

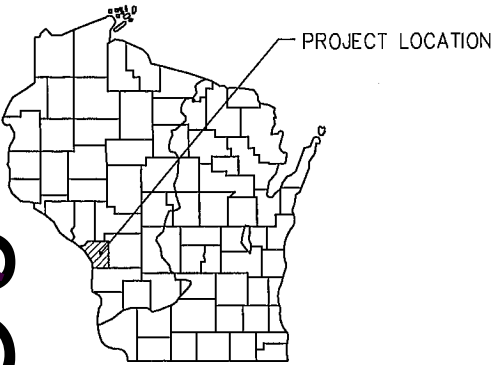
PROJECT ID: 5991-00-20  
WITH: N/A

COUNTY: LA CROSSE

ORDER OF SHEETS

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

TOTAL SHEETS = 42



DESIGN DESIGNATION

- AADT (2017) = 1000
- AADT (2037) = 1200
- DHV (2035) = 227
- D (%) = 59/41
- T (% OF ADT) = 3.3%
- DESIGN SPEED = 30 MPH
- ESALS = 81,700

CONVENTIONAL SYMBOLS

- | PLAN                           | PROFILE                                     |
|--------------------------------|---|
| SECTION LINE                   | GRADE LINE                                  |
| QUARTER LINE                   | ORIGINAL GROUND                             |
| PROPERTY LINE                  | GRADE ELEVATION                             |
| TEMPORARY LIMITED EASEMENT     | MARSH OR ROCK PROFILE (To be noted as such) |
| PERMANENT LIMITED EASEMENT     | CULVERT (Profile View)                      |
| EXISTING R/W LINE              | UTILITIES                                   |
| PROPOSED OR NEW R/W LINE       | ELECTRIC                                    |
| SLOPE INTERCEPT                | OVERHEAD LINES                              |
| EXISTING CULVERT               | FIBER OPTIC                                 |
| PROPOSED CULVERT (Box or Pipe) | GAS   |
| COMBUSTIBLE FLUIDS             | SANITARY SEWER                              |
| MARSH AREA                     | STORM SEWER                                 |
| WOODED OR SHRUB AREA           | TELEPHONE                                   |
| RIGHT-OF-WAY MARKERS           | WATER                                       |
|                                | UTILITY PEDESTAL                            |
|                                | POWER POLE                                  |

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

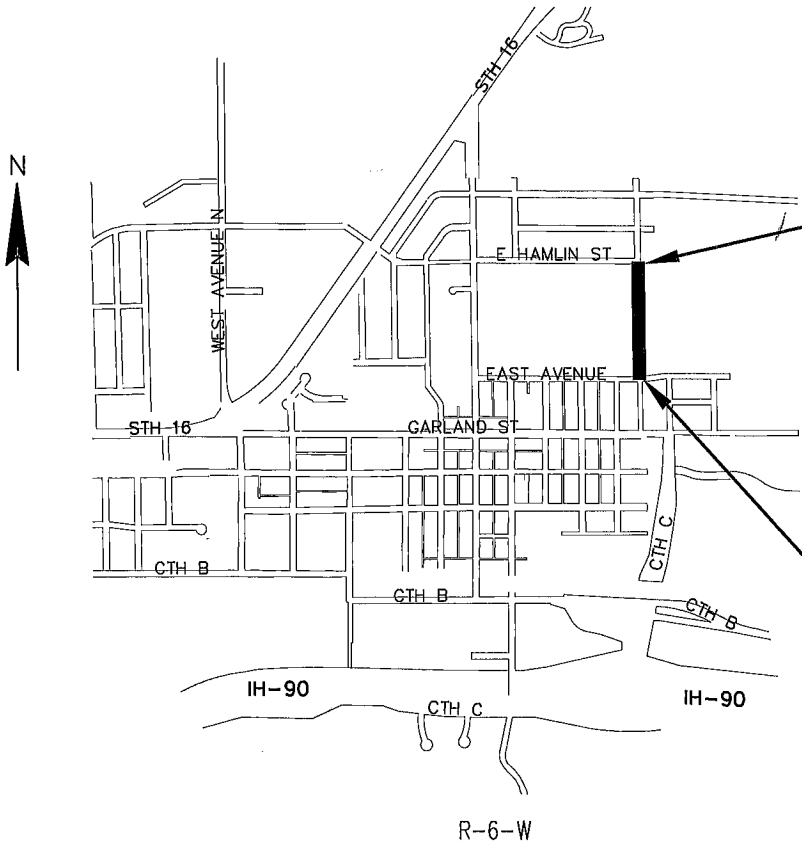
VILLAGE OF WEST SALEM, NORTH MARK STREET

(EAST AVENUE TO E. HAMLIN STREET)

LOCAL STREET

LA CROSSE COUNTY

STATE PROJECT NUMBER  
5991-00-20



END PROJECT 5991-00-20  
STA 52+80.47

Y - 695740.104  
X - 1685221.569

BEGIN PROJECT 5991-00-20  
STA 40+55.13

Y - 694514.822  
X - 1685210.097

LAYOUT  
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.232 MI

HORIZONTAL COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD 83).

VERTICAL INFORMATION SHOWN ON THIS PLAN IS REFERENCED TO NGVD 29.

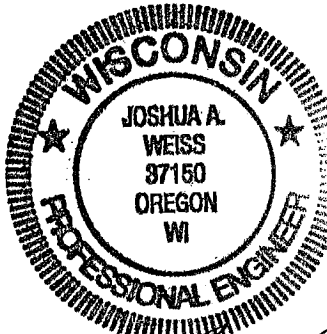
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5991-00-20	WISC 2017005	1

ACCEPTED FOR  
VILLAGE OF WEST SALEM  
7/11/16  
DATE  
7/11/16  
SIGNATURE

ORIGINAL PLANS PREPARED BY

Cedar  
corporation

MENOMONIE - MADISON - GREEN BAY  
www.cedarcorp.com  
800-472-7372



7/12/2016  
DATE  
7/12/2016  
SIGNATURE

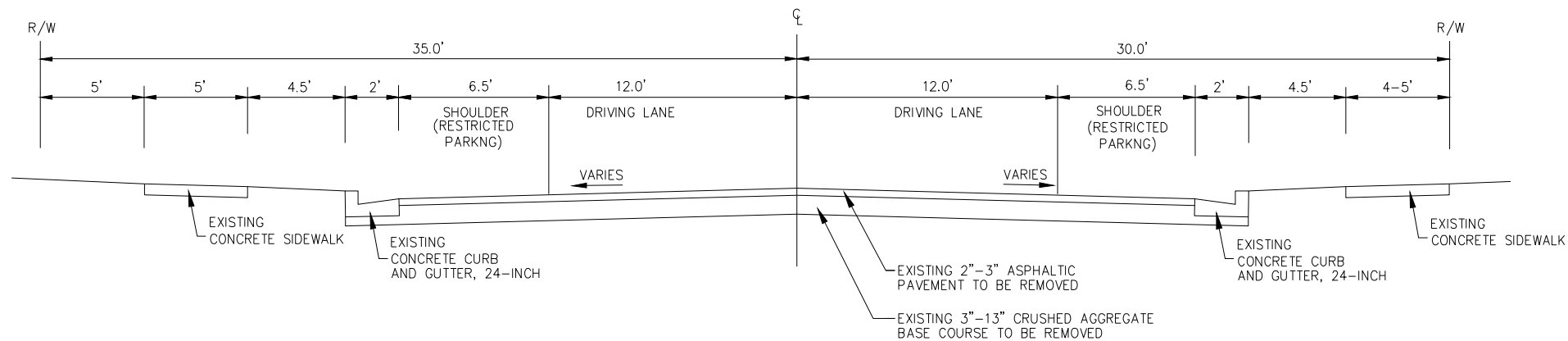
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

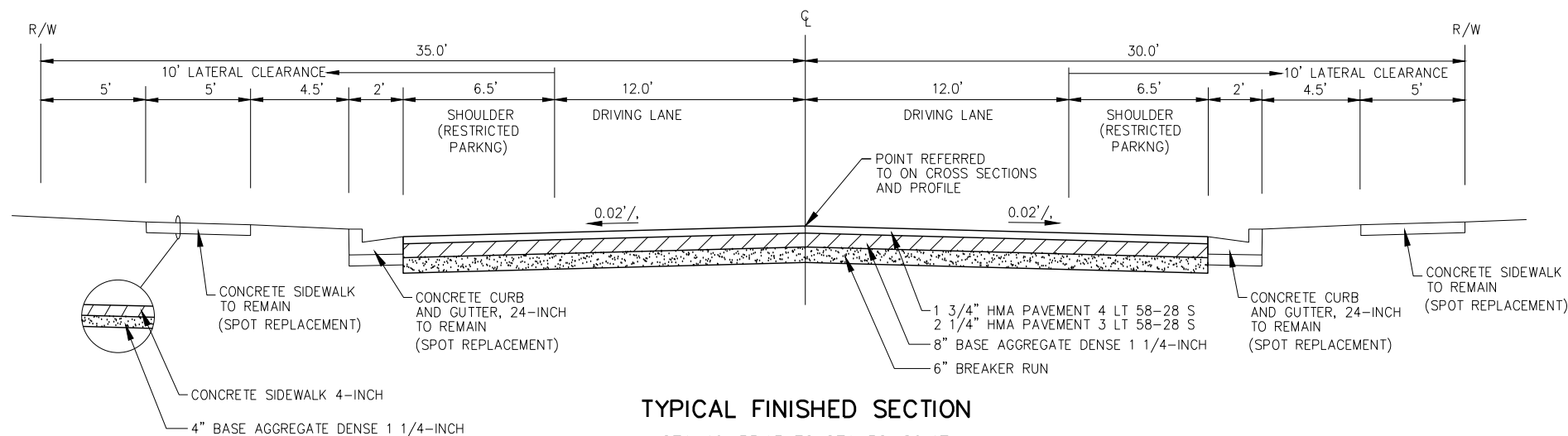
Surveyor CEDAR CORPORATION  
Designer CEDAR CORPORATION  
Management Consultant KL ENGINEERING

APPROVED FOR THE DEPARTMENT

7/28/16  
DATE  
7/28/16  
SIGNATURE  
MANAGEMENT CONSULTANT



TYPICAL EXISTING SECTION  
STA 40+55.13 TO STA 52+80.47



TYPICAL FINISHED SECTION  
STA 40+55.13 TO STA 52+80.47

STANDARD ABBREVIATIONS

ADJ	ADJUST	EL or ELEV	ELEVATION	MR	MID RADIUS
AE	APRON ENDWALL	ER	END RADIUS	NTS or N.T.S.	NOT TO SCALE
APPROX	APPROXIMATE	EX. or EXIST.	EXISTING	OE	OVERHEAD ELECTRIC
B-B	BACK OF CURB TO BACK OF CURB	FL	FLOW LINE	R	RADIUS
BAD	BASE AGGREGATE DENSE	FT	FEET	RCP	REINFORCED CONCRETE PIPE
BC	BACK OF CURB	HP	HIGH POINT	PL	PROPERTY LINE
BEG	BEGIN	HYD	HYDRANT	R/W	RIGHT-OF-WAY
BM	BENCH MARK	INL	INLET	RAD	RADIUS POINT
BR	BEGIN RADIUS	INV	INVERT	REQD	REQUIRED
C&G	CURB AND GUTTER	K	RATE OF VERTICAL CURVATURE	SF	SQUARE FEET
CL	CENTERLINE	L	LENGTH	STA	STATION
CONC	CONCRETE	LAT	LATERAL	STH	STATE TRUNK HIGHWAY
CP	CONTROL POINT	LF	LINEAR FEET	SY	SQUARE YARDS
CPCS	CULVERT PIPE CORRUGATED STEEL	LP	LOW POINT	TEL	TELEPHONE
CY	CUBIC YARD	LT	LEFT	TYP	TYPICAL
DIA	DIAMETER	MAX	MAXIMUM	UE	UNDERGROUND ELECTRIC
DWY	DRIVEWAY	MH	MANHOLE	VAR	VARIES OR VARIABLE
EA	EACH	MIN	MINIMUM	VC	VERTICAL CURVE

GENERAL NOTES

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

THE LOCATION OF PRIVATE ENTRANCES WILL BE DETERMINED BY THE ENGINEER.

THE LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. RELOCATIONS MAY HAVE OCCURRED.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FERTILIZED, SEEDED AND MULCHED.

HORIZONTAL COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (NAD 83).

VERTICAL INFORMATION SHOWN ON THIS PLAN IS REFERENCED TO NGVD 29.

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

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

DESIGN CONTACT

CEDAR CORPORATION  
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MADISON, WI 53718  
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dave.sauer@cedarcorp.com

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
KAREN KALVELAGE  
3550 MORMON COULEE RD  
LA CROSSE, WI 54601  
PHONE: (608) 785-9115  
Karen.Kalvelage@wisconsin.gov

UTILITIES

CHARTER COMMUNICATIONS  
MR. PERRY McCLELLAN  
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ONALASKA, WI 54650  
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laurie.a.freeman@xcelenergy.com

WE ENERGIES  
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WISC RAPIDS, WI 54494  
PHONE: (715) 421-7256  
travis.kahl@we-energies.com

LYNXX  
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PHONE: (608) 427-6515  
Ben.Grilly@getlynxx.com

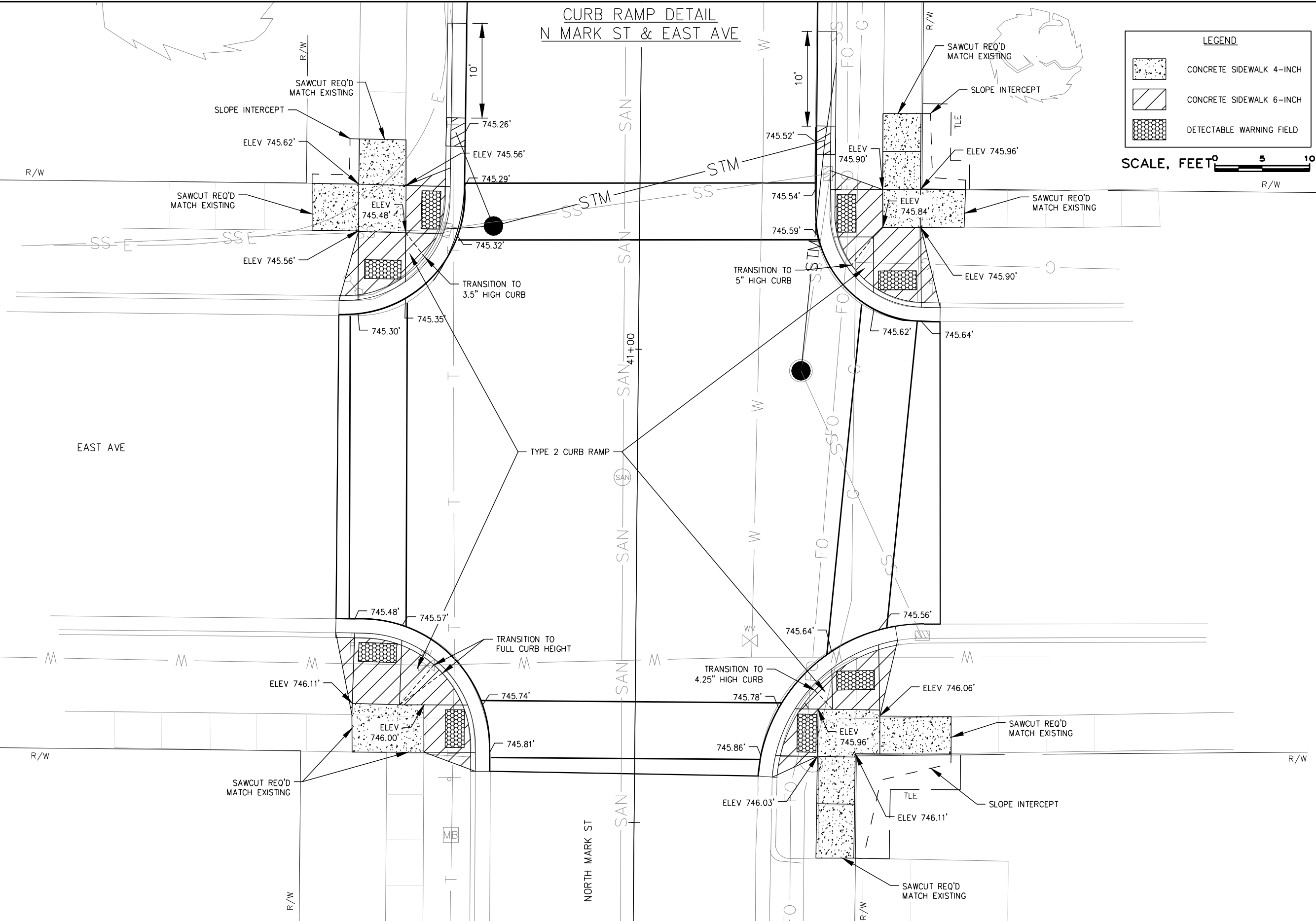
VILLAGE OF WEST SALEM  
SANITARY AND WATER  
MR. SCOTT HALBRUCKER  
900 WEST AVE NORTH  
WEST SALEM, WI 54669  
PHONE: (608) 786-2850  
publicworks@westsalemwi.com

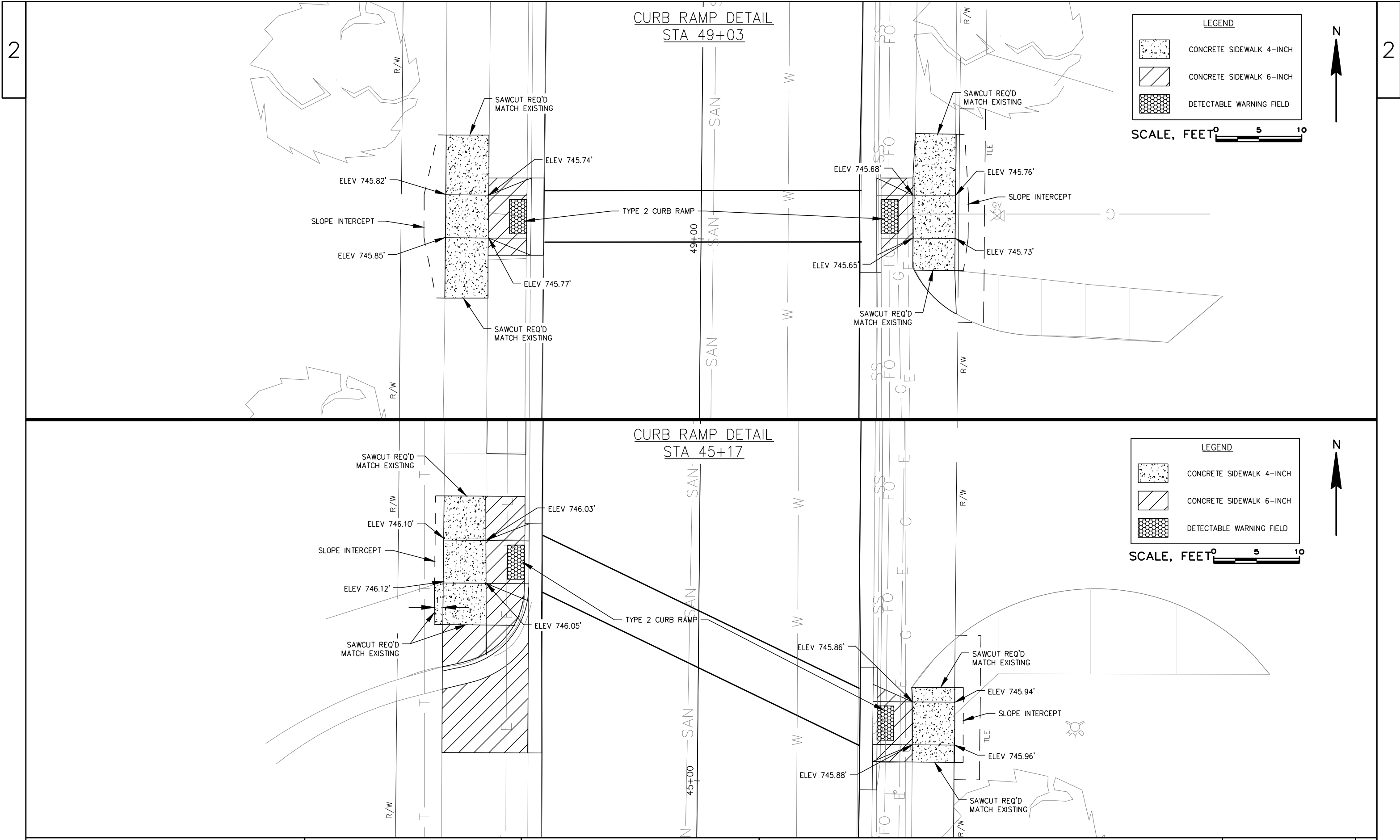


Dial 811 or (800) 242-8511

www.DiggersHotline.com

\*\*DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

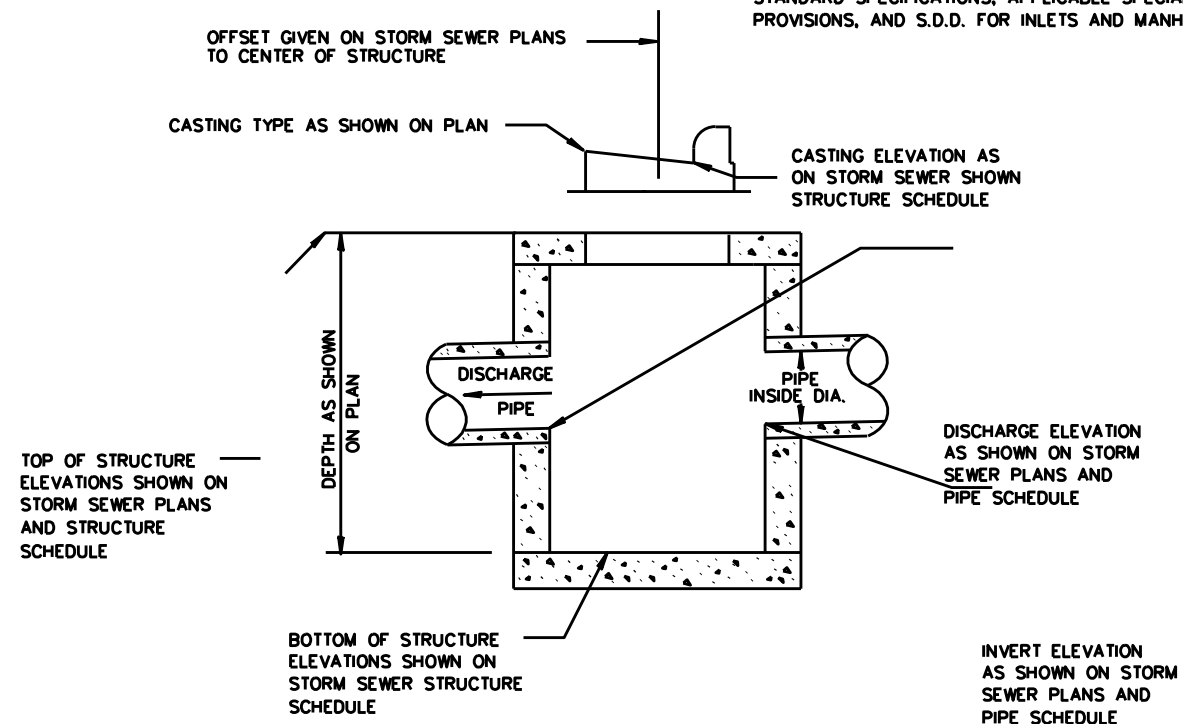




## GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET AND MANHOLE (INCIDENTAL TO CONSTRUCTION OF INLET AND MANHOLE)

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

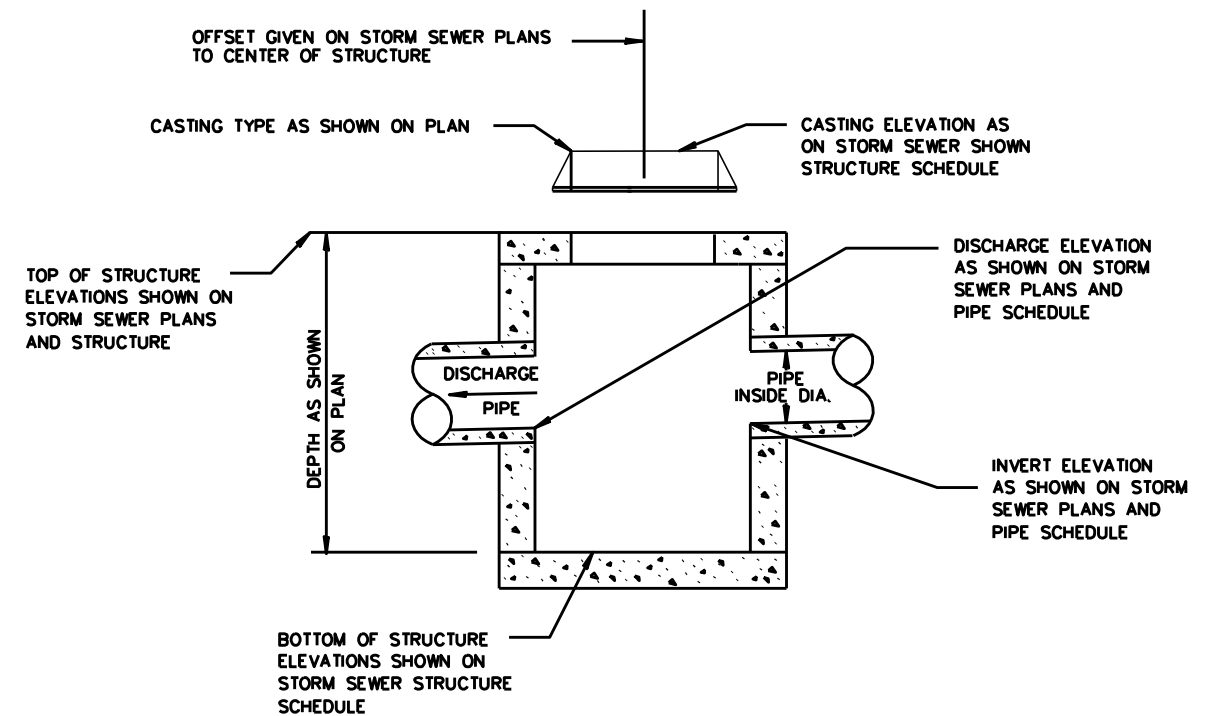


DETAIL OF INLET/MANHOLE WITH INLET CASTING

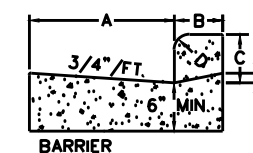
## GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE (INCIDENTAL TO CONSTRUCTION OF MANHOLE)

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

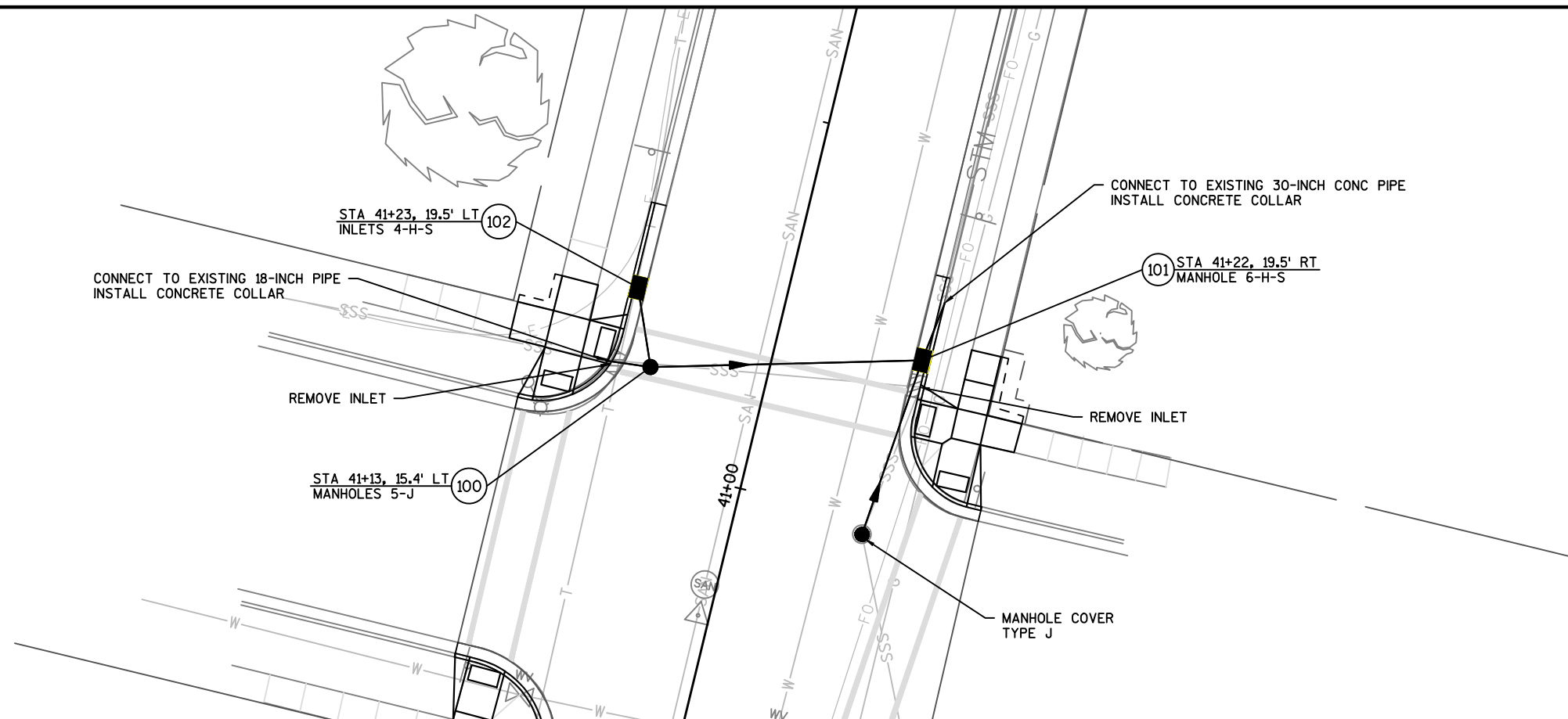


DETAIL OF MANHOLE WITH MANHOLE CASTING

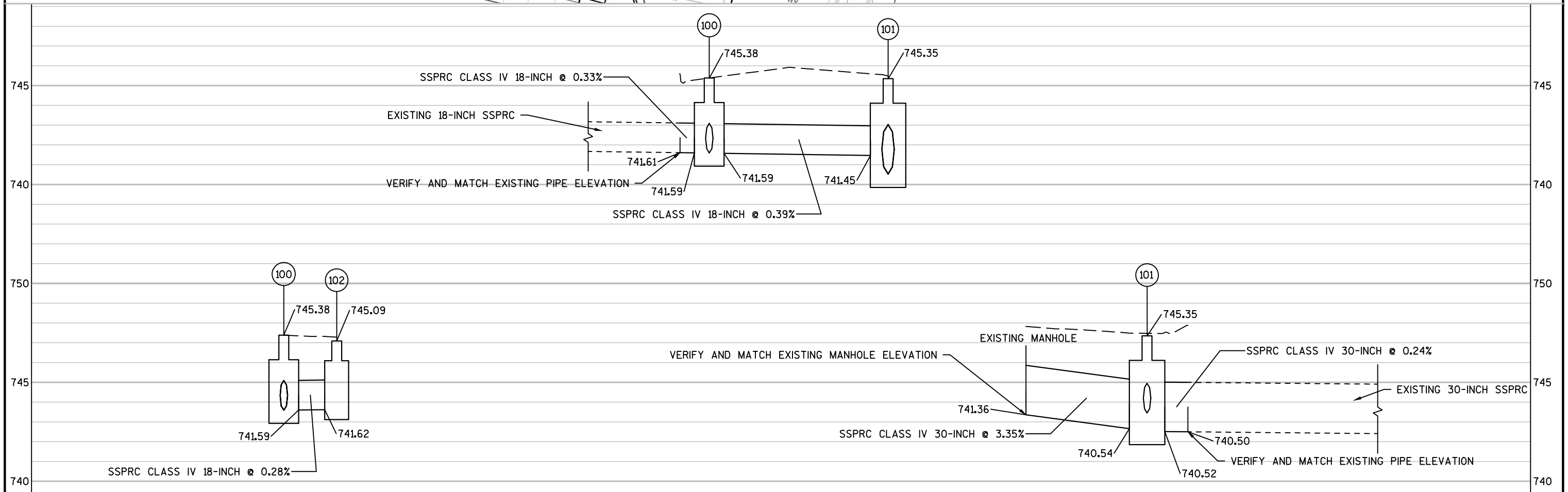


CURB TYPE	A	B	C	D	E	F
BARRIER						
24" B	18"	6"	6"	2"	1.5"	1/2"

CONCRETE CURB AND GUTTER 24-INCH



STRUCTURE CALL OUTS DENOTE  
STRUCTUE TYPE AND SIZE, AND  
COVER TYPE



Estimate Of Quantities

5991-00-20

Line	Item	Item Description	Unit	Total	Qty
0010	204.0150	Removing Curb & Gutter	LF	406.000	406.000
0020	204.0155	Removing Concrete Sidewalk	SY	164.000	164.000
0030	204.0220	Removing Inlets	EACH	7.000	7.000
0040	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	10.000	10.000
0050	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	42.000	42.000
0060	204.0245	Removing Storm Sewer (size) 03. 21-Inch	LF	4.000	4.000
0070	204.0245	Removing Storm Sewer (size) 04. 24-Inch	LF	41.000	41.000
0080	204.0245	Removing Storm Sewer (size) 05. 30-Inch	LF	63.000	63.000
0090	204.0245	Removing Storm Sewer (size) 06. 36-Inch	LF	18.000	18.000
0100	205.0100	Excavation Common **P**	CY	2,570.000	2,570.000
0110	213.0100	Finishing Roadway (project) 01. 5991-00-20	EACH	1.000	1.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,353.000	2,353.000
0130	311.0110	Breaker Run	TON	1,540.000	1,540.000
0140	455.0605	Tack Coat	GAL	307.000	307.000
0150	460.5223	HMA Pavement 3 LT 58-28 S	TON	634.000	634.000
0160	460.5224	HMA Pavement 4 LT 58-28 S	TON	493.000	493.000
0170	520.8000	Concrete Collars for Pipe	EACH	12.000	12.000
0180	602.0405	Concrete Sidewalk 4-Inch	SF	1,210.000	1,210.000
0190	602.0415	Concrete Sidewalk 6-Inch	SF	586.000	586.000
0200	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	96.000	96.000
0210	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	6.000	6.000
0220	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	53.000	53.000
0230	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	41.000	41.000
0240	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	63.000	63.000
0250	608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	18.000	18.000
0260	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	4.000	4.000
0270	608.3021	Storm Sewer Pipe Class III-A 21-Inch	LF	4.000	4.000
0280	611.0530	Manhole Covers Type J	EACH	3.000	3.000
0290	611.0624	Inlet Covers Type H	EACH	3.000	3.000
0300	611.0639	Inlet Covers Type H-S	EACH	4.000	4.000
0310	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000
0320	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0330	611.3004	Inlets 4-FT Diameter	EACH	2.000	2.000
0340	619.1000	Mobilization	EACH	1.000	1.000
0350	624.0100	Water	MGAL	45.000	45.000
0360	625.0100	Topsoil	SY	176.000	176.000

Estimate Of Quantities

5991-00-20

Line	Item	Item Description	Unit	Total	Qty
0370	627.0200	Mulching	SY	189.000	189.000
0380	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0390	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0400	628.7015	Inlet Protection Type C	EACH	10.000	10.000
0410	629.0210	Fertilizer Type B	CWT	1.500	1.500
0420	630.0140	Seeding Mixture No. 40	LB	2.900	2.900
0430	630.0200	Seeding Temporary	LB	4.500	4.500
0440	638.2101	Moving Signs Type I	EACH	1.000	1.000
0450	642.5001	Field Office Type B	EACH	1.000	1.000
0460	643.0100	Traffic Control (project) 01. 5991-00-20	EACH	1.000	1.000
0470	643.0420	Traffic Control Barricades Type III	DAY	480.000	480.000
0480	643.0705	Traffic Control Warning Lights Type A	DAY	480.000	480.000
0490	643.0900	Traffic Control Signs	DAY	480.000	480.000
0500	647.0356	Pavement Marking Words Epoxy	EACH	4.000	4.000
0510	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	433.000	433.000
0520	650.4000	Construction Staking Storm Sewer	EACH	8.000	8.000
0530	650.4500	Construction Staking Subgrade	LF	1,224.000	1,224.000
0540	650.5000	Construction Staking Base	LF	1,224.000	1,224.000
0550	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	406.000	406.000
0560	650.9910	Construction Staking Supplemental Control (project) 01. 5991-00-20	LS	1.000	1.000
0570	690.0150	Sawing Asphalt	LF	227.000	227.000
0580	690.0250	Sawing Concrete	LF	277.000	277.000
0590	SPV.0060	Special 01. Adjusting Water Valve Boxes	EACH	4.000	4.000
0600	SPV.0060	Special 02. Install Sanitary Manhole Covers	EACH	4.000	4.000
0610	SPV.0060	Special 03. Construction Staking Curb Ramp	EACH	8.000	8.000
0620	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type	LF	406.000	406.000



3

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 LF	REMARKS
40+55 - 40+71	RT	20	SE QUAD
40+55 - 40+71	LT	25	SW QUAD
41+03 - 41+34	RT	35	NE QUAD
41+04 - 41+35	LT	36	NW QUAD
42+87 - 43+52	RT	65	DRWY
44+32 - 44+52	RT	17	INLET
44+99 - 45+13	RT	14	
45+03 - 45+30	LT	42	
46+65 - 46+85	RT	19	INLET
47+30 - 47+50	RT	17	INLET
47+34 - 47+44	LT	9	INLET
48+46 - 48+66	LT	20	
48+96 - 49+07	RT	11	
48+98 - 49+07	LT	9	
52+58 - 52+78	RT	17	INLET
UNDISTRIBUTED		50	
ITEM TOTAL		406	

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 SY	REMARKS
40+46 - 40+68	RT	15	SE QUAD
40+55 - 40+70	LT	14	SW QUAD
41+05 - 41+25	RT	15	NE QUAD
41+05 - 41+22	LT	14	NW QUAD
43+45 - 43+50	LT	3	
44+65 - 44+76	LT	6	
45+02 - 45+11	RT	5	
45+03 - 45+33	LT	30	
45+38 - 45+43	LT	3	
45+88 - 45+93	LT	6	
46+83 - 46+88	LT	3	
48+19 - 48+24	RT	3	
48+52 - 48+61	LT	4	
48+93 - 49+12	LT	13	
48+92 - 49+13	RT	10	
49+38 - 49+43	RT	3	
51+37 - 51+67	LT	17	
ITEM TOTAL		164	

3

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
41+13	LT	1
41+19	RT	1
44+42	RT	1
46+75	RT	1
47+40	RT	1
47+39	LT	1
52+68	RT	1
ITEM TOTAL		7

REMOVING STORM SEWER

STATION - STATION	LOCATION	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.03 21-INCH LF	204.0245.04 24-INCH LF	204.0245.05 30-INCH LF	204.0245.06 36-INCH LF	REMARKS
40+98 - 41+30	RT	--	--	--	--	33	--	
41+12 - 41+19	RT/LT	--	42	--	--	--	--	
44+42	RT	4	--	--	--	12	--	
46+75	RT	--	--	4	--	12	--	
47+40	RT/LT	--	--	--	41	6	6	
52+68	RT	6	--	--	--	--	12	
ITEM TOTAL		10	42	4	41	63	18	

NOTE: TABLE QUANTITIES ARE  
CATEGORY 0010 UNLESS  
OTHERWISE NOTED

3

EXCAVATION COMMON "P"				
STATION -STATION	LOCATION	205.0100 CY	USABLE CUT	WASTE
40+55 - 50+81	N MARK ST	2570	--	2570
ITEM TOTALS		2570		
1) Includes Asphalt Pavement				
"P" Pay Plan Quantity				

FINISHING ROADWAY		
PROJECT	213.0100 EA	REMARKS
5991-00-20	1	
ITEM TOTAL		1

CONCRETE SIDEWALK				
STATION - STATION	LOCATION	602.0405 4-INCH SF	602.0415 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
40+46 - 40+68	RT	101	46	16
40+55 - 40+70	LT	39	96	16
41+05 - 41+25	RT	67	85	16
41+05 - 41+22	LT	73	69	16
43+45 - 43+50	LT	25	--	--
44+65 - 44+76	LT	52	--	--
45+02 - 45+11	RT	43	33	8
45+03 - 45+43	LT	103	187	8
45+88 - 45+93	LT	48	--	--
46+83 - 46+88	LT	25	--	--
48+19 - 48+24	RT	25	--	--
48+92 - 49+13	RT	93	30	8
48+93 - 49+12	LT	95	40	8
49+38 - 49+43	RT	23	--	--
51+37 - 51+67	LT	148	--	--
UNDISTRIBUTED		250	--	--
ITEM TOTAL		1210	586	96

BASE AGGREGATE DENSE				
STATION - STATION	LOCATION	305.0120 1 1/4-INCH TON	311.0110 BREAKER RUN TON	REMARKS
40+55 - 50+81		2280	1540	
40+61	RT	5	--	CURB RAMP
40+62	LT	5	--	CURB RAMP
41+12	RT	6	--	CURB RAMP
41+12	LT	6	--	CURB RAMP
43+45 - 43+50	LT	1	--	SIDEWALK
44+32 - 44+52	RT	4	--	
44+65 - 44+76	LT	2	--	SIDEWALK
45+02 - 45+11	RT	3	--	CURB RAMP
45+03 - 45+43	LT	10	--	CURB RAMP
45+88 - 45+93	LT	2	--	SIDEWALK
46+65 - 46+85	RT	4	--	
46+83 - 46+88	LT	1	--	SIDEWALK
47+30 - 47+50	RT/LT	6	--	
48+19 - 48+24	RT	1	--	SIDEWALK
48+92 - 49+13	RT	4	--	CURB RAMP
48+93 - 49+12	LT	4	--	CURB RAMP
49+38 - 49+43	RT	1	--	SIDEWALK
51+37 - 51+67	LT	4	--	SIDEWALK
52+58 - 52+78	RT	4	--	
ITEM TOTALS		2353	1540	

ASPHALTIC PAVEMENT ITEMS				
STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON
40+55 - 50+81	N MARK ST	307	634	493
ITEM TOTALS		307	634	493

CONCRETE COLLARS FOR PIPE		
STATION -STATION	LOCATION	520.8000 EA
41+12	LT	1
41+30	RT	1
44+42	RT	2
46+75	RT	2
47+40	RT	2
47+40	LT	1
52+68	RT	3
ITEM TOTALS		12
NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED		

3

STORM SEWER PIPE												
PIPE NUMBER	STATION - STATION	INLET ELEV	PIPE OUTLET ELEV	SLOPE %	608.0412	608.0418	608.0424	608.0430	608.0436	608.3012	608.3021	
					REINFORCED CONCRETE CLASS IV 12-INCH LF	REINFORCED CONCRETE CLASS IV 18-INCH LF	REINFORCED CONCRETE CLASS IV 24-INCH LF	REINFORCED CONCRETE CLASS IV 30-INCH LF	REINFORCED CONCRETE CLASS IV 36-INCH LF	CORRUGATED POLYETHYLENE CLASS III-A 12-INCH LF	CORRUGATED POLYETHYLENE CLASS III-A 21-INCH LF	
102-100	41+23 - 41+13	741.62	741.59	0.28	--	11	--	--	--	--	--	
EXP-100	41+13	MATCH EXISTING	741.59	0.33	--	6	--	--	--	--	--	
100-101	41+13 - 41+22	741.59	741.45	0.39	--	36	--	--	--	--	--	
EXM-101	40+98 - 41+22	MATCH EXISTING	740.54	3.35	--	--	--	25	--	--	--	
101-EXP1	41+22 - 41+30	740.52	740.50	0.24	--	--	--	8	--	--	--	
--	44+42		MATCH EXISTING		--	--	--	12	--	4	--	
--	46+75		MATCH EXISTING		--	--	--	12	--	--	4	
--	47+40		MATCH EXISTING		--	--	41	6	6	--	--	
--	52+68		MATCH EXISTING		6	--	--	--	12	--	--	
ITEM TOTAL					6	53	41	63	18	4	4	

STORM SEWER STRUCTURE ITEMS														
STRUCTURE NUMBER	STATION	OFFSET	TOP STRUCTURE ELEV	CASTING ELEV	BOTTOM STRUCTURE ELEV	DEPTH	611.2005	611.2006	611.3004	611.0530	611.0624	611.0639	650.4000	REMARKS
							MANHOLES 5-FT DIAMETER EACH	MANHOLES 6-FT DIAMETER EACH	INLET 4-FT DIAMETER EACH	MANHOLE COVERS TYPE J EACH	INLET COVERS TYPE H EACH	INLET COVERS TYPE H-S EACH	CONSTRUCTION STAKING STORM SEWER EACH	
--	40+98	17.2' RT	--	MATCH ROAD	--	--	--	--	--	1	--	--	--	BURIED
100	41+13	15.4' LT	744.64	745.38	741.38	3.26	1	--	--	1	--	--	1	
101	41+22	19.5' RT	745.02	745.35	740.23	4.79	--	1	--	--	--	1	1	
102	41+23	19.5' LT	744.76	745.09	741.41	3.35	--	--	1	--	--	1	1	
--	43+39	18.4' RT	--	746.04*	--	--	--	--	--	1	--	--	--	
200*	44+42	18.7' RT	745.35	745.68	739.63	5.72	1	--	--	--	1	--	1	
300*	46+75	18.7' RT	744.54	744.87	739.32	5.22	1	--	--	--	1	--	1	
301*	47+39	18.3' LT	744.29	744.62	739.99	4.30	--	--	1	--	--	1	1	
302*	47+40	18.7' RT	744.34	744.67	739.06	5.28	--	1	--	--	--	1	1	
400*	52+68	18.5' RT	744.86	745.19	737.99	6.87	1	--	--	--	1	--	1	
ITEM TOTAL							4	2	2	3	3	4	8	

\*VERIFY ELEVATIONS IN THE FIELD

NOTE: TABLE QUANTITIES ARE  
CATEGORY 0010 UNLESS  
OTHERWISE NOTED

3

WATER			
STATION -STATION	LOCATION	624.0100 MGAL	REMARKS
40+55 - 50+81	N MARK ST	45	BASE COMPACTION DUST CONTROL
ITEM TOTALS		45	

TOPSOIL, SALVAGED TOPSOIL, MULCHING, FERTILIZER, AND SEEDING						
STATION - STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 TEMPORARY SEEDING LB
40+61	RT	10	11	0.1	0.2	0.3
40+62	LT	5	6	0.1	0.1	0.1
41+12	RT	9	10	0.1	0.2	0.2
41+12	LT	9	10	0.1	0.2	0.2
43+45 - 44+76	RT/LT	18	20	0.1	0.3	0.5
45+06	RT	2	2	0.1	0.1	0.1
45+25	LT	1	1	0.1	0.1	0.1
45+88 - 48+66	RT/LT	40	44	0.1	0.7	1.1
49+02	RT/LT	14	15	0.1	0.3	0.4
48+38 - 52+78	RT/LT	18	20	0.1	0.3	0.5
UNDISTRIBUTED		50	50	0.5	1	1
ITEM TOTALS		176	189	1.5	2.9	4.5

PAVEMENT MARKING				
STATION - STATION	LOCATION	647.0356 WORDS EPOXY EACH	647.0766 CROSSWALK EPOXY 6-INCH LF	REMARKS
40+57 - 40+63	RT/LT	--	60	
40+66 - 41+05	RT	--	73	
40+70 - 41+05	LT	--	67	
41+12 - 41+18	RT/LT	--	77	
43+55	RT	1	--	SCHOOL
43+93	RT	1	--	XING
45+04 - 45+28	RT/LT	--	82	
43+66	LT	1	--	XING
47+02	LT	1	--	SCHOOL
49+00 - 49+06	RT/LT	--	74	
ITEM TOTALS		4	433	

INLET PROTECTION		
STATION	LOCATION	628.7015 TYPE C EACH
40+71	RT	1
41+12	LT	1
41+19	RT	1
44+42	RT	1
46+75	RT	1
47+39	LT	1
47+40	RT	1
52+68	RT	1
52+77	LT	1
52+84	RT	1
ITEM TOTALS		10

MOVING SIGNS			
STATION	LOCATION	638.2101 TYPE I EACH	
45+27	LT	1	
ITEM TOTALS		1	

TRAFFIC CONTROL			
LOCATION	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS DAYS
MARK ST - BEGINNING OF PROJECT	120	120	120
EAST AVE	240	240	240
MARK ST - END OF PROJECT	120	120	120
ITEM TOTALS		480	480

NOTE: TABLE QUANTITIES ARE  
CATEGORY 0010 UNLESS  
OTHERWISE NOTED

3

3

CONSTRUCTION STAKING

STATION - STATION	650.4500	650.5000	650.5500	650.9910	SPV.0060.03
	SUBGRADE LF	BASE LF	CURB & GUTTER LF	SUPPLEMENTAL CONTROL (5991-00-20) LS	CURB RAMP EA
40+55 - 52+80	1224	1224	406	1	8
ITEM TOTALS	1224	1224	406	1	8

SAWING

STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
40+46 - 41+34	RT/LT	93	50
42+87 - 43+52	RT/LT	65	16
44+32 - 44+52	RT	–	4
44+66 - 44+76	LT	–	10
44+99 - 45+43	RT/LT	14	76
45+88 - 45+93	LT	–	25
46+65 - 46+85	RT	–	4
46+83 - 46+88	LT	–	10
47+29 - 47+50	RT/LT	–	8
48+19 - 48+24	RT	–	10
48+46 - 48+66	LT	–	13
48+92 - 49+13	RT/LT	18	28
49+38 - 49+43	RT	–	9
51+37 - 51+67	LT	–	10
52+58 - 52+78	RT	–	4
52+80	RT/LT	37	--
ITEM TOTAL		227	277

ADJUST WATER VALVES

STATION	LOCATION	SPV.0060.01 EACH	REMARKS
CATEGORY 0020			
40+66	22' LT	1	
40+69	12' RT	1	
43+10	4.9' RT	1	
46+46	3.7' RT	1	
ITEM TOTAL		4	

3

CONCRETE CURB & GUTTER

STATION - STATION	LOCATION	SPV.0090.01 24-INCH TYPE D LF	REMARKS
40+55 - 40+70	RT	20	CURB RAMP
40+55 - 40+71	LT	25	CURB RAMP
41+03 - 41+34	RT	35	CURB RAMP
41+03 - 41+34	LT	36	CURB RAMP
42+87 - 43+52	RT	65	DRIVEWAY
44+32 - 44+52	RT	17	
44+99 - 45+13	RT	14	CURB RAMP
45+03 - 45+30	LT	42	DRIVEWAY, CURB RAMP
46+65 - 46+85	RT	19	
47+30 - 47+50	RT	17	
47+34 - 47+44	LT	9	
48+46 - 48+66	LT	20	
48+96 - 49+07	RT	11	CURB RAMP
48+98 - 49+07	LT	9	CURB RAMP
52+58 - 52+78	RT	17	
UNDISTRIBUTED		50	
ITEM TOTAL		406	

INSTALL SANITARY MANHOLE COVERS

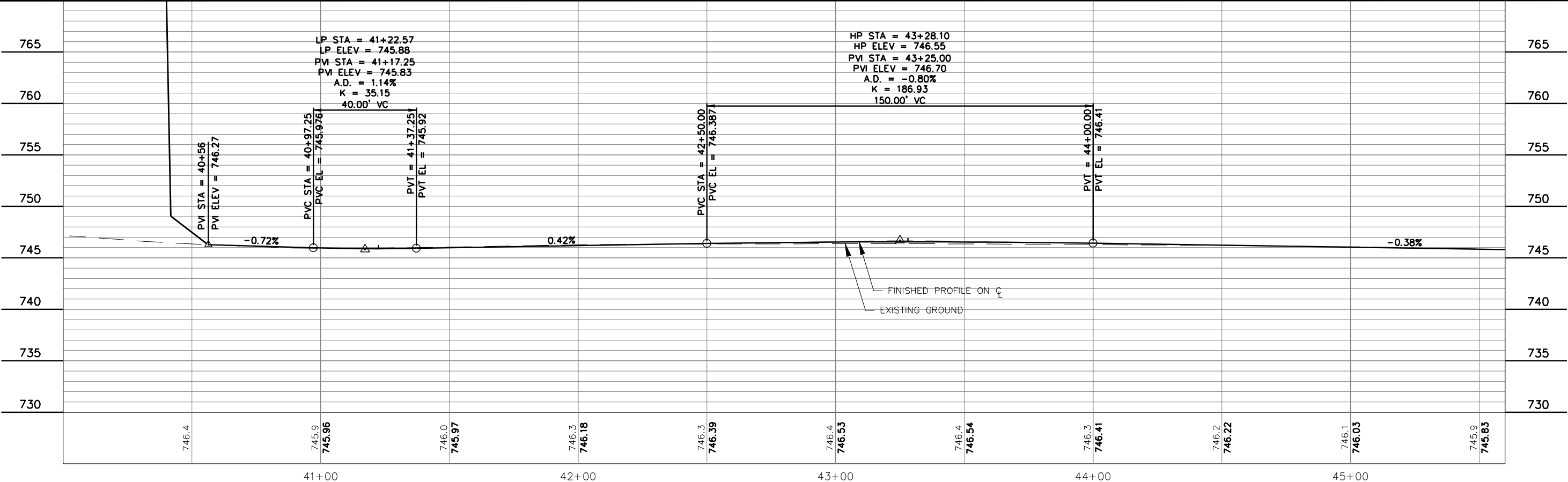
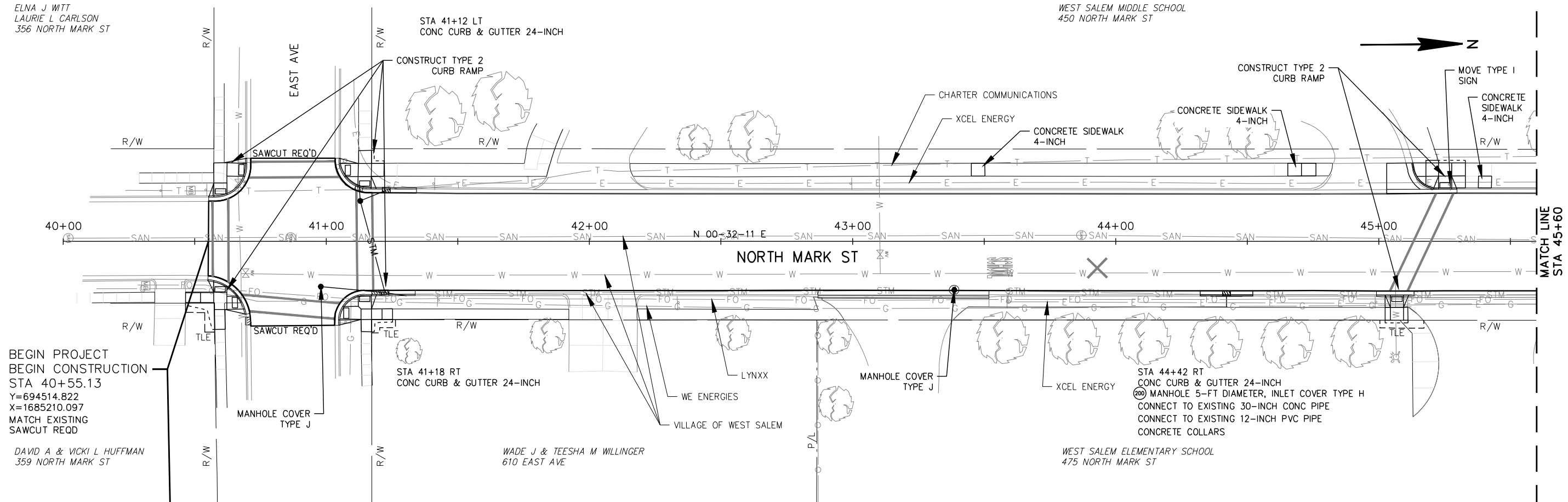
STATION	LOCATION	SPV.0060.02* EACH	REMARKS
CATEGORY 0020			
40+86	1.5' LT	1	
43+87	2.4' LT	1	
46+96	0.7' RT	1	
50+07	1.8' RT	1	
ITEM TOTAL		4	

\*SUPPLIED BY OTHERS

NOTE: TABLE QUANTITIES ARE  
CATEGORY 0010 UNLESS  
OTHERWISE NOTED

ELNA J WITT  
LAURIE L CARLSON  
356 NORTH MARK ST

WEST SALEM MIDDLE SCHOOL  
450 NORTH MARK ST



PROJECT NO: 5991-00-20

HWY: LOCAL STREET

COUNTY: LA CROSSE

PLAN AND PROFILE: NORTH MARK STREET

SHEET

E

FILE NAME : I:\CLIENTS-MAD\W4896 WEST SALEM VILLAGE OF\031 MARK STREET DESIGN\100 CADD\050101\_PP\_48960001.DWG

PLOT DATE : 7/22/2016 10:26 AM

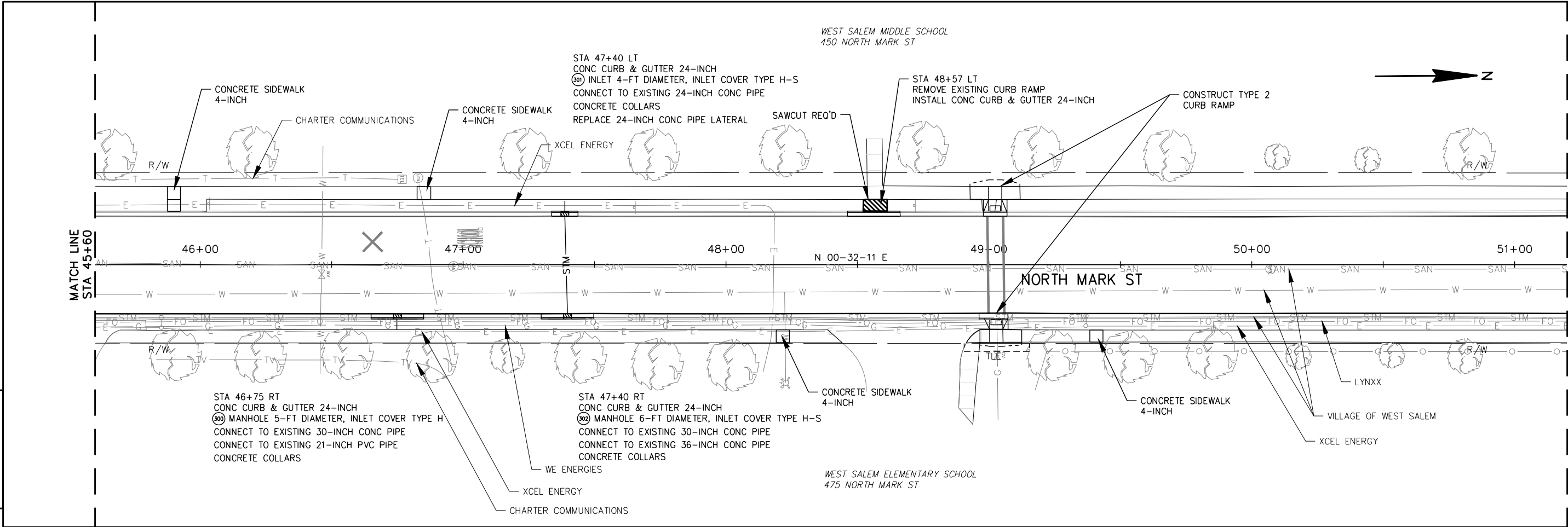
PLOT BY : BRIAN GENSOW

PLOT NAME : -----

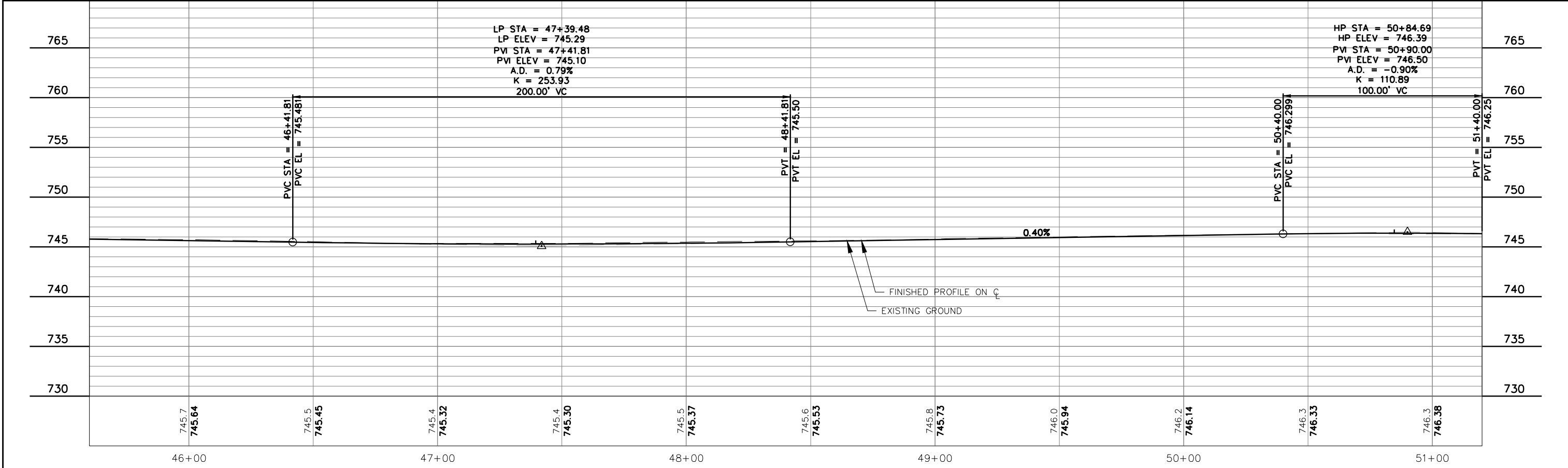
PLOT SCALE : 1:20\_XREF

WSDOT/CADD SHEET 44

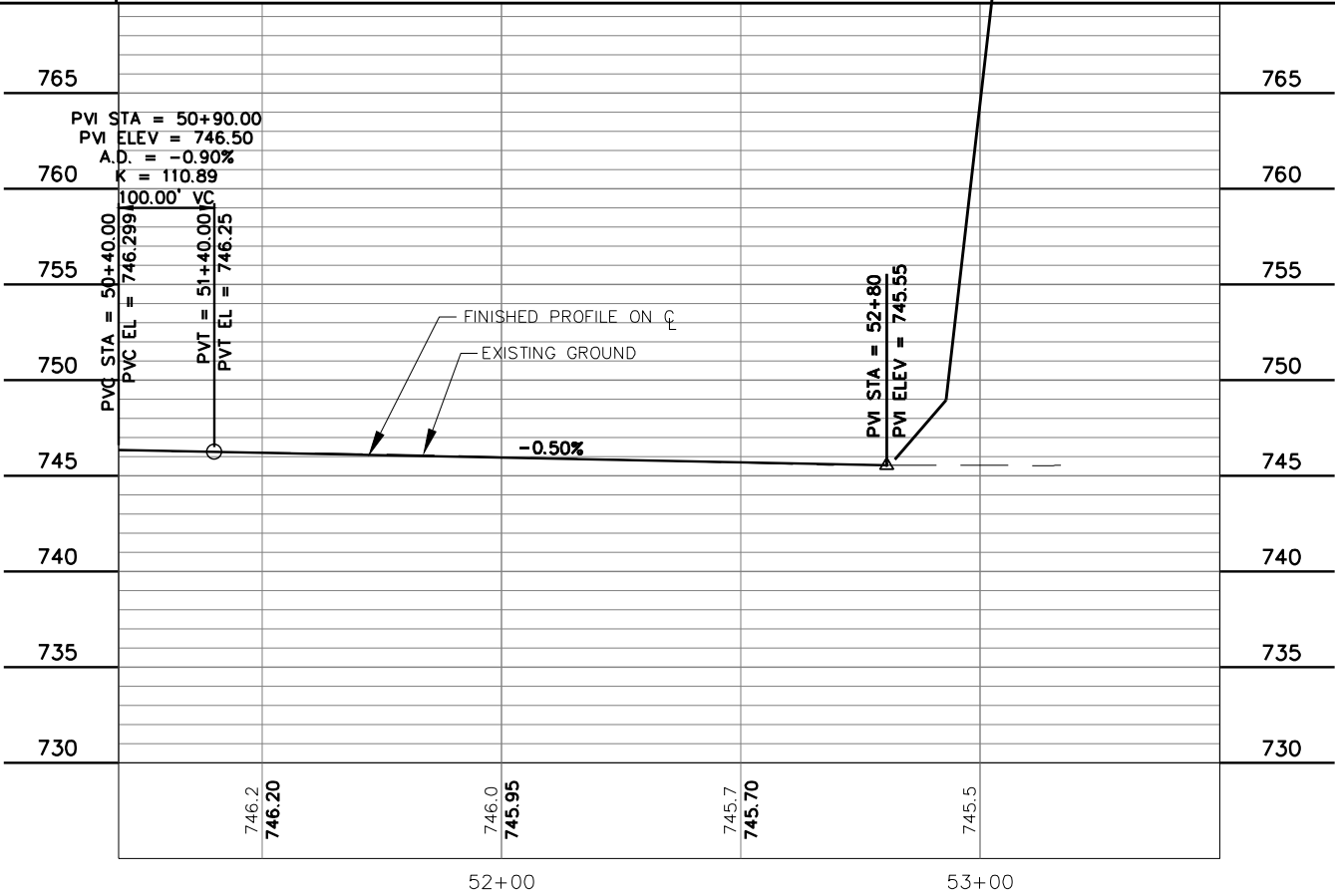
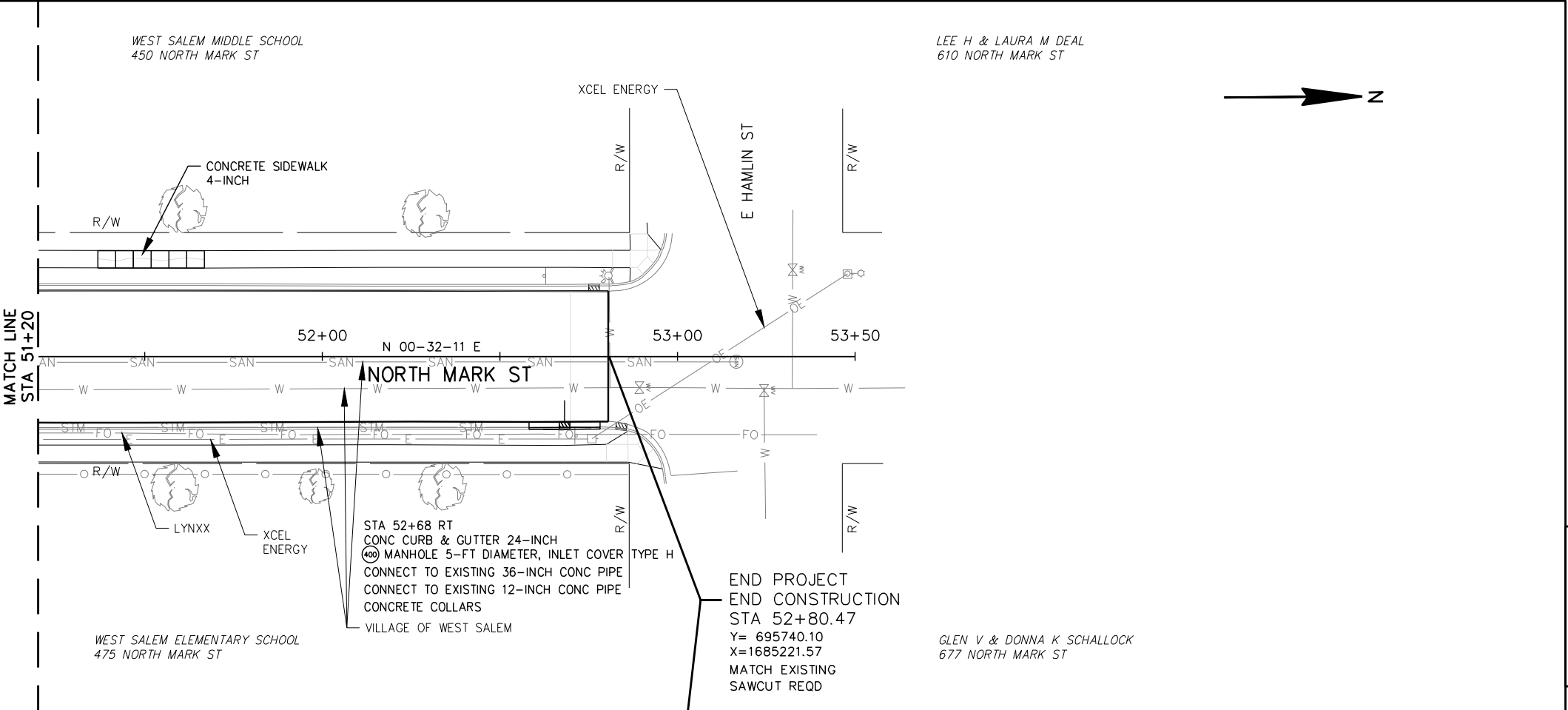
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5



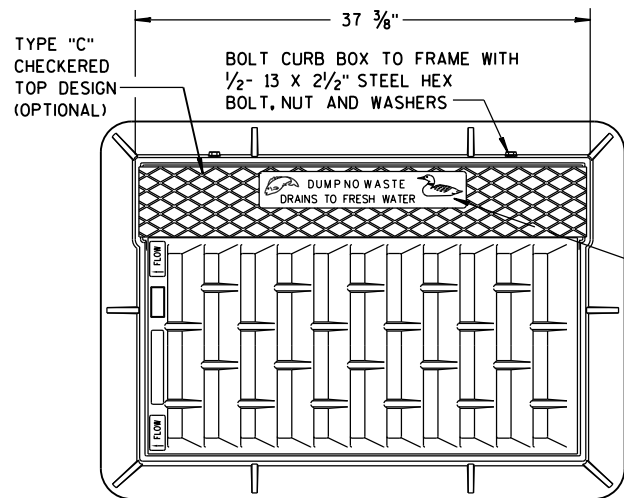
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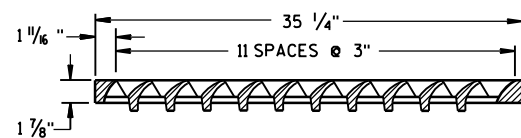
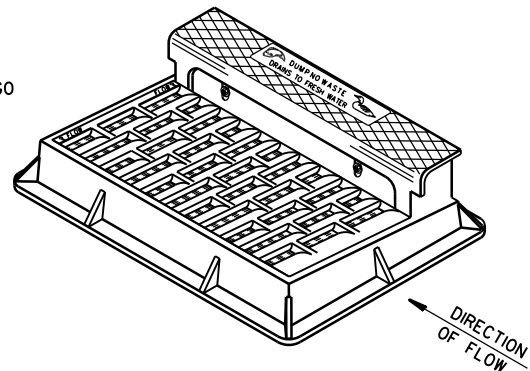


Standard Detail Drawing List

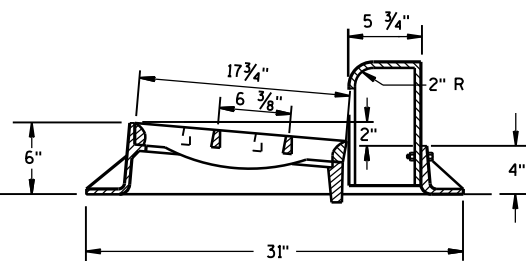
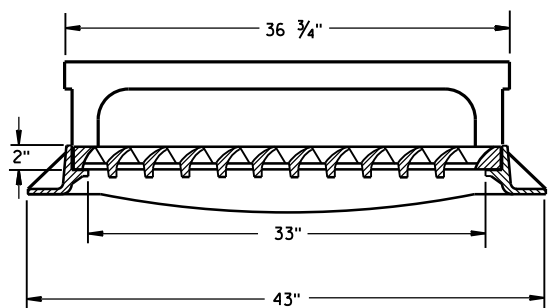
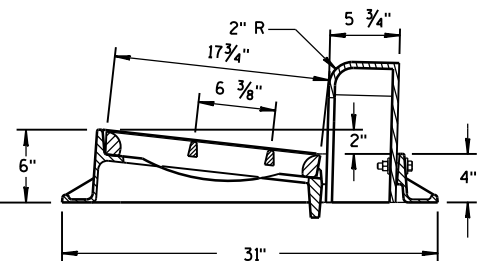
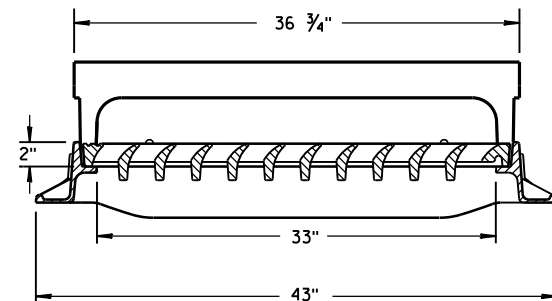
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING



NOTE:  
GRATE IS REVERSIBLE.

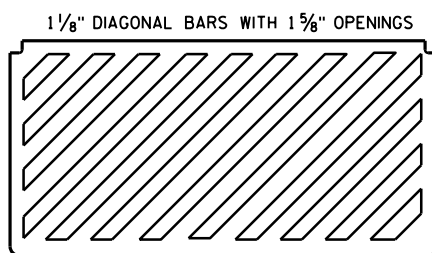


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

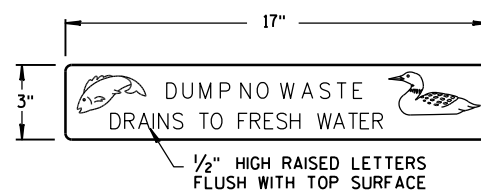


TYPE "H"

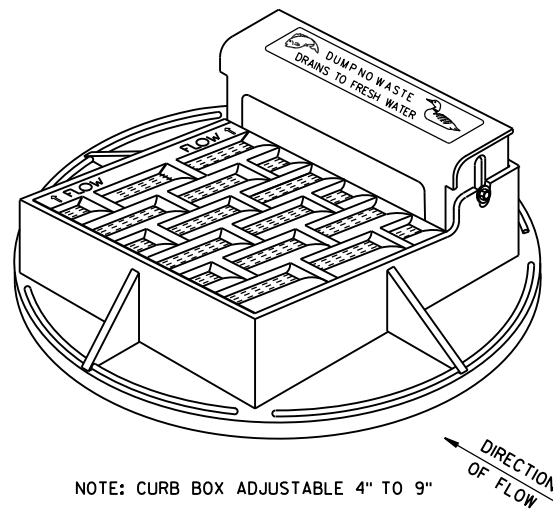
NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR  
TYPE "H" COVER  
(MEASURES 35 1/4" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

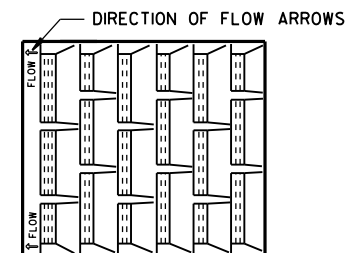


LOGO DETAIL

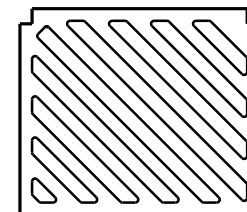


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

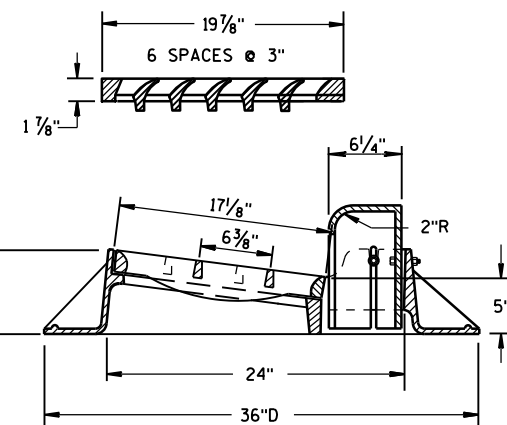
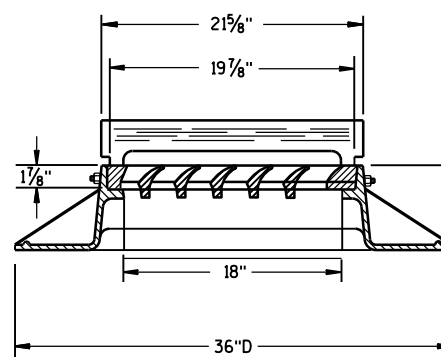
NOTE:  
GRATE IS REVERSIBLE.



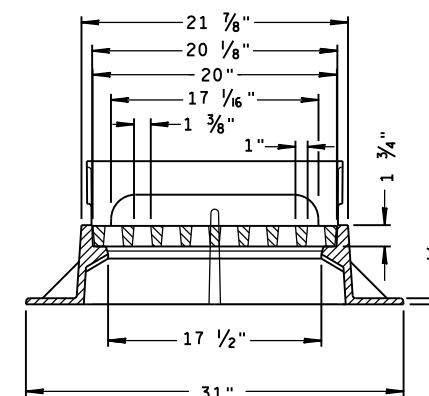
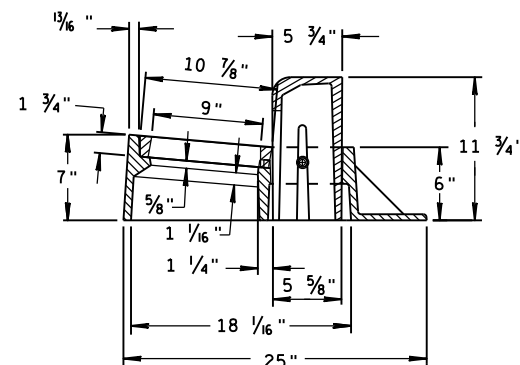
1" DIAGONAL BARS  
WITH 1 1/2" OPENINGS



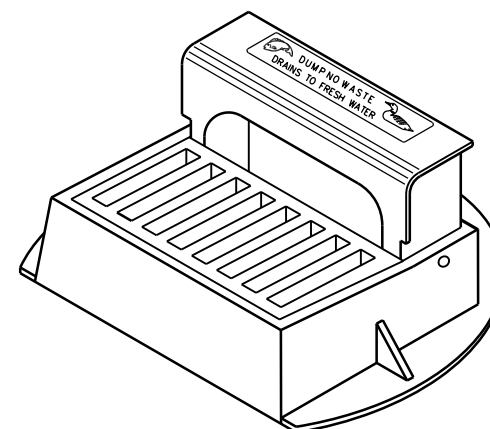
SPECIAL GRATE FOR  
TYPE "A" COVER  
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



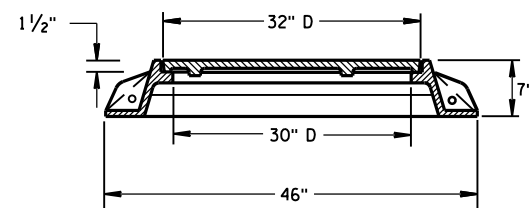
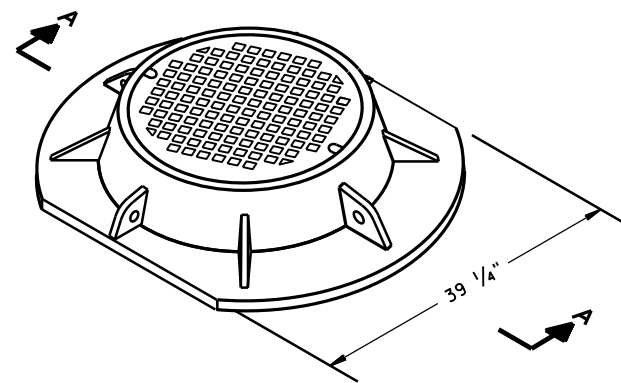
TYPE "Z"



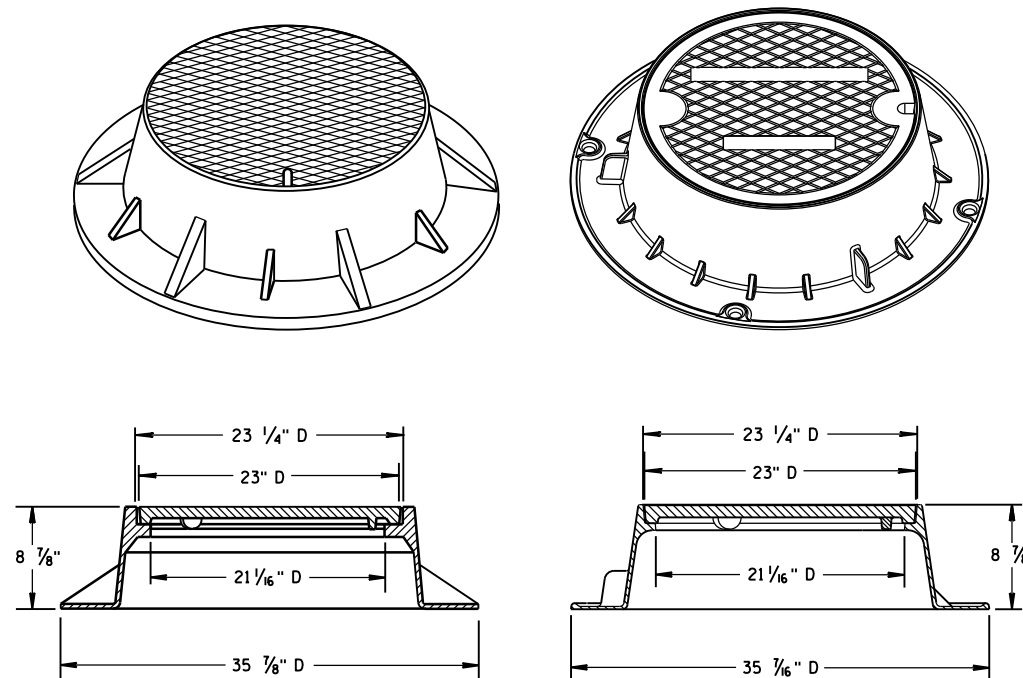
INLET COVERS  
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11-27-13  
DATE  
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

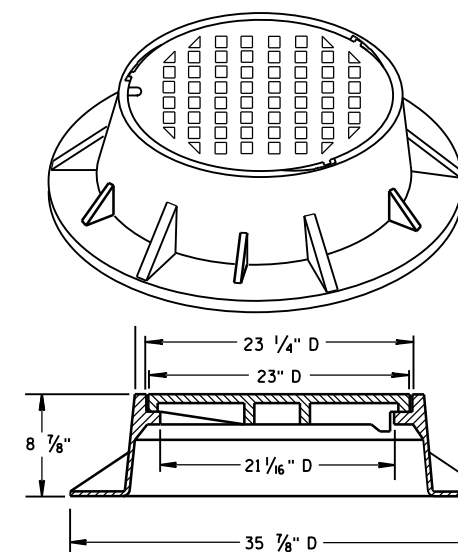
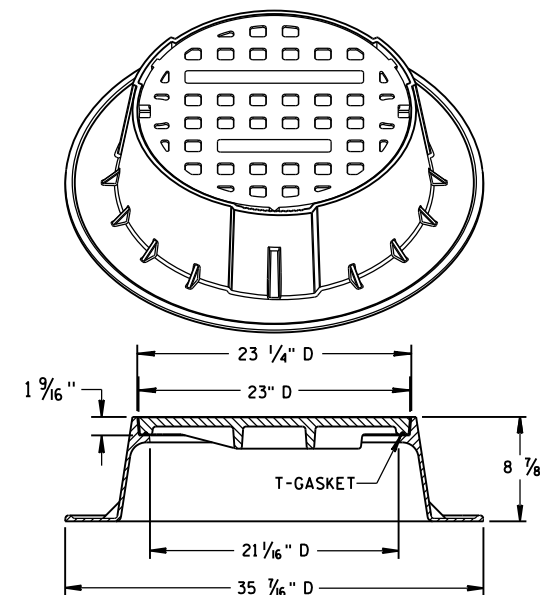


SECTION A-A  
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

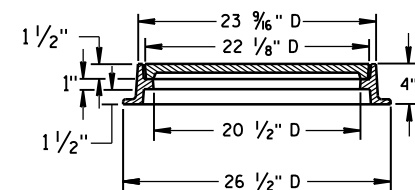
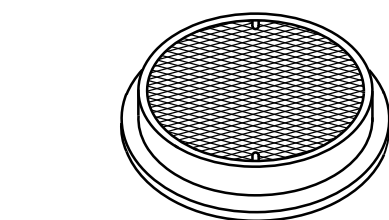


TYPE "J" SPECIAL

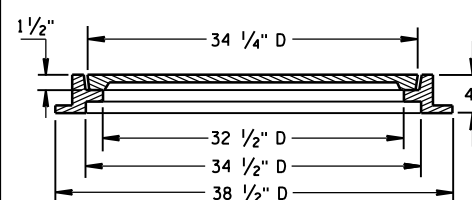
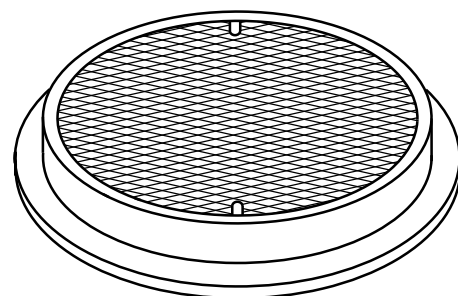
TYPE "B" NON-ROCKING SELF-SEAL LID

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

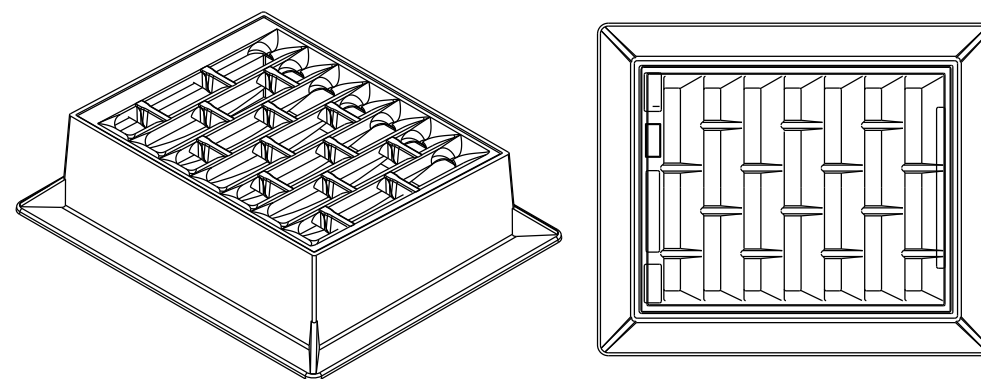
NOTE: EITHER CASTING IS ACCEPTABLE



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.

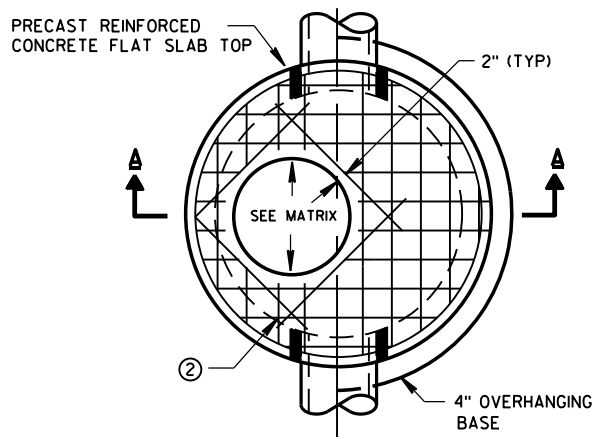
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

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

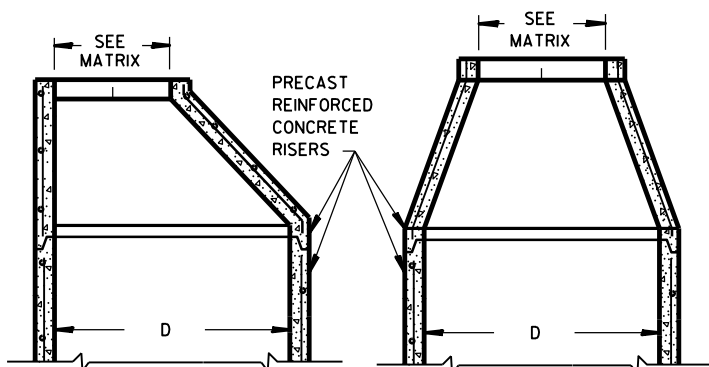
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/27/2013  
DATE  
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

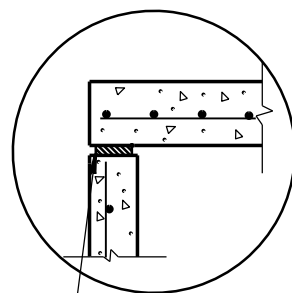


PLAN VIEW CIRCULAR OPENING

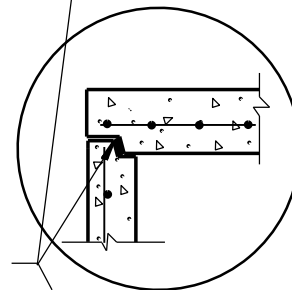


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

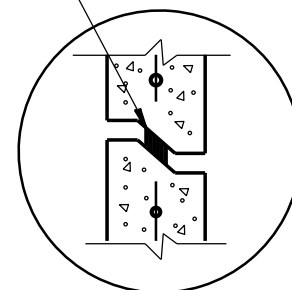
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



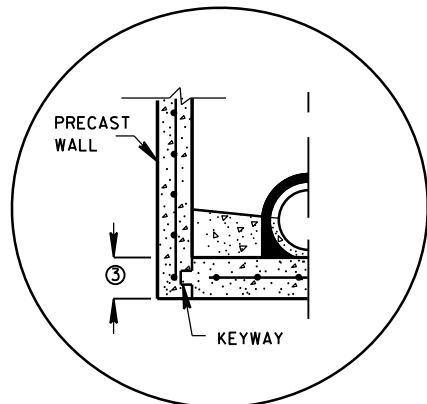
TOP WITH TONGUE AND GROOVE JOINT



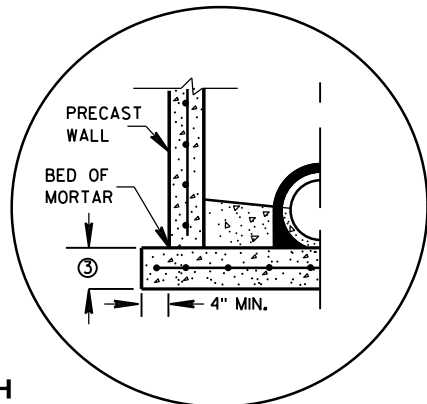
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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

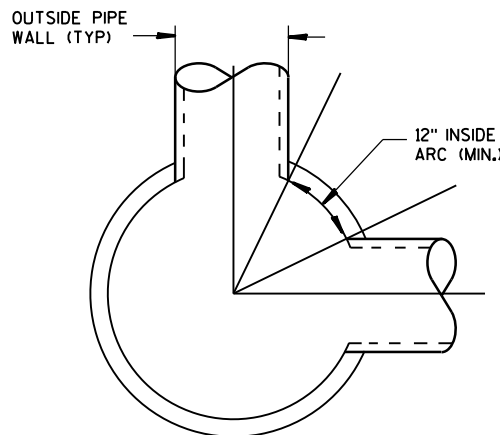


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

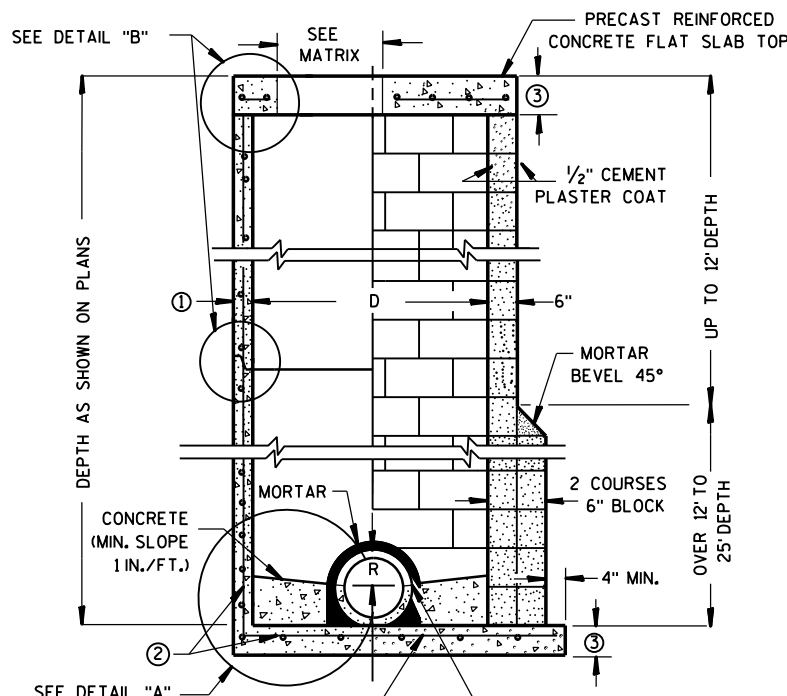


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

SPLIT PIPE OR FORM CONCRETE TO FIT

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

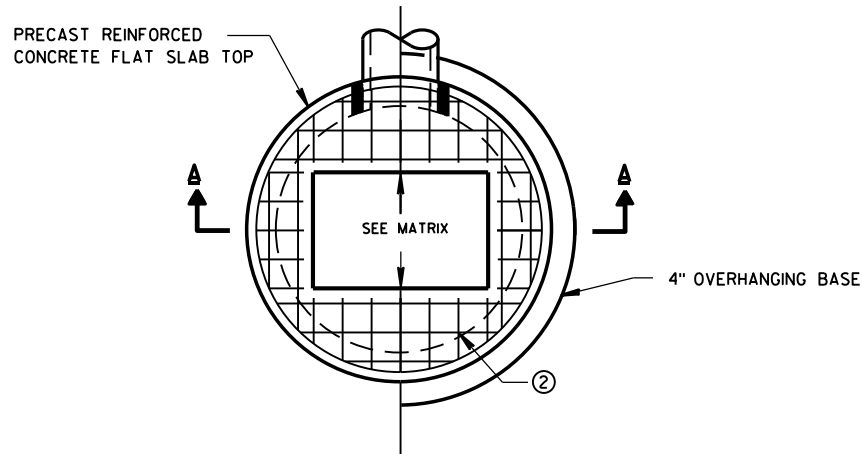
PIPE MATRIX

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

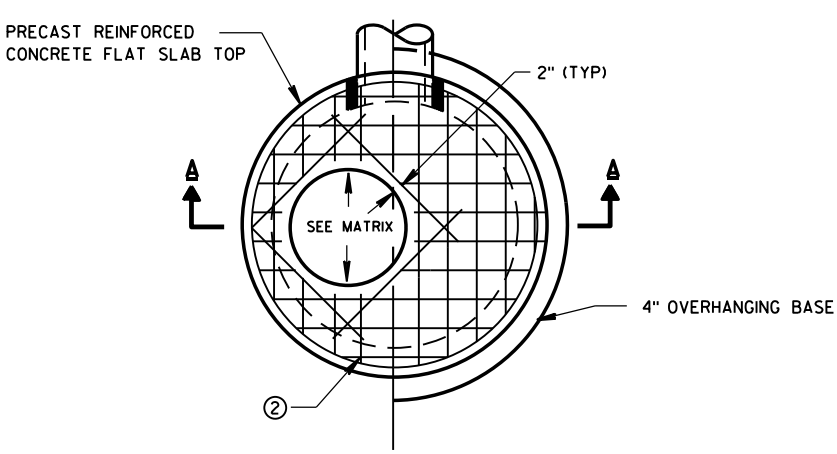
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

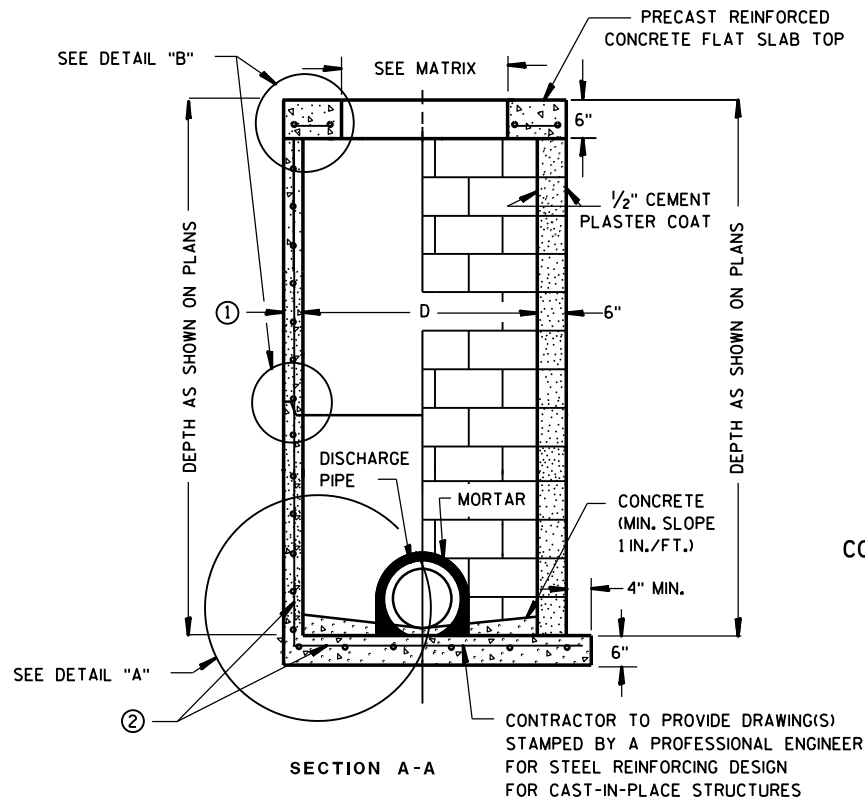
APPROVED  
6/5/2012 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA ENGINEER



PLAN VIEW RECTANGULAR OPENING



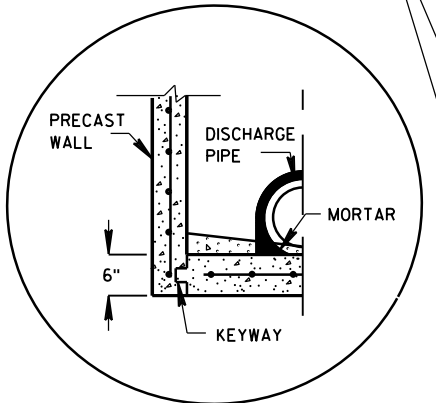
PLAN VIEW CIRCULAR OPENING



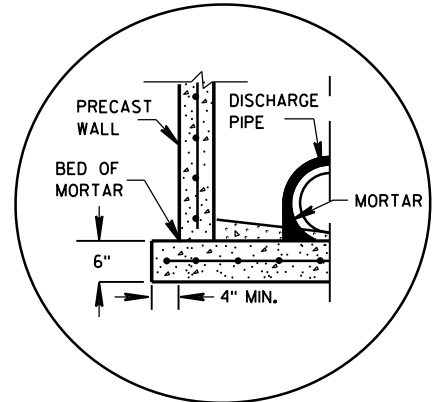
**PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE**      **CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②**

CIRCULAR INLETS W/ FLAT TOP

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

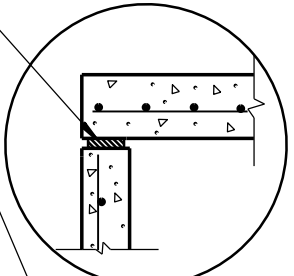


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

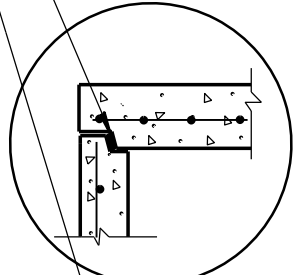


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

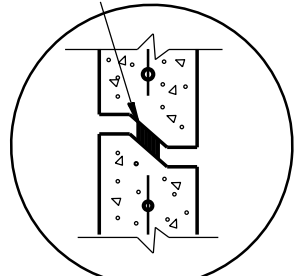
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

INLETS 3-FT AND 4-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 INLET 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.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

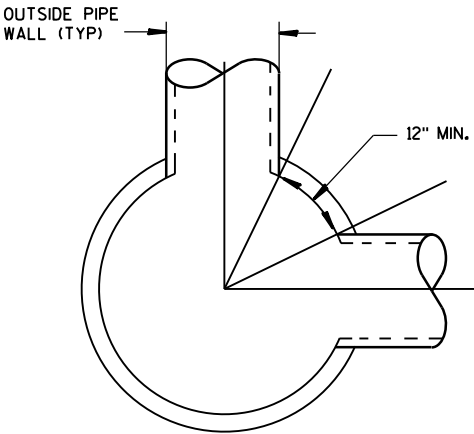
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

**INLET COVER OPENING MATRIX**

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X	X	X	X	
	2X2.5			X								
	2X3						X					
	2.5X3					X						



DETAIL "C"

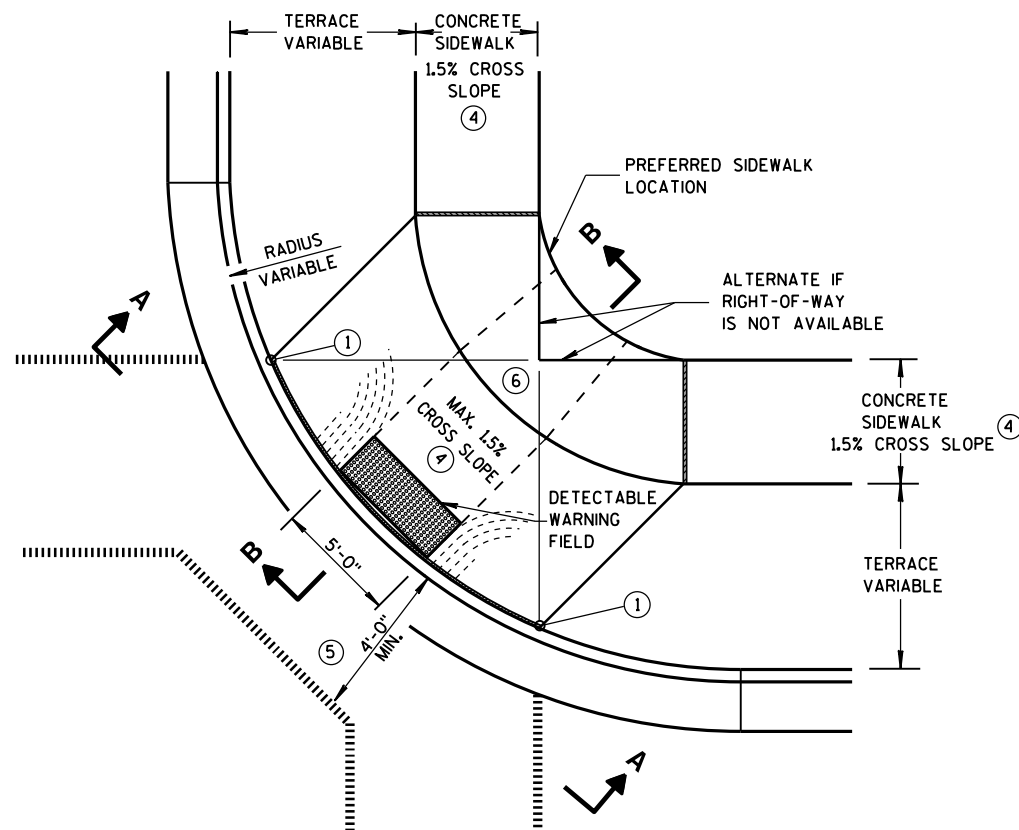
**PIPE MATRIX**

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

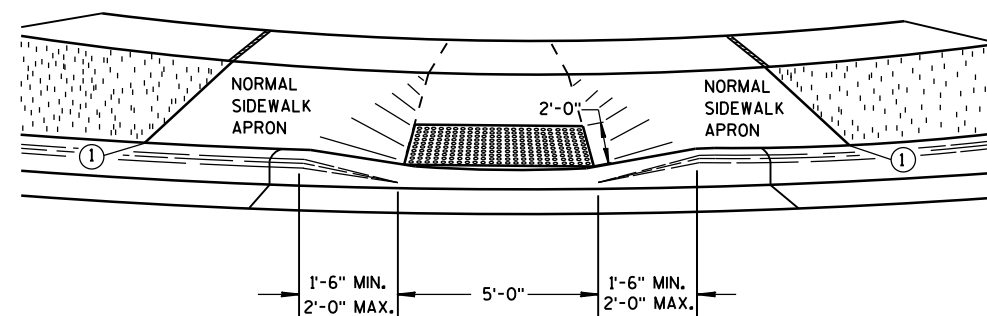
**INLETS 3-FT AND 4-FT DIAMETER**

**STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION**

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

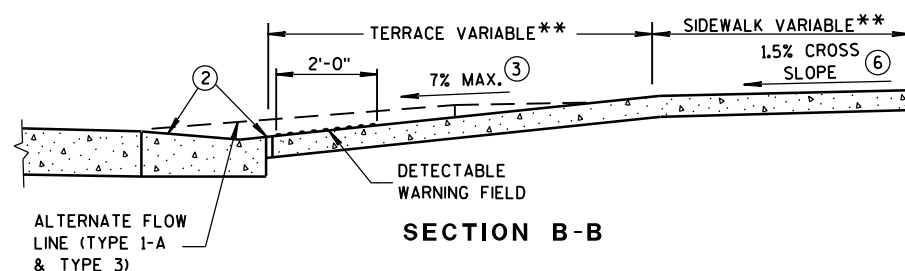


PLAN VIEW  
TYPE 1 RAMP  
(CENTER OF CORNER RADIUS)

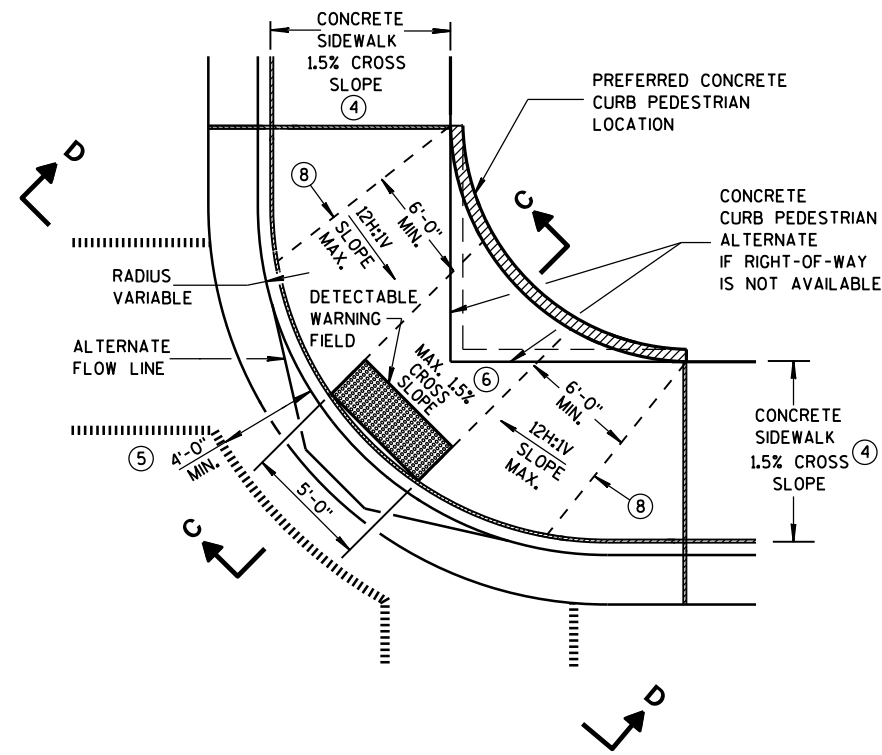


**VIEW A-A**

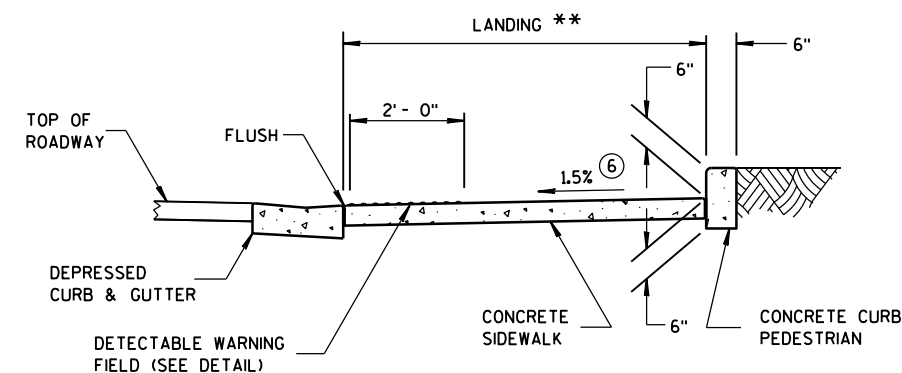
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



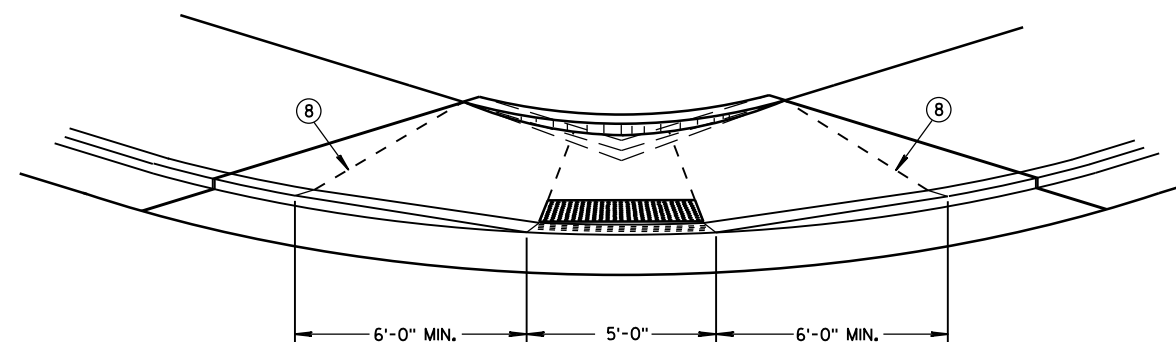
**SECTION B-B**



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.

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.

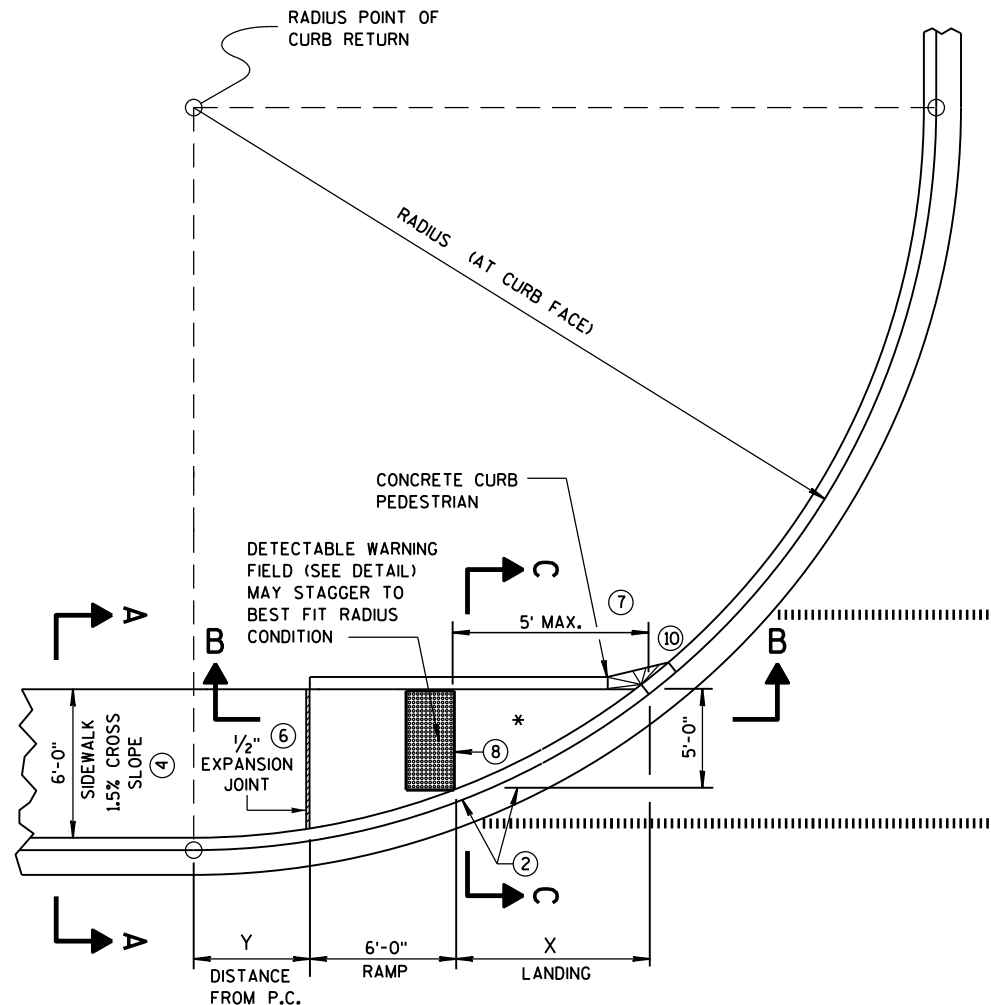
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

### LEGEND

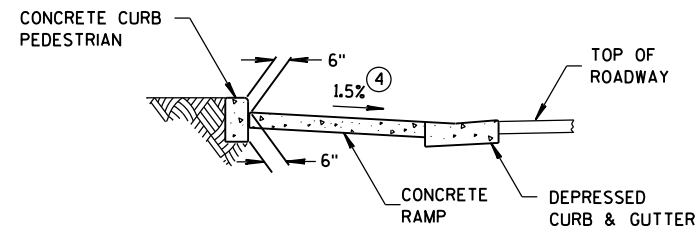
-  1/2" EXPANSION JOINT-SIDEWALK  
 CONTRACTION JOINT FIELD LOCATED  
 PAVEMENT MARKING CROSSWALK (WHITE)  
 ALTERNATIVE LAYOUT

### CURB RAMPS TYPES 1 AND 1-A

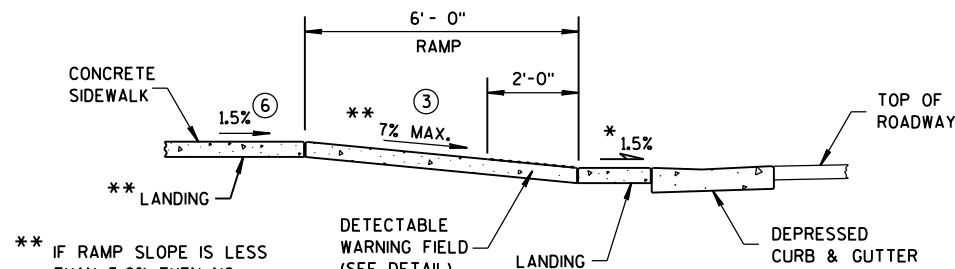
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A  
PLAN VIEW



SECTION C-C FOR TYPE 4A



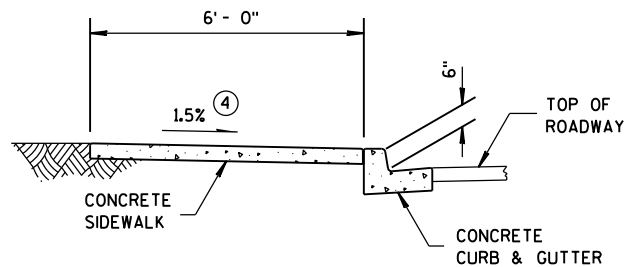
SECTION B-B FOR TYPE 4A

\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

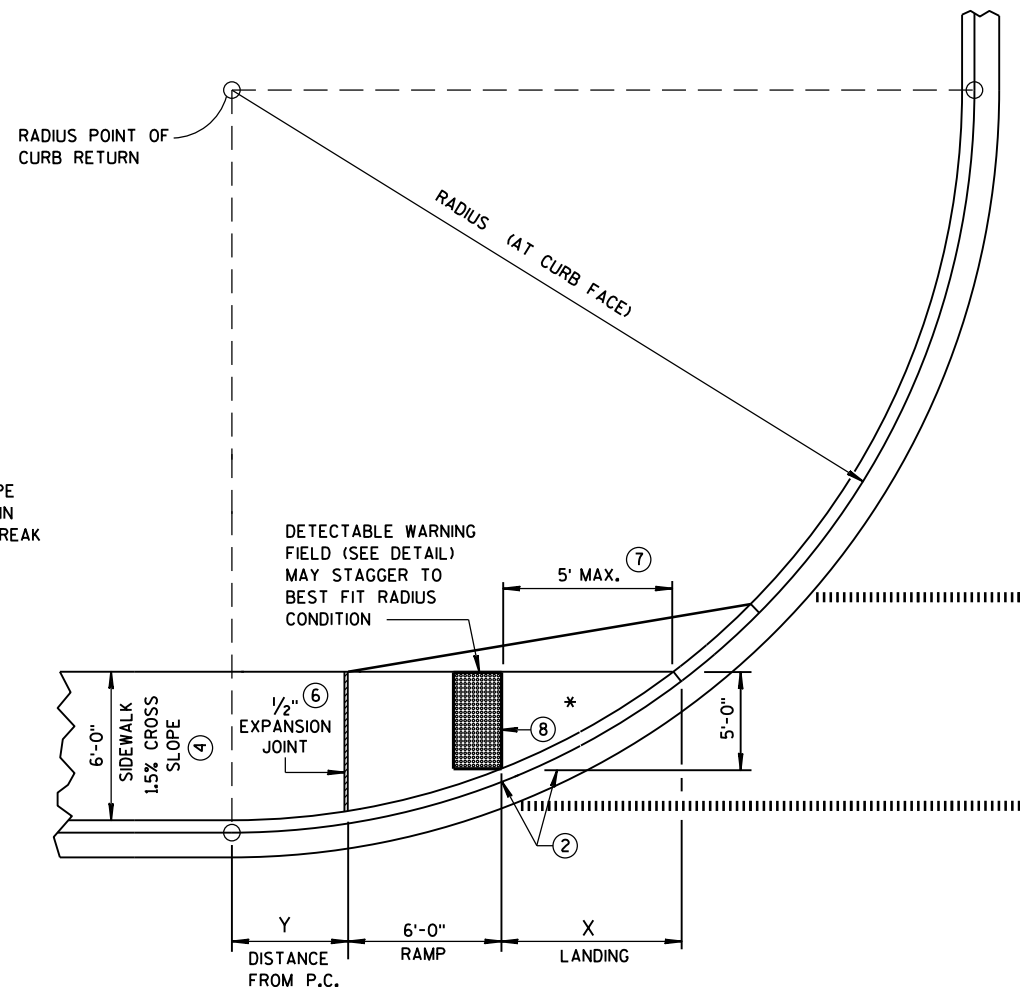
\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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



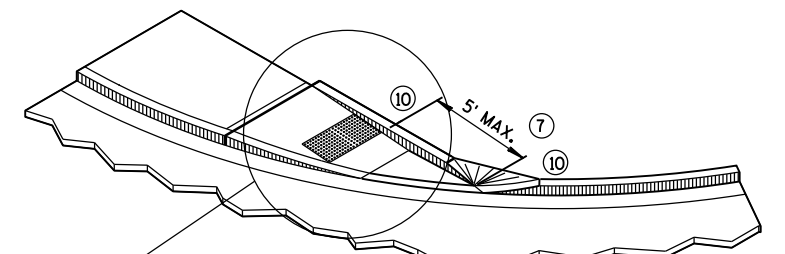
CURB RAMP TYPE 4A1  
PLAN VIEW

## GENERAL NOTES

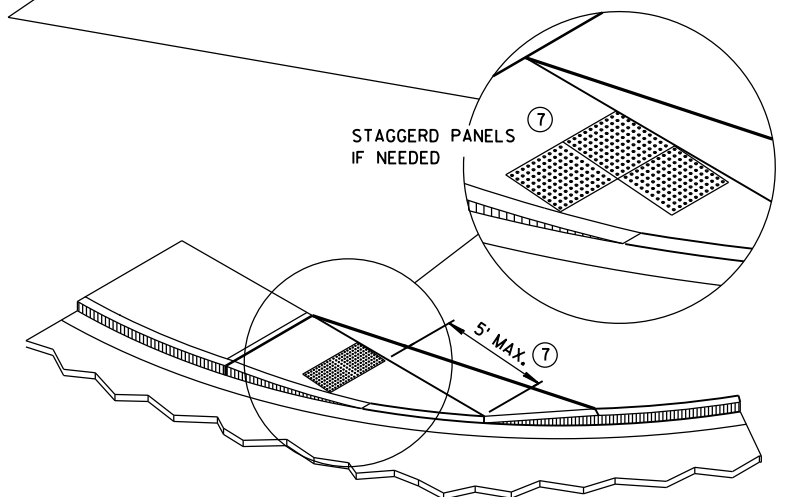
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



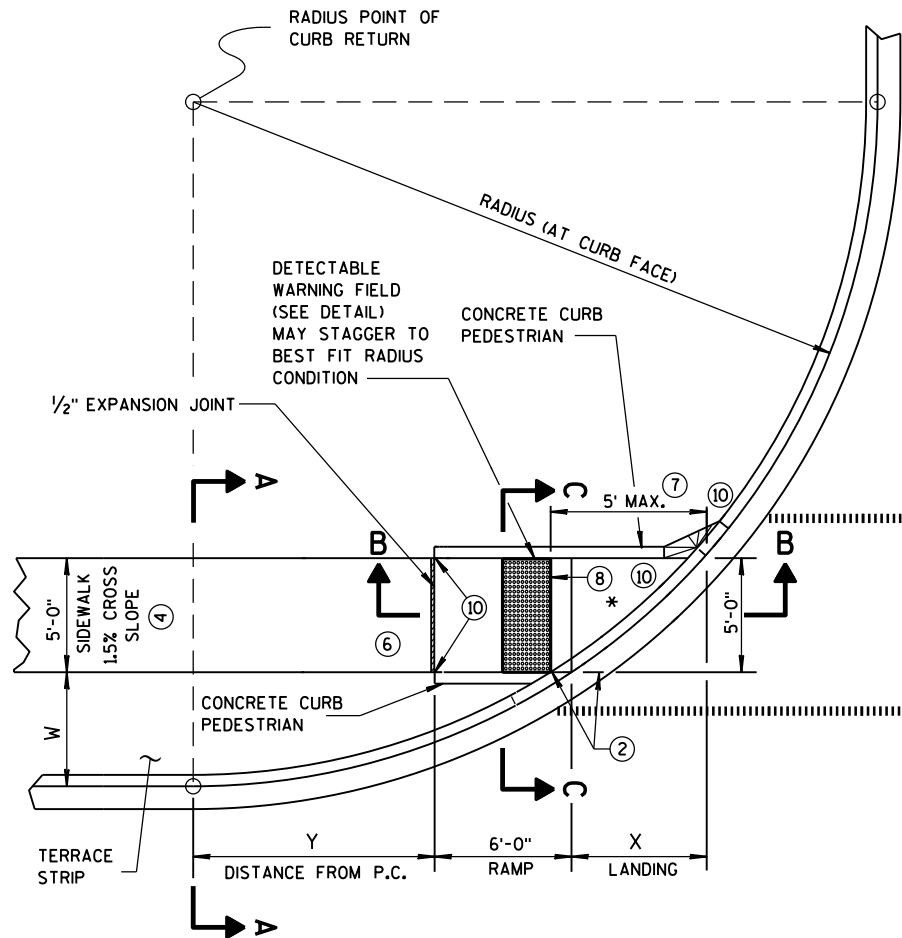
ISOMETRIC VIEW FOR TYPE 4A1

## LEGEND

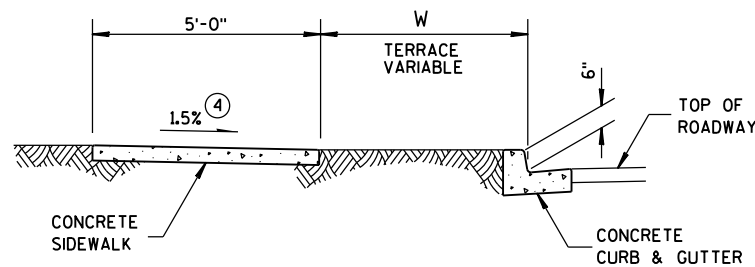
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS  
TYPES 4A AND 4A1

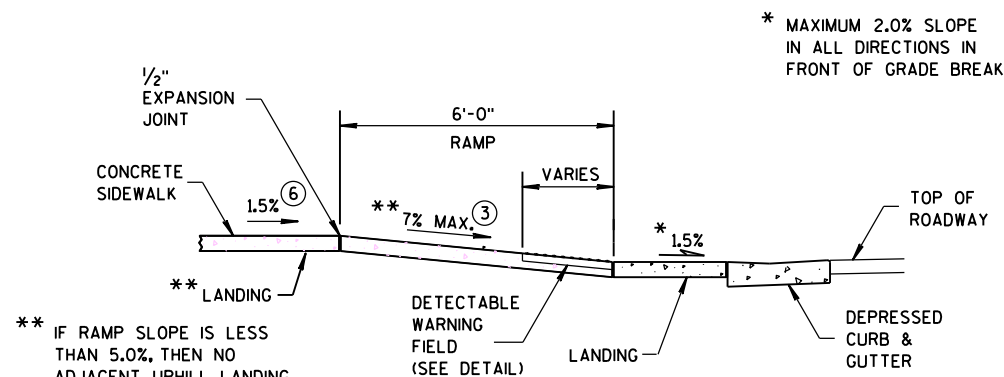
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4B  
PLAN VIEW

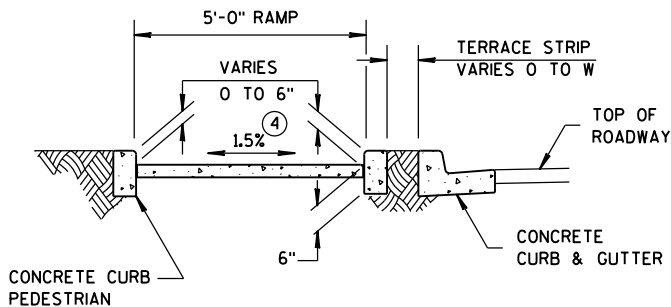


SECTION A-A FOR TYPE 4B

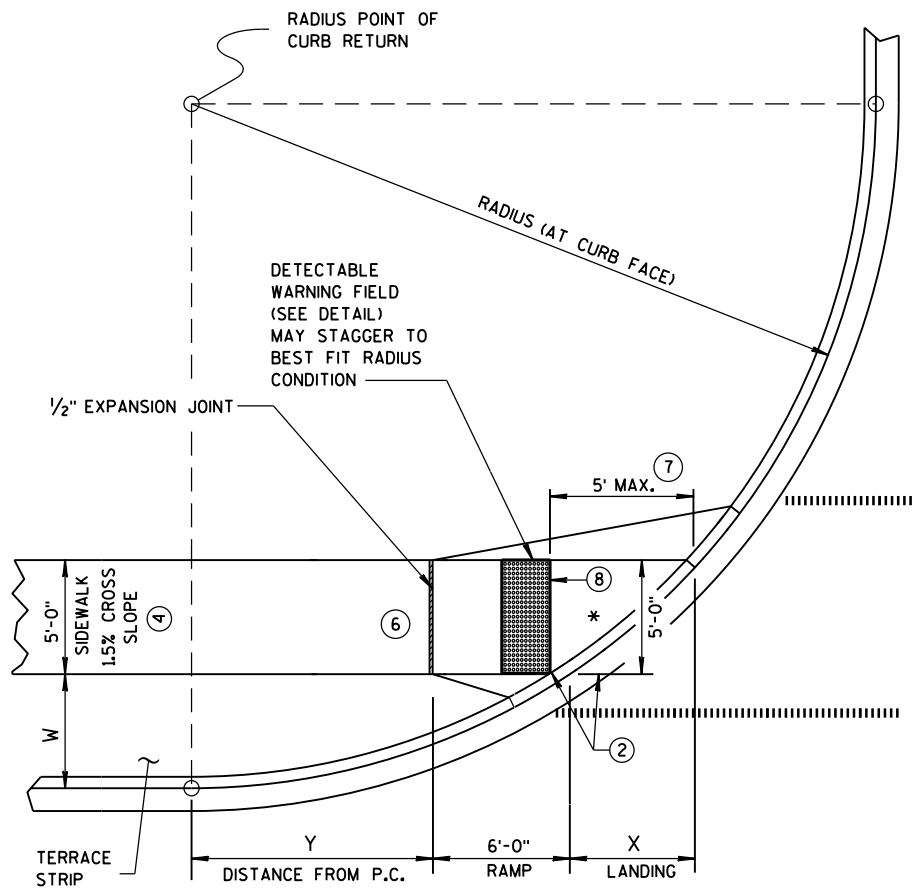


SECTION B-B FOR TYPE 4B

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



SECTION C-C FOR TYPE 4B

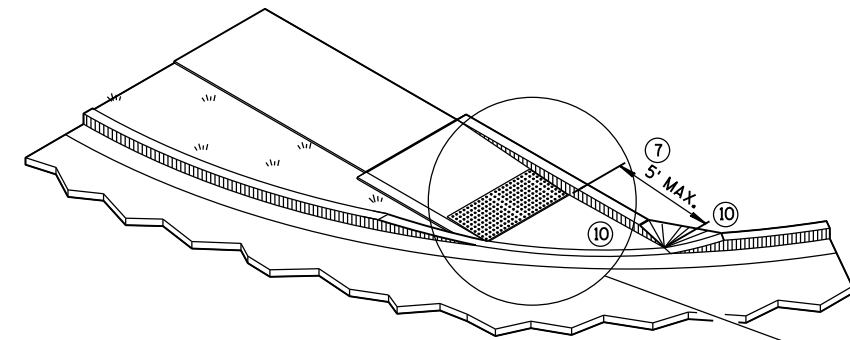


CURB RAMP TYPE 4B1  
PLAN VIEW

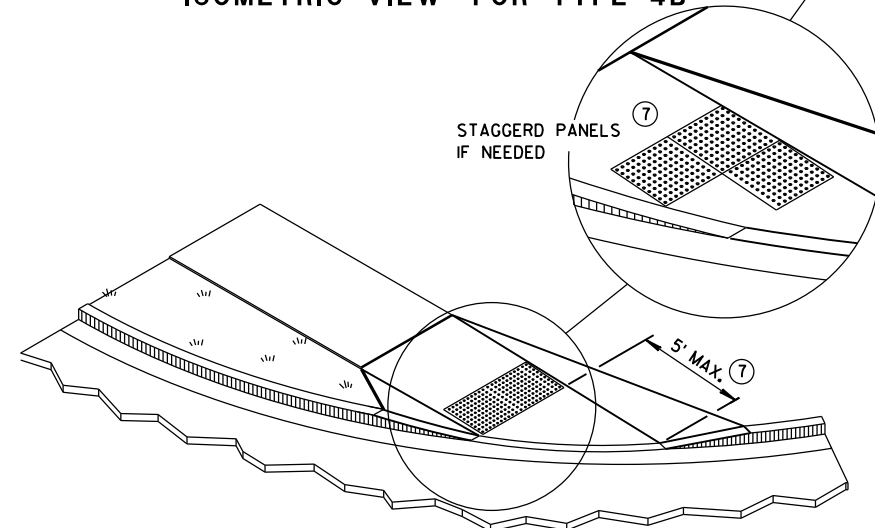
RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
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"

GENERAL NOTES

- INTERMEDIATE RADII CAN BE INTERPOLATED
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
  - ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
  - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
  - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
  - ⑦ WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.
  - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
  - ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B

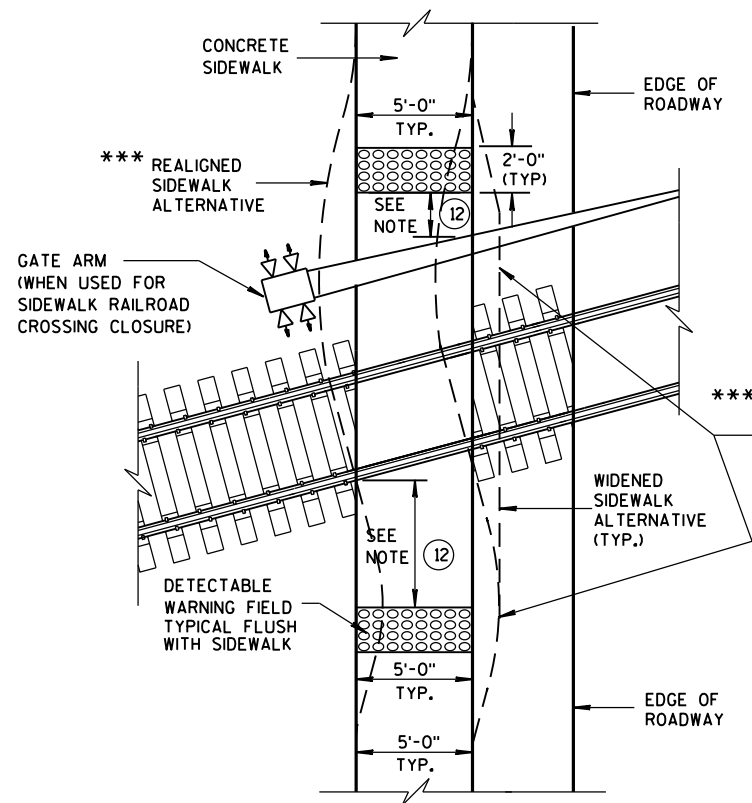


ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS  
TYPE 4B AND 4B1

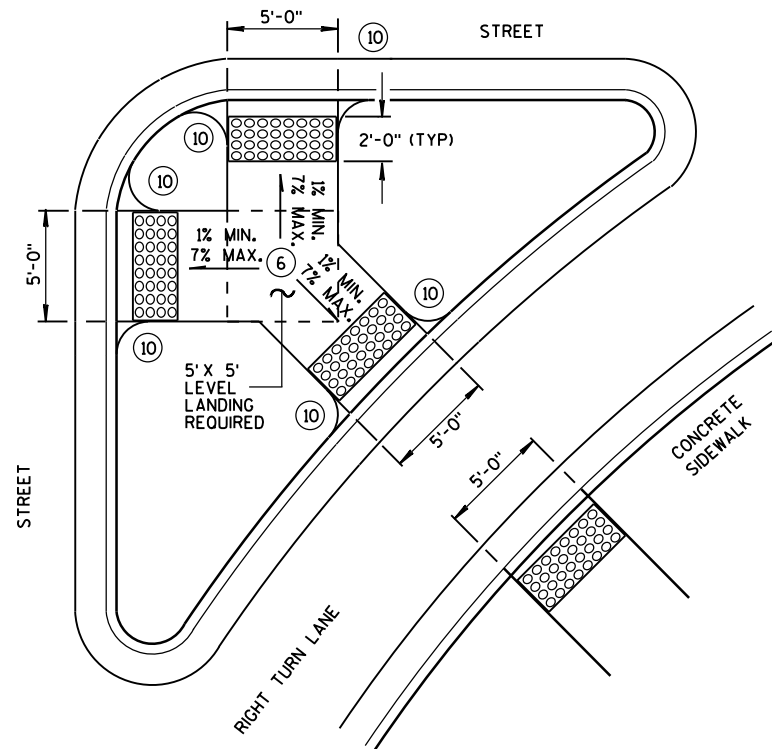
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



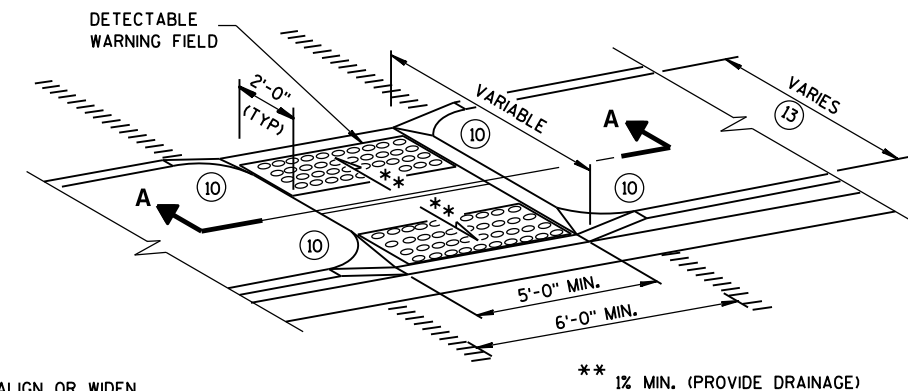


**TYPE 8**  
**DETECTABLE WARNINGS**  
**AT RAILROAD CROSSING**

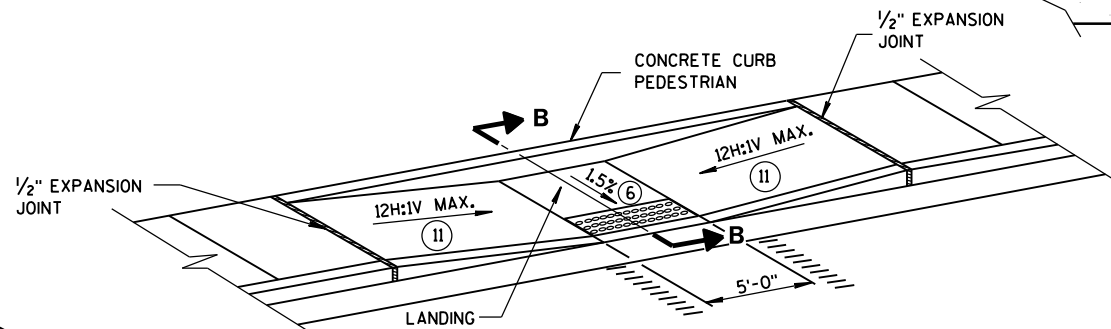
REFER TO GENERAL NOTES ② AND ③  
FOR ALL ISLAND CURB RAMPS



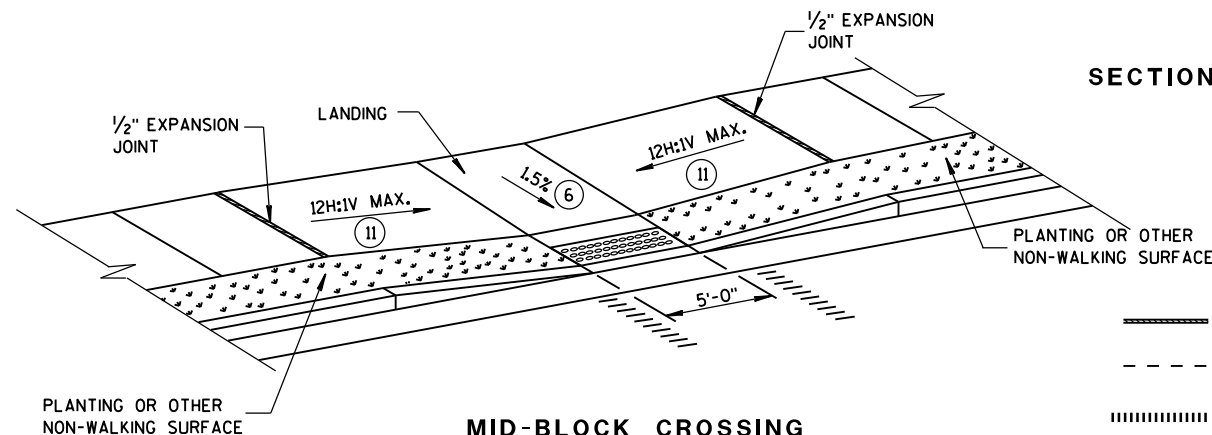
**TYPE 6**  
**DETECTABLE WARNING AT ISLANDS**



**MEDIAN ISLAND**  
**NON-ELEVATED CROSSING**  
**TYPE 5**



**MID-BLOCK CROSSING**  
**TYPE 7A**

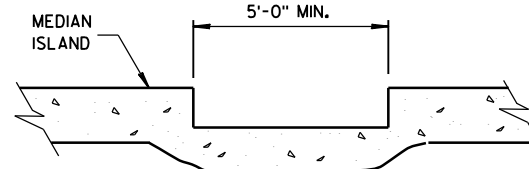


**MID-BLOCK CROSSING**  
**TYPE 7B**

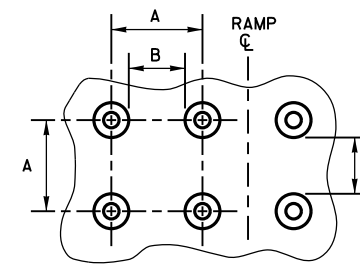
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS  
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

**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.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 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.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



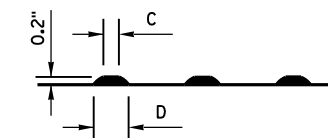
**SECTION A-A**



**PLAN VIEW**

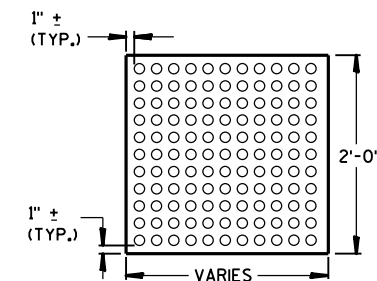
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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



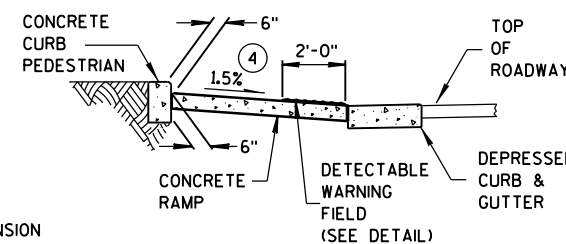
**ELEVATION VIEW**

**TRUNCATED DOMES**  
**DETECTABLE WARNING PATTERN DETAIL**



**PLAN VIEW**  
**DETECTABLE WARNING**  
**FIELD (TYPICAL)**

**SECTION B-B**



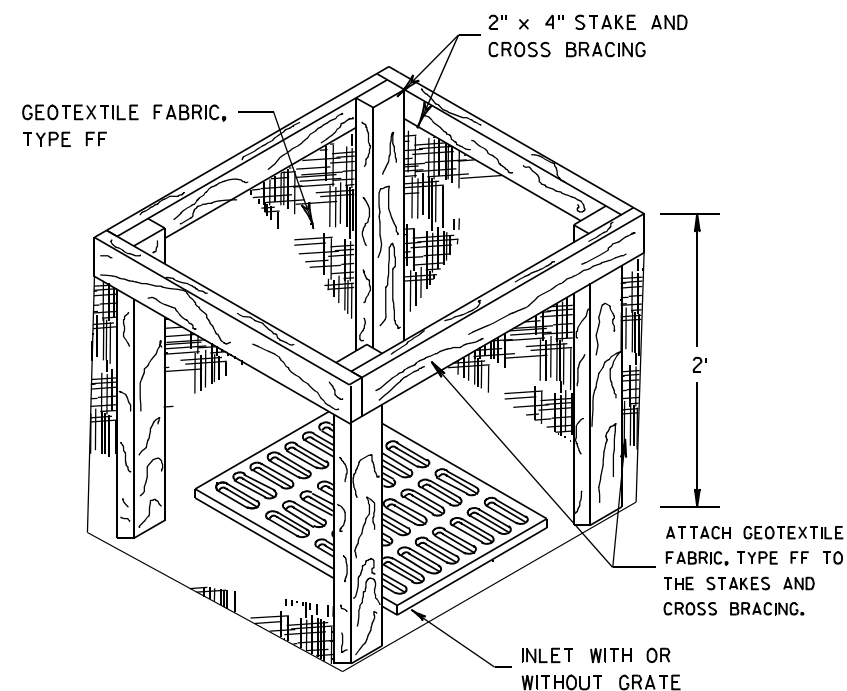
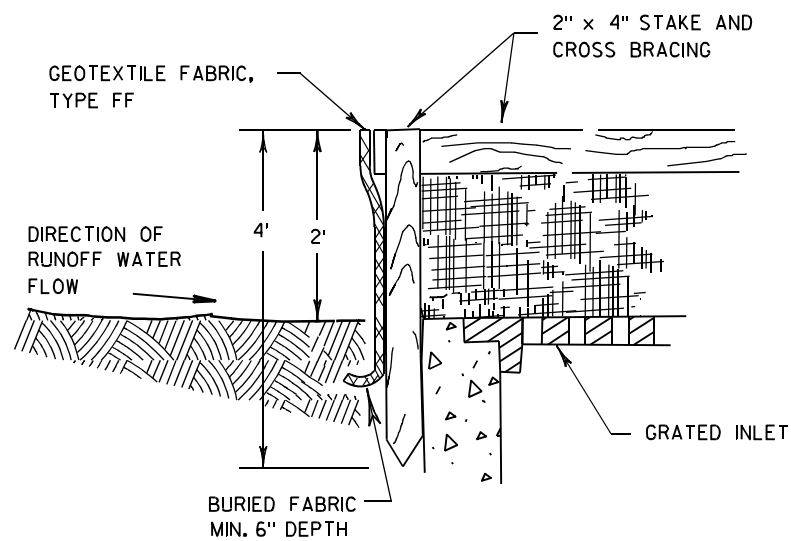
**LEGEND**

- 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**  
June, 2015 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



**INLET PROTECTION, TYPE A**

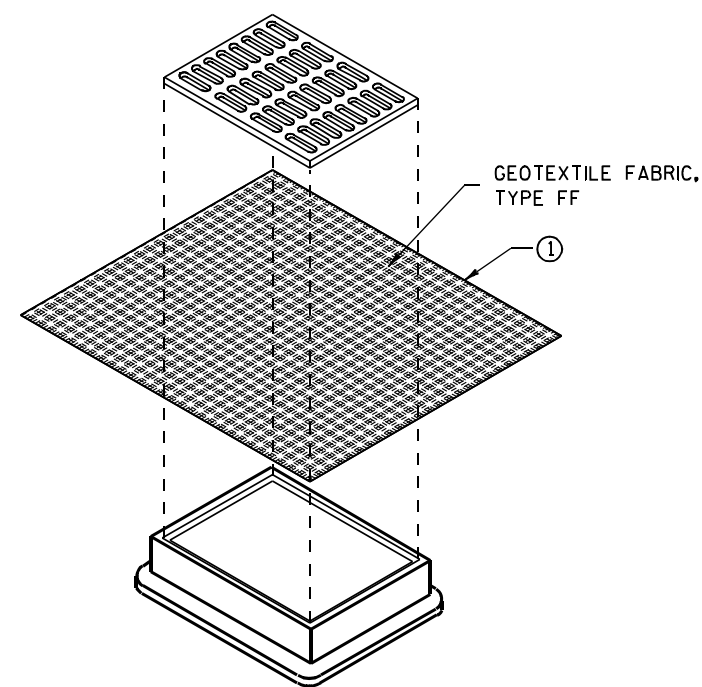
**GENERAL NOTES**

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

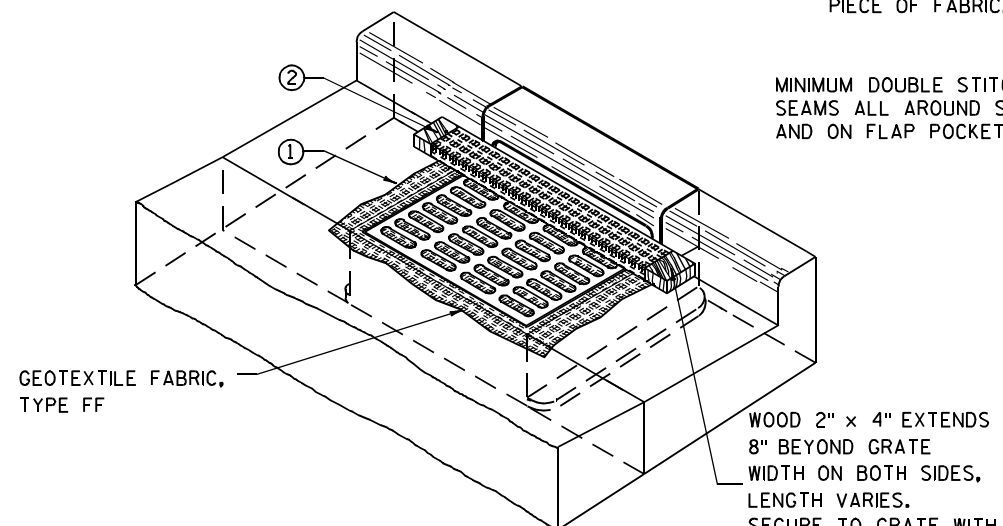
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

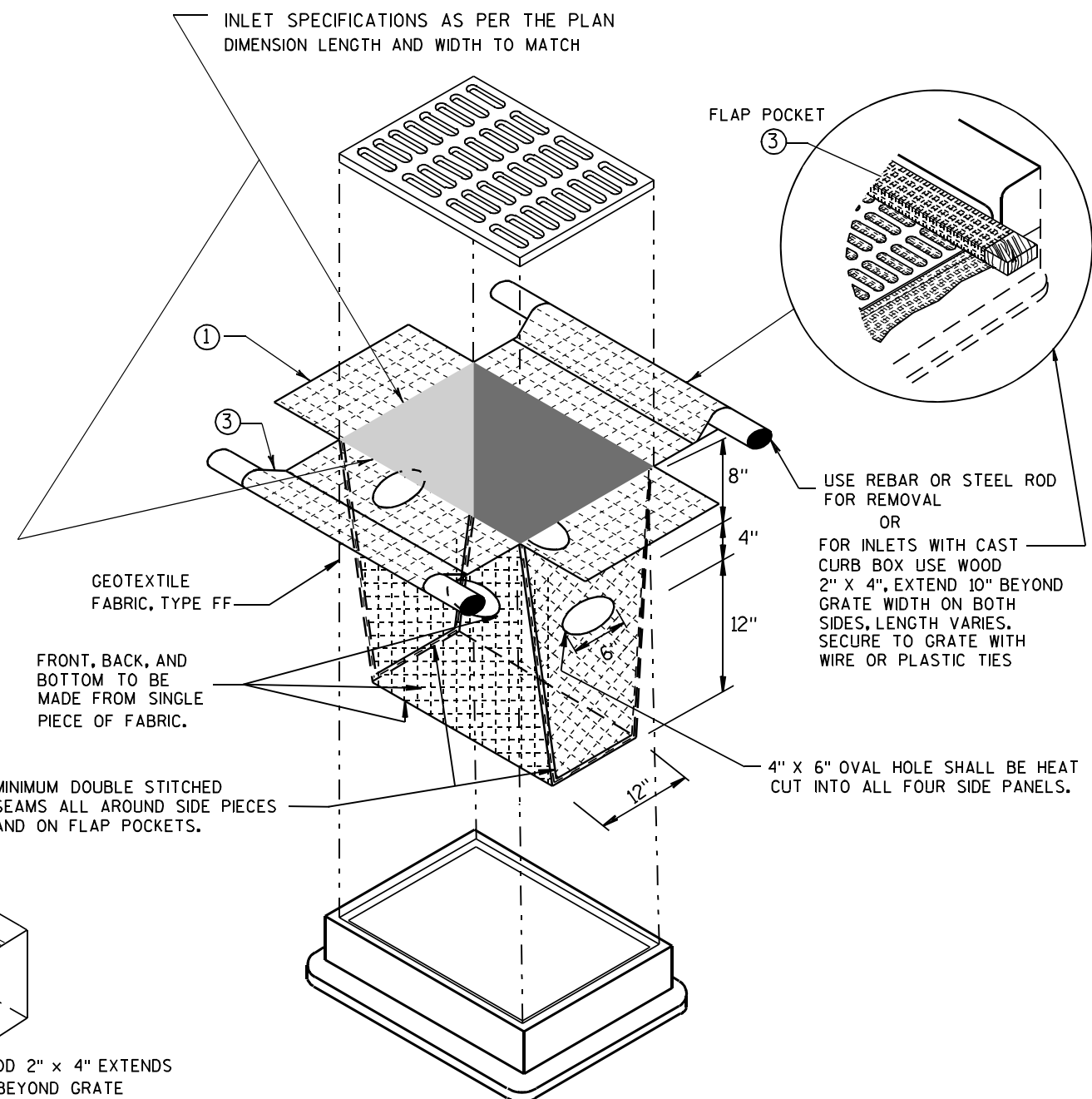
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE D**

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



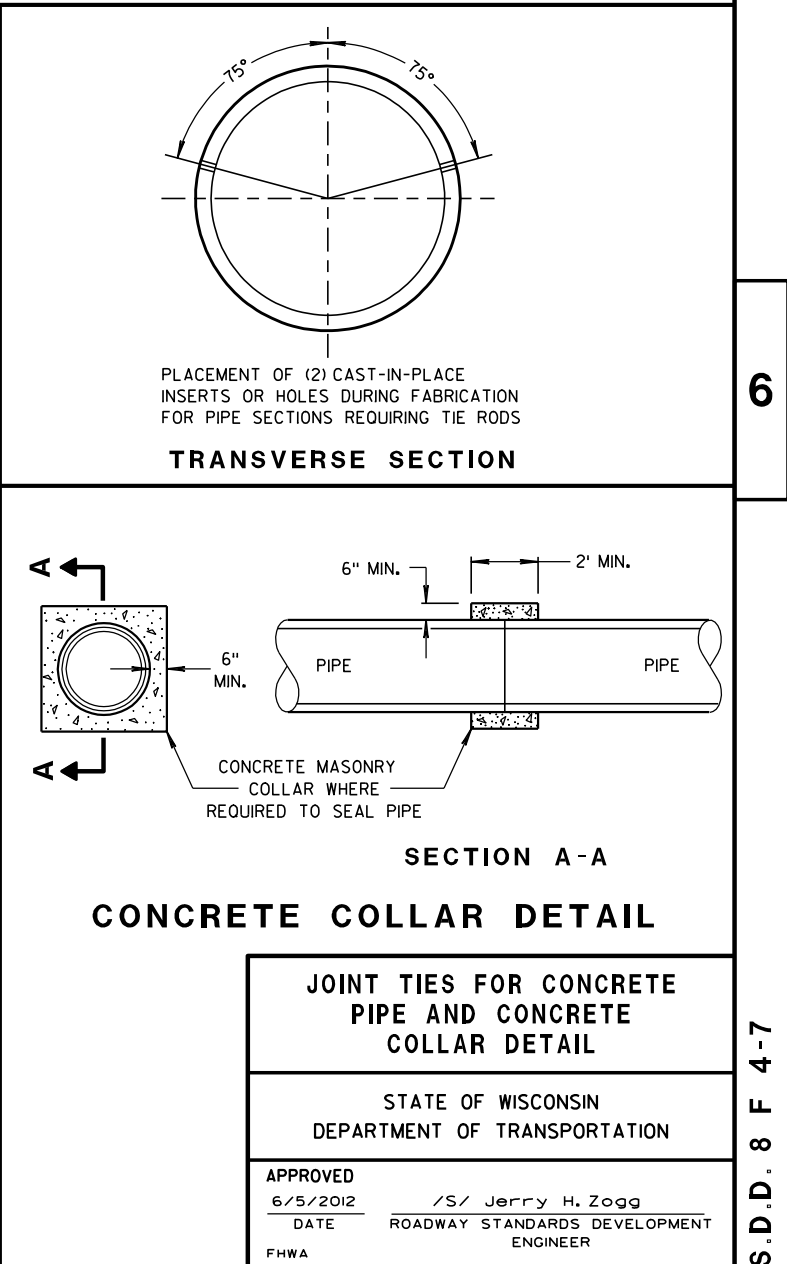
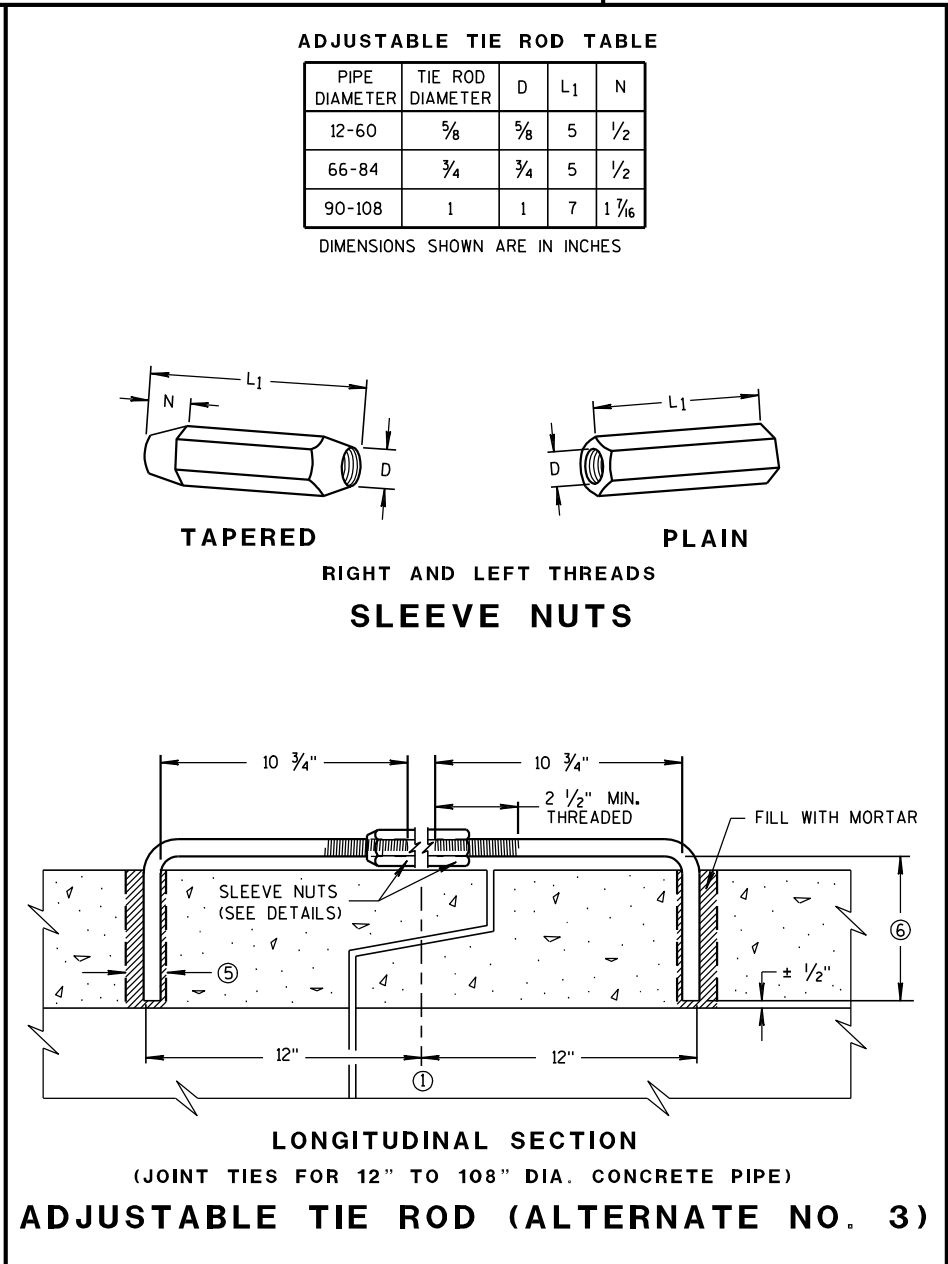
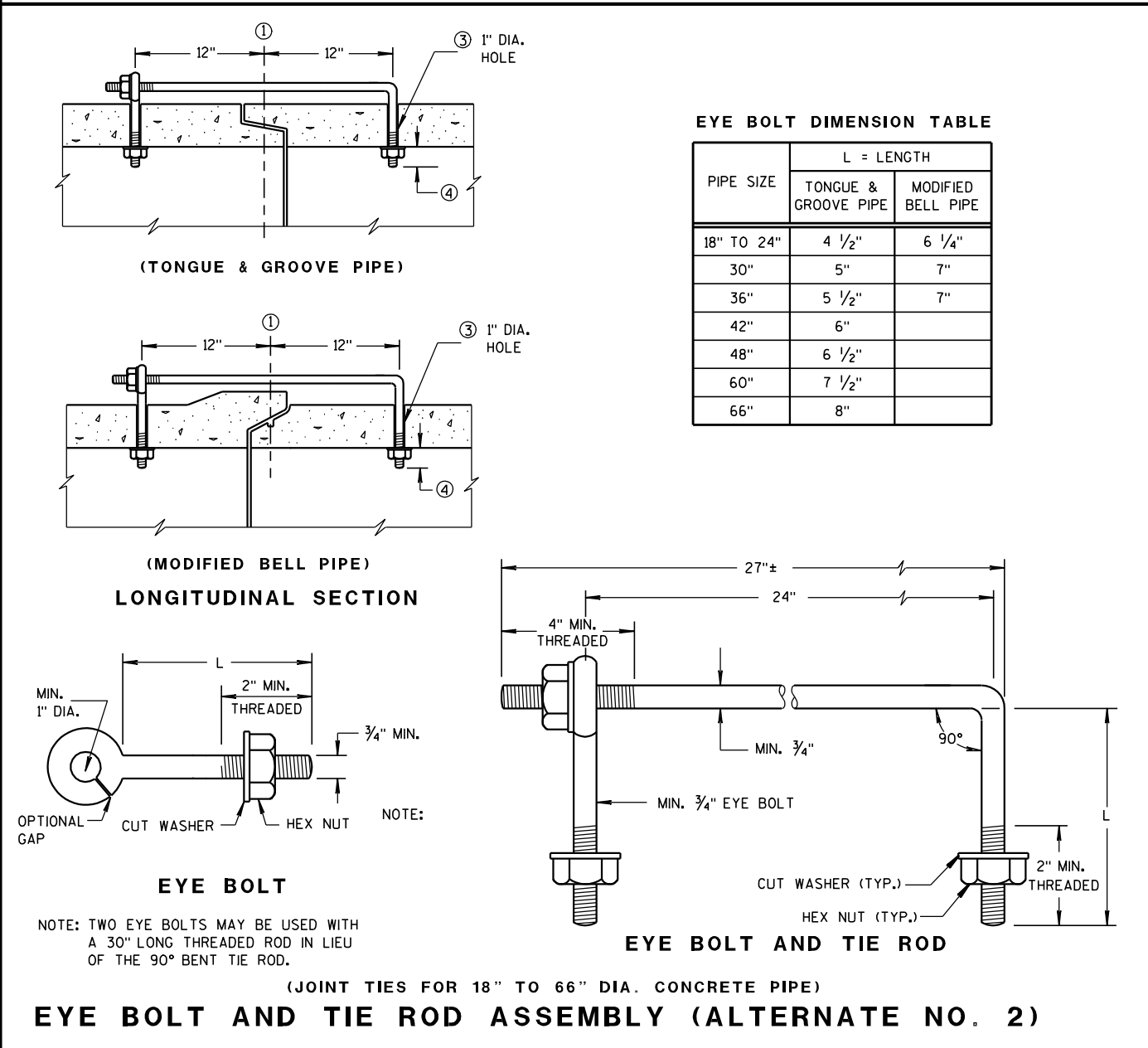
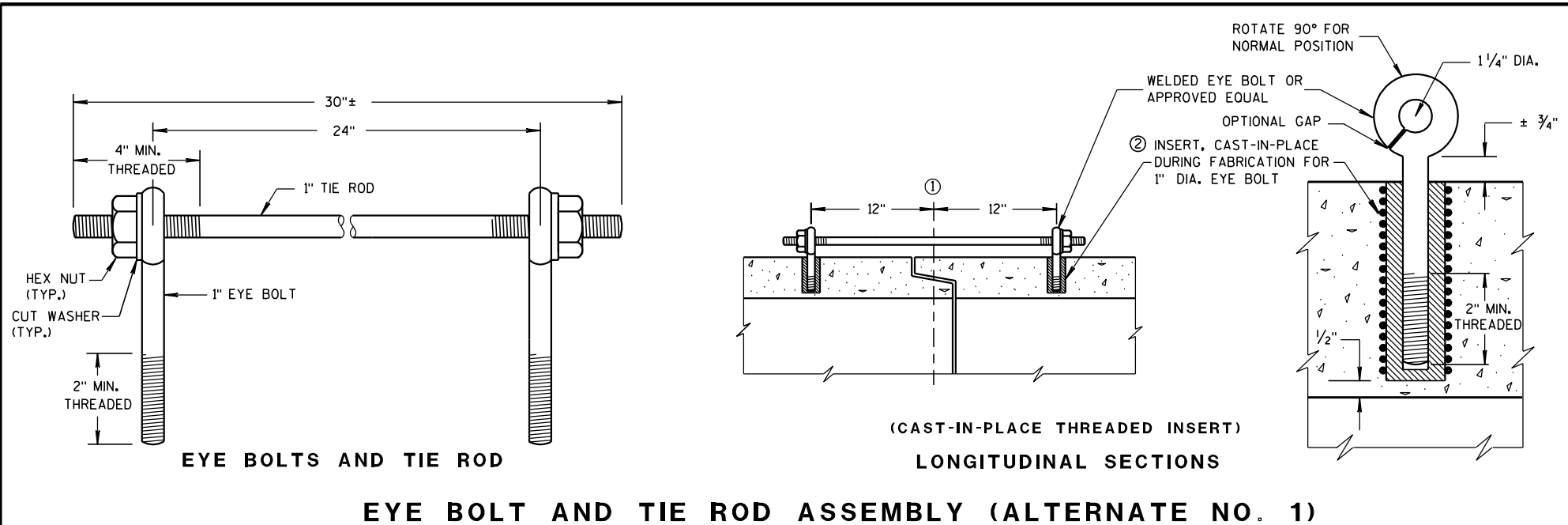
**INLET PROTECTION, TYPE D**

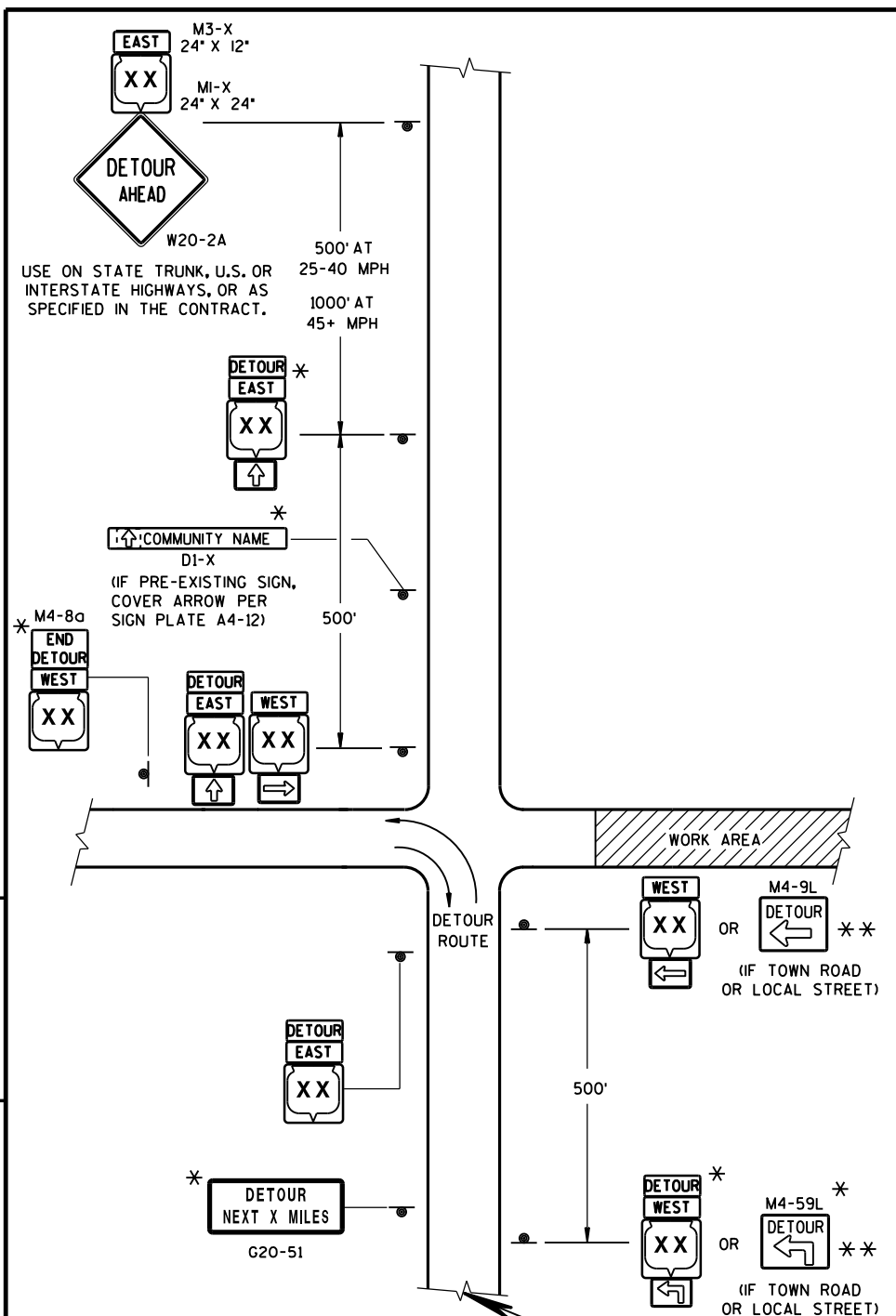
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ② )

**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/16/02 /S/ Beth Cannestra  
DATE  
CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA





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

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.

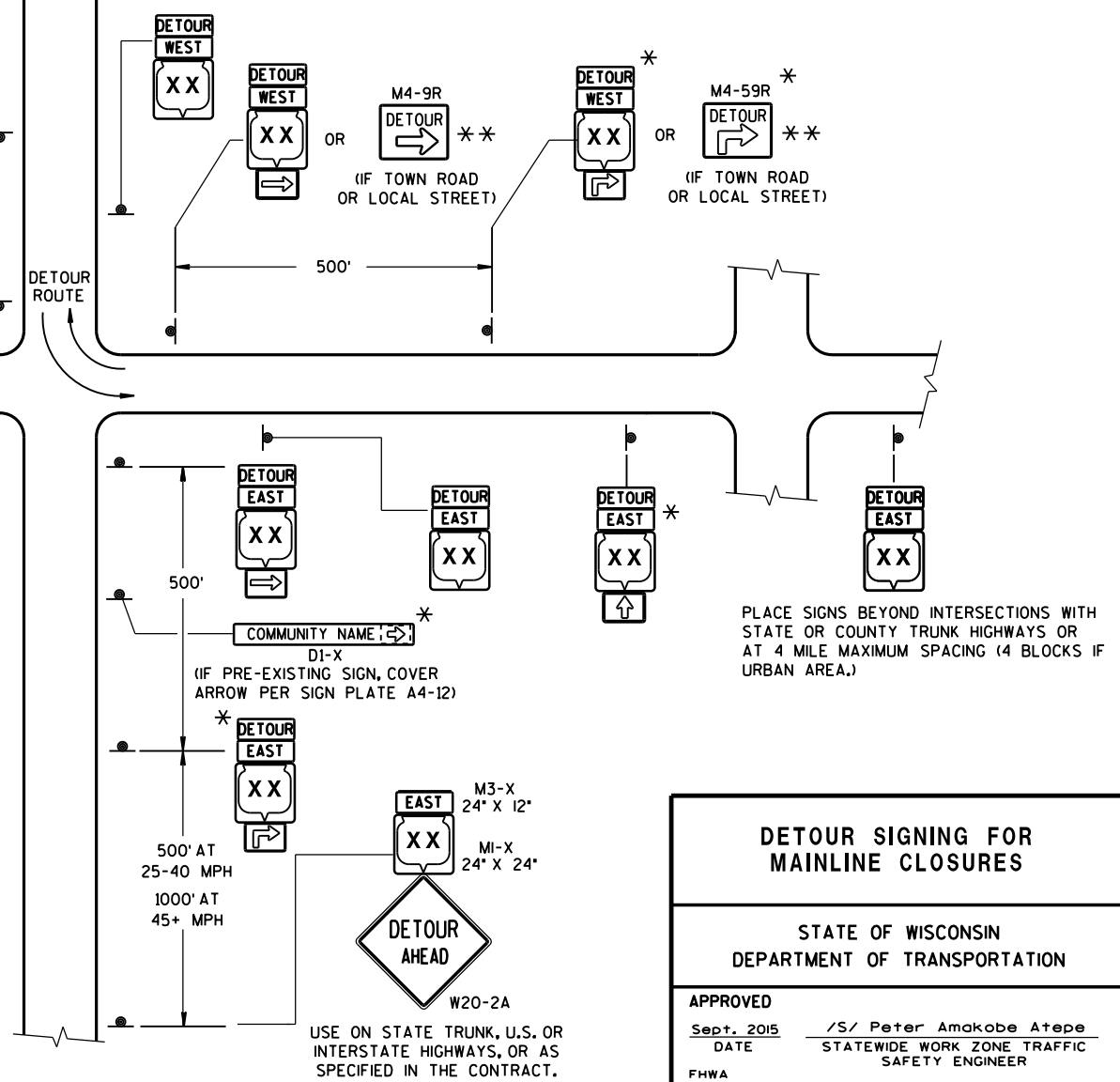
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

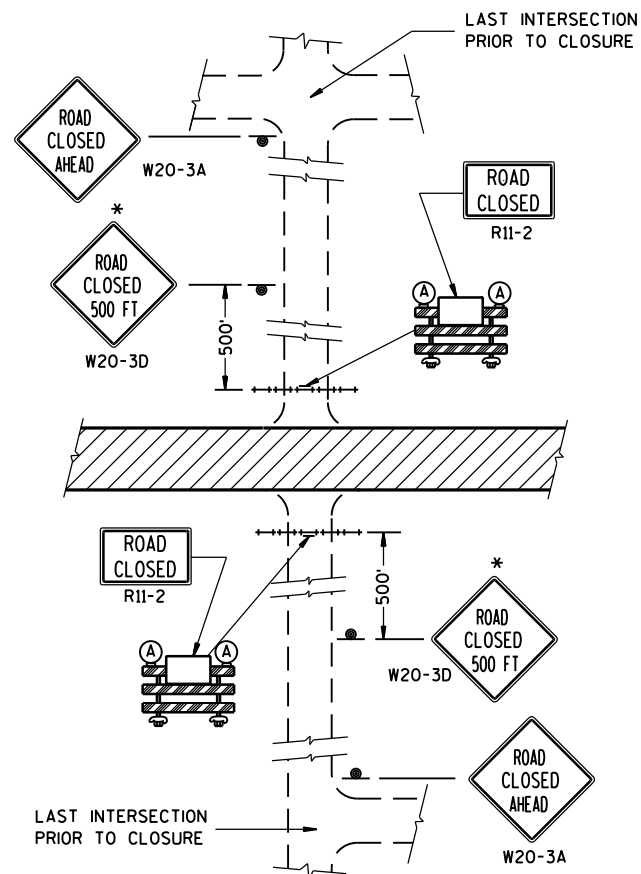
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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.

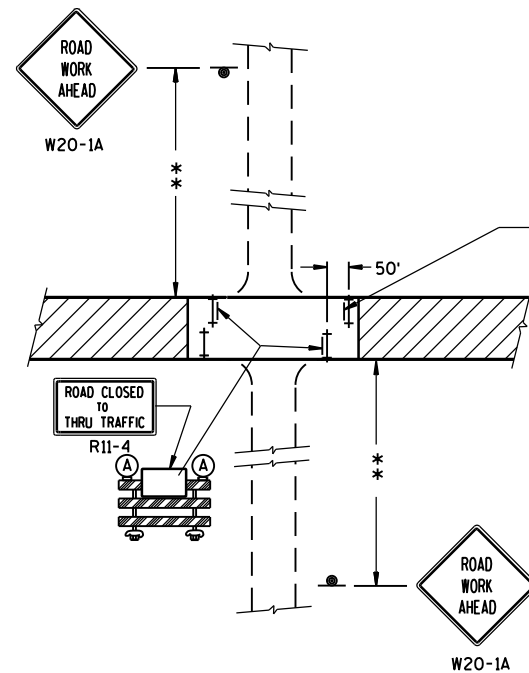
\*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



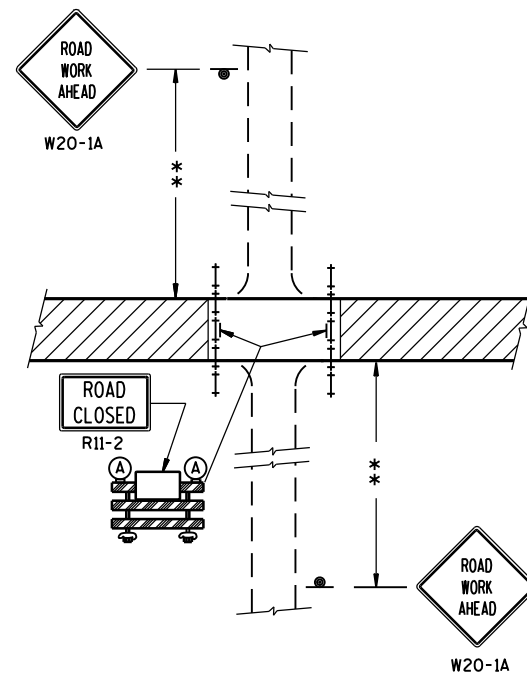
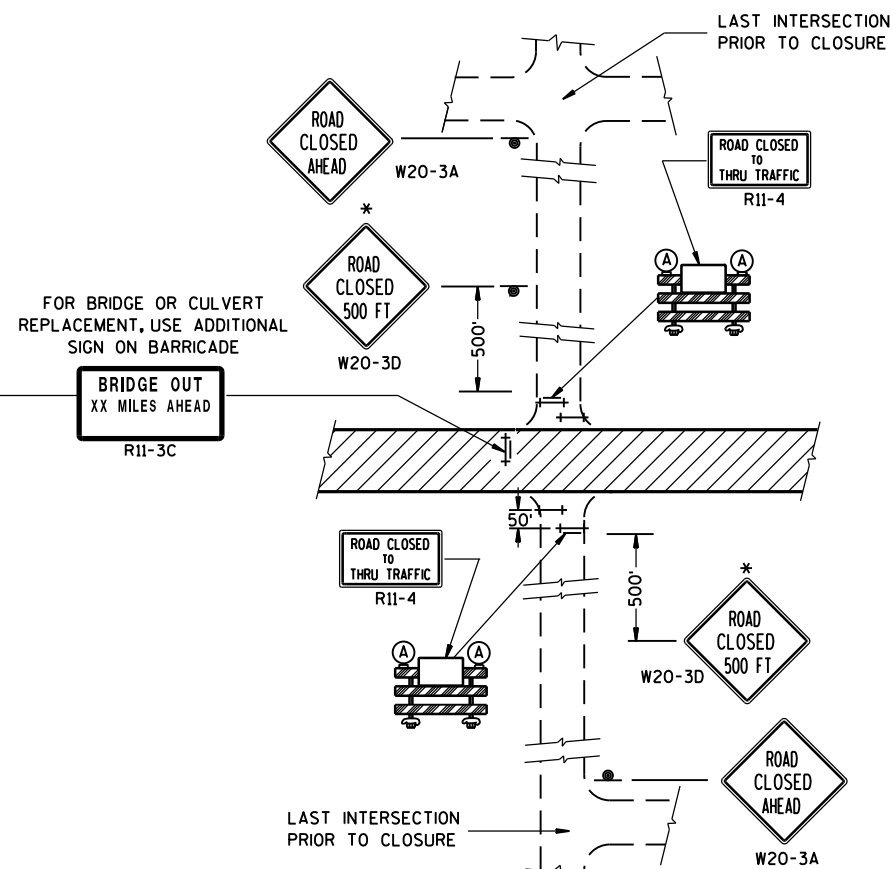
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

**DETAIL 1**

(NO ACCESS TO PROJECT)

**DETAIL 3**

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

**DETAIL 2**(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT).**DETAIL 4**(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)**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.

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

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 AND R11-4 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.

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

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

\*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

\*\*500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

**LEGEND**

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015

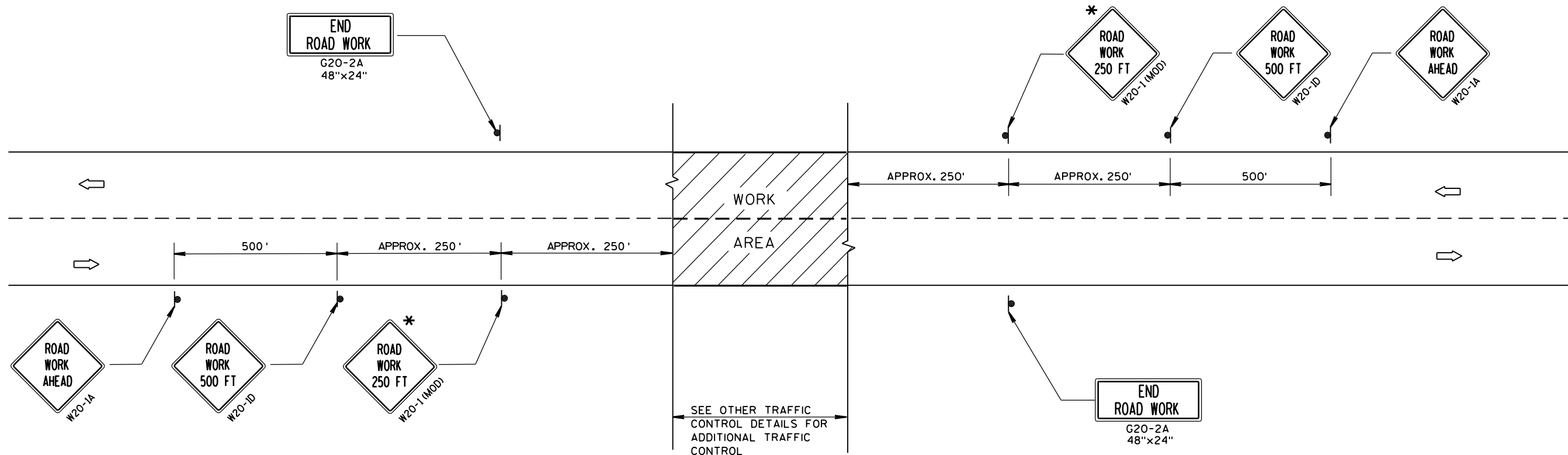
DATE

FHWA

/S/ Peter Amakobe Atepe

STATEWIDE WORK ZONE TRAFFIC

SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

## GENERAL NOTES

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

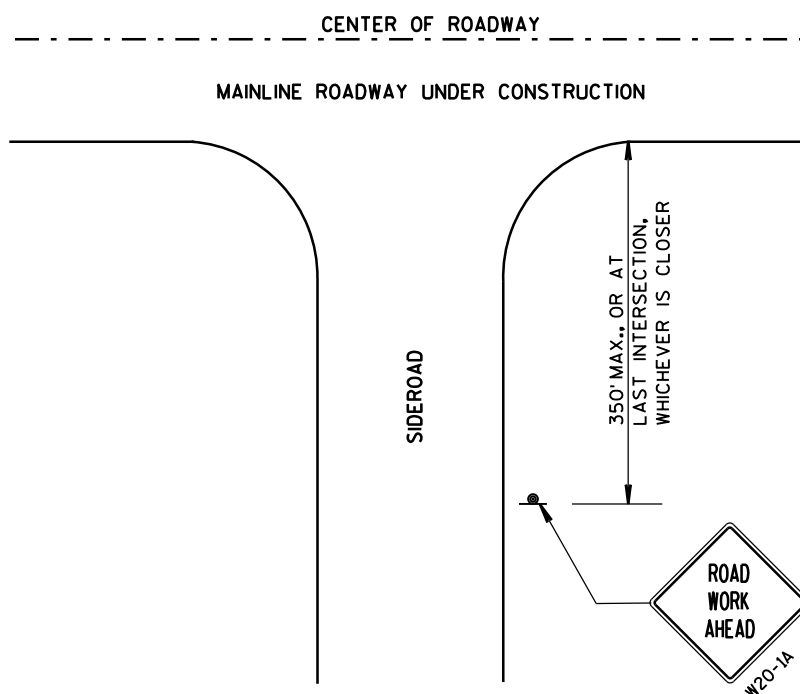
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



## LEGEND

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

TRAFFIC CONTROL, ADVANCE  
WARNING SIGNS 40 M.P.H.  
OR LESS TWO-WAY UNDIVIDED  
ROAD OPEN TO TRAFFIC

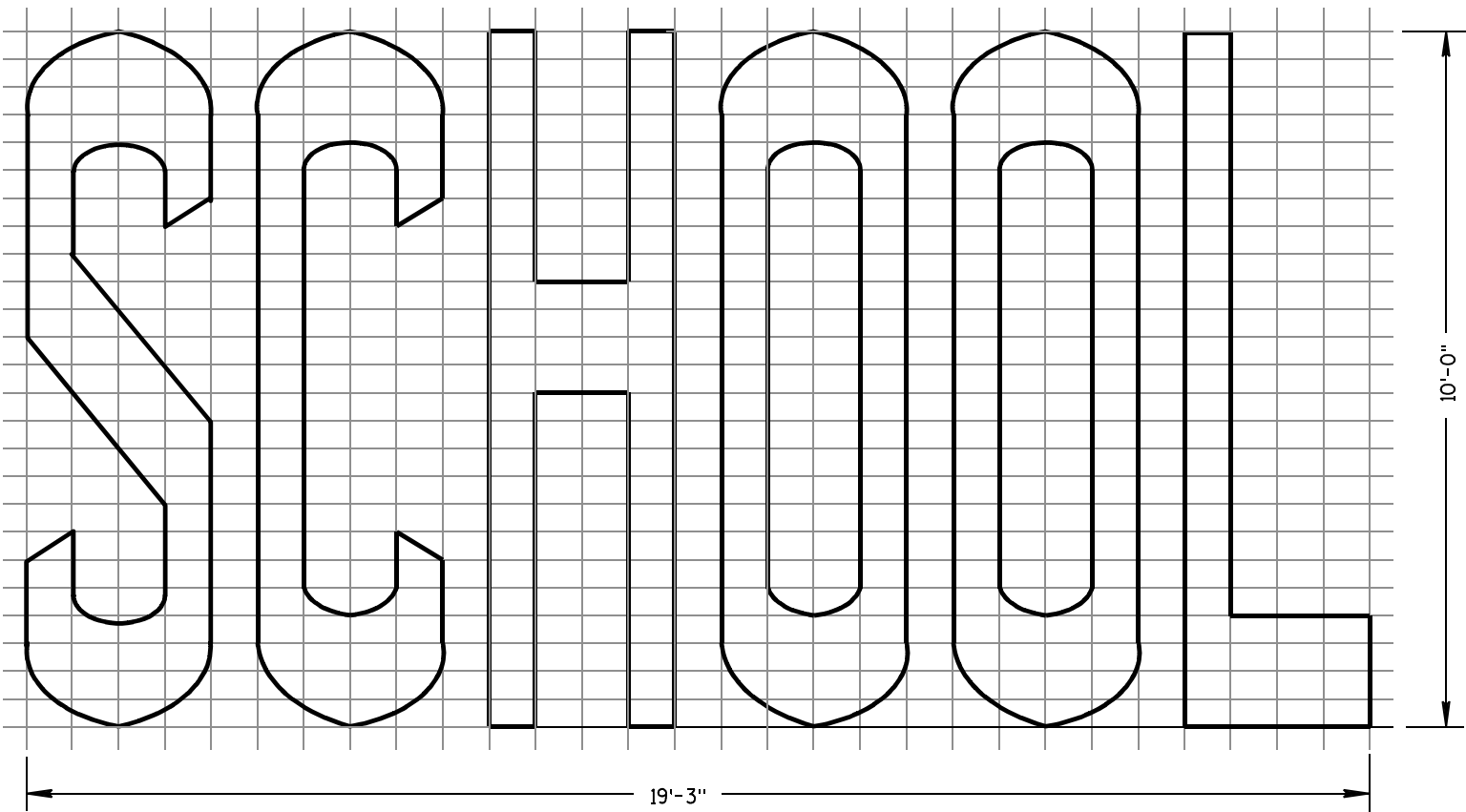
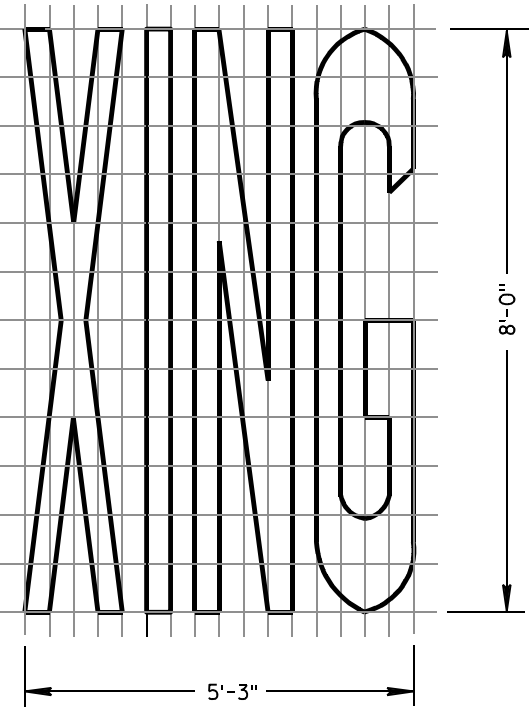
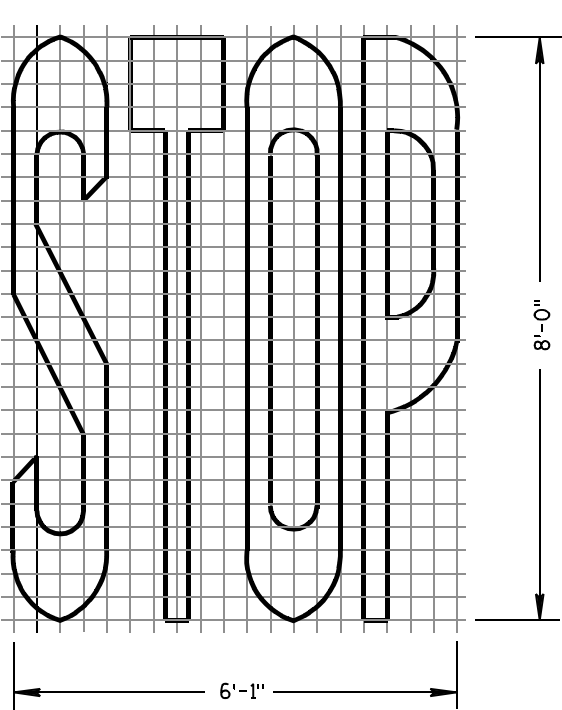
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept. 2015 /S/ Peter Amakobe Atepe  
DATE STATEWIDE WORK ZONE TRAFFIC  
FHWA SAFETY ENGINEER

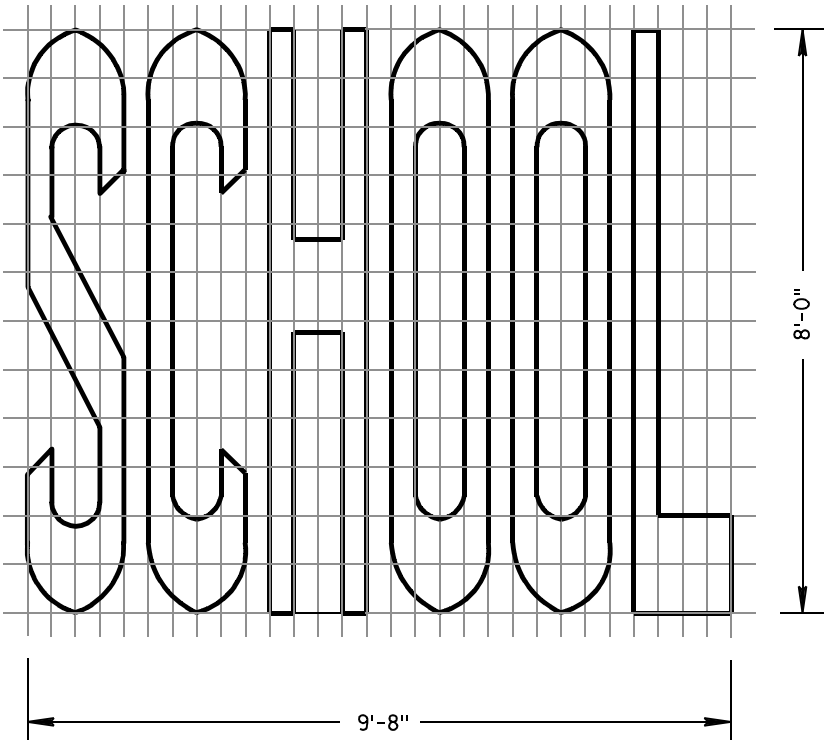
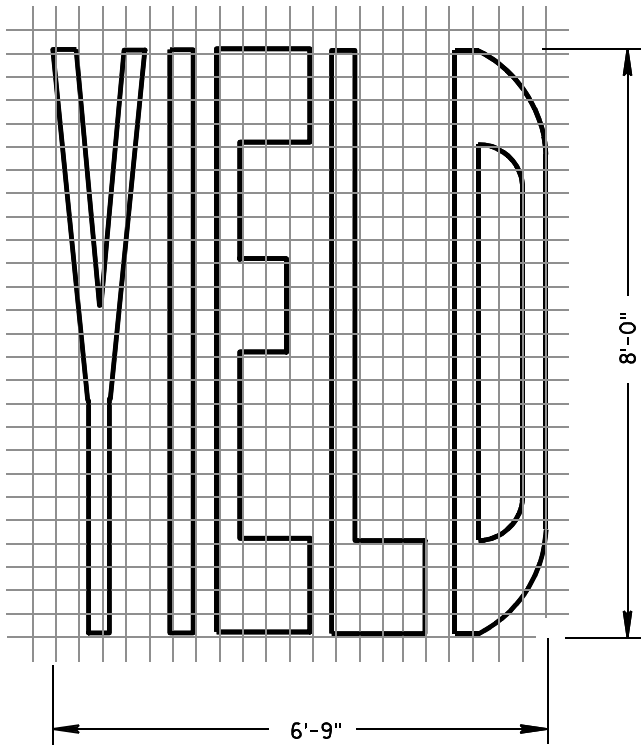
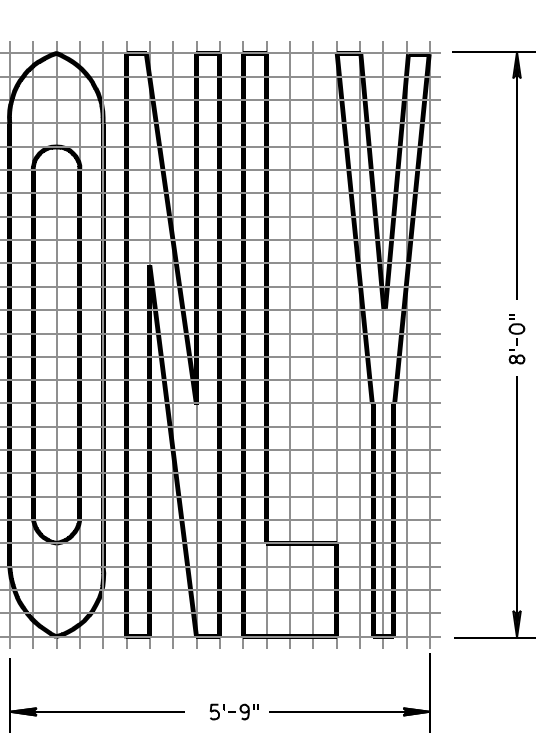
GENERAL NOTES

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

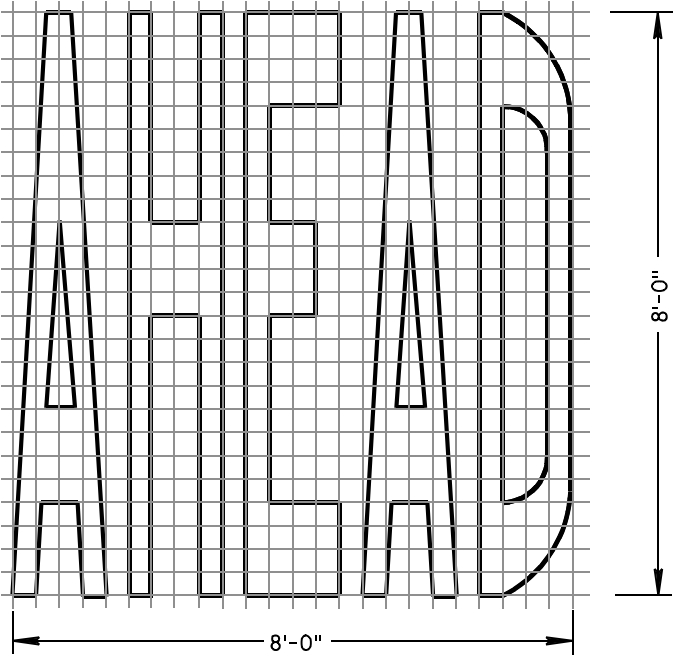
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

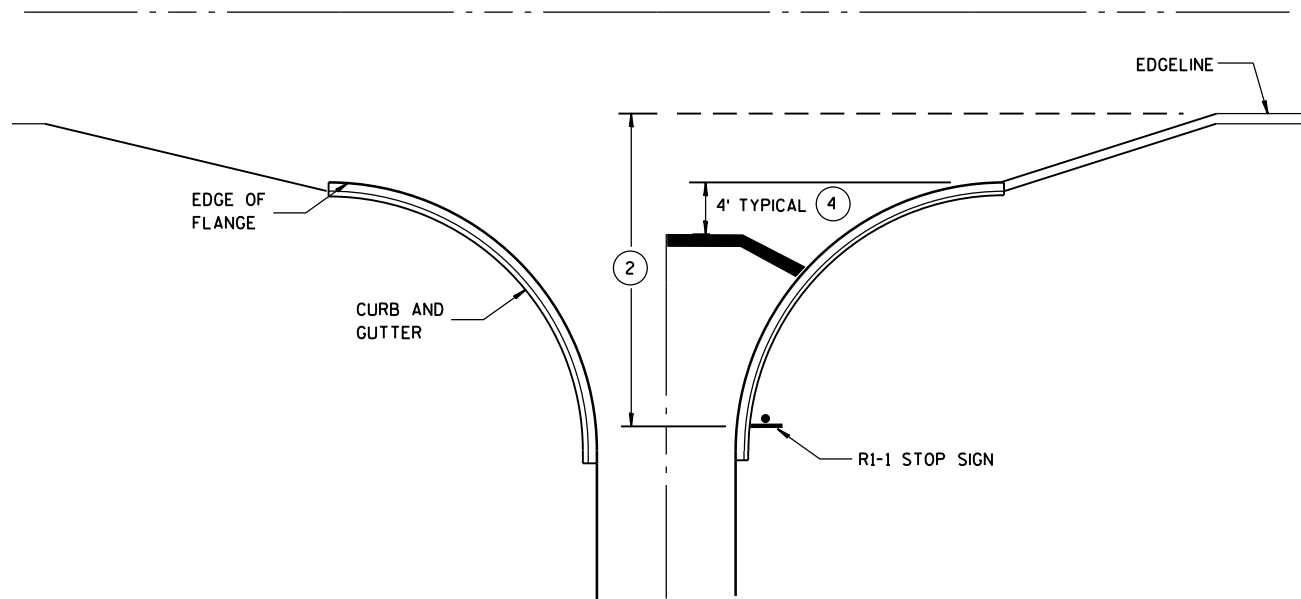
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

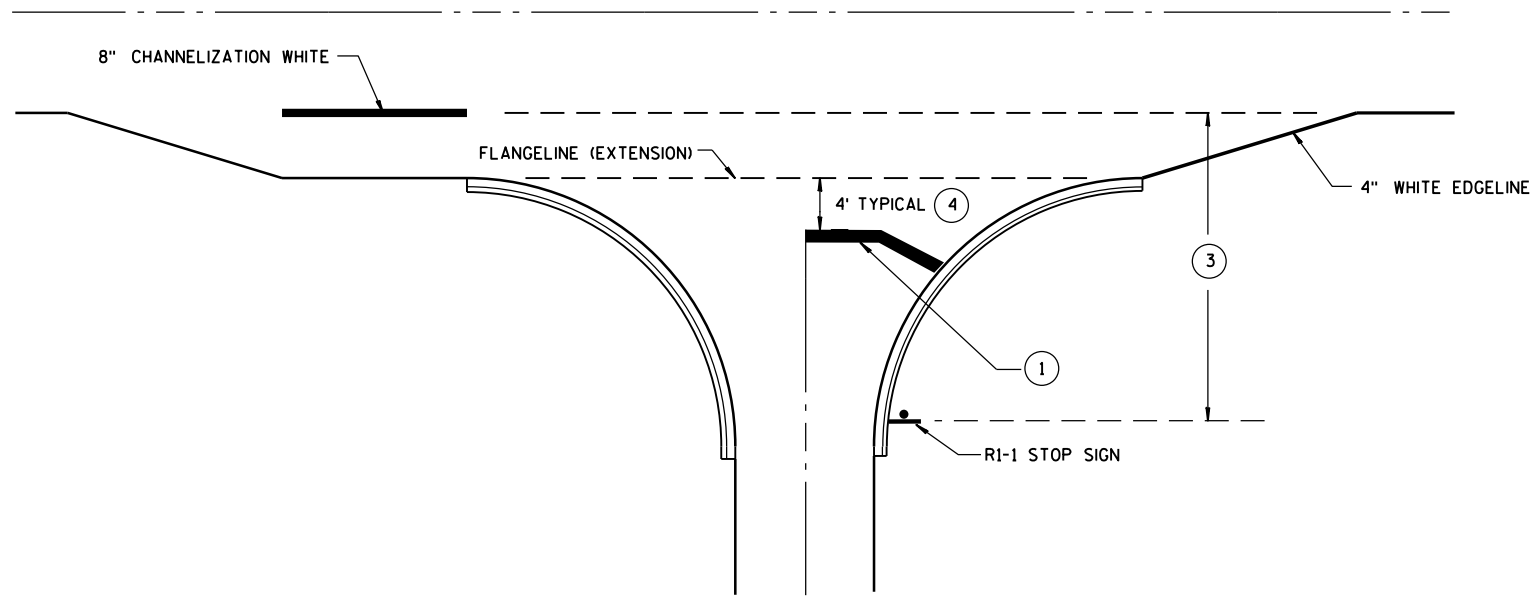
7-1-11  
DATE

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

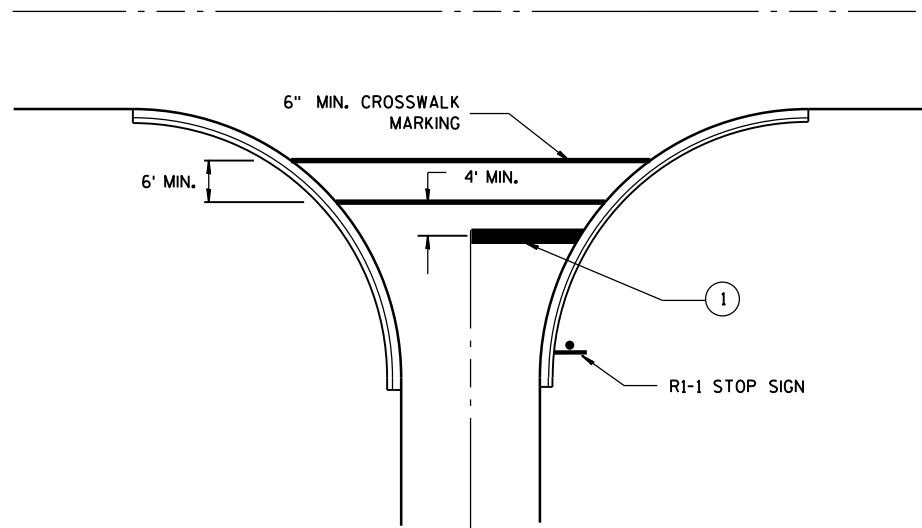
FHWA



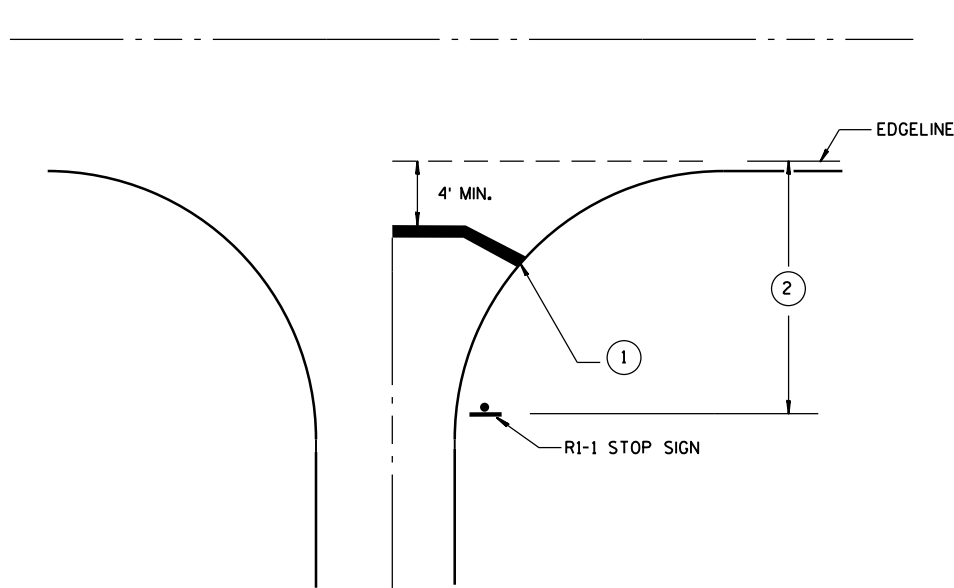
TYPICAL STOP LINE PAVEMENT MARKING  
WITH CURB AND GUTTER



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

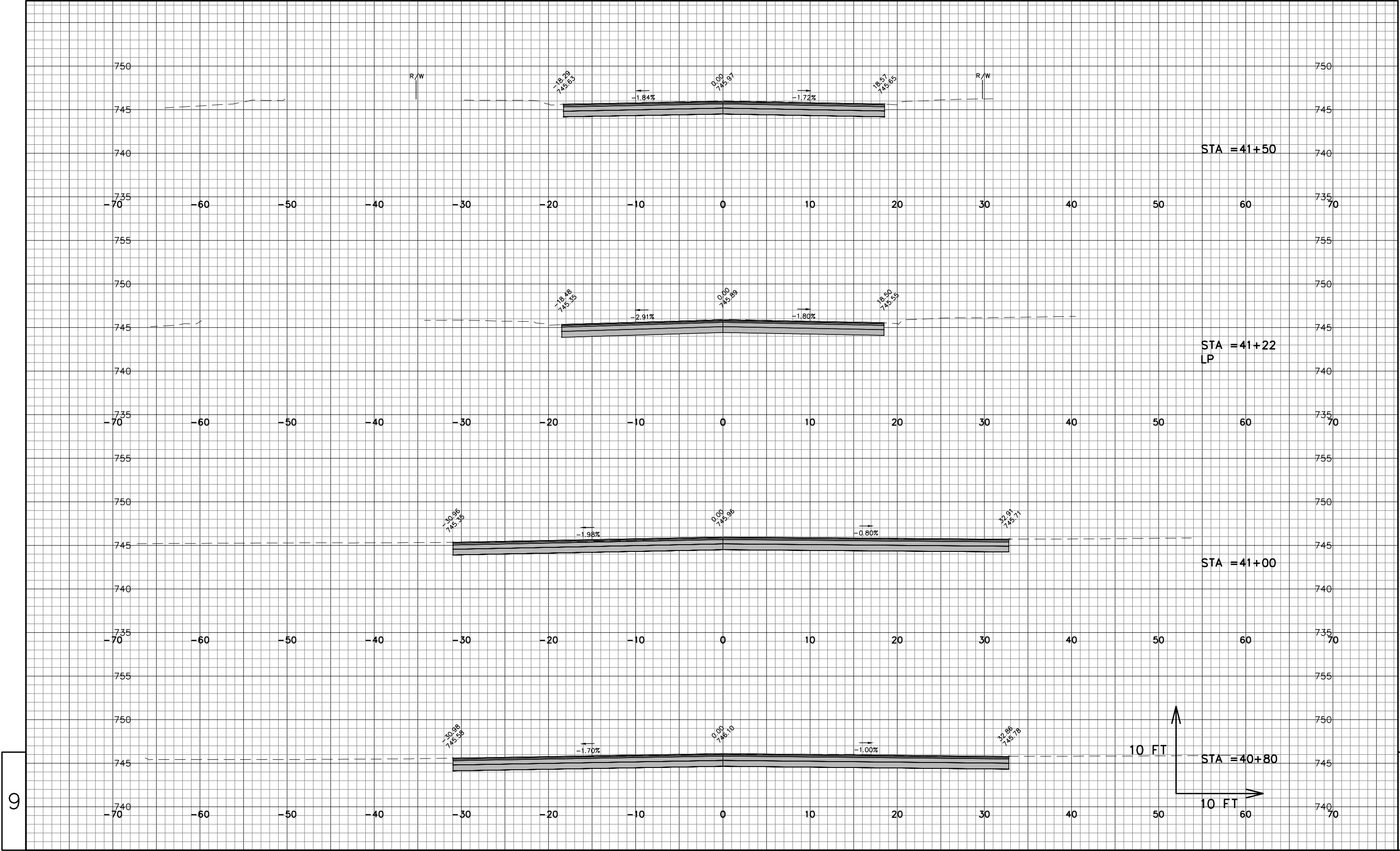
- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP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

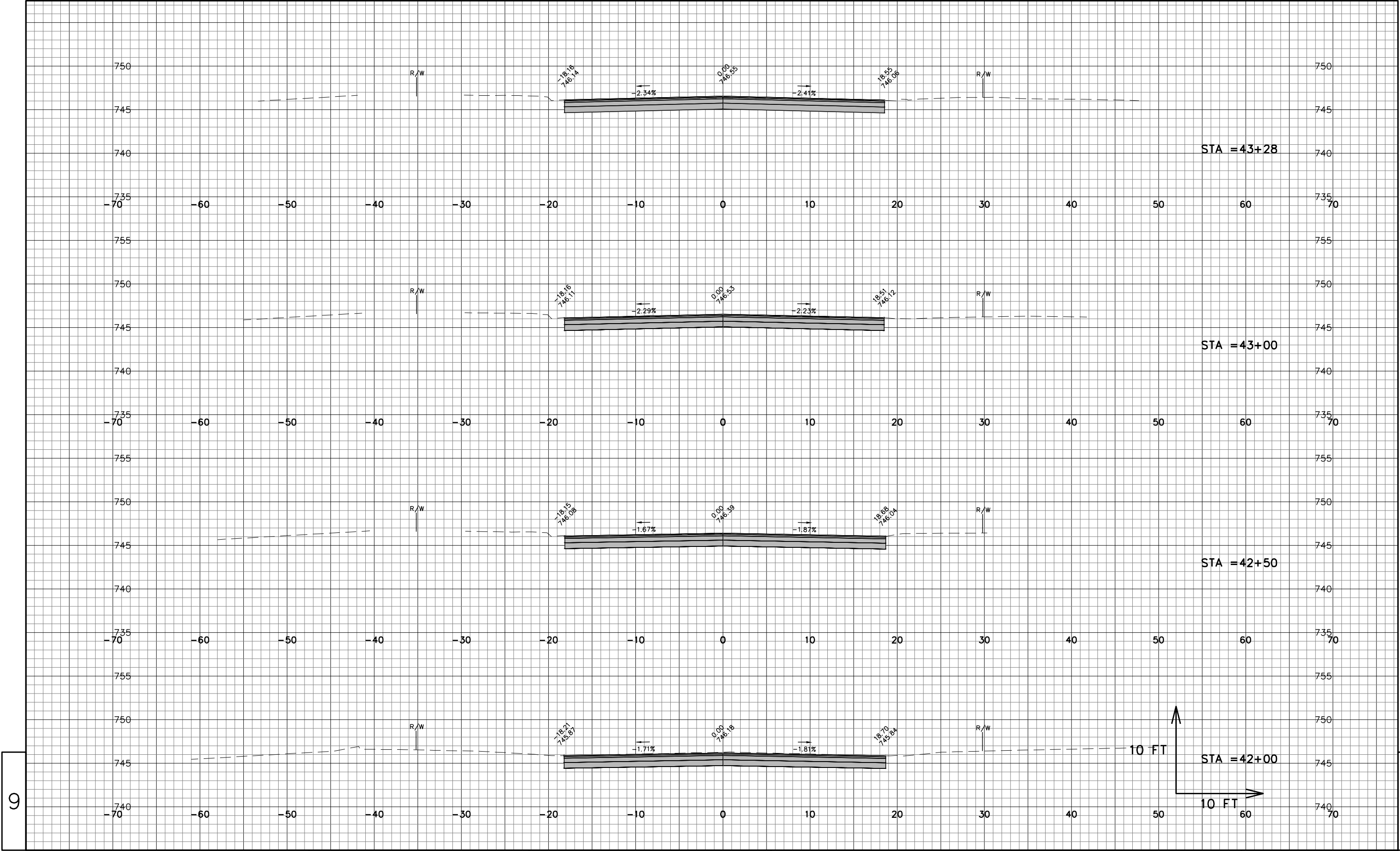
STOP LINE AND CROSSWALK  
PAVEMENT MARKING

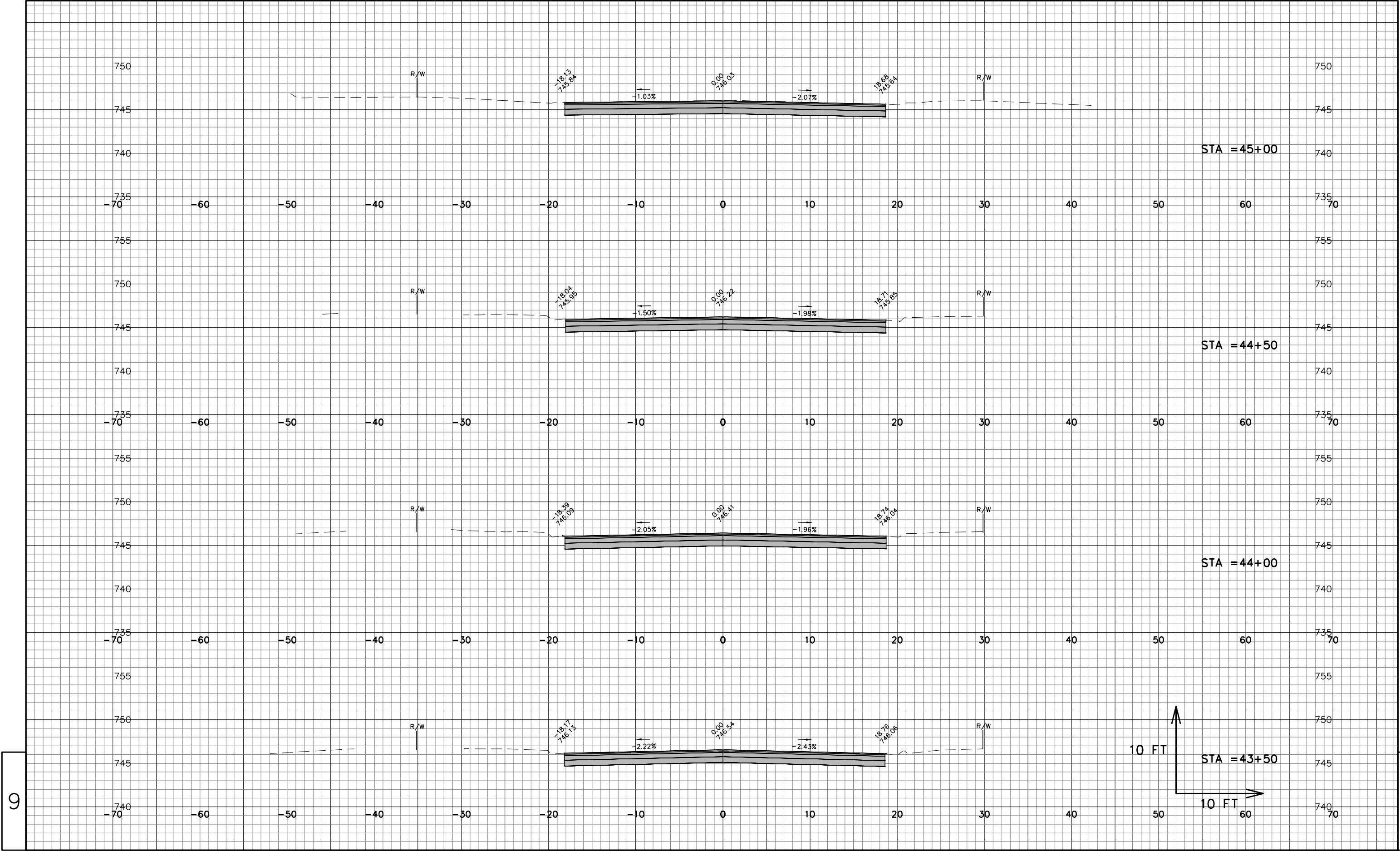
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

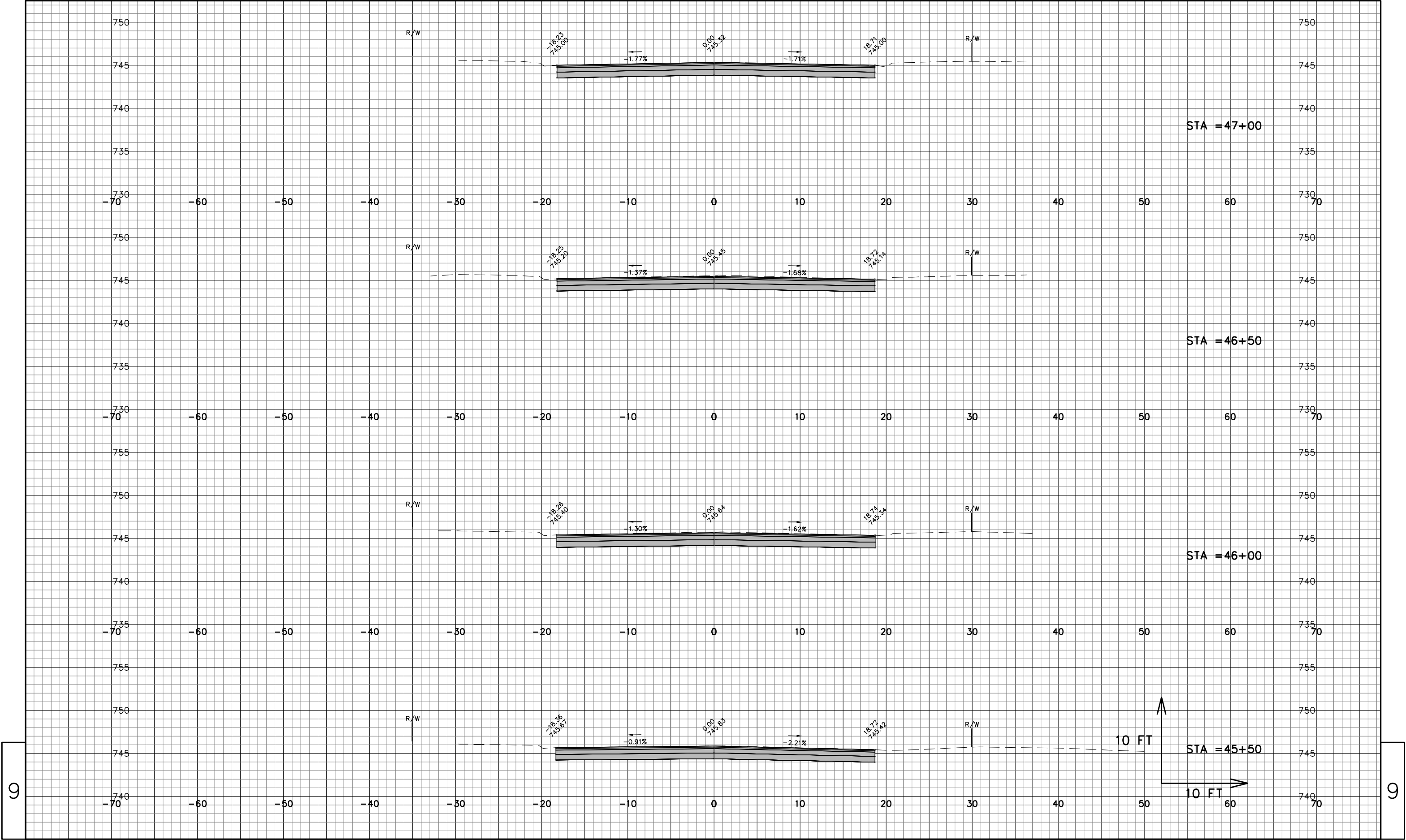
APPROVED  
4/30/2013 DATE /S/ Travis Feltz  
STATE TRAFFIC ENGINEER  
FHWA

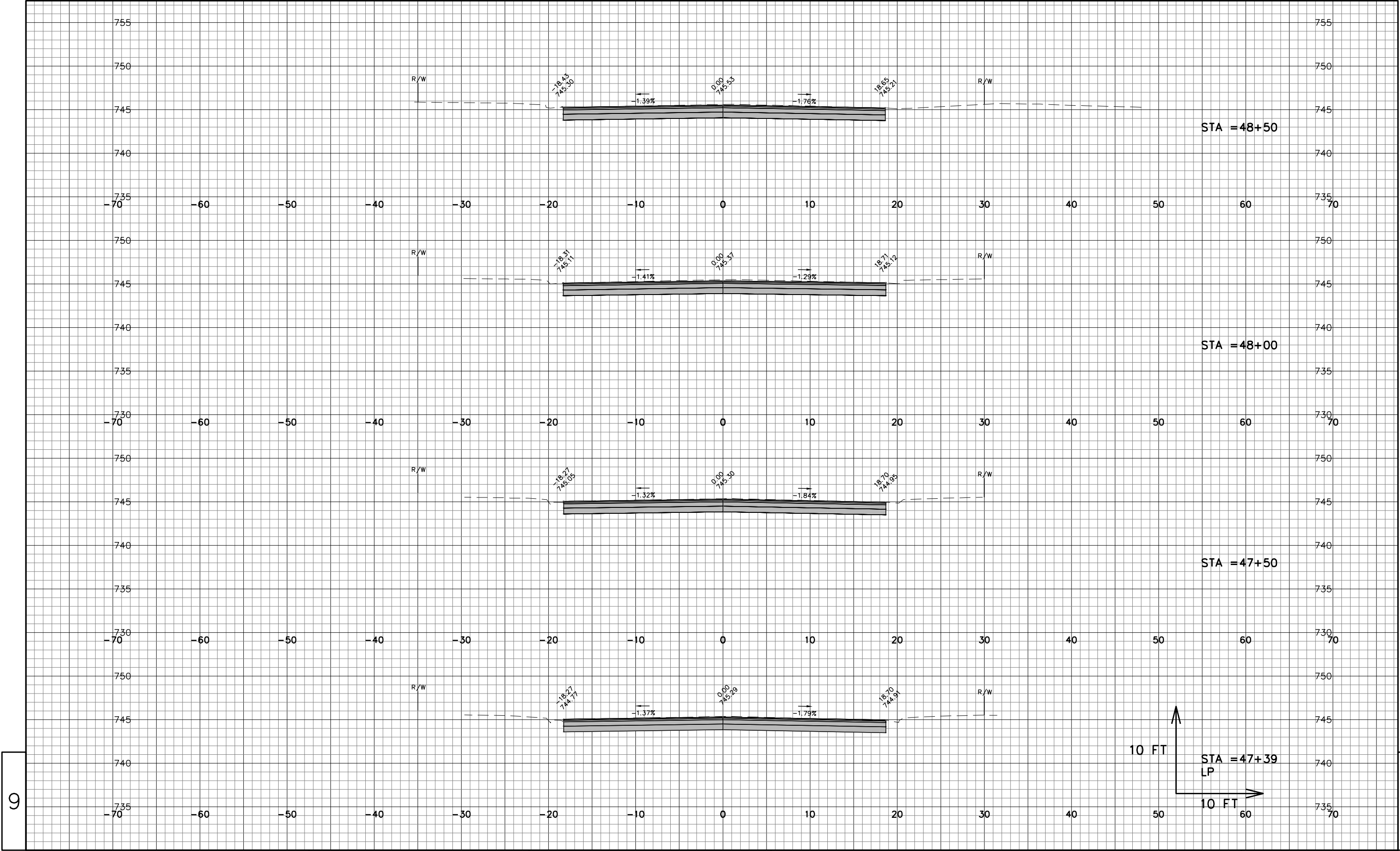


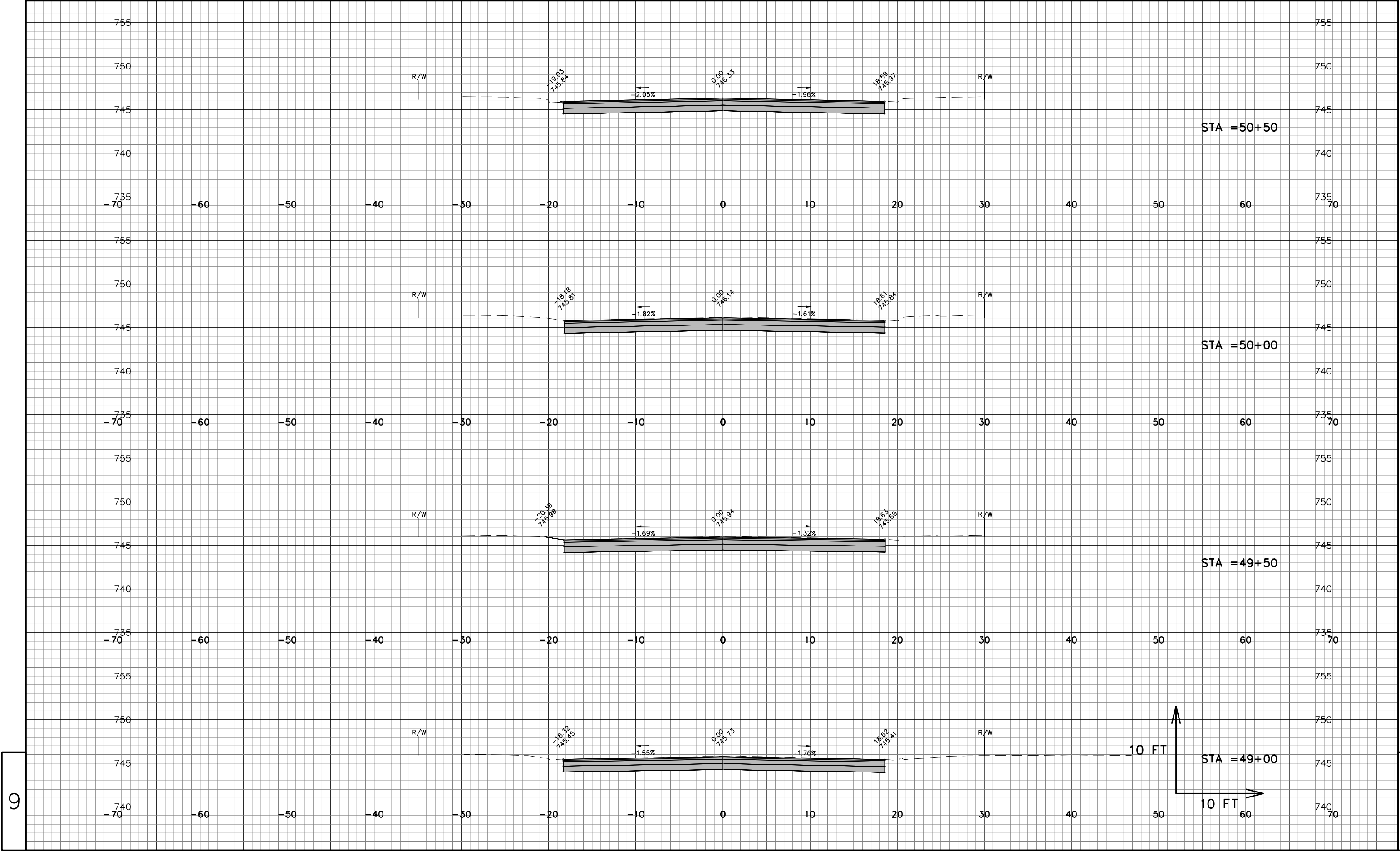


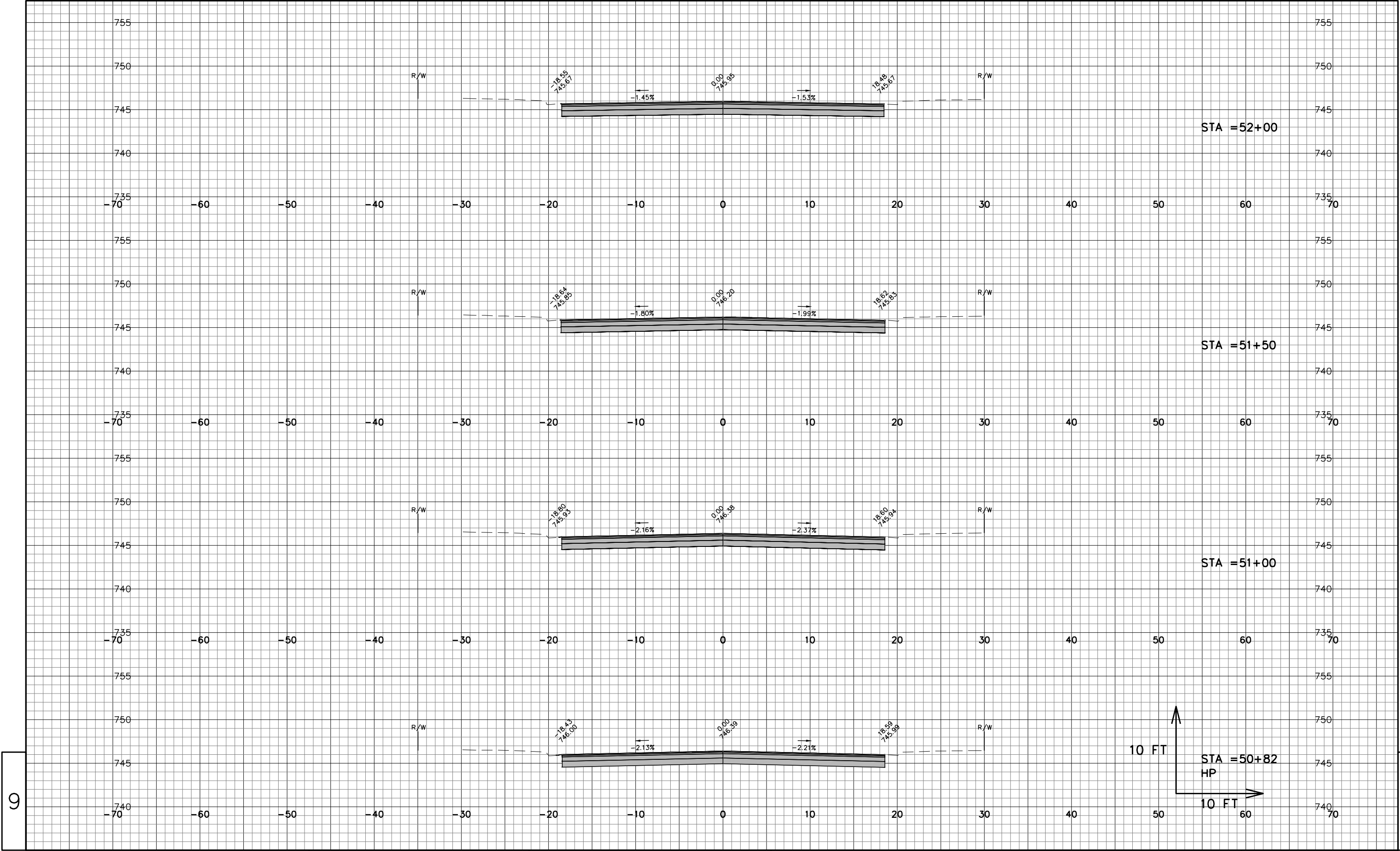


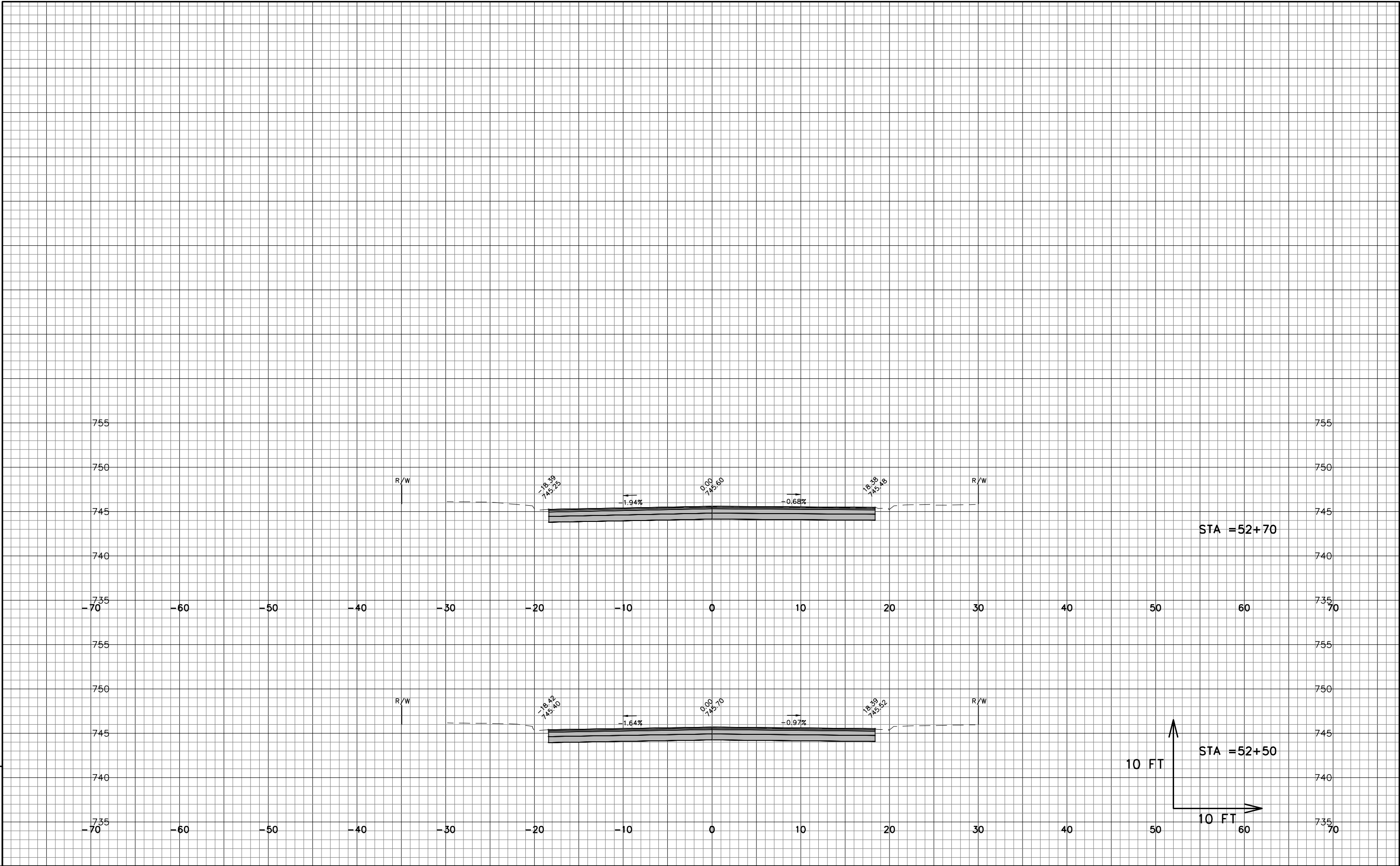














## Notes



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