

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8999-00-65	WISC 2022141	1

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

## PLAN OF PROPOSED IMPROVEMENT

# V NORTH HUDSON WISCONSIN ST NORTH

## 6TH STREET NORTH TO 3RD ST NORTH

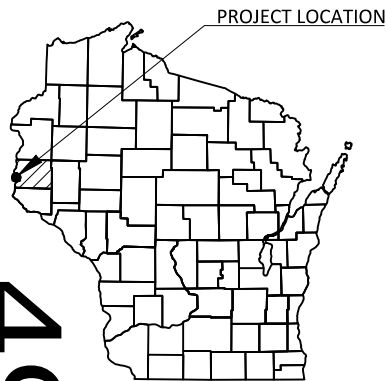
### LOCAL STREET ST. CROIX COUNTY

STATE PROJECT NUMBER  
**8999-00-65**

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
<del>Section No.</del>	<del>8</del>	<del>Structure Plans</del>
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 102



49

DESIGN DESIGNATION

A.A.D.T.	2022 = 1400
A.A.D.T.	2042 = 1400
D.H.V.	= 248
D.D.	= 50/50
T.	= 5.5%
DESIGN SPEED	= 30 MPH
ESALS	= 110,000

BEGIN PROJECT  
STA 11+05  
X = 510119.68  
Y = 348235.46

END PROJECT  
STA 18+92

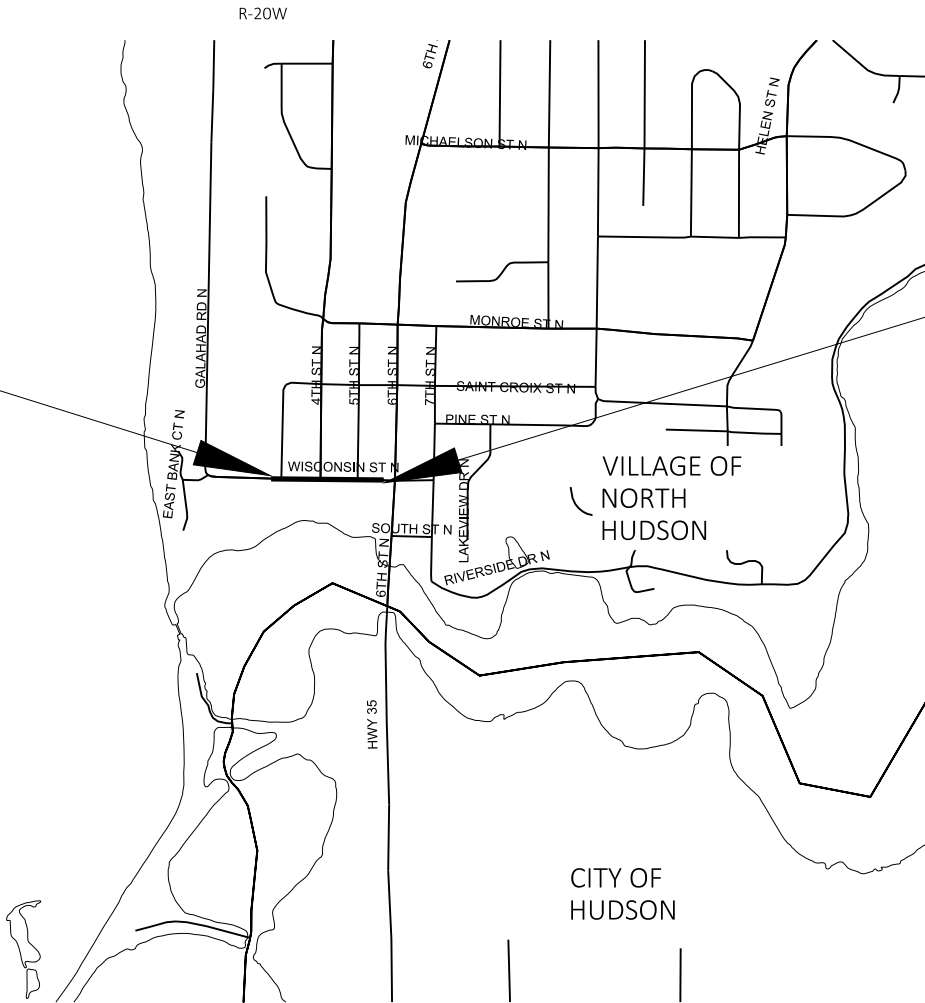
CONVENTIONAL SYMBOLS

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	
OVERHEAD	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



LAYOUT  
SCALE 0 0.25 MI

TOTAL NET LENGTH OF CENTERLINE = 0.149 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ST CROIX NAD83 ( 2011 ), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 ( 2012 ). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

APPROVED FOR VILLAGE OF NORTH HUDSON  
DATE: 7/12/21 *Melissa Swedke*  
(Signature)

ORIGINAL PLANS PREPARED BY  
**CORRE ENGINEERING**  
1802 WARDEN ST  
EAU CLAIRE, WI 54703  
(608)828-1011  
www.correinc.com



DATE: 7/12/21  
(Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CORRE, INC
Designer	CORRE, INC
Project Manager	MATTHEW THORNSEN, PE
Regional Examiner	TOU YANG, PE
Regional Supervisor	TYLER RONGSTAD, PE

APPROVED FOR THE DEPARTMENT  
DATE: 10/27/2021 *[Signature]*  
(Signature)

E

PROJECT ID: 8999-00-65  
WITH: N/A

COUNTY: ST. CROIX

**GENERAL NOTES**

WHEN THE QUANTITY OF BASE AGGREGATE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

ALL SIDE ROAD EARTHWORK QUANTITIES ARE INCLUDED IN MAINLINE EARTHWORK QUANTITIES.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4-INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS AND PAVEMENTS AT REMOVAL LIMITS.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE CASTING ELEVATION AT THE FLOWLINE OF GRATE.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, AND GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON OR ROCK EXCAVATION.

THE PAVING, GRADING CONTRACT SHALL INCLUDE THE BACKFILL FOR THE AREA BEHIND THE CURB AND GUTTER.

CURB RAMP TYPES ARE SHOWN ON INTERSECTION DETAIL SHEETS.

**ORDER OF SECTION 2 SHEETS**

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- CURB RAMP
- EROSION CONTROL
- STORM SEWER
- PERMANENT SIGNING
- DETOUR ROUTE

**UTILITY CONTACTS**

AT&T DISTRIBUTION  
 RICK PODOLAK  
 304 DEWEY STREET  
 EAU CLAIRE, WI 54701  
 PHONE: 715.410.0656  
 EMAIL: RP4514@ATT.COM

COMCAST  
 BEN UELAND  
 4255 LEXINGTON AVE N STE 100  
 ARDEN HILLS, MN 55126  
 PHONE: 612.462.7911  
 EMAIL: BENJAMIN\_UELAND@COMCAST.COM

XCEL ENERGY, INC. - ELECTRIC  
 DARREN NORDSKOG  
 2001 OLD HIGHWAY 35 S.  
 HUDSON, WI 54016  
 PHONE: 715.410.3755  
 EMAIL: DARREN.M.NORDSKOGW@XCELENERGY.COM

XCEL ENERGY, INC. - GAS  
 DARREN NORDSKOG  
 2001 OLD HIGHWAY 35 S.  
 HUDSON, WI 54016  
 PHONE: 715.410.3755  
 EMAIL: DARREN.M.NORDSKOGW@XCELENERGY.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 1.39 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.07 ACRES



**WISDOT CONTACT**

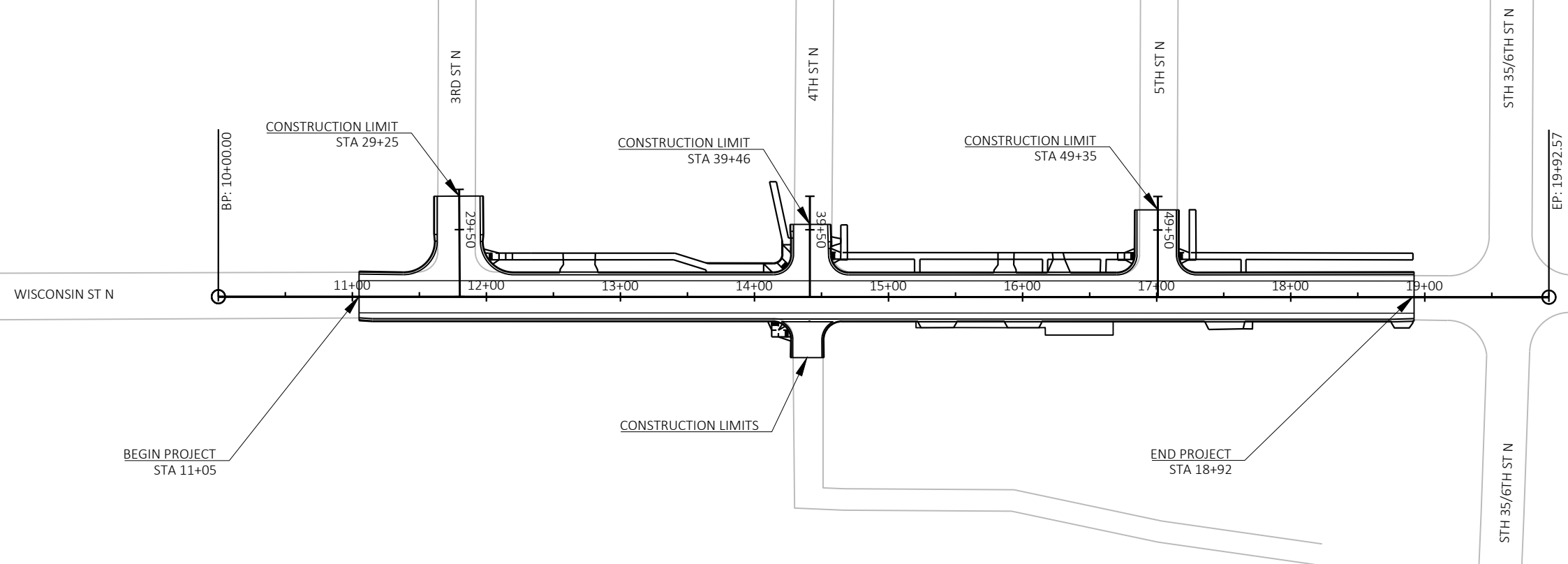
NORTHWEST REGION  
 MATTHEW THORNSEN  
 718 WEST CLAIREMONT AVE  
 EAU CLAIRE, WI 54701-5108  
 PHONE: (715) 225-4159  
 EMAIL: MATTHEW.THORNSEN@DOT.WI.GOV

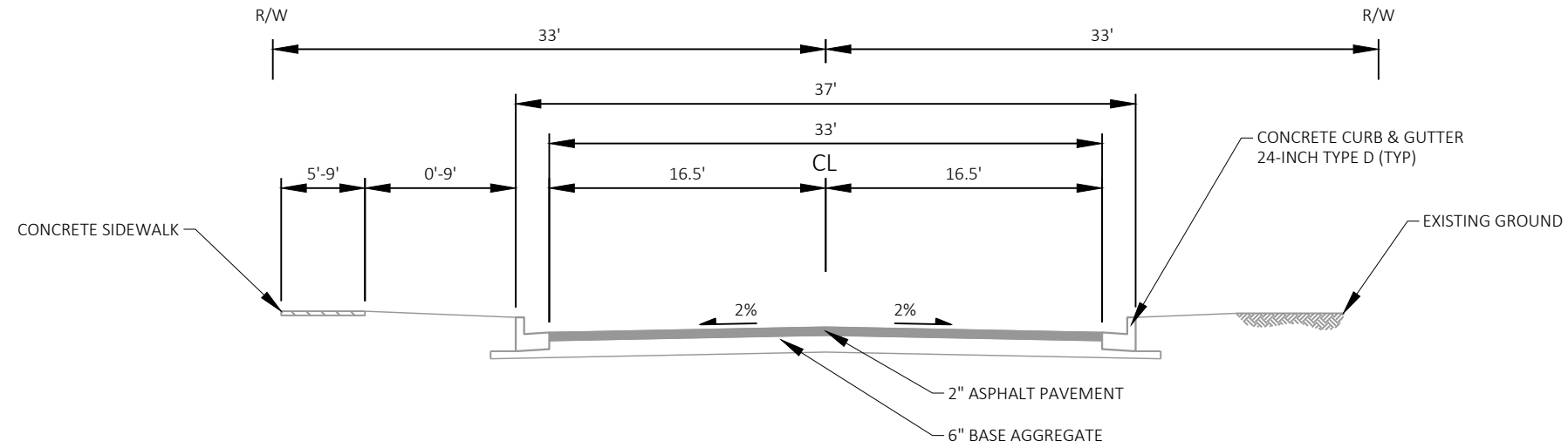
**DNR CONTACT**

DNR WEST CENTRAL REGION HEADQUARTERS  
 AMY LESIK  
 1300 WEST CLAIREMONT AVE  
 EAU CLAIRE, WI 54701  
 PHONE: (715) 836-6571  
 EMAIL: AMY.LESIK@WISCONSIN.GOV

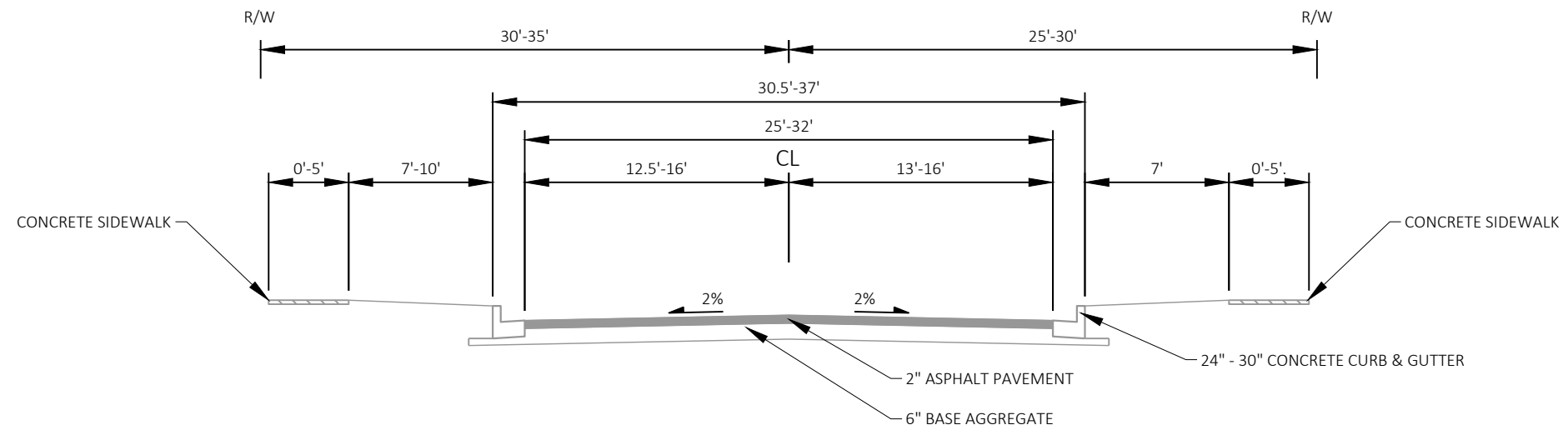
**DESIGN CONTACT**

CORRE, INC.  
 KEVIN MEYER  
 1802 WARDEN ST  
 EAU CLAIRE, WI 54703  
 PHONE: (715) 299-1894  
 EMAIL: KMEYER@CORREINC.COM

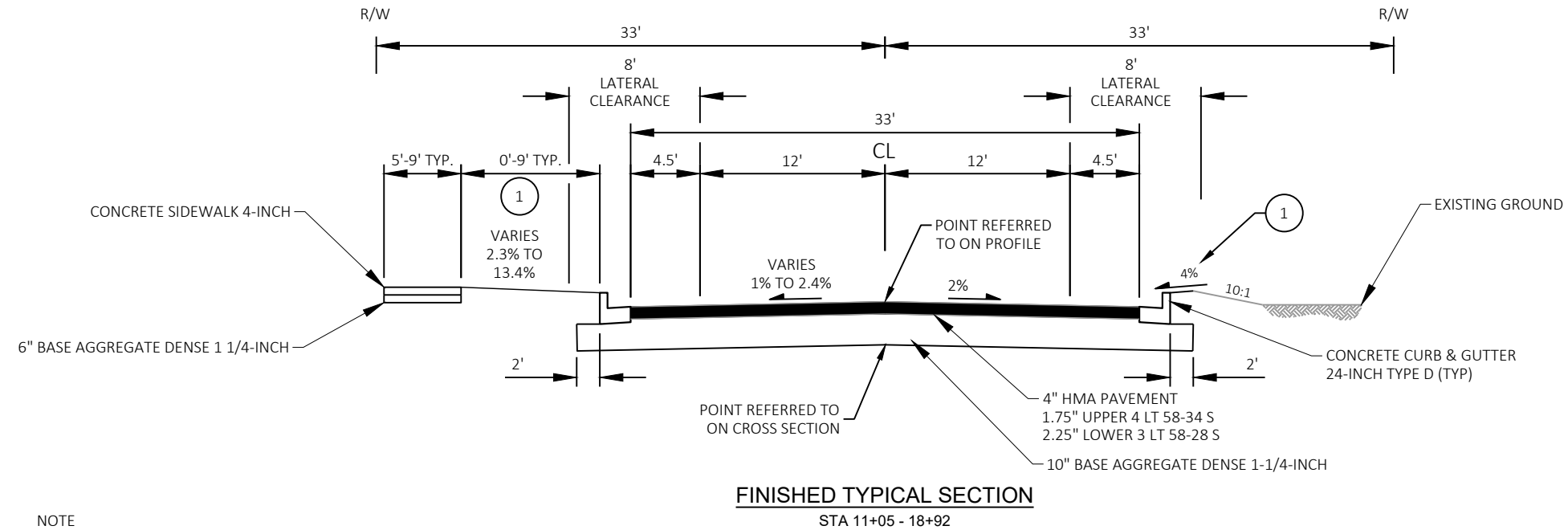




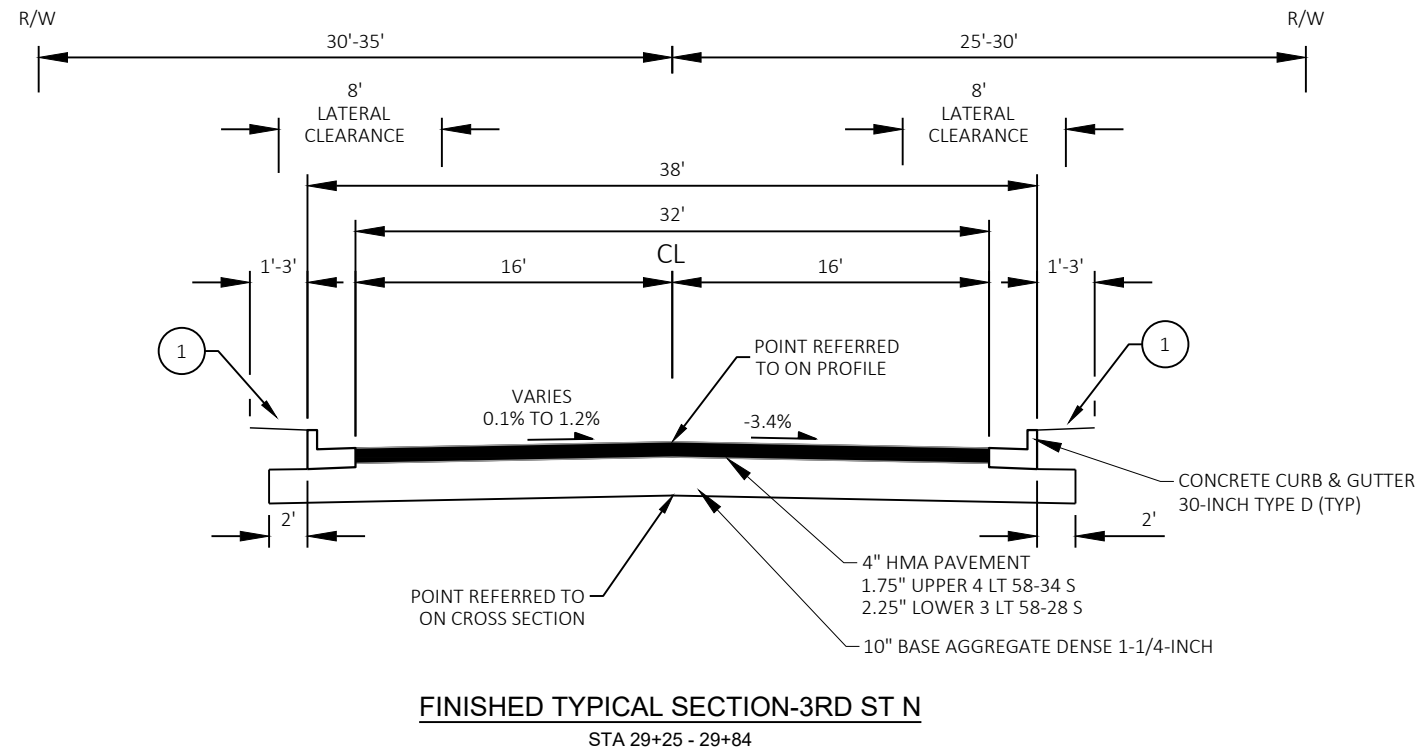
**EXISTING TYPICAL SECTION**  
STA 11+05 - 18+92



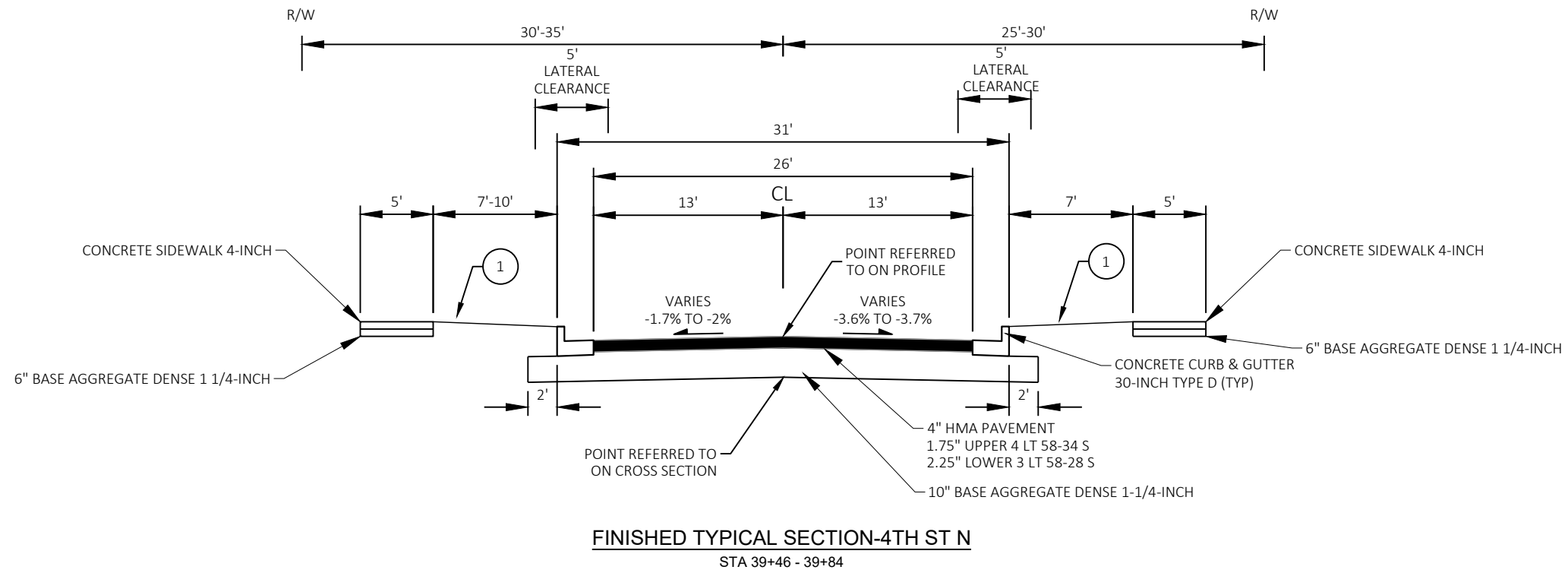
**EXISTING TYPICAL SECTION - SIDEROADS**  
3RD ST N  
4TH ST N  
5TH ST N



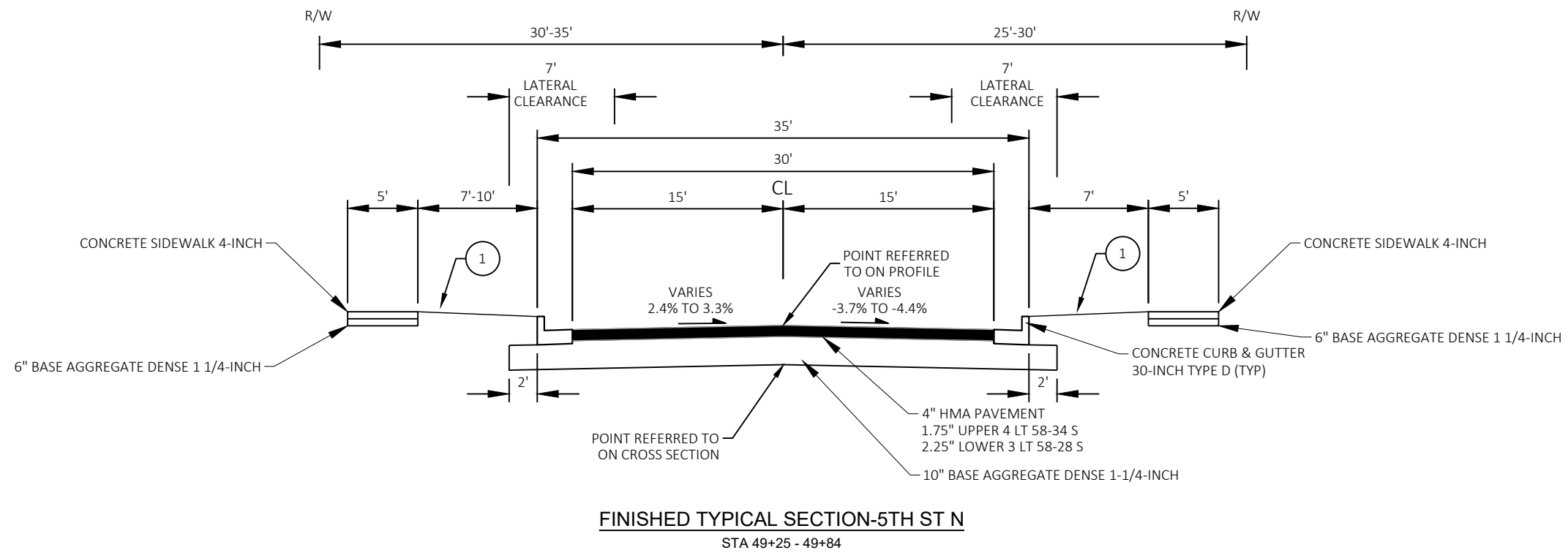
NOTE  
 STA 12+04 - 12+69 TRANSITION FROM -2.4% TO -1%  
 STA 12+69 - 13+33 TRANSITION FROM -1% TO -2.4%



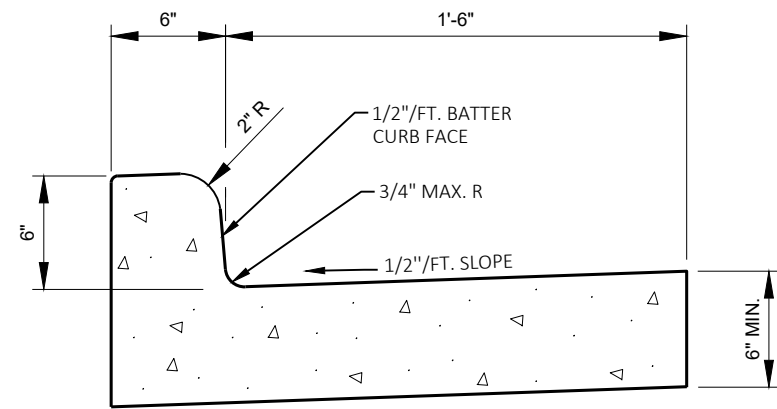
1 TOPSOIL, SEEDING MIXTURE NO. 40,  
 FERTILIZER TYPE B AND MULCH



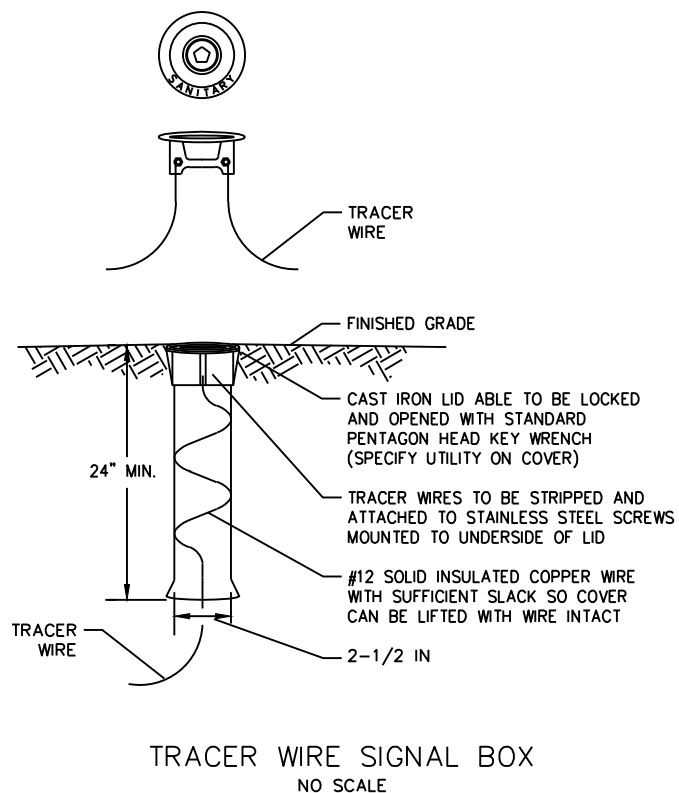
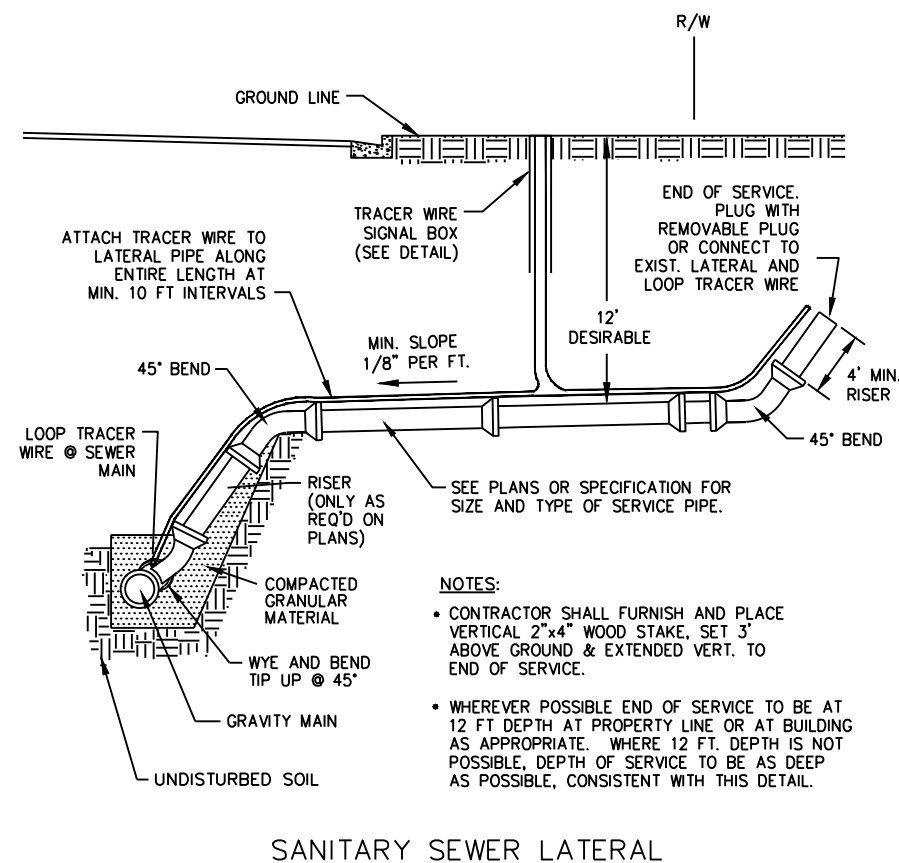
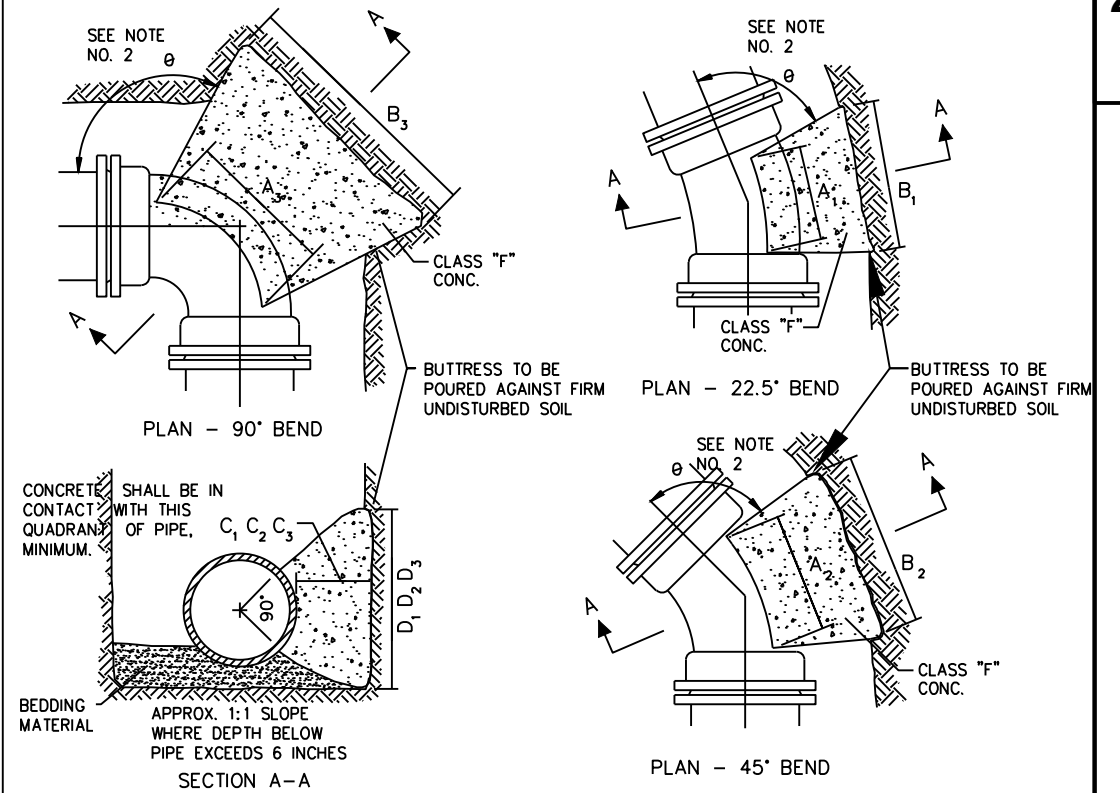
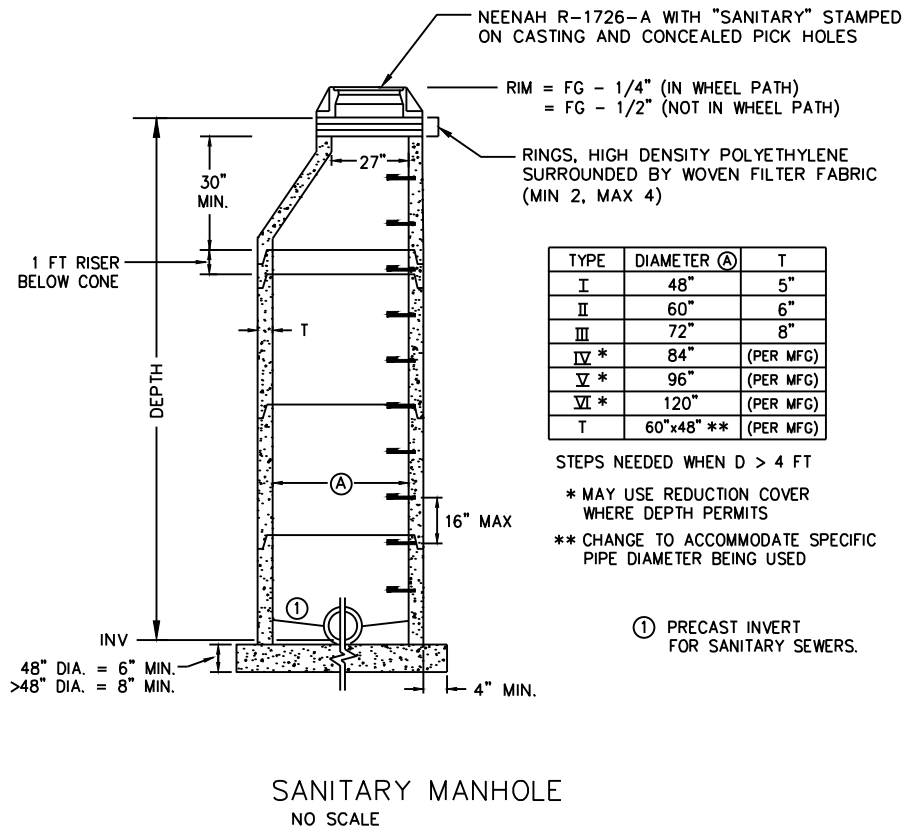
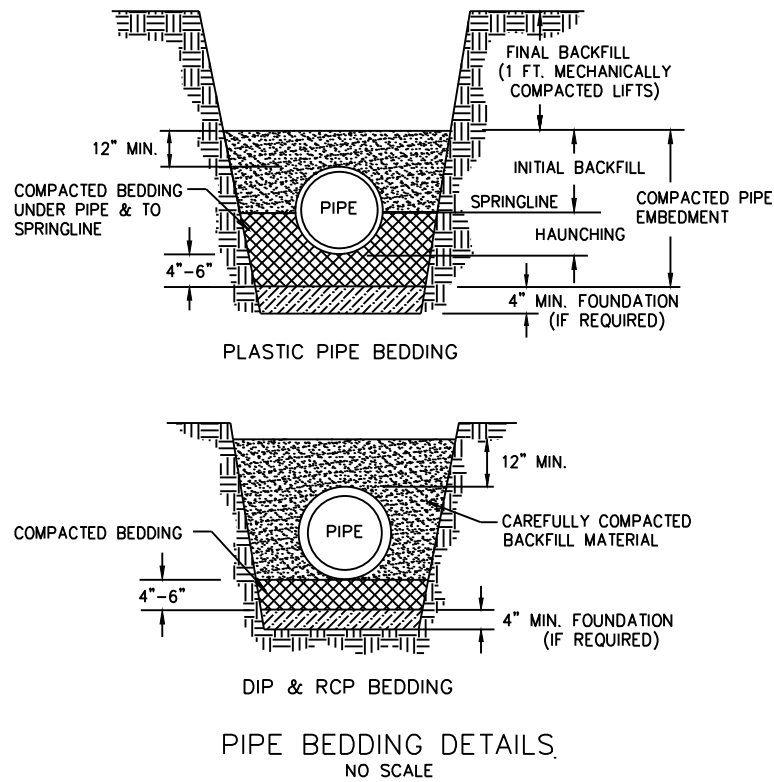
1 TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B AND MULCH



1 TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B AND MULCH



CONCRETE CURB & GUTTER 24-INCH TYPE D



PIPE SIZE	BUTRESS DIMENSIONS					
	22.5° BENDS		45° BENDS		90° BENDS	
	B <sub>1</sub>	D <sub>1</sub>	B <sub>2</sub>	D <sub>2</sub>	B <sub>3</sub>	D <sub>3</sub>
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-4"	1'-2"
8"	1'-0"	1'-0"	1'-4"	1'-2"	1'-10"	1'-6"
12"	1'-4"	1'-4"	1'-10"	1'-10"	2'-8"	2'-3"
16"	1'-10"	1'-8"	2'-6"	2'-4"	3'-10"	2'-10"
20"	2'-4"	2'-0"	3'-3"	2'-10"	5'-0"	3'-4"
24"	2'-10"	2'-4"	4'-0"	3'-3"	6'-4"	3'-10"
30"	3'-6"	3'-0"	5'-4"	3'-10"	8'-0"	4'-8"

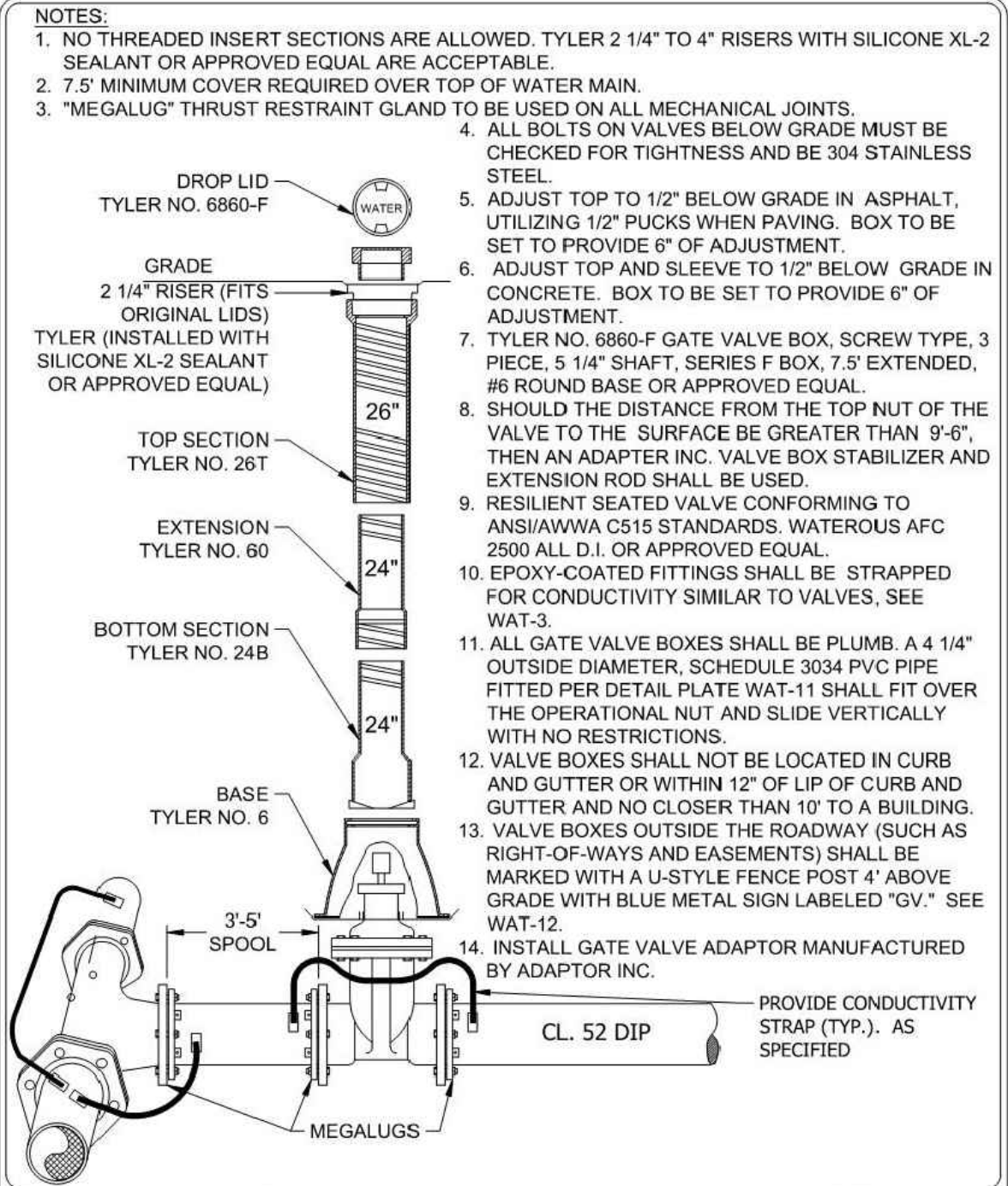

**NOTES:**

- A WATER PRESSURE OF 150 PSI AND AN EARTH RESISTANCE OF 2 TONS/SQ FT
- DIMENSIONS C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub> SHOULD BE LARGE ENOUGH TO MAKE ANGLE EQUAL TO OR LARGER THAN 45°.
- DIMENSIONS A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub> SHOULD BE AS LARGE AS POSSIBLE WITHOUT INTERFERING WITH MJ BOLTS.
- SHAPE OF BACK OF BUTRESS MAY VARY AS LONG AS POUR IS AGAINST FIRM, UNDISTURBED EARTH.
- ALL IRON PIPE AND FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

**BUTRESS FOR BENDS**

DETAIL FROM:  
"STANDARD SPECIFICATIONS FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN, FILE NO. 44"



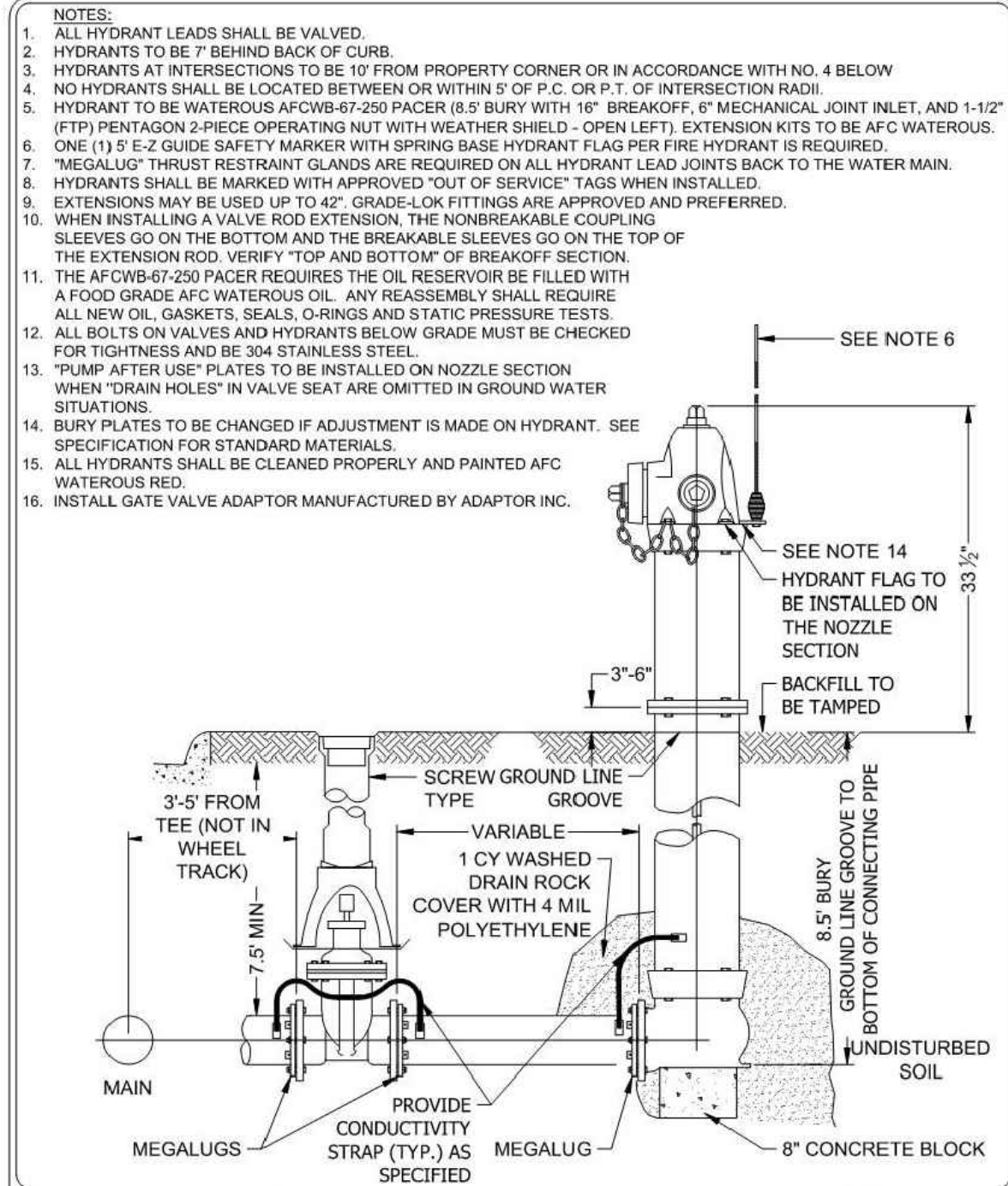



**CITY OF HUDSON**

**GATE VALVE AND BOX INSTALLATION**

LAST REVISION: March 2019

PLATE NO. WAT-1

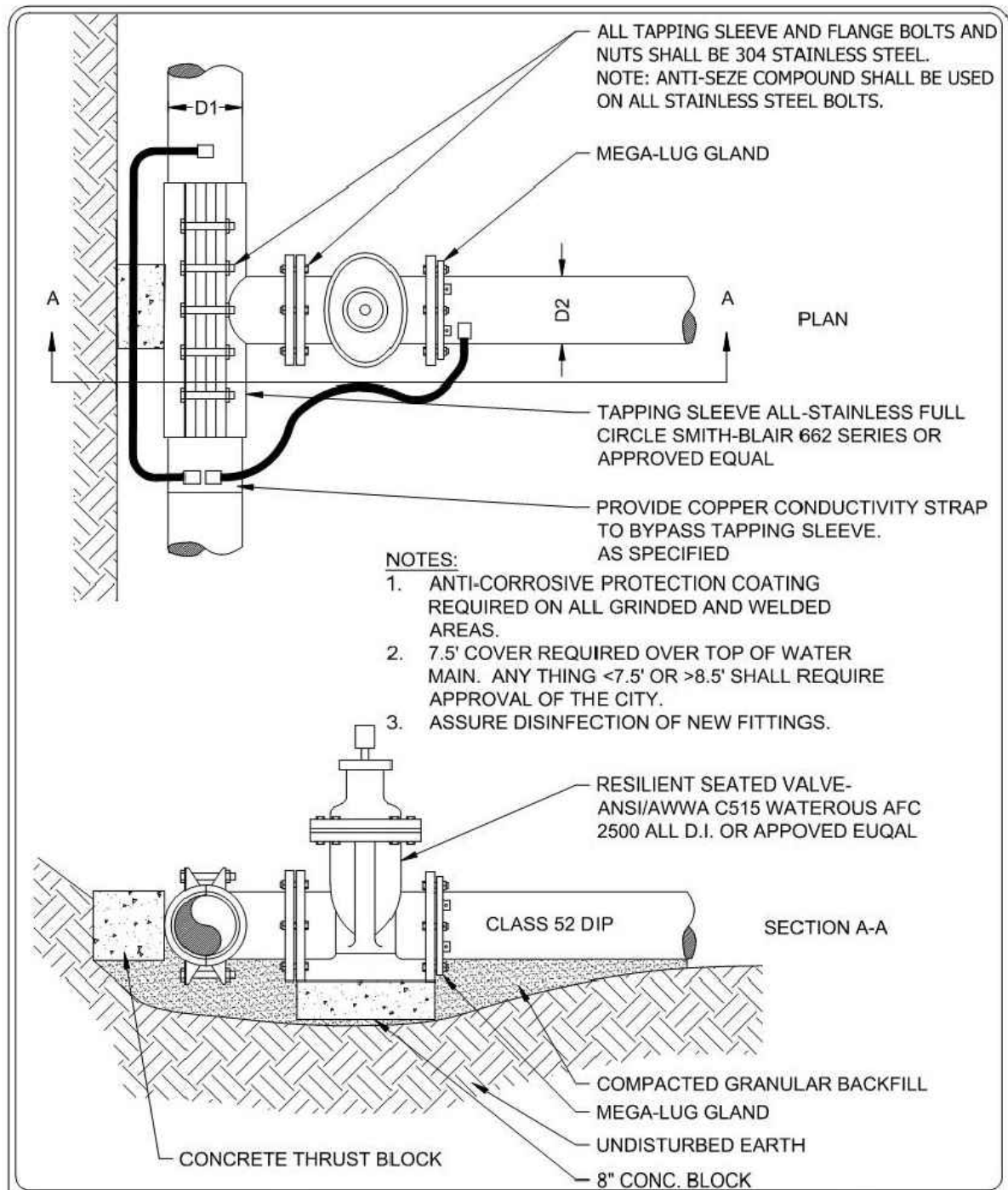




**CITY OF HUDSON**

**HYDRANT W/ GATE VALVE & BOX INSTALLATION**

LAST REVISION: March 2019

PLATE NO. WAT-2



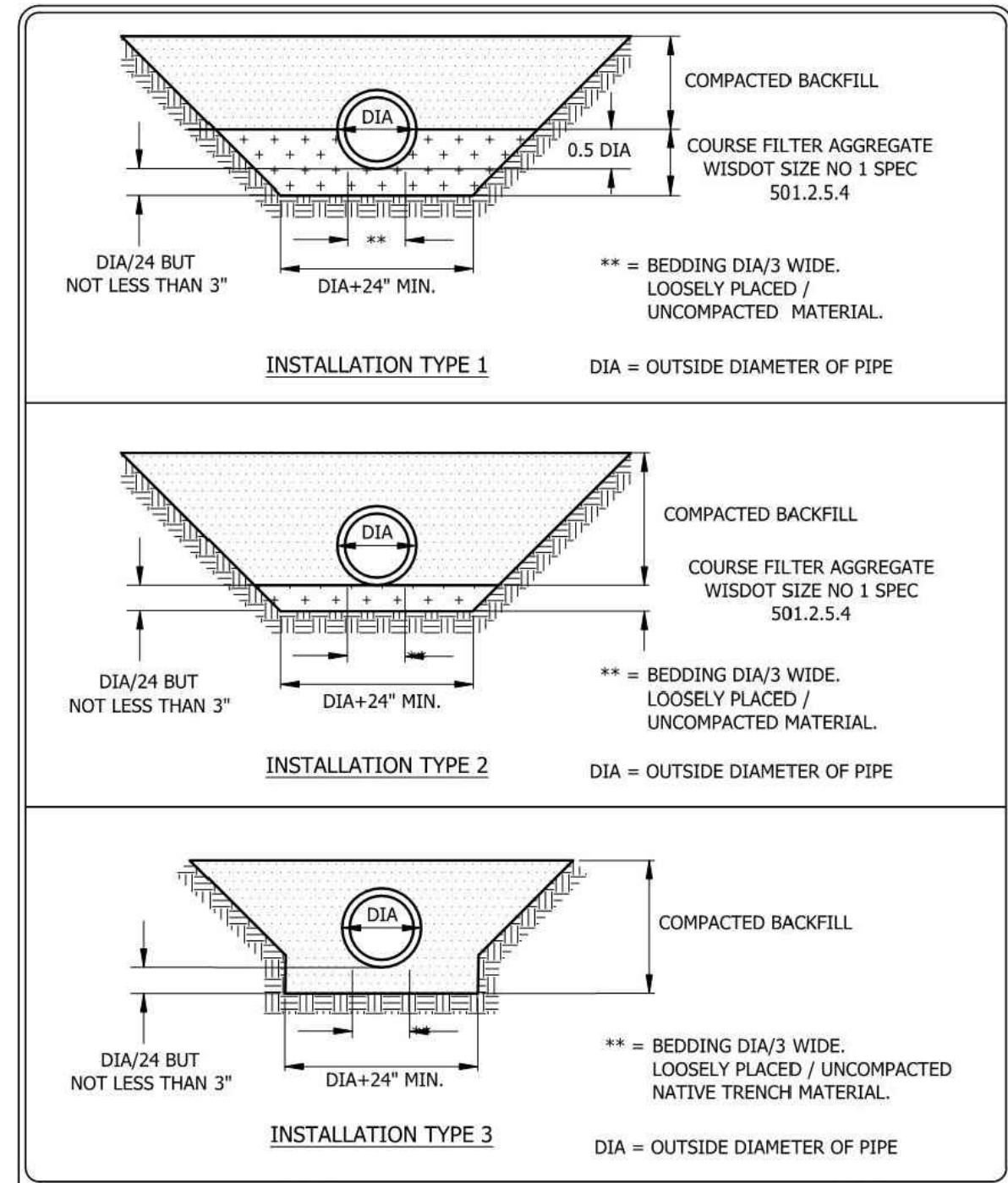



**CITY OF HUDSON**

**WATER MAIN WET TAP**

LAST REVISION:  
March 2019

PLATE NO.  
**WAT-3**



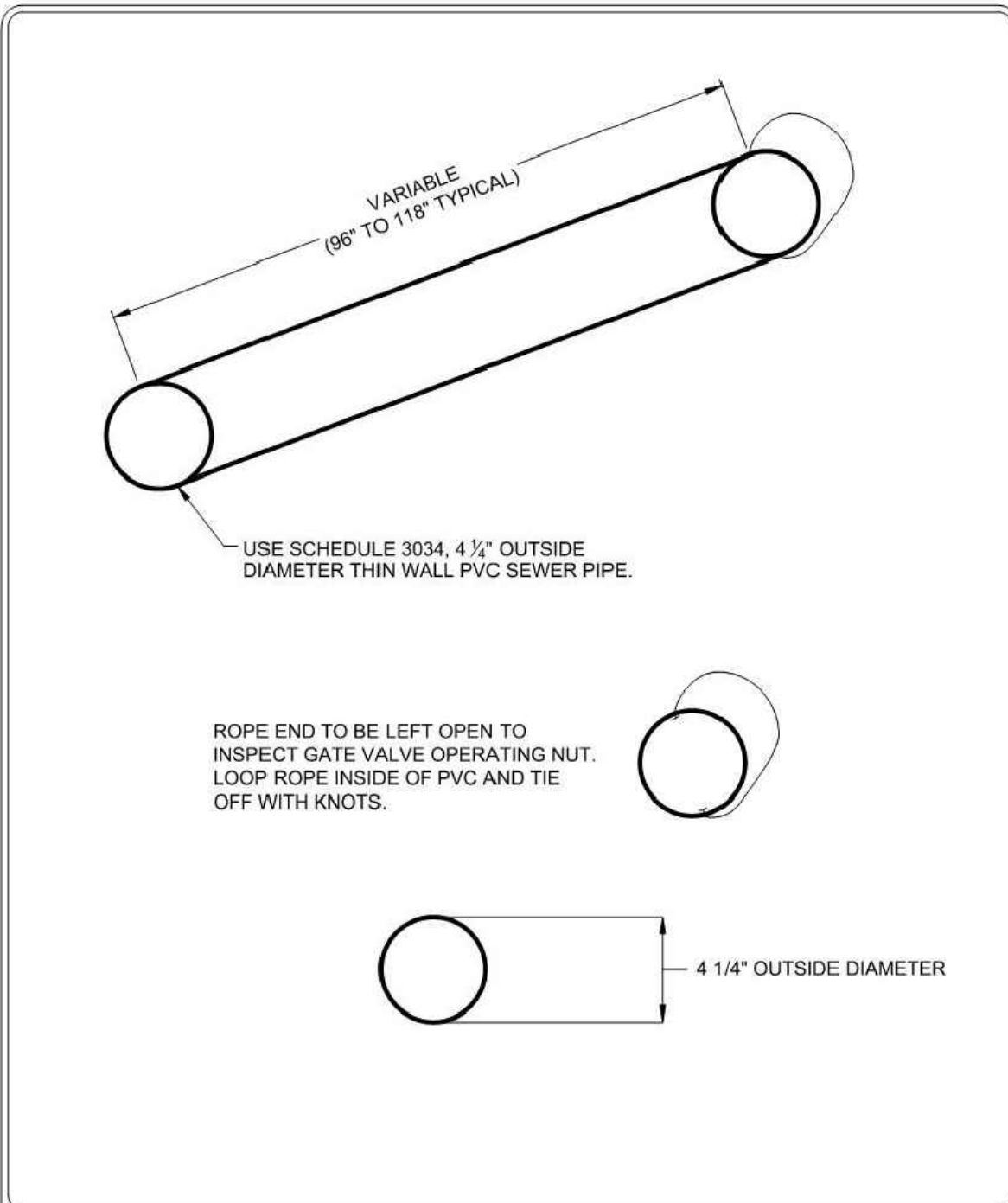


**CITY OF HUDSON**

**PIPE FOUNDATION & BEDDING METHODS FOR RCP & DIP**

LAST REVISION:  
March 2019

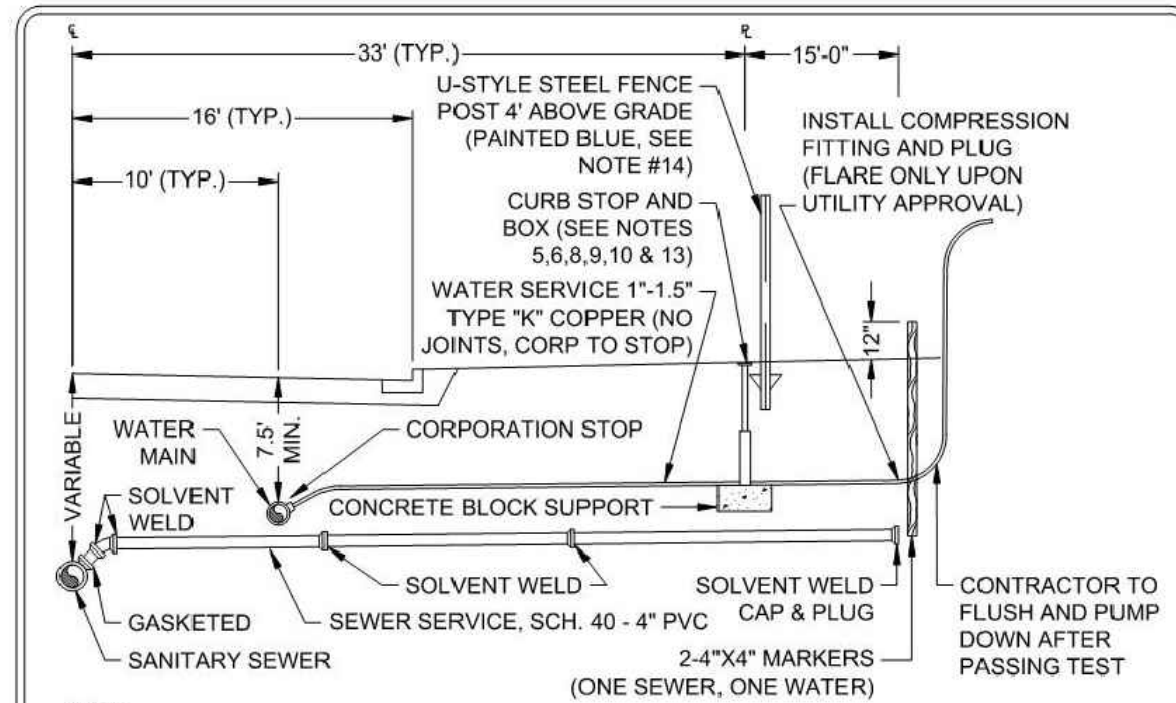
PLATE NO.  
**BED-1**



GATE VALVE ALIGNMENT TOOL

LAST REVISION:  
March 2019

PLATE NO.  
WAT-10



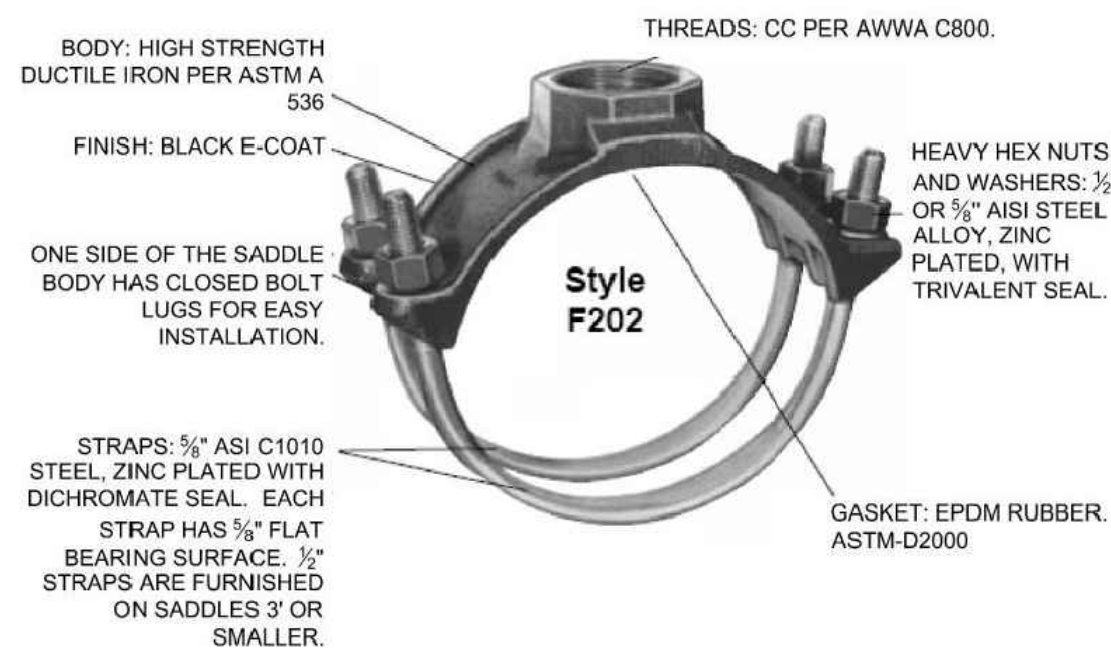
- NOTES:**
- SEWER SERVICES, SCHEDULE 40 - 4" AND 6" PVC.
  - SLOPE - 1/4" PER FOOT MINIMUM (REFERENCE TO PROPOSED HOUSE PAD ASSURING GRAVITY FLOW TO PROPOSED BUILDING OR HOUSE) CONTRACTOR TO SUPPLY EXACT END OF SERVICE ELEVATION & LOCATION.
  - PIPE JOINTS AND FITTINGS AFTER WYE BRANCH SHALL BE NON GASKETED, SOLVENT WELD TYPE.
  - ALL PIPE SHALL BE BEDDED IN GRANULAR BORROW 209.2.2 GRADE 1 OR COURSE FILTER AGGREGATE (501.3.6.4.5 SIZE NO. 1 CRUSHED)
  - CURB BOX SHALL EXTEND FROM 78" TO 90" AND INSTALLED TO BE ADJUSTABLE 6" UP AND DOWN FROM FINISHED GRADE.
  - ADJUST CURB BOX TO 1" BELOW FINISH GRADE.
  - 1-1/4" AND 1-1/2" TAPS (AND ANY SIZE TAPS IN 4" D.I.P.) SHALL BE INSTALLED WITH DOUBLE STRAP TAPPING SERVICE SADDLE, FORD STYLE F202 (WITH AWWA CC THREADS) OR APPROVED EQUAL.
  - ALL CURB STOPS AND CORPORATION STOPS SHALL BE IN THE **OPEN** POSITION DURING THE PRESSURE TEST.
  - CORPORATION STOP (AWWA CC THREADS): MUELLER 300 BALL B-25008 OR APPROVED EQUAL.  
CURB STOP: MUELLER 300 BALL B25154, B25155 OR APPROVED EQUAL.  
CURB BOX (MINNEAPOLIS PATTERN): 1" SERVICE - MUELLER H10300 (1-1/4" UPPER SECTION) OR APPROVED EQUAL.  
1-1/2" SERVICE: MUELLER H10302 (1-1/2" UPPER SECTION) OR APPROVED EQUAL.
  - CURB BOXES IN BITUMINOUS OR CONCRETE SHALL BE INSTALLED UTILIZING VALVCO CASTING SC40(WITH WATER LID), OR APPROVED EQUAL.
  - SERVICE FITTING COUPLINGS UTILIZED FROM CURB STOP TO BUILDING SHALL BE MUELLER H-15400, H-15430, OR APPROVED EQUAL.
  - WATER SERVICE SHALL BE TAPPED WITH WATER MAIN UNDER PRESSURE, AND LOCATED IN UPPER QUADRANT OF MAIN (2:00 O'CLOCK OR 10:00 O'CLOCK), OR LOCATION APPROVED BY THE CITY. THREADS SHALL BE DOUBLE WRAPPED WITH TEFLON TAPE PRIOR TO INSTALLATION. TAPPING BIT SHALL BE INSPECTED AND APPROVED BY THE CITY.
  - CURB BOX SHALL BE LOCATED AT PROPERTY LINE. FOR PRIVATE STREET/DRIVES, CURB BOX LOCATION SHALL BE A MAXIMUM OF 15' BEHIND CURB OR EDGE OF PAVEMENT, AND NO CLOSER THAN 10' FROM EDGE OF BUILDING. NO CURB BOX SHALL BE LOCATED IN CURB AND GUTTER OR CLOSER THAN 12" TO LIP OF GUTTER.
  - CURB BOXES LOCATED IN UNIMPROVED RIGHT-OF-WAYS AND EASEMENTS SHALL BE MARKED WITH U-STYLE STEEL POST 4' ABOVE GRADE WITH BLUE METAL SIGN LABELED "CS" IN WHITE LETTERS PER DETAIL WAT-11.



SEWER AND WATER SERVICE CONNECTIONS

LAST REVISION:  
March 2019

PLATE NO.  
SER-5



THREADS: CC PER AWWA C800.

HEAVY HEX NUTS AND WASHERS: 1/2" OR 5/8" AISI STEEL ALLOY, ZINC PLATED, WITH TRIVALENT SEAL.

GASKET: EPDM RUBBER. ASTM-D2000

STRAPS: 5/8" AISI C1010 STEEL, ZINC PLATED WITH DICHROMATE SEAL. EACH STRAP HAS 5/8" FLAT BEARING SURFACE. 1/2" STRAPS ARE FURNISHED ON SADDLES 3' OR SMALLER.

ONE SIDE OF THE SADDLE BODY HAS CLOSED BOLT LUGS FOR EASY INSTALLATION.

Style F202

NOTES:

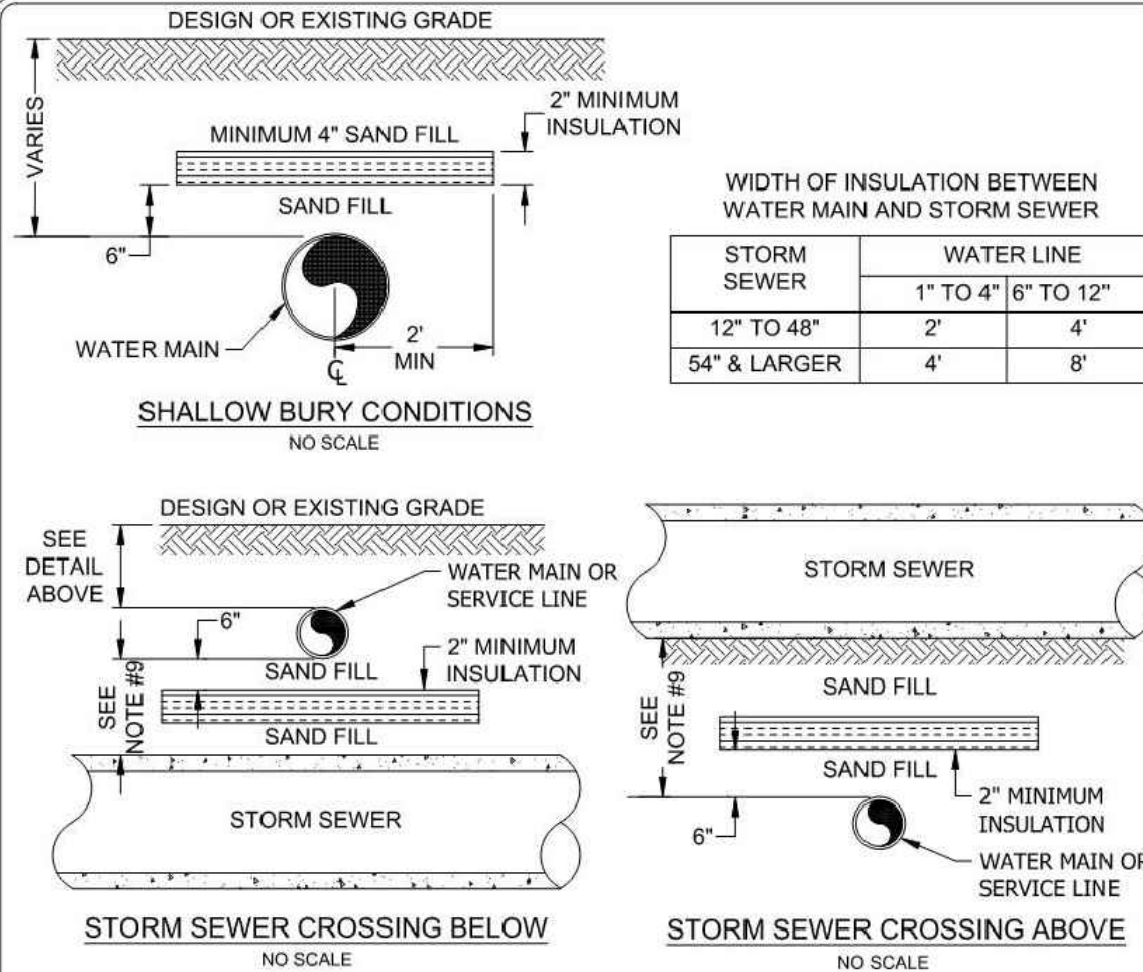
1. WATER SERVICE TAPPING SADDLE FOR DIP SHALL BE A DOUBLE STRAP FORD F202 OR APPROVED EQUAL. CITY ENGINEER SHALL PRE-APPROVE ALL TAPPING SADDLES PRIOR TO INSTALLATION.
2. THE CITY MUST APPROVE ALL SADDLE INSTALLATIONS. SADDLES MAY ONLY BE USED ON 1" TO 1 1/2" SERVICES. ANY LARGER SERVICES MUST BE CUT-INS OR WET TAPPED TO WATERMAIN.
3. DOUBLE STRAP TAPPING SADDLES MUST BE USED ON SERVICE TAPS LARGER THAN 1", UNLESS APPROVED BY THE CITY.
4. DOUBLE STRAP TAPPING SADDLES SHALL BE USED ON ALL SERVICE TAPS INTO WATERMAIN 4 INCHES IN DIAMETER OR SMALLER, UNLESS APPROVED BY THE CITY.



**DOUBLE STRAP TAPPING SADDLE FOR WATER SERVICE (DIP WATER MAIN)**

LAST REVISION: March 2019

PLATE NO. SER-9



STORM SEWER	WIDTH OF INSULATION BETWEEN WATER MAIN AND STORM SEWER	
	1" TO 4"	6" TO 12"
12" TO 48"	2'	4'
54" & LARGER	4'	8'

NOTES:

1. INSULATION SHALL BE CENTERED ON THE PIPE.
2. RIGID, EXTRUDED POLYSTYRENE BOARD INSULATION, CLOSED CELL (DOW CHEMICAL) OR APPROVED EQUAL.
3. THERMAL RESISTANCE (R): 5.0.
4. MINIMUM THICKNESS: 2 INCHES.
5. BOARD SIZE: 48"x96".
6. COMPRESSIVE STRENGTH: MINIMUM 25 psi.
7. WATER ABSORPTION IN ACCORDANCE WITH ANSI/ASTM D2842: 0.1 PERCENT BY VOLUME, MAXIMUM.
8. EDGES: SQUARE.
9. ALL STORM SEWER CONFLICTS OR INTERSECTIONS SHALL BE INSULATED AS APPROVED BY FIELD ENGINEER TO EQUATE TO 7.5 FEET OF MINIMUM COVER (1 INCH CLOSED CELL INSULATION = 1 FOOT OF SOIL).
10. INSULATION LENGTH ALONG WATER LINE SHALL BE A MINIMUM OF 4 FEET GREATER THAN THE OUTSIDE DIAMETER OF THE STORM SEWER PIPE.



**INSULATION DETAIL**

LAST REVISION: March 2019

PLATE NO. WAT-4

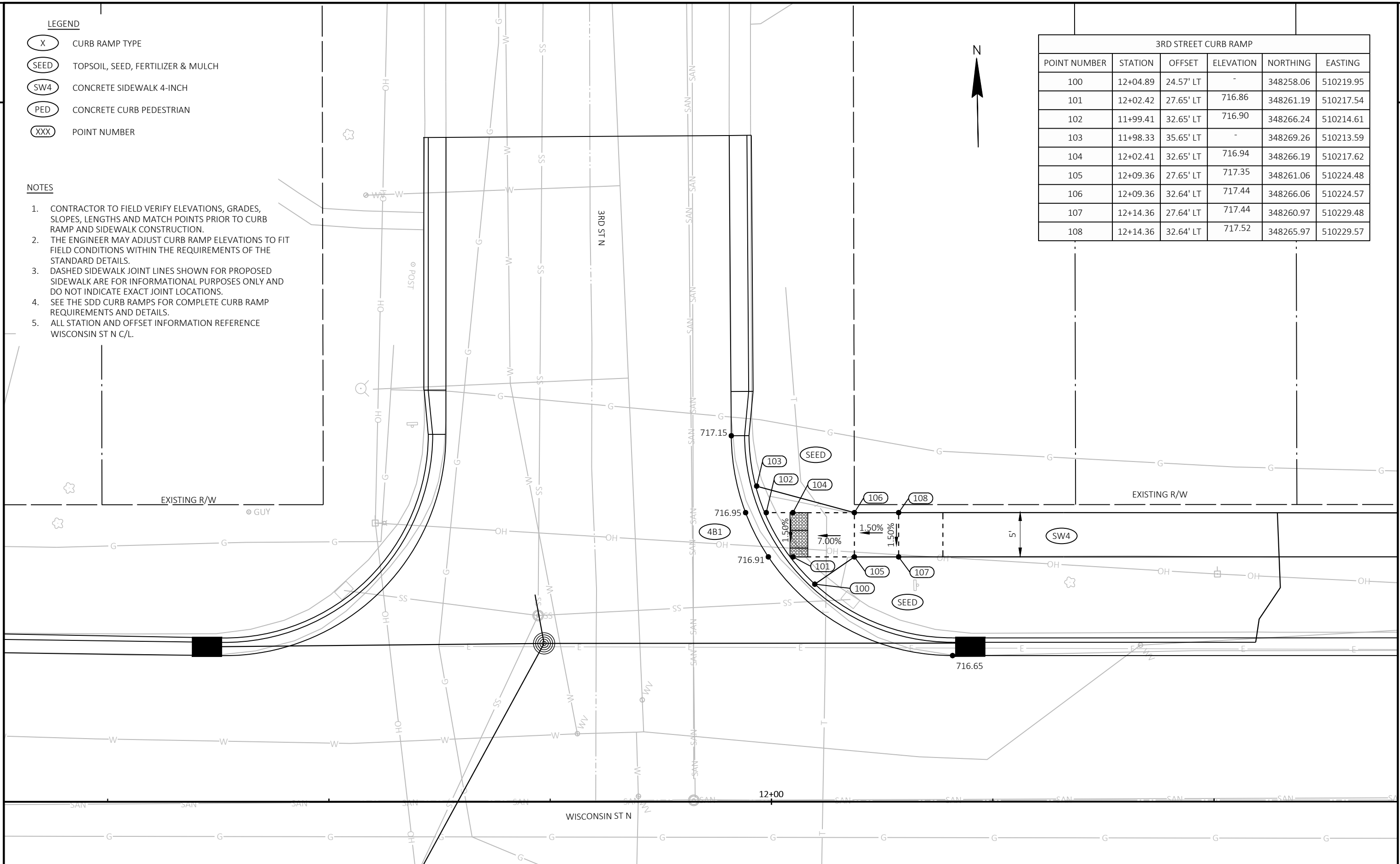
LEGEND

- (X) CURB RAMP TYPE
- (SEED) TOPSOIL, SEED, FERTILIZER & MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- (XXX) POINT NUMBER

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE SDD CURB RAMPS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETAILS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE WISCONSIN ST N C/L.

3RD STREET CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	12+04.89	24.57' LT	-	348258.06	510219.95
101	12+02.42	27.65' LT	716.86	348261.19	510217.54
102	11+99.41	32.65' LT	716.90	348266.24	510214.61
103	11+98.33	35.65' LT	-	348269.26	510213.59
104	12+02.41	32.65' LT	716.94	348266.19	510217.62
105	12+09.36	27.65' LT	717.35	348261.06	510224.48
106	12+09.36	32.64' LT	717.44	348266.06	510224.57
107	12+14.36	27.64' LT	717.44	348260.97	510229.48
108	12+14.36	32.64' LT	717.52	348265.97	510229.57



4TH STREET NW CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	14+26.30	53.71' LT	MATCH EXIST	348283.22	510441.85
301	14+26.41	23.44' LT	721.57	348252.95	510441.41
302	14+24.75	24.55' LT	721.52	348254.09	510439.77
303	14+22.33	19.36' LT	721.49	348248.94	510437.26
304	14+21.23	20.99' LT	721.44	348250.60	510436.19
305	14+12.82	18.80' LT	721.06	348248.56	510427.74
306	14+20.94	38.96' LT	722.24	348268.56	510436.23
307	14+20.35	28.95' LT	721.61	348258.57	510435.45
308	14+06.81	18.80' LT	720.94	348248.67	510421.73
309	14+06.81	24.80' LT	721.03	348254.67	510421.84
310	14+26.95	32.95' LT	722.11	348262.45	510442.13
311	14+28.94	38.97' LT	721.71	348268.43	510444.22
312	14+16.82	25.41' LT	721.53	348255.09	510431.86
313	14+26.94	38.97' LT	722.15	348268.47	510442.22
314	13+40.61	32.59' LT	-	348263.65	510355.79
315	13+39.63	27.66' LT	-	348258.73	510354.72
316	13+65.38	24.83' LT	-	348255.44	510380.42
317	13+63.88	20.06' LT	-	348250.70	510378.83
318	14+25.29	43.96' LT	-	348273.49	510440.67
319	14+20.94	40.42' LT	-	348270.02	510436.25
320	14+16.30	85.96' LT	MATCH EXIST	348315.64	510432.43
321	14+11.19	85.95' LT	MATCH EXIST	348315.73	510427.32
324	14+06.80	16.80' LT	720.50	348246.67	510421.69

LEGEND

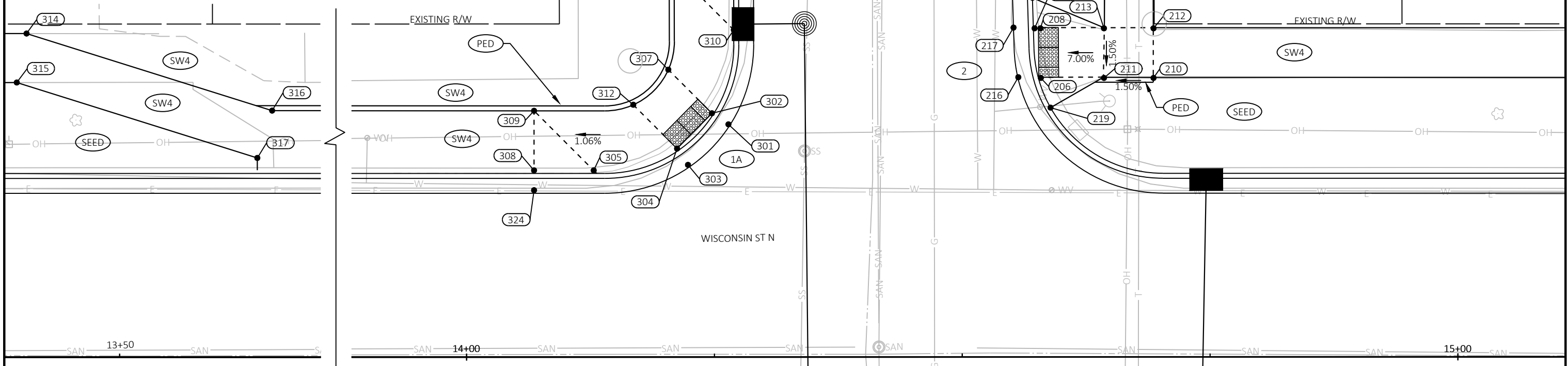
- (X) CURB RAMP TYPE
- (SEED) TOPSOIL, SEED, FERTILIZER & MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- (XXX) POINT NUMBER

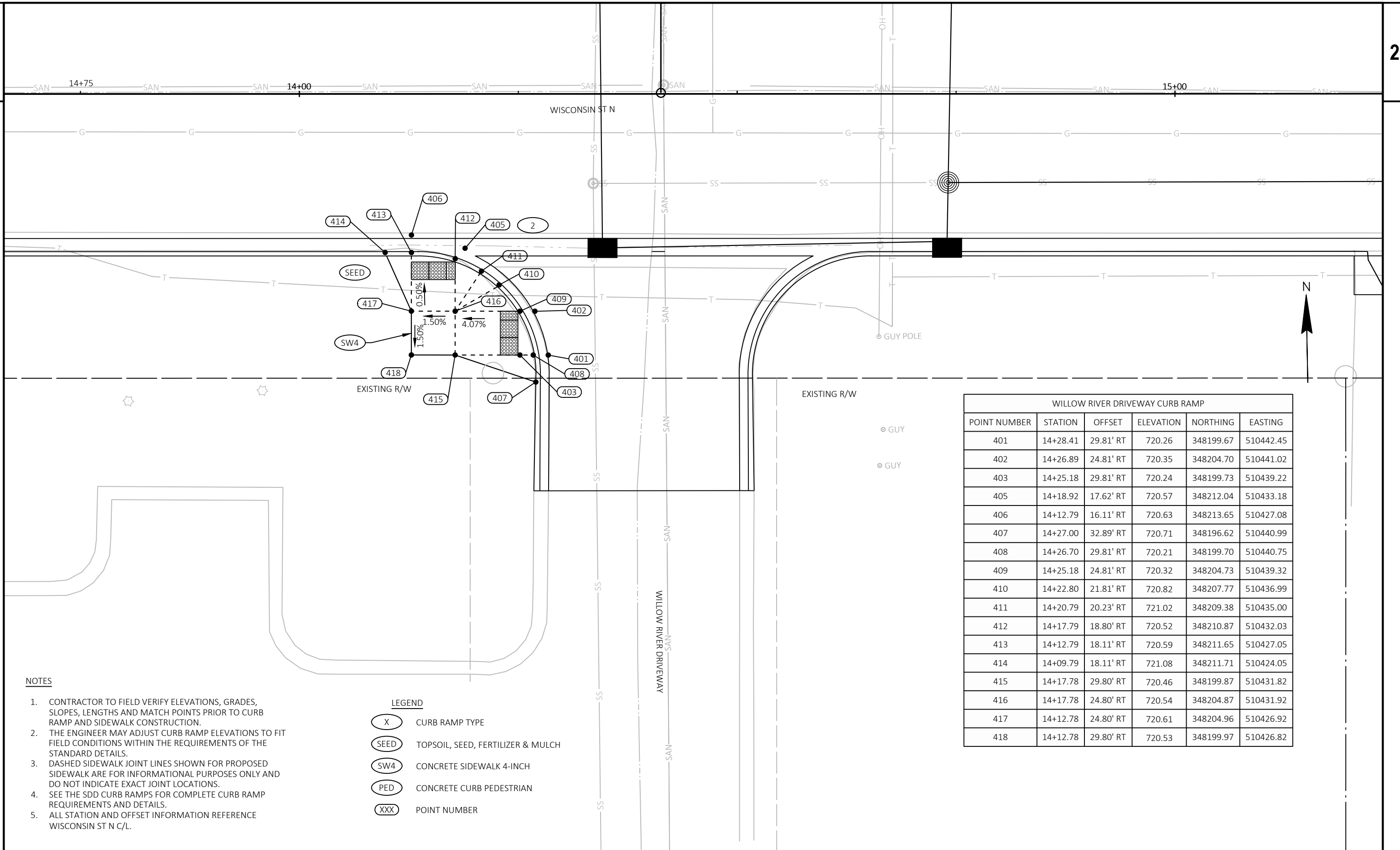


4TH STREET NE CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
206	14+57.93	28.11' LT	721.80	348257.05	510473.01
207	14+57.30	33.11' LT	721.87	348262.06	510472.47
208	14+57.89	33.11' LT	721.88	348262.05	510473.06
209	14+57.08	36.18' LT	722.61	348265.14	510472.30
210	14+69.30	28.10' LT	722.34	348256.84	510484.37
211	14+64.30	28.10' LT	722.26	348256.93	510479.38
212	14+69.30	33.10' LT	722.42	348261.84	510484.47
213	14+64.30	33.10' LT	722.34	348261.93	510479.47
214	14+69.23	53.79' LT	MATCH EXIST	348282.52	510484.77
215	14+64.41	53.74' LT	MATCH EXIST	348282.56	510479.95
216	14+55.66	28.18' LT	721.85	348257.16	510470.74
217	14+55.17	33.18' LT	721.92	348262.17	510470.34
218	14+57.42	41.19' LT	-	348270.14	510472.74
219	14+58.91	25.12' LT	722.31	348254.04	510473.93

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE SDD CURB RAMP FOR COMPLETE CURB RAMP REQUIREMENTS AND DETAILS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE WISCONSIN ST N C/L.





WILLOW RIVER DRIVEWAY CURB RAMP					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
401	14+28.41	29.81' RT	720.26	348199.67	510442.45
402	14+26.89	24.81' RT	720.35	348204.70	510441.02
403	14+25.18	29.81' RT	720.24	348199.73	510439.22
405	14+18.92	17.62' RT	720.57	348212.04	510433.18
406	14+12.79	16.11' RT	720.63	348213.65	510427.08
407	14+27.00	32.89' RT	720.71	348196.62	510440.99
408	14+26.70	29.81' RT	720.21	348199.70	510440.75
409	14+25.18	24.81' RT	720.32	348204.73	510439.32
410	14+22.80	21.81' RT	720.82	348207.77	510436.99
411	14+20.79	20.23' RT	721.02	348209.38	510435.00
412	14+17.79	18.80' RT	720.52	348210.87	510432.03
413	14+12.79	18.11' RT	720.59	348211.65	510427.05
414	14+09.79	18.11' RT	721.08	348211.71	510424.05
415	14+17.78	29.80' RT	720.46	348199.87	510431.82
416	14+17.78	24.80' RT	720.54	348204.87	510431.92
417	14+12.78	24.80' RT	720.61	348204.96	510426.92
418	14+12.78	29.80' RT	720.53	348199.97	510426.82

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
3. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. SEE THE SDD CURB RAMP FOR COMPLETE CURB RAMP REQUIREMENTS AND DETAILS.
5. ALL STATION AND OFFSET INFORMATION REFERENCE WISCONSIN ST N C/L.

LEGEND

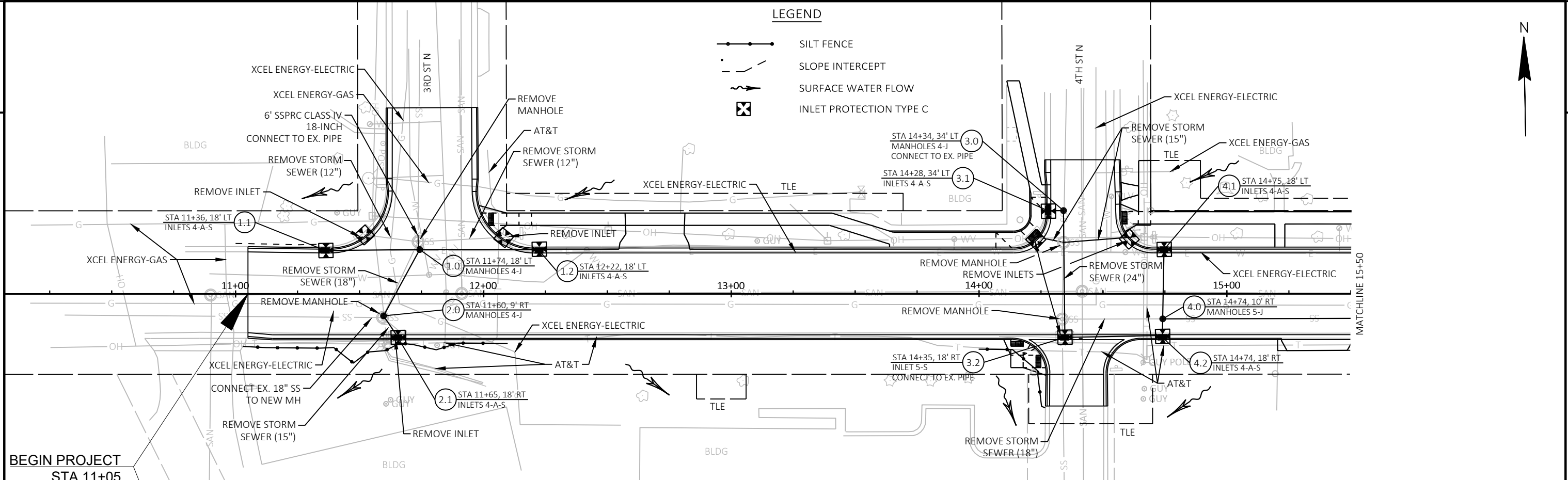
- (X) CURB RAMP TYPE
- (SEED) TOPSOIL, SEED, FERTILIZER & MULCH
- (SW4) CONCRETE SIDEWALK 4-INCH
- (PED) CONCRETE CURB PEDESTRIAN
- (XXX) POINT NUMBER





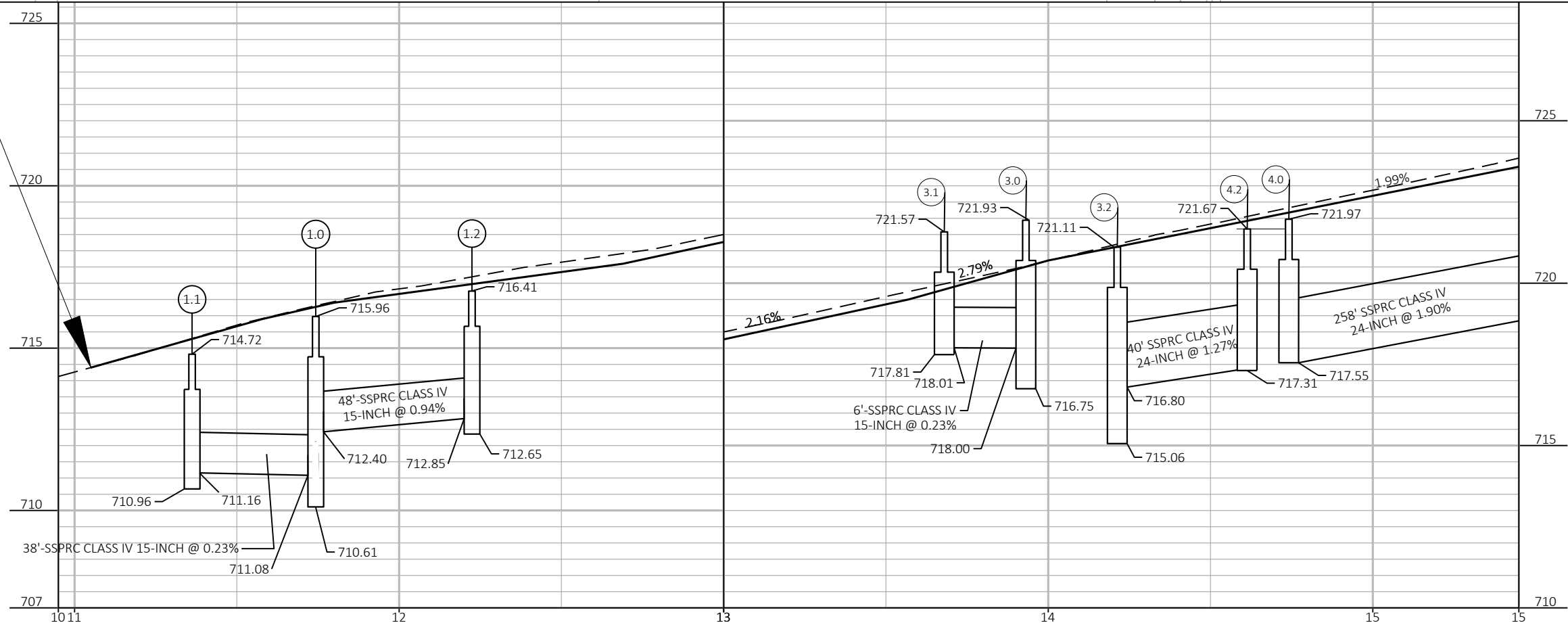
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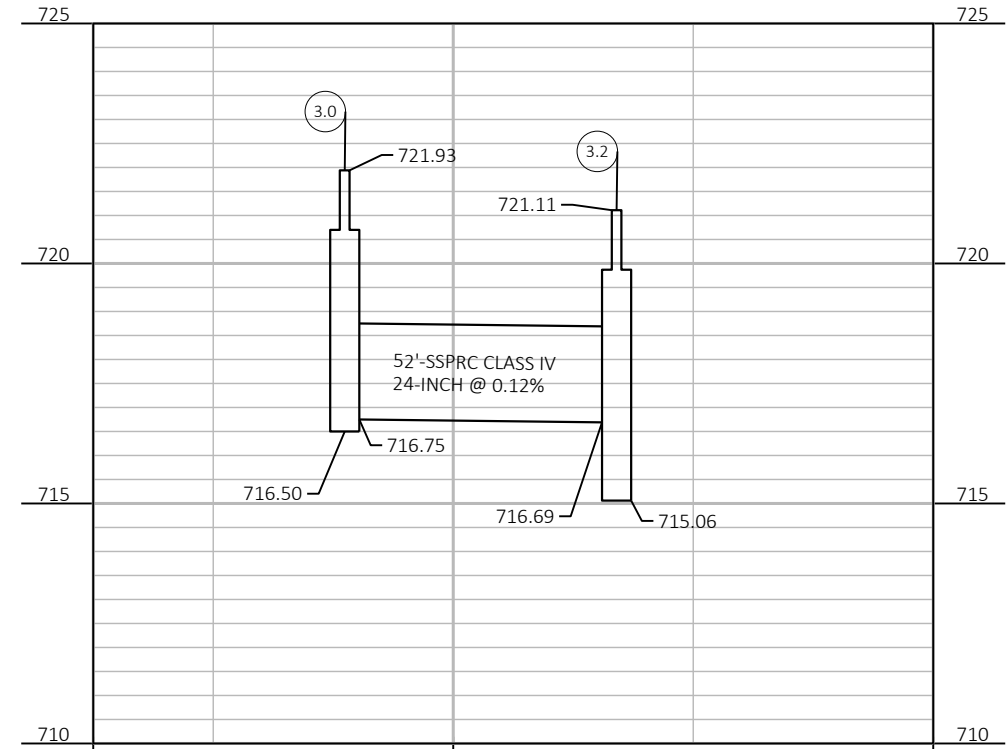
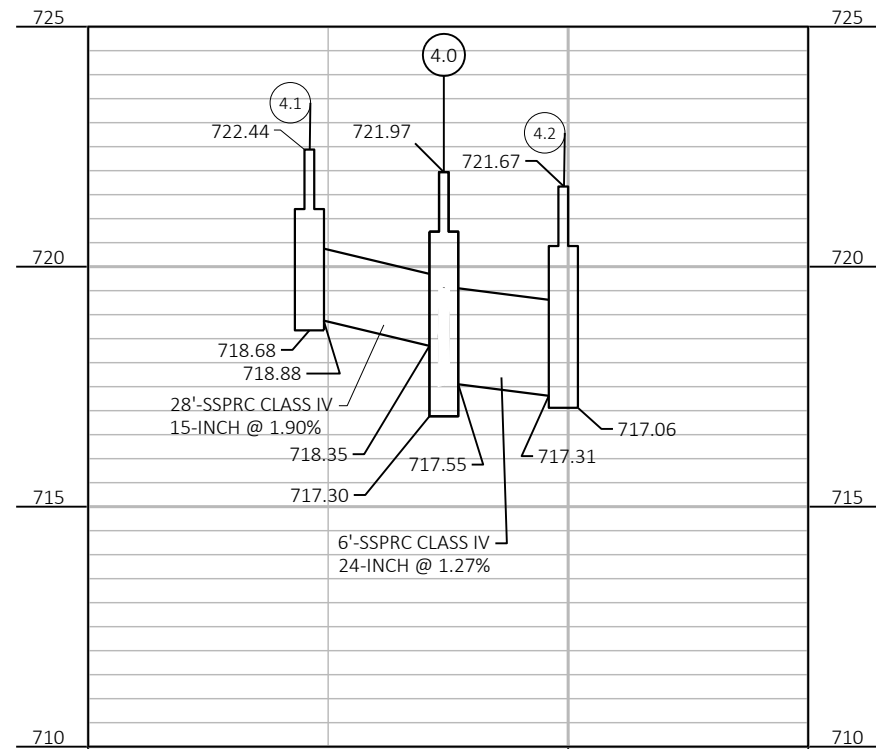
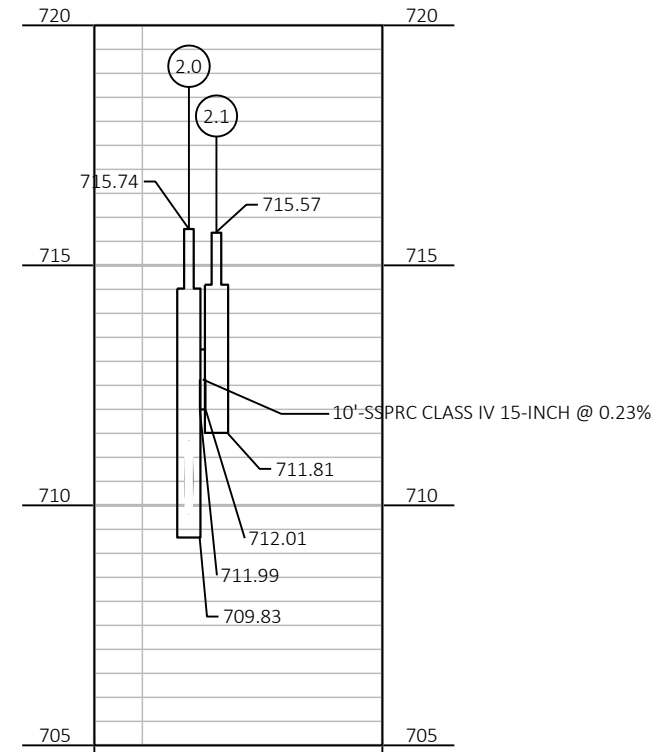
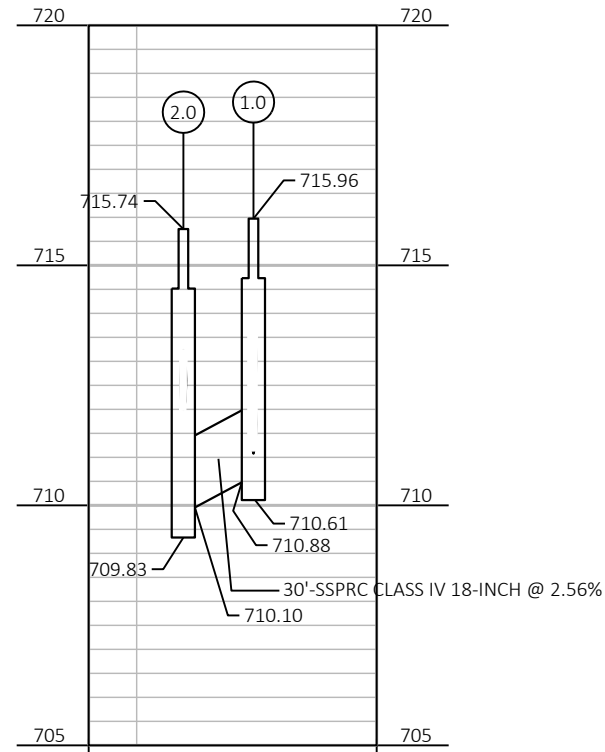
- SILT FENCE
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- INLET PROTECTION TYPE C

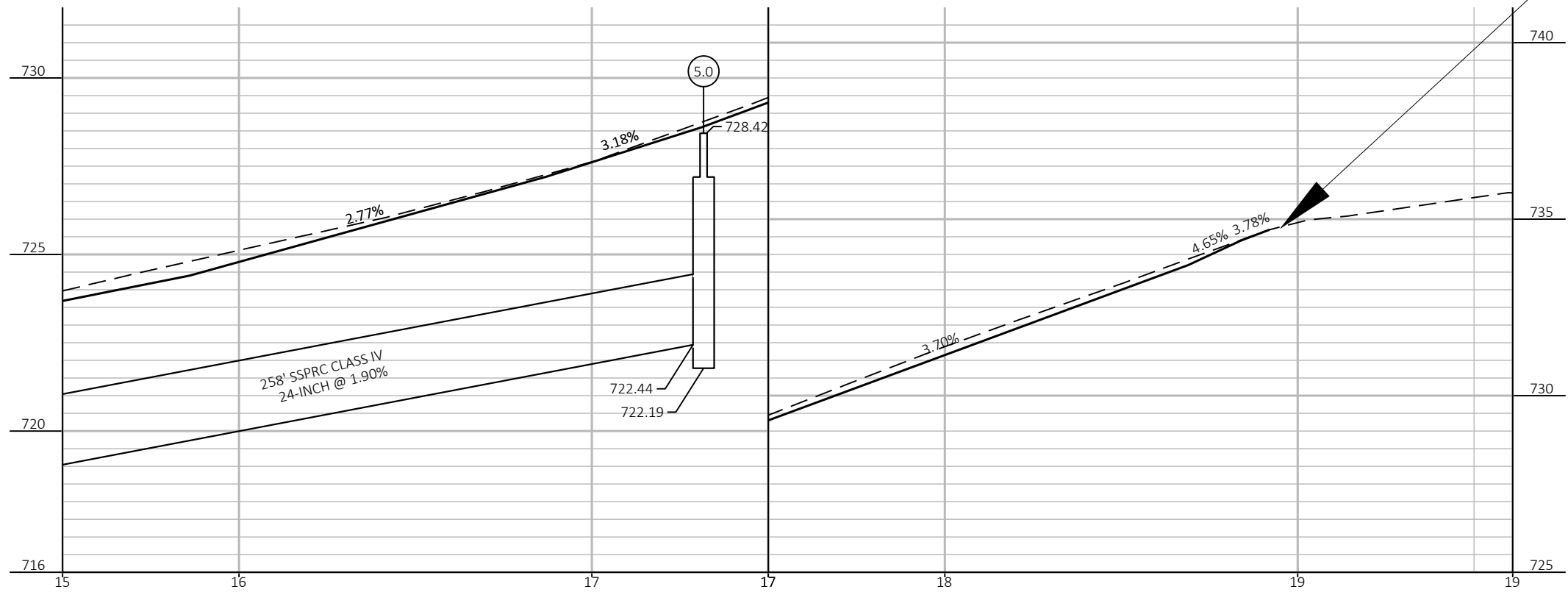
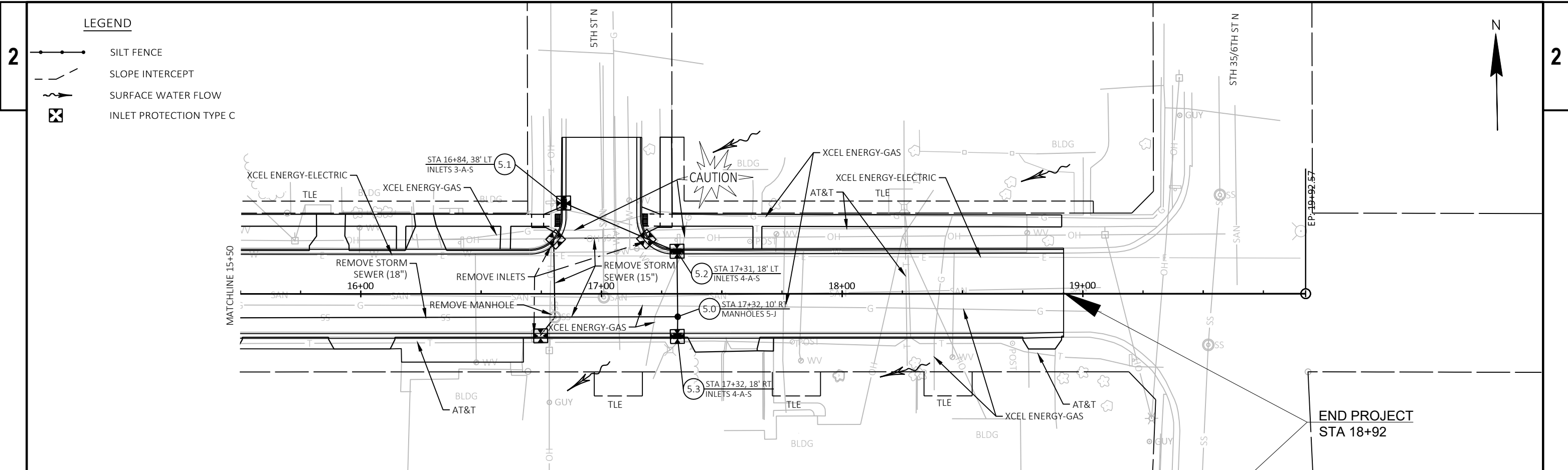


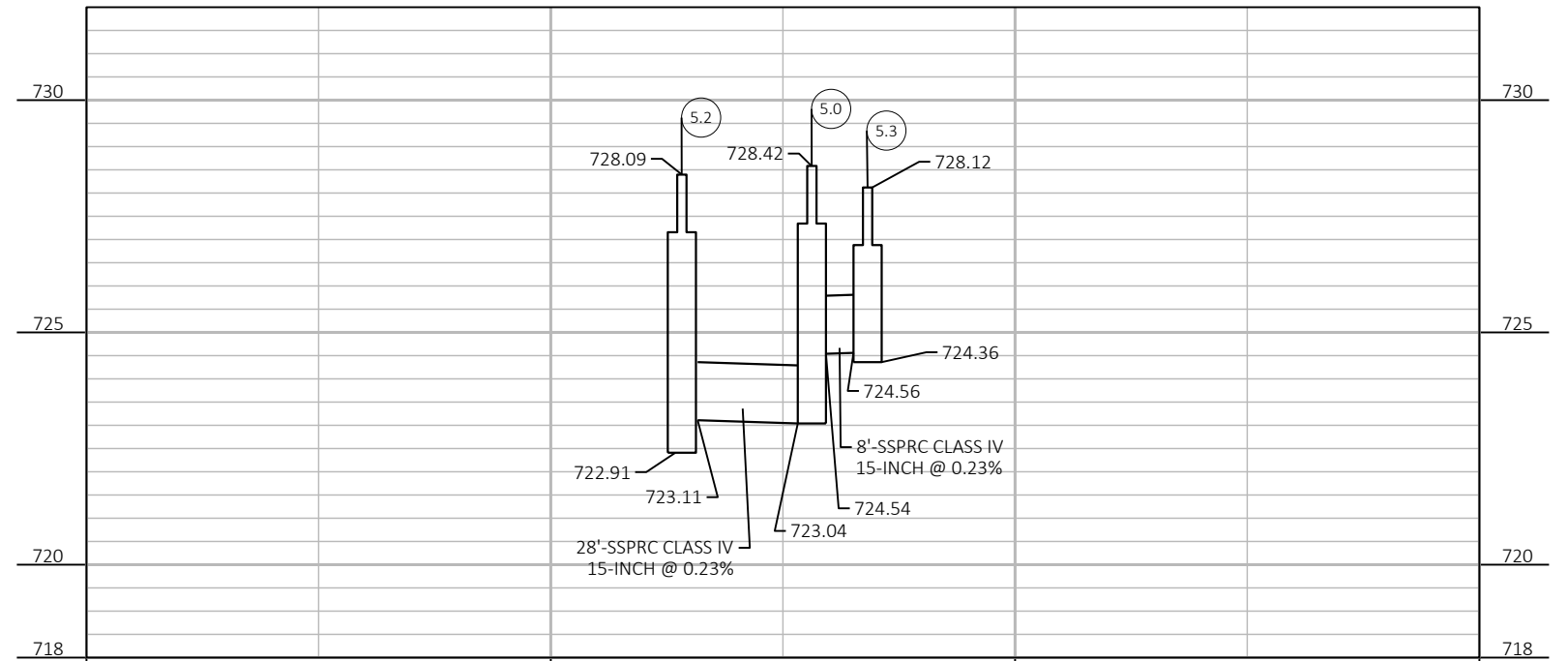
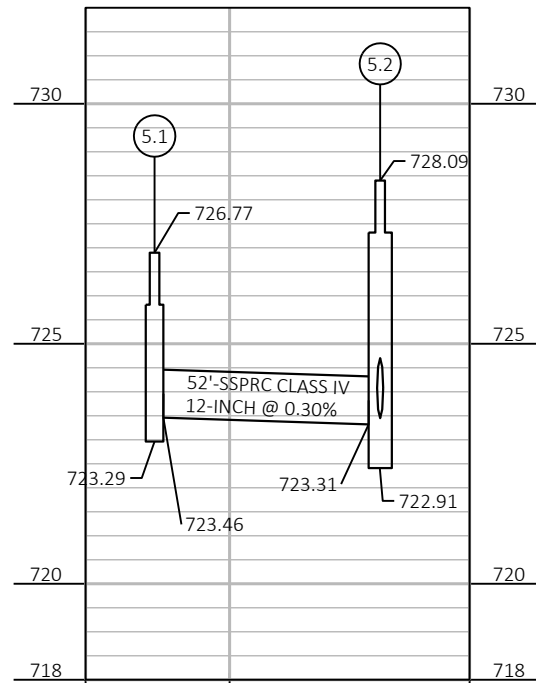
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STA 11+05

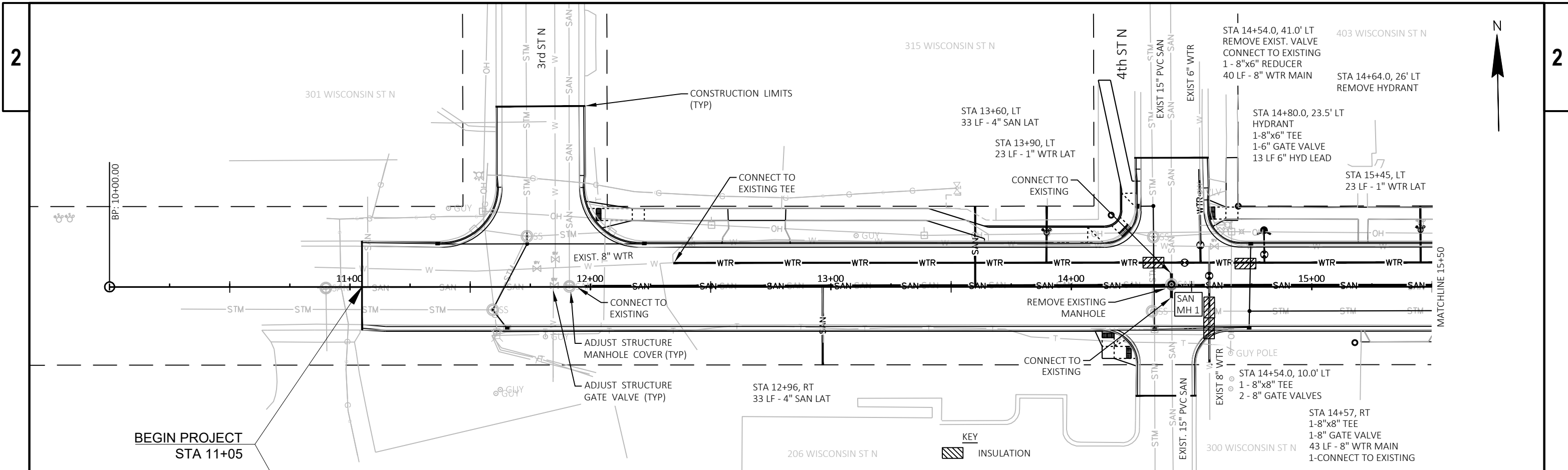
MATCHLINE 15+50



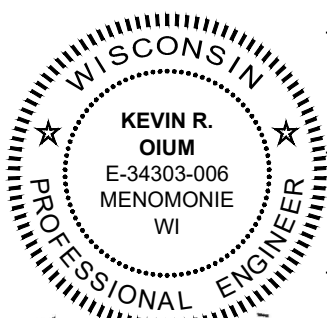




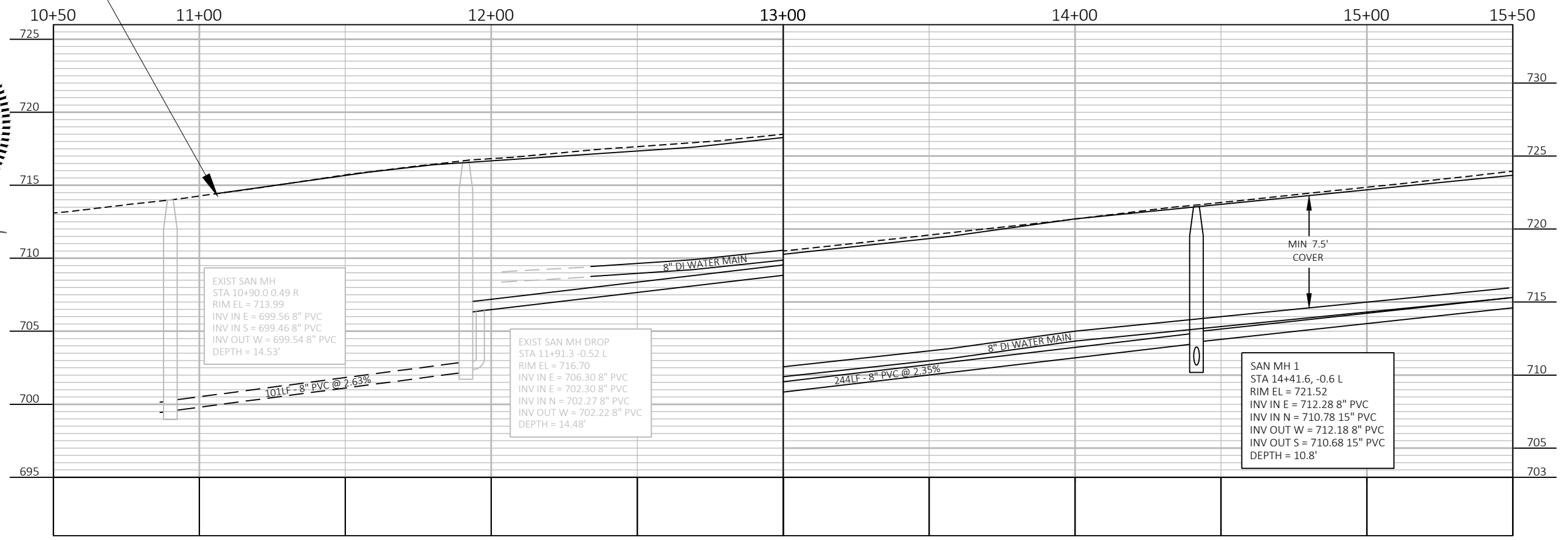


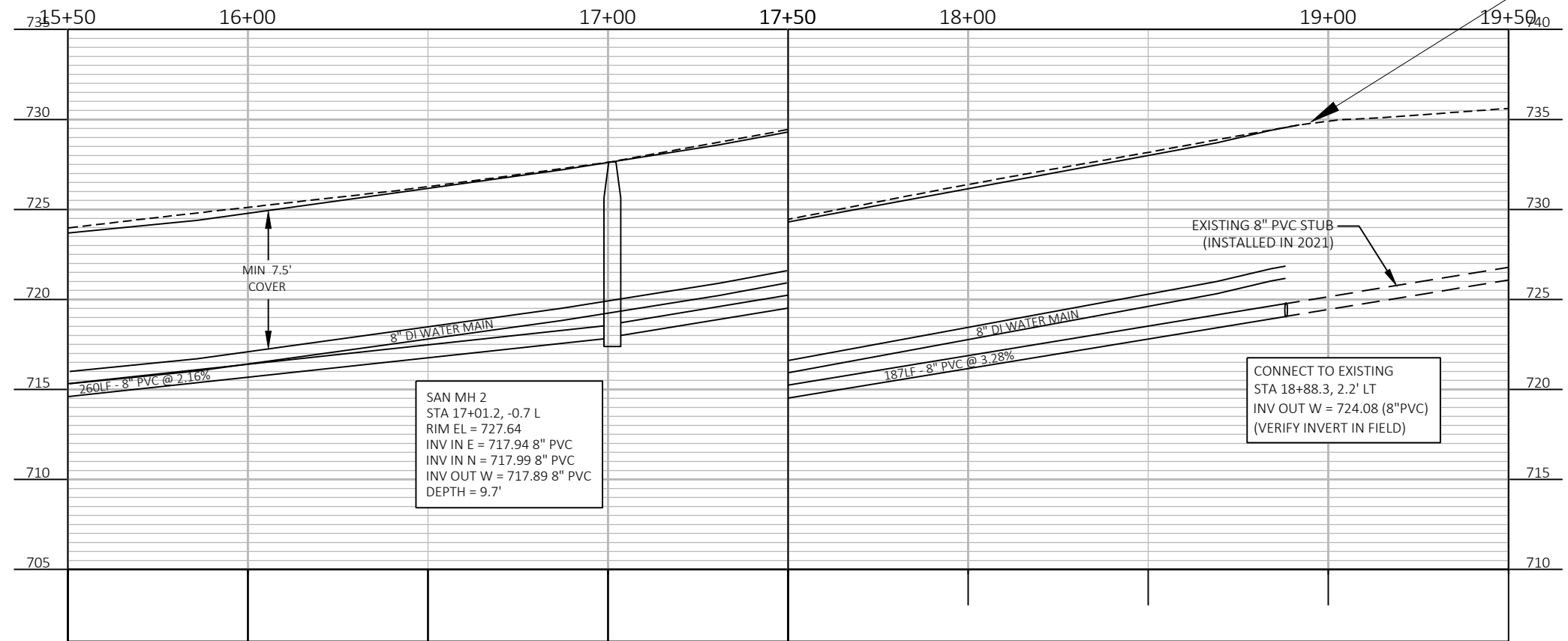
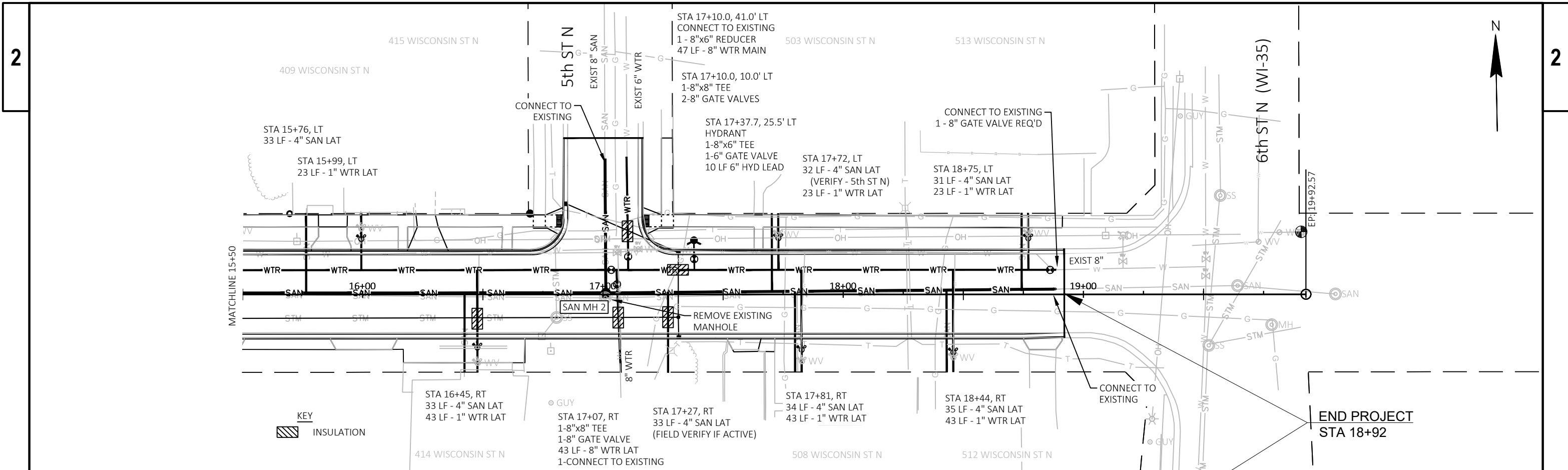


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STA 11+05

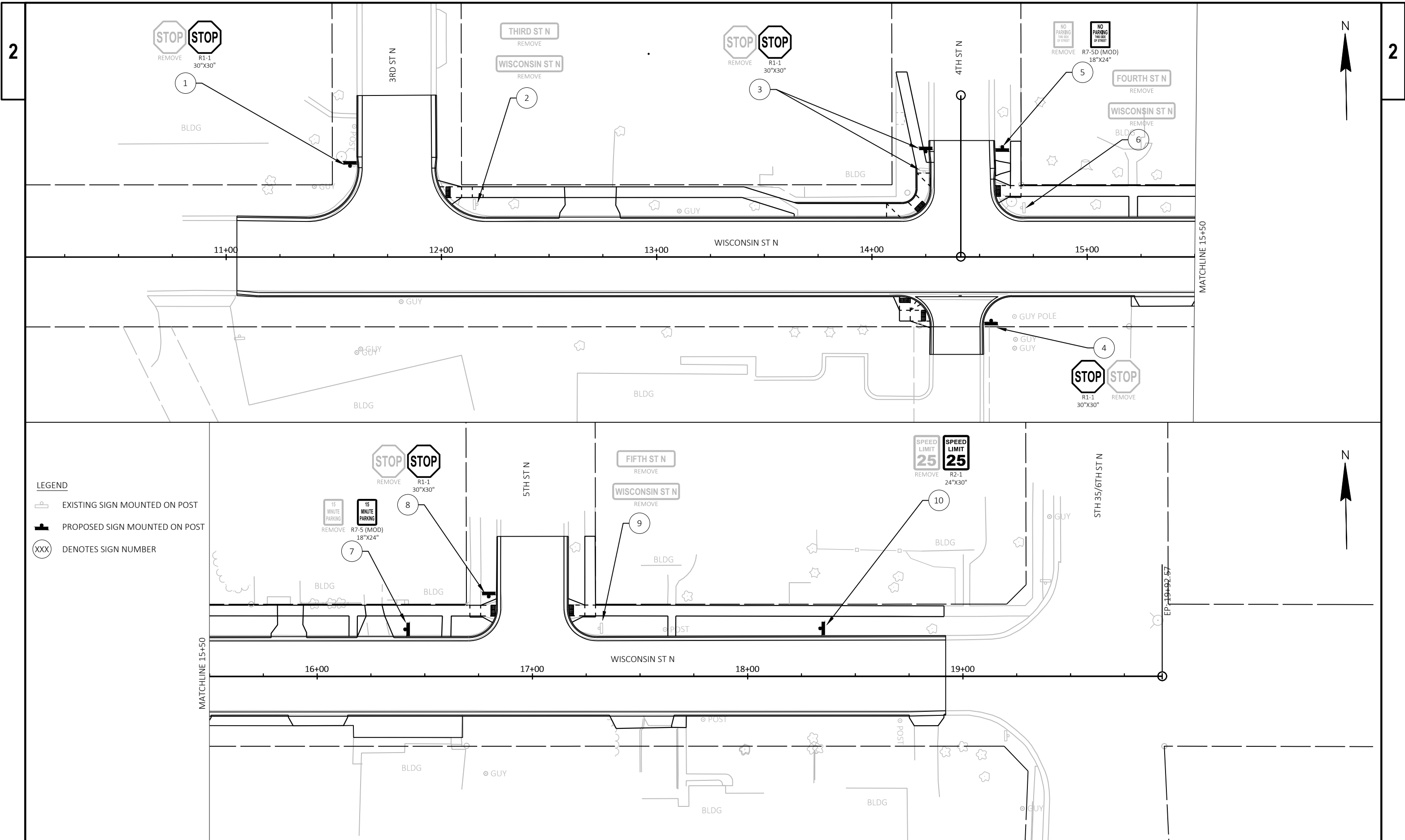


*Kevin R. Oium*  
07-19-2021








*Kevin R. Oium*  
07-19-2021



**LEGEND**

-  EXISTING SIGN MOUNTED ON POST
-  PROPOSED SIGN MOUNTED ON POST
-  DENOTES SIGN NUMBER

PROJECT NO: 8999-00-65

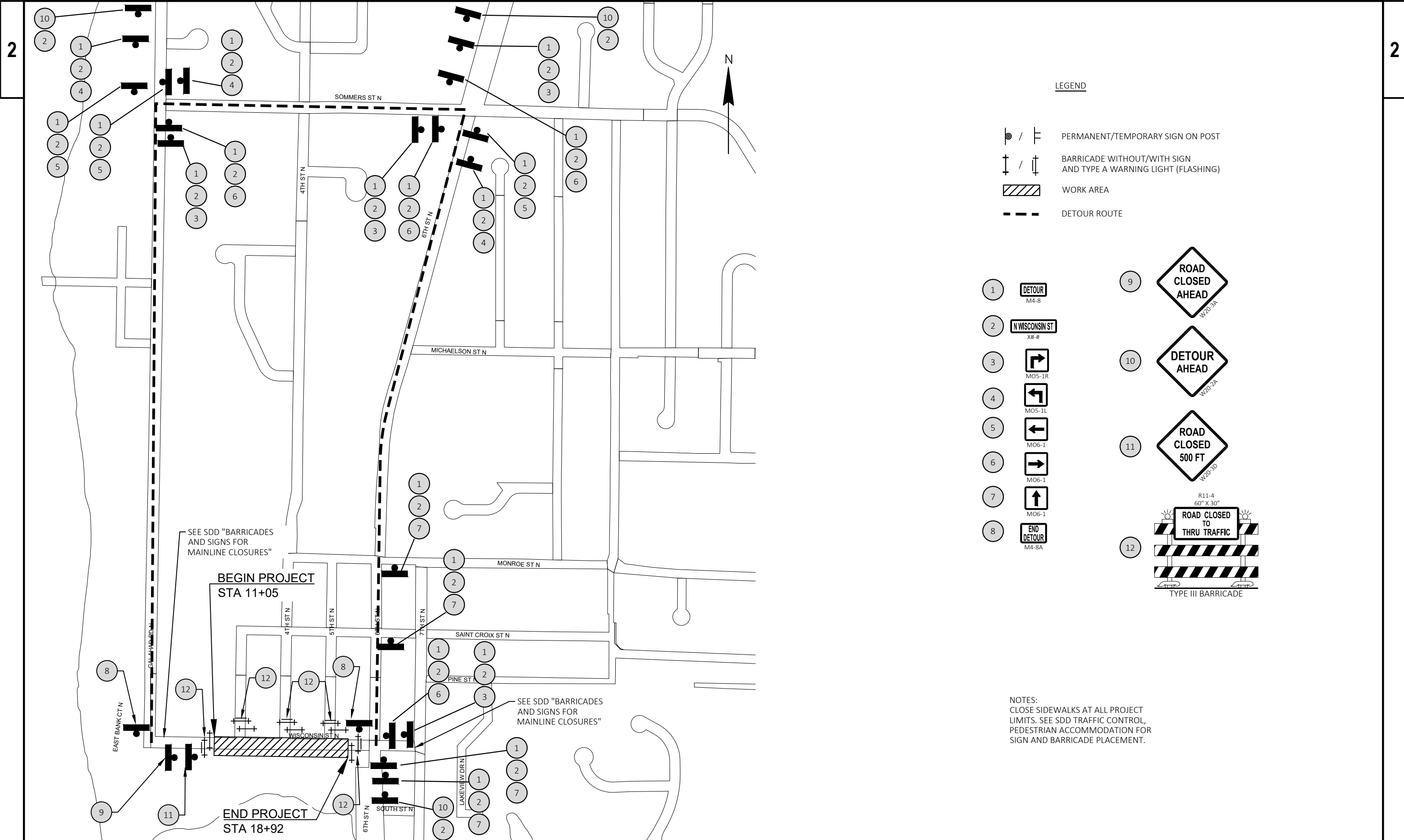
HWY: N WISCONSIN ST

COUNTY: ST. CROIX





PERMANENT SIGNING














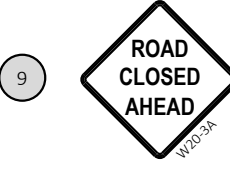
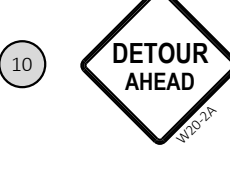


SHEET

E



**LEGEND**

-  PERMANENT/TEMPORARY SIGN ON POST
-  BARRICADE WITHOUT/WITH SIGN AND TYPE A WARNING LIGHT (FLASHING)
-  WORK AREA
-  DETOUR ROUTE

-  1 **DETOUR**  
M4-8
-  2 **N WISCONSIN ST**  
X#-#
-  3   
M05-1R
-  4   
M05-1L
-  5   
M06-1
-  6   
M06-1
-  7   
M06-1
-  8 **END**  
**DETOUR**  
M4-8A
-  9 **ROAD**  
**CLOSED**  
**AHEAD**  
W20-3A
-  10 **DETOUR**  
**AHEAD**  
W20-2A
-  11 **ROAD**  
**CLOSED**  
**500 FT**  
W20-3D
-  12 **R11-4**  
**60\" X 30\"**  
**ROAD CLOSED**  
**TO**  
**THRU TRAFFIC**  
**TYPE III BARRICADE**

NOTES:  
CLOSE SIDEWALKS AT ALL PROJECT LIMITS. SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIGN AND BARRICADE PLACEMENT.



Estimate Of Quantities

8999-00-65

Line	Item	Item Description	Unit	Total	Qty
0002	204.0150	Removing Curb & Gutter	LF	1,805.000	1,805.000
0004	204.0155	Removing Concrete Sidewalk	SY	553.000	553.000
0006	204.0210	Removing Manholes	EACH	5.000	5.000
0008	204.0220	Removing Inlets	EACH	9.000	9.000
0010	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	57.000	57.000
0012	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	132.000	132.000
0014	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	297.000	297.000
0016	204.0245	Removing Storm Sewer (size) 04. 24-Inch	LF	79.000	79.000
0018	205.0100	Excavation Common	CY	2,110.000	2,110.000
0020	213.0100	Finishing Roadway (project) 01. 8999-00-65	EACH	1.000	1.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,947.000	2,947.000
0024	416.0160	Concrete Driveway 6-Inch	SY	123.000	123.000
0026	455.0605	Tack Coat	GAL	250.000	250.000
0028	460.2000	Incentive Density HMA Pavement	DOL	550.000	550.000
0030	460.5223	HMA Pavement 3 LT 58-28 S	TON	475.000	475.000
0032	460.5244	HMA Pavement 4 LT 58-34 S	TON	365.000	365.000
0034	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	15.000	15.000
0036	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0038	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	72.000	72.000
0040	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	94.000	94.000
0042	601.0600	Concrete Curb Pedestrian	LF	104.000	104.000
0044	602.0405	Concrete Sidewalk 4-Inch	SF	3,959.000	3,959.000
0046	602.0415	Concrete Sidewalk 6-Inch	SF	220.000	220.000
0048	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	70.000	70.000
0050	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	52.000	52.000
0052	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	166.000	166.000
0054	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	30.000	30.000
0056	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	356.000	356.000
0058	611.0530	Manhole Covers Type J	EACH	5.000	5.000
0060	611.0603	Inlet Covers Type A-S	EACH	10.000	10.000
0062	611.0651	Inlet Covers Type S	EACH	1.000	1.000
0064	611.2004	Manholes 4-FT Diameter	EACH	3.000	3.000
0066	611.2005	Manholes 5-FT Diameter	EACH	3.000	3.000
0068	611.3003	Inlets 3-FT Diameter	EACH	1.000	1.000
0070	611.3004	Inlets 4-FT Diameter	EACH	7.000	7.000
0072	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8999-00-65	EACH	1.000	1.000
0074	619.1000	Mobilization	EACH	1.000	1.000
0076	624.0100	Water	MGAL	12.000	12.000
0078	625.0100	Topsoil	SY	1,600.000	1,600.000
0080	627.0200	Mulching	SY	1,600.000	1,600.000
0082	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0084	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0086	628.7015	Inlet Protection Type C	EACH	22.000	22.000
0088	628.7560	Tracking Pads	EACH	2.000	2.000
0090	629.0210	Fertilizer Type B	CWT	2.000	2.000
0092	630.0140	Seeding Mixture No. 40	LB	35.000	35.000
0094	630.0200	Seeding Temporary	LB	51.000	51.000
0096	630.0500	Seed Water	MGAL	40.000	40.000
0098	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000

Estimate Of Quantities

8999-00-65

Line	Item	Item Description	Unit	Total	Qty
0100	637.2210	Signs Type II Reflective H	SF	31.720	31.720
0102	638.2602	Removing Signs Type II	EACH	10.000	10.000
0104	638.3000	Removing Small Sign Supports	EACH	10.000	10.000
0106	642.5001	Field Office Type B	EACH	1.000	1.000
0108	643.0300	Traffic Control Drums	DAY	1,625.000	1,625.000
0110	643.0420	Traffic Control Barricades Type III	DAY	650.000	650.000
0112	643.0705	Traffic Control Warning Lights Type A	DAY	1,300.000	1,300.000
0114	643.0900	Traffic Control Signs	DAY	5,775.000	5,775.000
0116	643.5000	Traffic Control	EACH	1.000	1.000
0118	644.1810	Temporary Pedestrian Barricade	LF	75.000	75.000
0120	650.4000	Construction Staking Storm Sewer	EACH	16.000	16.000
0122	650.4500	Construction Staking Subgrade	LF	981.000	981.000
0124	650.5000	Construction Staking Base	LF	981.000	981.000
0126	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,788.000	1,788.000
0128	650.9000	Construction Staking Curb Ramps	EACH	7.000	7.000
0130	650.9910	Construction Staking Supplemental Control (project) 01. 8999-00-65	LS	1.000	1.000
0132	650.9920	Construction Staking Slope Stakes	LF	981.000	981.000
0134	690.0150	Sawing Asphalt	LF	402.000	402.000
0136	690.0250	Sawing Concrete	LF	242.000	242.000
0138	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0140	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0142	SPV.0060	Special 01. Inlets 5-Ft Diameter	EACH	2.000	2.000
0144	SPV.0060	Special 02. 6" Gate Valve and Box	EACH	2.000	2.000
0146	SPV.0060	Special 03. 8" Gate Valve and Box	EACH	7.000	7.000
0148	SPV.0060	Special 04. 1-Inch Corporation	EACH	8.000	8.000
0150	SPV.0060	Special 05. Remove Hydrant	EACH	1.000	1.000
0152	SPV.0060	Special 06. Hydrant	EACH	2.000	2.000
0154	SPV.0060	Special 07. Connect to Exist Water Main	EACH	5.000	5.000
0156	SPV.0060	Special 08. 1-Inch Curb Stop & Box	EACH	8.000	8.000
0158	SPV.0060	Special 09. Connect to Existing Water Service	EACH	8.000	8.000
0160	SPV.0060	Special 10. San Manhole 4-Ft Diameter	EACH	2.000	2.000
0162	SPV.0060	Special 11. Sanitary Service Wye, 8x4-Inch	EACH	9.000	9.000
0164	SPV.0060	Special 12. Connect to Existing San Service	EACH	9.000	9.000
0166	SPV.0060	Special 13. Connect to Existing Sanitary	EACH	5.000	5.000
0168	SPV.0060	Special 14. Remove Existing Structure	EACH	2.000	2.000
0170	SPV.0060	Special 15. Adjust Casting	EACH	1.000	1.000
0172	SPV.0060	Special 16. Adjust Valve Box	EACH	3.000	3.000
0174	SPV.0060	Special 17. Abandon Exist Water System	EACH	1.000	1.000
0176	SPV.0060	Special 18. Abandon Exist Sewer System	EACH	1.000	1.000
0178	SPV.0085	Special 01. Water Main Fittings	LB	1,270.000	1,270.000
0180	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type D	LF	1,622.000	1,622.000
0182	SPV.0090	Special 02. 6" Ductile Iron Water Main	LF	23.000	23.000
0184	SPV.0090	Special 03. 8" Ductile Iron Water Main	LF	817.000	817.000
0186	SPV.0090	Special 04. Water Service Copper 1-Inch	LF	244.000	244.000
0188	SPV.0090	Special 05. Sanitary Sewer PVC 8-Inch	LF	747.000	747.000
0190	SPV.0090	Special 06. Sanitary Sewer PVC 15-Inch	LF	20.000	20.000
0192	SPV.0090	Special 07. Sanitary Service PVC 4-Inch	LF	297.000	297.000
0194	SPV.0165	Special 01. Insulation	SF	576.000	576.000
0196	SPV.0200	Special 01. Excess Manhole Depth	VF	4.500	4.500



HMA PAVEMENT

CATEGORY	STATION TO	STATION	LOCATION	455.0605		
				TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-34 S TON
0010	11+05	- 18+92	ML	205	395	305
0010	11+79		3RD ST	20	35	25
0010	14+42		4TH ST	10	20	15
0010	17+00		5TH ST	15	25	20
TOTAL 0010				250	475	365

ASPHALTIC SURFACE

CATEGORY	STATION TO	STATION	LOCATION	465.0120	
				ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	CERT
0010	15+21	- 16+67	CERT	15	
TOTAL 0010				15	

CONCRETE COLLARS

CATEGORY	STATION	LOCATION	520.8000	
			CONCRETE COLLARS FOR PIPE EACH	CONCRETE COLLARS FOR PIPE EACH
0010	11+51	RT	1	
0010	11+74	LT	1	
0010	14+34	LT	1	
0010	14+34	RT	1	
TOTAL 0010			4	

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE
			CUT (2)				FACTOR 1.25		
WISCONSIN ST	11+05/18+92		1,820	155	1,665	14	18	1,648	1,648
3RD ST	29+25/29+84		130	10	120	1	1	120	120
4TH ST	39+46/39+84		70	7	63	3	4	11	11
5TH ST	49+25/49+84		90	10	80	2	3	78	78
GRAND TOTAL			2,110	155	1,665	14	18	1,648	1,648
TOTAL COMMON EXC			2,110						

**NOTES:**  
 (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100  
 (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.  
 (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL  
 (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL  
 (13) EXPANDED FILL FACTOR = 1.25  
 (14) THE MASS ORDINATE +/- QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

CURB AND GUTTER

CATEGORY	STATION TO STATION	LOCATION	601.0407      601.0411      SPV.0090.01 CONCRETE      CONCRETE      SPECIAL CURB & GUTTER      CURB & GUTTER      (01. CONCRETE 18-INCH TYPE D      30-INCH TYPE D      CURB & GUTTER 24-INCH TYPE D)		
			LF	LF	LF
0010	11+05 - 11+62	ML	-	-	75
0010	11+04 - 18+91	ML	-	-	787
0010	11+62 - 11+62	3RD ST	-	33	-
0010	11+97 - 11+97	3RD ST	-	33	-
0010	11+97 - 14+27	ML	-	-	264
0010	14+14 - 14+27	CERT	36	-	-
0010	14+27 - 14+27	4TH ST	-	10	-
0010	14+51 - 14+65	CERT	36	-	-
0010	14+57 - 14+57	4TH ST	-	18	-
0010	14+57 - 16+84	ML TO 5TH ST	-	-	280
0010	17+16 - 18+92	ML TO 5TH ST	-	-	216
TOTAL 0010			72	94	1,622

PEDESTRIAN CURB

CATEGORY	STATION TO STATION	LOCATION	601.0600 CONCRETE CURB PEDESTRIAN	
			LF	
0010	13+64 - 14+20	LT	89	
0010	14+64 - 14+69	LT	5	
0010	16+71 - 16+76	LT	5	
0010	17+24 - 17+29	LT	5	
TOTAL 0010			104	

CONCRETE SIDEWALK

CATEGORY	STATION TO STATION	LOCATION	602.0405      602.0415 CONCRETE      CONCRETE SIDEWALK      SIDEWALK 4-INCH      6-INCH SF      SF	
			SF	SF
0010	11+98 - 12+57	LT	334	-
0010	12+57 - 12+81	LT	-	120
0010	12+81 - 14+26	LT	1,110	-
0010	14+09 - 14+27	RT	142	-
0010	14+57 - 15+82	LT	780	-
0010	15+82 - 15+94	LT	-	60
0010	15+94 - 16+22	LT	181	-
0010	16+22 - 16+30	LT	-	40
0010	16+30 - 16+83	LT	322	-
0010	17+17 - 18+91	LT	1,090	-
TOTAL 0010			3,959	220

DETECTABLE WARNING FIELDS

CATEGORY	STATION	LOCATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	
			SF	
0010	12+03	LT	10	
0010	14+14	RT	10	
0010	14+23	LT	10	
0010	14+25	RT	10	
0010	14+59	LT	10	
0010	16+82	LT	10	
0010	17+18	LT	10	
TOTAL 0010			70	

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STORM SEWER

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	CASTING ELEV.	608.0412	608.0415	608.0418	608.0424	611.0530	611.0603	611.0651	611.3003	611.3004	SPV.0060.01	611.2004	611.2005						
					STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	MANHOLE COVERS TYPE J	INLET COVERS TYPE A-S	INLET COVERS TYPE S	INLETS 3-FT DIAMETER	INLETS 4-FT DIAMETER	INLETS 5-FT DIAMETER	MANHOLES 4-FT DIAMETER	MANHOLES 5-FT DIAMETER	* DEPTH	FT	FROM STRUCT.	TO STRUCT.	INLET ELEV.	DISCH. ELEV.
					LF	LF	LF	LF	SLOPE	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
0010	1.0	11+74	17.9'LT	715.96	-	-	30	-	2.94%	1	1	-	-	-	-	1	1	4.60	1.0	2.0	-	710.88
0010	1.1	11+37	18.0'LT	714.72	-	38	-	-	0.23%	-	1	-	1	-	-	-	-	3.27	1.1	1.0	710.96	711.16
0010	1.2	12+22	18.0'LT	716.41	-	48	-	-	1.17%	-	1	-	1	-	-	-	-	3.27	1.2	1.0	712.65	712.85
0010	2.0	11+59	9.5'RT	715.74	-	-	-	-	-	1	-	-	-	-	-	1	-	5.16	2.0	EXISTING	-	710.10
0010	2.1	11+65	18.0'RT	715.57	-	10	-	-	0.23%	-	1	-	1	-	-	-	-	3.27	2.1	2.0	711.81	712.01
0010	3.0	14+34	33.6'LT	721.93	-	-	-	52	0.12%	1	-	-	-	-	-	1	-	4.68	3.0	3.2	-	716.75
0010	3.1	14+28	33.5'LT	721.57	-	6	-	-	0.23%	-	1	-	1	-	-	-	-	3.27	3.1	3.0	717.81	718.01
0010	3.2	14+35	18.0'RT	721.11	-	-	-	-	-	-	-	1	-	1	-	-	-	5.56	3.2	EXISTING	715.06	715.31
0010	4.0	14+74	10.1'RT	721.97	-	-	-	6	3.94%	1	-	-	-	-	-	-	1	3.92	4.0	4.2	-	717.55
0010	4.1	14+75	18.0'LT	722.44	-	28	-	-	1.90%	-	1	-	1	-	-	-	-	3.27	4.1	4.0	718.68	718.88
0010	4.2	14+74	18.0'RT	721.67	-	-	-	40	1.27%	-	1	-	-	1	-	-	-	4.12	4.2	3.2	717.06	717.31
0010	5.0	17+32	9.5'RT	728.42	-	-	-	258	1.90%	1	-	-	-	-	-	-	1	5.48	5.0	4.0	-	723.04
0010	5.1	16+84	37.7'LT	726.77	52	-	-	-	0.30%	-	1	-	1	-	-	-	-	2.99	5.1	5.2	723.29	723.46
0010	5.2	17+31	18.0'LT	728.09	-	28	-	-	0.23%	-	1	-	1	-	-	-	-	4.69	5.2	5.0	722.91	723.11
0010	5.3	17+32	18.0'RT	728.12	-	8	-	-	0.23%	-	1	-	1	-	-	-	-	3.27	5.3	5.0	724.36	724.56
TOTAL 0010					52	166	30	356		5	10	1	1	7	2	3	3					

\* DOES NOT INCLUDE 6" OF ADJUSTING RINGS

WATER

CATEGORY	STATION	TO	STATION	LOCATION	624.0100 WATER MGAL
0010	11+05	-	18+92	ML	12
TOTAL 0010					12

EROSION CONTROL

CATEGORY	STATION	LOCATION	628.7015 INLET PROTECTION TYPE C EACH	628.7560 TRACKING PADS EACH
0010	11+37	LT	1	1
0010	11+52	LT	1	-
0010	11+65	RT	1	-
0010	12+09	LT	1	-
0010	12+22	LT	1	-
0010	14+23	LT	1	-
0010	14+28	LT	1	-
0010	14+35	RT	1	-
0010	14+62	LT	1	-
0010	14+74	RT	1	-
0010	14+75	LT	1	-
0010	16+74	RT	1	-
0010	16+80	LT	1	-
0010	16+84	LT	1	-
0010	17+19	LT	1	-
0010	17+31	LT	1	-
0010	17+32	RT	1	-
0010		UNDISTRIBUTED (25%)	5	1
TOTAL 0010			22	2

EROSION CONTROL MOBILIZATIONS

CATEGORY	STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	11+05	-	18+92		3	1
0010		-		UNDISTRIBUTED (25%)	1	1
TOTAL 0010					4	2

RESTORATION

CATEGORY	STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
0010	11+00	-	11+61	LT	90	90	0.10	2	3	2.5
0010	11+03	-	14+27	RT	470	470	0.30	9	13	11.0
0010	12+05	-	12+57	LT	40	40	0.10	1	2	1.0
0010	12+81	-	13+64	LT	60	60	0.10	2	2	1.5
0010	14+52	-	15+20	RT	50	50	0.10	1	2	1.5
0010	14+69	-	15+19	LT	40	40	0.10	1	2	1.0
0010	15+23	-	15+82	LT	45	45	0.10	1	2	1.5
0010	15+93	-	16+15	LT	20	20	0.10	1	1	0.5
0010	16+19	-	16+58	LT	30	30	0.10	1	1	1.0
0010	16+62	-	16+81	LT	15	15	0.10	1	1	0.5
0010	16+67	-	17+52	RT	125	125	0.10	3	4	3.0
0010	17+18	-	17+63	LT	35	35	0.10	1	1	1.0
0010	17+64	-	18+91	LT	95	95	0.10	2	3	2.5
0010	17+65	-	18+77	RT	165	165	0.20	3	5	4.0
0010				UNDISTRIBUTED (25%)	320	320	0.30	6	9	7.5
TOTAL 0010					1,600	1,600	2.00	35	51	40.0

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SIGNING ITEMS

CATEGORY	SIGN NO.	SIGN CODE	STATION	LOCATION	SIZE	ITEMS				MESSAGE
						634.0614 POSTS WOOD 4X6-INCH X 14- FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	
0010	1	R1-1	11+59	LT	30"x30"	1	5.18	1	1	STOP
0010	2	-	12+16	LT	-	-	-	1	1	STREET NAMES
0010	3	R1-1	14+24	LT	30"x30"	1	5.18	1	1	STOP
0010	4	R1-1	14+55	RT	30"x30"	1	5.18	1	1	STOP
0010	5	R7-53	14+60	LT	18'X24'	1	3.00	1	1	NO PARKING
0010	6	-	14+69	LT	-	-	-	1	1	STREET NAMES
0010	7	R7-5	16+41	LT	18"X24"	1	3.00	1	1	TIME LIMIT PARKING
0010	8	R1-1	16+79	LT	30"x30"	1	5.18	1	1	STOP
0010	9	-	17+30	LT	-	-	-	1	1	STREET NAMES
0010	10	R2-1	18+35	LT	24"X30"	1	5.00	1	1	SPEED LIMIT 25
TOTAL 0010						7	31.72	10	10	

TRAFFIC CONTROL

CATEGORY	LOCATION	ITEMS				
		643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
0010	BEGIN PROJECT	325	130	130	195	15
0010	3RD ST	325	130	130	195	15
0010	4TH ST	325	130	130	195	15
0010	5TH ST	325	130	130	195	15
0010	6TH ST	-	-	-	1,040	-
0010	SOMMERS & 6TH ST	-	-	-	1,300	-
0010	SOMMERS & GALAHAD	-	-	-	1,300	-
0010	WISCONSIN & GALAHAD	-	-	520	195	-
0010	END PROJECT	325	130	130	195	15
UNDISTRIBUTED (25%)		325	130	260	1,160	15
TOTAL 0010		1,625	650	1,300	5,775	75

PROJECT NO: 8999-00-65

HWY: N WISCONSIN ST

COUNTY: ST. CROIX

MISCELLANEOUS QUANTITIES

SHEET

E



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CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.9000	650.9910.01	650.9920
					CONSTRUCTION STAKING SEWER EACH	CONSTRUCTION STAKING SUBGRADE LF	CONSTRUCTION STAKING BASE LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING CURB RAMPS EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8999-00-65) LS	CONSTRUCTION STAKING SLOPE STAKES LF
0010	11+05	-	18+92	ML	16	981	981	1,788	7	1	981
				TOTAL 0010	16	981	981	1,788	7	1	981

SAWING

CATEGORY	STATION	TO	STATION	LOCATION	690.0150	690.0250	REMARKS
					SAWING ASPHALT LF	SAWING CONCRETE LF	
0010	11+05			ML	33	4	BOP
0010	11+61	-	11+98	LT	32	5	3RD ST
0010	11+98	-	12+81	LT	82	-	PARKING LOT
0010	13+41	-	14+16	LT	-	144	SIDEWALK
0010	14+26	-	14+57	LT	31	5	4TH ST
0010	14+27	-	14+52	RT	25	3	CE
0010	15+20	-	16+68	RT	105	47	PARKING LOT
0010	15+82	-	15+94	LT	-	12	DRIVEWAY MATCH
0010	16+71	-	16+76	LT	-	5	SIDEWALK MATCH
0010	16+83	-	17+17	LT	33	4	5TH ST
0010	17+16	-	17+20	LT	-	4	SIDEWALK MATCH
0010	17+54	-	17+71	RT	17	-	DRIVEWAY MATCH
0010	18+77	-	18+88	RT	11	-	DRIVEWAY MATCH
0010	18+92			LT	-	5	SIDEWALK MATCH
0010	18+92			ML	33	4	EOP
				TOTAL 0010	402	242	

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REMOVE EXISTING STRUCTURE

		SPV.0060.14
STATION	LOCATION	EA
14+42	1' LT	1
17+01	1' RT	1
ITEM TOTALS		2

REMOVE HYDRANT

		SPV.0060.05
STATION	LOCATION	EA
14+64	26' LT	1
ITEM TOTALS		1

ABANDON UTILITIES

LOCATION	ABANDON EXIST WATER SYSTEM	ABANDON EXIST SEWER SYSTEM
	SPV.0060.17	SPV.0060.18
EA	EA	EA
PROJECT 8999-00-65	1	1
ITEM TOTALS		1

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0020

SANITARY SEWER PIPES

FROM STRUCT.	TO STRUCT.	CONNECT TO EXISTING SANITARY	SANITARY SEWER PVC 8-INCH	SANITARY SEWER PVC 15-INCH
		SPV.0060.13	EA	SF
CONNECT	SAN MH 1	1	244	-
SAN MH 1	CONNECT N	1	-	10
SAN MH 1	CONNECT S	1	-	10
SAN MH 1	SAN MH 2	-	260	-
SAN MH 2	CONNECT N	1	56	-
SAN MH 2	CONNECT	-	187	-
CONNECT	CONNECT E	1	-	-
ITEM TOTALS		5	747	20

SANITARY SEWER STRUCTURES

FROM STRUCT.	SAN MANHOLE 4-FT DIAMETER	EXCESS MANHOLE DEPTH	
	SPV.0060.10	EA	VF
SAN MH 1	1	2.8	
SAN MH 2	1	1.7	
ITEM TOTALS		2	4.5

ADJUST STRUCTURES

LOCATION	CASTING	VALVE BOX	
	SPV.0060.15	EA	EA
11+90, LT	1	3	
ITEM TOTALS		1	3

WATER MAIN

STATION-STATION	LOCATION	6" GATE VALVE AND BOX	8" GATE VALVE AND BOX	HYDRANT	CONNECT TO EXIST WATER MAIN	WATER MAIN FITTINGS	6" DUCTILE IRON WATER MAIN	8" DUCTILE IRON WATER MAIN	INSULATION
		SPV.0060.02	EA	EA	EA	EA	EA	LF	LF
12+34 - 14+54	LT	-	-	-	1	-	-	220	64
14+54	41.0' LT	-	-	-	1	90	-	30	-
14+54	10.0' LT	-	2	-	-	185	-	-	128
14+57	RT	-	1	-	1	185	-	43	-
14+80.0	23.5' LT	1	-	1	-	175	13	-	64
14+54 - 15+50	LT	-	-	-	-	-	-	96	-
15+50 - 17+38	LT	-	-	-	-	-	-	188	64
17+07	RT	-	1	-	-	185	-	43	64
17+10.0	41.0' LT	-	-	-	1	90	-	47	64
17+10.0	10.0' LT	-	2	-	-	185	-	-	-
17+37.7	25.5' LT	1	-	1	-	175	10	-	128
17+38 - 18+88	10.0' LT	-	1	-	1	-	-	150	-
ITEM TOTALS		2	7	2	5	1270	23	817	576

SANITARY SERVICES

STATION	LOCATION	SANITARY SERVICE WYE, 8 X 4-INCH	CONNECT TO EXISTING SAN SERVICE	SANITARY SERVICE, PVC 4-INCH
		SPV.0060.11	SPV.0060.12	SPV.0090.07
		EA	EA	LF
12+96	RT	1	1	33
13+60	LT	1	1	33
15+76	LT	1	1	33
16+45	RT	1	1	33
17+27	RT	1	1	33
17+72	LT	1	1	32
17+81	RT	1	1	34
18+44	RT	1	1	35
18+75	LT	1	1	31
ITEM TOTALS		9	9	297

WATER SERVICES

STATION	LOCATION	1-INCH CURB STOP & BOX	1-INCH CORPORATION	CONNECT TO EXISTING WATER SERVICE	WATER SERVICE COPPER 1-INCH
		SPV.0060.08	SPV.0060.04	SPV.0060.09	SPV.0090.04
		EA	EA	EA	LF
13+90	LT	1	1	1	23
15+45	LT	1	1	1	23
15+99	LT	1	1	1	23
16+45	RT	1	1	1	43
17+72	LT	1	1	1	23
17+81	RT	1	1	1	43
18+44	RT	1	1	1	43
18+75	LT	1	1	1	23
ITEM TOTALS		8	8	8	244

ALL ITEMS AND QUANTITIES  
ON THIS SHEET ARE  
CATEGORY 0020

CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	
QUARTER LINE		UTILITY NUMBER	
SIXTEENTH LINE		SECTION CORNER	
NEW REFERENCE LINE		R/W MONUMENT	
NEW R/W LINE		NON-MONUMENTED R/W POINT	
EXISTING R/W LINE		FOUND IRON PIN	
PROPERTY LINE		VALVE (GAS, WATER, ETC.)	
LOT, TIE, AND OTHER MINOR LINES		SIGN	
SLOPE INTERCEPT		OFF-PREMISE SIGN	
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING		NO ACCESS (NEW HIGHWAY)	
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT	
BRIDGE		SIXTEENTH CORNER MONUMENT	
		PARALLEL OFFSETS	

CONVENTIONAL UTILITY SYMBOLS	
WATER	
GAS	
TELEPHONE	
OVERHEAD TRANSMISSION LINES	
ELECTRIC	
CABLE TELEVISION	
FIBER OPTIC	
SANITARY SEWER	
STORM SEWER	
ELECTRIC TOWER	

CURVE DATA ABBREVIATIONS		
LONG CHORD	LCH	
LONG CHORD BEARING	LCB	
RADIUS	R	
DEGREE OF CURVE	D	
CENTRAL ANGLE	Δ / DELTA	
LENGTH OF CURVE	L	
TANGENT	T	
DIRECTION AHEAD	DA	
DIRECTION BACK	DB	

POWER POLE		
NON-COMPENSABLE	COMPENSABLE	

CONVENTIONAL ABBREVIATIONS			
ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS (100')	
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY NUMBER	NGS	UNITED STATES HIGHWAY	USH
	NO	VOLUME	V

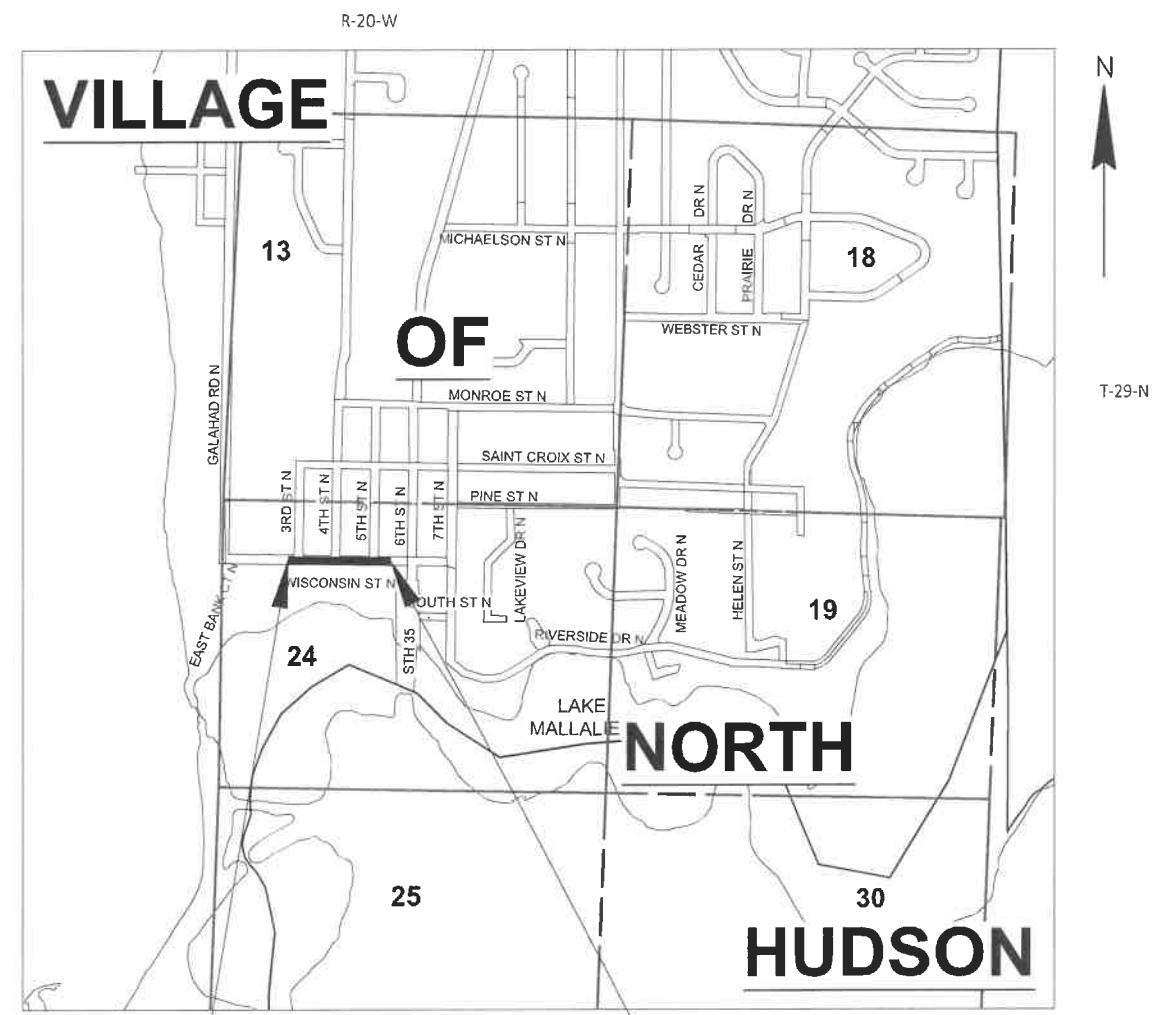
**NOTES:**  
 POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ST CROIX COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT TO INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, ALL (TLE'S) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

**CAUTION:**  
 THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

R/W PROJECT NUMBER 8999-00-64	SHEET NUMBER 4.01	TOTAL SHEETS 4
CONSTRUCTION PROJECT NUMBER 8999-00-65		
PLAT OF RIGHT OF WAY REQUIRED FOR <b>V NORTH HUDSON WISCONSIN ST NORTH 6TH STREET NORTH TO 3RD ST NORTH</b>		
LOCAL ROAD	ST CROIX COUNTY	



**BEGIN RELOCATION ORDER**  
 STA 12+00.00  
 538.01' EAST AND 406.57' SOUTH  
 OF THE NORTHWEST CORNER OF SEC 24,  
 T-29-N, R-20-W

**END RELOCATION ORDER**  
 STA 19+25.00  
 1,262.89' EAST AND 419.64' SOUTH  
 OF THE NORTHWEST CORNER OF SEC 24,  
 T-29-N, R-20-W

LAYOUT  
 SCALE 0 0.25 MI  
 TOTAL NET LENGTH OF CENTERLINE = 0.137 MI

**CORRE**  
  
 1802 WARDEN STREET  
 EAU CLAIRE, WI 54703  
 (608)828-1011  
 www.correinc.com



I, BRYON J. MOTSZKO, PROFESSIONAL LAND SURVEYOR, S-2846, HEREBY CERTIFY THAT I HAVE SURVEYED THE LAND DESCRIBED HEREON AND THAT THE MAP HEREON IS A CORRECT REPRESENTATION OF THAT SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE: 12/2/20

REVISION DATE	VILLAGE OF NORTH HUDSON
APPROVED FOR THE VILLAGE	
DATE: _____	(Signature)

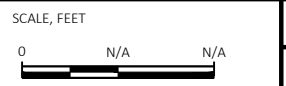
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE VILLAGE.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	RIGHT OF WAY REQUIRED SQUARE FEET (SF)			TLE REQUIRED SQUARE FEET (SF)	
				NEW (AC)	EXISTING (AC)	TOTAL (AC)	TOTAL (SF)	
1	4.03	WISCONSIN REAL ESTATE, LLC.	TLE	---	---	---	1,120	
2	4.03, 4.04	WILLOW RIVER APARTMENTS, LLC.	TLE	---	---	---	1,400	
3	4.03, 4.04	RANJIT BHAGYAM	TLE	---	---	---	805	
4	4.04	LINDA K. ANDERSON	TLE	---	---	---	250	
5	4.04	ZAPPA COMPANY, LLC.	TLE	---	---	---	250	
6	4.04	TODD M. PAULSON	TLE	---	---	---	200	
7	4.04	JAMES D. & DONNA STEWART	TLE	---	---	---	633	
8	4.04	ABBY J. & LUCUS B. WOLFE	TLE	---	---	---	375	
9	4.04	ARTHUR L. & ROSEMARY KUHZE	TLE	---	---	---	200	
80	4.03	VILLAGE OF NORTH HUDSON	RELEASE OF RIGHTS					
81	4.04	WISCONSIN TELEPHONE COMPANY	RELEASE OF RIGHTS					

REVISION DATE	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

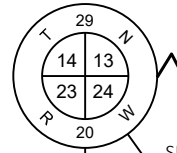
DATE: 12/2/20
GRID FACTOR N-A



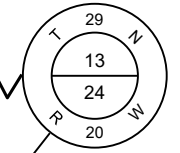
HWY: N WISCONSIN ST
COUNTY: ST. CROIX

R/W PROJECT NUMBER: 8999-00-64
CONSTRUCTION PROJECT NUMBER: 8999-00-65

PLAT SHEET 4.02
PS&E SHEET _____



SURVEY NAIL  
Y = 348640.160  
X = 509676.610



REBAR  
Y = 348594.740  
X = 512348.550

SEC LINE = S89° 01' 34"E, 2672.33'

**VILLAGE**

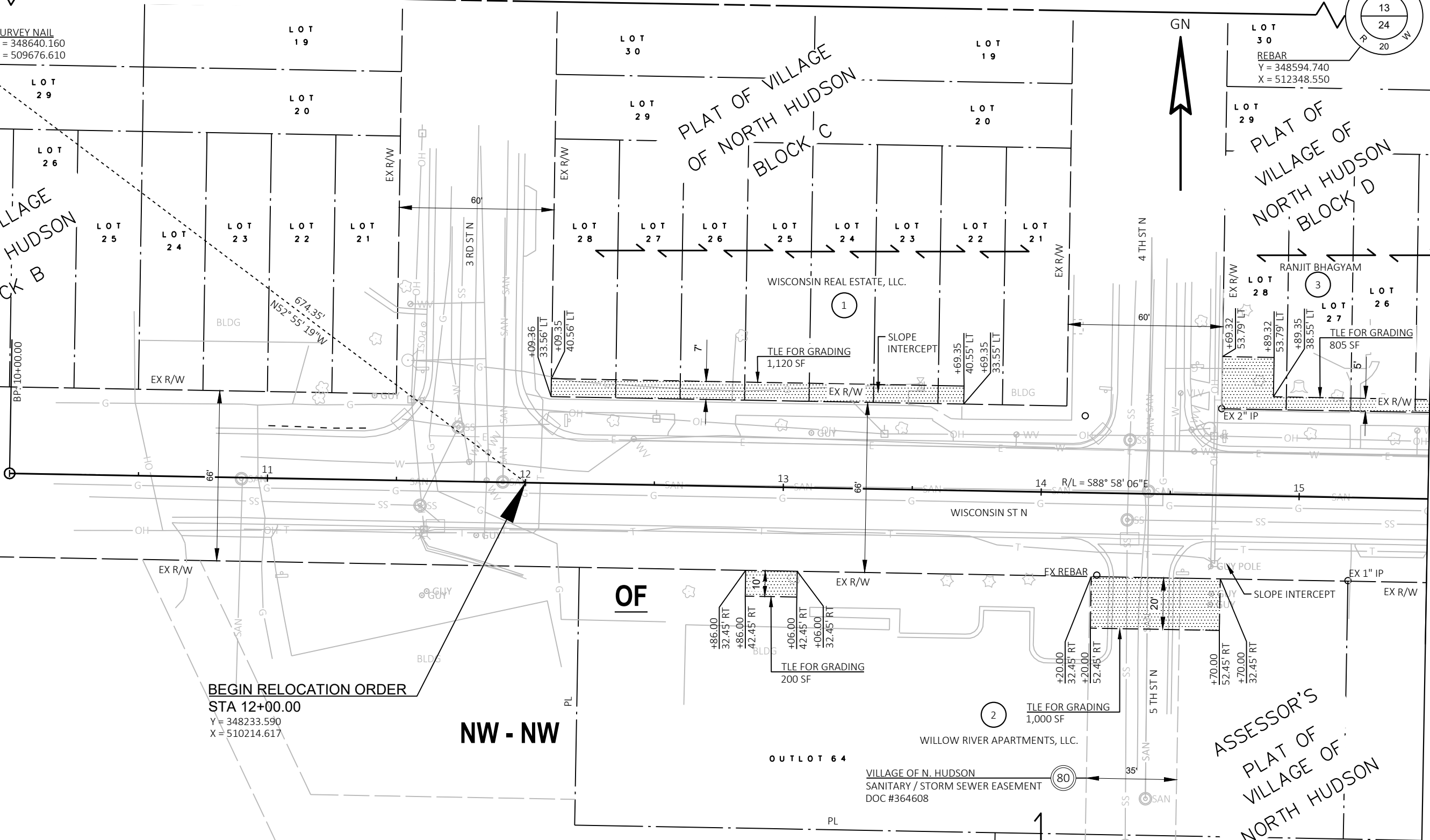
PLAT OF VILLAGE  
OF NORTH HUDSON  
BLOCK B

PLAT OF VILLAGE  
OF NORTH HUDSON  
BLOCK C

PLAT OF  
VILLAGE OF  
NORTH HUDSON  
BLOCK D

4

4



BEGIN RELOCATION ORDER  
STA 12+00.00  
Y = 348233.590  
X = 510214.617

**NW - NW**

OUTLOT 64

VILLAGE OF N. HUDSON  
SANITARY / STORM SEWER EASEMENT  
DOC #364608

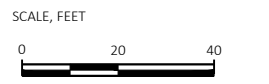
ASSESSOR'S  
PLAT OF  
VILLAGE OF  
NORTH HUDSON

NOTE:  
EXISTING WISCONSIN STREET RIGHT-OF-WAY ESTABLISHED  
FROM PLAT OF VILLAGE OF NORTH HUDSON AND  
ASSESSOR'S PLAT OF VILLAGE OF NORTH HUDSON

MATCHLINE STA 15+50  
SHEET 4.04

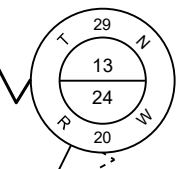
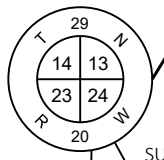
**NORTH HUDSON**

REVISION DATE	DATE: 12/2/20
	GRID FACTOR N-A



HWY: N WISCONSIN ST	R/W PROJECT NUMBER: 8999-00-64
COUNTY: ST. CROIX	CONSTRUCTION PROJECT NUMBER: 8999-00-65

PLAT SHEET 4.03	E
PS&E SHEET	



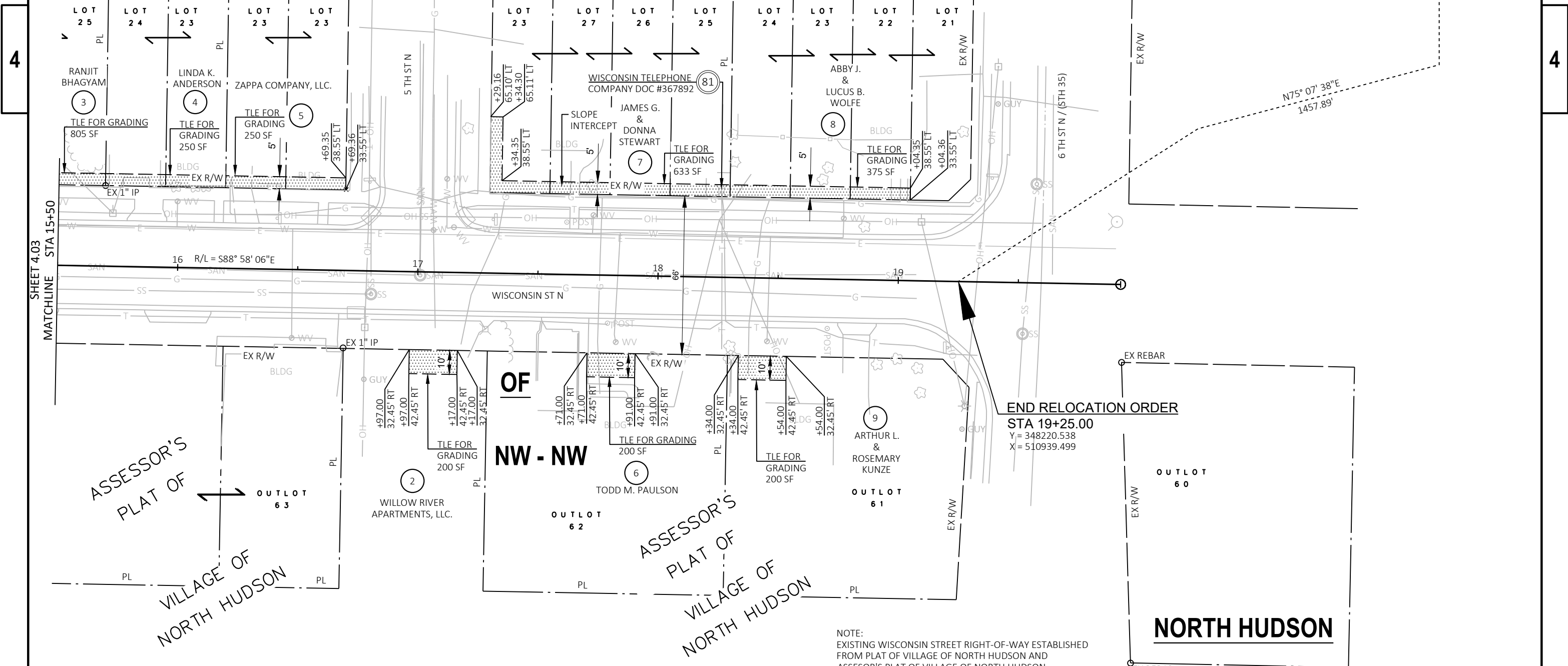
SEC LINE = S89° 01' 34"E, 2672.33'

PLAT OF VILLAGE OF NORTH HUDSON BLOCK D

VILLAGE

PLAT OF VILLAGE OF NORTH HUDSON BLOCK E

REBAR  
Y = 348594.740  
X = 512348.550

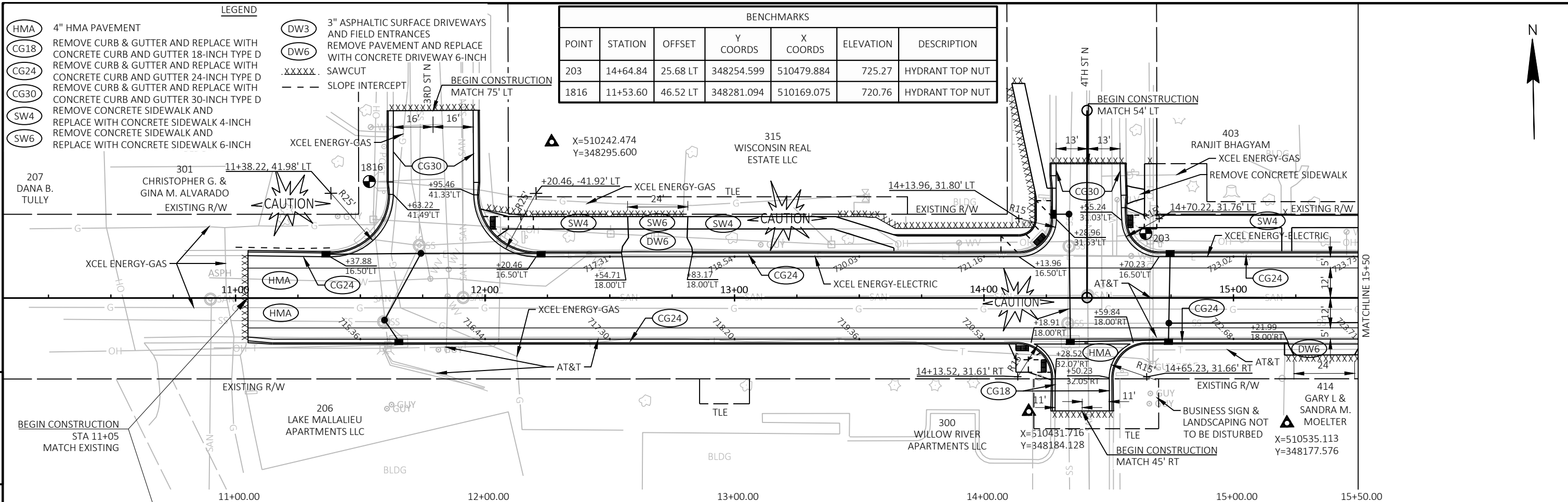


SHEET 4.03  
MATCHLINE STA 15+50

**END RELOCATION ORDER**  
STA 19+25.00  
Y = 348220.538  
X = 510939.499

NOTE:  
EXISTING WISCONSIN STREET RIGHT-OF-WAY ESTABLISHED FROM PLAT OF VILLAGE OF NORTH HUDSON AND ASSASSOR'S PLAT OF VILLAGE OF NORTH HUDSON

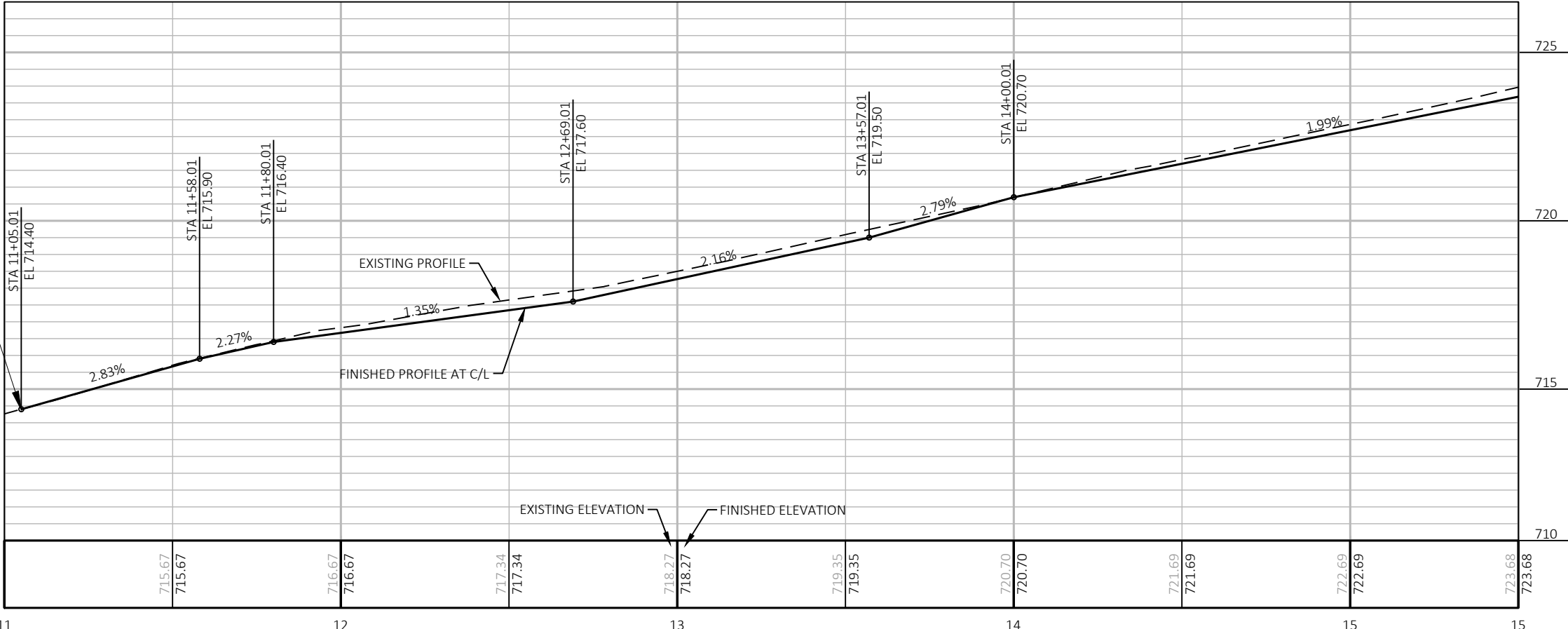
REVISION DATE	DATE: 12/2/20	SCALE, FEET	HWY: N WISCONSIN ST	R/W PROJECT NUMBER: 8999-00-64	PLAT SHEET 4.04
	GRID FACTOR N-A		COUNTY: ST. CROIX	CONSTRUCTION PROJECT NUMBER: 8999-00-65	PS&E SHEET



BENCHMARKS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
203	14+64.84	25.68 LT	348254.599	510479.884	725.27	HYDRANT TOP NUT
1816	11+53.60	46.52 LT	348281.094	510169.075	720.76	HYDRANT TOP NUT

**LEGEND**

- (HMA) 4" HMA PAVEMENT
- (CG18) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 18-INCH TYPE D
- (CG24) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 24-INCH TYPE D
- (CG30) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (SW4) REMOVE CONCRETE SIDEWALK AND REPLACE WITH CONCRETE SIDEWALK 4-INCH
- (SW6) REMOVE CONCRETE SIDEWALK AND REPLACE WITH CONCRETE SIDEWALK 6-INCH
- (DW3) 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (DW6) REMOVE PAVEMENT AND REPLACE WITH CONCRETE DRIVEWAY 6-INCH SAWCUT
- XXXXXX SAWCUT
- SLOPE INTERCEPT





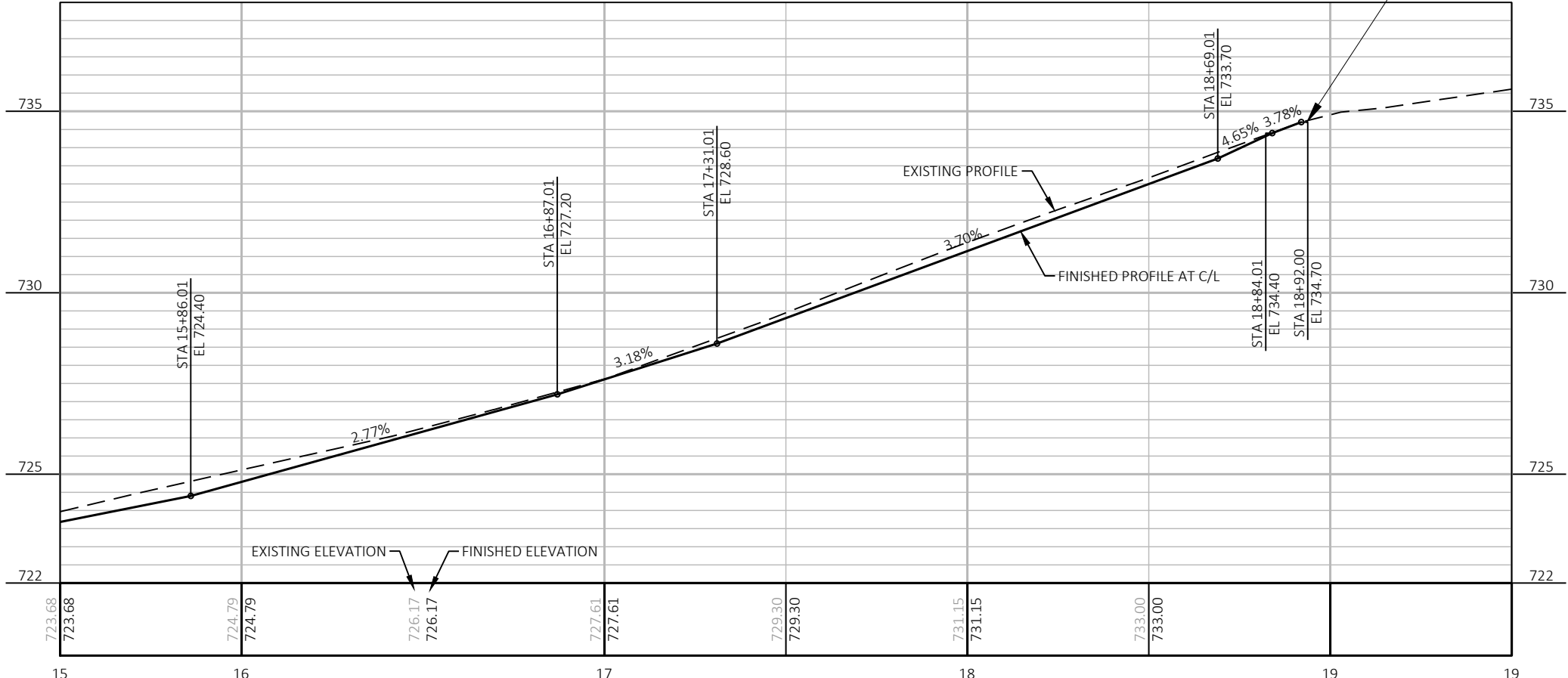
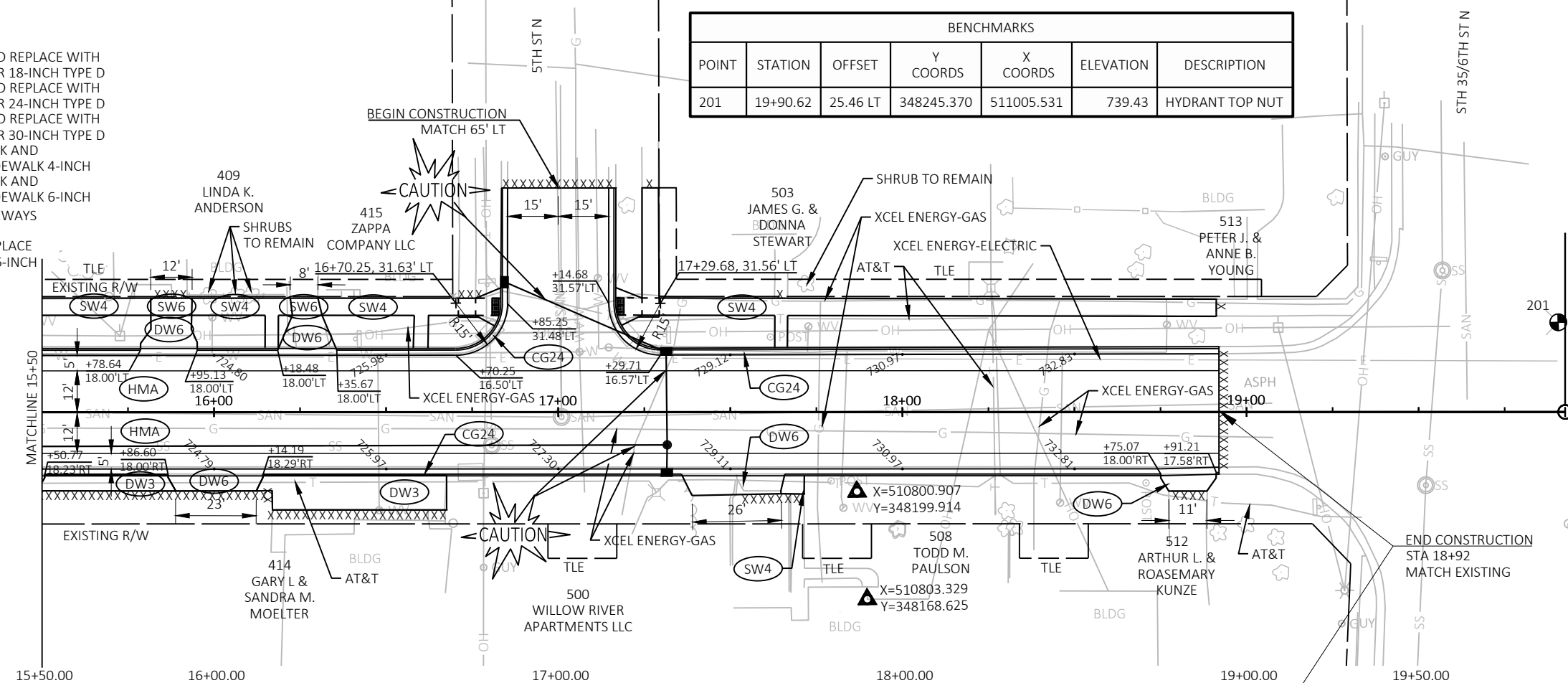
LEGEND

- (HMA) 4" HMA PAVEMENT
- (CG18) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 18-INCH TYPE D
- (CG24) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 24-INCH TYPE D
- (CG30) REMOVE CURB & GUTTER AND REPLACE WITH CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (SW4) REMOVE CONCRETE SIDEWALK AND REPLACE WITH CONCRETE SIDEWALK 4-INCH
- (SW6) REMOVE CONCRETE SIDEWALK AND REPLACE WITH CONCRETE SIDEWALK 6-INCH
- (DW3) 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (DW6) REMOVE PAVEMENT AND REPLACE WITH CONCRETE DRIVEWAY 6-INCH
- XXXXX SAWCUT
- SLOPE INTERCEPT

BENCHMARKS						
POINT	STATION	OFFSET	Y COORDS	X COORDS	ELEVATION	DESCRIPTION
201	19+90.62	25.46 LT	348245.370	511005.531	739.43	HYDRANT TOP NUT

5

5



PROJECT NO: 8999-00-65

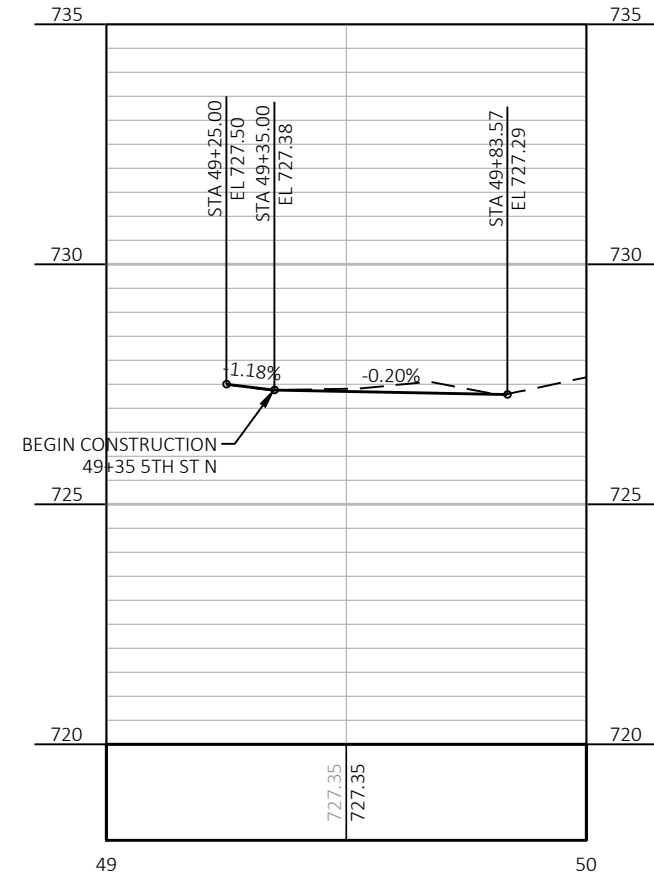
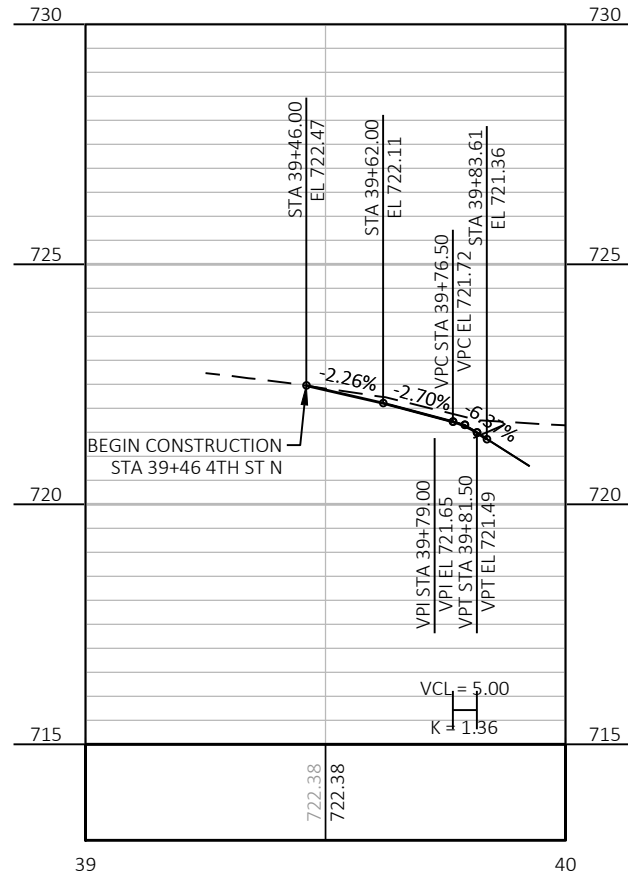
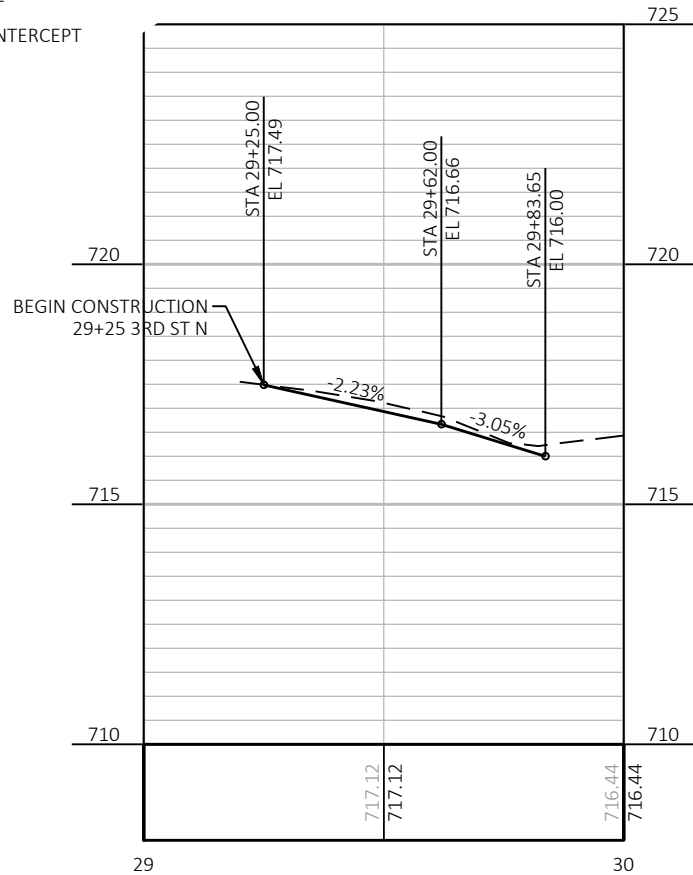
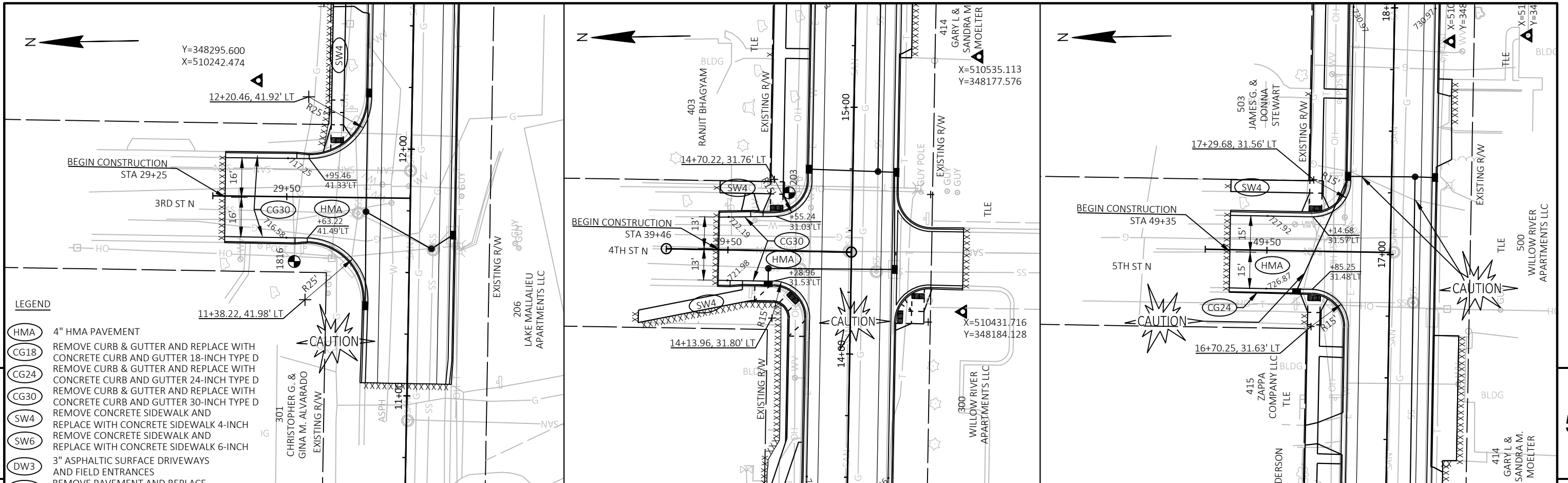
HWY: N WISCONSIN ST

COUNTY: ST. CROIX

PLAN AND PROFILE

SHEET

E



PROJECT NO: 8999-00-65

HWY: N WISCONSIN ST

COUNTY: ST. CROIX

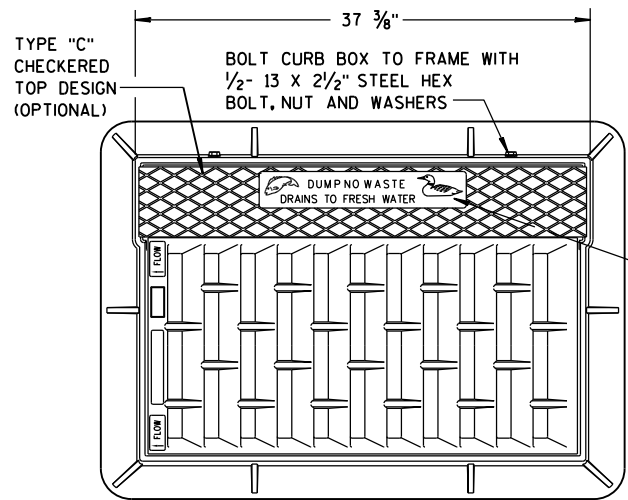
PLAN AND PROFILE - SIDE ROADS

SHEET

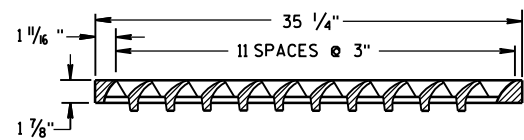
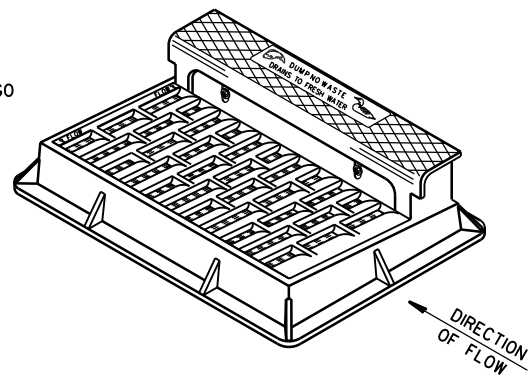
5

## Standard Detail Drawing List

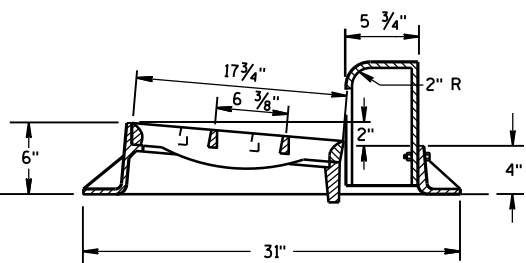
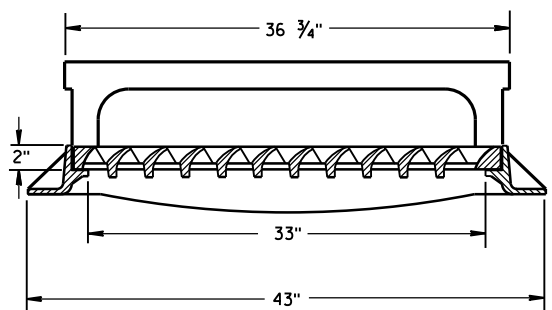
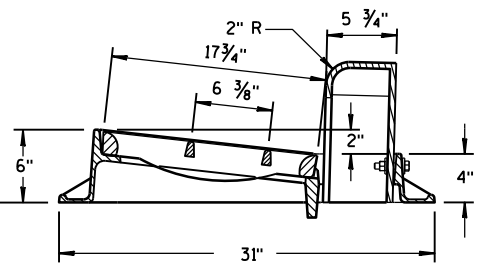
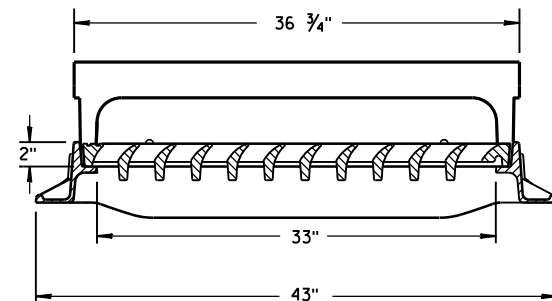
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



**NOTE:  
GRATE IS REVERSIBLE.**

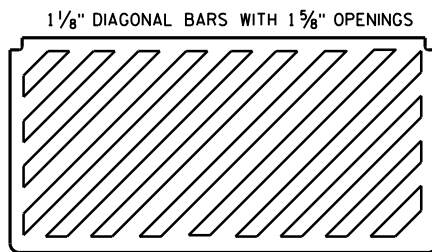


**NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"**

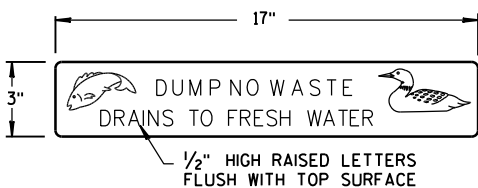


**TYPE "H"**

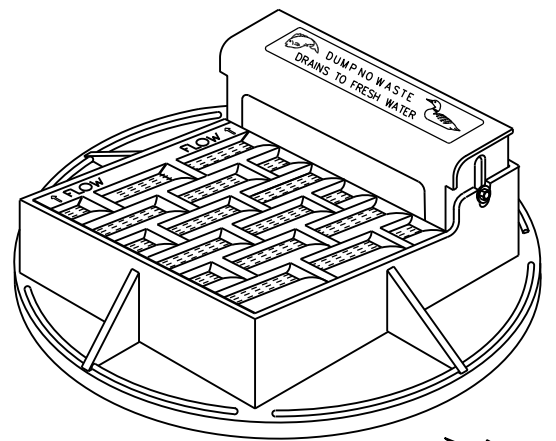
**NOTE: EITHER CASTING IS ACCEPTABLE**



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

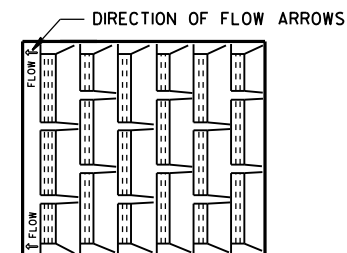


**LOGO DETAIL**

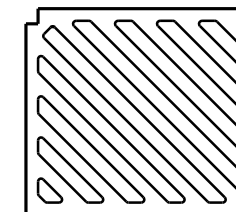


**NOTE: CURB BOX ADJUSTABLE 4" TO 9"**

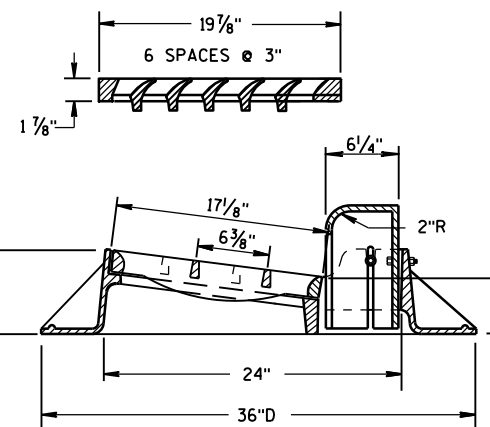
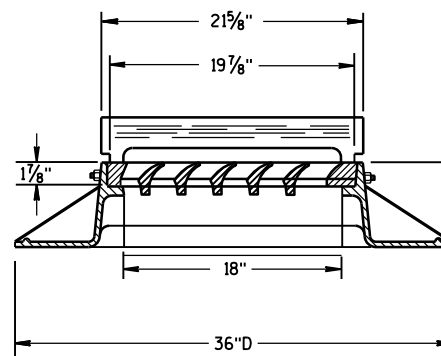
**NOTE:  
GRATE IS REVERSIBLE.**



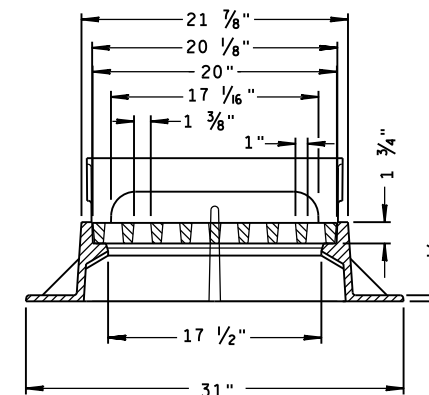
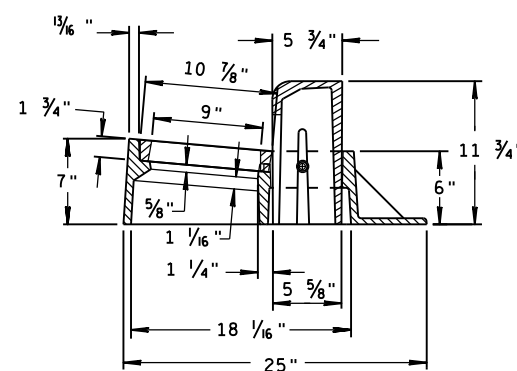
**1" DIAGONAL BARS  
WITH 1 1/2" OPENINGS**



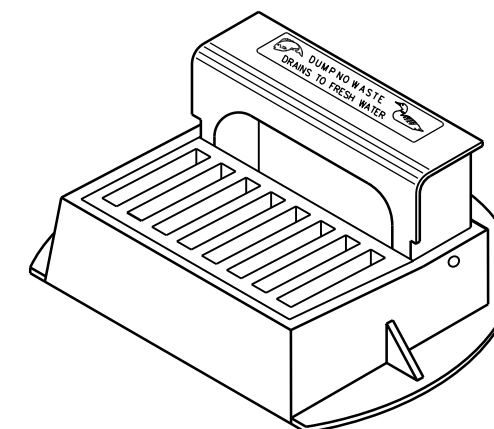
**SPECIAL GRATE FOR  
TYPE "A" COVER**  
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



**TYPE "A"**



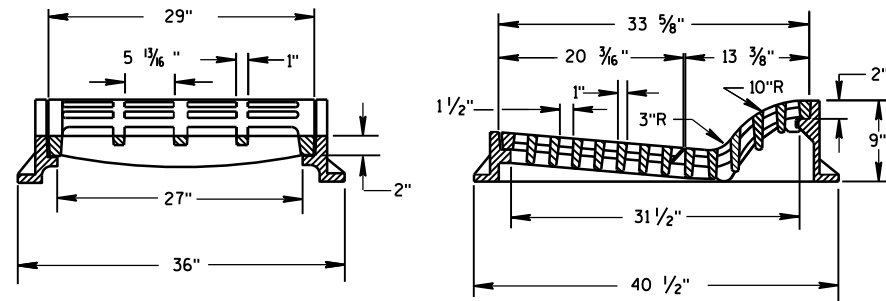
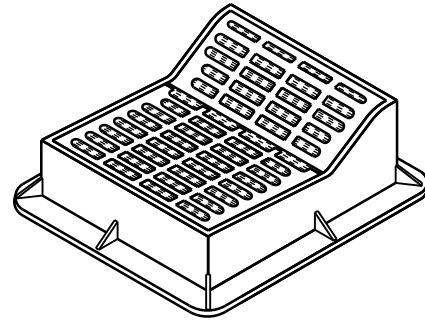
**TYPE "Z"**



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

**STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION**

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



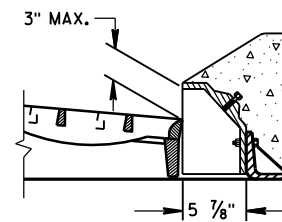
**TYPE "F"**

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

**GENERAL NOTES**

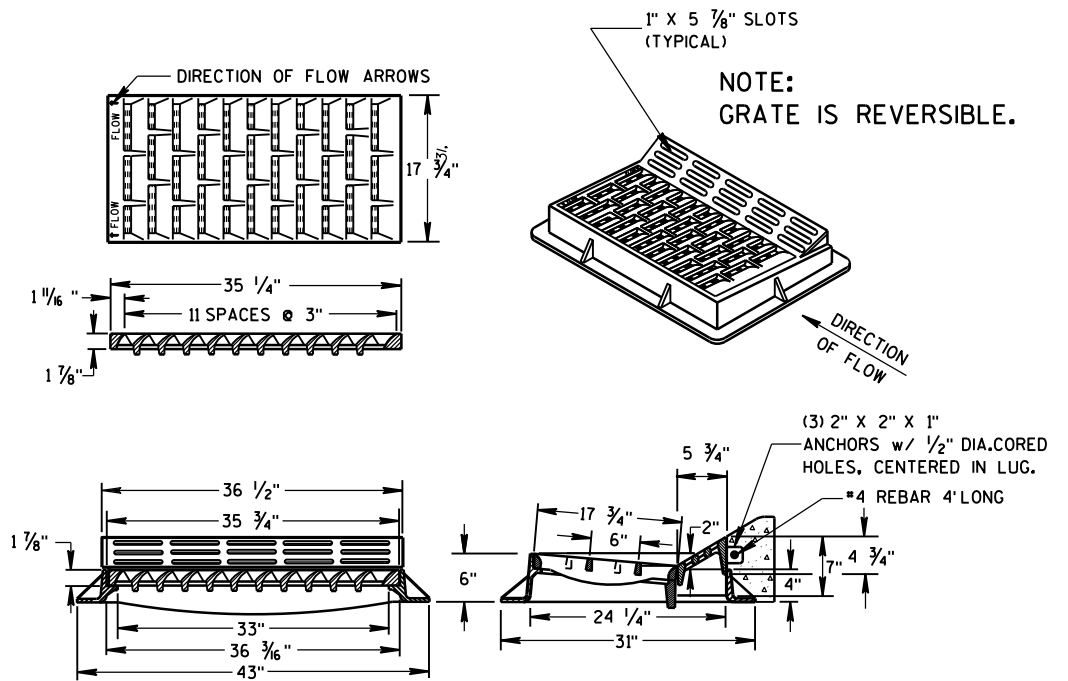
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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



**ALTERNATIVE CURB BOX FOR TYPE "HM" COVER**

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH NOTED AS TYPE HM-GJ ON DRAINAGE TABLE



**TYPE "HM"**

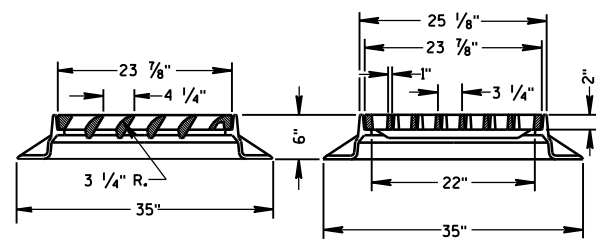
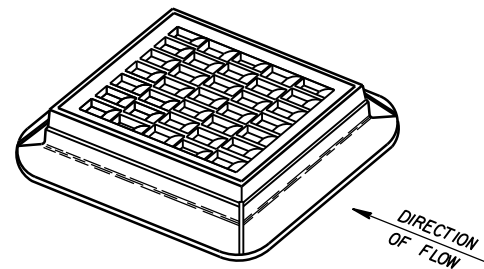
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM" COVER NOTED AS TYPE HM-S ON DRAINAGE TABLE

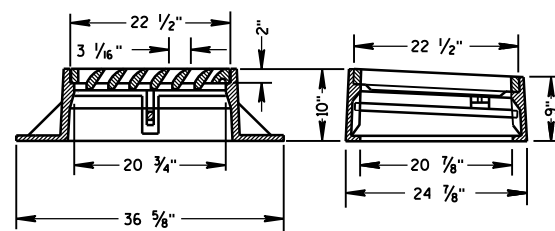
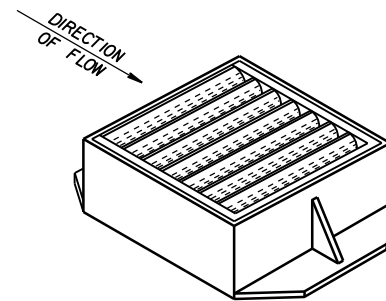
NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

6

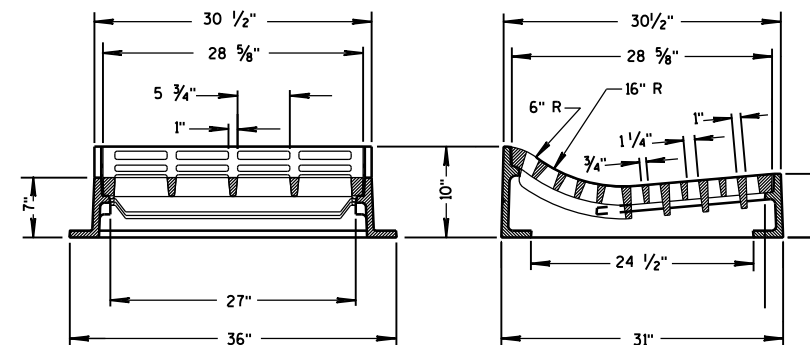
6



**TYPE "S"**

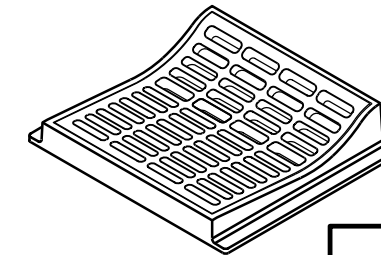


**TYPE "V"**



**TYPE "T"**

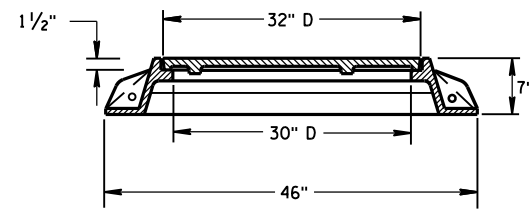
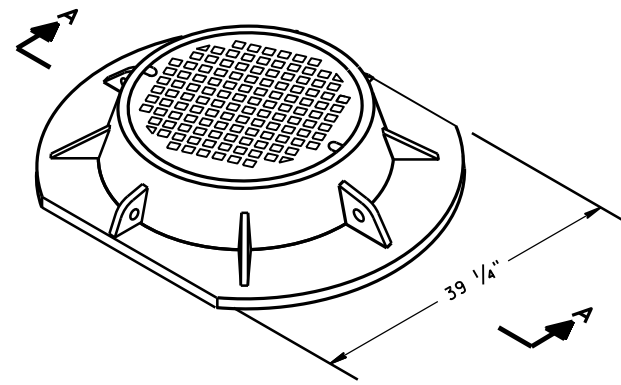
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



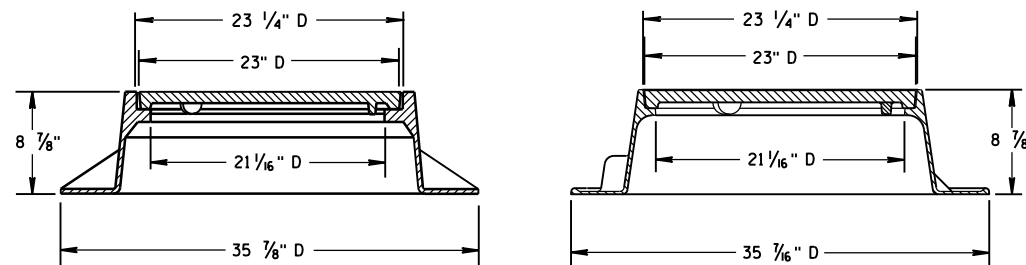
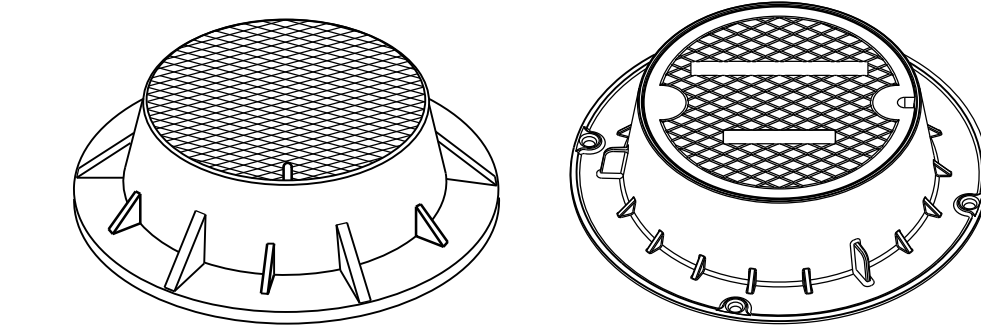
**INLET COVERS**  
TYPE F, HM, HM-S, S, T, V,  
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/27/2013 DATE /s/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER  
FHWA



SECTION A-A  
TYPE "K"



TYPE "J"

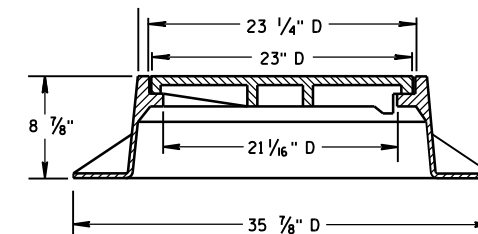
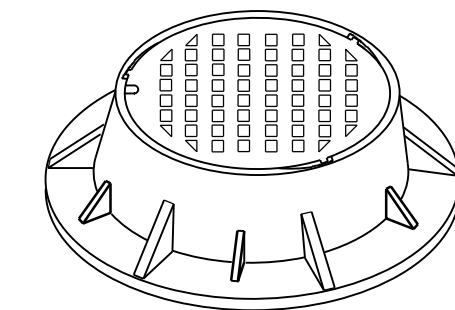
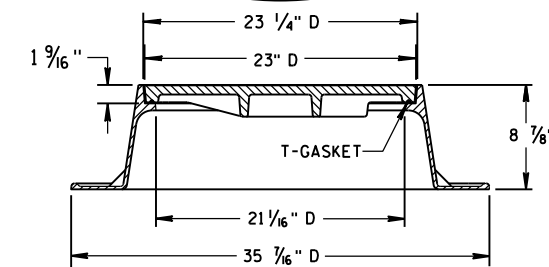
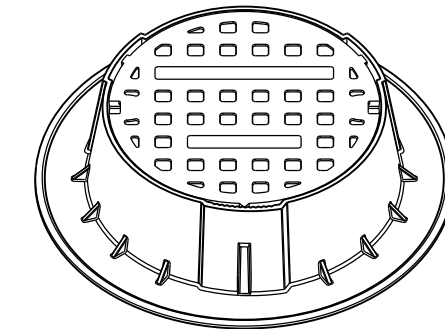
NOTE: EITHER CASTING IS ACCEPTABLE

**GENERAL NOTES**

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

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

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



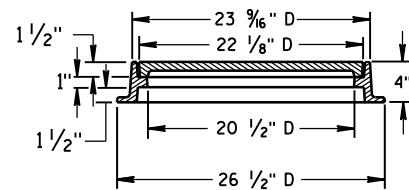
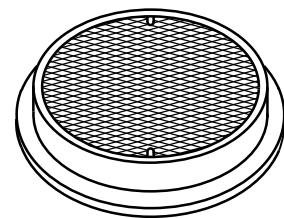
TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

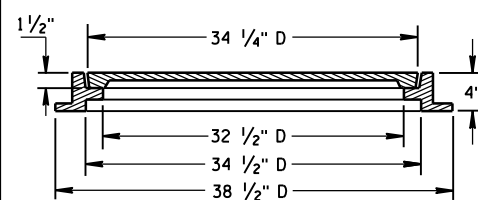
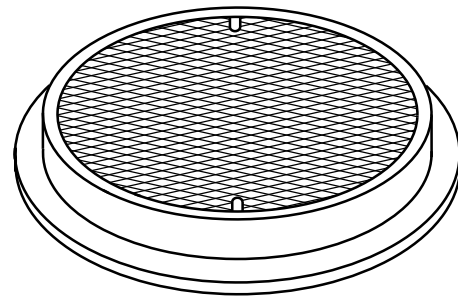
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

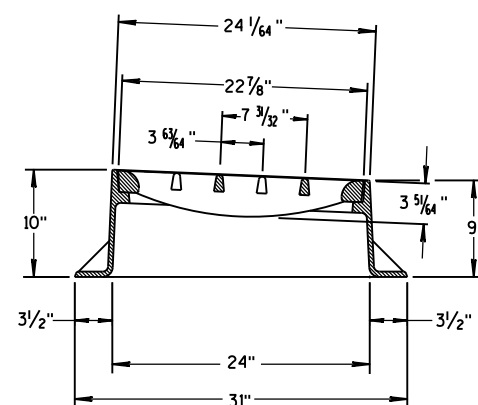
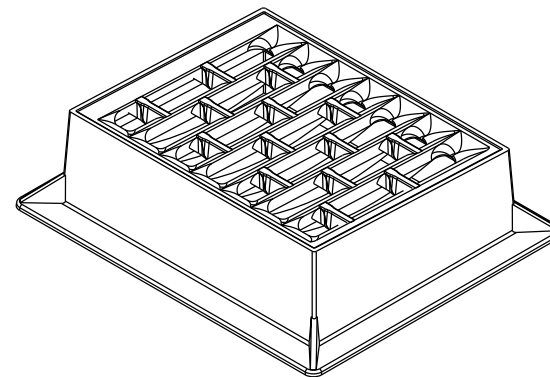
6



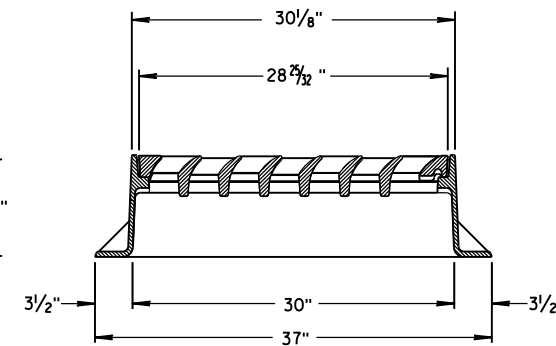
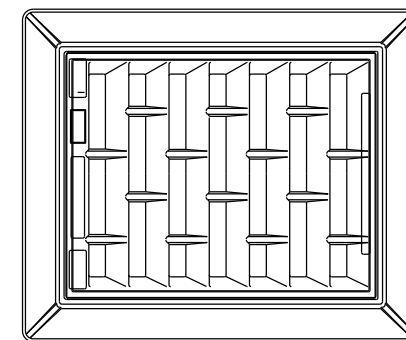
TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"



6

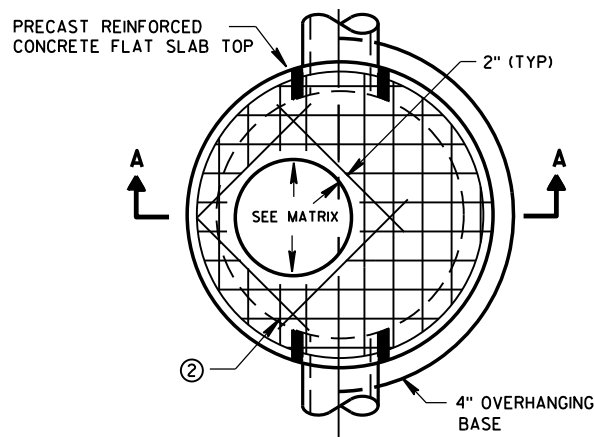
S.D.D. 8 A 5-19d

S.D.D. 8 A 5-19d

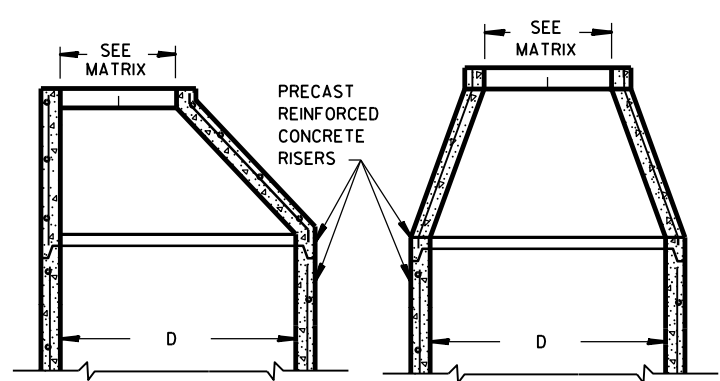
INLET COVER TYPE BW  
MANHOLE COVERS, TYPE K,  
J, J-S, L & M

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/27/2013 DATE /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA

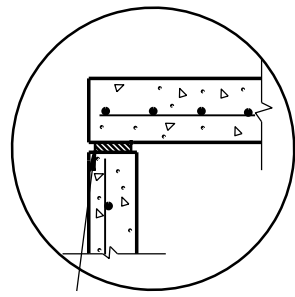


PLAN VIEW CIRCULAR OPENING

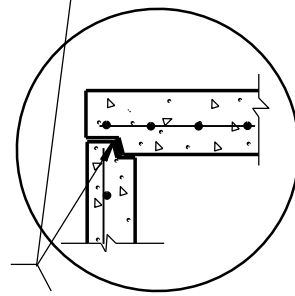


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

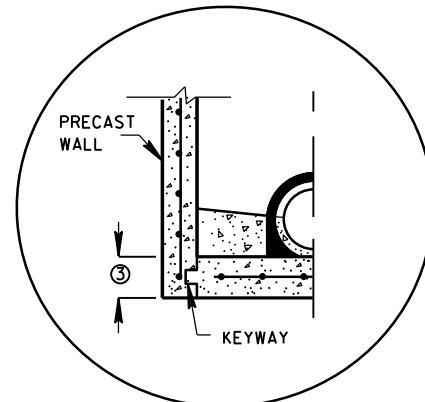
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

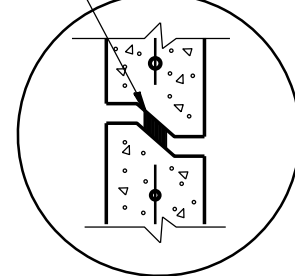


TOP WITH TONGUE AND GROOVE JOINT



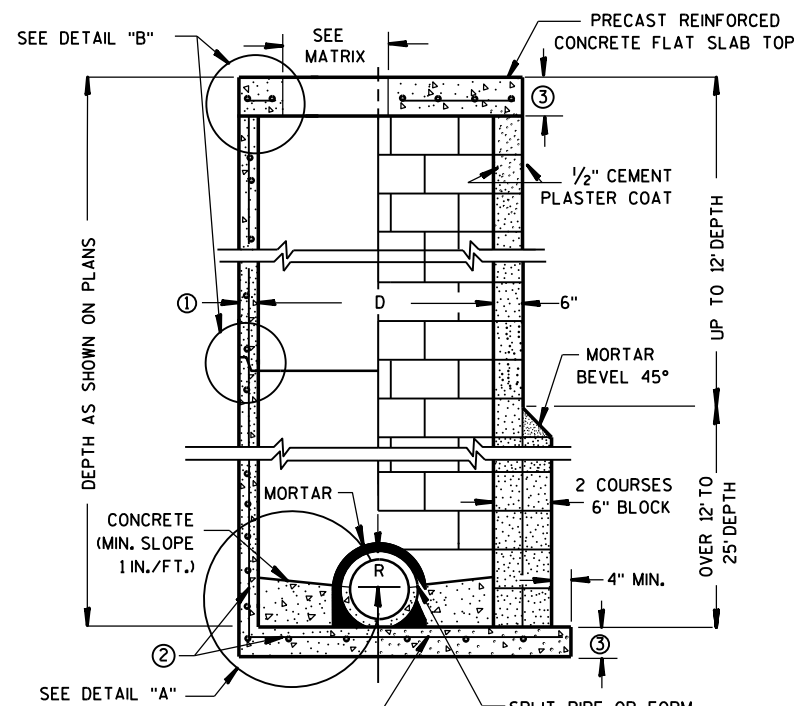
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

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

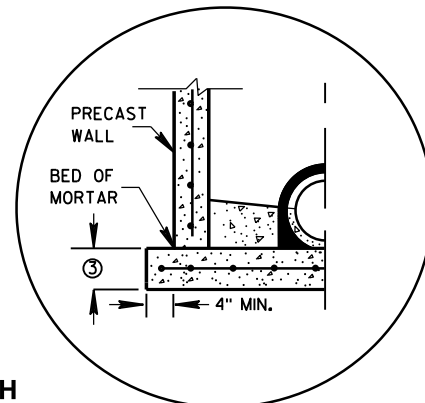


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

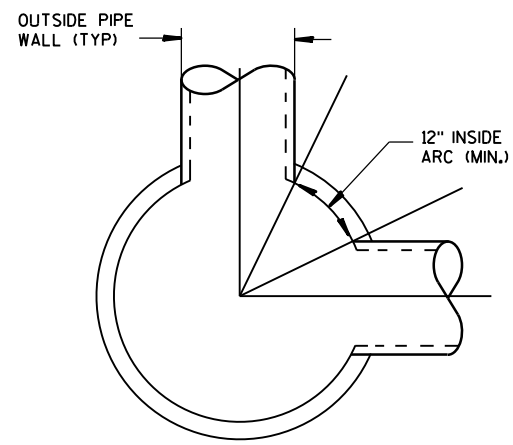


PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

**GENERAL NOTES**

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

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

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

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED. CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

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

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

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

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

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

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

**MANHOLE COVER OPENING MATRIX**

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

**PIPE MATRIX**

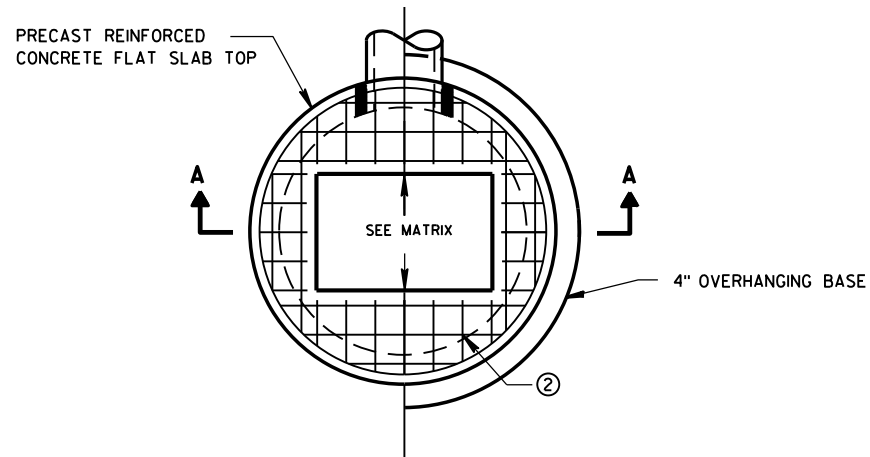
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

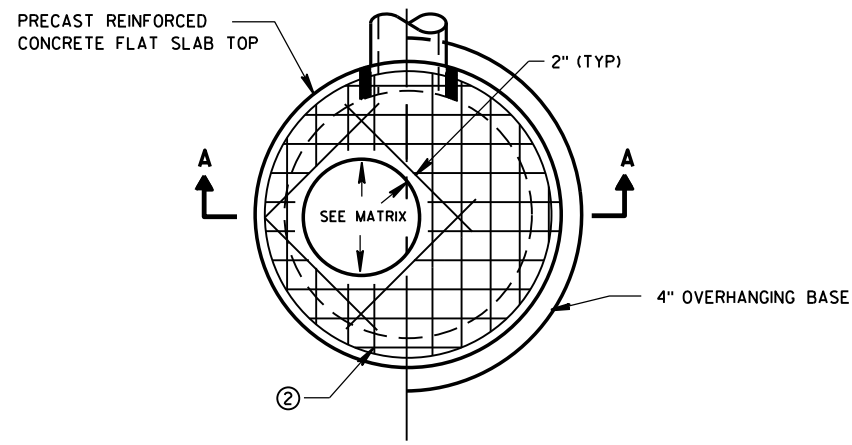
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE: Sept., 2016 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR  
FHWA

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



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

**GENERAL NOTES**

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

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

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

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

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

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

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

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

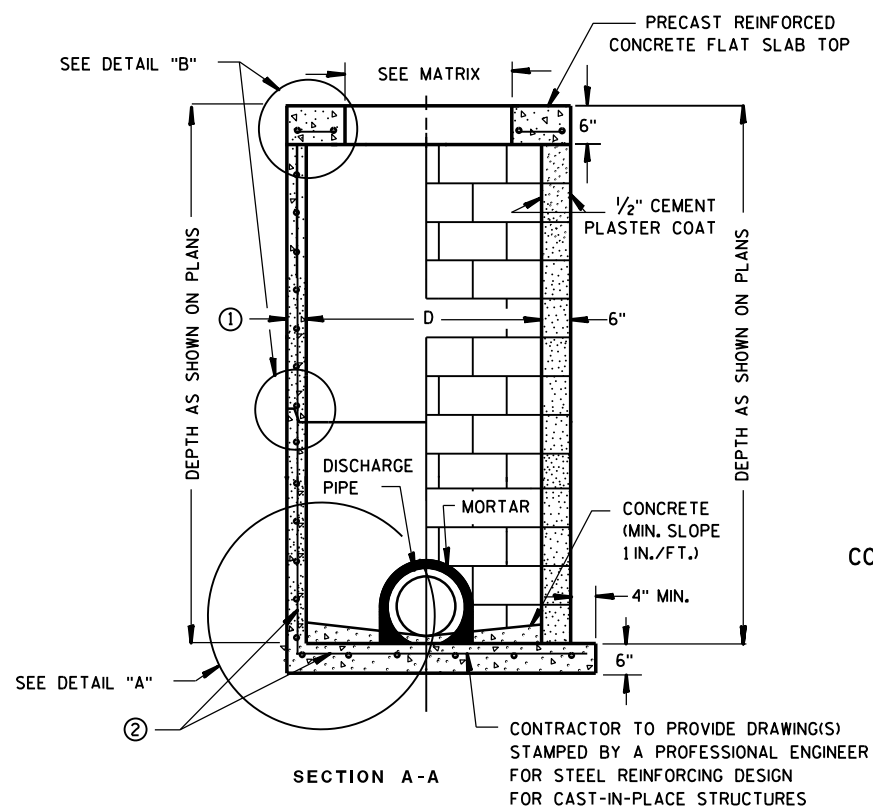
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

**INLET COVER OPENING MATRIX**

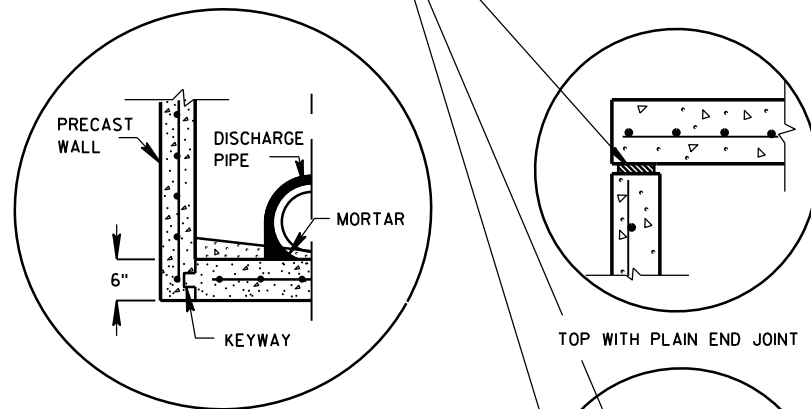
	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X	X	
	2X2.5			X								
	2X3						X					
	2.5X3					X						



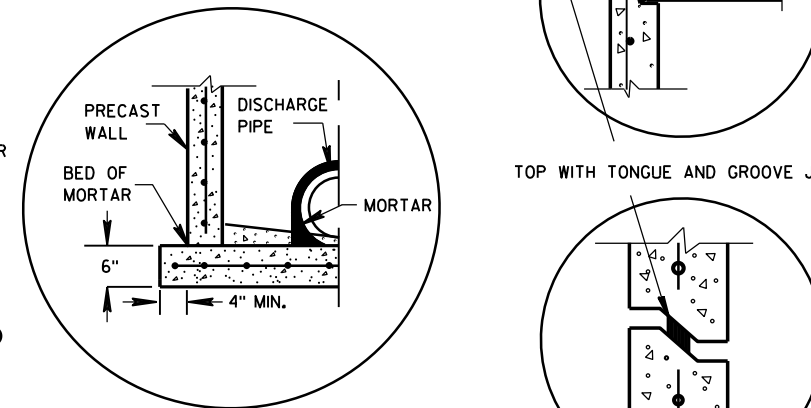
**PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE**      **CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②**

CIRCULAR INLETS W/ FLAT TOP

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

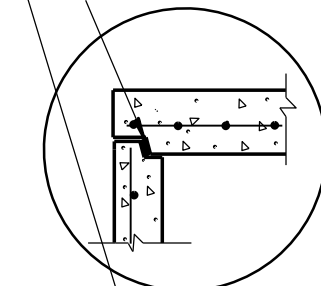


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

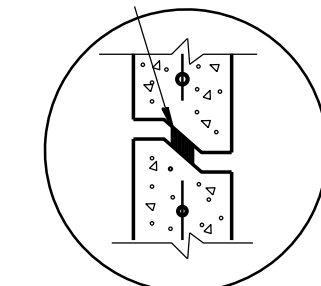


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



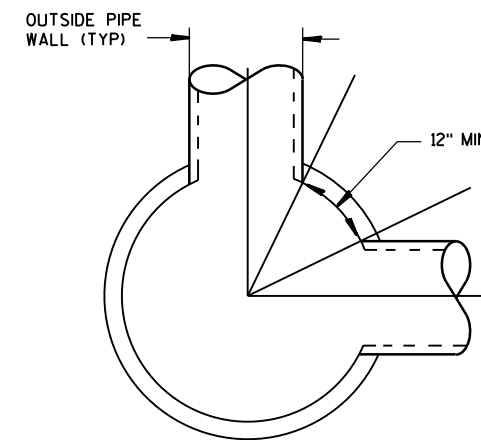
TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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



DETAIL "C"

**PIPE MATRIX**

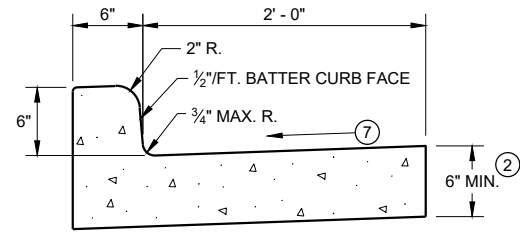
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

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

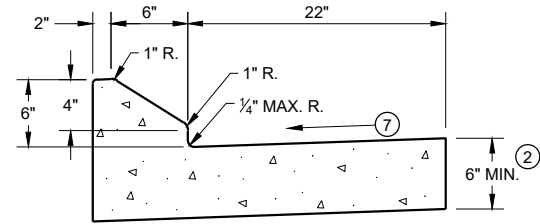
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept., 2016 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR

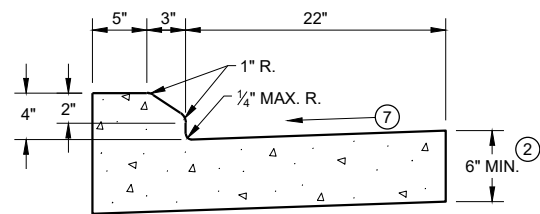




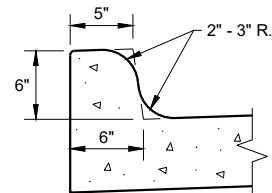
TYPES A<sup>①</sup> & D



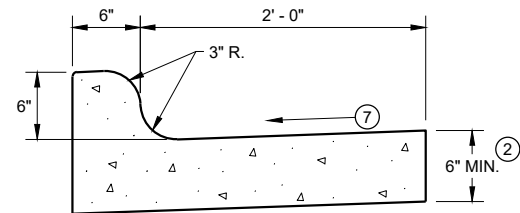
6" SLOPED CURB TYPES G<sup>①</sup> & J



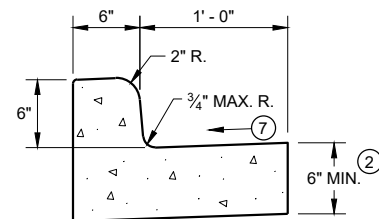
4" SLOPED CURB TYPES G<sup>①</sup> & J



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

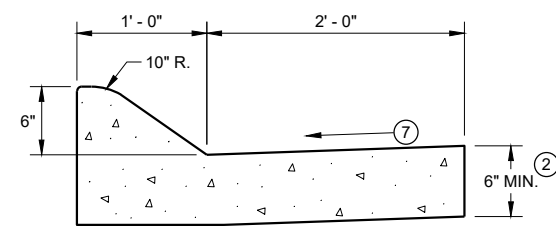


TYPES K<sup>①</sup> & L  
CONCRETE CURB AND GUTTER 30"

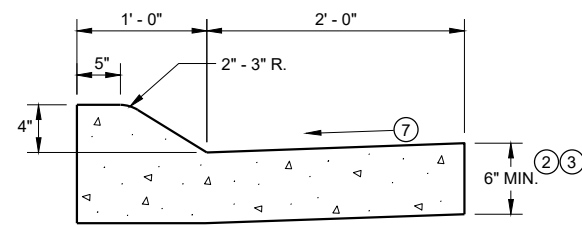


TYPES A<sup>①</sup> & D

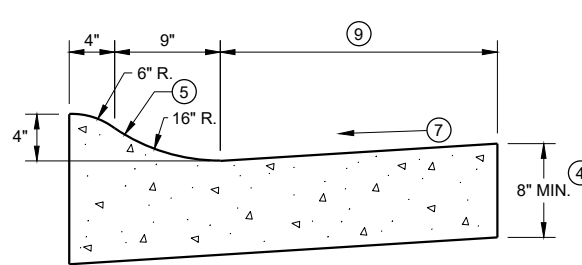
CONCRETE CURB AND GUTTER 18"



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

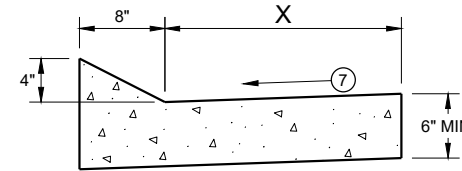


4" SLOPED CURB TYPES A<sup>①</sup> & D  
CONCRETE CURB AND GUTTER 36"



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

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

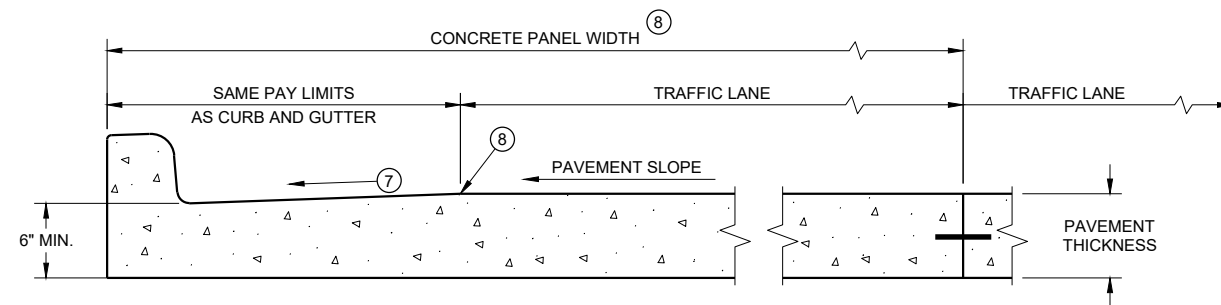


TYPES TBT & TBTT<sup>①</sup>

CONCRETE CURB AND GUTTER

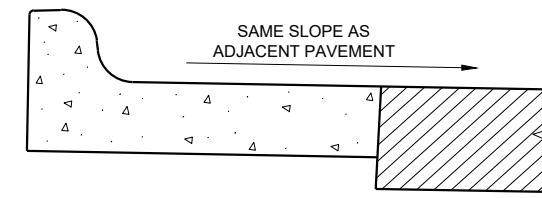
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

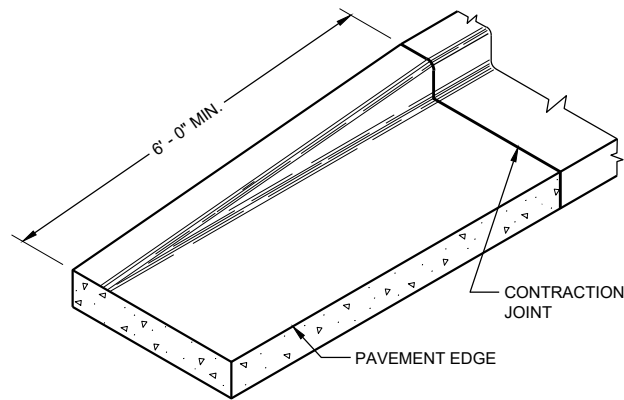
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

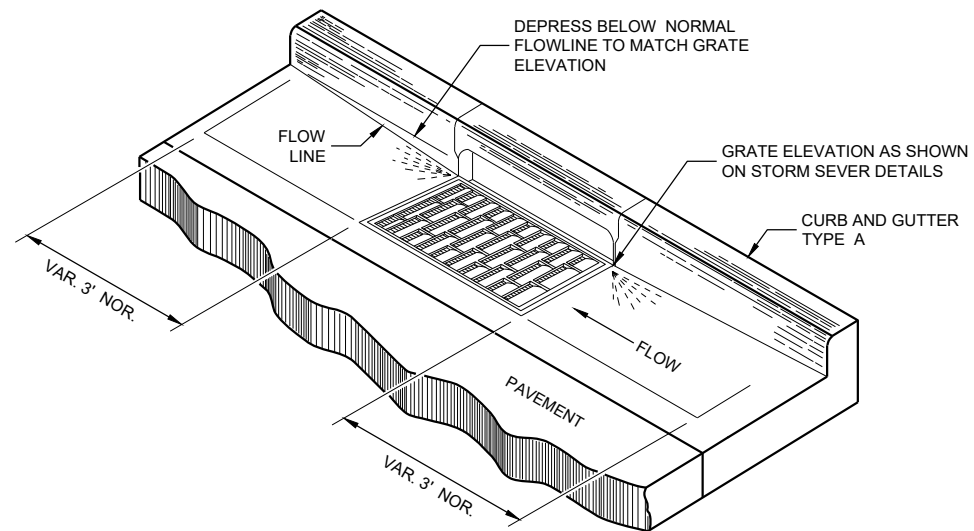
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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



**END SECTION CURB AND GUTTER**



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

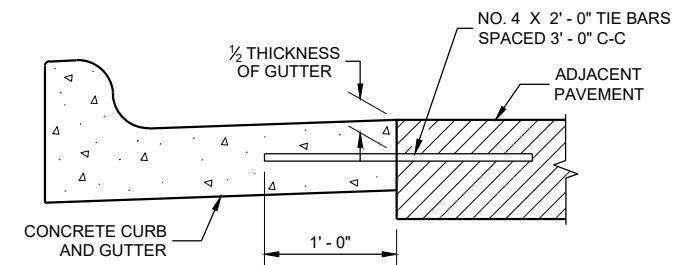
**GENERAL NOTES**

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

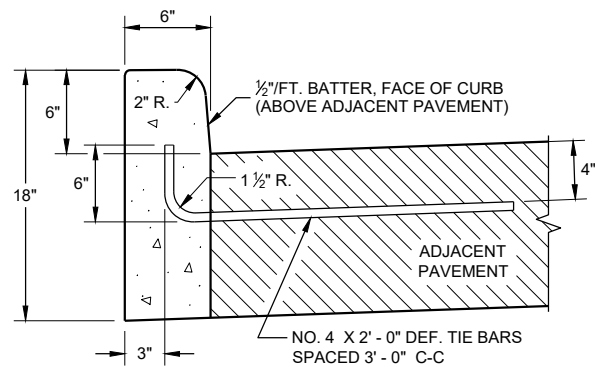
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

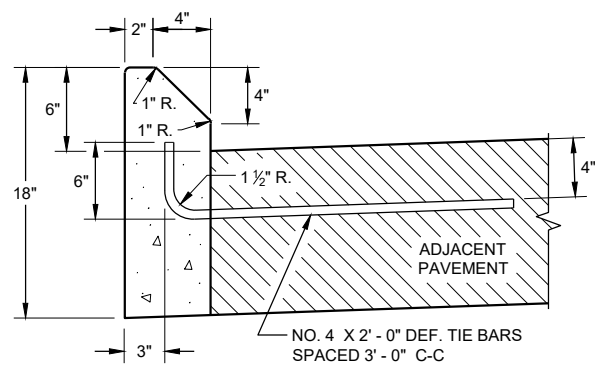
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



**TYPICAL TIE BAR LOCATION** ①

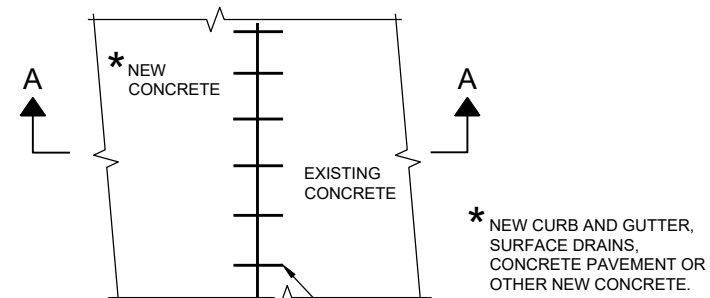


**TYPES A ① & D**

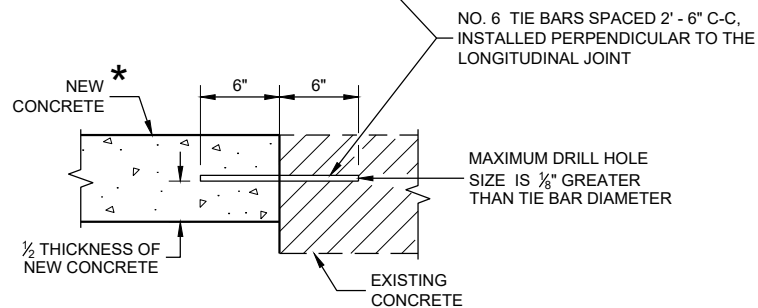


**TYPES G ① & J**

**CONCRETE CURB**

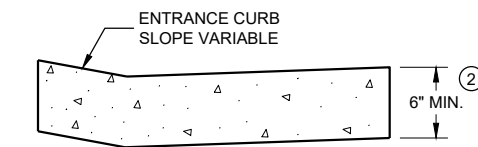


**PLAN VIEW**



**SECTION A - A**

**TIE BARS DRILLED INTO EXISTING PAVEMENT**



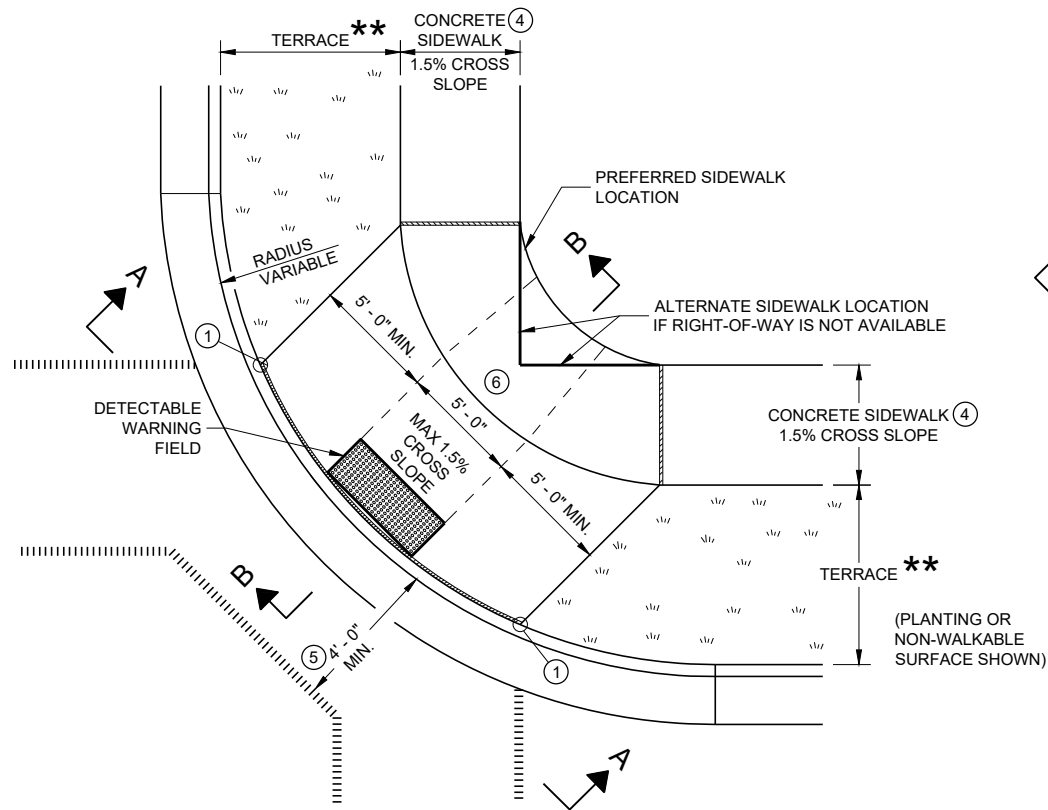
**DRIVEWAY ENTRANCE CURB** ⑨  
(WHEN DIRECTED BY THE ENGINEER)

**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

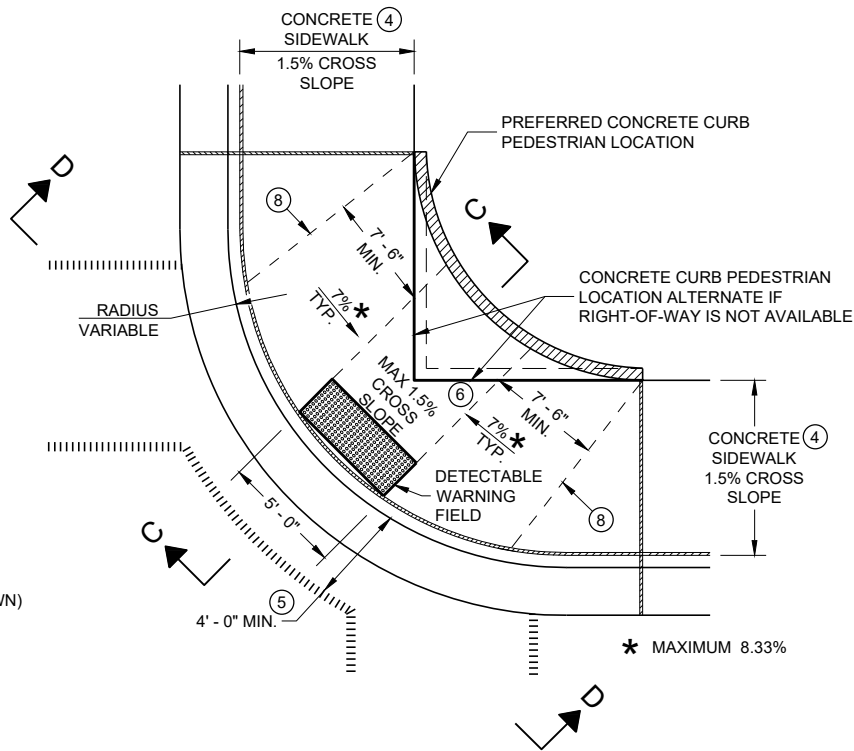
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

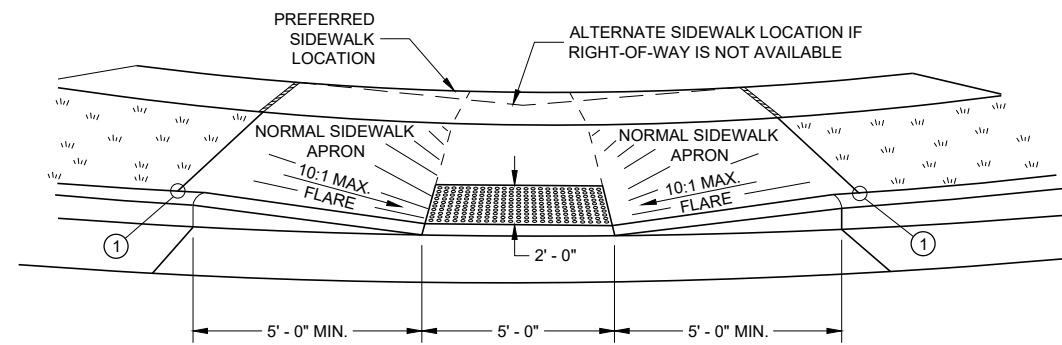
FHWA



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

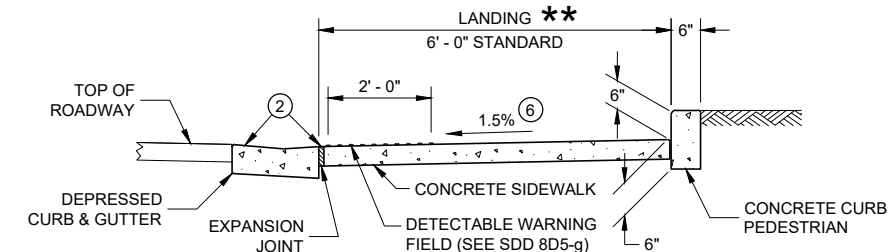


**PLAN VIEW  
CURB RAMP TYPE 1 - A  
(NO TERRACE)**



**VIEW A - A FOR TYPE 1**

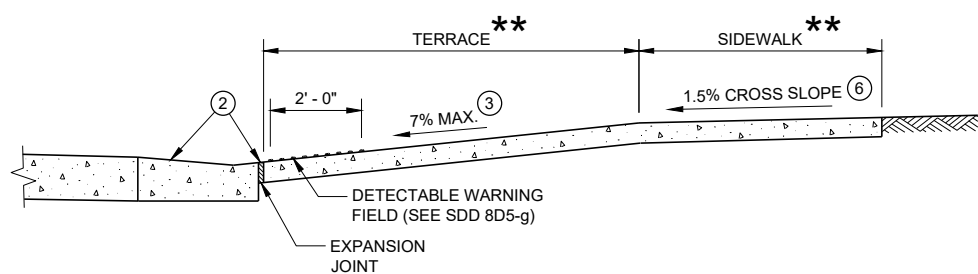
\*\* WIDTH SHOWN ELSEWHERE  
IN THE PLANS



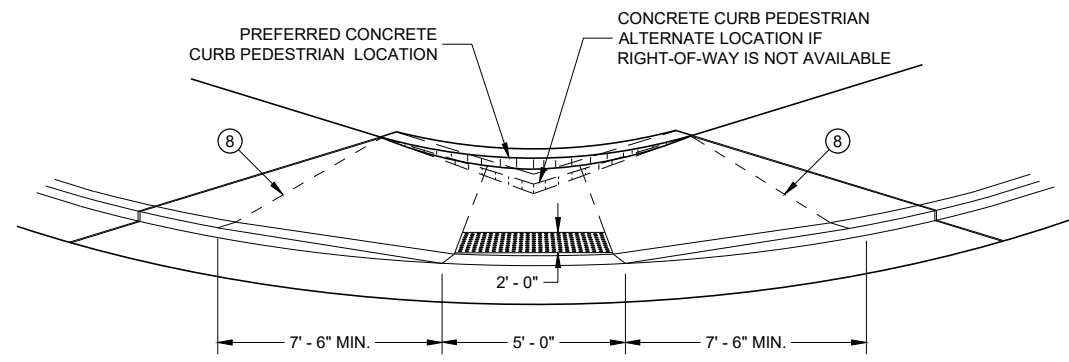
**SECTION C - C FOR TYPE 1 - A**

**LEGEND**

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



**SECTION B - B FOR TYPE 1**



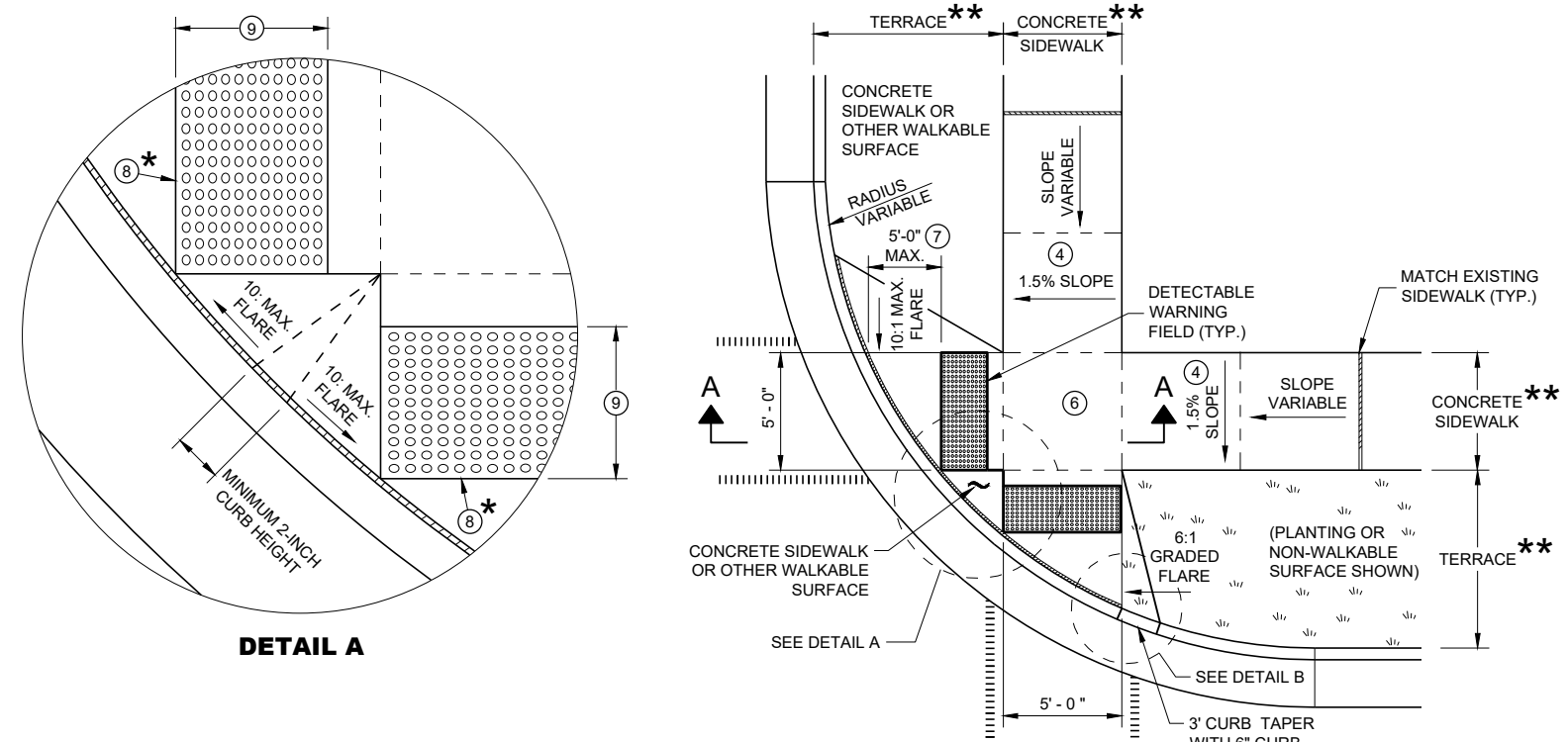
**VIEW D - D FOR TYPE 1 - A**

**GENERAL NOTES**

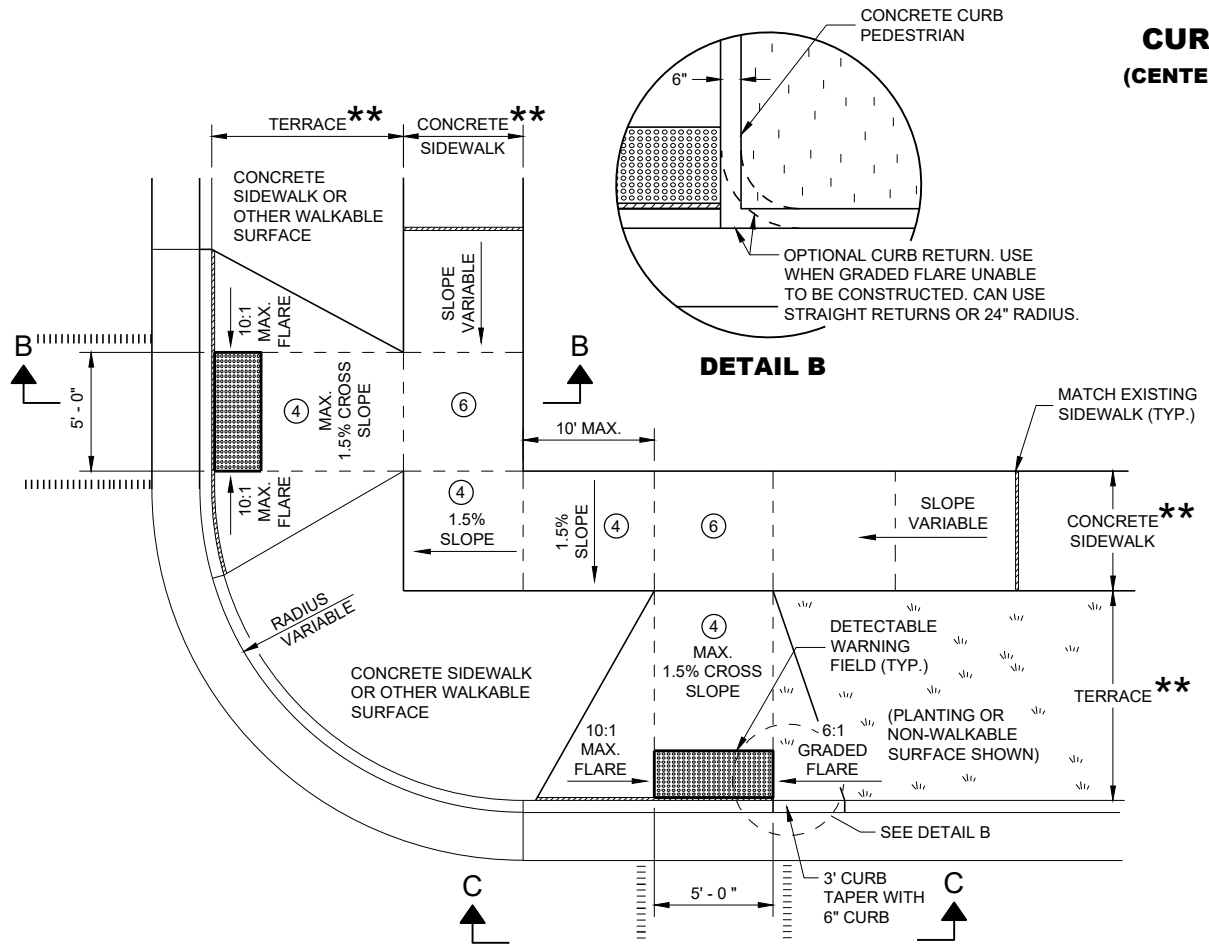
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN 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.
- ① 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.
  - 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 MAXIMUM 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.
  - ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
  - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
  - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

**CURB RAMPS  
TYPE 1 AND 1-A**

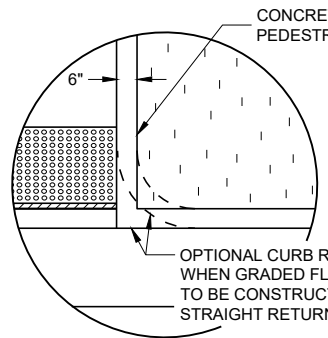
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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



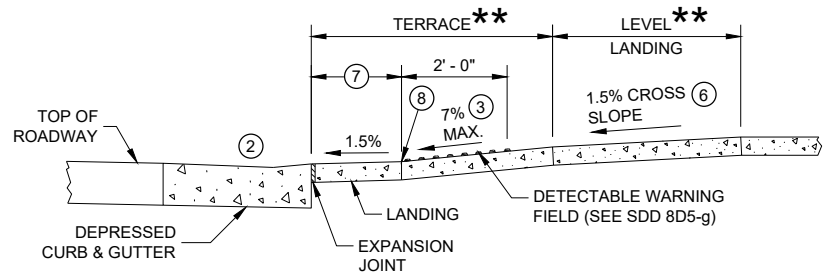
**PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)**



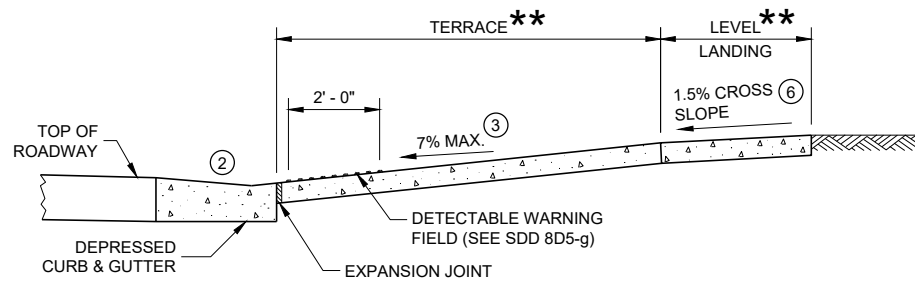
**DETAIL B**

**GENERAL NOTES**

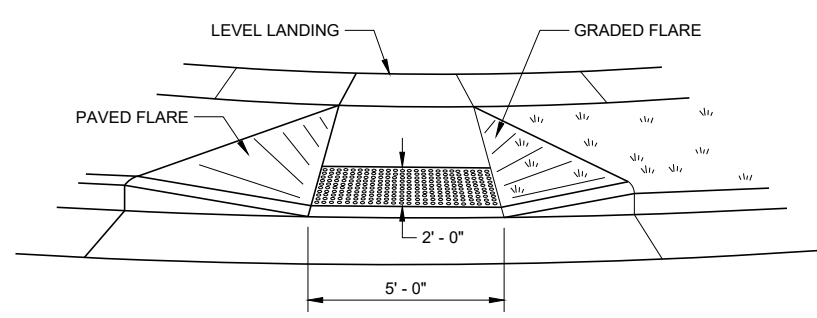
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 (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**

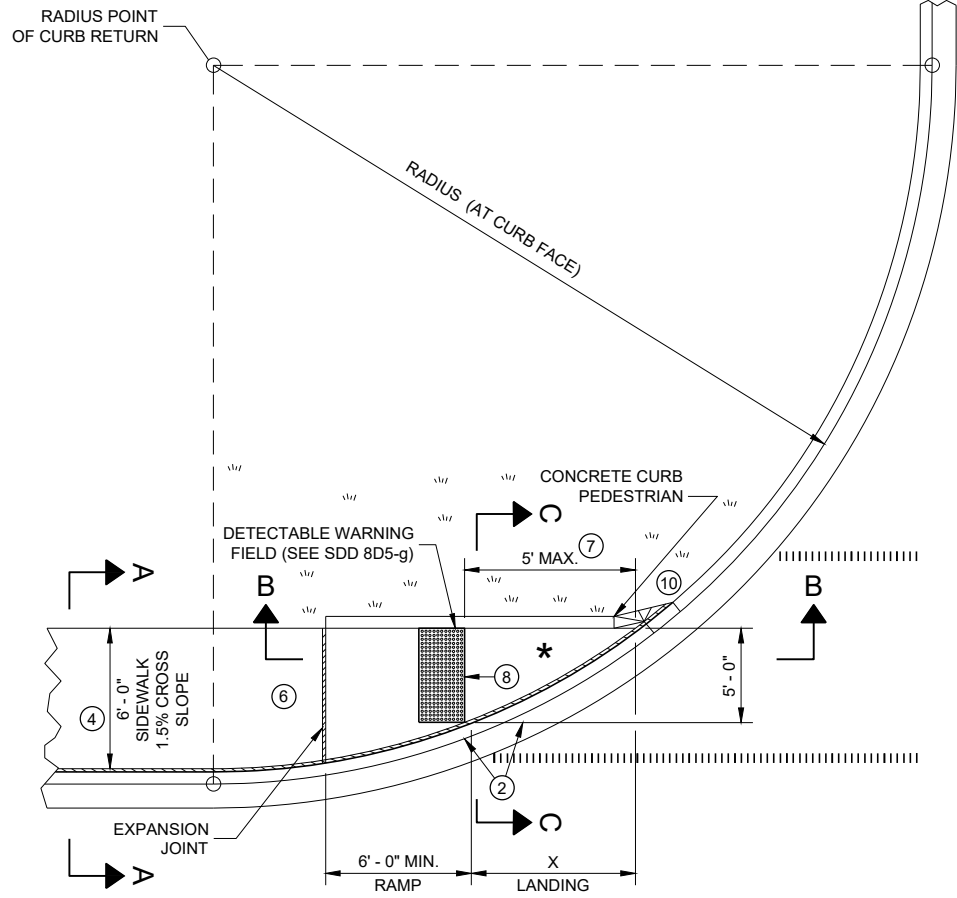
- \* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

**LEGEND**

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

**CURB RAMPS  
TYPE 2 AND 3**

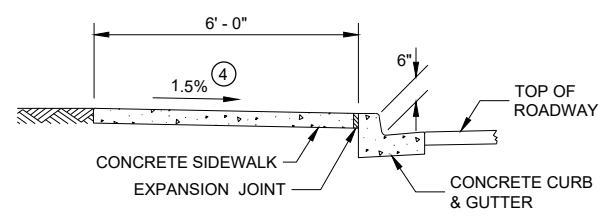
STATE OF WISCONSIN  
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**PLAN VIEW  
CURB RAMP TYPE 4A**

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

INTERMEDIATE RADII CAN BE INTERPOLATED



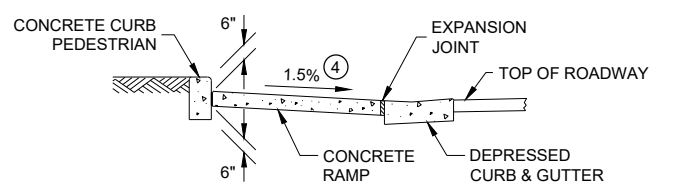
**SECTION A - A FOR TYPE 4A**

**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.

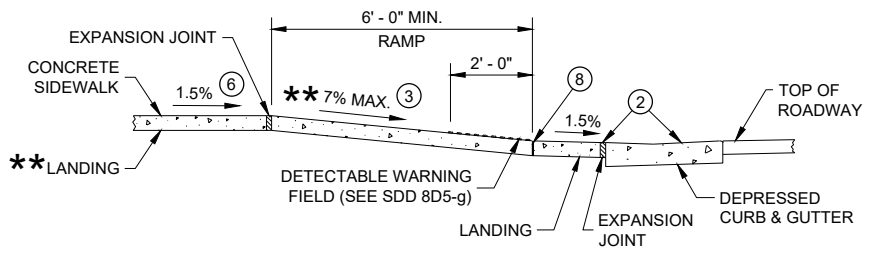
**LEGEND**

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



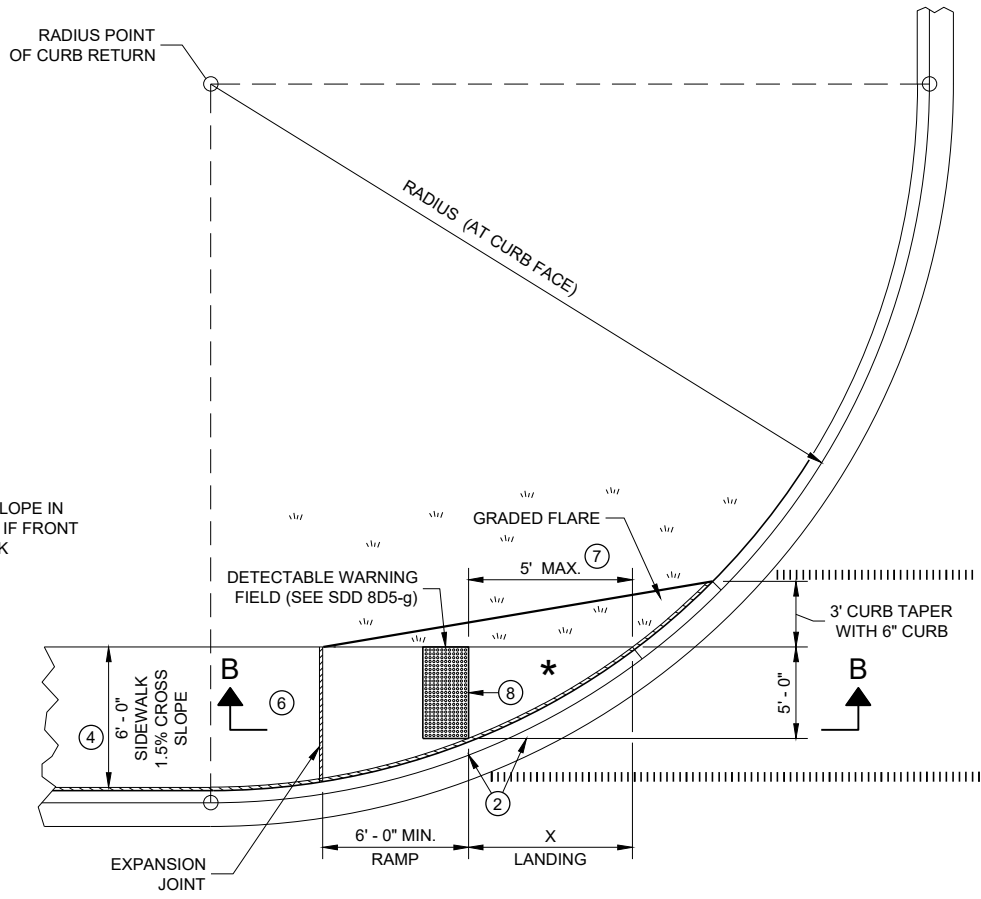
**SECTION C - C FOR TYPE 4A**

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

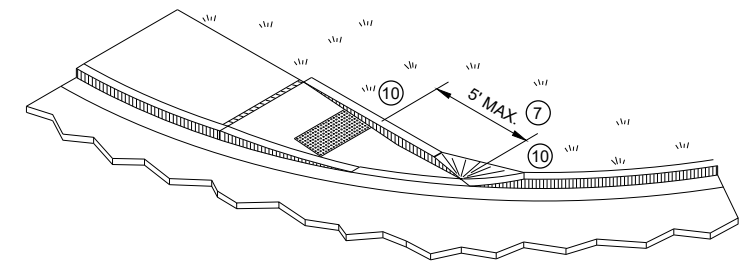


**SECTION B - B FOR  
TYPE 4A AND TYPE 4A1**

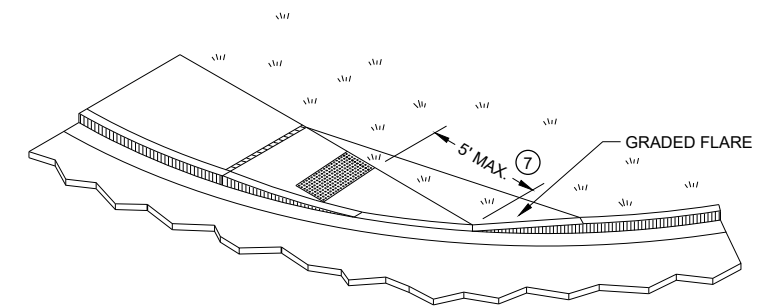
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW  
CURB RAMP TYPE 4A1**



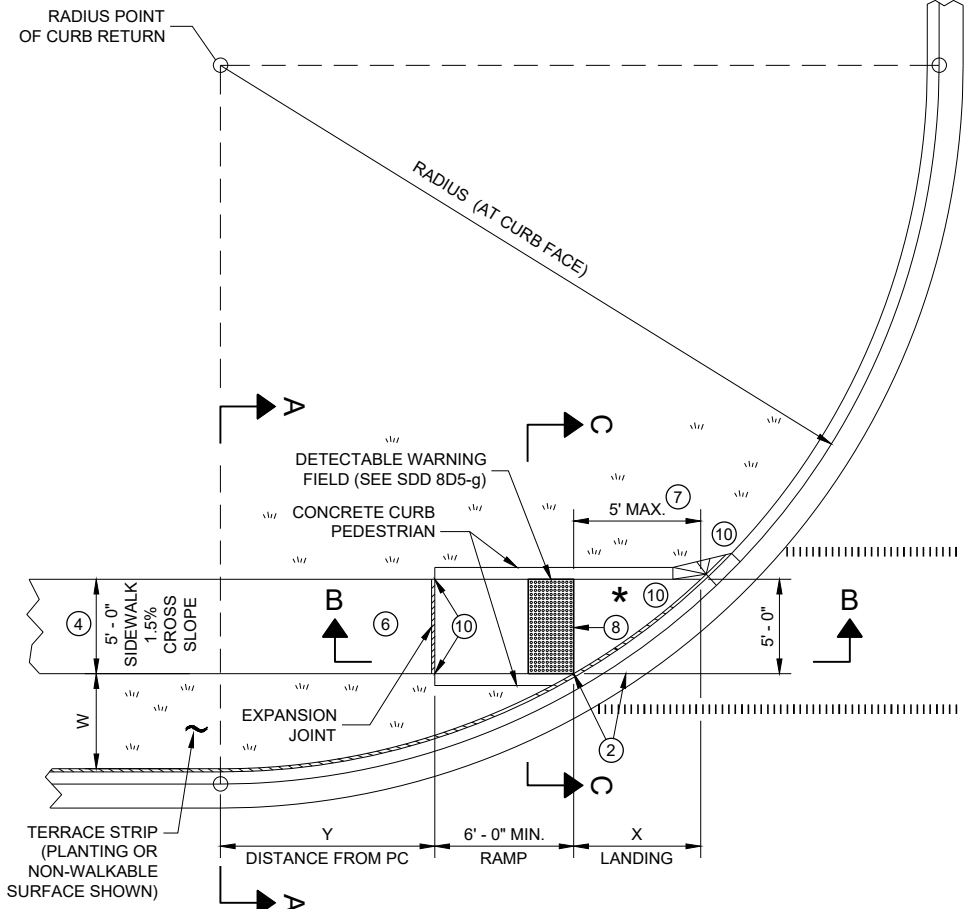
**ISOMETRIC VIEW FOR TYPE 4A**



**ISOMETRIC VIEW FOR TYPE 4A1**

**CURB RAMPS  
TYPE 4A AND 4A1**

STATE OF WISCONSIN  
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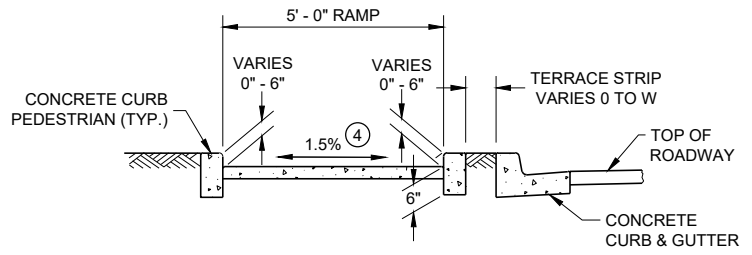
RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 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 1/4"	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

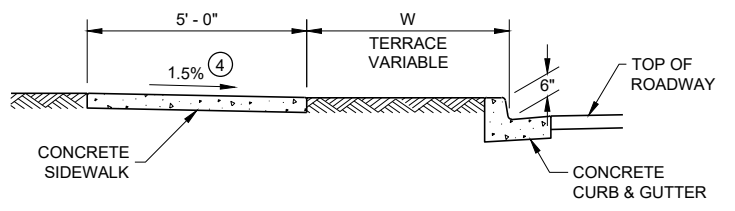
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
  - CONTRACTION JOINT SIDEWALK
  - PAVEMENT MARKING CROSSWALK (WHITE)

**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.
- 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 1/8" 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.

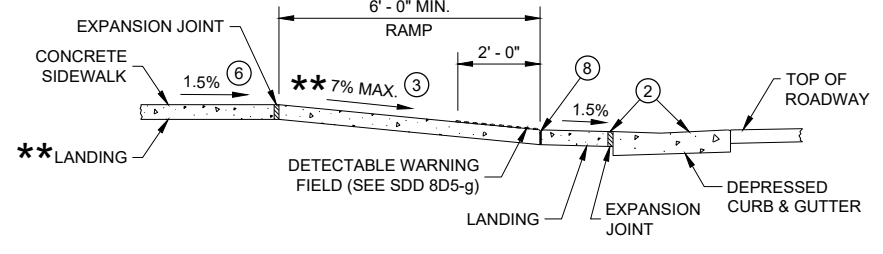


**SECTION C - C FOR TYPE 4B**



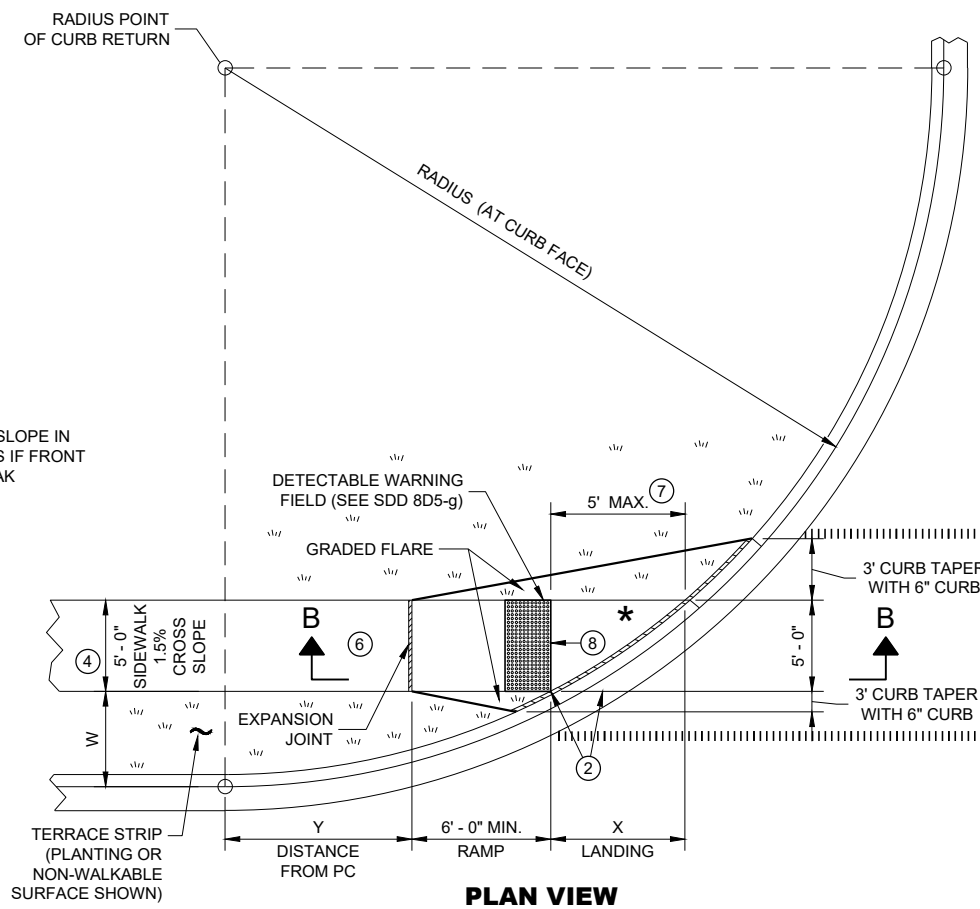
**SECTION A - A FOR TYPE 4B**

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

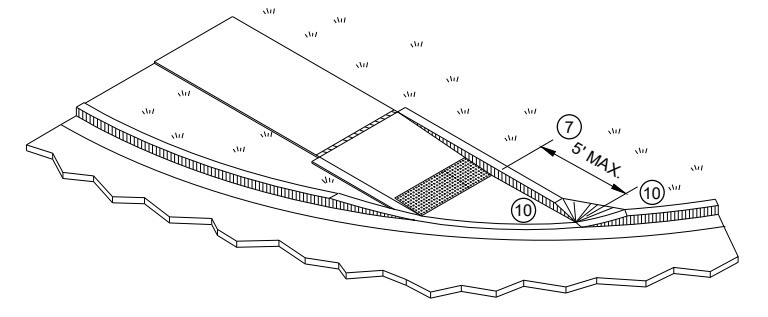


**SECTION B - B FOR TYPE 4B AND TYPE 4B1**

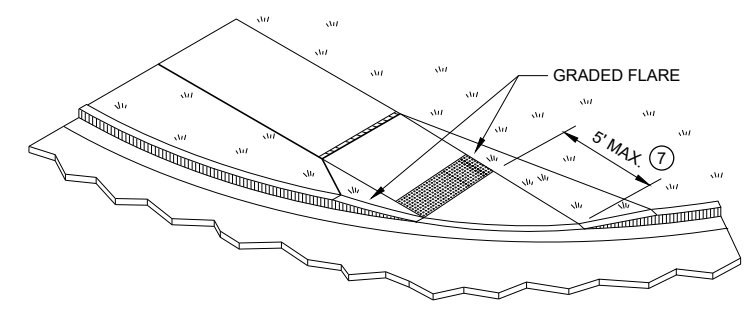
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW CURB RAMP TYPE 4B1**



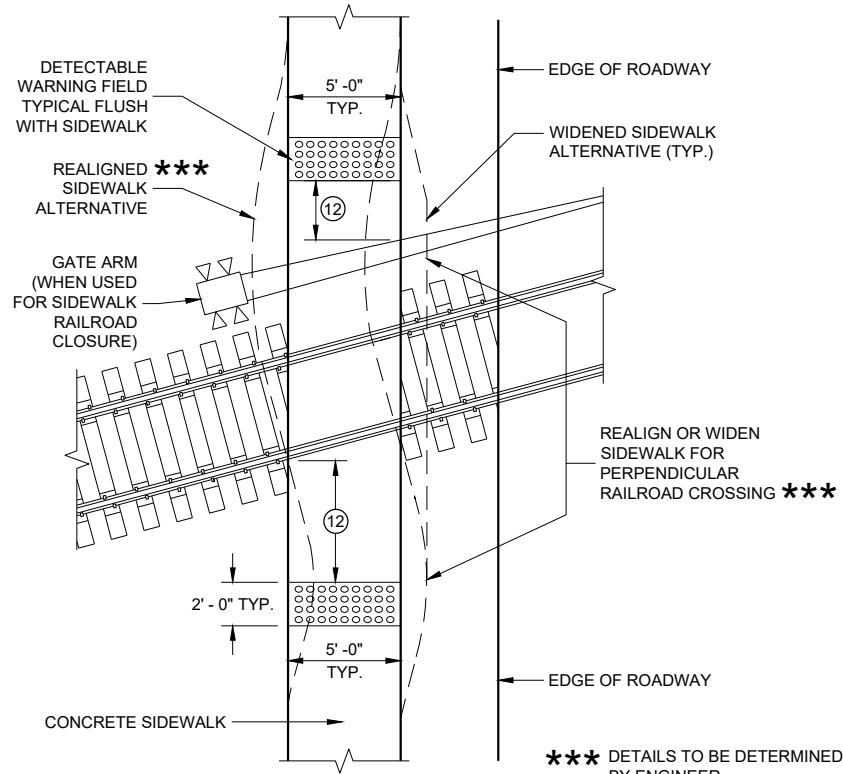
**ISOMETRIC VIEW FOR TYPE 4B**



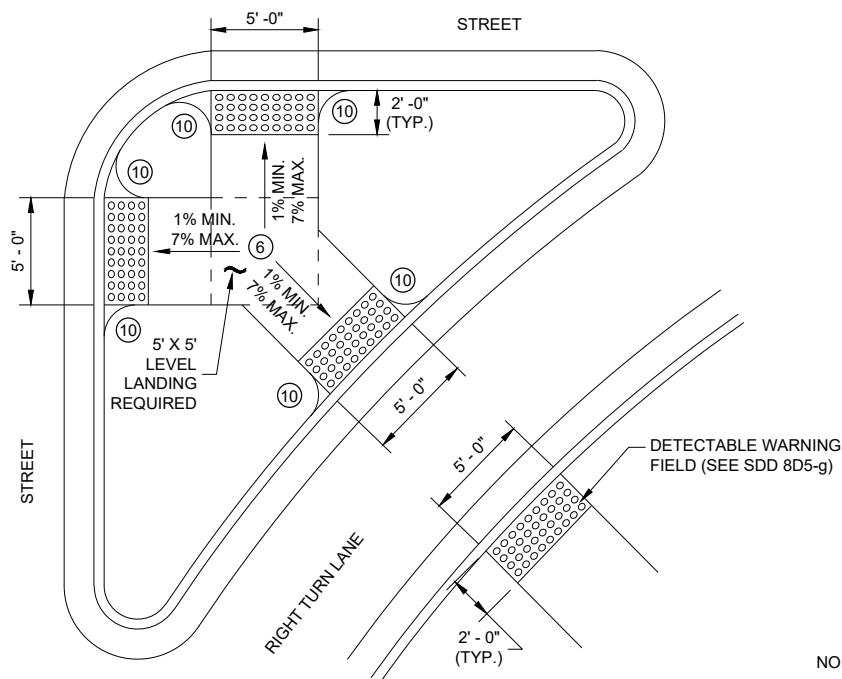
**ISOMETRIC VIEW FOR TYPE 4B1**

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

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

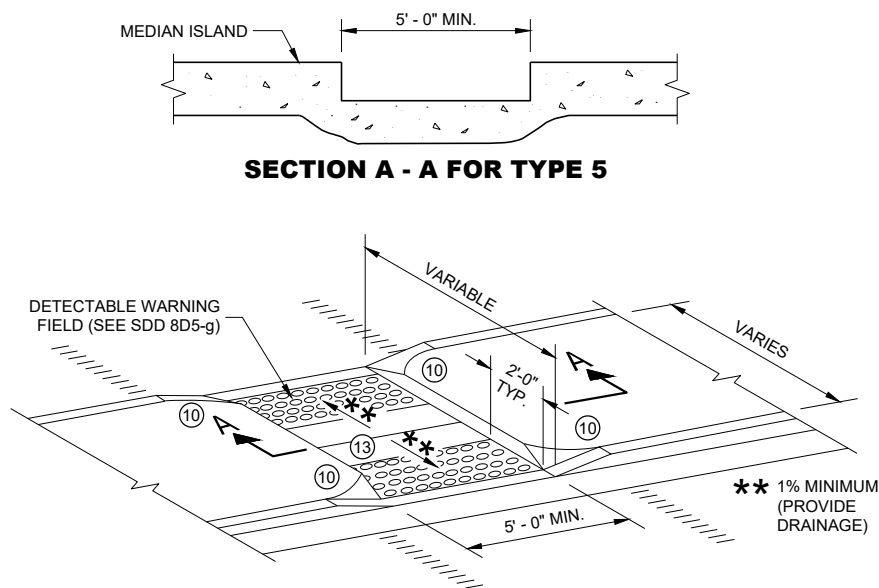


**CURB RAMP TYPE 8**  
**DETECTABLE WARNINGS**  
**AT RAILROAD CROSSING**

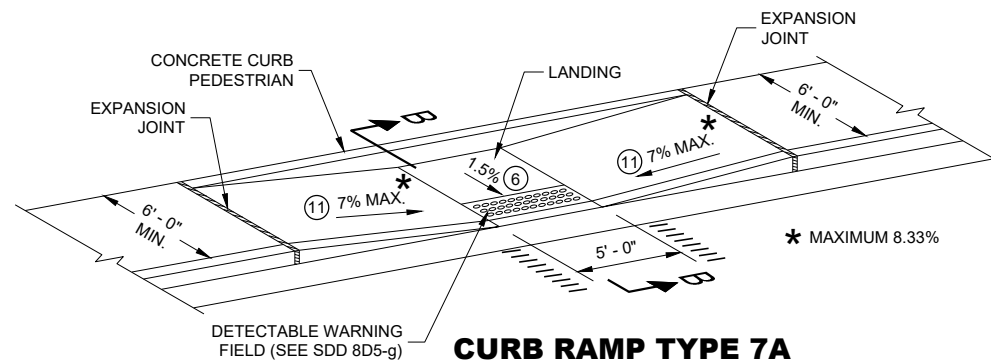


**CURB RAMP TYPE 6**  
**DETECTABLE WARNING AT ISLANDS**

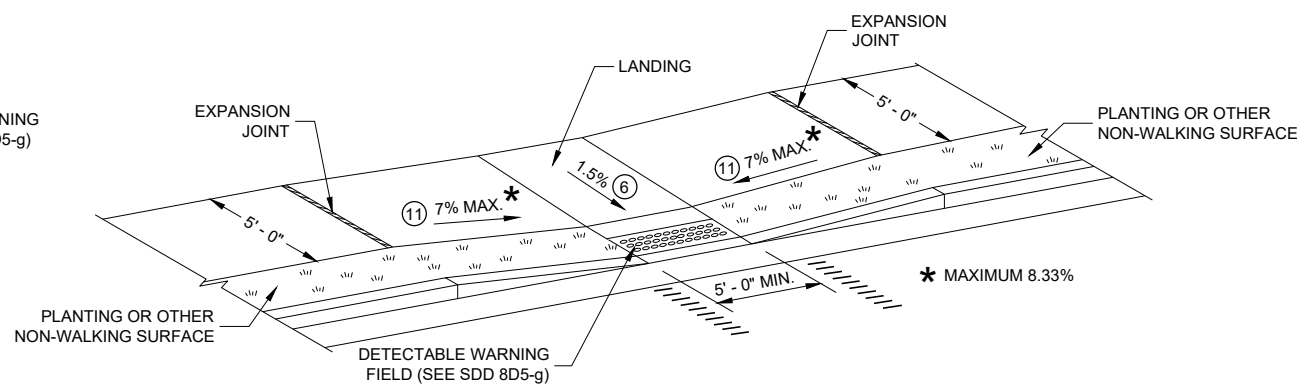
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



**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.

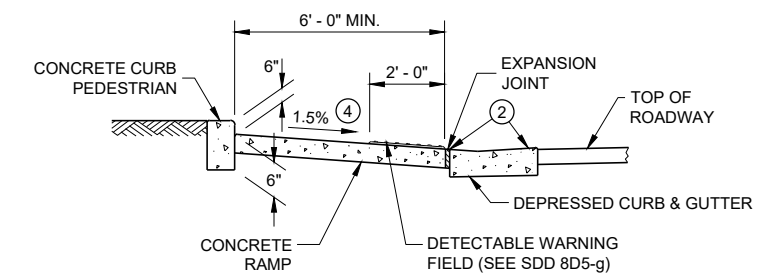
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- (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.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-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)

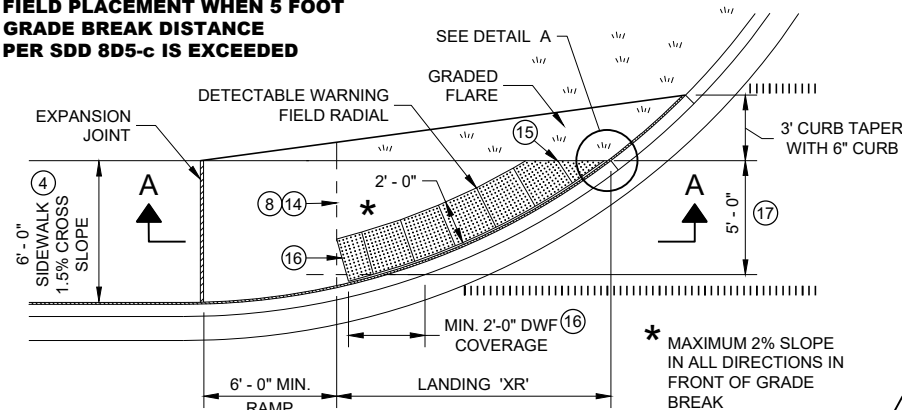


**SECTION B - B FOR TYPE 7A**

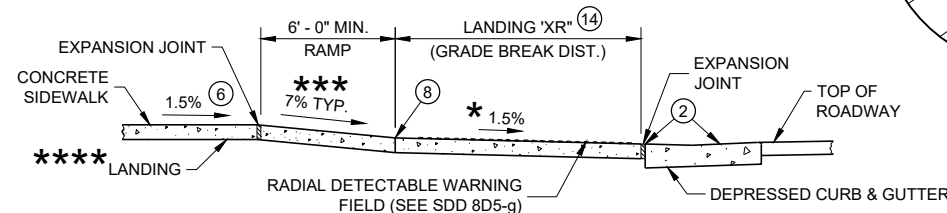
**CURB RAMPS**  
**TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

**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)**

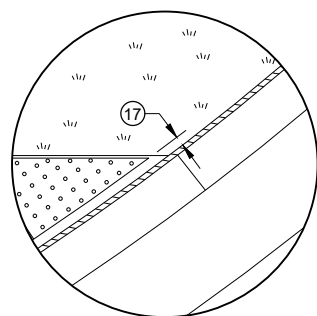


**SECTION A - A FOR TYPE 4A1**

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

\*\*\* MAXIMUM 8.33%

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

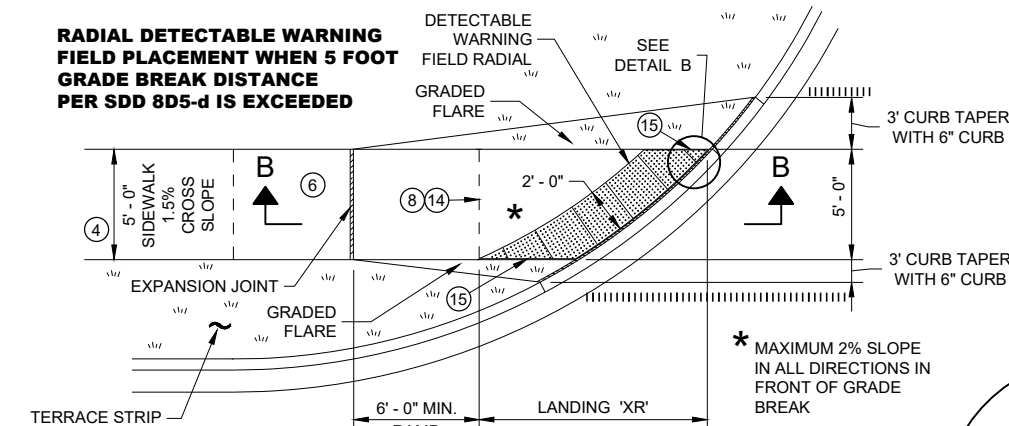


**DETAIL A**

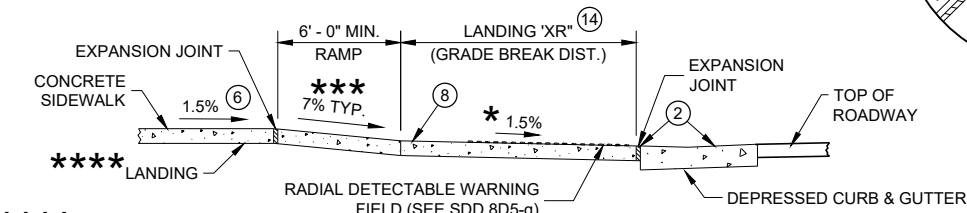
**GENERAL NOTES**

- 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 RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED 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.
- 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 LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 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.
- 16 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.
- 17 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-d IS EXCEEDED**



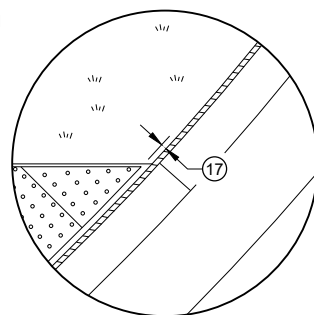
**PLAN VIEW  
CURB RAMP TYPE 4B1  
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



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

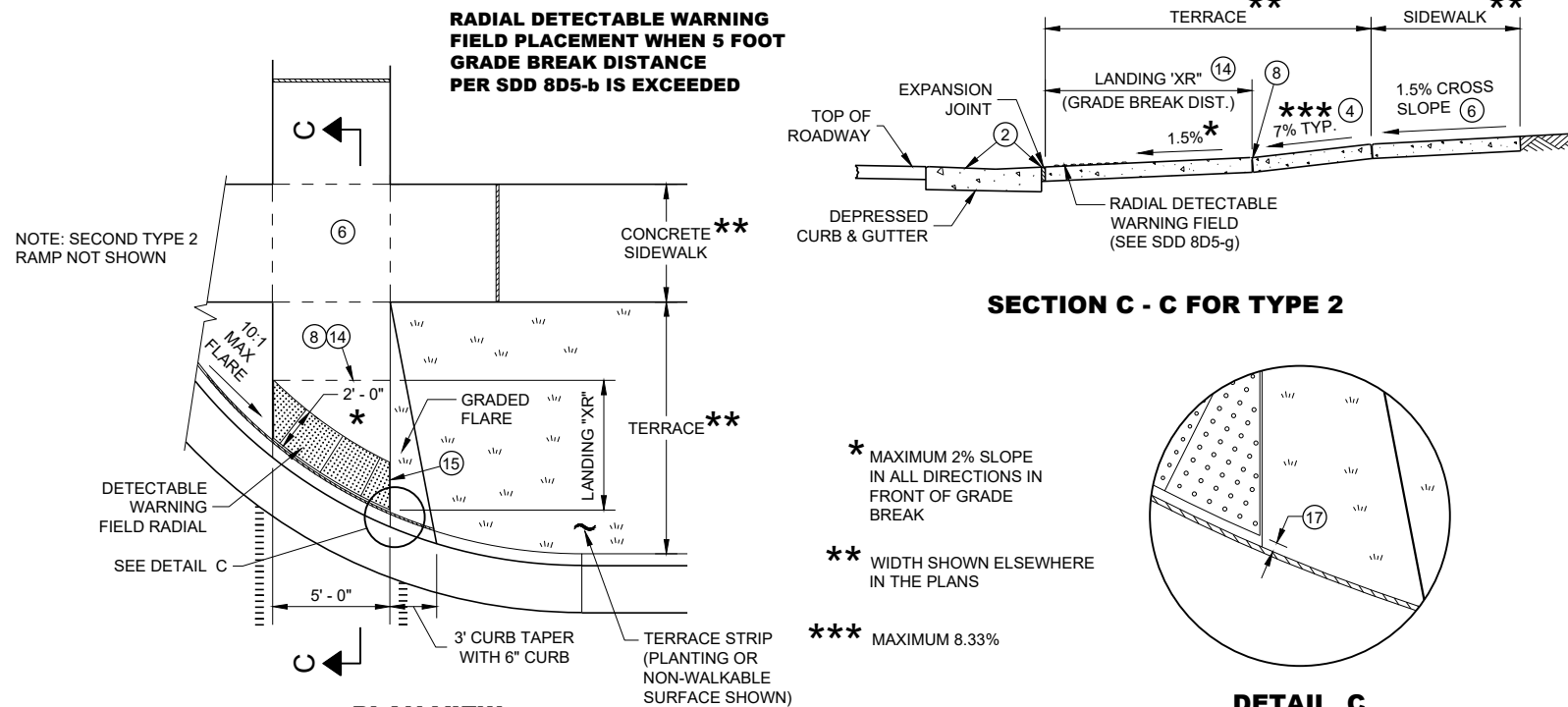
\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%



**DETAIL B**

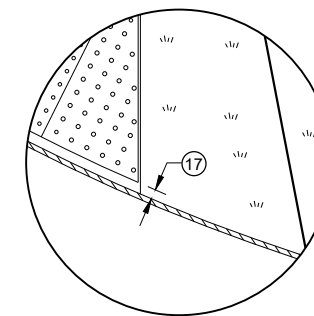
**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED**



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

NOTE: SECOND TYPE 2 RAMP NOT SHOWN

- \* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS
- \*\*\* MAXIMUM 8.33%



**DETAIL C**

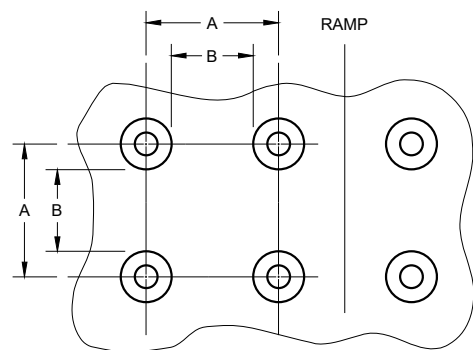
**CURB RAMPS  
RADIAL DETECTABLE WARNING  
FIELD APPLICATIONS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

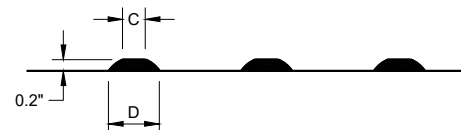


	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

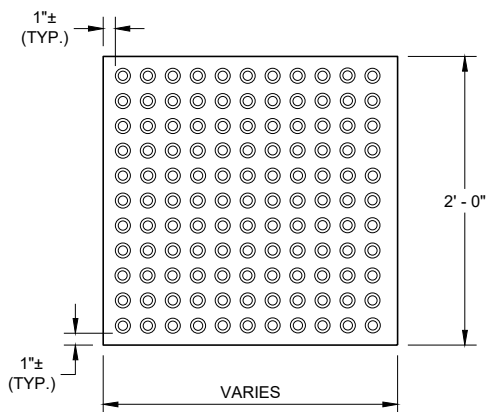


PLAN VIEW

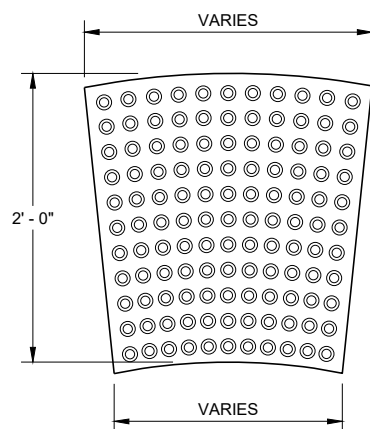


ELEVATION VIEW

**TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL**

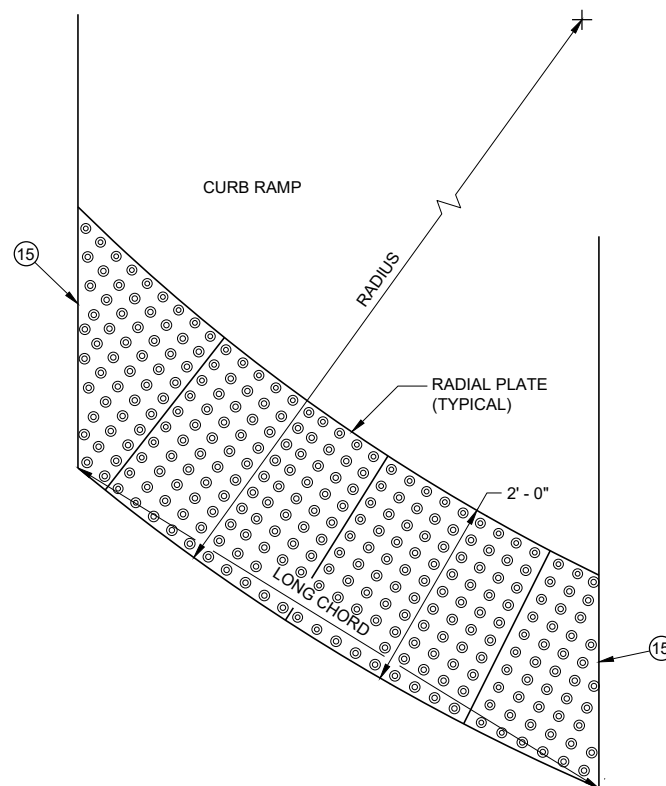


RECTANGULAR  
PLATES

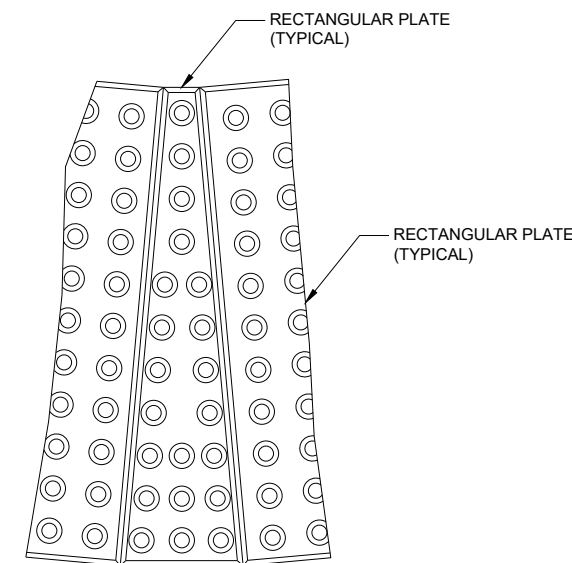


RADIAL  
PLATES

PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES



PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL

**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.

<b>CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

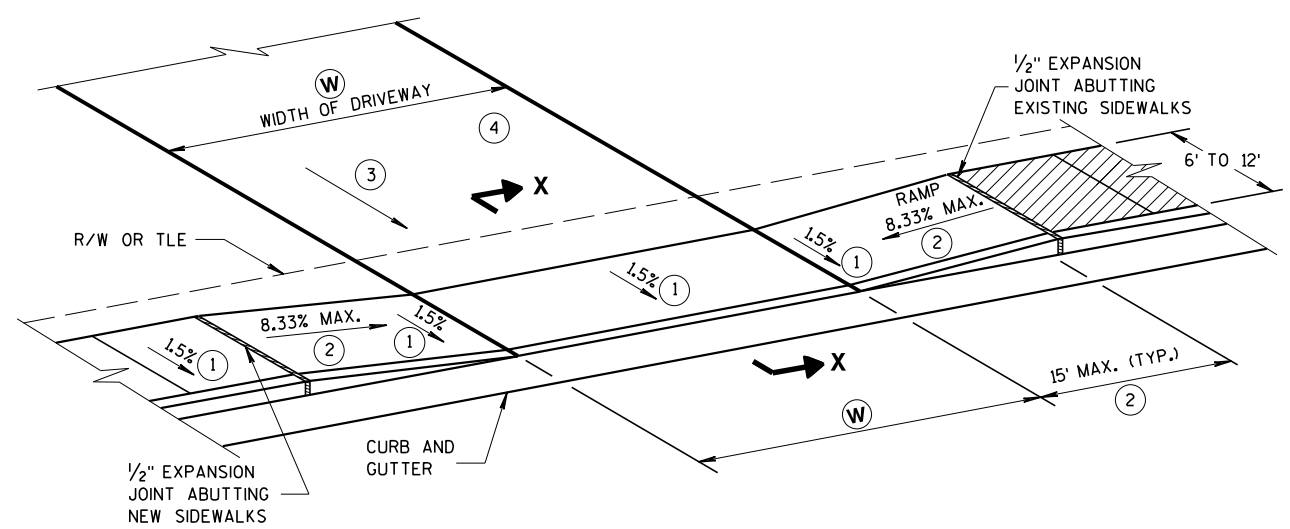
### GENERAL NOTES

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.

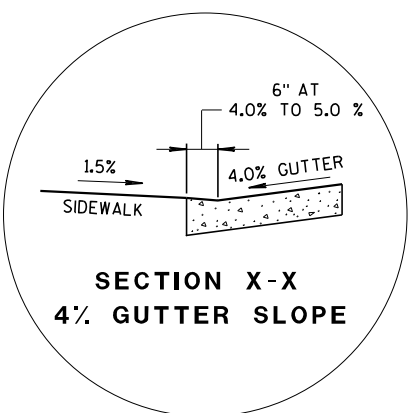
(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

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

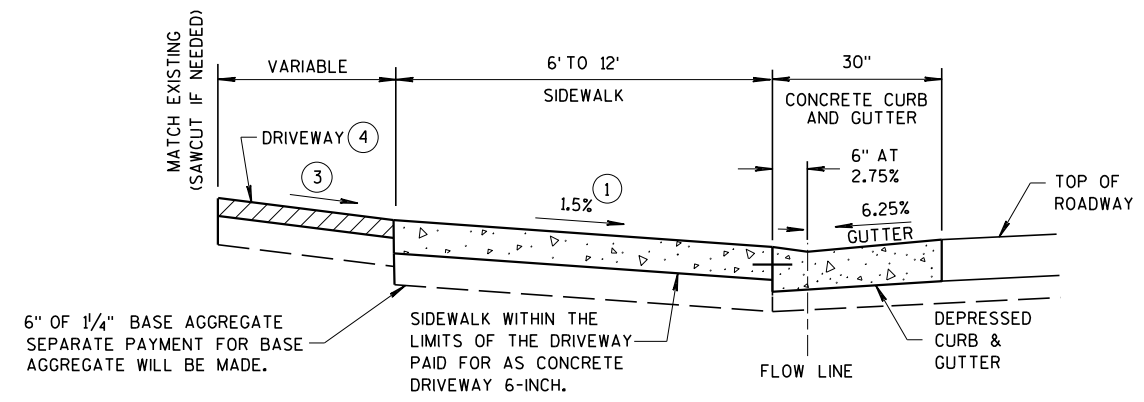
- ① CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- ② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT 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)



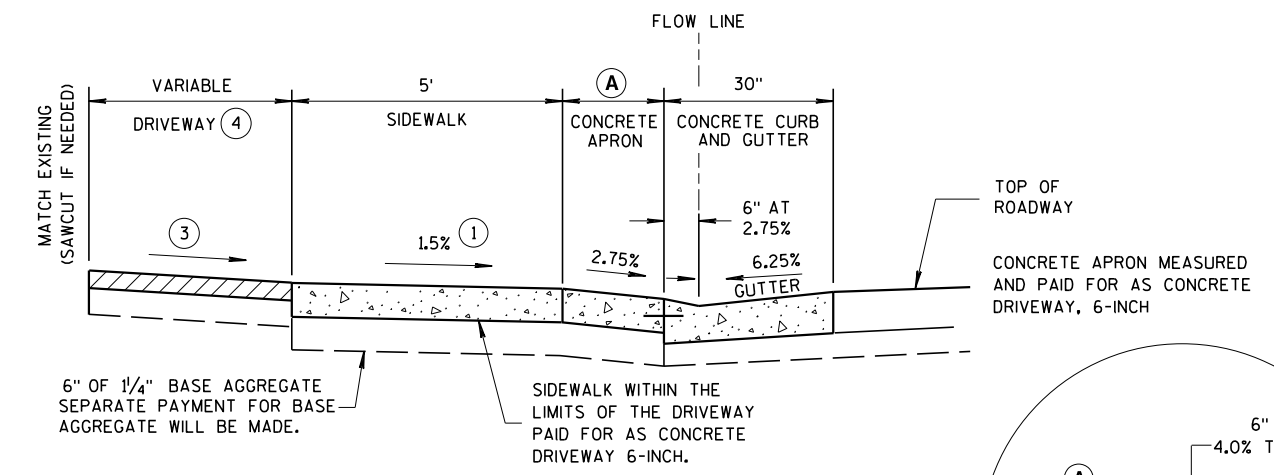
**TYPE X**  
**SIDEWALK ABUTS CURB & GUTTER**  
**TERRACE VARIES 0 TO 3 FEET**



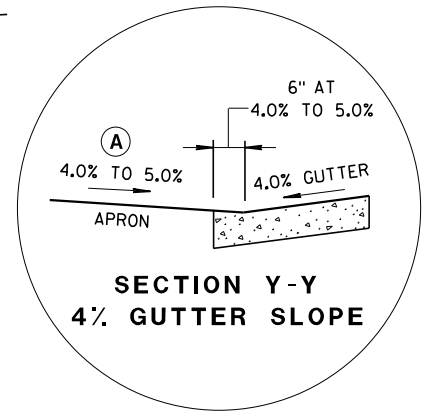
**SECTION X-X**  
**4% GUTTER SLOPE**



**SECTION X-X**



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

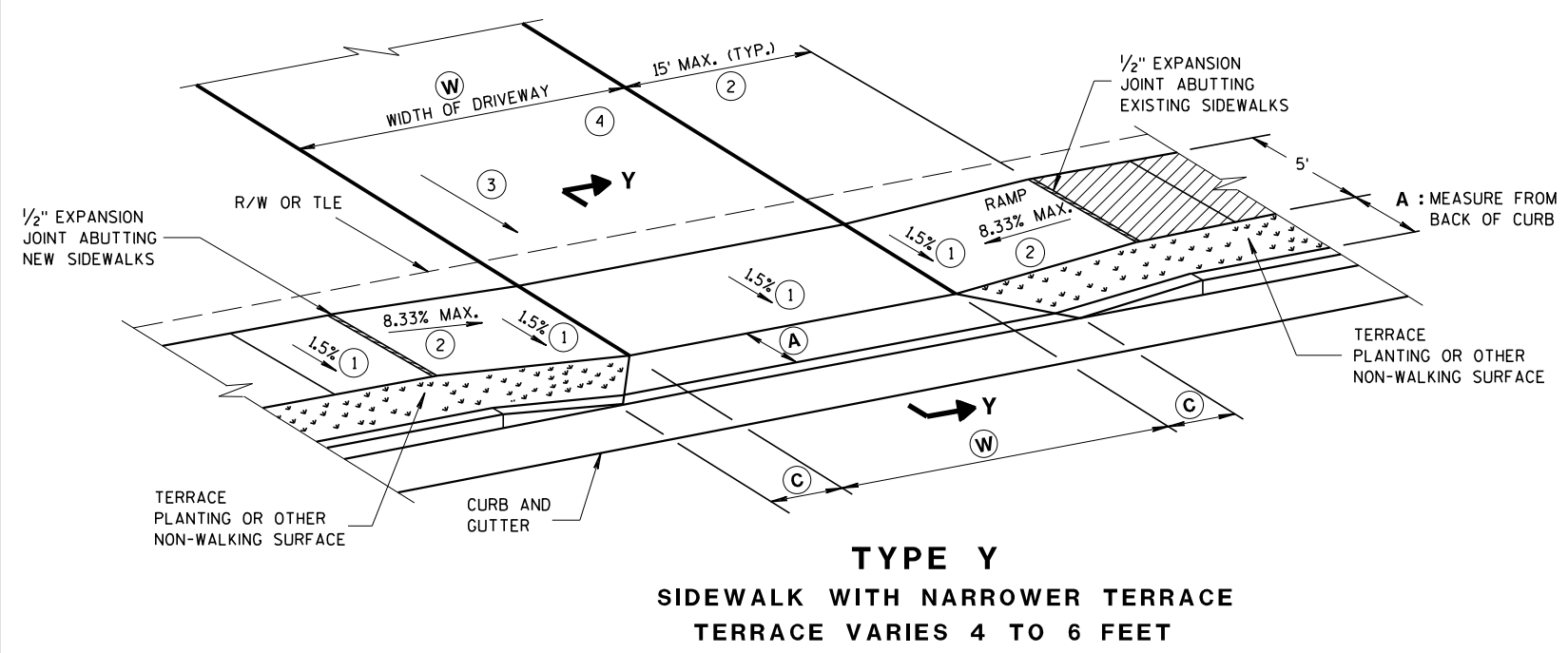


**SECTION Y-Y**  
**4% GUTTER SLOPE**

**TABLE Y**

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

NOT TO SCALE

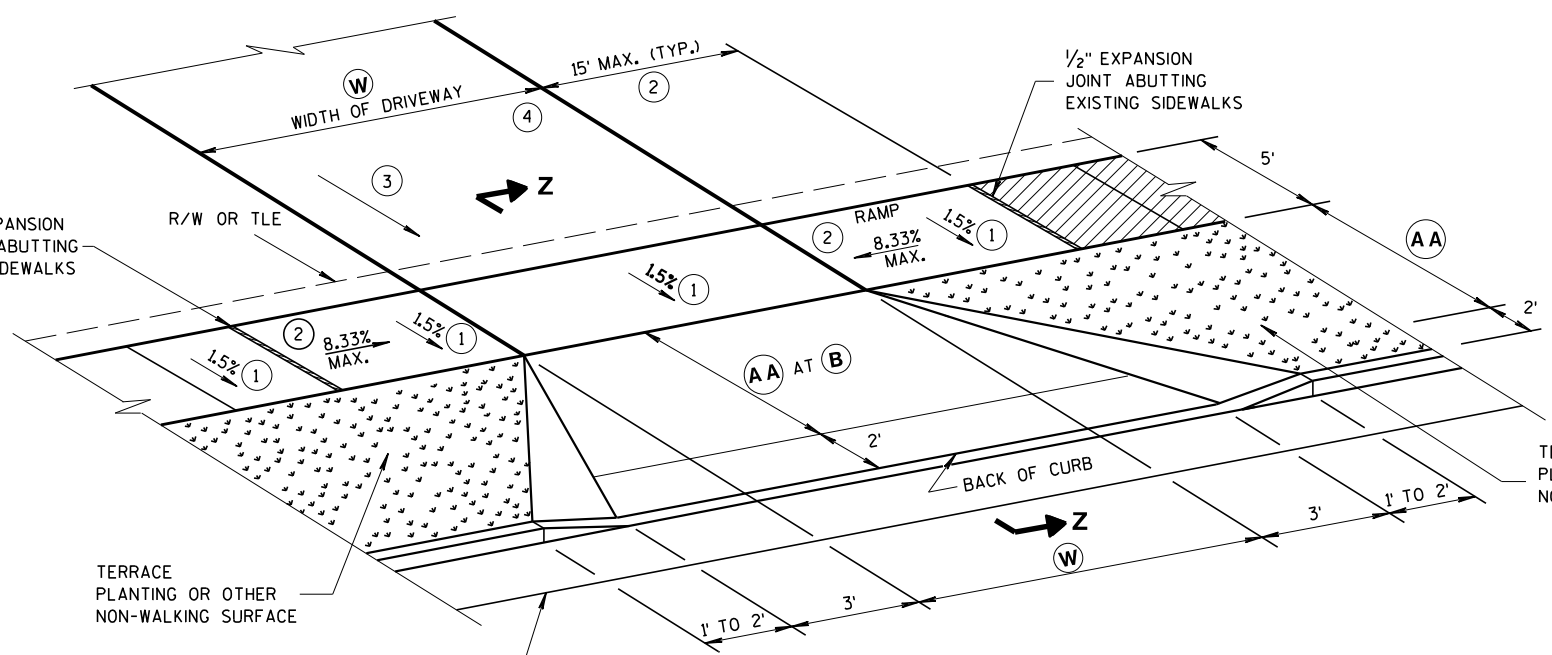


**TYPE Y**  
**SIDEWALK WITH NARROWER TERRACE**  
**TERRACE VARIES 4 TO 6 FEET**

**DRIVEWAY AND SIDEWALK  
RAMPS  
TYPES X & Y**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
 March 2018 /S/ Rodney Taylor  
 DATE ROADWAY STANDARDS DEVELOPMENT  
 FHWA UNIT SUPERVISOR



**TABLE Z**

(AA) FEET	(B) %	(B) %
4.5'	6.25% GUTTER	4% GUTTER
5.5'	11.5%	9% TO 11.5%
6.5'	9% TO 11.5%	8% TO 11.5%
7.5'	8% TO 11.5%	6% TO 11.5%
8.5'	7% TO 11.5%	6% TO 11.5%
9.5'	6% TO 11.5%	5% TO 11.5%
	5% TO 11.5%	4% TO 11.5%

**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.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

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

(1) CONSTRUCTION TOLERANCE OF 0.5% ± 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.

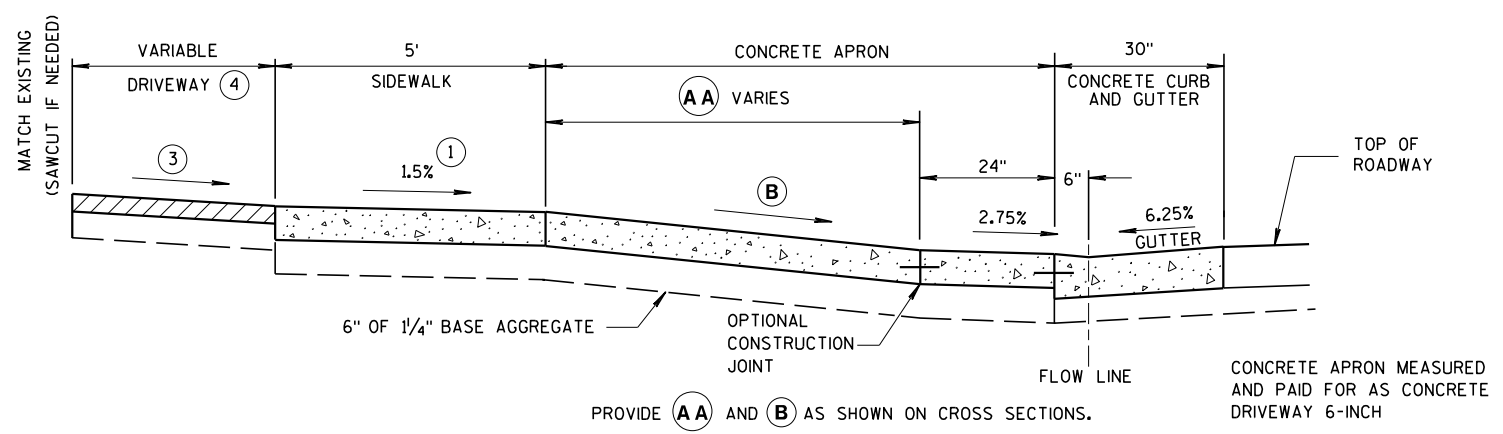
(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM  
 10.5% UP AWAY FROM SIDEWALK (SAG)  
 8.5% DOWN AWAY FROM SIDEWALK (CREST)  
 ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES

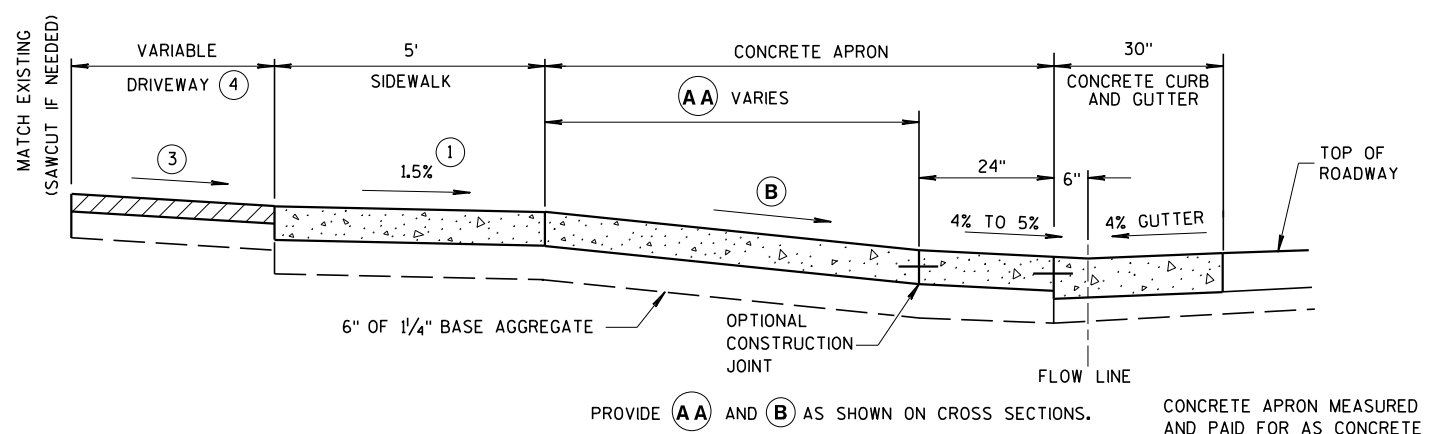
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)

**TYPE Z  
 SIDEWALK WITH WIDER TERRACE  
 TERRACE VARIES 7 TO 12 FEET**

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



**6.25% GUTTER SLOPE**



**4% GUTTER SLOPE**

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR B VALUES NOT SHOWN IN TABLE Z.  
 SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.  
 SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

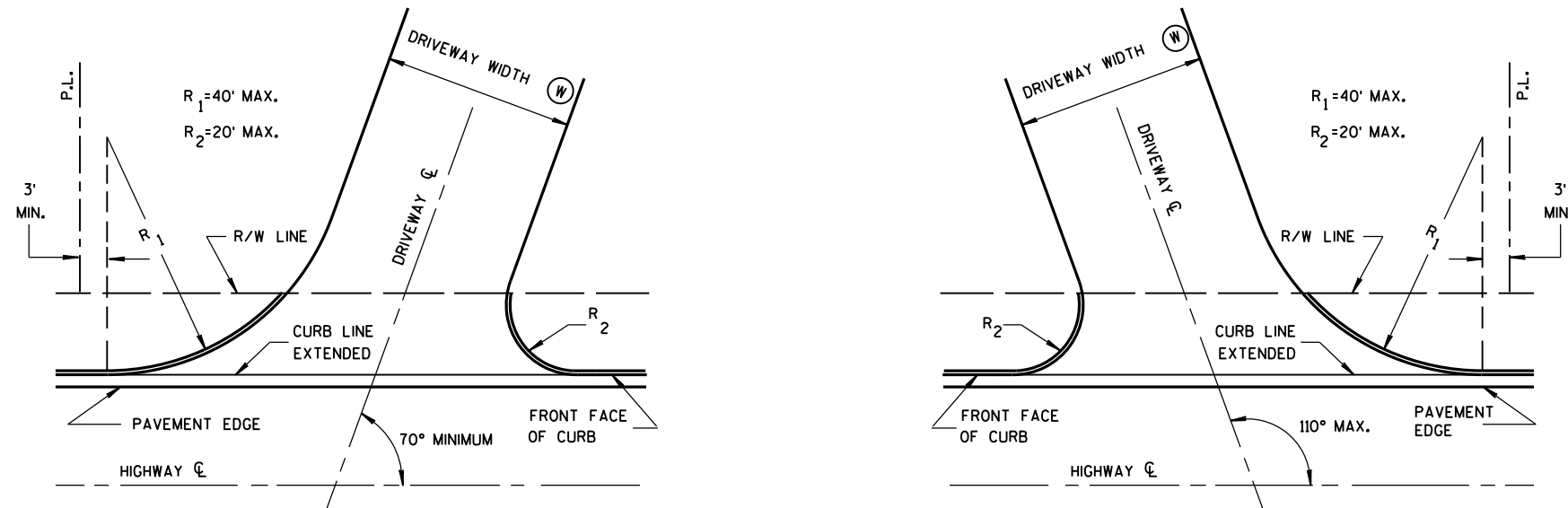
**SECTION Z-Z  
 DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER  
 (URBAN AND SUBURBAN)**

NOT TO SCALE

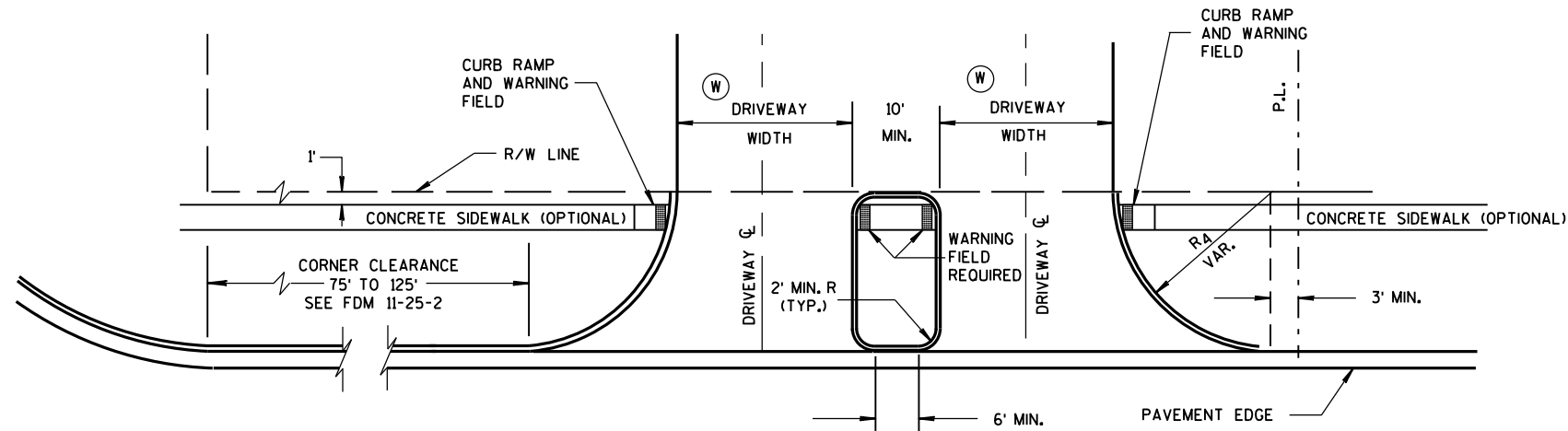
**DRIVEWAY AND SIDEWALK RAMP TYPE Z**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 March 2018 /S/ Rodney Taylor  
 DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR  
 FHWA



**SKewed DRIVEWAY DETAILS  
(COMMERCIAL AND NON-COMMERCIAL)  
SIDEWALK NOT SHOWN**



**DRIVEWAY LOCATION AND SPACING DETAILS  
SIDEWALK SHOWN**

**NOTES**

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

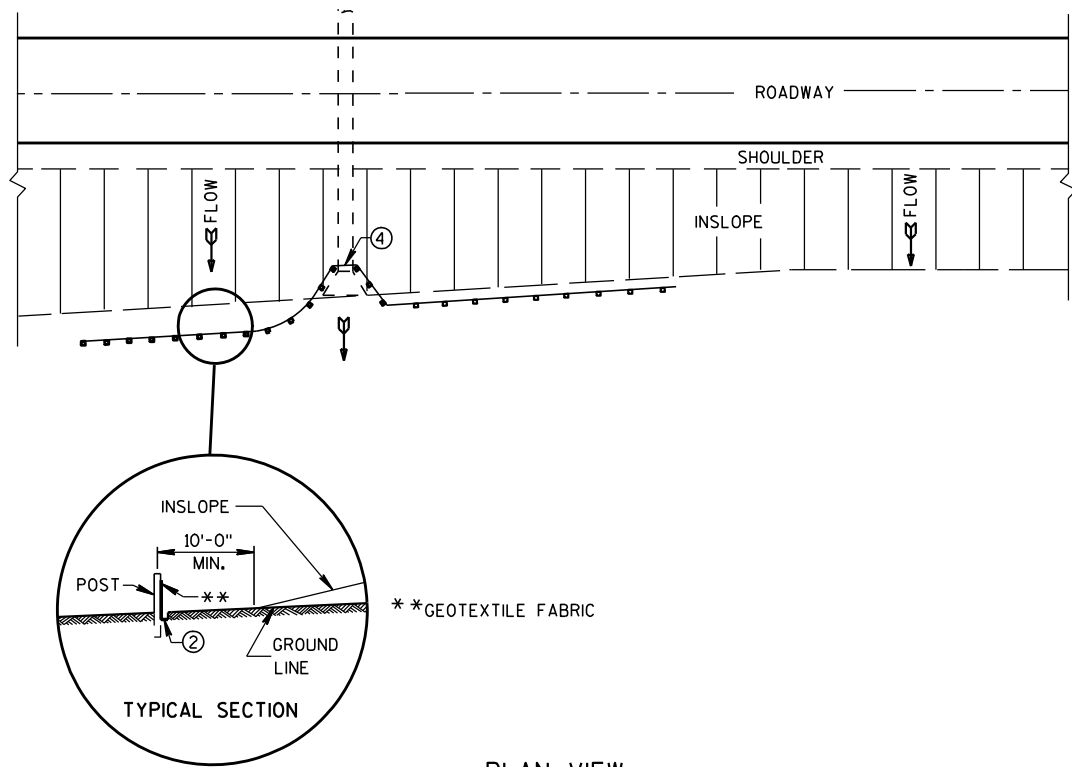
NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

- Ⓜ DRIVEWAY WIDTHS:  
 COMMERCIAL - 35' MAX., 16' MIN.  
 RESIDENTIAL AND NON-COMMERCIAL - 24' MAX., 12' MIN.

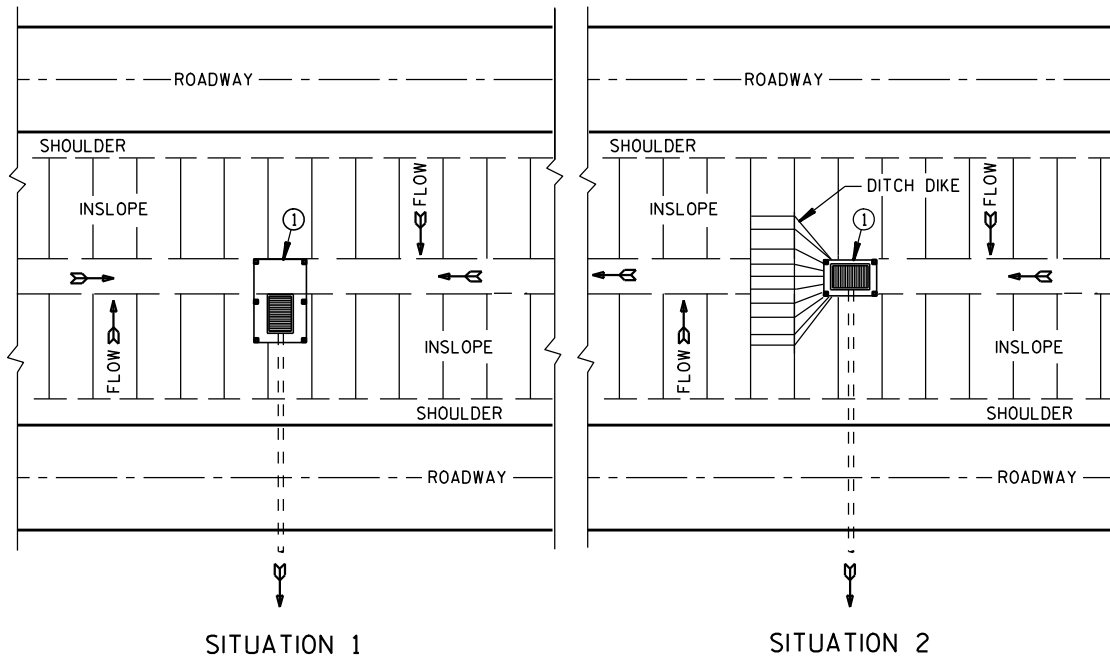
**DRIVEWAYS WITH  
CURB & GUTTER RETURNS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
 December, 2016 /s/ Rodney Taylor  
 DATE ROADWAY STANDARDS DEVELOPMENT  
 FHWA UNIT SUPERVISOR



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

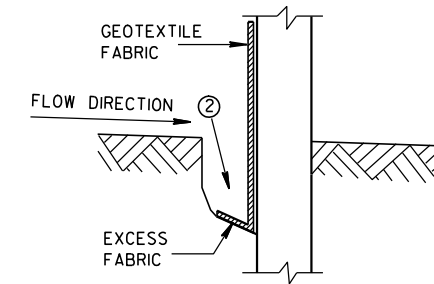


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

**GENERAL NOTES**

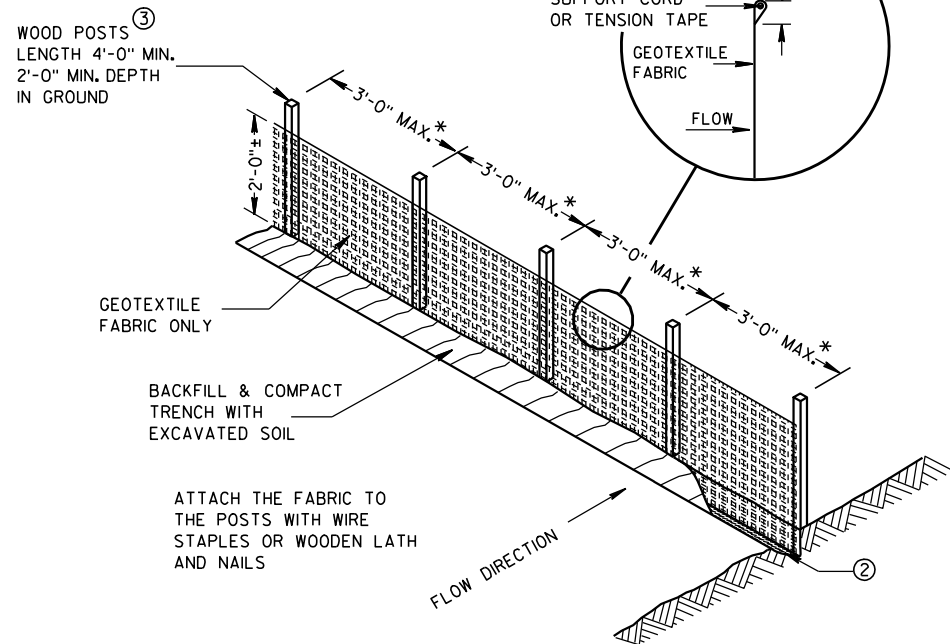
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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.



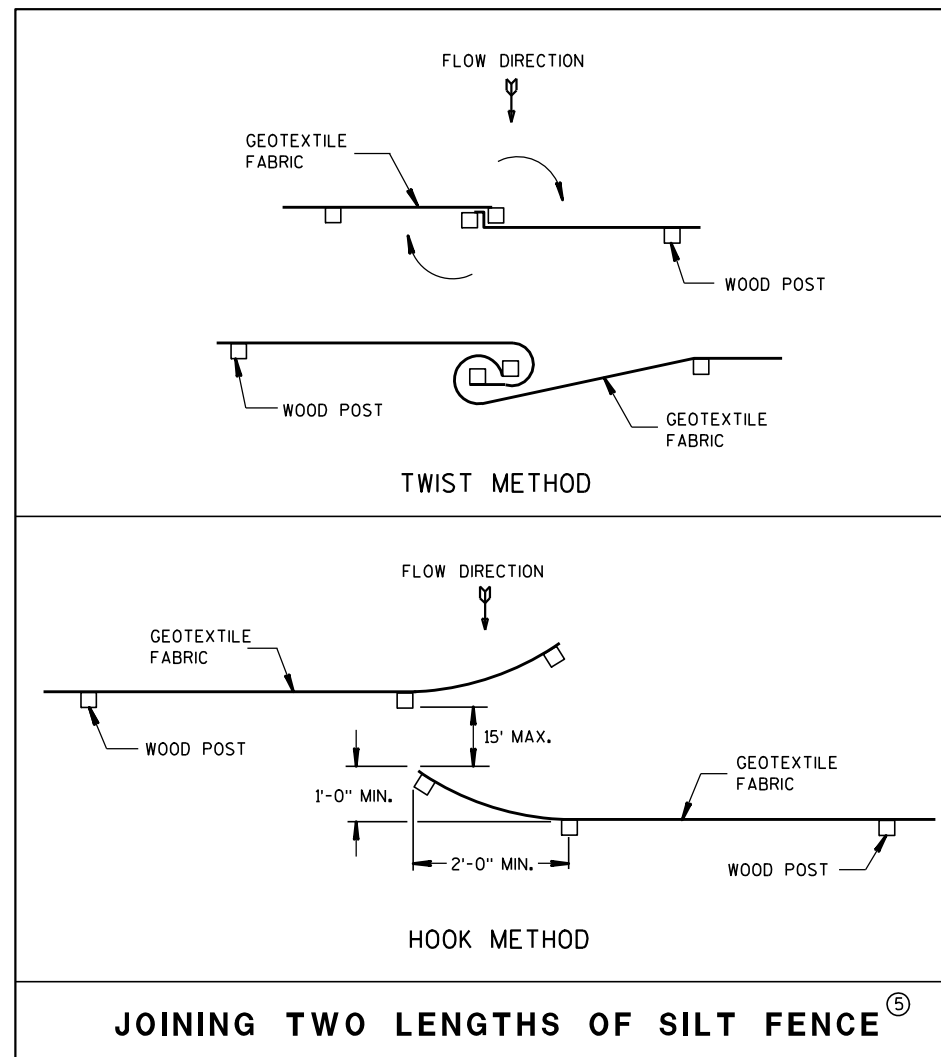
TRENCH DETAIL

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

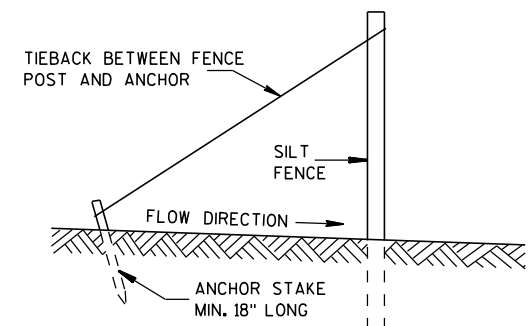


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤

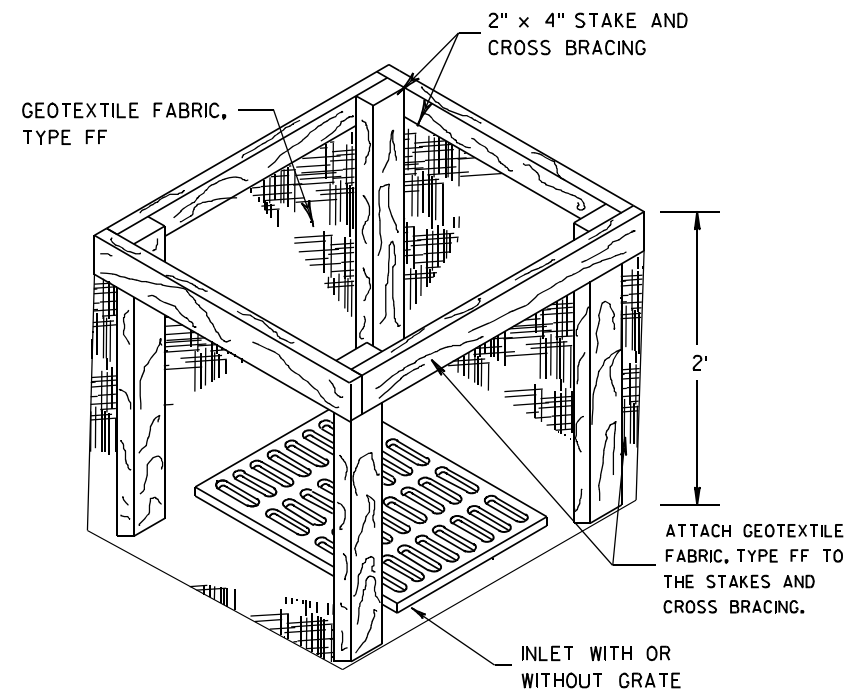
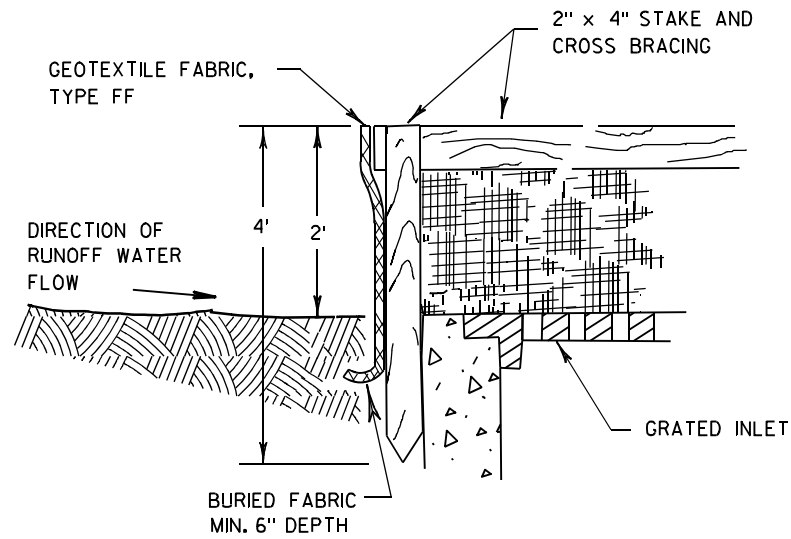


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
4-29-05 /S/ Beth Canestra  
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



**INLET PROTECTION, TYPE A**

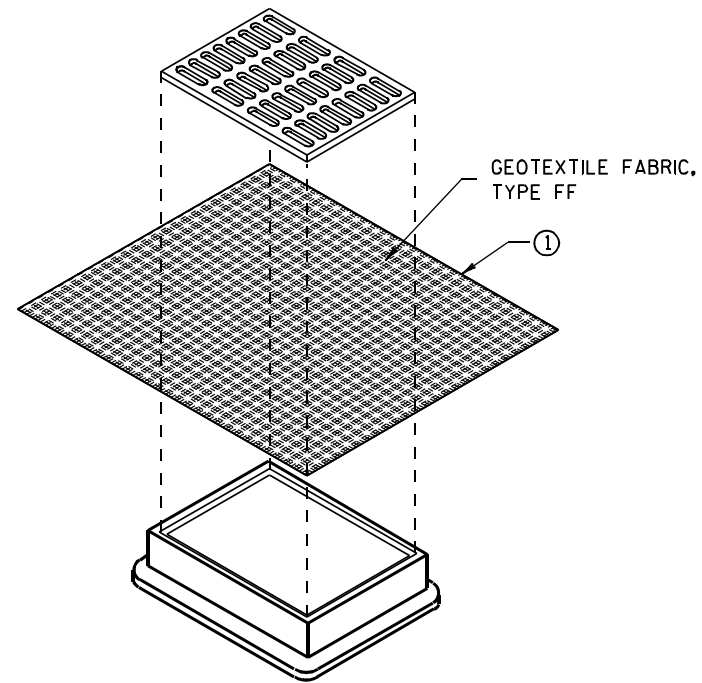
**GENERAL NOTES**

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

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

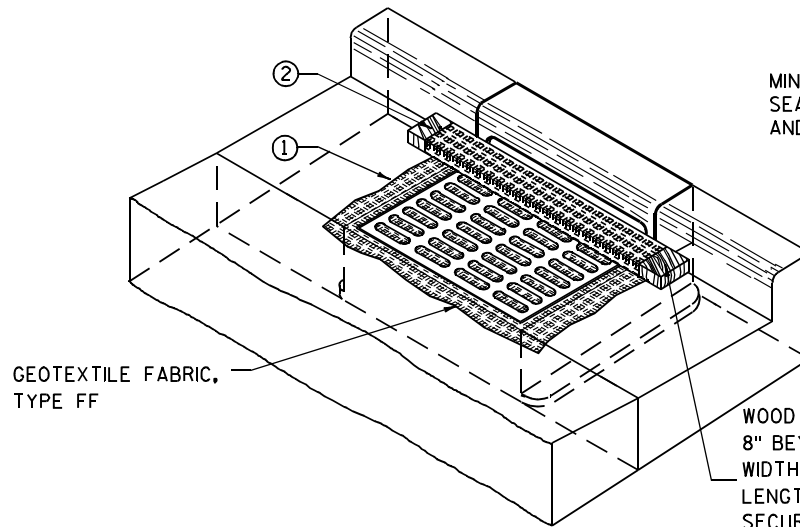
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



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

**INSTALLATION NOTES**

**TYPE B & C**

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

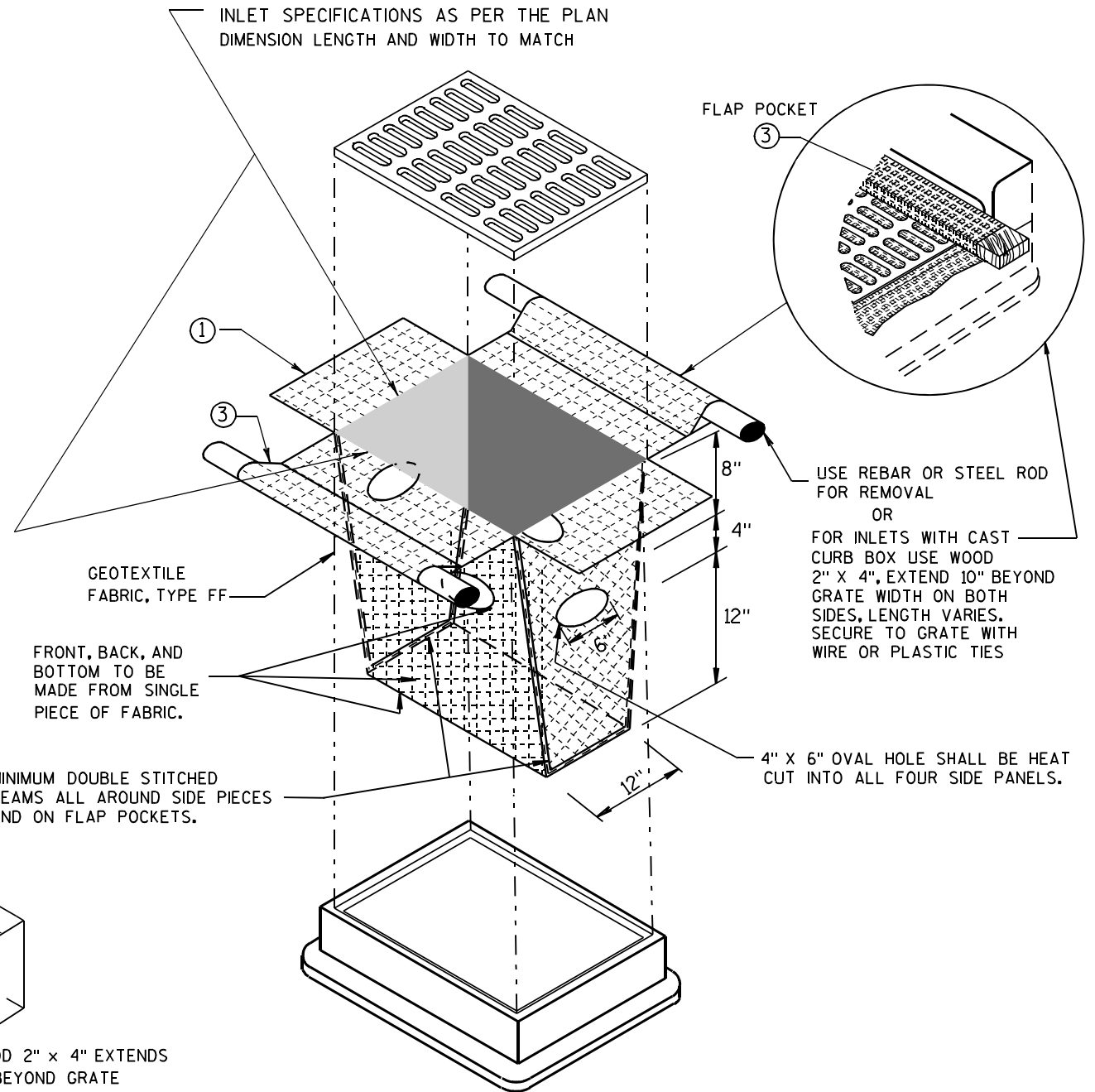
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE D**

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

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

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



**INLET PROTECTION, TYPE D**

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

<b>INLET PROTECTION TYPE A, B, C, AND D</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

**GENERAL NOTES**

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

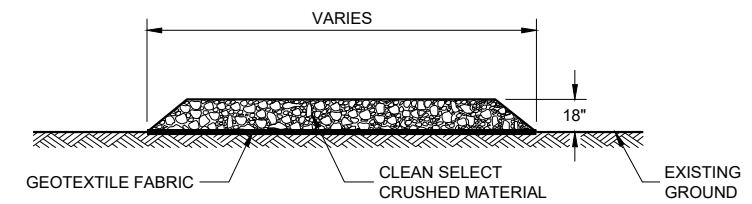
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

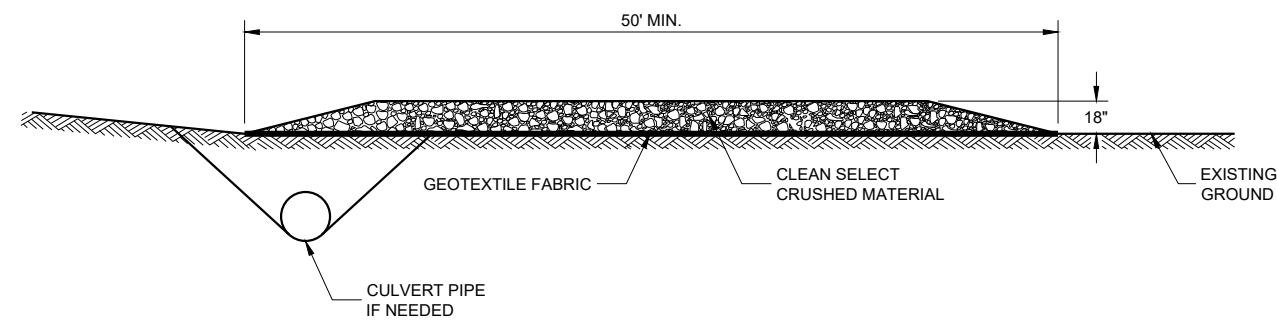
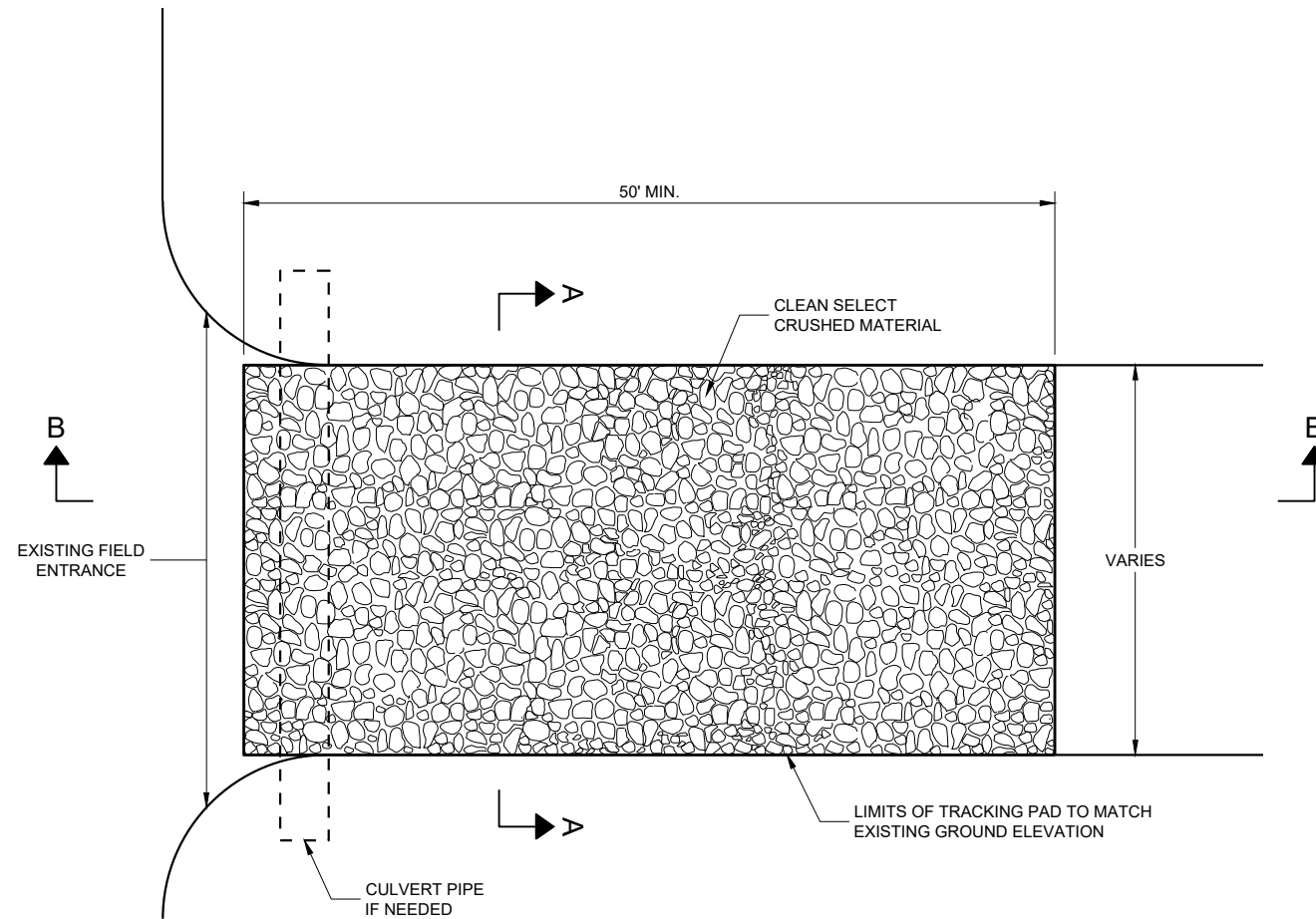
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



**SECTION A - A**



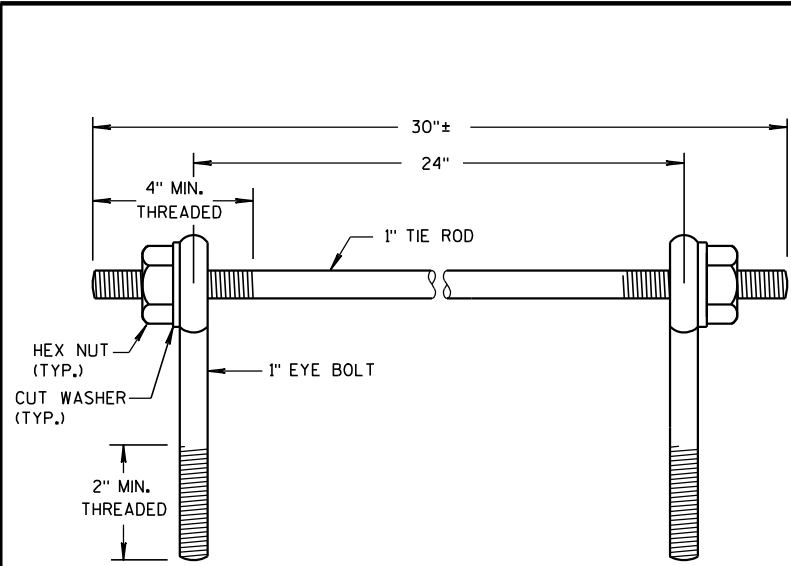
**SECTION B - B**

**TRACKING PAD**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

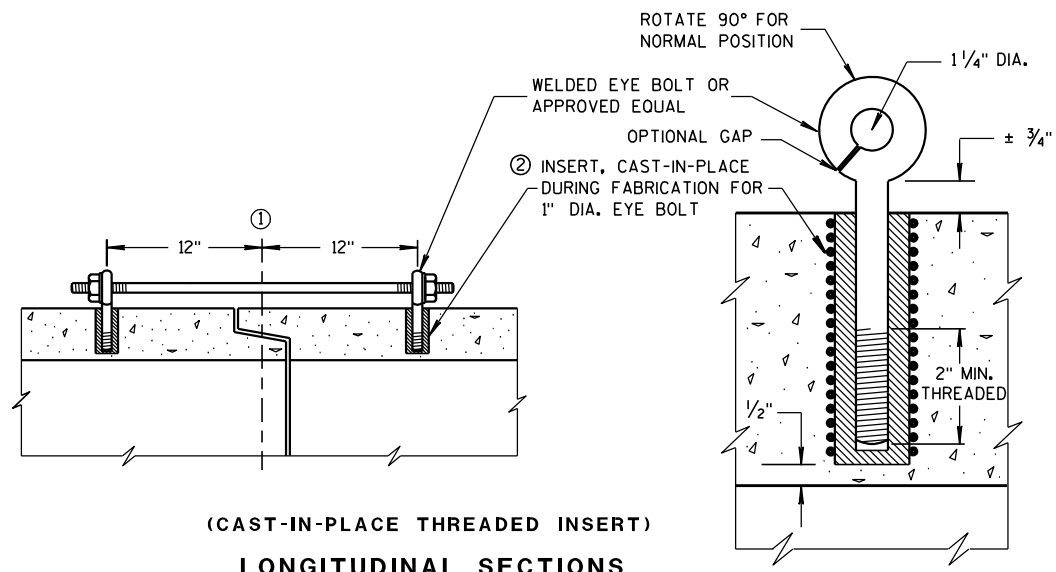
APPROVED  
3/24/2011 DATE /S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD

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



(CAST-IN-PLACE THREADED INSERT)  
LONGITUDINAL SECTIONS

GENERAL NOTES

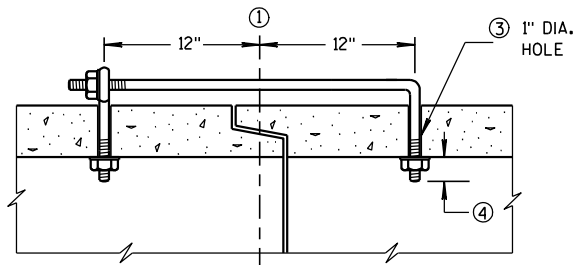
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

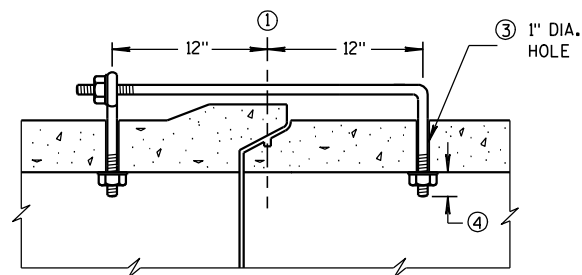
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

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

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



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)  
LONGITUDINAL SECTION

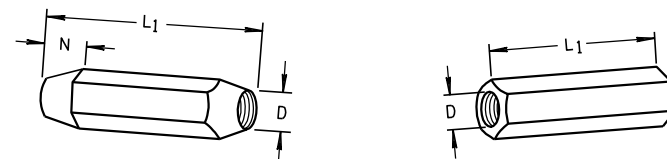
EYE BOLT DIMENSION TABLE

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

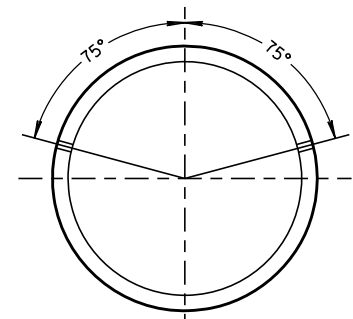
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L <sub>1</sub>	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/6

DIMENSIONS SHOWN ARE IN INCHES

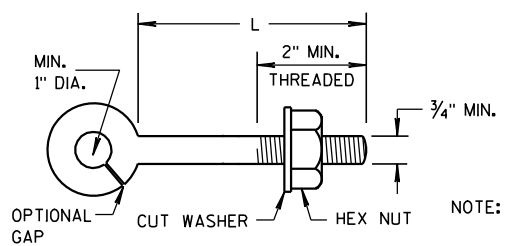


TAPERED PLAIN  
RIGHT AND LEFT THREADS  
SLEEVE NUTS



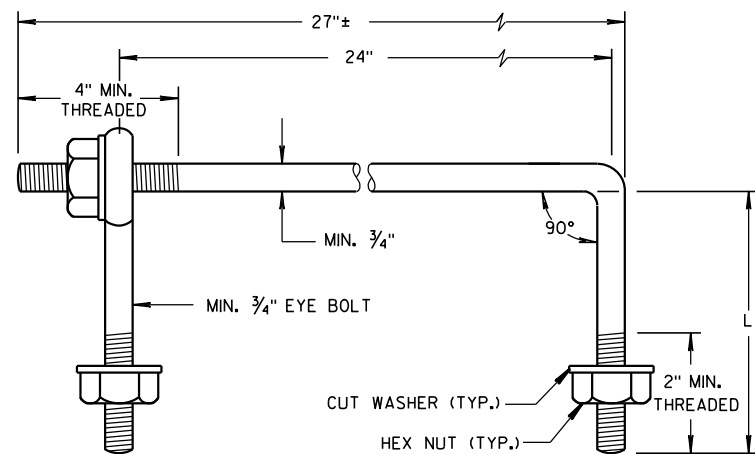
PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



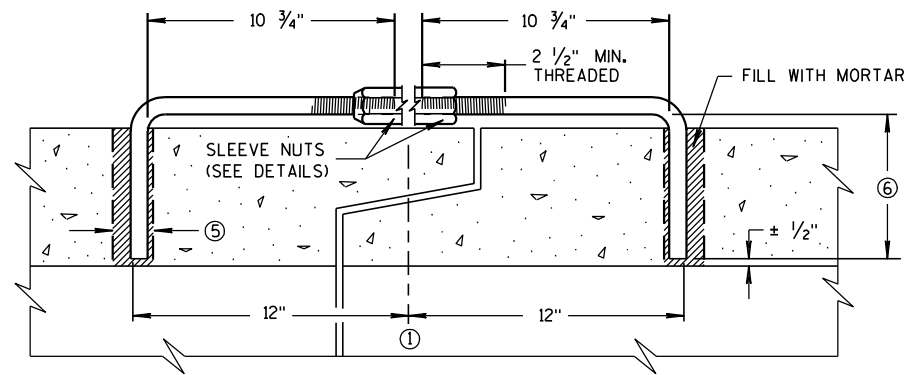
EYE BOLT

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



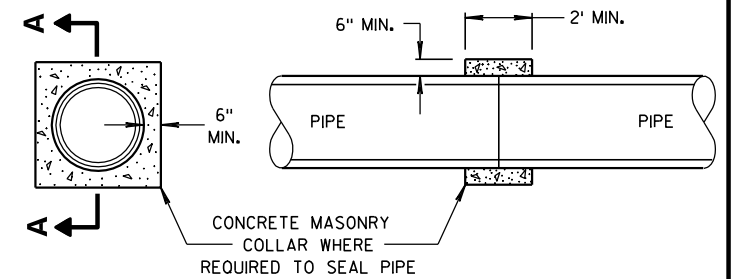
EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)  
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



LONGITUDINAL SECTION

(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)  
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



SECTION A-A

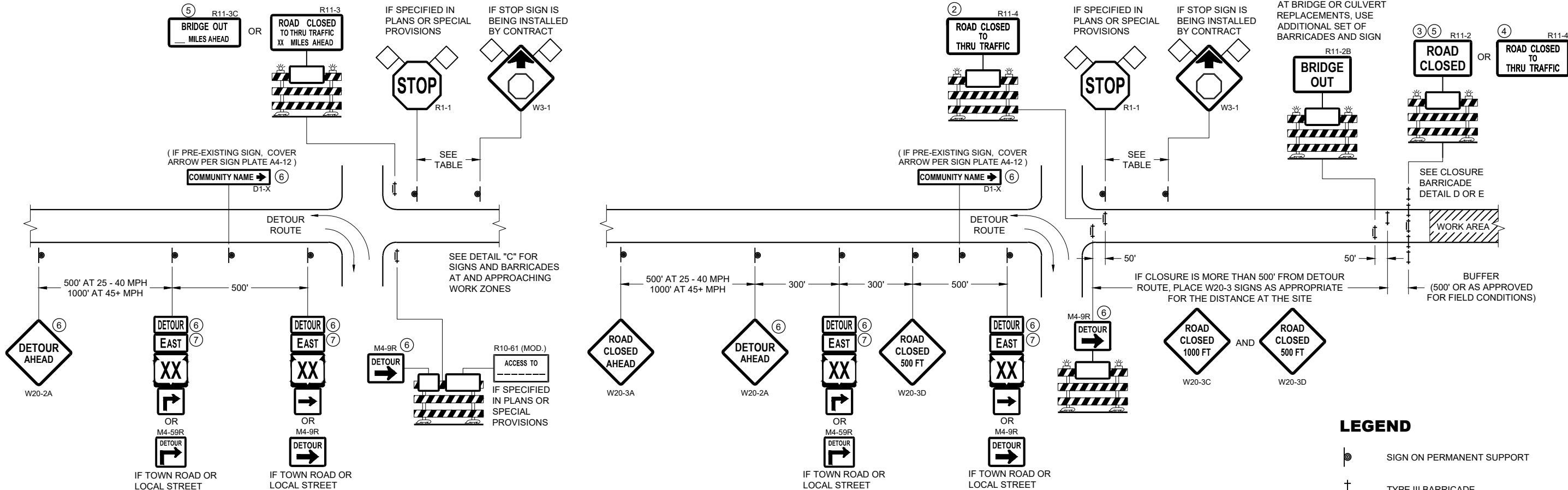
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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





**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

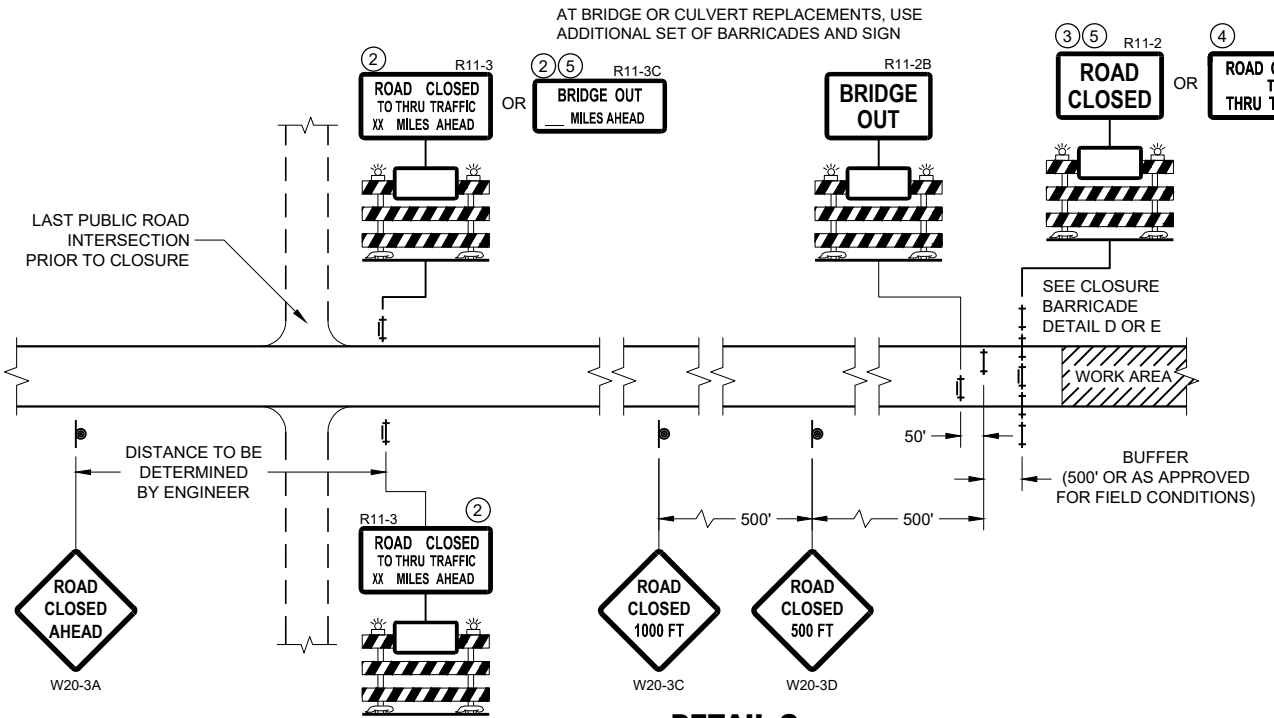
**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

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)

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1

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



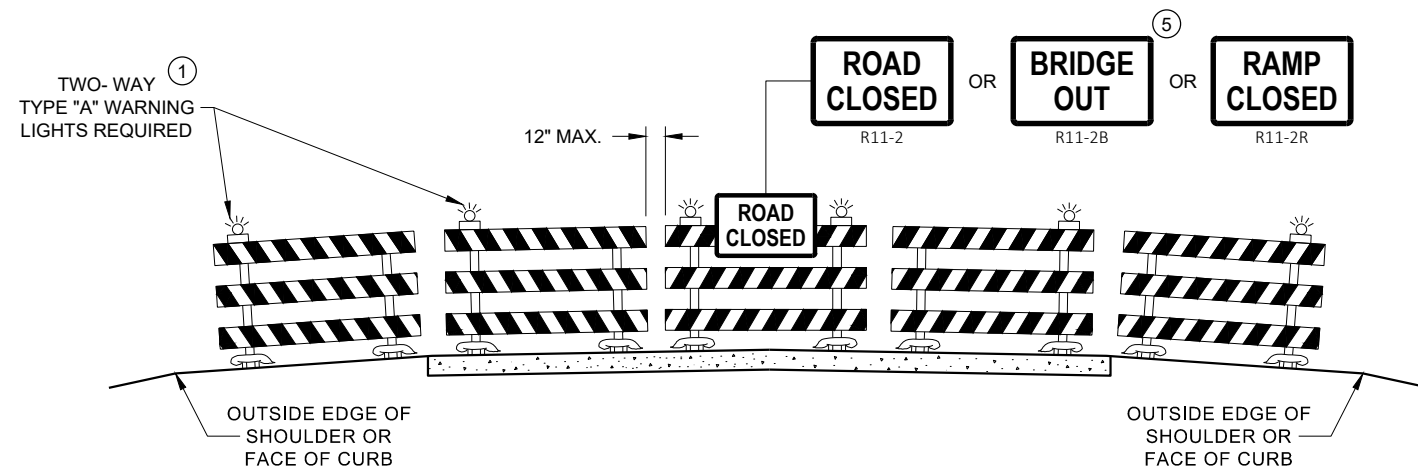
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

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

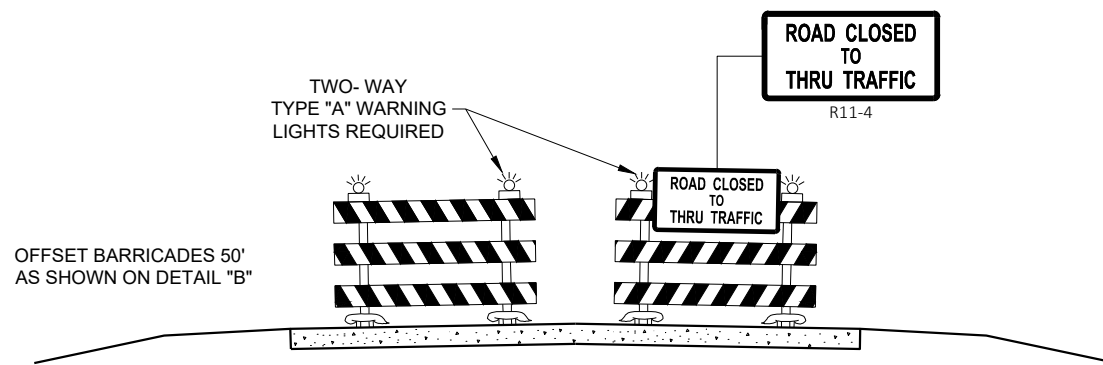
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
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 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

**GENERAL NOTES**

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

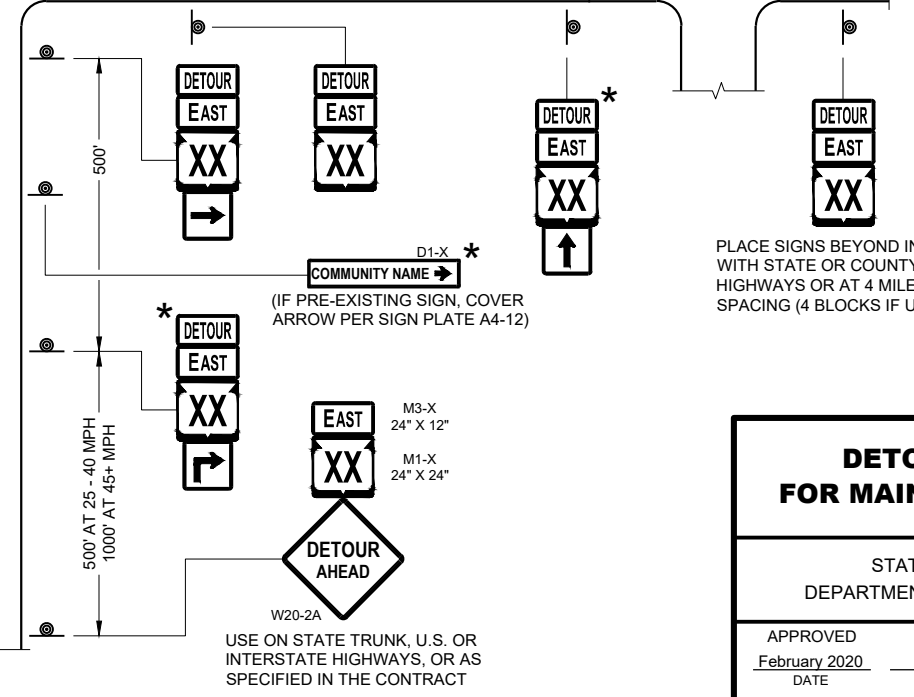
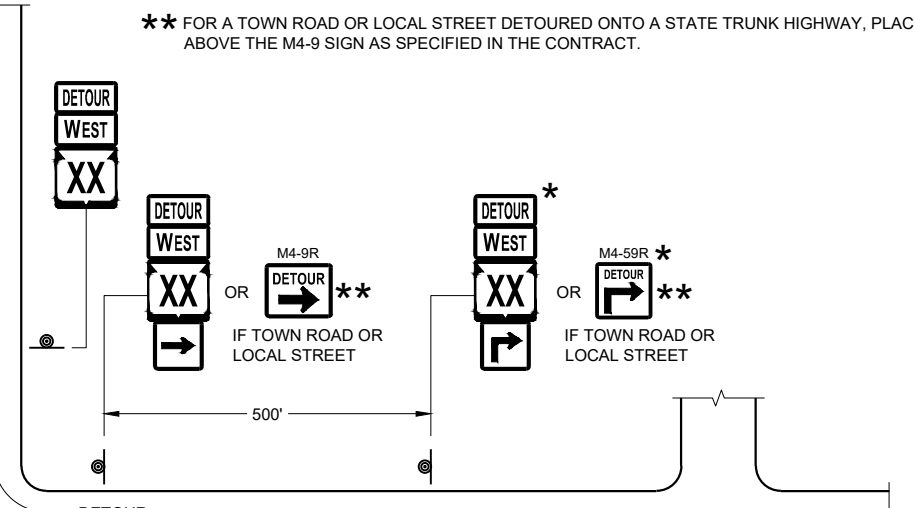
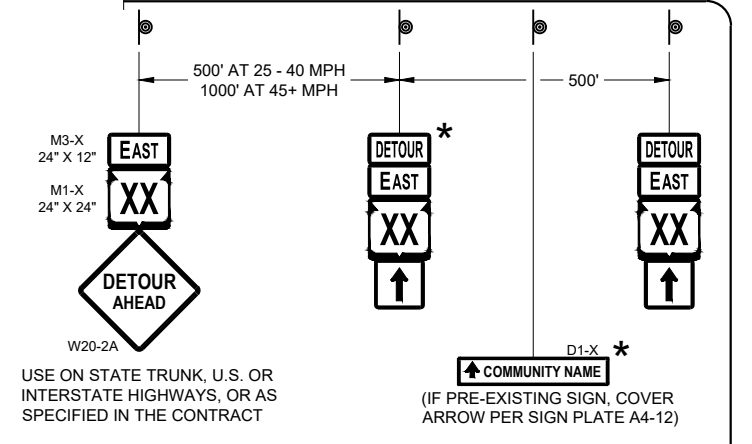
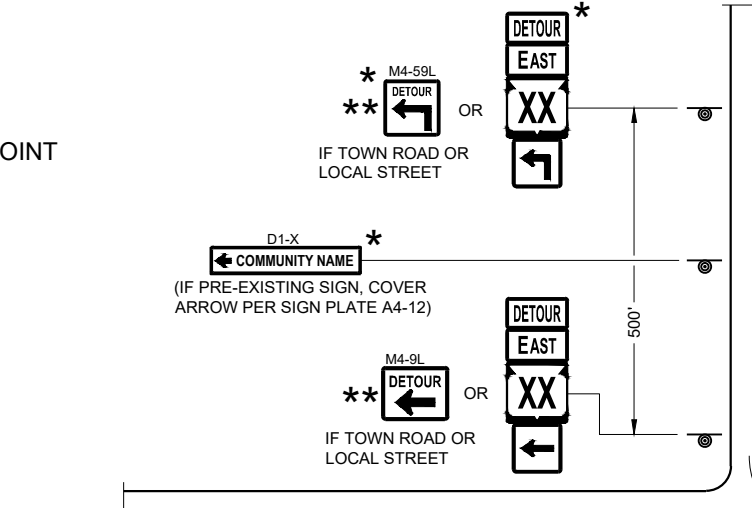
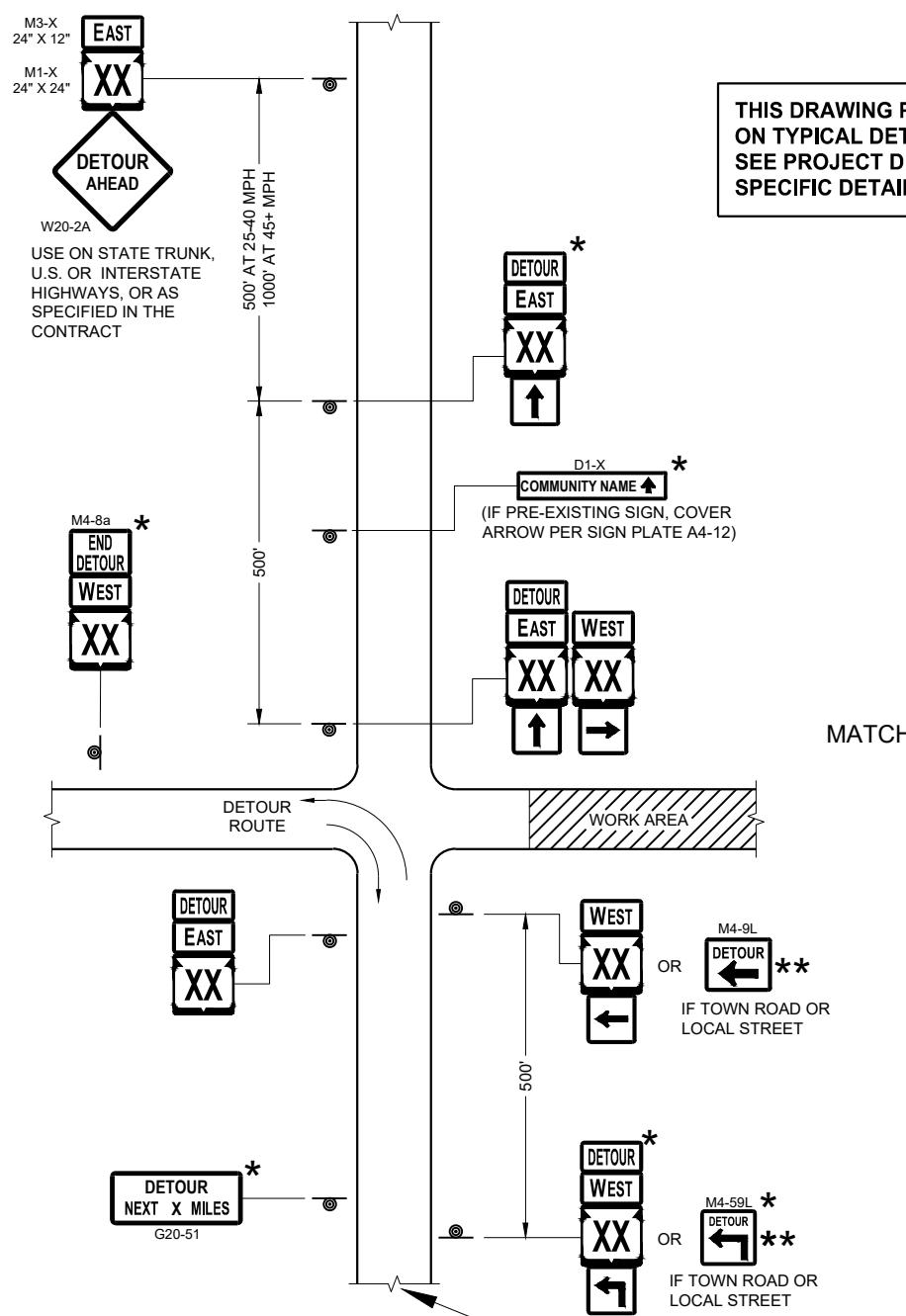
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (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)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- \* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- \*\* FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

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



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

**DETAIL F  
DETOUR SIGNING**

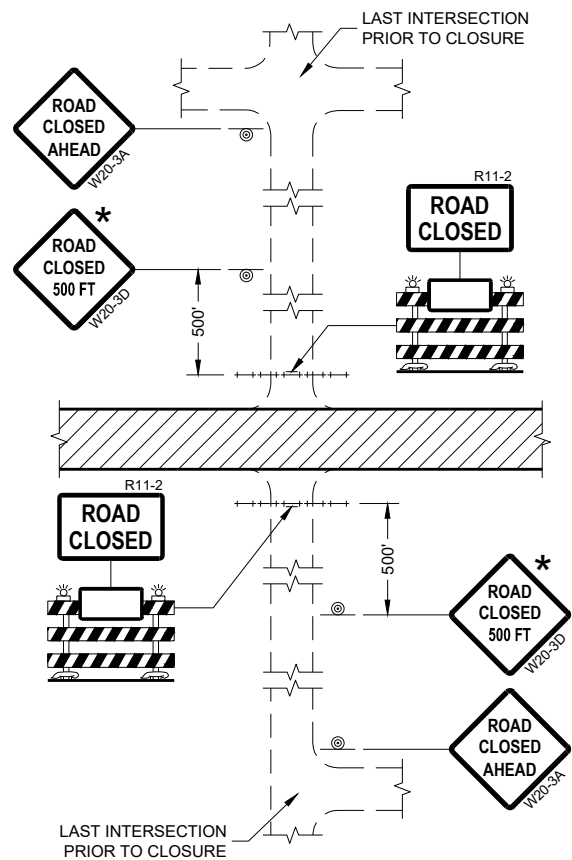
SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETOUR SIGNING  
FOR MAINLINE CLOSURES**

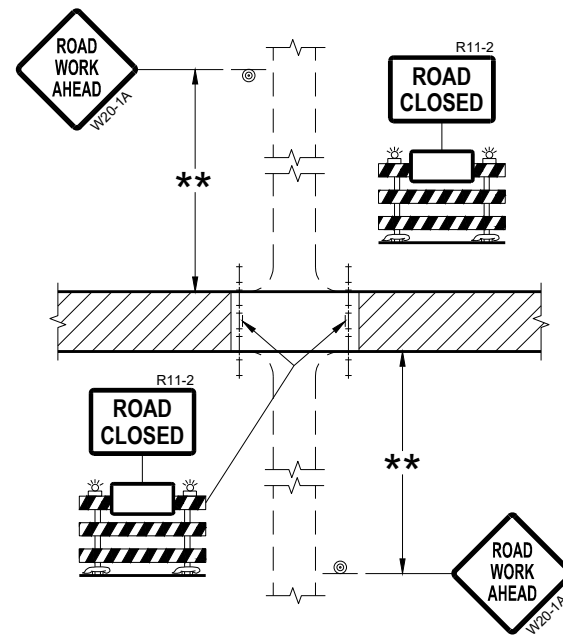
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

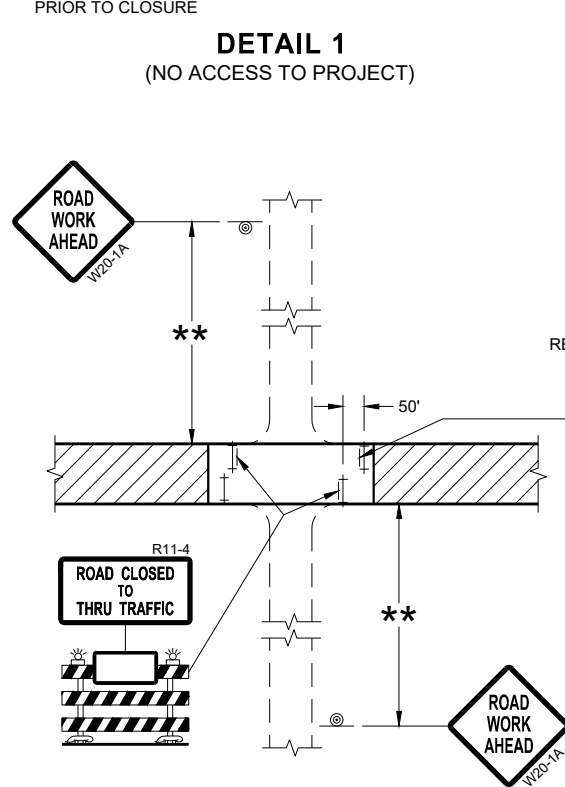
FHWA



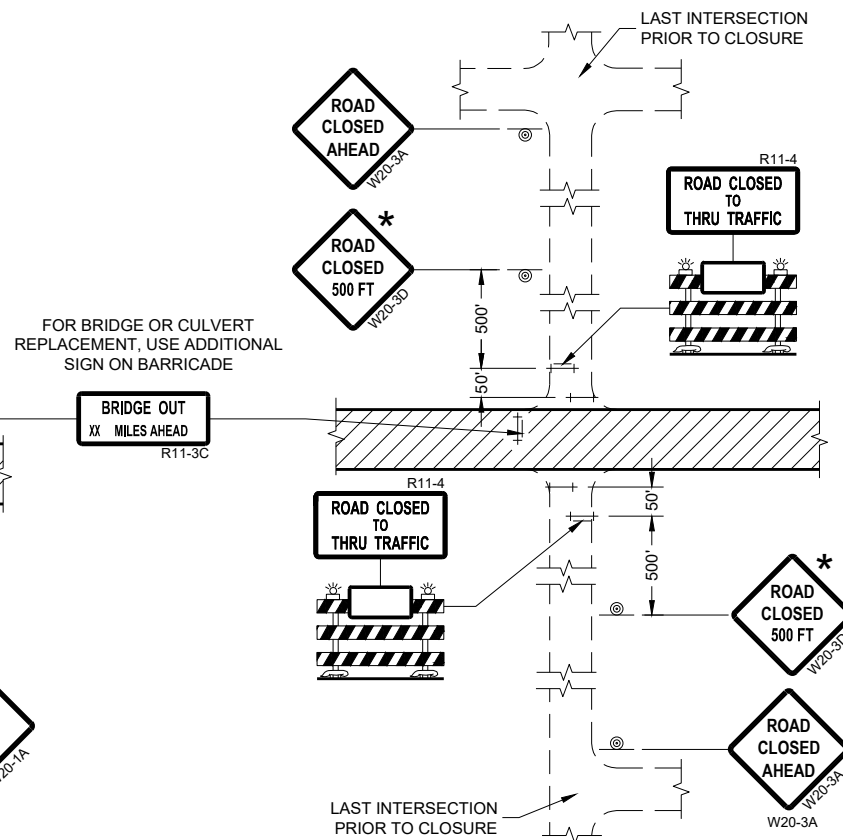
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT)



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**GENERAL NOTES**

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

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

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

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

BARRICADES 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.

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

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

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

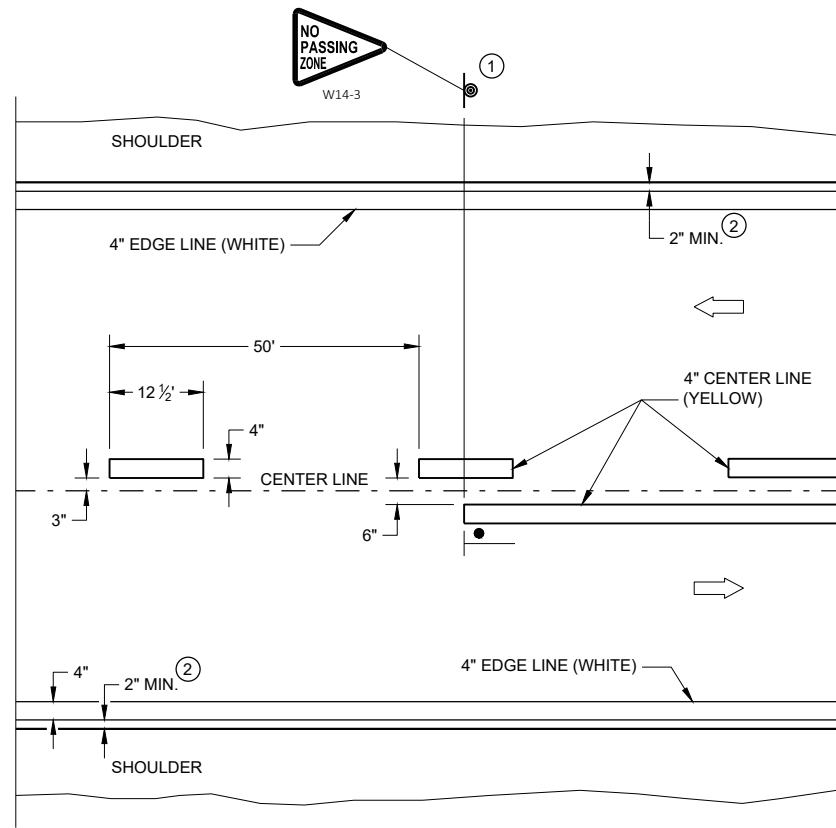
**LEGEND**

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

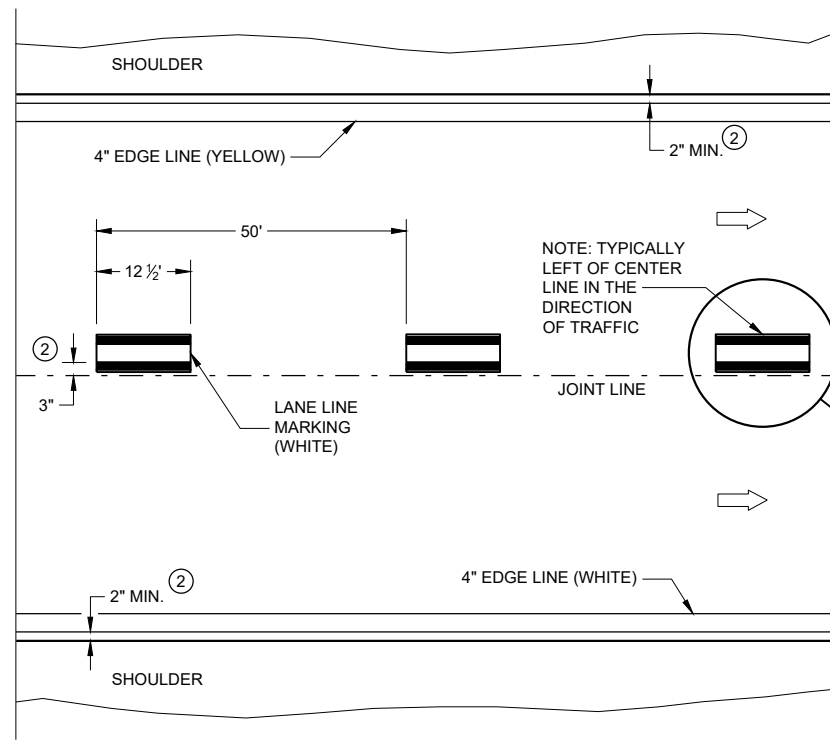
**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

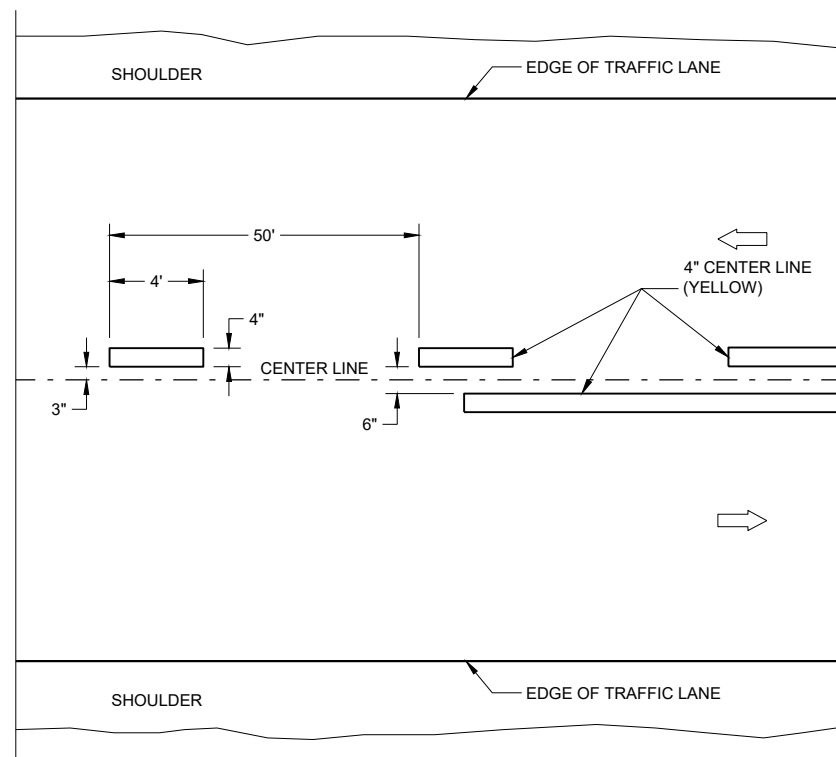


**TWO WAY TRAFFIC**

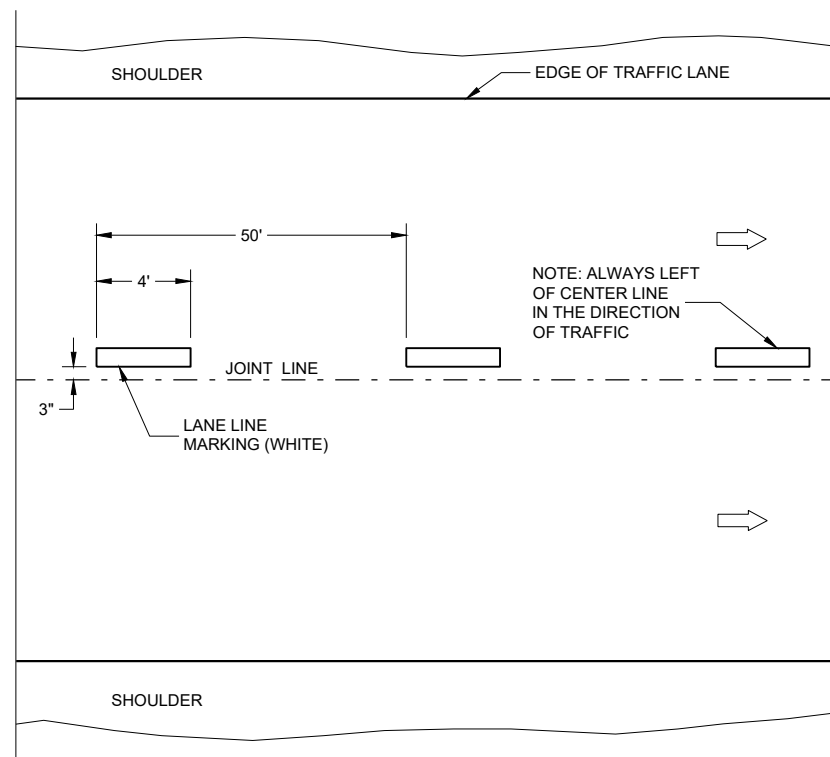


**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**TEMPORARY PAVEMENT MARKING**

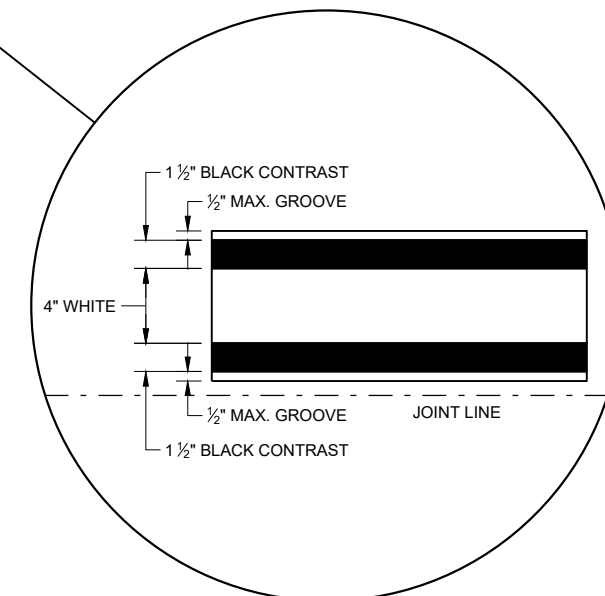
**GENERAL NOTES**

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 WITHIN 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**

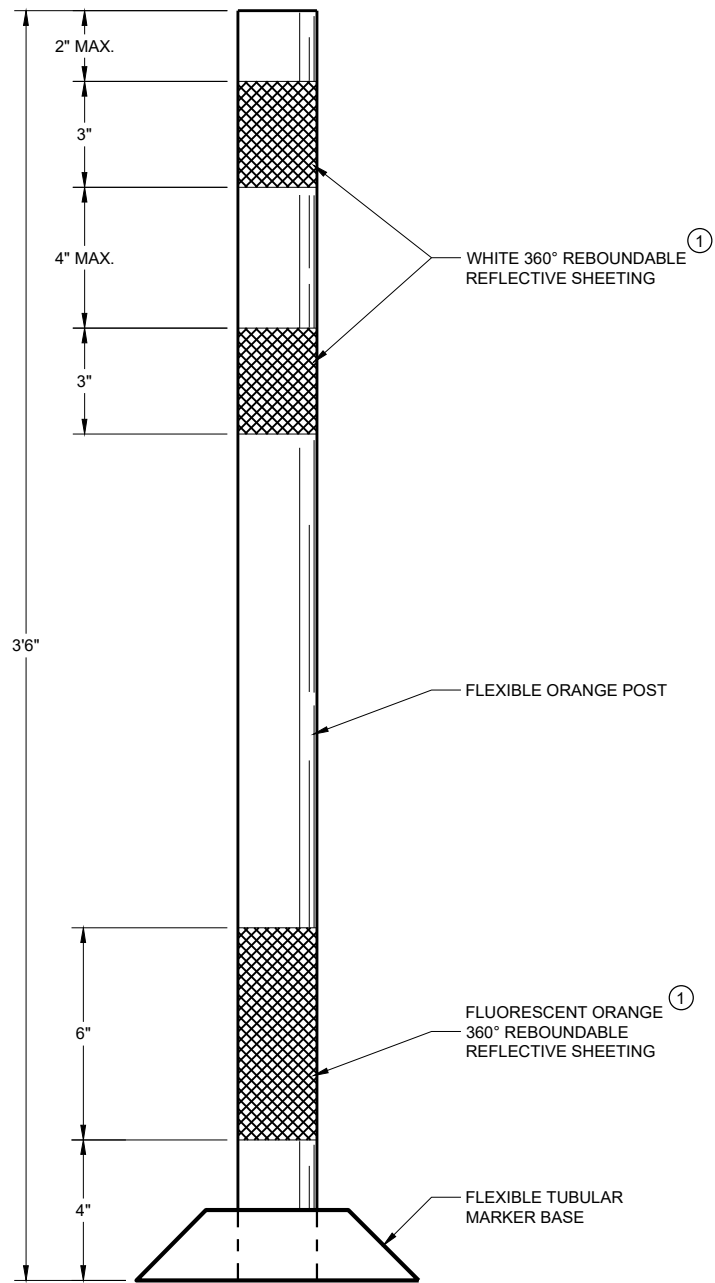
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



**LONGITUDINAL MARKING  
(MAINLINE)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



FLEXIBLE TUBULAR MARKER POST WORK ZONE

**GENERAL NOTES**

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

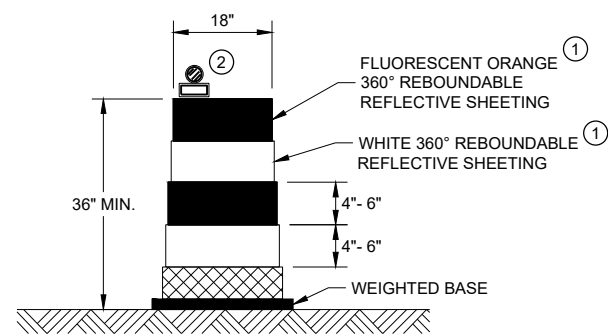
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

**CHANNELIZING DEVICES  
FLEXIBLE TUBULAR  
MARKER POST**

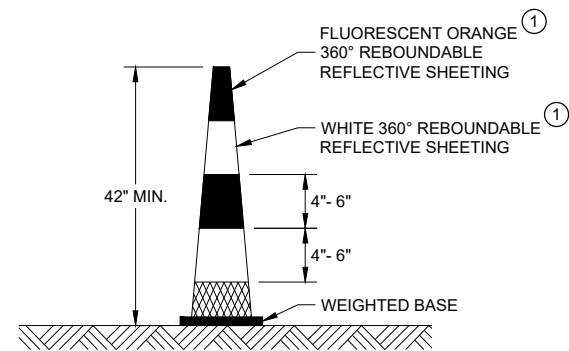
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

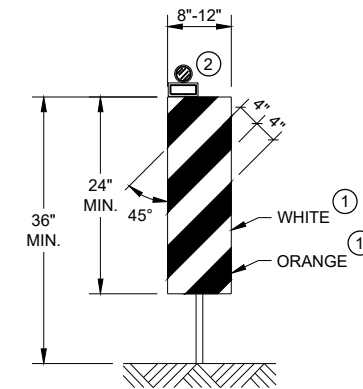


**DRUM**



**42" CONE**

DO NOT USE IN TAPERS  
 1/2 SPACING OF DRUMS

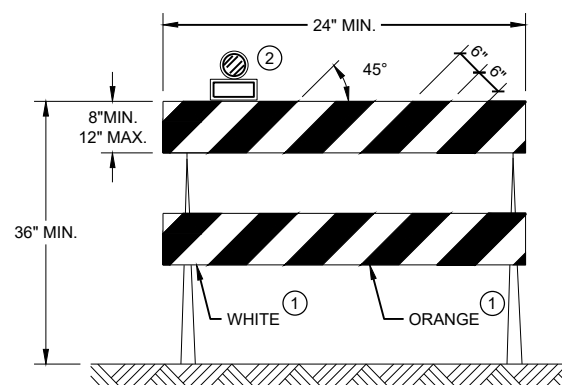


**VERTICAL PANEL**

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

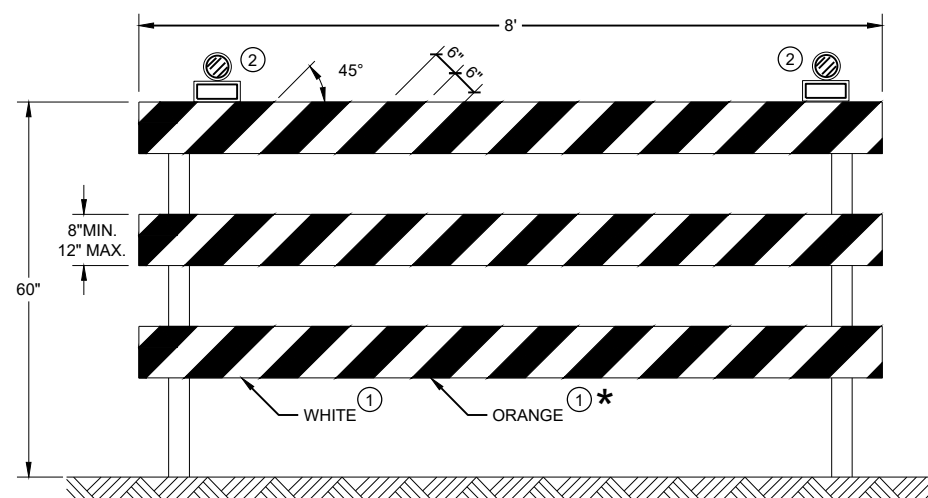
**GENERAL NOTES**

- 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.



**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.



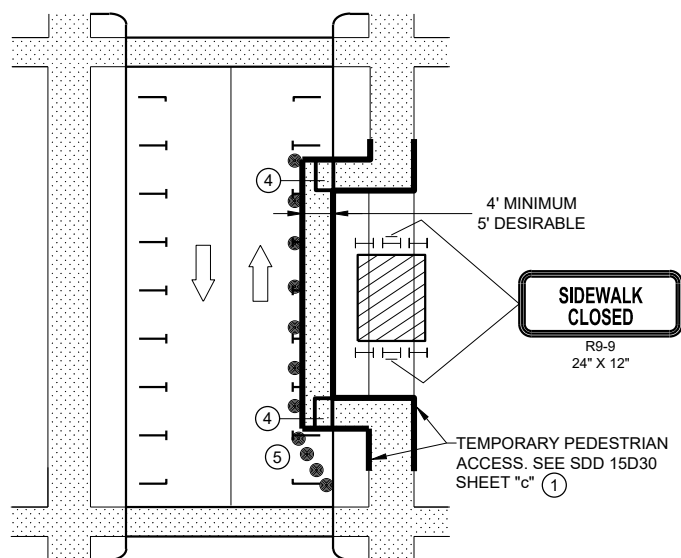
**TYPE III BARRICADE**

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

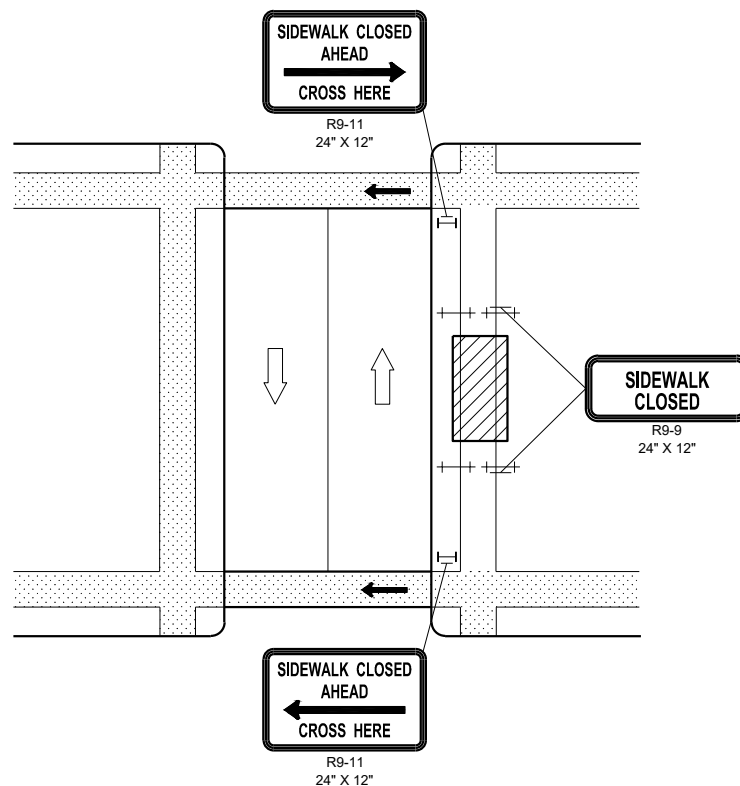
\* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

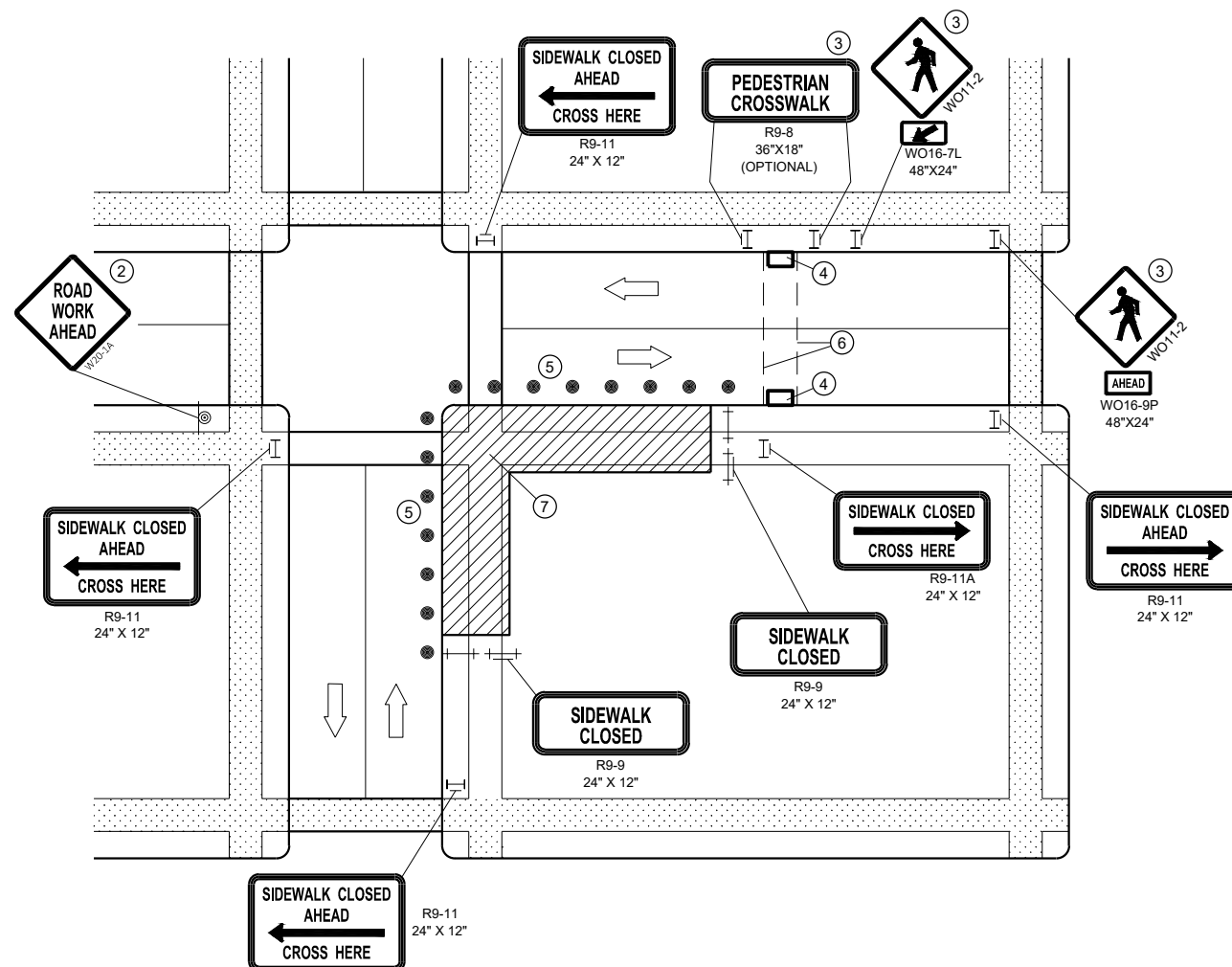
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



**MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE**

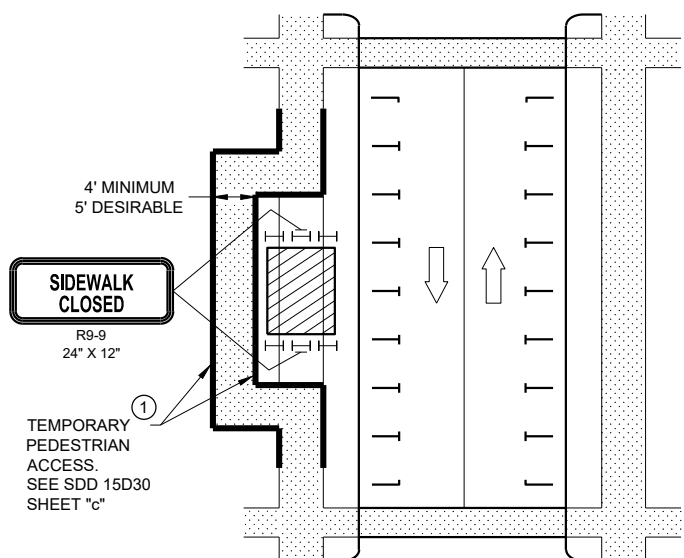


**MID-BLOCK SIDEWALK CLOSURE**



**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.

- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "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.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b".
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ 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**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

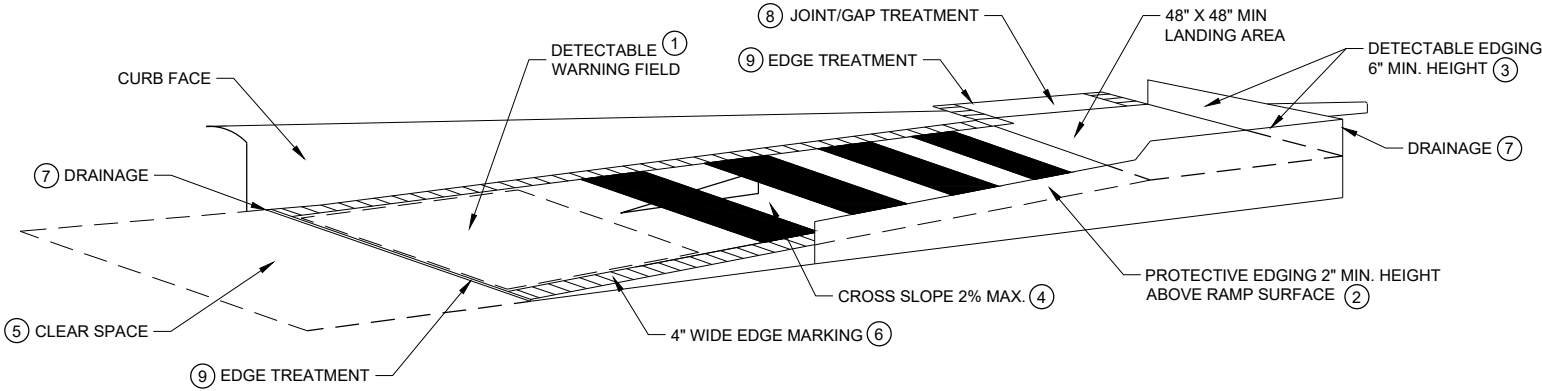


**GENERAL NOTES**

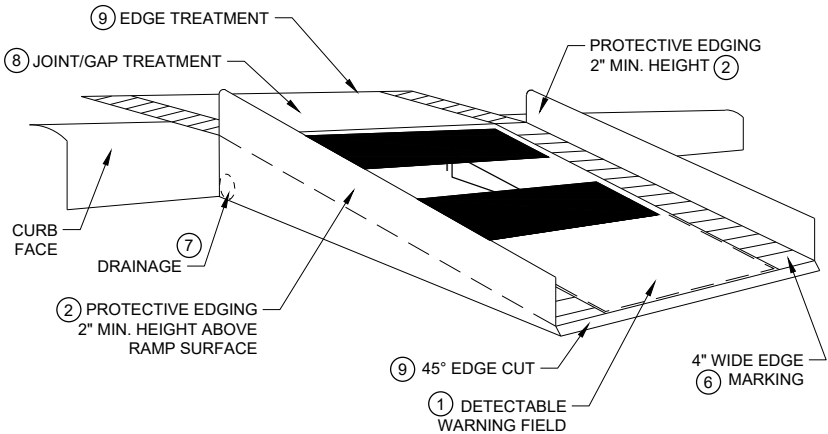
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

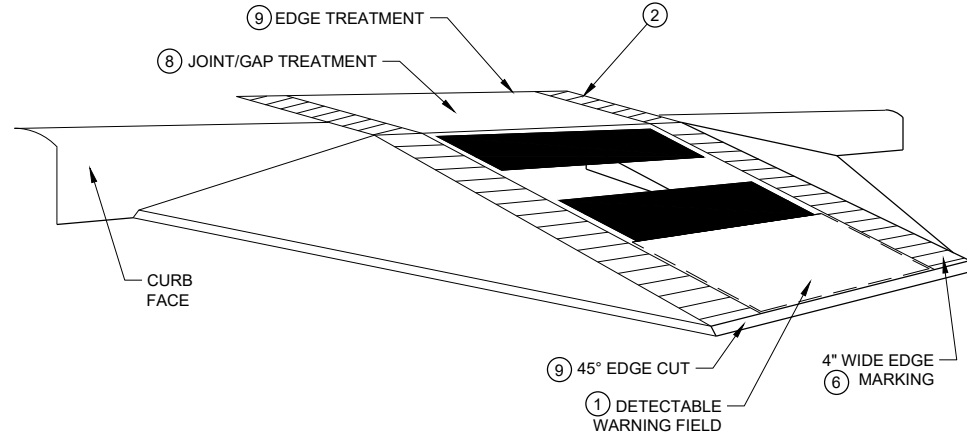
- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A 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.



**TEMPORARY CURB RAMP PARALLEL TO CURB**

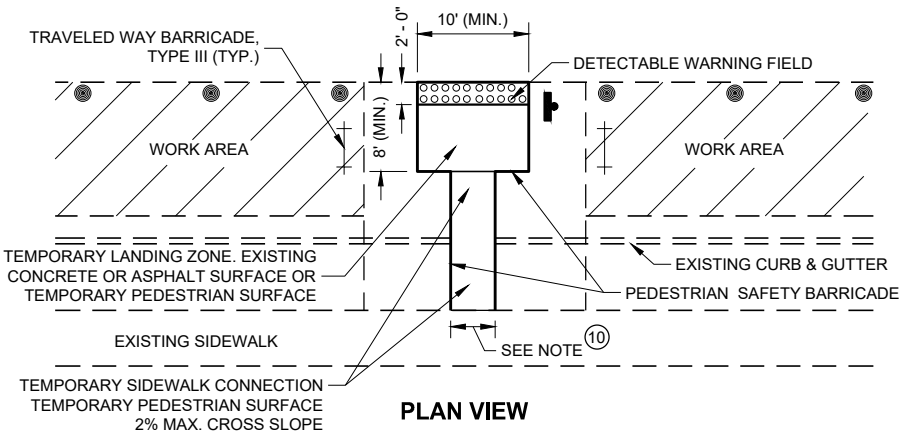


**WITH PROTECTIVE EDGE**

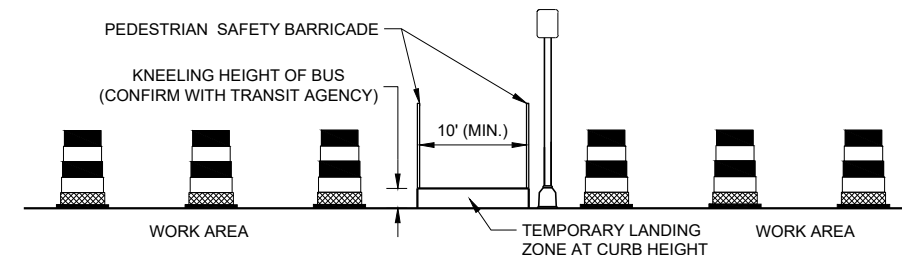


**WITH SIDE APRON**

**TEMPORARY CURB RAMP PERPENDICULAR TO CURB**



**PLAN VIEW**



**PROFILE VIEW**

**TEMPORARY BUS STOP PAD**

**LEGEND**

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

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

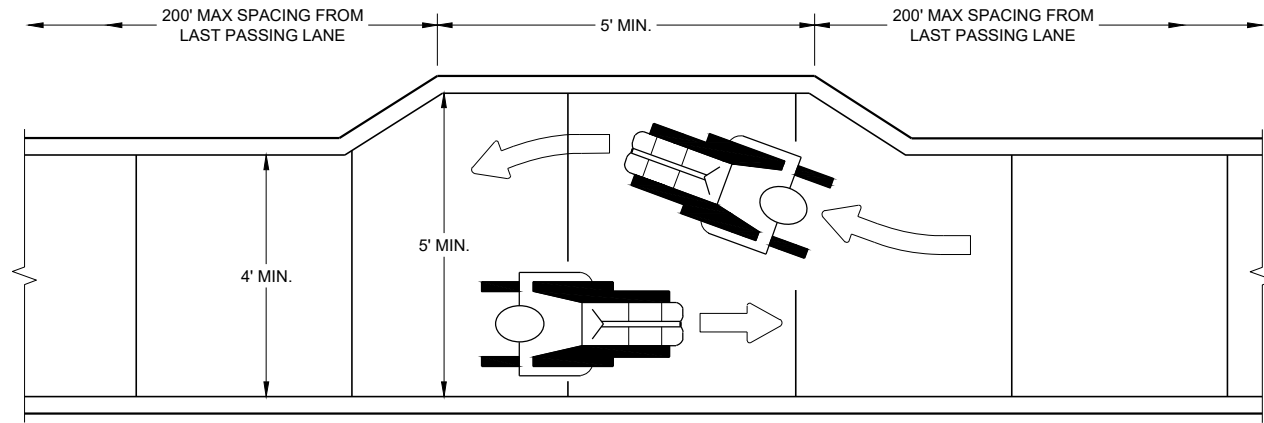
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

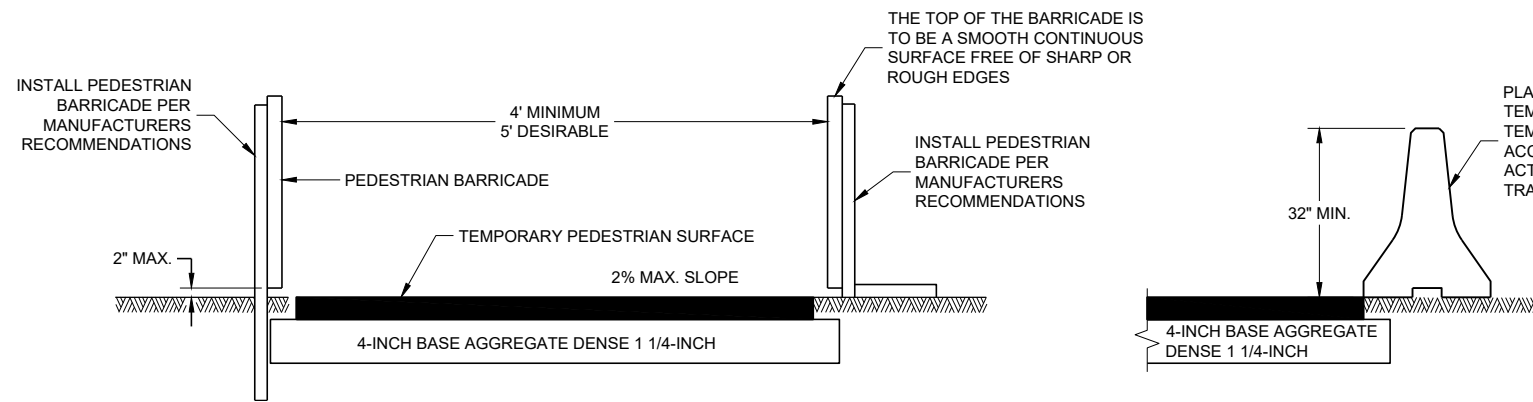
6

SDD 15D30 - 06b

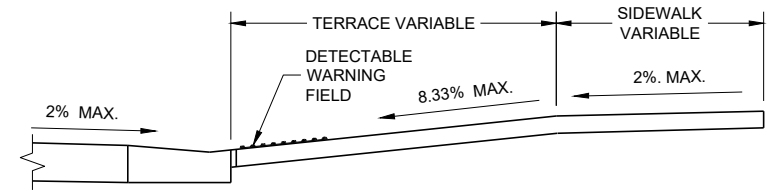
SDD 15D30 - 06b



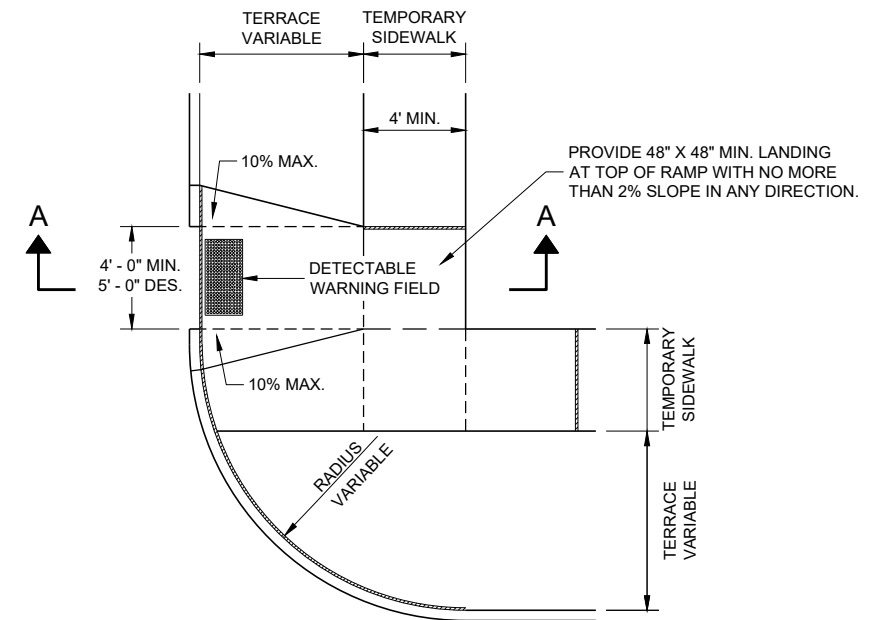
**NARROW SIDEWALK PASSING DETAIL**



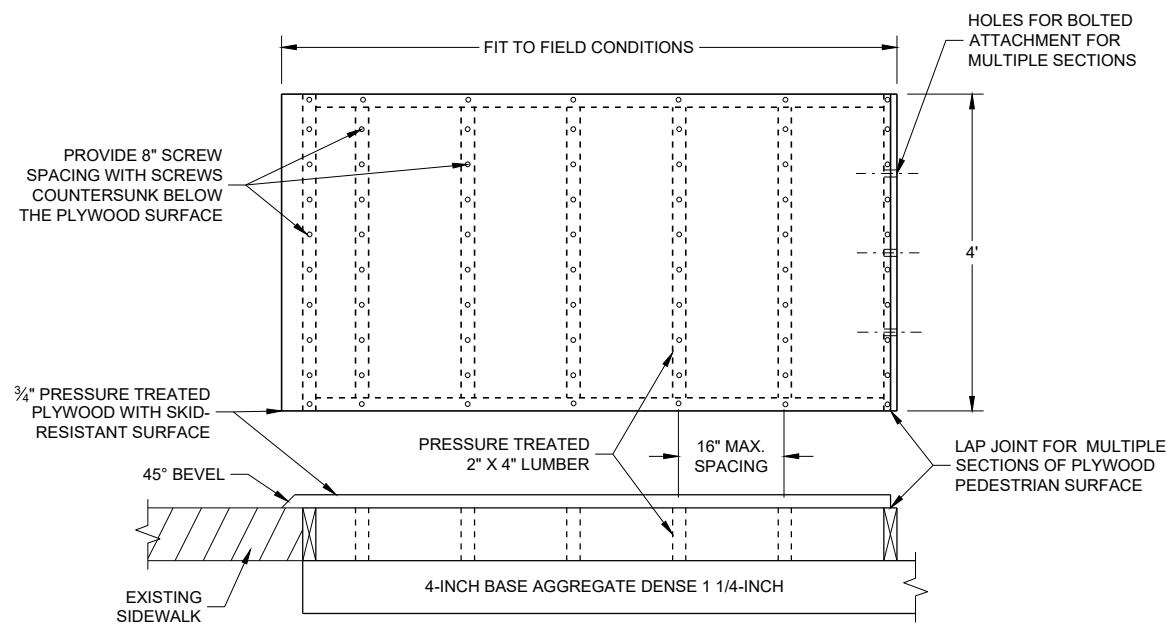
**TEMPORARY PEDESTRIAN ACCESS**



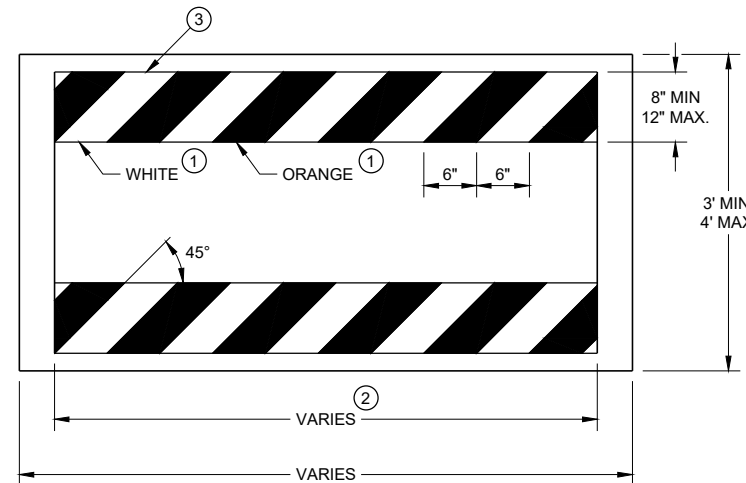
**SECTION A - A**



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



**TEMPORARY PEDESTRIAN SURFACE PLYWOOD**



**TEMPORARY PEDESTRIAN BARRICADE \***

**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.

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

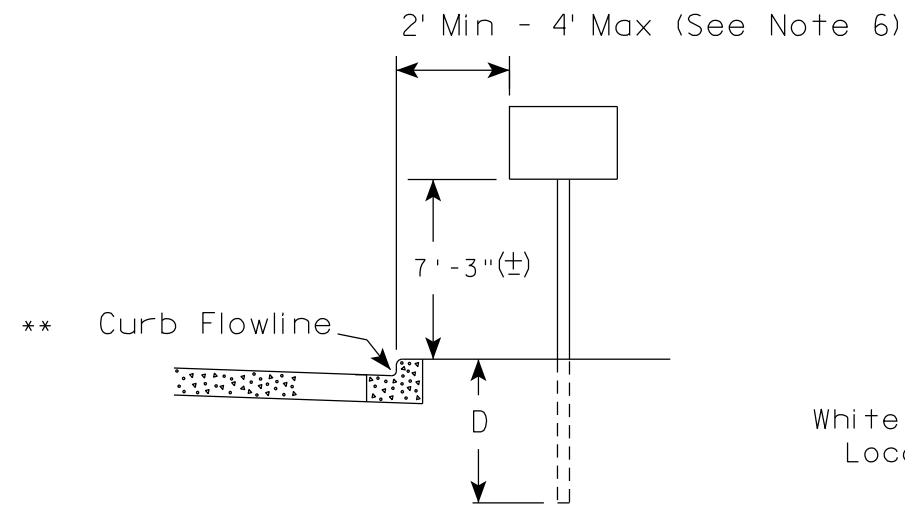
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

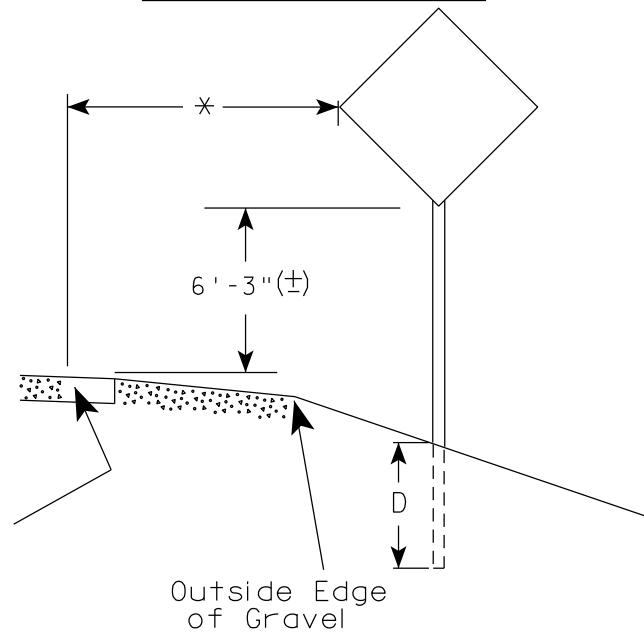
FHWA

URBAN AREA

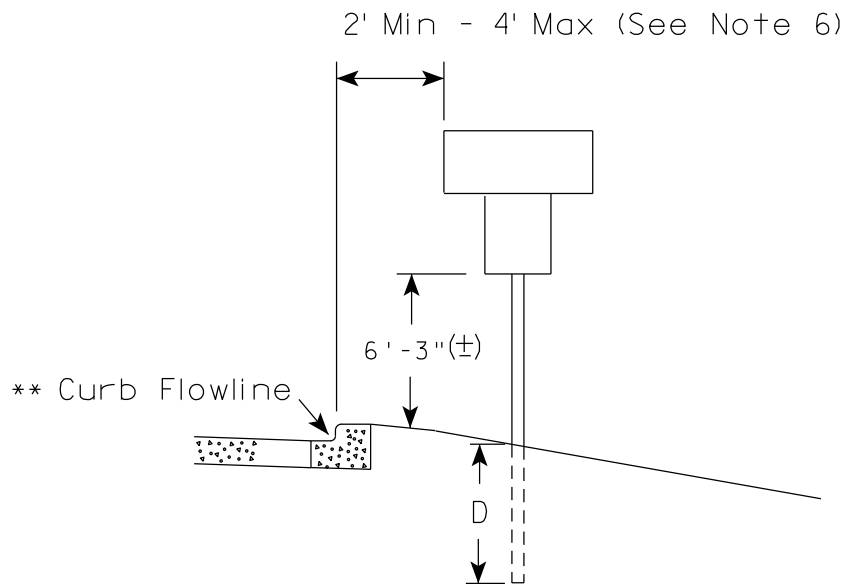
RURAL AREA (See Note 2)



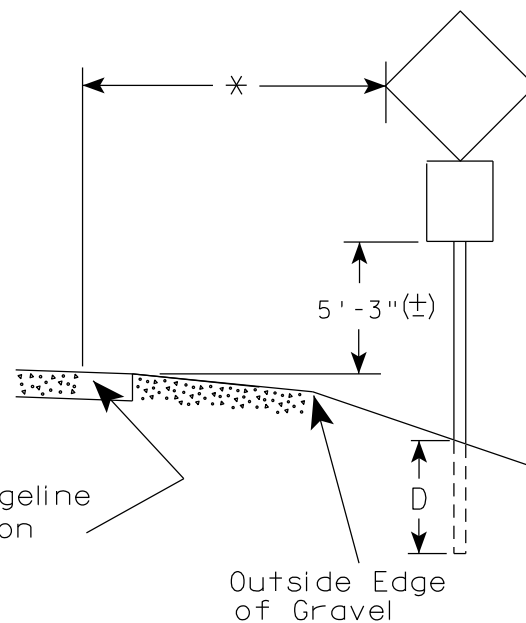
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. 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" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

7

7

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

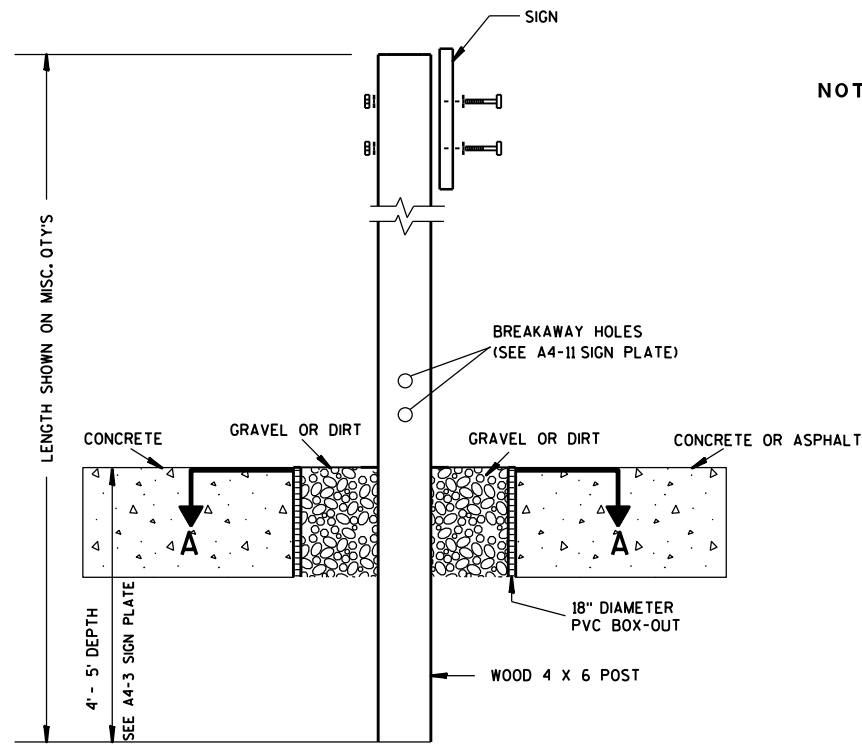
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

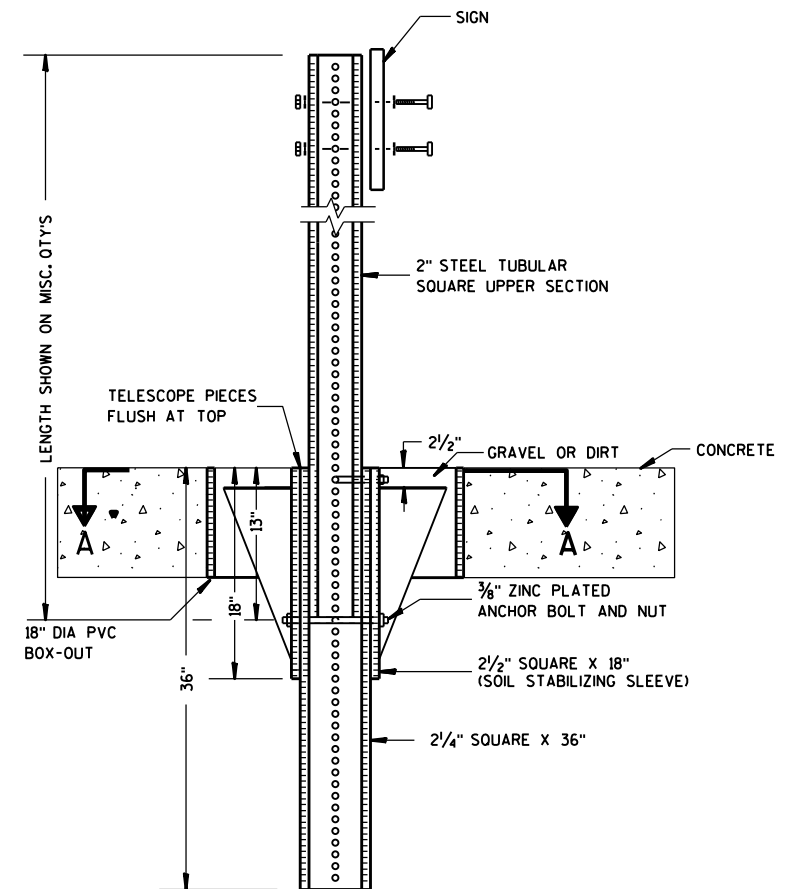
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

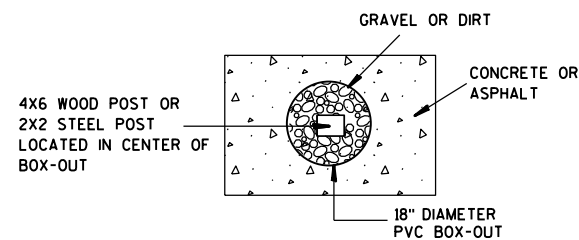
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
  2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
  3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**



**PLAN VIEW**

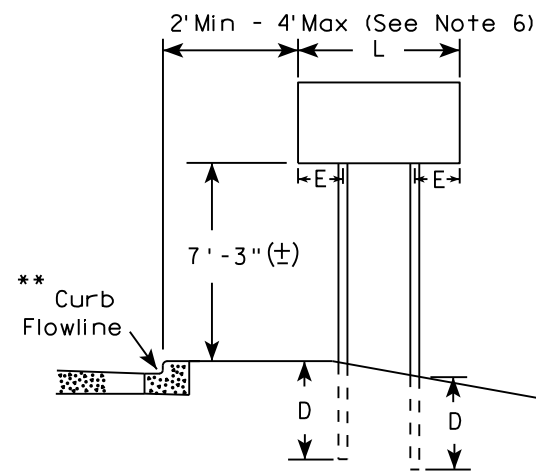
**FOR NEW CONCRETE/ ASPHALT INSTALLATIONS**

<b>SIGN POST BOX-OUTS A4-3B</b>	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

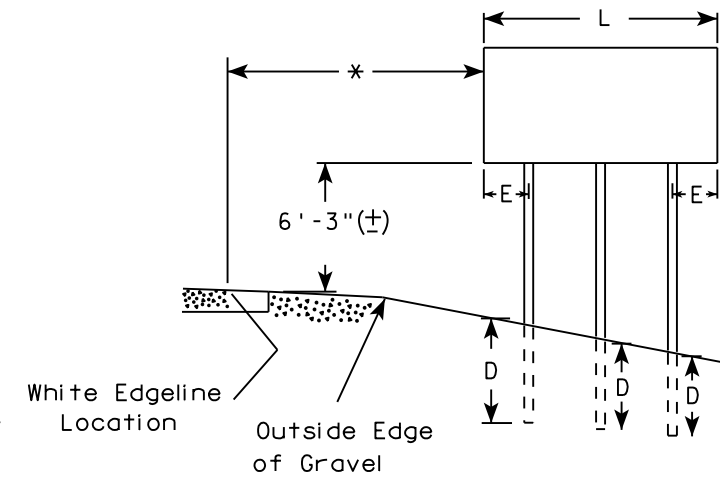
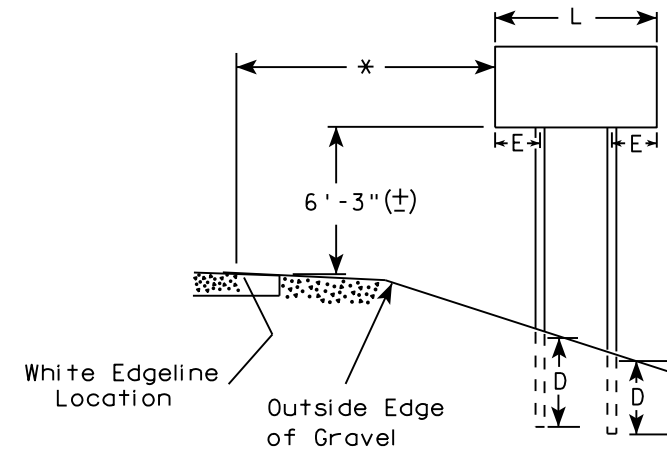
GENERAL NOTES

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

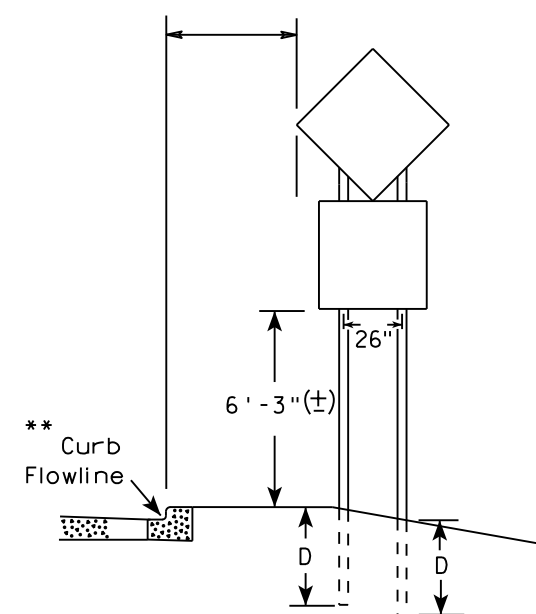
URBAN AREA



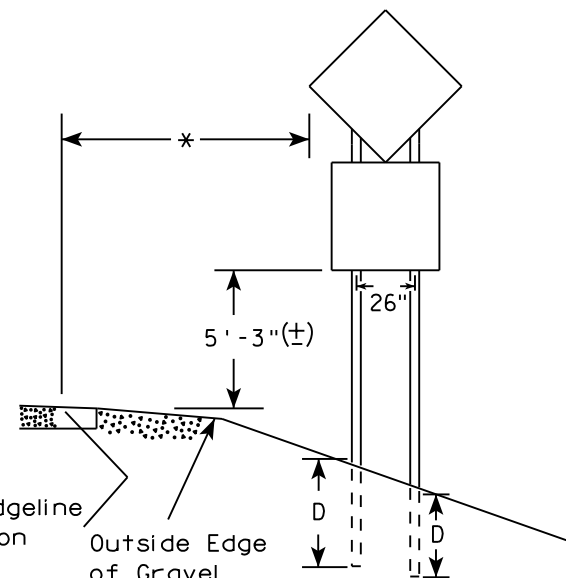
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

\*\*\*

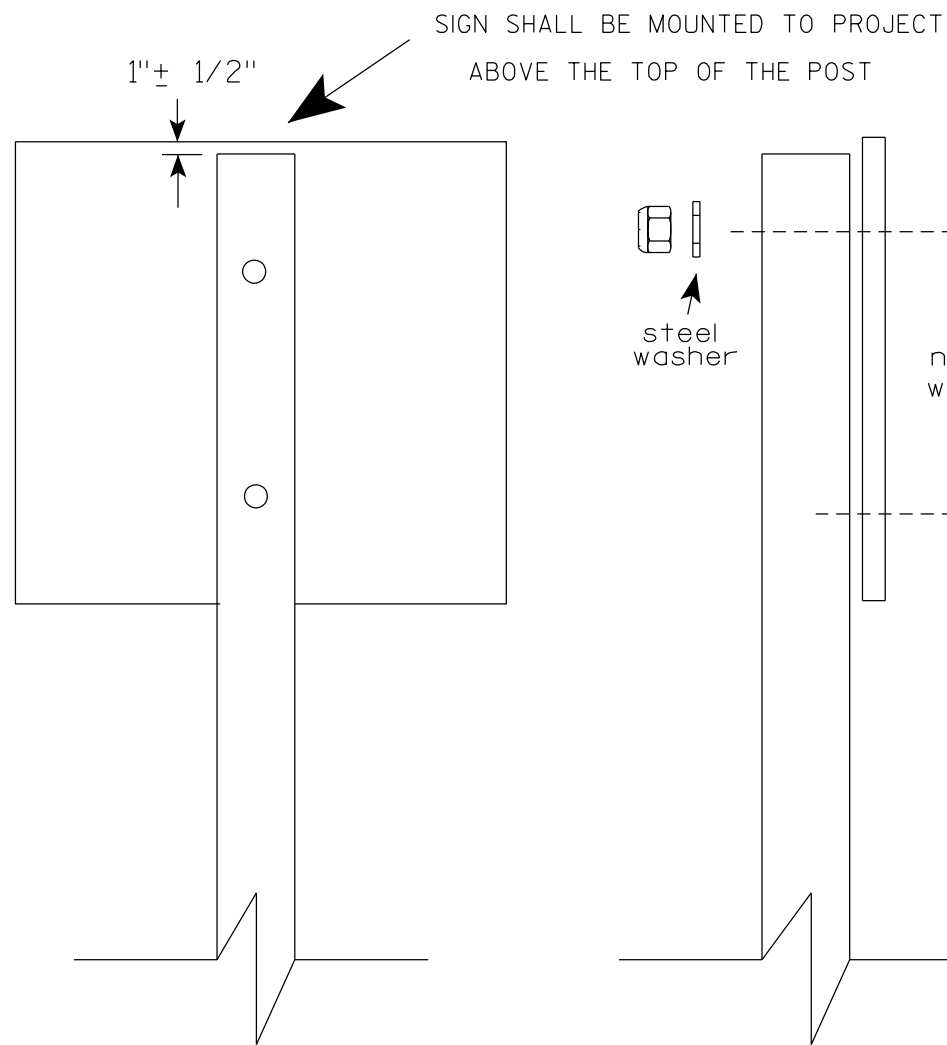
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION  
 APPROVED *Matthew R. Rauch*  
 For State Traffic Engineer  
 DATE 8/21/17 PLATE NO. A4-4.15



SIGN SHALL BE MOUNTED TO PROJECT ABOVE THE TOP OF THE POST

1"± 1/2"

steel washer

nylon washer

steel washer

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 - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)  
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

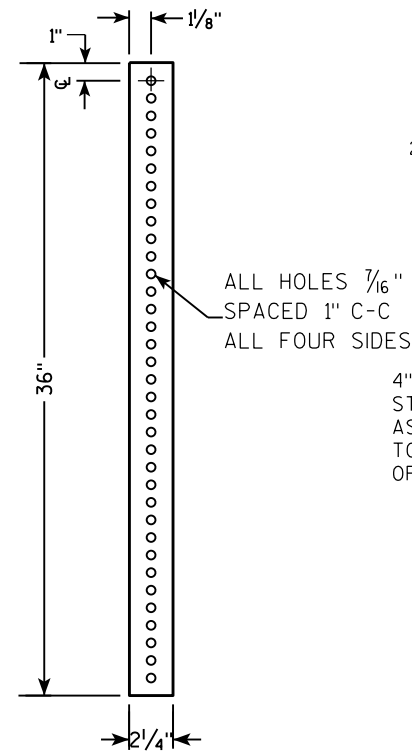
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

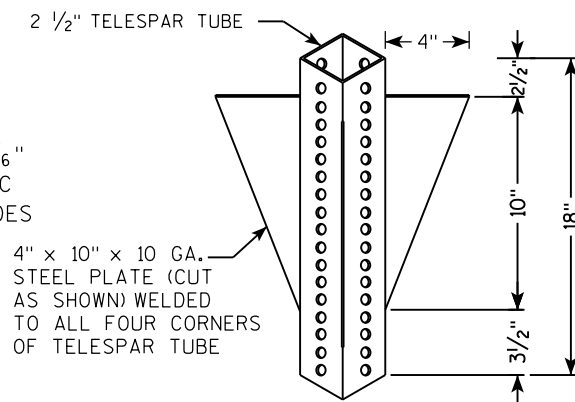
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

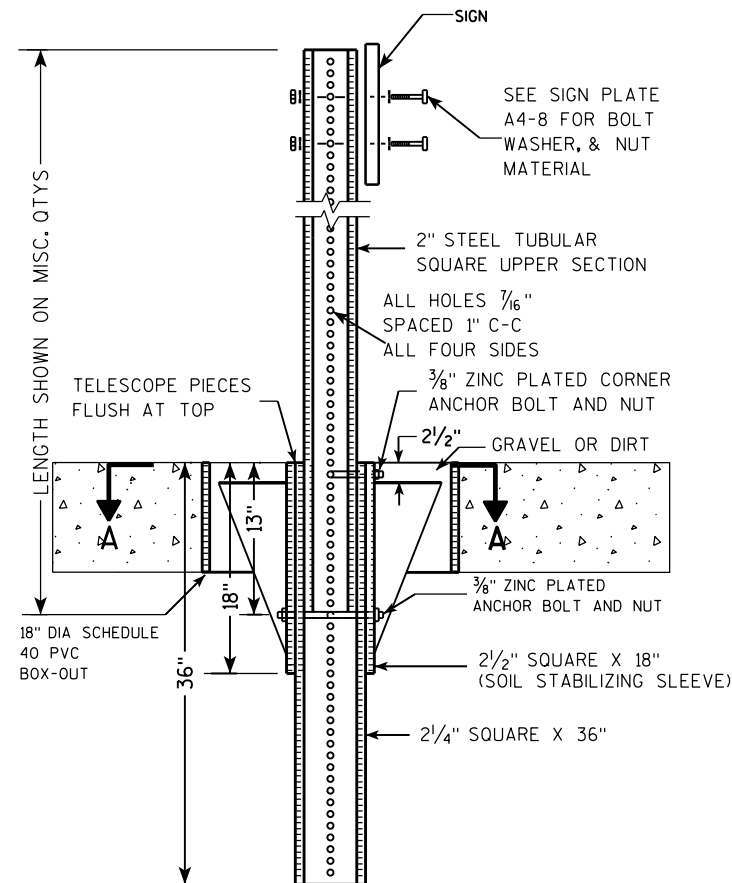
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



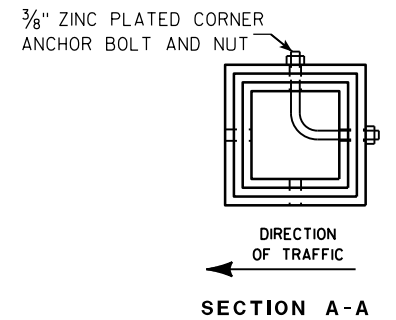
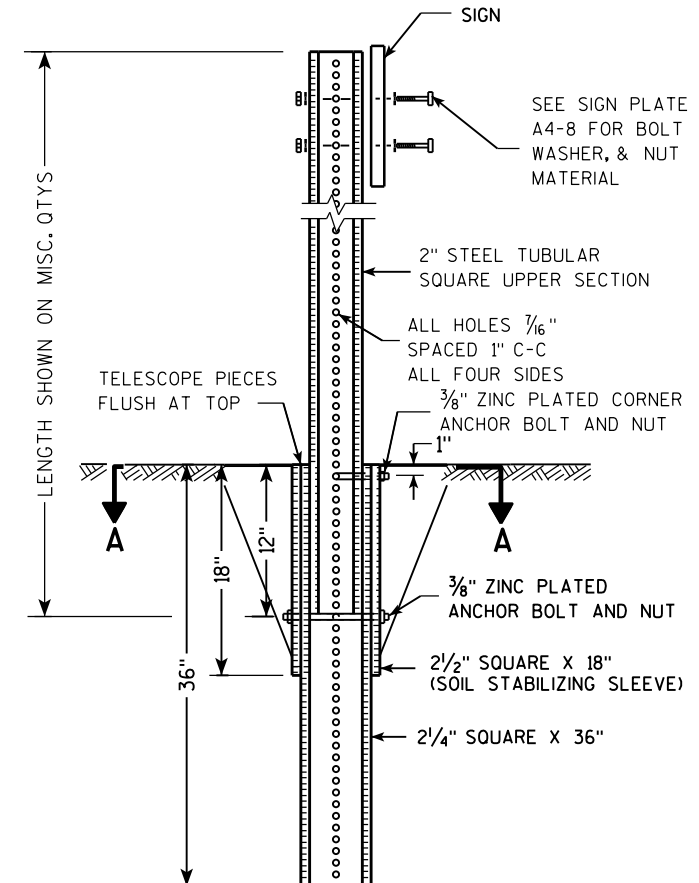
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**



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

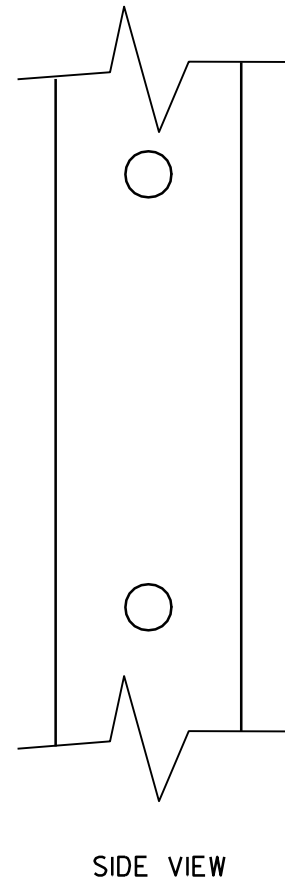
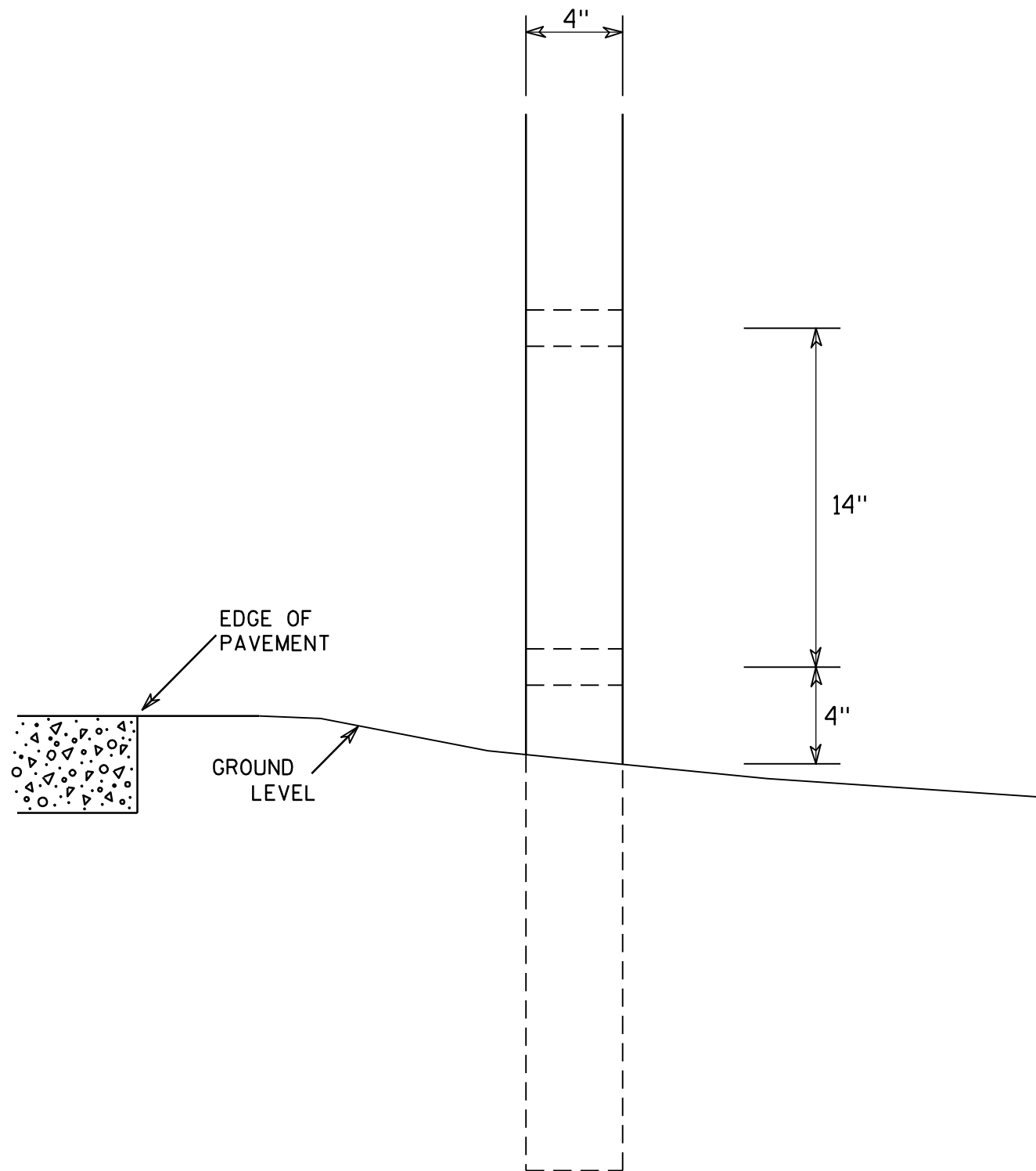
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

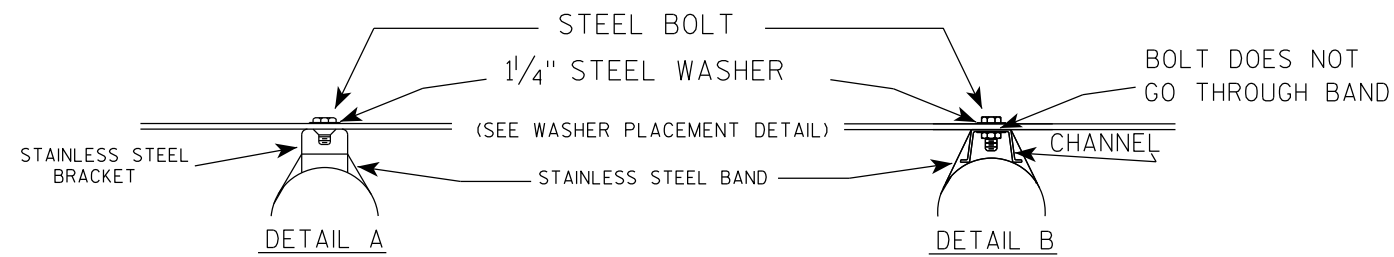
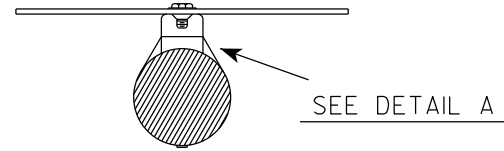
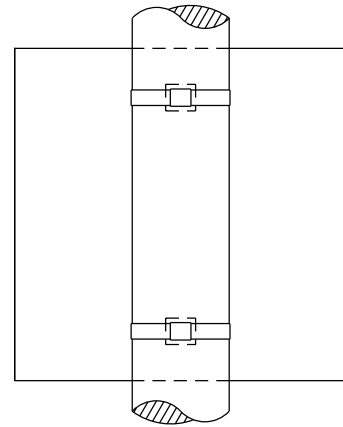
7

<b>4 X 6 WOOD POST MODIFICATIONS</b>	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>



# BANDING

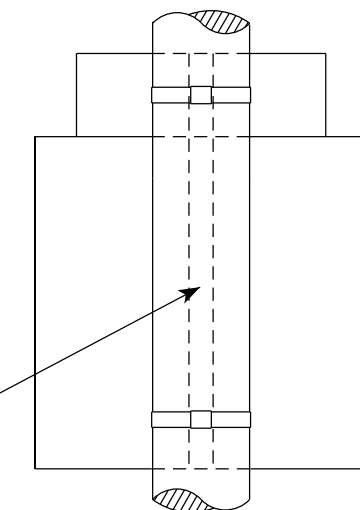
SINGLE SIGN



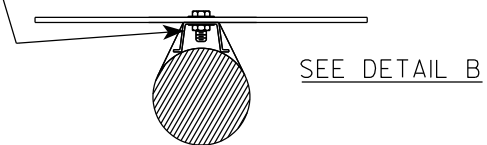
## GENERAL NOTES

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

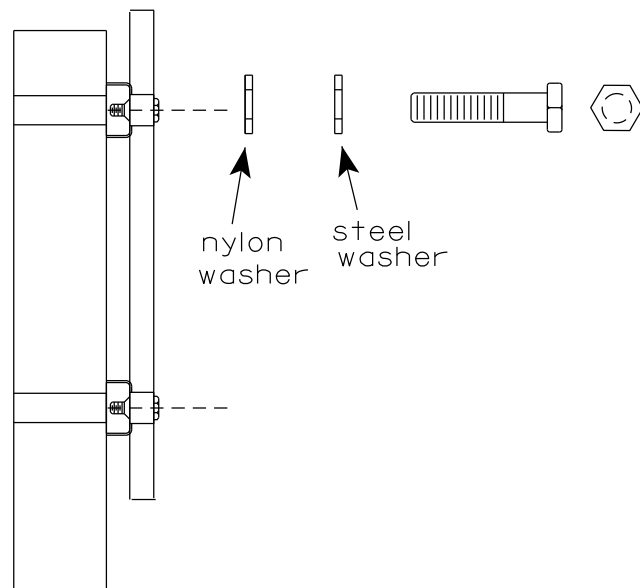
"J" ASSEMBLY



CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET

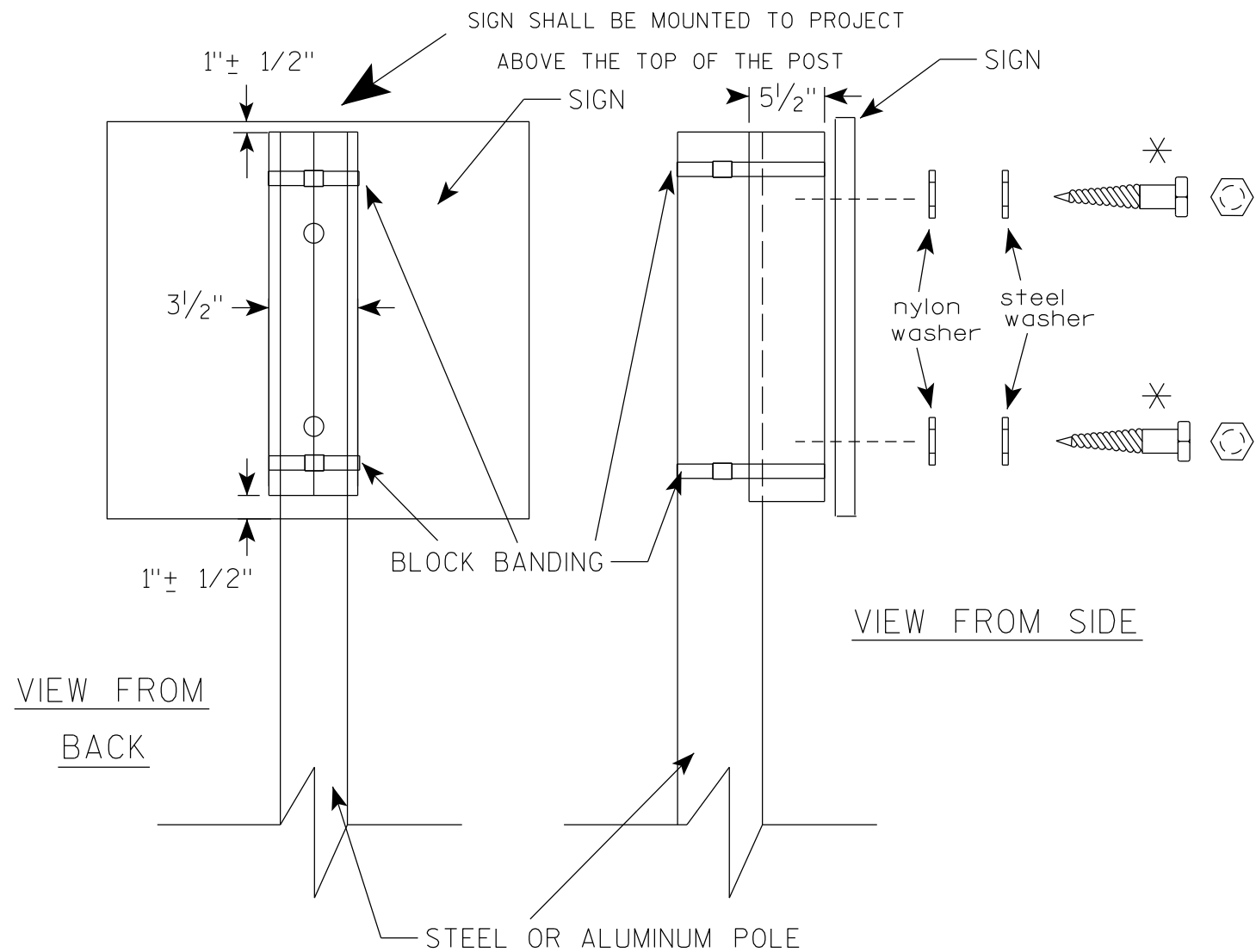


WASHER PLACEMENT



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

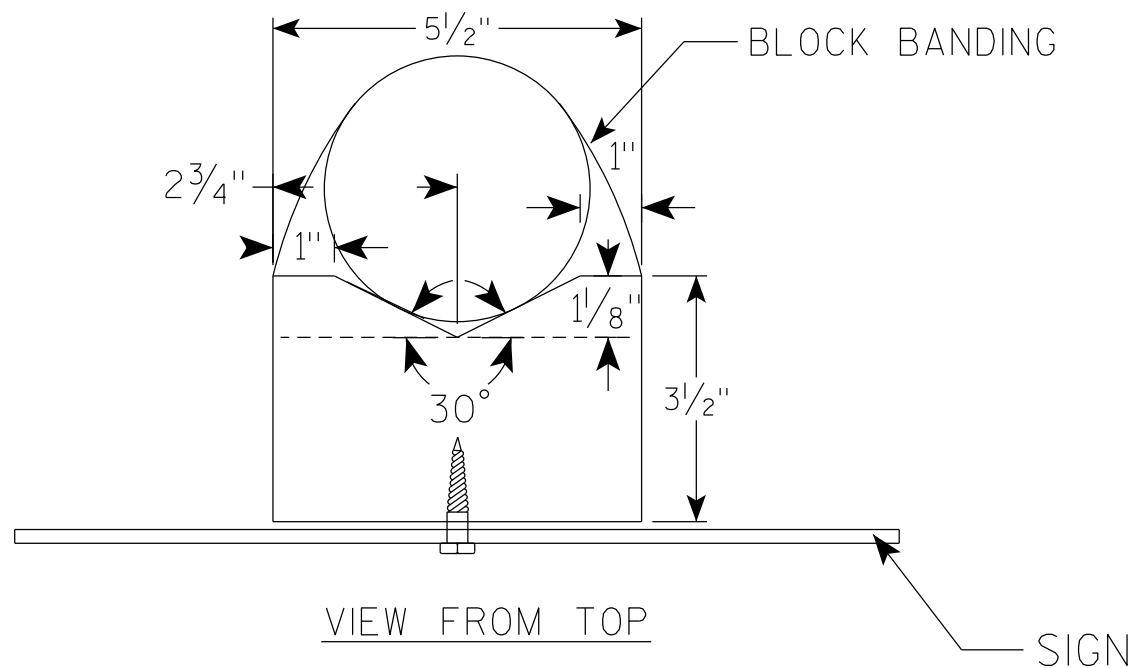
STANDARD SIGN SIGN BANDING DETAILS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-9.4



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, 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

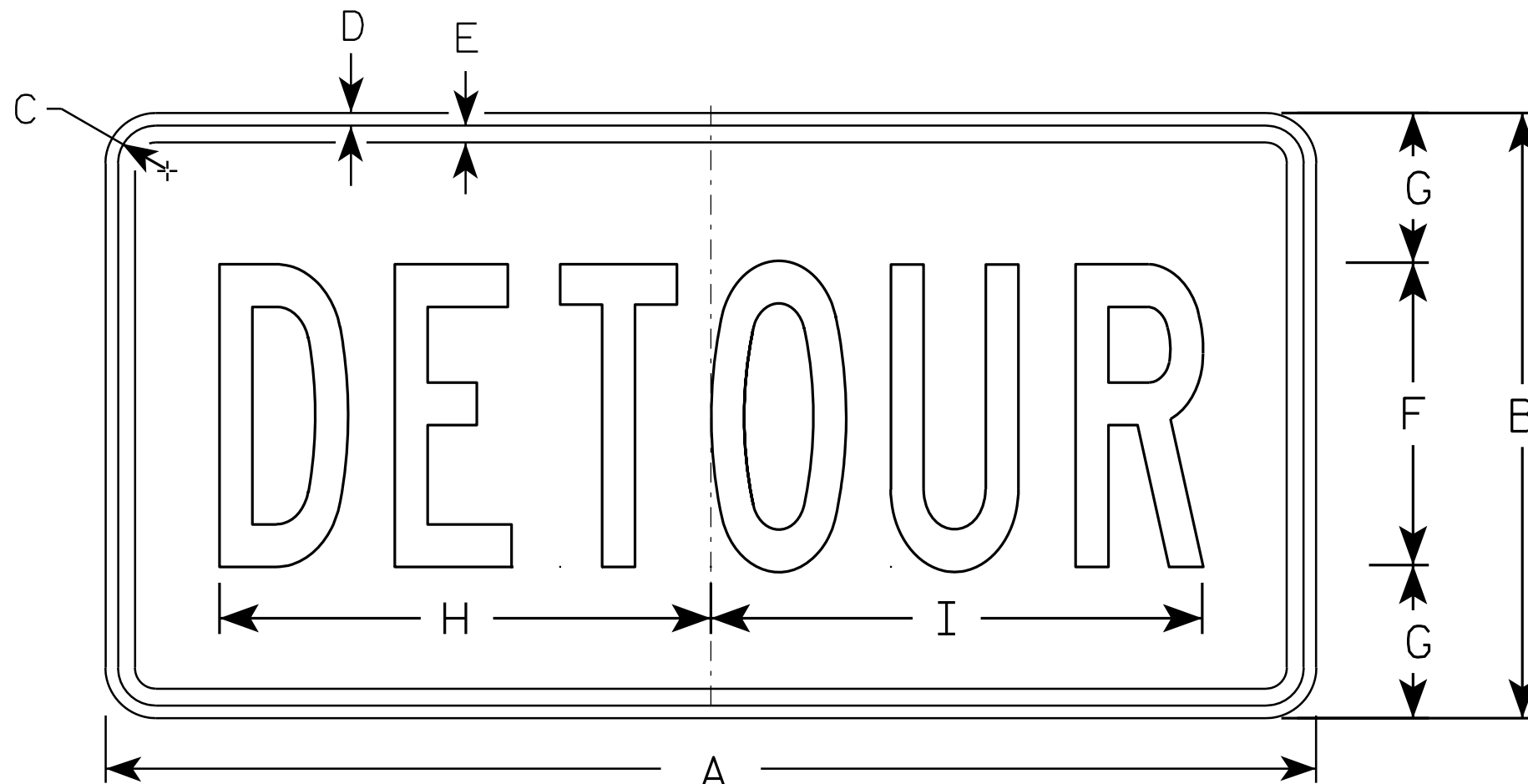
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL ( V-BLOCK OPTION )	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 6/10/19	PLATE NO. A5-10.2

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 - B
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.



M4-8

7

7

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	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

**STANDARD SIGN**  
**M4-8**

WISCONSIN DEPT OF TRANSPORTATION

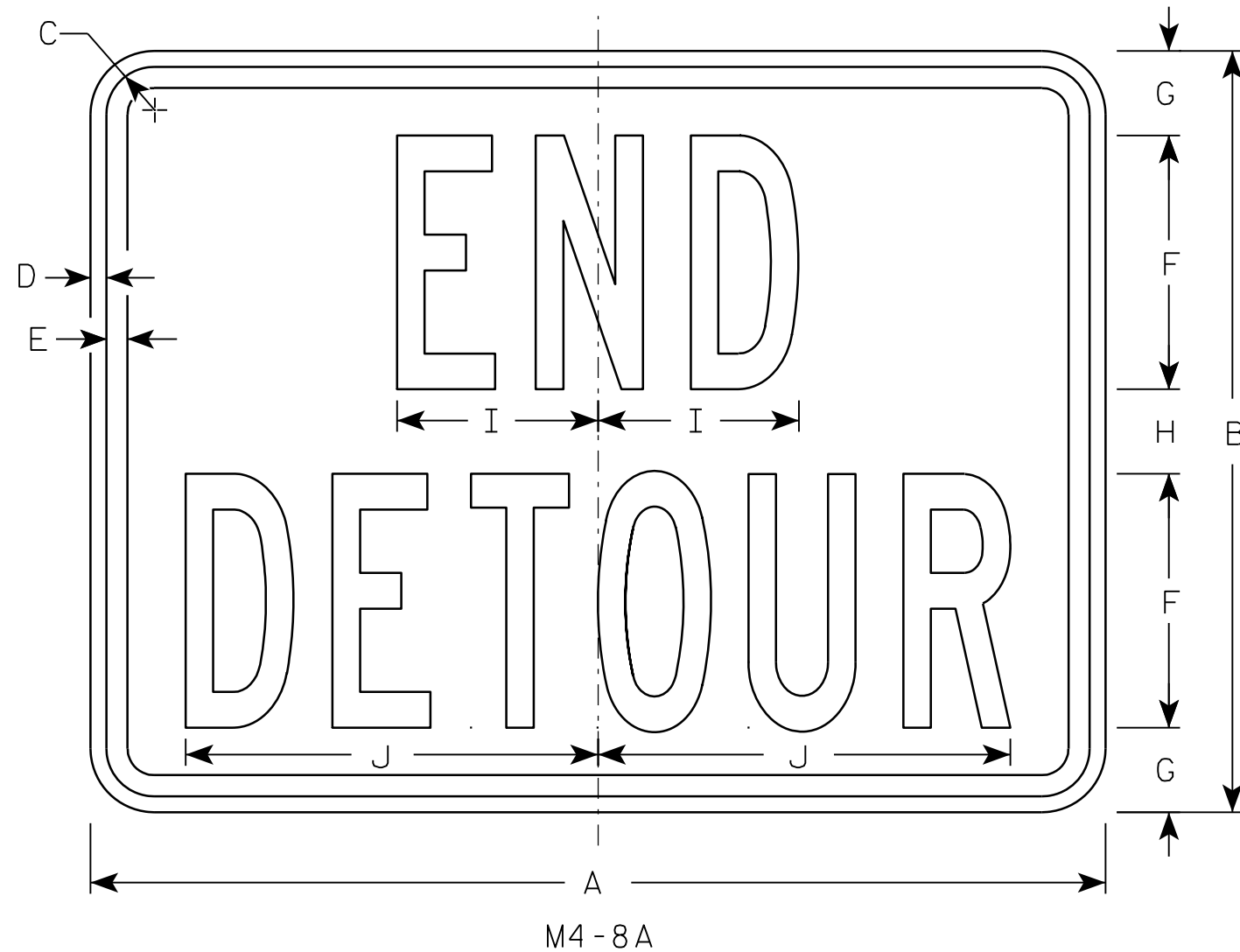
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
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.



7

7

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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

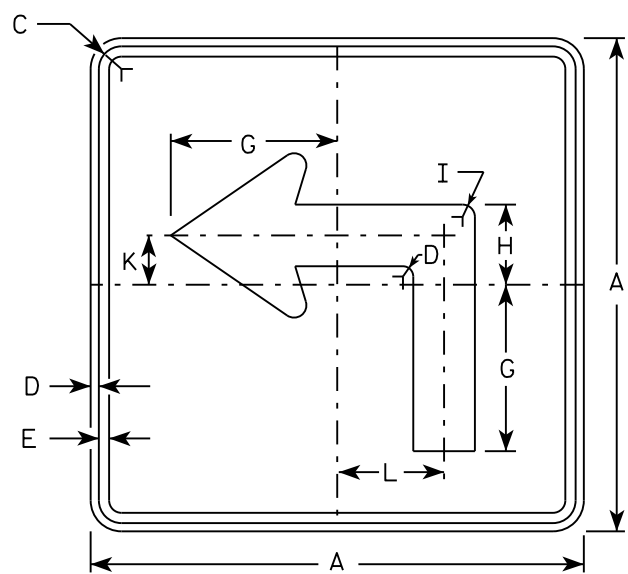
STANDARD SIGN  
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

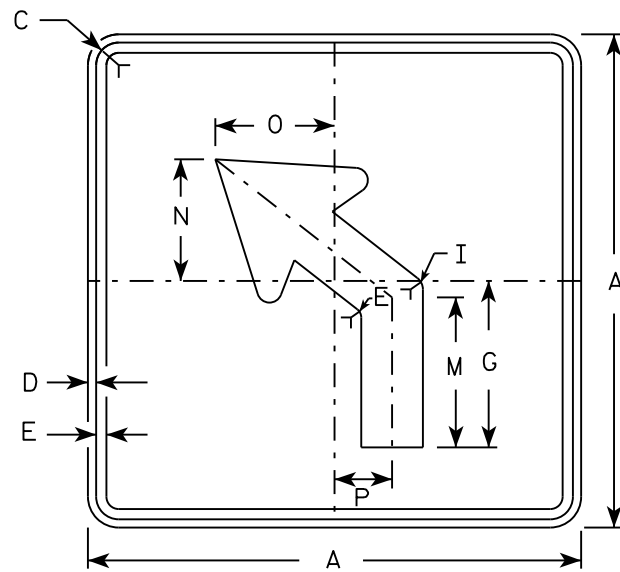
APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

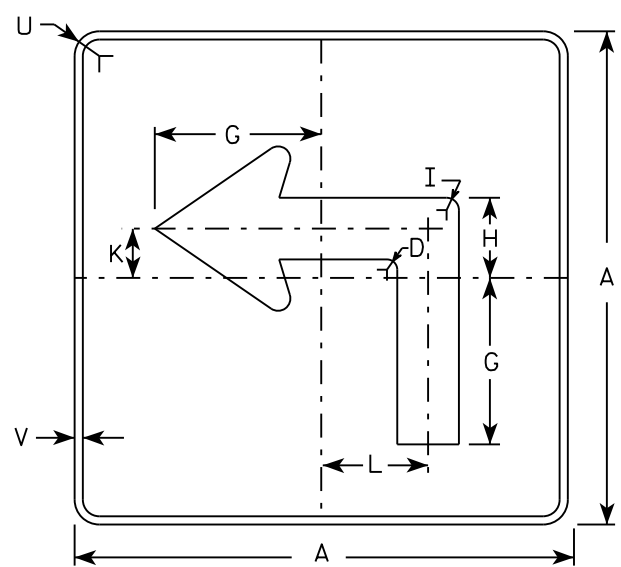
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



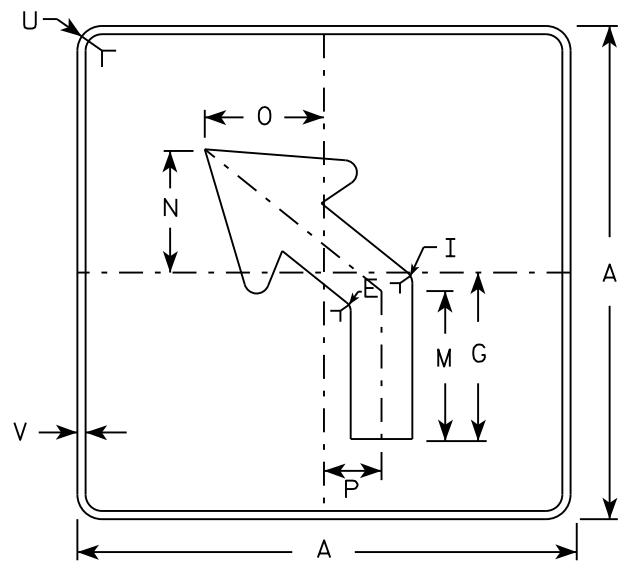
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



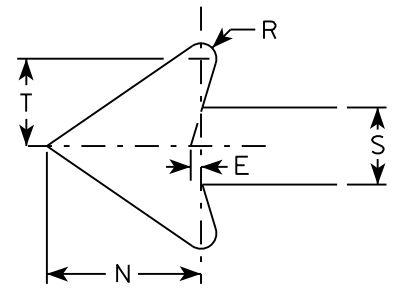
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



MB5-2L  
MK5-2L  
MN5-2L  
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:  
Background - See note 4  
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- |                 |   |
|-----------------|---|
| M5-1 and M5-2   | Background - White                      |
|                 | Message - Black                         |
| MB5-1 and MB5-2 | Background - Blue                       |
|                 | Message - White                         |
| MK5-1 and MK5-2 | Background - Green                      |
|                 | Message - White                         |
| MM5-1 and MM5-2 | Background - White                      |
|                 | Message - Green                         |
| MN5-1 and MN5-2 | Background - Brown                      |
|                 | Message - White                         |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
|                 | Message - Black                         |
| MP5-1 and MP5-2 | Background - White - Type H Reflective  |
|                 | Message - Blue                          |
| MR5-1 and MR5-2 | Background - Brown                      |
|                 | Message - Yellow                        |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

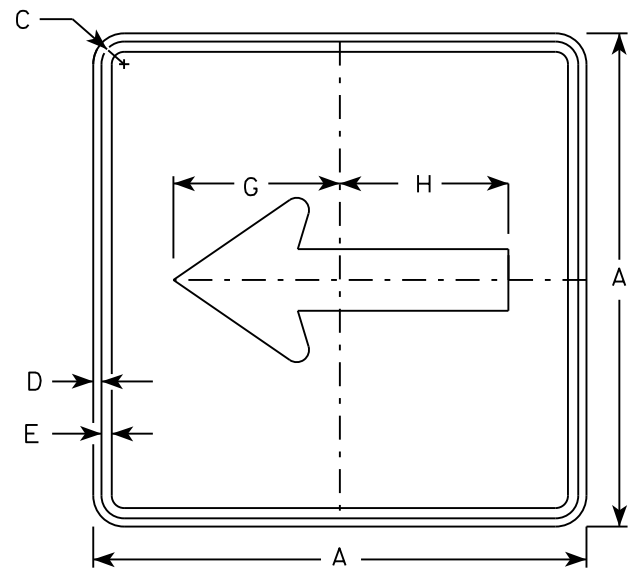
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN  
M5-1 & M5-2

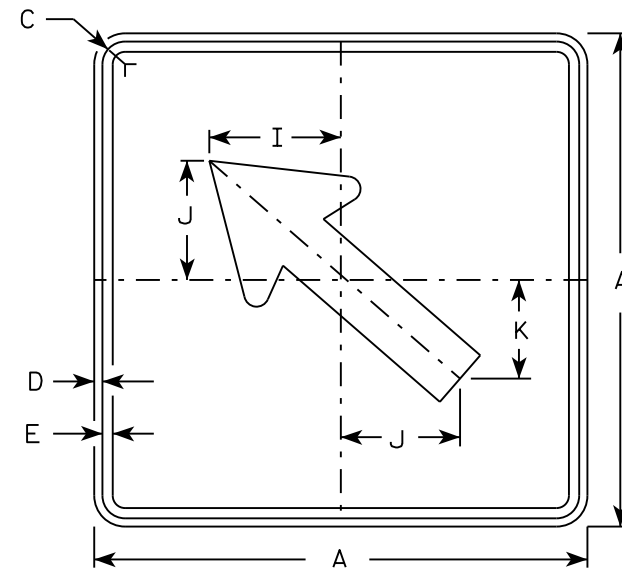
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

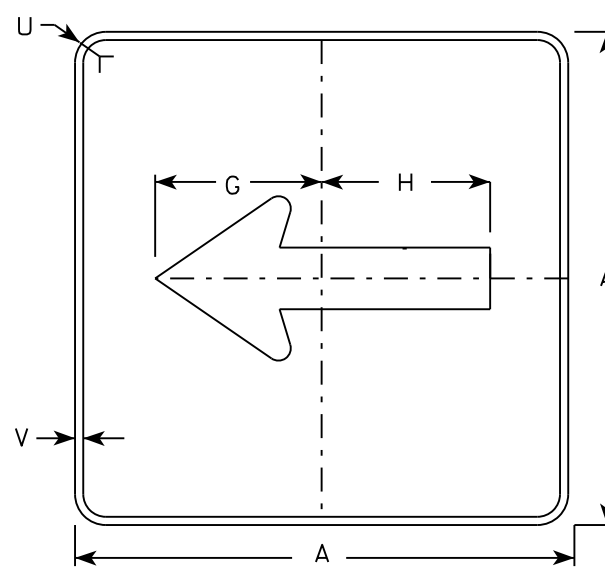
DATE 10/15/15 PLATE NO. M5-1.13



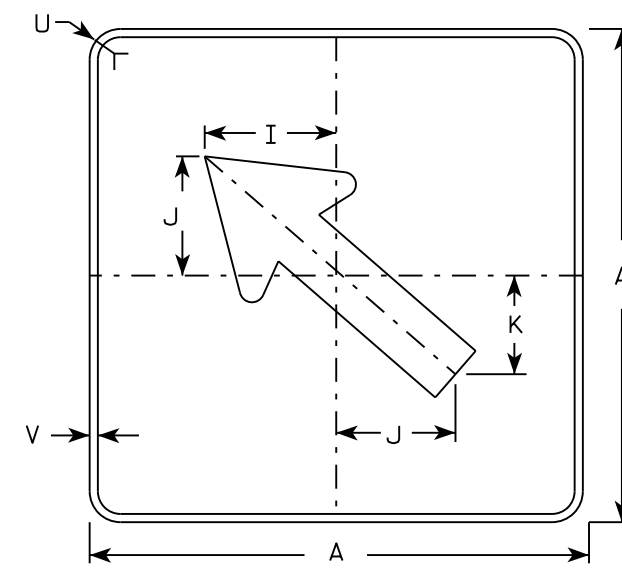
M6-1  
MM6-1  
M06-1  
MP6-1



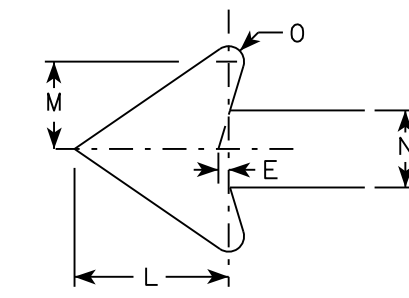
M6-2  
MM6-2  
M06-2  
MP6-2



MB6-1  
MK6-1  
MN6-1  
MR6-1



MB6-2  
MK6-2  
MN6-2  
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:  
Background - See note 4  
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow

7

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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN  
M6-1 & M6-2  
SERIES

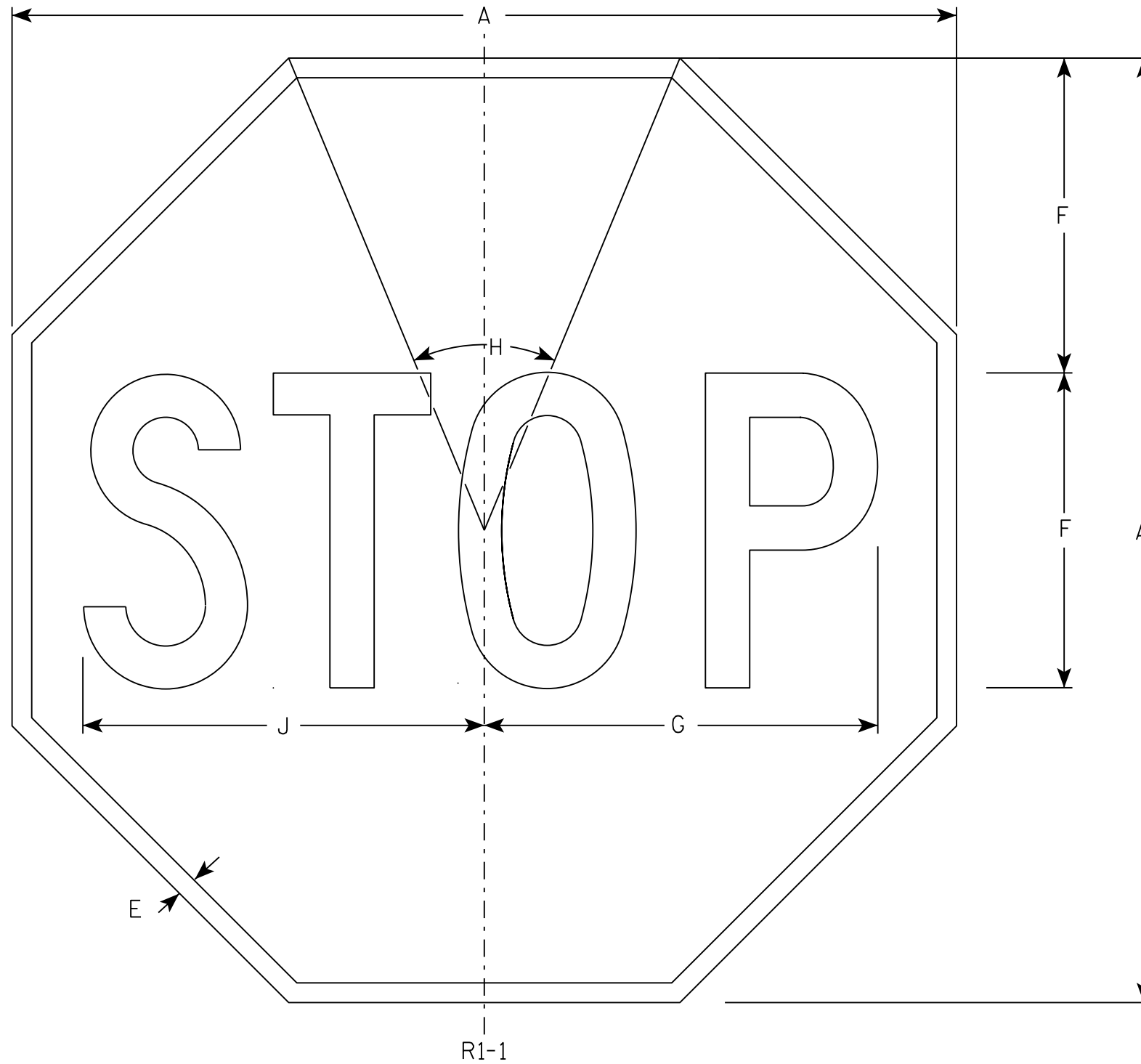
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

NOTES

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



7

7

R1-1

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

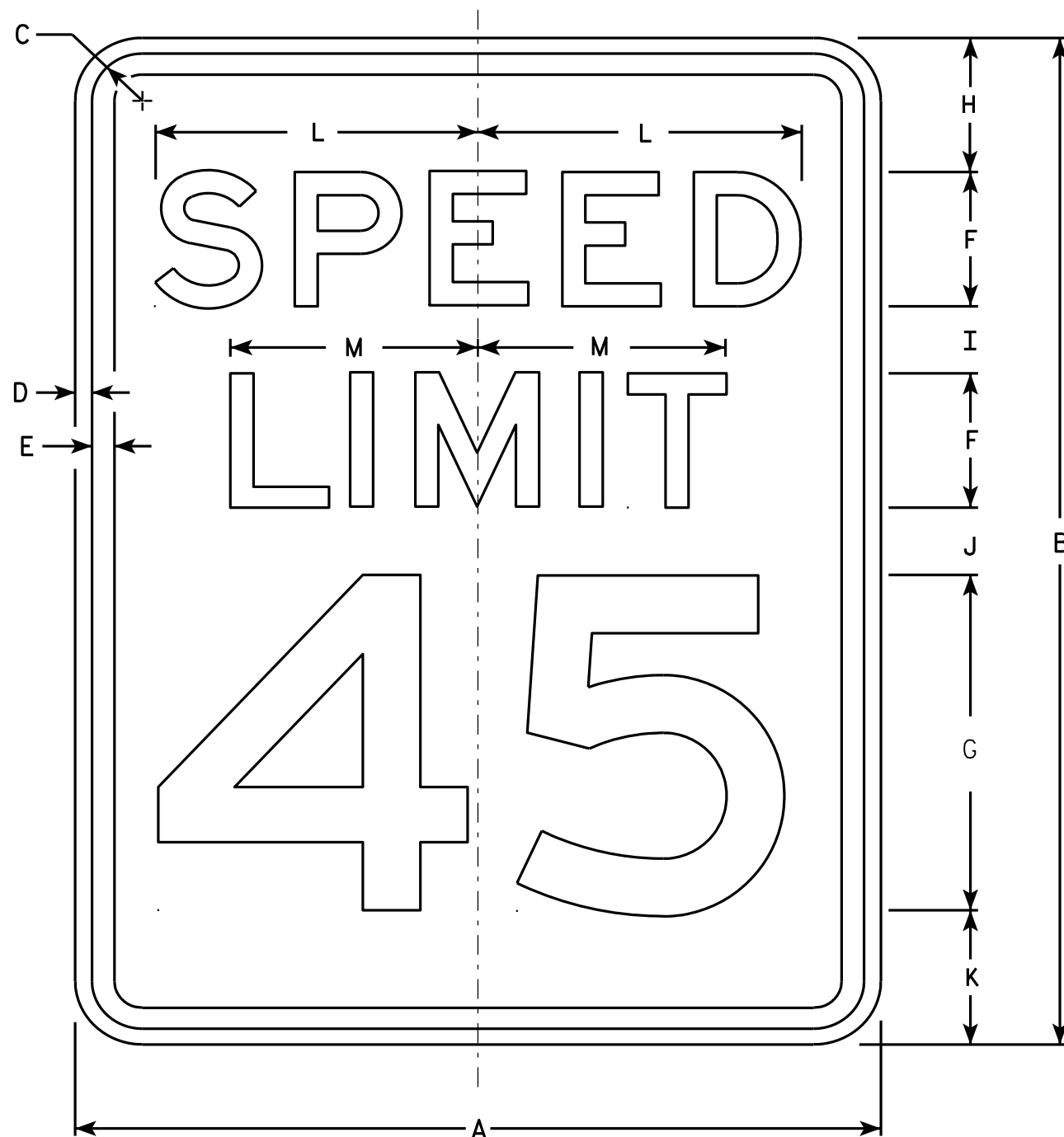
STANDARD SIGN  
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

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



R2-1

NOTES

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

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN  
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



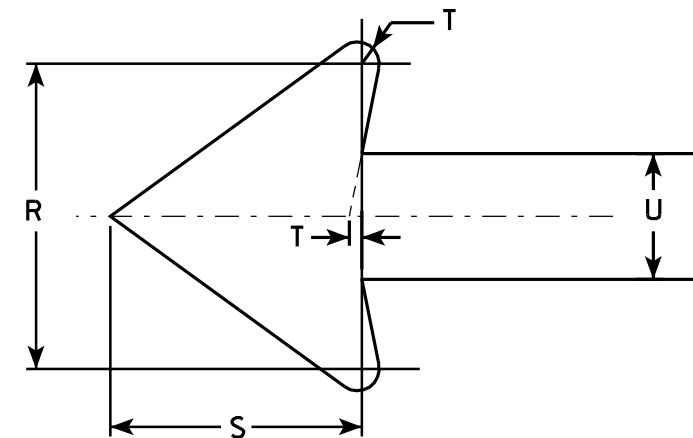


R7-5

\* - See Note 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 - Green
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-5D (double arrow)  
R7-5L (left arrow)  
R7-5R (right arrow)
7. Lines 1, 2 & 3 are series C Copy  
Line 4 Series B Copy.



7

7

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	2	2	2 1/4	1 1/4	4	2 1/2	2 1/8	2	2 7/8	4 5/8	4 1/2	3 7/8	1 3/4	1 1/2	1/8	3/4					1.5	
2S	18	24	1 1/8	3/8	1/2	3	3	2 5/8	1 1/4	5 5/8	3 1/4	3 1/8	3 1/8	4 1/4	6 7/8	6 3/4	5 7/8	2 5/8	2 1/4	1/4	1 1/8					3.0	
2M	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2					5.0	
3	24	30	1 1/8	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2					5.0	
4																											
5																											

**STANDARD SIGN**  
R7-5

WISCONSIN DEPT OF TRANSPORTATION

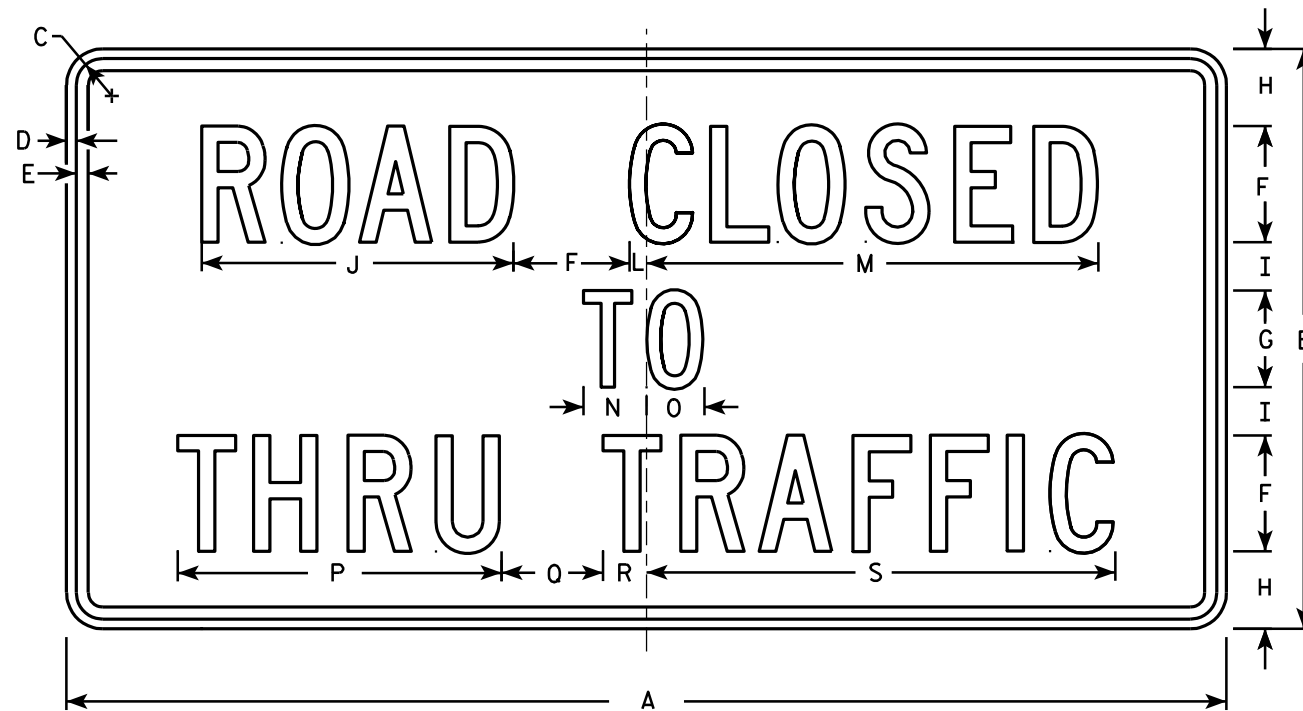
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 03/31/2011 PLATE NO. R7-5.8

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

NOTES

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



R11-4

7

7

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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

**STANDARD SIGN**  
R11 - 4

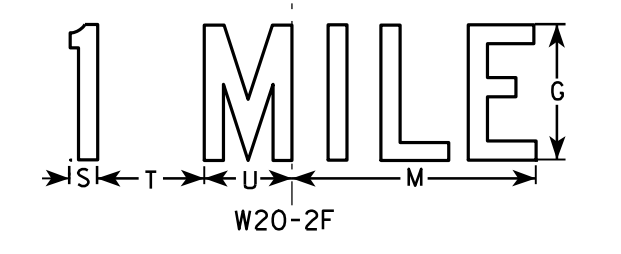
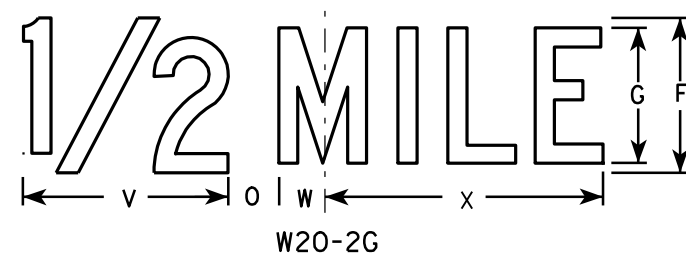
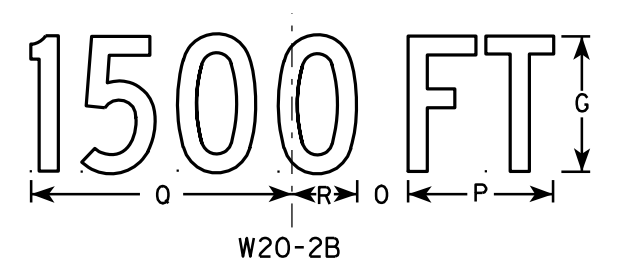
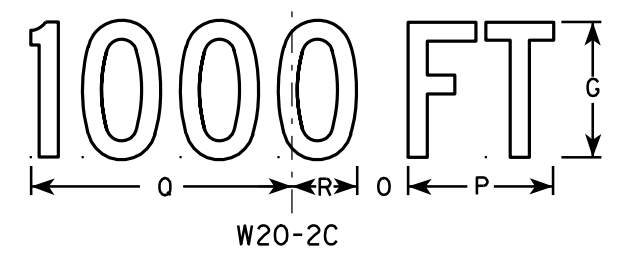
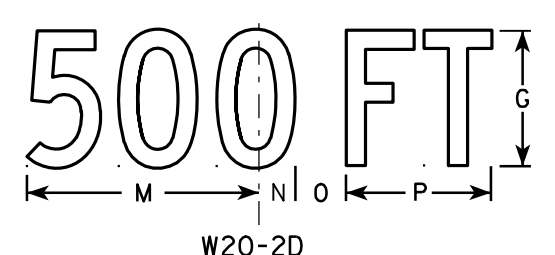
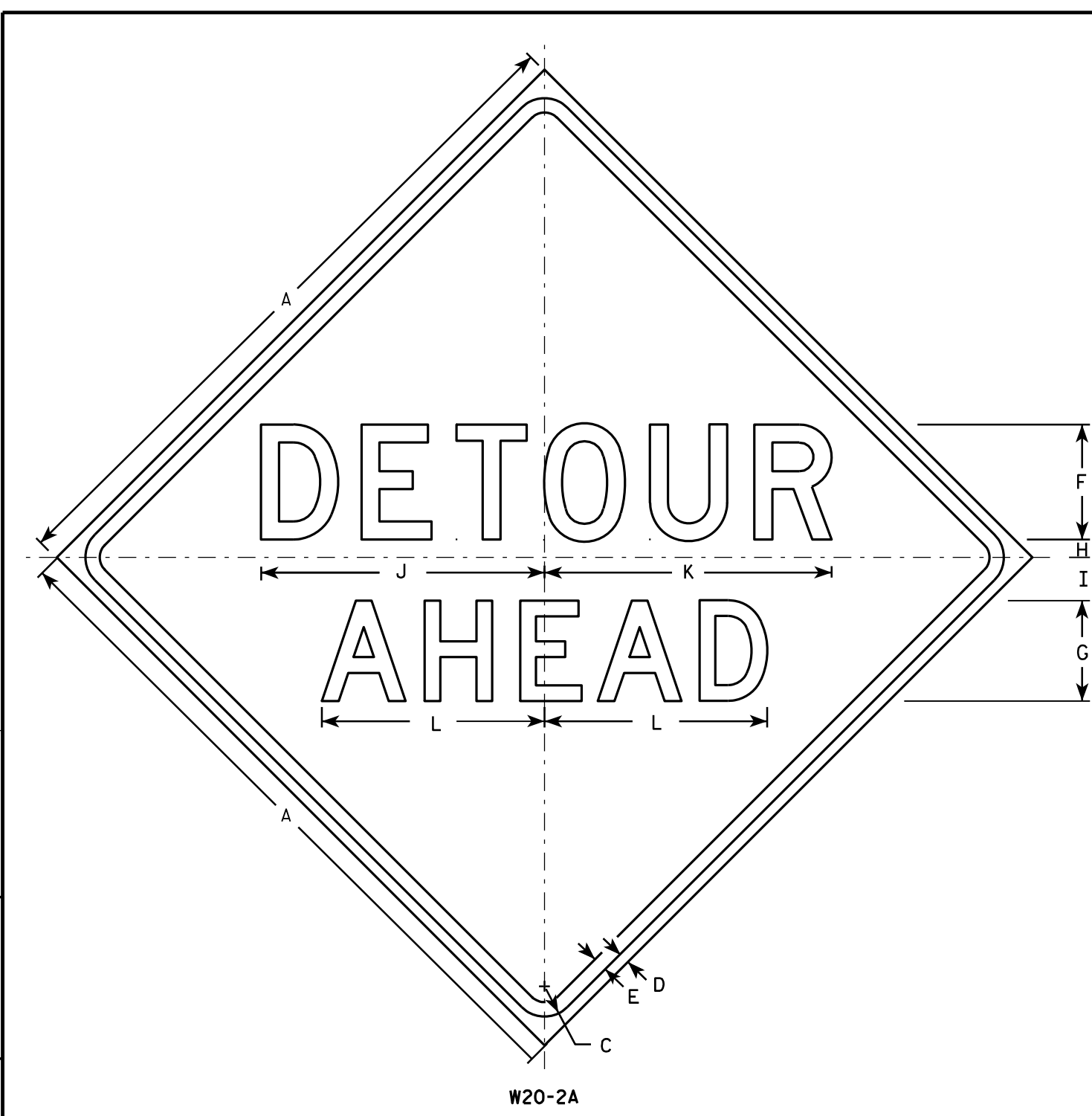
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WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raush*  
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.  
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

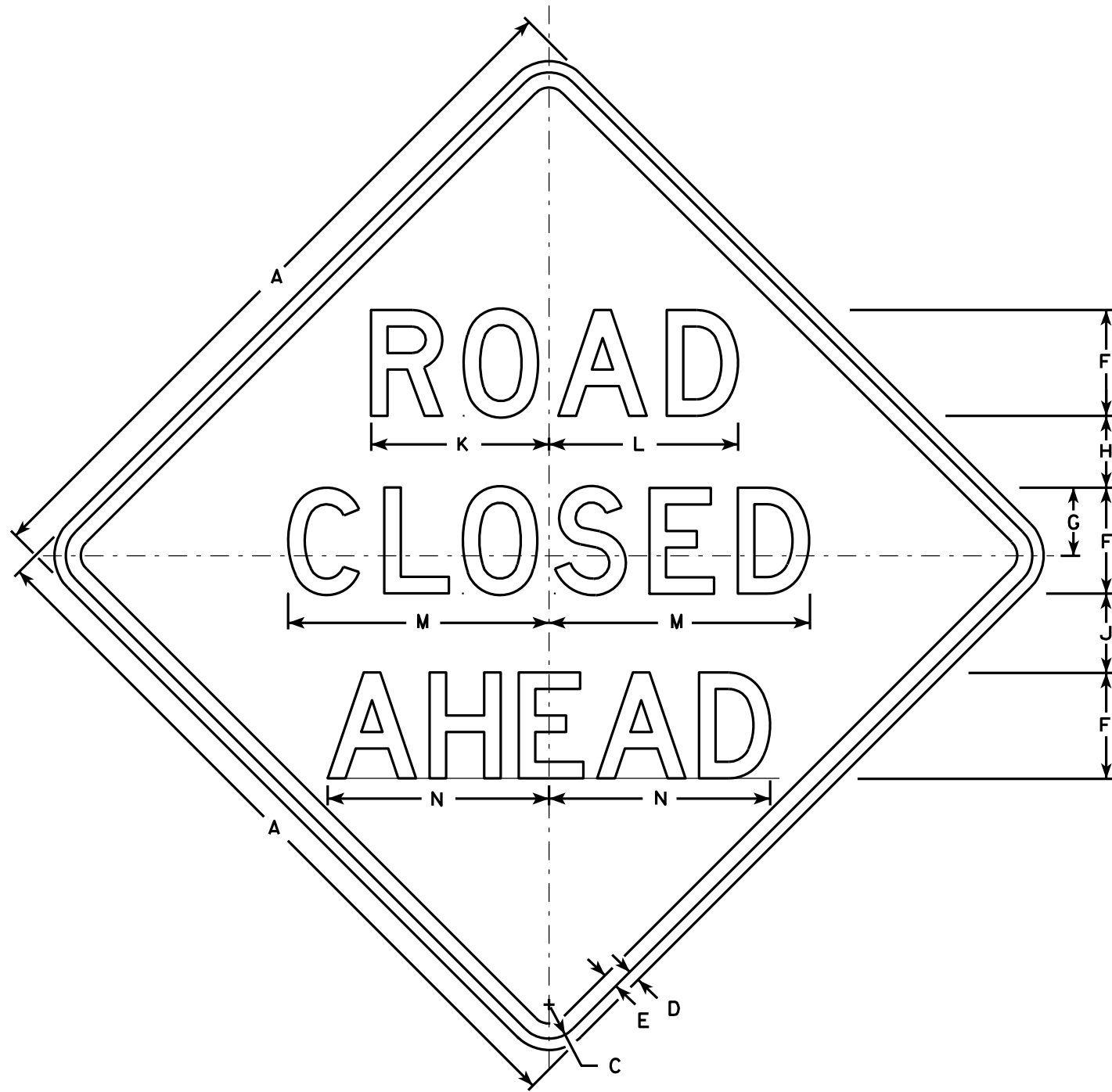
STANDARD SIGN  
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

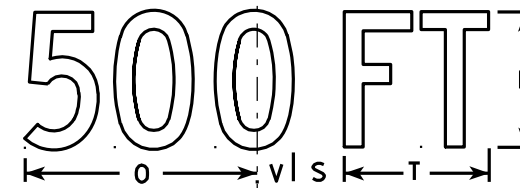
APPROVED *Matthew R. Raub*  
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

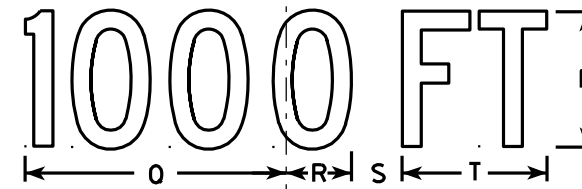
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



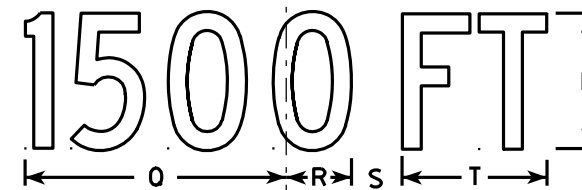
W20-3A



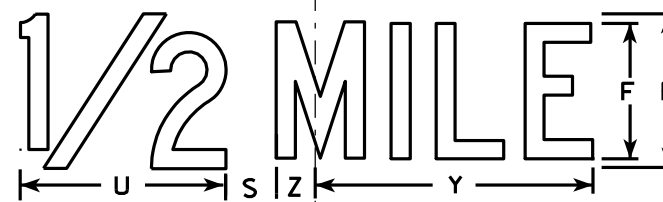
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

**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 - 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 and 2 are Series D.  
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

**STANDARD SIGN**  
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

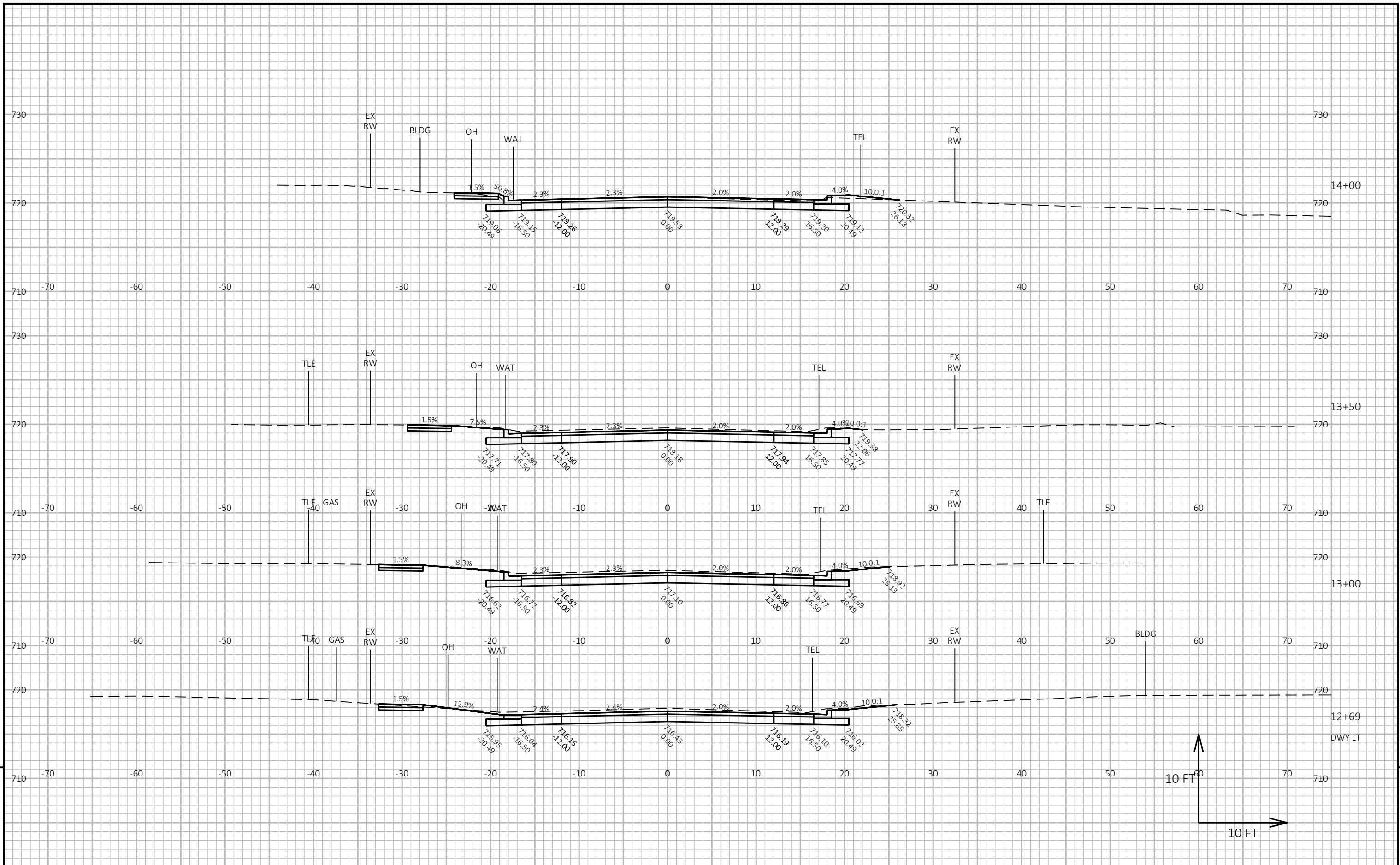
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

DIVISION 1 - WISSTNORTH

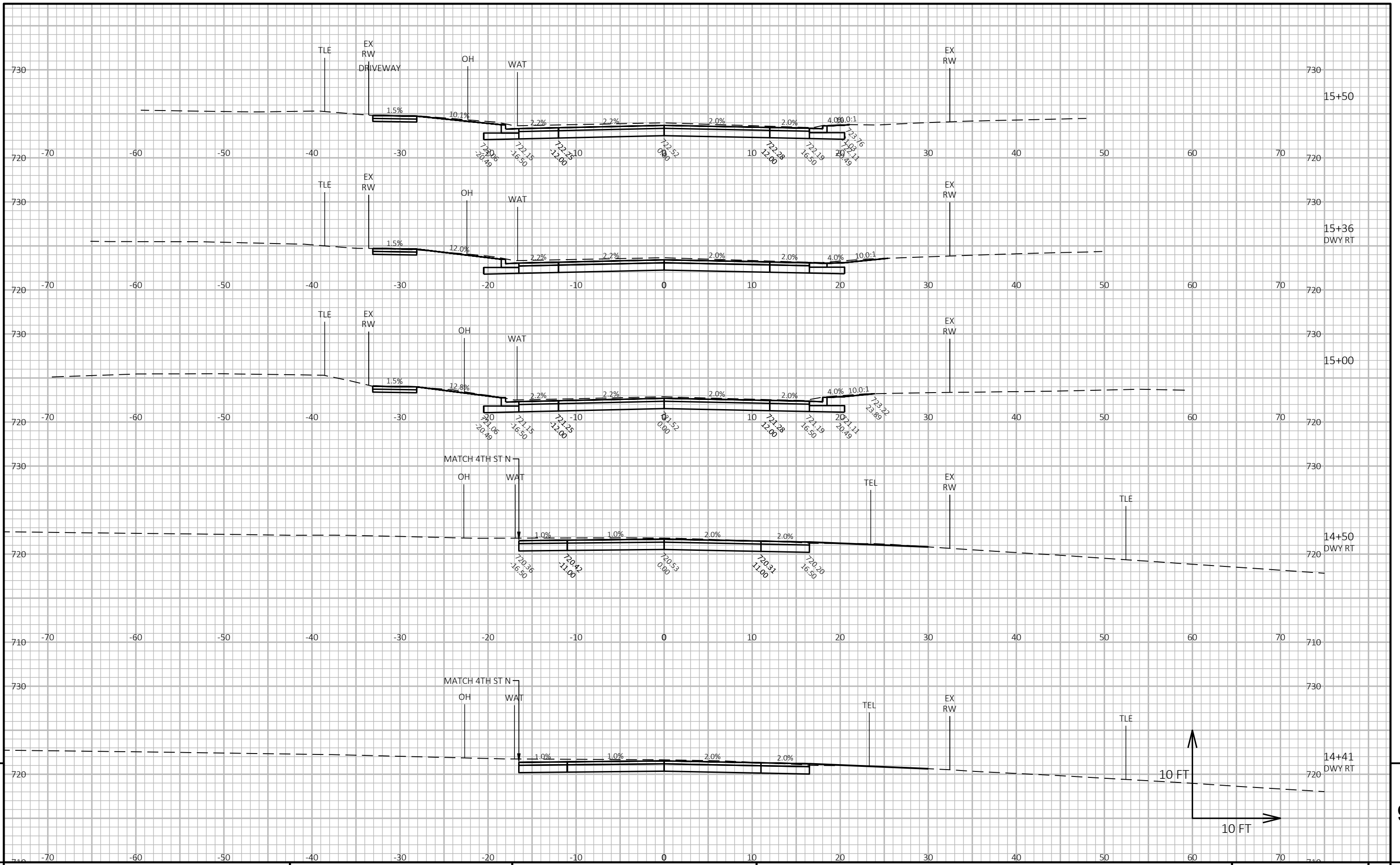
STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
			NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8		
11+05	1105.00	0.00	0.00	0.00	0	0	0	0	0	0
11+50	1150.00	45.00	44.60	5.50	37	5	2	37	3	30
11-80.129	1180.13	30.13	46.94	5.50	51	6	2	88	5	72
12+00	1200.00	19.87	69.57	5.50	43	4	0	131	5	111
12+50	1250.00	50.00	72.21	5.50	131	10	0	262	5	232
12-68.965	1268.96	18.96	71.30	5.50	50	4	0	312	5	278
13+00	1300.00	31.04	73.19	5.50	83	6	0	395	5	355
13+50	1350.00	50.00	67.78	5.50	131	10	0	526	5	476
14+00	1400.00	50.00	49.14	5.50	108	10	1	634	6	573
14-41.284	1441.28	41.28	61.16	5.50	84	8	1	718	8	648
14+50	1450.00	8.72	59.85	5.50	20	2	0	738	8	666
15+00	1500.00	50.00	71.14	5.50	121	10	0	859	8	777
15+36.34	1536.34	36.34	71.89	5.50	96	7	0	955	8	866
15+50	1550.00	13.66	73.91	5.50	37	3	0	992	8	900
15-86.862	1586.86	36.86	78.68	5.50	104	8	0	1,096	8	996
16+00	1600.00	13.14	78.24	5.50	38	3	0	1,134	8	1,031
16+50	1650.00	50.00	64.53	5.50	132	10	4	1,266	13	1,148
17-00.831	1700.83	50.83	44.81	5.50	103	10	4	1,369	18	1,236
17+50	1750.00	49.17	66.53	5.50	101	10	0	1,470	18	1,327
18+00	1800.00	50.00	73.02	5.50	129	10	0	1,599	18	1,446
18+50	1850.00	50.00	69.16	5.50	132	10	0	1,731	18	1,568
18-83.139	1883.14	33.14	58.77	5.50	79	7	0	1,810	18	1,640
18-92.003	1892.00	8.86	0.00	5.50	10	2	0	1,820	18	1,648





9

PROJECT NO: 8999-00-65	HWY: N WISCONSIN ST	COUNTY: ST. CROIX	CROSS SECTIONS: WISCONSIN ST N	SHEET	E
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9

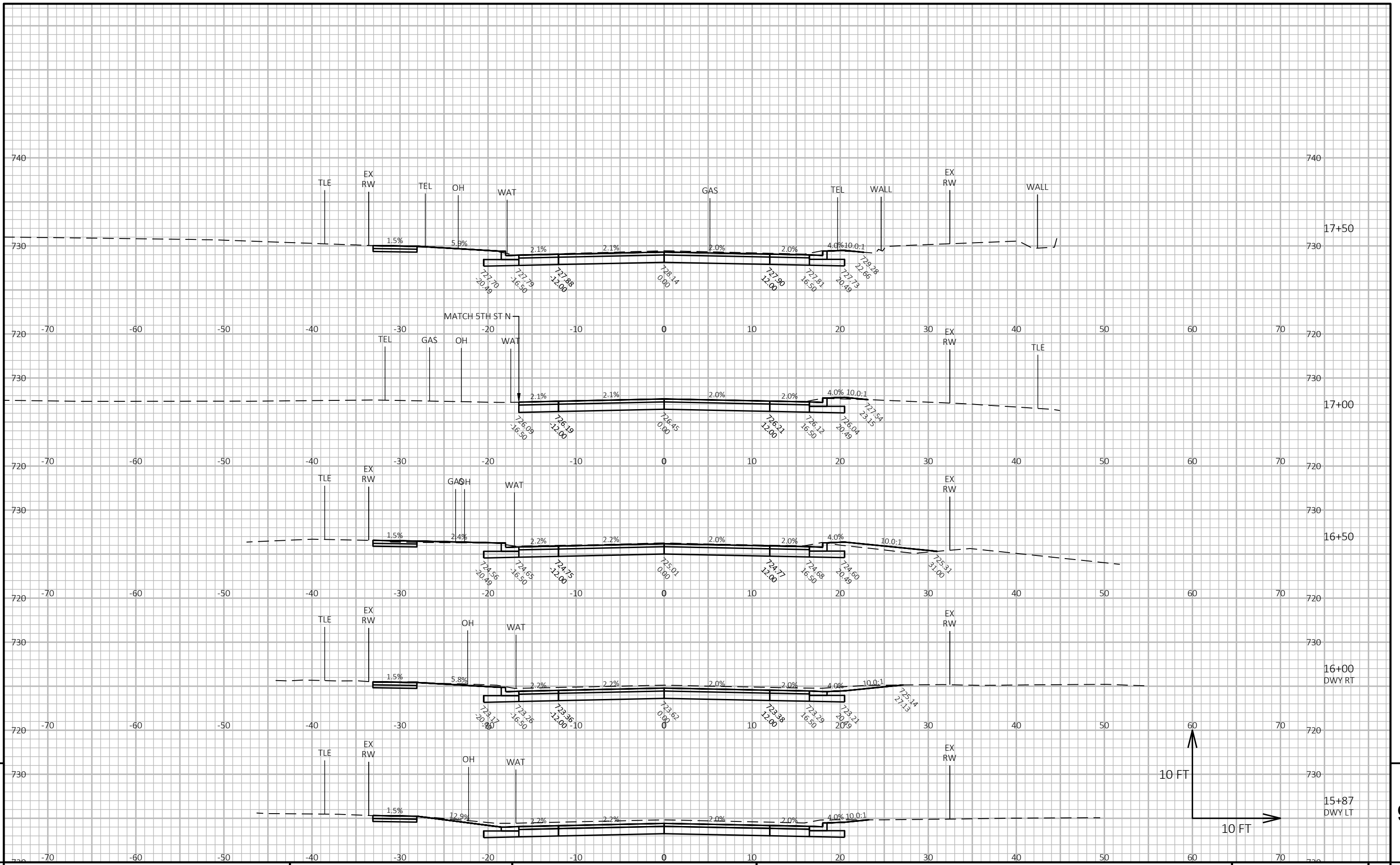
9

PROJECT NO: 8999-00-65      HWY: N WISCONSIN ST      COUNTY: ST. CROIX      CROSS SECTIONS: WISCONSIN ST N      SHEET      E

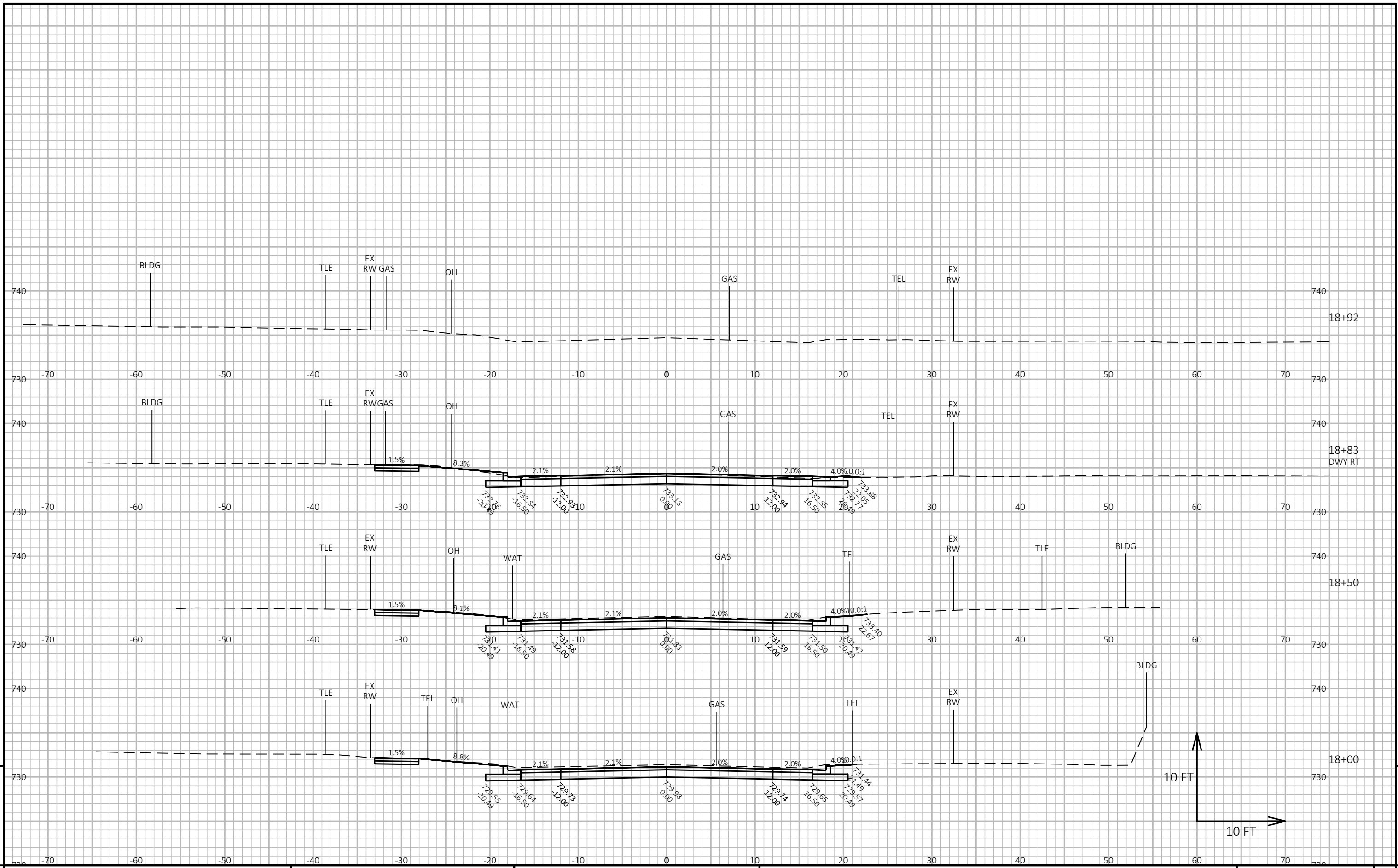
FILE NAME: C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\8999-00-64\_V NORTH HUDSON\_WISCONSIN ST\500\_CADD\501\_C3D\_2018\89990064\SHEETS\PLAN\090201-XS.DWG      PLOT DATE: 7/15/2021 3:29 PM      PLOT BY: JESSICA LEWIS, PE      PLOT NAME:      PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 03

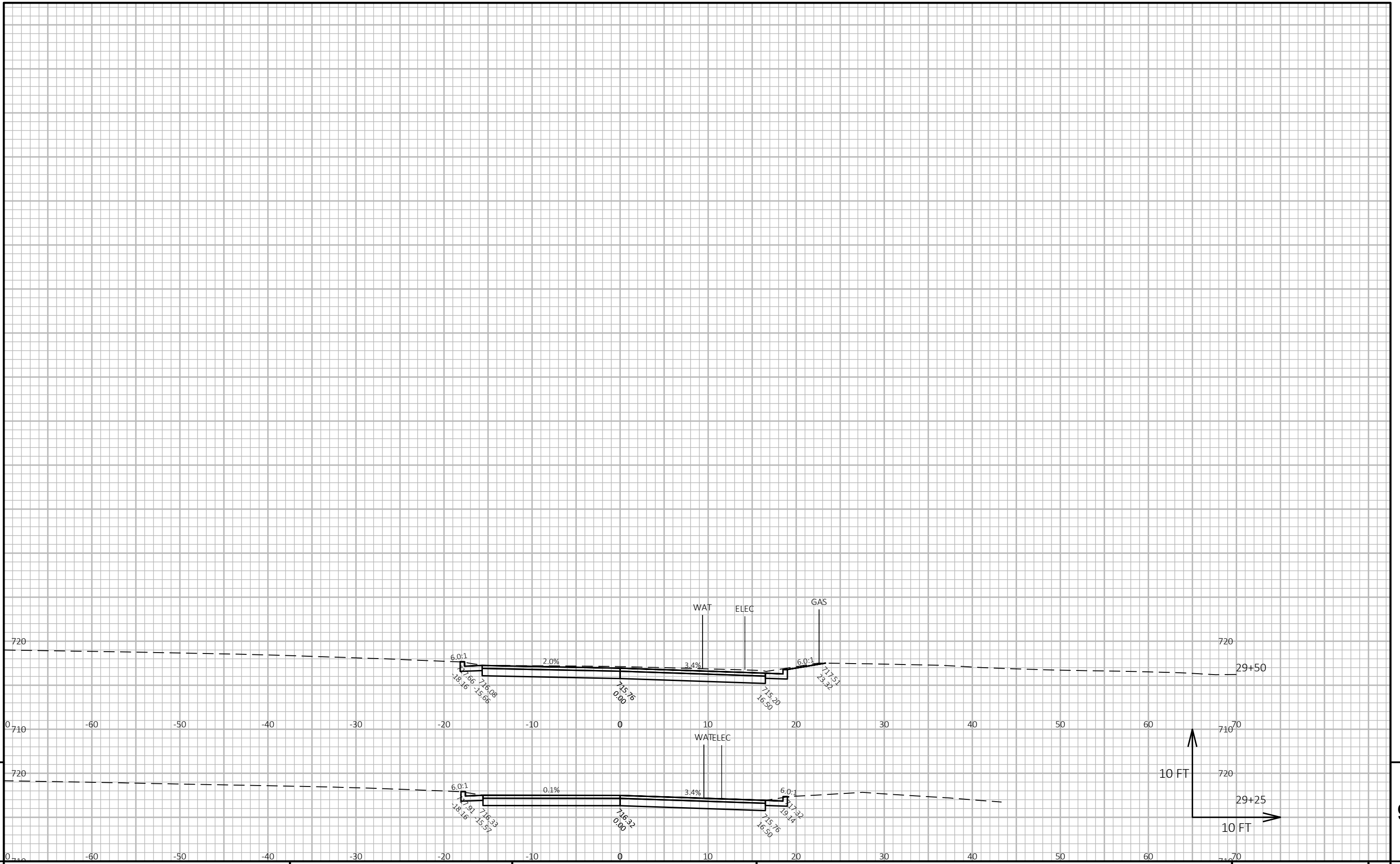




PROJECT NO: 8999-00-65      HWY: N WISCONSIN ST      COUNTY: ST. CROIX      CROSS SECTIONS: WISCONSIN ST N      SHEET      E



PROJECT NO: 8999-00-65      HWY: N WISCONSIN ST      COUNTY: ST. CROIX      CROSS SECTIONS: WISCONSIN ST N      SHEET      E



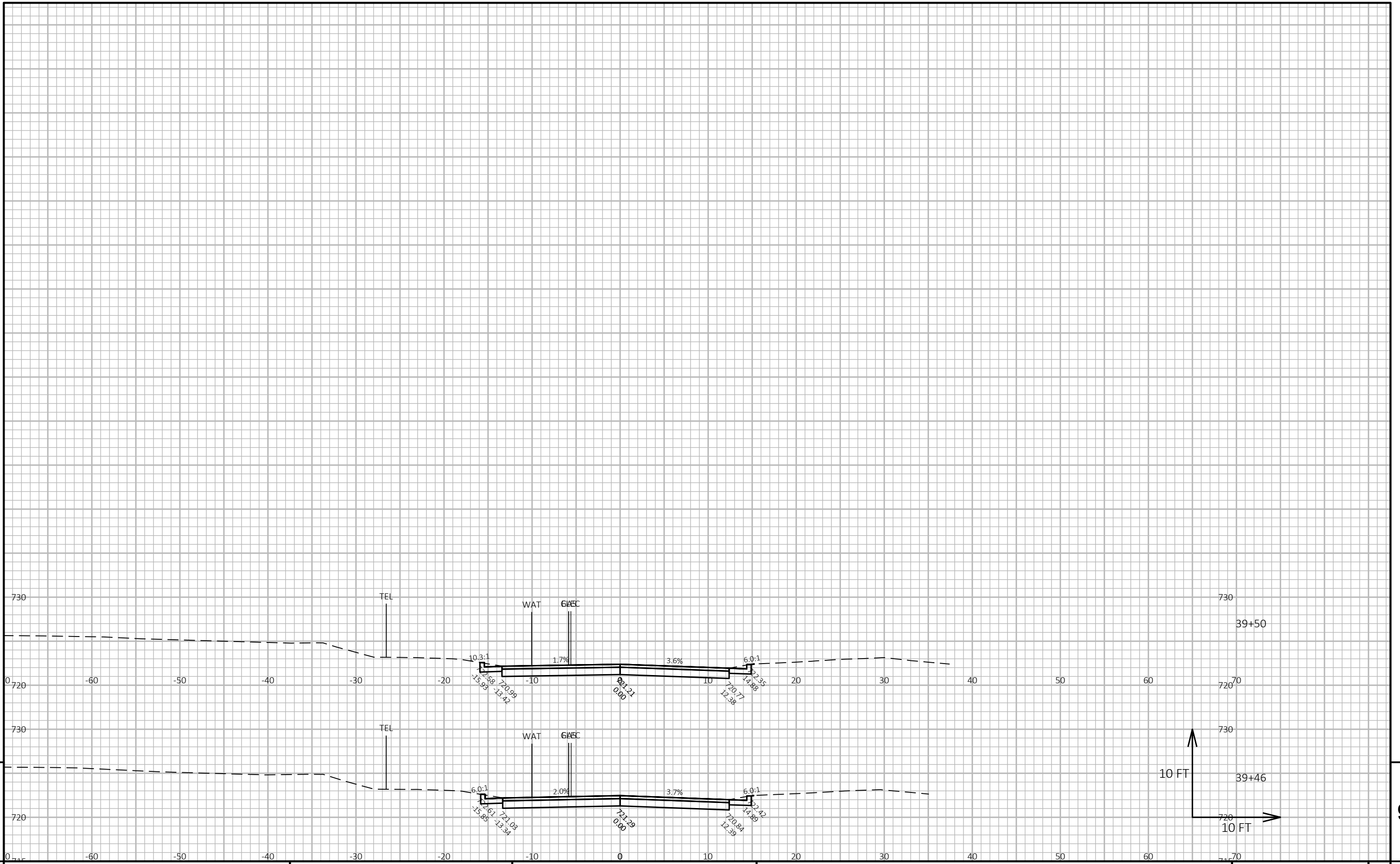
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PROJECT NO: 8999-00-65      HWY: N WISCONSIN ST      COUNTY: ST. CROIX      CROSS SECTIONS: 3RD ST N      SHEET      E

FILE NAME : C:\OD\CORRE, INC\PROJECTS - DOCUMENTS\WI - NW REGION\8999-00-64\_V NORTH HUDSON\_WISCONSIN ST\500\_CADD\501\_C3D\_2018\89990064\SHEETS\PLAN\090202-XS.DWG      PLOT DATE : 7/15/2021 1:40 PM      PLOT BY : JESSICA LEWIS, PE      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 01

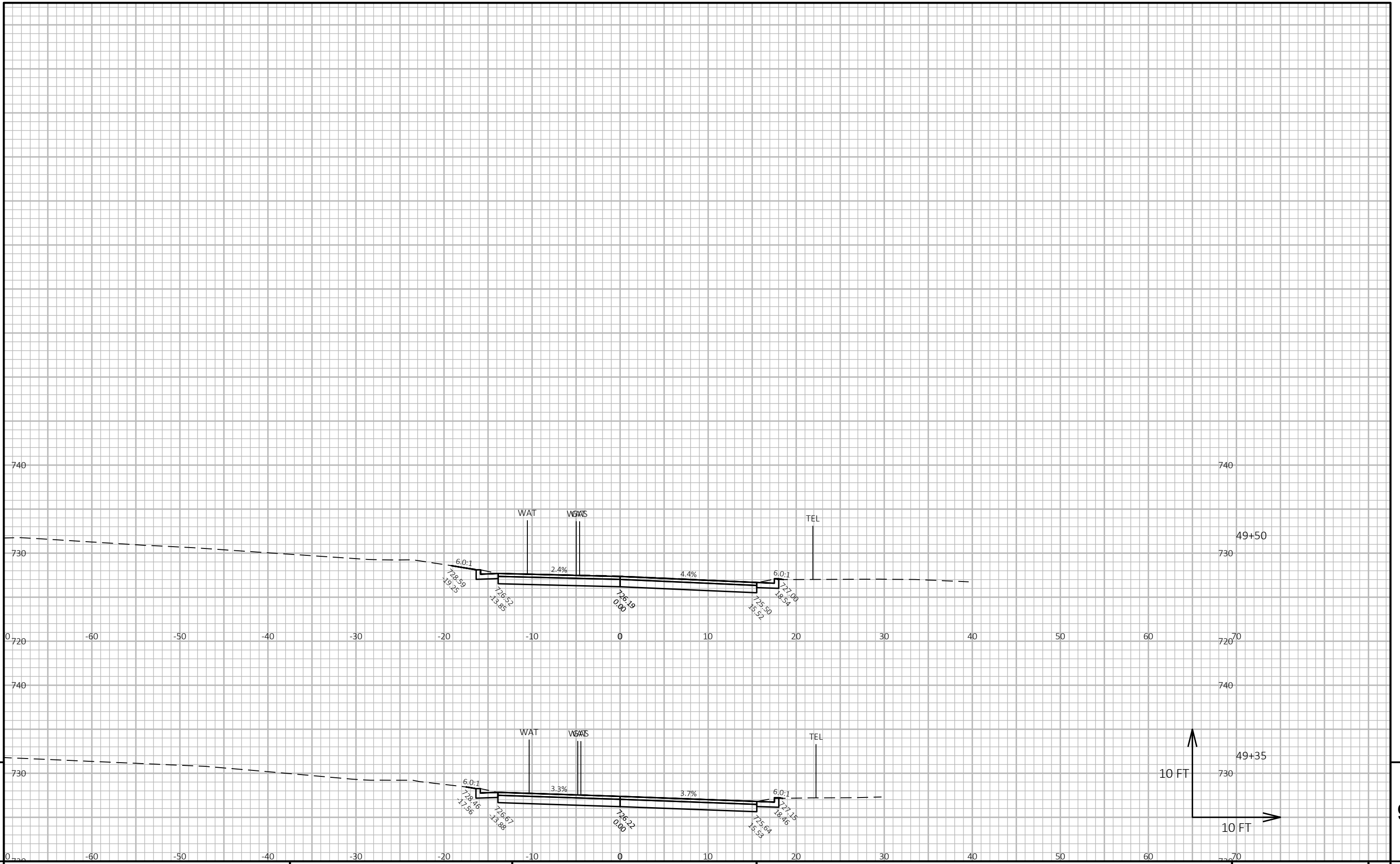


PROJECT NO: 8999-00-65	HWY: N WISCONSIN ST	COUNTY: ST. CROIX	CROSS SECTIONS: 4TH ST N	SHEET
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E



PROJECT NO: 8999-00-65      HWY: N WISCONSIN ST      COUNTY: ST. CROIX      CROSS SECTIONS: 5TH ST N      SHEET      E



## ***Wisconsin Department of Transportation***

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