

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
LANCASTER - BLOOMINGTON
STH 81 to STH 133
STH 35
GRANT COUNTY

STATE PROJECT NUMBER
5580-00-61

BEGIN PROJECT 5580-00-61
STATION 29+78.47

B-22-0058
STATION 64+83.5

END PROJECT 5580-00-61
STATION 447+61.12

LAYOUT
SCALE 0 1.0 MI.

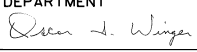
TOTAL NET LENGTH OF CENTERLINE = 7.9 MI.

Coordinates on this plan are referenced to an assumed coordinate system.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5580-00-61		

Prime Contractor: Iverson Construction Co.
Sub Contractors: The Kraemer Company, LLC.
Mattison Contractors, Inc.
Lunda Construction Co.
Century Fence Company
Central State Signing
Roshell Electric
Boscobel Excavating, Inc.
North Point Specialists, LLC

Project Leader: Tim Reichgelt
Construction Start: 08/02/2010
Construction End: 10/04/2010

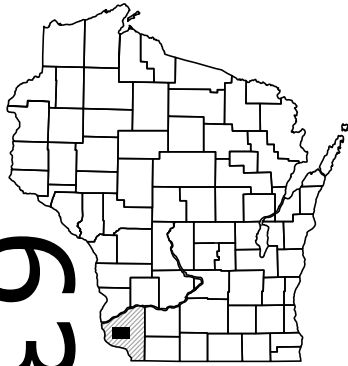
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	TIMOTHY FINCHER
Designer	TOM OLDENBURG
Project Manager	DANIEL KLEINERTZ
Regional Examiner	
Regional Supervisor	STEVE FLOTTMEYER
C.O. Examiner	JANE ENGLEBRETSSEN
APPROVED FOR THE DEPARTMENT	
DATE: 11-19-09	 (Signature)

E

ORDER OF SHEETS

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

TOTAL SHEETS = 100



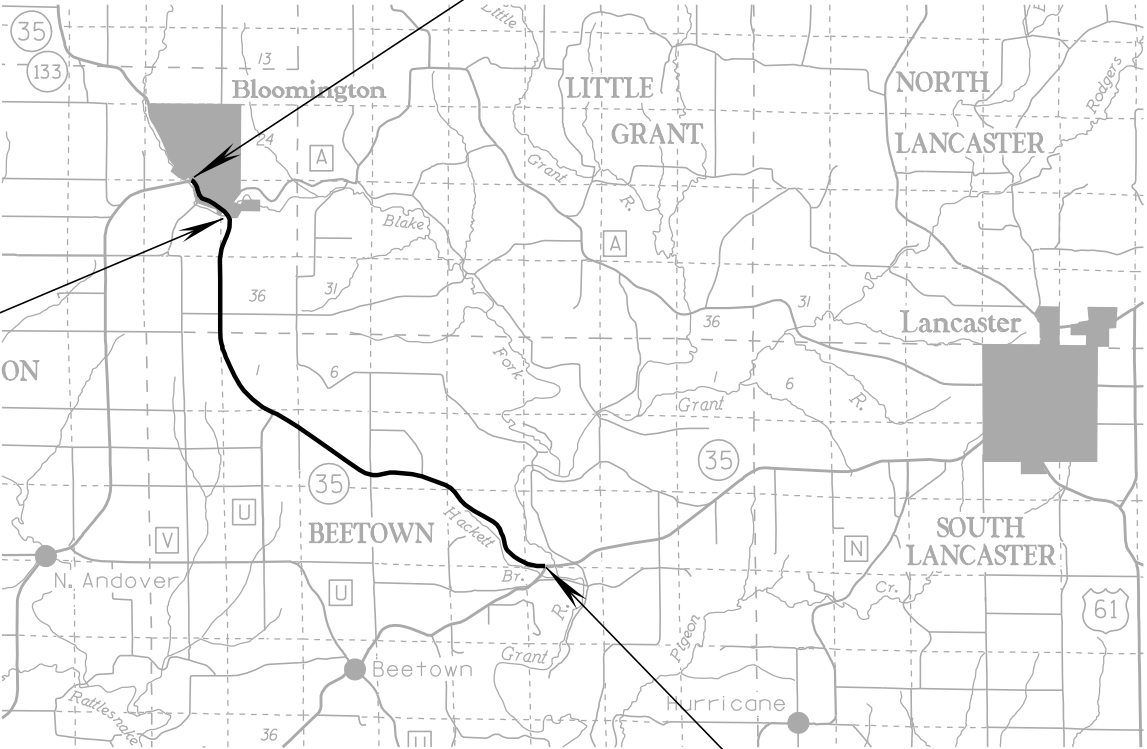
DESIGN DESIGNATION

A.A.D.T.	=	2275
A.A.D.T.	=	
D.H.V.	=	
D.D.	=	
T.	=	
DESIGN SPEED	=	60
ESALS	=	500,000

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



PROJECT ID: 5580-00-61

COUNTY: GRANT

63

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES AREA MEMBERS OF DIGGERS HOTLINE.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.

ENERGY ABOSORBING TERMINALS SHALL BE OFFSET A MINIMUM OF 2' TO FACE OF RAIL, SEE SDD.

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.

DISTURBED AREAS CAUSED BY THE CONTRACTORS OPERATIONS ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK ASSOCIATED WITH THE DISTURBANCE.

PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE. EXCEPTION TO THIS AT THE NW QUADRANT OF B-22-0058 WHERE BEAMGUARD POSTS SHALL BE INSTALLED PRIOR TO SURFACE DRAIN INSTALLATION.

PRIOR TO PLACING NEW SHOULDER MATERIAL ON EXISTING SHOULDERS, THE EXISTING SHOULDERS SHALL BE SHAPED AND COMPACTED TO PROVIDE THE MINIMUM DEPTHS SHOWN IN THE TYPICALS OF NEW SHOULDER MATERIAL ADJACENT TO THE SURFACE OF THE NEW PAVEMENT. MATERIAL EXCAVATED FOR THIS PURPOSE SHALL BE DEPOSITED ON THE OUTER PORTION OF THE EXISTING SHOULDER OR AS DIRECTED BY THE ENGINEER. THE NECESSARY LENGTHS AND DEPTHS AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE BID ITEM OF SHAPING SHOULDERS.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES AS NEEDED.

WHEN THE QUANTITIES OF HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OF THICKNESS OF THE MATERIAL THAT IS SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL.

THE RATE OF APPLICATION FOR TACK COAT IS COMPUTED AT 0.025 GAL/SY.

HMA PAVEMENT, TYPE E-1, SHALL BE CONSTRUCTED WITH A 2-INCH LIFT.

TRAFFIC CONTROL DRUMS SHALL BE PLACED AT 25' SPACING AT LOCATIONS OF NEW STEEL PLATE BEAM GUARD AND ALL OTHER AREAS AS DIRECTED BY THE ENGINEER

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
D	CENTRAL ANGLE OR DELTA	V.P.I.	VERTICAL POINT OF INTERSECTION
C.M.C.P.	CORRUGATED METAL CULVERT 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
C.A.B.C.	CRUSHED AGGREGATE BASE COURSE	R/L	REFERENCE LINE
C.Y.	CUBIC YARD	R.C.C.P.	REINFORCED CONCRETE CULVERT 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

DNR Liaison

Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
La Crosse, WI 54601
ATTN: Ronald Grasshoff
PHONE: 608-275-3485

UTILITY COMPANIES & PERSONNEL

Jason Hogan
Alliant Energy - Electricity
4902 N Biltmore Lane
P.O. Box 77007
Madison, WI 53707-1007
(608) 458-4871

Matt Brown
Charter Communications - Communication Line
2701 Daniels St
Madison, WI 53718
(608) 274-3822

Ken Klaas
TDS Telecom - Communication Line
140 N Monroe St
P.O. Box 467
Lancaster, WI 53813
(608) 723-3633

Dan Sande
We Energies - Gas/Petroleum
333 W Everett St, A279
Milwaukee, WI 53203
(414) 221-4578

Glen Haven Sanitary District - Sewer

Mike Olsen
ATC Magagement, Inc. - Electricity
801 O'keefe Rd.
P.O. Box 6113
DePere, WI 54115-6113
(608) 388-6582

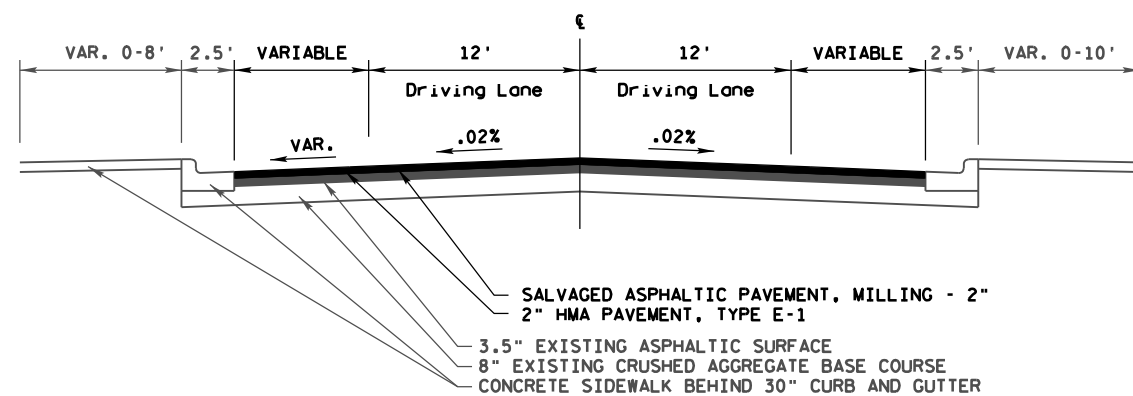
Daniel Stelpflug
Scenic Rivers Energy Cooperative - Electricity
231 N Sheridan St
Lancaster, WI 53813-1342
(608) 723-2121

Rick Udelhofen
Village of Bloomington - Water
210 Union St
P.O. Box 156
Bloomington, WI 53804
(608) 994-2401

Farmers Telephone Company LLC - Communication Line
P.O. Box 5158
Madison, WI 53705-0158

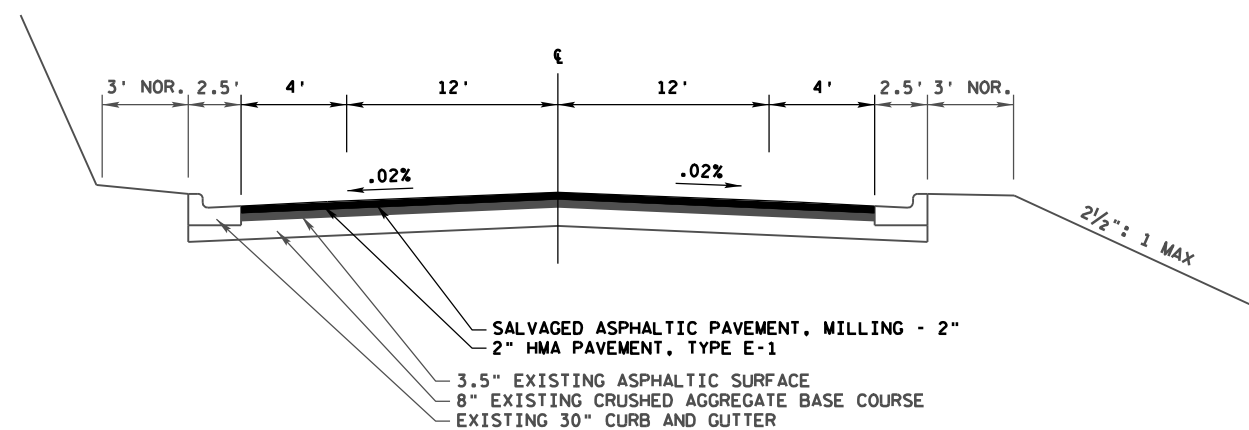


Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



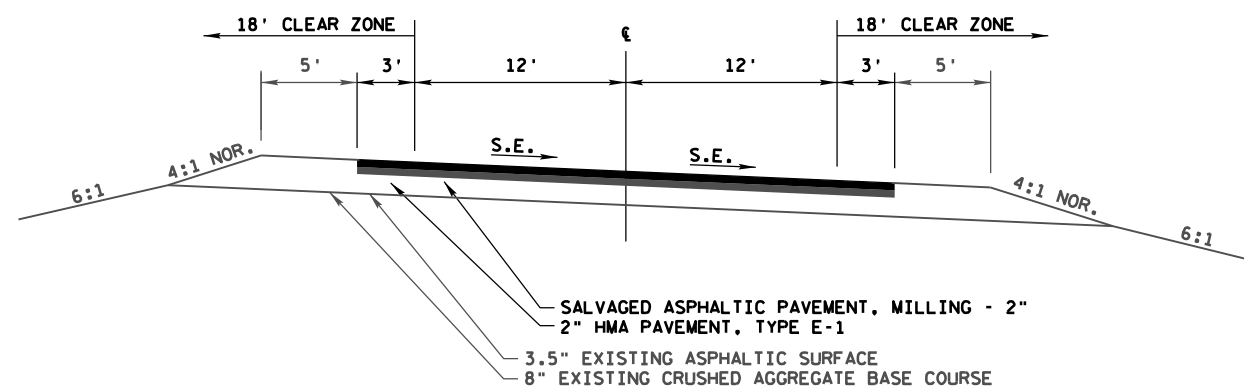
TYPICAL SECTION

STATION: 41+00 - 54+06
VILLAGE OF BLOOMINGTON



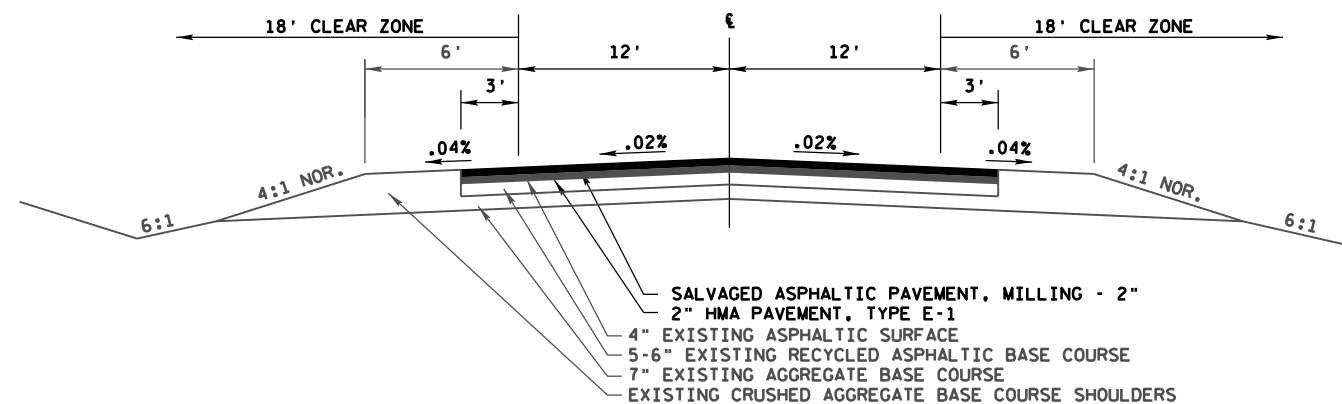
TYPICAL SECTION

STATION: 54+06 - 61+25
NOTE: NO C&G FROM STA. 60+65 - 61+35, RT.



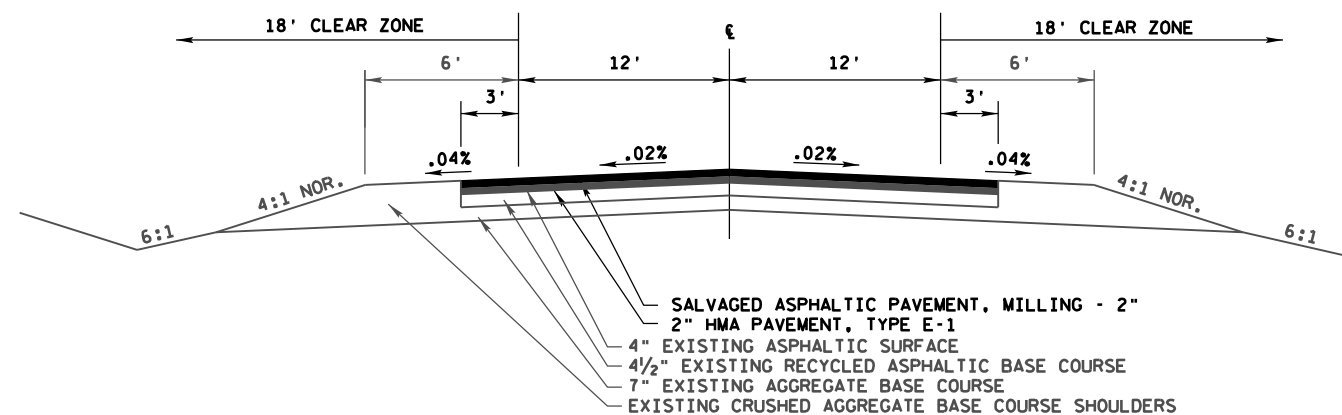
TYPICAL SECTION

STATION: 61+35 - 78+15
NOTE: STA. 63+62 - 67+66, PAVED FULL SHOULDER
EXCEPTION TO NET C/L LENGTH, 64+83.5 - 66+33.5
(B-22-58)



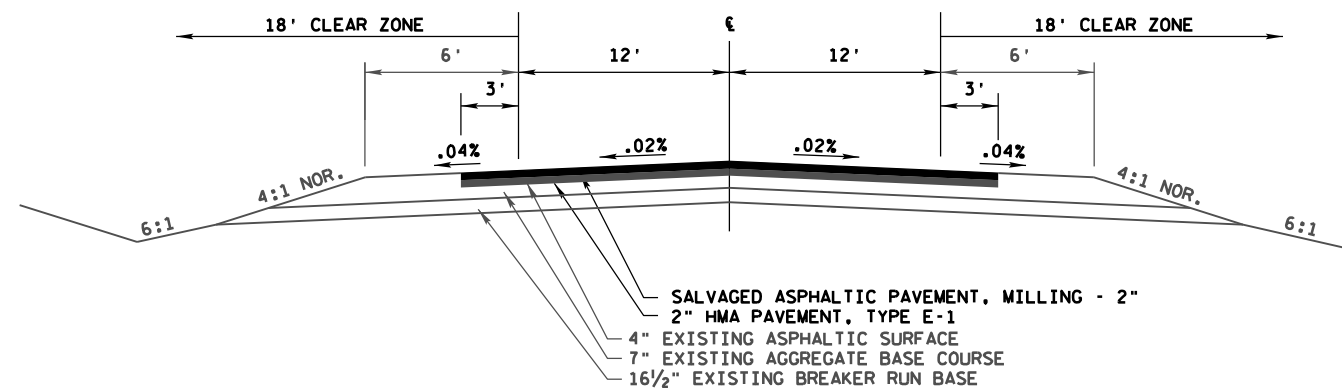
TYPICAL SECTION

STATION: 78+12 - 225+96
428+71 - 453+11



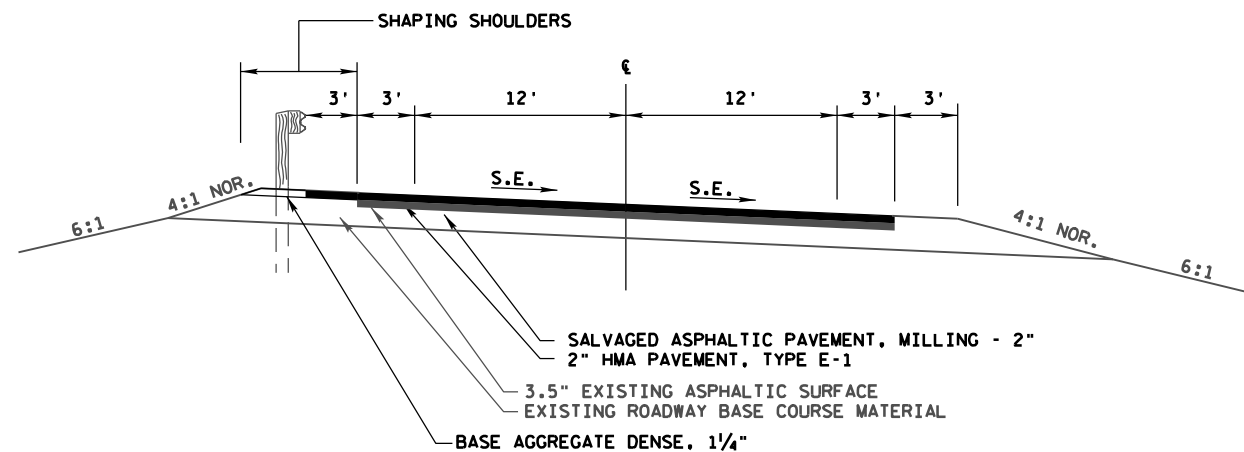
TYPICAL SECTION

STATION: 95+65 - 106+57
133+48 - 144+17

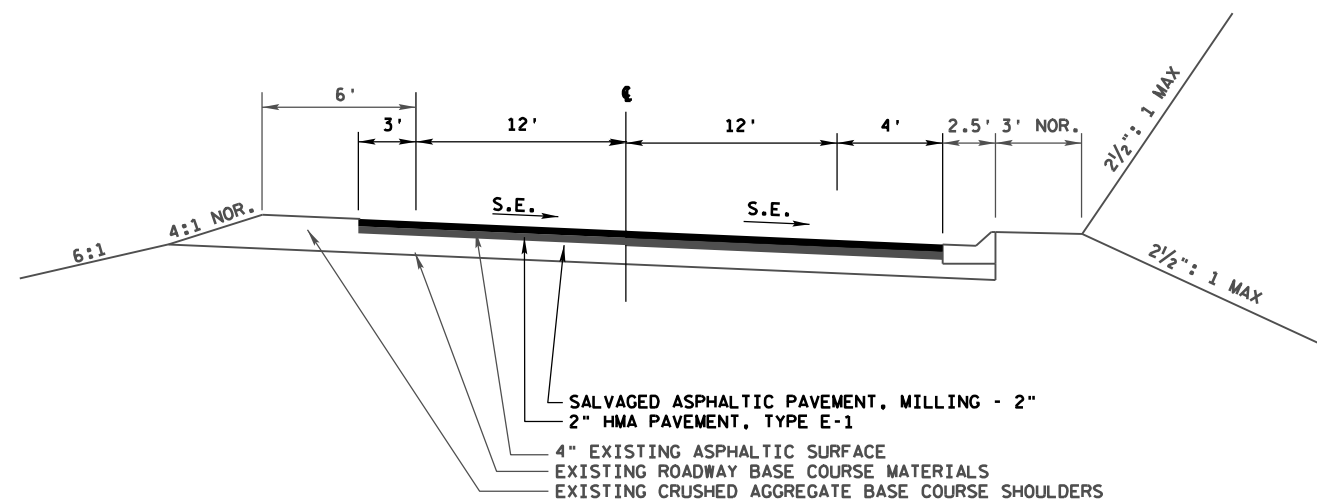


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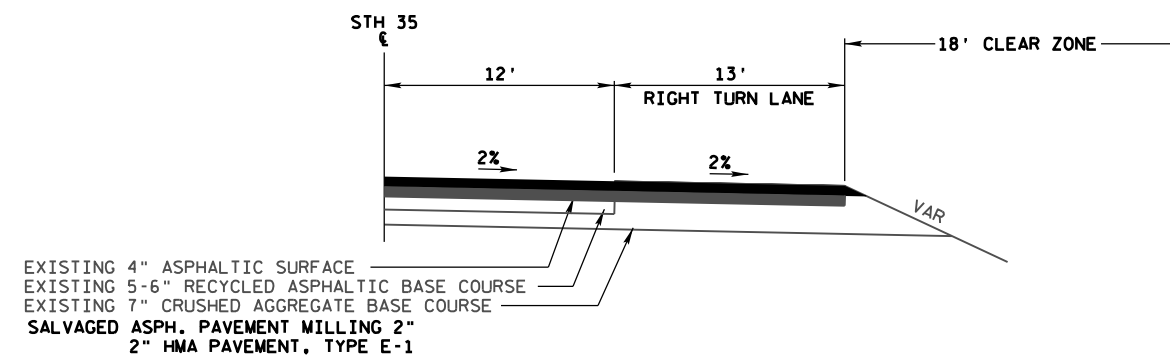
STATION: 162+65 - 174+65



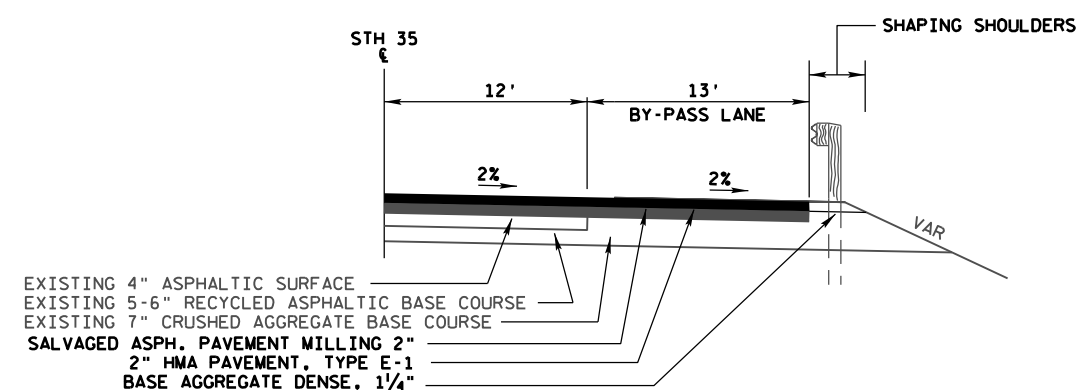
TYPICAL SECTION



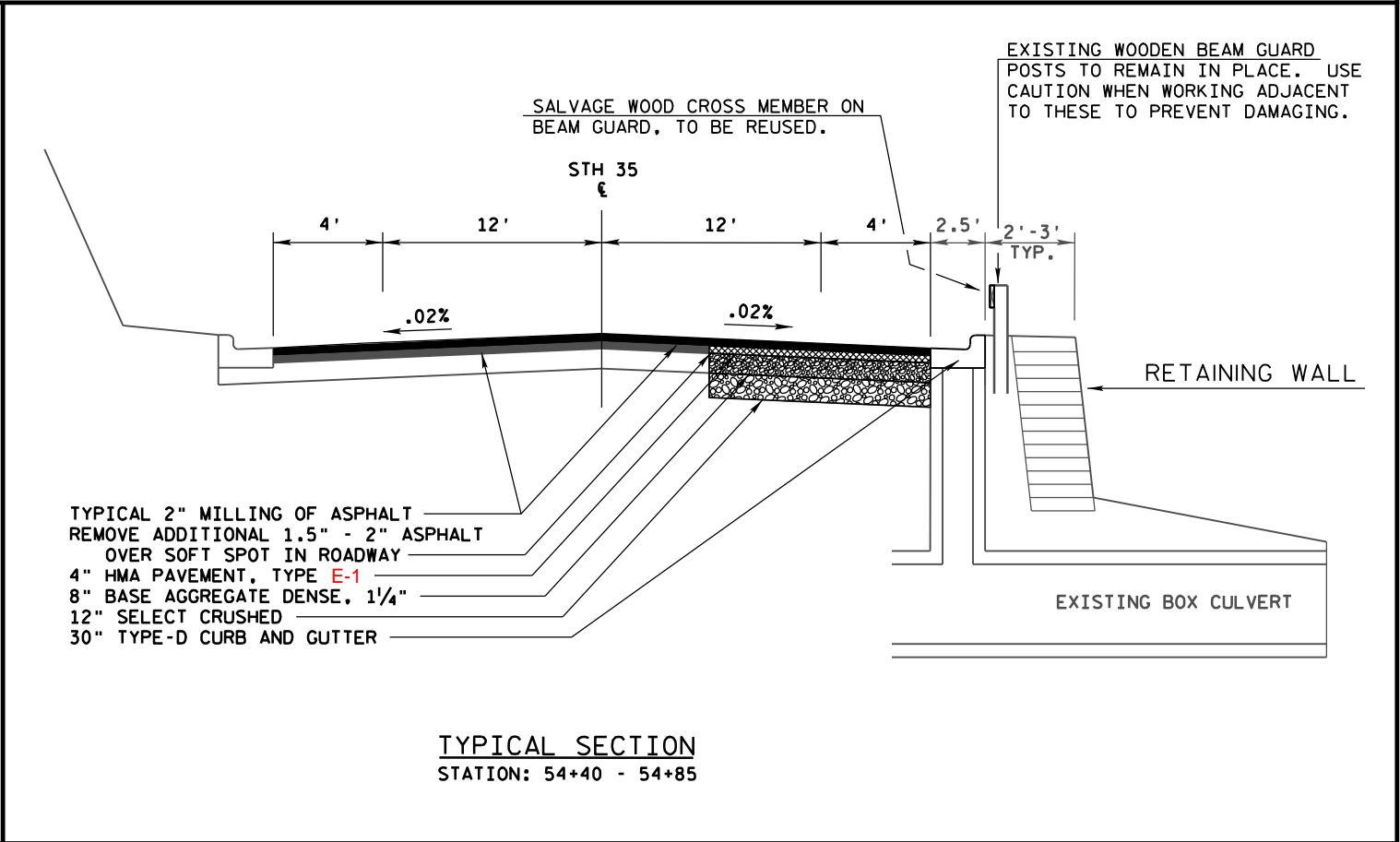
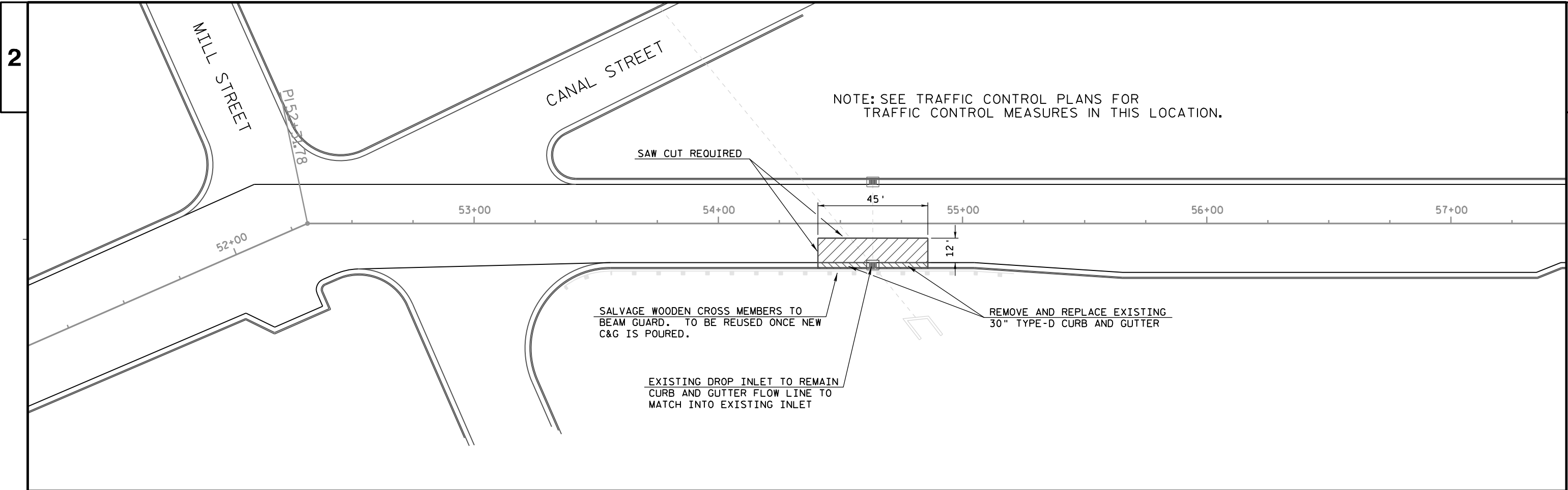
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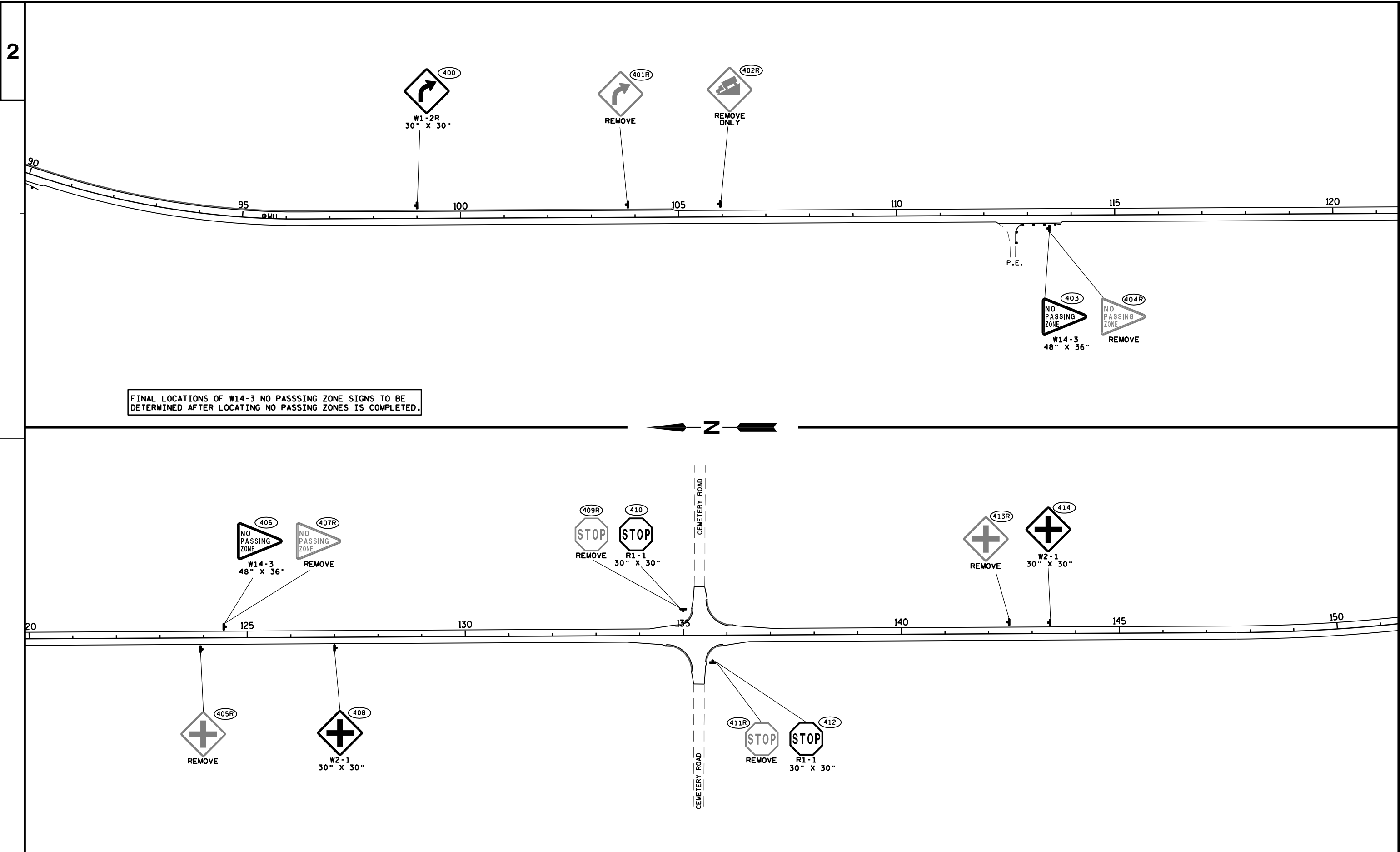


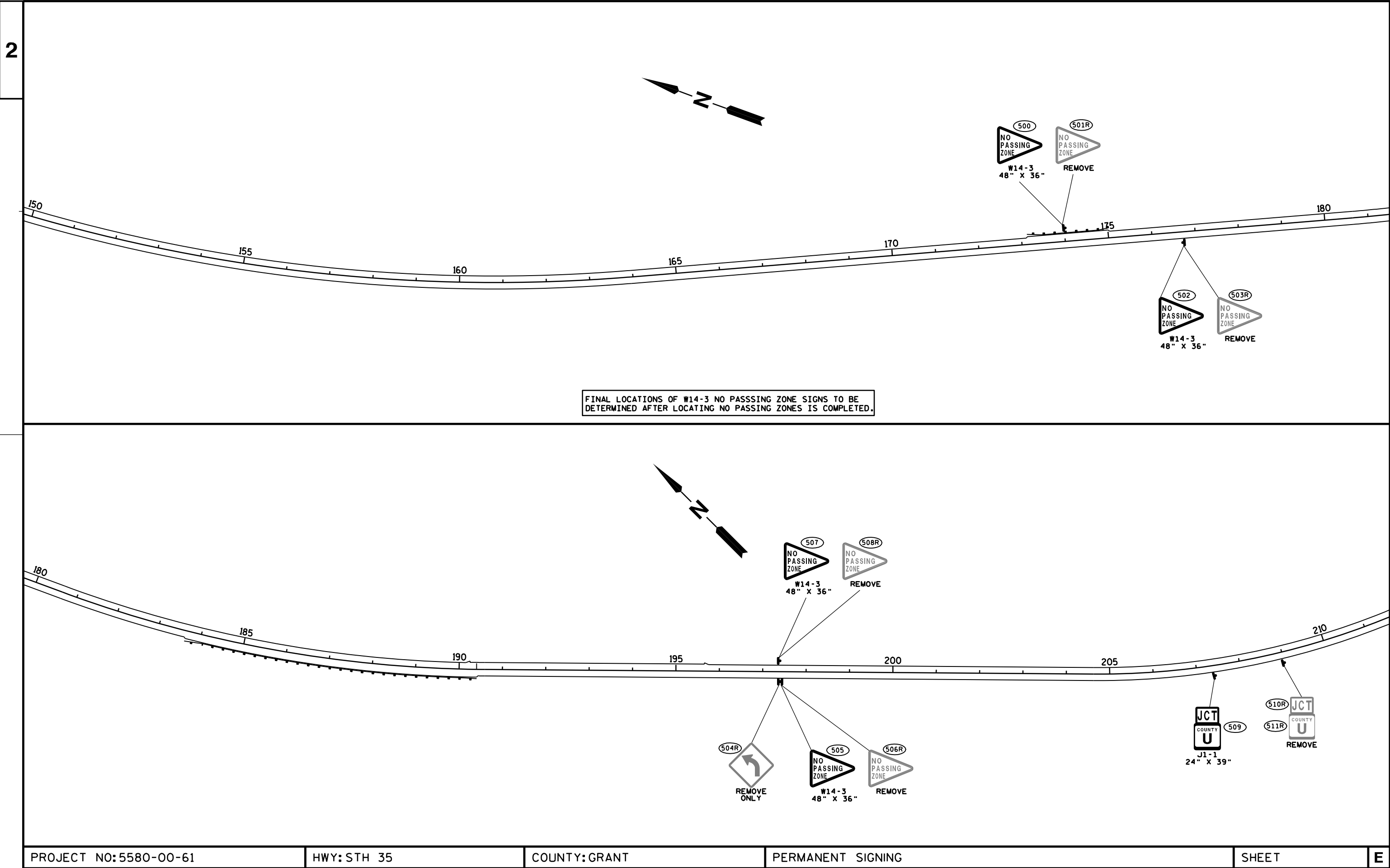
RIGHT TURN LANE TYPICAL HALF SECTION

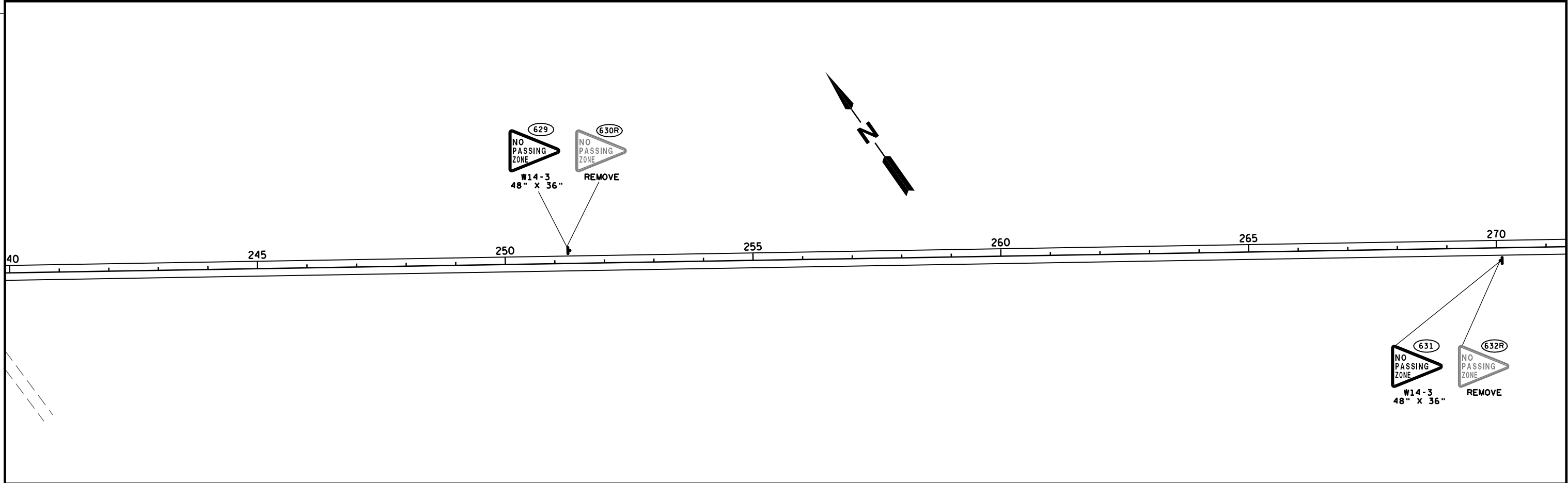
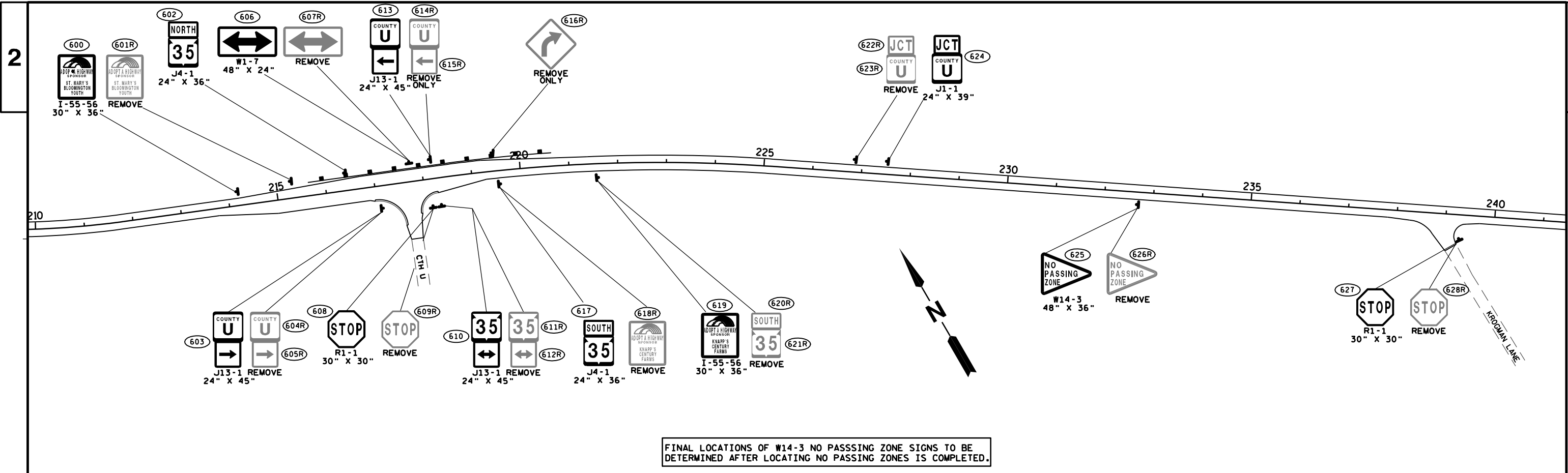


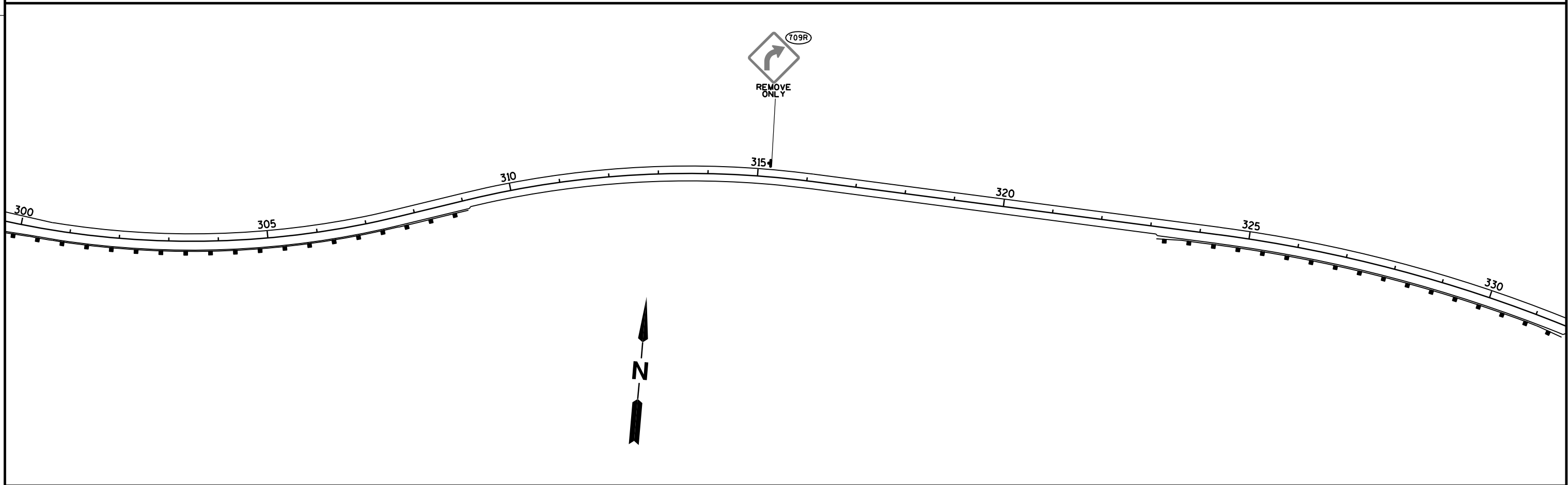
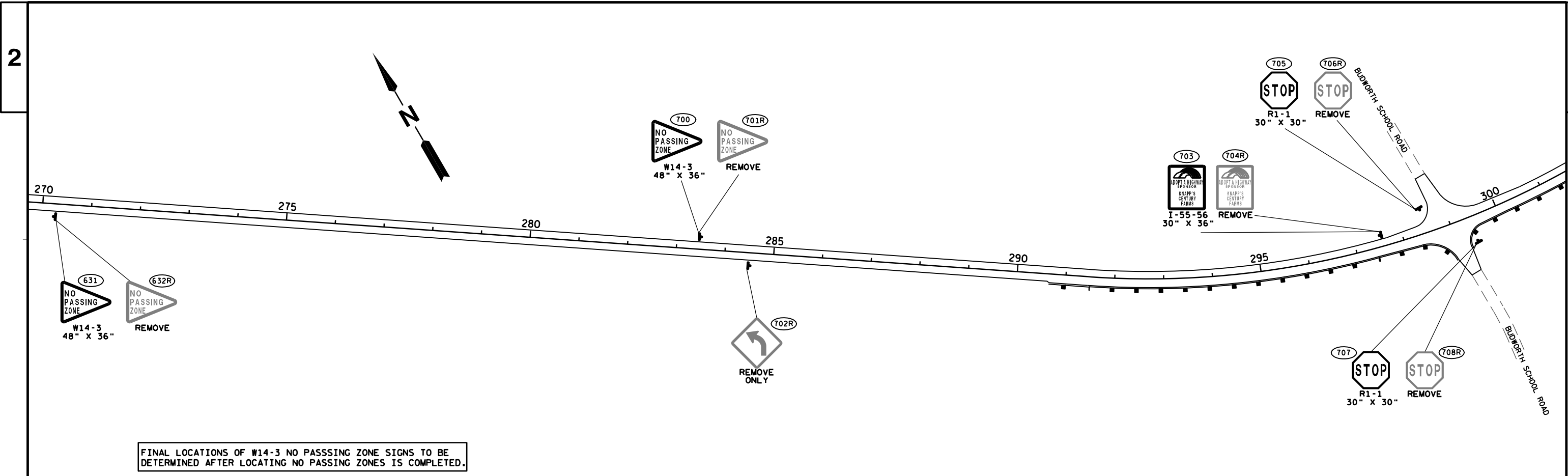
BYPASS LANE TYPICAL HALF SECTION

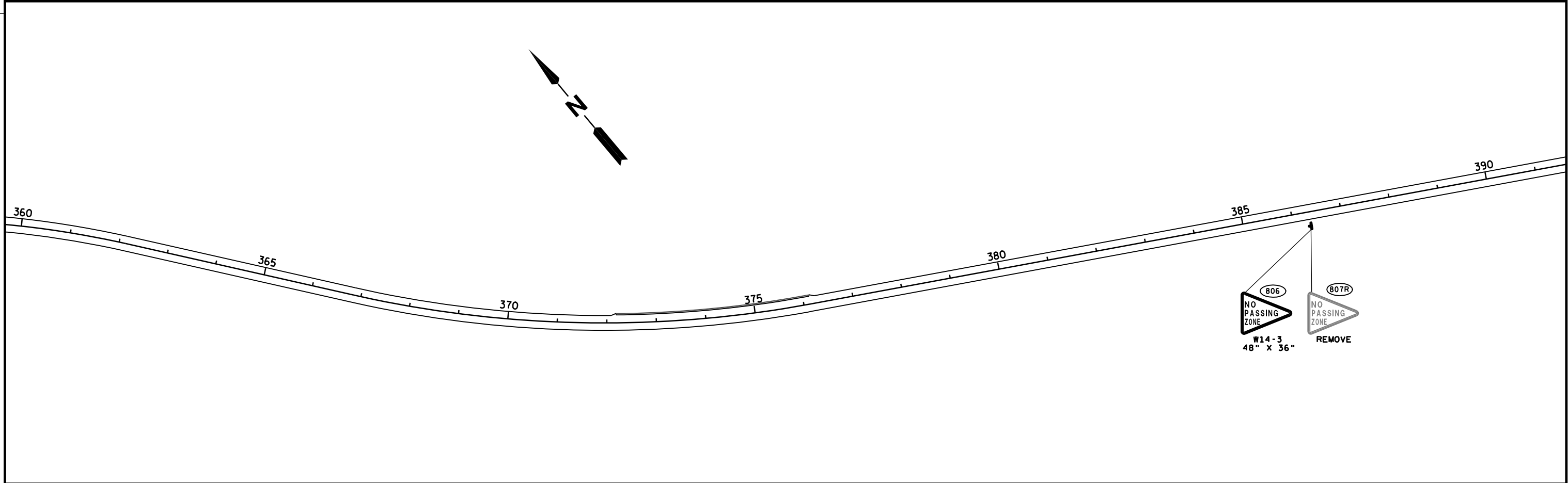
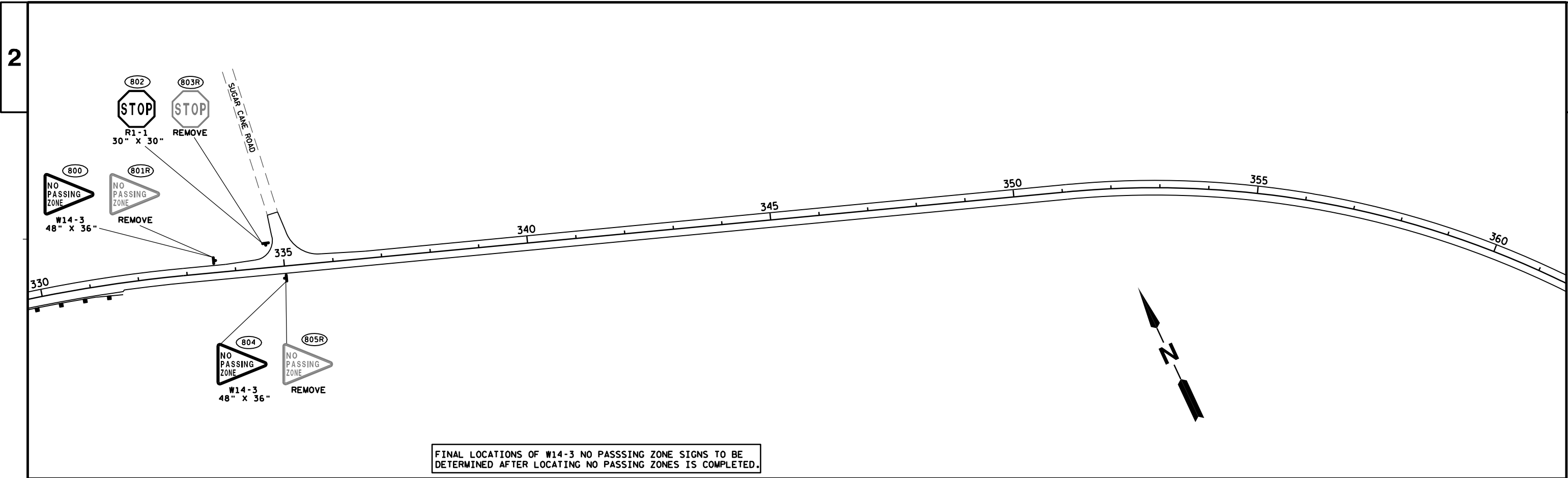


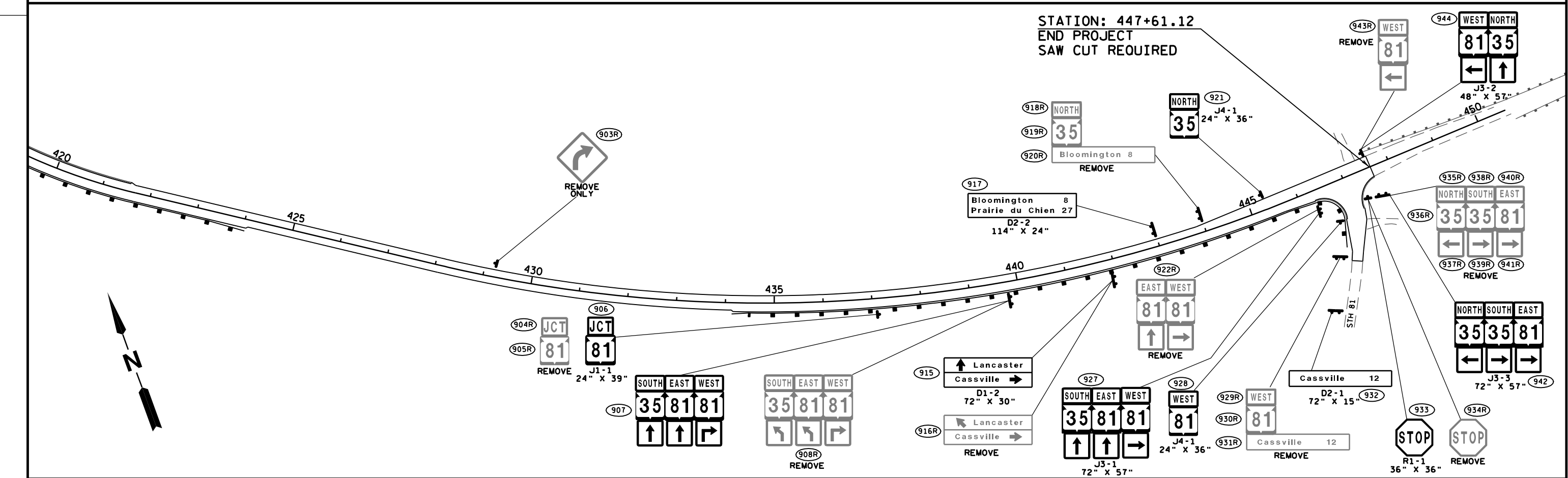
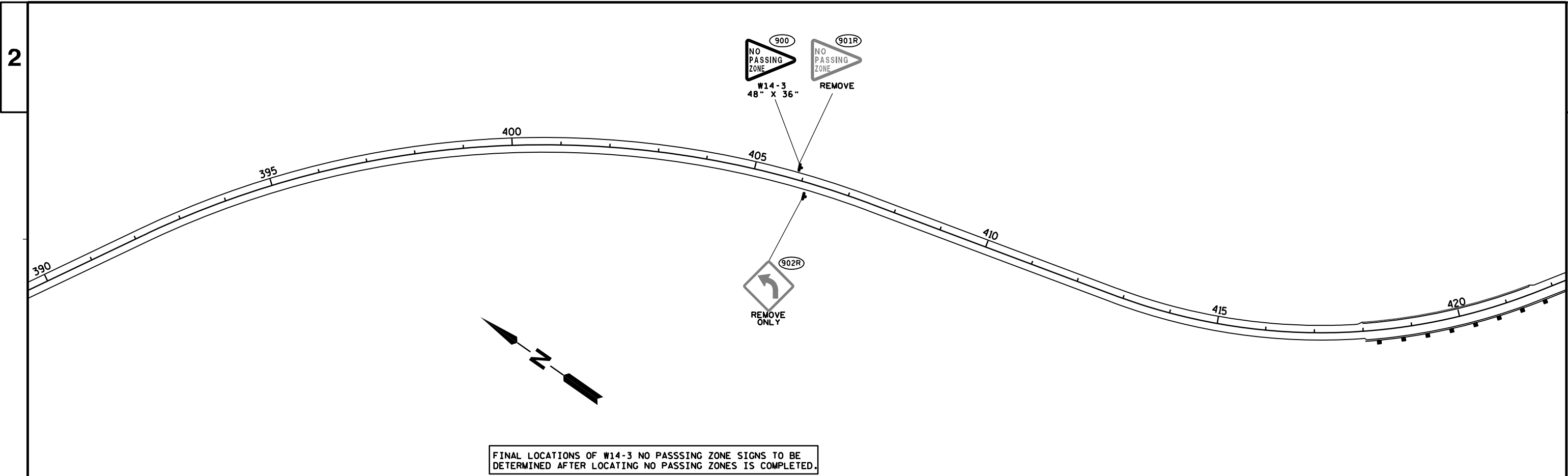


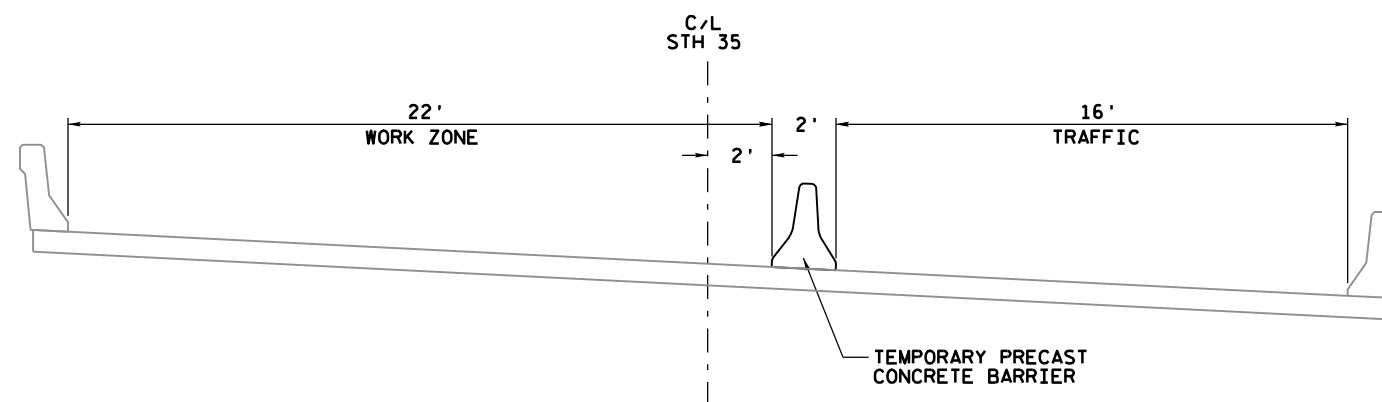




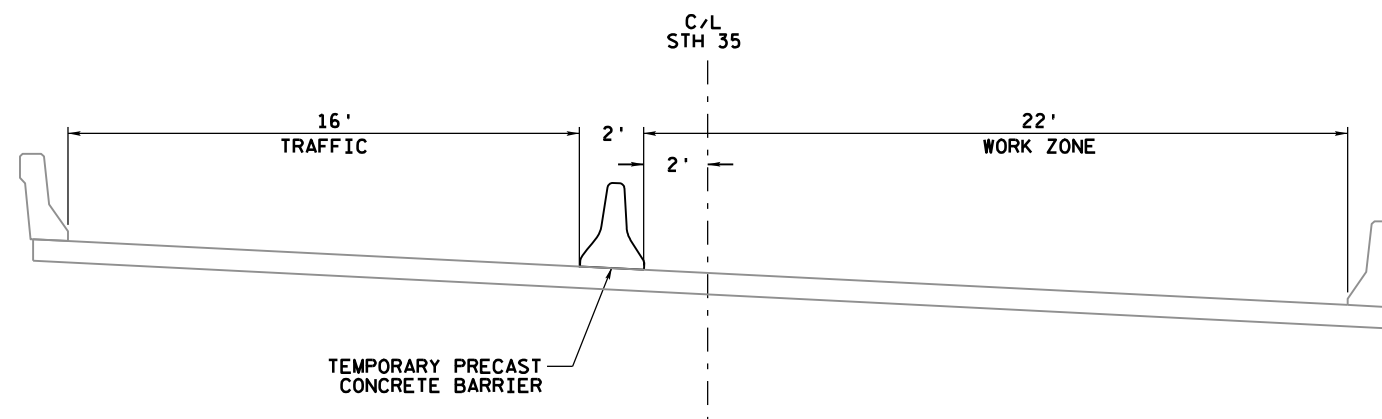




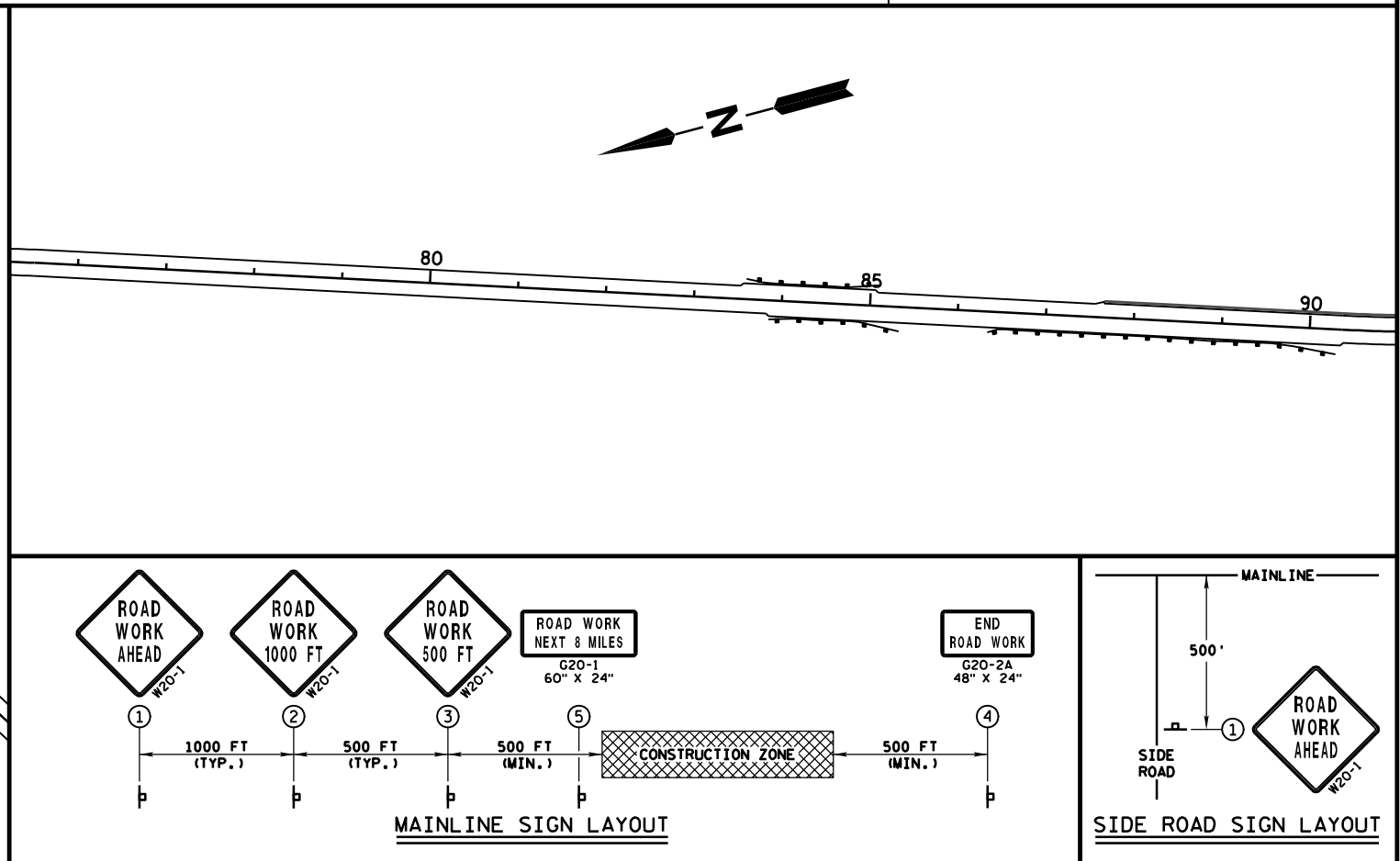
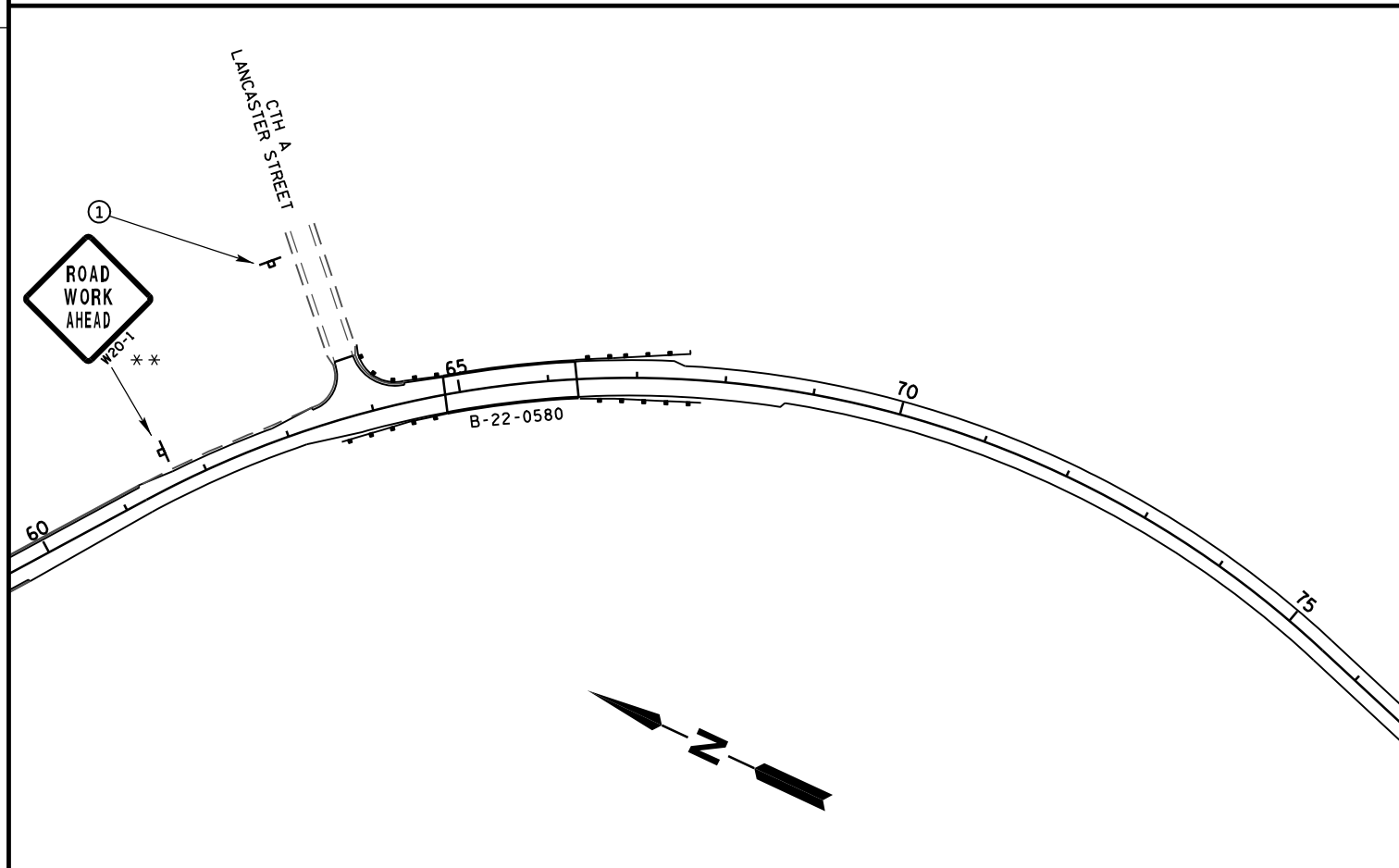
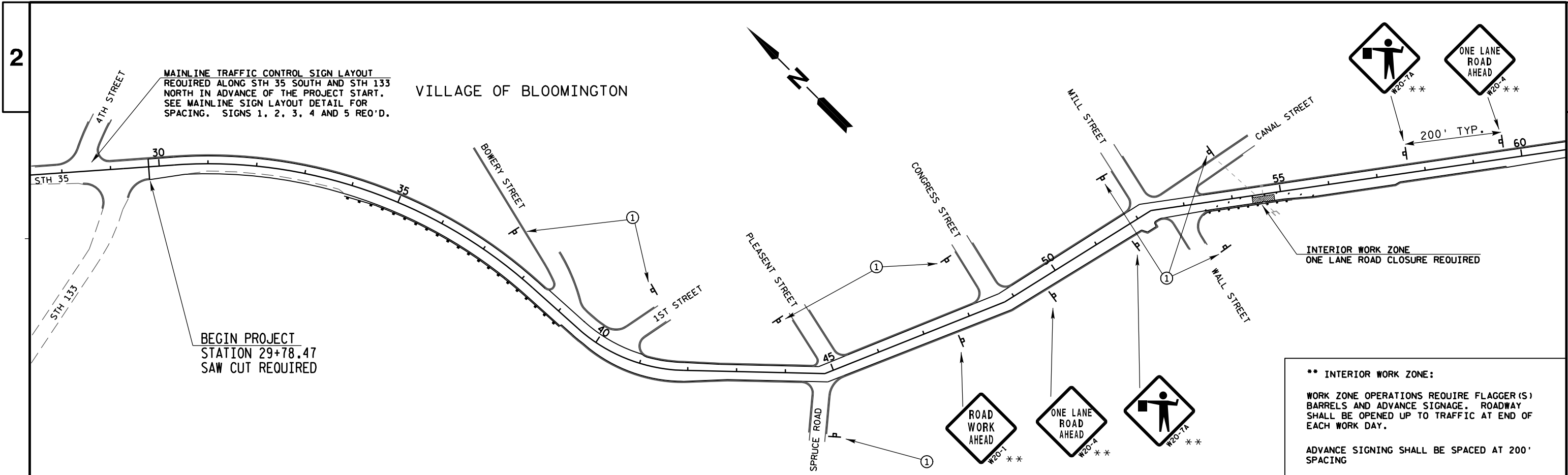


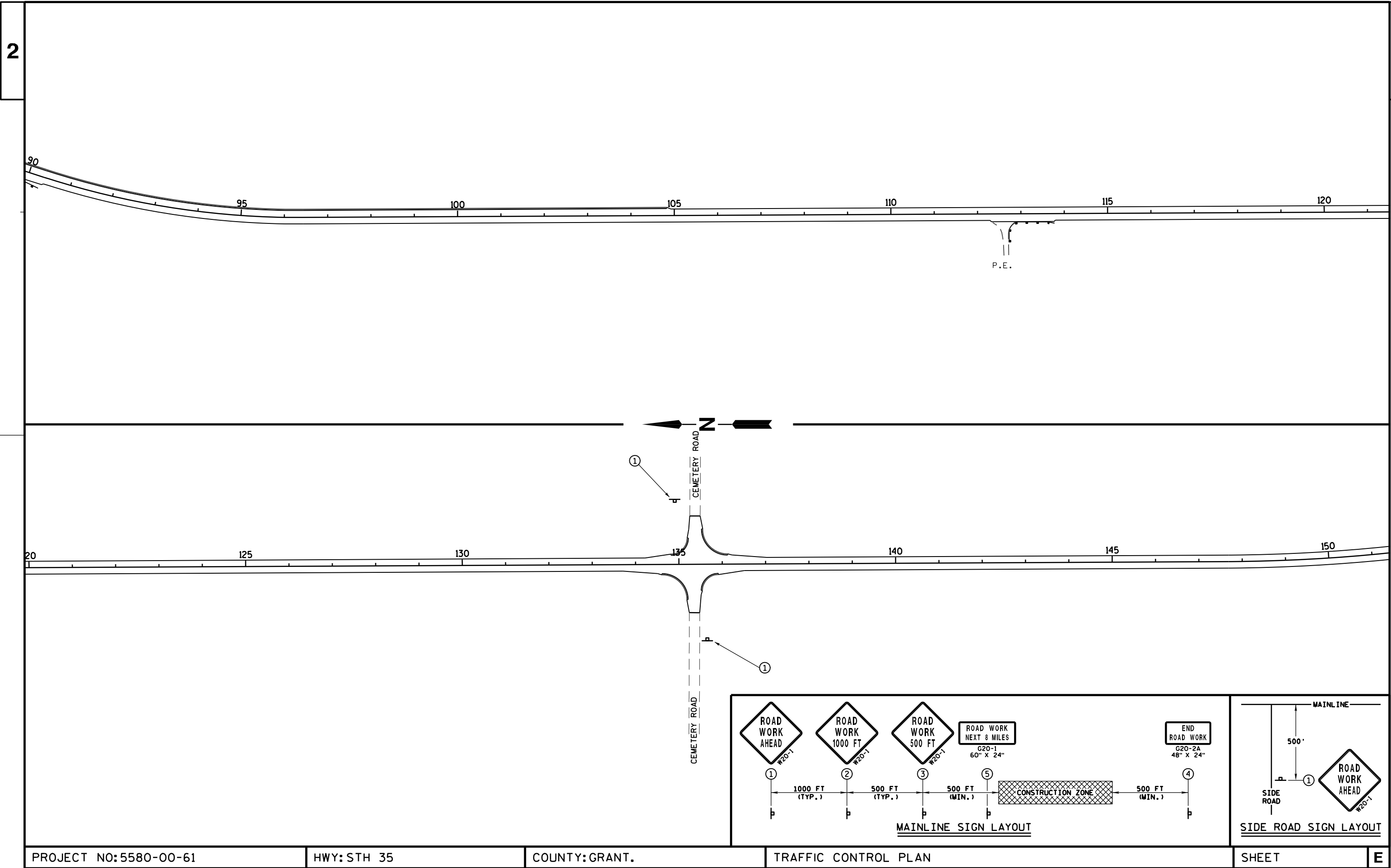


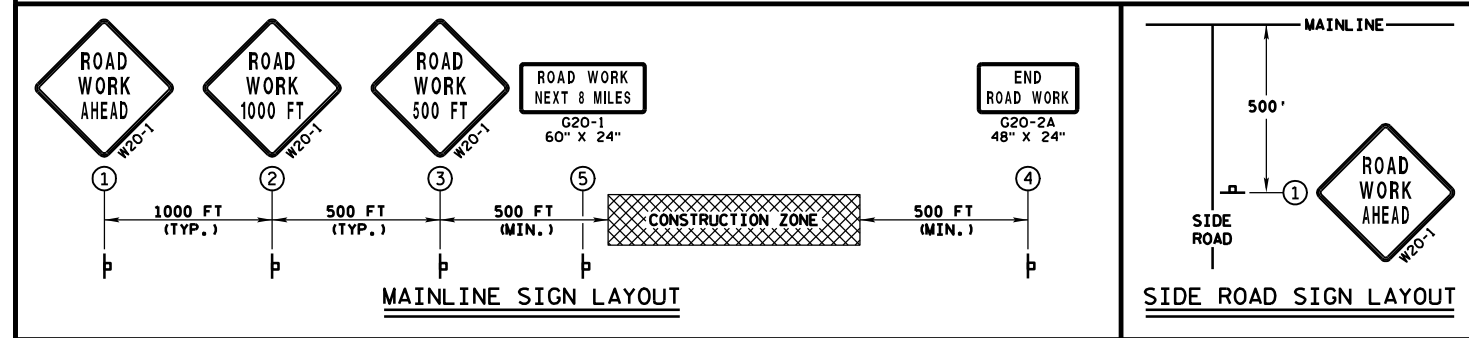
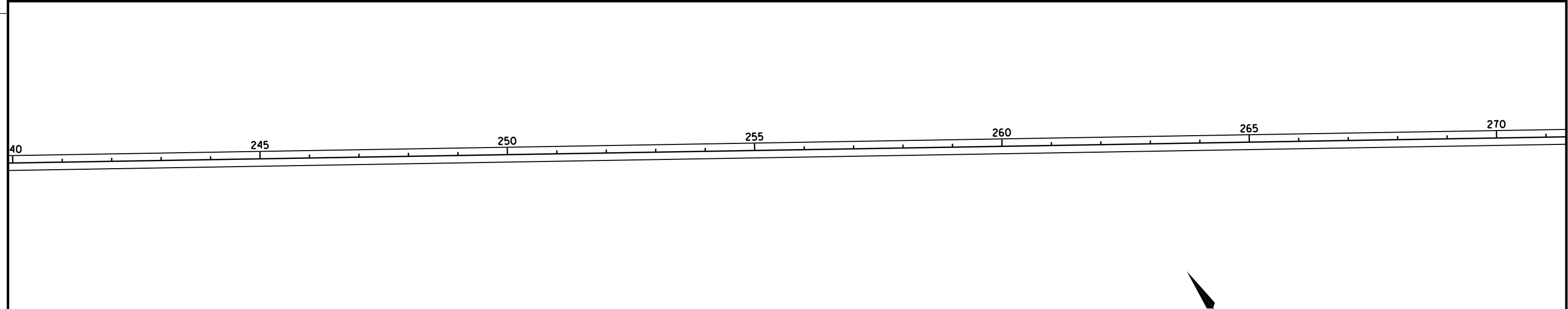
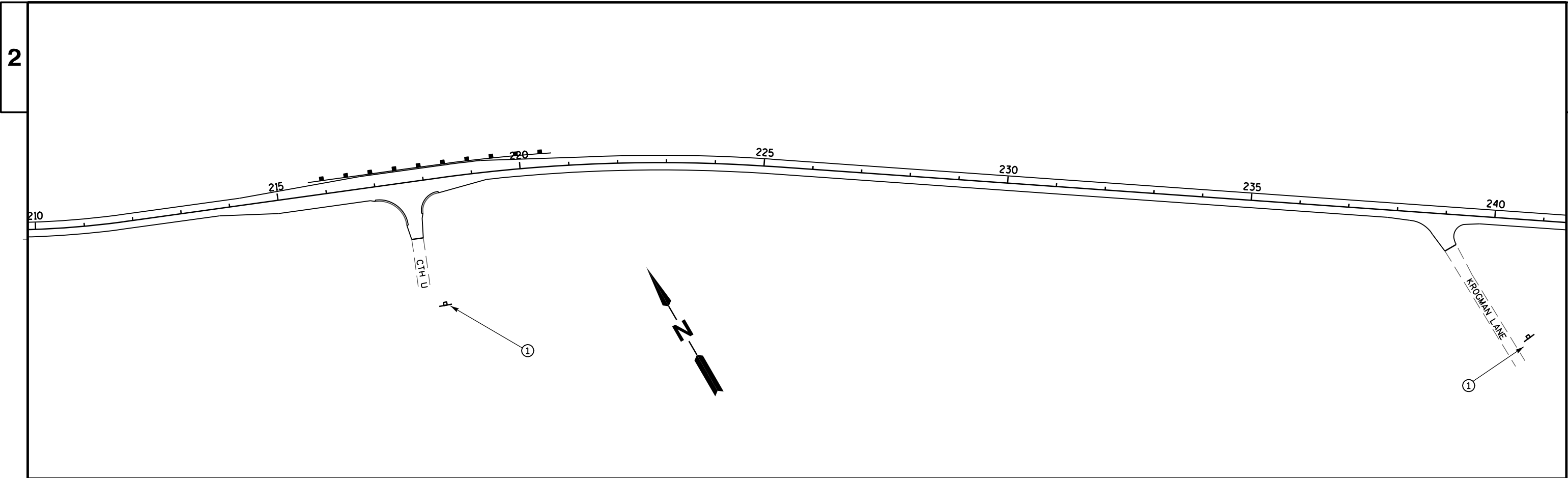
STAGE 1
LOOKING SOUTH

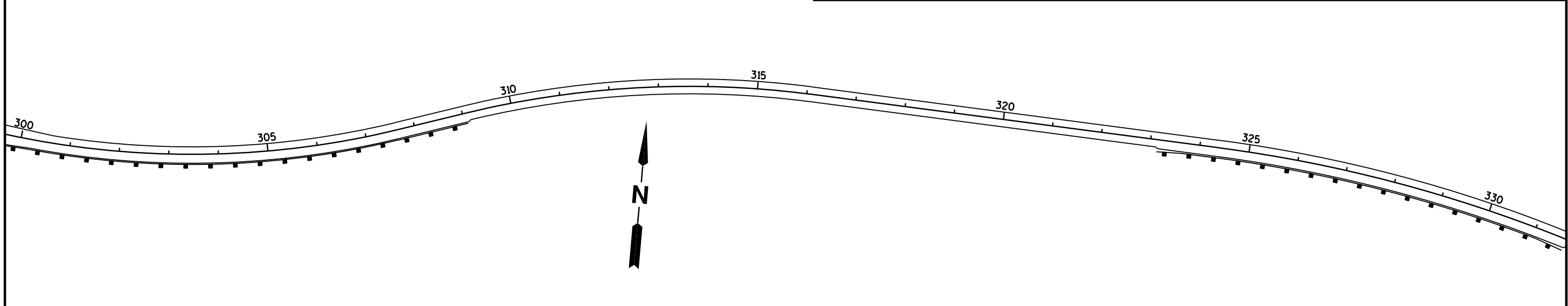
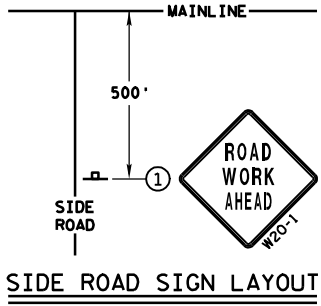
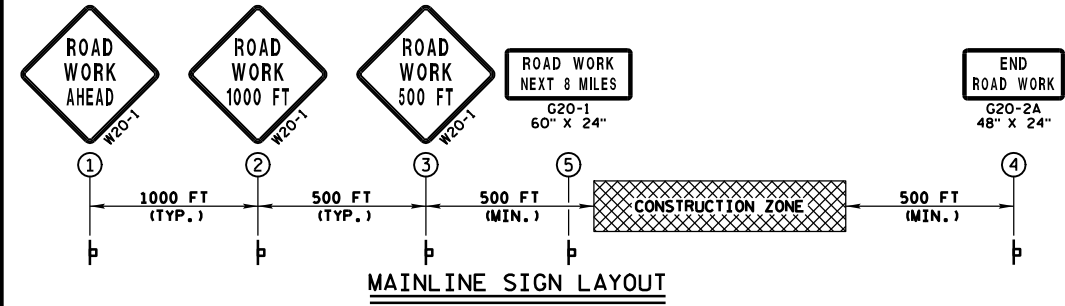
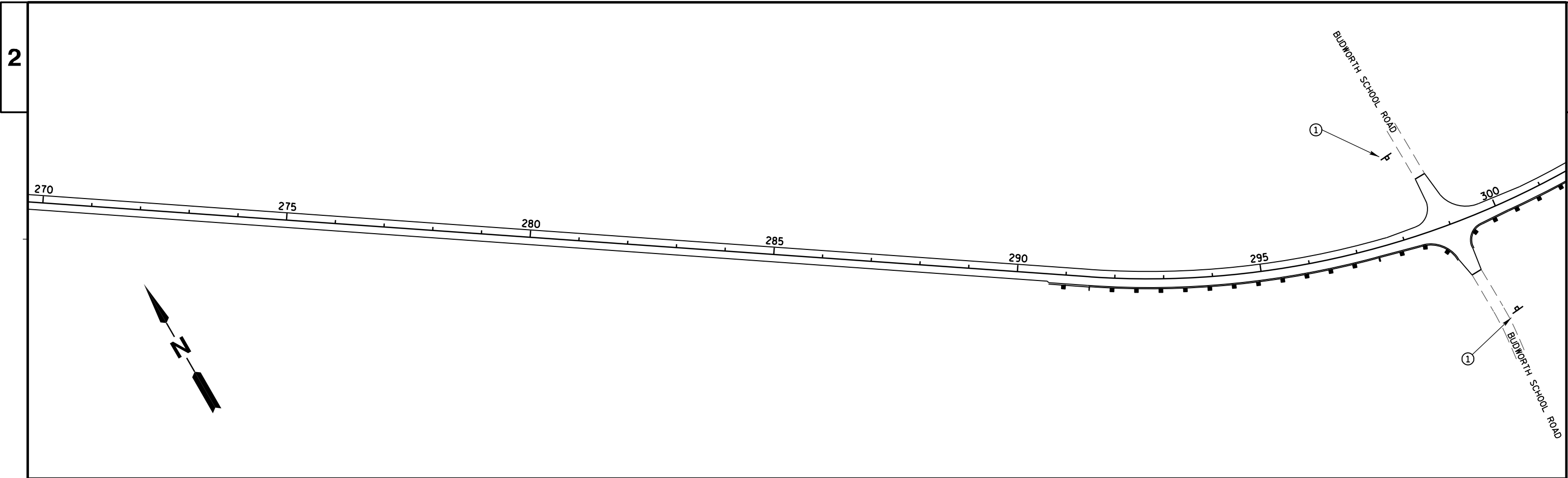


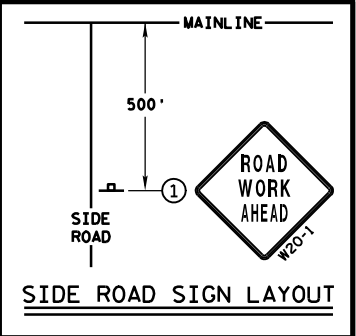
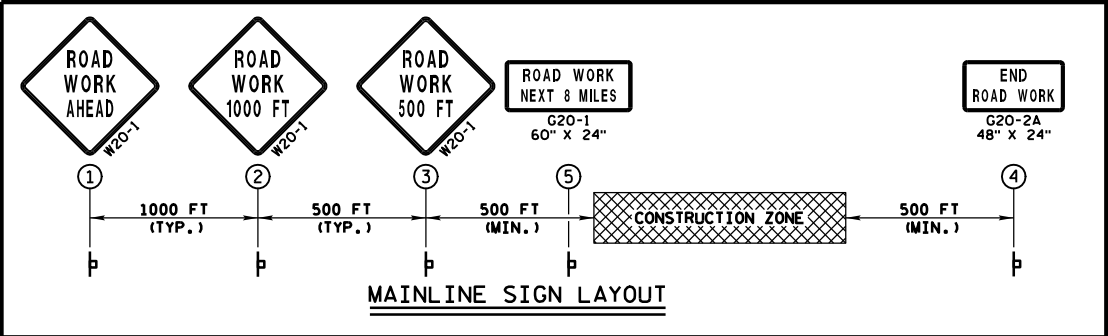
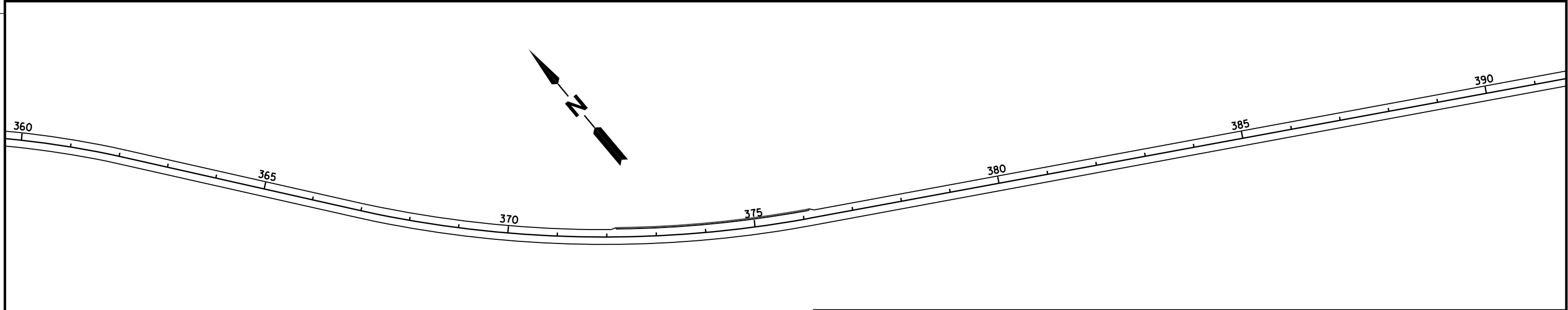
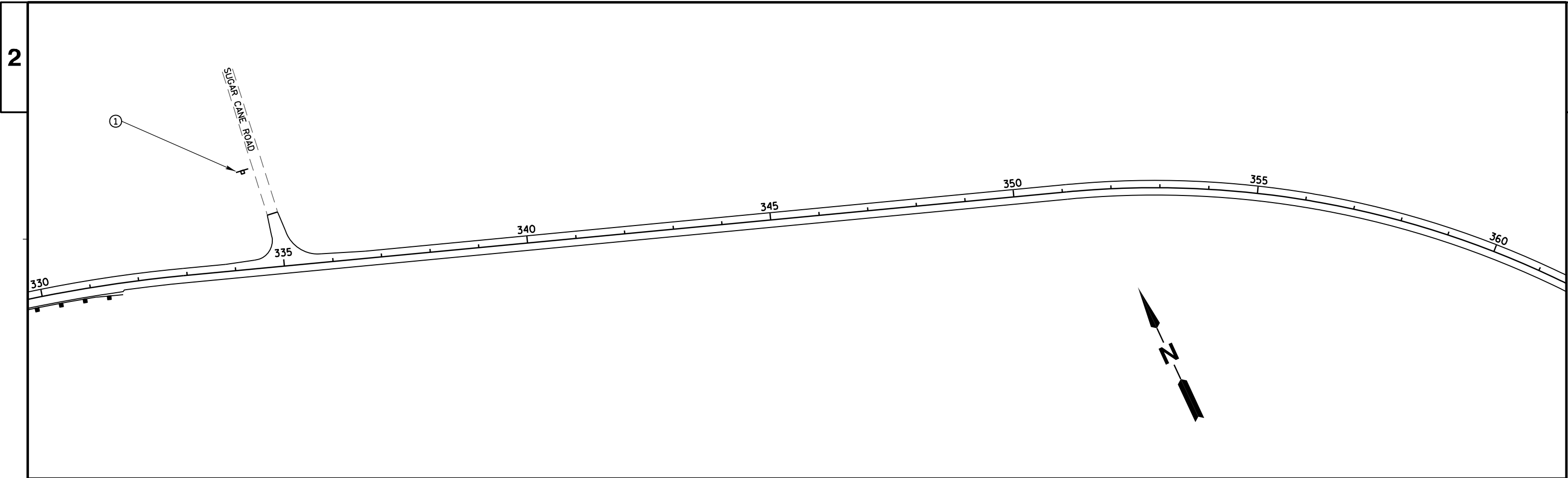
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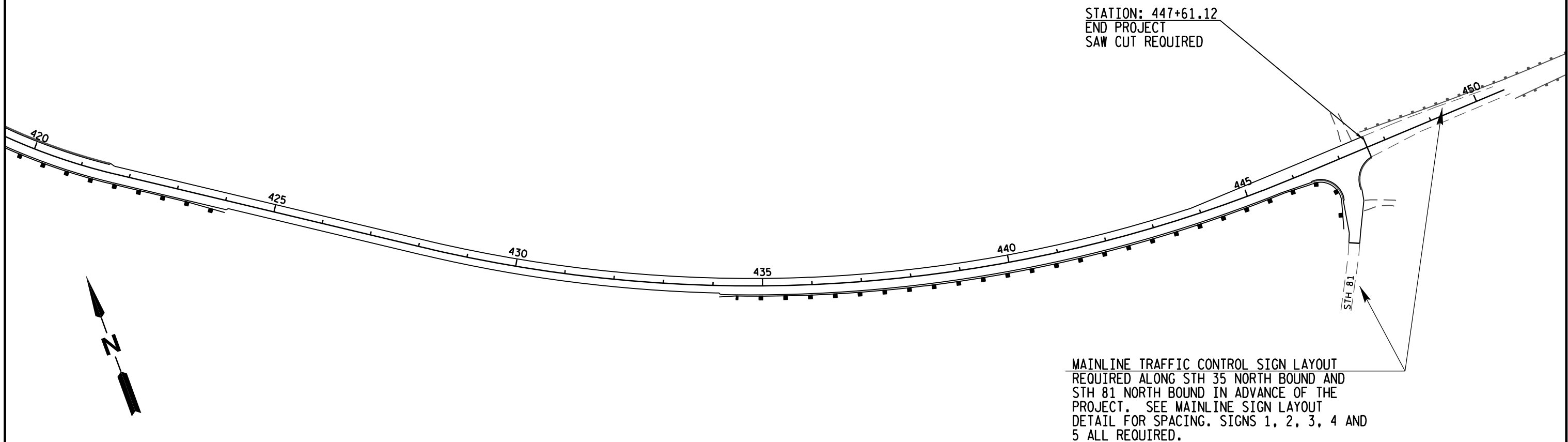
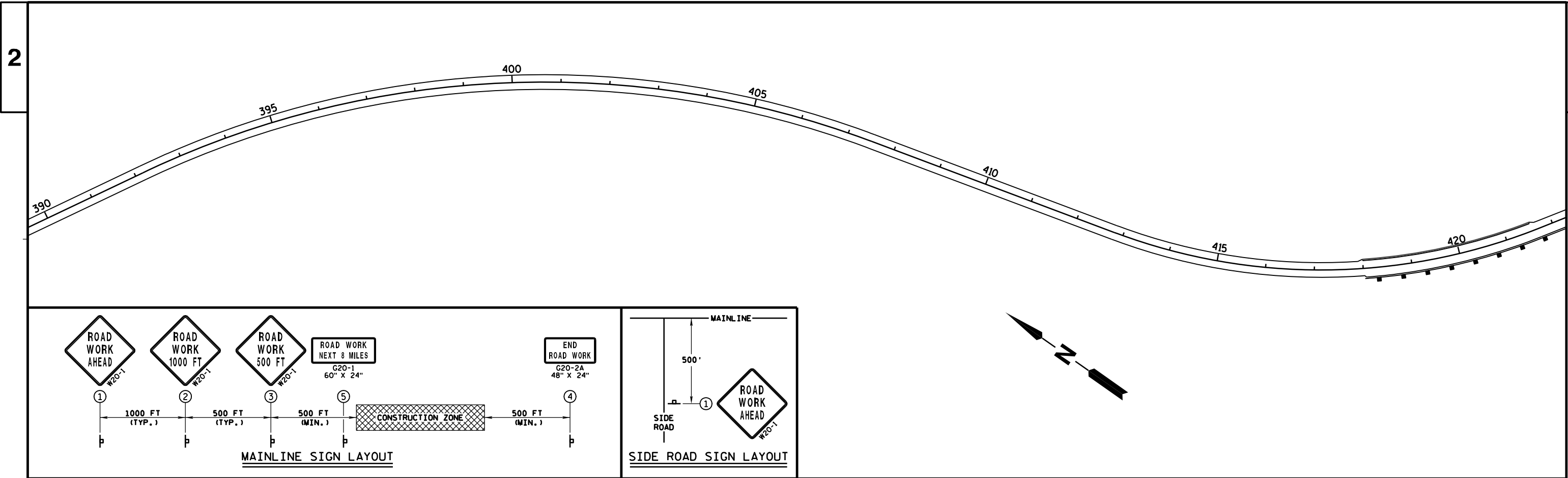












DATE 29APR10		E S T I M A T E O F Q U A N T I T I E S			
LINE				5580-00-61	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0150	REMOVING CURB & GUTTER	LF	45.000	45.000
0020	204.0190	REMOVING SURFACE DRAINS	EACH	1.000	1.000
0030	204.9060.S	REMOVING (ITEM DESCRIPTION) 01-	EACH	22.000	22.000
		DELINEATOR BRACKETS			
0040	205.0100	EXCAVATION COMMON	CY	48.000	48.000
0050	205.9006.S	GRADING SHAPING & FINISHING FOR BARRIER TERMINALS	EACH	30.000	30.000
0080	213.0100	FINISHING ROADWAY (PROJECT) 02.	EACH	1.000	1.000
		5580-00-61			
0100	305.0115	BASE AGGREGATE DENSE 3/4-INCH	CY	4,004.000	4,004.000
0110	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	45.000	45.000
0120	305.0500	SHAPING SHOULDERS	STA	760.000	760.000
0130	312.0110	SELECT CRUSHED MATERIAL	TON	35.000	35.000
0140	416.0610	DRILLED TIE BARS	EACH	8.000	8.000
0150	416.1010	CONCRETE SURFACE DRAINS	CY	1.400	1.400
0160	455.0105	ASPHALTIC MATERIAL PG58-28	TON	932.000	932.000
0170	455.0605	TACK COAT	GAL	3,745.000	3,745.000
0180	460.1101	HMA PAVEMENT TYPE E-1	TON	16,926.000	16,926.000
0190	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	13,446.000	13,446.000
0200	490.0200	SALVAGED ASPHALTIC PAVEMENT MILLING	SY	149,788.000	149,788.000
0210	502.3200	PROTECTIVE SURFACE TREATMENT	SY	805.000	805.000
0220	509.0301	PREPARATION DECKS TYPE 1	SY	135.000	135.000
0230	509.0302	PREPARATION DECKS TYPE 2	SY	35.000	35.000
0240	509.0500	CLEANING DECKS	SY	665.000	665.000
0250	509.1500	CONCRETE SURFACE REPAIR	SF	25.000	25.000
0260	509.2000	FULL-DEPTH DECK REPAIR	SY	5.000	5.000
0270	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	28.000	28.000
0280	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	65.000	65.000
0290	603.0500	CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR FURNISHED & DELIVERED	LF	400.000	400.000
0300	603.0801	CONCRETE BARRIER TEMPORARY PRECAST CONTRACTOR INSTALLED	LF	800.000	800.000
0310	606.0200	RIPRAP MEDIUM	CY	4.500	4.500
0320	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	82.580	82.580
0330	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	6,225.000	6,225.000
0340	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	65.000	65.000
0350	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	29.000	29.000
0360	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	1.000	1.000
0370	614.0920	SALVAGED RAIL	LF	7,778.000	7,778.000
0400	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 5580-00-61	EACH	1.000	1.000
0410	619.1000	MOBILIZATION	EACH	0.750	0.750
0420	624.0100	WATER	MGAL	65.000	65.000
0430	628.1504	SILT FENCE	LF	3,035.000	3,035.000
0440	628.1520	SILT FENCE MAINTENANCE	LF	3,035.000	3,035.000
0470	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	55.000	55.000
0480	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	32.000	32.000
0490	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	7.000	7.000
0500	634.0808	POSTS TUBULAR STEEL 2X2-INCH X 8-FT	EACH	4.000	4.000
0510	637.0202	SIGNS REFLECTIVE TYPE II	SF	739.000	739.000
0520	638.2602	REMOVING SIGNS TYPE II	EACH	141.000	141.000
0530	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	97.000	97.000
0540	642.5201	FIELD OFFICE TYPE C	EACH	0.500	0.500

DATE 29APR10		E S T I M A T E O F Q U A N T I T I E S				
LINE					5580-00-61	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0560	643.0100	TRAFFIC CONTROL (PROJECT) 02.	5580-00-61 EACH	1.000	1.000	
0570	643.0300	TRAFFIC CONTROL DRUMS	DAYS	25,840.000	25,840.000	
0580	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAYS	25,840.000	25,840.000	
0590	643.0900	TRAFFIC CONTROL SIGNS	DAYS	2,660.000	2,660.000	
0600	645.0130	GEOTEXTILE FABRIC TYPE R	SY	15.000	15.000	
0610	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	80,150.000	80,150.000	
0620	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	58,600.000	58,600.000	
0630	646.0600	REMOVING PAVEMENT MARKINGS	LF	310.000	310.000	
0640	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	60.000	60.000	
0650	648.0100	LOCATING NO-PASSING ZONES	MI	8.000	8.000	
0660	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	70,068.000	70,068.000	
0670	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	1,800.000	1,800.000	
0680	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	24.000	24.000	
0690	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	83,952.000	83,952.000	
0700	661.0100	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 01. B-22-0058	LS	1.000	1.000	
0710	690.0150	SAWING ASPHALT	LF	294.000	294.000	
0720	SPV.0090	SPECIAL 01. SALVAGED WOODEN GUARD RAIL	LF	50.000	50.000	
0730	465.0315	ASPHALTIC FLUME	SY	3.300	3.300	
0740	619.1000	MOBILIZATION (CHANGE ORDER)	EA	1.000	1.000	
0750	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS	LS	1.000	1.000	
0760	SPV.0105	EXTRA WORK (CULVERT & LANDSCAPING)	LS	1.000	1.000	

		Grading Shaping & Finishing for Beam Guard Terminals 205.9006.S			Borrow **	Steel Thrie Beam Structure Approach 614.0200	Steel Plate Beam Guard Class A 614.0305	Steel Plate Beam Guard Short Radius 614.0345	Steel Plate Beam Guard Energy Absorbing Terminal 614.0370	Steel Plate Beam Guard Short Radius Terminal 614.0390	Salvaged Rail 614.0920	Salvaged Wooden Guard Rail SPV.0090.01	Silt Fence 628.1504	Silt Fence Maintenance 628.1520	Salvaged Topsoil **	Mulching **	Fertilizer Type B **	Seeding Mixture No. 30 **	Seeding Temporary **	Remarks		
Station	- Station	RT/LT	EACH	CY	LF	LF	LF	EACH	EACH	LF	LF	LF	LF	SY	SY	CWT	LB	LB				
33+90	- 39+15	RT	2	64		425		2		300		50	200	200	168	222	1.6	6	9	Repair Area Structure B-22-0580 Structure B-22-0580 Structure B-22-0580 Structure B-22-0580		
54+28	- 54+73	RT																				
63+62	- 64+83	RT	1	32	20.645	50		1		125			130	130	84	111	0.8	3	4.5			
63+62	- 64+83	LT	1	32	20.645	50		1		125			130	130	84	111	0.8	3	4.5			
66+33	- 67+66	RT	1	32	20.645	62.5		1		140			145	145	84	111	0.8	3	4.5			
66+33	- 67+54	LT	1	32	20.645	50		1		125			130	130	84	111	0.8	3	4.5			
83+55	- 85+05	LT	2	64		50		2		200			200	200	168	222	1.6	6	9			
83+85	- 85+35	RT	2	64		50		2		150			200	200	168	222	1.6	6	9			
86+35	- 90+35	RT	2	64		300		2		400			200	200	168	222	1.6	6	9			
112+73	- 113+76	RT	2	64			65	1	1	125			100	100	168	222	1.6	6	9			
173+13	- 175+13	LT	2	64		87.5		2		200			200	200	168	222	1.6	6	9			
183+65	- 190+40	RT	2	64		575		2		675			200	200	168	222	1.6	6	9			
215+65	- 220+65	LT	2	64		400		2		500			200	200	168	222	1.6	6	9			
290+65	- 298+90	RT	2	64		725		2		863			200	200	168	222	1.6	6	9			
299+35	- 309+10	RT	2	64		875		2		1025			200	200	168	222	1.6	6	9			
323+15	- 331+65	RT	2	64		750		2		850			200	200	168	222	1.6	6	9			
418+05	- 424+05	RT	2	64		500		2		600			200	200	168	222	1.6	6	9			
434+15	- 446+75	RT	2	64		1275		2		1375			200	200	168	222	1.6	6	9			
Total			30	960	82.58	6225	65	29	1	7778	50	3035	3035	2520	3330	24	90	135				
** For informational purpose only																						
		Base Aggregate Dense, 3/4" 305.0115 TON			Base Aggregate Dense, 1 1/4" 305.0120 TON		Shaping Shoulders 305.0500 STA		Select Crushed 312.0110 TON		Water 624.0100 MGAL		REMARKS									
29+78	- 39+25	RT	52			45		9.5		35		0.8	Shoulder and Beam Guard Area Repair Area Shoulders Shoulders Shoulders Shoulders Shoulders Shoulders									
54+28	- 54+73	RT										0.8										
59+70	- 64+83	RT/LT	50					8.7				0.8										
66+34	- 133+05	M/L	700					126.2				11.2										
133+05	- 220+73	M/L	722					170				11.6										
220+73	- 299+96	M/L	880					158.5				14.2										
299+96	- 336+02	M/L	400					72				6.4										
336+02	- 447+61	M/L	1200					215				19.2										
Total			4004		45		760	35	65													
PROJECT NO: 5580-00-61					HWY: STH 35					COUNTY: GRANT					MISCELLANEOUS QUANTITIES					SHEET:		E
FILE NAME :					PLOT DATE :					PLOT BY :					PLOT NAME :					PLOT SCALE : 1:1		

Station - Station		RT/LT	ASPHALTIC MATERIAL PG 58-28 455.0105 TON	TACK COAT 455.0605 GAL	HMA PAV'T TYPE E-1 460.1101 TON	SALVAGED ASPHALTIC PAV'T MILLING 490.0200 SY	REMOVING (DELINEATOR BRACKET) 204.9060.S EACH	REMARKS
29+78	- 64+84	M/L	90	360	1628	14405	1	Project Start to B-22-58
66+34	- 133+05	M/L	144	579	2618	23167	6	B-22-58 to Cemetary Rd.
133+05	- 220+73	M/L	201	807	3646	32266	5	Cemetary Rd. to CTH U
220+73	- 299+96	M/L	175	703	3177	28113	3	CTH U to Budworth School Rd.
299+96	- 336+02	M/L	81	327	1478	13084	3	Budworth School Rd. to Sugar Cane Rd.
336+02	- 447+61	M/L	241	969	4379	38753	4	Sugar Cane Rd. to Project End
Total			932	3745	16926	149788	22	

Station	Location	SAWING ASPHALT 690.0150 LF	REMARKS
29+78	M/L	40	STH 35 - Begin Project
63+21	LT	22	CTH A
134+71	RT	24	Cemetary Road
134+71	LT	24	Cemetary Road
217+07	RT	24	CTH U
238+30	RT	27	Krogman Lane
298+32	RT	22	Budworth School Road
298+32	LT	22	Budworth School Road
334+44	LT	22	Sugar Cane Road
446+00	RT	22	STH 82
447+61	M/L	45	STH 35 - End Project
Total		294	

CONSTRUCTION STAKING RESURFACING REFERENCE

Station	Station	Location	650.8000 LF	Remarks
29+78	- 477+61	LT/RT	83952	Project Limits
Total			83952	

Station - Station		Location	Common Excavation 205.0100 CY	RipRap Medium 606.0200 CY	Geotextile Fabric Type R 645.0130 SY	Remarks
54+40	- 54+85	RT	40			Repair Area in Bloomington
64+64	- 64+84	RT	8	4.5	15	NW Quad of B-22-58
Total			48	4.5	15	

Station	Station	Location	Removing Curb & Gutter 204.0150 LF	Removing Surface Drains 204.0150 EA	Drilled Tie Bars 416.0610 EA	Concrete Surface Drains 416.1010 CY	Concrete Curb & Gutter 30- Inch, Type D 601.0411 LF	Remarks
54+40	- 54+85	RT	45	-	-		45	Repair Area in Bloomington
64+84		RT	-	1	8	1.4	20	NW Quad of B-22-58
Total			45	1	8	1.4	65	

				Concrete Barrier Temporary Precast Contractor Furnished & Delivered 603.0500	Concrete Barrier Temporary Precast Contractor Installed 603.0801	Remarks
Station	-	Station	Location	LF	LF	
64+00	-	68+00	CL	400	800	
Total				400	800	

Station / Side Road	Location	Traffic Control Drums 643.0300 Days	Traffic Control Warning Lights Type A 643.0705 Days	Traffic Control Signs 643.0900 Days	Remarks
Main Line - Start Project	RT	0	0	304	Road Work Ahead, 1000 FT, 500 FT & Next 8 Mi.
Main Line - Start Project	LT	0	0	76	End Road Work
Bowery Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
1st Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
Pleasant Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
Spruce Road	RT	0	0	76	Bloomington Side Street, Road Work Ahead
Congress Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
Mill Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
Canal Street	LT	0	0	76	Bloomington Side Street, Road Work Ahead
Wall Street	RT	0	0	76	Bloomington Side Street, Road Work Ahead
CTH A / Lancaster Road	LT	380	380	76	Bloomington Side Street, Road Work Ahead
Cemetary Road	RT / LT	0	0	152	Rural - Side Road
CTH U	RT	0	0	76	Rural - Side Road
Krogman Lane	RT	0	0	76	Rural - Side Road
Budworth School Road	RT / LT	0	0	152	Rural - Side Road
Sugar Cane Road	LT	0	0	76	Rural - Side Road
STH 81 - South	RT	0	0	304	Road Work Ahead, 1000 FT, 500 FT & Next 8 Mi.
STH 81 - South	LT	0	0	76	End Road Work
STH 35 - End of Project	RT	0	0	76	End Road Work
STH 35 - End of Project	LT	0	0	304	Road Work Ahead, 1000 FT, 500 FT & Next 8 Mi.
Village of Bloomington	RT	1140	1140	304	Lane Shift for Repair Spot 54+28 - 54+73
Beam Guard Locations	RT / LT	24320	24320	0	Beam Guard Removal Areas
Total		25840	25840	2660	

				PAVEMENT MARKING EPOXY 4-INCH	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	REMOVING PAVEMENT MARKINGS	PAVEMENT MARKING STOP LINE EPOXY 18- INCH	LOCATING NO-PASSING ZONES	TEMPORARY PAVEMENT MARKING 4-INCH	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	TEMPORARY PAVEMENT MARKING STOP LINE REMOVEABLE TAPE 24-INCH	TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE)	REMARKS
STATION	TO	STATION	Location	646.0106 LF	646.0406 LF	646.0600 LF	647.0566	648.0100 MI	649.0100 LF	649.0400 LF	649.1400 LF	661.0100 LS	
29+50	-	448+00	CL-Yellow					8	10463				TEMPORARY MARKING DURING CONSTRUCTION
29+50	-	73+00	CL-Yellow		8700				8700				
64+00			LT- CTH A				20						STRUCTURE B-22-0580 PAVEMENT MARKING
64+00	-	67+00	B-22-0580			310			1005	1800	24	1	
73+00	-	80+00	CL-Yellow		875				875				
80+00	-	83+00	"		600				600				
83+00	-	90+00	"		875				875				
90+00	-	100+00	"		2000				2000				
100+00	-	113+00	"		1625				1625				
113+00	-	124+00	"		275				275				
124+00	-	135+00	"		1375				1375				
135+00	-	165+00	"		6000				6000				
165+00	-	174+00	"		1125				1125				
174+00	-	177+00	"		600				600				
177+00	-	185+00	"		1000				1000				
185+00	-	186+00	"		200				200				
186+00	-	197+00	"		1375				1375				
197+00	-	205+50	"		1063				1063				
205+50	-	220+00	"		2900				2900				
217+75			RT-CTH U				20						
220+00	-	232+50	"		1563				1563				
232+50	-	251+50	"		475				475				
251+50	-	260+00	"		1063				1063				
260+00	-	270+00	"		1250				1250				
270+00	-	283+50	"		338				338				
283+50	-	295+00	"		1438				1438				
295+00	-	325+00	"		6000				6000				
325+00	-	333+50	"		1063				1063				
333+50	-	335+00	"		300				300				
335+00	-	342+00	"		875				875				
342+00	-	361+50	"		2438				2438				
361+50	-	375+50	"		2800				2800				
375+50	-	386+50	"		1375				1375				
386+50	-	405+00	"		463				463				
405+00	-	432+00	"		3375				3375				
432+00	-	448+00	"		3200				3200				
447+00			RT-STH 81				20						
29+50		39+50	RT- White	1000									
51+50		448+00	"	39650									
53+00		448+00	LT- White	39500									
TOTALS				80150	58600	310	60	8	70068	1800	24	1	

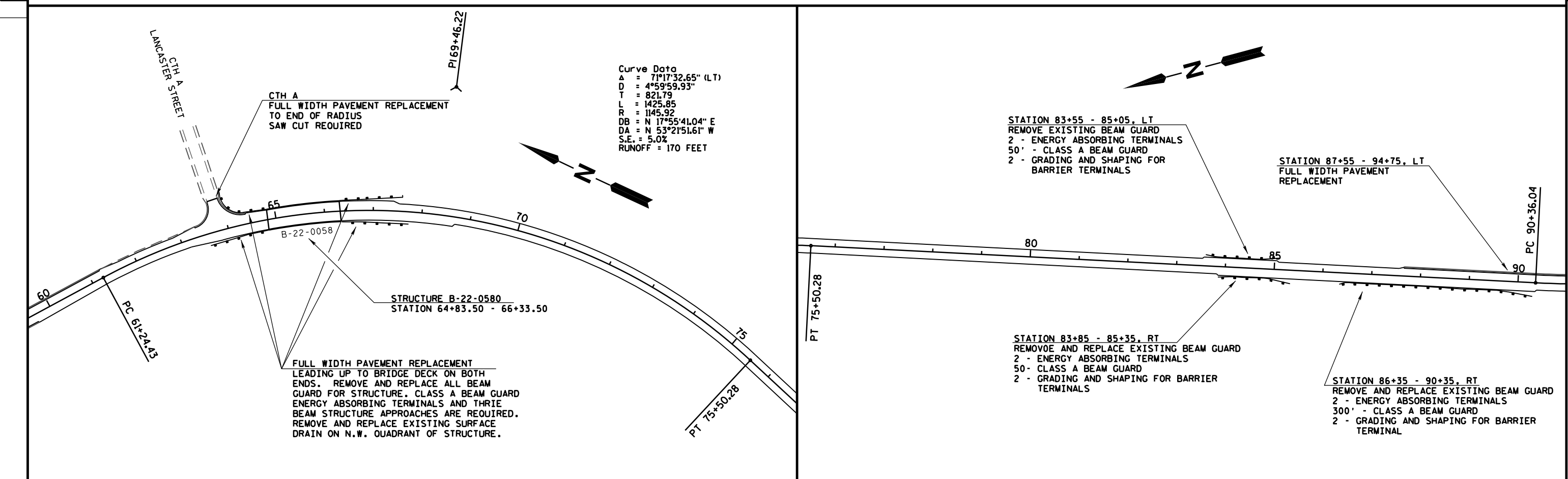
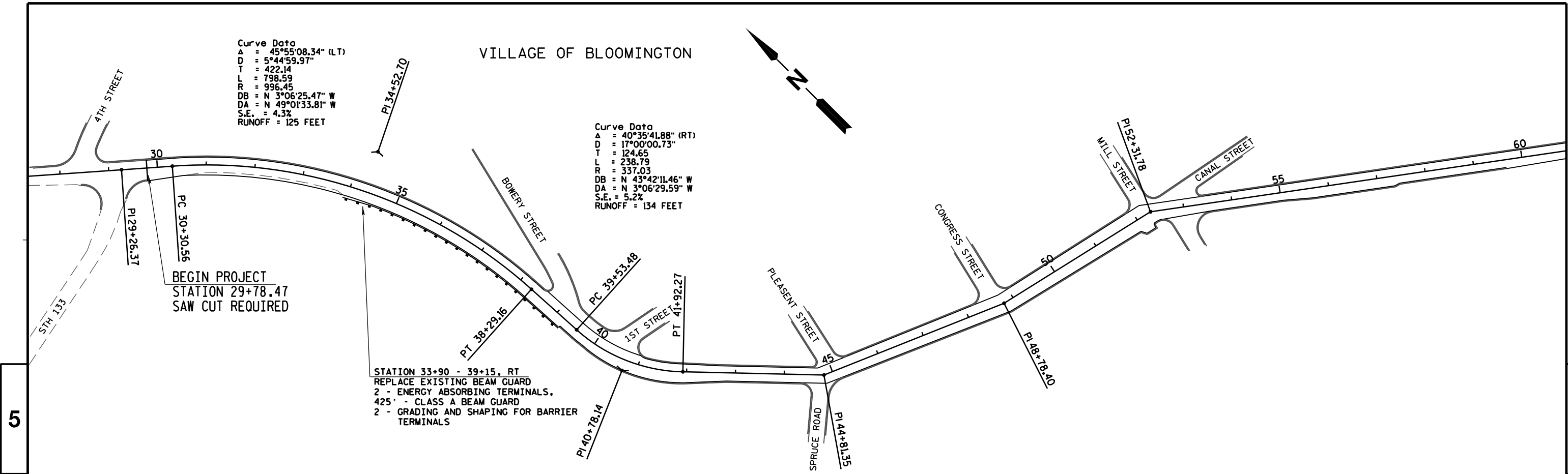
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614	634.0616	634.0618	634.0808	637.0202	638.2602	638.3000	Comments
							POSTS WOOD 4x6 INCH 14-FT EACH	POSTS WOOD 4x6 INCH 16-FT EACH	POSTS WOOD 4x6 INCH 18-FT EACH	POSTS TUBULAR STEEL 2x2 INCH 8-FT EACH	SIGNS REFLECTIVE TYPE II SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
100R	30+30	Right	R2-1	24" x 30"	Speed Limit _ MPH	35	-	-	-	-	-	1	1	
101	30+30	Right	R2-1	24" x 30"	Speed Limit _ MPH	35	1	-	-	-	5.00	-	-	
102	31+00	Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	South, Blank 35, A	1	-	-	-	12.00	-	-	
103R	31+00	Right	D2-1	72" x 15"	Destination/Distance (One) with Die Cut Letters	Lancaster 14	-	-	-	-	-	1	2	
104R	31+00	Right	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	
105R	31+00	Right	M3-3	24" x 12"	SOUTH Cardinal Route Marker		-	-	-	-	-	1	-	
106R	31+01	Left	M3-3	24" x 12"	SOUTH Cardinal Route Marker		-	-	-	-	-	1	1	
107R	31+01	Left	M50-2	48" x 24"	Route Marker Panel (2 Faces)	133, 133	-	-	-	-	-	1	-	
108R	31+01	Left	M6-1	21" x 21"	Arrow - LEFT		-	-	-	-	-	1	-	
109R	31+01	Left	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	-	
110R	31+01	Left	M6-1	21" x 21"	Arrow - AHEAD		-	-	-	-	-	1	-	
111R	31+01	Left	M6-1	21" x 21"	Arrow - LEFT		-	-	-	-	-	1	1	
112R	31+01	Left	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	-	
113	31+01	Left	J3-4	96" x 57"	Directional Assembly	South, Blank, North, North 133, A, 35, 133	-	-	2	-	38.00	-	-	
					Left Arrow, Left Arrow, Up Arrow, Up Arrow		-	-	-	-	-	-	-	
114	33+50	Right	D2-1	78" x 15"	Destination/Distance (One) with Die Cut Letters	Lancaster 15	2	-	-	-	8.13	-	-	
115	34+18	Left	D1-3	102" x 36"	Triple Destination/Arrow	Up Arrow, Patch Grove	1	1	-	-	25.50	-	-	
						Up Arrow, Prairie du Chien	-	-	-	-	-	-	-	
						Left Arrow, Cassville	-	-	-	-	-	-	-	
116R	34+18	Left	D1-3	108" x 36"	Triple Destination/Arrow	Up Arrow, Prairie du Chien	-	-	-	-	-	1	2	
						Up Arrow, Boscobel	-	-	-	-	-	-	-	
						Left Arrow, Cassville	-	-	-	-	-	-	-	
117R	37+00	Left	M3-3	24" x 12"	SOUTH Cardinal Route Marker		-	-	-	-	-	1	-	
118R	37+00	Left	M50-3	72" x 24"	Route Marker Panel (3 Faces)	133, 35, 133	-	-	-	-	-	1	-	
119R	37+00	Left	M5-1L	21" x 21"	Advance Arrow - LEFT TURN		-	-	-	-	-	1	-	
120R	37+00	Left	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	-	
121R	37+00	Left	M6-1	21" x 21"	Arrow - AHEAD		-	-	-	-	-	1	-	
122R	37+00	Left	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	-	
123R	37+00	Left	M6-1	21" x 21"	Arrow - AHEAD		-	-	-	-	-	1	-	
124	35+65	Left	J3-1	48" x 57"	Route Turn Assembly (2 Headed Route Panel)	North, North 35, 133	-	-	1	-	19.00	-	-	
						Up Arrow, Up Arrow	-	-	-	-	-	-	-	
124A	37+00	Left	J2-2	48" x 57"	Route Turn Assembly	South, Blank 133, A	-	-	-	-	19.00	-	-	Use Ex. Post
						Left Turn Arrow, Left Turn Arrow	-	-	-	-	-	-	-	
125R	37+50	Left	R2-1	24" x 30"	Speed Limit _ MPH	35	-	-	-	-	-	1	-	
126	37+50	Left	R2-1	24" x 30"	Speed Limit _ MPH	35	1	-	-	-	5.00	-	-	Use Ex. Post
127R	37+50	Right	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	1	
128	37+50	Right	R2-1	24" x 30"	Speed Limit _ MPH	25	1	-	-	-	5.00	-	-	
129R	38+30	Bowery St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
130	38+30	Bowery St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
131R	40+51	1st St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
132	40+51	1st St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
133R	41+04	Left	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	Light Pole
134R	41+04	Left	M1-6	24" x 24"	State Route Marker	133	-	-	-	-	-	1	-	Light Pole
135	41+04	Left	J1-1	24" x 39"	Junction or End Assembly	JCT	1	-	-	-	6.50	-	-	
						133	-	-	-	-	-	-	-	
136R	43+68	Left	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	-	Light Pole
137R	43+68	Left	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	Light Pole
138R	44+60	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	-	Light Pole
139	44+60	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	5.00	-	-	Band to Light Pole
140R	44+60	Pleasant St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
141	44+60	Pleasant St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
142R	44+90	Spruce Rd.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
143	44+90	Spruce Rd.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
144R	45+10	Right	M3-3	24" x 12"	SOUTH Cardinal Route Marker		-	-	-	-	-	1	1	
145R	45+10	Right	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	
146R	45+10	Right	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	-	
147	45+10	Right	R2-1	24" x 30"	Speed Limit _ MPH	25	1	-	-	-	5.00	-	-	
148R	48+43	Congress St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
149	48+43	Congress St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
150R	51+90	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	-	Light Pole
151	51+90	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	5.00	-	-	Band to Light Pole
152R	52+00	Mill St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
153	52+00	Mill St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
154R	53+00	Canal St.	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
155	53+00	Canal St.	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
156R	53+40	Left	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	1	
157R	53+40	Left	M6-2	21" x 21"	Arrow Tilt Right or Left		-	-	-	-	-	1	1	
158	53+40	Left	J3-1	24" x 57"	Directional Assembly	SOUTH 35	-	1	-	-	7.50	-	-	
						Tilt Right	-	-	-	-	-	-	-	
Subtotal =							16	2	3	0	202	39	18	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614	634.0616	634.0618	634.0808	637.0202	638.2602	638.3000	Comments
							POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS	SIGNS	REMOVING	REMOVING	
							4x6 INCH 14-FT EACH	4x6 INCH 16-FT EACH	4x6 INCH 18-FT EACH	TUBULAR STEEL 2x2 INCH 8-FT EACH	REFLECTIVE TYPE II SF	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	
159R	53+35	Crossroad	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
160	53+35	Crossroad	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
161R	53+60	Right	R2-1	24"x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	1	
162	53+60	Right	R2-1	24"x 30"	Speed Limit _ MPH	25	1	-	-	-	5.00	-	-	
163R	59+15	Right	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	
164R	59+15	Right	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	1	
165	59+15	Right	J13-1	24" x 45"	Route Turn Assembly W/O Cardinal	A	1	-	-	-	7.50	-	-	
						Left Turn Arrow	-	-	-	-	-	-	-	
200R	61+15	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	-	-	-	-	-	1	1	
201	61+15	Left	R2-1	24" x 30"	Speed Limit _ MPH	25	1	-	-	-	5.00	-	-	
202	61+15	Right	R2-1	24" x 30"	Speed Limit _ MPH	45	1	-	-	-	5.00	-	-	
203R	61+15	Right	R2-1	24" x 30"	Speed Limit _ MPH	45	-	-	-	-	-	1	1	
204	63+74	CTH A	J13-2	48" x 45"	Directional W/O Cardinal	35 , A	-	1	-	-	15.00	-	-	
						Double Arrow, Right Arrow	-	-	-	-	-	-	-	
205R	63+74	CTH A	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
206	63+74	CTH A	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
207	63+40	Right	J13-1	24" x 45"	Route Turn Assembly W/O Cardinal	A	-	1	-	-	7.50	-	-	
						Left Arrow	-	-	-	-	-	-	-	
208R	63+40	Right	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	1	
209R	63+40	Right	M6-1	21" x 21"	Arrow - LEFT		-	-	-	-	-	1	-	
210	63+75	Right	W1-7	48" x 24"	Double Night Arrow		1	-	-	-	8.00	-	-	
211R	63+75	Right	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	-	
212R	63+75	Right	M6-1	21" x 21"	Arrow - RIGHT		-	-	-	-	-	1	1	
213R	63+75	Right	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	
214R	63+75	Right	M6-4	21" x 21"	Directional Arrows Left - Right		-	-	-	-	-	1	1	
215R	64+15	Left	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	1	
216R	64+15	Left	M6-6	21" x 21"	Directional Arrows LA/UA COMBO OR UA/RA		-	-	-	-	-	1	-	
217	64+15	Left	J13-1	24" x 45"	Route Turn Assembly W/O Cardinal	A	-	1	-	-	7.50	-	-	
						Up Arrow/Right Arrow	-	-	-	-	-	-	-	
218R	64+80	Left	W5-52-L	12" x 36"	Clearance Striper Down Right		-	-	-	-	-	1	1	
219	64+80	Left	W5-52-L	12" x 36"	Clearance Striper Down Right		-	-	-	1	3.00	-	-	
220	64+80	Right	W5-52-R	12" x 36"	Clearance Striper Down Left		-	-	-	1	3.00	-	-	
221R	64+80	Right	W5-52-R	12" x 36"	Clearance Striper Down Left		-	-	-	-	-	1	1	
222	66+38	Right	W5-52-L	12" x 36"	Clearance Striper Down Right		-	-	-	1	3.00	-	-	
223R	66+38	Right	W5-52-L	12" x 36"	Clearance Striper Down Right		-	-	-	-	-	1	1	
224	66+38	Left	W5-52-R	12" x 36"	Clearance Striper Down Left		-	-	-	1	3.00	-	-	
225R	66+38	Left	W5-52-R	12" x 36"	Clearance Striper Down Left		-	-	-	-	-	1	1	
226	67+60	Right	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	St. Mary's	1	-	-	-	7.50	-	-	
						Bloomington	-	-	-	-	-	-	-	
						Youth	-	-	-	-	-	-	-	
227R	67+60	Right	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	St. Mary's	-	-	-	-	-	1	1	
						Bloomington	-	-	-	-	-	-	-	
						Youth	-	-	-	-	-	-	-	
228	67+97	Left	W3-5	36" x 36"	Speed Limit Arrow	25	-	1	-	-	9.00	-	-	
229R	67+97	Left	W13-1-W	18" x 18"	Advisory Speed - WHITE Back	25	-	-	-	-	-	1	-	
230R	67+97	Left	R2-5-A	24" x 30"	Reduced Speed Ahead		-	-	-	-	-	1	1	
231R	68+50	Left	I-2-3	78" x 24"	Community Population Name Sign	Bloomington	-	-	-	-	-	1	2	
						Population 701	-	-	-	-	-	-	-	
232	69+00	Left	I-2-3	78" x 24"	Community Population Name Sign	Bloomington	2	-	-	-	13.00	-	-	
						Population 701	-	-	-	-	-	-	-	
233	71+00	Left	J1-1	24" x 39"	Junction or End Assembly	JCT	1	-	-	-	6.50	-	-	
						A	-	-	-	-	-	-	-	
234R	72+19	Left	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	
235R	72+19	Left	M1-5-A	24" x 24"	County Marker	A	-	-	-	-	-	1	1	
236	73+78	Left	R2-1	24" x 30"	Speed Limit _ MPH	45	1	-	-	-	5.00	-	-	
237R	73+78	Left	R2-1	24" x 30"	Speed Limit _ MPH	45	-	-	-	-	-	1	1	
238	73+78	Right	R2-1	24" x 30"	Speed Limit _ MPH	55	1	-	-	-	5.00	-	-	
239R	73+78	Right	R2-1	24" x 30"	Speed Limit _ MPH	55	-	-	-	-	-	1	1	
300	79+00	Left	W3-5	36" x 36"	Speed Limit Arrow	45	-	1	-	-	9.00	-	-	
301R	79+58	Left	R2-5-A	24" x 30"	Reduced Speed Ahead		-	-	-	-	-	1	1	
302R	79+58	Left	W13-1-W	18" x 18"	Advisory Speed - WHITE Back	45	-	-	-	-	-	1	-	
303	81+70	Left	W1-2-L	30" x 30"	Left Curve		-	1	-	-	6.25	-	-	
304	81+70	Left	W13-1	18" x 18"	Advisory Speed Plate (Yellow Back)	45	-	-	-	-	2.25	-	-	
305	81+70	Left	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
306R	81+70	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
307R	81+70	Left	W1-2-L	30" x 30"	Left Curve		-	-	-	-	-	1	1	
308R	81+70	Left	W13-1	18" x 18"	Advisory Speed Plate (Yellow Back)	45	-	-	-	-	-	1	-	
309R	82+80	Right	W1-2-L	30" x 30"	Left Curve		-	-	-	-	-	1	1	
310	83+81	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
311R	83+81	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
Subtotal =							14	7	0	4	158	34	26	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614	634.0616	634.0618	634.0808	637.0202	638.2602	638.3000	Comments
							POSTS WOOD	POSTS WOOD	POSTS WOOD	POSTS	SIGNS	REMOVING	REMOVING	
							4x6 INCH 14-FT EACH	4x6 INCH 16-FT EACH	4x6 INCH 18-FT EACH	TUBULAR STEEL 2x2 INCH 8-FT EACH	REFLECTIVE TYPE II SF	SIGNS TYPE II EACH	SMALL SIGN SUPPORTS EACH	
400	99+00	Left	W1-2-R	30" x 30"	Right Curve		1	-	-	-	6.25	-	-	
401R	103+87	Left	W1-2-R	30" x 30"	Right Curve		-	-	-	-	-	1	1	
402R	105+98	Left	W7-1	36" x 36"	Hill		-	-	-	-	-	1	1	
403	113+90	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
404R	113+90	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
405R	123+98	Right	W2-1	30" x 30"	Cross Road		-	-	-	-	-	1	1	
406	124+51	Left	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
407R	124+51	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
408	127+00	Right	W2-1	30" x 30"	Cross Road		-	1	-	-	6.25	-	-	
409R	135+55	Cemetary Rd. (Lt)	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
410	135+55	Cemetary Rd. (Lt)	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
411R	135+60	Cemetary Rd. (Rt)	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
412	135+60	Cemetary Rd. (Rt)	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
413R	142+42	Left	W2-1	30" x 30"	Cross Road		-	-	-	-	-	1	1	
414	143+50	Left	W2-1	30" x 30"	Cross Road		1	-	-	-	6.25	-	-	
500	174+00	Left	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
501R	174+00	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
502	176+74	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
503R	176+74	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
504R	197+38	Right	W1-2-L	30" x 30"	Left Curve		-	-	-	-	-	1	-	
505	197+38	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
506R	197+38	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
507	197+38	Left	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
508R	197+38	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
509	207+50	Right	J1-1	24" x 39"	Junction or End Assembly	JCT	1	-	-	-	6.50	-	-	
						U	-	-	-	-	-	-	-	
510R	209+00	Right	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	
511R	209+00	Right	M1-5-A	24" x 24"	County Marker	U	-	-	-	-	-	1	1	
600	214+25	Left	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	St. Mary's Bloomington Youth	1	-	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
							-	-	-	-	-	-	-	
601R	215+20	Left	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	St. Mary's Bloomington Youth	-	-	-	-	-	1	1	
							-	-	-	-	-	-	-	
							-	-	-	-	-	-	-	
602	216+25	Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North 35	1	-	-	-	6.00	-	-	
							-	-	-	-	-	-	-	
603	217+15	Right	J13-1	24" x 45"	Directional without Cardinal (1 Headed Route Panel)	U Right Arrow	1	-	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
604R	217+15	Right	M1-5-A	24" x 24"	County Marker	U	-	-	-	-	-	1	-	
605R	217+15	Right	M6-1	21" x 21"	Arrow - RIGHT, LEFT, OR AHEAD		-	-	-	-	-	1	1	
606	217+75	Left	W1-7	48" x 24"	Night Arrow (Double)		1	-	-	-	8.00	-	-	
607R	217+75	Left	W1-7	48" x 24"	Night Arrow (Double)		-	-	-	-	-	1	1	
608	218+05	Right	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
609R	218+05	Right	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
610	218+06	Right	J13-1	24" x 45"	Route Turn Assembly W/O Cardinal	35 Double Arrow	-	1	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
611R	218+06	Right	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	1	
612R	218+06	Right	M6-4	21" x 21"	Directional Arrows Left - Right		-	-	-	-	-	1	-	
613	218+05	Left	J13-1	24" x 45"	Directional without Cardinal (1 Headed Route Panel)	U Left Arrow	-	1	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
614R	218+05	Left	M1-5-A	24" x 24"	County Marker	U	-	-	-	-	-	1	1	
615R	218+05	Left	M6-1	21" x 21"	Arrow - LEFT		-	-	-	-	-	1	-	
616R	219+50	Left	W1-2-R	30" x 30"	Right Curve		-	-	-	-	-	1	1	
617	219+50	Right	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South 35	-	1	-	-	6.00	-	-	
							-	-	-	-	-	-	-	
618R	219+50	Right	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	Knapp's Century Farms	-	-	-	-	-	1	1	
							-	-	-	-	-	-	-	
							-	-	-	-	-	-	-	
619	221+50	Right	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	Knapp's Century Farms	-	1	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
							-	-	-	-	-	-	-	
620R	221+50	Right	M3-3	24" x 12"	SOUTH Cardinal Route Marker	SOUTH	-	-	-	-	-	1	1	
621R	221+50	Right	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	
622R	226+90	Left	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	
623R	226+90	Left	M1-5-A	24" x 24"	County Marker	U	-	-	-	-	-	1	1	
624	227+50	Left	J1-1	24" x 39"	Junction or End Assembly	JCT	1	-	-	-	6.50	-	-	
						U	-	-	-	-	-	-	-	
625	232+70	Right	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
626R	232+70	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
627	239+40	Right	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
628R	239+40	Right	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
629	251+23	Left	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
630R	251+23	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
Subtotal =							14	11	0	0	158	33	26	

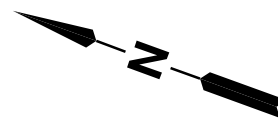
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614	634.0616	634.0618	634.0808	637.0202	638.2602	638.3000	Comments
							POSTS WOOD 4x6 INCH 14-FT EACH	POSTS WOOD 4x6 INCH 16-FT EACH	POSTS WOOD 4x6 INCH 18-FT EACH	POSTS TUBULAR STEEL 2x2 INCH 8-FT EACH	SIGNS REFLECTIVE TYPE II SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
631	270+19	Right	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
632R	270+19	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
700	283+44	Left	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
701R	283+44	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
702R	284+50	Right	W1-2-L	30" x 30"	Left Curve		-	-	-	-	-	1	1	
703	297+65	Left	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	Knapp's Century Farms	-	1	-	-	7.50	-	-	
							-	-	-	-	-	-	-	
704R	297+65	Left	I-55-56	30" x 36"	Adopt-A-Highway [Sponsor]	Knapp's Century Farms	-	-	-	-	-	1	1	
							-	-	-	-	-	-	-	
705	298+70	Budworth School Rd (Lt)	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
706R	298+70	Budworth School Rd (Lt)	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
707	299+28	Budworth School Rd (Rt)	R1-1	30" x 30"	Stop		-	1	-	-	5.18	-	-	
708R	299+28	Budworth School Rd (Rt)	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
709R	315+07	Left	W1-2-R	30" x 30"	Right Curve		-	-	-	-	-	1	1	
800	333+60	Left	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
801R	333+60	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
802	334+75	Sugar Cane Rd	R1-1	30" x 30"	Stop		1	-	-	-	5.18	-	-	
803R	334+75	Sugar Cane Rd	R1-1	30" x 30"	Stop		-	-	-	-	-	1	1	
804	335+00	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
805R	335+00	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
806	386+35	Right	W14-3	48" x 36"	No Passing Zone		-	1	-	-	6.00	-	-	
807R	386+35	Right	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
900	405+94	Left	W14-3	48" x 36"	No Passing Zone		1	-	-	-	6.00	-	-	
901R	405+94	Left	W14-3	48" x 36"	No Passing Zone		-	-	-	-	-	1	1	
902R	406+10	Right	W1-2-L	30" x 30"	Left Curve		-	-	-	-	-	1	1	
903R	429+12	Left	W1-2-R	30" x 30"	Right Curve		-	-	-	-	-	1	1	
904R	437+05	Right	M2-1	21" x 15"	Junction Marker	JCT	-	-	-	-	-	1	-	
905R	437+05	Right	M1-6	24" x 24"	State Route Marker	81	-	-	-	-	-	1	-	
906	437+05	Right	J1-1	24" x 39"	Junction or End Assembly	JCT	1	-	-	-	6.50	-	-	
						81	-	-	-	-	-	-	-	
907	439+73	Right	J2-3	72" x 57"	Route Turn Assembly (3 Headed Route Panel)	South, East, West 35, 81, 81	-	1	1	-	28.50	-	-	
						Up Arrow, Up Arrow, Right Turn Arrow	-	-	-	-	-	-	-	
908R	439+73	Right	J2-3	72" x 57"	Route Turn Assembly (3 Headed Route Panel)	South, East, West 35, 81, 81	-	-	-	-	-	2	2	
						Tilt Left Arrow, Tilt Left Arrow, Right Turn Arrow	-	-	-	-	-	-	-	
915	441+84	Right	D1-2	72" x 30"	Two Destinations (Arrows)	Up Arrow, Lancaster Cassville, Right Arrow	1	1	-	-	15.00	-	-	
916R	441+84	Right	D1-2	72" x 30"	Two Destinations (Arrows)	Tilt Left Arrow, Lancaster Cassville, Right Arrow	-	-	-	-	-	1	2	
917	443+90	Left	D2-1	84" x 15"	Destination/Distance (One) with Die Cut Letters	Bloomington 8	2	-	-	-	8.75	-	-	
918R	443+90	Left	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	-	
919R	443+90	Left	M1-6	24" x 24"	State Route Marker	35	-	-	-	-	-	1	-	
920R	443+90	Left	D2-1	84" x 15"	Destination/Distance (One) with Die Cut Letters	Bloomington 8	-	-	-	-	-	1	2	
921	443+90	Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North 35	-	1	-	-	6.00	-	-	
922R	446+30	Right	J3-1	48" X 57"	Route Turn Assembly (2 Headed Route Panel)	East, West 81, 81	-	-	-	-	-	1	1	
						Up Arrow, Right Arrow	-	-	-	-	-	-	-	
927	446+30	Right	J3-1	72" x 57"	Directional Assembly (3 Headed Route Panel)	South, East, West 35, 81, 81	-	-	2	-	28.50	-	-	
						Up Arrow, Up Arrow, Right Turn Arrow	-	-	-	-	-	-	-	
928	446+35	75' Right	J4-1	24" x 36"	Reassurance Assembly	WEST 81	-	1	-	-	6.00	-	-	
929R	446+35	150' Right	M3-4	24" x 12"	WEST Cardinal Route Marker		-	-	-	-	-	1	-	
930R	446+35	150' Right	M1-6	24" x 24"	State Route Marker	81	-	-	-	-	-	1	-	
931R	446+35	150' Right	D2-1	84" x 15"	Destination/Distance (One) with Die Cut Letters	Cassville 12	-	-	-	-	-	1	2	
932	446+35	250' Right	D2-1	72" x 15"	Destination/Distance (One) with Die Cut Letters	Cassville 12	1	1	-	-	7.50	-	-	
933	447+50	STH 81	R1-1	36" x 36"	Stop		1	-	-	-	7.46	-	-	
934R	447+50	STH 81	R1-1	36" x 36"	Stop		-	-	-	-	-	1	1	
Subtotal =							11	10	3	0	173	27	24	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614	634.0616	634.0618	634.0808	637.0202	638.2602	638.3000	Comments
							POSTS WOOD 4x6 INCH 14-FT EACH	POSTS WOOD 4x6 INCH 16-FT EACH	POSTS WOOD 4x6 INCH 18-FT EACH	POSTS TUBULAR STEEL 2x2 INCH 8-FT EACH	SIGNS REFLECTIVE TYPE II SF	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
935R	447+50	Right	M3-1	24" x 12"	NORTH Cardinal Route Marker		-	-	-	-	-	1	2	
936R	447+50	Right	M50-3	72" x 24"	Route Marker Panel (3 Faces)	35, 35, 81	-	-	-	-	-	1	-	
937R	447+50	Right	M6-1	21" x 21"	Arrow - RIGHT, LEFT, OR AHEAD		-	-	-	-	-	1	-	
938R	447+50	Right	M3-3	24" x 12"	SOUTH Cardinal Route Marker		-	-	-	-	-	1	-	
939R	447+50	Right	M6-1	21" x 21"	Arrow - RIGHT, LEFT, OR AHEAD		-	-	-	-	-	1	-	
940R	447+50	Right	M3-2	24" x 12"	EAST Cardinal Route Marker		-	-	-	-	-	1	-	
941R	447+50	Right	M6-1	21" x 21"	Arrow - RIGHT, LEFT, OR AHEAD		-	-	-	-	-	1	-	
942	447+50	Right	J3-3	72" x 57"	Route Turn Assembly (3Headed Route Panel)	North, South, East	-	2	-	-	28.50	-	-	
						35, 35, 81	-	-	-	-	-	-	-	
						Left Arrow, Right Arrow, Right Arrow	-	-	-	-	-	-	-	
943R	447+60	Left	J13-1	24" x 57"	Directional Assembly	West	-	-	-	-	-	1	1	
						81	-	-	-	-	-	-	-	
						Left Arrow	-	-	-	-	-	-	-	
944	447+60	Left	J3-2	48" x 57"	Directional Assembly (2 Headed Route Panel)	West, North	-	-	1	-	19.00	-	-	
						81, 35								
						Left Arrow, Up Arrow								
Subtotal =							0	2	1	0	48	8	3	
Item Totals =							55	32	7	4	739	141	97	



PROJECT NO:5580-00-61	HWY: STH 35	COUNTY: GRANT	SPLIT PLAN SHEET	SHEET	E
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Curve Data
A = 24°23'27.56" (RT)
D = 1°29'60.00"
T = 825.54
L = 1626.07
R = 3819.72
DB = N 24°41'00.50" W
DA = N 0°17'32.95" W
S.E. = 3.2%
RUNOFF = 123 FEET



Turn-down end treatment remains

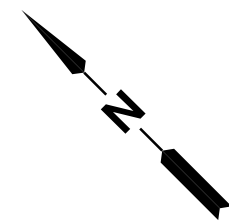
STATION: 173+13- 175+01, LT
REMOVE AND REPLACE EXISTING GUARDRAIL
87.5' - BEAM GUARD CLASS A REQUIRED
2 - ENERGY ABSORBING TERMINAL REQUIRED
2 - GRADING AND SHAPING FOR BARRIER
TERMINALS

PC 180+64.83

PT 163+94.88

PI 155+94.35

Curve Data
A = 19°53'16.15" (RT)
D = 1°59'60.00"
T = 502.25
L = 994.39
R = 2864.79
DB = N 44°33'57.46" W
DA = N 24°40'41.30" W
S.E. = 4.9%
RUNOFF = 188 FEET



Curve Data
A = 23°19'53.93" (RT)
D = 3°14'59.98"
T = 363.99
L = 717.90
R = 1762.95
DB = N 67°53'58.91" W
DA = N 44°34'04.98" W
S.E. = 5.7%
RUNOFF = 218 FEET

STATION: 190+25 - 195+65, LT
FULL WIDTH PAVEMENT REPLACEMENT

PT 190+59.23

PC 204+63.10

PT 211+81.00

PI 185+67.08

PI 208+27.09

STATION: 183+65 - 190+40, RT
REMOVE EXISTING GUARDRAIL
575' - BEAM GUARD CLASS A REQUIRED
2 - ENERGY ABSORBING TERMINAL REQUIRED
2 - GRADING AND SHAPING FOR BARRIER
TERMINALS

PROJECT NO:5580-00-61

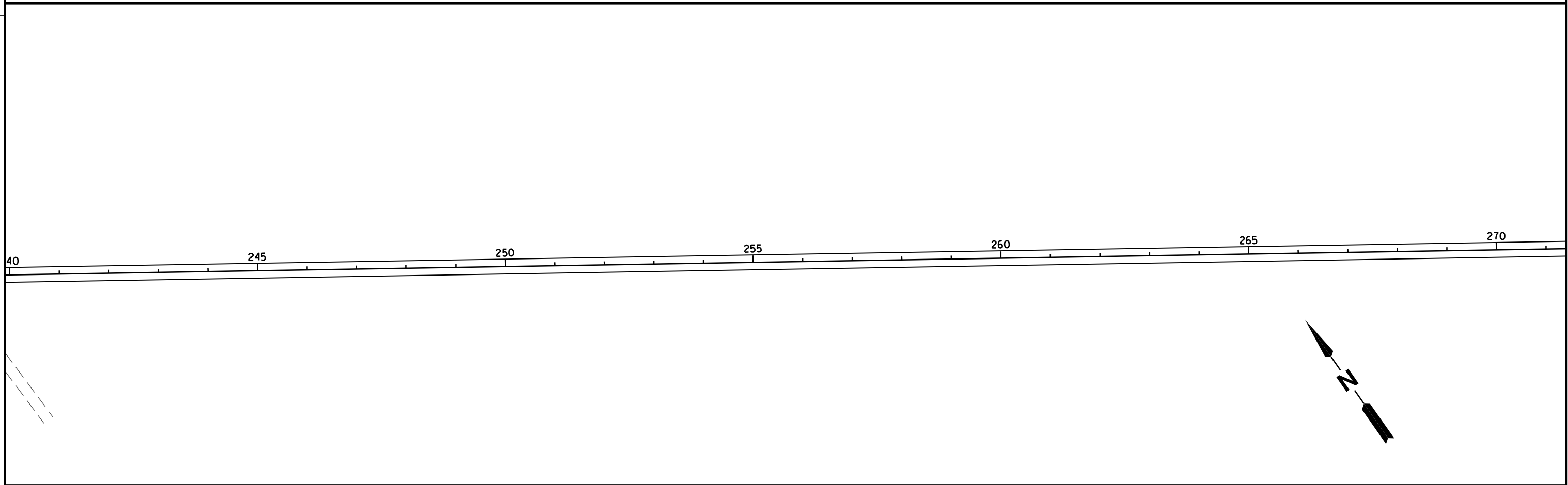
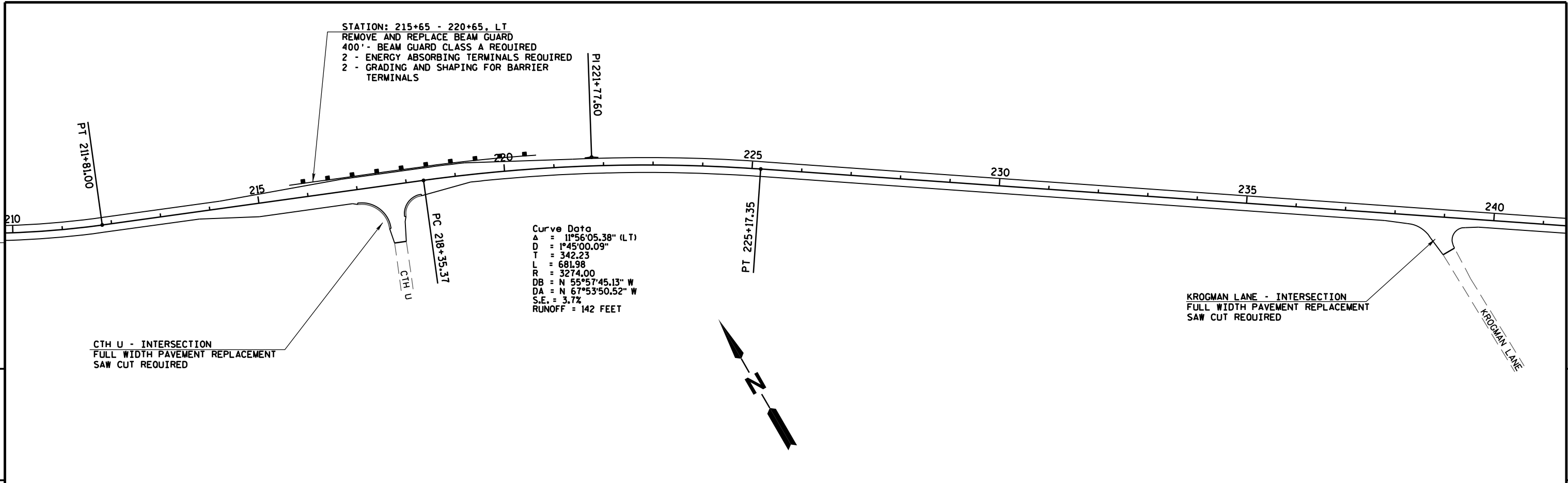
HWY: STH 35

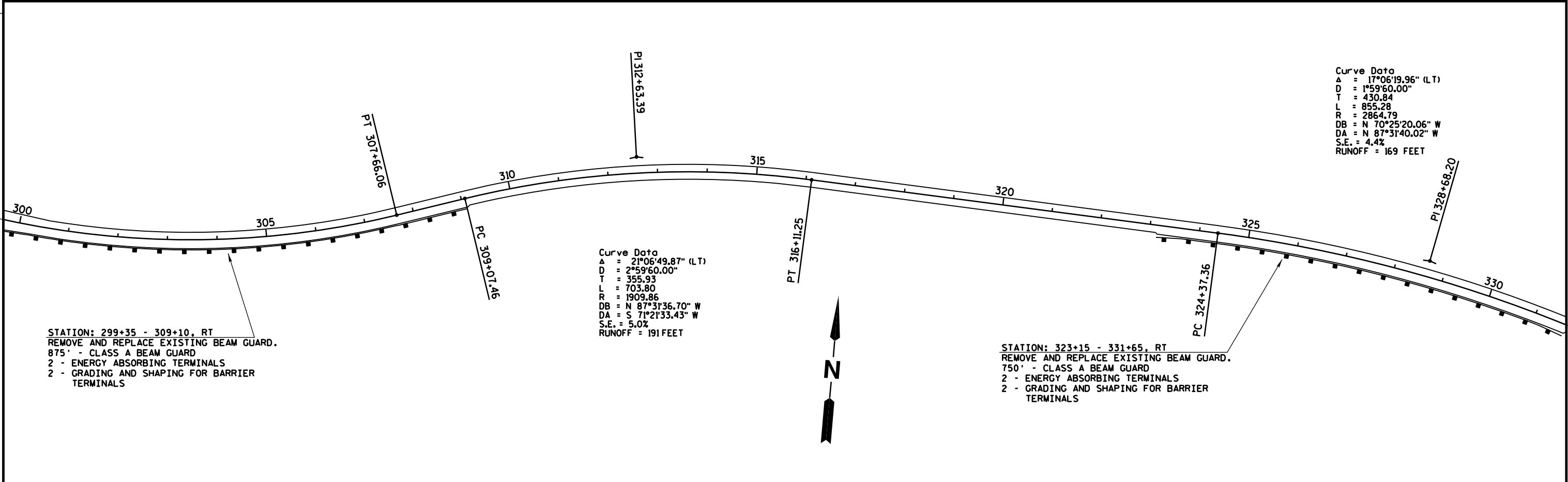
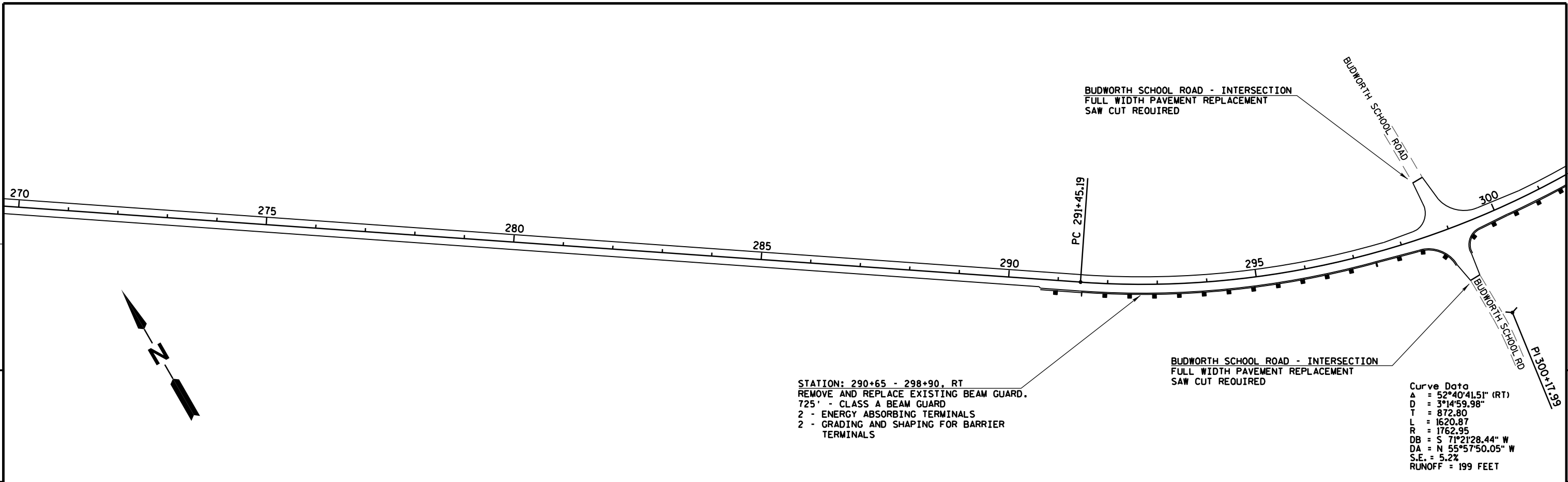
COUNTY: GRANT

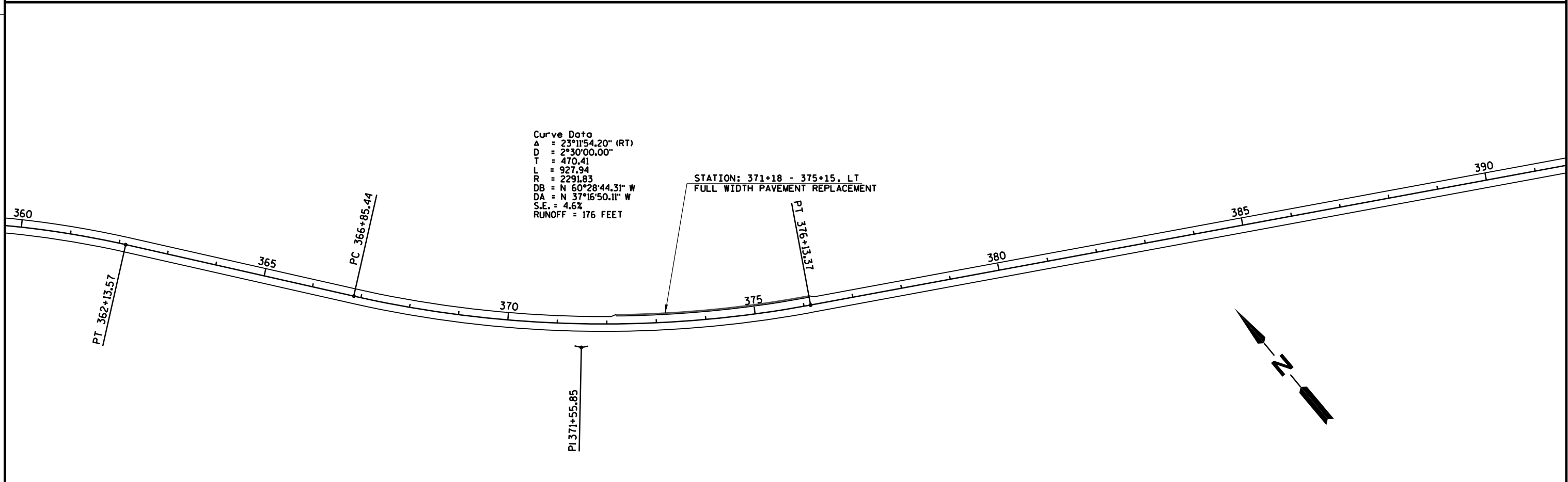
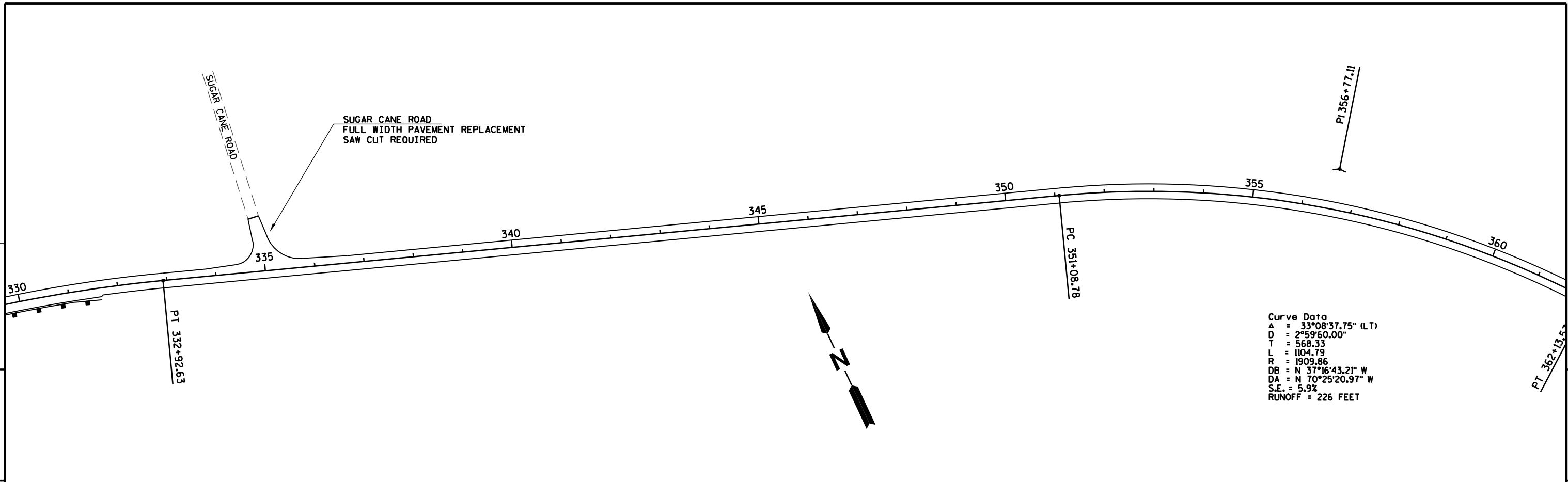
SPLIT PLAN SHEET

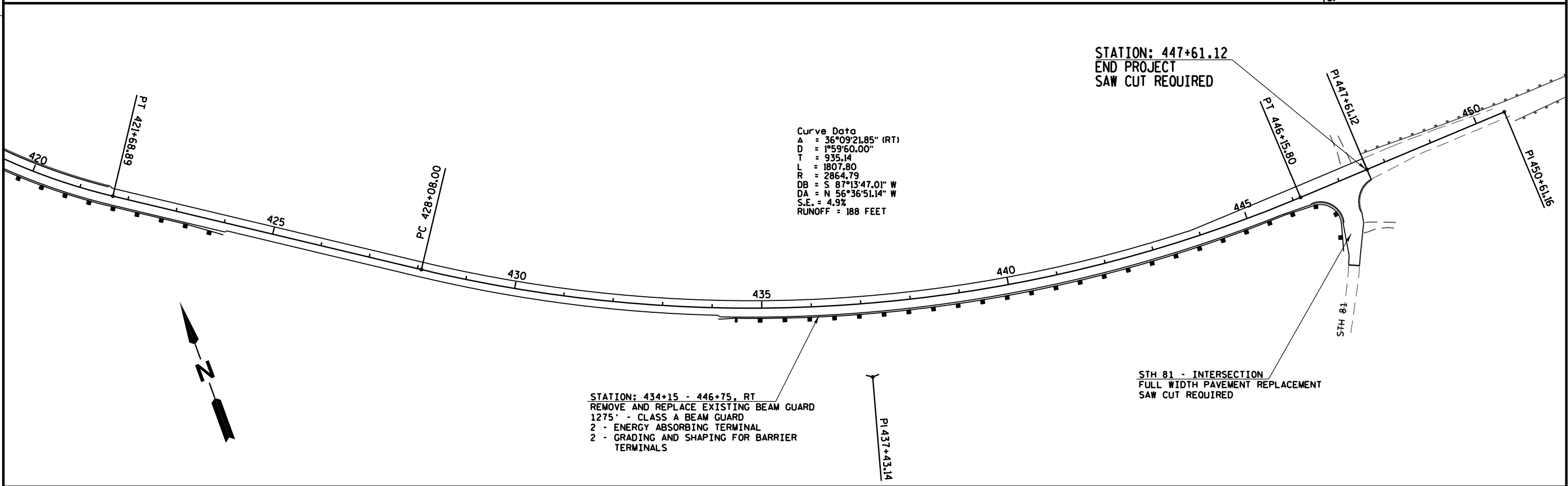
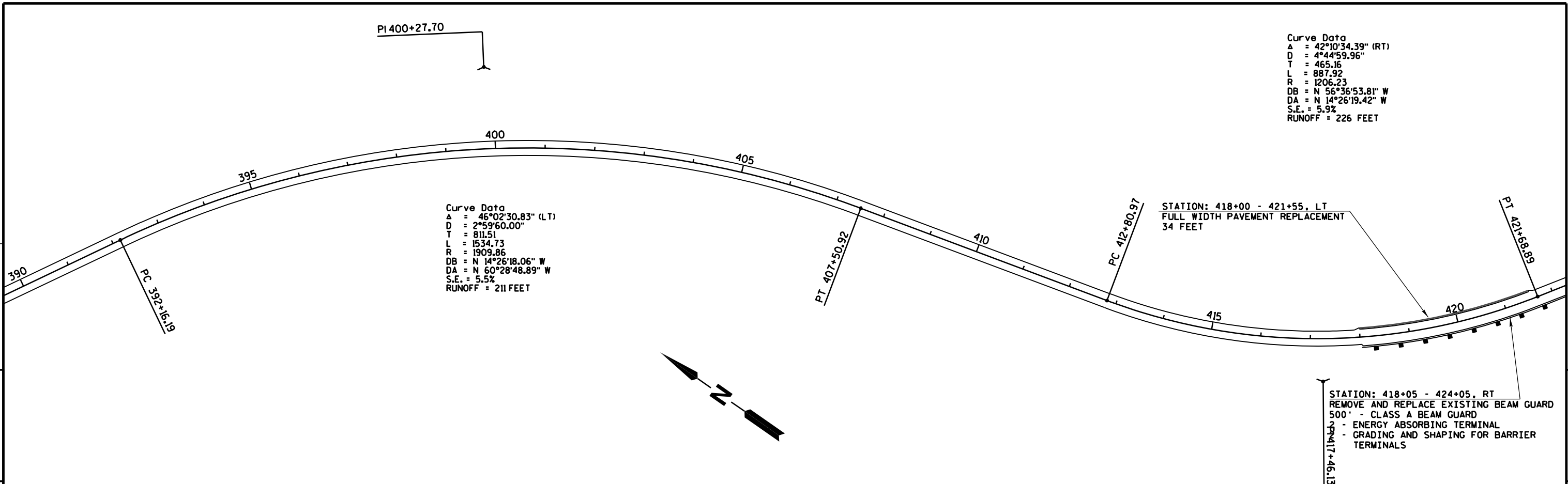
SHEET

E



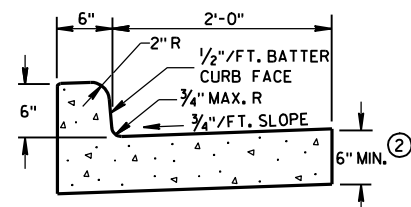




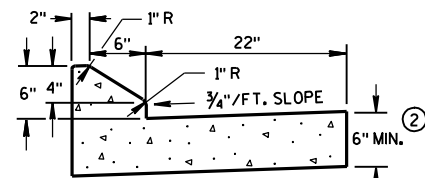


Standard Detail Drawing List

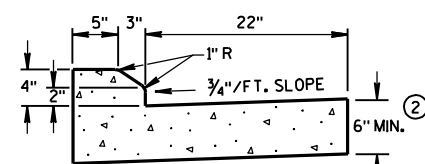
08D1-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D4-5	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E9-6	SILT FENCE
09A1-12A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A1-12B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09G2-2A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G2-2B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
14B7-11A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B7-11B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B7-11C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B7-11D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B7-11E	CONCRETE BARRIER TEMPORARY PRECAST, 10' -0"
14B7-11F	CONCRETE BARRIER TEMPORARY PRECAST, 10' -0"
14B15-6A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-6B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-6C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-6A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-7A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-6C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B24-6A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-6B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-6C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-1A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-1B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-1C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
15C4-1	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C6-5	SIGNING & MARKING FOR TWO LANE BRIDGES
15C8-12A	PAVEMENT MARKING (MAINLINE)
15C8-12B	PAVEMENT MARKING (INTERSECTIONS)
15C8-12E	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-3	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D33-2	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS



TYPES A & D ①

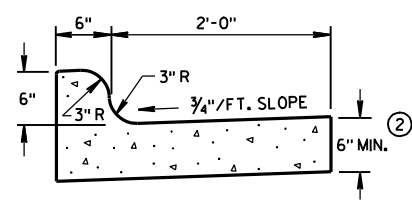


6" SLOPED CURB TYPES G & J ①

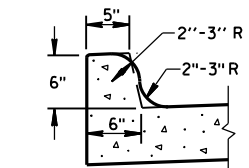


4" SLOPED CURB TYPES G & J ①

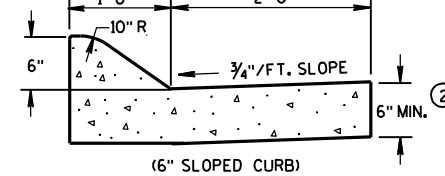
CONCRETE CURB & GUTTER 30"



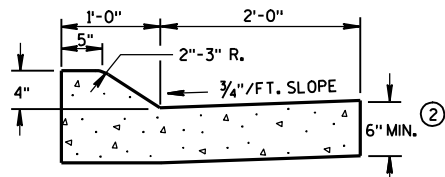
TYPES K & L ①



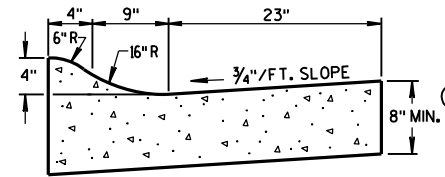
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



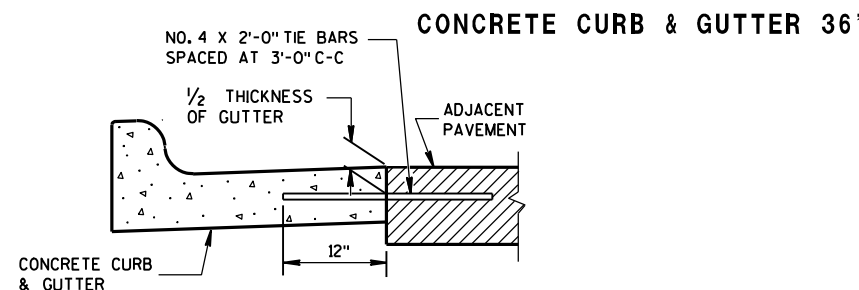
(6" SLOPED CURB)



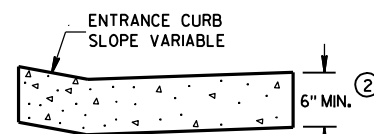
(4" SLOPED CURB)



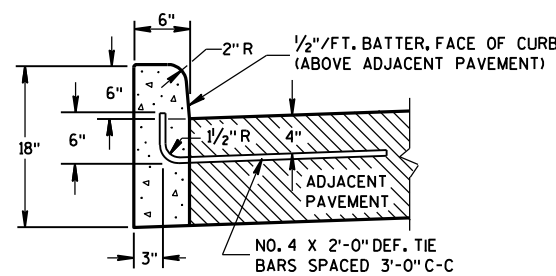
4" SLOPED CURB TYPES R & T ① ④



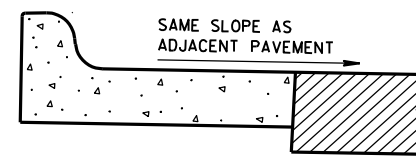
TYPICAL TIE BAR LOCATION ①



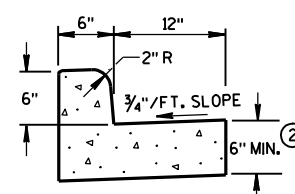
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



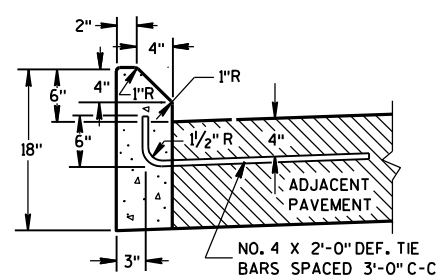
TYPES A & D ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



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.

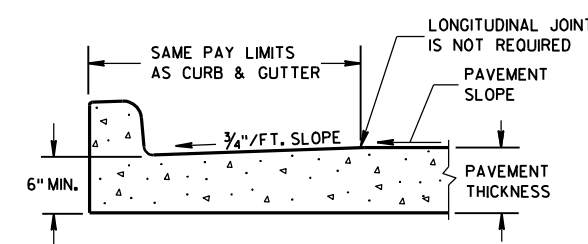
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

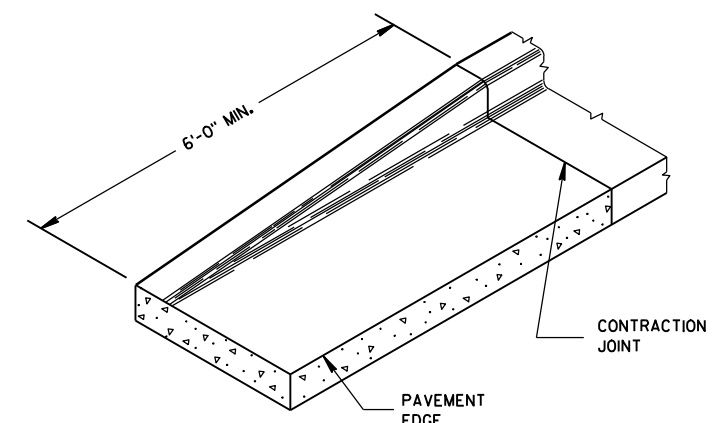
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

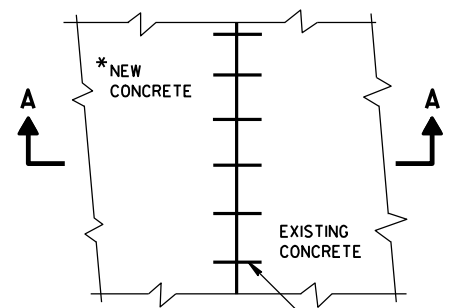
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER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



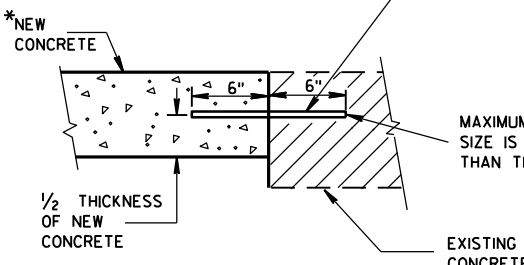
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER



PLAN VIEW



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

*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.

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

EXISTING
CONCRETE

CONCRETE CURB

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

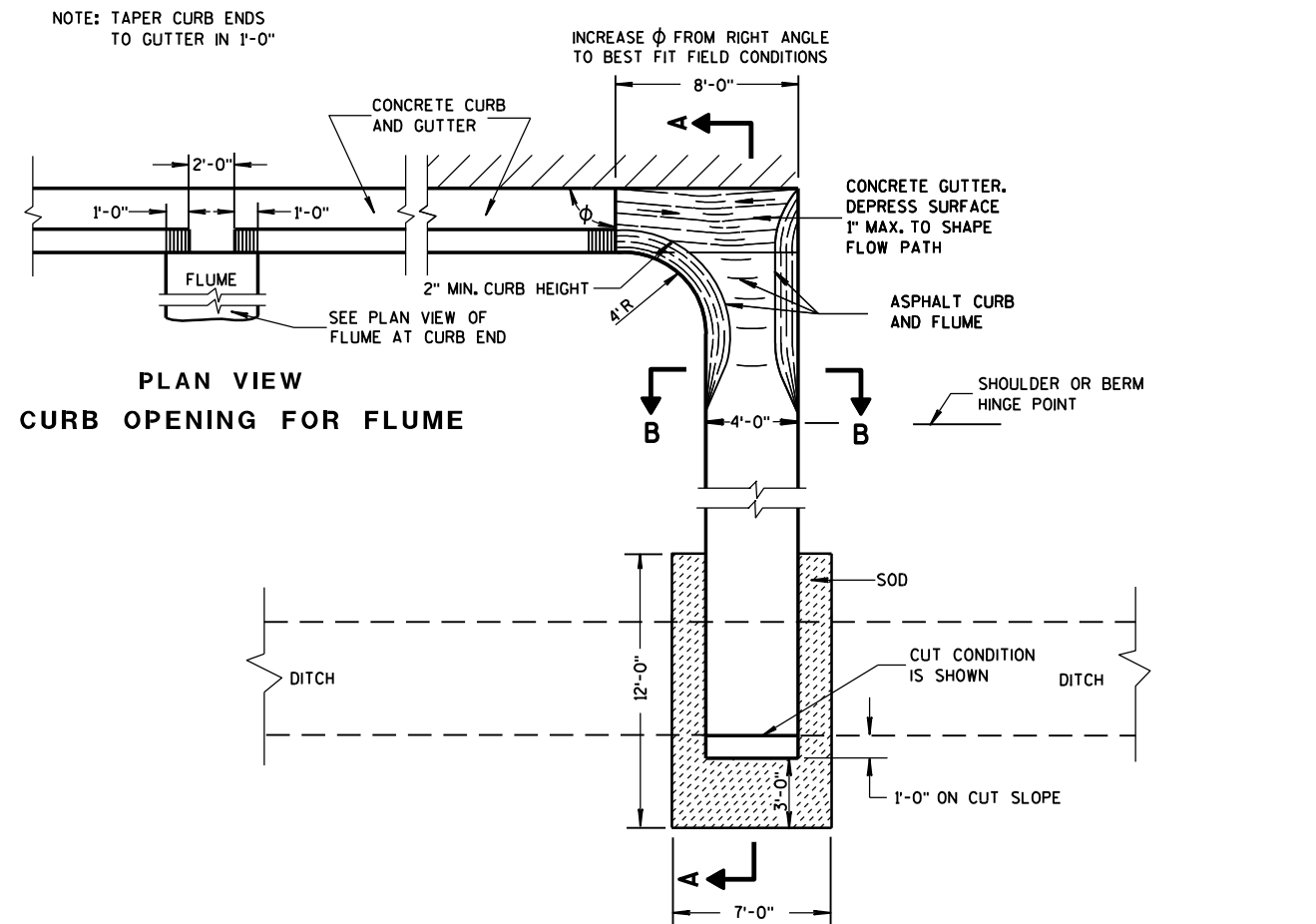
FHWA

/S/ Jerry H. Zogg

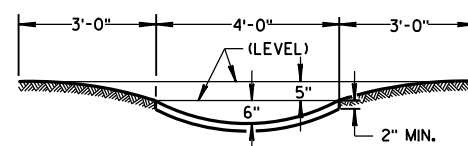
ROADWAY STANDARDS DEVELOPMENT

ENGINEER

ASPHALTIC FLUME



SECTION A-A



SECTION B-B

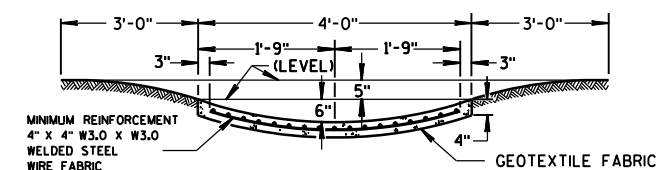
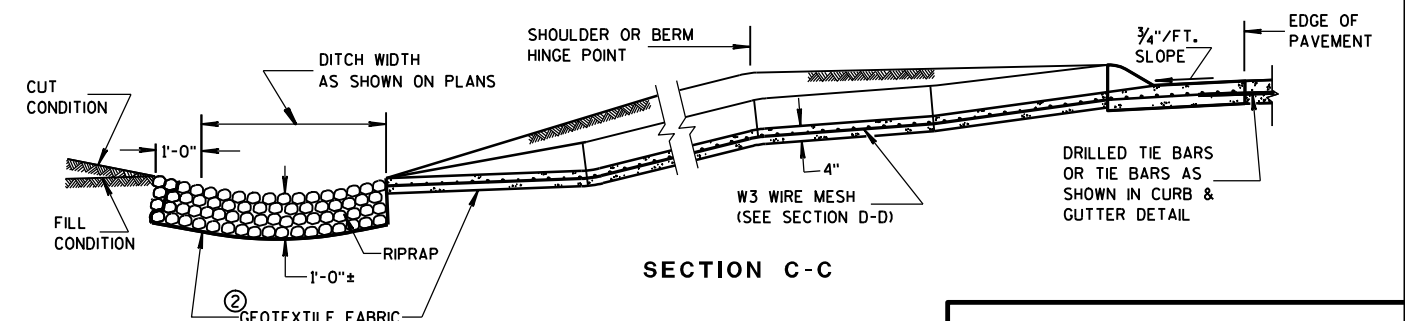
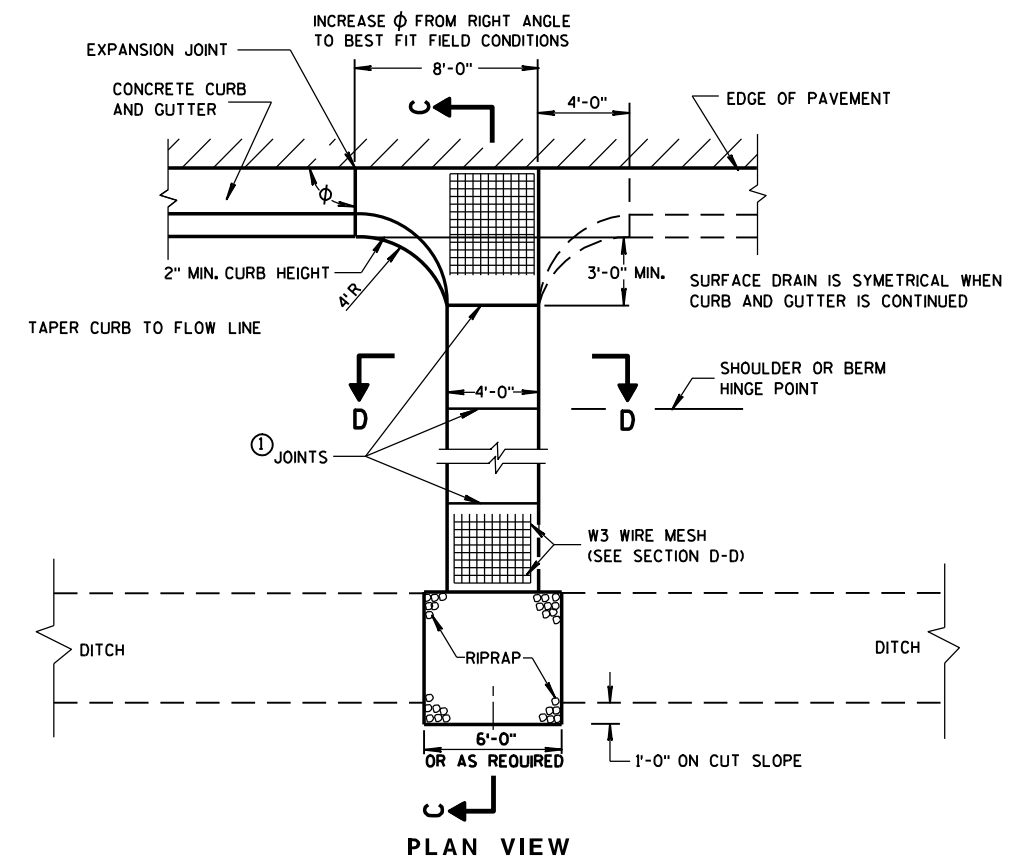
GENERAL NOTES

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.

- 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.
- GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

③ CONCRETE SURFACE DRAIN

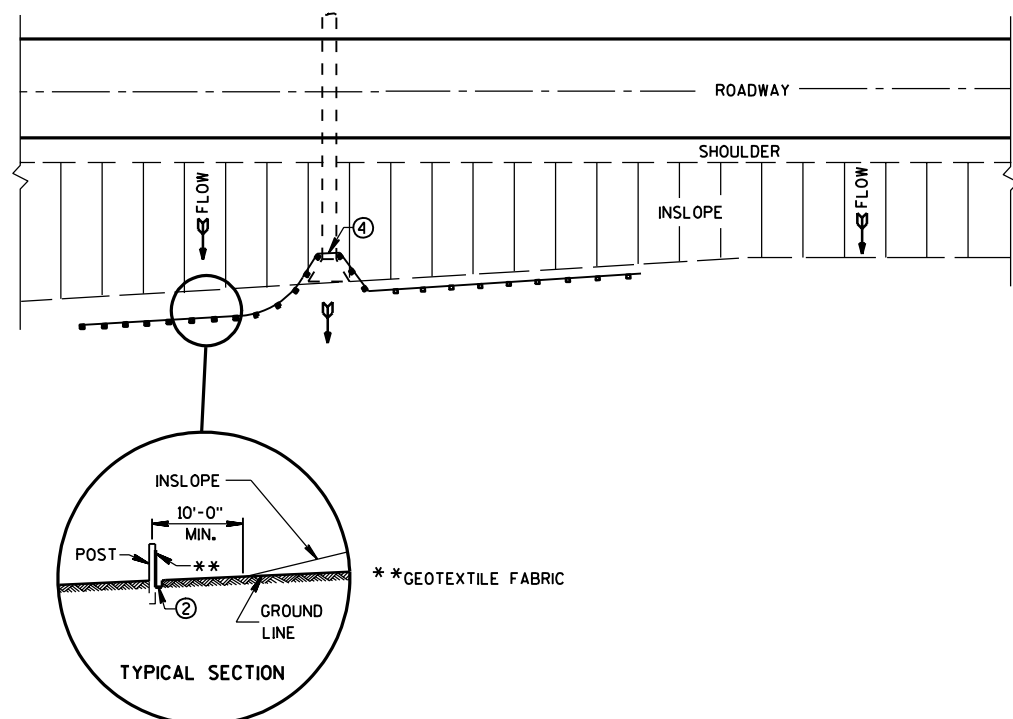


SECTION D-D

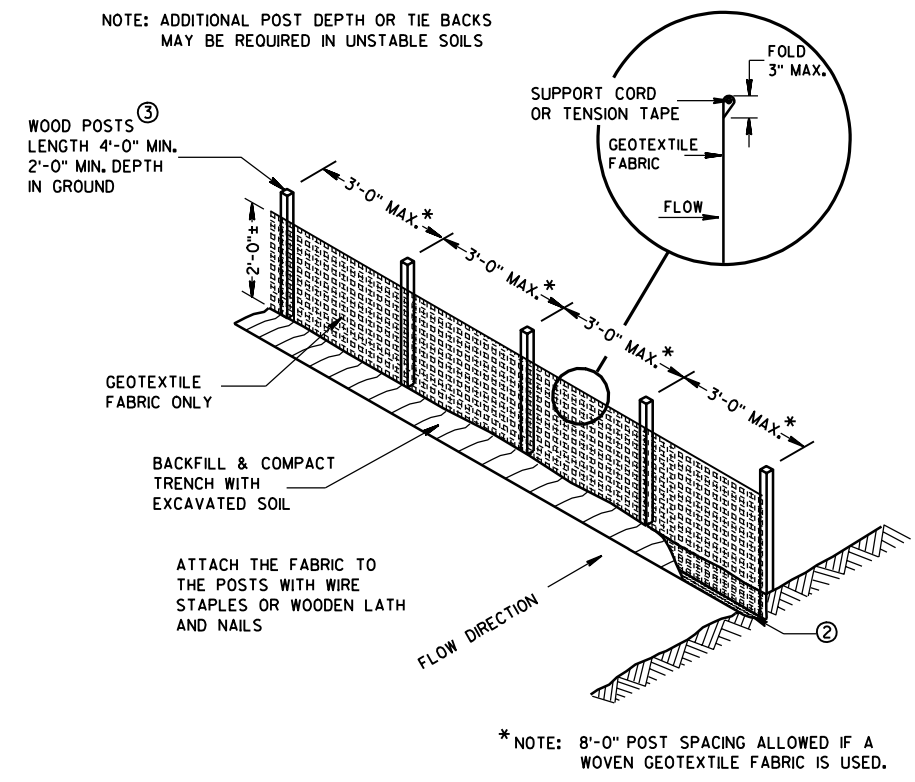
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

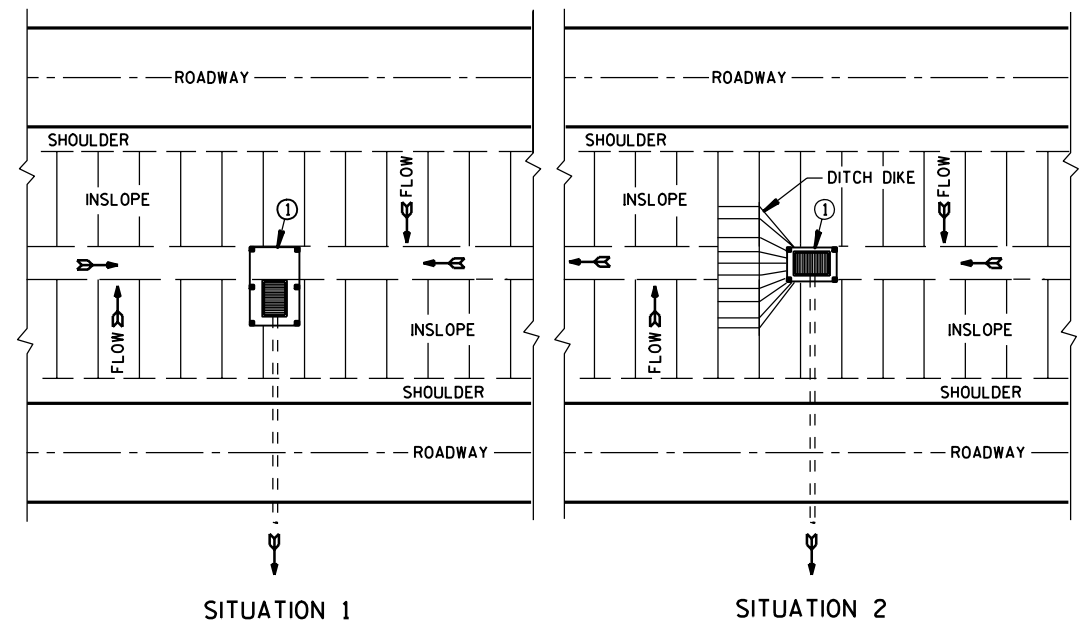
APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



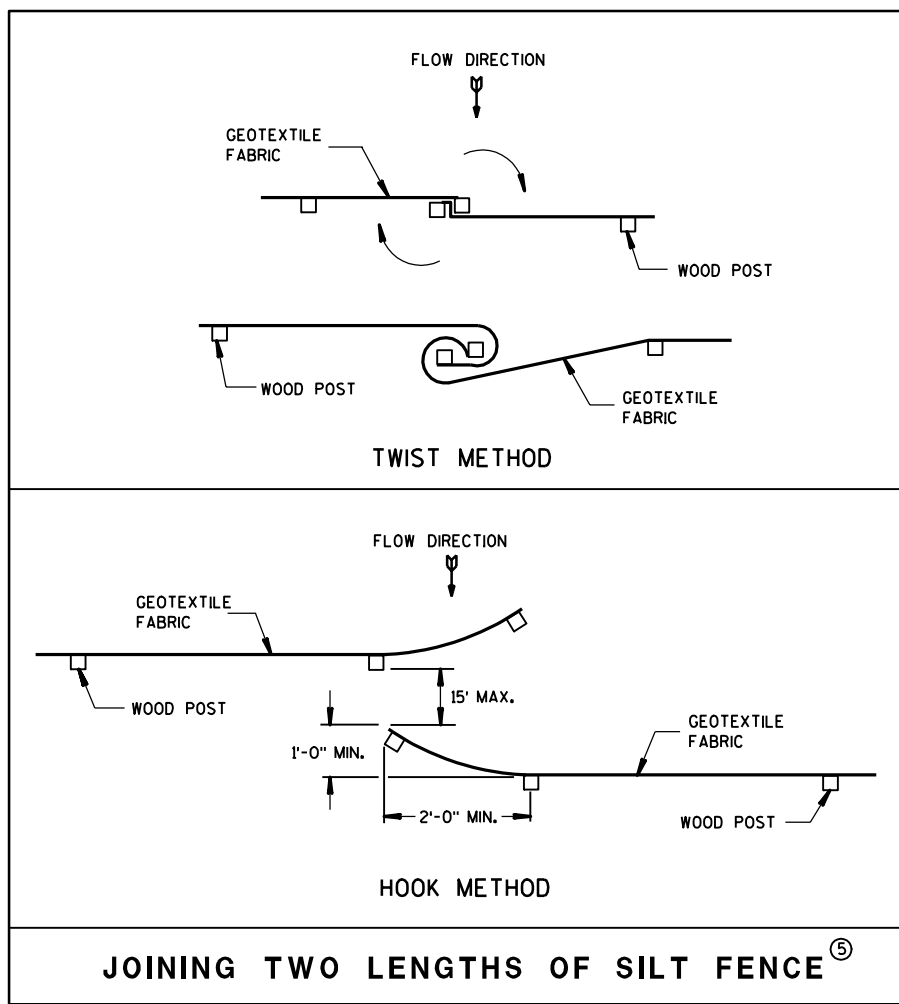
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



SITUATION 1
SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

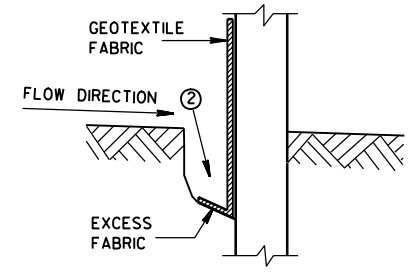


JOINING TWO LENGTHS OF SILT FENCE

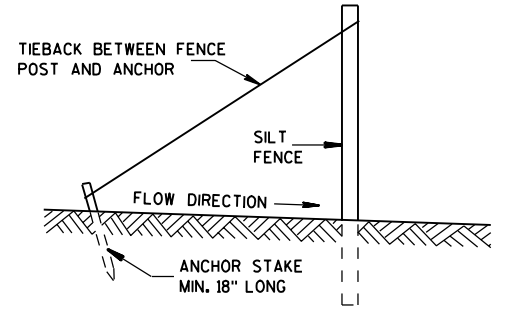
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC, FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1/8" X 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

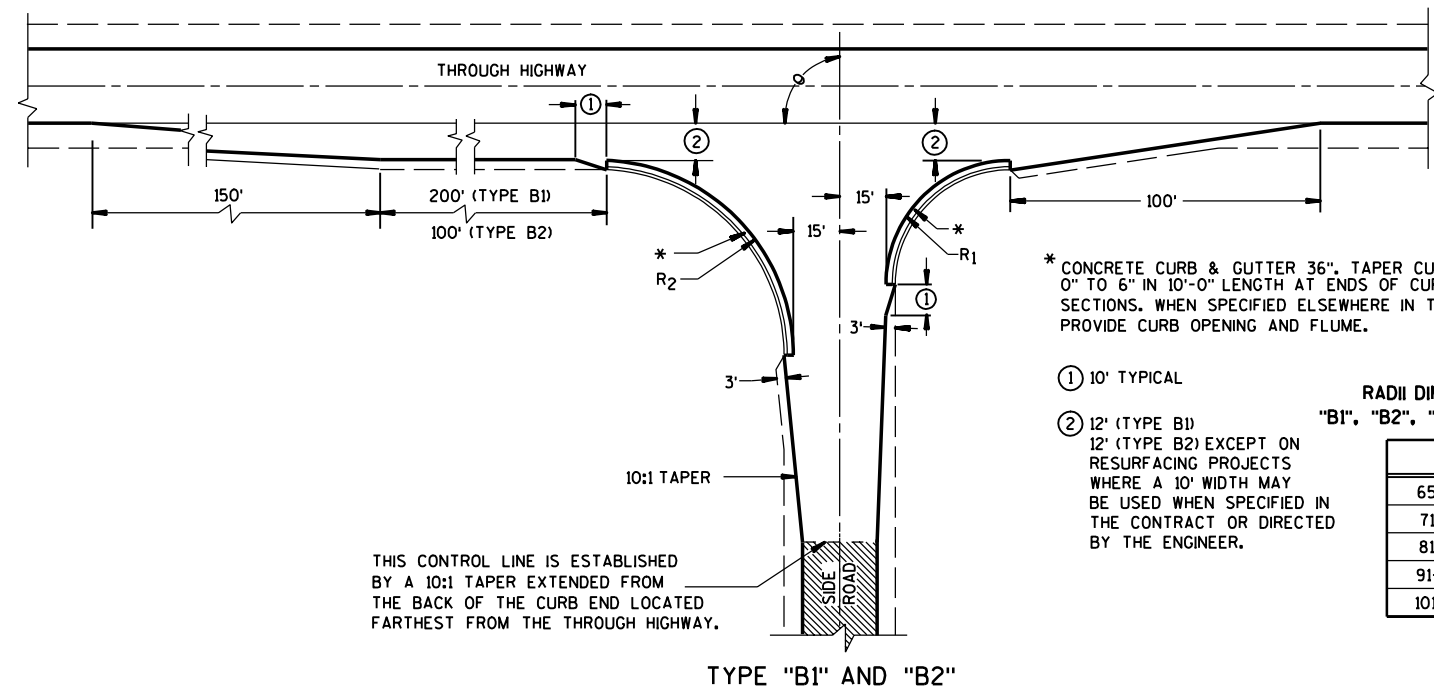


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE FWA	CHIEF ROADWAY 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.

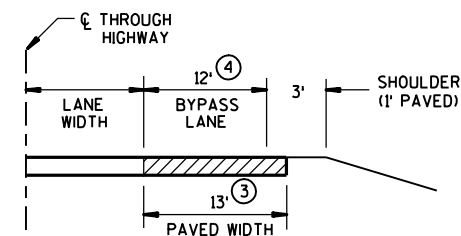
SIDE ROAD SURFACING NOTE

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.

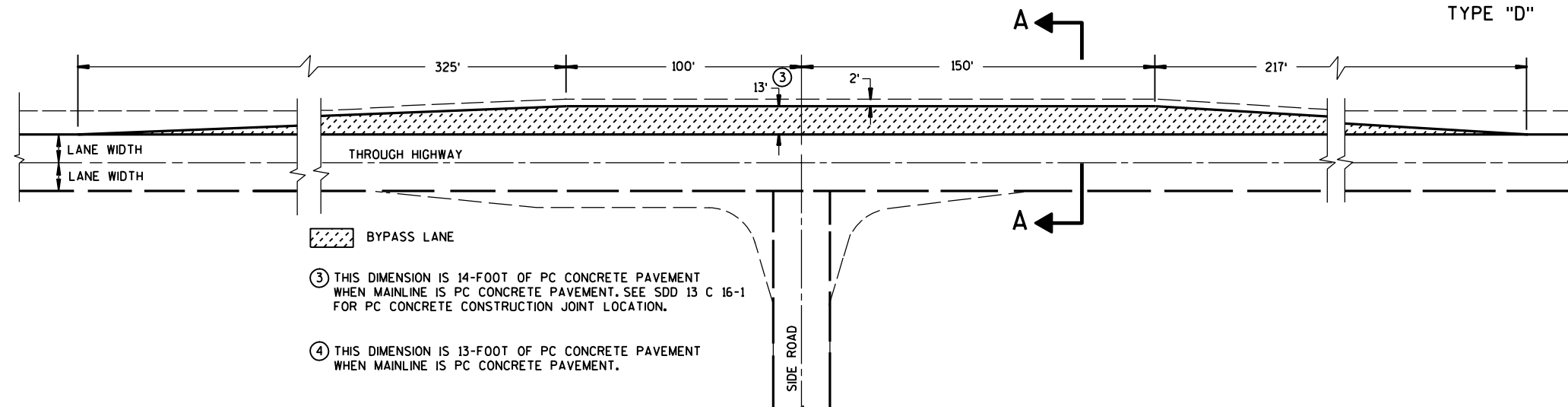
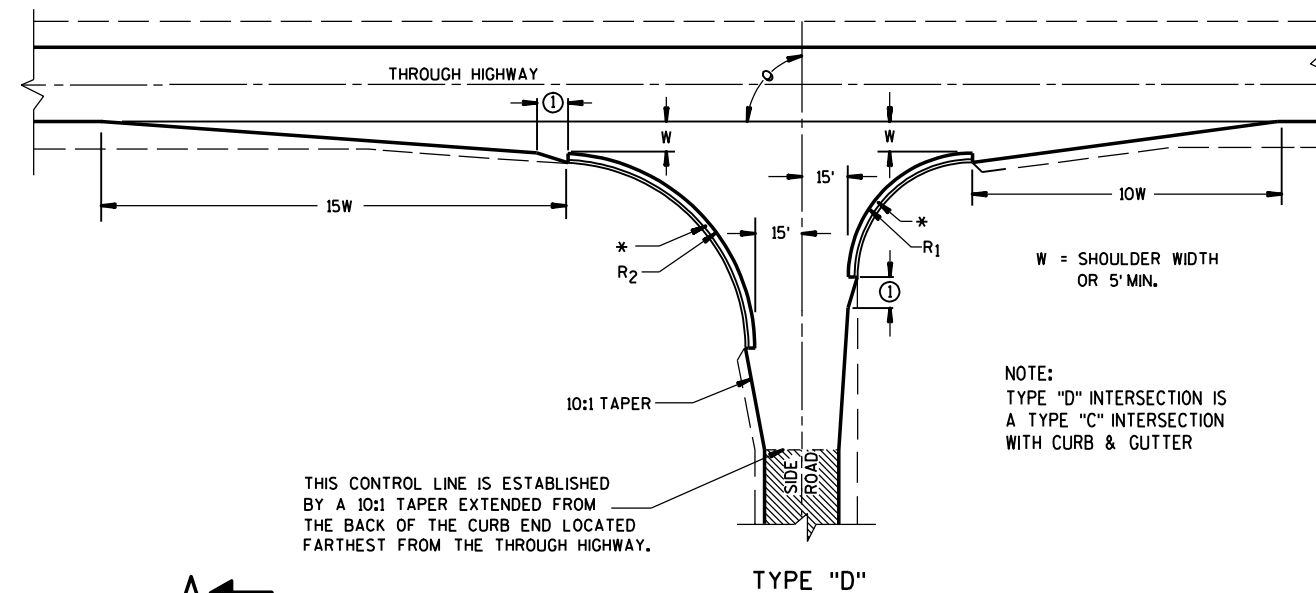
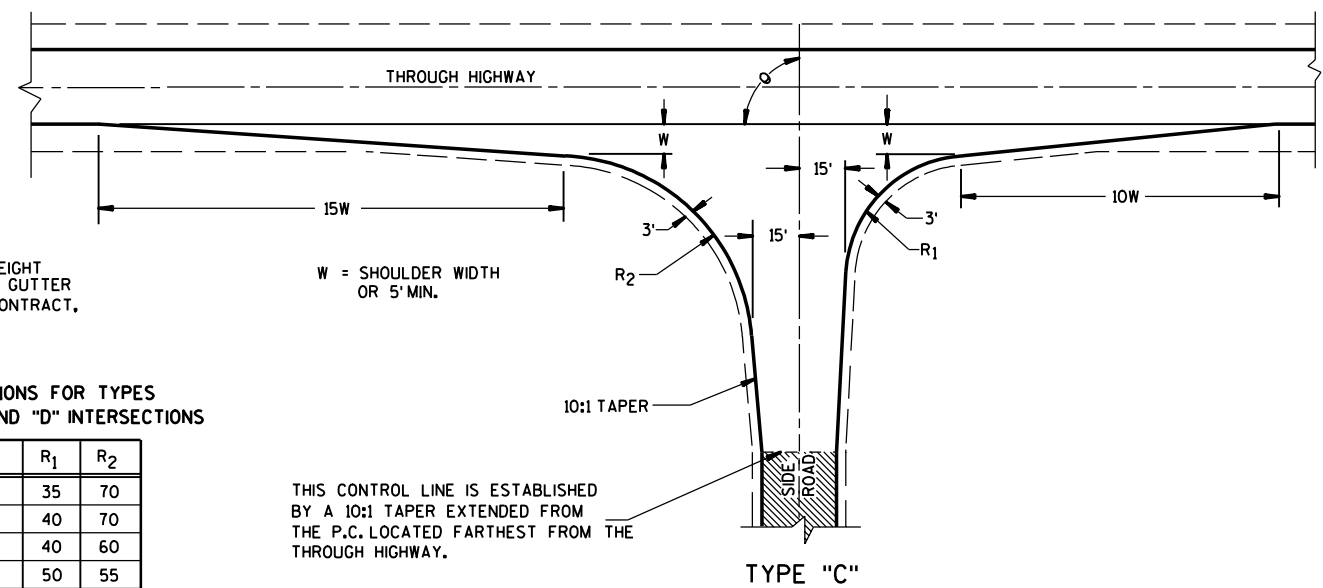
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

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

EXISTING SURFACE



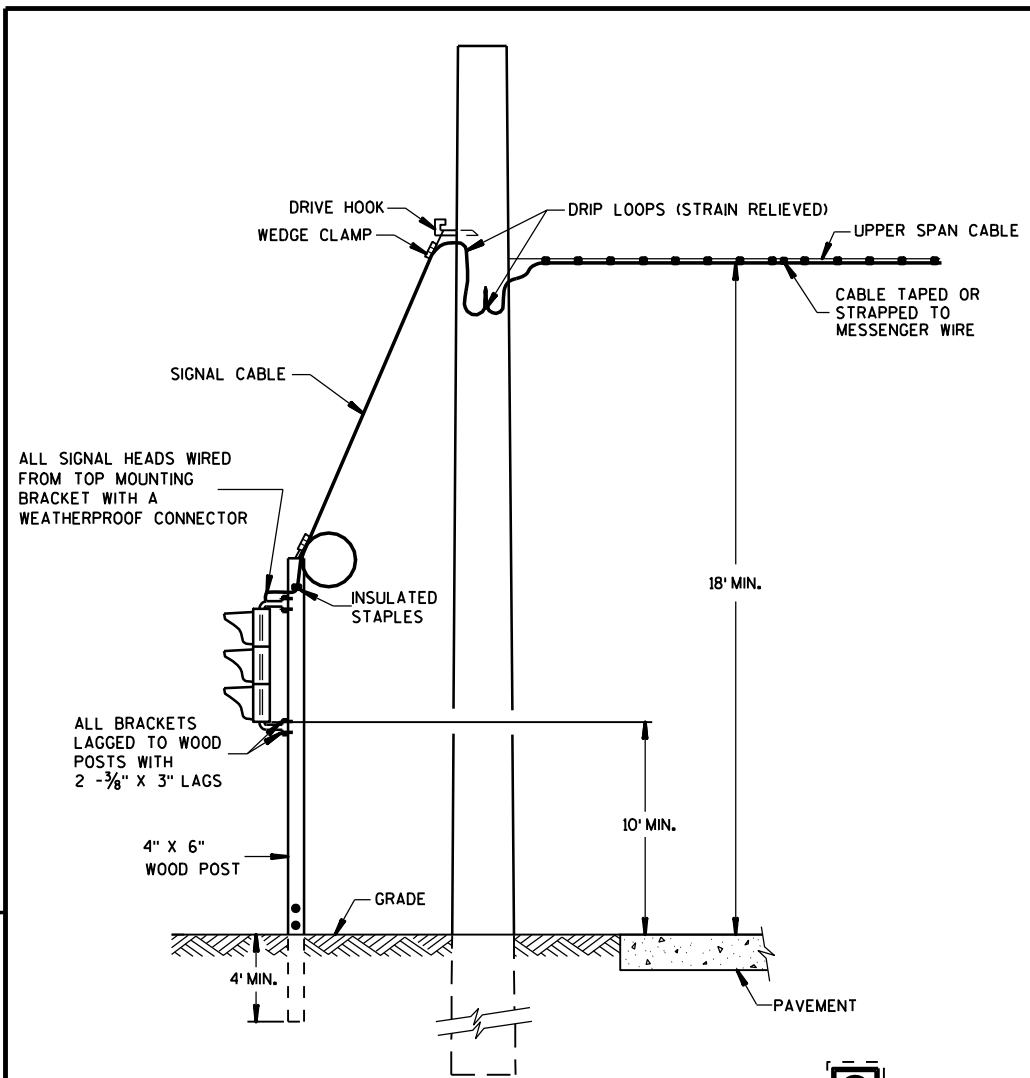
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



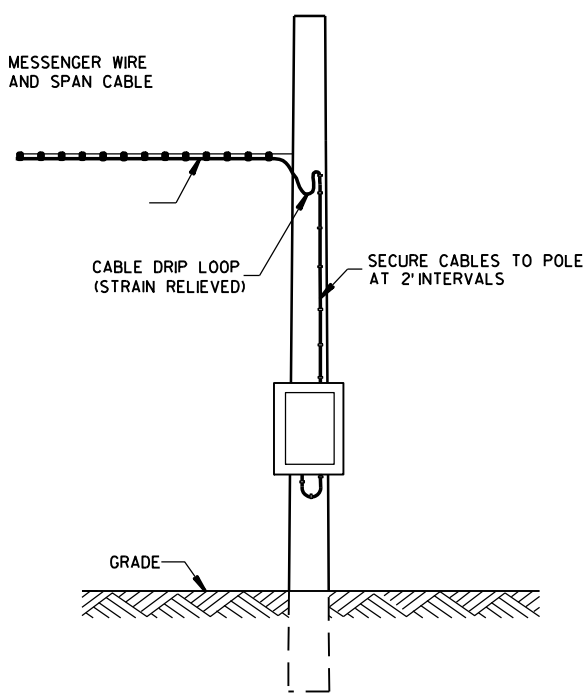
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY PLOES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

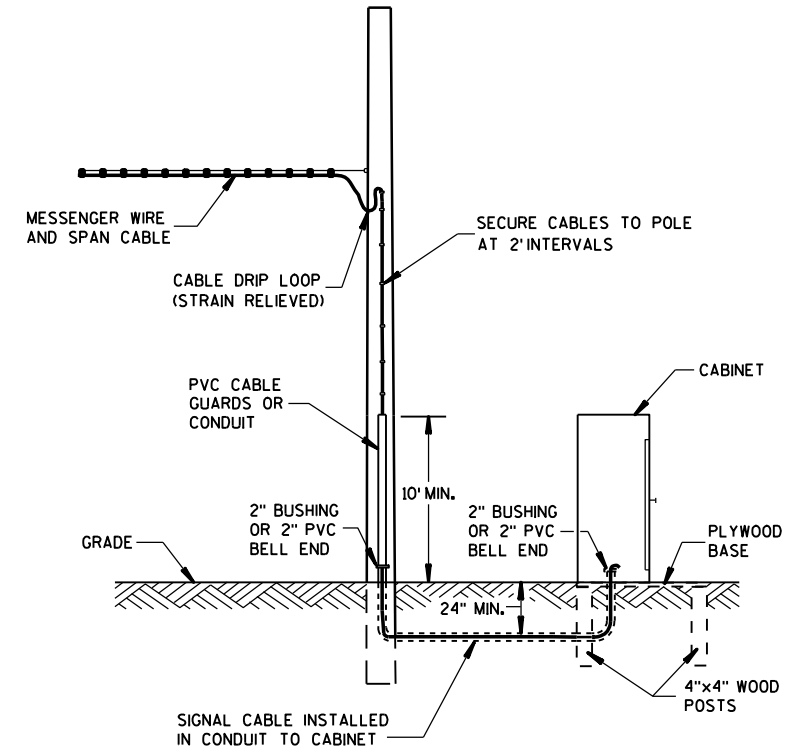
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

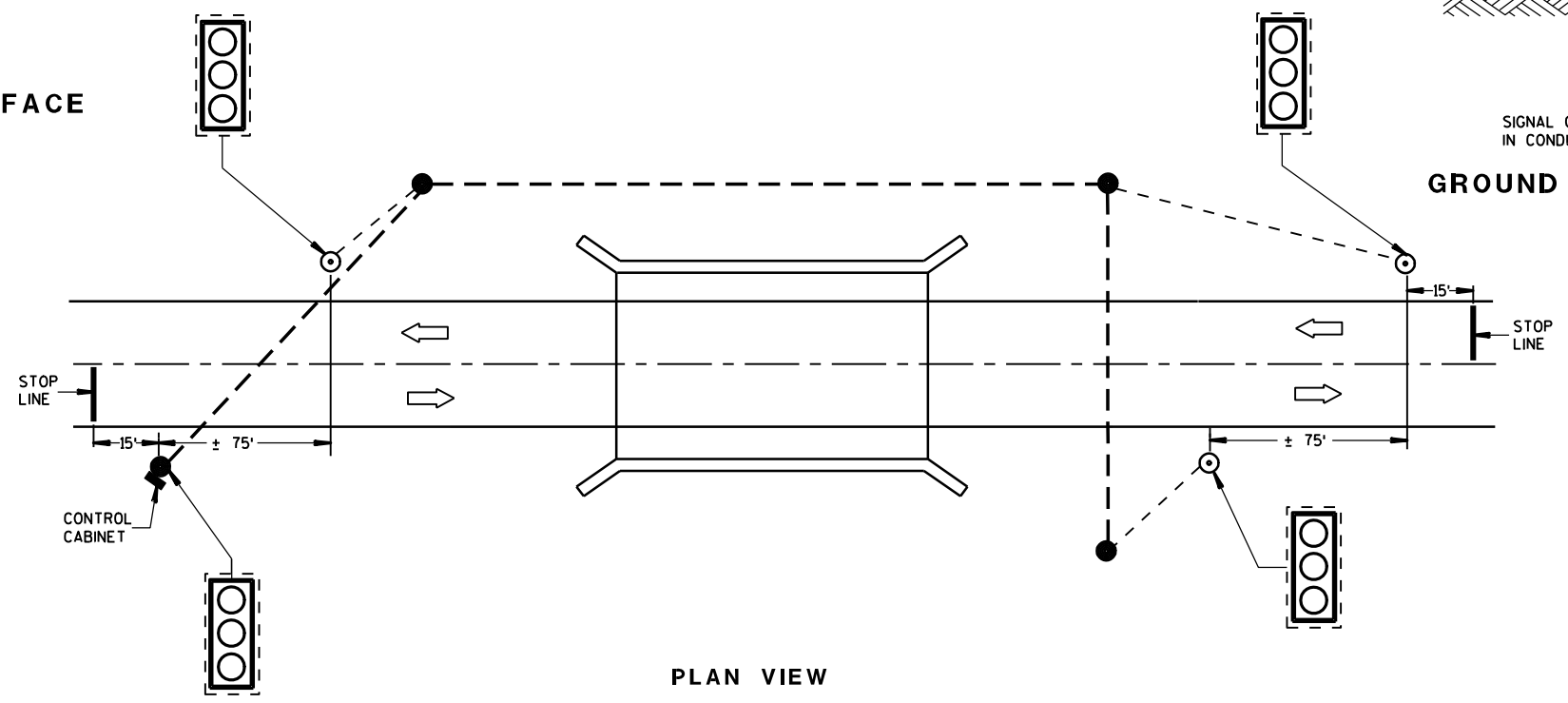
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT
**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.	

MINIMUM POLE LENGHTS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET



PLAN VIEW
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

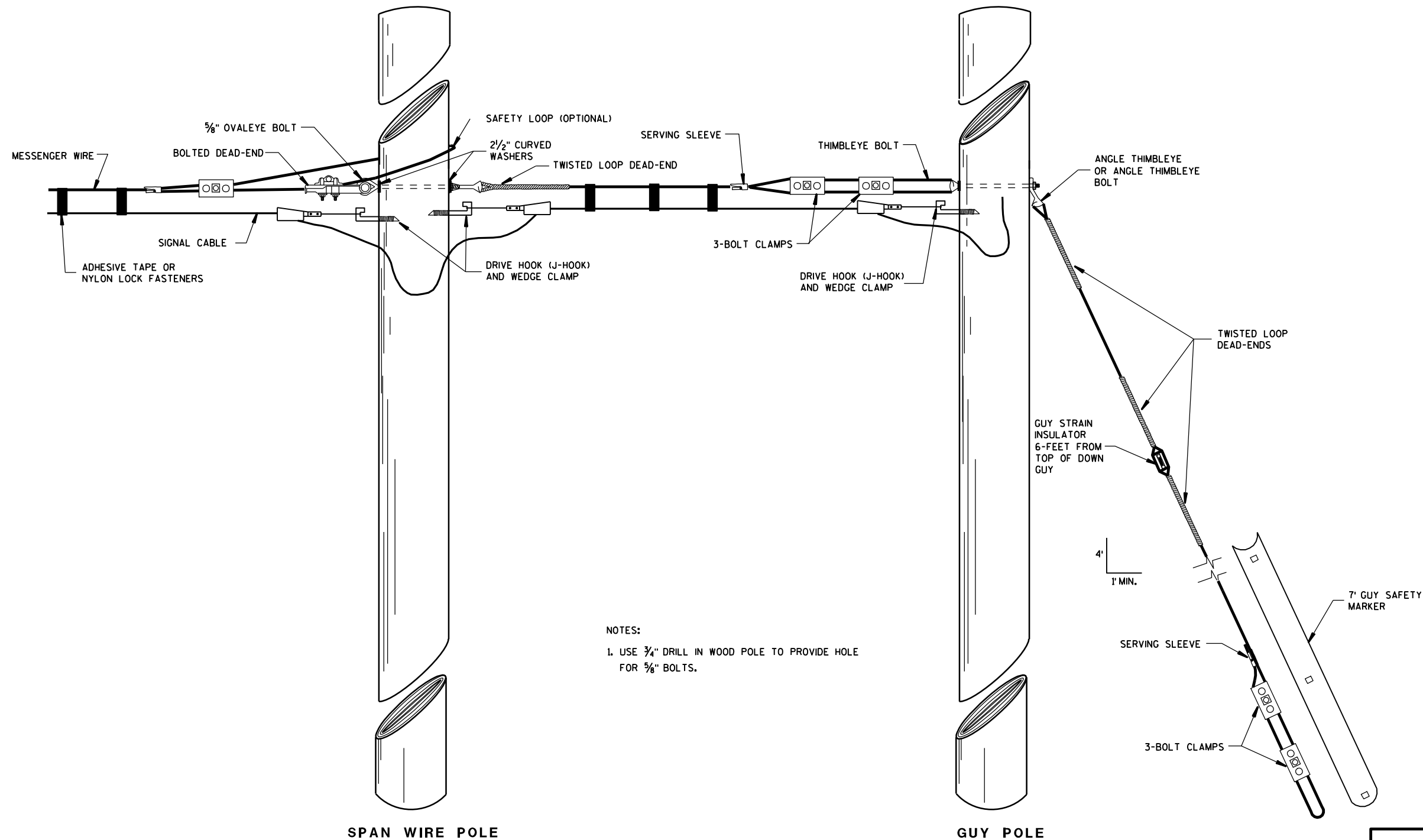
LEGEND

- WOOD POLE (NONBREAKAWAY)
- ⊙ WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- - - SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE
- DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

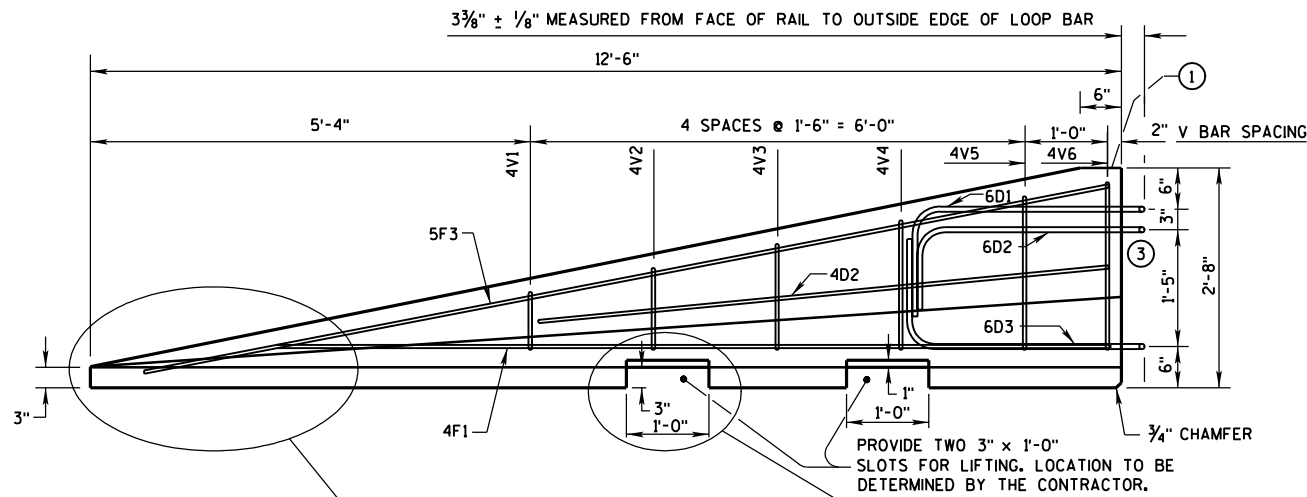
APPROVED
7-14-08 /S/ Balu Ananthanarayanan
DATE CHIEF ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA



NOTES:
1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

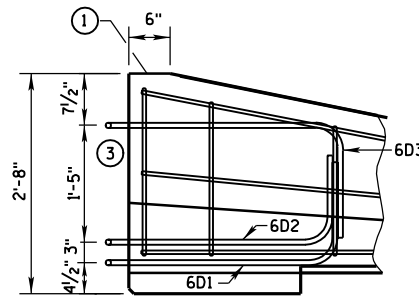
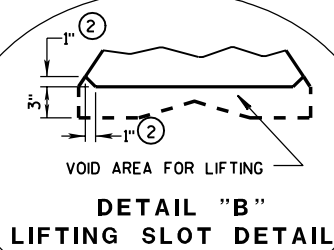
BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7-14-08 DATE	/S/ Balu Ananthanarayanan CHIEF ELECTRICAL ENGINEER FOR HIGHWAYS
FHWA	



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)

SEE DETAIL "C", BENT BAR DETAIL

PROVIDE TWO 3" x 1'-0"
SLOTS FOR LIFTING. LOCATION TO BE
DETERMINED BY THE CONTRACTOR.

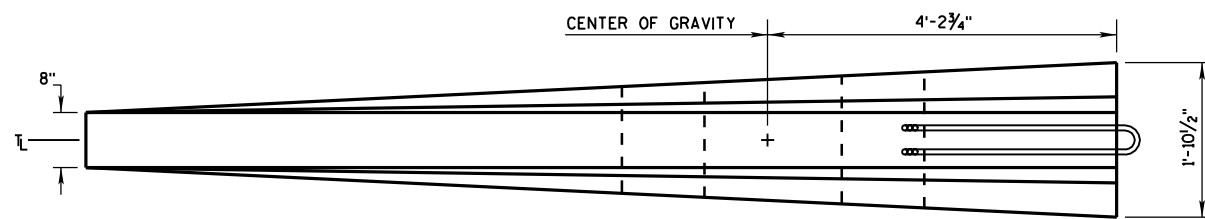


SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

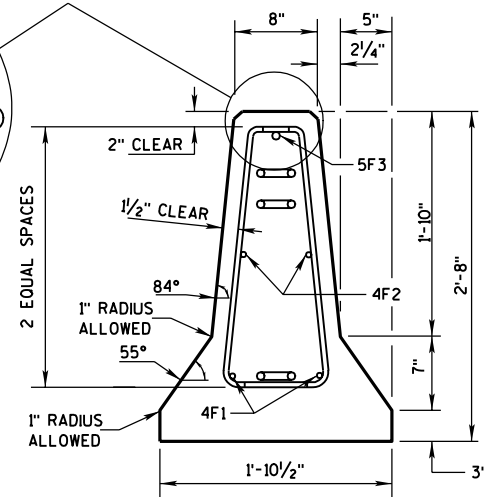
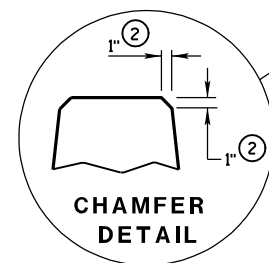
GENERAL NOTES

THE GENERAL NOTES ON SHEET 14B7-11(a) APPLY TO THIS SHEET.

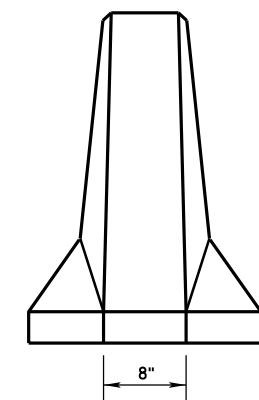
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY STAMPING OR FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE CBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



PLAN VIEW

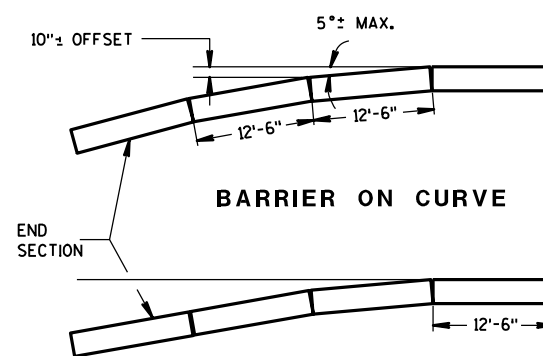


END SECTION



FRONT ELEVATION

DETAILS OF BARRIER TAPER SECTION



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	10:1
45 OR GREATER	15:1

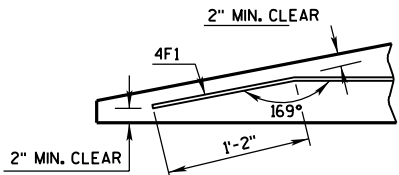
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

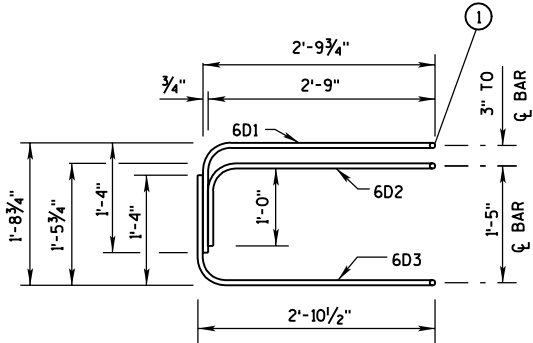
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

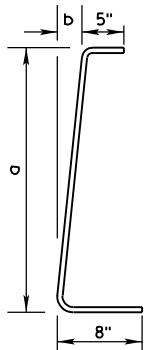
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

GENERAL NOTES

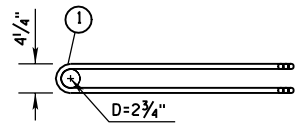
THE GENERAL NOTES ON SHEET 14B7-11(c) APPLY TO THIS SHEET.

1 NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

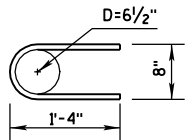
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

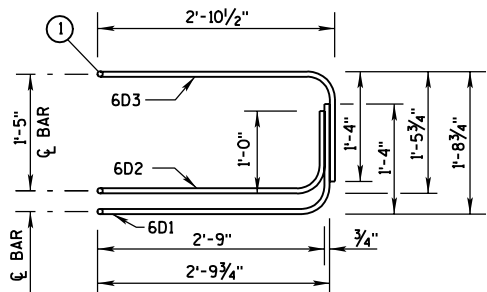


PLAN VIEW
LOOP BAR ASSEMBLY

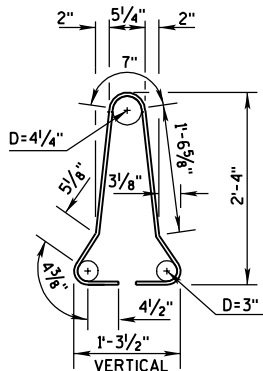
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW

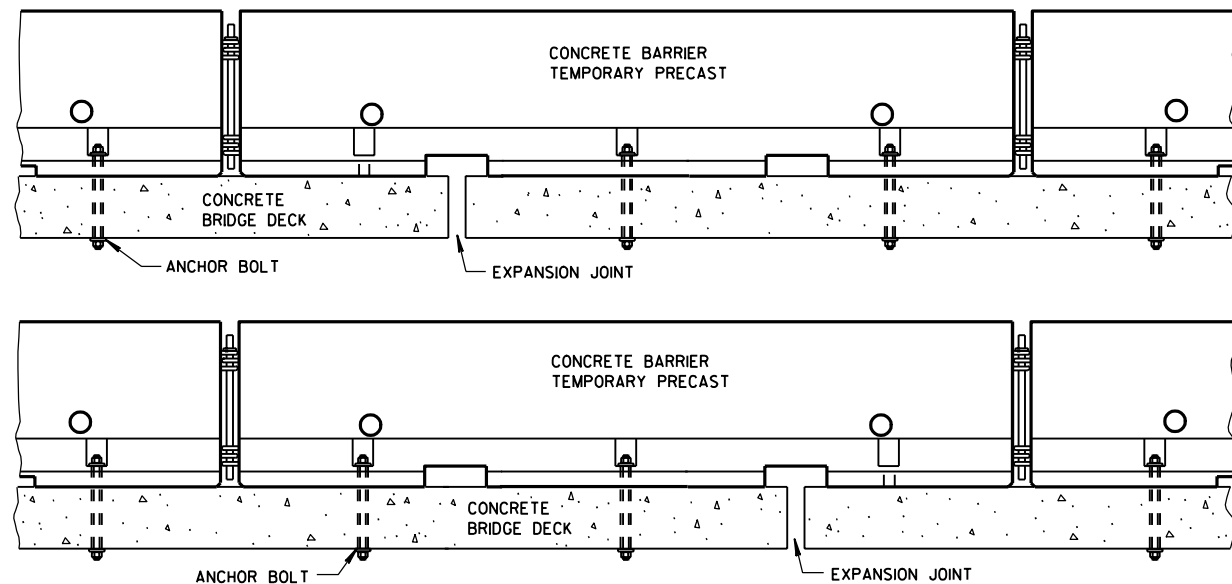


4A1

BARRIER SECTION

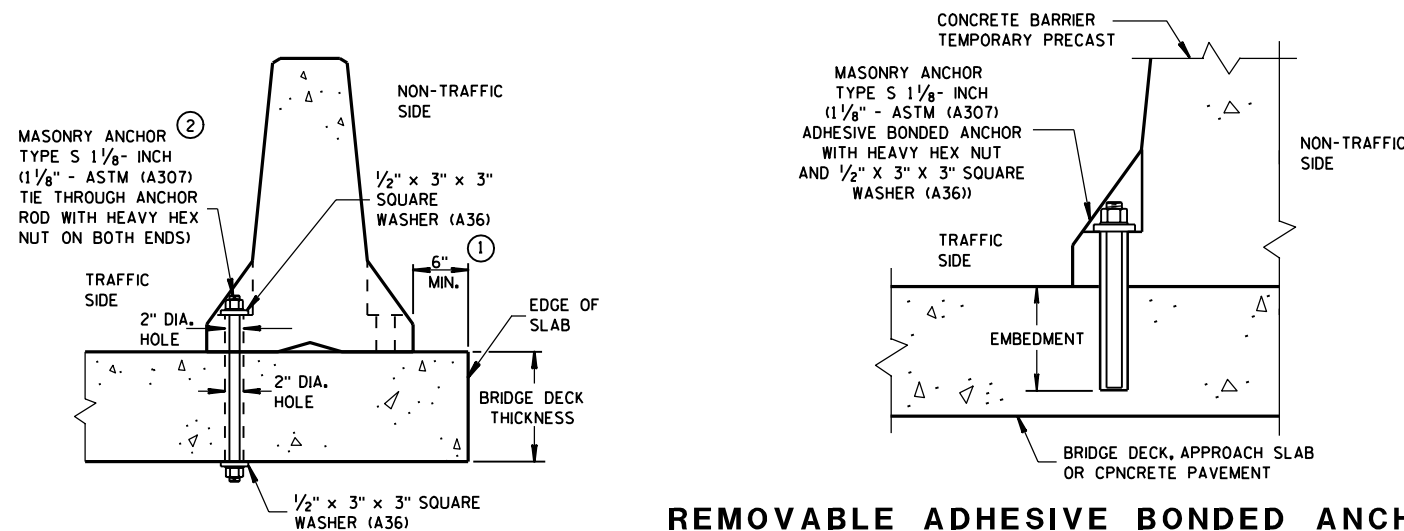
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

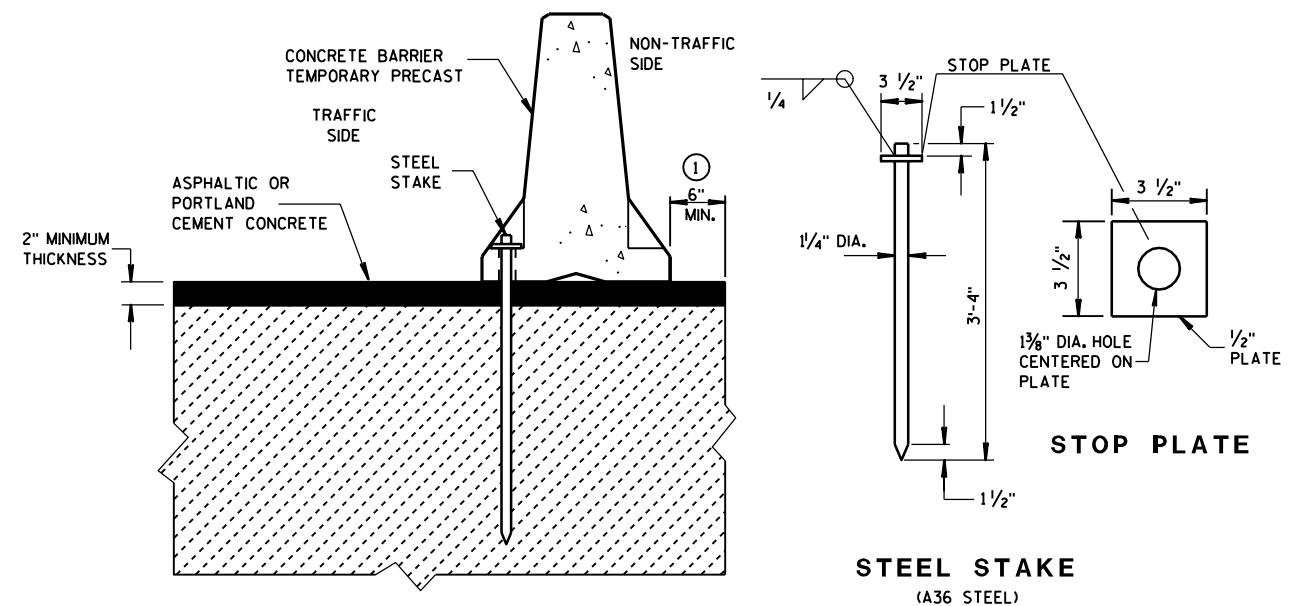


THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

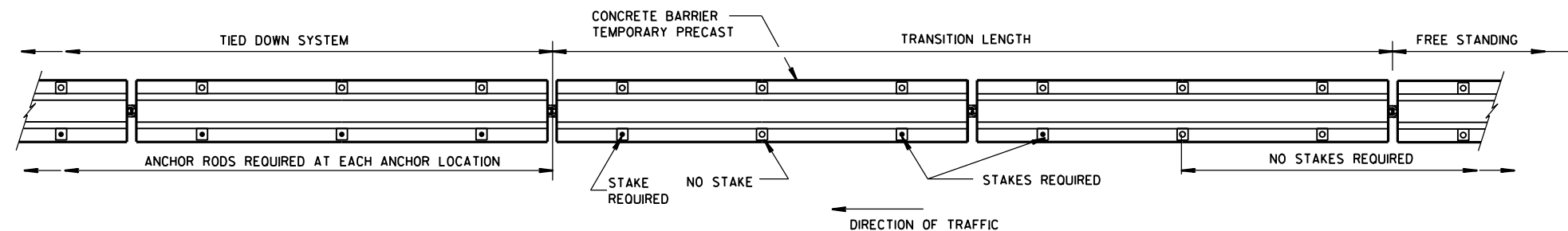
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

THE GENERAL NOTES ON SHEET 14B7-11(a) APPLY TO THIS SHEET.

- CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

- ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1 1/8-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-24-06

DATE

FHWA

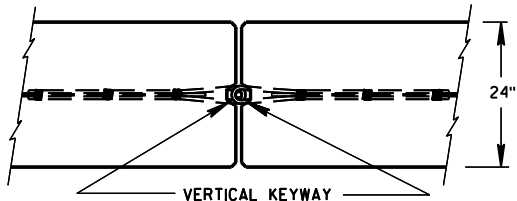
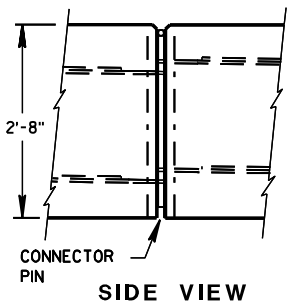
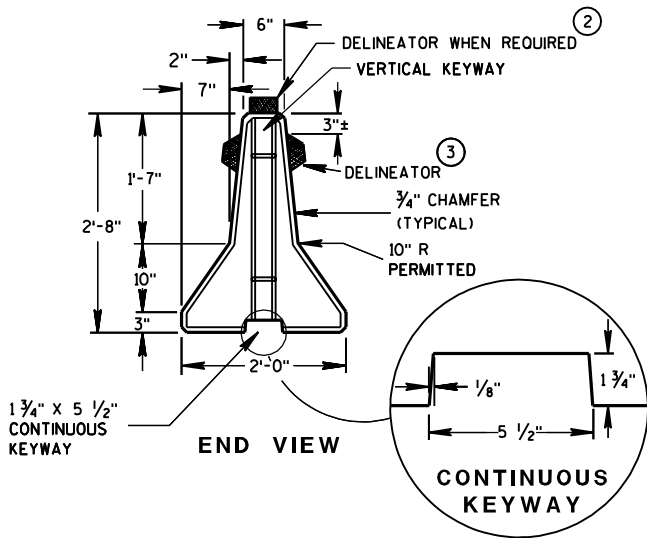
/S/ Jerry H. Zogg

ROADWAY STANDARD DEVELOPMENT

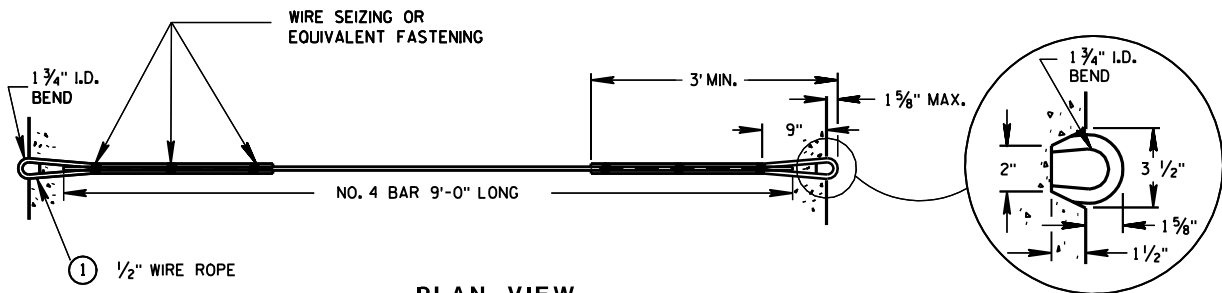
ENGINEER

DESCRIPTION	SIZE	NO. REQ'D	LENGTH
TOP CONNECTOR WIRE ROPE ①	1/2"	2	6'-0"
BOTTOM CONN. WIRE ROPE ①	1/2"	2	6'-0"
TOP CONNECTOR STEEL BAR	NO. 4	1	9'-0"
BOTTOM CONN. STEEL BAR	NO. 4	1	9'-0"
STEEL CONNECTING PIN	1 1/4" DIA.	1	2'-6"
BOTTOM TIE BARS	NO. 4	5	1'-8"
VERTICAL STEEL BAR	NO. 4	10	2'-1"
HORIZONTAL STEEL BAR	NO. 5	4	9'-4"

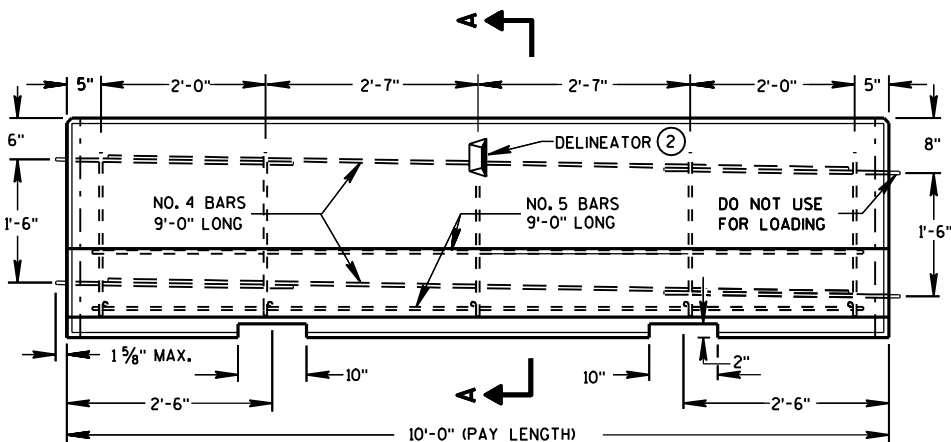
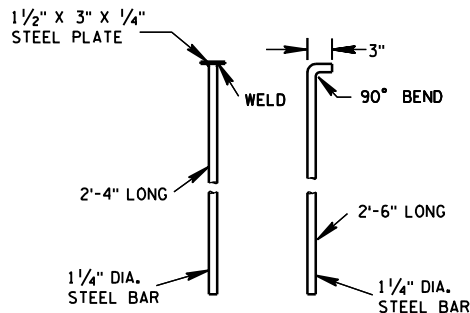
BILL OF MATERIALS



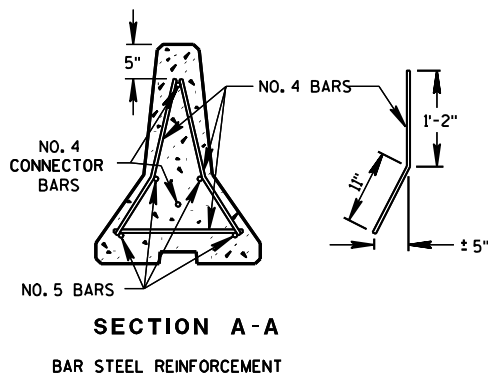
PIN & LOOP CONNECTION DETAILS



TOP & BOTTOM CONNECTOR ASSEMBLY



LOCATION OF REINFORCEMENT STEEL



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-11(e) AND 14B7-11(f).

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.

THIS STANDARD DETAIL DRAWING CONSISTS OF 6 SHEETS, 14B7-11(g) THRU 14B7-11(i).

DETAILS AND REQUIREMENTS FOR THE FABRICATION AND INSTALLATION OF CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) ARE SHOWN ON 4 SHEETS, 14B7-11(g) THRU 14B7-11(i).

DETAILS AND REQUIREMENTS FOR CONCRETE BARRIER TEMPORARY PRECAST, 10'-0" (CBTP10.0) ARE SHOWN ON 2 SHEETS, 14B7-11(e) THRU 14B7-11(f). CONCRETE BARRIER TEMPORARY PRECAST, 10'-0" (CBTP10.0) MAY BE USED UNTIL MAY 31, 2013, BUT ONLY IF ALL THE FOLLOWING CONDITIONS ARE MET:

THE CBTP10.0 WAS MANUFACTURED BEFORE JUNE 1, 2003.

THE CBTP10.0 MEETS ALL THE REQUIREMENTS OF STANDARD DETAIL DRAWINGS 14B7-11(e) AND 14B7-11(f).

THE CBTP10.0 IS IN GOOD CONDITION.

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH CONCRETE BARRIER TEMPORARY PRECAST, 10'-0" (CBTP10.0) IN ANY SINGLE RUN OR INSTALLATION.

PLACE BARRIER ON PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

DO NOT ANCHOR CONCRETE BARRIER TEMPORARY PRECAST 10'-0".

BARRIERS SHALL BE REINFORCED WITH EITHER BAR STEEL REINFORCEMENT AS DETAILED ON THIS DRAWING OR WELDED STEEL WIRE FABRIC ADEQUATE TO ASSURE SAFE HANDLING STRENGTH.

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

WIRE ROPE SHALL BE ZINC-COATED 6 X 19 CLASS 2 IWRC WITH A MINIMUM BREAKING STRENGTH OF 20,000 LBS. AND SHALL CONFORM TO FEDERAL SPECIFICATION RR-W-410. THE ZINC COATING SHALL CONFORM TO TABLE II OF THE FEDERAL SPECIFICATIONS.

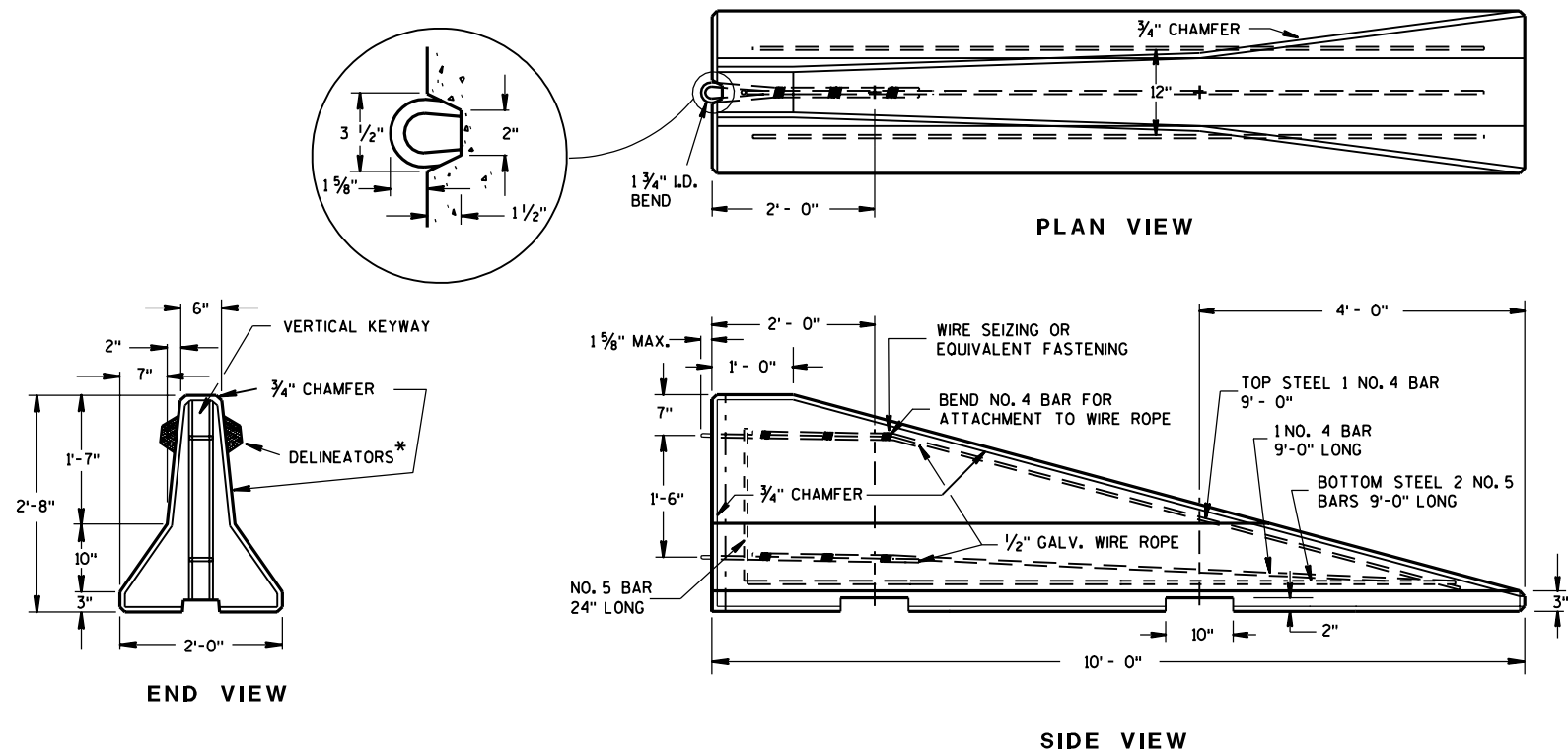
DELINEATORS SHALL CONFORM TO SECTION 633 OF THE STANDARD SPECIFICATIONS EXCEPT THE SHAPE SHALL BE AS SHOWN ON THIS DRAWING. ALTERNATIVE SHAPES MAY BE USED WHEN APPROVED BY THE ENGINEER. CONCRETE SURFACE PREPARATION, ADHESIVE AND METHOD OF APPLICATION SHALL BE AS RECOMMENDED BY THE DELINEATOR MANUFACTURER. THE COLOR OF REFLECTORS SHALL BE YELLOW WHEN LOCATED TO THE LEFT OF TRAFFIC AND WHITE WHEN LOCATED TO THE RIGHT OF TRAFFIC. MAXIMUM SPACING SHALL BE 20 FEET.

CONCRETE BARRIER TEMPORARY PRECAST, 10'-0", WHETHER UN-RESTRAINED OR RESTRAINED, SHALL NOT BE USED IF THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 8 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF.

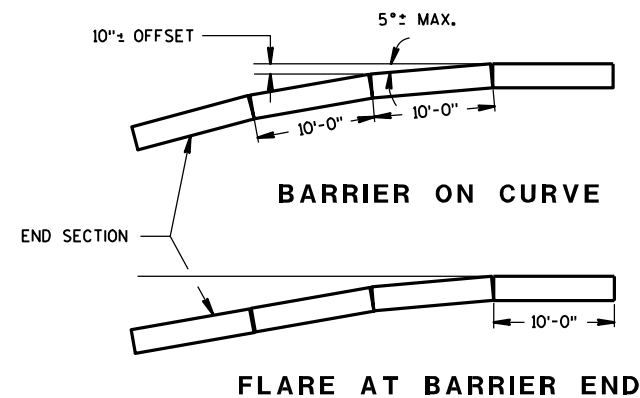
- CONNECTOR ASSEMBLIES MAY, AT THE CONTRACTORS OPTION, BE FORMED FROM A CONTINUOUS SECTION OF 1/2 INCH WIRE ROPE (16'-6" MIN. LENGTH). THE NO 4 CONNECTOR STEEL BARS MAY THEN BE OMITTED.
- TOP MOUNTED DELINEATORS SHALL BE PROVIDED IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON CURVED ALIGNMENT LONGER THAN 200 FT.
- BARRIERS USED TO SEPARATE OPPOSING TRAFFIC SHALL HAVE DELINEATORS ON BOTH SIDES. TOP MOUNTED DELINEATORS SHALL BE DOUBLE FACED FOR THIS CONDITION.

CONCRETE BARRIER
TEMPORARY PRECAST, 10'-0"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



END SECTION FOR TEMPORARY PRECAST CONCRETE BARRIER



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	10:1
45 OR GREATER	15:1

GENERAL NOTES

THE GENERAL NOTES ON SHEET 14B7- 11(e) APPLY TO THIS SHEET.

* WHEN BARRIERS ARE USED TO SEPARATE OPPOSING TRAFFIC, DELINEATORS ARE REQUIRED ON BOTH SIDES.

CONCRETE BARRIER TEMPORARY
PRECAST, 10'-0"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

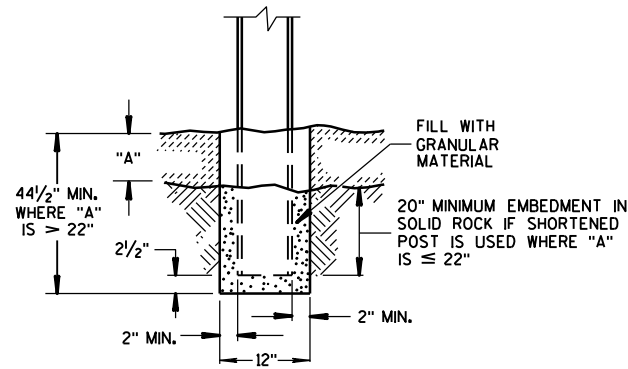
APPROVED
10/24/06 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

GENERAL NOTES

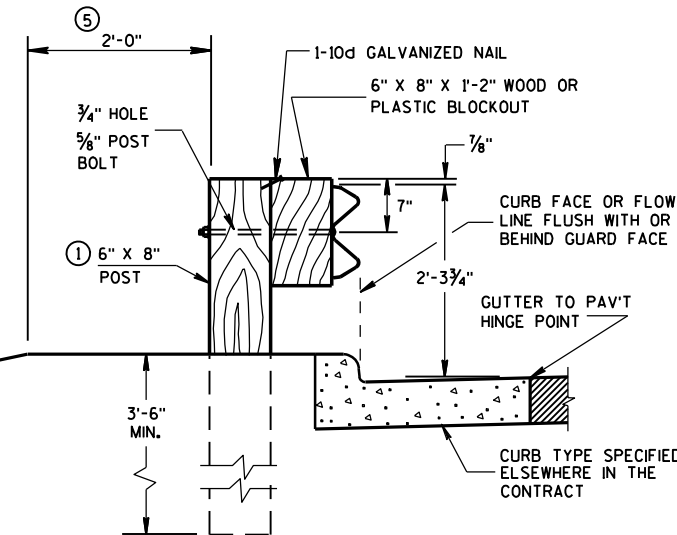
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

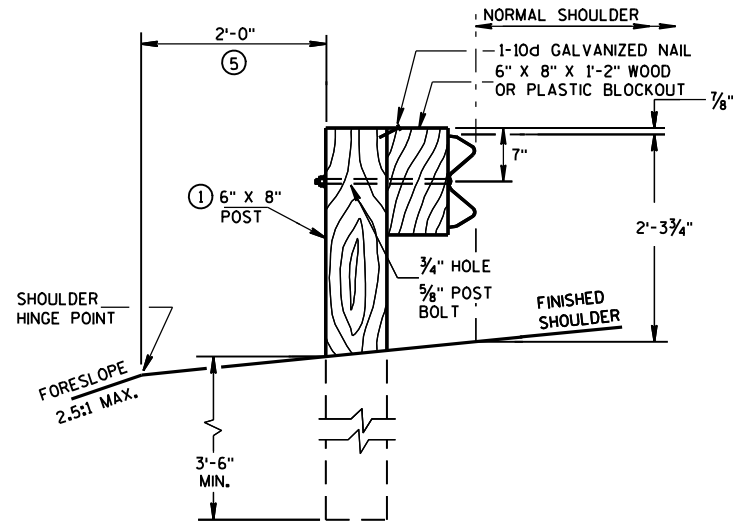
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



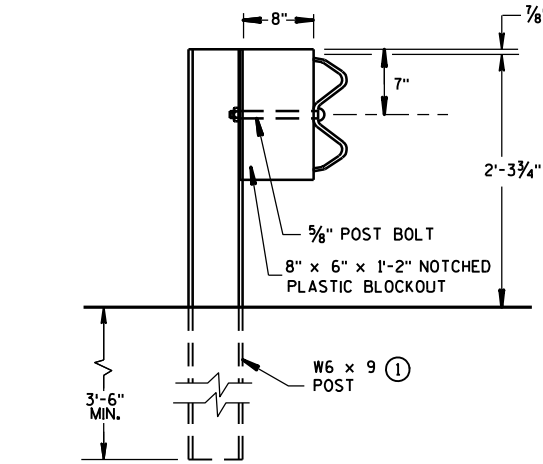
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



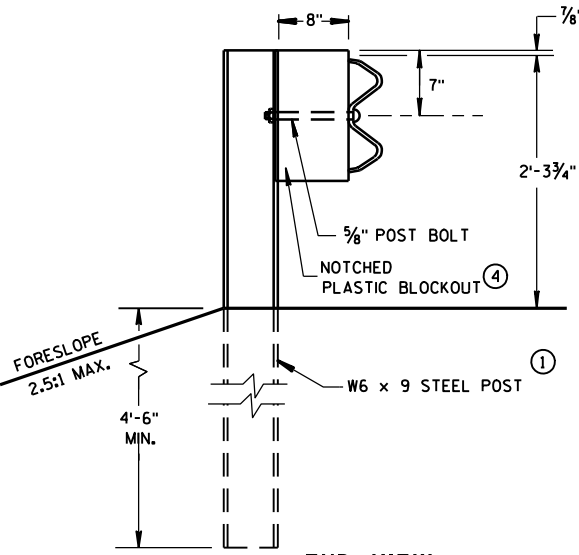
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION

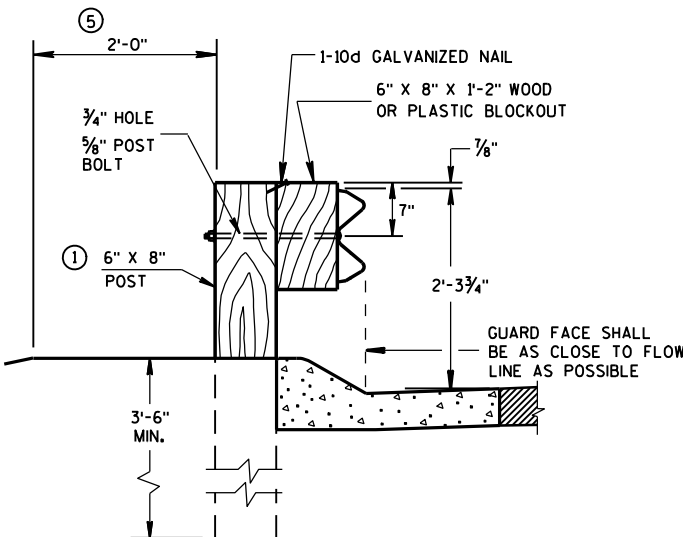


END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION

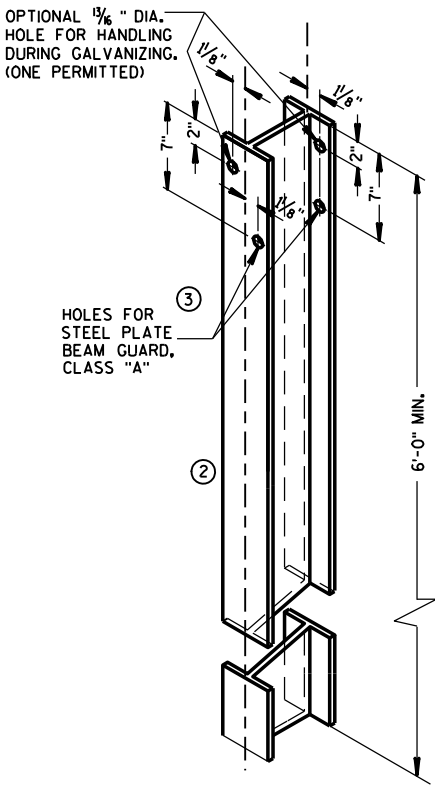


END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

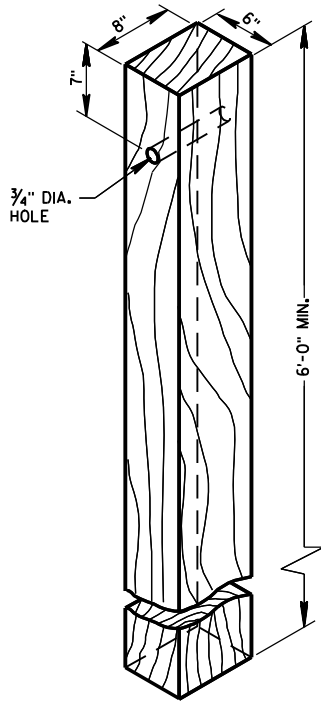
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD



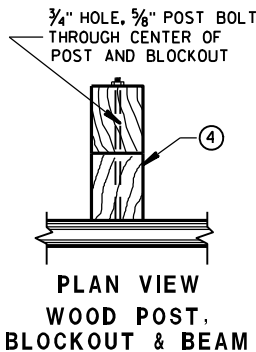
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①
ALL HOLES 1 1/8" DIAMETER EXCEPT AS NOTED

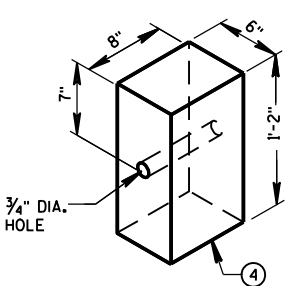


WOOD POST
(6" X 8") NOMINAL

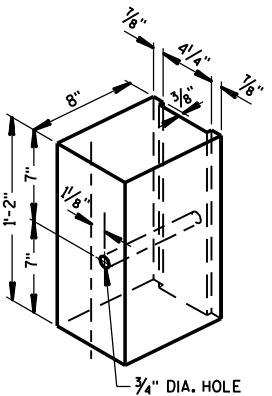


PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM

PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



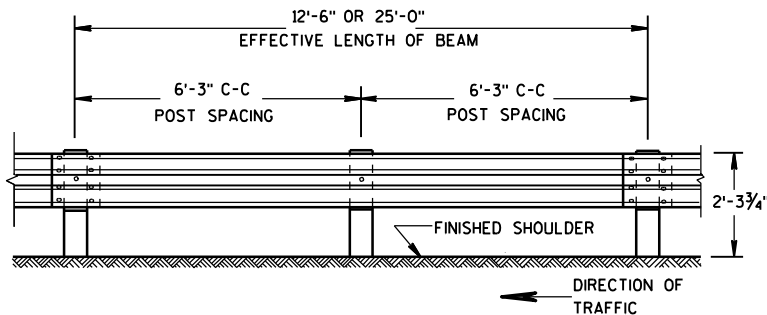
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



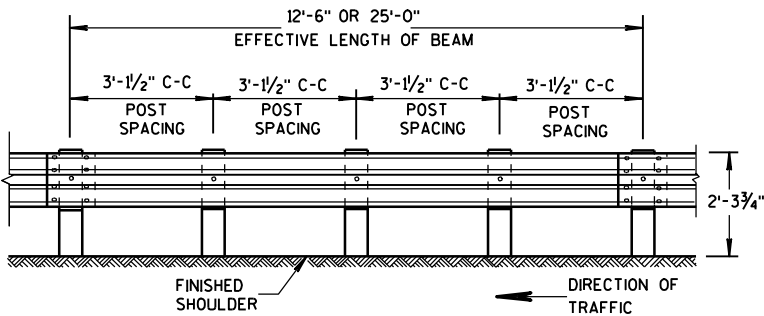
TYPICAL NOTCHED
PLASTIC BLOCKOUT ①
FOR STEEL POSTS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW
POST SPACING STANDARD INSTALLATION

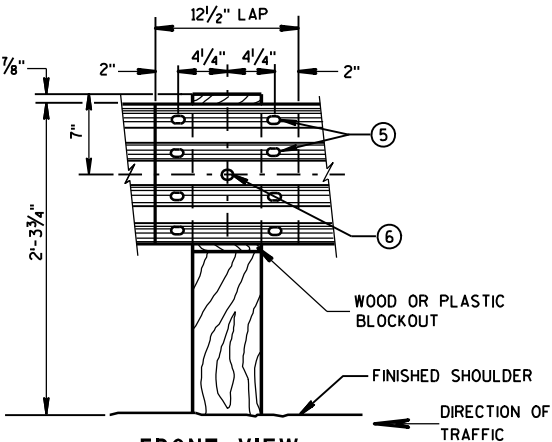
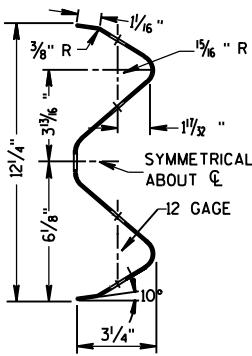


FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)

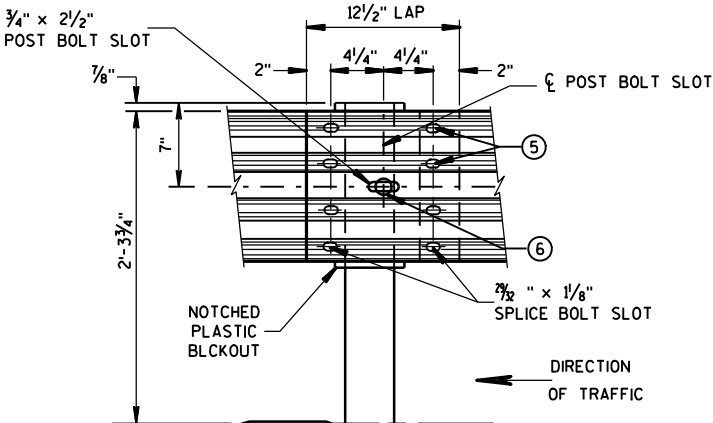
REFLECTOR SPACING ^②				
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ^③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ^④	3
	> 200'	100' C-C	2	

ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION^①

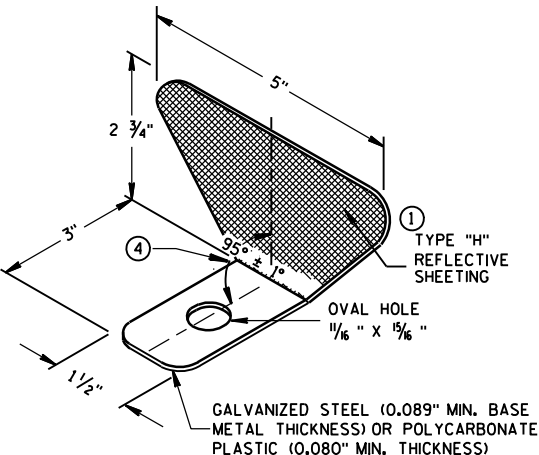
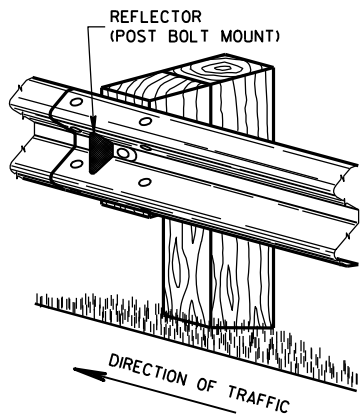
SECTION THRU W BEAM



FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL

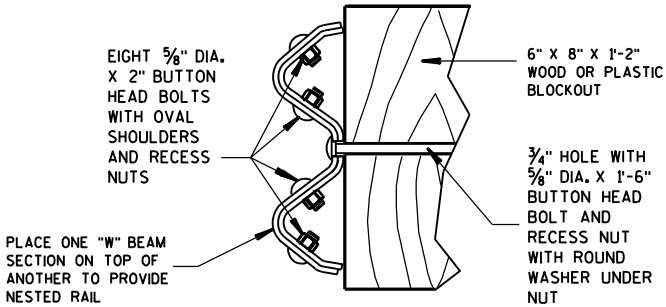


FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD



GENERAL NOTES

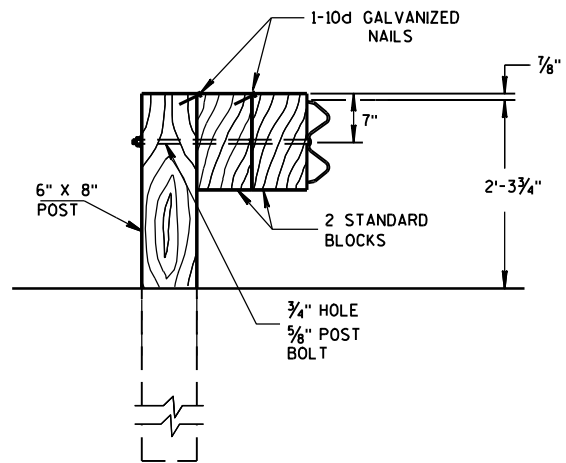
- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- ⑤ 8 - 5/8" Ø X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑥ 5/8" Ø X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



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

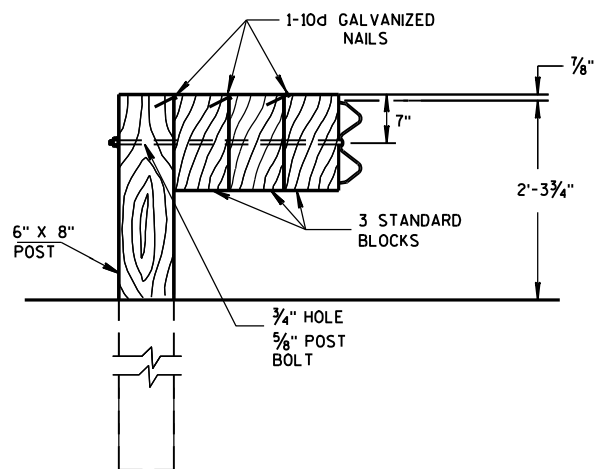
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

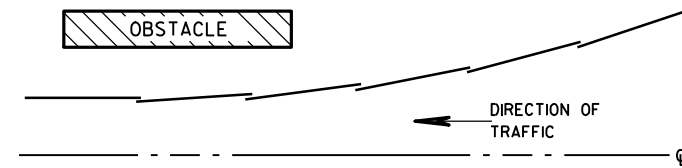


DETAIL FOR TRIPLE BLOCKS

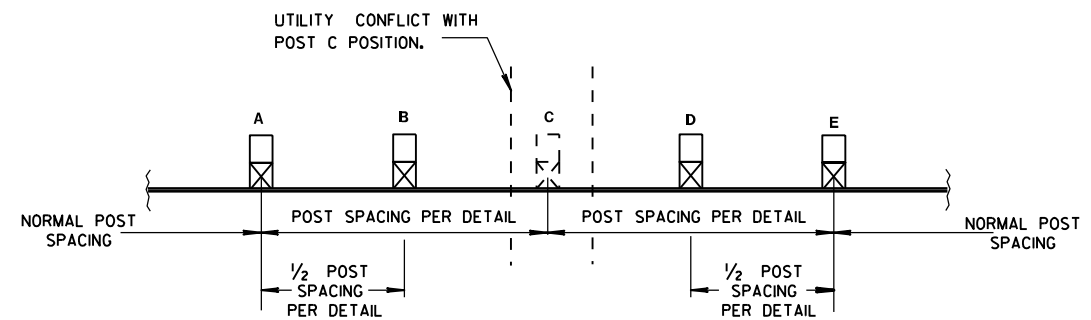
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

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

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



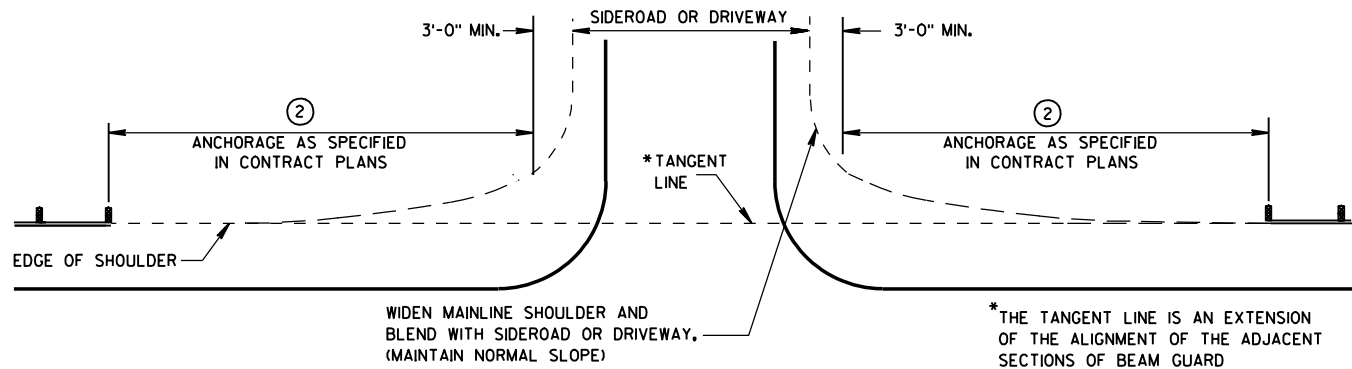
PLAN VIEW BEAM LAPPING DETAIL



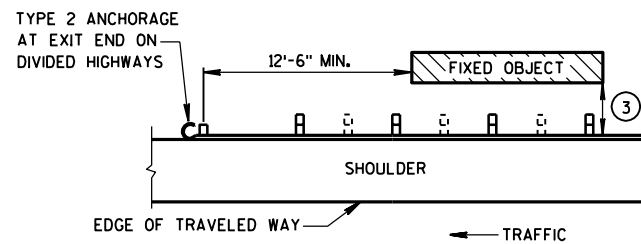
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

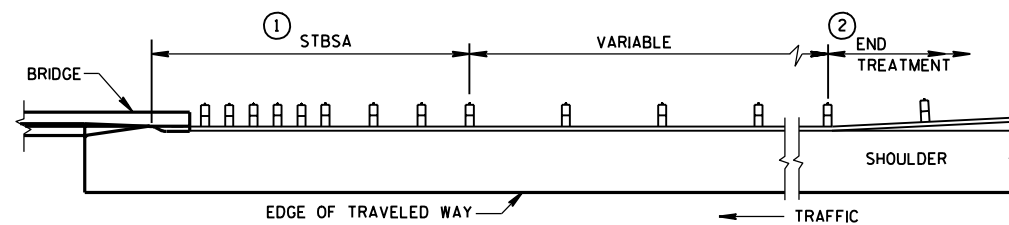
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



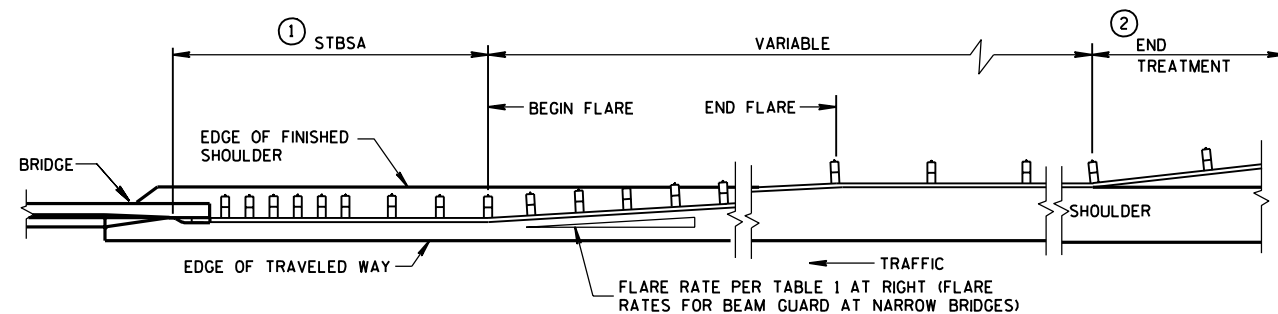
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT NARROW BRIDGES (FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

GENERAL NOTES

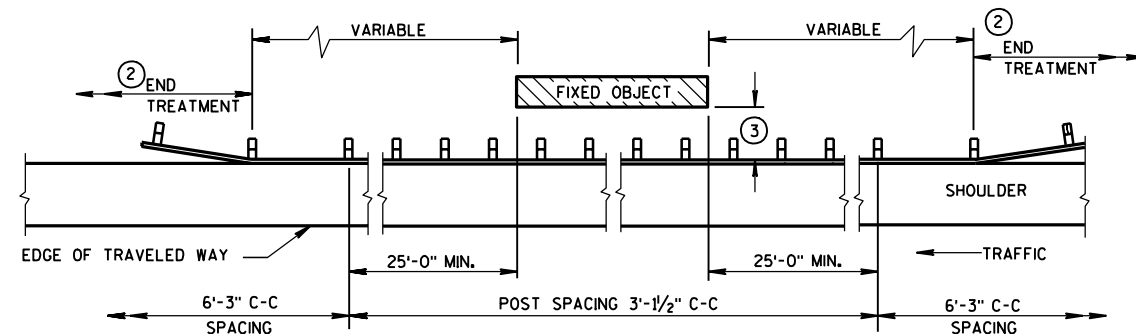
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

- ① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- ② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1 1/2"
4'-6"	6' - 3"



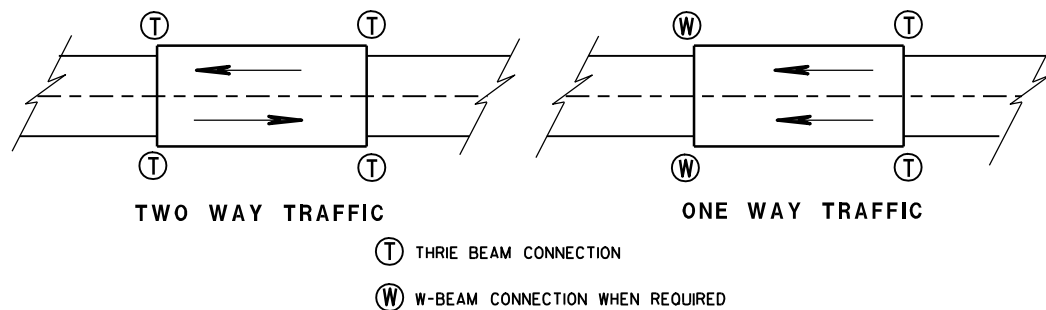
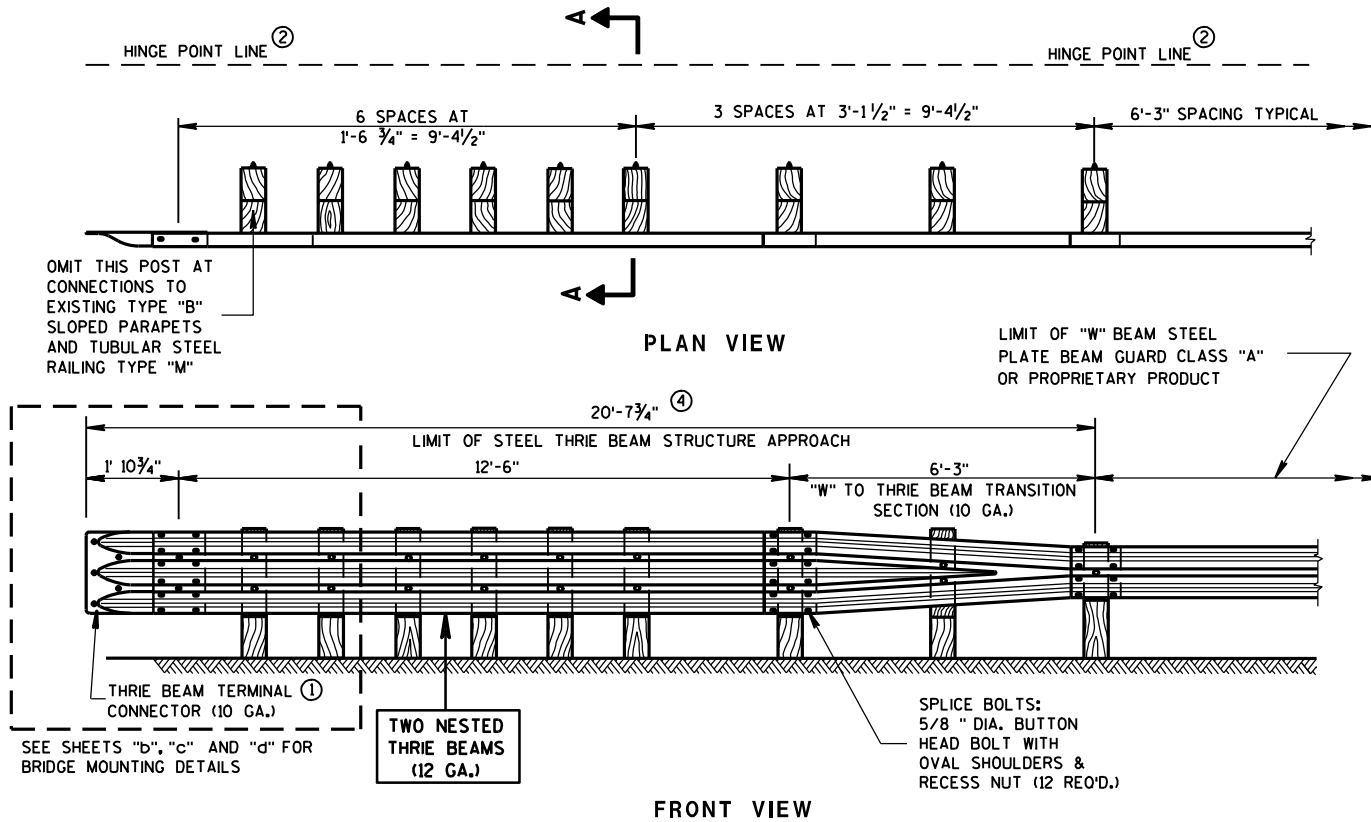
BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

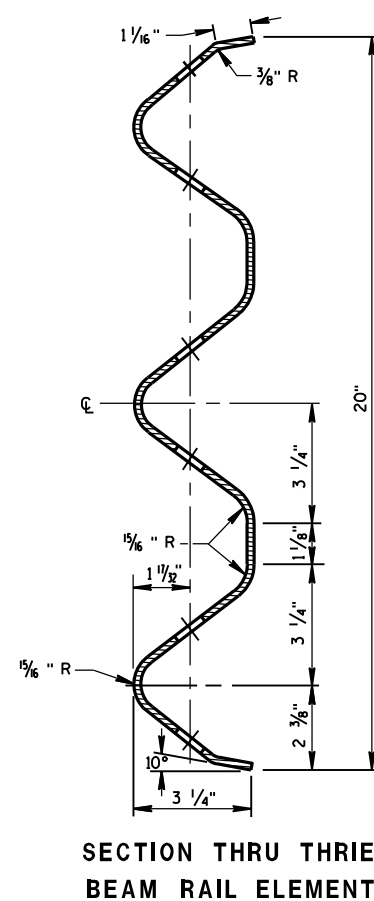
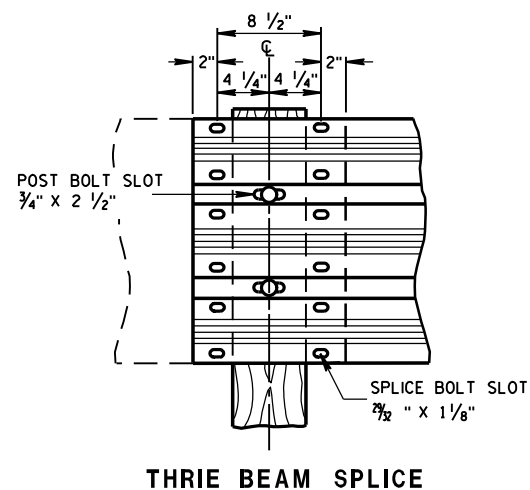
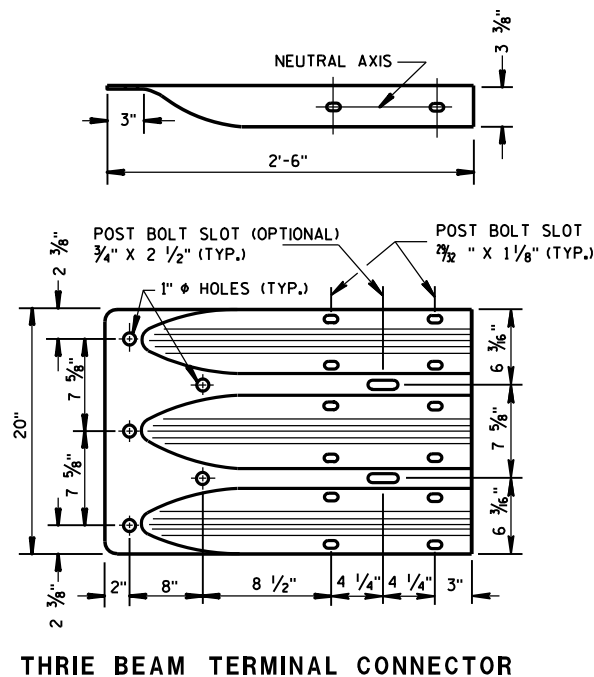
TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8-21-07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



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



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.

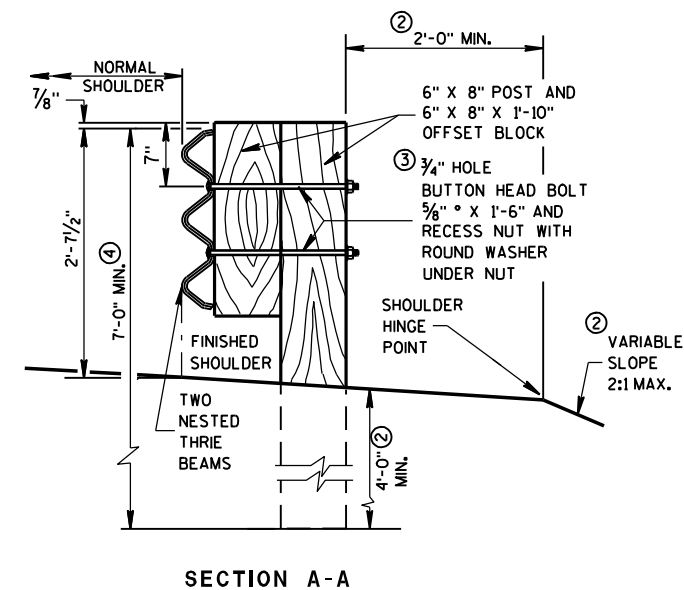
FURNISH AND CONSTRUCT THRIE BEAM STRUCTURAL APPROACH ACCORDING TO THE REQUIREMENTS OF SECTION 614 OF THE STANDARD SPECIFICATIONS. THRIE BEAM SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M180, CLASS "A", TYPE 2.

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 $\frac{1}{2}$ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY, (SEE SDD 14 B 15-40).

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.
- ③ BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F-1554, GRADE 55. NUTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-563 DH.
- ④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/18/09

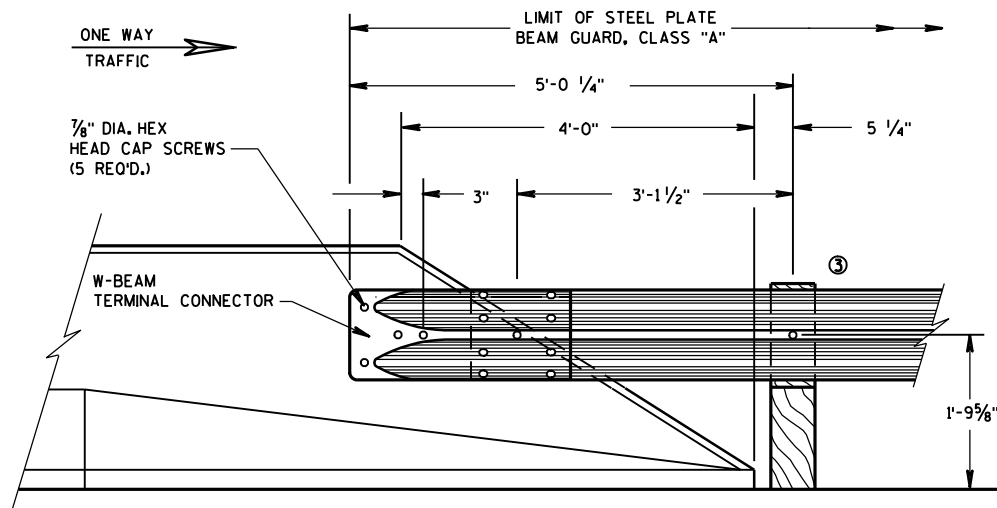
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

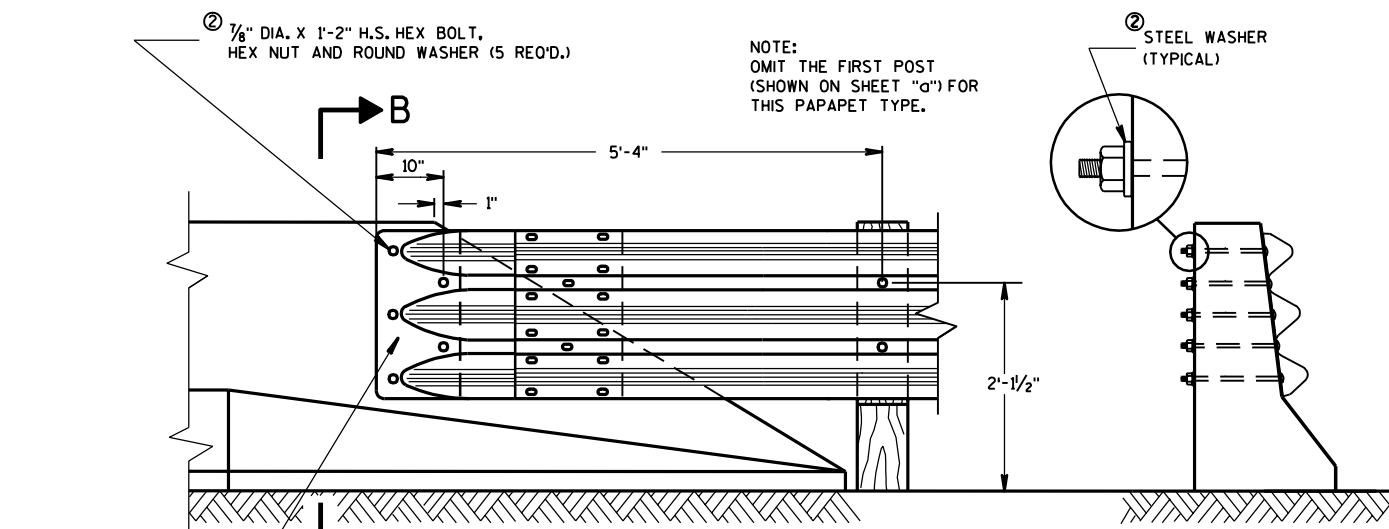
ENGINEER



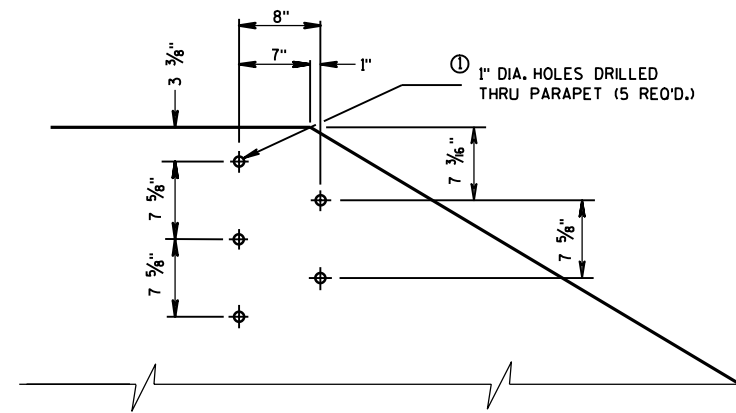
FRONT VIEW
W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS
 (USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
- ① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND THE BACKUP PLATE AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAM STRUCTURAL APPROACH".
- ② EACH BOLT AT THE BACK FACE OF THE PARAPET REQUIRES A HARDENED ROUND STEEL WASHER WITH A 2 1/4" O.D. X 5/32" THICK.
- ③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
- DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



FRONT VIEW
THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-12-04 DATE	 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

6

6

S.D.D. 14 B 20-6c

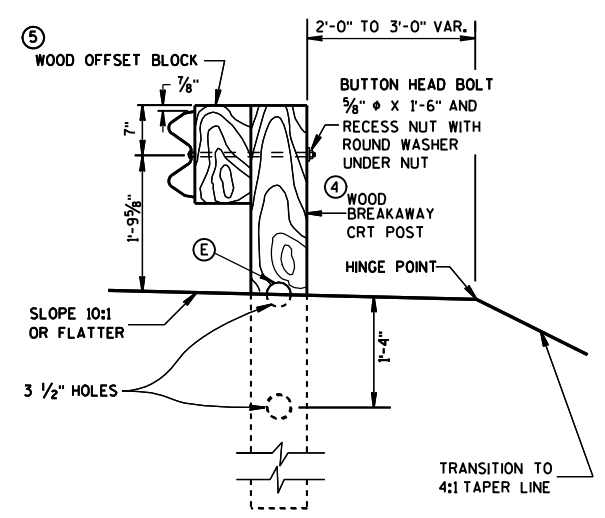
S.D.D. 14 B 20-6c

BILL OF MATERIALS

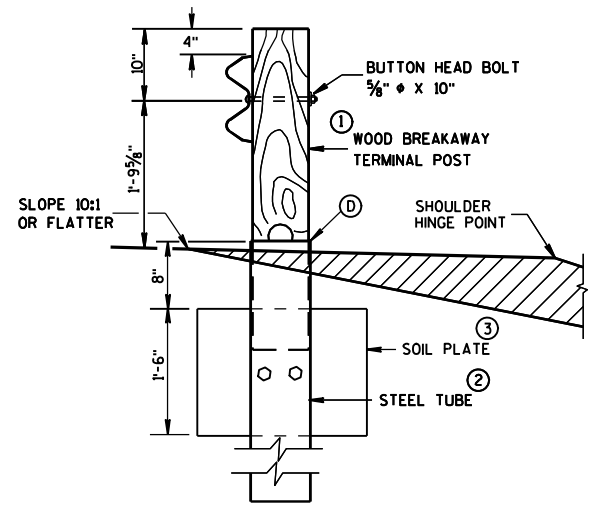
NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	4	STEEL TUBE: TS 8" X 6" X 0.188", 4'-6" LONG OR 6'-0" LONG **
③	3	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
⑮	1	E.A.T. MARKER POST

GENERAL NOTES

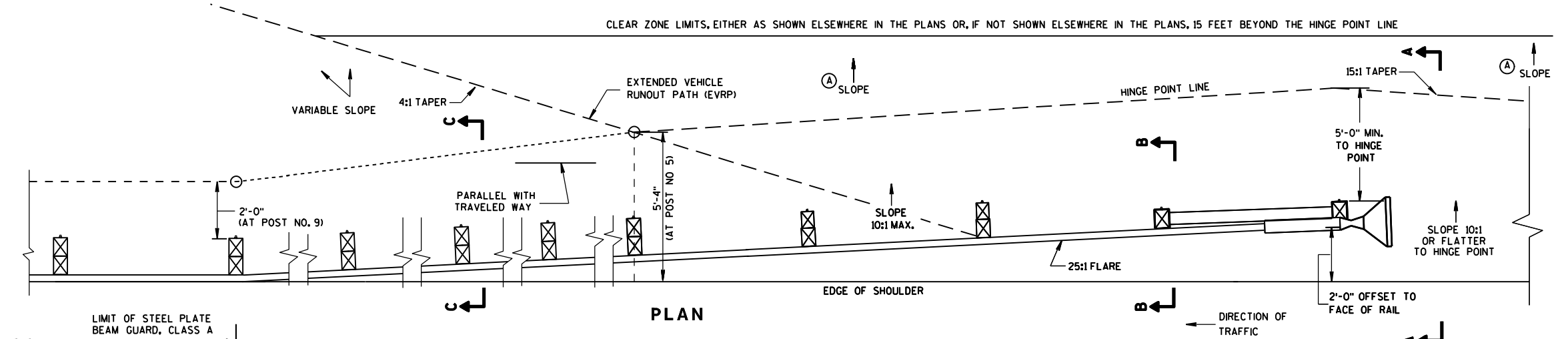
- FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS, IF NONE ARE AVAILABLE, INSTALL 5/8" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.
- ** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATE INSTALLED ON POST 1 THROUGH POST 3, POST 4 DOES NOT REQUIRE A SOIL PLATE. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 4 - 72 INCH STEEL TUBES ON POST 1 THROUGH POST 4, WITHOUT SOIL PLATES.
- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER OF E.A.T. STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- * DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



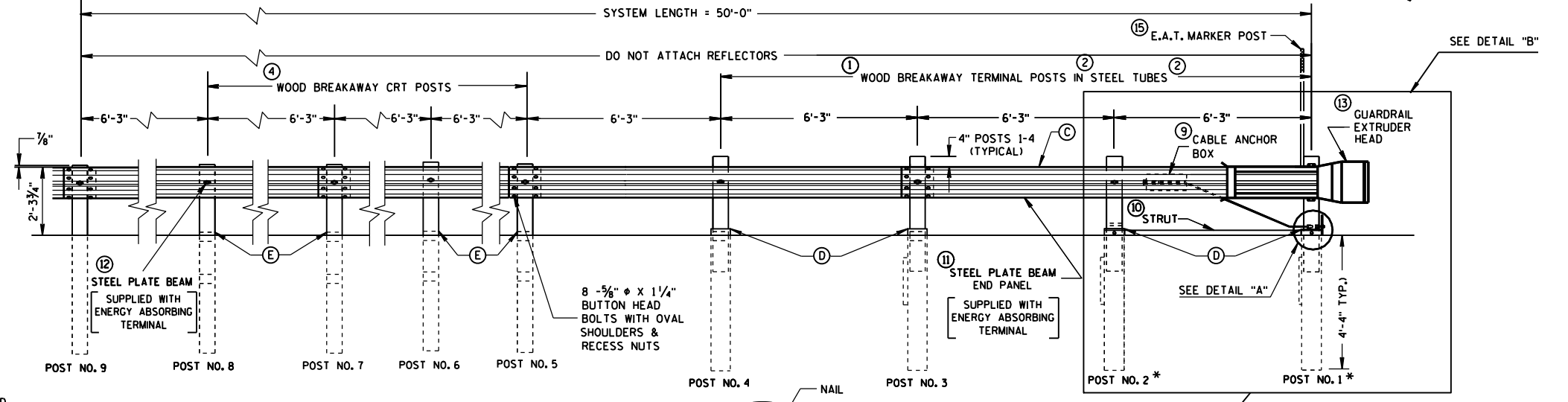
SECTION C-C
TYPICAL AT POST NOS. 6, 8



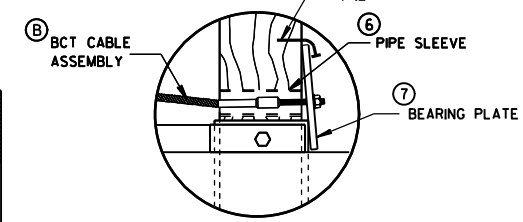
SECTION B-B
TYPICAL AT POST NO. 2*



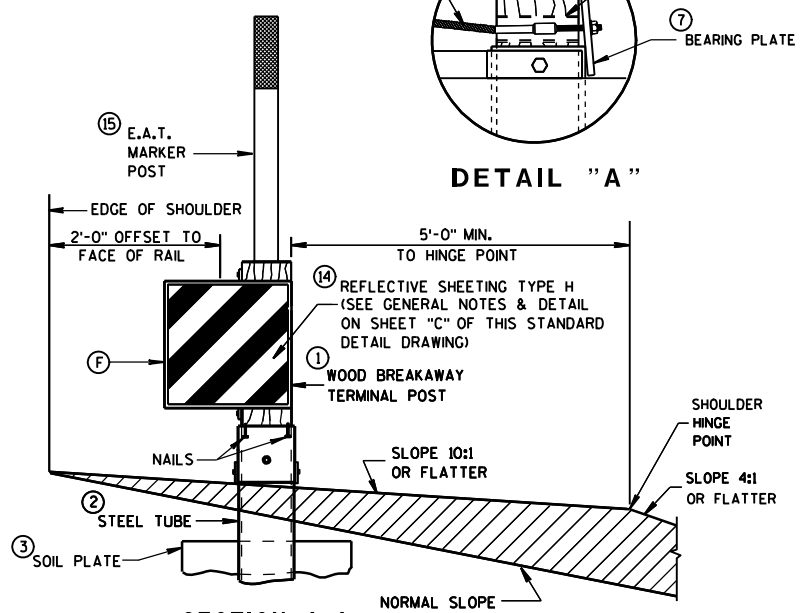
PLAN



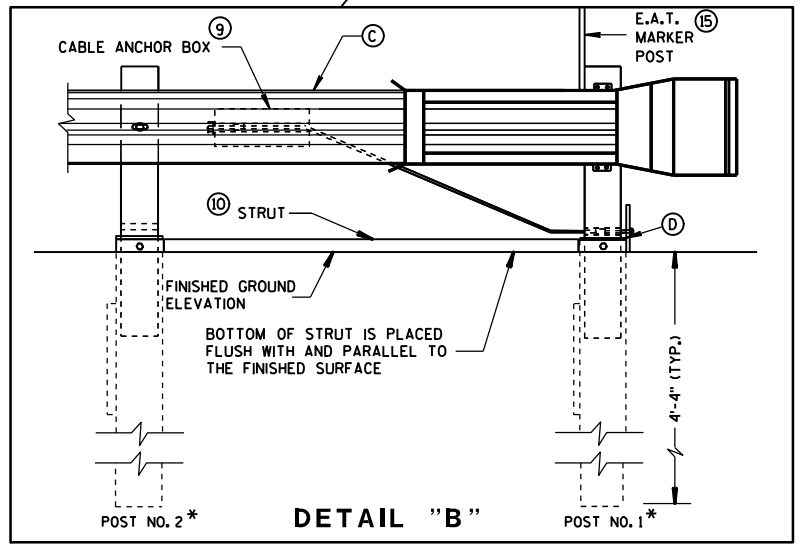
ELEVATION



DETAIL "A"



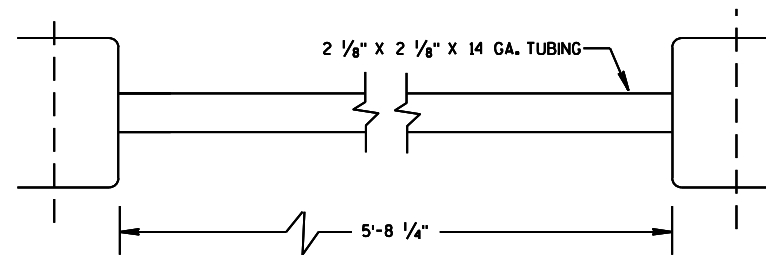
SECTION A-A
TYPICAL AT POST NO. 1*



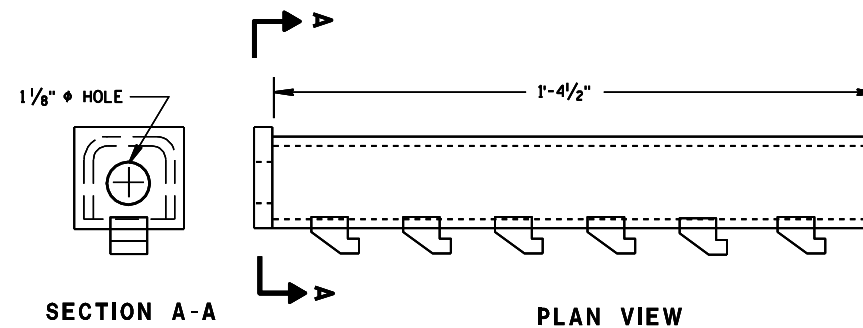
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

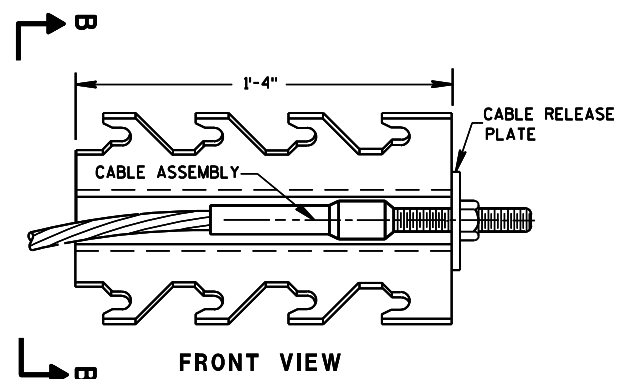
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



⑩ STRUT DETAIL (SKT-350)



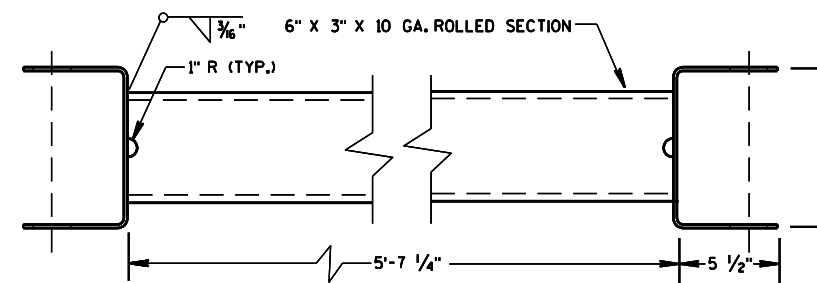
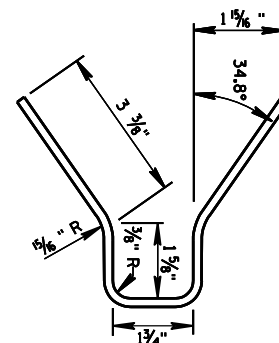
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



SECTION B-B

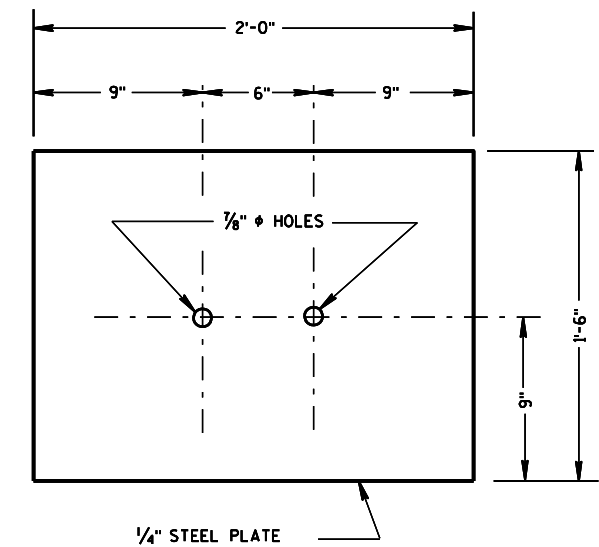
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)

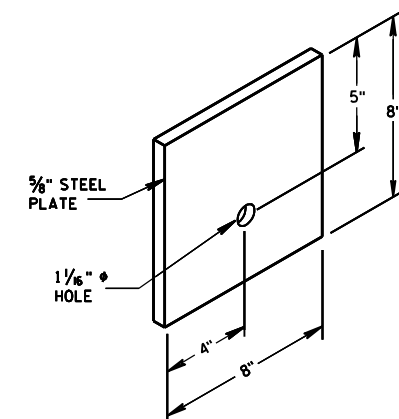


⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



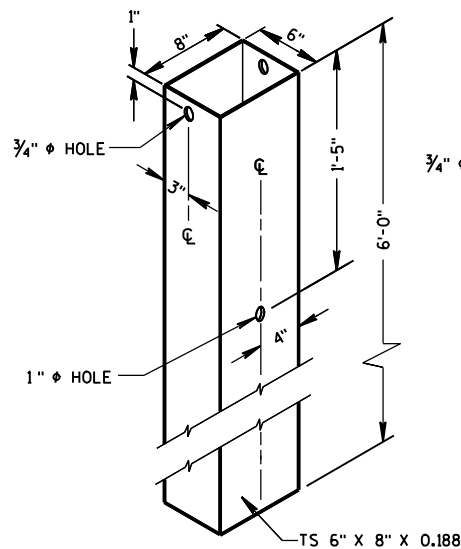
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



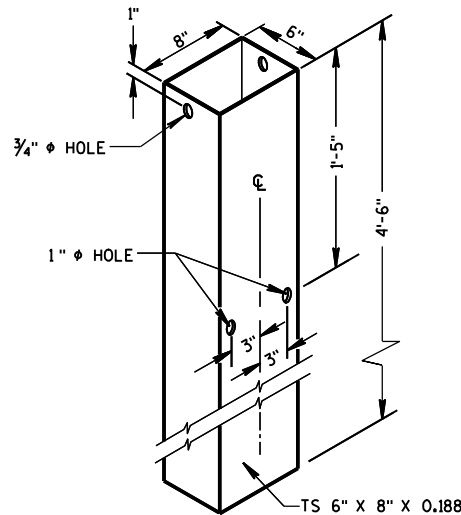
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

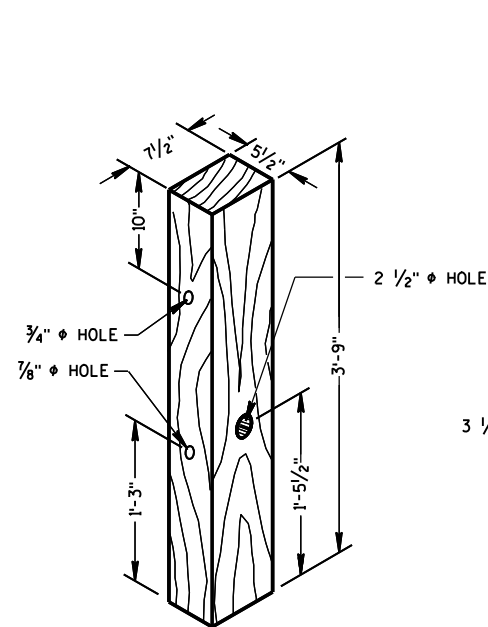
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② 72" STEEL TUBE
(POSTS NO. 1-4)

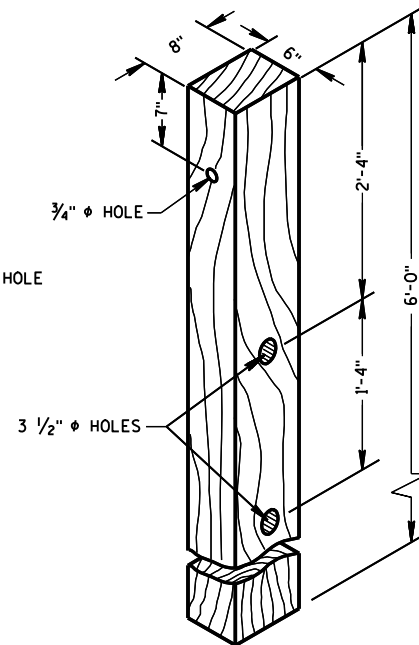


② 54" STEEL TUBE
(POSTS NO. 1-4)



① TERMINAL POST
(POSTS NO. 1-4)

WOOD BREAKAWAY POSTS



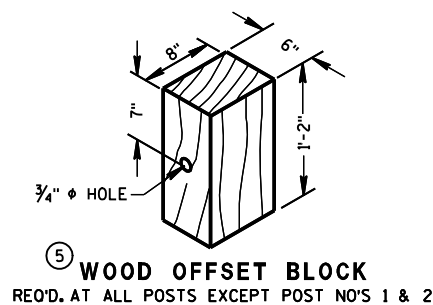
④ CRT POST
(POSTS NO'S 5-8)

GENERAL NOTES

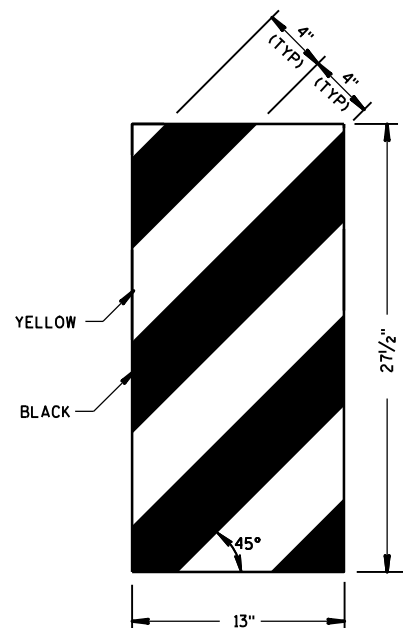
STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

① 1/2" DIA. X 3" LAG BOLT WITH WASHER.

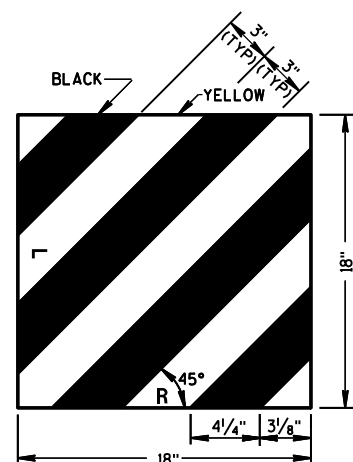


⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



ET-2000 PLUS ONLY

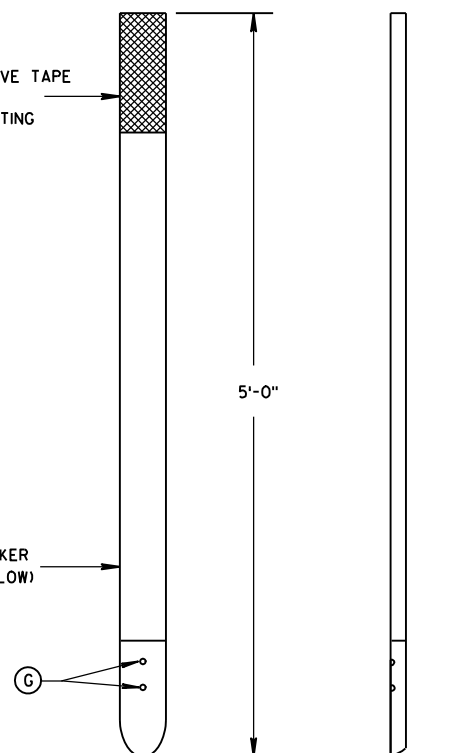
⑭ REFLECTIVE SHEETING DETAILS



ET-2000 AND SKT-350

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING

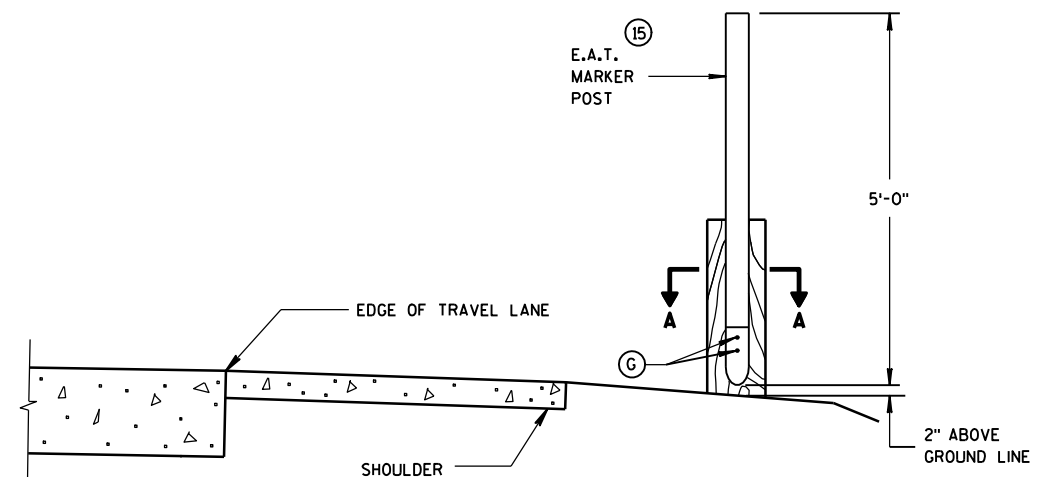
E.A.T. MARKER
POST (YELLOW)



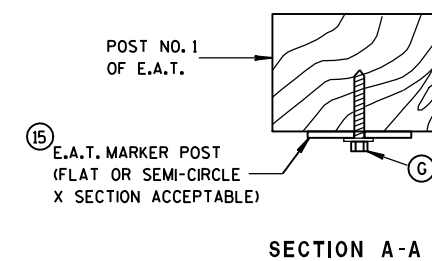
FRONT VIEW

SIDE VIEW

⑮ E.A.T. MARKER POST



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-18-09

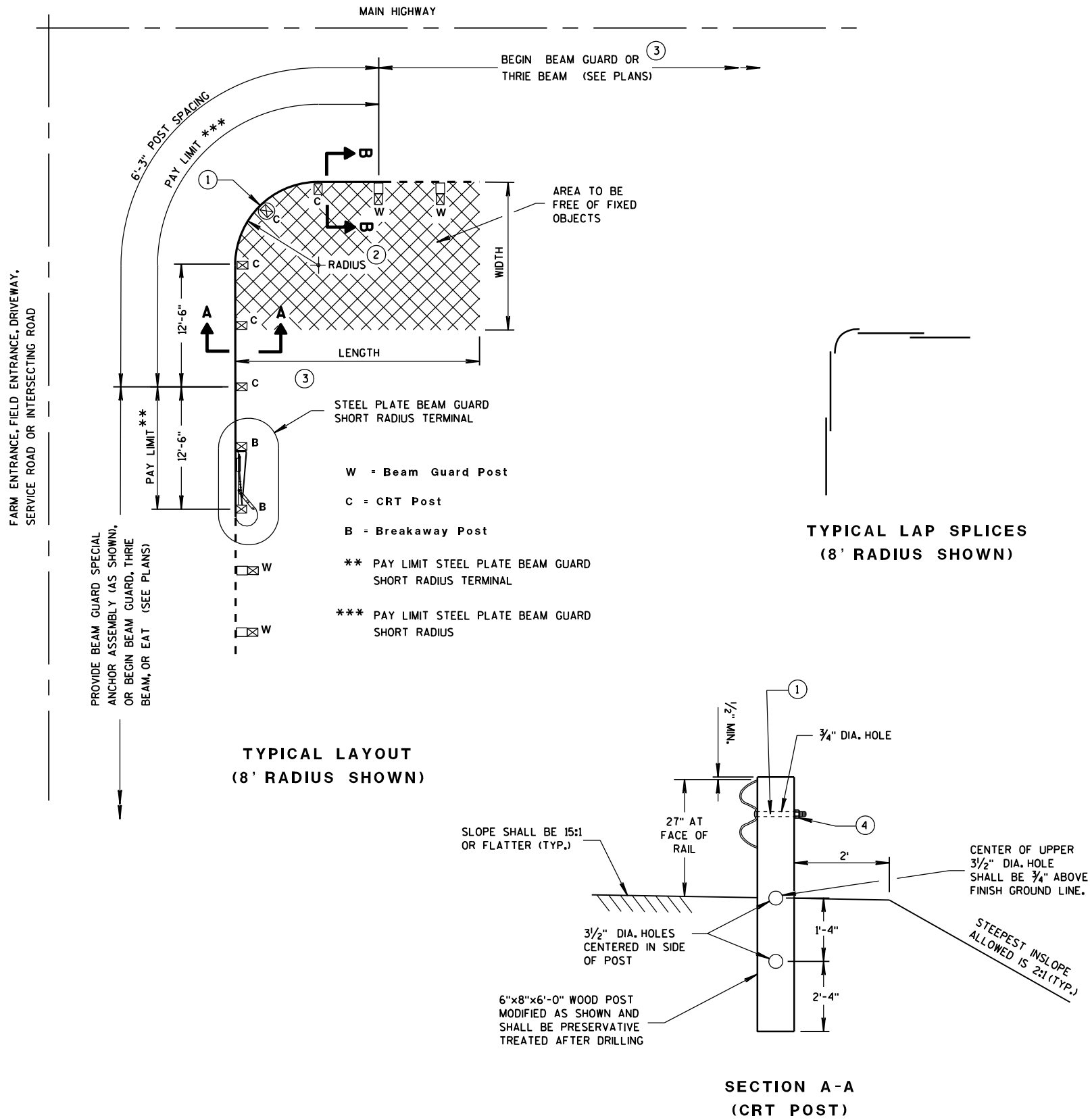
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

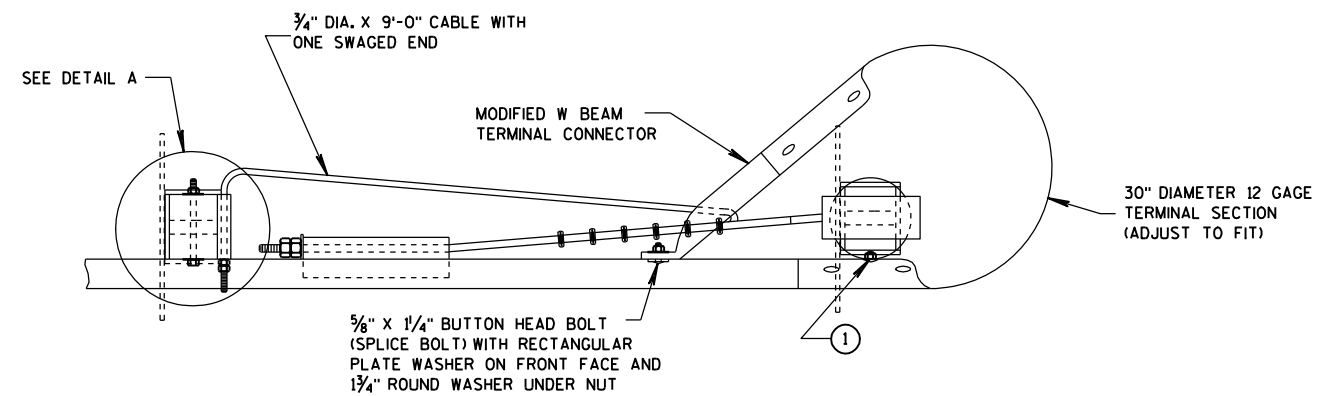
- ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- RADIUS FROM 8' - 36'. SEE PLAN.
- HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	* NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

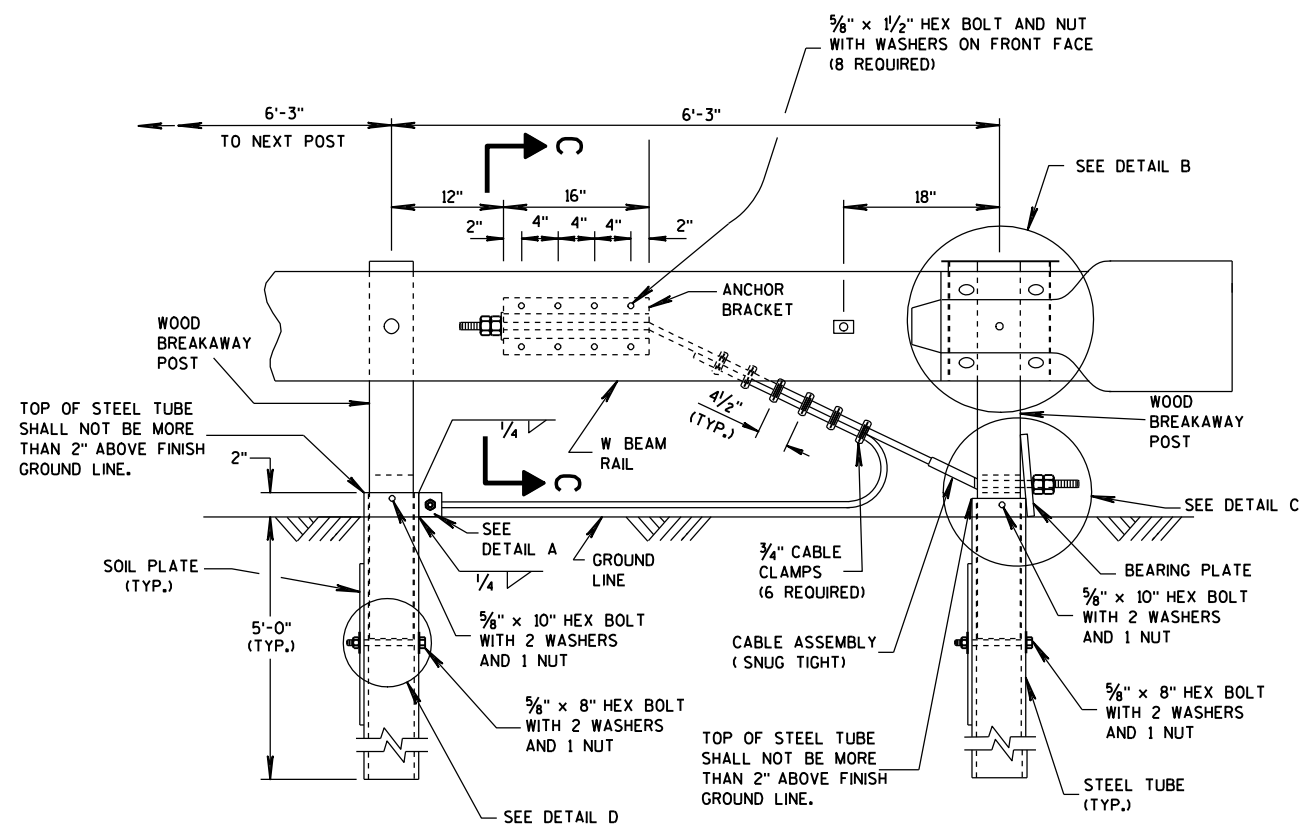
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW



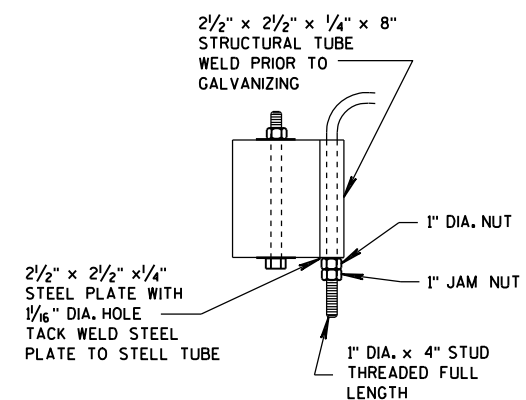
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

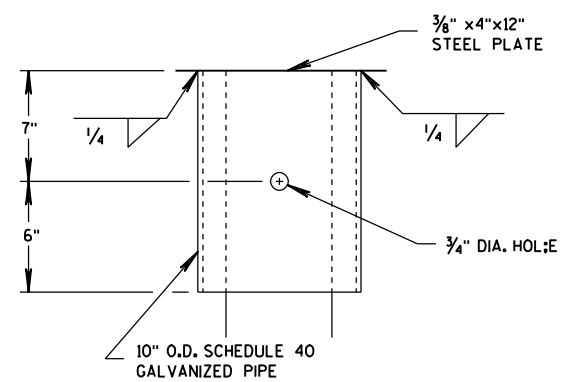
GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A 5/8" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED 3/4" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED FLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A

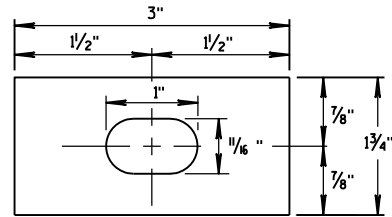


DETAIL B

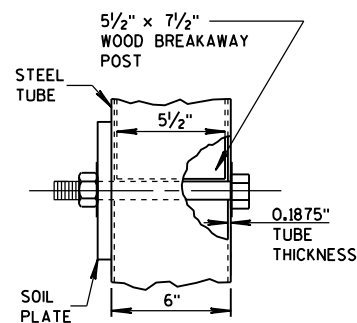
(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD
SHORT RADIUS TRMINAL

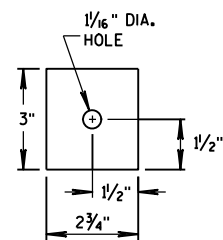
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



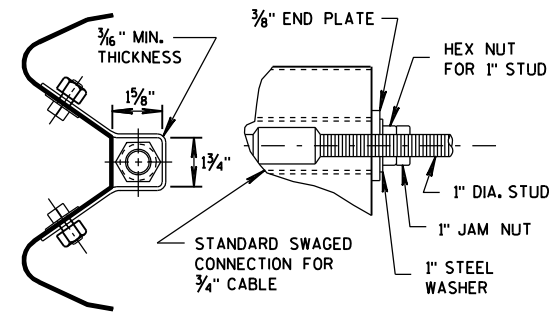
**RECTANGULAR
PLATE WASHER**



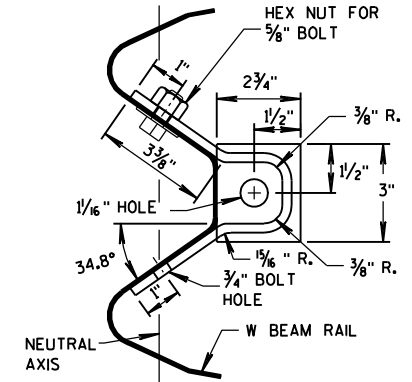
DETAIL D



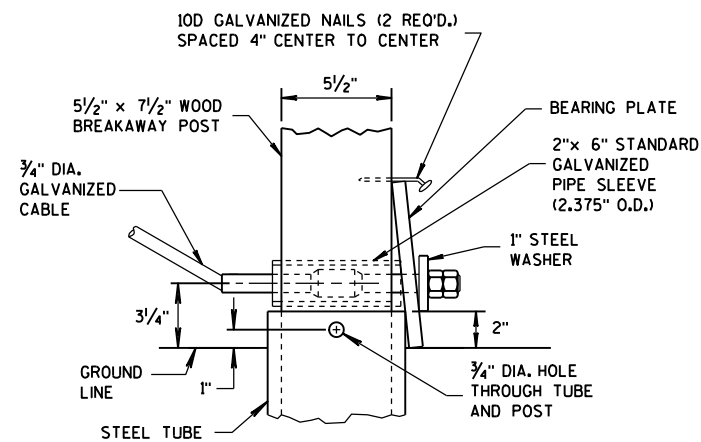
END PLATE



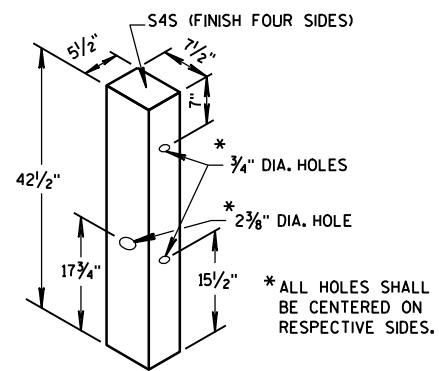
**SECTION C-C
(END PLATE REMOVED)**



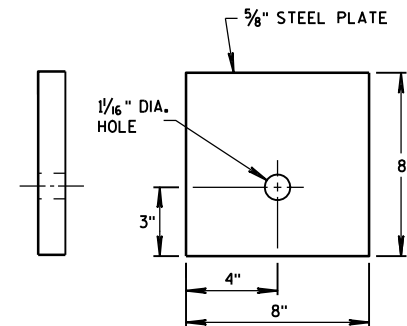
ANCHOR BRACKET



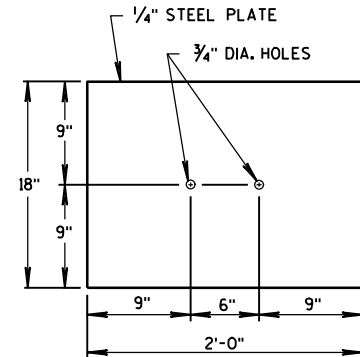
DETAIL C



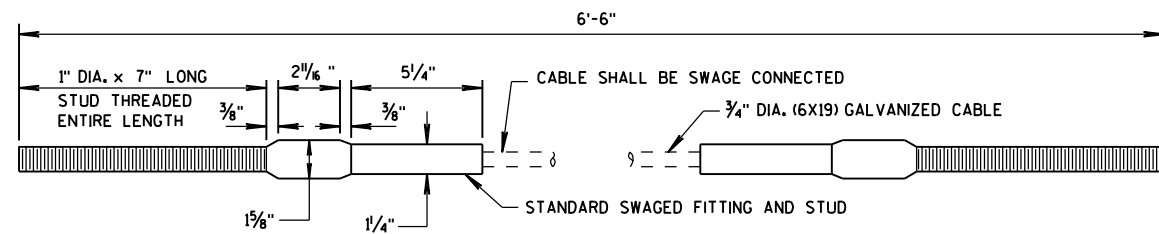
WOOD BREAKAWAY POST



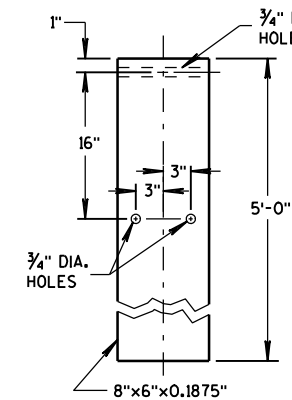
BEARING PLATE



SOIL PLATE

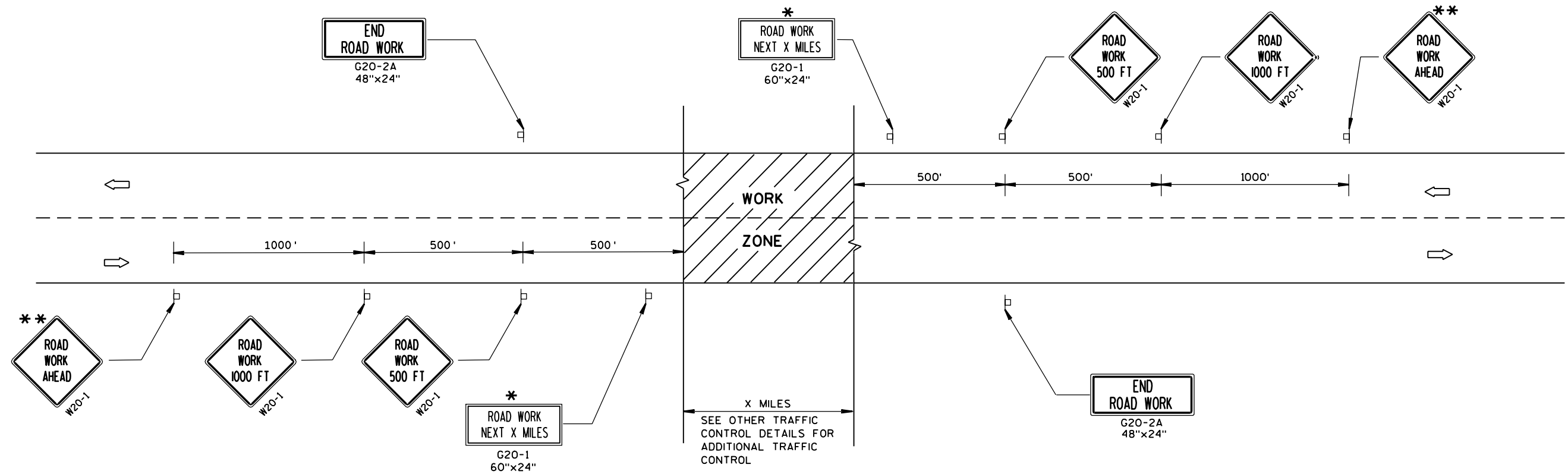


CABLE ASSEMBLY



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12/18/08 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
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.

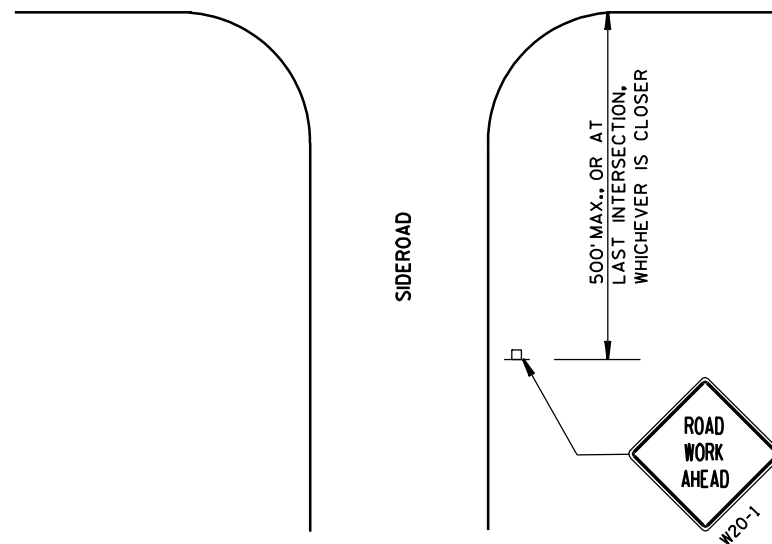
IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* 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.

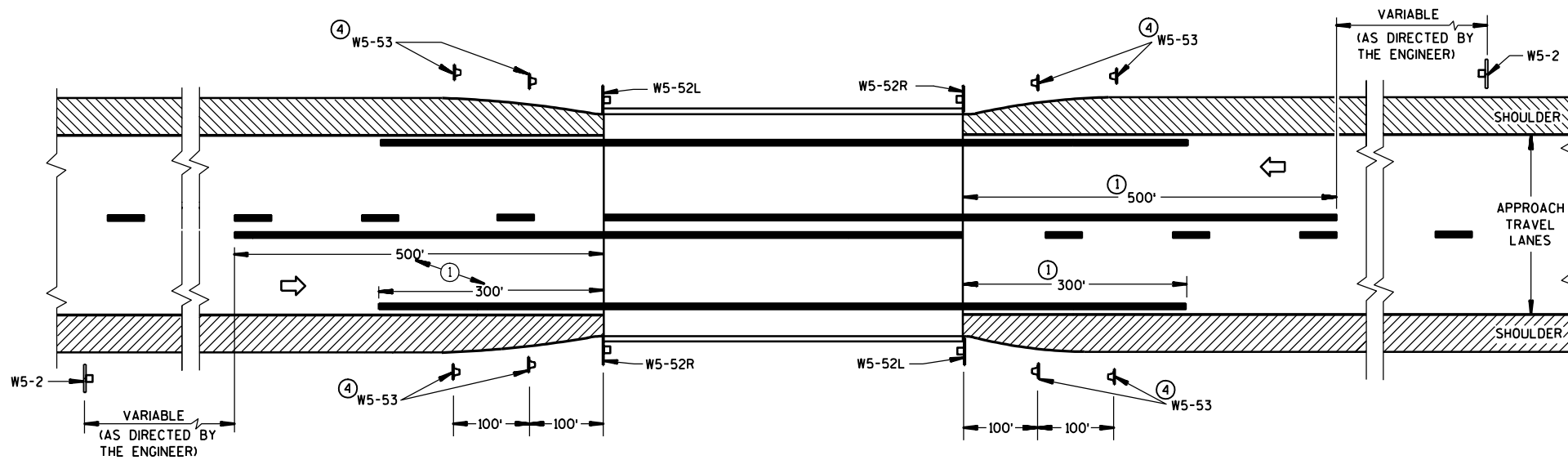
CENTER OF ROADWAY

MAINLINE ROADWAY UNDER CONSTRUCTION

**LEGEND**

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

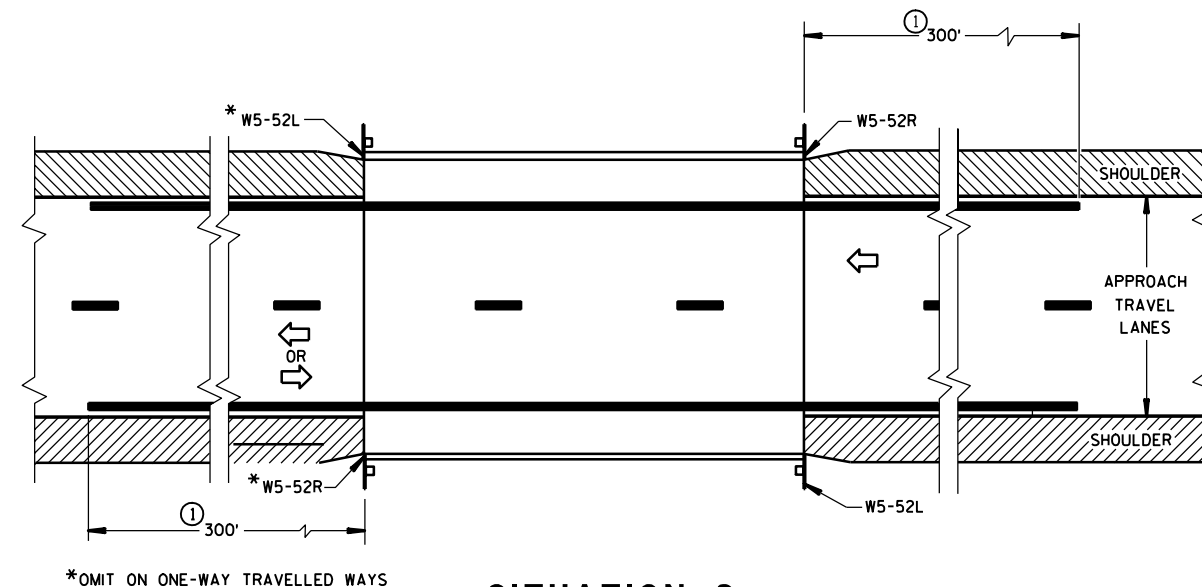
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE FHWA	<i>Chetan J. Spang</i> CHIEF SIGNS AND MARKING ENGINEER



SITUATION 1

WARRANTING CRITERION:

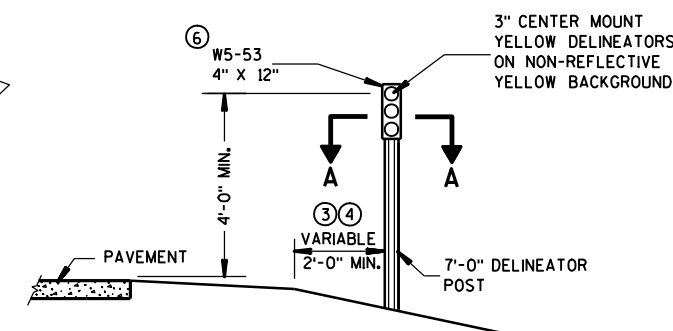
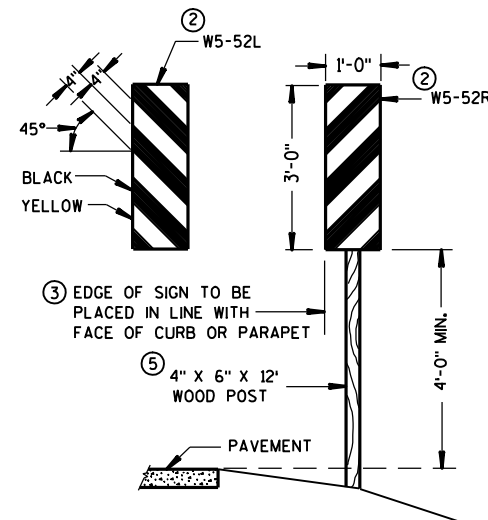
BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



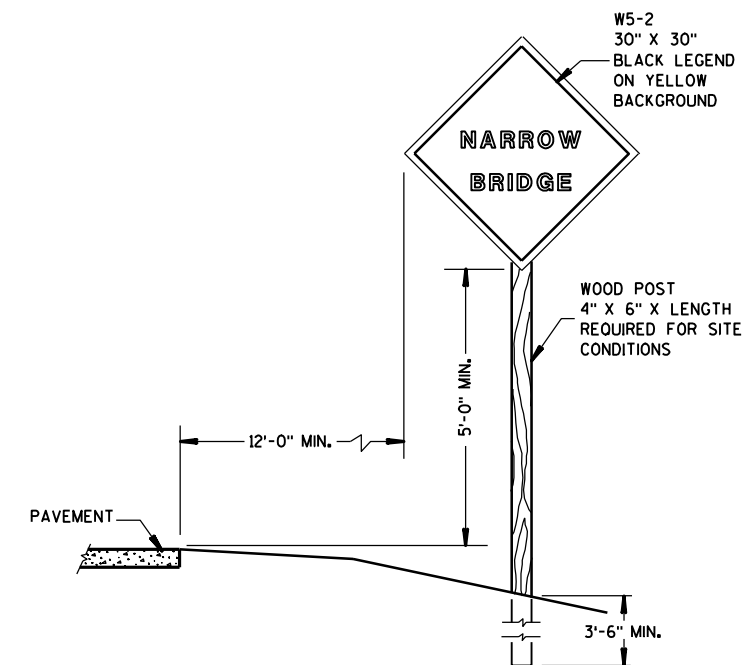
OBJECT MARKER PLACEMENT

GENERAL NOTES

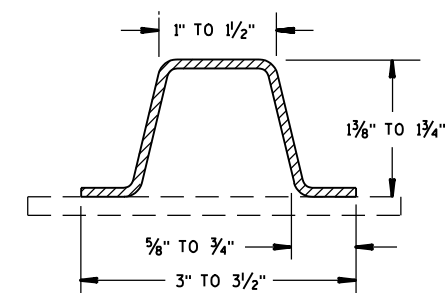
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R AND W5-52L SHALL BE COVERED WITH TYPE H REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.
- ④ OBJECT MARKERS (W5-53) SHALL BE LOCATED ALONG A LINE FLARED AWAY FROM THE BRIDGE CORNER TO DELINEATE THE NARROWING OF THE SHOULDER OR BERM.
- ⑤ A 12 FOOT DELINEATOR POST MAY BE USED INSTEAD OF A WOOD POST.
- ⑥ NON-BID ITEM. INCIDENTAL TO OTHER ITEMS.



SIGN PLACEMENT



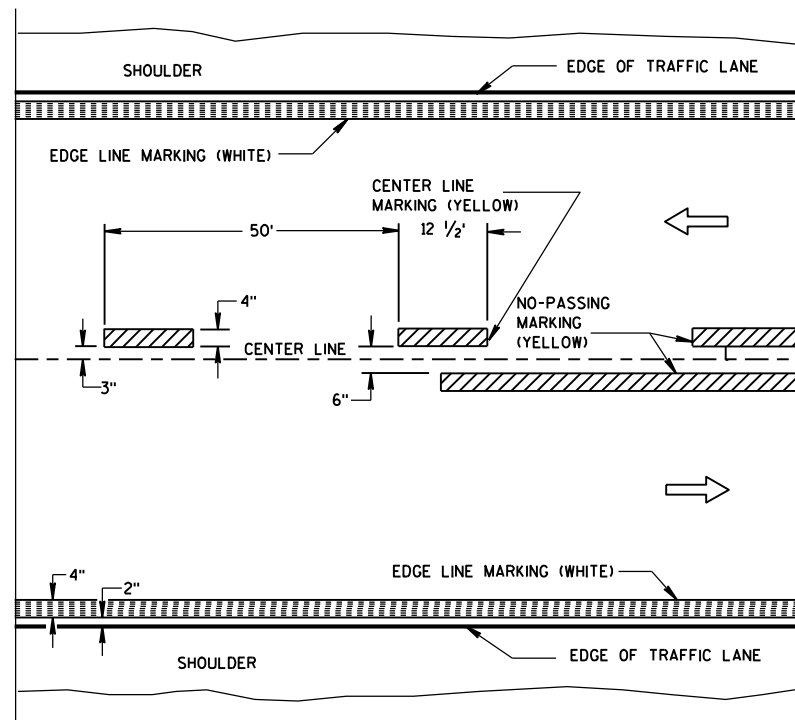
SECTION A-A

(MINIMUM WEIGHT 1.9 LBS. PER FT. AFTER GALVANIZING)

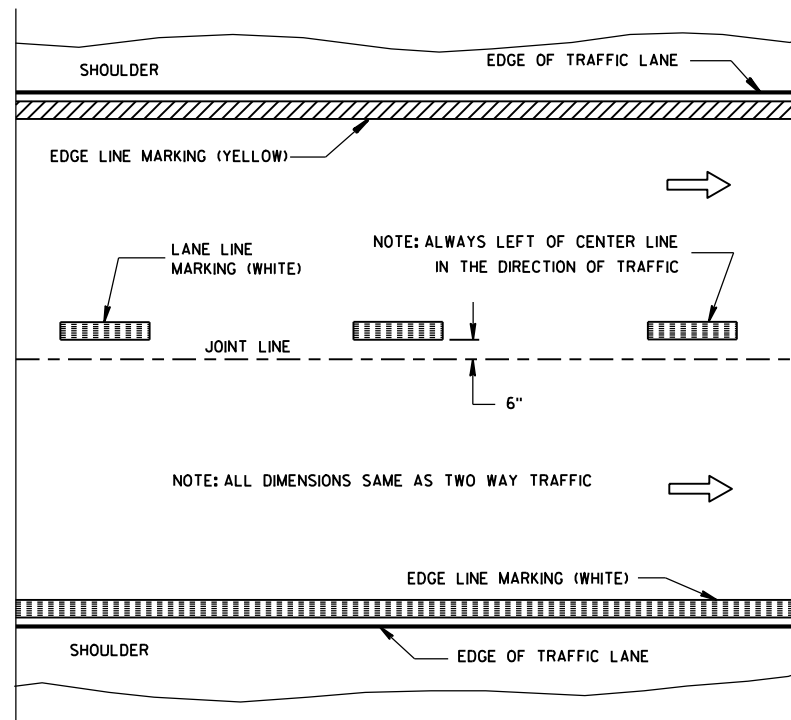
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/5/06 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

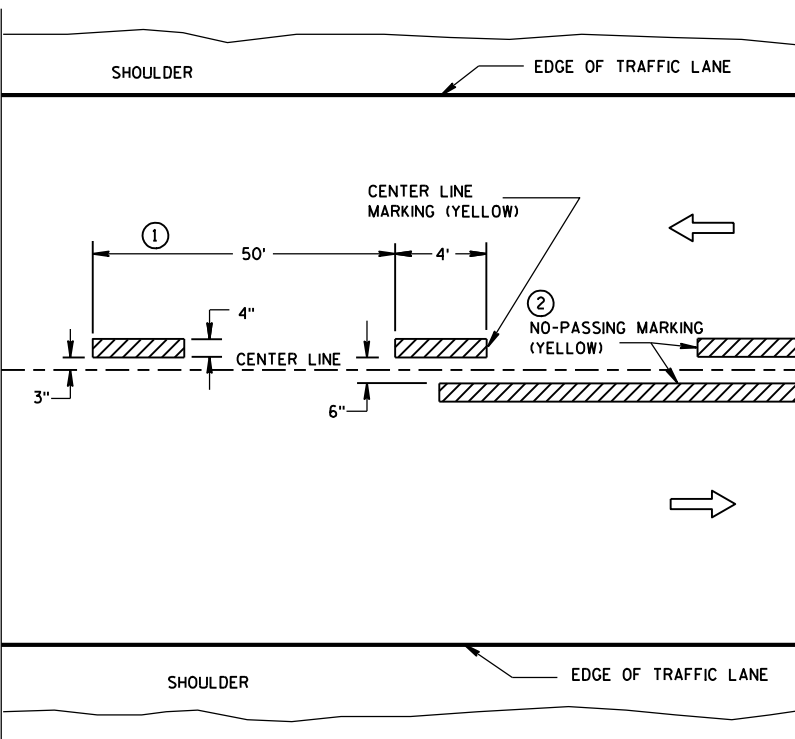


TWO WAY TRAFFIC

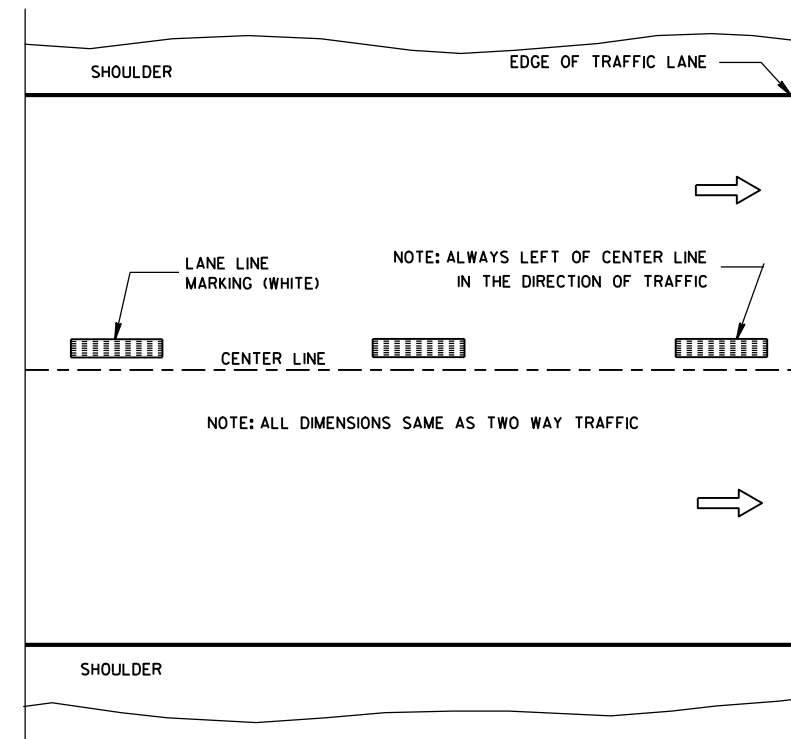


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

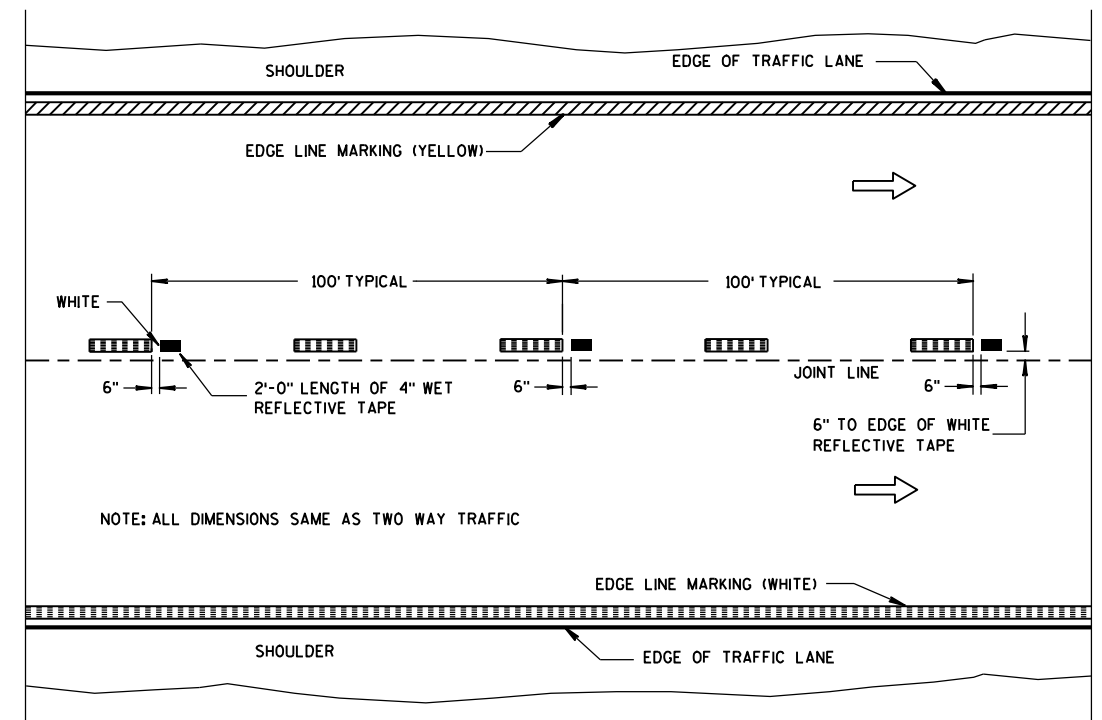
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

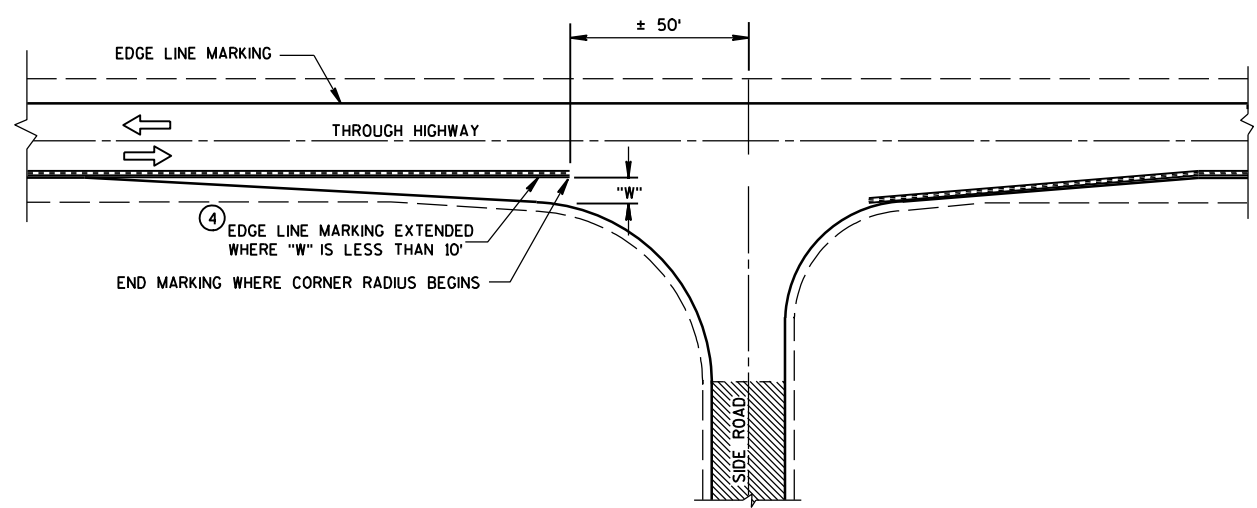


WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

PAVEMENT MARKING
(MAINLINE)

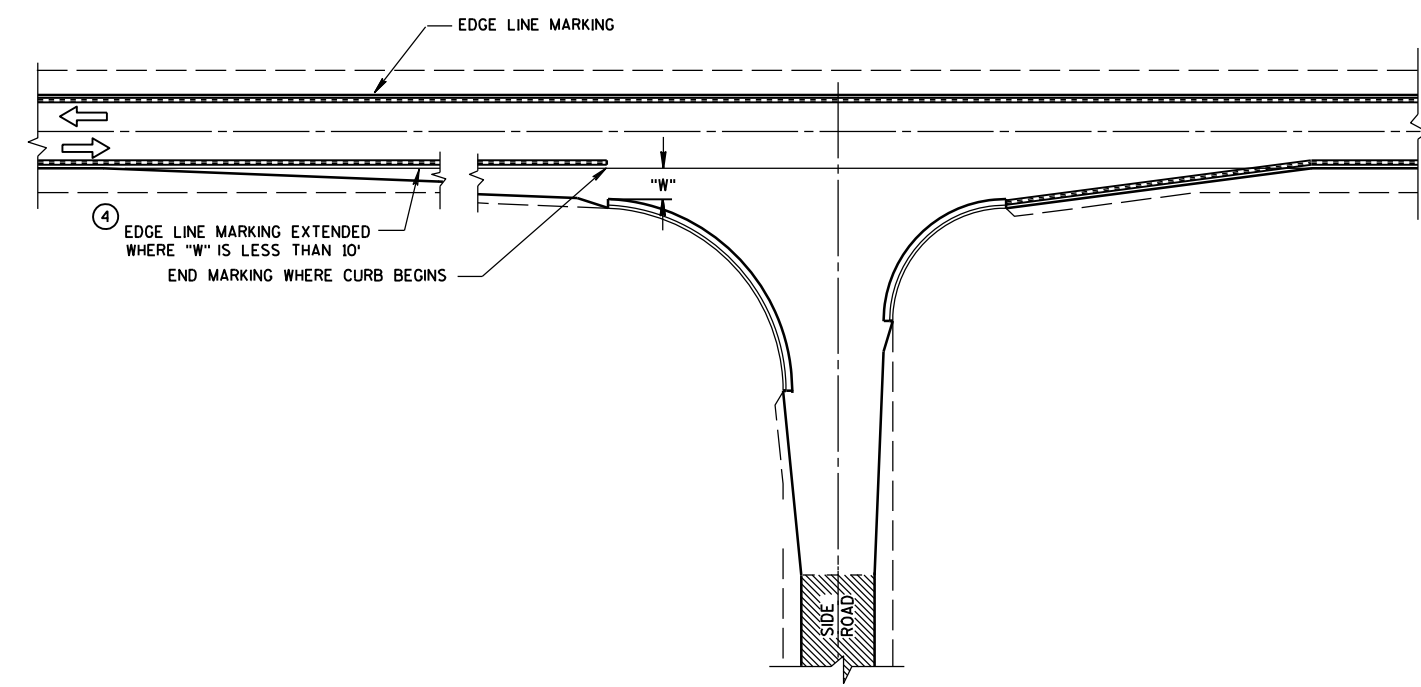
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-20-09 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



MINOR INTERSECTION WITHOUT CURBS

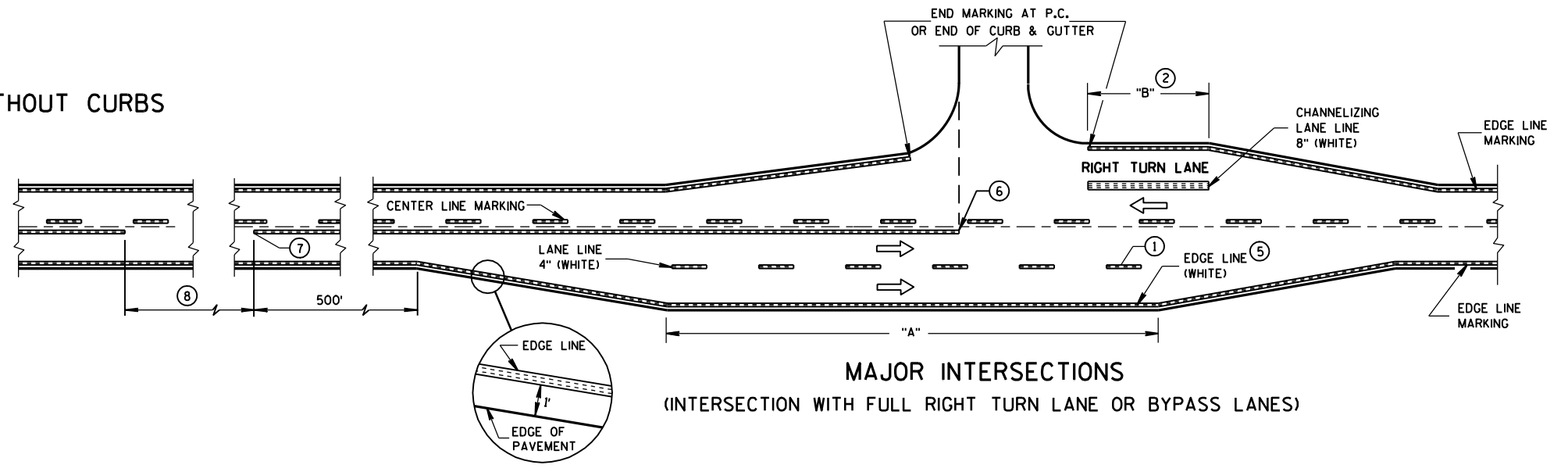
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



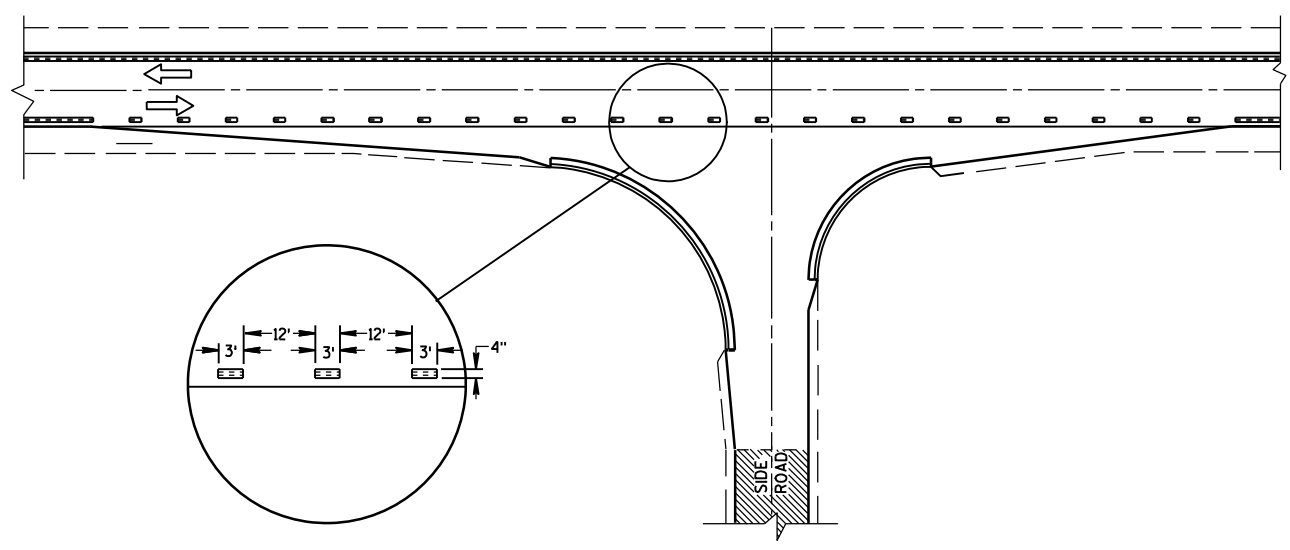
MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)

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 LOCATE THE EDGE LINE ALONG THE TAPER WHERE "W" IS 10' OR MORE.
 - 5 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.
 - 6 BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - 7 BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - 8 IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



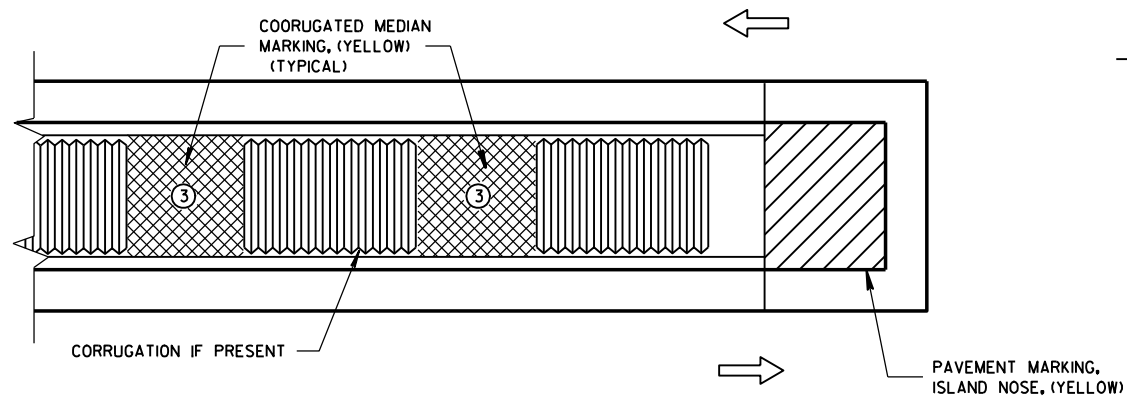
MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



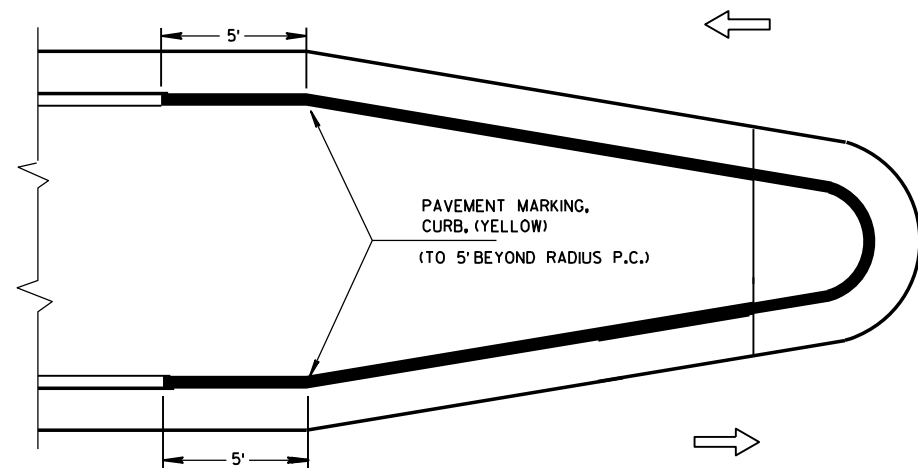
MINOR INTERSECTION WITH CURBS
(FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

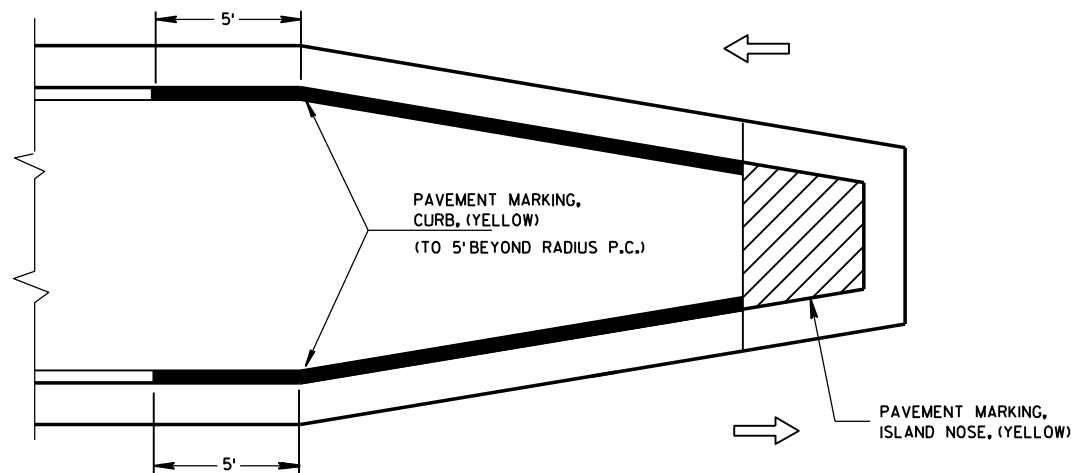
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

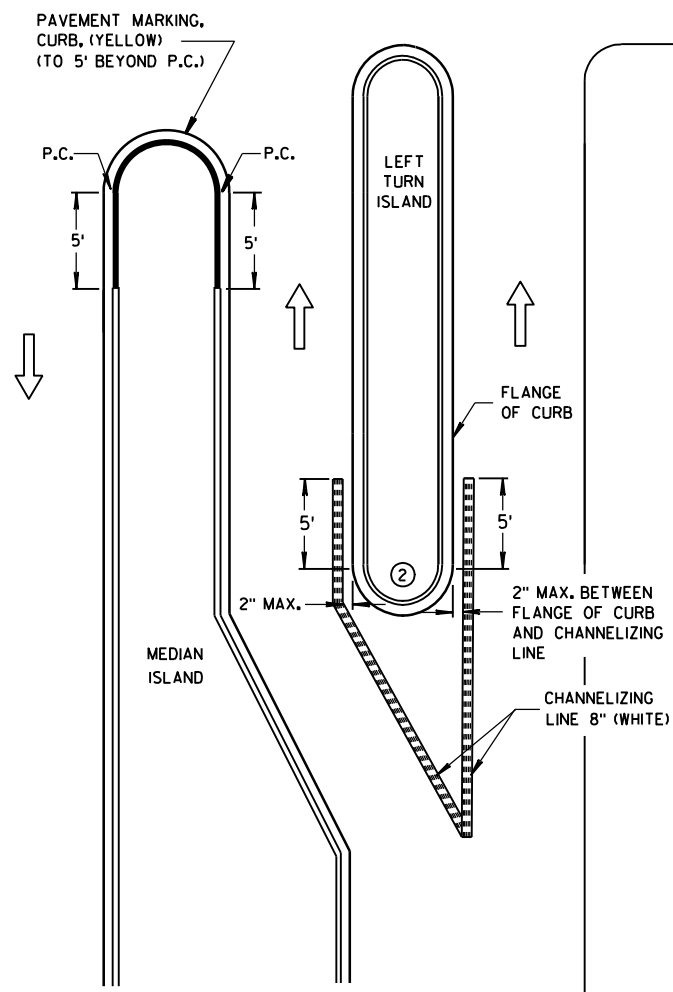


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

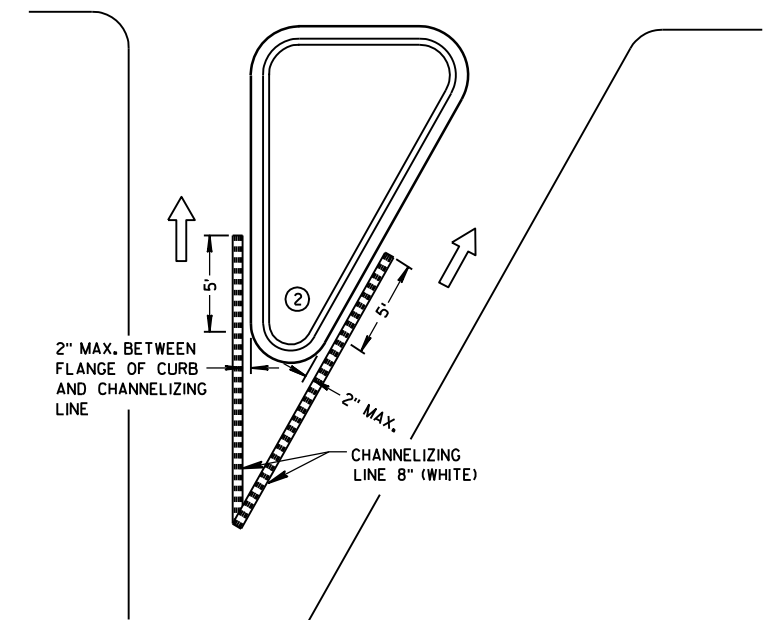
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

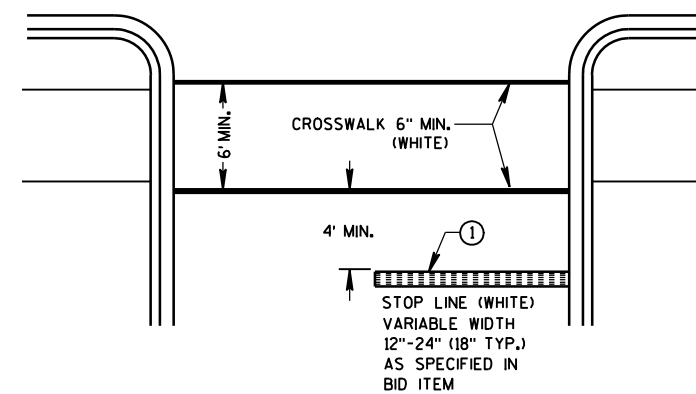
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND 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 MAKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



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

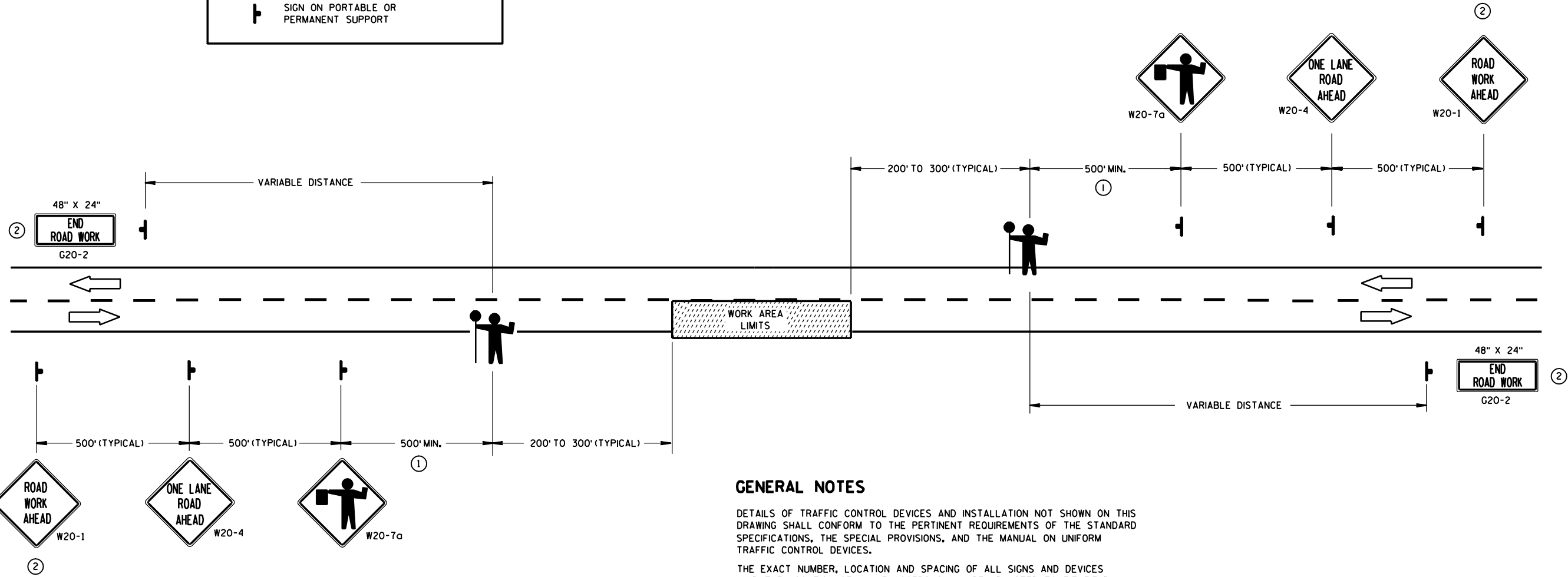


SIGN ON PORTABLE OR
PERMANENT SUPPORT



W3-4

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



GENERAL NOTES

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

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

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

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE
CLOSURE (SUITABLE FOR
MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/5/06 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

LEGEND

- POST MOUNTED SIGN
- *-x-* REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- FLAGS, 16"x16" MIN., ORANGE
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC FLOW
- 4" X 6" WOOD POST

GENERAL NOTES :

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

NON-OPERATIONAL EQUIPMENT OR MATERIAL SHALL BE LOCATED BEHIND THE PRECAST CONCRETE BARRIER.

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

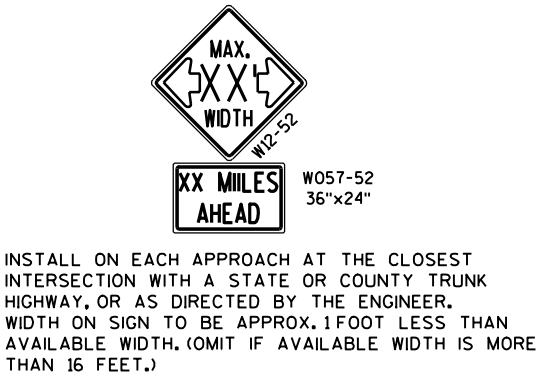
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

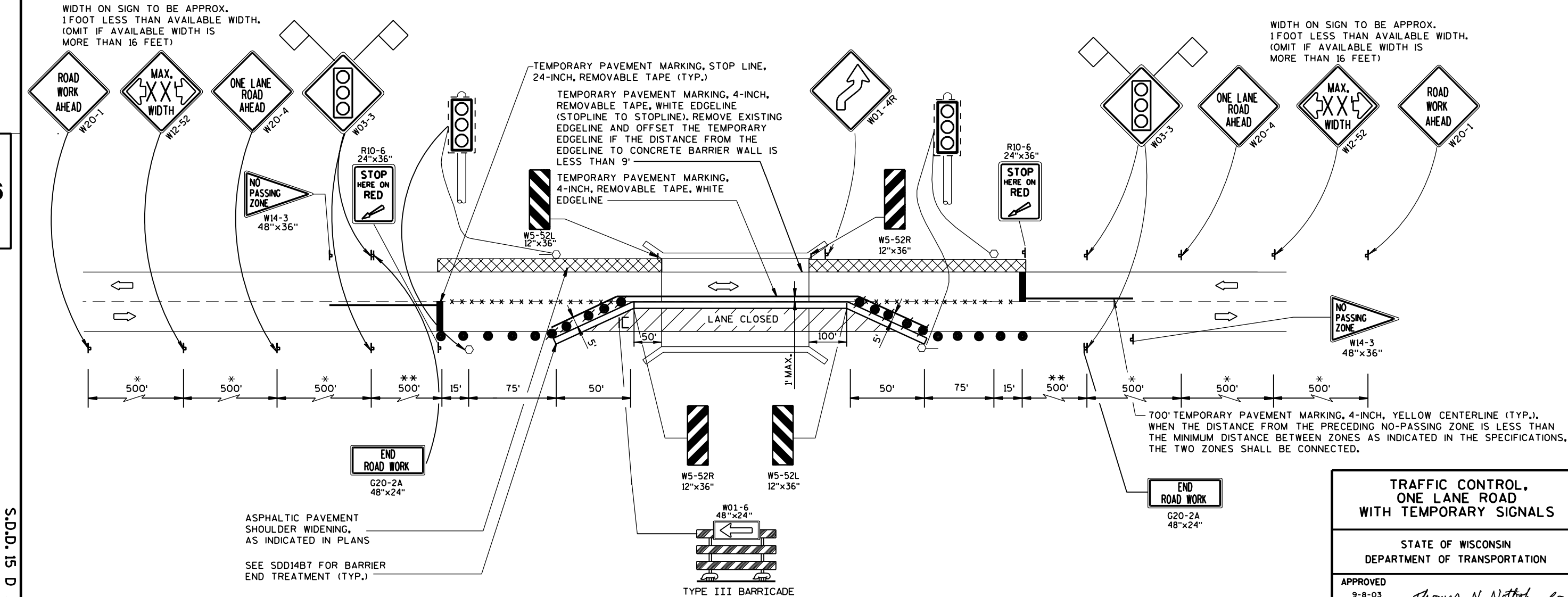
* 500' SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350' TYPICAL SPACING. FOR 25-30 MPH, USE 200' TYPICAL SPACING.

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



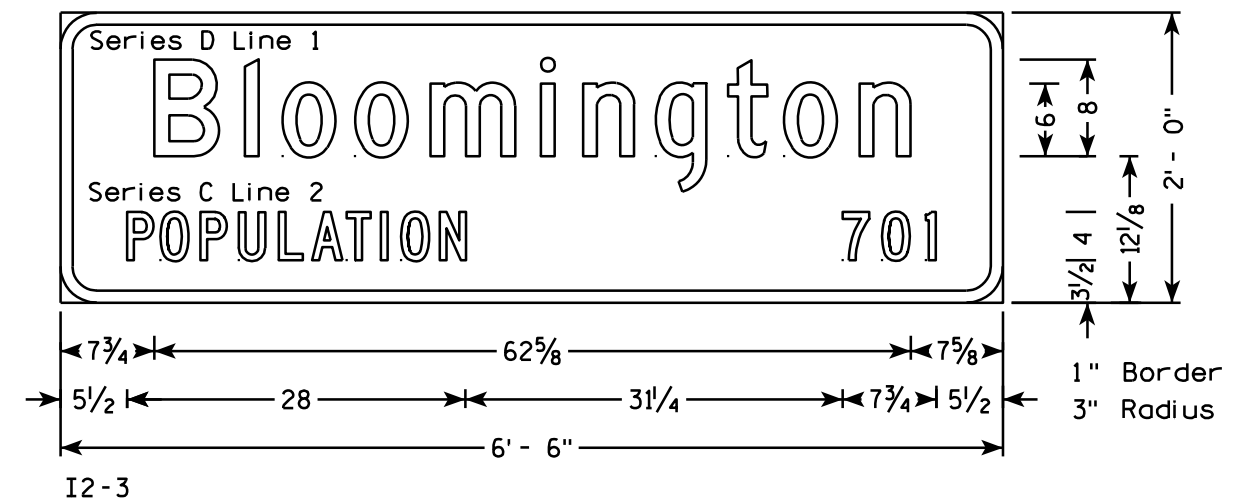
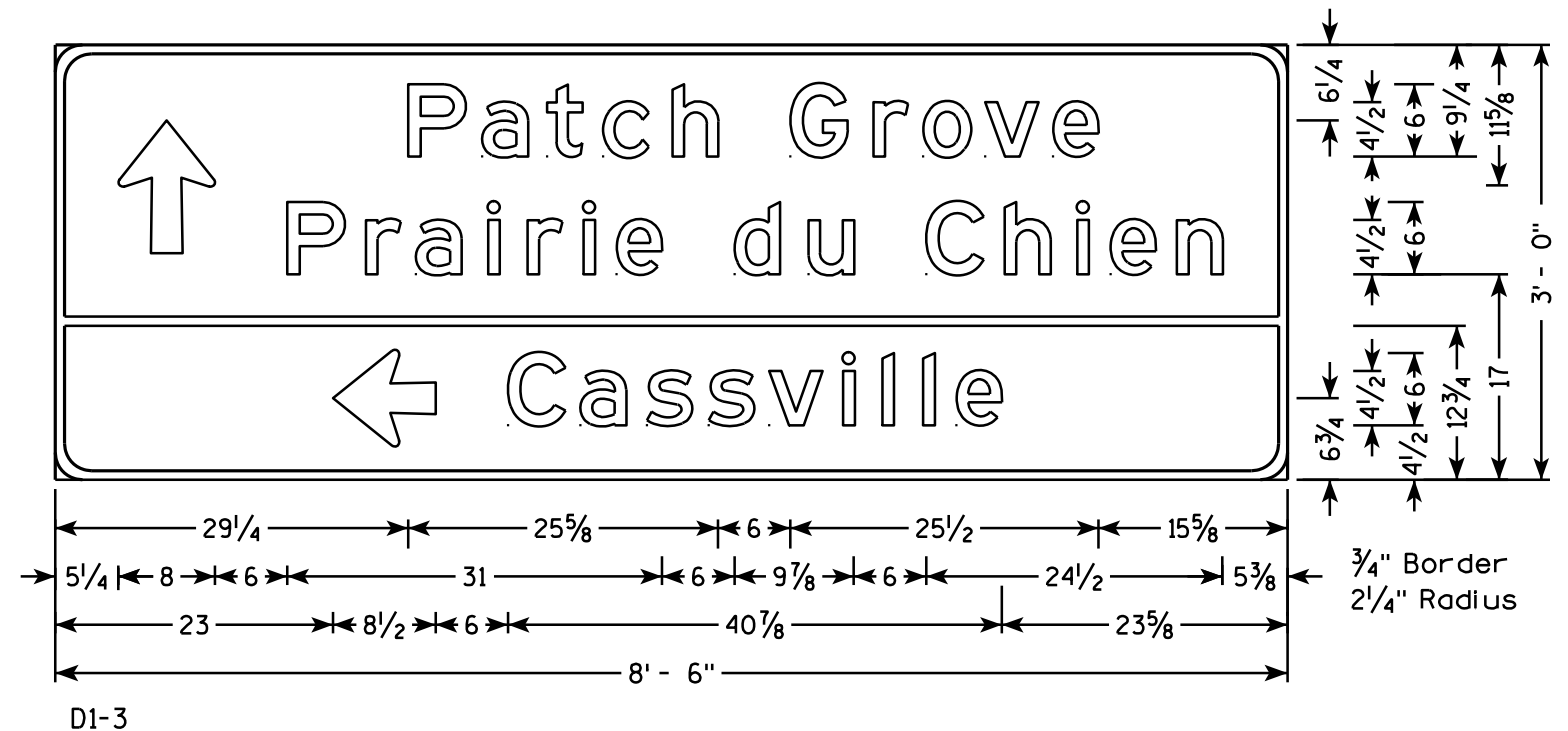
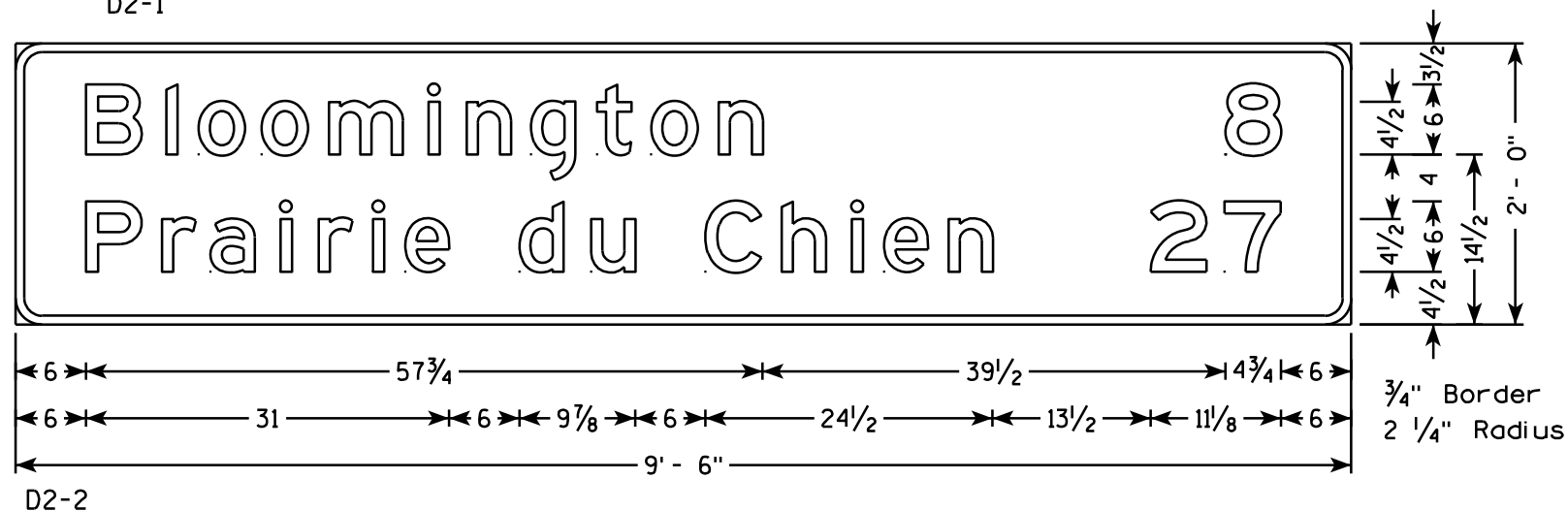
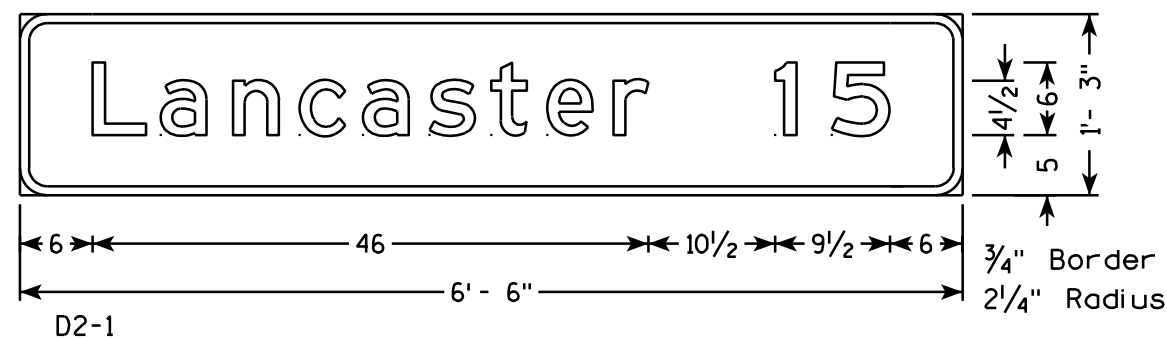
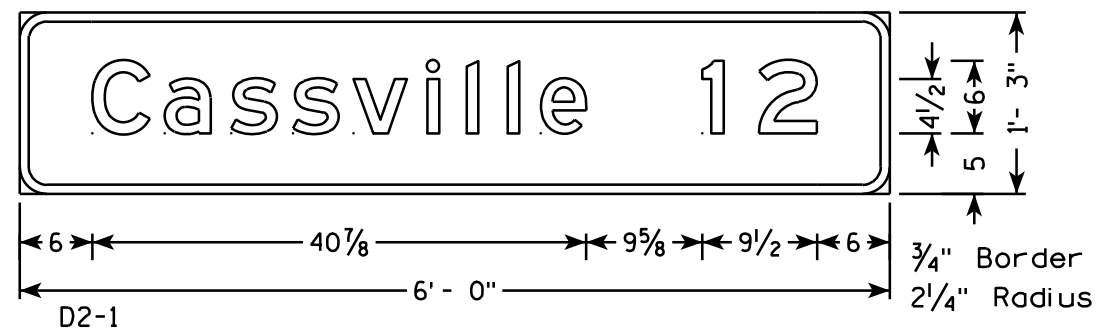
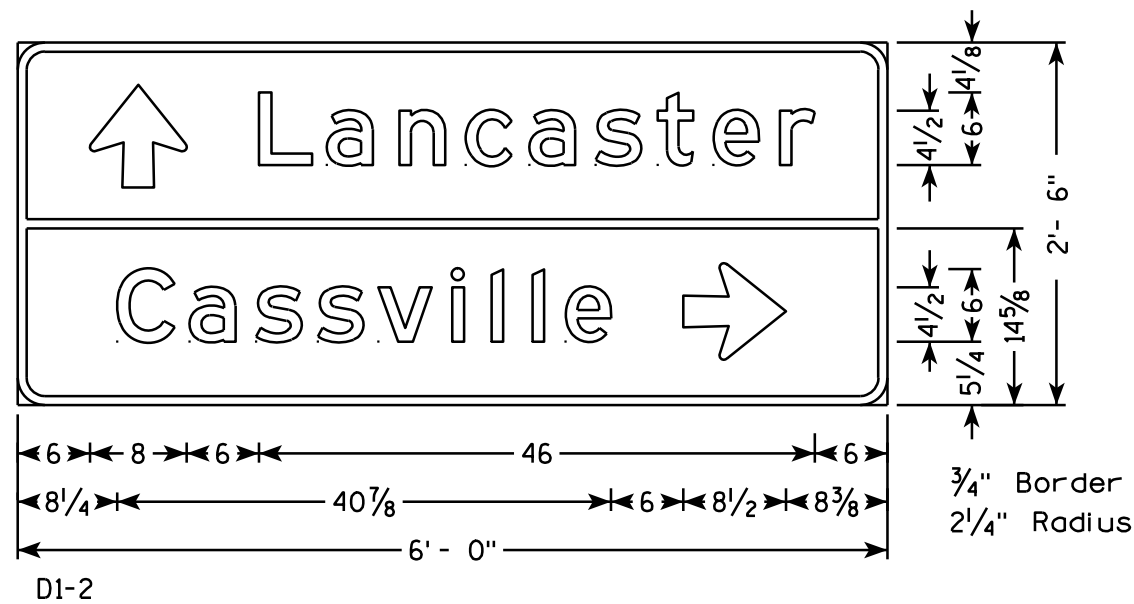
6

6

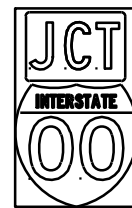


NOTES

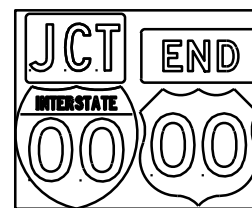
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E except as noted



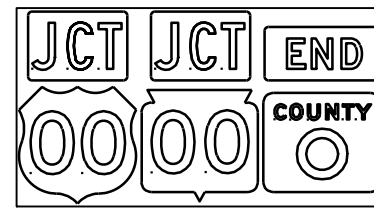
TYPICAL ASSEMBLIES



J1-1



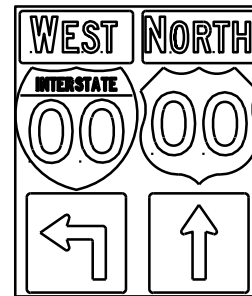
J1-2



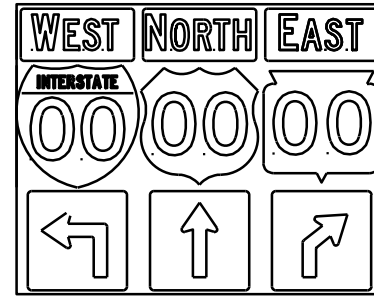
J1-3



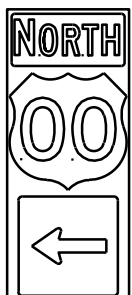
J2-1



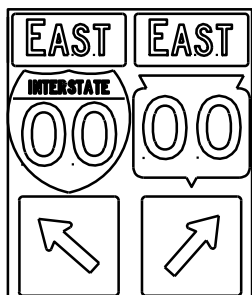
J2-2



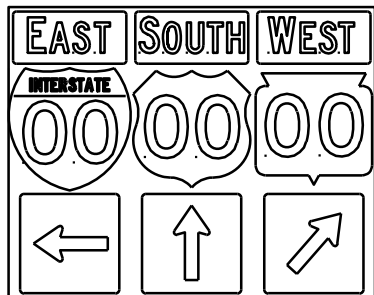
J2-3



J3-1



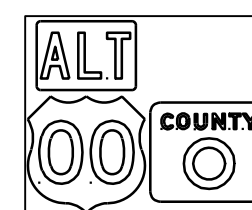
J3-2



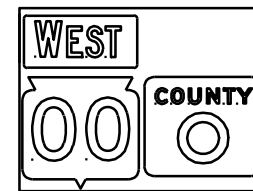
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

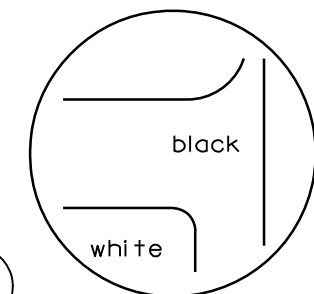
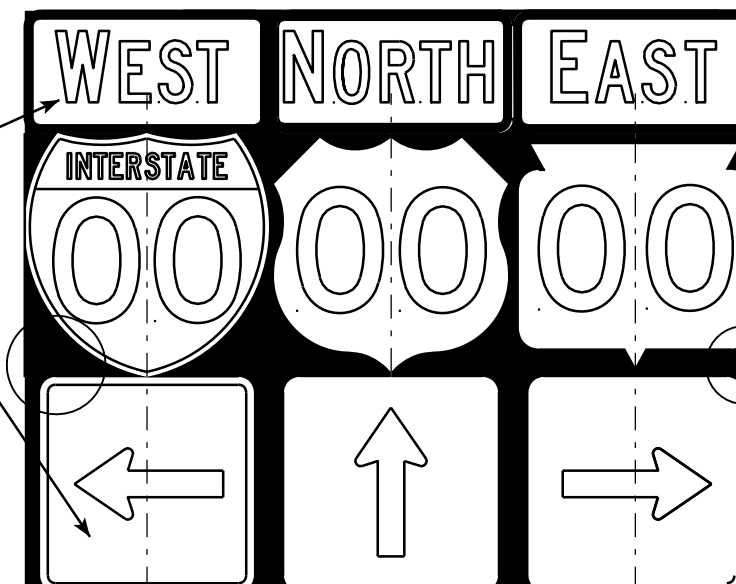
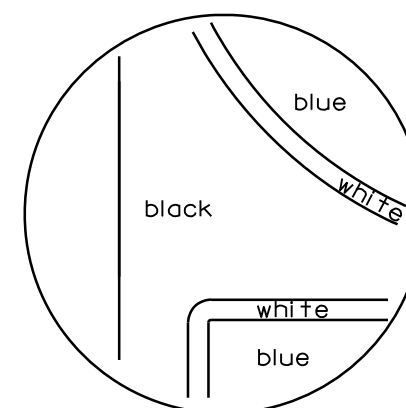


JV

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.

[blue background with interstate]



[black background]

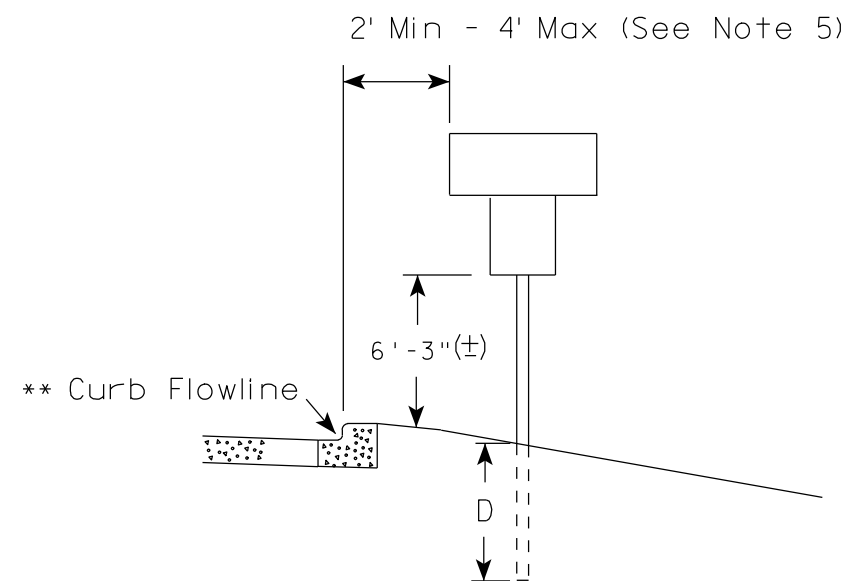
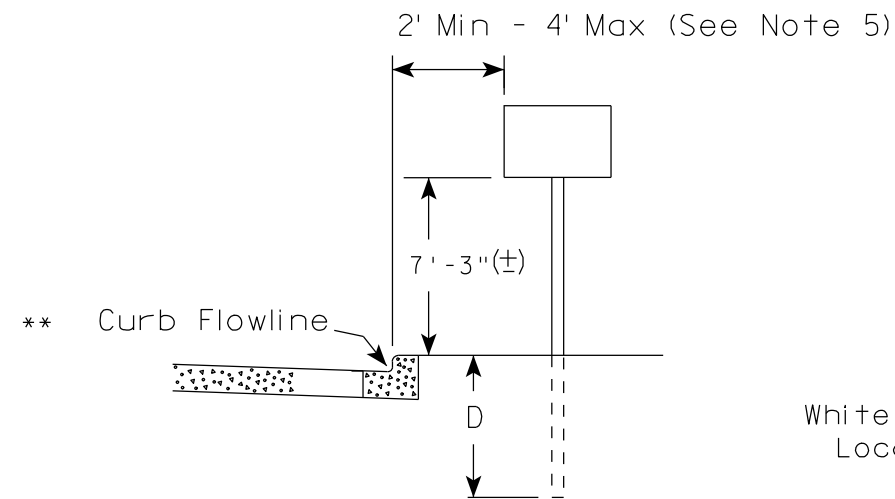
ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

PROJECT NO:

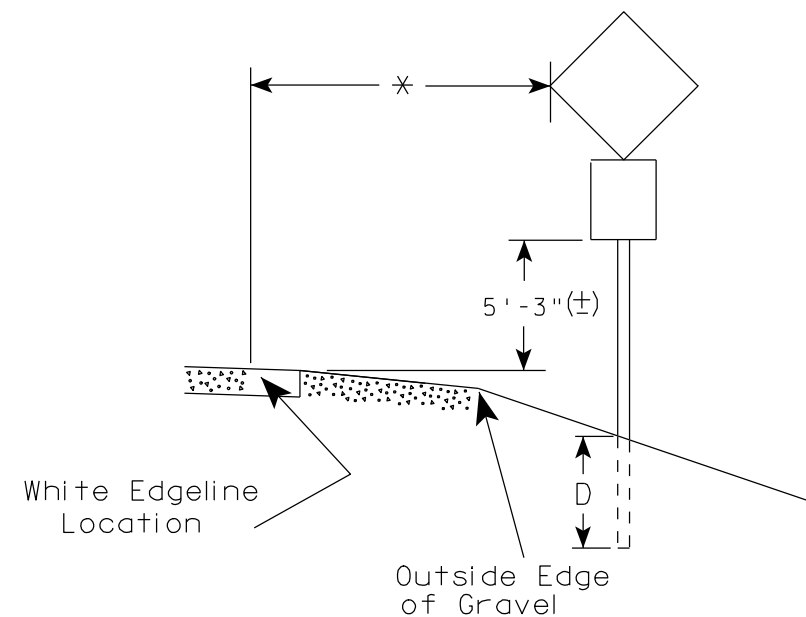
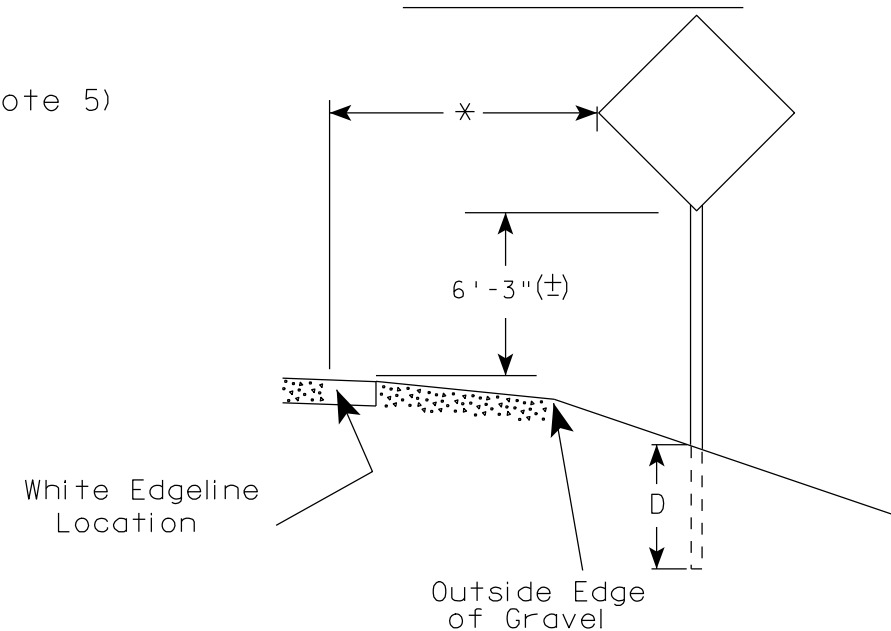
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 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 (W1-8A), 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" (±).

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. A4-3.15

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

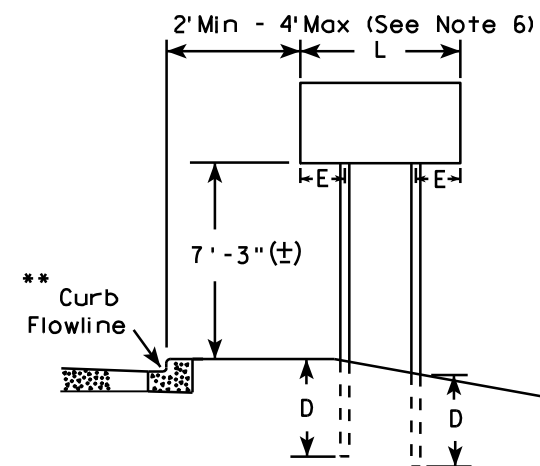
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- 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 (W1-8A), 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.

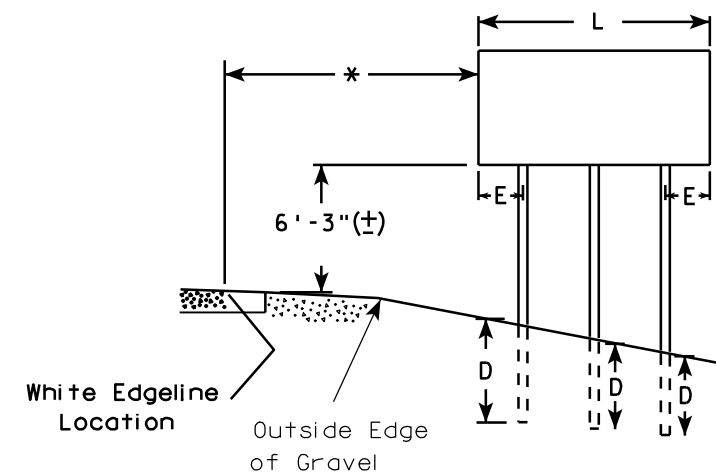
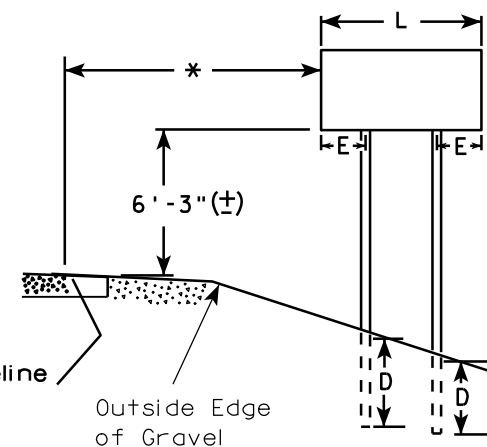
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

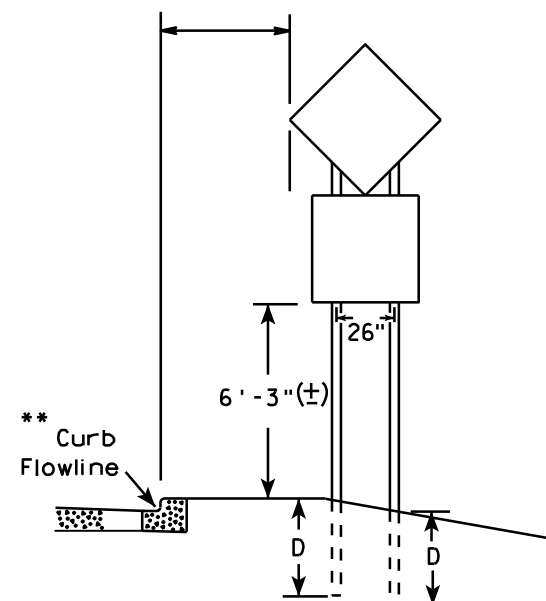
URBAN AREA



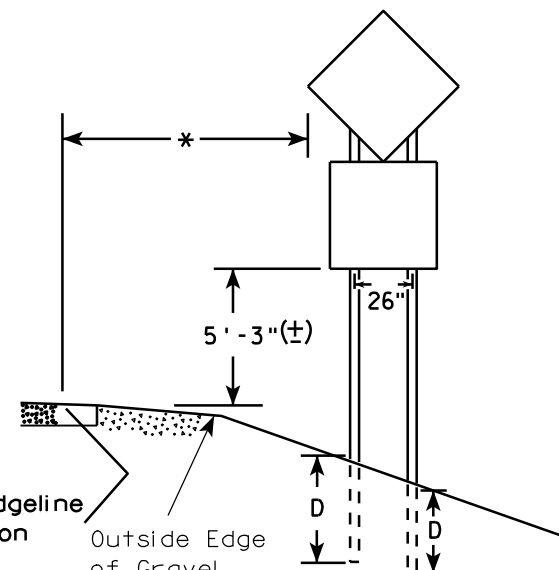
RURAL AREA (See Note 3)



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 9/30/09 PLATE NO. A4-4.10

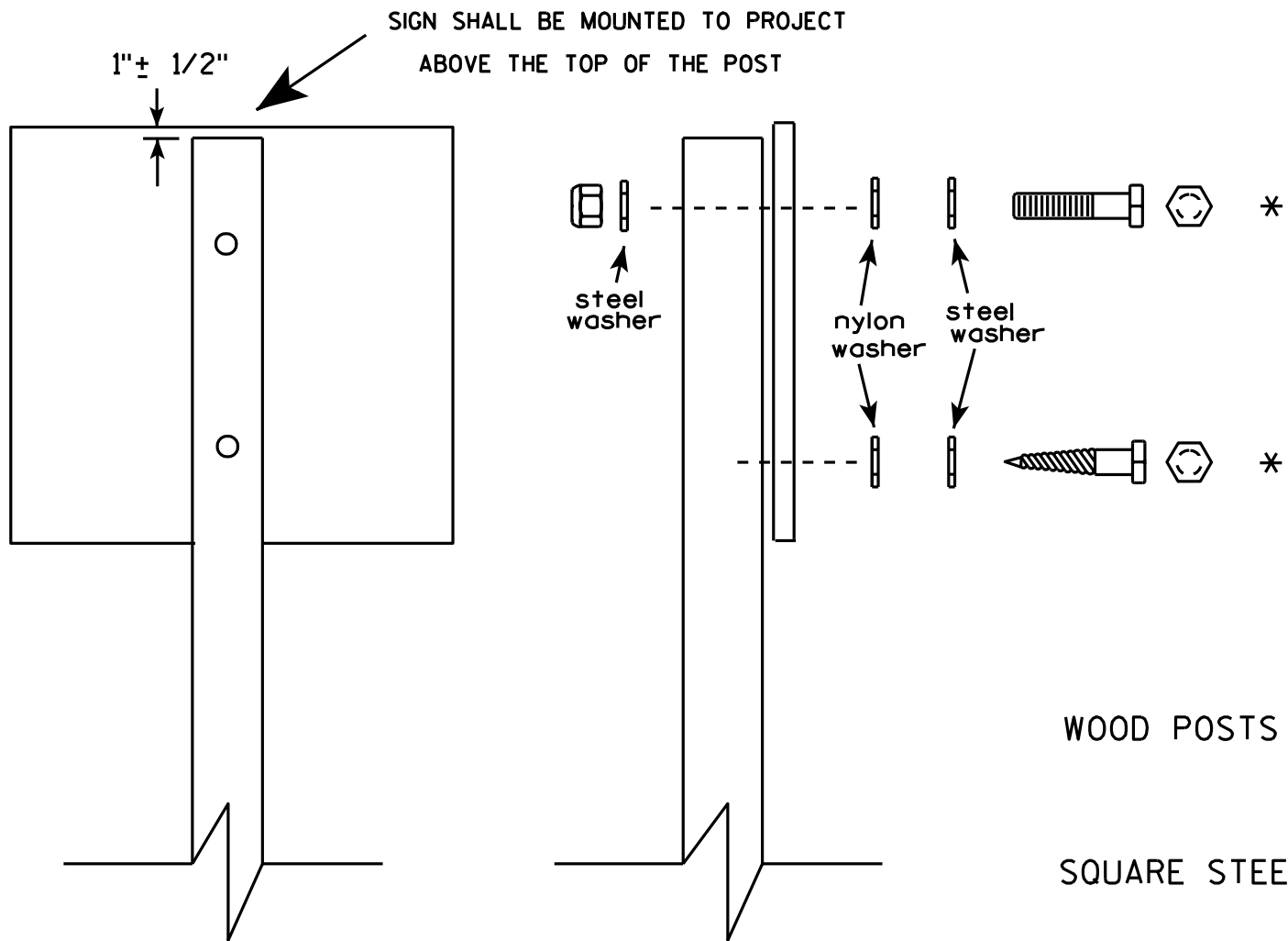
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

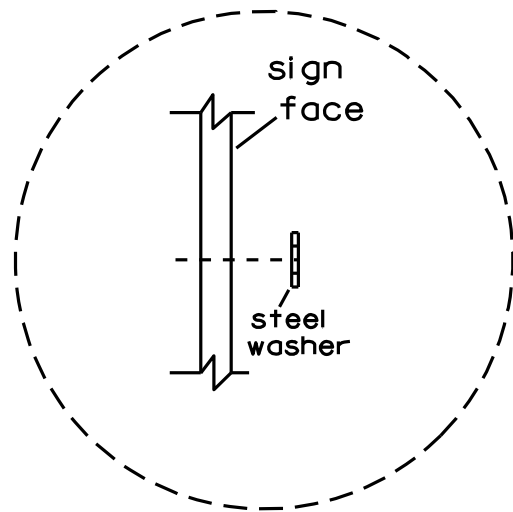


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

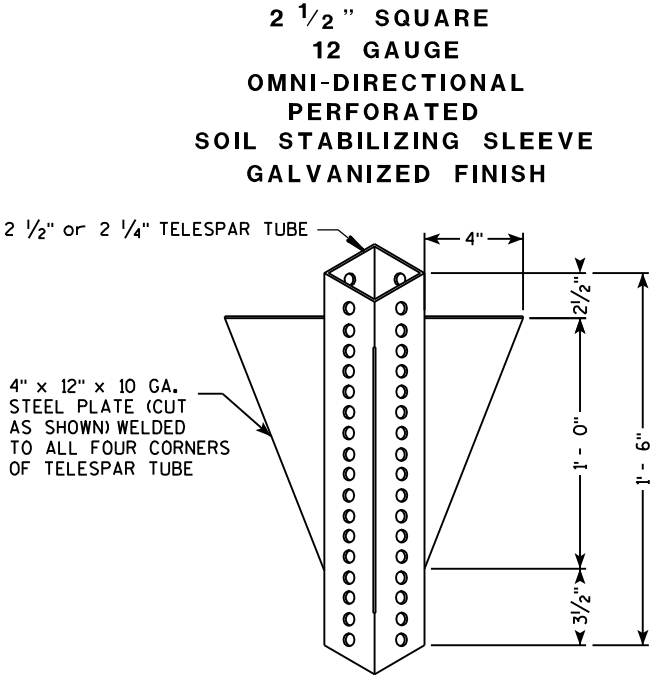
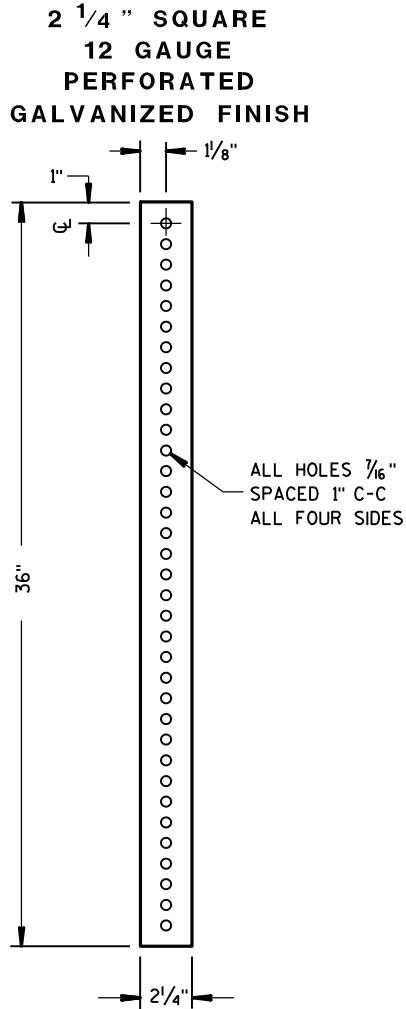


Washer Placement when Sign Has Other Than Type H or Type F Face

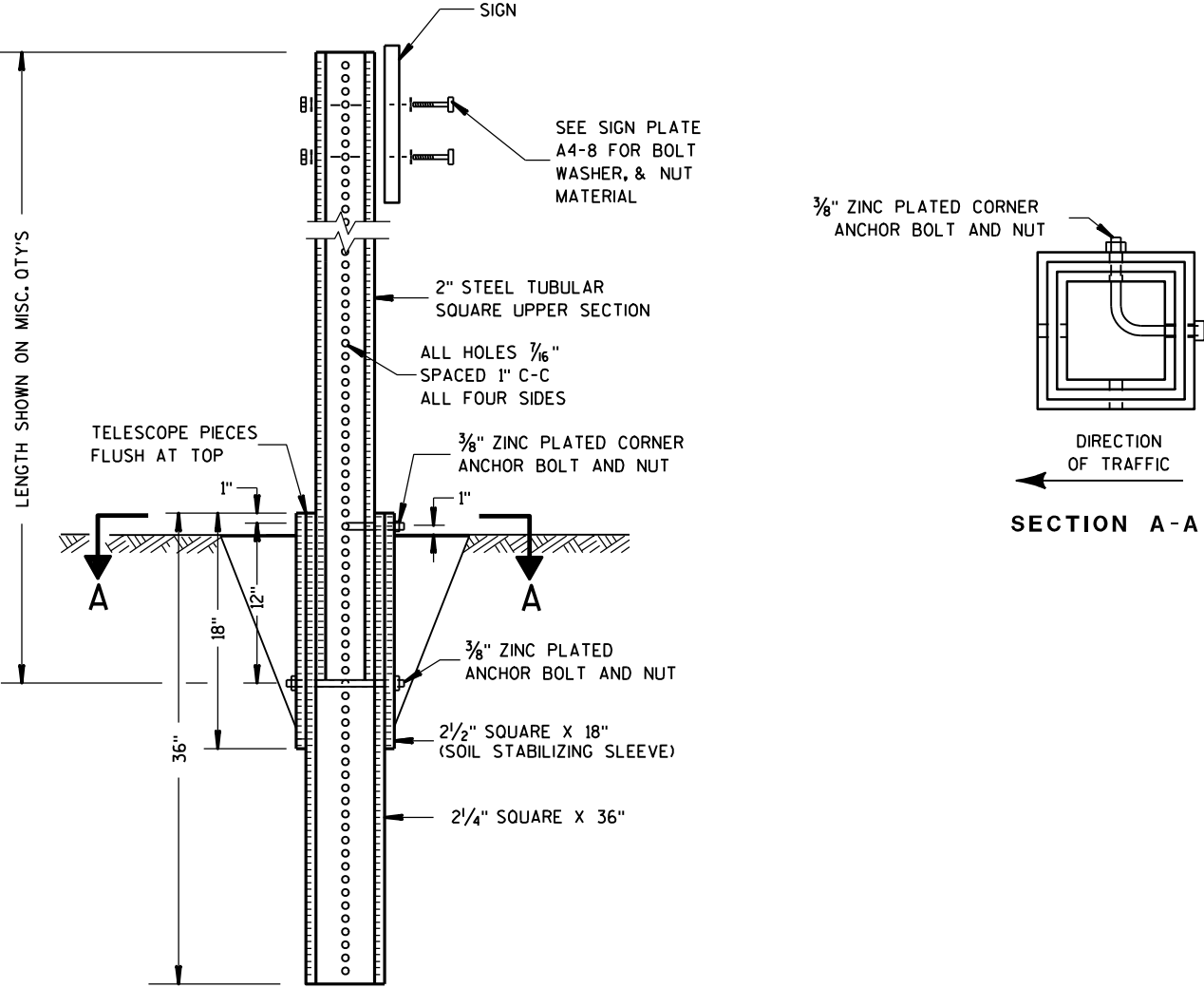
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST

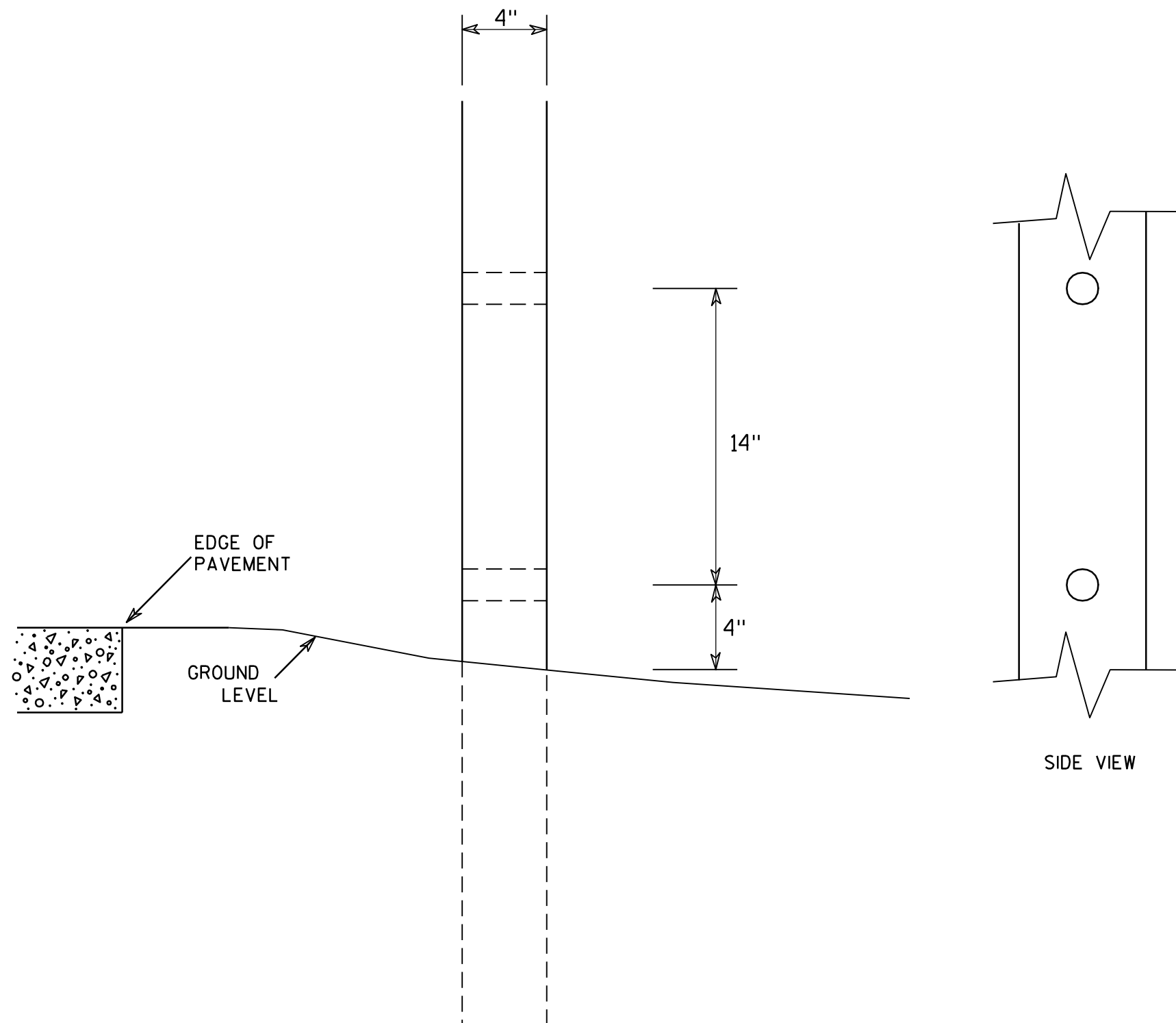


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

TUBULAR STEEL SIGN POST A4-9	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/14/09	PLATE NO. A4-9.5

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:

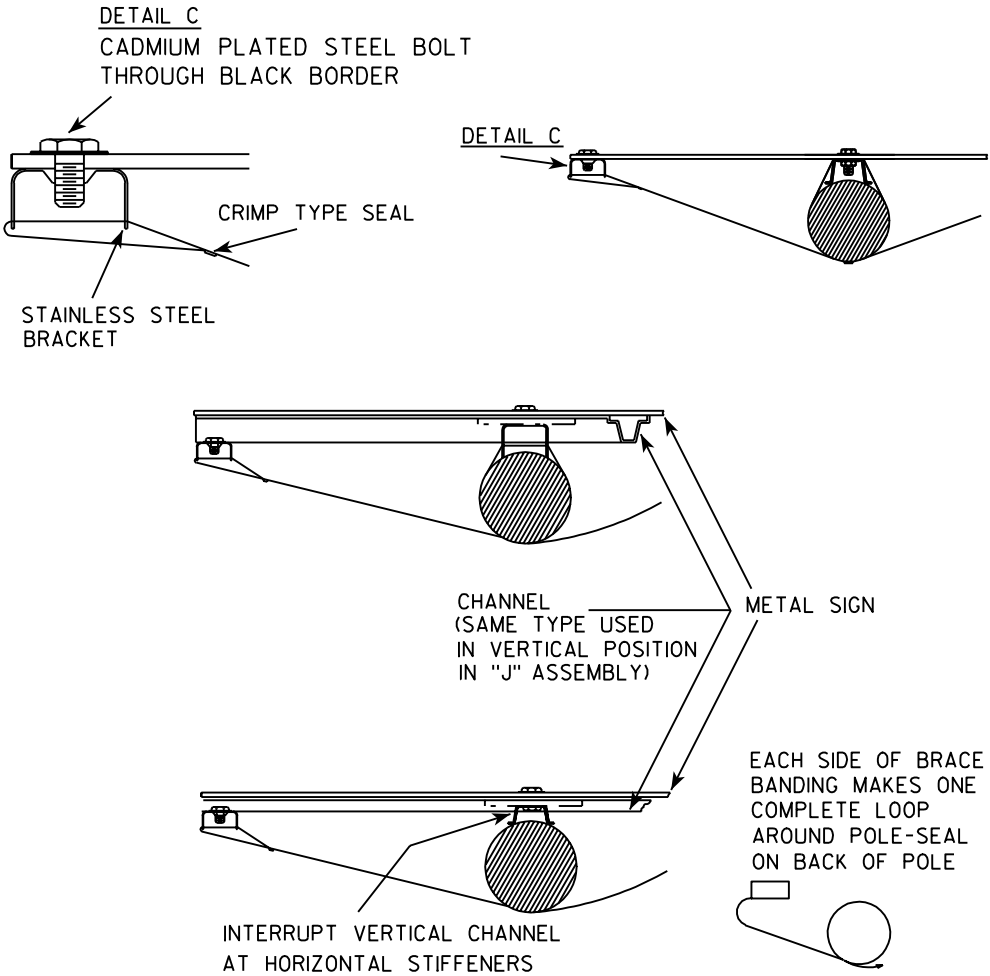
HWY:

COUNTY:

SHEET NO:

E

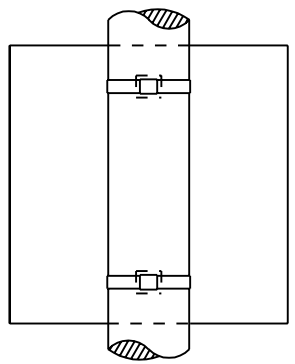
BRACE BANDING



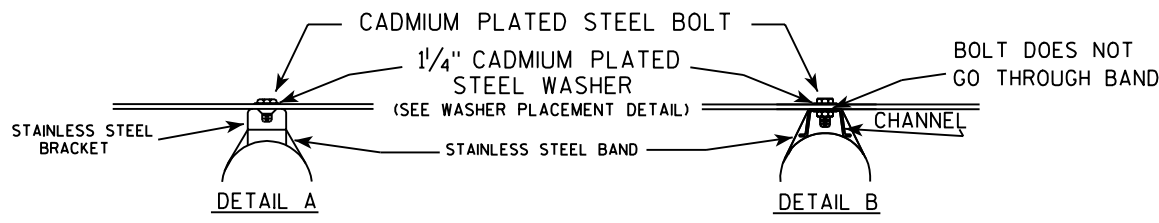
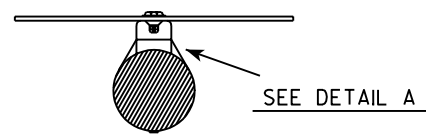
BRACE BANDING

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

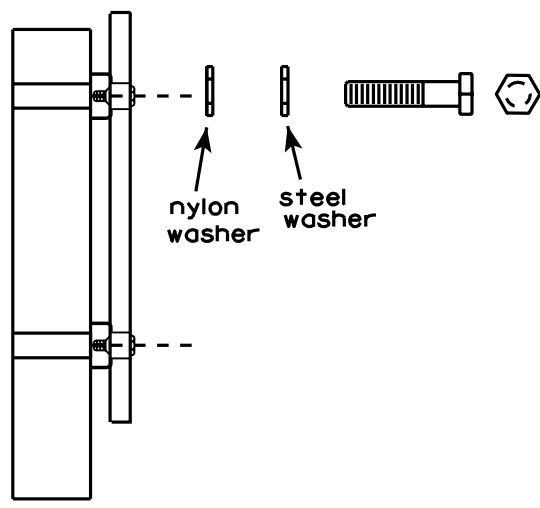
SINGLE SIGN



BRACKET BANDING

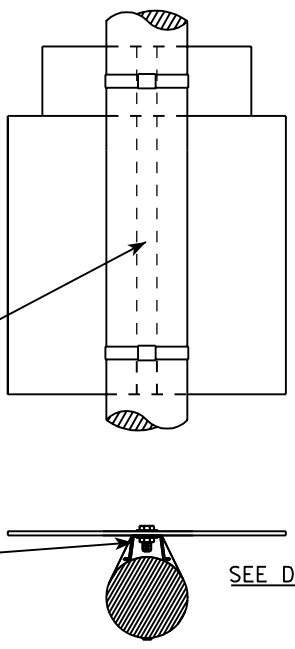


WASHER PLACEMENT



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



SEE DETAIL B

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

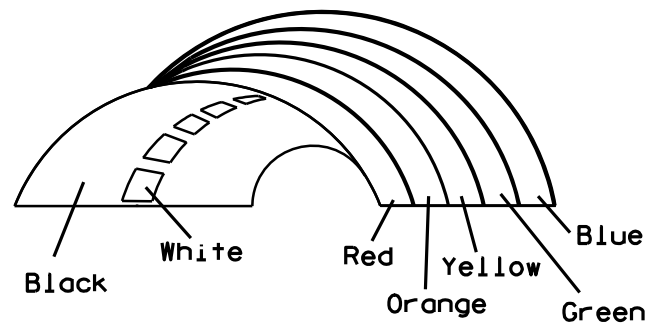
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



* 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.

7

Metric equivalent
for this sign is:

SIZE	
1	
2	750 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	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	.68
3																												
4																												
5																												

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN I55-56

WISCONSIN DEPT OF TRANSPORTATION

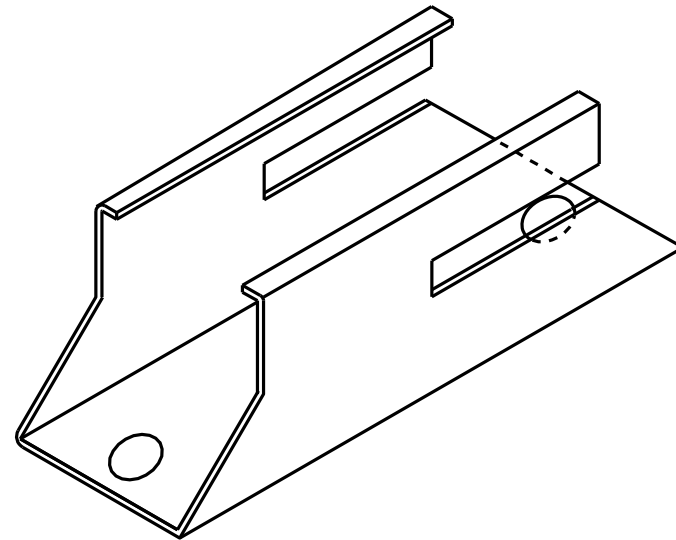
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/8/10 PLATE NO. I55-56.2

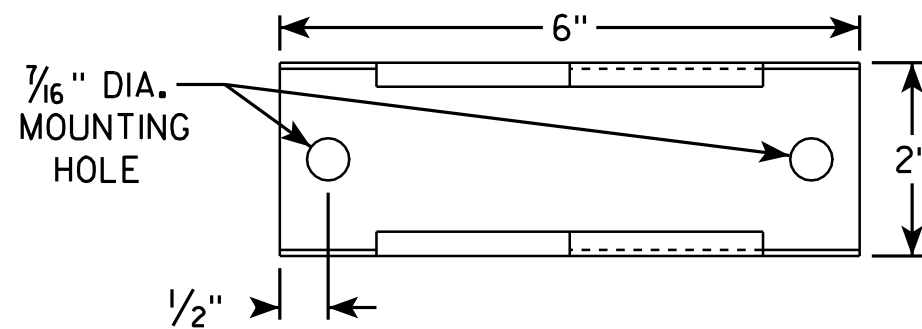
SHEET NO:

7

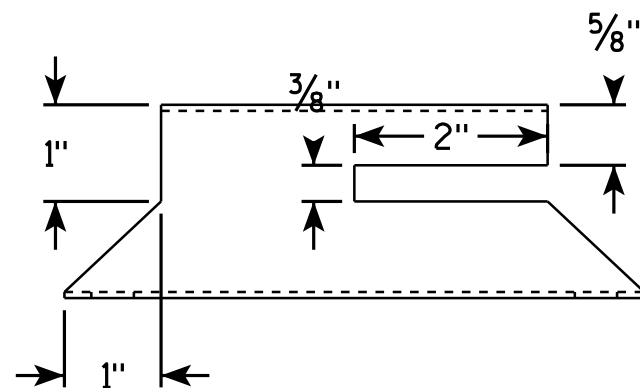
ISOMETRIC VIEW



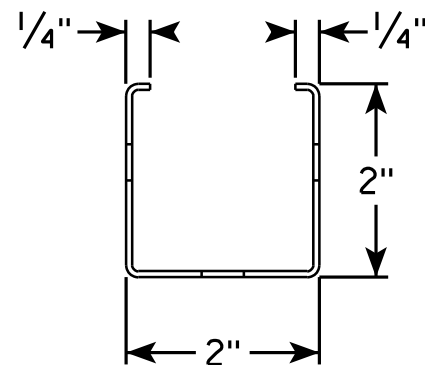
TOP VIEW



SIDE VIEW



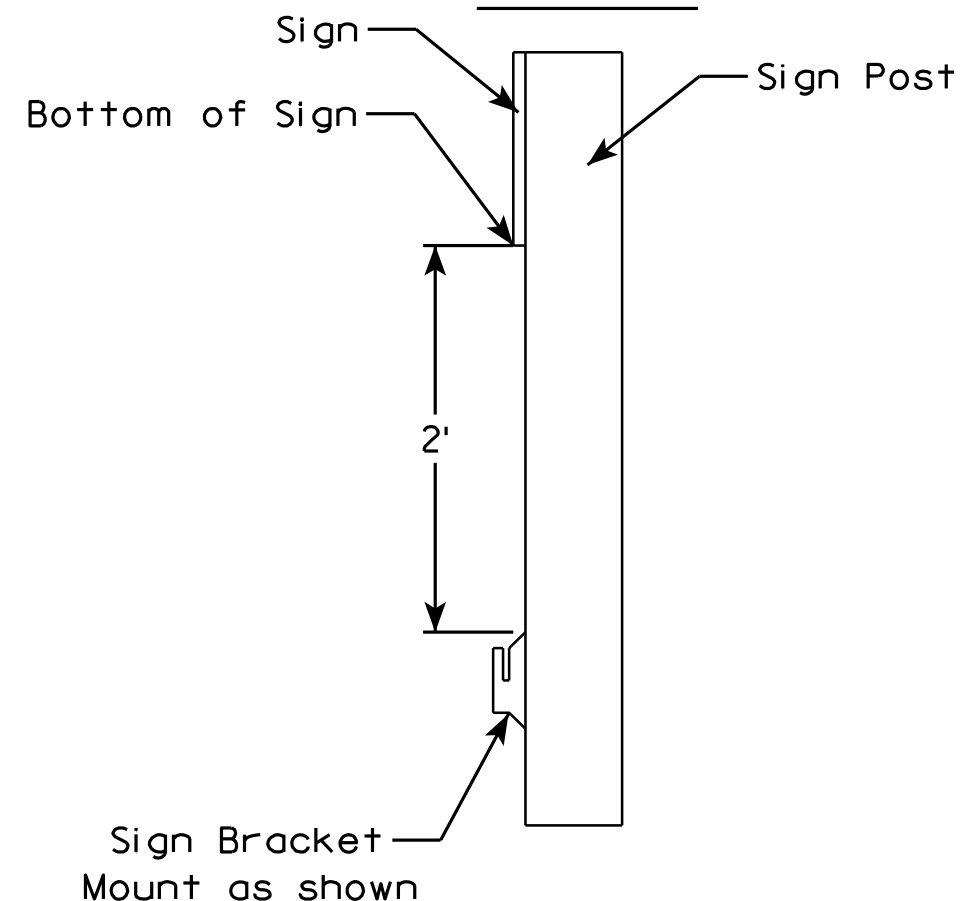
END VIEW



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

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			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8												4.0	.36
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14												9.0	.81

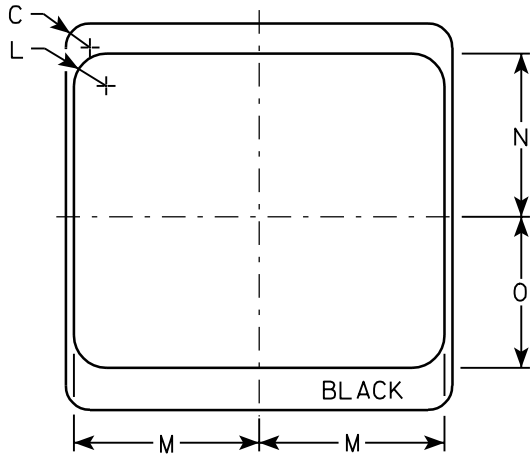
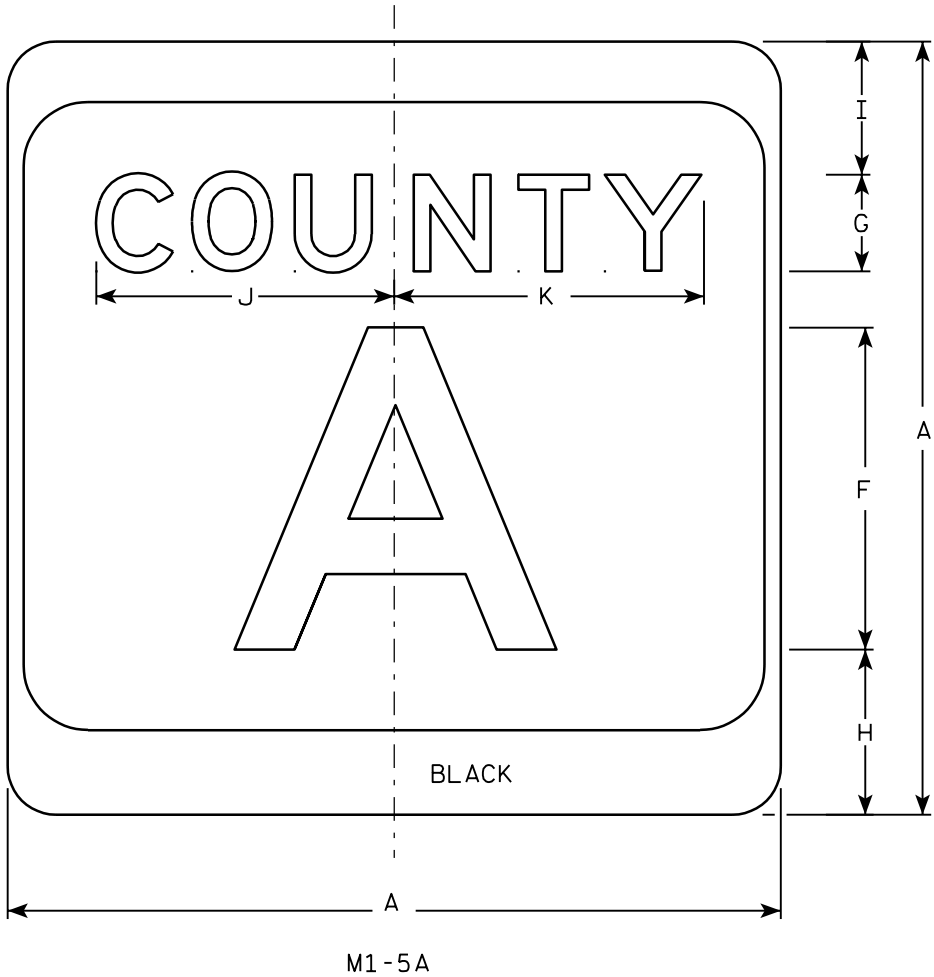
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E




NOTES

- Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 7
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.
- Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
- Substitute appropriate letters & optically adjust spacing to achieve proper balance.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

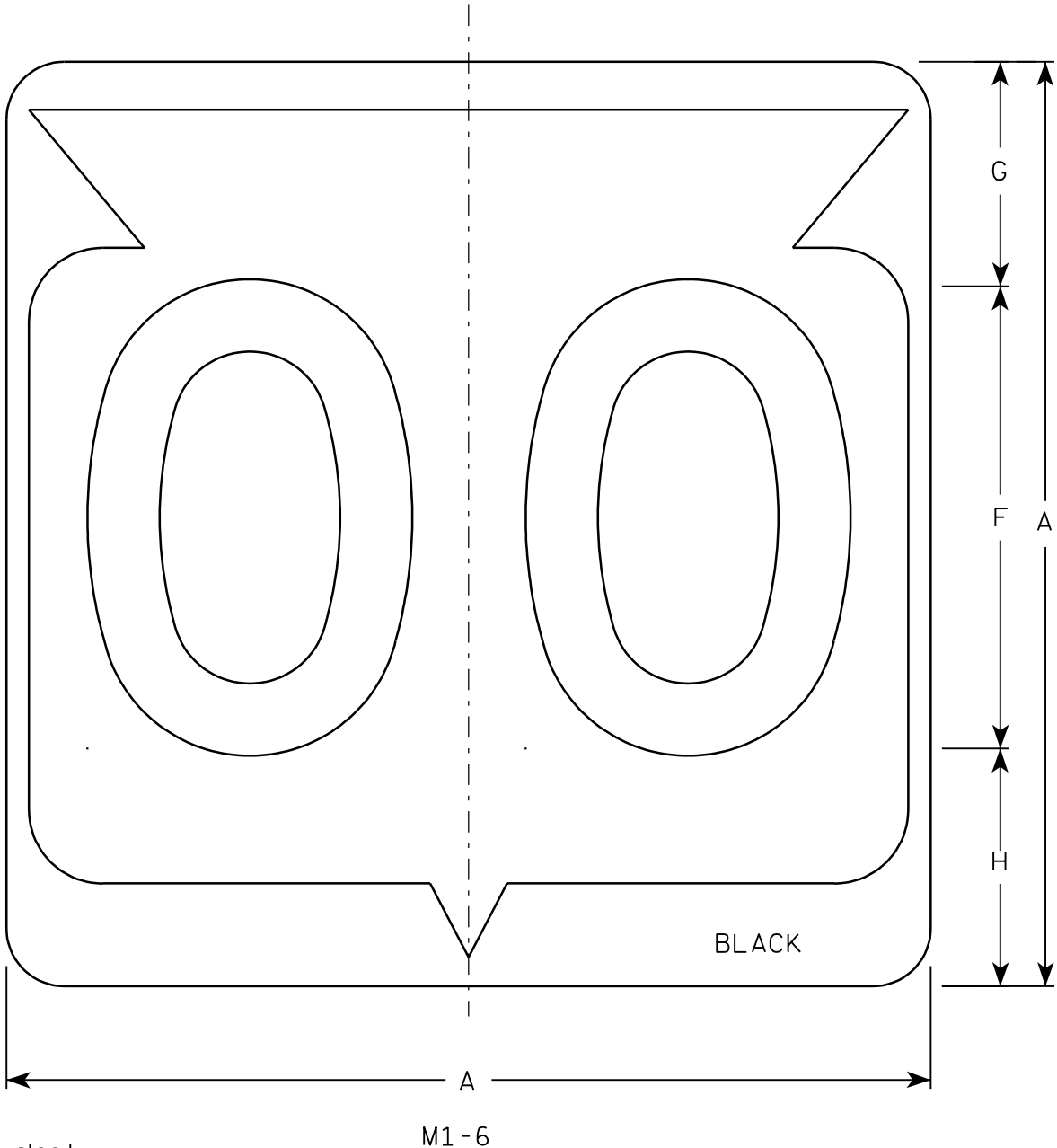
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 3/20/02
PLATE NO. M1-5A.7

7



Metric equivalent
for this sign is:

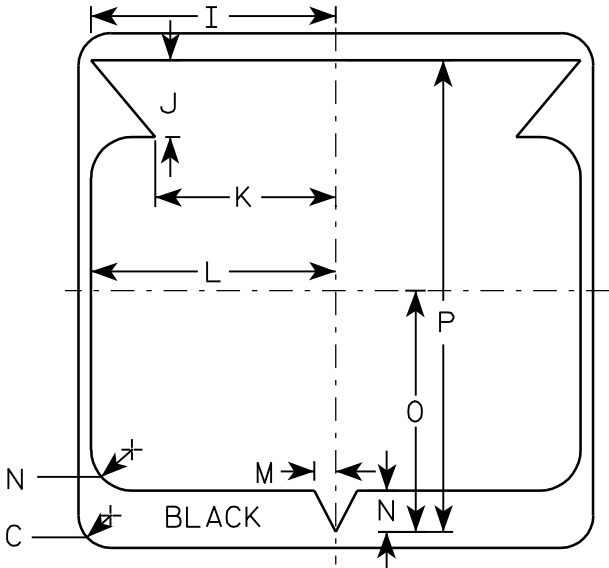
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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
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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 Series numerals and adjust spacing as per plate A10-1.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

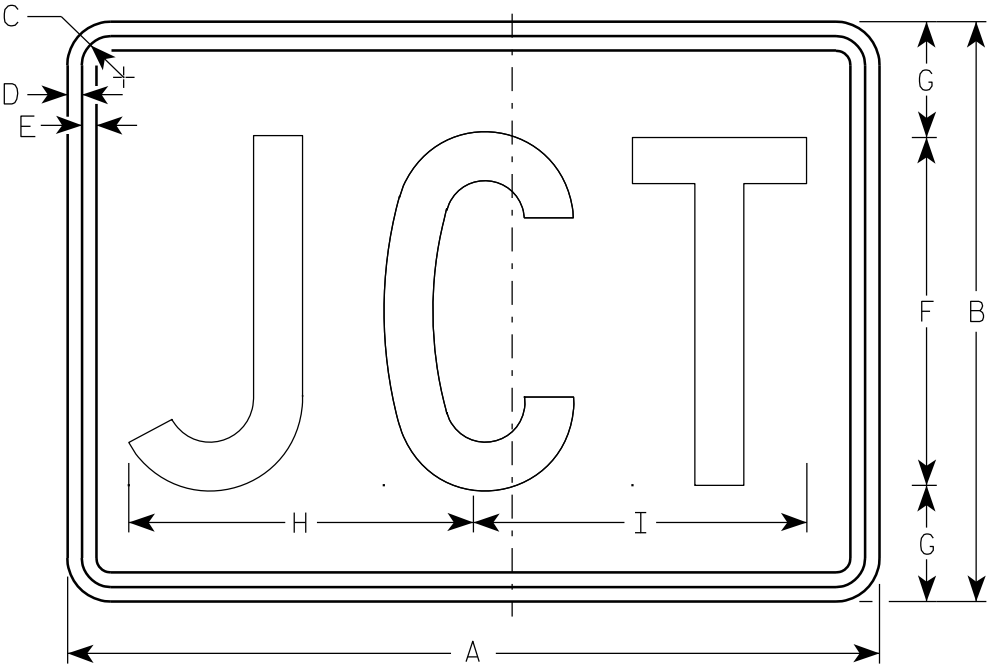


STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer
DATE 3/20/02 PLATE NO. M1-6.9

7



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

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

PROJECT NO:

HWY:

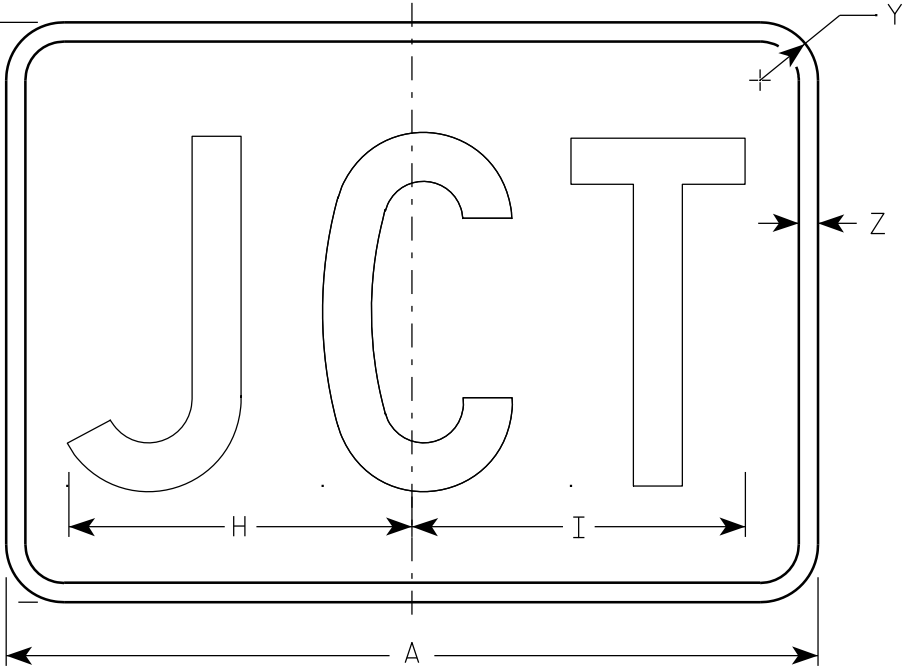
COUNTY:

SHEET NO:

E

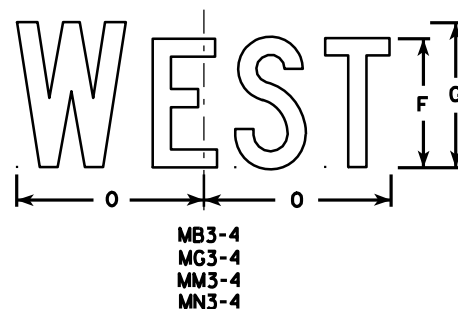
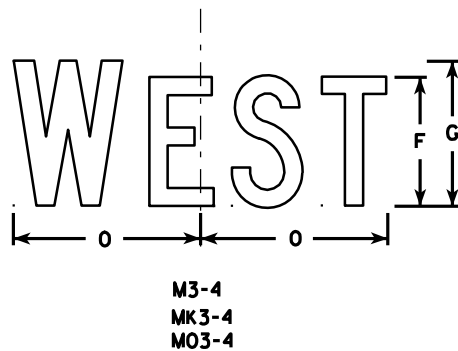
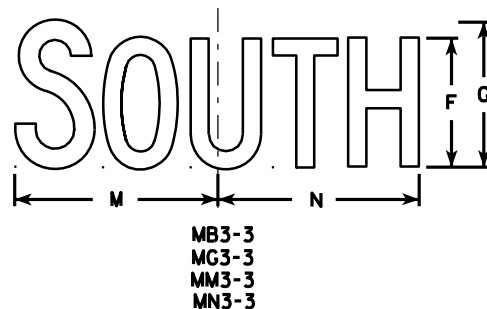
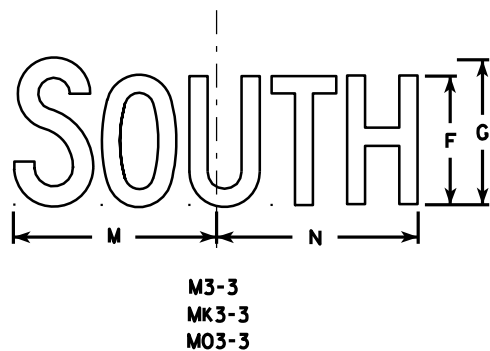
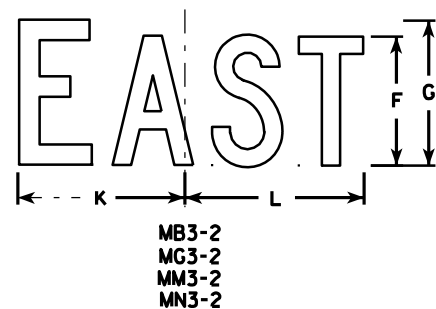
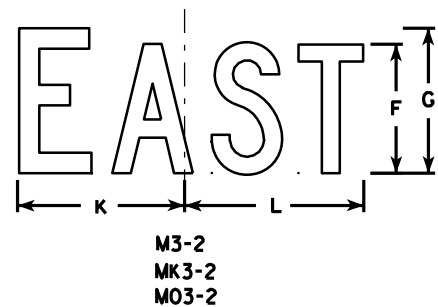
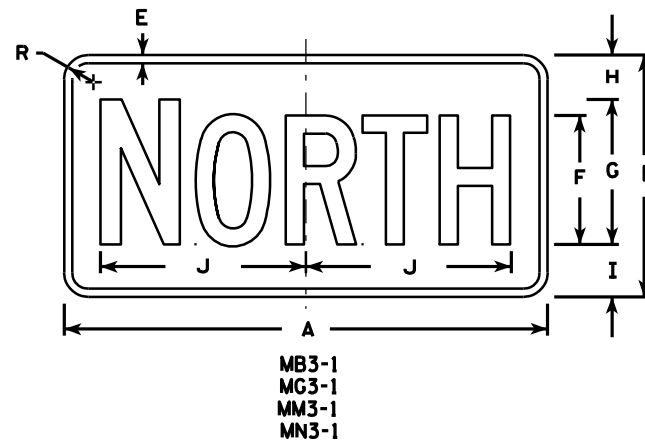
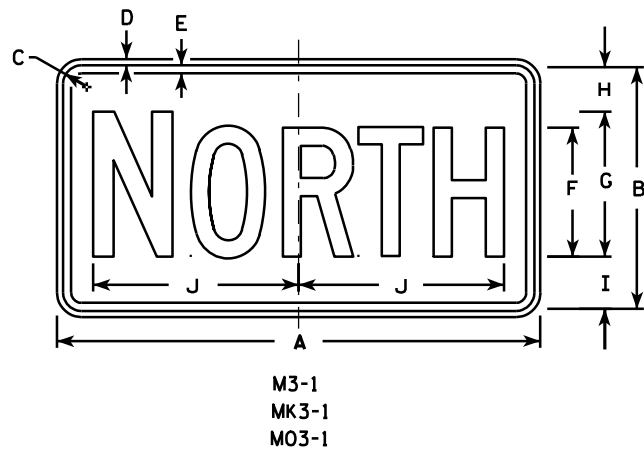
NOTES

- Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- 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.
- 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



MB2-1
MG2-1
MN2-1

7



NOTES

- All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- 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.
- 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
- Note the first letter of each direction is larger than the remainder of the message.

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 300 mm
3	750 mm X 375 mm
4	750 mm X 375 mm
5	750 mm X 375 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	12	1 1/8	3/8	1/2	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	0.18
3	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2									3.13	0.28
4	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2									3.13	0.28
5	30	15	1 1/8	3/8	1/2	8	9	2 3/4	3 1/4	12 3/4	10 3/8	11 1/8	12 5/8	12 1/2	11 5/8			1 1/2									3.13	0.28

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGNS M3-1 thru M3-4 SERIES

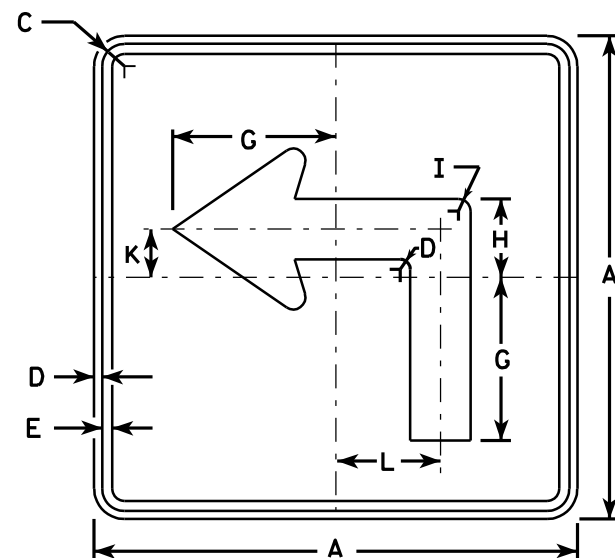
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

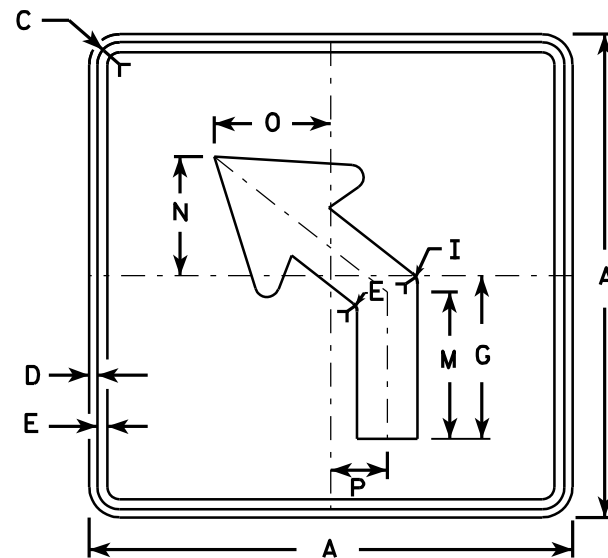
DATE 3/16/10 PLATE NO. M3-1.11

SHEET NO:

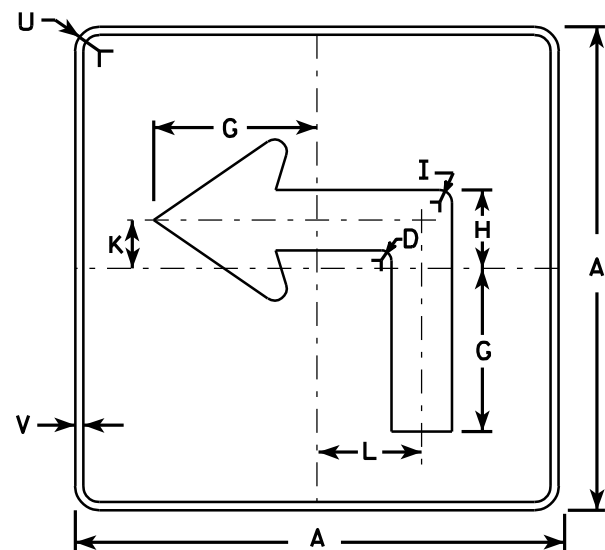
E



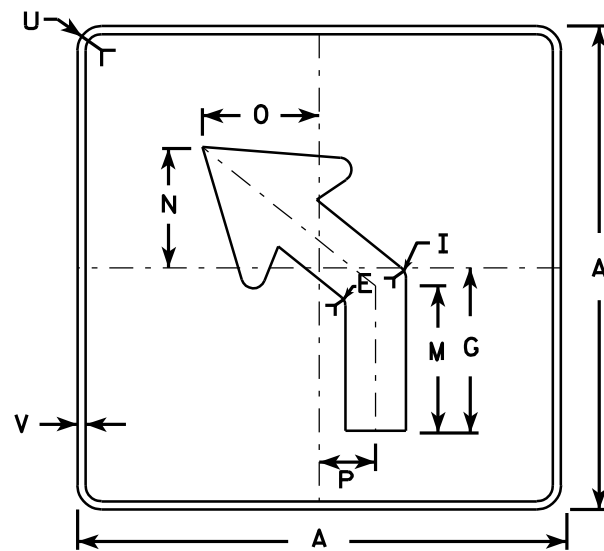
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



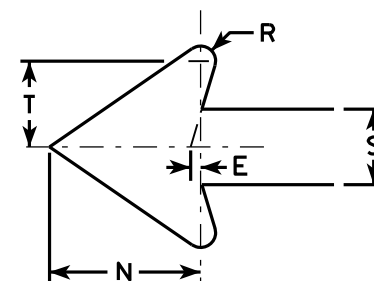
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



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.
- M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
MO5-1 and MO5-2 Background - Orange - Reflective
Message - Black
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

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 m ²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

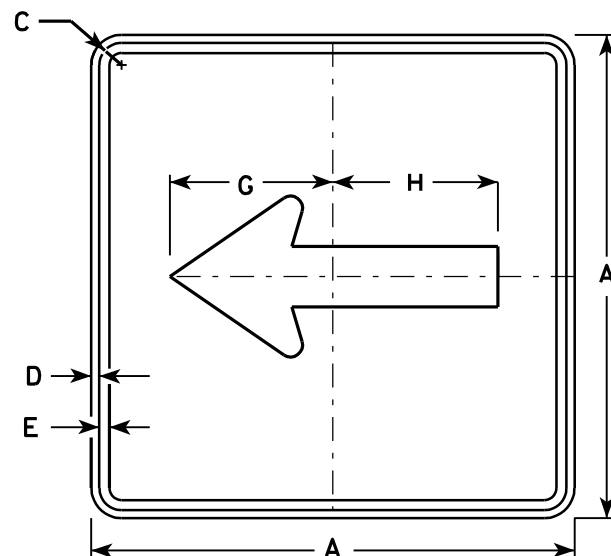
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

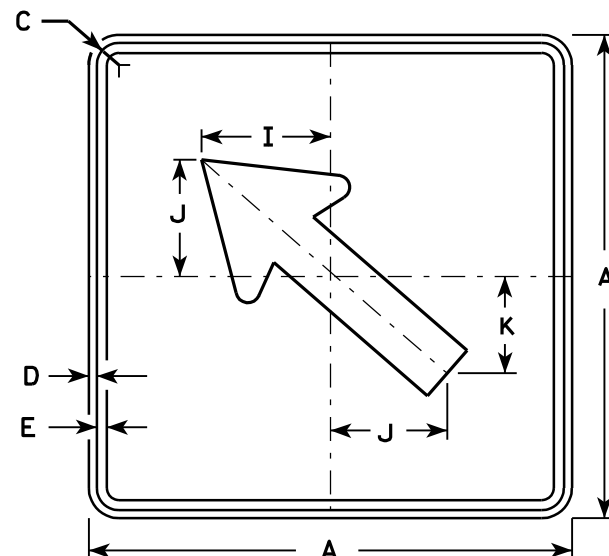
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

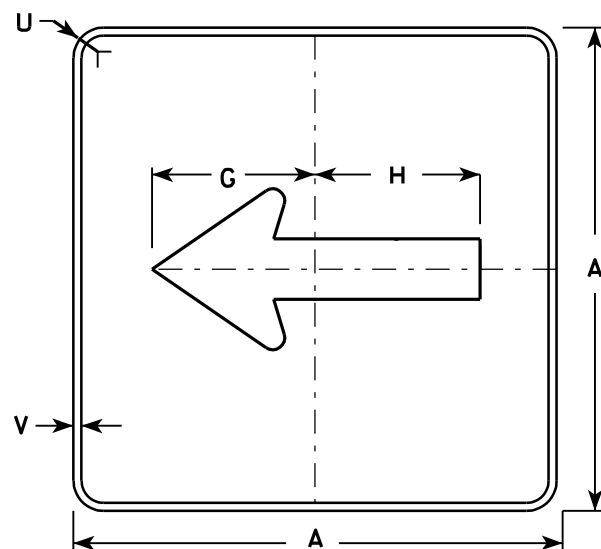
DATE 3/16/10 PLATE NO. M5-1.11



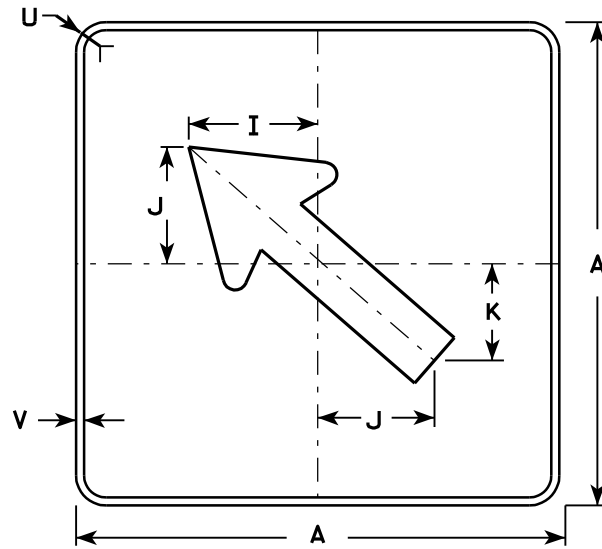
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



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



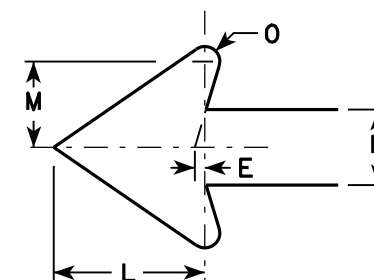
MB6-1
MG6-1
MN6-1



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

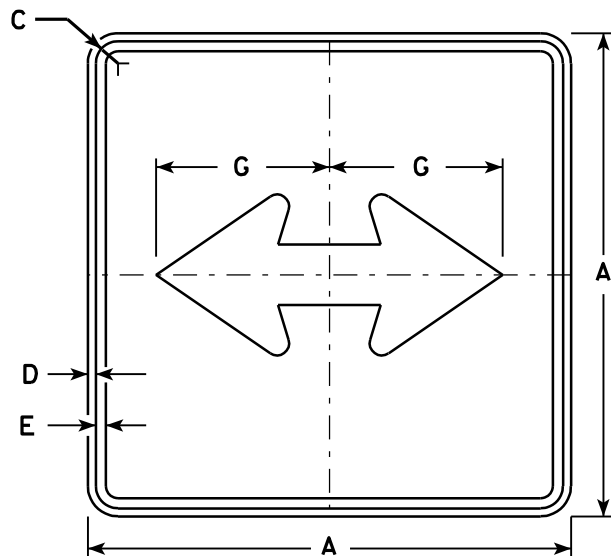


Metric equivalent
for this sign is:

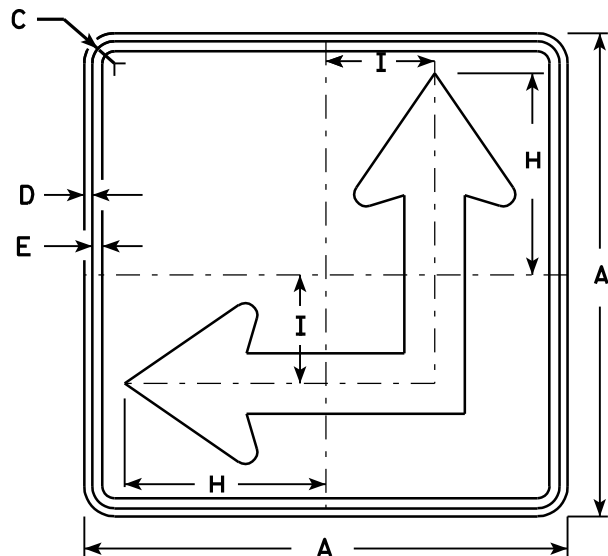
SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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

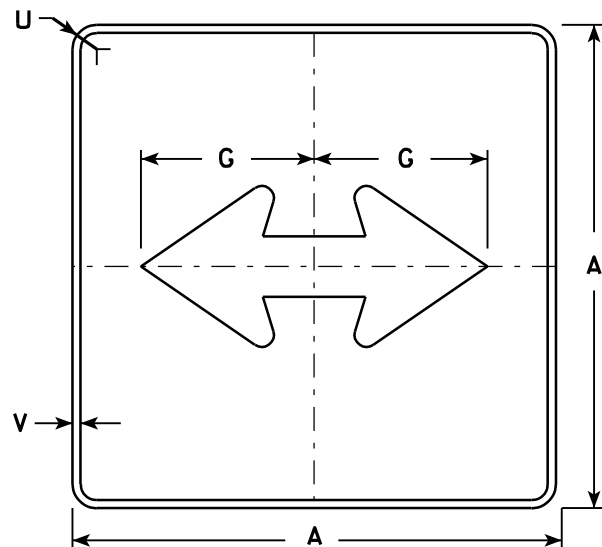
PROJECT NO: HWY: COUNTY: SHEET NO: E



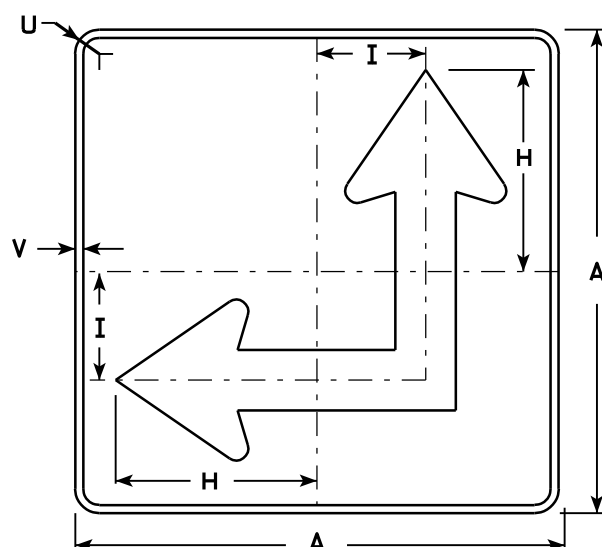
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MR6 - 6



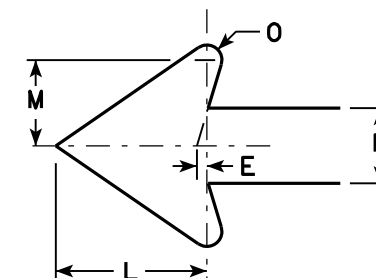
MB6 - 4
MG6 - 4
MN6 - 4



MB6 - 6
MG6 - 6
MN6 - 6

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.
- M6-4 and M6-6 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Reflective
Message - Black
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



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 sq. m
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			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
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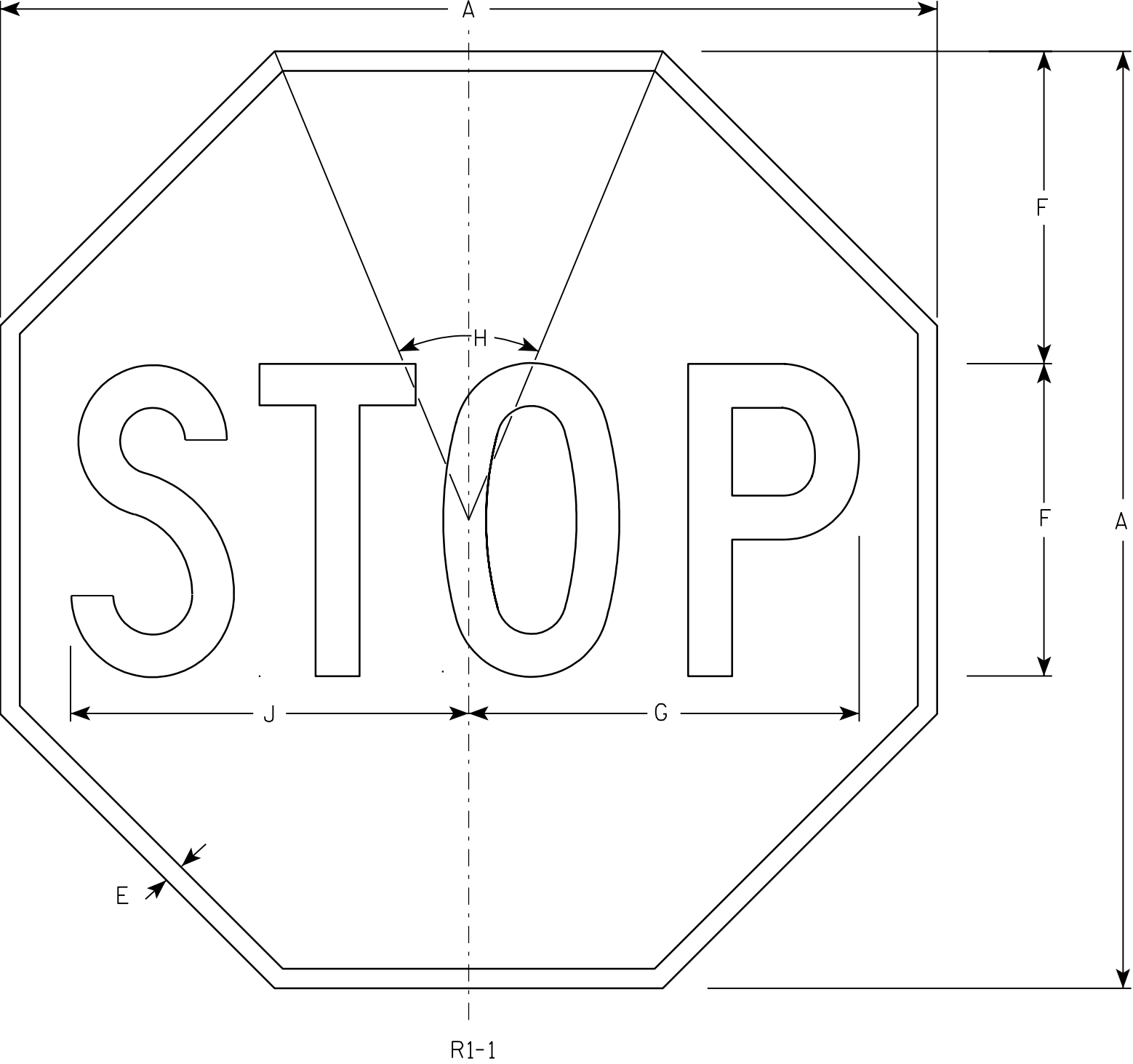
STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7

7



- 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

Metric equivalent
for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 mm
6	450 mm X 450 mm
7	300 mm X 300 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	24				$\frac{3}{8}$	8	10	45°		10 $\frac{1}{4}$																	3.31	0.31
2	30				$\frac{5}{8}$	10	12 $\frac{1}{2}$	45°		12 $\frac{3}{4}$																	5.18	0.48
3	36				$\frac{3}{4}$	12	15	45°		15 $\frac{3}{8}$																	7.46	0.69
4	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25	1.23
5	48				1	16	20	45°		20 $\frac{1}{2}$																	13.25	1.23
6	18				$\frac{3}{8}$	6	7 $\frac{3}{4}$	45°		7 $\frac{3}{4}$																	1.86	0.17
7	12				$\frac{1}{4}$	4	5	45°		5 $\frac{1}{8}$																	0.78	0.07

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 10/15/98 PLATE NO. R1-1.11

7

7

Metric equivalent
for this sign is:

SIZE	
1	450 mm X 600 mm
2	600 mm X 750 mm
3	900 mm X 1200 mm
4	900 mm X 1200 mm
5	1200 mm X 1500 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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0	.28
2	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0	.46
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0	1.11
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0	1.86

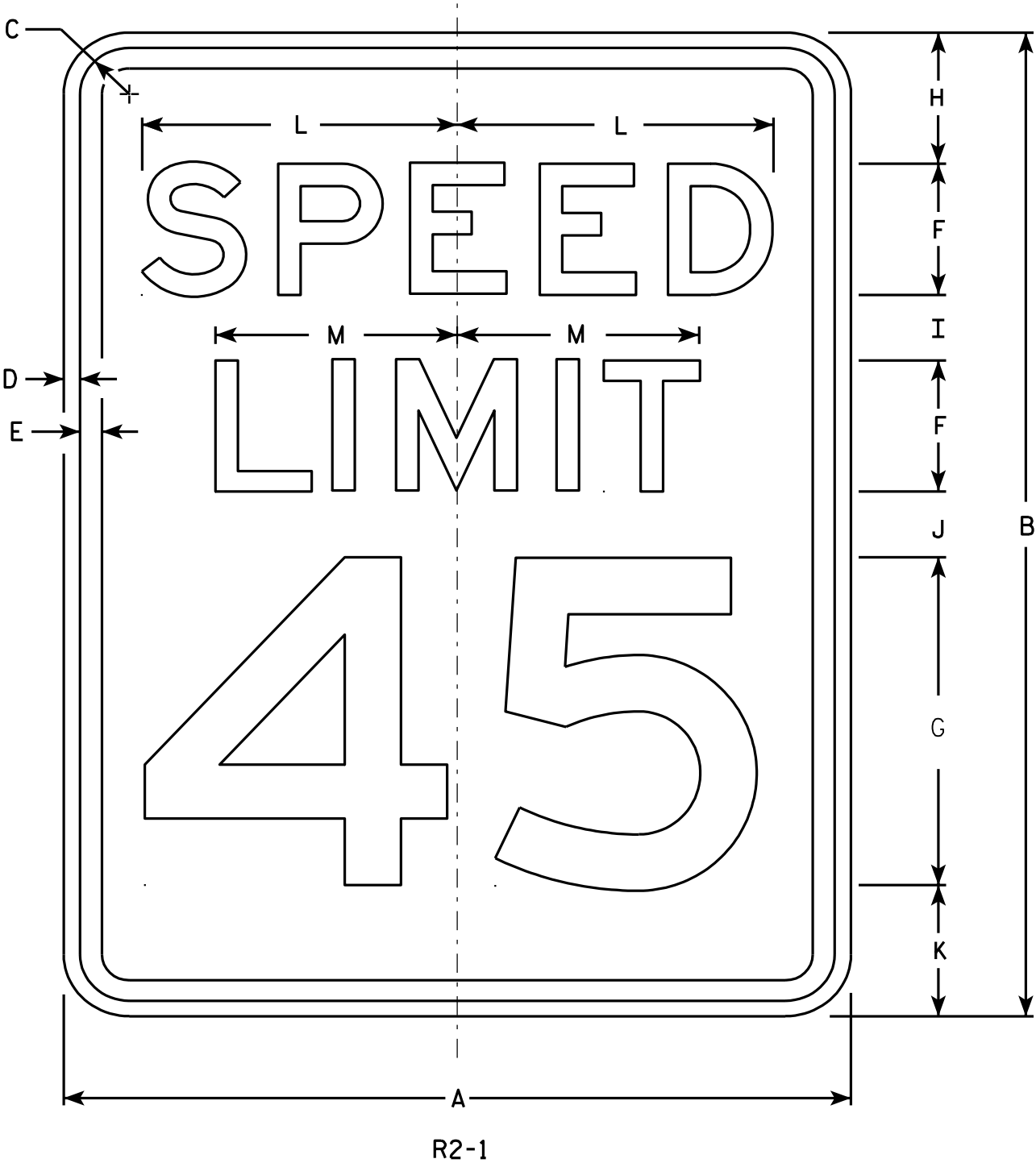
PROJECT NO:

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 - White
Message - Black
- Message Series - E
- 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 optically adjust spacing to achieve proper balance.

STANDARD SIGN
R2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 7/05/05 PLATE NO. R2-1.12

Metric equivalent
for this sign is:

SIZE	
1	
2	300 mm X 900 mm
3	450 mm X 1350 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0	0.27
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 5⁄6																6.75	0.61
4																												
5																												

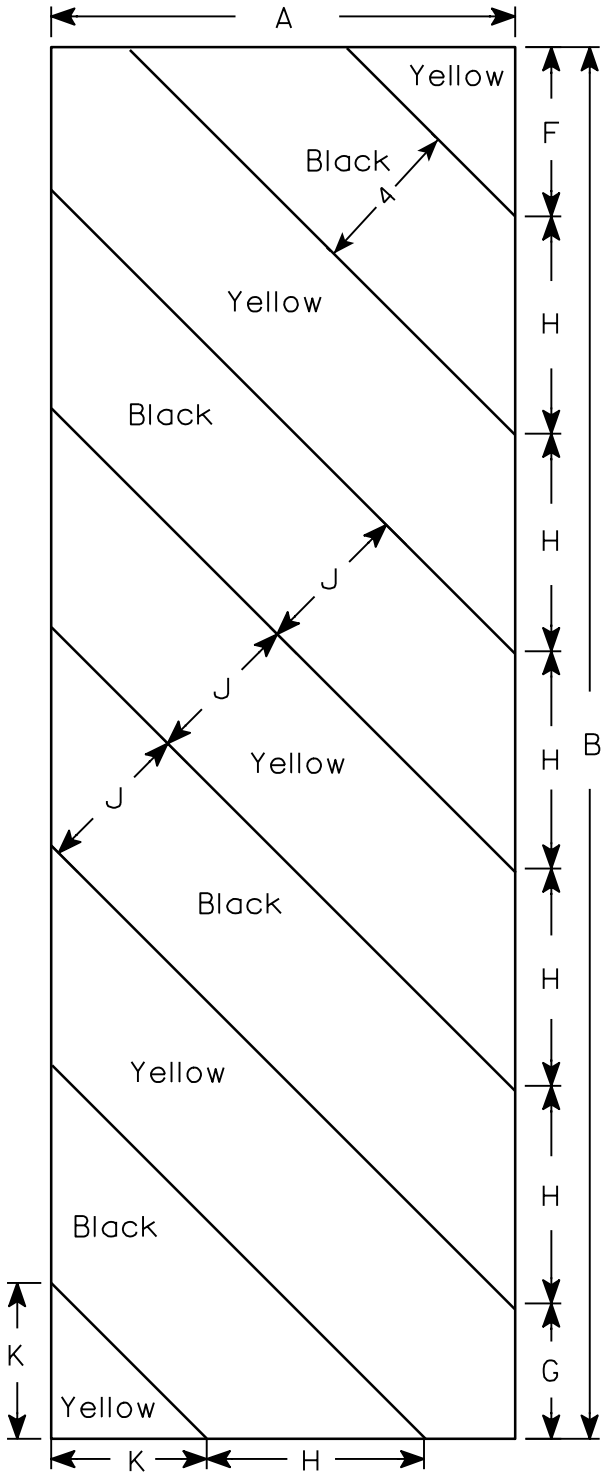
PROJECT NO:

HWY:

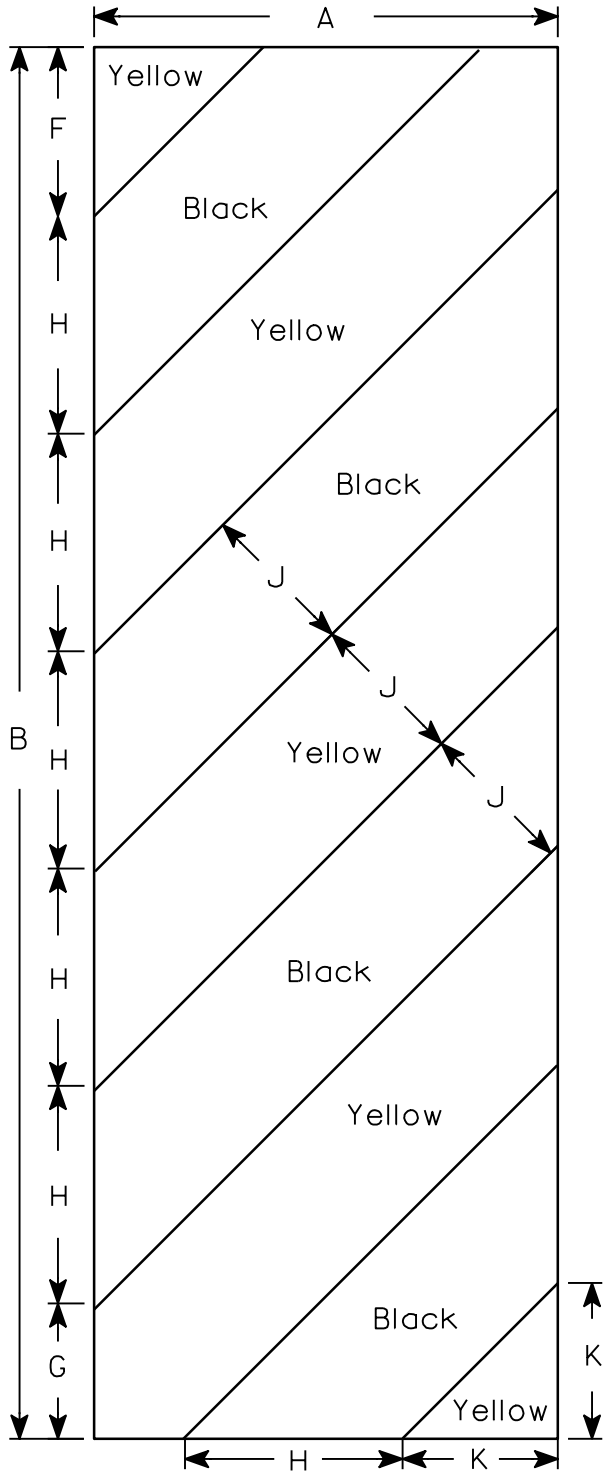
COUNTY:

SHEET NO:

E



W5-52L




W5-52R

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.
4. Alternate colors of stripes as shown.

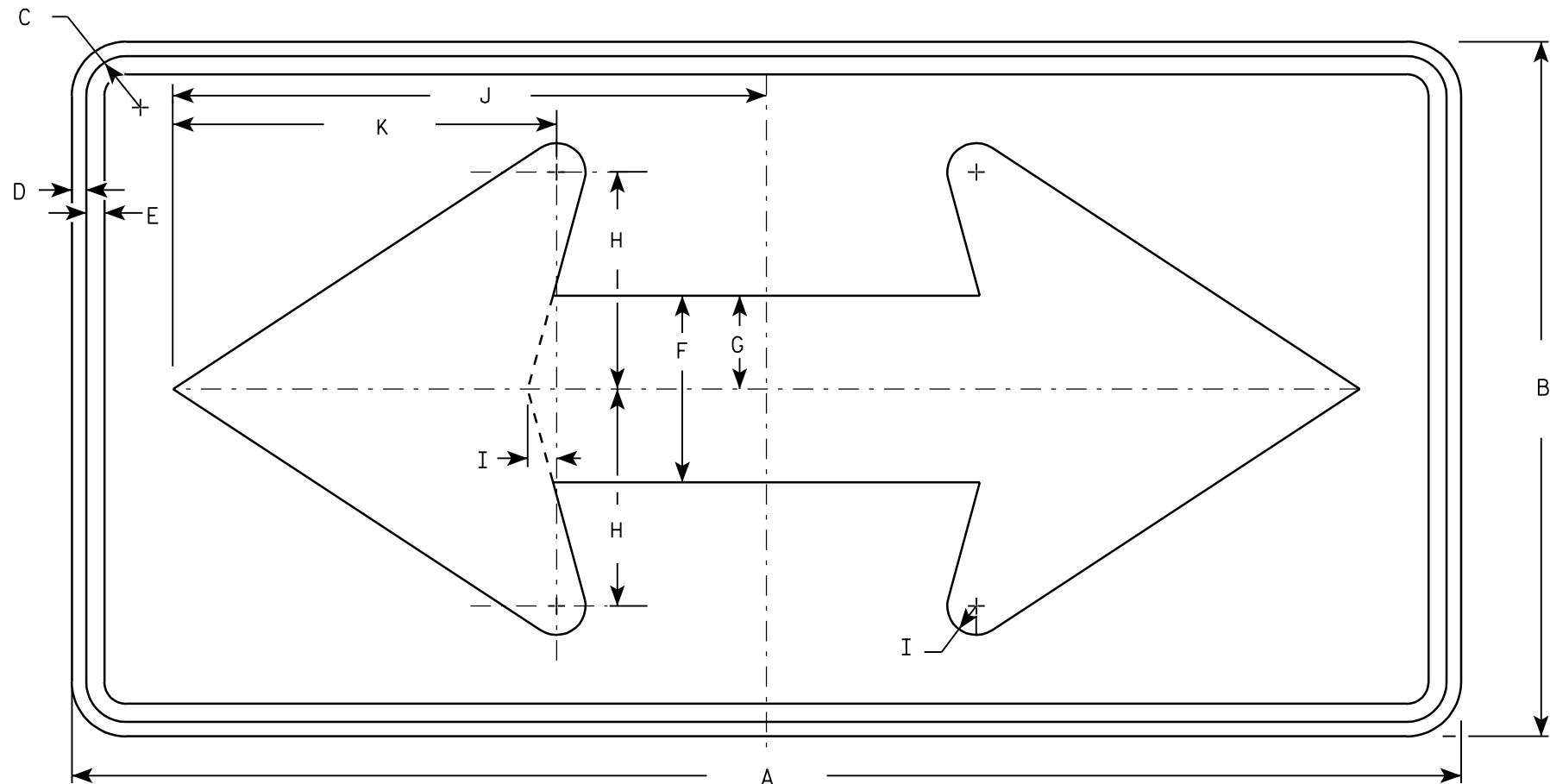
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

DATE 8/13/97 PLATE NO. W5-52.7

7



W1-7

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1500 mm X 750 mm
4	1500 mm X 750 mm
5	2400 mm X 1200 mm

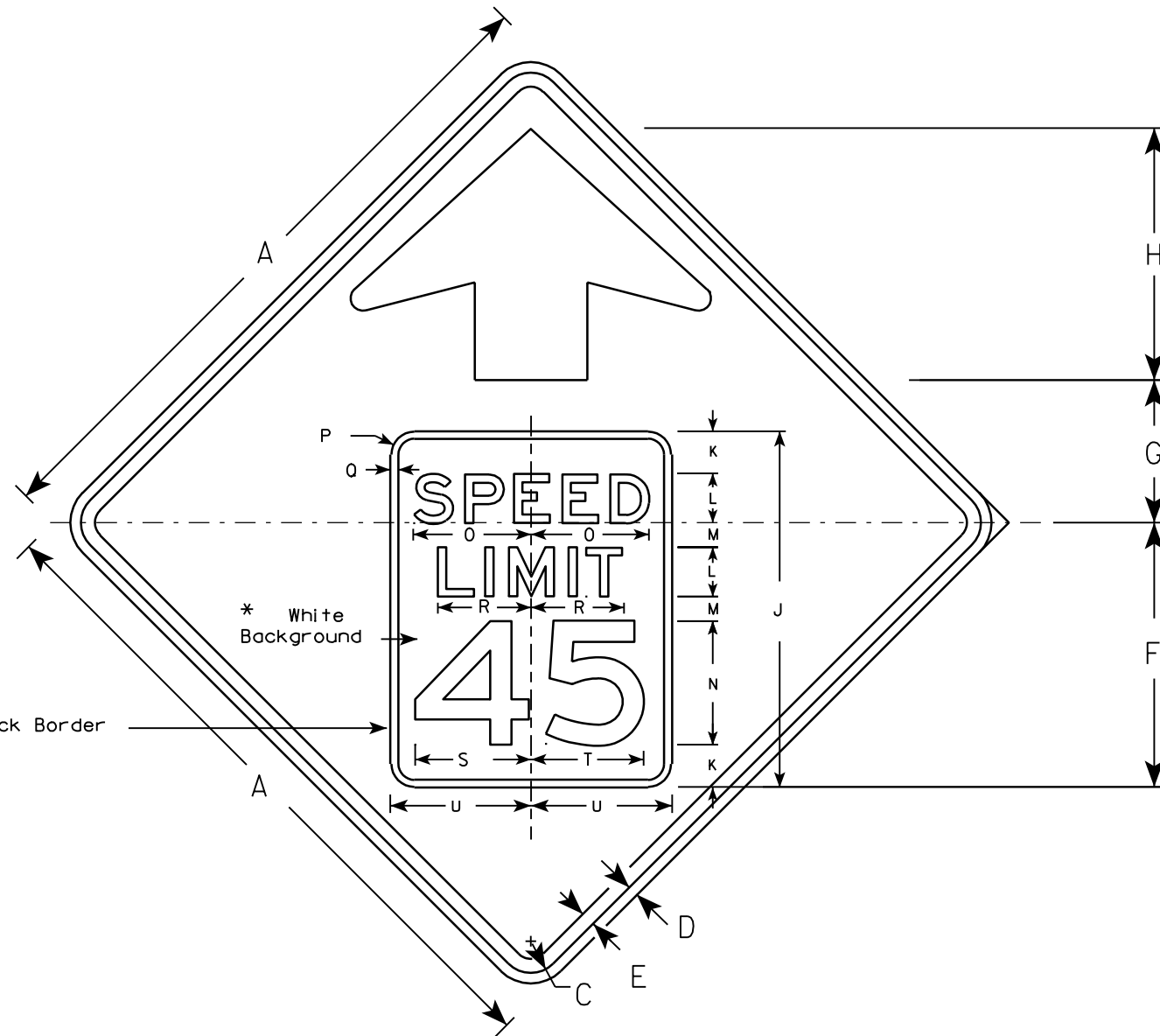
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5	0.41
2	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0	0.72
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5	1.13
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5	1.13
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0	2.88

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

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

7

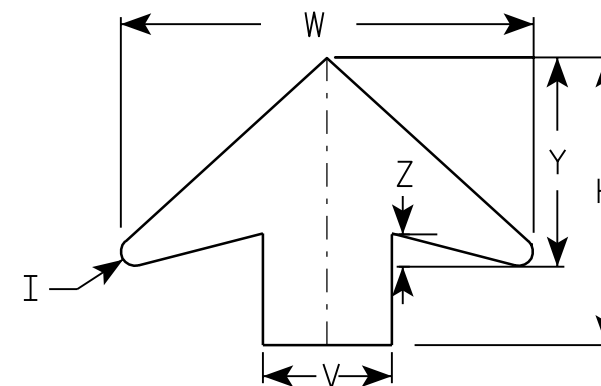


W3-5

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

Metric equivalent
for this sign is:

SIZE	
1	
2	900 mm X 900 mm
3	1200 mm X 1200 mm
4	1200 mm X 1200 mm
5	1200 mm X 1200 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 sq. m.
1																												
2	36		1 5/8	5/8	3/4	14 1/8	7 1/2	13 1/2	5/8	19	2 1/4	2 5/8	1 3/8	6 1/2	6 1/4	1 1/2	3/8	4 7/8	6 1/4	6	7 1/2	6	19 1/4		9 3/4	1 5/8	9.0	0.81
3	36		1 5/8	5/8	3/4	14 1/8	7 1/2	13 1/2	5/8	19	2 1/4	2 5/8	1 3/8	6 1/2	6 1/4	1 1/2	3/8	4 7/8	6 1/4	6	7 1/2	6	19 1/4		9 3/4	1 5/8	9.0	0.81
4	48		2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	7/8	25 1/4	3	3 1/2	1 3/4	8 3/4	8 3/8	1 5/8	1/2	6 5/8	8 1/4	8	10	8	25 5/8		13	2	16.0	1.44
5	48		2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	7/8	25 1/4	3	3 1/2	1 3/4	8 3/4	8 3/8	1 5/8	1/2	6 5/8	8 1/4	8	10	8	25 5/8		13	2	16.0	1.44

PROJECT NO:

STANDARD SIGN
W3-5

WISCONSIN DEPT OF TRANSPORTATION

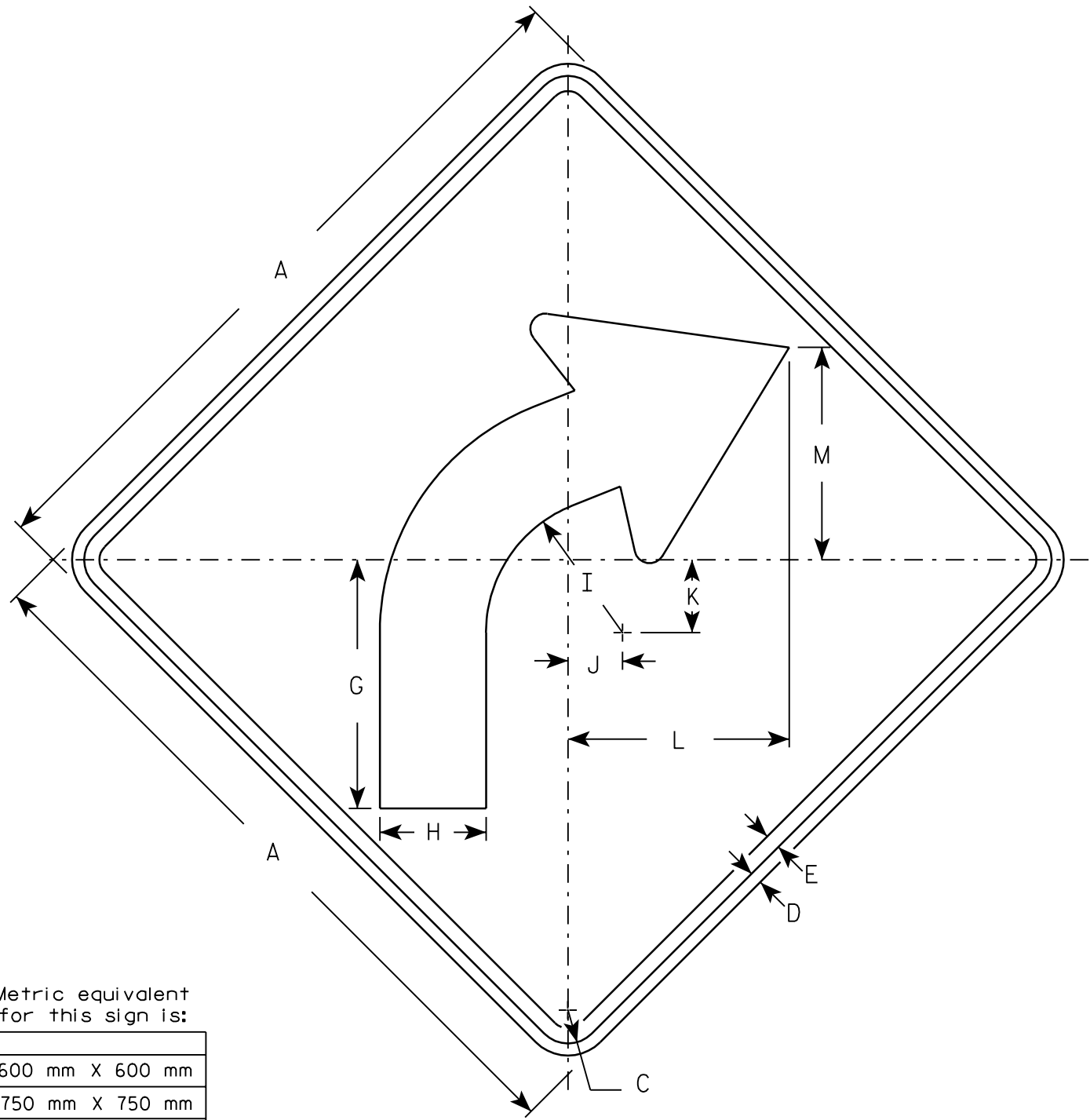
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/18/04 PLATE NO. W3-5.1

SHEET NO:

E

7



W1-2R

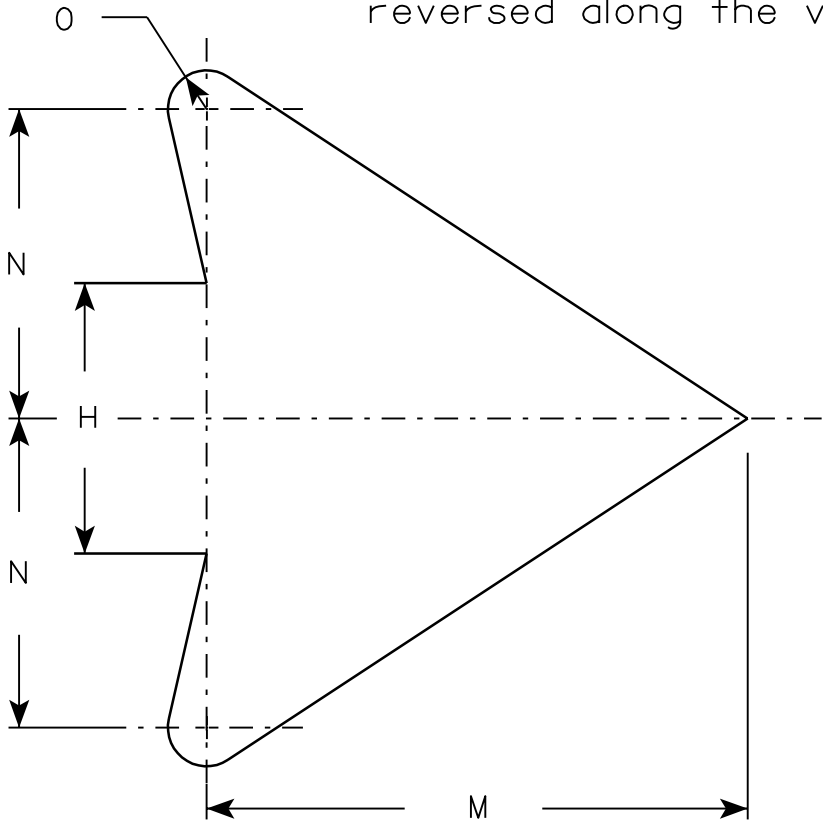
Metric equivalent
for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	1200 mm X 1200 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	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0	0.36
2	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25	0.56
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0	0.81
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0	0.81
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0	1.44

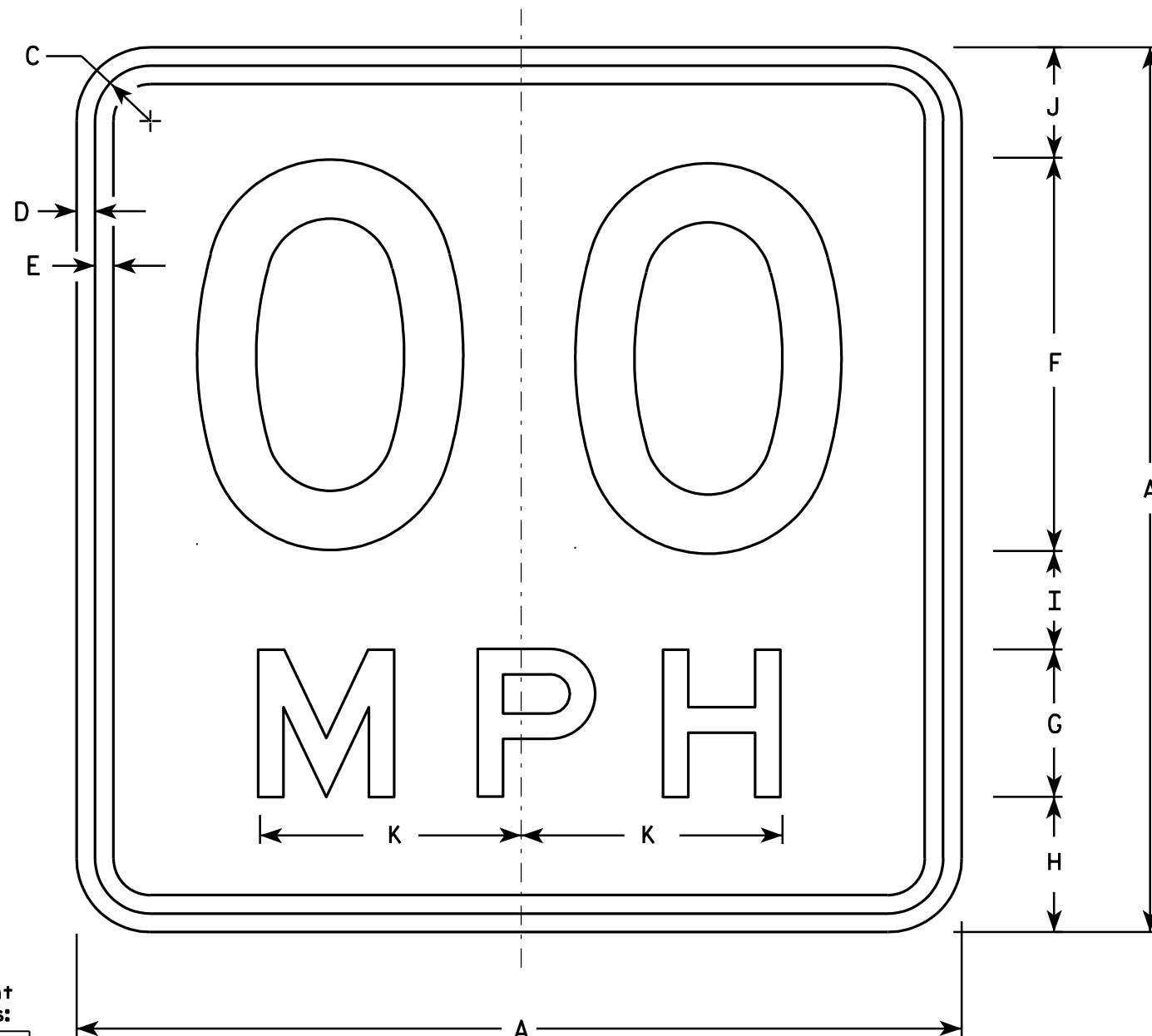
NOTES

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.
4. W1-2L is the same as W1-2R except the arrow is
reversed along the vertical centerline.



ARROW DETAIL

7



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. 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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

Metric equivalent
for this sign is:

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

W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25	0.20
2*	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25	0.20
2*	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00	0.36
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00	0.36
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00	0.81
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00	0.81

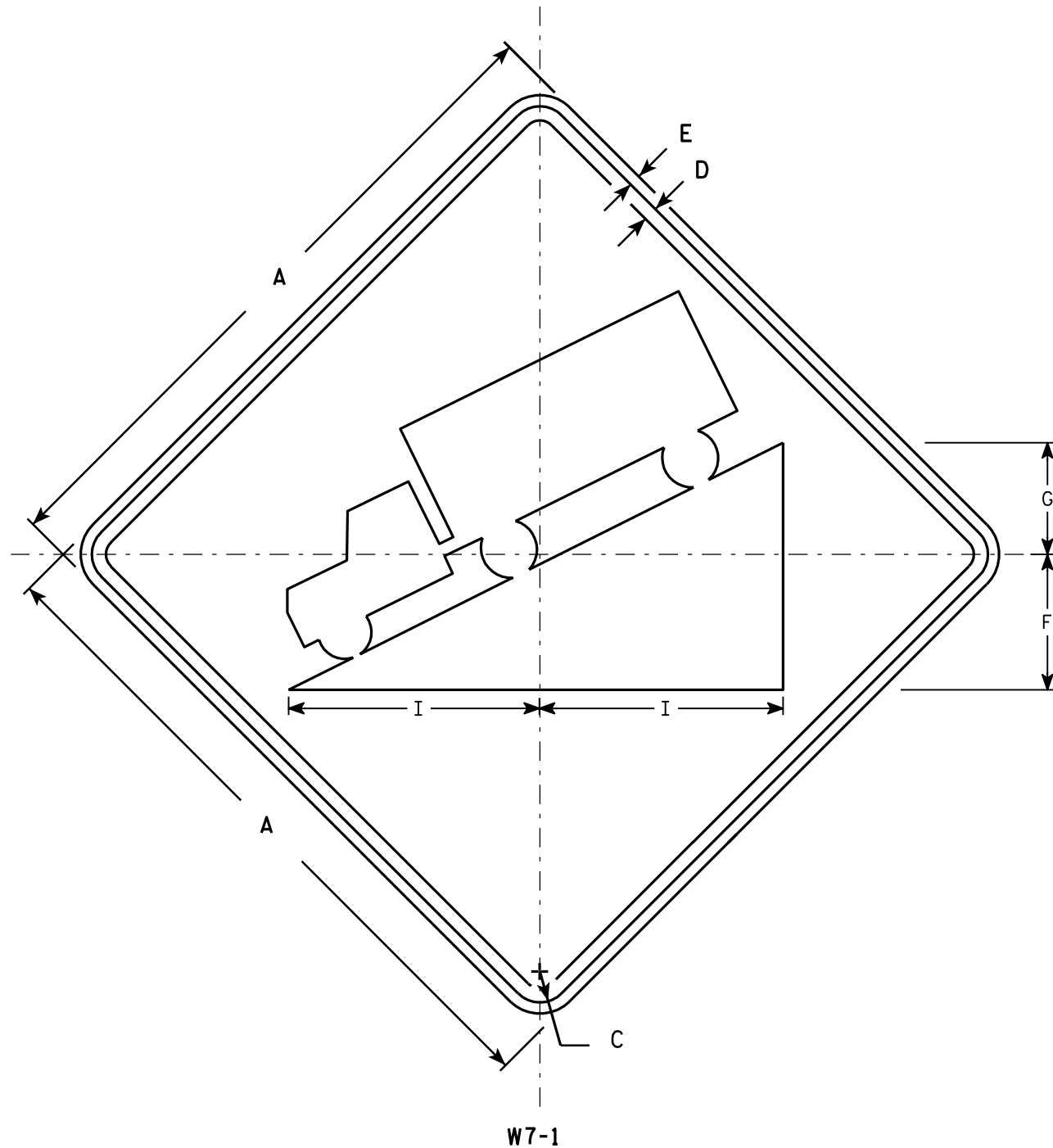
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/05/06 PLATE NO. W13-1.14

PROJECT NO: HWY: COUNTY: SHEET NO: E



Metric equivalent
for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	
4	900 mm X 900 mm
5	1200 mm X 1200 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 sq. m.
1	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0	0.36
2	30		1 3/8	1/2	5/8	6	5		11																		6.25	0.56
3																												
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0	0.81
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0	1.44

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. 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.

STANDARD SIGN
W7-1

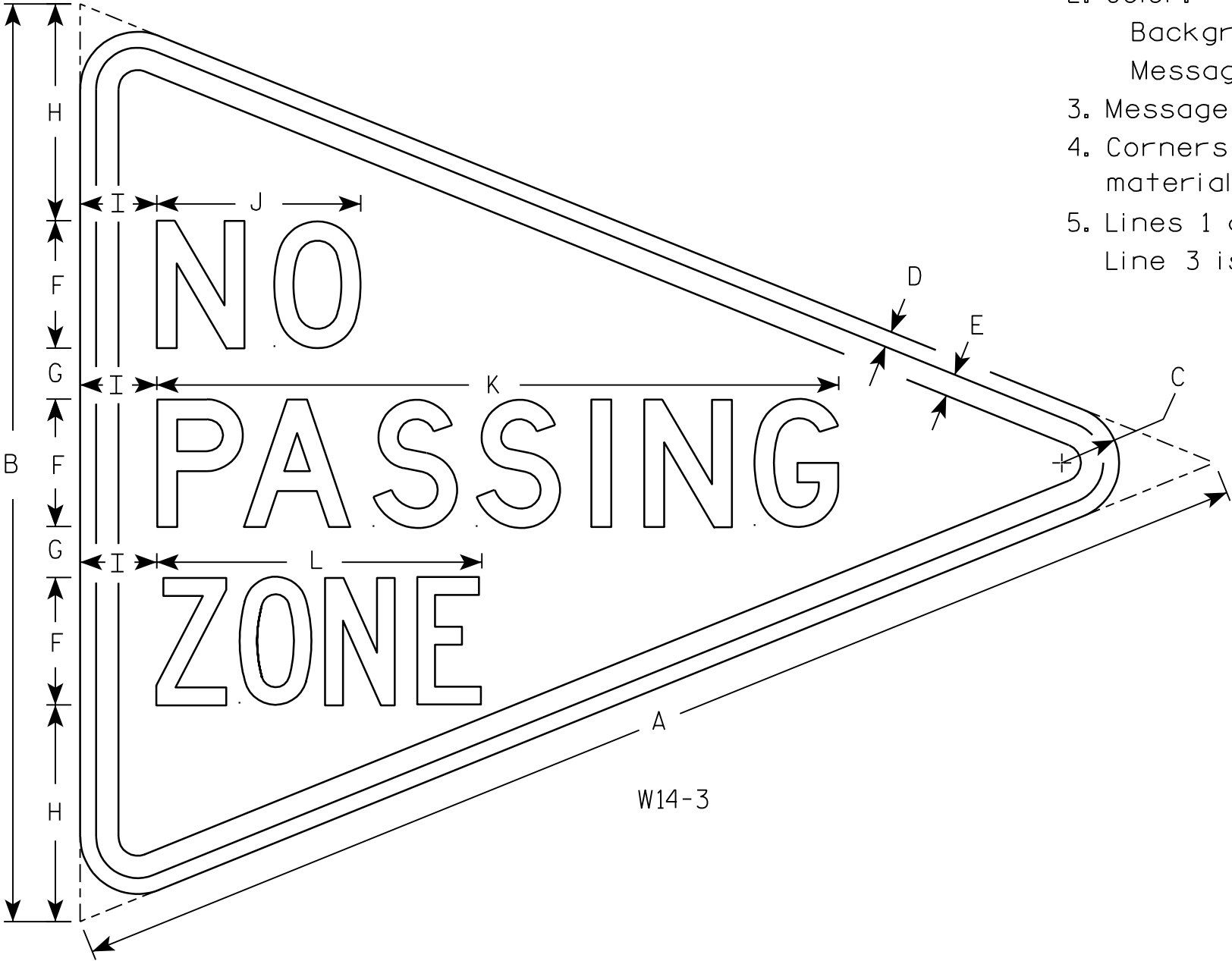
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/7/08 PLATE NO. W7-1.11

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. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.




Metric equivalent
for this sign is:

SIZE	
1	
2	1200 mm X 900 mm
3	1600 mm X 1200 mm
4	
5	

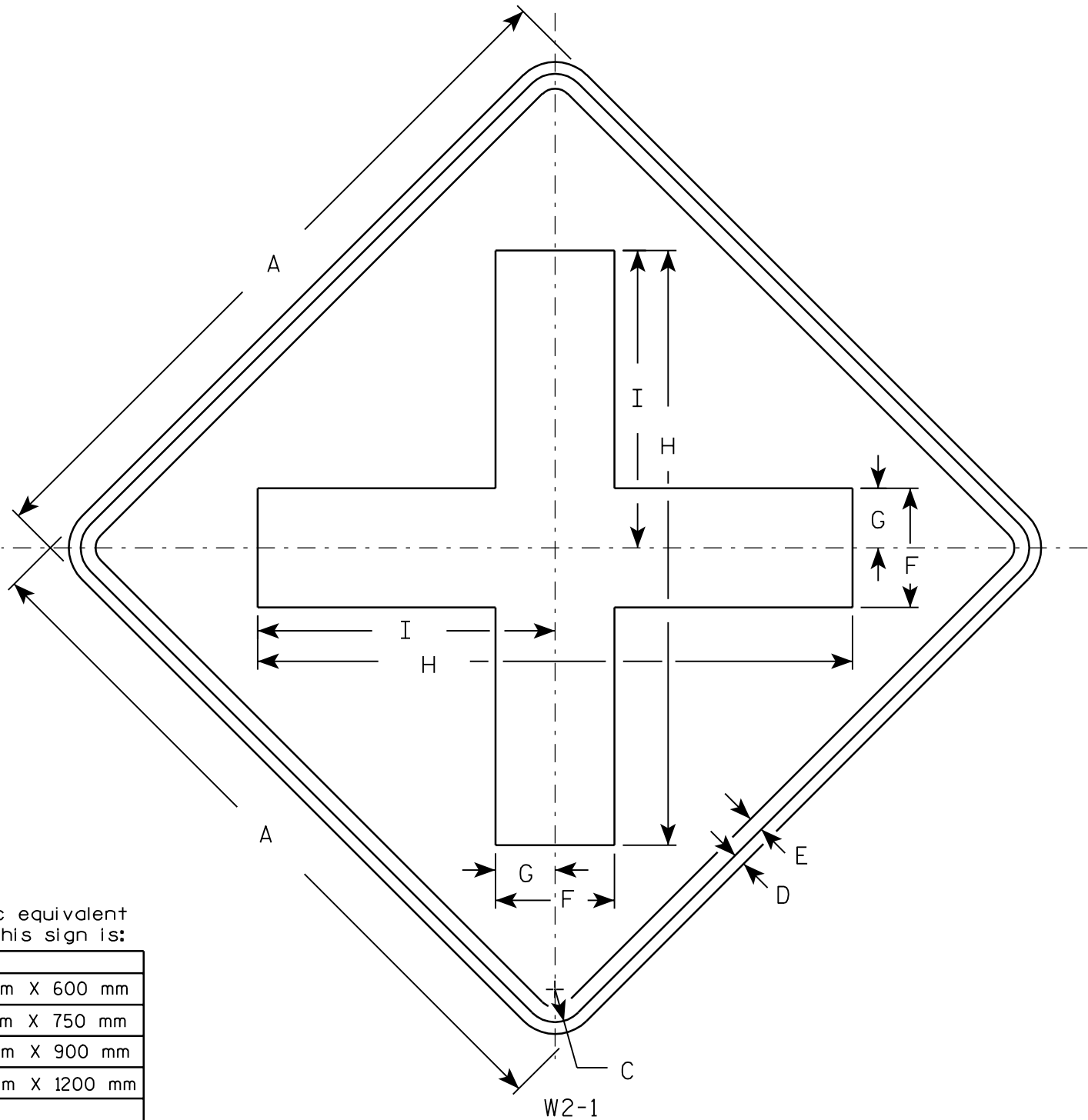
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0	.54
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7	.96
4																												
5																												

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

for State Traffic Engineer

DATE 1/21/98
PLATE NO. W14-3.8



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.

Metric equivalent
for this sign is:

SIZE	
1	600 mm X 600 mm
2	750 mm X 750 mm
3	900 mm X 900 mm
4	1200 mm X 1200 mm
5	

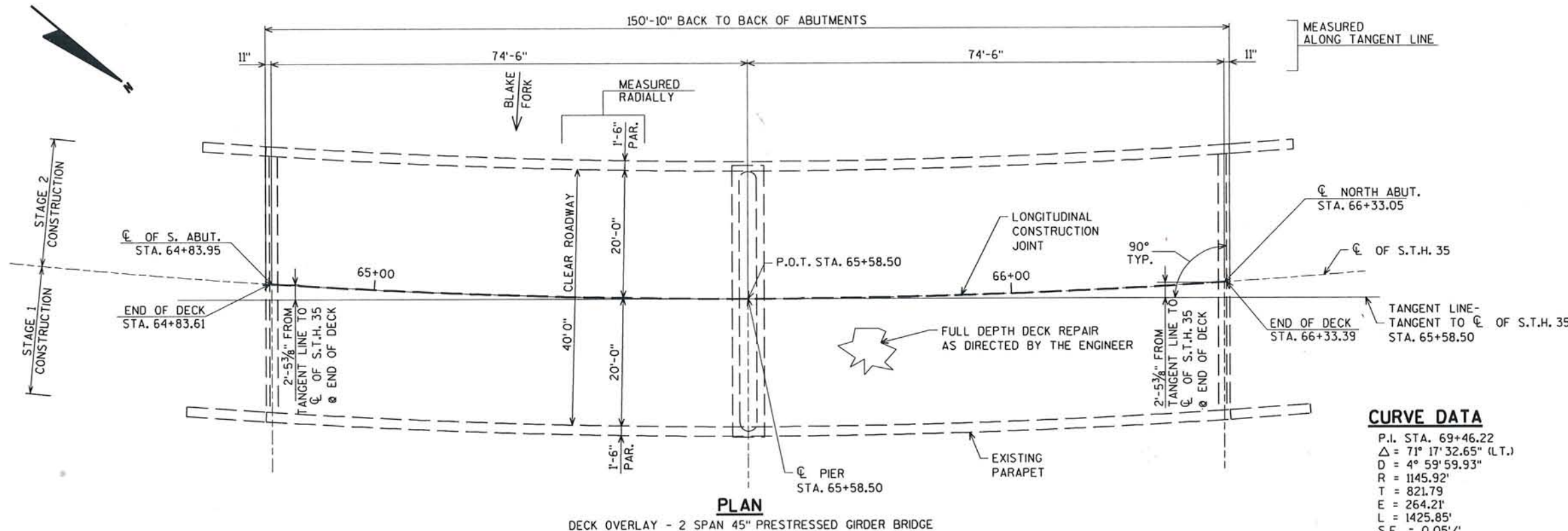
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	24		1 1/8	3/8	1/2	4	2	20	10																		4.0	0.36
2	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25	0.56
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0	0.81
4	48		2 1/4	3/4	1	8	4	40	20																		16.0	1.44
5																												

STANDARD SIGN
W2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 01/14/02
PLATE NO. W2-1.7

**DESIGN DATA**

LIVE LOAD: HS-20

RATINGS: INVENTORY = HS-23 OPERATING = HS-39

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY { SLAB f'_c = 4,000 p.s.i.
ALL OTHER f'_c = 3,500 p.s.i.

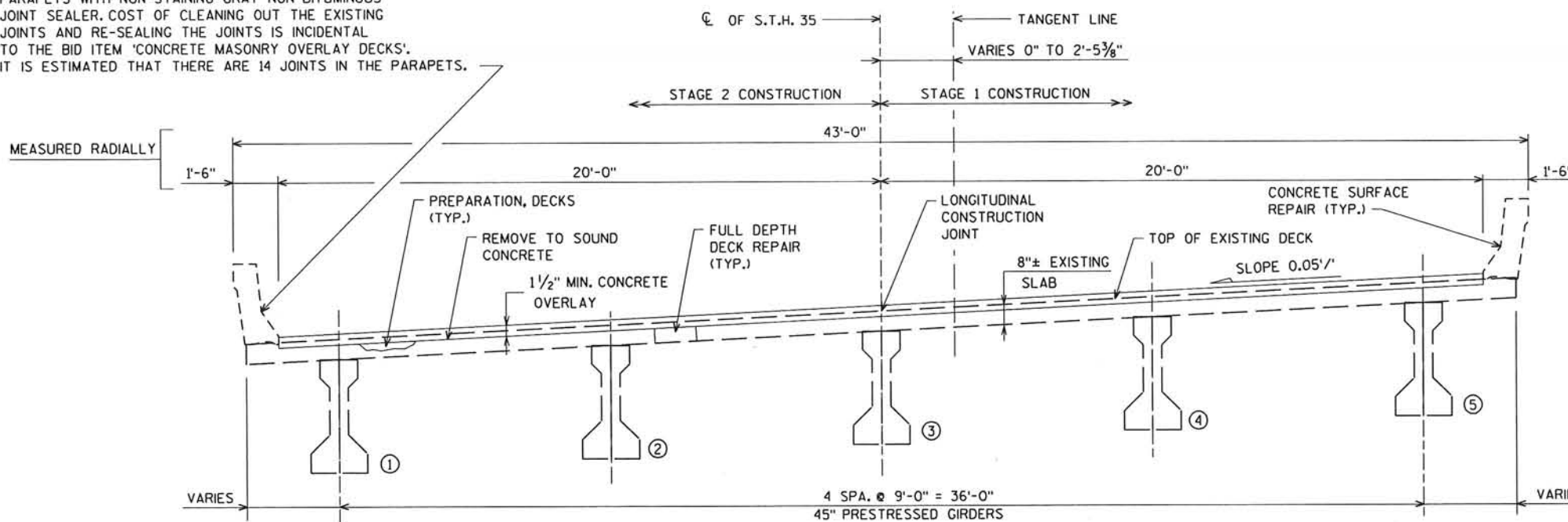
CURVE DATA

P.I. STA. 69+46.22
 Δ = 71° 17' 32.65" (L.T.)
 D = 4° 59' 59.93"
 R = 1145.92'
 T = 821.79
 E = 264.21'
 L = 1425.85'
 $S.E.$ = 0.05'/'
P.C. STA. 61+24.43
P.T. STA. 75+50.28

GENERAL NOTES

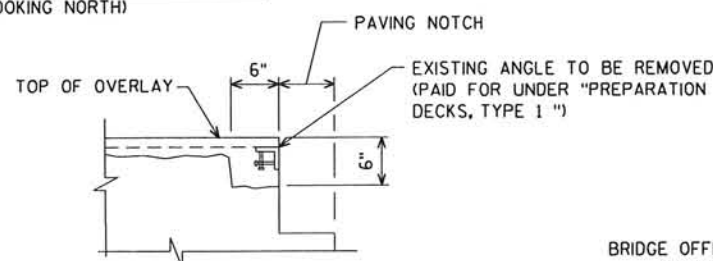
DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL PLANS.
 THEREFORE, THE CONTRACTOR SHALL VERIFY DIMENSIONS AND ELEVATIONS IN THE FIELD.
 ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.
 PREPARATION DECKS AND CONCRETE SURFACE REPAIR AND FULL DEPTH DECK REPAIR SHALL BE AS DETERMINED BY THE ENGINEER IN THE FIELD.
 PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF DECK AND THE INSIDE FACES AND TOPS OF PARAPETS PER MANUFACTURERS RECOMMENDATIONS.
 PROFILE GRADE LINE SHALL BE DETERMINED BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER CLEANING. EXPECTED AVERAGE OVERLAY THICKNESS IS 2". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.
 ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECKS".
 A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM, "CLEANING DECKS", BUT LESS THAN 1 1/2" MAXIMUM.
 ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

CLEAN OUT AND RE-SEAL EXISTING JOINTS IN THE PARAPETS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. COST OF CLEANING OUT THE EXISTING JOINTS AND RE-SEALING THE JOINTS IS INCIDENTAL TO THE BID ITEM 'CONCRETE MASONRY OVERLAY DECKS'. IT IS ESTIMATED THAT THERE ARE 14 JOINTS IN THE PARAPETS.

**TOTAL ESTIMATED QUANTITIES**

BID ITEMS	AMOUNT
PROTECTIVE SURFACE TREATMENT	805 SY
PREPARATION DECKS TYPE 1	135 SY
PREPARATION DECKS TYPE 2	35 SY
CLEANING DECKS	665 SY
① CONCRETE SURFACE REPAIR	25 SF
FULL-DEPTH DECK REPAIR	5 SY
CONCRETE MASONRY OVERLAY DECKS	28 CY

① UNDISTRIBUTED FOR PARAPETS AS DIRECTED BY THE ENGINEER.

**SECTION AT END OF SLAB**

BRIDGE OFFICE CONTACT:
 WILLIAM DREHER
 (608)-266-8489

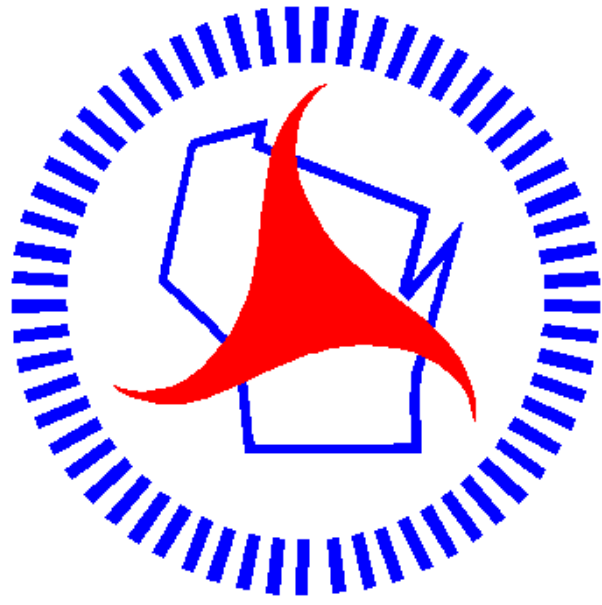
CONSULTANT CONTACT:
 CHRIS MCMAHON
 (715)-834-3161



AYRES ASSOCIATES

PLANS PREPARED BY
 Engineers/Architects
 Scientists/Surveyors
 3433 Oakwood Hills Parkway
 Eau Claire, WI 54701

NO.	DATE	REVISION	BY
WISDOT BUREAU OF STRUCTURES APPROVED: <i>William C. Dreher</i> KAR. 04/23/10 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-22-58			
S.T.H. 35 OVER BLAKE FORK			
COUNTY	GRANT	TOWN/CITY/VILLAGE	BLOOMINGTON
DESIGN SPEC.	AASHTO STD. SPEC. 2007	LOAD	HS-20
DESIGNED BY	AEB	CONST. SPEC.	2010
CK'D.	CLW	DRAWN BY	JMM
PLANS CK'D.	CBM		
GENERAL PLAN			SHEET 1 OF 1



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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