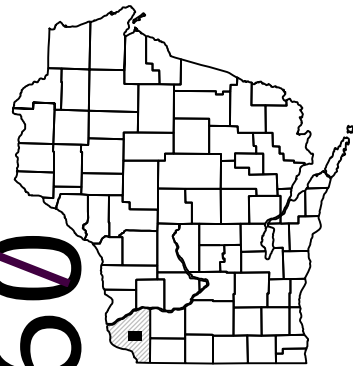


ORDER OF SHEETS

Sheet No.	1	Title
Sheet No.		Typical Sections and Details
Sheet No.		Estimate of Quantities
Sheet No.		Miscellaneous Quantities
Sheet No.		Right of Way Plat
Sheet No.		Plan and Profile
Sheet No.		Standard Detail Drawings
Sheet No.		Sign Plates
Sheet No.		Structure Plans
Sheet No.		Computer Earthwork Data
Sheet No.		Cross Sections

TOTAL SHEETS = 100



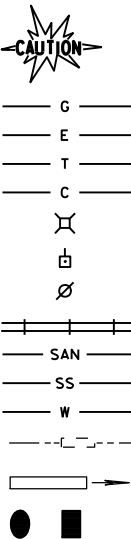
DESIGN DESIGNATION

A.D.T. (2013)	=	5,100
A.D.T. (2033)	=	7,100
D.H.V.	=	5.6%
D.	=	59/41
T.	=	16.6%
DESIGN SPEED	=	60 MPH
ESALS	=	2,540,400

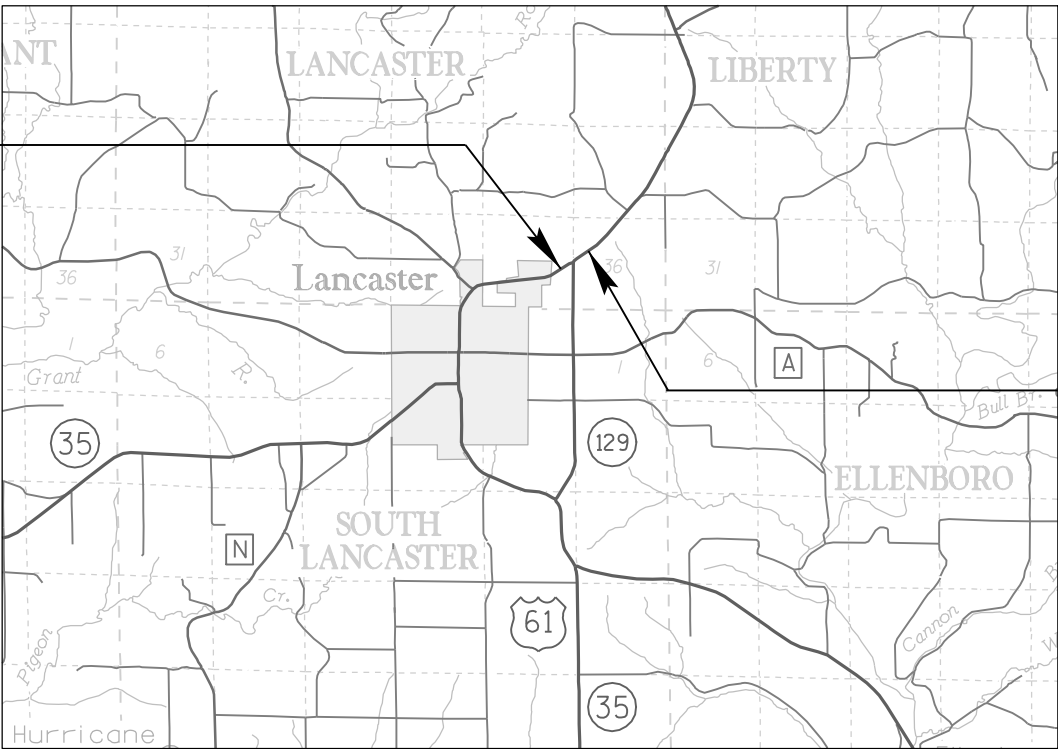
CONVENTIONAL SYMBOLS

COUNTY LINE	---
CORPORATE LIMITS	
PROPERTY LINE	- P.L. - 58.1 -
LOT LINE	---
LIMITED EASEMENT	---
EXISTING RIGHT OF WAY	---
PROPOSED OR NEW R/W LINE	---
SURVEY LINE	---
SLOPE INTERCEPT	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
MARSH AREA	---
WOODED OR SHRUB AREA	---

COMBUSTIBLE FLUIDS	---
UNDERGROUND UTILITIES	---
GAS	---
ELECTRIC	---
TELEPHONE OR TELEGRAPH	---
COMMUNICATIONS LINE	---
SERVICE PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---
RAILROAD	---
SANITARY SEWER	---
STORM SEWER	---
WATER	---
EXISTING CULVERT	---
PROPOSED CULVERT (Box or Pipe)	---
CULVERT (Profile View)	---



BEGIN PROJECT
STATION 11+00
X = 824911.67
Y = 529216.36



STATE PROJECT NUMBER
1650-01-79



LAYOUT

0 1 MI 2 MI
SCALE



TOTAL NET LENGTH OF CENTERLINE = 0.440 MI.

--Coordinates on this plan are referenced to the Wisconsin County
Coordinate System (WCCS), Grant County.--

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1650-01-79	WISC 2013264	1

END PROJECT
STATION 35+00
X = 826853.15
Y = 530495.53

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	CORY SCHLEGEL
Designer	JAIME M. BOADO, JR, PE
Project Manager	REINY YAHNKE, PE
District Examiner	
District Supervisor	STEVE FLOTTMEYER, PE
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE
DATE: 01/30/13 *Stephen A. Flottmeyer*
(Signature)

E

GENERAL NOTES

- CURVE DATA IS BASED ON ARC DEFINITION.
- LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS. SEE DETAIL SHEETS AND CROSS SECTIONS FOR SLOPES AND GRADES.
- SALVAGED TOPSOIL HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 6 FT BEYOND THE TOE OF SLOPE. SEEDING AND FERTILIZING HAS BEEN COMPUTED BY DIRECT MEASUREMENTS ON THE CROSS SECTIONS PLUS 10 FT.
- ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.
- SAFETY FENCE SHALL BE PLACE AS INDICATED ON THE PLAN TO PROTECT ENVIRONMENTALLY SENSITIVE AREA.
- PROPOSED PROFILE FOR INFORMATION ONLY. ENGINEER WILL VERIFY EXISTING PROFILE AND WILL SET SLOPE STAKES BASED ON A FINISHED PROFILE OF 5.5" HIGHER THAN EXISTING. ENGINEER WILL PROVIDE CONTRACTOR SUBGRADE AND BASE ELEVATIONS BASED ON THE EXISTING PROFILE.
- NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.
- WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- REMOVE EXISTING OLD CULVERTS AS SHOWN ON THE PLANS.
- THE EXPANDED FILL, AS SHOWN ON THE PLAN AND PROFILE SHEETS, INCLUDES THE FILL EXPANDED BY 1.43.
- 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 EXCAVATION COMMON. THE LOCATION OF EBS WILL BE DETERMINED BY THE ENGINEER.
- EXISTING DRAINAGE DITCHES AND CULVERT PIPES WILL REMAIN FUNCTIONAL DURING EXCAVATION OPERATIONS.
- INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
- THE LAST SECTION OF ALL EXISTING REINFORCED CONCRETE CULVERT PIPES THAT ARE TO BE EXTENDED SHALL BE, IF NECESSARY, RESET PRIOR TO INSTALLING THE PIPE EXTENSION.
- ALL NEW CONCRETE CULVERT PIPES SHALL REQUIRE JOINT TIES.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED OR SODDED AS DIRECTED BY THE ENGINEER.
- THE EXACT LOCATION OF PRIVATE AND FIELD ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAY SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER PIPE IN DRIVEWAY AREA IS INSTALLED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.
- PLACE THE 5.5" HMA PAVEMENT IN TWO LAYERS; 2" UPPER LAYER AND 3.5" LOWER LAYER
- ASPHALTIC MATERIAL PG64-28 SHALL BE USED IN THE UPPER LAYER AND PG58-28 SHALL BE USED IN THE LOWER LAYER
- HMA PAVEMENT WEIGHT QUANTITIES ARE BASED ON 112 LB/SY/IN.
- THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.
- THE RATE OF APPLICATION FOR TACK COAT IS COMPUTED AT 0.025 GAL/SY.

STANDARD ABBREVIATIONS

AC.	ACRE	MAX.	MAXIMUM
AGG.	AGGREGATE	MGAL	1000 GALLONS
AH	AHEAD	MIN.	MINIMUM
<	ANGLE	N.C.	NORMAL CROWN OR NO CHANGE
AE, AEW	APRON ENDWALL	N	NORTH
ASPH.	ASPHALTIC	NO.	NUMBER
A.D.T.	AVERAGE DAILY TRAFFIC	PAV'T	PAVEMENT
B.F.	BACK FACE	P.L.E.	PERMANENT LIMITED EASEMENT
BK.	BACK	P.C.	POINT OF CURVATURE
BEG.	BEGIN	P.I.	POINT OF INTERSECTION
B.M.	BENCH MARK	P.T.	POINT OF TANGENCY
C/L	CENTER LINE	V.P.C.	VERTICAL POINT OF CURVATURE
			VERTICAL POINT OF
D	CENTRAL ANGLE OR DELTA	V.P.I.	INTERSECTION
	CORRUGATED METAL CULVERT		
C.M.C.P.	PIPE	V.P.T.	VERTICAL POINT OF TANGENCY
C.M.P.	CORRUGATED METAL PIPE	PCC	PORTLAND CEMENT CONCRETE
CO.	COUNTY	P.E.	PRIVATE ENTRANCE
CTH	COUNTY TRUNK HIGHWAY	P.L.	PROPERTY LINE
CR.	CREEK	R	RADIUS OR RANGE
	CRUSHED AGGREGATE BASE		
C.A.B.C.	COURSE	R/L	REFERENCE LINE
		R.C.C.P	REINFORCED CONCRETE CULVERT
C.Y.	CUBIC YARD	.	PIPE
C.P.	CULVERT PIPE	RT	RIGHT
C. & G.	CURB AND GUTTER	REQ'D	REQUIRED
D	DEGREE OF CURVE	R.H.F.	RIGHT HAND FORWARD
D.H.V.	DESIGN HOUR VOLUME	R/W	RIGHT OF WAY
DIA.	DIAMETER	R.	RIVER
DISCH.	DISCHARGE	RD.	ROAD
EA	EACH	SHLD.	SHOULDER(S)
E	EAST	SHR.	SHRINKAGE
ELEC.	ELECTRIC(AL), ELEC. CABLE	S	SOUTH
EL.,			
ELEV.	ELEVATION	S.F.	SQUARE FOOT (FEET)
EXC.	EXCAVATION	SDD	STANDARD DETAIL DRAWING(S)
F.F.	FACE TO FACE	STH	STATE TRUNK HIGHWAY
FERT.	FERTILIZER	STA.	STATION
F.E.	FIELD ENTRANCE	S.E.	SUPERELEVATION
F/L, F.L.	FLOW LINE	S/L	SURVEY LINE
CWT.	HUNDRED WEIGHT	T	TANGENT
INL	INLET	TEL.	TELEPHONE
INTER.	INTERSECTION	TEMP.	TEMPORARY
JT.	JOINT	T.L.E.	TEMPORARY LIMITED EASEMENT
LT	LEFT	T.O.C.	TOP OF CURB
L.H.F.	LEFT HAND FORWARD	T.	(TRUCKS) PERCENT OF
L.	LENGTH OF CURVE	TYP.	TYPICAL
L.F.	LINEAR FOOT(FEET)	UNCL.	UNCLASSIFIED
LC.	LONG CHORD	U.G.	UNDERGROUND (CABLE)
LS	LUMP SUM	V.C.	VERTICAL CURVE
M.P.	MARKER POST	W	WEST

UTILITY COMPANIES & PERSONNEL

ALLIANT ENERGY

Suite 1000
4902 N Biltmore Lane
Madison, WI 53718
ATTN: Jason Hogan
PHONE: (608) 395-7395
jasonhogan@alliantenergy.com

CITY OF LANCASTER - SEWER & WATER

206 S Madison St.
Lancaster, WI 53813
ATTN: Jerry Carroll
PHONE: (608) 778-2137
jcarroll@pcii.net

STITZER SANITARY DISTRICT

P.O. BOX 121
Stitzer, WI 53825
ATTN: Andre T. Keller (Independent Contractor)
PHONE: (608) 822-3832
kattax@mhtc.net

WE ENERGIES

333 W. Everett St. A299
Milwaukee, WI 53203
ATTN: Dan Sande
PHONE: (414) 221-2336
dan.sande@we-energies.com

CHARTER COMMUNICATIONS

2701 Daniels St.
Madison, WI 53718
ATTN: Brandon Storm
PHONE: (608) 274-3822
brandon.storm@chartercom.com

SCENIC RIVERS ENERGY COOPERATIVE

231 N. Sheridan St.
Lancaster, WI 53813-1342
ATTN: Andy Kilcoyne
PHONE: (608) 723-2121 ext. 108
akilcoyne@srec.net

TDS TELECOM

140 N Monroe St.
P.O. Box 467
Lancaster, WI 53813
ATTN: Ken Klaas
PHONE: (608) 723-3633
kenneth.klaas@tdstelecom.com

SOILS ENGINEER CONTACT

Wisconsin Department of Transportation
Southwest Region - La Crosse Office
Soils Engineer
3550 Mormon Coulee Road
La Crosse, WI 54601
ATTN: Russ Frank
PHONE: (608) 785-9047
[EMAIL: russell.frank@dot.wi.gov](mailto:russell.frank@dot.wi.gov)

DESIGN ENGINEER CONTACT

Wisconsin Department of Transportation
Southwest Region - La Crosse Office
Design Project Leader
3550 Mormon Coulee Road
La Crosse, WI 54601
ATTN: Jaime Boado
PHONE: (608) 785-9062
[EMAIL: jaime.boadojr@dot.wi.gov](mailto:jaime.boadojr@dot.wi.gov)

DNR CONTACT

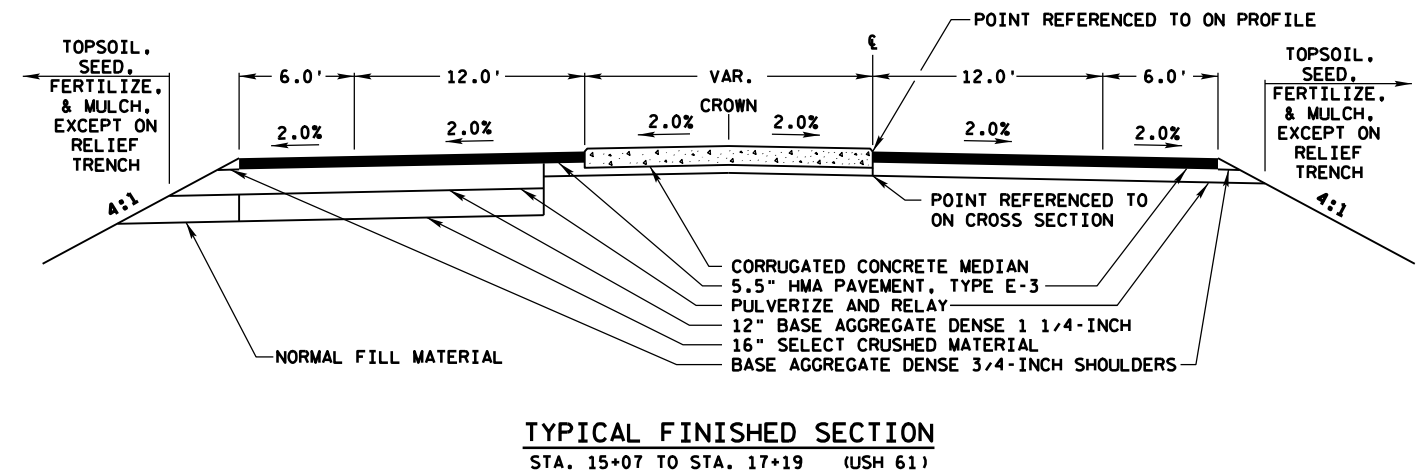
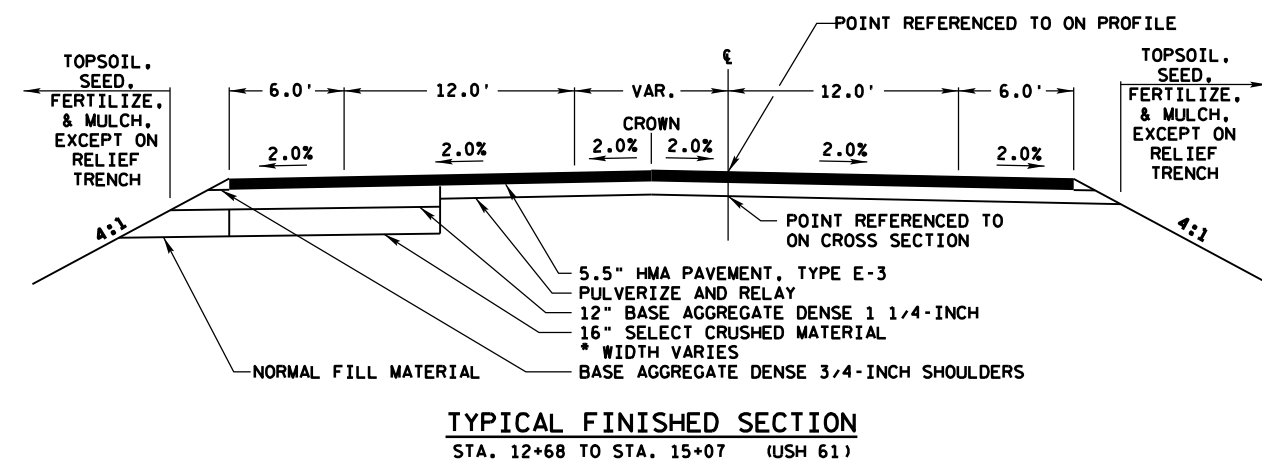
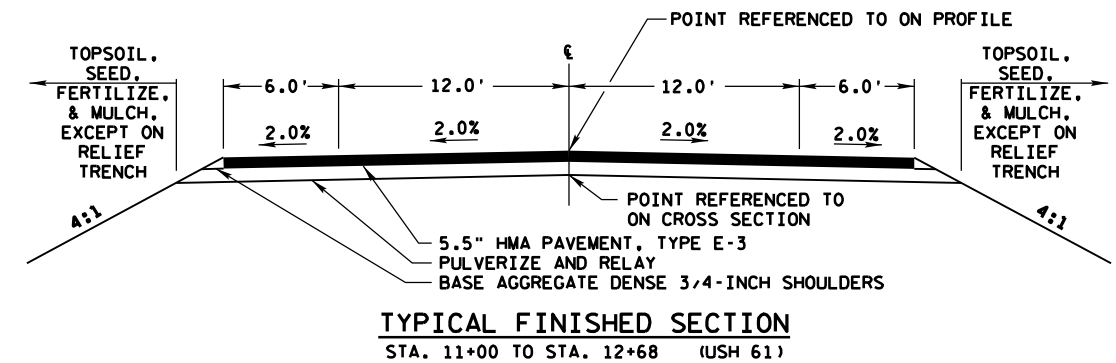
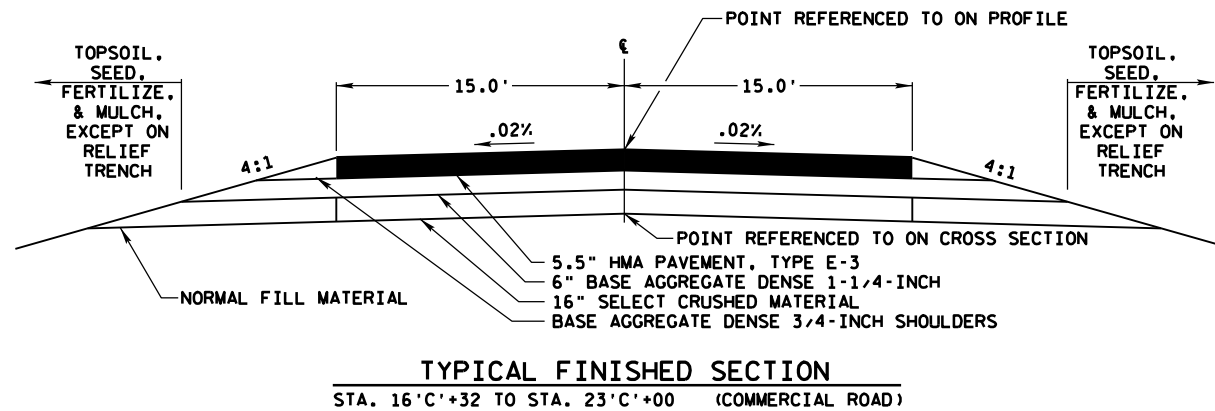
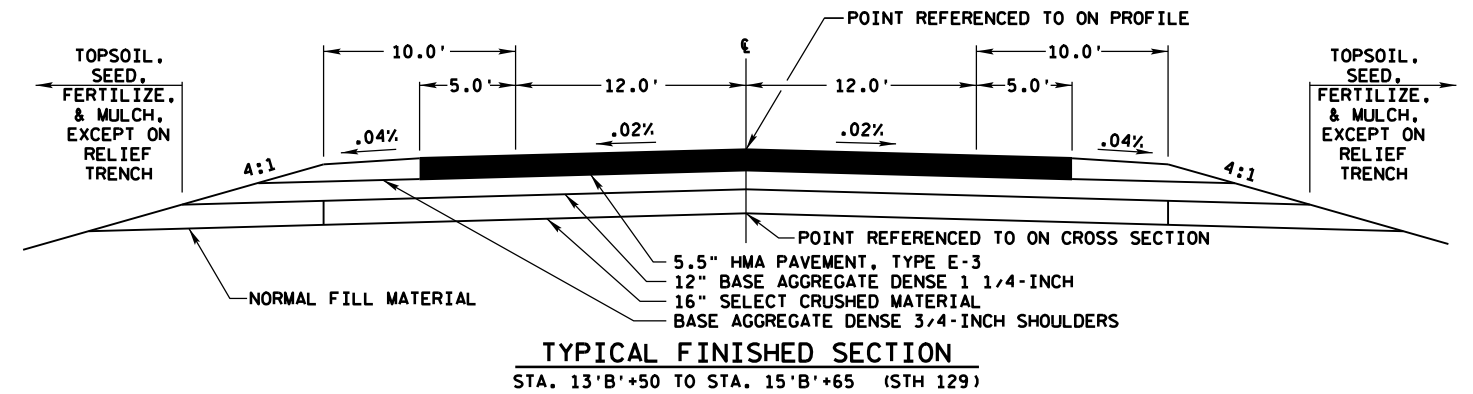
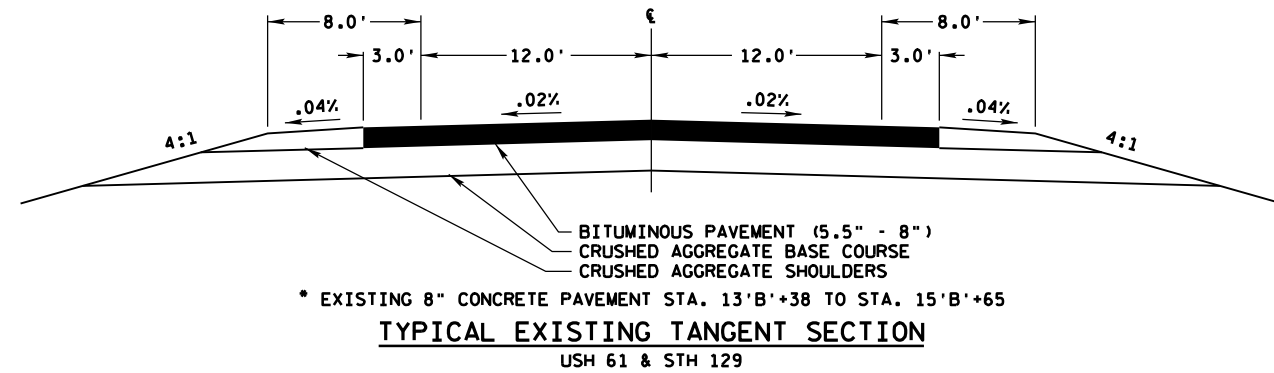
Wisconsin Department of Natural Resources
3911 Fish Hatchery Rd.
Fitchburg, WI 53711
ATTN: Cathy Bleser
PHONE: (608) 275-3308
[EMAIL: Catherine.Bleser@wisconsin.gov](mailto:Catherine.Bleser@wisconsin.gov)

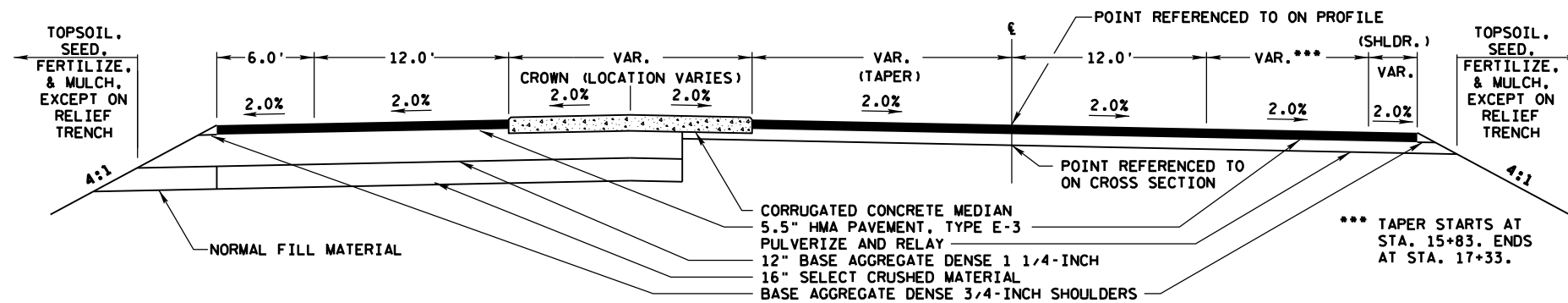
PAVEMENT DESIGN ENGINEER CONTACT

Wisconsin Department of Transportation
Southwest Region - Madison Office
Pavement Engineer
2101 Wright St.
Madison, WI 53704-2583
ATTN: Tim McCarthy
PHONE: (608) 246-5623
[EMAIL: timothy.mccarthy@dot.wi.gov](mailto:timothy.mccarthy@dot.wi.gov)

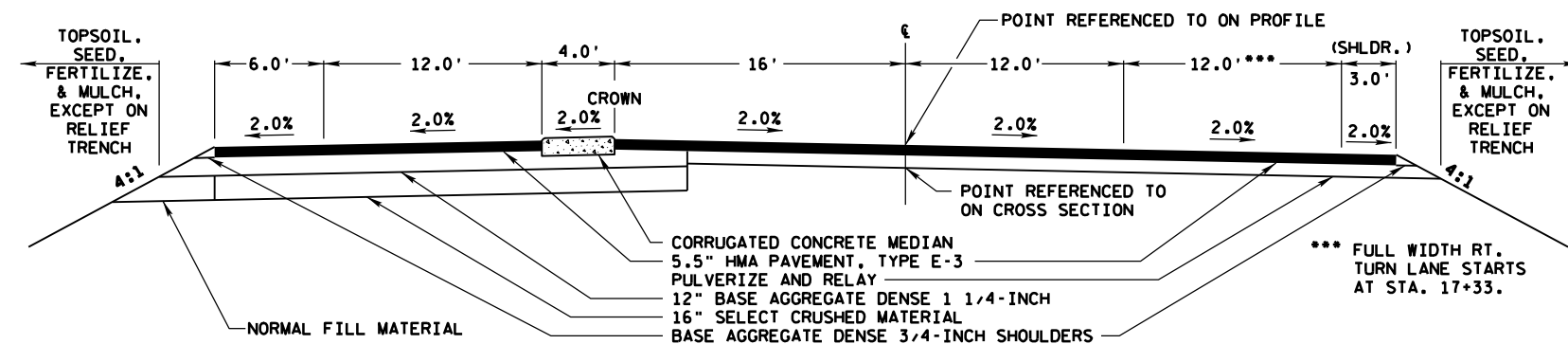


Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

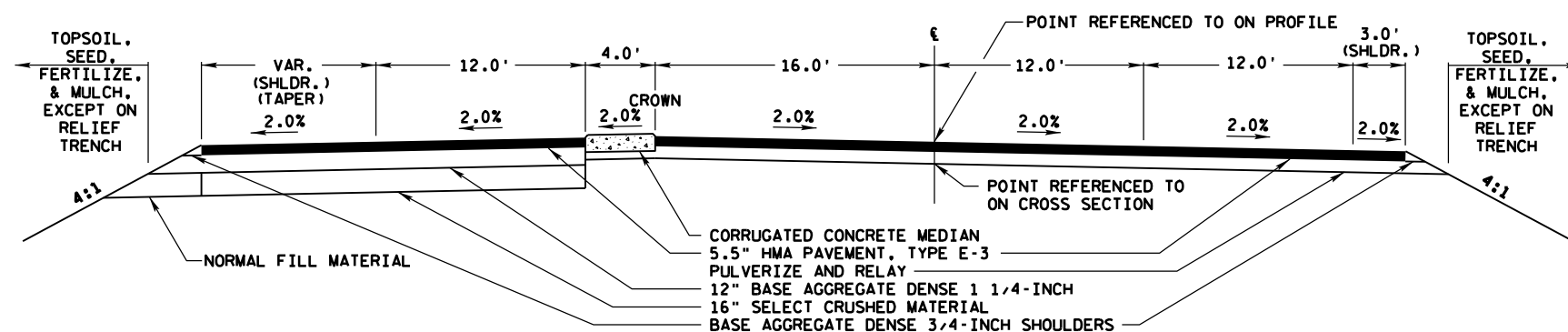




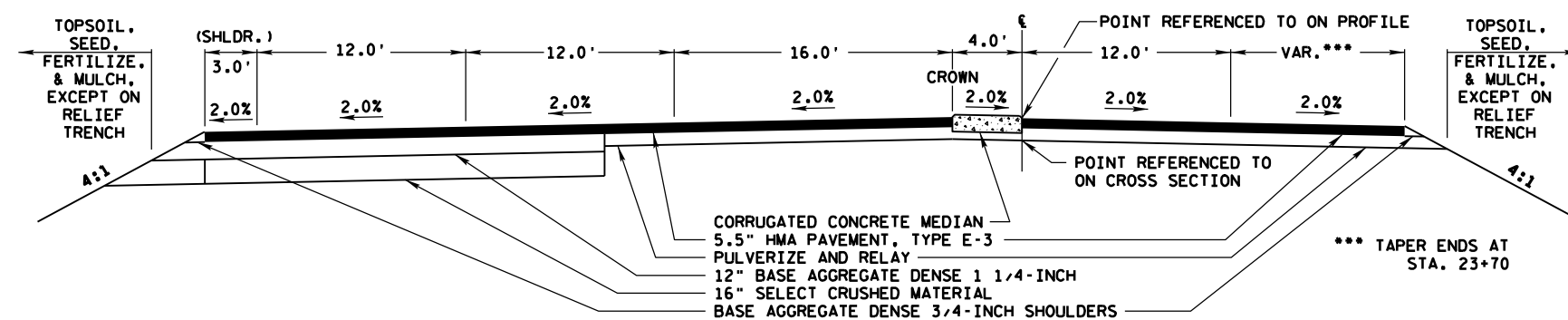
TYPICAL FINISHED SECTION
STA. 17+19 TO STA. 18+69 (USH 61)



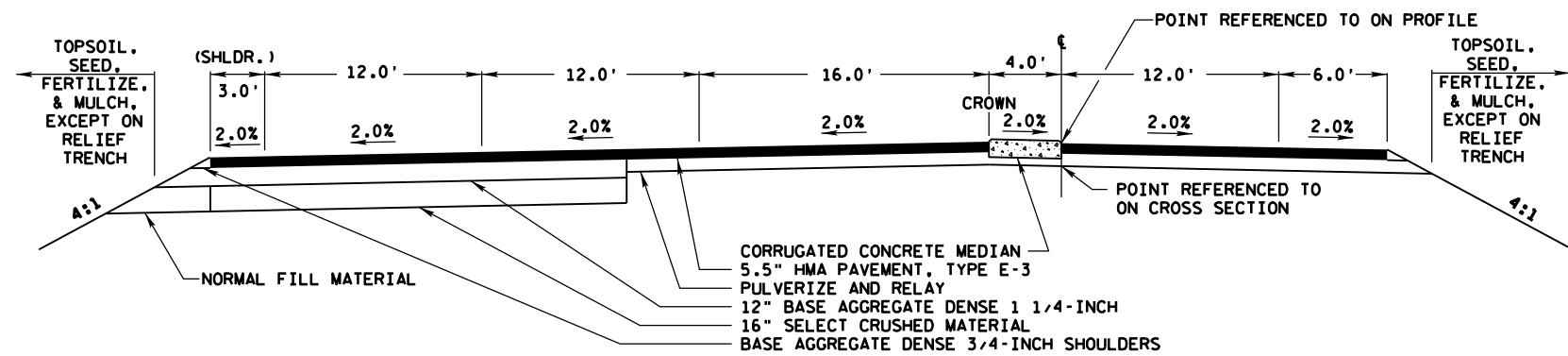
TYPICAL FINISHED SECTION
STA. 18+69 TO STA. 19+96 (USH 61)



TYPICAL FINISHED SECTION
STA. 19+96 TO STA. 20+87 (USH 61)

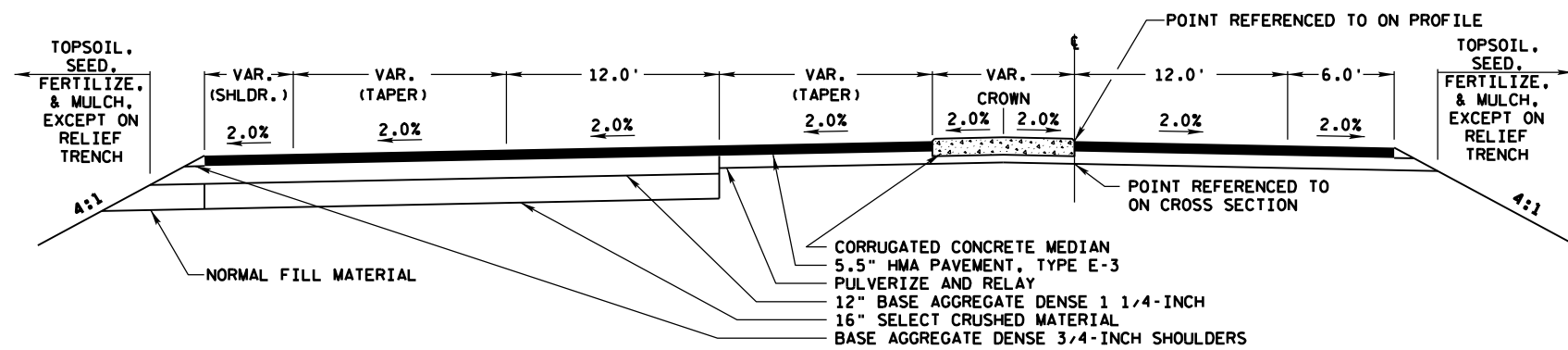


TYPICAL FINISHED SECTION
STA. 22+49 TO STA. 25+86 (USH 61)



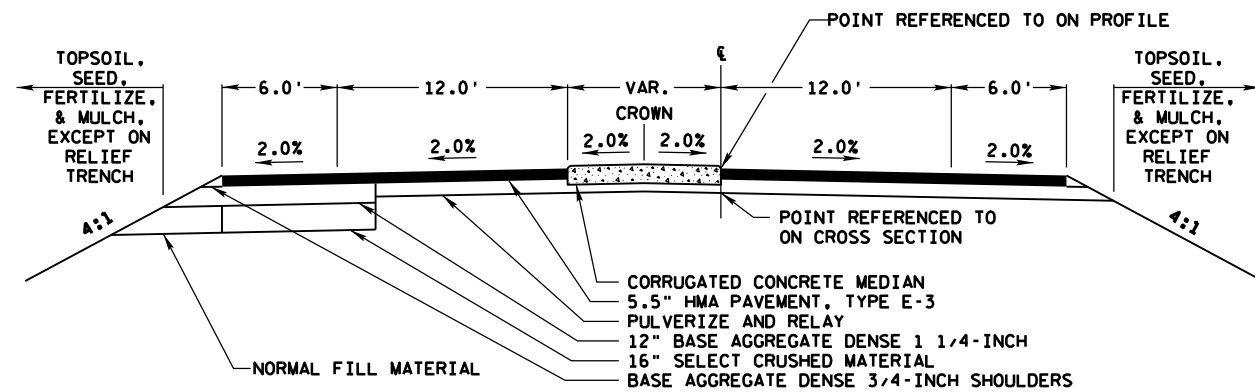
TYPICAL FINISHED SECTION

STA. 23+70 TO STA. 25+86 (USH 61)



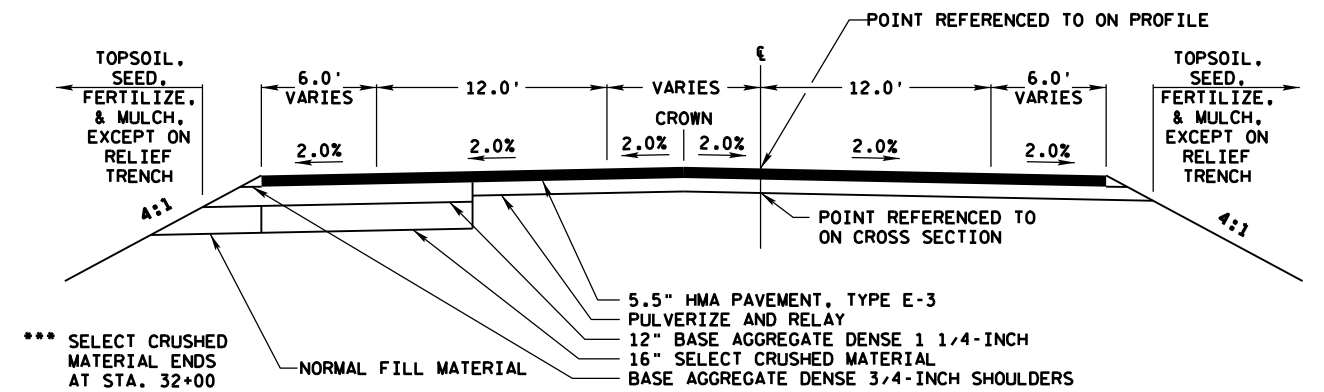
TYPICAL FINISHED SECTION

STA. 25+86 TO STA. 27+36 (USH 61)



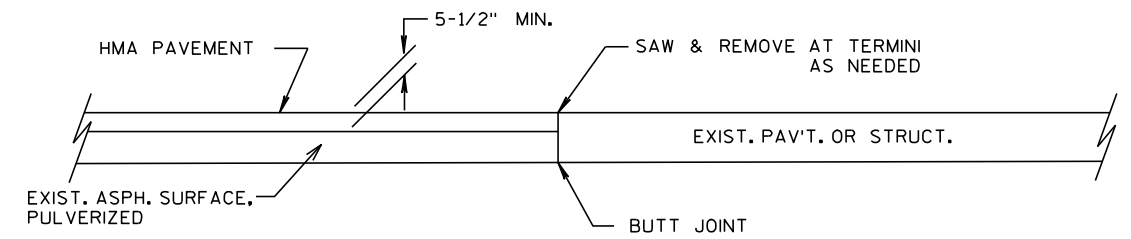
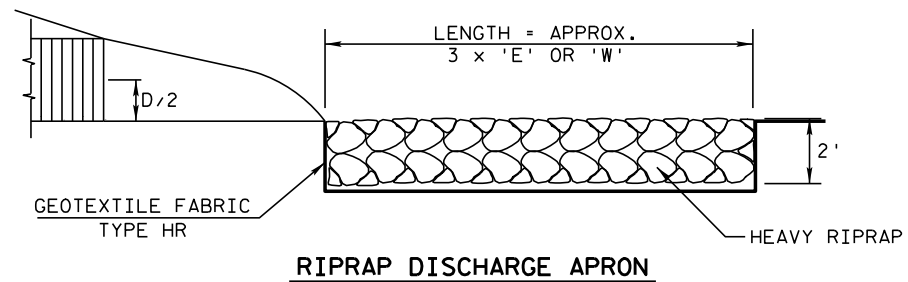
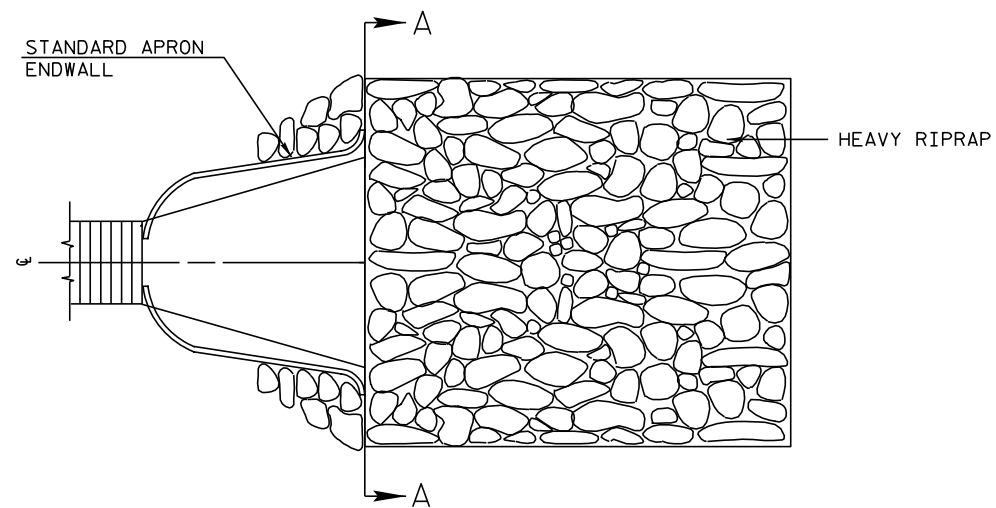
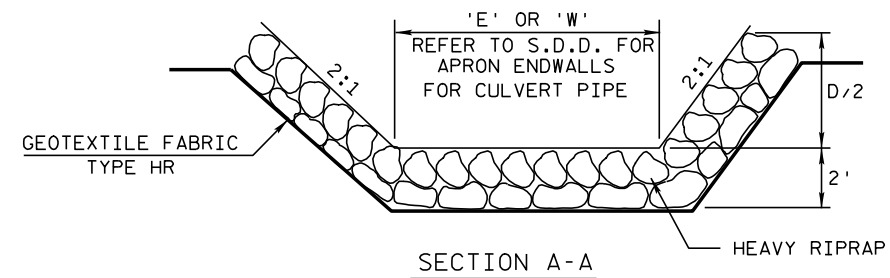
TYPICAL FINISHED SECTION

STA. 27+36 TO STA. 31+88 (USH 61)

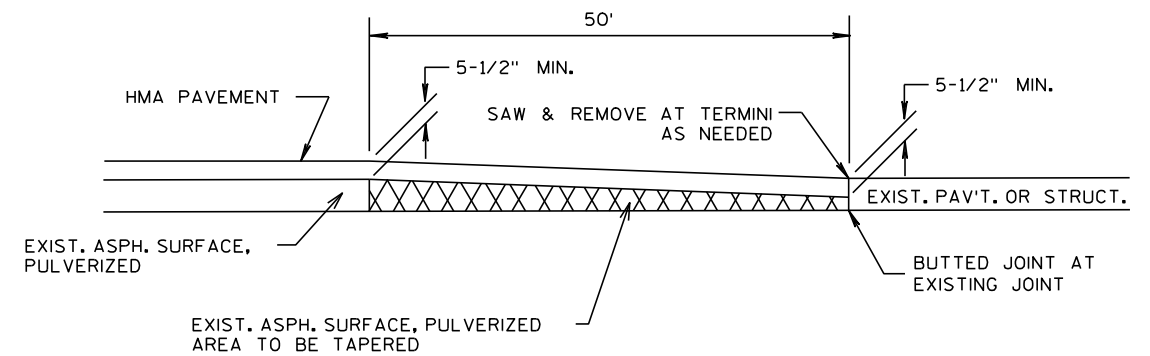


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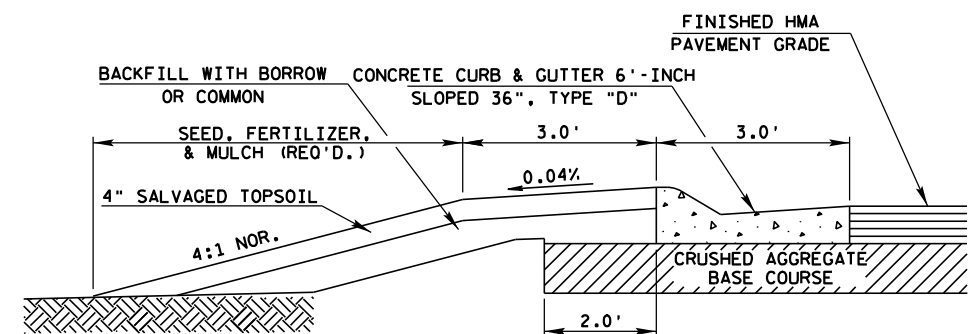
STA. 31+88 TO STA. 34+25 (USH 61)



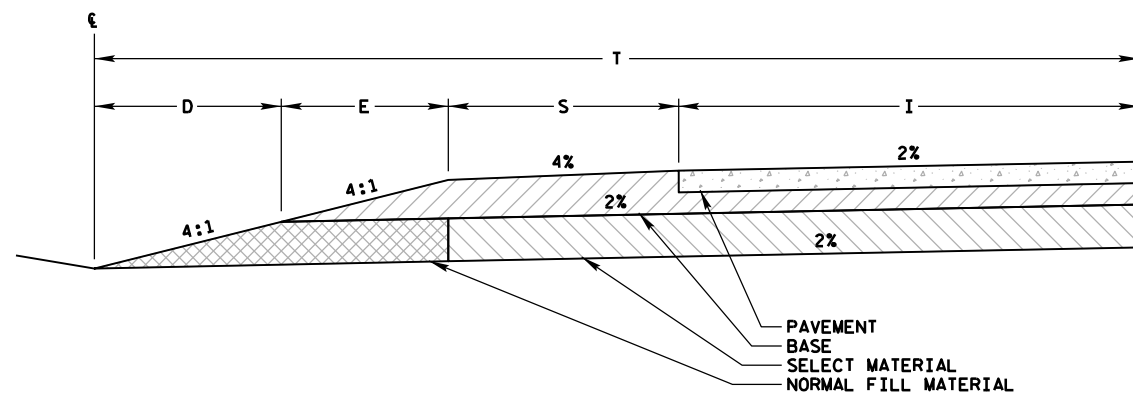
STA. 11'B'+51
STA. 23'C'+50



STA. 11+00
STA. 34+25

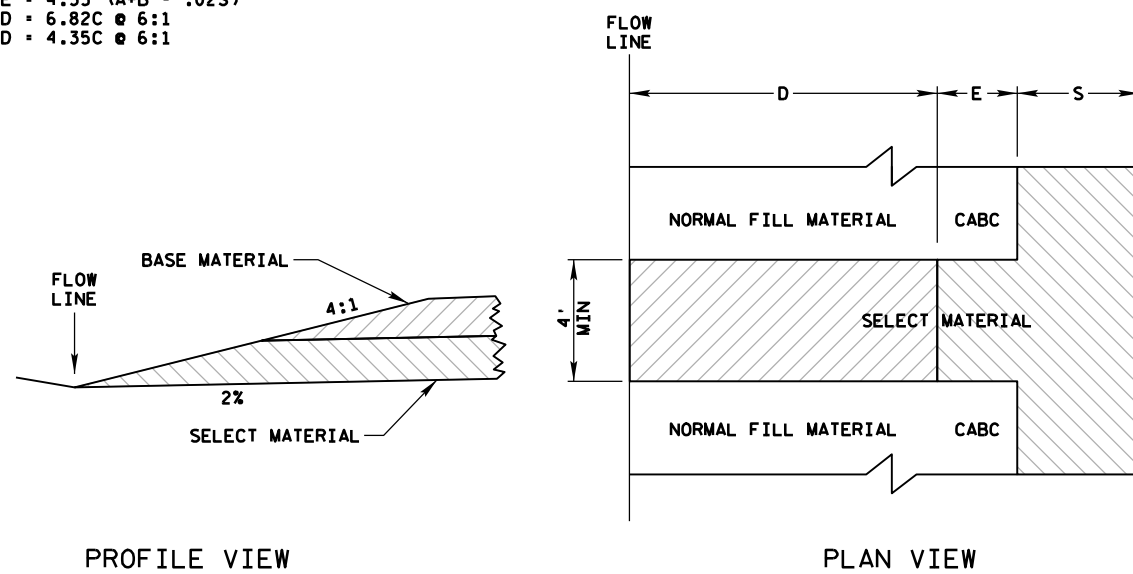


BERM DETAIL BEHIND 36" SLOPED CURB & GUTTER



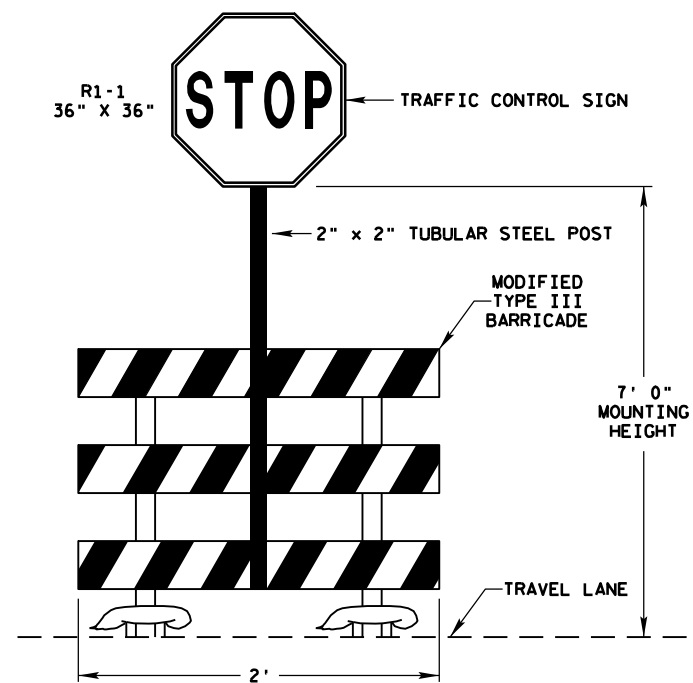
TYPICAL HALF SECTION WITH SELECT MATERIALS (OUTSIDE DITCH)

$$\begin{aligned} E &= 4.35 (A+B - .02S) \\ D &= 6.82C @ 6:1 \\ D &= 4.35C @ 6:1 \end{aligned}$$



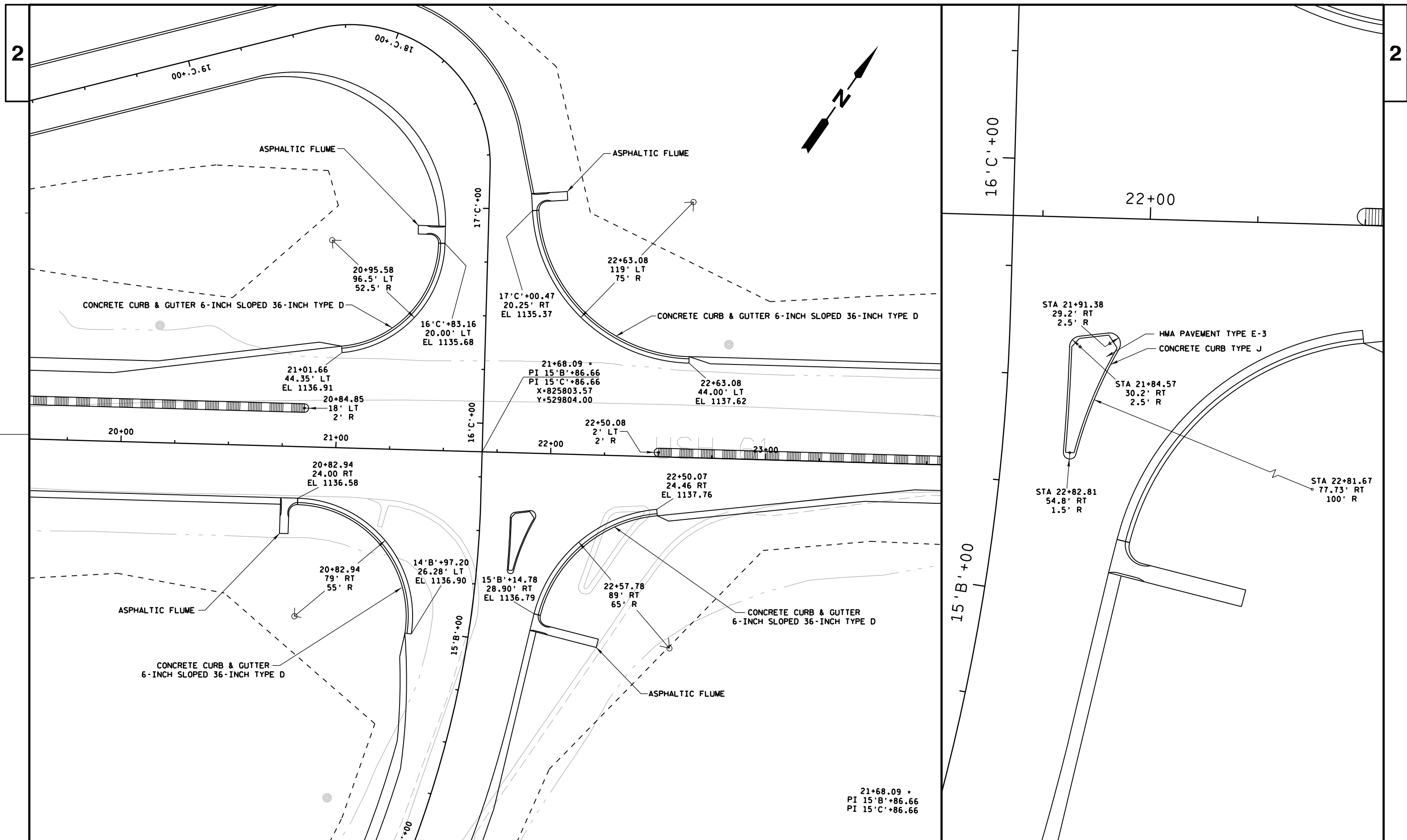
RELIEF TRENCH DETAIL

CONSTRUCT RELIEF TRENCH AT SAG POINTS OR EVERY 250 FEET



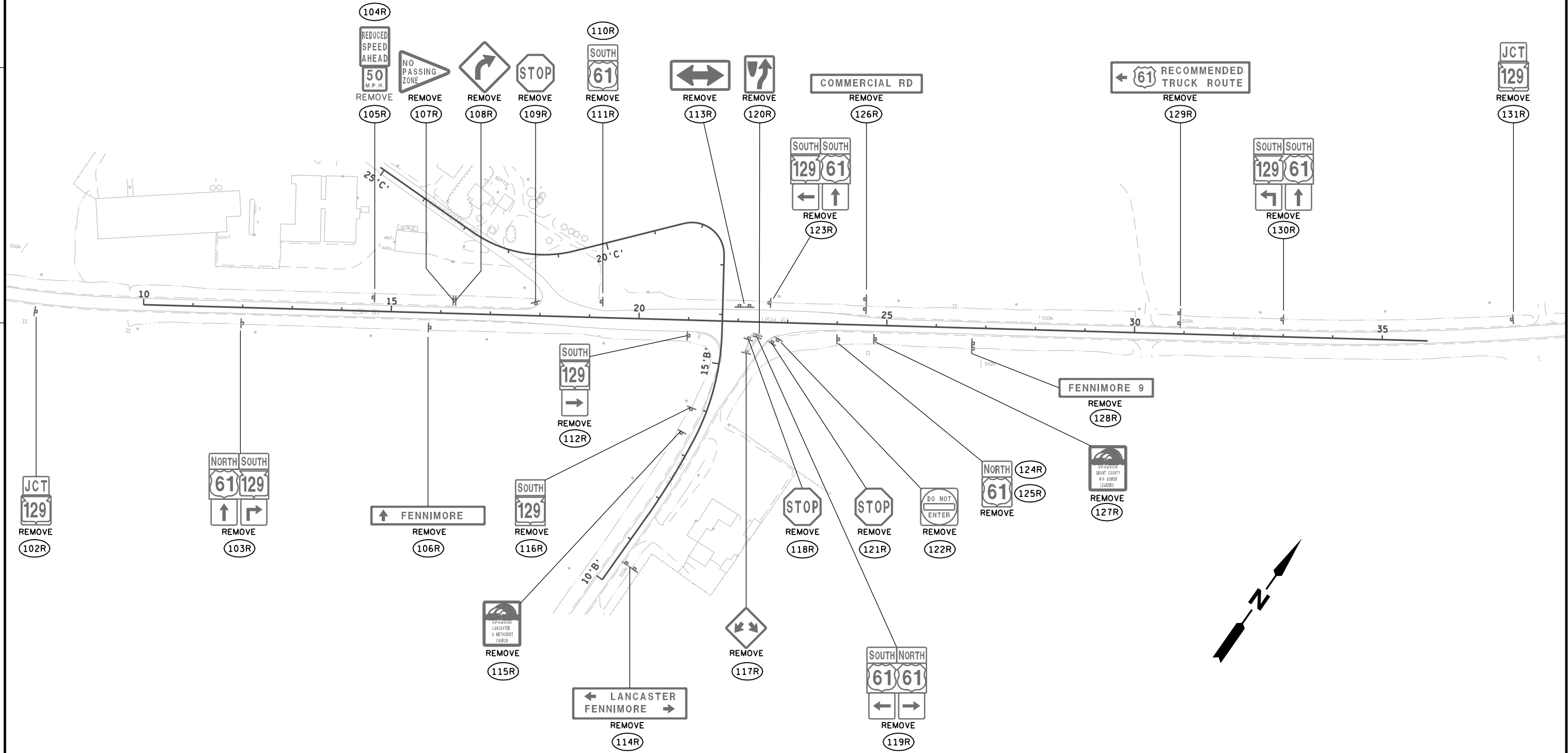
PAID FOR AS: 1-TRAFFIC CONTROL SIGNS
1-TRAFFIC CONTROL BARRICADES TYPE III

TEMPORARY MOUNTED TRAFFIC CONTROL SIGN

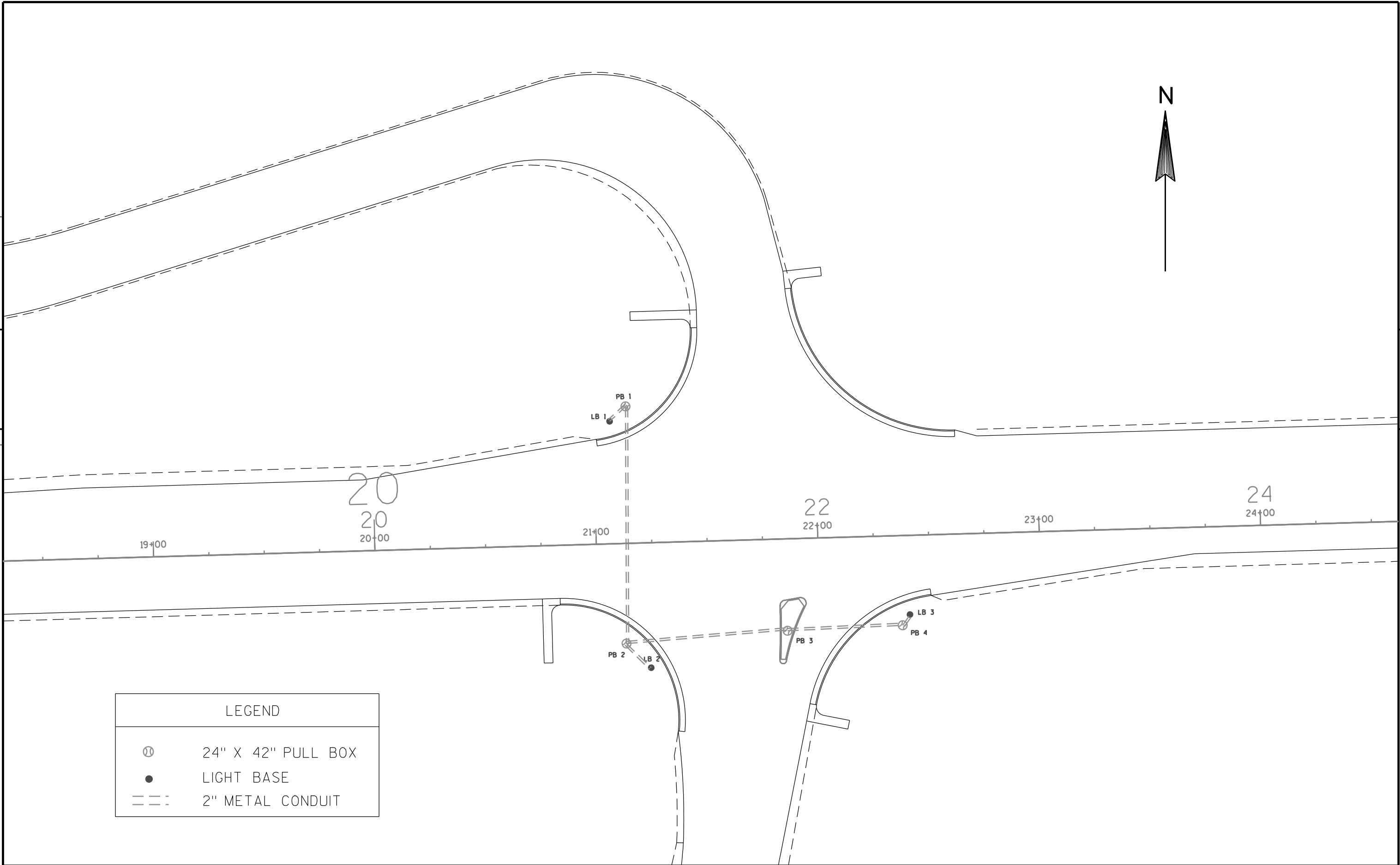


NORTH BOUND
EXTEND PREVIOUS NO PASSING ZONE
TO 500' BEFORE PAINTED TAPER

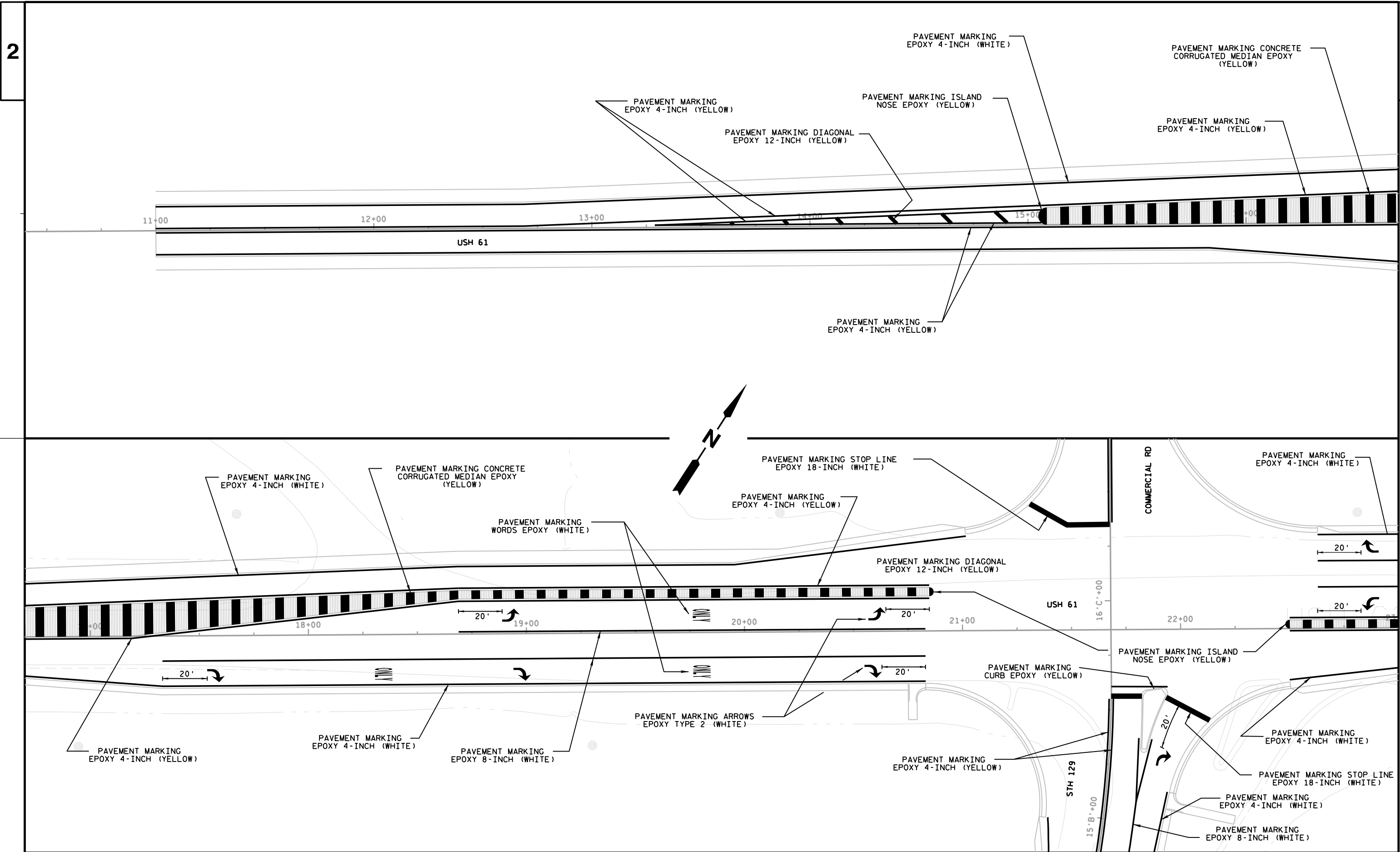
SOUTH BOUND
NO CHANGE TO ENTERING NO PASSING ZONE.

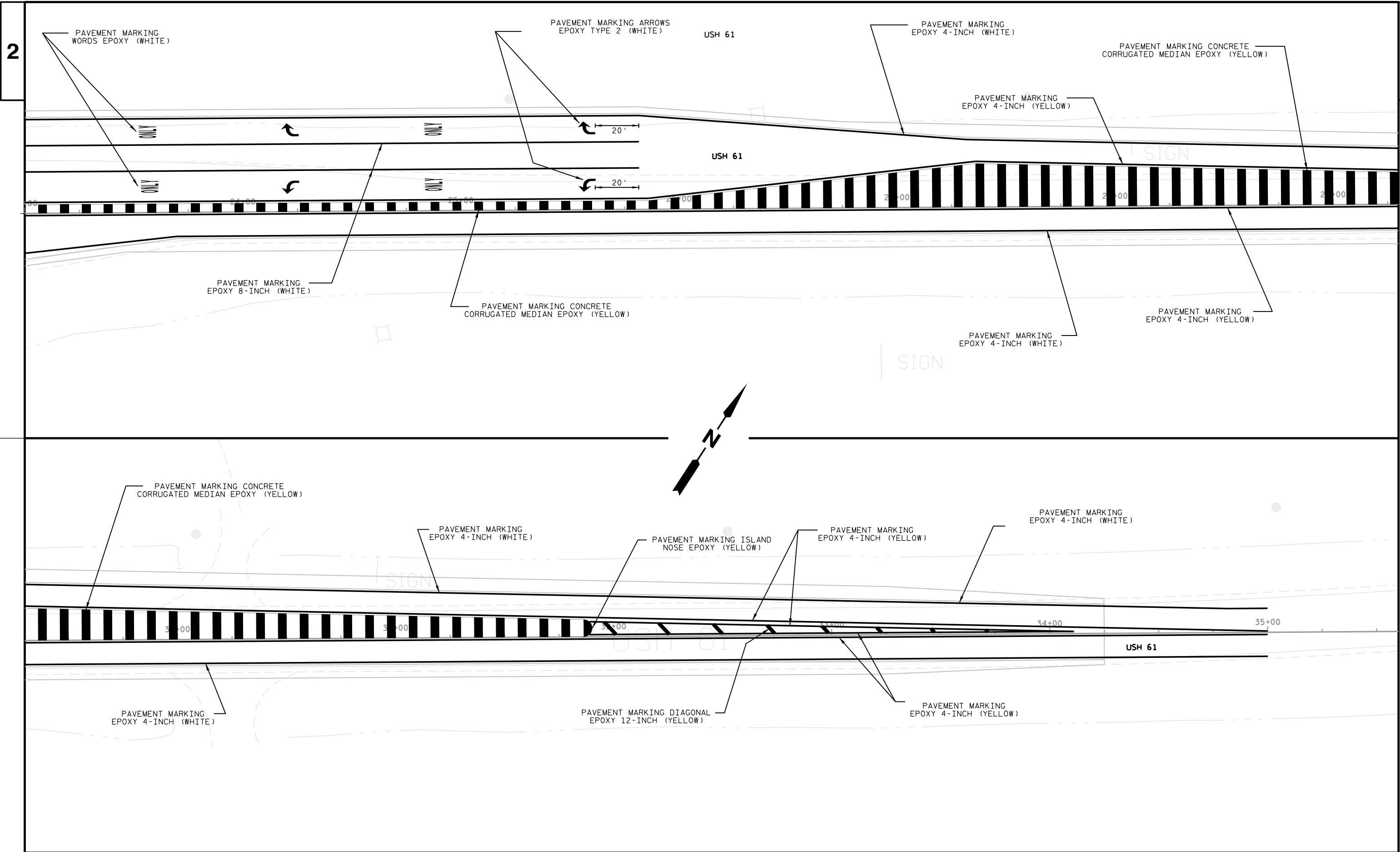




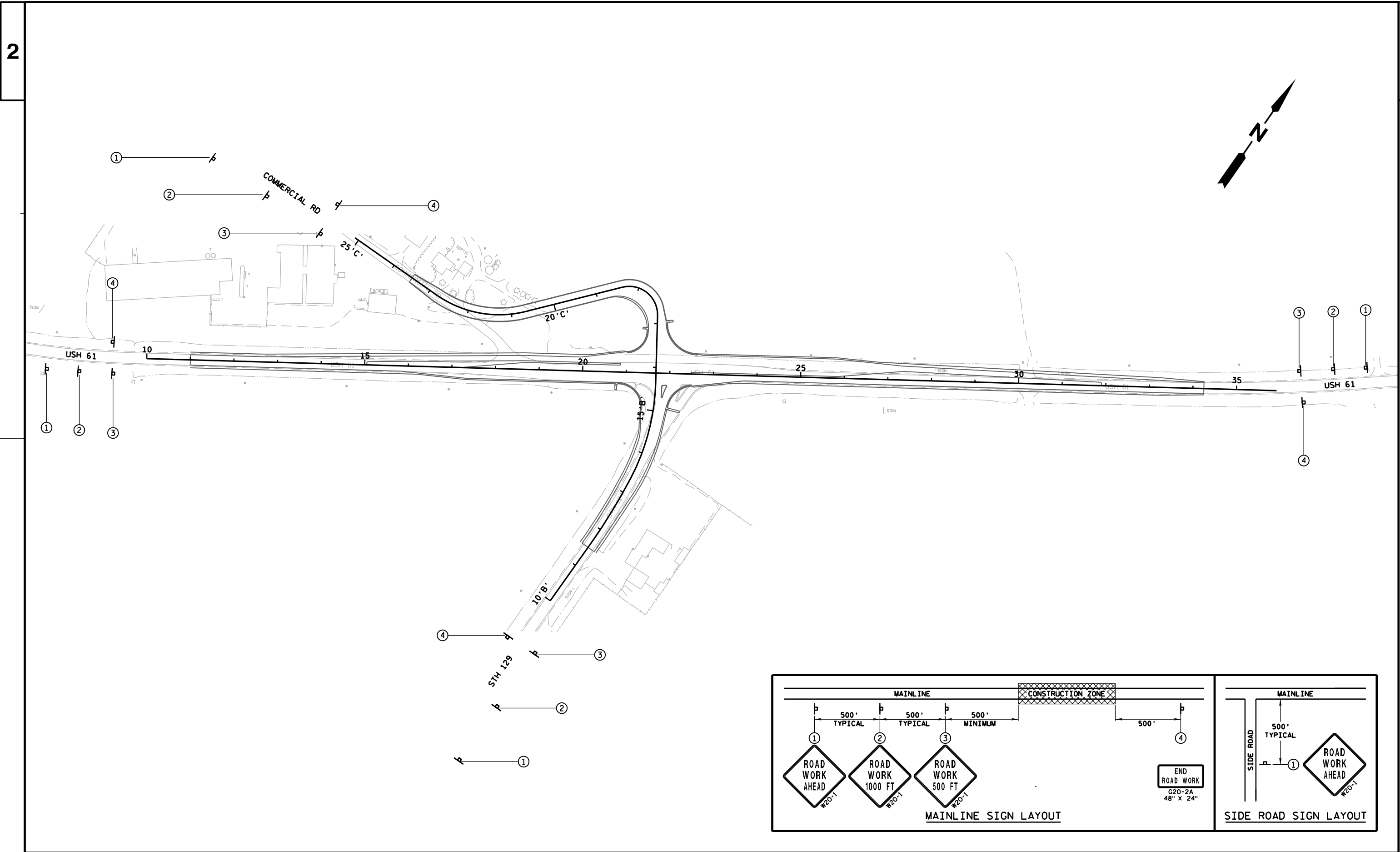


LEGEND	
	24" X 42" PULL BOX
	LIGHT BASE
	2" METAL CONDUIT

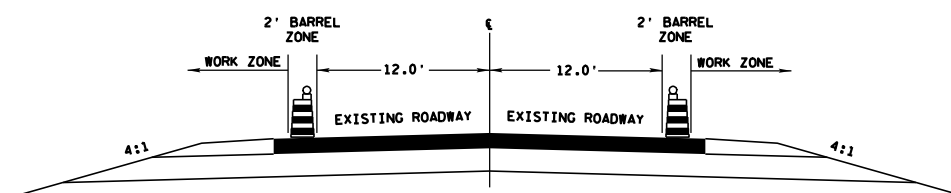




PROJECT NO: 1650-01-79	HWY: USH 61	COUNTY: GRANT	PAVEMENT MARKING	SHEET	E
------------------------	-------------	---------------	------------------	-------	---

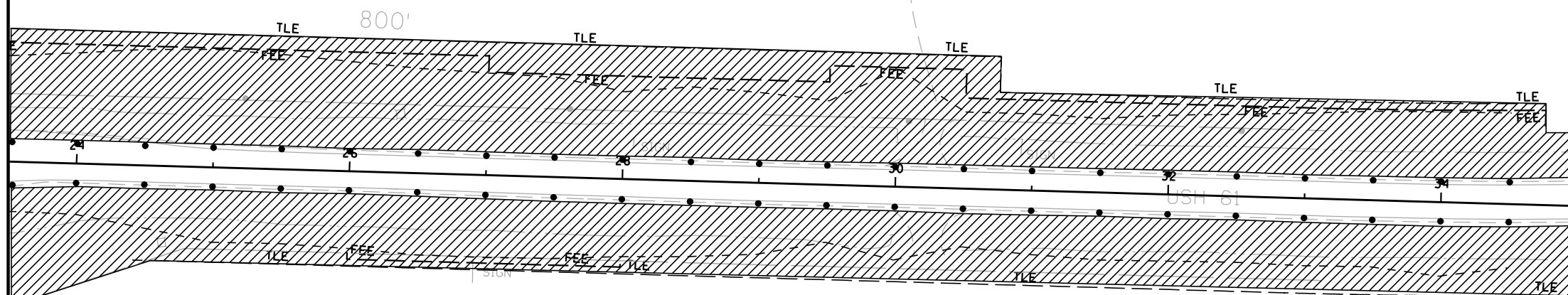


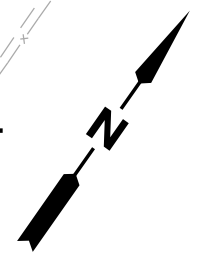
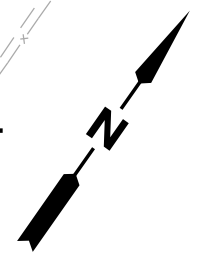
- LEGEND**
-  TYPE III BARRICADE
 -  TYPE III BARRICADE WITH ATTACHED SIGN
 -  TRAFFIC CONTROL DRUM
 -  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 -  SIGN ON PERMANENT SUPPORT
 -  SIGN ON TEMPORARY SUPPORT
 -  WORK AREA
 -  DIRECTION OF TRAFFIC
 -  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



TYPICAL WORK ZONE SECTION

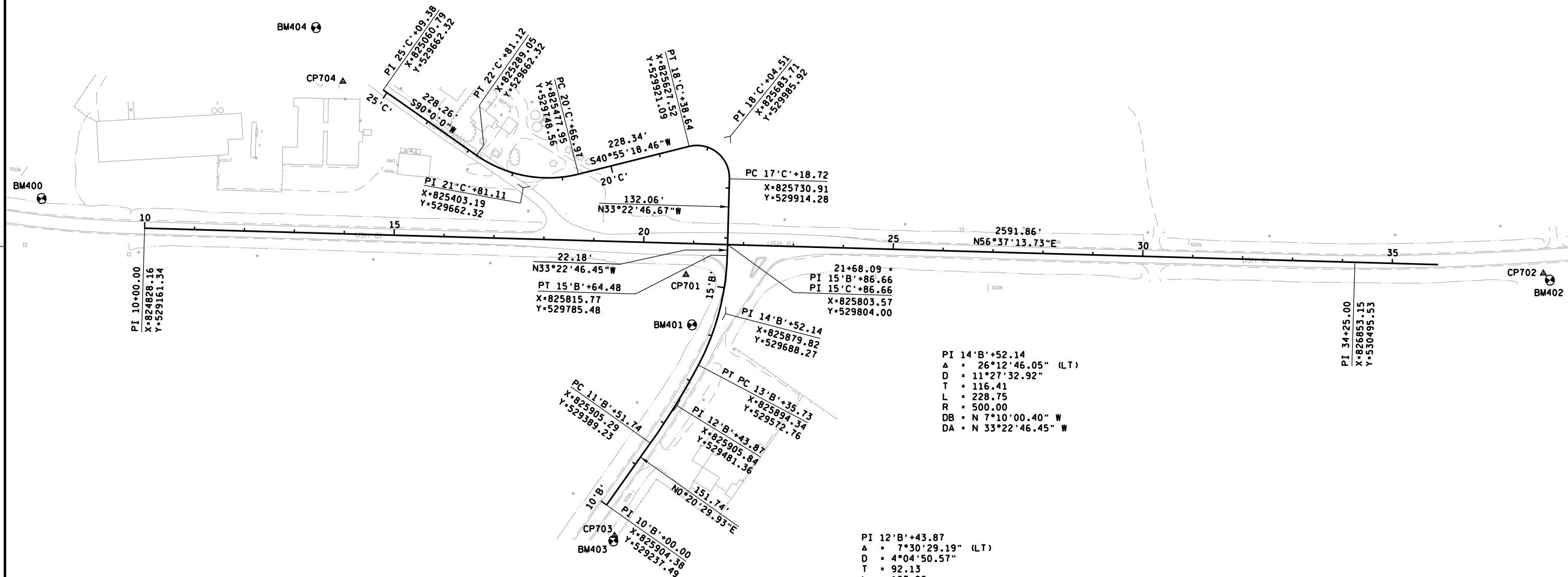
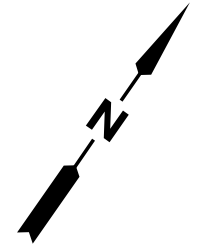
USH 61





PI 21'C'+81.11
Δ = 49°04'41.67" (RT)
D = 22°55'06.16"
T = 114.14
L = 214.14
R = 250.00
DB = S 40°55'18.33" W
DA = N 90°00'00.00" W

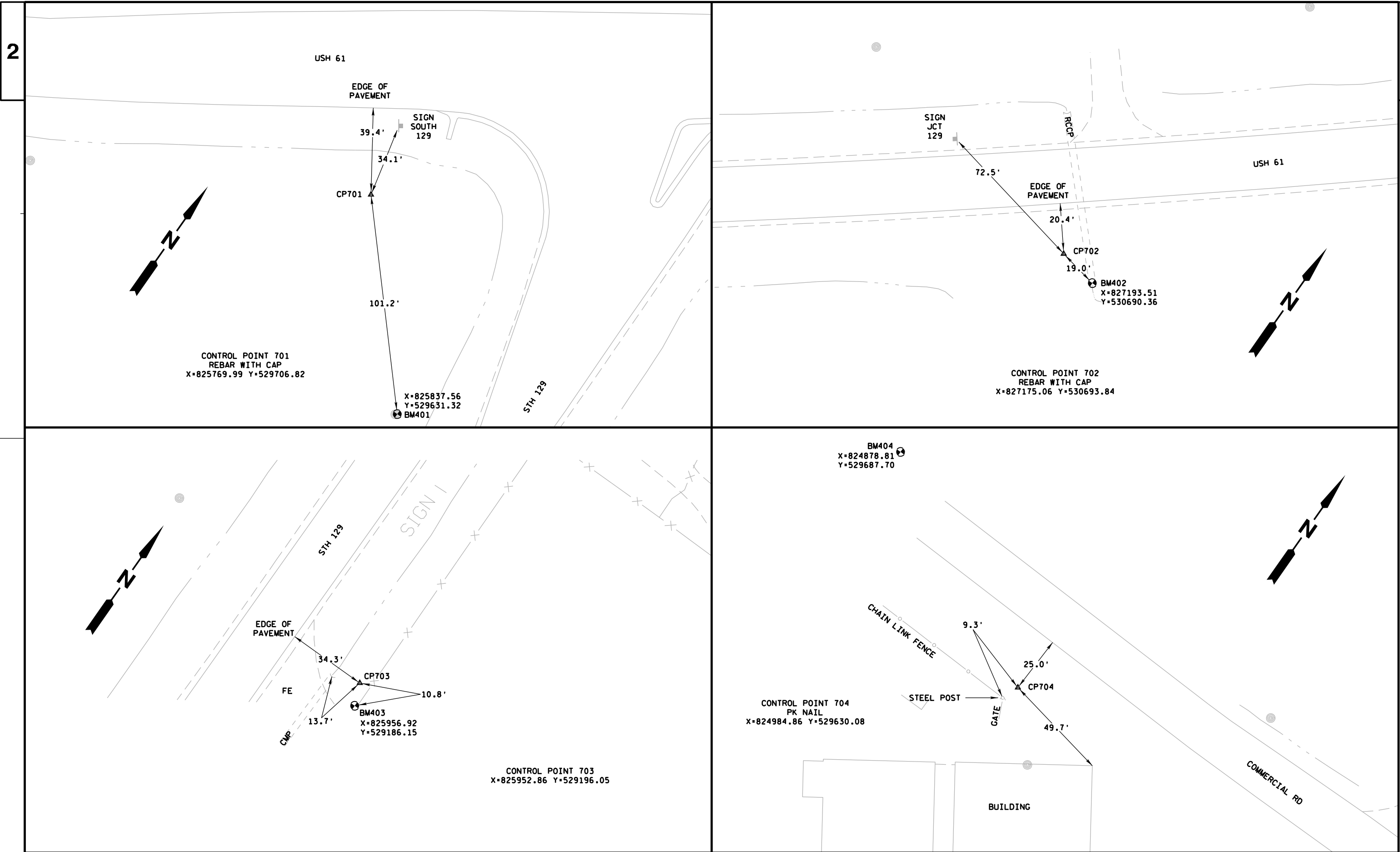
PI 18'C'+04.51
Δ = 105°41'55.72" (LT)
D = 88°08'49.37"
T = 85.79
L = 119.91
R = 65.00
DB = N 33°22'45.94" W
DA = S 40°55'18.34" W



PI 14'B'+52.14
Δ = 26°12'46.05" (LT)
D = 11°27'32.92"
T = 116.41
L = 228.75
R = 500.00
DB = N 7°10'00.40" W
DA = N 33°22'46.45" W

PI 12'B'+43.87
Δ = 7°30'29.19" (LT)
D = 4°04'50.57"
T = 92.13
L = 183.99
R = 1404.06
DB = N 0°20'28.95" E
DA = N 7°10'00.24" W

NO.	STATION	OFFSET	BW DESCRIPTION	ELEV.
400	7+87.87	LT 45.33	RR SPIKE PP 5-3W-35 40 21	1126.60
401	14'B'+07.50	LT 44.34	RR SPIKE IN PP	1136.16
402	38+12.36	RT 49.54	CHIS. SO. IN TOP OF RCCP	1128.75
403	9'B'+48.98	RT 52.84	NAIL IN FENCE POST @ FE	1136.13
404	13+31.89	LT 411.68	RR SPIKE PP 5-3W-35 42 26	1131.16



DATE 18MAR13		E S T I M A T E O F Q U A N T I T I E S			
LINE		1650-01-79			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	3.000	3.000
0020	201.0205	GRUBBING	STA	3.000	3.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	3.000	3.000
0040	204.0100	REMOVING PAVEMENT	SY	700.000	700.000
0050	204.0150	REMOVING CURB & GUTTER	LF	140.000	140.000
0060	204.0190	REMOVING SURFACE DRAINS	EACH	1.000	1.000
0070	205.0100	EXCAVATION COMMON	CY	8,250.000	8,250.000
0080	208.0100	BORROW	CY	8,210.000	8,210.000
0090	213.0100	FINISHING ROADWAY (PROJECT) 01. 1650-01-79	EACH	1.000	1.000
0100	214.0100	OBLITERATING OLD ROAD	STA	1.500	1.500
0110	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	194.000	194.000
0120	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	7,296.000	7,296.000
0130	312.0110	SELECT CRUSHED MATERIAL	TON	6,403.000	6,403.000
0140	325.0100	PULVERIZE AND RELAY	SY	8,500.000	8,500.000
0150	455.0105	ASPHALTIC MATERIAL PG58-28	TON	194.000	194.000
0160	455.0120	ASPHALTIC MATERIAL PG64-28	TON	110.000	110.000
0170	455.0605	TACK COAT	GAL	447.000	447.000
0180	460.1103	HMA PAVEMENT TYPE E-3	TON	5,525.000	5,525.000
0190	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	3,540.000	3,540.000
0200	465.0315	ASPHALTIC FLUMES	SY	49.000	49.000
0210	520.8000	CONCRETE COLLARS FOR PIPE	EACH	4.000	4.000
0220	521.0112	CULVERT PIPE CORRUGATED STEEL 12-INCH	LF	43.000	43.000
0230	521.1012	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	EACH	2.000	2.000
0240	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	46.000	46.000
0250	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	98.000	98.000
0260	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	4.000	4.000
0270	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	2.000	2.000
0280	601.0120	CONCRETE CURB TYPE J	LF	54.000	54.000
0290	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	359.000	359.000
0300	606.0300	RIPRAP HEAVY	CY	47.000	47.000
0310	616.0700.S	FENCE SAFETY	LF	350.000	350.000
0320	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1650-01-79	EACH	1.000	1.000
0330	619.1000	MOBILIZATION	EACH	1.000	1.000
0340	620.0100	CONCRETE CORRUGATED MEDIAN	SF	14,160.000	14,160.000
0350	624.0100	WATER	MGAL	219.000	219.000
0360	625.0100	TOPSOIL	SY	500.000	500.000
0370	625.0500	SALVAGED TOPSOIL	SY	31,161.000	31,161.000
0380	627.0200	MULCHING	SY	38,034.000	38,034.000
0390	628.1504	SILT FENCE	LF	650.000	650.000
0400	628.1520	SILT FENCE MAINTENANCE	LF	650.000	650.000
0410	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0420	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
0430	628.7504	TEMPORARY DITCH CHECKS	LF	160.000	160.000
0440	629.0210	FERTILIZER TYPE B	CWT	23.100	23.100
0450	630.0110	SEEDING MIXTURE NO. 10	LB	517.000	517.000
0460	630.0300	SEEDING BORROW PIT	LB	33.000	33.000
0470	633.5200	MARKERS CULVERT END	EACH	8.000	8.000

DATE 18MAR13		E S T I M A T E O F Q U A N T I T I E S			
LINE				1650-01-79	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0480	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	21.000	21.000
0490	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	12.000	12.000
0500	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	5.000	5.000
0510	637.0202	SIGNS REFLECTIVE TYPE II	SF	354.630	354.630
0520	638.2102	MOVING SIGNS TYPE II	EACH	4.000	4.000
0530	638.2602	REMOVING SIGNS TYPE II	EACH	31.000	31.000
0540	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	31.000	31.000
0550	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0560	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1650-01-79	EACH	1.000	1.000
0570	643.0300	TRAFFIC CONTROL DRUMS	DAY	8,040.000	8,040.000
0580	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	60.000	60.000
0590	643.0900	TRAFFIC CONTROL SIGNS	DAY	780.000	780.000
0600	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	84.000	84.000
0610	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	11,783.000	11,783.000
0620	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,391.000	1,391.000
0630	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	13.000	13.000
0640	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	8.000	8.000
0650	647.0456	PAVEMENT MARKING CURB EPOXY	LF	58.000	58.000
0660	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	77.000	77.000
0670	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	4.000	4.000
0680	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	65.000	65.000
0690	647.0856	PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN EPOXY	SF	5,501.000	5,501.000
0700	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	4,780.000	4,780.000
0710	650.5000	CONSTRUCTION STAKING BASE	LF	4,780.000	4,780.000
0720	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	417.000	417.000
0730	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	5.000	5.000
0740	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 1650-01-79	LS	1.000	1.000
0750	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1650-01-79	LS	1.000	1.000
0760	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	282.000	282.000
0770	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	4.000	4.000
0780	654.0105	CONCRETE BASES TYPE 5	EACH	3.000	3.000
0790	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	3.000	3.000
0800	690.0150	SAWING ASPHALT	LF	78.000	78.000
0810	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5. 00/HR	HRS	1,200.000	1,200.000
0820	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	600.000	600.000

CLEARING & GRUBBING

		CLEARING		GRUBBING				
		201.0105	201.0205					
CATEGORY	STATION	-	STATION	LOCATION	STA.	STA.	REMARKS	
0010	20'C'+00	-	23'C'+00	LT & RT	3	3	COMMERCIAL RD.	
TOTAL 0010					3	3		

REMOVING PAVEMENT

		204.0100						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS		
0010	13'B'+39	-	15'B'+65	STH 129	700	NB LANE & RT TURN LANE CONC. PAVEMENT		
TOTAL 0010					700			

REMOVING CURB & GUTTER

		204.0150						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS		
0010	15'B'+00	-	15'B'+65	LT	80			
0010	15'B'+25	-	15'B'+65	RT	60			
TOTAL 0010					140			

REMOVING SMALL PIPE CULVERTS

		203.0100					
CATEGORY	STATION	LOCATION	EACH	REMARKS			
0010	18+25	LT	1	16"	METAL	PIPE	(52' LF)
0010	11'B'+30	RT	1	12"	METAL	PIPE	(42' LF)
0010	20'C'+25	LT	1	12"	METAL	PIPE	(24' LF)
TOTAL 0010			3				

REMOVING SURFACE DRAIN

			204.0190	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	21+21	USH 61; RT	1	SW CORNER
TOTAL 0010			<u>1</u>	

OBLITERATING OLD ROAD

616.0700.S					
CATEGORY	STATION	STATION	LOCATION	STA	REMARKS
0010	17+50	- 18+50	LT	1.5	COMMERCIAL ROAD
TOTAL 0010				1.5	

EARTHWORK

		EXCAVATION		UNEXPANDED		EXPANDED		MASS			
		COMMON		FILL		FILL (1.43)		ORDINATE		BORROW	
		205.0100								208.0100	
CATEGORY	STATION	TO	STATION	LOCATION	CY	CY	CY			CY	REMARKS
0010	10+00	-	34+25	LT & RT	5,461	4,638	6,633	2,332		2,332	MAINLINE (USH 61)
0010	11'B'+50	-	15'B'+50	LT & RT	1,718	202	289	1,429		1,429	STH 129
0010	16'C'+00	-	23'C'+50	LT & RT	811	3,679	5,260	4,449		4,449	COMMERCIAL RD
0010	13'B'+38		15'B'+65	RT	260						EBS
TOTALS =					8,250	8,519	12,182	8,210		8,210	

BASE AGGREGATE DENSE 3/4-INCH

305.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	11+50	-	21+00	ML	59	USH 61
0010	22+50	-	34+25	ML	75	USH 61
0010	11'B'+51	-	15'B'+00	B-LINE	22	STH 129
0010	16'C'+32	-	22'C'+50	C-LINE	38	COMM. DR.
TOTAL 0010					194	

SELECT CRUSHED MATERIAL

312.0110						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	15+00	-	32+00	ML	2,583	
0010	11'B'+51	-	15'B'+00	STH 129	1,261	
0010	15'C'+87		23'C'+00	COMMERCIAL RD.	2,067	
0010	15+00			ML ; LT	2	RELIEF TRENCH
0010	17+50			ML ; LT	2	RELIEF TRENCH
0010	20+00			ML ; LT	2	RELIEF TRENCH
0010	23+00			ML ; LT	2	RELIEF TRENCH
0010	25+50			ML ; LT	2	RELIEF TRENCH
0010	28+00			ML ; LT	2	RELIEF TRENCH
0010	30+75			ML ; LT	2	RELIEF TRENCH
0010	32+00			ML ; LT	2	RELIEF TRENCH
0010	11'B'+51			STH 129; LT & RT	4	RELIEF TRENCH
0010	15'B'+62			STH 129; LT & RT	4	RELIEF TRENCH
0010	18'C'+50			COMM. RD. ; LT & RT	4	RELIEF TRENCH
0010	20'C'+50			COMM. RD. ; LT & RT	4	RELIEF TRENCH
0010	13'B'+38	-	15'B'+65	STH 129; RT	460	EBS
TOTAL 0010					6,403	

HMA PAVEMENT TYPE E-3

460.1103					
CATEGORY	STATION	TO	STATION	LOCATION	TON
0010	11+00	-	21+68	ML, RT	1,040
0010	11+00	-	21+68	ML, LT	706
0010	21+68	-	34+25	ML, RT	852
0010	21+68	-	34+25	ML, LT	1,219
0010	11'B'+51	-	15'B'+63	STH 129	760
0010	15'B'+30	-	15'B'+70	STH 129	7
0010	16'C'+32	-	23'C'+50	COMM. RD.	941
TOTAL 0010					5,525

ISLAND

INCENTIVE DENSITY HMA PAVEMENT

460.2000				
CATEGORY	STATION	TO	STATION	REMARKS
0010	11+00	-	35+00	PROJ. AREA
TOTAL 0010				3,540

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	11+50	-	34+25	ML	4,494	USH 61
0010	11'B'+51		15'B'+00	B-LINE	1,539	STH 129
0010	16'C'+32		22'C'+50	C-LINE	1,063	COMM. RD.
0010	10+00	-	35+00	ML	200	UNDISTRIBUTED
TOTAL 0010					7,296	

PULVERIZE & RELAY

325.0100						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	10+00	-	34+25	LT & RT	8,500	MAINLINE (USH 61)
TOTAL 0010					8,500	

* LIMITS OF PULVERIZE AND RELAY WIDTH ARE FROM
EXISTING SHOULDER POINT TO EXISTING SHOULDER POINT

ASPHALTIC MATERIAL

455.0105* 455.012**						
PG58-28 PG64-28						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	11+00	-	21+68	ML, RT	36	21
0010	11+00	-	21+68	ML, LT	25	14
0010	21+68	-	34+25	ML, RT	30	17
0010	21+68	-	34+25	ML, LT	43	24
0010	11'B'+51	-	15'B'+63	STH 129	27	15
0010	16'C'+32	-	23'C'+50	COMM. RD.	33	19
TOTAL 0010					194	110

* ASPHALTIC MATERIAL TO BE USED IN THE LOWER LAYER
** ASPHALTIC MATERIAL TO BE USED IN THE UPPER LAYER

TACK COAT

455.0605 TACK COAT					
CATEGORY	STATION	TO	STATION	LOCATION	GAL
0010	11+00	-	21+68	ML, RT	84
0010	11+00	-	21+68	ML, LT	57
0010	21+68	-	34+25	ML, RT	69
0010	21+68	-	34+25	ML, LT	99
0010	11'B'+51	-	15'B'+63	STH 129	62
0010	16'C'+32	-	23'C'+50	COMM. RD.	76
TOTAL 0010					447

CULVERT PIPES

APRON										
CULVERT PIPE			ENDWALLS FOR		APRON		APRON			
CORRUGATED STEEL			CULVERT PIPE		ENDWALLS FOR		ENDWALLS FOR			
12-INCH			STEEL 12-INCH		REINFORCED		REINFORCED			
(MIN. THICKNESS: 12-INCH			(MIN. THICKNESS: STEEL = 0.064 IN,		CONCRETE		CONCRETE			
STEEL = 0.064 IN,			ALUM. = 0.060 IN)		CLASS III		CLASS III			
520.8000			521.0112		521.1012		522.0124		522.0136	
CATEGORY	STATION	LOCATION	EA	LF	EA	LF	LF	EA	EA	REMARKS
0010	19+25	LT & RT	2							
0010	30+00	LT & RT	2							
0010	10'B'+40	RT		43	2					DRIVEWAY
0010	19+25	LT				16		1		
0010	19+25	RT				12		1		
0010	30+00	LT				16		1		
0010	30+00	RT				2		1		
0010	19'C'+80	CL					98			COMMERCIAL RD.
0010	19'C'+80	LT & RT							2	COMMERCIAL RD.
TOTAL 0010			4	43	2	46	98	4	2	

ASPHALTIC FLUMES

465.0315				
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	20+75	USH 61; RT	15	SW QUADRANT
0010	15'B'+09	STH 129; RT	11	SE QUADRANT
0010	16'C'+91	COMM RD.; LT	16	NW QUADRANT
0010	17'C'+09	COMM RD.; RT	7	NE QUADRANT
TOTAL 0010			49	

CONCRETE CURB TYPE J

601.0120					
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	15'B'+30	-	15'B'+75	RT	54
TOTAL 0010					54

SAFETY FENCE

616.0700.S					
CATEGORY	STATION	STATION	LOCATION	LF	REMARKS
0010	24+50	-	28+00	RT	350
TOTAL 0010				350	

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

601.0557					
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	20+83	-	14'B'+96	RT	93
0010	21+02	-	16'C'+84	LT	74
0010	22+50	-	15'B'+12	RT	80
0010	22+63	-	17'C'+00	LT	112
TOTAL 0010					359

MAINTENANCE AND REPAIR OF HAUL ROADS (1650-01-79)

618.0100					
CATEGORY	STATION	STATION	LOCATION	EACH	REMARKS
0010	11+00	-	34+25	LT & RT	1
TOTAL 0010				1	

MOBILIZATION

619.1000					
CATEGORY	STATION	STATION	LOCATION	EACH	REMARKS
0010	11+00	-	34+25	LT & RT	1
TOTAL 0010					1

CONCRETE CORRUGATED MEDIAN

620.0100					
CATEGORY	STATION	TO	STATION	LOCATION	SF
0010	15+05	-	20+87	ML	4,710
0010	22+48	-	31+91	ML	9,450
TOTAL 0010				14,160	

SIGNING															
								634.0614	634.0616	634.0618	637.0202	638.2102	638.2602	638.3000	
								POSTS	POSTS	POSTS	SIGNS	MOVING	REMOVING	REMOVING	
								WOOD	WOOD	WOOD	REFLECTIVE	SIGNS	SIGNS	SMALL SIGNS	
								4x6-in x 14-ft	4x6-in x 16-ft	4x6-in x 18-ft	TYPE II	TYPE II	TYPE II	SUPPORTS	
CATEGORY	SIGN NUMBER	STATION	SIGN CODE	SIZE	LOCATION	DESCRIPTION	MESSAGE	EACH	EACH	EACH	SF	EACH	EACH	EACH	NOTES
0010	102R	7+84 RT	J1-1	24" x 39"	USH 61	Junction Assembly	JCT 129						1	1	
0010	103R	12+00 RT	J2-2	48" x 57"	USH 61	Advance Route Turn Assembly	NORTH, SOUTH 61, 129 Up Arrow, Right Turn Arrow						1	1	
0010	104R	14+66 LT	R2-5A	24" x 30"	USH 61	Reduced Speed Ahead							1	1	
0010	105R	14+66 LT	W13-1W	18" x 18"	USH 61	Speed Advisory, White	50						1		
0010	106R	15+75 RT	D1-1	78" x 15"	USH 61	Destination Arrow	Up Arrow Fennimore						1	1	
0010	107R	16+27 LT	W14-3	48" x 36"	USH 61	No Passing Zone							1		
0010	108R	16+27 LT	W1-2R	30" x 30"	USH 61	Right Curve							1	1	
0010	109R	17+93 LT	R1-1	30" x 30"	USH 61	Stop							1	1	
0010	110R	19+28 LT	M3-3	24" x 12"	USH 61	South Cardinal							1		
0010	111R	19+28 LT	M1-4	24" x 24"	USH 61	US Route Marker (61)	61						1	1	
0010	112R	21+00 RT	J3-1	24" x 57"	USH 61	Route Turn Assembly	SOUTH 129 Right Arrow						1	1	
0010	113R	22+13 LT	W1-7	48" x 24"	USH 61	Double Night Arrow							1	2	
0010	114R	10'B'+50 RT	D1-2	78" x 24"	STH 129	Destinations Arrows	Left Arrow Lancaster Fennimore Right Arrow						1	2	
0010	115R	13'B'+35 LT	I55-56	30" x 36"	STH 129	Adopt A Highway	Lancaster U. Methodist Church						1	1	
0010	116R	14'B'+00 LT	J4-1	24" x 36"	STH 129	Reassurance Assembly	SOUTH 129						2	1	
0010	117R	15'B'+25 RT	W12-1D	24" x 24"	STH 129	Double Down Arrow							1	1	
0010	118R	15'B'+54 RT	R1-1	36" x 36"	STH 129	Stop							1	1	
0010	119R	15'B'+63 RT	J3-2	48" x 57"	STH 129	Route Turn Assembly	SOUTH, NORTH 61, 61 Left Arrow, Right Arrow						1	1	
0010	120R	22+40 RT	R4-7	24" x 30"	STH 129	Keep Right							1		
0010	121R	22+68 RT	R1-1	36" x 36"	STH 129	Stop							1	1	
0010	122R	22+83 RT	R5-1	30" x 30"	STH 129	Do Not Enter							1	1	
0010	123R	22+64 LT	J3-2	48" x 57"	USH 61	Route Turn Assembly	SOUTH, SOUTH 129, 61 Left Arrow, Up Arrow						1	1	
0010	124R	24+00 RT	M3-1	24" x 12"	USH 61	North Cardinal							1		
0010	125R	24+00 RT	M1-4	24" x 24"	USH 61	US Route Marker (61)	61						1	1	
0010	126R	24+00 RT	M1-96	78" x 15"	USH 61	Advance Crossroad Name Sign	Commercial Rd						1	2	
0010	127R	24+58 LT	I55-56	30" x 36"	USH 61	Adopt A Highway	Grant Co. 4H Junior Leaders						1	1	
0010	128R	26+80 RT	D2-1	72" x 15"	USH 61	Destination Distance	Fennimore 9						1	2	
0010	129R	30+90 LT	SP	120" x 42"	USH 61	Special Sign Message	Left Arrow 61 Recommended Left Arrow 61 Truck Route						1	3	
0010	130R	33+00 LT	J2-2	48" x 57"	USH 61	Advance Route Turn Assembly	SOUTH, SOUTH 129, 61 Left Turn Arrow, Up Arrow						1	1	
0010	131R	37+00 LT	J1-1	24" x 39"	USH 61	Junction Assembly	JCT 129						1	1	
SUBTOTAL 0010												31		31	

PROJECT NO: 1650-01-79	HWY: USH 61	COUNTY: GRANT	MISCELLANEOUS QUANTITIES	SHEET:	E
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3

SIGNING															
								634.0614	634.0616	634.0618	637.0202	638.2102	638.2602	638.3000	
								POSTS	POSTS	POSTS	SIGNS	MOVING	REMOVING	REMOVING	
								WOOD	WOOD	WOOD	REFLECTIVE	SIGNS	SIGNS	SMALL SIGNS	
								4x6-in x 14-ft	4x6-in x 16-ft	4x6-in x 18-ft	TYPE II	TYPE II	TYPE II	SUPPORTS	
CATEGORY	SIGN	STATION	SIGN	SIZE	LOCATION	DESCRIPTION	MESSAGE	EACH	EACH	EACH	SF	EACH	EACH	EACH	NOTES
0010	201	11+00 RT	J1-1	24" X 39"	USH 61	Junction Assembly	JCT 129		1		6.50				
0010	202	11+00 LT	W3-5	36" X 36"	USH 61	Speed Limit (50) Ahead	50		1		9.00				
0010	203	13+00 RT	J2-2	48" X 57"	USH 61	Advance Route Turn Assembly	NORTH, SOUTH 61, 129 Up Arrow, Right Turn Arrow			1	19.00				
0010	204	14+94 RT	D1-1	96" x 15"	USH 61	Destination Arrow	Left Arrow Commercial Rd	2			10.00				
0010	205	15+09 LT	R5-1	30" X 30"	USH 61	Do Not Enter		1			6.25				
0010	206	16+95 RT	D1-3	72" x 36"	USH 61	Destinations Arrows	Up Arrow Fennimore Platteville Right Arrow Dubuque Right Arrow	1	1		18.00				
0010	207	18+72 RT	R5-1A	36" X 24"	USH 61	Wrong Way		1			6.00				
0010	208	19+00 LT	R5-1A	36" X 24"	USH 61	Wrong Way		1			6.00				
0010	209	20+00 LT	J4-1	24" X 36"	USH 61	Reassurance Assembly	SOUTH 61	1			6.00				
0010	210	20+70 RT	J3-2	48" X 57"	USH 61	Route Turn Assembly	NORTH, SOUTH 61, 129 Up Arrow, Right Arrow		1		19.00				
0010	211	20+70 RT	R5-1	30" X 30"	USH 61	Do Not Enter		1			6.25				
0010	212	10'B'+00 RT	D1-2	72" x 30"	STH 129	Destinations Arrows	Left Arrow Lancaster Fennimore Right Arrow	2			15.00				
0010	213	12'B'+50 LT	I55-56	30" X 36"	STH 129	Adopt A Highway	Lancaster U. Methodist Church		1		7.50				
0010	214	14'B'+45 LT	J4-1	24" X 36"	STH 129	Reassurance Assembly	SOUTH 129		1		6.00				
0010	215	14'B'+40 RT	J3-2	48" X 57"	STH 129	Route Turn Assembly	SOUTH, NORTH 61, 61 Left Arrow, Right Arrow			1	19.00				
0010	216	15'B'+34 RT	W12-1D	24" X 24"	STH 129	Double Down Arrow		1			4.00				
0010	217	15'B'+34 RT	R1-1	36" X 36"	STH 129	Stop		1			7.46				
0010	218	15'B'+42 RT	R5-1	30" X 30"	STH 129	Do Not Enter		1			6.25				
0010	219	15'B'+54 RT	R1-1	36" X 36"	STH 129	Stop			1		7.46				
0010	220	15'B'+54 RT	R6-3	30" X 24'	STH 129	Divided Highway					5.00				On Same Post as Sign 219
0010	221	15'B'+54 RT	R6-1L	36" X 12'	STH 129	One Way					3.00				On Same Post as Sign 219
SUBTOTAL 0010								13	7	2	192.67				

PROJECT NO: 1650-01-79					HWY: USH 61			COUNTY: GRANT			MISCELLANEOUS QUANTITIES					SHEET:		E
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SIGNING															
		634.0614		634.0616		634.0618		637.0202	638.2102	638.2602	638.3000				
		POSTS		POSTS		POSTS		SIGNS	MOVING	REMOVING	REMOVING				
		WOOD		WOOD		WOOD		REFLECTIVE	SIGNS	SIGNS	SMALL SIGNS				
		4x6-in x 14-ft		4x6-in x 16-ft		4x6-in x 18-ft		TYPE II	TYPE II	TYPE II	SUPPORTS				
CATEGORY	SIGN	STATION	SIGN	SIZE	LOCATION	DESCRIPTION	MESSAGE	EACH	EACH	EACH	SF	EACH	EACH	EACH	NOTES
0010	222	17'C'+85 RT	W1-6	48" X 24'	COMM. RD.	Single Night Arrow		1			8.00				
0010	223	16'C'+53 LT	R1-1	36" X 36"	COMM. RD.	Stop			1		7.46				
0010	224	16'C'+53 LT	R6-3	30" X 24"	COMM. RD.	Divided Highway					5.00				On Same Post as Sign 223
0010	225	16'C'+53 LT	R6-1L	36" X 12"	COMM. RD.	One Way					3.00				On Same Post as Sign 223
0010	226	22+71 LT	R5-1	30" X 30"	USH 61	Do Not Enter		1			6.25				
0010	227	22+80 LT	J2-2	48" X 57"	USH 61	Route Turn Assembly	SOUTH, SOUTH 129, 61 Left Arrow, Up Arrow			1	19.00				
0010	228	24+00 RT	J4-1	24" X 36"	USH 61	Reassurance Assembly	NORTH 61		1		6.00				
0010	229	24+00 LT	R5-1A	36" X 24"	USH 61	Wrong Way					6.00				On Same Post Behind Sign 230M
0010	230	24+00 LT	D1-2	78" X 30"	USH 61	Destinations Arrows	Up Arrow Lancaster Up Arrow Business Dist					1			
0010	231	26+00 RT	I55-56	30" X 36"	USH 61	Adopt A Highway	Grant Co. 4-H Junior Leaders		1		7.50				
0010	232M	26+00 LT	D9-2	24" x 24"	USH 61	Hospital						1			
0010	233M	26+00 LT	MB6-1	21" x 21"	USH 61	Straight Arrow, Blue						1			On Same Post As Sign 232M
0010	234M	26+00 LT	D1-2	72" x 30"	USH 61	Destinations Arrows	Left Arrow Platteville Left Arrow Dubuque					1			
0010	235	28+00 RT	R5-1A	36" x 24"	USH 61	Wrong Way		1			6.00				
0010	236	28+00 LT	D1-1	96" x 15"	USH 61	Destination Arrow	Commercial Rd Right Arrow	2			10.00				
0010	237	31+00 LT	D1-2	96" x 48"	USH 61	Special Sign Message	61 Left Arrow Recommended Thru Truck Route		1	1	32.00				
0010	238	31+75 RT	D2-2	84" x 24"	USH 61	Destinations Distances	Fennimore 9 La Crosse 89	2			14.00				
0010	239	31+90 RT	R5-1	30" x 30"	USH 61	Do Not Enter		1			6.25				
0010	240	33+00 LT	J2-2	48" X 57"	USH 61	Advance Route Turn Assembly	SOUTH, SOUTH 129, 61 Left Turn Arrow, Up Arrow			1	19.00				
0010	241	35+00 LT	J1-1	24" x 39"	USH 61	Junction Assembly	JCT 129		1		6.50				
SUBTOTAL 0010								8	5	3	161.96	4			
TOTAL 0010								21	12	5	354.63	4	31	31	

PROJECT NO: 1650-01-79	HWY: USH 61	COUNTY: GRANT	MISCELLANEOUS QUANTITIES	SHEET:	E
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TRAFFIC CONTROL BARRICADES TYPE III

643.0420				
CATEGORY	STATION	LOCATION	DAYS	REMARKS
0010	15'B'+65	RT, ISLAND	30	STH 129; MODIFIED, SEE DETAIL DRAWING
0010	15'B'+65	RT, SHOULDER	30	STH 129; MODIFIED, SEE DETAIL DRAWING
TOTAL =			60	

FIELD OFFICE TYPE B

642.5001					
CATEGORY	STATION	STATION	LOCATION	EACH	REMARKS
0010	11+00	- 34+25	LT & RT	1	
TOTAL 0010				<u>1</u>	

TRAFFIC CONTROL SIGNS

643.0900				
CATEGORY	STATION	LOCATION	DAYS	REMARKS
0010	USH 61	RT, BOP	45	ROAD WORK AHEAD (W20-1)
0010	USH 61	RT, BOP	45	ROAD WORK 1000 FT (W20-1)
0010	USH 61	RT, BOP	45	ROAD WORK 500 FT (W20-1)
0010	USH 61	LT, BOP	45	END ROAD WORK (G20-2A) 48" x 24"
0010	USH 61	LT, EOP	45	ROAD WORK AHEAD (W20-1)
0010	USH 61	LT, EOP	45	ROAD WORK 1000 FT (W20-1)
0010	USH 61	LT, EOP	45	ROAD WORK 500 FT (W20-1)
0010	USH 61	RT, EOP	45	END ROAD WORK (G20-2A) 48" x 24"
0010	STH 129	RT, ISLAND	30	STOP (R1-1) 36" x 36"
0010	STH 129	RT, SHLDR	30	STOP (R1-1) 36" x 36"
0010	STH 129	RT	45	ROAD WORK AHEAD (W20-1)
0010	STH 129	RT	45	ROAD WORK 1000 FT (W20-1)
0010	STH 129	RT	45	ROAD WORK 500 FT (W20-1)
0010	STH 129	LT	45	END ROAD WORK (G20-2A) 48" x 24"
0010	COMM. RD.	RT	45	ROAD WORK AHEAD (W20-1)
0010	COMM. RD.	RT	45	ROAD WORK 1000 FT (W20-1)
0010	COMM. RD.	RT	45	ROAD WORK 500 FT (W20-1)
0010	COMM. RD.	LT	45	END ROAD WORK (G20-2A) 48" x 24"
TOTAL =			780	

TRAFFIC CONTROL (PROJECT) 1650-01-79

					643.0100	
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0010	11+00	-	34+25		1	
TOTAL =					<u>1</u>	

TRAFFIC CONTROL DRUMS

					643.0300	
CATEGORY	STATION	TO	STATION	LOCATION	DAYS	REMARKS
0010	11+00	-	34+25	LT & RT	6120	USH 61
0010	11'B'+00	-	15'B'+65	LT & RT	960	STH 129
0010	16'C'+45	-	23'C'+50	LT & RT	960	COMMERCIAL RD.
TOTAL =					8040	

PAVEMENT MARKING											
				PAVEMENT MARKING	PAVEMENT MARKING	PAVEMENT MARKING	PAVEMENT MARKING	PAVEMENT MARKING			
				EPOXY 4-INCH	EPOXY 8-INCH	EPOXY CURB	EPOXY 18 INCH	EPOXY 12 INCH			
				646.0106	646.0126	647.0456	647.0566	647.0726			
CATEGORY	STATION	-	STATION	LOCATION	LF	LF	LF	LF	LF	REMARKS	COLOR
0010	11+00	-	21+00	LT EDGELINE	1,000					USH 61	WHITE
0010	22+62	-	35+00	LT EDGELINE	1,238					USH 61	WHITE
0010	11+00	-	20+82	RT EDGELINE	982					USH 61	WHITE
0010	22+50	-	34+25	RT EDGELINE	1,250					USH 61	WHITE
0010	11'B'+50	-	15'B'+00	LT EDGELINE	350					STH 129	WHITE
0010	11'B'+50	-	15'B'+20	RT EDGELINE	370					STH 129	WHITE
0010	16'C'+80	-	23'C'+50	LT EDGELINE	670					COMM. RD.	WHITE
0010	17'C'+00	-	23'C'+50	RT EDGELINE	650					COMM. RD.	WHITE
0010	11+00	-	20+82	LT CENTERLINE	986					USH 61	YELLOW
0010	13+28	-	15+06	LT CENTERLINE	178					USH 61	YELLOW
0010	11+00	-	20+82	RT CENTERLINE	986					USH 61	YELLOW
0010	13+28	-	15+06	RT CENTERLINE	178					USH 61	YELLOW
0010	22+50	-	35+00	LT CENTERLINE	1,251					USH 61	YELLOW
0010	31+89	-	34+11	LT CENTERLINE	222					USH 61	YELLOW
0010	22+50	-	35+00	RT CENTERLINE	1,250					USH 61	YELLOW
0010	31+89	-	34+11	RT CENTERLINE	222					USH 61	YELLOW
0010	17+33	-	20+82	RT TURN LANE		349				USH 61	WHITE
0010	18+69	-	20+82	LT TURN LANE		213				USH 61	WHITE
0010	22+63	-	25+80	LT TURN LANE		317				USH 61	WHITE
0010	22+63	-	25+80	RT TURN LANE		317				USH 61	WHITE
0010	13'B'+75	-	15'B'+40	RT TURN LANE		165				STH 129	WHITE
0010	15'B'+10	-	15'B'+40	RT TURN LANE		30				STH 129	WHITE
0010	15'B'+55			THRU LANE				14		STH 129	WHITE
0010	15'B'+55			RT TURN LANE				23		STH 129	WHITE
0010	15'B'+31	15'B'+61		ISLAND			58			STH 129	YELLOW
0010	16'C'+35			SB LANE				40		COMM. RD.	WHITE
0010	13+28		15+06	CENTERLINE					27	USH 61	YELLOW
0010	31+89		34+11	CENTERLINE					38	USH 61	YELLOW
TOTAL 0010					11,783	1,391	58	77	65		

PAVEMENT MARKING											
				PAVEMENT MARKING	PAVEMENT MARKING	PAVEMENT MARKING					
				ARROWS	EPOXY TYPE 2	WORDS	ISLAND	NOSE			
					647.0166	EPOXY		EPOXY			
						647.0356		647.0606			
CATEGORY	STATION		LOCATION		EACH	EACH		EACH		REMARKS	
0010	15+04		CENTERLINE					1		USH 61	
0010	17+53		RT TURN LANE	1						USH 61	
0010	18+30		RT TURN LANE			1				USH 61	
0010	18+88		LT TURN LANE	1						USH 61	
0010	18+93		RT TURN LANE	1						USH 61	
0010	19+76		LT TURN LANE			1				USH 61	
0010	19+76		RT TURN LANE			1				USH 61	
0010	20+55		RT TURN LANE	1						USH 61	
0010	20+57		LT TURN LANE	1						USH 61	
0010	20+85		CENTERLINE					1		USH 61	
0010	22+48		CENTERLINE					1		USH 61	
0010	22+92		LT TURN LANE	1						USH 61	
0010	22+92		RT TURN LANE	1						USH 61	
0010	23+60		LT TURN LANE			1				USH 61	
0010	23+60		RT TURN LANE			1				USH 61	
0010	24+26		LT TURN LANE	1						USH 61	
0010	24+26		RT TURN LANE	1						USH 61	
0010	24+90		LT TURN LANE			1				USH 61	
0010	24+90		RT TURN LANE			1				USH 61	
0010	25+60		LT TURN LANE	1						USH 61	
0010	25+60		RT TURN LANE	1						USH 61	
0010	31+86		CENTERLINE					1		USH 61	
0010	13'B'+95		RT TURN LANE	1						STH 129	
0010	14'B'+60		RT TURN LANE			1				STH 129	
0010	15'B'+26		RT TURN LANE	1						STH 129	
TOTAL 0010					13	8		4			

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PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN (EPOXY)

647.0856						
CATEGORY	STATION	TO	STATION	LOCATION	SF	REMARKS
0010	15+15	-	15+19	ML	32	
0010	15+25	-	15+29	ML	34	
0010	15+35	-	15+39	ML	35	
0010	15+45	-	15+49	ML	36	
0010	15+55	-	15+59	ML	38	
0010	15+65	-	15+69	ML	39	
0010	15+75	-	15+79	ML	40	
0010	15+85	-	15+89	ML	42	
0010	15+95	-	15+99	ML	43	
0010	16+05	-	16+09	ML	44	
0010	16+15	-	16+19	ML	46	
0010	16+25	-	16+29	ML	47	
0010	16+35	-	16+39	ML	48	
0010	16+45	-	16+49	ML	50	
0010	16+55	-	16+59	ML	51	
0010	16+65	-	16+69	ML	52	
0010	16+75	-	16+79	ML	54	
0010	16+85	-	16+89	ML	55	
0010	16+95	-	16+99	ML	56	
0010	17+05	-	17+09	ML	58	
0010	17+15	-	17+19	ML	59	
0010	17+25	-	17+29	ML	57	
0010	17+35	-	17+39	ML	54	
0010	17+45	-	17+49	ML	51	
0010	17+55	-	17+59	ML	48	
0010	17+65	-	17+69	ML	45	
0010	17+75	-	17+79	ML	42	
0010	17+85	-	17+89	ML	39	
0010	17+95	-	17+99	ML	36	
0010	18+05	-	18+09	ML	33	
0010	18+15	-	18+19	ML	30	
0010	18+25	-	18+29	ML	27	
0010	18+35	-	18+39	ML	25	
0010	18+45	-	18+49	ML	22	
0010	18+55	-	18+59	ML	19	
0010	18+65	-	18+69	ML	18	
0010	18+75	-	18+79	ML	15	
0010	18+85	-	18+89	ML	15	
0010	18+95	-	18+99	ML	15	
0010	19+05	-	19+09	ML	15	
0010	19+15	-	19+19	ML	15	
0010	19+25	-	19+29	ML	15	
0010	19+35	-	19+39	ML	15	
0010	19+45	-	19+49	ML	15	
0010	19+55	-	19+59	ML	15	
0010	19+65	-	19+69	ML	15	
0010	19+75	-	19+79	ML	15	
0010	19+85	-	19+89	ML	15	
0010	19+95	-	19+99	ML	15	
0010	20+05	-	20+09	ML	15	
0010	20+15	-	20+19	ML	15	
0010	20+25	-	20+29	ML	15	
0010	20+35	-	20+39	ML	15	
0010	20+45	-	20+49	ML	15	
0010	20+55	-	20+59	ML	15	
0010	20+65	-	20+69	ML	15	
0010	20+75	-	20+79	ML	15	
SUBTOTAL 0010					1,820	

PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN (EPOXY)

647.0856						
CATEGORY	STATION	TO	STATION	LOCATION	SF	REMARKS
0010	22+56	-	22+60	ML	15	
0010	22+66	-	22+70	ML	15	
0010	22+76	-	22+80	ML	15	
0010	22+86	-	22+90	ML	15	
0010	22+96	-	23+00	ML	15	
0010	23+06	-	23+10	ML	15	
0010	23+16	-	23+20	ML	15	
0010	23+26	-	23+30	ML	15	
0010	23+36	-	23+40	ML	15	
0010	23+46	-	23+50	ML	15	
0010	23+56	-	23+60	ML	15	
0010	23+66	-	23+70	ML	15	
0010	23+76	-	23+80	ML	15	
0010	23+86	-	23+90	ML	15	
0010	23+96	-	24+00	ML	15	
0010	24+06	-	24+10	ML	15	
0010	24+16	-	24+20	ML	15	
0010	24+26	-	24+30	ML	15	
0010	24+36	-	24+40	ML	15	
0010	24+46	-	24+50	ML	15	
0010	24+56	-	24+60	ML	15	
0010	24+66	-	24+70	ML	15	
0010	24+76	-	24+80	ML	15	
0010	24+86	-	24+90	ML	15	
0010	24+96	-	25+00	ML	15	
0010	25+06	-	25+10	ML	15	
0010	25+16	-	25+20	ML	15	
0010	25+26	-	25+30	ML	15	
0010	25+36	-	25+40	ML	15	
0010	25+46	-	25+50	ML	15	
0010	25+56	-	25+60	ML	15	
0010	25+66	-	25+70	ML	15	
0010	25+76	-	25+80	ML	15	
0010	25+86	-	25+90	ML	16	
0010	25+96	-	26+00	ML	20	
0010	26+06	-	26+10	ML	25	
0010	26+16	-	26+20	ML	29	
0010	26+26	-	26+30	ML	33	
0010	26+36	-	26+40	ML	37	
0010	26+46	-	26+50	ML	42	
0010	26+56	-	26+60	ML	46	
0010	26+66	-	26+70	ML	50	
0010	26+76	-	26+80	ML	54	
0010	26+86	-	26+90	ML	59	
0010	26+96	-	27+00	ML	63	
0010	27+06	-	27+10	ML	67	
0010	27+16	-	27+20	ML	71	
0010	27+26	-	27+30	ML	76	
0010	27+36	-	27+40	ML	79	
0010	27+46	-	27+50	ML	78	
0010	27+56	-	27+60	ML	77	
0010	27+66	-	27+70	ML	76	
0010	27+76	-	27+80	ML	75	
0010	27+86	-	27+90	ML	74	
0010	27+96	-	28+00	ML	73	
0010	28+06	-	28+10	ML	72	
0010	28+16	-	28+20	ML	70	
SUBTOTAL 0010					1,857	

PAVEMENT MARKING CONCRETE CORRUGATED MEDIAN (EPOXY)

647.0856						
CATEGORY	STATION	TO	STATION	LOCATION	SF	REMARKS
0010	28+26	-	28+30	ML	69	
0010	28+36	-	28+40	ML	68	
0010	28+46	-	28+50	ML	67	
0010	28+56	-	28+60	ML	66	
0010	28+66	-	28+70	ML	65	
0010	28+76	-	28+80	ML	64	
0010	28+86	-	28+90	ML	63	
0010	28+96	-	29+00	ML	62	
0010	29+06	-	29+10	ML	61	
0010	29+16	-	29+20	ML	60	
0010	29+26	-	29+30	ML	59	
0010	29+36	-	29+40	ML	58	
0010	29+46	-	29+50	ML	57	
0010	29+56	-	29+60	ML	55	
0010	29+66	-	29+70	ML	54	
0010	29+76	-	29+80	ML	53	
0010	29+86	-	29+90	ML	52	
0010	29+96	-	30+00	ML	51	
0010	30+06	-	30+10	ML	50	
0010	30+16	-	30+20	ML	49	
0010	30+26	-	30+30	ML	48	
0010	30+36	-	30+40	ML	47	
0010	30+46	-	30+50	ML	46	
0010	30+56	-	30+60	ML	45	
0010	30+66	-	30+70	ML	44	
0010	30+76	-	30+80	ML	43	
0010	30+86	-	30+90	ML	42	
0010	30+96	-	31+00	ML	41	
0010	31+06	-	31+10	ML	39	
0010	31+16	-	31+20	ML	38	
0010	31+26	-	31+30	ML	38	
0010	31+36	-	31+40	ML	36	
0010	31+46	-	31+50	ML	35	
0010	31+56	-	31+60	ML	34	
0010	31+66	-	31+70	ML	33	
0010	31+76	-	31+80	ML	32	

SUBTOTAL 0010 1,824

TOTAL 0010 5501

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CONSTRUCTION STAKING

CATEGORY	STATION	STATION	LOCATION	LF	SUBGRADE	BASE	REMARKS
					650.4500	650.5000	
0010	13+50	- 21+00	LT & RT	1,500	1,500		USH 61
0010	22+75	- 33+50	LT & RT	2,150	2,150		USH 61
0010	11'B'+51	- 15'B'+63	LT & RT	412	412		STH 129
0010	16'C'+32	- 23'C'+50	LT & RT	718	718		COMM. RD.
TOTAL 0010				4,780	4,780		

LIGHT BASES

CATEGORY	STATION	LOCATION	EACH	EACH	REMARKS
0010	21+08	55' LT	1	1	LB1
0010	21+23	56' RT	1	1	LB2
0010	22+41	36' RT	1	1	LB3
TOTAL 0010			3	3	

CONCRETE TRANSFORMER BASES
BASES BREAKAWAY 11 1/2
TYPE 5 INCH BOLT CIRCLE
654.0105 657.0255

CONSTRUCTION STAKING CURB GUTTER & CURB & GUTTER

CATEGORY	STATION	STATION	LOCATION	LF	REMARKS
0010	20+83	- 14'B'+96	RT	93	INTERSECTION
0010	21+02	- 16'C'+84	LT	74	INTERSECTION
0010	22+50	- 15'B'+12	RT	80	INTERSECTION
0010	22+63	- 17'C'+00	LT	112	INTERSECTION
0010	15'B'+31	15'B'+61	RT	58	ISLAND
TOTAL 0010				417	

CONSTRUCTION STAKING ELECTRICAL INSTALLATION PROJ. 1650-01-79

CATEGORY	STATION	STATION	LOCATION	LS	REMARKS
0010	21+00	- 22+50	LT & RT	1	
TOTAL 0010				1	

CONSTRUCTION STAKING PIPE CULVERTS

CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	19+25	LT & RT	2	USH 61
0010	30+00	LT & RT	2	USH 61
0010	20'C'+25	LT & RT	1	COMM. RD
TOTAL 0010			5	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL PROJ. 1650-01-79

CATEGORY	STATION	STATION	LS	REMARKS
0010	11+00	- 35+00	1	PROJ. AREA
TOTAL 0010			1	

CONDUIT RIGID NONMETTALIC SCHEDULE 40 2-INCH

CATEGORY	STATION	STATION	LOCATION	LF	REMARKS
0010	21+15	- 21+08	LT	10	PB1 TO LB1
0010	21+15	- 21+12	LT & RT	124	PB1 TO PB2
0010	21+12	- 21+23	RT	16	PB2 TO LB2
0010	21+12	- 21+85	RT	73	PB2 TO PB3
0010	21+85	- 22+37	RT	53	PB3 TO PB4
0010	22+37	- 22+41	RT	6	PB4 TO LB3
TOTAL 0010				282	

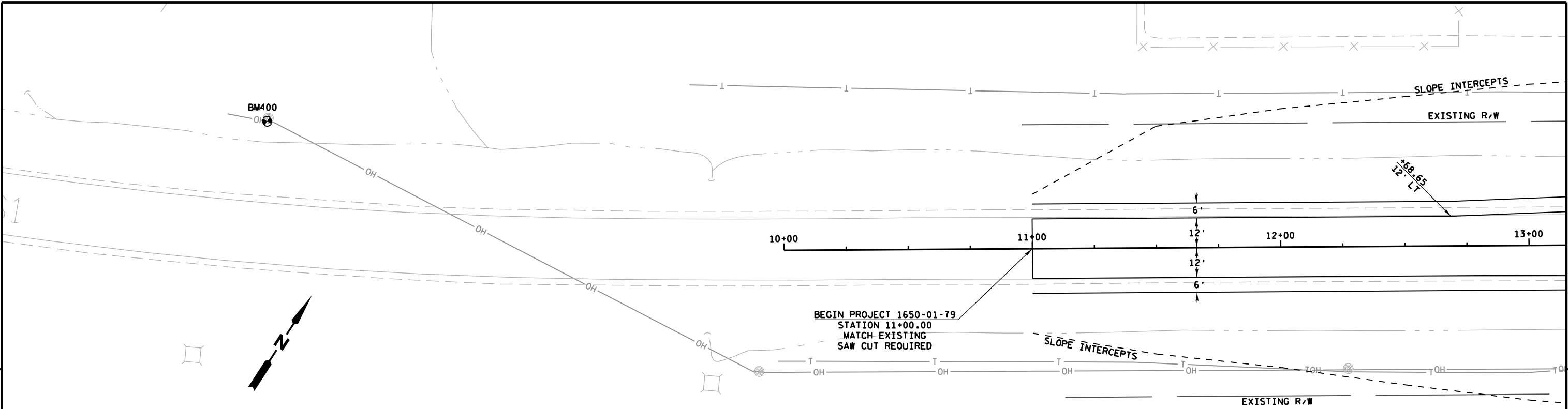
PULL BOXES STEEL 24" X 42"

CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	21+15	62' LT	1	PB1
0010	21+12	45' RT	1	PB2
0010	21+85	42' RT	1	PB3
0010	22+37	41' RT	1	PB4
TOTAL 0010			4	

SAWING ASPHALT

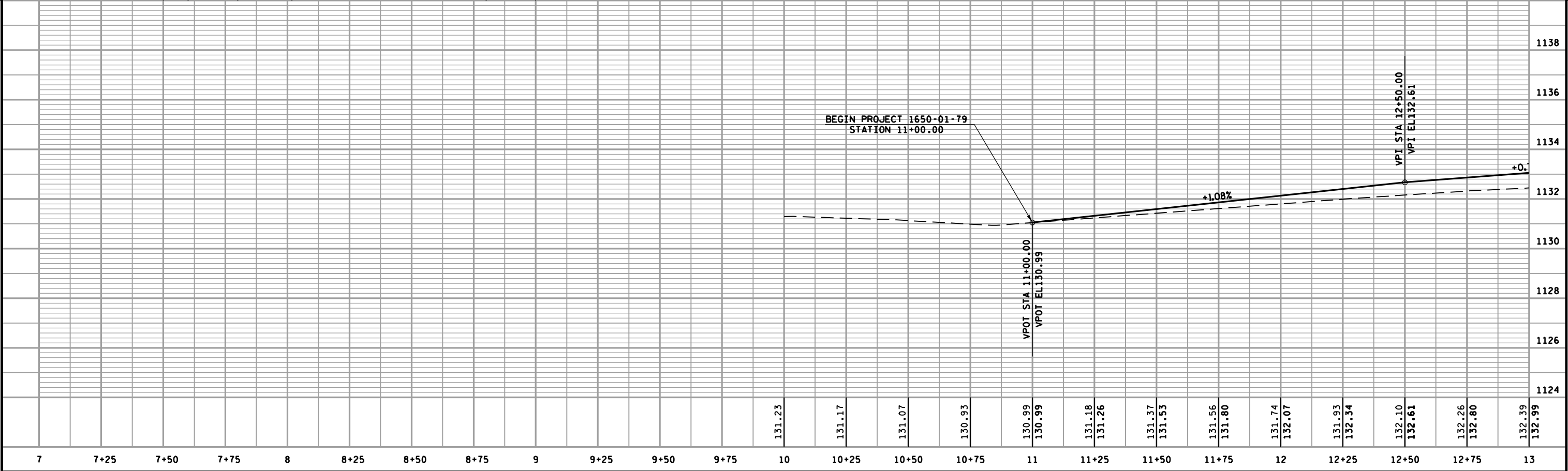
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	10+00	USH 61	32	BEGIN OF PROJ.
0010	34+25	USH 61	30	END OF PROJ.
0010	11'B'+50	STH 129	28	
0010	23'C'+50	COMM. RD.	20	
TOTAL 0010			78	

5

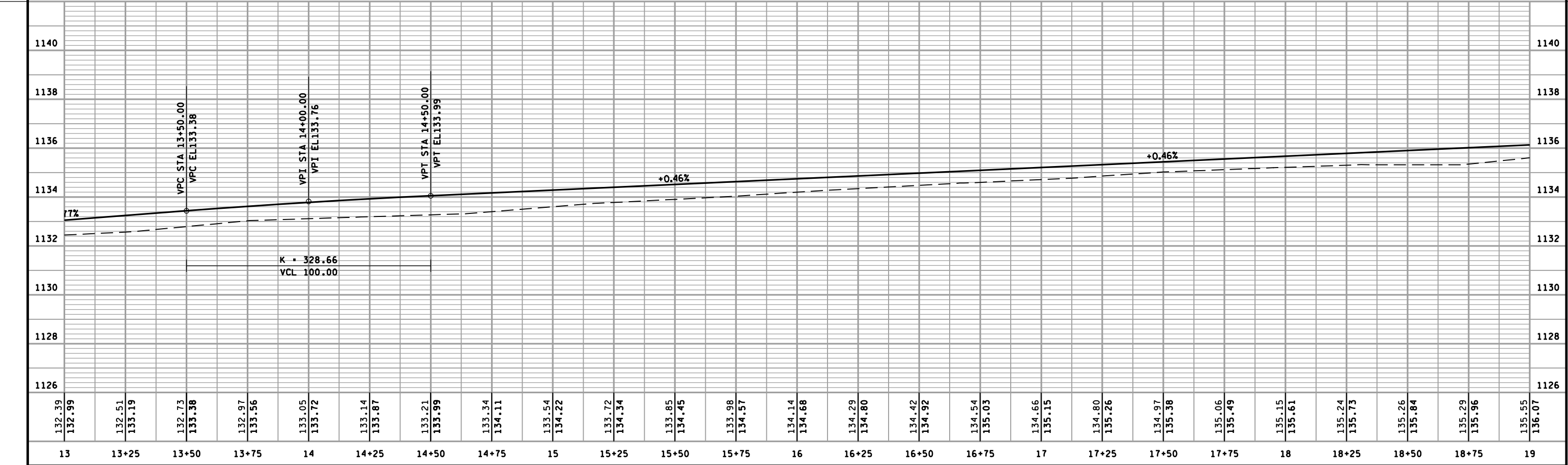
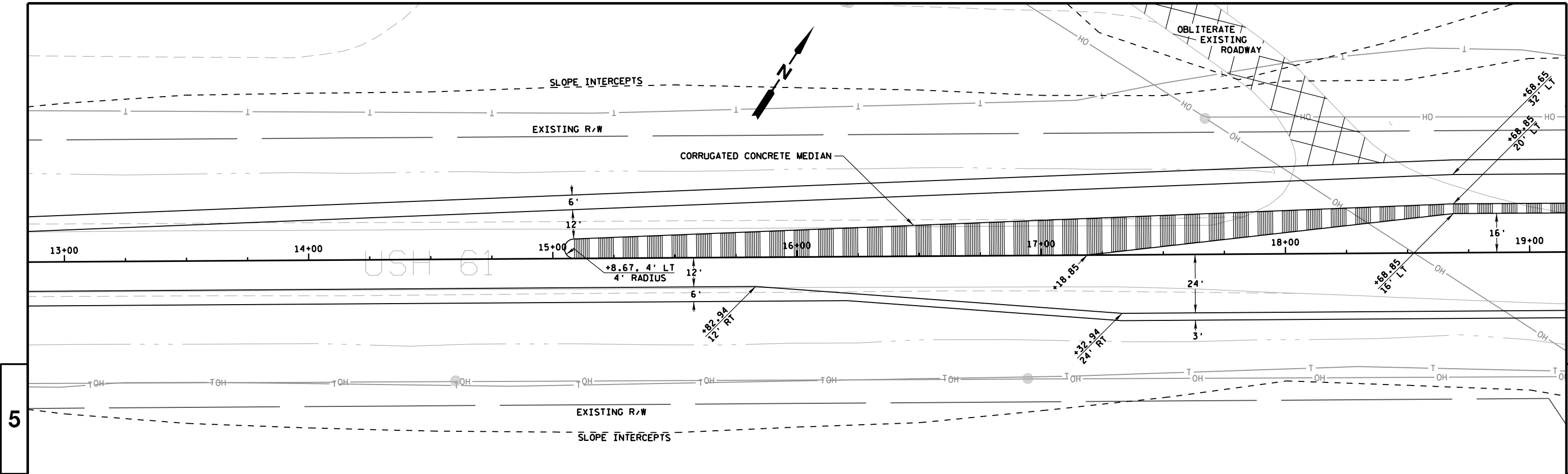


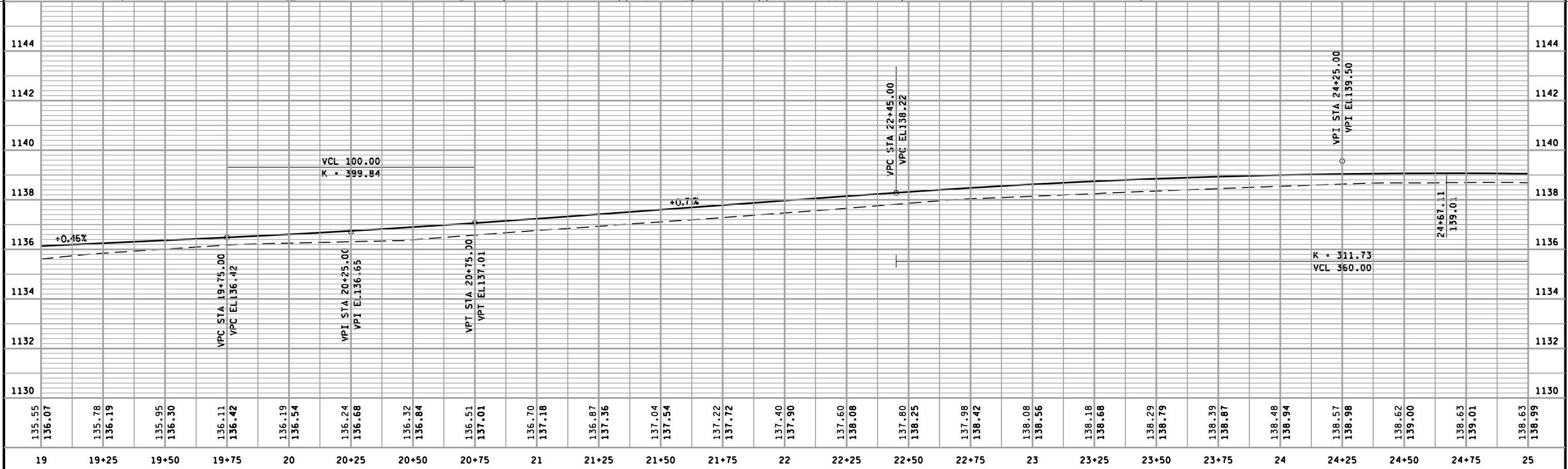
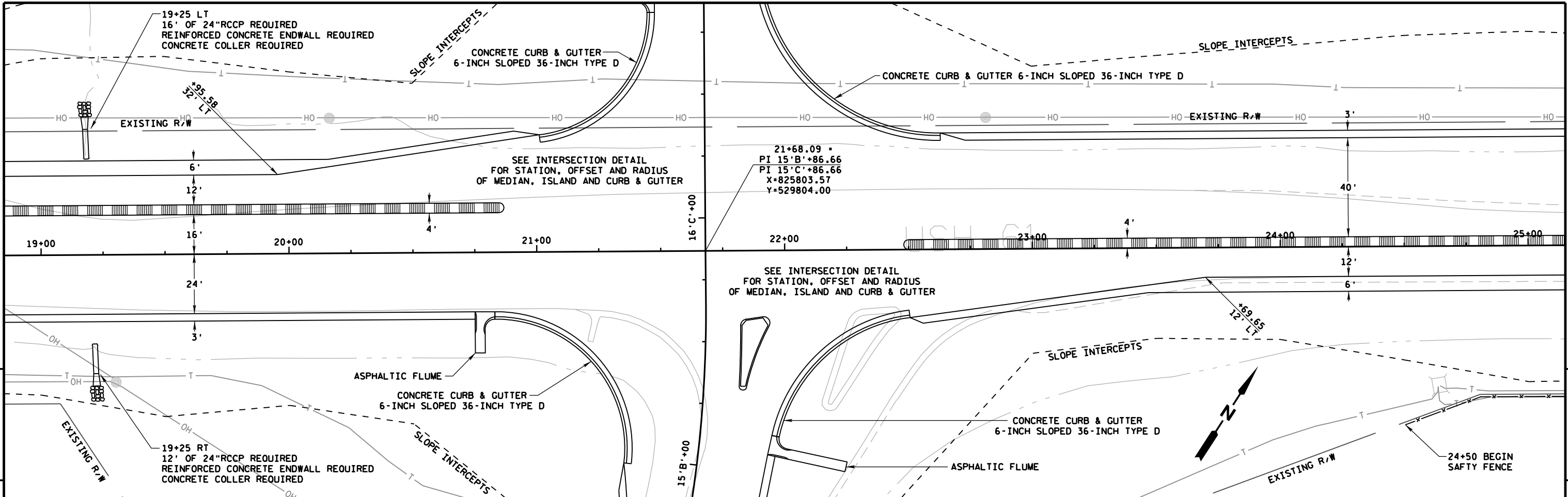
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NO.	STATION	OFFSET	BM DESCRIPTION	ELEV.
400	7+87.87	LT 45.33	RR SPIKE PP 5-3W-35 40 26	1126.60

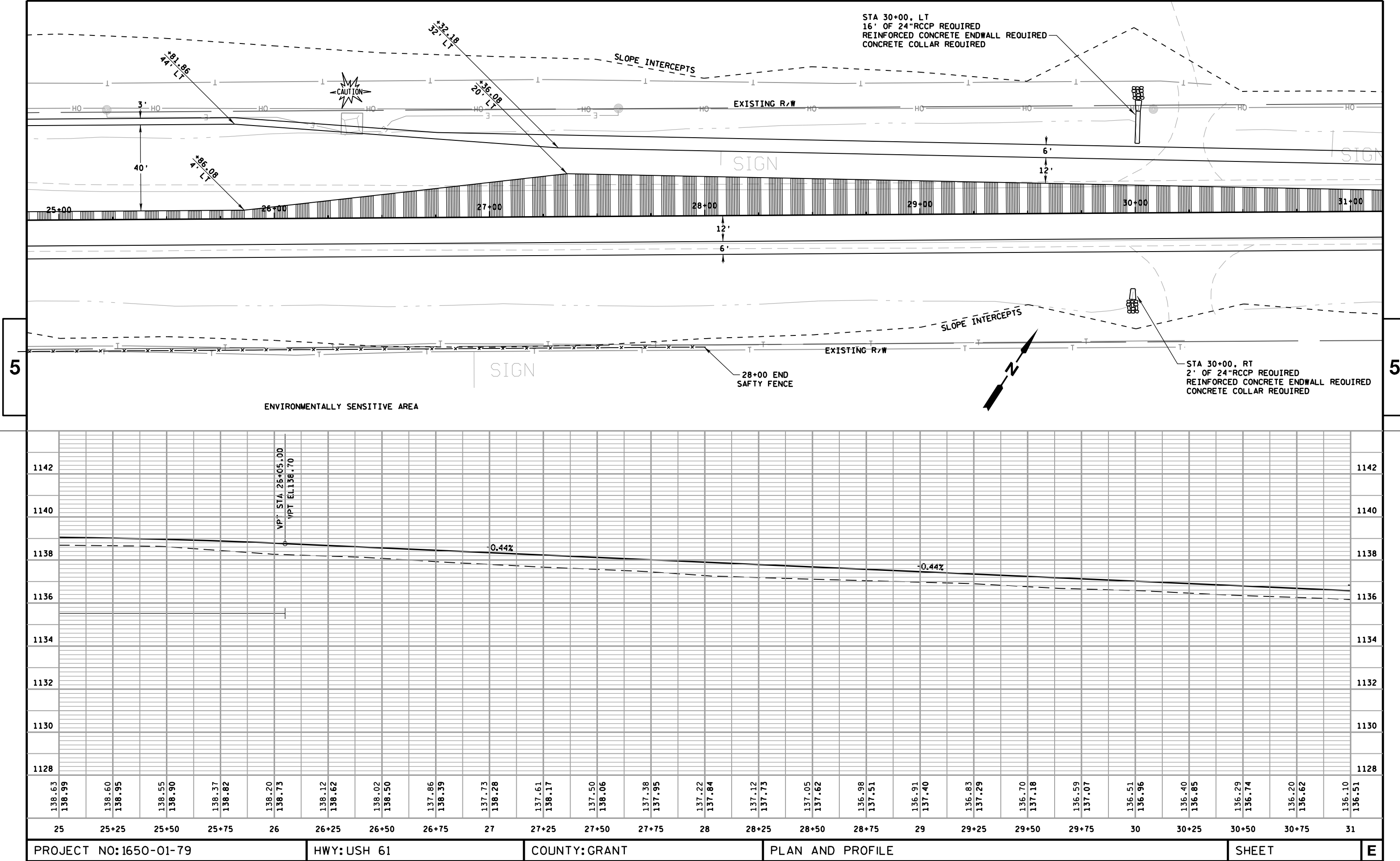


PROJECT NO:1650-01-79	HWY:USH 61	COUNTY:GRANT	PLAN AND PROFILE	SHEET	E
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PROJECT NO:1650-01-79					HWY: USH 61					COUNTY: GRANT					PLAN AND PROFILE					SHEET					E
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PROJECT NO:1650-01-79

HWY: USH 61

COUNTY: GRANT

PLAN AND PROFILE

SHEET

E

FILE NAME : \$\$....deSLOPE INTERCEPTSgnfile....\$\$

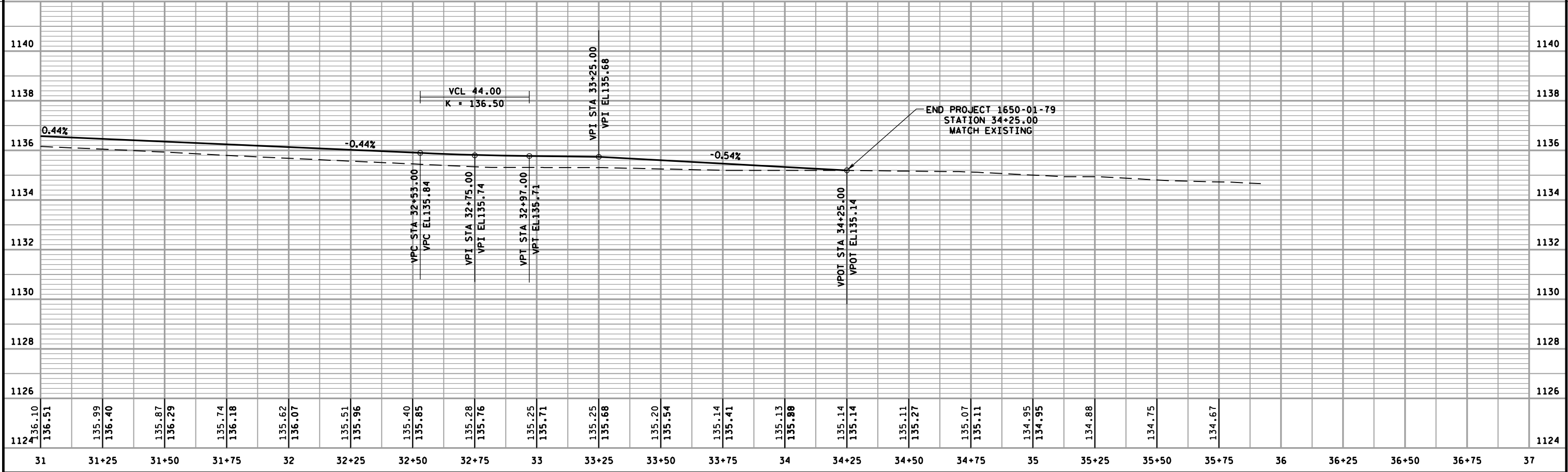
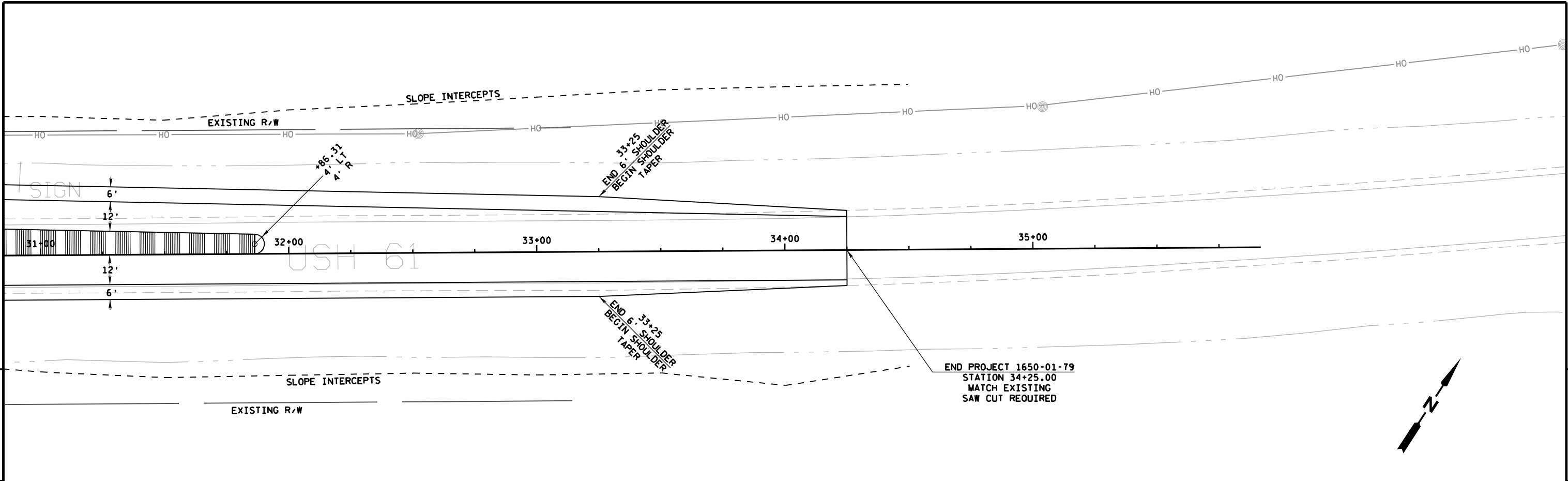
PLOT DATE : 28-FEB-2013 11:26

PLOT BY : dotwov

PLOT NAME :

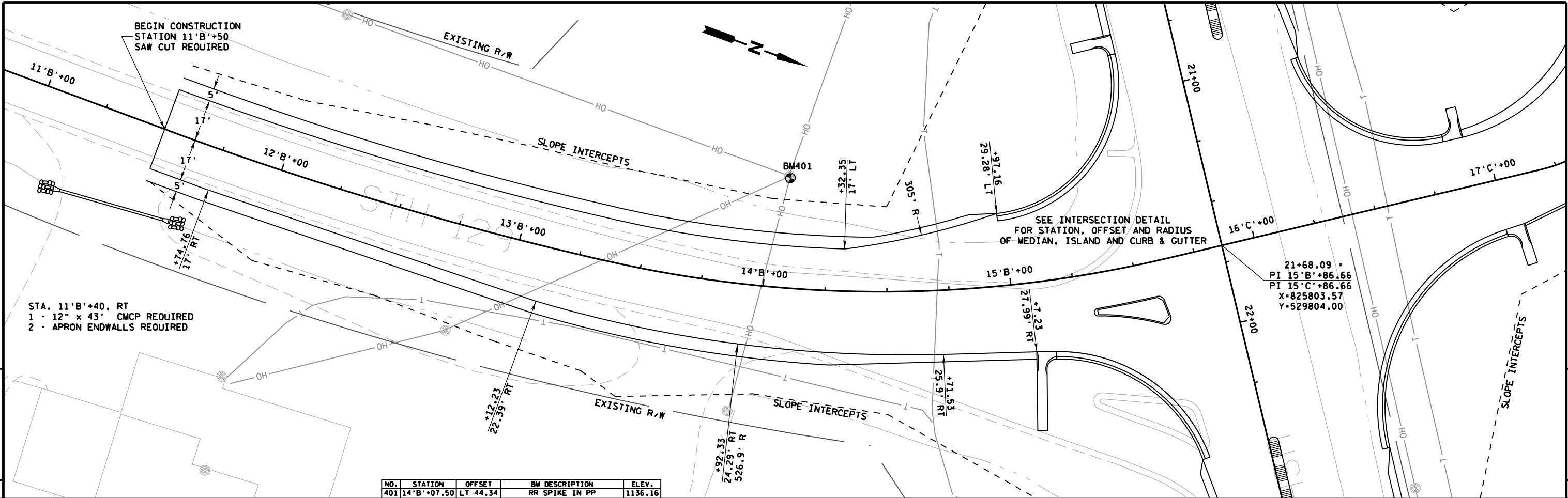
PLOT SCALE : 40.000000:1.000000

WISDOT/CADDs SHEET 30

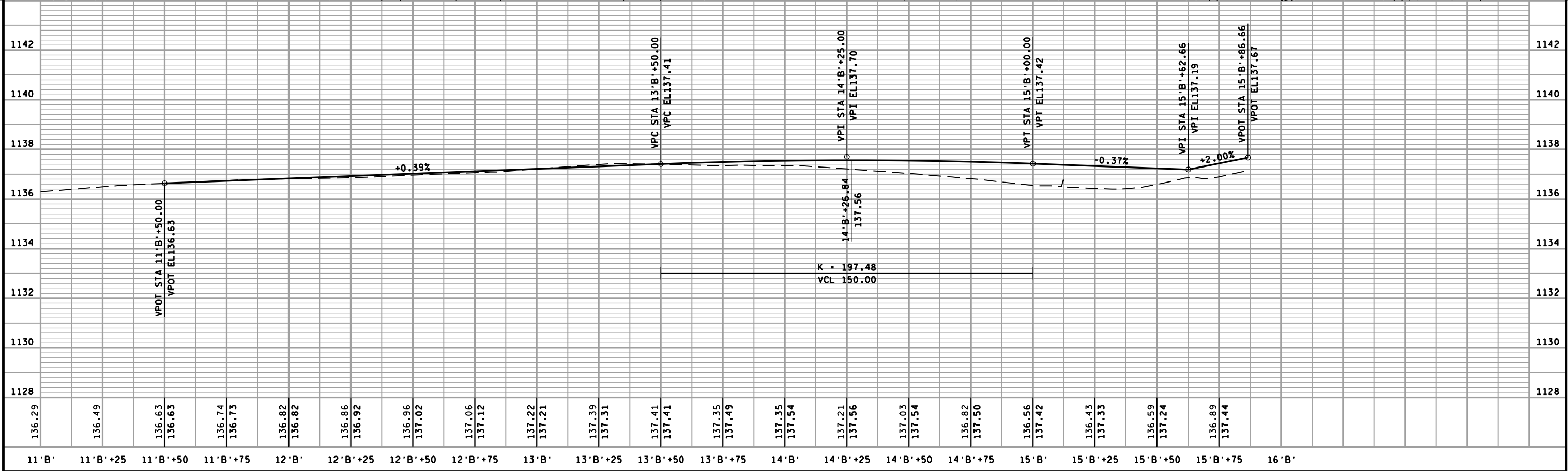


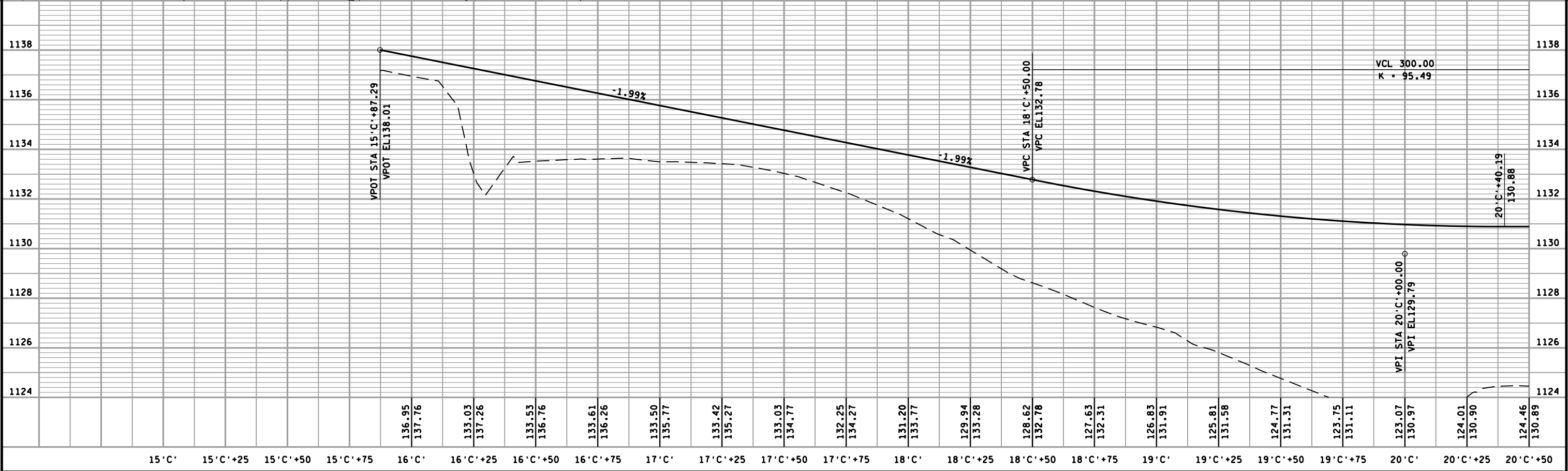
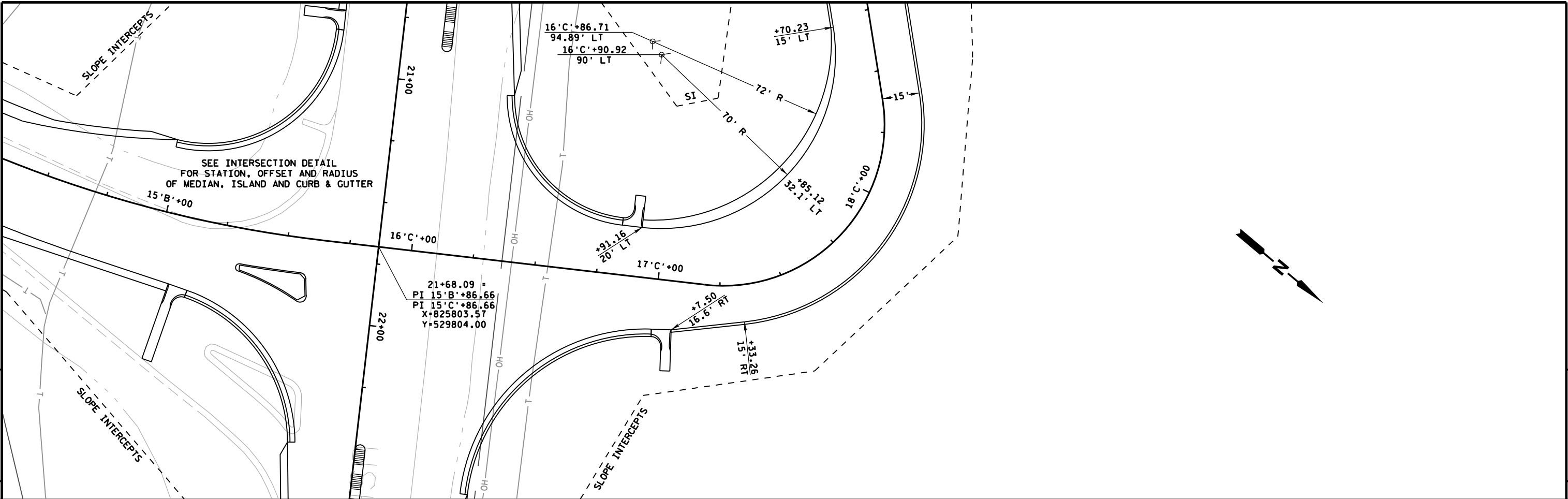
PROJECT NO: 1650-01-79	HWY: USH 61	COUNTY: GRANT	PLAN AND PROFILE	SHEET	E
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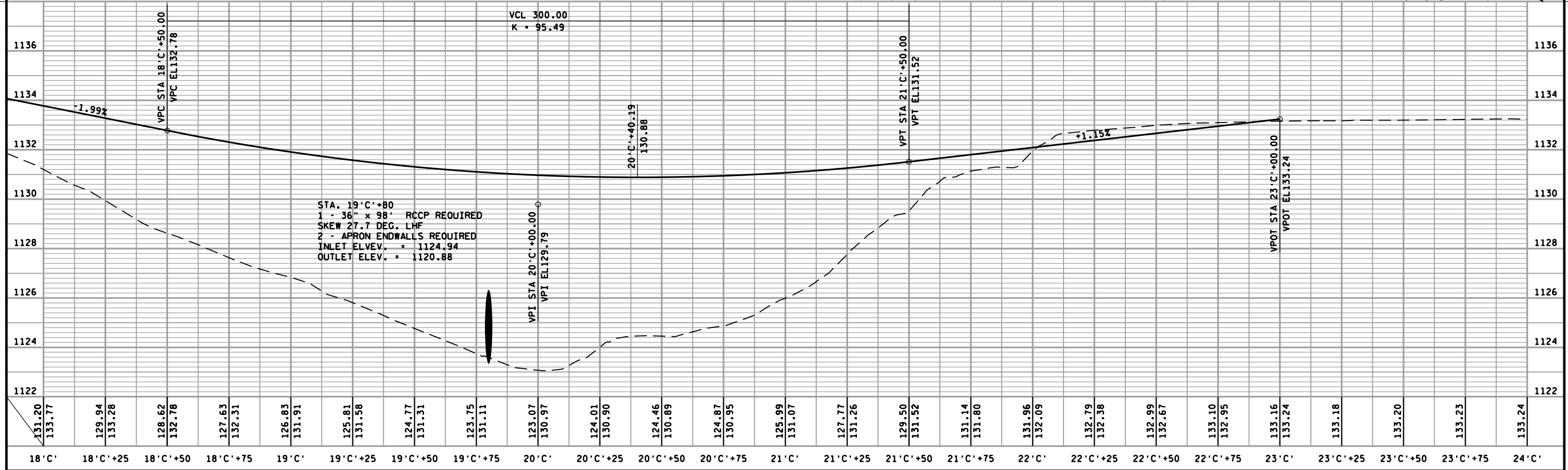
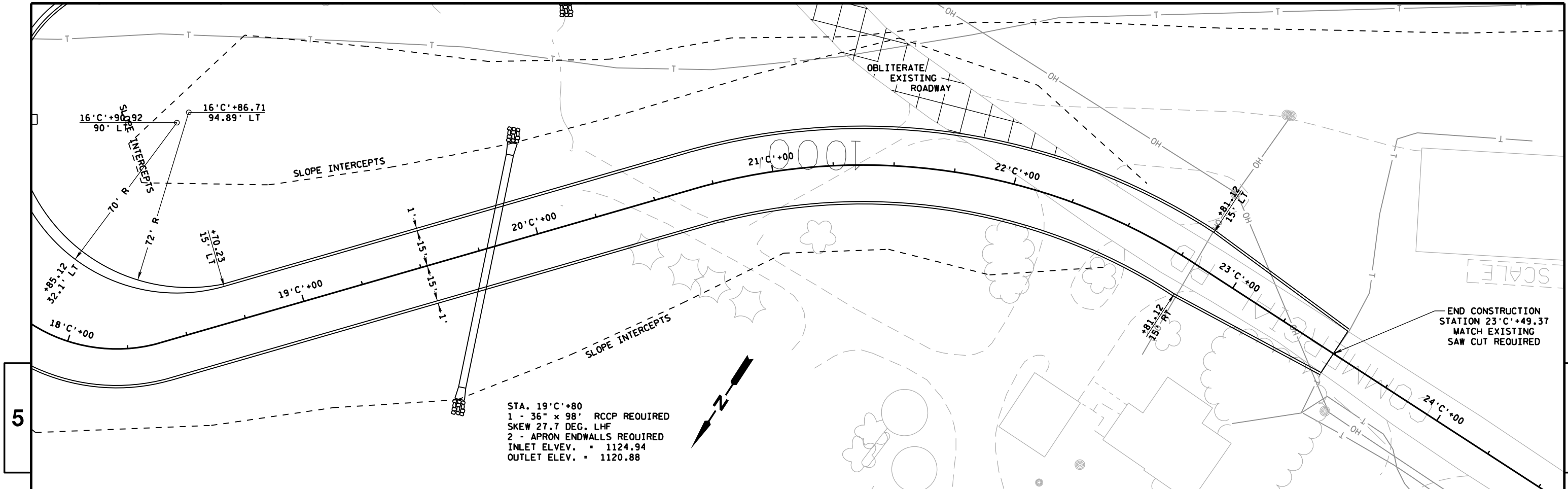
5



NO.	STATION	OFFSET	BM DESCRIPTION	ELEV.
401	14'B'+07.50	LT 44.34	RR SPIKE IN PP	1136.16

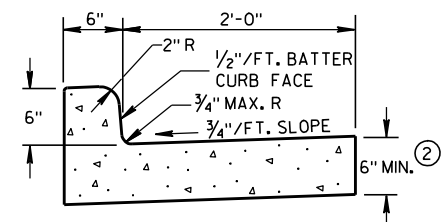




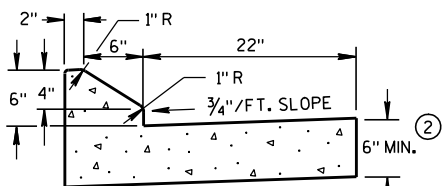


Standard Detail Drawing List

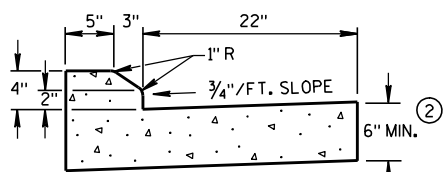
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-07	CONDUIT
09B04-09	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
11B01-05	CONCRETE CORRUGATED MEDIAN
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)



TYPES A & D ①

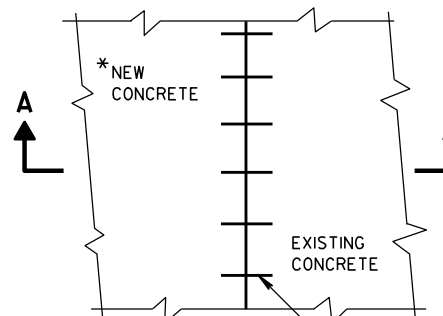


6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

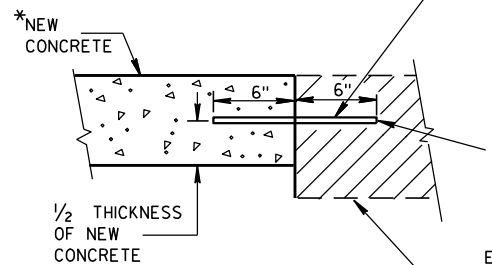
CONCRETE CURB & GUTTER 30"



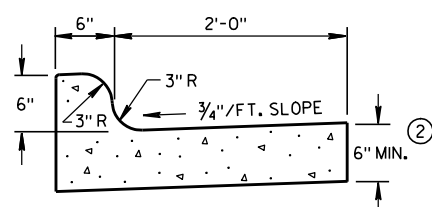
PLAN VIEW

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

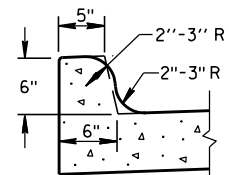
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.



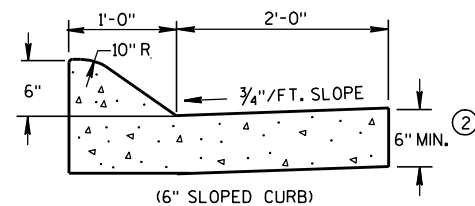
SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT



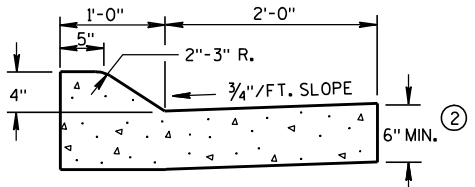
TYPES K & L ①



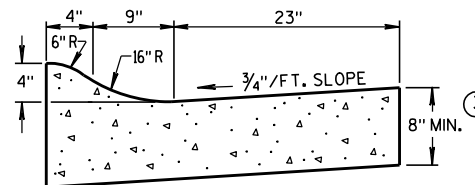
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



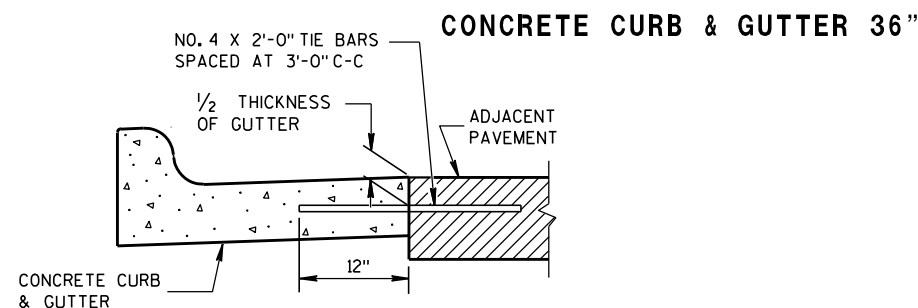
(6" SLOPED CURB)



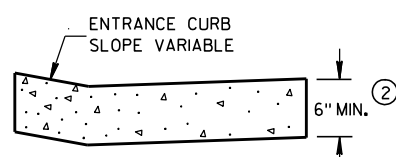
TYPES A & D ①



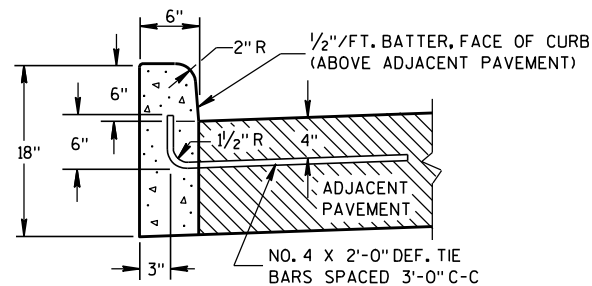
4" SLOPED CURB TYPES R & T ① ④



TYPICAL TIE BAR LOCATION ①

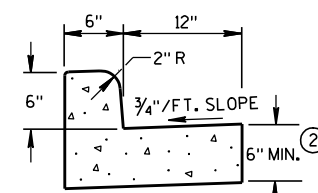


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

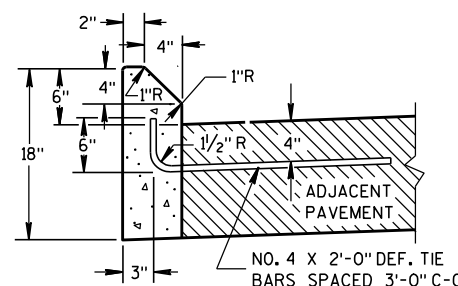


TYPES A & D ①

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.

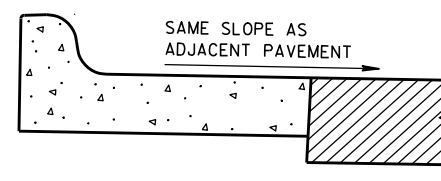
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

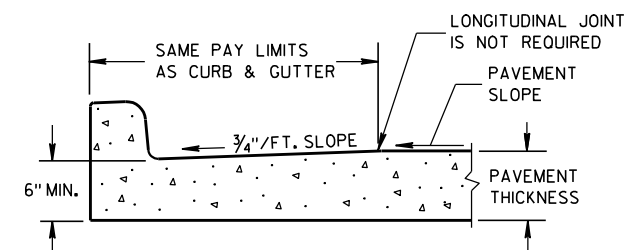
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

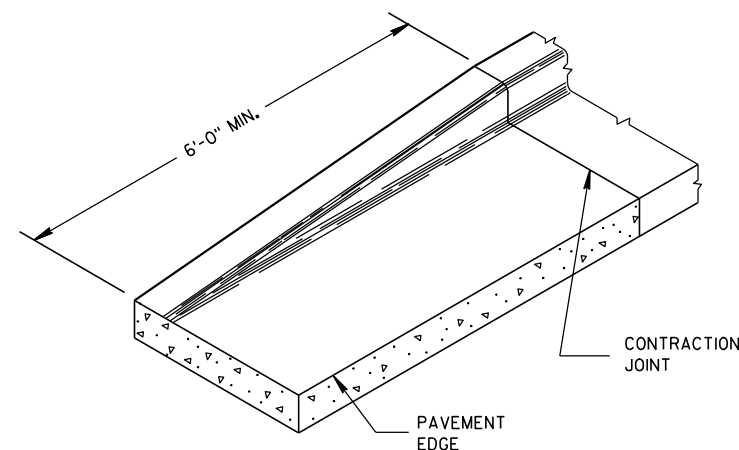
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER 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

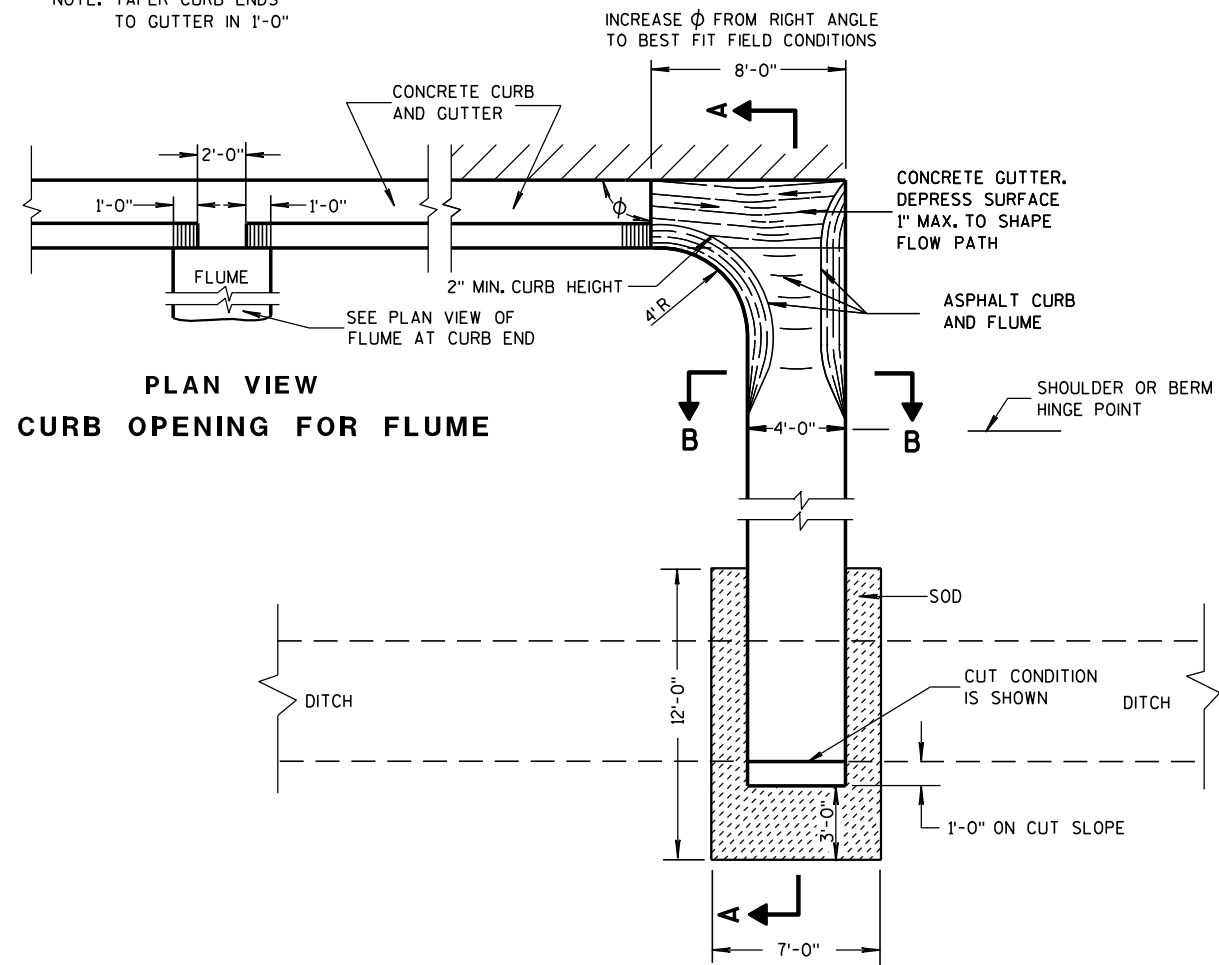
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

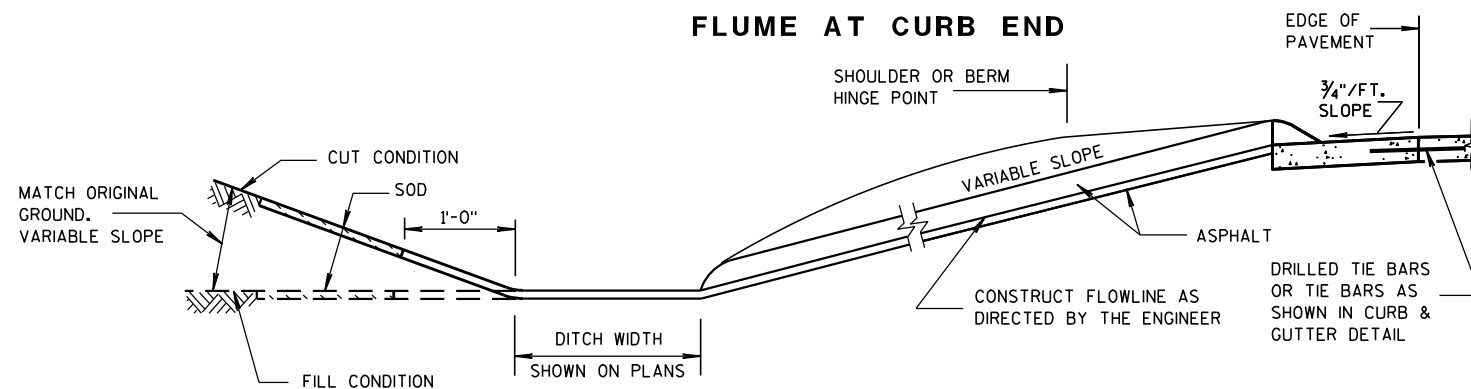
ASPHALTIC FLUME

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

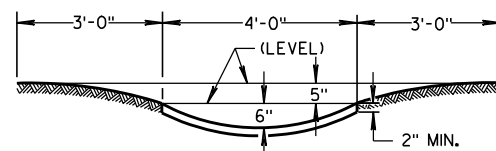


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

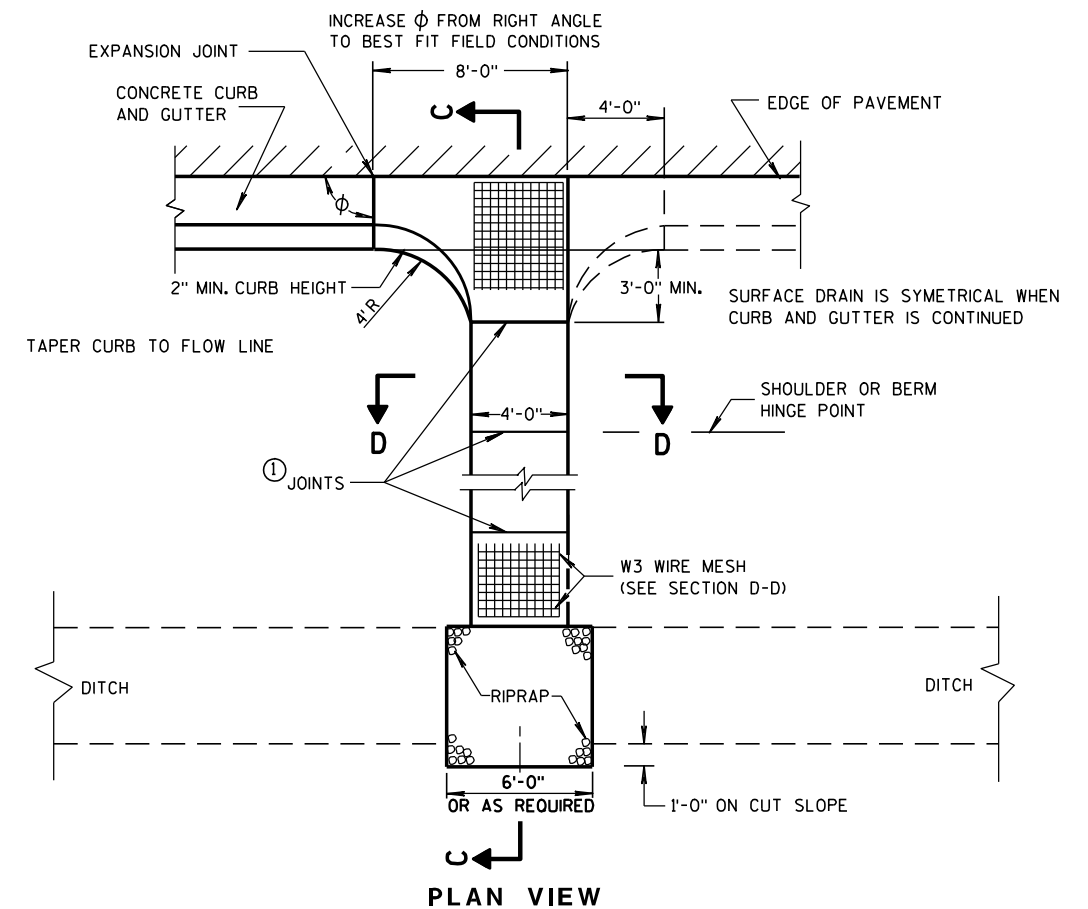
GENERAL NOTES

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

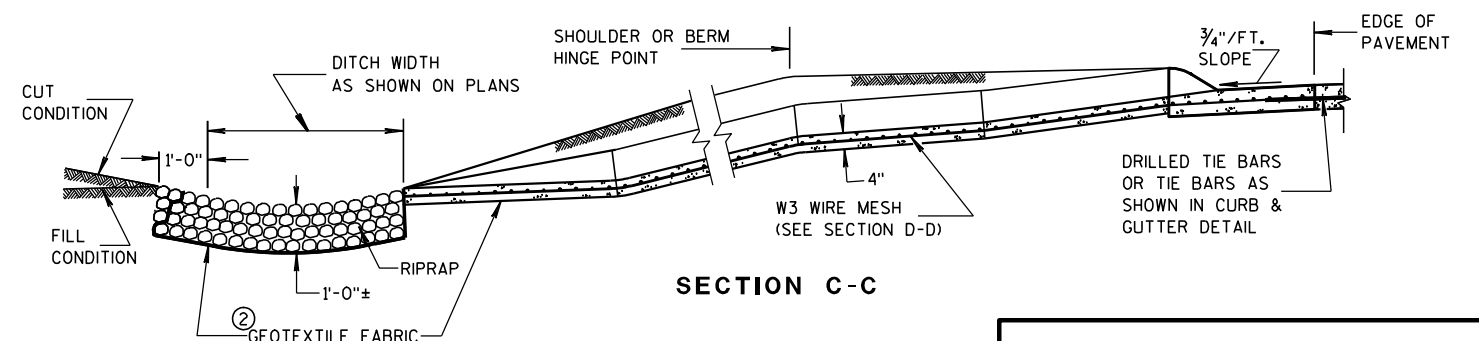
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

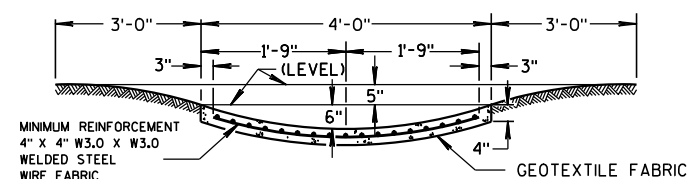
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

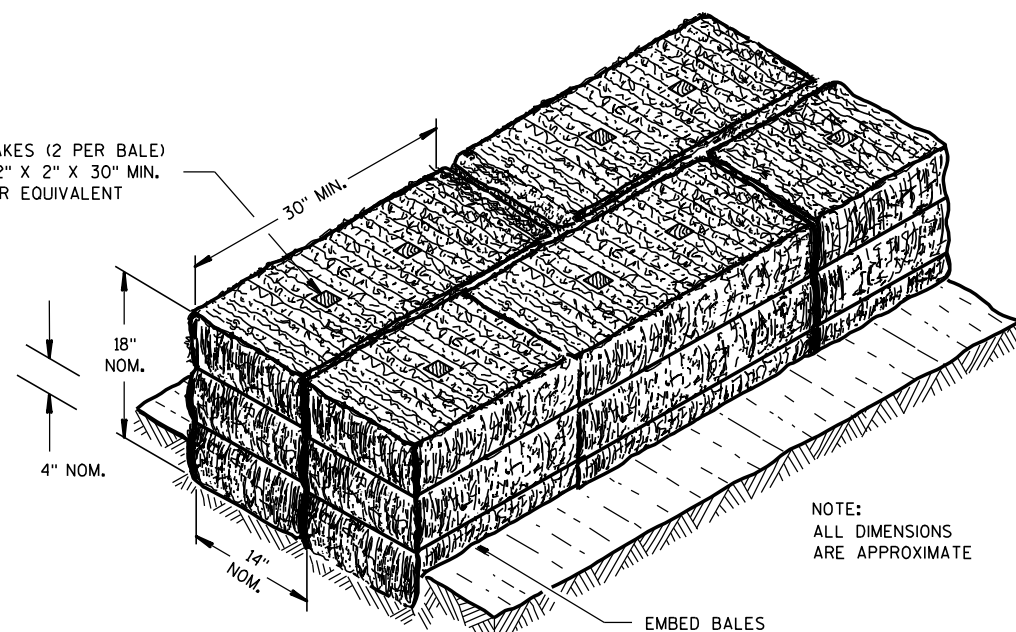
9-4-08

DATE

FHWA

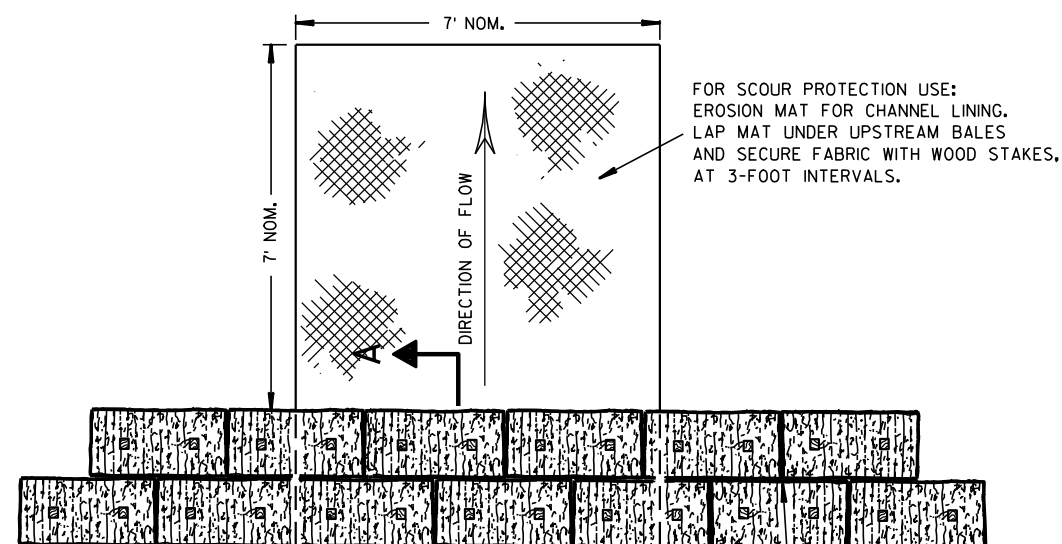
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A

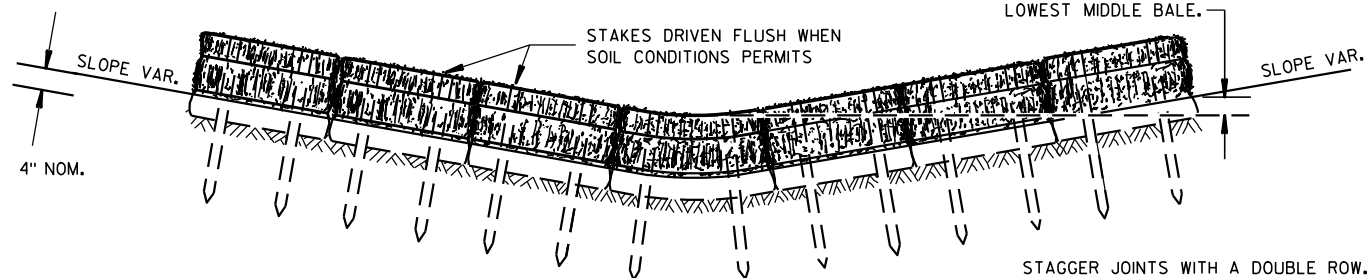
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



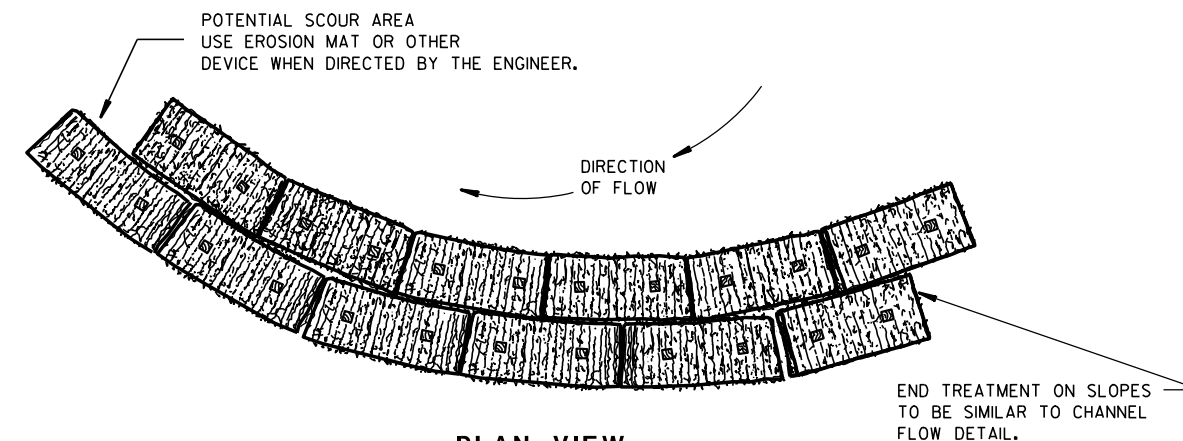
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

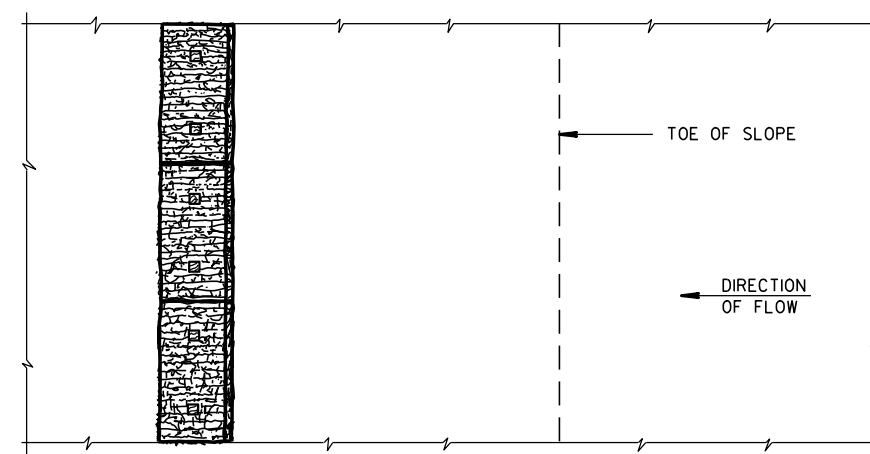
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

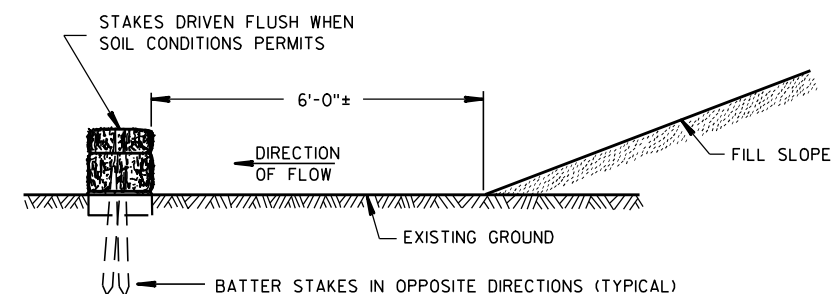


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

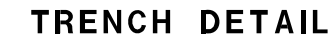
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



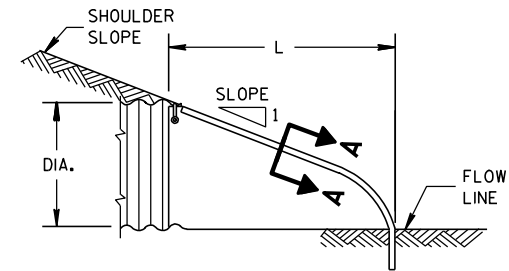
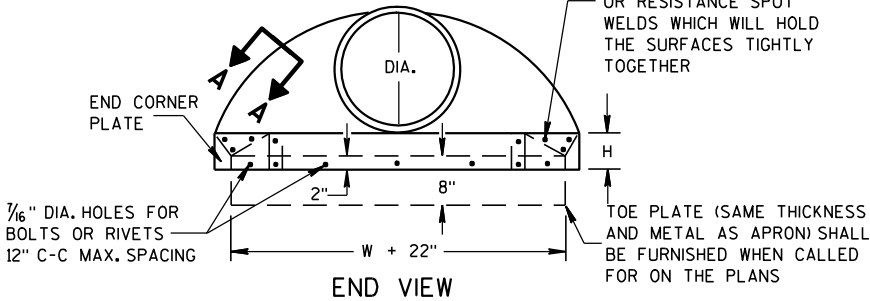
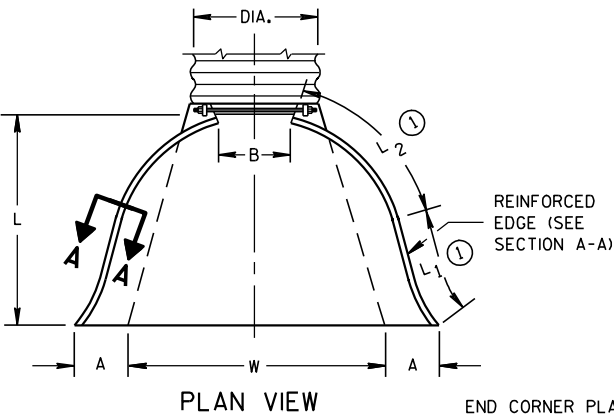
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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

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")	L1 ①	L2 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.

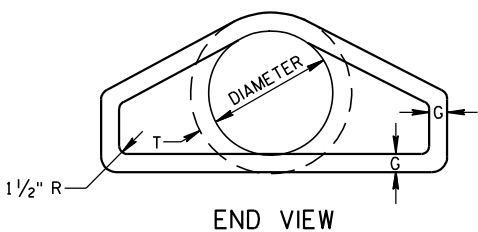
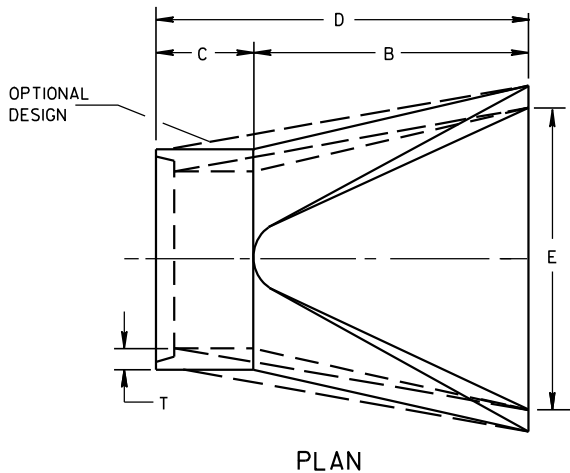
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



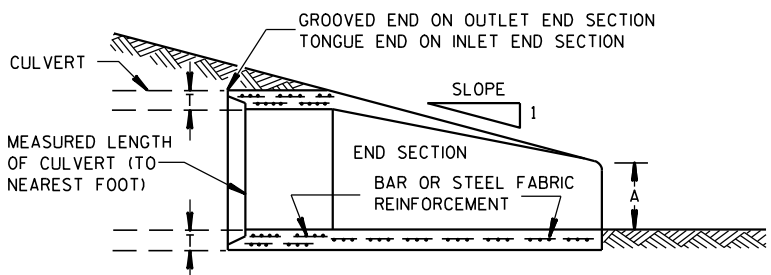
SIDE ELEVATION
METAL ENDWALLS

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 2/5 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

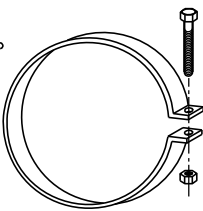
* MINIMUM
** MAXIMUM



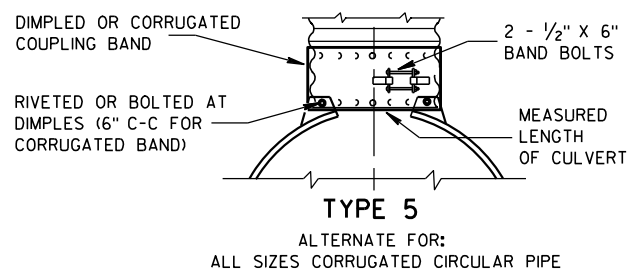
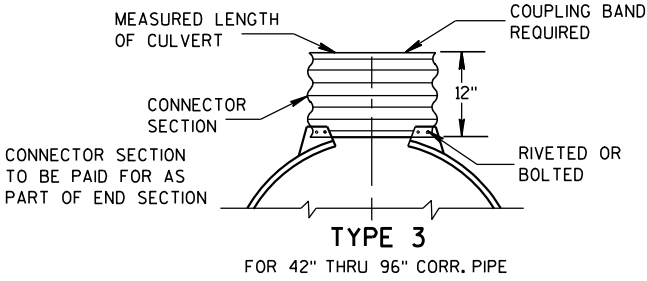
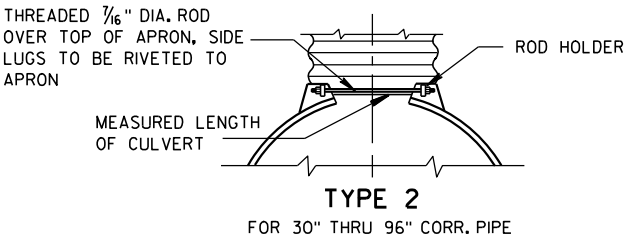
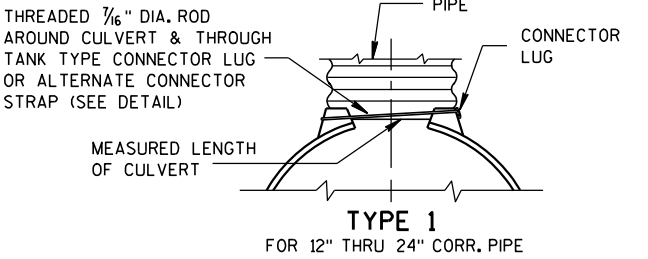
LONGITUDINAL SECTION
CONCRETE ENDWALLS



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



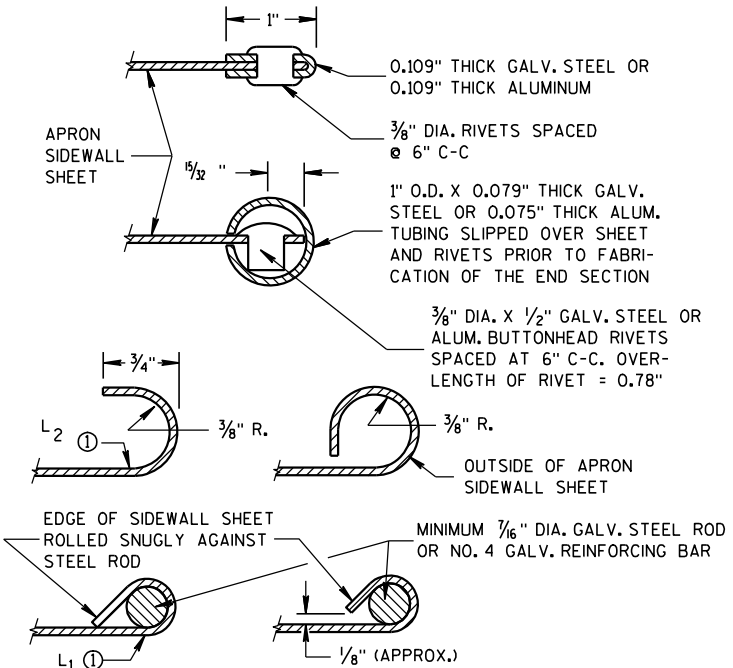
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



SECTION A-A

GENERAL NOTES

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

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

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

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

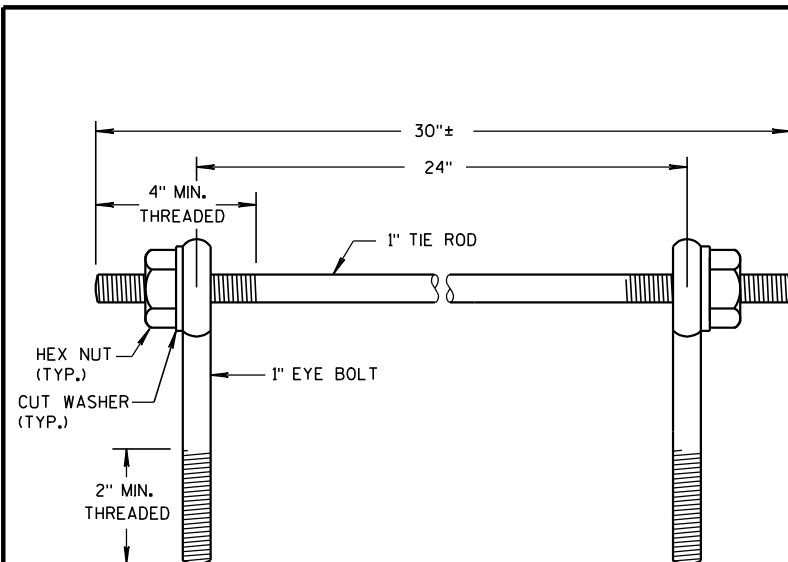
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR
CULVERT PIPE

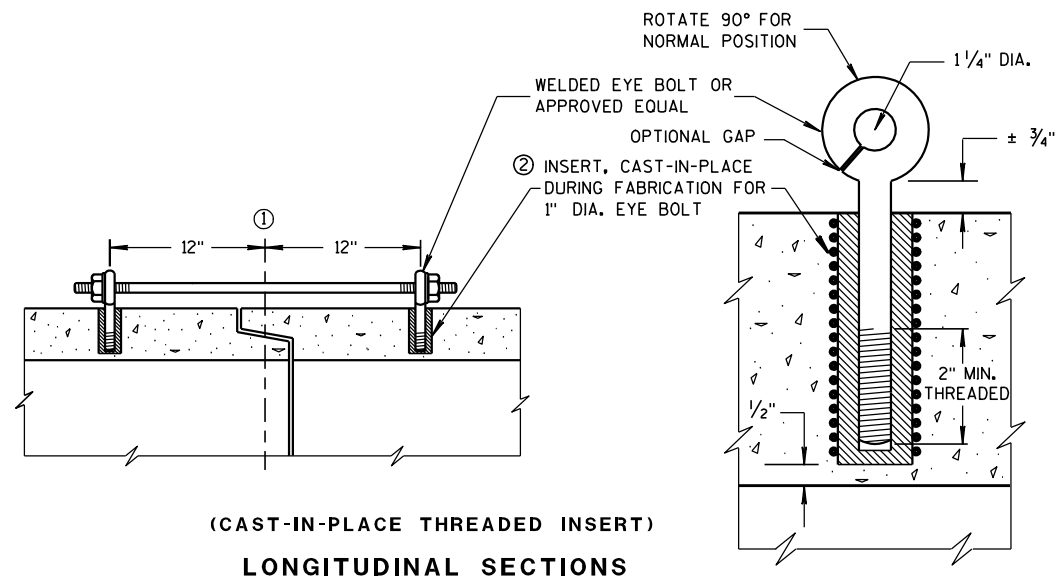
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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

(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

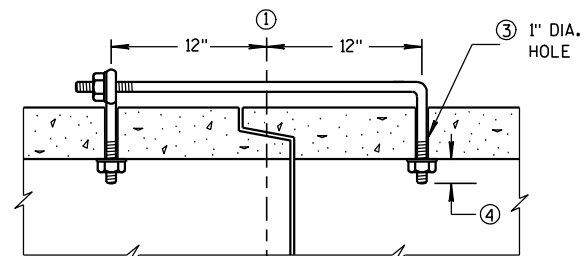
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

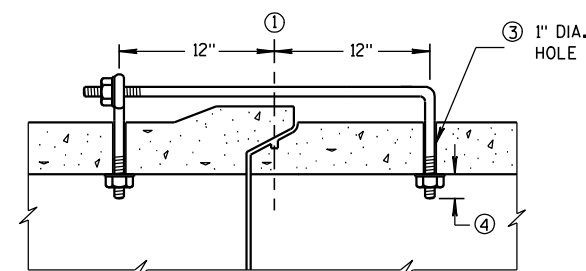
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

- ① ϕ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ϕ OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN $\frac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.

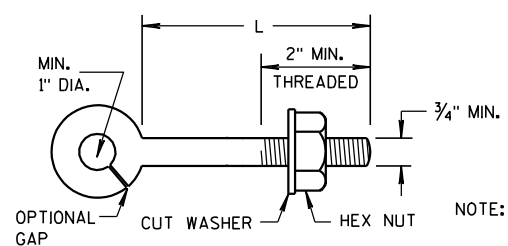


(TONGUE & GROOVE PIPE)

(MODIFIED BELL PIPE)
LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

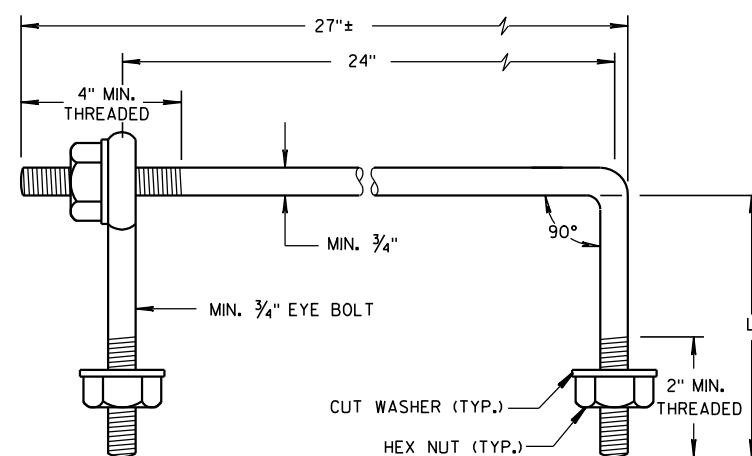


EYE BOLT

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

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

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

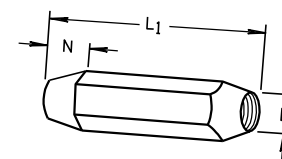


EYE BOLT AND TIE ROD

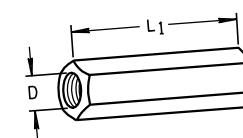
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



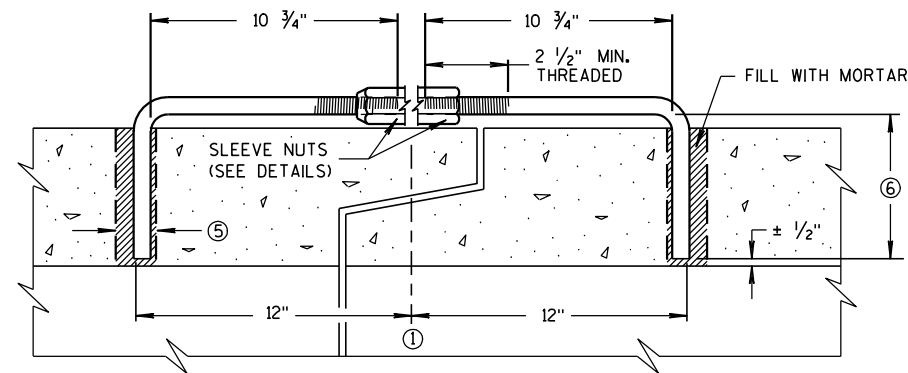
TAPERED



PLAIN

RIGHT AND LEFT THREADS

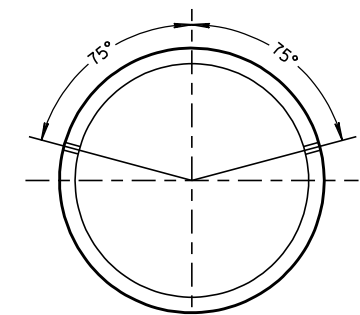
SLEEVE NUTS



LONGITUDINAL SECTION

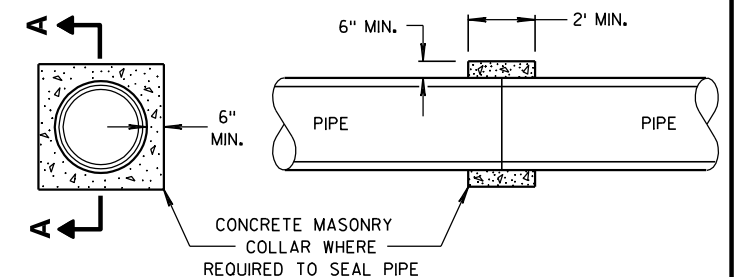
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE
PIPE AND CONCRETE
COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

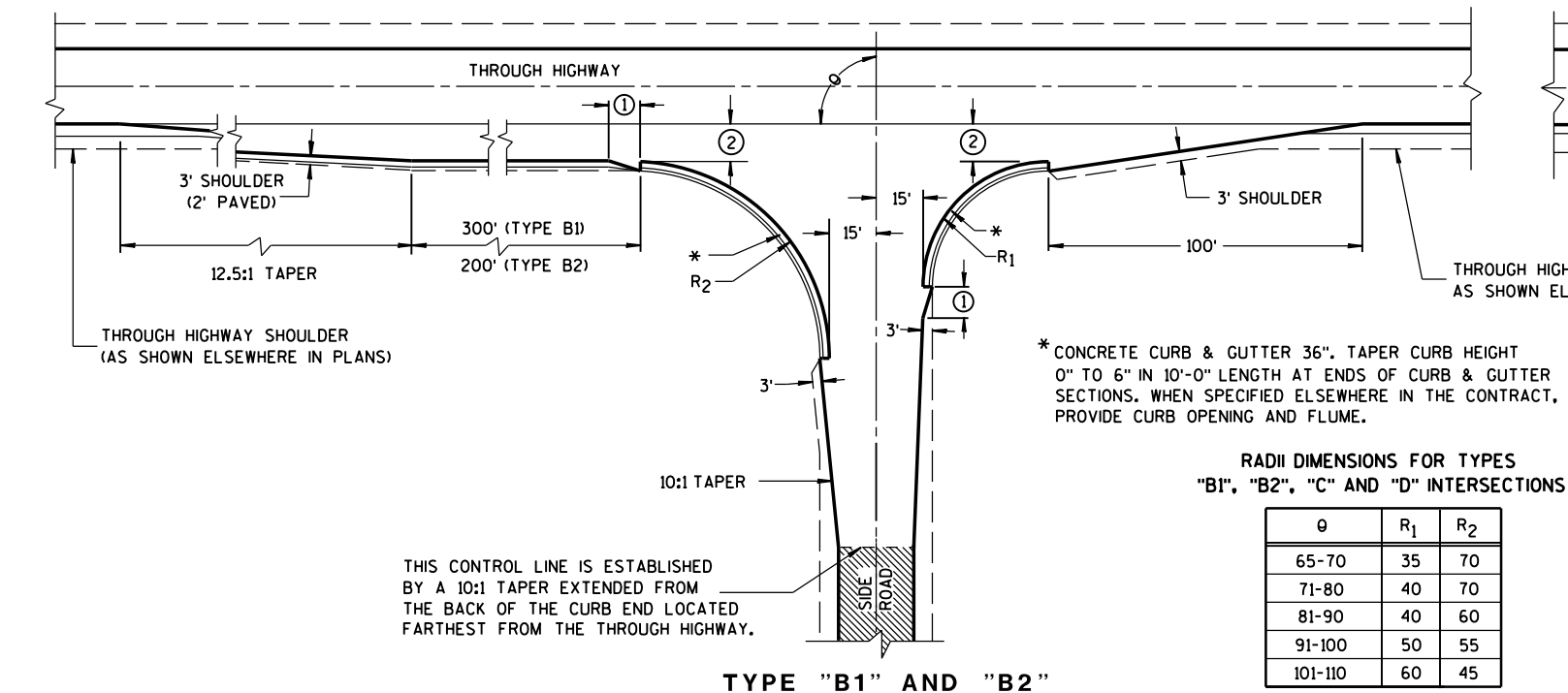
APPROVED

6/5/2012

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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.

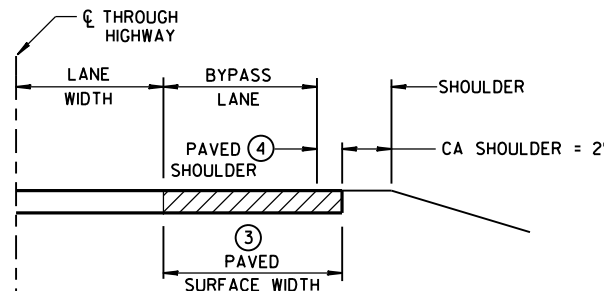
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

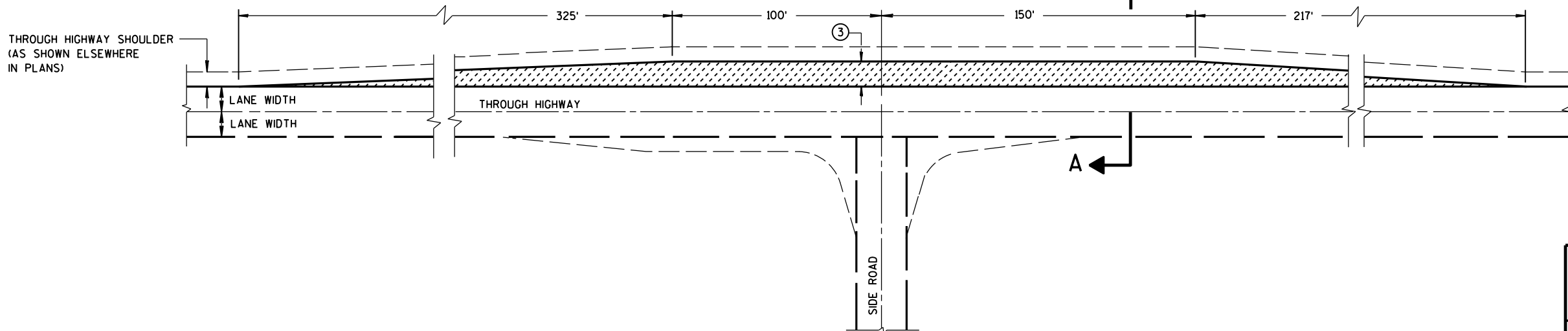
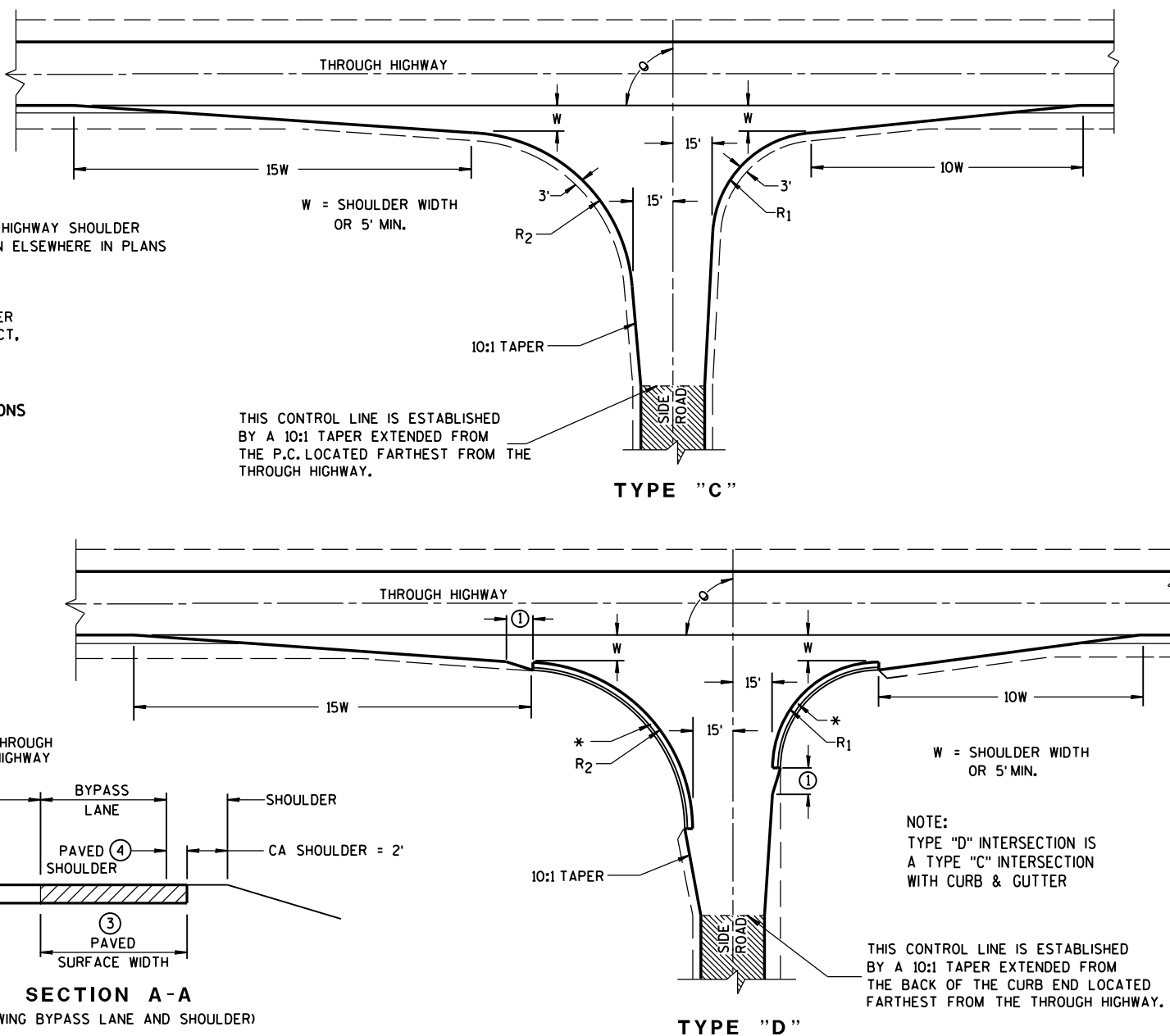
BYPASS LANE

- 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.



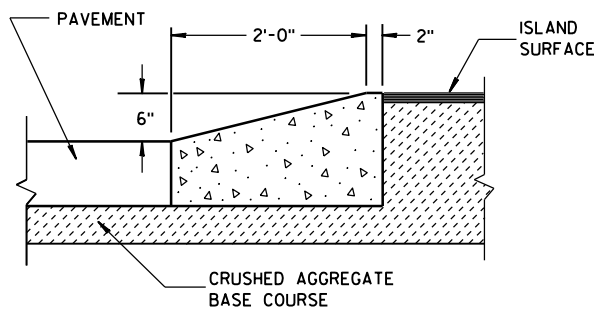
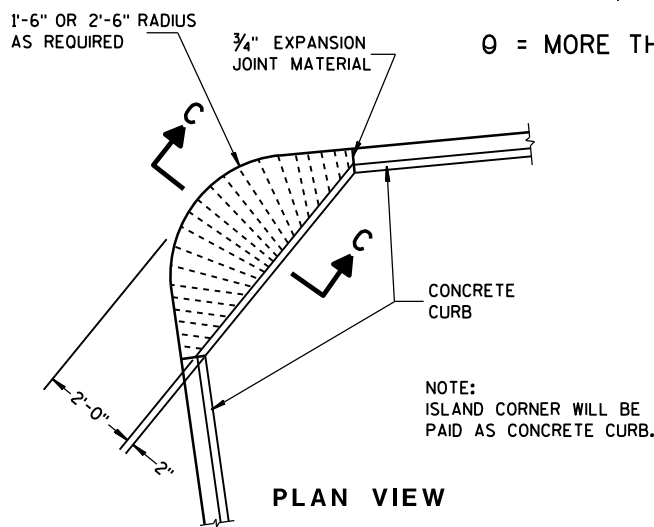
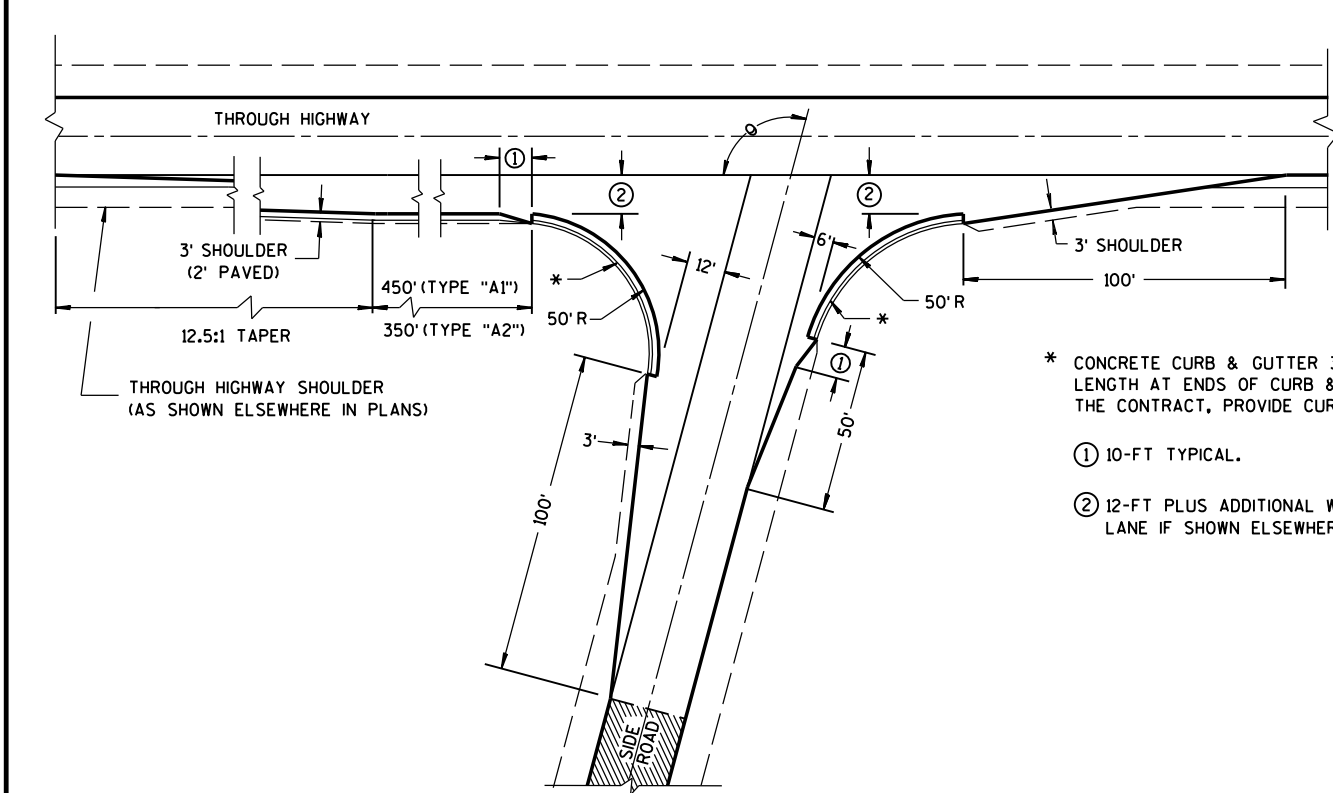
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

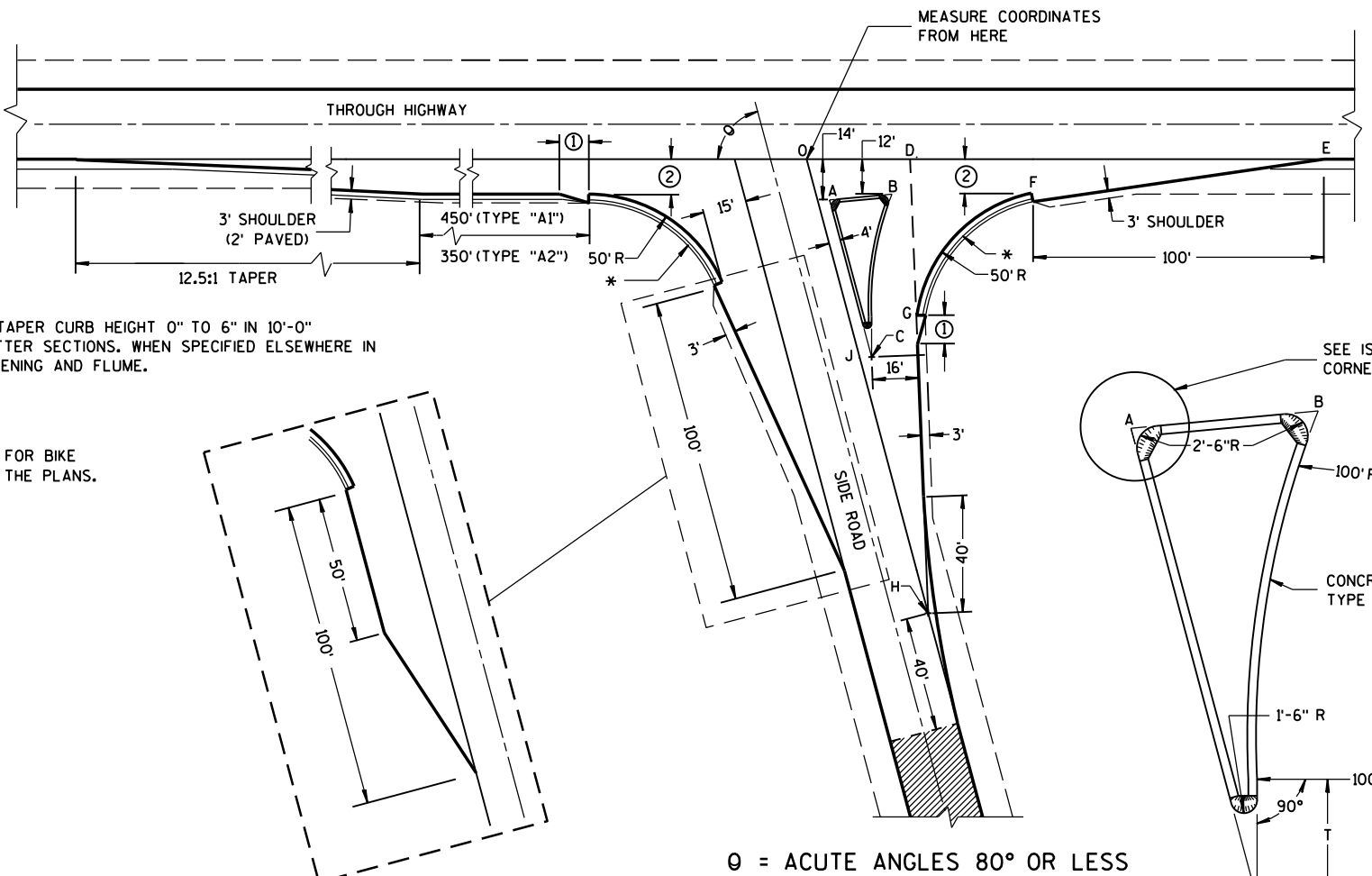
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SECTION C-C

ISLAND CORNER DETAIL
(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

- * CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.
- ① 10-FT TYPICAL.
- ② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

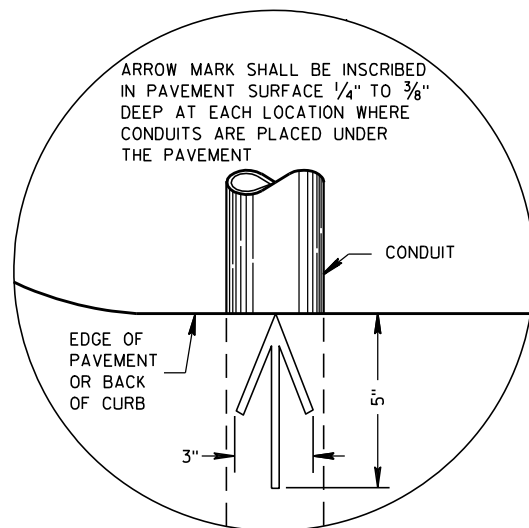
ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 -14.0	44.9 -12.0	46.4 -72.4	41.9 0.0	205.0 0.0	104.6 -12.0	64.0 -75.5	85.0 -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 -14.0	39.0 -12.0	37.8 -71.6	39.4 0.0	196.1 0.0	95.7 -12.0	54.1 -71.5	70.5 -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 -14.0	33.9 -12.0	29.8 -70.1	37.4 0.0	188.3 0.0	87.8 -12.0	45.6 -67.5	56.1 -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 -14.0	29.3 -12.0	22.3 -67.9	35.7 0.0	181.2 0.0	80.7 -12.0	38.2 -63.4	41.8 -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 -14.0	25.4 -12.0	15.6 -65.2	34.4 0.0	174.8 0.0	74.4 -12.0	31.8 -59.3	27.6 -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

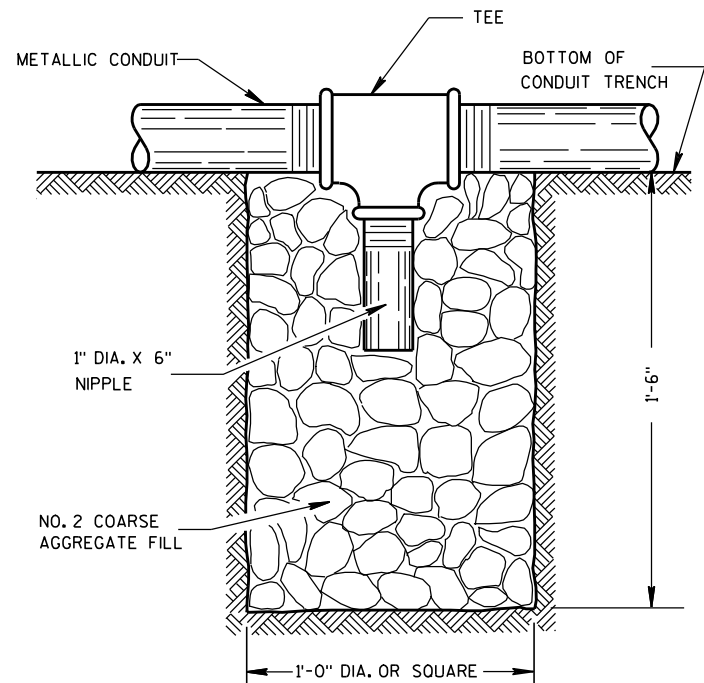
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

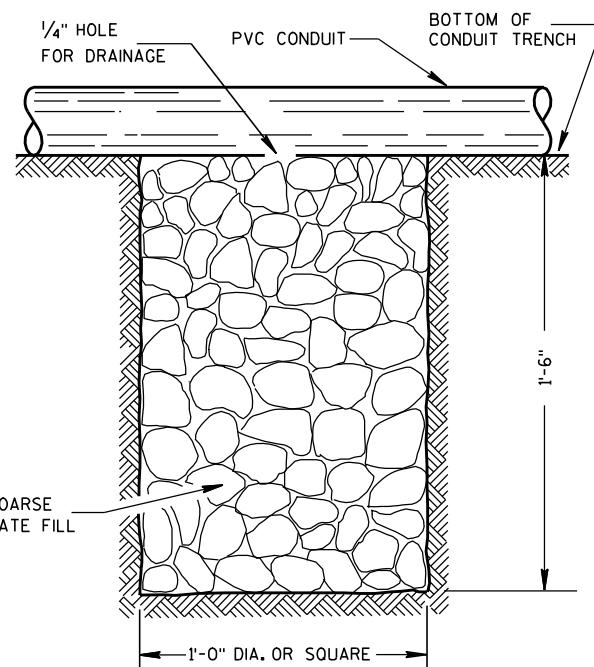


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

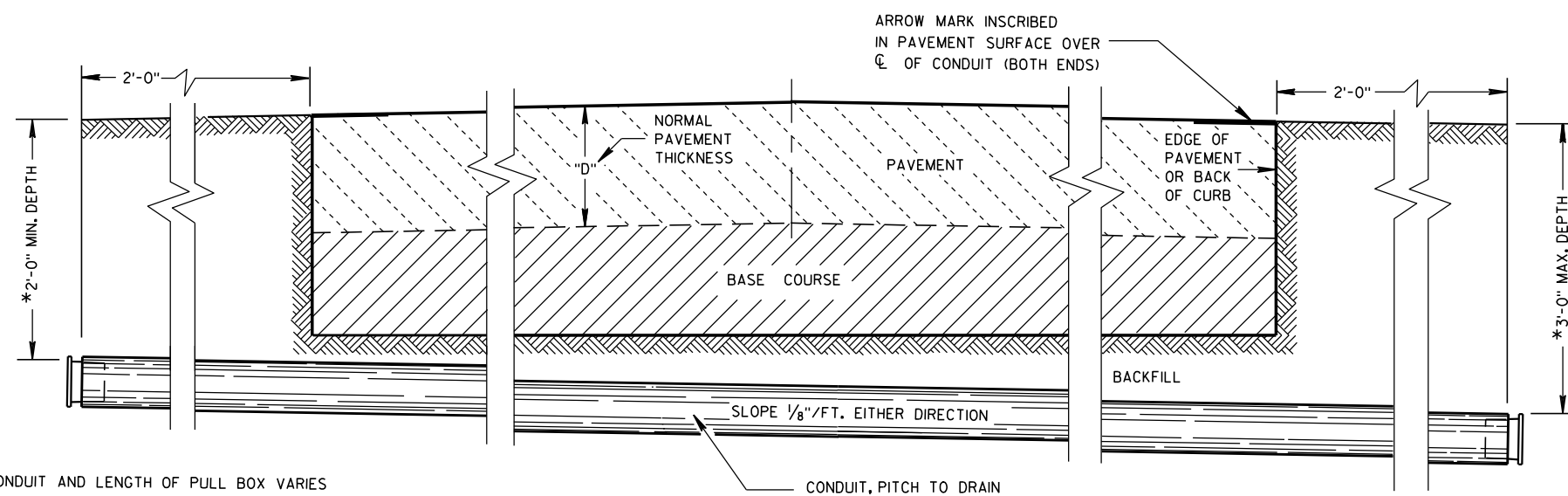
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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



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

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03

DATE

FHWA

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGINEER FOR HWYS

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

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

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

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

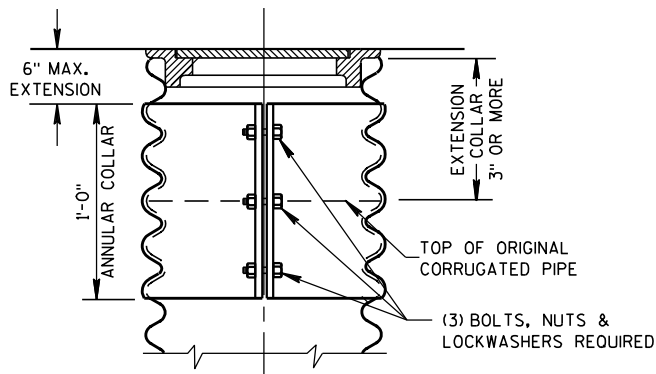
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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

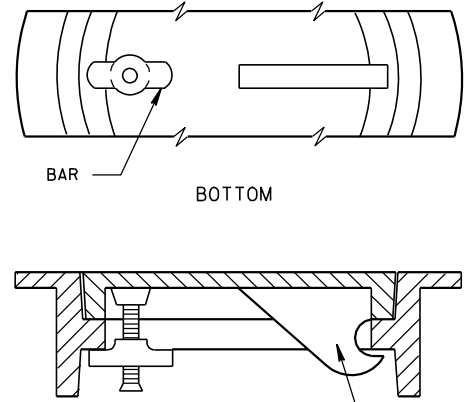
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

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

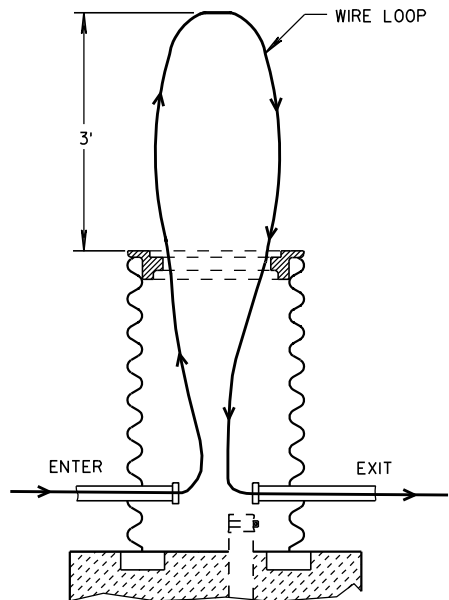
IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.



CORRUGATED PIPE EXTENDER

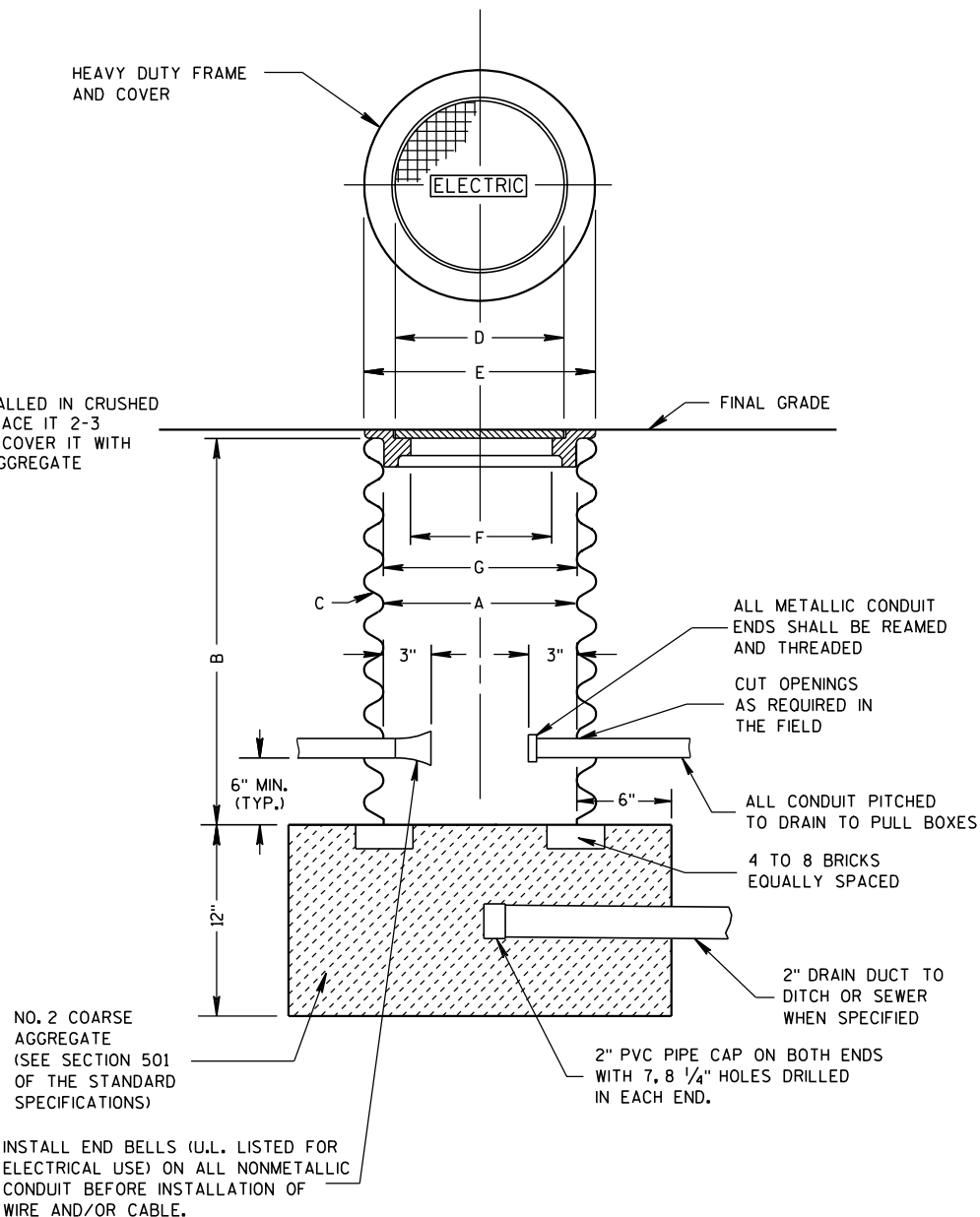


ALTERNATE COVER (LOCKING)

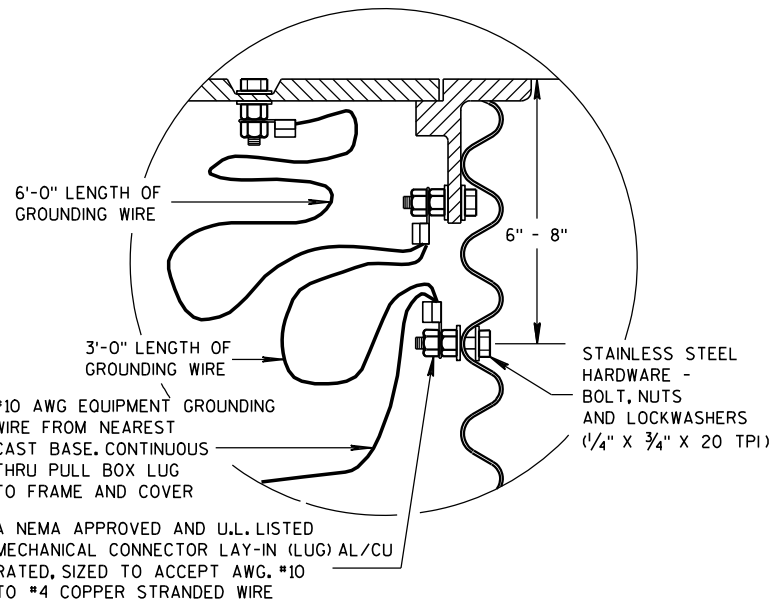


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



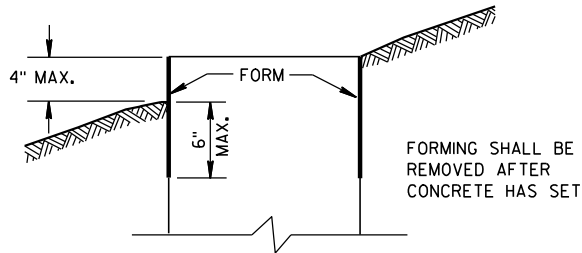
PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/27/06 DATE	/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGINEER FOR HWYS
FHWA	

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

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

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

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

GENERAL NOTES (CONTINUED)

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

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

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

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD, ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

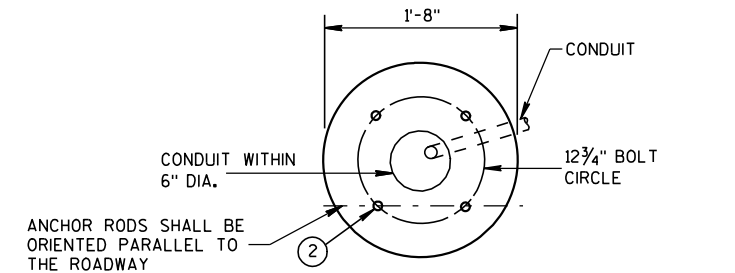
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

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

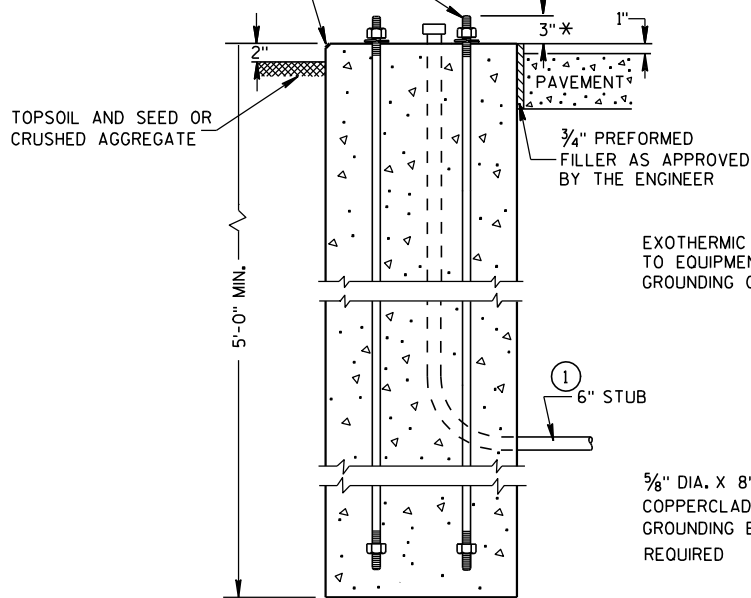
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

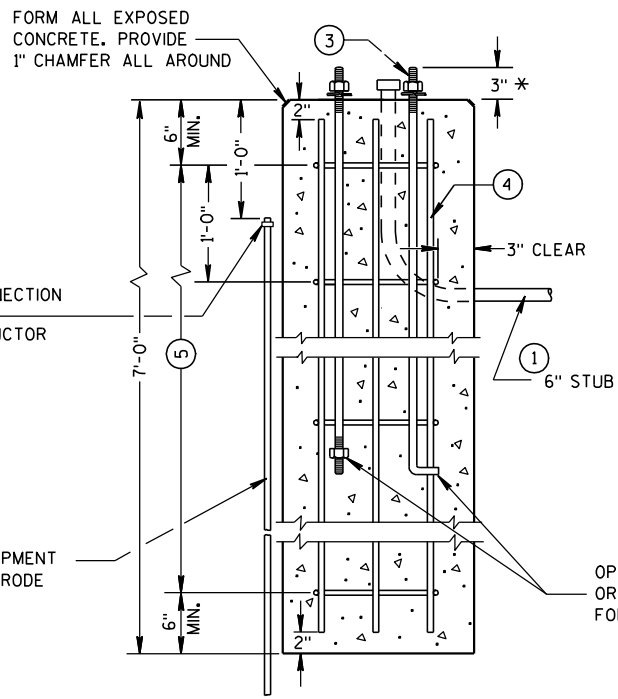
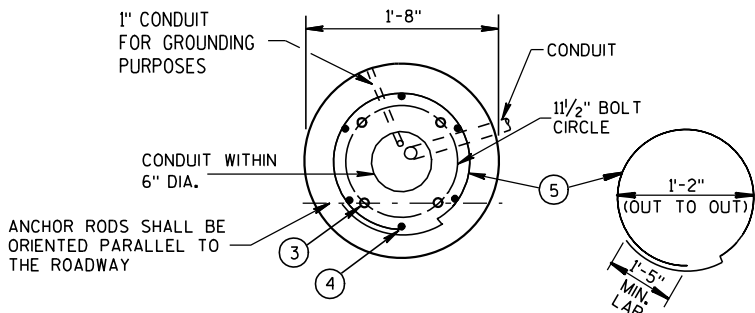
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
- 4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
- 6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



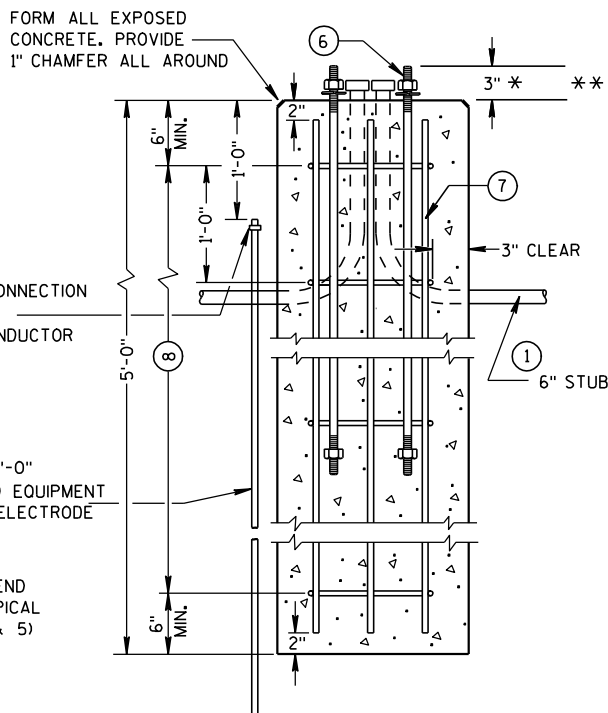
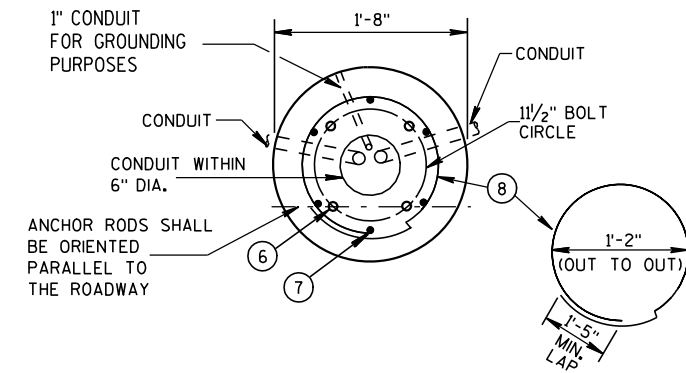
HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2 & 5)



TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

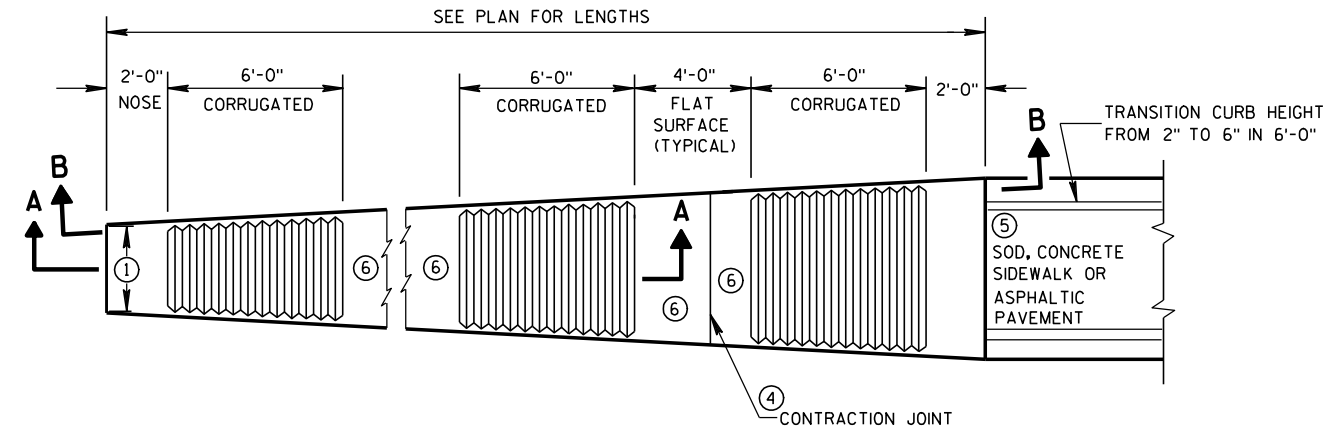
3/3/10

DATE

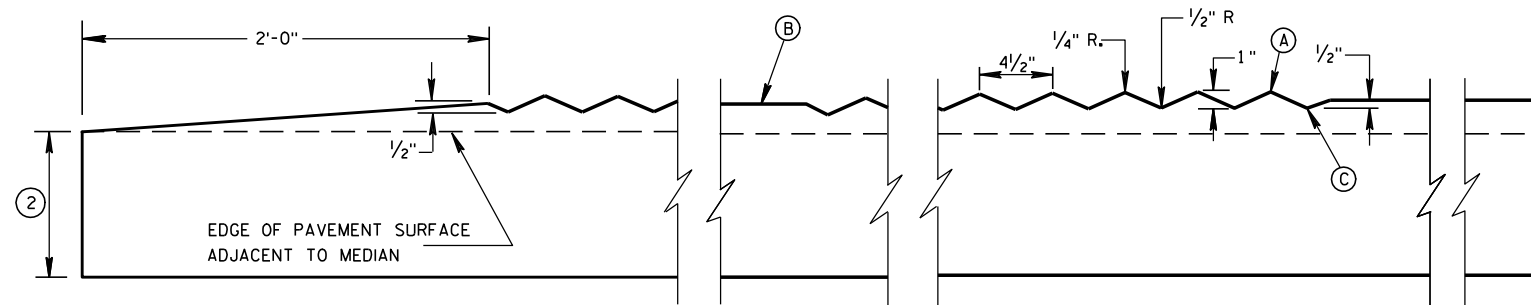
FHWA

/S/ Joanna L. Bush

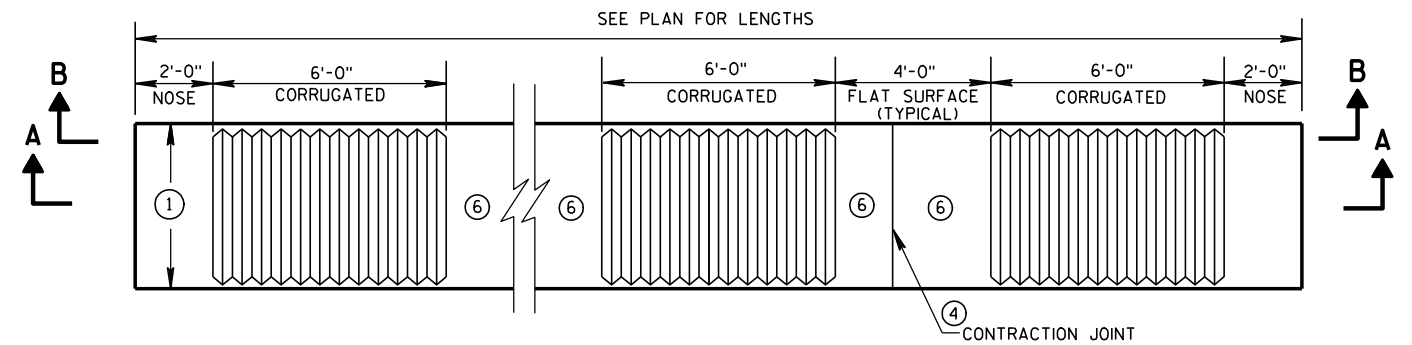
STATE ELECTRICAL ENGINEER FOR HWYS



PLAN VIEW
VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



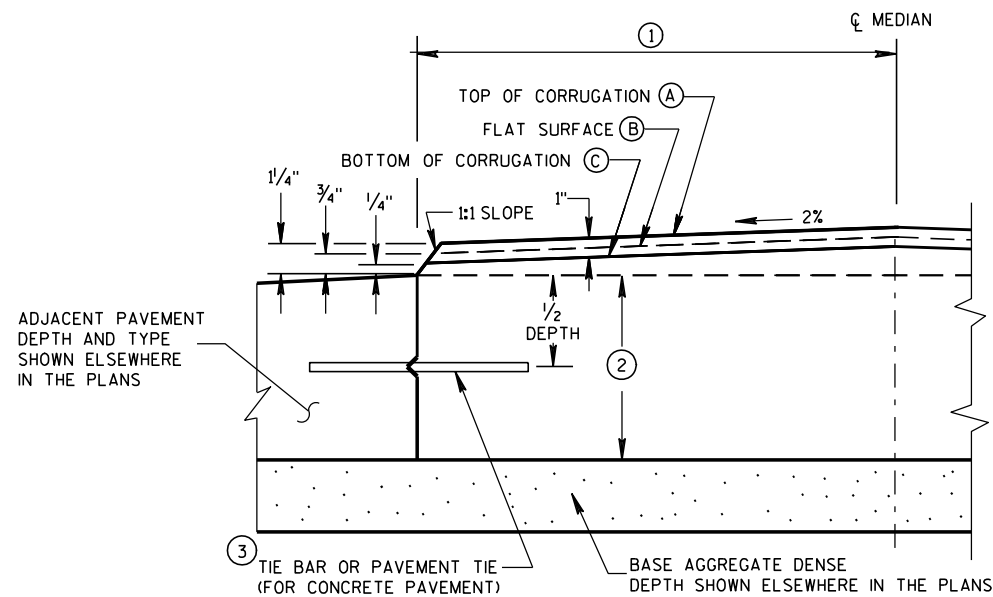
SECTION A-A
LONGITUDINAL SECTION



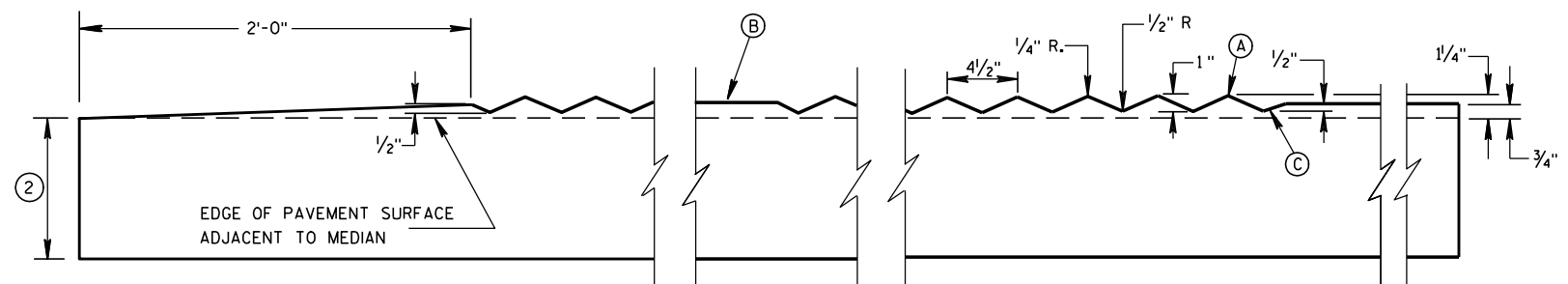
PLAN VIEW
UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN

GENERAL NOTES

- ① SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.
- ② THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:
(1) NEW OR EXISTING CONCRETE PAVEMENT.
(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.
(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.
- ③ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C. INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE PAVEMENT OR CONCRETE BASE COURSE, PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ④ CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE, TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.
- ⑤ SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.
- ⑥ YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION
② CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT



SECTION B-B
LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/07

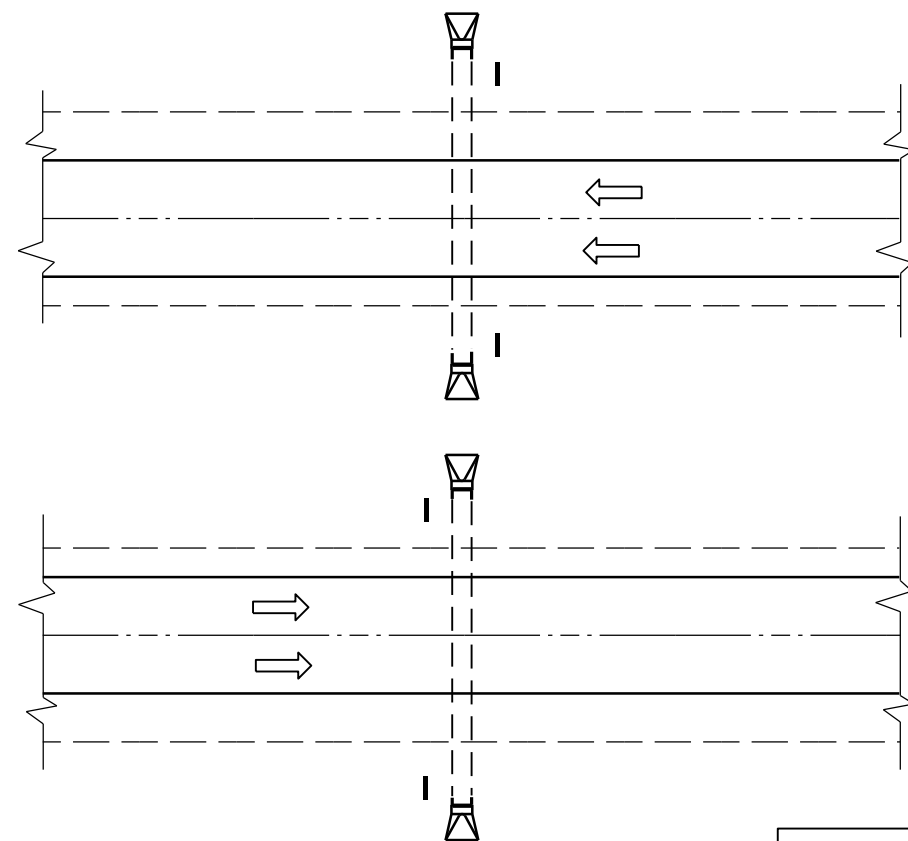
DATE

FHWA

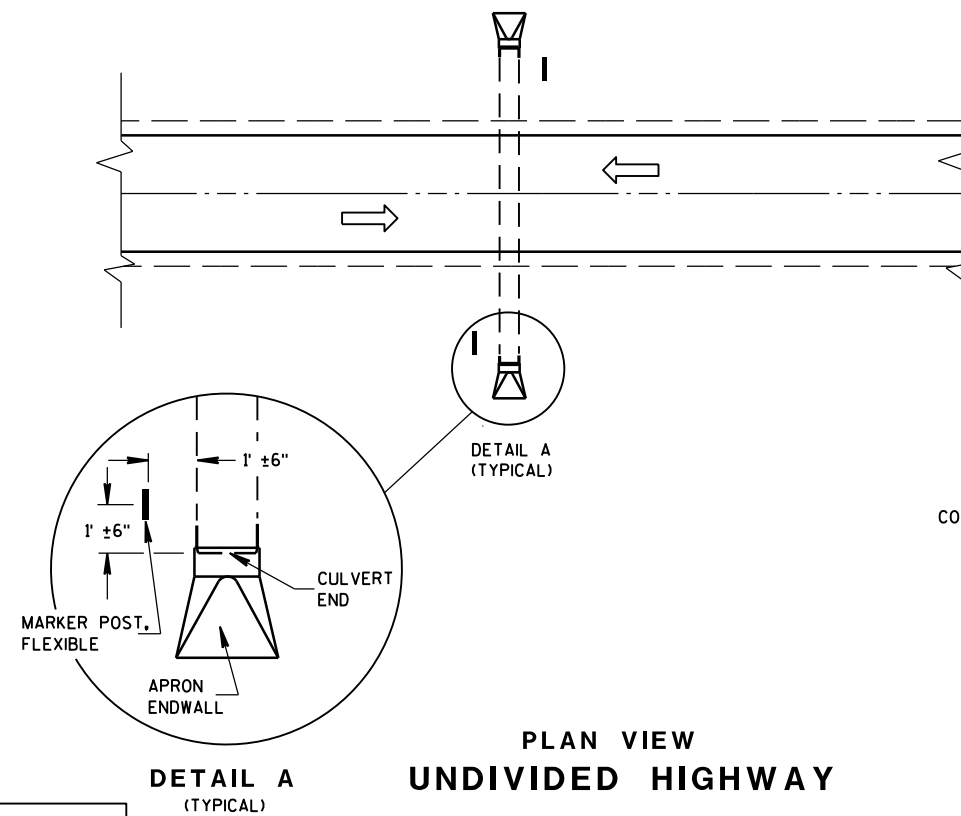
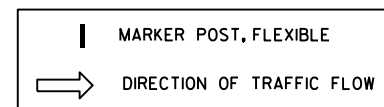
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

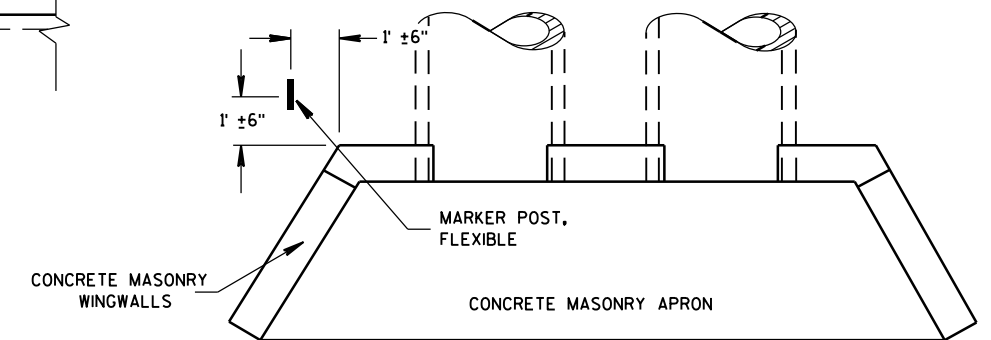


PLAN VIEW
UNDIVIDED HIGHWAY

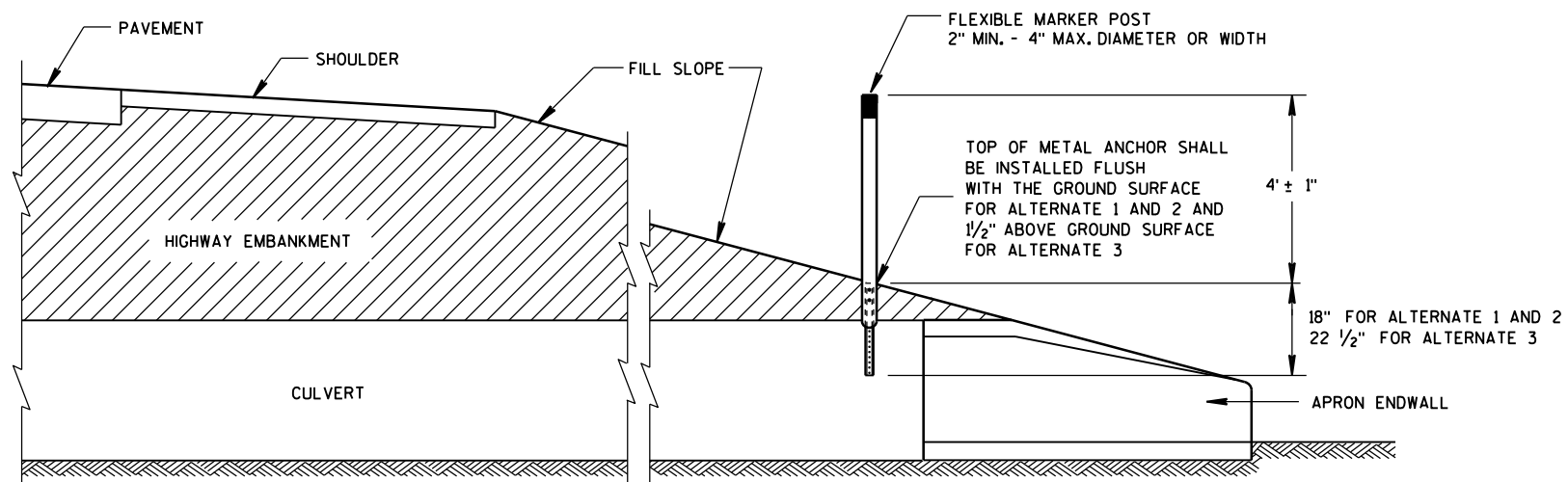
FLEXIBLE MARKER POST LOCATION

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.



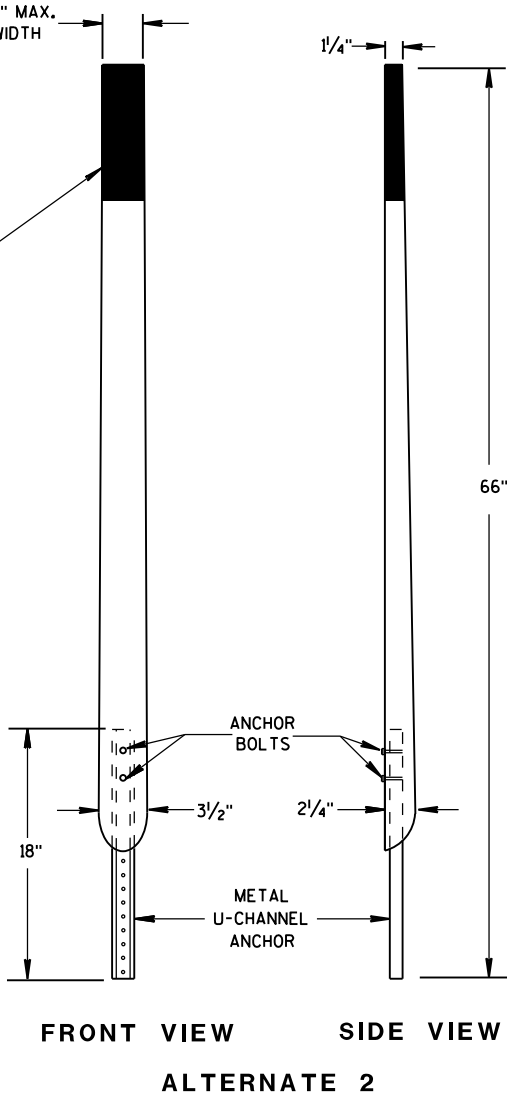
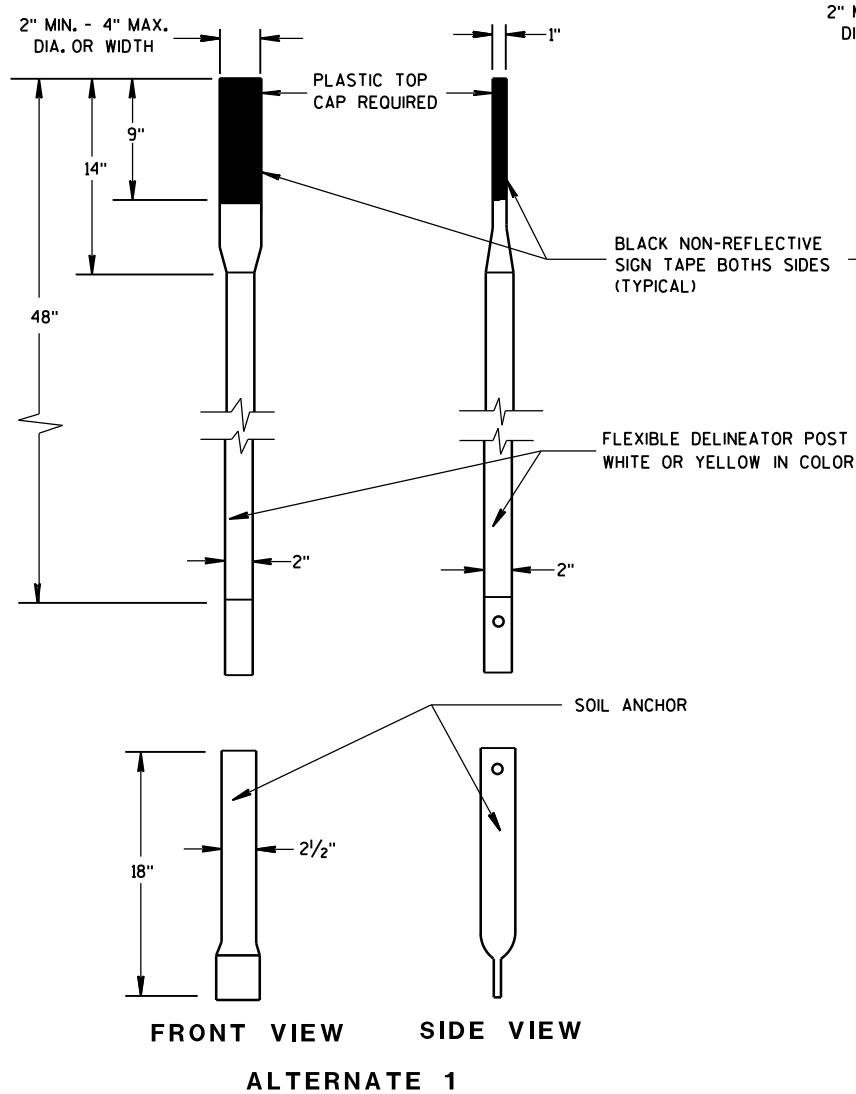
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



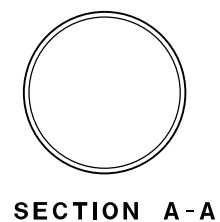
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

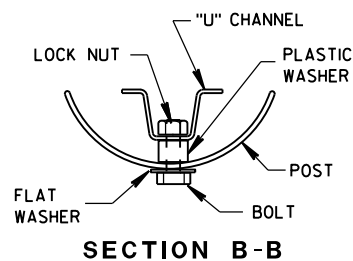
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



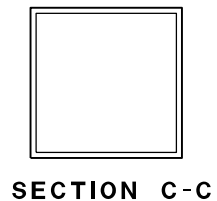
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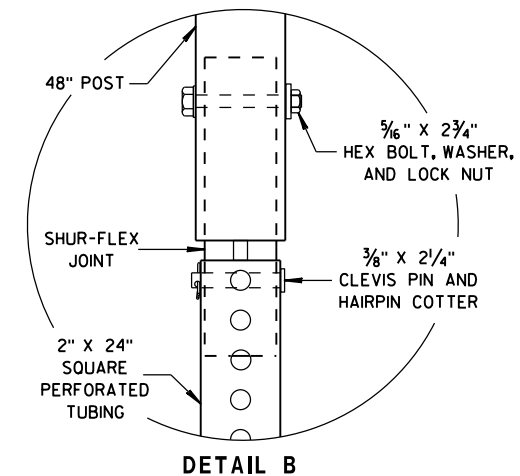
SECTION A-A



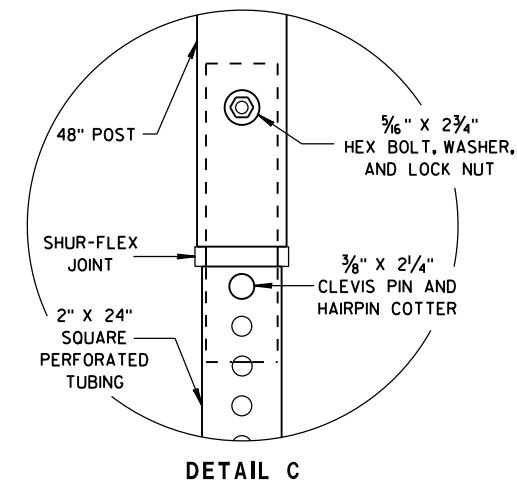
SECTION B-B



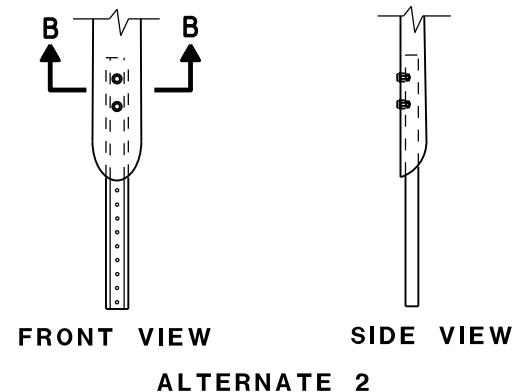
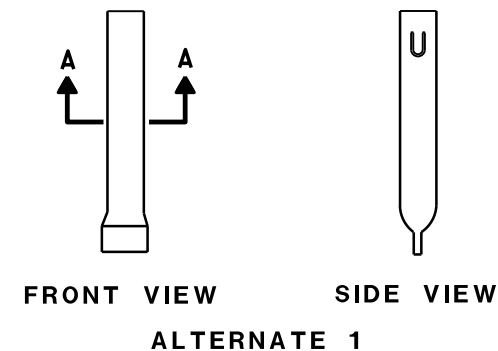
SECTION C-C



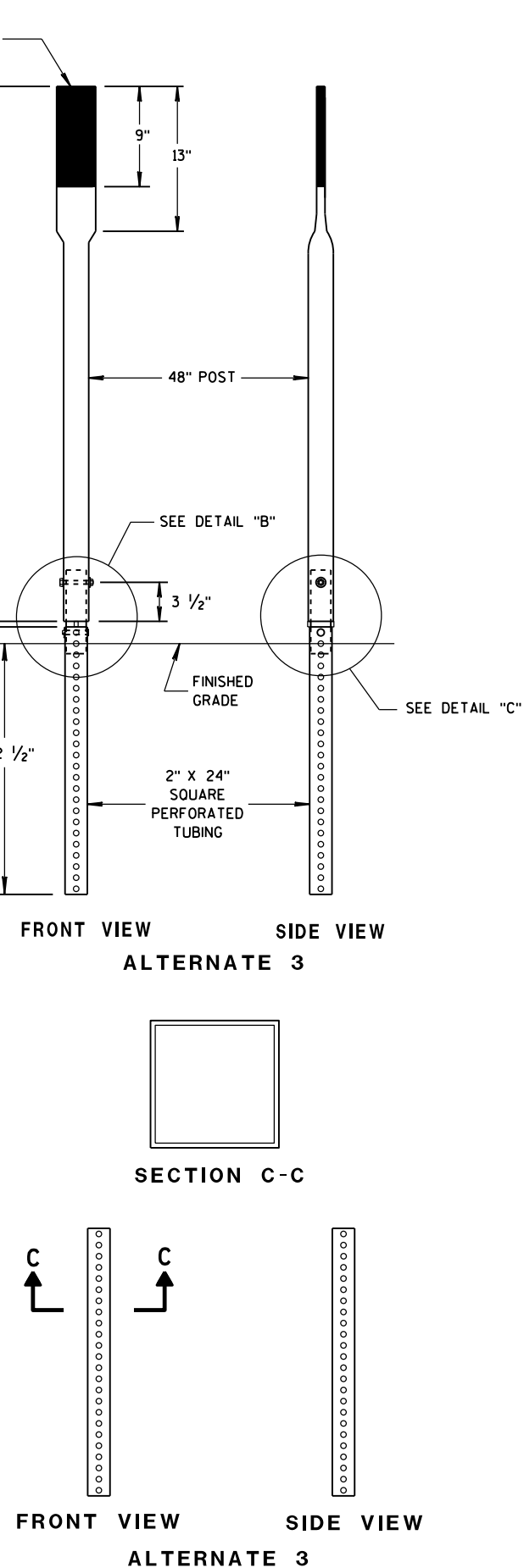
DETAIL B



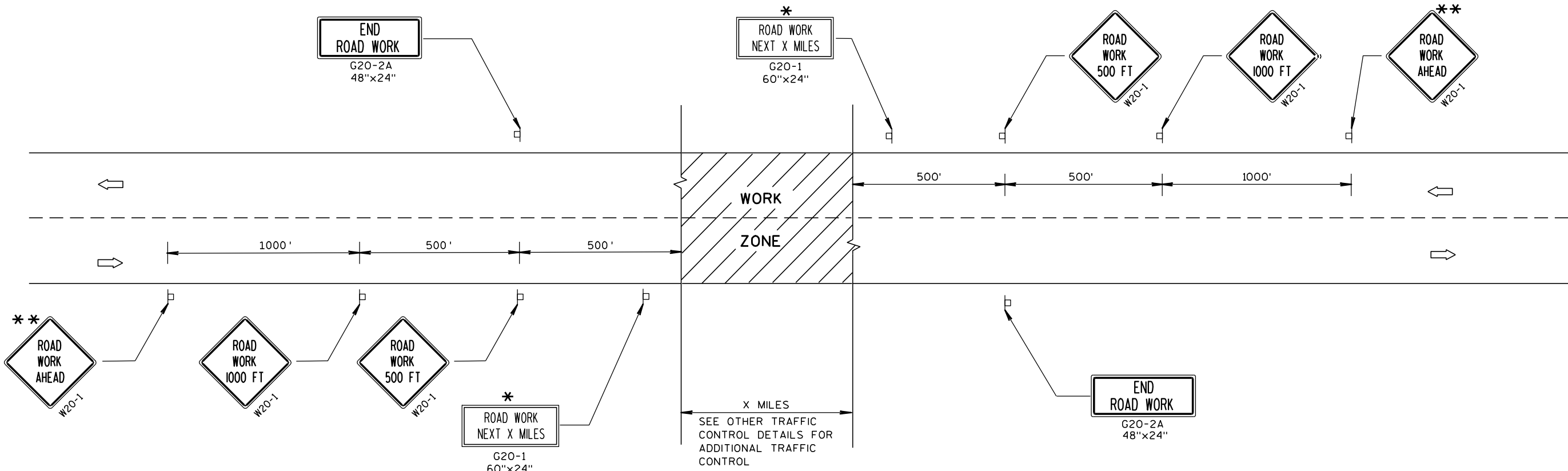
DETAIL C



FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER 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.

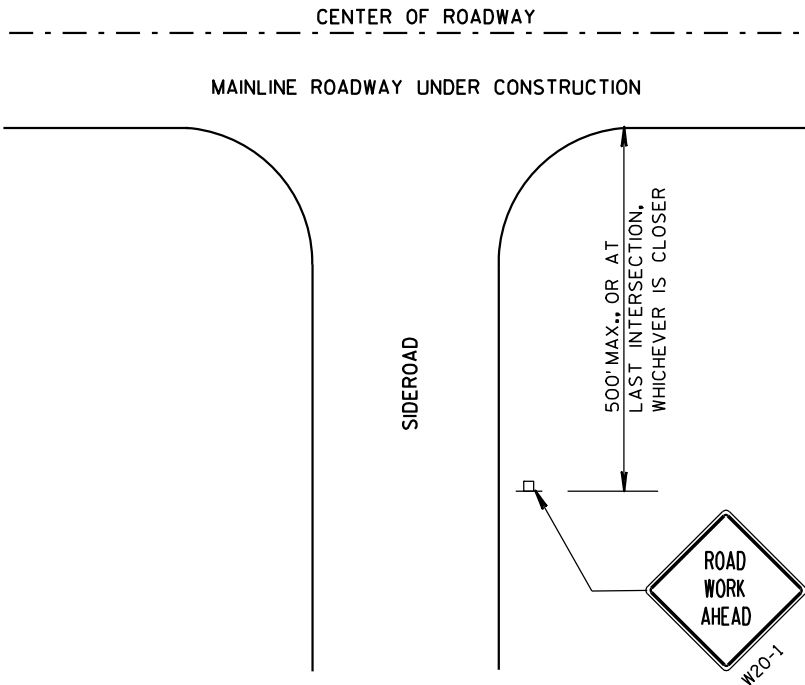
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 OR SIGNING.



LEGEND

- ▮ POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

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

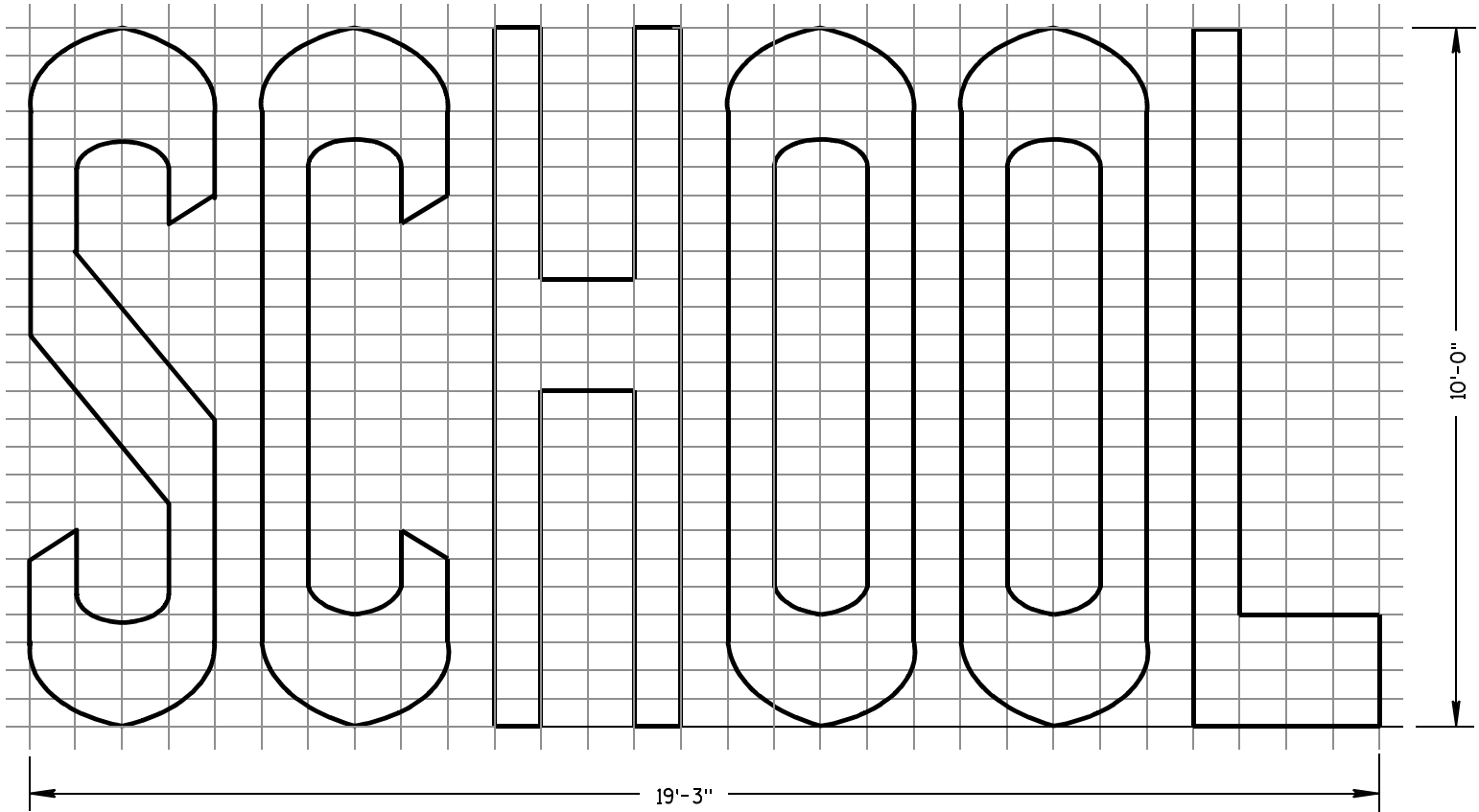
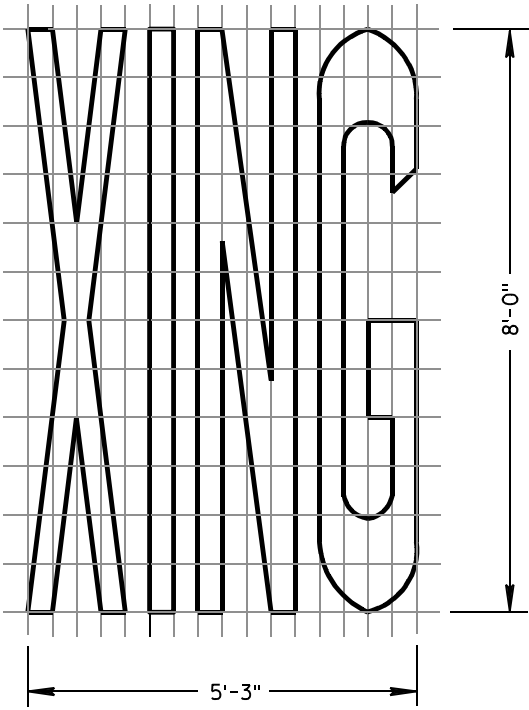
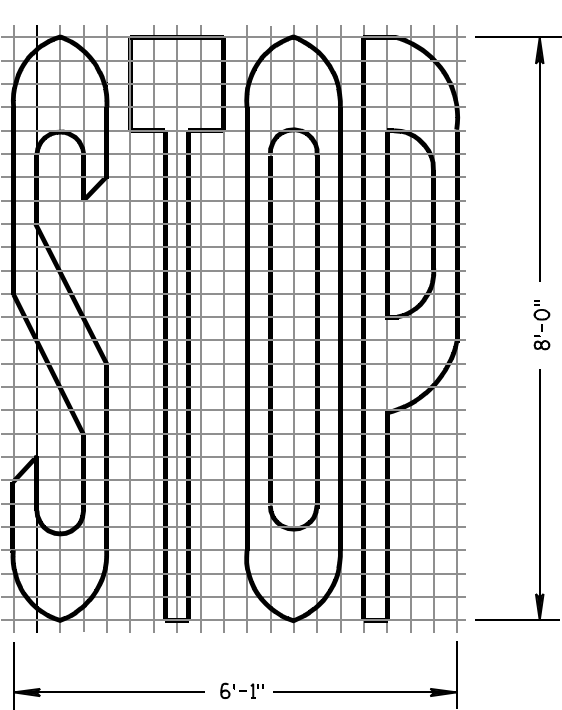
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA

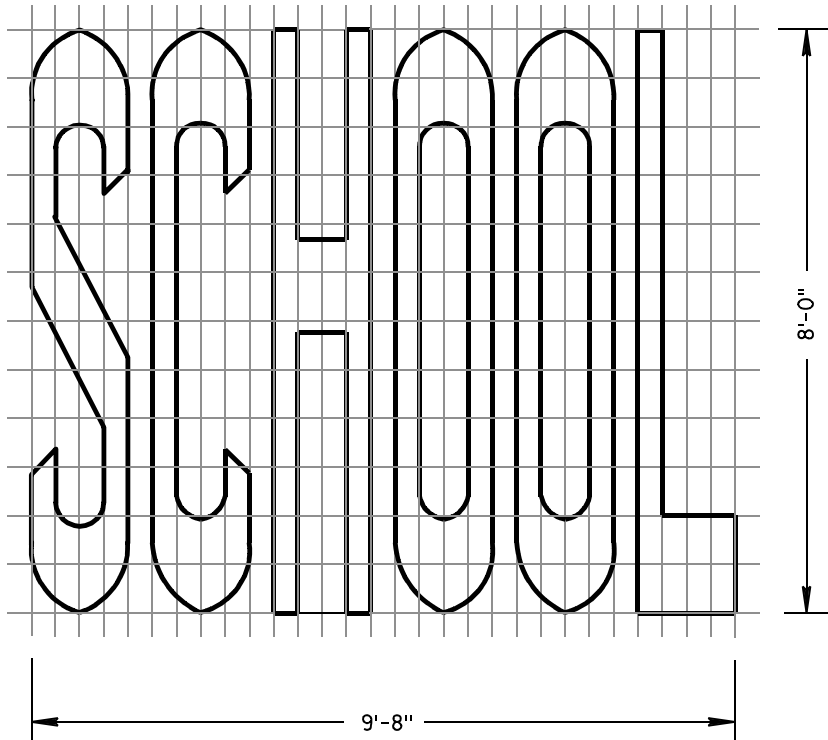
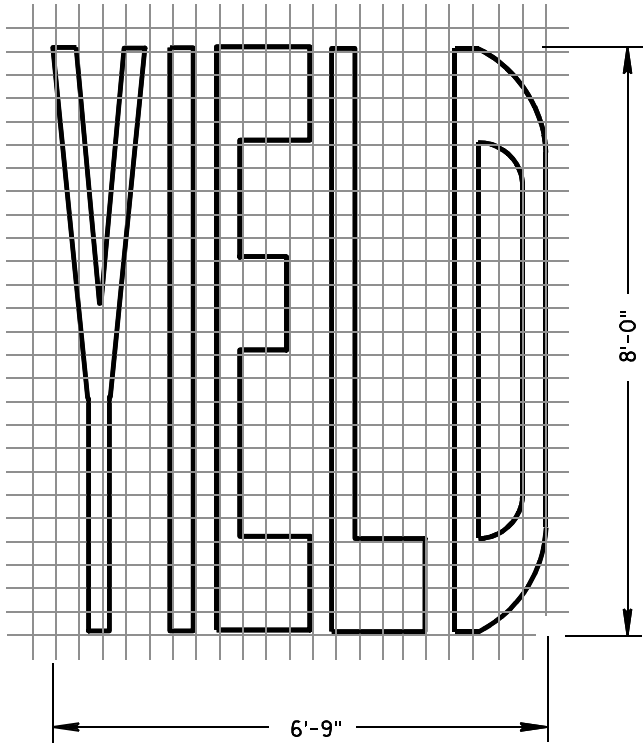
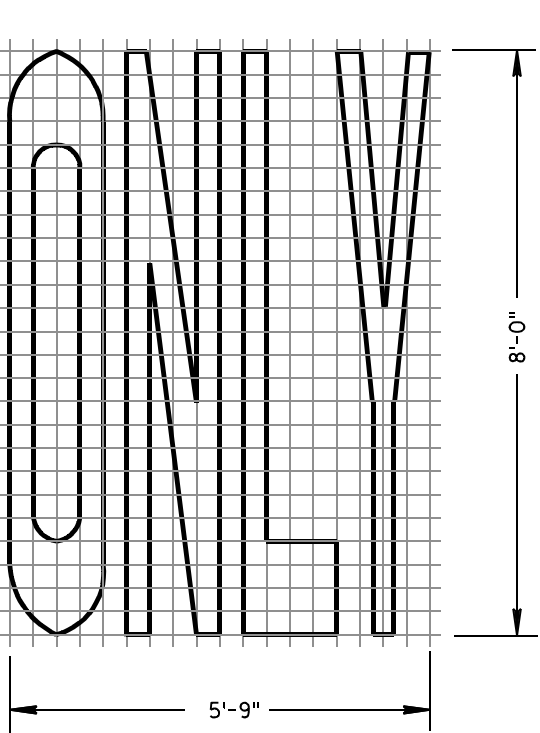
GENERAL NOTES

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

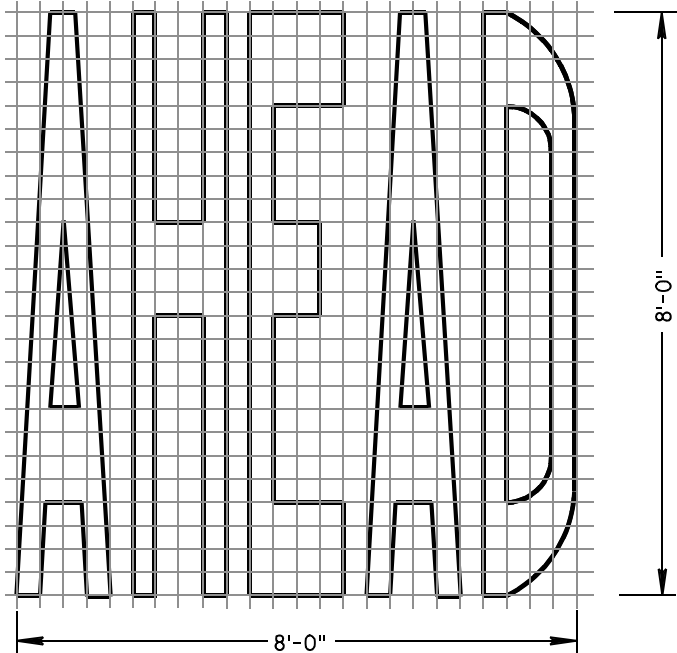
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

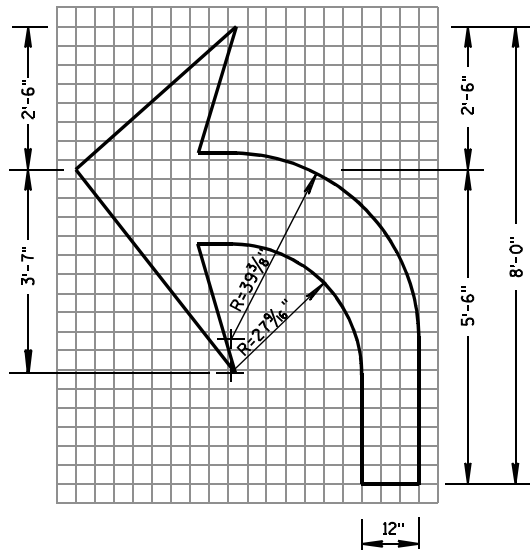
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

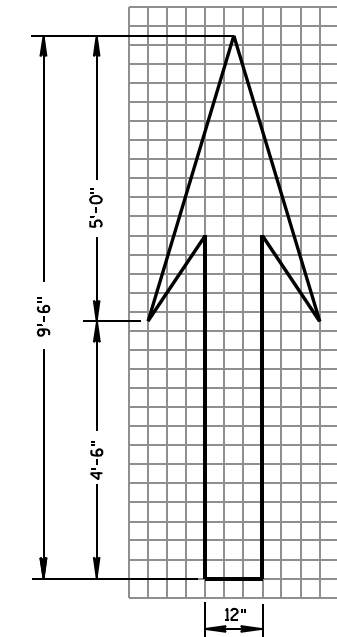
7-1-11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

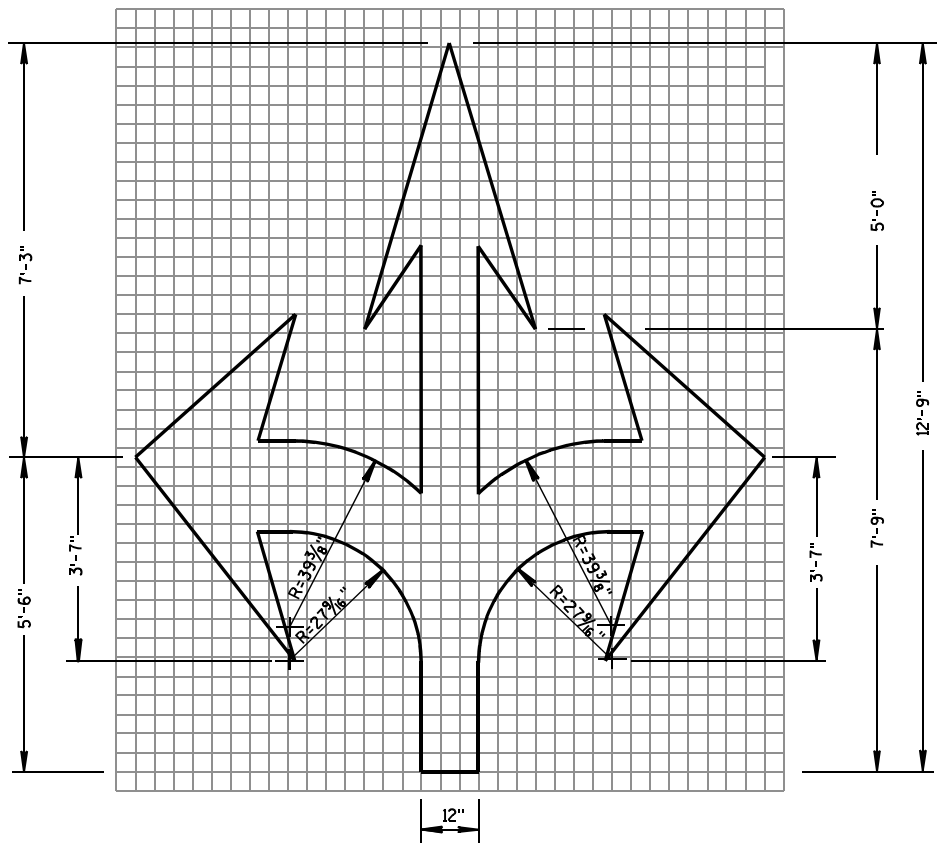
FHWA



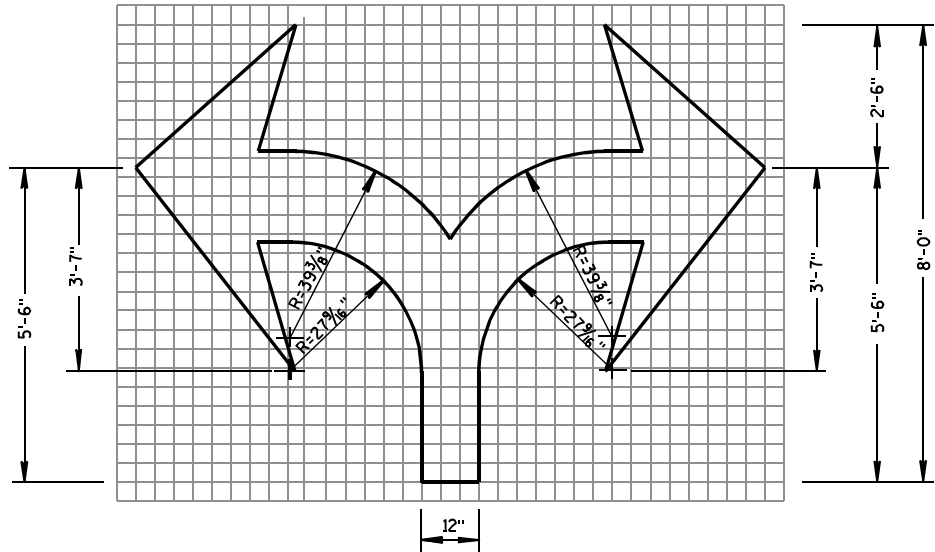
TYPE 2



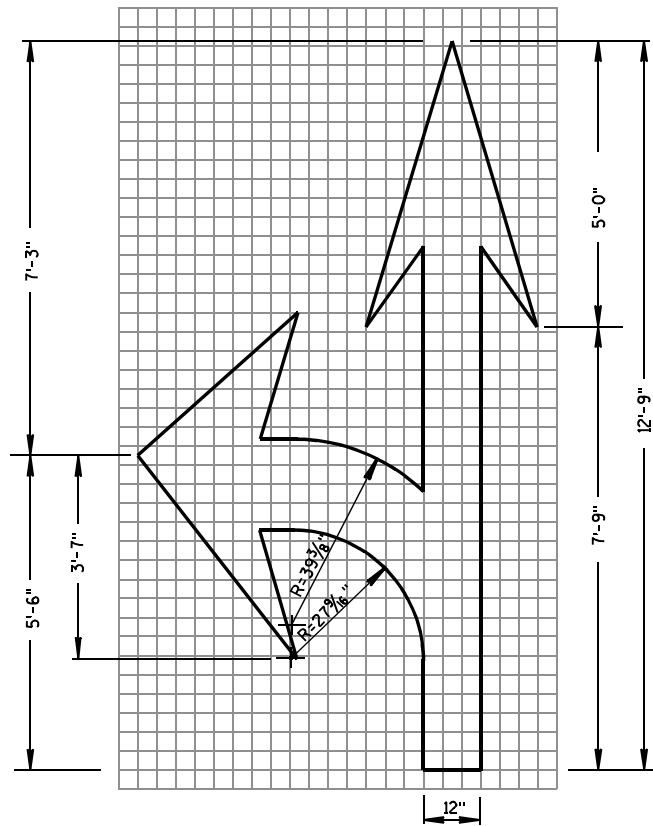
TYPE 1



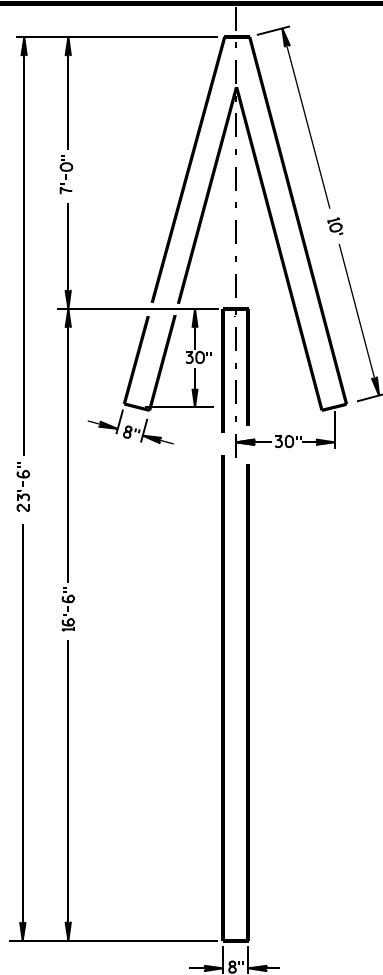
TYPE 6



TYPE 7



TYPE 3

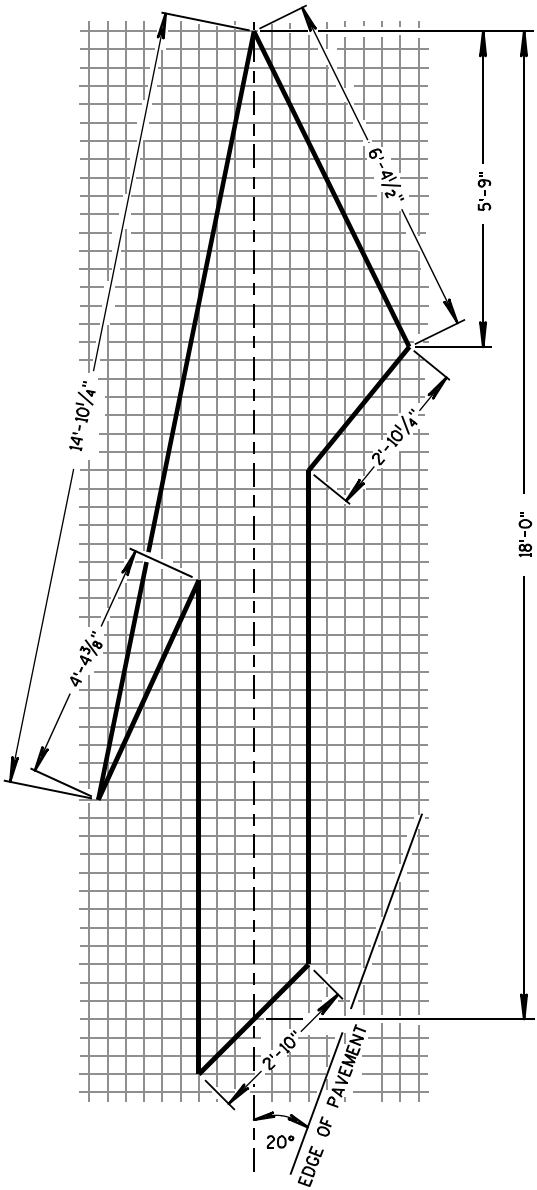


TYPE 4

GENERAL NOTES

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

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

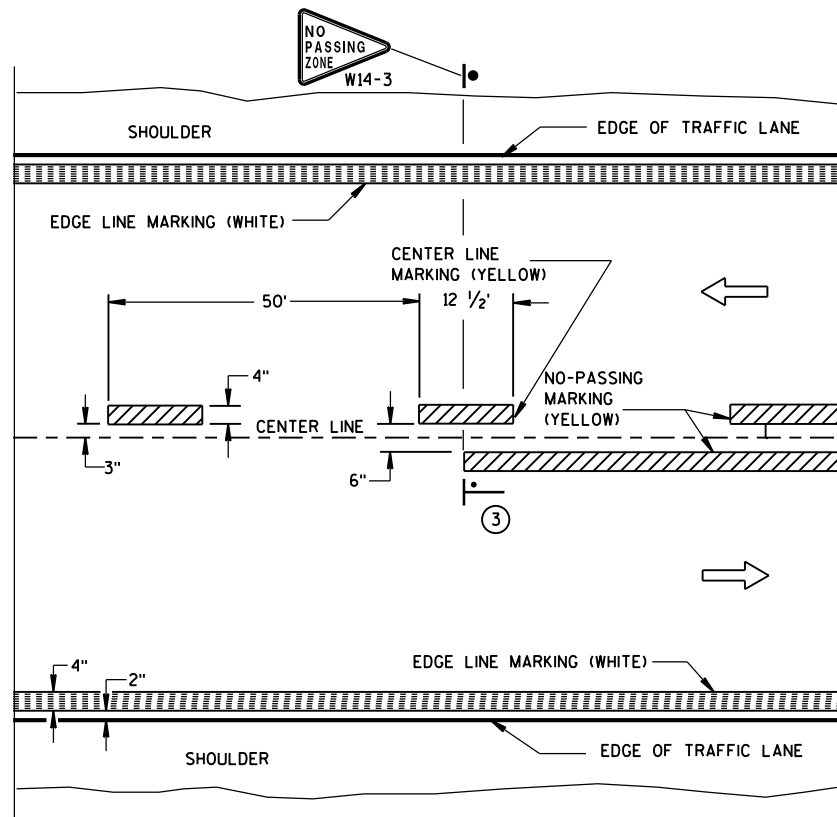
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

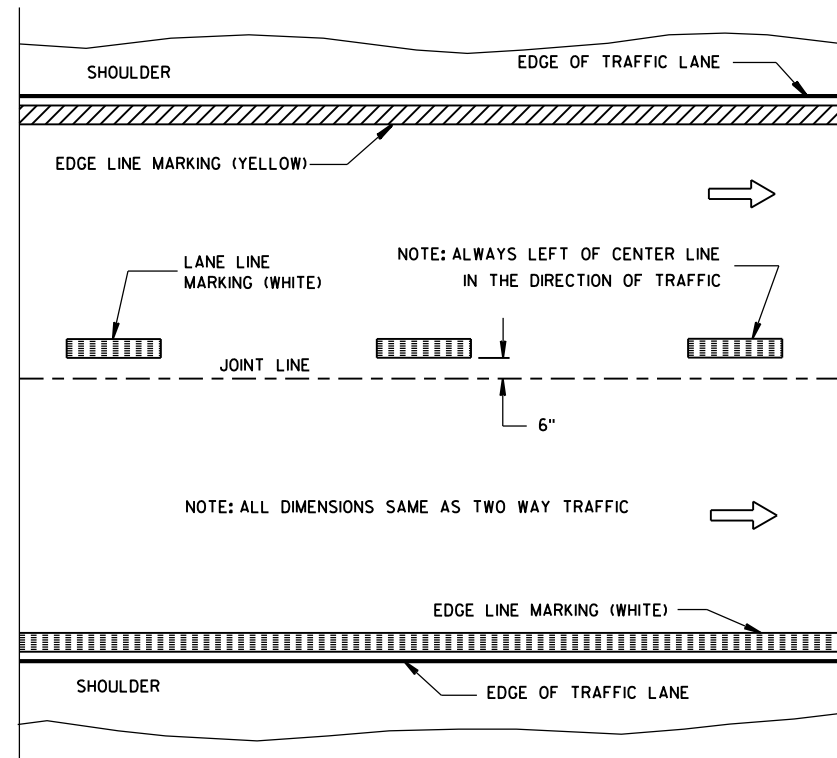
7/1/11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

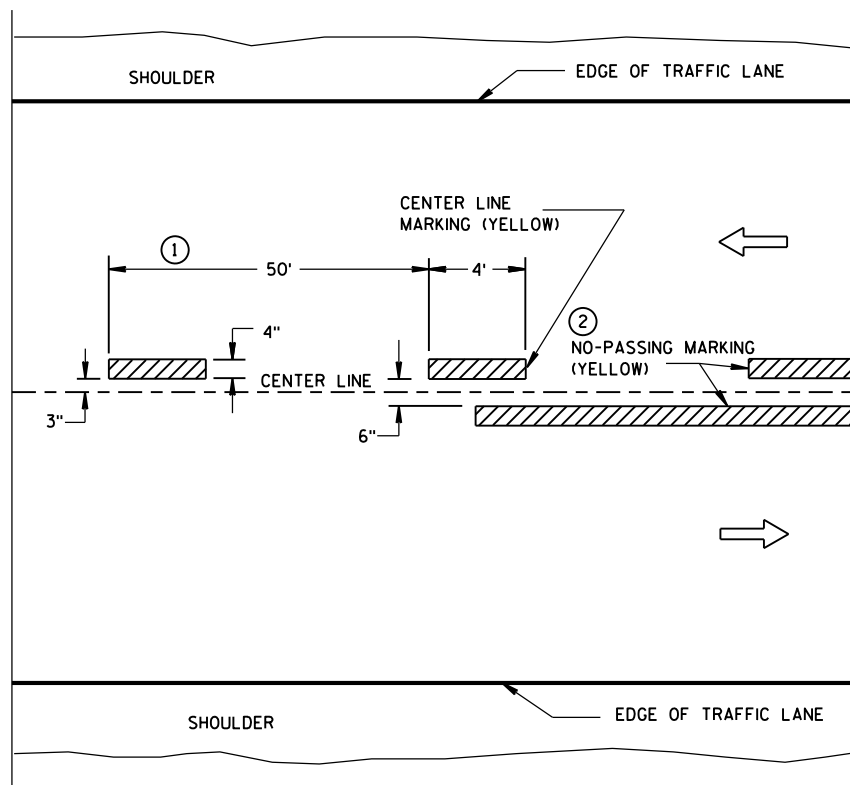


TWO WAY TRAFFIC

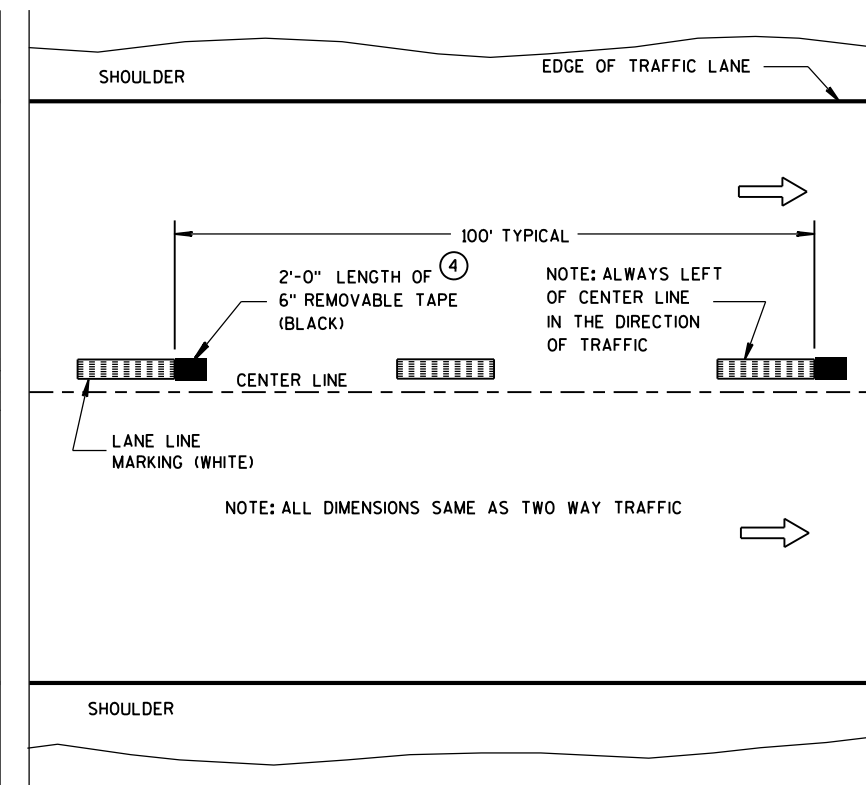


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

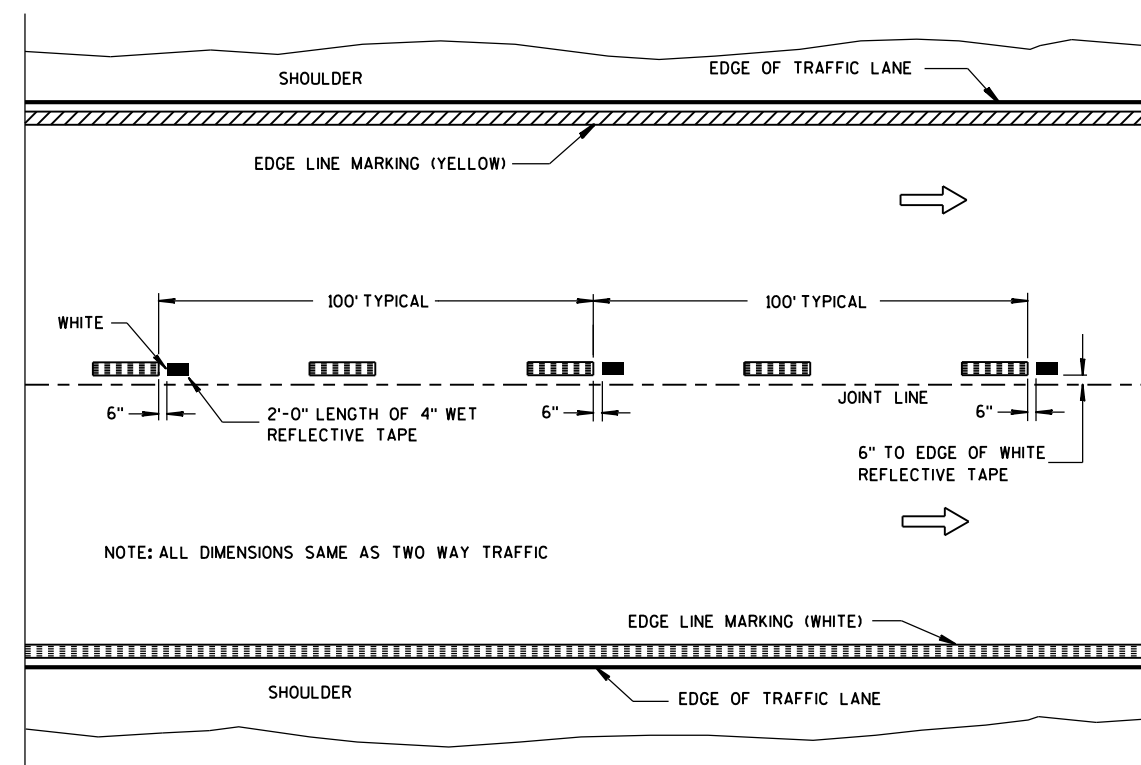
GENERAL NOTES

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**

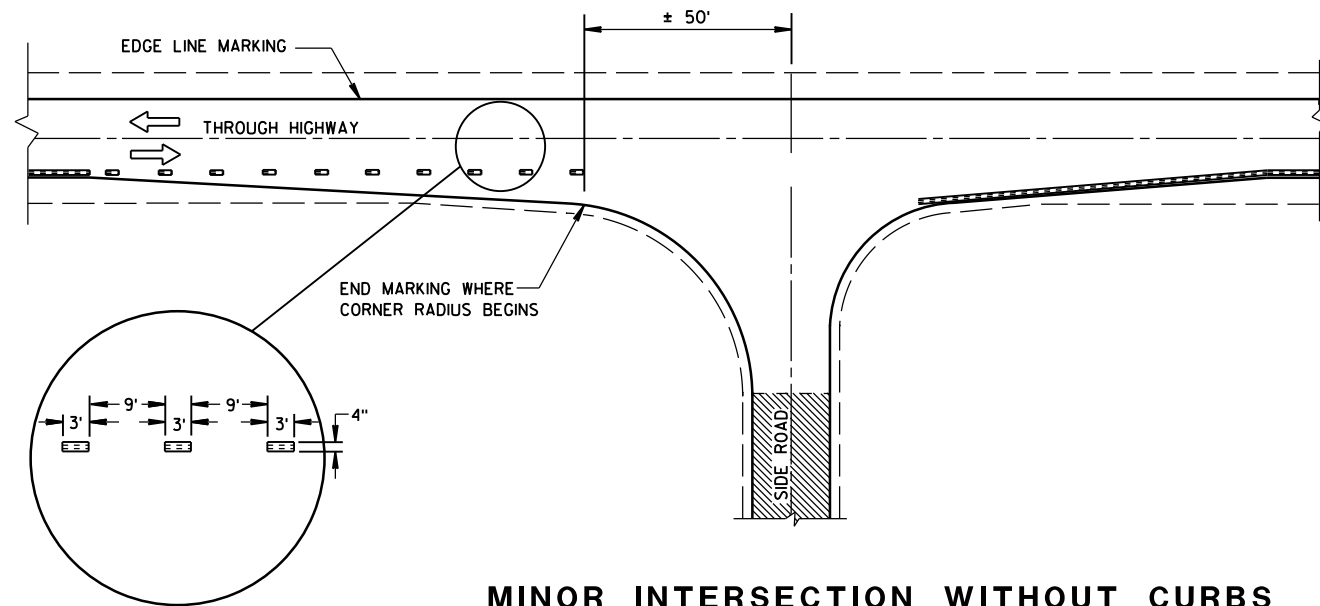
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

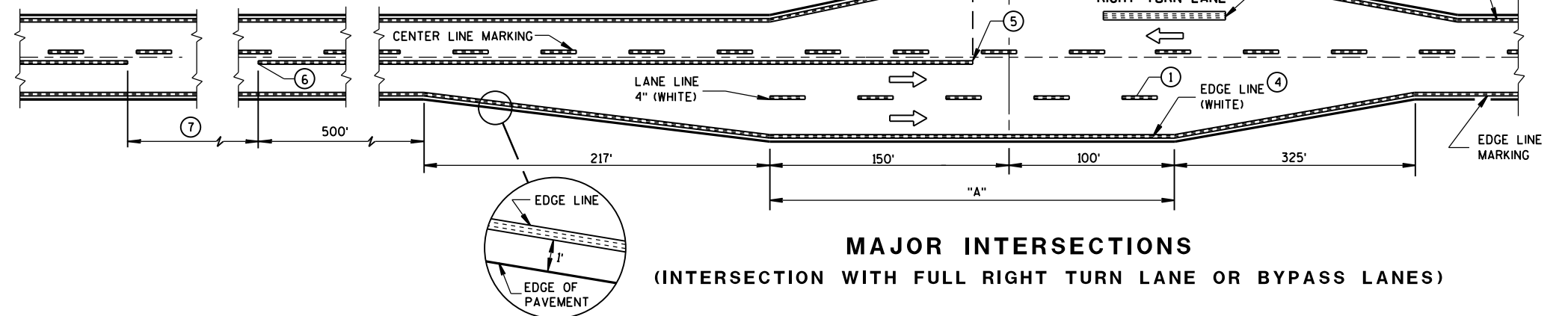
APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



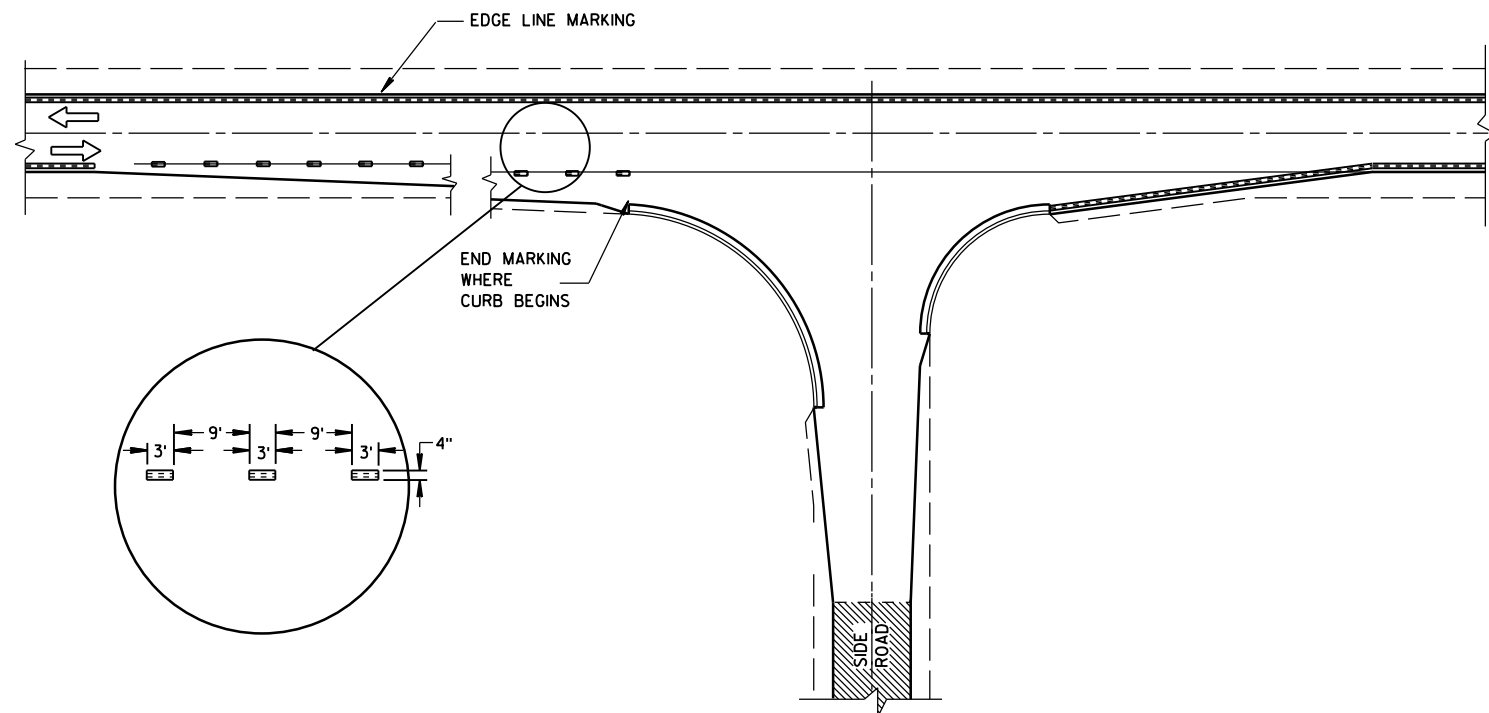
MINOR INTERSECTION WITHOUT CURBS

⑦

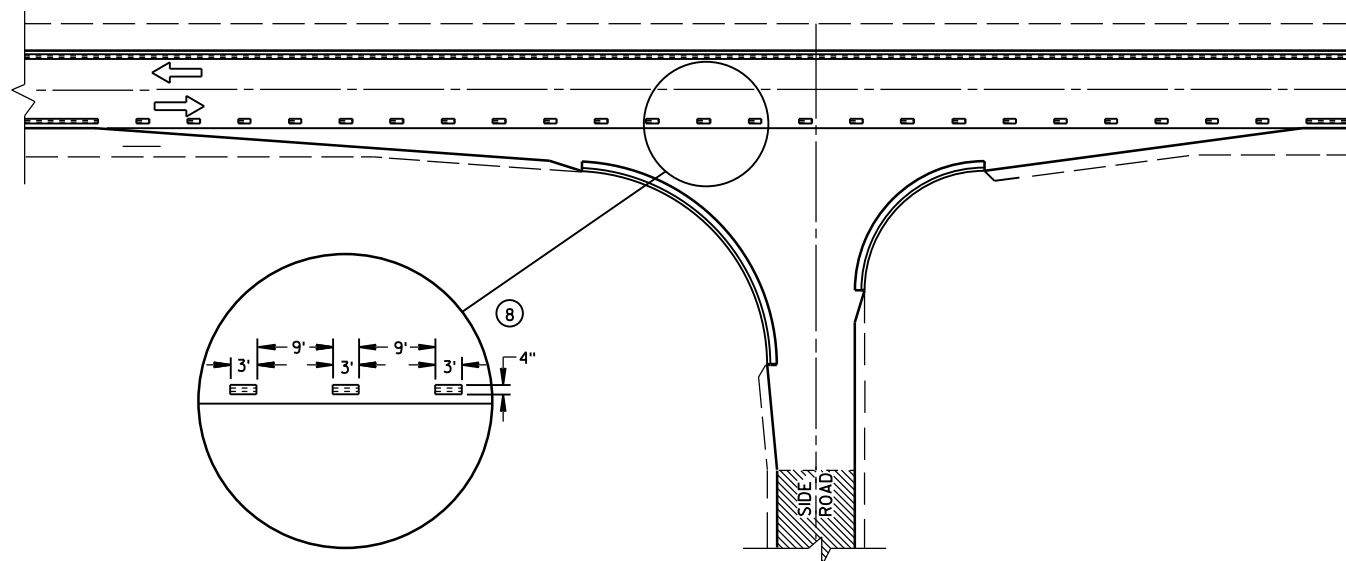
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



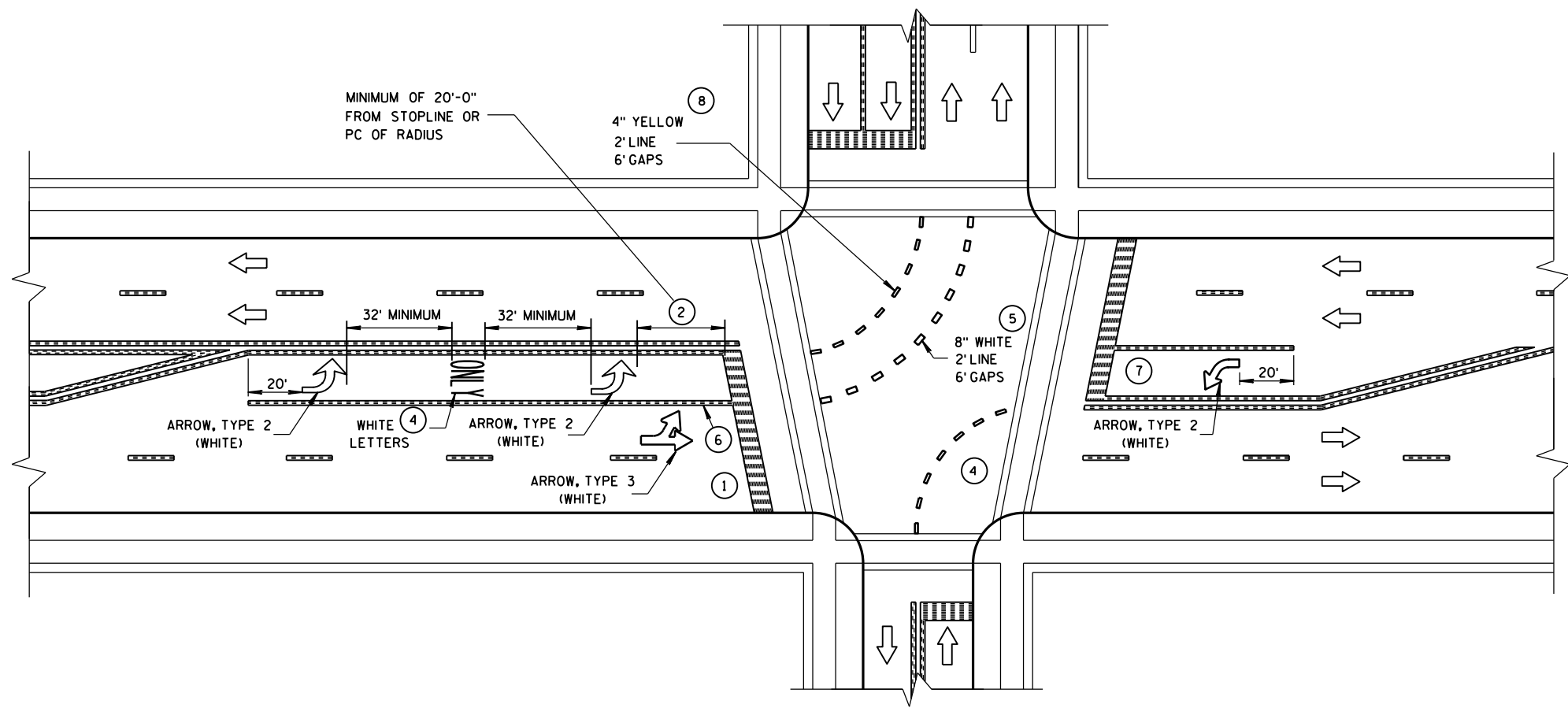
MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

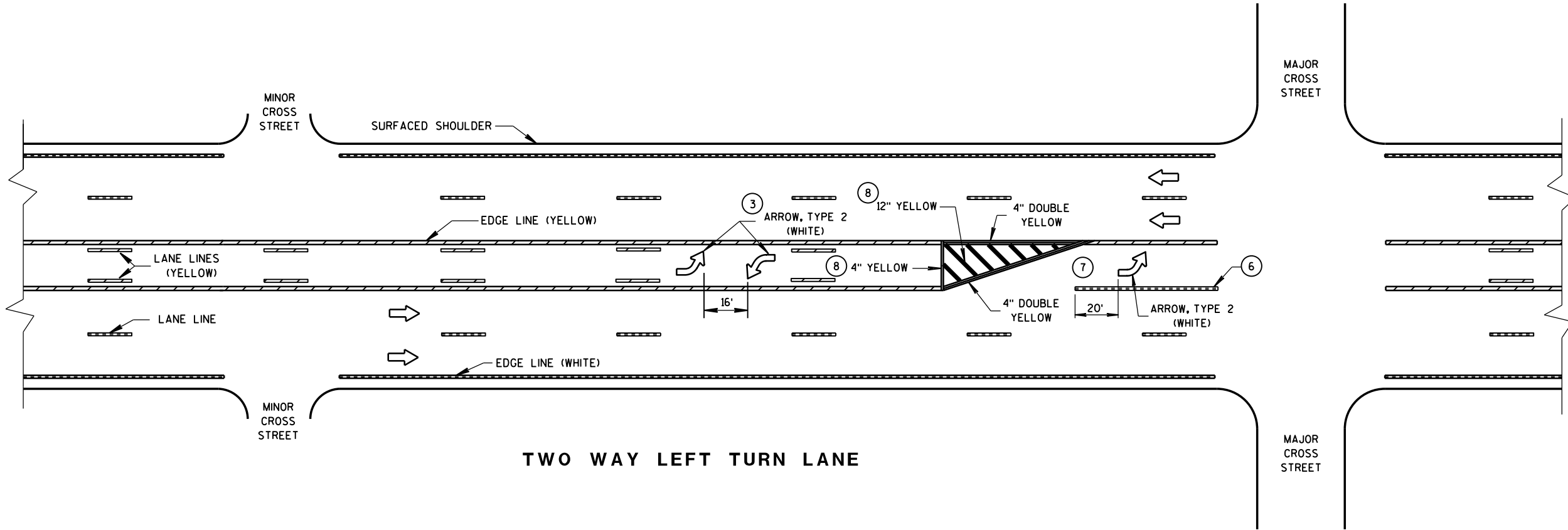
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE 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



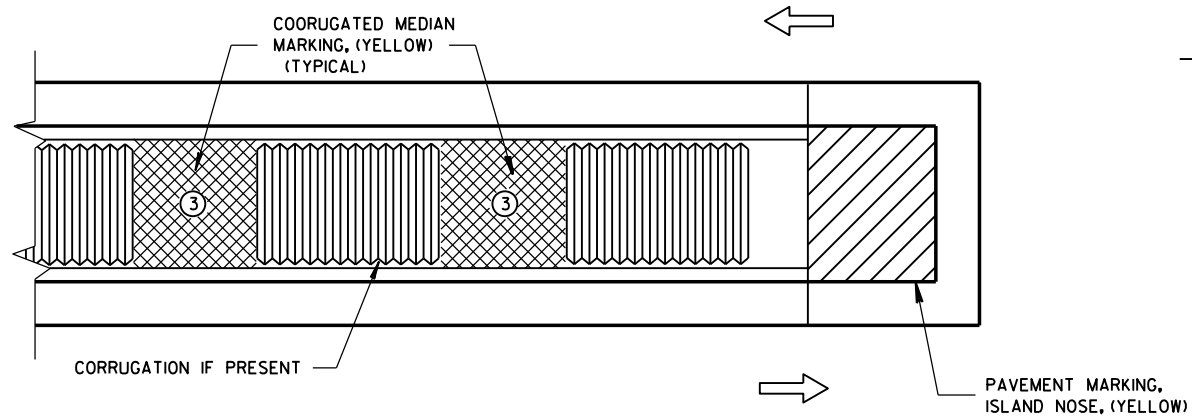
GENERAL NOTES

- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ ADD EXTRA ARROW AND ONLY PER 160' OR WHEN ON A CURVE.
- ⑤ 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- ⑥ 8" WHITE
- ⑦ ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108'.
- ⑧ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

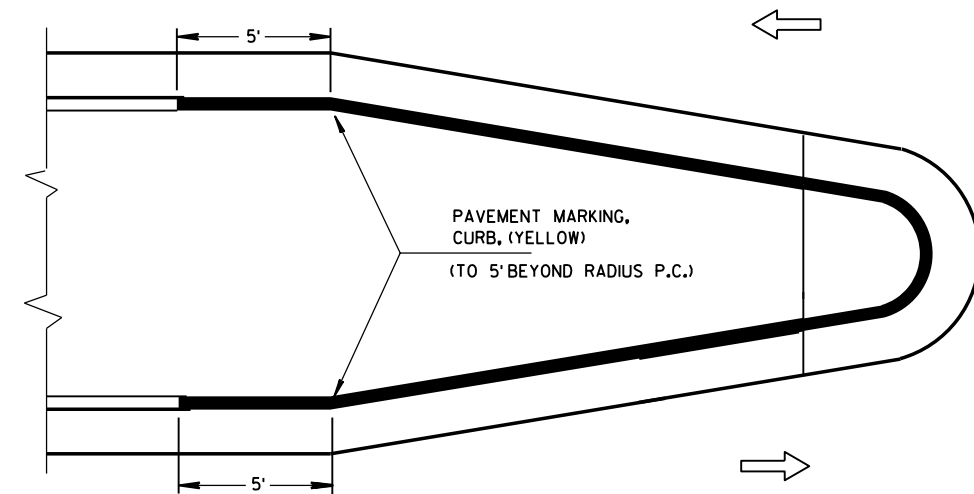
NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL



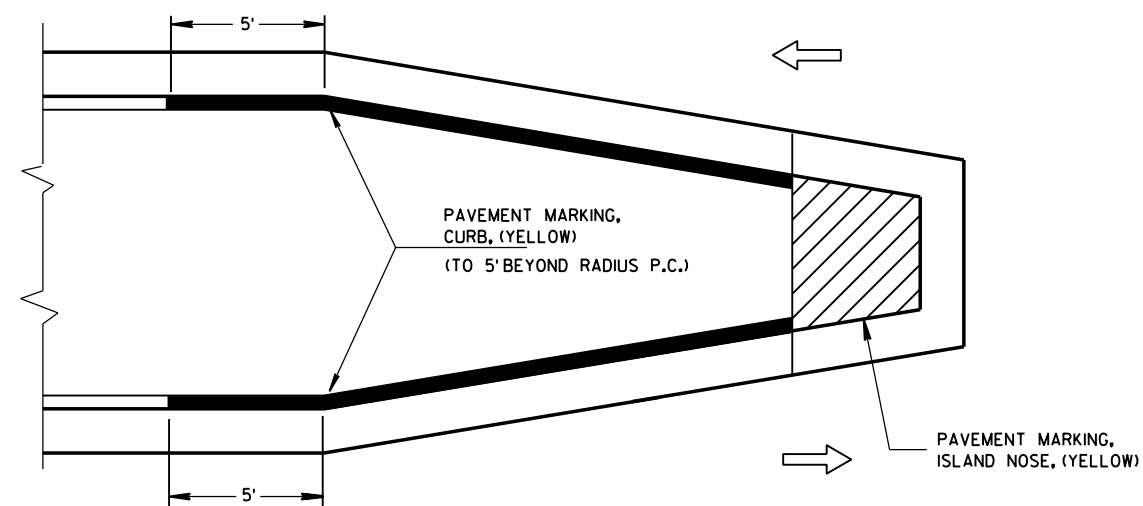
PAVEMENT MARKING (LEFT TURN LANE)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

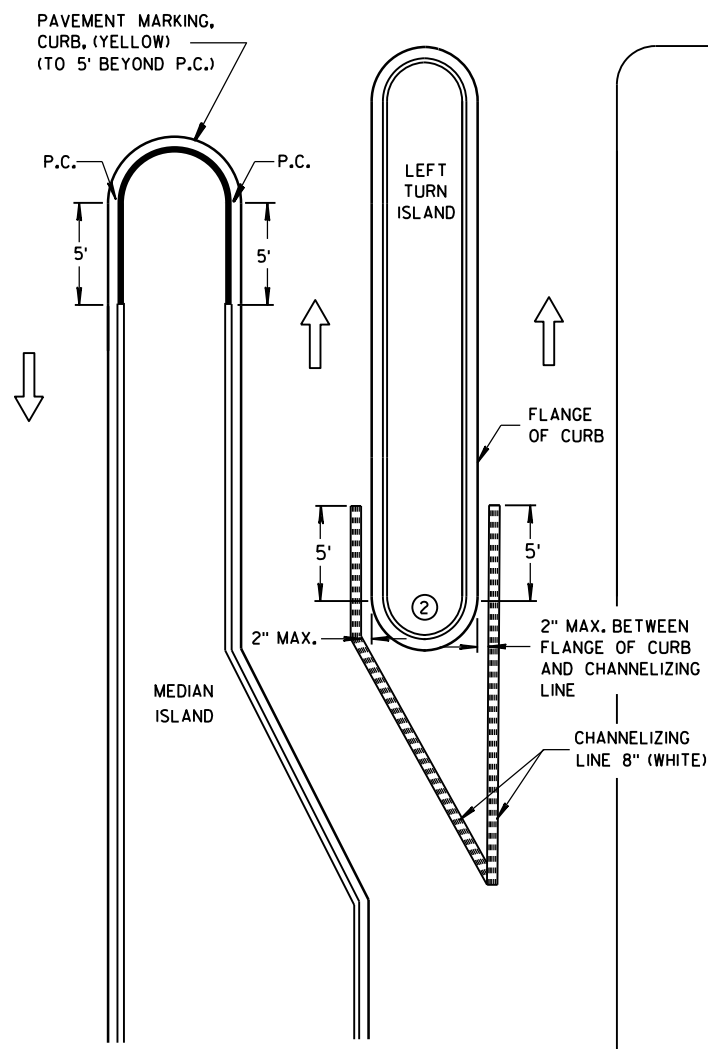


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

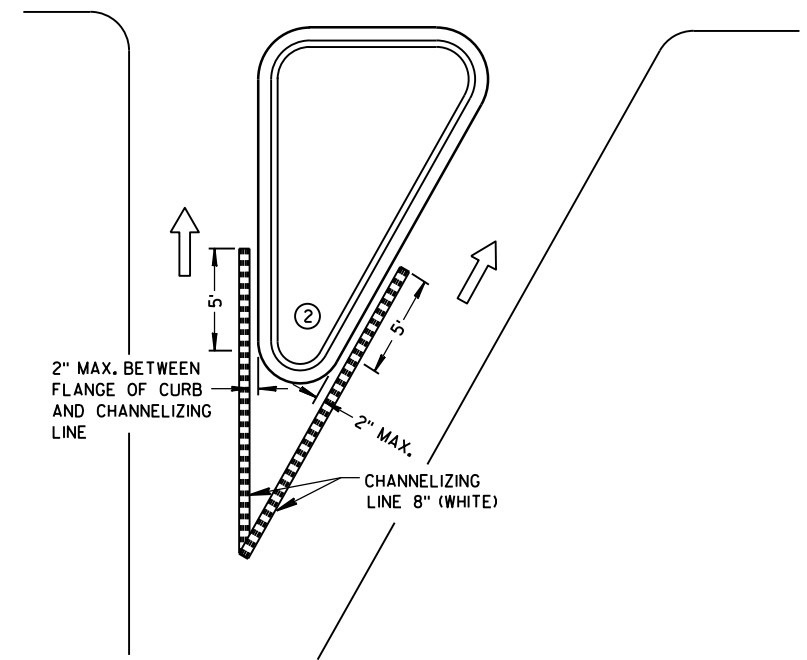
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

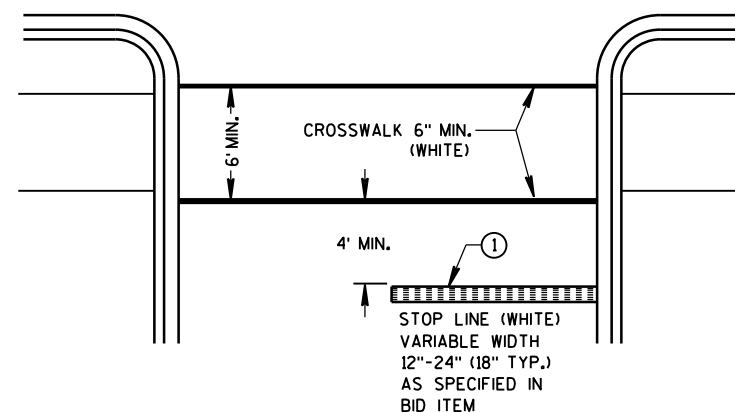
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

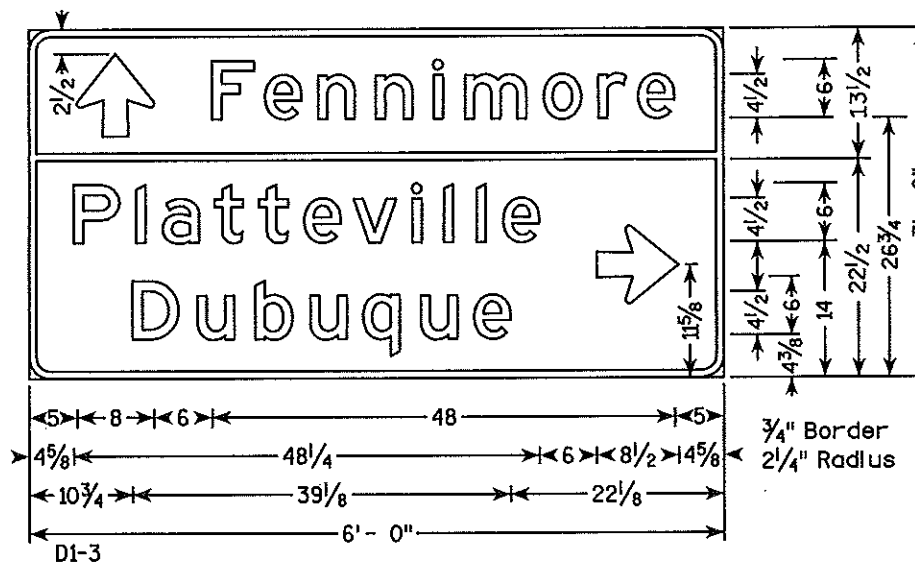
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



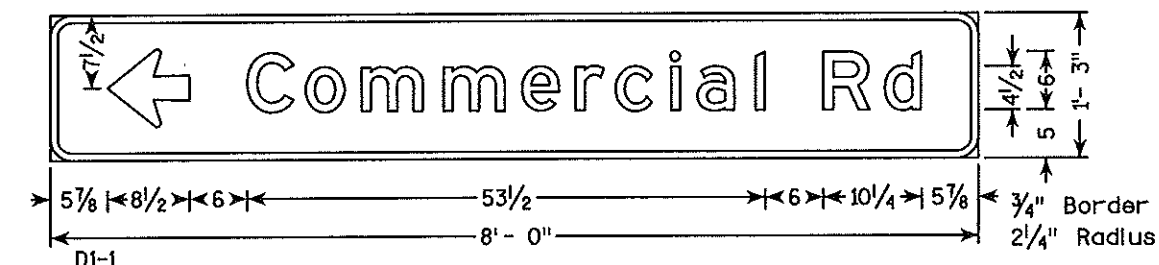
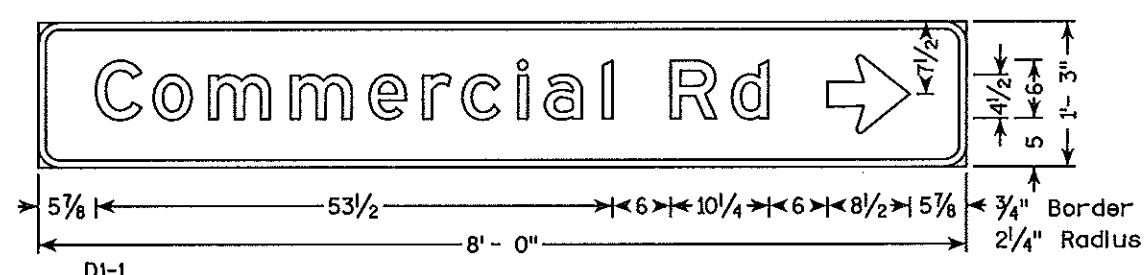
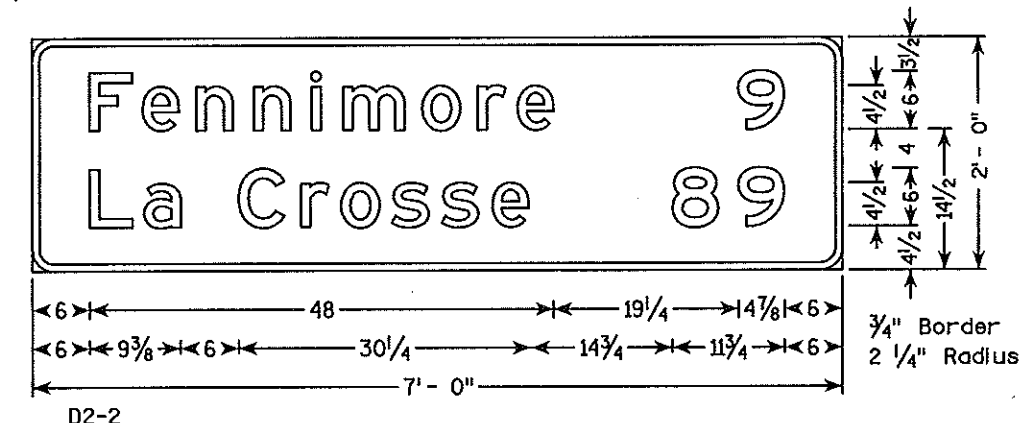
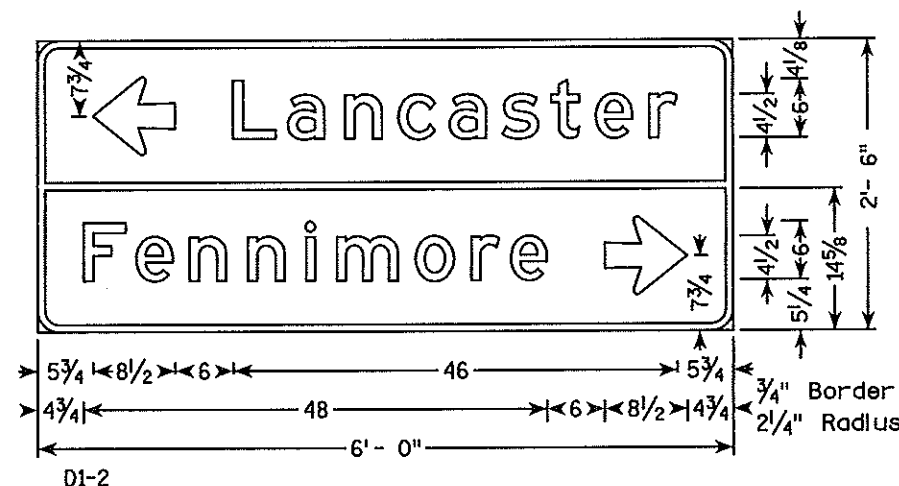
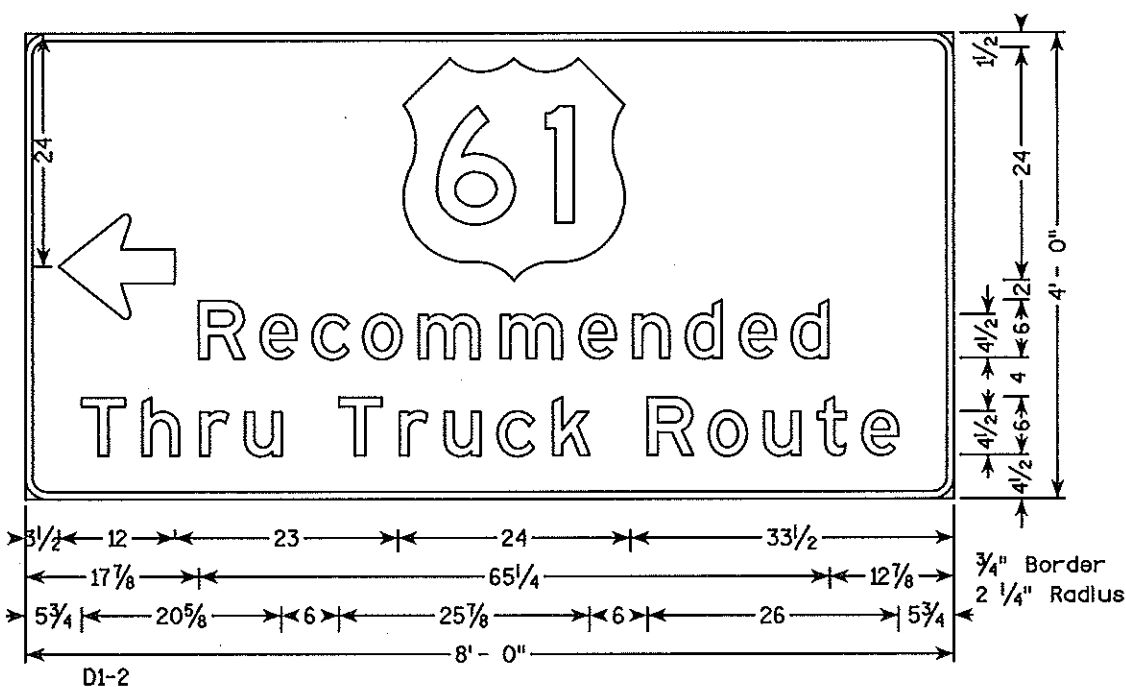
STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

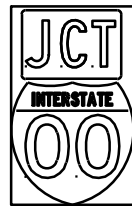
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



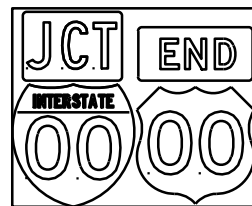
- NOTES**
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Green
Message - White
 3. Message Series - E



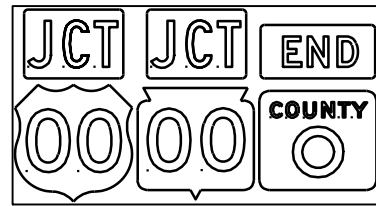
TYPICAL ASSEMBLIES



J1-1



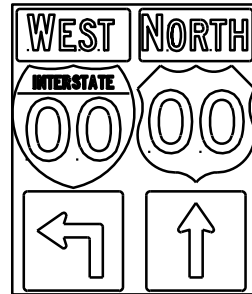
J1-2



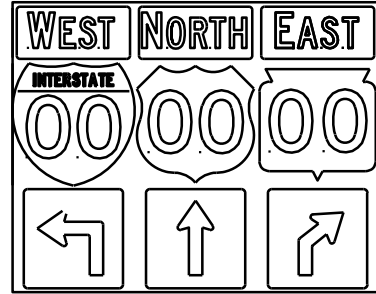
J1-3



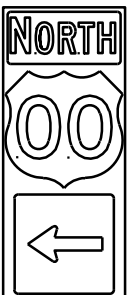
J2-1



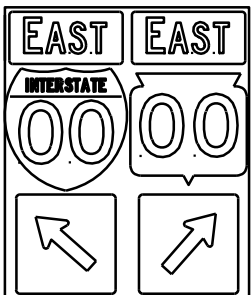
J2-2



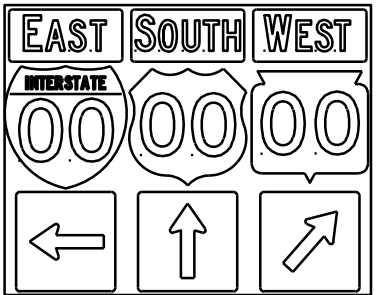
J2-3



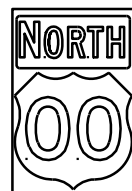
J3-1



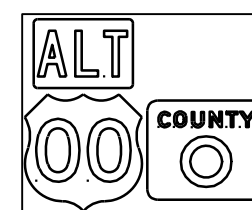
J3-2



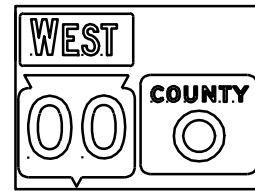
J3-3



J4-1



J4-2

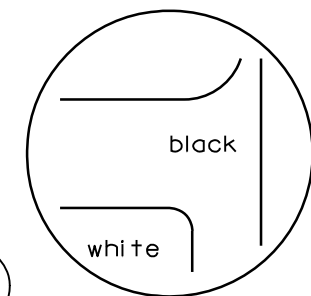
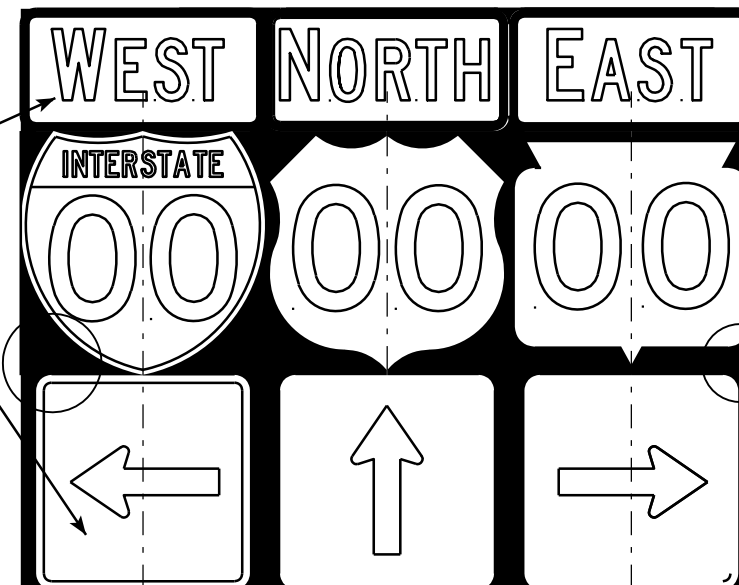
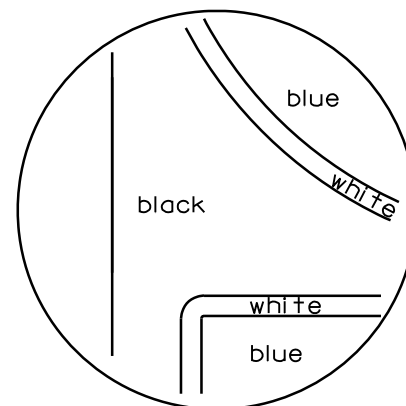


J4-2

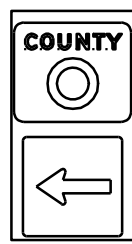


JV

[blue background with interstate]



[black background]



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.

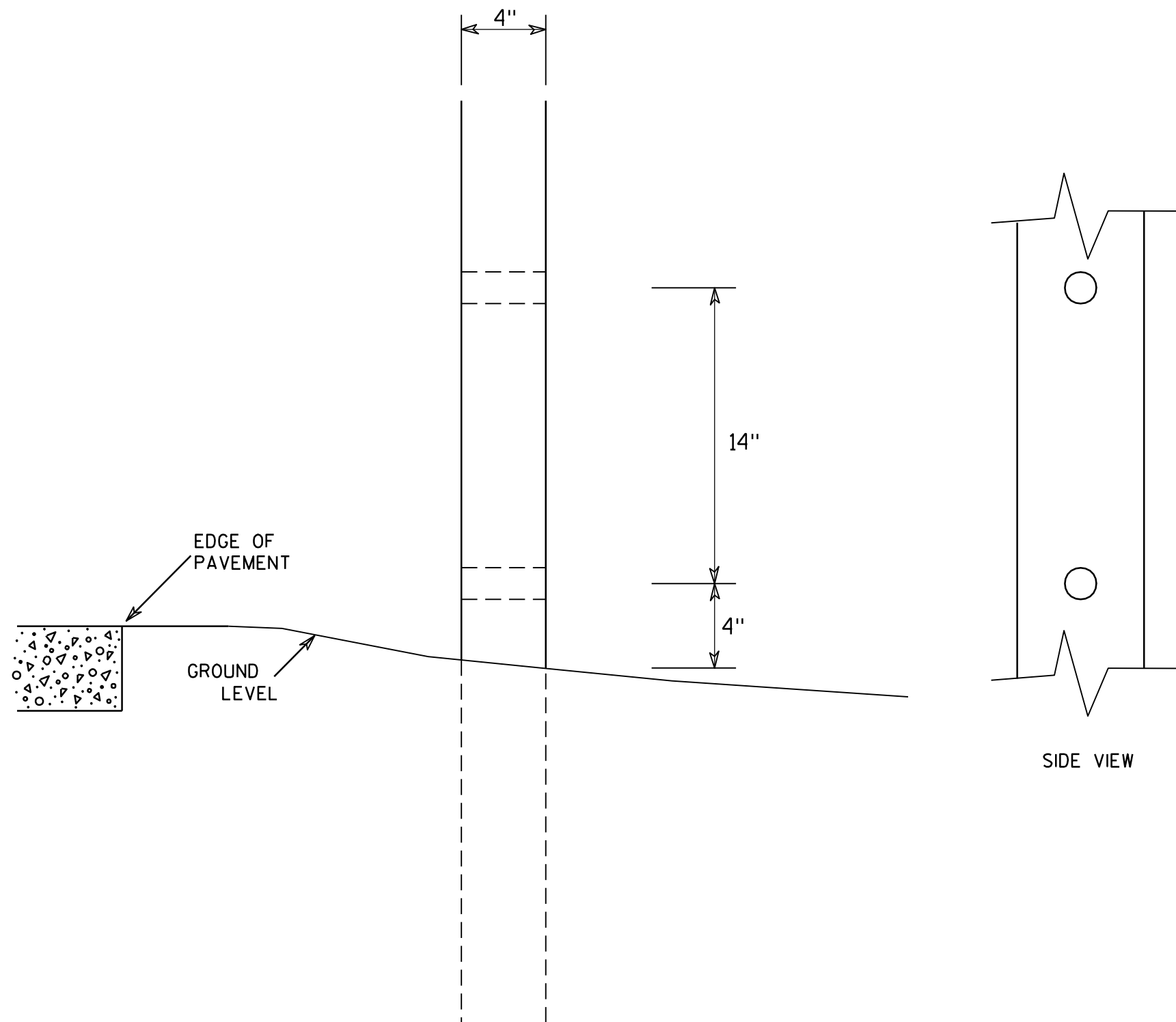
ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

PROJECT NO:

SHEET NO:

E

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:

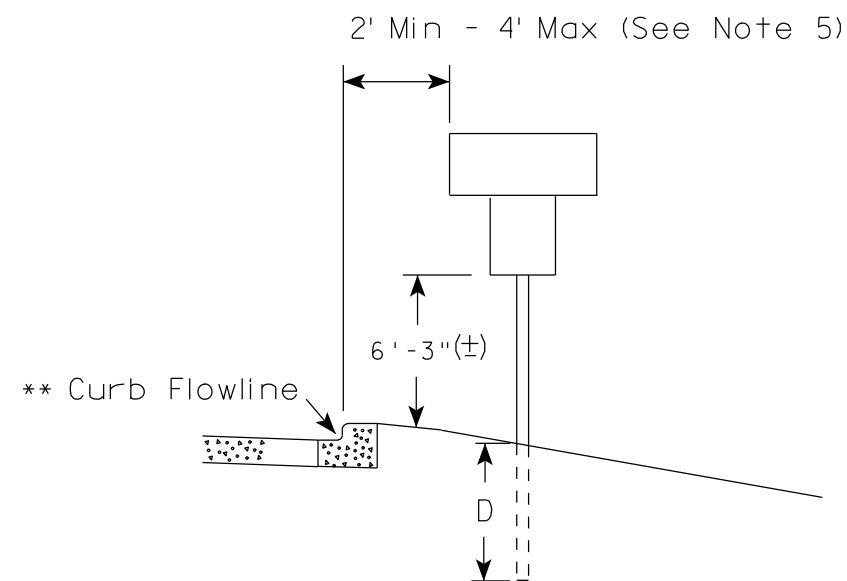
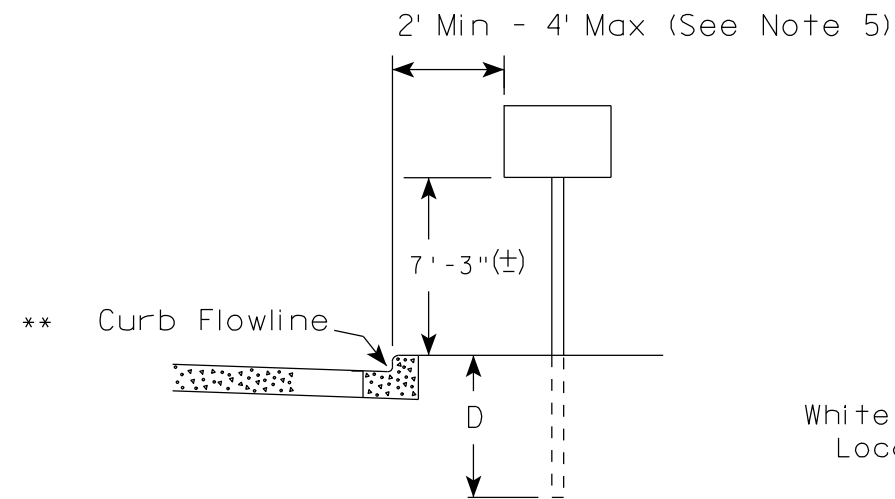
HWY:

COUNTY:

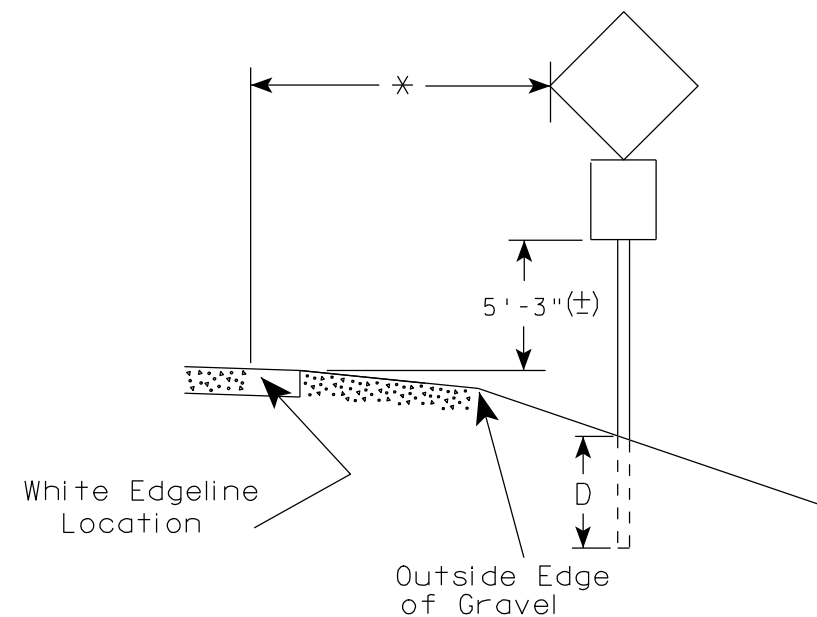
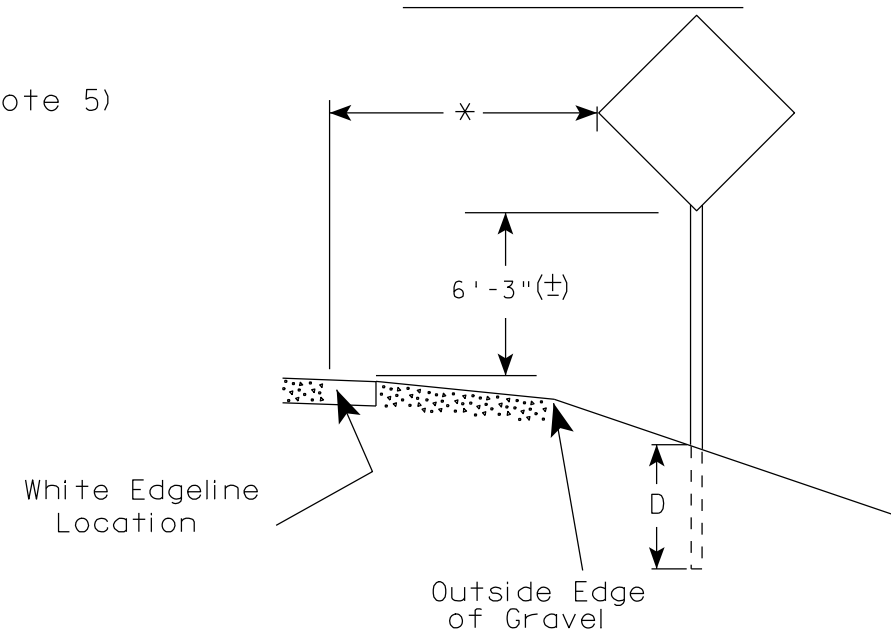
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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), 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" (±).

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 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

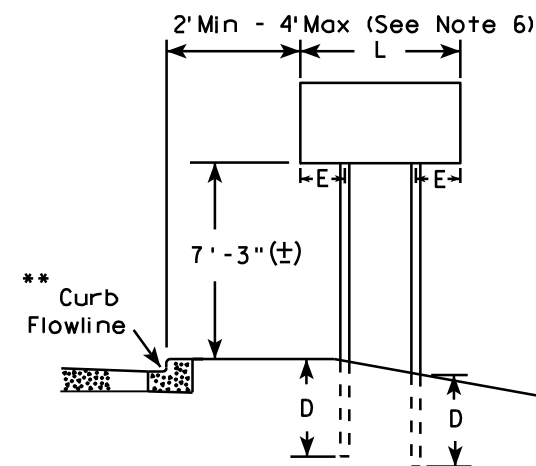
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- 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.

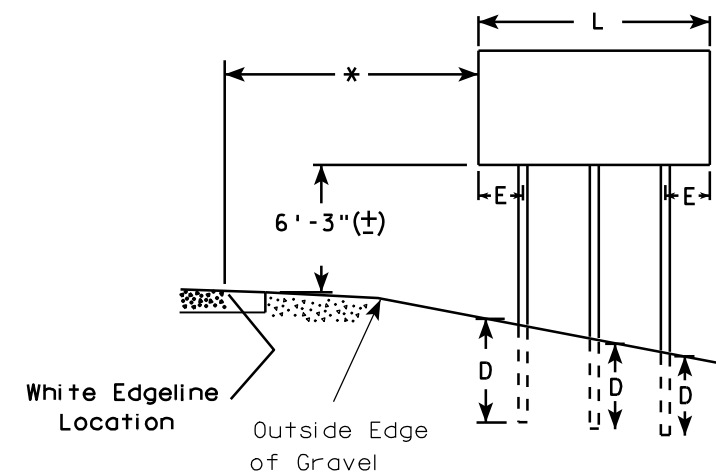
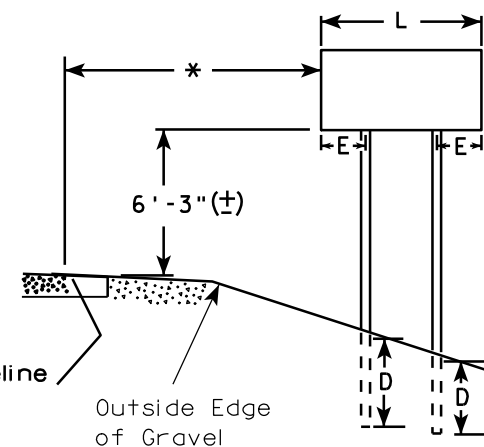
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

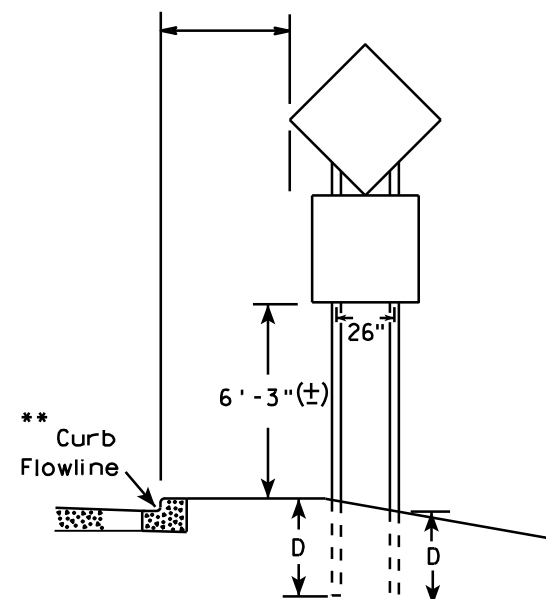
URBAN AREA



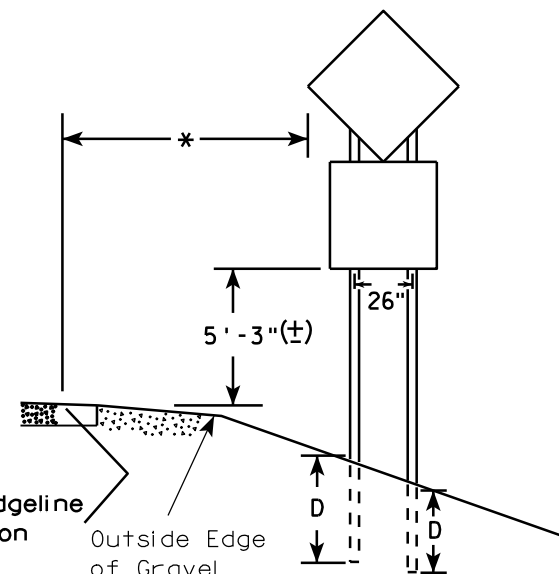
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)

L	E
Greater than 48" Less than 60"	12"
60" to 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 9/21/2011 PLATE NO. A4-4.11

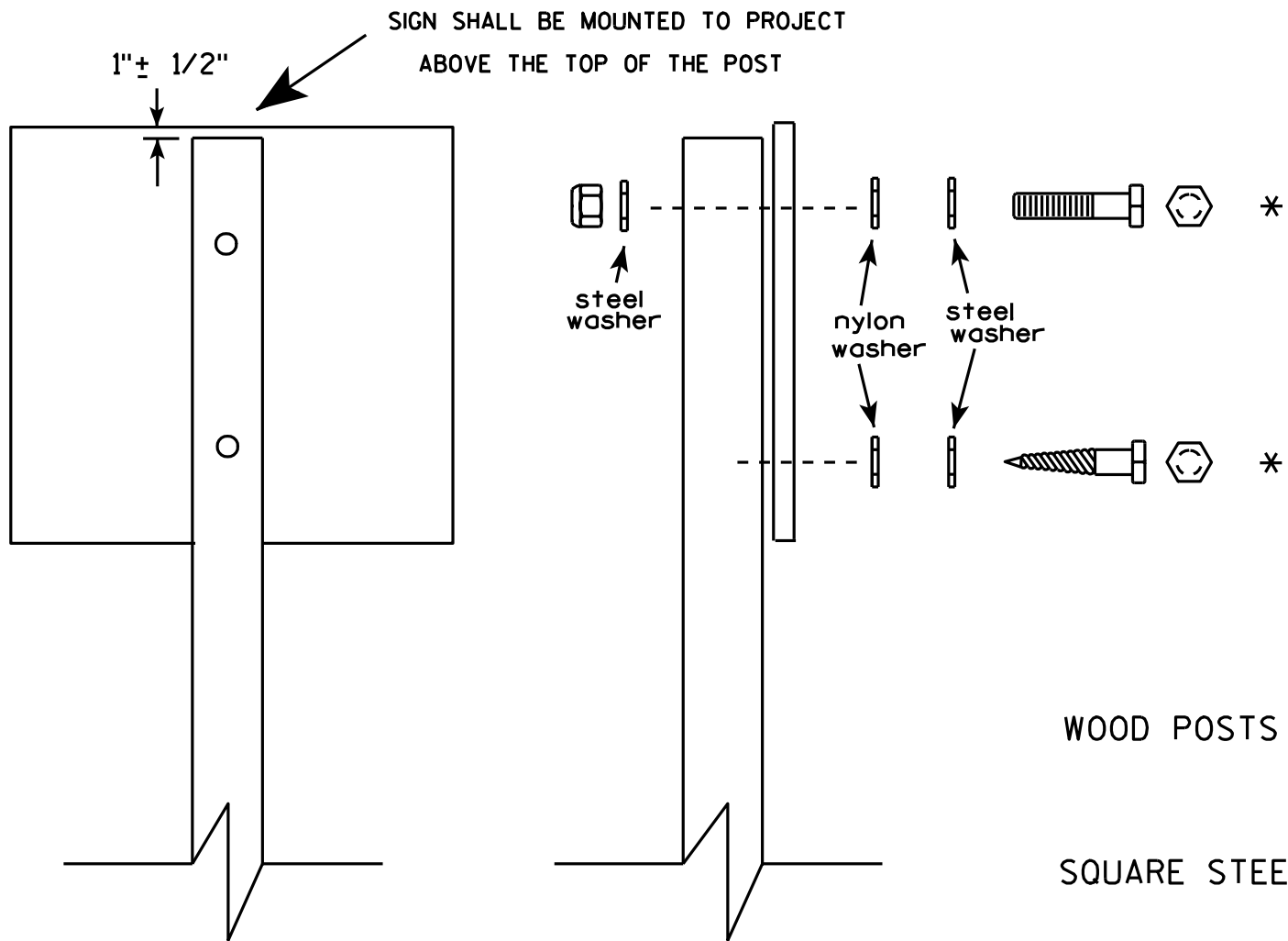
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

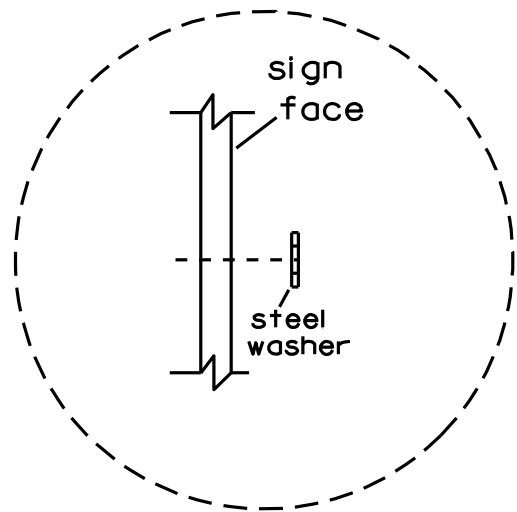


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

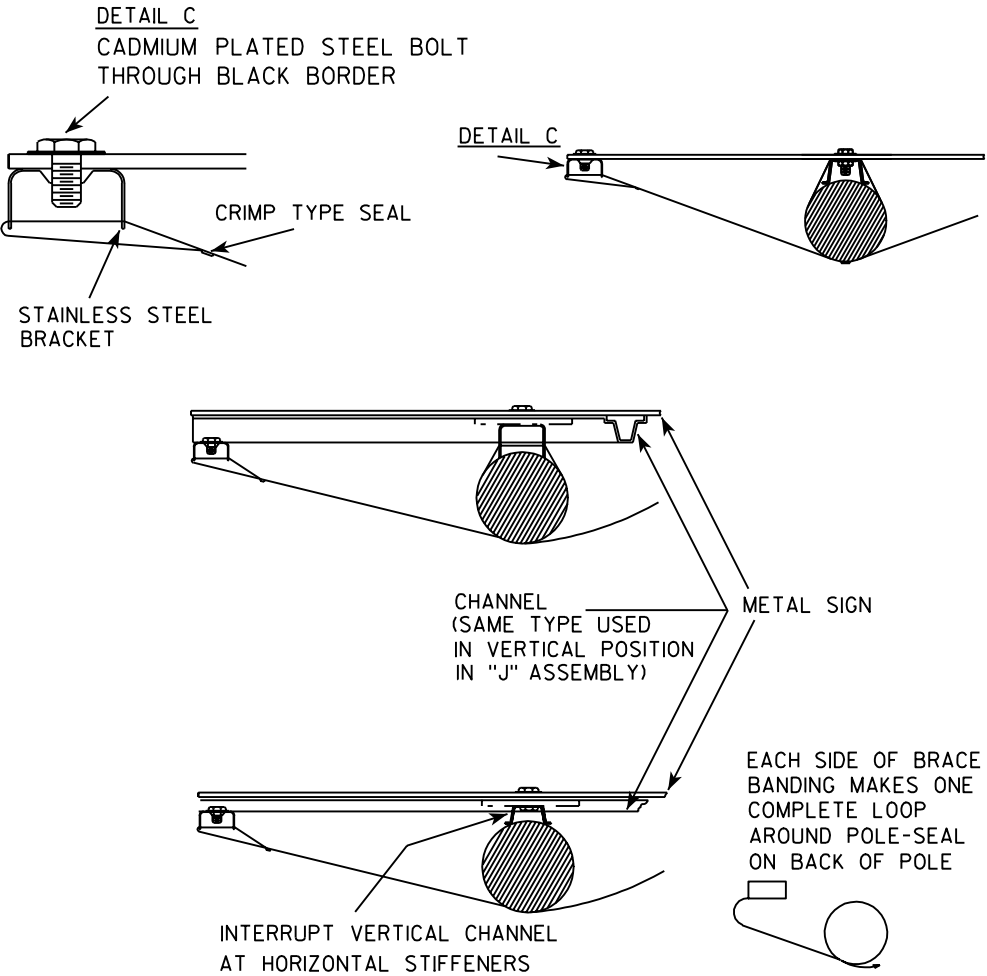


Washer Placement when Sign Has Other Than Type H or Type F Face

* 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

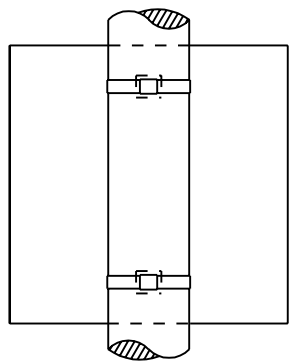
BRACE BANDING



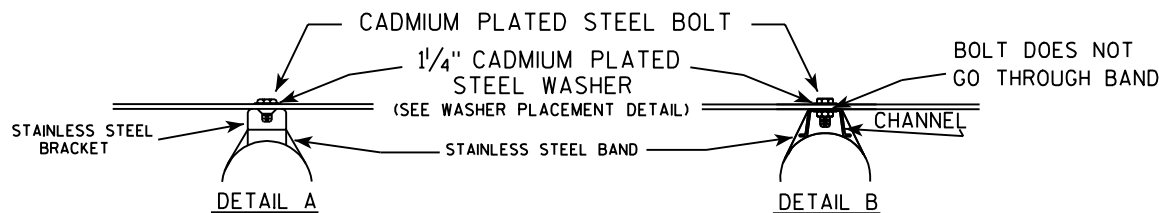
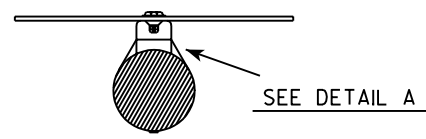
BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

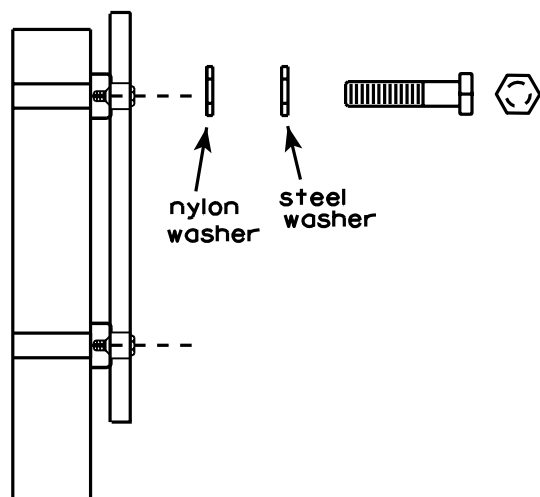
SINGLE SIGN



BRACKET BANDING

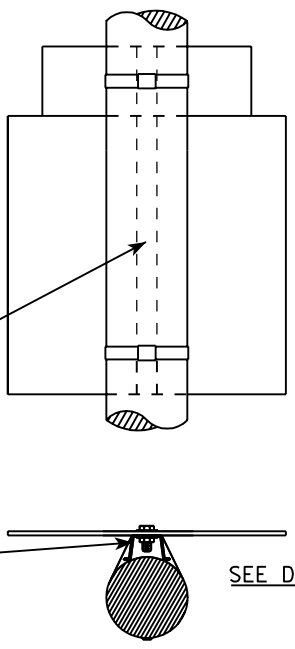


WASHER PLACEMENT



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

"J" ASSEMBLY



GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

7

Metric equivalent
for this sign is:

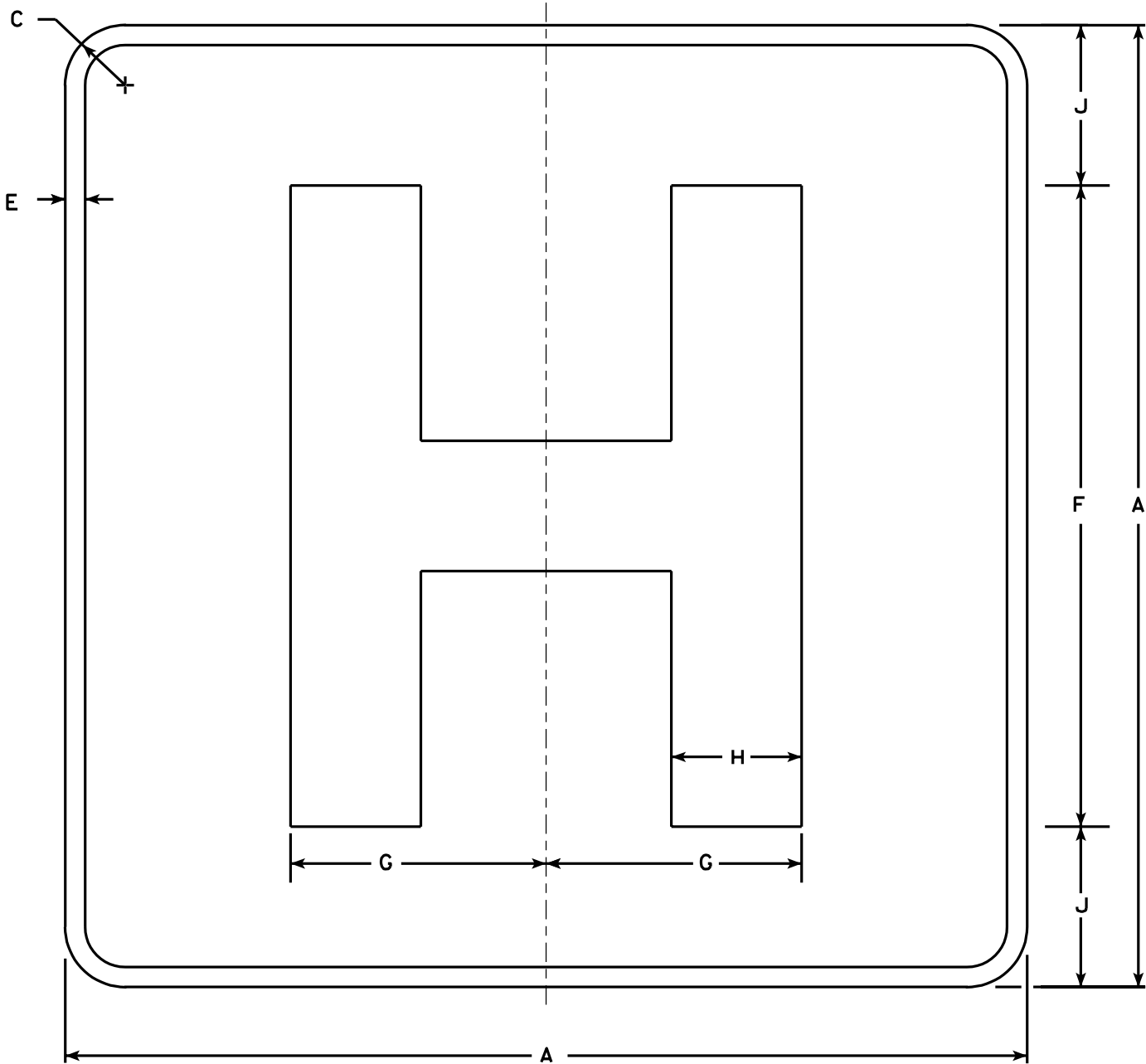
SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

PROJECT NO:

SHEET NO:

E



D9-2

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 - Type H Reflective
- Message Series - E Modified
- 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.

STANDARD SIGN
D9-2

WISCONSIN DEPT OF TRANSPORTATION

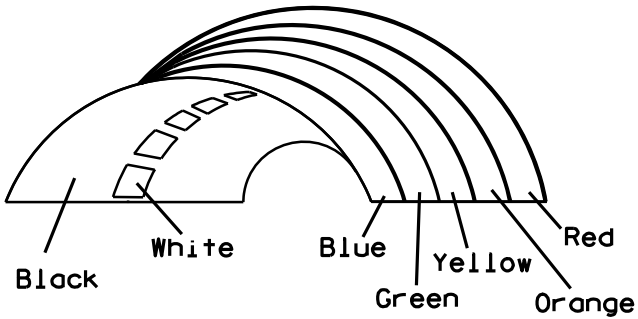
APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 1/15/02
PLATE NO. D9-2.4



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
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. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

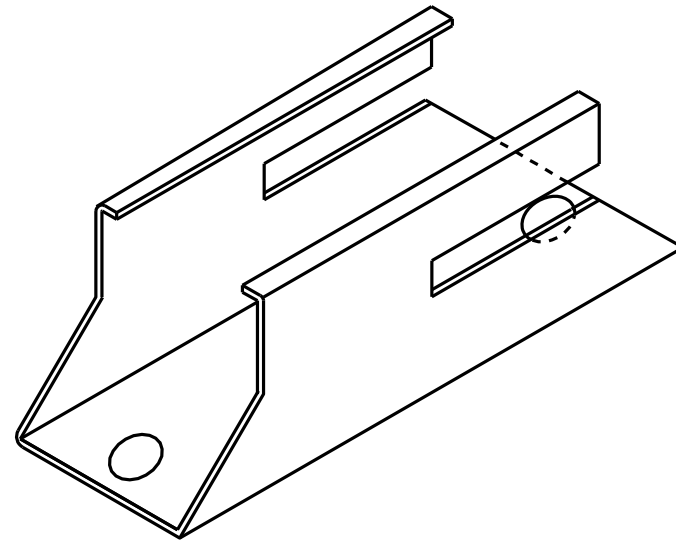
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

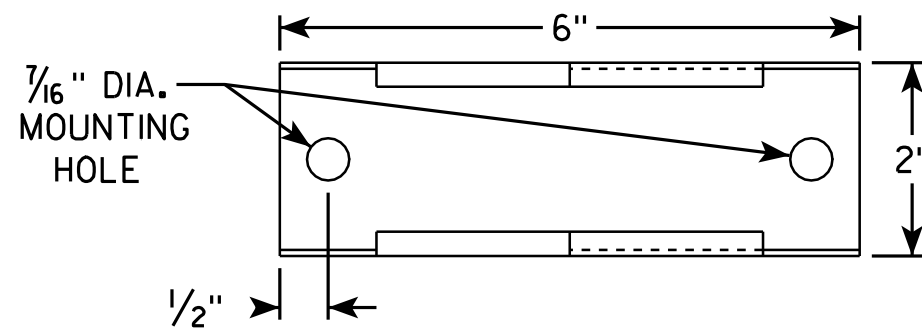
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

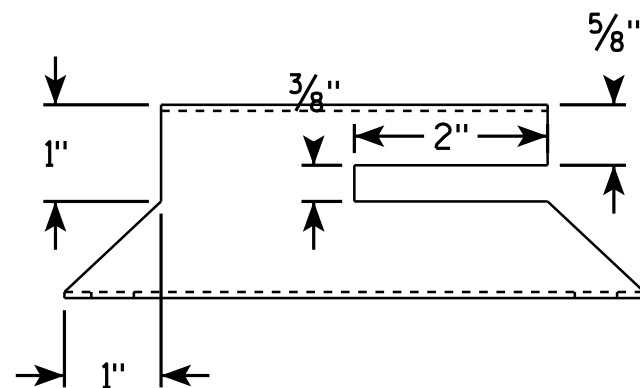
ISOMETRIC VIEW



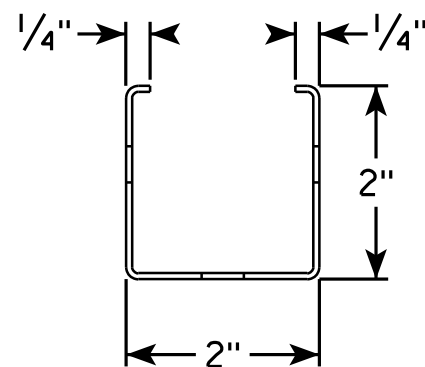
TOP VIEW



SIDE VIEW



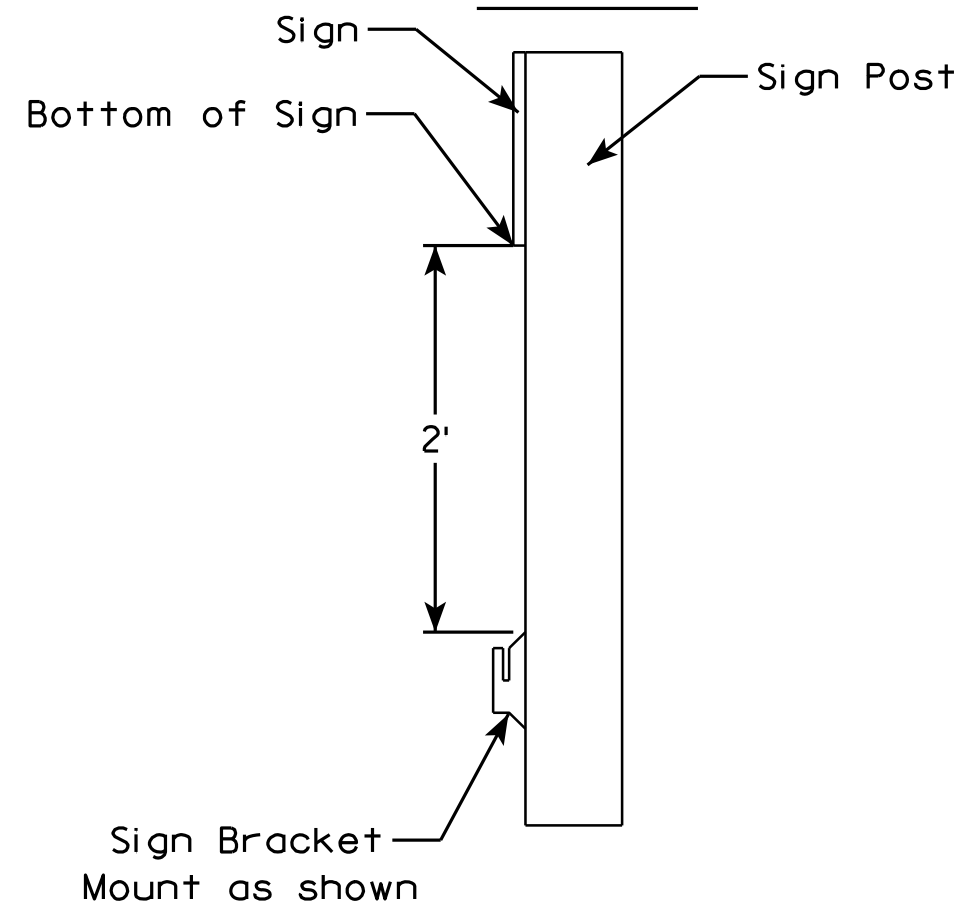
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

HWY:

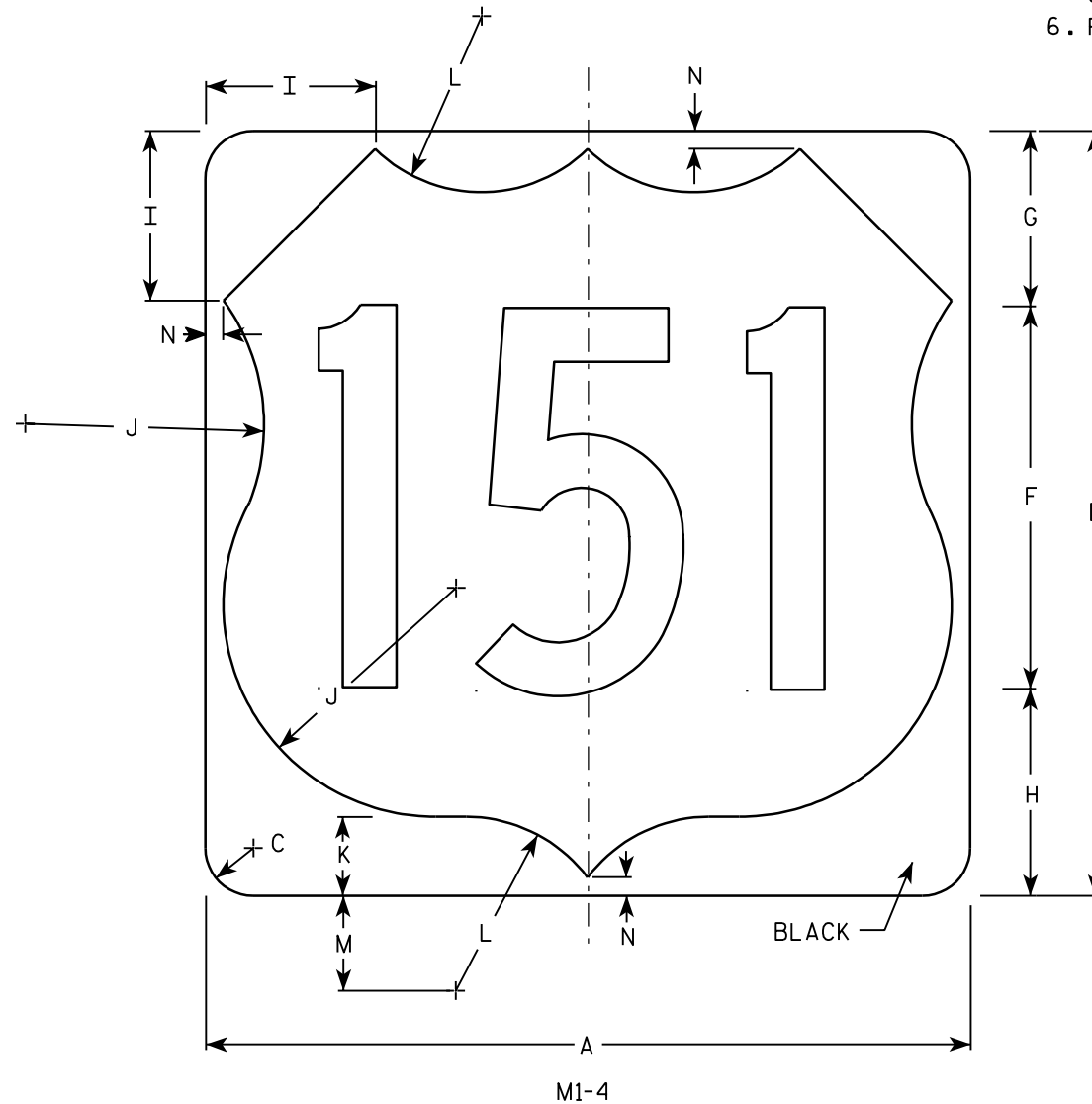
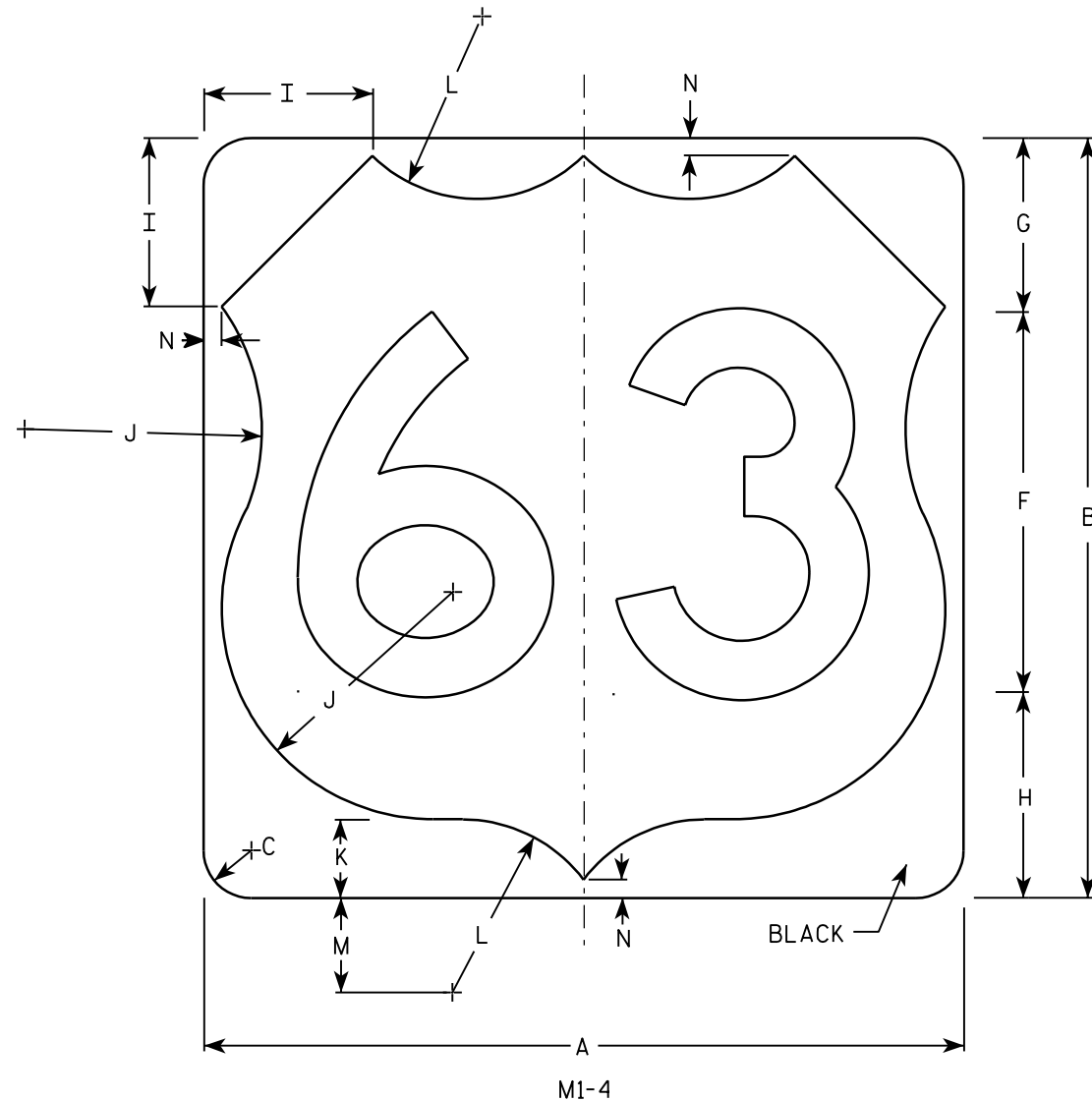
COUNTY:

SHEET NO:

E

NOTES

- Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 6
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.
- Substitute appropriate numerals and adjust
spacing as per Plate A10-1.
- Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



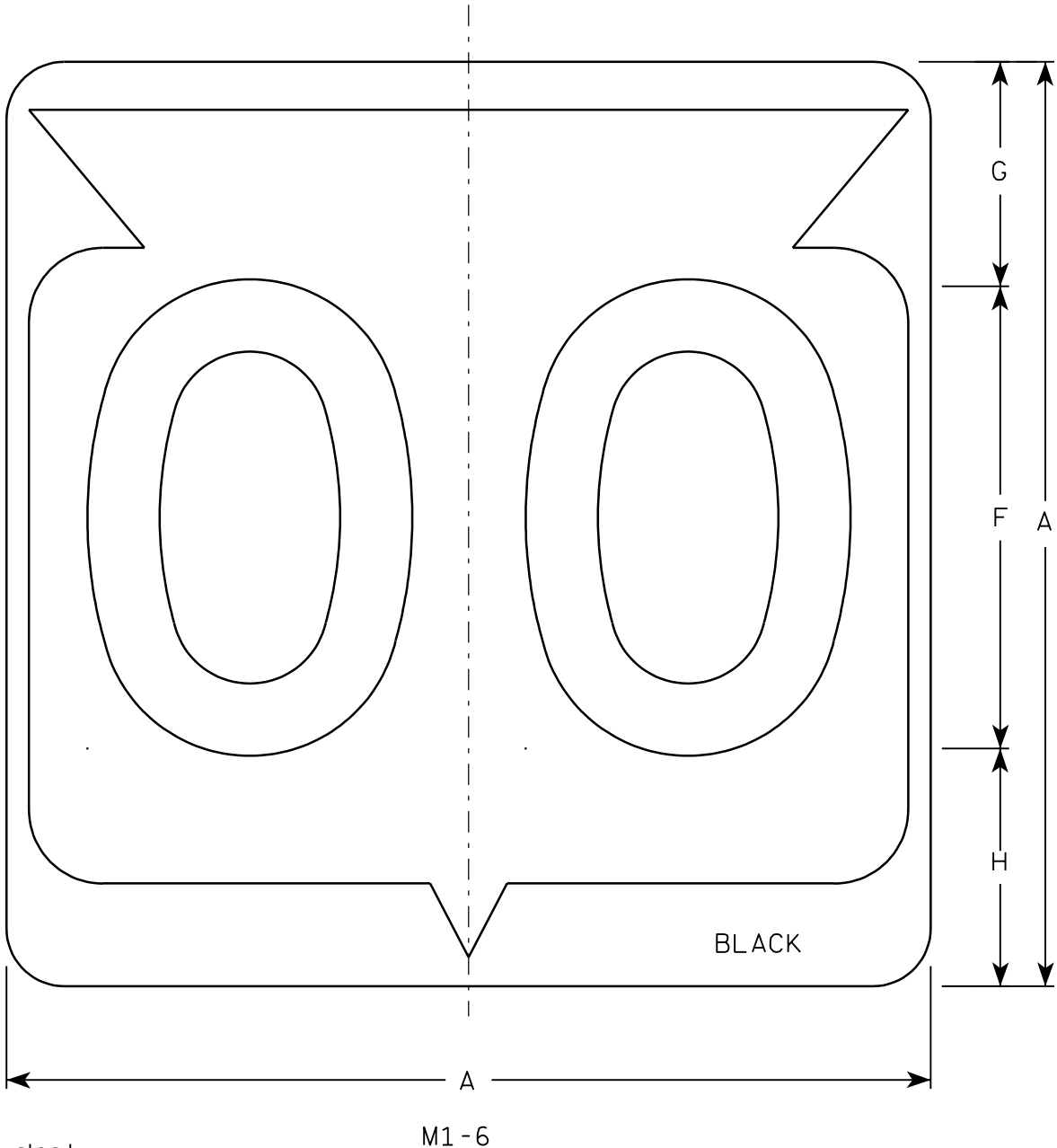
Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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	Areq sq. ft.	Area m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: **E**

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

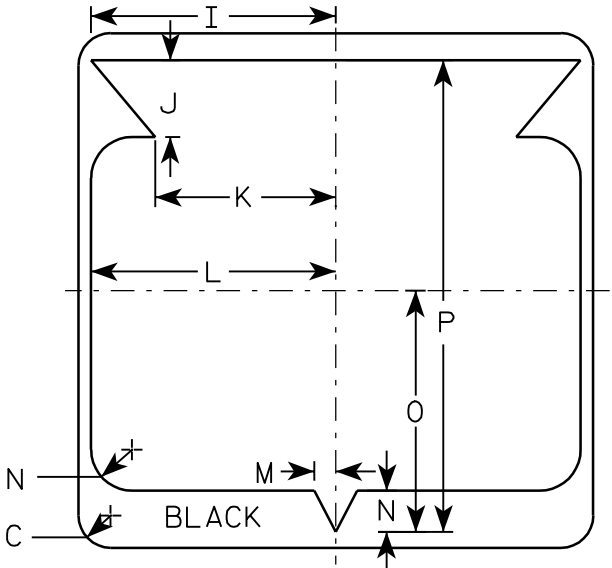
COUNTY:

SHEET NO:

E

NOTES

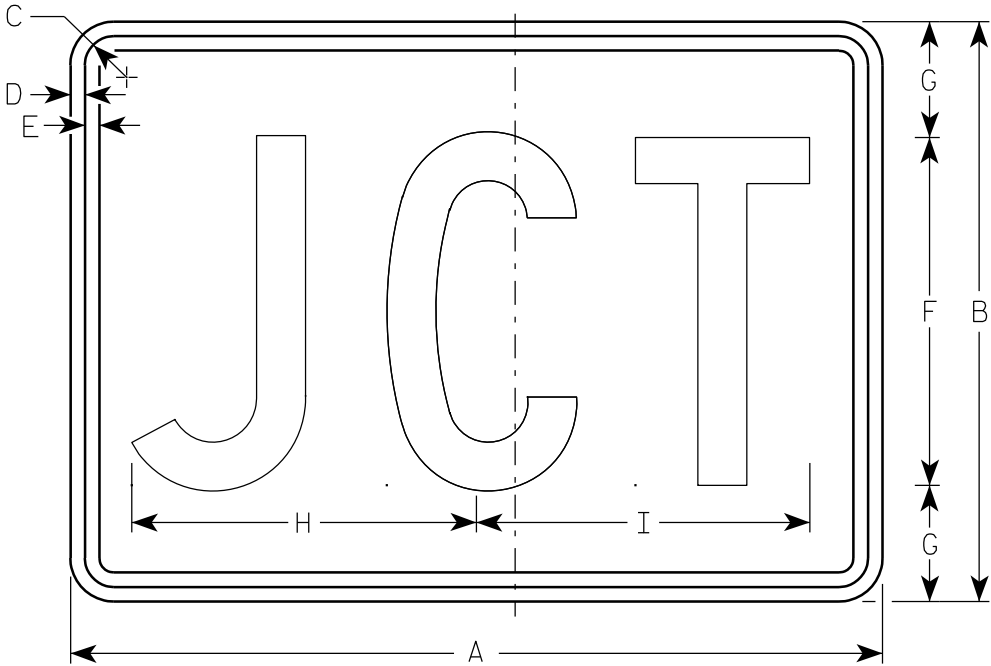
1. Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
5. Substitute appropriate Series numerals and
adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



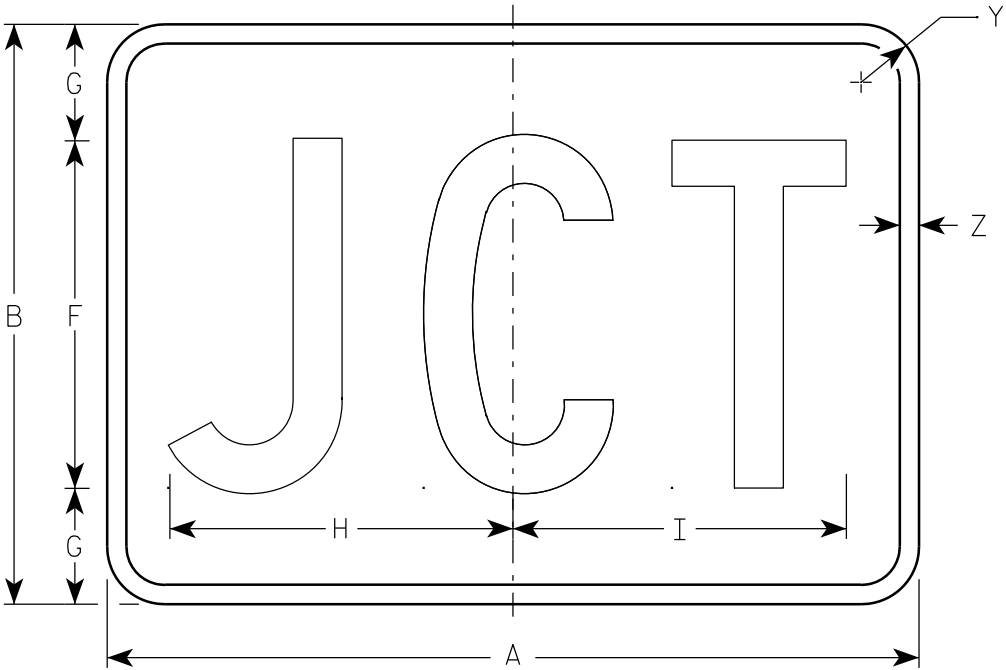
7

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



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



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 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																												
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	0.20
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	0.20
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	0.20
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	0.20

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10

PLATE NO. M2-1.10

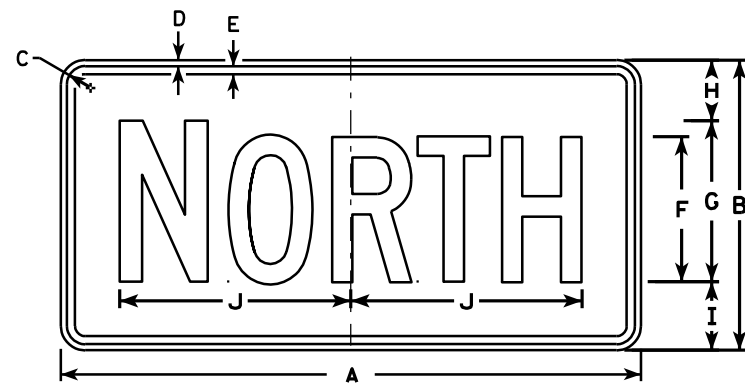
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

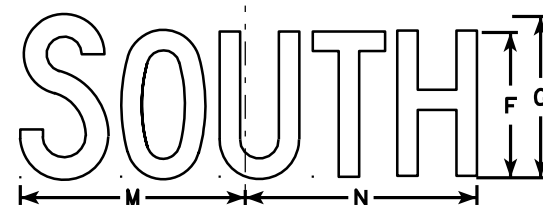
E



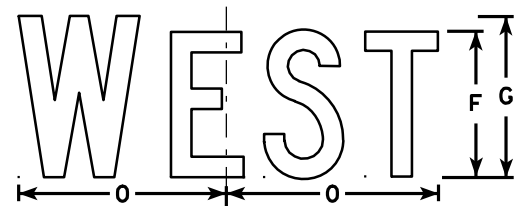
M3-1
MK3-1
M03-1



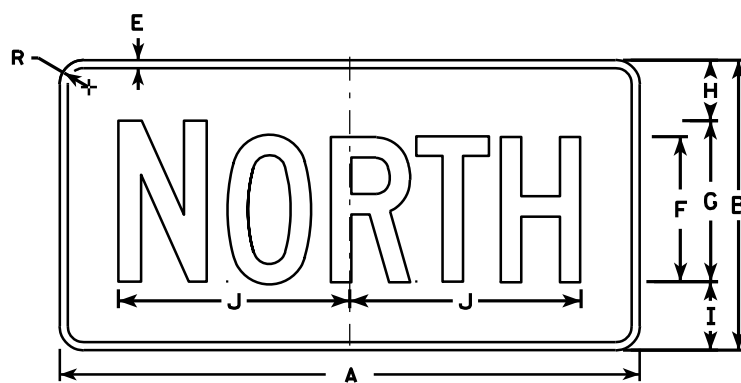
M3-2
MK3-2
M03-2



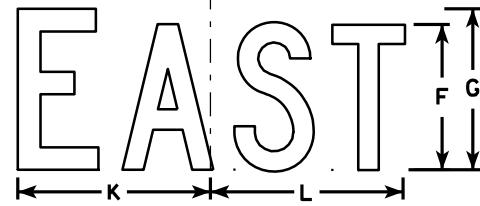
M3-3
MK3-3
M03-3



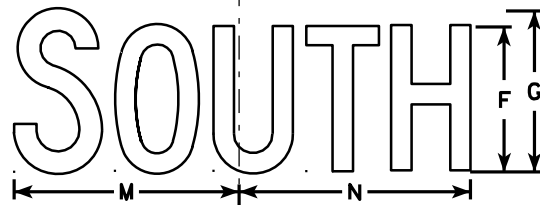
M3-4
MK3-4
M03-4



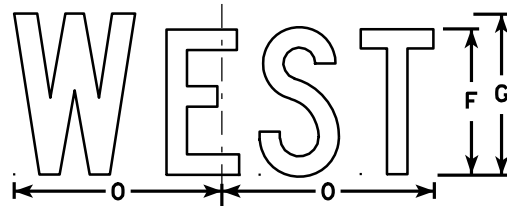
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

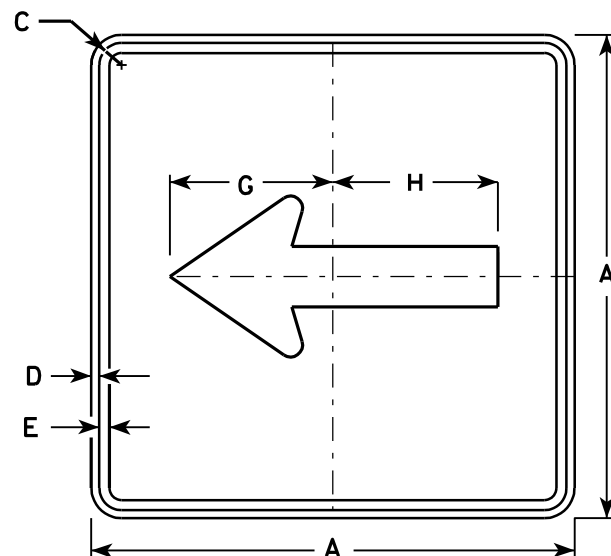
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

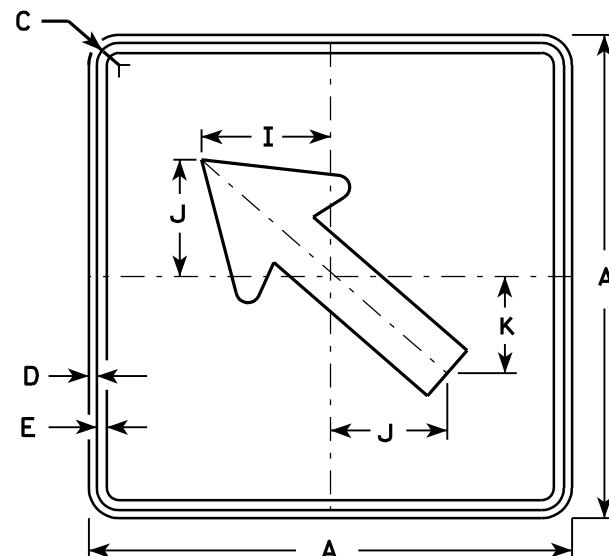
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

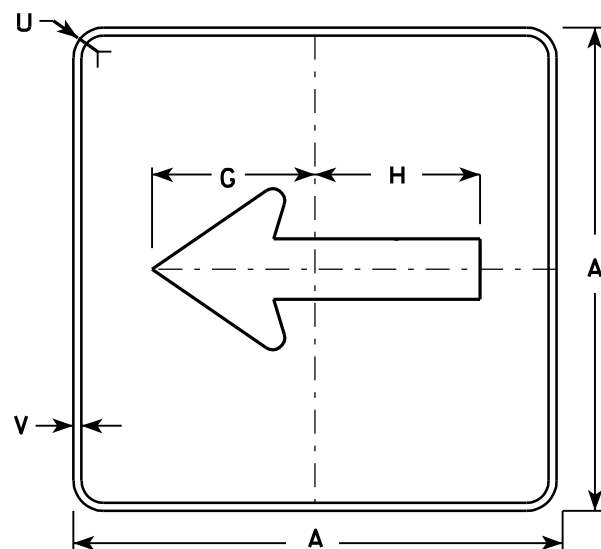
DATE 11/10/10 PLATE NO. M3-1.12



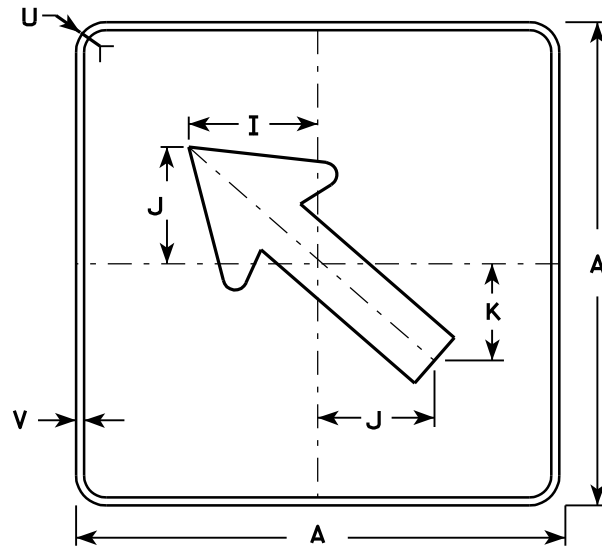
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



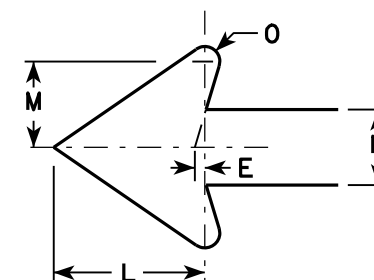
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 4
 - Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective

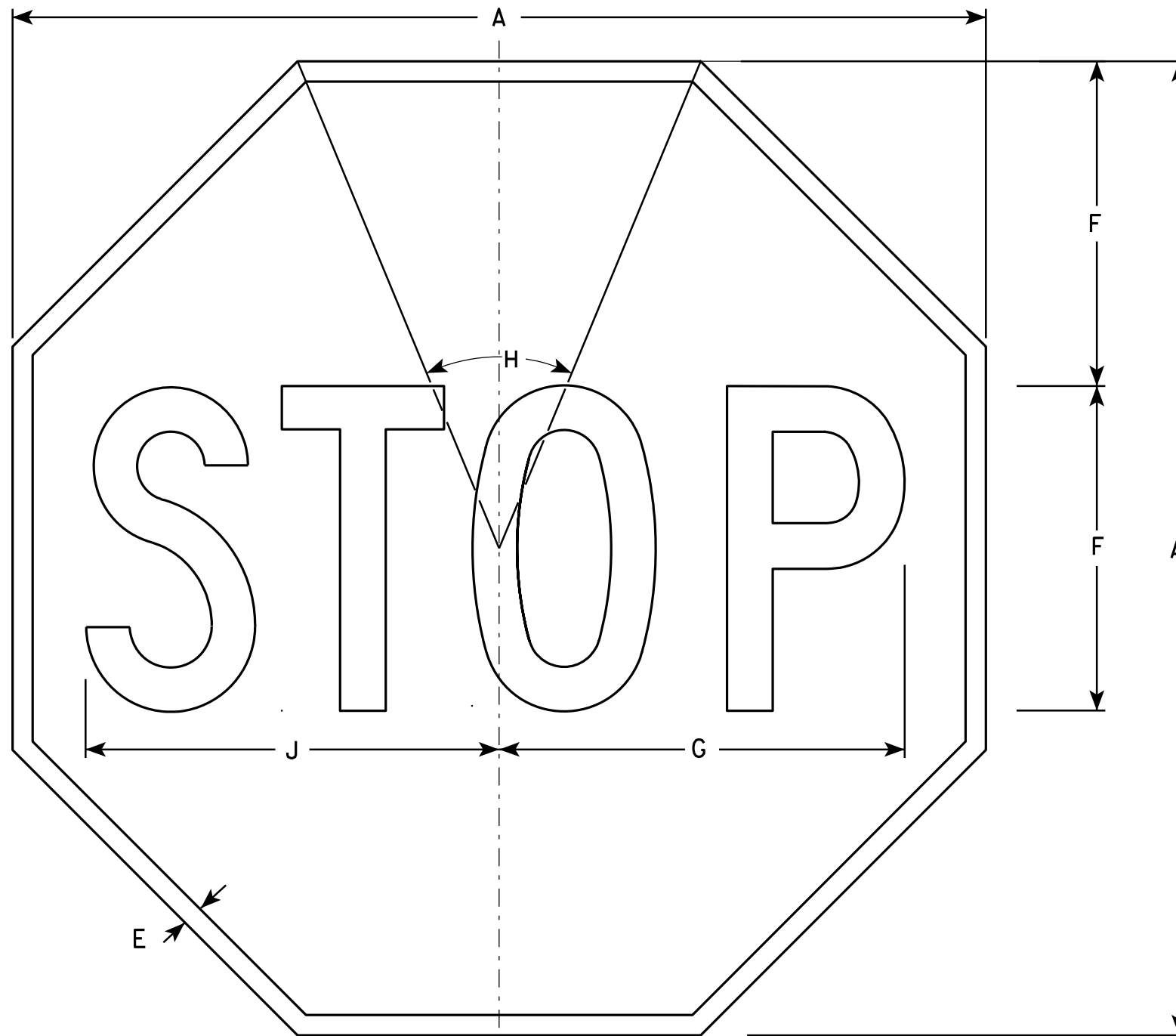


Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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 m2
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	0.28
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	0.56
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	0.56
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	0.56

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 - 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

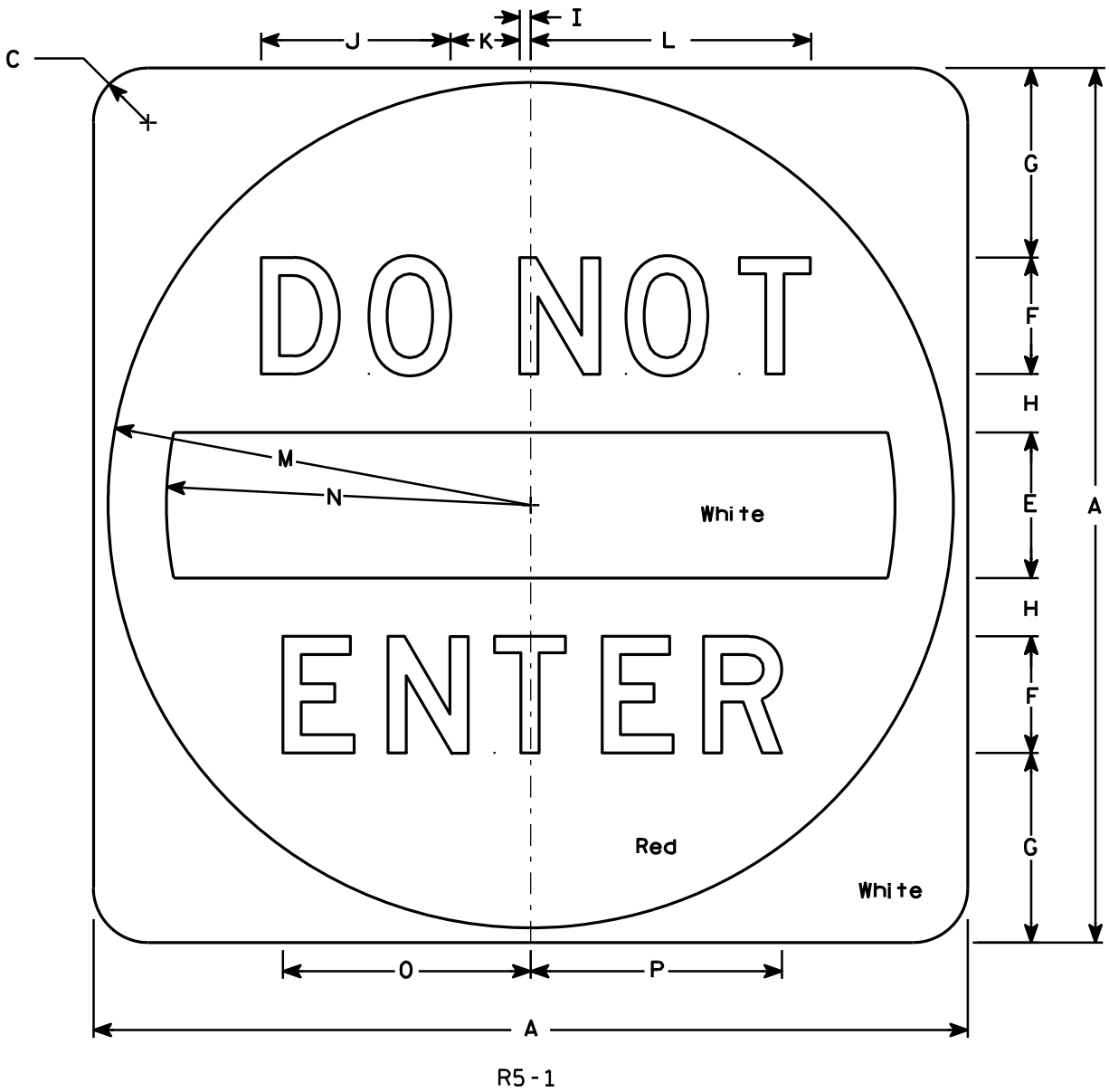
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - See detail

Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners 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	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.26
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 12/17/10PLATE NO. R5-1.15

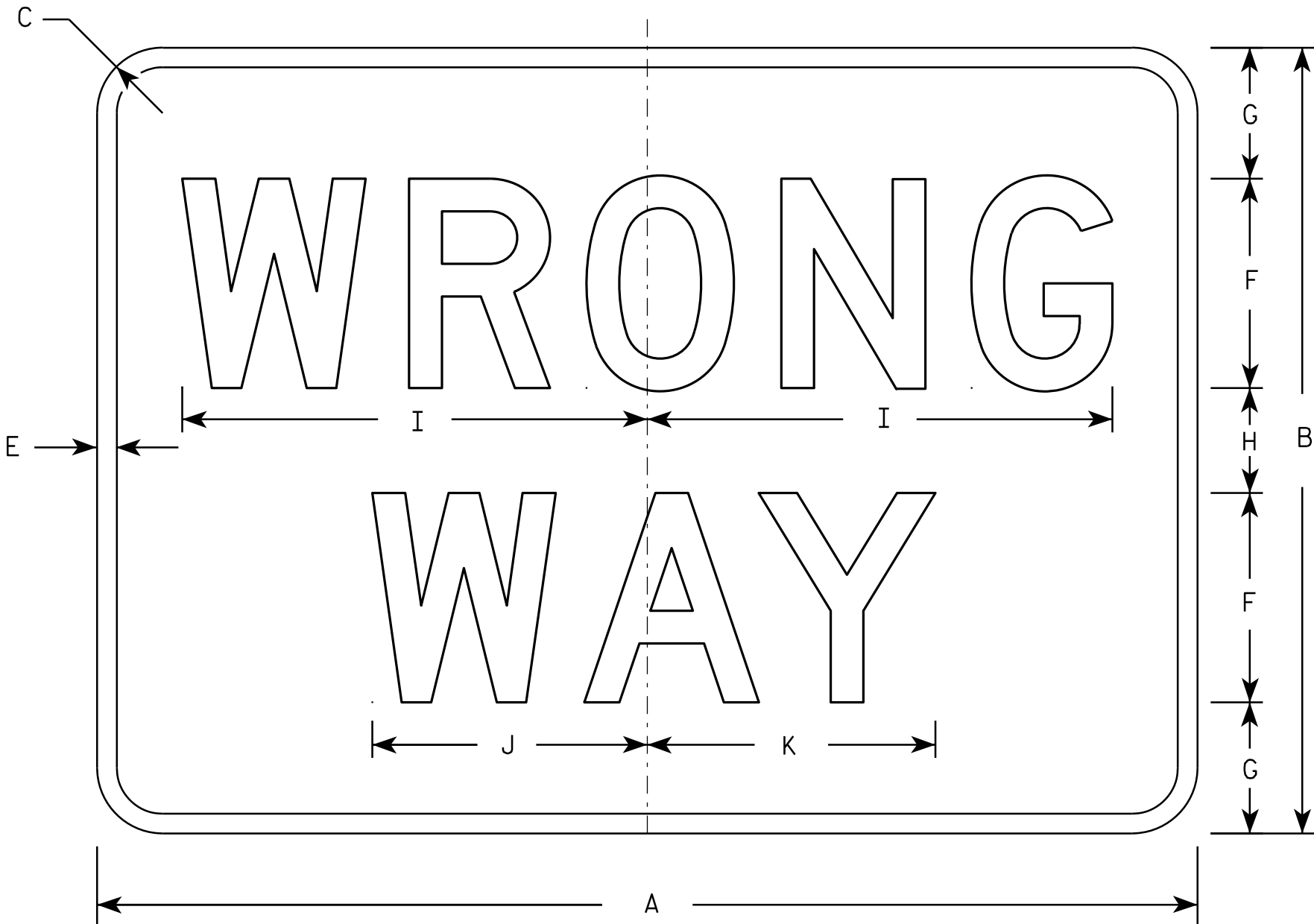
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

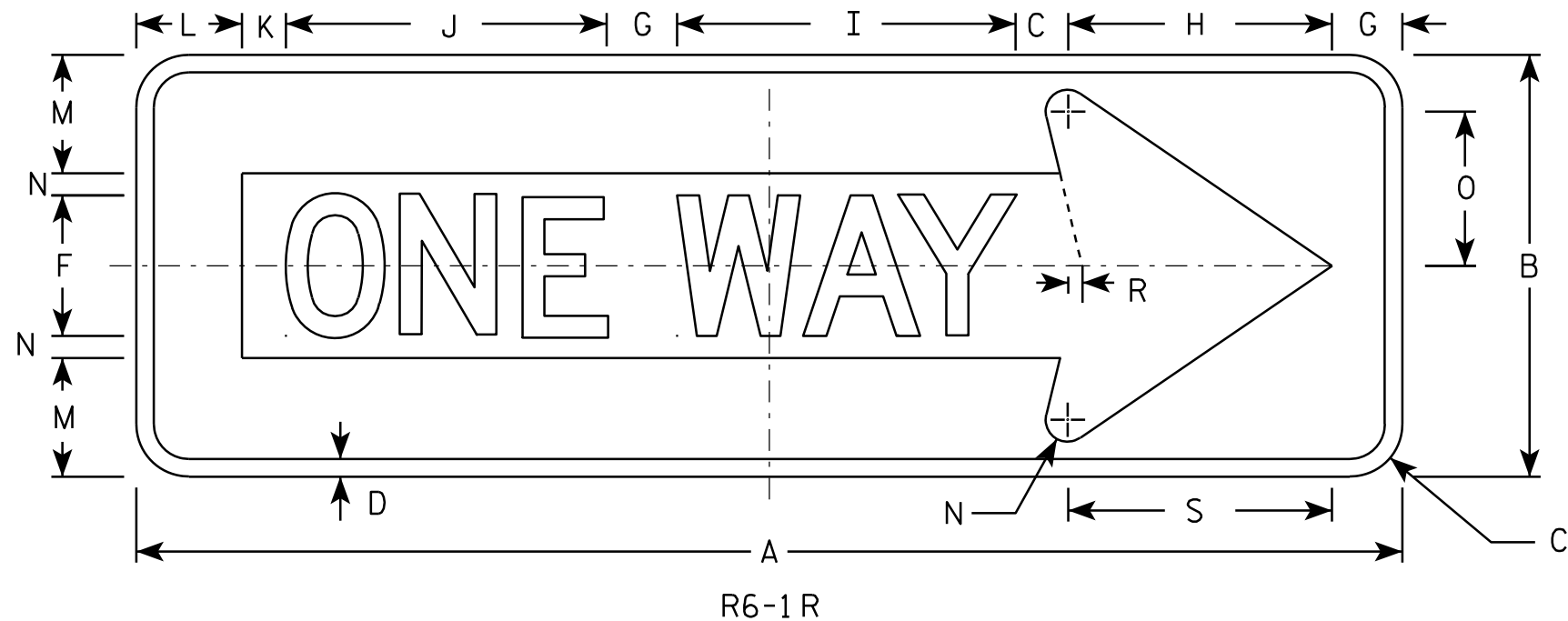
PROJECT NO:

HWY:

COUNTY:

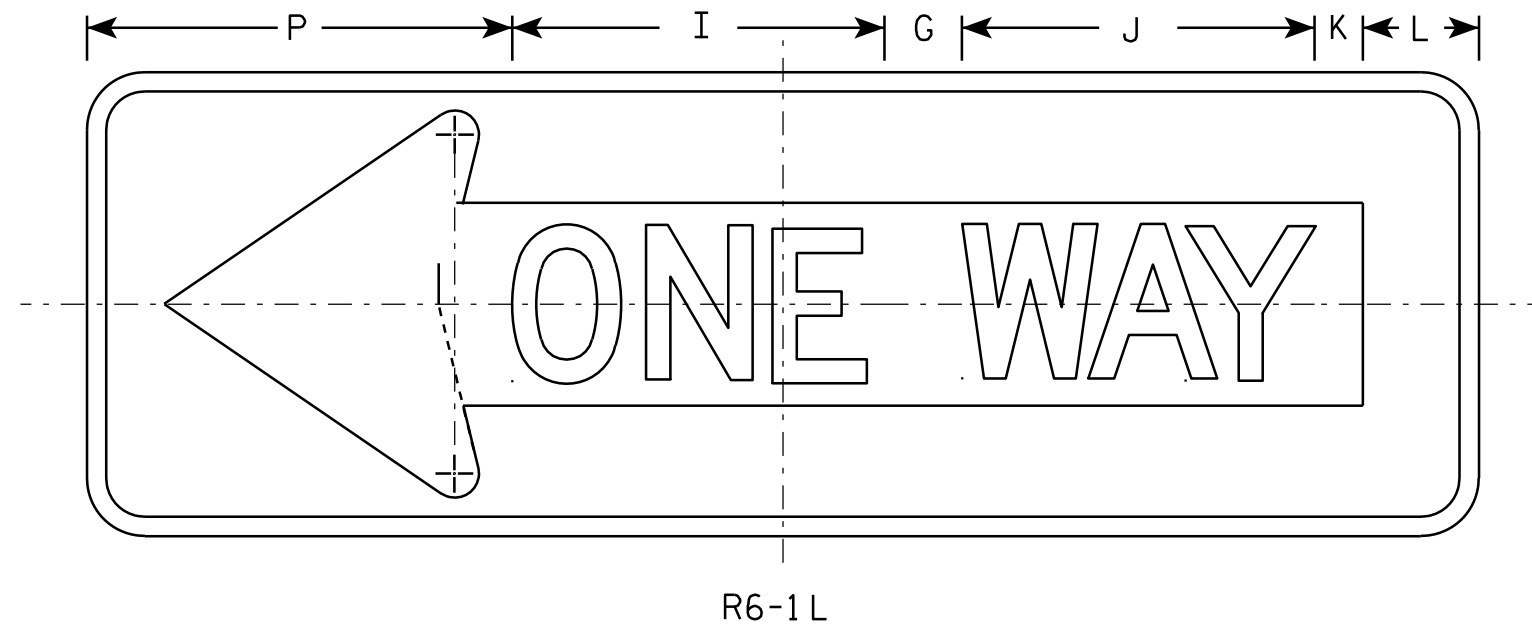
SHEET NO:

E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - BLACK
Message - BLACK LEGEND & WHITE ARROW & BORDER
- 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.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	14 1/2	13 5/8	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

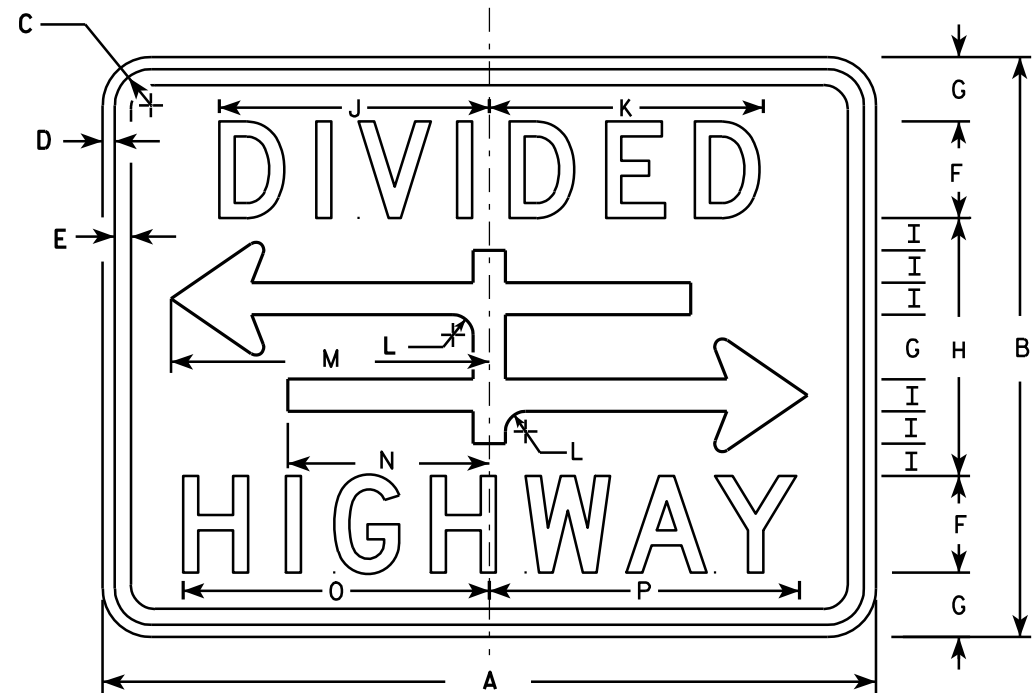
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 12/17/10 PLATE NO. R6-1.2

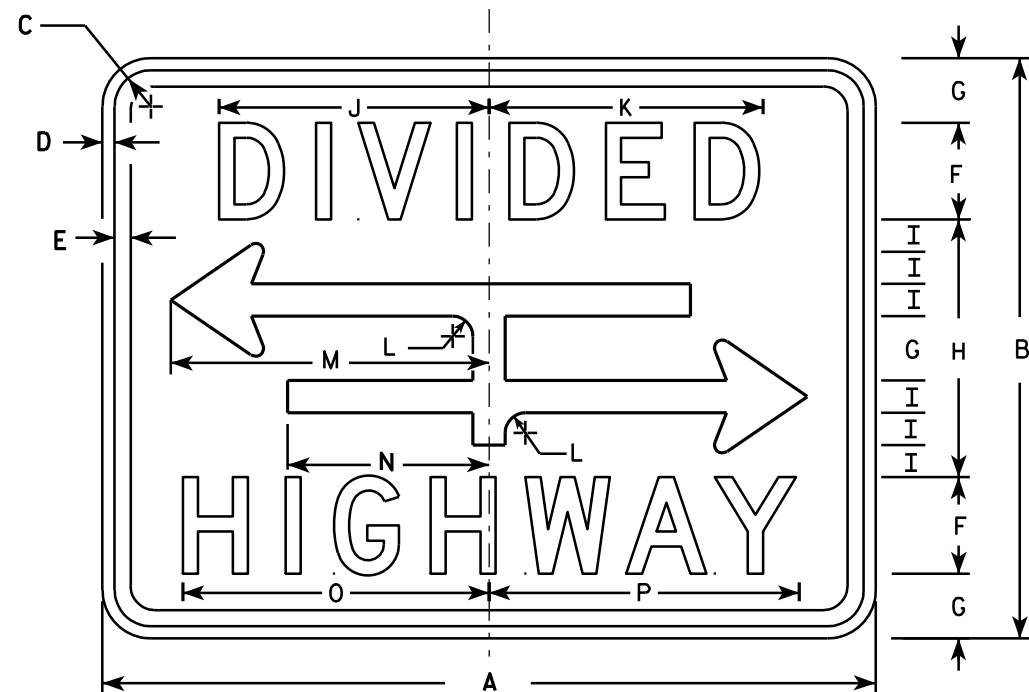
PROJECT NO:

SHEET NO:

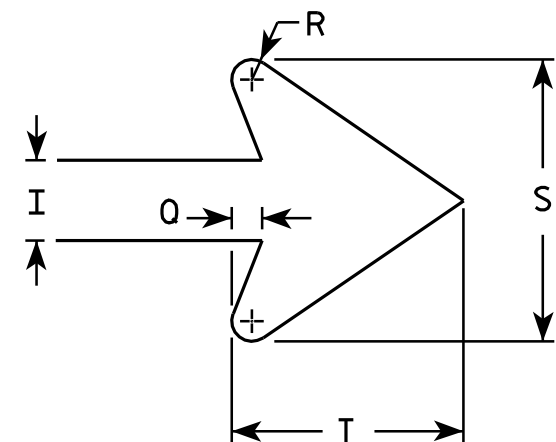
E



R6-3



R6-3A



ARROW DETAIL

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	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

PROJECT NO:

STANDARD SIGN
R6-3 & R6-3A

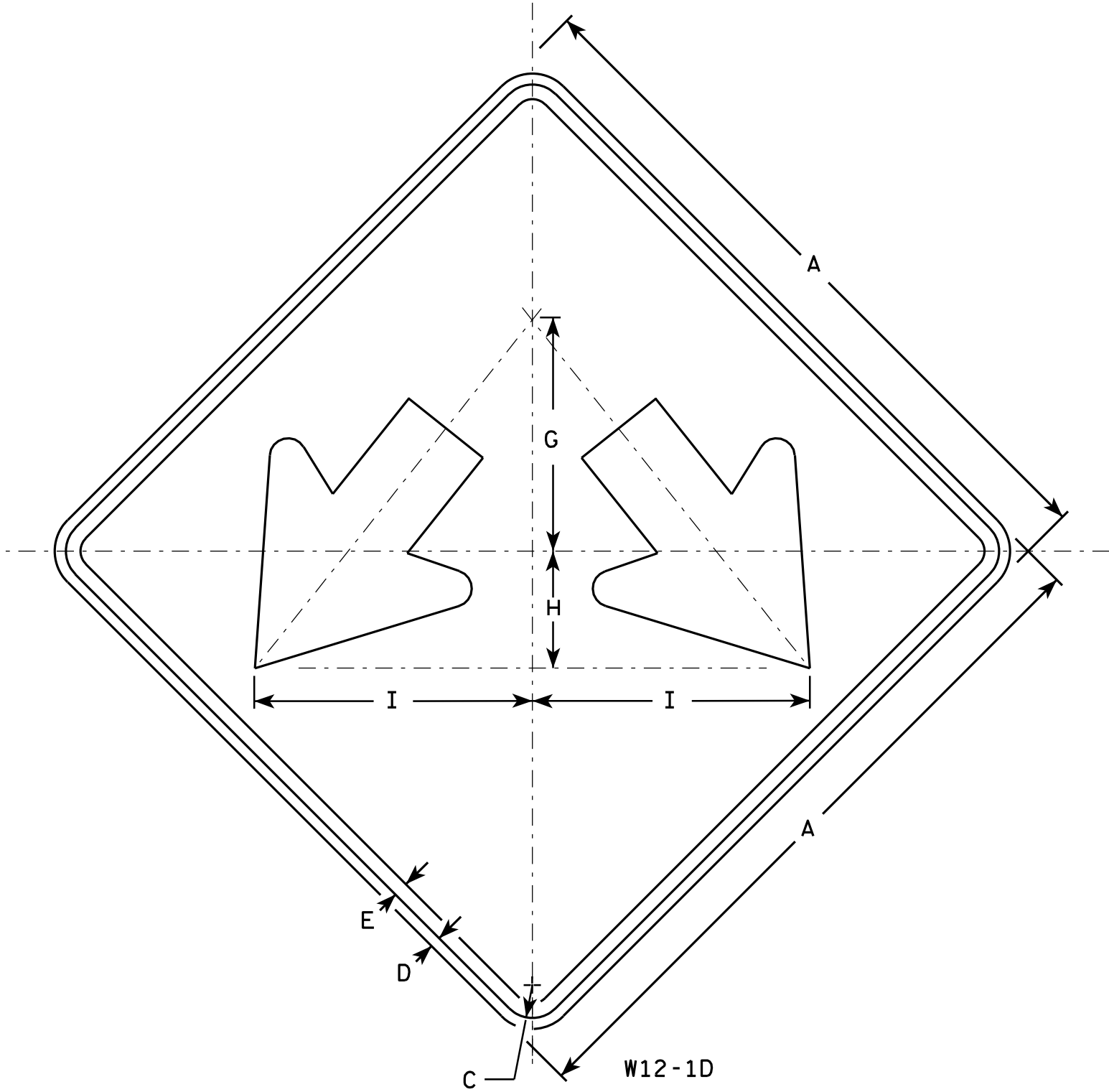
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

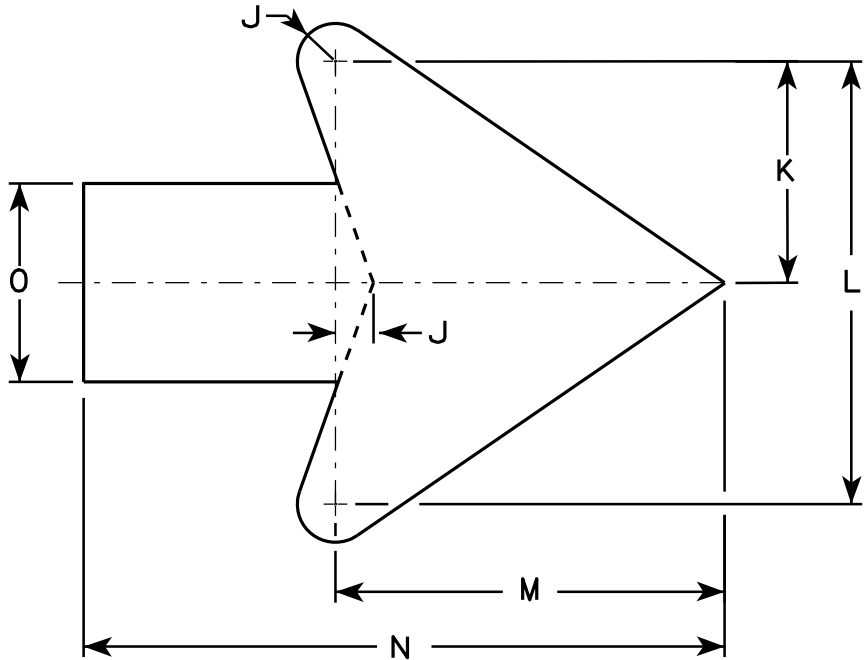
SHEET NO:

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 - Yellow
 - Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

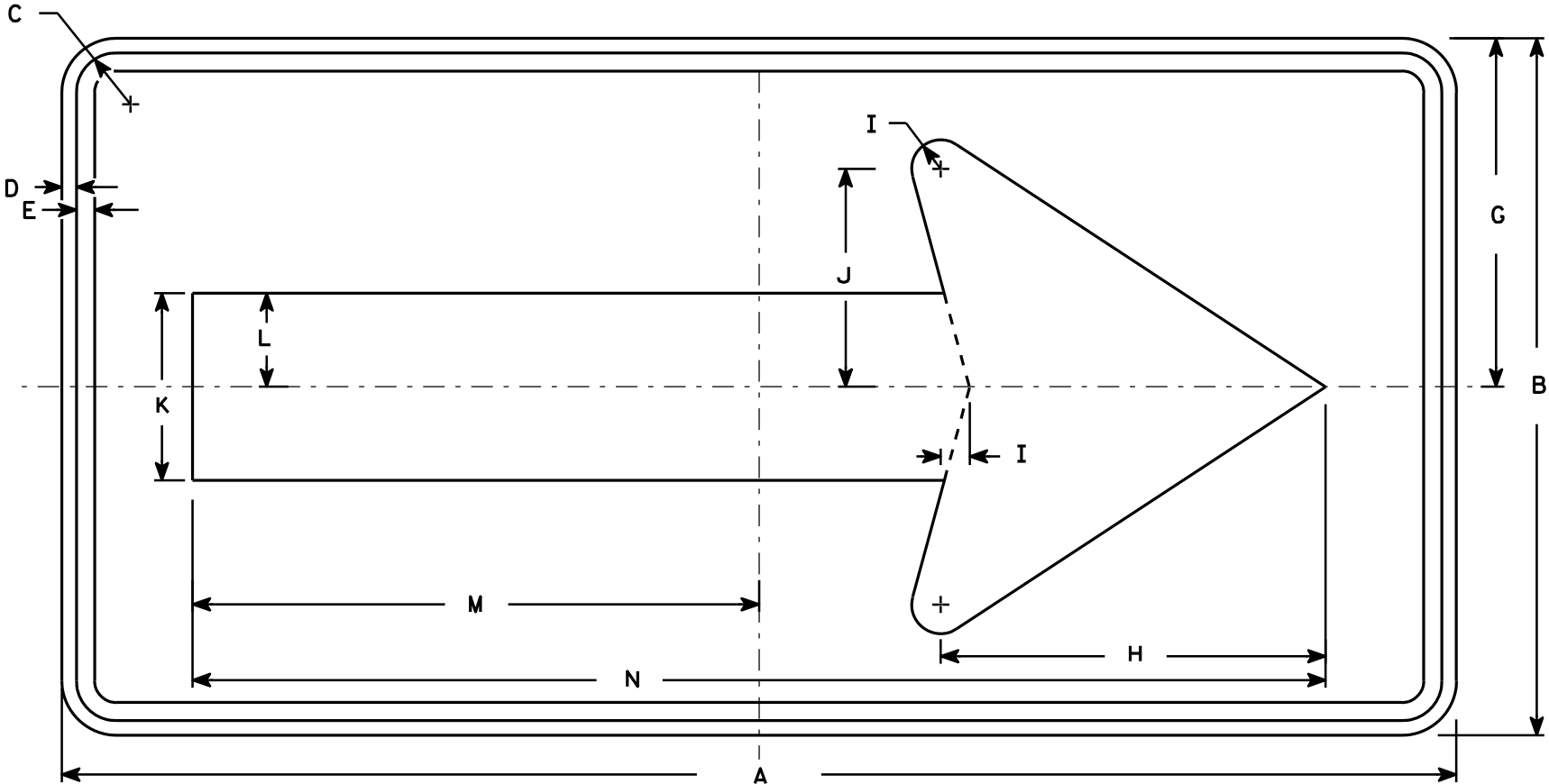
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/15/11 PLATE NO. W12-1D.14

NOTES

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



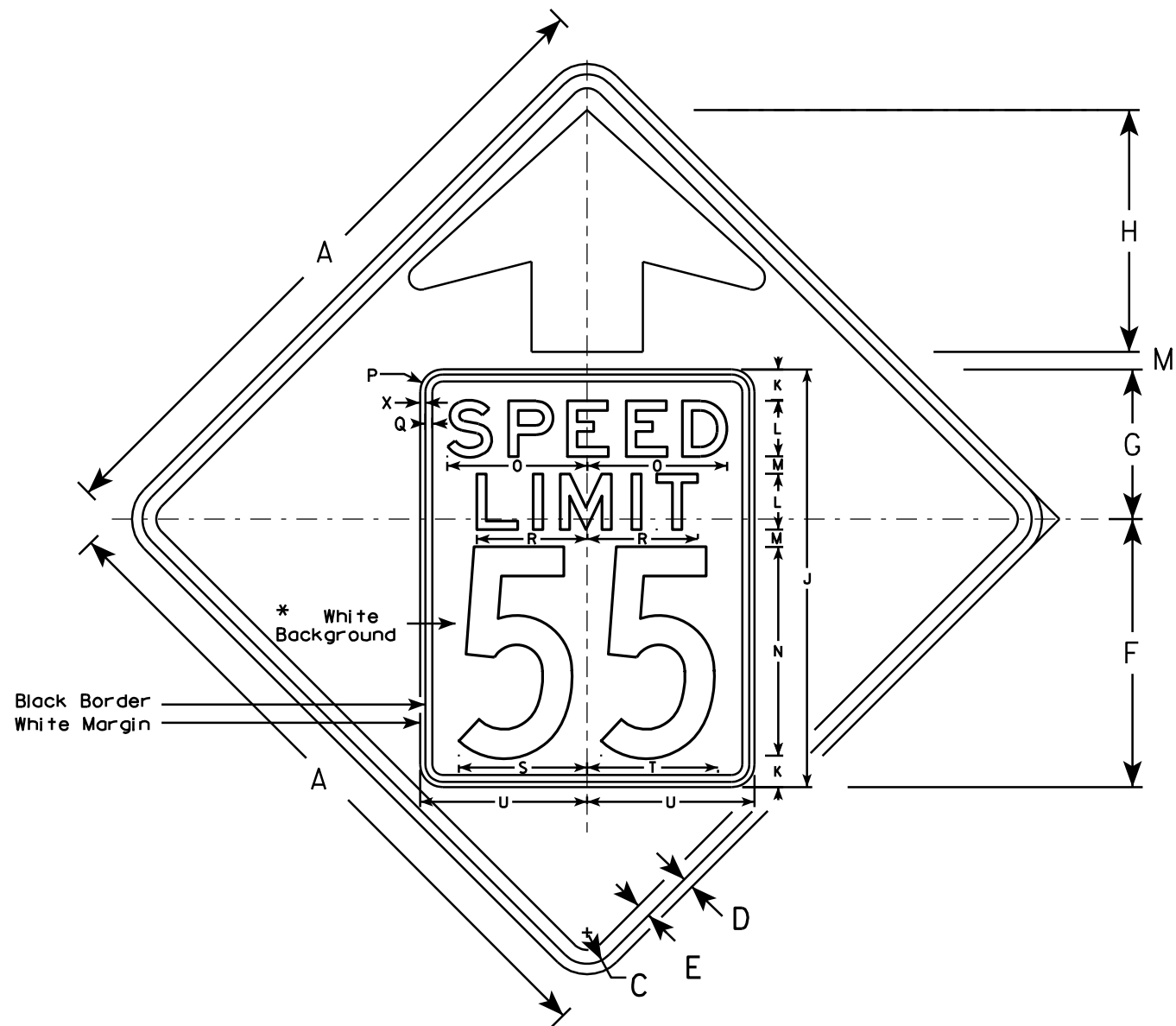
W1-6

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	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
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	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8

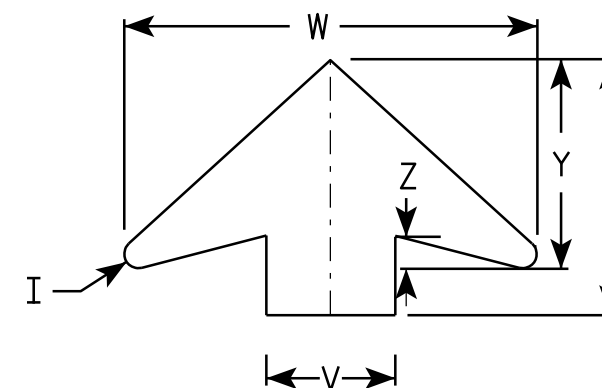


W3-5

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

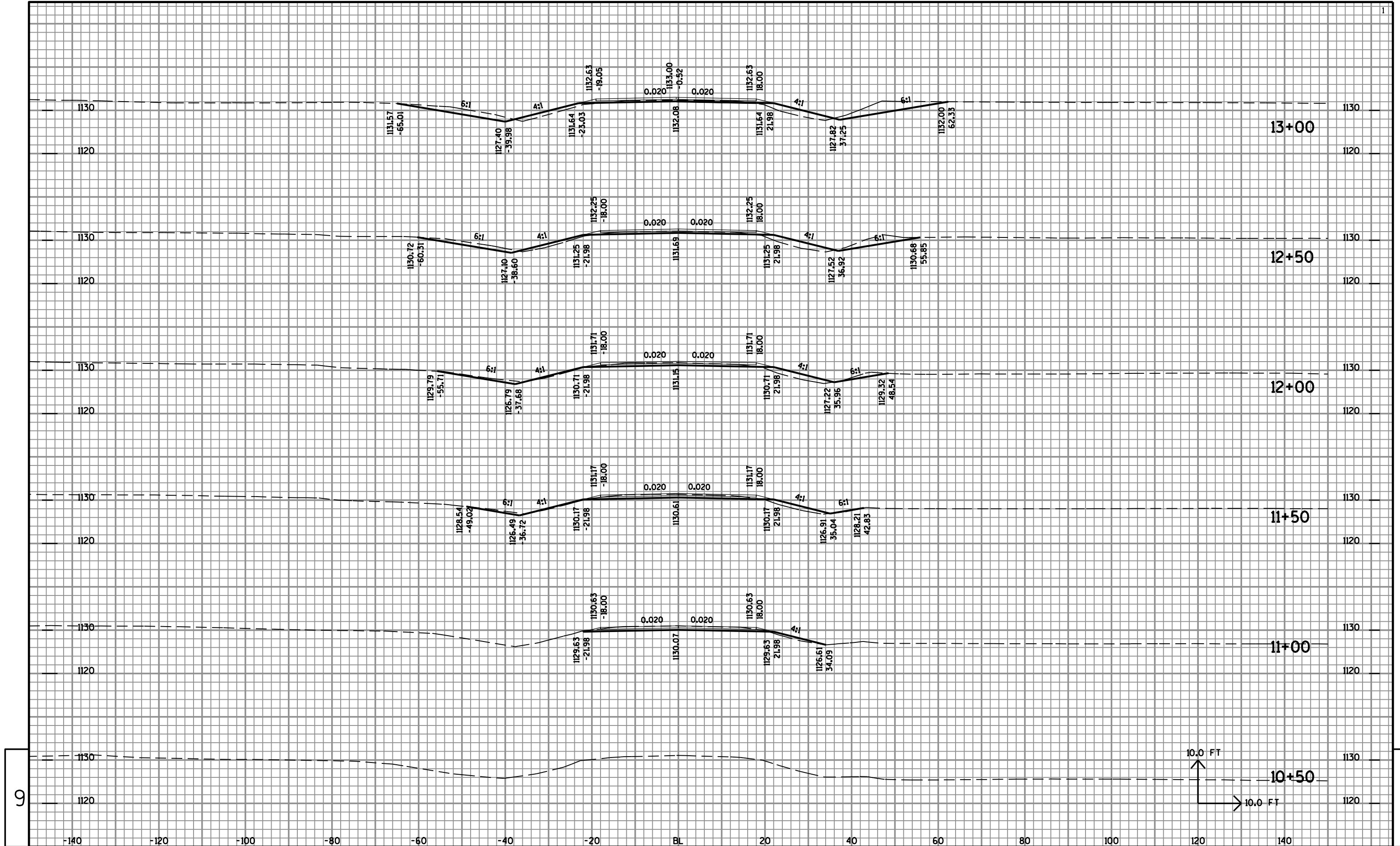
DATE 5/29/12

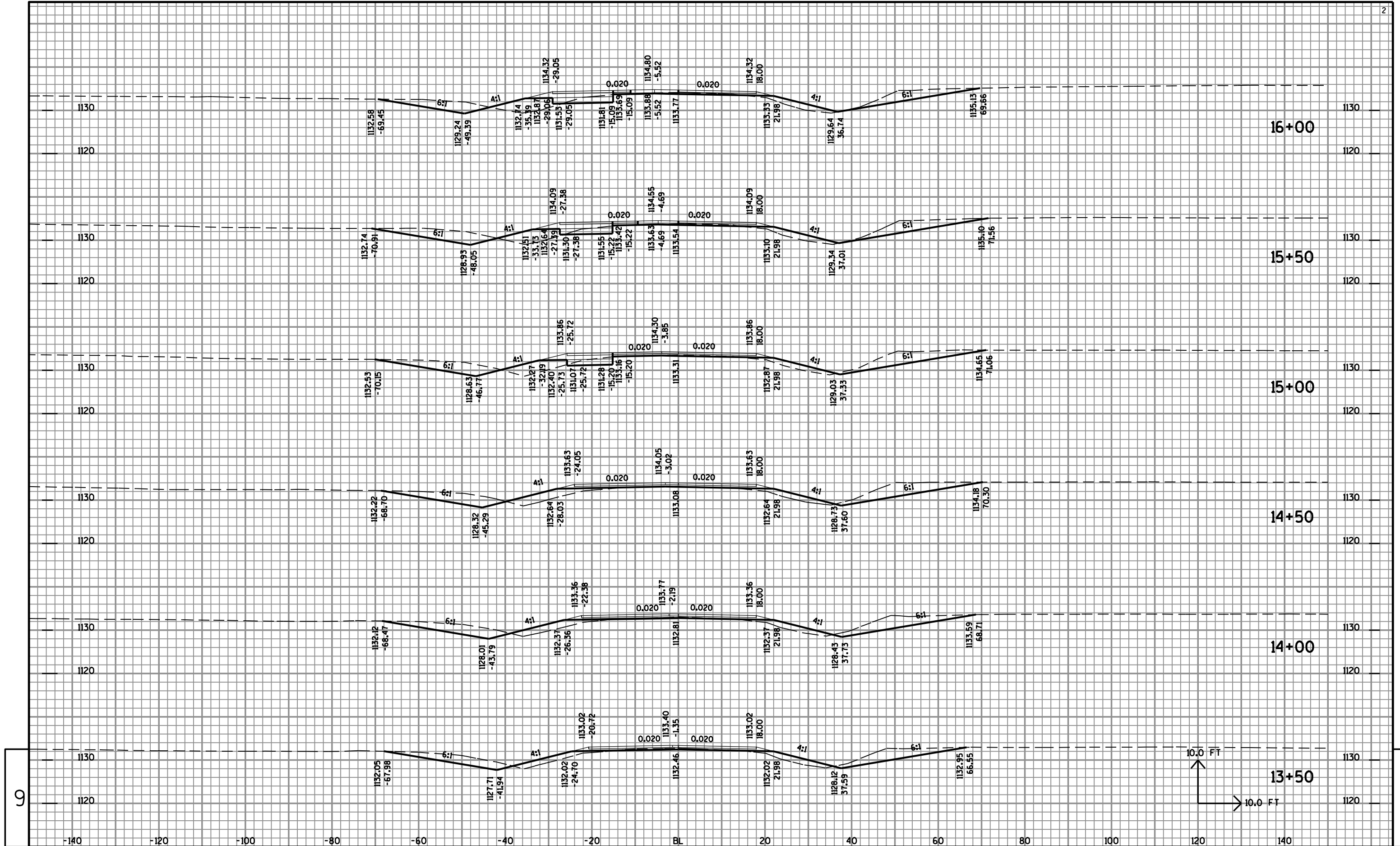
PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E





PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS (USH 61)

SHEET NO:

E

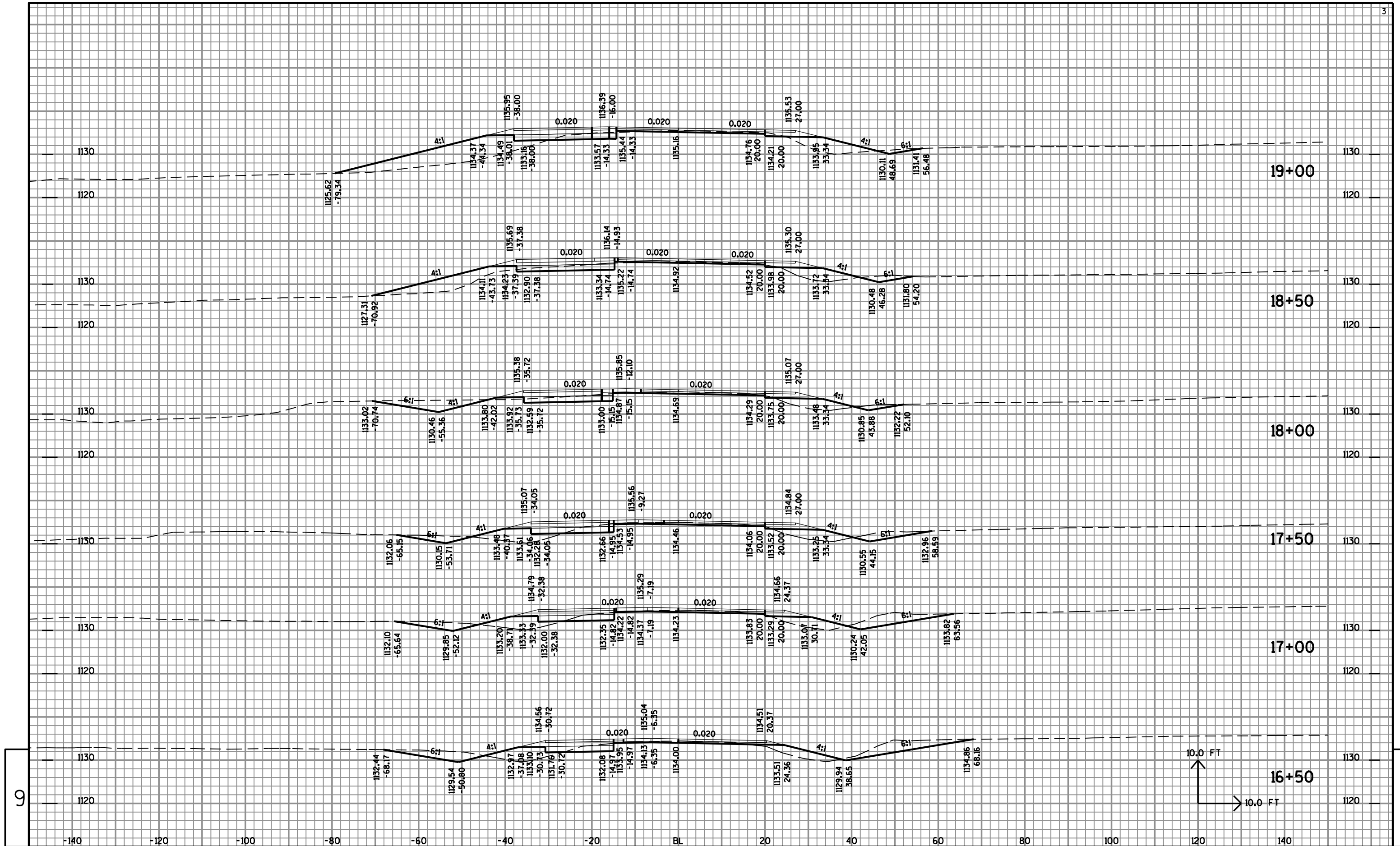
FILE NAME : p:\State\61\16500109\Cad\XSections\16500179_ALLINE.DGN

PLOT DATE : 30-JAN-2013 14:24

PLOT BY : dotwoc

PLOT NAME :

PLOT SCALE : 2.000000:1.000000



PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS (USH 61)

SHEET NO:

E

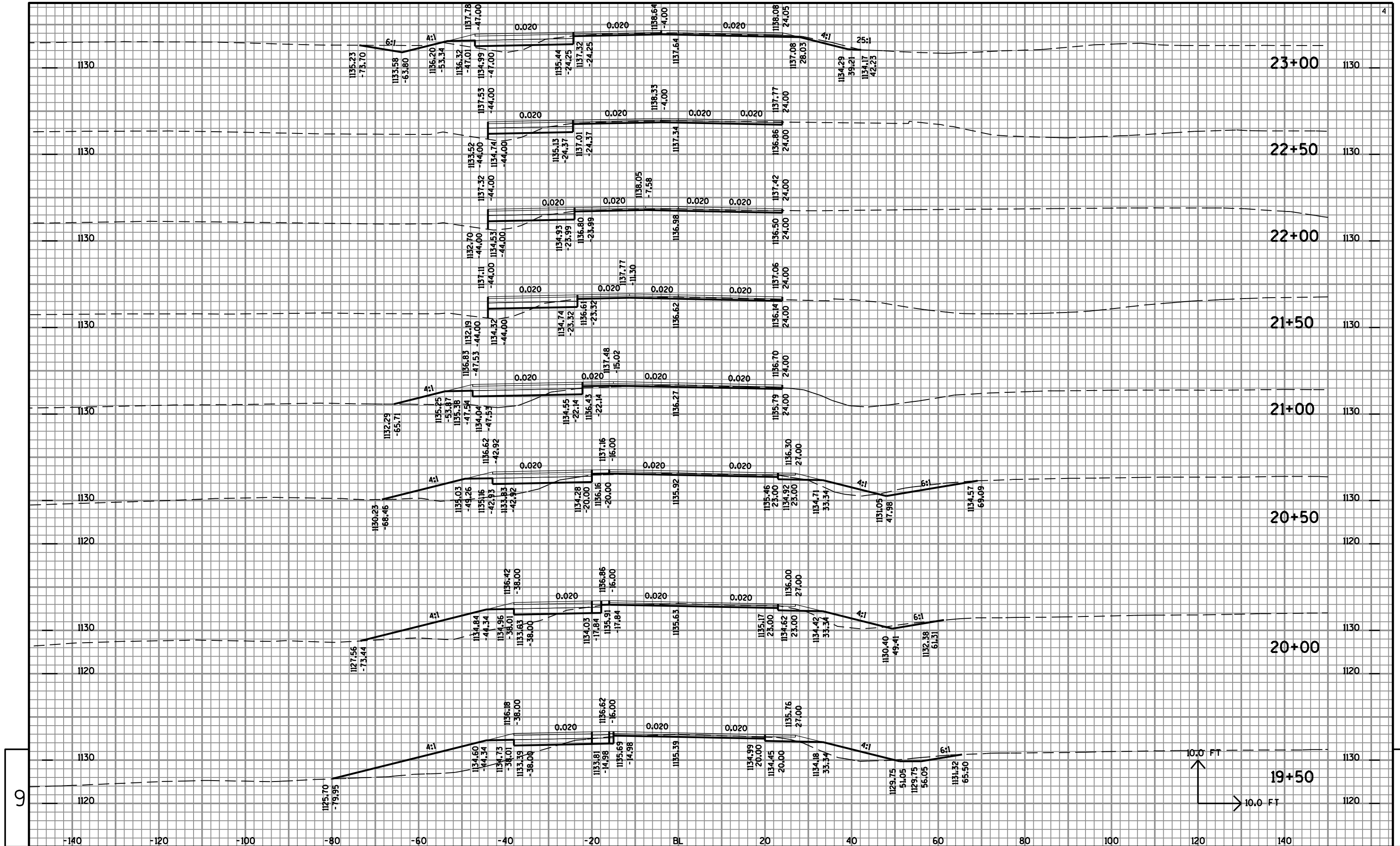
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PLOT DATE : 30-JAN-2013 14:24

PLOT BY : dotwoc

PLOT NAME :

PLOT SCALE : 2.000000:1.000000



PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS (USH 61)

SHEET NO:

E

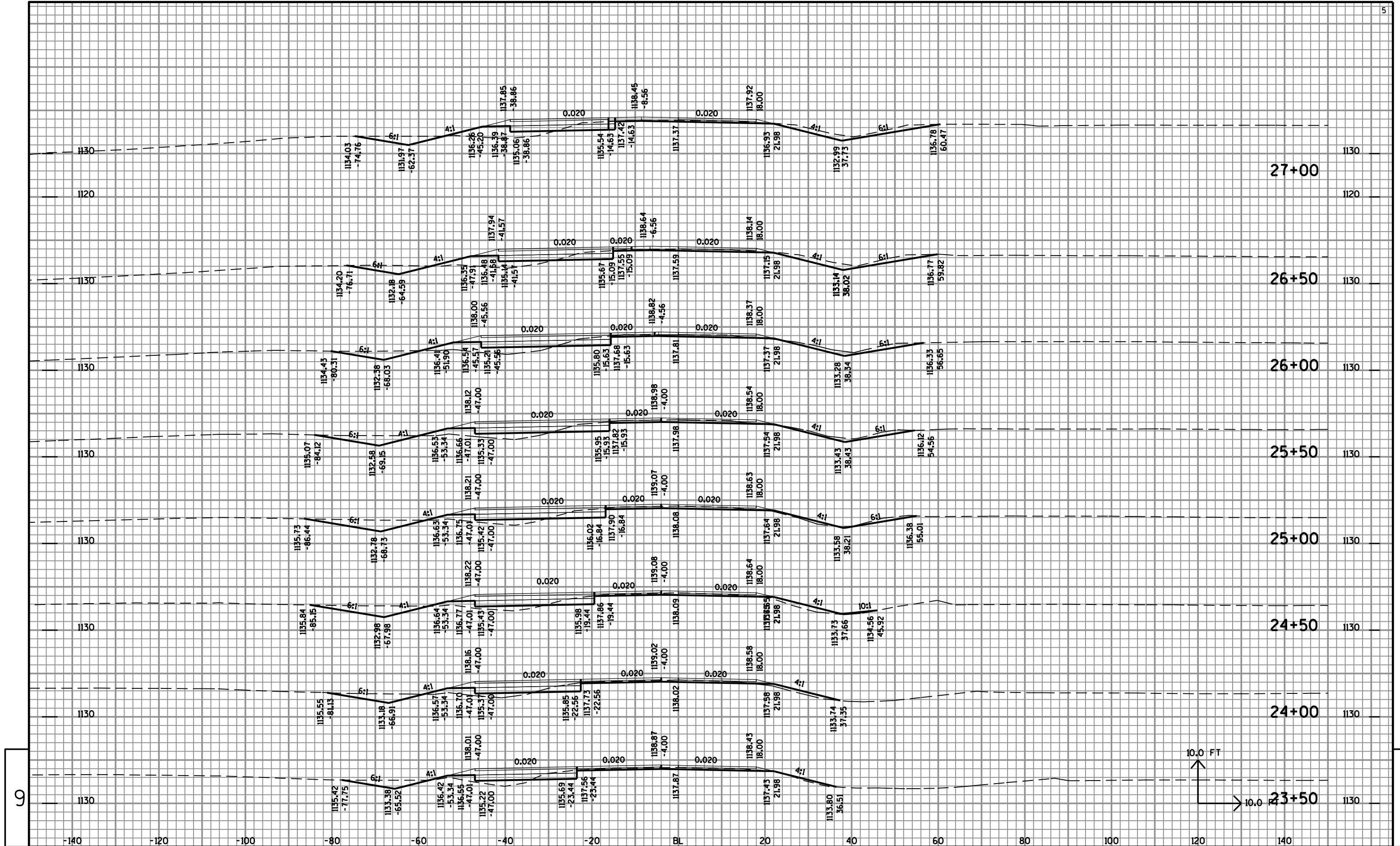
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PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS (USH 61)

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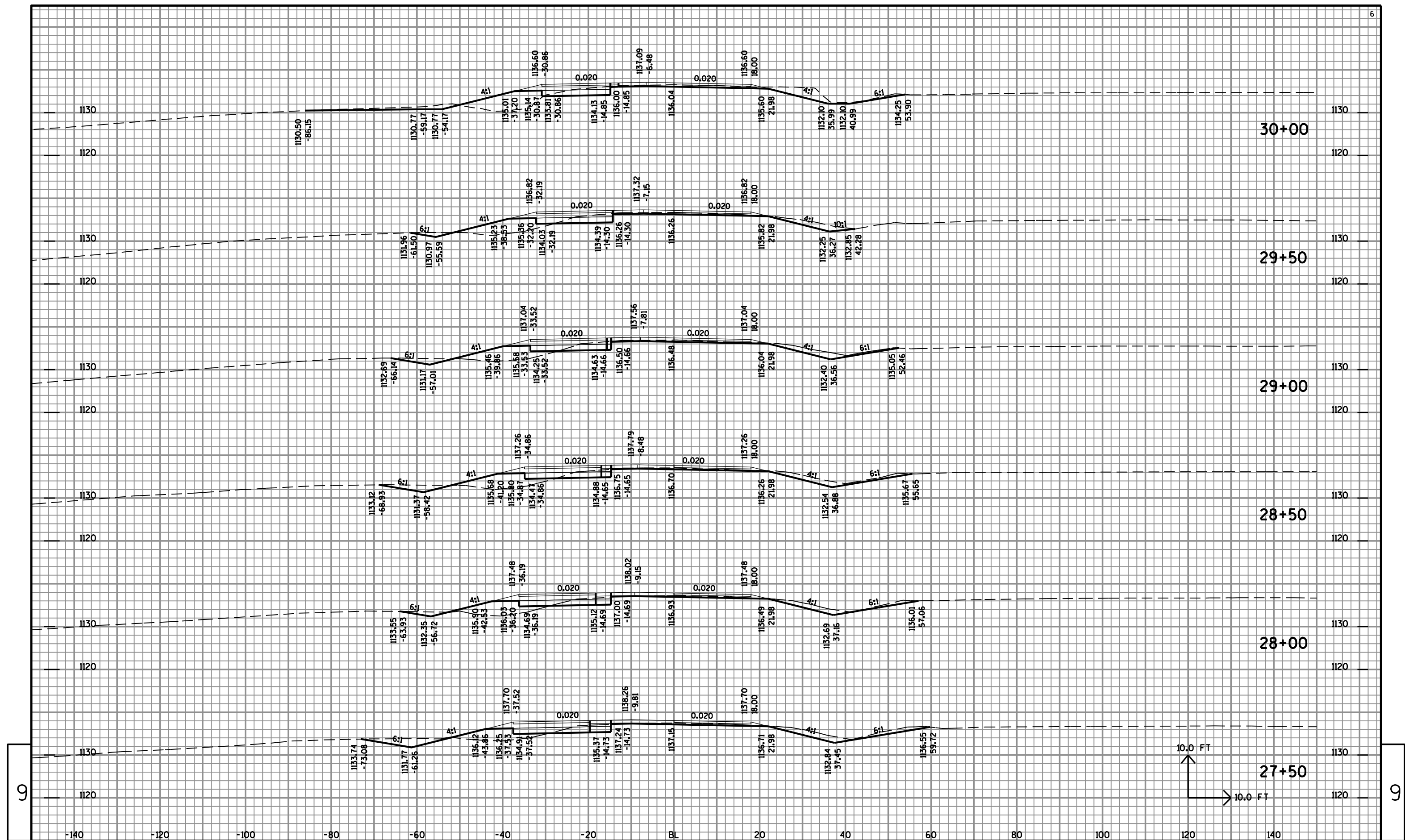
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PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS	(USH 61)
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SHEET NO:

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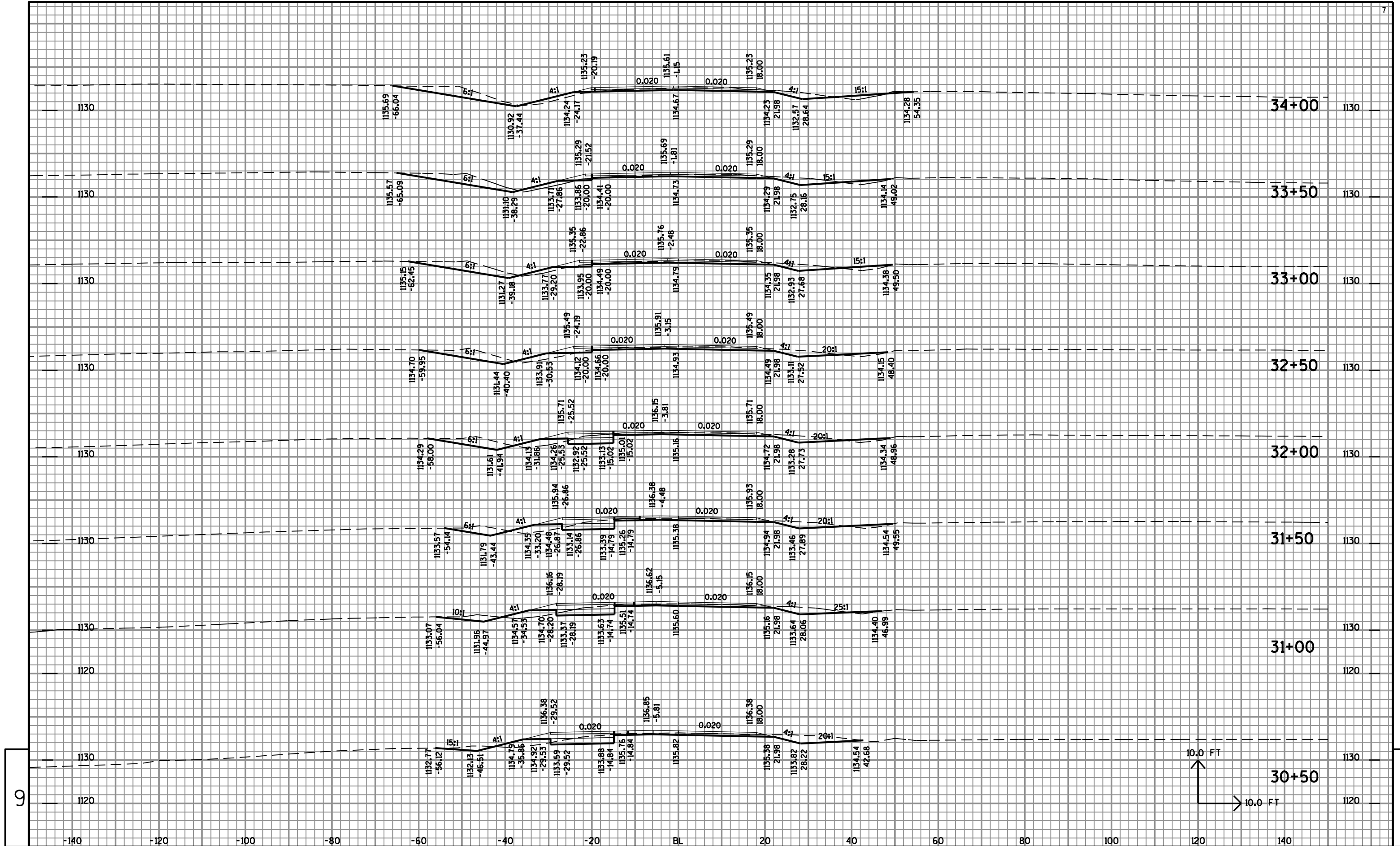
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PROJECT NO: 1650-01-79

HWY: USH 61

COUNTY: GRANT

CROSS SECTIONS (USH 61)

SHEET NO:

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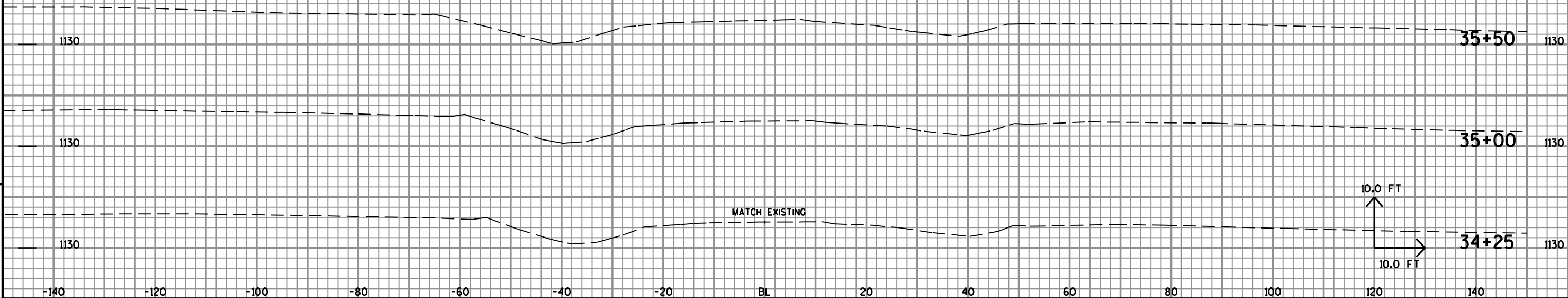
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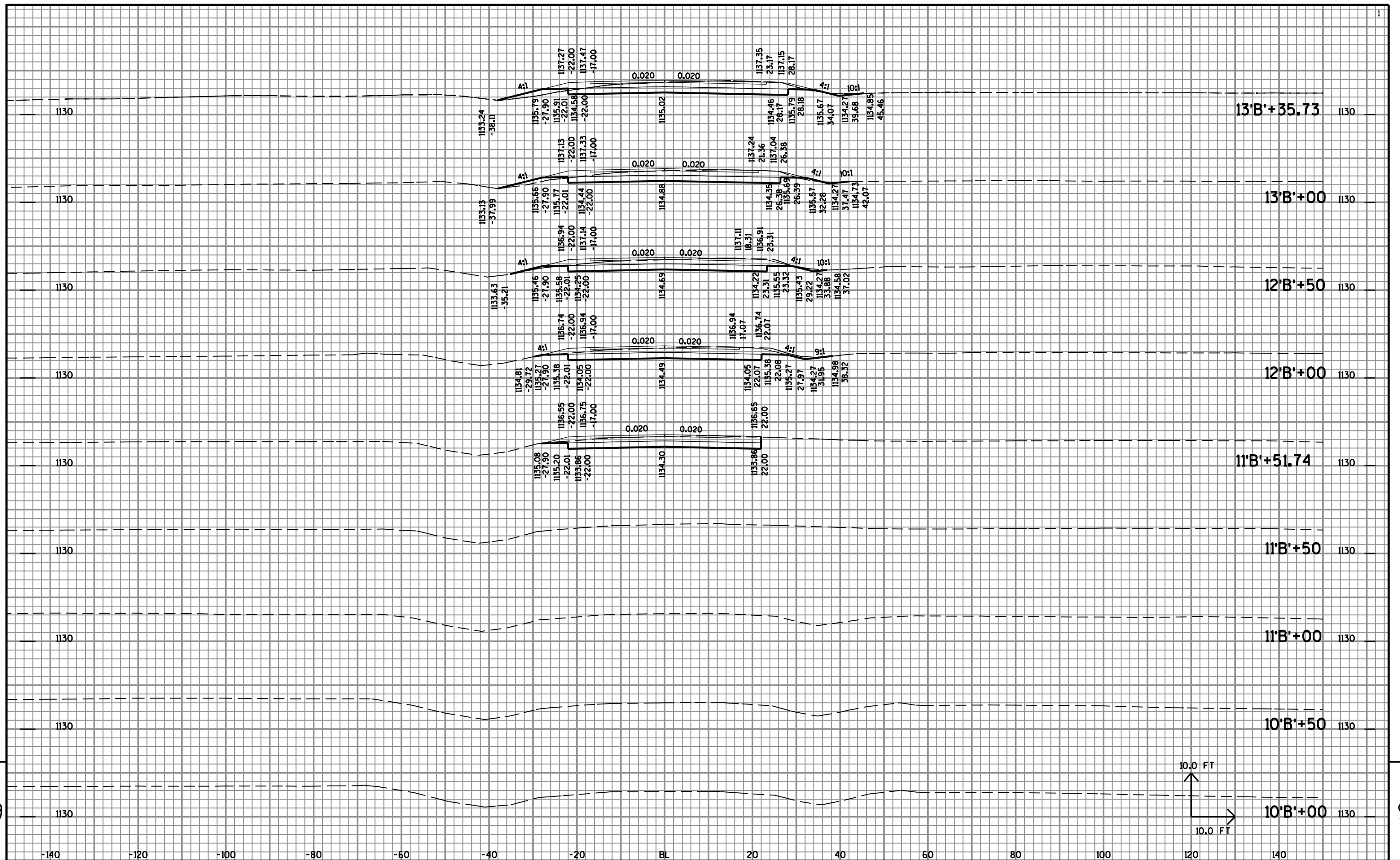
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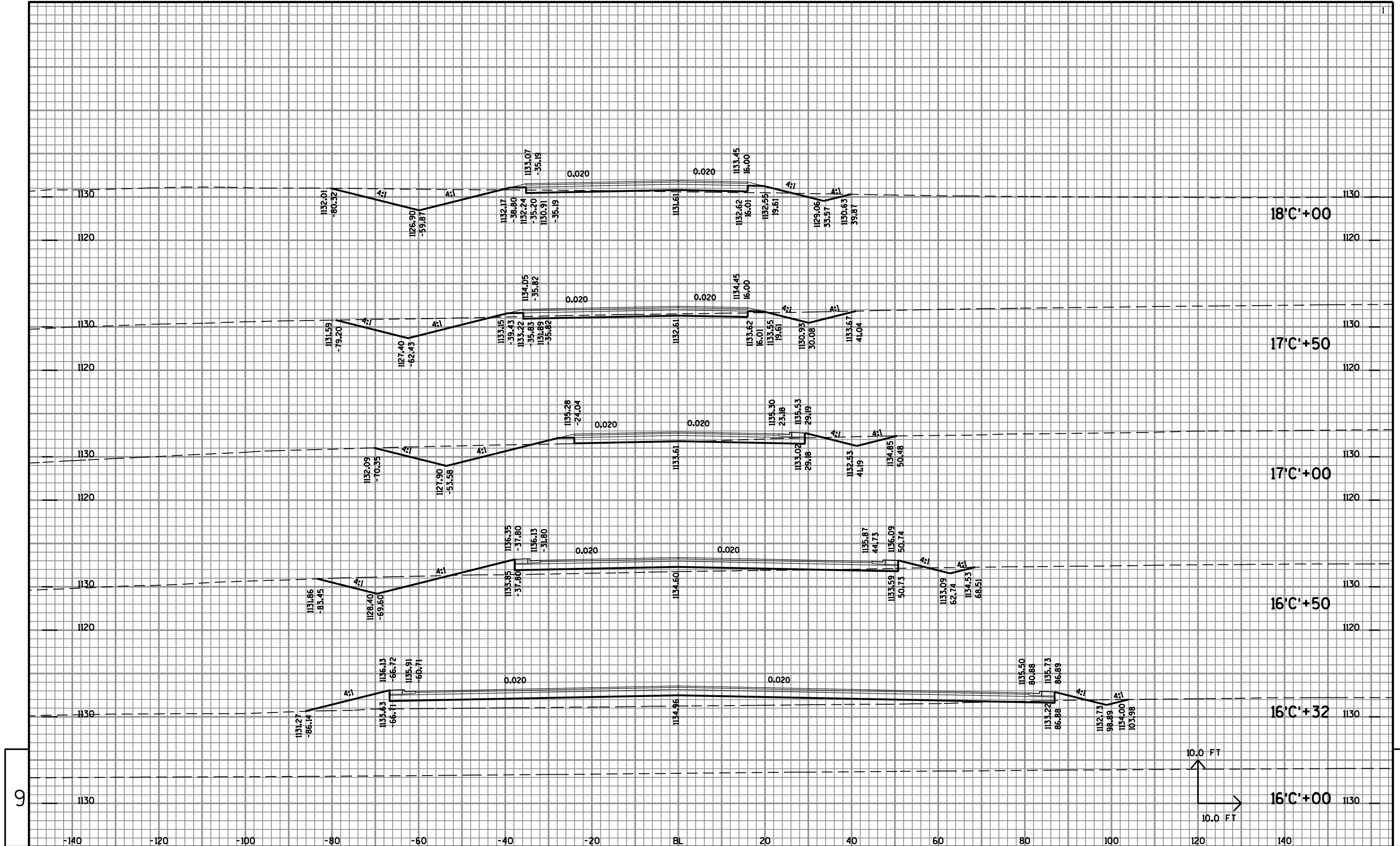
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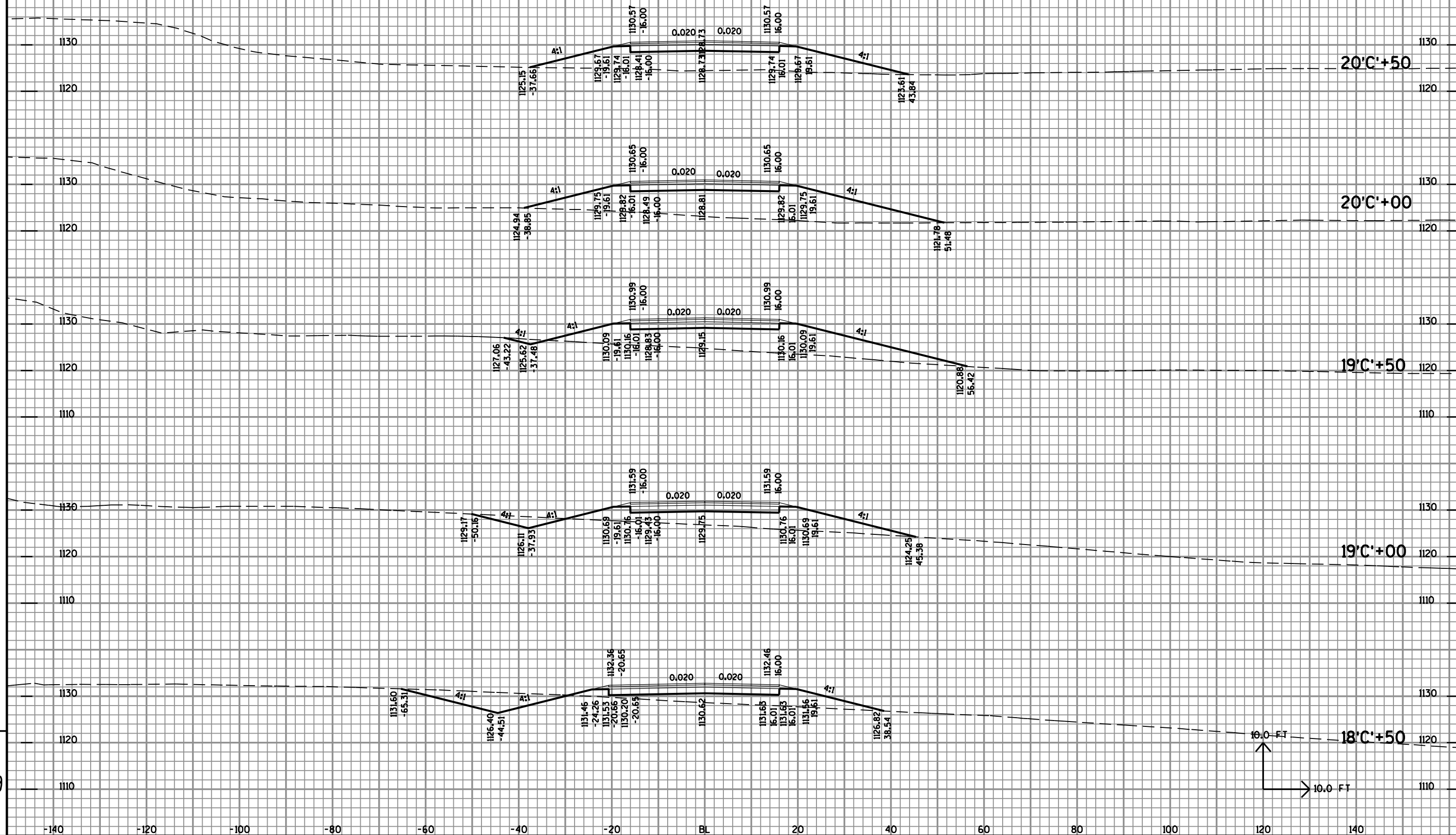


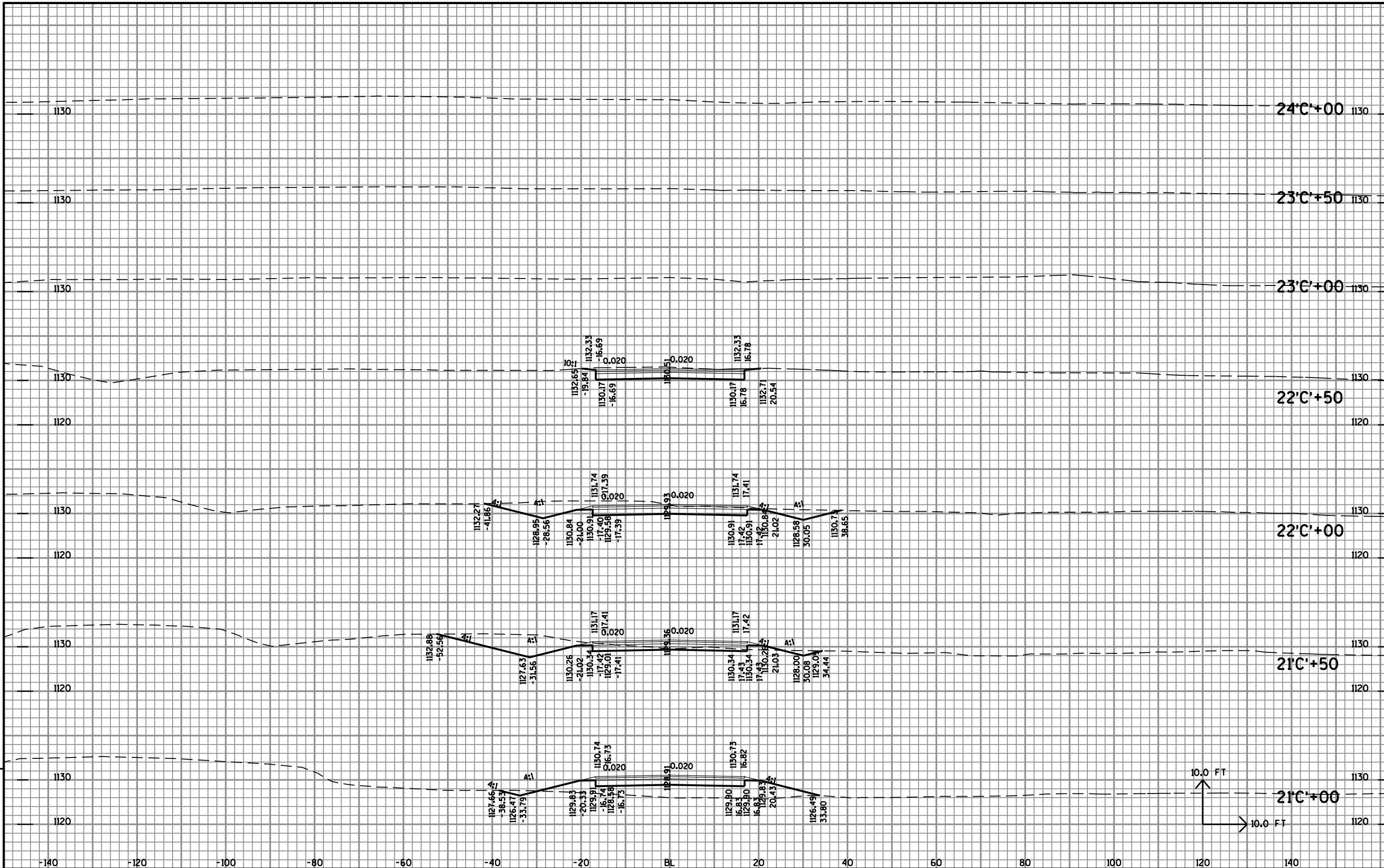


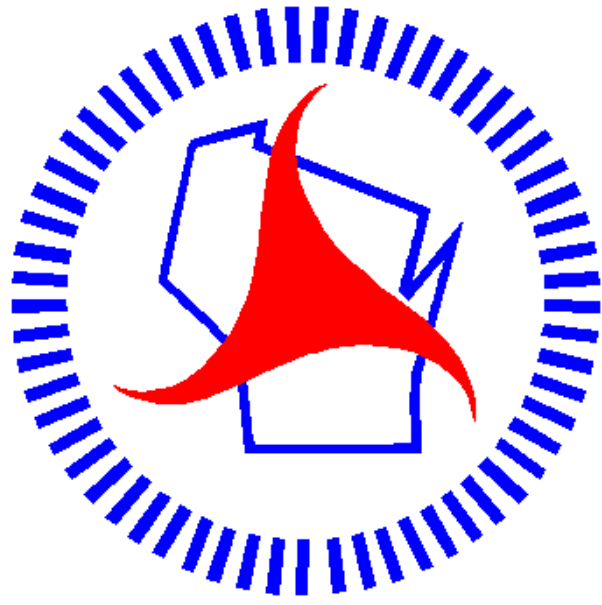


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Wisconsin Department of Transportation

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