

PROJECT ID: 1693-34-76  
WITH: N/A

COUNTY: RACINE

ORDER OF SHEETS

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

TOTAL SHEETS = \_\_\_\_



DESIGN DESIGNATION

A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

CONVENTIONAL SYMBOLS

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

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

	ROCK
	LABEL
	95.36
	E
	FO
	G
	SAN
	SS
	T
	W

CITY OF RACINE, WISCONSIN  
RACINE COUNTY

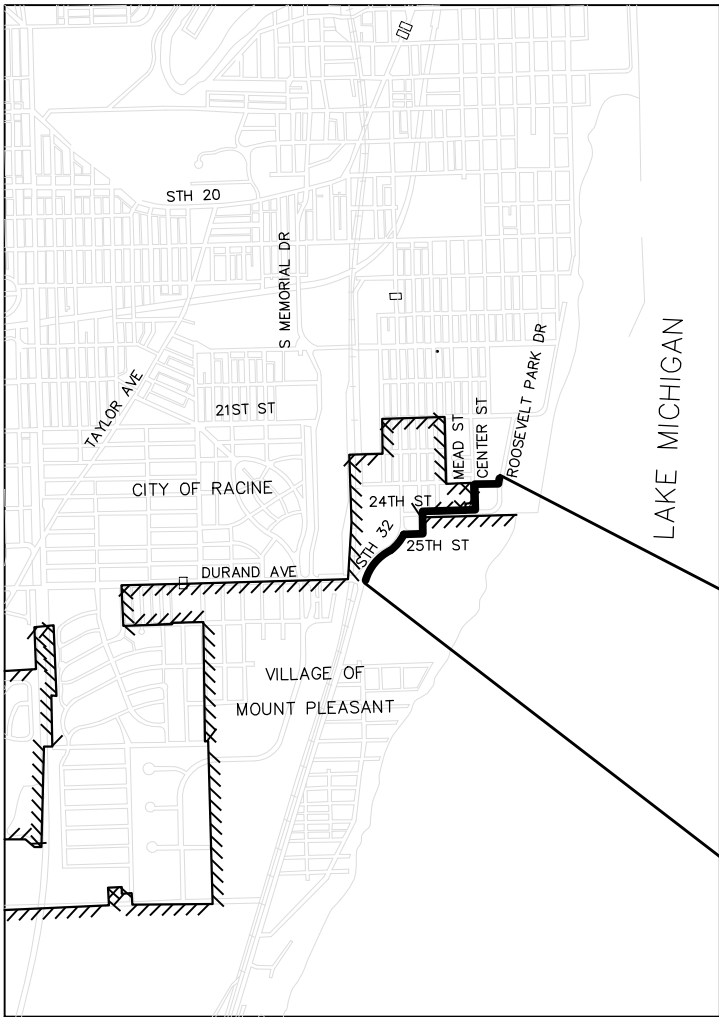
PLAN OF PROPOSED IMPROVEMENT

LAKE MICHIGAN PATHWAY PHASE 4

24TH STREET TO NORTH SHORE BIKE TRAIL  
(NON-HIGHWAY)

STATE PROJECT NUMBER
1693-34-76

CITY CONTRACT NO. XXXXXXXX  
LAKE MICHIGAN PATHWAY - PHASE IV  
R-23-E



LAYOUT  
SCALE 0 1/3 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.616 MI.  
NET LENGTH OF CENTERLINE (SHARED-USE PATH) = 0.291 MI.  
NET LENGTH OF CENTERLINE (SIDEWALK SEGMENT) = 0.325 MI.

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1693-34-76		

FEDERALLY FUNDED PROJECT  
10% DBE PARTICIPATION

90% PLANS

ACCEPTED FOR  
CITY OF RACINE

(Date)

ORIGINAL PLANS PREPARED BY

**AECOM**

AECOM  
1555 North RiverCenter Drive, Suite 214, Milwaukee, WI 53212  
T 414.944.6080 www.aecom.com

(Date)

(Signature)

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GENERAL NOTES

THE LOCATION OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.  
THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

TREES OR SHRUBS NOT SHOWN IN PLANS FOR REMOVAL SHALL NOT BE REMOVED WITH APPROVAL OF THE ENGINEER.

CONTRACTOR TO COORDINATE WITH FIELD ENGINEER ON LOCATIONS FOR  
EROSION CONTROL ITEMS.

TOPSOIL, WHERE REQUIRED, SHALL BE PLACED TO A DEPTH OF 6 INCHES.

DISTURBED AREAS SHALL HAVE FINISHING ITEMS APPLIED WITHIN 7 CALENDAR DAYS AFTER GRADING  
WORK IS COMPLETED.

3-INCH HMA MAY BE INSTALLED IN ONE LAYER, AND USE ITEM "ASPHALTIC SURFACE".

LAKE MICHIGAN PATHWAY SIGNING LOCATIONS SHOWN ALONG EXISTING STREETS AND ALONG OFF-STREET PATHWAY ARE  
APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

CURB & GUTTER GRADES AT DRIVEWAY LOCATIONS SHALL MATCH EXISTING.

COPIES OF STANDARD DETAIL DRAWINGS REFERENCED FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION ARE INCLUDED  
IN THE PROJECT MANUAL.

COPIES OF STANDARD DETAIL DRAWINGS REFERENCED FROM THE VILLAGE OF MOUNT PLEASANT ARE INCLUDED IN THE PROJECT MANUAL.



CITY OF RACINE CONTACTS

ENGINEERING DEPARTMENT  
JOHN ROONEY  
730 WASHINGTON AVENUE  
RACINE, WI 53403  
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john.rooney@cityofracine.org

PARKS DEPARTMENT  
TOM MOLBECK  
800 CENTER STREET  
RACINE, WI 53403  
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UTILITY CONTACTS

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MICHAEL VANBOVEN  
411 7TH STREET  
RACINE, WI 53403  
(262)676-3958 (MOBILE)  
MV3658@ATT.COM

CHARTER CABLE  
GERALD SCHULTZ  
1320 N MARTIN LUTHER KING DR  
MILWAUKEE, WI 53212  
(414)232-7178  
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WINDSTREAM  
LORI KETTER  
314 DANZ AVENUE  
GREEN BAY, WI 54302  
(414)274-9215  
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WE ENERGIES (ELECTRIC)  
JAMES NELSON  
7815 NORTHWESTERN AVENUE  
RACINE, WI 53406  
(262)884-6734  
JAMES.NELSON@WE-ENERGIES.COM  
24-HR DISPATCH 1-800-662-4797

WE ENERGIES (GAS OPERATIONS)  
CHRIS DEGRAVE  
7018 NORTHWESTERN AVENUE  
RACINE, WI 53406  
(262)886-7018  
CHRIS.DEGRAVE@WE-ENERGIES.COM  
24-HR DISPATCH 1-800-261-5325

DESIGN CONTACT

AECOM  
MICHAEL PREBOSKE  
1555 RIVERCENTER DRIVE, SUITE 214  
MILWAUKEE, WI 53212  
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michael.preboske@aecom.com

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
PETE WOOD  
9531 RAYNE ROAD  
STURTEVANT, WI 53177  
PHONE: (262) 884-2360  
PETER.WOOD@WISCONSIN.GOV

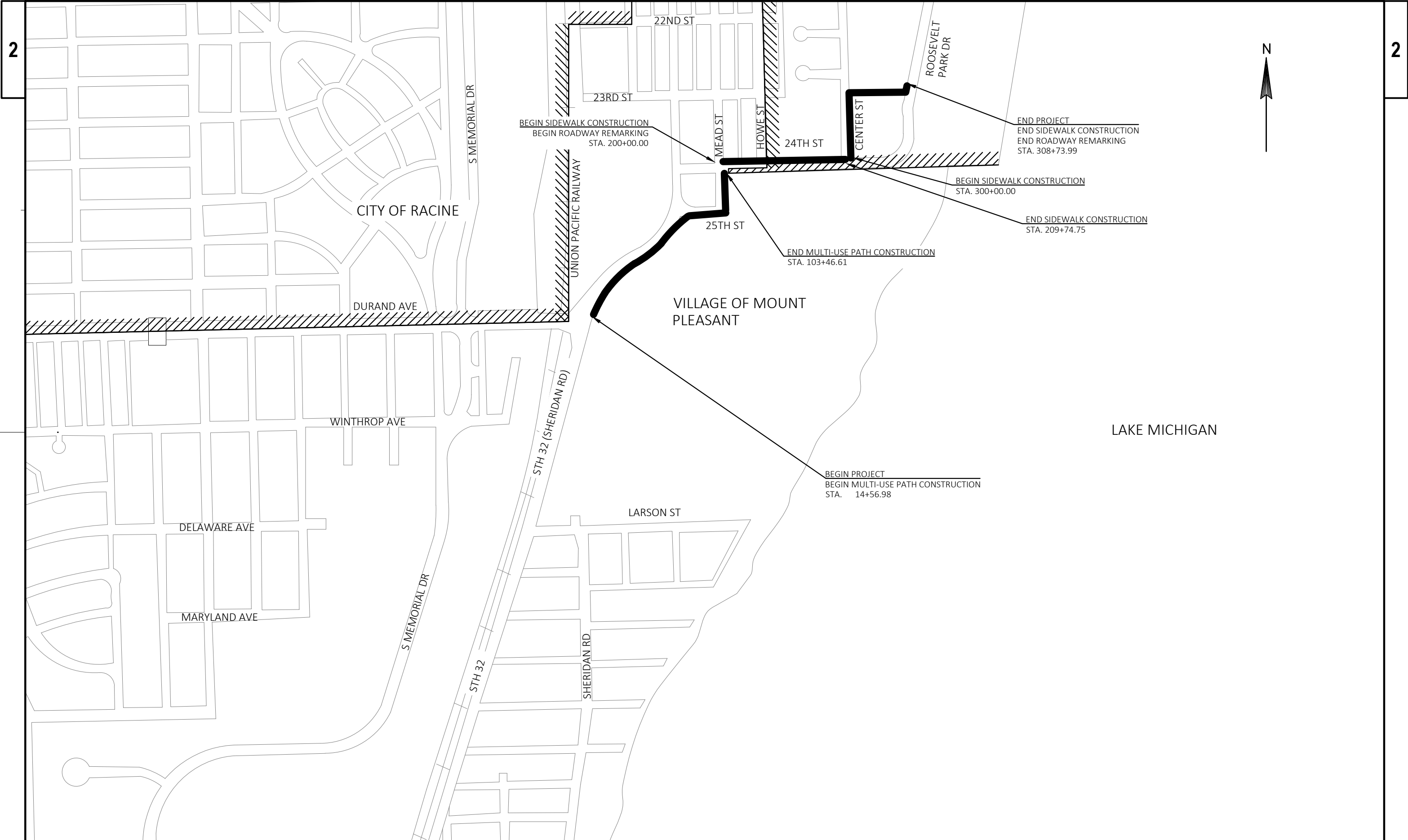
CITY OF RACINE DEPARTMENT OF PUBLIC  
WORKS (WASTEWATER)  
RICHARD FRAZIER  
730 WASHINGTON AVENUE, ROOM 304  
RACINE, WI 53403  
(262)636-9483  
(262)628-6974 (MOBILE)  
RICHARD.FRAZIER@CITYOFRACINE.ORG

VILLAGE OF MOUNT PLEASANT  
(WASTEWATER)  
LINSEY WEBER  
8811 CAMPUS DRIVE  
MOUNT PLEASANT, WI 53406  
(262)664-7833  
LWEBER@MTPLEASANTWI.GOV

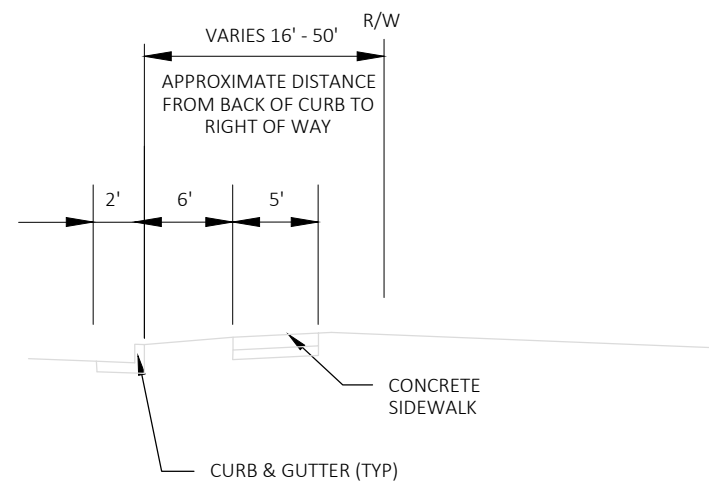
CITY OF RACINE WATER UTILITY (WATER)  
CHAD REGALIA  
100 HUBBARD STREET  
RACINE, WI 53402  
(262)497-4611 (MOBILE)  
CHAD.REGALIA@CITYOFRACINE.ORG

WISDOT SE REGION (TRAFFIC SIGNALS)  
MATTHEW COWAP  
141 NW BARSTOW STREET  
WAUKESHA, WI 53188  
(262)521-4404  
(414)750-1748 (MOBILE)  
MATTHEW.COWAP@DOT.WI.GOV

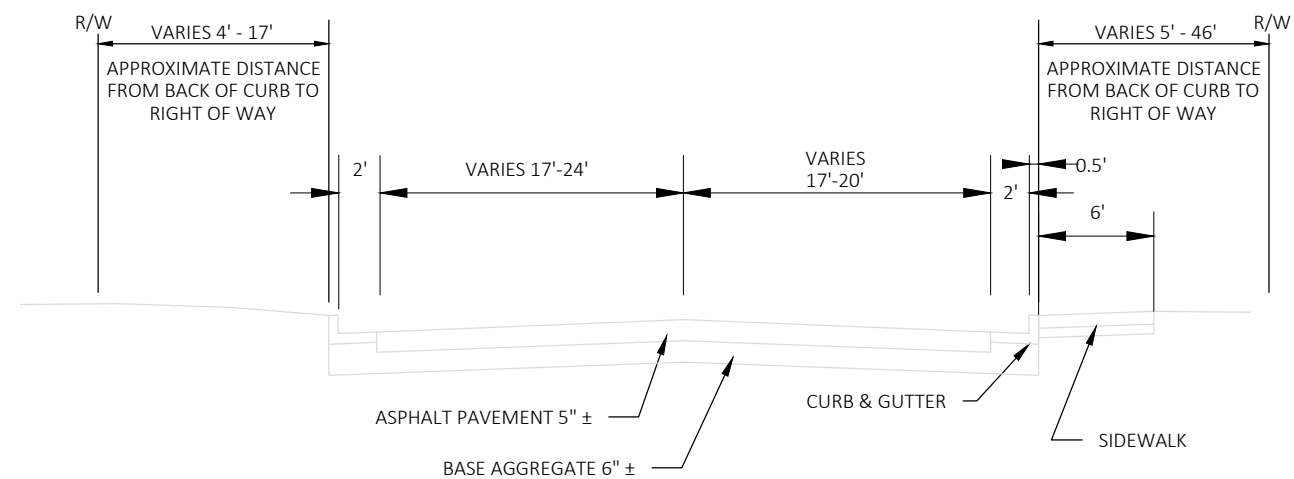




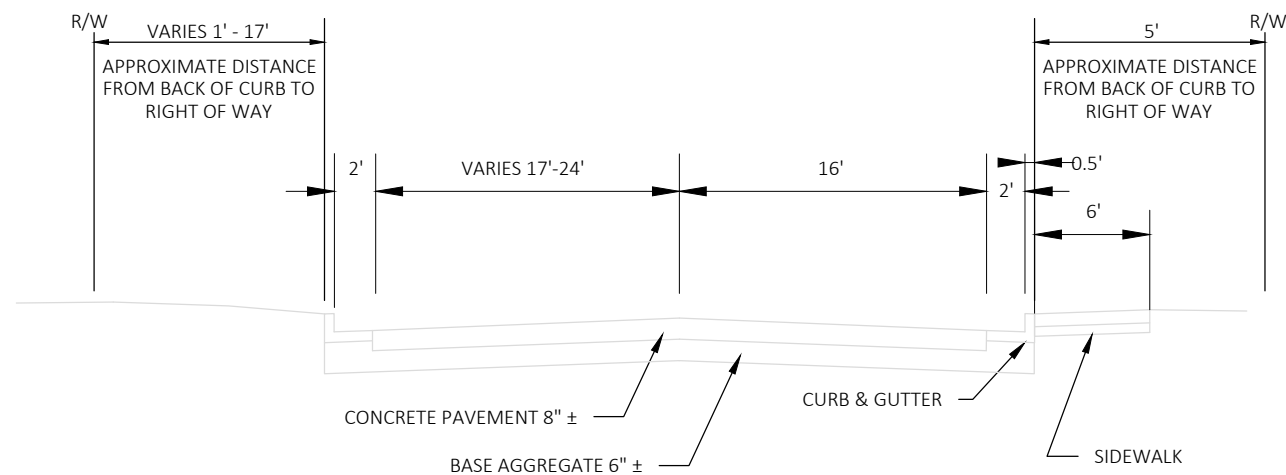




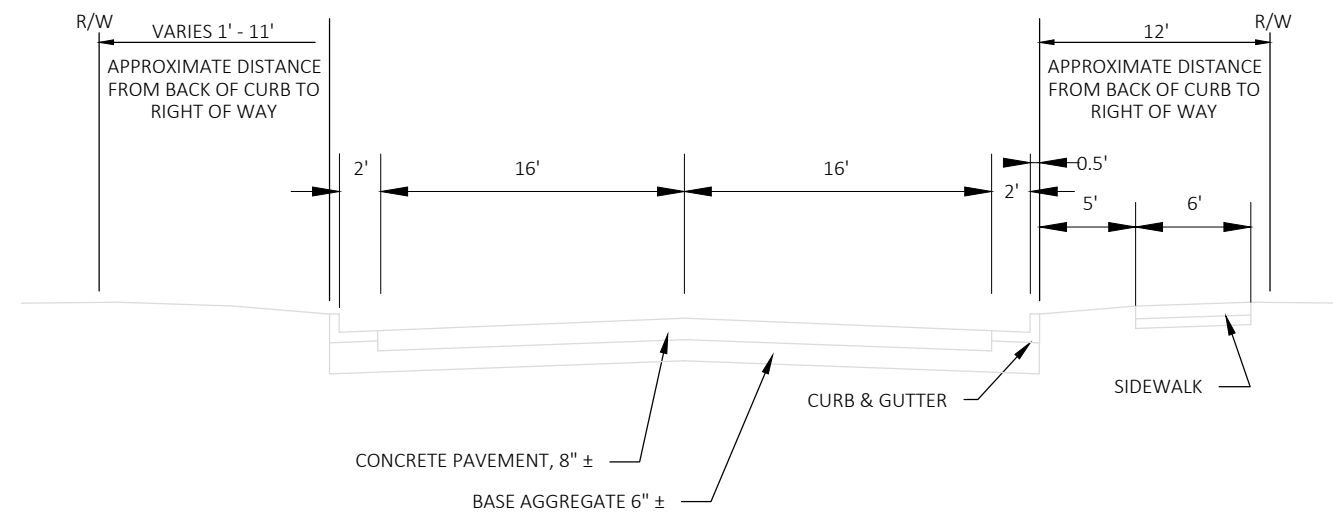
EXISTING TYPICAL SECTION  
STH 32 (SHERIDAN ROAD)  
(DURAND AVENUE TO 25TH STREET)



EXISTING TYPICAL SECTION  
25TH STREET  
(STH 32 TO STA. 25+21)

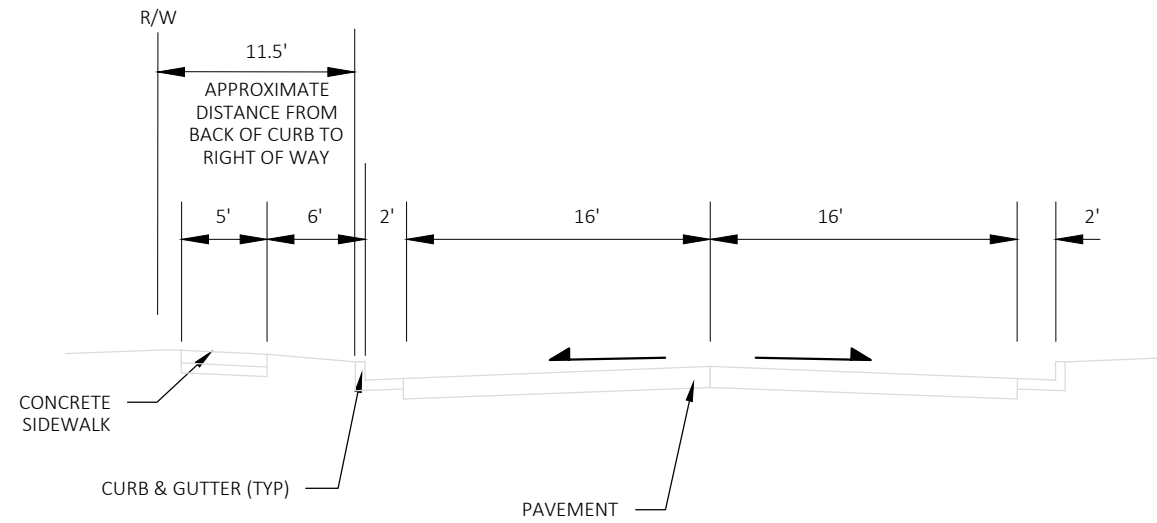


EXISTING TYPICAL SECTION  
25TH STREET  
(STA. 25+21 TO MEAD STREET)

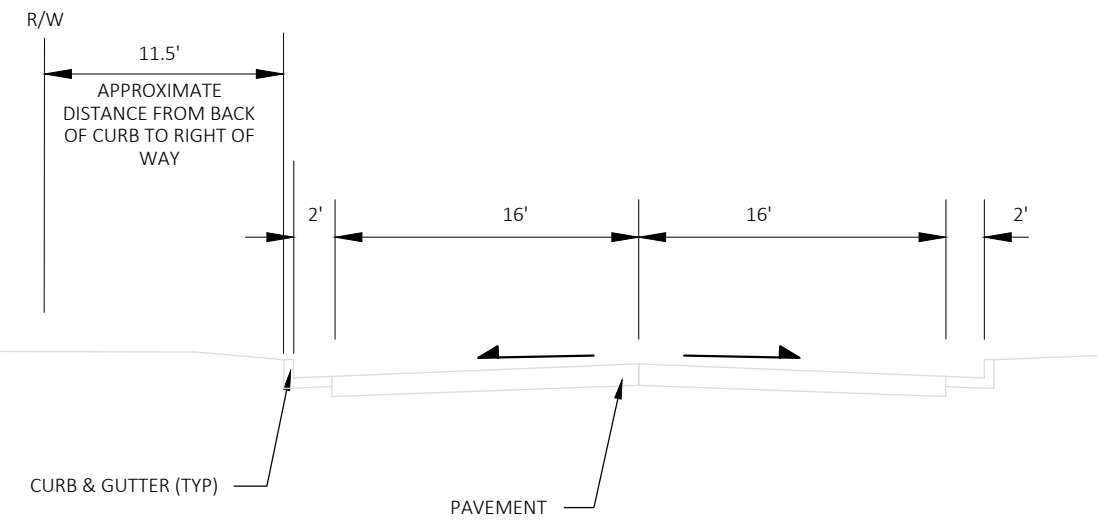


EXISTING TYPICAL SECTION  
MEAD STREET  
(25TH STREET TO 24TH STREET)

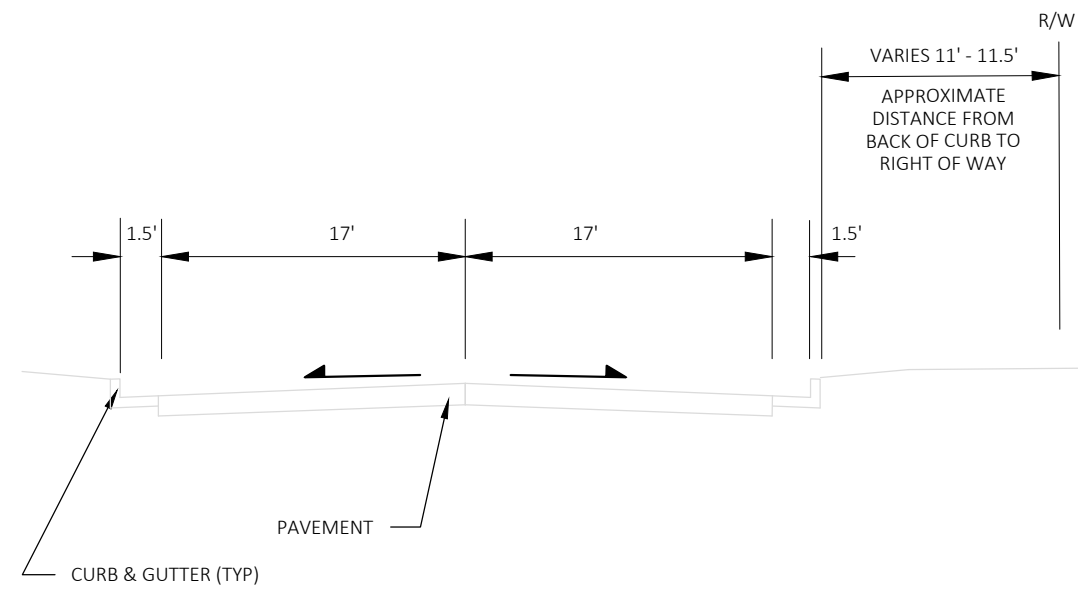




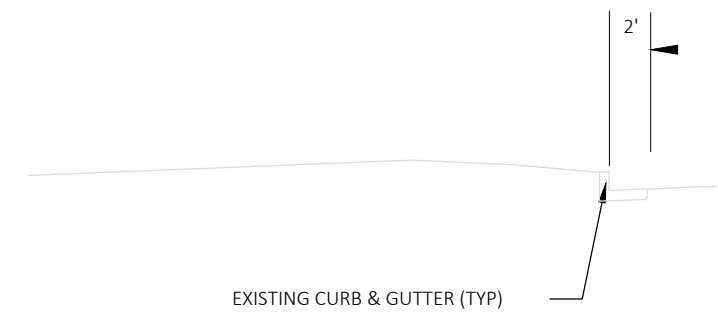
EXISTING TYPICAL SECTION  
24TH STREET  
(MEAD STREET TO HOWE STREET)



EXISTING TYPICAL SECTION  
24TH STREET  
(HOWE STREET TO CENTER STREET)

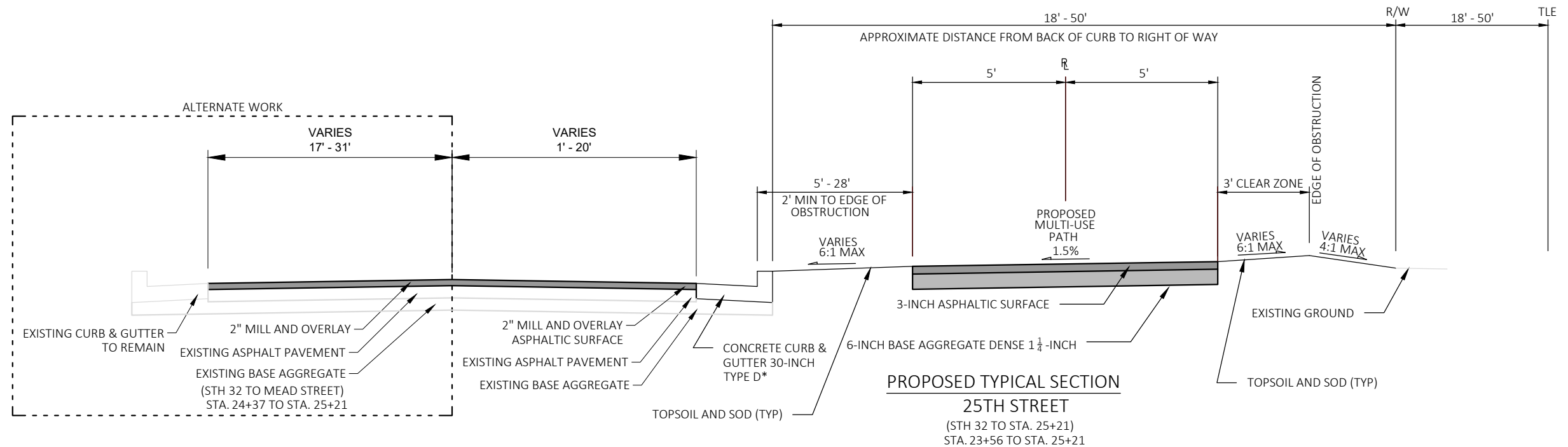
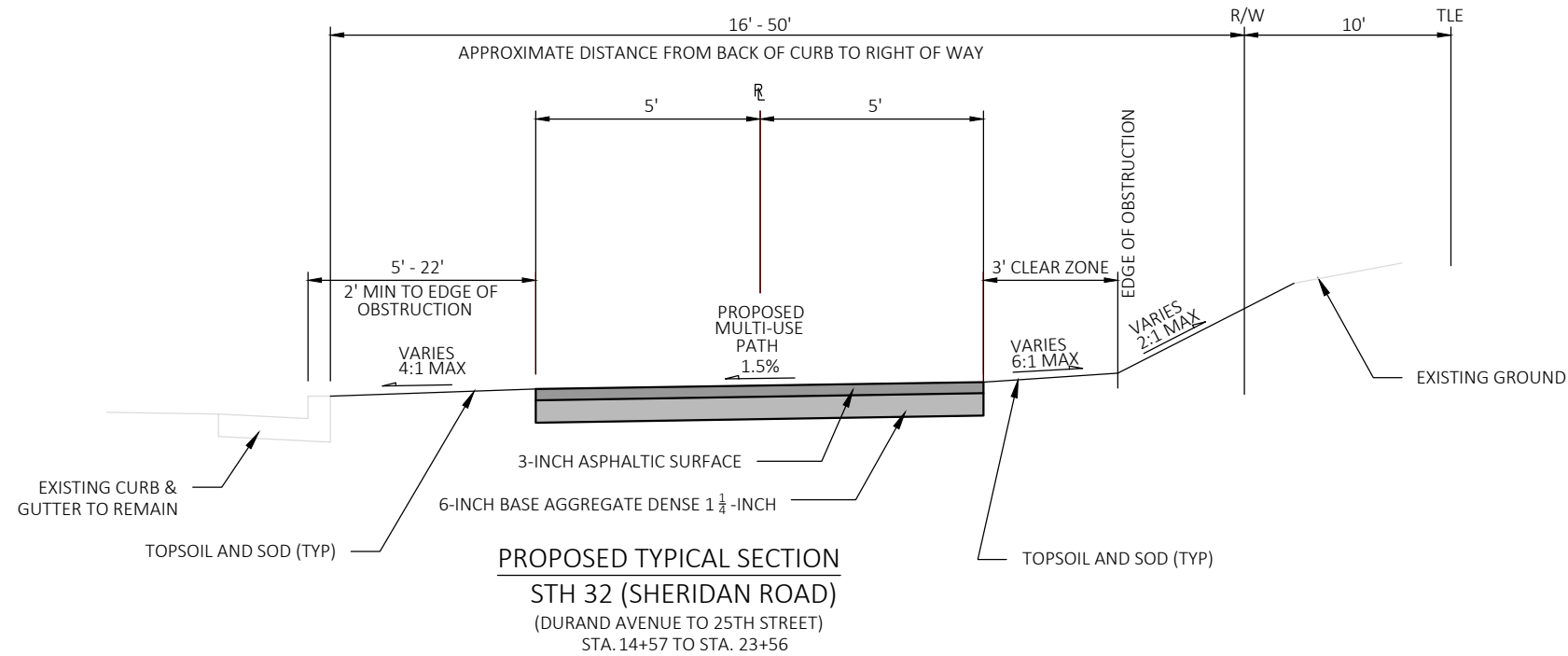


EXISTING TYPICAL SECTION  
CENTER STREET



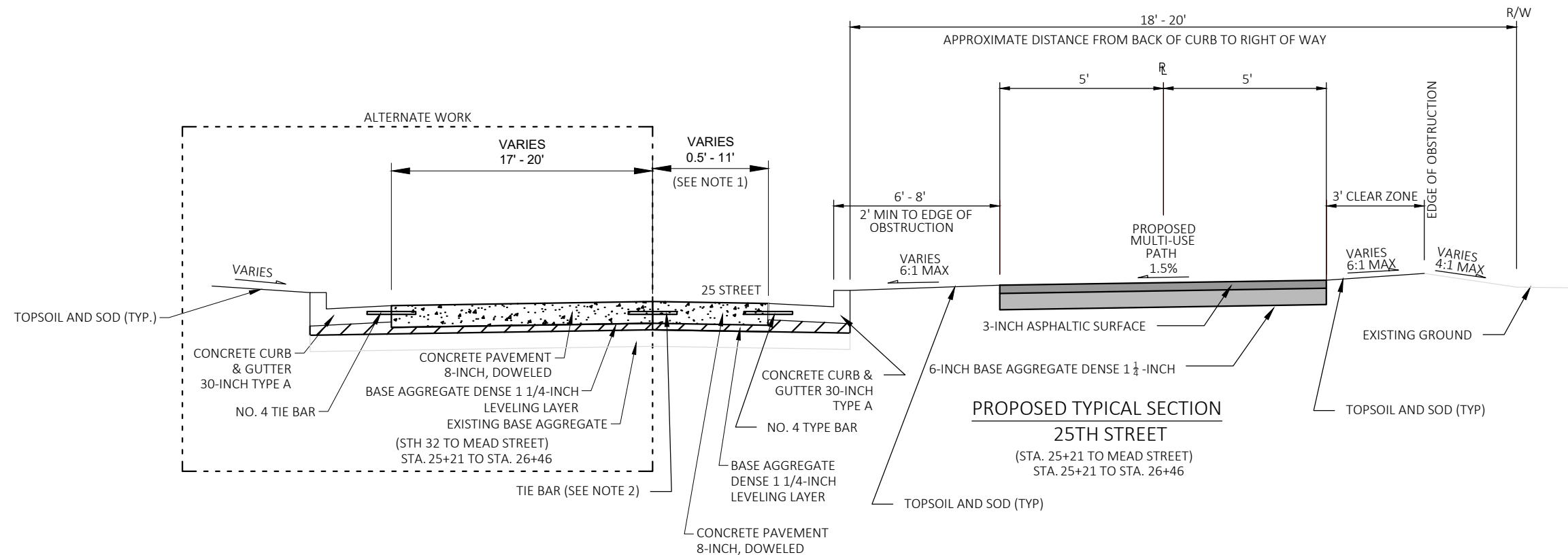
EXISTING TYPICAL SECTION  
ROOSEVELT PARK DRIVE





\*SEE CONSTRUCTION DETAIL FOR ASPHALTIC SURFACE PATCHING AT CURB & GUTTER ADJACENT TO HMA PAVEMENT FOR MORE INFORMATION.

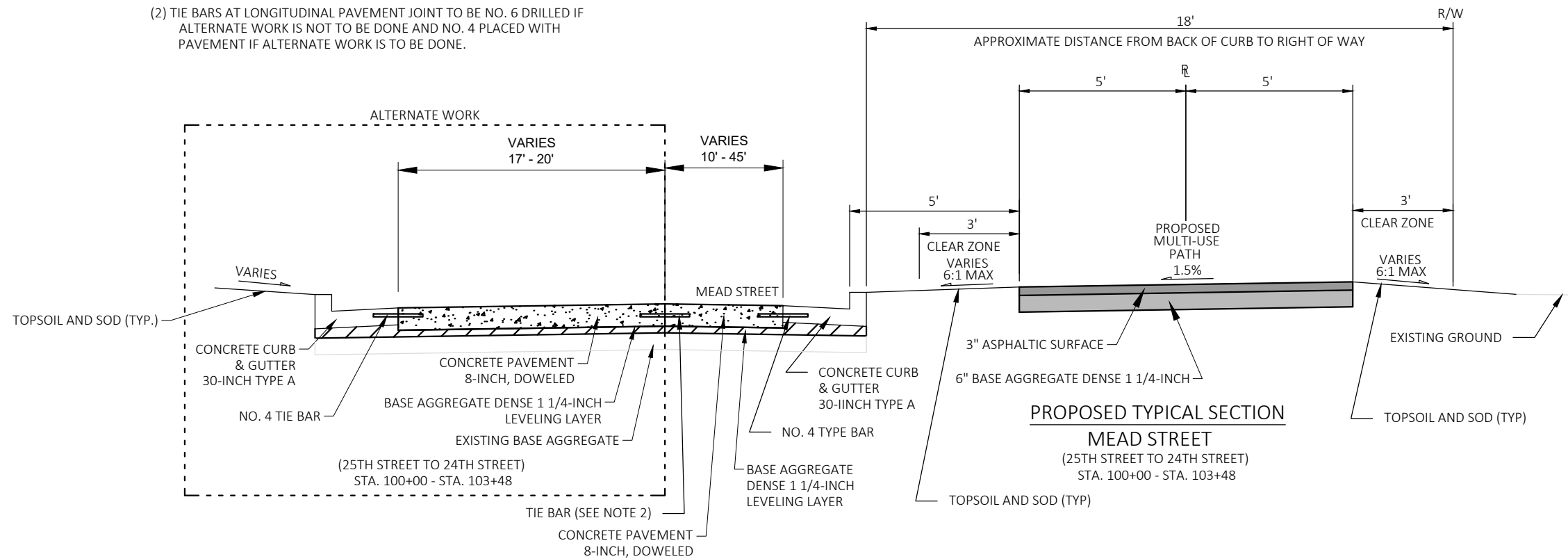




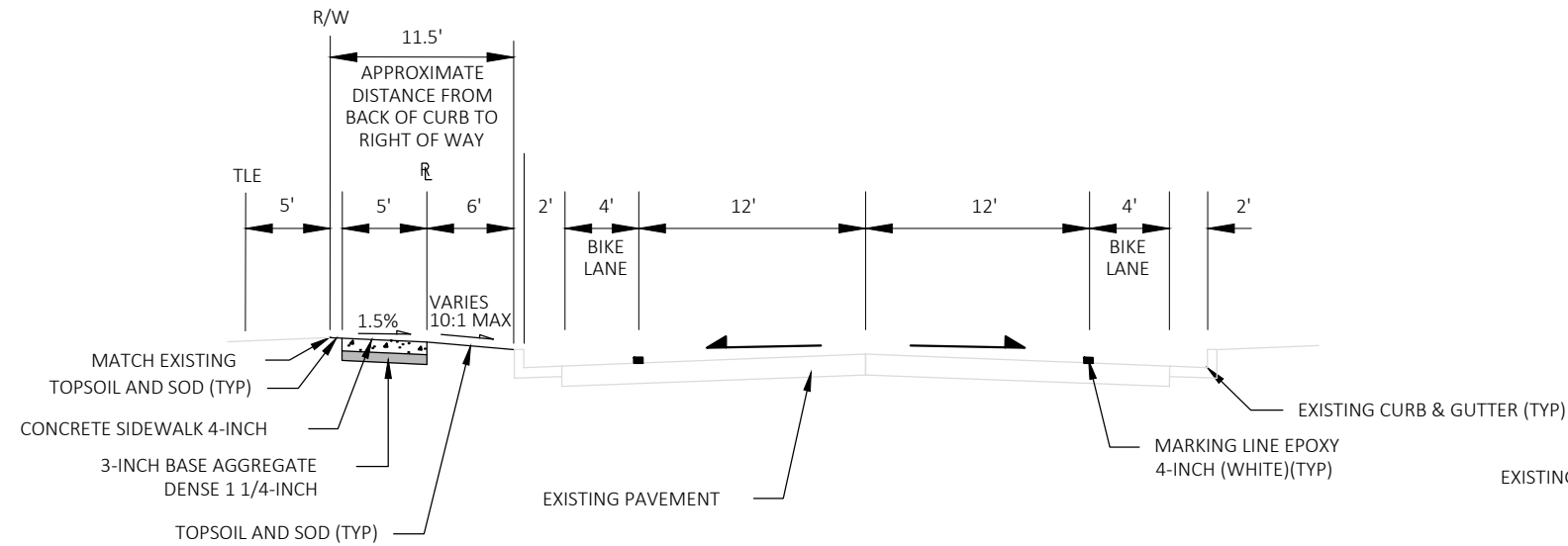
## NOTES

(1) WHERE PAVEMENT WIDTH IS LESS THAN 2', EXTEND CURB FLANGE LINE TO JOINT. SEE SDD 13C18 "CONCRETE PAVEMENT JOINTING."

(2) TIE BARS AT LONGITUDINAL PAVEMENT JOINT TO BE NO. 6 DRILLED IF ALTERNATE WORK IS NOT TO BE DONE AND NO. 4 PLACED WITH PAVEMENT IF ALTERNATE WORK IS TO BE DONE.





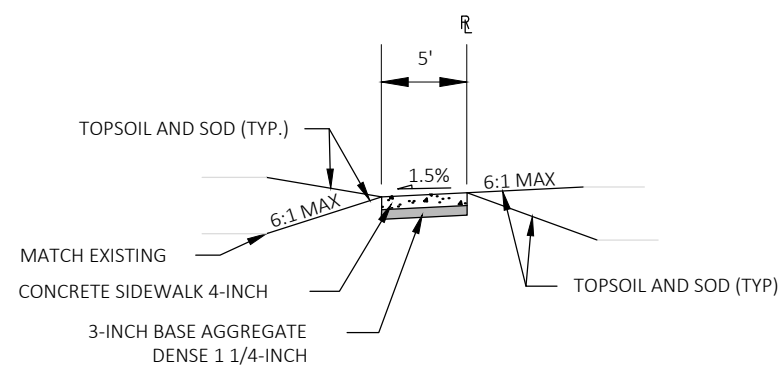


\*NOTE: IN AREAS WHERE THERE IS EXISTING SIDEWALK THAT IS BEING REPLACED, EXISTING BASE AGGREGATE MAY BE LEFT IN PLACE AND BE RE-GRADED.

#### FINISHED SIDEWALK TYPICAL SECTION

##### 24TH STREET

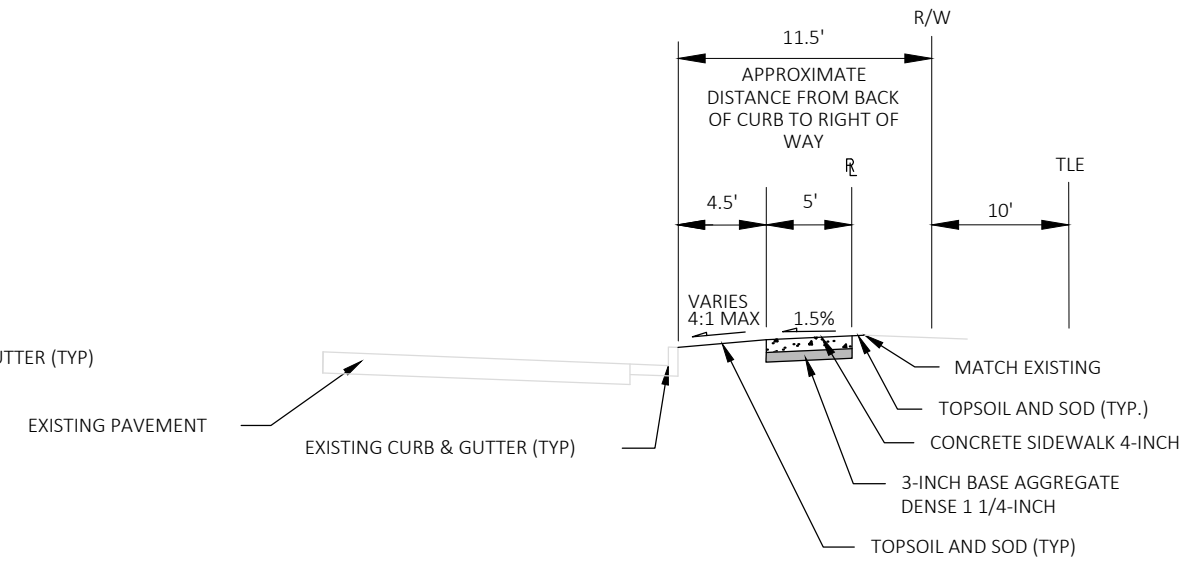
(MEAD STREET TO HOWE STREET) STA. 200+63 - STA. 203+29  
(HOWE STREET TO CENTER STREET) STA. 203+63 - STA. 209+29



#### FINISHED SIDEWALK TYPICAL SECTION

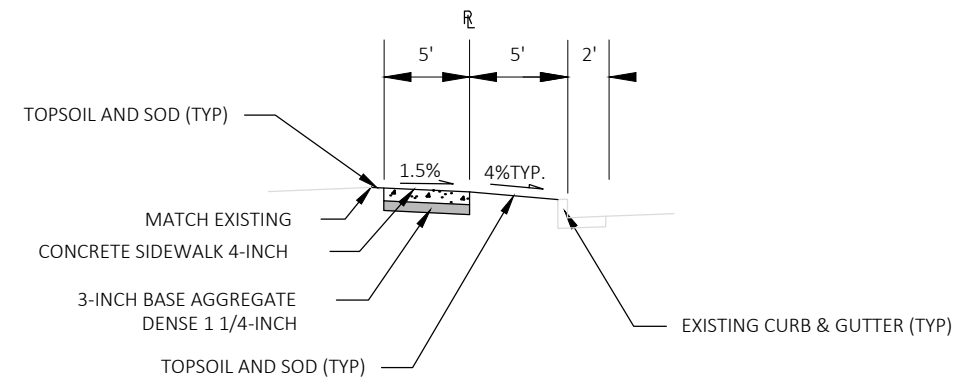
##### ROOSEVELT PARK

STA. 304+01.93 - STA. 307+97.89



#### FINISHED SIDEWALK TYPICAL SECTION

##### CENTER STREET

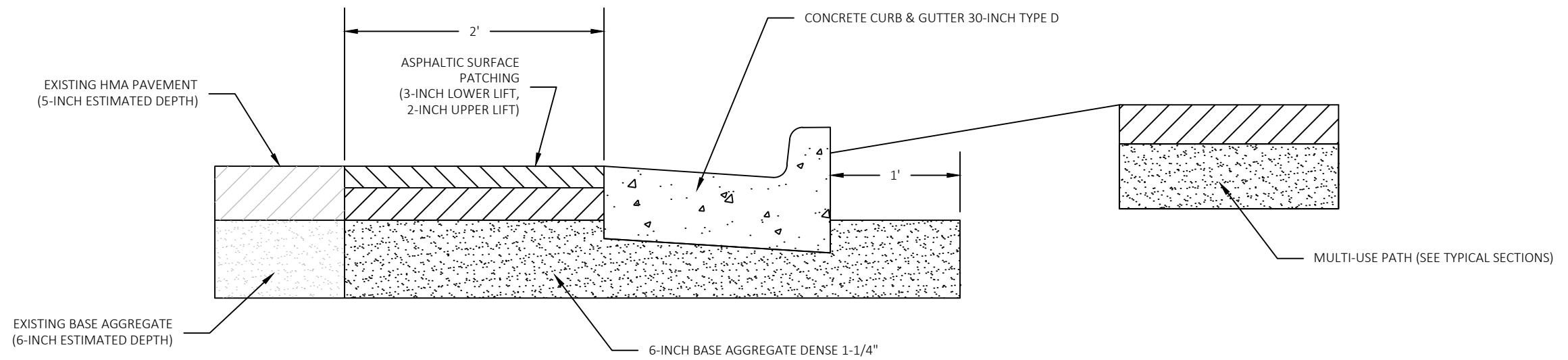


#### FINISHED SIDEWALK TYPICAL SECTION

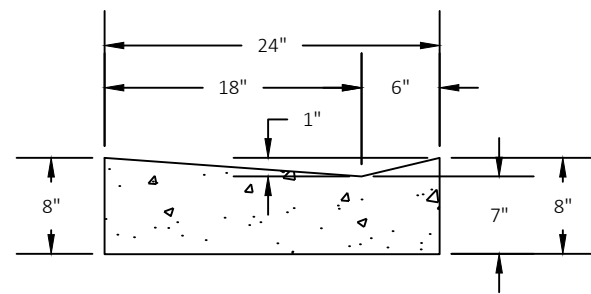
##### ROOSEVELT PARK DRIVE

STA. 307+97.89 TO STA. 308+73.99

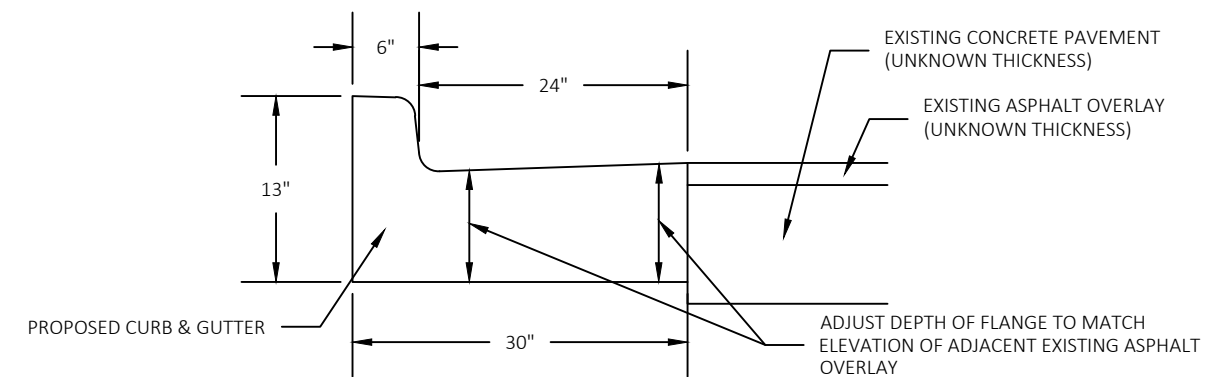




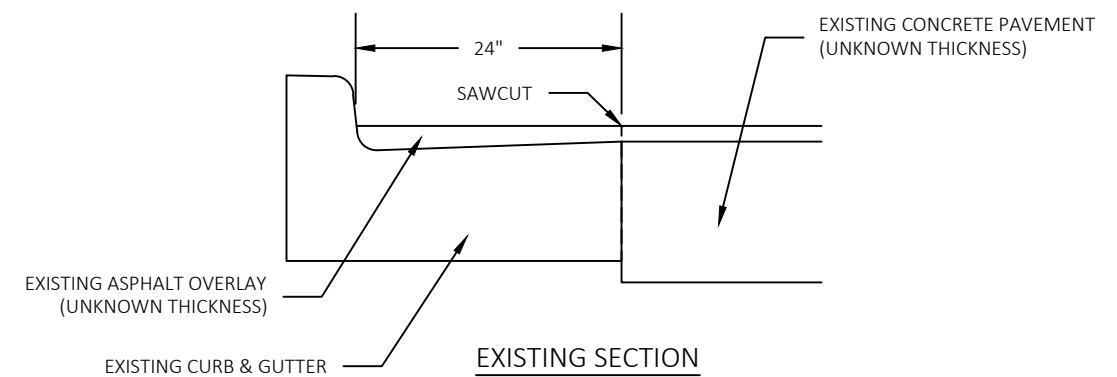
ASPHALTIC SURFACE PATCHING AT CURB & GUTTER REPLACEMENTS ADJACENT TO HMA PAVEMENT



24-INCH CURB & GUTTER AT DRIVEWAY OPENING



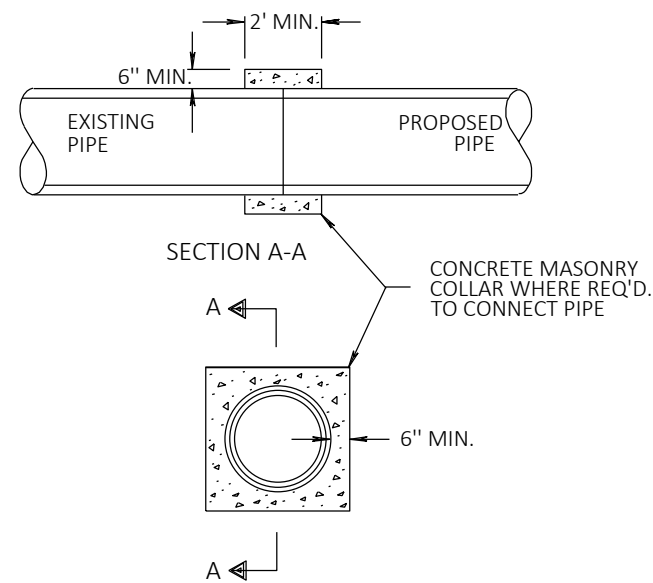
PROPOSED SECTION



EXISTING SECTION

CURB & GUTTER REPLACEMENT ON ROOSEVELT PARK DRIVE





CONCRETE COLLAR DETAIL  
NTS

MANHOLE IN PAVEMENT - CASTING SHALL BE SET 1/4" (.02') BELOW FINISHED PAVEMENT GRADE SPECIFIED IN PLAN

MANHOLE IN TERRACE - CASTING SHALL BE SET EQUAL TO FINISHED TERRACE GRADE.

MIN. 4" OF ADJUSTING RINGS.

MANHOLE IN CONCRETE PAVEMENT - CONCRETE RINGS WITH CEMENT MORTAR REQUIRED.

MANHOLE IN TERRACE OR HMA PAVEMENT - CONCRETE RINGS SHALL NOT BE USED. WRAPPED HDPE RINGS WITH BUTYL RUBBER MORTAR AND EXTERNAL ELASTOMERIC SEAL REQUIRED.

APPLY 1/4" THICK BUTYL RUBBER EXTERNAL ELASTOMERIC SEAL AND WRAP TO OUTSIDE OF CHIMNEY (TYP.) - SANITARY MANHOLES

BACKFILL PER SPECIFICATION

EXISTING CONE SECTION TO BE REMOVED AND REPLACED ABOVE NEW BARREL SECTION WHERE REQUIRED.

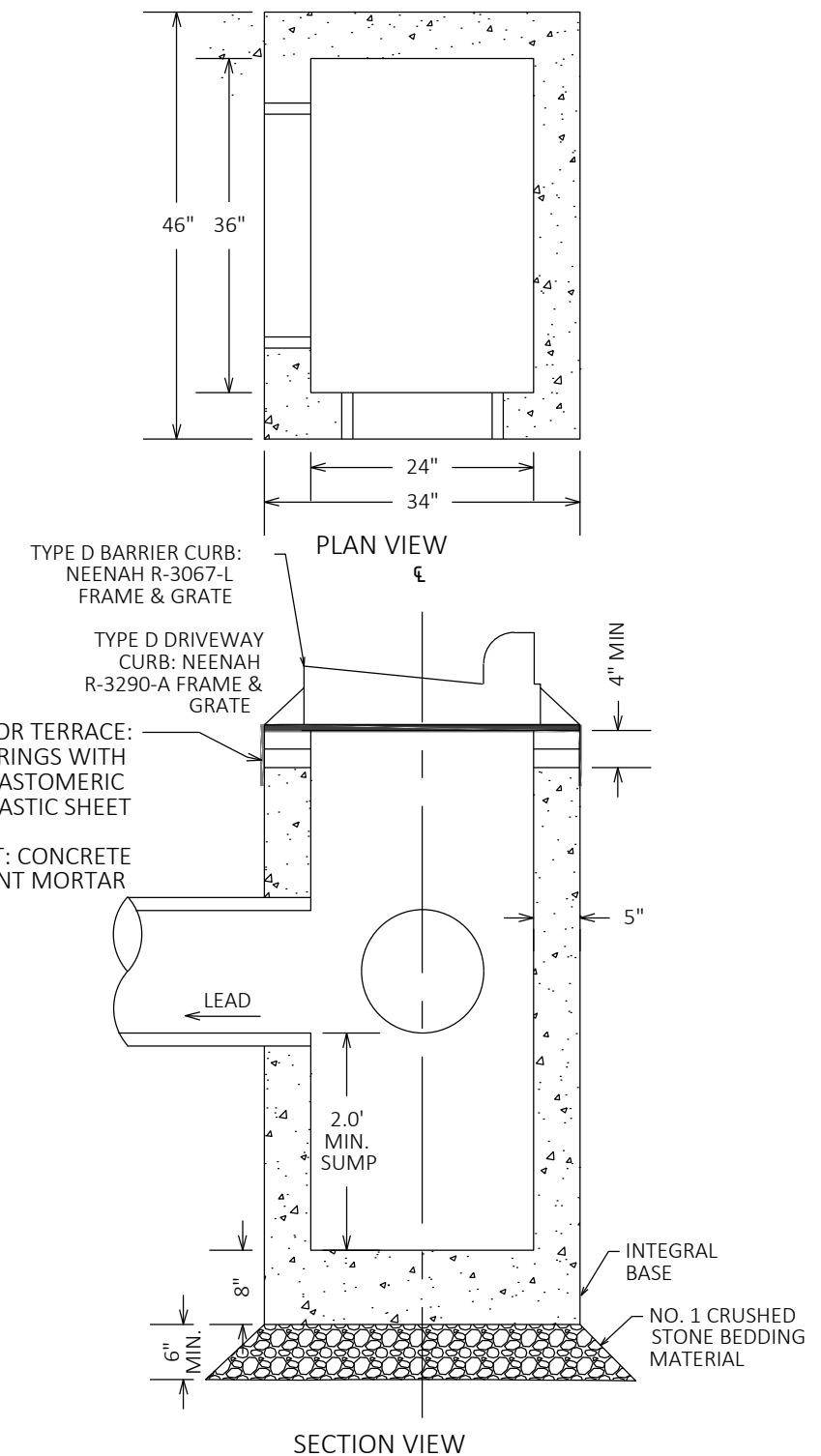
NEW BARREL SECTION WHERE REQUIRED. SEE NOTE TO RIGHT

EXIST. BLOCK OR PRECAST MANHOLE

\*IF THE RIM ELEVATION INCREASES BY AN AMOUNT GREATER THAN 19" (1.58'), A NEW CONCRETE BARREL SECTION SHALL BE INSTALLED BELOW THE EXISTING CONE/DECK SECTION OF STRUCTURE.

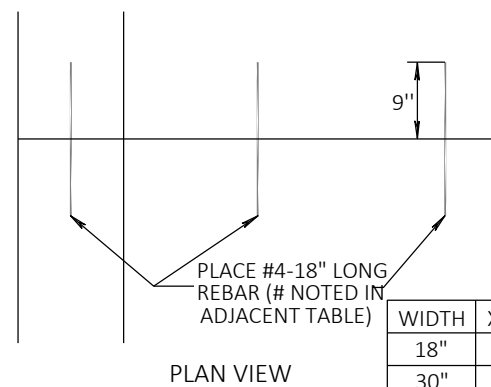
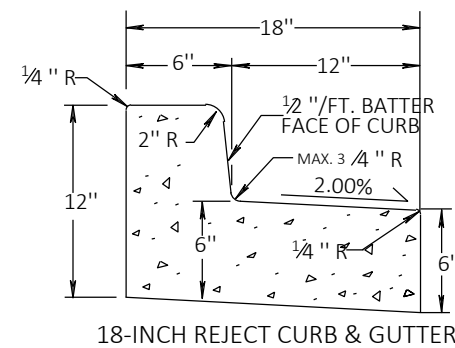
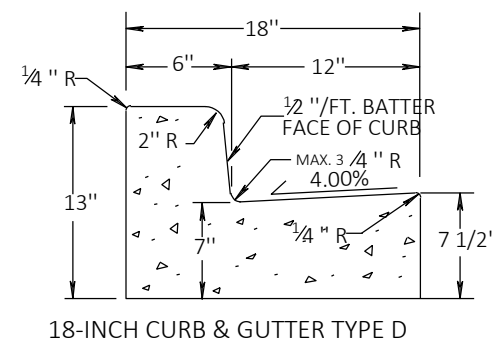
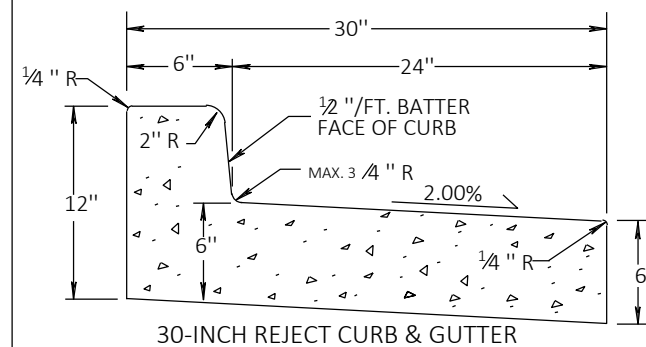
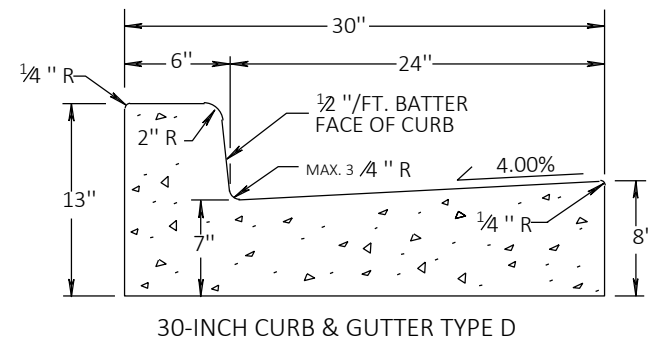
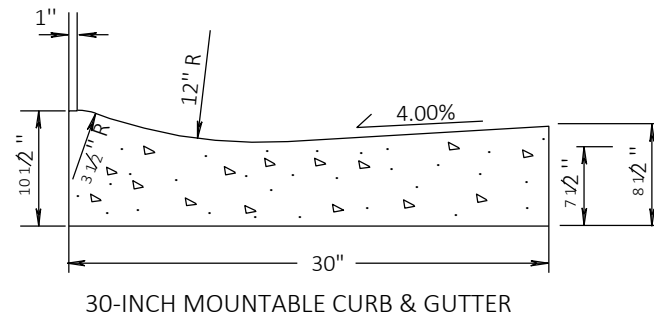
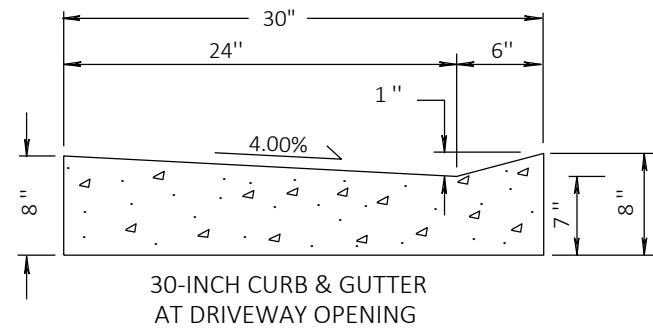
\*SEE PLAN FOR LOCATIONS AND ELEVATION DIFFERENCE OF RECONSTRUCTING SANITARY MANHOLES

DETAIL FOR RECONSTRUCTION MANHOLES - STORM OR SANITARY  
NTS

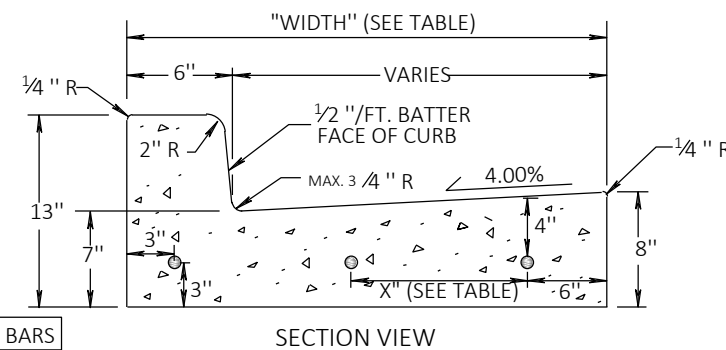


PRECAST CATCH BASIN DETAIL - TYPE D CURB  
NTS





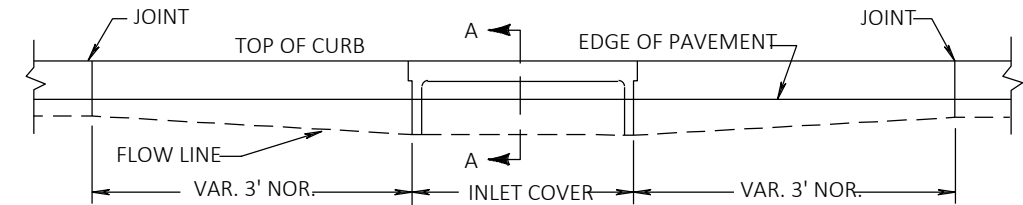
WIDTH	X (IN.)	# OF BARS
18"	9"	2
30"	10.5"	3



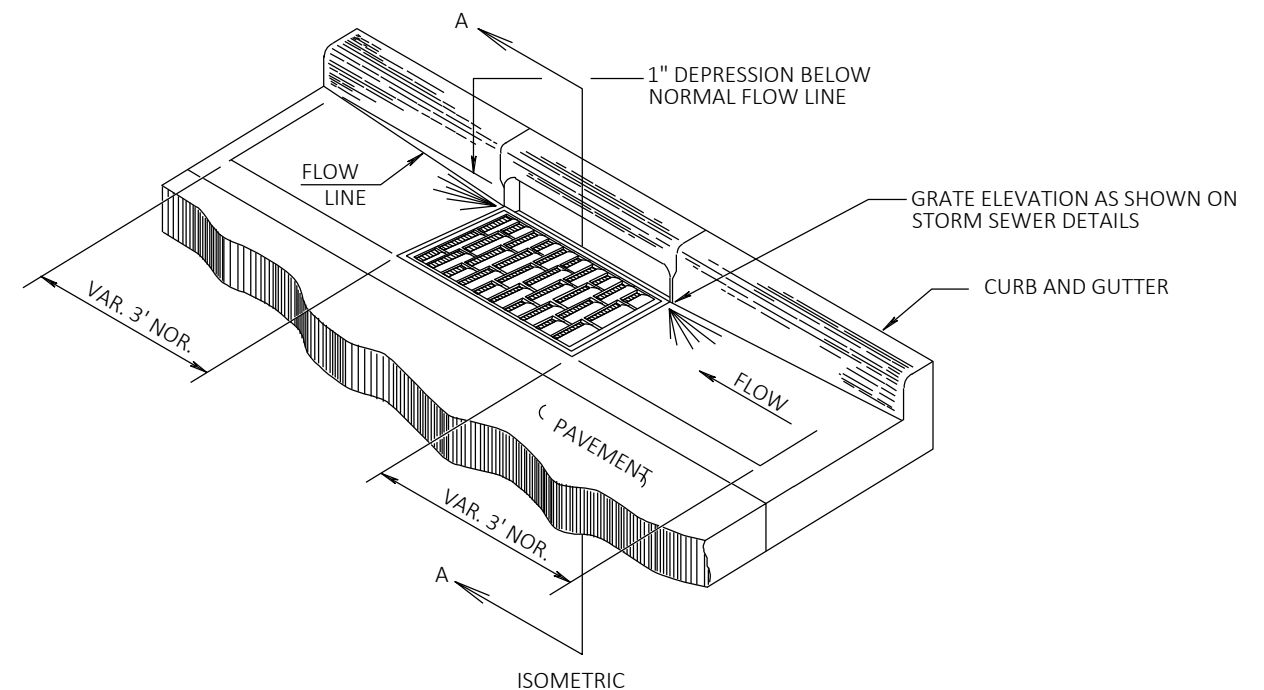
CURB &amp; GUTTER TIES

### CONCRETE CURB & GUTTER DETAILS

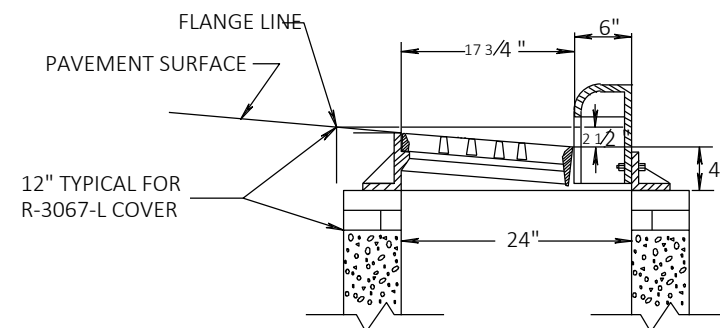
NTS



ELEVATION



ISOMETRIC

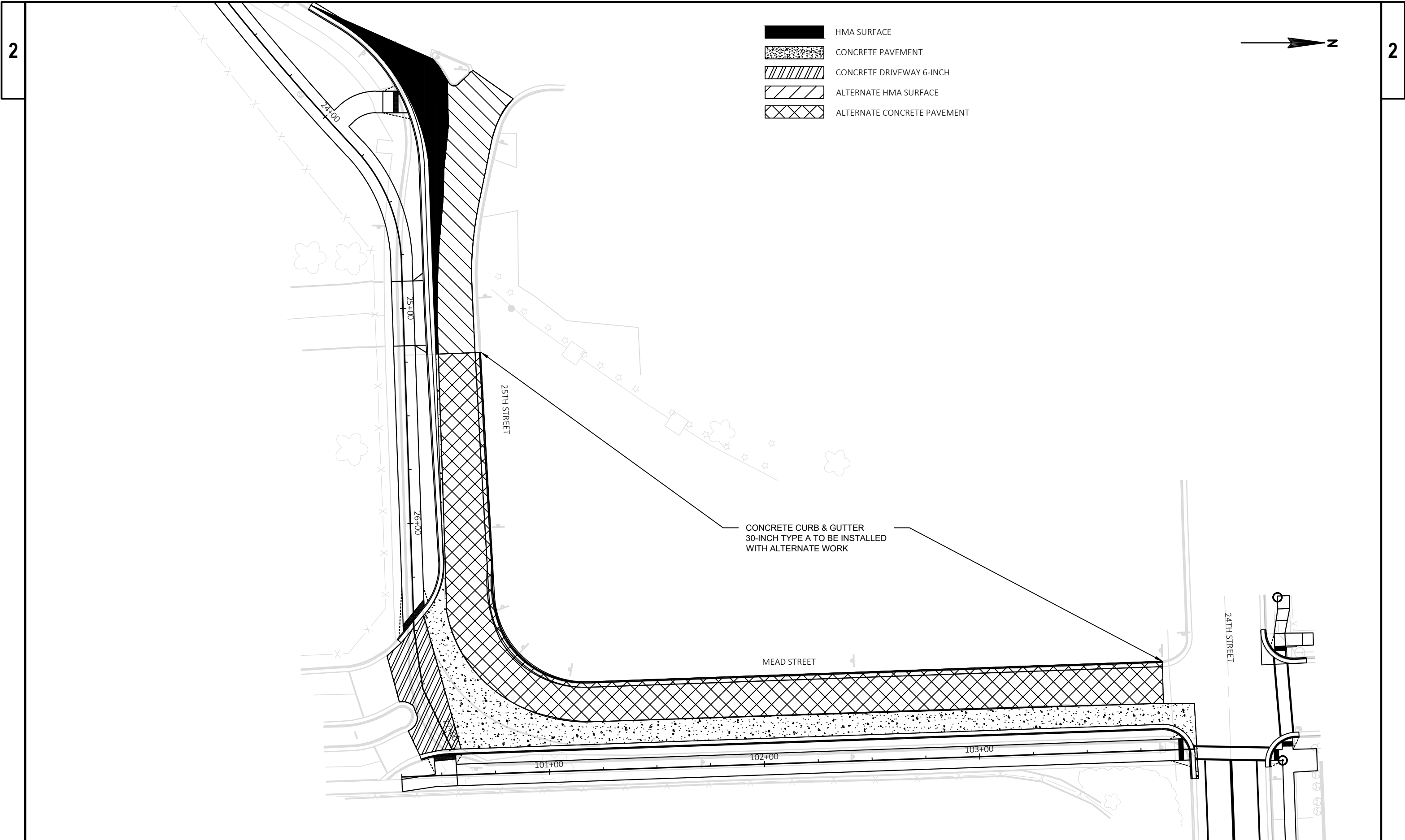


SECTION A-A

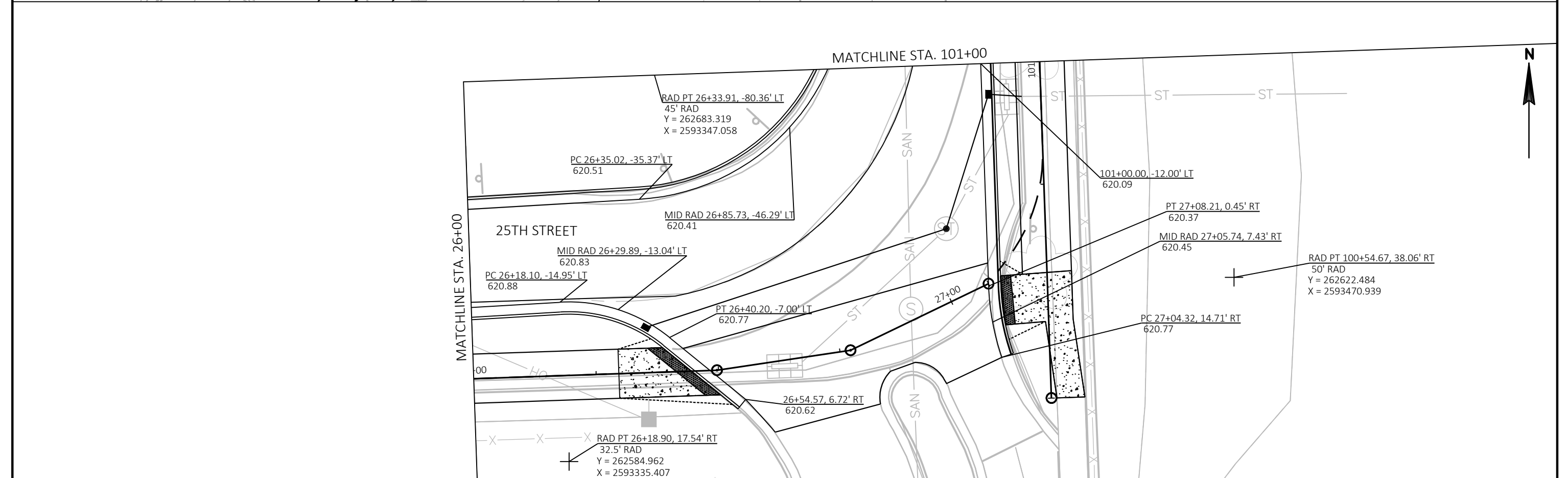
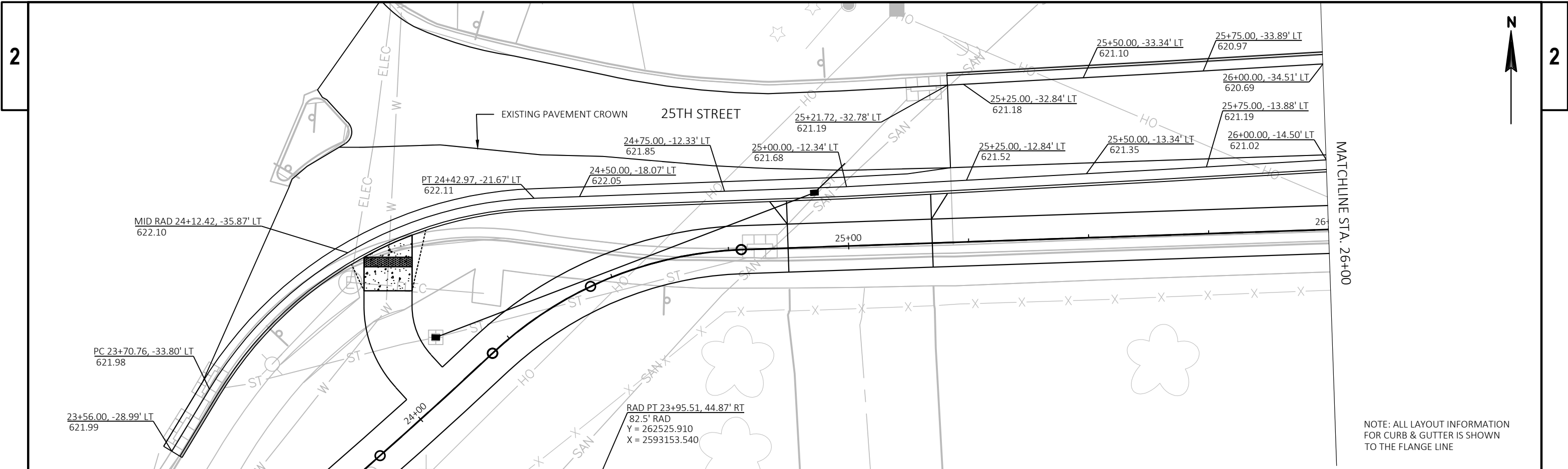
### DETAIL OF CURB & GUTTER AT INLETS

NTS

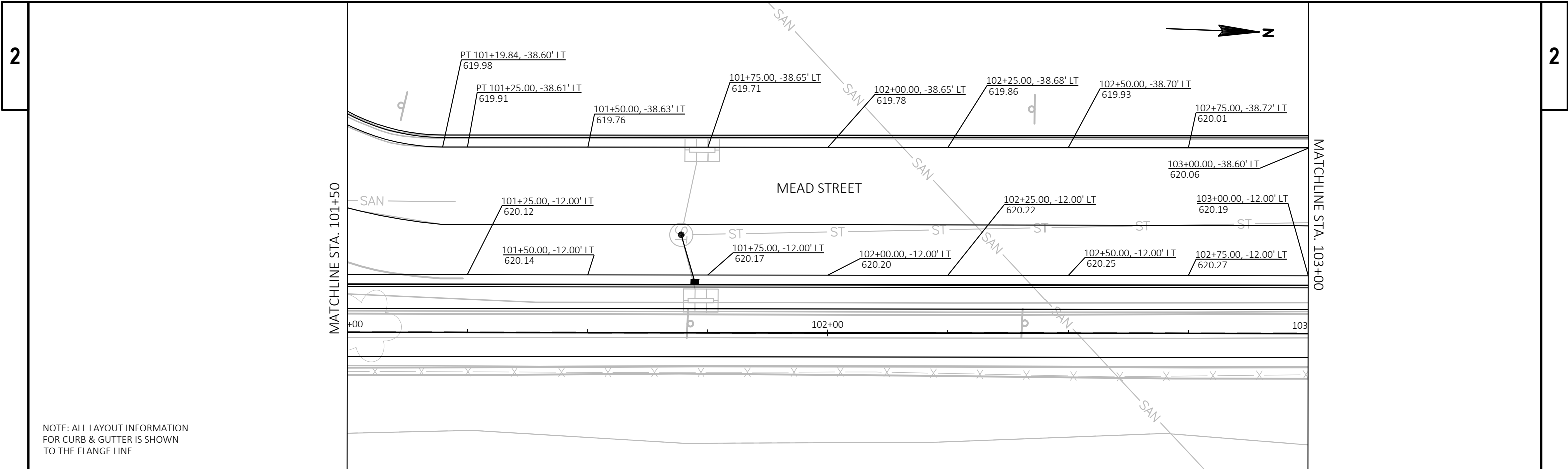




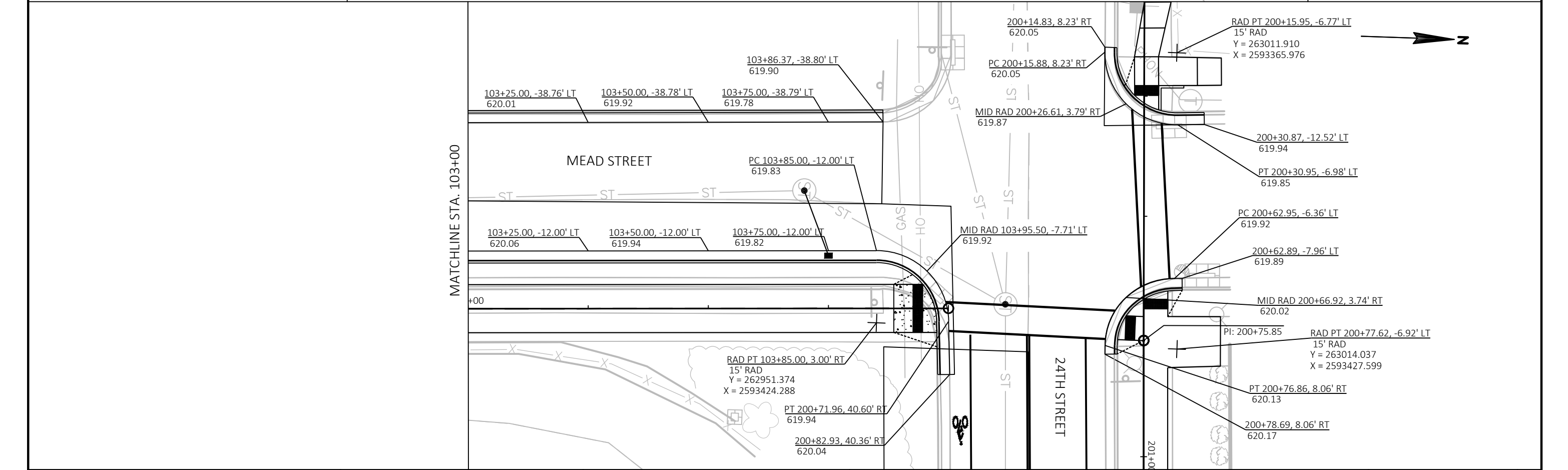




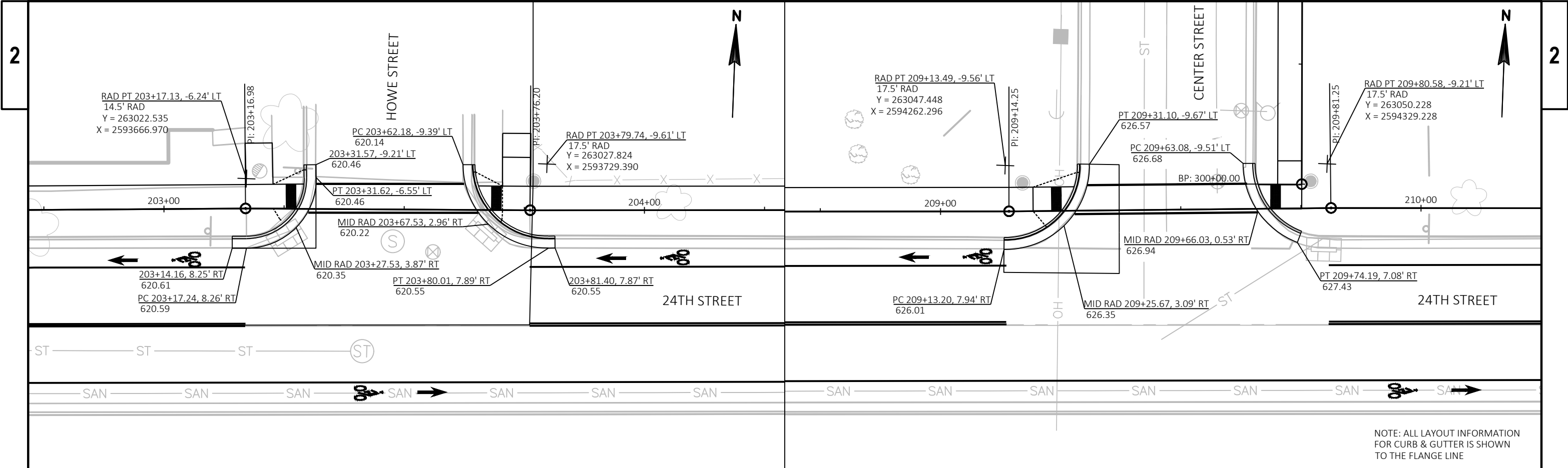




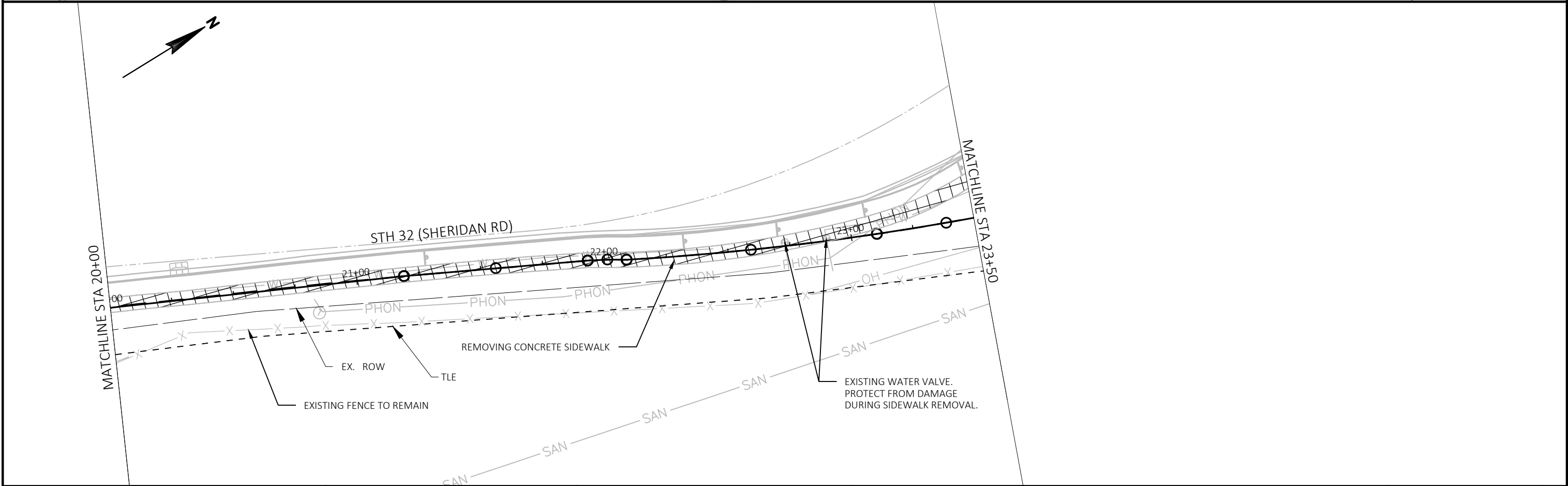
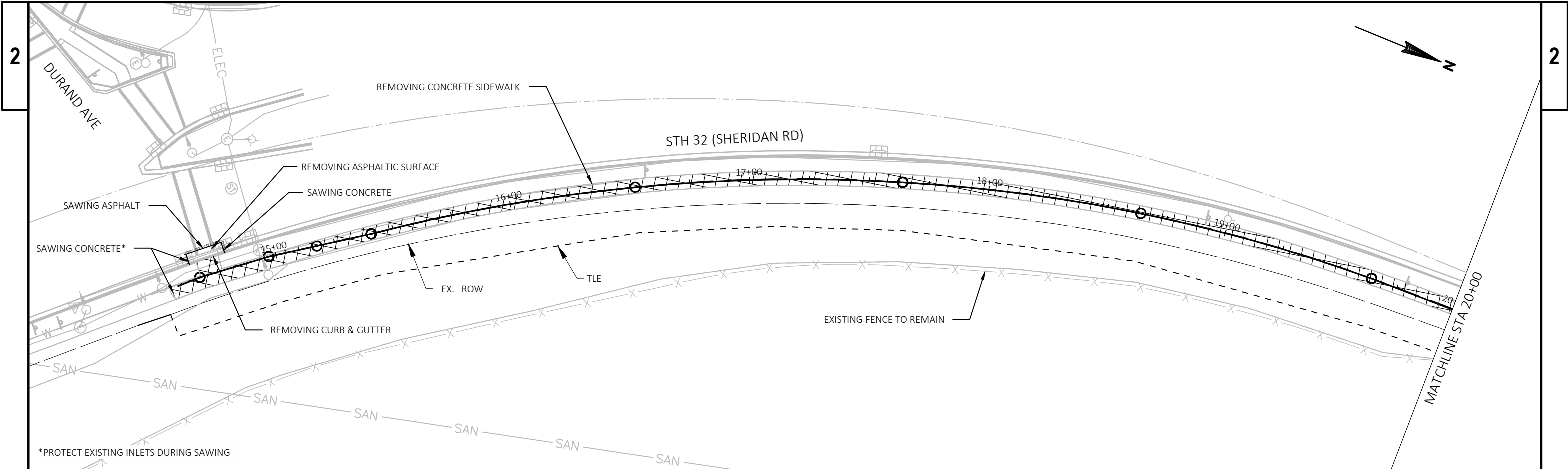
NOTE: ALL LAYOUT INFORMATION  
FOR CURB & GUTTER IS SHOWN  
TO THE FLANGE LINE





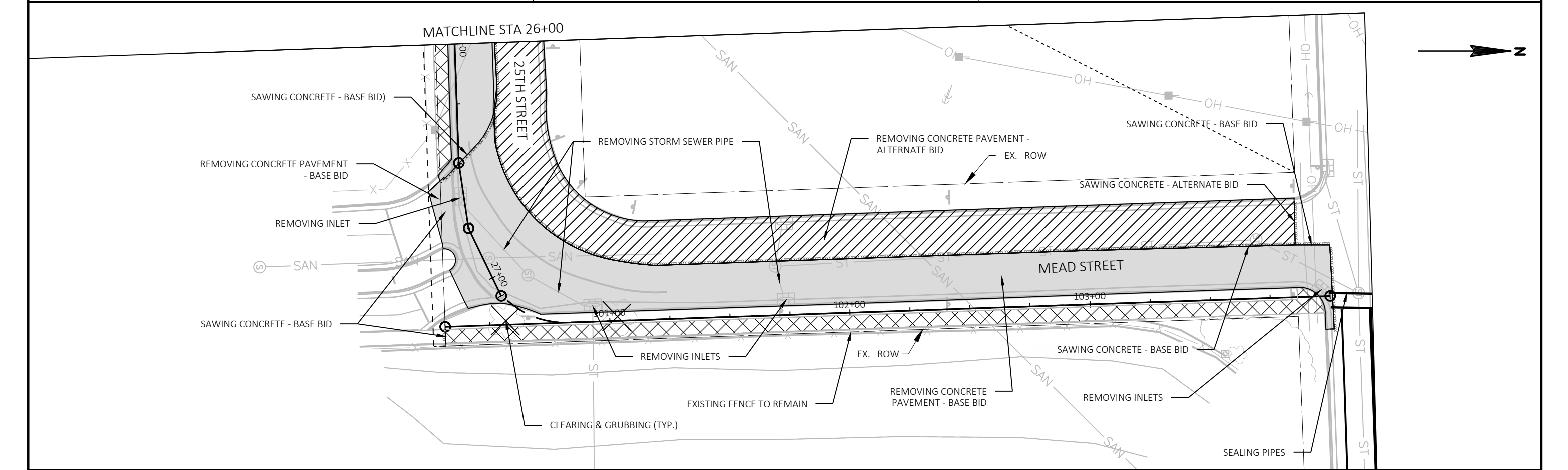
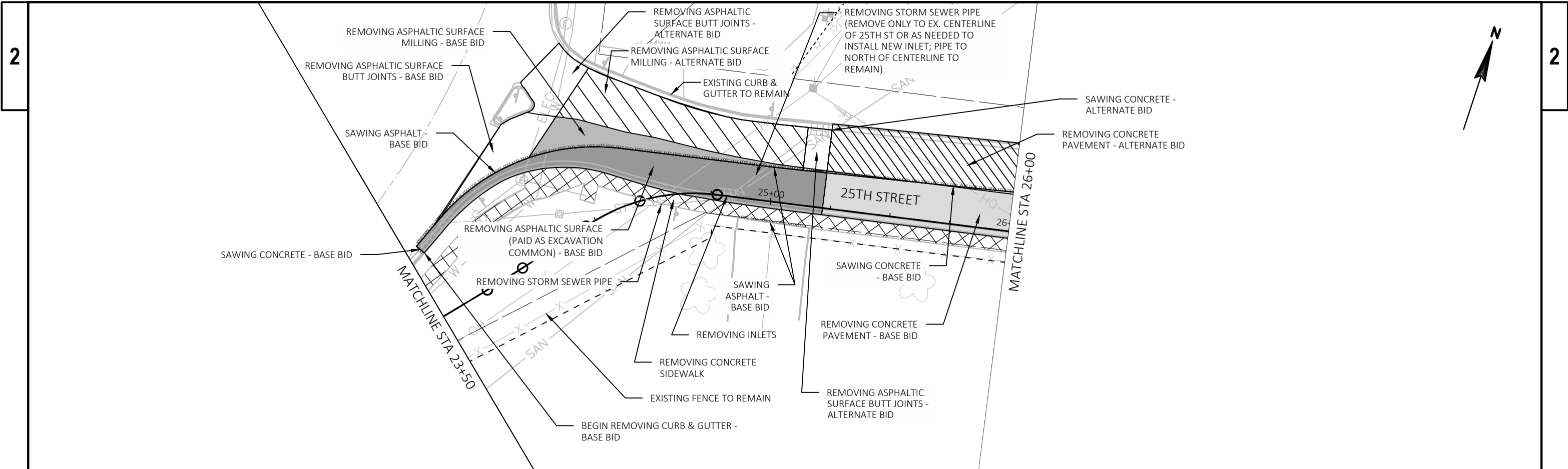




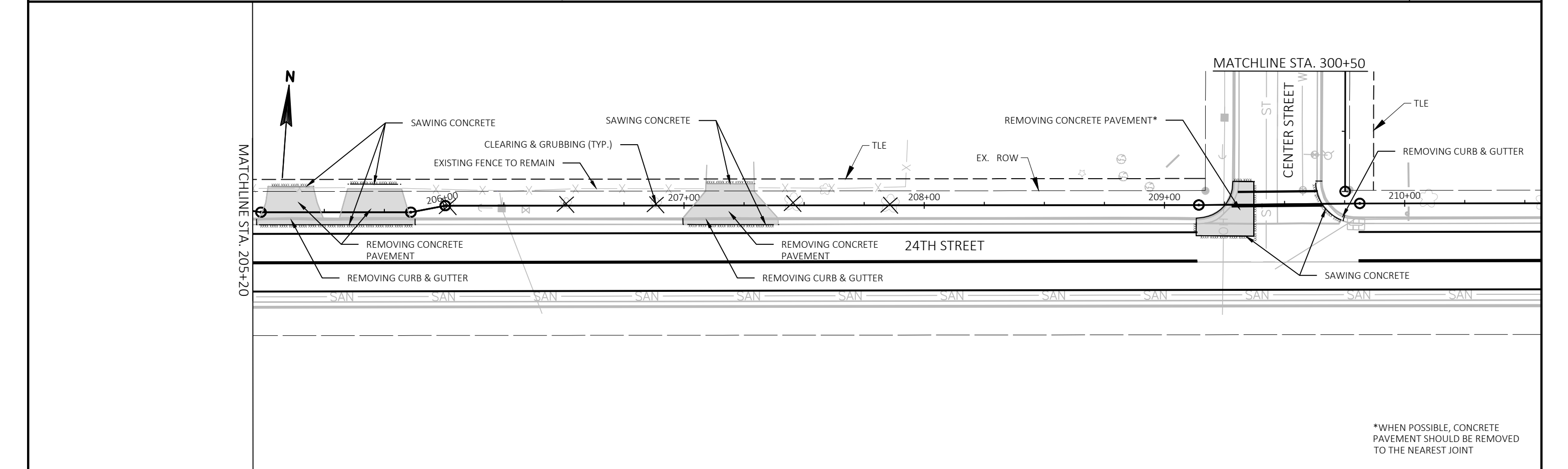
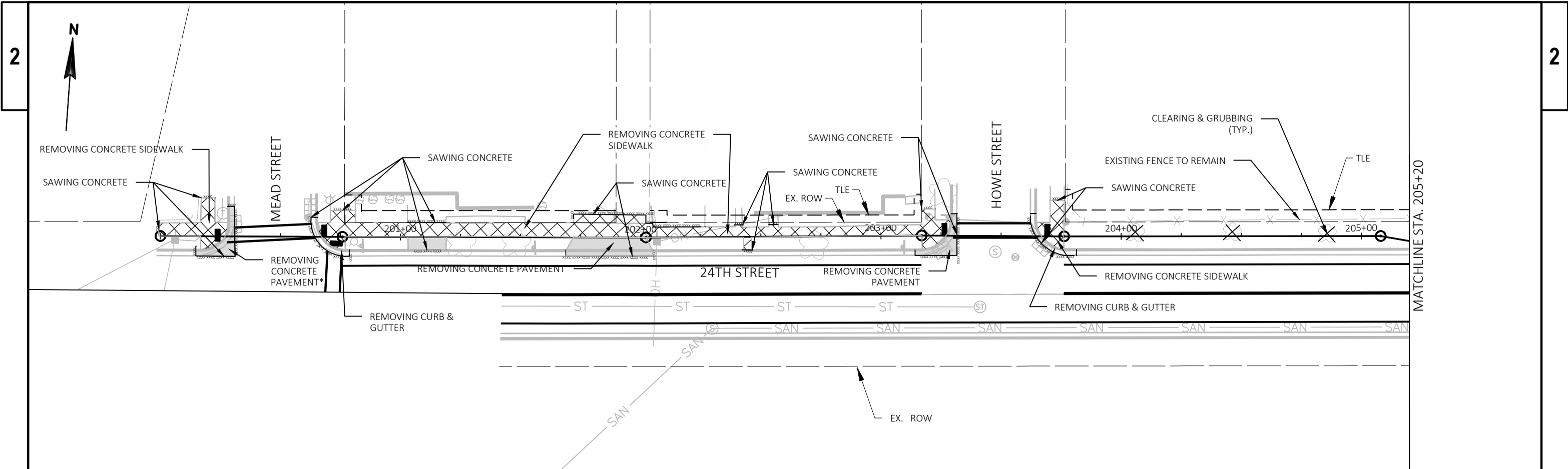


PROJECT NO: 1693-34-76	HWY: LAKE MICHIGAN PATHWAY PH 4	COUNTY: RACINE	PLAN DETAILS - REMOVALS	SHEET 16	E
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\*WHEN POSSIBLE, CONCRETE PAVEMENT SHOULD BE REMOVED TO THE NEAREST JOINT

PROJECT NO: 1693-34-76

HWY: LAKE MICHIGAN PATHWAY PH 4

COUNTY: RACINE

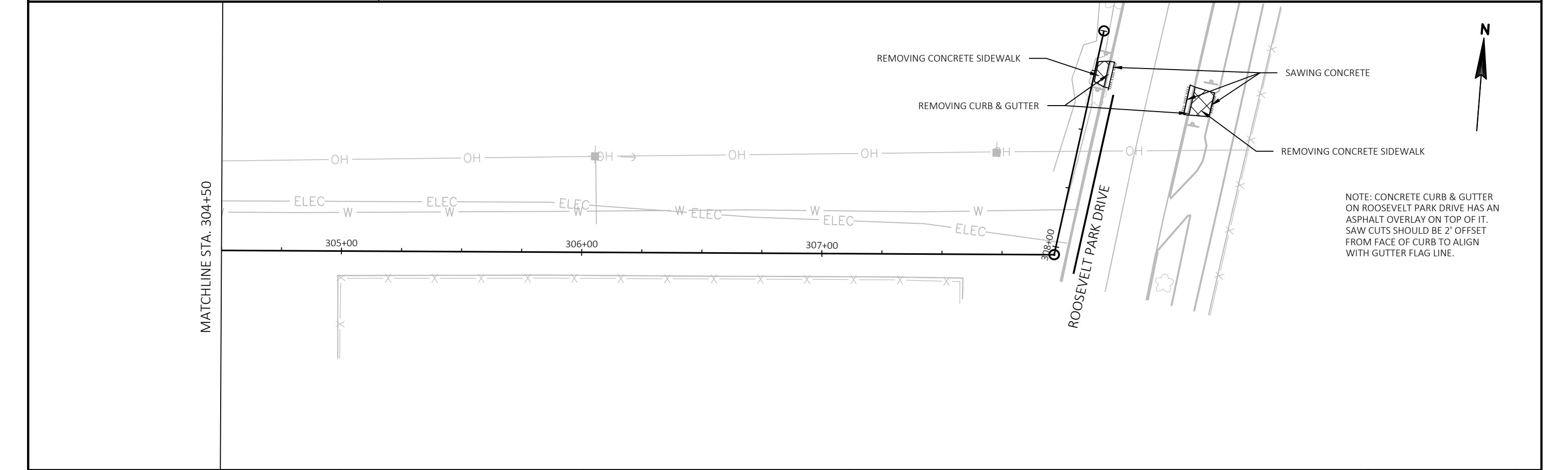
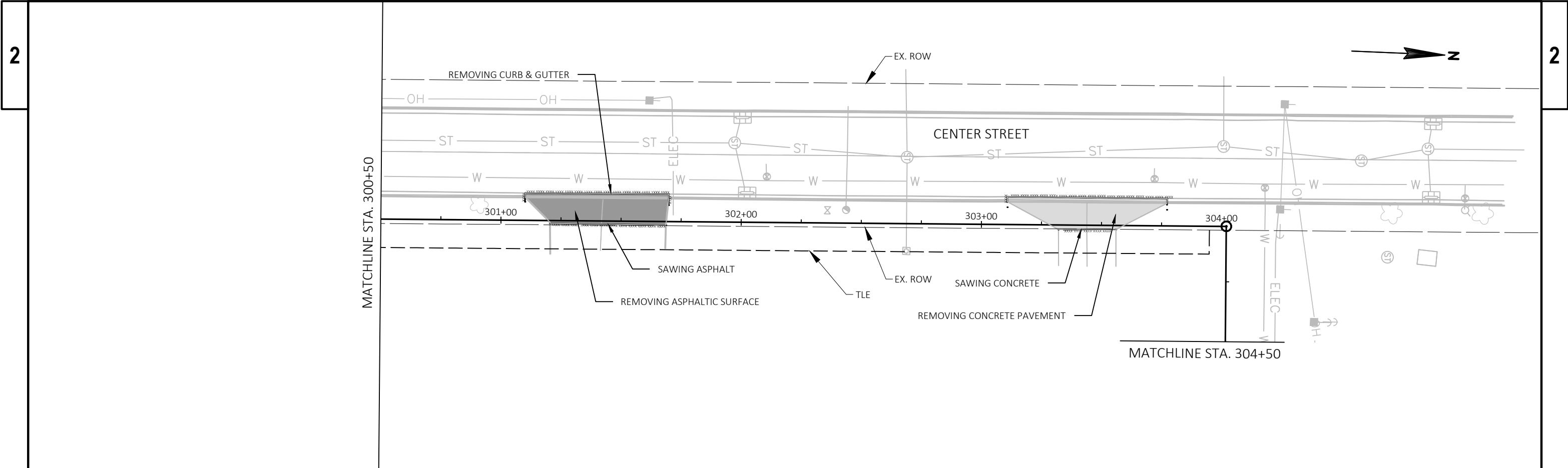
PLAN DETAILS - REMOVALS

SHEET

18

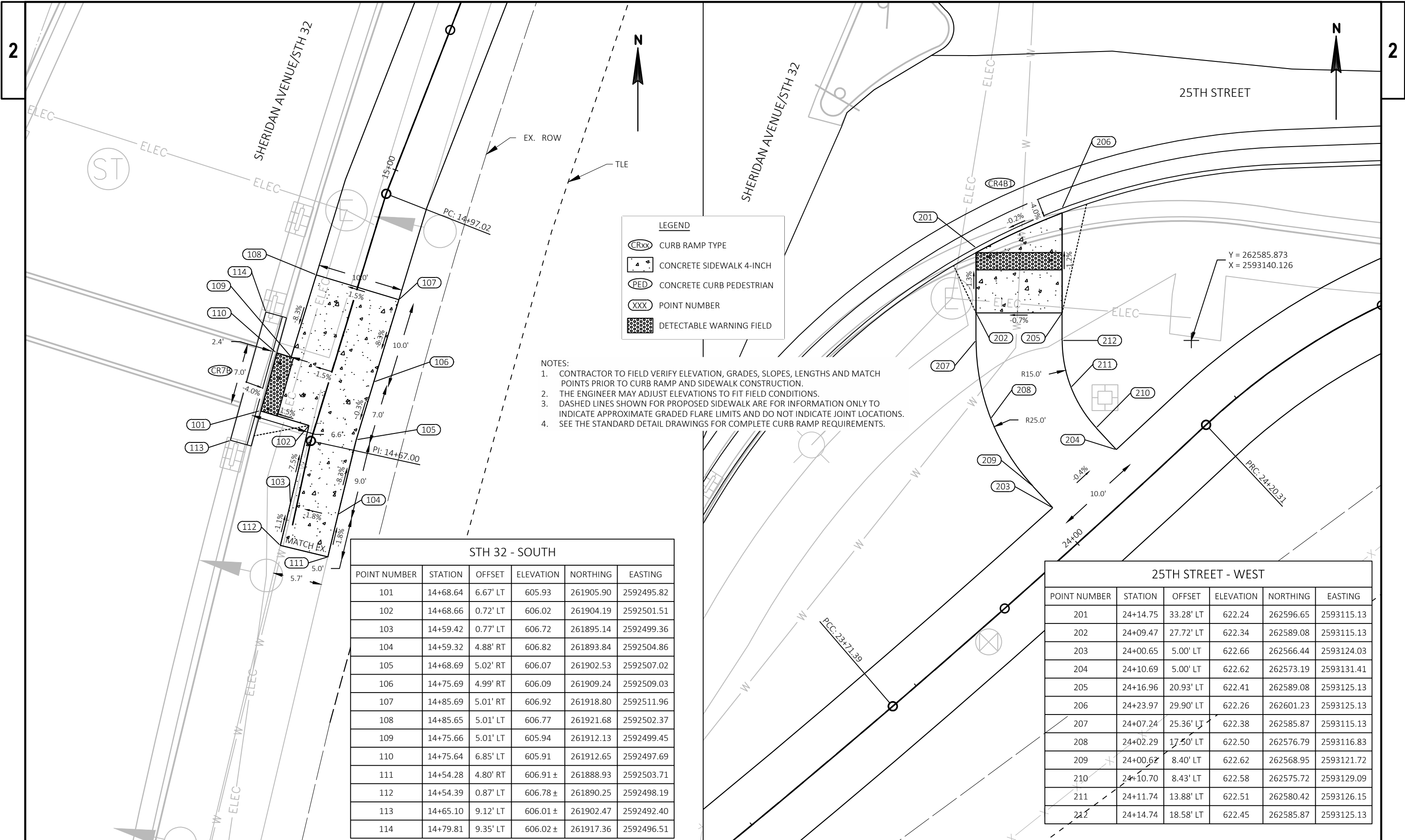
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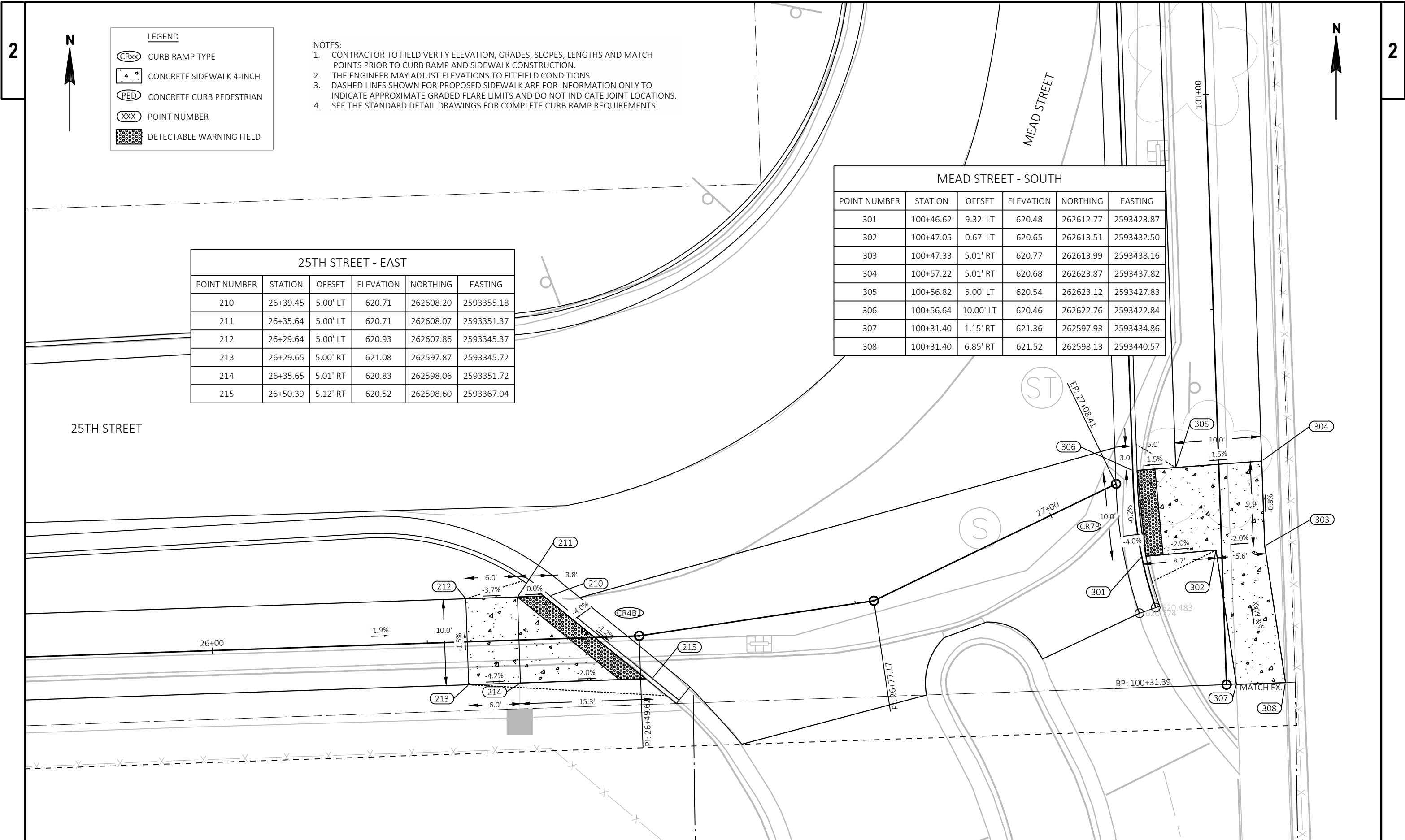


NOTE: CONCRETE CURB & GUTTER ON ROOSEVELT PARK DRIVE HAS AN ASPHALT OVERLAY ON TOP OF IT. SAW CUTS SHOULD BE 2' OFFSET FROM FACE OF CURB TO ALIGN WITH GUTTER FLAG LINE.











## MEAD &amp; 24TH - NORTHWEST

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
320	200+25.55	2.00' RT	619.76	263003.45	2593375.85
321	200+16.81	2.04' RT	619.93	263003.14	2593367.12
323	200+05.44	0.02' RT	620.59	263004.79	2593355.69
324	200+00.00	0.02' RT	620.70±	263004.61	2593350.25
325	200+00.00	5.48' LT	620.74±	263010.11	2593350.05
326	200+05.40	5.51' LT	620.64	263010.31	2593355.47
328	200+16.79	2.96' LT	619.86	263008.13	2593366.94
329	200+16.95	11.00' LT	620.53	263016.18	2593366.84
330	200+17.03	16.00' LT	620.63±	263021.18	2593366.76
331	200+22.72	16.06' LT	620.51±	263021.41	2593372.44
332	200+22.76	11.06' LT	620.41	263016.42	2593372.65
333	200+22.79	2.98' LT	619.74	263008.35	2593372.93
334	200+28.40	3.01' LT	619.63	263008.55	2593378.53

## MEAD &amp; 24TH - NORTHEAST

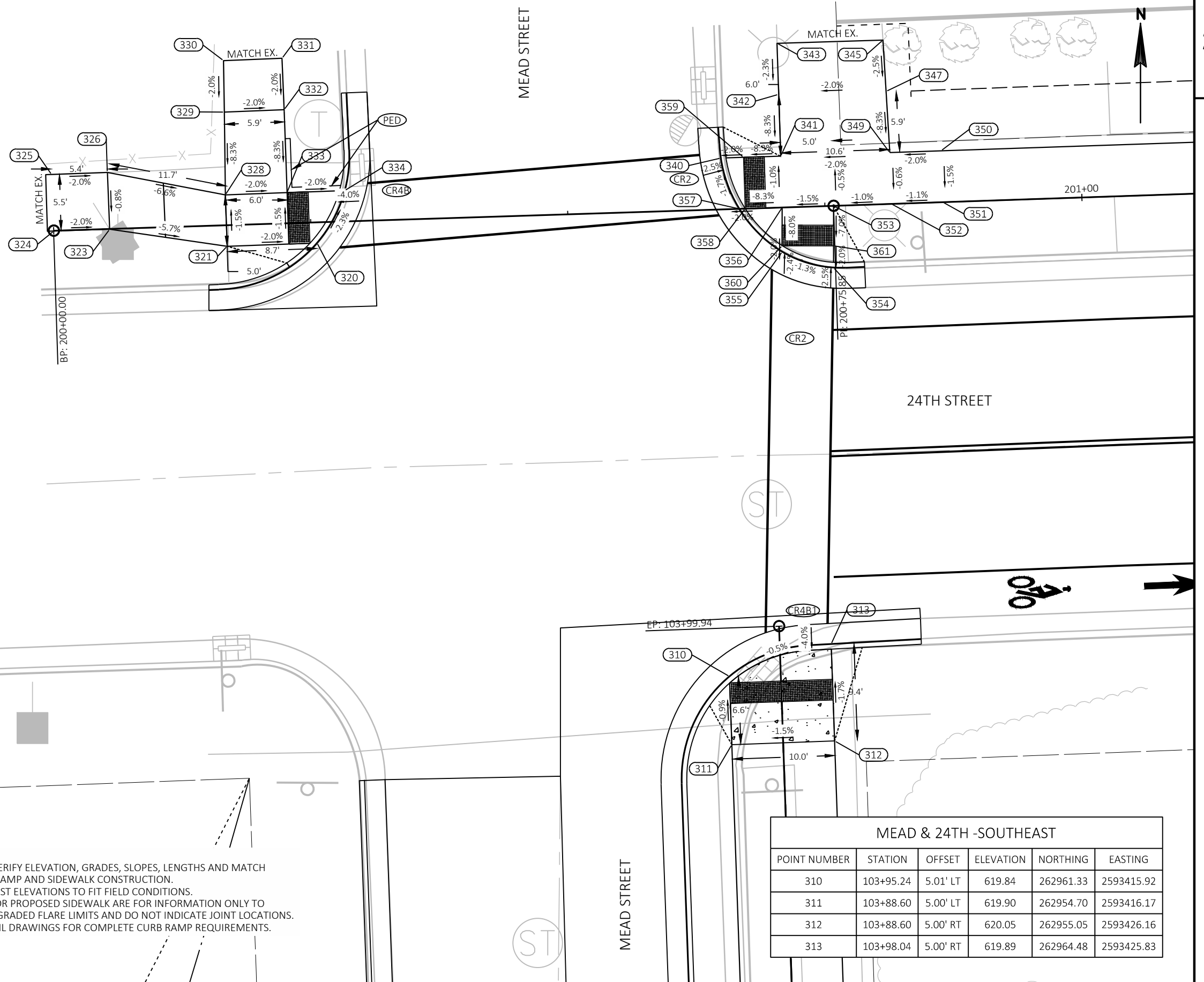
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
340	200+65.03	5.00' LT	619.88	263011.71	2593415.09
341	200+70.87	5.00' LT	620.23	263011.90	2593420.92
342	200+70.83	10.99' LT	620.72	263017.89	2593420.69
343	200+70.86	15.97' LT	620.84±	263022.86	2593420.56
345	200+81.19	15.95' LT	621.06±	263023.18	2593430.86
347	200+81.32	10.95' LT	620.93	263018.19	2593431.16
349	200+81.48	5.00' LT	620.44	263012.25	2593431.52
350	200+86.48	5.00' LT	620.54	263012.42	2593436.51
351	200+86.48	0.00' LT	620.46	263007.42	2593436.68
352	200+81.48	0.00'	620.41	263007.25	2593431.69
353	200+75.85	0.00'	620.35	263007.06	2593426.06
354	200+75.65	6.00' RT	620.04	263001.06	2593426.06
355	200+70.71	4.30' RT	619.97	263002.60	2593421.06
356	200+70.84	0.00'	620.28	263006.90	2593421.06
357	200+66.67	0.00'	619.97	263006.77	2593416.89
358	200+67.25	0.00'	619.98	263006.78	2593417.47
359	200+67.25	5.00' LT	619.93	263011.78	2593417.31
360	200+70.72	3.72' RT	619.98	263003.18	2593421.06
361	200+75.72	3.87' RT	620.08	263003.18	2593426.06

## LEGEND

- (CRxx) CURB RAMP TYPE  
CONCRETE SIDEWALK 4-INCH  
(PED) CONCRETE CURB PEDESTRIAN  
(xxx) POINT NUMBER  
DETECTABLE WARNING FIELD

## NOTES:

- CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
- DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY TO INDICATE APPROXIMATE GRADED FLARE LIMITS AND DO NOT INDICATE JOINT LOCATIONS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



## MEAD &amp; 24TH -SOUTHEAST

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
310	103+95.24	5.01' LT	619.84	262961.33	2593415.92
311	103+88.60	5.00' LT	619.90	262954.70	2593416.17
312	103+88.60	5.00' RT	620.05	262955.05	2593426.16
313	103+98.04	5.00' RT	619.89	262964.48	2593425.83

PROJECT NO: 1693-34-76

HWY: LAKE MICHIGAN PATHWAY 4

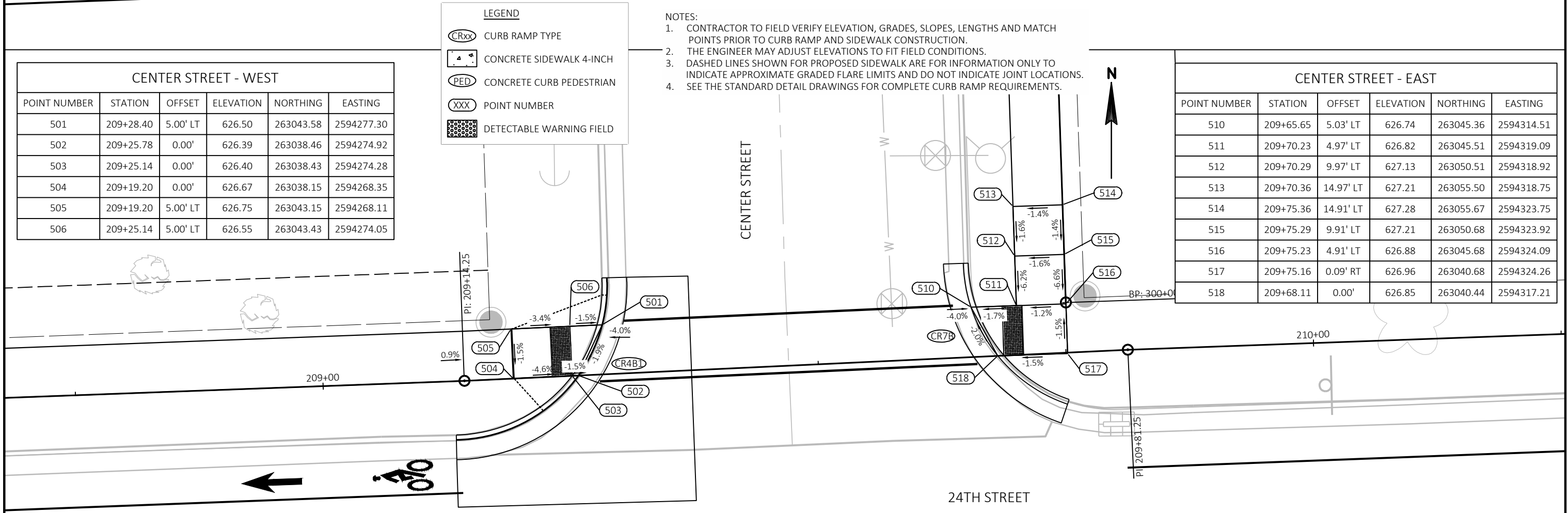
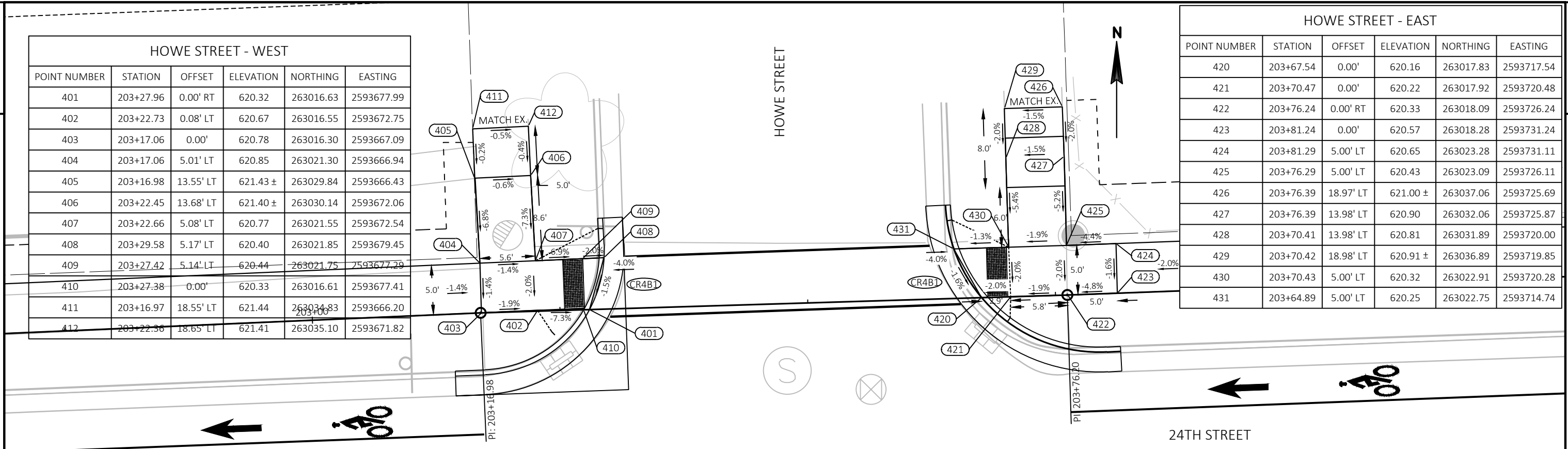
COUNTY: RACINE

CURB RAMP DETAILS

SHEET

E





**LEGEND**

- (CRxx) CURB RAMP TYPE
- CONCRETE SIDEWALK 4-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- (XXX) POINT NUMBER
- DETECTABLE WARNING FIELD

- NOTES:**
- CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
  - THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
  - DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY TO INDICATE APPROXIMATE GRADED FLARE LIMITS AND DO NOT INDICATE JOINT LOCATIONS.
  - SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



LEGEND

- CRxx

CURB RAMP TYPE
- CONCRETE SIDEWALK 4-INCH
- PED

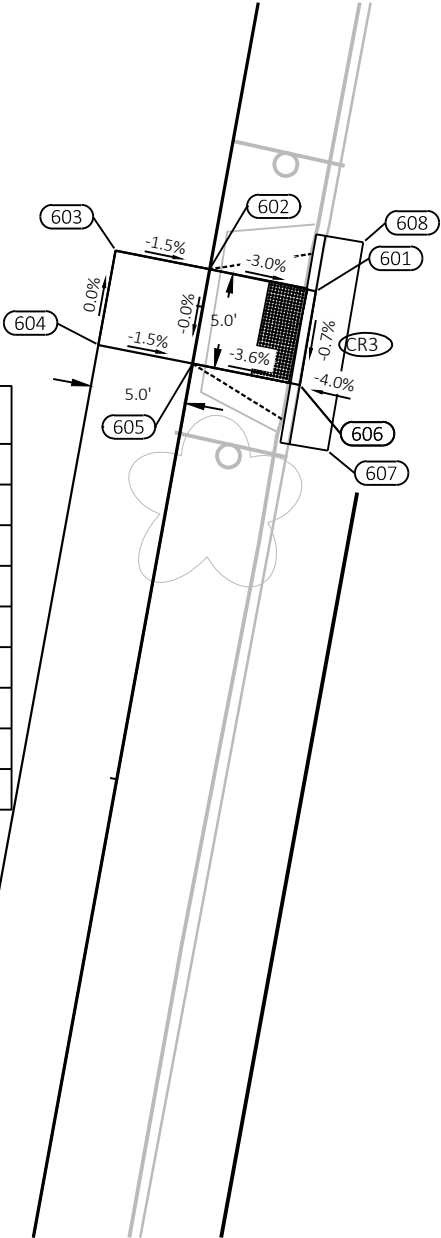
CONCRETE CURB PEDESTRIAN
- XXX

POINT NUMBER
- DETECTABLE WARNING FIELD

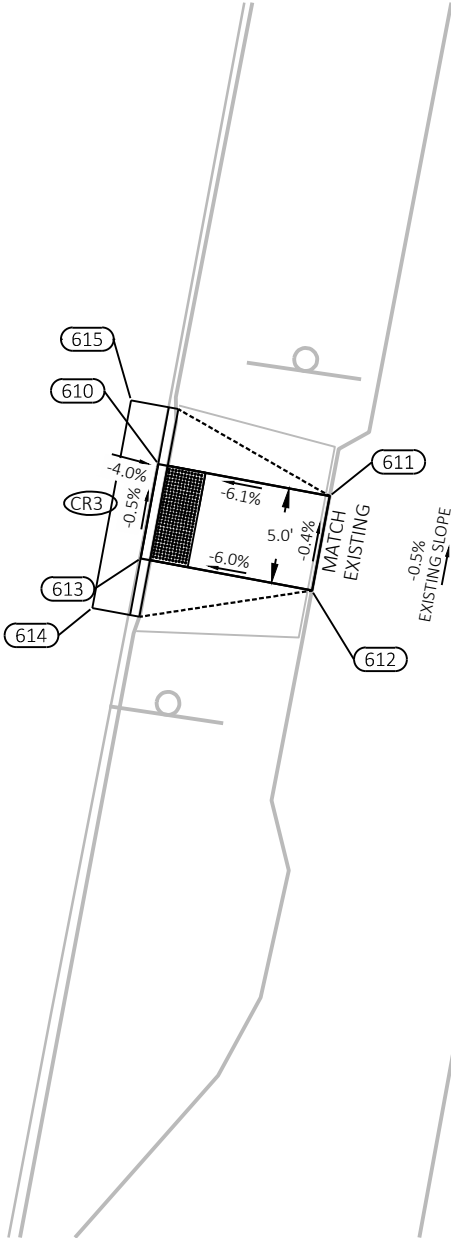
- NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
  2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS.
  3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY TO INDICATE APPROXIMATE GRADED FLARE LIMITS AND DO NOT INDICATE JOINT LOCATIONS.
  4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
  5. PAVEMENT ON ROOSEVELT PARK DRIVE IS CONCRETE WITH AN ASPHALT OVERLAY. NEW CONCRETE GUTTER DEPTH MAY NEED TO BE INCREASED TO MATCH EXISTING PAVEMENT ELEVATIONS.



ROOSEVELT - WEST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
601	308+76.87	5.65' RT	626.93	263538.76	2594724.94
602	308+77.00	0.00'	627.10	263539.91	2594719.40
603	308+77.08	5.00' LT	627.17	263540.88	2594714.50
604	308+72.08	5.00' LT	627.17	263535.96	2594713.60
605	308+72.00	0.00'	627.10	263534.99	2594718.51
606	308+71.91	5.70' RT	626.90	263533.88	2594724.10
607	308+68.80	7.73' RT	626.88 ±	263530.45	2594725.54
608	308+79.81	7.62' RT	627.01 ±	263541.30	2594727.41

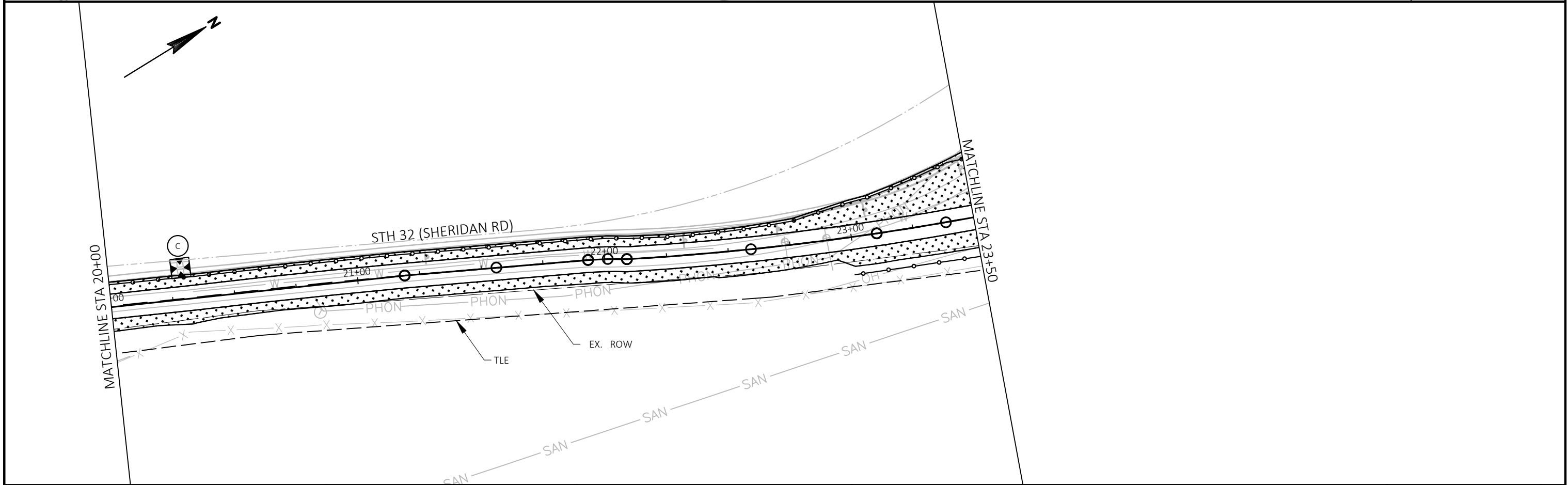
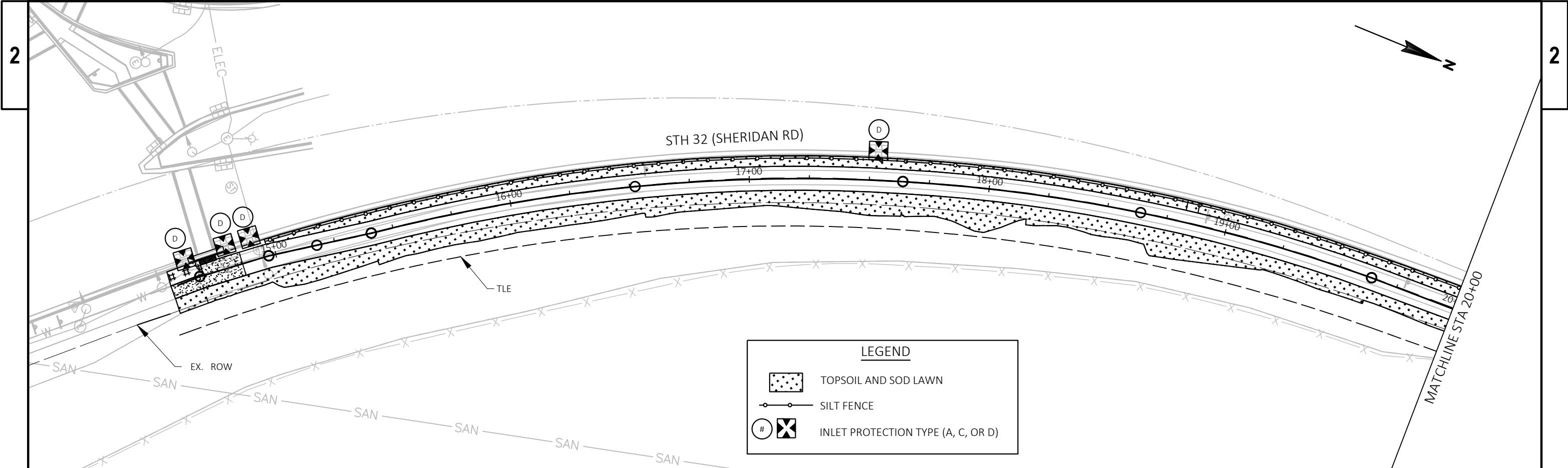


ROOSEVELT PARK DRIVE

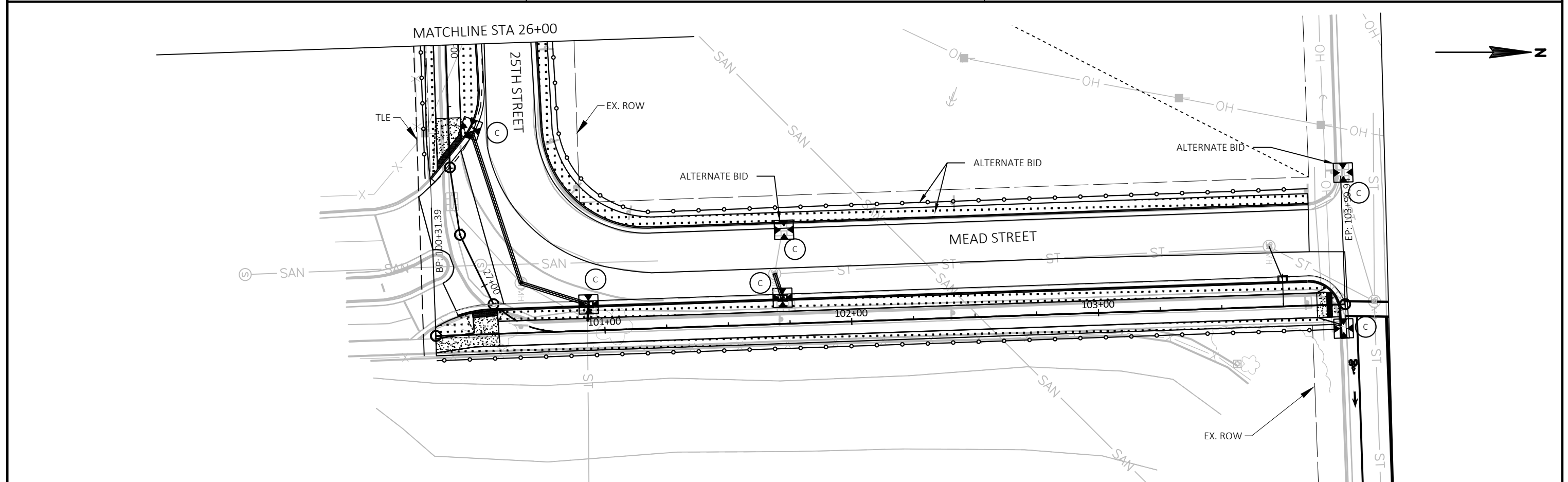
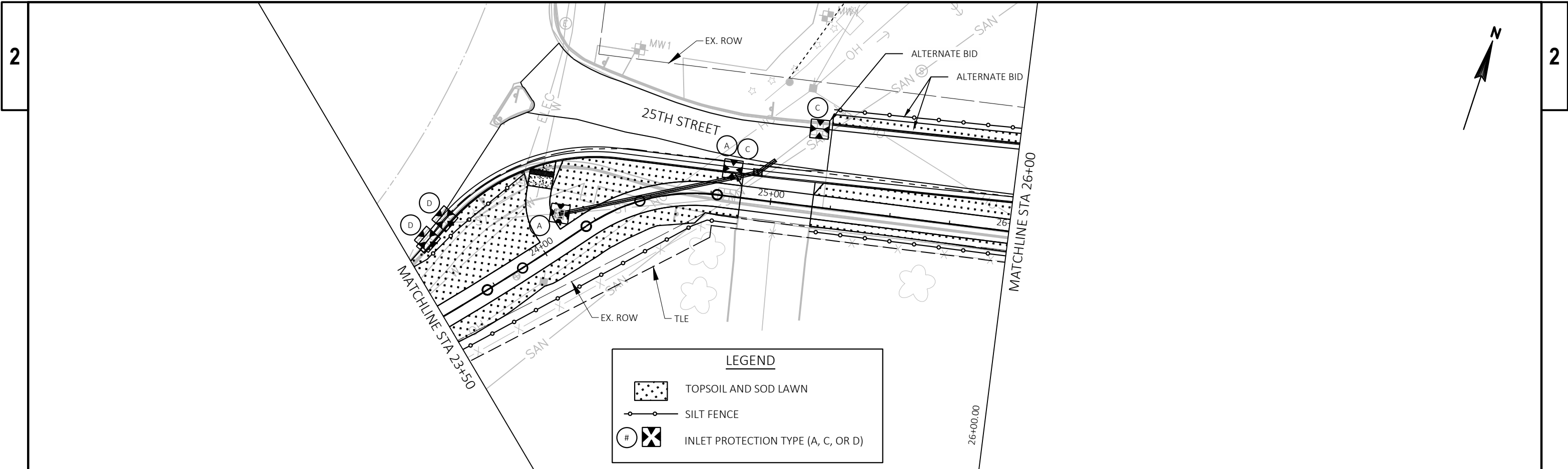


ROOSEVELT - EAST					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
610	308+74.28	41.66' RT	627.15	263529.76	2594759.90
611	308+74.23	50.75' RT	625.70 ±	263528.09	2594768.84
612	308+69.23	50.71' RT	627.72 ±	263523.17	2594767.90
613	308+69.28	41.64' RT	627.17	263524.84	2594758.98
614	308+66.29	39.62' RT	627.19 ±	263522.26	2594756.47
615	308+77.29	39.68' RT	627.13 ±	263533.08	2594758.49

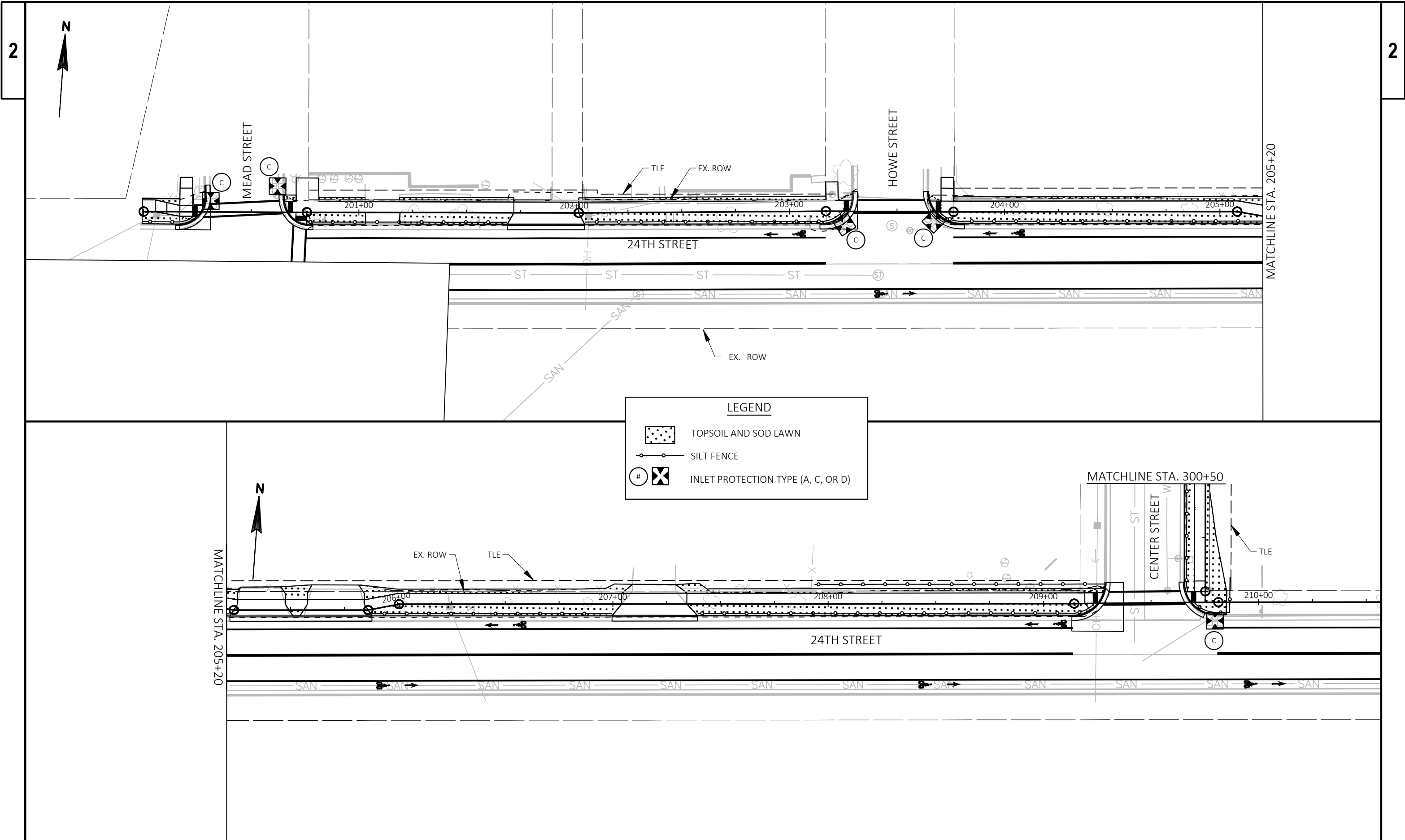




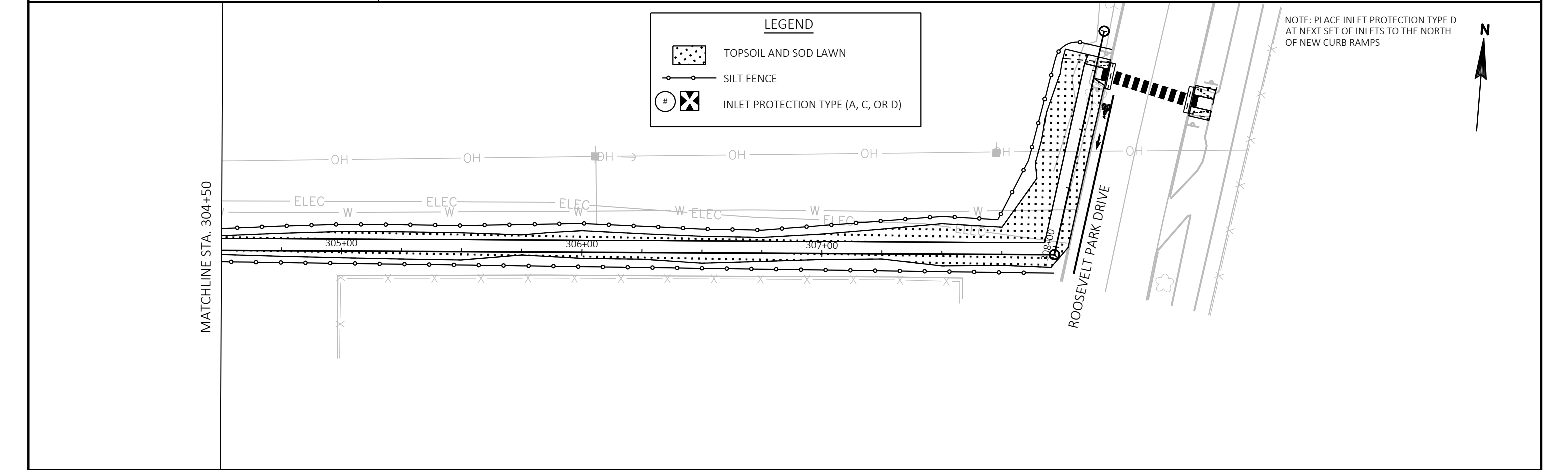
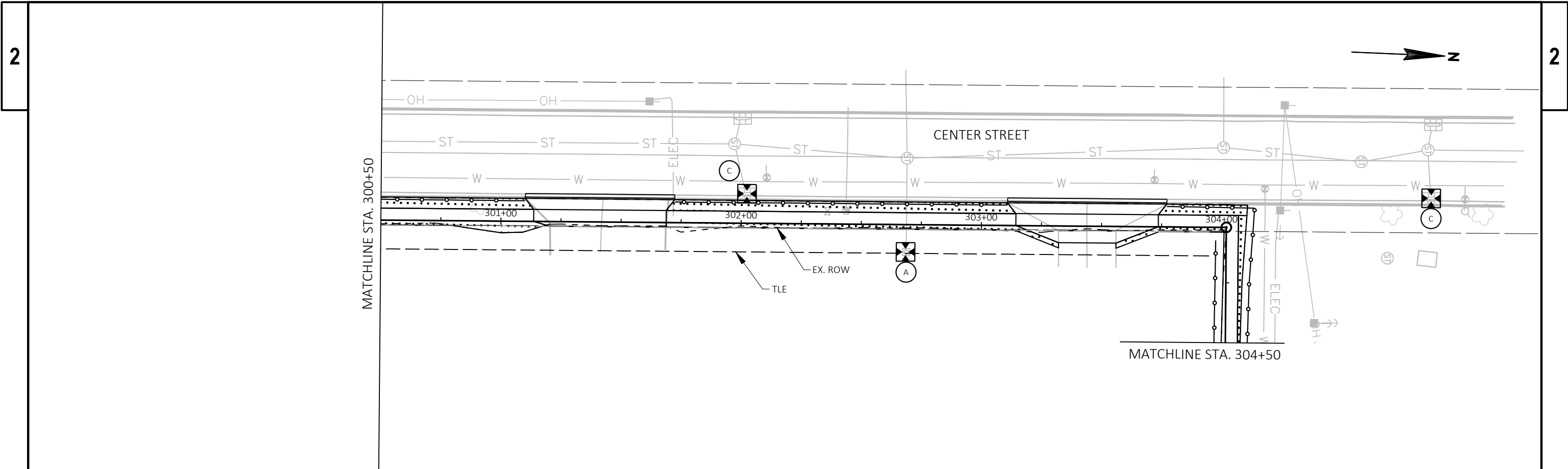












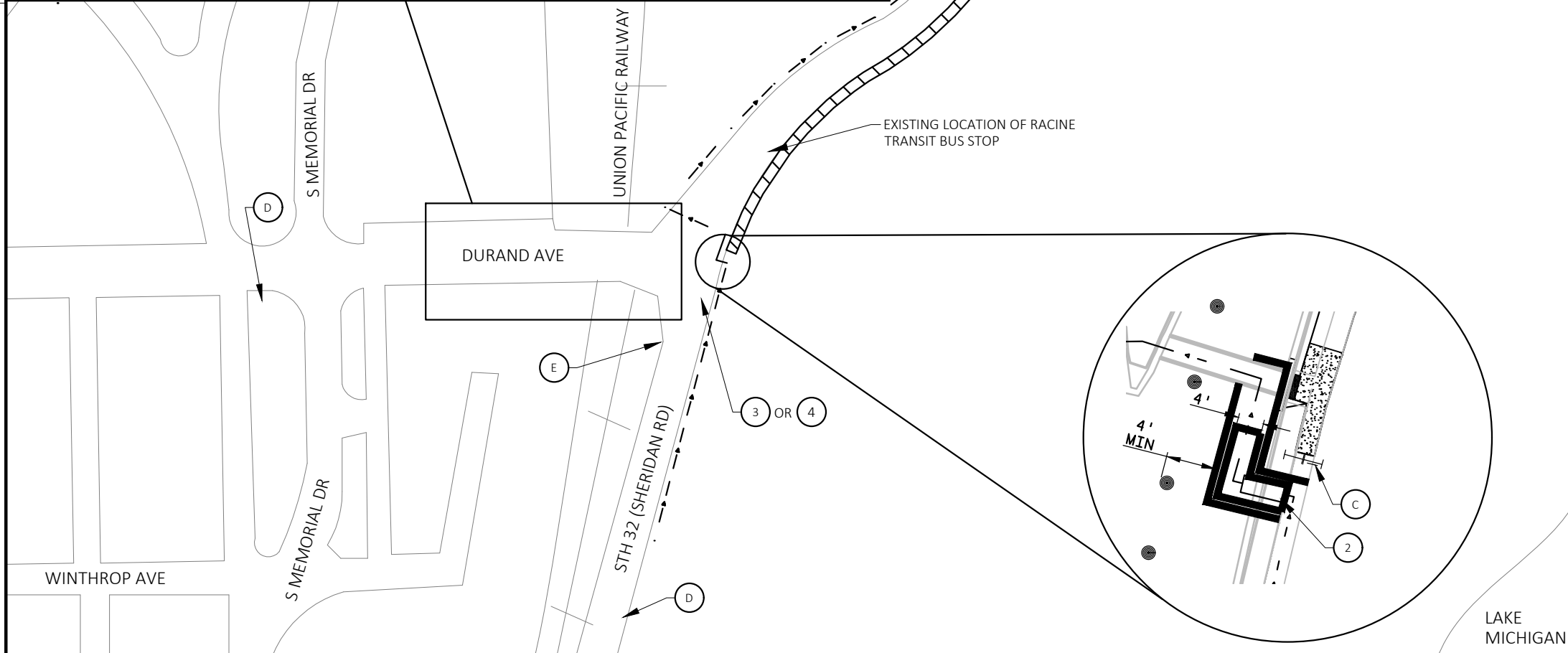
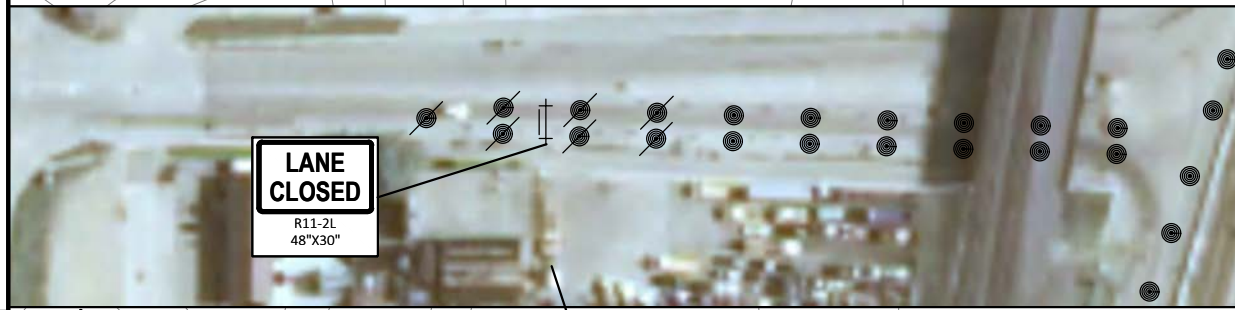
**LEGEND**

- TOPSOIL AND SOD LAWN
- SILT FENCE
- INLET PROTECTION TYPE (A, C, OR D)



## TRAFFIC CONTROL NOTES

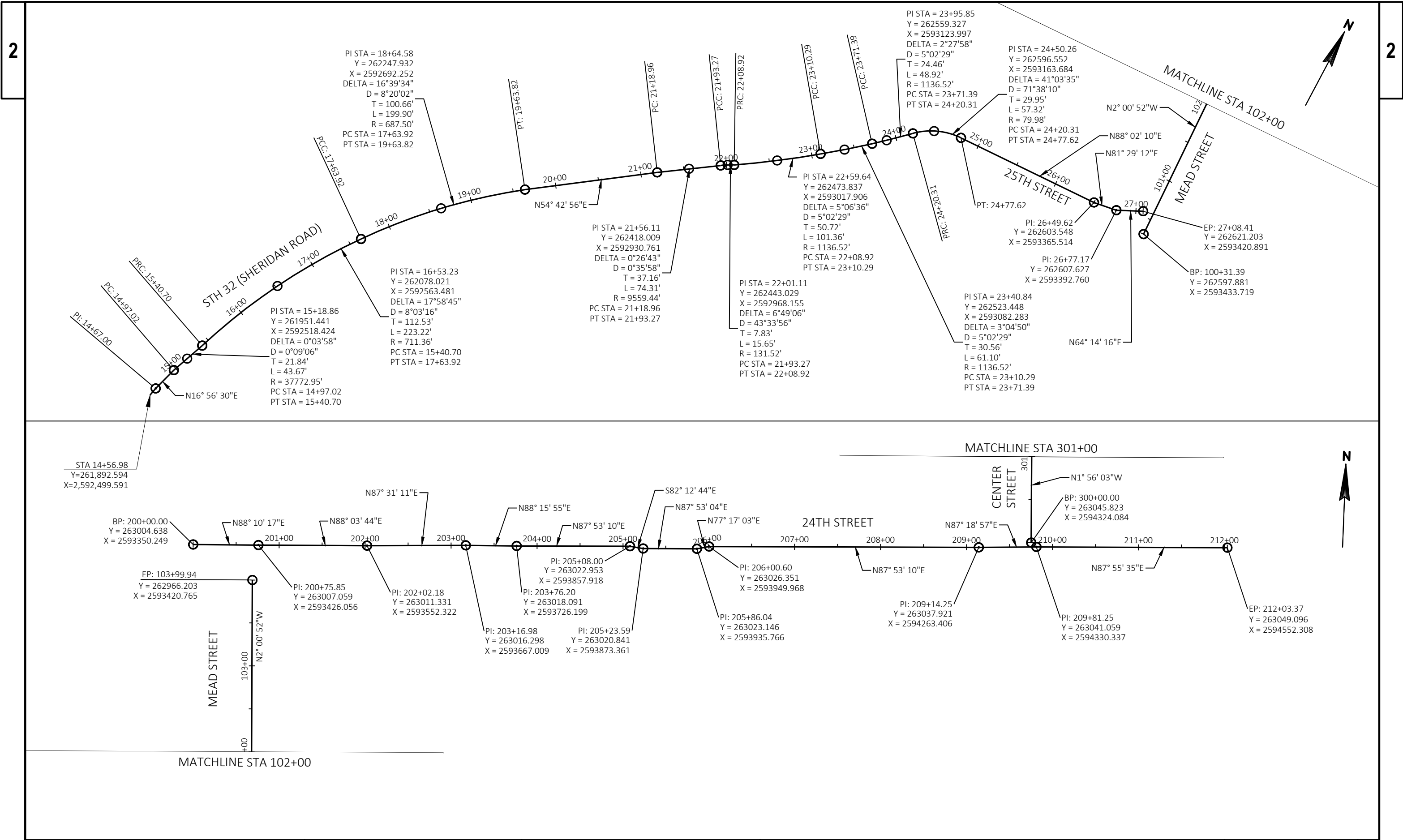
1. NB RIGHT LANE ON STH 32 (SHERIDAN RD) SHALL BE CLOSED FROM DURAND AVE TO APPROXIMATELY 50' NORTH DURING CONSTRUCTION. WHILE THIS LANE IS CLOSED, THE RIGHT TURN LANE ON DURAND AVE SHALL ALSO BE CLOSED.
2. 25TH ST SHALL BE CLOSED AT STH 32 (SHERIDAN RD) INTERSECTION AND MEAD ST SHALL BE CLOSED AT THE 24TH ST INTERSECTION DURING CONSTRUCTION.
3. 24TH ST EB SHOULDER AT MEAD ST MAY BE CLOSED DURING CONSTRUCTION BUT MAY NOT BE CLOSED AT THE SAME TIME AS THE WB SHOULDER.
4. 24TH ST WB SHOULDER FROM MEAD ST TO CENTER ST MAY BE CLOSED DURING CONSTRUCTION BUT MAY NOT BE CLOSED AT THE SAME TIME AS THE EB SHOULDER.
5. NB AND SB SHOULDERS ON MEAD ST, HOWE ST, CENTER ST, AND ROOSEVELT PARK DR MAY BE CLOSED DURING CONSTRUCTION, BUT ONLY ONE SHOULDER PER STREET MAY BE CLOSED AT A TIME.
6. PEDESTRIAN DETOUR ON STH 32 (SHERIDAN RD) SHALL BE MAINTAINED UNTIL THE NEW PATH IS OPENED TO SERVICE.
7. TEMPORARY PEDESTRIAN RAMP AT INTERSECTION OF STH 32 AND DURAND AVE MAY BE REMOVED ONCE THE PERMANENT CURB RAMP IS COMPLETED AND CONNECTED TO THE EXISTING SIDEWALK TO THE SOUTH.
8. DRIVEWAY ACCESS ON 25TH STREET SHALL BE COORDINATED AS NEEDED IN THE FIELD.
9. DRIVEWAYS ON 24TH STREET TO BE CONSTRUCTED IN 2 STAGES TO ALLOW ACCESS AT ALL TIMES.
10. THERE WILL BE NO SIGNED PEDESTRIAN DETOUR FOR MEAD AND HOWE STREETS. HOWEVER, SIDEWALKS ARE AVAILABLE ON 23RD STREET AND STH 32 TO SERVE AS AN UN-SIGNED PEDESTRIAN DETOUR ROUTE.
11. SHORT-TERM SINGLE LANE CLOSURES IN ACCORDANCE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" MAY BE USED FOR EQUIPMENT AND MATERIALS DELIVERY TO THE PROJECT AND FOR STORM SEWER AND PAVING WORK IN THE SOUTHEAST QUADRANT OF THE MEAD STREET/24TH STREET INTERSECTION.
12. USE OF TEMPORARY GRAVEL DRIVING SURFACE MAY BE NEEDED IN THE SOUTHEAST QUADRANT OF THE MEAD STREET/24TH STREET INTERSECTION TO KEEP 24TH STREET OPEN TO TWO LANES OF TRAFFIC.
13. TEMPORARILY RELOCATE THE RACINE TRANSIT BUS STOP CURRENTLY LOCATED ON NORTH BOUND STH 32 BETWEEN DURAND AVENUE AND 25TH STREET TO THE NORTH SIDE OF 25TH STREET



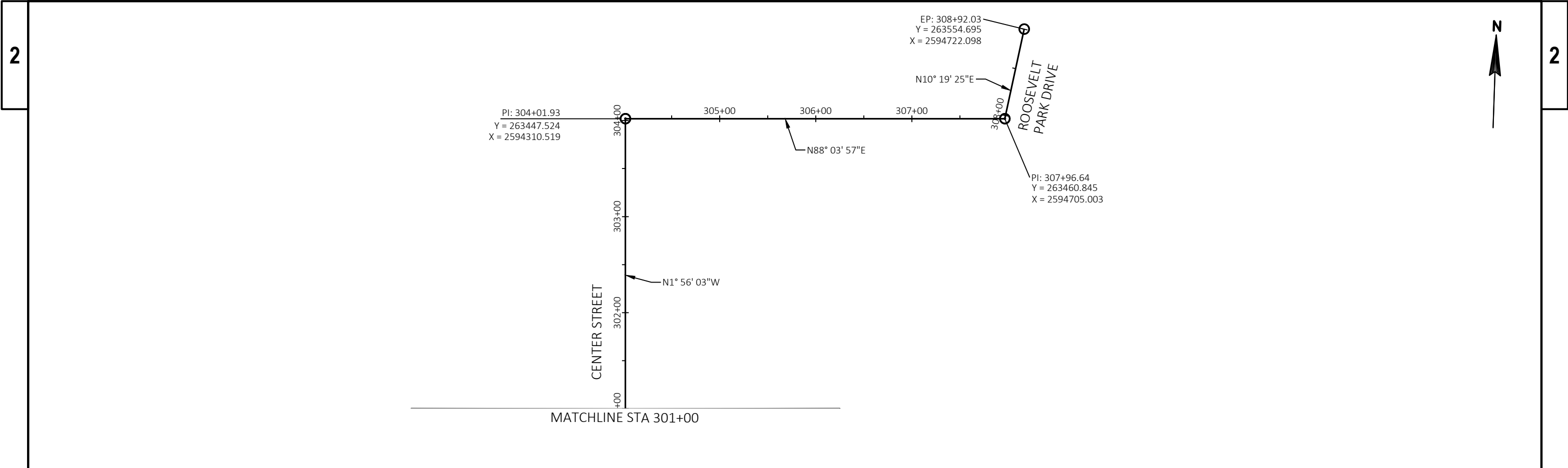
## LEGEND

- TEMPORARY PEDESTRIAN DETOUR ROUTE
- II / II TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A)
- III / III TYPE III BARRICADE WITH/WITHOUT SIGN
- ⊙ SIGN ON PERMANENT SUPPORT
- TEMPORARY PEDESTRIAN BARRICADE
- ⊙ TRAFFIC CONTROL DRUM
- ⊙ TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- ▨ WORK AREA
- 1 REFER TO SDD 15C02-A "BARRICADES AND SIGNS FOR MAINLINE CLOSURES." USE DETAIL C "MAINLINE, NO POSTED DETOUR"
- 2 REFER TO SDD 15D30 "TRAFFIC CONTROL, PEDESTRIAN ACCOMODATION." USE DETAIL "TEMPORARY CURB RAMP PERPENDICULAR TO CURB."
- 3 REFER TO SDD 15D20-A "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY."
- 4 REFER TO SDD 15D28 "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY."
- A SIDEWALK CLOSED R9-9 24"X12"
- B SIDEWALK CLOSED AHEAD CROSS HERE R9-11 24"X12"
- C SIDEWALK CLOSED CROSS HERE R9-11A 24"X12"
- D ROAD WORK AHEAD W20-3A
- E END ROAD WORK G20-2A 48"X24"











3

CLEARING AND GRUBBING

STATION	201.0120	201.0220
	CLEARING	GRUBBING
ID	ID	ID
100+57	60	60
101+03	48	48
204+06	12	12
204+46	10	10
204+86	10	10
206+02	2	2
206+51	2	2
206+88	2	2
207+45	8	8
207+86	8	8
TOTAL	162	162

REMOVING CURB & GUTTER

204.0150 REMOVING CURB & GUTTER			
STATION	-	STATION	LOCATION
LF			
14+65	-	14+80	STH 32
23+57	-	26+48	25TH STREET
200+65	-	200+79	MEAD STREET NE
203+66	-	203+81	HOWE STREET NE
209+65	-	209+75	CENTER STREET NE
308+66	-	308+78	ROOSEVELT PARK DRIVE
308+69	-	308+80	ROOSEVELT PARK DRIVE
TOTAL - BASE BID			412

REMOVING SIDEWALK

204.0155 REMOVING CONCRETE SIDEWALK			
STATION	-	STATION	OFFSET
SY			
14+54	-	26+54	RT/LT
100+33	-	103+97	RT/LT
200+00	-	200+28	RT/LT
200+65	-	203+29	RT/LT
203+65	-	203+76	RT/LT
308+65	-	308+80	RT
TOTAL			1,324

REMOVING PAVEMENT

		204.0100 REMOVING CONCRETE PAVEMENT *	204.0110 REMOVING ASPHALTIC SURFACE	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS	204.0120 REMOVING ASPHALTIC SURFACE MILLING
STATION	-	STATION	SY	SY	SY
14+65	-	14+80	---	4	---
23+55	-	24+30	---	72	---
24+13	-	25+12	---	---	98
25+12	-	25+22	---	4	---
25+22	-	104+00	1220	---	---
200+15	-	200+32	13	---	---
201+69	-	202+05	42	---	---
203+14	-	203+32	15	---	---
205+23	-	205+87	89	---	---
206+99	-	207+39	56	---	---
209+14	-	209+37	39	---	---
301+10	-	301+72	---	69	---
303+11	-	303+77	86	---	---
TOTAL - BASE BID			1560	73	76
24+24	-	24+42	---	---	50
24+30	-	25+12	---	---	---
25+12	-	25+22	---	---	19
25+22	-	103+86	1000	---	---
TOTAL - ALTERNATE BID			1000	0	69

\* INCLUDES REMOVAL OF ADJACENT CURB & GUTTHER WHERE APPLICABLE

REMOVING INLETS

204.0220 REMOVING INLETS EACH		
STATION	OFFSET	
24+82	RT	1
26+63	RT	1
100+93	LT	1
101+74	LT	1
103+95	LT	1
TOTAL		5

REMOVING STORM SEWER

		204.0245.01 REMOVING STORM SEWER 12-INCH	204.0280 SEALING PIPES
FROM STATION	TO STATION	LF	EACH
24+14	24+82	67	---
24+82	24+99	22	---
26+63	100+67	43	---
100+67	100+93	29	---
101+74	101+70	14	---
103+95	104+12	---	1
TOTAL		175	1

3



EXCAVATION COMMON

				205.0100 EXCAVATION COMMON	
STATION	- STATION	LOCATION		CY	NOTES
14+54	- 24+00	STH 32		150	LANDSCAPING EARTHWORK
14+57	- 26+30	STH 32 & 25TH STREET		234	MULTI-USE PATH EARTHWORK
24+00	- 26+53	25TH ST		34	LANDSCAPING EARTHWORK
23+55	- 25+22	25TH STREET		63	ASPHALT PAVEMENT REMOVAL
25+12	- 104+17	25TH STREET & MEAD STREET		31	UNDISTRIBUTED SUBGRADE IMPROVEMENT
100+30	- 103+98	MEAD STREET		90	MULTI-USE PATH EARTHWORK
100+30	- 104+00	MEAD ST		29	LANDSCAPING EARTHWORK
200+00	- 209+28	24TH STREET		133	SIDEWALK EARTHWORK
200+65	- 203+26	24TH ST		59	LANDSCAPING EARTHWORK
295+00	- 304+00	CENTER ST		29	LANDSCAPING EARTHWORK
300+00	- 308+77	CENTER STREET/ROOSEVELT PARK		77	SIDEWALK EARTHWORK
304+00	- 308+00	ROOSEVELT PARK		30	LANDSCAPING EARTHWORK
308+00	- 308+80	ROOSEVELT PARK DR (W)		16	LANDSCAPING EARTHWORK
308+65	- 308+80	ROOSEVELT PARK DR (E)		1	LANDSCAPING EARTHWORK
TOTAL - BASE BID				976	
25+12	- 103+86	25TH & MEAD STREETS		50	UNDISTRIBUTED SUBGRADE IMPROVEMENT
25+22	- 103+86	25TH ST/MEAD ST		22	LANDSCAPING EARTHWORK
TOTAL - ALTERNATE BID				72	

BASE AGGREGATE DENSE

				305.0120 1 1/4-INCH	624.0100 WATER	
STATION	- STATION	LOCATION		TON	MGAL	NOTES
14+86	- 103+89	MULTI-USE PATH		540	---	MULTI-USE PATH
23+55	- 25+22	25TH STREET		14	---	HMA PATCH
23+55	- 25+22	24TH STREET		32	---	TEMPORARY DRIVING SURFACE
-		PROJECT LIMITS		34	---	CONCRETE PAVEMENT - REPLACEMENT (LEVEL LAYER)
-		PROJECT LIMITS		130	---	CONCRETE SIDEWALK - NEW
-		PROJECT LIMITS		9	---	CONCRETE SIDEWALK - REPLACEMENT (LEVEL LAYER)
-		PROJECT LIMITS		92	---	CURB & GUTTER - NEW ALIGNMENT
-		PROJECT LIMITS		9	---	CURB & GUTTER - REPLACEMENT (LEVEL LAYER)
-		PROJECT LIMITS		27	---	CONCRETE DRIVEWAY - REPLACEMENT (LEVEL LAYER)
-		PROJECT LIMITS		2	---	ASPHALT DRIVEWAY - REPLACEMENT (LEVEL LAYER)
-		PROJECT LIMITS		62	---	REPLACEMENT AT PIPE TRENCHES
-		UNDISTRIBUTED		68	11	
TOTAL - BASE BID				1,019	11	
25+22	- 104+00	25TH & MEAD STREETS		49	---	CONCRETE PAVEMENT - REPLACEMENT (LEVEL LAYER)
-		UNDISTRIBUTED		29	1	
TOTAL - ALTERNATE BID				78	1	



CONCRETE PAVEMENT

			415.0080 CONCRETE PAVEMENT 8-INCH SY	416.0160 CONCRETE DRIVEWAY 6-INCH SY	416.0610 DRILLED TIE BARS * EACH	416.0620 DRILLED DOWEL BARS EACH
STATION	-	STATION	LOCATION			
24+84	-	25+21	25TH STREET	---	52	---
25+22	-	104+00	25TH/MEAD STREET	560	---	209
26+43	-	101+12	25TH/MEAD STREET	---	130	6
200+15	-	200+32	24TH /MEAD STREET	6	---	12
201+70	-	202+06	24TH STREET	---	39	---
203+14	-	203+32	24TH/HOWE STREET	8	---	11
205+23	-	205+51	24TH STREET	---	35	---
205+54	-	205+87	24TH STREET	---	44	---
207+00	-	207+39	24TH STREET	---	50	---
209+14	-	209+37	24TH/CENTER STREET	32	---	16
301+17	-	301+72	CENTER STREET	---	61	---
303+11	-	303+77	CENTER STREET	---	96	---
TOTAL - BASE BID			606	507	254	6
25+12	-	103+86	25TH/MEAD STREET	880	---	---
TOTAL - ALTERNATE BID			880	0	0	10

\* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ASPHALTIC ITEMS

			455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
STATION	-	STATION	LOCATION			
14+65	-	14+80	STH 32	1	---	2
14+86	-	24+87	MULTI-USE PATH	80	200	---
23+55	-	25+22	STH 32/25TH STREET	15	21	12
25+17	-	26+30	MULTI-USE PATH	9	22	---
100+57	-	103+89	MULTI-USE PATH	26	65	---
205+25	-	205+47	24TH STREET	---	---	---
205+58	-	205+85	24TH STREET	---	---	---
301+20	-	301+69	CENTER STREET	---	---	---
TOTAL (BASE BID)			131	308	14	8
24+25	-	25+22	25TH STREET	19	31	---
TOTAL (ALTERNATE BID)			19	31	0	0



CONCRETE CURB & GUTTER

			416.0610 DRILLED TIE BARS *	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	601.0600 CONCRETE CURB PEDESTRIAN	SPV.0090.01 CONCRETE CURB & GUTTER 24-INCH TYPE A
STATION	-	STATION	LOCATION	EACH	LF	LF	LF
14+65	-	14+80	STH 32	---	---	15	---
23+57	-	25+22	25TH STREET	---	---	182	---
25+22	-	26+53	25TH STREET	---	139	---	---
100+32	-	103+98	MEAD STREET	---	385	---	---
200+15	-	200+29	MEAD STREET NW	---	27	---	10
200+65	-	200+79	MEAD STREET NE	6	23	---	---
201+70	-	202+06	DRIVEWAY	11	36	---	---
203+16	-	203+32	HOWE STREET NW	---	24	---	---
203+66	-	203+81	HOWE STREET NE	7	26	---	---
205+23	-	205+87	DRIVEWAY	21	66	---	---
206+99	-	207+39	DRIVEWAY	12	40	---	---
209+09	-	209+29	CENTER STREET NW	---	34	---	---
209+65	-	209+75	CENTER STREET NE	5	19	---	---
301+17	-	301+72	DRIVEWAY	17	---	---	55
303+11	-	303+77	DRIVEWAY	21	---	---	66
308+66	-	308+78	ROOSEVELT PARK DRIVE	2	11	---	---
308+69	-	308+80	ROOSEVELT PARK DRIVE	2	11	---	---
TOTAL - BASE BID				104	841	197	10
25+22	-	103+86	25TH/MEAD STREETS	---	447	---	---
TOTAL - ALTERNATE BID				0	447	0	0

\* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE SIDEWALK ITEMS

			602.0405 CONCRETE SIDEWALK 4-INCH	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW
STATION	-	STATION	SF	SF	SF
14+54	-	14+86	260	14	---
24+09	-	24+24	94	20	---
26+30	-	26+50	150	---	31
100+31	-	100+57	230	20	---
103+89	-	103+98	82	20	---
200+00	-	200+28	220	10	---
200+66	-	201+72	620	20	---
202+02	-	203+29	680	10	---
203+65	-	205+25	850	10	---
205+48	-	205+58	51	---	---
205+84	-	207+04	600	---	---
207+34	-	209+28	960	10	---
209+66	-	209+75	40	10	---
300+00	-	301+20	570	---	---
301+69	-	303+32	720	---	---
303+56	-	308+77	2,550	10	---
308+69	-	308+74	40	10	---
TOTAL			8,717	164	31

STORM SEWER PIPE

FROM STR NUMBER	TO STR NUMBER	INVERT ELEVATION	DISCHARGE ELEVATION	SLOPE %	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0312 STORM SEWER PIPE REINF CONCRETE CLASS III 12-INCH LF	SPV.0090.03 STORM SEWER PIPE PVC 6-INCH LF	NOTES
---	I-1	617.61+/-	617.32	3.27%	1	8	---	CONNECT TO EX. PIPE TO NE
I-1	EX-3	617.32	616.89	0.51%	---	84	---	---
I-2	EX-5	617.47	616.81	1.02%	---	64	---	---
---	I-3	618.04+/-	617.96	1.00% +/-	---	---	8	CONNECT TO EX. PIPE TO E
I-3	EX-5	616.87	616.81	0.19%	---	29	---	---
EX-5	EX-6	---	---	---	1	---	---	PIPE REPAIR 17.2' NORTH OF EX-5
I-4	EX-6	616.27	616.22	0.47%	---	10	---	---
I-5	EX-7	613.71	613.57	1.00%	---	14	---	---
TOTAL					2	209	8	



STORM SEWER STRUCTURES

STR NUMBER	STATION	OFFSET	LOCATION	RIM OR FLANGE LINE ELEVATION	STRUCTURE LOWEST INVERT ELEVATION	611.0624 INLET COVERS TYPE H * EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.01 INLET COVERS DRIVEWAY ** EACH
EX-1	23+61	LT	STH 32	621.91	---	---	---	---	1	---
EX-2	23+72	LT	STH 32	621.90	---	---	---	---	1	---
EX-3	24+14	LT	25TH ST	621.81	---	---	---	---	1	---
I-1	24+93	LT	25TH ST	621.69	615.32	---	1	---	---	1
I-2	26+34	LT	25TH ST	620.76	615.47	1	1	---	---	---
EX-5	100+67	LT	MEAD ST	620.40	---	---	---	1	---	---
I-3	100+94	LT	MEAD ST	620.05	614.87	1	1	---	---	---
EX-6	101+69	LT	MEAD ST	619.92	---	---	---	1	---	---
I-4	101+72	LT	MEAD ST	620.11	614.27	1	1	---	---	---
I-5	103+75	LT	MEAD ST	619.78	611.71	1	1	---	---	---
TOTAL BASE BID						4	5	2	3	1
---	101+74	LT	MEAD ST	619.63	---	---	---	---	1	---
EX-7	103+70	LT	MEAD ST	620.07	---	---	---	1	---	---
TOTAL ALTERNATE BID						0	0	1	1	0

\* USE NEENAH R-3067-L FRAME AND GRATE FOR INLET COVERS TYPE H PER VILLAGE OF MOUNT PLEASANT STANDARDS  
\*\* USE NEENAH R-3290-A FRAME & GRATE FOR INLET COVERS DRIVEWAY PER VILLAGE OF MOUNT PLEASANT STANDARDS

LANDSCAPING

				625.0100 TOPSOIL SY	631.1000 SOD LAWN SY
STATION	-	STATION	LOCATION		
14+54	-	24+00	STH 32	1,350	1,350
24+00	-	26+53	25TH ST	300	300
100+30	-	104+00	MEAD ST	260	260
200+00	-	200+25	24TH ST	15	15
200+65	-	203+26	24TH ST	120	120
203+68	-	209+28	24TH ST	390	390
295+00	-	304+00	CENTER ST	260	260
304+00	-	308+00	ROOSEVELT PARK	270	270
308+00	-	308+80	ROOSEVELT PARK DR (W)	140	140
308+65	-	308+80	ROOSEVELT PARK DR (E)	8	8
UNDISTRIBUTED				780	780
TOTAL - BASE BID				3,892	3,892
25+22	-	103+86	25TH ST/MEAD ST	200	200
UNDISTRIBUTED				50	50
TOTAL - ALTERNATE BID				250	250

EROSION CONTROL MOBILIZATION

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
1693-34-76	4	4
TOTAL	4	4



EROSION CONTROL

				628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
STATION	-	STATION	OFFSET	LF	LF			
14+97	-	24+11	LT	920	920	---	---	---
		14+64	LT	---	---	---	---	1
		14+81	LT	---	---	---	---	1
		14+91	LT	---	---	---	---	1
		17+53	LT	---	---	---	---	1
		20+29	LT	---	---	---	---	1
23+00	-	24+87	RT	180	180	---	---	---
		23+61	LT	---	---	---	---	1
		23+72	LT	---	---	---	---	1
		24+14	LT	---	---	1	---	---
		24+94	LT	---	---	1	1	---
25+17	-	26+53	RT	135	135	---	---	---
		26+34	LT	---	---	1	1	---
100+31	-	103+95	RT	365	365	---	---	---
		100+94	LT	---	---	1	1	---
		101+72	LT	---	---	1	1	---
		103+99	RT	---	---	1	1	---
200+00	-	200+23	RT	25	25	---	---	---
		200+29	LT	---	---	---	1	---
		200+65	LT	---	---	---	1	---
200+76	-	201+69	RT	95	95	---	---	---
202+05	-	203+25	RT	120	120	---	---	---
		203+24	RT	---	---	---	1	---
		203+69	RT	---	---	---	1	---
203+70	-	205+22	RT	155	155	---	---	---
205+87	-	207+00	RT	110	110	---	---	---
207+39	-	209+23	RT	185	185	---	---	---
207+94	-	209+28	LT	135	135	---	---	---
209+70	-	209+87	RT/LT	35	35	---	---	---
		209+80	RT	---	---	---	1	---
300+00	-	301+10	LT	110	110	---	---	---
301+72	-	303+11	LT	140	140	---	---	---
		302+02	LT	---	---	---	1	---
303+77	-	308+85	LT	515	515	---	---	---
304+07	-	307+97	RT	390	390	---	---	---
		302+69	RT	---	---	1	---	---
		CENTER ST	LT	---	---	---	1	---
		ROOSEVELT PARK DR	RT/LT	---	---	---	2	---
		UNDISTRIBUTED	---	340	340	---	---	---
TOTAL - BASE BID				3,955	3,955	7	14	7

EROSION CONTROL (CONT.)

				628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
STATION	-	STATION	OFFSET	LF	LF			
		25+17	LT	---	---	---	1	---
25+22	-	103+86	LT	440	440	---	---	---
		101+73	LT	---	---	---	1	---
		103+99	LT	---	---	---	1	---
		UNDISTRIBUTED	---	110	110	---	---	---
TOTAL - ALTERNATE BID				550	550	0	3	0



PERMANENT SIGNING

				634.0814			637.2230		638.2102		638.2602		638.3000	
				POSTS			SIGNS		MOVING		REMOVING		REMOVING	
				TUBULAR			TYPE II		SIGNS		SIGNS		SMALL SIGN	
				STEEL			REFLECTIVE		TYPE II		TYPE II		SUPPORTS	
				2x2-INCH			F							
				14-FT										
				EACH			SF		EACH		EACH		EACH	
STATION	OFFSET	SIGN CODE	SIGN MESSAGE	IN	X	IN	EACH	SF	EACH	EACH	EACH	NOTES		
14+95	RT	D11-1	BIKE ROUTE	24	X	18	---	3.00	---	---	---	BAND TO EXISTING SIGNAL POLE		
15+25	LT	---	SPEED LIMIT 30	---	X	---	---	---	1	---	---	MOVE TO STA. 15+50; PLACE IN TERRACE		
15+50	LT	D11-1	BIKE ROUTE	24	X	18	1	3.00	---	---	---	---		
15+50	LT	MK4-6	END	24	X	12	---	2.00	---	---	---	SHARES POST WITH BIKE ROUTE SIGN		
18+92	LT	---	SPEED LIMIT 30	---	X	---	---	---	1	---	---	MOVE TO STA. 18+92; PLACE IN TERRACE		
19+79	LT	---	DIVIDED HIGHWAY SYMBOL/DO NOT ENTER	---	X	---	---	---	2	---	---	MOVE TO STA. 19+79; PLACE IN TERRACE		
100+66	LT	---	LEFT ARROW	---	X	---	---	---	1	---	---	MOVE TO STA. 100+66; PLACE IN TERRACE		
101+71	LT	---	SPEED LIMIT 25	---	X	---	---	---	1	---	---	MOVE TO STA. 101+71; PLACE IN TERRACE		
102+41	LT	---	NO PARKING	---	X	---	---	---	1	---	---	MOVE TO STA. 102+41; PLACE IN TERRACE		
103+85	LT	---	END ONE WAY	---	X	---	---	---	1	---	---	MOVE TO STA. 103+85; PLACE IN TERRACE		
103+85	LT	---	ONE WAY LEFT ARROW	---	X	---	---	---	1	---	---	SHARES POST WITH END ONE WAY SIGN		
103+85	LT	---	DO NOT ENTER	---	X	---	---	---	1	---	---	SHARES POST WITH END ONE WAY SIGN		
103+88	RT	D11-1	BIKE ROUTE	24	X	18	1	3.00	---	---	---	---		
103+88	RT	M7-1	LEFT ARROW	12	X	9	---	0.75	---	---	---	SHARES POST WITH BIKE ROUTE SIGN		
200+90	RT	R7-1L	NO PARKING ANY TIME LEFT ARROW	18	X	24	1	3.00	---	---	---	---		
201+05	RT	R7-1R	NO PARKING ANY TIME RIGHT ARROW	18	X	24	1	3.00	---	---	---	---		
201+36	RT	D11-1	BIKE ROUTE	24	X	18	1	3.00	---	---	---	---		
201+36	RT	M7-1	LEFT ARROW	12	X	9	---	0.75	---	---	---	SHARES POST WITH BIKE ROUTE SIGN		
201+56	RT	---	2 HR PARKING	---	X	---	---	---	---	1	1	---		
203+09	RT	---	30 MINUTE PARKING	---	X	---	---	---	---	1	1	---		
203+12	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	1	3.00	---	---	---	---		
203+35	RT	---	NO PARKING DURING SNOW EMERGENCY	---	X	---	---	---	---	1	---	SIGN IS BANDED TO POWER POLE		
203+35	RT	---	NO PARKING ANY TIME LEFT ARROW	---	X	---	---	---	---	1	---	SIGN IS BANDED TO POWER POLE		
203+35	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	---	3.00	---	---	---	BAND SIGN TO POWER POLE		
203+85	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	1	3.00	---	---	---	---		
206+15	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	1	3.00	---	---	---	---		
209+10	RT	R7-1D	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	1	3.00	---	---	---	---		
308+68	RT	---	BIKE ROUTE	---	X	---	1	---	1	---	1	MOVE TO NEW POST AT STA. 308+68		
308+68	RT	M7-1	LEFT ARROW	12	X	9	---	0.75	---	---	---	PLACE UNDER BIKE ROUTE SIGN ON NEW POST		
TOTAL							10	37.25	11	4	3			



TRAFFIC CONTROL

LOCATION	DAYS IN SERVICE	643.0300		643.0410		643.0420		643.0705		643.0715		643.0800		643.0900	
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE II		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS	
		NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY
DURAND AVENUE	45	16	720	---	---	1	45	---	---	---	---	---	---	1	45
STH 32 (SHERIDAN ROAD)	45	42	1890	3	135	2	90	4	180	8	360	1	45	13	585
25TH STREET	45	---	---	---	---	5	225	6	270	---	---	---	---	1	45
MEAD STREET (SOUTH)	45	---	---	---	---	5	225	6	270	---	---	---	---	1	45
24TH STREET	30	27	810	3	90	---	---	---	---	---	---	---	---	7	210
MEAD STREET (NORTH)	30	6	180	6	180	---	---	---	---	---	---	---	---	8	240
HOWE STREET	30	6	180	6	180	---	---	---	---	---	---	---	---	8	240
CENTER STREET	30	6	180	---	---	---	---	---	---	---	---	---	---	3	90
ROOSEVELT PARK DRIVE	30	6	180	---	---	---	---	---	---	---	---	---	---	3	90
TOTAL			4,140		585		585		720		360		45		1,590

TEMPORARY PEDESTRIAN ACCOMODATIONS

LOCATION	DAYS IN SERVICE	644.1420		644.1601		644.1810	
		TEMPORARY PEDESTRIAN SURFACE PLYWOOD		TEMPORARY PEDESTRIAN CURB RAMP		TEMPORARY PEDESTRIAN BARRICADE	
		SF		NO.	DAY	LF	
STH 32/DURAND AVE. INTERSECTION	7	30		1	7	90	
TOTAL		30			7	90	



PAVEMENT MARKING ITEMS

			646.1020	646.5020	646.5220	646.7420	646.7520		
			MARKING LINE	MARKING	MARKING	MARKING	MARKING		
			EPOXY	ARROW	SYMBOL	CROSSWALK	CROSSWALK		
				EPOXY	EPOXY	EPOXY	EPOXY		
			4-INCH			TRANSVERSE	BLOCK STYLE		
			YELLOW	WHITE		LINE 6-INCH	24-INCH		
STATION	-	STATION	TYPE	LF	EACH	EACH	LF	LF	REMARKS
14+86	-	24+87	CENTERLINE (DASHED)	250	---	---	---	---	MULTI-USE PATH
25+17	-	26+30	CENTERLINE (DASHED)	25	---	---	---	---	MULTI-USE PATH
100+57	-	103+89	CENTERLINE (DASHED)	88	---	---	---	---	MULTI-USE PATH
200+29	-	200+65	CROSSWALK (TRANSVERSE)	---	---	---	68	---	
200+68	-	200+76	CROSSWALK (TRANSVERSE)	---	---	---	68	---	
200+75	-	211+95	EDGE LINE (SOLID)	---	1,120	5	5	---	---
200+75	-	203+17	CENTERLINE (DOUBLE SOLID)	484	---	---	---	---	
200+75	-	203+17	EDGE LINE (SOLID)	---	242	1	1	---	---
203+30	-	203+65	CROSSWALK (TRANSVERSE)	---	---	---	66	---	
203+76	-	209+13	CENTERLINE (DOUBLE SOLID)	1,074	---	---	---	---	
203+76	-	209+13	EDGE LINE (SOLID)	---	537	3	3	---	---
209+27	-	209+66	CROSSWALK (TRANSVERSE)	---	---	---	71	---	
209+80	-	308+67	CENTERLINE (DOUBLE SOLID)	1,600	---	---	---	---	
209+80	-	308+67	EDGE LINE (SOLID)	---	780	4	4	---	---
308+69	-	308+77	CROSSWALK (BLOCK)	---	---	---	---	48	
TOTAL				6,200	13	13	273	48	



CONSTRUCTION STAKING

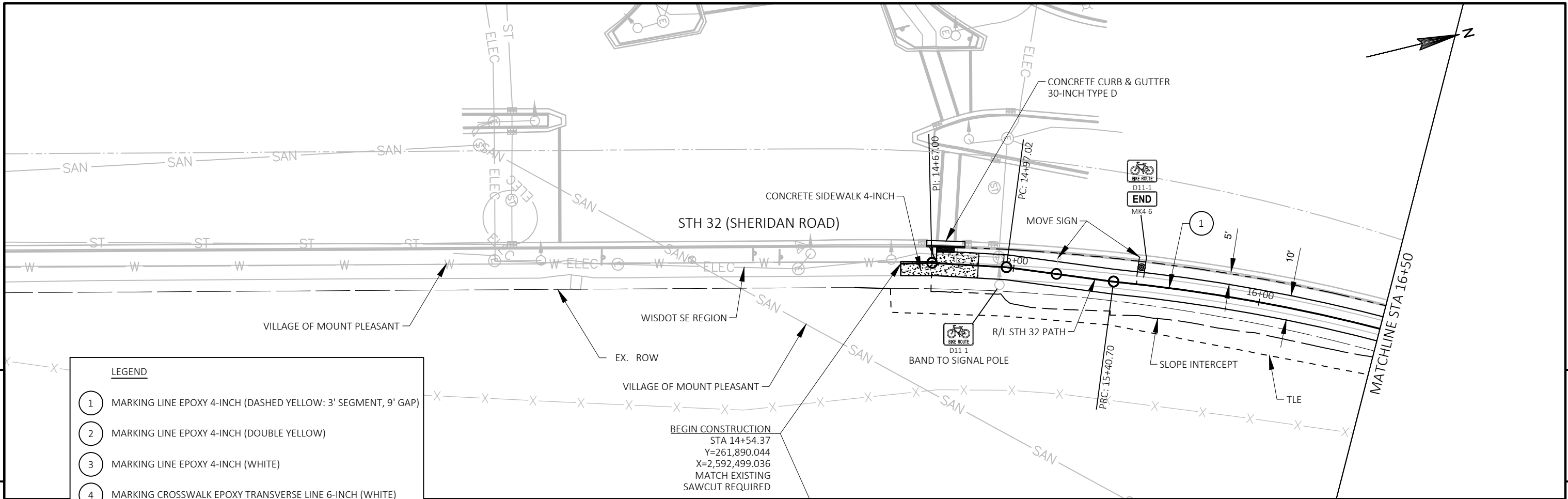
				650.4000	650.4500	650.5000	650.5500	650.7000	650.9000	650.9910	650.9920	SPV.0090.02
				CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
				STAKING	STAKING	STAKING	STAKING	STAKING	STAKING	STAKING	STAKING	STAKING
				STORM	SUBGRADE	BASE	CURB GUTTER	CONCRETE	CURB	SUPPLEMENTAL	SLOPE	SIDEWALK
				SEWER			AND	PAVEMENT	RAMPS	CONTROL	STAKES	AND
							CURB & GUTTER			1693-34-76		PATH
STATION	-	STATION	LOCATION	EACH	LF	LF	LF	LF	EACH	LS	LF	LF
14+54	-	14+86	STH 32 CURB RAMP	---	---	---	---	---	1	---	---	---
14+86	-	26+30	MULTI-USE PATH	---	---	---	---	---	---	---	1144	1144
23+55	-	25+22	STH 32/25TH STREET	---	167	167	---	---	---	---	---	---
23+57	-	25+22	25TH STREET	---	---	---	182	---	---	---	---	---
24+09	-	24+24	25TH STREET CURB RAMP	---	---	---	---	---	1	---	---	---
	24+83		25TH STREET	1	---	---	---	---	---	---	---	---
25+22	-	26+50	25TH STREET	---	---	---	---	128	---	---	---	---
26+30	-	26+50	25TH STREET CURB RAMP	---	---	---	---	---	1	---	---	---
	26+34		25TH STREET	1	---	---	---	---	---	---	---	---
100+31	-	100+57	MEAD STREET CURB RAMP	---	---	---	---	---	1	---	---	---
100+50	-	104+00	MEAD STREET	---	---	---	---	350	---	---	---	---
100+57	-	103+89	MULTI-USE PATH	---	---	---	---	---	---	---	---	332
	100+94		MEAD STREET	1	---	---	---	---	---	---	---	---
	101+72		MEAD STREET	1	---	---	---	---	---	---	---	---
103+89	-	103+98	MEAD STREET CURB RAMP	---	---	---	---	---	1	---	---	---
	103+99		24TH STREET	1	---	---	---	---	---	---	---	---
200+00	-	200+28	MEAD STREET CURB RAMP	---	---	---	---	---	1	---	---	---
200+66	-	200+76	MEAD STREET CURB RAMP	---	---	---	---	---	1	---	---	---
200+76	-	203+17	SIDEWALK	---	---	---	---	---	---	---	---	241
203+17		203+29	HOWE STREET CURB RAMP	---	---	---	---	---	1	---	---	---
203+65	-	203+76	HOWE STREET CURB RAMP	---	---	---	---	---	1	---	---	---
203+76	-	209+19	SIDEWALK	---	---	---	---	---	---	---	---	543
209+19	-	209+28	CENTER STREET CURB RAMP	---	---	---	---	---	1	---	---	---
209+66	-	209+75	CENTER STREET CURB RAMP	---	---	---	---	---	1	---	---	---
300+00	-	308+77	SIDEWALK	---	---	---	---	---	---	---	877	877
308+69	-	308+74	ROOSEVELT PARK DRIVE CURB RAMP	---	---	---	---	---	2	---	---	---
PROJECT				---	---	---	---	---	---	1	---	---
TOTAL - BASE BID				5	167	167	182	478	13	1	2,021	3,137
25+22	-	103+86	25TH/MEAD STREETS	---	---	---	---	447	---	---	---	---
TOTAL - ALTERNATE BID				0	0	0	0	447	0	0	0	0



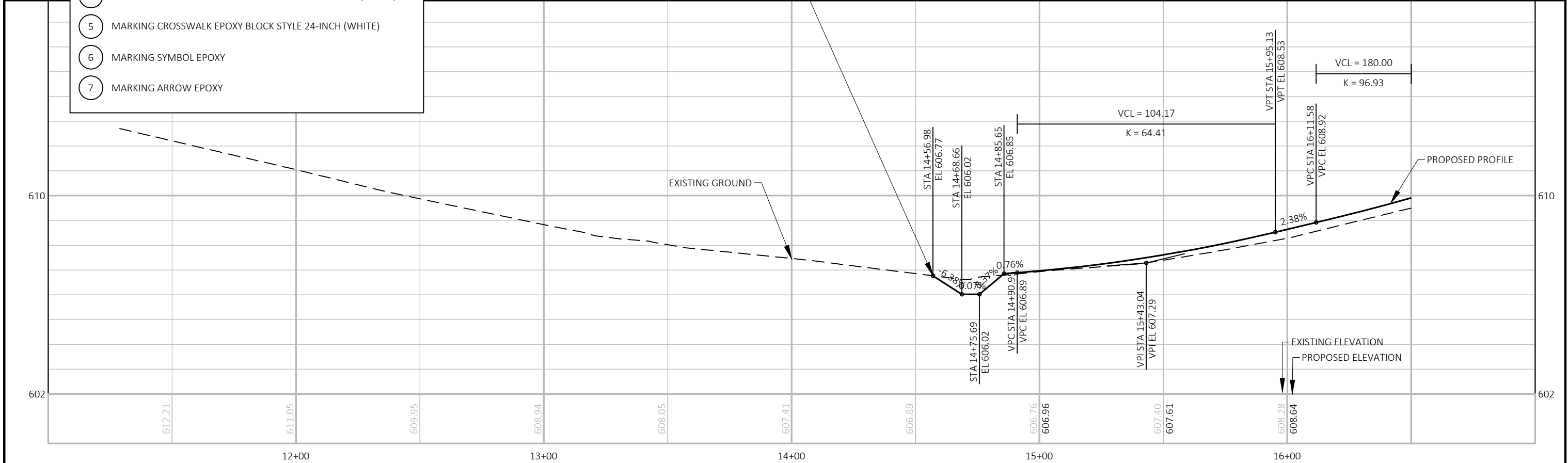
SAWING

				690.0150	690.0250
				SAWING	SAWING
				ASPHALT	CONCRETE
STATION	-	STATION	LOCATION	LF	LF
		14+54	MULTI-USE PATH	---	6
14+65	-	14+80	STH 32	20	5
		23+56	STH 32	---	---
23+56	-	25+22	STH 32/25TH STREET	188	3
25+22	-	104+00	25TH/MEAD STREET	---	531
26+53	-	27+06	DRIVEWAY	---	79
200+00	-	200+31	MEAD STREET NW	---	53
200+63	-	200+81	MEAD STREET NE	---	41
201+03	-	201+19	STOOP	---	16
201+69	-	202+05	DRIVEWAY	---	82
202+42	-	202+57	SIDEWALK	---	11
203+14	-	203+32	HOWE STREET NW	---	46
203+62	-	203+81	HOWE STREET NE	---	40
205+23	-	205+87	DRIVEWAY	52	71
207+00	-	207+39	DRIVEWAY	---	65
209+09	-	209+38	CENTER STREET NW	---	72
209+63	-	209+75	CENTER STREET NE	---	26
301+10	-	301+72	DRIVEWAY	48	66
303+11	-	303+77	DRIVEWAY	---	94
308+66	-	308+77	ROOSEVELT PARK DRIVE E	---	27
308+69	-	308+80	ROOSEVELT PARK DRIVE W	---	15
TOTAL - BASE BID				308	1,349
		25+22		---	3
		103+86		---	20
TOTAL - ALTERNATE BID				0	23

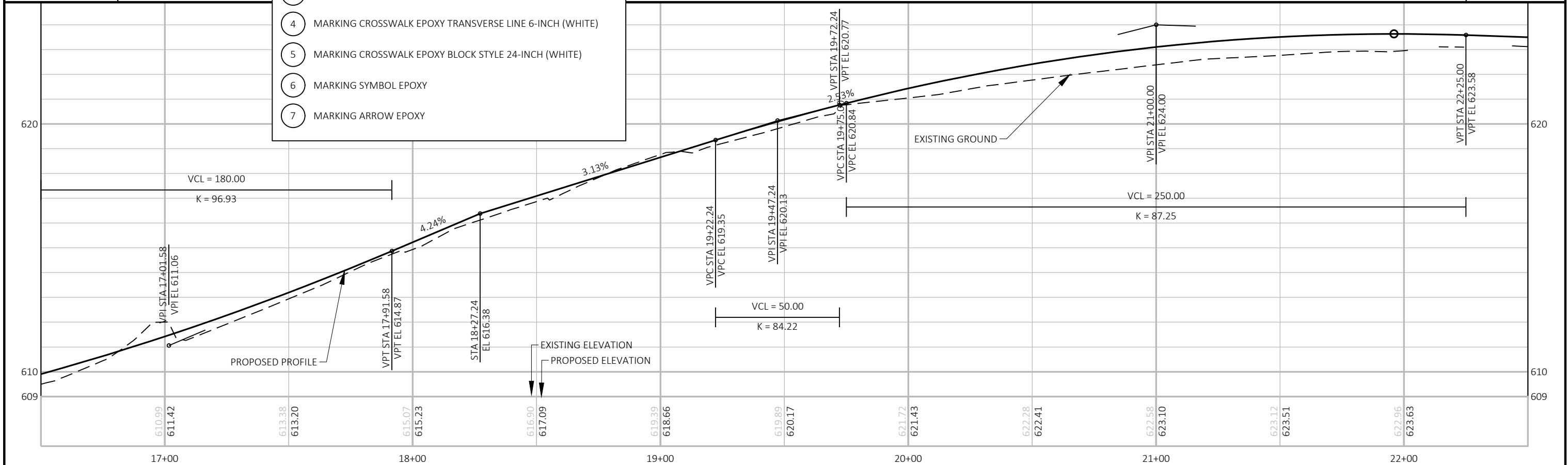
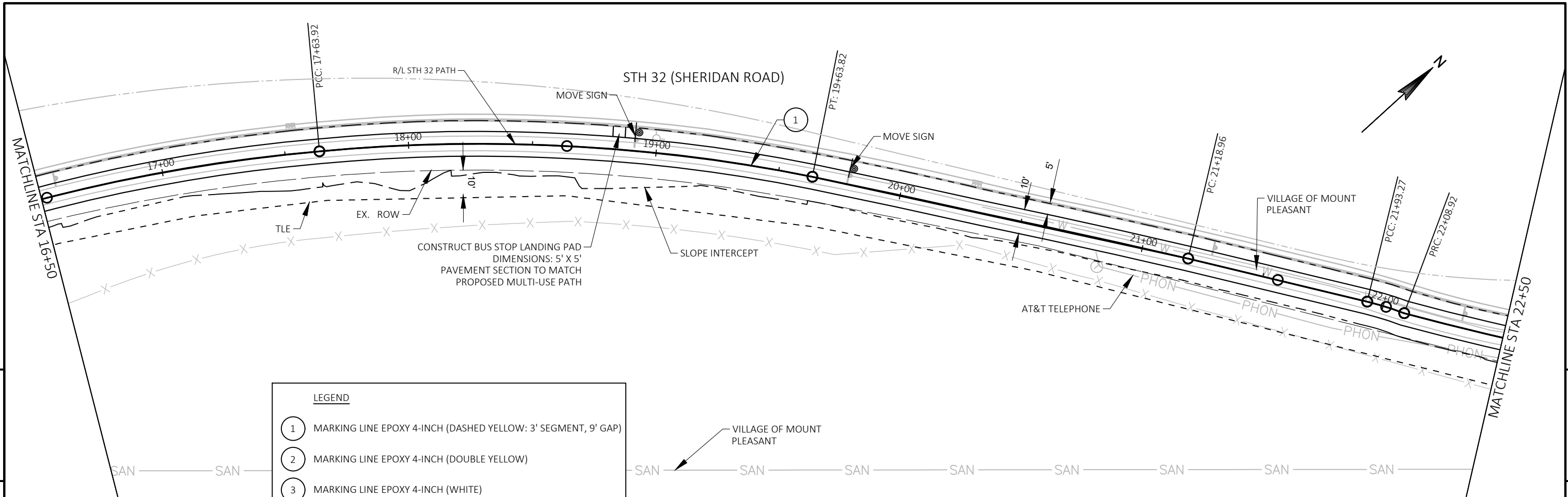




- LEGEND**
- 1 MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)
  - 2 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
  - 3 MARKING LINE EPOXY 4-INCH (WHITE)
  - 4 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
  - 5 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
  - 6 MARKING SYMBOL EPOXY
  - 7 MARKING ARROW EPOXY



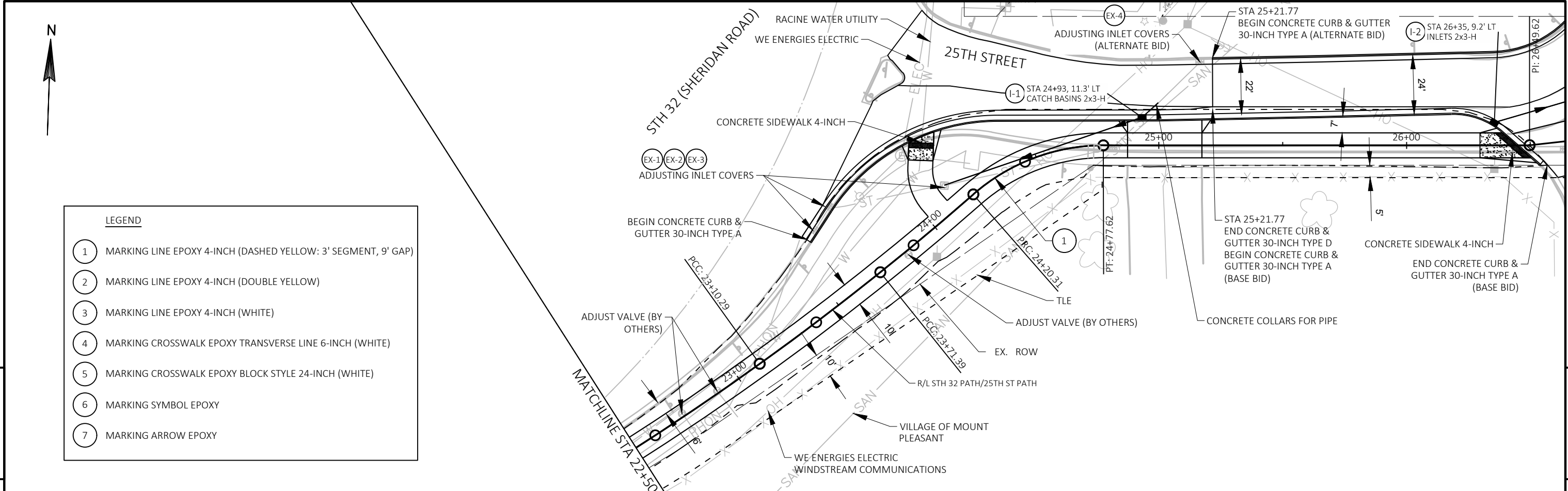




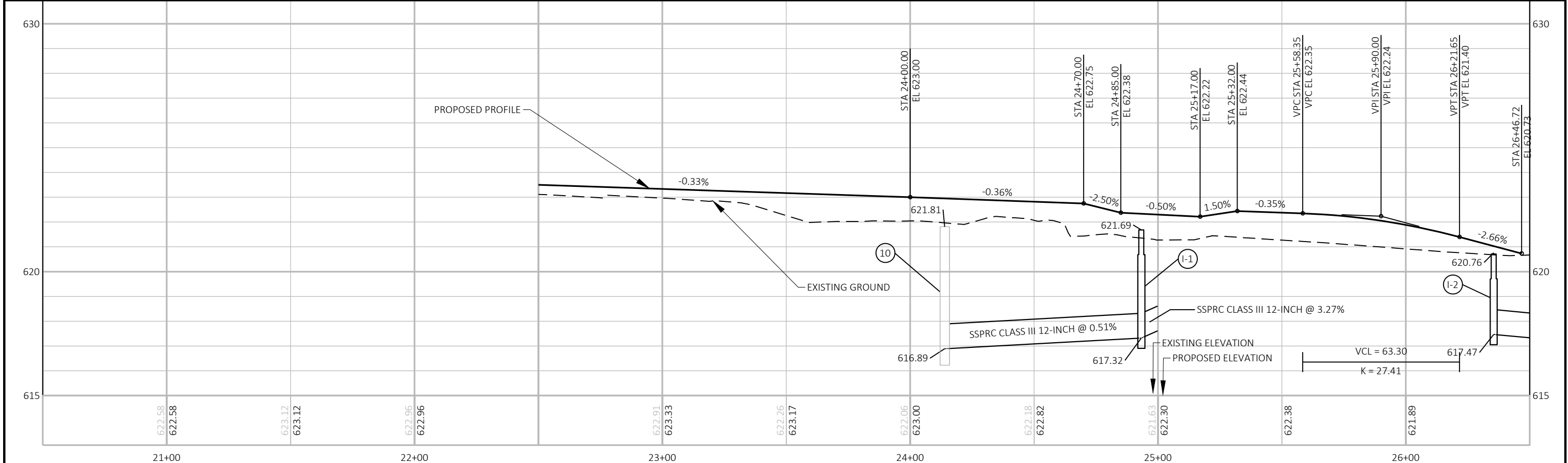
**LEGEND**

- 1 MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)
- 2 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
- 3 MARKING LINE EPOXY 4-INCH (WHITE)
- 4 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 5 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
- 6 MARKING SYMBOL EPOXY
- 7 MARKING ARROW EPOXY





- LEGEND**
- 1 MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)
  - 2 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
  - 3 MARKING LINE EPOXY 4-INCH (WHITE)
  - 4 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
  - 5 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
  - 6 MARKING SYMBOL EPOXY
  - 7 MARKING ARROW EPOXY





5

5

LEGEND

1

MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)

2

MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

3

MARKING LINE EPOXY 4-INCH (WHITE)

4

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)

5

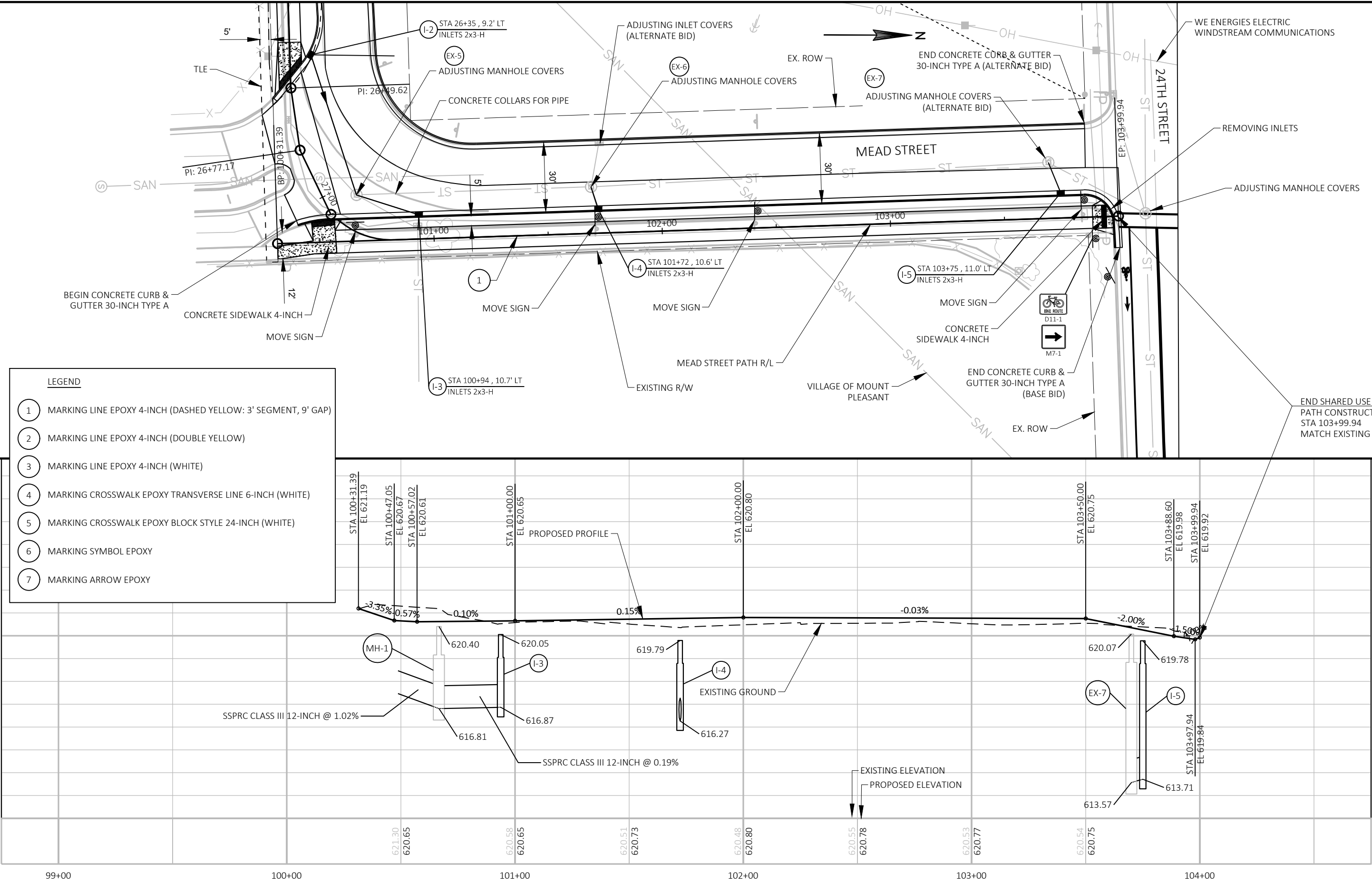
MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)

6

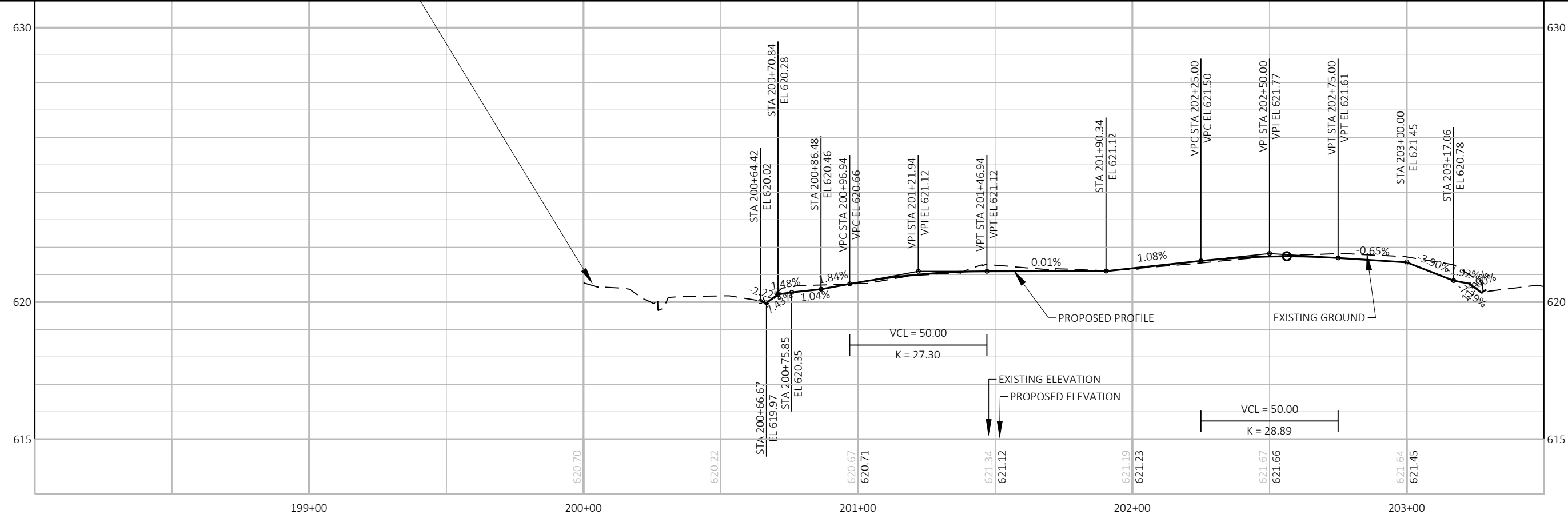
MARKING SYMBOL EPOXY

7

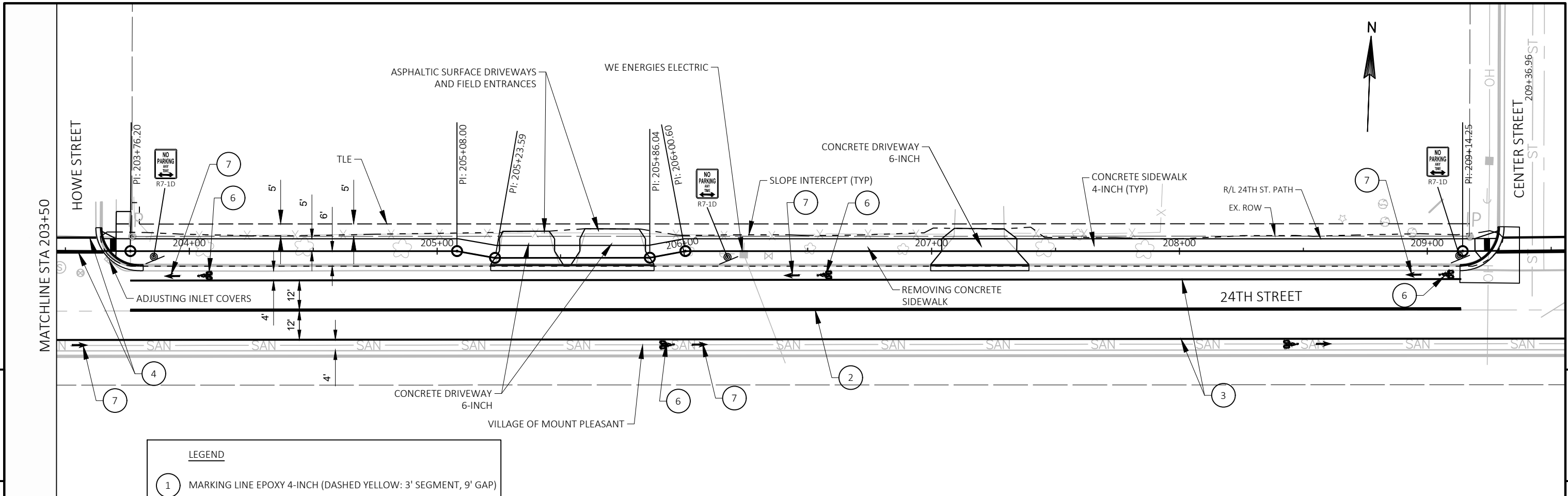
MARKING ARROW EPOXY



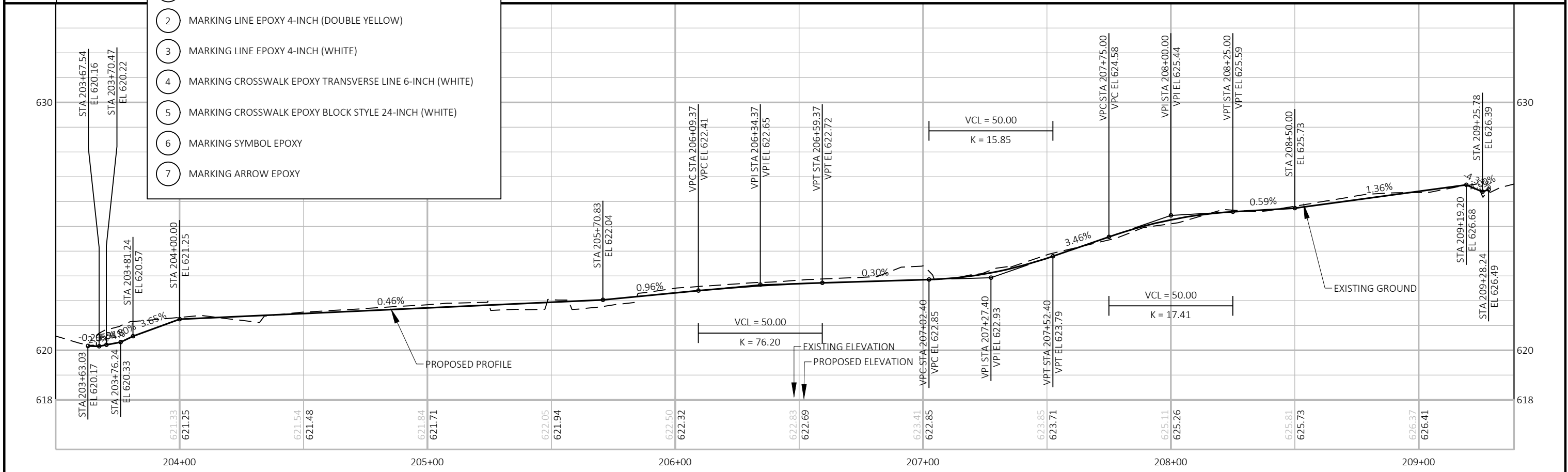




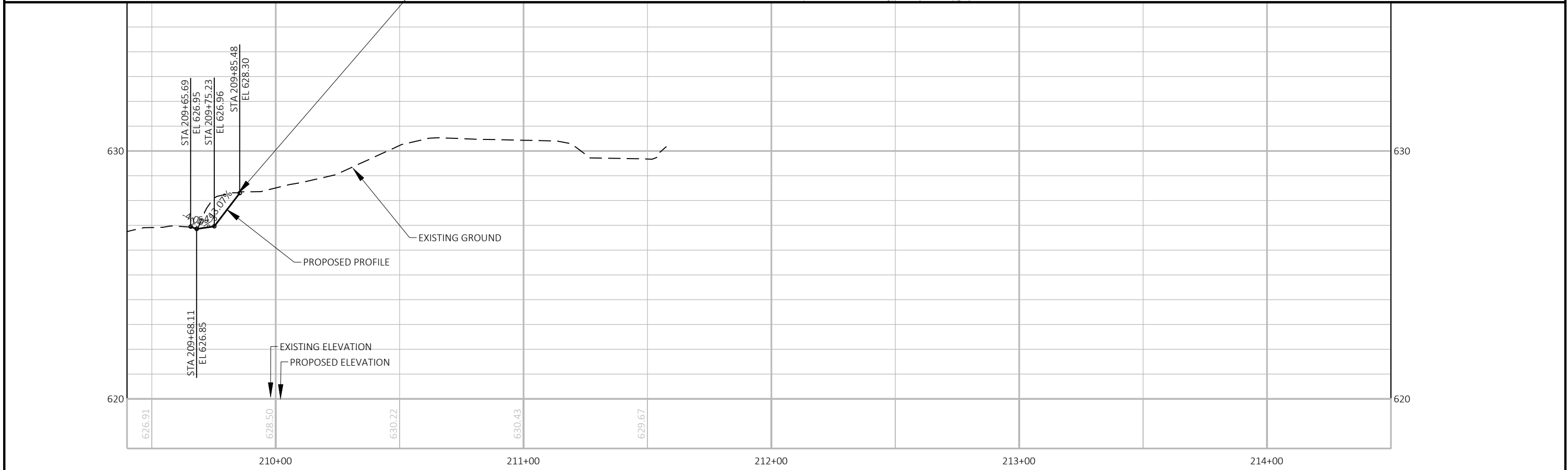
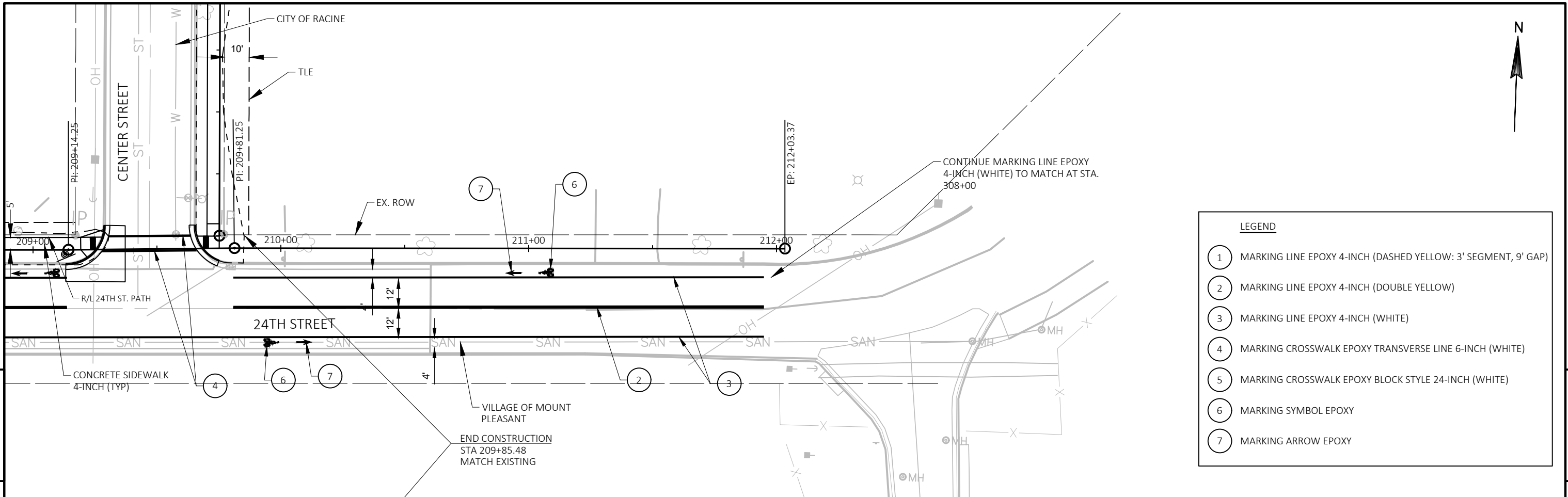




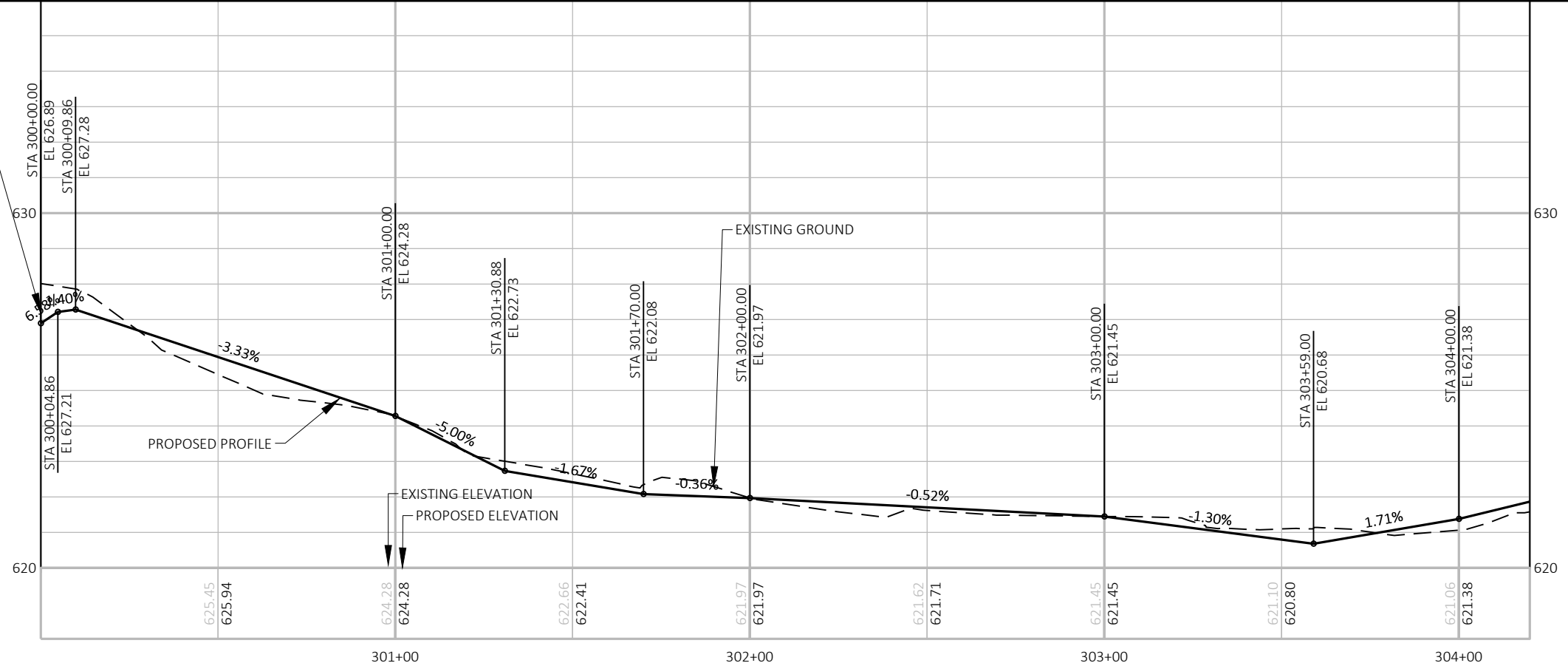
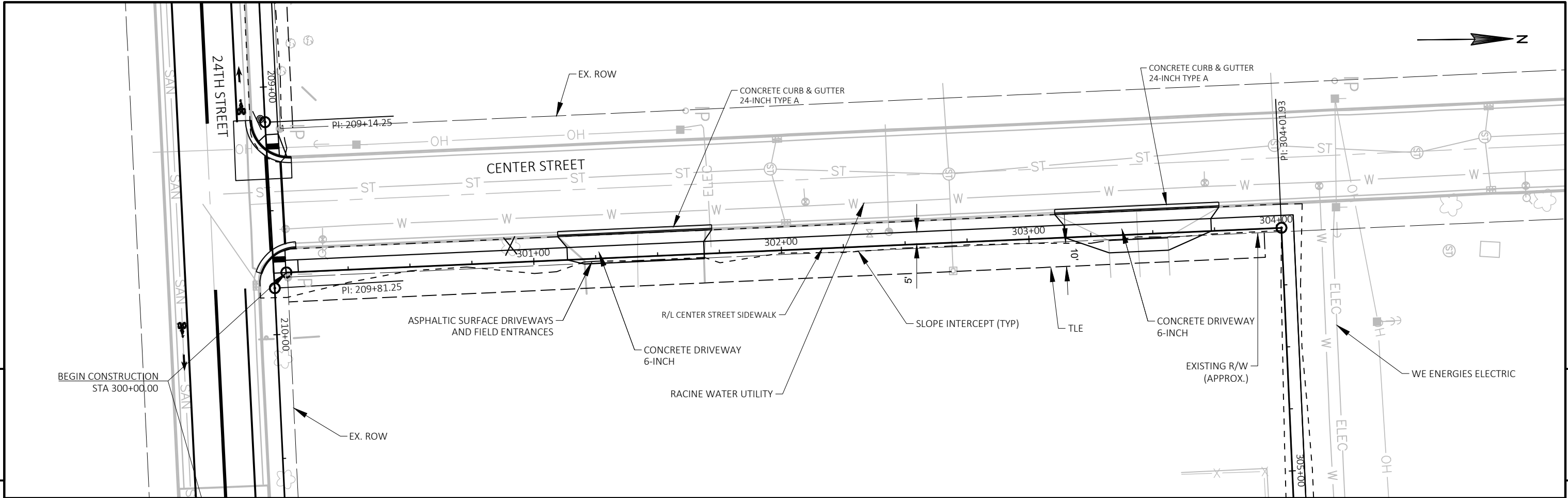
- LEGEND**
- 1 MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)
  - 2 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
  - 3 MARKING LINE EPOXY 4-INCH (WHITE)
  - 4 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
  - 5 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)
  - 6 MARKING SYMBOL EPOXY
  - 7 MARKING ARROW EPOXY



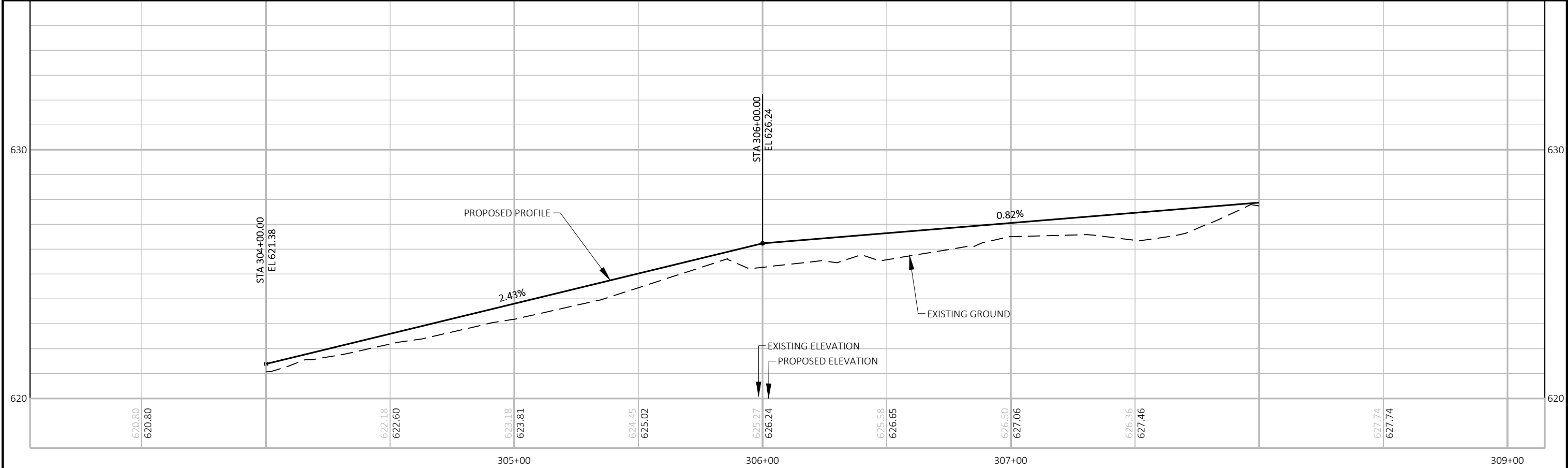
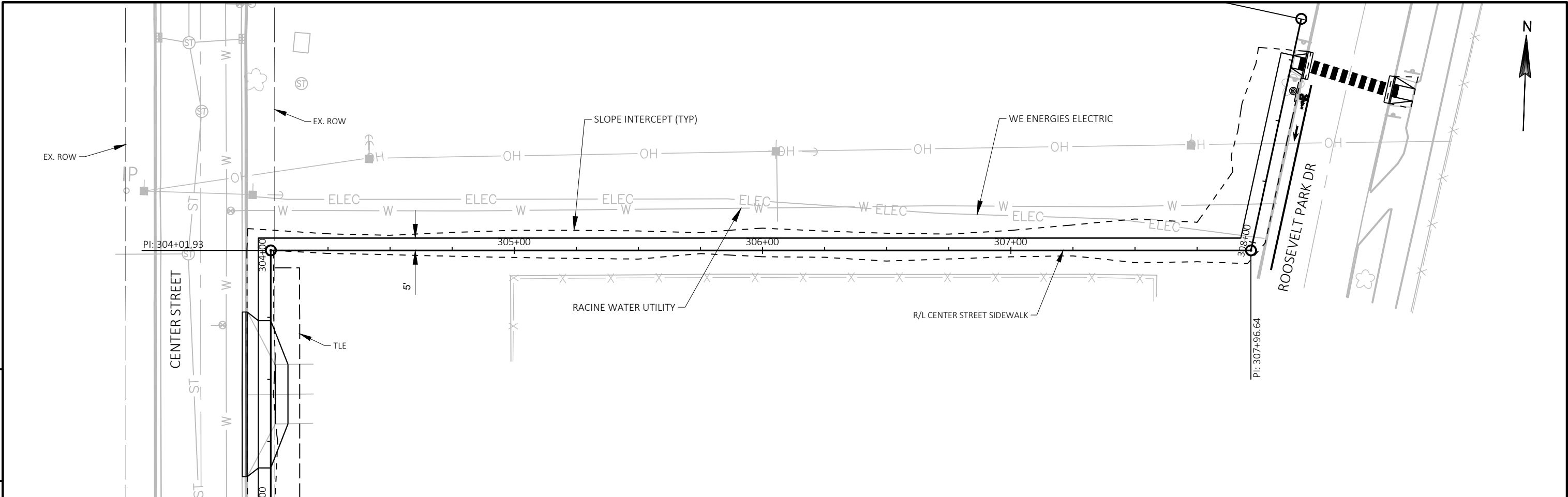














LEGEND

1

MARKING LINE EPOXY 4-INCH (DASHED YELLOW: 3' SEGMENT, 9' GAP)

2

MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

3

MARKING LINE EPOXY 4-INCH (WHITE)

4

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)

5

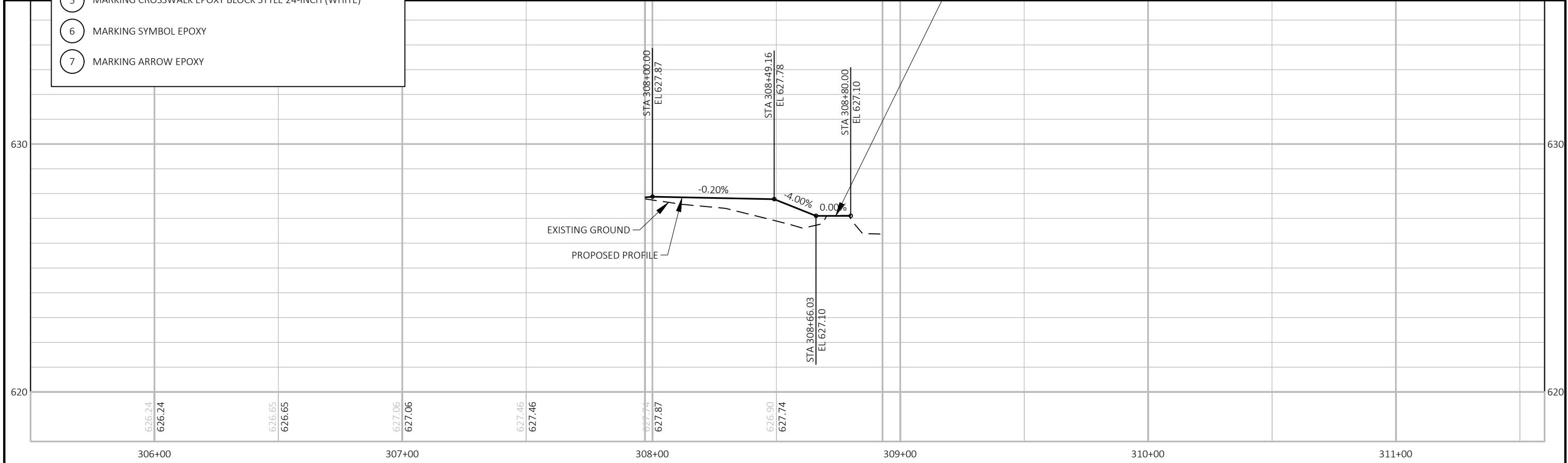
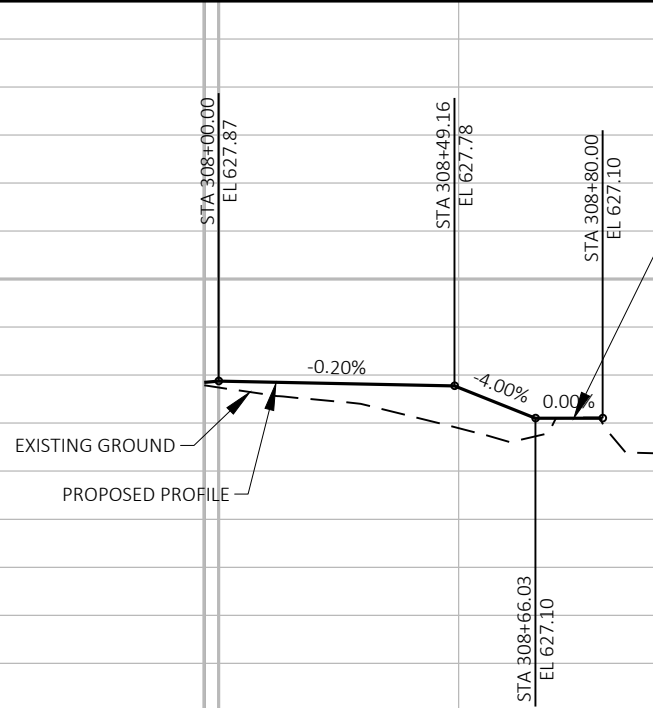
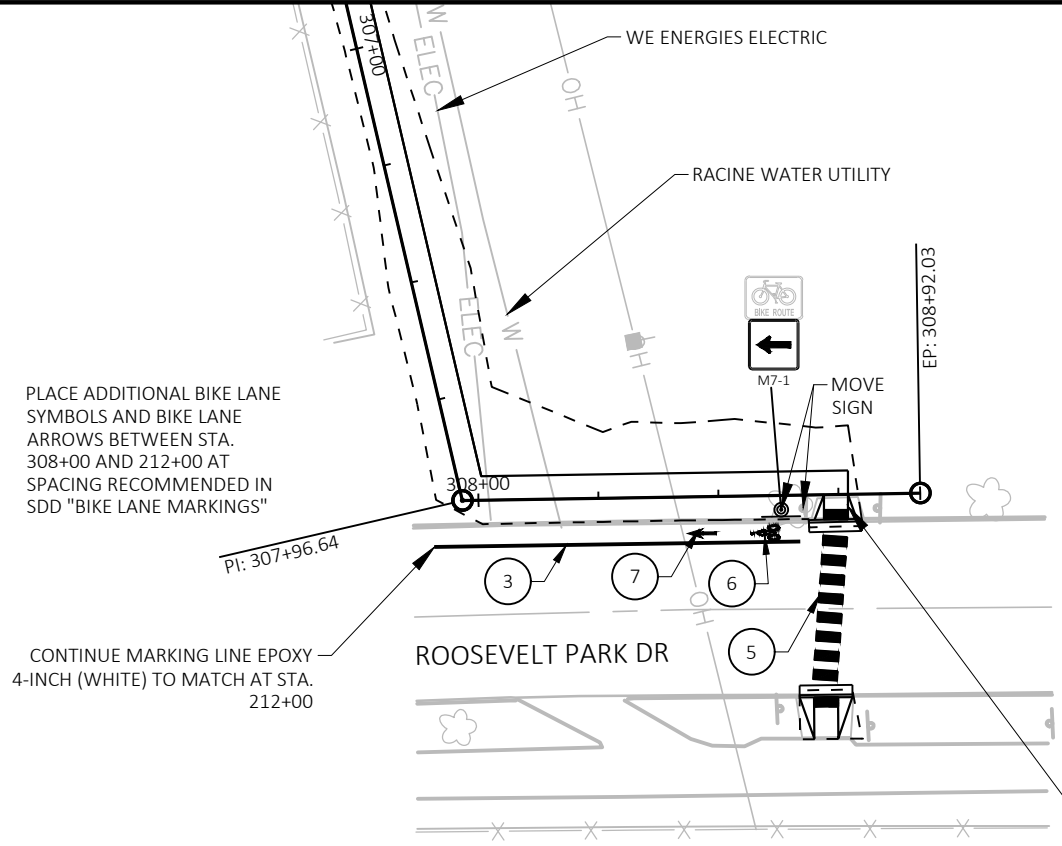
MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)

6

MARKING SYMBOL EPOXY

7

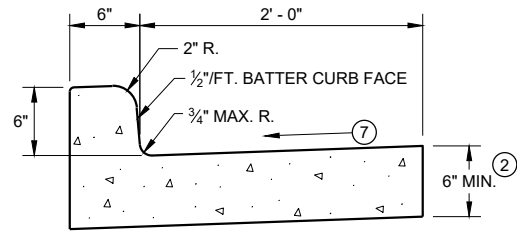
MARKING ARROW EPOXY



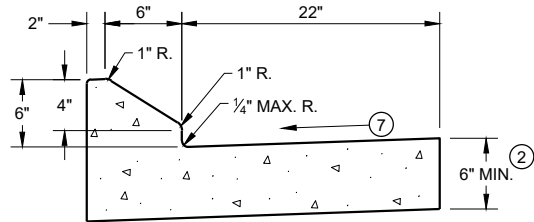




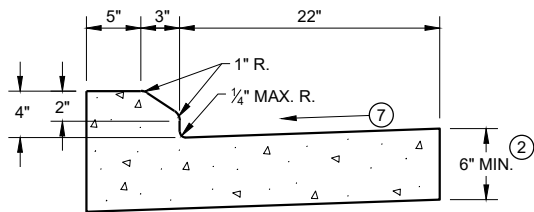
SDD 08D01-a Concrete Curb and Gutter



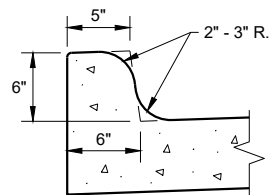
TYPES A<sup>(1)</sup> & D



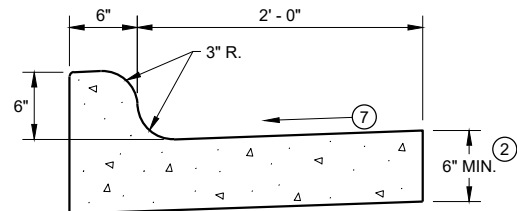
6" SLOPED CURB TYPES G<sup>(1)</sup> & J



4" SLOPED CURB TYPES G<sup>(1)</sup> & J

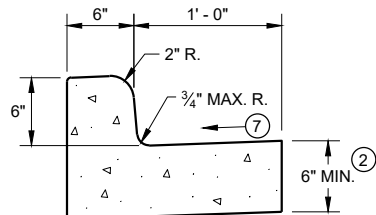


TYPES K<sup>(1)</sup> & L  
(OPTIONAL CURB SHAPE)



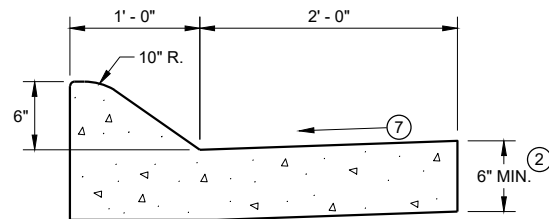
TYPES K<sup>(1)</sup> & L

CONCRETE CURB AND GUTTER 30"

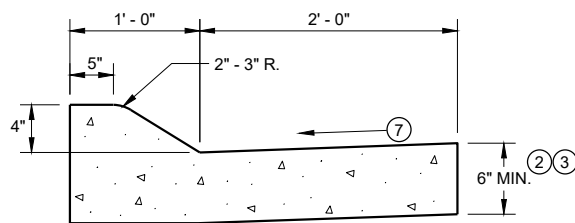


TYPES A<sup>(1)</sup> & D

CONCRETE CURB AND GUTTER 18"

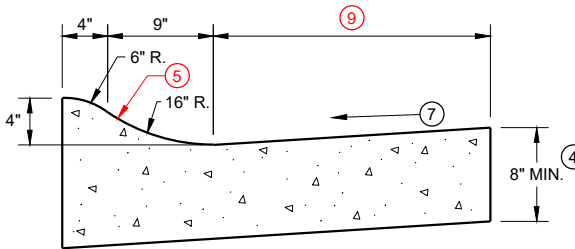


6" SLOPED CURB TYPES A<sup>(1)</sup> & D



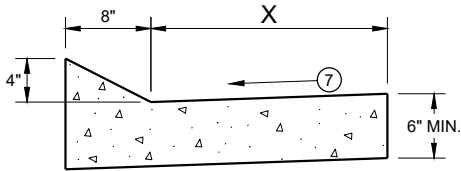
4" SLOPED CURB TYPES A<sup>(1)</sup> & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R<sup>(1)</sup> & T

TBT & TBTT	X
30"	22"
36"	28"

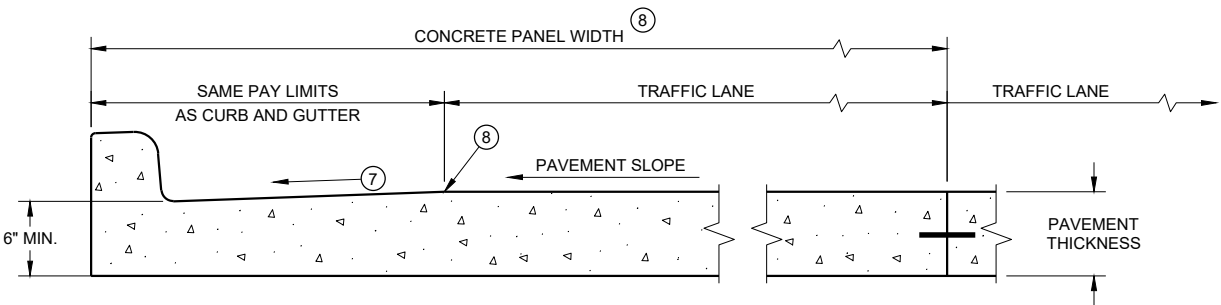


TYPES TBT & TBTT<sup>(1)</sup>

CONCRETE CURB AND GUTTER

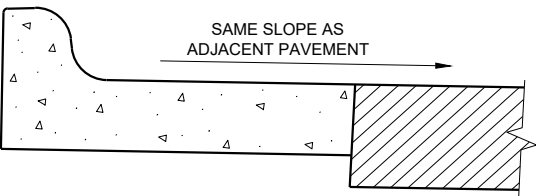
PAVEMENT THICKNESS  
AND MAXIMUM CONCRETE  
PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT \*  
WITH INTEGRAL CURB AND GUTTER

\* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER<sup>(6)</sup>  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION 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 AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

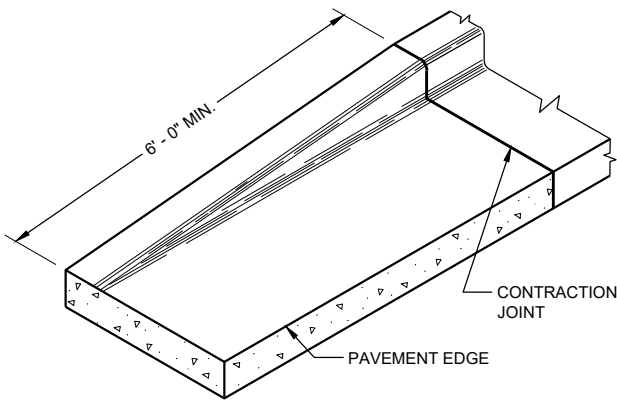
- (1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- (2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- (3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- (4) 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.
- (5) **UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES** THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- (6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- (7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- (8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- (9) **CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES**  
**CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES**

CONCRETE CURB AND GUTTER

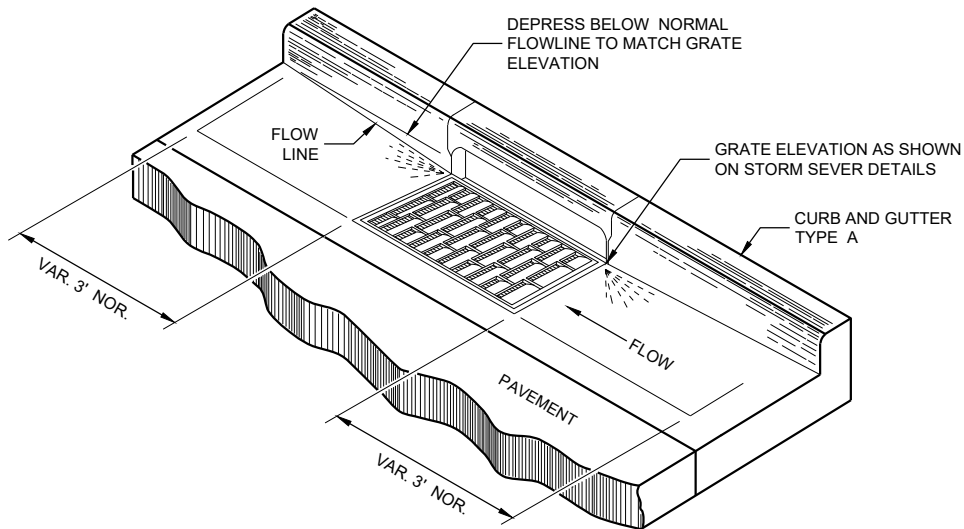




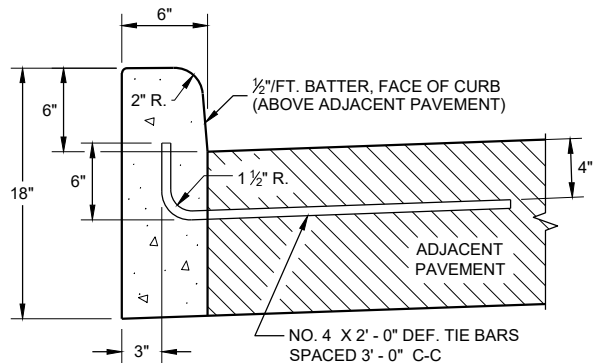
# SDD 08D01-b Concrete Gutter, Ties, and Curb and Gutter Applications



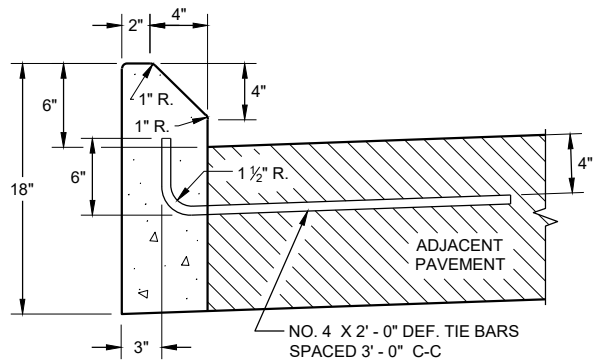
END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS  
(TYPICAL H INLET COVER SHOWN)

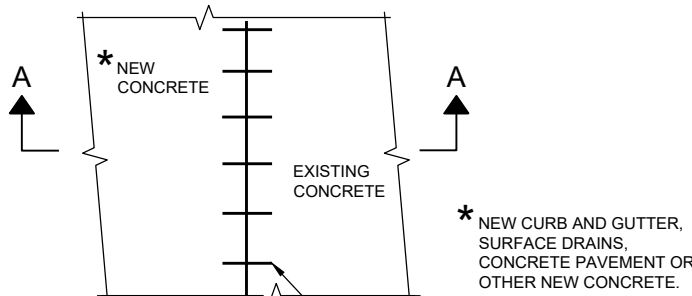


TYPES A<sup>①</sup> & D

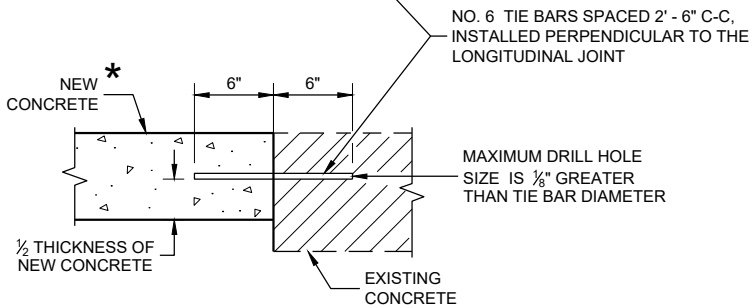


TYPES G<sup>①</sup> & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

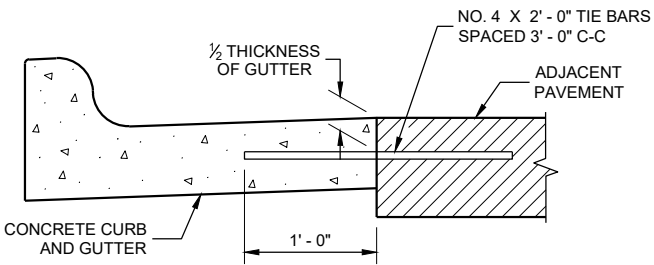
## GENERAL NOTES

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

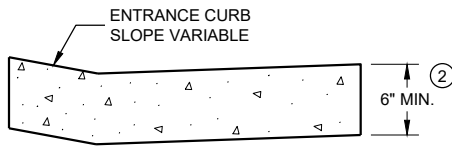
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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 GUTTERS TYPES A, G, K, R, AND TBTT.
- 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.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION<sup>①</sup>



DRIVEWAY ENTRANCE CURB<sup>⑨</sup>  
(WHEN DIRECTED BY THE ENGINEER)

## CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

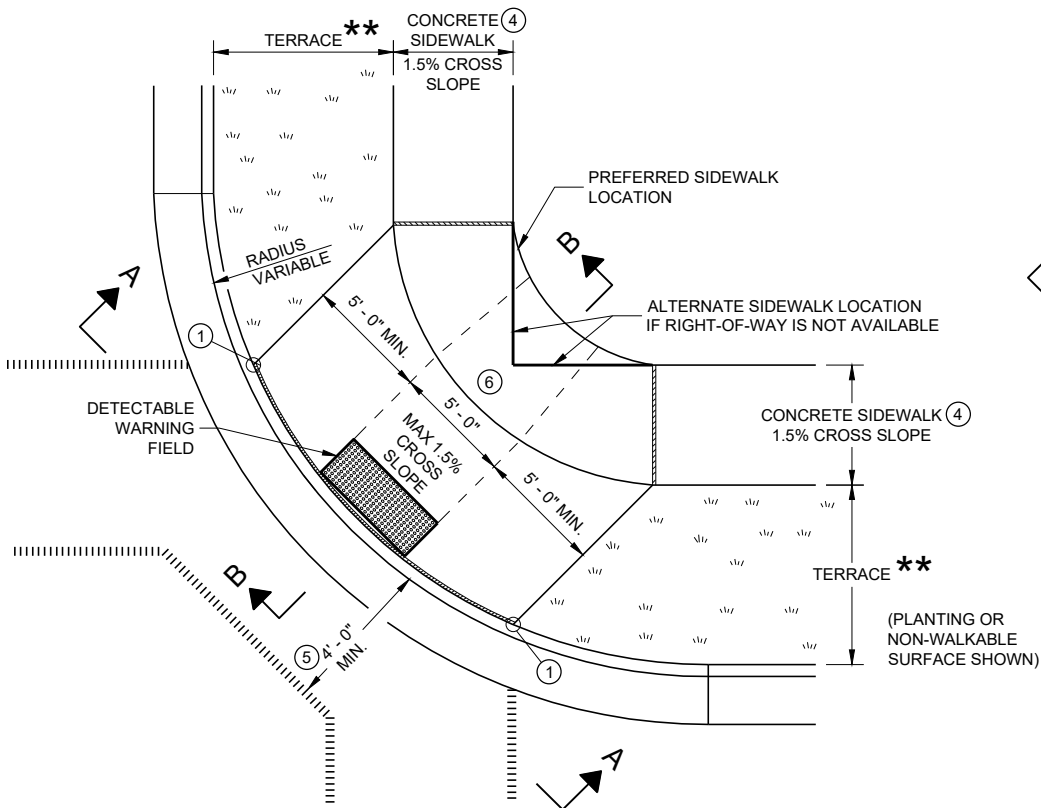
APPROVED  
February 2021 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

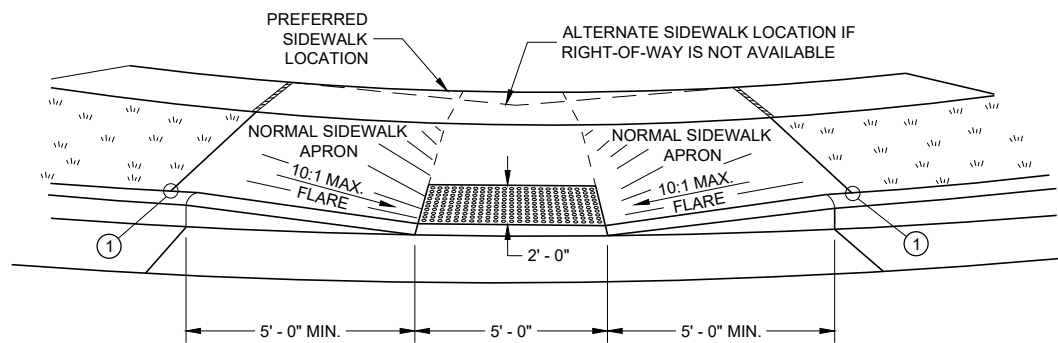




# SDD 08D05-a: Curb Ramps Types 1 and 1-A

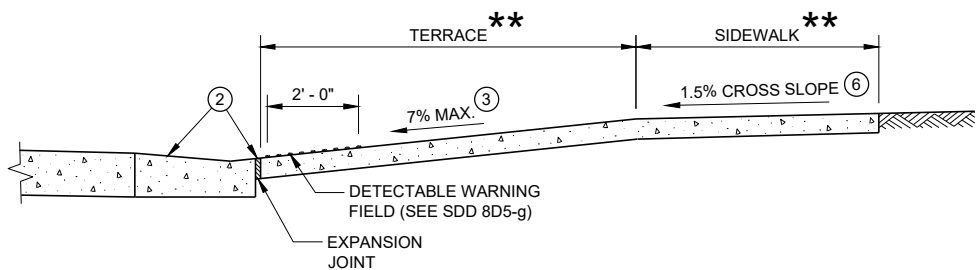


**PLAN VIEW**  
**CURB RAMP TYPE 1**  
(CENTER OF CORNER RADIUS)

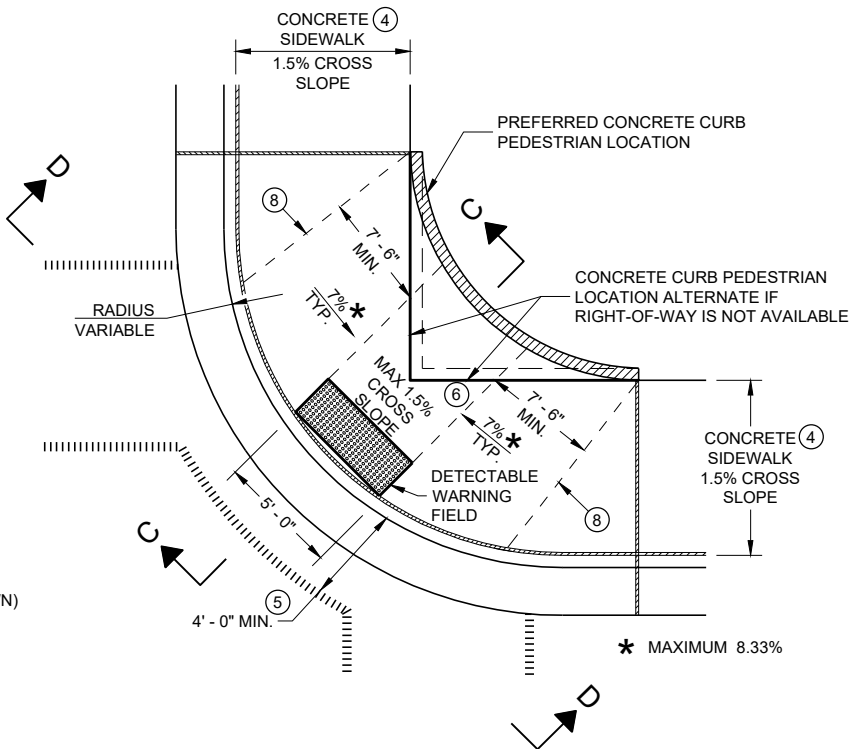


**VIEW A - A FOR TYPE 1**

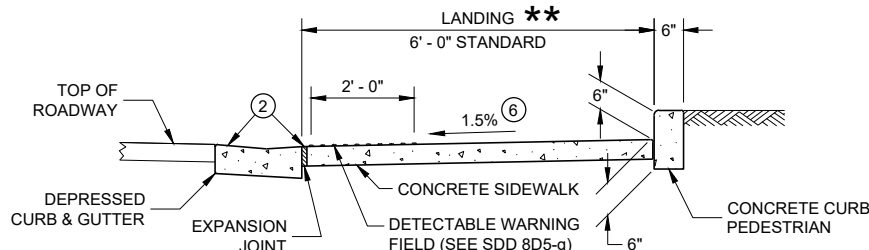
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



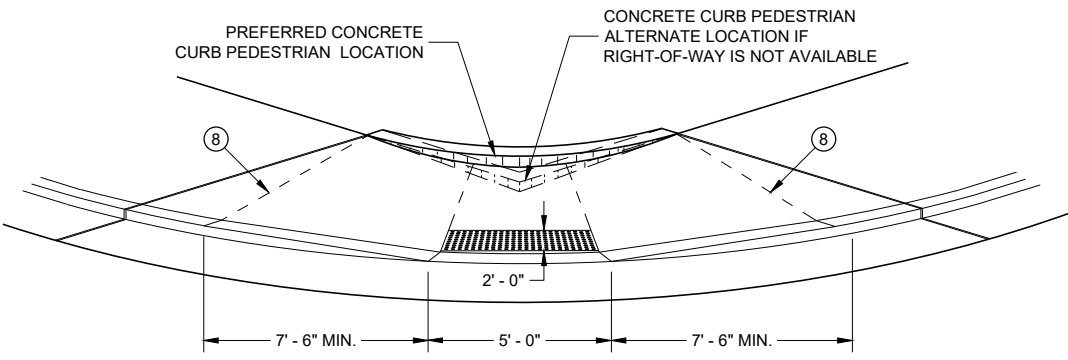
**SECTION B - B FOR TYPE 1**



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



**SECTION C - C FOR TYPE 1 - A**



**VIEW D - D FOR TYPE 1 - A**

## GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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 CURB 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 LINEAR 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.
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
  - GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - MAXIMUM 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 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.
  - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
  - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

## LEGEND

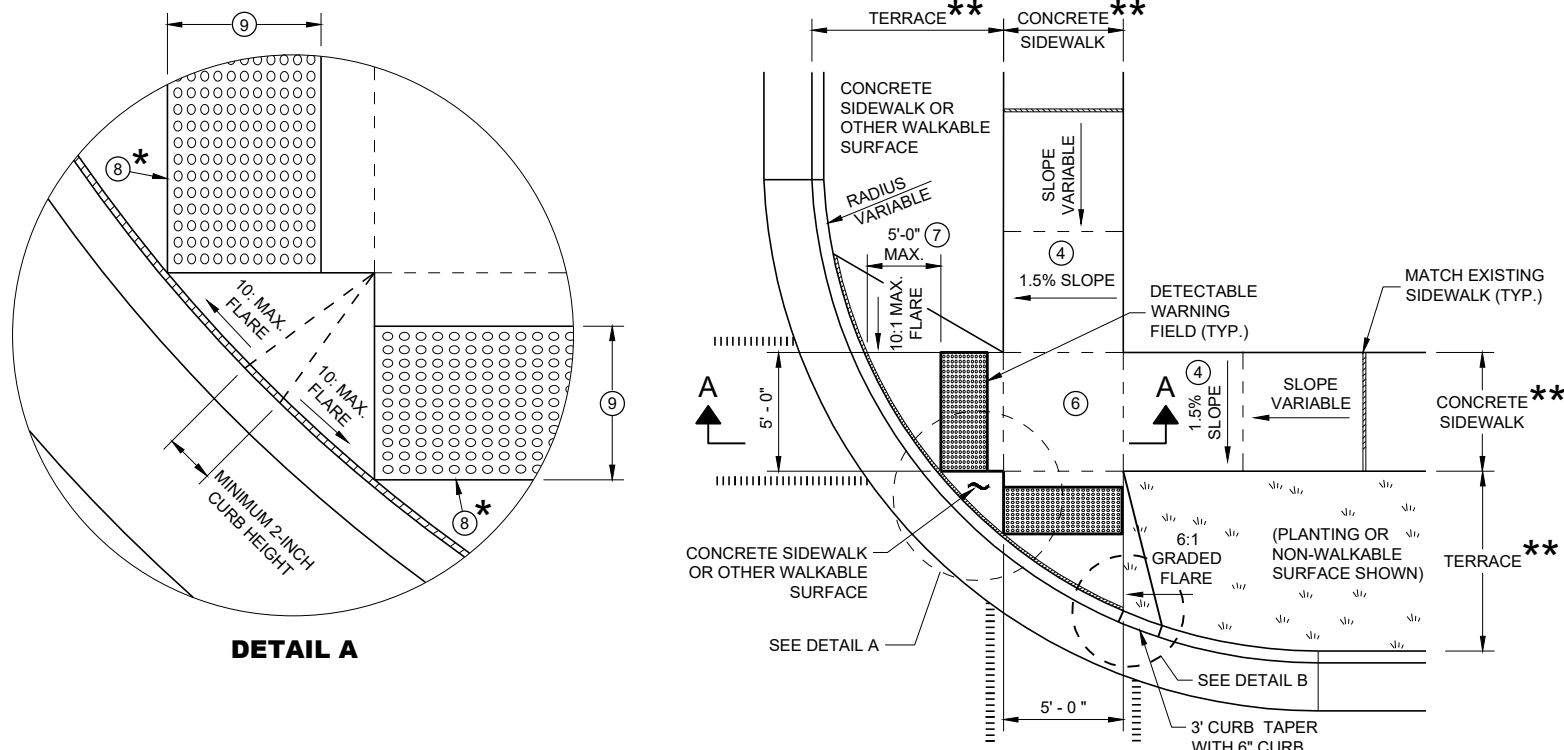
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

## CURB RAMPS TYPE 1 AND 1-A

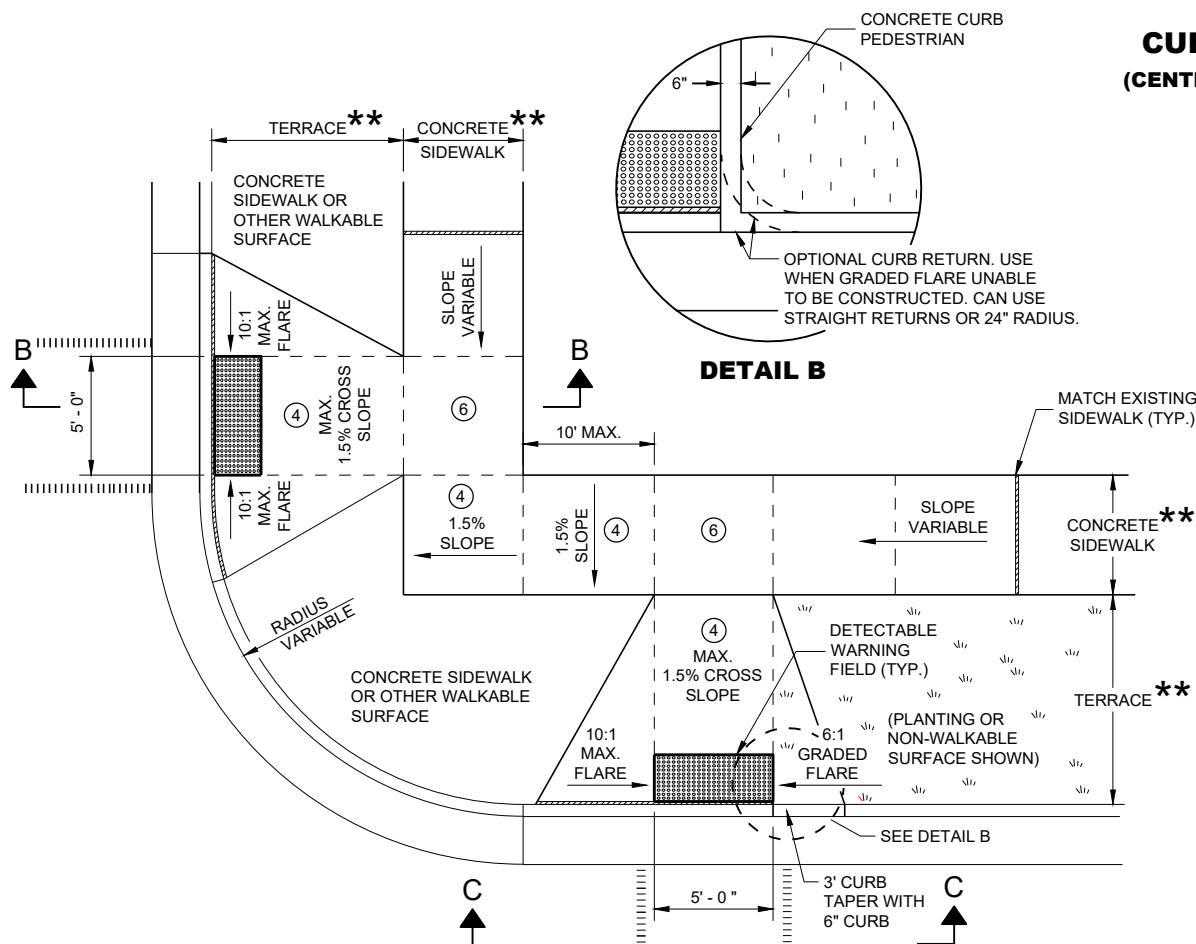




# SDD 08D05-b Curb Ramps Types 2 and 3



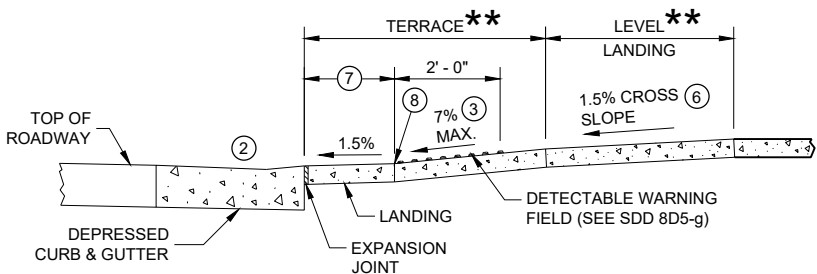
PLAN VIEW  
CURB RAMP TYPE 2  
(CENTER OF CORNER RADIUS)



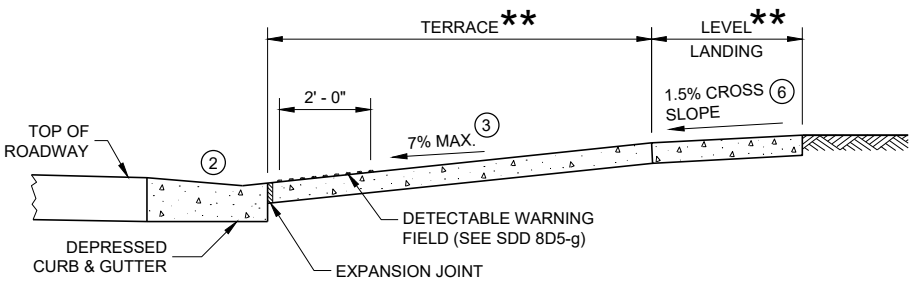
PLAN VIEW  
CURB RAMP TYPE 3  
(OUTSIDE OF CROSSWALK AREA)

## GENERAL NOTES

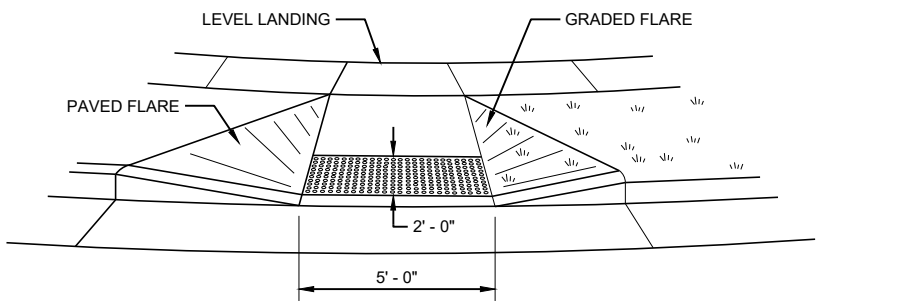
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) 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 LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

- \* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

## LEGEND

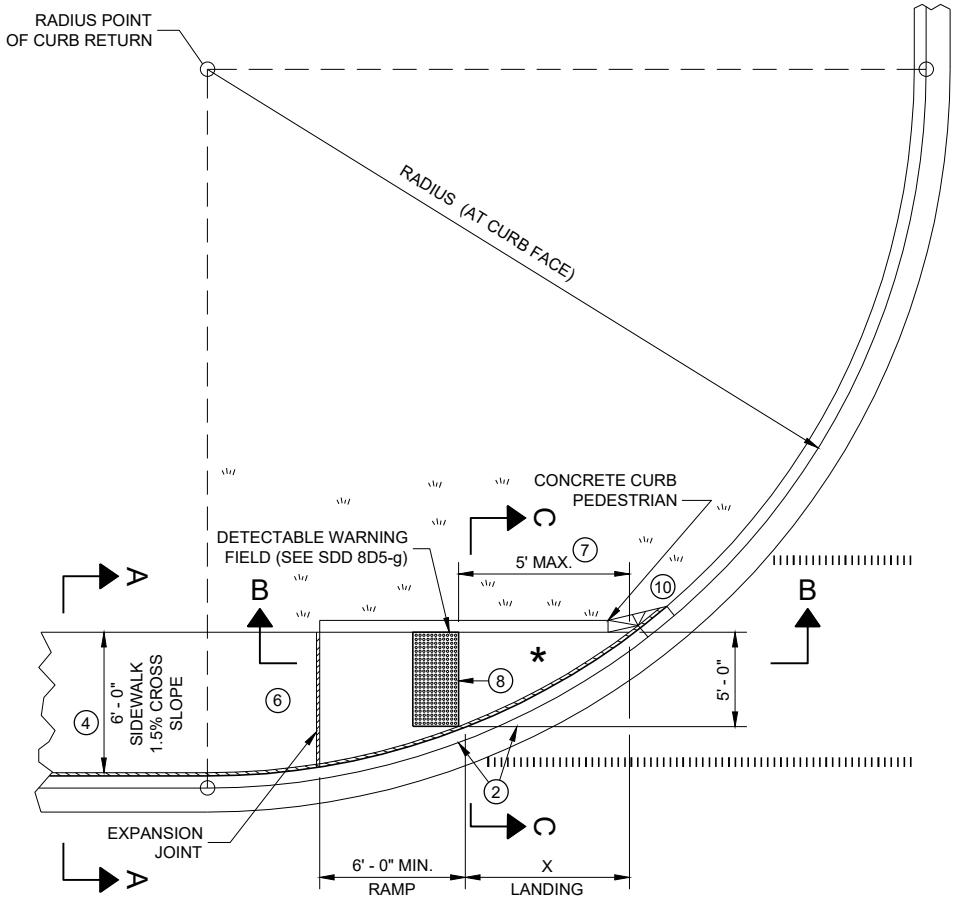
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

## CURB RAMPS TYPE 2 AND 3

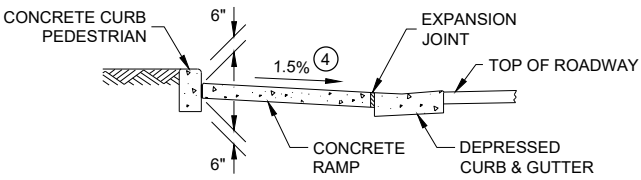




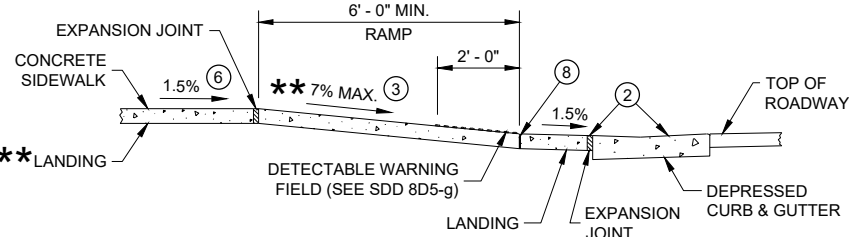
# SDD 08D05-c Curb Ramps Types 4A and 4A1



PLAN VIEW  
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A

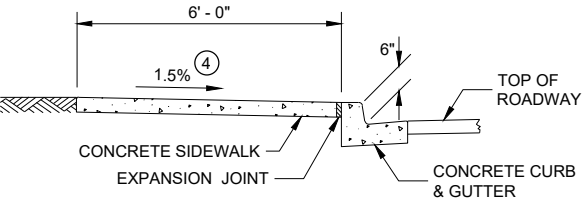


SECTION B - B FOR  
TYPE 4A AND TYPE 4A1

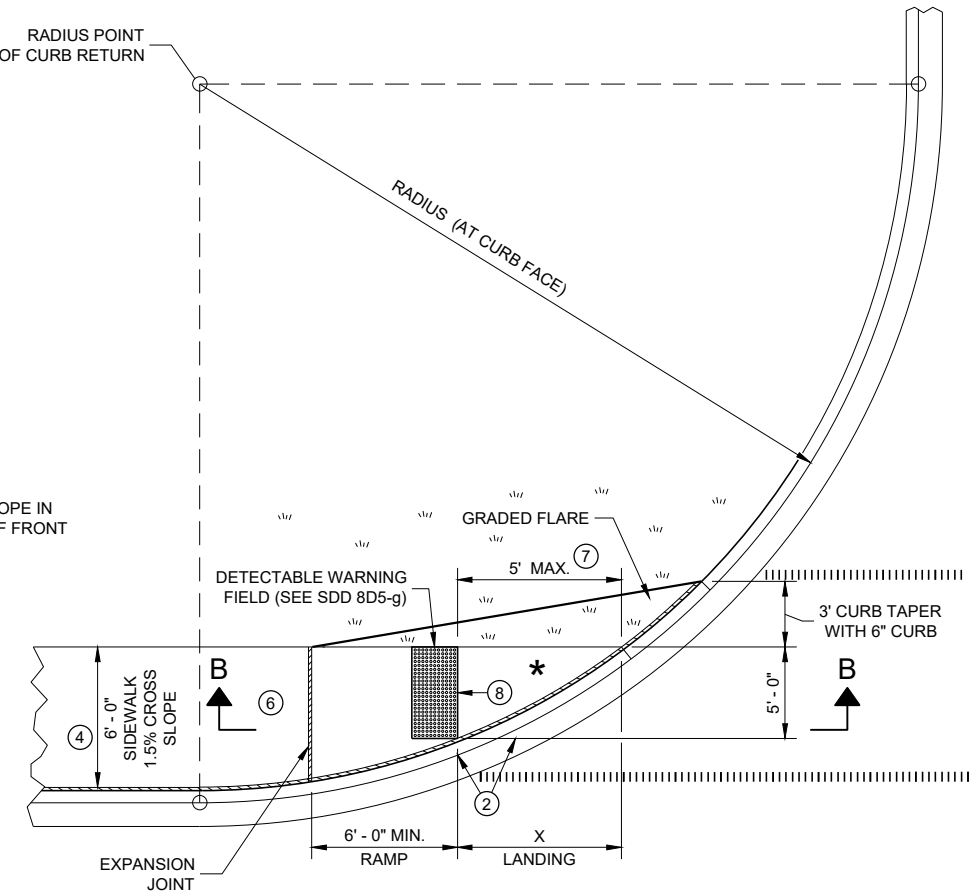
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



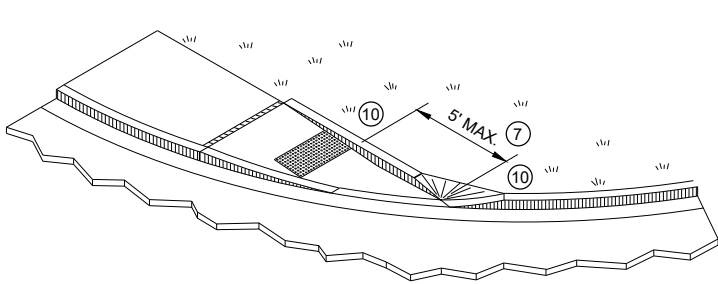
PLAN VIEW  
CURB RAMP TYPE 4A1

## GENERAL NOTES

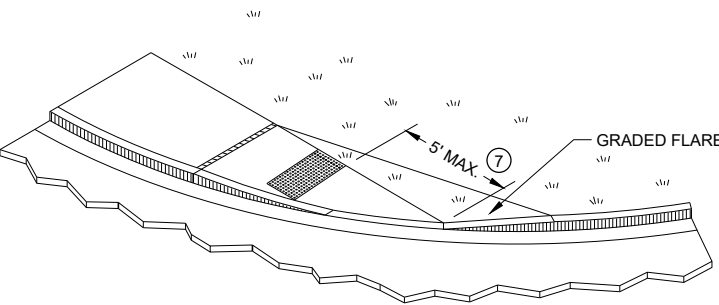
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

## LEGEND

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



ISOMETRIC VIEW FOR TYPE 4A



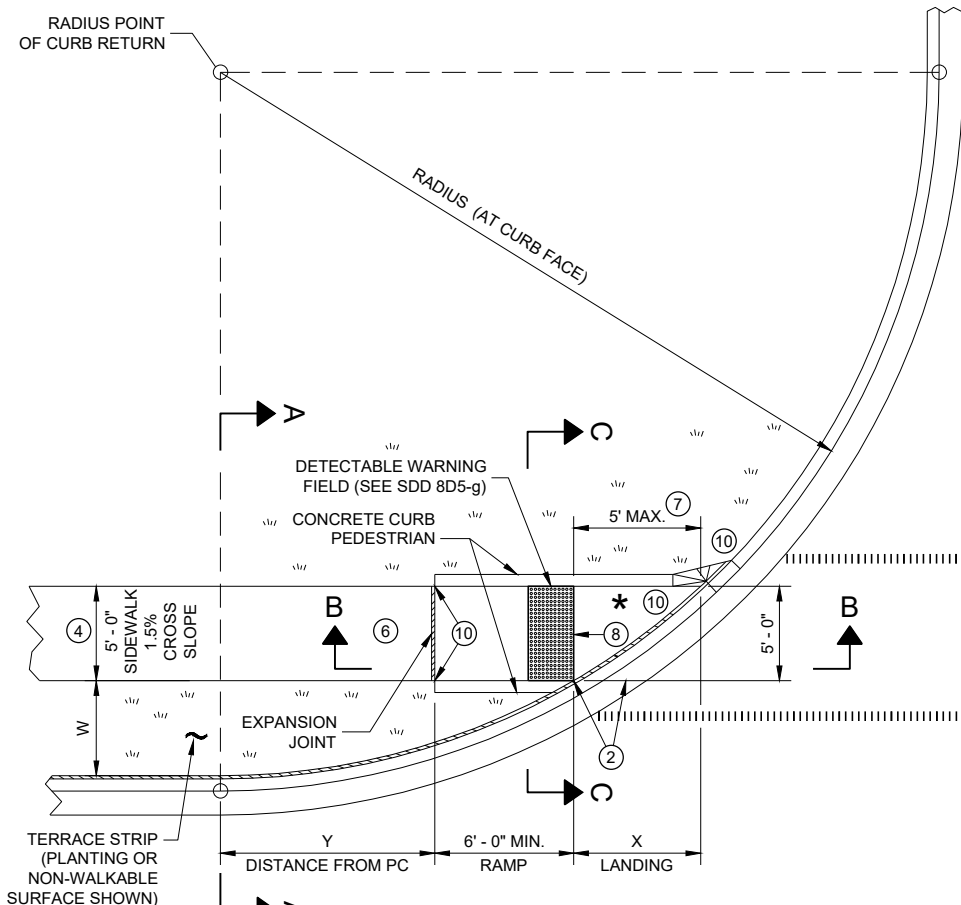
ISOMETRIC VIEW FOR TYPE 4A1

## CURB RAMPS TYPE 4A AND 4A1

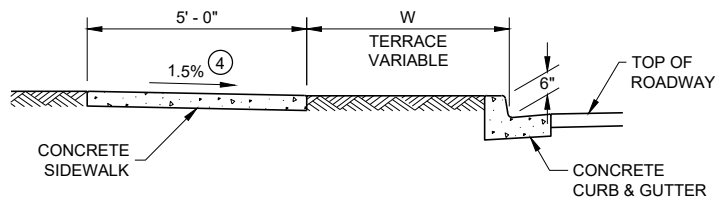




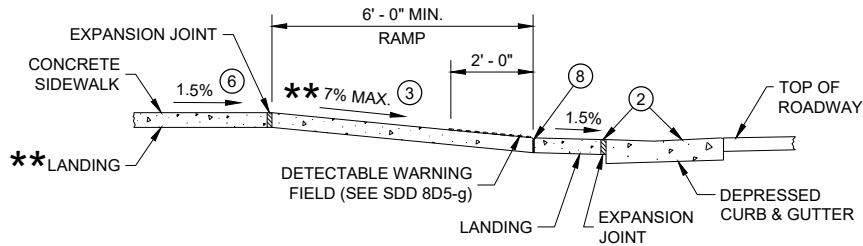
# SDD 08D05-d: Curb Ramps Types 4B and 4B1



PLAN VIEW  
CURB RAMP TYPE 4B



SECTION A - A FOR TYPE 4B



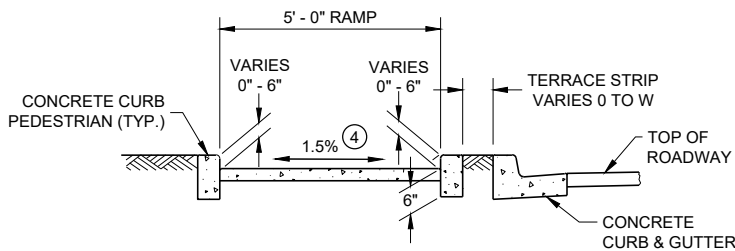
SECTION B - B FOR  
TYPE 4B AND TYPE 4B1

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

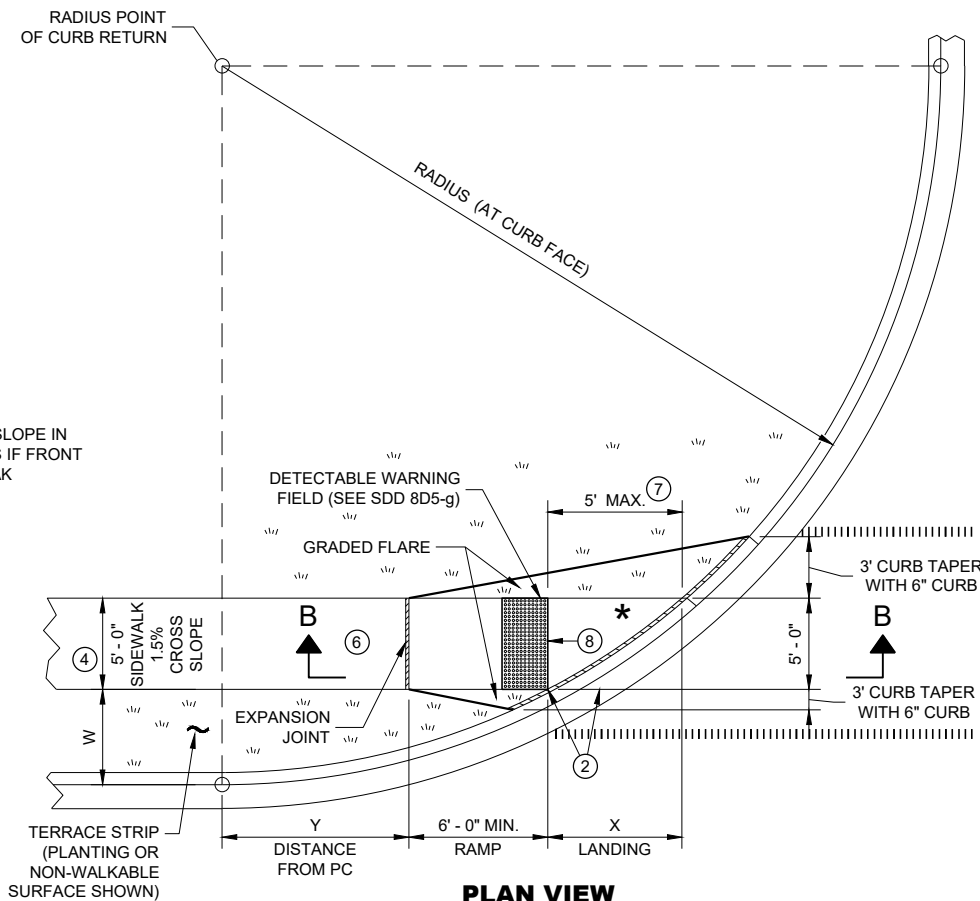
\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 3/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/2"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

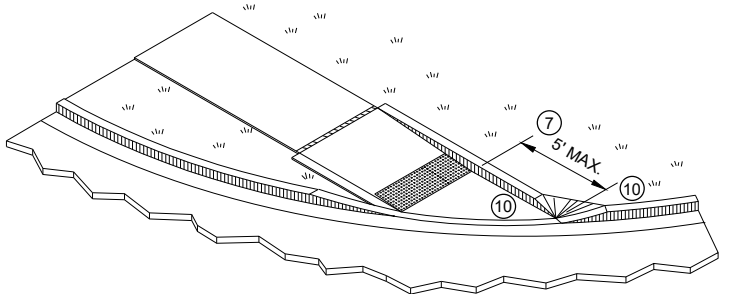
INTERMEDIATE RADII CAN BE INTERPOLATED  
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



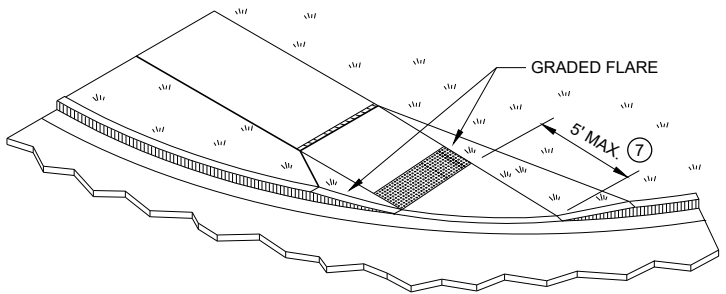
SECTION C - C FOR TYPE 4B



PLAN VIEW  
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

## LEGEND

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

## GENERAL NOTES

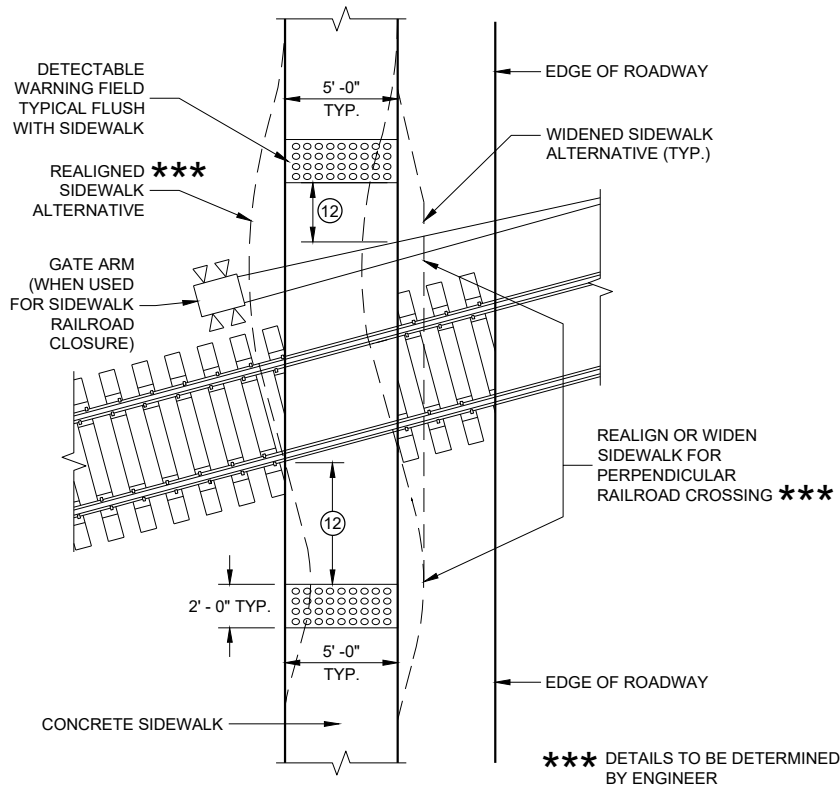
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

## CURB RAMPS TYPE 4B AND 4B1



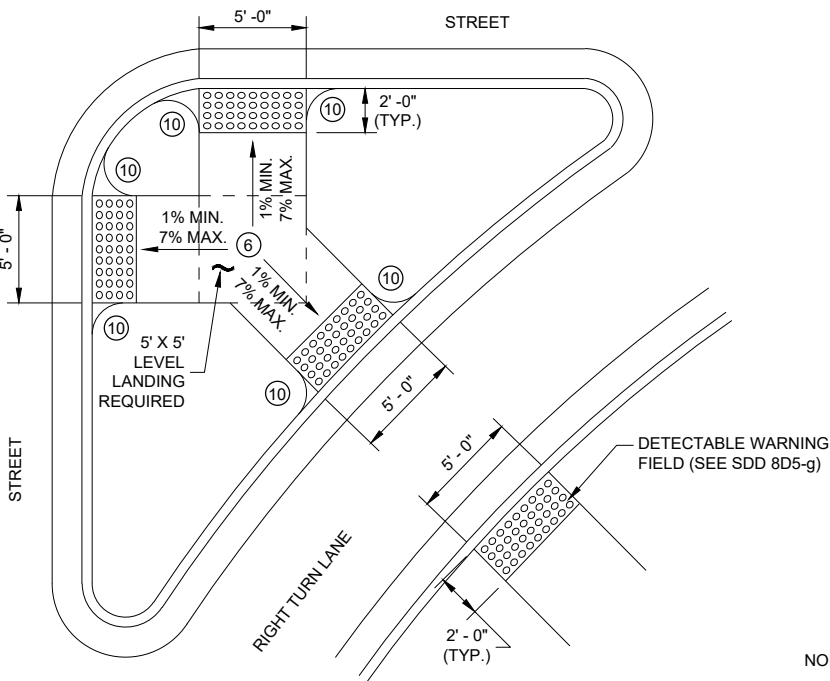


# SDD 08D05-e: Curb Ramps Types 5, 6, 7A, 7B and 8



**CURB RAMP TYPE 8**

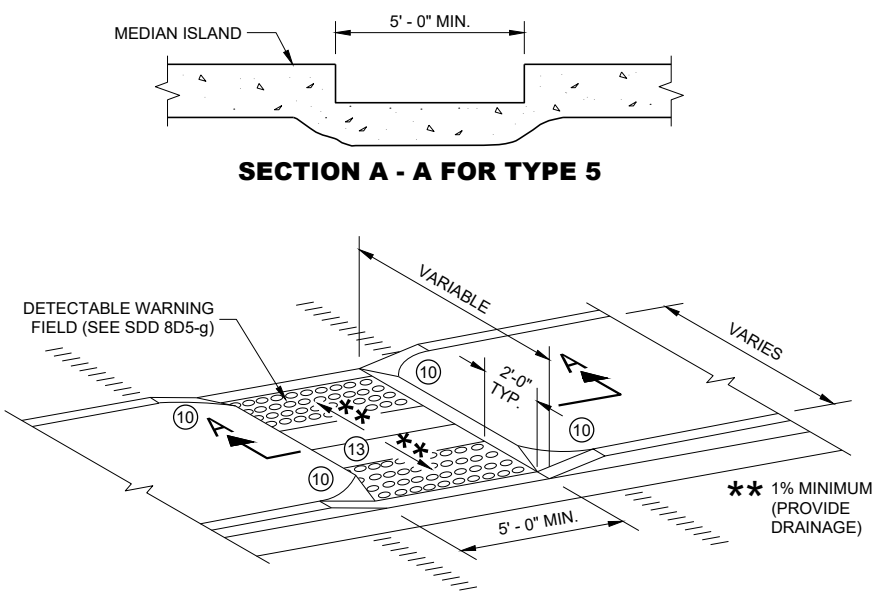
## DETECTABLE WARNINGS AT RAILROAD CROSSING



**CURB RAMP TYPE 6**

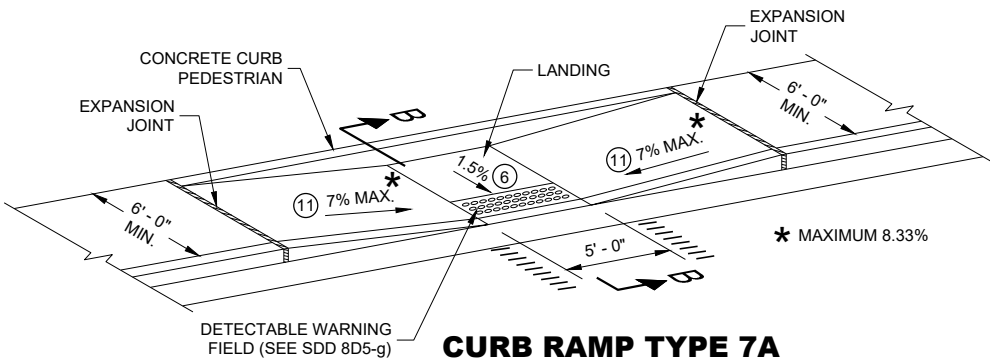
## DETECTABLE WARNING AT ISLANDS

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



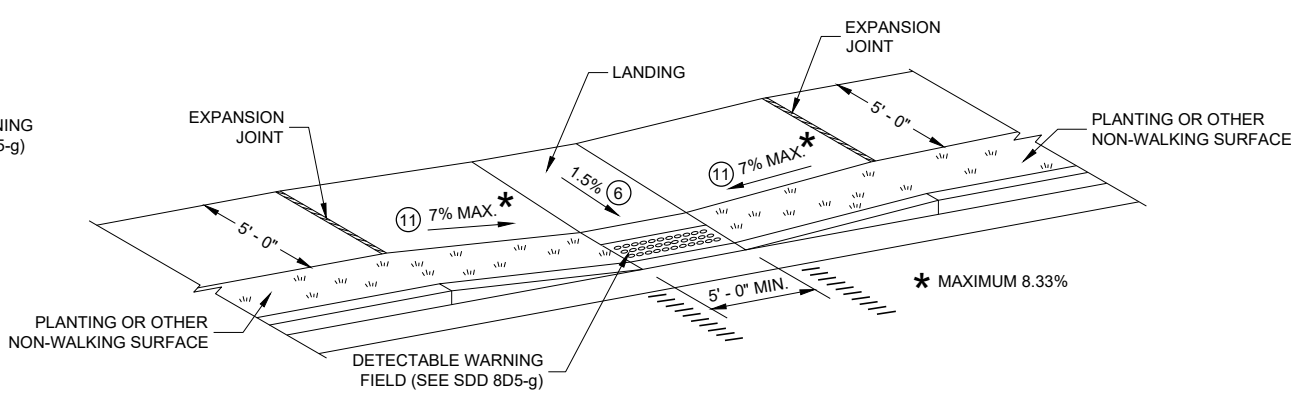
**CURB RAMP TYPE 5**

## MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING



**CURB RAMP TYPE 7A**

## MID BLOCK CROSSING



**CURB RAMP TYPE 7B**

## MID BLOCK CROSSING

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

## GENERAL NOTES

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

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.

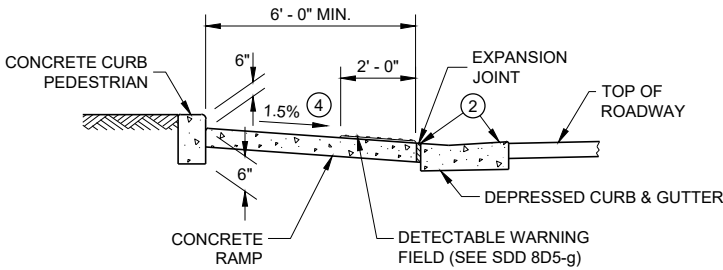
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 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.
- DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

## LEGEND

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



**SECTION B - B FOR TYPE 7A**

## CURB RAMPS TYPE 5, 6, 7A, 7B & 8

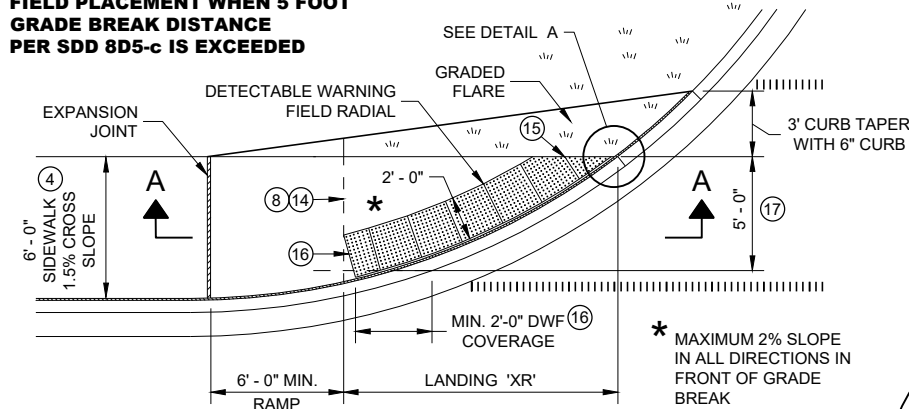
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



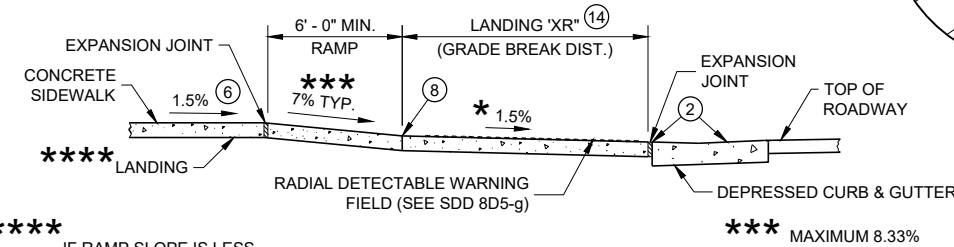


# SDD 08D05-f Curb Ramps Radial Detectable Warning Field Applications

## RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED

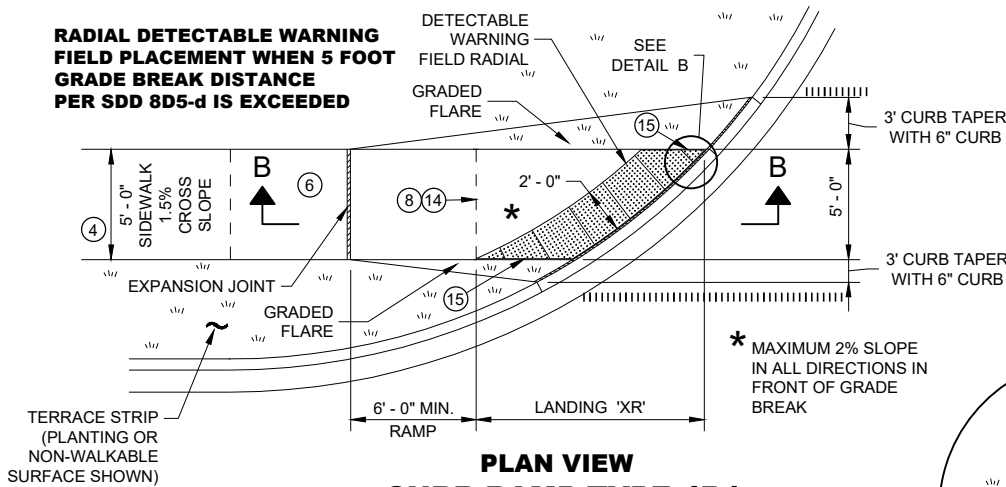


**PLAN VIEW  
CURB RAMP TYPE 4A1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

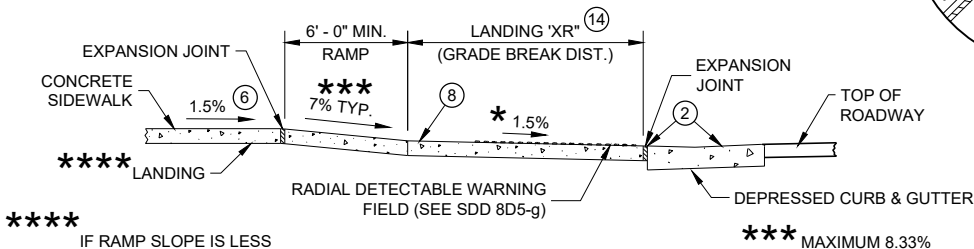


**SECTION A - A FOR TYPE 4A1**

## RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



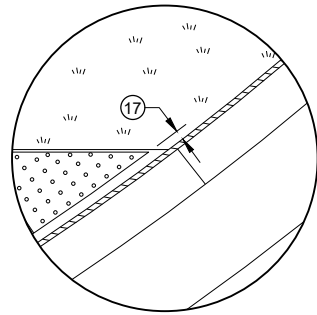
**PLAN VIEW  
CURB RAMP TYPE 4B1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**SECTION B - B FOR TYPE 4B1**

## LEGEND

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

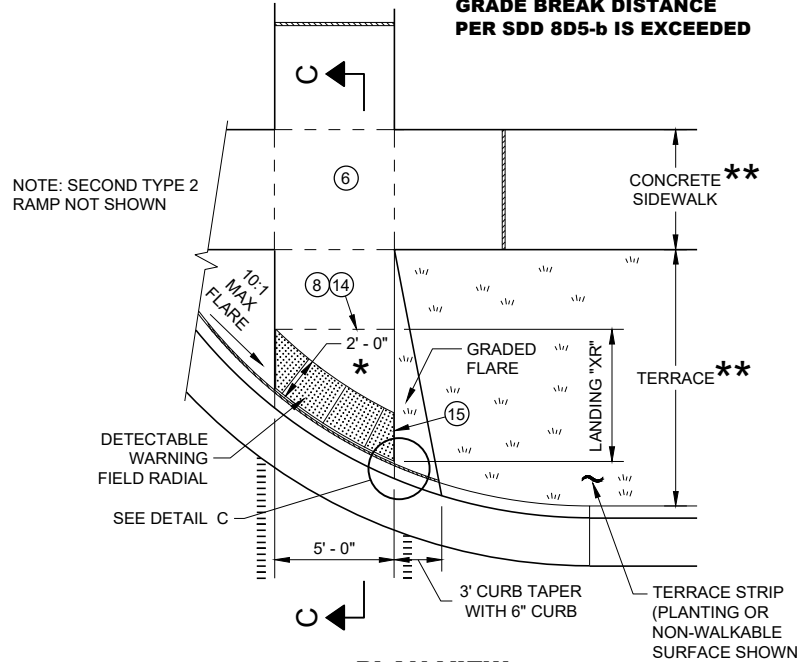


**DETAIL A**

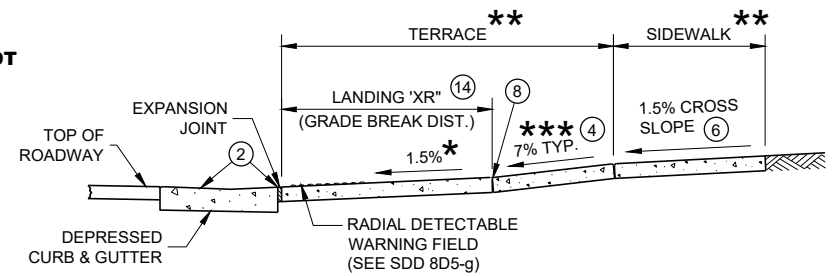
## GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMP AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMP. TYPE 4A AND 4B CURB RAMP ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- AN 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 BY 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

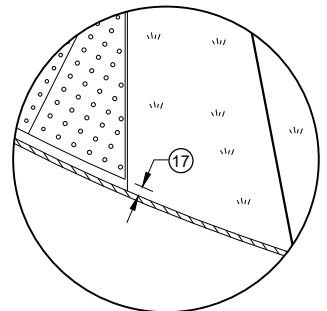
## RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED



**PLAN VIEW  
CURB RAMP TYPE 2  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)  
(ON LINE WITH SIDEWALK)**



**SECTION C - C FOR TYPE 2**



**DETAIL C**

## CURB RAMP RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

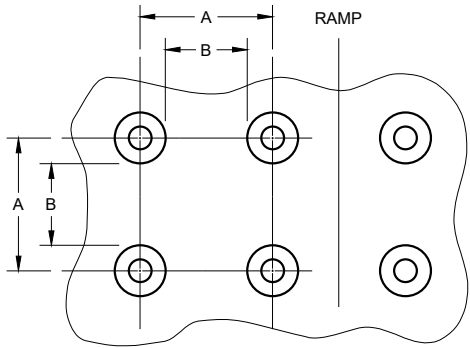




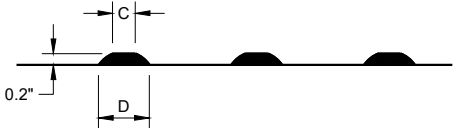
# SDD 08D05-g: Curb Ramps Rectangular and Radial Detectable Warning Plates

	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.

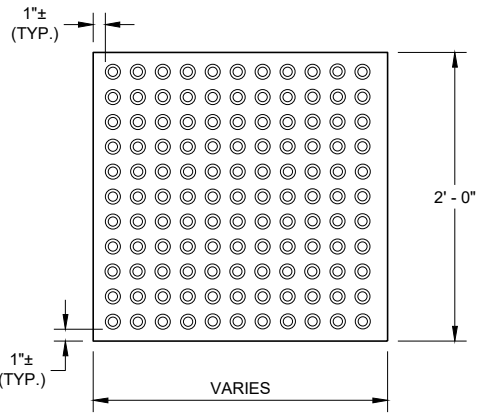


PLAN VIEW

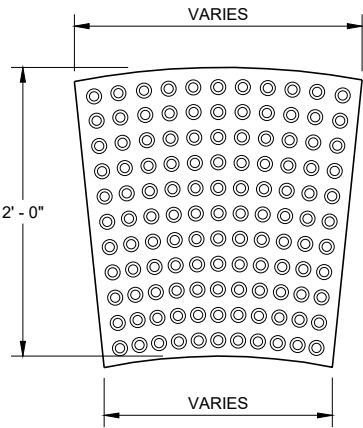


ELEVATION VIEW

## TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR  
PLATES



RADIAL  
PLATES

## PLAN VIEW DETECTABLE WARNING FIELDS (TYPICAL)

## GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

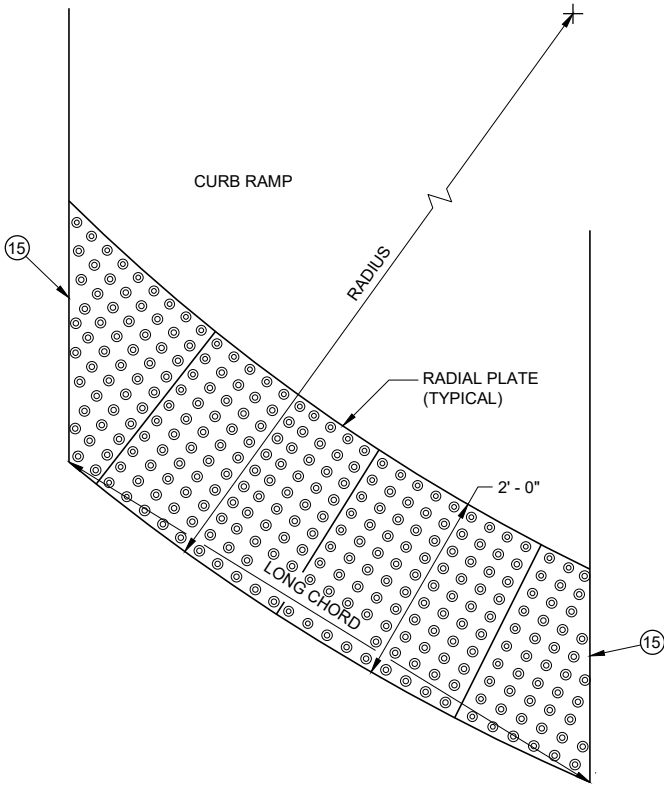
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

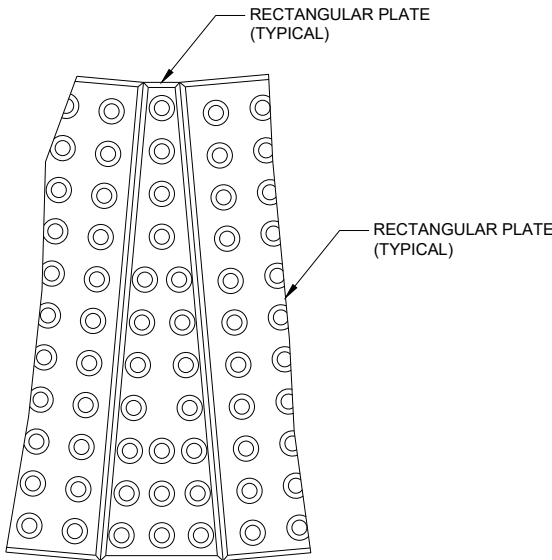
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



## PLAN VIEW RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



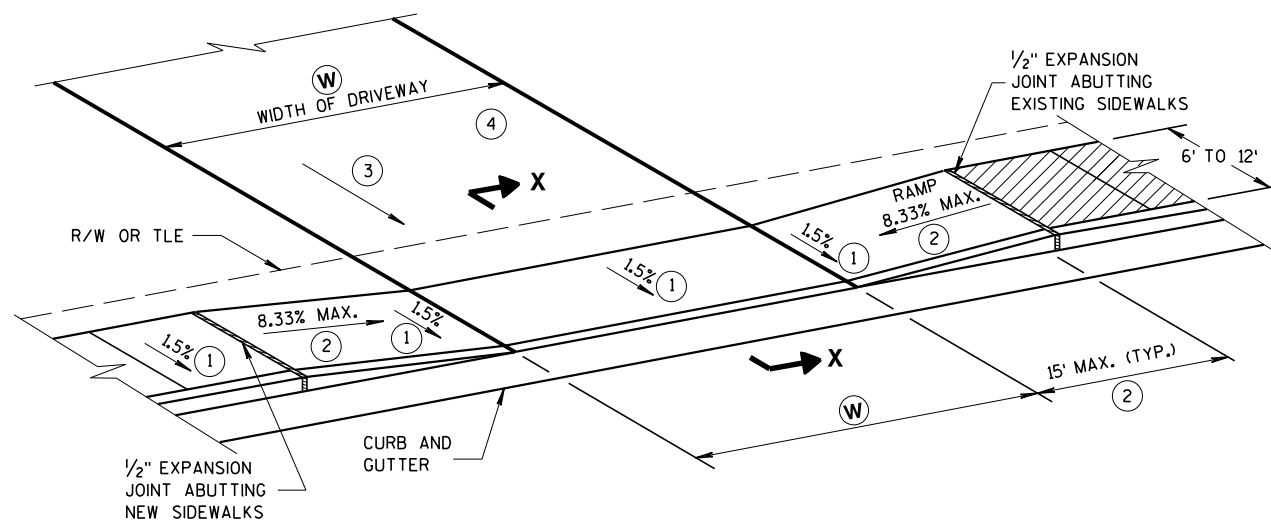
## PLAN VIEW RADIAL WEDGE PLATE CONNECTION DETAIL

## CURB RAMP RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

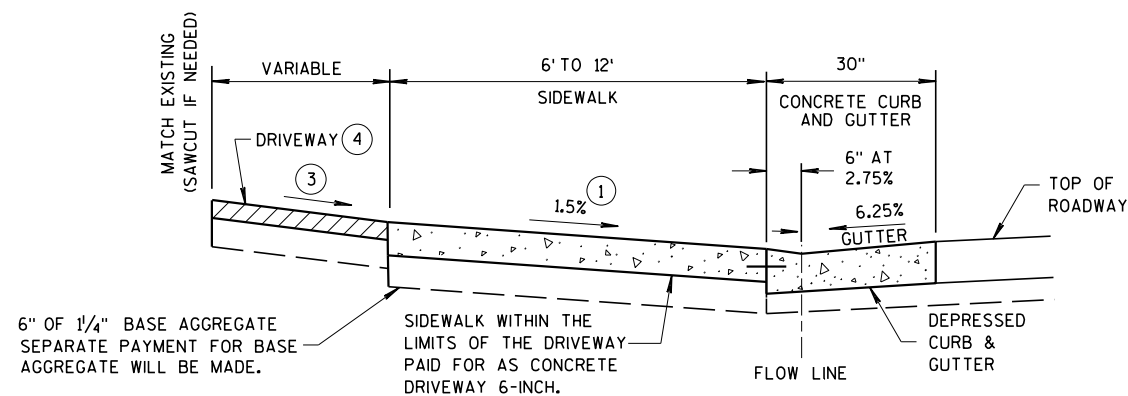
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2019 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

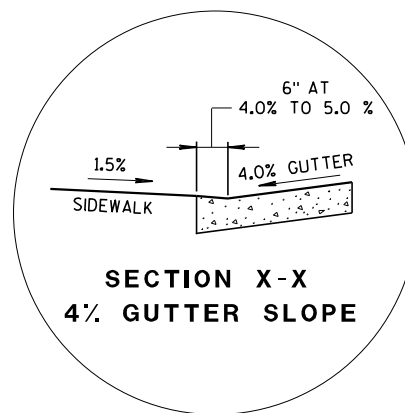




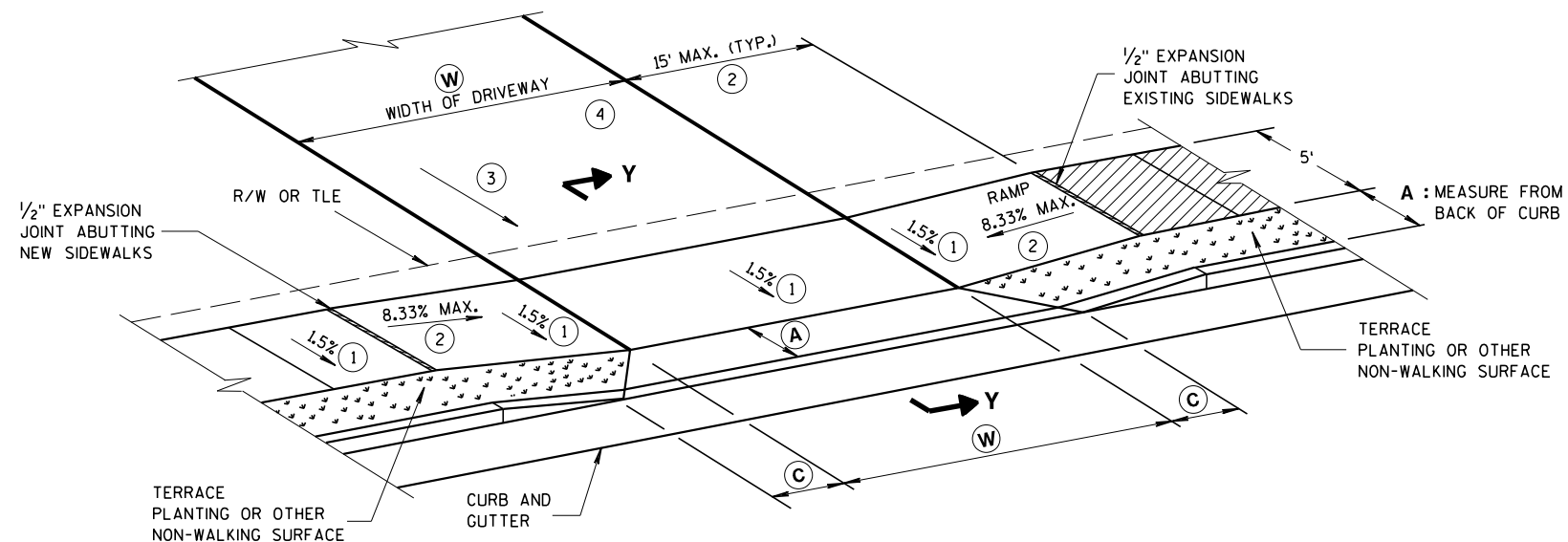
**TYPE X**  
**SIDEWALK ABUTS CURB & GUTTER**  
**TERRACE VARIES 0 TO 3 FEET**



**SECTION X-X**



**SECTION X-X**  
**4% GUTTER SLOPE**



**TYPE Y**  
**SIDEWALK WITH NARROWER TERRACE**  
**TERRACE VARIES 4 TO 6 FEET**

**(W):** 12' MIN. - 24' MAX. RESIDENTIAL AND  
 NON-COMMERCIAL (PE & FE)  
 16' MIN. - 35' MAX. COMMERCIAL (CE)

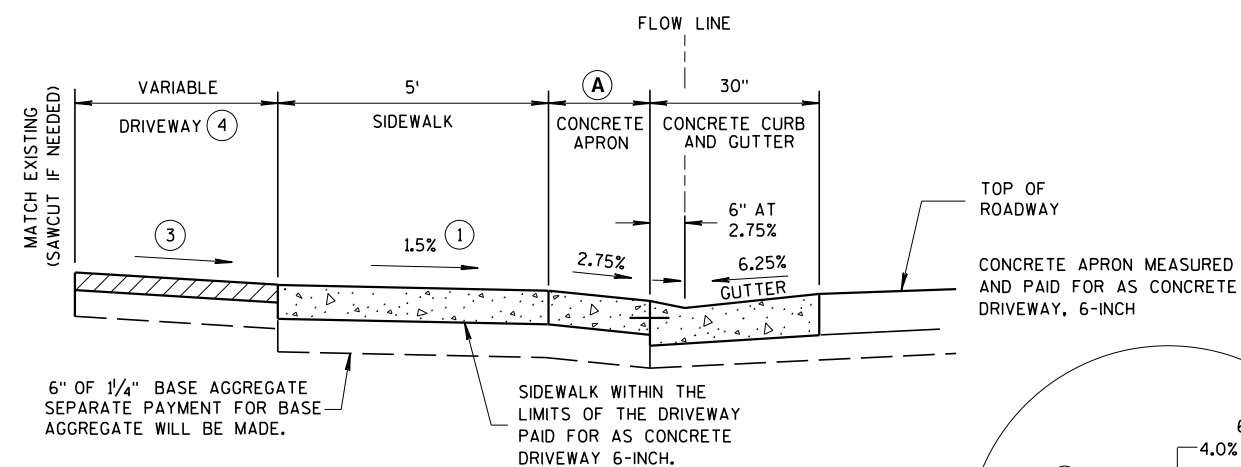
## GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓜ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- ① CONSTRUCTION TOLERANCE OF  $0.5\% \pm$  FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED  $2\%$ .
- ② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
  - 10.5% UP AWAY FROM SIDEWALK (SAG)
  - 8.5% DOWN AWAY FROM SIDEWALK (CREST)
  - ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- ④ DRIVEWAY TYPES
  - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
  - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
  - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)

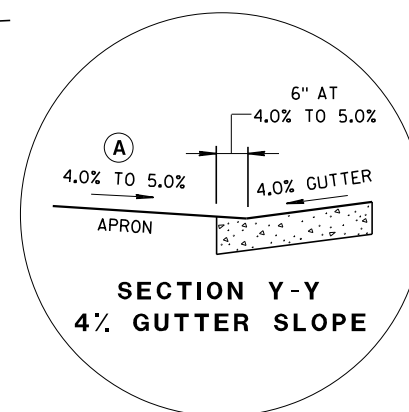


NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

**SECTION Y-Y**  
**DRIVEWAY DETAIL**  
**WITH CONCRETE CURB & GUTTER**  
**(URBAN AND SUBURBAN)**

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

NOT TO SCALE



SECTION Y-Y  
4% GUTTER SLOPE

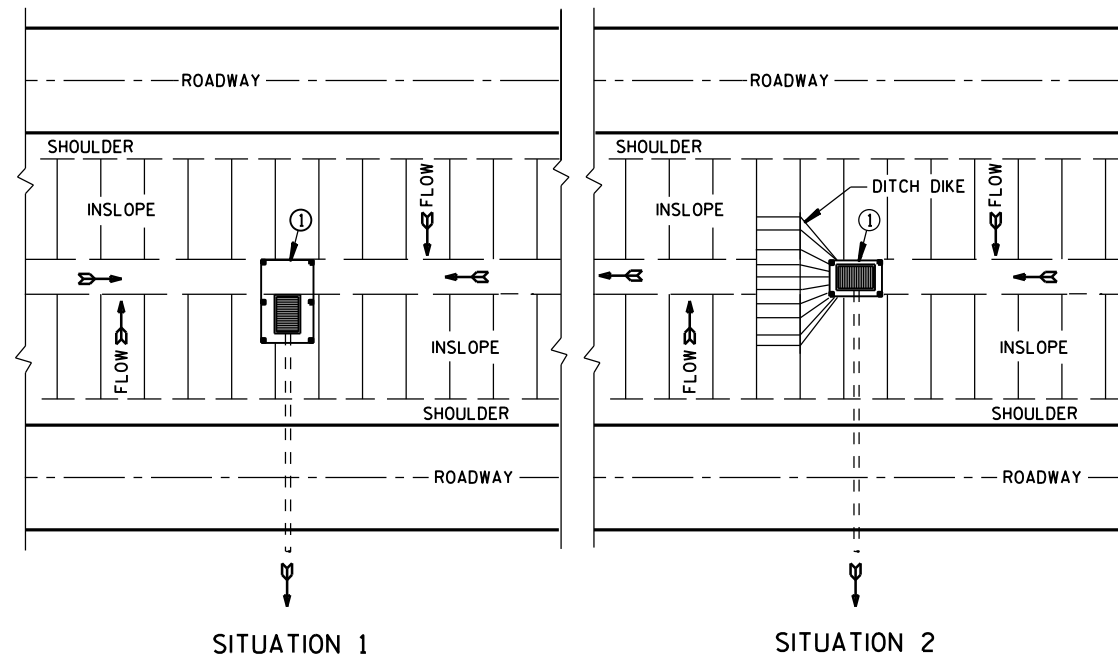
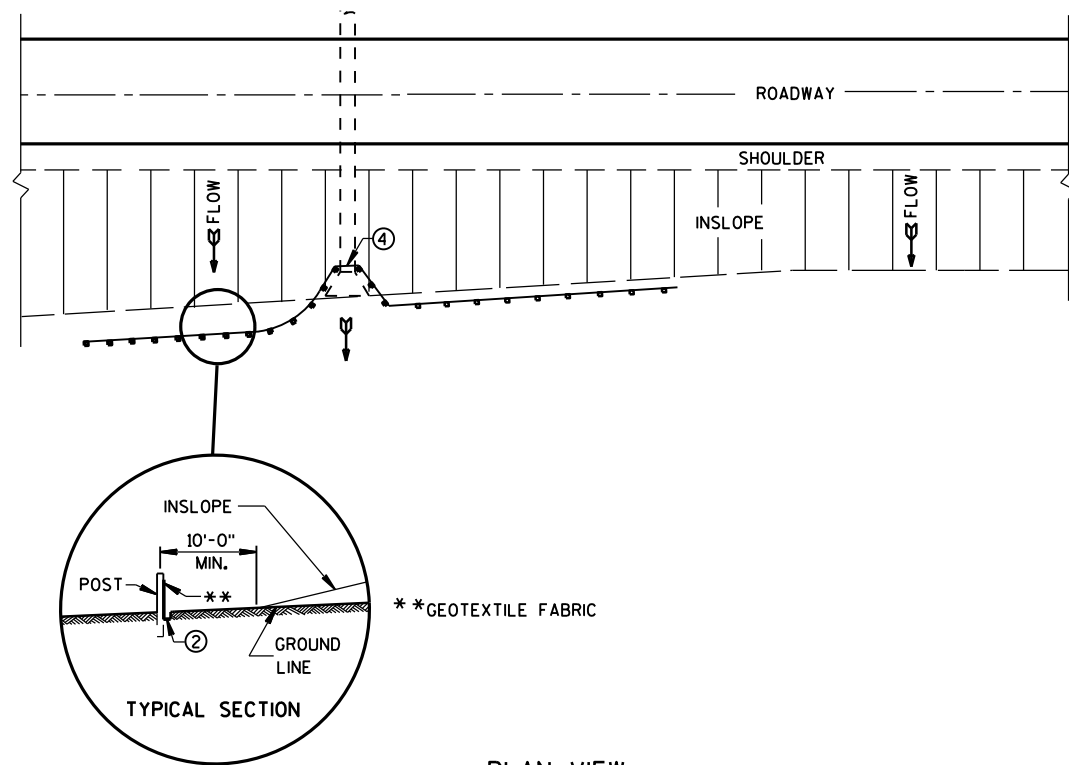
### DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018  
DATE  
FHWA

/S/ Rodney Taylor **62**  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

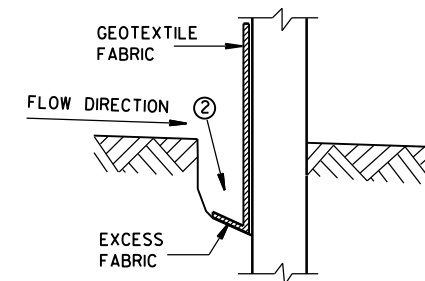




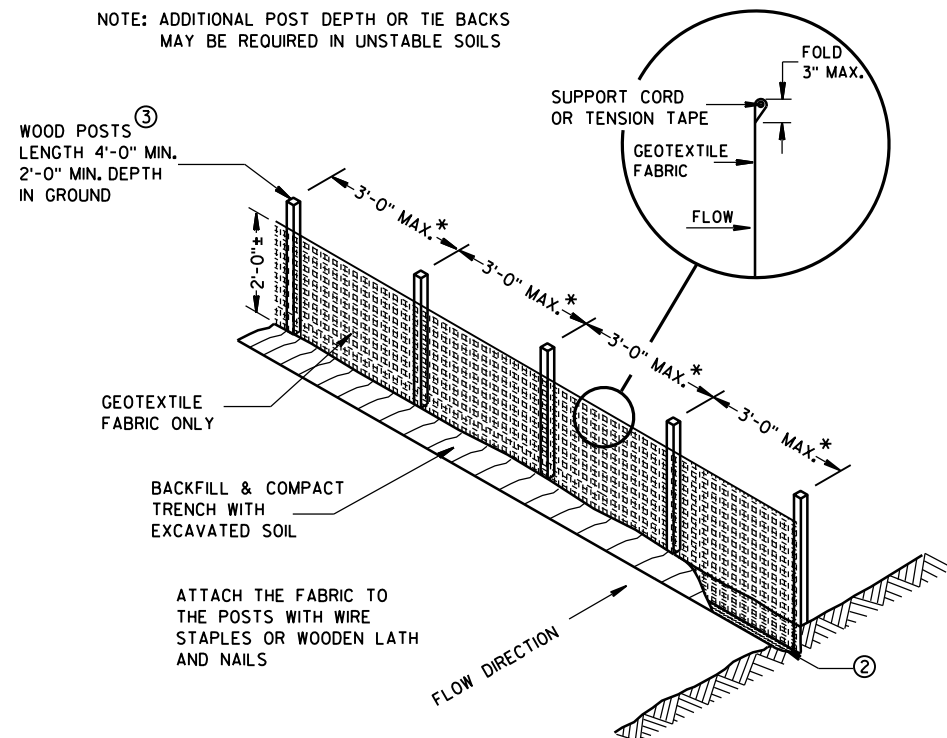
## GENERAL NOTES

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

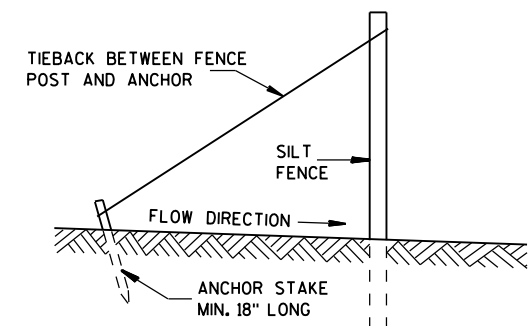
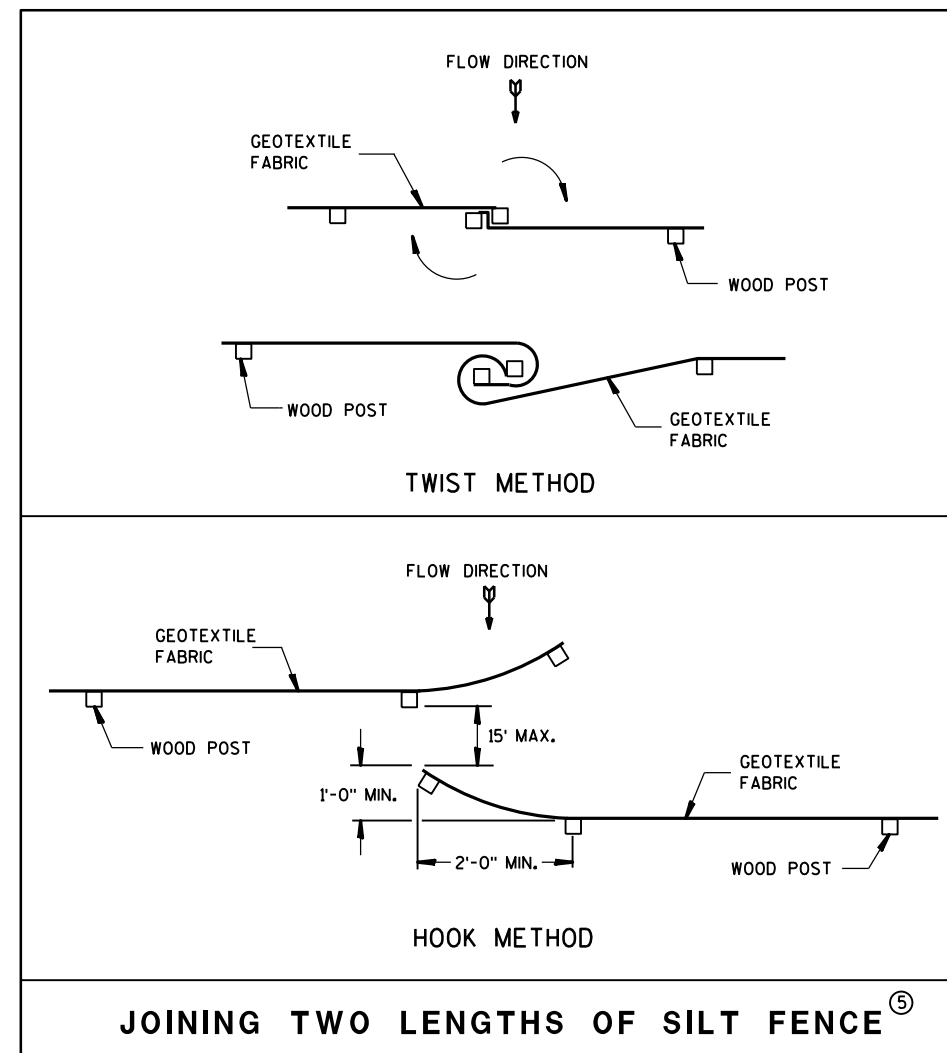
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS



\* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



## SILT FENCE

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

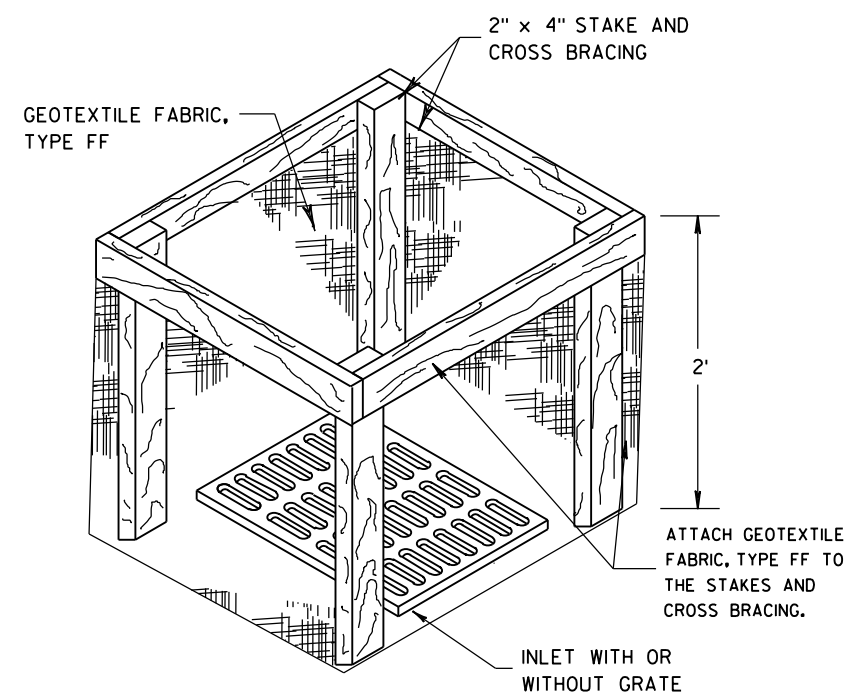
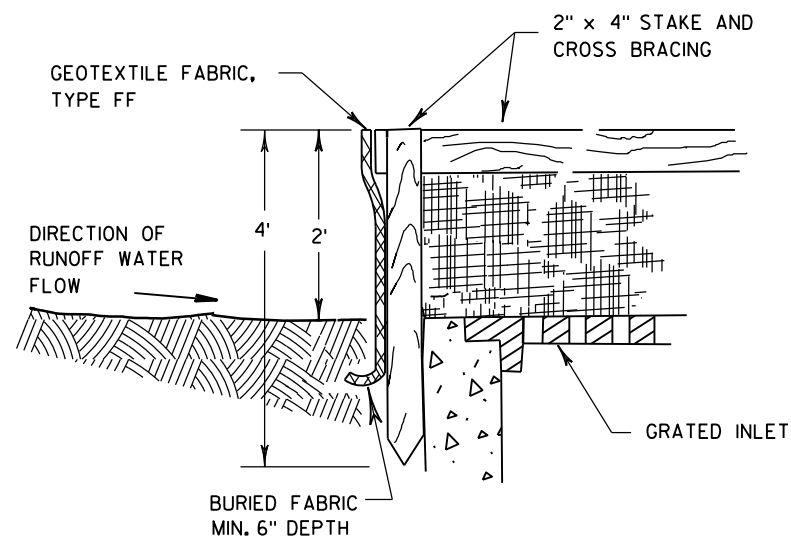
APPROVED

4-29-05  
 DATE

FHWA

/S/ Beth Cannestra  
 CHIEF ROADWAY DEVELOPMENT ENGINEER





## INLET PROTECTION, TYPE A

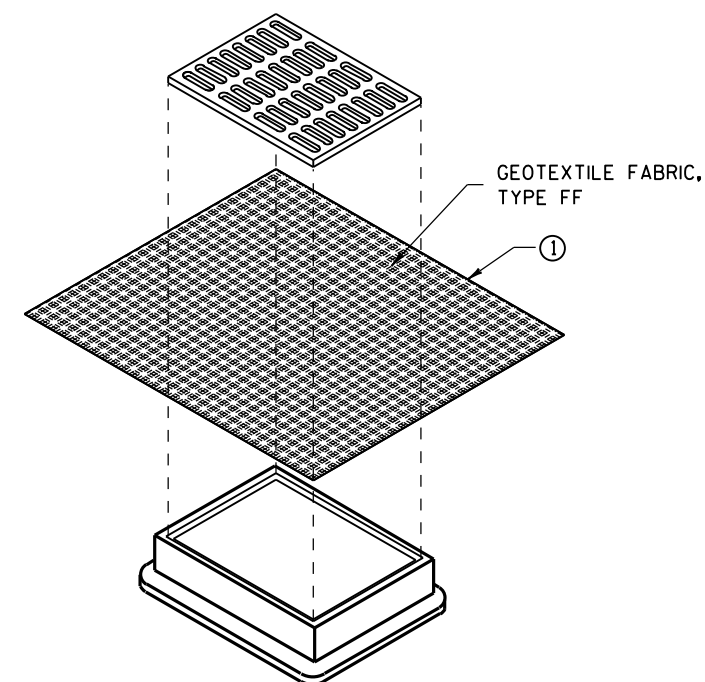
## GENERAL NOTES

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.

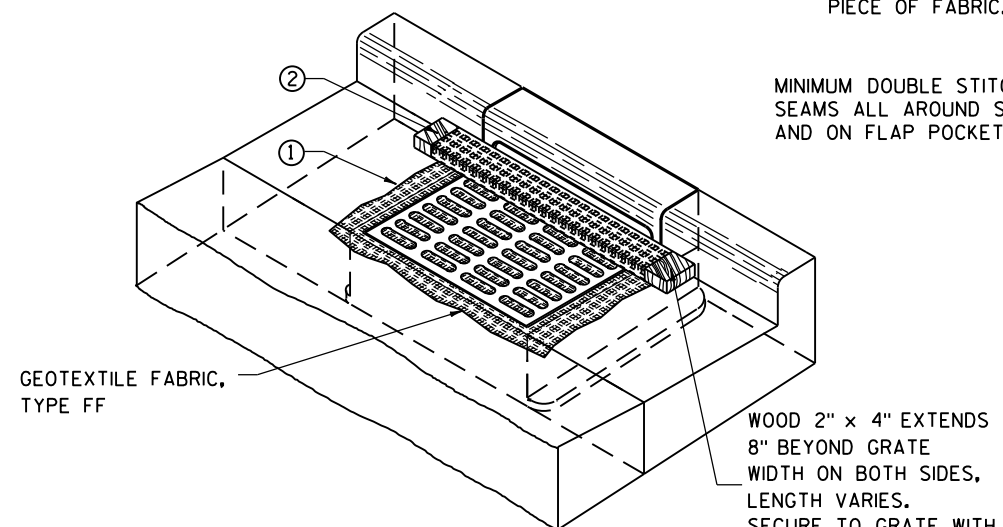
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

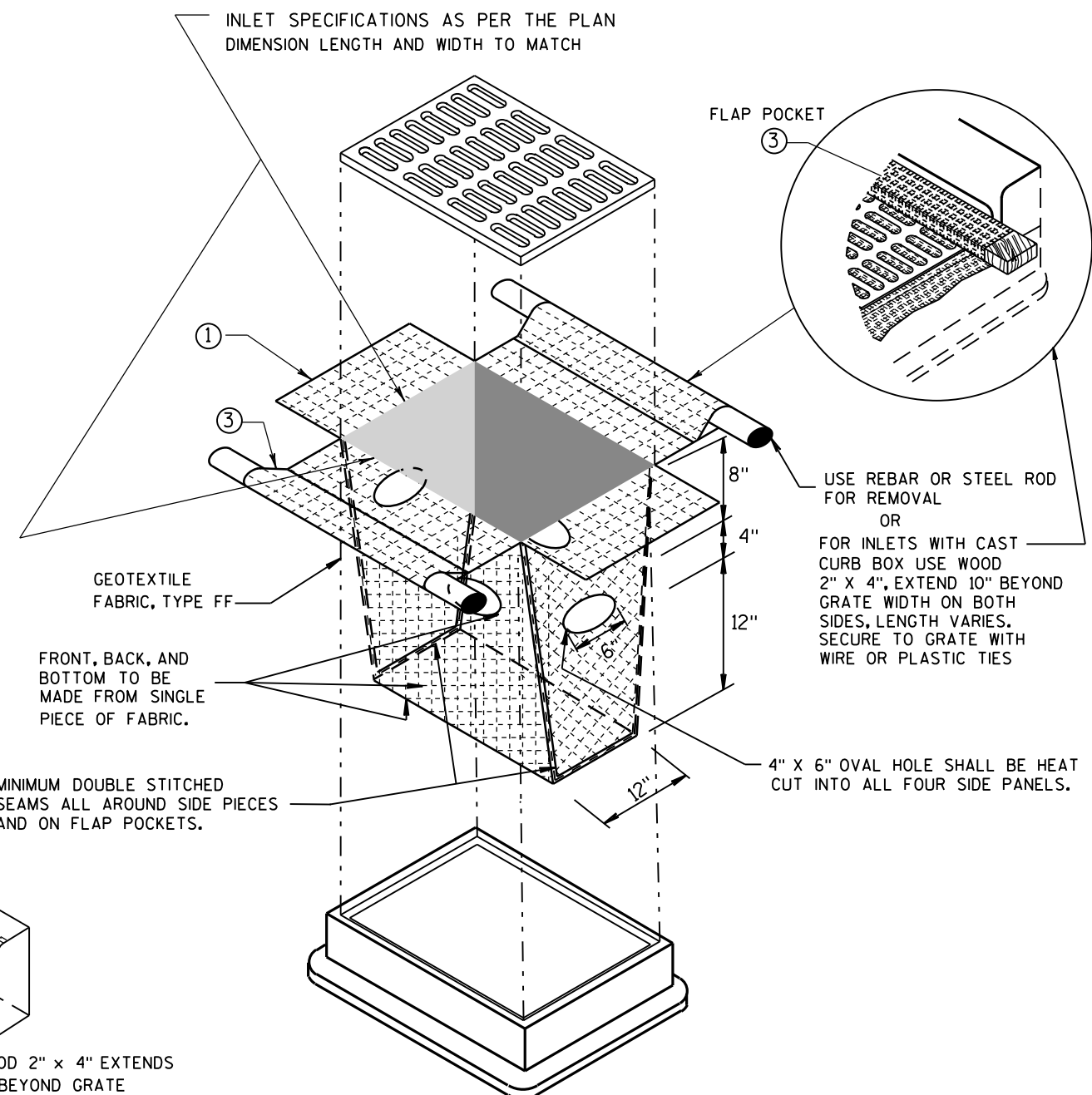
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

## 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

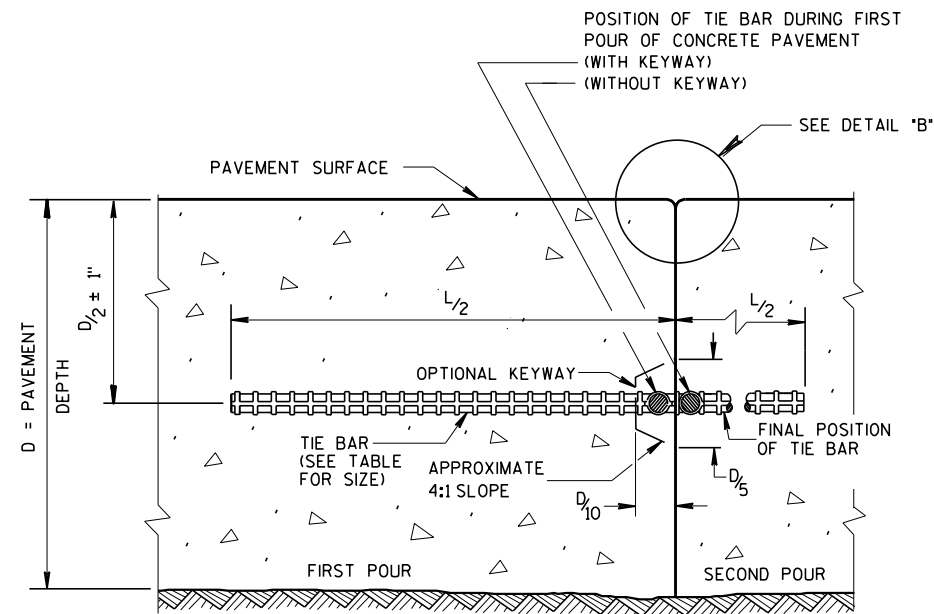
(CAN BE INSTALLED IN ANY INLET TYPE WITH  
OR WITHOUT A CURB BOX AS PER NOTE (2) )

<p style="text-align: center;"><b>INLET PROTECTION TYPE A, B, C, AND D</b></p>	
<p style="text-align: center;"><b>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</b></p>	
<p><b>APPROVED</b></p> <p>10-16-02</p> <p>DATE</p>	<p>/s/ Beth Cannestra</p> <p>64</p> <p>CHIEF ROADWAY DEVELOPMENT ENGINEER</p>
<p><b>FHWA</b></p>	

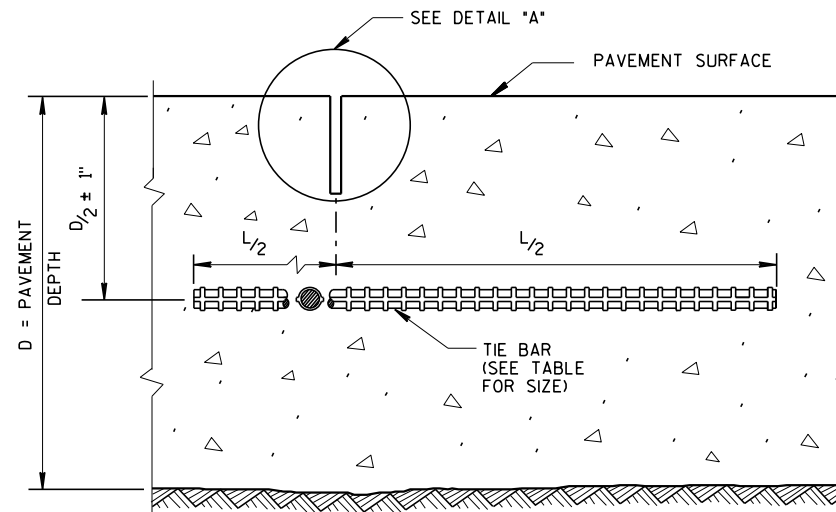




# SDD 13c1 Concrete Pavement Longitudinal Joints and Ties



CONSTRUCTION JOINT



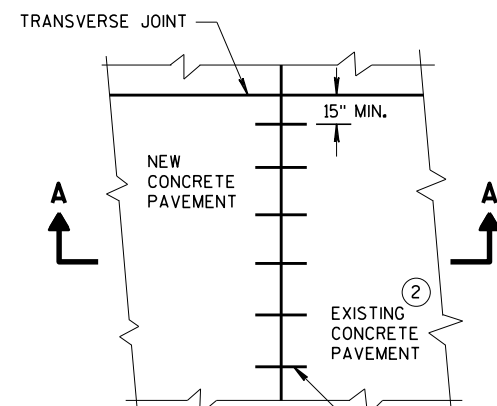
SAWED JOINT

## GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

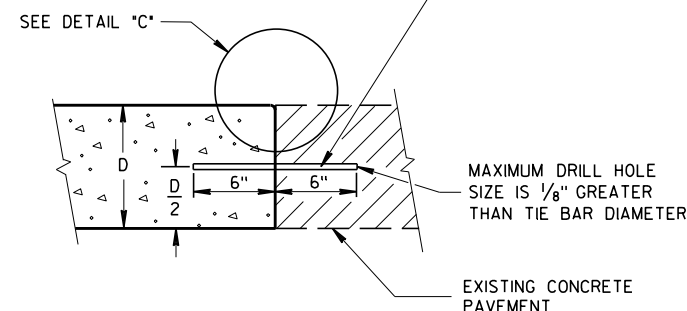
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- 1 ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- 2 PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

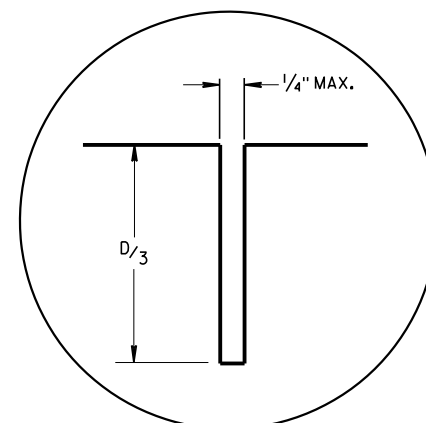


PLAN VIEW

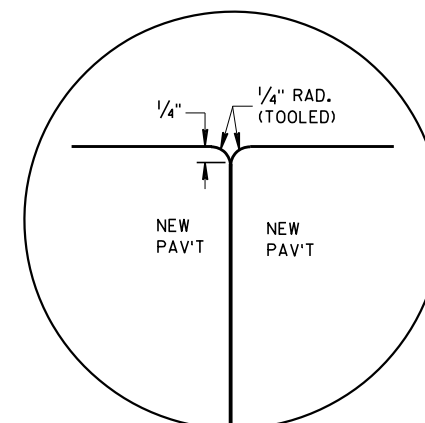
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



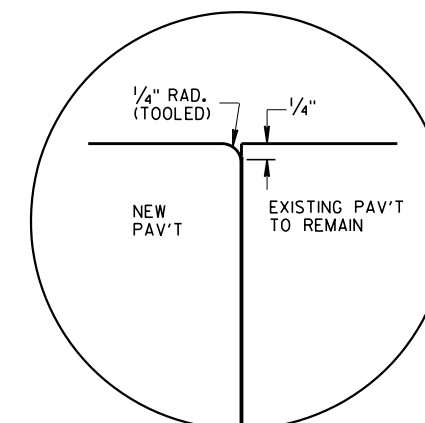
SECTION A-A  
LONGITUDINAL CONSTRUCTION JOINT  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



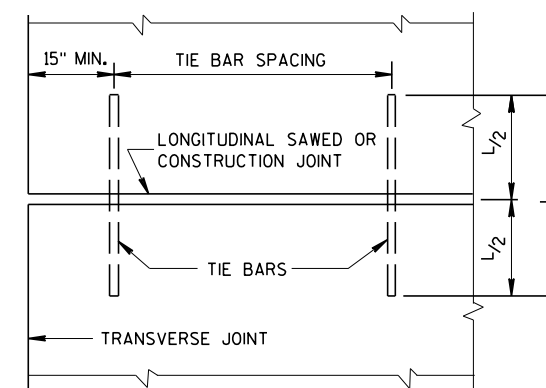
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW  
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT  
LONGITUDINAL JOINTS AND TIES

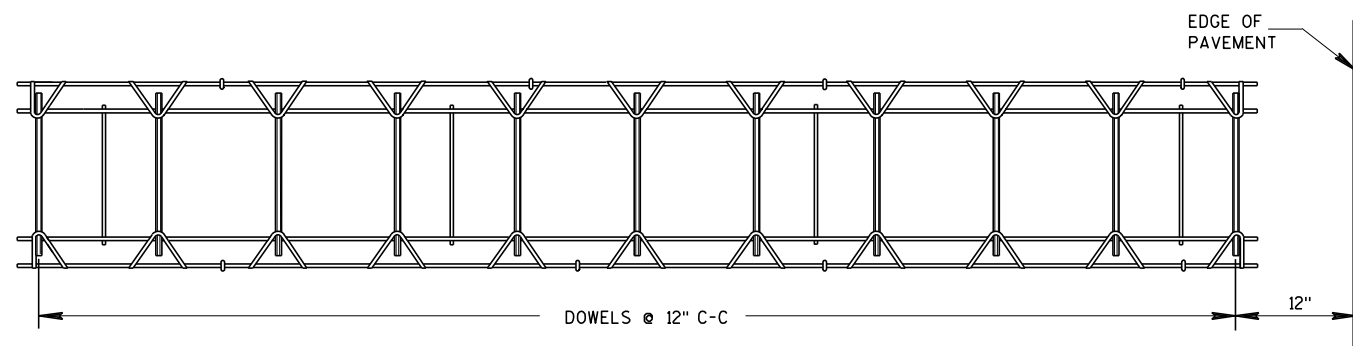
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Peter Kemp, P.E.  
DATE PAVEMENT SUPERVISOR  
FHWA

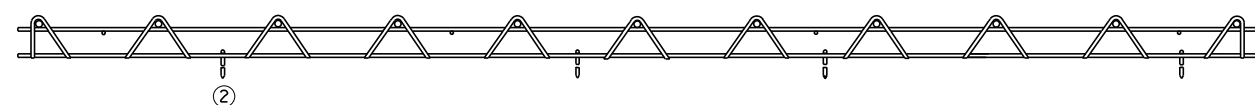




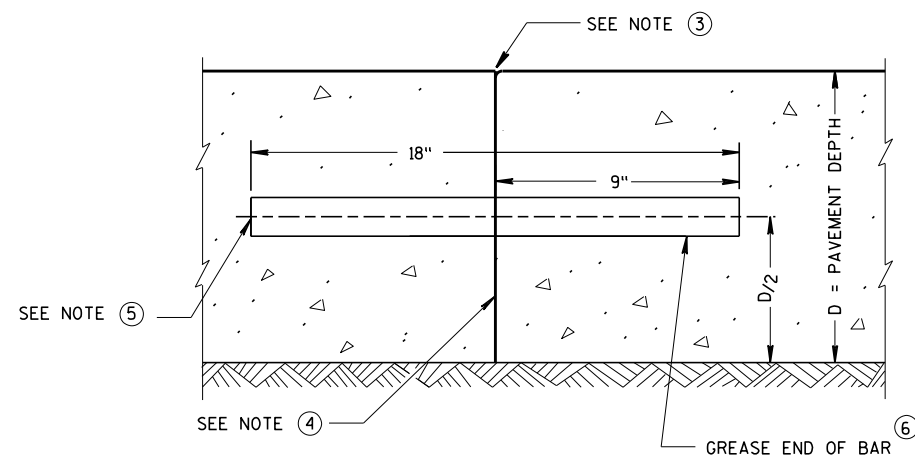
# SDD 13c13 Urban Doweled Concrete Pavement



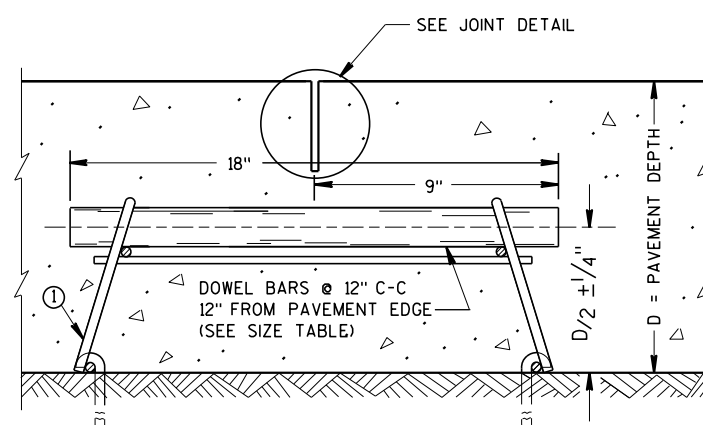
PLAN VIEW



SIDE VIEW  
CONTRACTION JOINT DOWEL ASSEMBLY (1)



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE  
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

## GENERAL NOTES

### CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

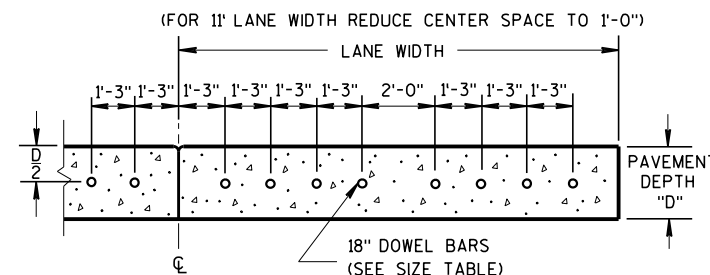
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

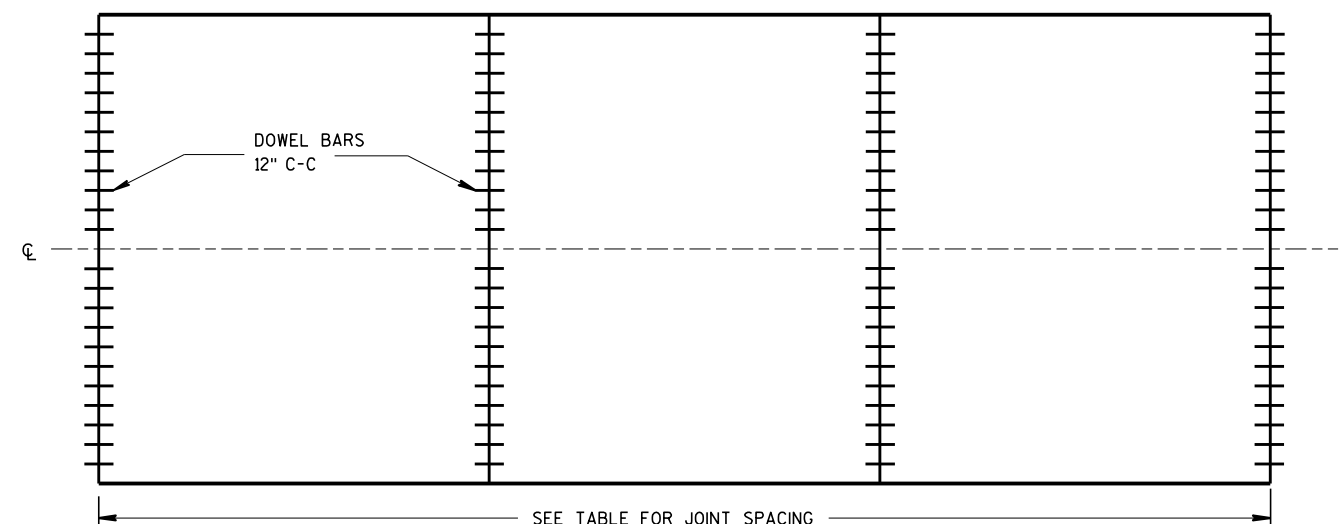
### CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

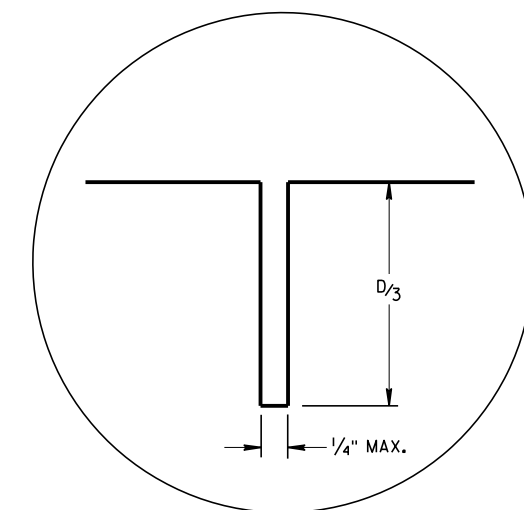
- (1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- (2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- (3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- (4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- (5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- (6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- (7) ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT (4)



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

## URBAN DOWELED CONCRETE PAVEMENT

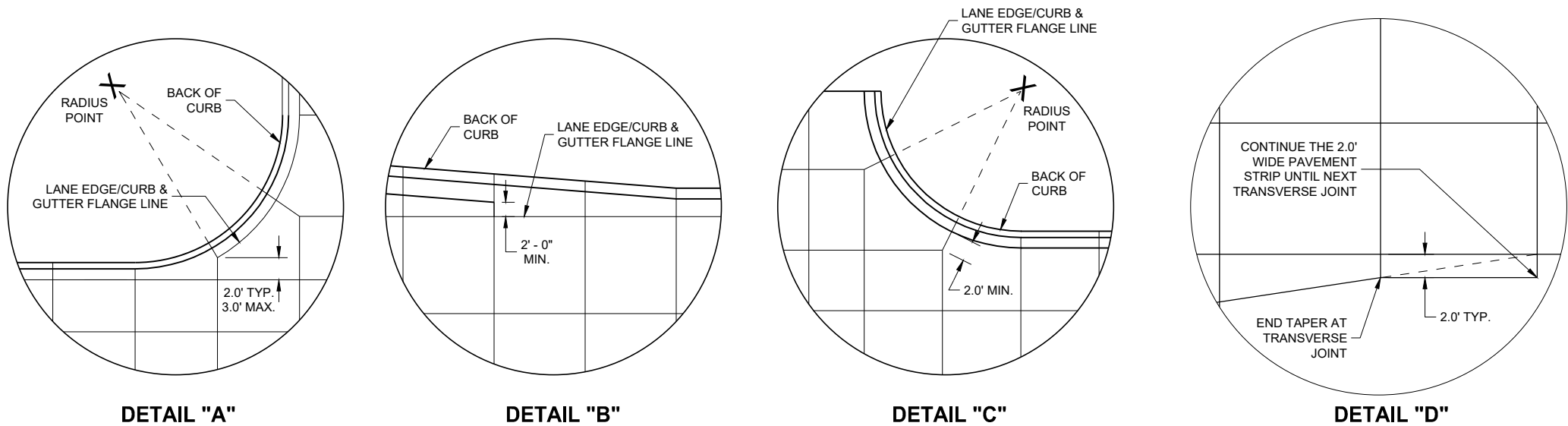
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Peter Kemp, 66  
DATE PAVEMENT SUPERVISOR  
FHWA



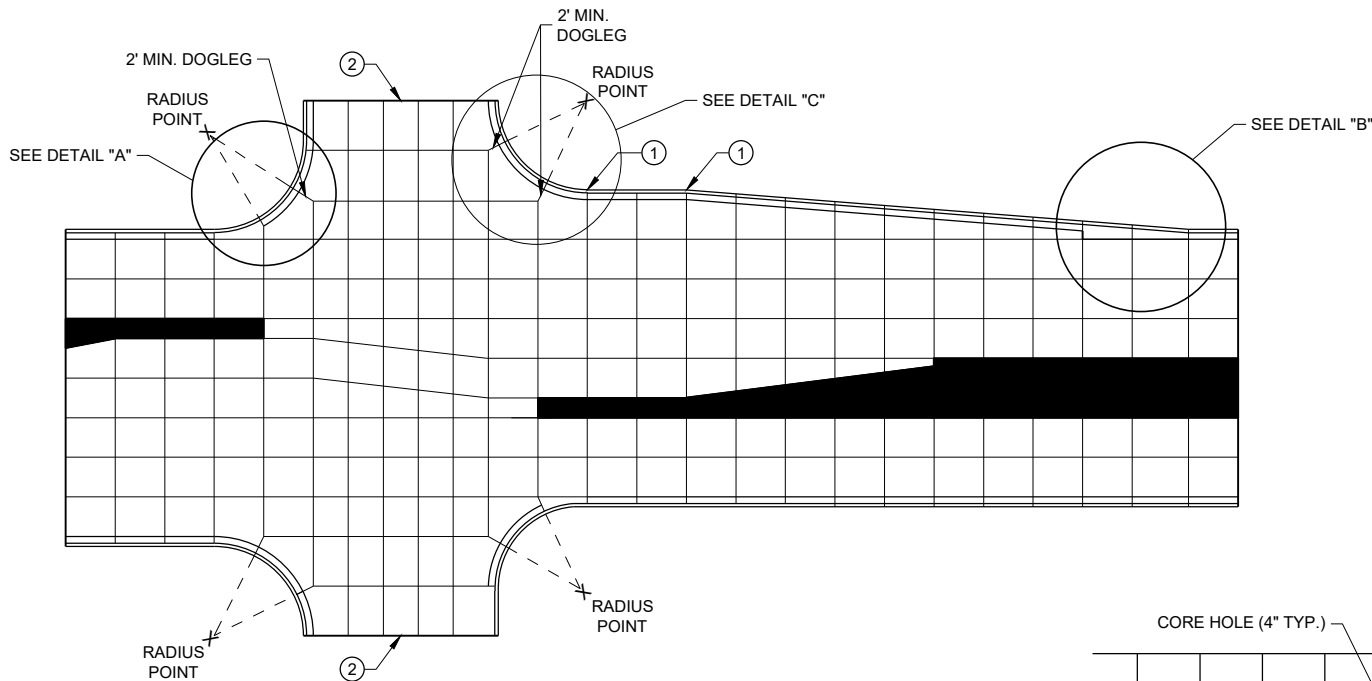


# SDD 13C18-a Concrete Pavement Jointing



## GENERAL NOTES

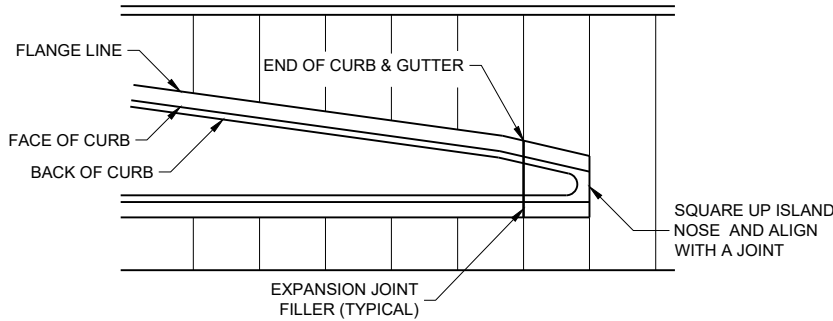
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- 1 PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
  - 2 CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
  - 3 THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



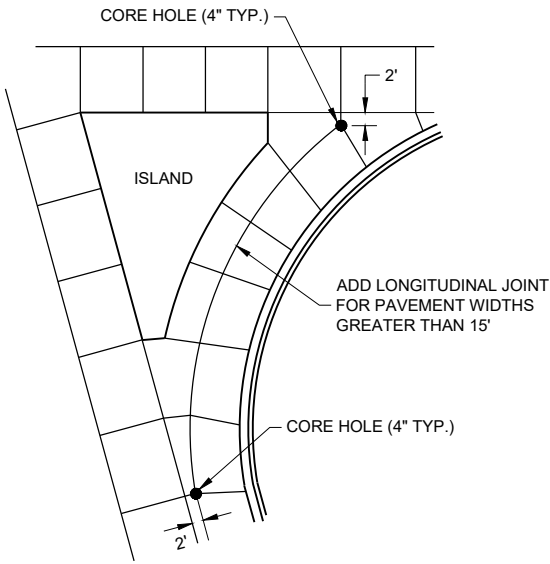
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

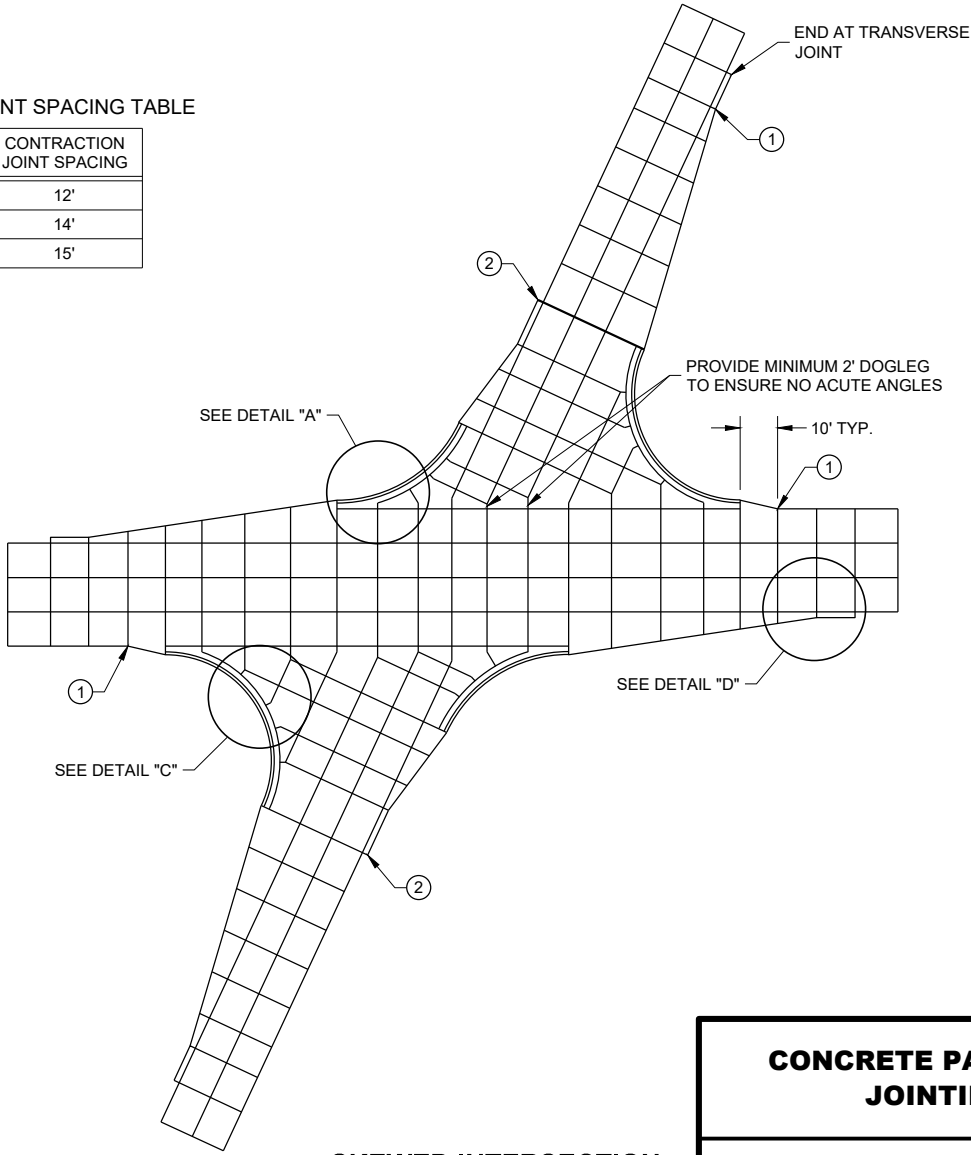
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

## CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





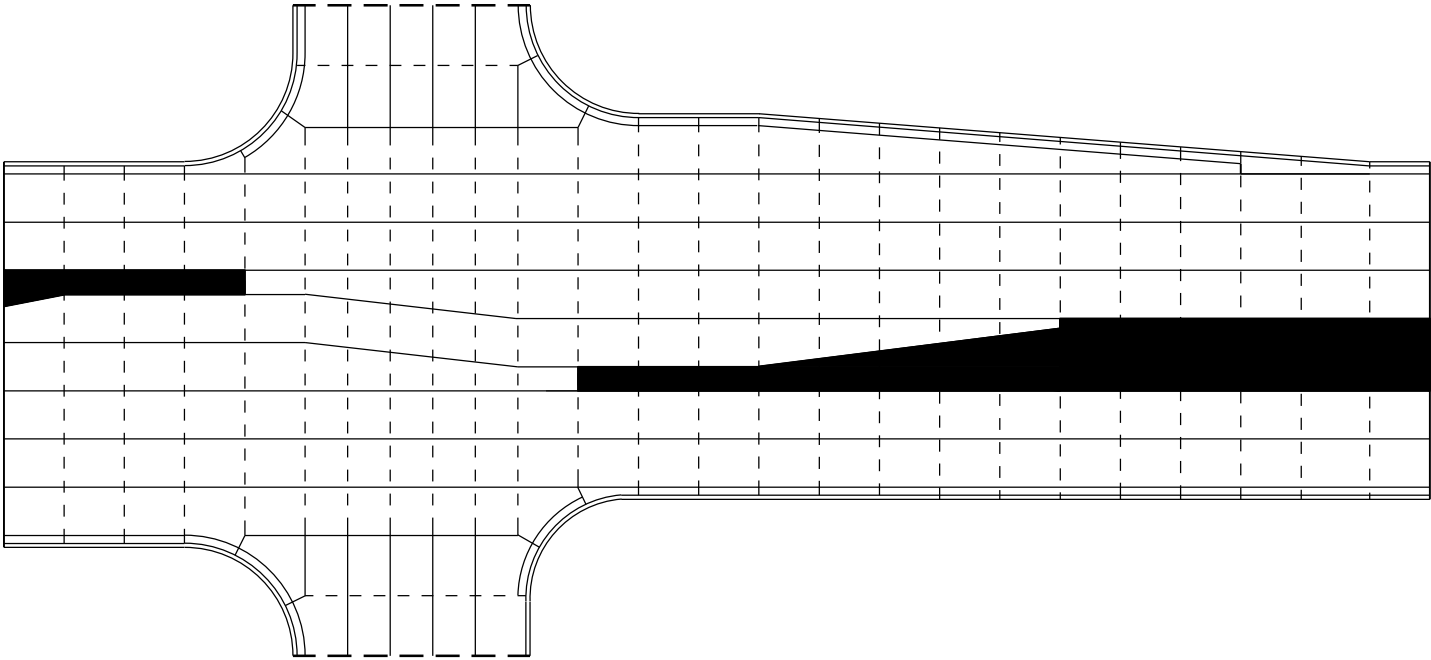
# SDD 13C18-b Concrete Pavement Steel Reinforcement

### LEGEND

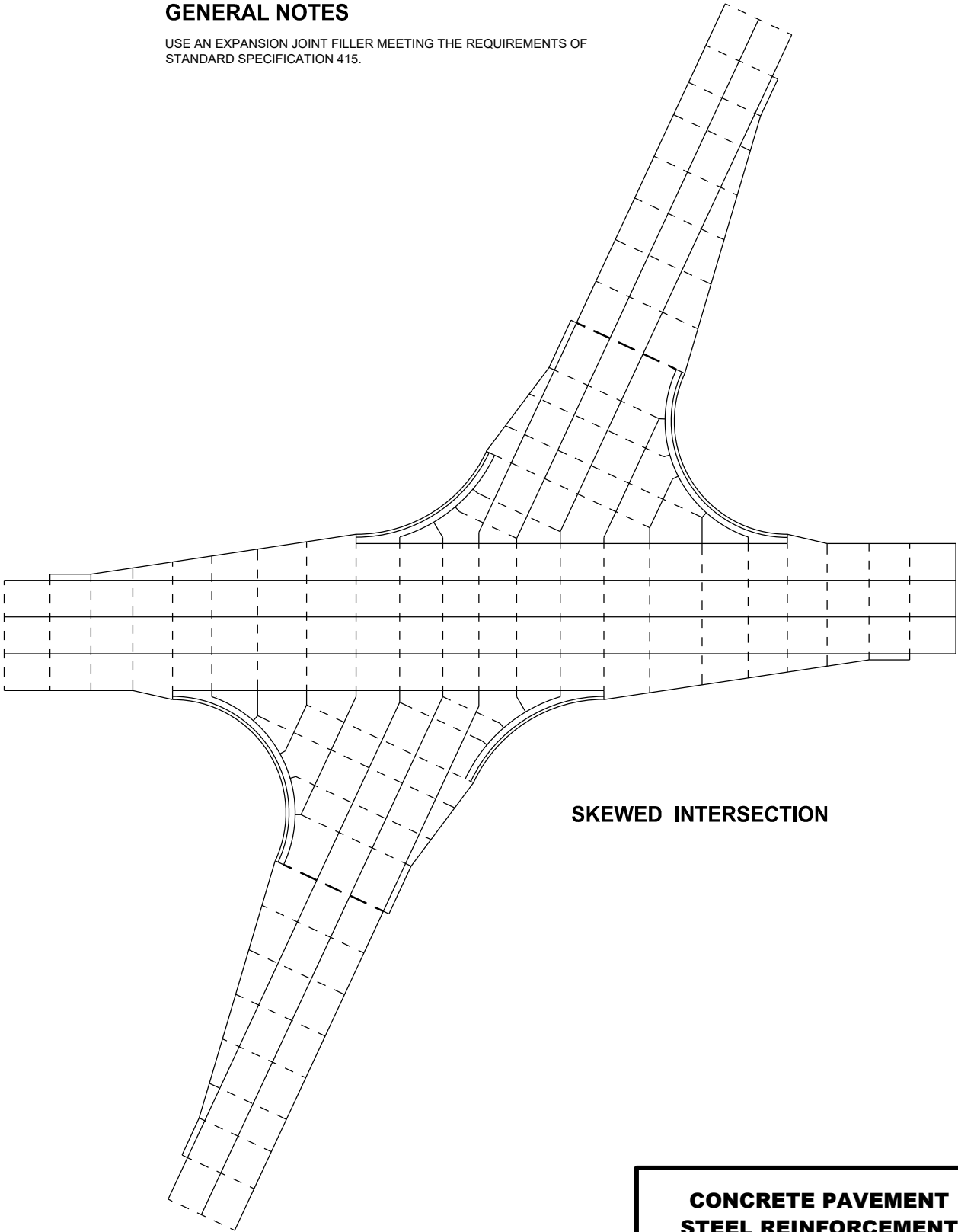
- POTENTIAL DOWELED EXPANSION JOINT
- - - DOWELED JOINT
- \_\_\_\_\_ TIED JOINT

### GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



STANDARD INTERSECTION



SKEWED INTERSECTION

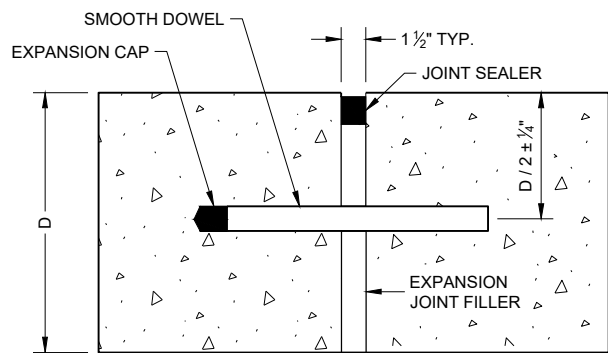
**CONCRETE PAVEMENT  
STEEL REINFORCEMENT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

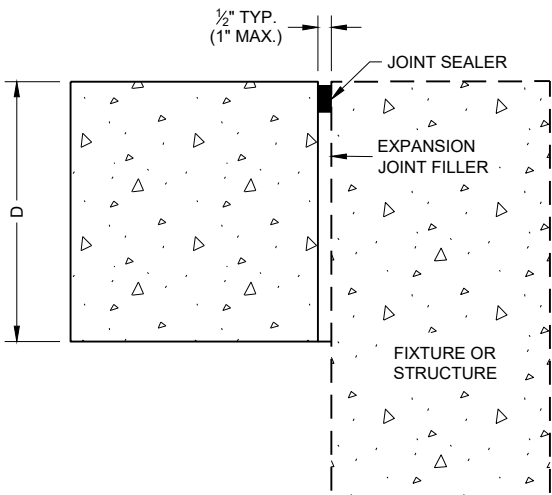




# SDD 13C18-c Concrete Pavement Joint Types

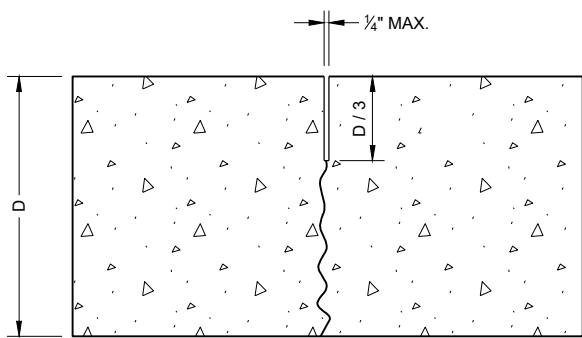


**DOWELED TRANSVERSE** ①

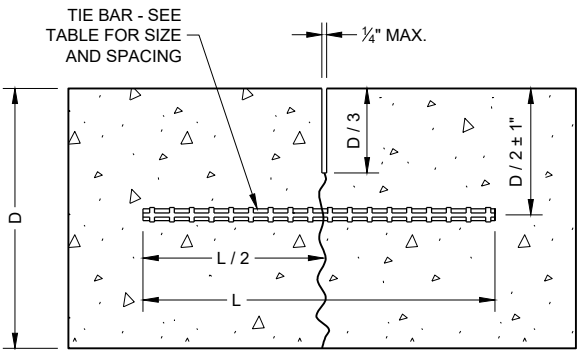


**UNTIED - LONGITUDINAL**

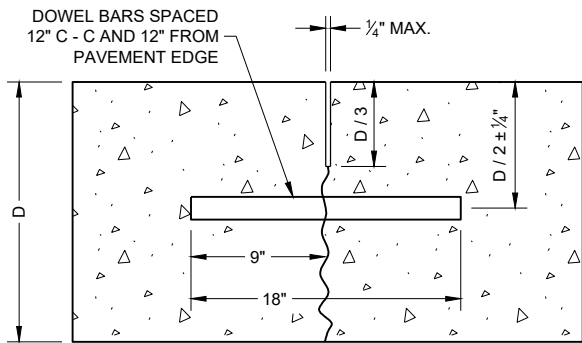
## EXPANSION JOINTS



**UNDOWELED TRANSVERSE**

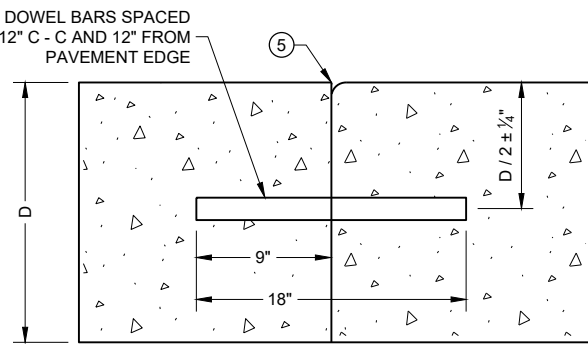


**TIED LONGITUDINAL**

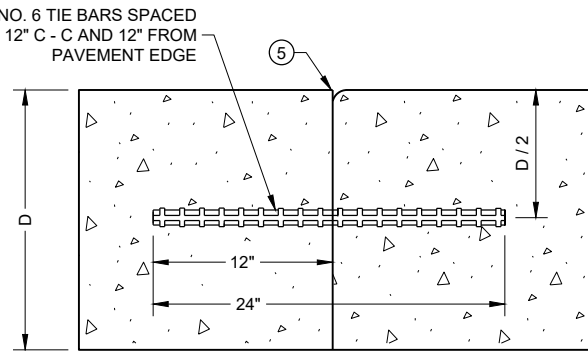


**DOWELED TRANSVERSE**

## CONTRACTION JOINTS ②

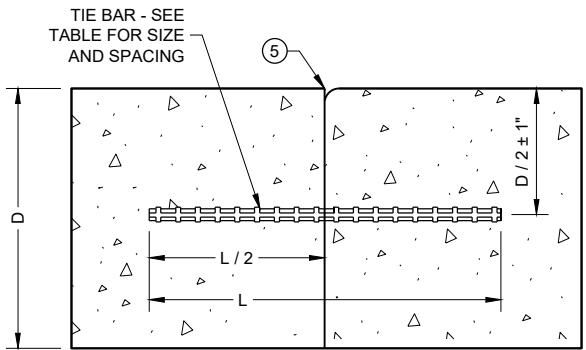


**DOWELED TRANSVERSE** ③

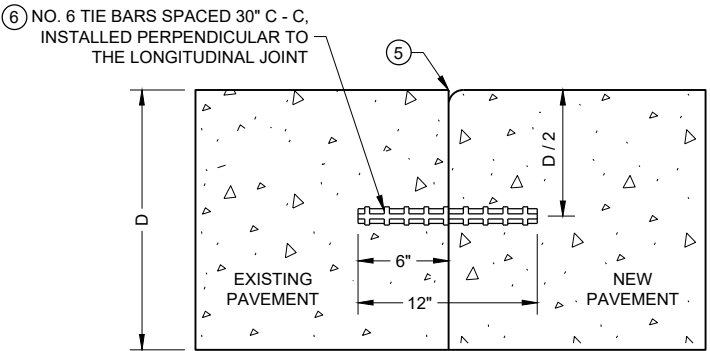


**TIED TRANSVERSE** ③  
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)

## CONSTRUCTION JOINTS ④



**TIED LONGITUDINAL**



**TIED LONGITUDINAL TO EXISTING**

TIE BAR TABLE			
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

## GENERAL NOTES

- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

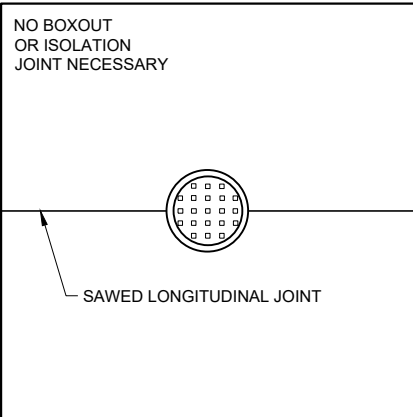
## CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

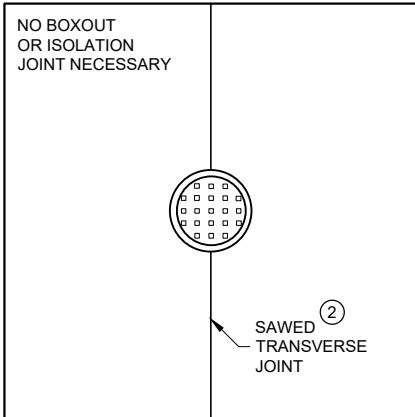




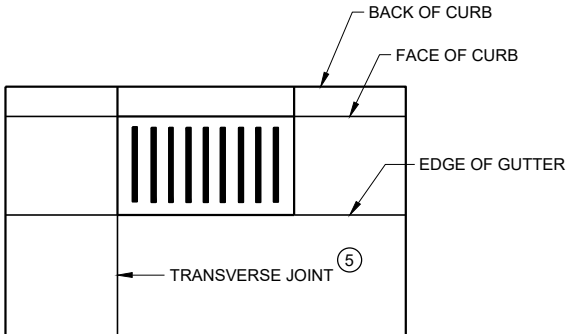
SDD 13C18-d Concrete Pavement Jointing at Utility Fixtures



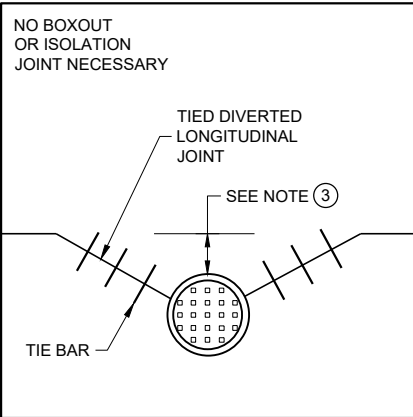
MANHOLE WITH LONGITUDINAL JOINT



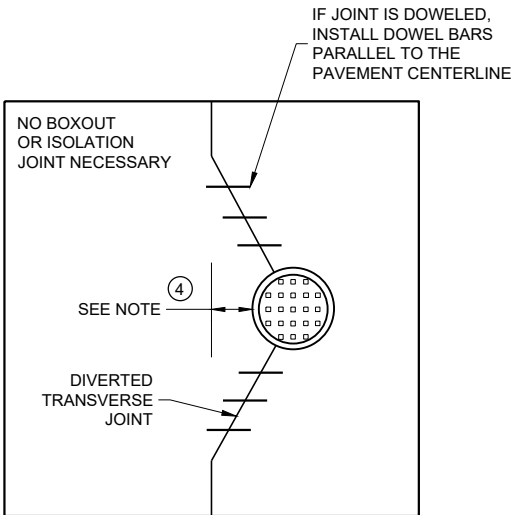
MANHOLE WITH TRANSVERSE JOINT



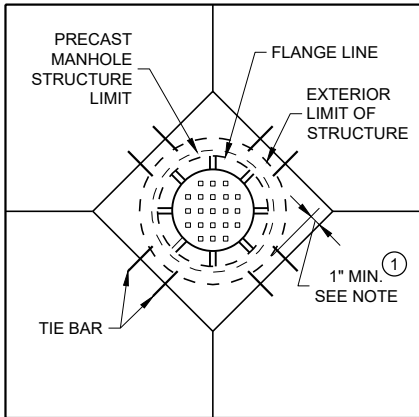
INLET WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

GENERAL NOTES

- 1 USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- 2 ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- 3 IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- 4 IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- 5 ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT  
JOINTING AT UTILITY  
FIXTURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2018  
DATE

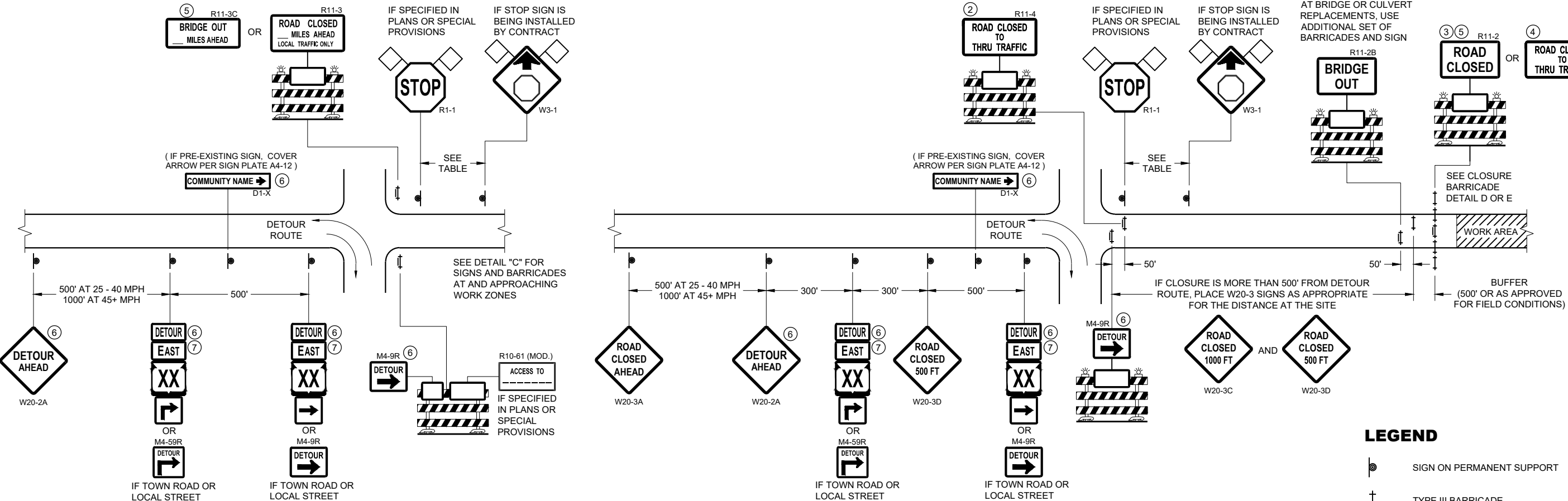
/S/ Peter Kemp P.E.  
PAVEMENT SUPERVISOR

70





# SDD 15C02-a Barricades and Signs for Mainline Closures

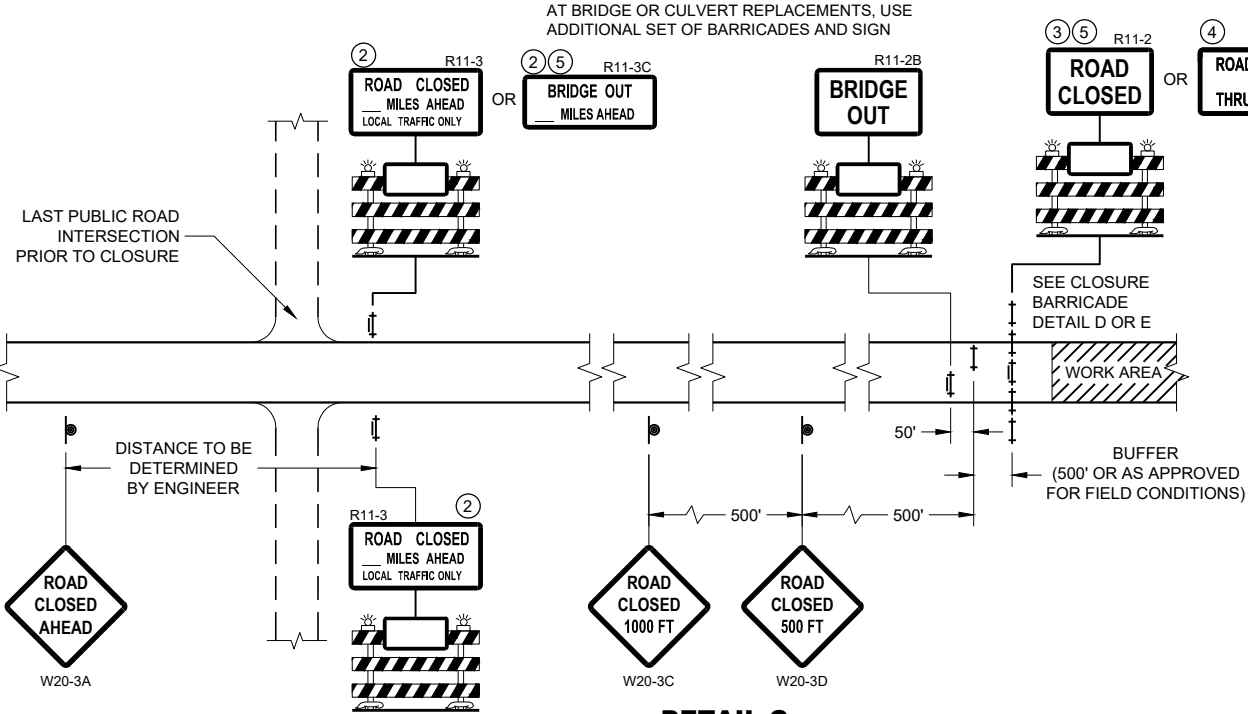
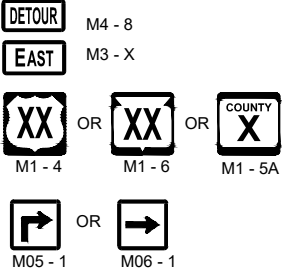


**DETAIL A**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

- LEGEND**
- SIGN ON PERMANENT SUPPORT
  - TYPE III BARRICADE
  - TYPE III BARRICADE WITH ATTACHED SIGN
  - TYPE "A" WARNING LIGHT (FLASHING)
  - WORK AREA
  - FLAGS, 16" X 16" MIN. (ORANGE)

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



**DETAIL C**  
**MAINLINE CLOSURE, NO POSTED DETOUR**

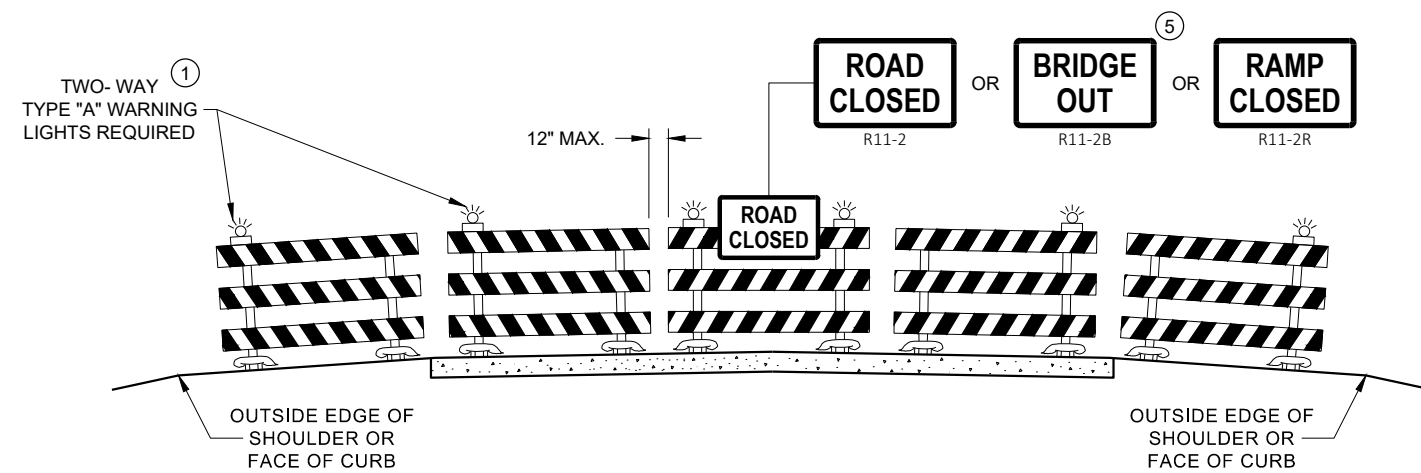
SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

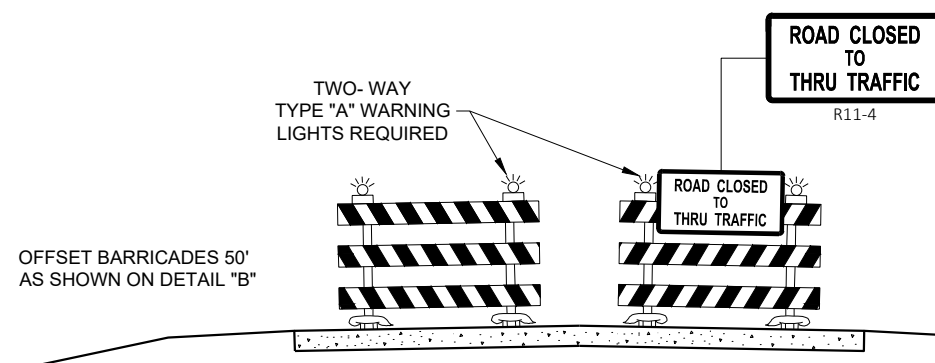
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke 71  
DATE WORK ZONE ENGINEER  
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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)

MO5 - 1 AND MO6 - 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 AN 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 ROAD 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 VARIOUS CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020  
DATE

/S/ Andrew Heidtke  
WORK ZONE ENGINEER

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FHWA





# SDD 15C05 Traffic Control, Advance Warning Signs 40 MPH or Less Two Way Undivided Road Open to Traffic

## GENERAL NOTES

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

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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 REESTABLISHED.

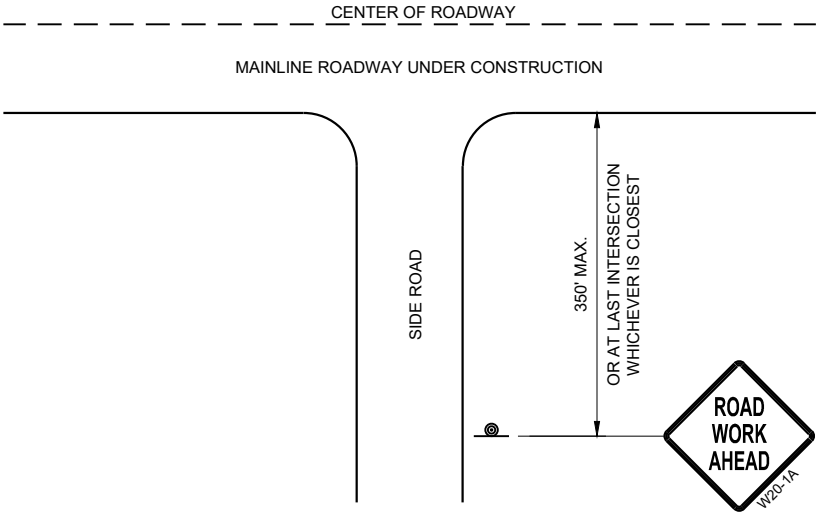
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

## LEGEND

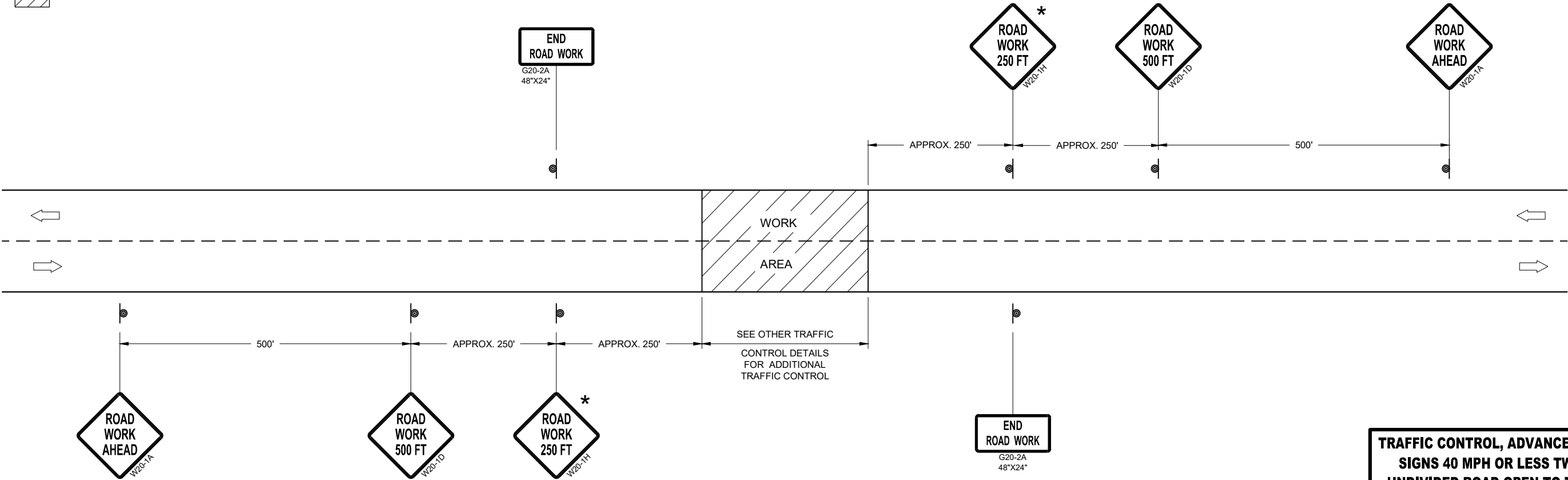
● SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

▨ WORK AREA



TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL



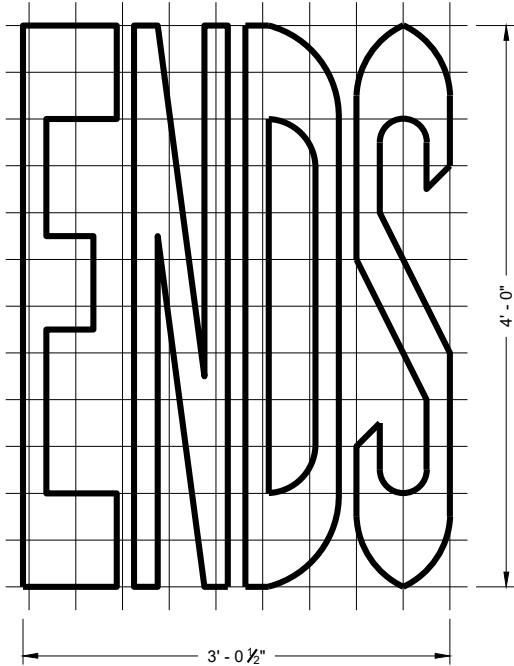
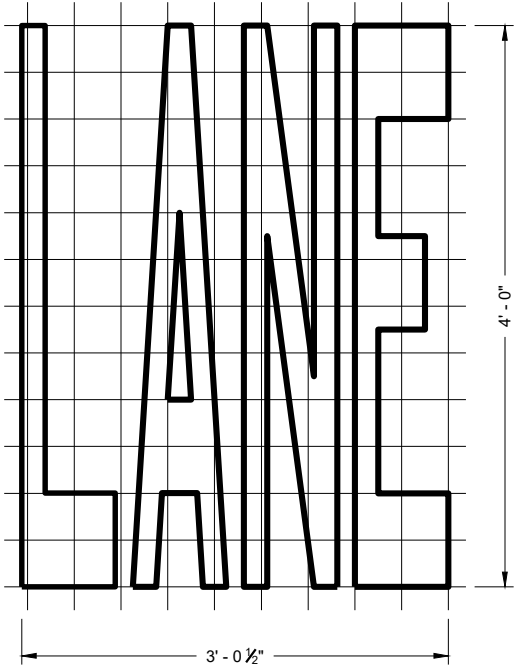
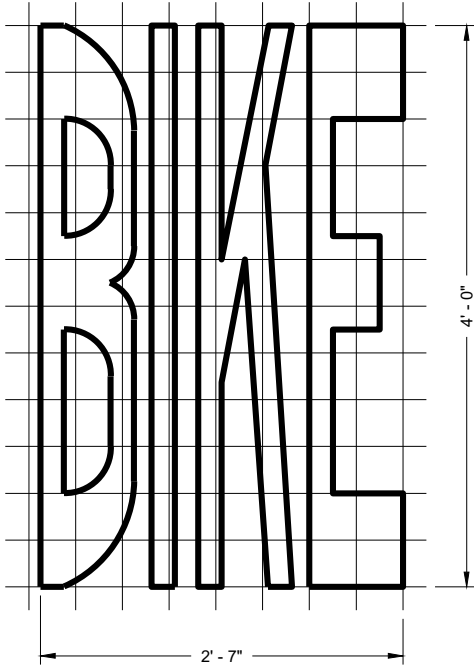
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 40 MPH OR LESS TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
July 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER 73  
FHWA

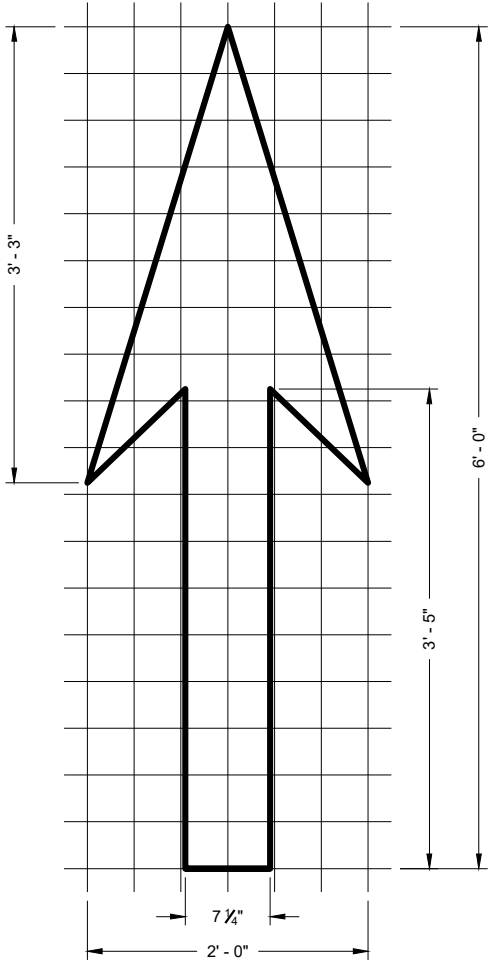
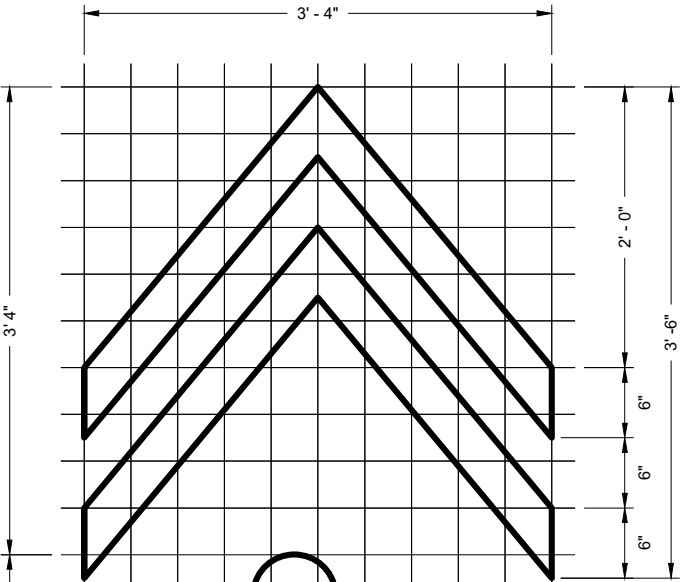




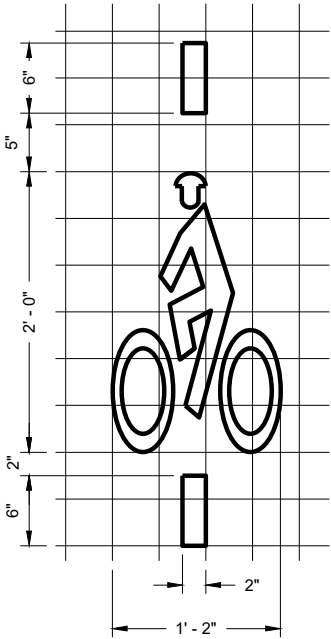
BIKE LANE WORDS

GENERAL NOTES

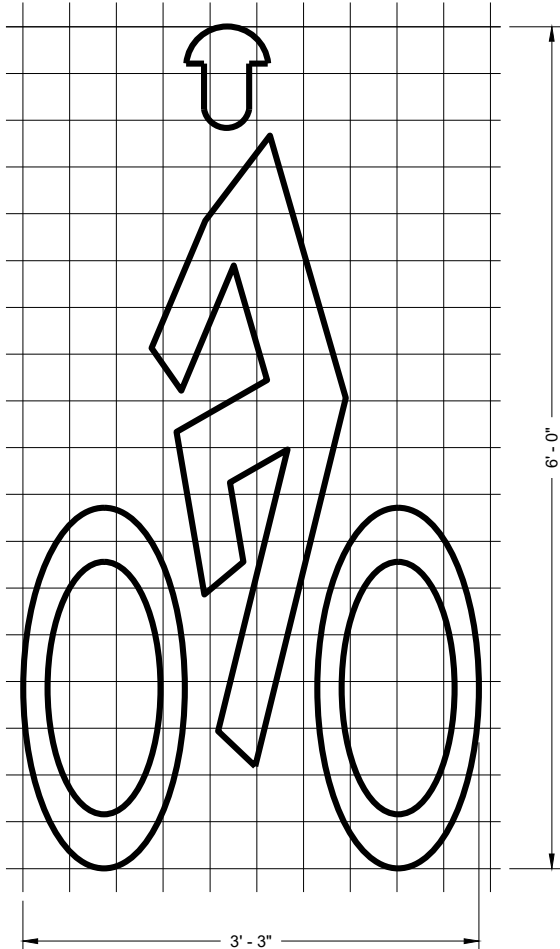
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



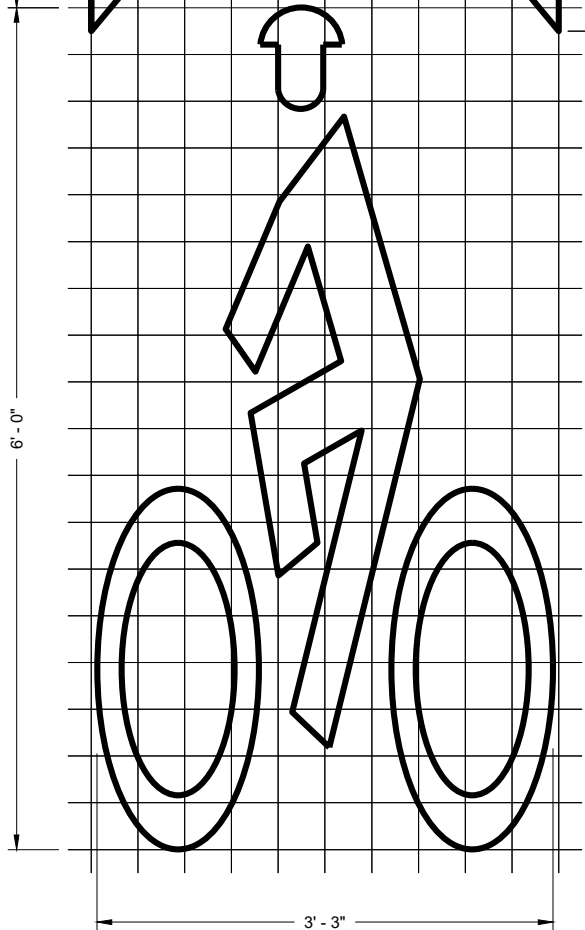
BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL



BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

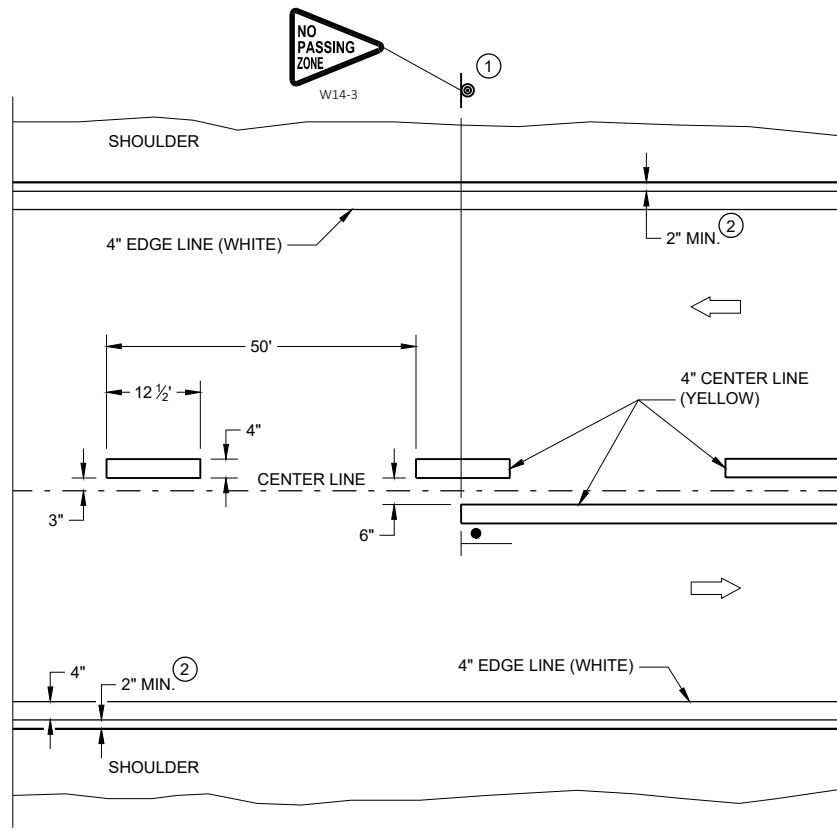
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING ENGINEER  
FHWA

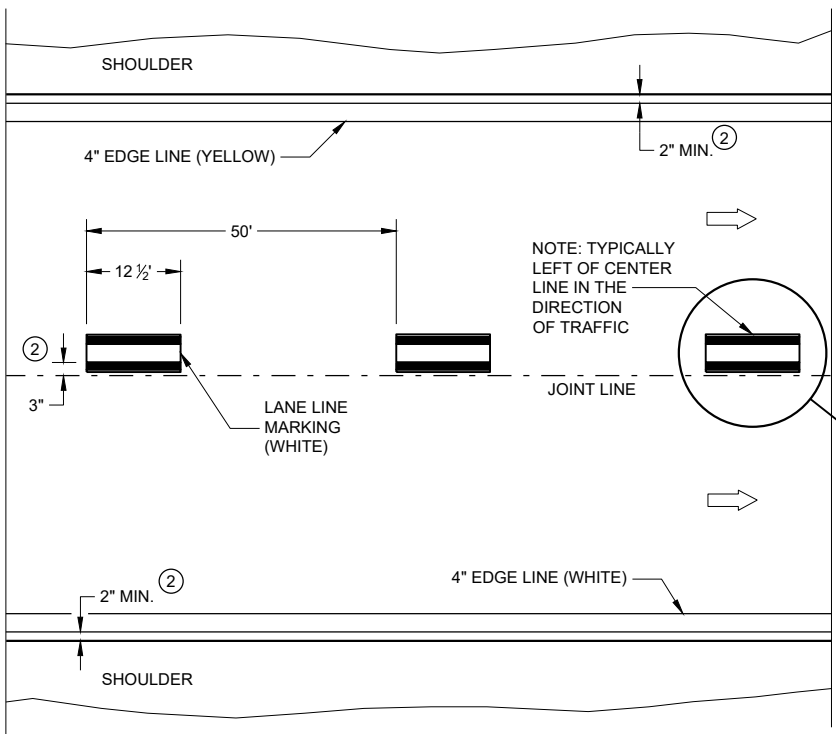




# SDD 15C08-a Longitudinal Marking (Mainline)

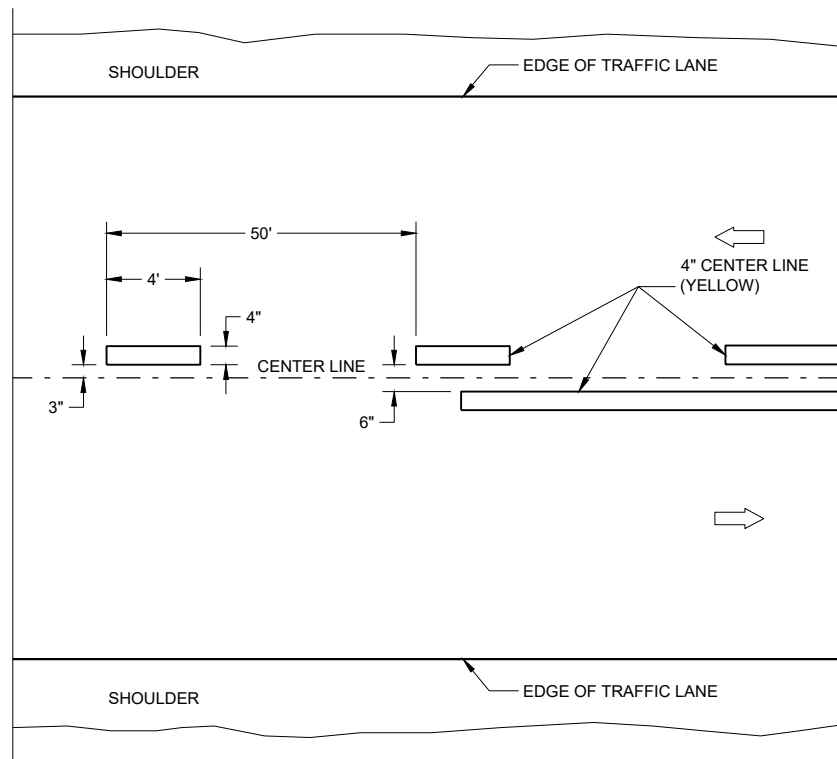


TWO WAY TRAFFIC

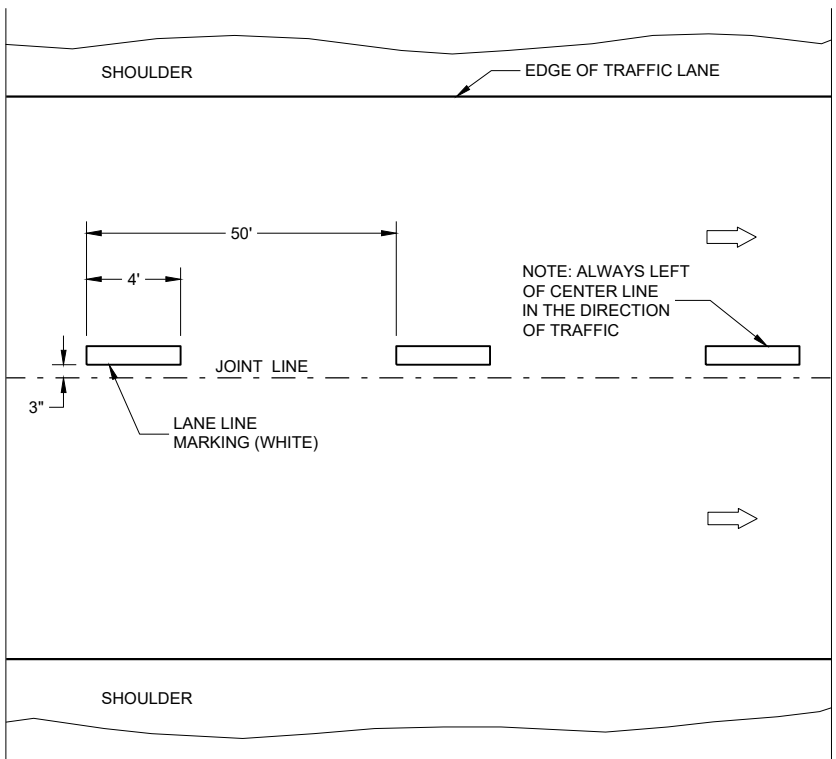


ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

## TEMPORARY PAVEMENT MARKING

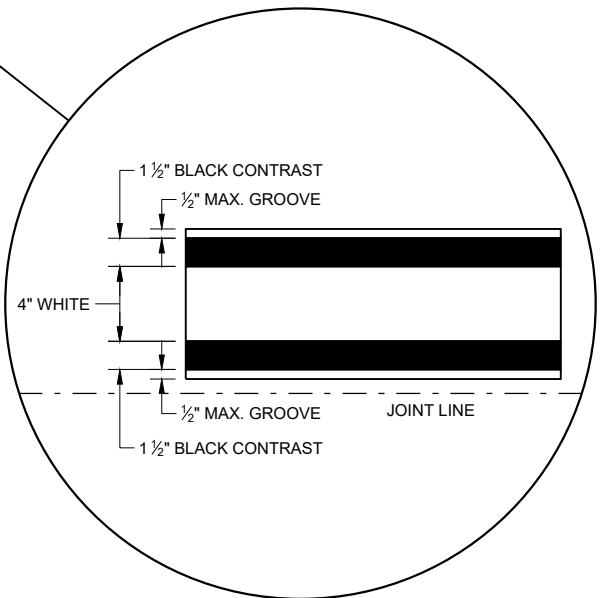
### GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

### LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



### LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Matthew Rauch  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

FHWA

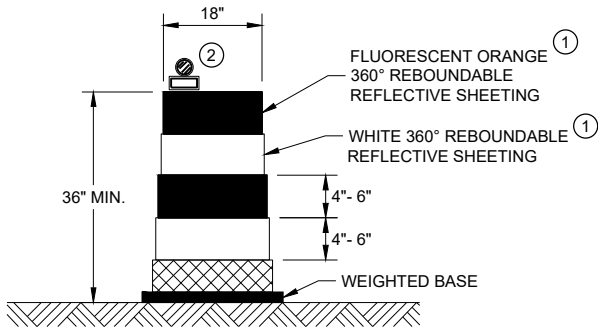




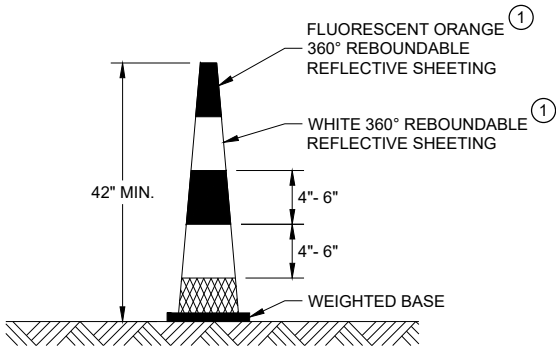
# SDD 15C11-b Channelizing Devices, Drums, Cones, Barricades and Vertical Panels

## GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

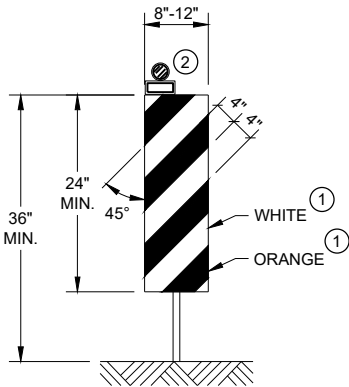


**DRUM**



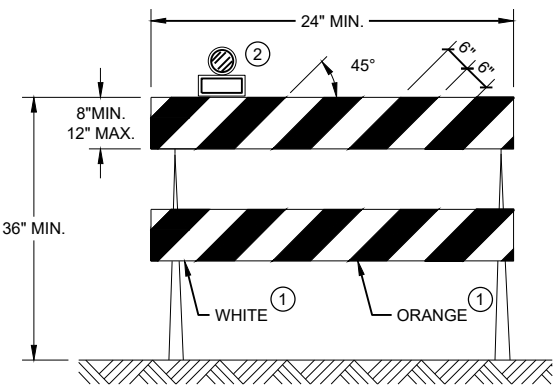
**42" CONE**

DO NOT USE IN TAPERS  
½ SPACING OF DRUMS



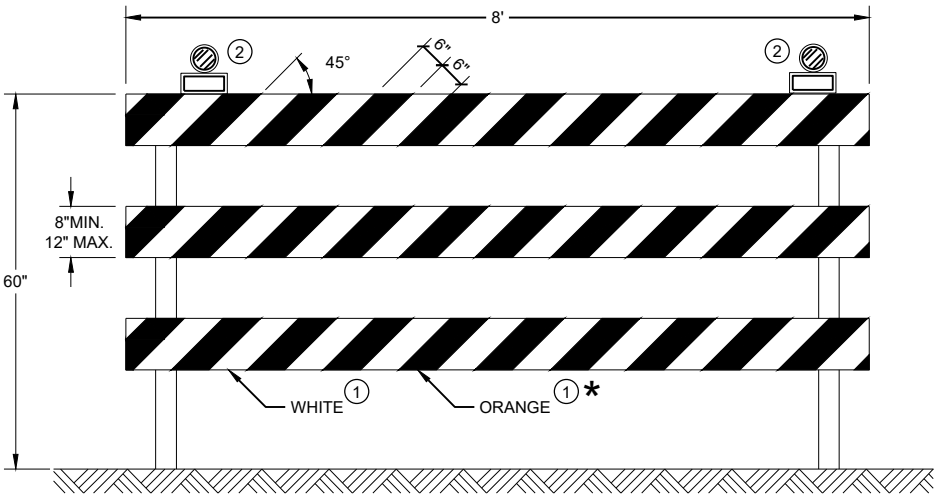
**VERTICAL PANEL**

THE STRIPES SHALL SLOPE DOWNWARD TO  
THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE II BARRICADE**

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES  
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD  
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



**TYPE III BARRICADE**

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP  
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

## CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

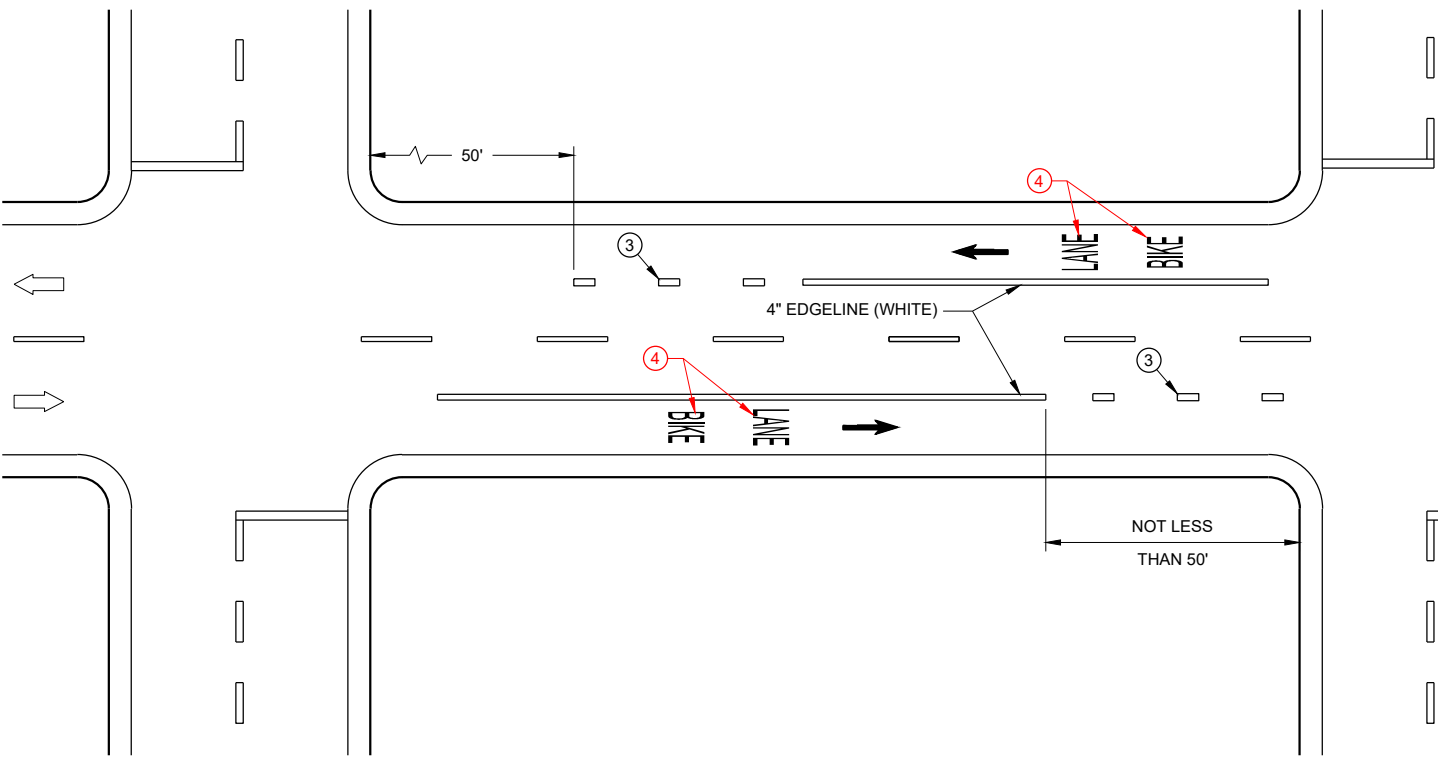
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2020 /S/ Andrew Heidtke 76  
DATE WORK ZONE ENGINEER  
FHWA

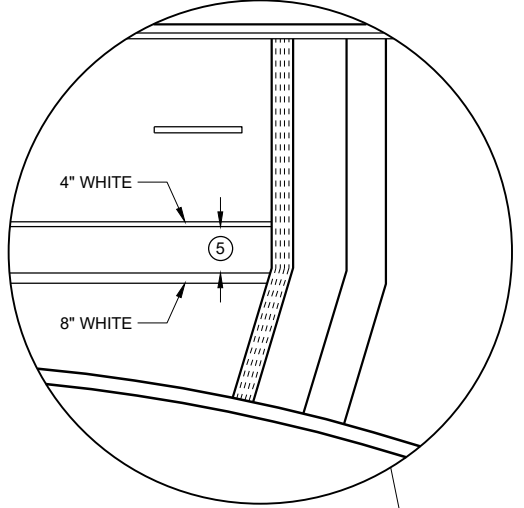
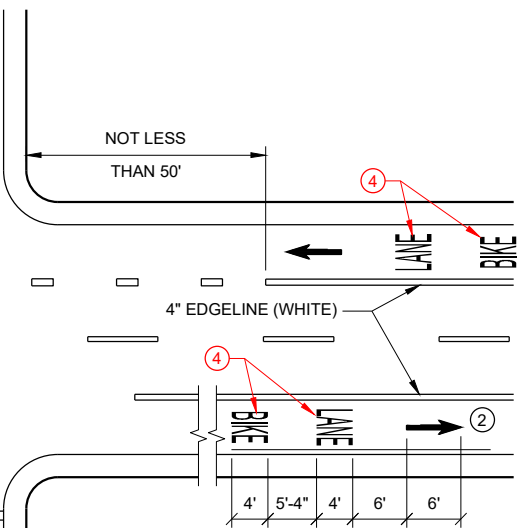




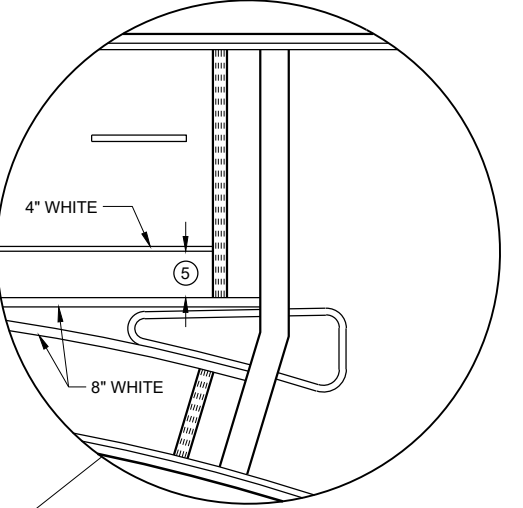
# SDD 15C29-a Bike Lane Marking



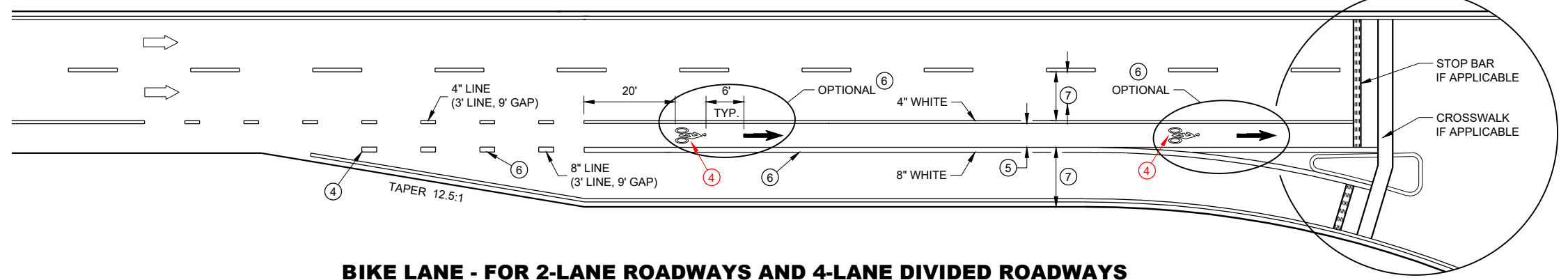
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS  
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

## GENERAL NOTES

- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- 2 MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- 3 DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- 4 BIKE SYMBOLS OR WORDS MAY BE USED.
- 5 BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT  $\geq 45$  MPH.
- 6 OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
- 7 REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

## BIKE LANE MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING ENGINEER

FHWA

SDD 15C29 - 07a

SDD 15C29 - 07a



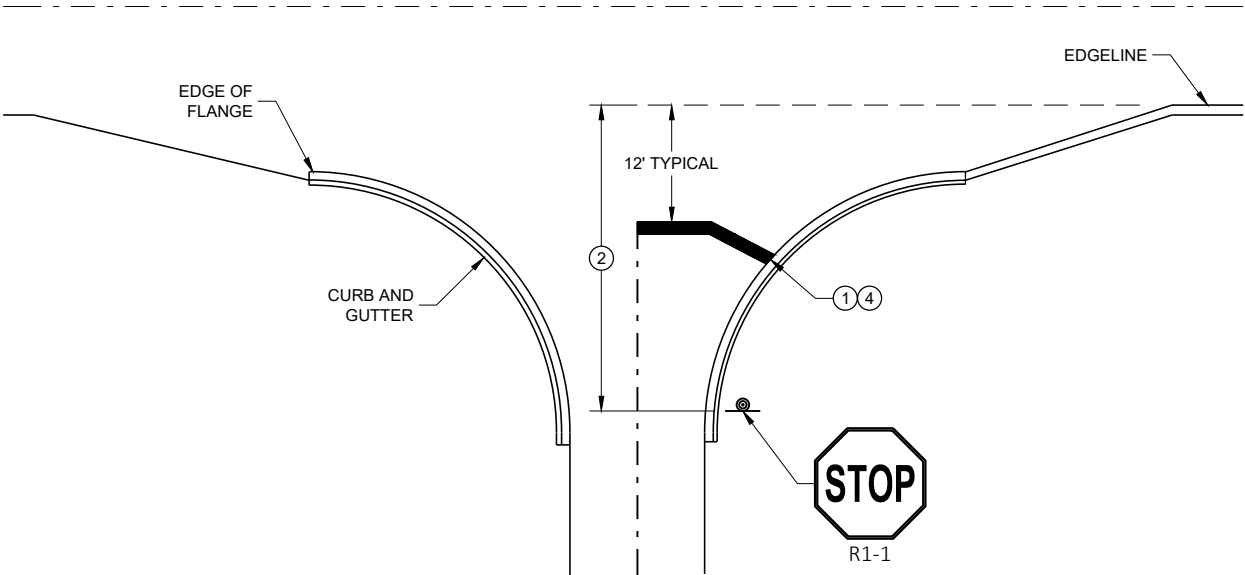


# SDD 15C33 Stop Line and Crosswalk Pavement Marking

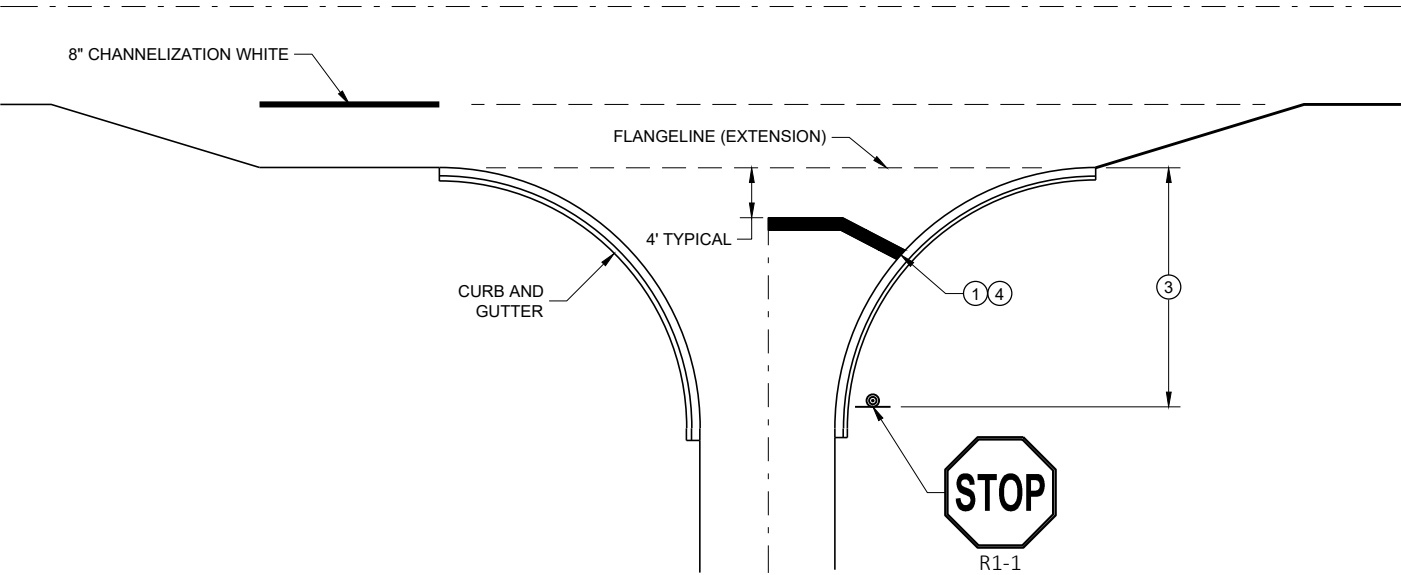
## GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

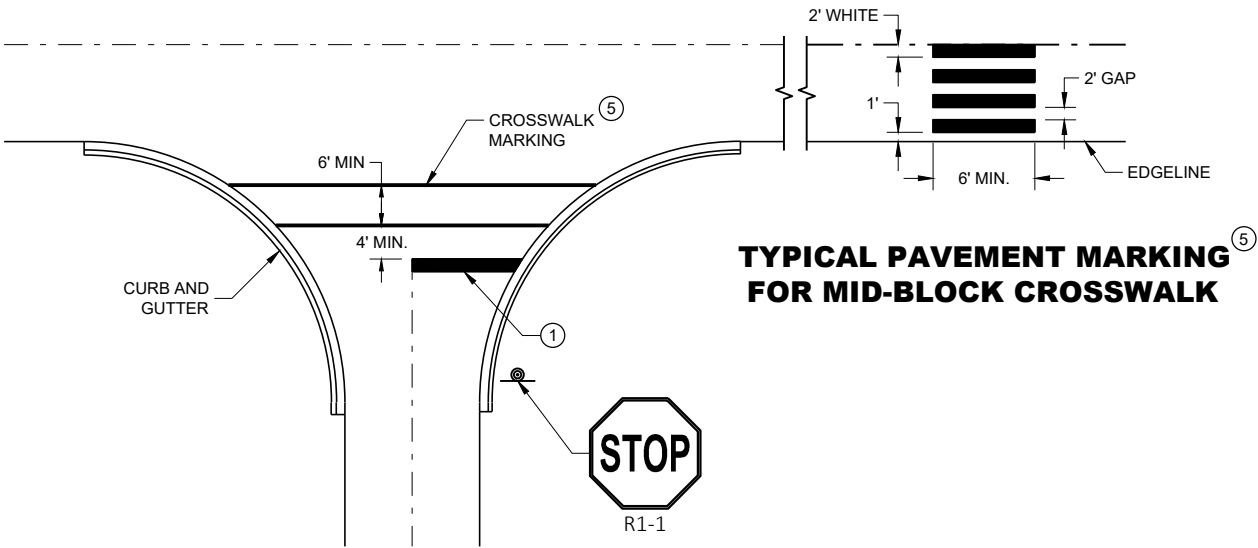
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

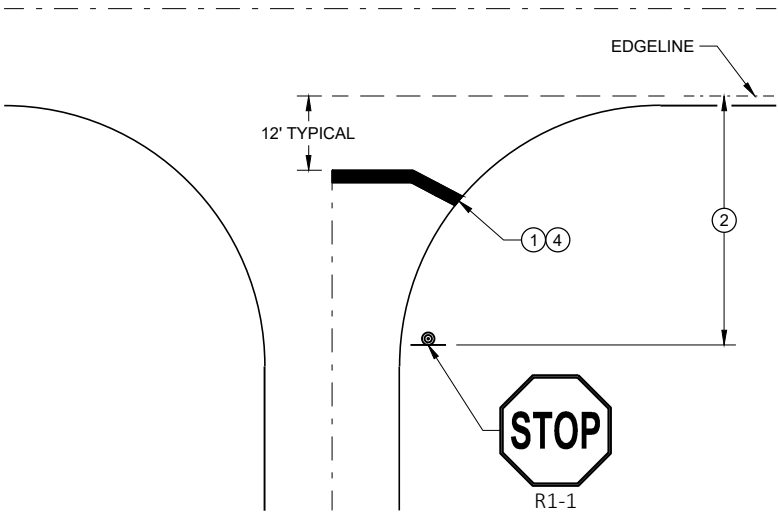


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

## STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING ENGINEER

FHWA





# SDD 15D20-a Traffic Control, Single Lane Closure, Divided Non-Freeway/Expressway

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

## GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

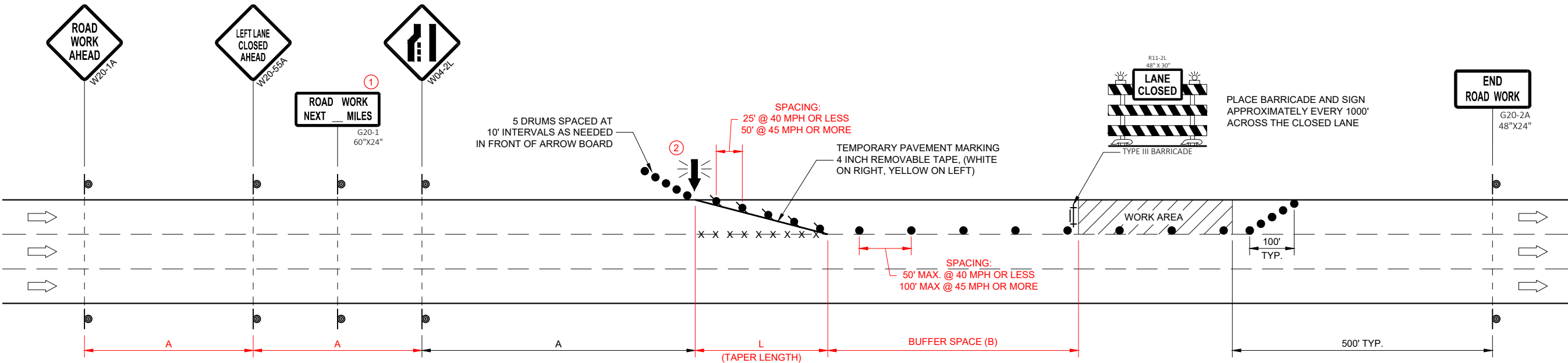
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

### TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020  
DATE  
/S/ Andrew Heidtke  
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA





# SDD 15D28 Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

### LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

### GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

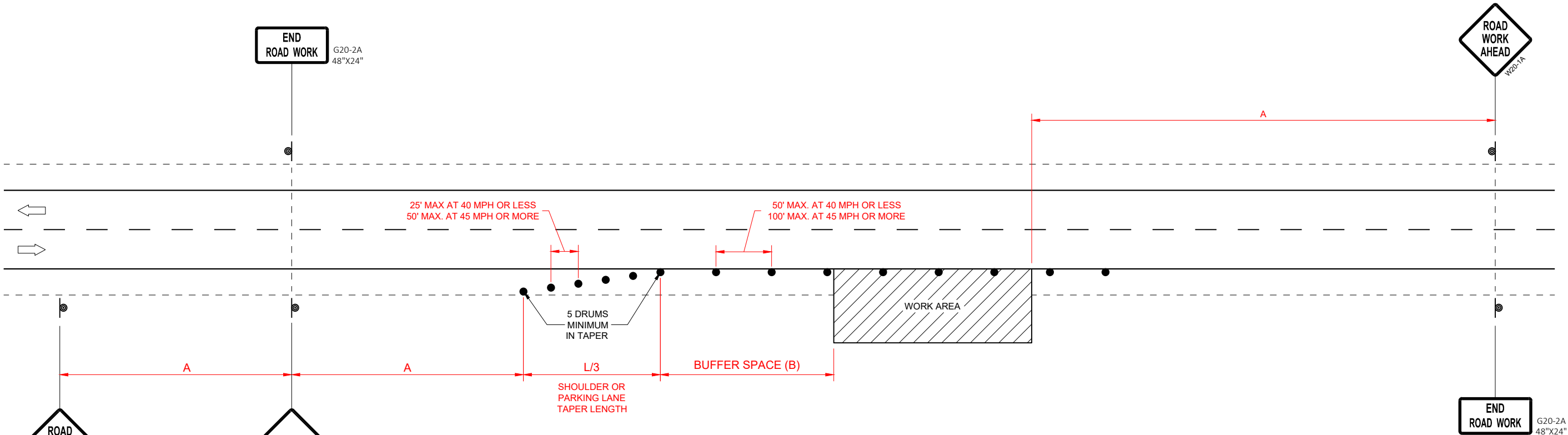
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

### TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN  
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APPROVED  
May 2020 /S/ Andrew Heidtke  
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

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SDD 15D28 - 04

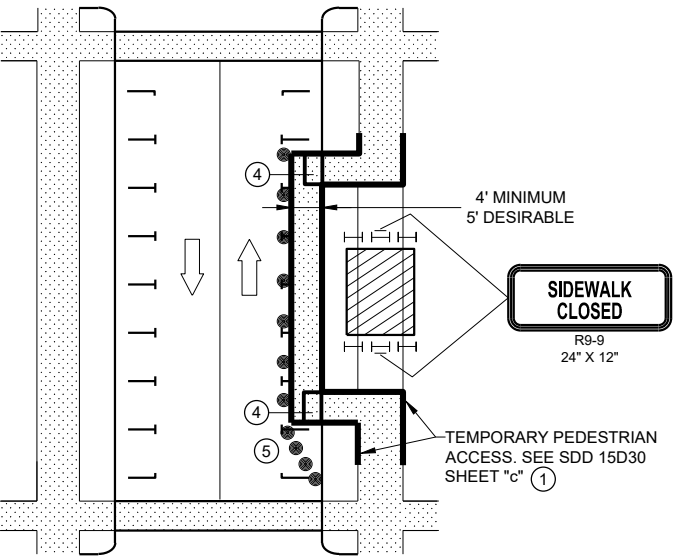
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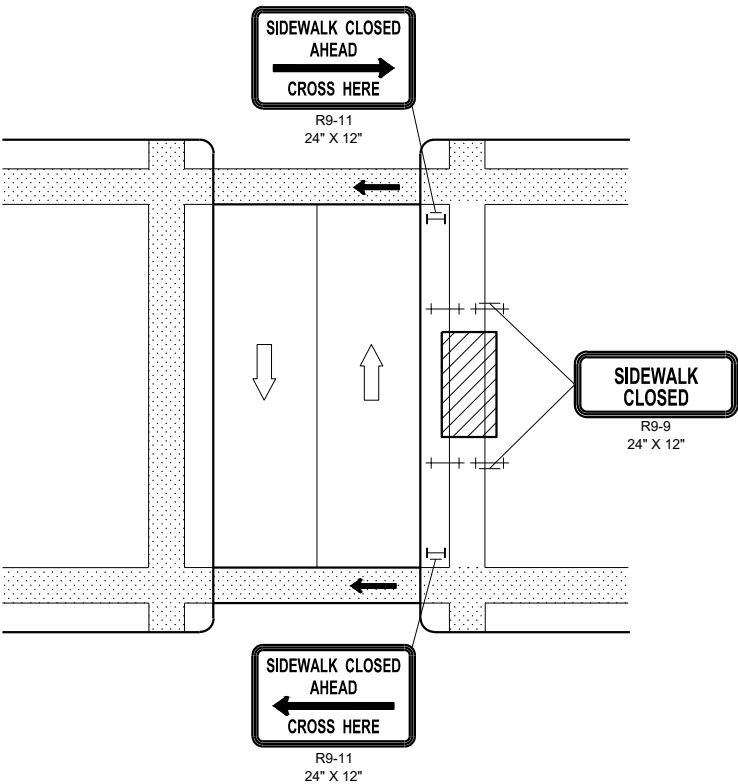


# SDD 15D30-a Traffic Control, Pedestrian Accommodation

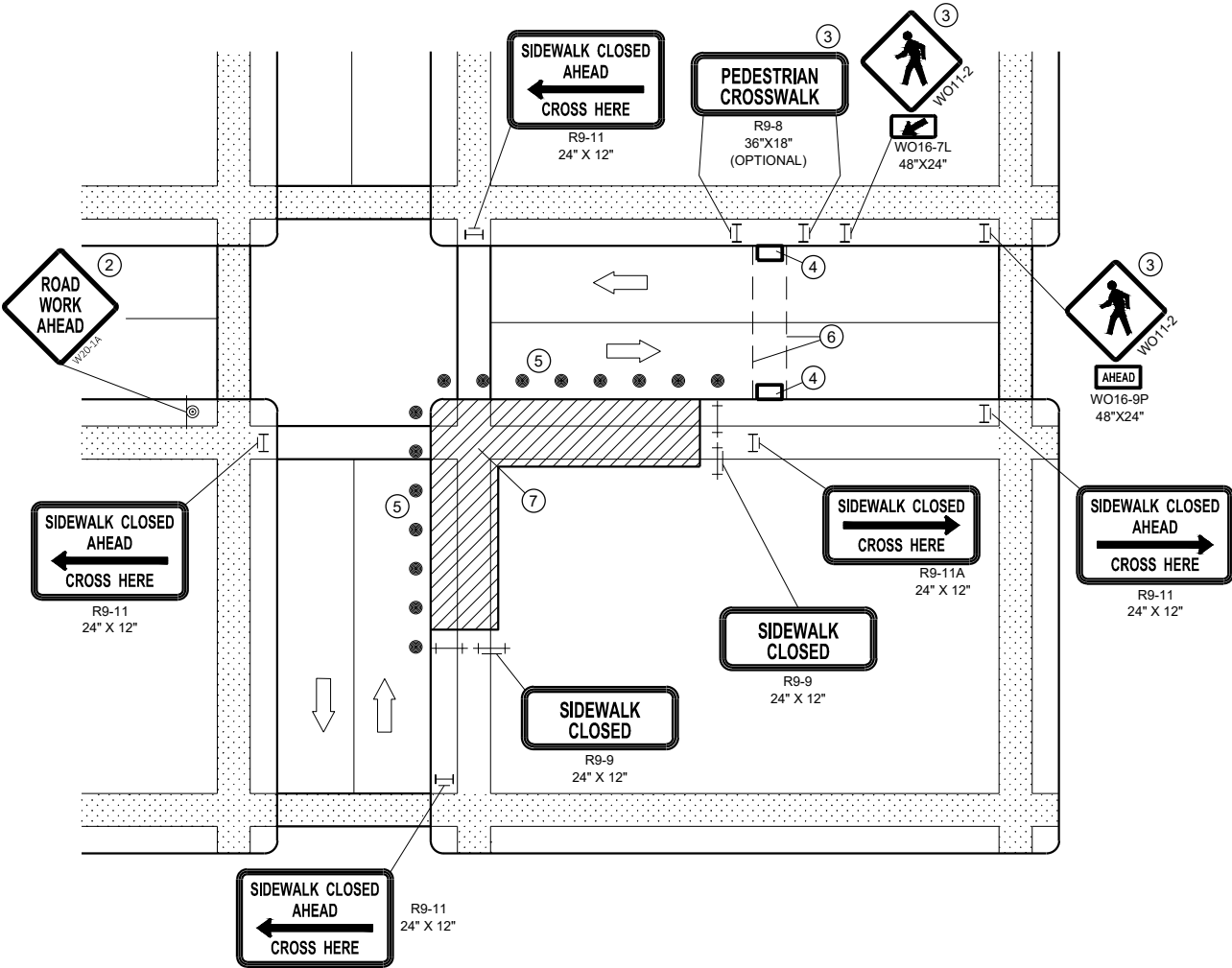
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



MID-BLOCK SIDEWALK CLOSURE  
IN PARKING LANE

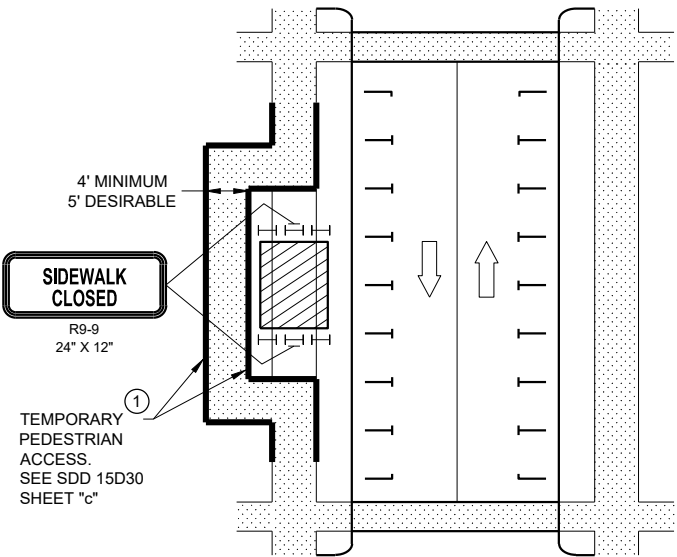


MID-BLOCK SIDEWALK  
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION

## GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b".
- DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

## TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

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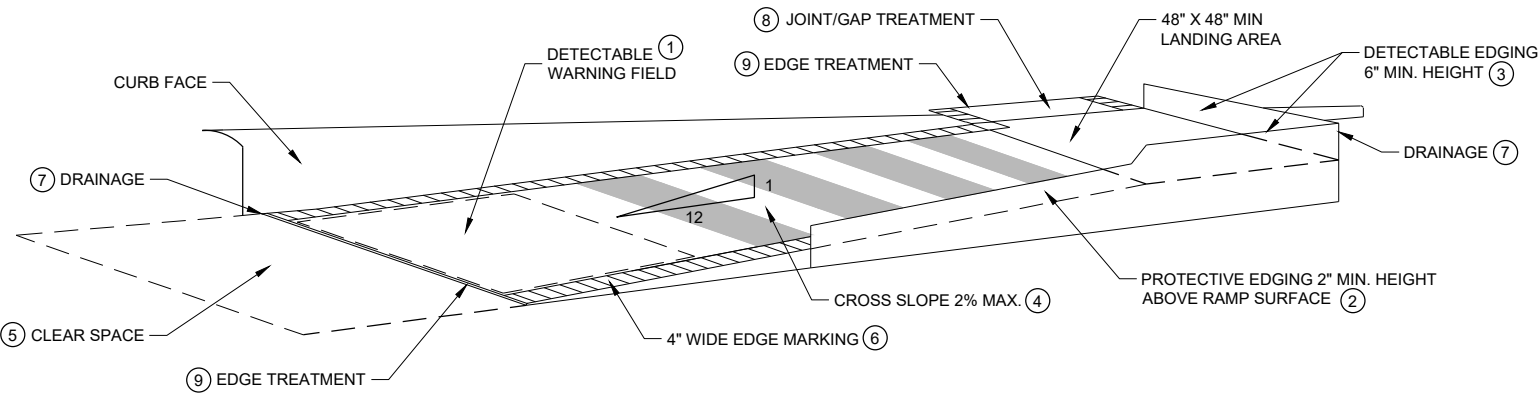
SDD 15D30 - 06a

SDD 15D30 - 06a

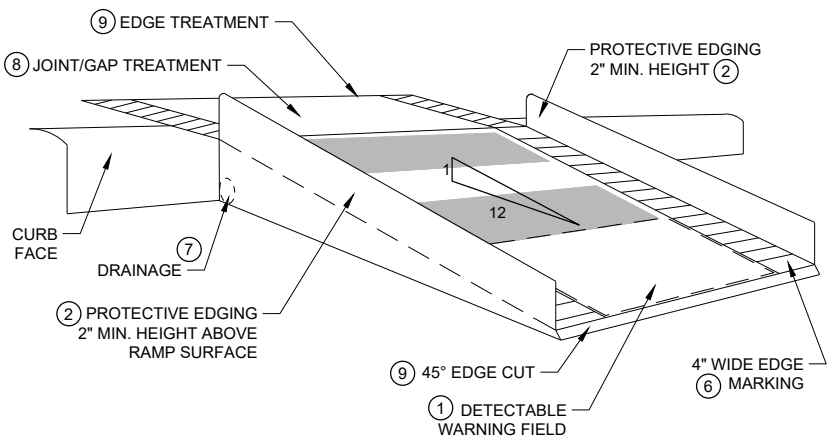




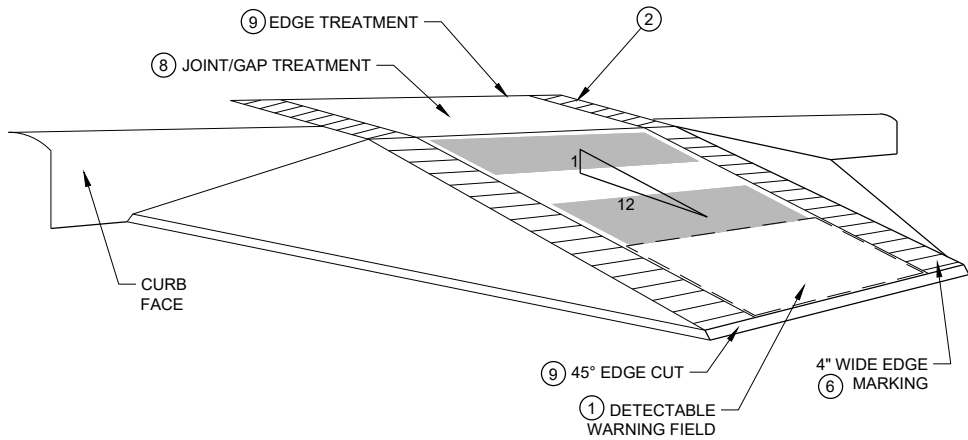
# SDD 15D30-b Traffic Control, Pedestrian Accommodation



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE  
EDGE

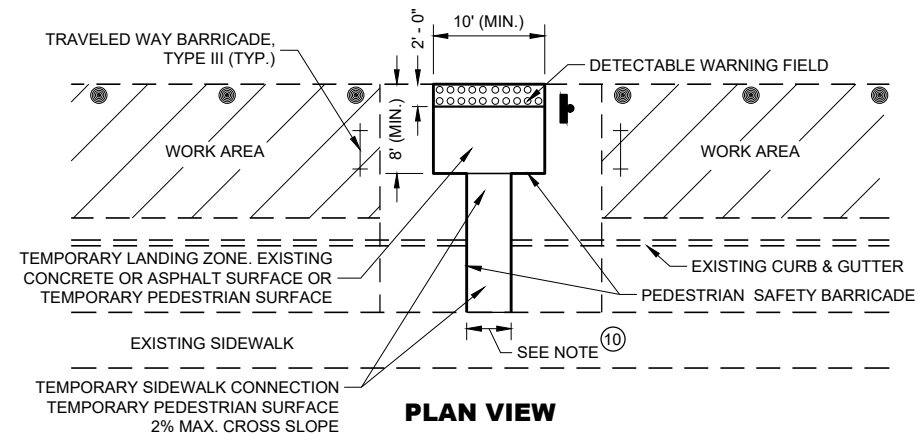


WITH SIDE APRON

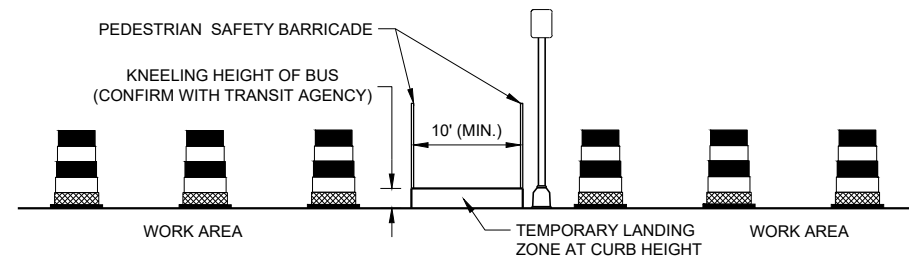
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

## GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
  - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
  - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
  - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
  - 5 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
  - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
  - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
  - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
  - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
  - 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

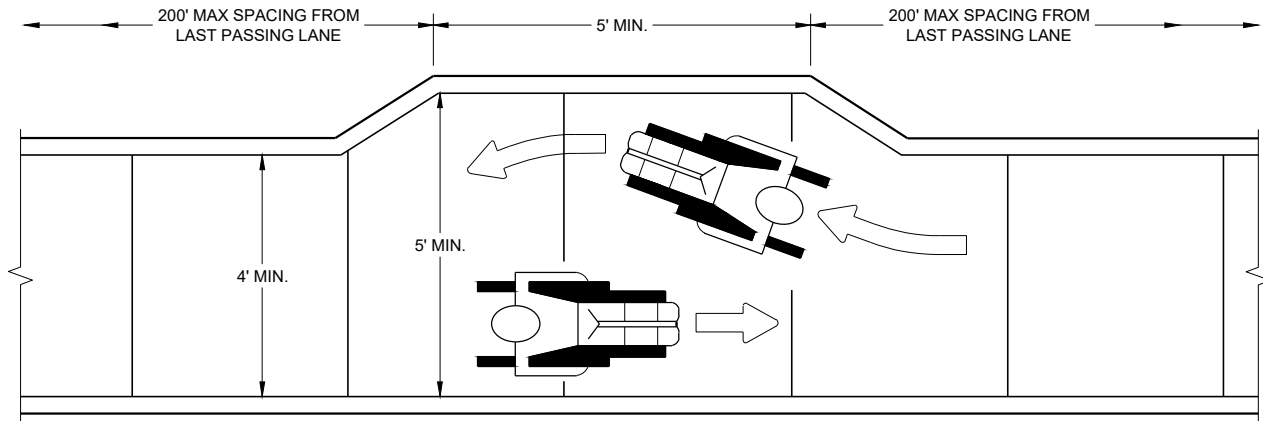
## LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- ▨ WORK AREA

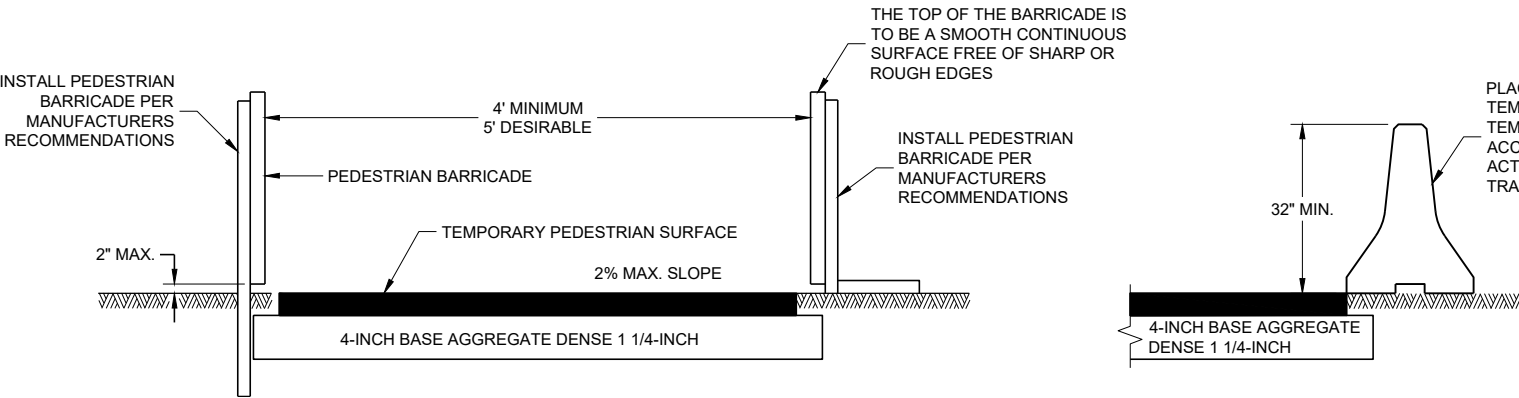




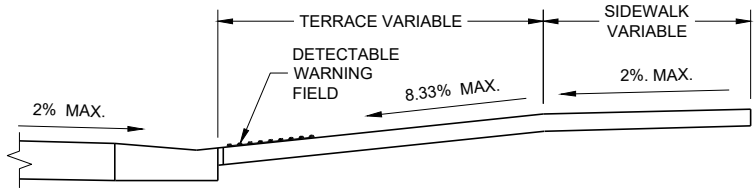
# SDD 15D30-c Traffic Control, Pedestrian Accommodation



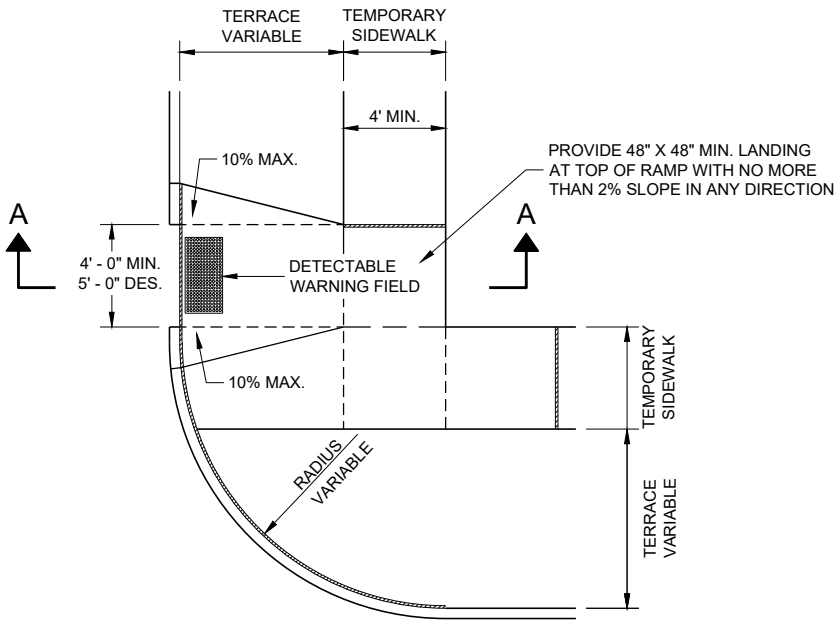
**NARROW SIDEWALK PASSING DETAIL**



**TEMPORARY PEDESTRIAN ACCESS**



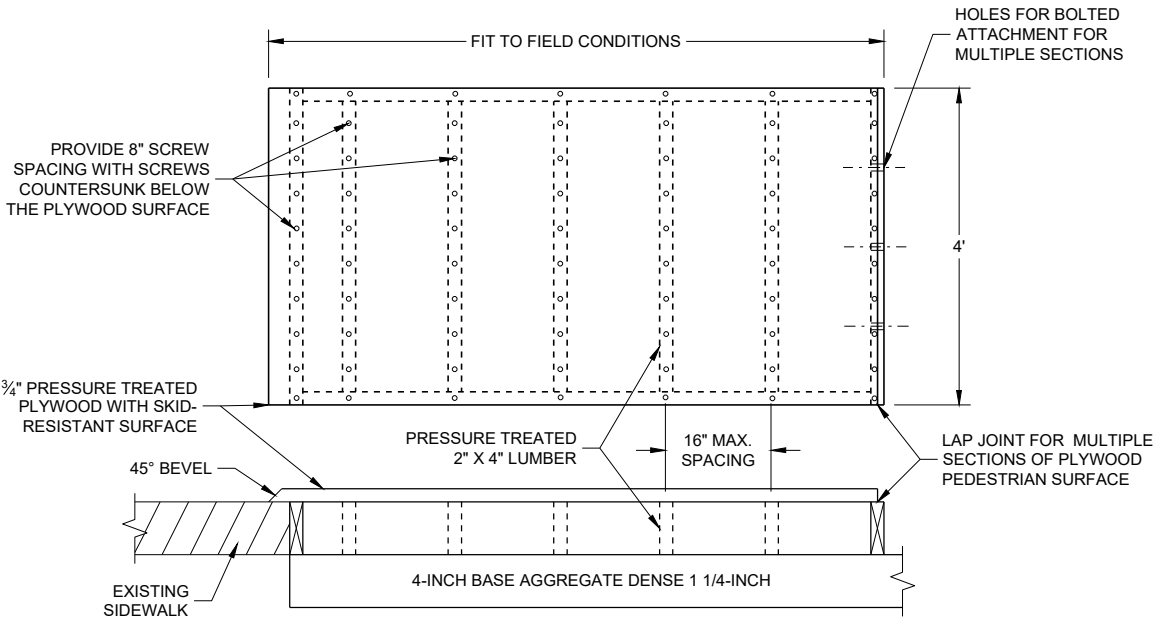
**SECTION A - A**



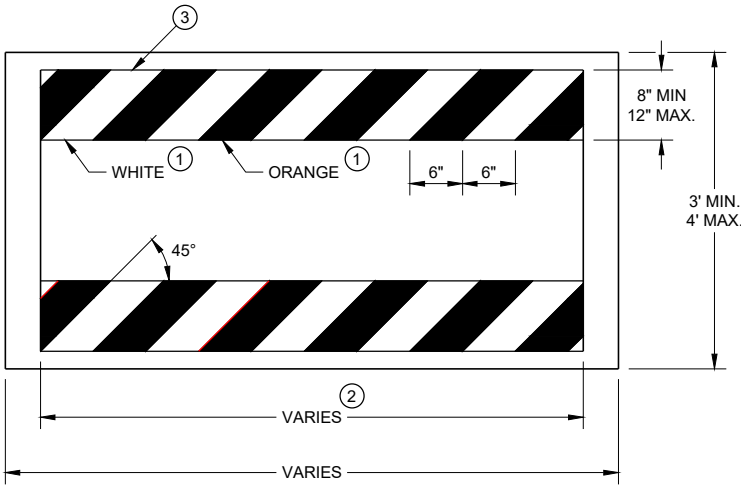
**PLAN VIEW  
TEMPORARY TYPE 3 RAMP  
(OUTSIDE OF CROSSWALK AREA)**

## GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
  - ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
  - ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- \* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



**TEMPORARY PEDESTRIAN SURFACE PLYWOOD**



**TEMPORARY PEDESTRIAN BARRICADE\***

## TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Andrew Heidtke 83  
DATE WORK ZONE ENGINEER  
FHWA

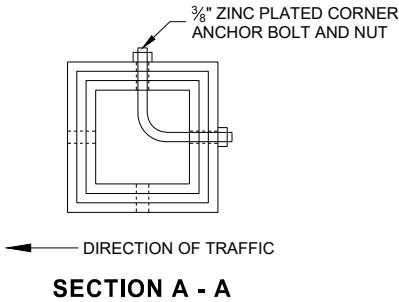
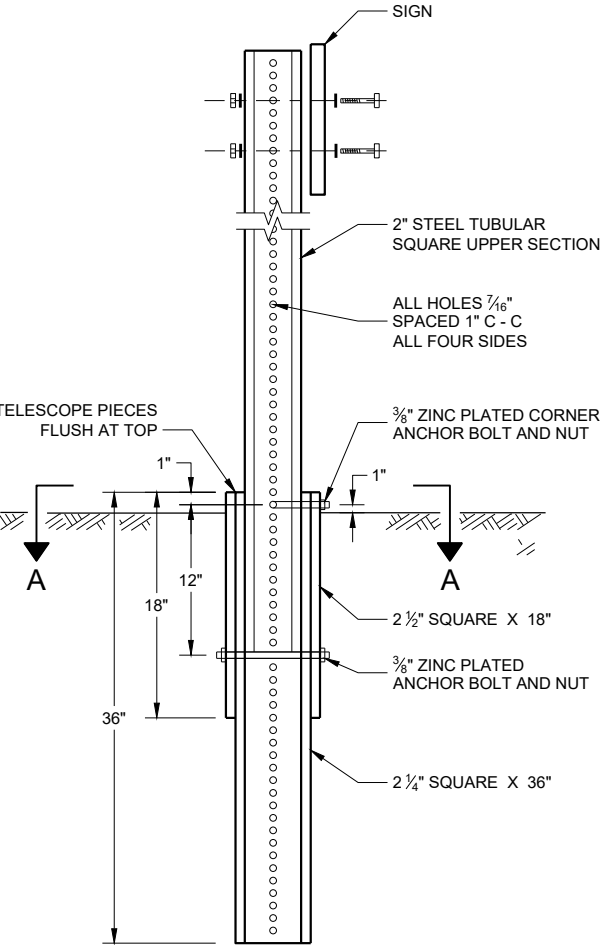




# SDD 15D38-a Temporary Traffic Control Sign Mounting

## GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② 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 WHERE PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



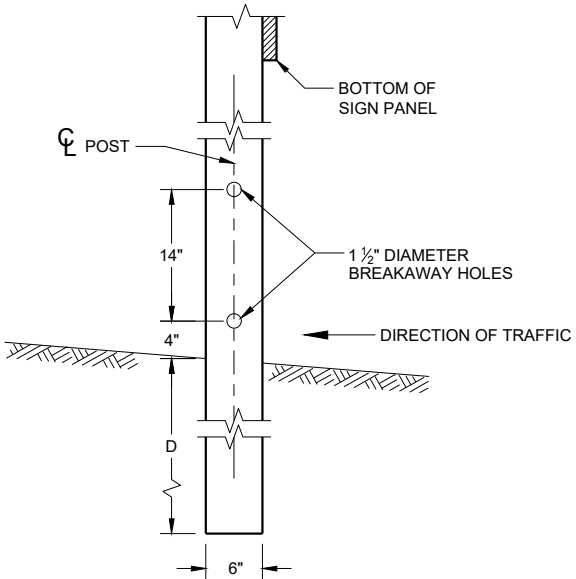
## TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9, LESS THAN OR EQUAL TO 18	2
GREATER THAN 18, LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

DETAIL OF TUBULAR STEEL SIGN POST



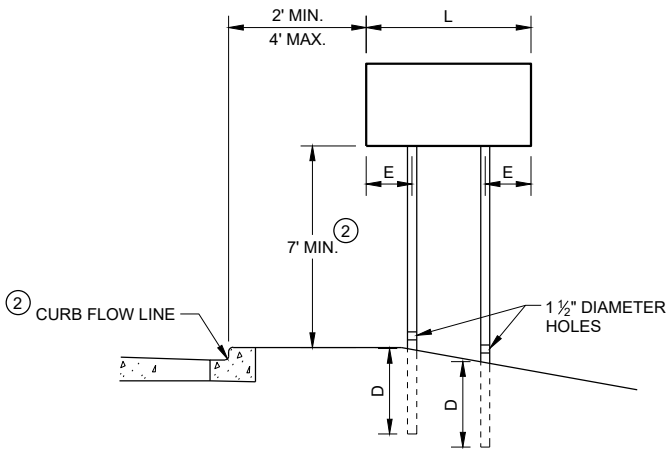
4" X 6" WOOD POST MODIFICATION

## 4" X 6" WOOD POST ③

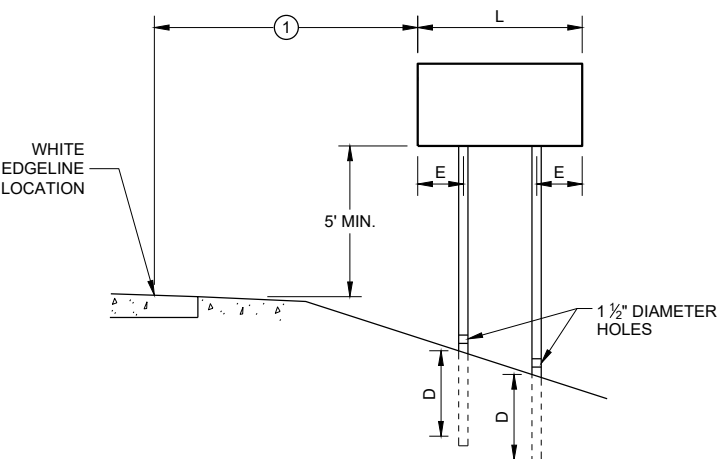
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

## WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN.)
20 OR LESS	4'
GREATER THAN 20	5'



URBAN AREA

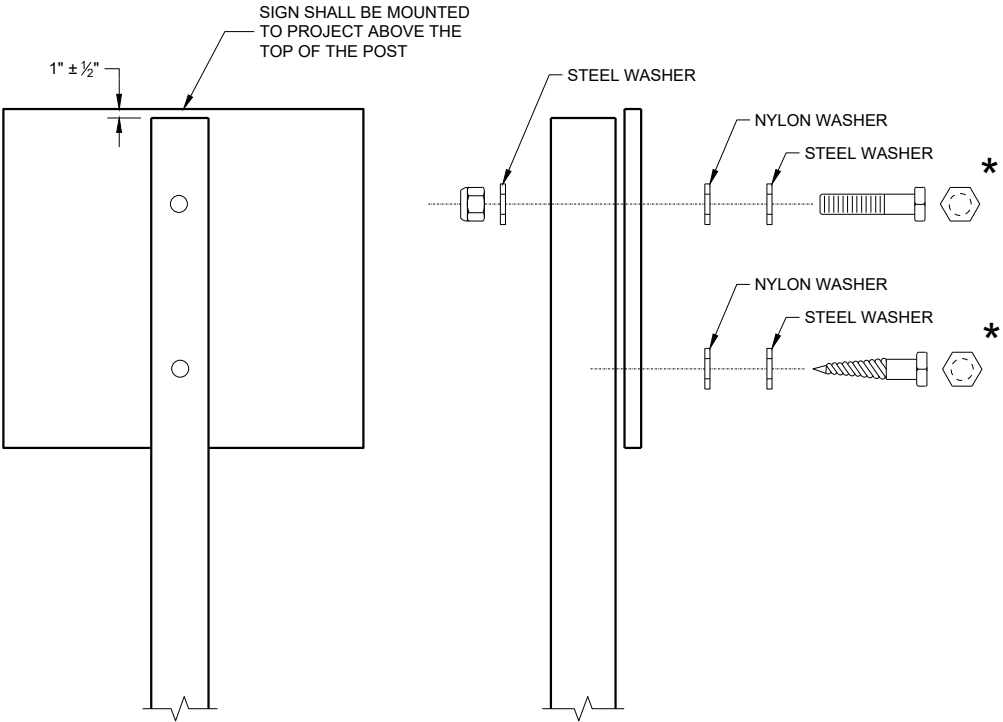


RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

## TEMPORARY TRAFFIC CONTROL SIGN MOUNTING





NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")  
LAG SCREWS - 3/8" x 3"  
MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")  
MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS  
RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM  
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,  
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -  
1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL  
1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

\* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS  
TO POSTS

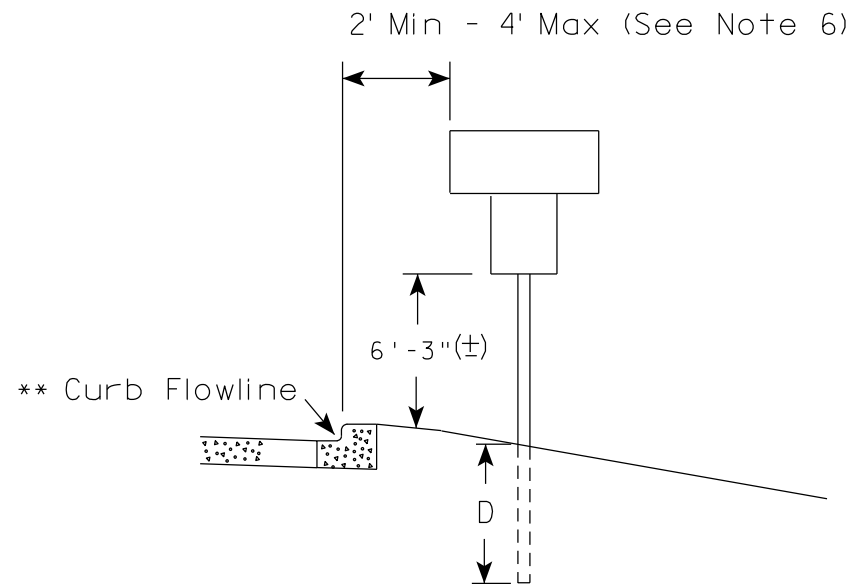
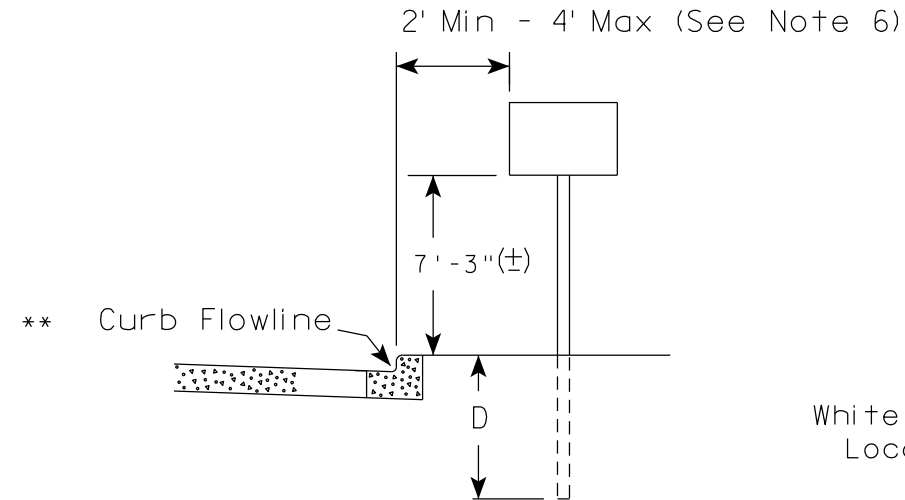
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2017 /S/ Andrew Heidtke 85  
DATE WORK ZONE ENGINEER

FHWA

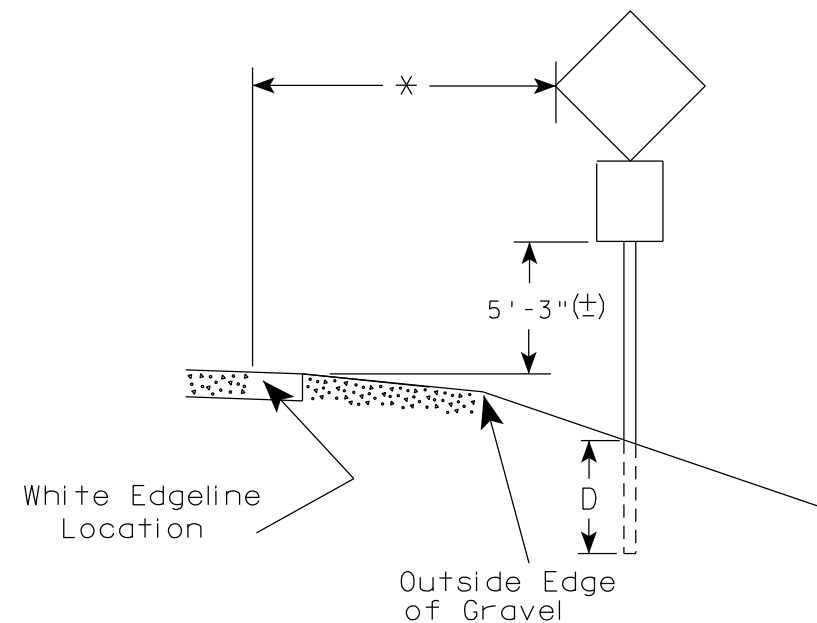
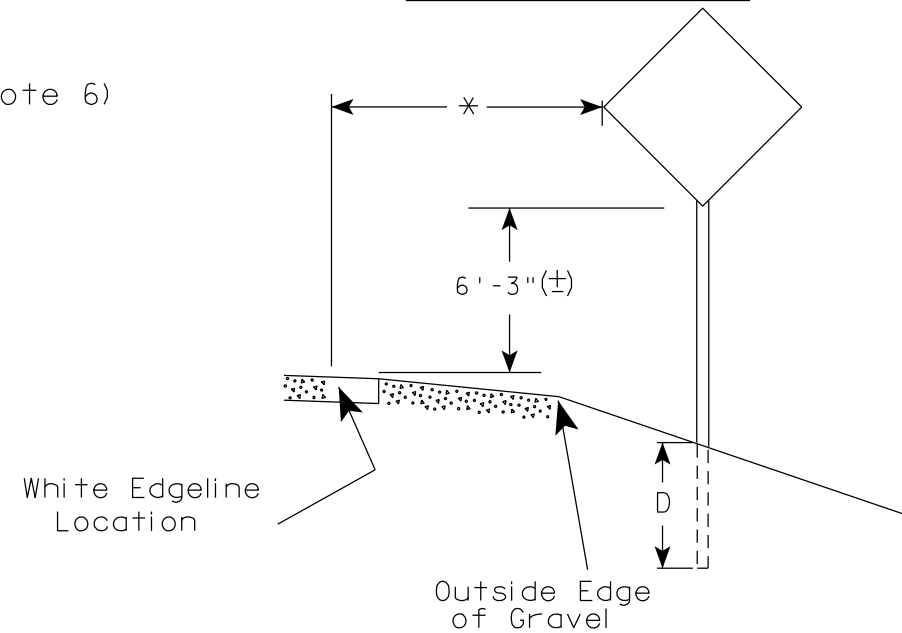


## URBAN AREA



\*\* 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.

## RURAL AREA (See Note 2)



\* 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.

### POST EMBEDMENT DEPTH

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

### GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) 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" (±).
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

PROJECT NO:

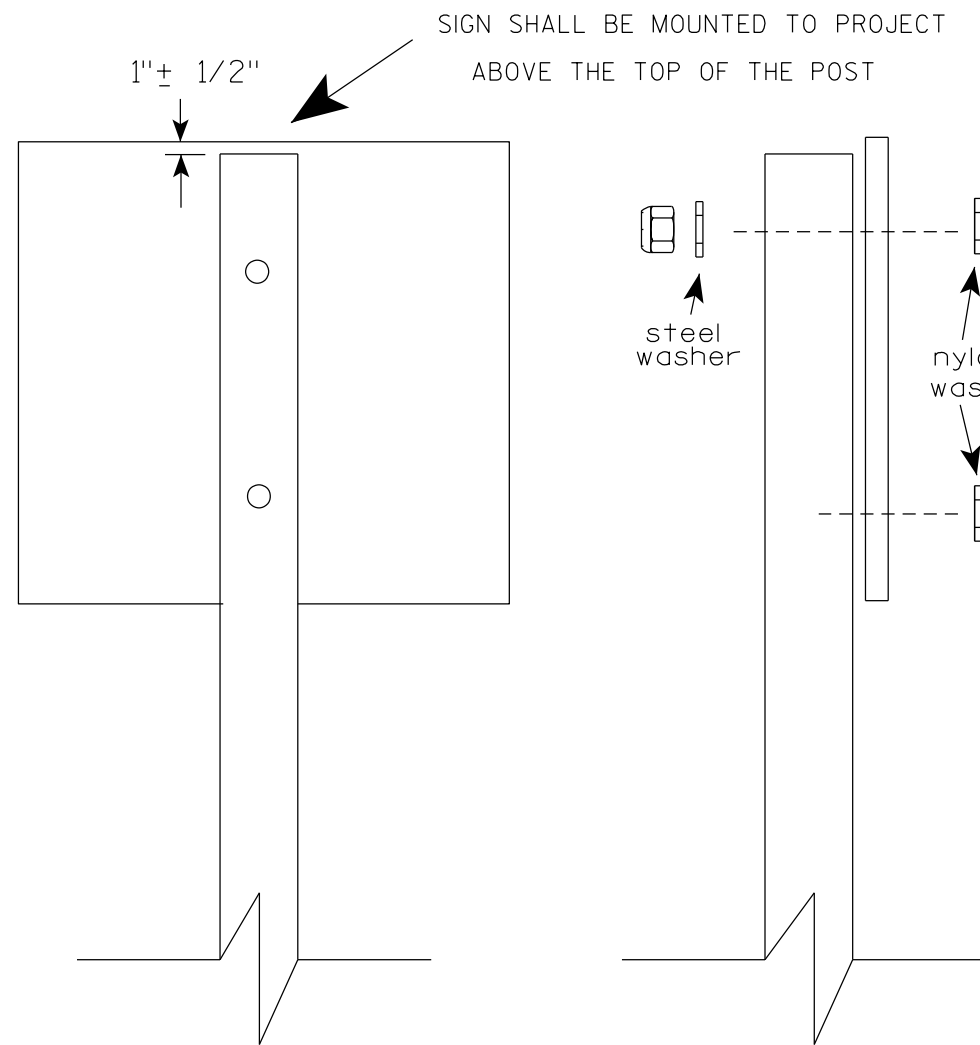
HWY:

COUNTY:

SHEET NO: 86

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.

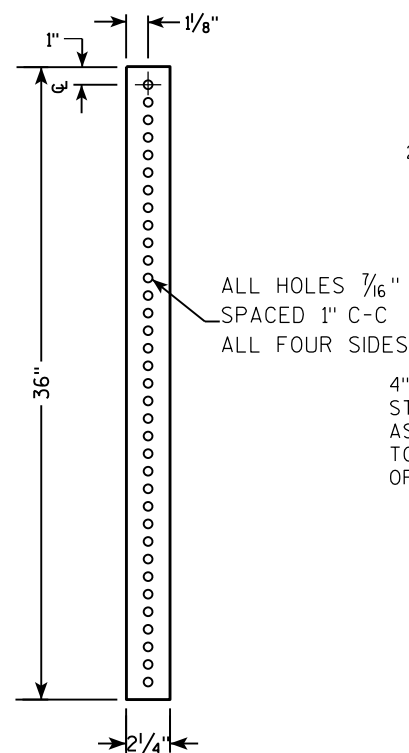
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
  - 1-1/4" O.D. X  $\frac{3}{8}$ " I.D. X .080 NYLON

\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

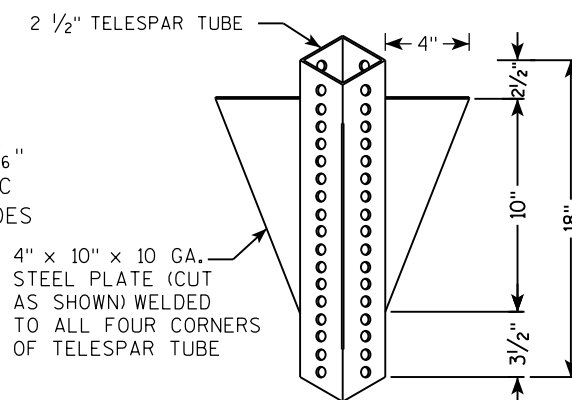
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9



**2 1/4 " SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH**



**2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH**



TECHNICAL DRAWING OF A VERTICAL SIGNPOST ASSEMBLY.

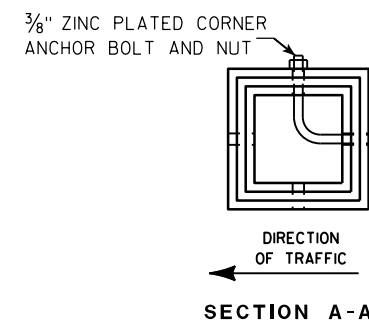
**Labels and Dimensions:**

- 18" DIA SCHEDULE 40 PVC BOX-OUT**: Dimensioned as 36" (height) and 18" (width).
- TELESCOPE PIECES FLUSH AT TOP**: Indicated by arrows pointing to the top of the PVC box-out.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical post.
- ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the post's perforations.
- SIGN**: Attached to the top of the post.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware.
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the box-out.
- 2 1/2" GRAVEL OR DIRT**: Material placed around the base of the post.
- $\frac{3}{16}$ " ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the post to the box-out.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: A sleeve around the post.
- 2 1/4" SQUARE X 36"**: The base of the post.

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

**Labels and Dimensions:**

- TELESCOPE PIECES FLUSH AT TOP** (with dimension 36" for the main vertical section)
- 2" STEEL TUBULAR SQUARE UPPER SECTION**
- ALL HOLES  $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT** (with dimension 1" for the offset)
- $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT**
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**
- 2 1/4" SQUARE X 36"** (the main vertical post)
- SIGN** (at the top)
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**
- LENGTH SHOWN ON MISC. QTY'S** (vertical dimension on the left)
- Dimensions:** 18", 12", 36", 1"
- Force Indicators:** Downward arrows labeled 'A' at the base of the sleeve.



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

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

TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. 88 A4-9.9

PROJECT NO:

HWY:

COUNTY:

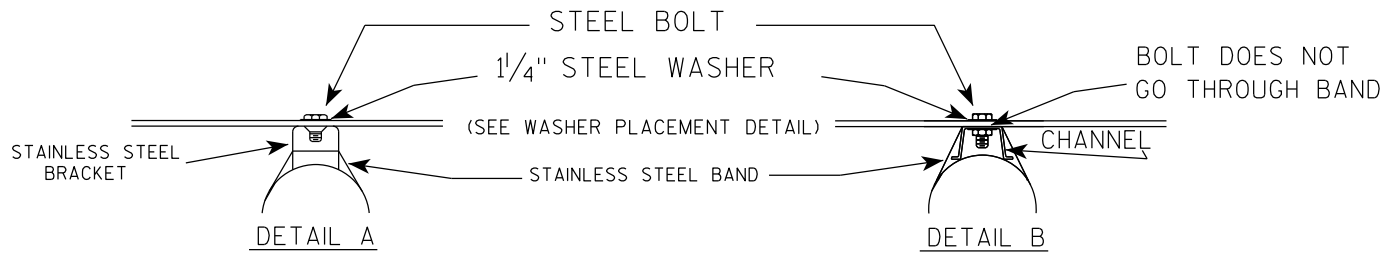
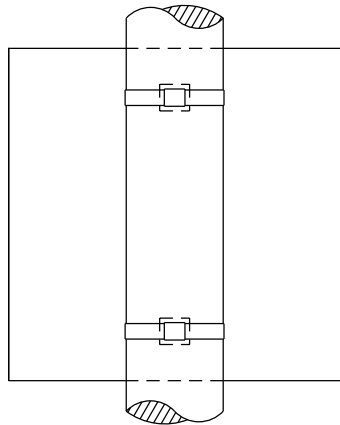
SHEET NO:

1

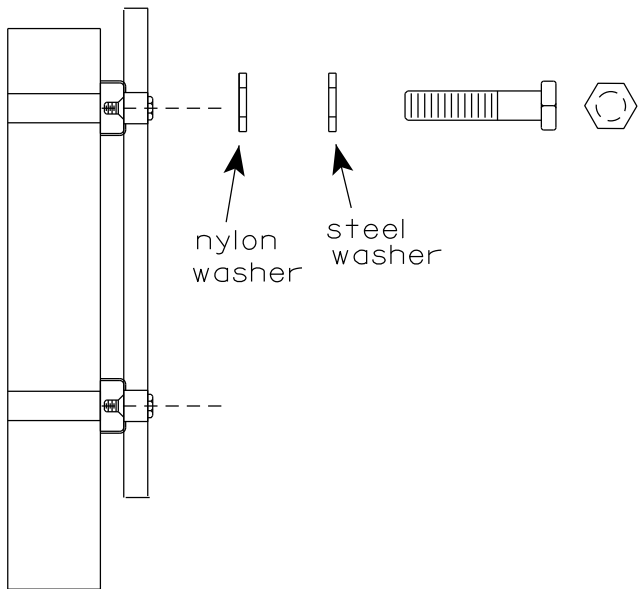


BANDING

SINGLE SIGN



WASHER PLACEMENT

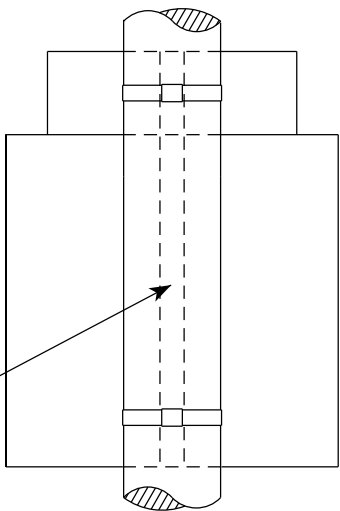


WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
FOR ALL TYPE H SIGNS

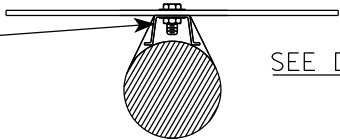
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



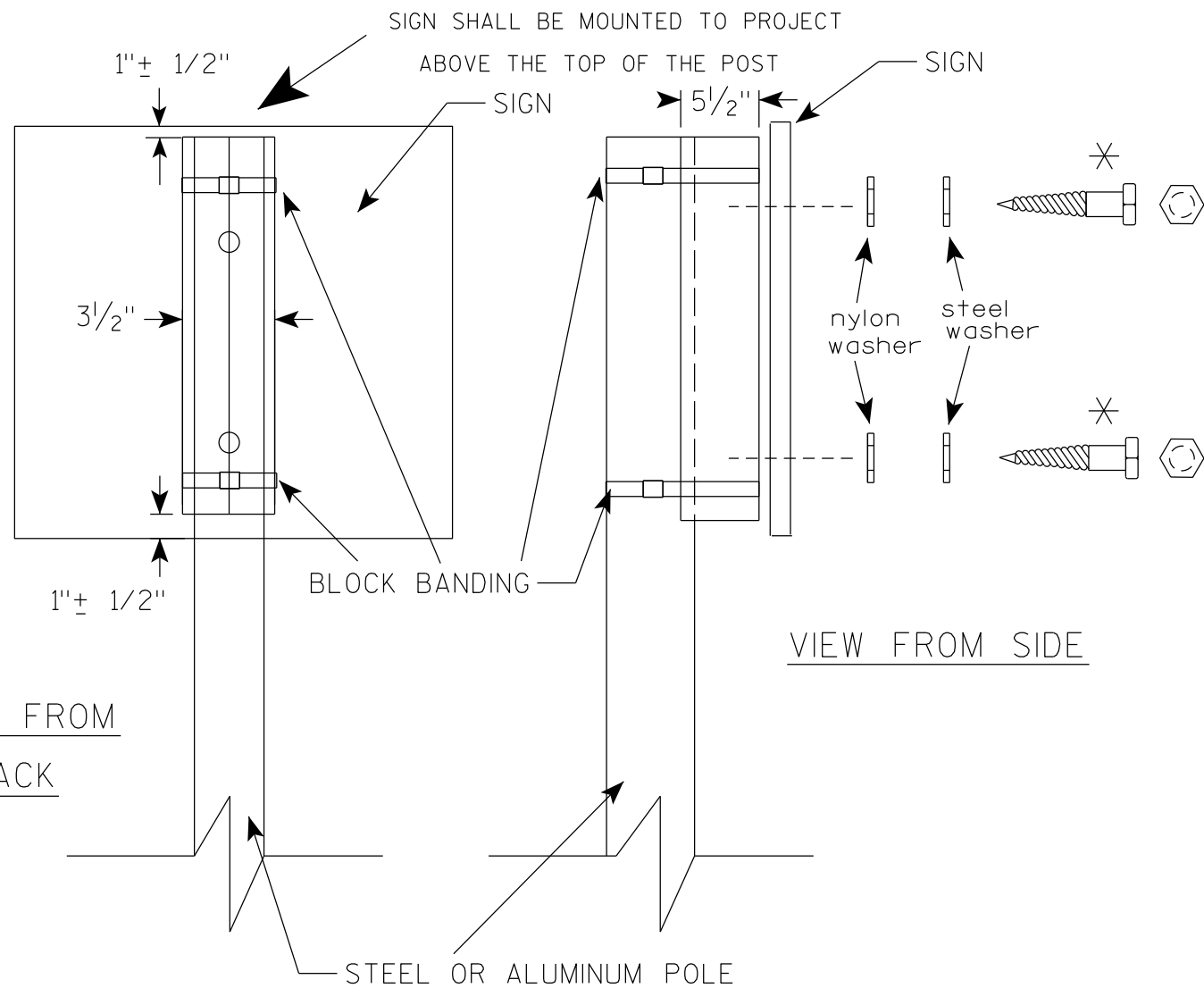
STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

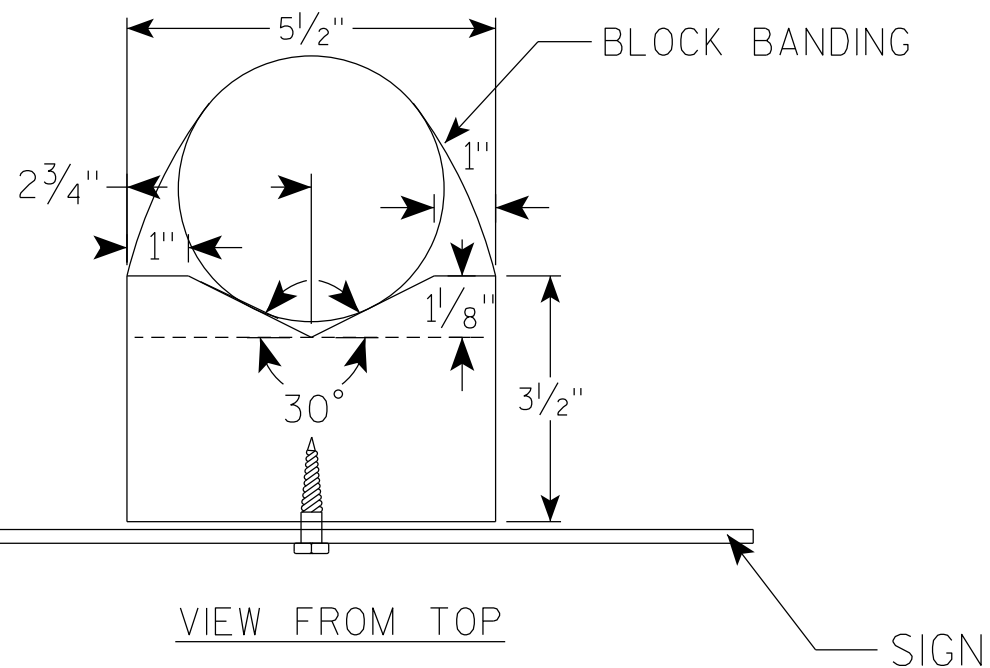
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM  
BACK



VIEW FROM SIDE



## GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL,  $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE  $1\frac{1}{4}$ " O.D. X  $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE  $\frac{3}{8}$ " X  $2\frac{1}{2}$ "

BLOCK BANDING DETAIL  
( V-BLOCK OPTION )

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

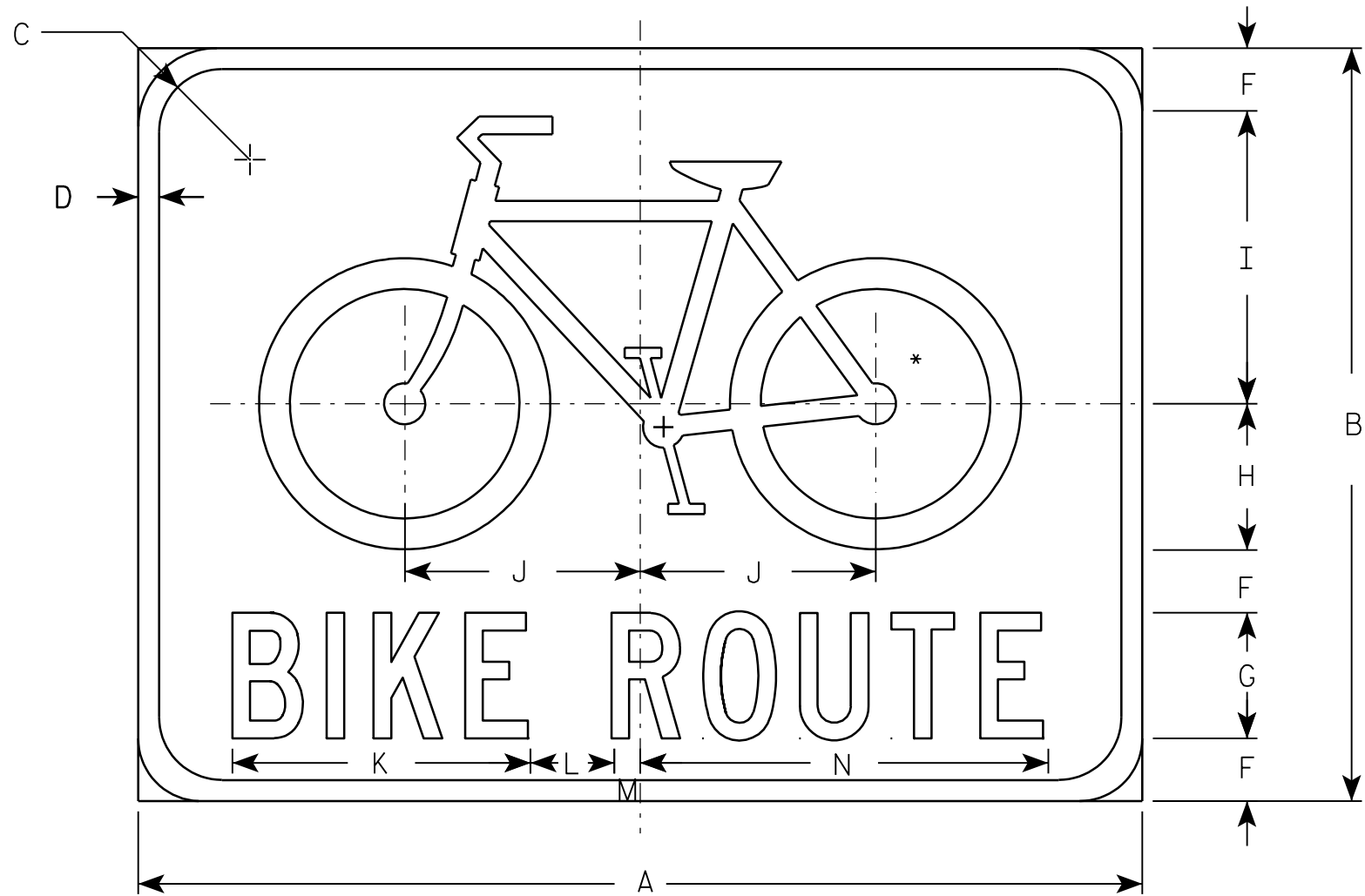
PROJECT NO:

SHEET NO: **90**

**E**



7



D11-1

Metric equivalent  
for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	750 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m <sup>2</sup>
1																												
2	24	18	1 1/2	1/2		1 1/2	3	3 1/2	7	5 5/8	7 1/8	2	5/8	9 3/4													3.0	0.27
3	30	24	1 1/4	5/8		2	4	4 3/4	9 1/4	7 1/2	9 1/2	2 5/8	7/8	13													5.0	0.45
4																												
5																												

NOTES

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

\* See W11-1 for symbol design

STANDARD SIGN  
D11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/24/04 PLATE NO. D11-1.1

PROJECT NO:

SHEET NO:

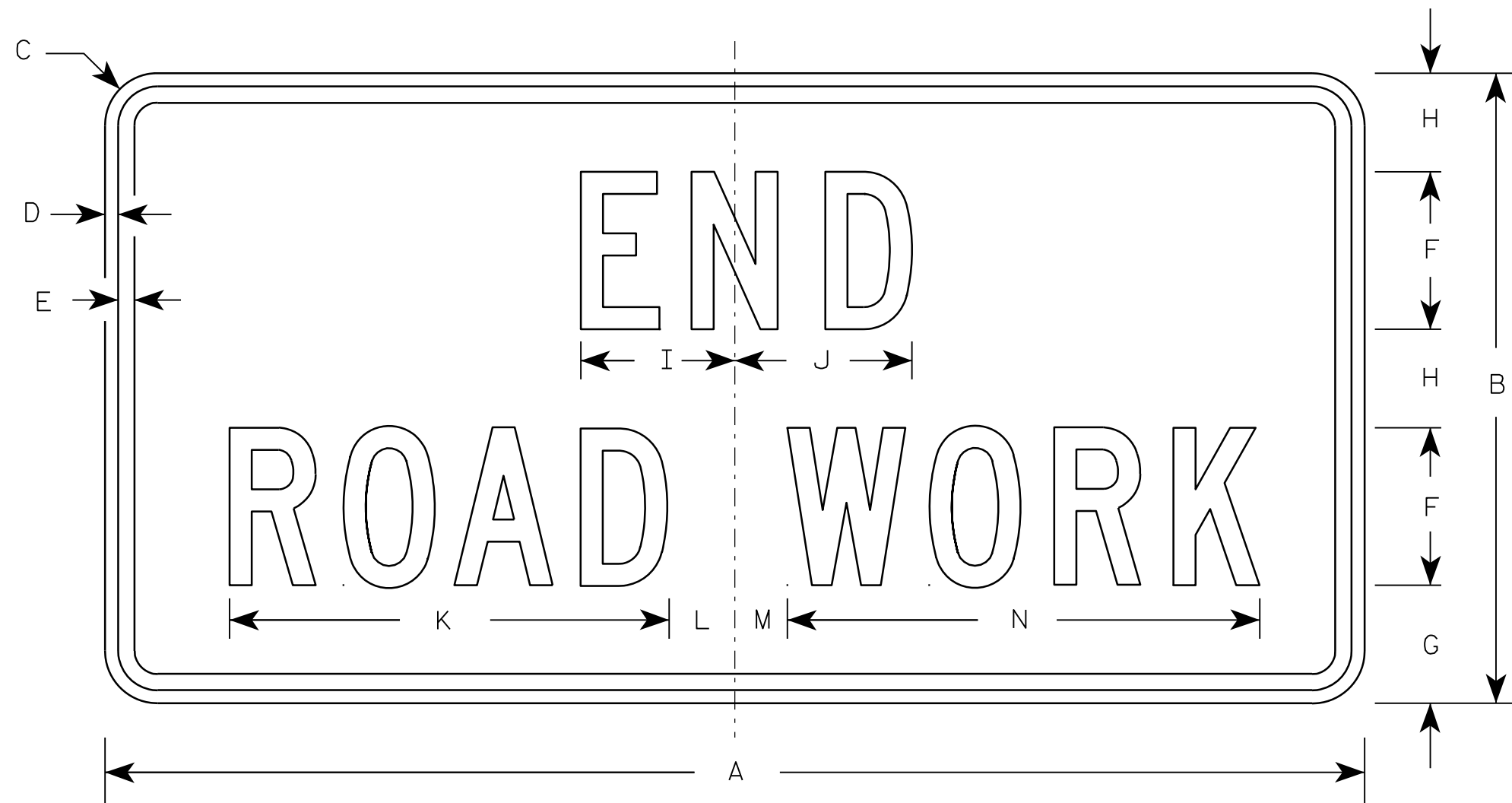
91

E

7



7



G20-2A

NOTES

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

Metric equivalent  
for this sign is:

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

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

STANDARD SIGN

G20-2A

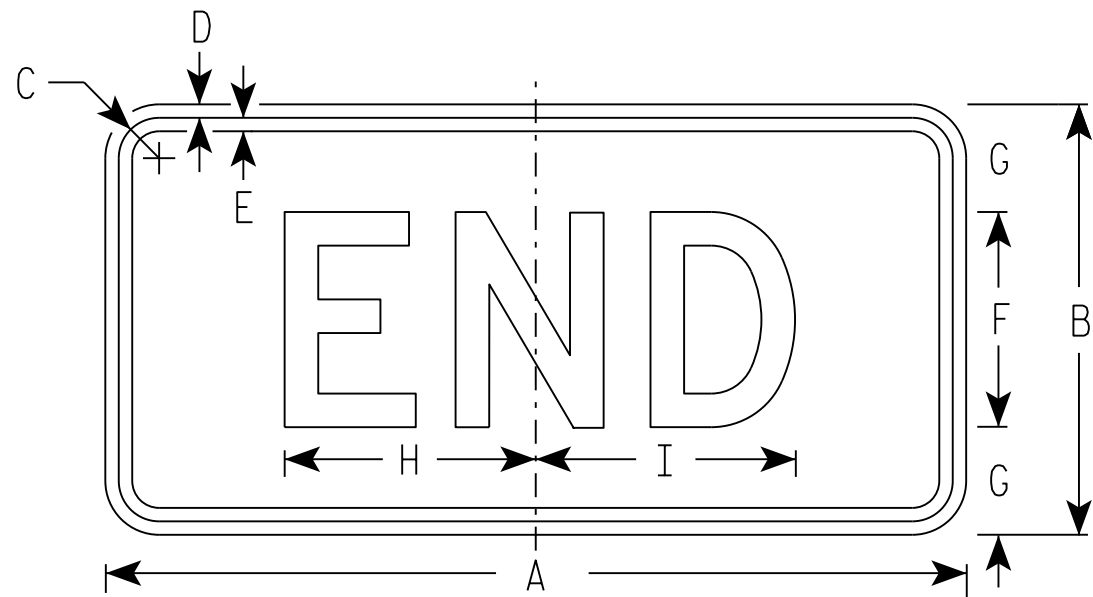
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

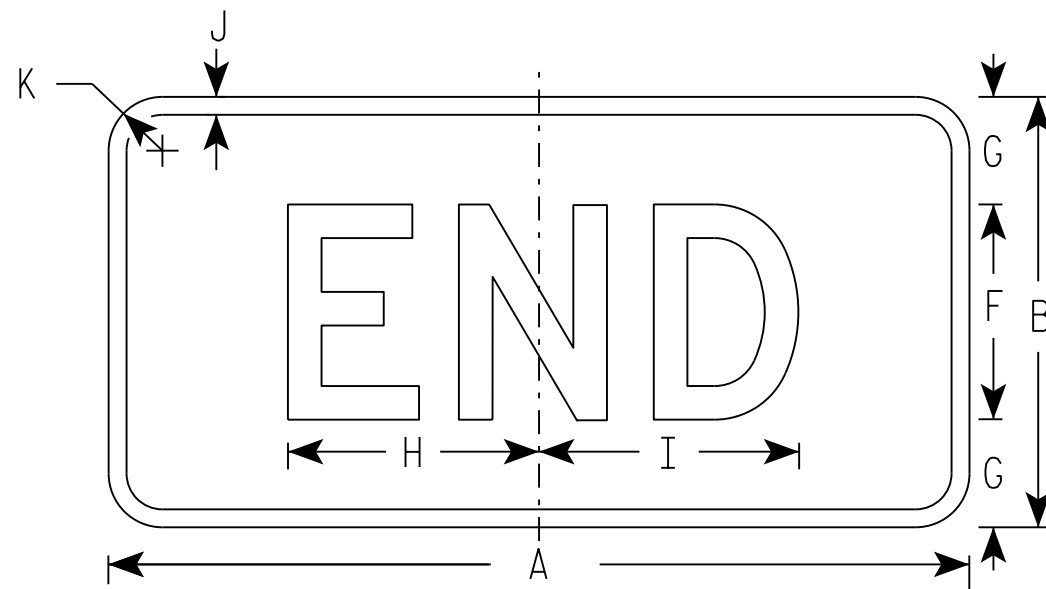
DATE 9/30/09 PLATE NO. G20-2A.8

7





M4-6  
MM4-6  
MP4-6



MB4-6  
MK4-6  
MN4-6  
MR4-6

### NOTES

- Sign is Type II - Type H
- Color:  
Background - See note 5  
Message - See note 5
- Message Series - D
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M4-6 Background - White  
Message - Black  
MB4-6 Background - Blue  
Message - White  
MK4-6 Background - Green  
Message - White  
MM4-6 Background - White  
Message - Green  
MN4-6 Background - Brown  
Message - White  
MP4-6 Background - White  
Message - Blue  
MR4-6 Background - Brown  
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

### STANDARD SIGN M4-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. 93 M4-7.9

PROJECT NO:

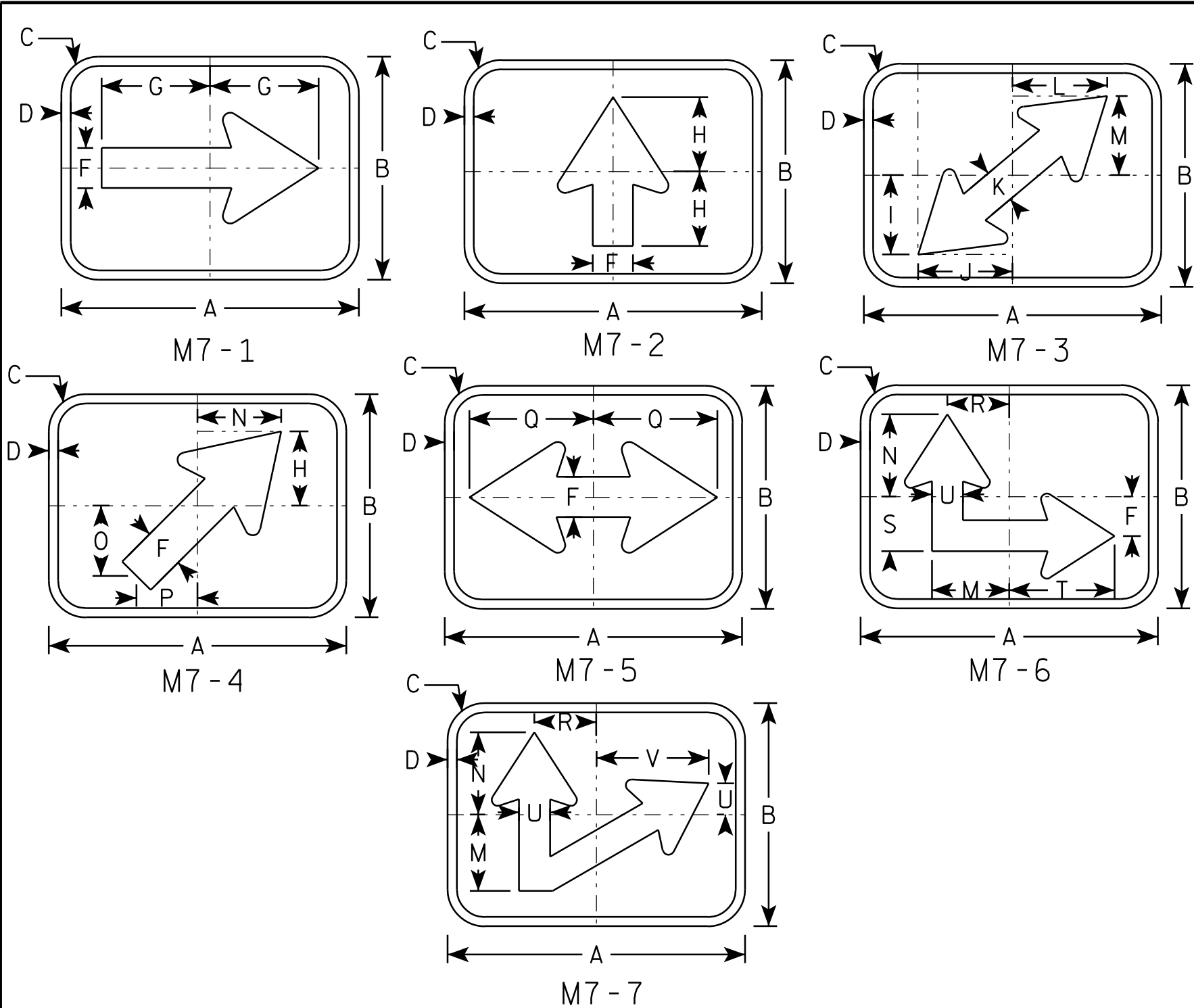
HWY:

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 - Green  
Message - White
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																											
2	12	9	1½	¾		1 ⅝	4 ⅜	3	3 ¼	3 ¾	1 ⅜	3 ⅞	3 ⅛	3 ⅜	2 ⅞	2 ½	5	2 ½	2 ¼	4 ¼	1 ¼	4 ½					.75
3																											
4																											
5																											

STANDARD SIGN  
M7 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 05/04/10 PLATE NO. M7-1.1

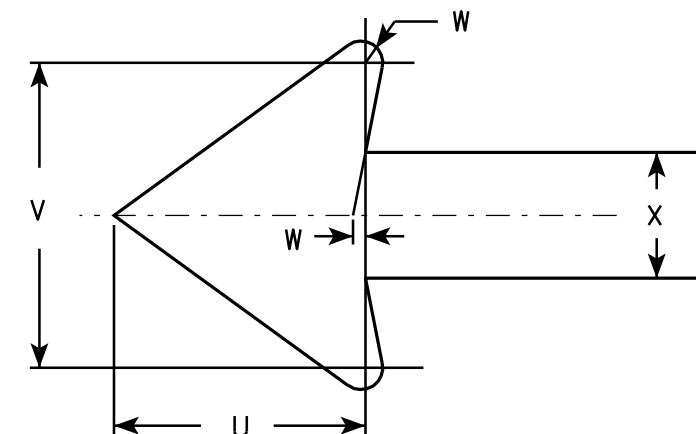




R7-1

### 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 - Red
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, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)  
R7-1L (left arrow)  
R7-1R (right arrow)

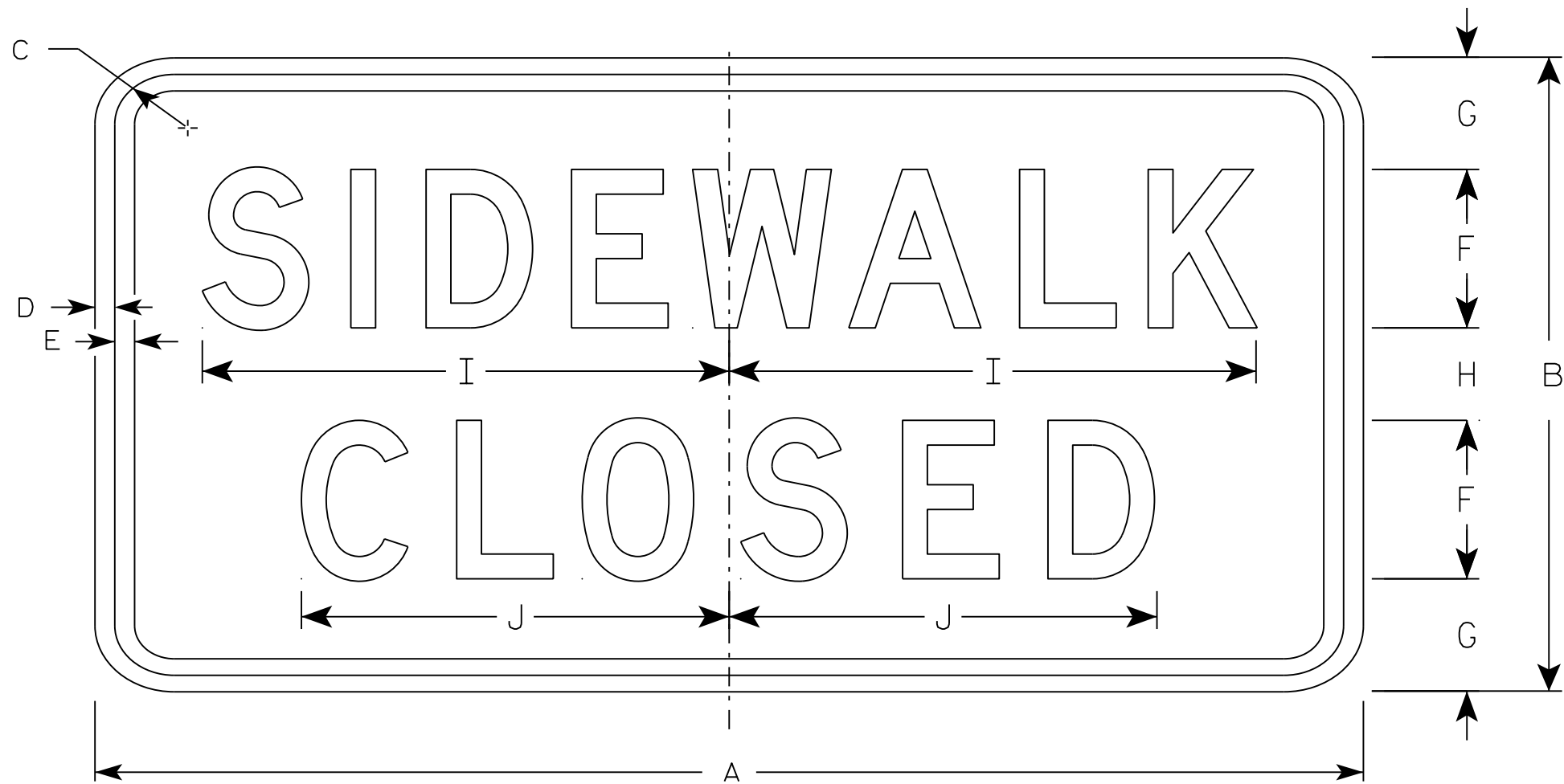


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN R7-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/31/2011	PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 95	E
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R9-9

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 - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ¾	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ¾	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN  
R9-9

WISCONSIN DEPT OF TRANSPORTATION

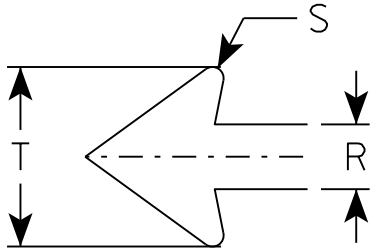
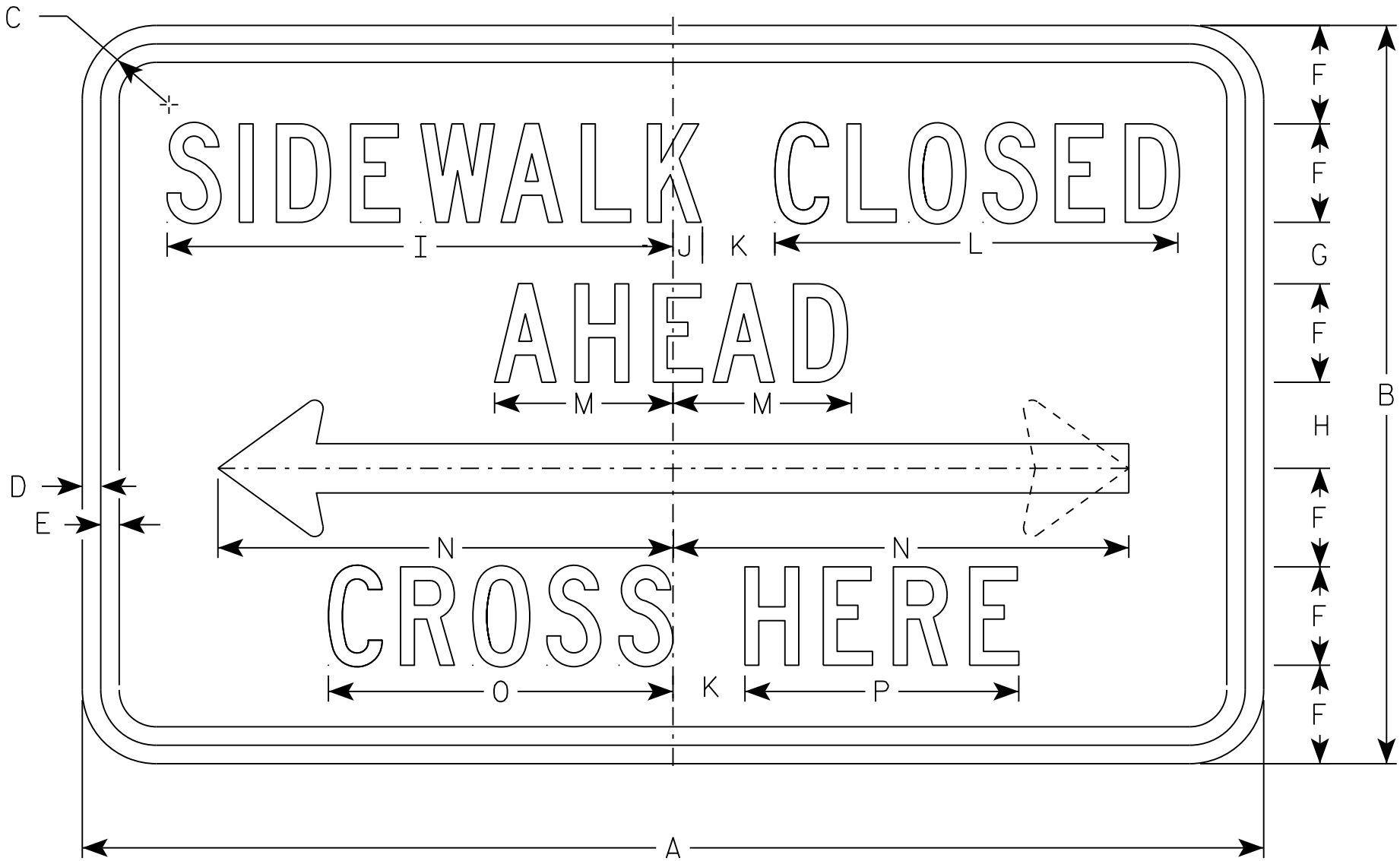
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/11/16 PLATE NO. 96 R9-9.6



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - White  
Message - Black
- 3. Message Series - C except Size 1 is Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-11

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	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 97

E

STANDARD SIGN  
R9-11

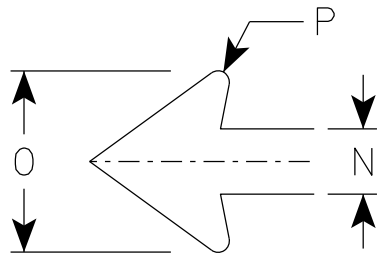
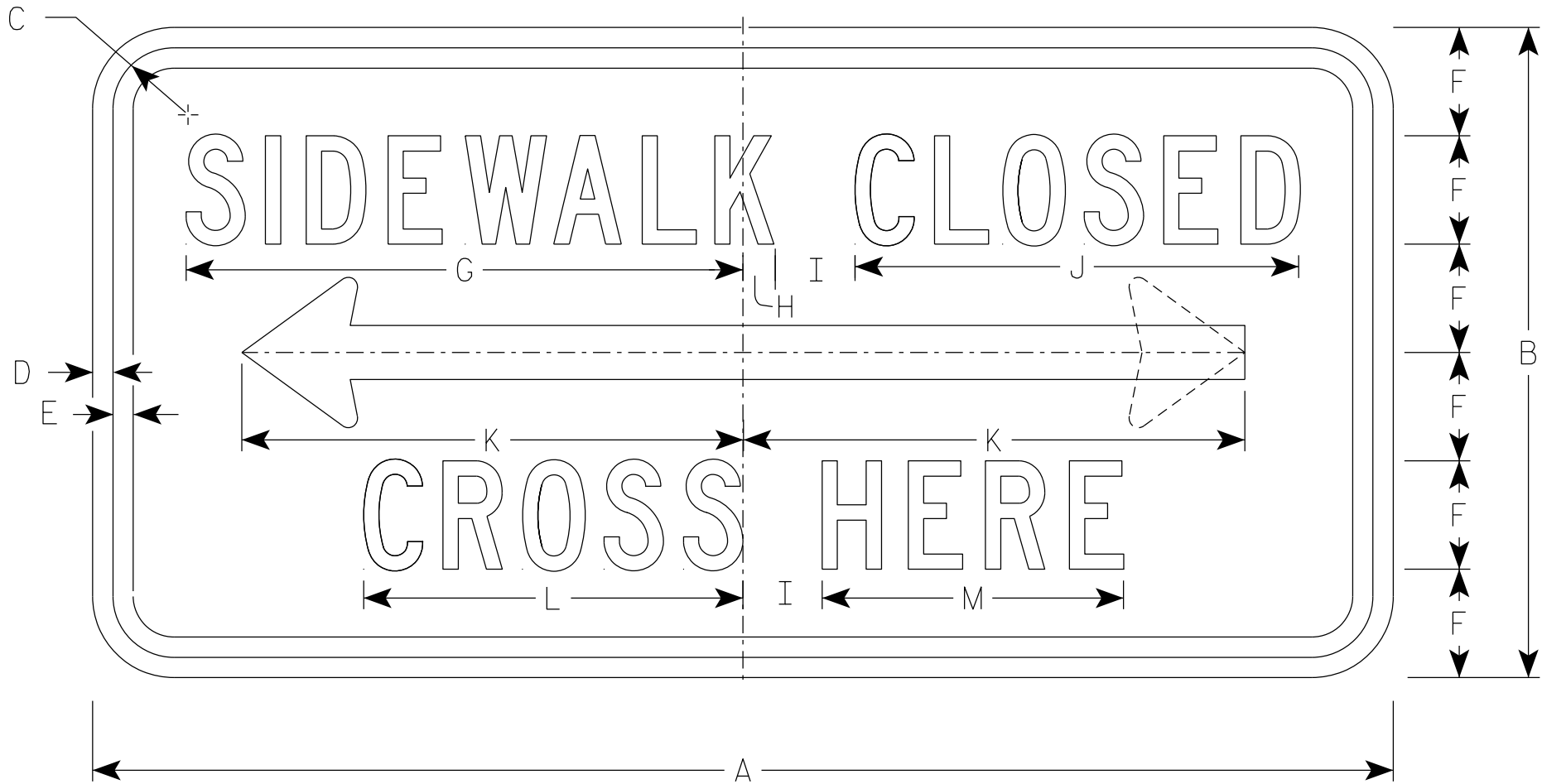
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 11/29/16 PLATE NO. R9-11.3



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
  - Background - White
  - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.

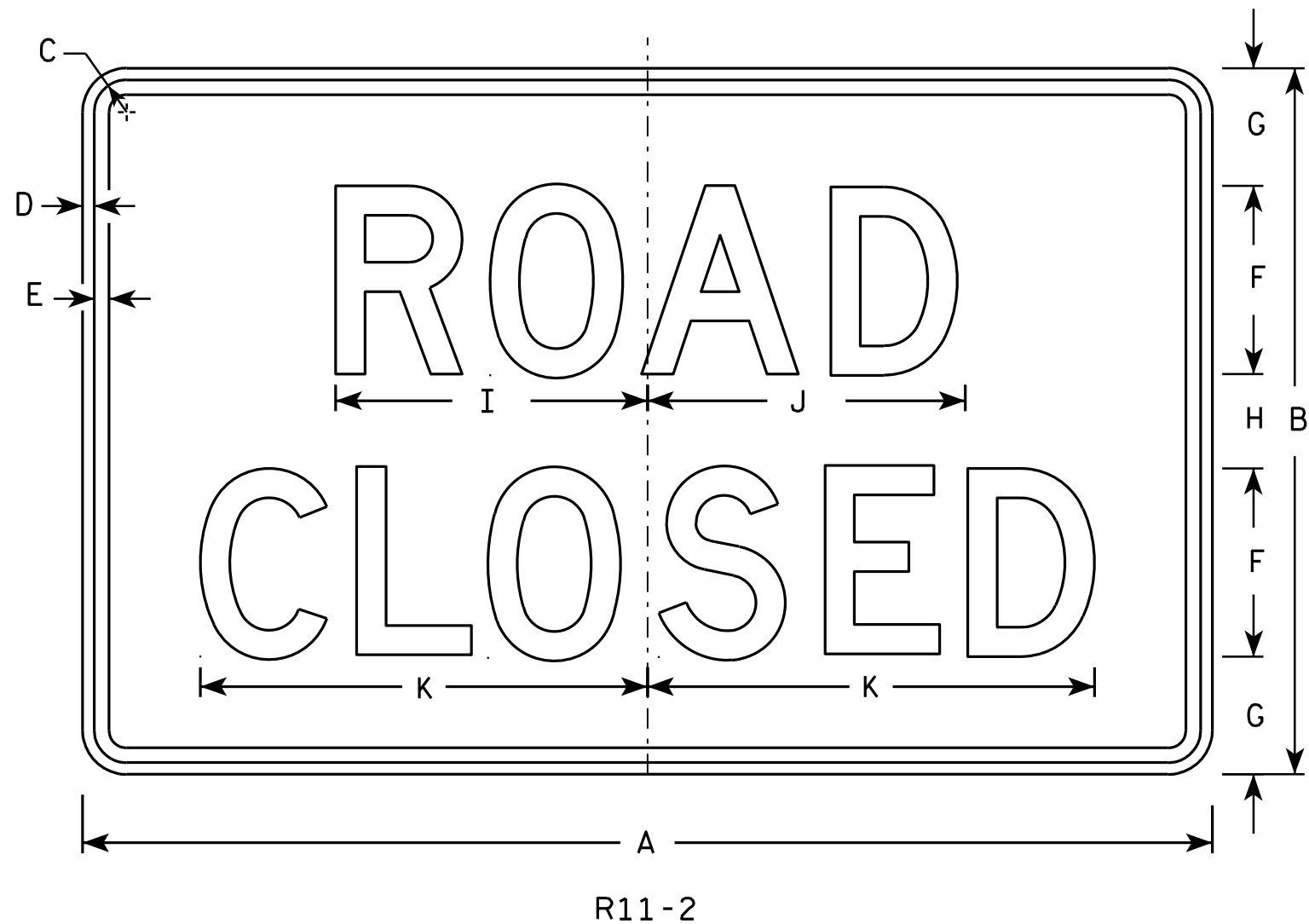


ARROW DETAIL

R9-11A

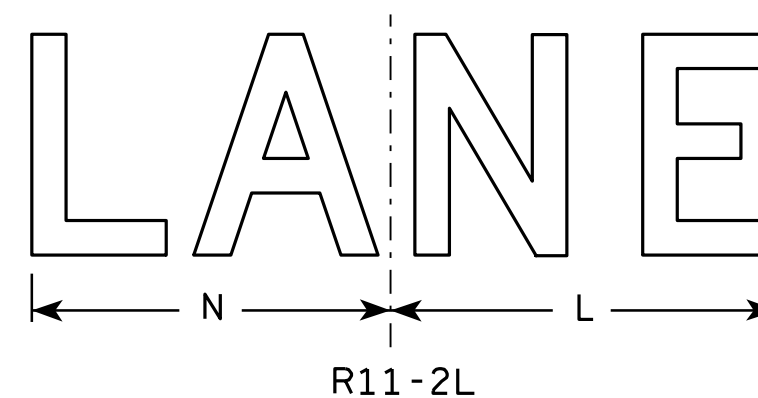
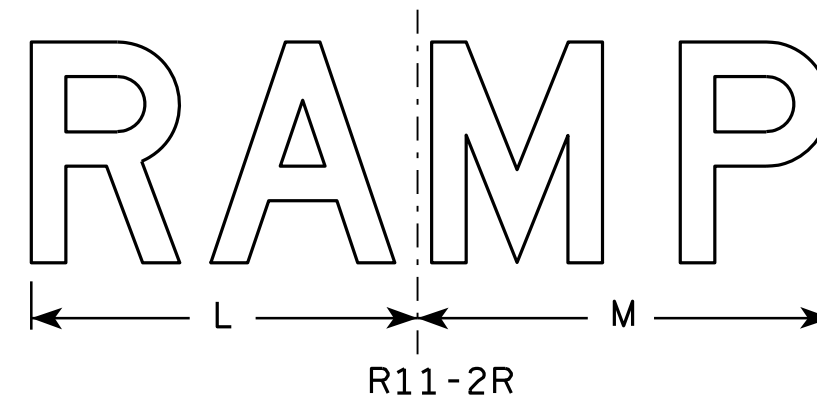
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/8	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/8	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											





### NOTES

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



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

STANDARD SIGN  
R11-2

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

PROJECT NO: HWY: COUNTY: SHEET NO: 99 E

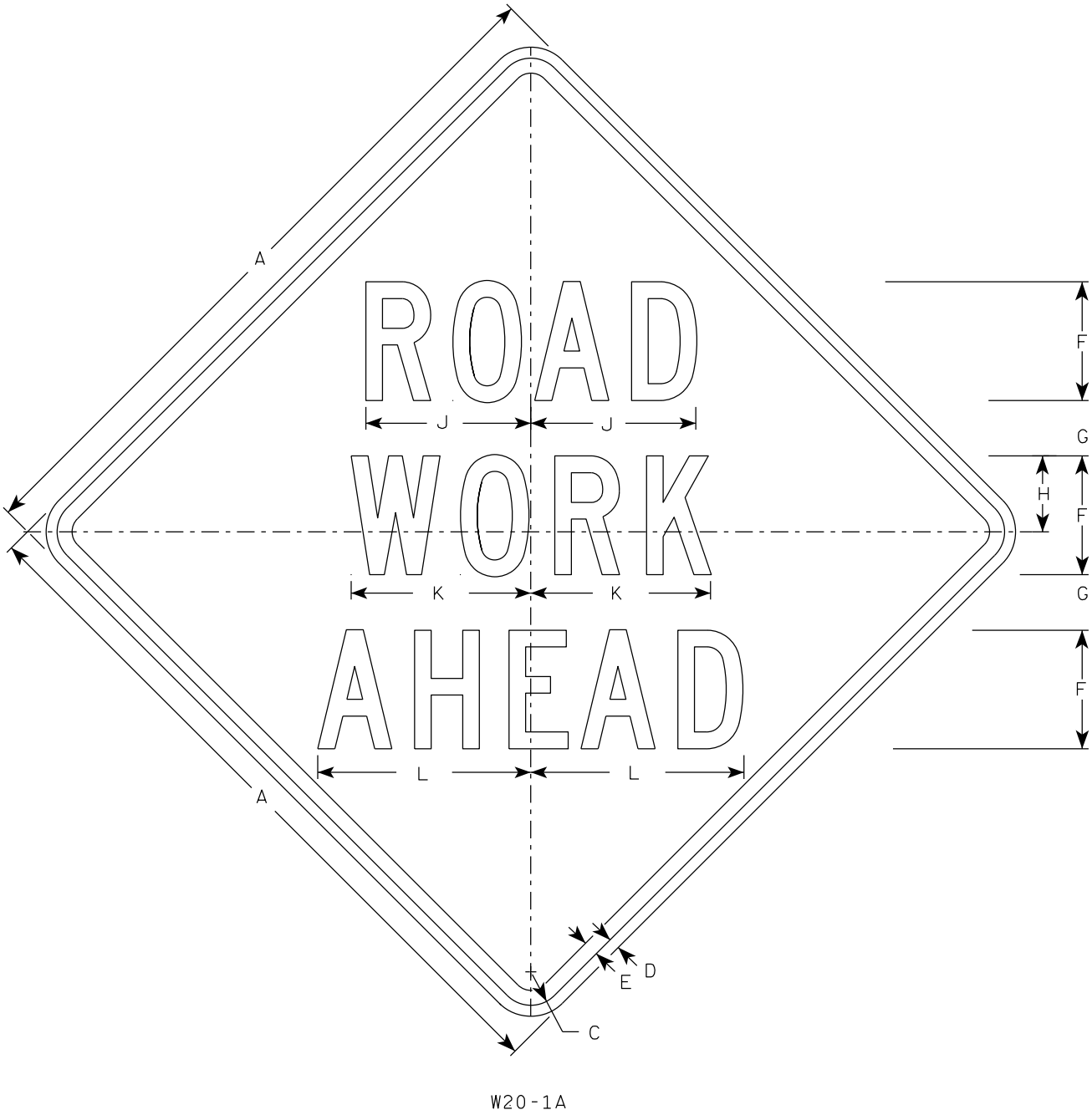


NOTES

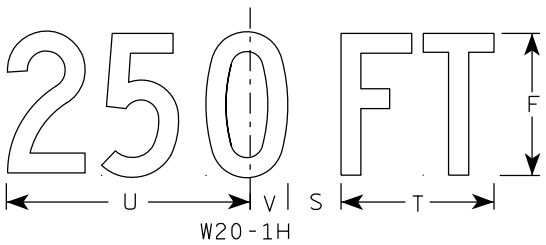
1. Sign is Type II - Type F Reflective
2. Color:

Background - Orange

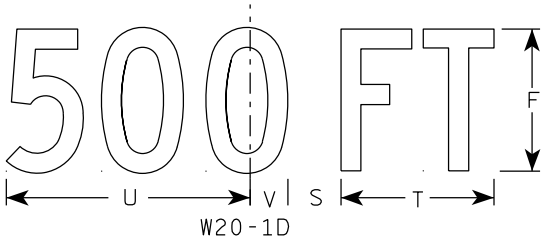
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



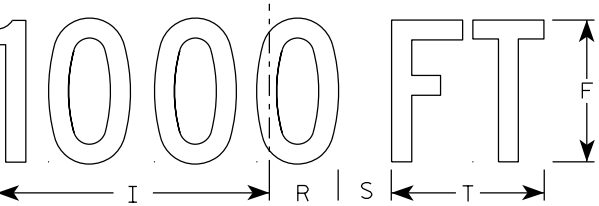
W20-1A



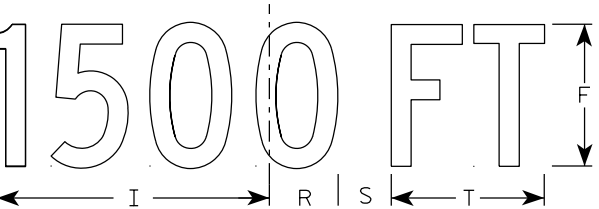
W20-1H



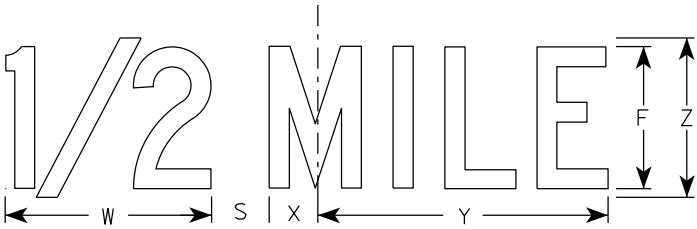
W20-1D



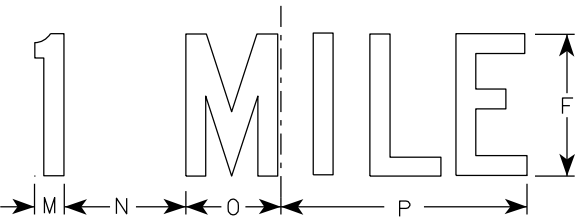
W20-1C



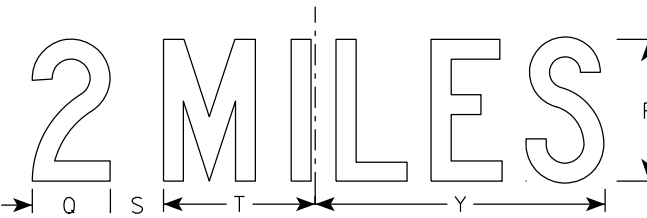
W20-1B



W20-1G



W20-1F



W20-1E

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	A <sub>req</sub> sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

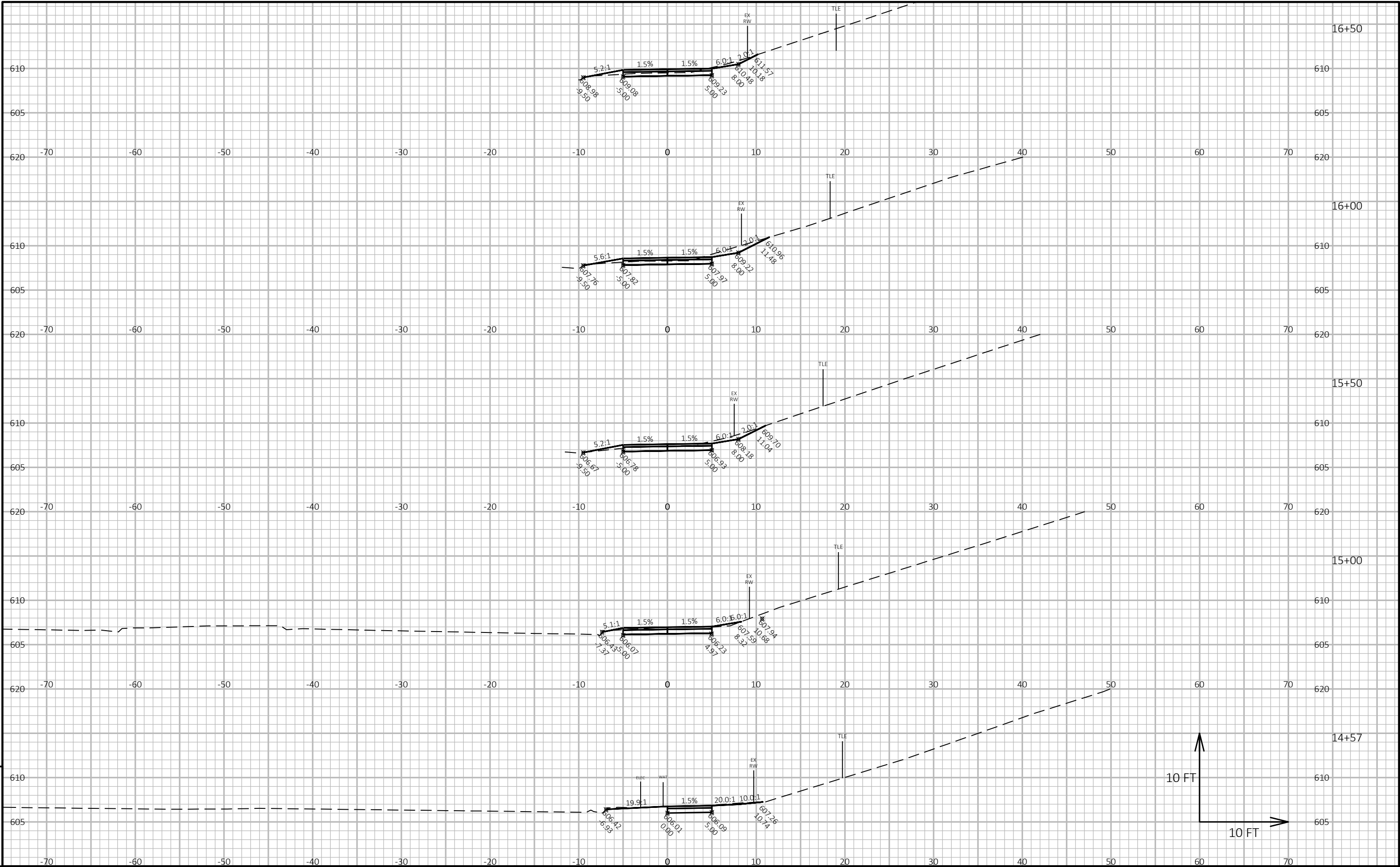
STANDARD SIGN  
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

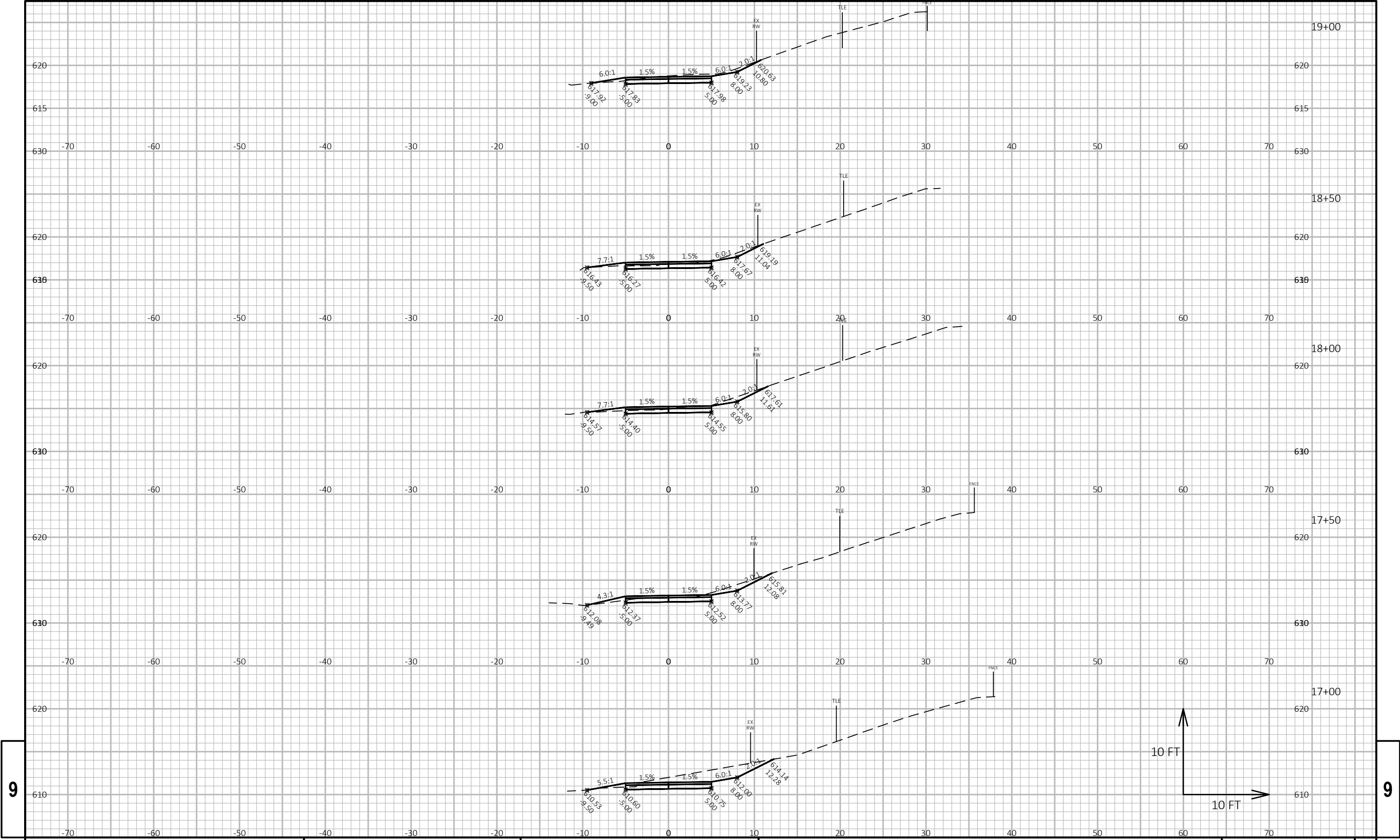
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11







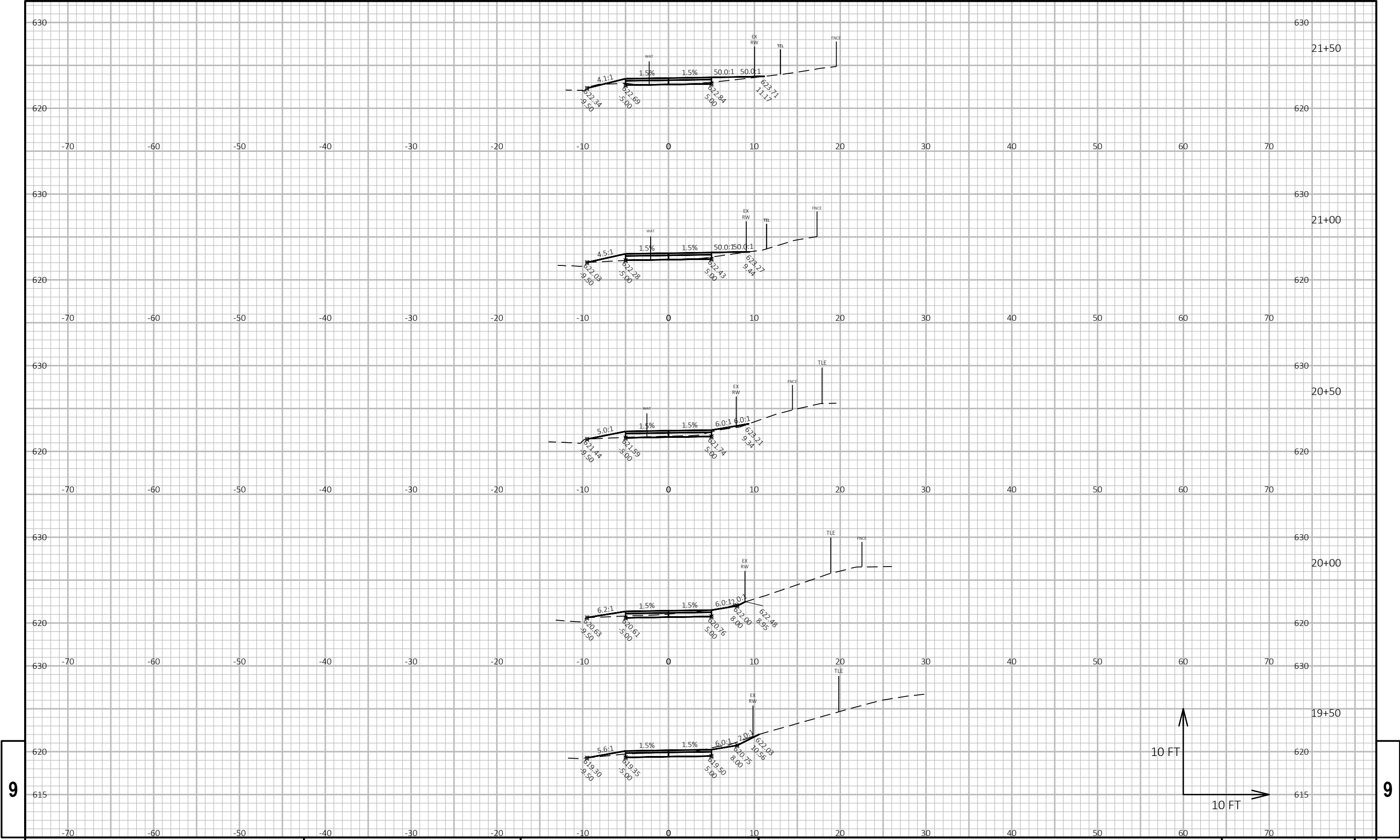


9

9

PROJECT NO: 1693-34-76	HWY: LAKE MICHIGAN PATHWAY 4	COUNTY: RACINE	CROSS SECTIONS: STH 32	SHEET 102 E
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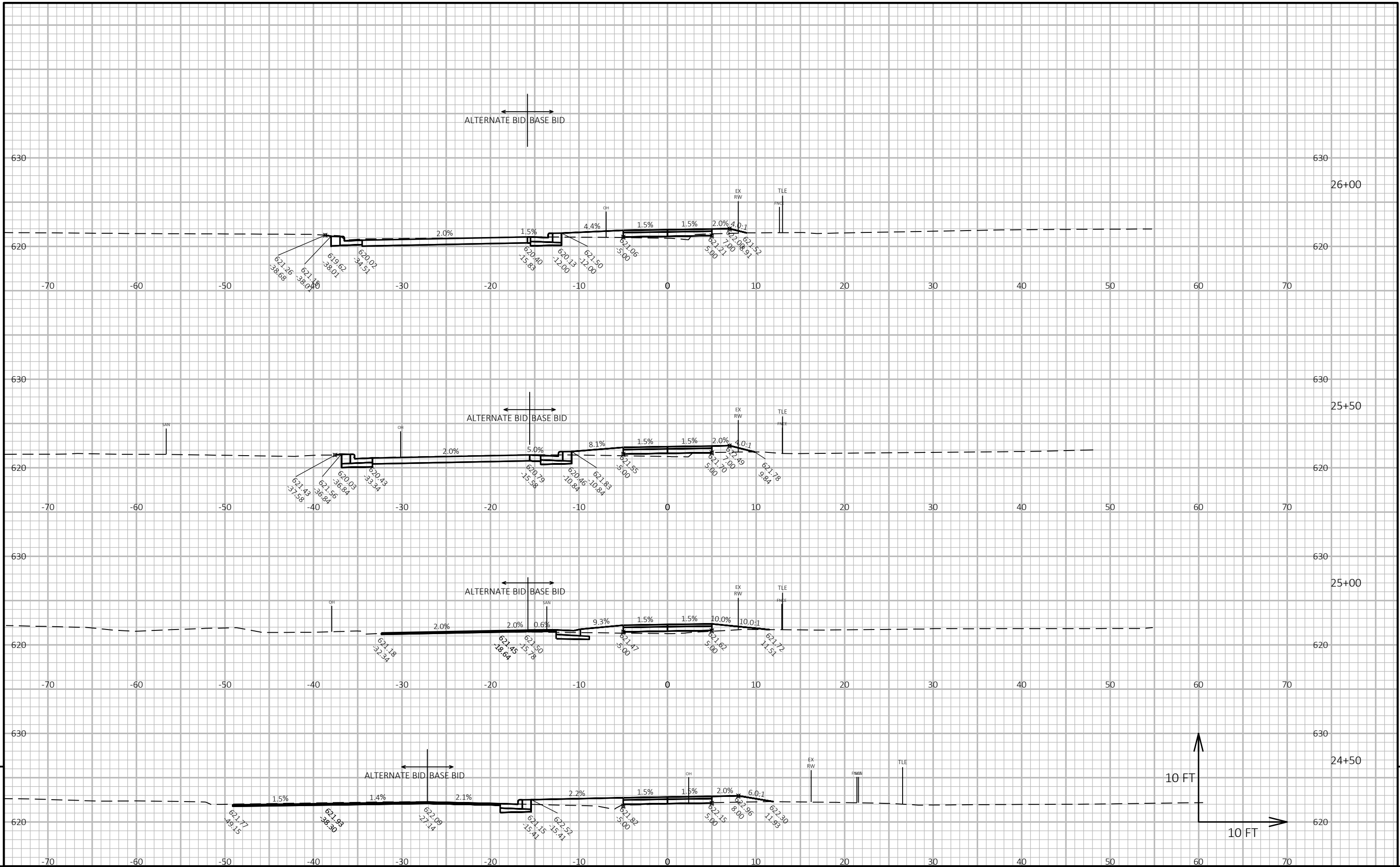




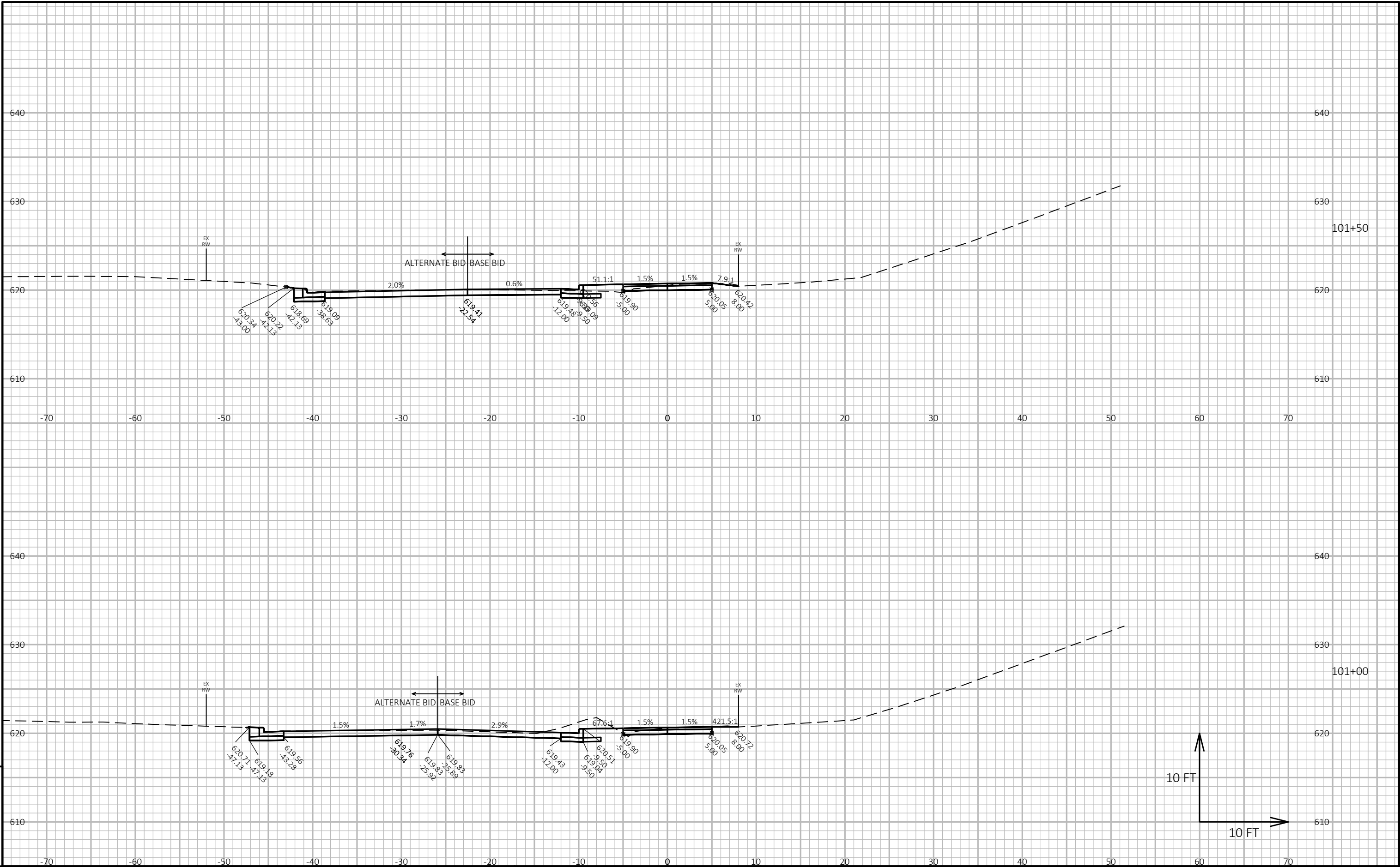




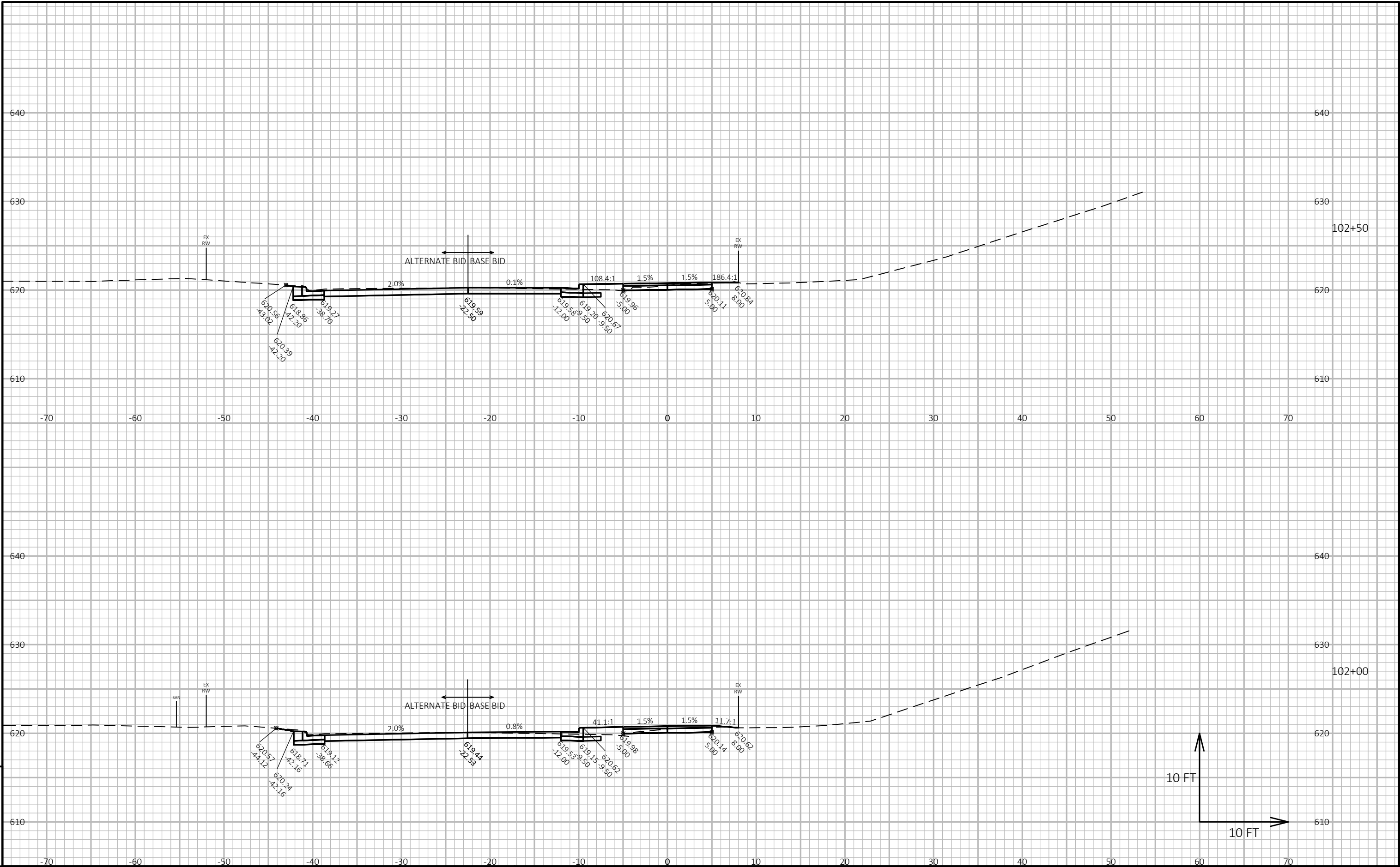








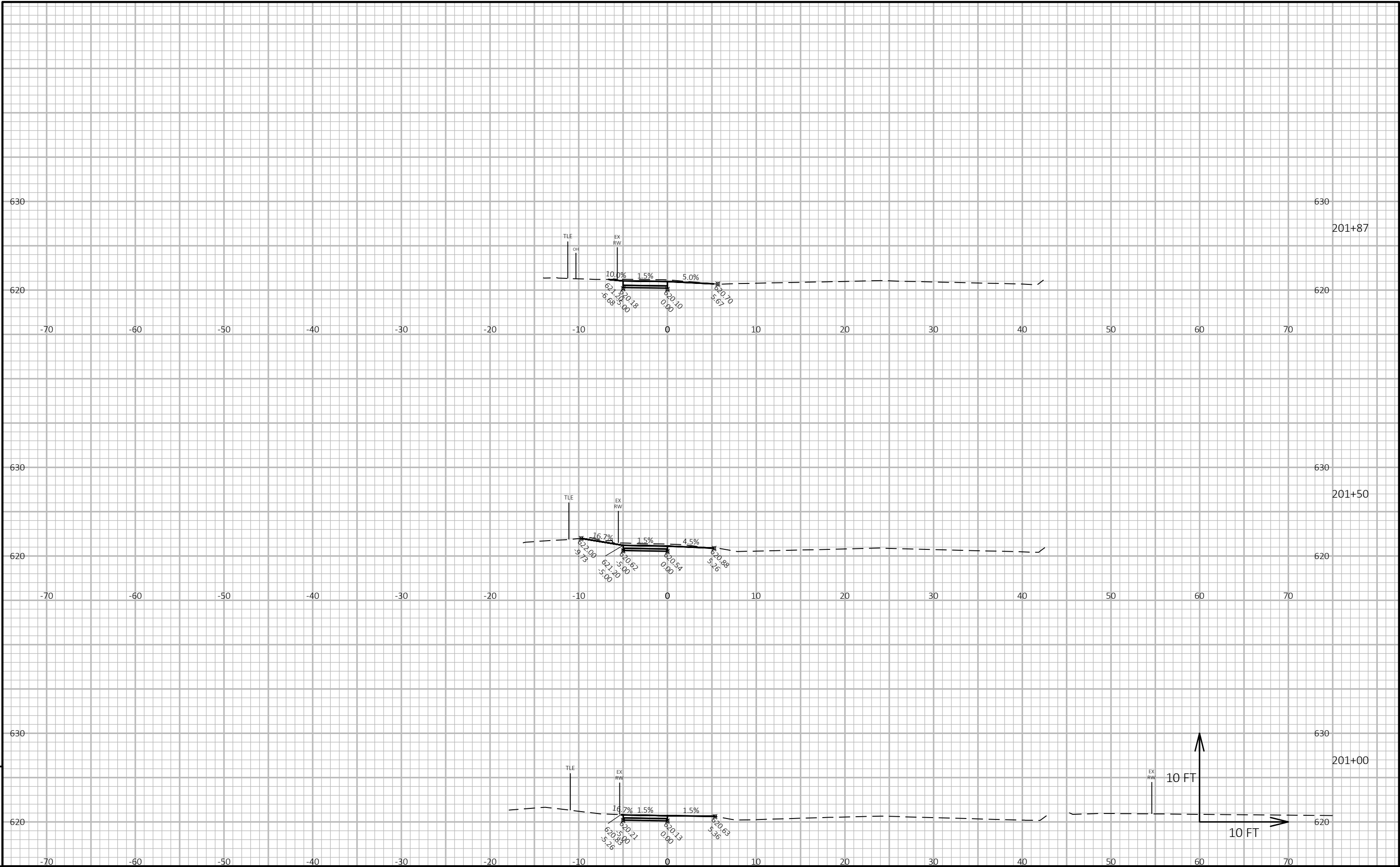




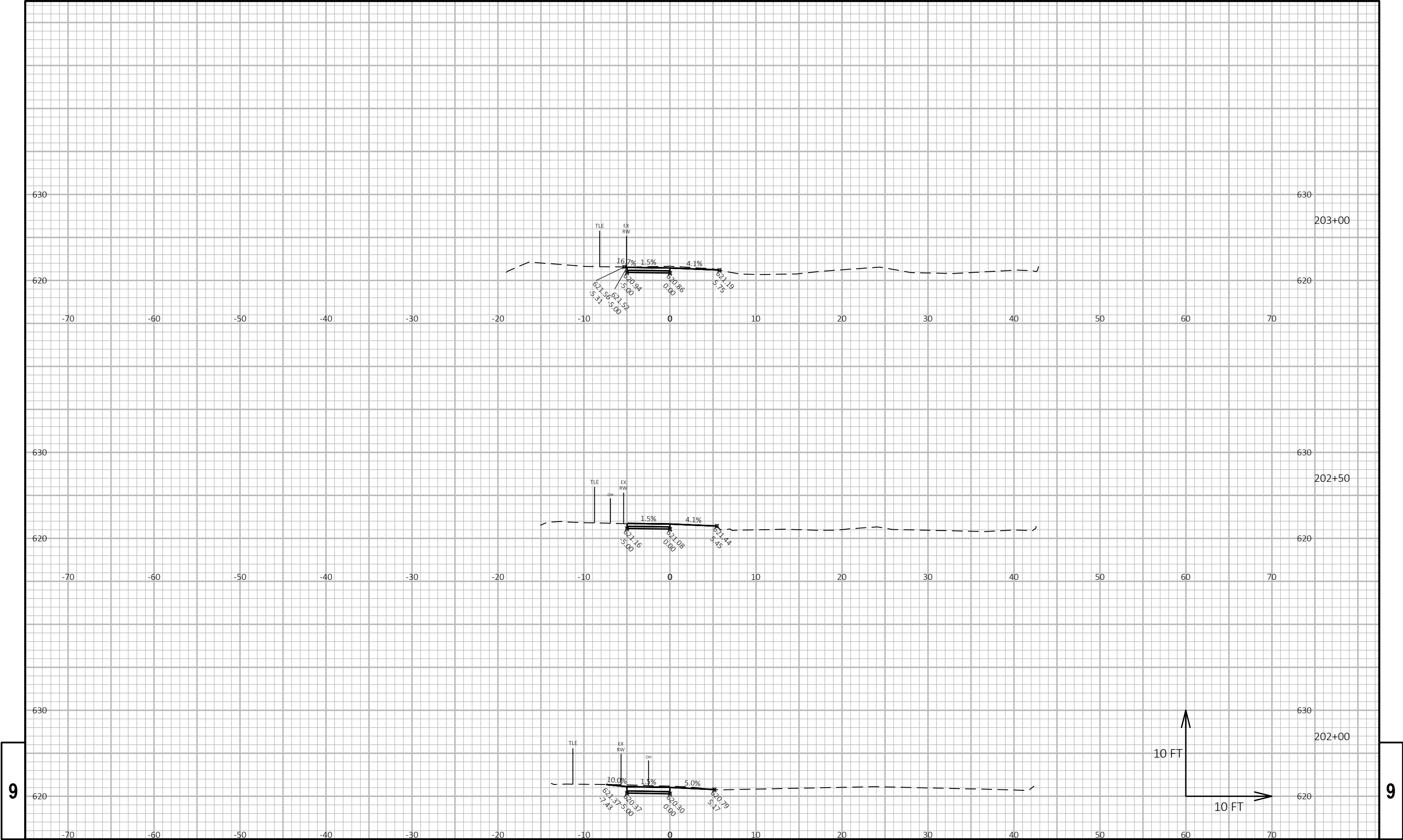








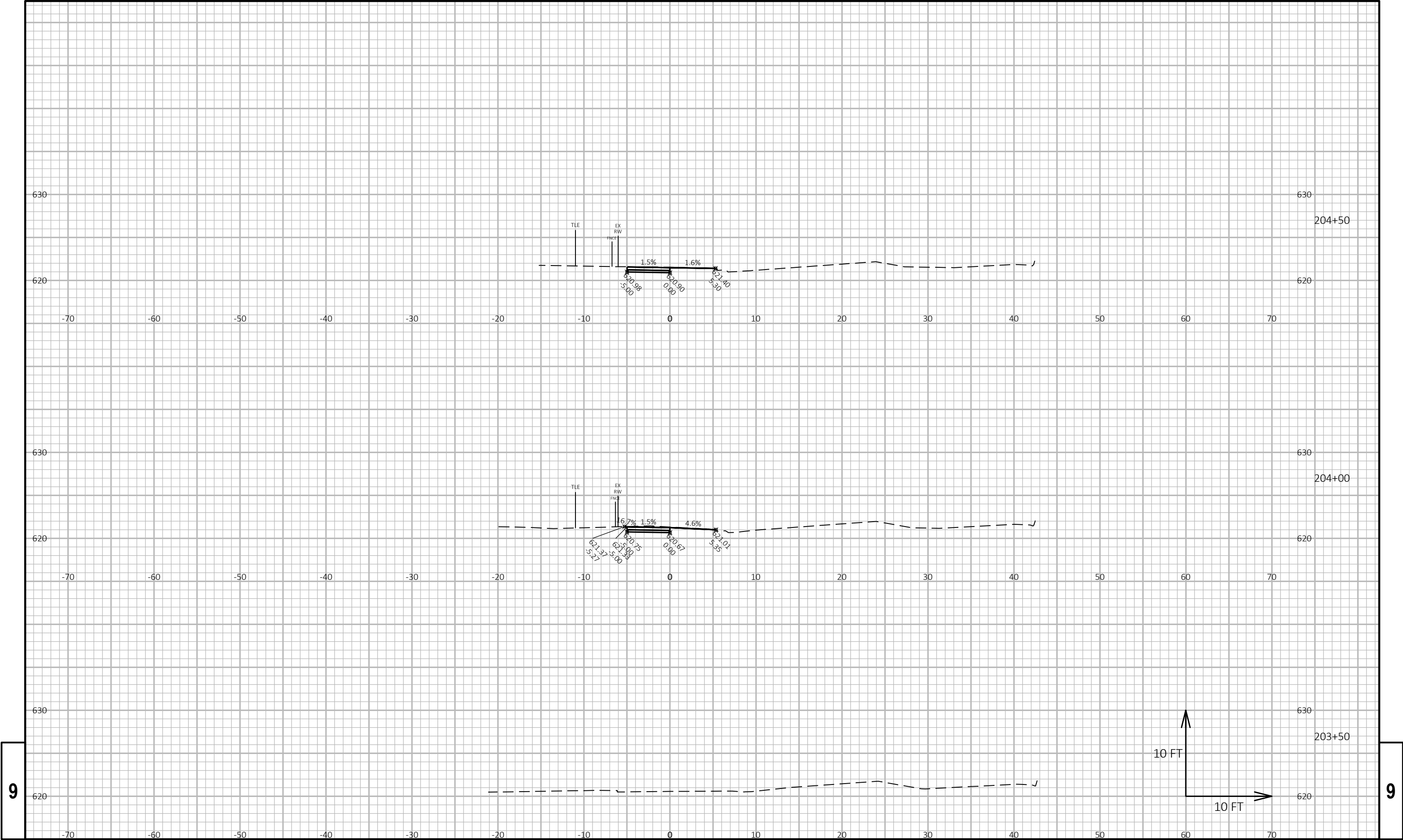




9

9





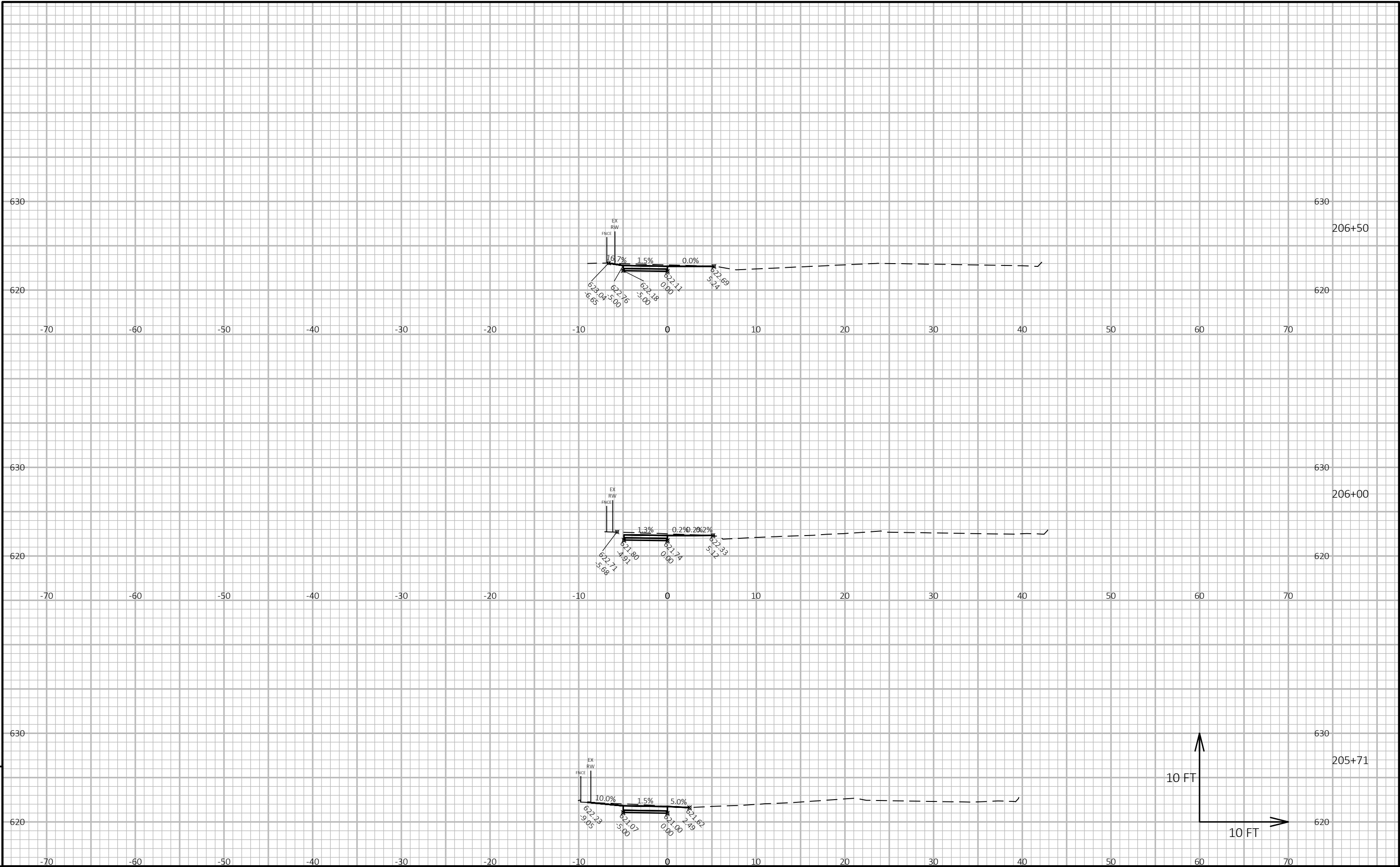
9

9

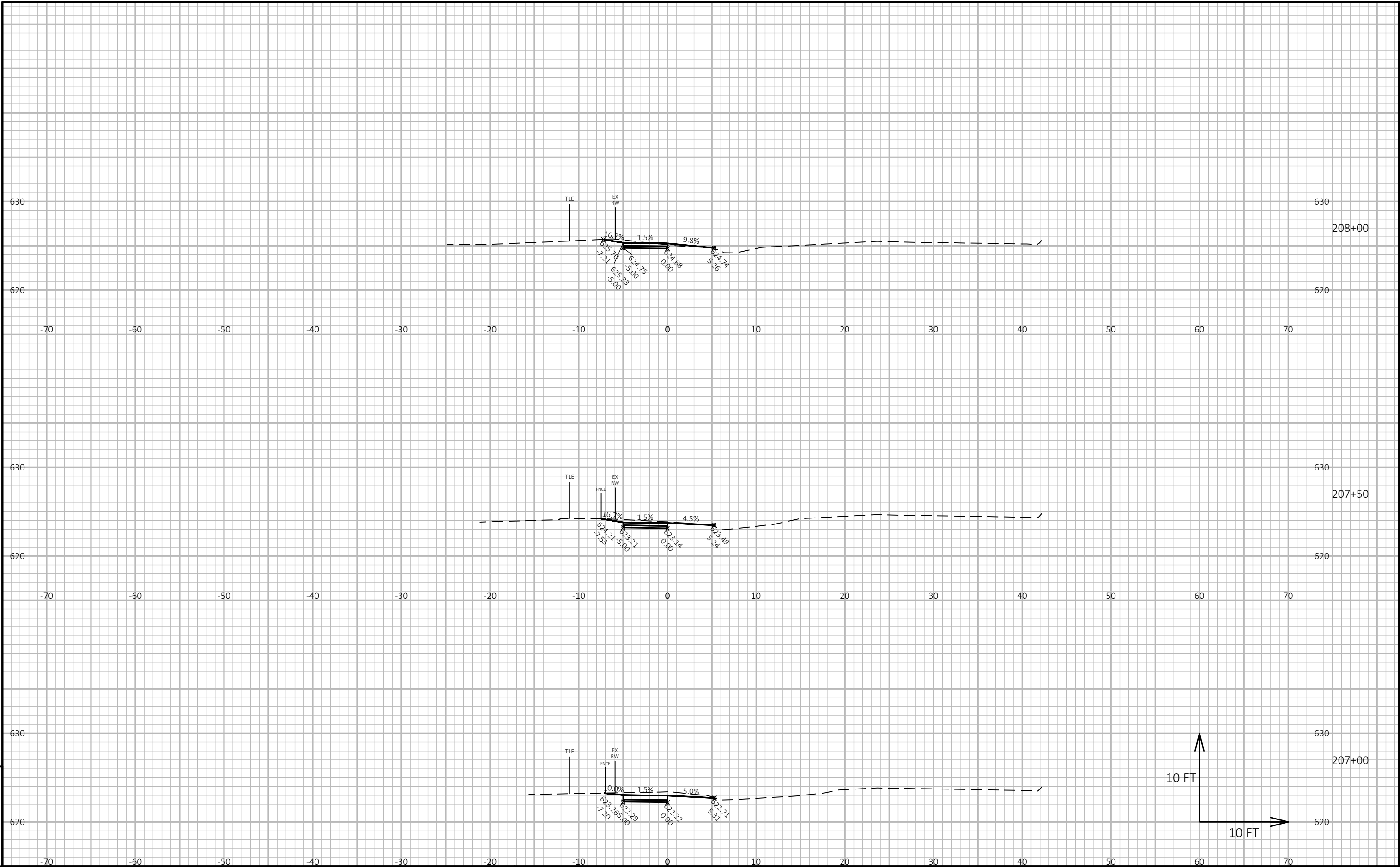




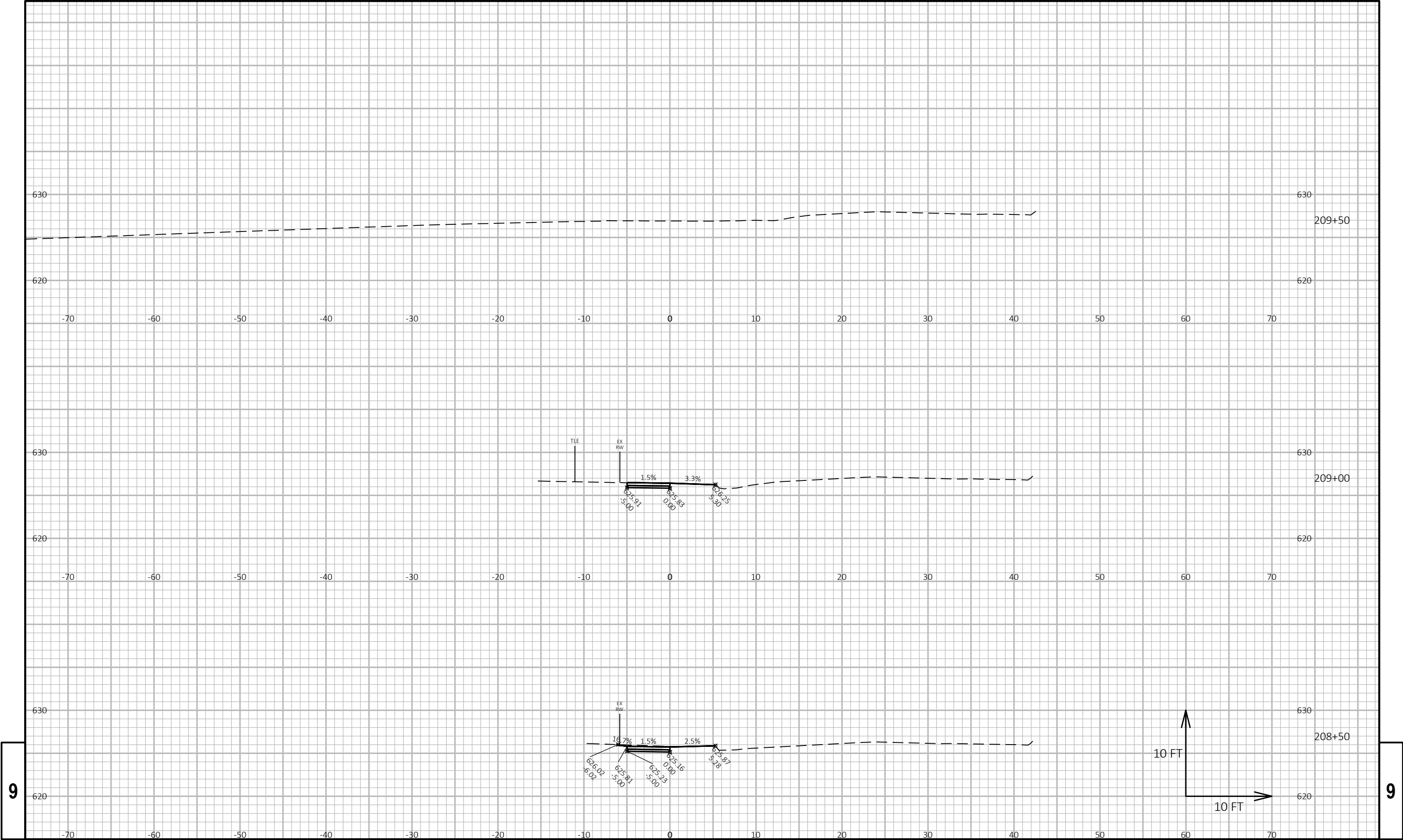










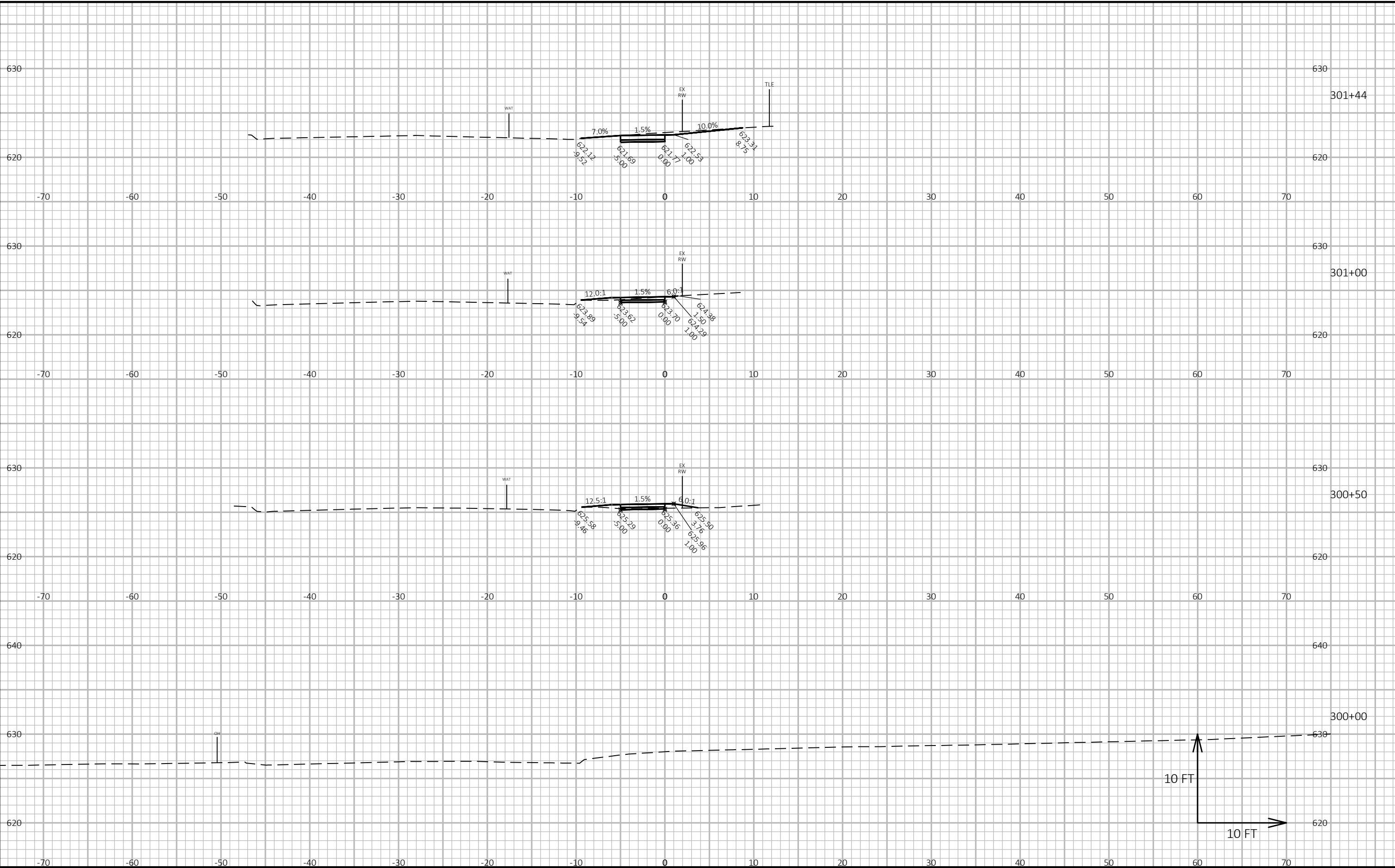


9

9

PROJECT NO:	1693-34-76	HWY:	LAKE MICHIGAN PATHWAY 4	COUNTY:	RACINE	CROSS SECTIONS:	24TH STREET	SHEET	115	E
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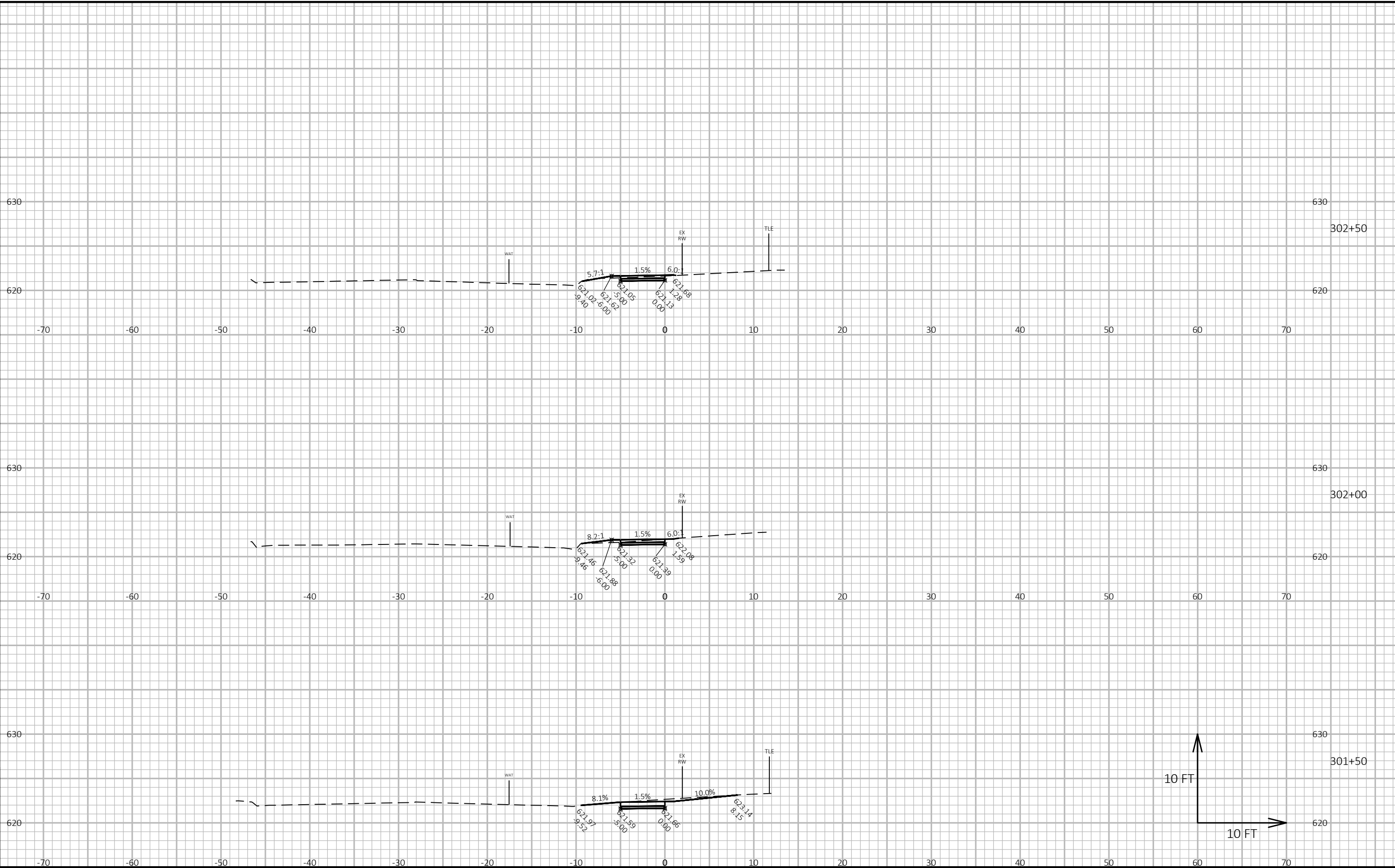


9

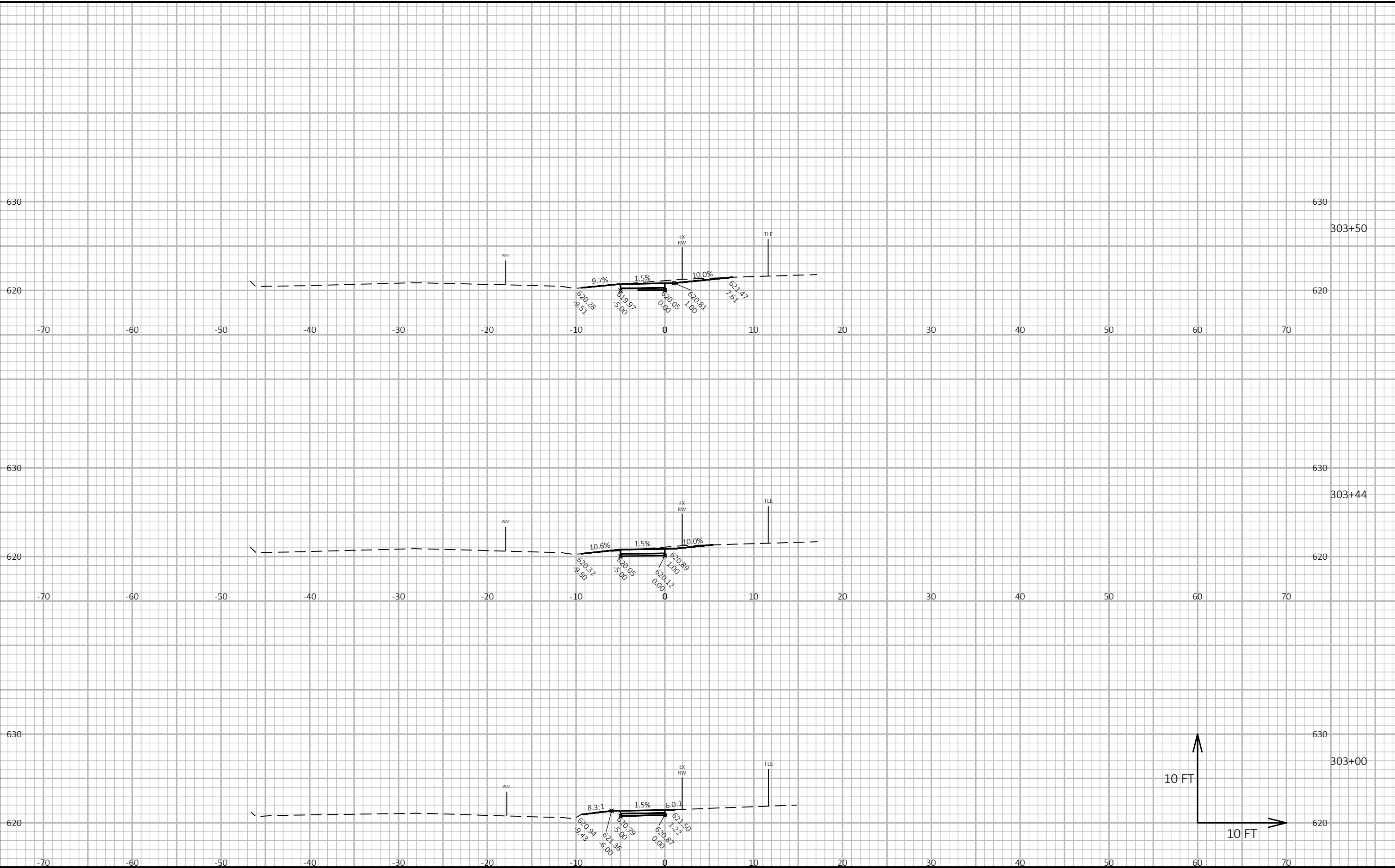
9

PROJECT NO: 1693-34-76	HWY: LAKE MICHIGAN PATHWAY 4	COUNTY: RACINE	CROSS SECTIONS: CENTER STREET	SHEET 116 E
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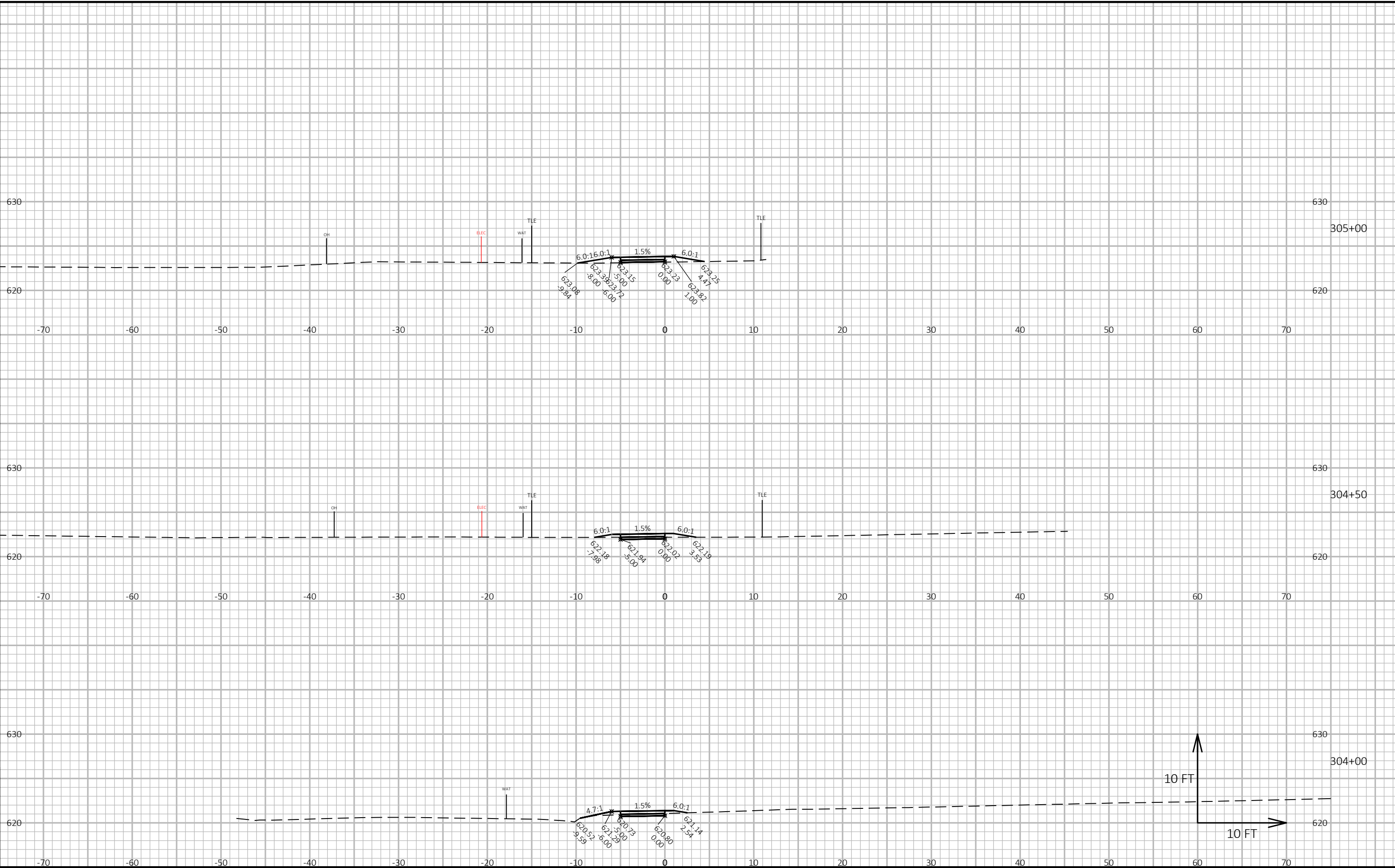




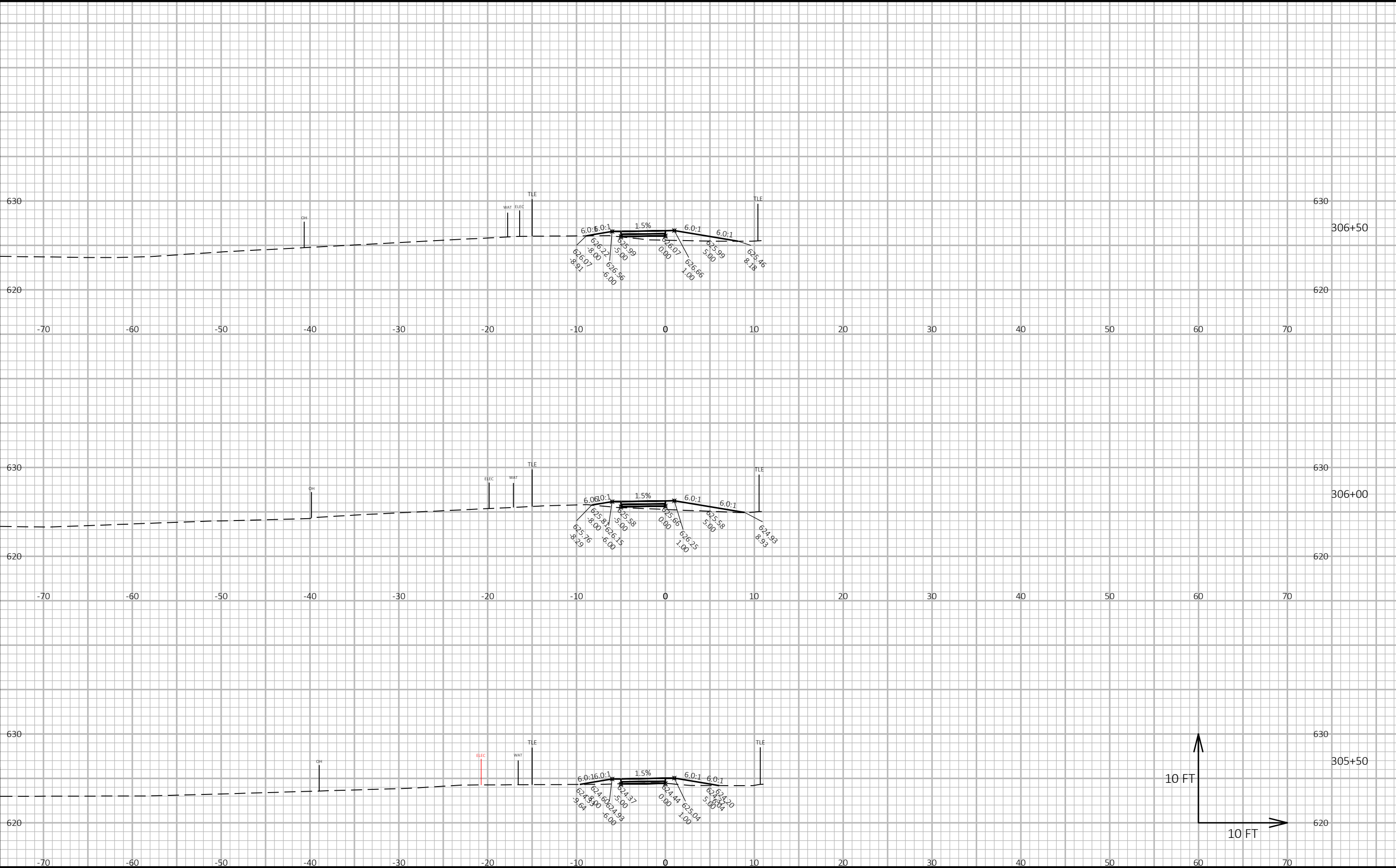




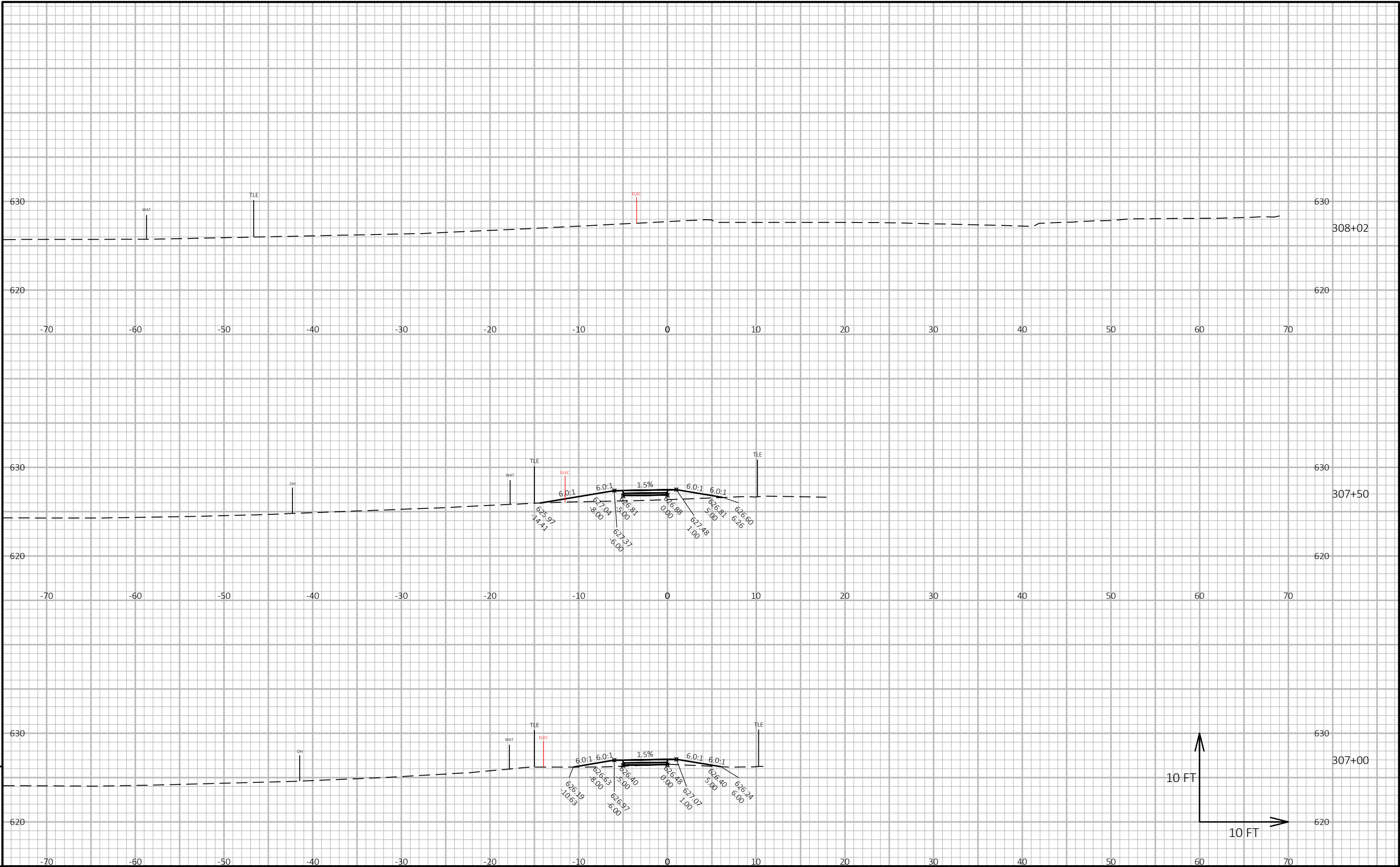






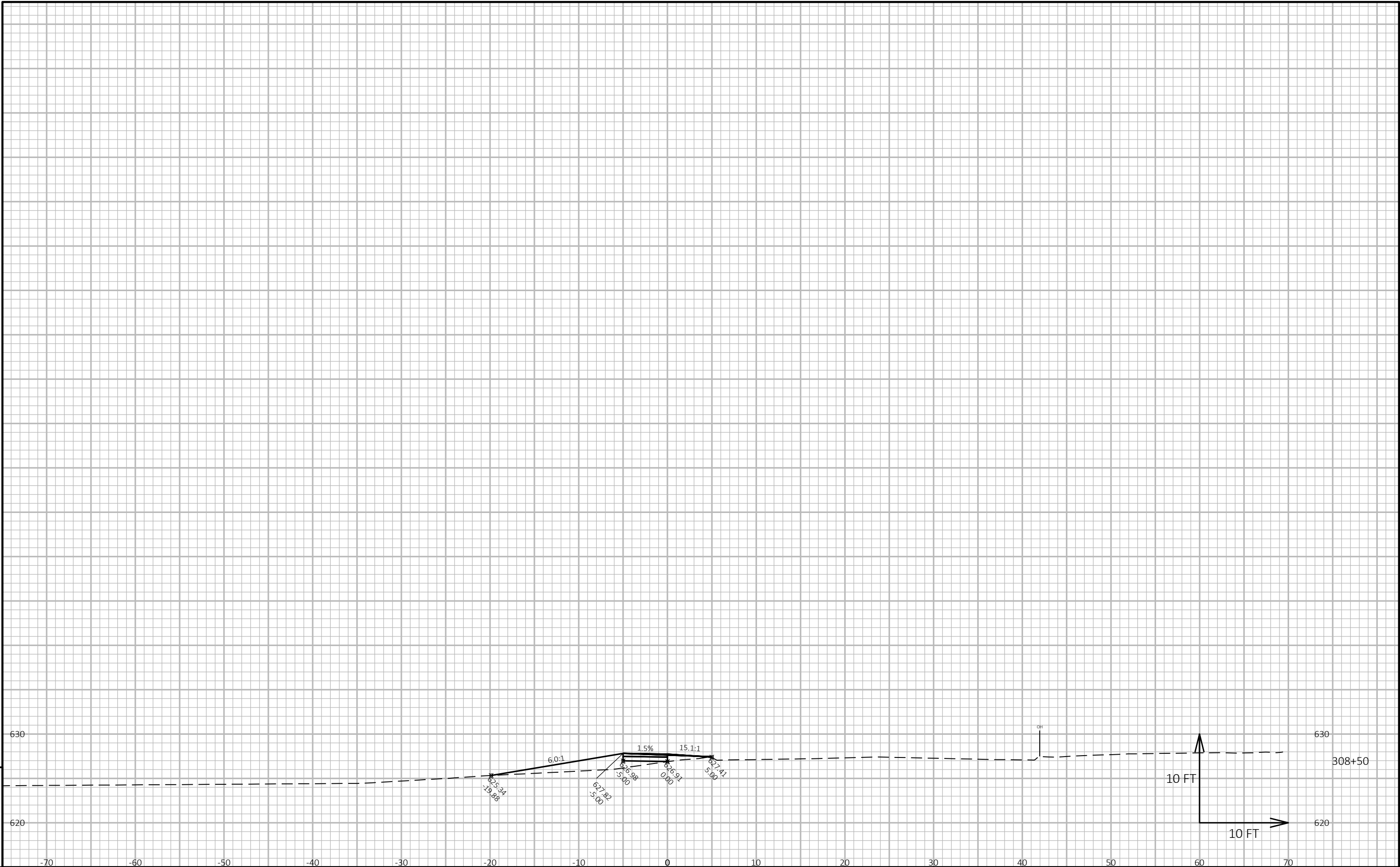








9



9

PROJECT NO: 1693-34-76	HWY: LAKE MICHIGAN PATHWAY 4	COUNTY: RACINE	CROSS SECTIONS: CENTER STREET	SHEET 122 E
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