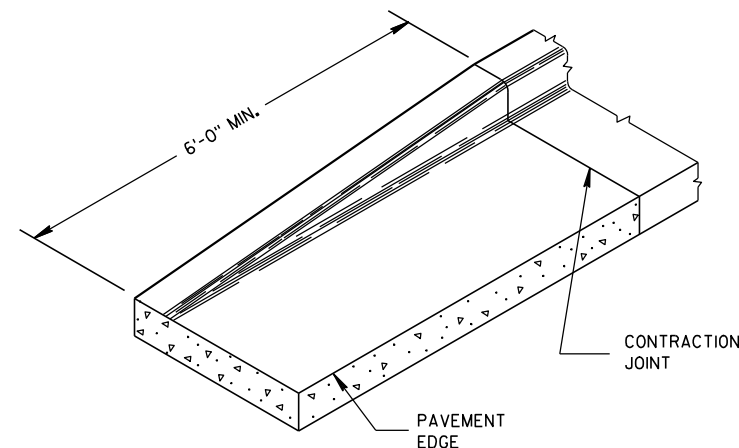
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

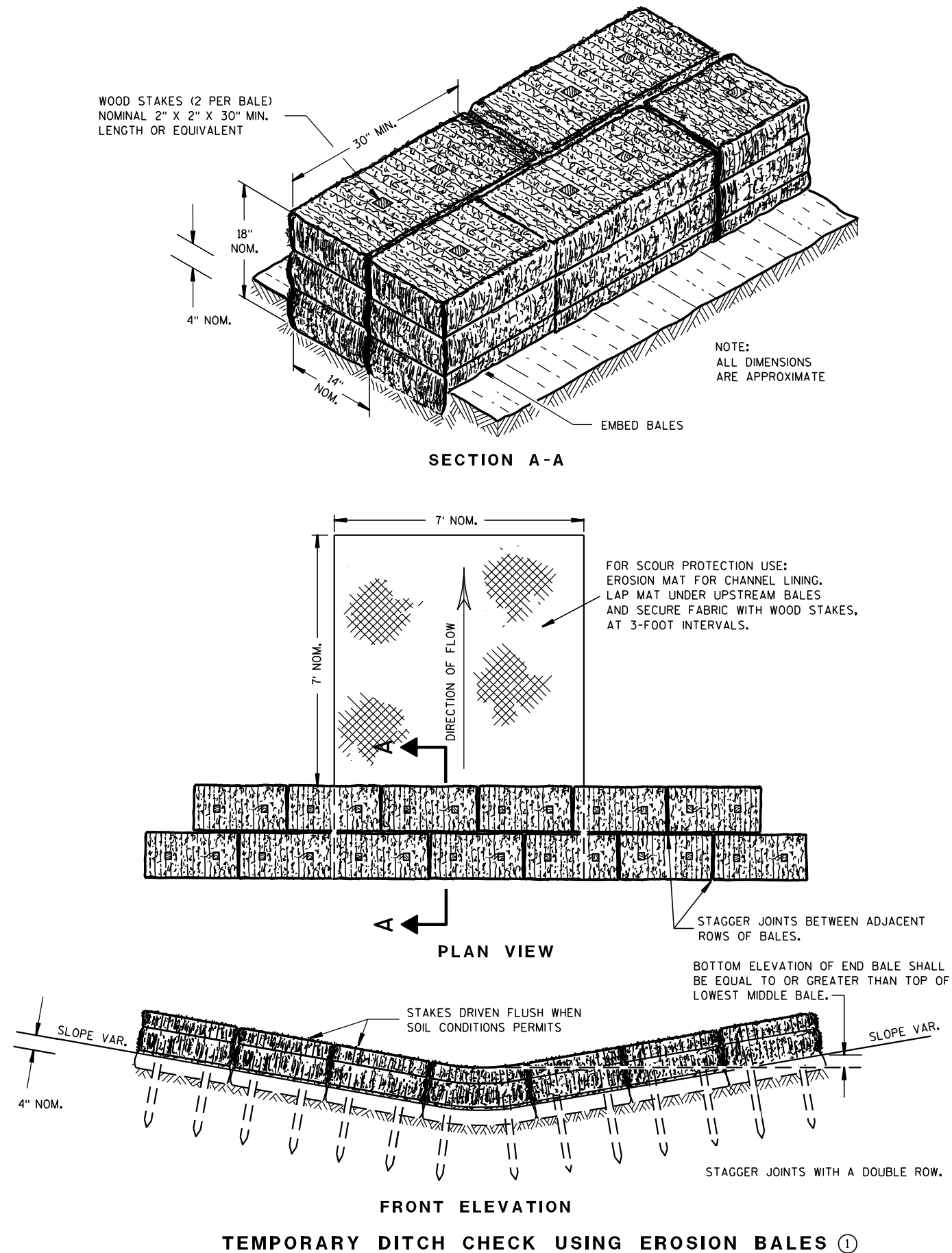
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

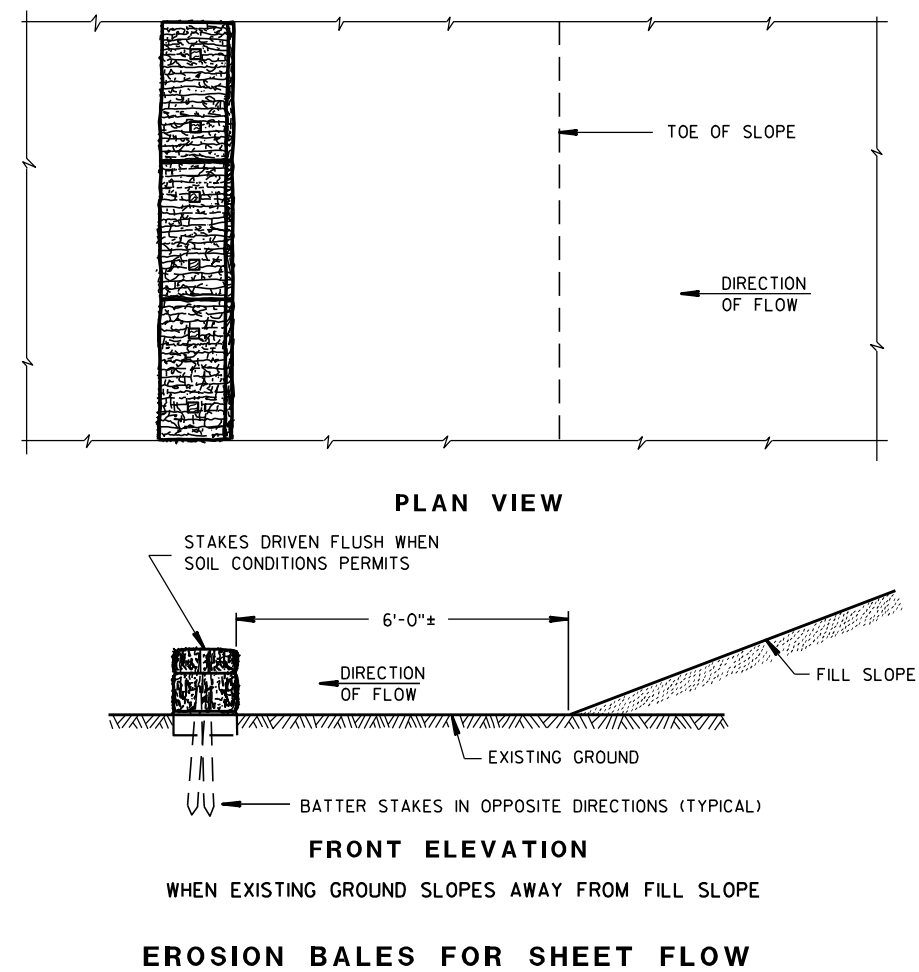
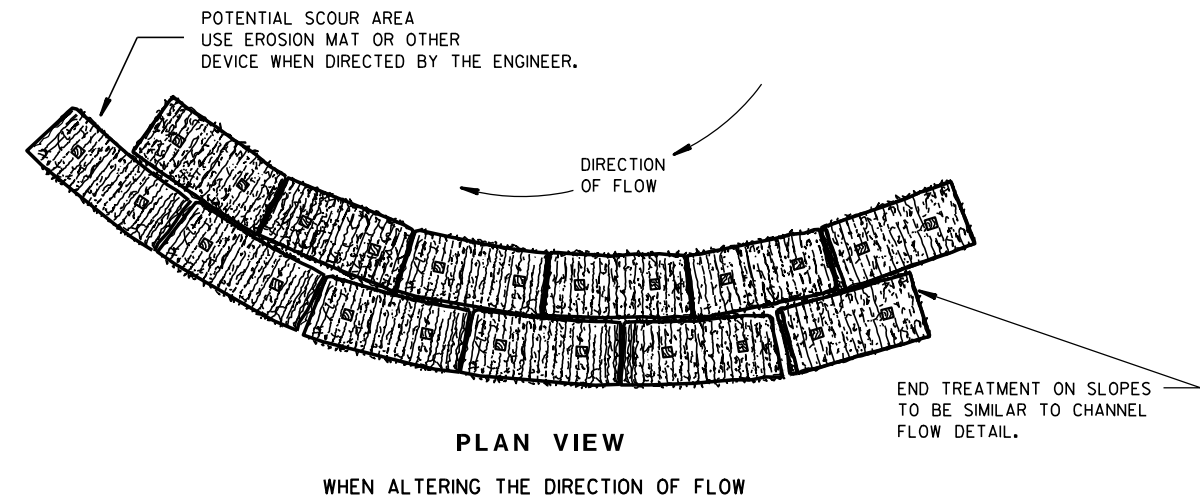
ENGINEER



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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

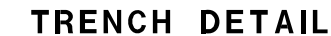
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

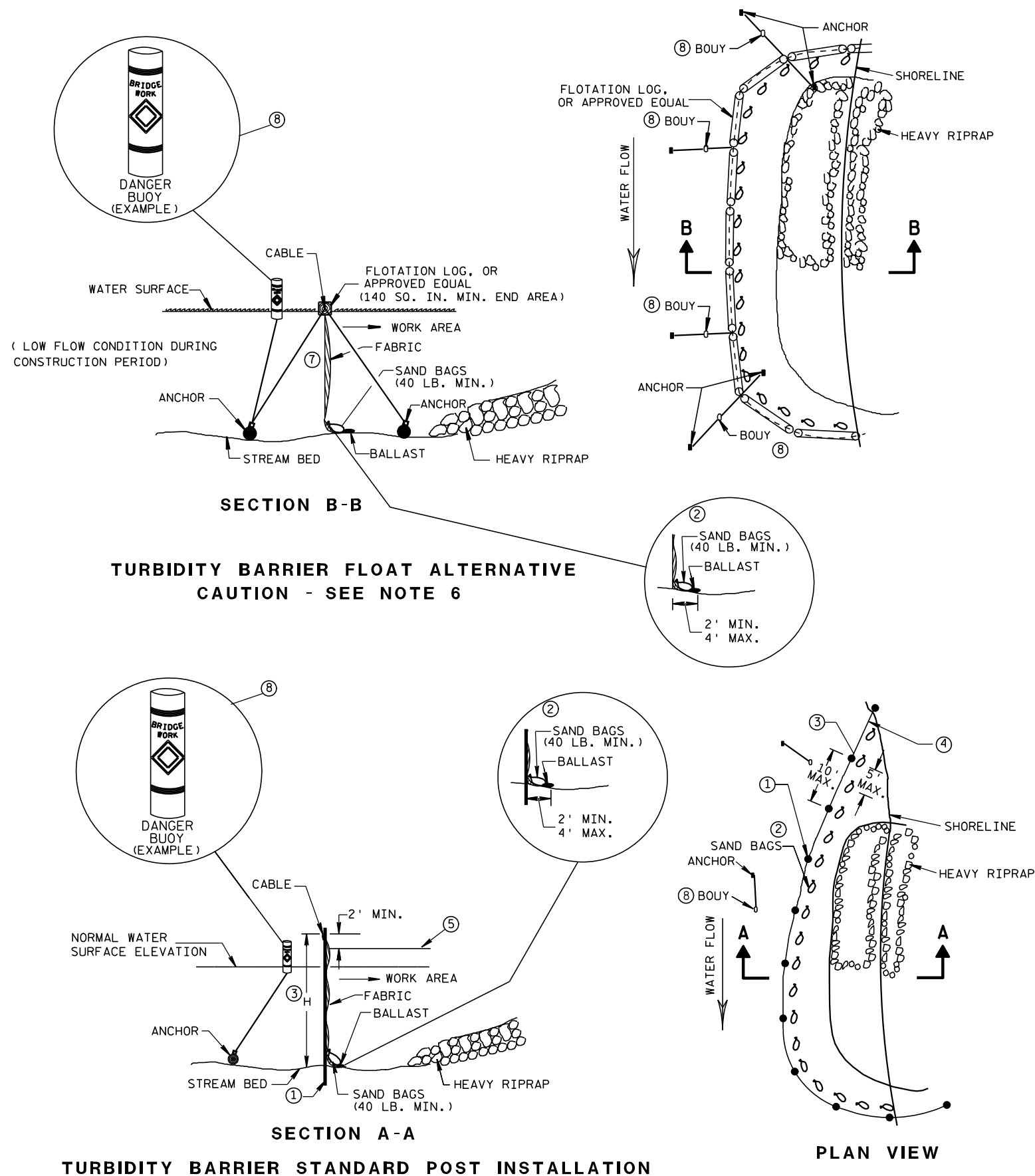
FHWA



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER

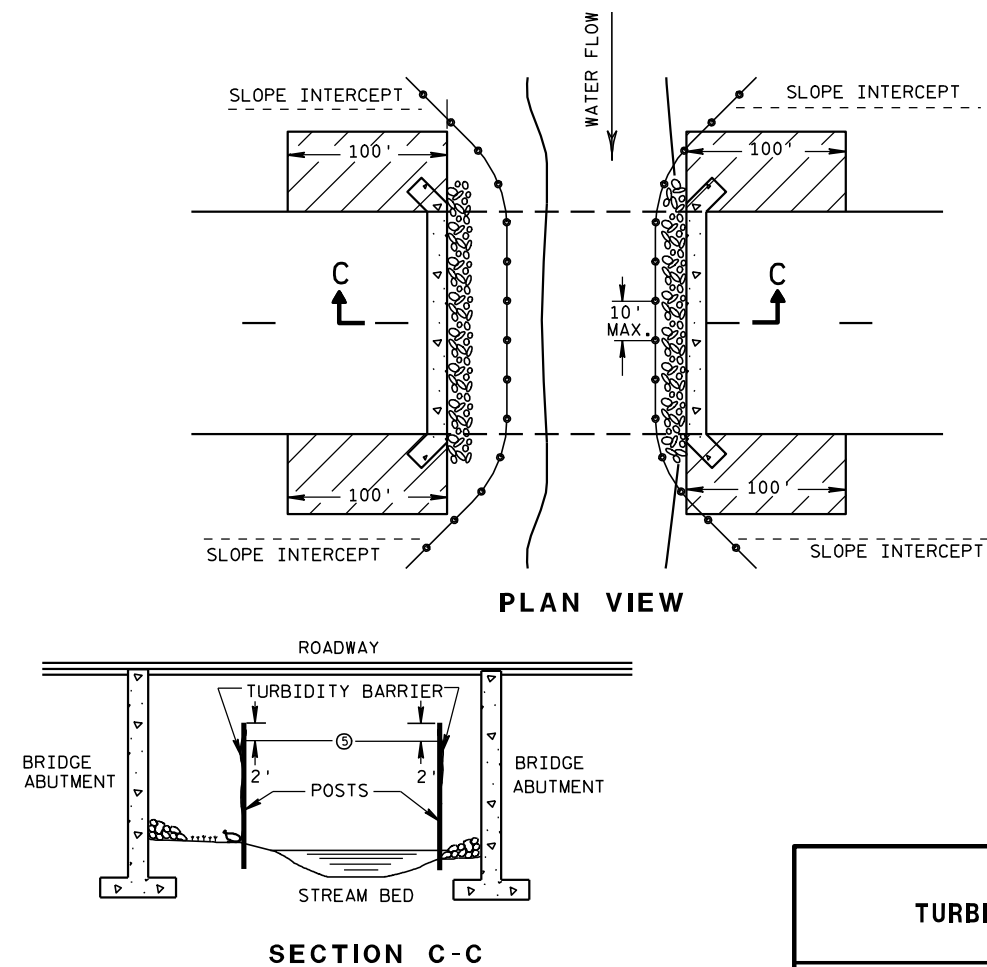


GENERAL NOTES

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 SANDBAGS 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 FT., 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 02 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 BED ROCK 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.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

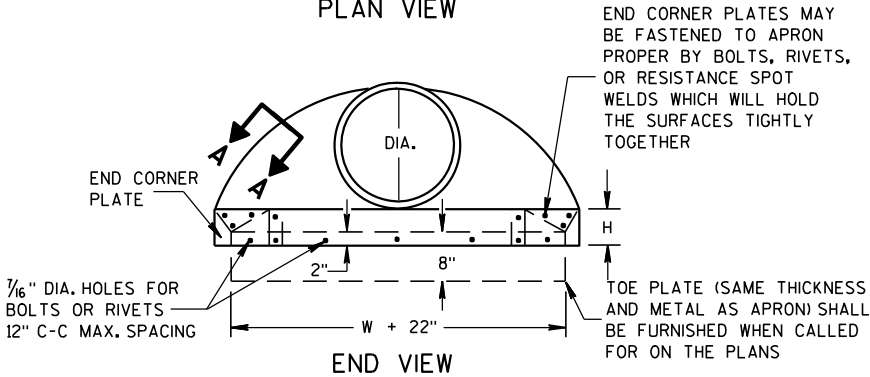
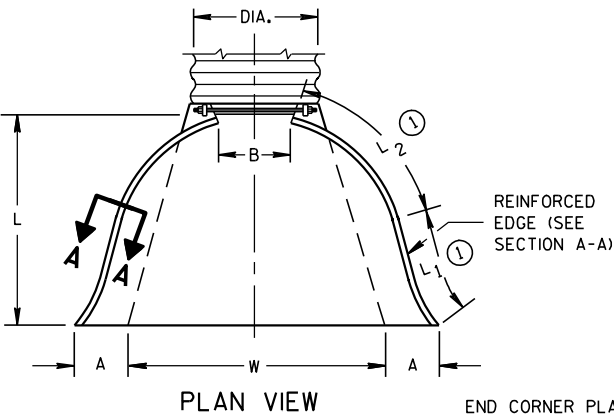
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)						APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①			W (±2")
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

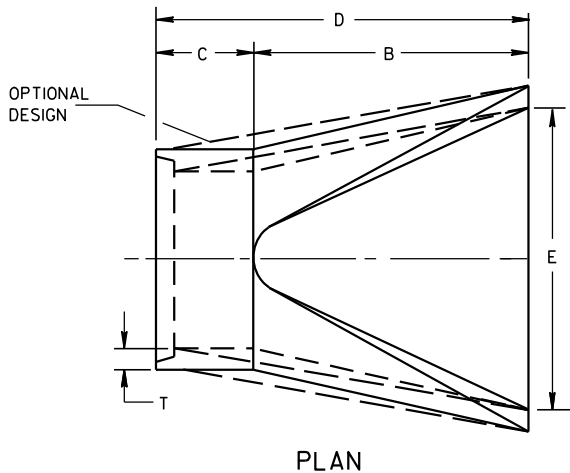
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



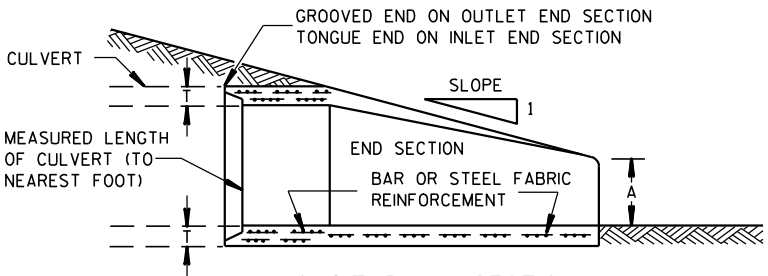
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	33 ¹ / ₄ -35	98 ¹ / ₄ -100	90	5 ¹ / ₂	2 ¹ / ₂ to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	24-30	72-78	21-27	99	102	5 ¹ / ₂	2 to 1
72	7	24-36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	24-36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

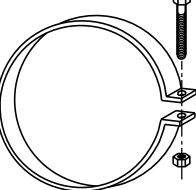
*MINIMUM
**MAXIMUM



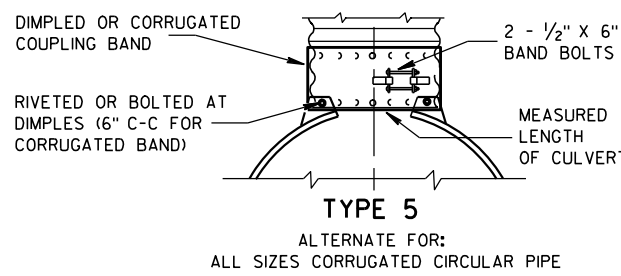
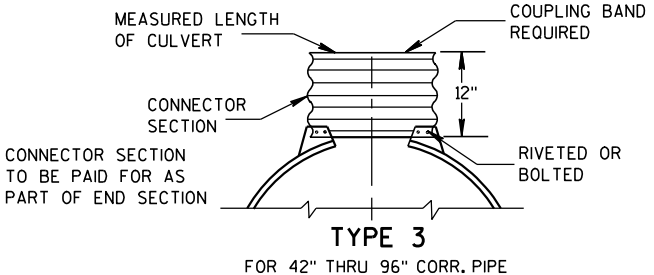
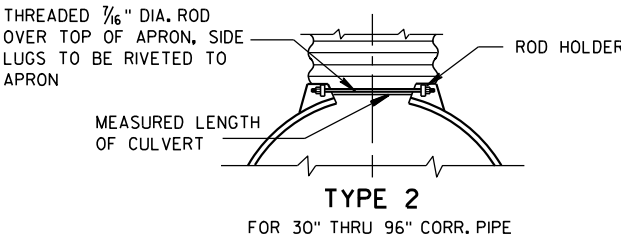
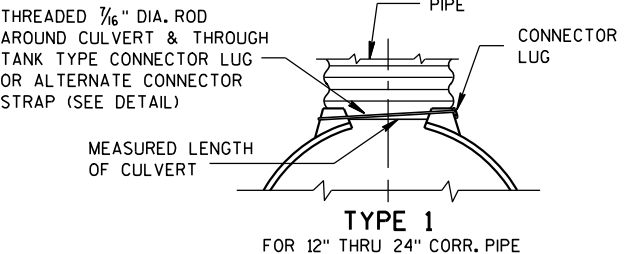
CONCRETE ENDWALLS



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



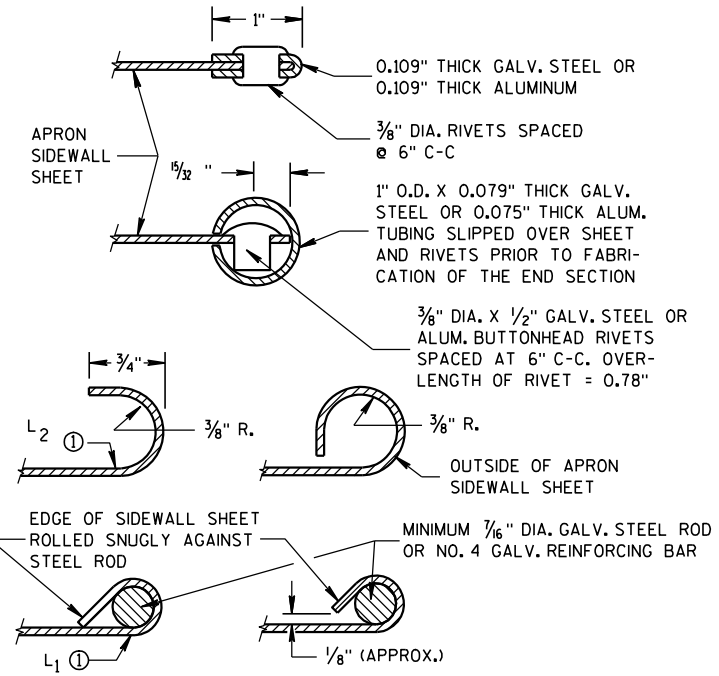
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

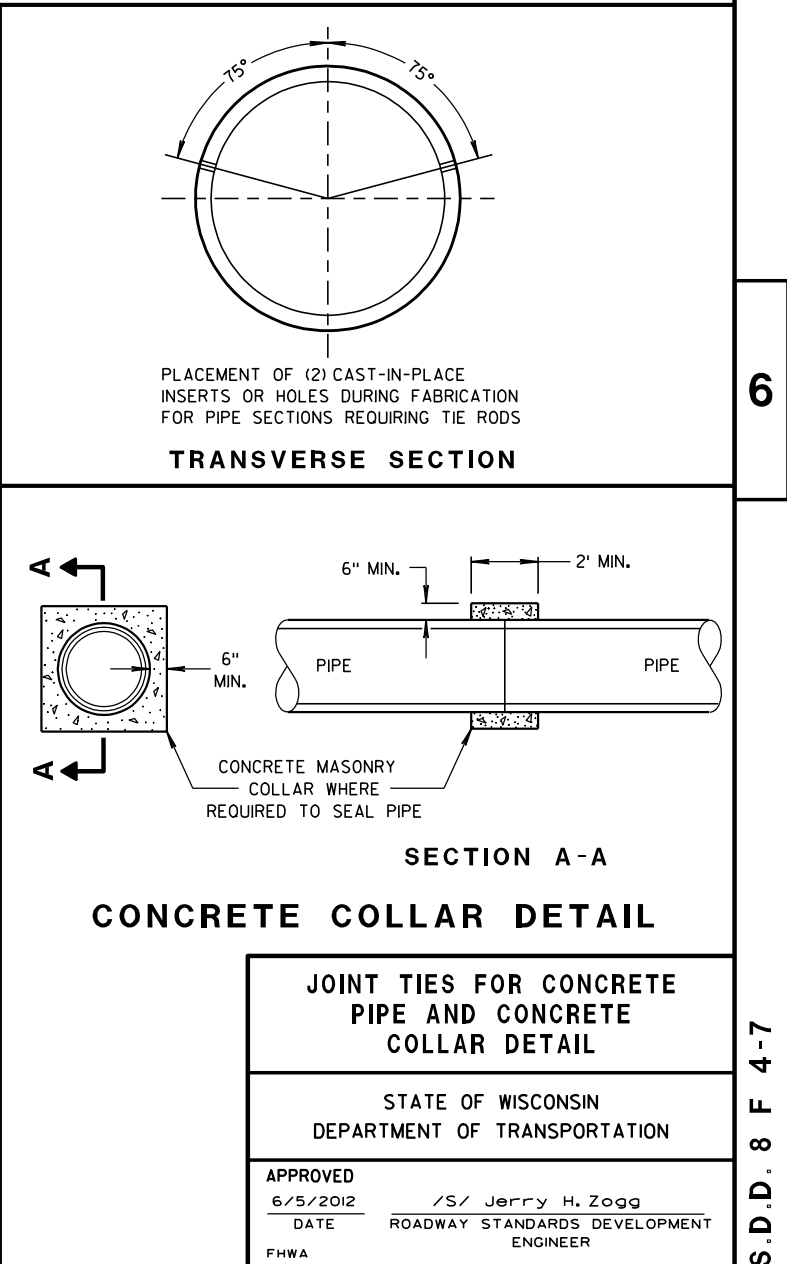
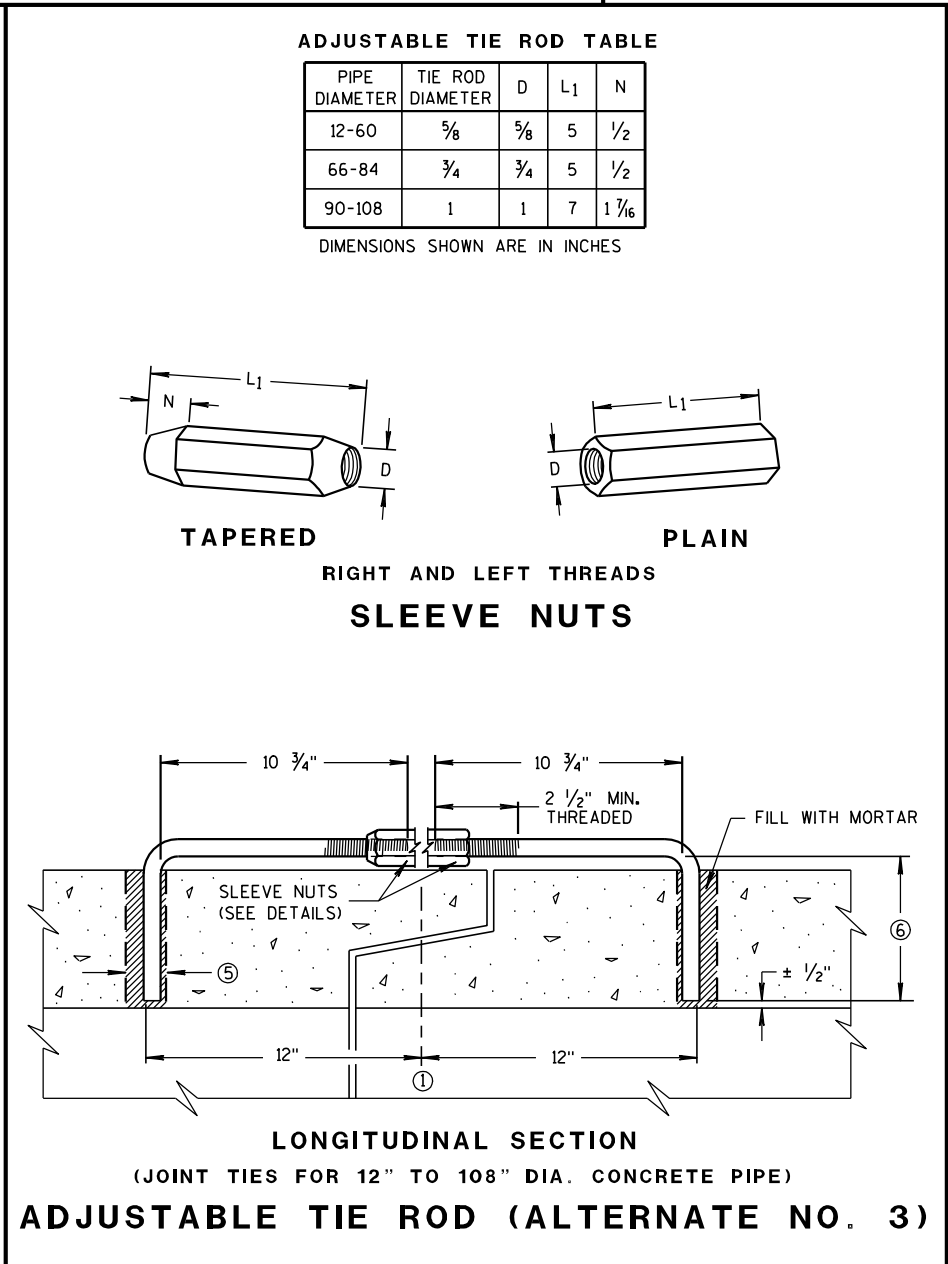
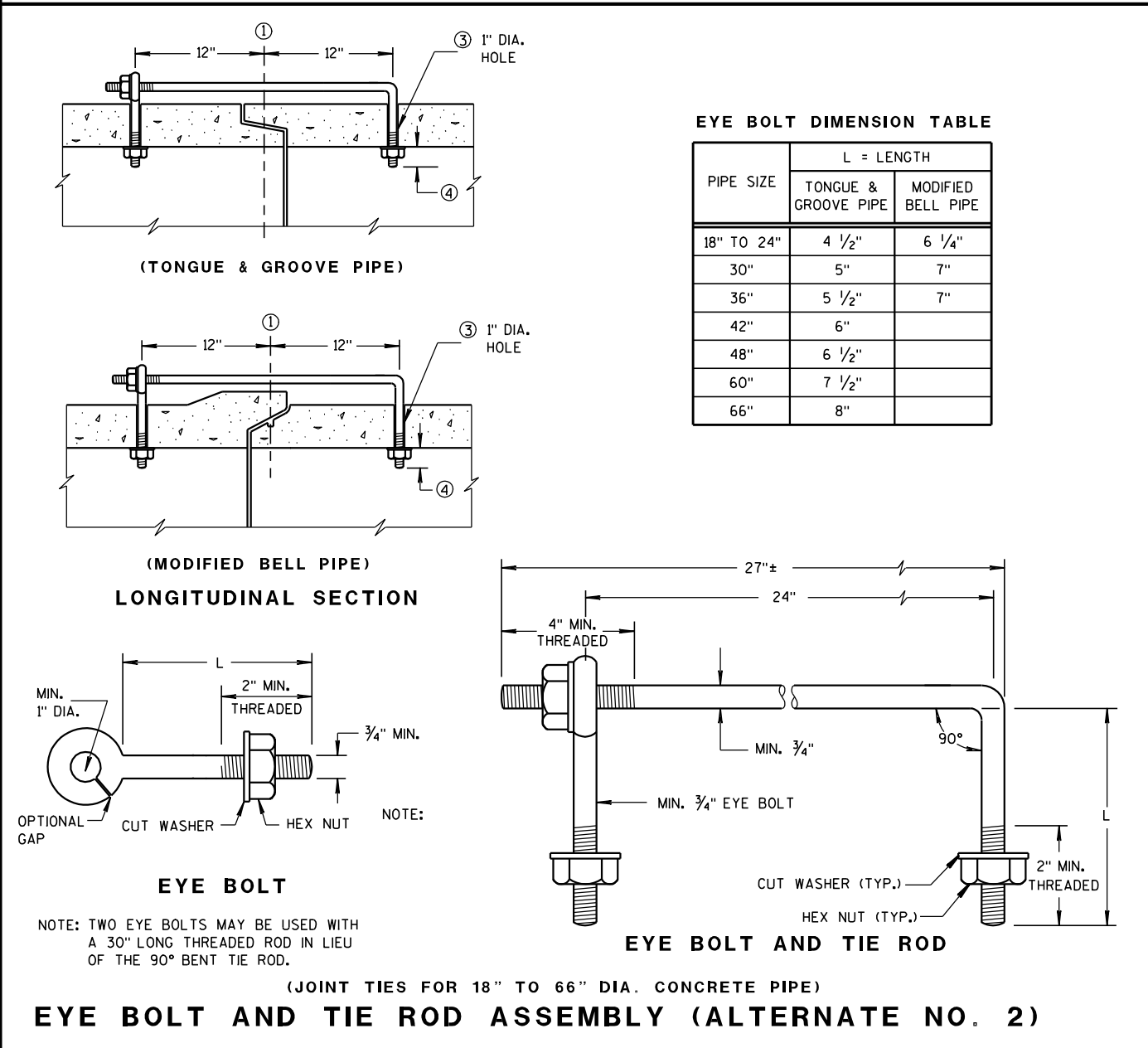
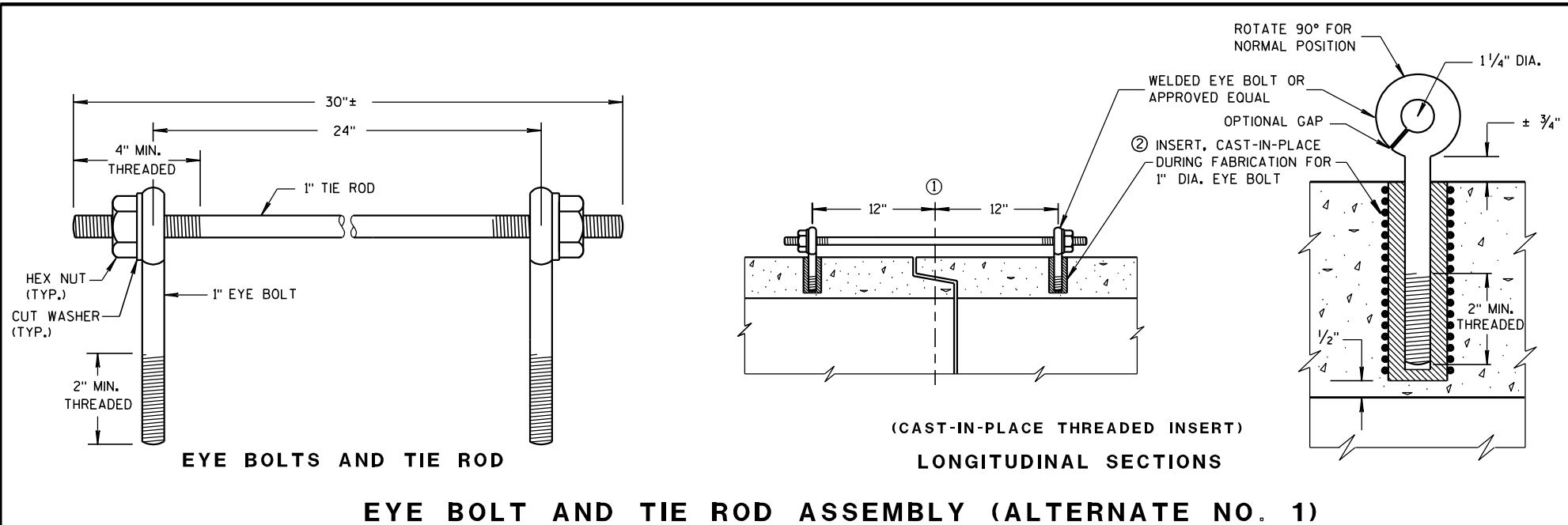
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

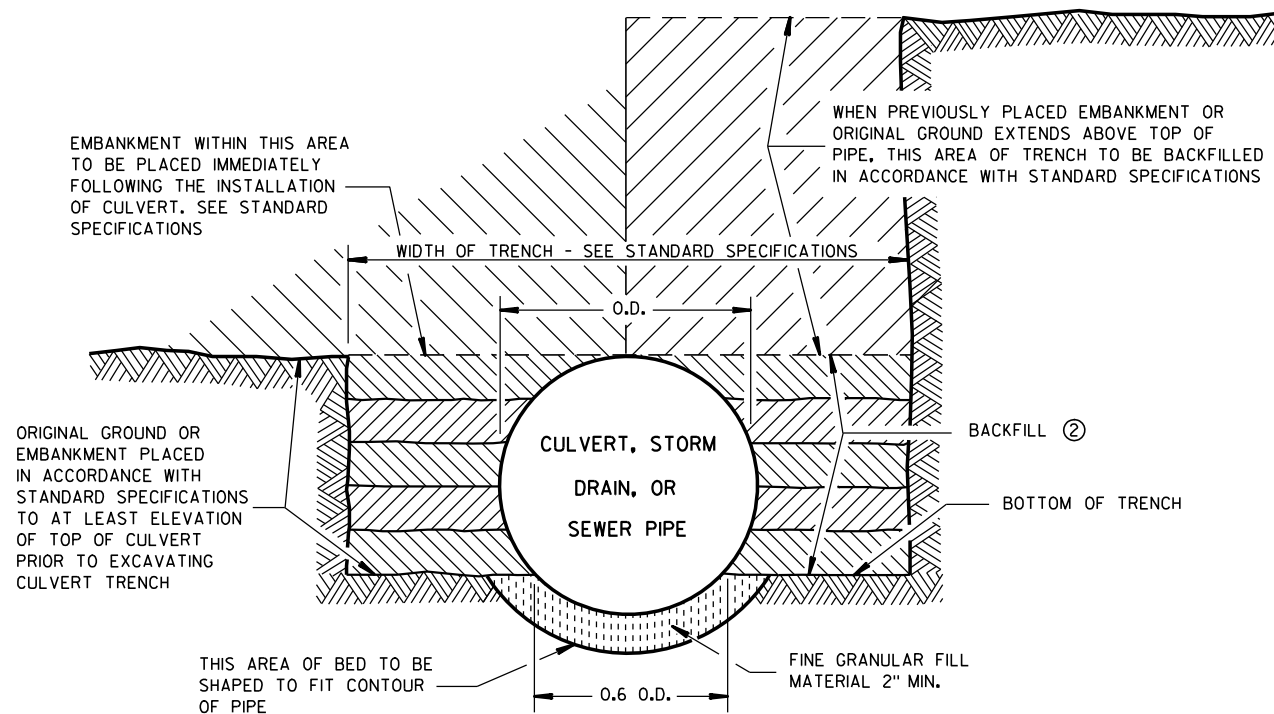
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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





SHAPED SUBGRADE WITH GRANULAR FOUNDATION

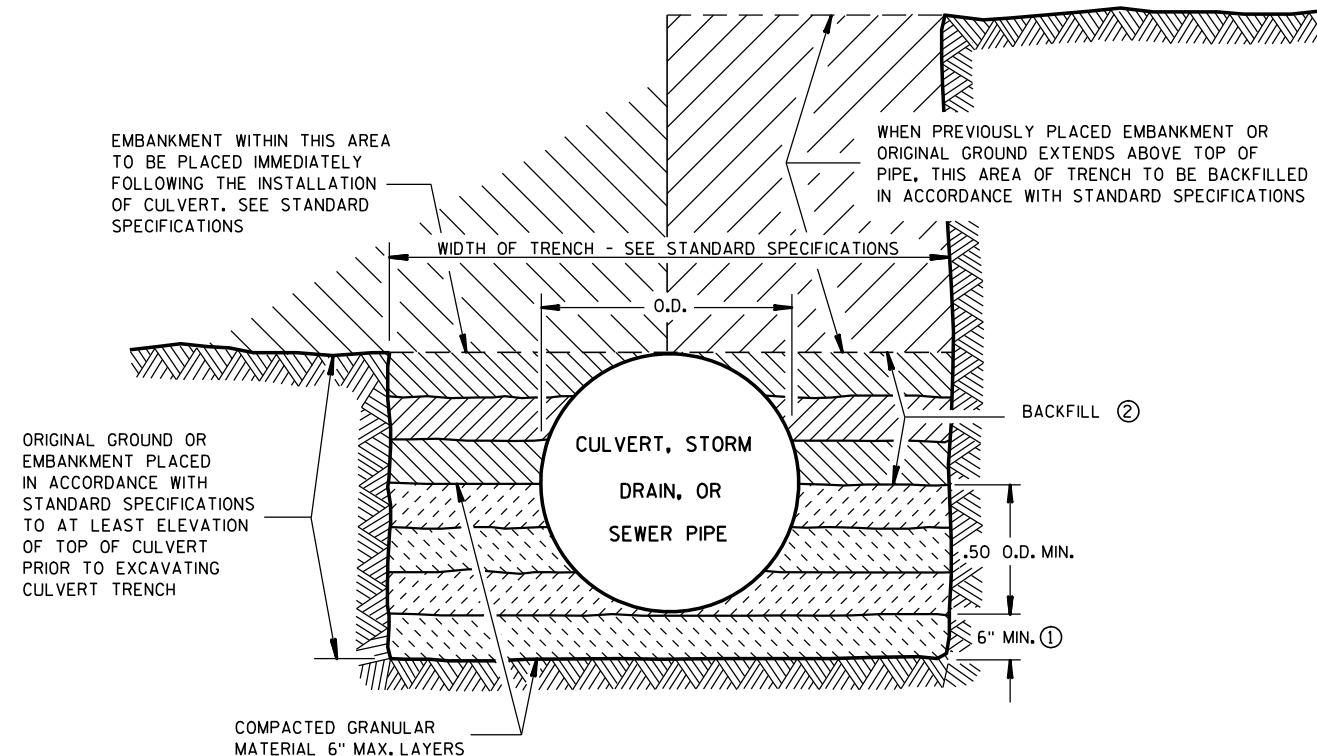
CLASS "B" BEDDING

GENERAL NOTES

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

THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

- ① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO $\frac{1}{2}$ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.
- ② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



GRANULAR FOUNDATION

CLASS "B" BEDDING FOR
CULVERT PIPE OR STORM SEWER

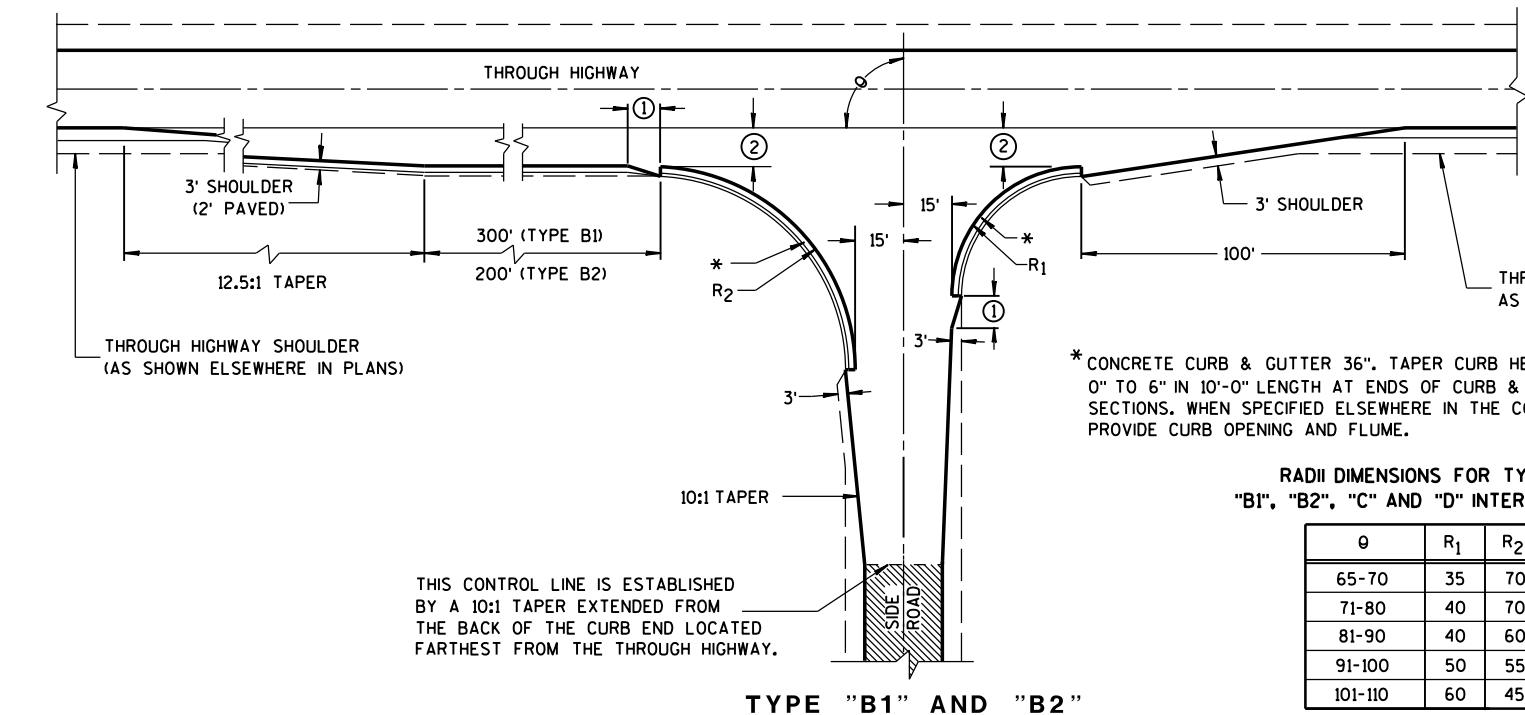
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/7/83
DATE

FHWA

/S/ D.L. Strand
STATE DESIGN ENGINEER FOR HWYS



RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

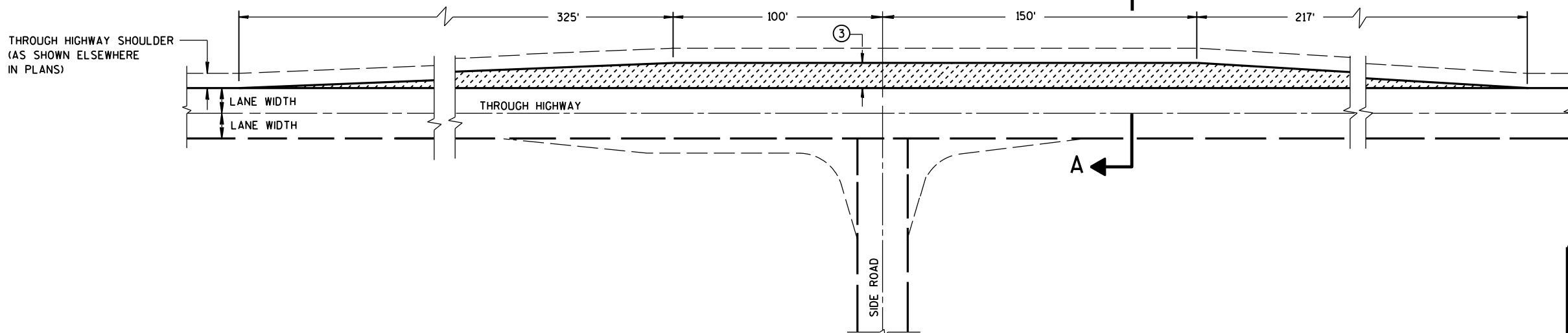
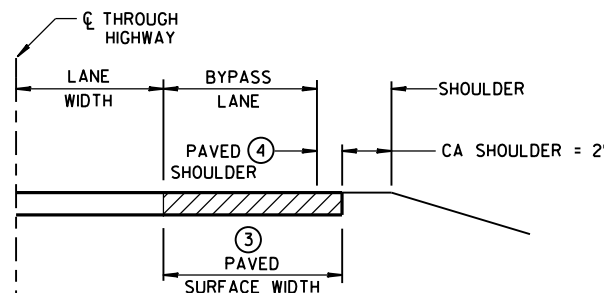
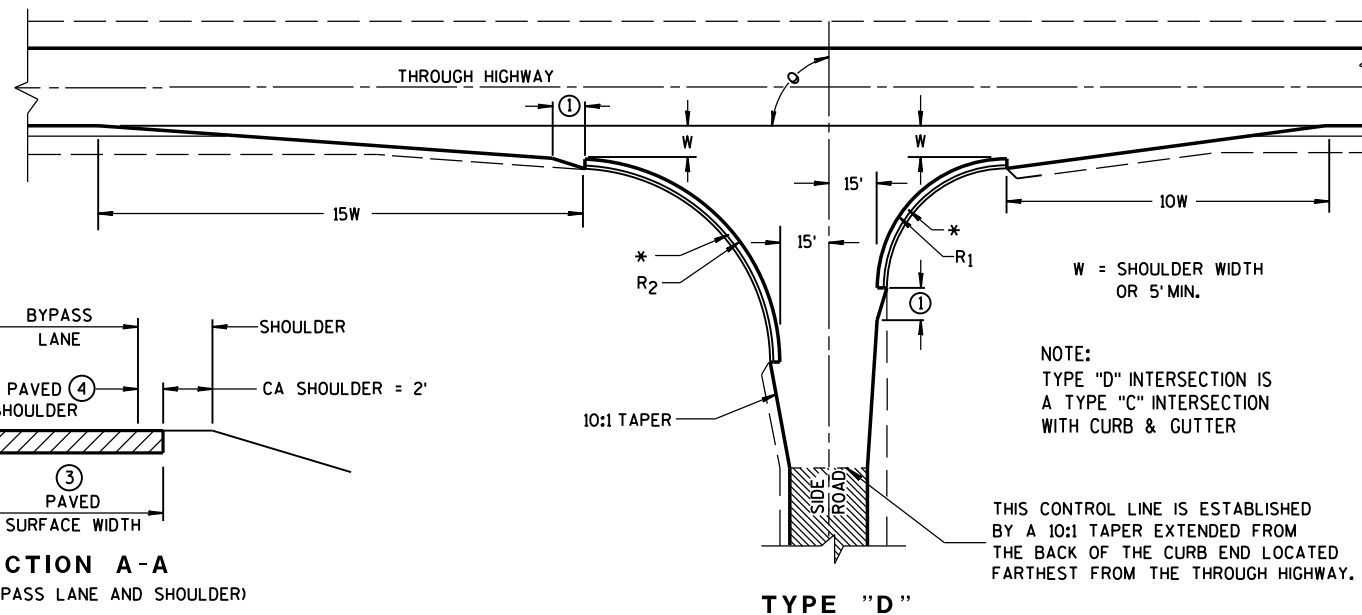
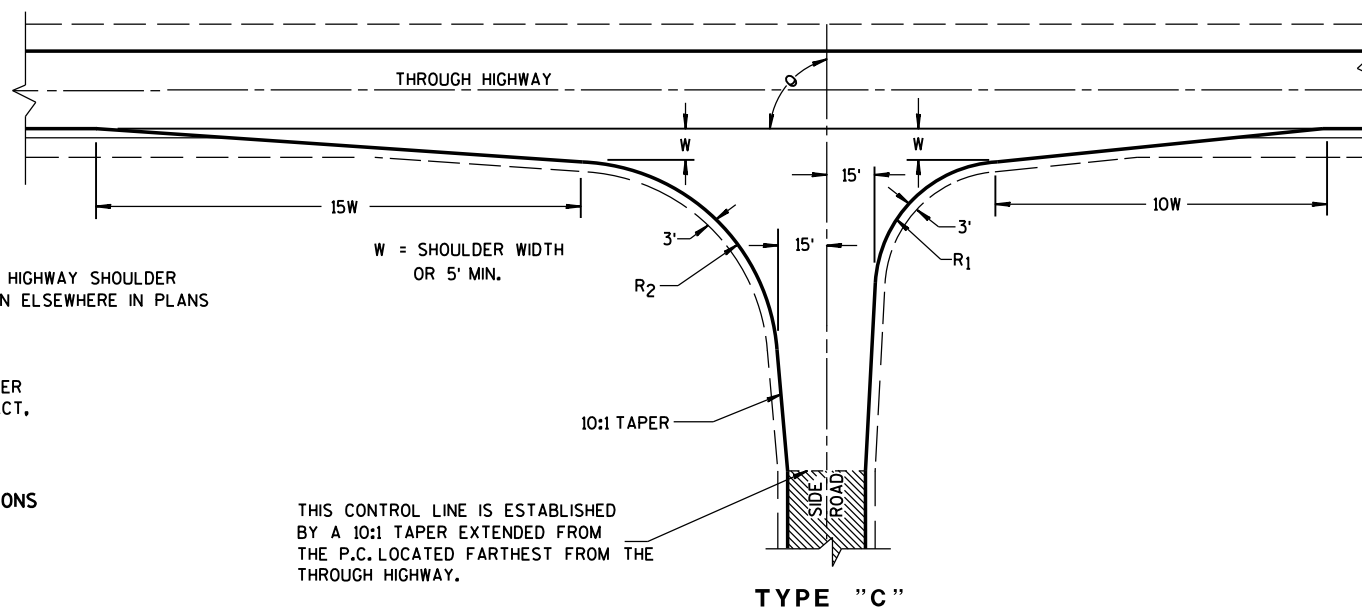
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

- 10-FT TYPICAL.
- 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

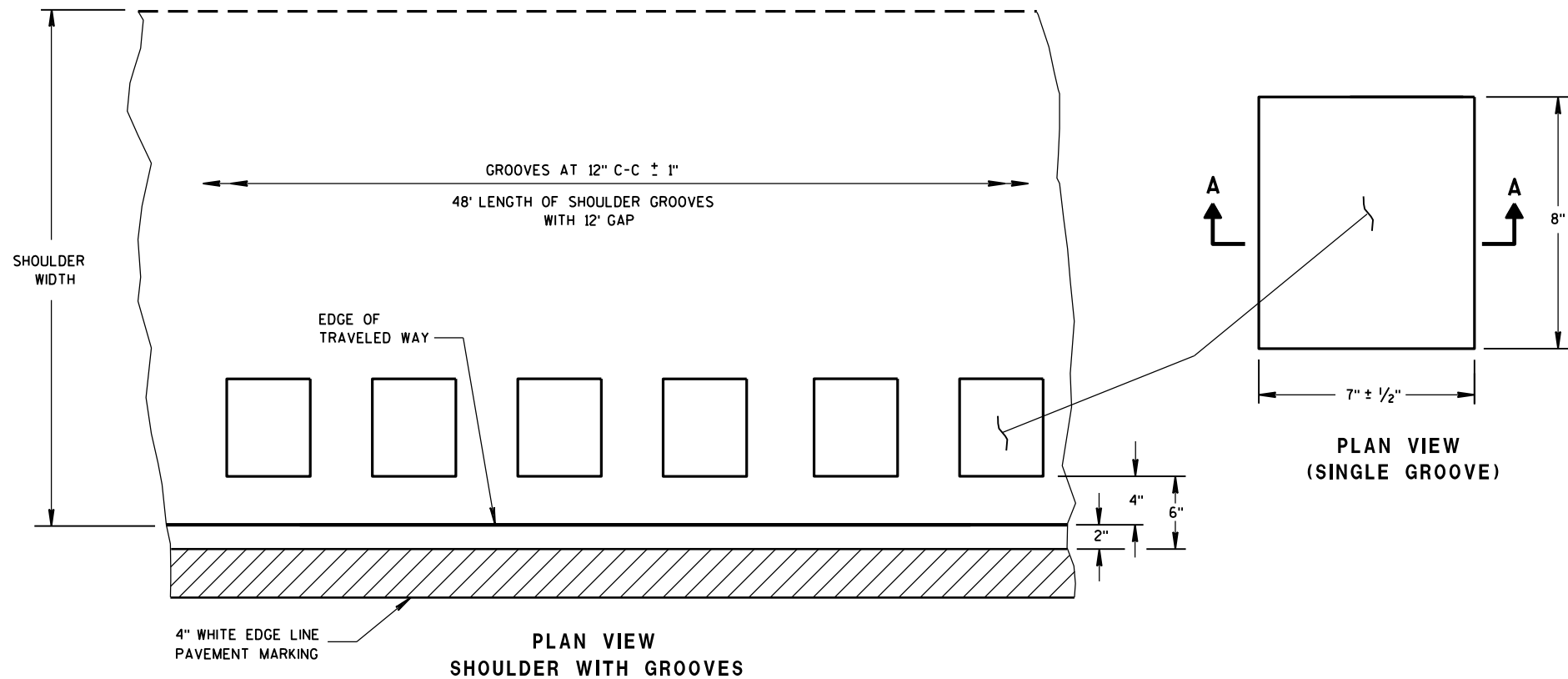
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TEE INTERSECTION BYPASS LANE DETAIL

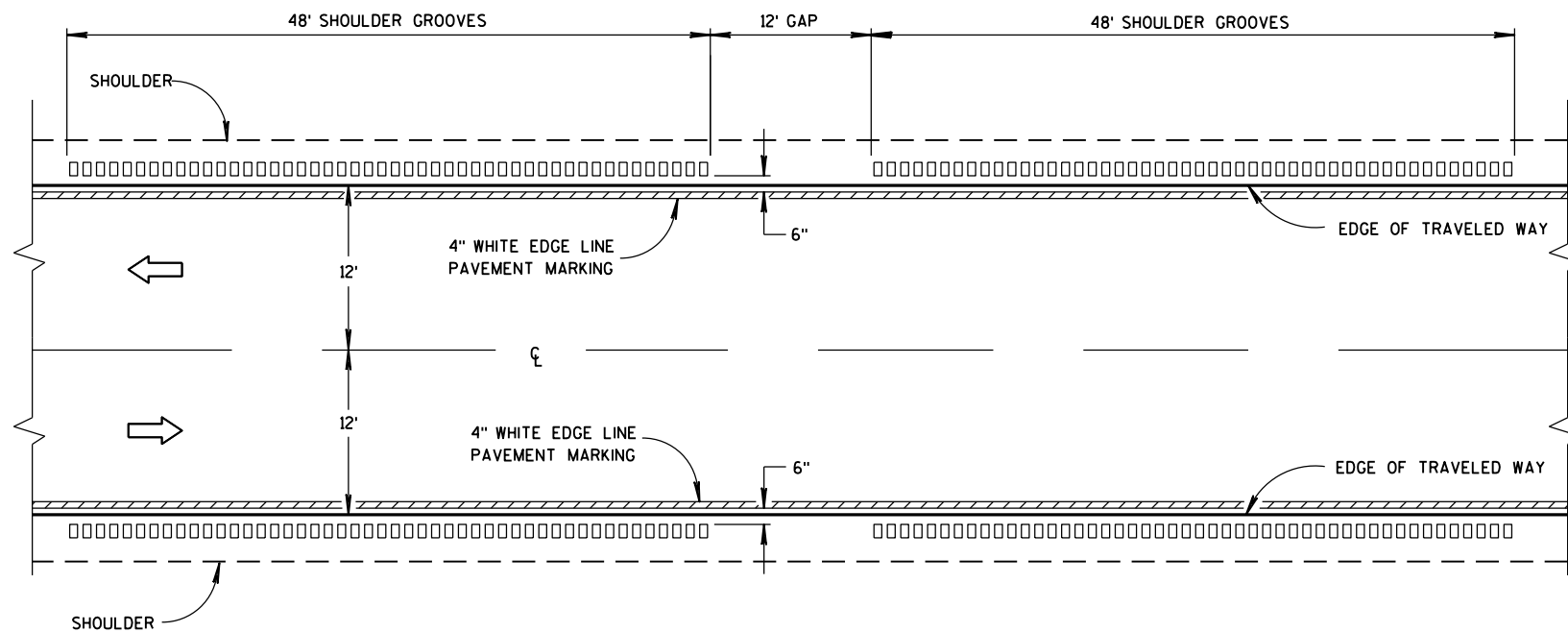
AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



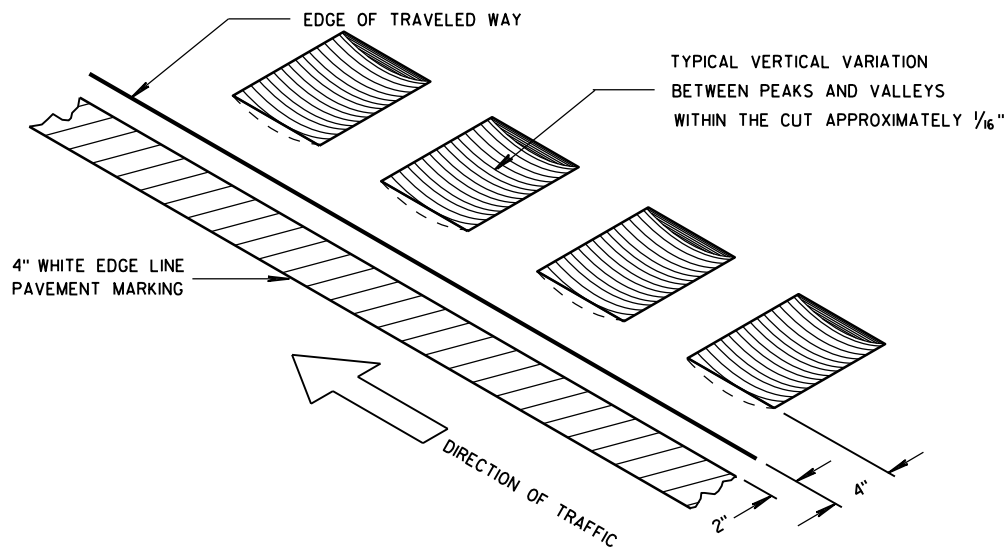
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

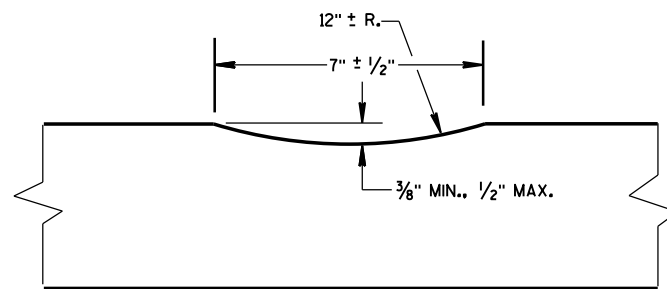
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



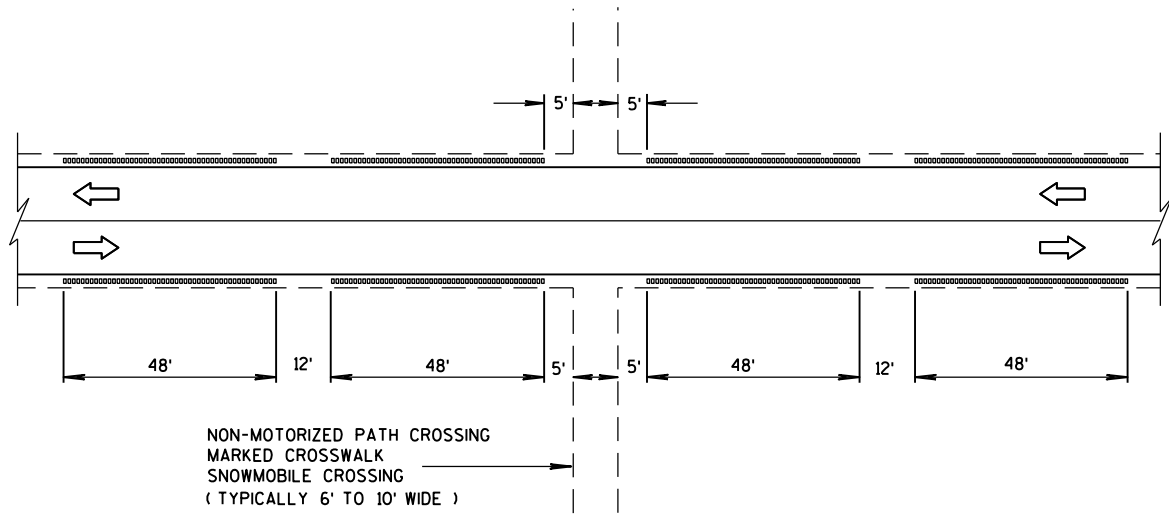
ISOMETRIC



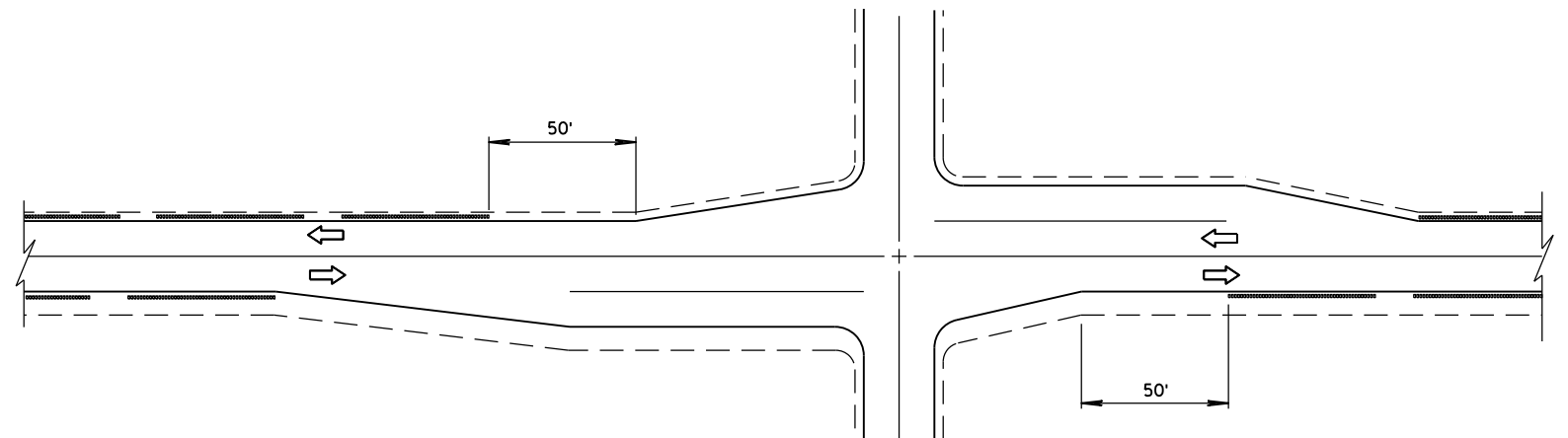
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

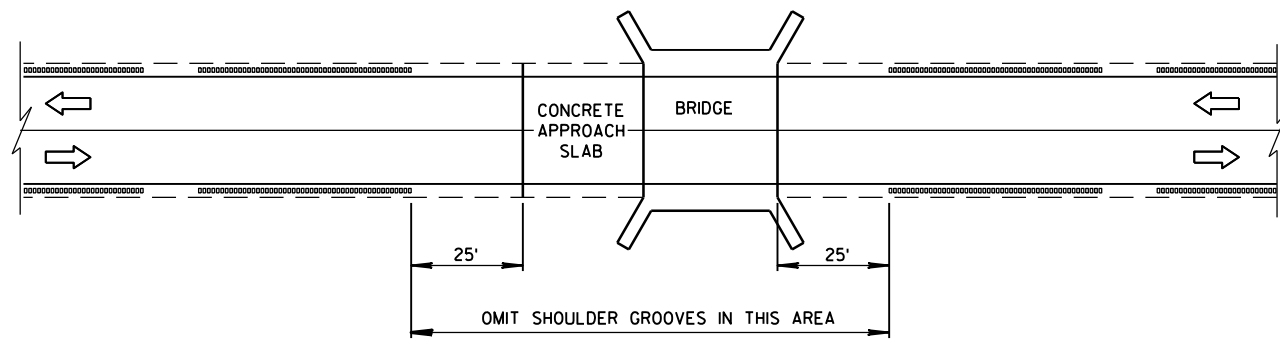
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



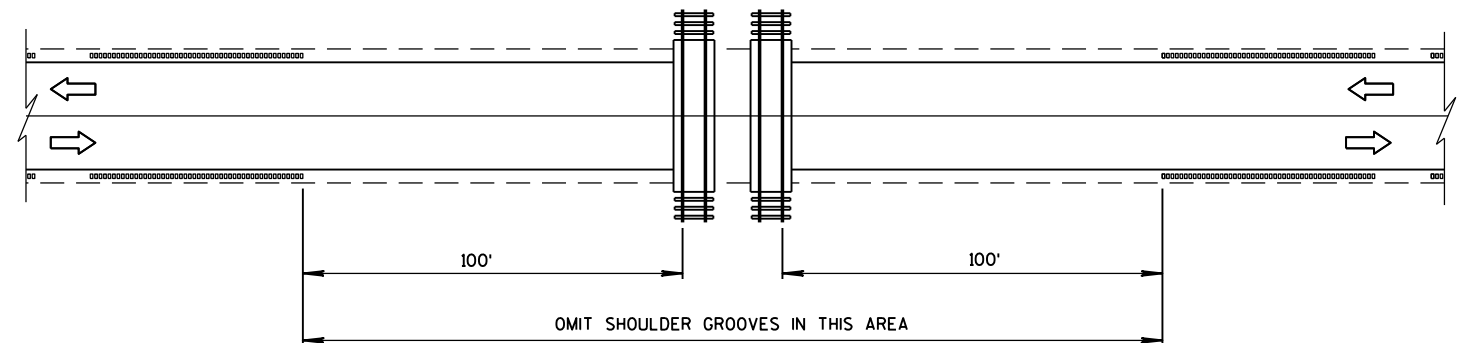
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



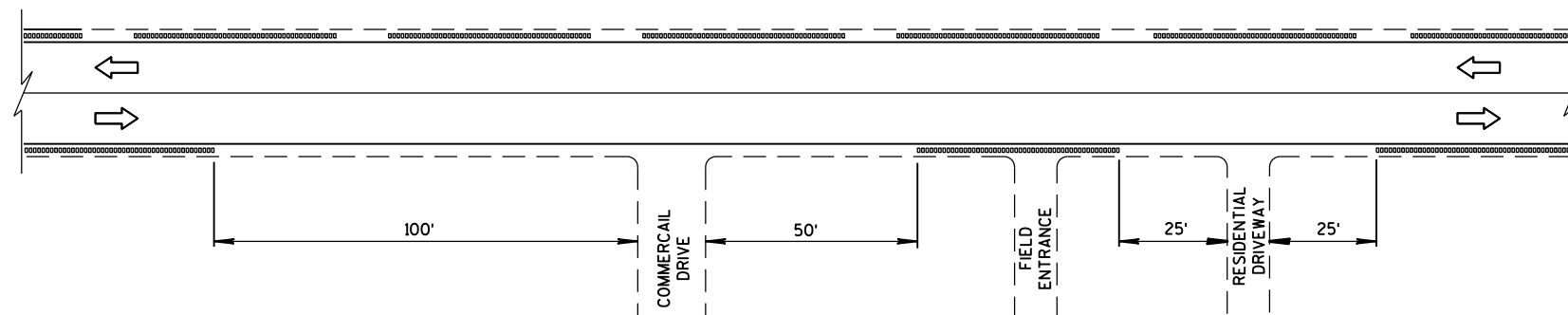
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

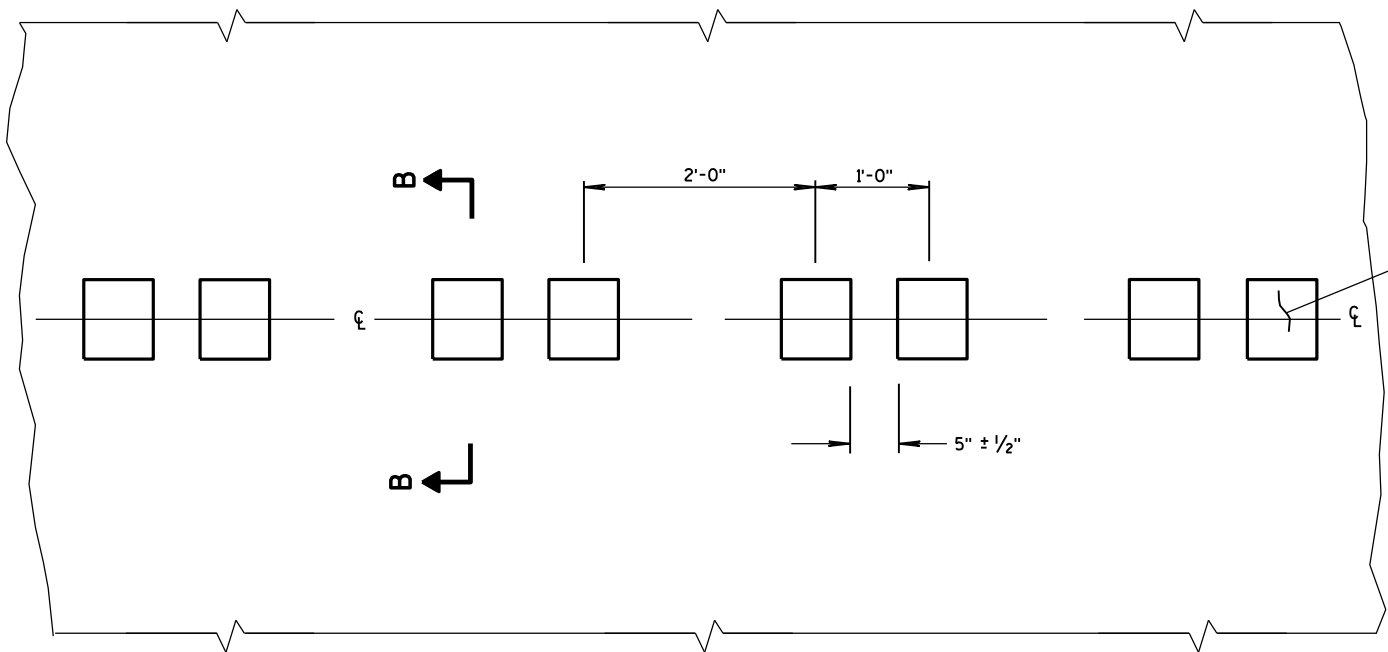
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

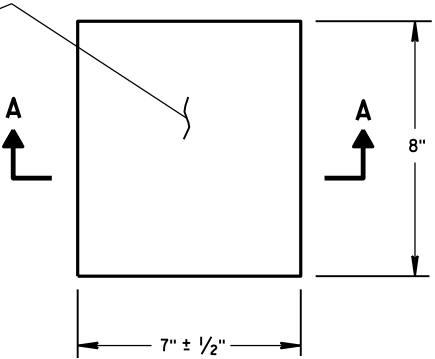
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

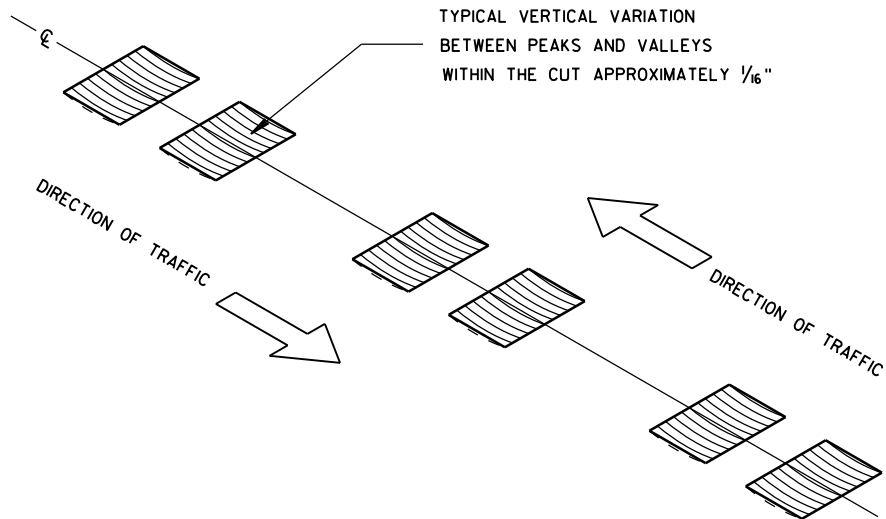
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



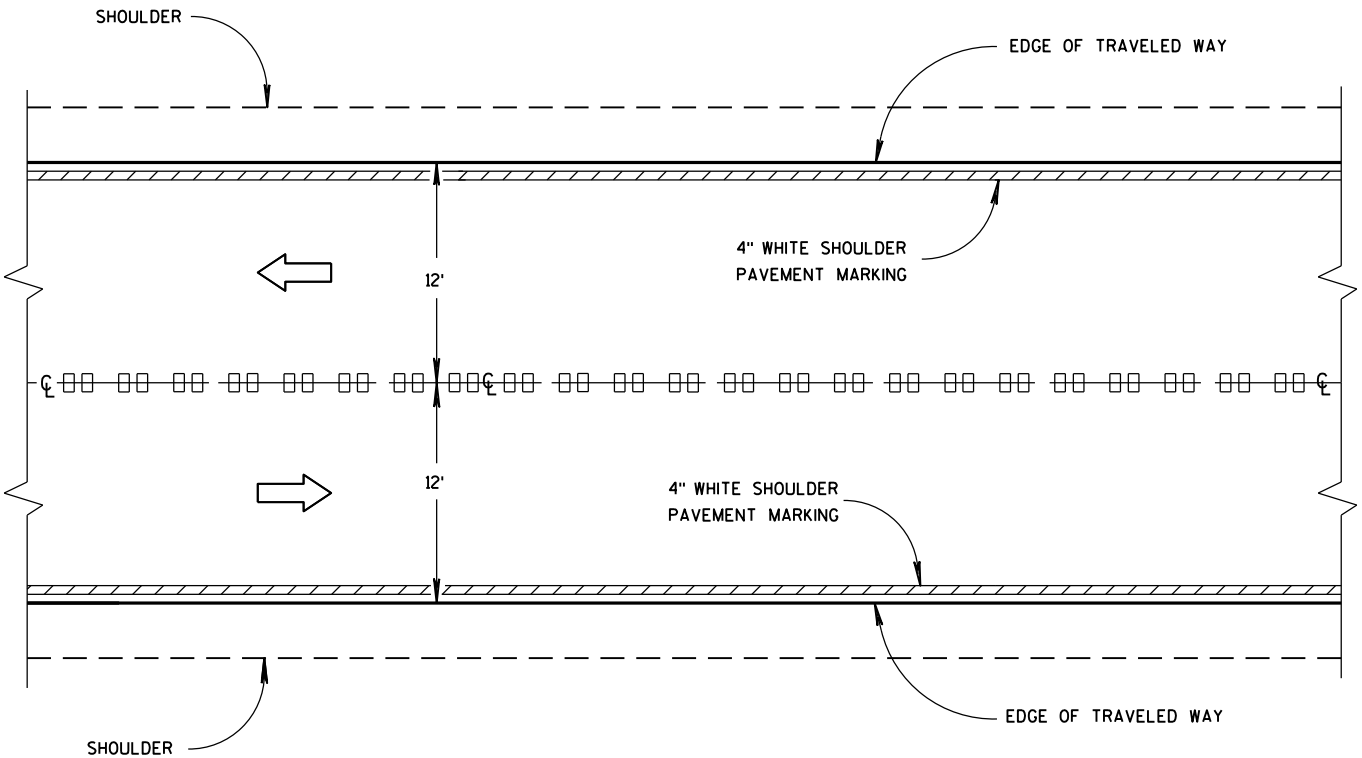
PLAN VIEW
CENTER LINE WITH GROOVES



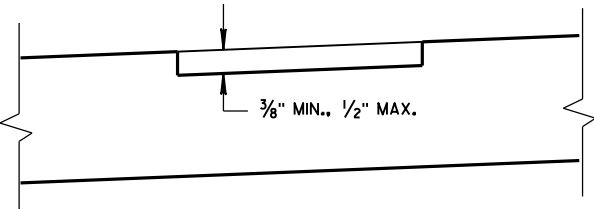
PLAN VIEW
(SINGLE GROOVE)



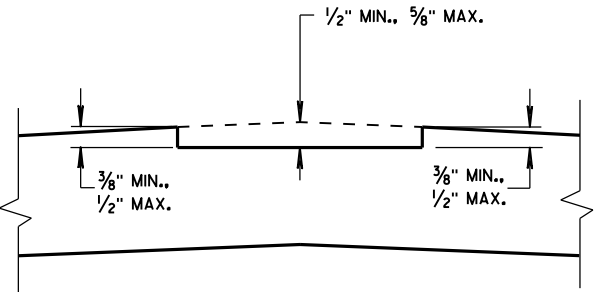
ISOMETRIC



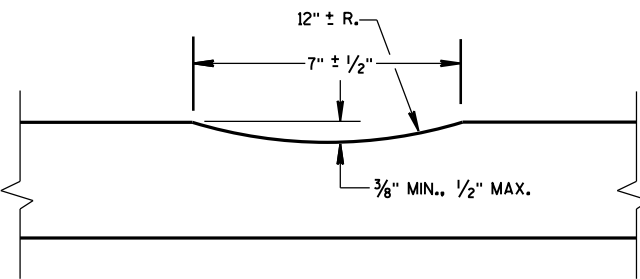
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



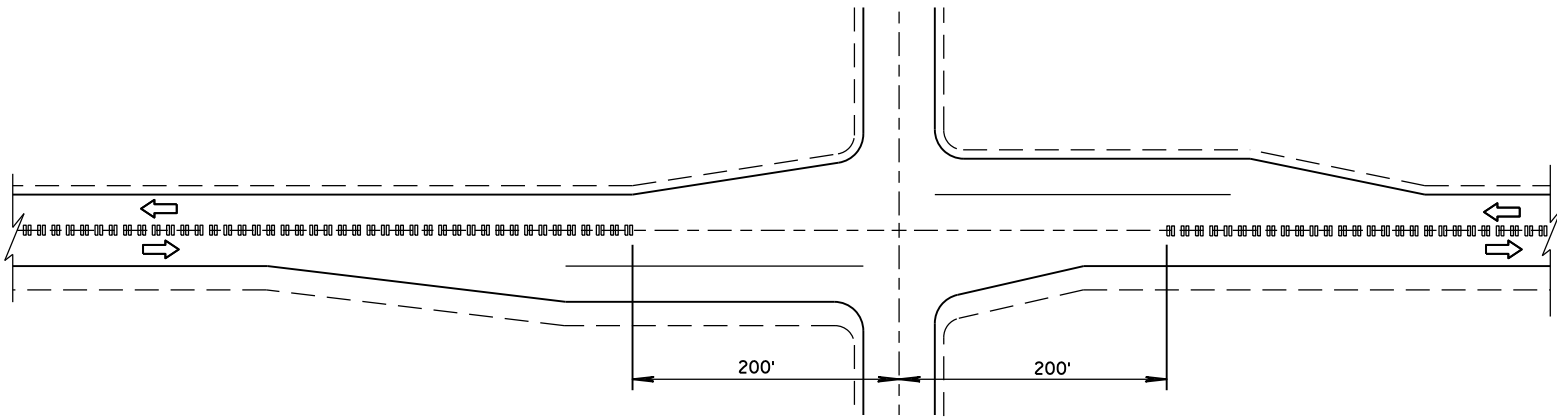
SECTION B-B
CROWNED ROADWAY



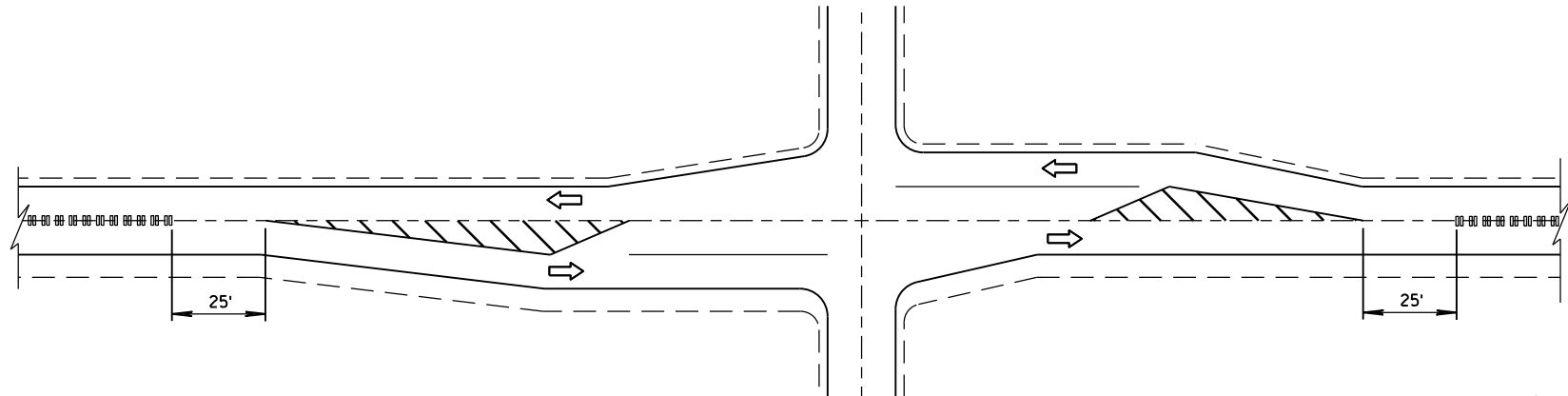
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

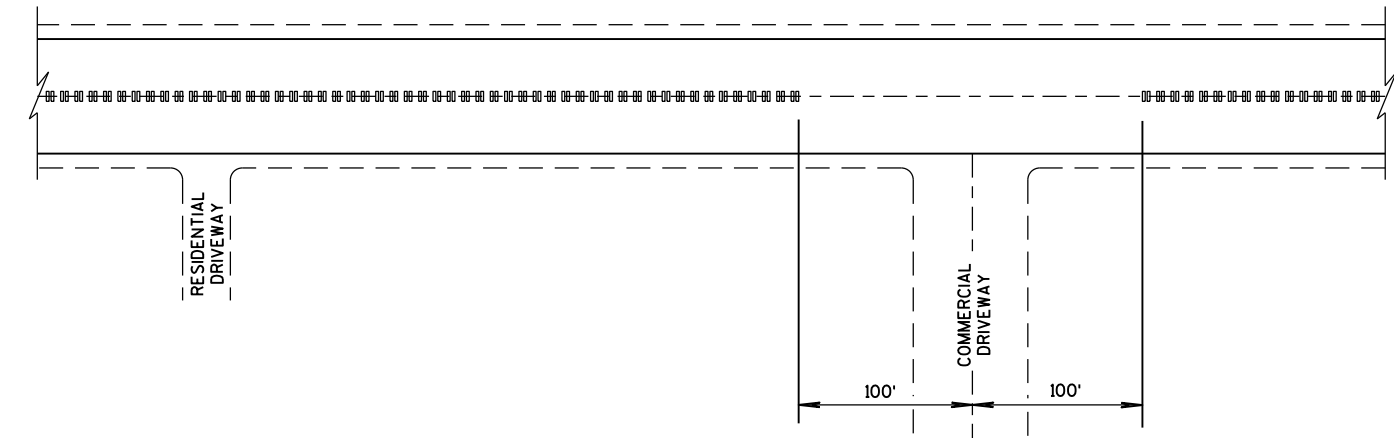
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

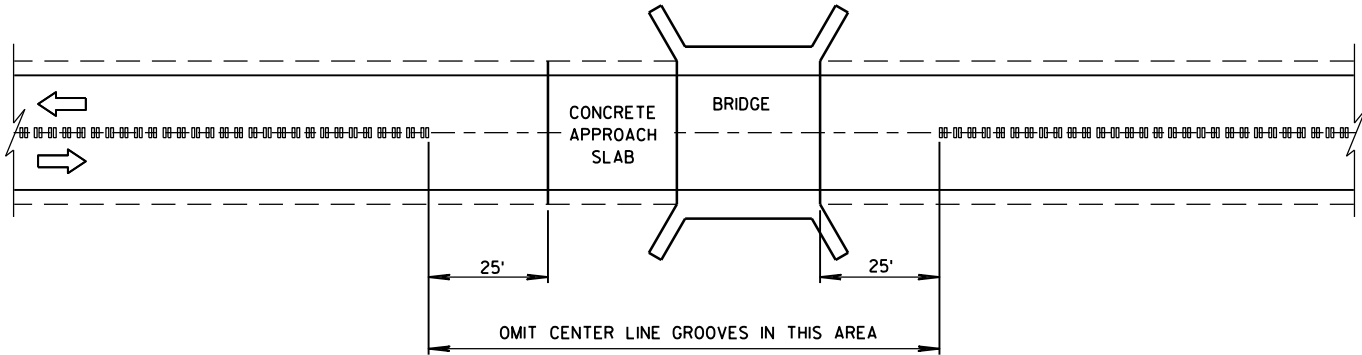


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

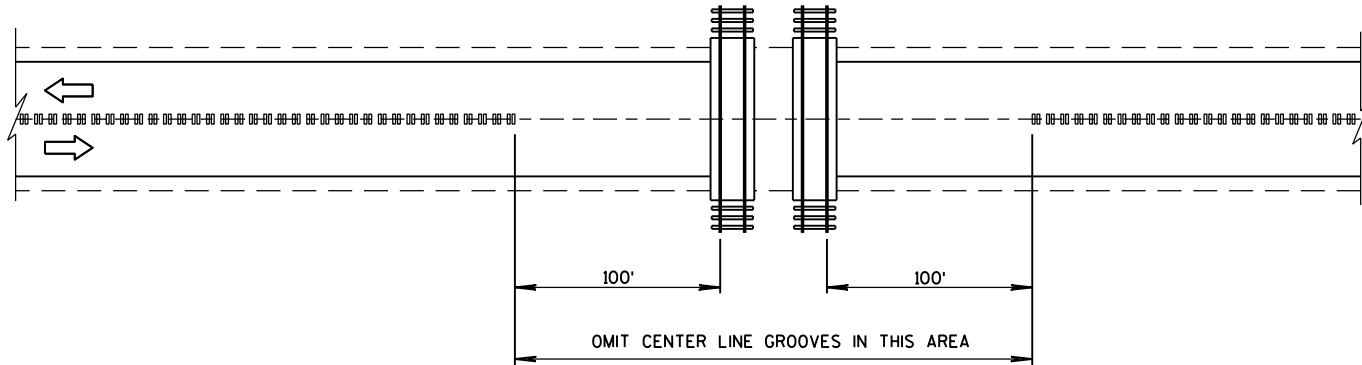


CENTER LINE GROOVES AT DRIVEWAYS¹

¹ CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

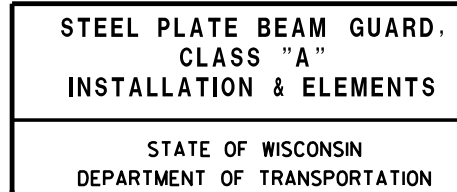
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

S.D.D. 14 B 15-8a

- 6

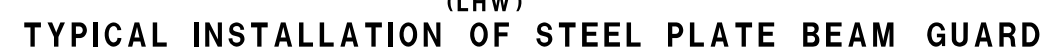
S.D.D. 14 B 15-8a



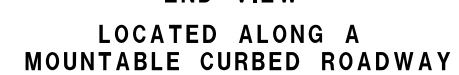
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



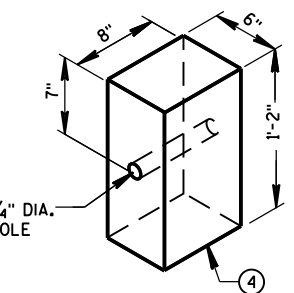
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



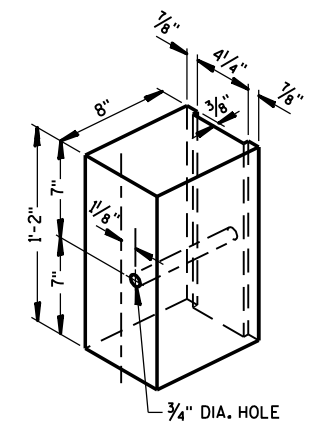
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



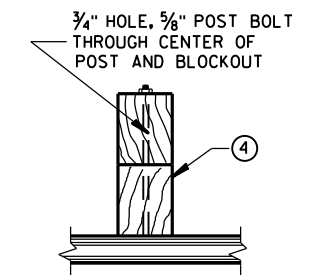
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



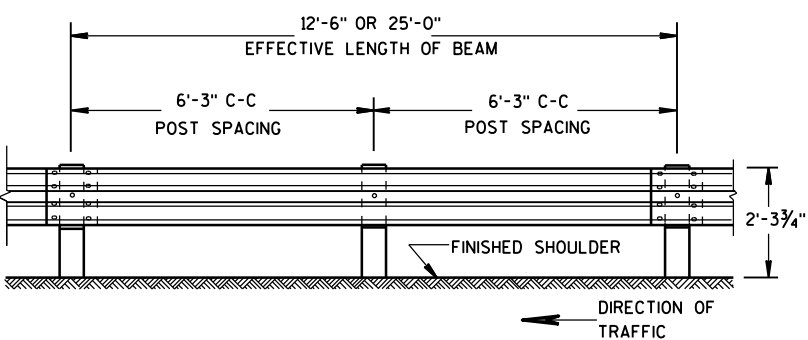
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS ^①

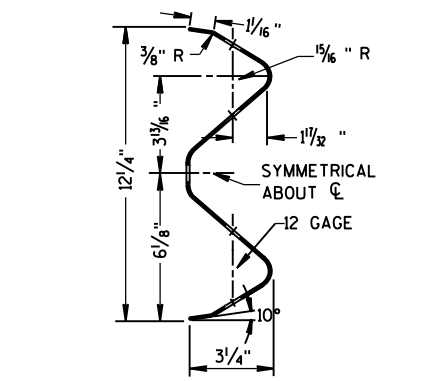


PLAN VIEW
WOOD POST, BLOCKOUT & BEAM

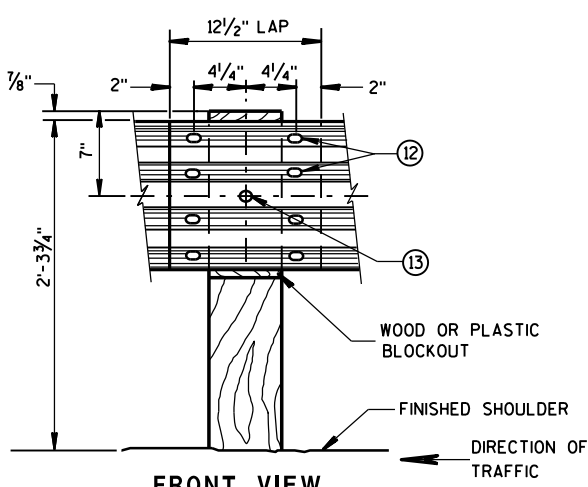


FRONT VIEW

POST SPACING STANDARD INSTALLATION



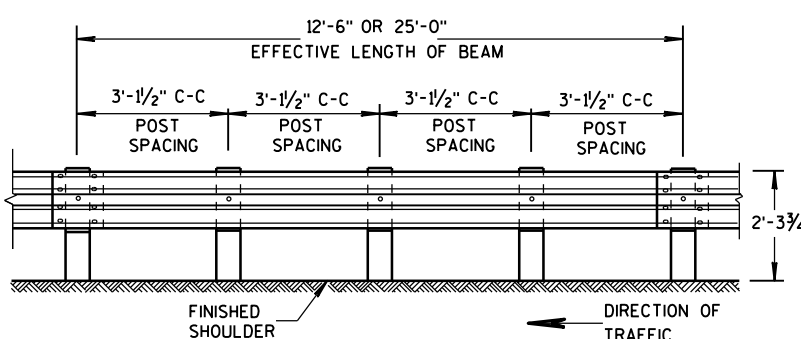
SECTION THRU W BEAM



FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL

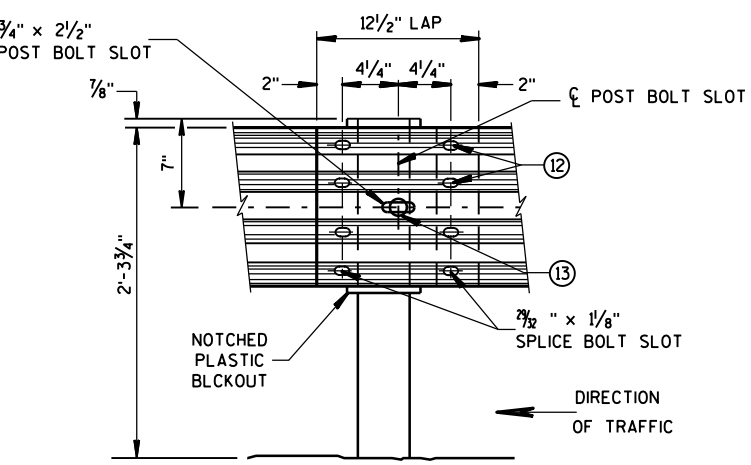
GENERAL NOTES

- ⑧ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ⑩ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑪ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

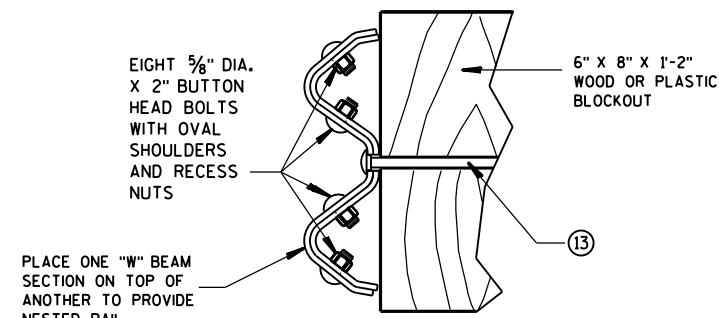


FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



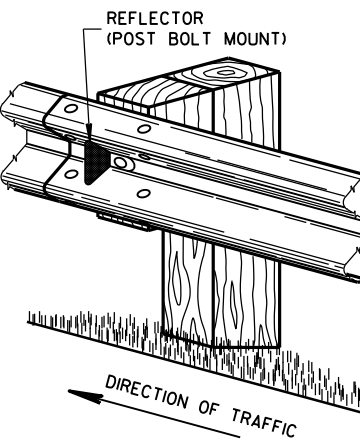
FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD



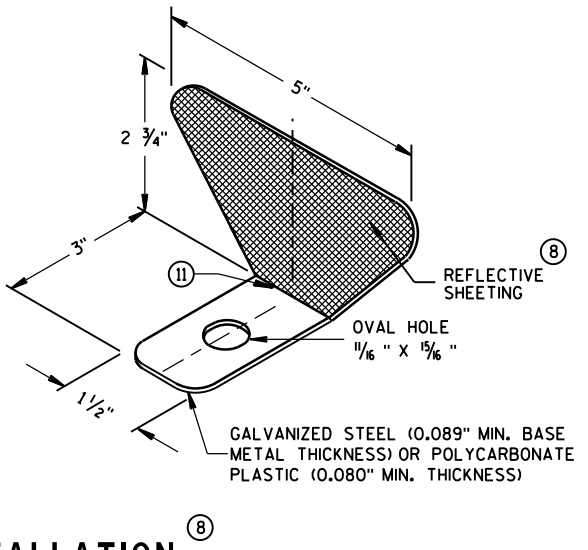
NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING ⑨

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑩	6
	> 200'	50' C-C	1 ⑩	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑪	3
	> 200'	100' C-C	2 ⑪	

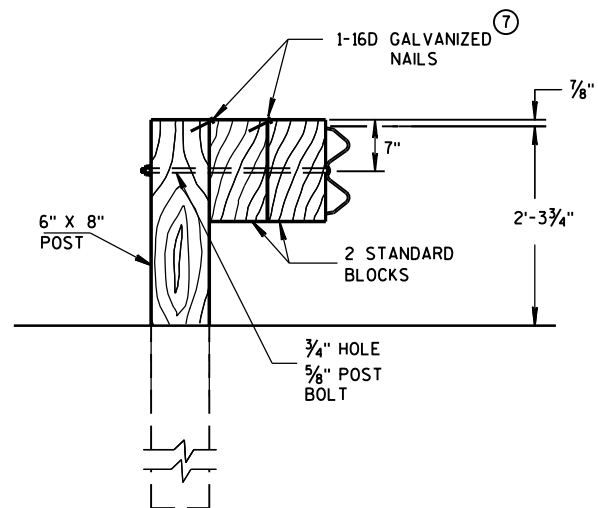


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



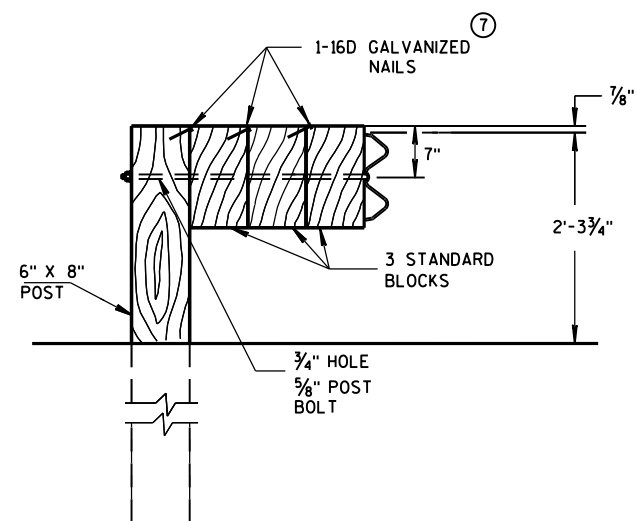
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

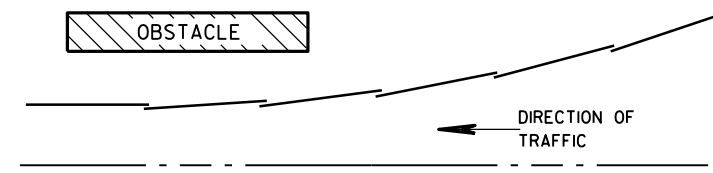


DETAIL FOR TRIPLE BLOCKS

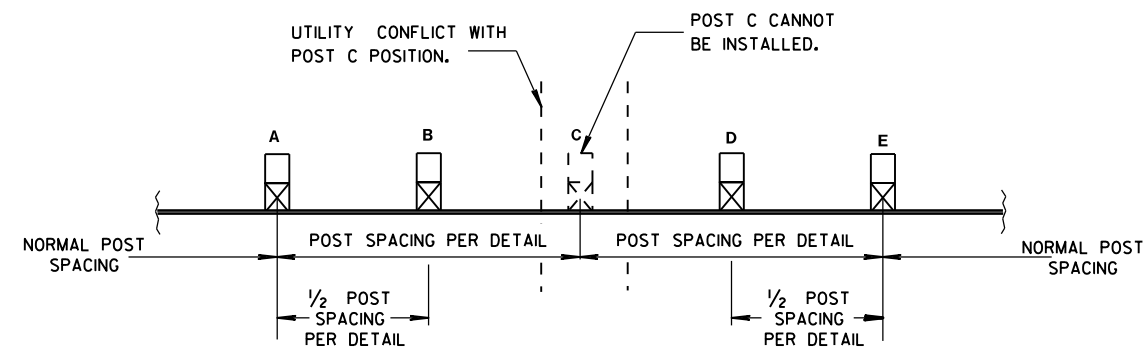
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

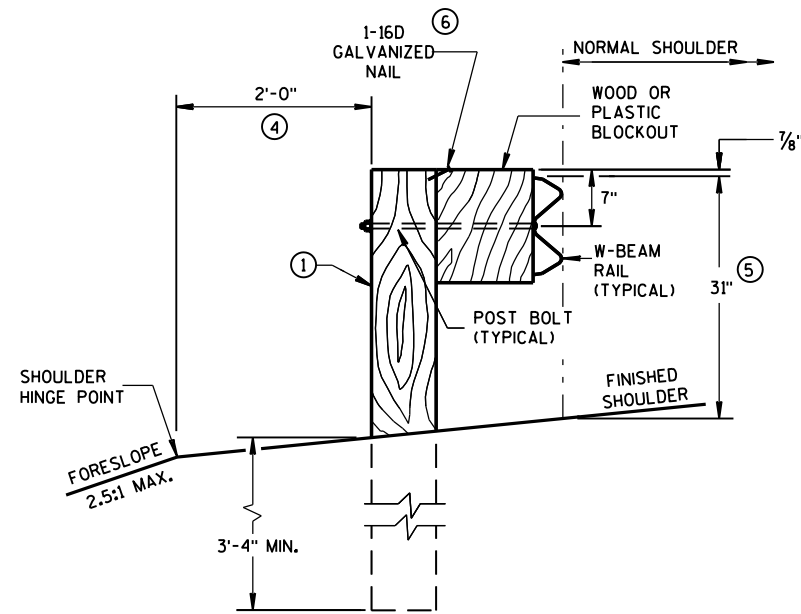
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

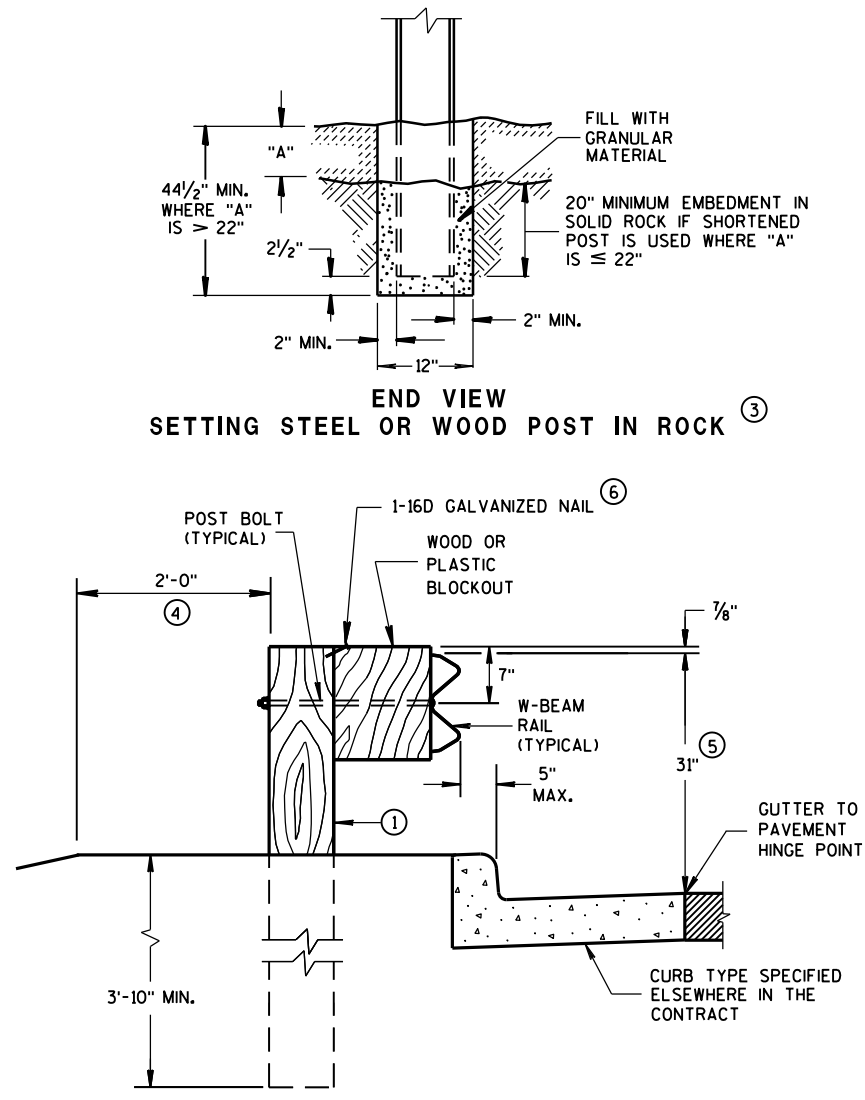
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

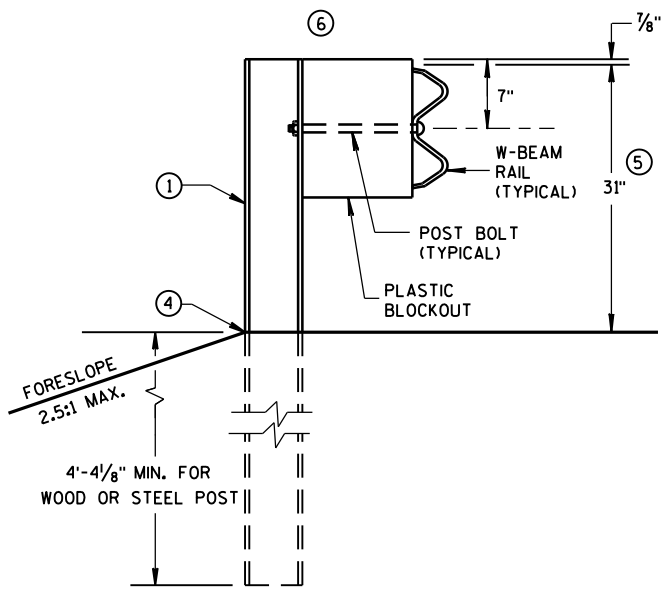
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. 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 AND 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 3/4" 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.



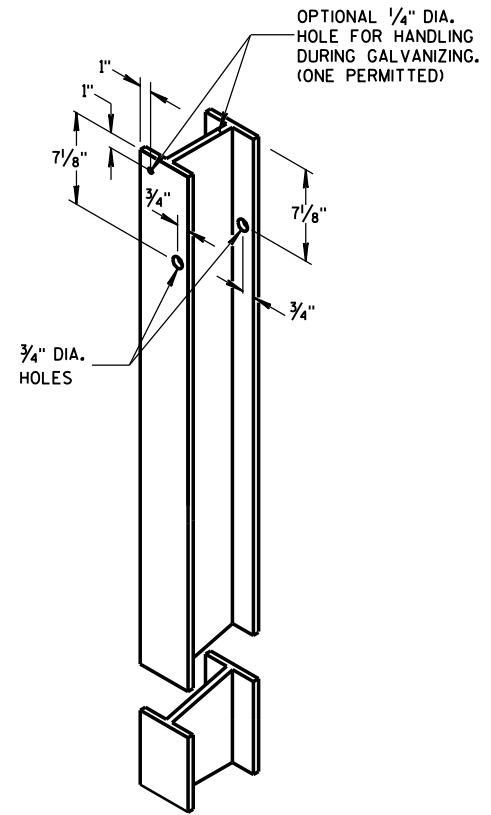
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



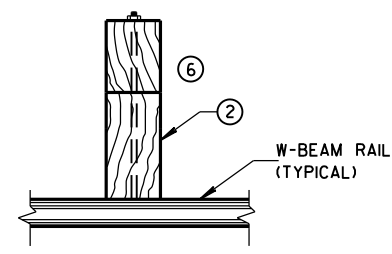
END VIEW
LOCATED ALONG A CURBED ROADWAY



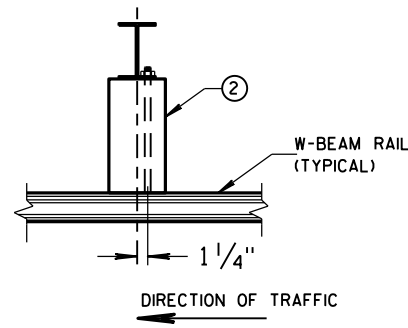
END VIEW
MGS LONGER POST AT HALFPST SPACING W BEAM (K)



STEEL POST &
HOLE PUNCHING DETAIL
(w6X9)



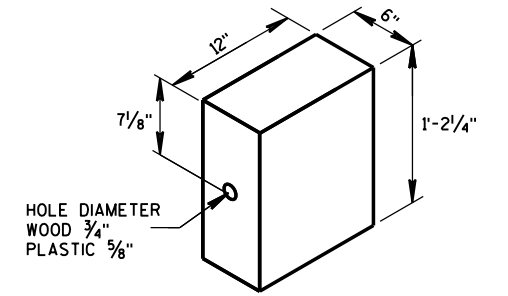
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



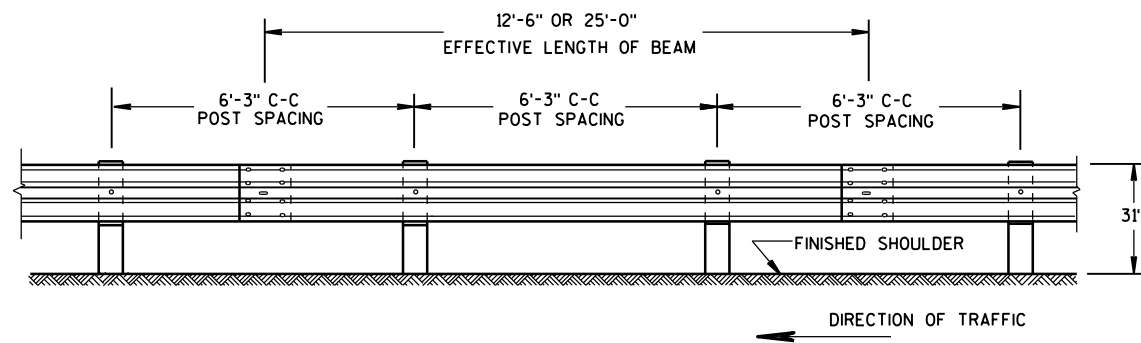
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



WOOD POST
(6" X 8") NOMINAL

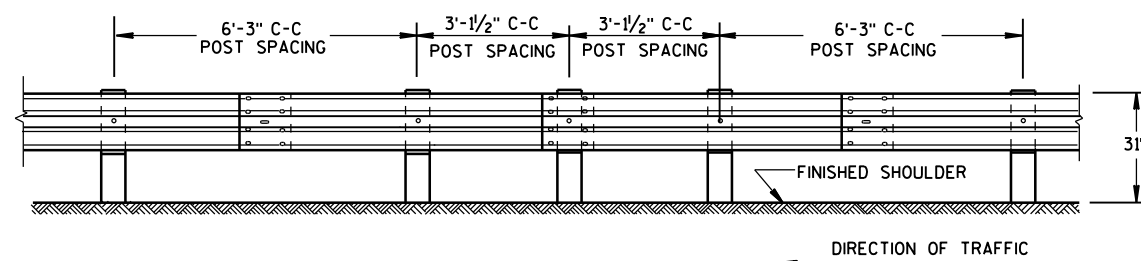


WOOD OR
PLASTIC BLOCKOUT



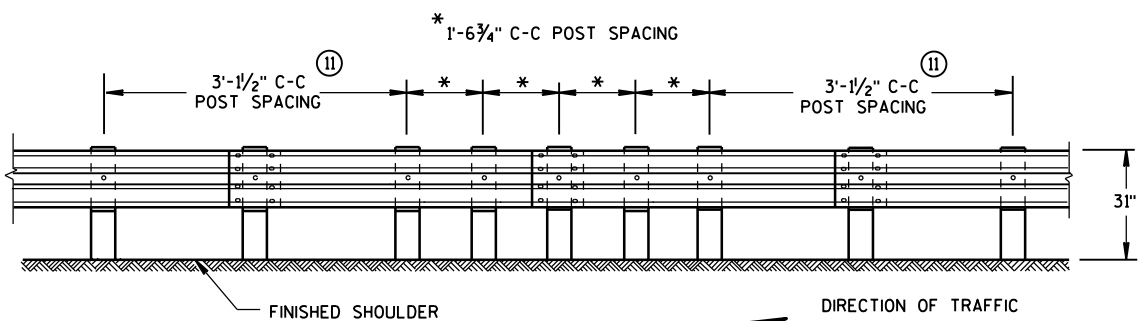
FRONT VIEW

POST SPACING STANDARD INSTALLATION



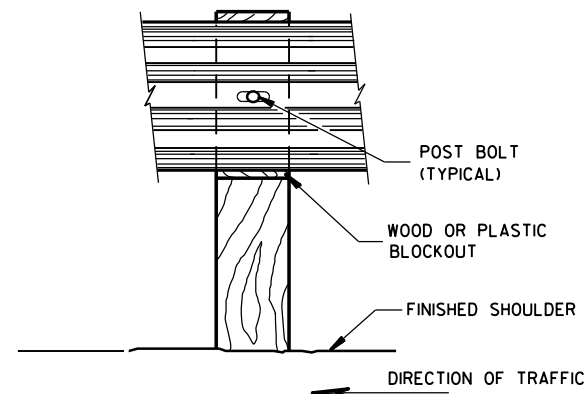
FRONT VIEW

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

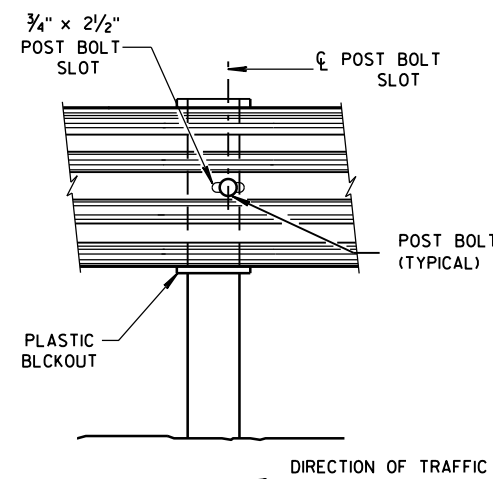


FRONT VIEW

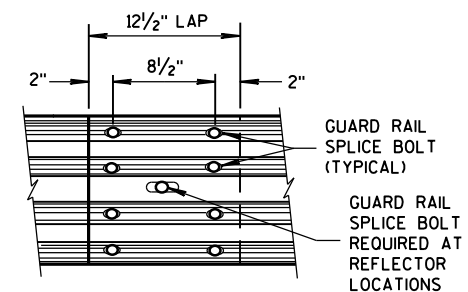
QUARTER POST SPACING (QS)



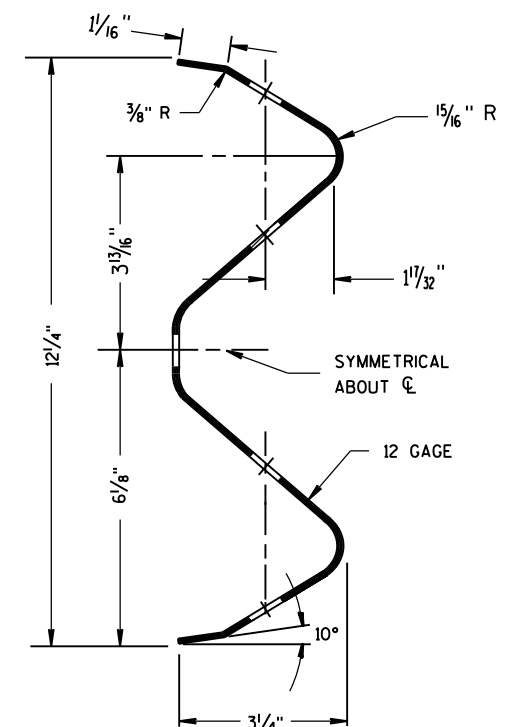
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

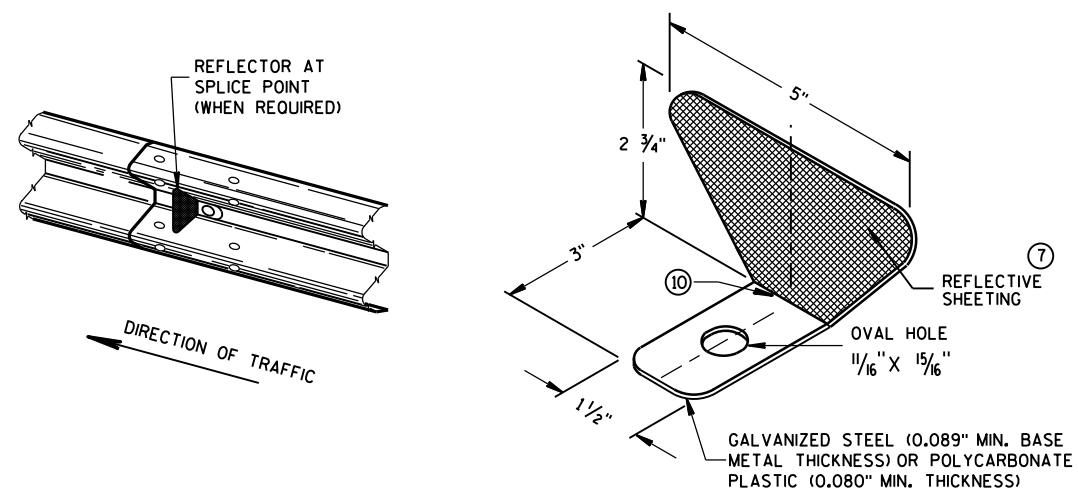


SECTION THRU W-BEAM RAIL

REFLECTOR SPACING ⁽⁸⁾				
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⁽⁹⁾ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⁽¹⁰⁾	3

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



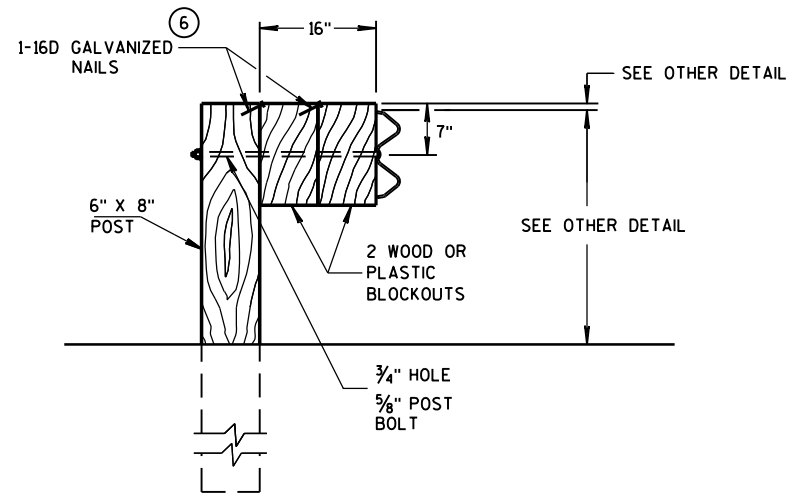
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

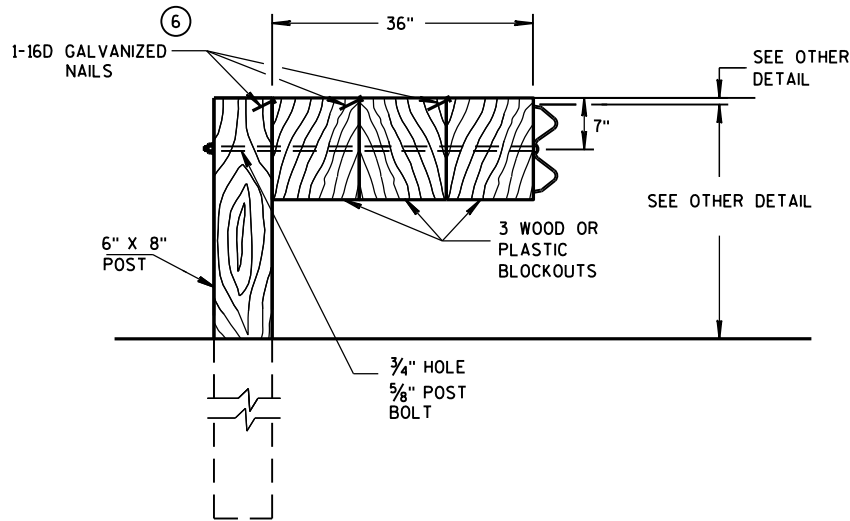
POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT
REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (OR) HEAVY HEX NUT AND 3/8"
DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS
ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL
HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE
RECESSED (DR) HEAVY HEX NUT.



DETAIL FOR 16" BLOCKOUT DEPTH

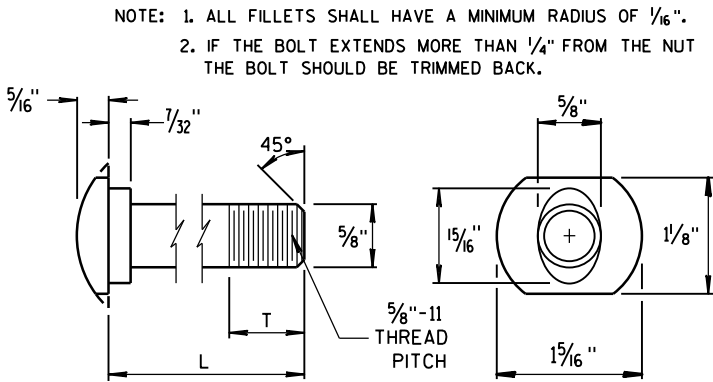
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



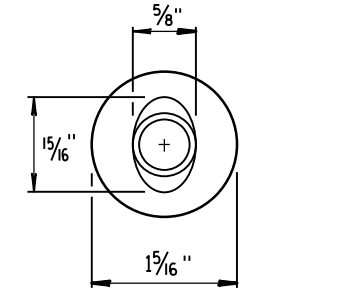
DETAIL FOR 36" BLOCKOUT DEPTH

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.

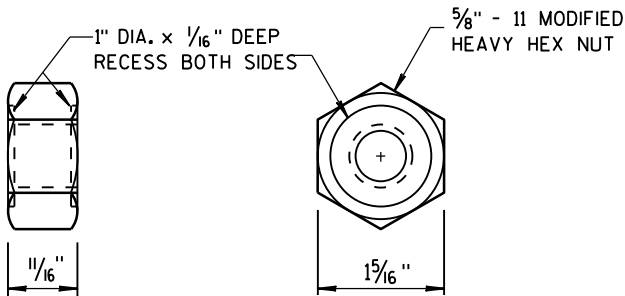
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



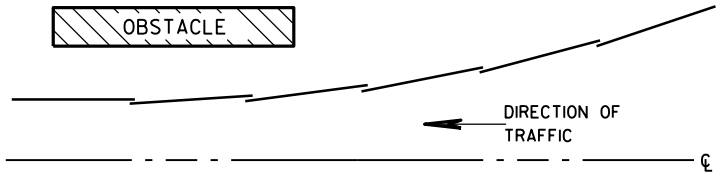
POST BOLT TABLE



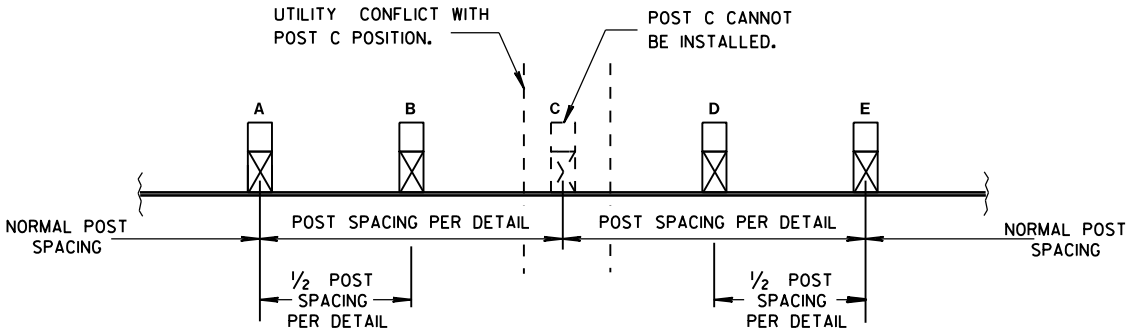
ALTERNATE BOLT HEAD



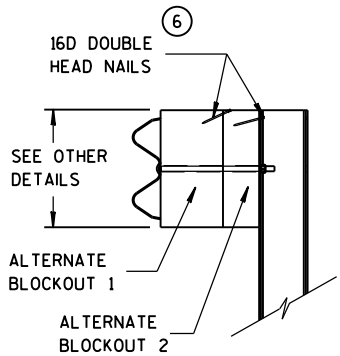
POST BOLT
AND RECESS NUT



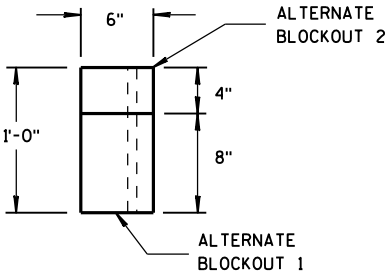
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

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 MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.
- (G) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

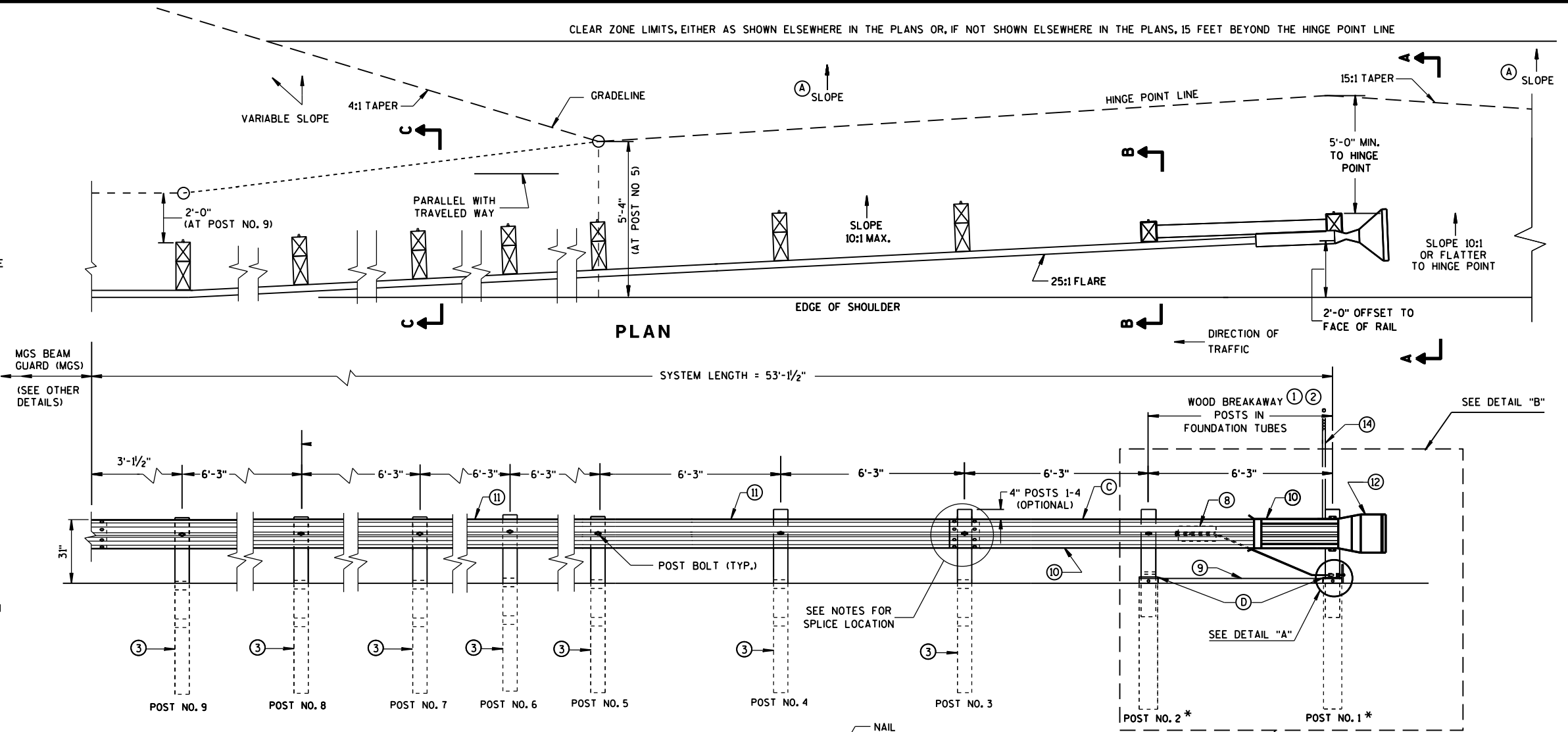
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

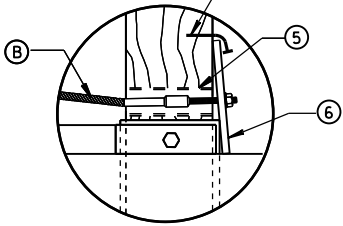
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

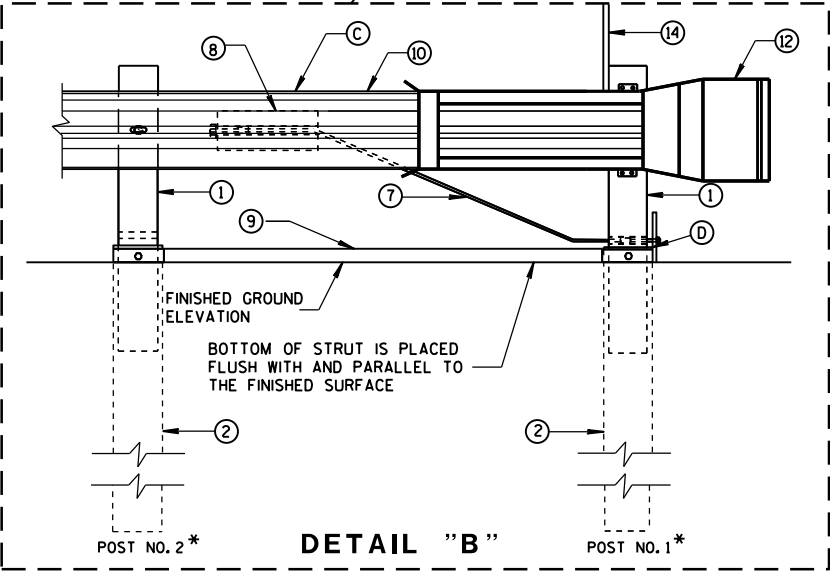
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



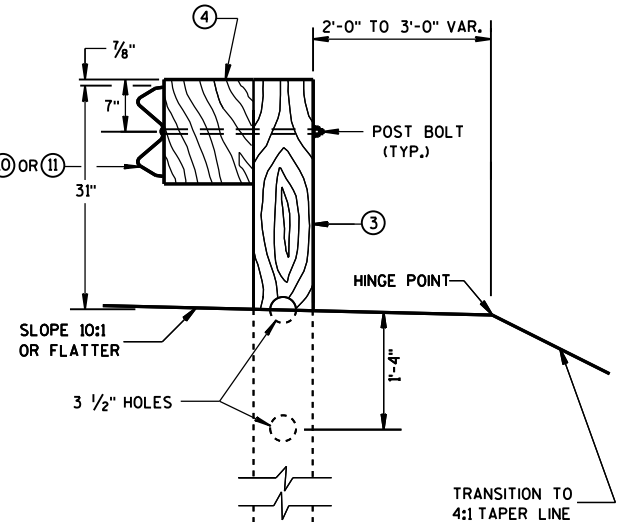
ELEVATION



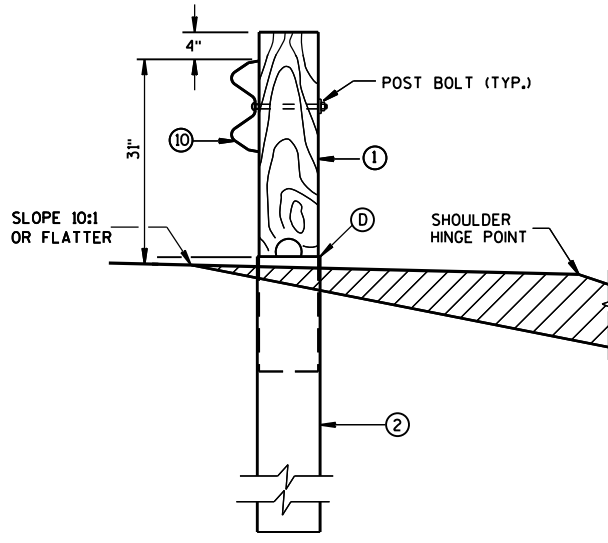
DETAIL "A"



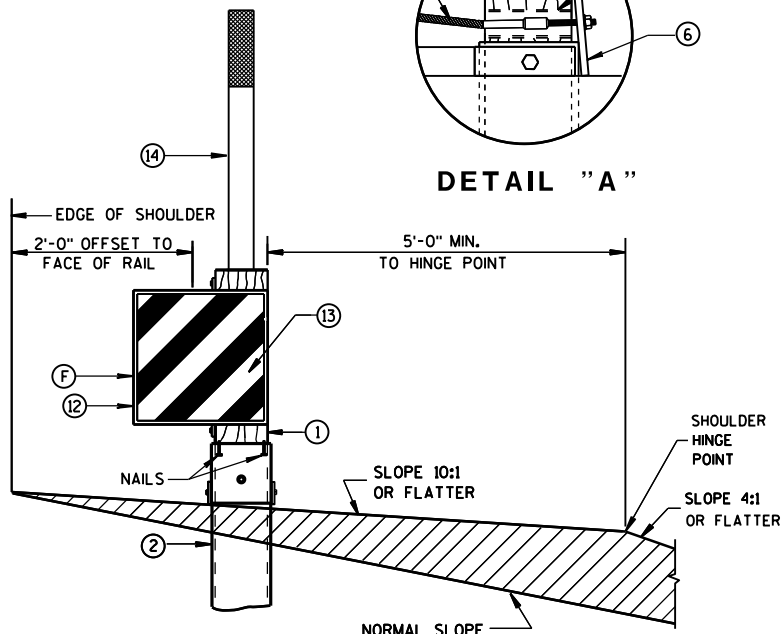
DETAIL "B"



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



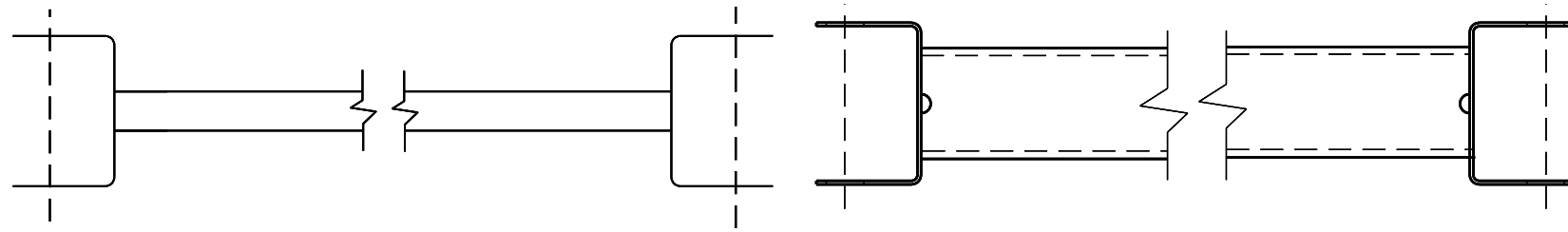
SECTION B-B
TYPICAL AT POST NO. 2*



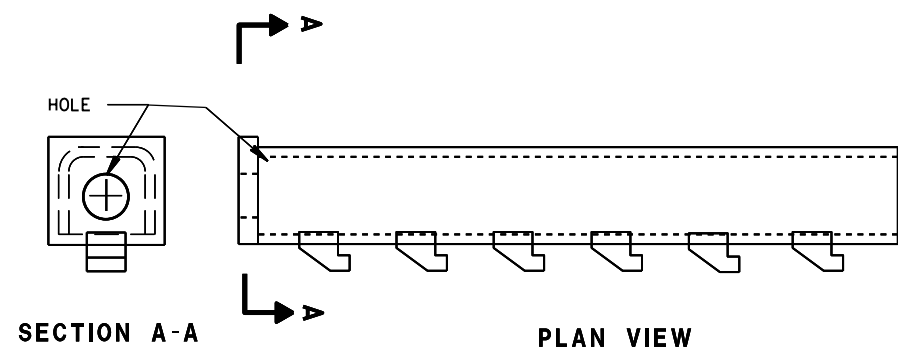
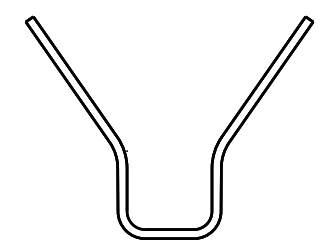
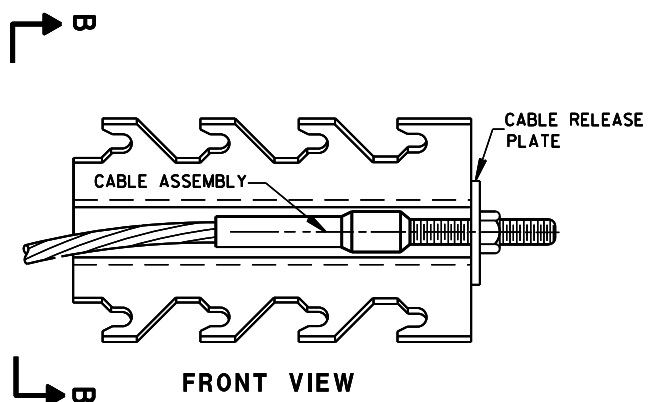
SECTION A-A
TYPICAL AT POST NO. 1*

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



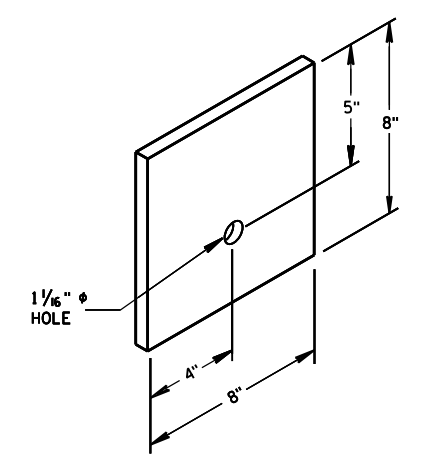
9 H
GENERIC GROUND STRUT



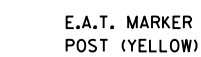
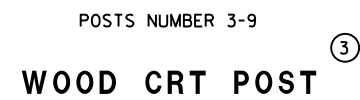
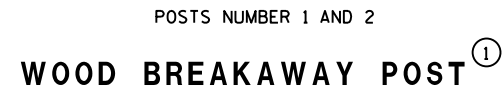
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

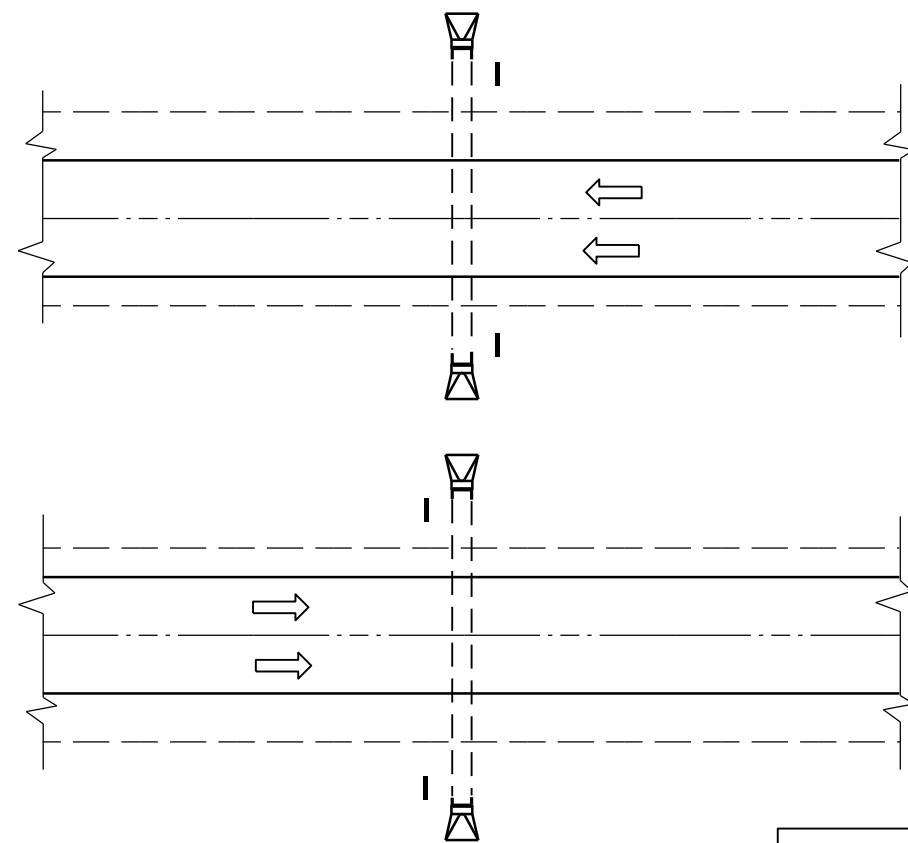
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



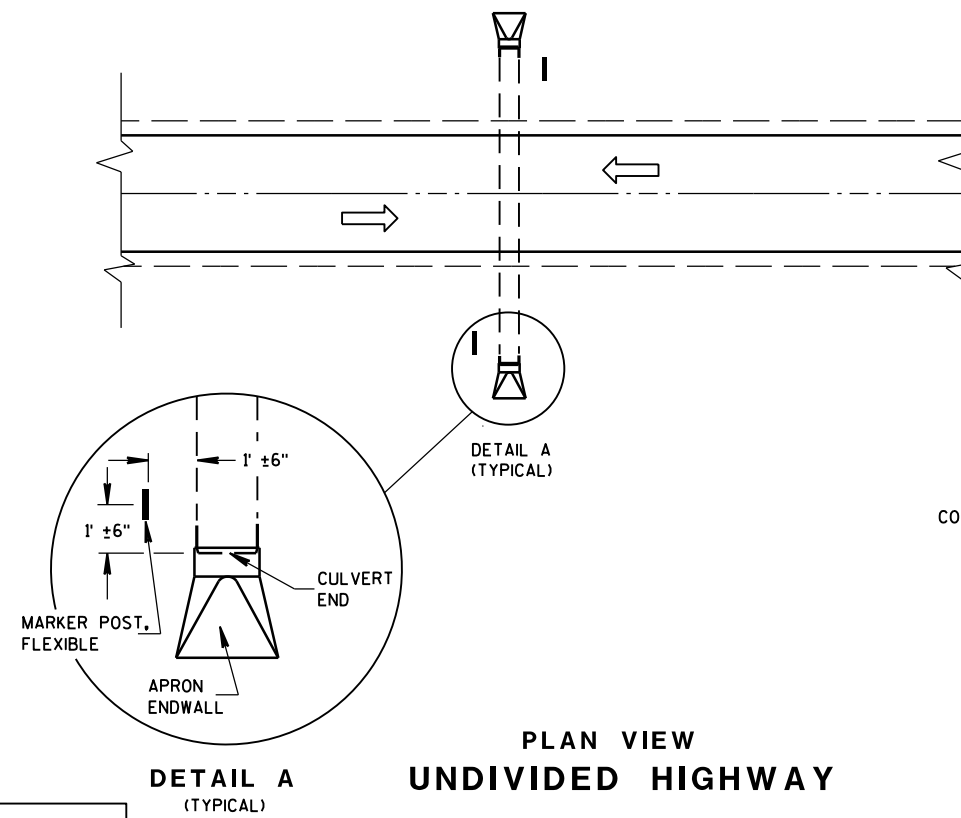
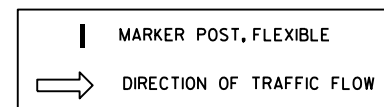
6
BEARING PLATE



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014	<i>/S/ Jerry H. Zogg</i>
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



PLAN VIEW
DIVIDED HIGHWAY

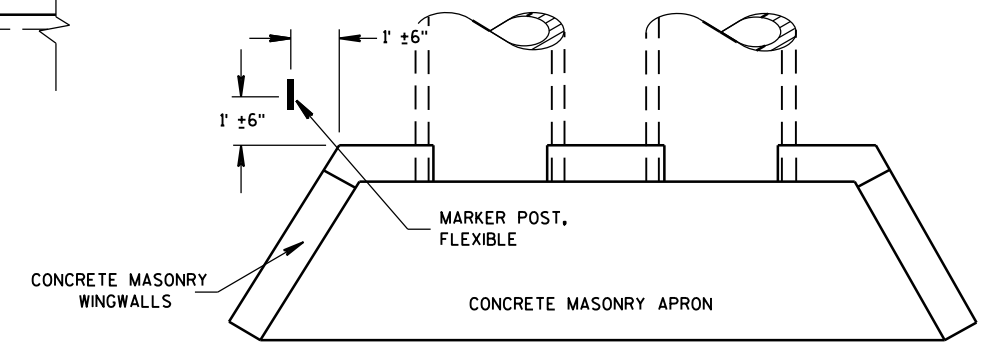


PLAN VIEW
UNDIVIDED HIGHWAY

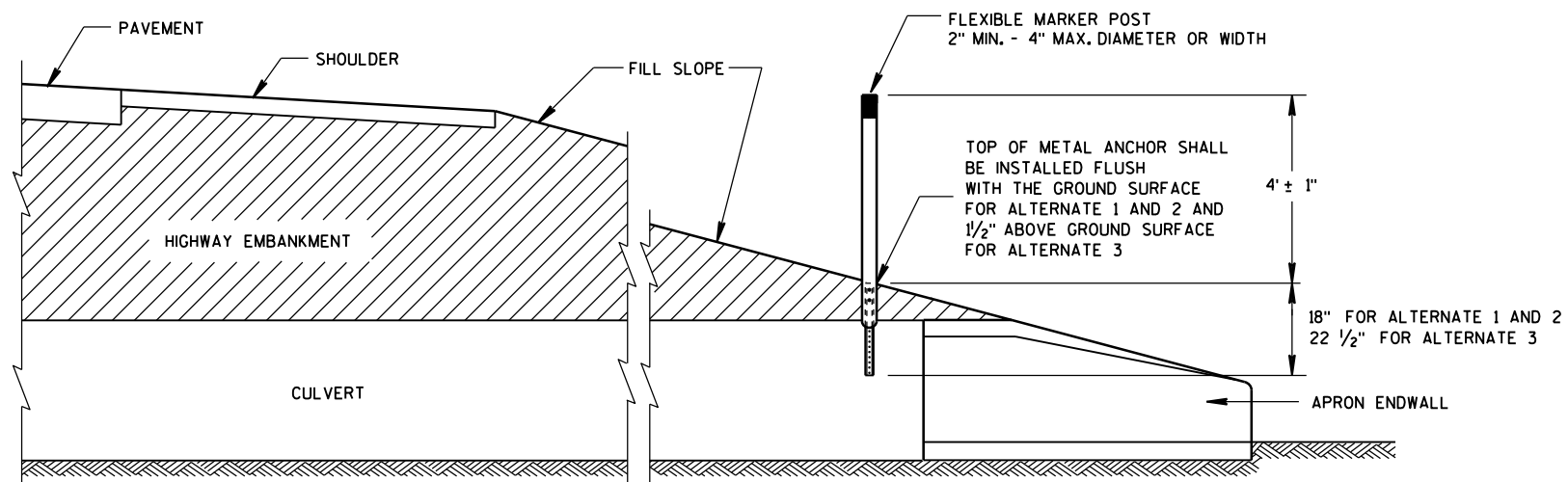
FLEXIBLE MARKER POST LOCATION

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.



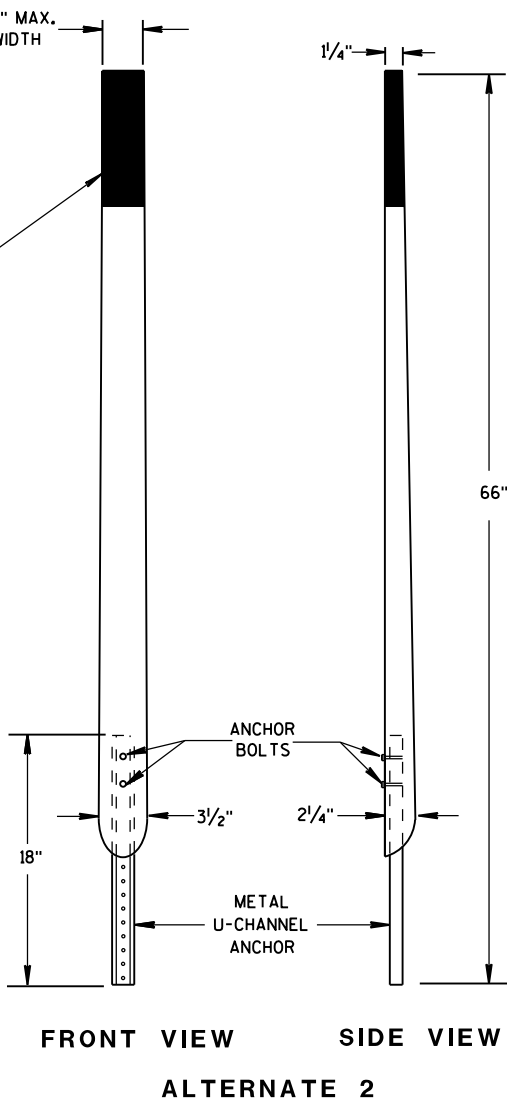
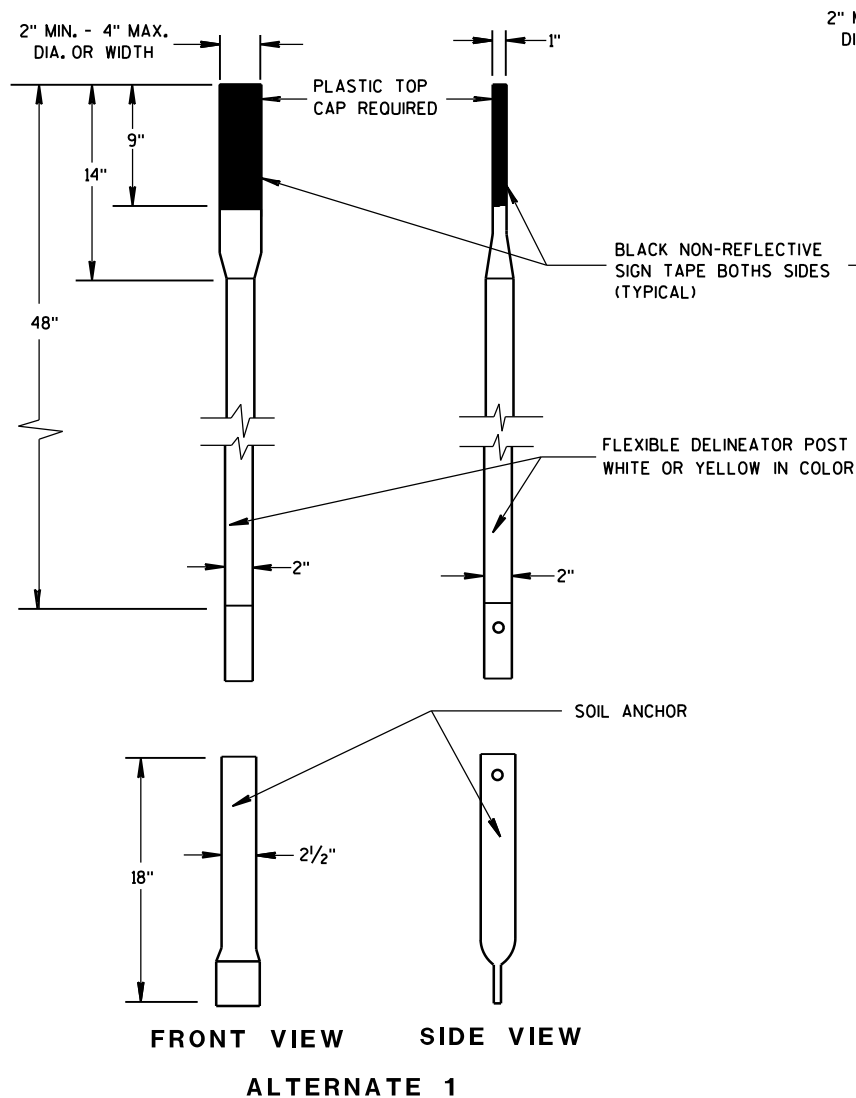
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



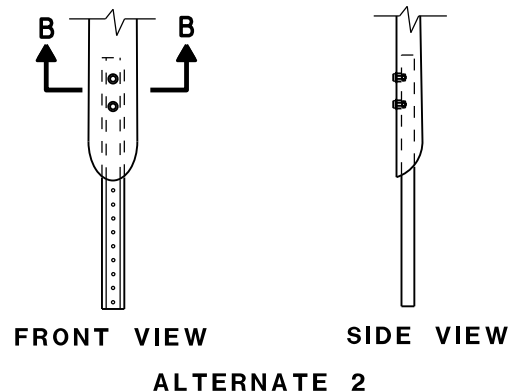
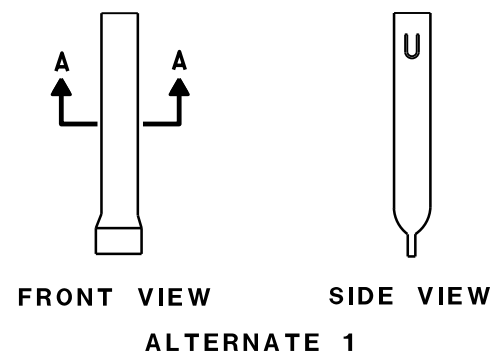
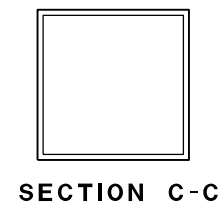
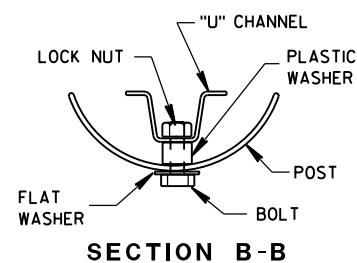
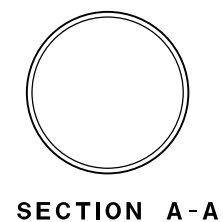
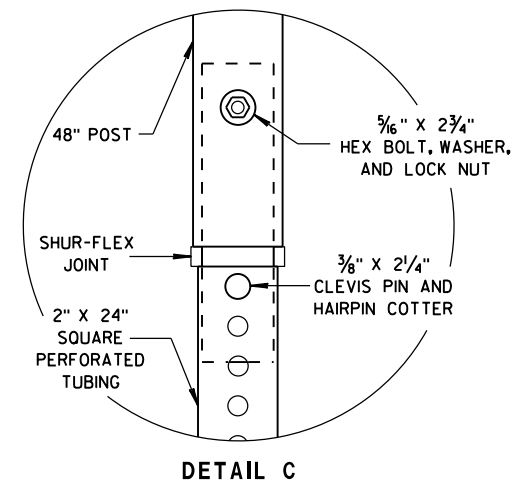
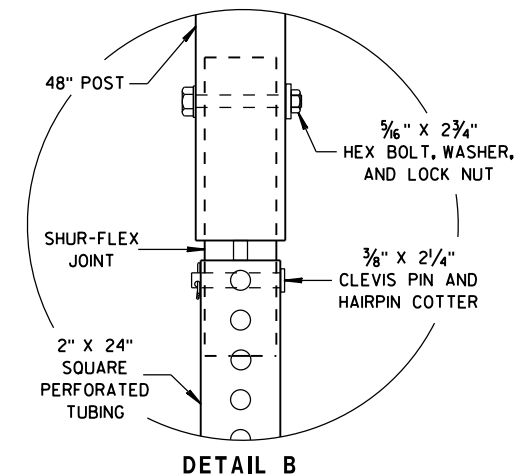
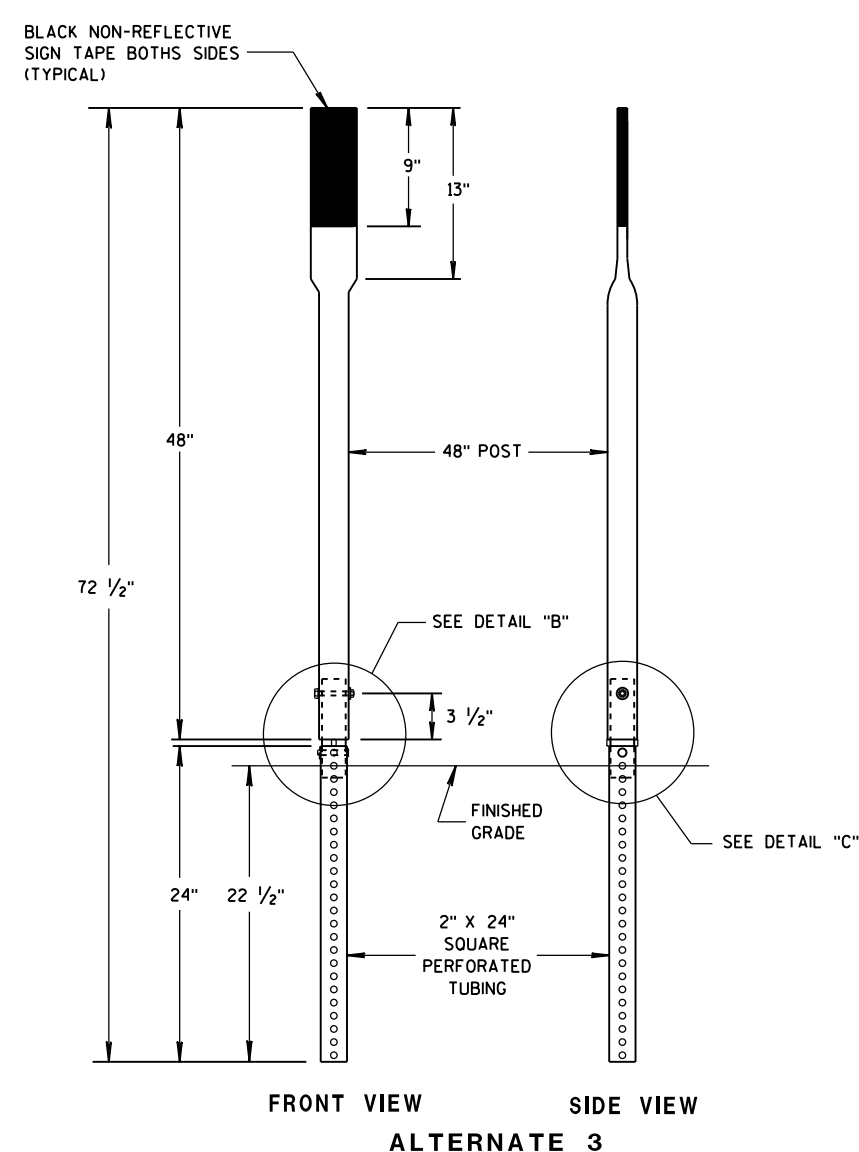
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

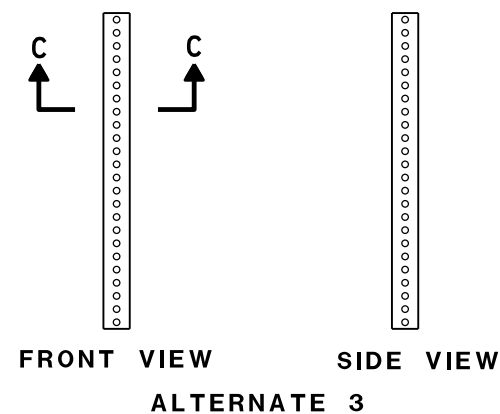
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FLEXIBLE MARKER POSTS



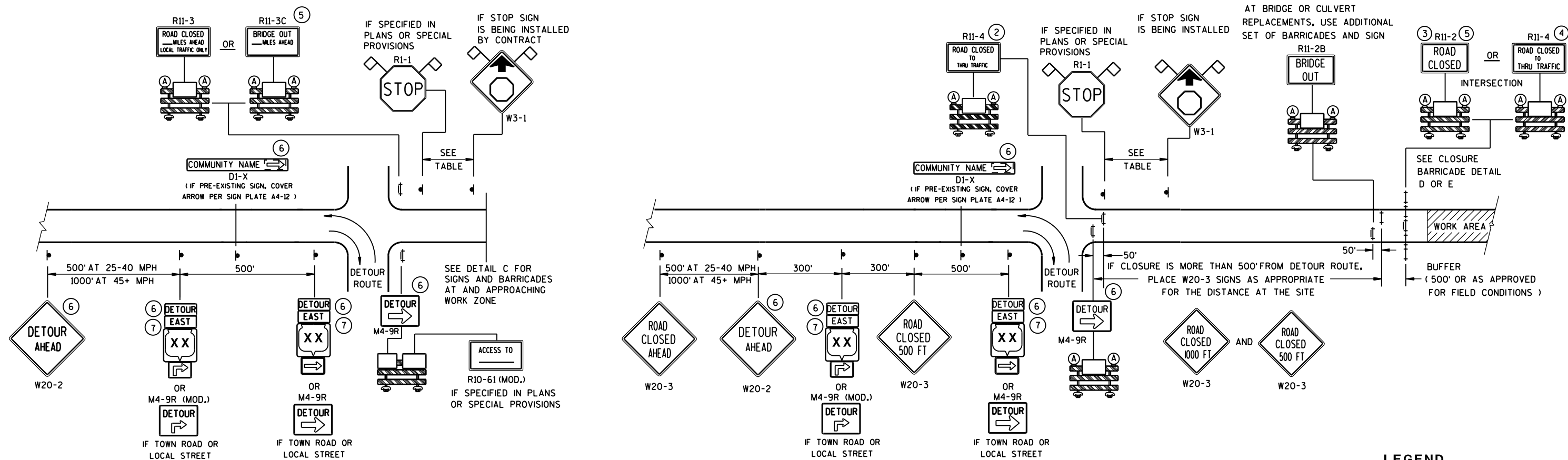
FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

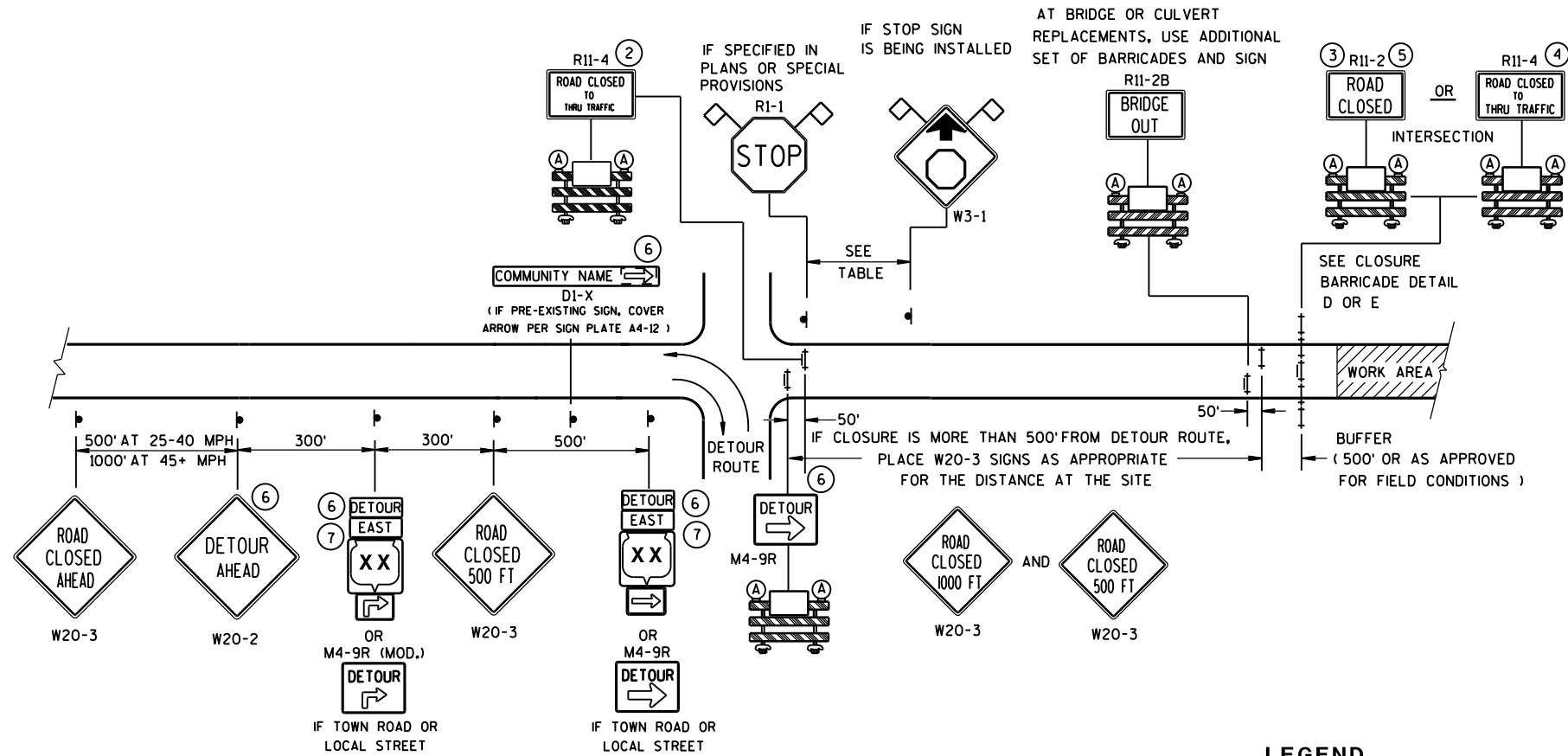
APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

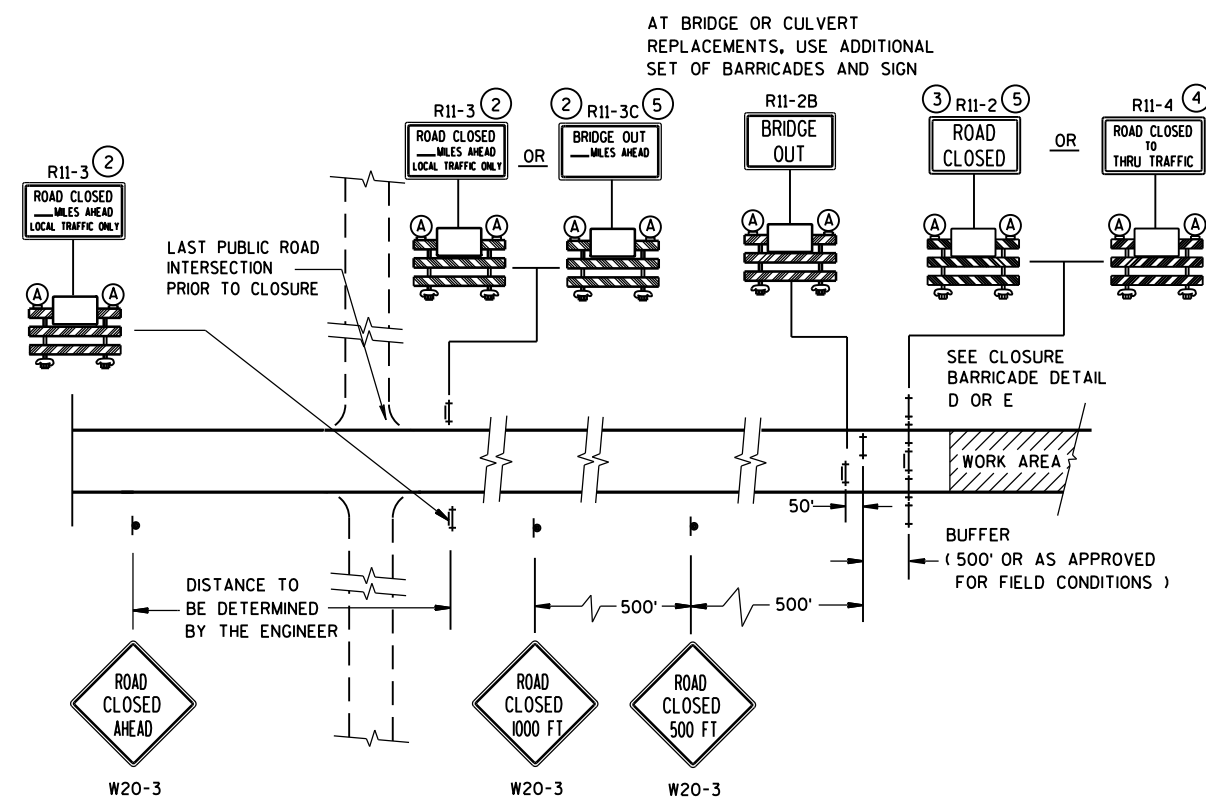
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



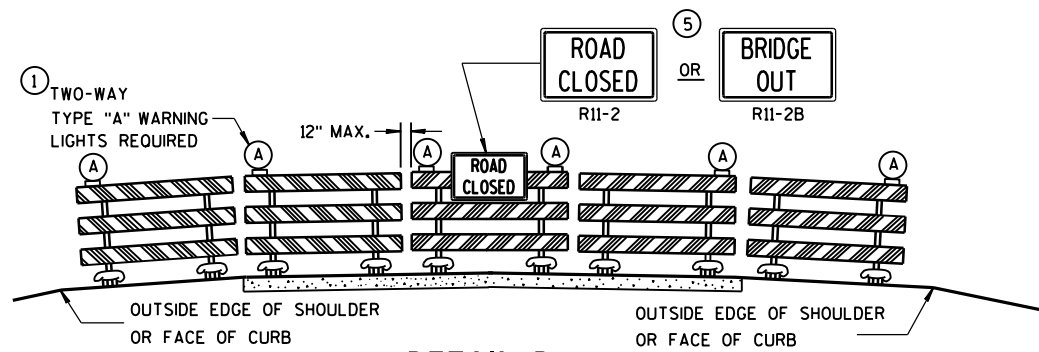
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

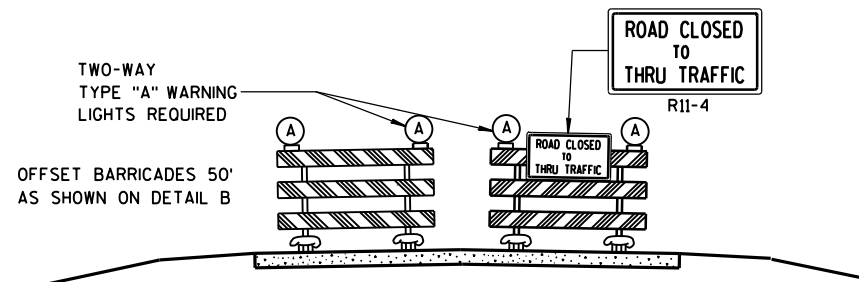
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
 M3-X
-  M1-4 OR  M1-5A OR  M1-6
-  M05-1 OR  M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
<u>8/2013</u> DATE	<u>/S/ Travis Feites</u> STATE TRAFFIC ENGINEER OF DESIGN



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

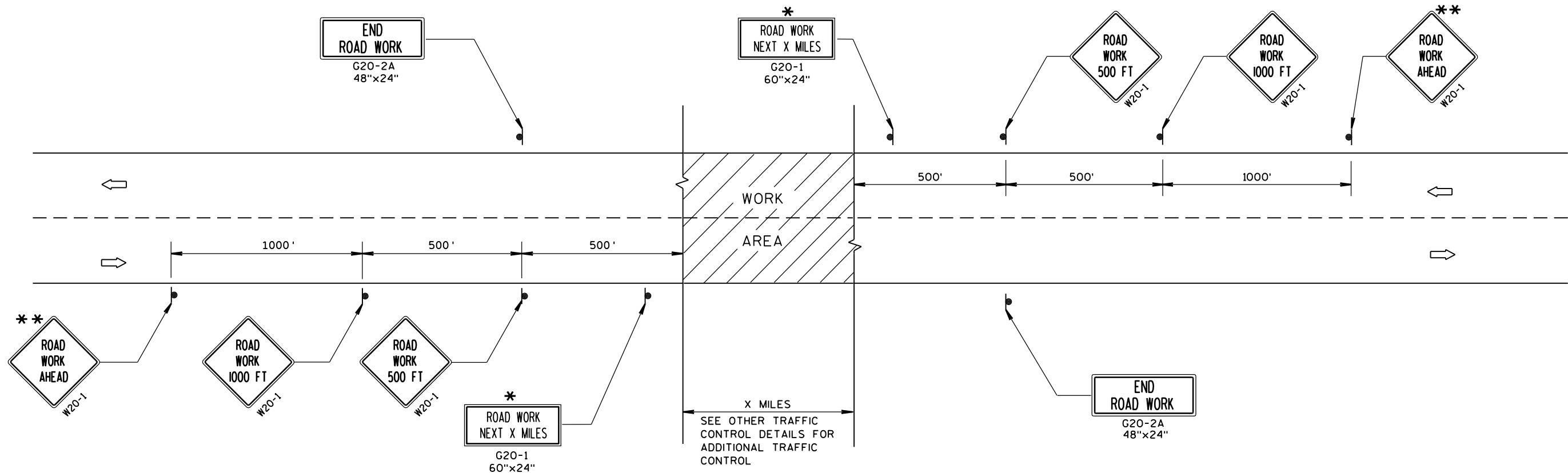
R1-1 SHALL BE 36" X 36".

- 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 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 LANE 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
MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

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.

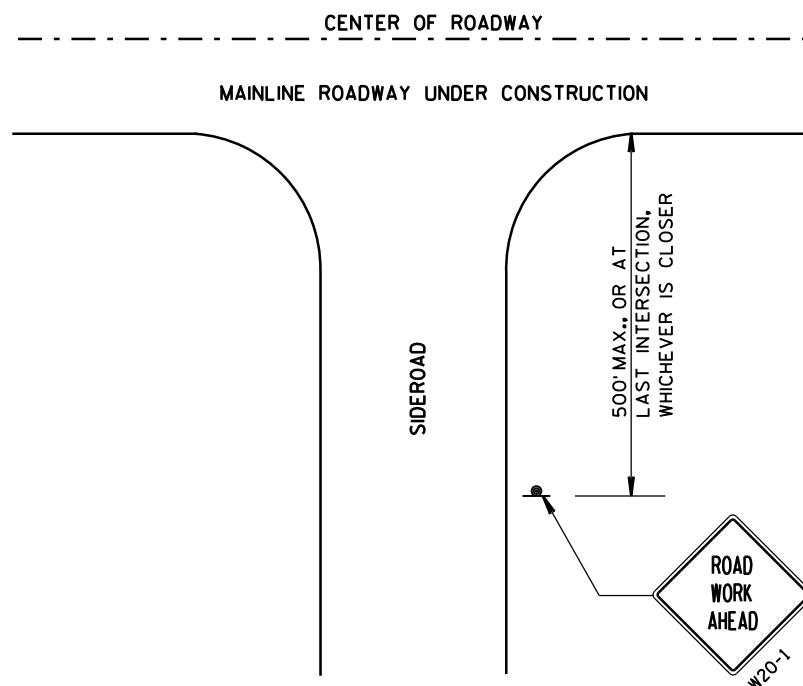
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

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

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



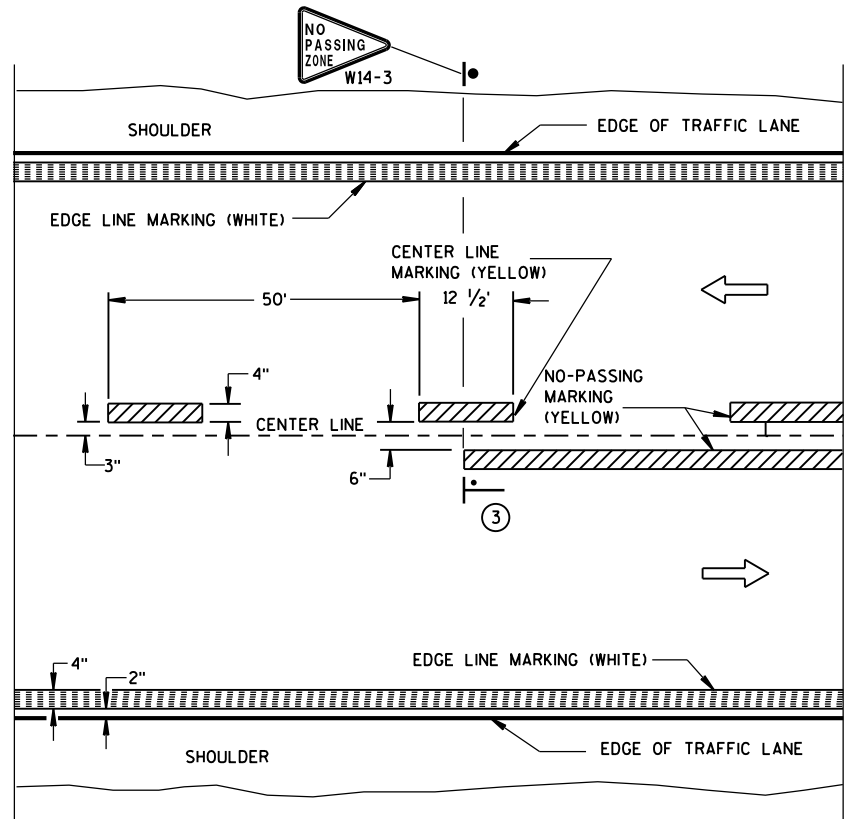
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

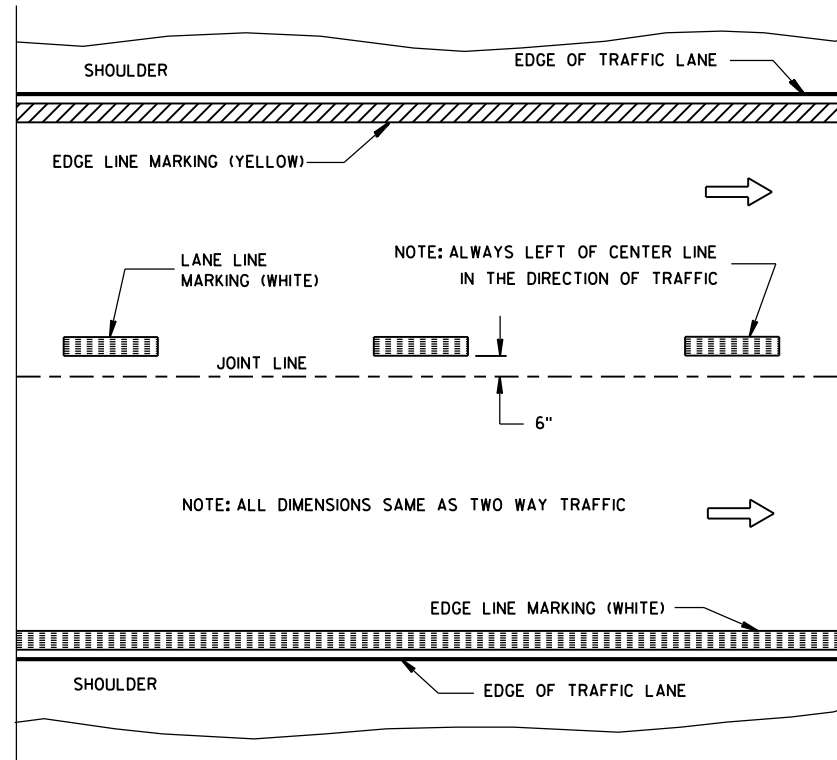
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

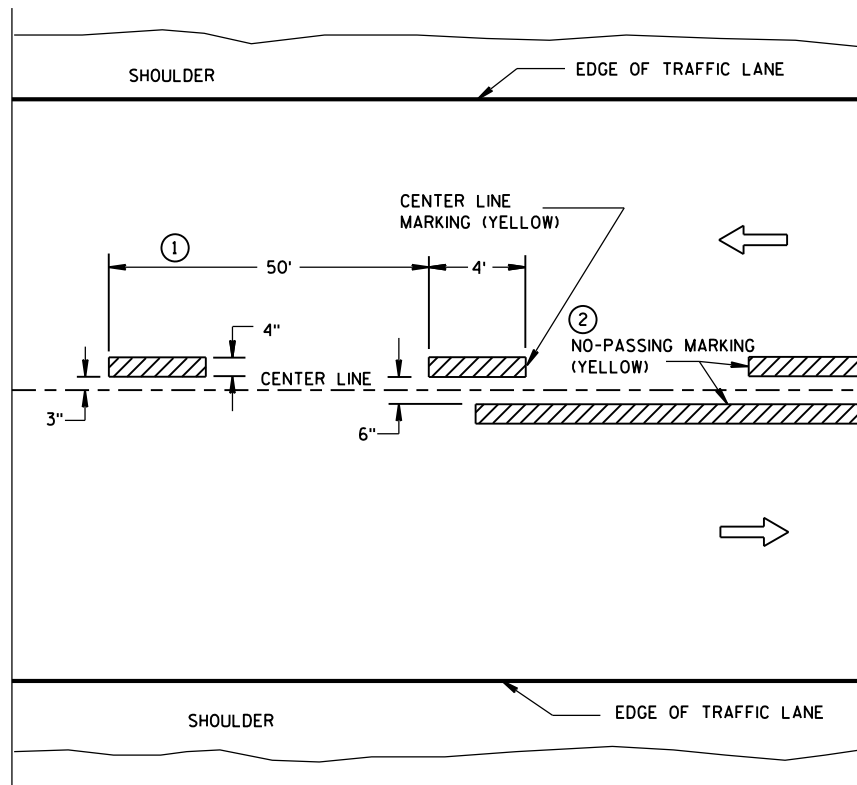


TWO WAY TRAFFIC

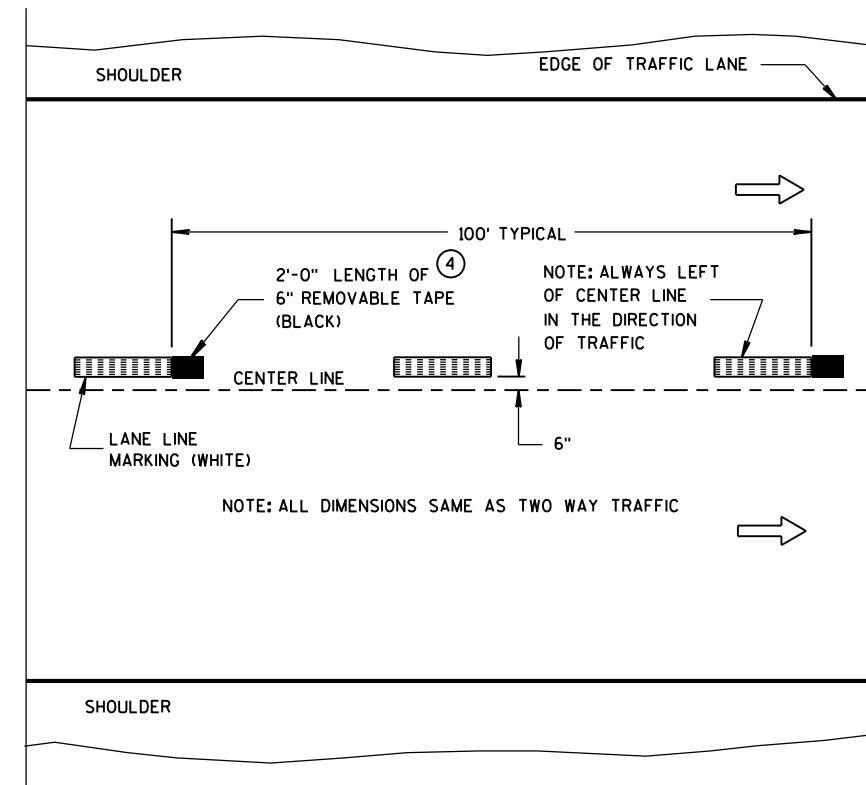


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

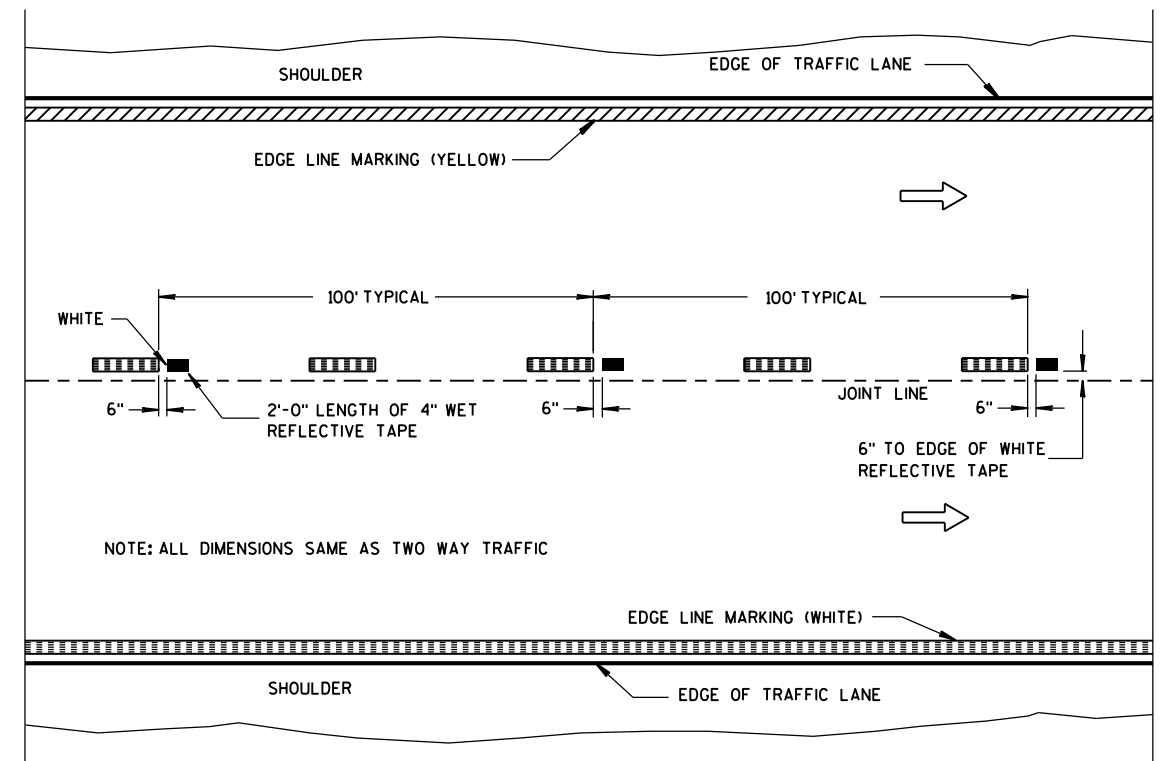
GENERAL NOTES

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

- 1 HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- 2 NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- 3 NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- 4 CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

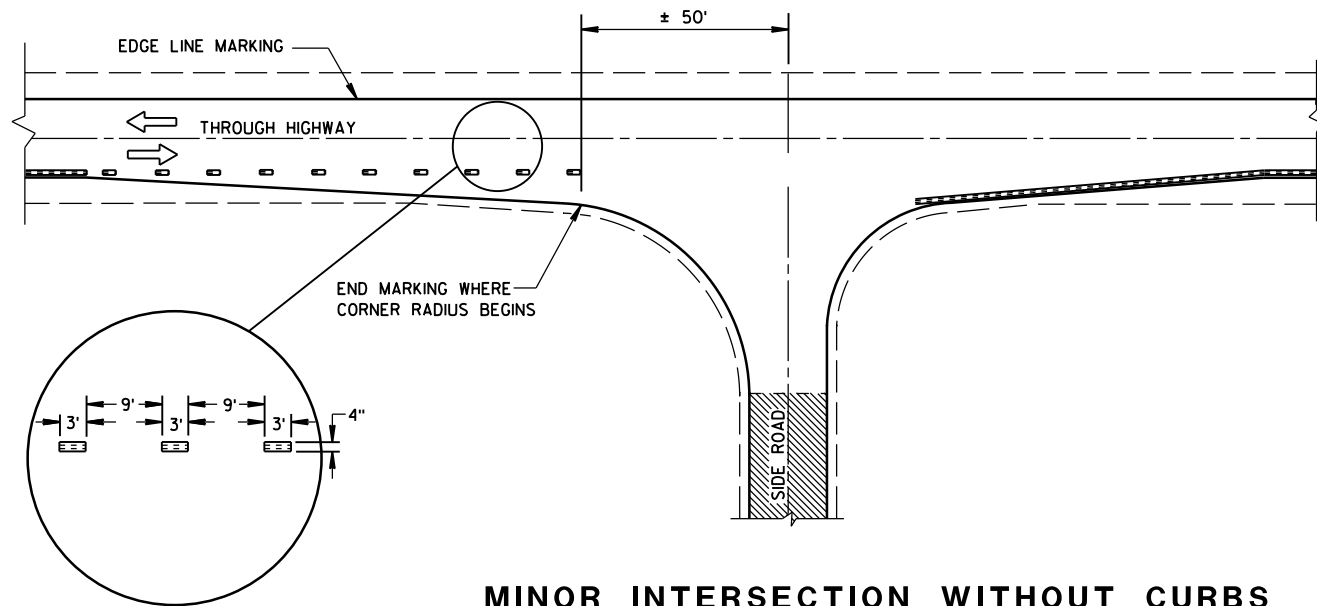
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

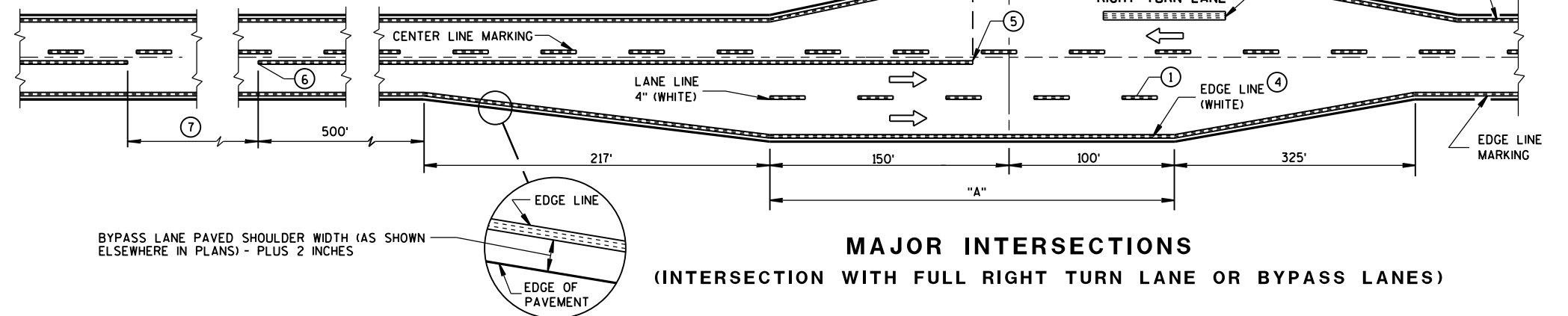
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



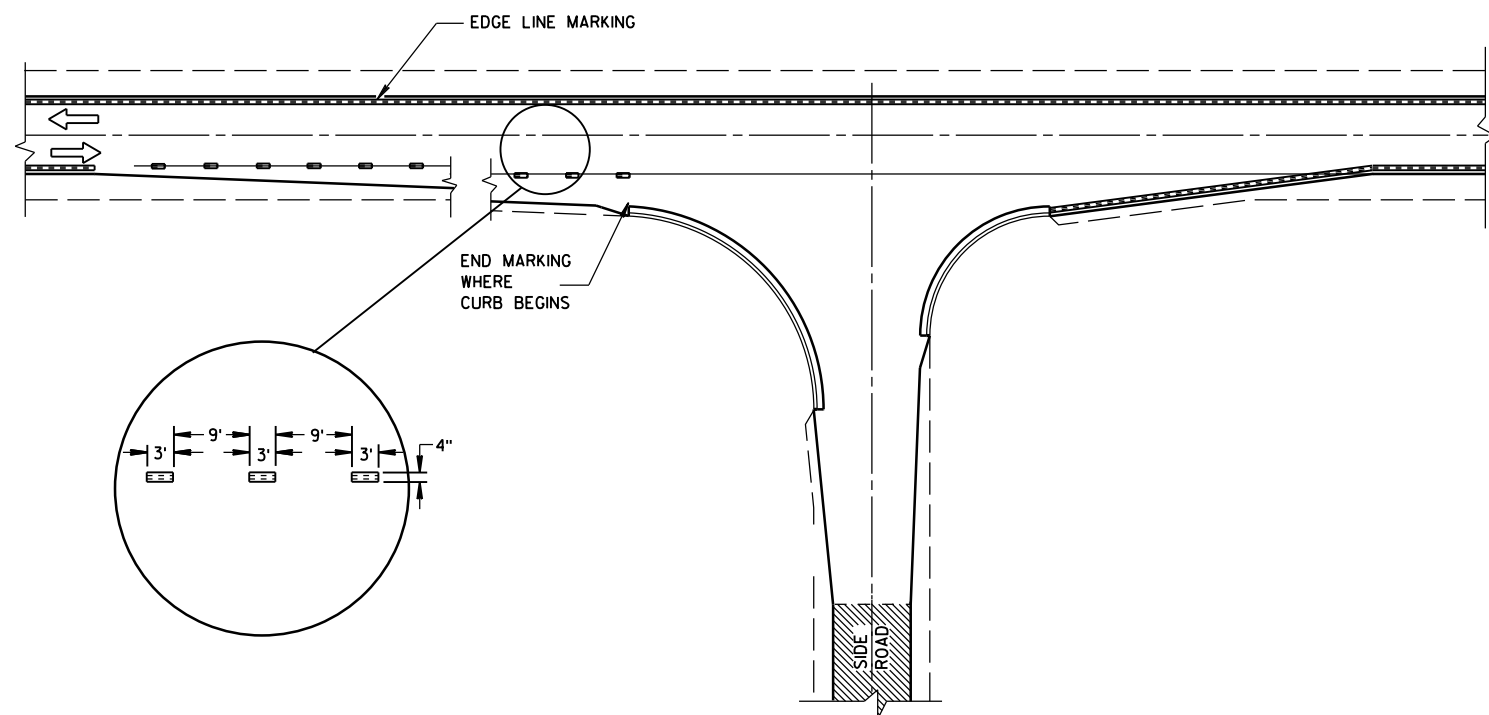
MINOR INTERSECTION WITHOUT CURBS

⑦

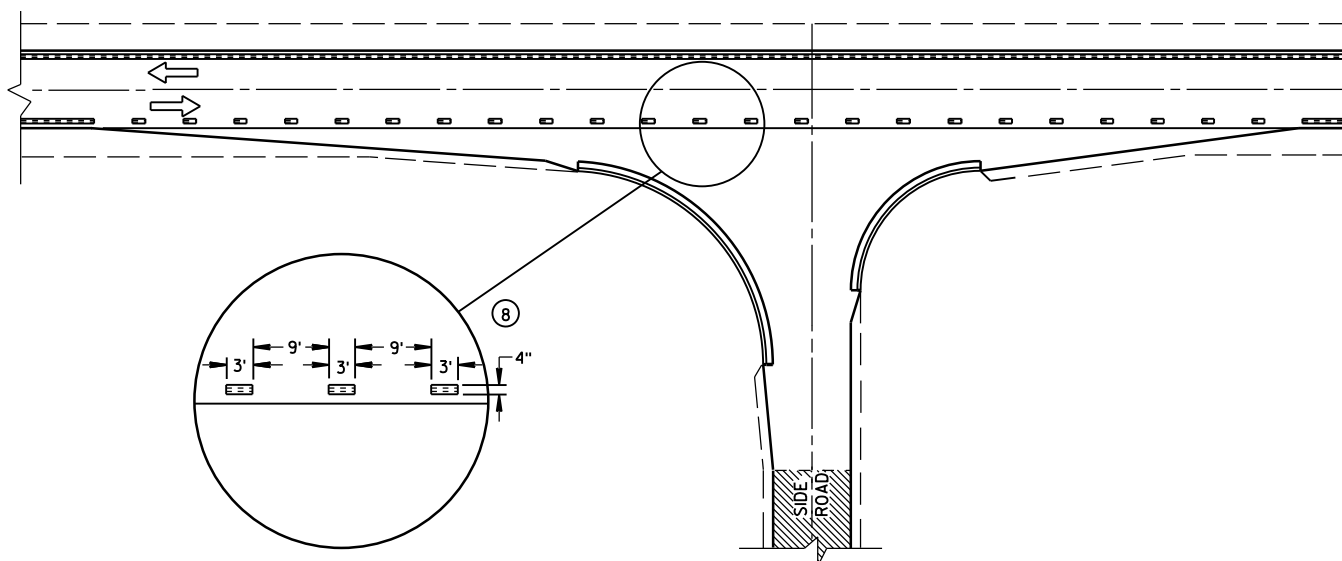
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
⑧ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

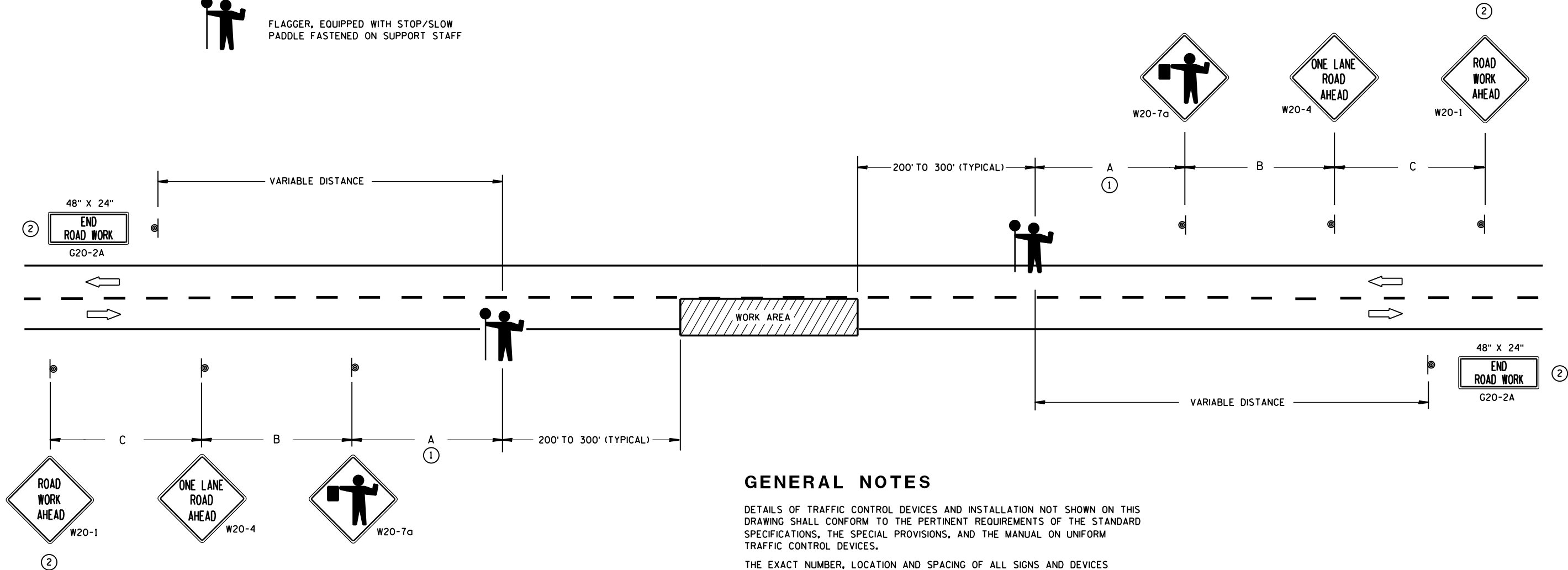
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



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.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE 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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

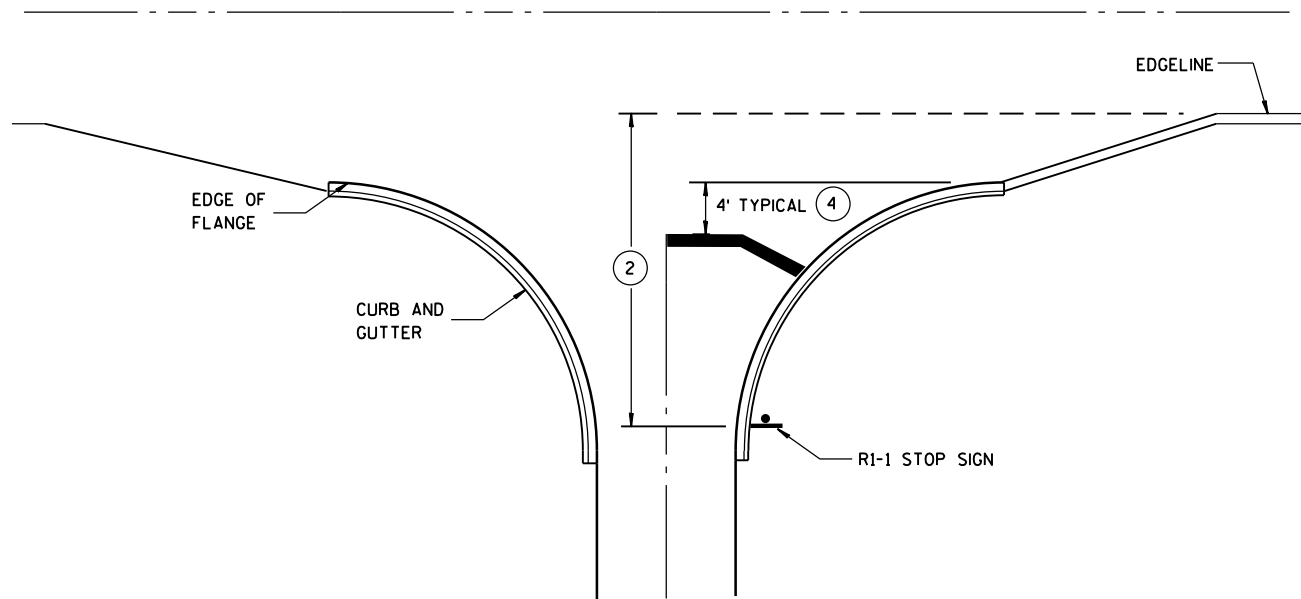
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT 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.

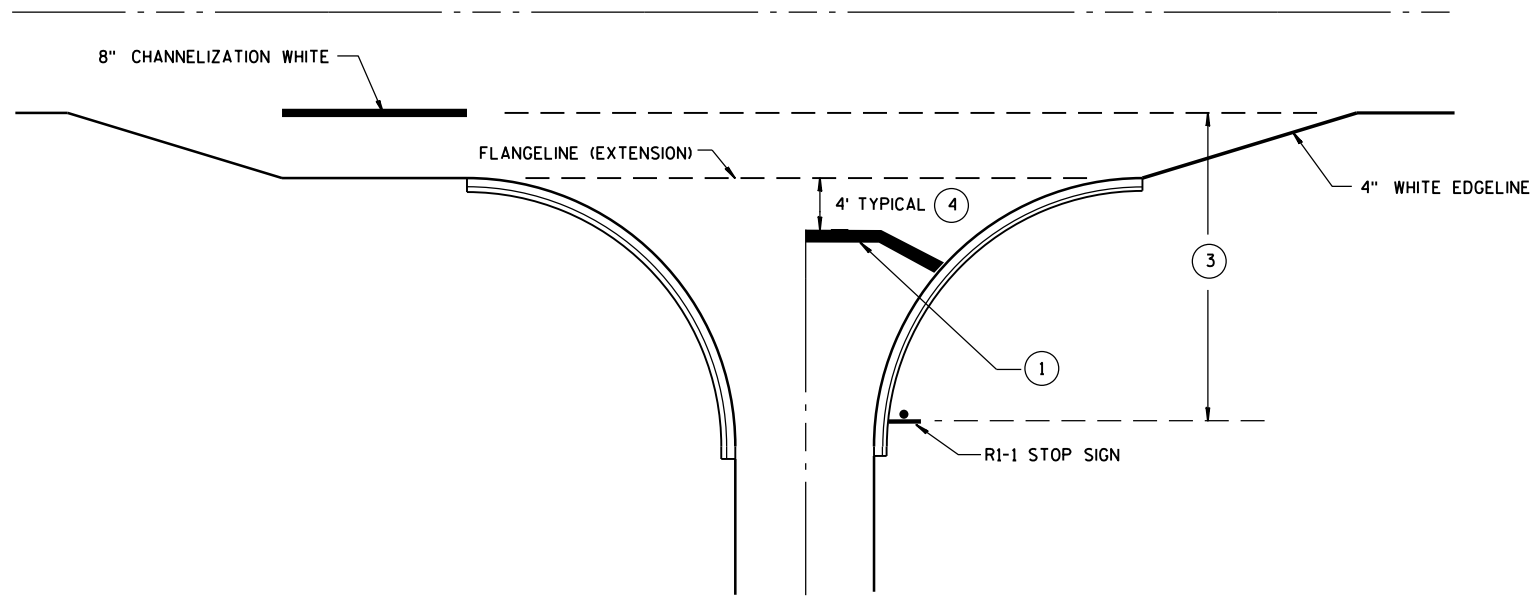
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

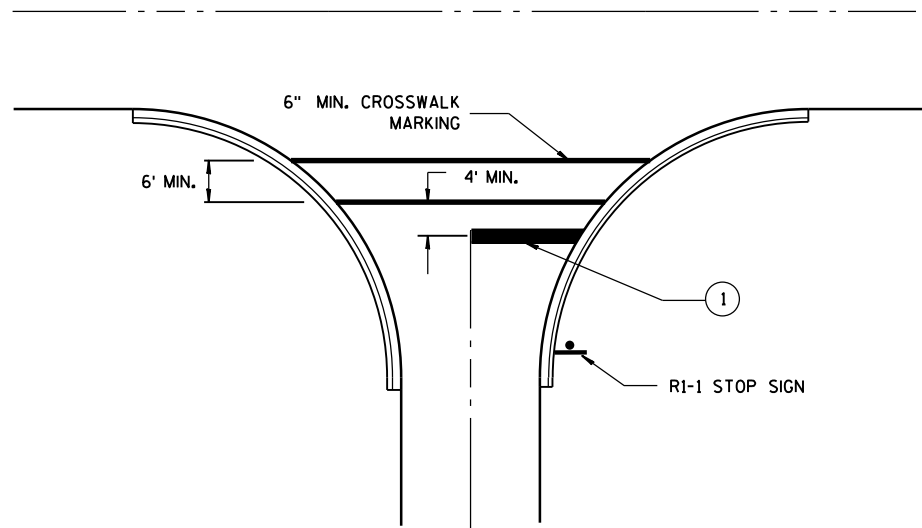
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



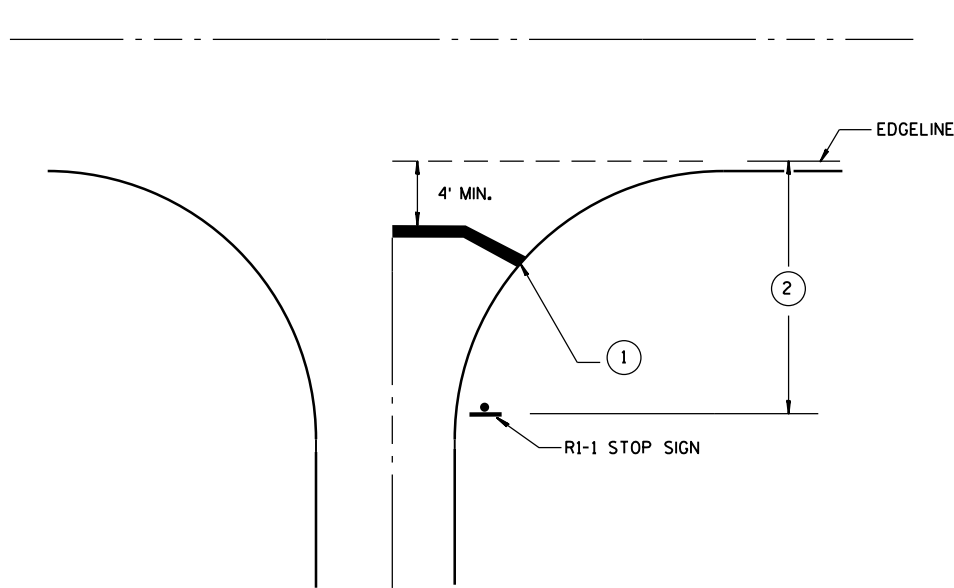
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE /S/ Travis Feltz
STATE TRAFFIC ENGINEER
FHWA

GENERAL NOTES

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

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

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

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

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

W20-1 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.

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

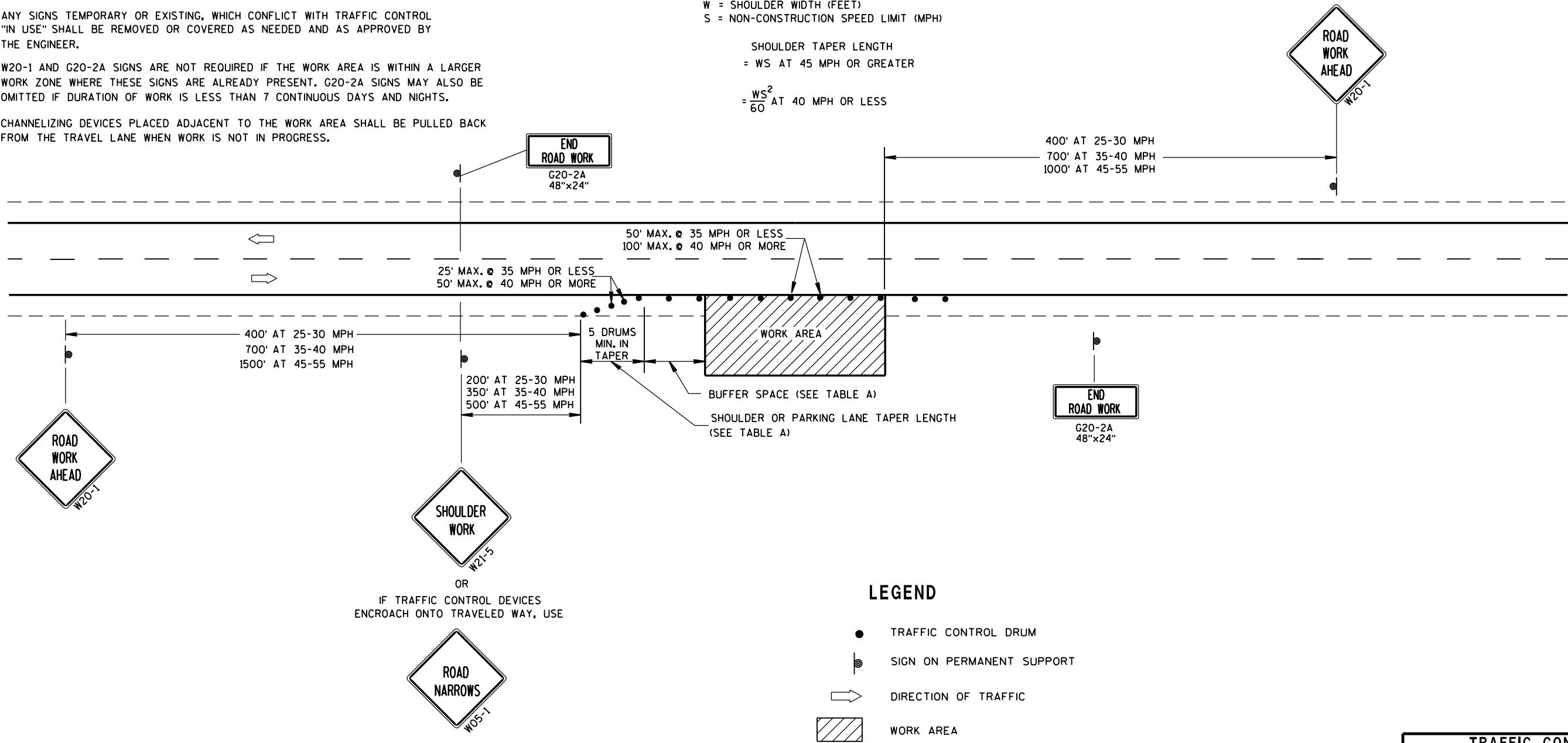
TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

= $\frac{WS^2}{60}$ AT 40 MPH OR LESS

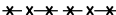


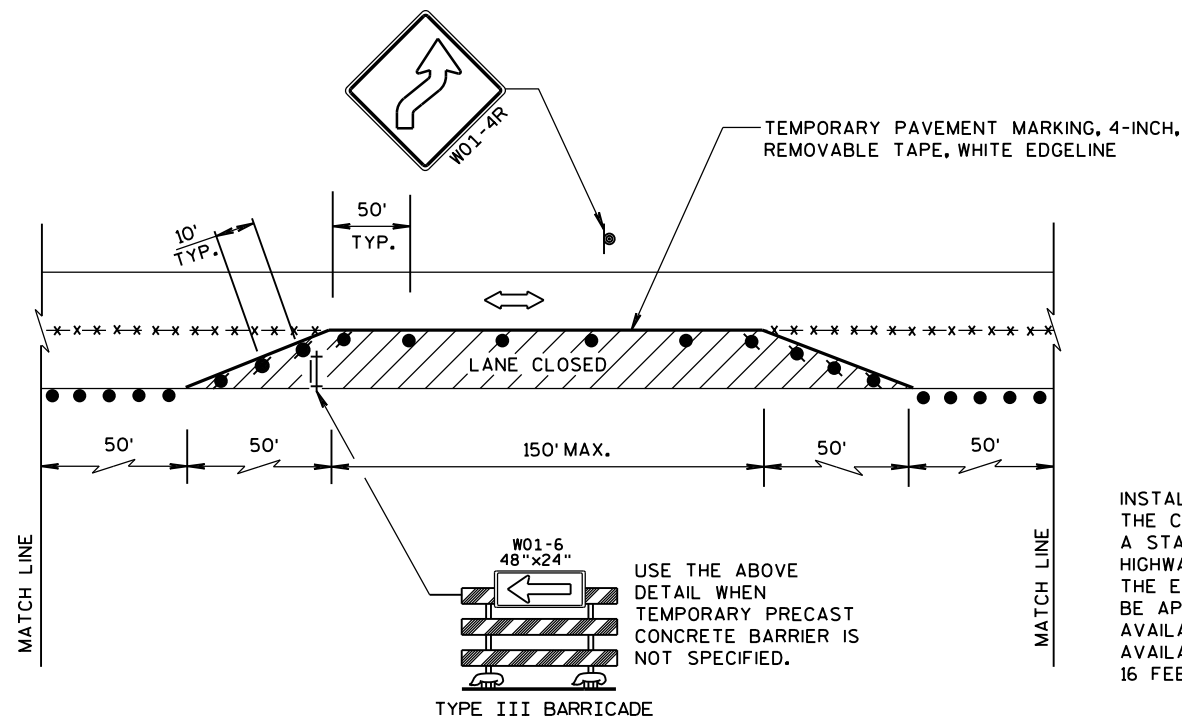
LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

LEGEND

- | | |
|---|--|
|  | SIGN ON PERMANENT SUPPORT |
|  | REMOVING PAVEMENT MARKING |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | CONCRETE BARRIER TEMPORARY PRECAST |
|  | FLAGS, 16" x 16" MIN., (ORANGE) |
|  | TRAFFIC CONTROL DRUM |
|  | TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT |
|  | ASPHALTIC PAVEMENT WIDENING |
|  | DIRECTION OF TRAFFIC |



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"x48" UNLESS OTHERWISE NOTED.

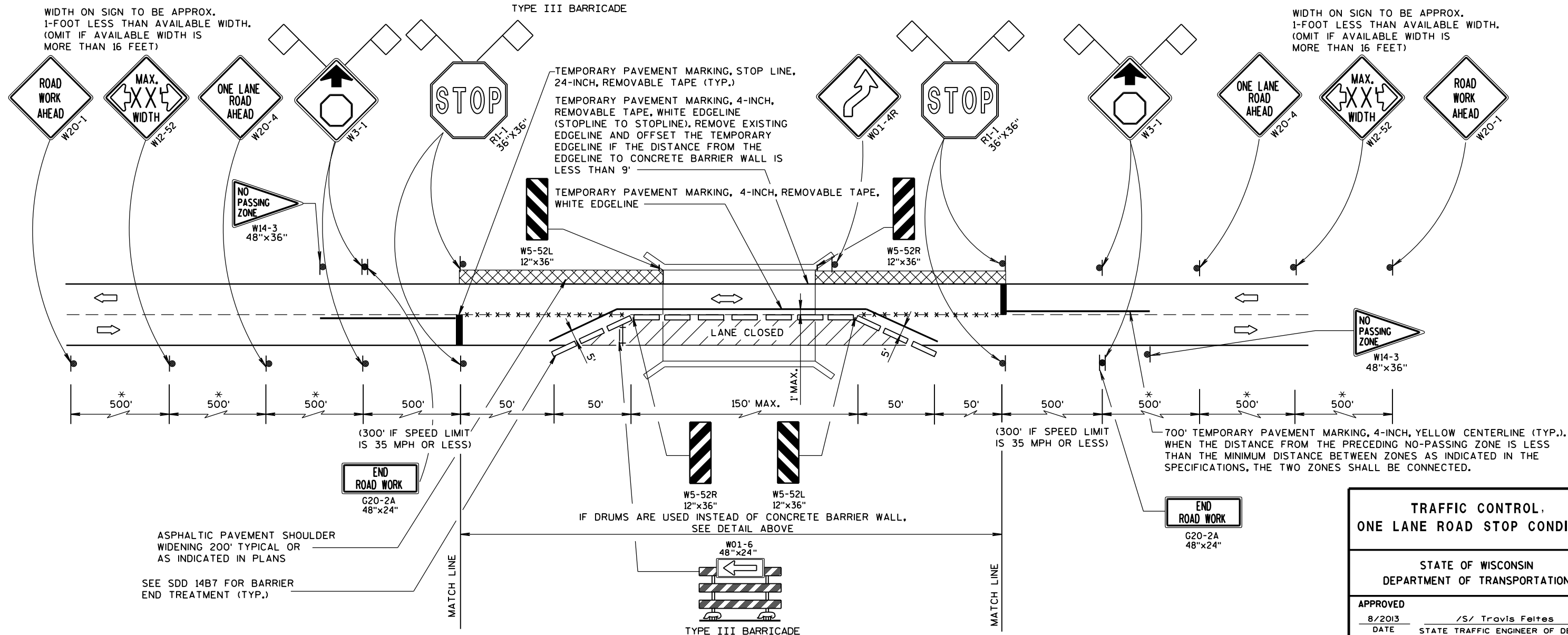
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

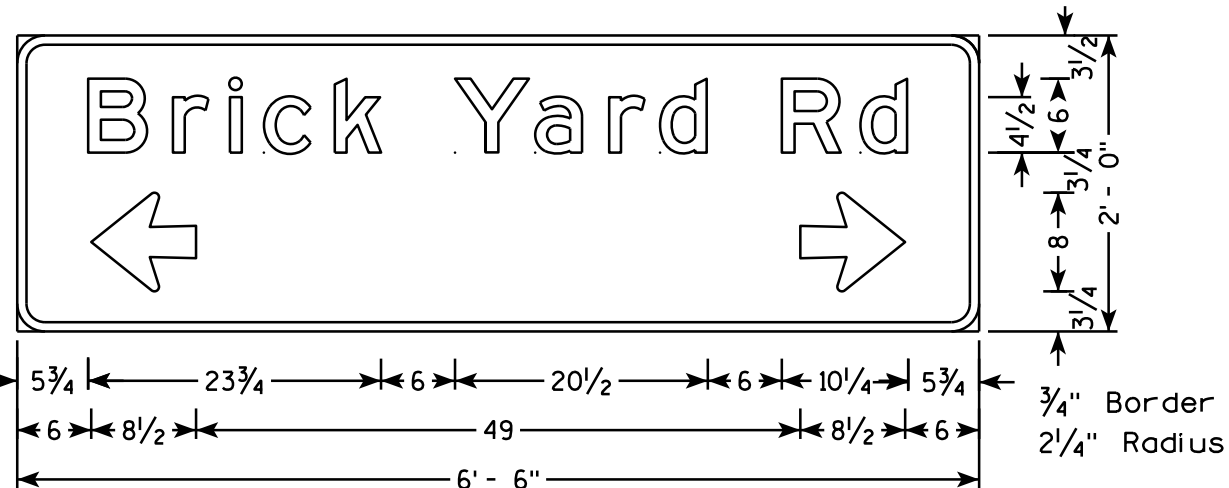
* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.



TRAFFIC CONTROL,
ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

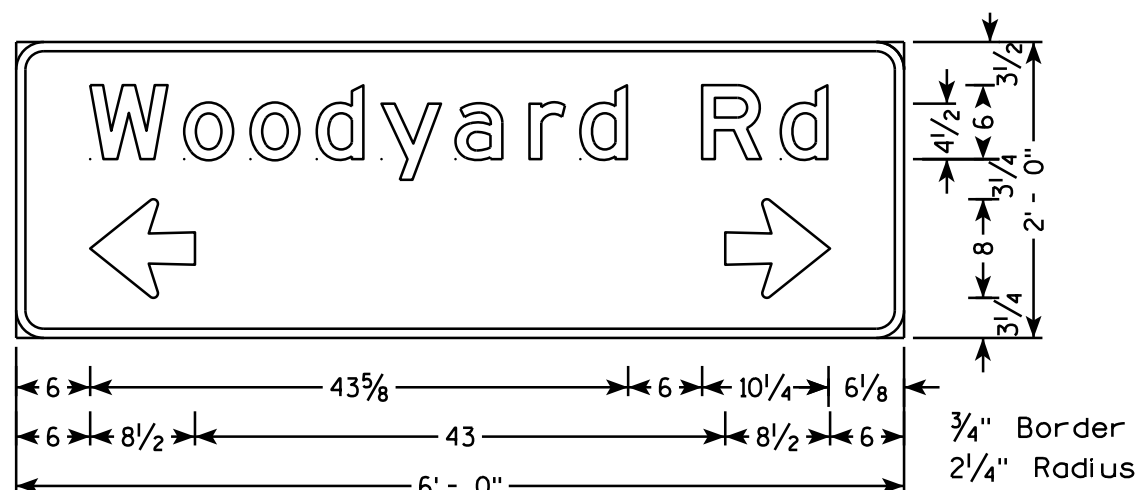
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



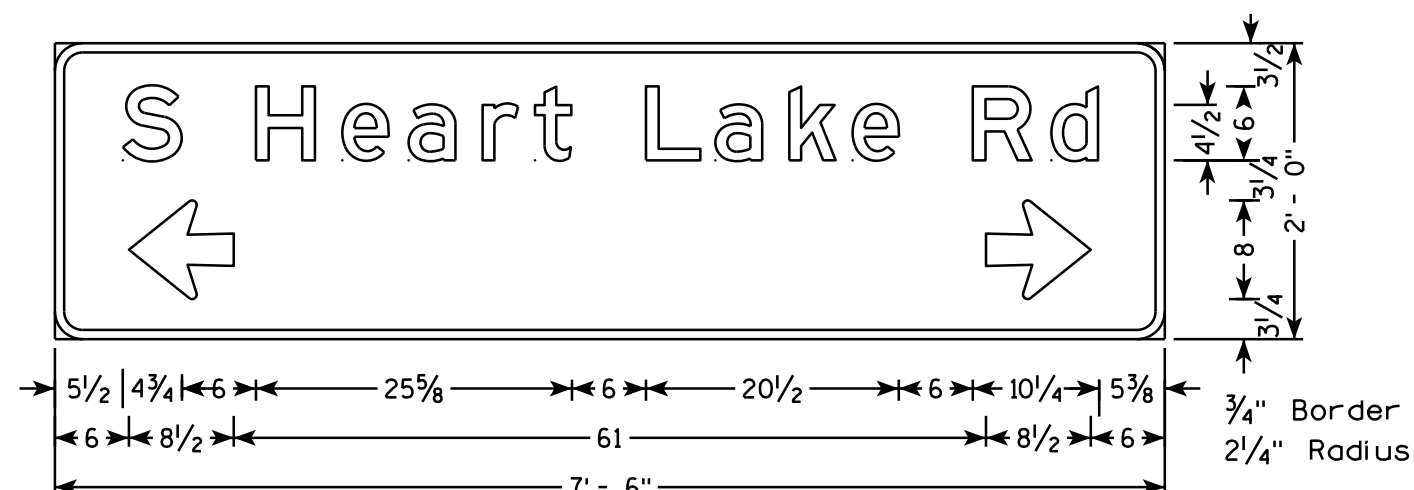
D1-61

NOTES

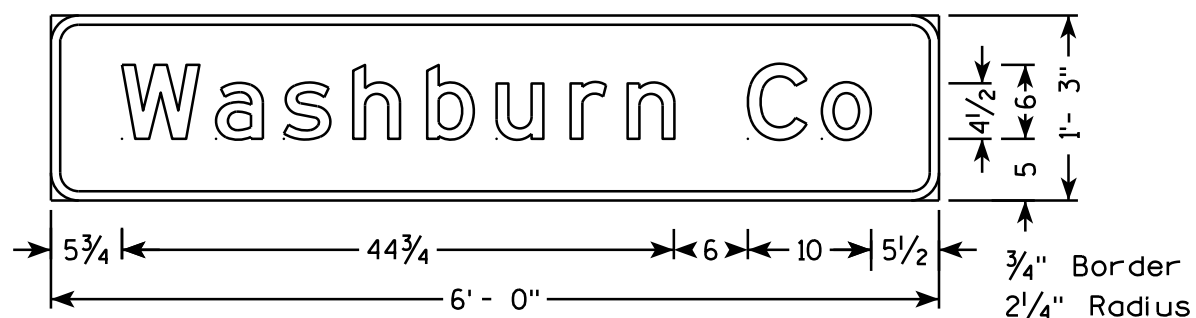
1. All Signs Type II - Type H Reflective
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E



D1-61

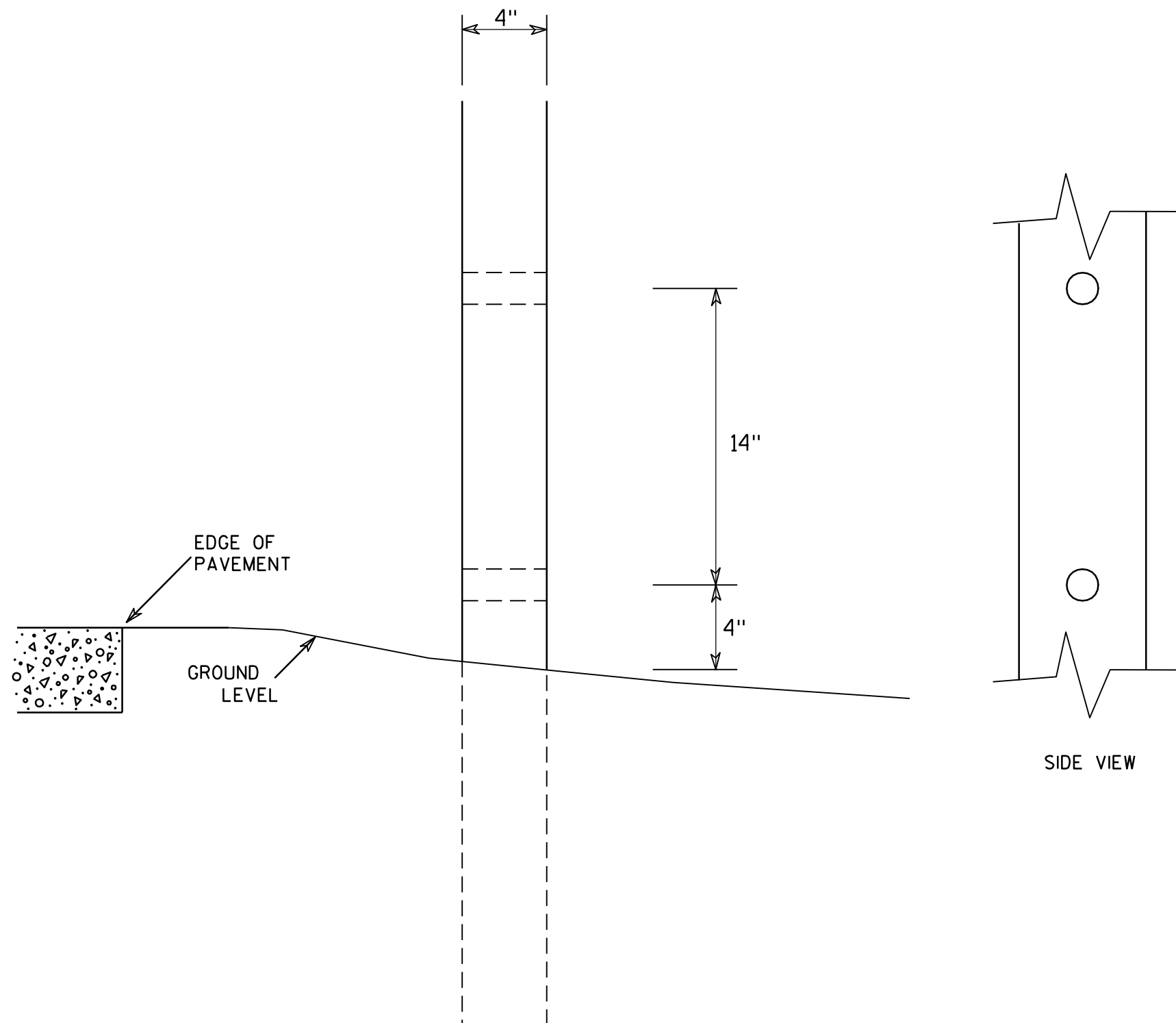


D1-61



I2-2

7



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

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:

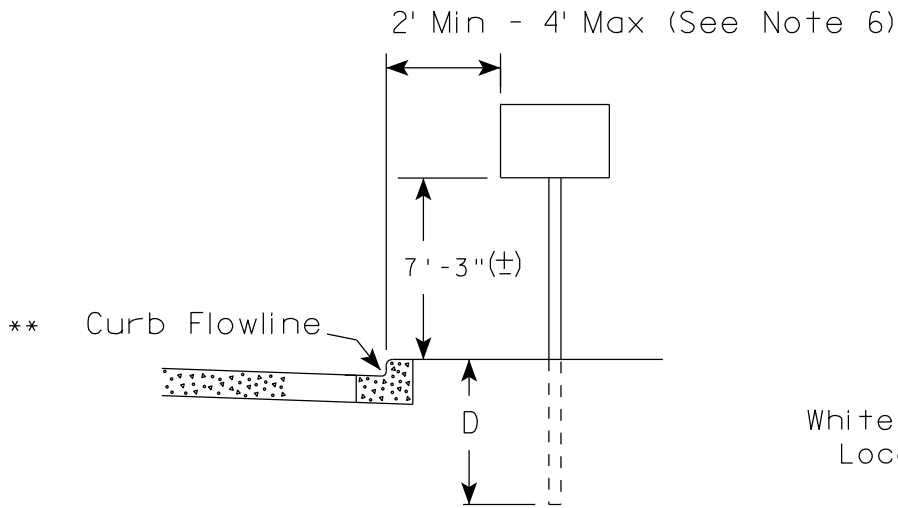
HWY:

COUNTY:

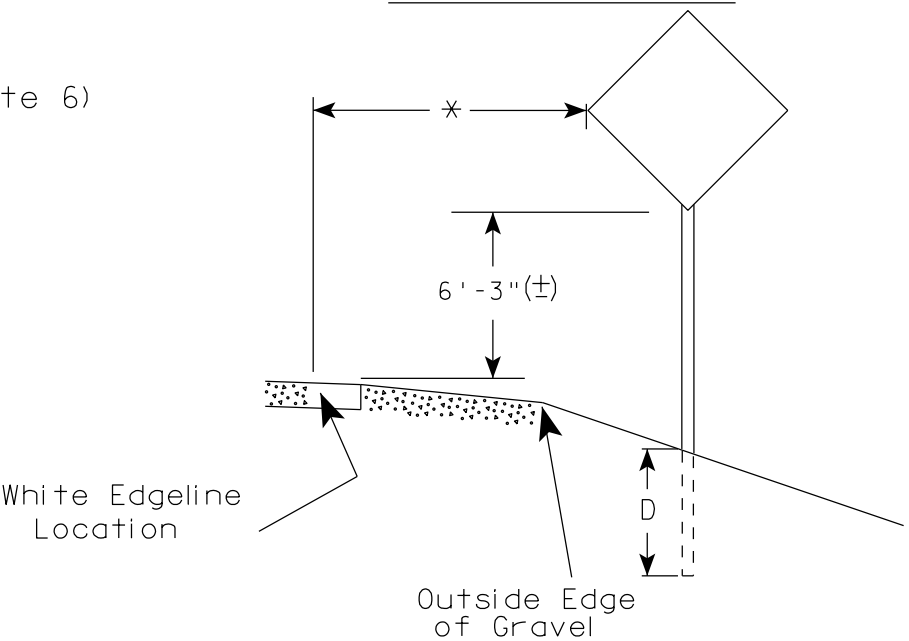
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

×× 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.

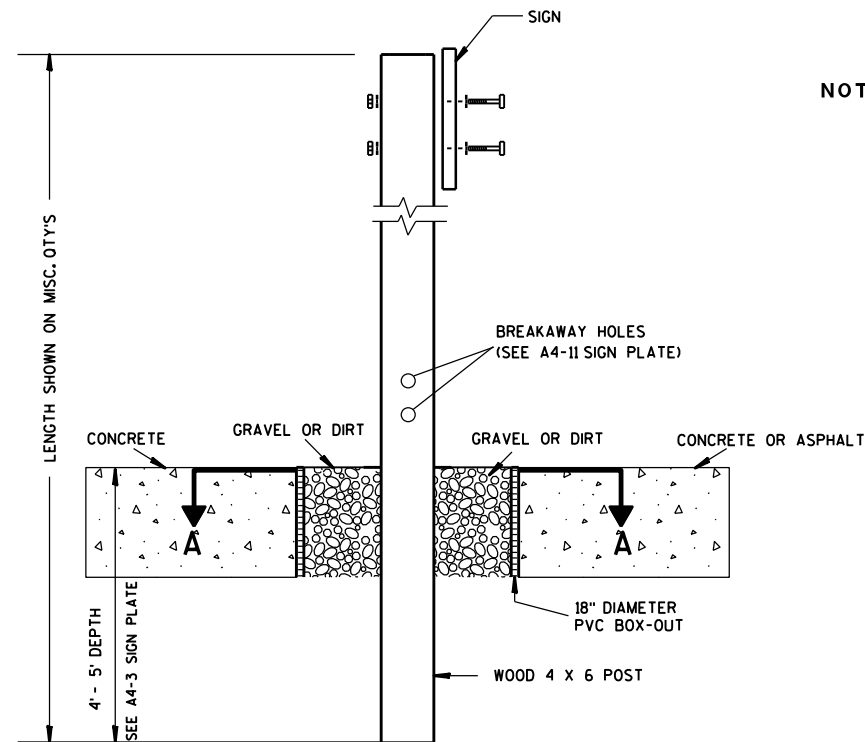
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

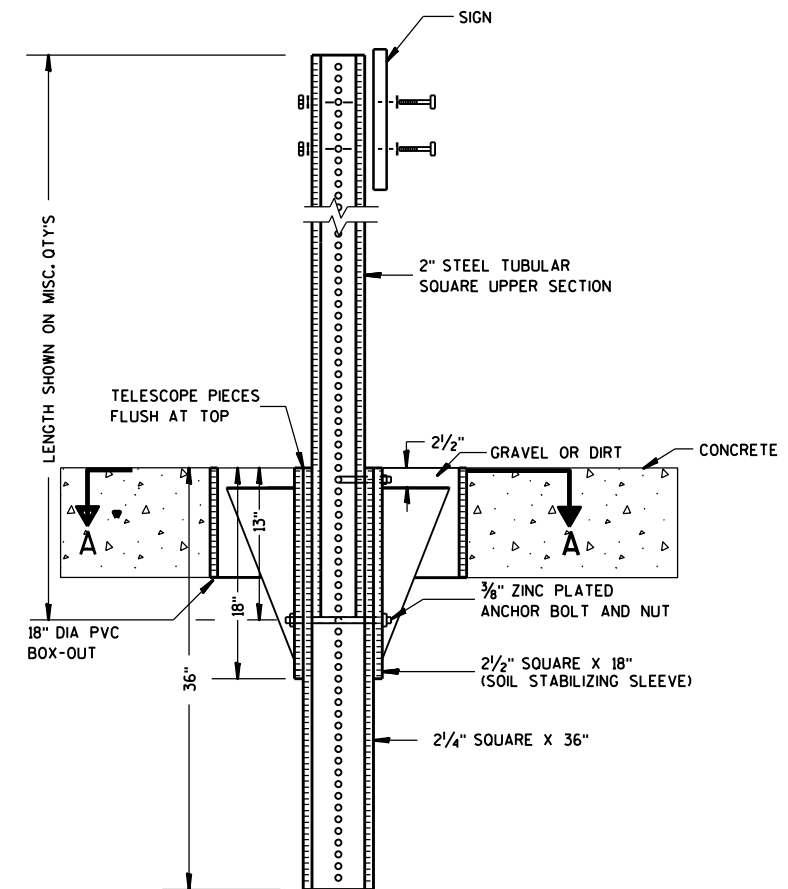
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

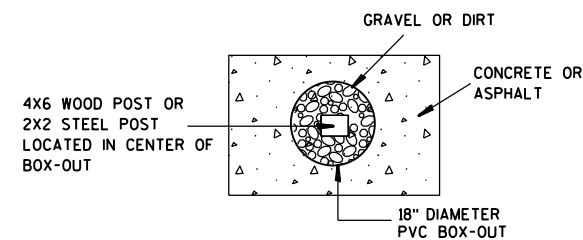
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

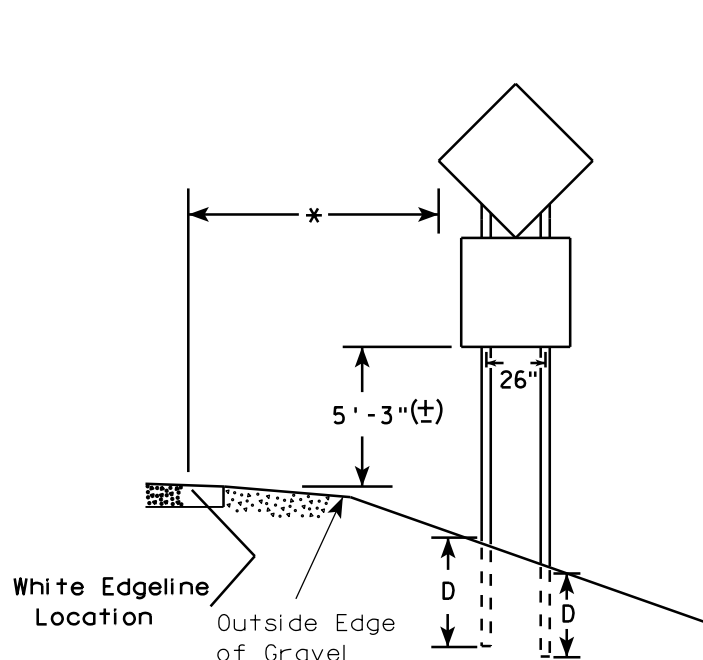
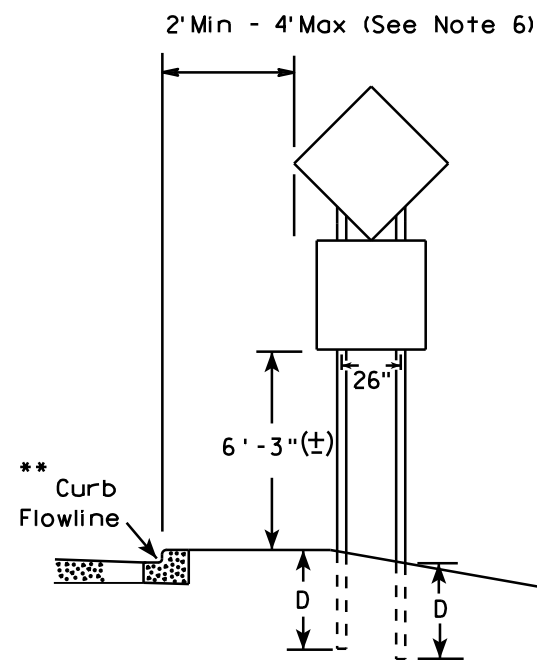
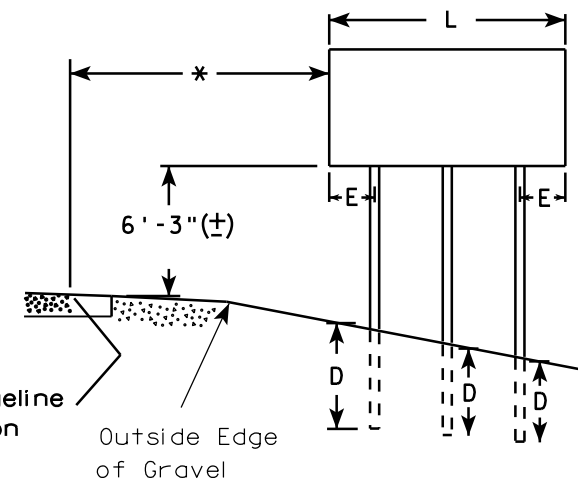
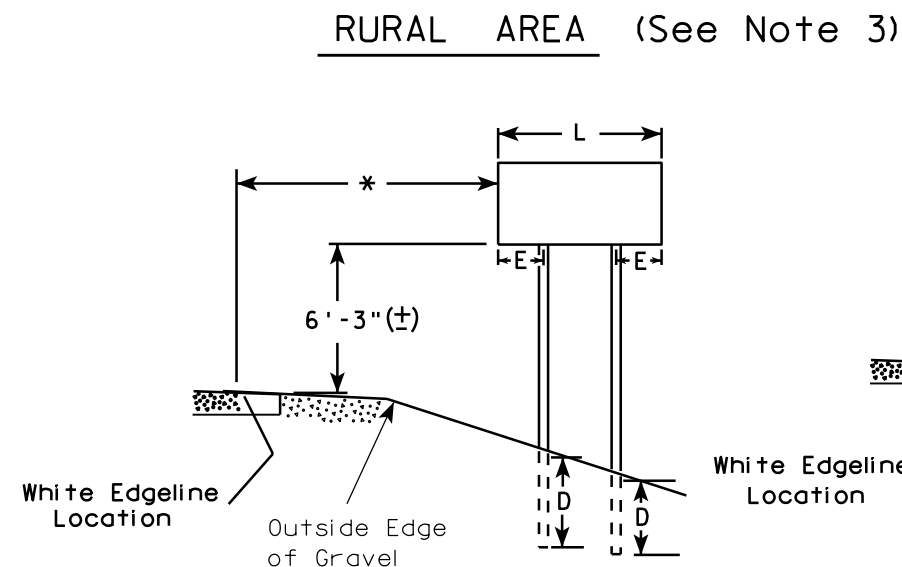
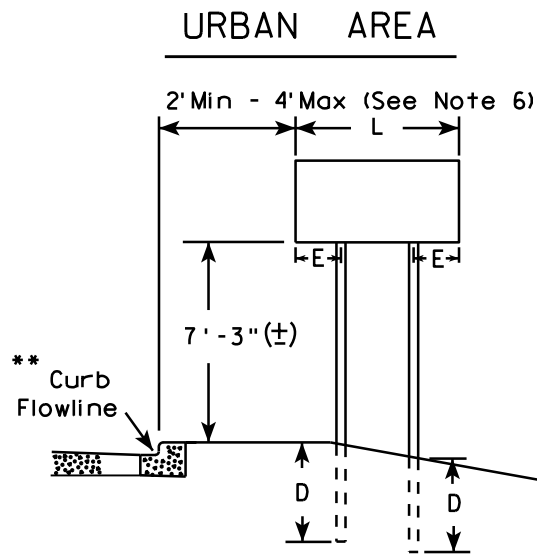
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/29/14 PLATE NO. A4-4.13

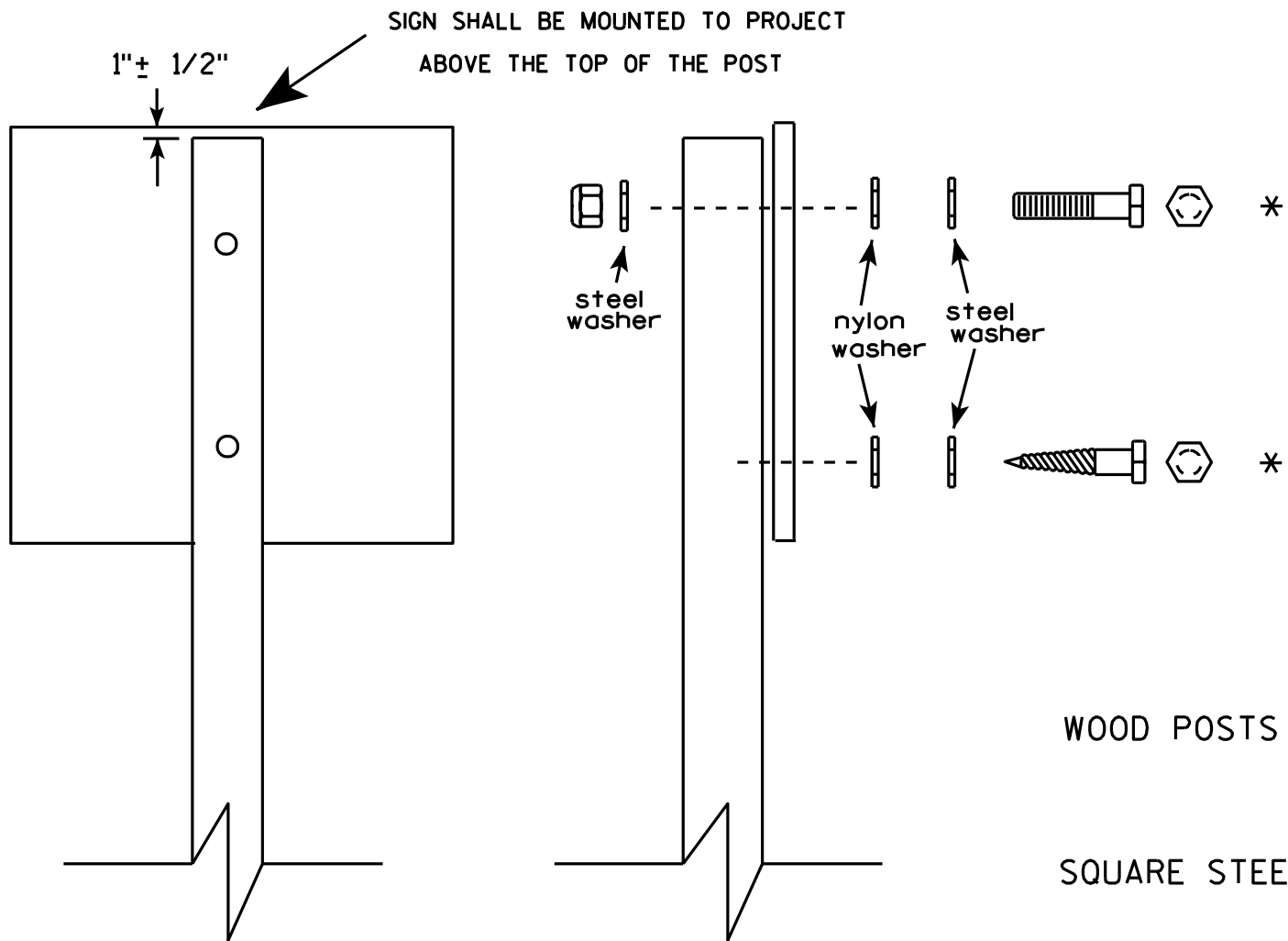
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

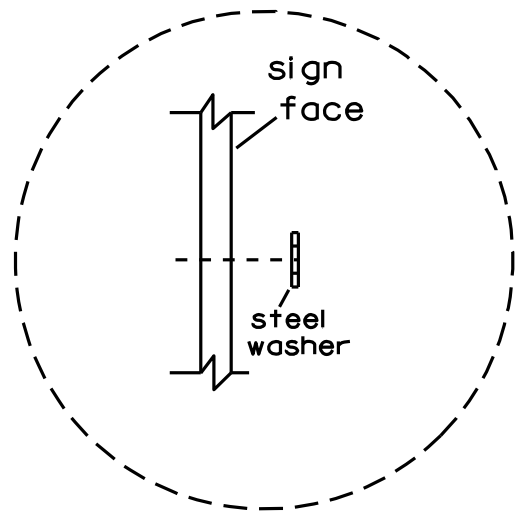


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
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 for all Type H signs.



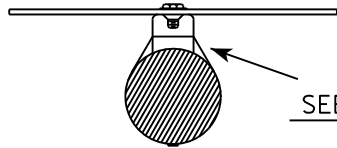
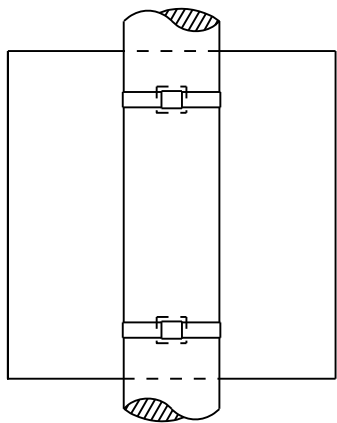
Washer Placement when Sign Has Other Than Type H or Type F Face

* 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

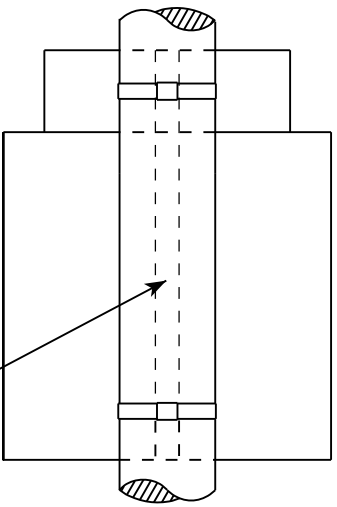
BANDING

SINGLE SIGN

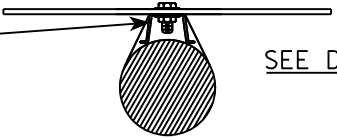


SEE DETAIL A

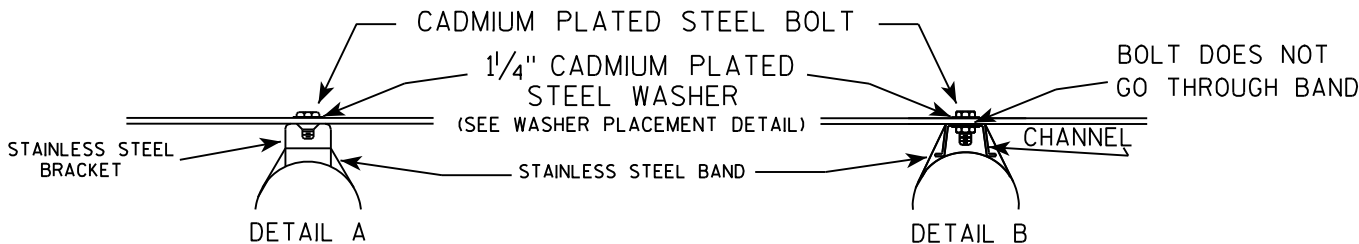
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



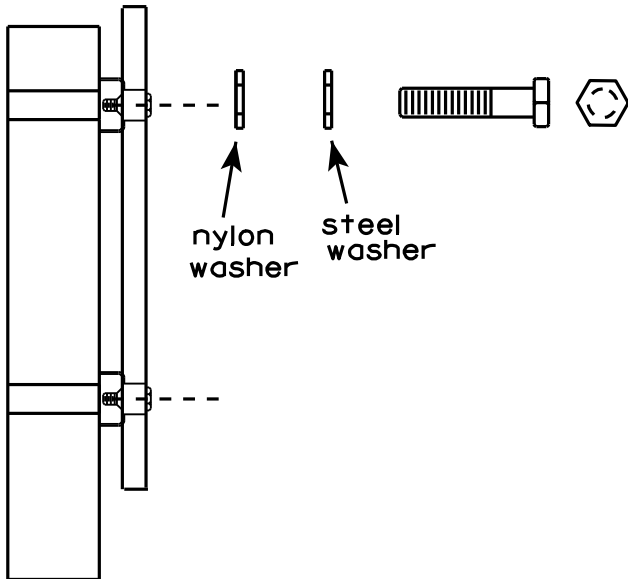
SEE DETAIL B



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 $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

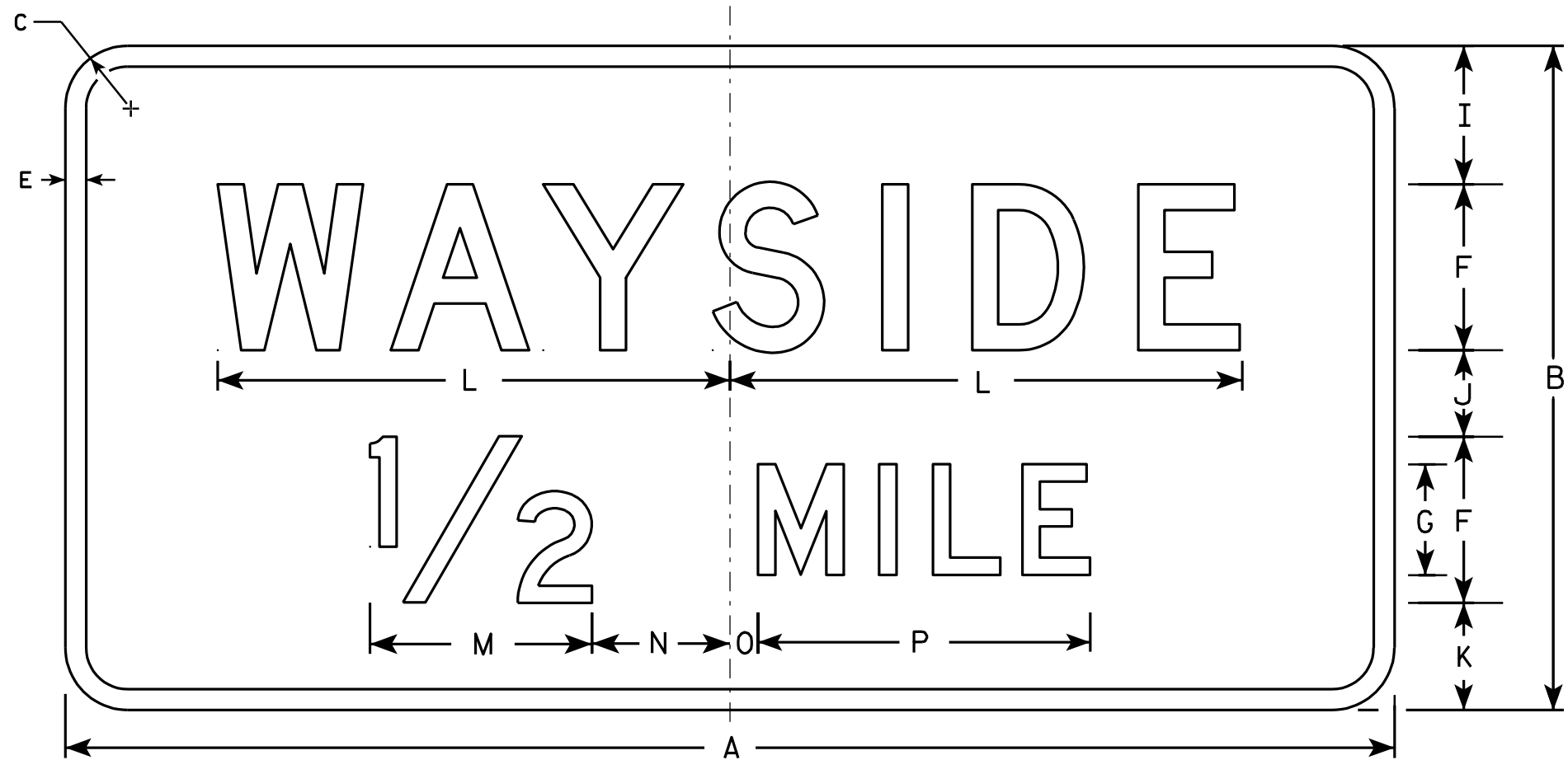
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10,



D5-61

Metric equivalent
for this sign is:

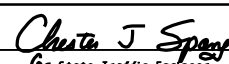
SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z		
1																												
2	48	24	2 1/4		3/4	6	4	6	5	3 1/8	3 7/8	18 1/2	8	5	1	12											8.0	0.72
3																												
4	78	42	3		1	10	7	10 1/2	8 3/4	5 3/4	7	30 1/8	14	8 3/4	1 3/4	21											22.8	2.05
5																												

STATE PROJECT NUMBER:

STANDARD SIGN
D5-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

DATE 1/09/02 PLATE NO. D5-61.9

SHEET NO:

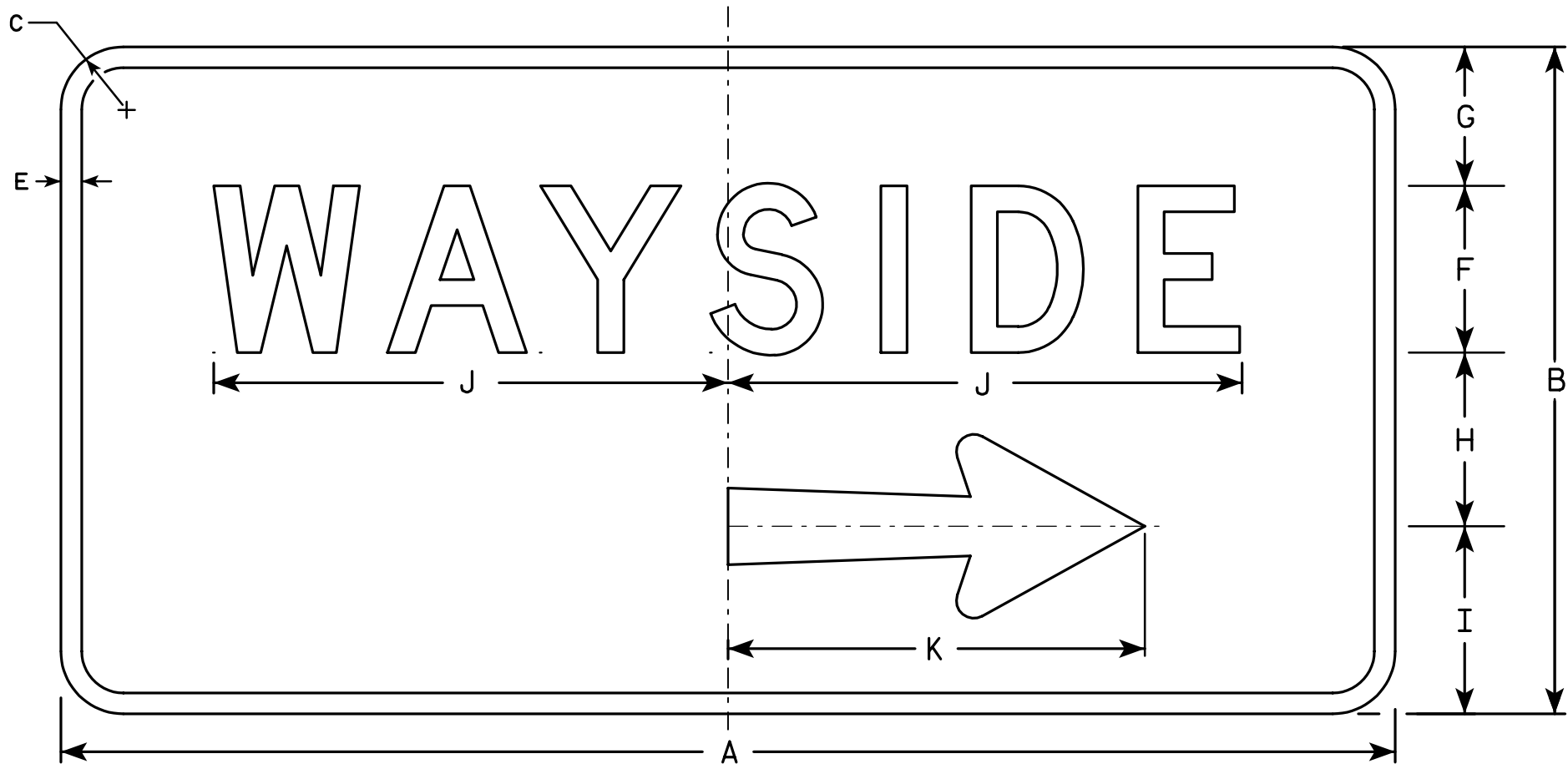
E

- NOTES**
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - Color:
Background - Blue
Message - White
 - Message Series - D
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 14, 10, 14



D5-62R

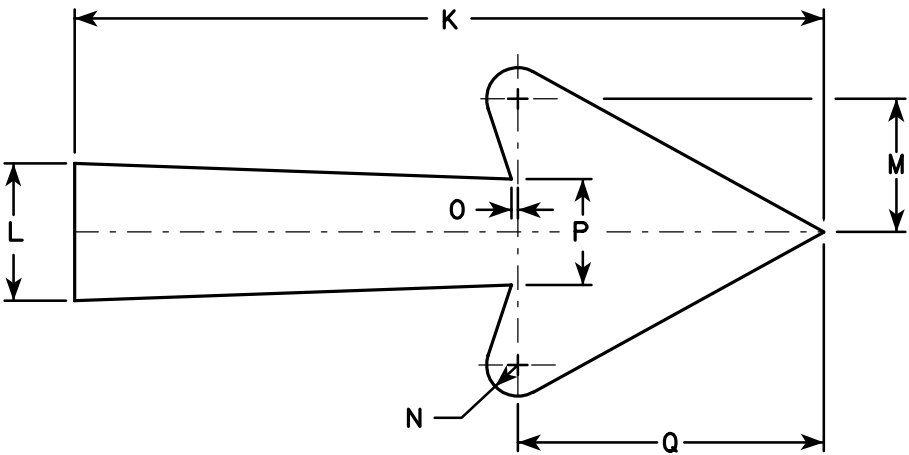
Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 600 mm
3	
4	1950 mm X 1050 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	48	24	2 1/4		3/4	6	4	6 1/4	6 3/4	18 1/2	15	2 3/4	3 1/8	5/8	1/8	2 1/8	6 1/8										8.0	0.72
3																												
4	78	42	3		1	10	8 3/4	11	12 1/4	30 1/8	26 1/4	4 3/4	4 5/8	1 1/8	1/4	3 3/4	10 3/4										22.8	2.05
5																												

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Blue
Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-62L is the same as D5-62R except that the arrow is rotated 180° about the vertical center line.



Arrow Detail

STANDARD SIGN
D5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Christa J. Spang
for State Traffic Engineer

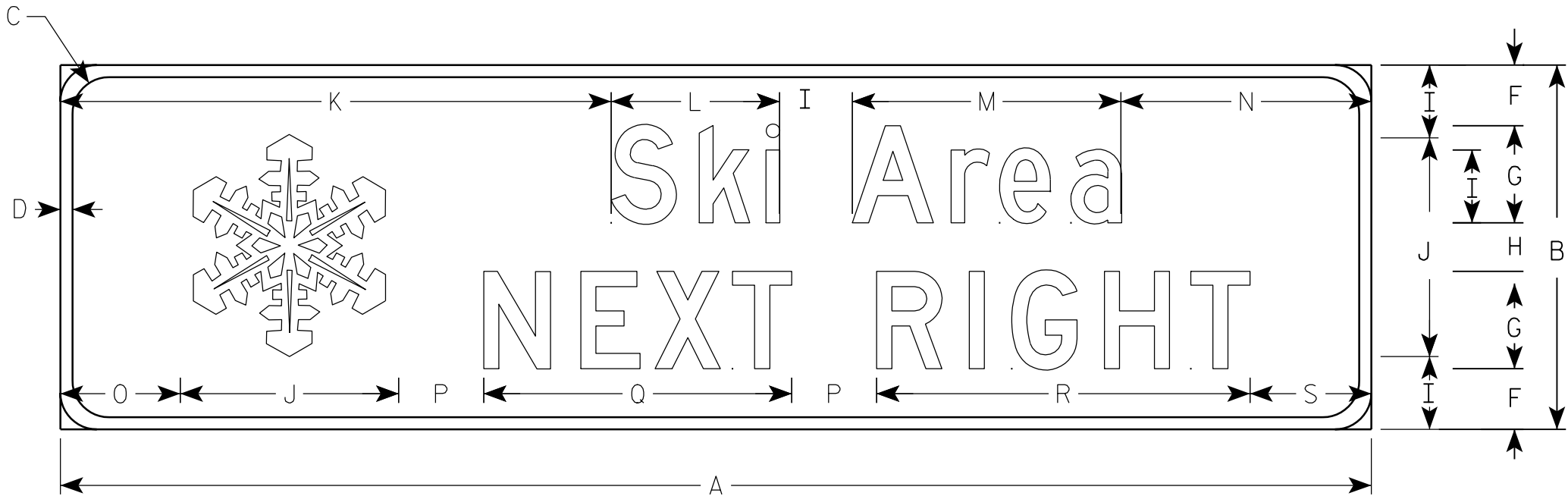
DATE 1/09/02

PLATE NO. D5-62.10

STATE PROJECT NUMBER:

SHEET NO:

E



D7-81

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - BROWN
Message - WHITE
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

Metric equivalent
for this sign is:

SIZE	
1	
2	2700 mm X 750 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	108	30	3	1		5	8	4	6	18	45 ³ / ₈	13 ⁷ / ₈	22 ¹ / ₈	20 ⁵ / ₈	9 ⁷ / ₈	7	25 ³ / ₈	30 ³ / ₄	10								22.5	2.0
3																												
4																												
5																												

PROJECT NO:

STANDARD SIGN
D7-81

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

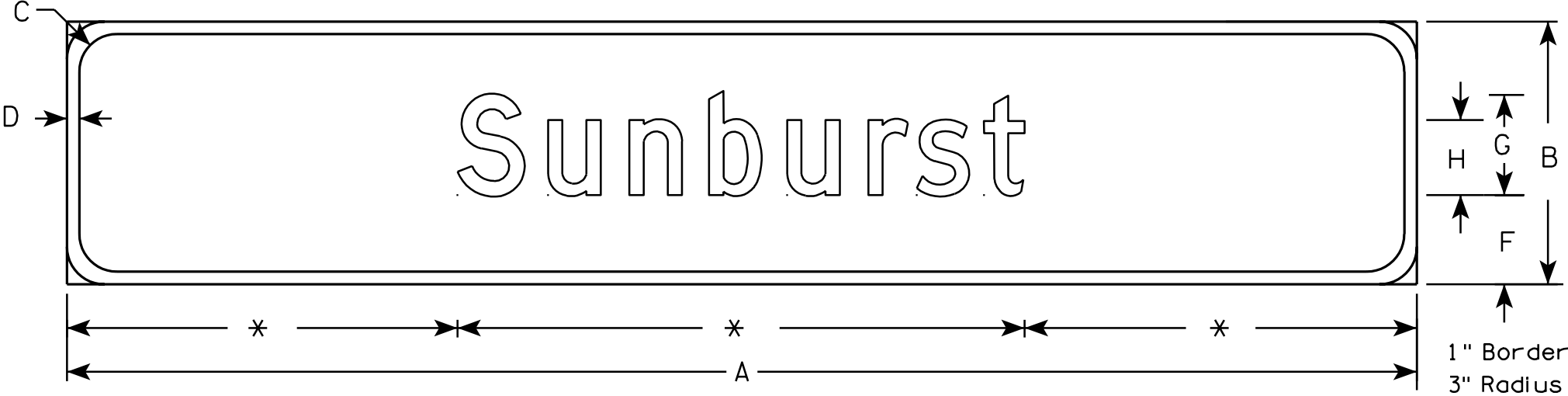
DATE 10/03/05 PLATE NO. D7-81.1

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - BROWN
Message - WHITE
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



D7-81A

* VARIES

Metric equivalent
for this sign is:

SIZE	
1	
2	2700 mm X 525 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	108	21	3	1		7 1/8	8	6																			15.7	1.41
3																												
4																												
5																												

STANDARD SIGN
D7-81A

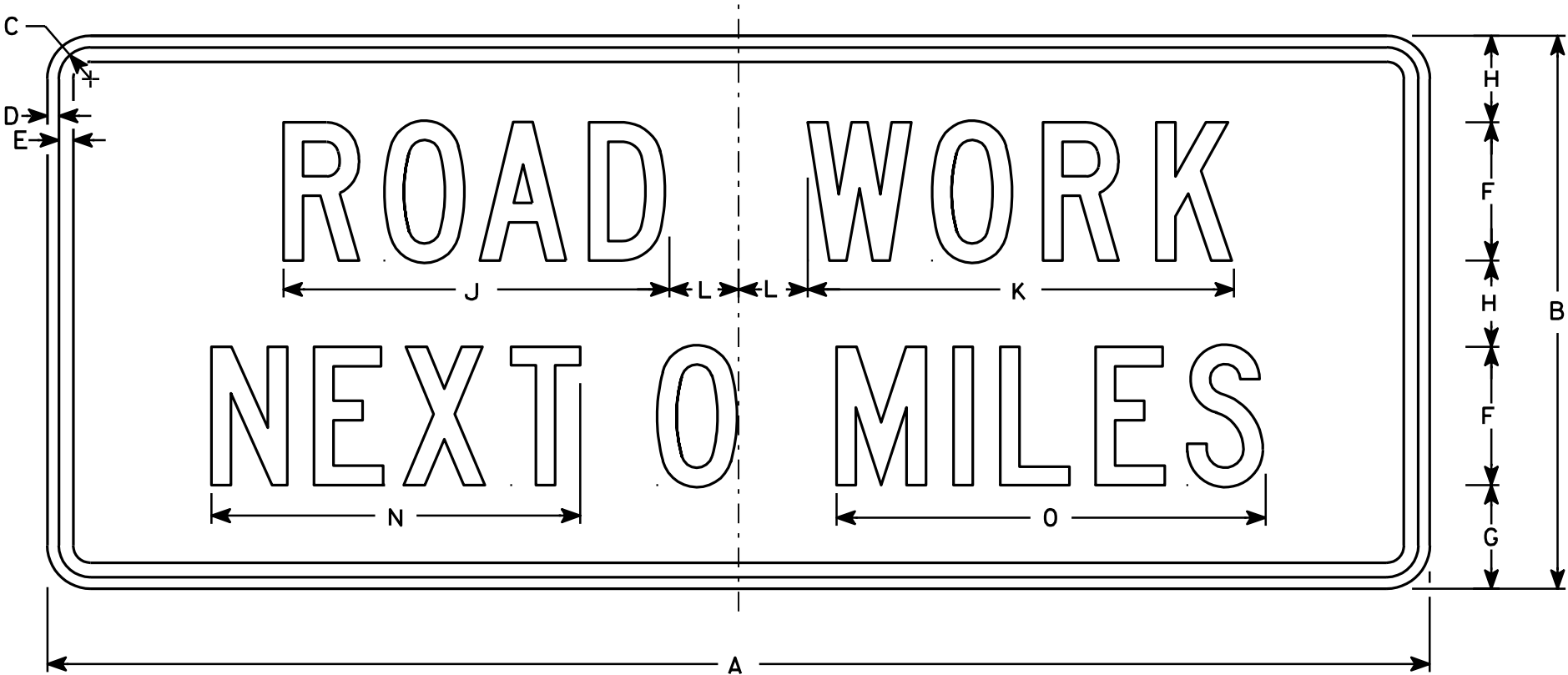
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 10/03/05 PLATE NO. D7-81A.1

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-1

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

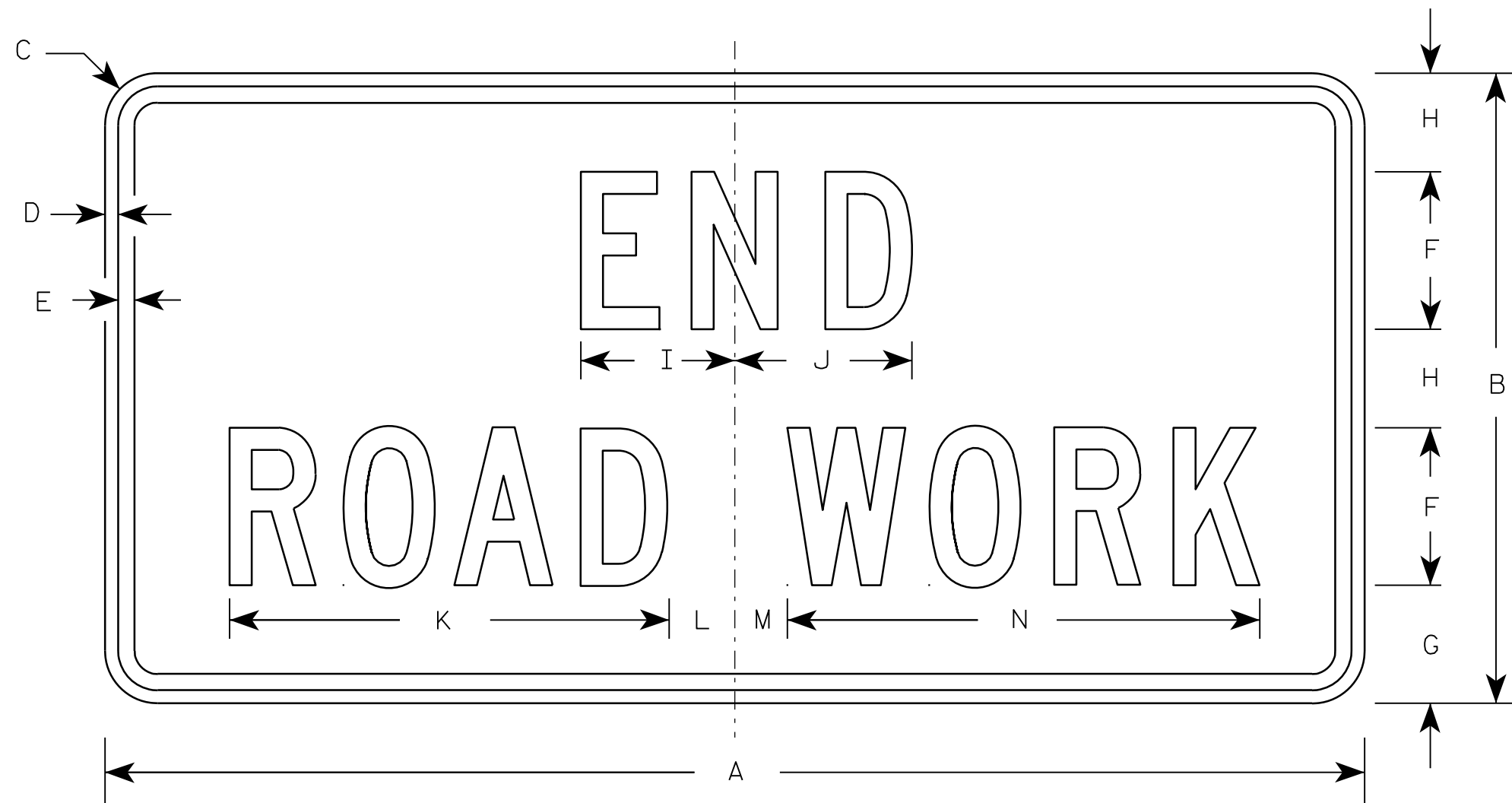
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chris J. Spay
State Traffic Engineer
DATE 4/8/97 PLATE NO. G20-1.7

7



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

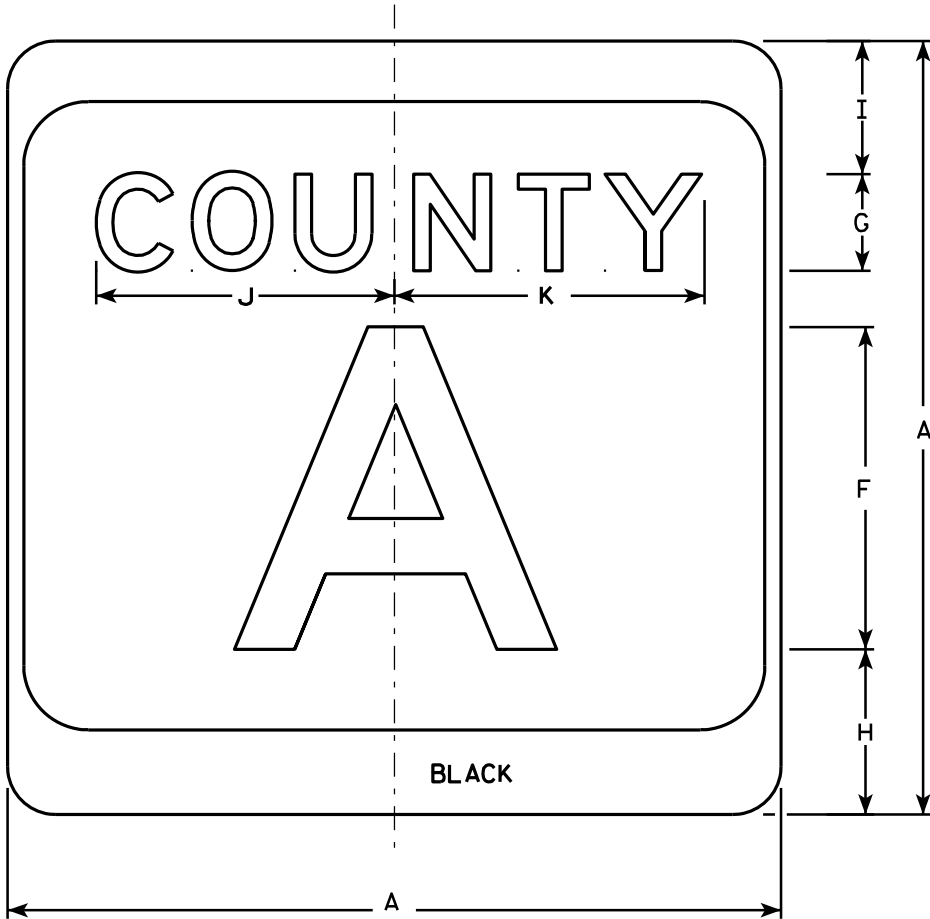
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

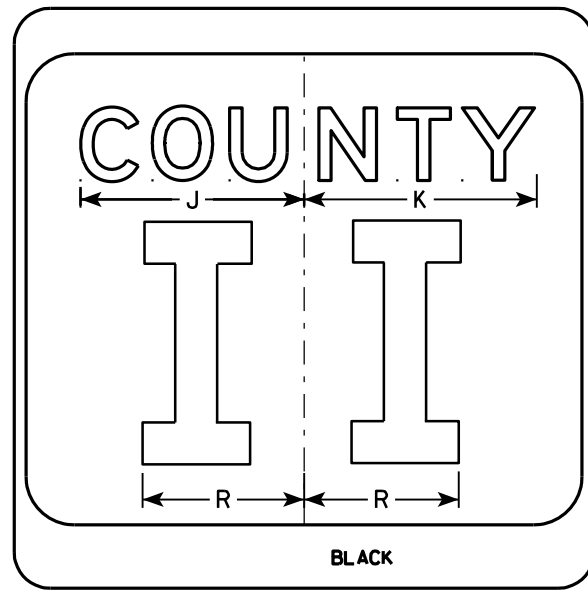
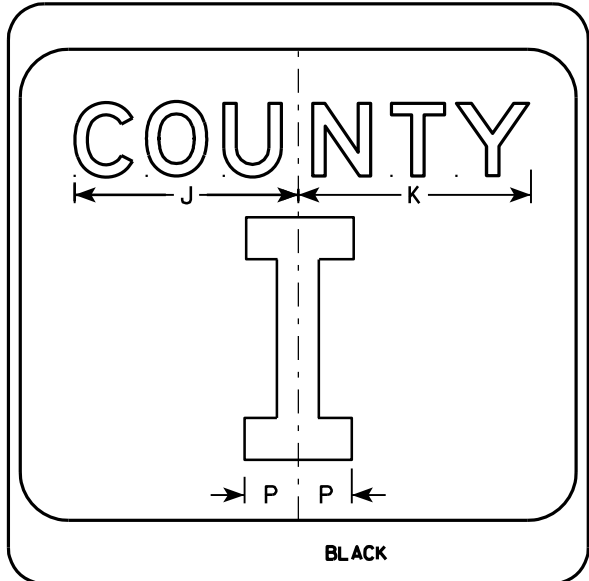
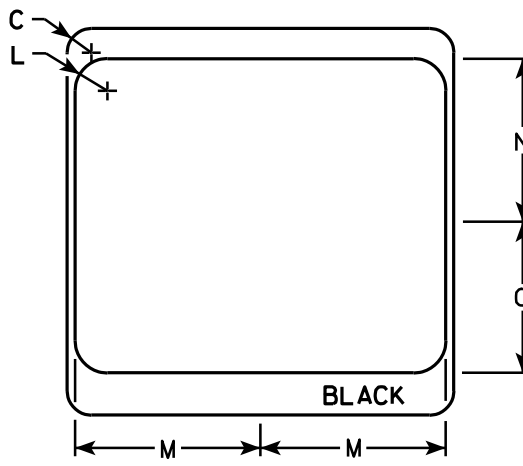
DATE 9/30/09 PLATE NO. G20-2A.8

7

7



M1-5A



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

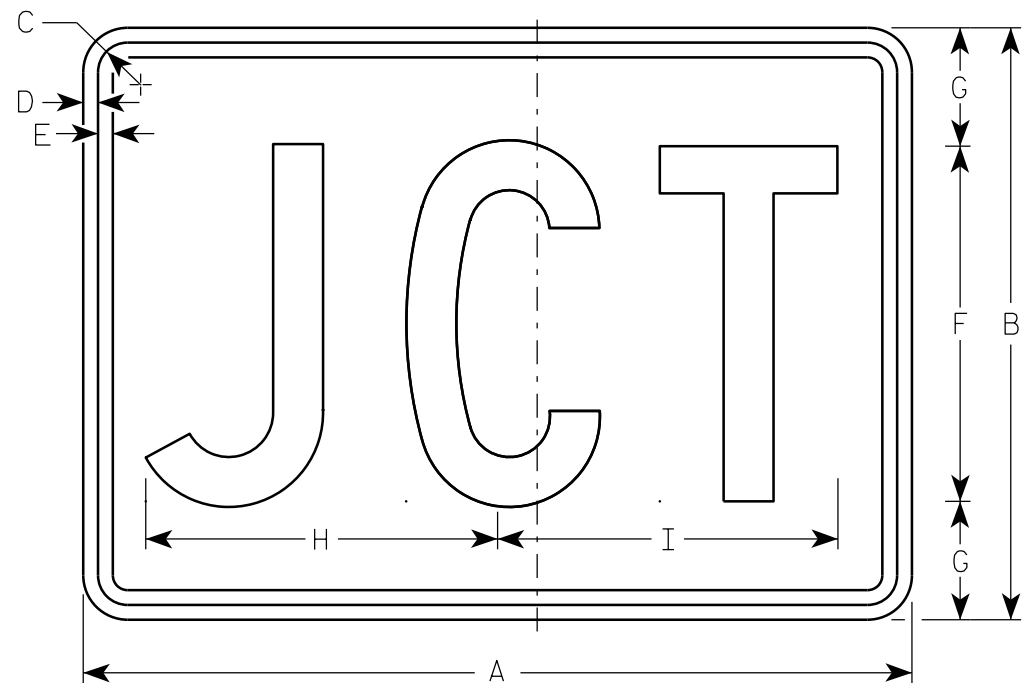
CTH MARKER

M1-5A FOR ASSEMBLIES

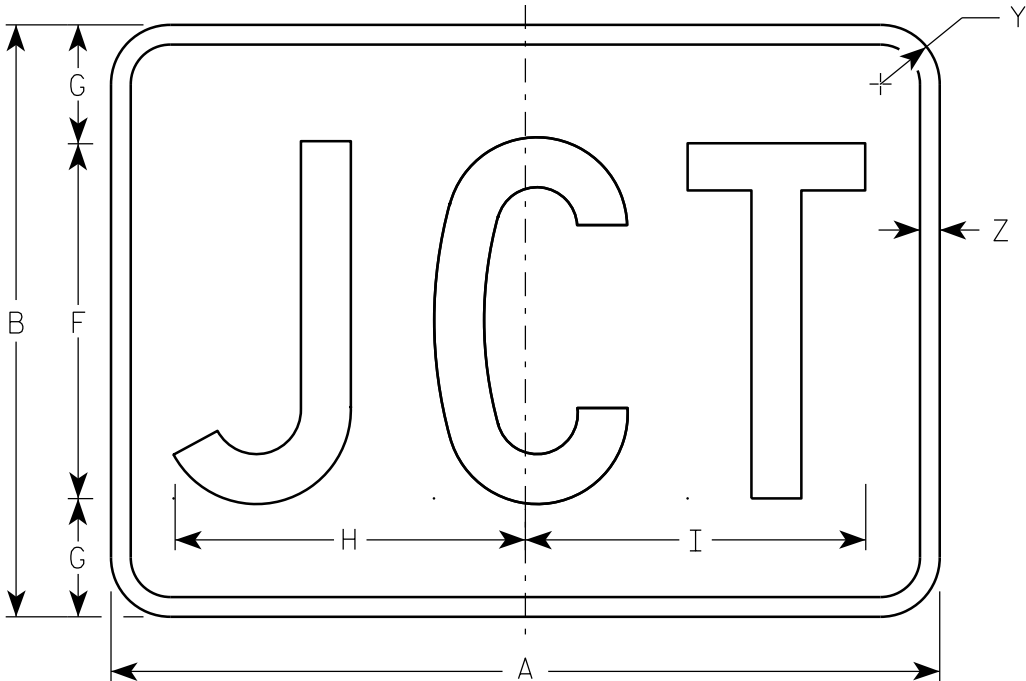
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

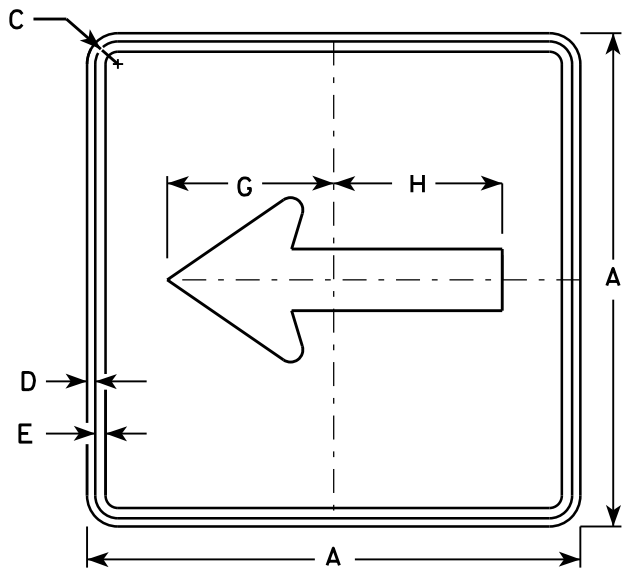
APPROVED

Matthew R. Rauch

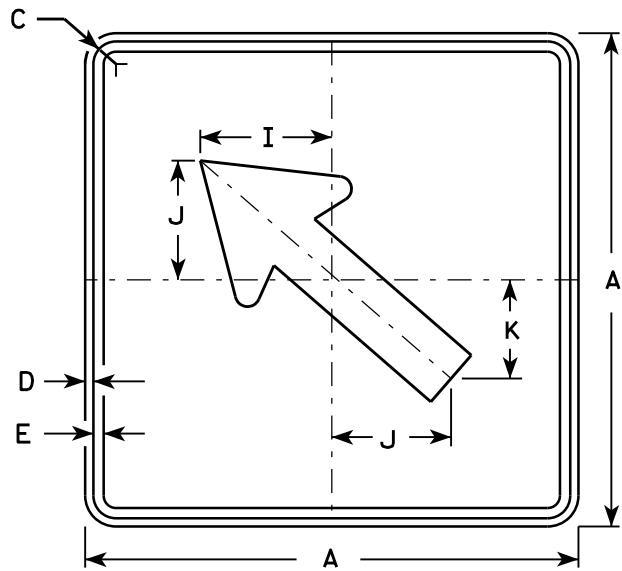
For State Traffic Engineer

DATE 6/30/14

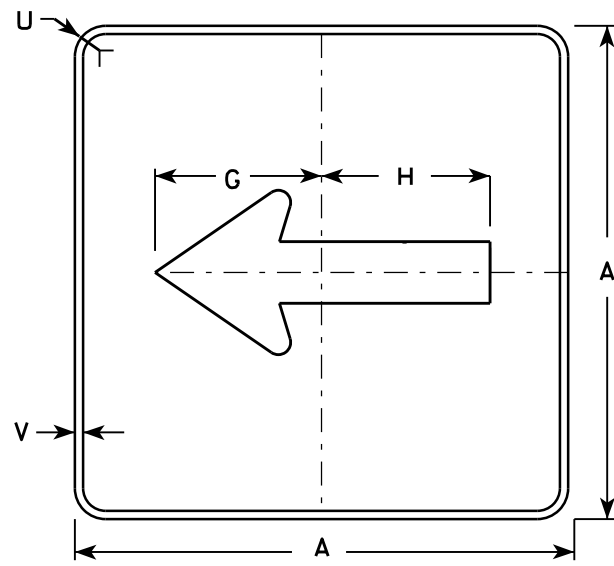
PLATE NO. M2-1.11



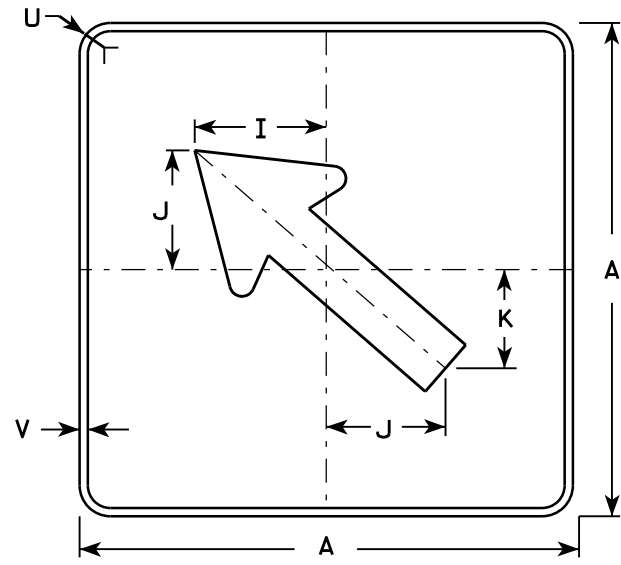
M6 - 1
MK6 - 1
MM6 - 1
MN6 - 1
M06 - 1
MP6 - 1
MR6 - 1



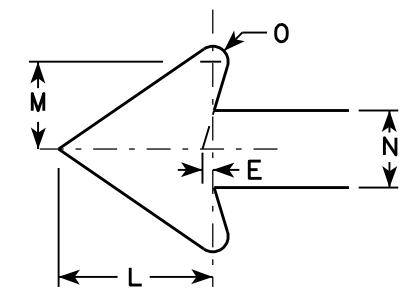
M6 - 2
MK6 - 2
MM6 - 2
MN6 - 2
M06 - 2
MP6 - 2
MR6 - 2



MB6 - 1



MB6 - 2



NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
Background - See note 4
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MG6-1 and MG6-2 Background - Green
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

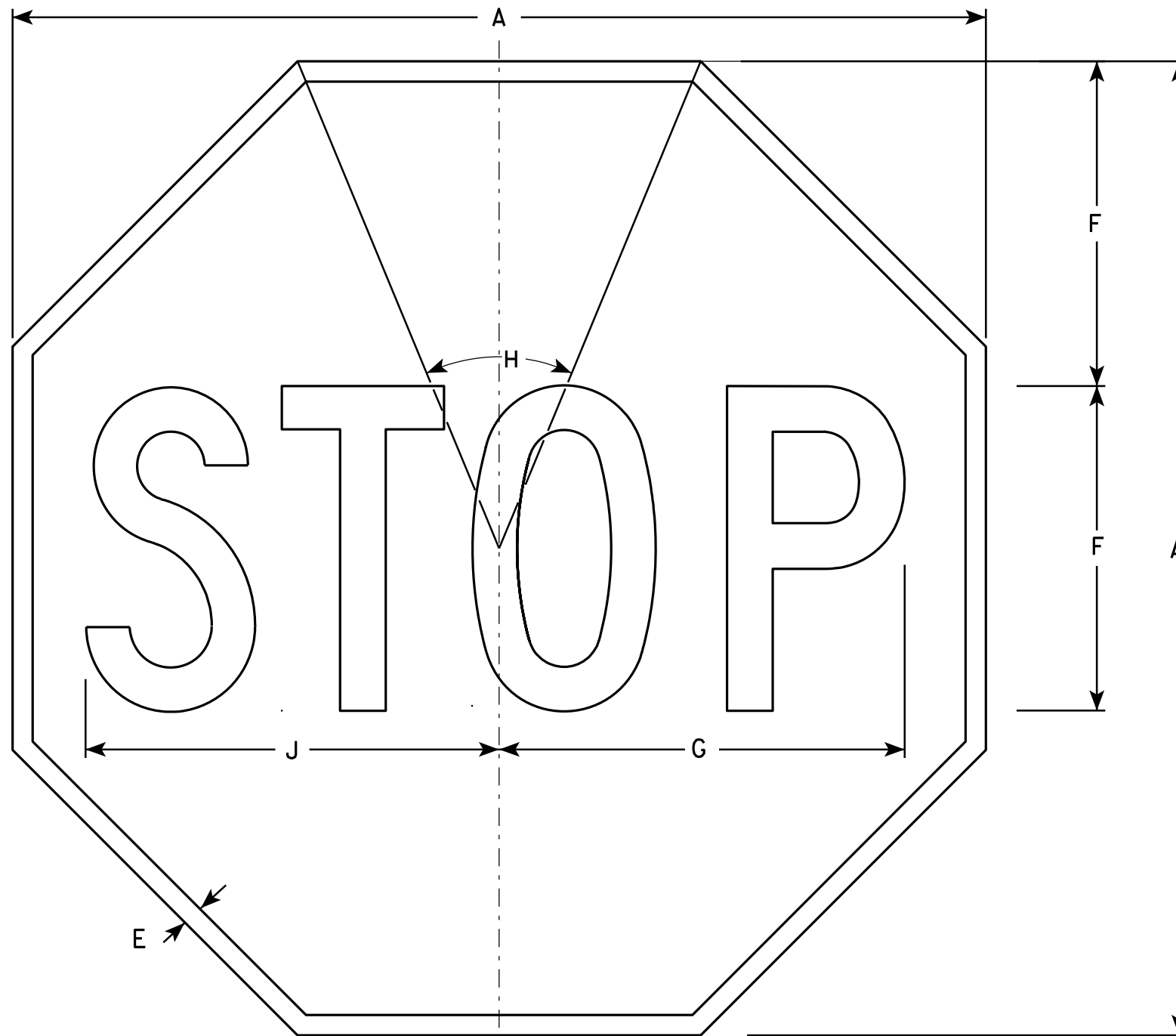
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE NO. M6-1.14



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

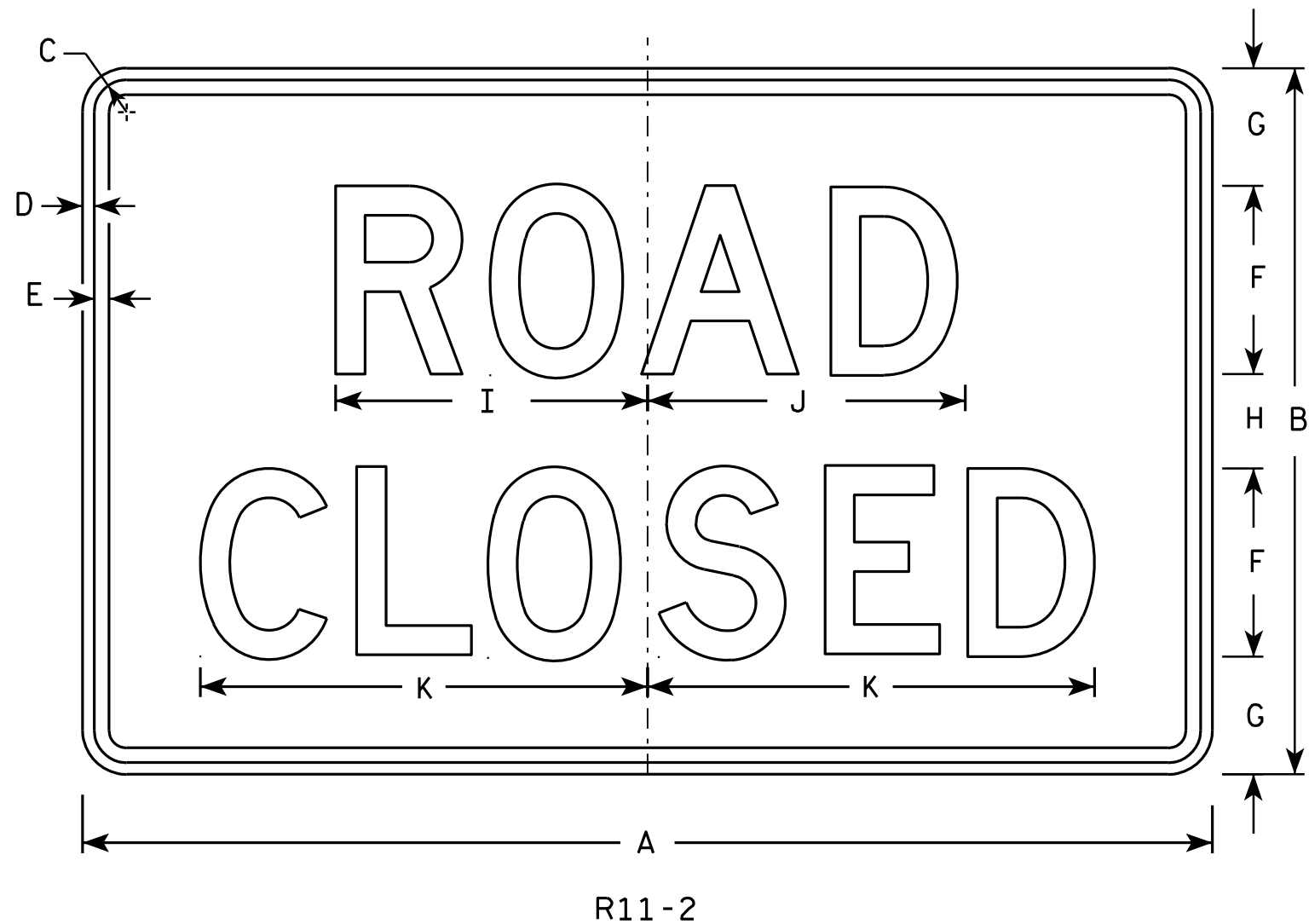
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

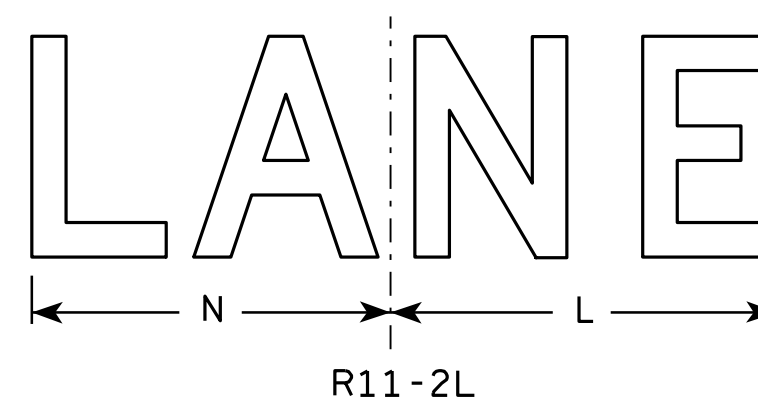
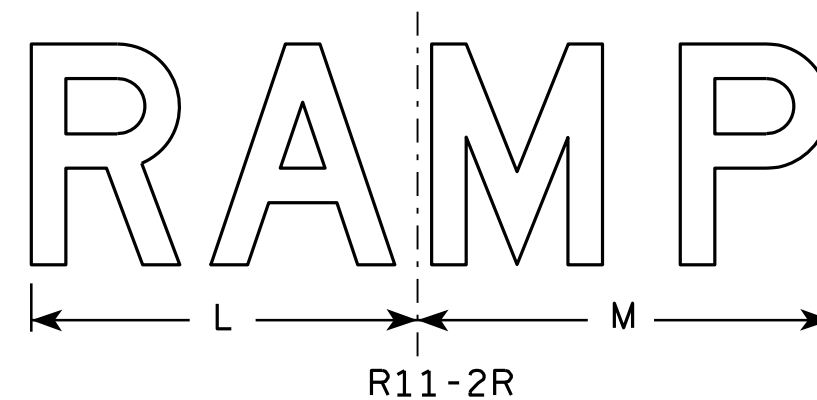
DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

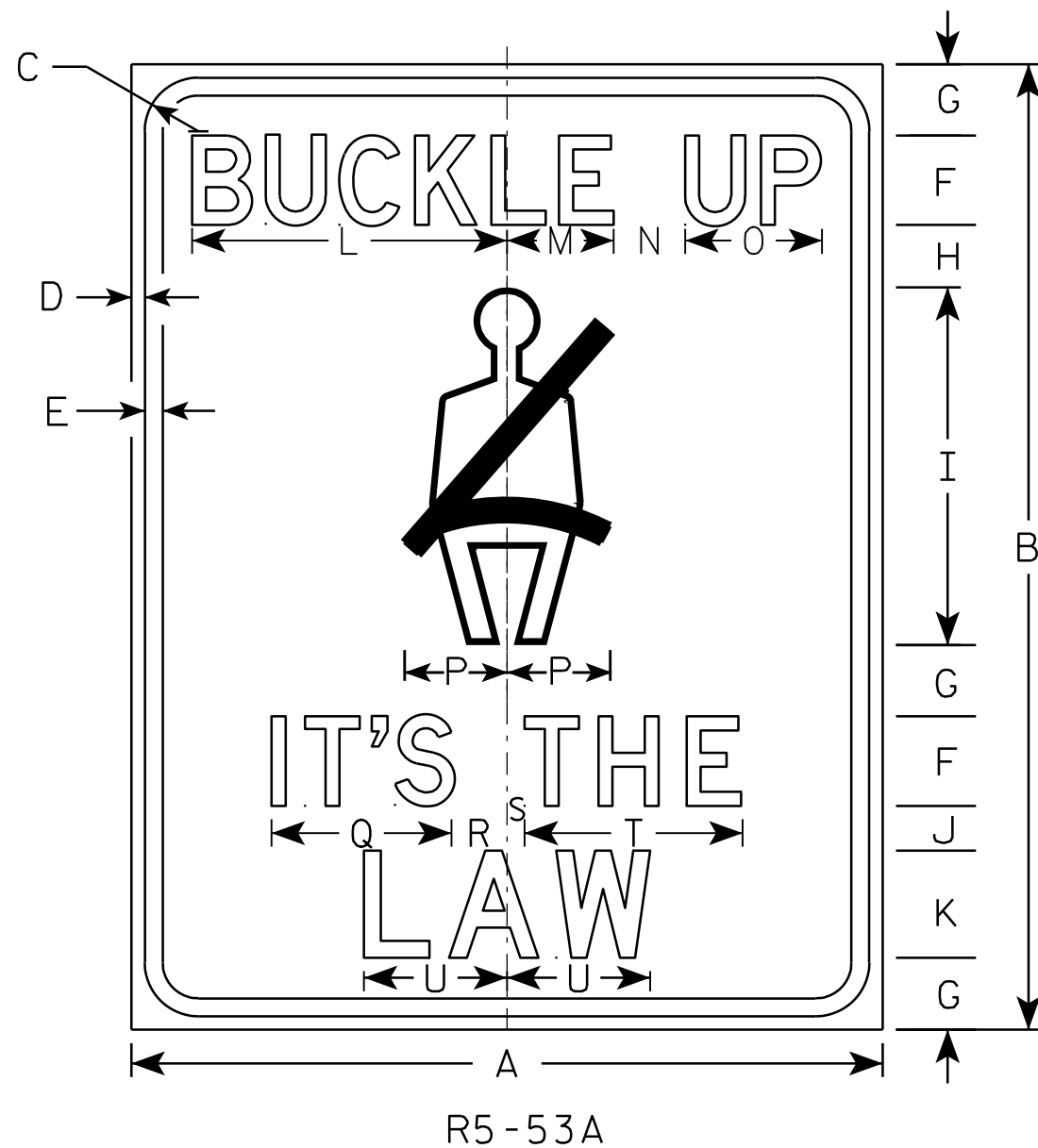


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

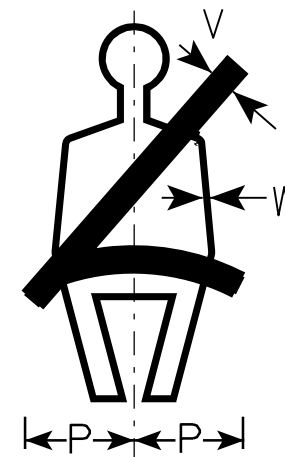
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

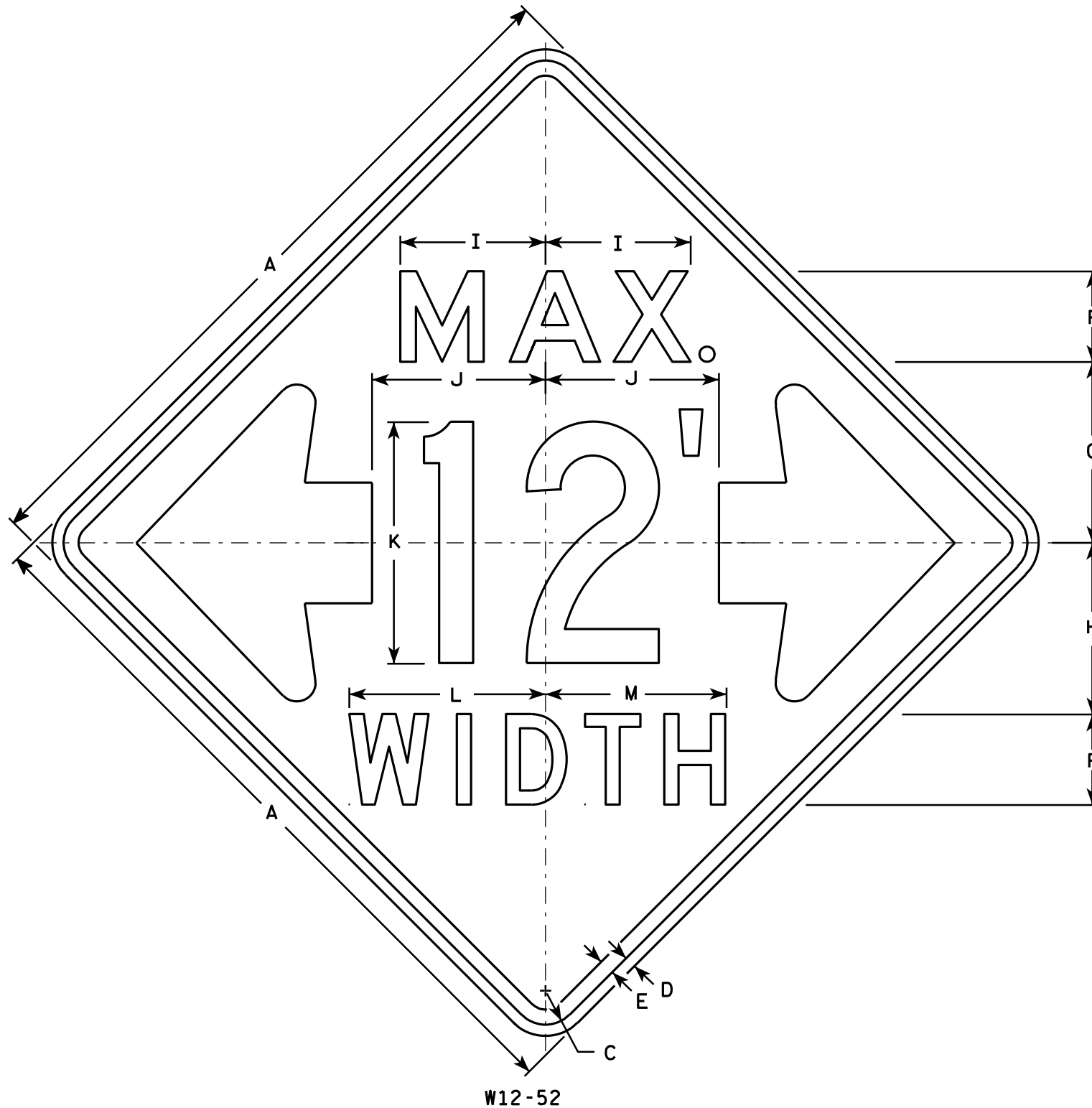
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
2M	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
3																											
4																											
5	42	54	2 1/4	3/4	1	5	4	3 1/2	20	2 1/2	6	17 5/8	6	4	7 5/8	5 3/4	10	3 1/2	1	12 1/4	8	1 1/2	3/8				15.75

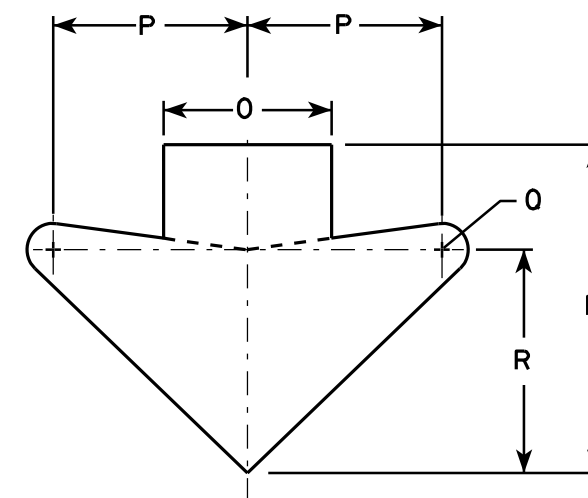
STANDARD SIGN R5-53A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/29/2011	PLATE NO. R5-53A.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---



NOTES

- Sign Is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- The top line is series E, the numerals are series C, and the bottom line is series D.
- Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO:

HWY:

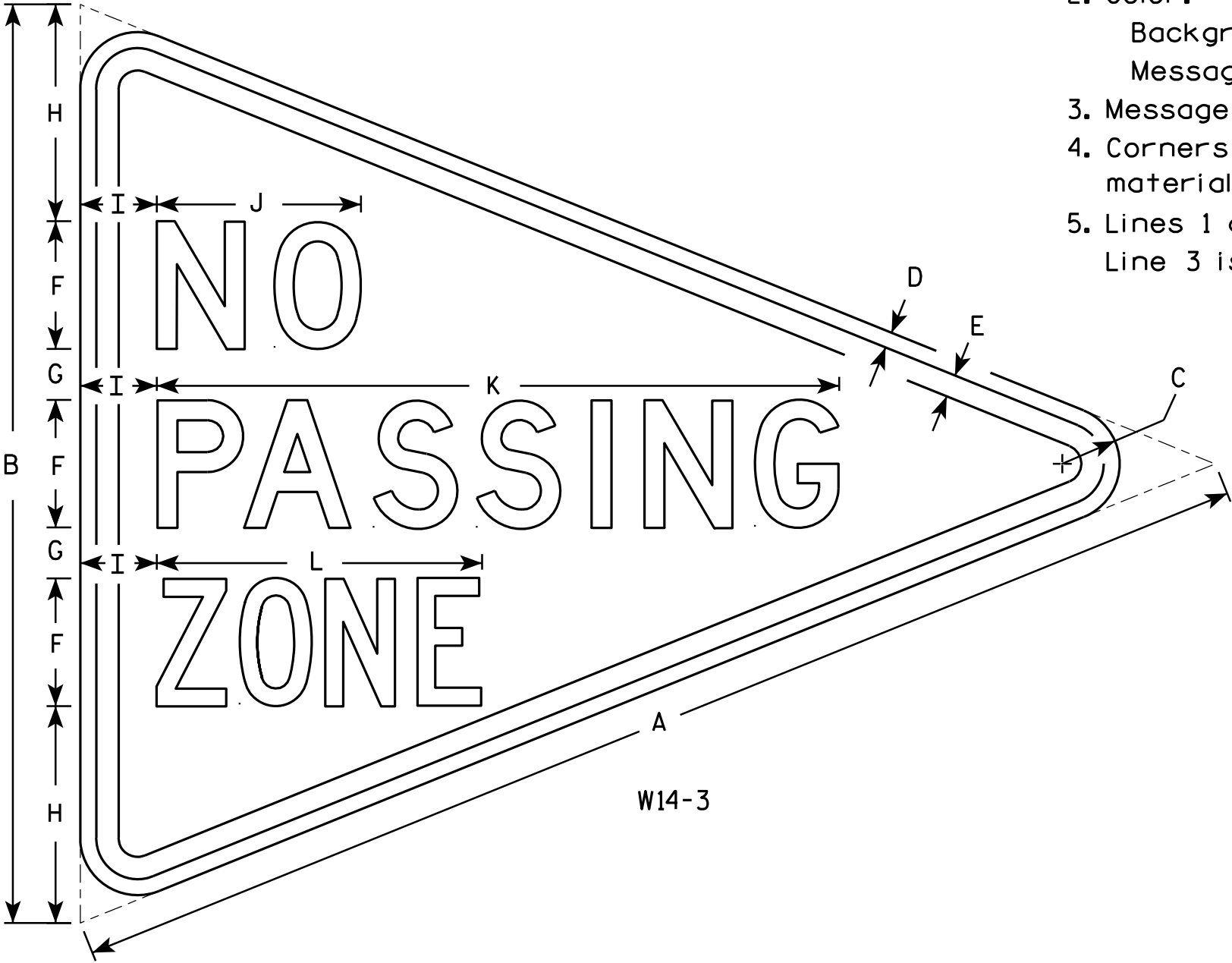
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

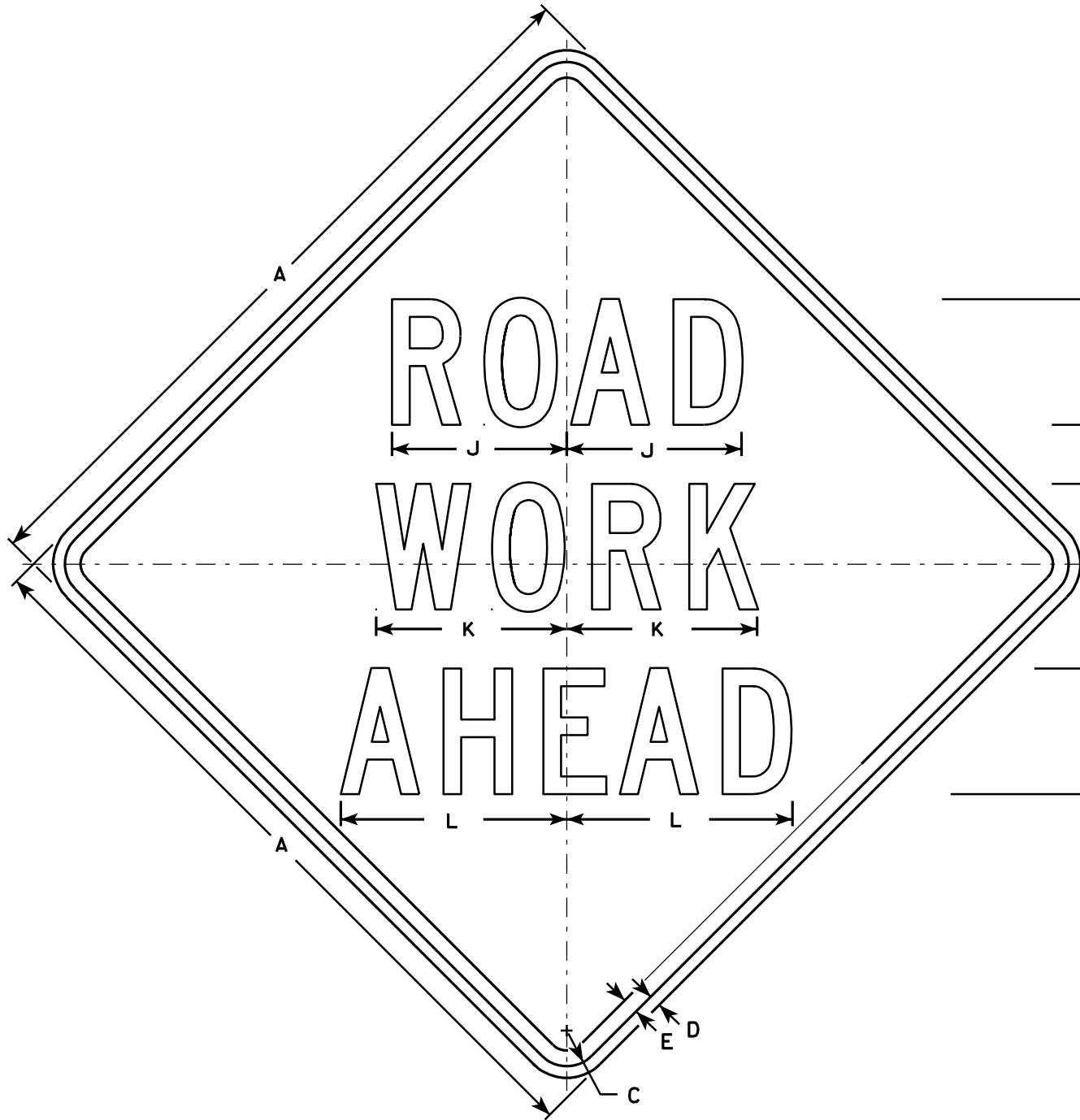
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

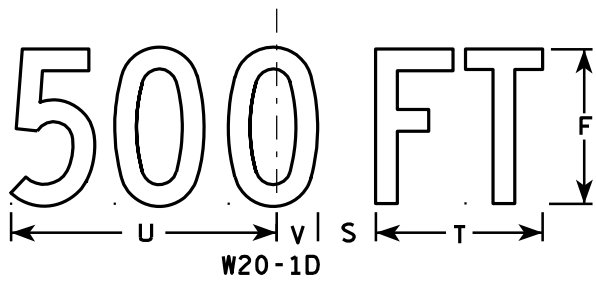
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

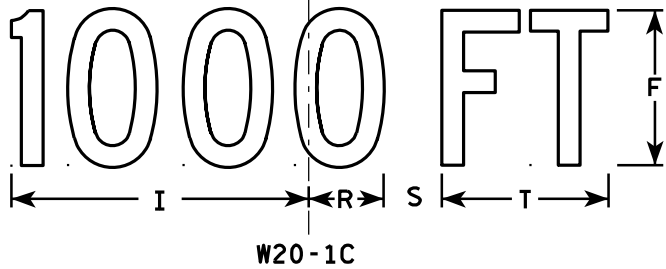
DATE 6/7/10 PLATE NO. W14-3.9



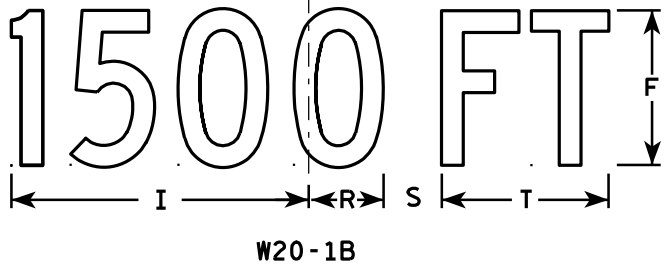
W20-1A



W20-1D



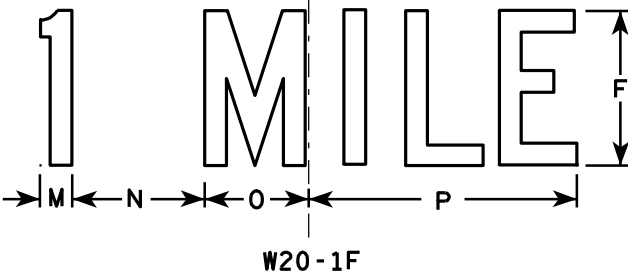
W20-1C



W20-1B



W20-1G



W20-1F

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	1 7/8	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8		3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

PROJECT NO:

SHEET NO:

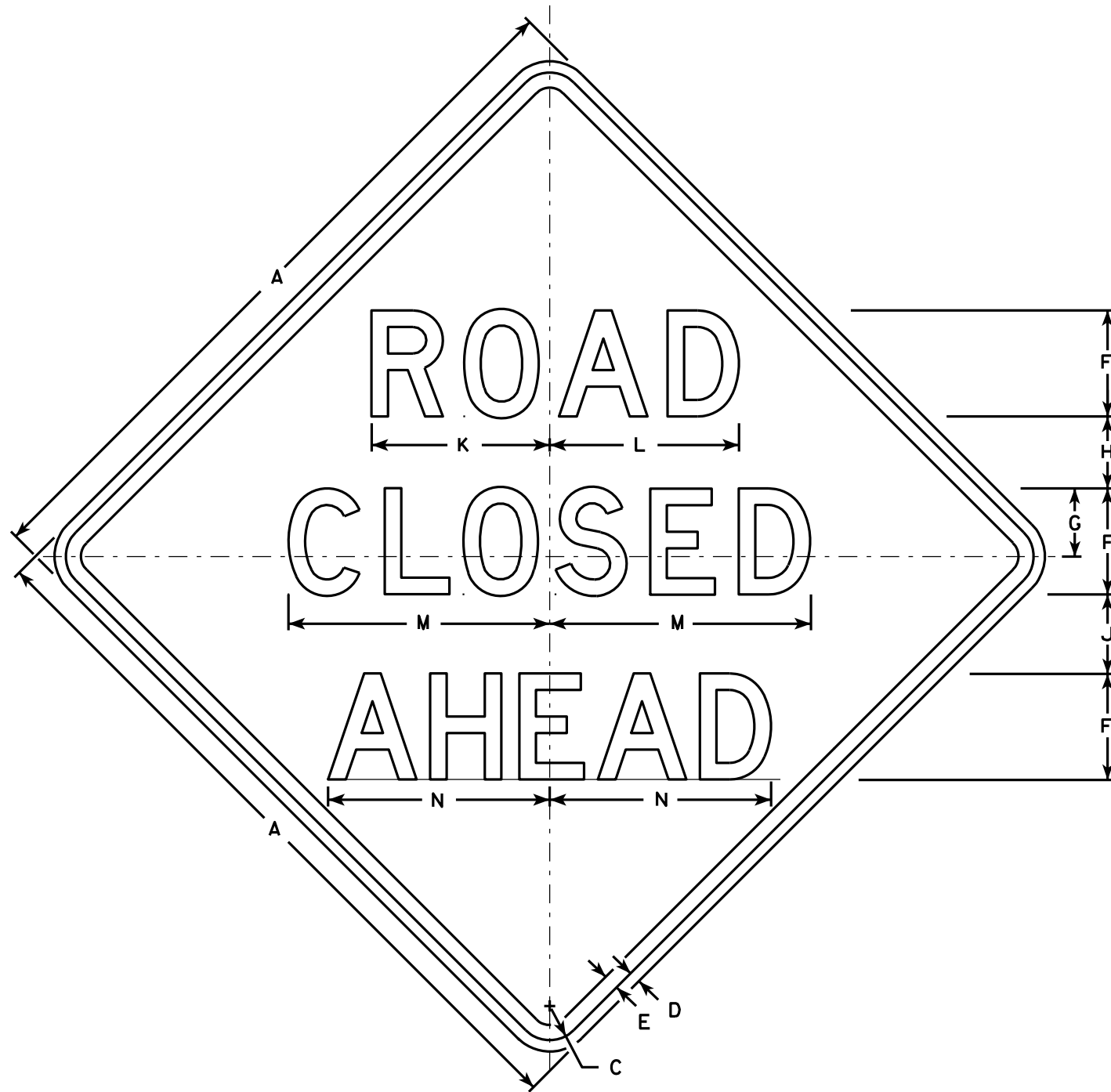
E

STANDARD SIGN
W20-1A, B, C, D, F & G

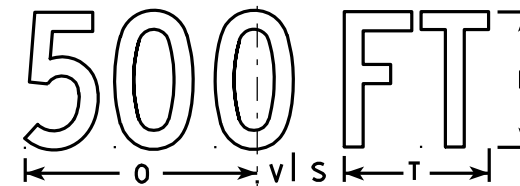
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

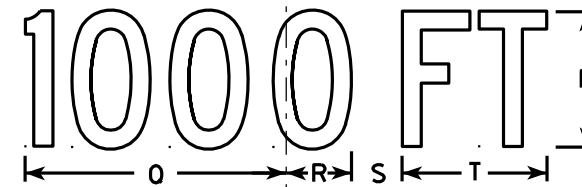
DATE 3/18/11
PLATE NO. W20-1.9



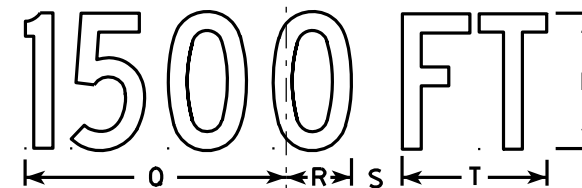
W20-3A



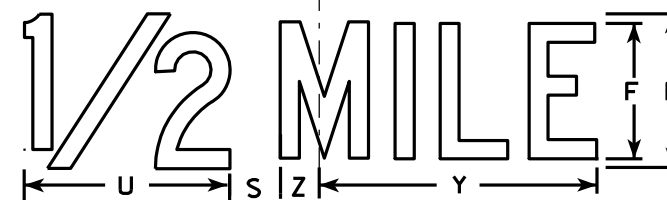
W20-3D



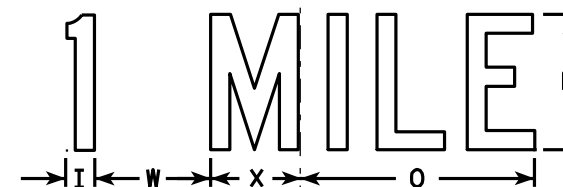
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

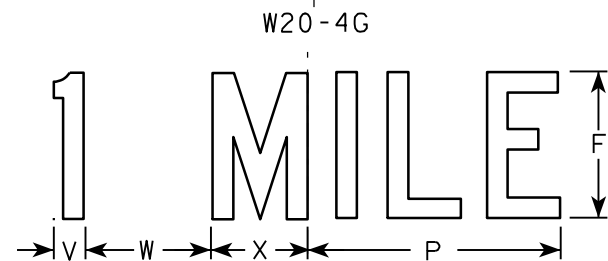
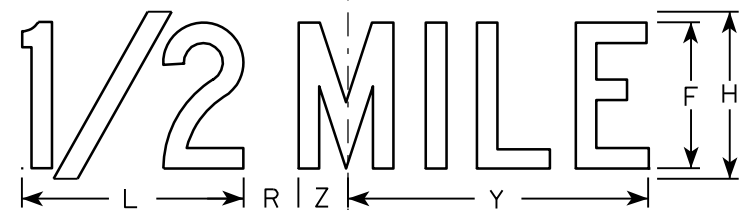
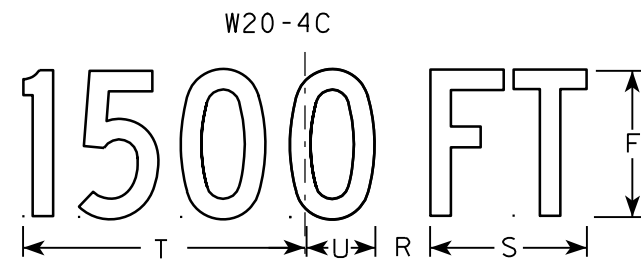
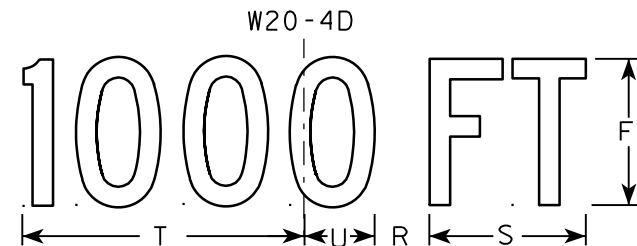
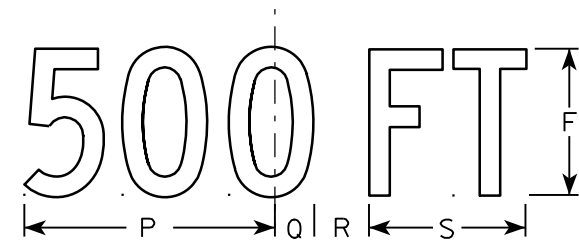
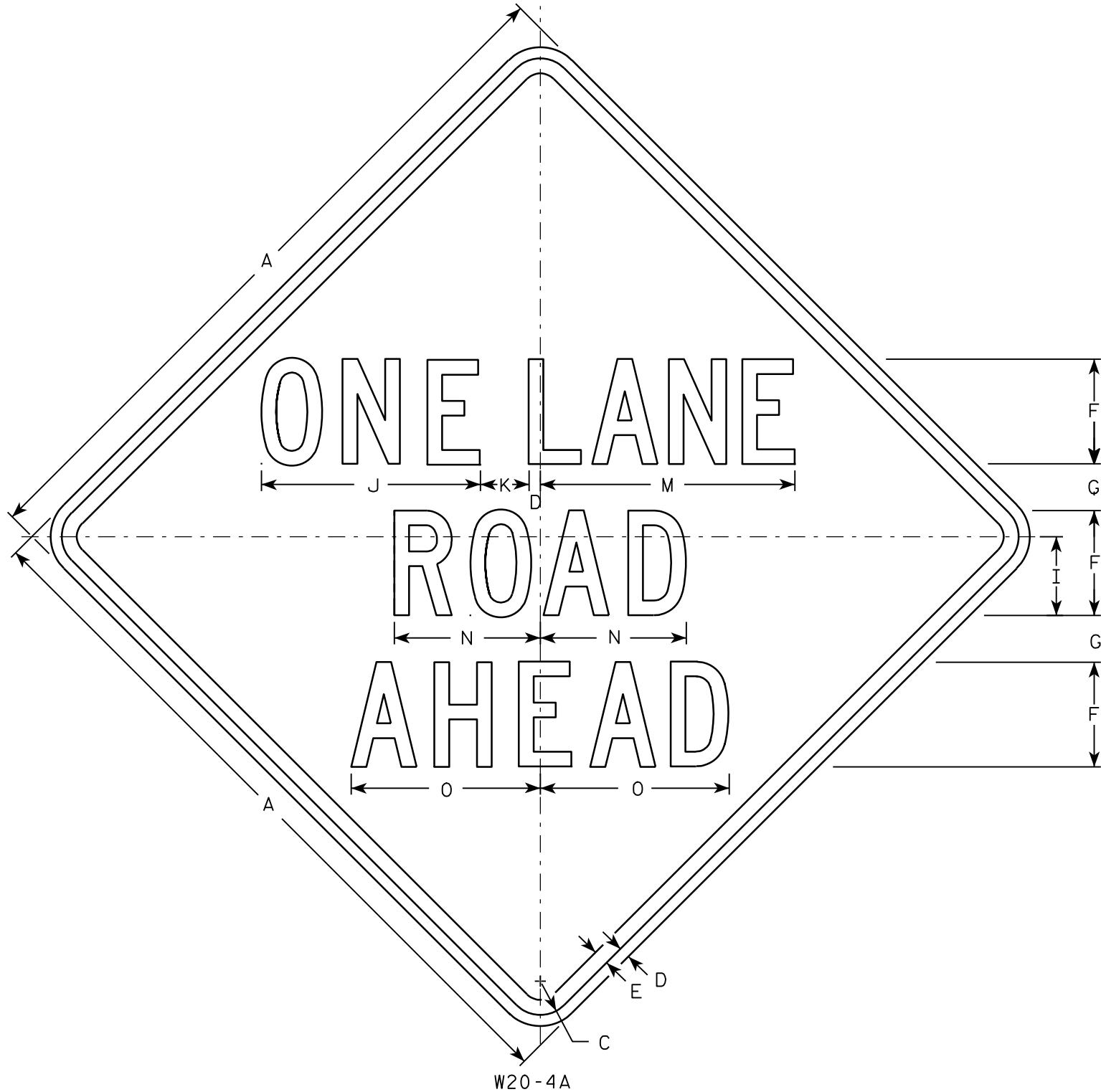
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

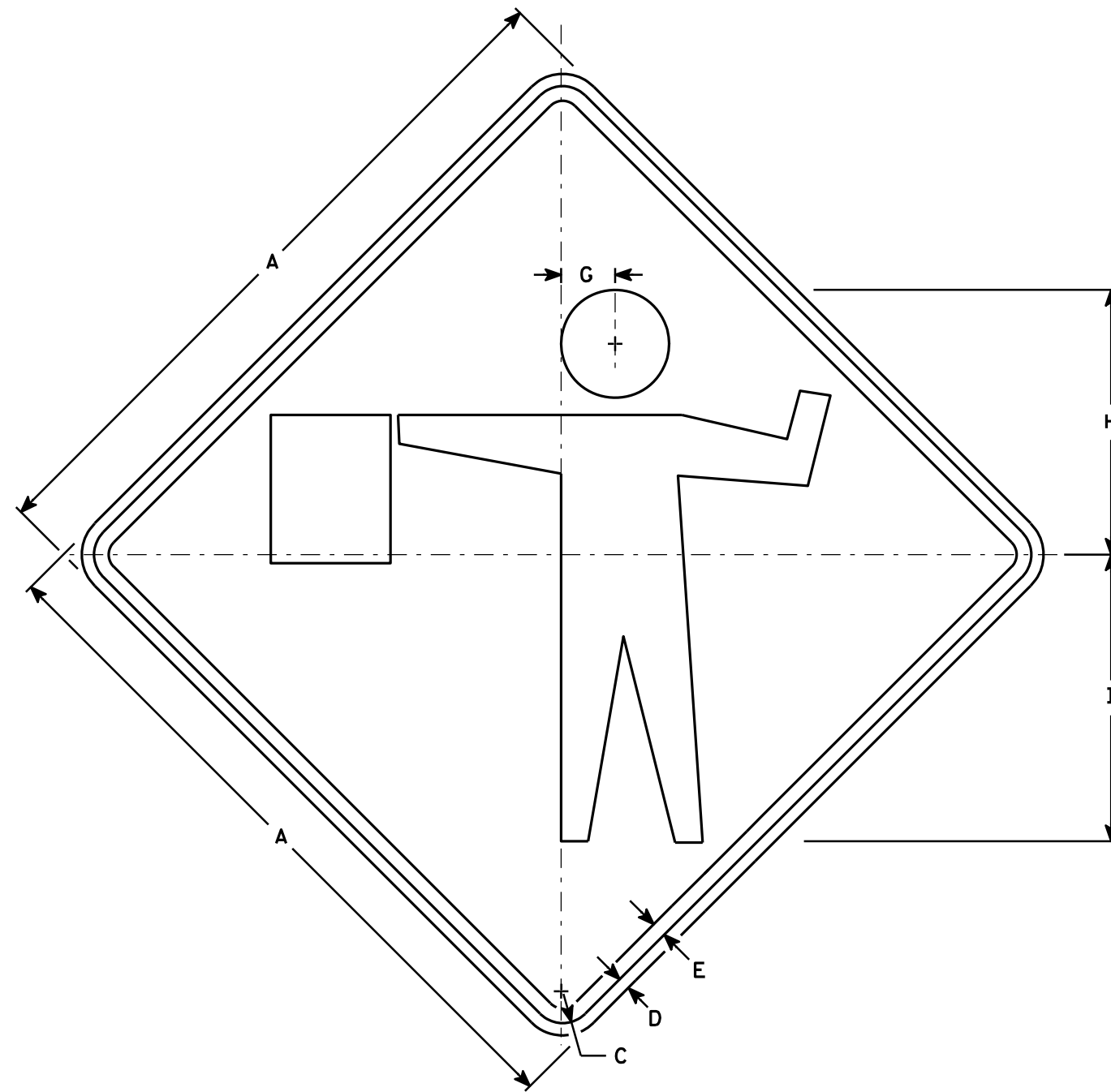
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-4.9



W20-7A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

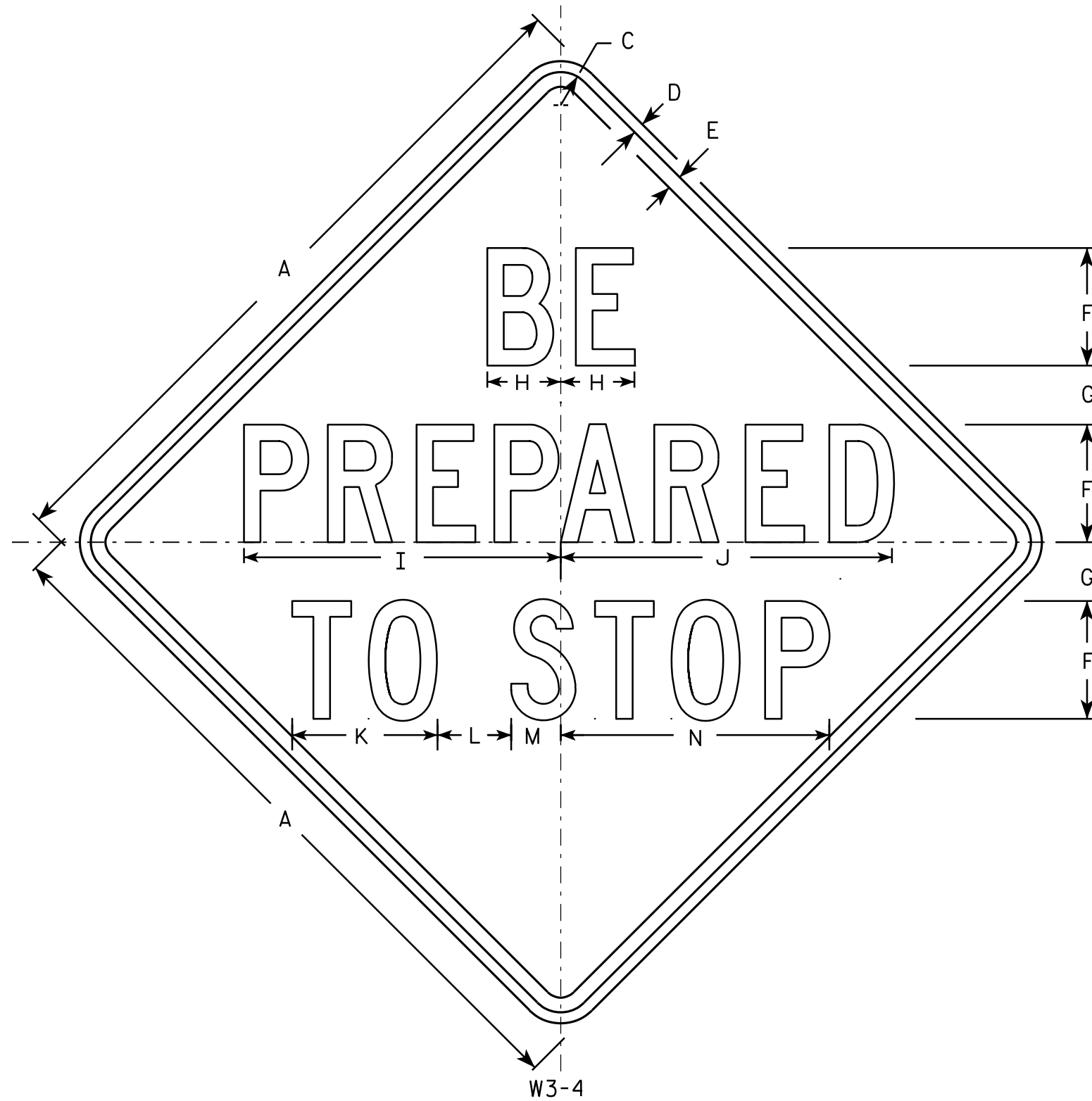
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 1/8	3/8	1/2	5	2 1/8	3 1/8	13 1/4	14 1/8	6 1/8	3 3/8	2	11 1/2													6.25
2S	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2M	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
3	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W3-4.4

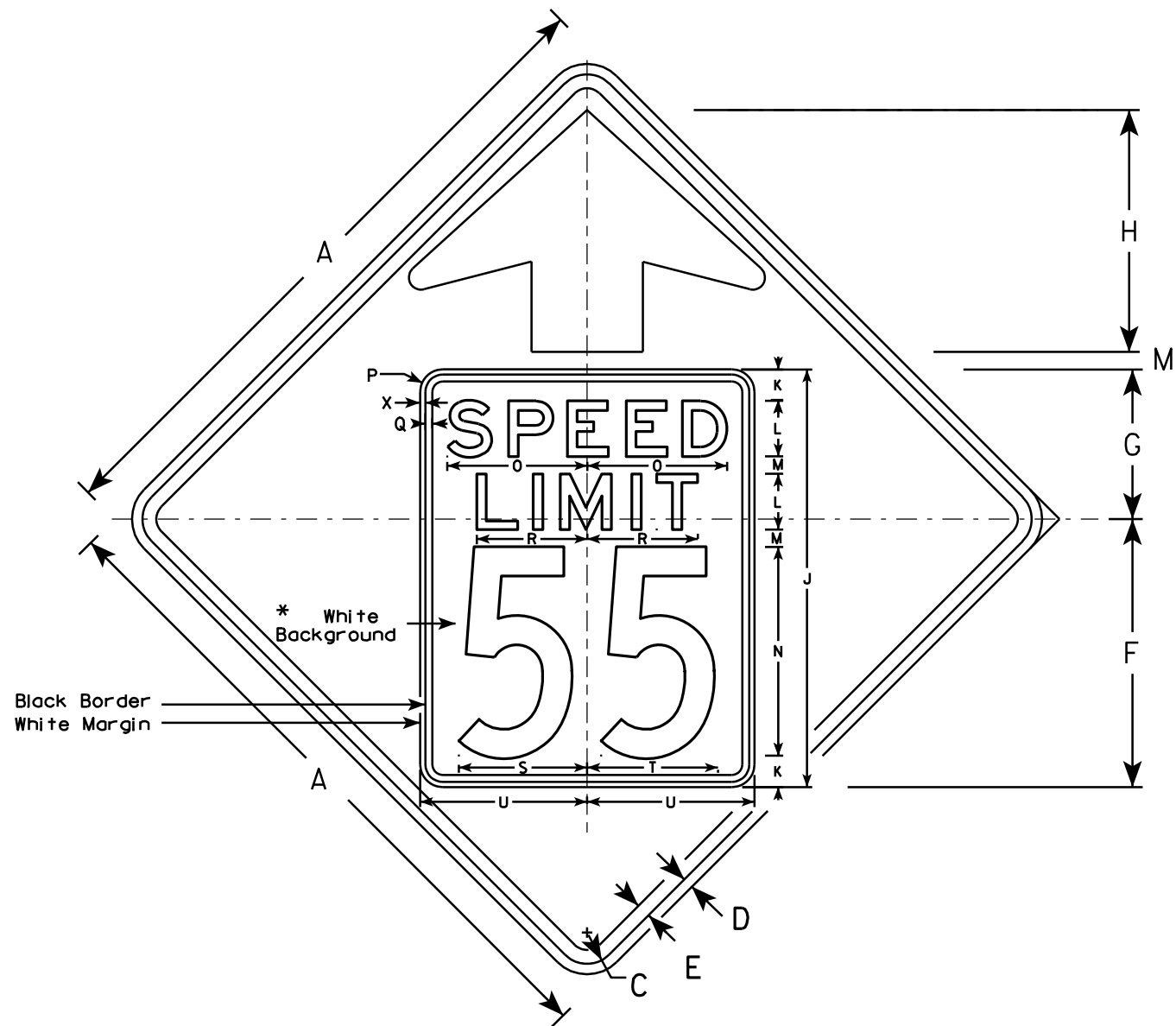
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

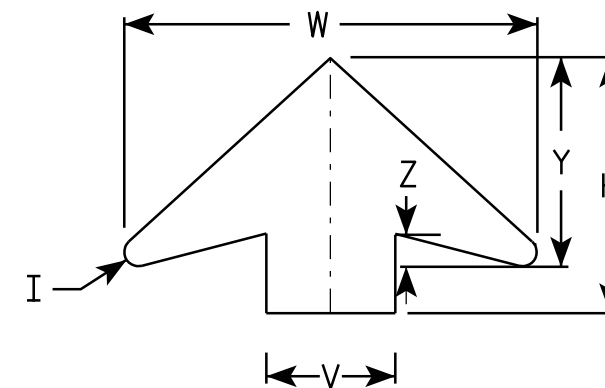


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C 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																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	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		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

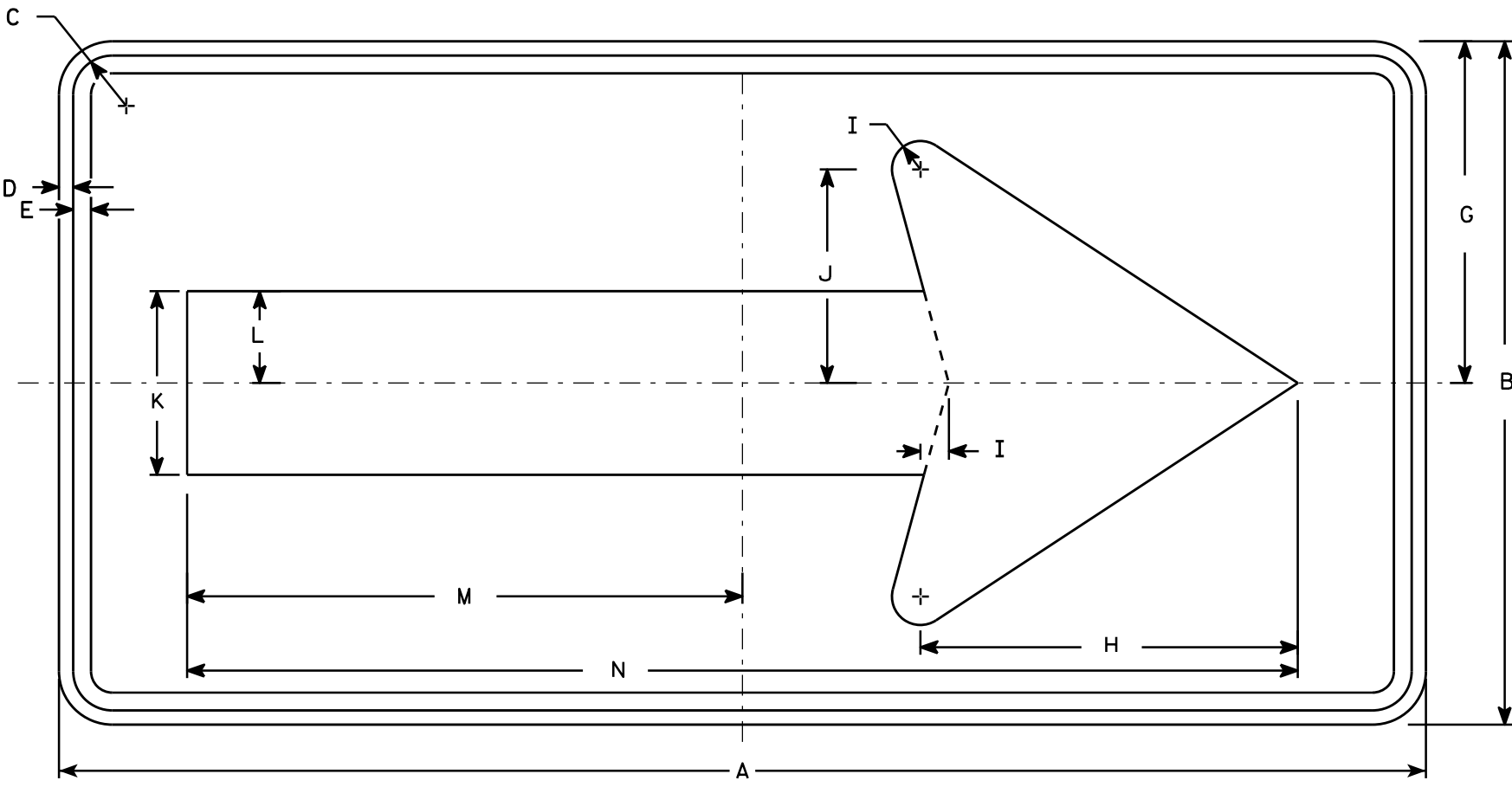
PROJECT NO:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W01-6

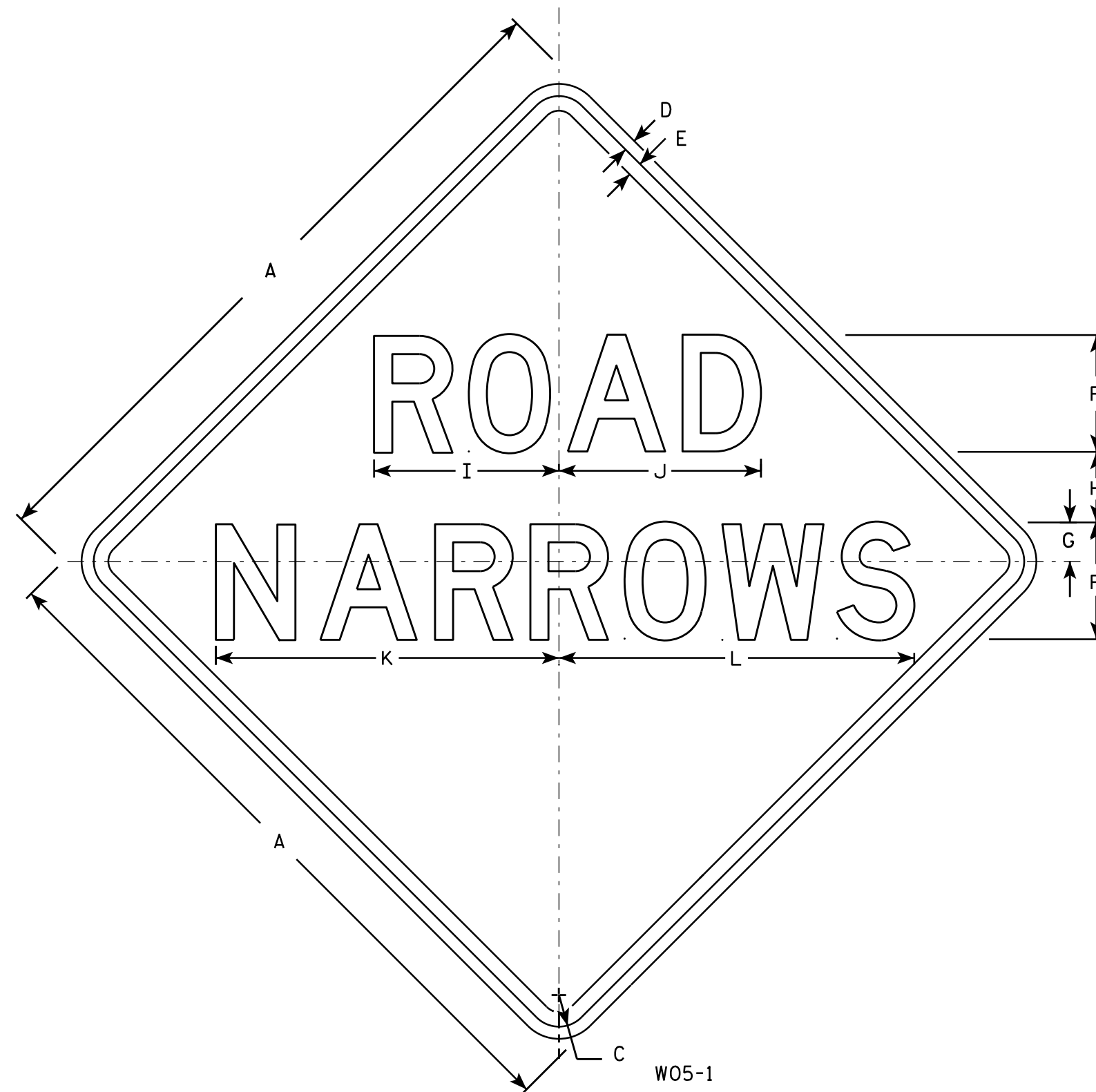
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3⁄8	1⁄2	5⁄8		12	13 1⁄4	1	7 1⁄2	6 1⁄2	3 1⁄4	19 1⁄2	39													8.0
2M	48	24	1 3⁄8	1⁄2	5⁄8		12	13 1⁄4	1	7 1⁄2	6 1⁄2	3 1⁄4	19 1⁄2	39													8.0
3	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5
4	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5
5	60	30	1 3⁄8	1⁄2	5⁄8		15	16 1⁄4	1 1⁄4	9 1⁄4	8	4	24 3⁄8	48 3⁄4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2S	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
2M	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
3	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0

STANDARD SIGN W05-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13

PLATE NO. W05-1.1

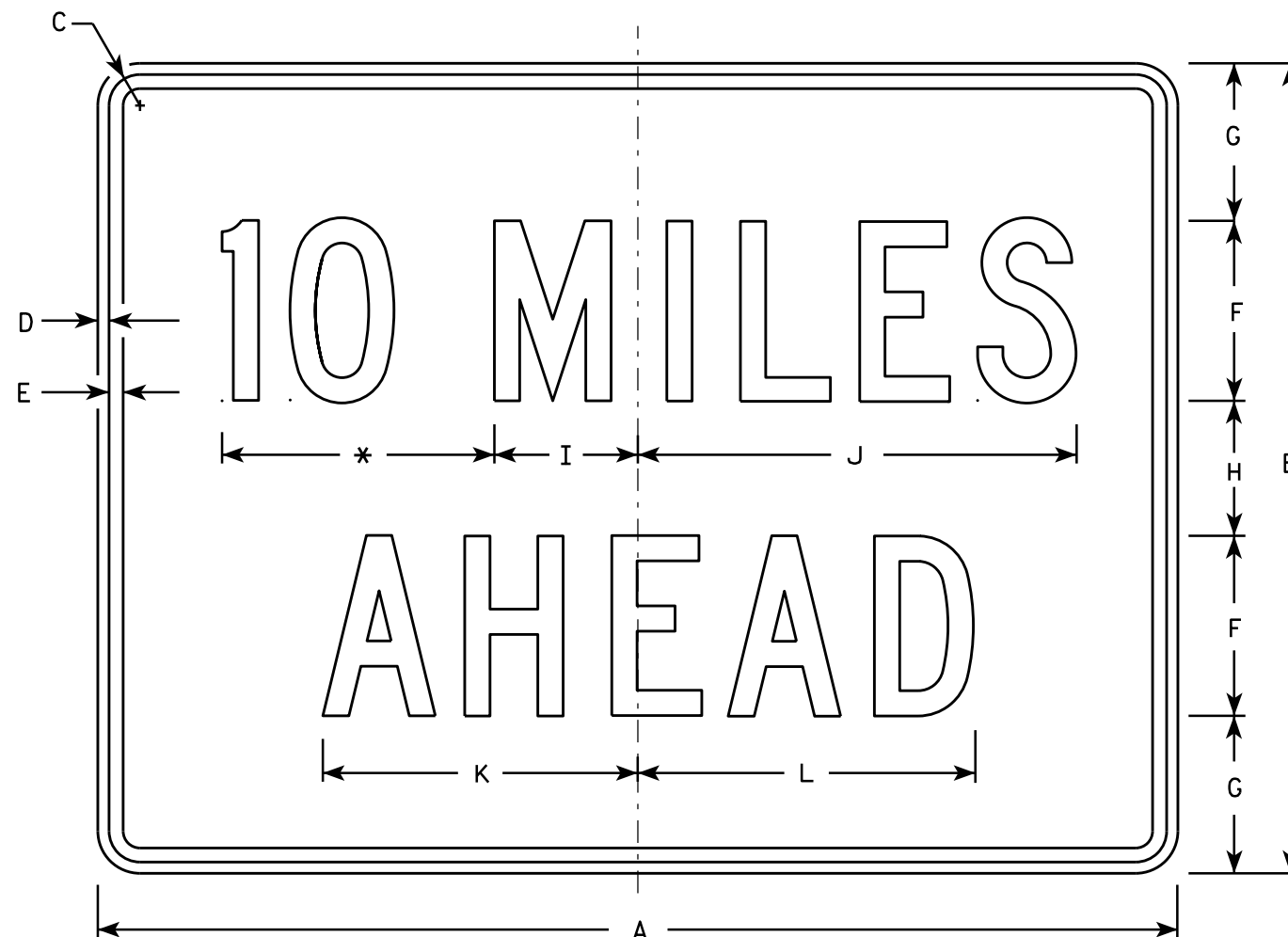
PROJECT NO:

HWY:

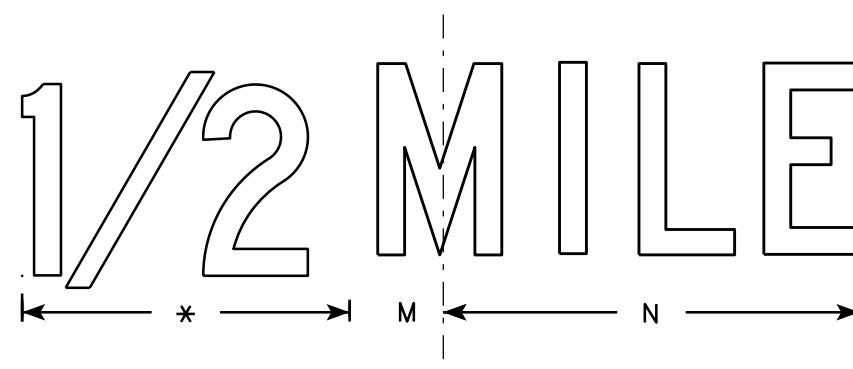
COUNTY:

SHEET NO:

E



W057-52



* See note 5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13

PLATE NO. W057-52.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusabl e Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusabl e Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
468+52.250	0.1	0	0	0	0	0	0	0	0
468+96.000	0.5	0.49	0.49	2.38	1.93	0.49	0.49	1.93	-1.44
469+00.000	0.74	0.09	0.09	2.13	0.33	0.58	0.58	2.26	-1.68
469+36.250	0.93	1.12	1.12	10.33	8.36	1.7	1.7	10.63	-8.93
469+50.000	0.63	0.4	0.4	13.2	5.99	2.1	2.1	16.62	-14.52
469+80.000	0.47	0.61	0.61	20.93	18.96	2.71	2.71	35.58	-32.87
469+81.250	0.42	0.02	0.02	21.27	0.98	2.73	2.73	36.55	-33.82
470+00.000	0	0.15	0.15	24.72	15.97	2.88	2.88	52.52	-49.64
470+06.250	0	0	0	26.43	5.92	2.88	2.88	58.44	-55.56
470+25.000	0	0	0	26.85	18.5	2.88	2.88	76.94	-74.06
470+31.250	0.03	0	0	23.91	5.88	2.89	2.89	82.82	-79.93
470+50.000	0.1	0.04	0.04	17.96	14.54	2.93	2.93	97.36	-94.43
470+75.000	0.46	0.26	0.26	1.29	8.91	3.19	3.19	106.27	-103.08
471+00.000	4.05	2.09	2.09	0.13	0.65	5.28	5.28	106.93	-101.65
471+50.000	1.71	5.33	5.33	6.45	6.09	10.61	10.61	113.02	-102.41
472+00.000	1.48	2.95	2.95	0.41	6.36	13.56	13.56	119.38	-105.82
472+50.000	2.2	3.4	3.4	0.03	0.41	16.96	16.96	119.79	-102.83
473+00.000	2.32	4.18	4.18	0.05	0.07	21.14	21.14	119.86	-98.73
473+33.000	2.59	3	3	0.03	0.05	24.13	24.13	119.91	-95.77
473+50.000	2.65	1.65	1.65	0	0.01	25.78	25.78	119.92	-94.14
474+00.000	1.79	4.11	4.11	0.06	0.05	29.9	29.9	119.97	-90.08
474+50.000	1	2.59	2.59	5.26	4.93	32.49	32.49	124.9	-92.41
474+75.000	0.94	0.9	0.9	0.17	2.52	33.39	33.39	127.41	-94.03
475+00.000	0.66	0.74	0.74	0.38	0.25	34.12	34.12	127.67	-93.54
475+25.000	0.59	0.58	0.58	0.58	0.44	34.7	34.7	128.11	-93.41
475+50.000	0.56	0.53	0.53	0.93	0.7	35.23	35.23	128.81	-93.58
476+00.000	5.44	5.56	5.56	1.41	2.16	40.79	40.79	130.97	-90.18
476+25.000	0.82	2.9	2.9	5.8	3.34	43.69	43.69	134.31	-90.62
476+50.000	0.39	0.56	0.56	21.53	12.65	44.24	44.24	146.96	-102.72
476+68.750	1.06	0.5	0.5	15.58	12.89	44.74	44.74	159.85	-115.1
476+93.750	1.41	1.14	1.14	13.88	13.64	45.89	45.89	173.49	-127.6
476+95.000	1.38	0.06	0.06	14.32	0.65	45.95	45.95	174.14	-128.19
477+00.000	1.16	0.24	0.24	14.43	2.66	46.19	46.19	176.8	-130.62
477+18.750	1.41	0.89	0.89	15.36	10.34	47.08	47.08	187.15	-140.07
477+50.000	1.48	1.67	1.67	16.77	18.59	48.75	48.75	205.74	-156.99
477+63.750	1.14	0.67	0.67	8.21	6.36	49.42	49.42	212.1	-162.68
477+79.000	0.85	0.56	0.56	3.34	3.26	49.98	49.98	215.36	-165.38
478+00.000	0.11	0.37	0.37	0.58	1.52	50.35	50.35	216.89	-166.54
478+47.750	0.18	0.26	0.26	0	0.51	50.61	50.61	217.4	-166.78

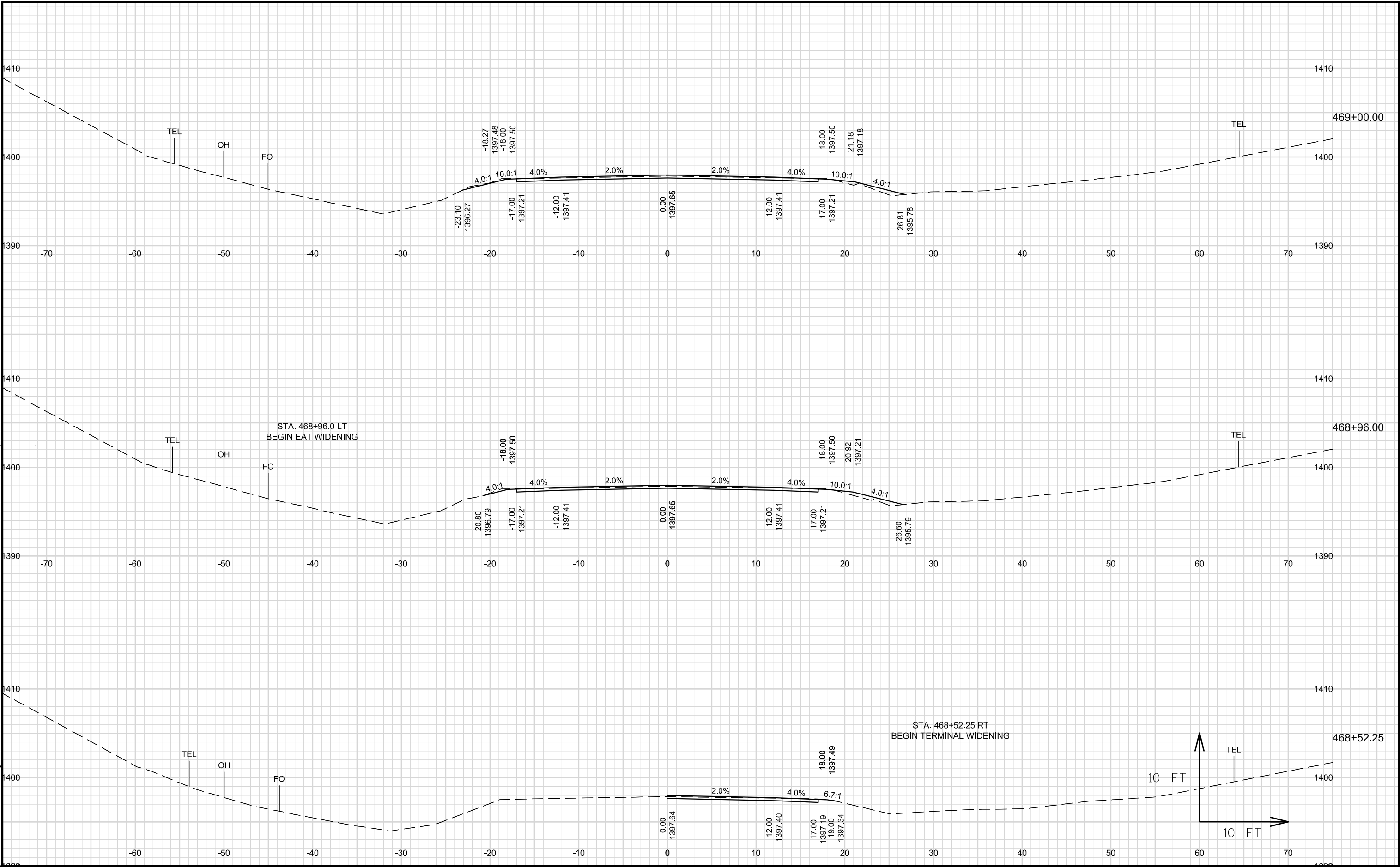
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusabl e Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusabl e Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
482+00.834	18.62	0	0	0.26	0	0	0	0	0
482+50.000	21.25	36.3	36.3	13.4	12.44	36.3	36.3	12.44	23.86
482+80.850	23.32	25.46	25.46	57.08	40.27	61.77	61.77	52.71	9.06
483+00.000	17.51	14.48	14.48	9.04	23.45	76.25	76.25	76.16	0.09
483+40.260	25.5	32.06	32.06	0	6.74	108.31	108.31	82.9	25.41
483+50.000	25.41	9.18	9.18	0	0	117.49	117.49	82.9	34.59
484+00.000	18.38	40.54	40.54	0.02	0.02	158.03	158.03	82.92	75.11
484+16.516	19.63	11.62	11.62	42.53	13.02	169.66	169.66	95.94	73.72
484+50.000	22.19	25.93	25.93	18.5	37.85	195.59	195.59	133.78	61.81
484+86.800	28.88	34.81	34.81	2.72	14.47	230.4	230.4	148.25	82.15
485+00.000	43.01	17.57	17.57	37.5	9.83	247.97	247.97	158.08	89.89
485+07.000	29.83	9.44	9.44	38.09	9.8	257.41	257.41	167.88	89.53
485+28.000	17.63	18.46	18.46	24.27	24.25	275.87	275.87	192.13	83.74
485+50.000	17.11	14.15	14.15	34.83	24.08	290.02	290.02	216.21	73.81
486+00.000	16.68	31.29	31.29	37	66.51	321.31	321.31	282.72	38.59
486+16.516	16.24	10.07	10.07	35.49	22.17	331.38	331.38	304.89	26.49
486+50.000	16.37	20.22	20.22	31.57	41.58	351.6	351.6	346.47	5.13
487+00.000	16.35	30.3	30.3	25.33	52.68	381.9	381.9	399.15	-17.25

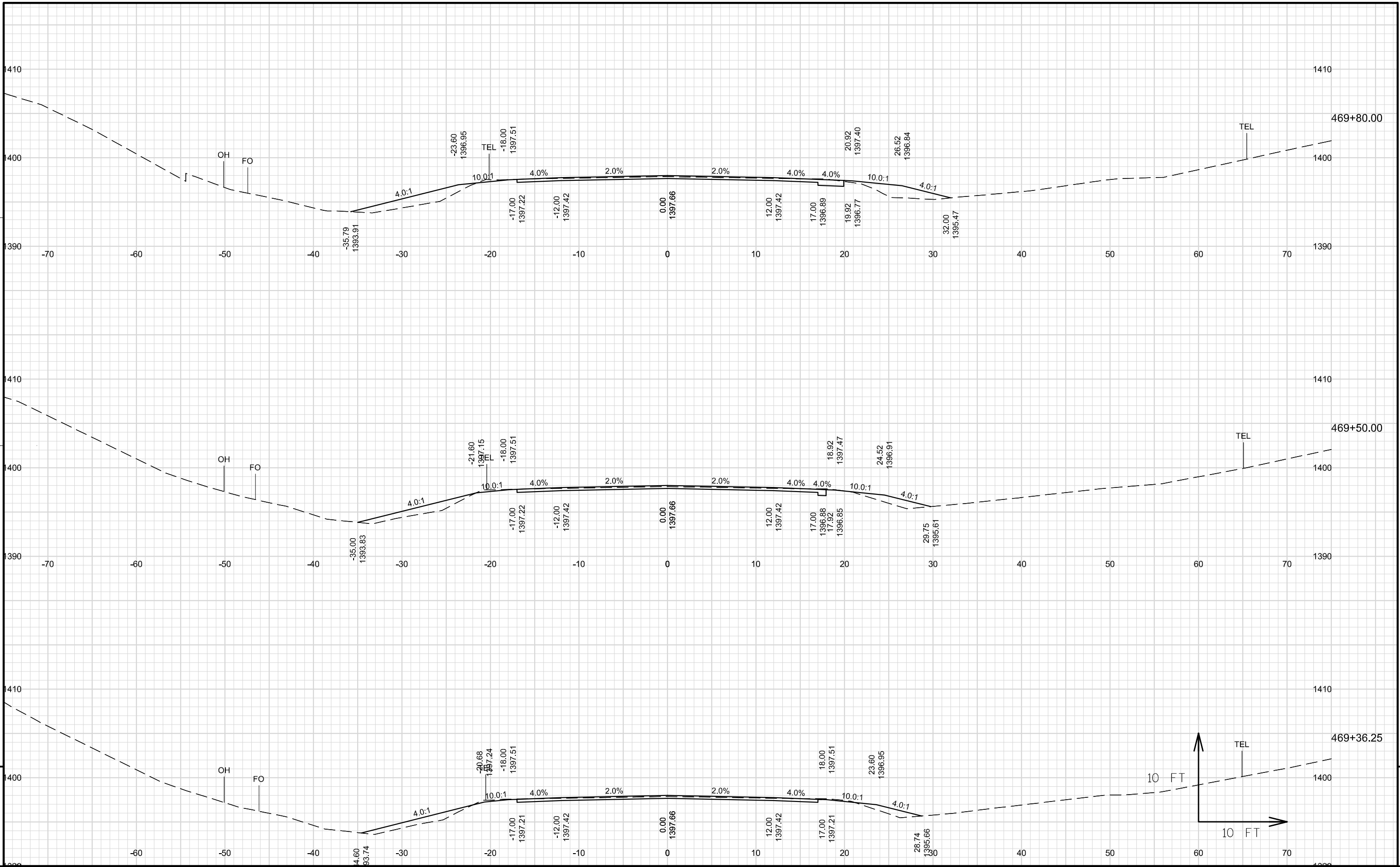
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
492+75.000	5.03	0	0	11.24	0	0	0	0	0
493+00.000	5.05	4.66	4.66	35.12	21.47	4.66	4.66	21.47	-16.8
493+50.000	5.02	9.32	9.32	60.36	88.41	13.98	13.98	109.88	-95.9
494+00.000	4.94	9.22	9.22	56.7	108.39	23.2	23.2	218.27	-195.07
494+21.140	5.19	3.97	3.97	48.43	41.16	27.17	27.17	259.42	-232.25
494+50.000	5.46	5.69	5.69	49.69	52.44	32.86	32.86	311.86	-279
495+00.000	6.47	11.05	11.05	32.34	75.95	43.91	43.91	387.82	-343.9
495+50.000	6.55	12.05	12.05	9.17	38.43	55.96	55.96	426.25	-370.28
495+75.000	6.46	6.02	6.02	0.85	4.64	61.98	61.98	430.88	-368.9

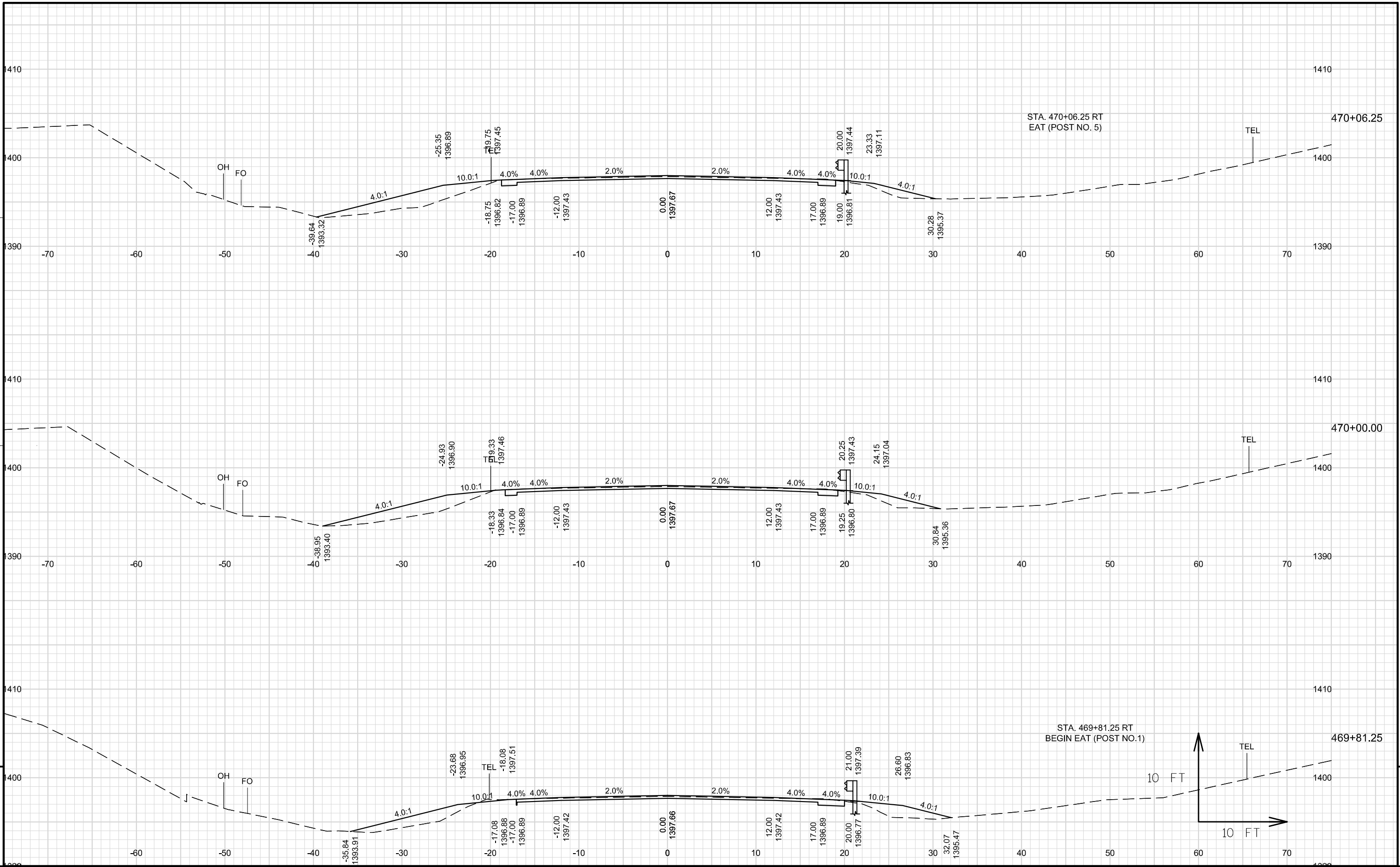
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
570+00.010	0	0	0	5.64	0	0	0	0	0
570+50.000	0	0	0	25.21	28.56	0	0	28.56	-28.56
570+67.200	0	0	0	163.25	60.03	0	0	88.59	-88.59
571+00.000	0.49	0.3	0.3	22.29	112.7	0.3	0.3	201.29	-200.99
571+50.000	0.51	0.93	0.93	11.82	31.58	1.23	1.23	232.87	-231.64
571+75.000	0.87	0.64	0.64	0.78	5.83	1.87	1.87	238.7	-236.83

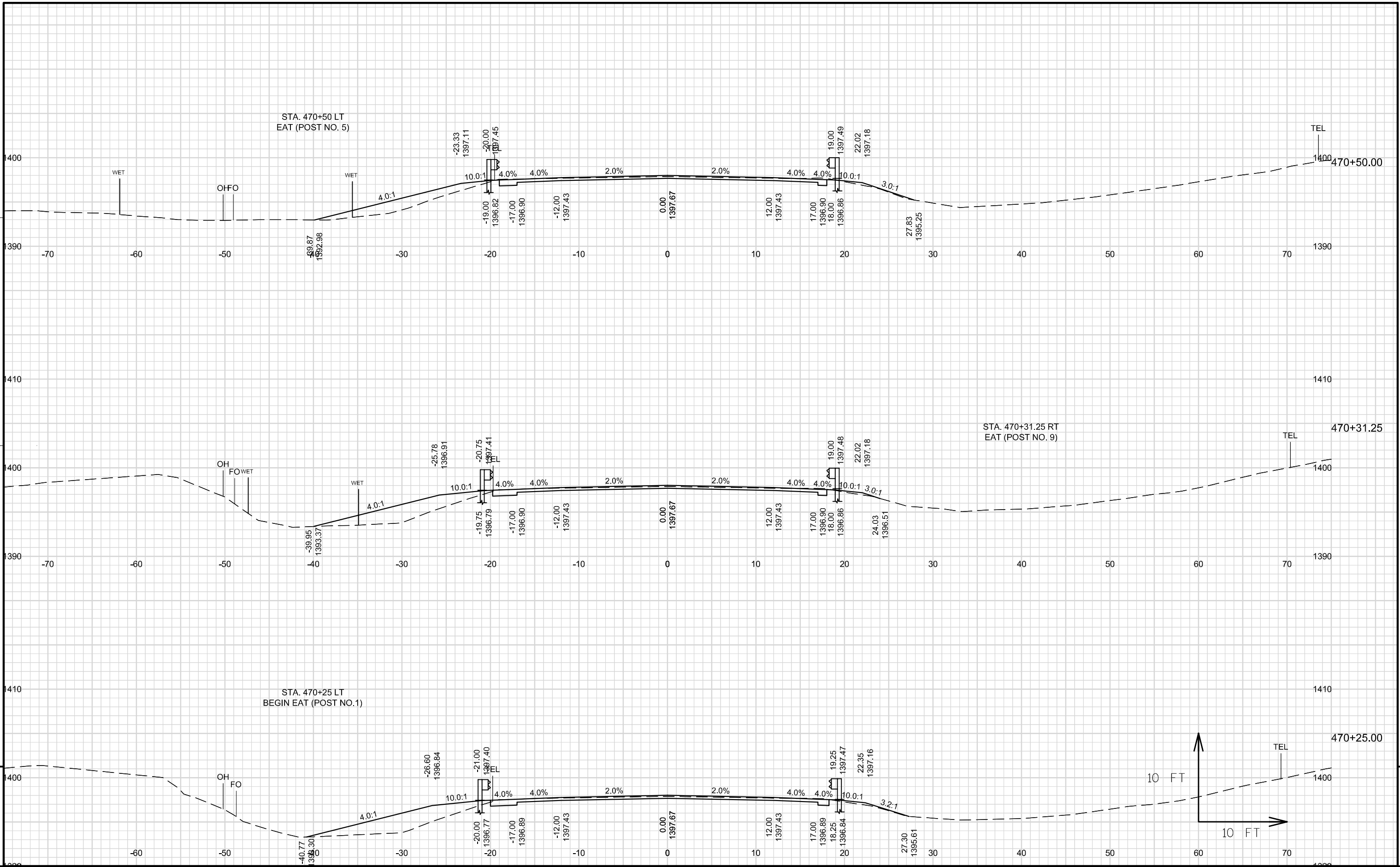
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
538+50.000	3.63	0	0	2.02	0	0	0	0	0
539+00.000	7.02	9.86	9.86	27.18	27.04	9.86	9.86	27.04	-17.17
539+50.000	7.03	13.01	13.01	50.7	72.11	22.88	22.88	99.15	-76.27
540+00.000	7.4	13.36	13.36	47.04	90.5	36.23	36.23	189.65	-153.42
540+17.648	7.75	4.95	4.95	42.21	29.17	41.18	41.18	218.82	-177.64
540+50.000	8.16	9.53	9.53	34.35	45.87	50.71	50.71	264.69	-213.98
541+00.000	6.96	14	14	35.27	64.46	64.71	64.71	329.15	-264.43
541+50.000	6.02	12.02	12.02	16.32	47.77	76.73	76.73	376.92	-300.19
542+00.000	2.99	8.33	8.33	0.96	16	85.07	85.07	392.92	-307.85

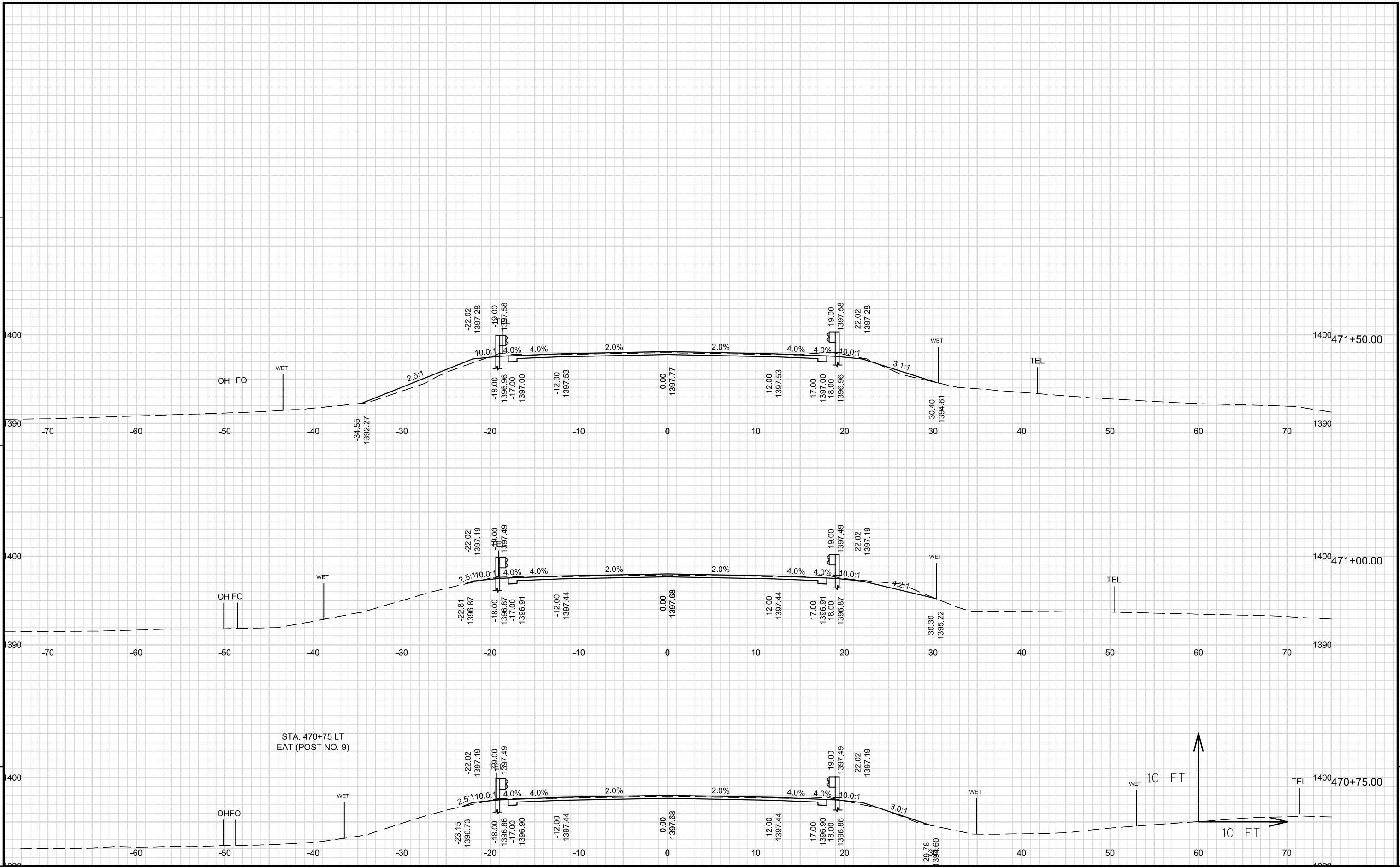
Station	Cut Area (Sq.ft.)	Cut Volume (Cu.yd.)	Reusable Volume (Cu.yd.)	Fill Area (Sq.ft.)	Fill Volume (Cu.yd.)	Cum. Cut Vol. (Cu.yd.)	Cum. Reusable Vol. (Cu.yd.)	Cum. Fill Vol. (Cu.yd.)	Cum. Net Vol. (Cu.yd.)
8+36.420	42.84	0	0	0	0	0	0	0	0
8+50.000	42.87	21.55	21.55	0.06	0.02	21.55	21.55	0.02	21.54
9+00.000	34.17	71.27	71.27	11.02	10.35	92.82	92.82	10.37	82.45
9+17.040	33.87	21.36	21.36	26.09	11.89	114.18	114.18	22.26	91.91
9+30.899	29.3	16.21	16.21	40.31	17.04	130.39	130.39	39.31	91.08
9+40.300	33.85	10.99	10.99	58.77	17.25	141.38	141.38	56.55	84.83
9+50.000	46.63	14.46	14.46	130.89	34.07	155.84	155.84	90.62	65.22
9+70.155	53.81	37.49	37.49	94.99	84.31	193.33	193.33	174.93	18.4

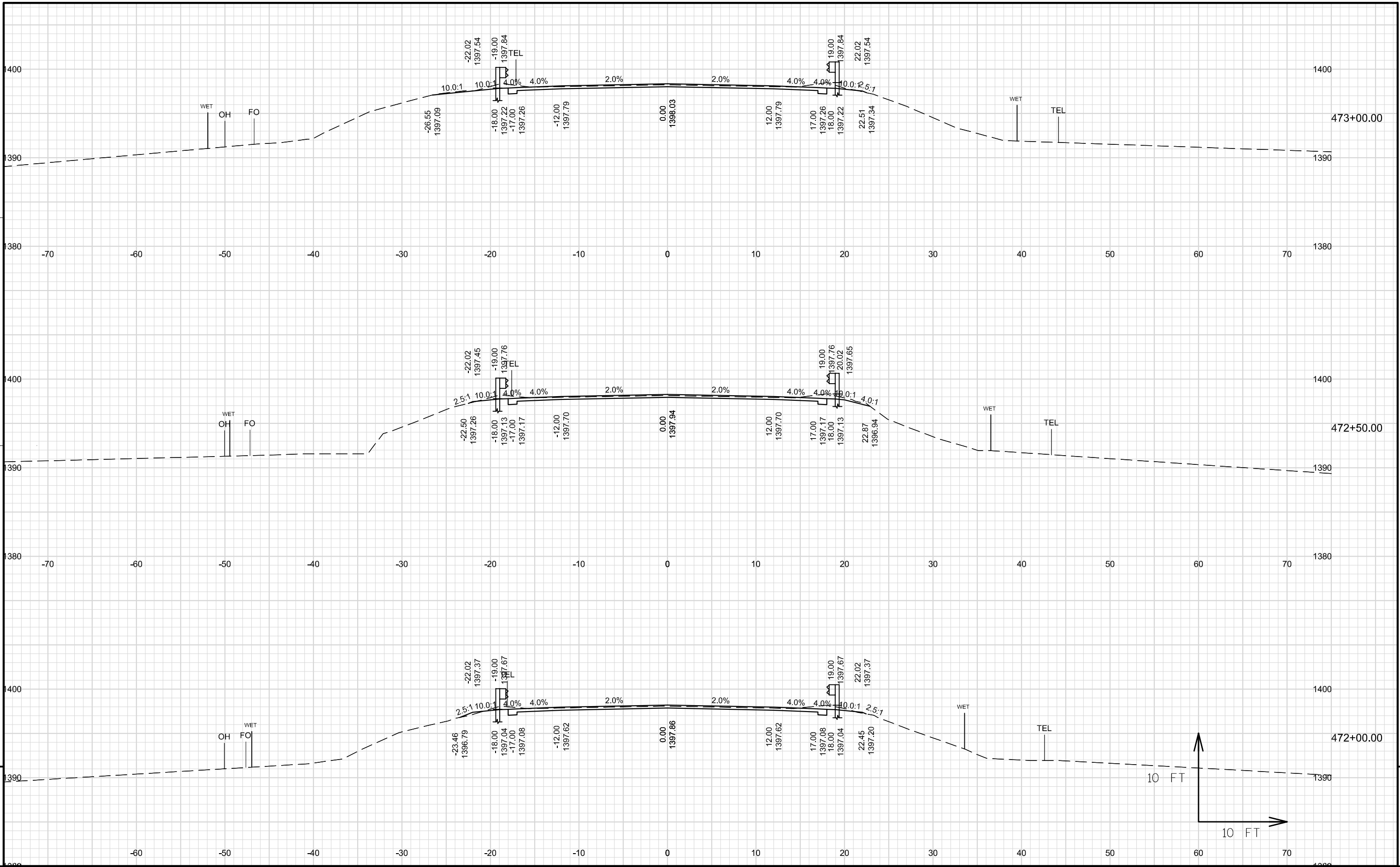


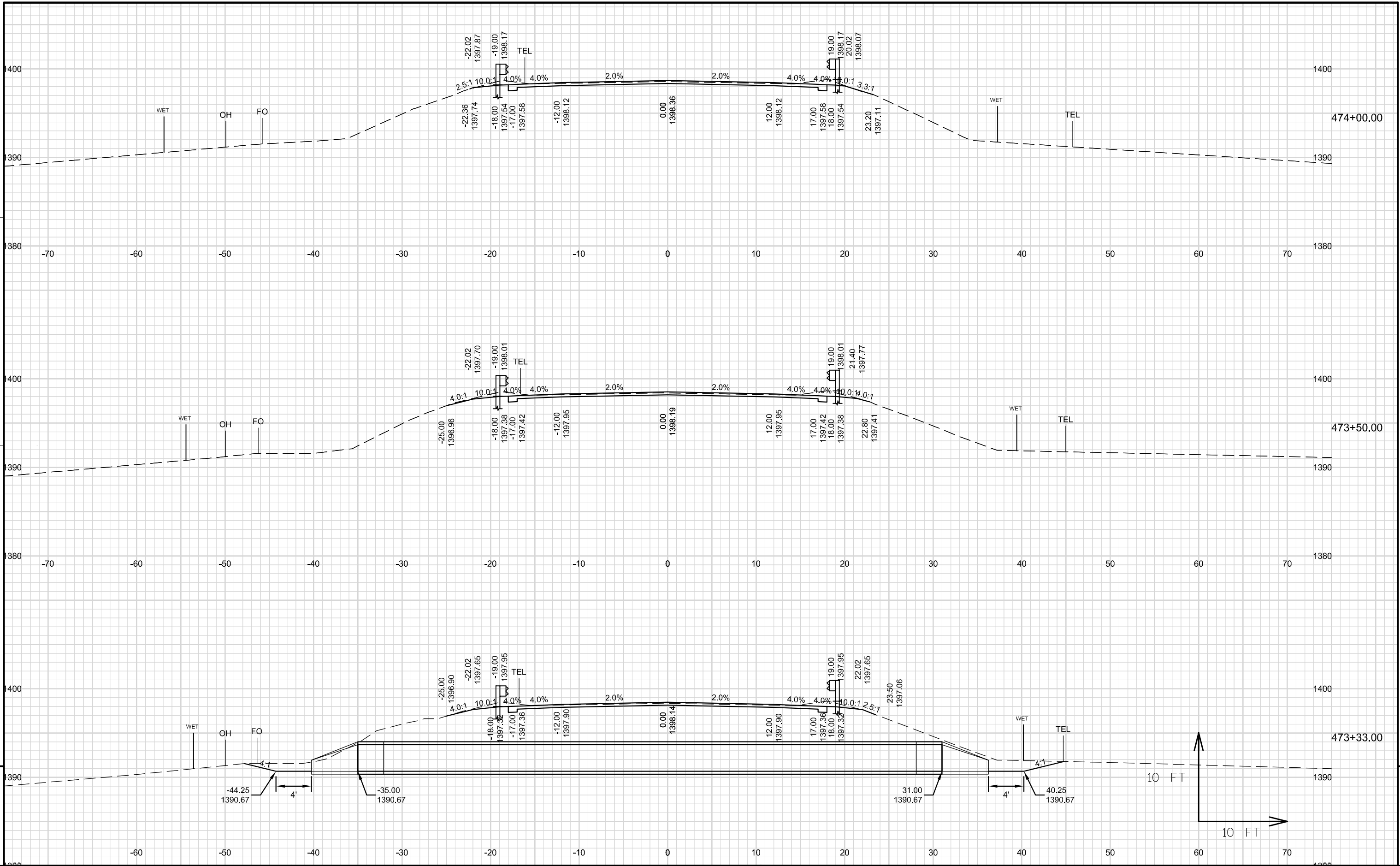


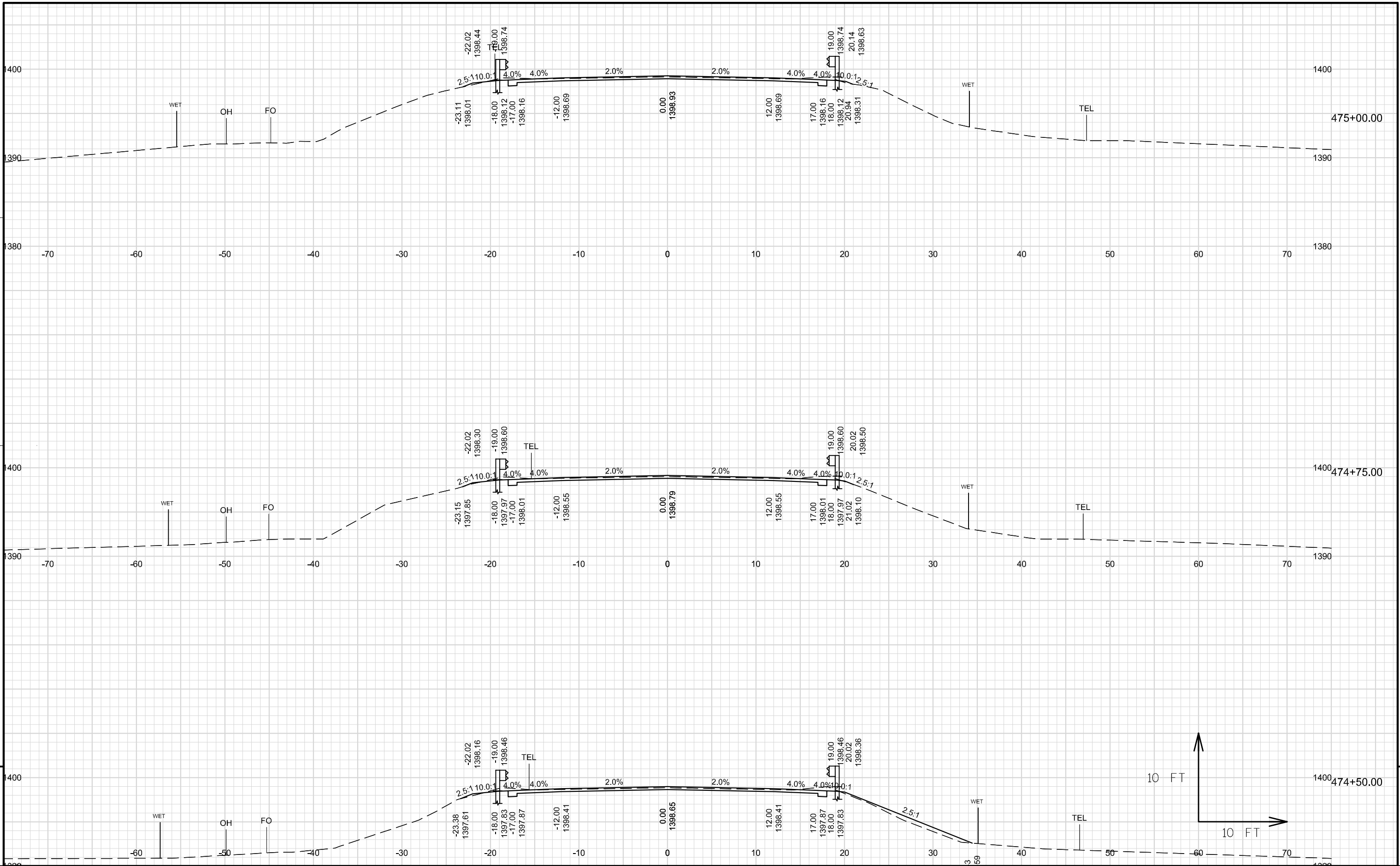


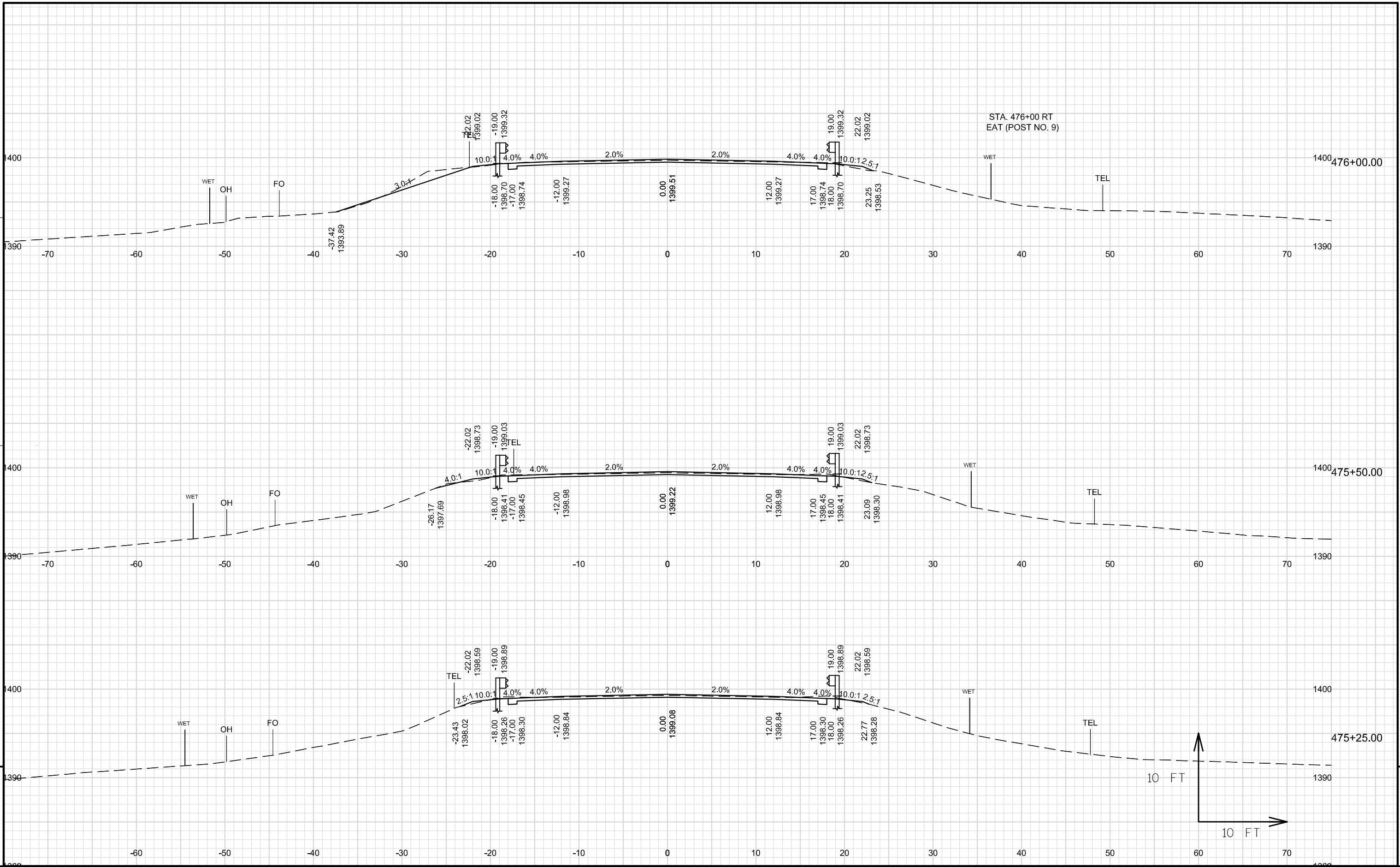


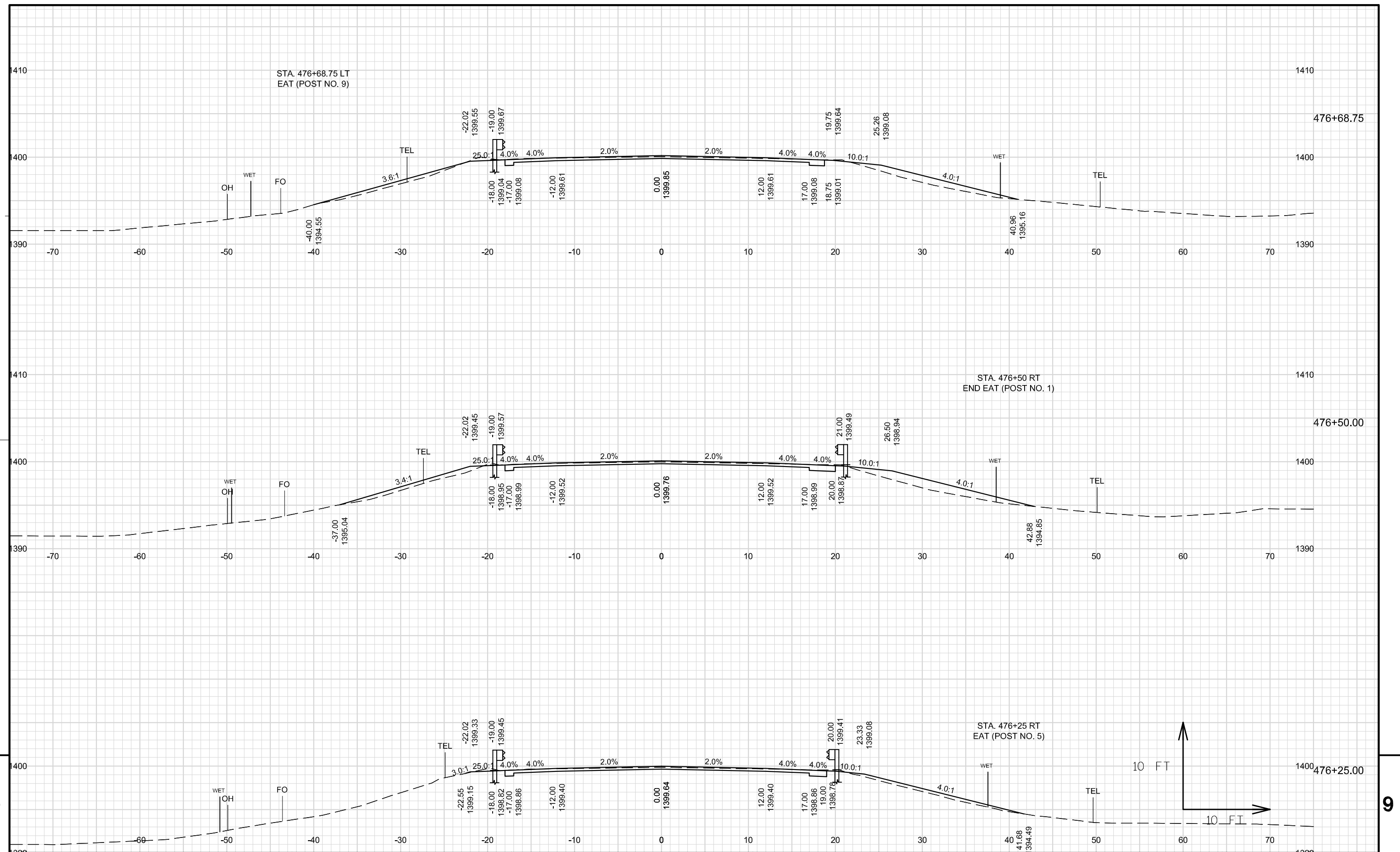


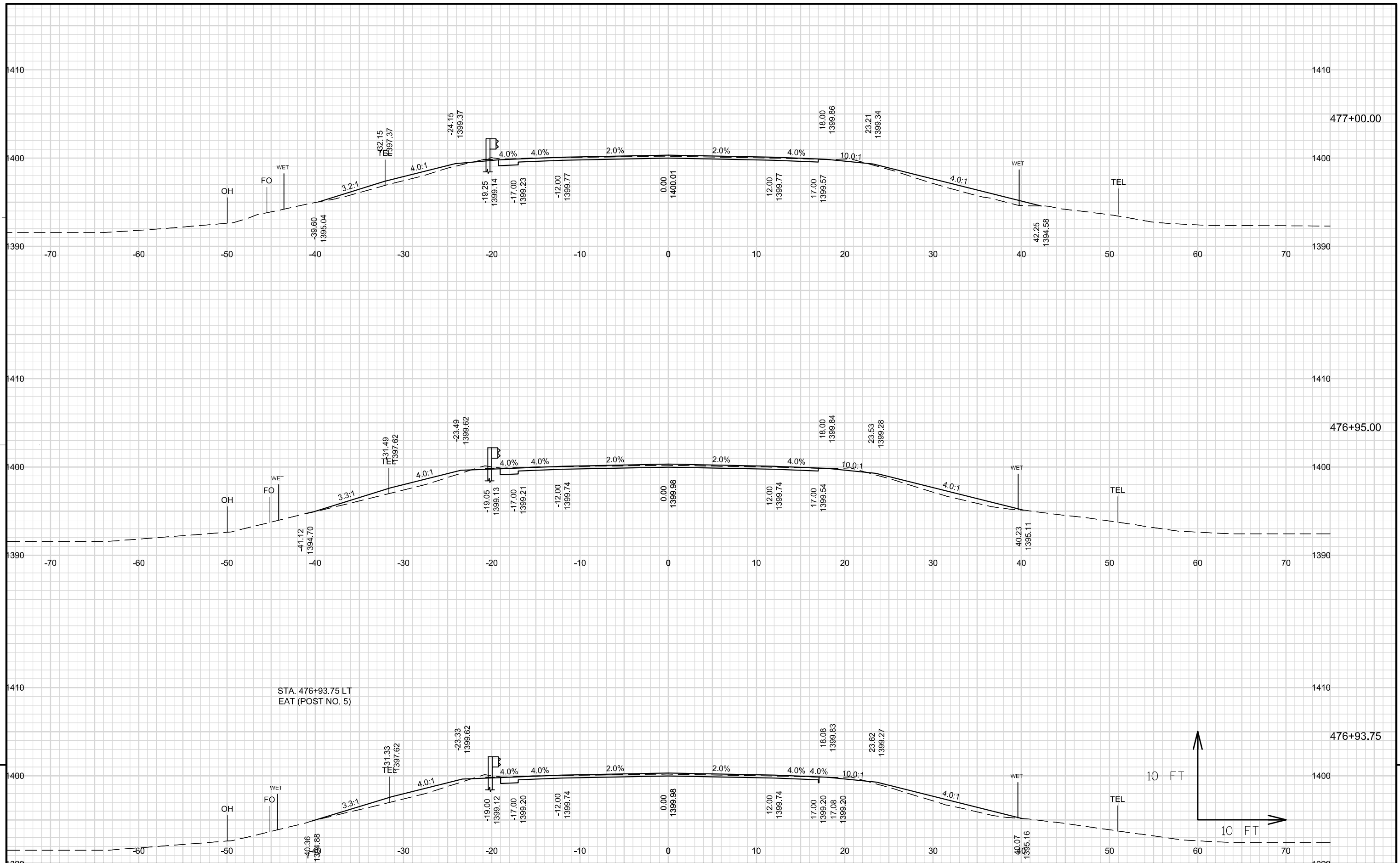


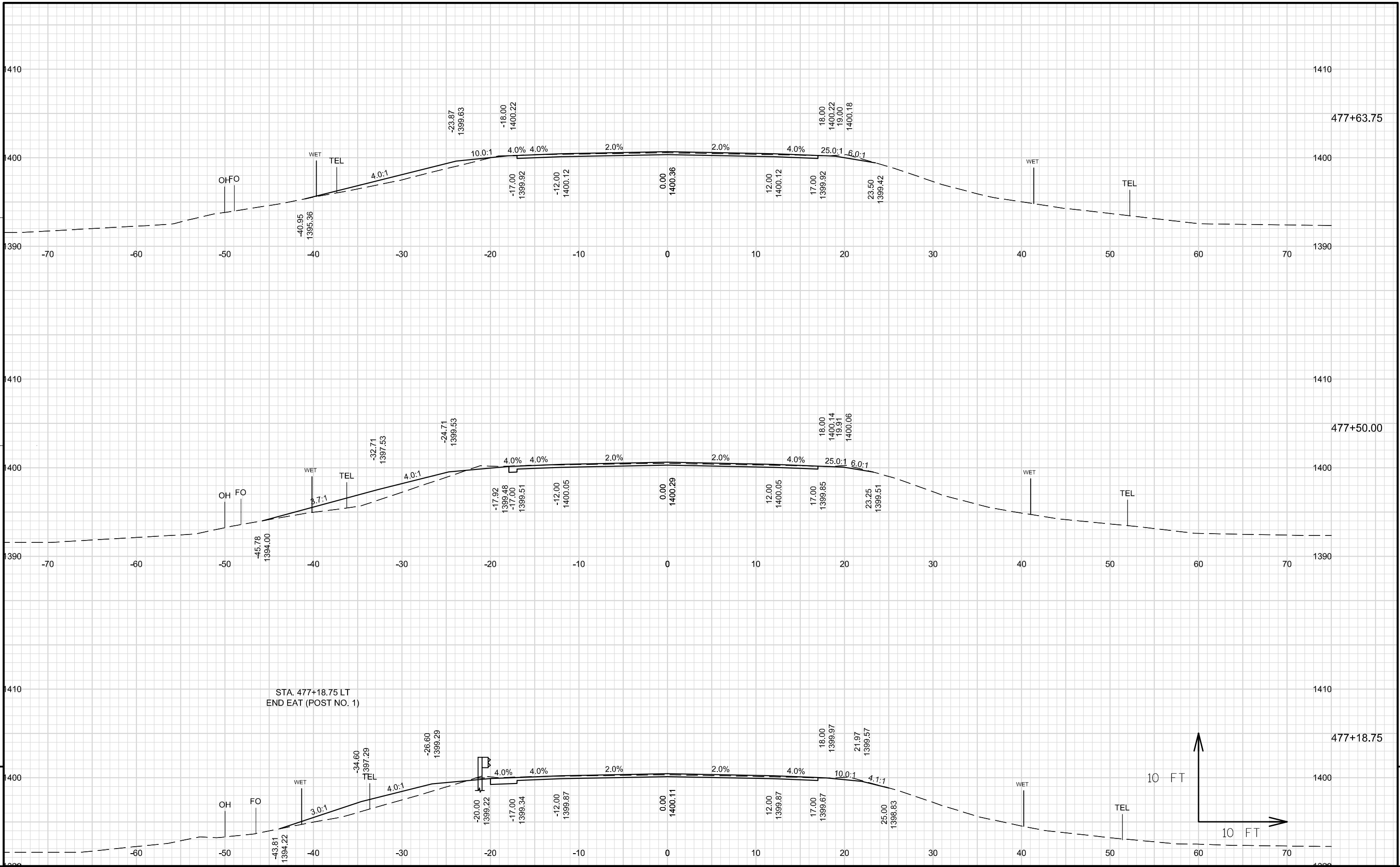


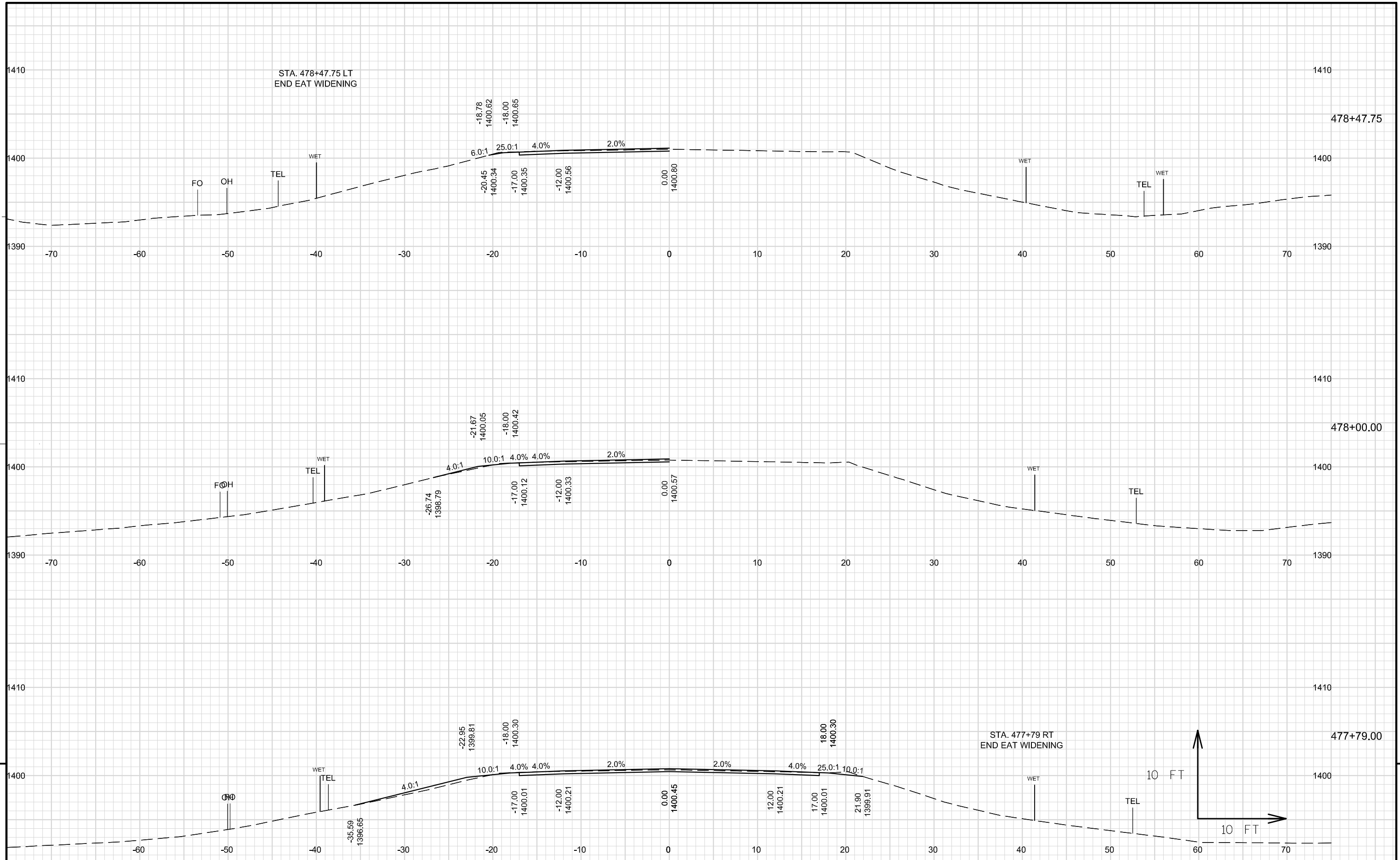


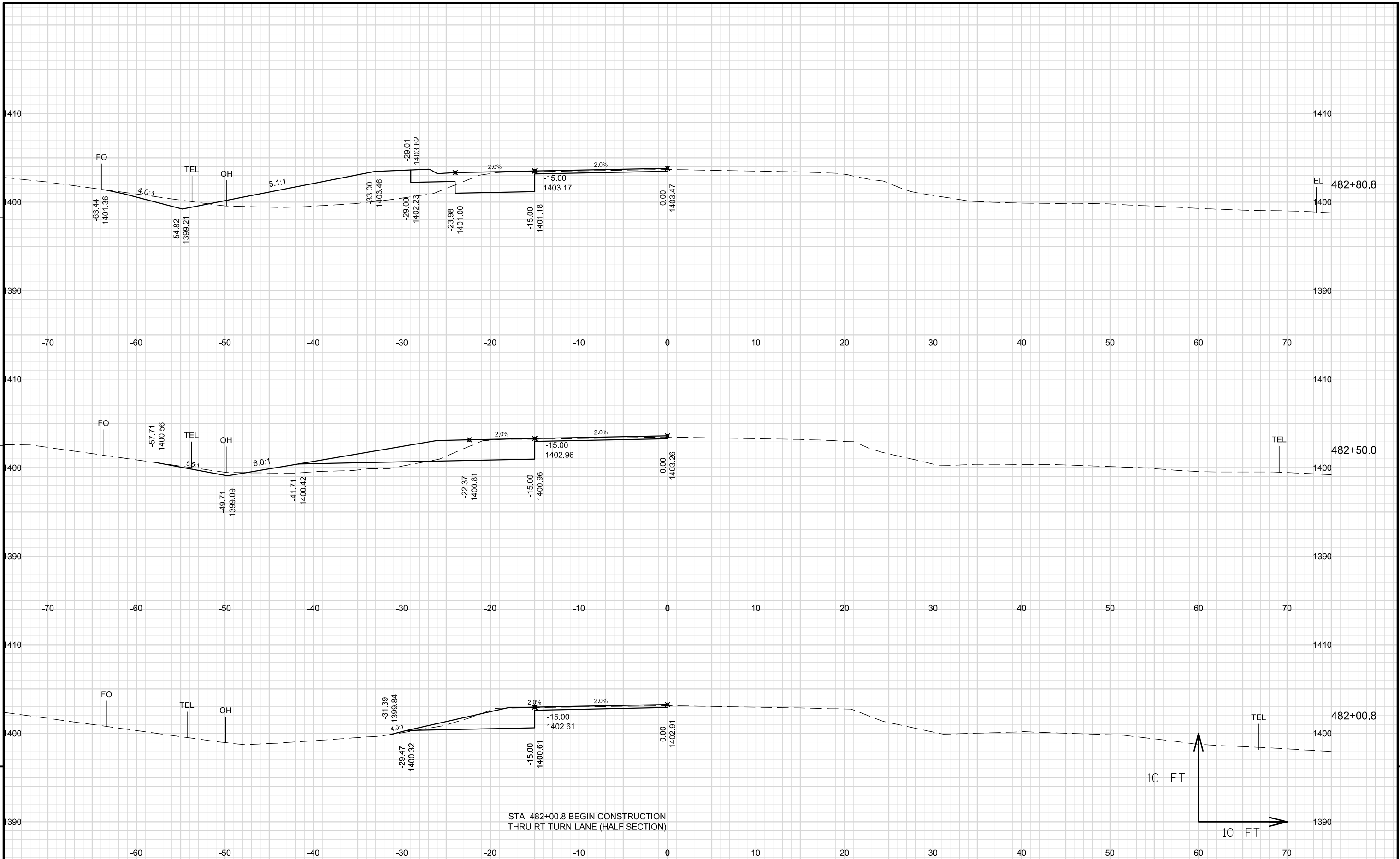


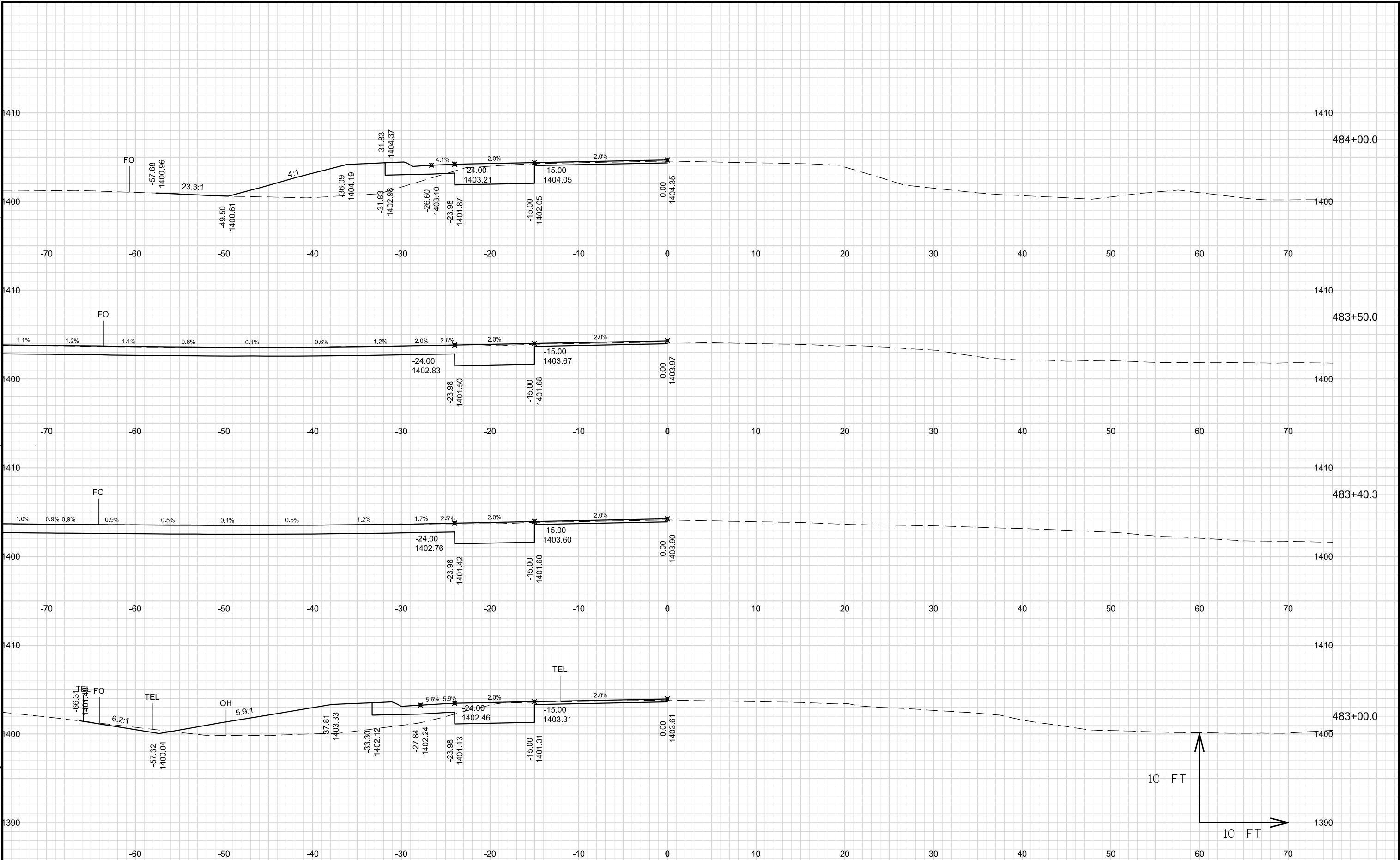


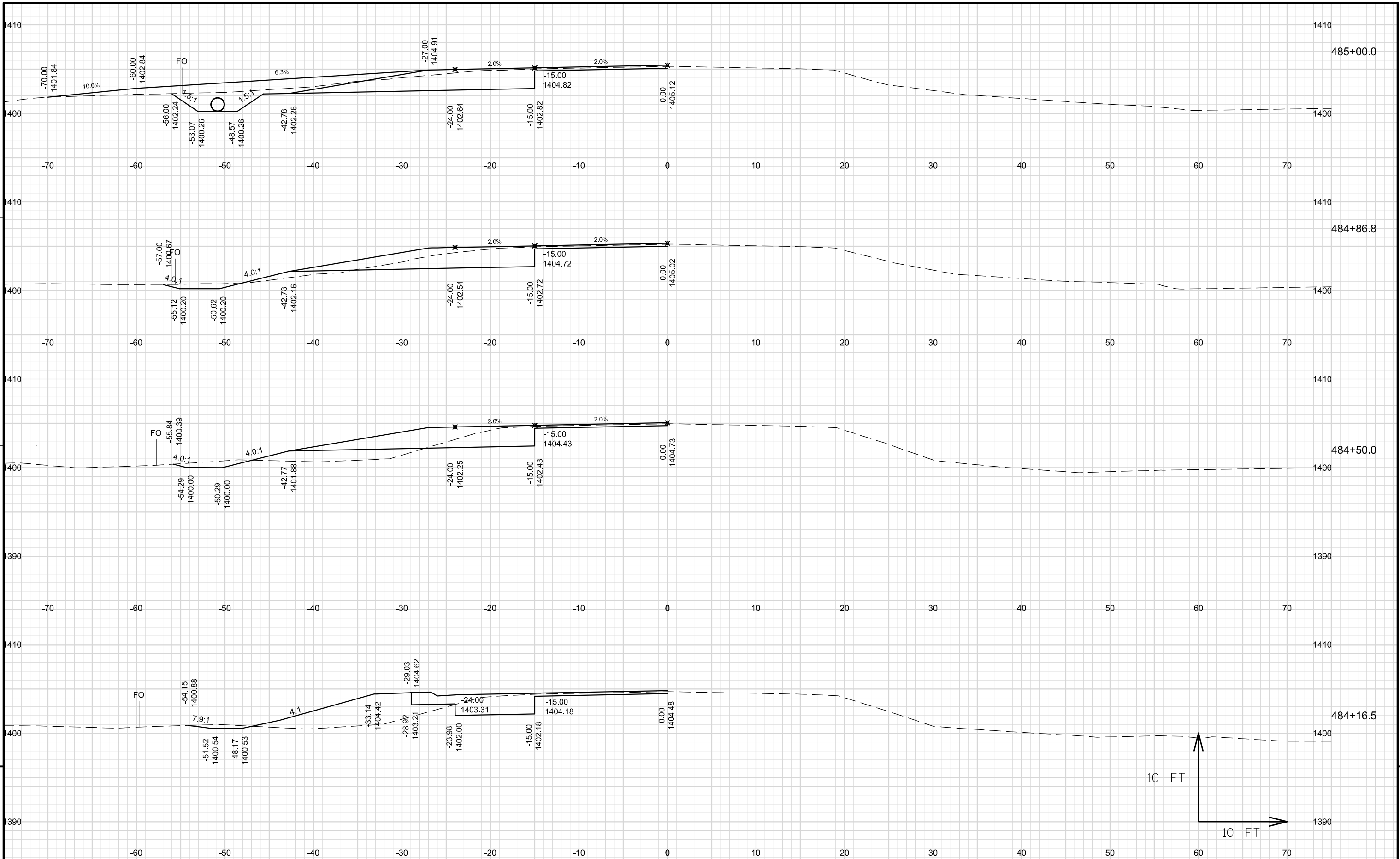


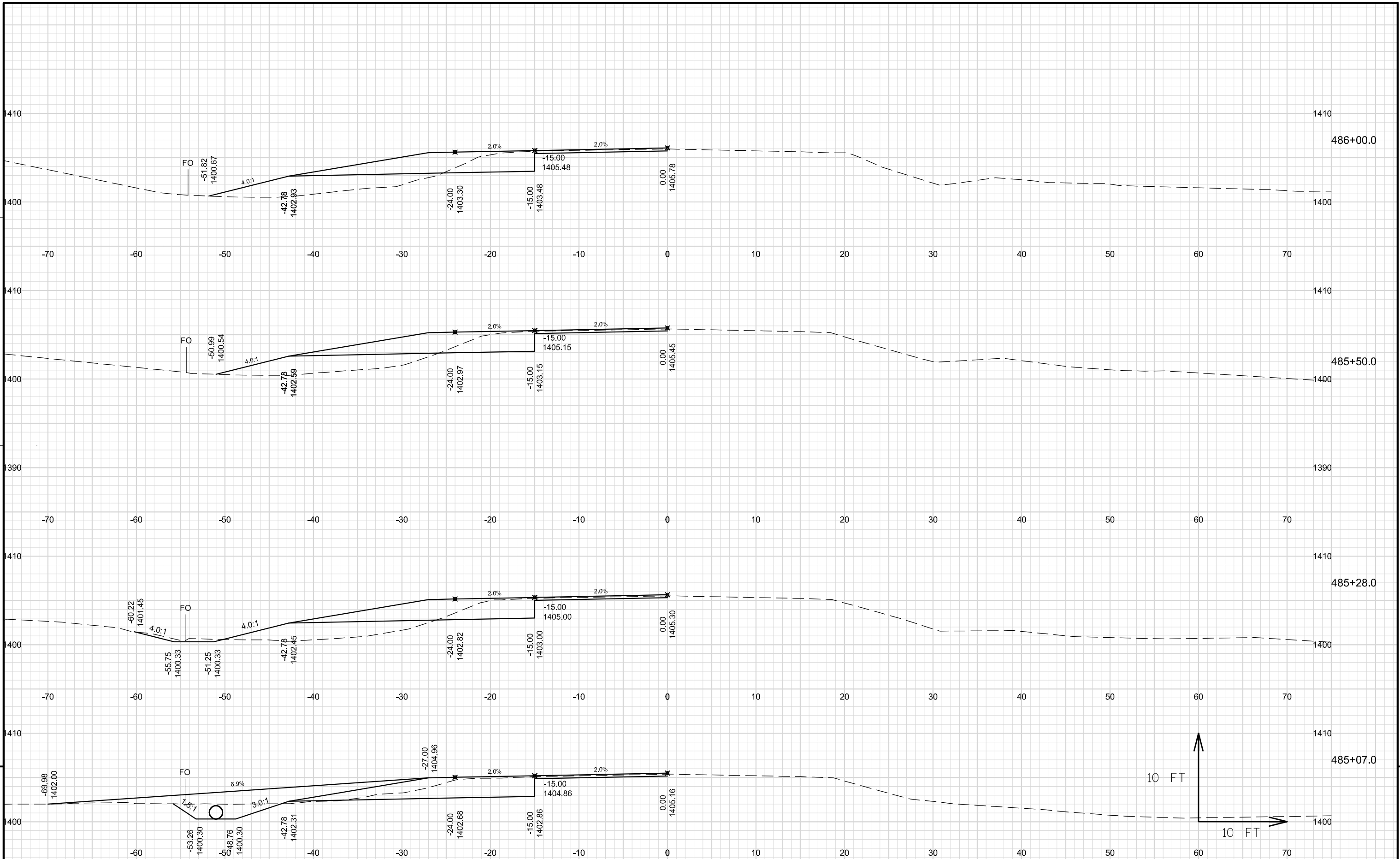


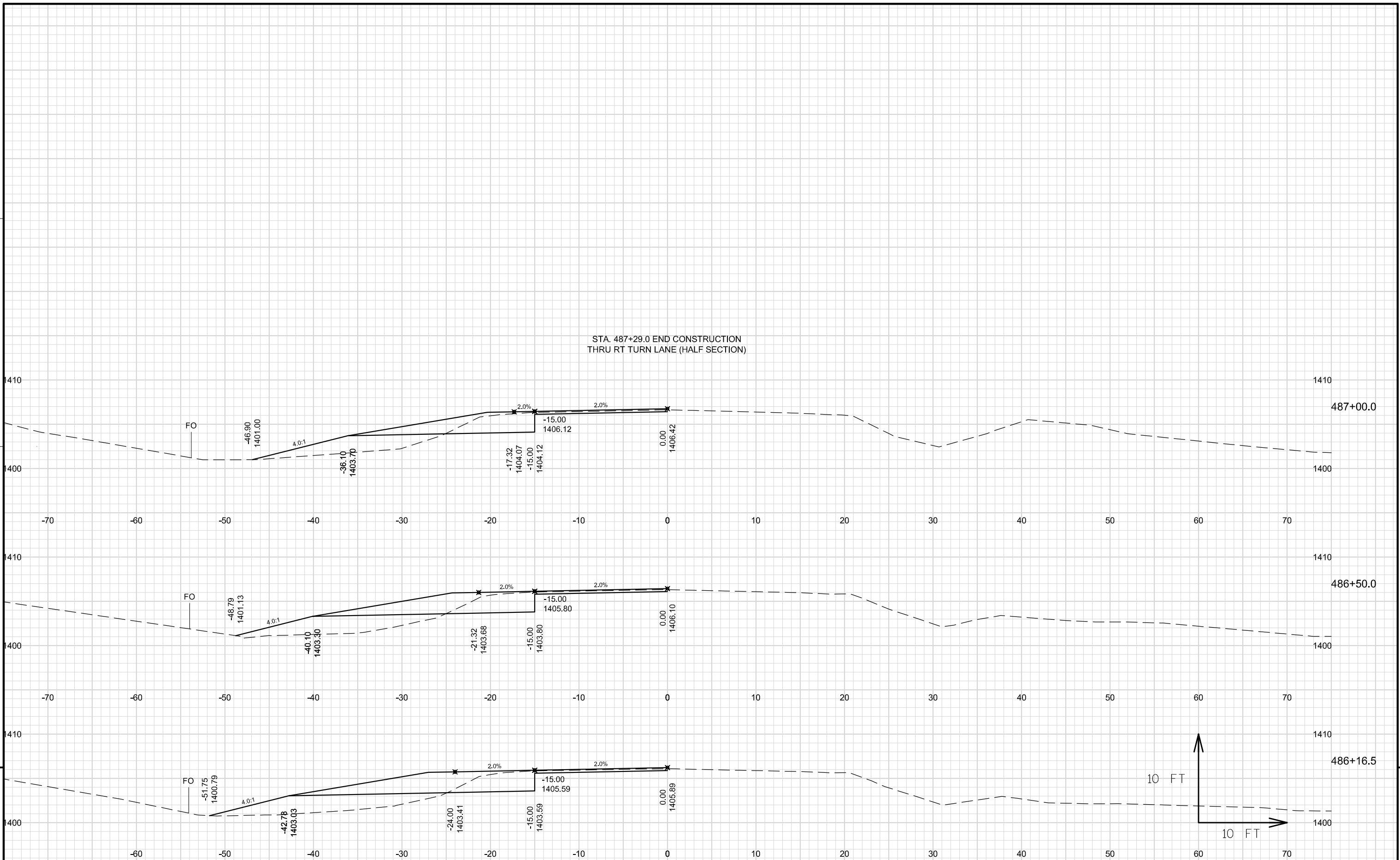


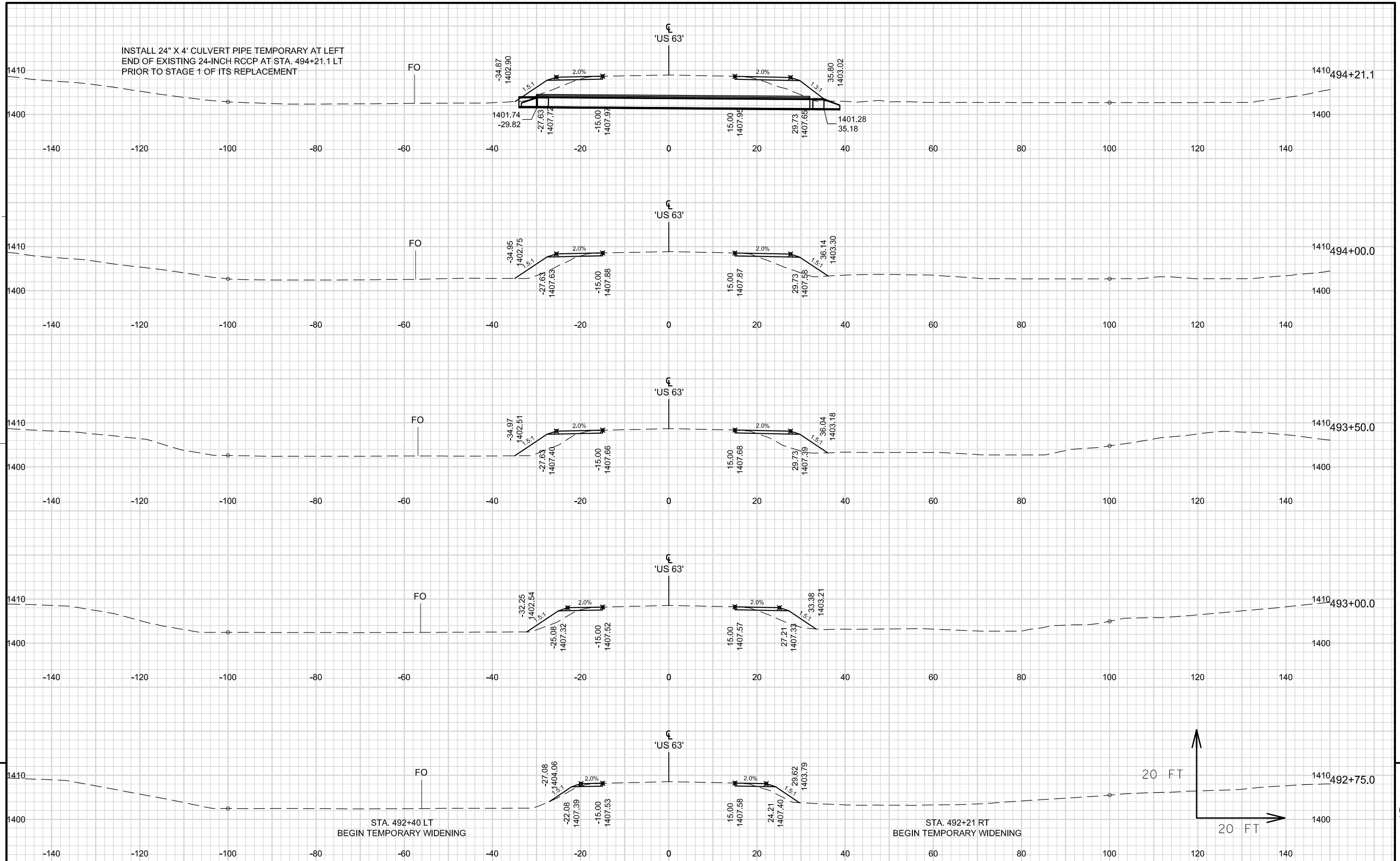


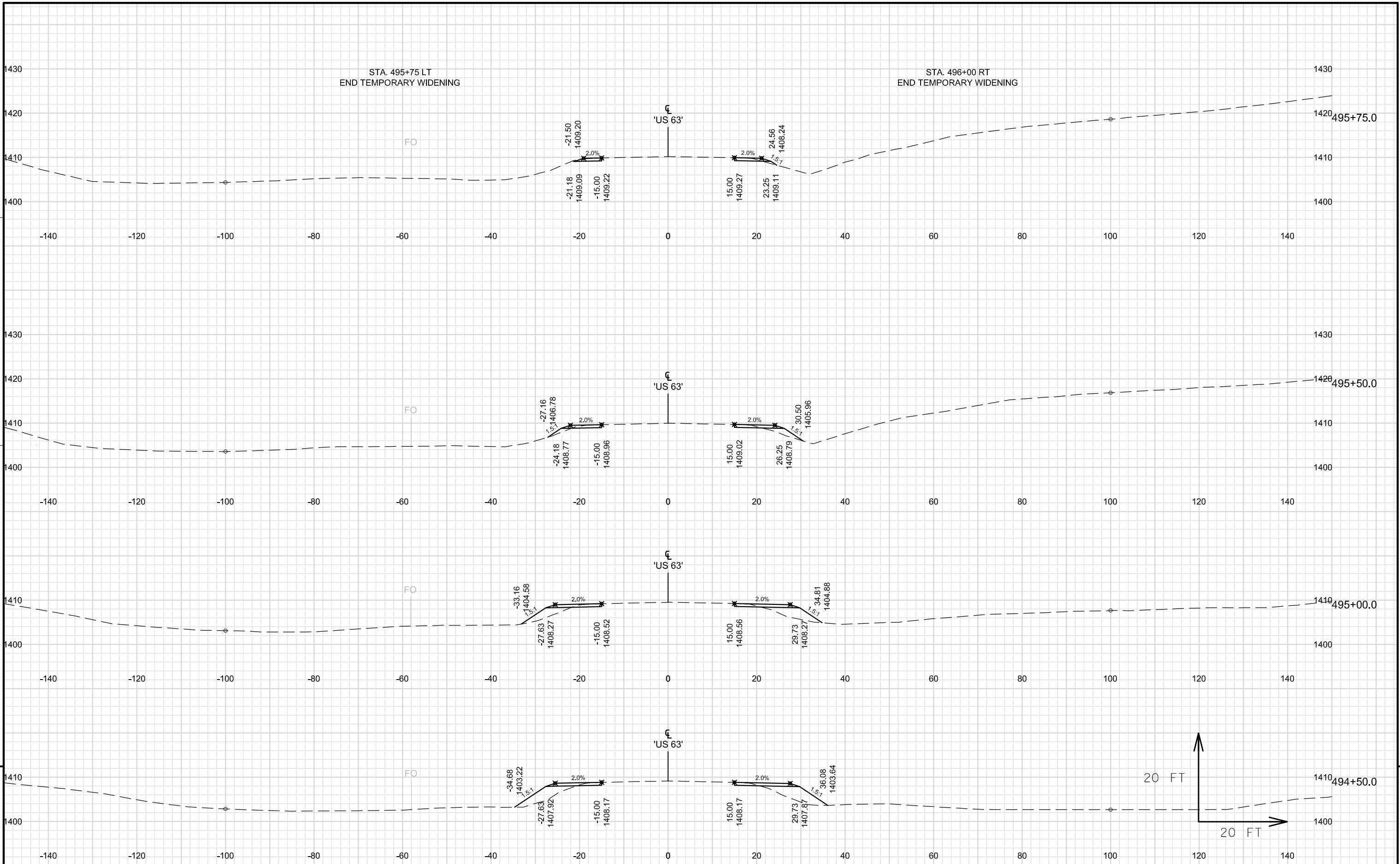


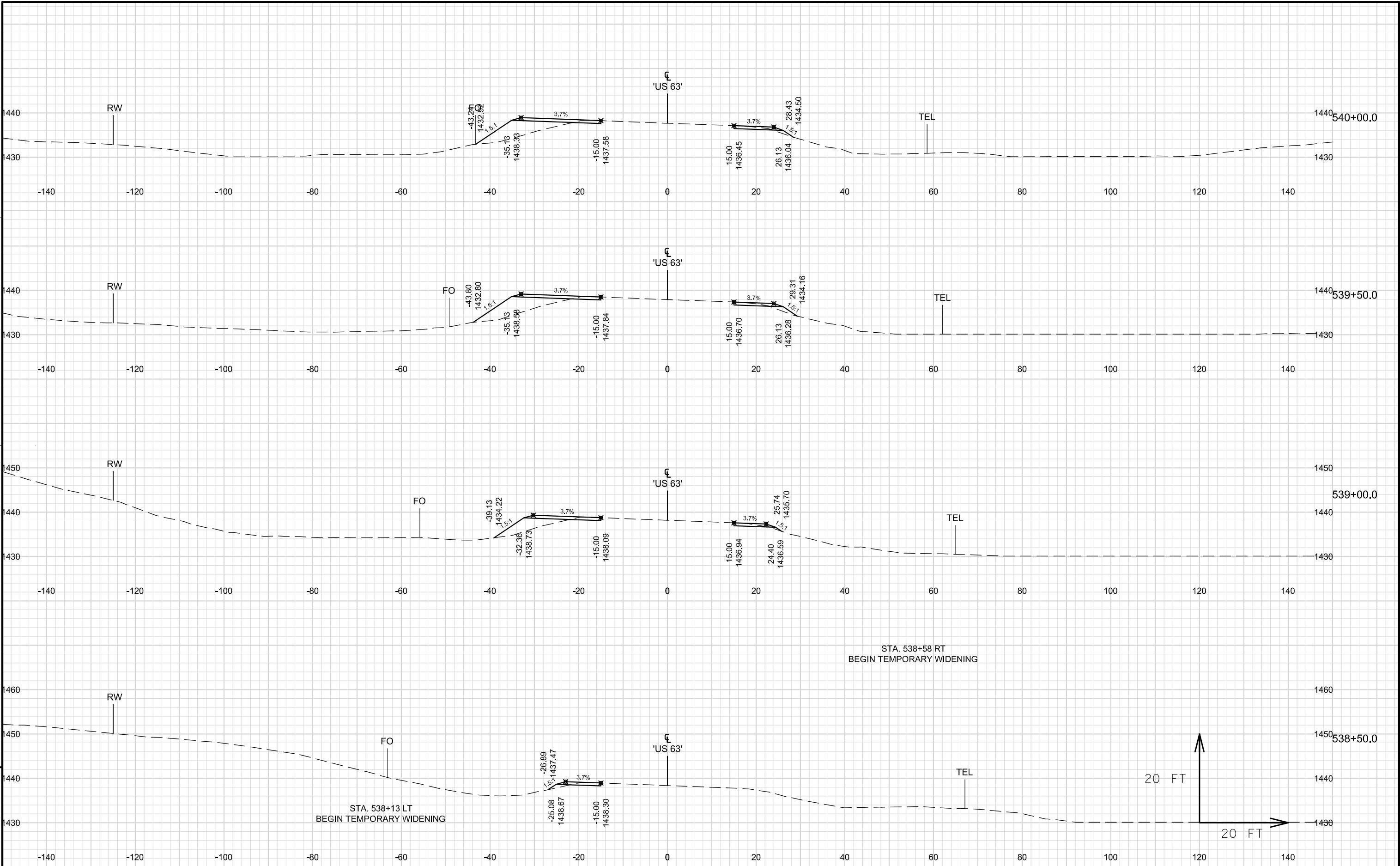


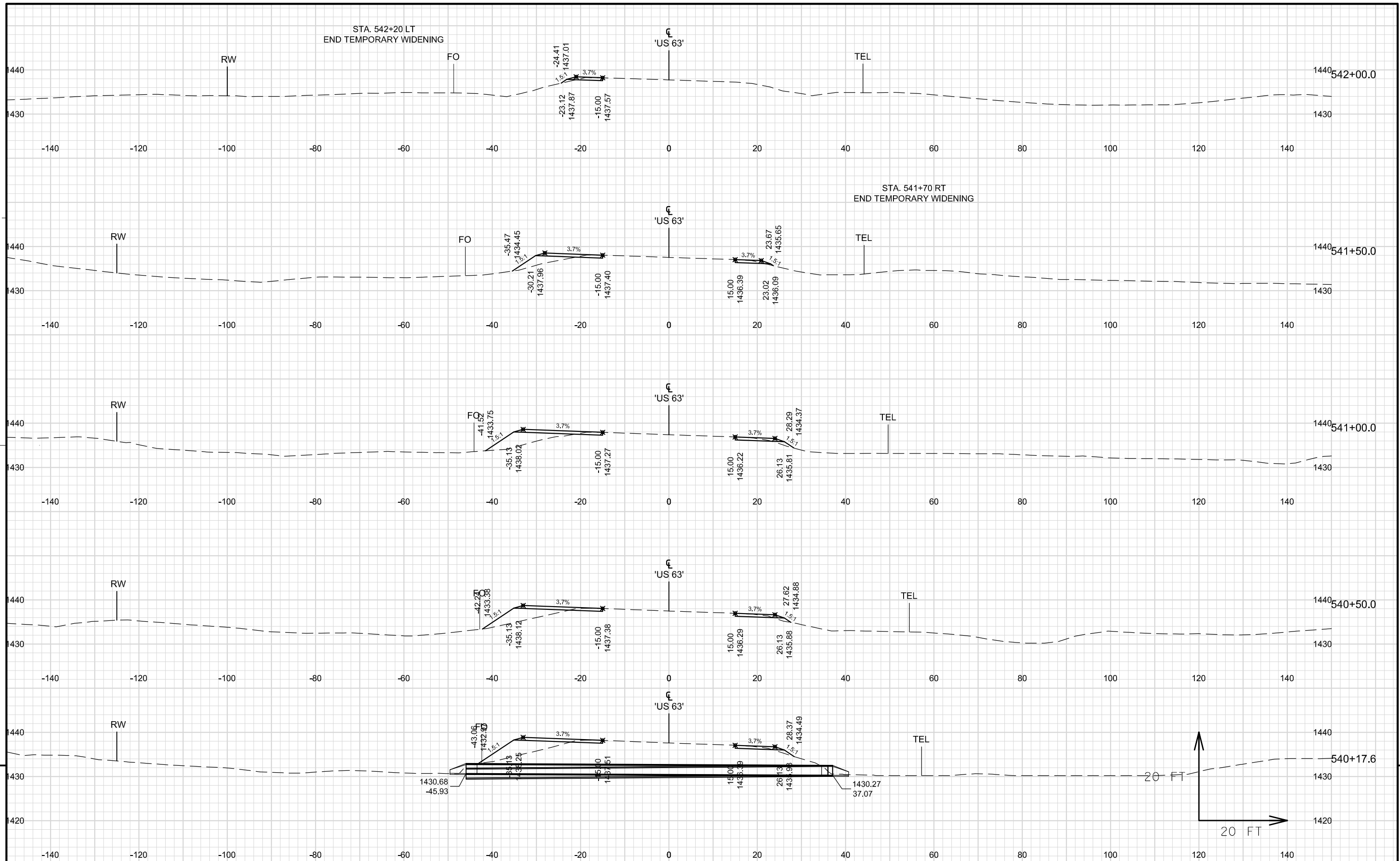


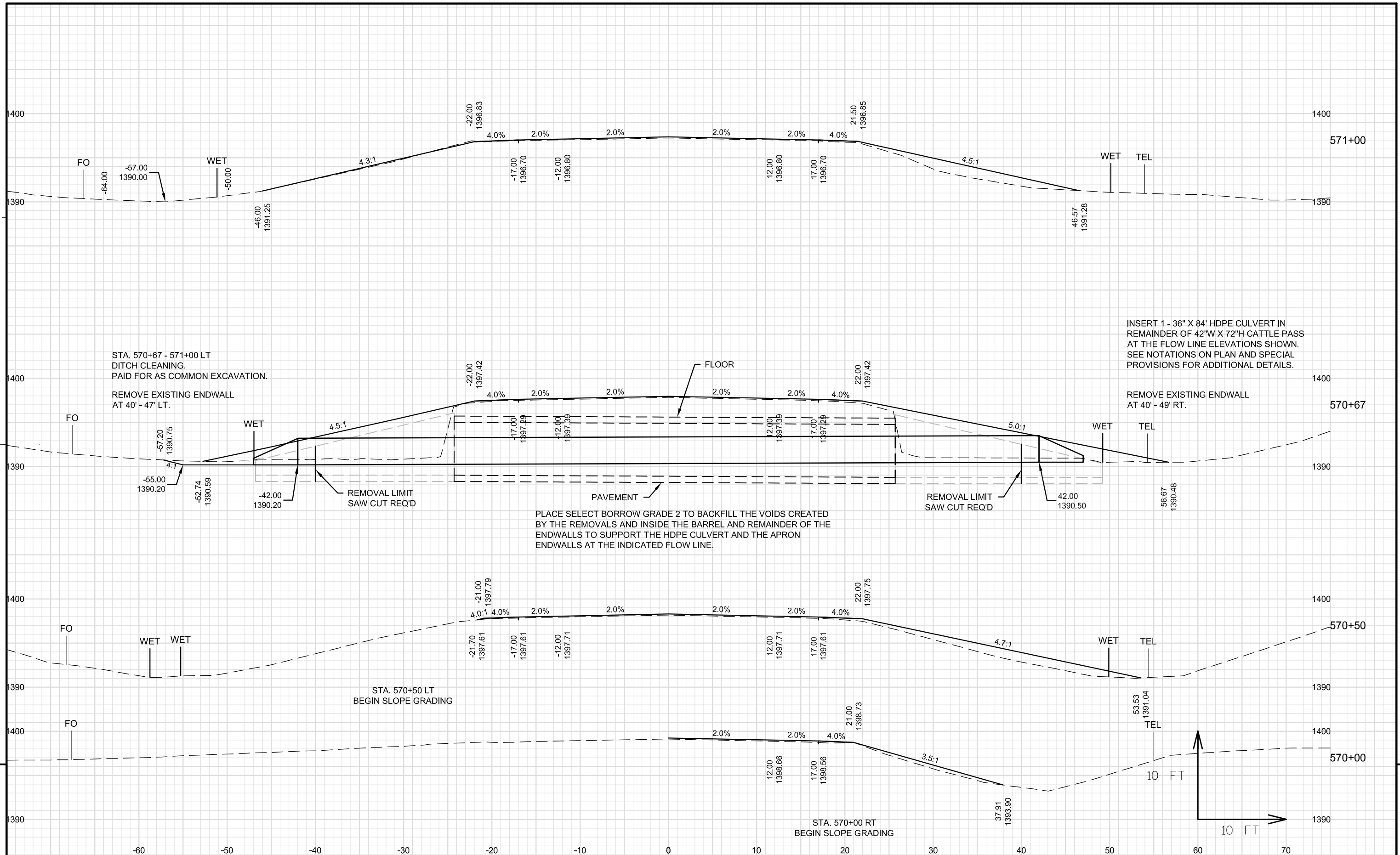


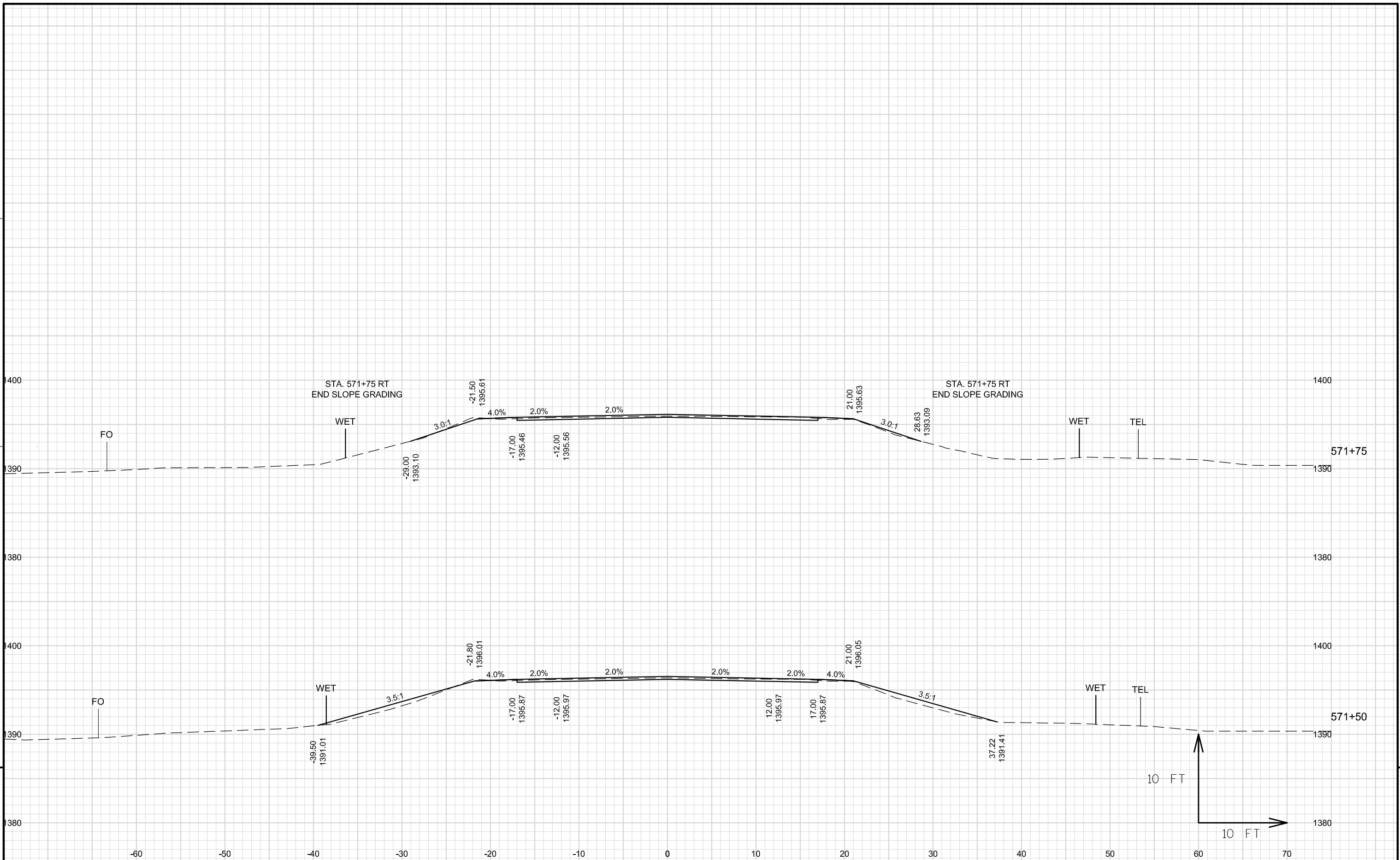


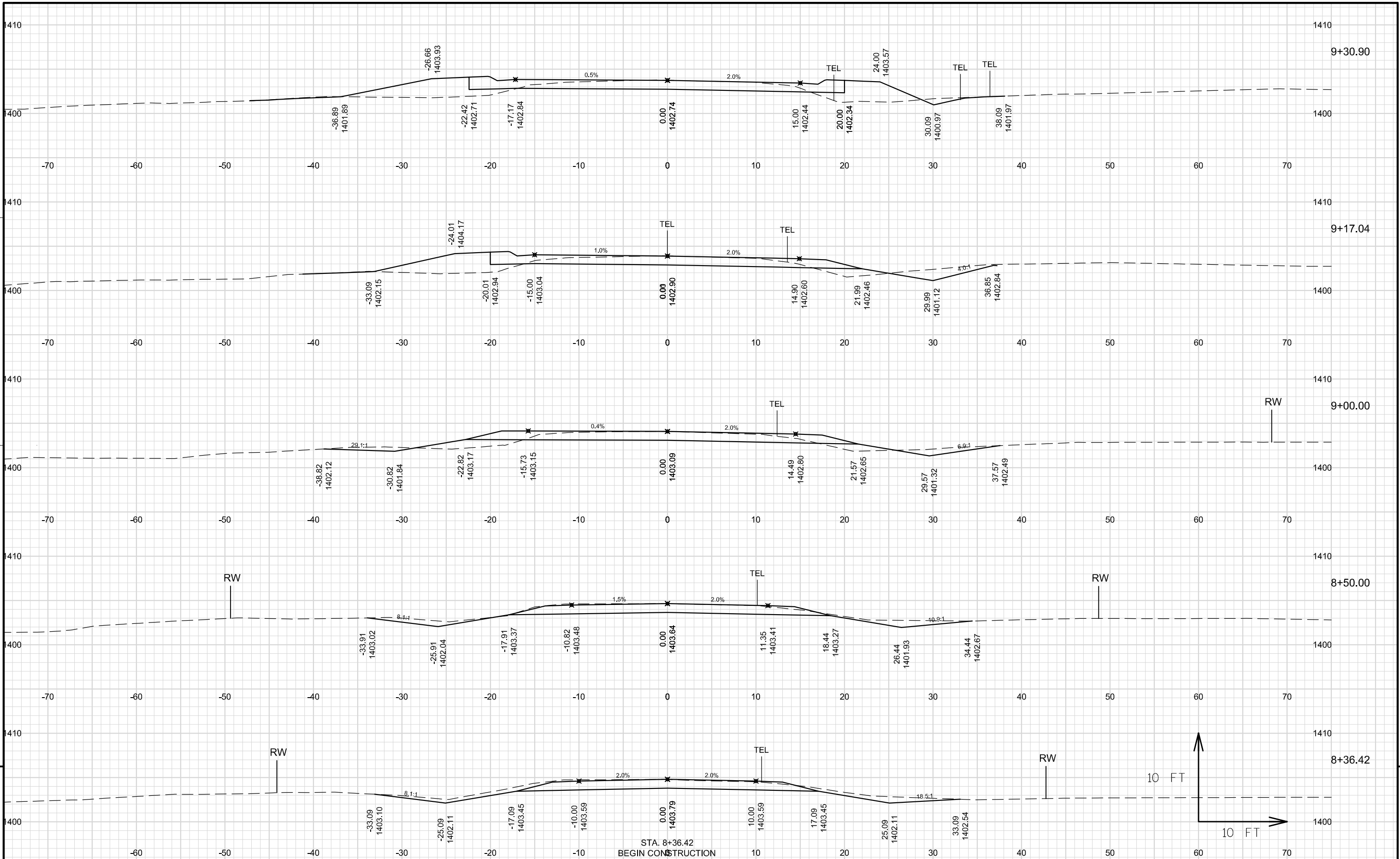


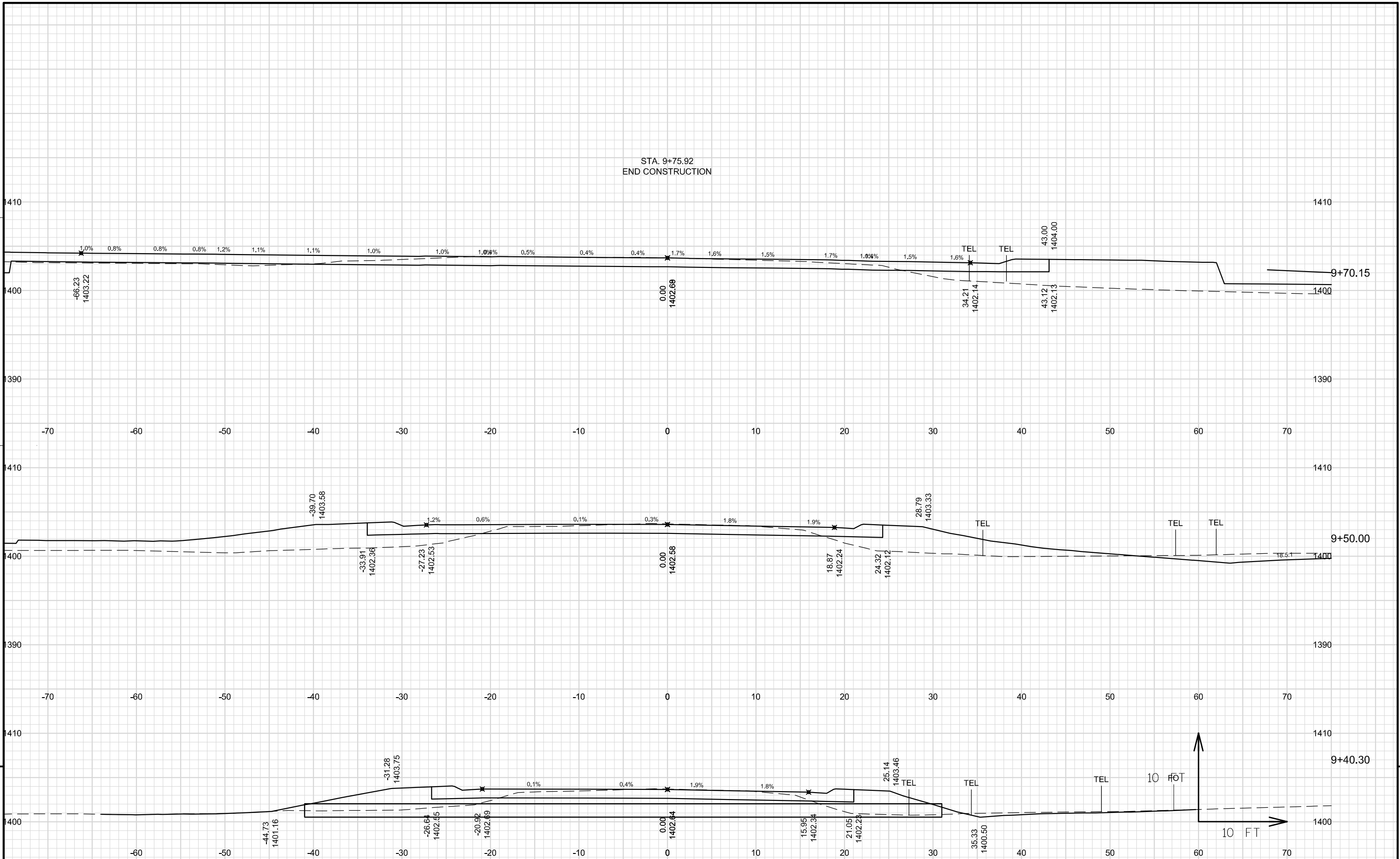


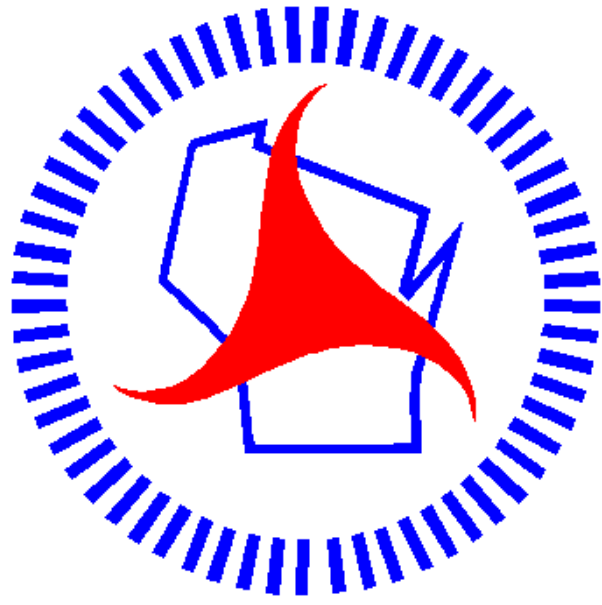












Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>