

GENERAL NOTES

- 1.NO SHRUBS OR TREES ARE TO BE REMOVED WITHOUT APPROVAL OF THE DIRECTOR OF PUBLIC WORKS & ENGINEER.
- 2.ALL CURB & GUTTER RADIIARE MEASURED TO THE FLANGE OF CURB.
- 3.CURB AND GUTTER PLAN GRADES ARE AT THE FLANGE LINE UNLESS OTHERWISE NOTED.
- 4.PIPE AND INLET ELEVATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER.
- 5.EROSION CONTROL DEVICES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 6.EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS ADJUSTED BY THE ENGINEER.
- 7.THE LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITH IN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
- 8.ALL EXCAVATIONS BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE BACKFILLED WITH BREAKER RUN.
- 9.THE EXACT LOCATION OF PRIVATE ENTRANCES AND DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 10.STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- 11.DISTURBED TURF AREAS WITHIN THE RIGHT OF WAY,EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE RESTORED WITHIN 7 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.
- 12.PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT,OR AS DIRECTED BY THE ENGINEER.
- 13.THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDUNAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.
- 14.HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- 15.HMA PAVEMENT TYPE E-1SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS & GRADATIONS:

THICKNESS	LAYERS	NOM. MAX SIZE GRADATION
4¾-INCHES	2" UPPER LAYER (PG 64-28)	12.5MM
	2¾" LOWER LAYER (PG 64-28)	19.0MM

16. GEOTECHNICAL REPORT CONTAINS THE FOLLOWING BORING INFORMATION:

BORING NO.	STATION	OFFSET	ASPHALT DEPTH	UNDERLAYING MATERIAL
B-1	107+40	12.7'LT	-	SHOULDER GRAVEL
B-2	110+37	8.1'LT	7.5"	BASE COURSE
B-3	115+78	9.4'LT	7.5"	BASE COURSE
B-4	122+62	9.8'LT	6"	BASE COURSE
B-5	127+63	8.0'LT	4.5"	BASE COURSE

STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ADT	AVERAGE DAILY TRAFFIC
AH	AHEAD
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BK	BACK
BM	BENCH MARK
BOC	BACK OF CURB
CB	CATCH BASIN
C&G	CURB & GUTTER
CL	CENTER LINE
CONC	CONCRETE
CP	CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARDS
DHV	DESIGN HOUR VOLUME
DWY	DRIVEWAY
EL	ELEVATION
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
FO	FIBEROPTIC
FT	FOOT
CWT	HUNDRED WEIGHT
HYD	HYDRANT
LT	LEFT
LF	LINEAR FOOT
MH	MANHOLE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
LB	POUNDS
R	RADIUS
RT	RIGHT
R/W	RIGHT-OF-WAY
SF	SQUARE FEET
SY	SQUARE YARDS
SDD	STANDARD DETAIL DRAWINGS
STA	STATION
SS	STORM SEWER
SSD	STOPPING SIGNT DISTANCE
STH	STATE TRUNCK HIGHWAY
TEL	TELEPHONE
TL	TRANSIT LINE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL

UTILITIES

WE ENERGIES (ELECTRIC) MR. LEONARD WILSON 500 S 116TH ST WEST ALLIS, WI 53214 PHONE: (414) 944-5690 LEONARD.WILSON@WE-ENERGIES.COM	AT&T MR. JAY BULANEK 7721 W FOND DU LAC AVE MILWAUKEE, WI 53218 PHONE: (414) 535-7407 JB5175@ATT.COM
WE ENERGIES (GAS) MR. PAUL OSMANSKI 500 S 116TH ST WEST ALLIS, WI 53214 PHONE: (414) 944-5796 PAUL.OSMANSKI@WE-ENERGIES.COM	VILLAGE OF BROWN DEER (DIRECTOR OF PUBLIC WORKS/VILLAGE ENGINEER) MR. MATTHEW MAEDERER 4800 W GREEN BROOK DRIVE BROWN DEER, WI 53233 PHONE: (414) 357-0120 MMAEDERER@BROWNDDEERWI.ORG
TIME WARNER CABLE (UTILITY COORD.) MR. STEVE CRAMER 1320 N MARTIN LUTHER KING JR DR MILWAUKEE, WI 53212 PHONE: (414) 277-4045 STEVE.CRAMER@TWCABLE.COM	VILLAGE OF BROWN DEER (WATER UTILITY) MR. MIKE RAU 4800 W GREEN BROOK DRIVE BROWN DEER, WI 53233 PHONE: (414) 371-3080 MRAU@BROWNDDEERWI.ORG
MILWAUKEE COUNTY MR. CLARK WANTOCH 2711 WEST WELLS STREET, SUITE 300 MILWAUKEE, WI 53208 PHONE: (414) 278-4823 CLARK.WANTOCH@MILWCNTY.COM	



Dial 811 or (800)242-8511

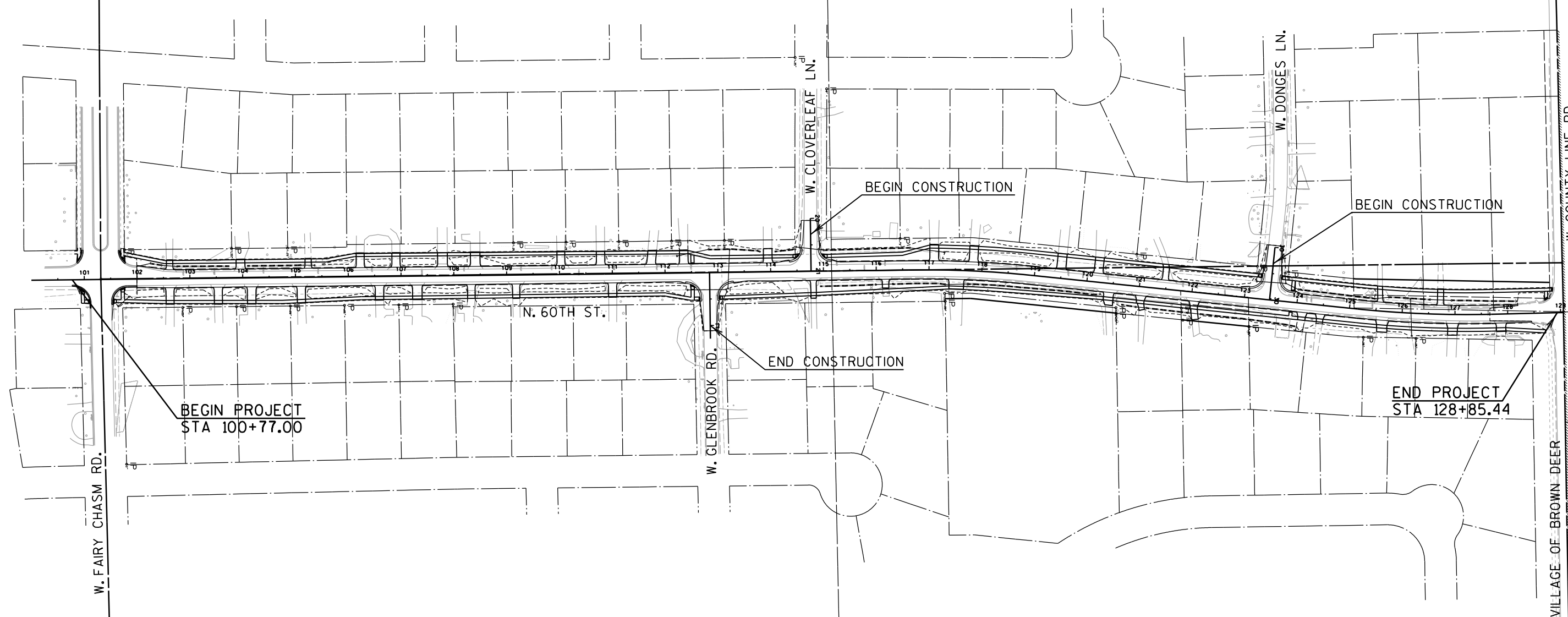
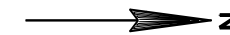
www.DiggersHotline.com

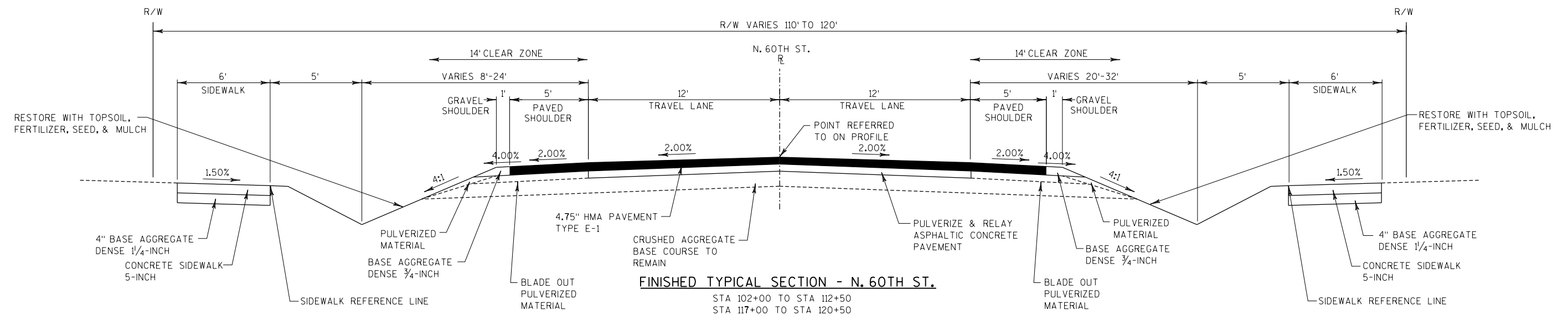
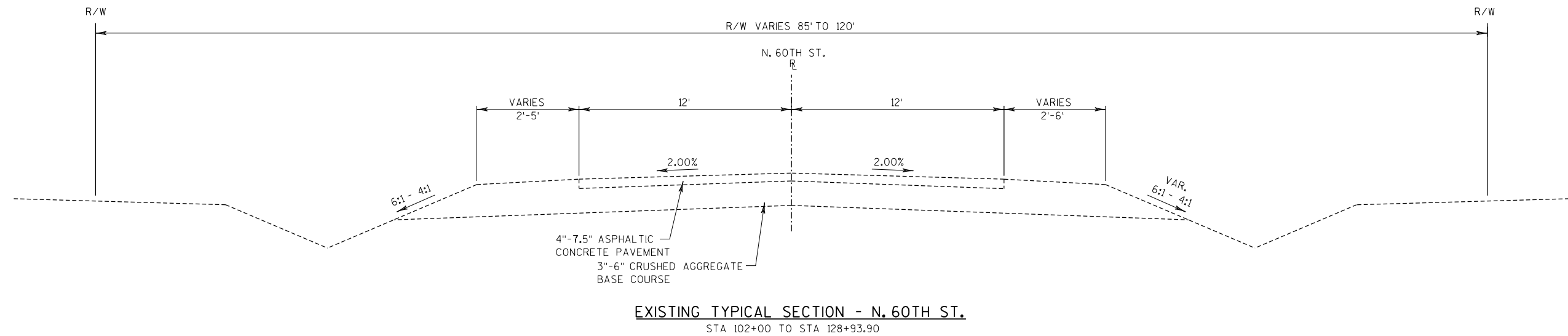
WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MIN. OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE.

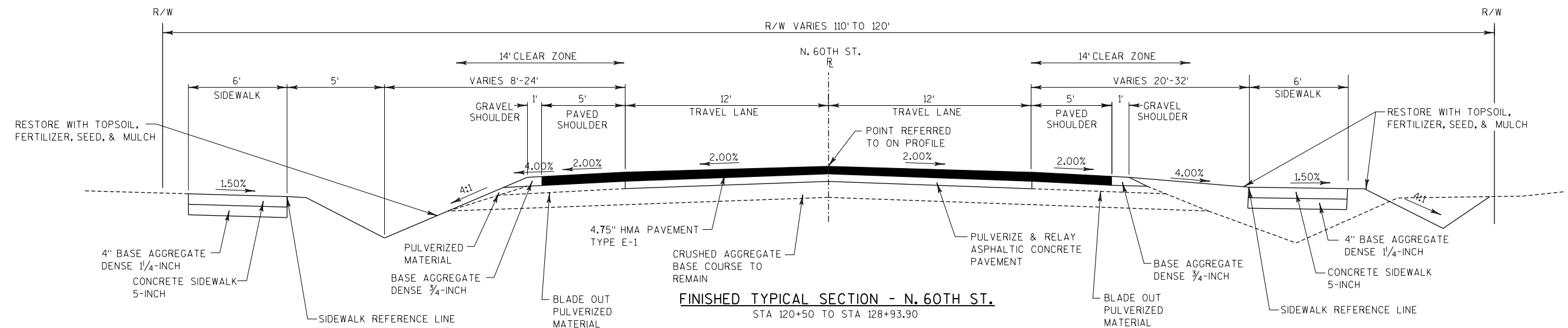
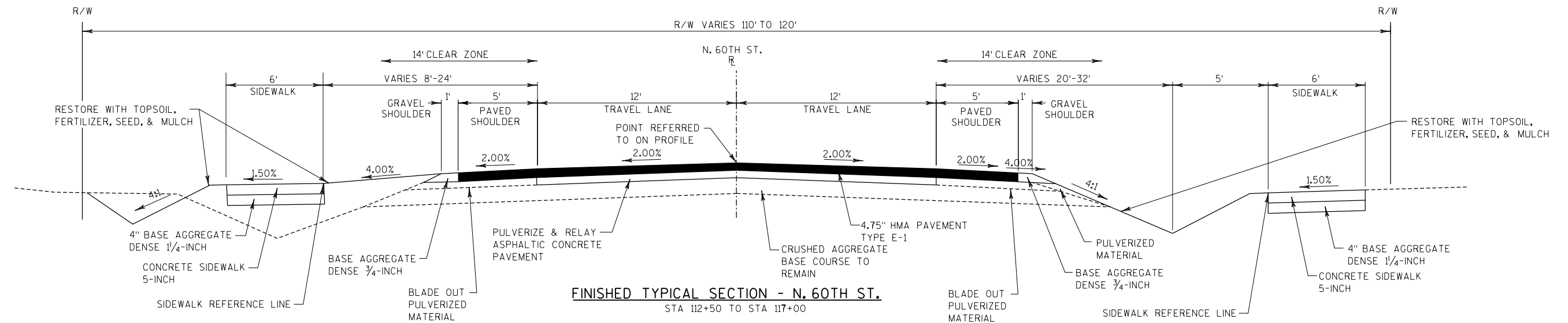
WISDOT CONTACT KATHLEEN MCGINNIS KRAMER 141 NW BARSTOW ST WAUKESHA, WI 53187 PHONE: (262) 548-8772 KATHLEEN.KRAMER@DOT.WI.GOV	DNR LIAISON DEPARTMENT OF NATURAL RESOURCES MS. KRISTINA BETZOLD 2300 N. DR. MARTIN LUTHER KING JR. DRIVE MILWAUKEE, WI 53212 PHONE: (414) 263-8517
DESIGN CONTACT GAI CONSULTANTS MR. MATTHEW GARON, PE W175 N11081 STONEWOOD DR. SUITE 103 GERMANTOWN, WI 53022 PHONE: (262) 250-8000 M.GARON@GAICONSULTANTS.COM	

INDEX OF TYPICAL SECTION & DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
PERMANENT SIGNING & PAVEMENT MARKING
DETOUR PLAN
ALIGNMENT



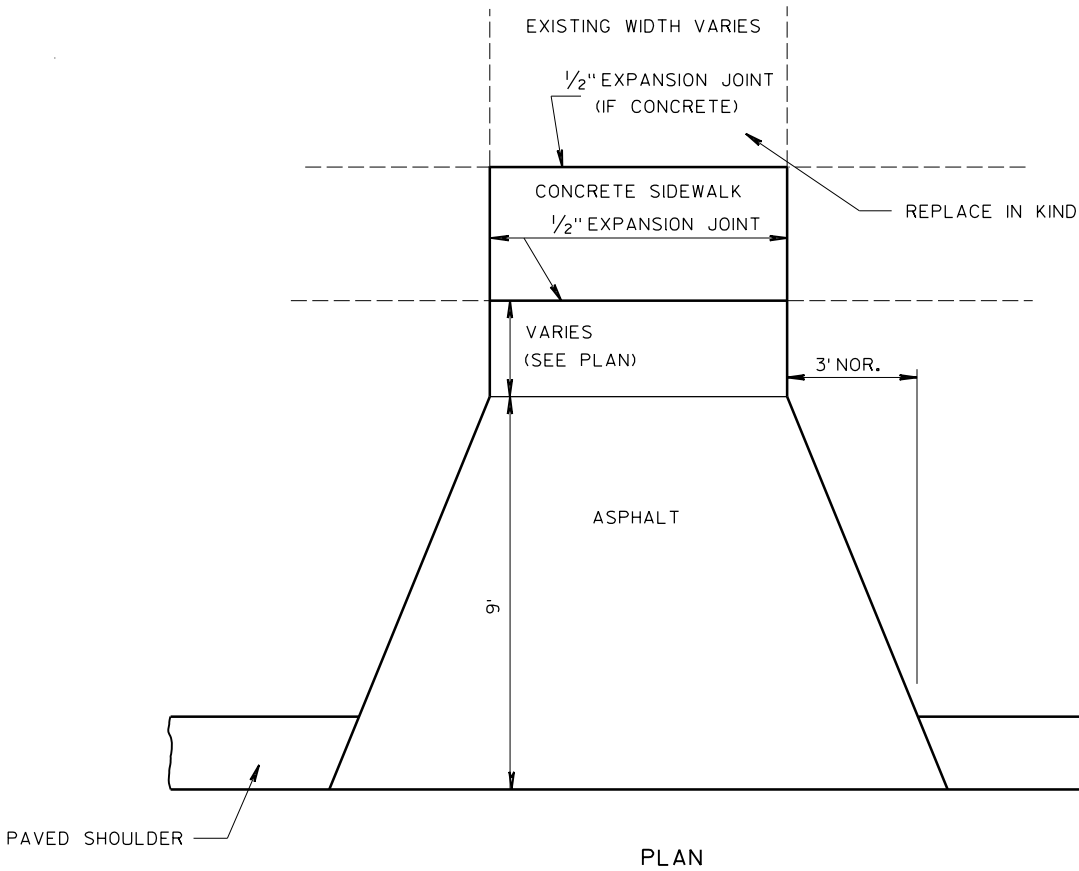




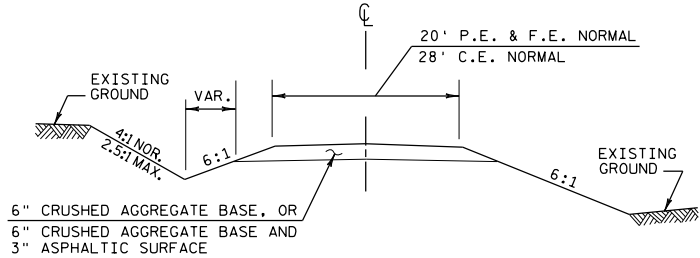
RUNOFF COEFFICIENT TABLE

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

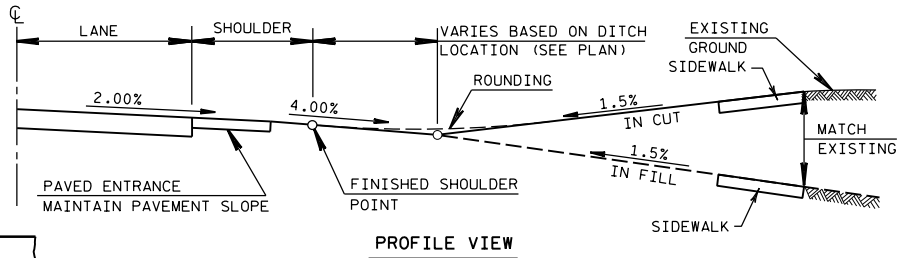
TOTAL PROJECT AREA = 7.2 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.70 ACRES



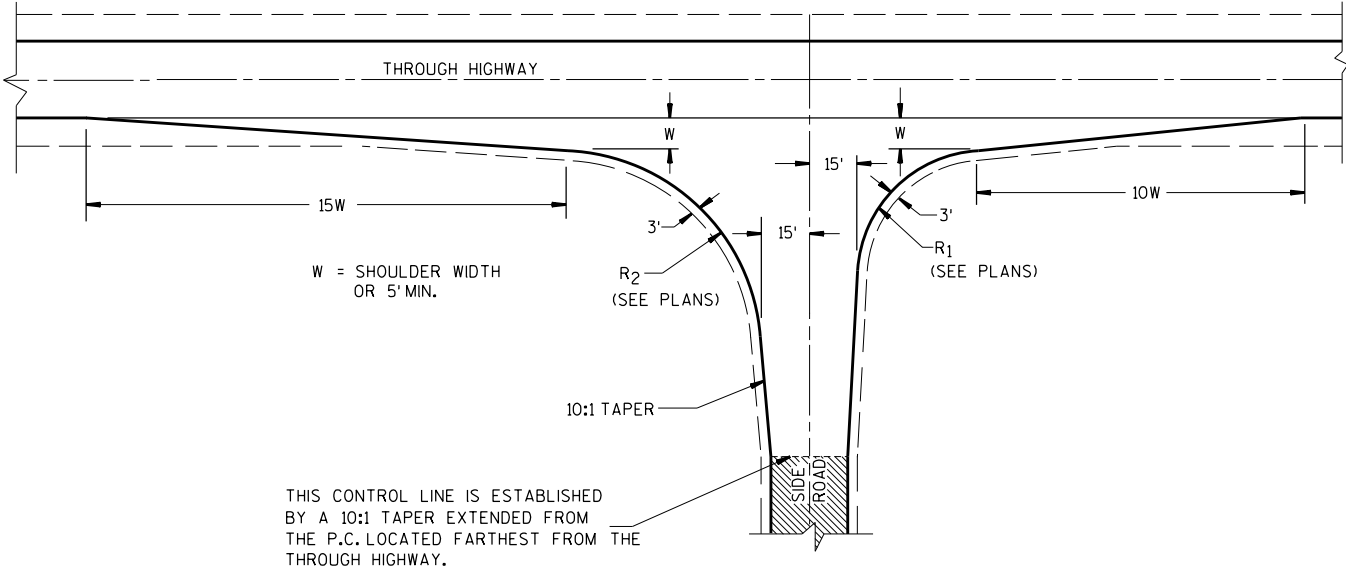
RURAL DRIVEWAY DETAIL



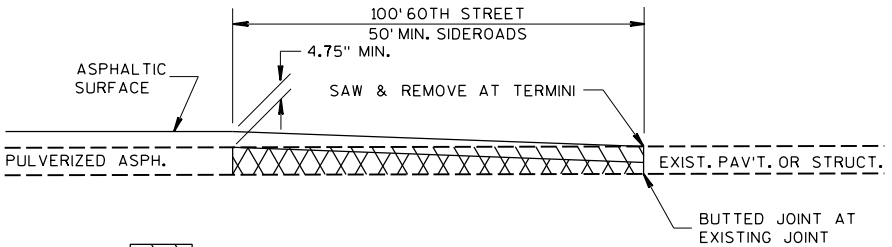
TYPICAL CROSS SECTION



PROFILE VIEW



TYPE "C" INTERSECTION MODIFIED

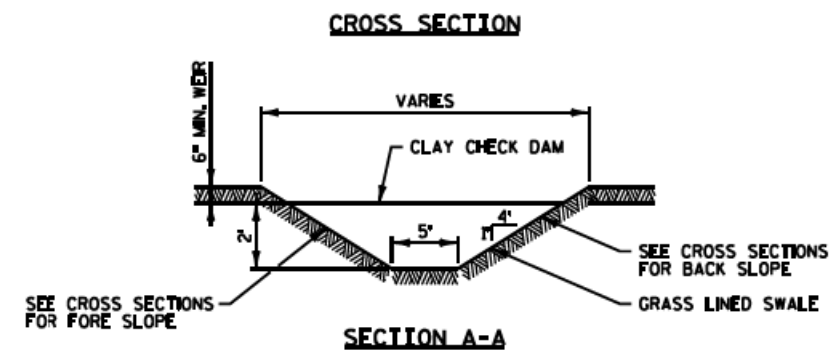
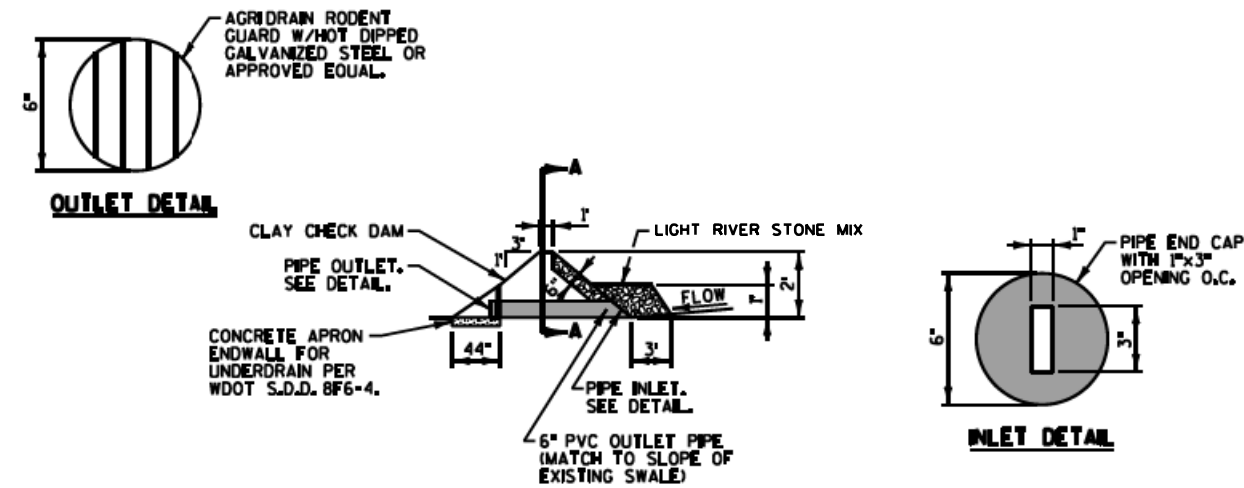


- ASPHALTIC SURFACE REMOVAL
- ASPHALTIC SURFACE WEDGING

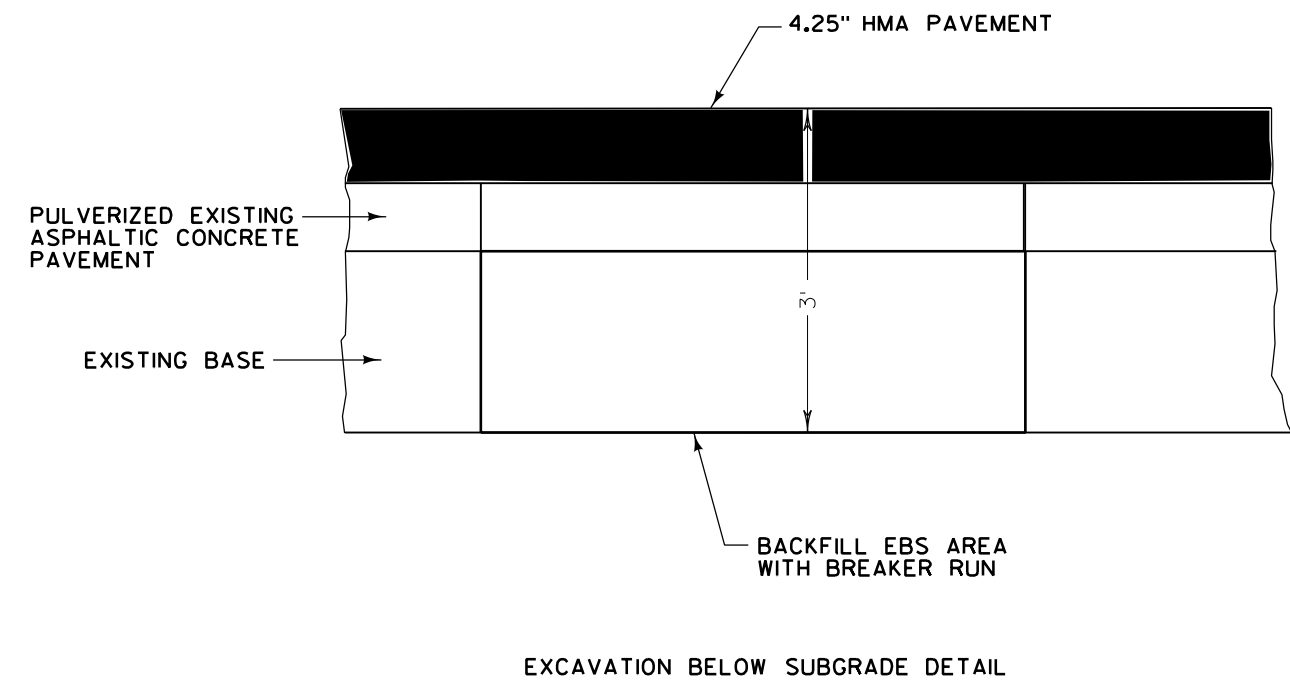
NOTE: SAWING ASPHALT INCIDENTAL TO THE COST OF REMOVING ASPHALTIC SURFACE BUTT JOINTS.
REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE', BUTT JOINTS' MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDEROAD PAVING.

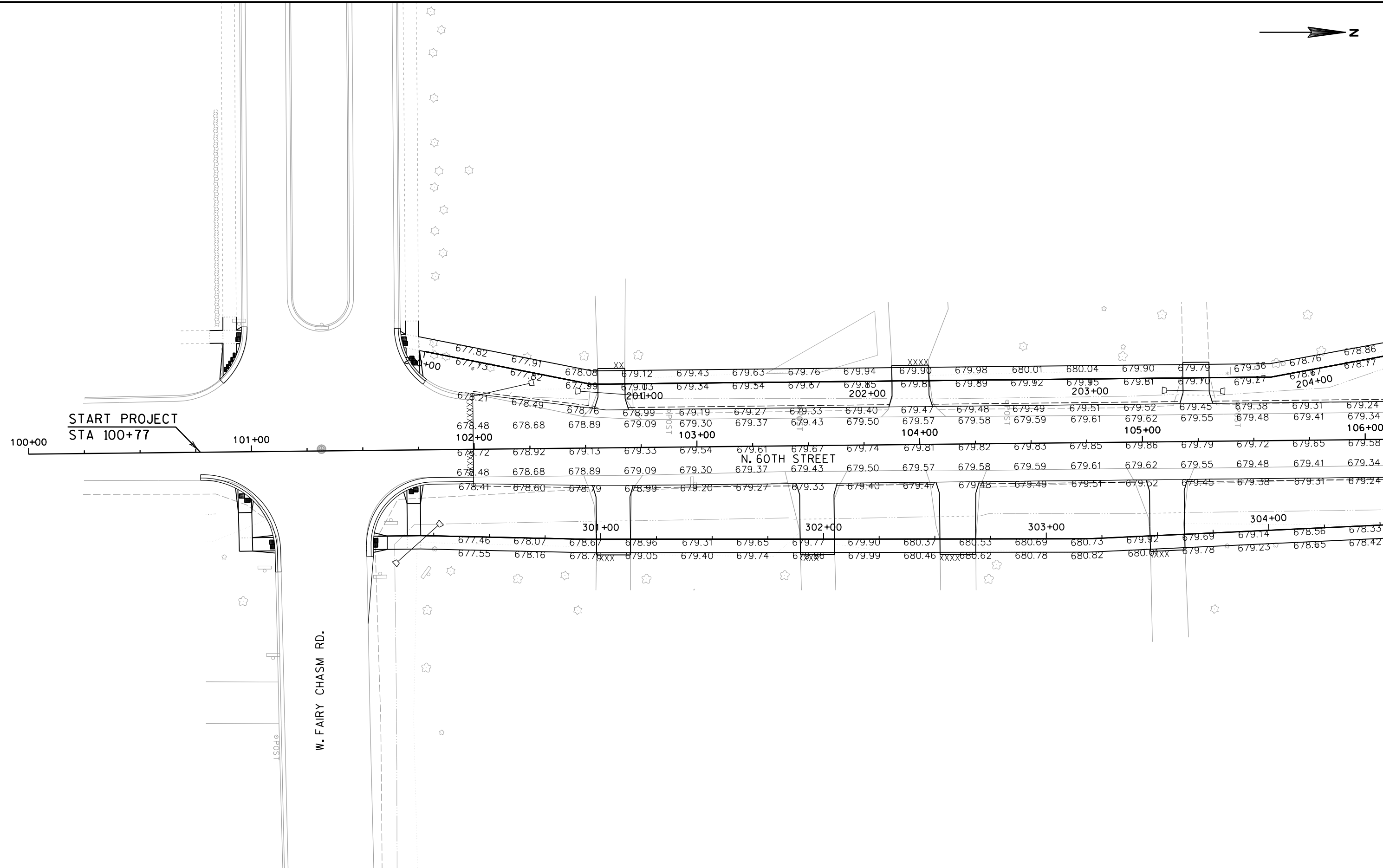
SIDEROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 3" MINIMUM AT JOINT

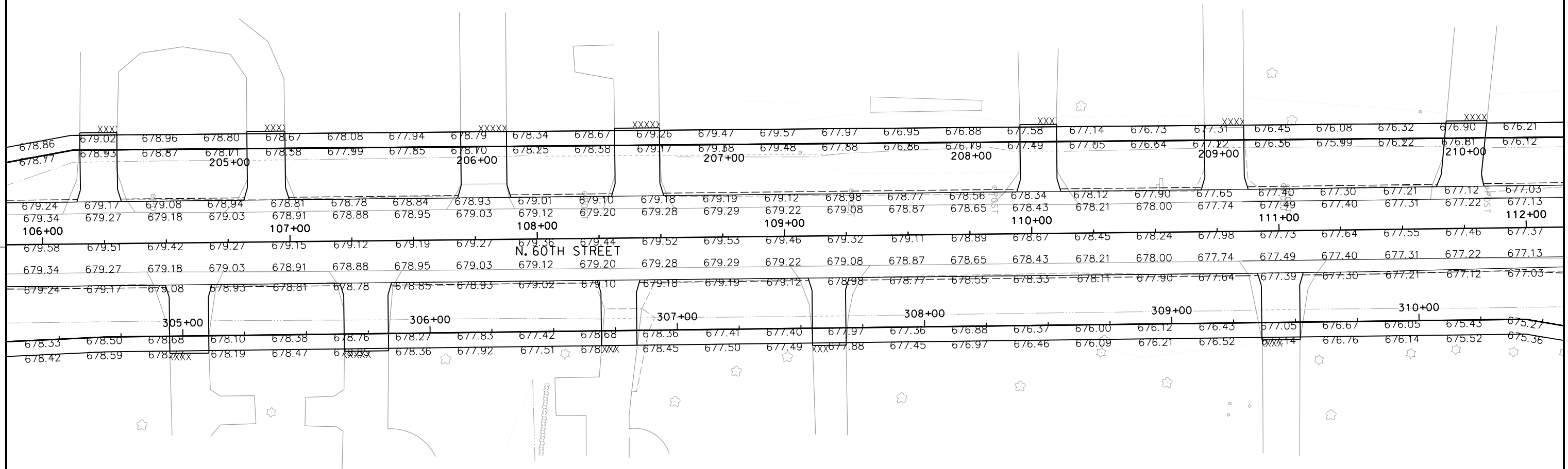
OVERLAP JOINT, BUTTED DETAIL

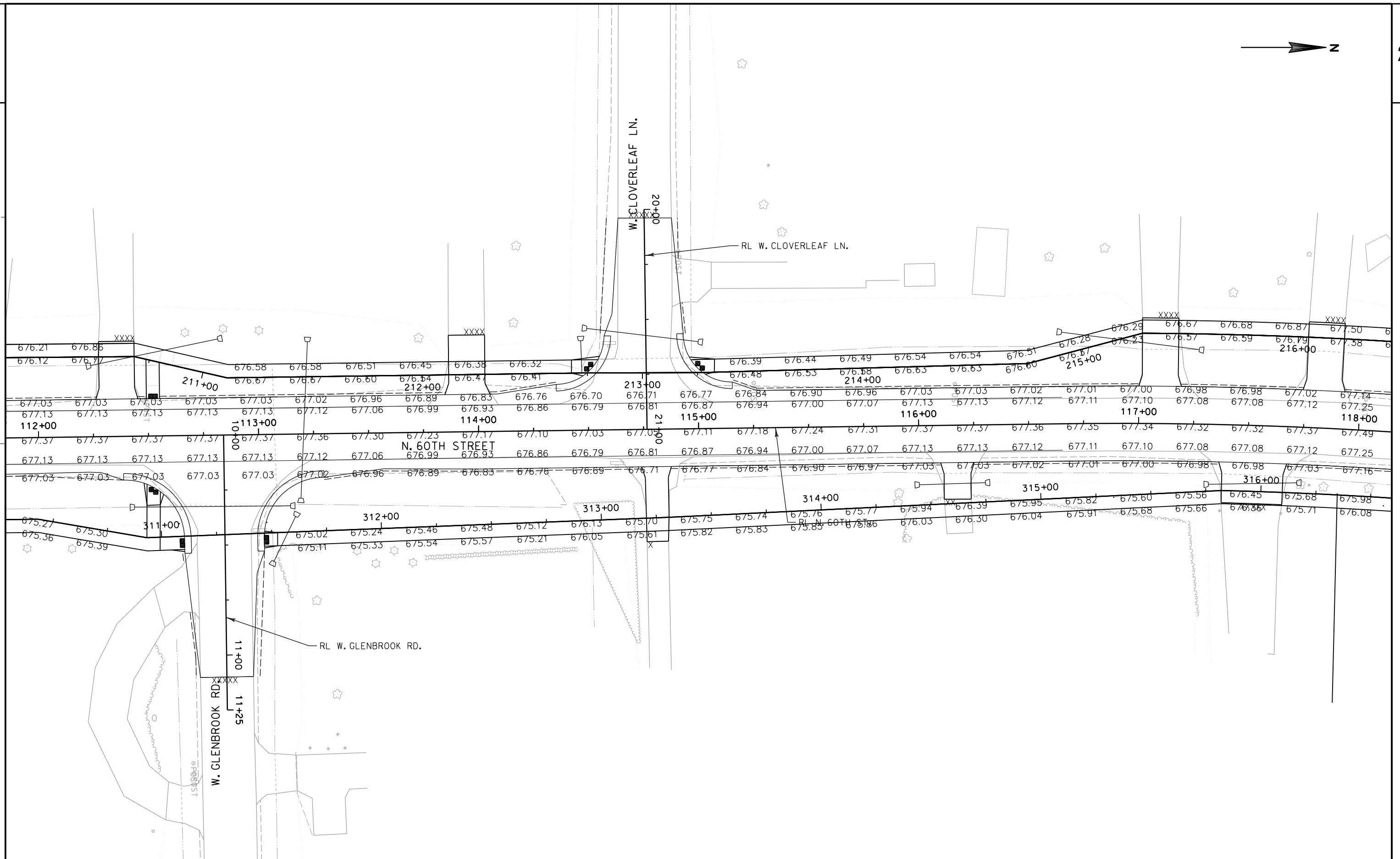


PERMANENT DITCH CHECK DETAIL

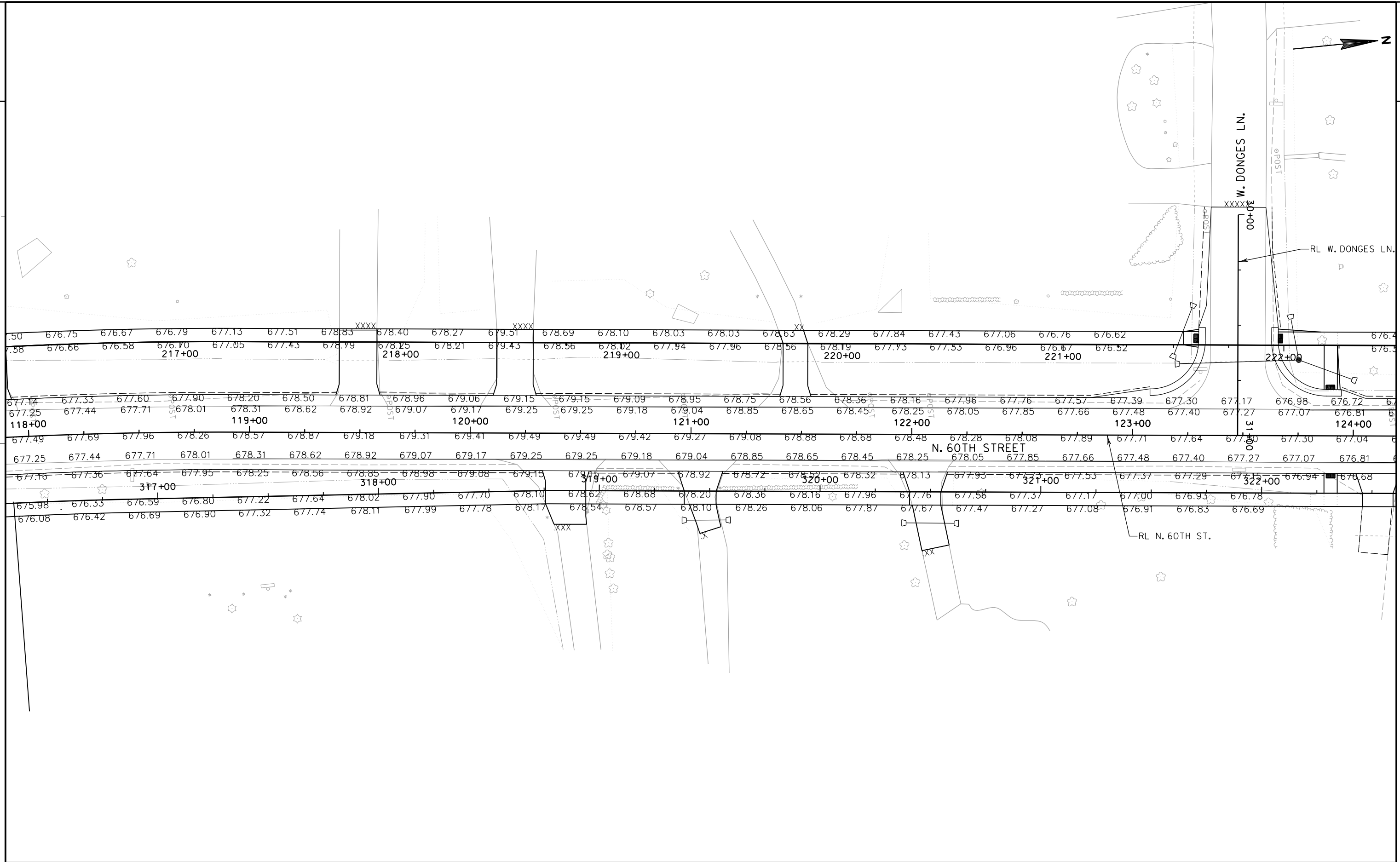


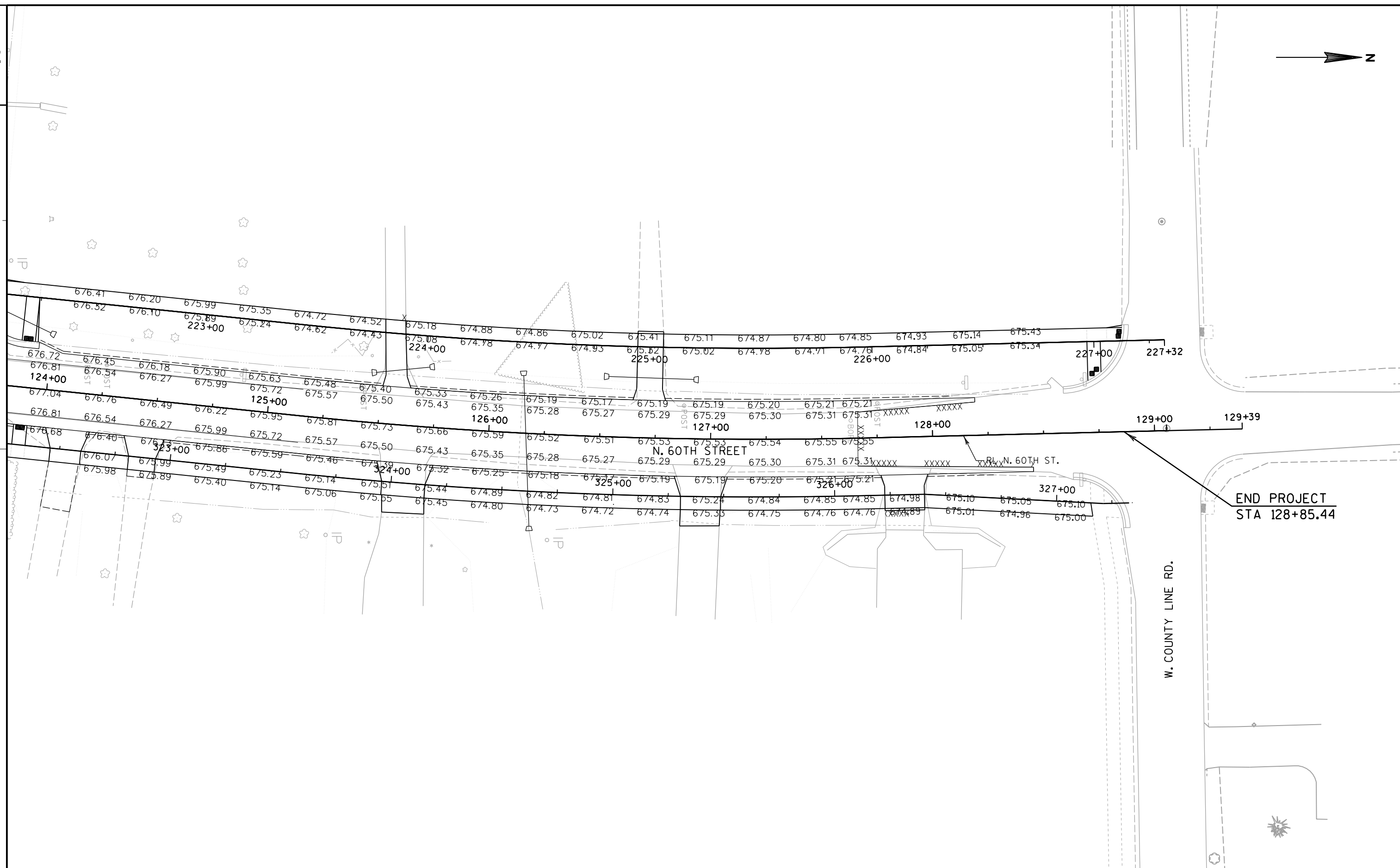






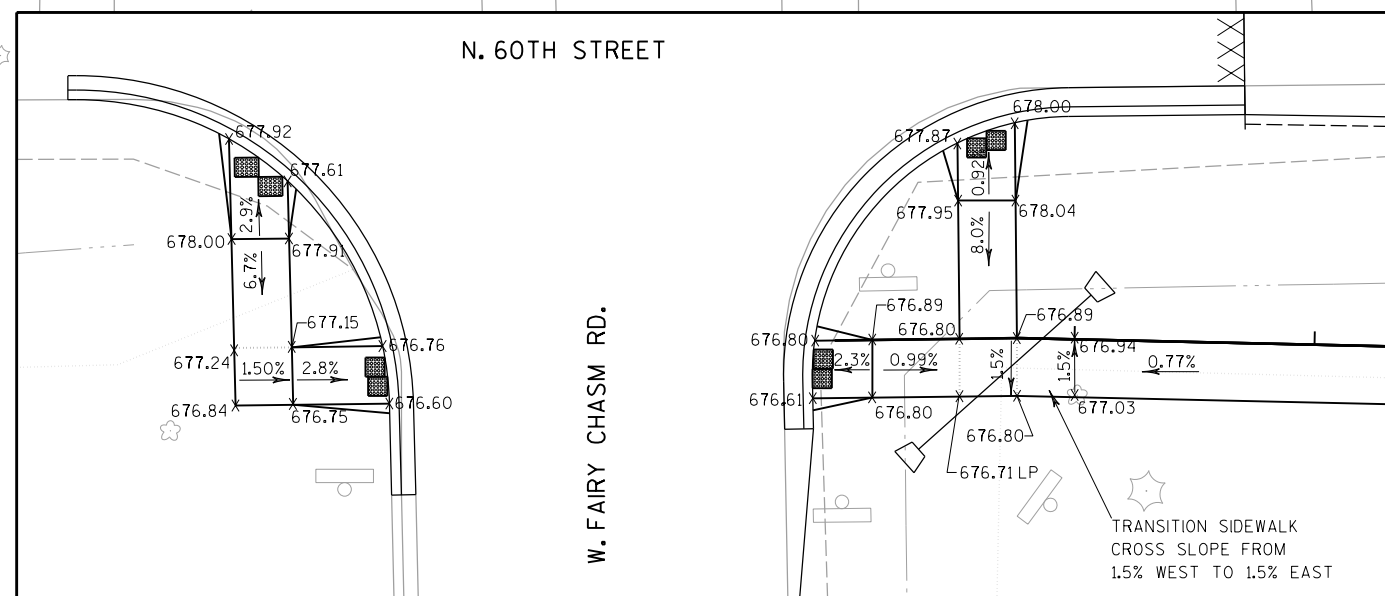
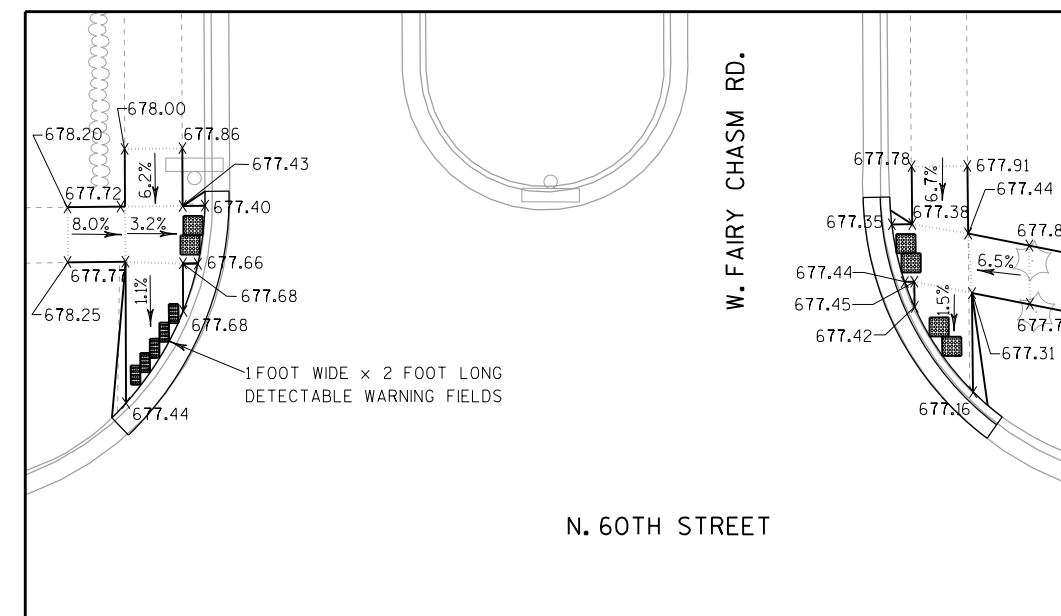
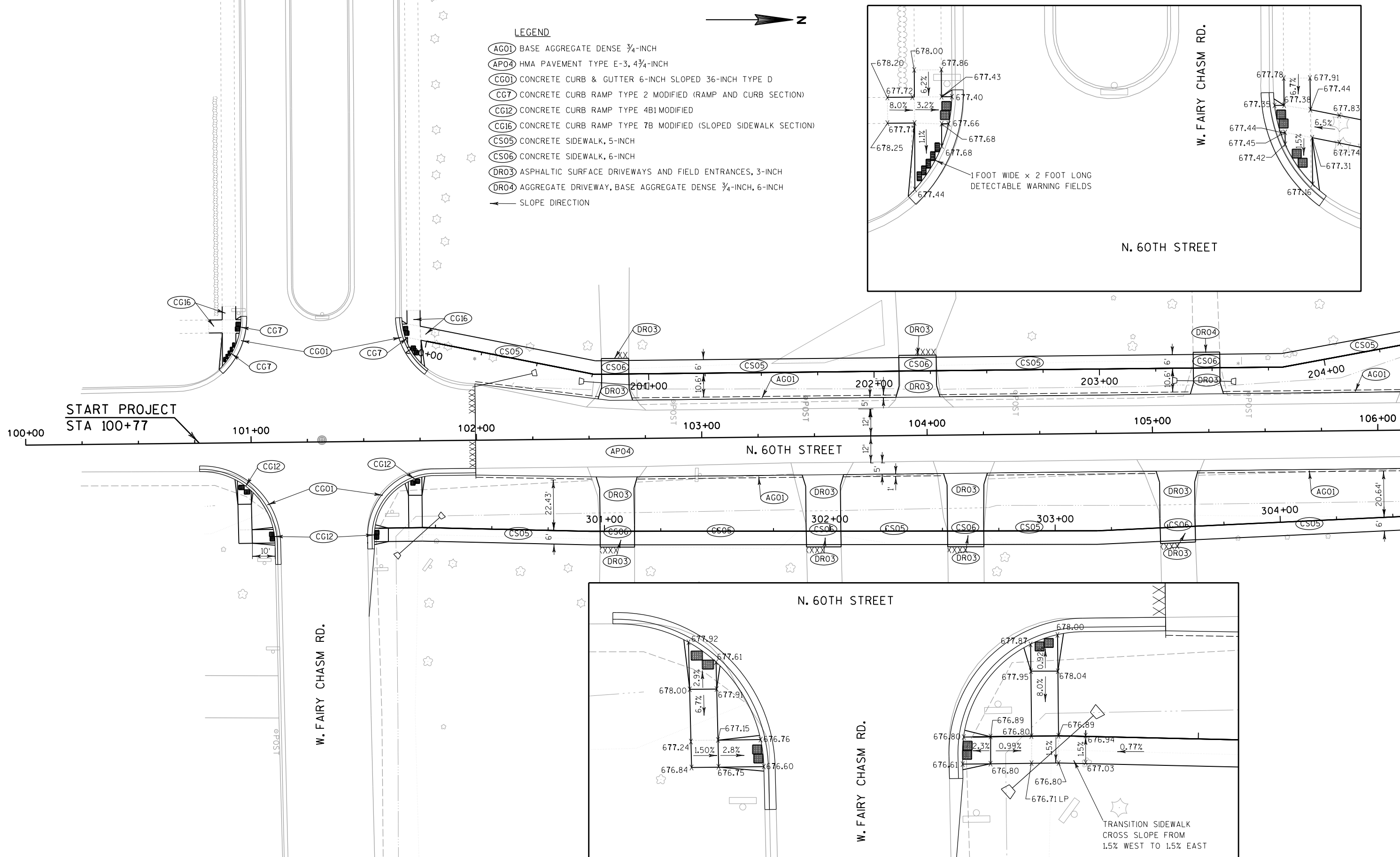
PROJECT NO:2595-00-70	HWY:NORTH 60TH STREET	COUNTY:MILWAUKEE	PAVING DETAILS	SHEET	E
-----------------------	-----------------------	------------------	----------------	-------	---





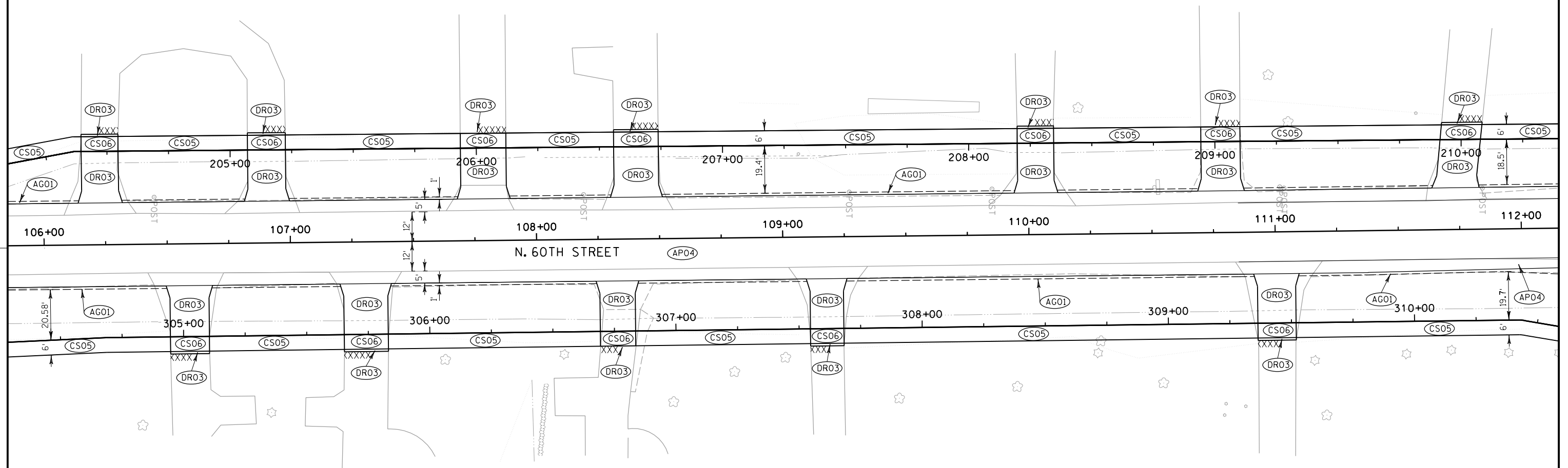
LEGEND

- (AG01) BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
(AP04) HMA PAVEMENT TYPE E-3, $4\frac{3}{4}$ -INCH
(CG01) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
(CG7) CONCRETE CURB RAMP TYPE 2 MODIFIED (RAMP AND CURB SECTION)
(CG12) CONCRETE CURB RAMP TYPE 4B1 MODIFIED
(CG16) CONCRETE CURB RAMP TYPE 7B MODIFIED (SLOPED SIDEWALK SECTION)
(CS05) CONCRETE SIDEWALK, 5-INCH
(CS06) CONCRETE SIDEWALK, 6-INCH
(DR03) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH, 6-INCH
— SLOPE DIRECTION



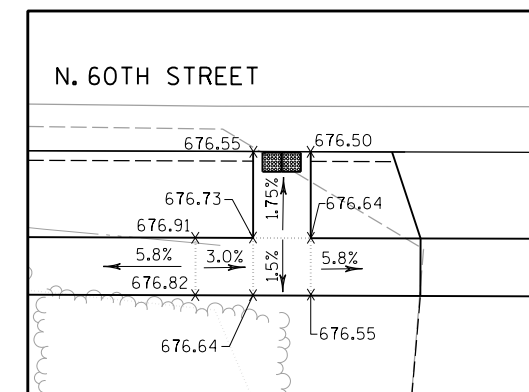
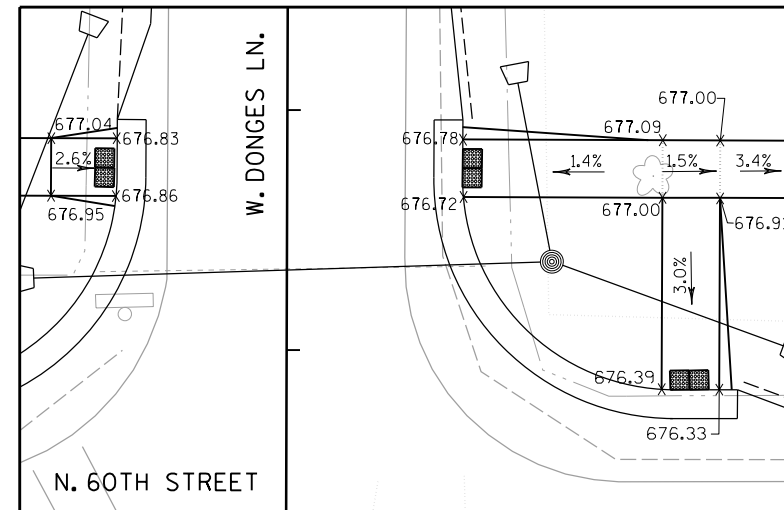
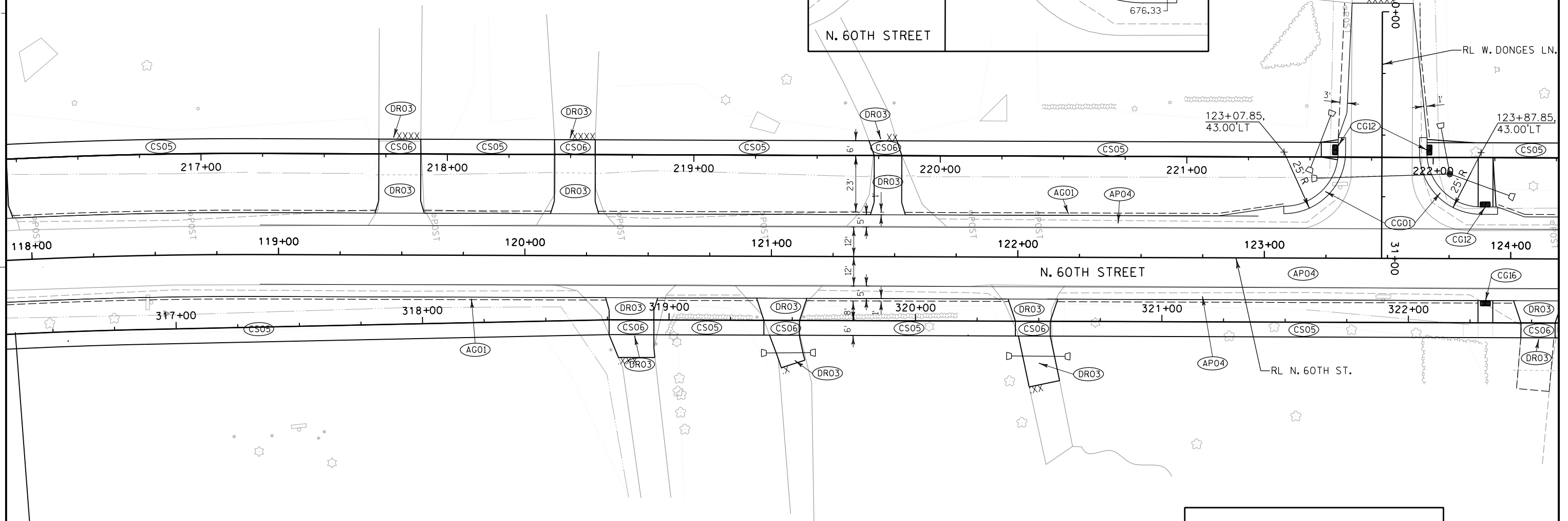
LEGEND

- (AG01) BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
(AP04) HMA PAVEMENT TYPE E-3, $4\frac{3}{4}$ -INCH
(CG01) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
(CS05) CONCRETE SIDEWALK, 5-INCH
(CS06) CONCRETE SIDEWALK, 6-INCH
(DR03) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH, 6-INCH
← SLOPE DIRECTION



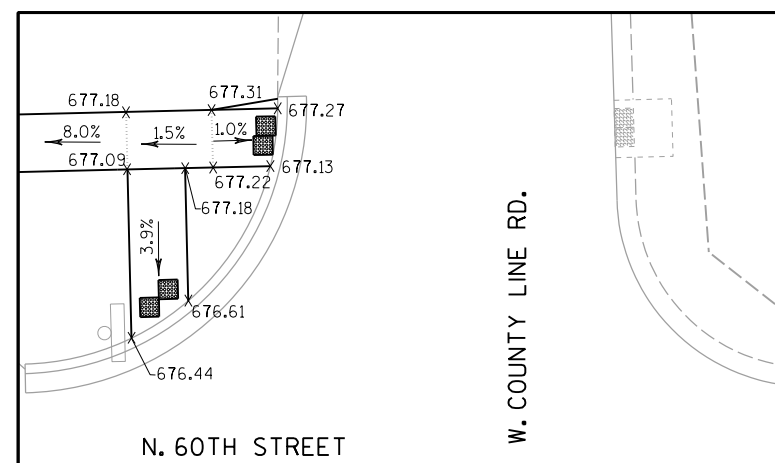
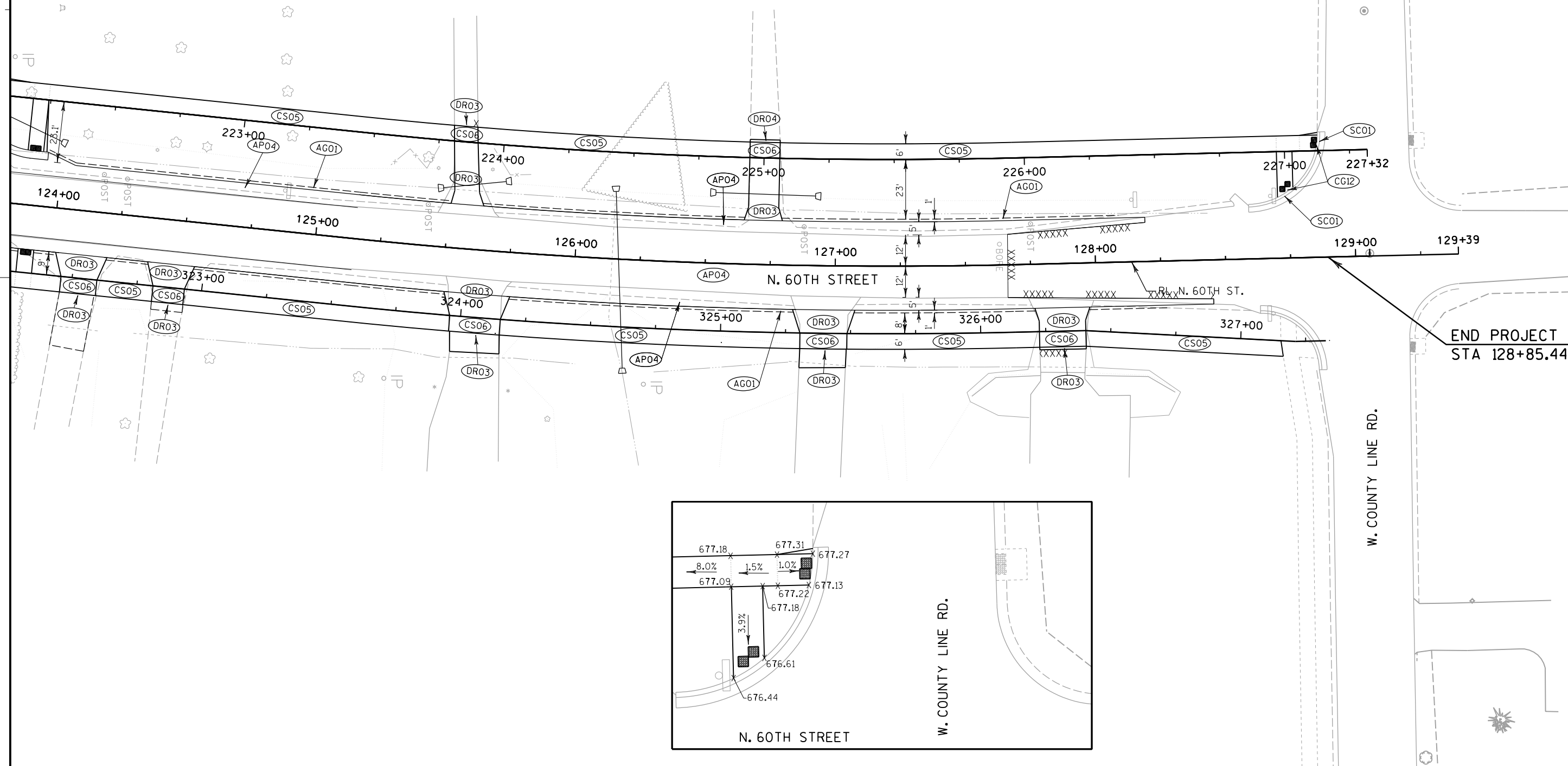
LEGEND

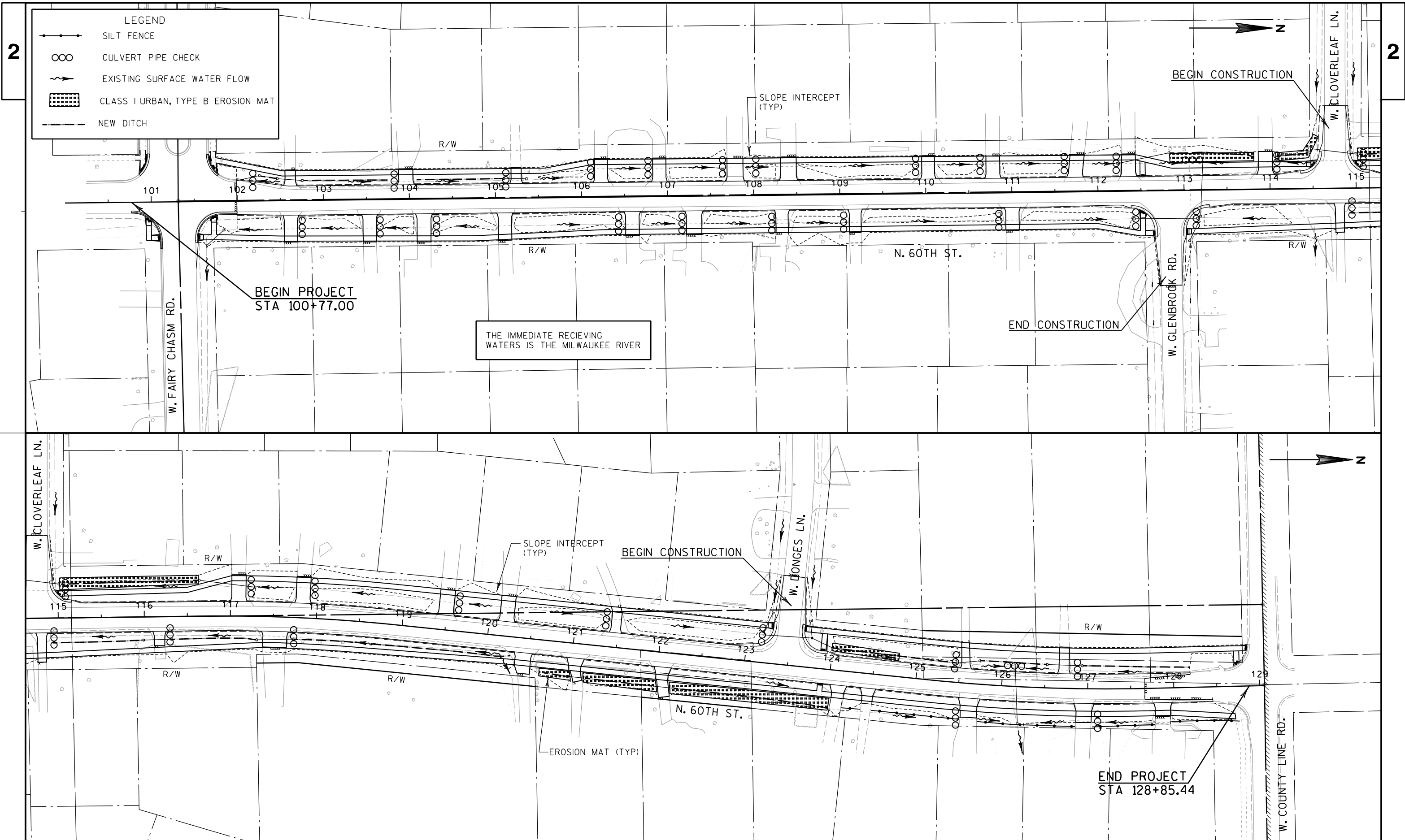
- (AG01) BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
 (AP04) HMA PAVEMENT TYPE E-3, 4 $\frac{3}{4}$ -INCH
 (CG01) CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
 (CG12) CONCRETE CURB RAMP TYPE 4B1 MODIFIED
 (CG16) CONCRETE CURB RAMP TYPE 7B MODIFIED (NO CURB & GUTTER)
 (CS05) CONCRETE SIDEWALK, 5-INCH
 (CS06) CONCRETE SIDEWALK, 6-INCH
 (DR03) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
 (DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH, 6-INCH
 — SLOPE DIRECTION

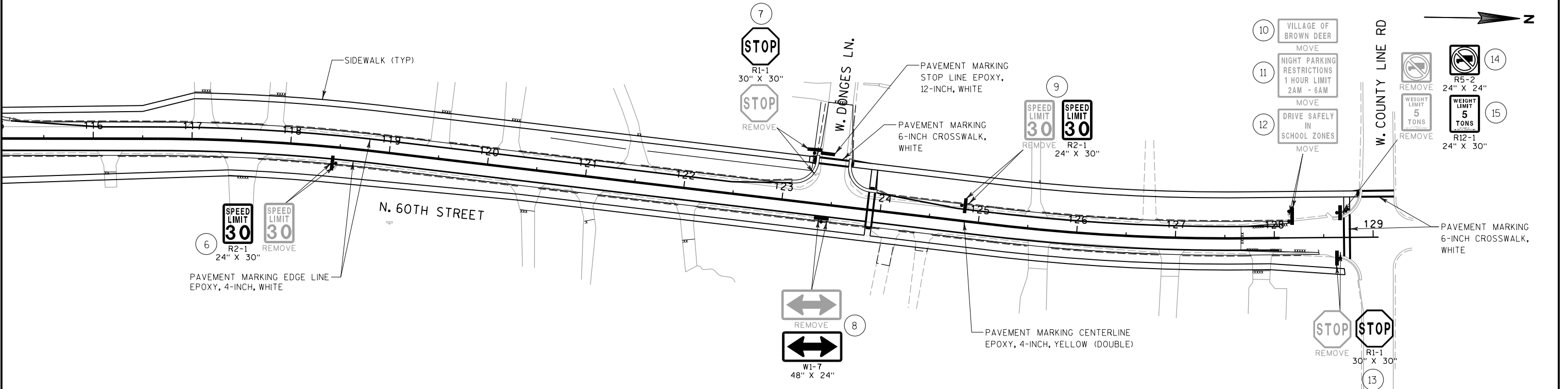


LEGEND

- (AG01) BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH
(AP04) HMA PAVEMENT TYPE E-3, $4\frac{3}{4}$ -INCH
(SC01) SAW CUT CONCRETE CURB & GUTTER FOR NEW RAMP
(CG12) CONCRETE CURB RAMP TYPE 4B1 MODIFIED
(CS05) CONCRETE SIDEWALK, 5-INCH
(CS06) CONCRETE SIDEWALK, 6-INCH
(DR03) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
(DR04) AGGREGATE DRIVEWAY, BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH, 6-INCH
← SLOPE DIRECTION



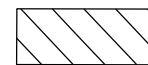




DETOUR GENERAL NOTES

- 1) ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 2) EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
- 3) ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

LEGEND



WORK ZONE,
CLOSED TO TRAFFIC



DETOUR ROUTE



PROPOSED SIGN



POST MOUNTED SIGN



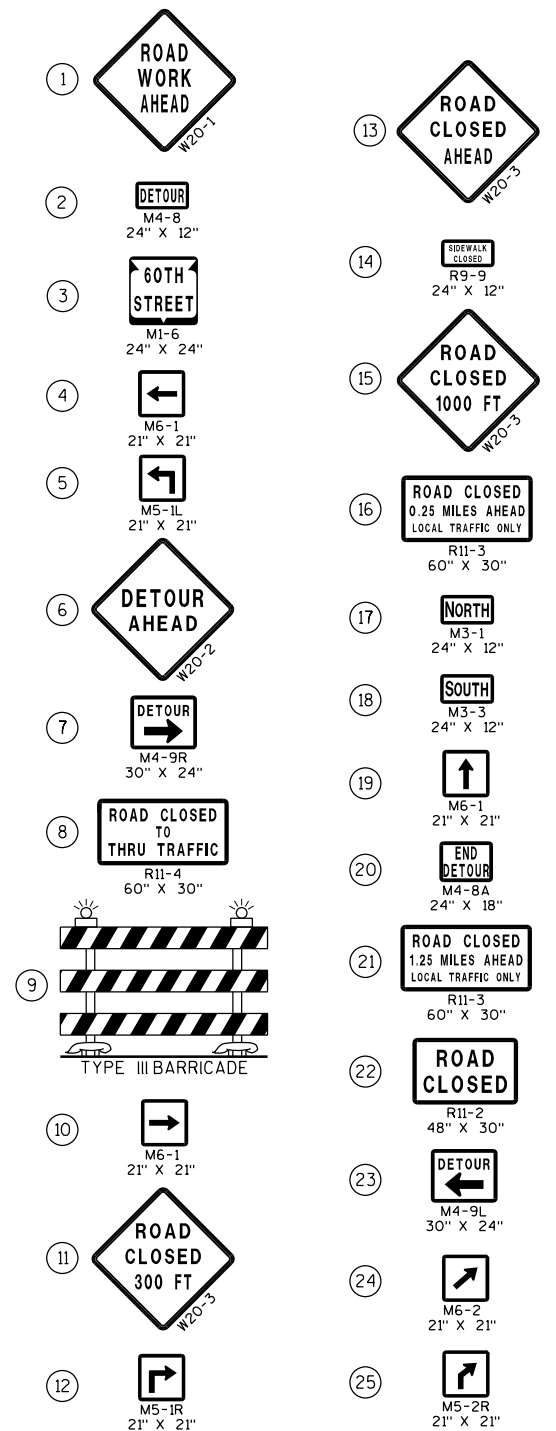
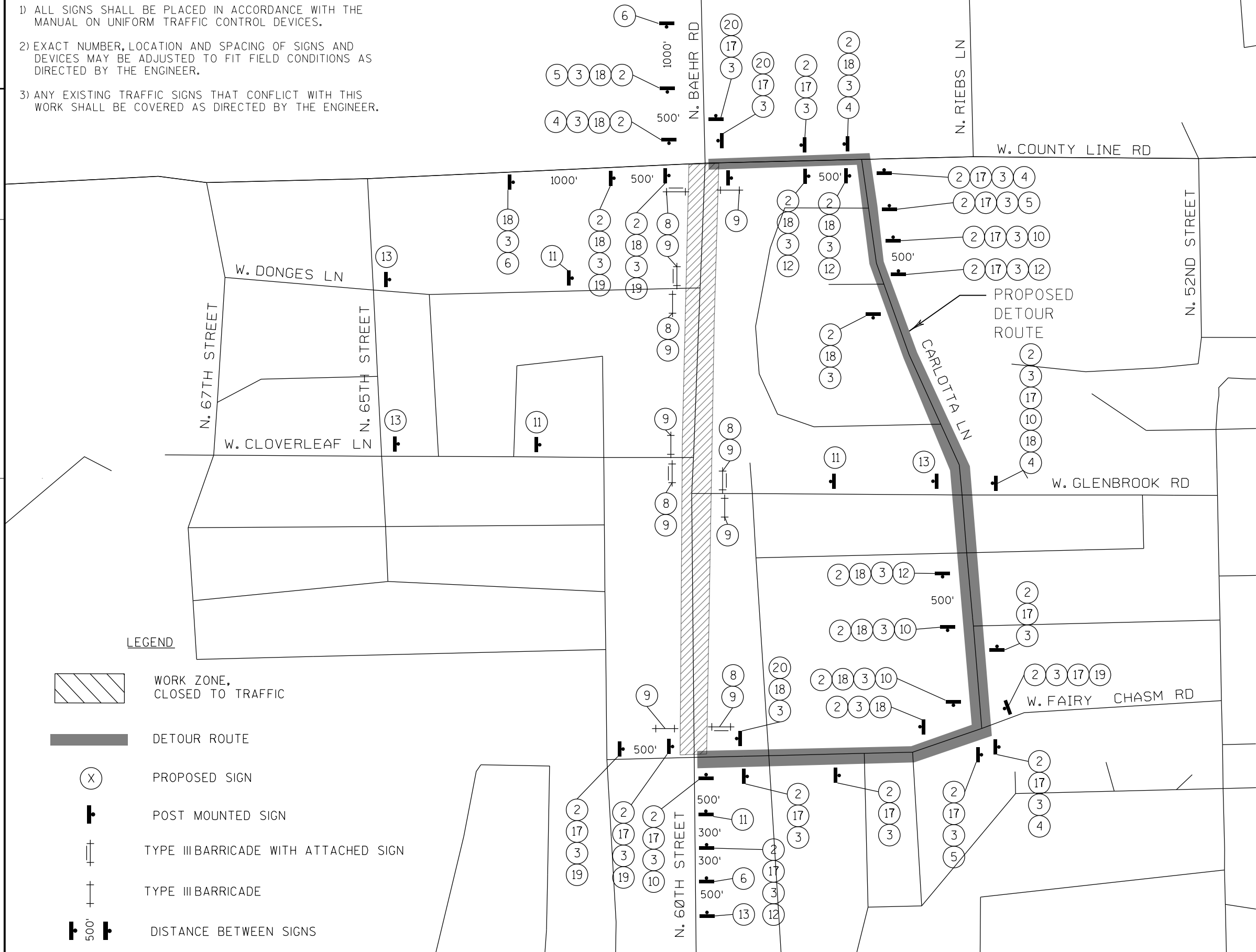
TYPE III BARRICADE WITH ATTACHED SIGN



TYPE III BARRICADE



DISTANCE BETWEEN SIGNS



CURVE 1
 PISTA 117+79.00
 Y = 440,013.0257
 X = 2,537,521.4663
 DELTA = 6°39'46.62" RT
 D = 2°56'01.43"
 T = 113.69
 L = 227.12
 R = 1953.00
 PC STA 116+65.31
 Y = 439,899.3504
 X = 2,537,523.0001
 PT STA 118+92.43
 Y = 440,126.1113
 X = 2,537,533.1324
 BK = 359°13'37.02"
 AH = 5°53'23.64"

CURVE 2
 PISTA 126+42.01
 Y = 440,871.7382
 X = 2,537,610.0526
 DELTA = 7°16'08.24" LT
 D = 2°51'53.24"
 T = 127.04
 L = 253.73
 R = 2000.00
 PC STA 125+14.97
 Y = 440,745.3712
 X = 2,537,597.0163
 PT STA 127+68.71
 Y = 440,998.7390
 X = 2,537,606.9952
 BK = 5°53'23.64"
 AH = 358°37'15.40"

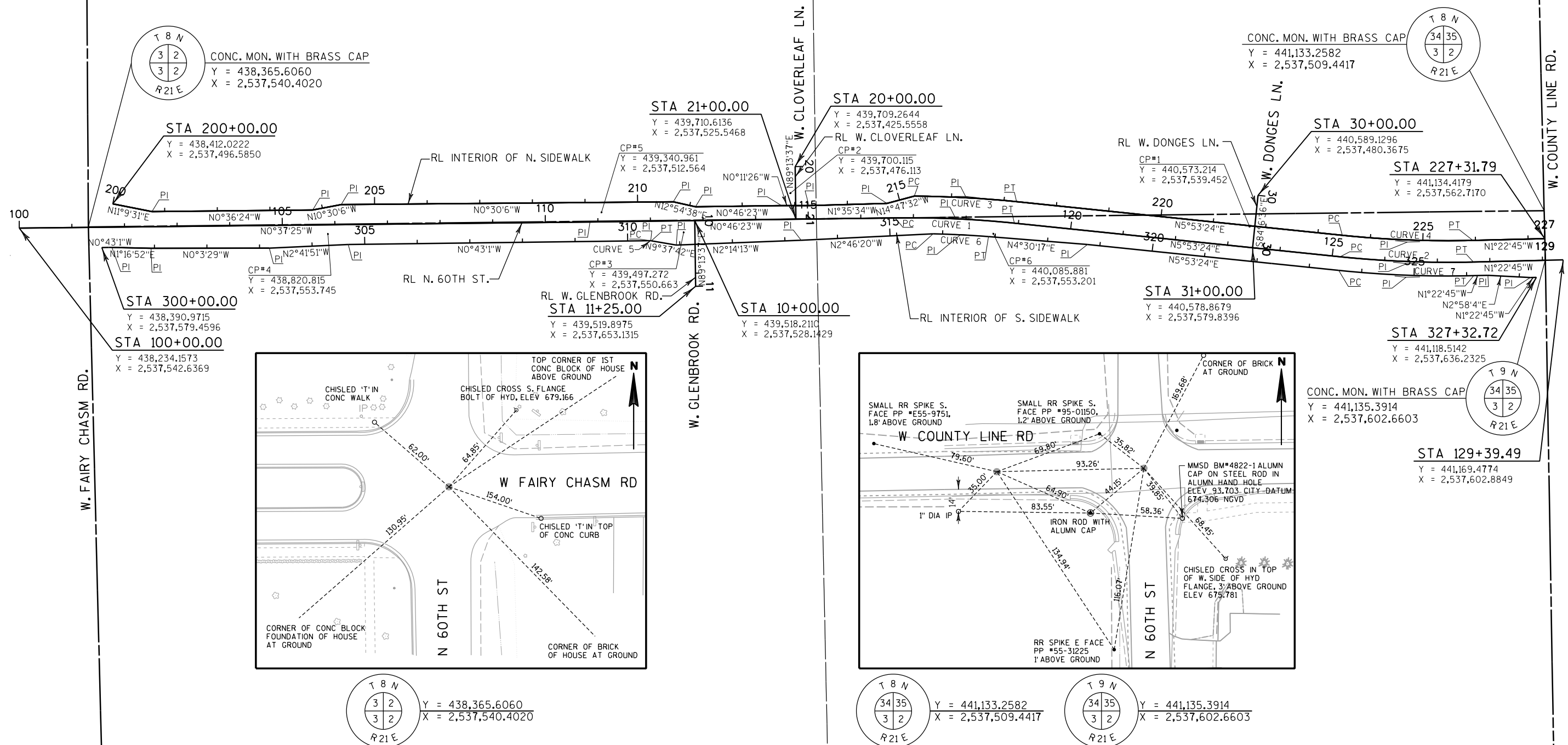
CURVE 3
 PISTA 216+26.65
 Y = 440,033.3209
 X = 2,537,482.3424
 DELTA = 5°35'57.86" RT
 D = 2°52'24.27"
 T = 97.51
 L = 194.87
 R = 1994.00
 PC STA 215+29.14
 Y = 439,935.8097
 X = 2,537,481.8480
 PT STA 217+24.01
 Y = 440,130.3186
 X = 2,537,492.3488
 BK = 0°17'25.78"
 AH = 5°53'23.64"

CURVE 4
 PISTA 224+70.99
 Y = 440,873.3549
 X = 2,537,569.0018
 DELTA = 7°16'08.24" LT
 D = 2°55'29.09"
 T = 124.43
 L = 248.53
 R = 1959.00
 PC STA 223+46.56
 Y = 440,749.5785
 X = 2,537,556.2328
 PT STA 225+95.09
 Y = 440,997.7523
 X = 2,537,566.0071
 BK = 5°53'23.64"
 AH = 358°37'15.40"

CURVE 5
 PISTA 310+43.84
 Y = 439,434.5835
 X = 2,537,566.3998
 DELTA = 15°18'43.72" RT
 D = 572°57'28.06"
 T = 1.34
 L = 2.67
 R = 10.00
 PC STA 310+42.50
 Y = 439,433.2394
 X = 2,537,566.4166
 PT STA 310+45.17
 Y = 439,435.8844
 X = 2,537,566.7385
 BK = 359°16'58.92"
 AH = 14°35'42.64"

CURVE 6
 PISTA 316+34.71
 Y = 440,024.2589
 X = 2,537,554.6285
 DELTA = 3°08'09.41" RT
 D = 2°58'46.20"
 T = 52.64
 L = 105.25
 R = 1923.00
 PC STA 315+82.08
 Y = 439,971.6354
 X = 2,537,553.3711
 PT STA 316+87.33
 Y = 440,076.7349
 X = 2,537,558.7628
 BK = 1°22'07.60"
 AH = 4°30'17.01"

CURVE 7
 PISTA 324+85.10
 Y = 440,870.7129
 X = 2,537,636.0848
 DELTA = 7°16'08.24" LT
 D = 2°49'40.89"
 T = 128.69
 L = 257.03
 R = 2026.00
 PC STA 323+56.41
 Y = 440,742.7031
 X = 2,537,622.8791
 PT STA 326+13.45
 Y = 440,999.3647
 X = 2,537,632.9877
 BK = 5°53'23.64"
 AH = 358°37'15.40"



DATE 05FEB15			E S T I M A T E O F Q U A N T I T I E S		
LINE			2595-00-70		
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	8.000	8.000
0020	201.0120	Clearing	ID	259.000	259.000
0030	201.0205	Grubbing	STA	8.000	8.000
0040	201.0220	Grubbing	ID	259.000	259.000
0050	203.0100	Removing Small Pipe Culverts	EACH	13.000	13.000
0060	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,810.000	1,810.000
0070	204.0150	Removing Curb & Gutter	LF	50.000	50.000
0080	204.9060.S	Removing (item description) 01. Apron Endwall	EACH	1.000	1.000
0090	205.0100	Excavation Common	CY	4,866.000	4,866.000
0100	208.0100	Borrow	CY	251.000	251.000
0110	213.0100	Finishing Roadway (project) 01. 2595-00-70	EACH	1.000	1.000
0120	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,550.000	1,550.000
0130	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,250.000	1,250.000
0140	311.0115	Breaker Run	CY	3,500.000	3,500.000
0150	325.0100	Pulverize and Relay	SY	8,890.000	8,890.000
0160	416.0160	Concrete Driveway 6-Inch	SY	160.000	160.000
0170	455.0120	Asphaltic Material PG64-28	TON	185.000	185.000
0180	455.0605	Tack Coat	GAL	623.000	623.000
0190	460.1101	HMA Pavement Type E-1	TON	3,000.000	3,000.000
0200	460.2000	Incentive Density HMA Pavement	DOL	1,920.000	1,920.000
0210	460.4000	HMA Cold Weather Paving	TON	750.000	750.000
0220	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	220.000	220.000
0230	521.0115	Culvert Pipe Corrugated Steel 15-Inch	LF	27.000	27.000
0240	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	28.000	28.000
0250	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	8.000	8.000
0260	522.0115	Culvert Pipe Reinforced Concrete Class III 15-Inch	LF	127.000	127.000
0270	523.0119	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	64.000	64.000
0280	523.0129	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	LF	14.000	14.000
0290	523.0519	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0300	523.0529	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	1.000	1.000
0310	530.0112	Culvert Pipe Corrugated Polyethylene 12-Inch	LF	458.000	458.000
0320	530.0115	Culvert Pipe Corrugated Polyethylene 15-Inch	LF	122.000	122.000
0330	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	110.000	110.000
0340	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	370.000	370.000
0350	602.0410	Concrete Sidewalk 5-Inch	SF	30,000.000	30,000.000
0360	602.0415	Concrete Sidewalk 6-Inch	SF	3,700.000	3,700.000
0370	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	200.000	200.000
0380	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0390	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000

DATE 05FEB15		E S T I M A T E O F Q U A N T I T I E S			
LINE		2595-00-70			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0400	611.8110	Adjusting Manhole Covers	EACH	13.000	13.000
0410	611.8120.S	Cover Plates Temporary	EACH	11.000	11.000
0420	619.1000	Mobilization	EACH	1.000	1.000
0430	623.0200	Dust Control Surface Treatment	SY	11,200.000	11,200.000
0440	624.0100	Water	MGAL	31.300	31.300
0450	625.0100	Topsoil	SY	13,750.000	13,750.000
0460	627.0200	Mulching	SY	13,750.000	13,750.000
0470	628.1504	Silt Fence	LF	400.000	400.000
0480	628.1520	Silt Fence Maintenance	LF	400.000	400.000
0490	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0500	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0510	628.2008	Erosion Mat Urban Class I Type B	SY	898.000	898.000
0520	628.7555	Culvert Pipe Checks	EACH	37.000	37.000
0530	629.0210	Fertilizer Type B	CWT	8.600	8.600
0540	630.0140	Seeding Mixture No. 40	LB	250.000	250.000
0550	630.0200	Seeding Temporary	LB	375.000	375.000
0560	633.5200	Markers Culvert End	EACH	40.000	40.000
0570	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	11.000	11.000
0580	637.2210	Signs Type II Reflective H	SF	65.720	65.720
0590	638.2102	Moving Signs Type II	EACH	3.000	3.000
0600	638.2602	Removing Signs Type II	EACH	15.000	15.000
0610	638.3000	Removing Small Sign Supports	EACH	11.000	11.000
0620	638.4000	Moving Small Sign Supports	EACH	3.000	3.000
0630	642.5001	Field Office Type B	EACH	1.000	1.000
0640	643.0100	Traffic Control (project) 01. 2595-00-70	EACH	1.000	1.000
0650	643.0420	Traffic Control Barricades Type III	DAY	900.000	900.000
0660	643.0705	Traffic Control Warning Lights Type A	DAY	1,800.000	1,800.000
0670	643.0900	Traffic Control Signs	DAY	450.000	450.000
0680	643.2000	Traffic Control Detour (project) 01. 2595-00-70	EACH	1.000	1.000
0690	643.3000	Traffic Control Detour Signs	DAY	12,060.000	12,060.000
0700	646.0106	Pavement Marking Epoxy 4-Inch	LF	10,200.000	10,200.000
0710	647.0556	Pavement Marking Stop Line Epoxy 12-Inch	LF	40.000	40.000
0720	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	906.000	906.000
0730	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	480.000	480.000
0740	650.6000	Construction Staking Pipe Culverts	EACH	16.000	16.000
0750	650.8000	Construction Staking Resurfacing Reference	LF	2,605.000	2,605.000
0760	650.9910	Construction Staking Supplemental Control (project) 01. 2595-00-70	LS	1.000	1.000
0770	650.9920	Construction Staking Slope Stakes	LF	2,605.000	2,605.000
0780	690.0150	Sawing Asphalt	LF	520.000	520.000
0790	690.0250	Sawing Concrete	LF	150.000	150.000
0800	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	250.000	250.000
0810	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	250.000	250.000
0820	SPV.0060	Special 01. Permanent Ditch Check	EACH	1.000	1.000
0830	SPV.0060	Special 02. Abandon Water Box	EACH	9.000	9.000
0840	SPV.0060	Special 03. Construction Staking Curb Ramps	EACH	20.000	20.000
0850	SPV.0090	Special 01. Construction Staking Sidewalk	LF	5,564.000	5,564.000

3

CLEARING AND GRUBBING					
STATION - STATION	LOCATION	CLEARING		GRUBBING	
		201.0105 (STA)	201.0120 (ID)	201.0205 (STA)	201.0220 (ID)
101+00 - 102+00		1	-	1	-
102+07	38' LT	-	10	-	10
102+24	41' LT	-	10	-	10
103+00 - 104+00		1	-	1	-
105+00 - 106+00		1	-	1	-
108+10	46' RT	-	6	-	6
109+00	49' RT	-	8	-	8
110+28	43' RT	-	7	-	7
111+05	44' LT	-	3	-	3
111+57	48' LT	-	1	-	1
112+67	48' LT	-	3	-	3
112+84	48' LT	-	3	-	3
113+01	48' LT	-	3	-	3
113+73	43' LT	-	16	-	16
114+00 - 115+00		1	-	1	-
115+90	30' RT	-	18	-	18
115+90	35' RT	-	20	-	20
117+74	26' RT	-	18	-	18
117+85	26' RT	-	17	-	17
118+06	26' RT	-	22	-	22
118+32	25' RT	-	13	-	13
120+62	35' RT	-	6	-	6
120+00 - 122+00		1	-	1	-
122+31	26' RT	-	15	-	15
122+86	32' RT	-	3	-	3
123+04	28' RT	-	17	-	17
123+35	29' RT	-	15	-	15
123+61	30' RT	-	15	-	15
123+85	43' LT	-	10	-	10
124+00 - 127+00		3	-	3	-
PROJECT TOTAL		8	259	8	259

REMOVING SMALL PIPE CULVERTS					
STATION	LOCATION	203.0100 (EACH)	204.9080 S REMOVING APRON ENDWALL (EACH)	DESCRIPTION	
102+16	23' LT	-	1	15" CMP	
102+62	22' LT	1	-	15" CMP	
105+24	21' LT	1	-	15" CMP	
112+36	32' LT	1	-	15" CMP	
112+83	33' RT	1	-	15" CMP	
113+07	0.3 RT	1	-	15" CMP	
113+95	31' LT	1	-	15" CMP	
114+75	32' LT	1	-	15" CMP	
116+18	22' RT	1	-	15" CMP	
117+11	34' LT	1	-	15" CMP	
117+53	22' RT	1	-	15" CMP	
123+48	33' LT	1	-	15" CMP	
125+56	23' LT	1	-	15" CMP	
126+14	0.2 RT	1	-	18" X 24" CMP	
PROJECT TOTAL		13	1		

PULVERIZE AND RELAY					
STATION - STATION	LOCATION	325.0100 (SY)			
102+00 - 127+66	60TH STREET	8,890			
PROJECT TOTAL		8,890			

REMOVING CURB AND REMOVING CURB & GUTTER			
STATION - STATION	LOCATION	204.0150 (LF)	
100+88 - 100+99	60TH STREET	27	
101+65 - 101+76	60TH STREET	23	
TOTAL		50	

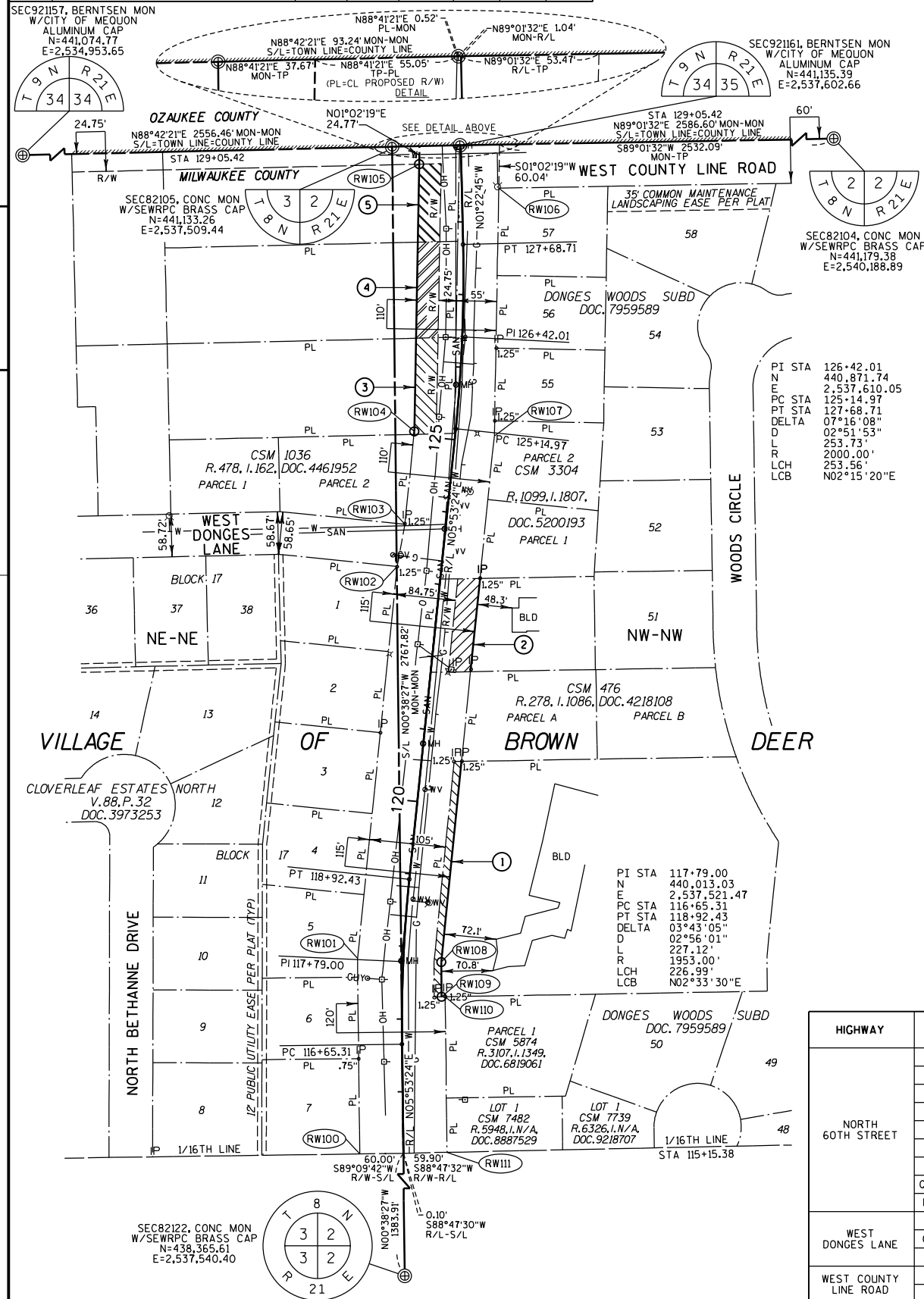
REMOVING ASPHALTIC SURFACE BUTT JOINTS			
STATION - STATION	LOCATION	204.0115 (SY)	
102+00 - 103+00	60TH	310	
10+50 - 11+00	GLENBROOK	470	
20+30 - 20+80	CLOVERLEAF	320	
30+31 - 30+81	DONGES	300	
127+66 - 128+66	60TH	410	
PROJECT TOTAL		1810	

ASPHALTIC ITEMS							
STATION - STATION	LOCATION	455.0120	455.0605	460.1101	460.2000	465.0120	460.4000
		MATERIAL PG64-28 (TON)	TACK COAT (GAL)	HMA PAVEMENT TYPE-E1 (TON)	NCENTIVE DENSITY HMA PAVEMENT (DOL)	DRIVEWAYS AND FIELD ENTRANCES (TON)	HMA COLD WEATHER PAVING (TON)
102+00 - 128+94	60TH	185	560	3000	1920	-	750
102+00 - 128+94	DRIVEWAYS	-	63	-	-	220	-
PROJECT TOTAL		185	623	3000	1920	220	750

3

CONCRETE SIDEWALK <table><tr><th colspan="2"></th><th>416.0160</th><th>602.0410</th><th>602.0415</th><th>602.0505</th></tr><tr><th colspan="2"></th><th>CONCRETE DRIVEWAY 6-INCH (SY)</th><th>5-INCH (SF)</th><th>6-INCH (SF)</th><th>CURB RAMP DETEC TABLE WARNING FIELD YELLOW (SF)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th><th></th><th></th></tr><tr><td>100+86 - 129+28</td><td>60TH</td><td>160</td><td>30000</td><td>3700</td><td>200</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>160</td><td>30000</td><td>3700</td><td>200</td></tr></table>									416.0160	602.0410	602.0415	602.0505			CONCRETE DRIVEWAY 6-INCH (SY)	5-INCH (SF)	6-INCH (SF)	CURB RAMP DETEC TABLE WARNING FIELD YELLOW (SF)	STATION - STATION	LOCATION					100+86 - 129+28	60TH	160	30000	3700	200	PROJECT TOTAL		160	30000	3700	200	STORM SEWER <table><tr><th colspan="2"></th><th colspan="2"></th><th>611.2004</th><th>611.0530</th><th colspan="2"></th></tr><tr><th colspan="2"></th><th>STRUCTURE NUMBER</th><th></th><th>MH 4-FT (EACH)</th><th>MH COVERS TYPE J (EACH)</th><th>DEPTH (FT)</th><th>DISCH ELEV</th></tr><tr><th>CATEGORY</th><th></th><th></th><th>STATION</th><th>LOCATION</th><th>COVER ELEV</th><th></th><th></th></tr><tr><td>0010</td><td>1.0</td><td>123+75</td><td>34.4' LT</td><td>678.48</td><td>1</td><td>1</td><td>3.00 675.48</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td></td><td></td><td></td><td>1</td><td>1</td><td></td></tr></table>											611.2004	611.0530					STRUCTURE NUMBER		MH 4-FT (EACH)	MH COVERS TYPE J (EACH)	DEPTH (FT)	DISCH ELEV	CATEGORY			STATION	LOCATION	COVER ELEV			0010	1.0	123+75	34.4' LT	678.48	1	1	3.00 675.48	PROJECT TOTAL					1	1		ADJUSTING MANHOLE COVERS AND WATER VALVES <table><tr><th>CATEGORY</th><th>STATION</th><th>LOCATION</th><th>TYPE</th><th>611.8110 ADJUSTING MANHOLE COVERS (EACH)</th><th>611.8120.S COVER PLATES TEMPORARY (EACH)</th><th>SPV.0060.02 ABANDONING WATER BOXES (EACH)</th></tr><tr><td colspan="4">SUBTOTAL</td><td>1</td><td>-</td><td>-</td></tr><tr><td>0020</td><td>103+48</td><td>1' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>105+57</td><td>1' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>106+49</td><td>1' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>109+66</td><td>1.6' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>109+95</td><td>37' RT</td><td>SAN</td><td>1</td><td>-</td><td>-</td></tr><tr><td>0020</td><td>112+83</td><td>0.3' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>112+84</td><td>35' RT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>114+75</td><td>0.2' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>117+80</td><td>2.6' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>120+80</td><td>0.3' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>123+77</td><td>1' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>125+76</td><td>5' LT</td><td>SAN</td><td>1</td><td>1</td><td>-</td></tr><tr><td>0020</td><td>107+97</td><td>11' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>112+53</td><td>7.5' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>115+05</td><td>8' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>118+66</td><td>7.8' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>118+63</td><td>28.3' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>120+17</td><td>8.7' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>123+46.6</td><td>7' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>124+10</td><td>6.4' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td>0020</td><td>124+32</td><td>8.1' RT</td><td>WATER</td><td>-</td><td>-</td><td>1</td></tr><tr><td colspan="4">SUBTOTAL</td><td>12</td><td>11</td><td>9</td></tr><tr><td colspan="4">PROJECT TOTAL</td><td>13</td><td>11</td><td>9</td></tr></table>							CATEGORY	STATION	LOCATION	TYPE	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.02 ABANDONING WATER BOXES (EACH)	SUBTOTAL				1	-	-	0020	103+48	1' LT	SAN	1	1	-	0020	105+57	1' LT	SAN	1	1	-	0020	106+49	1' LT	SAN	1	1	-	0020	109+66	1.6' LT	SAN	1	1	-	0020	109+95	37' RT	SAN	1	-	-	0020	112+83	0.3' LT	SAN	1	1	-	0020	112+84	35' RT	SAN	1	1	-	0020	114+75	0.2' LT	SAN	1	1	-	0020	117+80	2.6' LT	SAN	1	1	-	0020	120+80	0.3' LT	SAN	1	1	-	0020	123+77	1' LT	SAN	1	1	-	0020	125+76	5' LT	SAN	1	1	-	0020	107+97	11' RT	WATER	-	-	1	0020	112+53	7.5' RT	WATER	-	-	1	0020	115+05	8' RT	WATER	-	-	1	0020	118+66	7.8' RT	WATER	-	-	1	0020	118+63	28.3' RT	WATER	-	-	1	0020	120+17	8.7' RT	WATER	-	-	1	0020	123+46.6	7' RT	WATER	-	-	1	0020	124+10	6.4' RT	WATER	-	-	1	0020	124+32	8.1' RT	WATER	-	-	1	SUBTOTAL				12	11	9	PROJECT TOTAL				13	11	9																																																																								
		416.0160	602.0410	602.0415	602.0505																																																																																																																																																																																																																																																																																																																																												
		CONCRETE DRIVEWAY 6-INCH (SY)	5-INCH (SF)	6-INCH (SF)	CURB RAMP DETEC TABLE WARNING FIELD YELLOW (SF)																																																																																																																																																																																																																																																																																																																																												
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
100+86 - 129+28	60TH	160	30000	3700	200																																																																																																																																																																																																																																																																																																																																												
PROJECT TOTAL		160	30000	3700	200																																																																																																																																																																																																																																																																																																																																												
				611.2004	611.0530																																																																																																																																																																																																																																																																																																																																												
		STRUCTURE NUMBER		MH 4-FT (EACH)	MH COVERS TYPE J (EACH)	DEPTH (FT)	DISCH ELEV																																																																																																																																																																																																																																																																																																																																										
CATEGORY			STATION	LOCATION	COVER ELEV																																																																																																																																																																																																																																																																																																																																												
0010	1.0	123+75	34.4' LT	678.48	1	1	3.00 675.48																																																																																																																																																																																																																																																																																																																																										
PROJECT TOTAL					1	1																																																																																																																																																																																																																																																																																																																																											
CATEGORY	STATION	LOCATION	TYPE	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.02 ABANDONING WATER BOXES (EACH)																																																																																																																																																																																																																																																																																																																																											
SUBTOTAL				1	-	-																																																																																																																																																																																																																																																																																																																																											
0020	103+48	1' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	105+57	1' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	106+49	1' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	109+66	1.6' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	109+95	37' RT	SAN	1	-	-																																																																																																																																																																																																																																																																																																																																											
0020	112+83	0.3' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	112+84	35' RT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	114+75	0.2' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	117+80	2.6' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	120+80	0.3' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	123+77	1' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	125+76	5' LT	SAN	1	1	-																																																																																																																																																																																																																																																																																																																																											
0020	107+97	11' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	112+53	7.5' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	115+05	8' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	118+66	7.8' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	118+63	28.3' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	120+17	8.7' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	123+46.6	7' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	124+10	6.4' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
0020	124+32	8.1' RT	WATER	-	-	1																																																																																																																																																																																																																																																																																																																																											
SUBTOTAL				12	11	9																																																																																																																																																																																																																																																																																																																																											
PROJECT TOTAL				13	11	9																																																																																																																																																																																																																																																																																																																																											
TOPSOIL, MULCHING, FERTILIZING, & SEEDING <table><tr><th colspan="2"></th><th>624.0100</th><th>625.0100</th><th>627.0200</th><th>629.0210</th><th>630.0140</th><th>630.0200</th></tr><tr><th colspan="2"></th><th>WATER (MGAL)</th><th>TOPSOIL (SY)</th><th>MULCHING (SY)</th><th>FERTILIZER TYPE B (CWT)</th><th>SEEDING MIXTURE NO.40 (LB)</th><th>SEEDING TEMPORARY (LB)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>102+00 - 128+86</td><td>60TH</td><td>13.5</td><td>11,000</td><td>11,000</td><td>6.9</td><td>200</td><td>300</td></tr><tr><td colspan="2">UNDISTRIBUTED (25%)</td><td>3.5</td><td>2,750</td><td>2,750</td><td>1.7</td><td>50</td><td>75</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>17.0</td><td>13,750</td><td>13,750</td><td>8.6</td><td>250</td><td>375</td></tr></table>									624.0100	625.0100	627.0200	629.0210	630.0140	630.0200			WATER (MGAL)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO.40 (LB)	SEEDING TEMPORARY (LB)	STATION - STATION	LOCATION							102+00 - 128+86	60TH	13.5	11,000	11,000	6.9	200	300	UNDISTRIBUTED (25%)		3.5	2,750	2,750	1.7	50	75	PROJECT TOTAL		17.0	13,750	13,750	8.6	250	375	TRAFFIC CONTROL, DRUMS, BARRICADES, WARNING LIGHTS, AND SIGNS <table><tr><th colspan="2"></th><th>643.0100</th><th>643.0420</th><th>643.0705</th><th>643.0900</th><th>643.2000</th><th>643.3000</th></tr><tr><th colspan="2"></th><th>PROJECT (EACH)</th><th>BARRICADES TYPE III (DAYS)</th><th>WARNING LIGHTS TYPE A (DAYS)</th><th>SIGNS (DAYS)</th><th>DETOUR (EACH)</th><th>SIGNS (DAYS)</th></tr><tr><th>STATION - STATION</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>102+00 - 128+05</td><td></td><td>1</td><td>900</td><td>1800</td><td>450</td><td>1</td><td>12060</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>1</td><td>900</td><td>1800</td><td>450</td><td>1</td><td>12060</td></tr></table>									643.0100	643.0420	643.0705	643.0900	643.2000	643.3000			PROJECT (EACH)	BARRICADES TYPE III (DAYS)	WARNING LIGHTS TYPE A (DAYS)	SIGNS (DAYS)	DETOUR (EACH)	SIGNS (DAYS)	STATION - STATION								102+00 - 128+05		1	900	1800	450	1	12060	PROJECT TOTAL		1	900	1800	450	1	12060																																																																																																																																																																																																																																												
		624.0100	625.0100	627.0200	629.0210	630.0140	630.0200																																																																																																																																																																																																																																																																																																																																										
		WATER (MGAL)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO.40 (LB)	SEEDING TEMPORARY (LB)																																																																																																																																																																																																																																																																																																																																										
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
102+00 - 128+86	60TH	13.5	11,000	11,000	6.9	200	300																																																																																																																																																																																																																																																																																																																																										
UNDISTRIBUTED (25%)		3.5	2,750	2,750	1.7	50	75																																																																																																																																																																																																																																																																																																																																										
PROJECT TOTAL		17.0	13,750	13,750	8.6	250	375																																																																																																																																																																																																																																																																																																																																										
		643.0100	643.0420	643.0705	643.0900	643.2000	643.3000																																																																																																																																																																																																																																																																																																																																										
		PROJECT (EACH)	BARRICADES TYPE III (DAYS)	WARNING LIGHTS TYPE A (DAYS)	SIGNS (DAYS)	DETOUR (EACH)	SIGNS (DAYS)																																																																																																																																																																																																																																																																																																																																										
STATION - STATION																																																																																																																																																																																																																																																																																																																																																	
102+00 - 128+05		1	900	1800	450	1	12060																																																																																																																																																																																																																																																																																																																																										
PROJECT TOTAL		1	900	1800	450	1	12060																																																																																																																																																																																																																																																																																																																																										
EROSION CONTROL <table><tr><th colspan="2"></th><th>623.0200</th><th colspan="2">628.1500</th><th colspan="2">628.1905</th><th>628.2004</th><th>628.7555</th><th>SPV.0060</th></tr><tr><th colspan="2"></th><th>DUST CONTROL SURFACE TREATMENT (SY)</th><th>SILT FENCE (LF)</th><th>MAINTENANCE (LF)</th><th>EROSION CONTROL (EACH)</th><th>EROSION EMERGENCY CONTROL (EACH)</th><th>EROSION MAT CLASS I/URBAN TYPE B (SY)</th><th>CULVERT PIPE CHECKS (EACH)</th><th>PERMANENT DITCHCHECK (EACH)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>102+00 - 127+25</td><td>RT</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>37</td><td>-</td></tr><tr><td>102+00 - 128+76</td><td>RT & LT</td><td>11,200</td><td>-</td><td>-</td><td>1</td><td>2</td><td>-</td><td>-</td><td>-</td></tr><tr><td>112+83 - 116+63</td><td>LT</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>380</td><td>-</td><td>-</td></tr><tr><td>124+00 - 124+78</td><td>RT</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>440</td><td>-</td><td>-</td></tr><tr><td>120+63 - 124+00</td><td>LT</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>78</td><td>-</td><td>-</td></tr><tr><td>124+17 - 128+76</td><td>RT</td><td>-</td><td>400</td><td>400</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td></tr><tr><td>128+20</td><td>41' RT</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>1</td></tr><tr><td colspan="2">UNDISTRIBUTED 25%</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>11200</td><td>400</td><td>400</td><td>1</td><td>2</td><td>898</td><td>37</td><td>1</td></tr></table>									623.0200	628.1500		628.1905		628.2004	628.7555	SPV.0060			DUST CONTROL SURFACE TREATMENT (SY)	SILT FENCE (LF)	MAINTENANCE (LF)	EROSION CONTROL (EACH)	EROSION EMERGENCY CONTROL (EACH)	EROSION MAT CLASS I/URBAN TYPE B (SY)	CULVERT PIPE CHECKS (EACH)	PERMANENT DITCHCHECK (EACH)	STATION - STATION	LOCATION									102+00 - 127+25	RT	-	-	-	-	-	-	37	-	102+00 - 128+76	RT & LT	11,200	-	-	1	2	-	-	-	112+83 - 116+63	LT	-	-	-	-	-	380	-	-	124+00 - 124+78	RT	-	-	-	-	-	440	-	-	120+63 - 124+00	LT	-	-	-	-	-	78	-	-	124+17 - 128+76	RT	-	400	400	-	-	-	-	-	128+20	41' RT	-	-	-	-	-	-	-	1	UNDISTRIBUTED 25%										PROJECT TOTAL		11200	400	400	1	2	898	37	1	SIGNING QUANTITIES <table><tr><th>SIGN NO.</th><th>OFFSET DIST. (FT)</th><th>SIGN CODE</th><th>SIGN MESSAGE</th><th>SIGN SIZE (W X H) (IN)</th><th>637.2210 SIGNS REFLECTIVE TYPE II (SF)</th><th>634.0812 POSTS TUBULAR 2X2-INCH X 12-FT (EACH)</th><th>638.2602 REMOVING SIGNS TYPE II (EACH)</th><th>638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)</th><th>638.2102 MOVING SIGNS (EACH)</th><th>638.4000 MOVING SMALL SIGN SUPPORTS (EACH)</th><th>REMARKS/NEW SIGNS LOCATION</th></tr><tr><td>1</td><td>21.0</td><td>R2-1</td><td>SPEED LIMIT 30</td><td>24 X 30</td><td>5.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>2</td><td>21.0</td><td>R2-1</td><td>SPEED LIMIT 30</td><td>24 X 30</td><td>5.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>3</td><td>56.0</td><td>R1-1</td><td>STOP</td><td>30</td><td>5.18</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>4</td><td>38.0</td><td>R1-1</td><td>STOP</td><td>30</td><td>5.18</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>5</td><td>21.0</td><td>W1-7</td><td>TWO DIRECTION ARROW SYMBOL</td><td>48 X 24</td><td>8.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>6</td><td>21.0</td><td>R2-1</td><td>SPEED LIMIT 30</td><td>24 X 30</td><td>5.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>7</td><td>52.0</td><td>R1-1</td><td>STOP</td><td>30</td><td>5.18</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>8</td><td>21.0</td><td>W1-7</td><td>TWO DIRECTION ARROW SYMBOL</td><td>48 X 24</td><td>8.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>9</td><td>21.0</td><td>R2-1</td><td>SPEED LIMIT 30</td><td>24 X 30</td><td>5.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>10</td><td>24.0</td><td>R2-3A</td><td>VILLAGE OF BROWN DEER</td><td>84 X 30</td><td></td><td></td><td>1</td><td></td><td>1</td><td>1</td><td></td></tr><tr><td>11</td><td></td><td></td><td>NIGHT PARKING RESTRICTIONS 1 HOUR LIMIT 2AM - 6AM</td><td></td><td></td><td></td><td>1</td><td></td><td>1</td><td>1</td><td></td></tr><tr><td>12</td><td></td><td></td><td>DRIVE SAFELY IN SCHOOL ZONES</td><td></td><td></td><td></td><td>1</td><td></td><td>1</td><td>1</td><td></td></tr><tr><td>13</td><td>21.0</td><td>R1-1</td><td>STOP</td><td>30</td><td>5.18</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>14</td><td>24.0</td><td>R5-2</td><td>NO TRUCK SYMBOL</td><td>24 X 24</td><td>4.00</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td></tr><tr><td>15</td><td>24.0</td><td>R12-1A</td><td>WEIGHT LIMIT 5 TONS</td><td>24 X 30</td><td>5.00</td><td></td><td>1</td><td></td><td></td><td></td><td>MOUNT ON POST WITH SIGN 14</td></tr><tr><td colspan="2">TOTAL</td><td></td><td></td><td></td><td>65.72</td><td>11</td><td>15</td><td>11</td><td>3</td><td>3</td><td></td></tr></table>							SIGN NO.	OFFSET DIST. (FT)	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W X H) (IN)	637.2210 SIGNS REFLECTIVE TYPE II (SF)	634.0812 POSTS TUBULAR 2X2-INCH X 12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	638.2102 MOVING SIGNS (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	REMARKS/NEW SIGNS LOCATION	1	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1				2	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1				3	56.0	R1-1	STOP	30	5.18	1	1	1				4	38.0	R1-1	STOP	30	5.18	1	1	1				5	21.0	W1-7	TWO DIRECTION ARROW SYMBOL	48 X 24	8.00	1	1	1				6	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1				7	52.0	R1-1	STOP	30	5.18	1	1	1				8	21.0	W1-7	TWO DIRECTION ARROW SYMBOL	48 X 24	8.00	1	1	1				9	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1				10	24.0	R2-3A	VILLAGE OF BROWN DEER	84 X 30			1		1	1		11			NIGHT PARKING RESTRICTIONS 1 HOUR LIMIT 2AM - 6AM				1		1	1		12			DRIVE SAFELY IN SCHOOL ZONES				1		1	1		13	21.0	R1-1	STOP	30	5.18	1	1	1				14	24.0	R5-2	NO TRUCK SYMBOL	24 X 24	4.00	1	1	1				15	24.0	R12-1A	WEIGHT LIMIT 5 TONS	24 X 30	5.00		1				MOUNT ON POST WITH SIGN 14	TOTAL					65.72	11	15	11	3	3	
		623.0200	628.1500		628.1905		628.2004	628.7555	SPV.0060																																																																																																																																																																																																																																																																																																																																								
		DUST CONTROL SURFACE TREATMENT (SY)	SILT FENCE (LF)	MAINTENANCE (LF)	EROSION CONTROL (EACH)	EROSION EMERGENCY CONTROL (EACH)	EROSION MAT CLASS I/URBAN TYPE B (SY)	CULVERT PIPE CHECKS (EACH)	PERMANENT DITCHCHECK (EACH)																																																																																																																																																																																																																																																																																																																																								
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
102+00 - 127+25	RT	-	-	-	-	-	-	37	-																																																																																																																																																																																																																																																																																																																																								
102+00 - 128+76	RT & LT	11,200	-	-	1	2	-	-	-																																																																																																																																																																																																																																																																																																																																								
112+83 - 116+63	LT	-	-	-	-	-	380	-	-																																																																																																																																																																																																																																																																																																																																								
124+00 - 124+78	RT	-	-	-	-	-	440	-	-																																																																																																																																																																																																																																																																																																																																								
120+63 - 124+00	LT	-	-	-	-	-	78	-	-																																																																																																																																																																																																																																																																																																																																								
124+17 - 128+76	RT	-	400	400	-	-	-	-	-																																																																																																																																																																																																																																																																																																																																								
128+20	41' RT	-	-	-	-	-	-	-	1																																																																																																																																																																																																																																																																																																																																								
UNDISTRIBUTED 25%																																																																																																																																																																																																																																																																																																																																																	
PROJECT TOTAL		11200	400	400	1	2	898	37	1																																																																																																																																																																																																																																																																																																																																								
SIGN NO.	OFFSET DIST. (FT)	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W X H) (IN)	637.2210 SIGNS REFLECTIVE TYPE II (SF)	634.0812 POSTS TUBULAR 2X2-INCH X 12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	638.2102 MOVING SIGNS (EACH)	638.4000 MOVING SMALL SIGN SUPPORTS (EACH)	REMARKS/NEW SIGNS LOCATION																																																																																																																																																																																																																																																																																																																																						
1	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
2	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
3	56.0	R1-1	STOP	30	5.18	1	1	1																																																																																																																																																																																																																																																																																																																																									
4	38.0	R1-1	STOP	30	5.18	1	1	1																																																																																																																																																																																																																																																																																																																																									
5	21.0	W1-7	TWO DIRECTION ARROW SYMBOL	48 X 24	8.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
6	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
7	52.0	R1-1	STOP	30	5.18	1	1	1																																																																																																																																																																																																																																																																																																																																									
8	21.0	W1-7	TWO DIRECTION ARROW SYMBOL	48 X 24	8.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
9	21.0	R2-1	SPEED LIMIT 30	24 X 30	5.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
10	24.0	R2-3A	VILLAGE OF BROWN DEER	84 X 30			1		1	1																																																																																																																																																																																																																																																																																																																																							
11			NIGHT PARKING RESTRICTIONS 1 HOUR LIMIT 2AM - 6AM				1		1	1																																																																																																																																																																																																																																																																																																																																							
12			DRIVE SAFELY IN SCHOOL ZONES				1		1	1																																																																																																																																																																																																																																																																																																																																							
13	21.0	R1-1	STOP	30	5.18	1	1	1																																																																																																																																																																																																																																																																																																																																									
14	24.0	R5-2	NO TRUCK SYMBOL	24 X 24	4.00	1	1	1																																																																																																																																																																																																																																																																																																																																									
15	24.0	R12-1A	WEIGHT LIMIT 5 TONS	24 X 30	5.00		1				MOUNT ON POST WITH SIGN 14																																																																																																																																																																																																																																																																																																																																						
TOTAL					65.72	11	15	11	3	3																																																																																																																																																																																																																																																																																																																																							
PAVEMENT MARKING, EPOXY <table><tr><th colspan="2"></th><th colspan="2">646.0106</th><th>647.0566</th><th>647.0766</th></tr><tr><th colspan="2"></th><th>(CENTERLINE) 4-INCH YELLOW (LF)</th><th>(EDGE LINE) 4-INCH WHITE (LF)</th><th>STOP LINE EPOXY 12-INCH (LF)</th><th>CROSSWALK 6-INCH (LF)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th><th></th><th></th></tr><tr><td>102+00 - 128+05</td><td>60TH STREET</td><td></td><td>5,300</td><td>-</td><td>-</td></tr><tr><td>102+00 - 128+05</td><td>60TH STREET</td><td></td><td>-</td><td>4,900</td><td>-</td></tr><tr><td>100+87 - 101+75</td><td>60TH ST & FAIRYCHASMRD</td><td></td><td>-</td><td>-</td><td>410</td></tr><tr><td>112+48 - 112+97</td><td>60TH ST & FAIRYCHASMRD</td><td></td><td>-</td><td>-</td><td>130</td></tr><tr><td>112+83 - 112+98</td><td>60TH ST & GLENBROOK DR</td><td></td><td>-</td><td>12</td><td>-</td></tr><tr><td>114+50 - 114+99</td><td>60TH ST & CLOVERLEAF LN</td><td></td><td>-</td><td>14</td><td>86</td></tr><tr><td>123+32 - 123+95</td><td>60TH ST & DONGES LN</td><td></td><td>-</td><td>14</td><td>130</td></tr><tr><td>128+75 - 129+21</td><td>60TH ST & COUNTY LINE RD</td><td></td><td>-</td><td>-</td><td>150</td></tr><tr><td colspan="2">TOTAL</td><td></td><td>10,200</td><td>40</td><td>906</td></tr></table>									646.0106		647.0566	647.0766			(CENTERLINE) 4-INCH YELLOW (LF)	(EDGE LINE) 4-INCH WHITE (LF)	STOP LINE EPOXY 12-INCH (LF)	CROSSWALK 6-INCH (LF)	STATION - STATION	LOCATION					102+00 - 128+05	60TH STREET		5,300	-	-	102+00 - 128+05	60TH STREET		-	4,900	-	100+87 - 101+75	60TH ST & FAIRYCHASMRD		-	-	410	112+48 - 112+97	60TH ST & FAIRYCHASMRD		-	-	130	112+83 - 112+98	60TH ST & GLENBROOK DR		-	12	-	114+50 - 114+99	60TH ST & CLOVERLEAF LN		-	14	86	123+32 - 123+95	60TH ST & DONGES LN		-	14	130	128+75 - 129+21	60TH ST & COUNTY LINE RD		-	-	150	TOTAL			10,200	40	906	CONSTRUCTION STAKING <table><tr><th colspan="2"></th><th>650.5500</th><th>650.6000</th><th>650.8000</th><th>650.9910</th><th>650.9920</th><th>SPV.0060.03</th><th>SPV.0090.01</th></tr><tr><th colspan="2"></th><th>CURB GUTTER AND CURB & GUTTER (LF)</th><th>PIPE CULVERTS (EACH)</th><th>RESURFACING REFERENCE (LF)</th><th>SUPPLEMENTAL CONTROL (LS)</th><th>SLOPE STAKES (LF)</th><th>CURB RAMPS (EA)</th><th>SIDEWALK (LF)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr><tr><td>102+00 - 128+94</td><td>60TH</td><td>480</td><td>16</td><td>2605</td><td>1</td><td>2605</td><td>20</td><td>5564</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>480</td><td>16</td><td>2605</td><td>1</td><td>2605</td><td>20</td><td>5564</td></tr></table>									650.5500	650.6000	650.8000	650.9910	650.9920	SPV.0060.03	SPV.0090.01			CURB GUTTER AND CURB & GUTTER (LF)	PIPE CULVERTS (EACH)	RESURFACING REFERENCE (LF)	SUPPLEMENTAL CONTROL (LS)	SLOPE STAKES (LF)	CURB RAMPS (EA)	SIDEWALK (LF)	STATION - STATION	LOCATION								102+00 - 128+94	60TH	480	16	2605	1	2605	20	5564	PROJECT TOTAL		480	16	2605	1	2605	20	5564																																																																																																																																																																																																															
		646.0106		647.0566	647.0766																																																																																																																																																																																																																																																																																																																																												
		(CENTERLINE) 4-INCH YELLOW (LF)	(EDGE LINE) 4-INCH WHITE (LF)	STOP LINE EPOXY 12-INCH (LF)	CROSSWALK 6-INCH (LF)																																																																																																																																																																																																																																																																																																																																												
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
102+00 - 128+05	60TH STREET		5,300	-	-																																																																																																																																																																																																																																																																																																																																												
102+00 - 128+05	60TH STREET		-	4,900	-																																																																																																																																																																																																																																																																																																																																												
100+87 - 101+75	60TH ST & FAIRYCHASMRD		-	-	410																																																																																																																																																																																																																																																																																																																																												
112+48 - 112+97	60TH ST & FAIRYCHASMRD		-	-	130																																																																																																																																																																																																																																																																																																																																												
112+83 - 112+98	60TH ST & GLENBROOK DR		-	12	-																																																																																																																																																																																																																																																																																																																																												
114+50 - 114+99	60TH ST & CLOVERLEAF LN		-	14	86																																																																																																																																																																																																																																																																																																																																												
123+32 - 123+95	60TH ST & DONGES LN		-	14	130																																																																																																																																																																																																																																																																																																																																												
128+75 - 129+21	60TH ST & COUNTY LINE RD		-	-	150																																																																																																																																																																																																																																																																																																																																												
TOTAL			10,200	40	906																																																																																																																																																																																																																																																																																																																																												
		650.5500	650.6000	650.8000	650.9910	650.9920	SPV.0060.03	SPV.0090.01																																																																																																																																																																																																																																																																																																																																									
		CURB GUTTER AND CURB & GUTTER (LF)	PIPE CULVERTS (EACH)	RESURFACING REFERENCE (LF)	SUPPLEMENTAL CONTROL (LS)	SLOPE STAKES (LF)	CURB RAMPS (EA)	SIDEWALK (LF)																																																																																																																																																																																																																																																																																																																																									
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
102+00 - 128+94	60TH	480	16	2605	1	2605	20	5564																																																																																																																																																																																																																																																																																																																																									
PROJECT TOTAL		480	16	2605	1	2605	20	5564																																																																																																																																																																																																																																																																																																																																									
SAWMG EXISTING PAVEMENT <table><tr><th colspan="2"></th><th>690.0150</th><th>690.0250</th></tr><tr><th colspan="2"></th><th>Sawing Asphalt (LF)</th><th>Sawing Concrete (LF)</th></tr><tr><th>STATION - STATION</th><th>LOCATION</th><th></th><th></th></tr><tr><td>100+00 - 129+39</td><td>60TH</td><td>520</td><td>150</td></tr><tr><td colspan="2">PROJECT TOTAL</td><td>520</td><td>150</td></tr></table>									690.0150	690.0250			Sawing Asphalt (LF)	Sawing Concrete (LF)	STATION - STATION	LOCATION			100+00 - 129+39	60TH	520	150	PROJECT TOTAL		520	150																																																																																																																																																																																																																																																																																																																							
		690.0150	690.0250																																																																																																																																																																																																																																																																																																																																														
		Sawing Asphalt (LF)	Sawing Concrete (LF)																																																																																																																																																																																																																																																																																																																																														
STATION - STATION	LOCATION																																																																																																																																																																																																																																																																																																																																																
100+00 - 129+39	60TH	520	150																																																																																																																																																																																																																																																																																																																																														
PROJECT TOTAL		520	150																																																																																																																																																																																																																																																																																																																																														
PROJECT NO:2595-00-70			HWY:NORTH 60TH STREET			COUNTY:MILWAUKEE			MISCELLANEOUS QUANTITIES			SHEET		E																																																																																																																																																																																																																																																																																																																																			

SCHEDULE OF LANDS & INTERESTS REQUIRED						
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED (ACRES)			
			NEW	EXISTING	TOTAL	PLE TLE
1	TRINITY COMMUNITY CHURCH OF BROWN DEER	FEE	0.075	0.000	0.075	-----
2	RACHEL E. OLIVER	FEE	0.090	0.073	0.163	-----
3	JOURNER XIONG AND BA XIONG	FEE	0.092	0.075	0.167	-----
4	THOMAS E. SCHULTZ	FEE	0.092	0.075	0.167	-----
5	JAMES W. LAYMAN	FEE	0.075	0.092	0.167	-----



TRANSPORTATION PROJECT PLAT NO: 2595-00-00 - 4.01

PART OF THE NW 1/4 OF THE NW 1/4 OF SECTION 2 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 3, ALL IN TOWNSHIP 8 NORTH, RANGE 21 EAST, VILLAGE OF BROWN DEER, MILWAUKEE COUNTY, WISCONSIN.

RELOCATION ORDER NORTH 60TH STREET, WEST FAIRY CHASM ROAD TO WEST COUNTY LINE ROAD, MILWAUKEE COUNTY

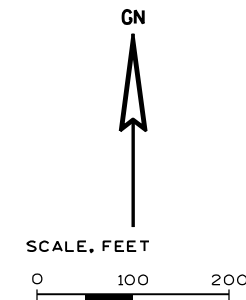
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE VILLAGE OF BROWN DEER DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 61.34(3), 61.34(3m) AND 61.36 WISCONSIN STATUTES, THE VILLAGE OF BROWN DEER HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE OF BROWN DEER FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE OF BROWN DEER, PURSUANT TO THE PROVISIONS OF SECTION 61.34(3) AND 61.36, WISCONSIN STATUTES.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MILWAUKEE COUNTY, WISCONSIN AT 11:08 AM ON 05/09/2014 AS DOCUMENT #10957390, Reel: 8374.

JOHN LA FAVE
SIGNATURE OF REGISTER OF DEEDS



CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SECTION LINE	S/L
CORNER	COR	SOUTH	S
DOCUMENT	DOC.	STATION	STA
EASEMENT	EASE	SUBDIVISION	SUBD
EAST (ING)	E	TRAVERSE POINT	TP
IMAGE	I.	VOLUME	V.
MONUMENT	MON	WEST	W
NORTH (ING)	N		
NOT AVAILABLE	N/A	LONG CHORD	LCH
PAGE	P.	LONG CHORD BEARING	LCB
PROPERTY LINE	PL	RADIUS	R
RECORDED AS	(100)	DEGREE OF CURVE	D
REEL	R.	CENTRAL ANGLE OR DELTA	DELTA
REFERENCE LINE	R/L	LENGTH OF CURVE	L
RELEASE OF RIGHTS	ROR	TANGENT	TAN
RIGHT-OF-WAY	R/W		

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	IP (1" UNLESS NOTED)	PROPOSED R/W LINE	—
R/W MONUMENT	• (4SET)	EXISTING H.E. LINE	—
R/W STANDARD	Δ (4SET)	PROPERTY LINE	—
SIGN	ISIGN	LOT & TIE LINES	—
SECTION CORNER MONUMENT	• (4SET)	SLOPE INTERCEPTS	—
SECTION CORNER SYMBOL	• (4SET)	CORPORATE LIMITS	—
FEE (HATCH VARIES)	—	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	—
TEMPORARY LIMITED EASEMENT	—	NO ACCESS (BY ACQUISITION)	—
PERMANENT LIMITED EASEMENT	—	NO ACCESS (BY STATUTORY AUTHORITY)	—
R/W BOUNDARY POINT	• (4SET)	SECTION LINE	—
PARCEL NUMBER	102	QUARTER LINE	—
SIGN NUMBER (OFF PREMISE)	21-1	SIXTEENTH LINE	—
BUILDING	—	EXISTING CENTERLINE	—
		PROPOSED REFERENCE LINE	—
		PARALLEL OFFSET	—

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), SOUTH ZONE, NORTH AMERICAN DATUM OF 1927 (NAD 27). THE COORDINATES AND DISTANCES SHOWN ARE GROUND VALUES AND MAY BE CONVERTED TO GRID VALUES USING THE COMBINATION FACTOR 0.99990838.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

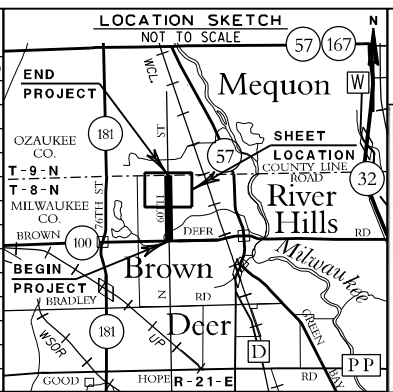
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

BASIS OF EXISTING EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS NOTED IN THE TABLE ABOVE AND ALSO VILLAGE RESOLUTION NO. 63-32, RECORDED AS R. 168, I. 1382, DOC. 4072247 AND VILLAGE RESOLUTION NO. 88-44, RECORDED AS R. 2296, I. 406, DOC. 6245800, WHICH ACCEPT RESERVATIONS FOR STREET, HIGHWAY, ALLEY, ROAD AND OTHER PUBLIC PURPOSES AS NOTED IN PREVIOUSLY RECORDED DOCUMENTS, INCLUDING, BUT NOT LIMITED TO, THE PLAT OF CLOVERFIELD ESTATES NORTH SUBDIVISION.

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

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
RW100-RW101	N00°38'27"W	268.87'
RW101-RW102	N05°45'26"E	541.63'
RW102-RW103	N10°37'26"E	58.94'
RW103-RW104	N05°45'26"E	128.38'
RW104-RW105	N01°02'19"E	367.45'
RW106-RW107	S01°02'19"W	340.91'
RW107-RW108	S05°45'26"W	726.84'
RW108-RW109	S00°38'27"E	47.75'
RW109-RW110	N89°00'52"E	5.00'
RW110-RW111	S00°38'27"E	213.92'

HIGHWAY	BASIS OF EXISTING R/W	YEAR	WIDTH
NORTH 60TH STREET	CLOVERLEAF ESTATES NORTH	1962	60'W 1/2)
	CLOVERLEAF ESTATES EAST	1962	60'E 1/2)
	CSM 476	1965	55'E 1/2)
	CSM 1036	1969	55'W 1/2)
	CSM 3304	1978	55'E 1/2)
	CSM 5874	1993	60'E 1/2)
WEST DONGES LANE	QUIT CLAIM DEED: V. 3971, P. 592, DOC. 3765663	1959	45'E 1/2)
	PLATS OF SURVEY NO. 47-568 & NO. 55-2155	1947 1955	24.75' (W 1/2)
	CLOVERLEAF ESTATES NORTH	1962	30'W 1/2)
WEST COUNTY LINE ROAD	QUIT CLAIM DEED: R. 431, I. 1035, DOC. 4406592	1968	VARIES (N 1/2)
	QUIT CLAIM DEED: R. 421, I. 277, DOC. 4394616	1968	VARIES (S 1/2)
	CSM 3304	1978	60'W 1/2)
	MILWAUKEE CO. GIS CADASTRAL DATABASE (NO ROAD RECORDS WERE FOUND)	N/A	24.75' (S 1/2)



gai consultants
transforming ideas into reality

W175 N11081 STONEWOOD DR, SUITE 103
GERMANTOWN, WI 53022
262.250.8000 • Fax 262.250.8011

I, TERRANCE E. PISAREK, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF BROWN DEER, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2595-00-00-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

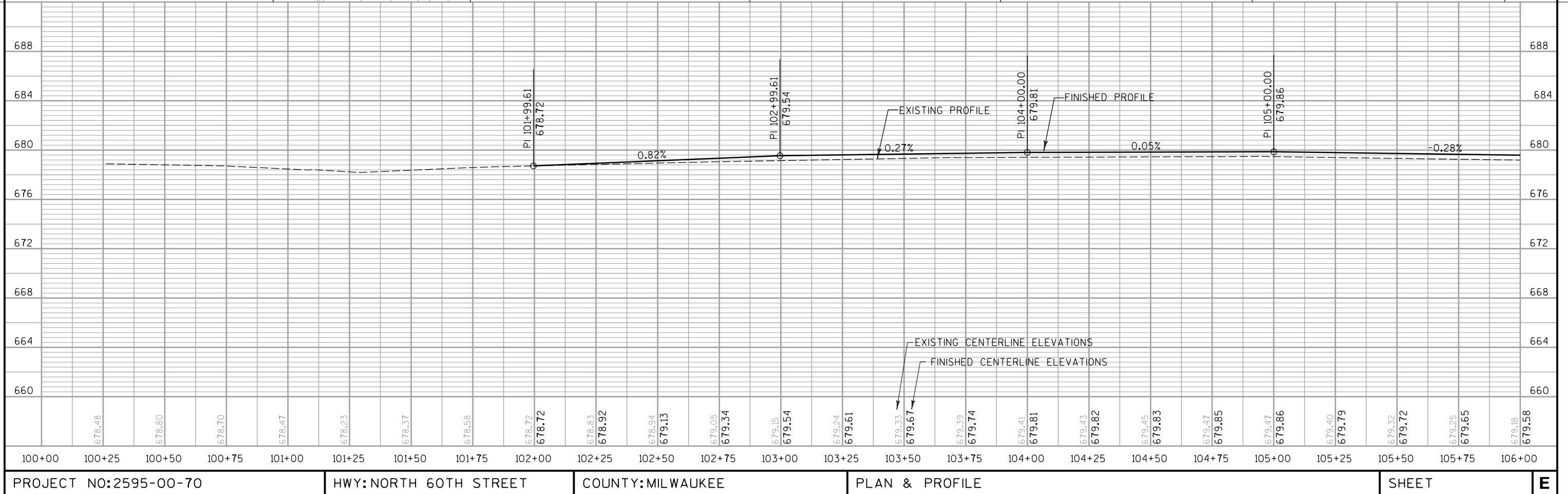
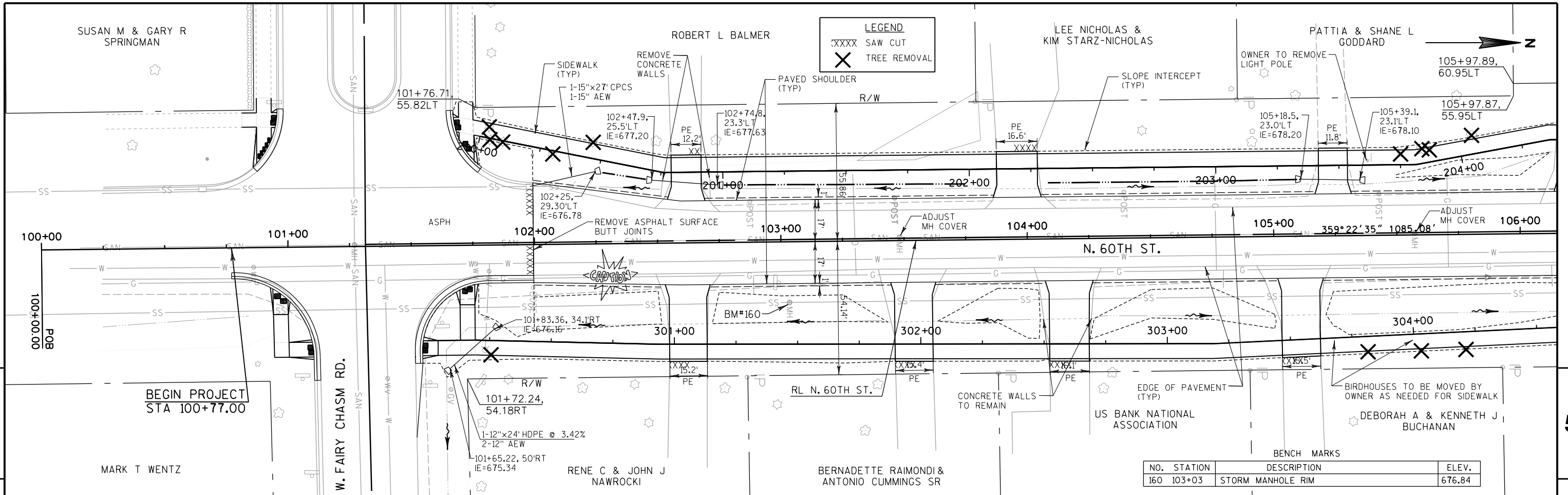
DATE 5/5/2014

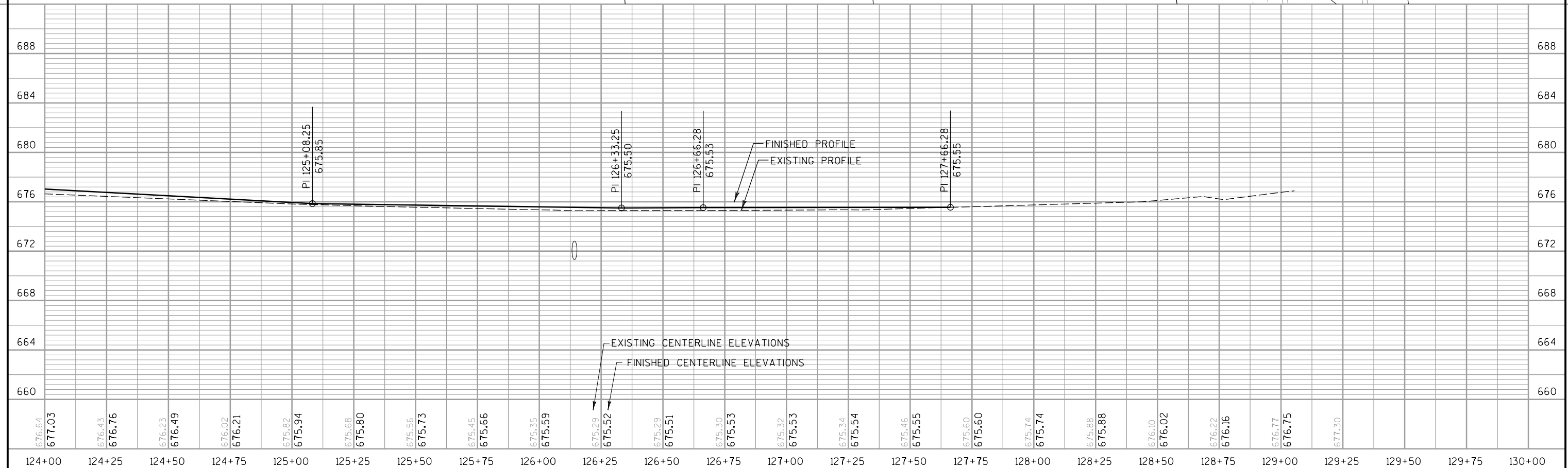
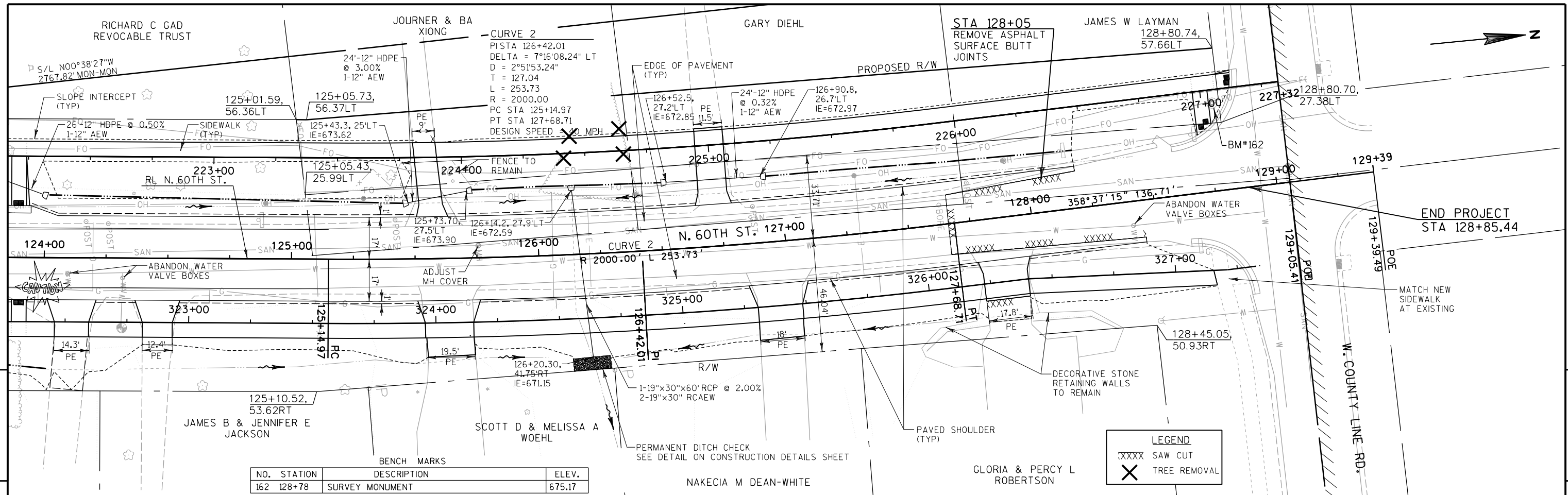
TERRANCE E. PISAREK S-1930

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF BROWN DEER.

DATE May 7, 2014

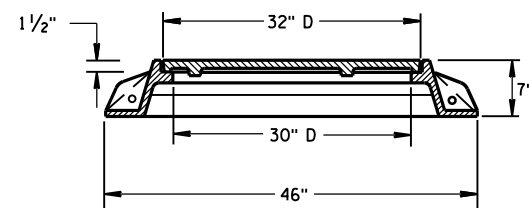
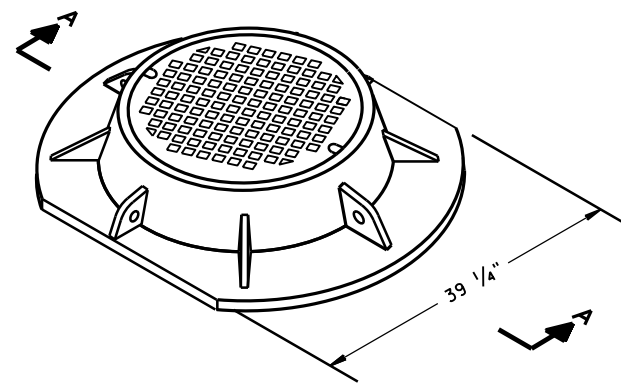
CARL KRUEGER, VILLAGE PRESIDENT



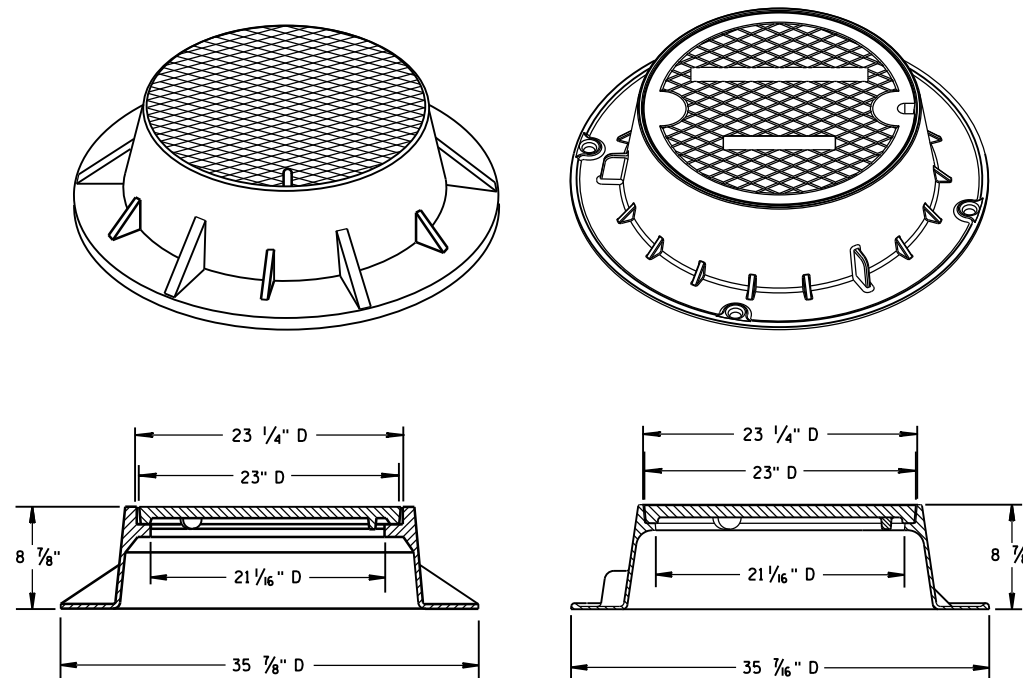


Standard Detail Drawing List

08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING

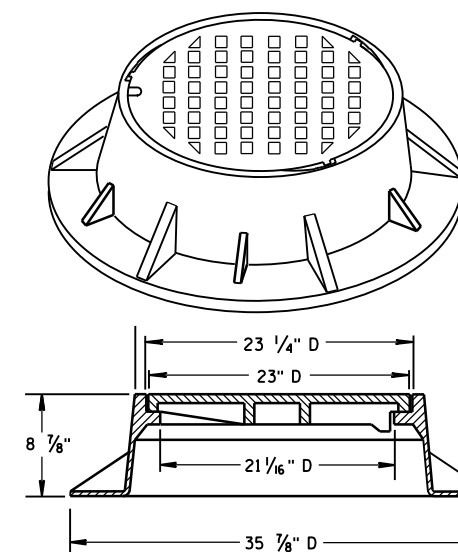
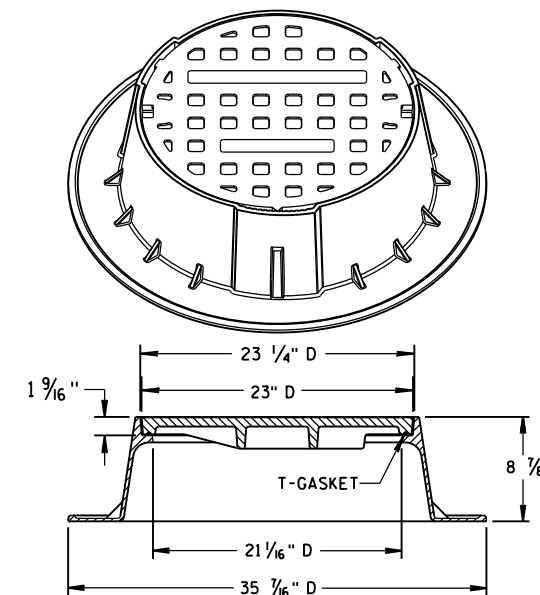


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

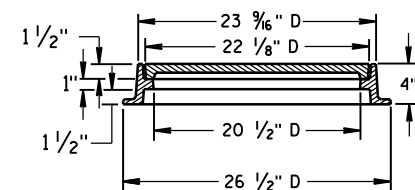
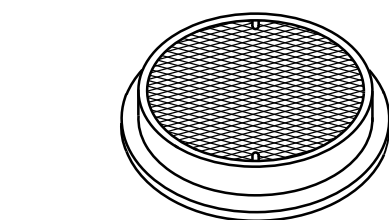


TYPE "J" SPECIAL

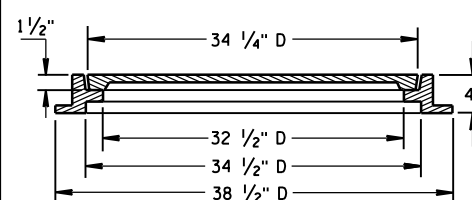
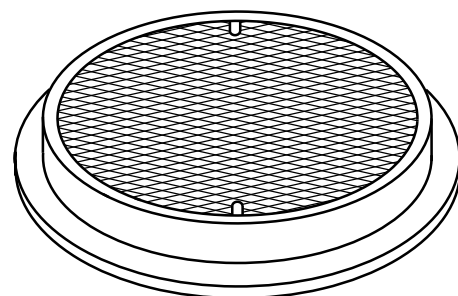
TYPE "B" NON-ROCKING SELF-SEAL LID

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

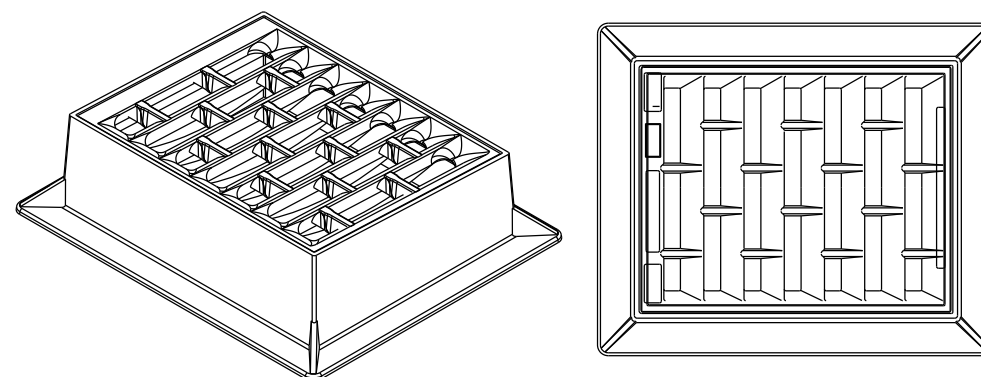
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

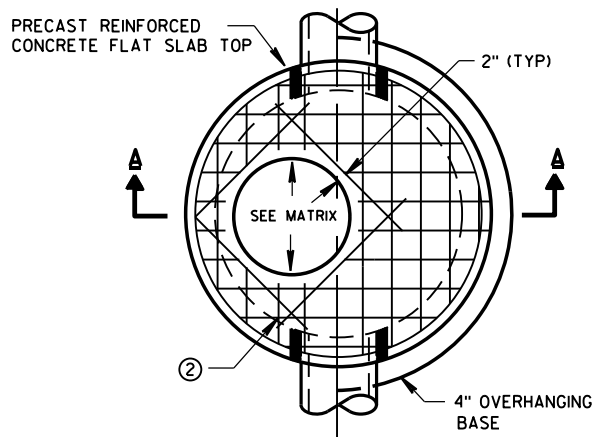
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M

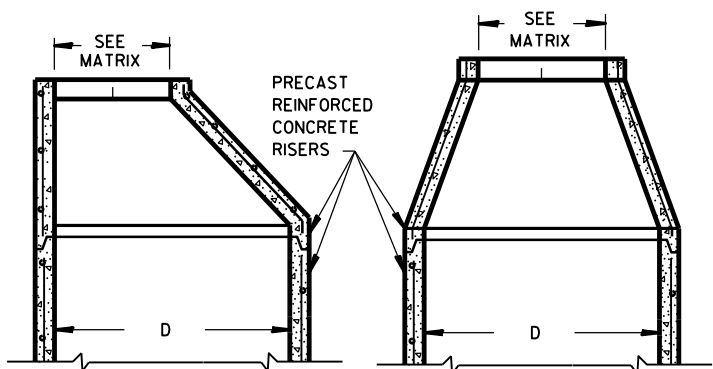
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

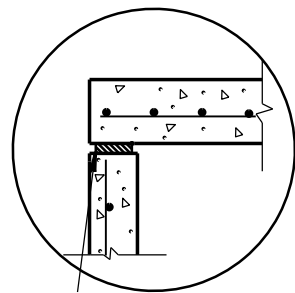


PLAN VIEW CIRCULAR OPENING

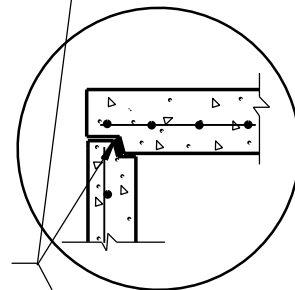


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

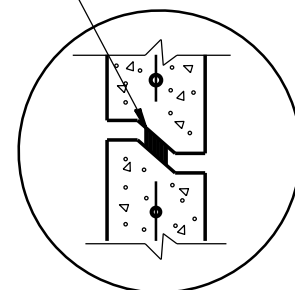
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



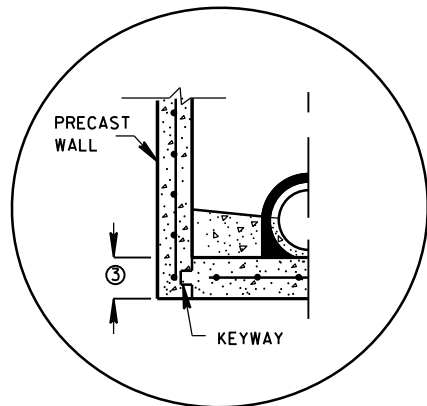
TOP WITH TONGUE AND GROOVE JOINT



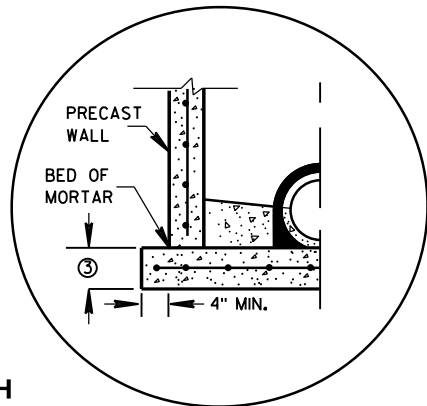
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

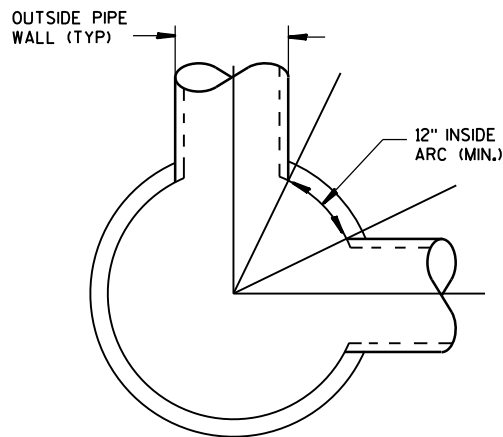


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

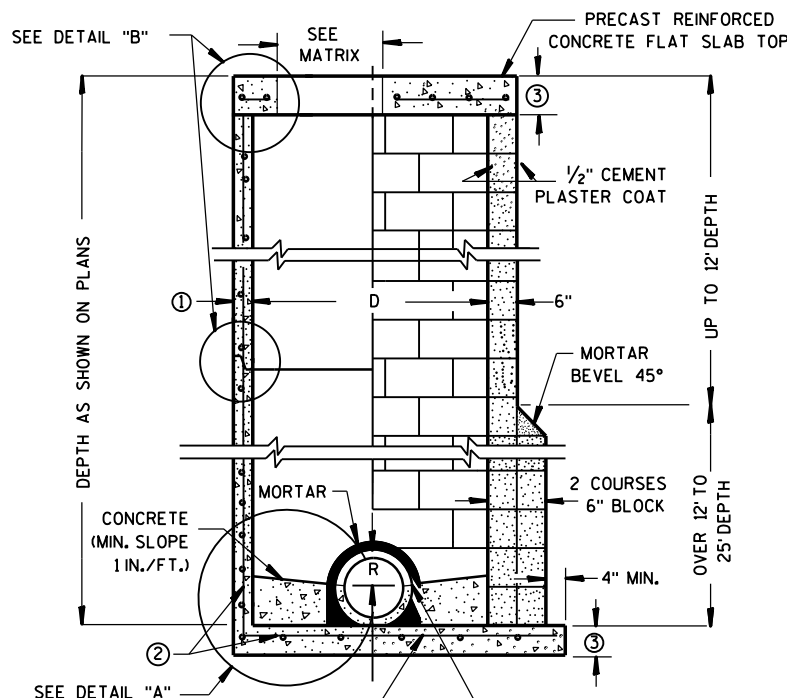


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

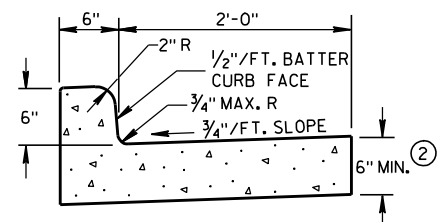
PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

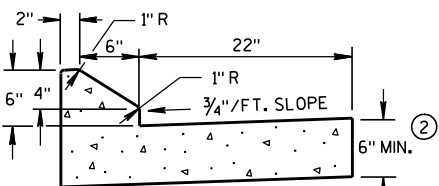
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

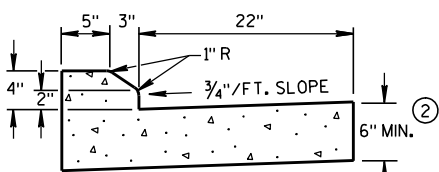
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



TYPES A & D ①



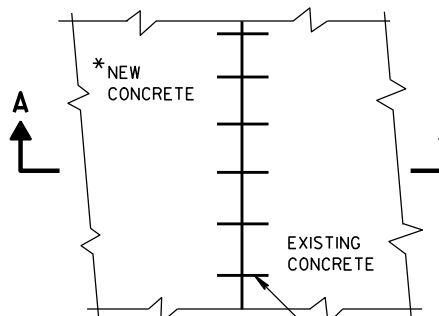
6" SLOPED CURB TYPES G & J ①



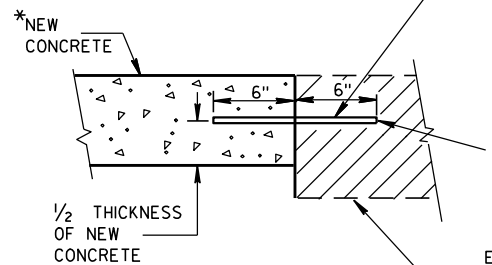
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



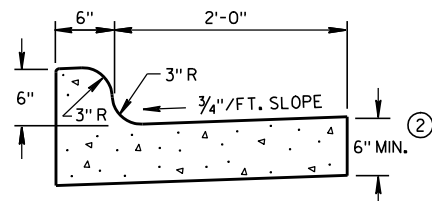
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

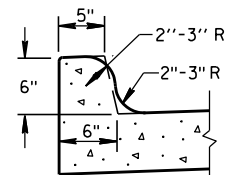
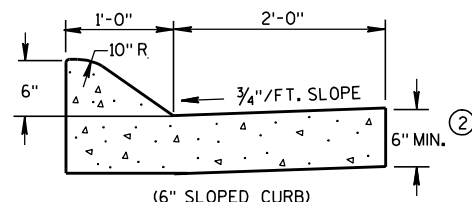
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

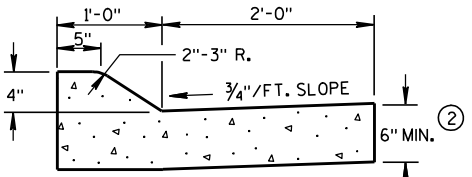
EXISTING
CONCRETE



TYPES K & L ①

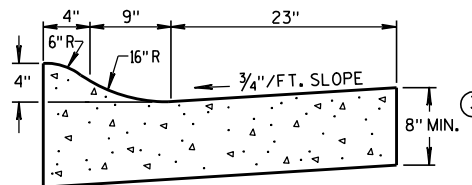
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)



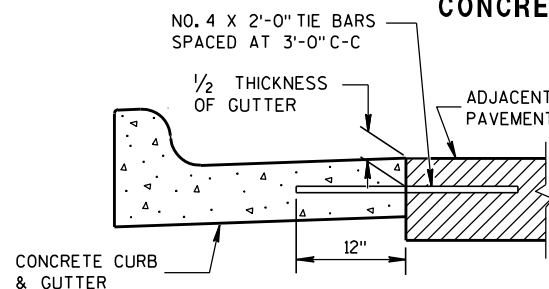
(4" SLOPED CURB)

TYPES A & D ①

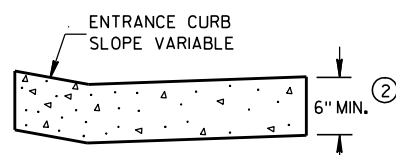


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

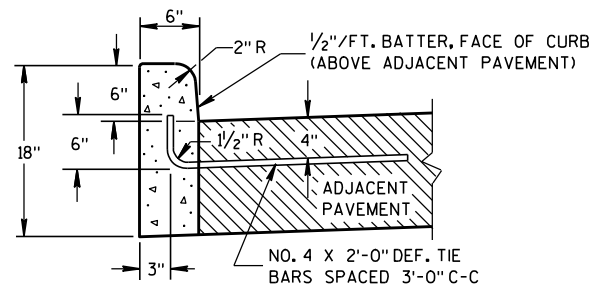


TYPICAL TIE BAR LOCATION ①



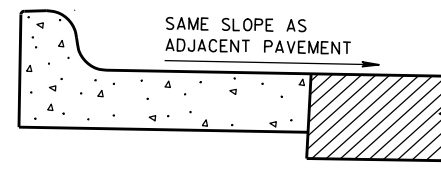
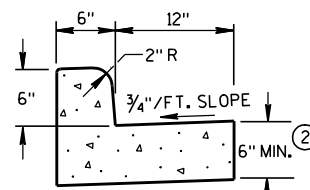
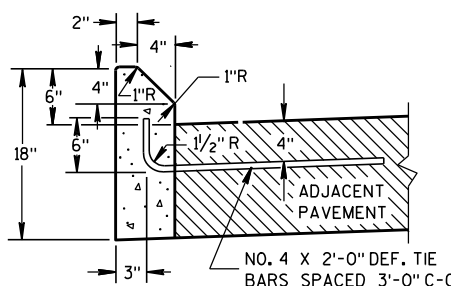
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

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.

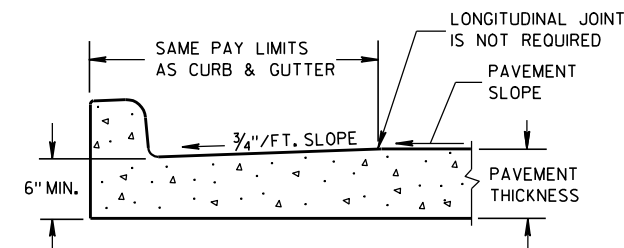
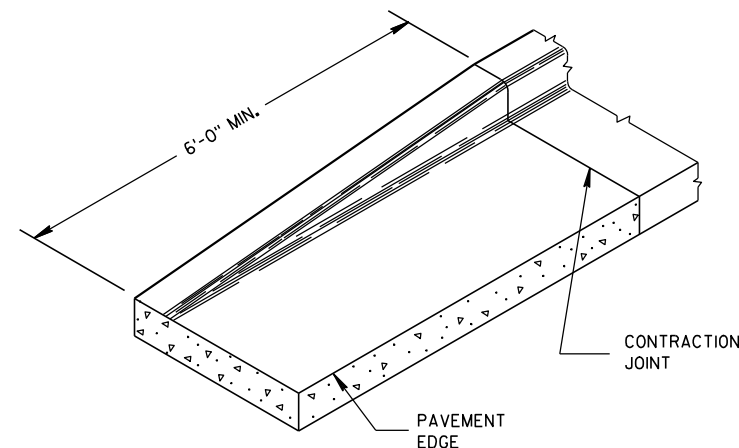
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

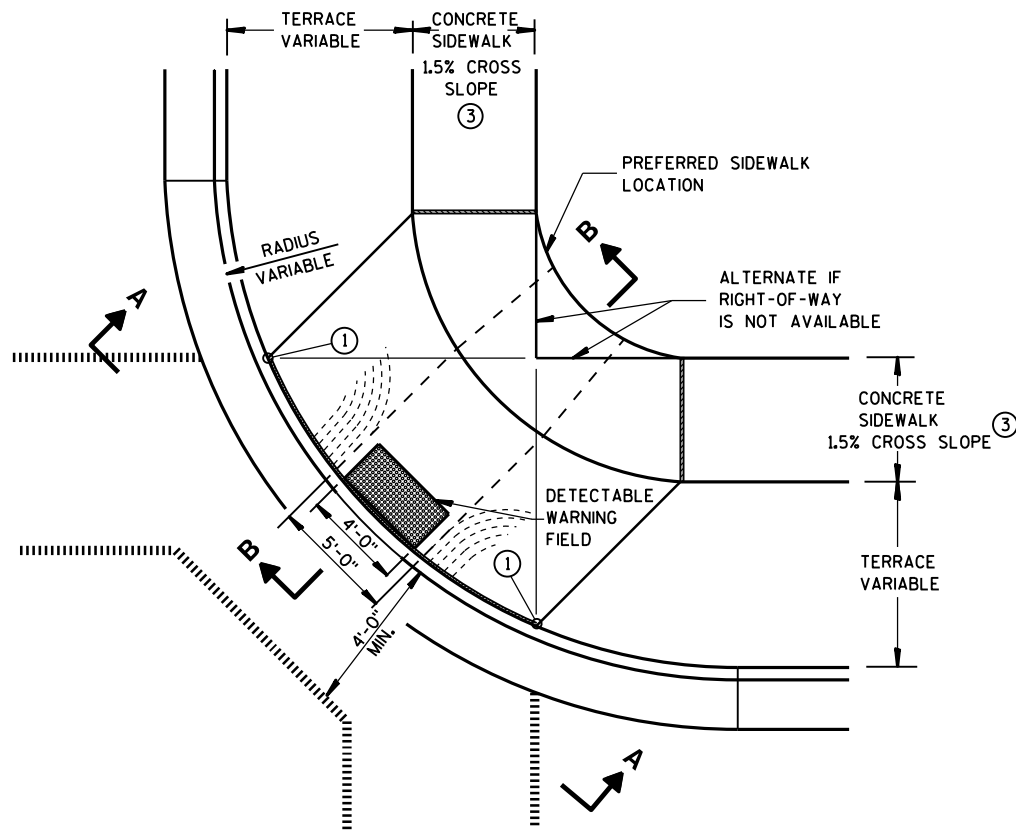
DATE

FHWA

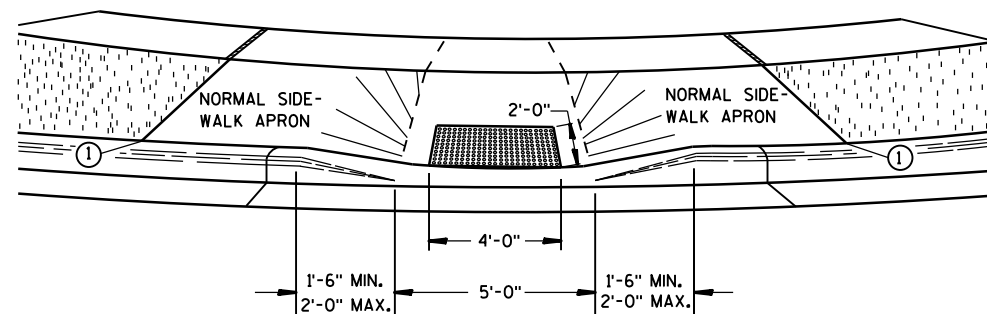
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

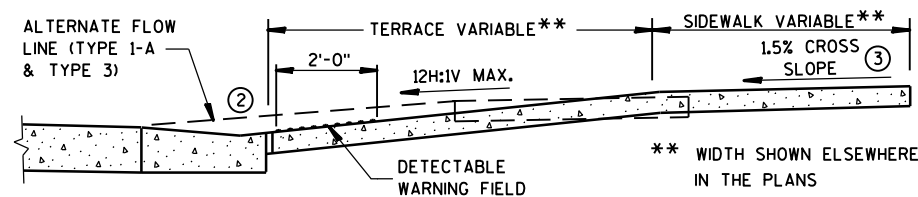
ENGINEER



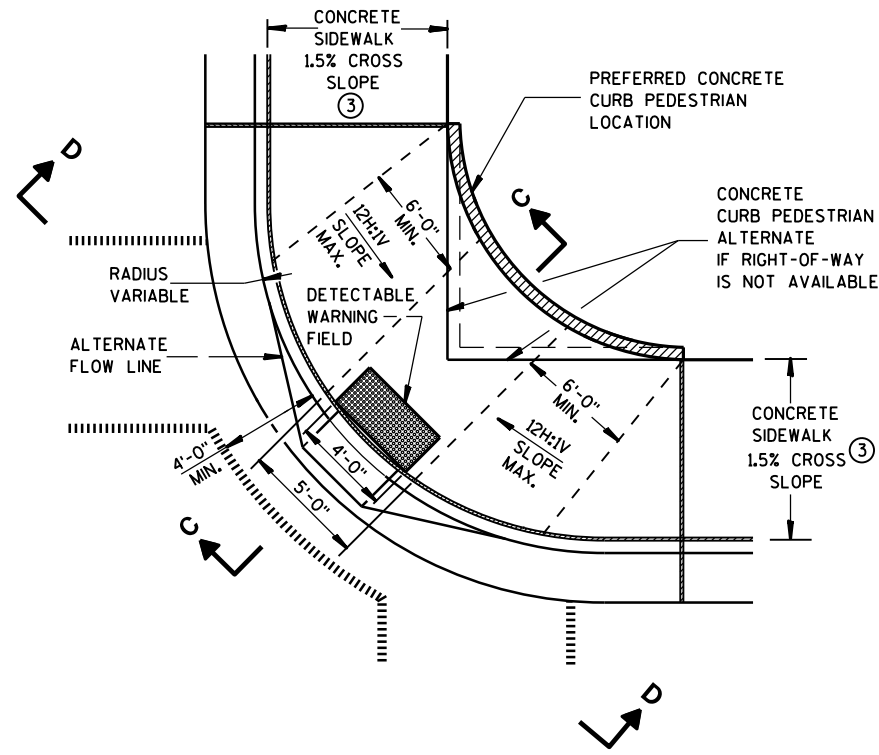
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



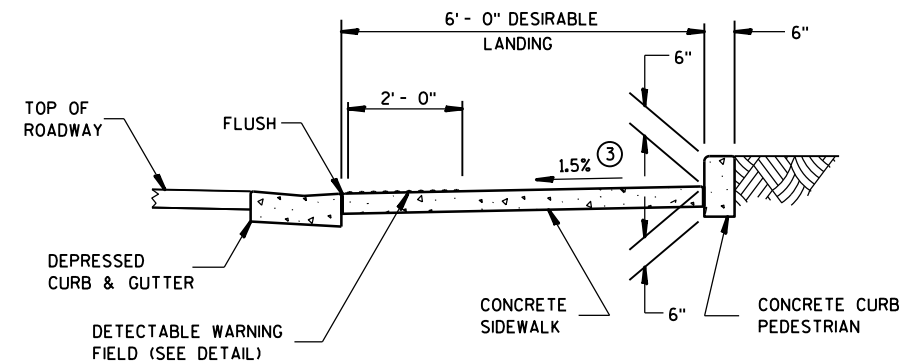
VIEW A-A



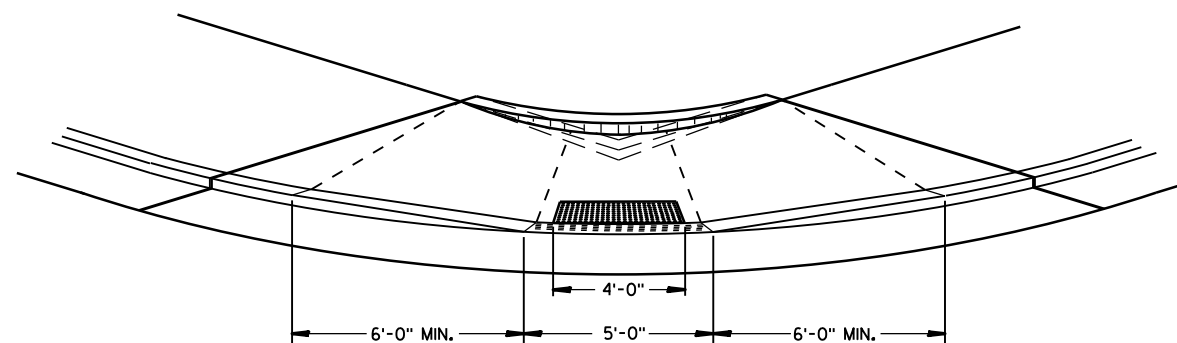
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

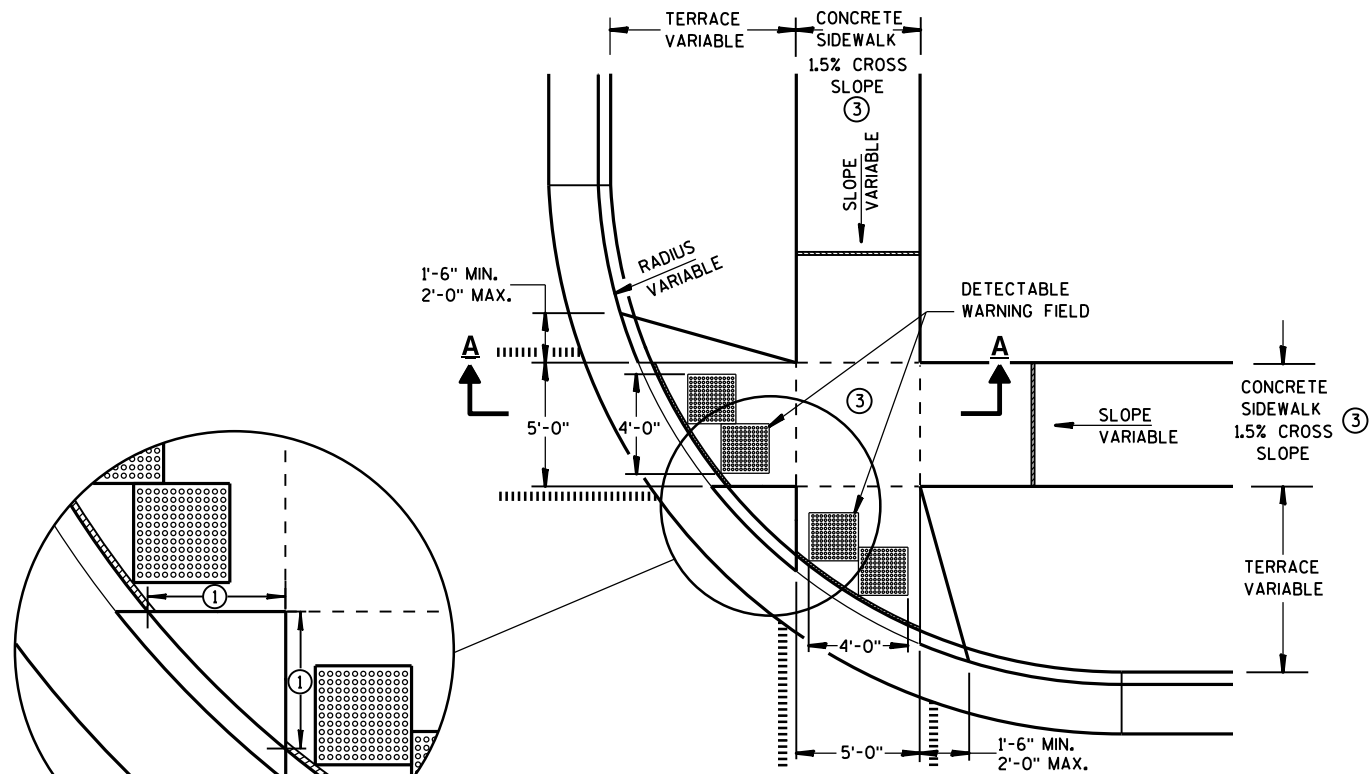
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

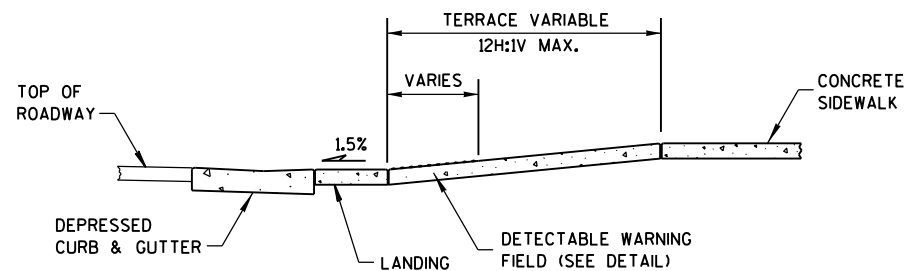
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

**CURB RAMPS
TYPES 1 AND 1-A**

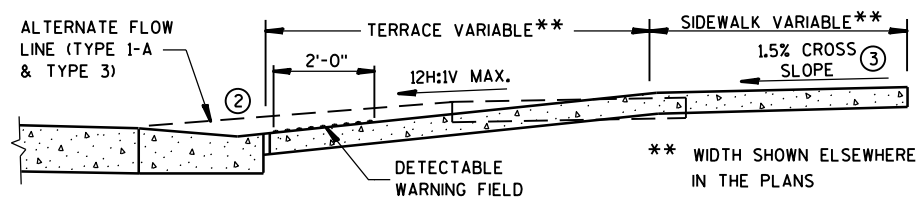
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

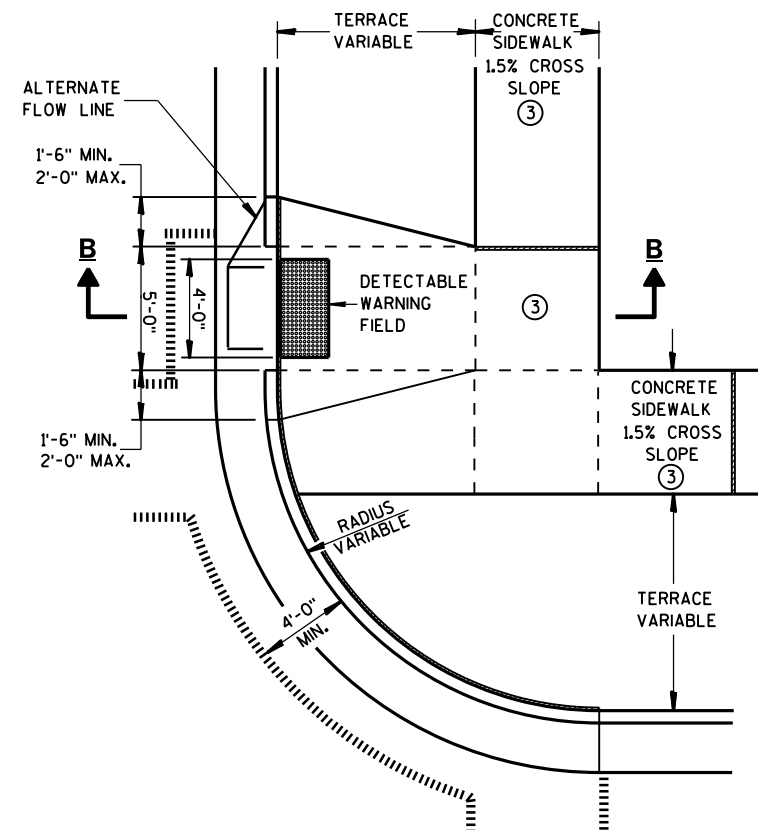
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



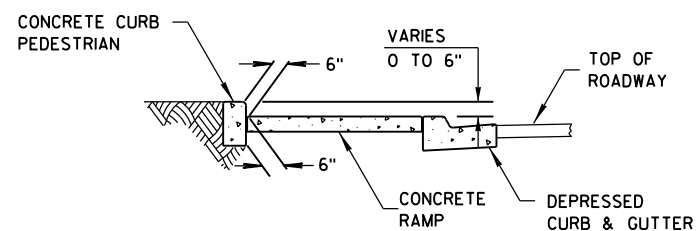
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

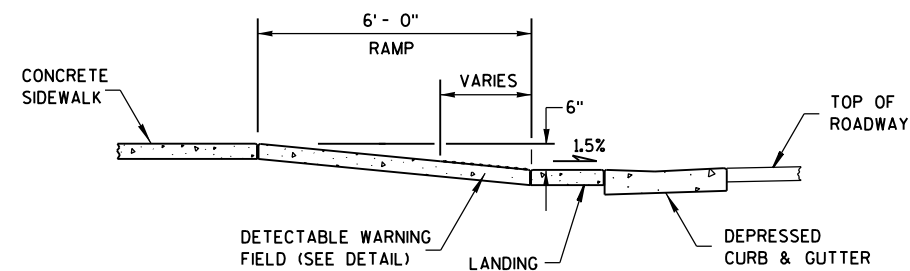
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



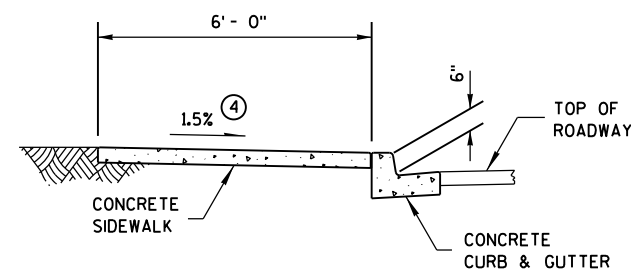
SECTION C-C FOR TYPE 4A



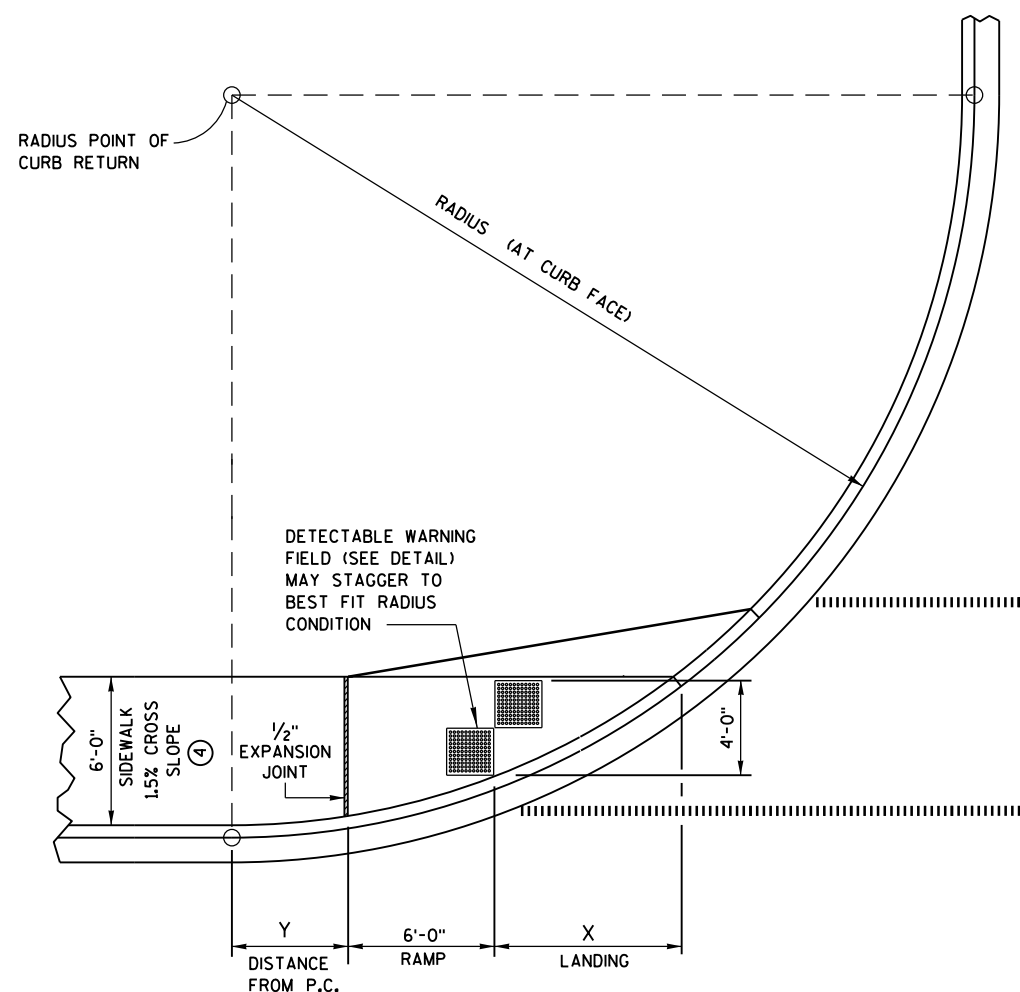
SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 ³ / ₄ "	2'-7 ¹ / ₄ "
30 FEET	7'-11 ³ / ₄ "	4'-8 ¹ / ₄ "
40 FEET	9'-5 ¹ / ₄ "	6'-5"
50 FEET	10'-8 ³ / ₄ "	7'-11 ¹ / ₄ "
60 FEET	11'-10 ¹ / ₄ "	9'-3 ¹ / ₂ "

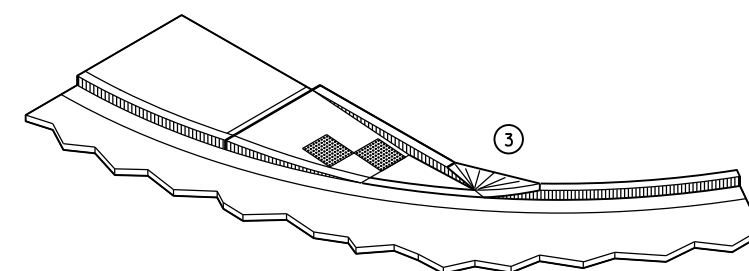
INTERMEDIATE RADII CAN BE INTERPOLATED



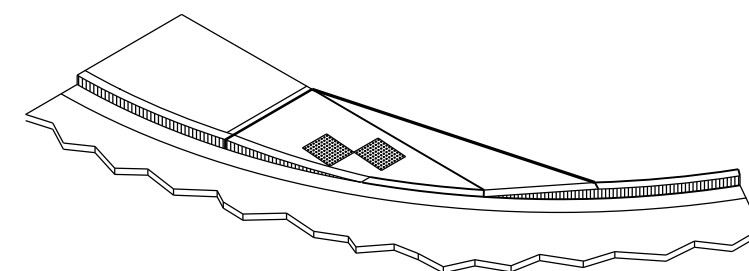
SECTION A-A FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A



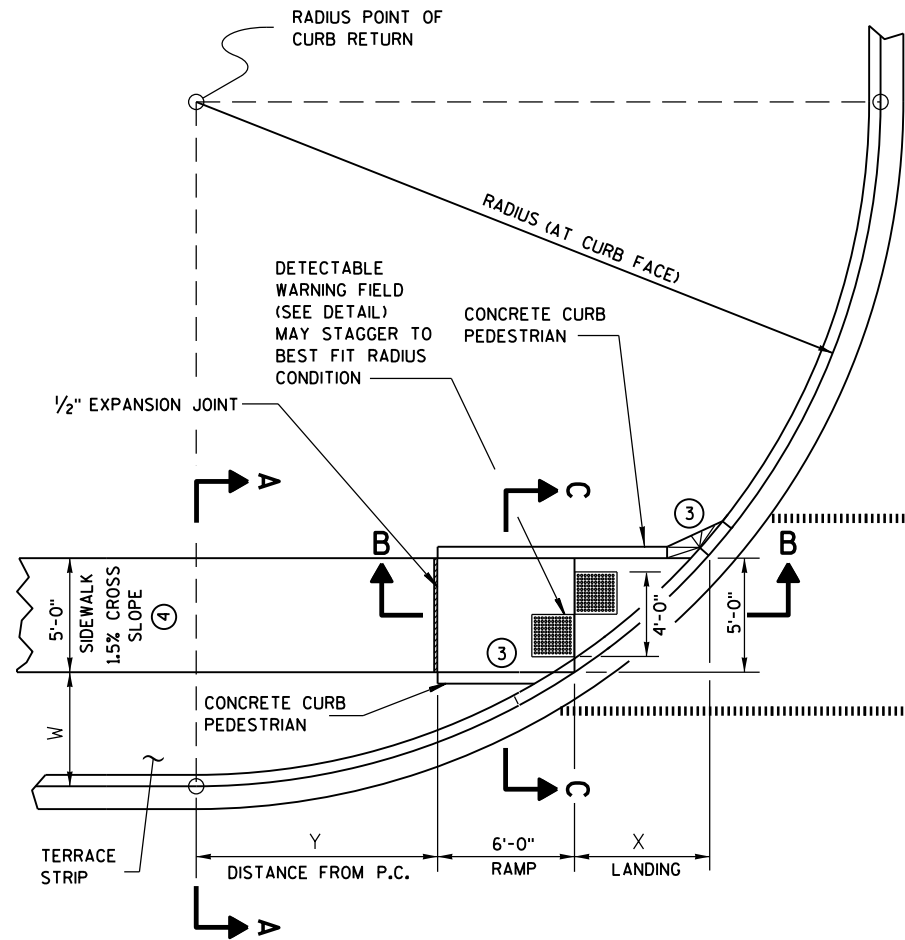
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

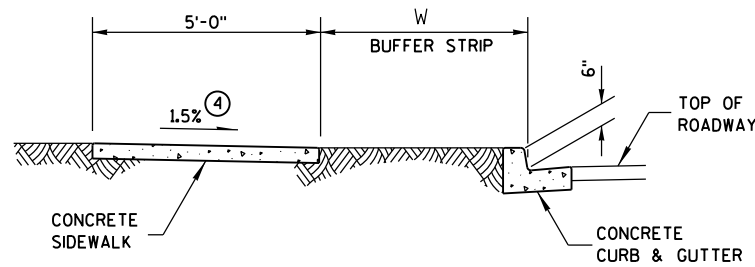
- | | |
|---|------------------------------------|
| | 1/2" EXPANSION JOINT-SIDEWALK |
|  | CONTRACTION JOINT FIELD LOCATED |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS TYPES 4A AND 4A1

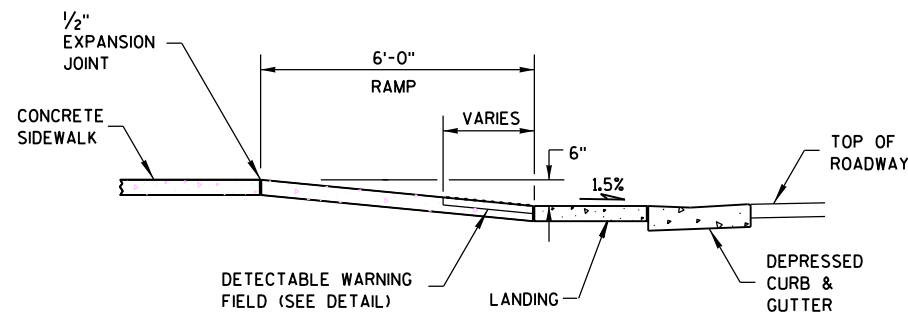
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B

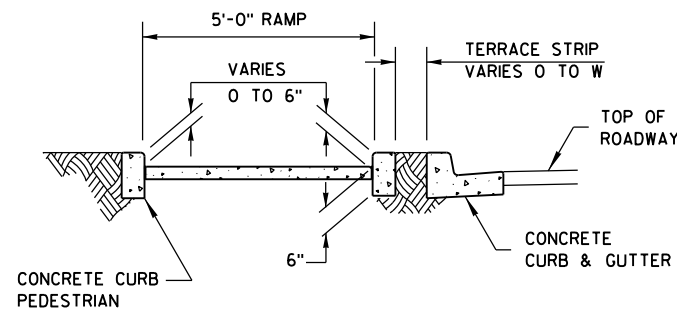


SECTION B-B FOR TYPE 4B

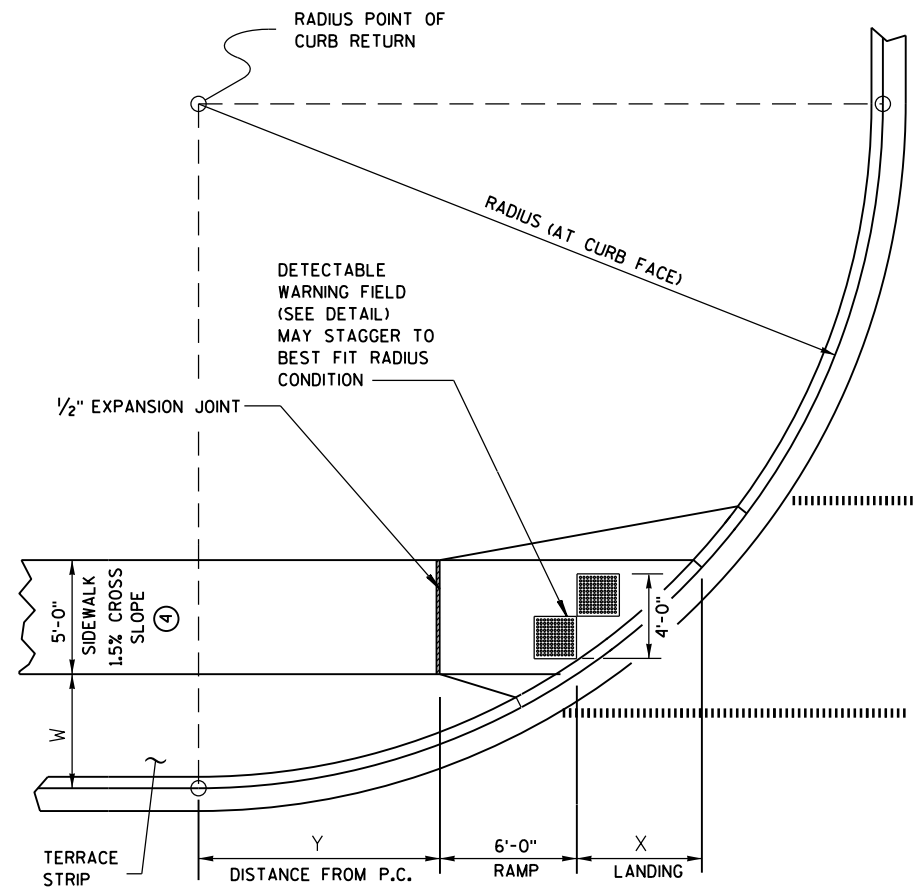
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**

GENERAL NOTES

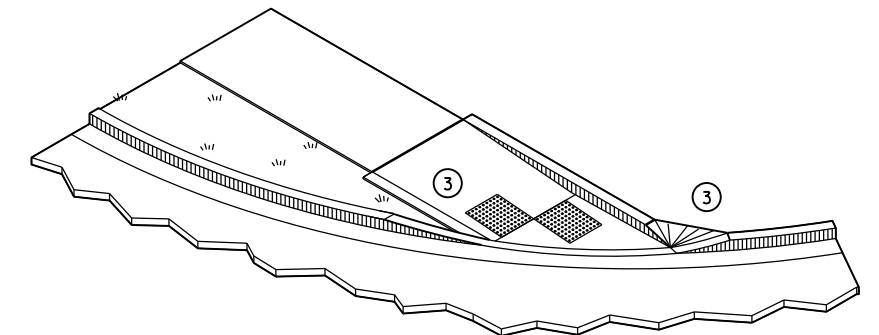
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

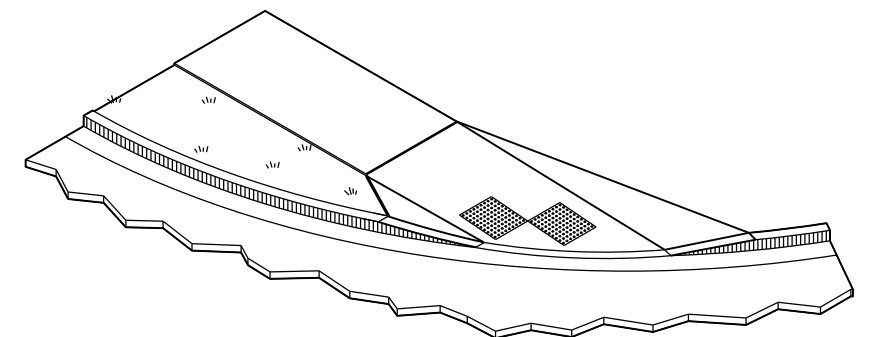
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



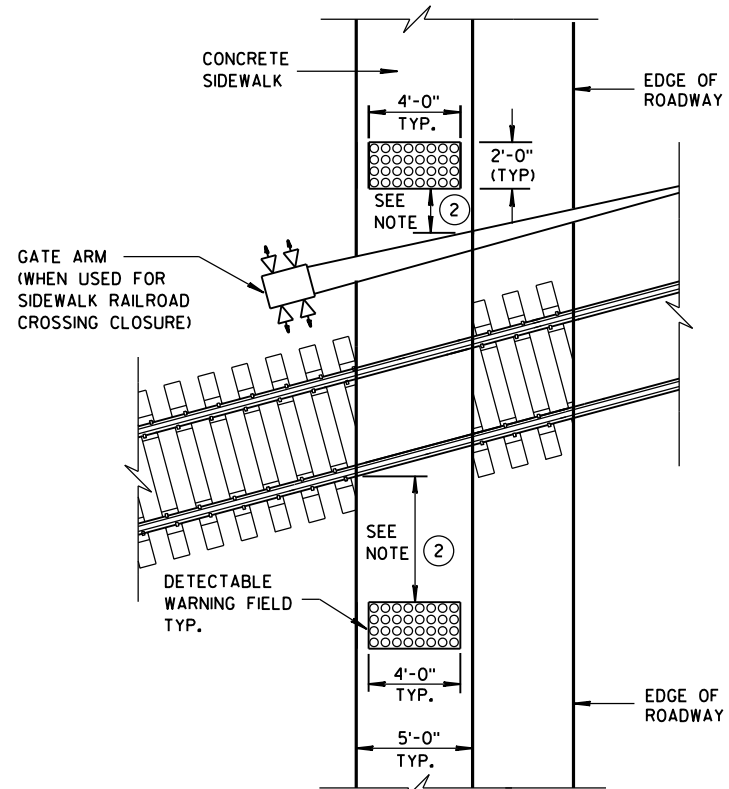
ISOMETRIC VIEW FOR TYPE 4B



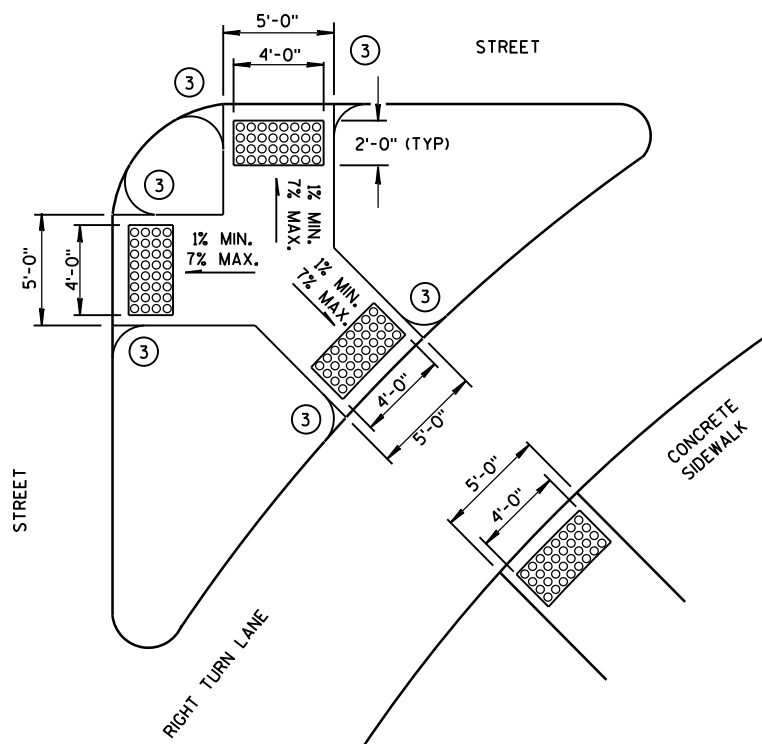
ISOMETRIC VIEW FOR TYPE 4B1

**CURB RAMPS
TYPE 4B AND 4B1**

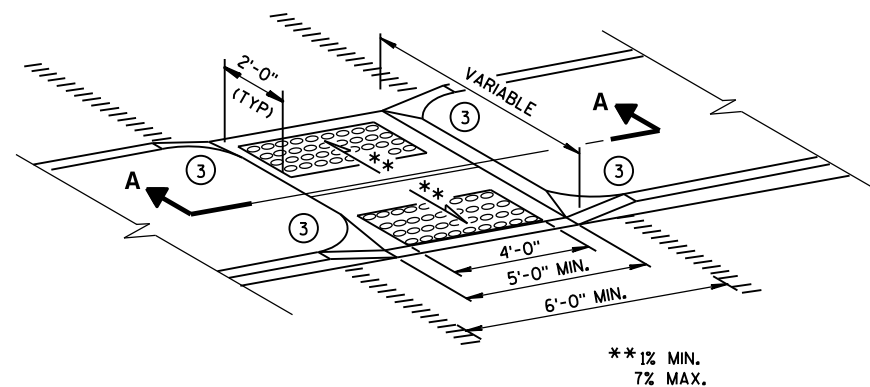
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



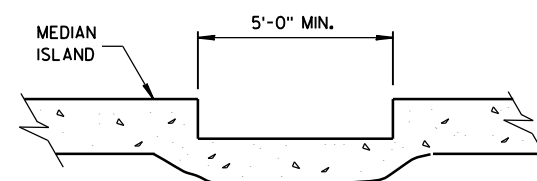
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



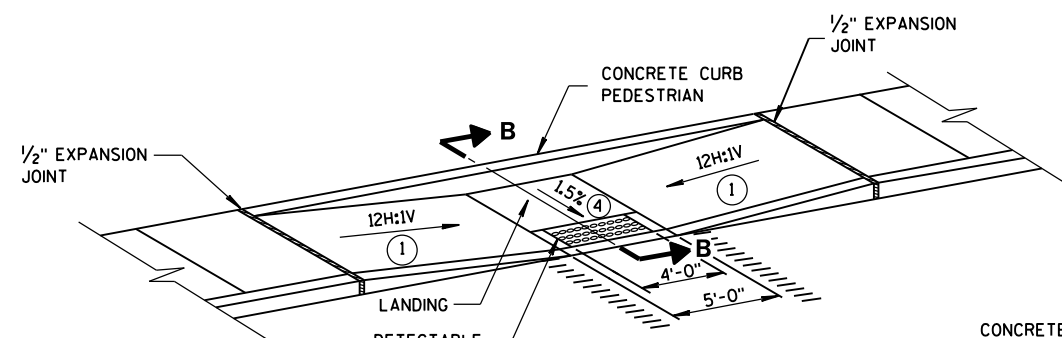
TYPE 6
DETECTABLE WARNING AT ISLANDS



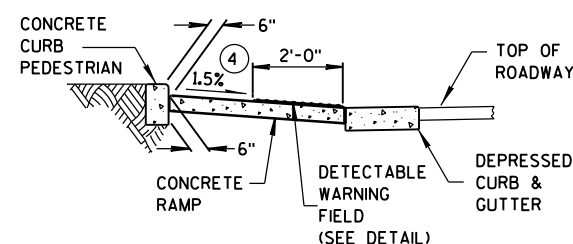
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



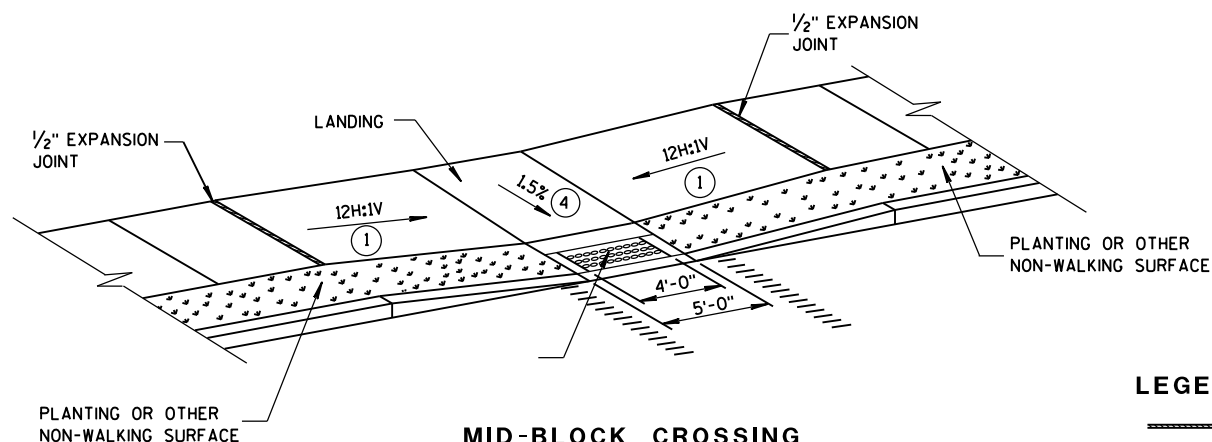
SECTION A-A



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

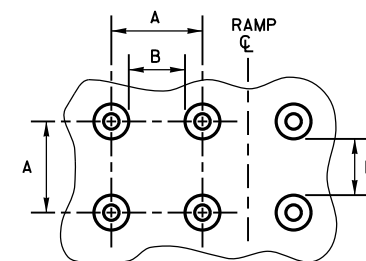
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

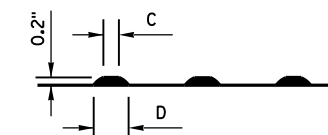
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④ $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



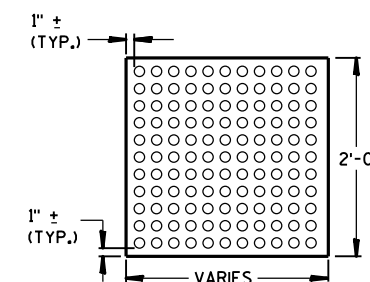
ELEVATION VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

LEGEND

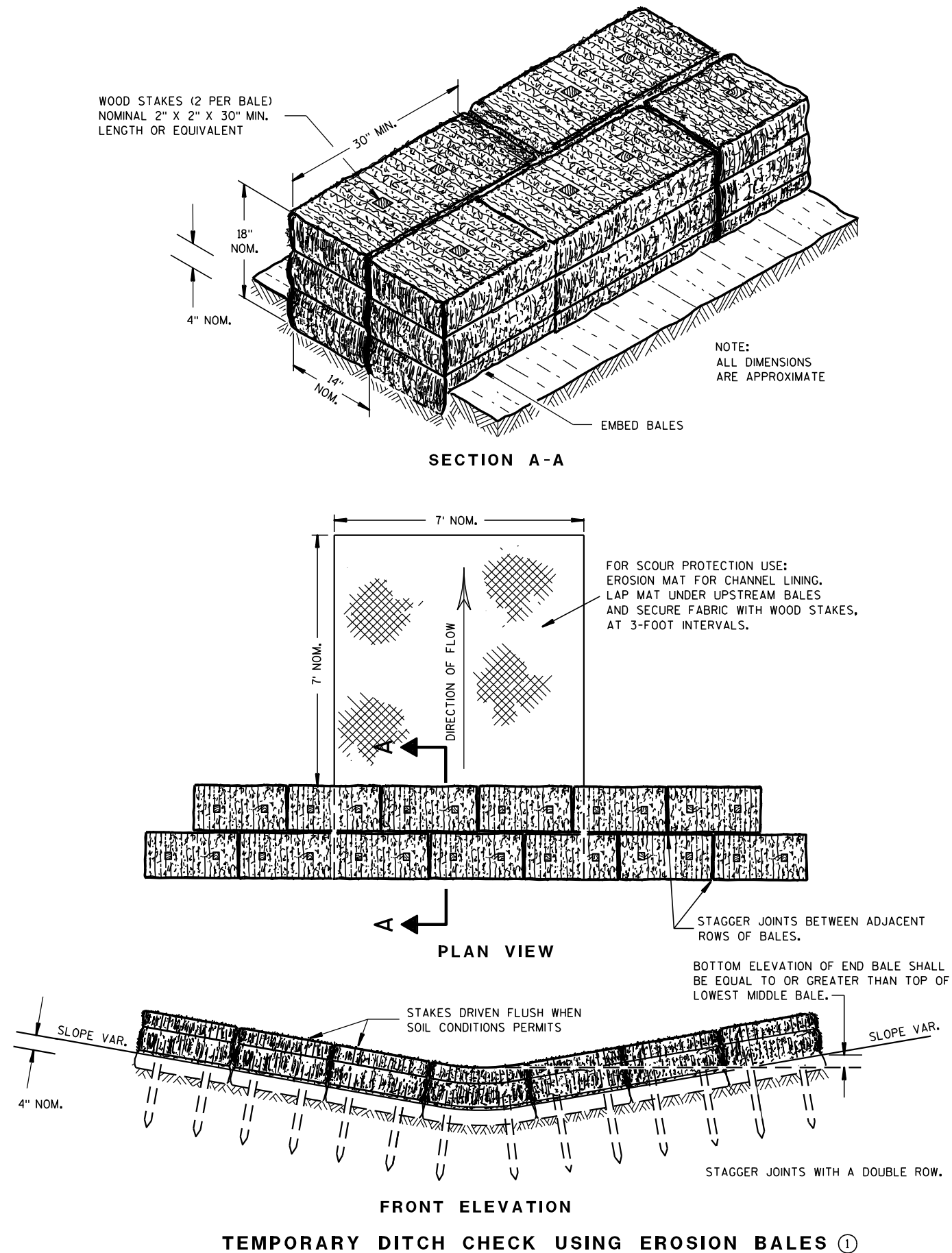
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013
DATE
FHWA

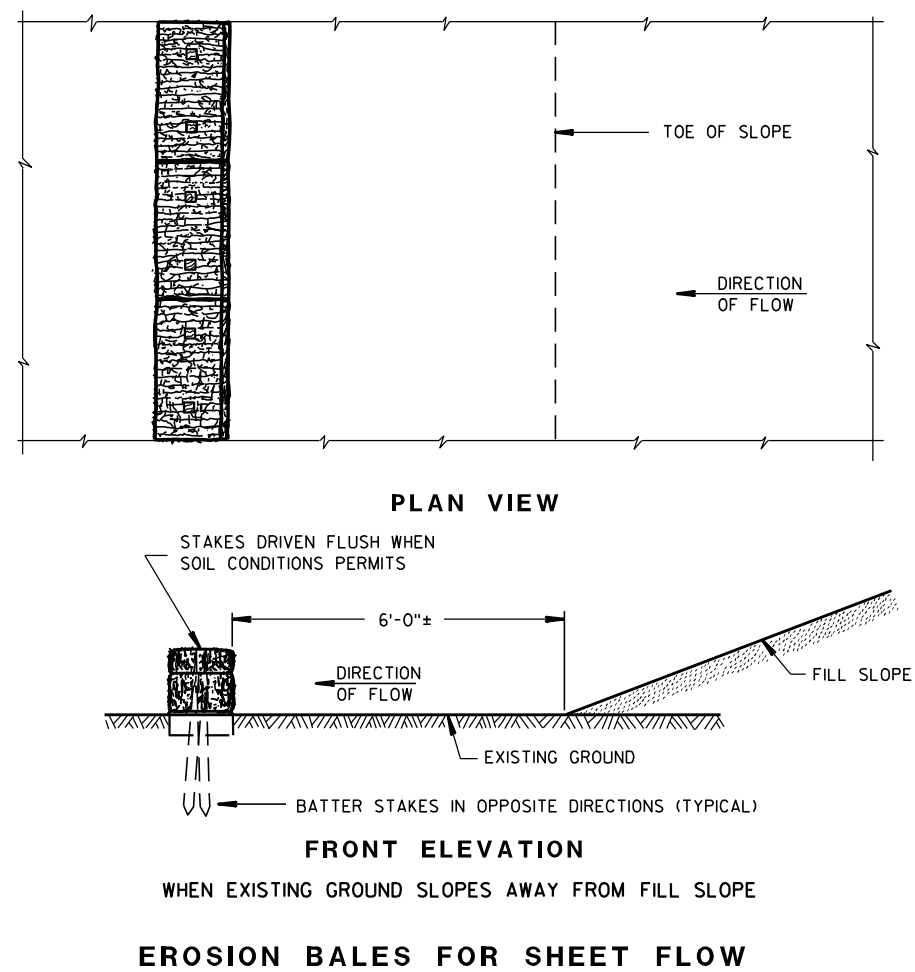
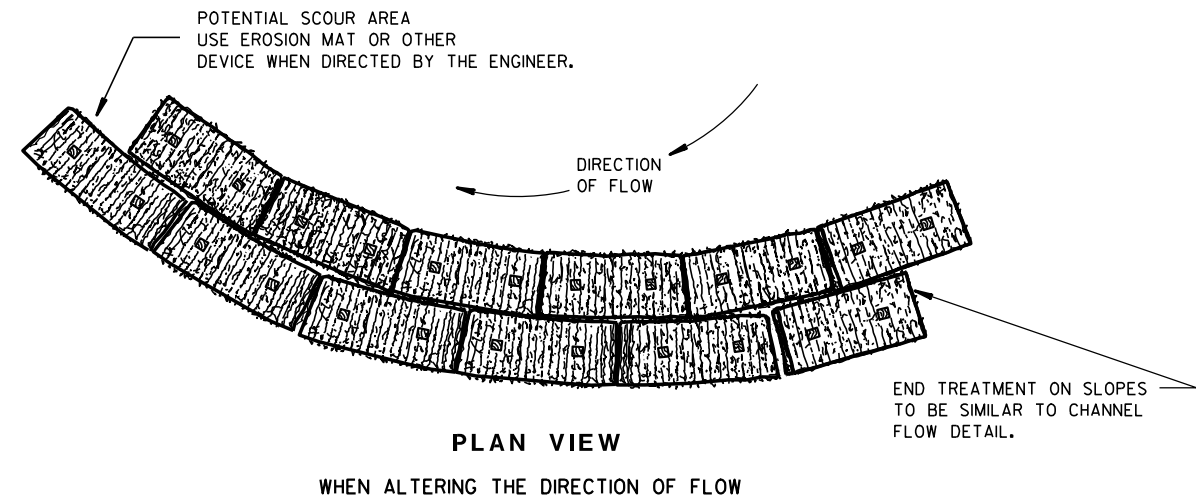
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

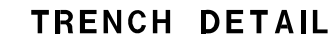
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



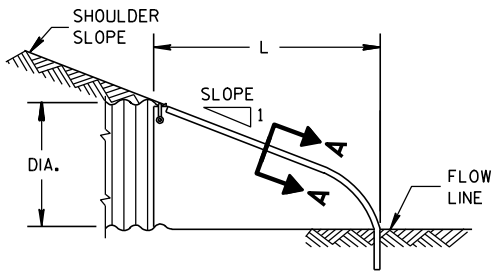
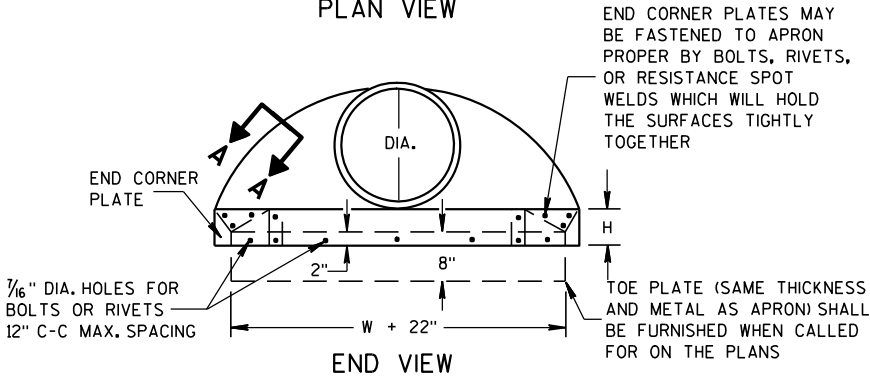
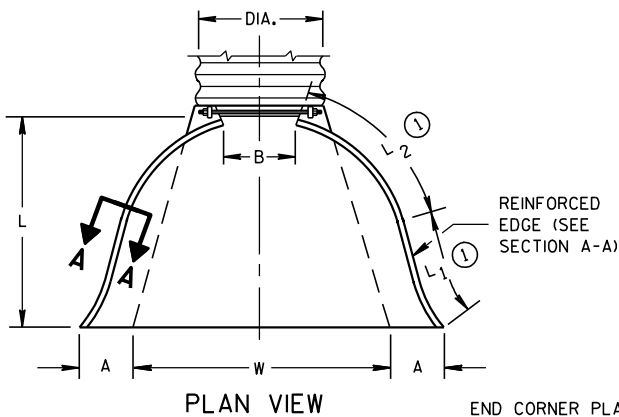
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



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

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

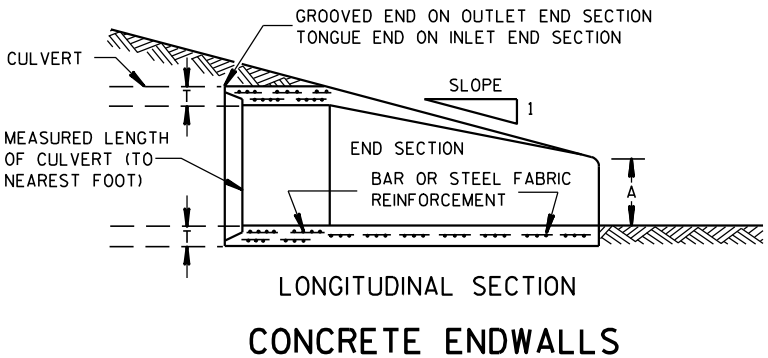
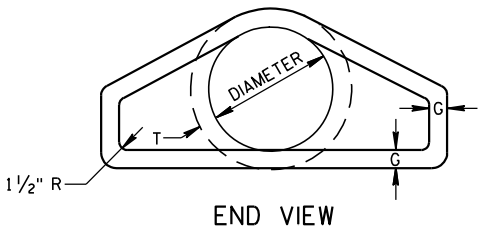
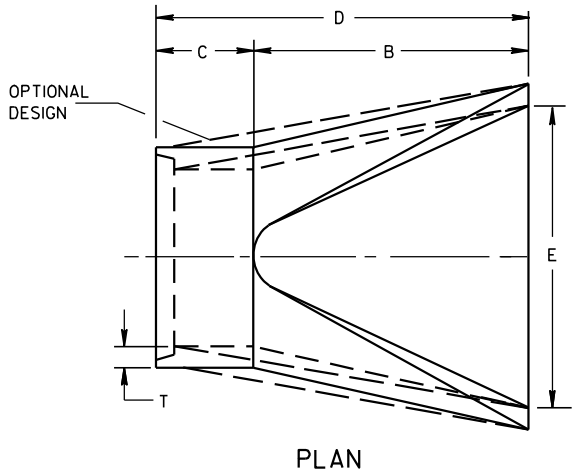
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



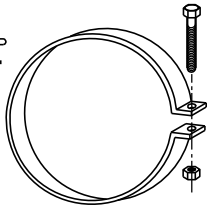
METAL ENDWALLS

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

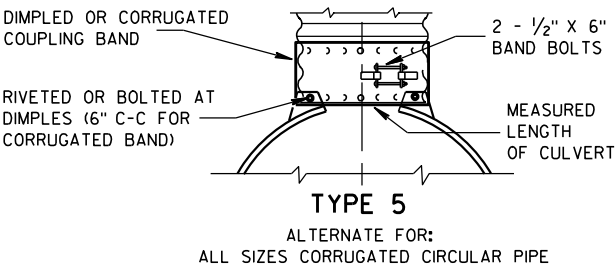
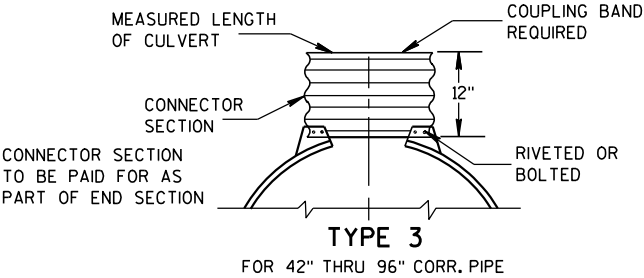
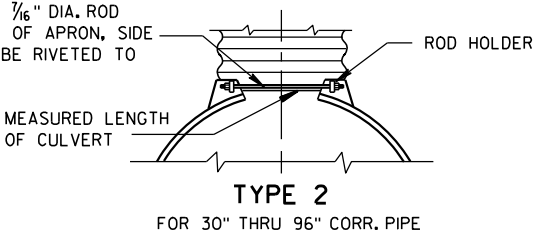
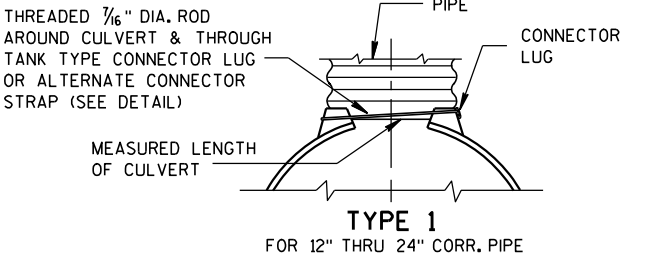
* MINIMUM
** MAXIMUM



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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



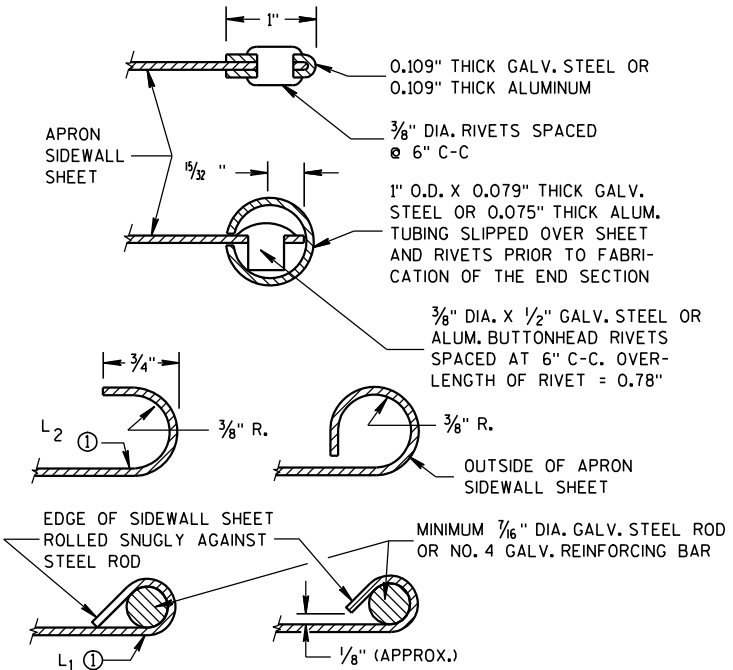
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

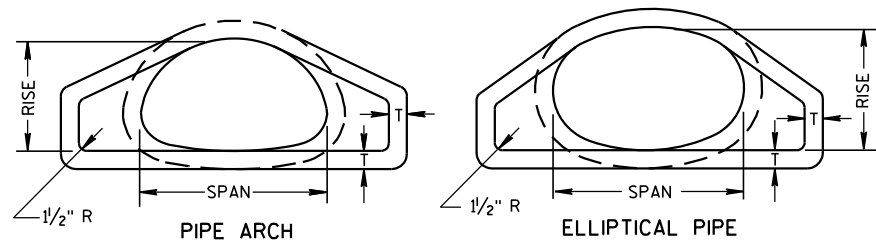
CONNECTION DETAILS



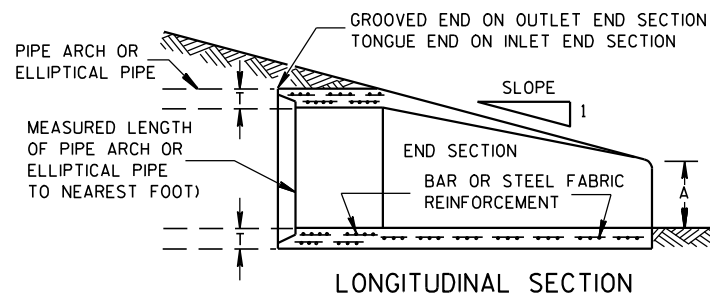
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.
- ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.
- LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.
- WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.
- ① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

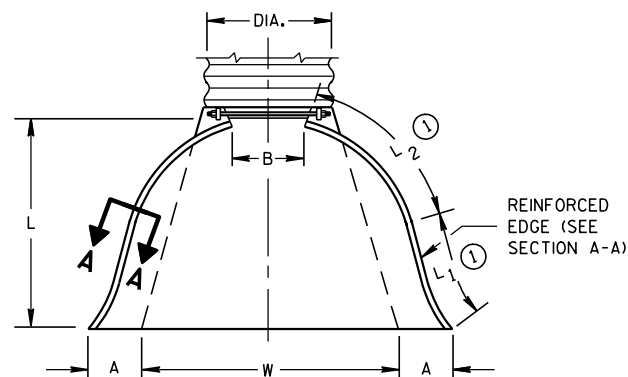


END VIEW



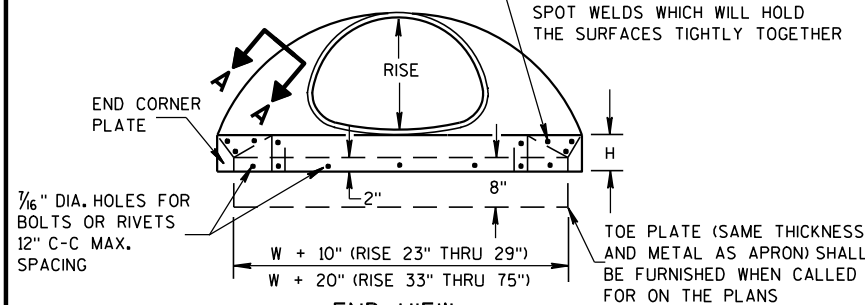
LONGITUDINAL SECTION

CONCRETE ENDWALLS

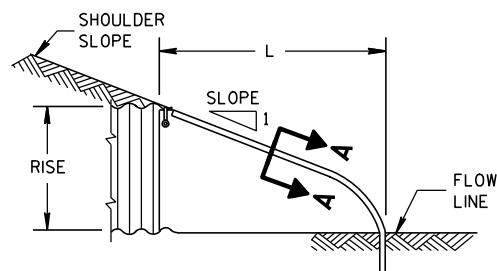
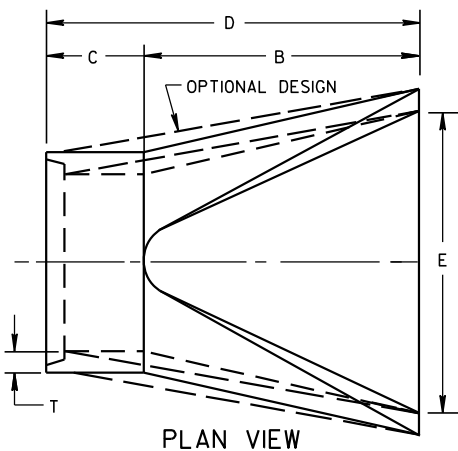


PLAN VIEW

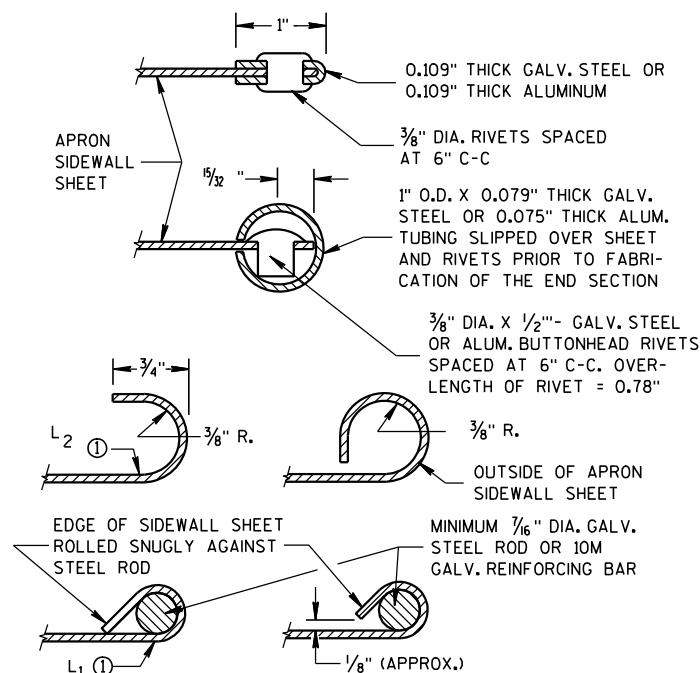
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW

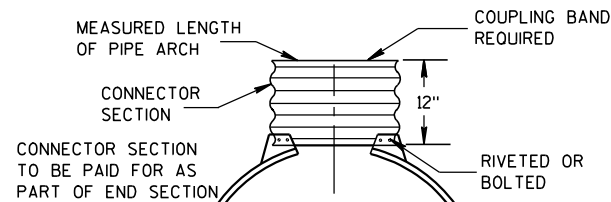


SECTION A-A



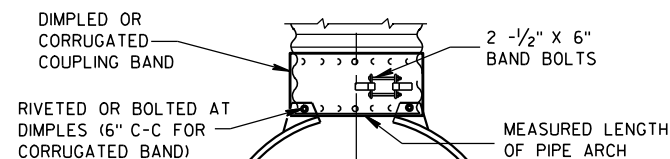
TYPE 2

FOR 17\"/>



TYPE 3

FOR 64\"/>



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE

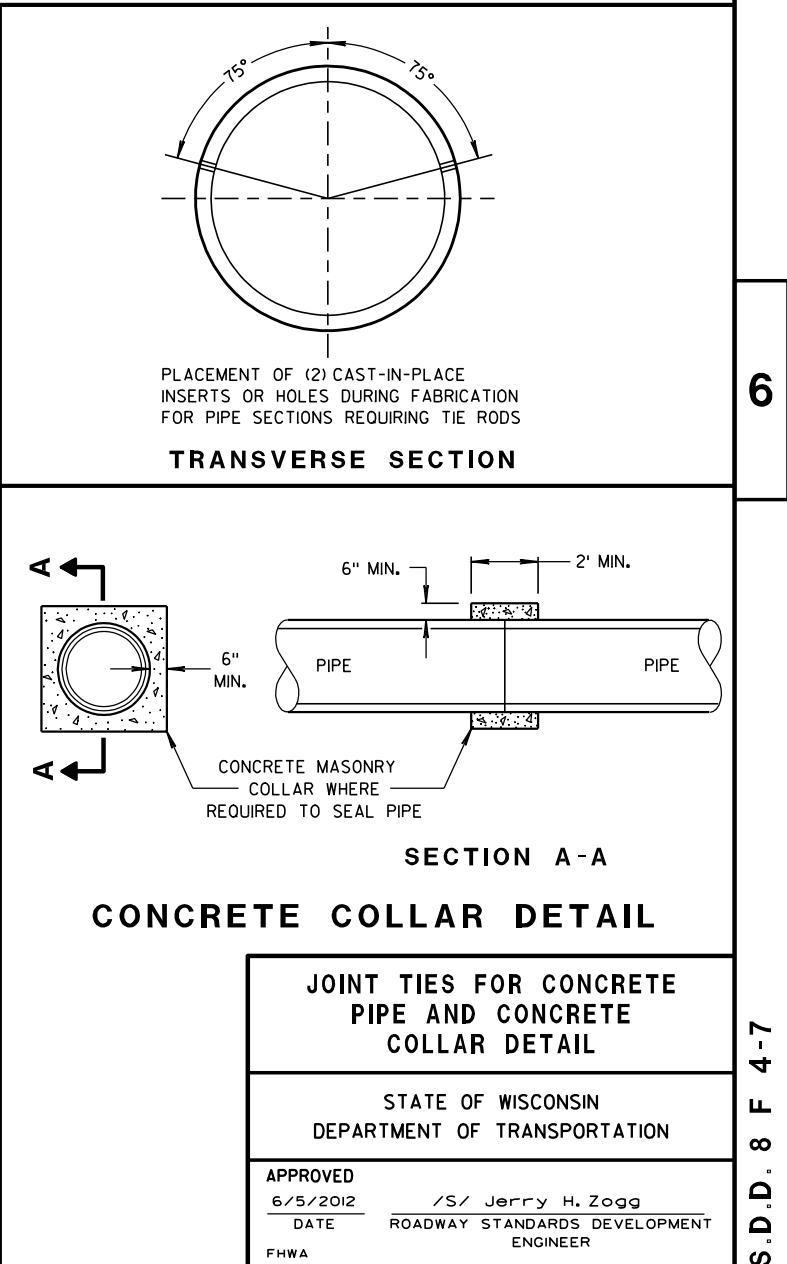
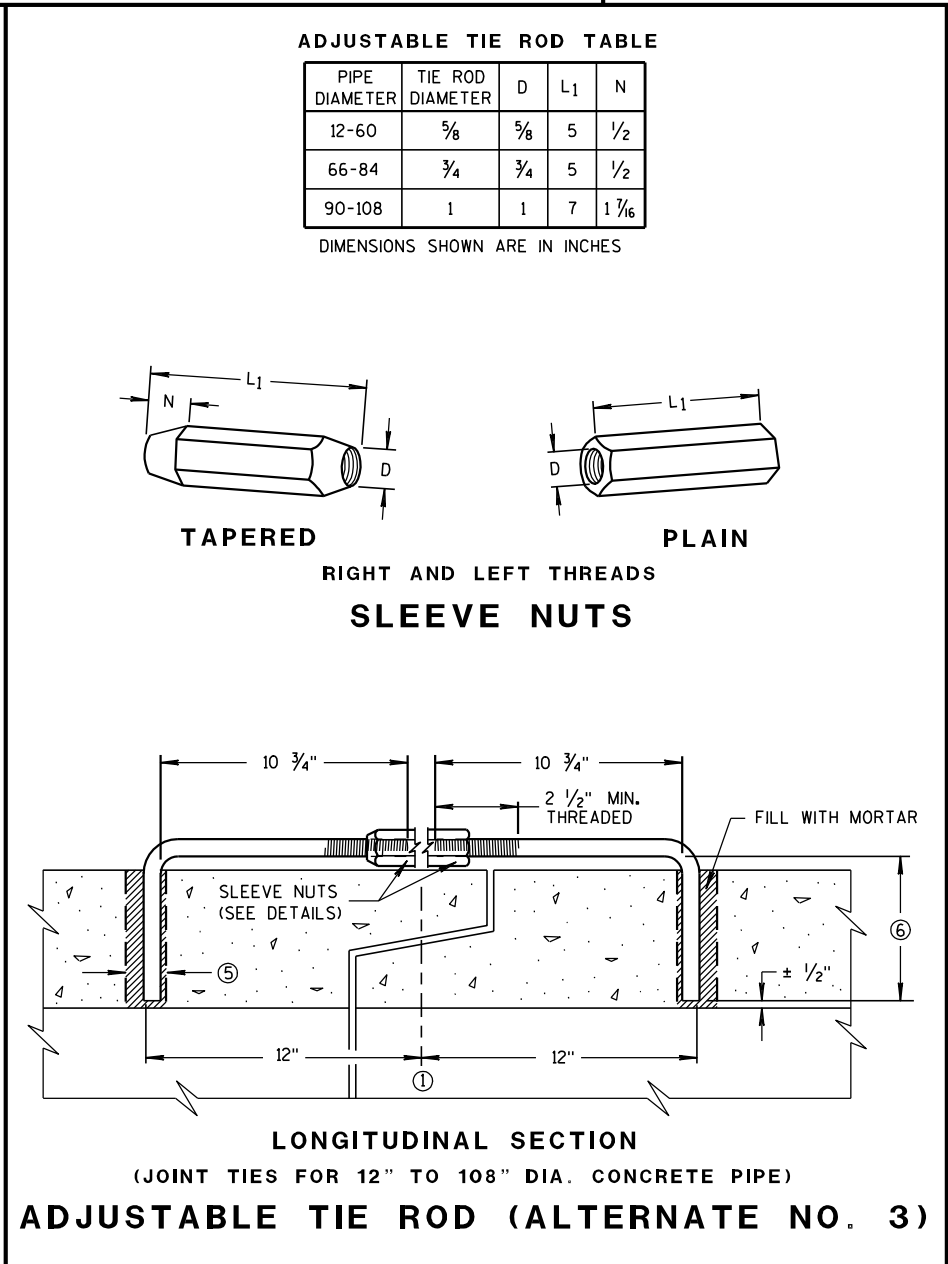
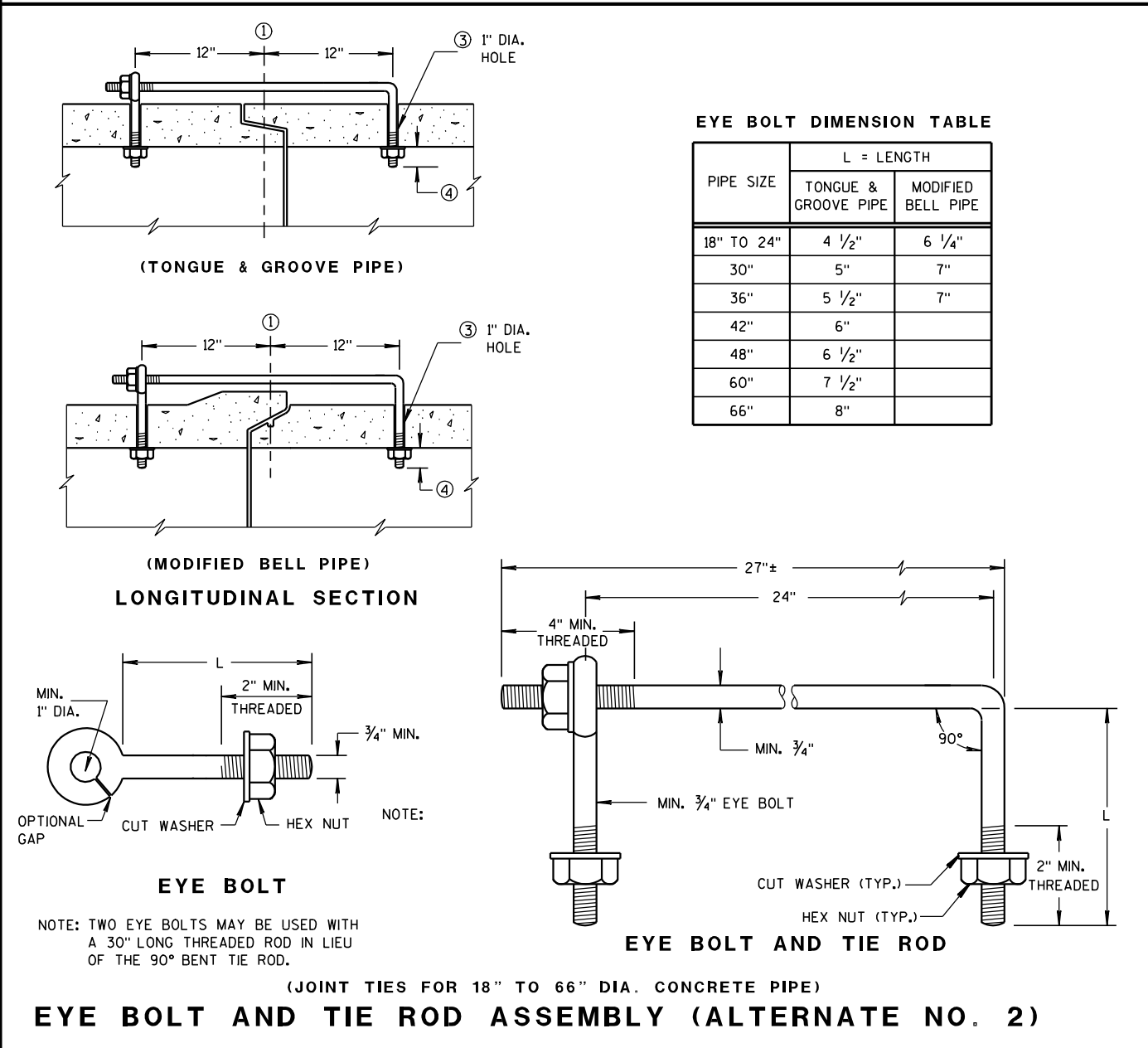
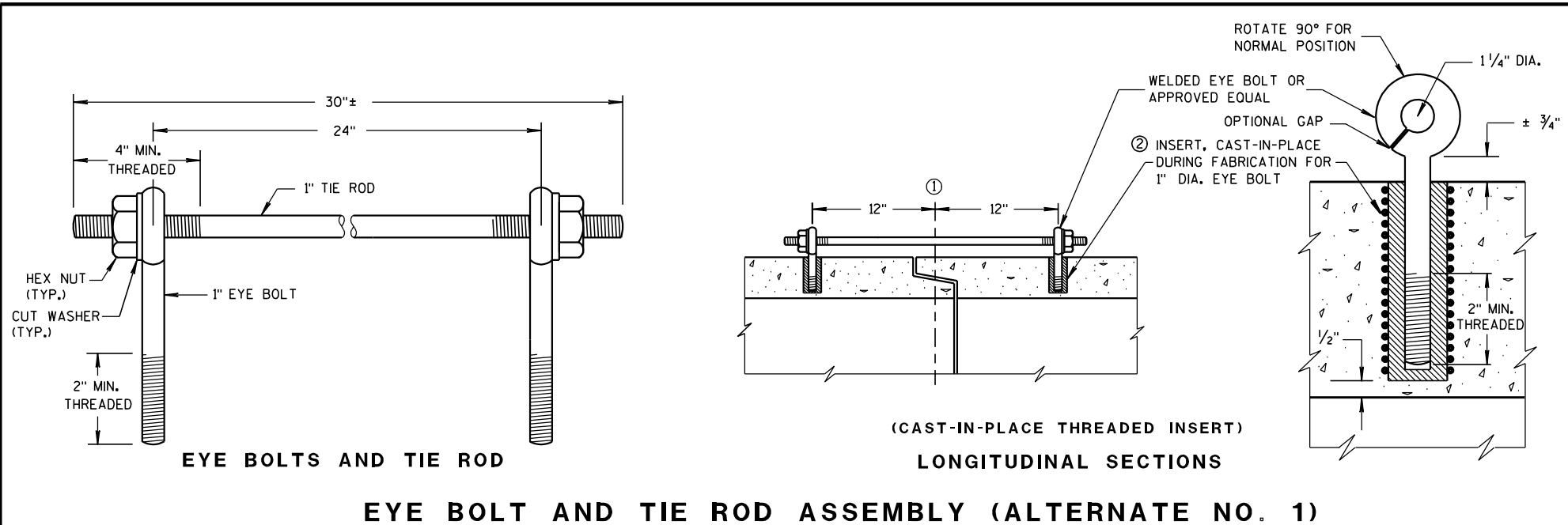
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

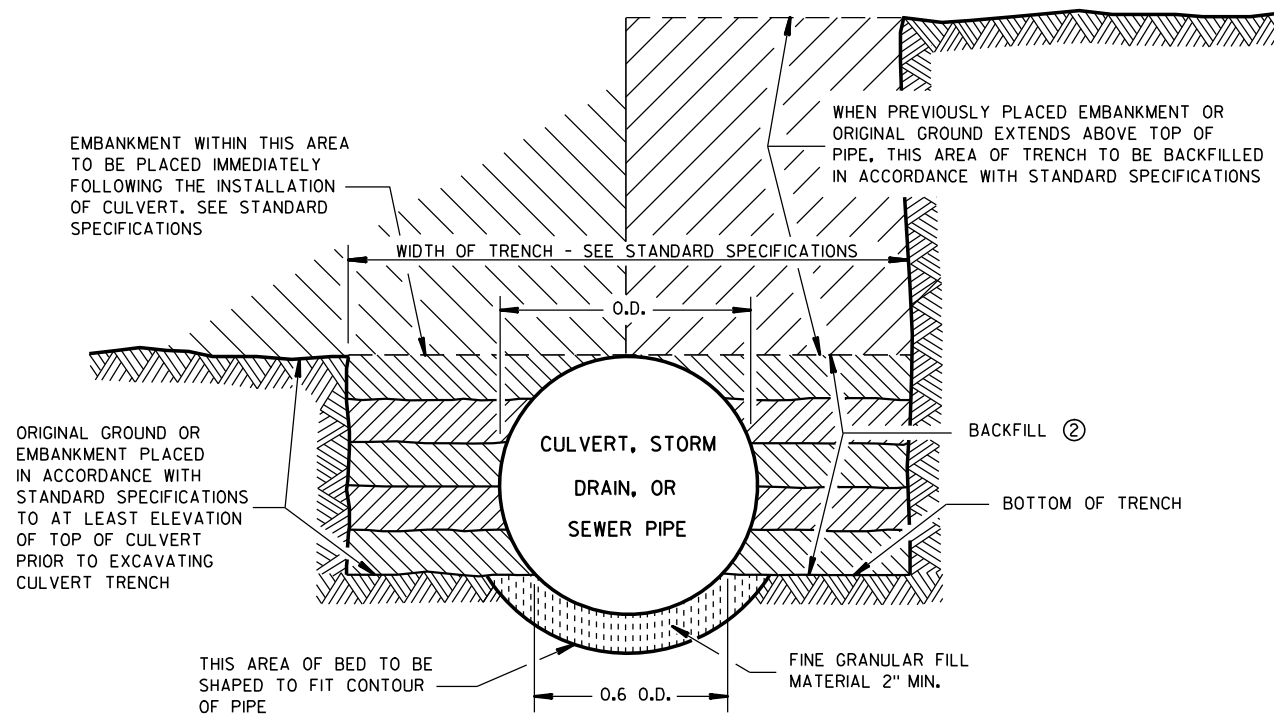
APPROVED

11/30/94
DATE

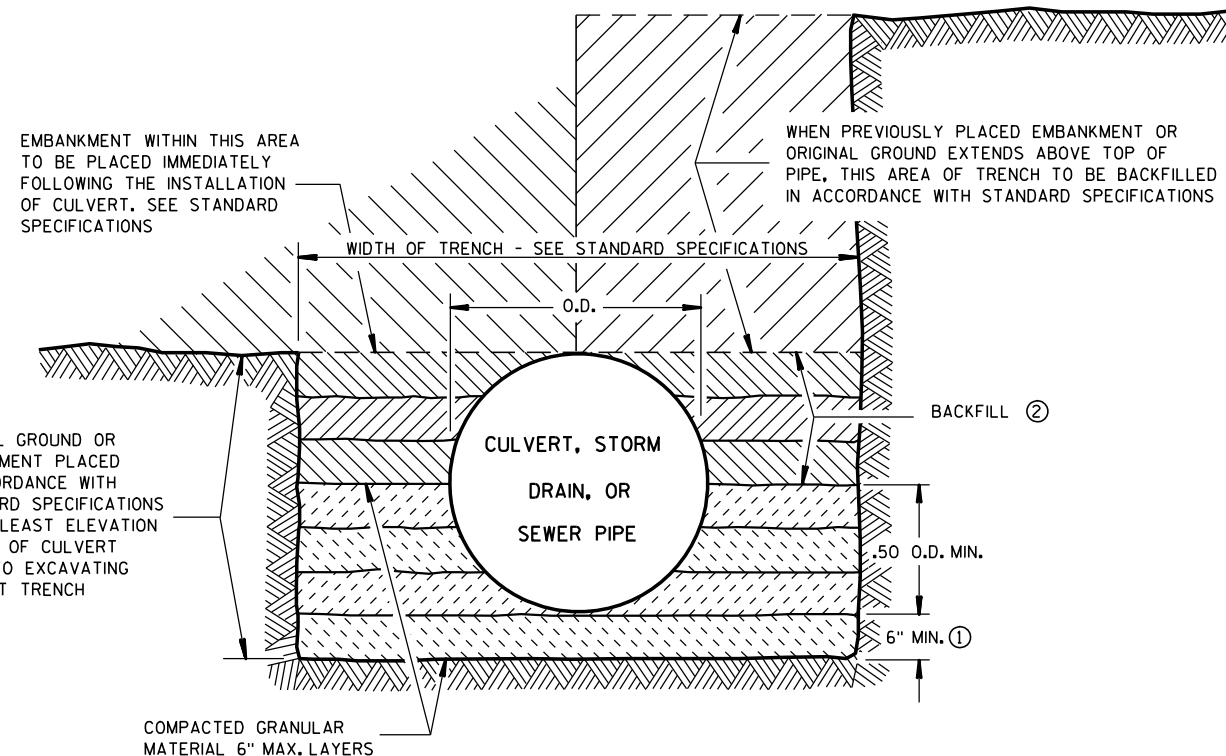
FHWA

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER





SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

GENERAL NOTES

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

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

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

CLASS "B" BEDDING

CLASS "B" BEDDING FOR
CULVERT PIPE OR STORM SEWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

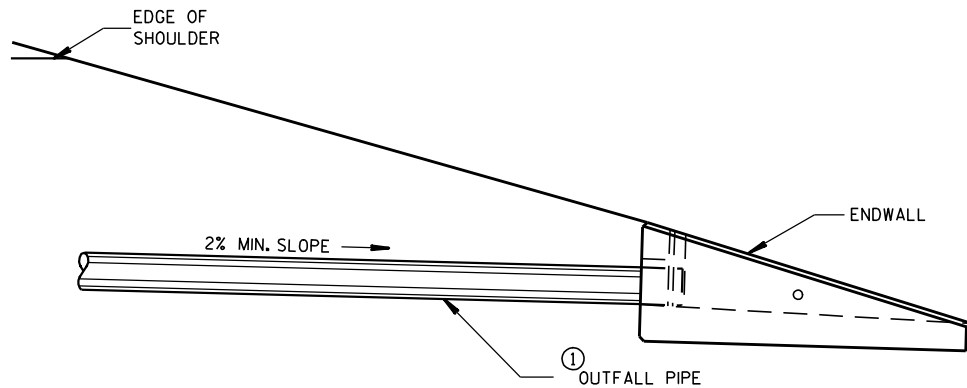
4/7/83
DATE

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

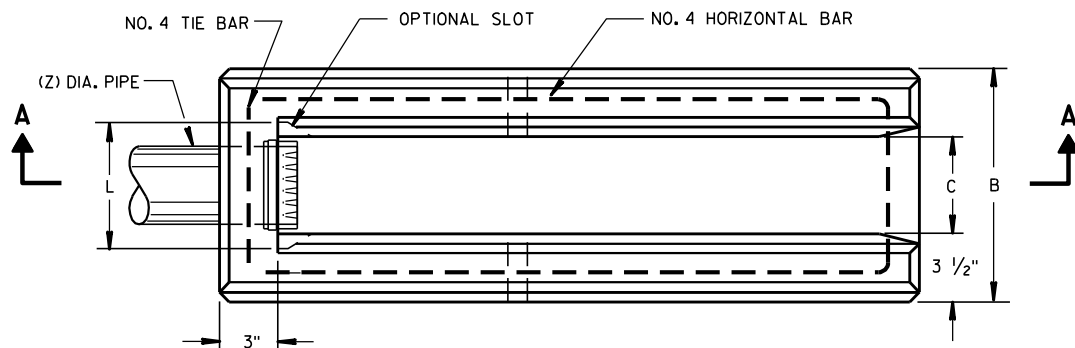
FHWA

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

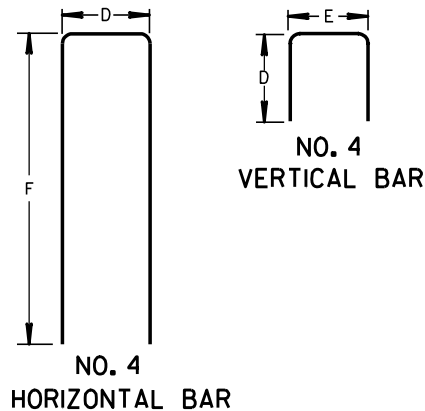
** APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



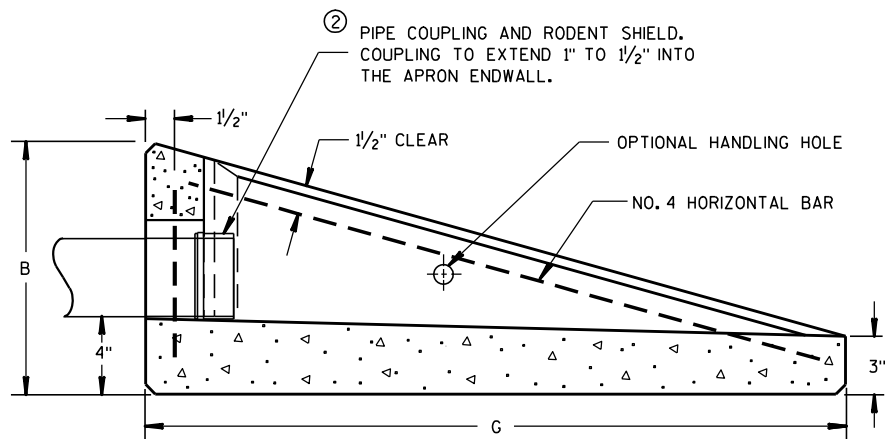
INSTALLATION DETAIL



PLAN VIEW

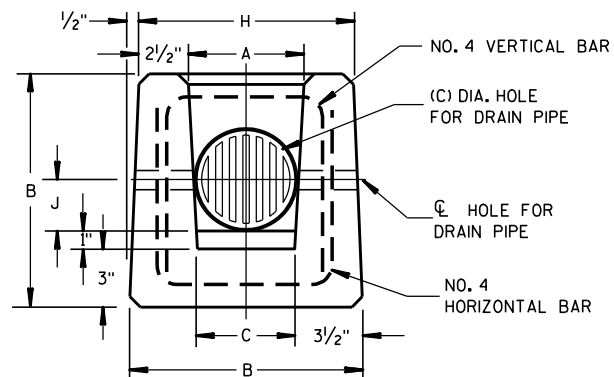


BAR STEEL REINFORCEMENT DETAILS



SECTION A-A

CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

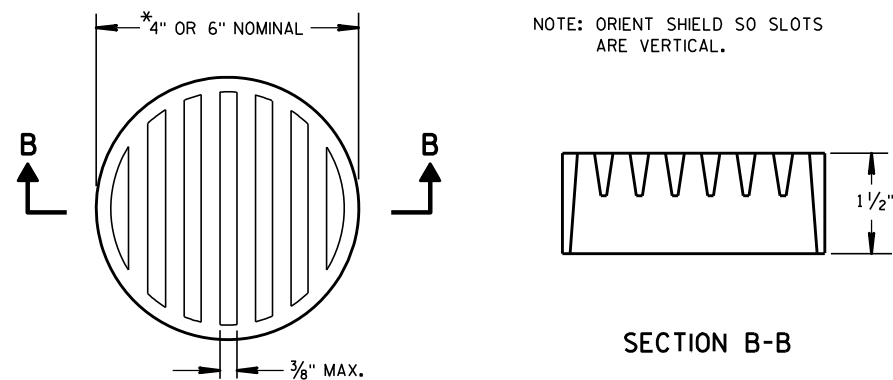
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

- ① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

- ② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

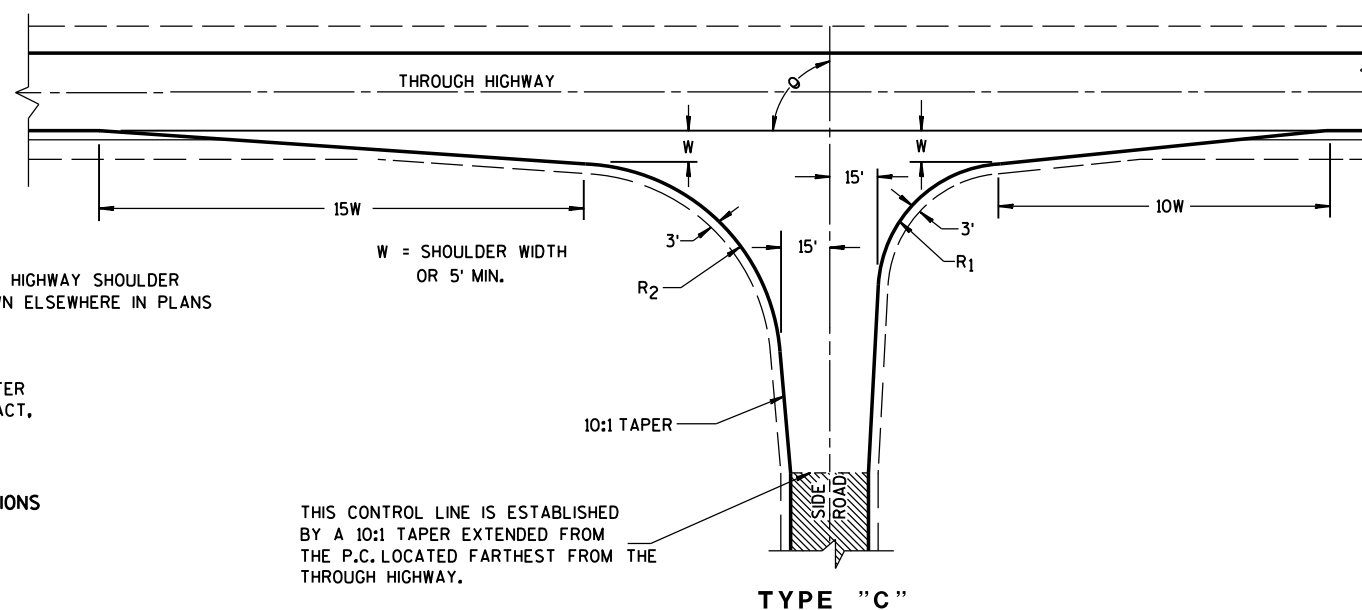
APPROVED

3/10/98

DATE

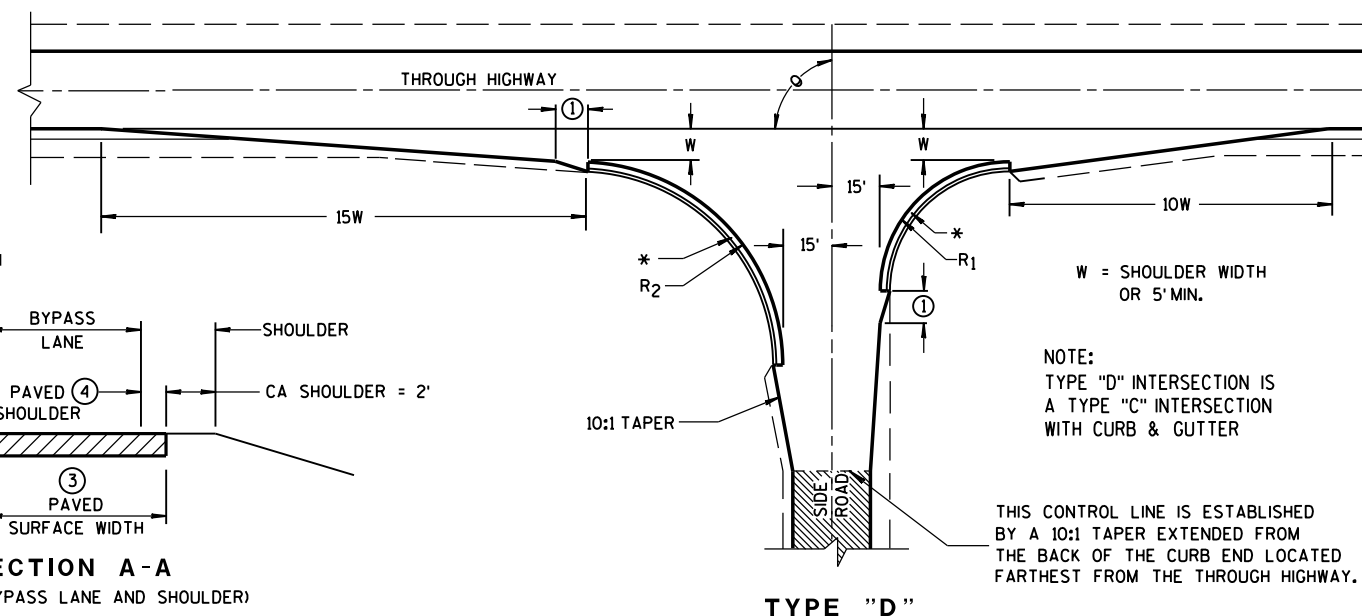
FHWA

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER



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

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



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

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

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

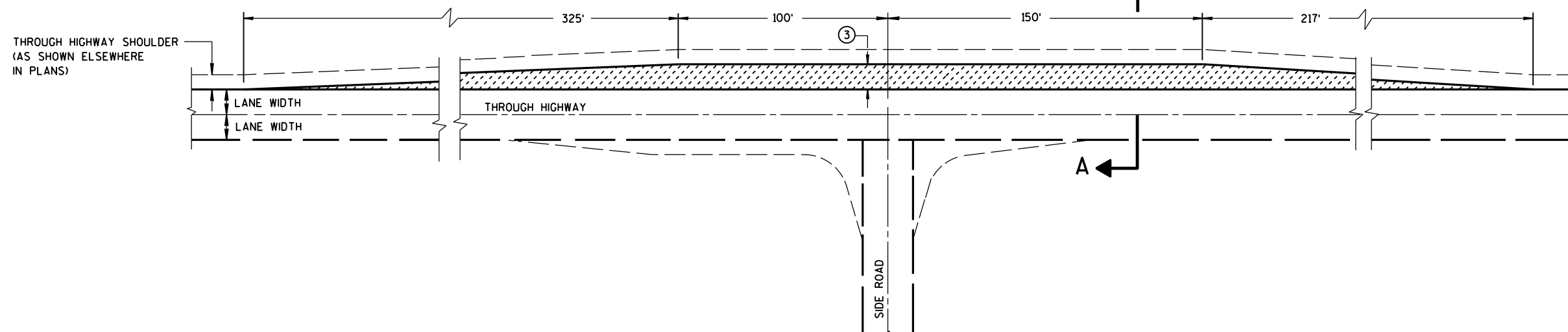
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

-  EXISTING PAVED SURFACE
-  BYPASS LANE

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

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.

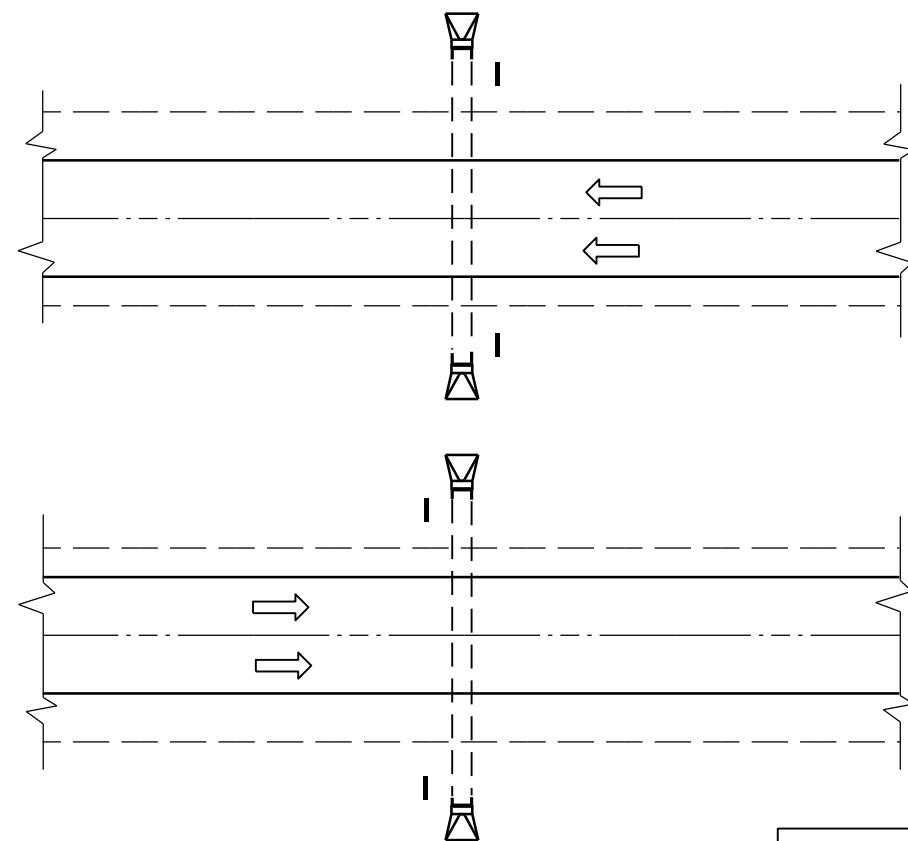
SECTION A-A
 NG BYPASS LANE AND SHOULDER



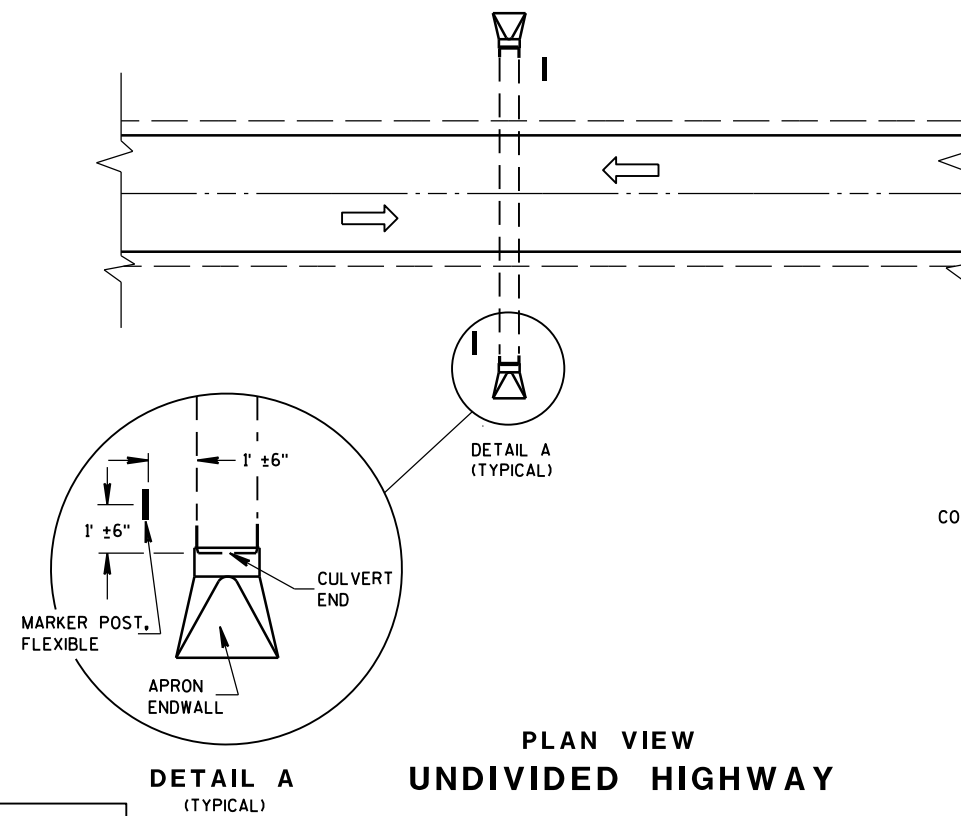
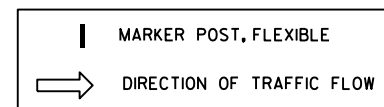
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
DIVIDED HIGHWAY

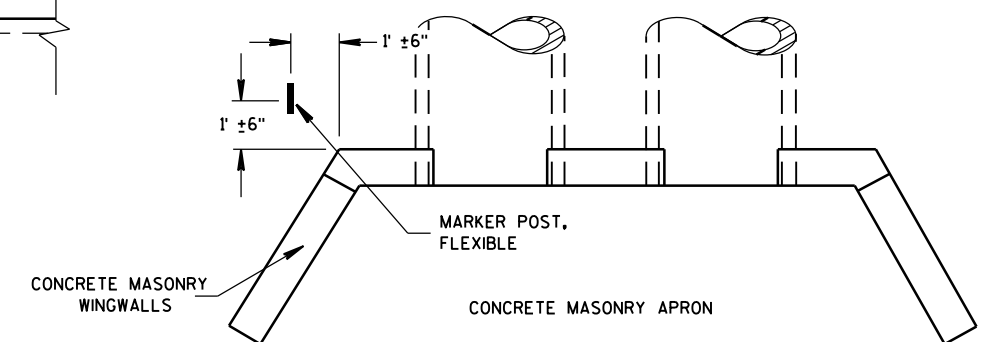


PLAN VIEW
UNDIVIDED HIGHWAY

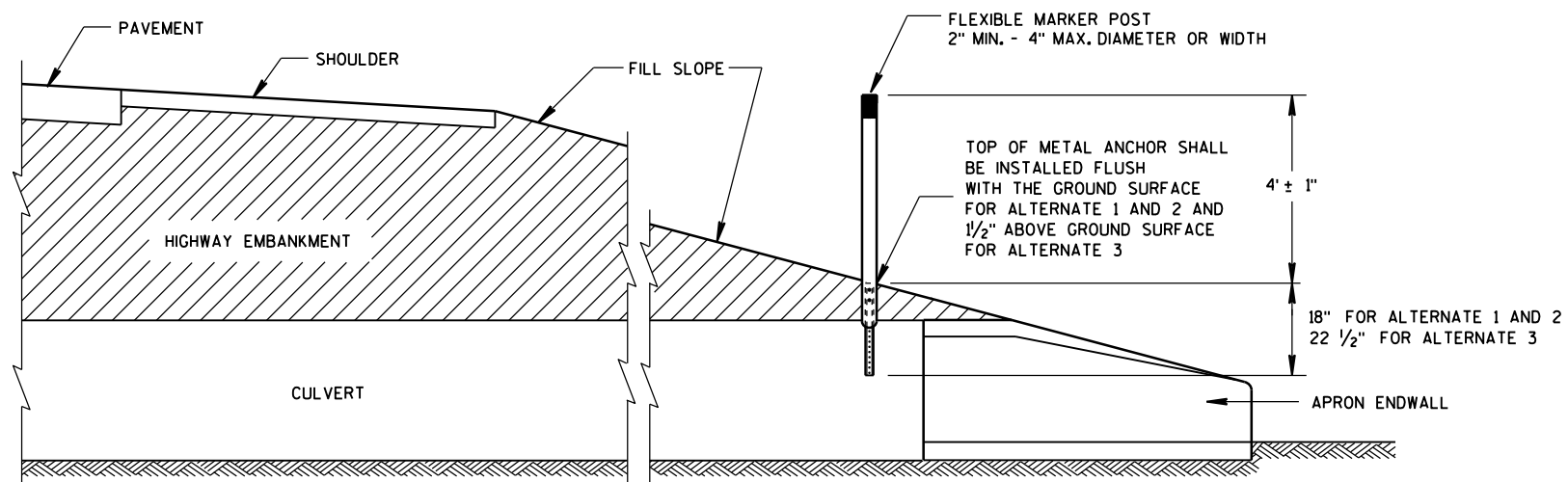
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



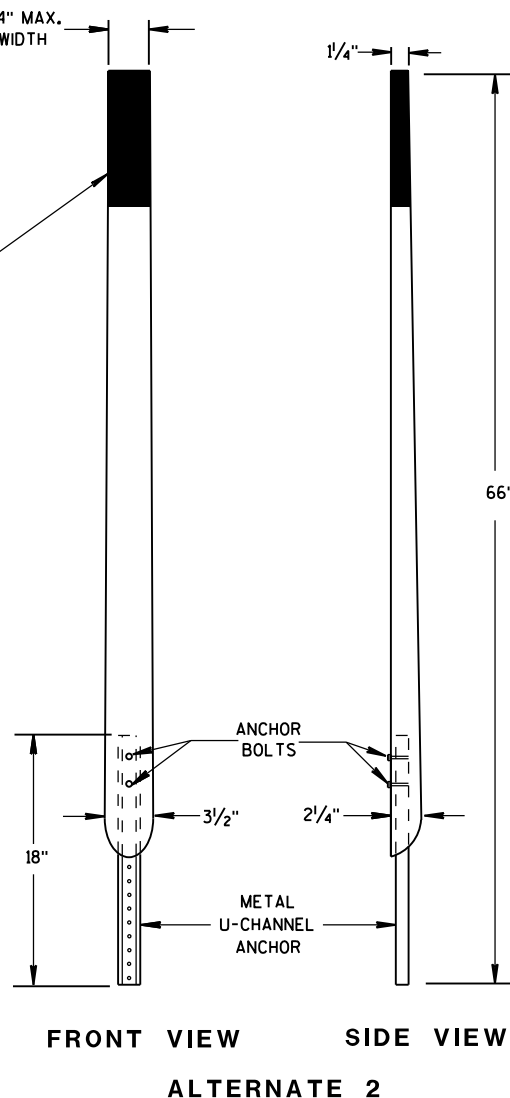
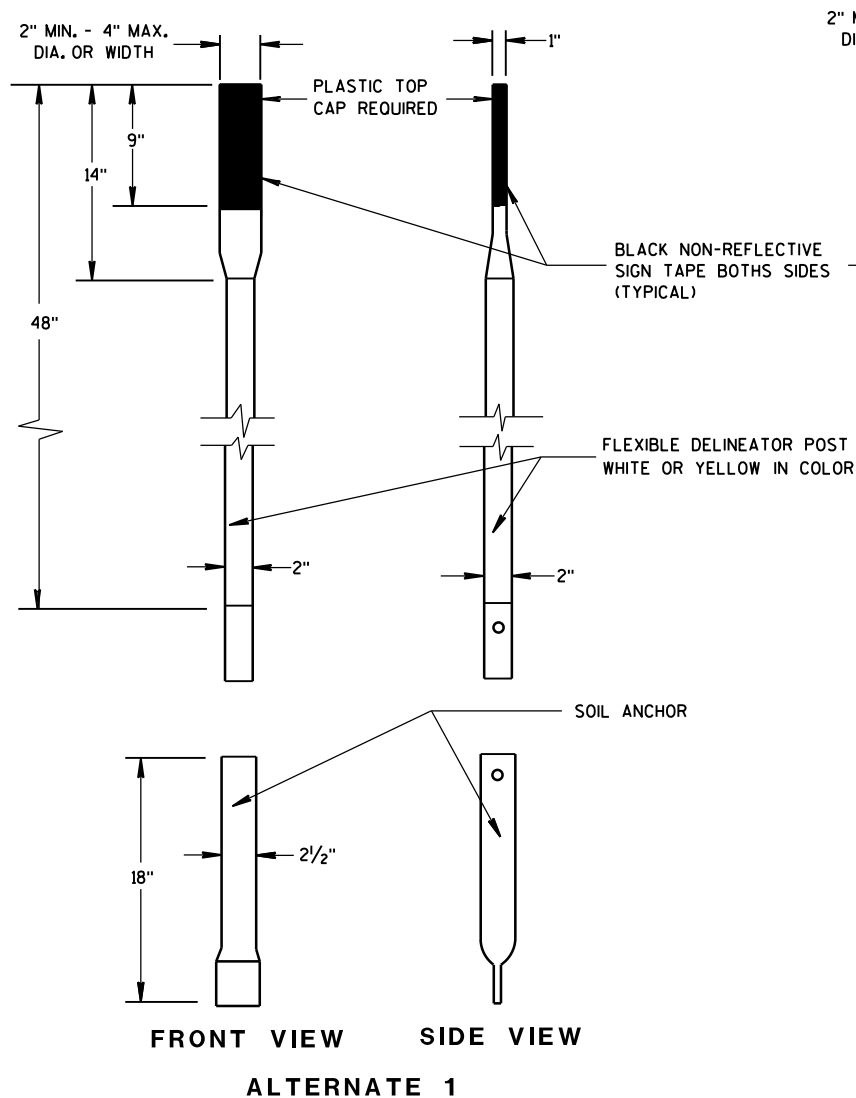
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



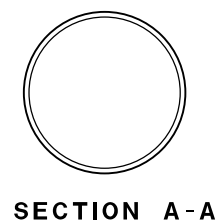
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

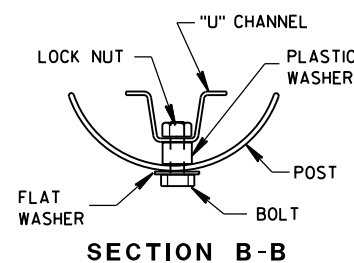
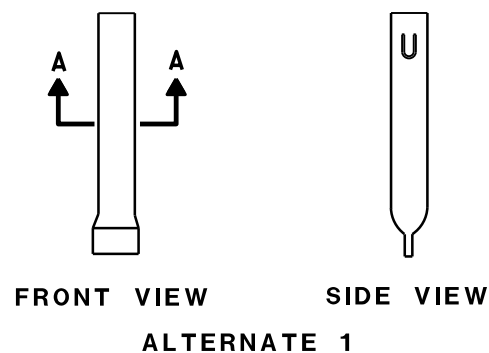
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



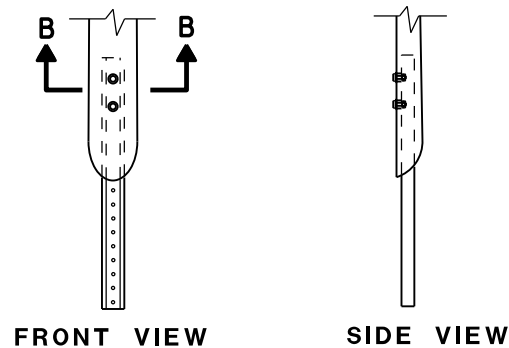
FLEXIBLE MARKER POSTS



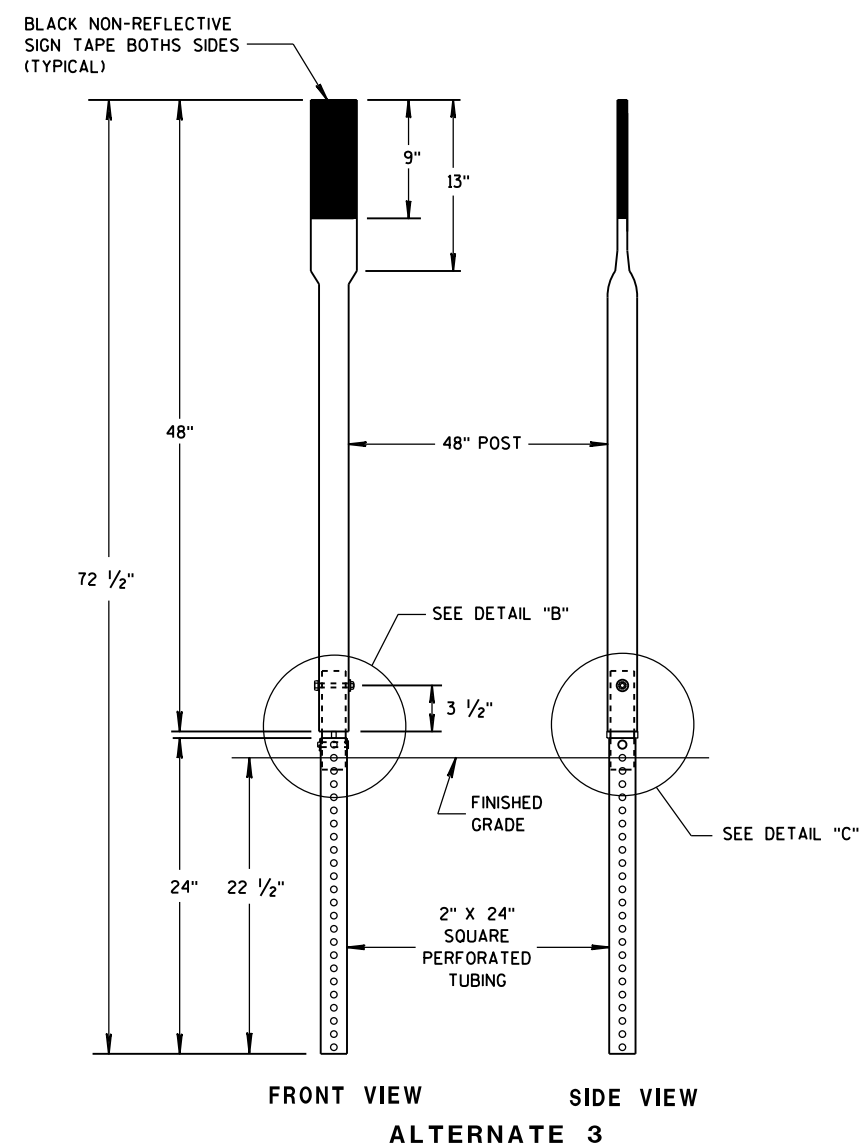
SECTION A-A



SECTION B-B

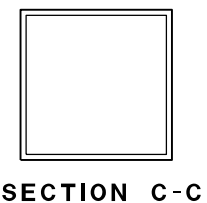


FLEXIBLE MARKER POST ANCHORS

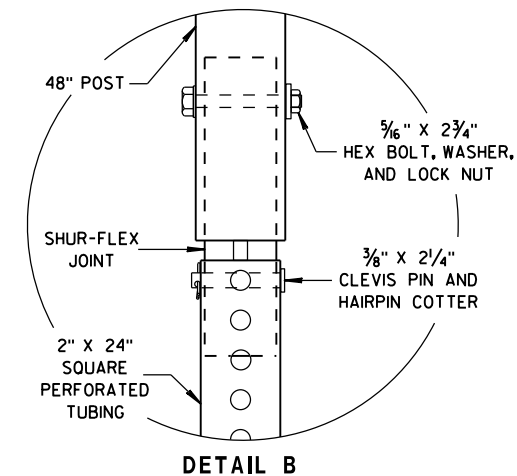
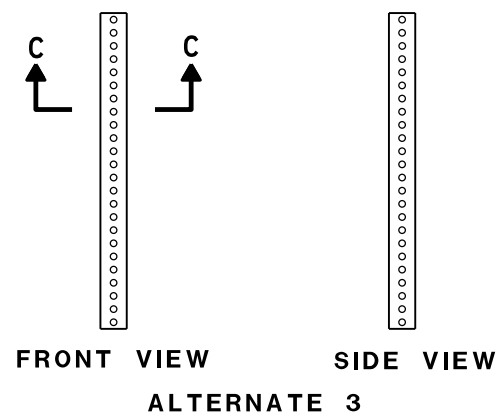


FRONT VIEW SIDE VIEW

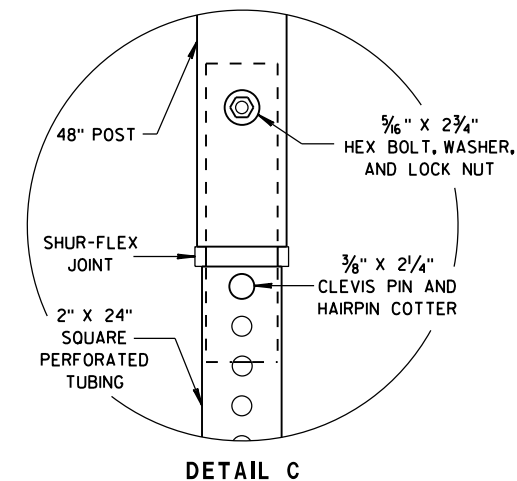
ALTERNATE 3



SECTION C-C



DETAIL B

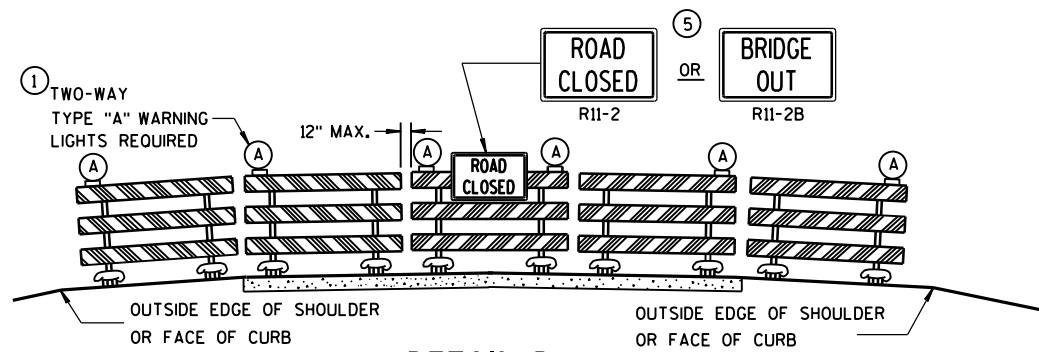


DETAIL C

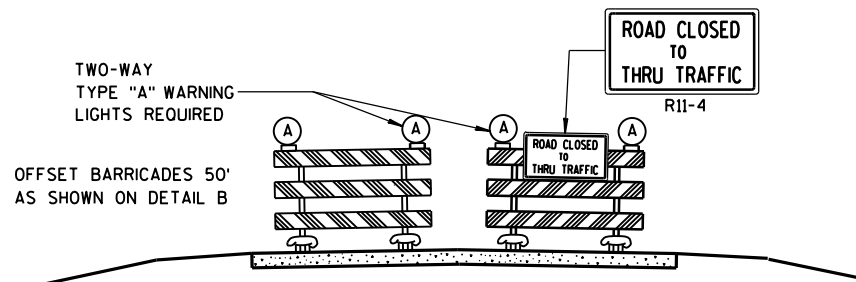
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

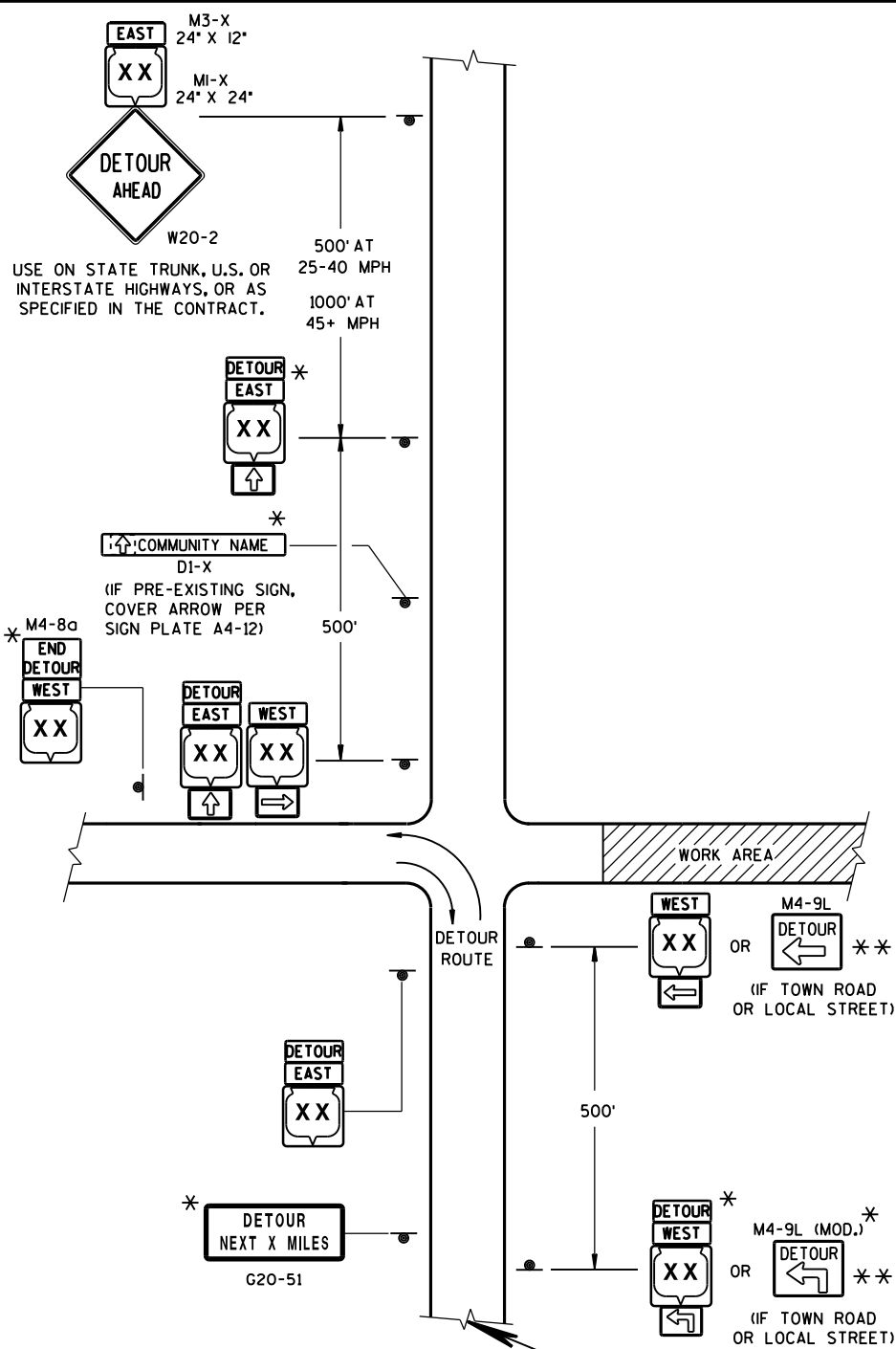
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



LEGEND

● SIGN ON PERMANENT SUPPORT

▨ WORK AREA

DETOUR EAST M4-8 M3-X

MI-4 OR COUNTY MI-5A OR MI-6

M05-1 OR M06-1 OR M06-1

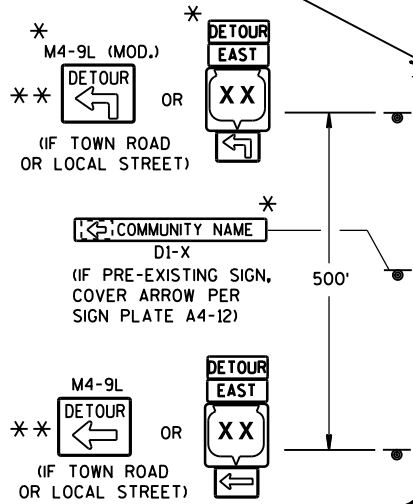
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

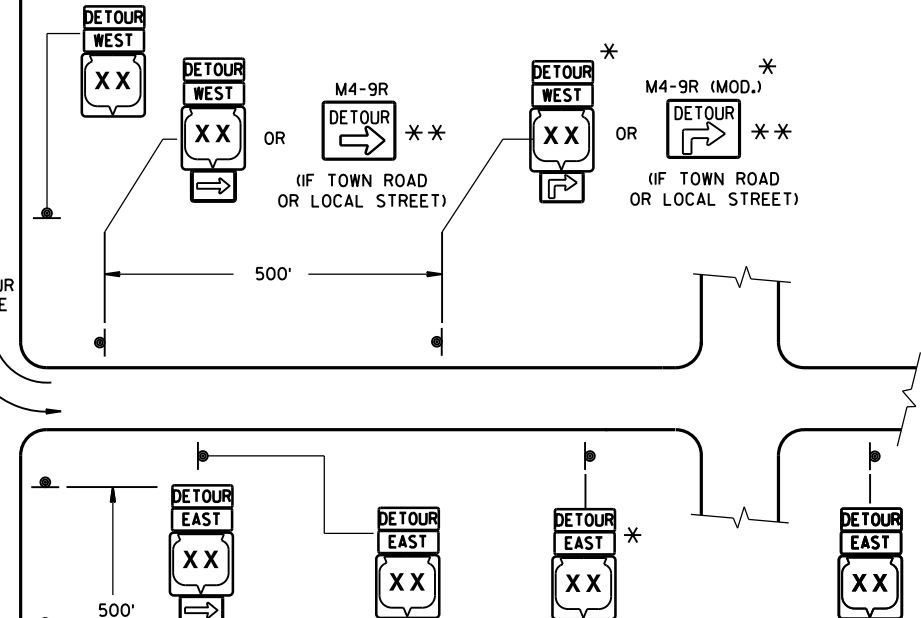
DETAIL F
DETOUR SIGNING

USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.



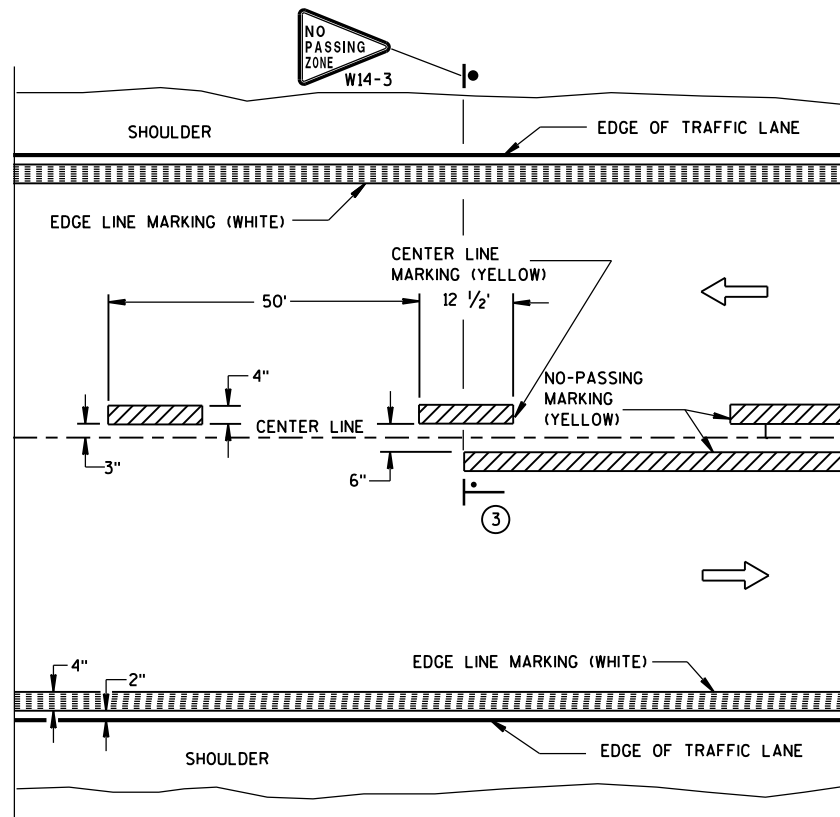
GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOWS:
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
 - MI-4, MI-5A, AND MI-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

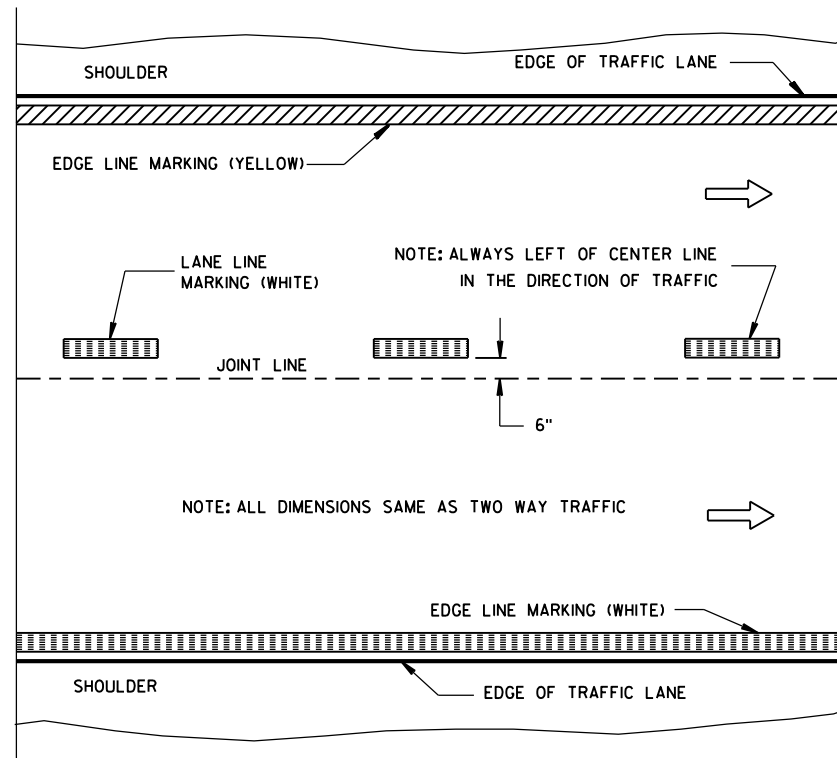


PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA.)

DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

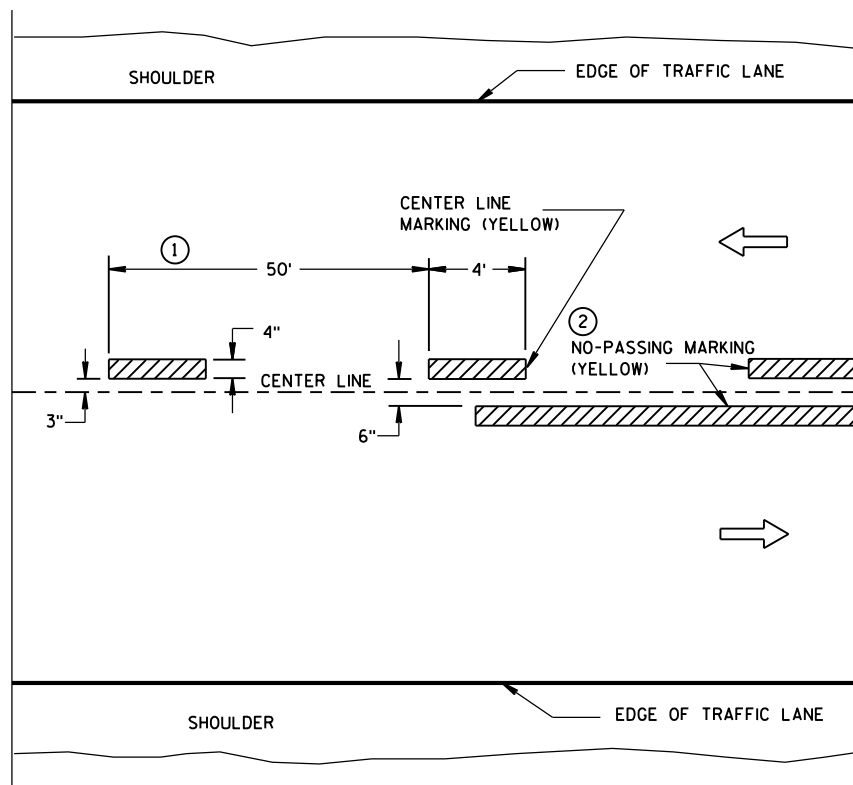


TWO WAY TRAFFIC

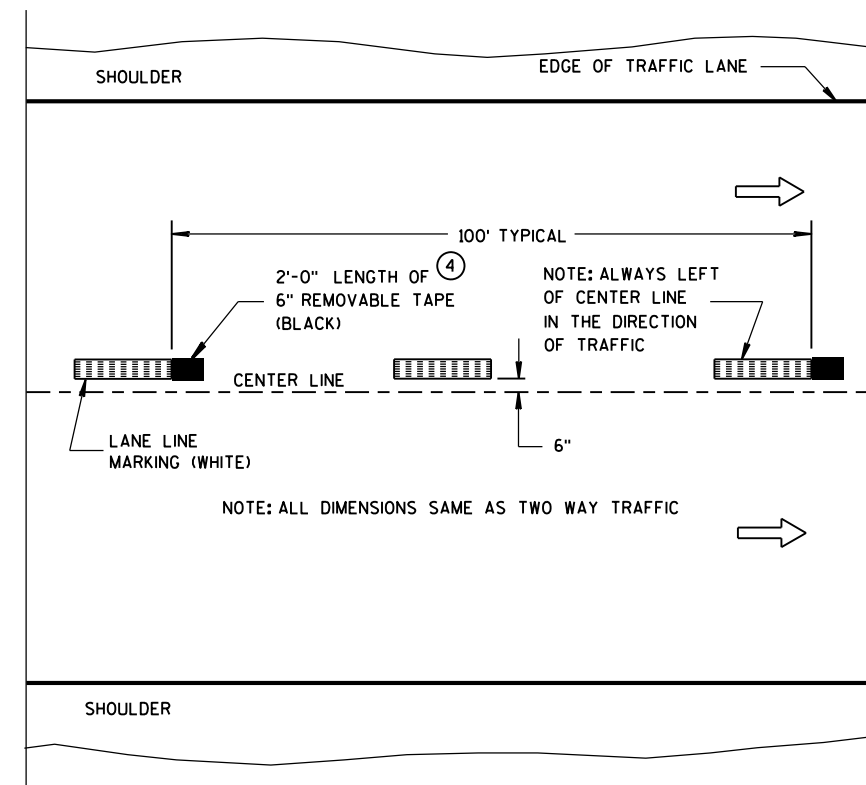


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

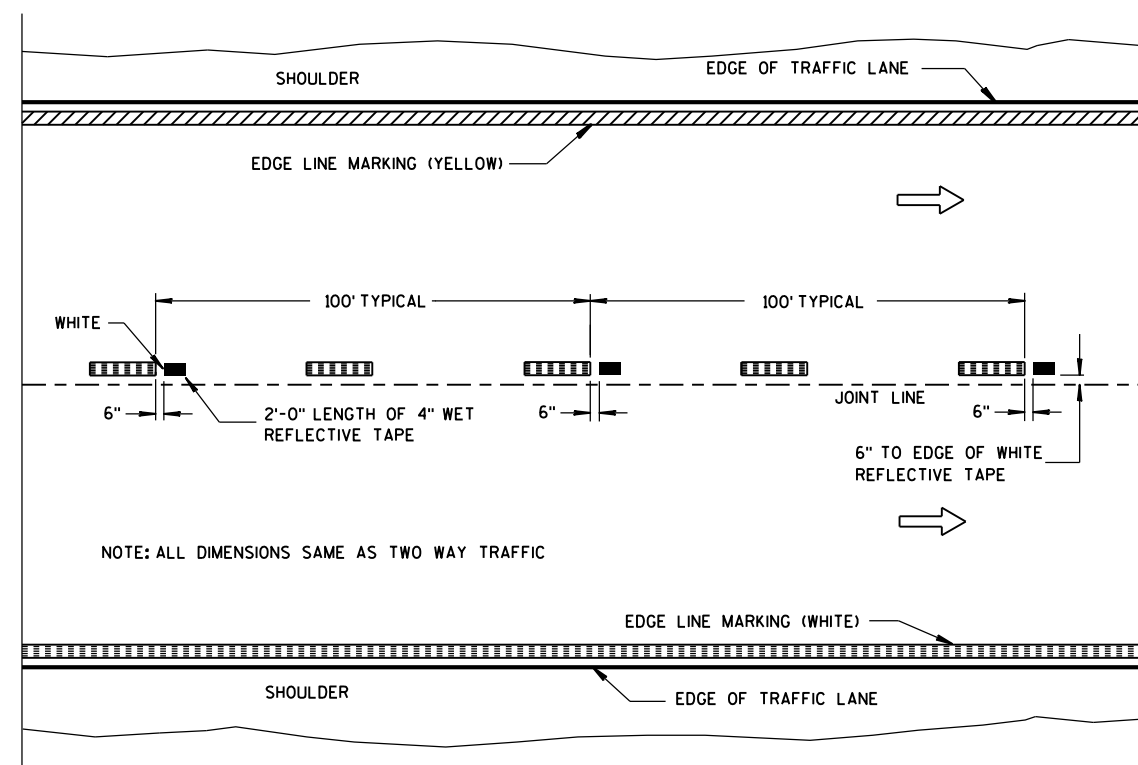
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

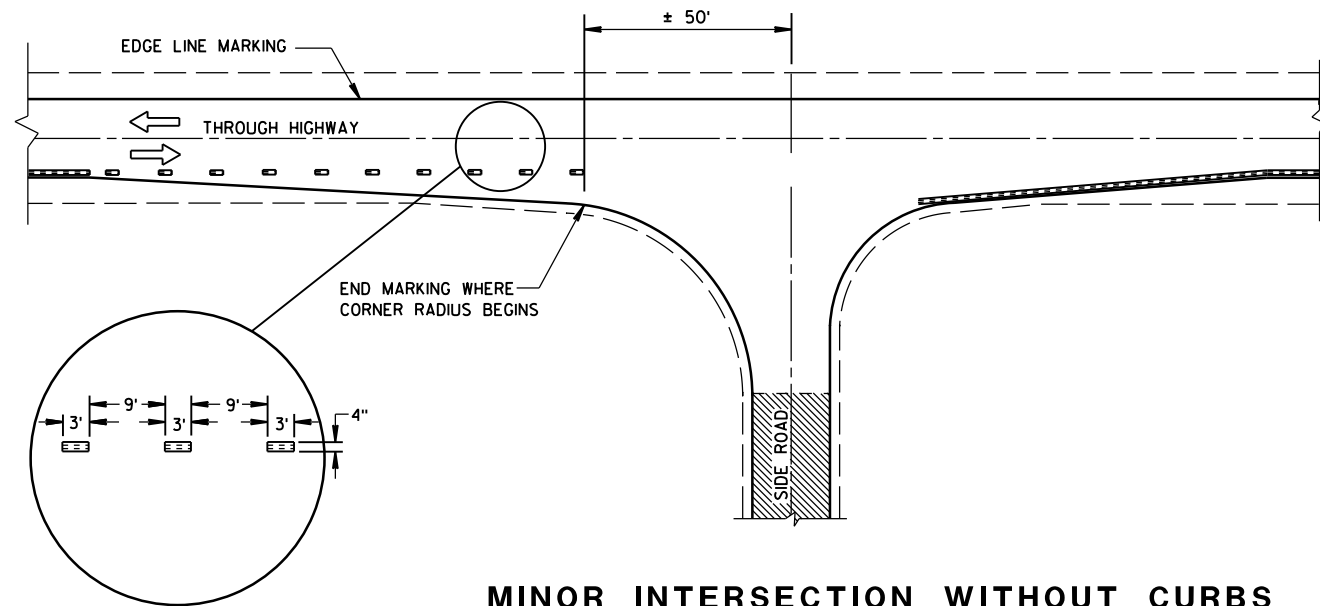
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

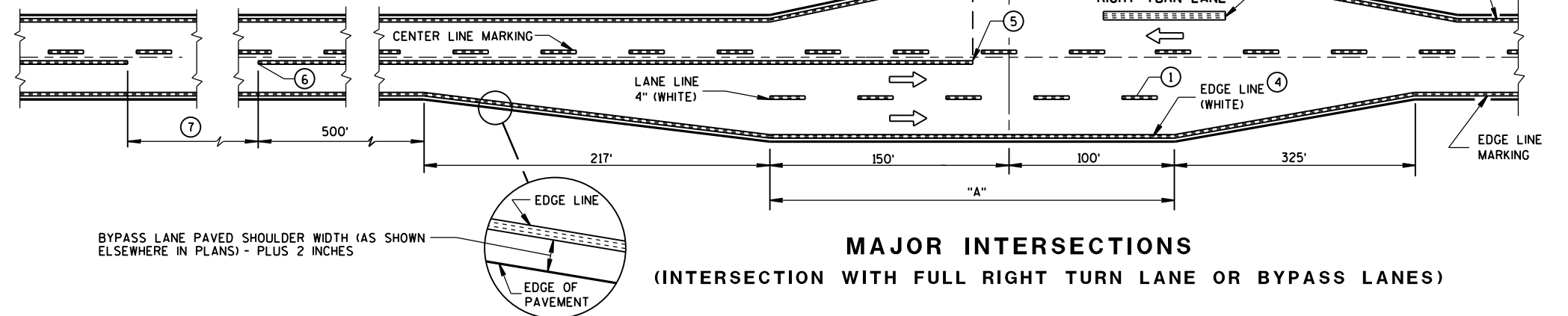
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



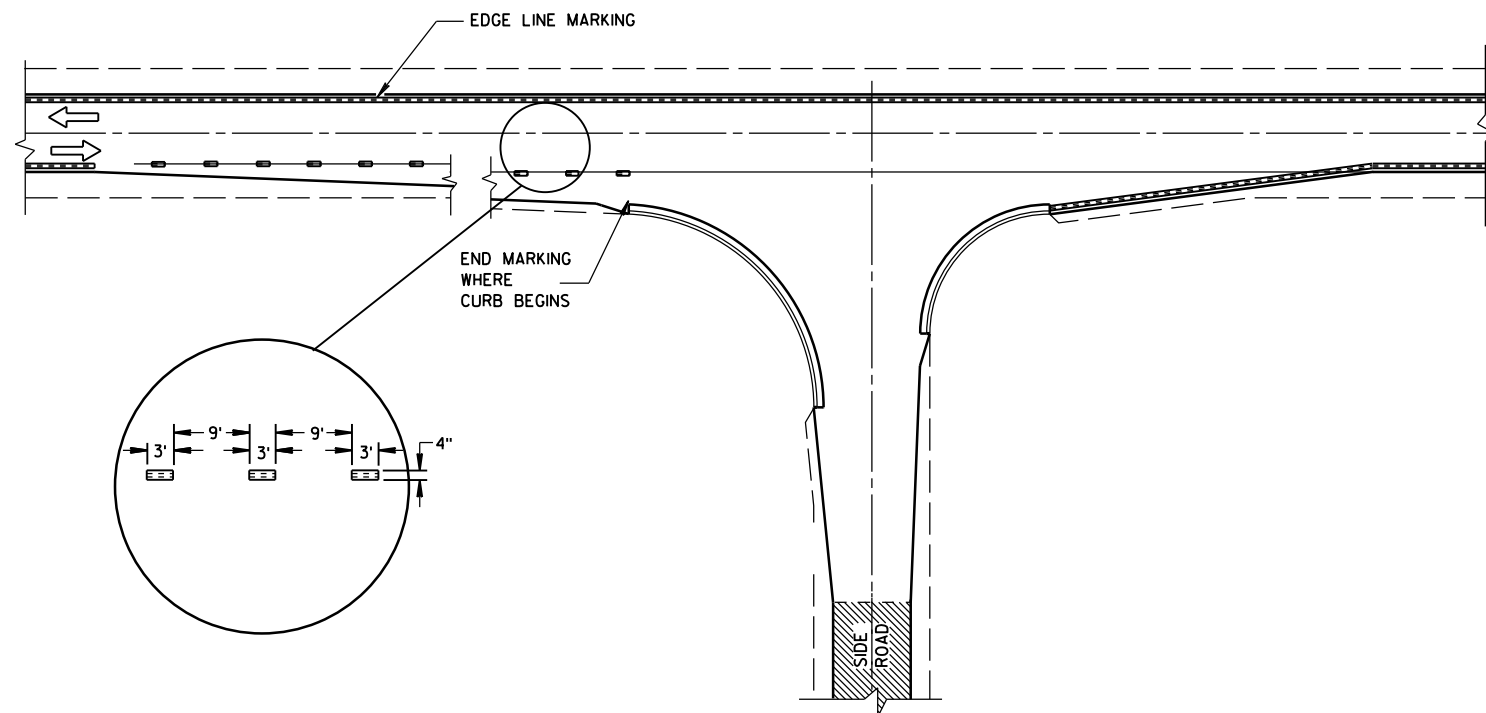
MINOR INTERSECTION WITHOUT CURBS

⑦

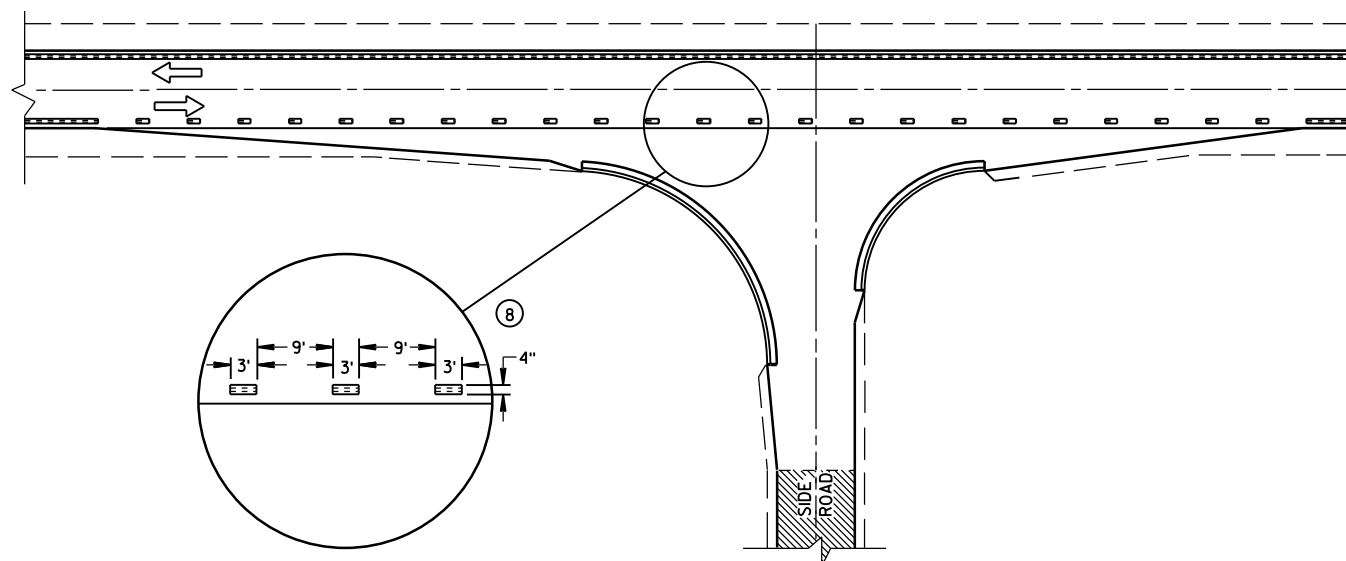
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



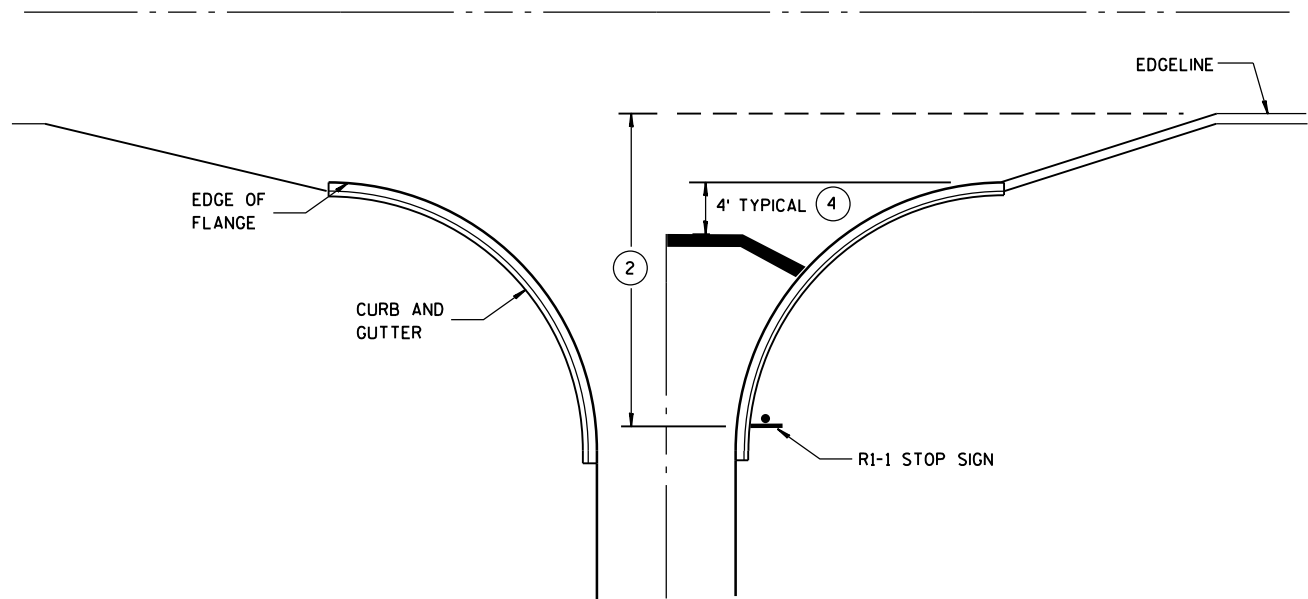
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

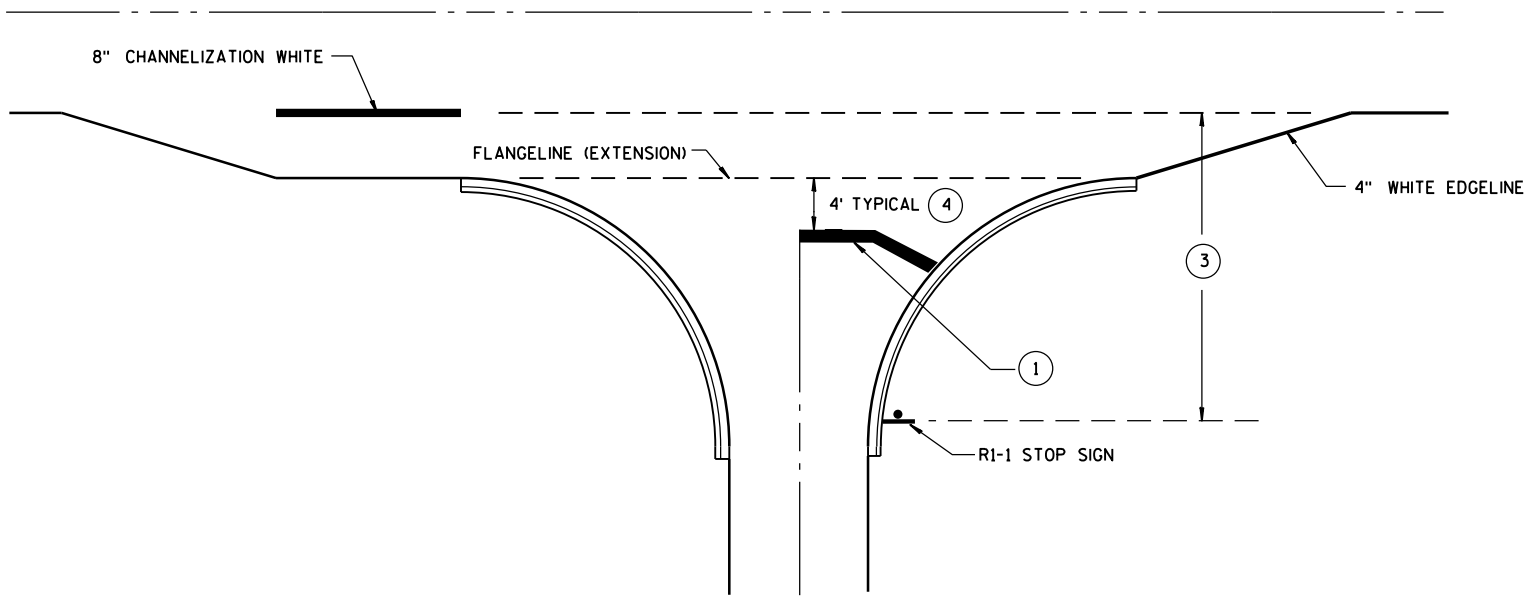
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE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

PAVEMENT MARKING
(INTERSECTIONS)

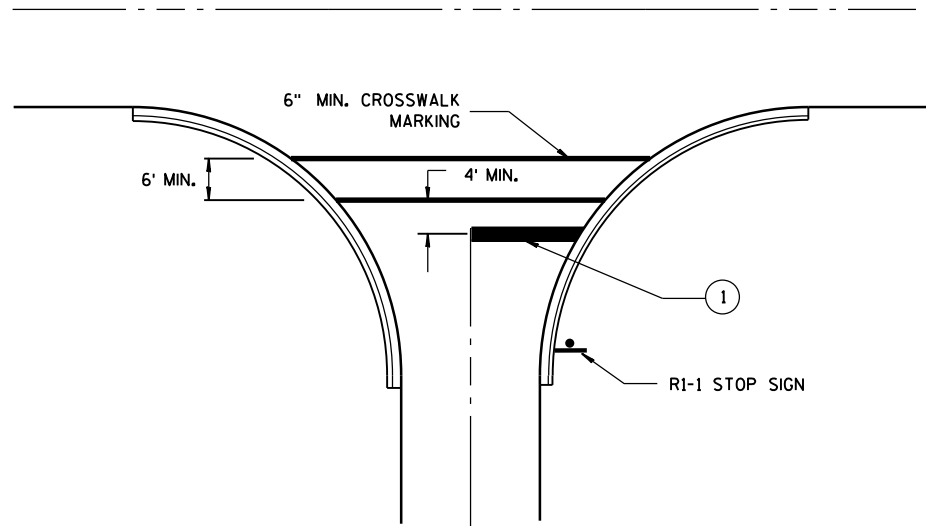
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



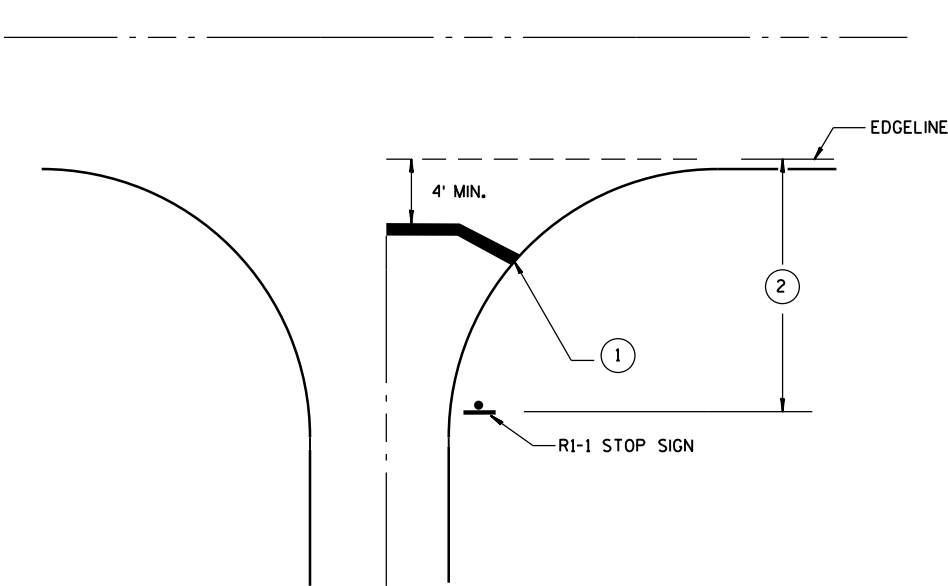
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
10 ft.	25 Sq. Ft	30 Sq. Ft	35 Sq. Ft	40 Sq. Ft	45 Sq. Ft	50 Sq. Ft	55 Sq. Ft	60 Sq. Ft	65 Sq. Ft	70 Sq. Ft	75 Sq. Ft	80 Sq. Ft	85 Sq. Ft	90 Sq. Ft	95 Sq. Ft	100 Sq. Ft	105 Sq. Ft	110 Sq. Ft	115 Sq. Ft	120 Sq. Ft	125 Sq. Ft	130 Sq. Ft	135 Sq. Ft	140 Sq. Ft	145 Sq. Ft	150 Sq. Ft	155 Sq. Ft	160 Sq. Ft
11 ft.	27.5 Sq. Ft	33 Sq. Ft	38.5 Sq. Ft	44 Sq. Ft	49.5 Sq. Ft	55 Sq. Ft	60.5 Sq. Ft	66 Sq. Ft	71.5 Sq. Ft	77 Sq. Ft	82.5 Sq. Ft	88 Sq. Ft	93.5 Sq. Ft	99 Sq. Ft	104.5 Sq. Ft	110 Sq. Ft	115.5 Sq. Ft	121 Sq. Ft	126.5 Sq. Ft	132 Sq. Ft	137.5 Sq. Ft	143 Sq. Ft	148.5 Sq. Ft	154 Sq. Ft	159.5 Sq. Ft	165 Sq. Ft	170.5 Sq. Ft	176 Sq. Ft
12 ft.	30 Sq. Ft	36 Sq. Ft	42 Sq. Ft	48 Sq. Ft	54 Sq. Ft	60 Sq. Ft	66 Sq. Ft	72 Sq. Ft	78 Sq. Ft	84 Sq. Ft	90 Sq. Ft	96 Sq. Ft	102 Sq. Ft	108 Sq. Ft	114 Sq. Ft	120 Sq. Ft	126 Sq. Ft	132 Sq. Ft	138 Sq. Ft	144 Sq. Ft	150 Sq. Ft	156 Sq. Ft	162 Sq. Ft	168 Sq. Ft	174 Sq. Ft	180 Sq. Ft	186 Sq. Ft	192 Sq. Ft
13 ft.	32.5 Sq. Ft	39 Sq. Ft	45.5 Sq. Ft	52 Sq. Ft	58.5 Sq. Ft	65 Sq. Ft	71.5 Sq. Ft	78 Sq. Ft	84.5 Sq. Ft	91 Sq. Ft	97.5 Sq. Ft	104 Sq. Ft	110.5 Sq. Ft	117 Sq. Ft	123.5 Sq. Ft	130 Sq. Ft	136.5 Sq. Ft	143 Sq. Ft	149.5 Sq. Ft	156 Sq. Ft	162.5 Sq. Ft	169 Sq. Ft	175.5 Sq. Ft	182 Sq. Ft	188.5 Sq. Ft	195 Sq. Ft	201.5 Sq. Ft	208 Sq. Ft
14 ft.	35 Sq. Ft	42 Sq. Ft	49 Sq. Ft	56 Sq. Ft	63 Sq. Ft	70 Sq. Ft	77 Sq. Ft	84 Sq. Ft	91 Sq. Ft	98 Sq. Ft	105 Sq. Ft	112 Sq. Ft	119 Sq. Ft	126 Sq. Ft	133 Sq. Ft	140 Sq. Ft	147 Sq. Ft	154 Sq. Ft	161 Sq. Ft	168 Sq. Ft	175 Sq. Ft	182 Sq. Ft	189 Sq. Ft	196 Sq. Ft	203 Sq. Ft	210 Sq. Ft	217 Sq. Ft	224 Sq. Ft
15 ft.	37.5 Sq. Ft	45 Sq. Ft	52.5 Sq. Ft	60 Sq. Ft	67.5 Sq. Ft	75 Sq. Ft	82.5 Sq. Ft	90 Sq. Ft	97.5 Sq. Ft	105 Sq. Ft	112.5 Sq. Ft	120 Sq. Ft	127.5 Sq. Ft	135 Sq. Ft	142.5 Sq. Ft	150 Sq. Ft	157.5 Sq. Ft	165 Sq. Ft	172.5 Sq. Ft	180 Sq. Ft	187.5 Sq. Ft	195 Sq. Ft	202.5 Sq. Ft	210 Sq. Ft	217.5 Sq. Ft	225 Sq. Ft	232.5 Sq. Ft	240 Sq. Ft
16 ft.	40 Sq. Ft	48 Sq. Ft	56 Sq. Ft	64 Sq. Ft	72 Sq. Ft	80 Sq. Ft	88 Sq. Ft	96 Sq. Ft	104 Sq. Ft	112 Sq. Ft	120 Sq. Ft	128 Sq. Ft	136 Sq. Ft	144 Sq. Ft	152 Sq. Ft	160 Sq. Ft	168 Sq. Ft	176 Sq. Ft	184 Sq. Ft	192 Sq. Ft	200 Sq. Ft	208 Sq. Ft	216 Sq. Ft	224 Sq. Ft	232 Sq. Ft	240 Sq. Ft	248 Sq. Ft	256 Sq. Ft
17 ft.	42.5 Sq. Ft	51 Sq. Ft	59.5 Sq. Ft	68 Sq. Ft	76.5 Sq. Ft	85 Sq. Ft	93.5 Sq. Ft	102 Sq. Ft	110.5 Sq. Ft	119 Sq. Ft	127.5 Sq. Ft	136 Sq. Ft	144.5 Sq. Ft	153 Sq. Ft	161.5 Sq. Ft	170 Sq. Ft	178.5 Sq. Ft	187 Sq. Ft	195.5 Sq. Ft	204 Sq. Ft	212.5 Sq. Ft	221 Sq. Ft	229.5 Sq. Ft	238 Sq. Ft	246.5 Sq. Ft	255 Sq. Ft	263.5 Sq. Ft	272 Sq. Ft
18 ft.	45 Sq. Ft	54 Sq. Ft	63 Sq. Ft	72 Sq. Ft	81 Sq. Ft	90 Sq. Ft	99 Sq. Ft	108 Sq. Ft	117 Sq. Ft	126 Sq. Ft	135 Sq. Ft	144 Sq. Ft	153 Sq. Ft	162 Sq. Ft	171 Sq. Ft	180 Sq. Ft	189 Sq. Ft	198 Sq. Ft	207 Sq. Ft	216 Sq. Ft	225 Sq. Ft	234 Sq. Ft	243 Sq. Ft	252 Sq. Ft	261 Sq. Ft	270 Sq. Ft	279 Sq. Ft	288 Sq. Ft
19 ft.	47.5 Sq. Ft	57 Sq. Ft	66.5 Sq. Ft	76 Sq. Ft	85.5 Sq. Ft	95 Sq. Ft	104.5 Sq. Ft	114 Sq. Ft	123.5 Sq. Ft	133 Sq. Ft	142.5 Sq. Ft	152 Sq. Ft	161.5 Sq. Ft	171 Sq. Ft	180.5 Sq. Ft	190 Sq. Ft	199.5 Sq. Ft	209 Sq. Ft	218.5 Sq. Ft	228 Sq. Ft	237.5 Sq. Ft	247 Sq. Ft	256.5 Sq. Ft	266 Sq. Ft	275.5 Sq. Ft	285 Sq. Ft	294.5 Sq. Ft	304 Sq. Ft
20 ft.	50 Sq. Ft	60 Sq. Ft	70 Sq. Ft	80 Sq. Ft	90 Sq. Ft	100 Sq. Ft	110 Sq. Ft	120 Sq. Ft	130 Sq. Ft	140 Sq. Ft	150 Sq. Ft	160 Sq. Ft	170 Sq. Ft	180 Sq. Ft	190 Sq. Ft	200 Sq. Ft	210 Sq. Ft	220 Sq. Ft	230 Sq. Ft	240 Sq. Ft	250 Sq. Ft	260 Sq. Ft	270 Sq. Ft	280 Sq. Ft	290 Sq. Ft	300 Sq. Ft	310 Sq. Ft	320 Sq. Ft
21 ft.	52.5 Sq. Ft	63 Sq. Ft	73.5 Sq. Ft	84 Sq. Ft	94.5 Sq. Ft	105 Sq. Ft	115.5 Sq. Ft	126 Sq. Ft	136.5 Sq. Ft	147 Sq. Ft	157.5 Sq. Ft	168 Sq. Ft	178.5 Sq. Ft	189 Sq. Ft	199.5 Sq. Ft	210 Sq. Ft	220.5 Sq. Ft	231 Sq. Ft	241.5 Sq. Ft	252 Sq. Ft	262.5 Sq. Ft							

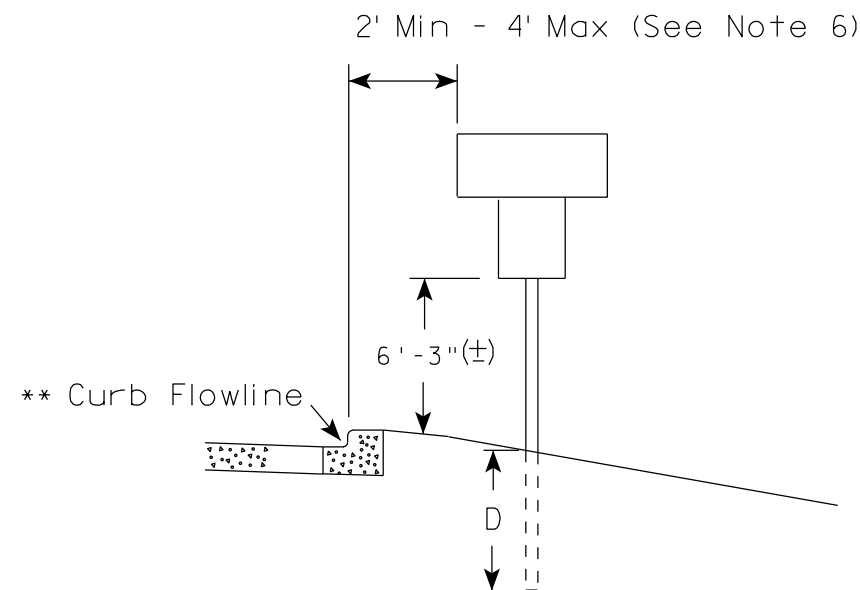
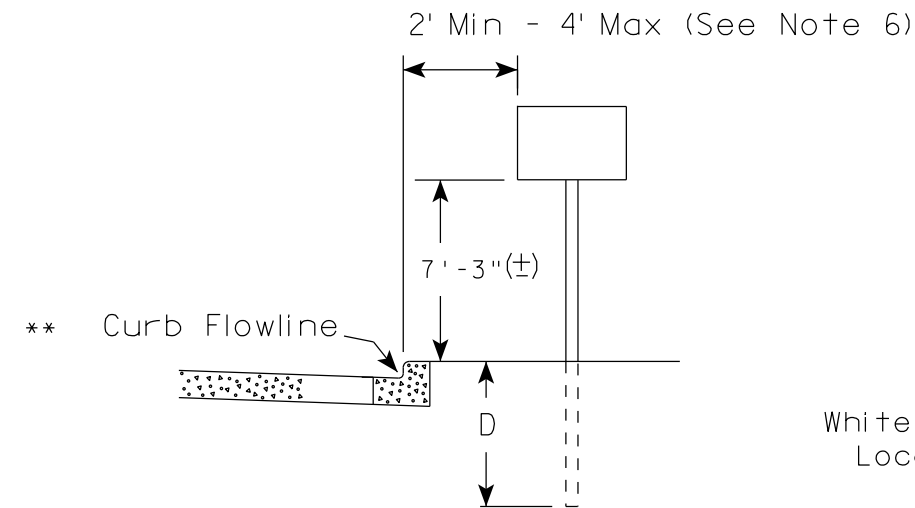
Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

"A" - W10" x 12"
 "B" - W12" x 16"
 "C" - W12" x 19"
 "D" - W12 x 22"

DATE 3/03/10 PLATE NO. A3-2.2

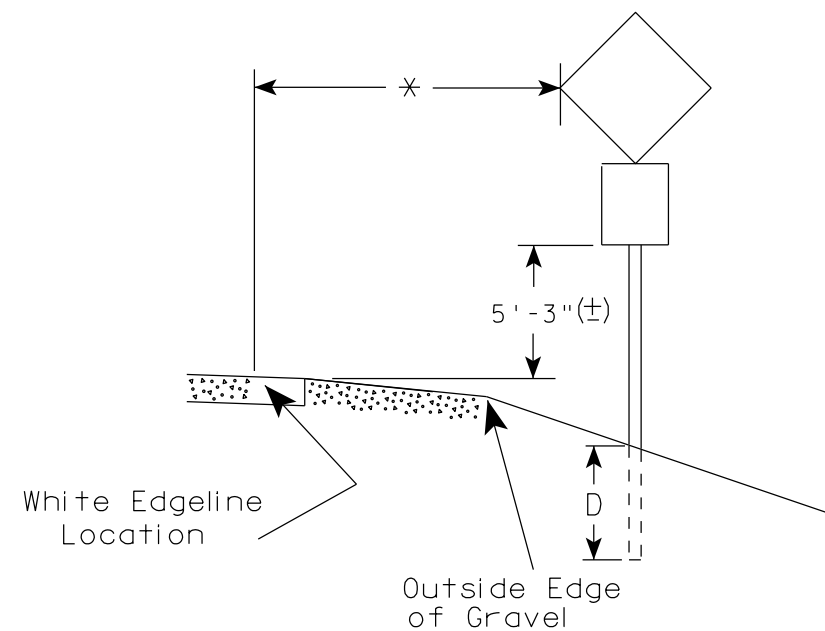
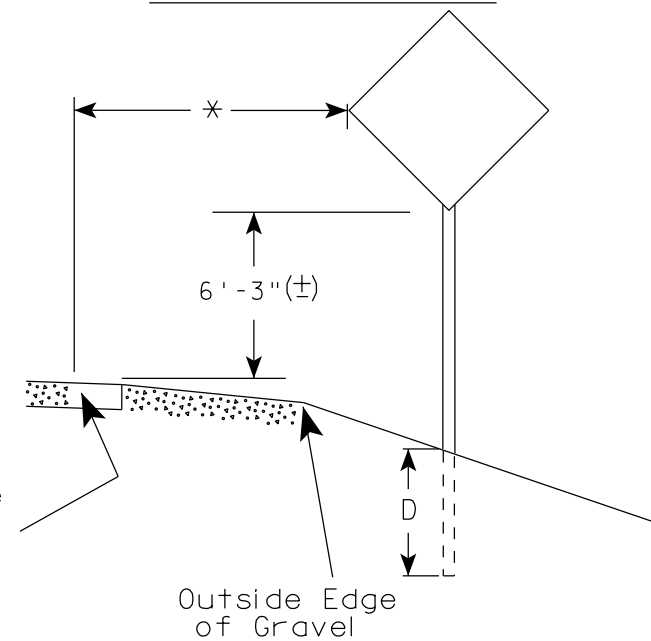
E

URBAN AREA



White Edgeline Location

RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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

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

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/12/14

PLATE NO. A4-3.19

PROJECT NO:

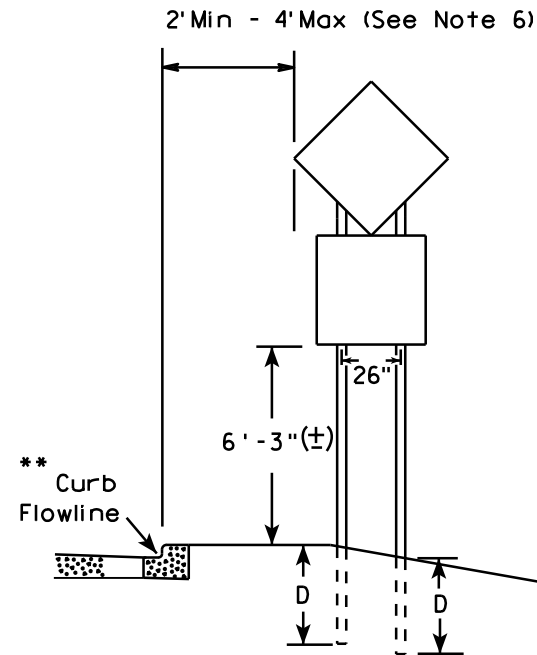
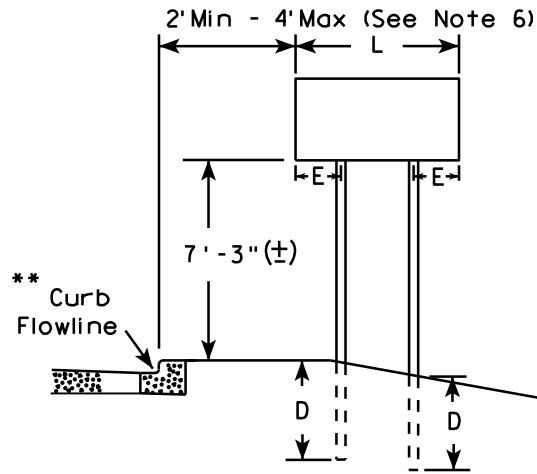
HWY:

COUNTY:

SHEET NO:

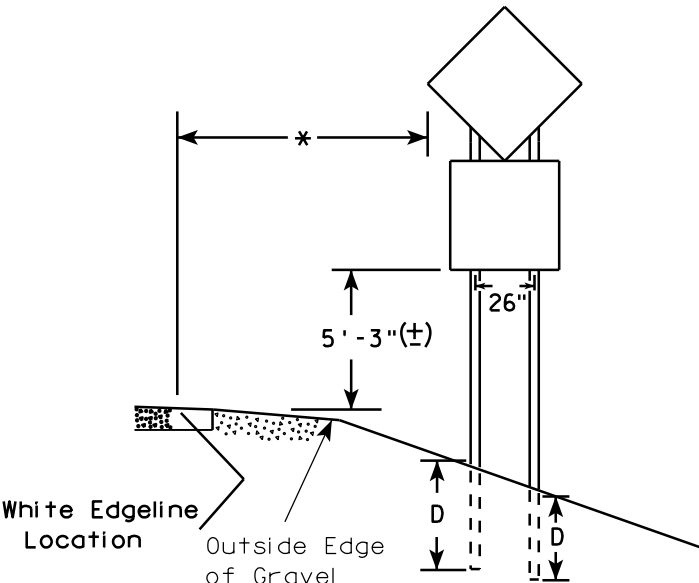
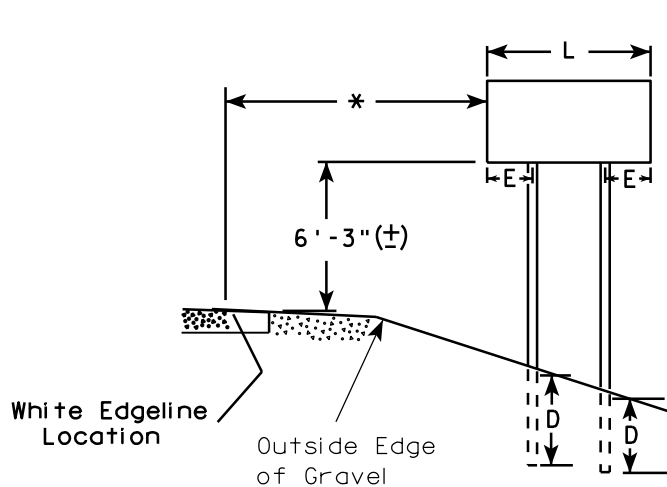
E

URBAN AREA

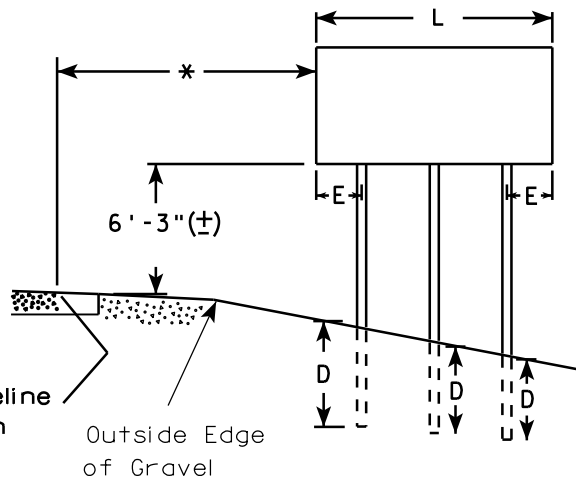


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)



48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4.13

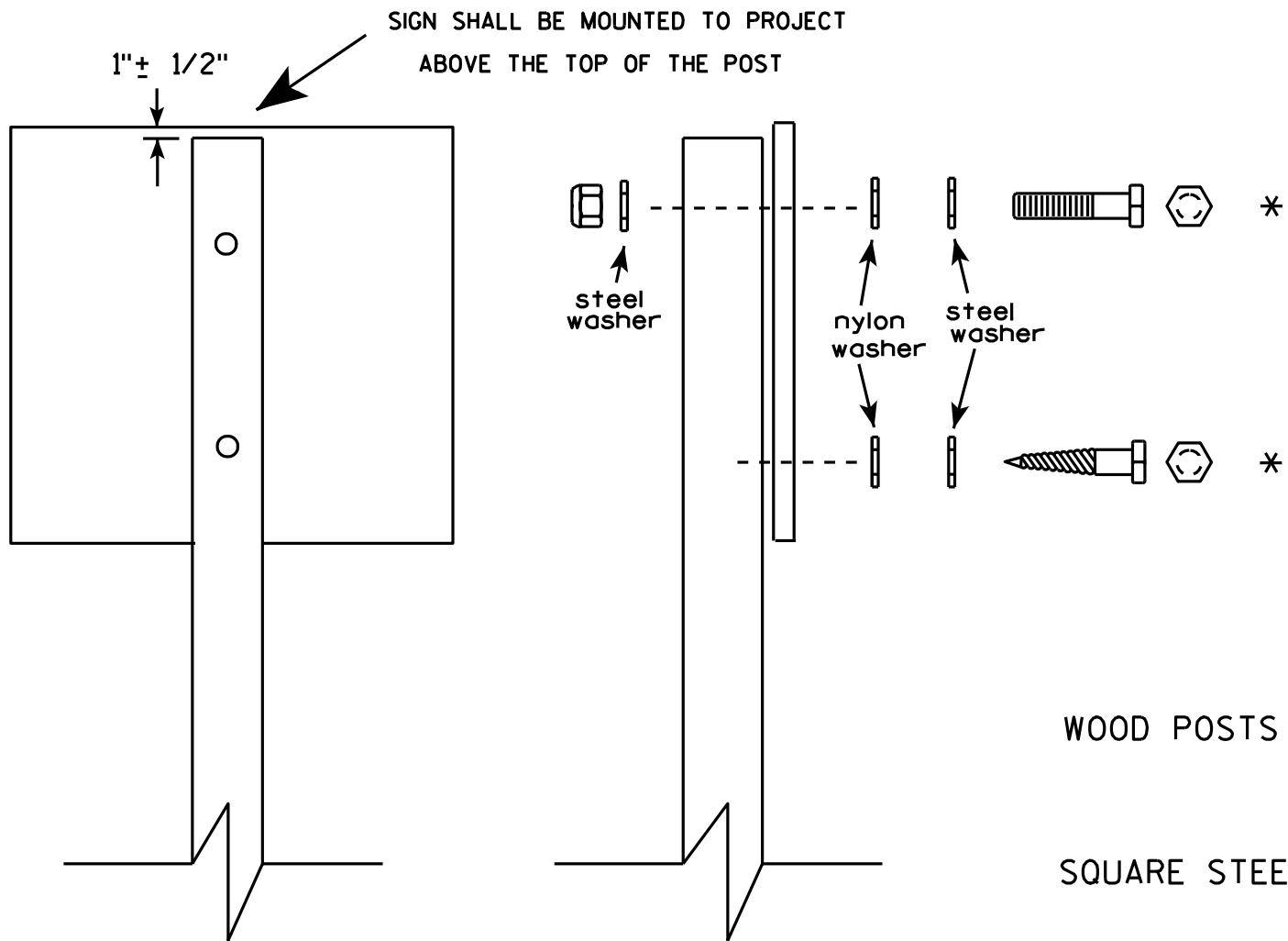
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

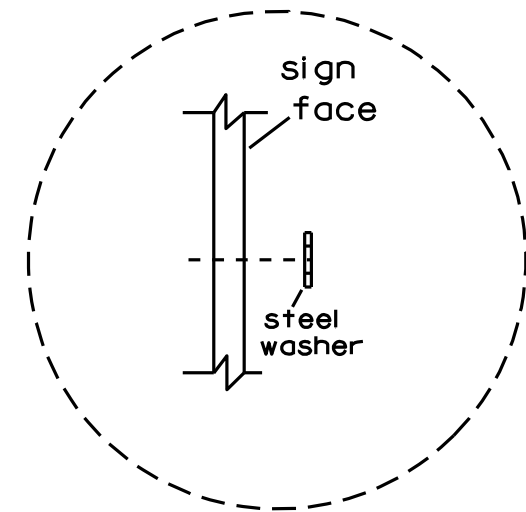
E



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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



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.

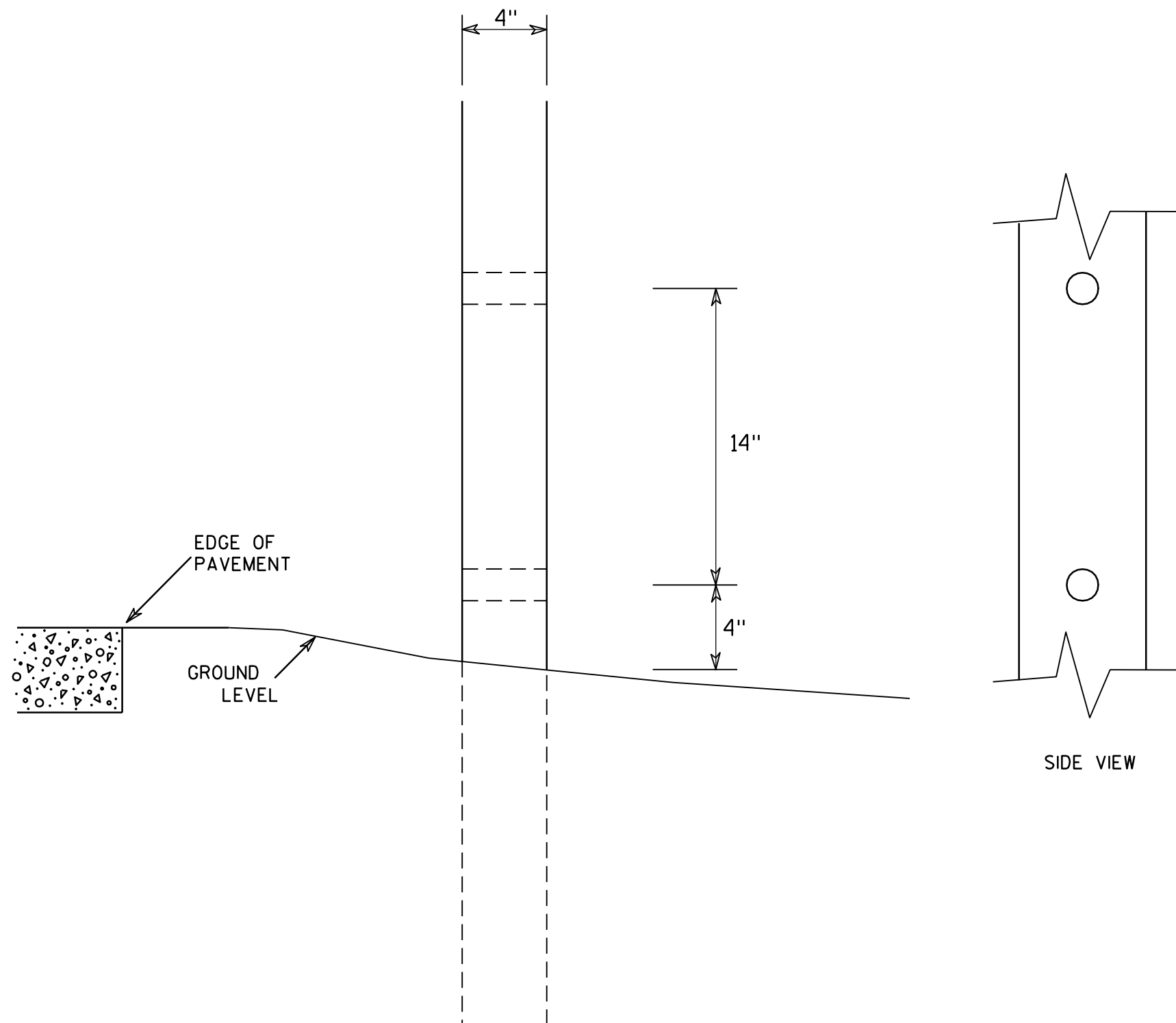
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

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:

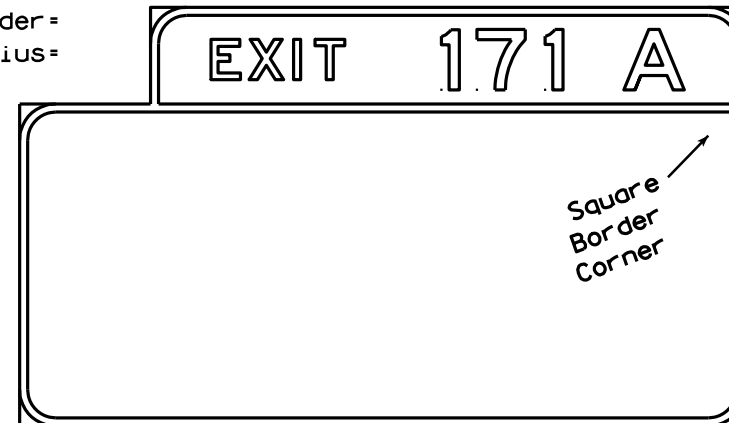
E

GENERAL RULES

1. The border and radius for each sign shall be determined from the table parameters.
2. Every sign detail sheet shall have notes. Refer to the sample for examples.
3. Every sign shall have a radius and border size designation. Signs with an exit number will require two as shown in the example.
4. Exit number panel shall go on right side or left side of sign depending upon a right or left exit situation.
5. Overall length of signs is in one foot increments.
6. Overall height of signs is in 6 inch increments.

SIGNS WITH EXIT NUMBERS & BORDER - RADIUS NOTES

Border =
Radius =



Border =
Radius =

BORDER-RADIUS TABLE

BORDER

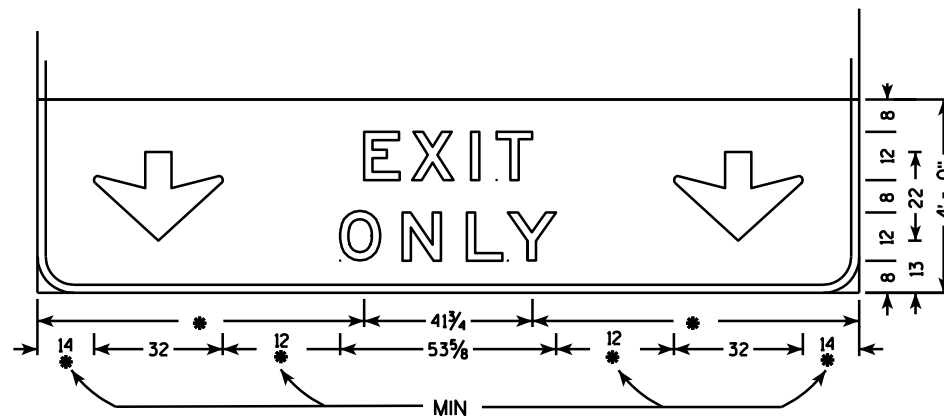
60 - 150 sq. ft. = 2" Border
Over 150 sq. ft. = 3" Border

CORNER RADIUS

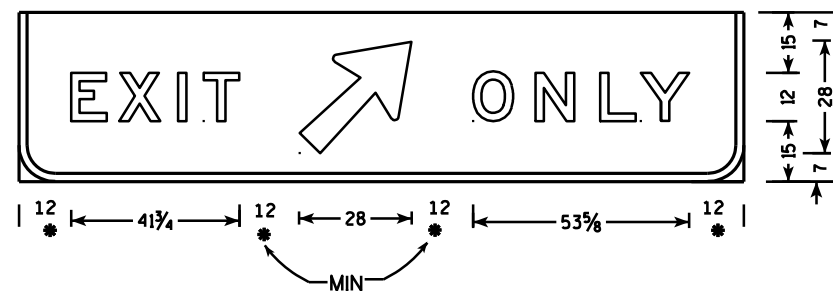
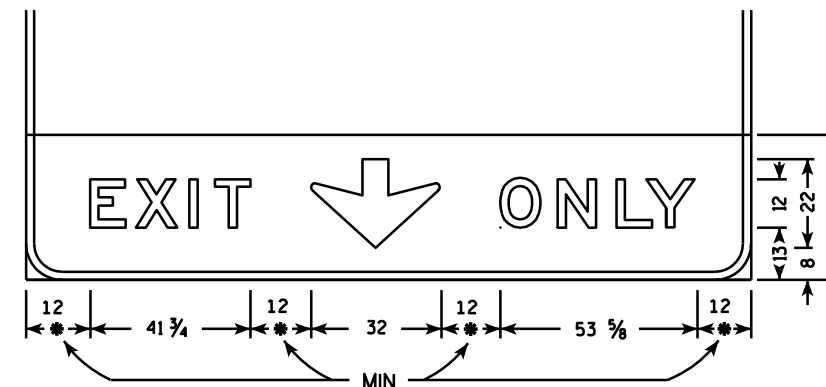
6' - 8' High = 9" Radius
Over 8' High = 12" Radius

NOTES

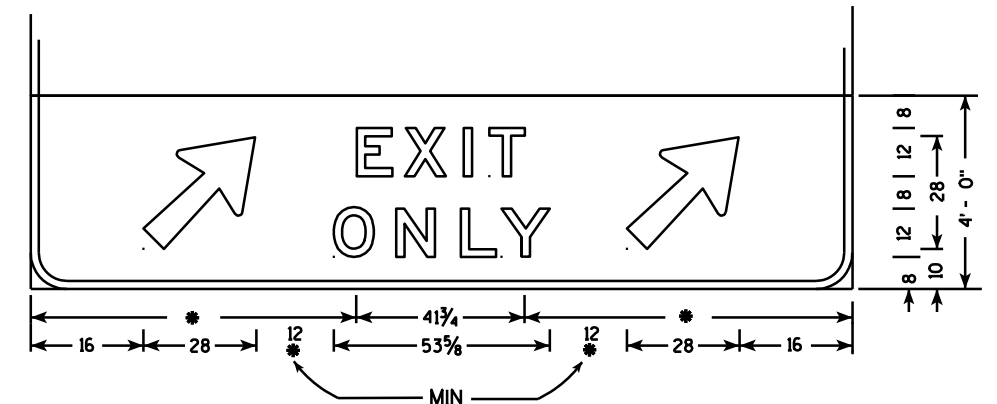
1. All Signs are Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green
Message - White
3. Message Series - E
4. Exit Only panel is Black non-reflective message on a Type F Yellow reflective background.



SIGNS WITH EXIT ONLY PANELS



* Adjust spacing to achieve proper balance



GENERAL GUIDANCE AND INFORMATION SHEET

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

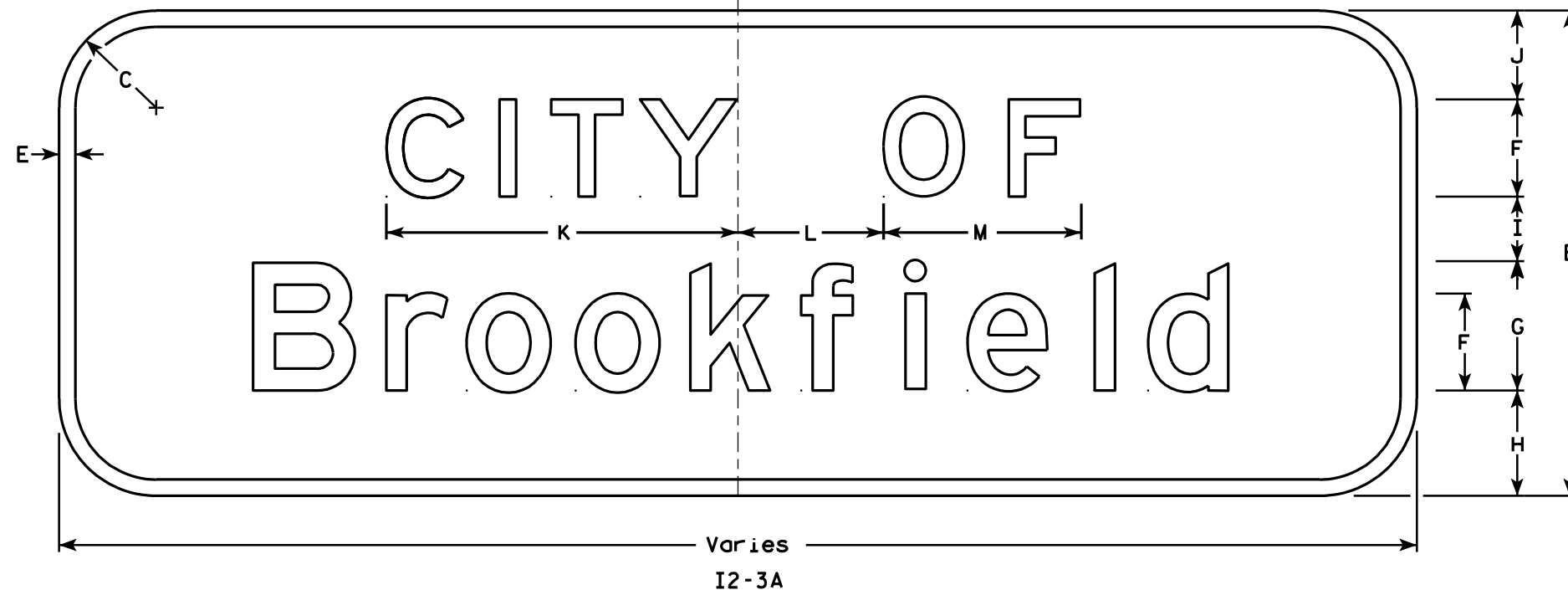
DATE 8/23/10 PLATE NO. A11-1.7

PROJECT NO:

SHEET NO:

E

VILLAGE OF



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green
Message - White - Type H Reflective
3. Message Series - E
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. "VILLAGE OF" shall be used in place of "CITY OF" when applicable.
6. Substitute appropriate message and adjust spacing to achieve proper balance.

7

Metric equivalent
for this sign is:

SIZE	
1	
2	
3	
4	Varies X 750 mm
5	Varies 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																												
3																												
4		30	6		1	6	8	6 1/2	4	5 1/2	21 3/4	9	12 1/4	31 1/4	10 3/8	9 3/4											Varies	Varies
5		30	6		1	6	8	6 1/2	4	5 1/2	21 3/4	9	12 1/4	31 1/4	10 3/8	9 3/4											Varies	Varies

PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGN
I2-3A

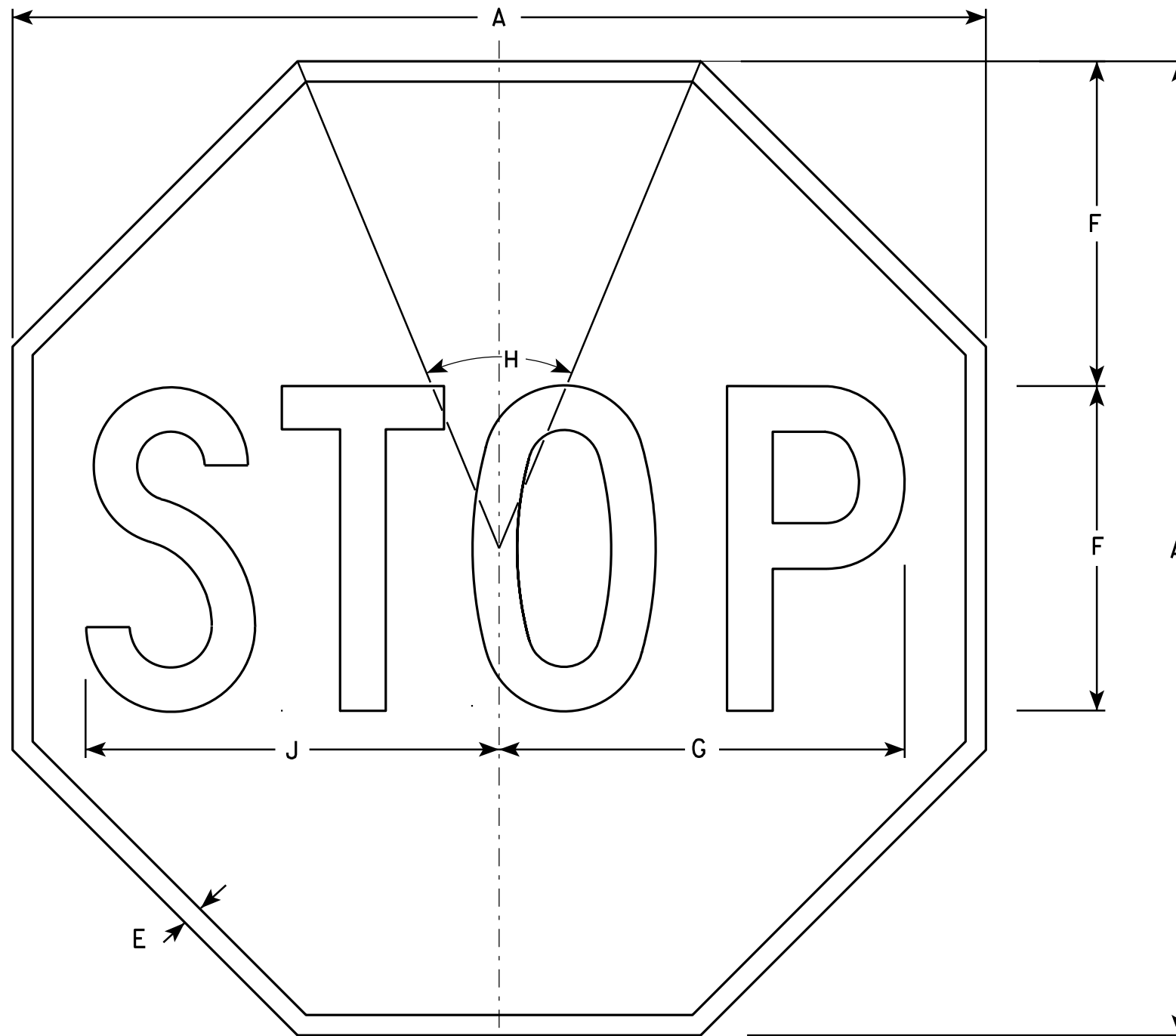
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 1/25/02

PLATE NO. I2-3A.4



NOTES

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

R1-1

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

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

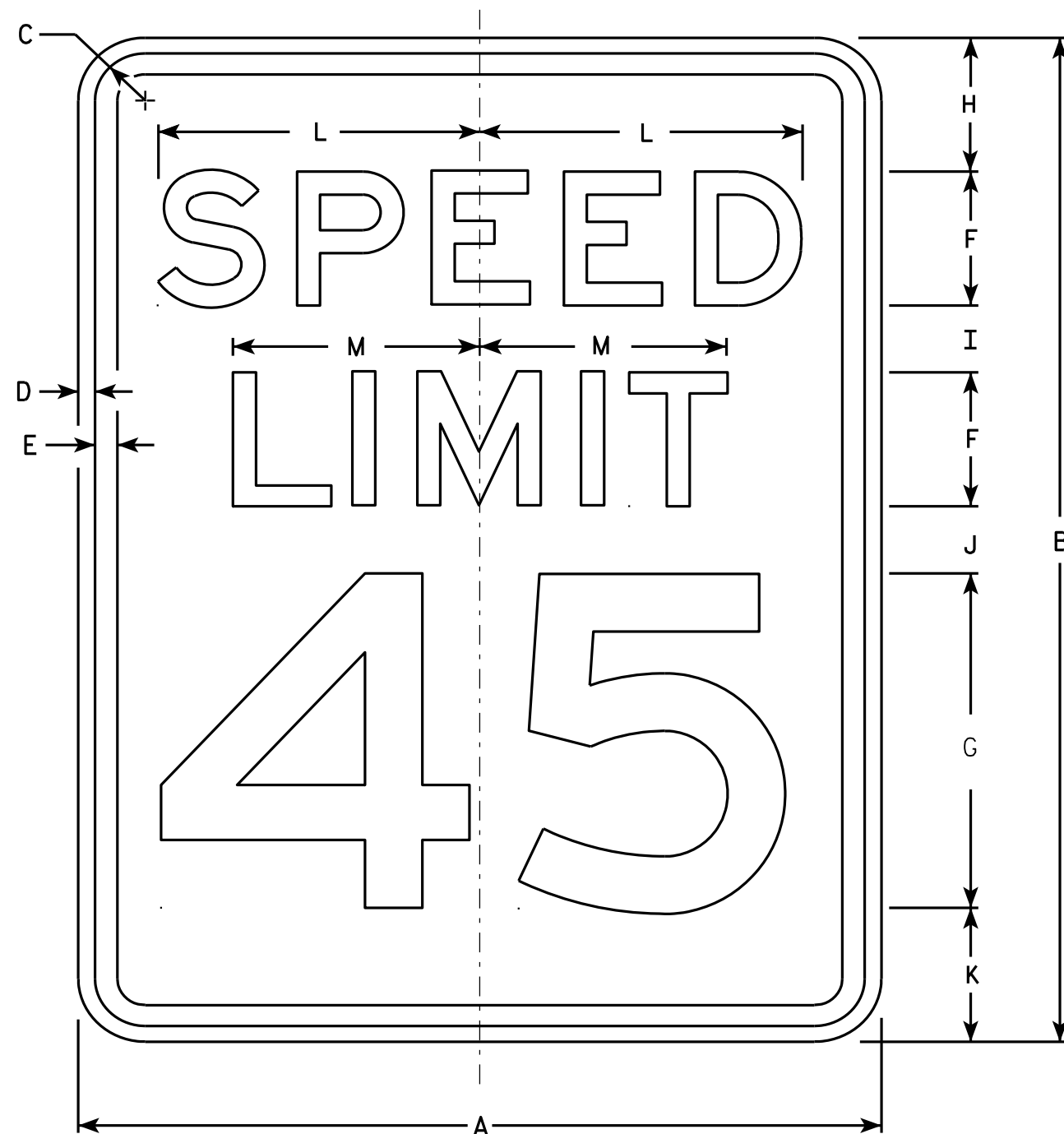
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R2-1

NOTES

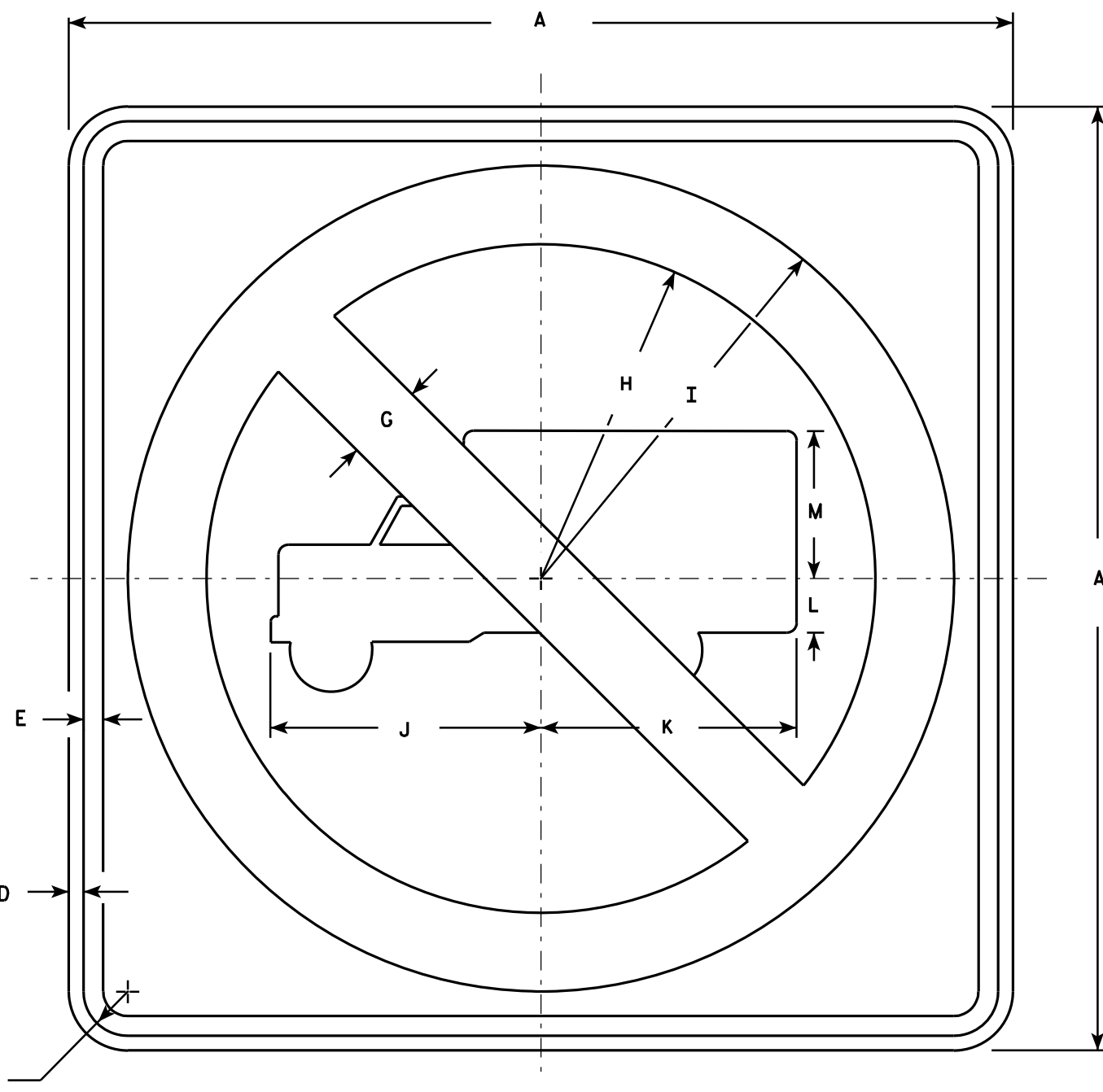
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

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

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
Truck Symbol & Border - Non-reflective black.

R5-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

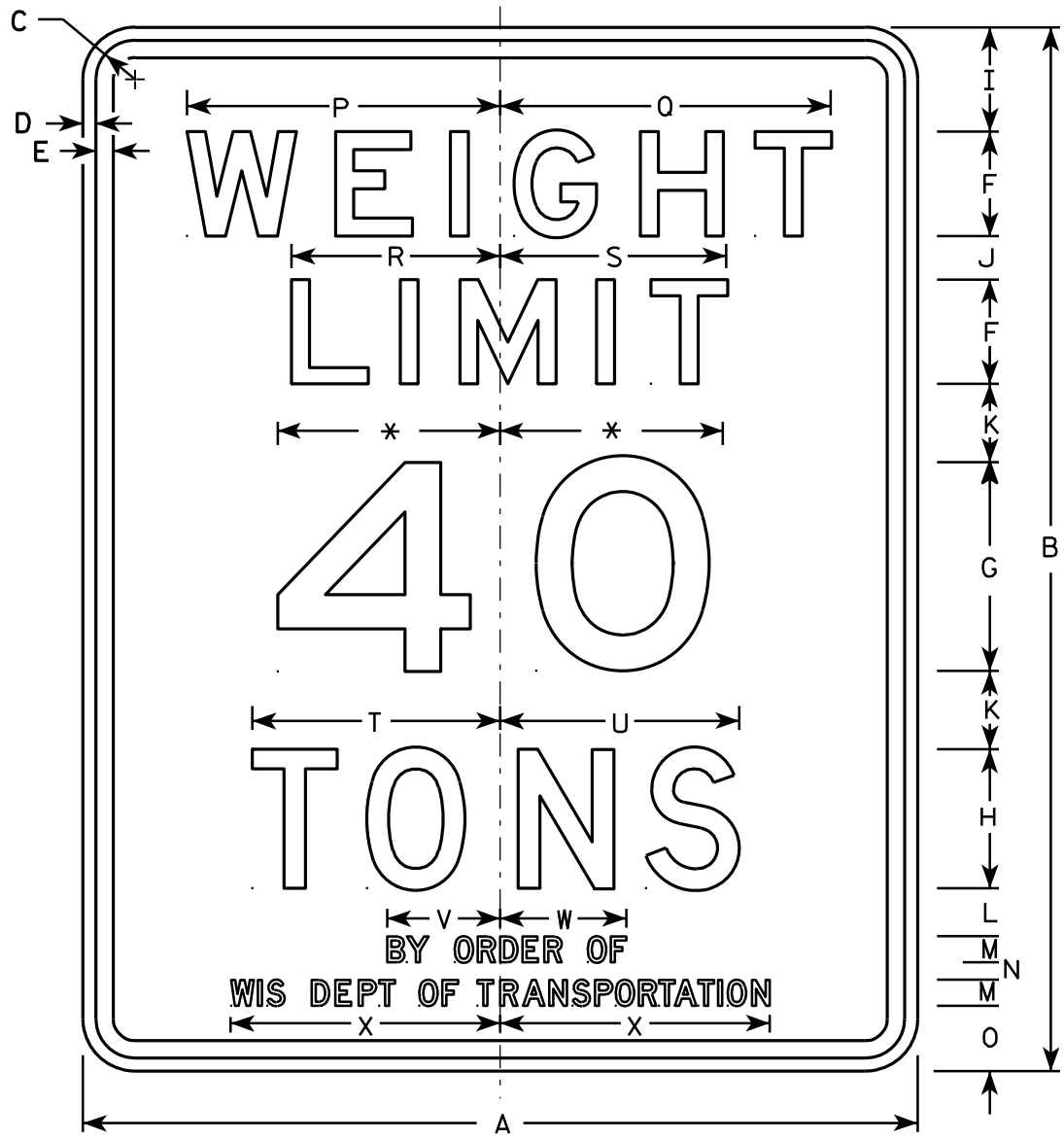
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R12-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 2 & 3 are series E
Lines 4, 5, & 6 are series D.
6. Substitute appropriate numeral and optically adjust spacing to achieve proper balance.
7. Substitute name of county or town on County Trunk and Town Highways respectively. Community name on City or Village Streets including Connecting Highways is optional.

* Varies (see note 6)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2S	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
2M	24	30	1 1/8	3/8	1/2	3	6	4	3	1 1/4	2 1/4	1 3/8	3/4	1/2	1 7/8	9	9 1/2	6	6 1/2	7 1/8	6 7/8	3 1/4	3 5/8	7 3/4			5.0
3	36	48	1 3/8	1/2	5/8	6	10	8	4 1/2	2 1/2	2 1/4	1 1/2	3/4	1/2	3	13 1/2	14 1/4	9	9 3/4	10 5/8	10 1/4	3 1/4	3 5/8	7 3/4			12.0
4	48	60	2 1/4	3/4	1	6	12	8	6	2 1/2	4 1/2	2 3/4	1 1/2	1	3 3/4	18	19	12	13	14 1/4	13 3/4	6 1/2	7 1/4	15 1/2			20.0
5																											

STANDARD SIGN
R12-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R12-1.8

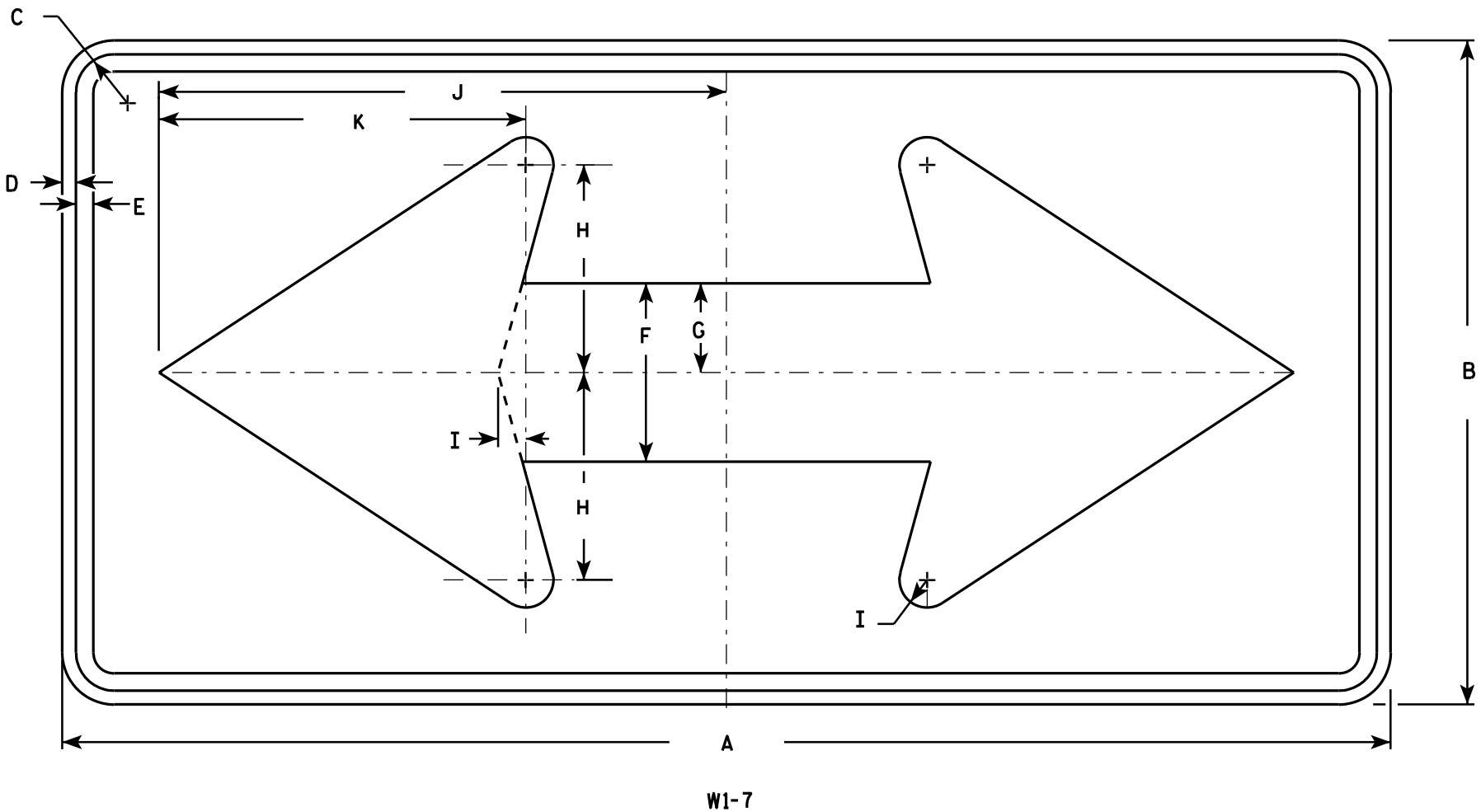
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	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
2M	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
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
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
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN

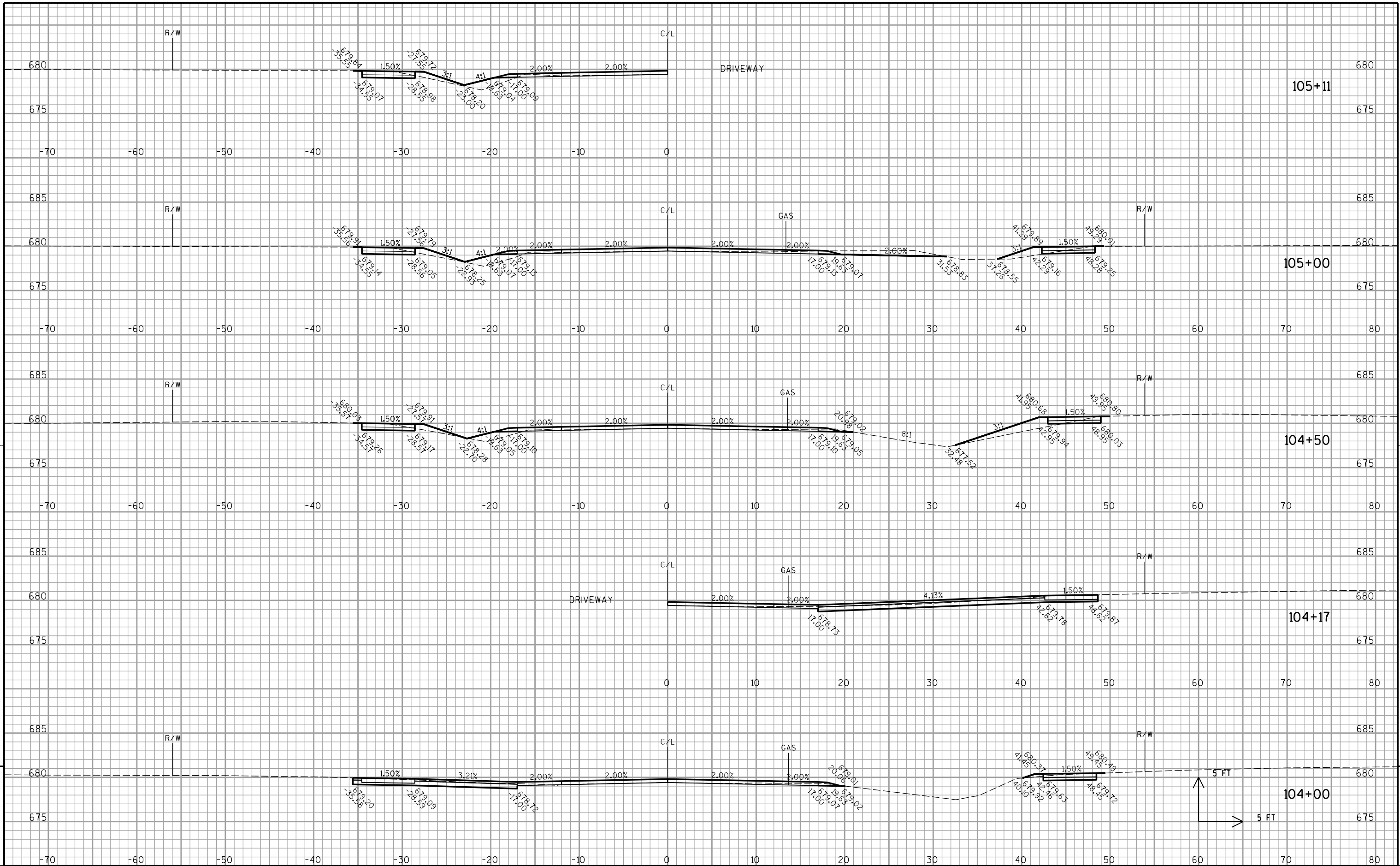
W1 - 7

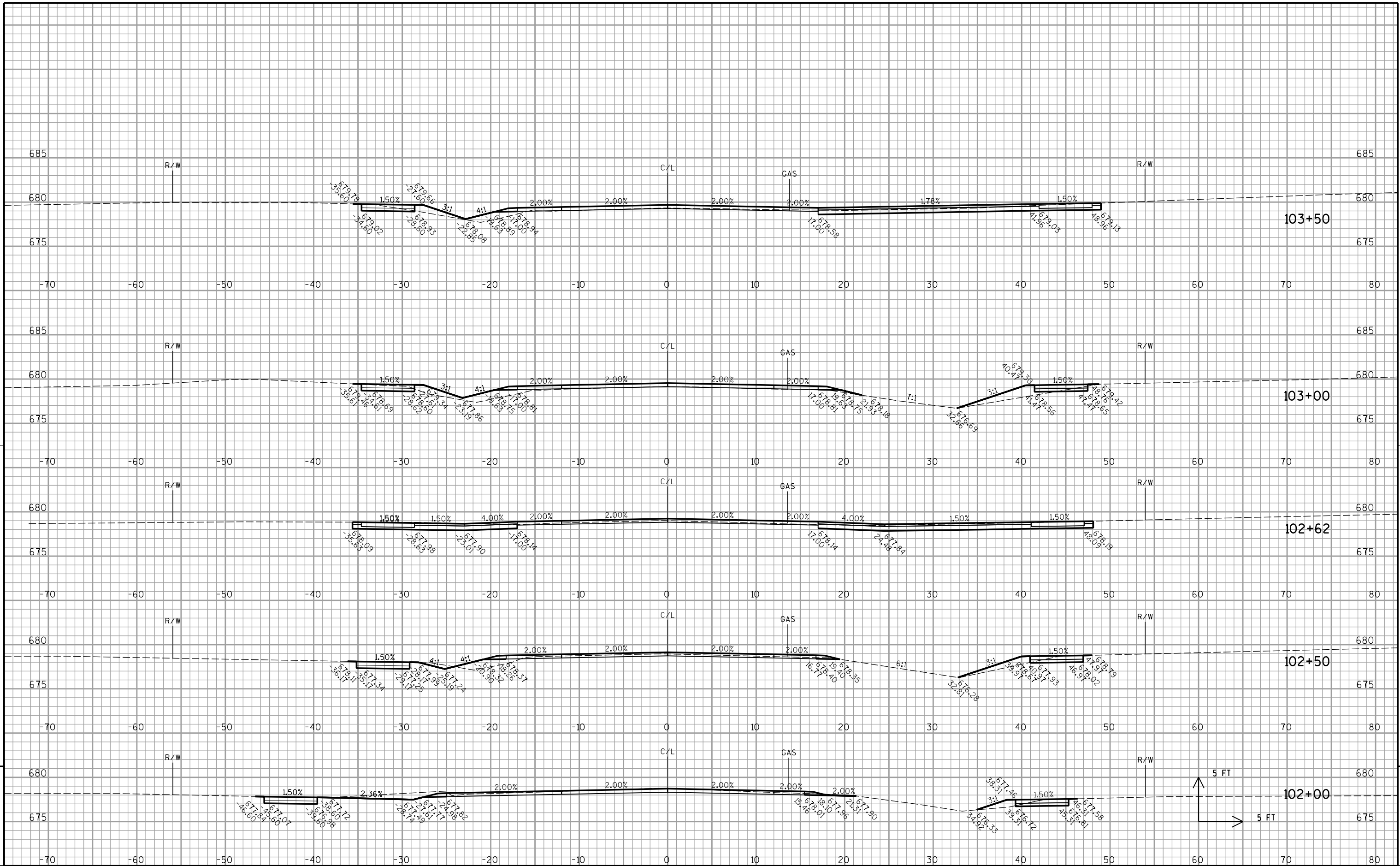
WISCONSIN DEPT OF TRANSPORTATION

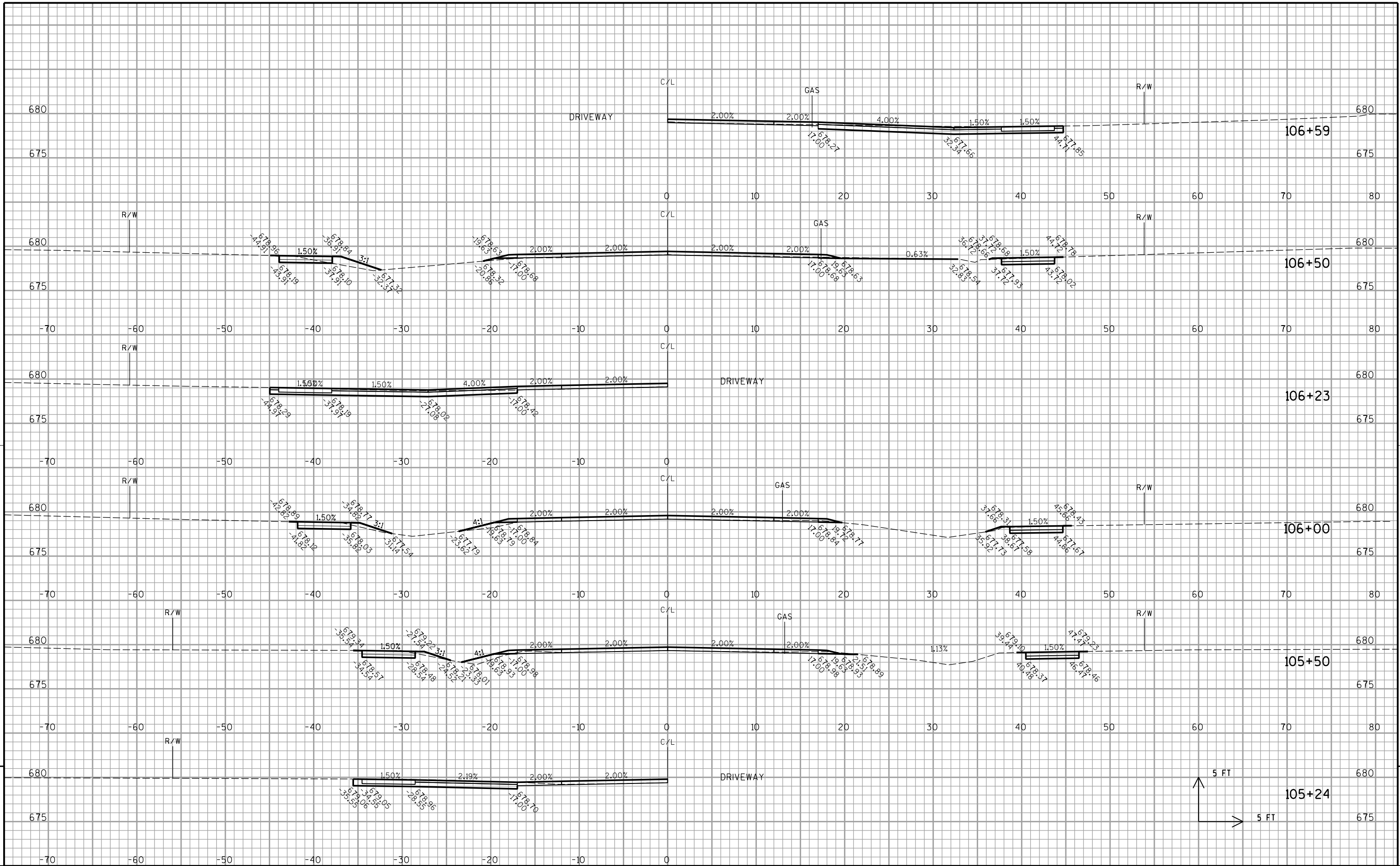
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

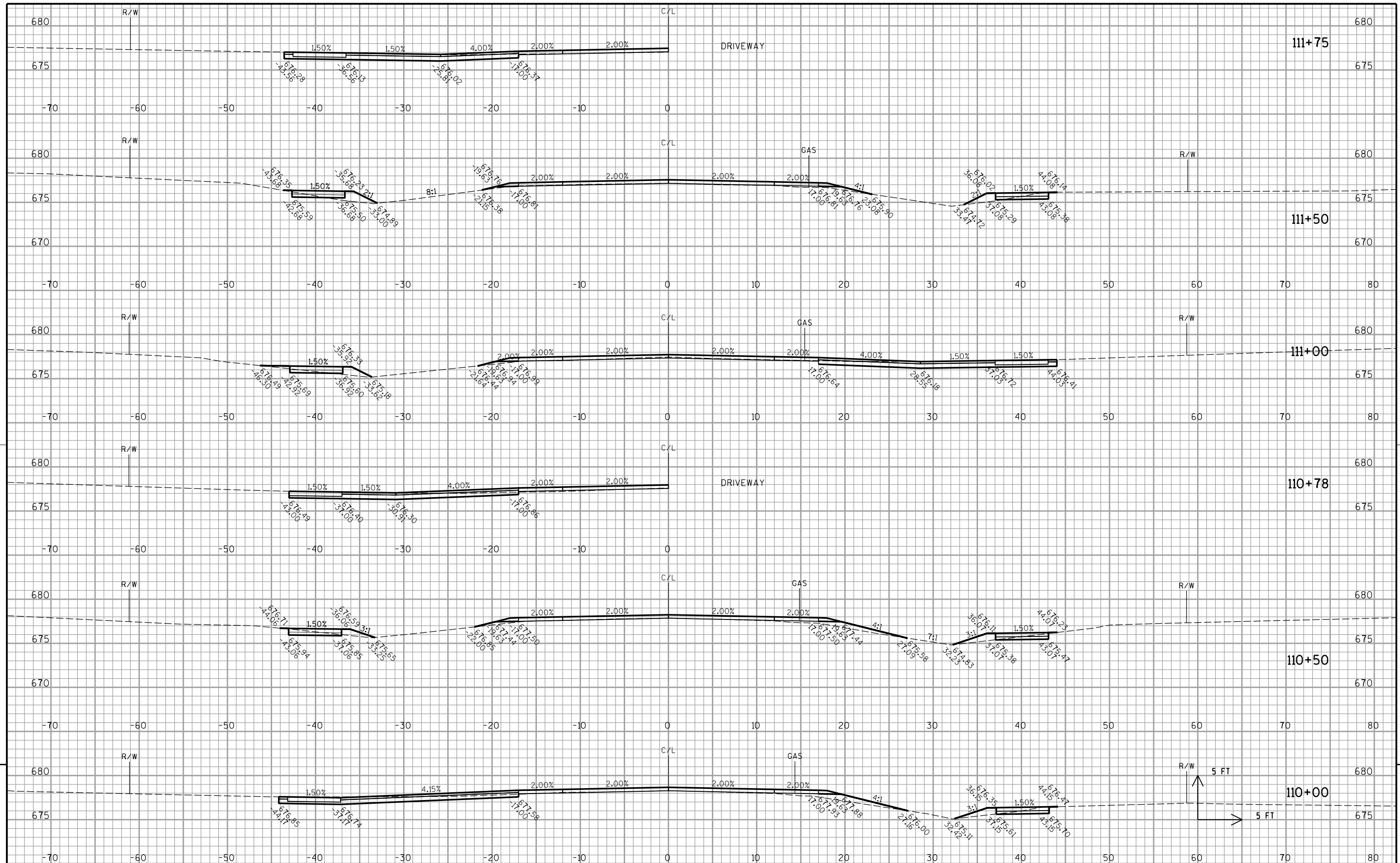
DATE 6/7/10 PLATE NO. W1-7.7

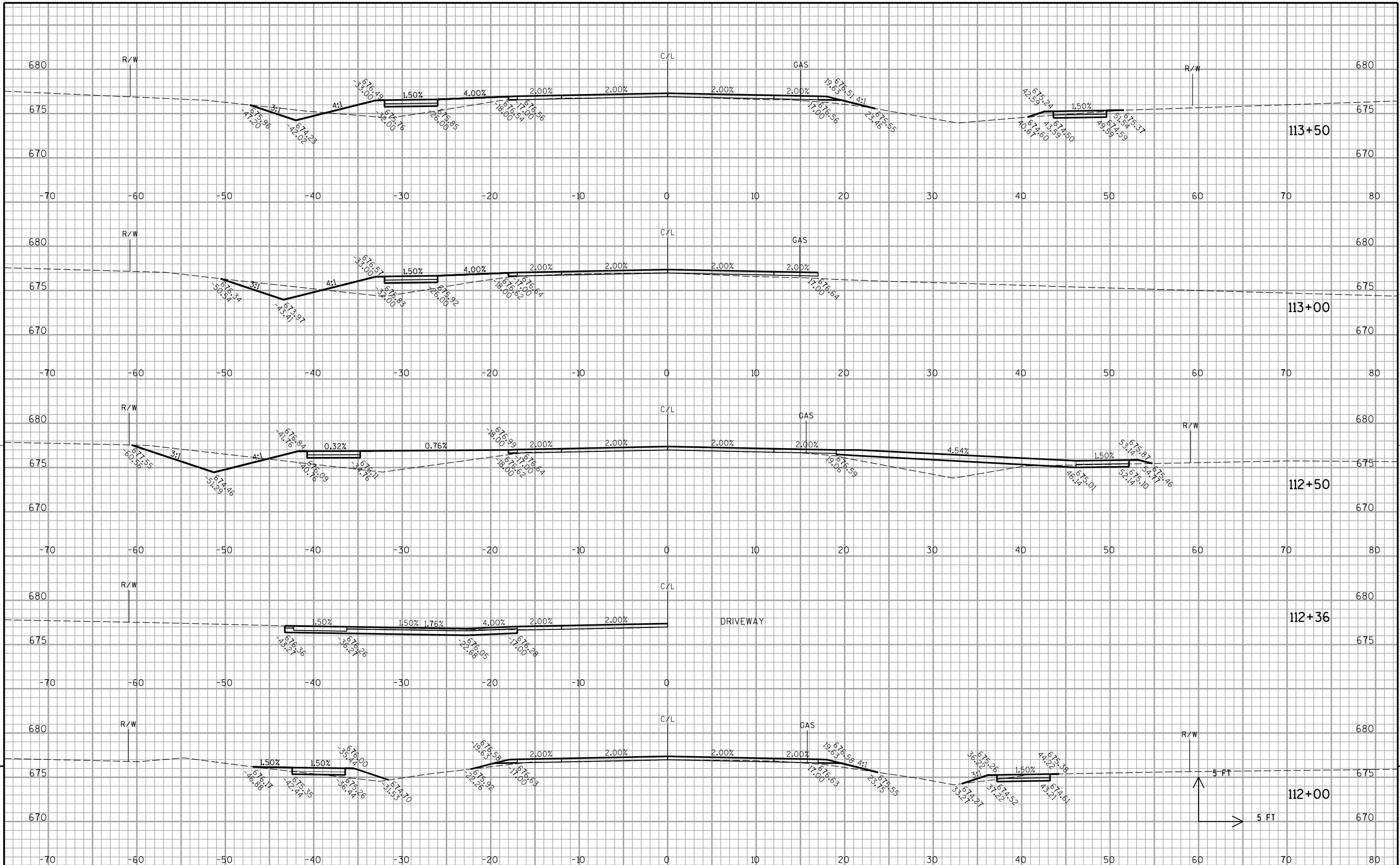
Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)					Cumulative Vol (CY)							Mass Ordinate	
		Cut	Salvaged/ Unusable Pavement Material	Fill	Marsh Exc	EBS	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded Marsh Backfill 1.50 Note 4	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.80 Note 6	Reduced EBS In Fill 0.80 Note 7		
102+00.00		14.25	0.00	2.21	0	0	0.0	0.0	0.0	0	0	0.0	0.0	0	0	0	0	0.0	
102+50.00	50	8.92	0.00	8.29	0	0	21.5	0.0	9.7	0	0	21.5	11.6	0	0	0	0	9.8	
103+00.00	50	4.64	0.00	15.16	0	0	12.6	0.0	21.7	0	0	34.1	37.7	0	0	0	0	-3.7	
103+50.00	50	18.67	7.99	6.52	0	0	21.6	7.4	20.1	0	0	55.7	61.8	0	0	0	0	-13.6	
104+00.00	50	15.75	4.65	0.52	0	0	31.9	11.7	6.5	0	0	87.6	69.6	0	0	0	0	-1.2	
104+50.00	50	6.25	0.00	12.47	0	0	20.4	4.3	12.0	0	0	108.0	84.0	0	0	0	0	0.4	
105+00.00	50	12.42	0.00	9.37	0	0	17.3	0.0	20.2	0	0	125.3	108.2	0	0	0	0	-6.5	
105+50.00	50	9.76	0.00	3.24	0	0	20.5	0.0	11.7	0	0	145.8	122.3	0	0	0	0	0.0	
106+00.00	50	8.76	0.00	3.55	0	0	17.1	0.0	6.3	0	0	162.9	129.8	0	0	0	0	9.6	
106+50.00	50	7.90	0.00	4.02	0	0	15.4	0.0	7.0	0	0	178.3	138.2	0	0	0	0	16.6	
107+00.00	50	7.67	0.00	3.35	0	0	14.4	0.0	6.8	0	0	192.7	146.4	0	0	0	0	22.8	
107+50.00	50	7.65	0.00	5.58	0	0	14.2	0.0	8.3	0	0	206.9	156.4	0	0	0	0	27.1	
108+00.00	50	3.75	0.00	6.67	0	0	10.6	0.0	11.3	0	0	217.5	169.9	0	0	0	0	24.1	
108+50.00	50	5.22	0.00	13.74	0	0	8.3	0.0	18.9	0	0	225.8	192.6	0	0	0	0	9.7	
109+00.00	50	4.04	0.00	7.46	0	0	8.6	0.0	19.6	0	0	234.4	216.1	0	0	0	0	-5.3	
109+50.00	50	3.52	0.00	8.61	0	0	7.0	0.0	14.9	0	0	241.4	234.0	0	0	0	0	-16.1	
110+00.00	50	18.05	6.78	6.46	0	0	20.0	6.3	14.0	0	0	261.4	250.8	0	0	0	0	-19.3	
110+50.00	50	4.41	0.00	8.77	0	0	20.8	6.3	14.1	0	0	282.2	267.7	0	0	0	0	-21.7	
111+00.00	50	18.91	6.76	3.42	0	0	21.6	6.3	11.3	0	0	303.8	281.3	0	0	0	0	-20.0	
111+50.00	50	3.33	0.00	6.89	0	0	20.6	6.3	9.5	0	0	324.4	292.7	0	0	0	0	-17.1	
112+00.00	50	3.97	0.00	9.08	0	0	6.8	0.0	14.8	0	0	331.2	310.4	0	0	0	0	-28.1	
112+50.00	50	20.79	0.00	54.32	0	0	22.9	0.0	58.7	0	0	354.1	380.9	0	0	0	0	-75.6	
113+00.00	50	9.23	0.00	22.24	0	0	27.8	0.0	70.9	0	0	381.9	466.0	0	0	0	0	-132.9	
113+50.00	50	7.78	0.00	21.76	0	0	15.8	0.0	40.7	0	0	397.7	514.8	0	0	0	0	-165.9	
114+00.00	50	20.59	6.75	1.09	0	0	26.3	6.3	21.2	0	0	424.0	540.2	0	0	0	0	-171.4	
114+50.00	50	0.34	0.00	53.98	0	0	19.4	6.3	51.0	0	0	443.4	601.4	0	0	0	0	-219.5	
115+00.00	50	19.22	0.00	29.50	0	0	18.1	0.0	77.3	0	0	461.5	694.2	0	0	0	0	-294.2	
115+50.00	50	15.94	0.00	24.75	0	0	32.6	0.0	50.2	0	0	494.1	754.4	0	0	0	0	-321.9	
116+00.00	50	47.42	0.00	24.35	0	0	58.7	0.0	45.5	0	0	552.8	809.0	0	0	0	0	-317.8	
116+50.00	50	8.47	0.00	23.67	0	0	51.8	0.0	44.5	0	0	604.6	862.4	0	0	0	0	-319.5	
117+00.00	50	19.47	0.00	26.73	0	0	25.9	0.0	46.7	0	0	630.5	918.5	0	0	0	0	-349.6	
117+50.00	50	13.37	6.05	7.26	0	0	30.4	5.6	31.5	0	0	660.9	956.3	0	0	0	0	-362.6	
118+00.00	50	4.03	0.00	12.98	0	0	16.1	5.6	18.7	0	0	677.0	978.7	0	0	0	0	-374.5	
118+50.00	50	6.70	0.00	6.01	0	0	9.9	0.0	17.6	0	0	686.9	999.8	0	0	0	0	-385.7	
119+00.00	50	6.21	0.00	7.46	0	0	12.0	0.0	12.5	0	0	698.9	1014.8	0	0	0	0	-388.8	
119+50.00	50	27.23	7.50	3.41	0	0	31.0	6.9	10.1	0	0	729.9	1027.0	0	0	0	0	-376.8	
120+00.00	50	5.90	0.00	14.39	0	0	30.7	6.9	16.5	0	0	760.6	1046.8	0	0	0	0	-372.9	
120+50.00	50	15.26	6.06	5.78	0	0	19.6	5.6	18.7	0	0	780.2	1069.2	0	0	0	0	-381.3	
121+00.00	50	17.55	6.74	0.48	0	0	30.4	11.8	5.8	0	0	810.6	1076.2	0	0	0	0	-369.7	
121+50.00	50	77.49	7.50	16.05	0	0	88.0	13.2	15.3	0	0	898.6	1094.5	0	0	0	0	-313.2	
122+00.00	50	73.55	7.41	1.50	0	0	139.9	13.8	16.3	0	0	1038.5	1114.1	0	0	0	0	-206.8	
122+50.00	50	4.76	0.00	19.67	0	0	72.5	6.9	19.8	0	0	1111.0	1137.8	0	0	0	0	-164.9	
123+00.00	50	4.66	0.00	20.07	0	0	8.7	0.0	37.0	0	0	1119.7	1182.2	0	0	0	0	-200.6	
123+50.00	50	2.19	0.00	17.94	0	0	6.3	0.0	35.2	0	0	1126.0	1224.5	0	0	0	0	-236.5	
124+00.00	50	10.15	0.00	12.50	0	0	11.4	0.0	28.2	0	0	1137.4	1258.3	0	0	0	0	-258.9	
124+50.00	50	13.39	2.25	6.05	0	0	21.8	2.1	17.2	0	0	1159.2	1279.0	0	0	0	0	-259.8	
125+00.00	50	7.52	0.00	20.65	0	0	19.4	2.1	24.7	0	0	1178.6	1308.6	0	0	0	0	-272.2	
125+50.00	50	17.03	0.00	2.48	0	0	22.7	0.0	21.4	0	0	1201.3	1334.3	0	0	0	0	-275.2	
126+00.00	50	11.54	0.00	23.15	0	0	26.5	0.0	23.7	0	0	1227.8	1362.7	0	0	0	0	-277.2	
126+50.00	50	20.49	0.00	19.67	0	0	29.7	0.0	39.8	0	0	1257.5	1410.5	0	0	0	0	-295.3	
127+00.00	50	34.94	5.53	3.98	0	0	51.3	5.1	22.1	0	0	1308.8	1437.0	0	0	0	0	-275.6	
127+50.00	50	16.56	0.00	13.32	0	0	47.7	5.1	16.0	0	0	1356.5	1456.2	0	0	0	0	-252.2	
127+66.00	16	15.49	0.00	12.48	0	0	9.5	0.0	7.6	0	0	1366.0	1465.3	0	0	0	0	-251.8	
Column Totals							1366.0	151.9	1221.1	0	0								

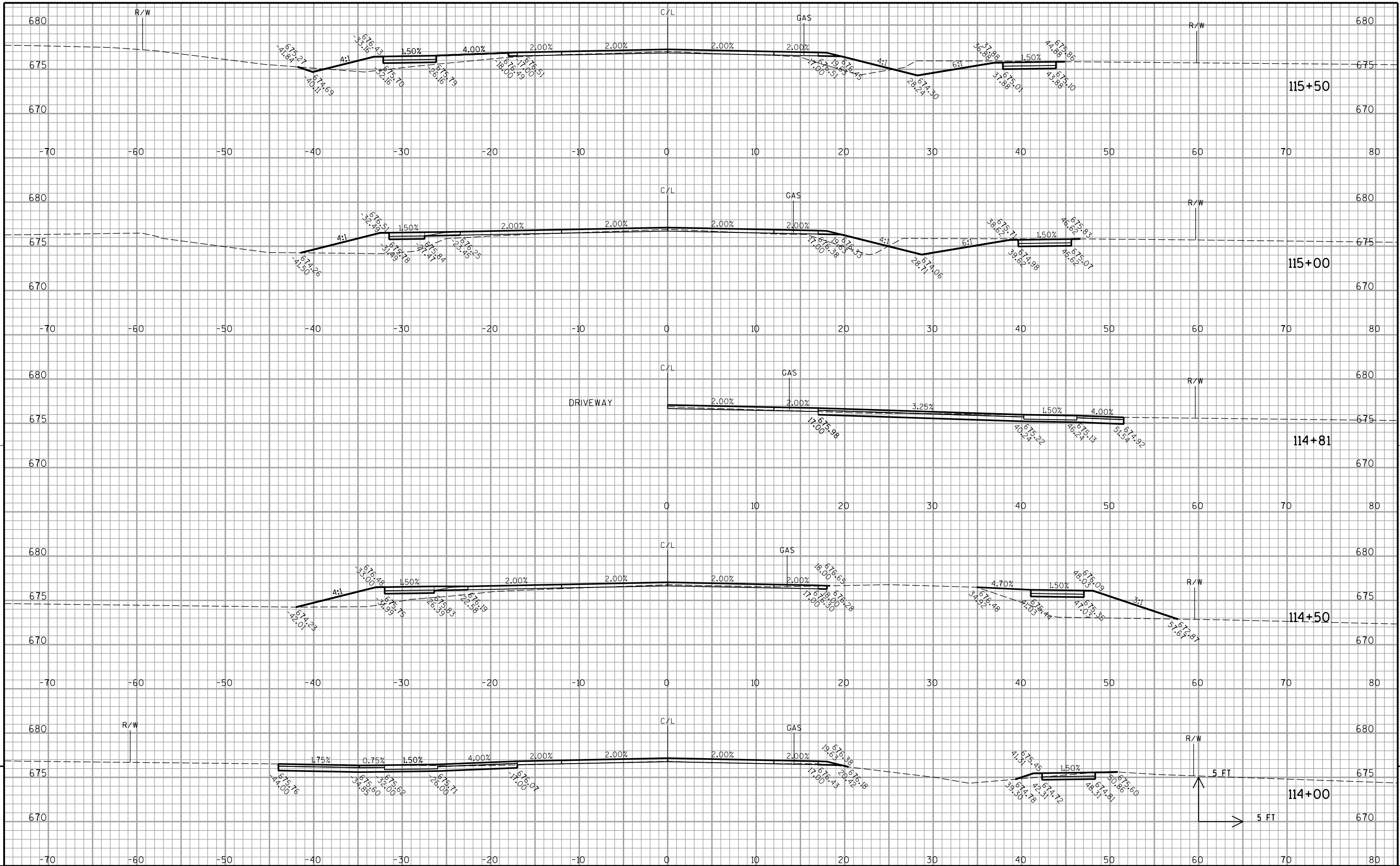


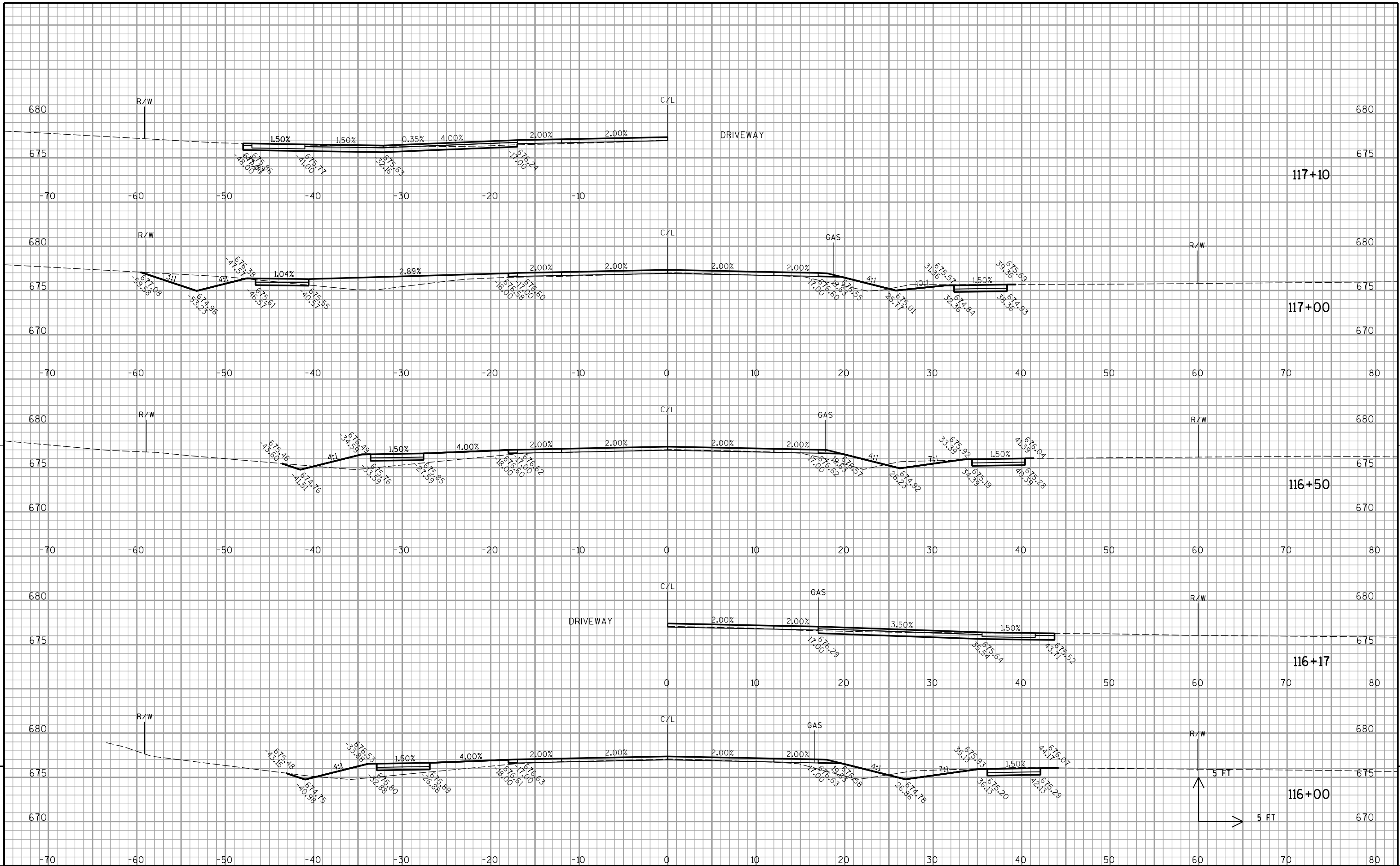


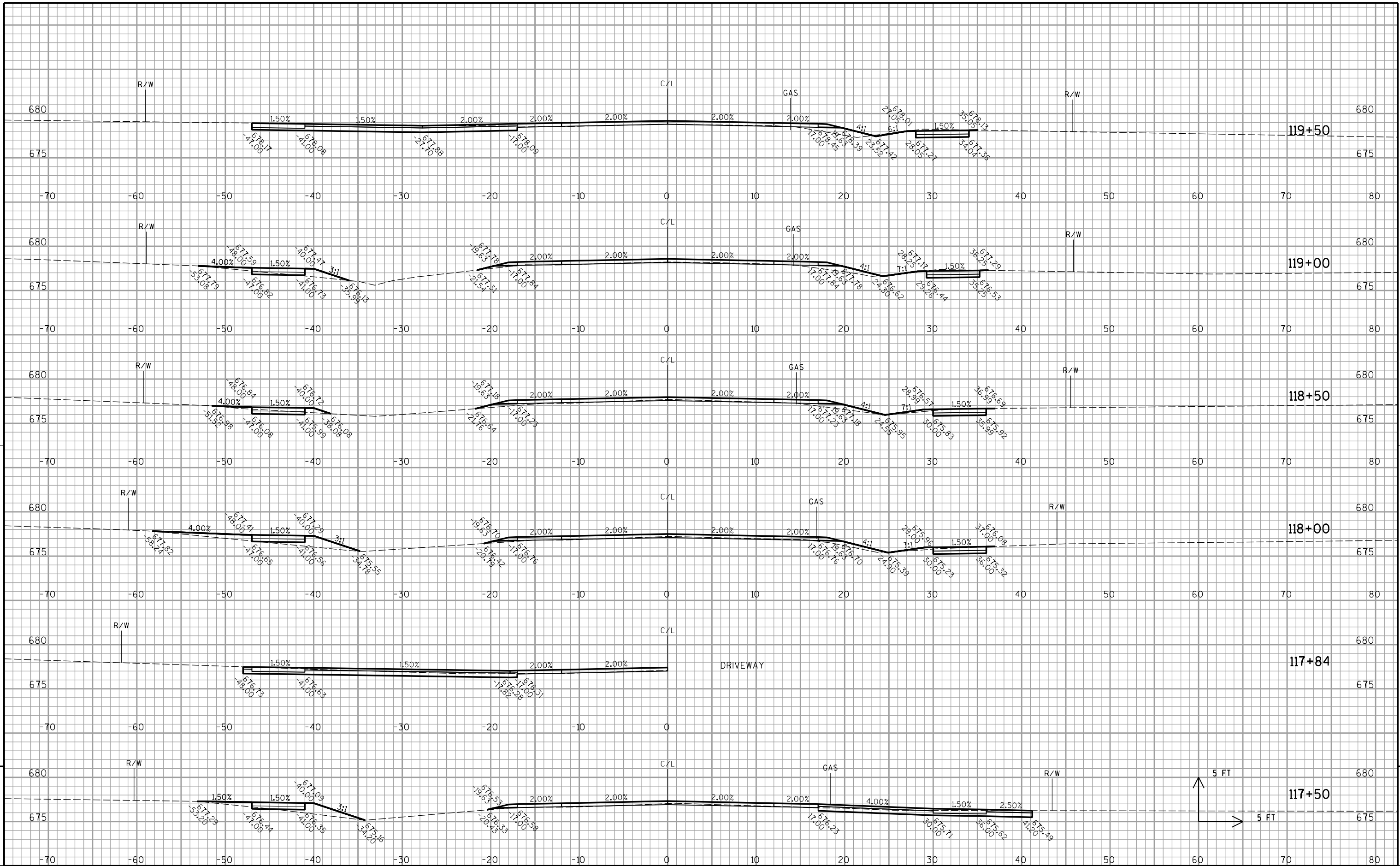


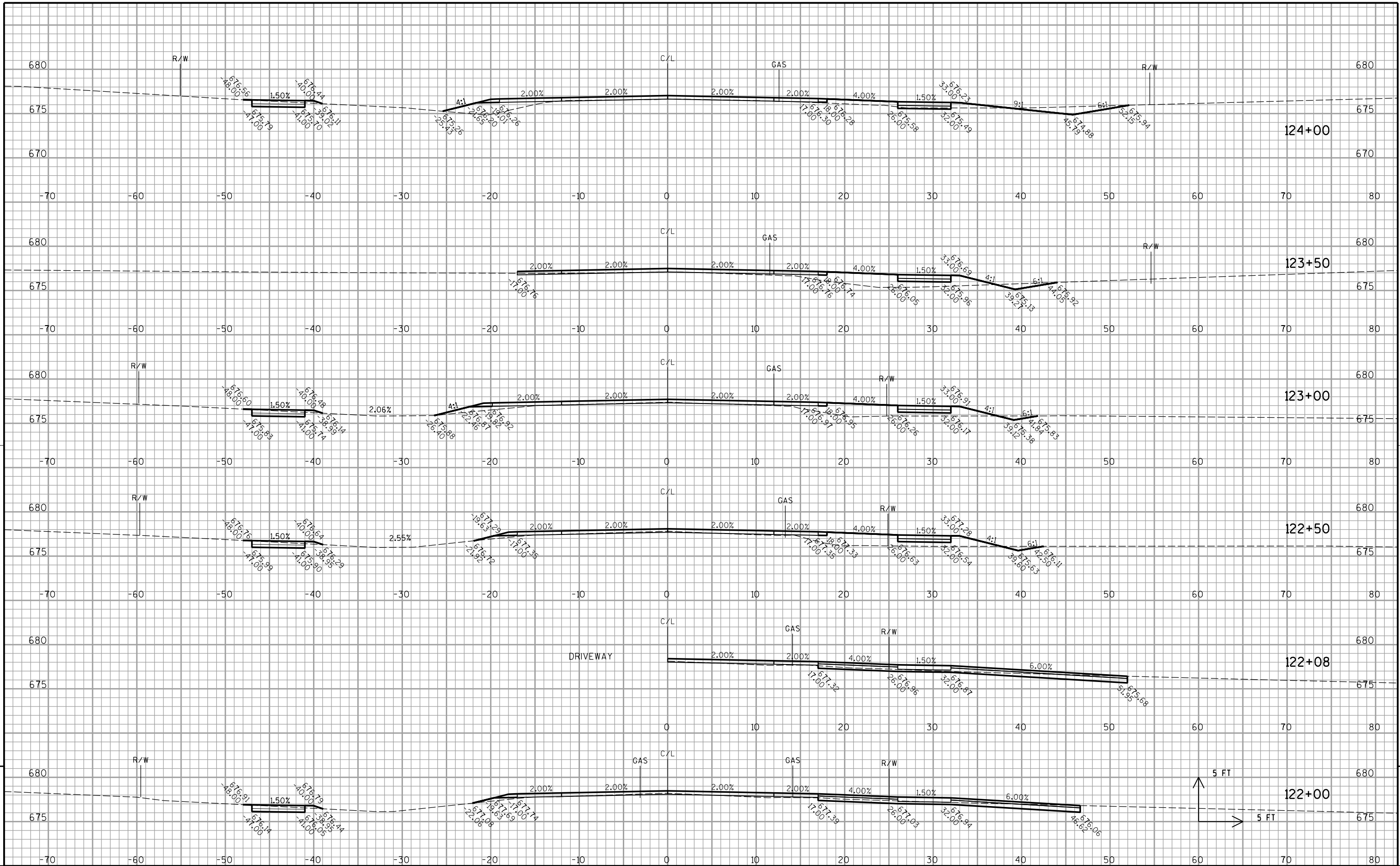


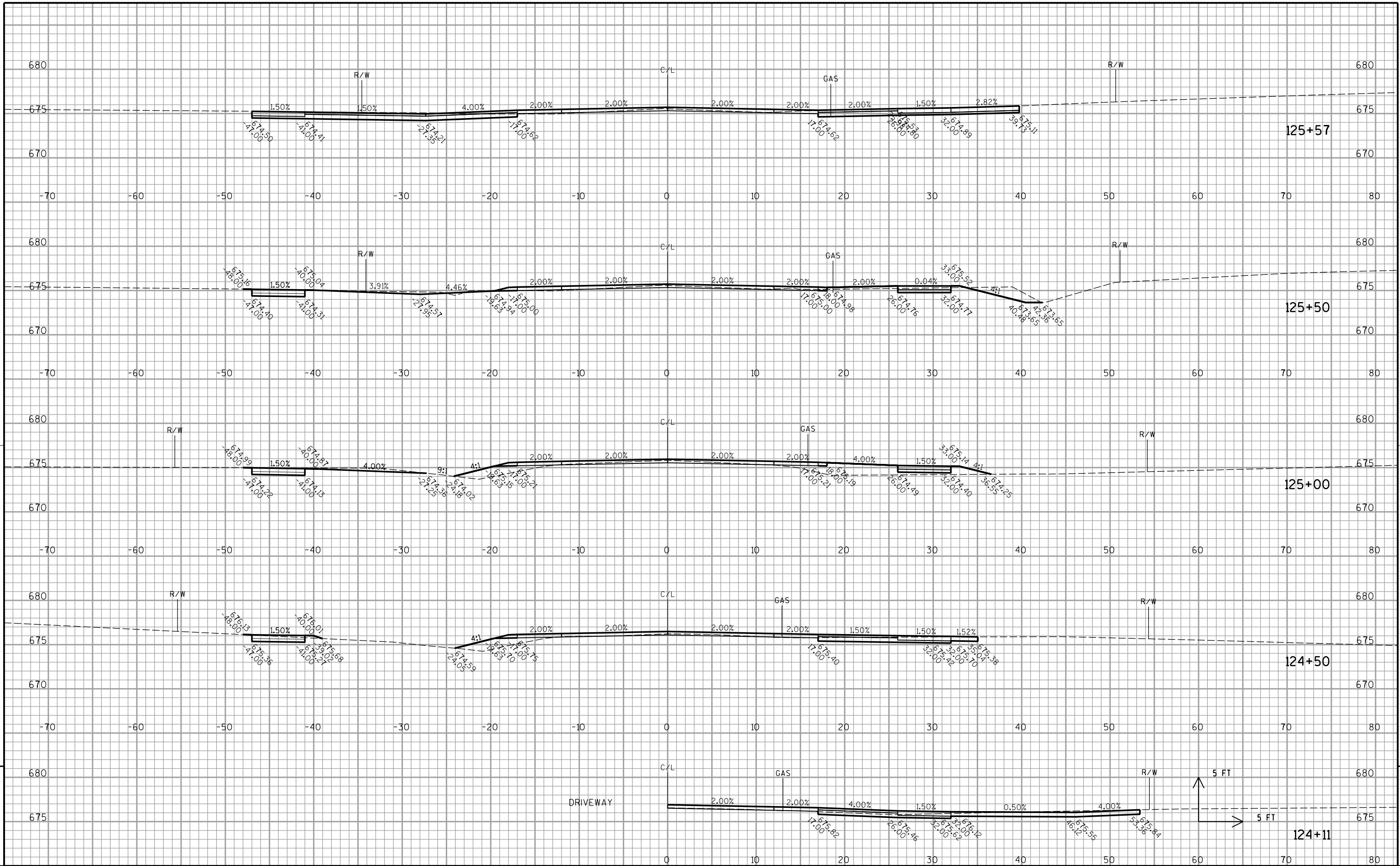


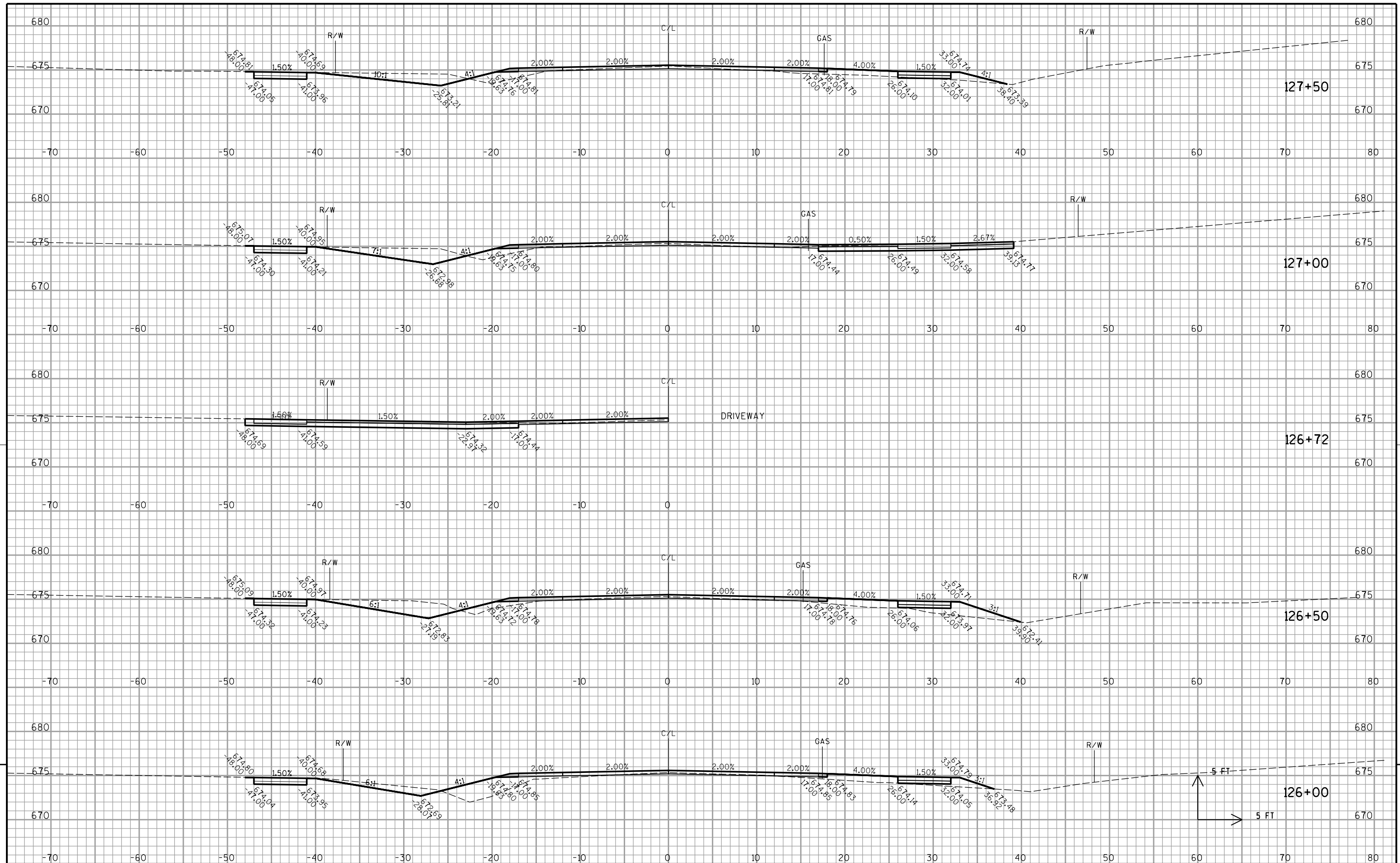


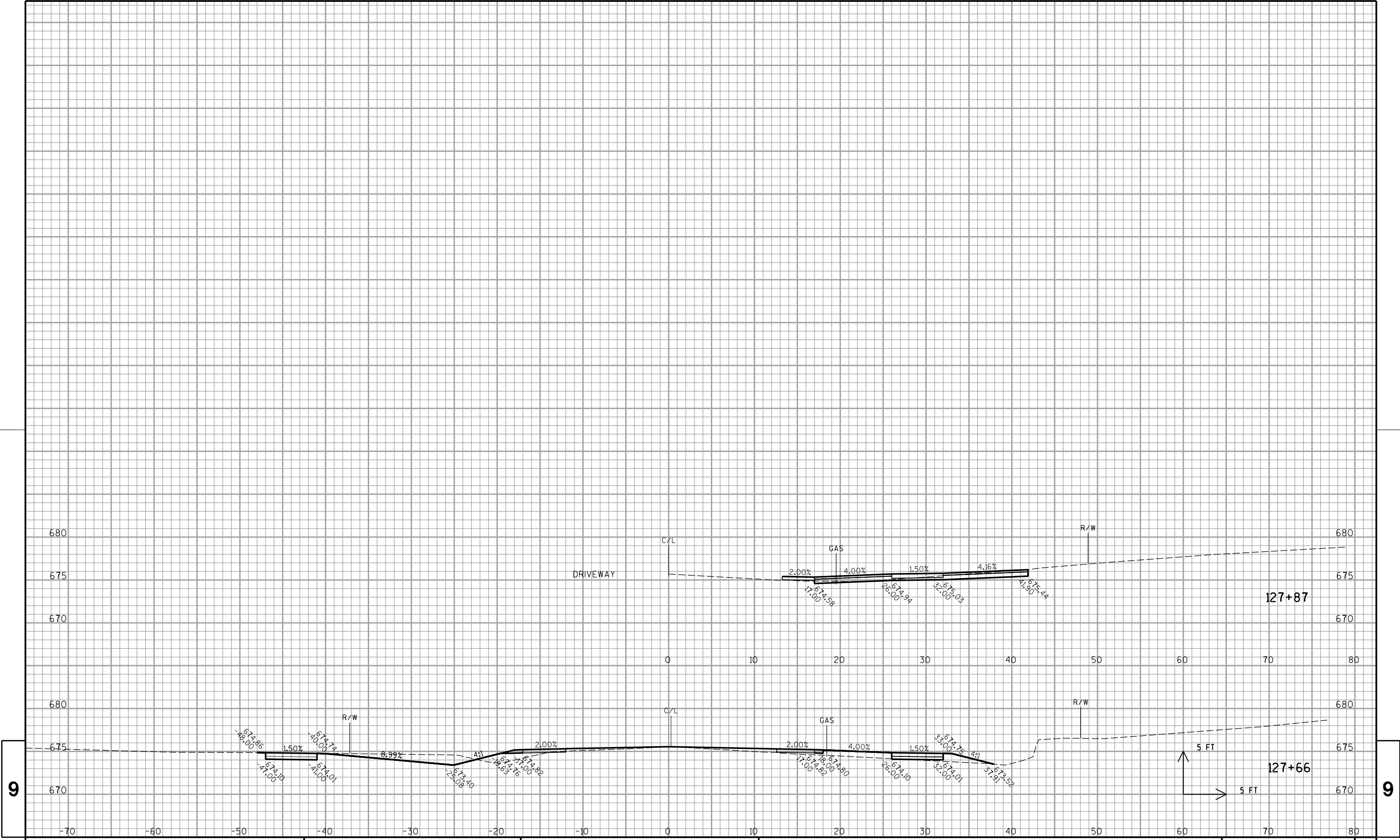








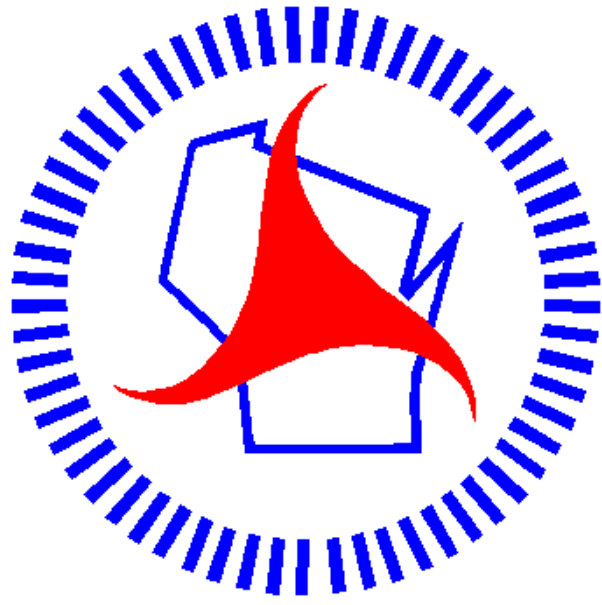




9

9

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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