

MAD NOVEMBER 2024

PROJECT ID: 3997-00-13 & 3997-00-14
WITH: 3997-00-14

COUNTY: JEFFERSON

ORDER OF SHEETS

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

TOTAL SHEETS = 190



DESIGN DESIGNATION	WESTERN AVE
A.A.D.T.	2023 = 4,155
A.A.D.T.	2045 = 4,600
D.H.V.	= 450
D.D.	= 50/50
T.	= 5.5%
DESIGN SPEED	= 30 MPH
ESALS	= 570,000

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C WATERTOWN, WESTERN AVENUE

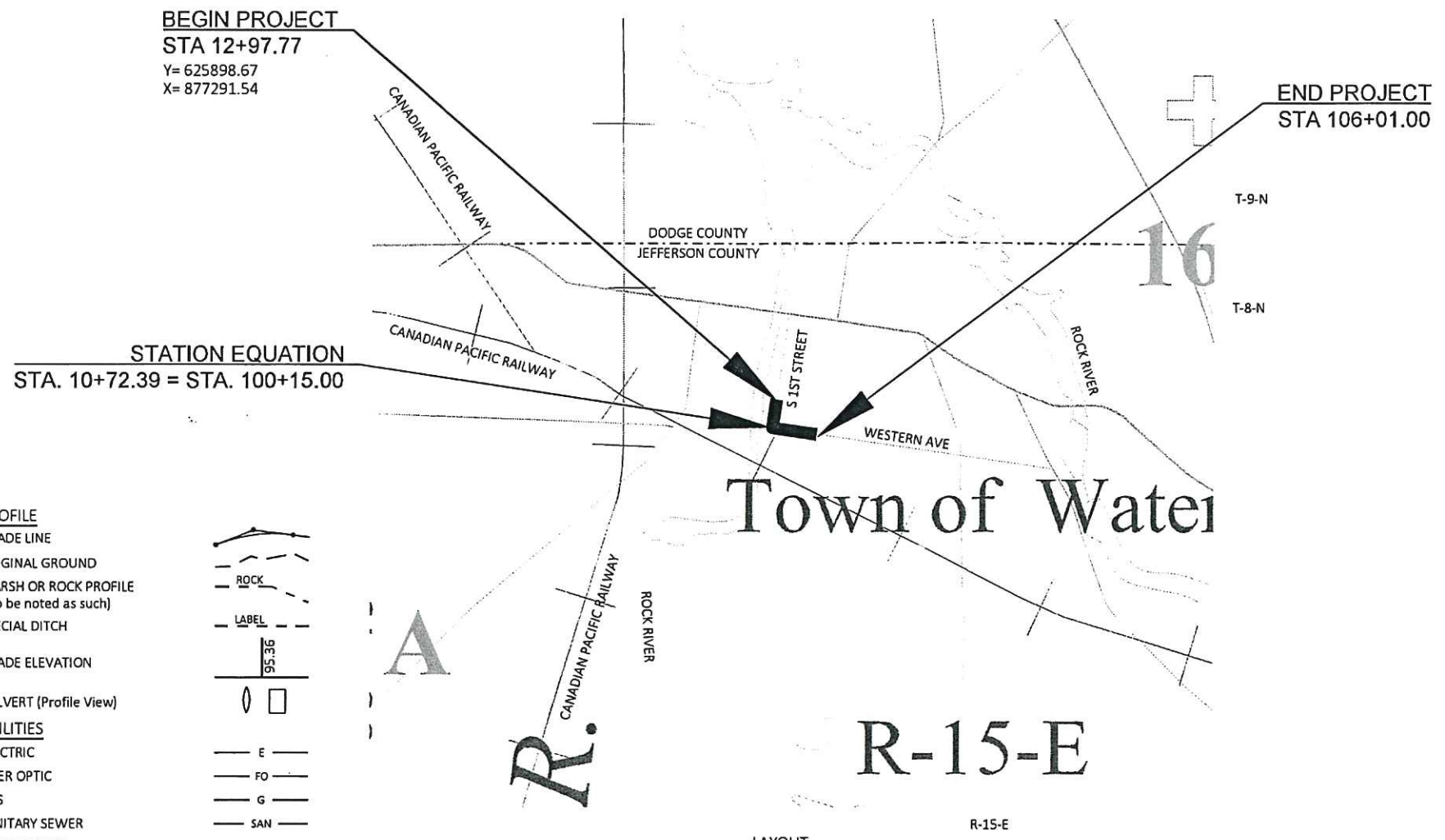
MILWAUKEE ST. TO S. THIRD ST.

LOCAL STREET

JEFFERSON COUNTY

PROJECT NUMBER	PROJECT NUMBER
3997-00-13	3997-00-14

(SANITARY SEWER & WATER MAIN)



LAYOUT SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.154 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), JEFFERSON COUNTY, 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 G18

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3997-00-13	WISC 2025086	1
3997-00-14		

ACCEPTED FOR

CITY of WATERTOWN
8/30/24 (Date)
DIRECTOR OF PUBLIC WORKS

ORIGINAL PLANS PREPARED BY

GRAEF 275 W. WISCONSIN AVENUE, SUITE 300
MILWAUKEE, WI 53203



8/30/24 (Date)
Ben McGillicuddy (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	GRAEF
Designer	GRAEF
Project Manager	WISDOT
Regional Examiner	WISDOT
Regional Supervisor	WISDOT

APPROVED FOR THE DEPARTMENT
DATE: 09/04/24 ZACHARY PEARSON (Signature)

GENERAL NOTES

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

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

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT APPROXIMATE LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

ALL RADIUS DIMENSIONS FOR CURB & GUTTER ARE GIVEN TO THE FLANGE. ALL ELEVATIONS ALONG CURB & GUTTER ARE GIVEN TO THE FLANGE. OFFSETS NOTED ARE TO THE FLANGE OR EDGE OF LANE IF NO CURB, UNLESS OTHERWISE NOTED.

HMA PAVEMENT, WHERE INDICATED ON THE PLANS, SHALL CONSIST OF LAYERS AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER.

PAVEMENT THICKNESS	HMA PAVEMENT	TOTAL PAVEMENT LAYER THICKNESS	LAYER
6" DEPTH	5 LT 58-28 S	2 -INCHES	UPPER
	3 LT 58-28 S	4 -INCHES	LOWER

THE EXACT LOCATION AND WIDTH OF DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. DRIVEWAYS SHALL BE REPLACED IN KIND. COMMERCIAL DRIVEWAYS SHALL BE A MINIMUM OF 30 FEET WIDE UNLESS SHOWN OTHERWISE IN THE PLANS. ALL RESIDENTIAL DRIVEWAYS SHALL BE A MAXIMUM OF 20 FEET WIDE.

STORM SEWER STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE. RIM ELEVATION IS AT THE INLET FLANGE COVER LOCATION FOR INLETS AND THE CENTER OF COVER FOR MANHOLES. ALL PIPE CULVERT STATION & OFFSETS ARE GIVEN TO THE END OF PIPE AND DO NOT INCLUDE THE LENGTH OF THE APRON ENDWALLS.

ASPHALT AND CONCRETE DRIVEWAYS SHALL BE SAWCUT AT THE MATCH LINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PAVING OR PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAYS SHALL BE RE-ESTABLISHED IMMEDIATELY AFTER OPERATIONS ARE COMPLETED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

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

CONTRACTOR MAY ENCOUNTER CONCRETE FOOTINGS DURING STORM SEWER OUTFALL EXCAVATION. ALL REMOVALS OF OLD FOOTINGS DURING STORM SEWER EXCAVATION IS INCIDENTAL TO STORM SEWER ITEMS.

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
PCPM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHES	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT

DEPT. OF NATURAL RESOURCES

SHELLEY NELSON
DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
(608)444-2835
SHELLEY.NELSON@WISCONSIN.GOV

DESIGN CONTACT

BEN MCGILLICUDDY, P.E.
CONSULTANT ENGINEER
GRAEF
275 W. WISCONSIN AVE, SUITE 300
MILWAUKEE, WI 53203
414-266-9037
BEN.MCGILLICUDDY@GRAEF-USA.COM

CITY CONTACT

ANDREW M. BEYER, P.E.
DIRECTOR OF PUBLIC WORKS
CITY OF WATERTOWN
106 JONES STREET
WATERTOWN, WI 53094
(920)262-4050
ABEYER@WATERTOWNWI.GOV

RITCHIE PILTZ
ENGINEERING PROJECTS MANAGER
CITY OF WATERTOWN
106 JONES STREET
WATERTOWN, WI 53094
(920)262-4034
RPILTZ@WATERTOWNWI.GOV

MAUREEN MCBROOM
STORMWATER PROJECT MANAGER
CITY OF WATERTOWN
106 JONES STREET
WATERTOWN, WI 53094
(920) 262-40264
MMCROOM@WATERTOWWI.GOV

INDEX OF TYPICAL SECTION AND DETAIL SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
PLAN DETAILS
CURB RAMP DETAILS
PAVING GRADES
EROSION CONTROL
STORM SEWER
WATER MAIN
PAVEMENT MARKING & SIGNING
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT LAYOUT

UTILITIES

COMMUNICATIONS

AT&T
WILL SCHROEDER
435 S 95TH ST
MILWAUKEE, WI 53186
(414) 379-7522

COMMUNICATIONS

SPECTRUM (CHARTER)
COREY LEWIS
N3760 HIGHWAY DJ
JUNEAU, WI 53039
(920) 404-0575
COREY.LEWIS@CHARTER.COM

ELECTRIC

WE ENERGIES ELECTRIC
STEVE KING
S13 W 33800 HWY 18
DELAFIELD, WI 53018
(262) 968-5768

WE ENERGIES ELECTRIC DISPATCH
1-800-662-4797

WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

GAS

WE ENERGIES GAS
ALEXIS GONZALEZ
500 S. 116TH STREET
WEST ALLIS, WI 53214
(262) 365-6417

WE ENERGIES GAS UTILITY DISPATCH
1-800-261-5325

WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

SEWER/WATER

CITY OF WATERTOWN
PETER HARTZ
WATER SYSTEMS MANAGER
106 JONES STREET
WATERTOWN, WI 53094
(920) 262-4075
PHARTZ@WATERTOWN.GOV

WISDOT

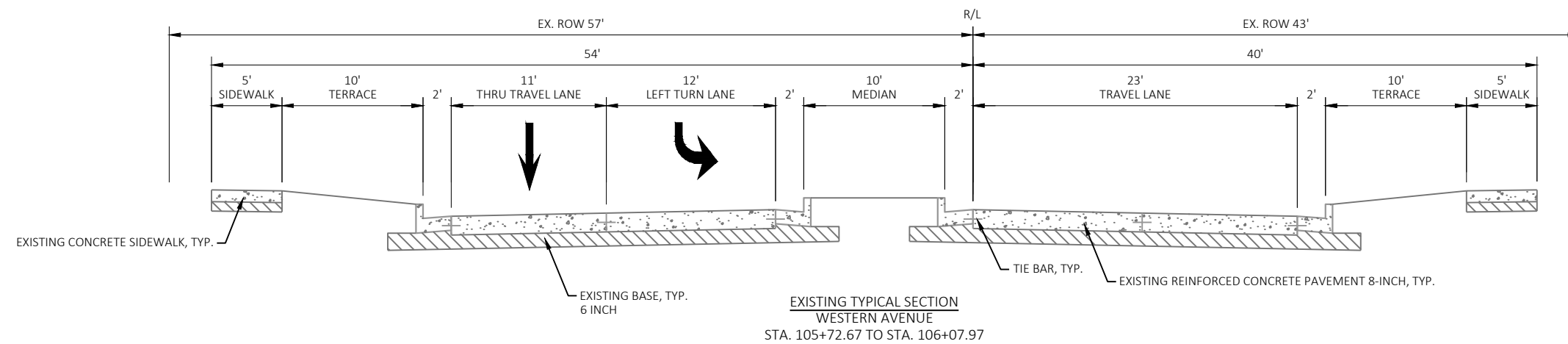
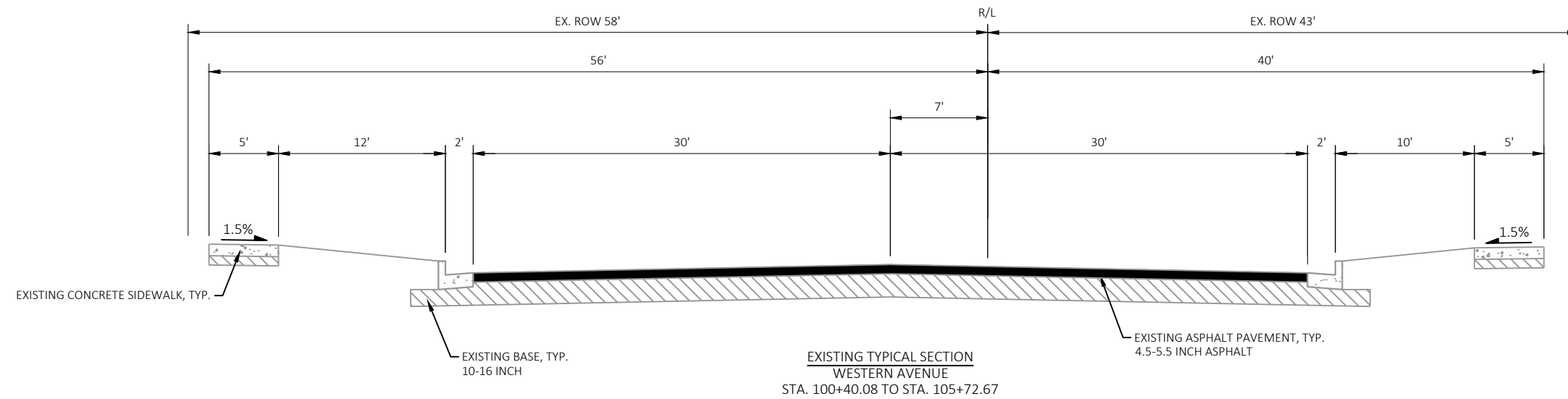
ZACHARY PEARSON
LOCAL PROGRAM PROJECT MANAGER
WISDOT SW REGION
2101 WRIGHT STREET
MADISON, WI 53704
OFFICE: 608-246-5319
CELL: 608-516-6503

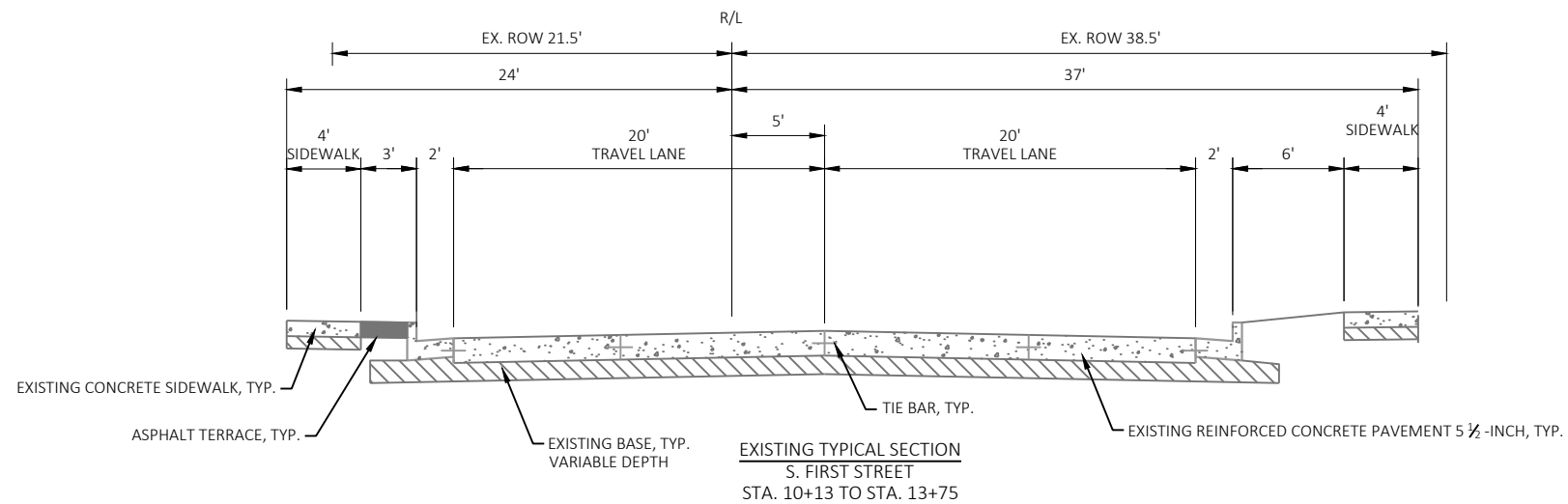


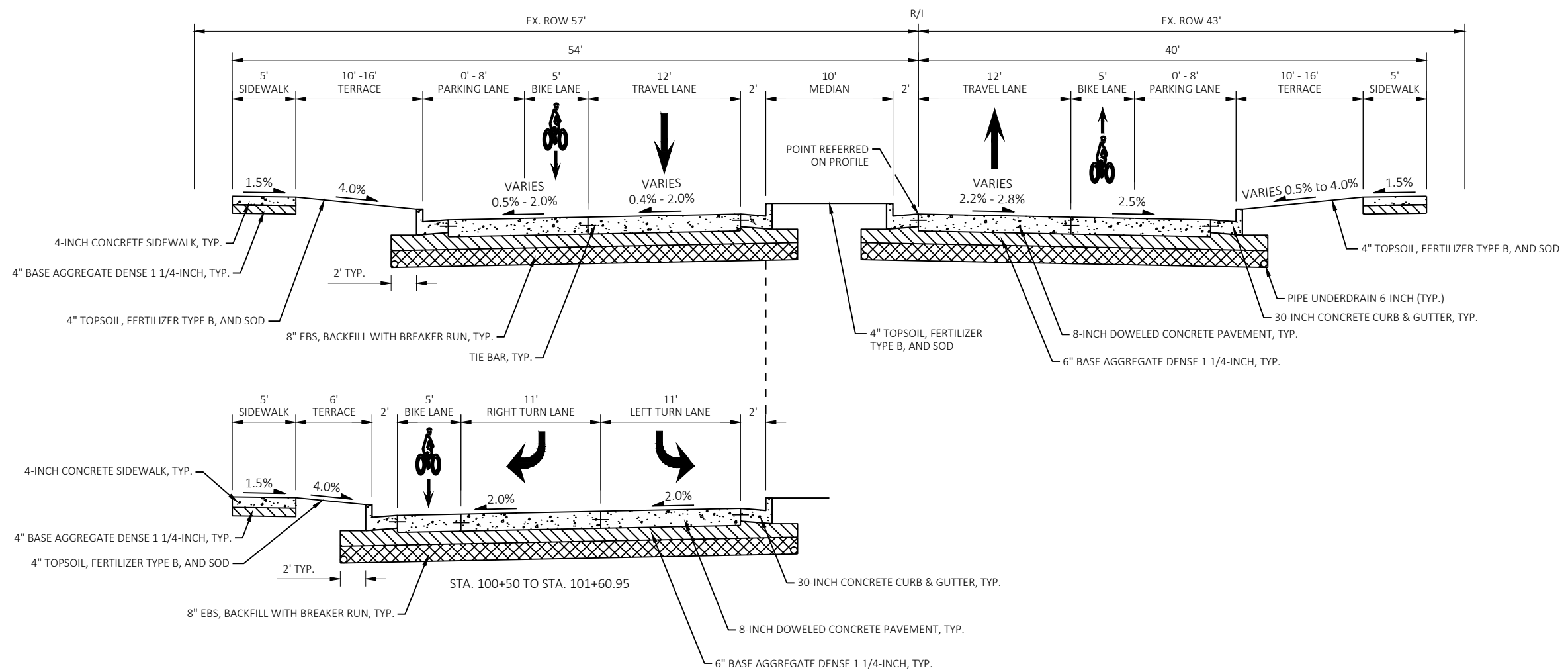
Dial 811 or (800)242-8511

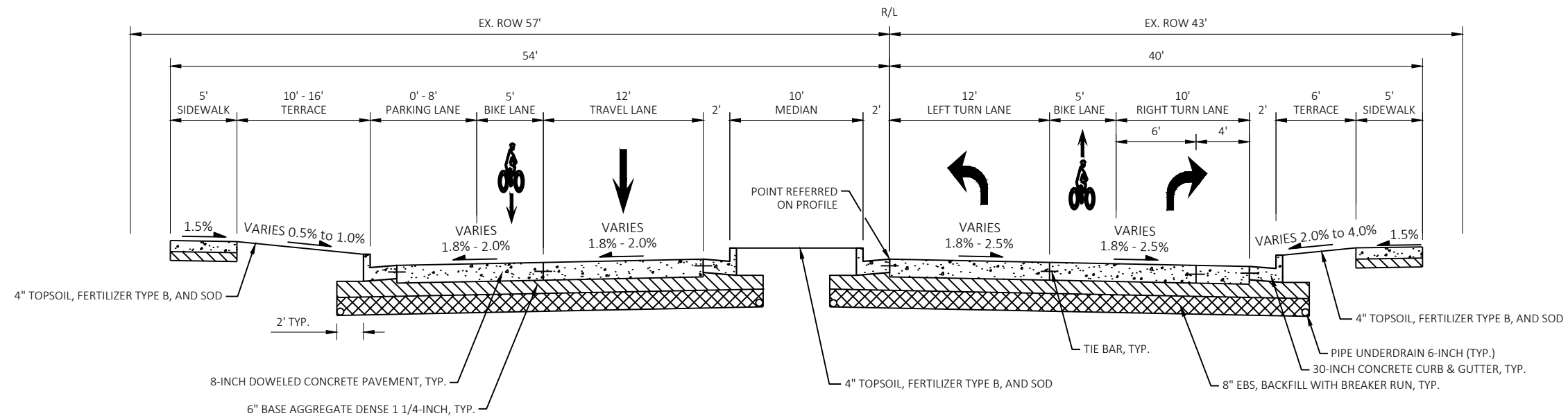
www.DiggersHotline.com



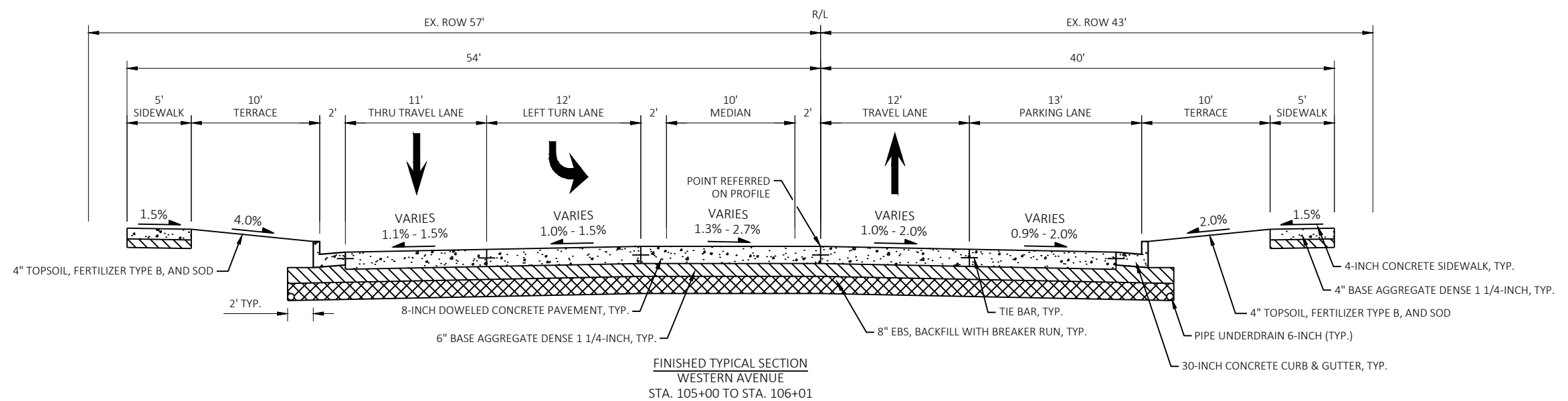




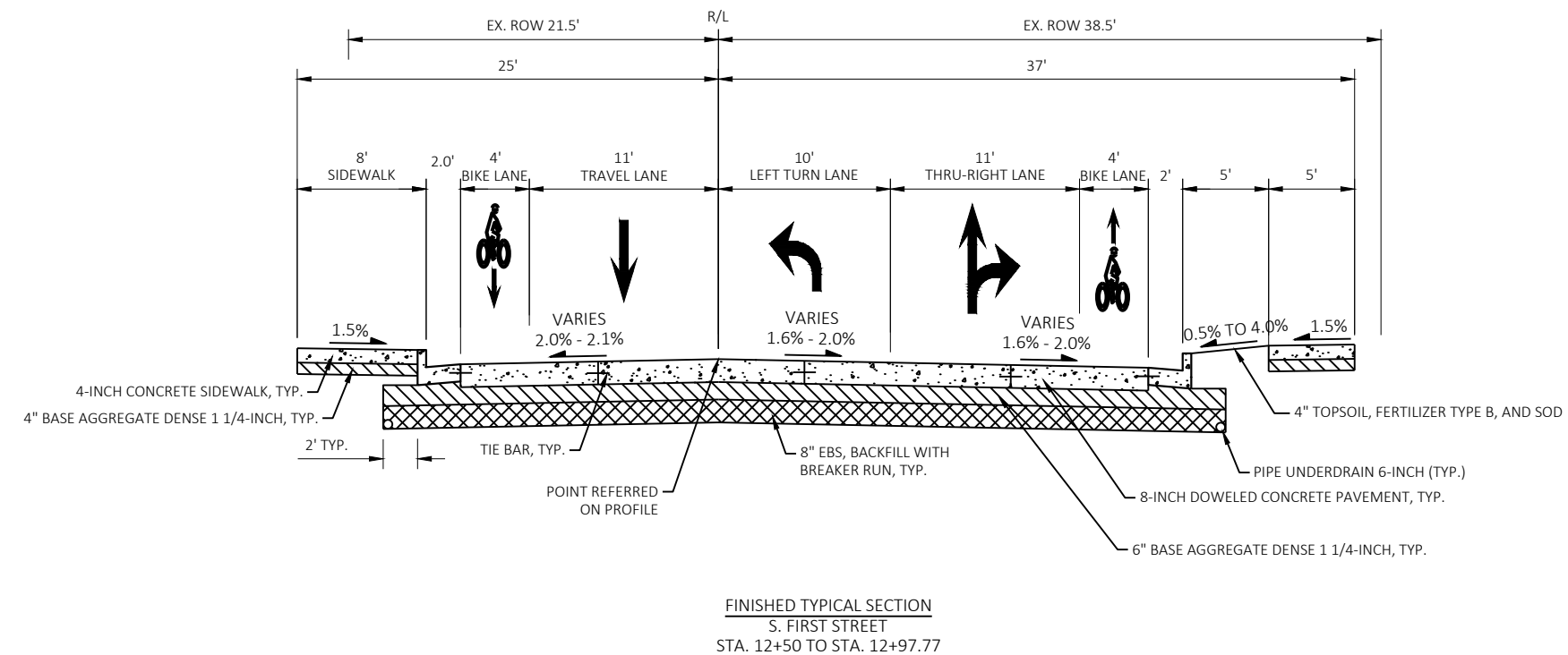
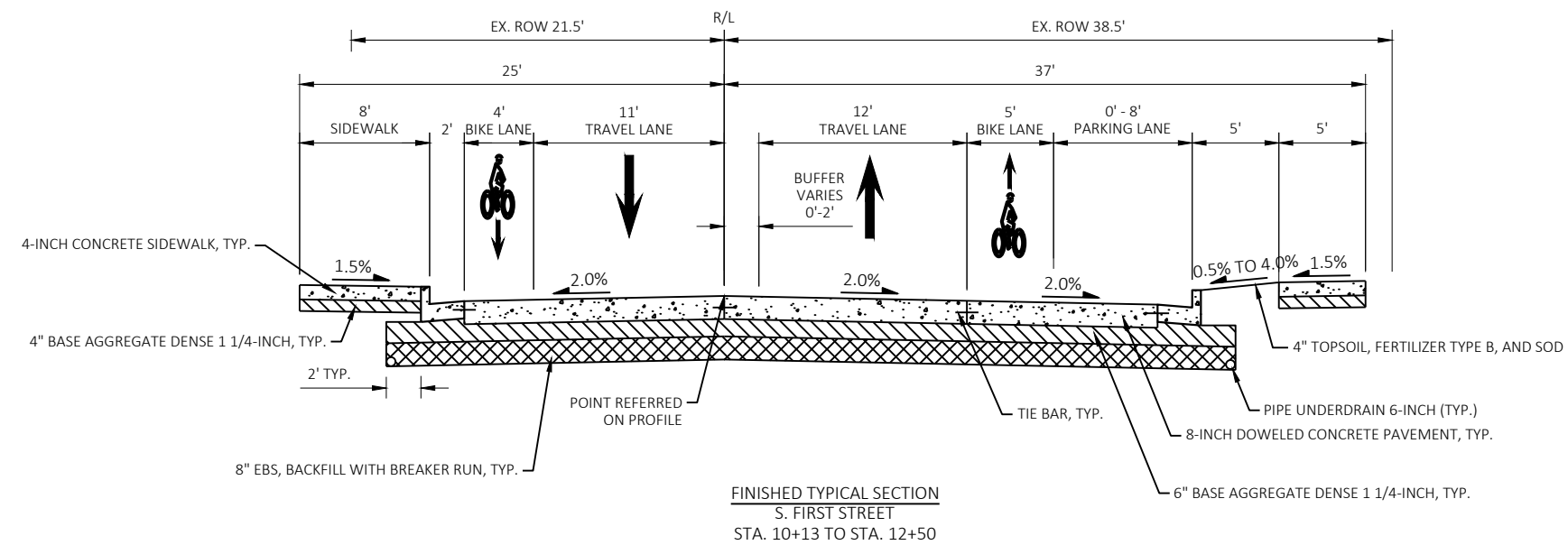


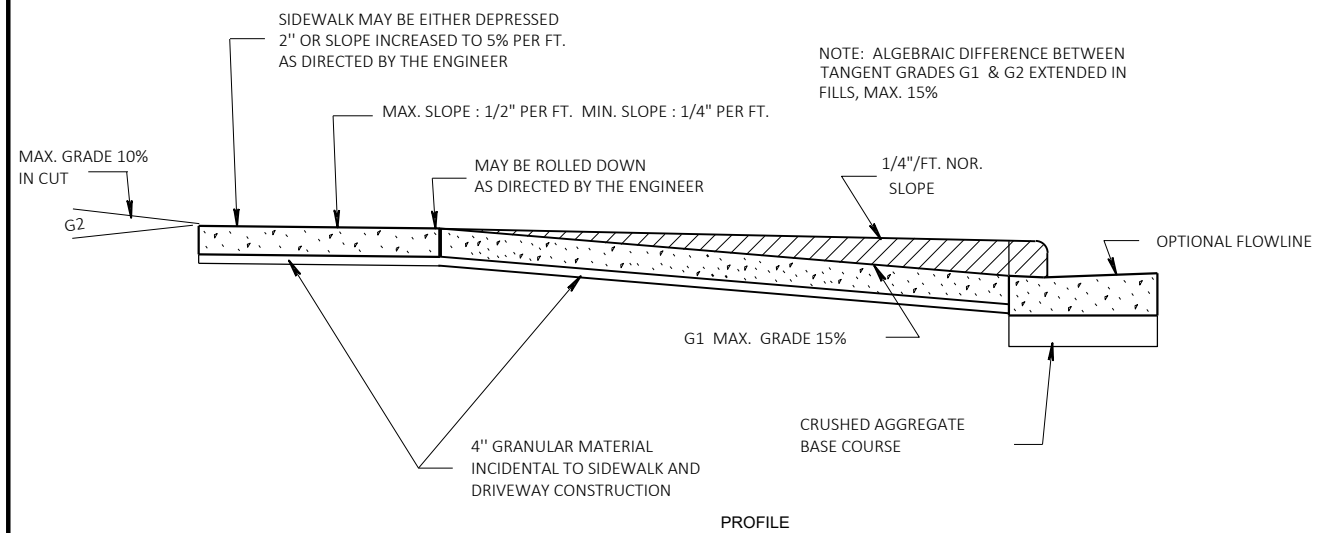
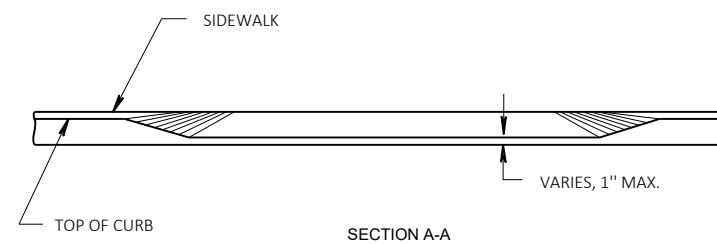
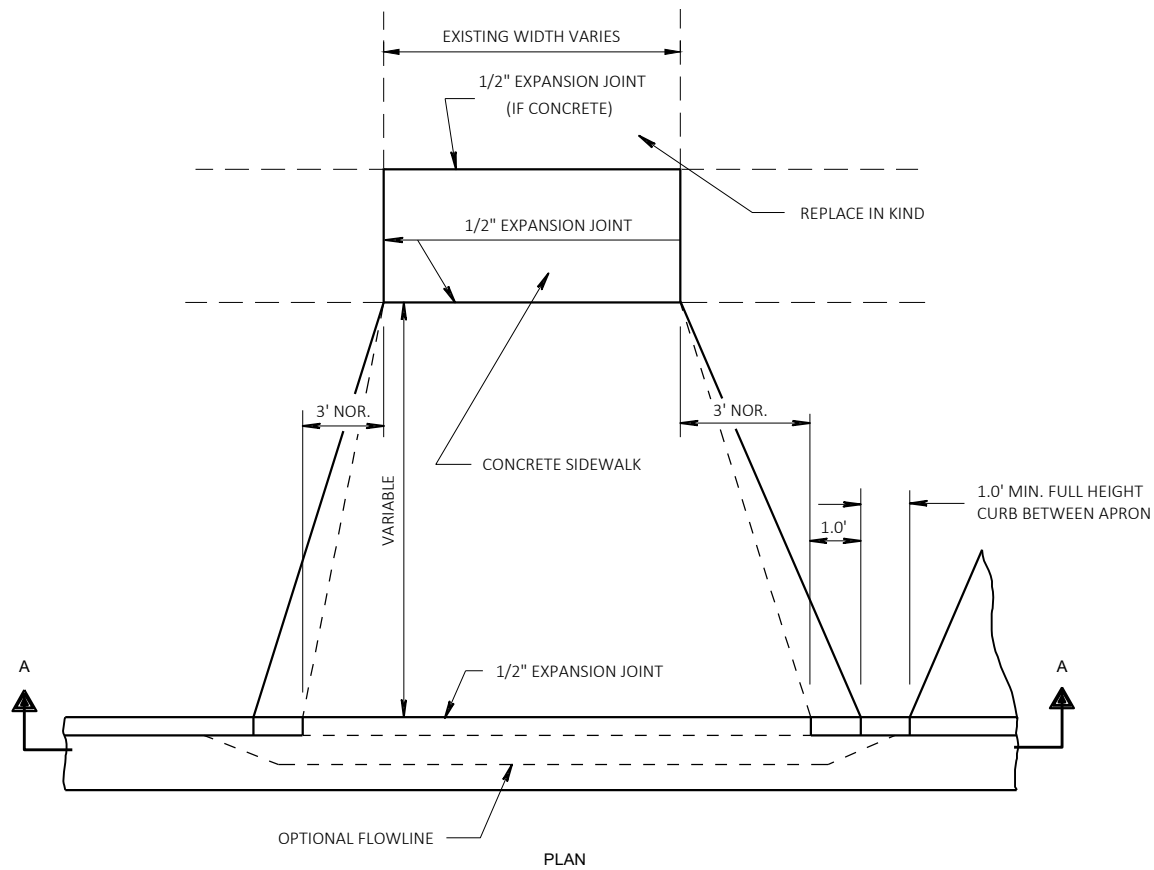
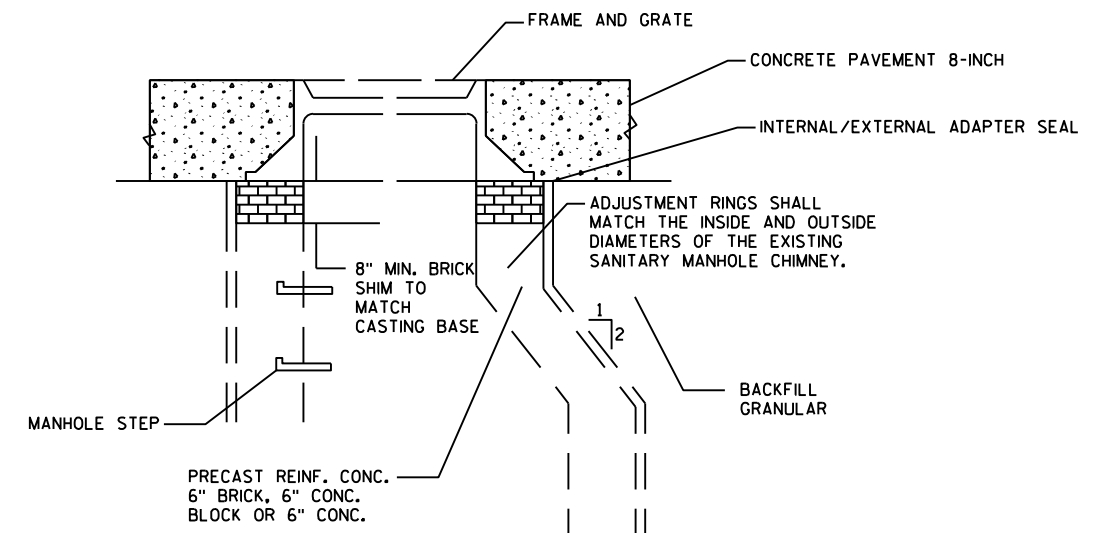


FINISHED TYPICAL SECTION
WESTERN AVENUE
STA. 103+86.50 TO STA. 105+00



FINISHED TYPICAL SECTION
WESTERN AVENUE
STA. 105+00 TO STA. 106+01

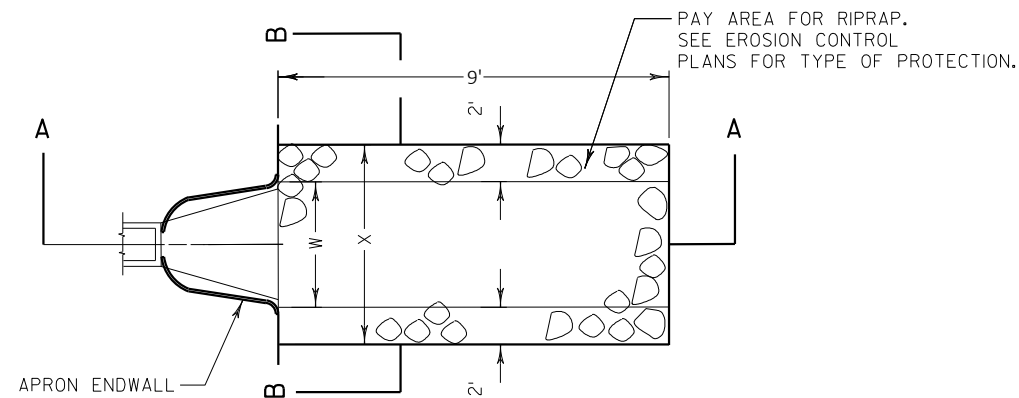


URBAN DRIVEWAY DETAIL

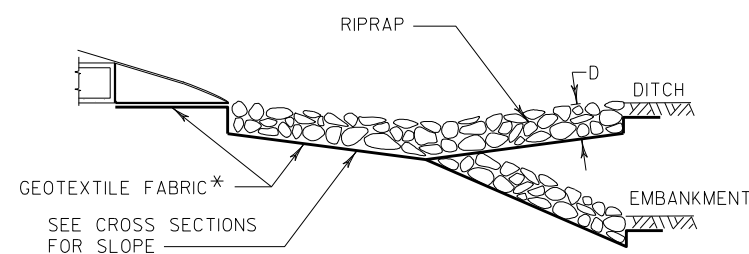
THE WORK INCLUDES REPAIRING AND ADJUSTING SANITARY MANHOLE CHIMNEY, THE INSTALLATION OF MANHOLE SEAL AND THE INSTALLATION OF NEW FRAME AND GRATE.

ADJUSTING/RECONSTRUCTING SANITARY MANHOLE

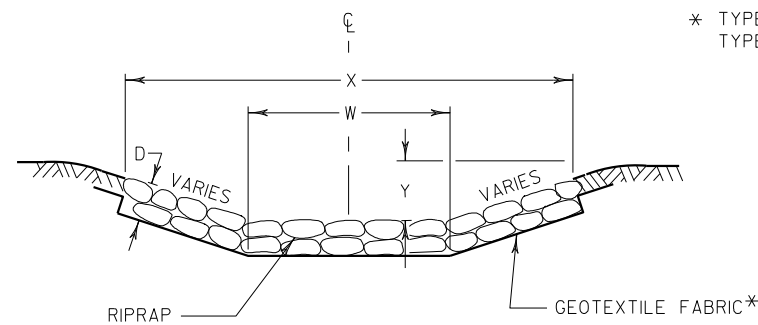
NOT TO SCALE



PLAN VIEW



SECTION A-A



SECTION B-B

RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

SEE EROSION CONTROL PLAN FOR LOCATIONS

D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

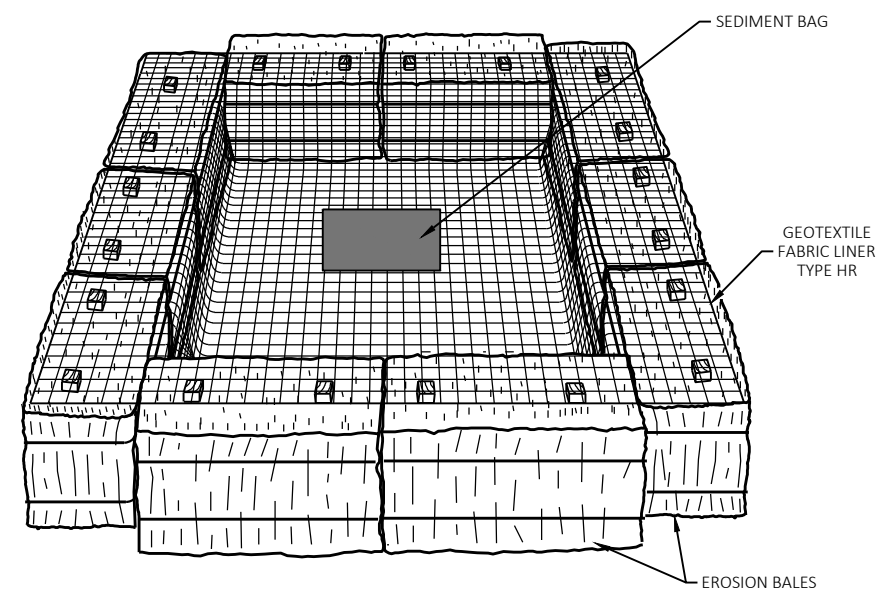
X = W+4' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+6' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
6" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

* TYPE R (FOR RIPRAP LIGHT ONLY)
TYPE HR (FOR RIPRAP HEAVY AND MEDIUM ONLY)

CONSTRUCTION NOTES:

1. GEOTEXTILE FABRIC SHALL EXTEND BENEATH THE ENTIRE LENGTH OF THE APRON ENDWALL SECTION. INSTALL ON PREPAVED FOUNDATION. GRADE PRIOR TO END WALL INSTALLATION.
2. COMPLETE GEOTEXTILE FABRIC AND RIPRAP SECTION INSTALLATION PRIOR TO STORM WATER FLOW.



TEMPORARY SETTLING BASIN

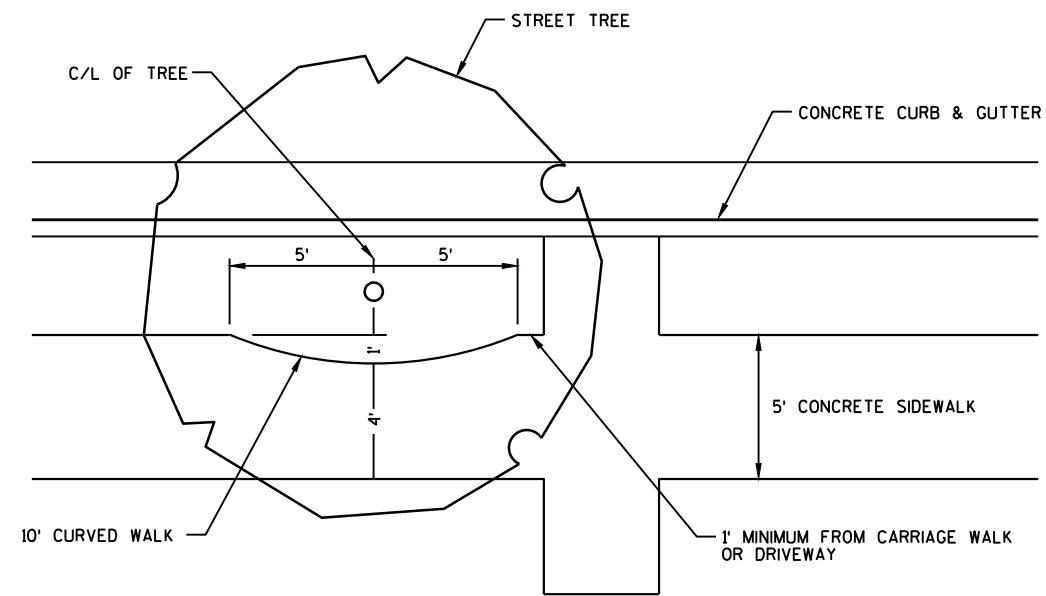
(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (CF) = 16 X GPM (PUMP RATE)

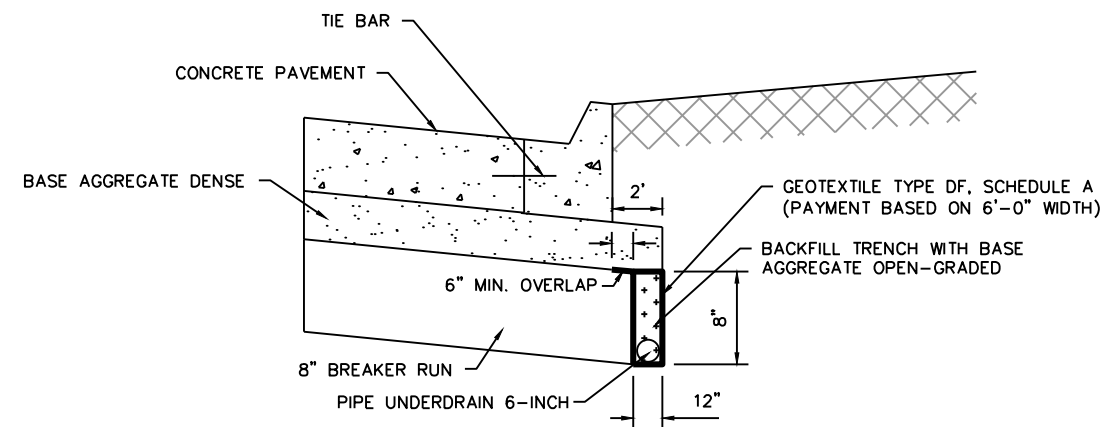
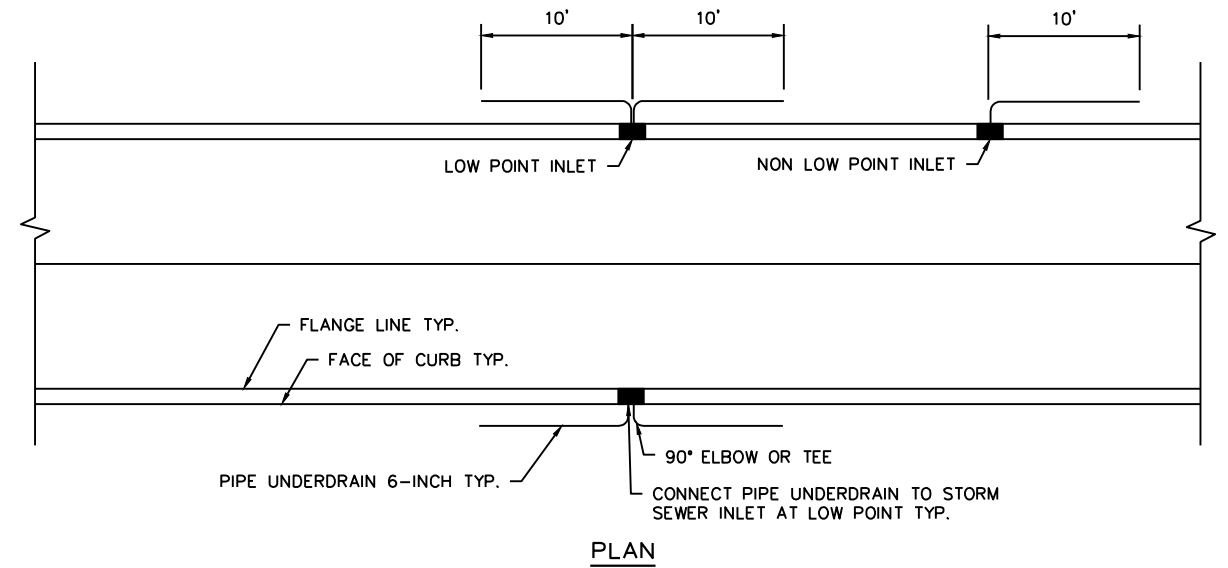
EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT

SOLUTION:
SV (CF) = 16 X 50
SV = 800 CF
 $\frac{800 \text{ CF}}{1.5 \text{ FT}} = 533 \text{ SF}$

USE A 20 FT X 27 FT BASIN

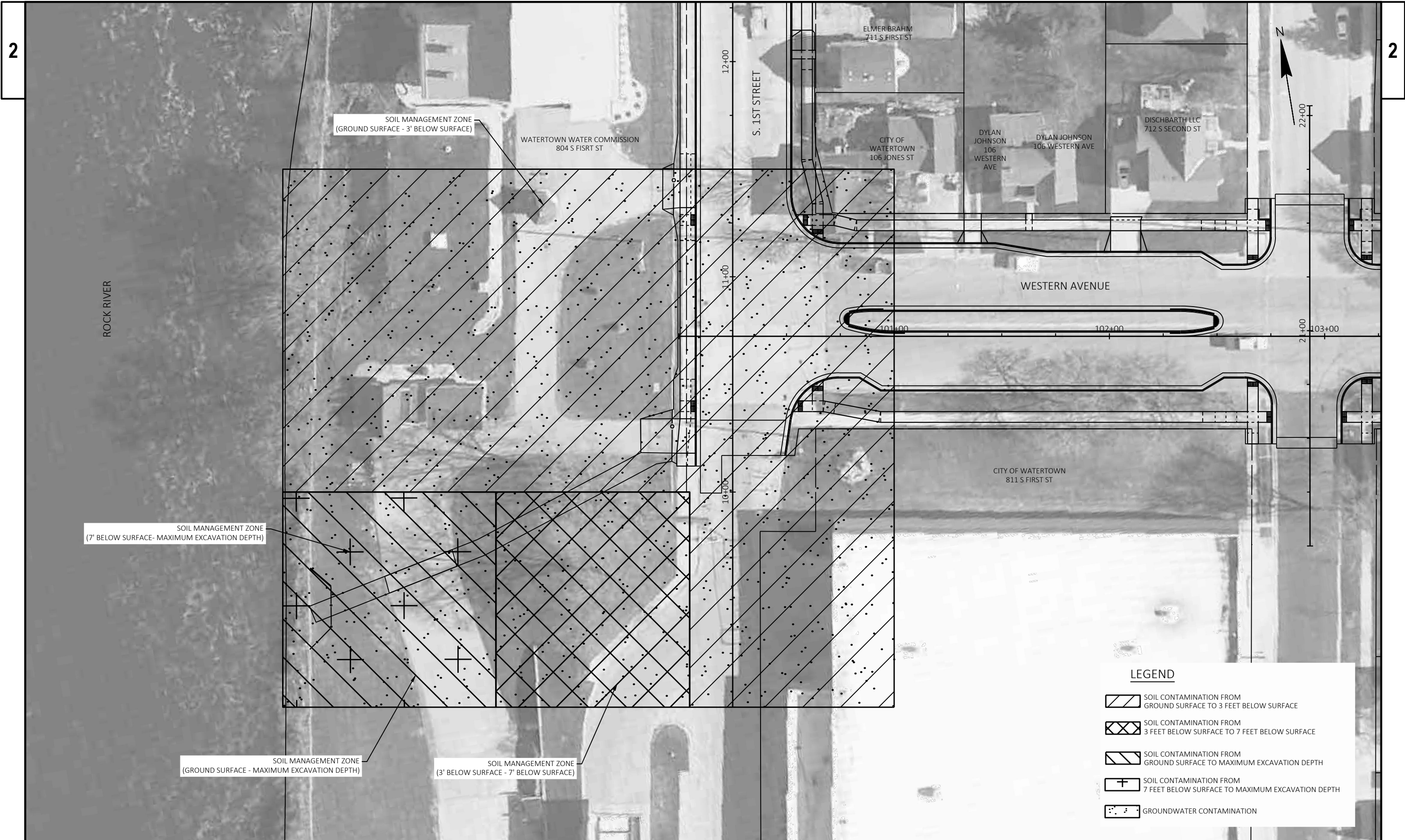


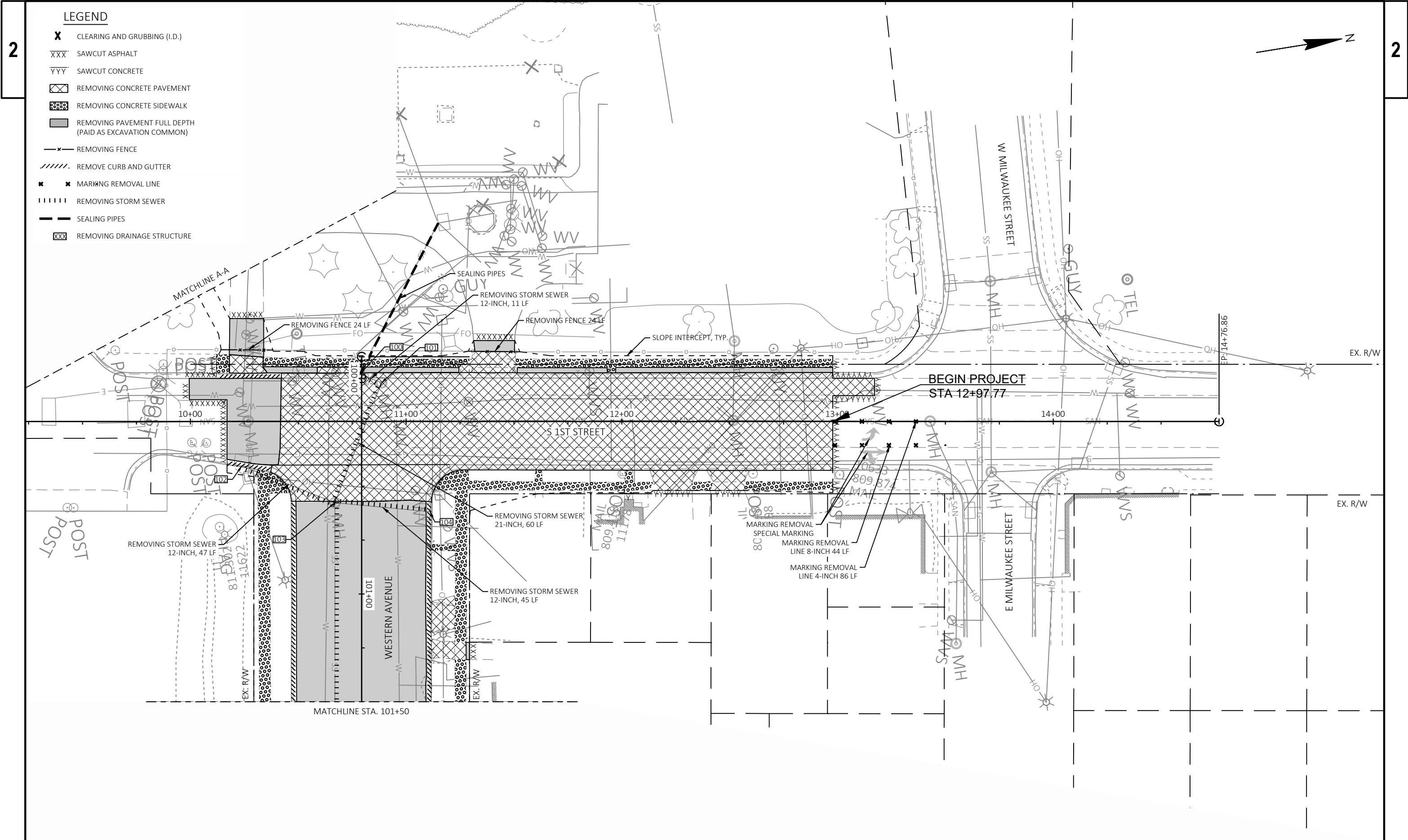
CURVED SIDEWALK ARC AT TREE LOCATIONS

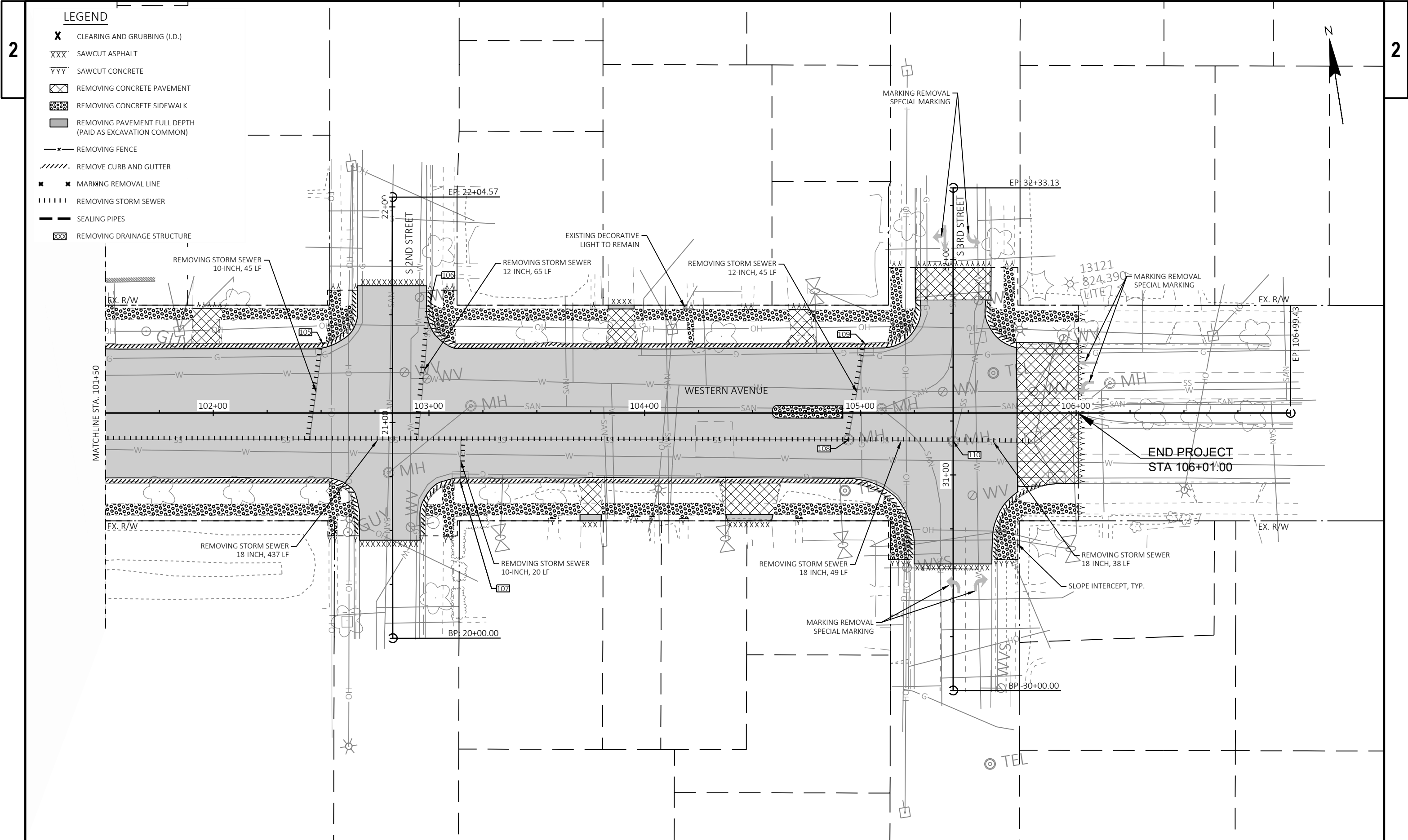


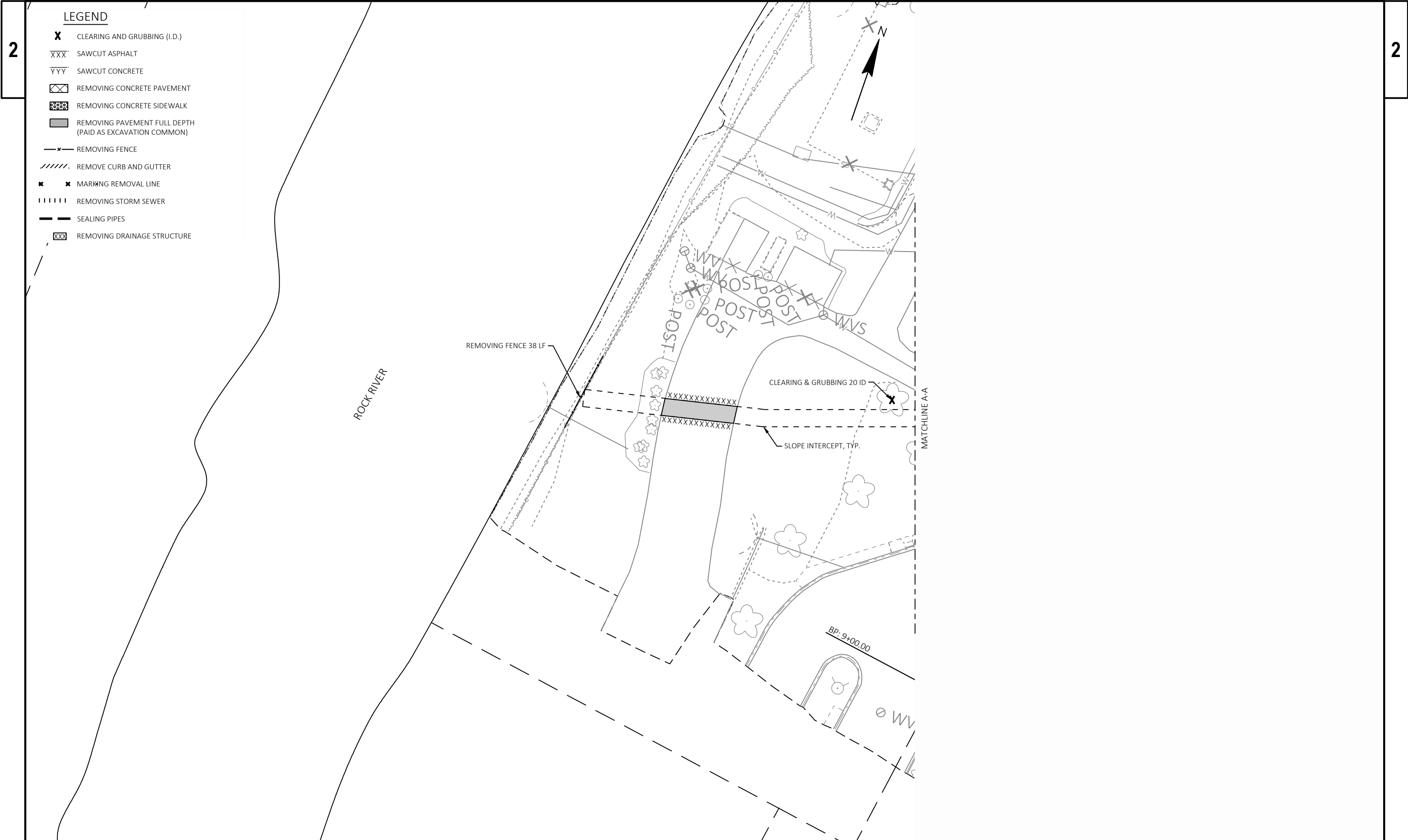
UNDERDRAIN TRENCH DETAIL

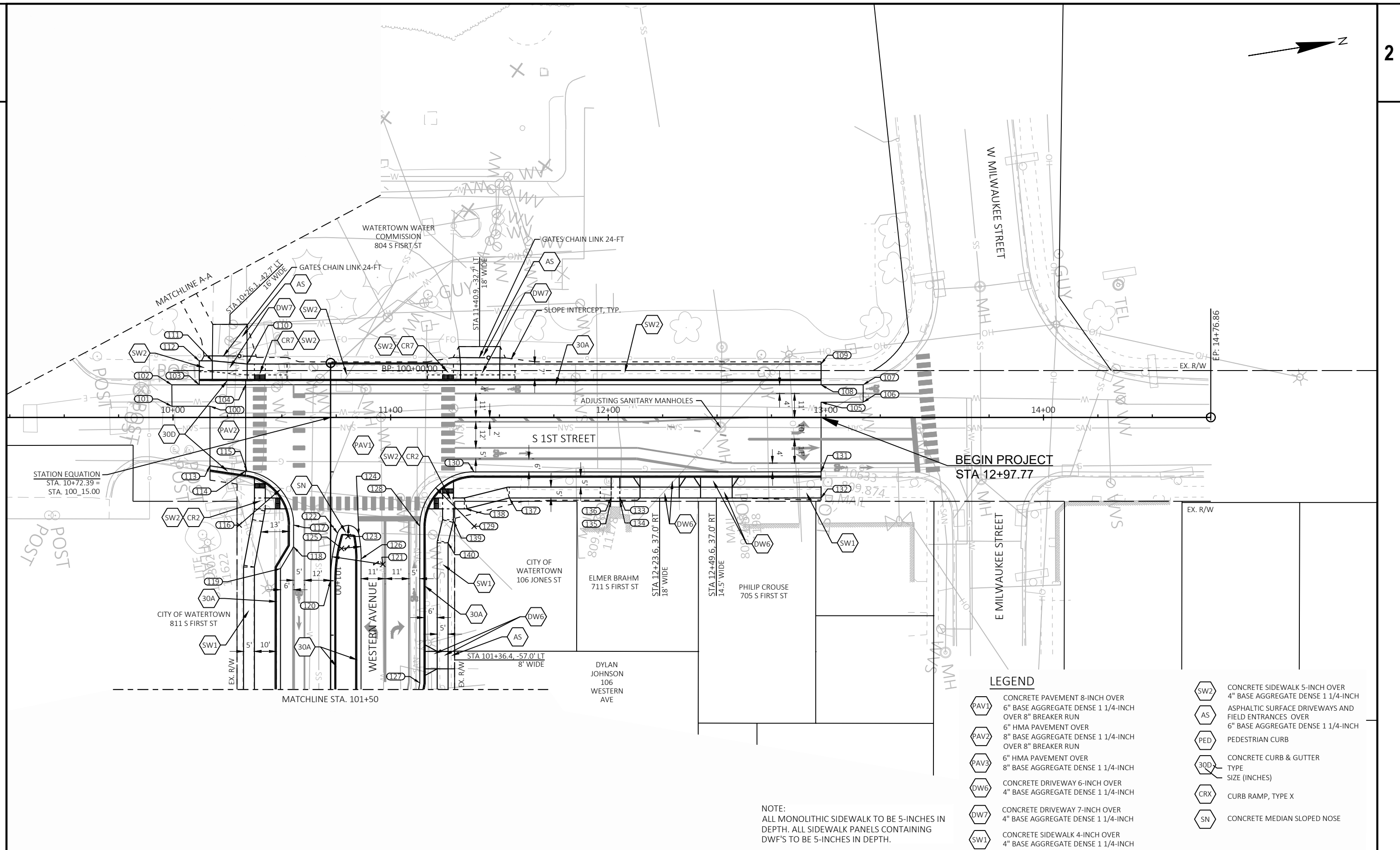
10' EACH SIDE OF INLET AT LOW POINTS.
10' ON HIGH SIDE OF INLET AT ALL OTHER INLETS
CONNECT PIPE UNDERDRAIN TO INLETS





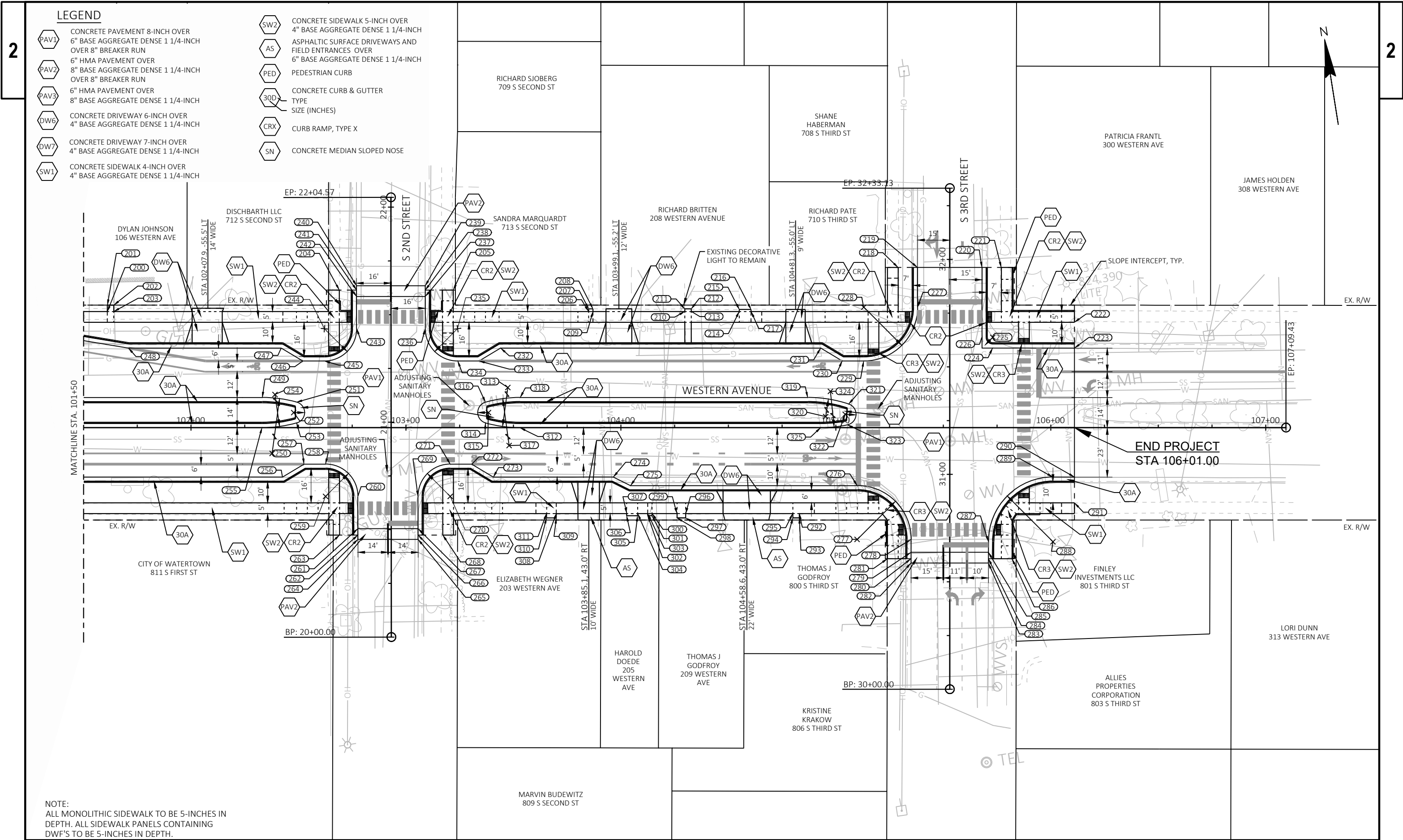






SHEET 1			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
100	100+19.84	55.40' RT	SAWCUT, MATCH EXISTING
101	100+19.89	72.89' RT	SAWCUT, MATCH EXISTING
102	100+10.00	72.92' RT	SAWCUT, MATCH EXISTING
103	10+12.04	15.00' LT	SAWCUT, MATCH EXISTING, BEGIN C&G
104	100+10.00	39.00' RT	TRANSITION FROM PAV2 TO PAV1
105	12+97.78	7.00' LT	SAWCUT, MATCH EXISTING
106	13+17.15	7.00' LT	SAWCUT, MATCH EXISTING
107	13+17.15	15.00' LT	SAWCUT, MATCH EXISTING
108	12+97.78	15.00' LT	SAWCUT, MATCH EXISTING, END C&G
109	12+97.78	24.50' LT	SAWCUT, MATCH EXISTING
110	10+34.04	24.50' LT	BEGIN SIDEWALK TAPER
111	10+18.04	26.00' LT	END SIDEWALK TAPER
112	10+12.04	26.00' LT	SAWCUT, MATCH EXISTING
113	100+47.20	55.40' RT	SAWCUT, MATCH EXISTING, BEGIN C&G
114	100+49.61	39.00' RT	TRANSITION FROM PAV2 TO PAV1
115	100+49.70	38.37' RT	BEGIN 25' RADIUS
116	100+74.43	42.00' RT	25' RADIUS
117	100+74.43	17.00' RT	END 25' RADIUS
118	100+84.43	17.00' RT	BEGIN TAPER
119	100+94.43	23.00' RT	END TAPER
120	101+00.00	0.00'	BEGIN 75' RADIUS

SHEET 1			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
121	101+00.00	75.00' LT	75' RADIUS
122	100+78.21	3.24' LT	END 75' RADIUS, BEGIN 5' RADIUS
123	100+79.66	8.02' LT	5' RADIUS
124	100+78.72	12.93' LT	END 5' RADIUS, BEGIN 60' RADIUS
125	100+90.00	46.00' RT	60' RADIUS
126	100+90.00	14.00' LT	END 60' RADIUS
127	101+46.91	41.01' LT	END TAPER
128	100+75.00	41.00' LT	BEGIN 25' RADIUS
129	100+75.00	66.00' LT	25' RADIUS
130	100+50.00	66.00' LT	END 25' RADIUS
131	100+50.00	225.39' LT	SAWCUT, MATCH EXISTING, BEGIN C&G
132	100+62.00	225.39' LT	SAWCUT, MATCH EXISTING
133	100+62.00	132.91' LT	SIDEWALK PI
134	100+63.50	132.91' LT	SAWCUT, MATCH EXISTING
135	100+63.50	128.91' LT	SAWCUT, MATCH EXISTING
136	100+62.00	128.91' LT	SIDEWALK PI
137	100+62.00	82.12' LT	SIDEWALK PI
138	100+67.00	62.12' LT	SIDEWALK PI
139	100+72.62	56.50' LT	SIDEWALK PI
140	100+82.62	54.00' LT	SIDEWALK PI



LEGEND

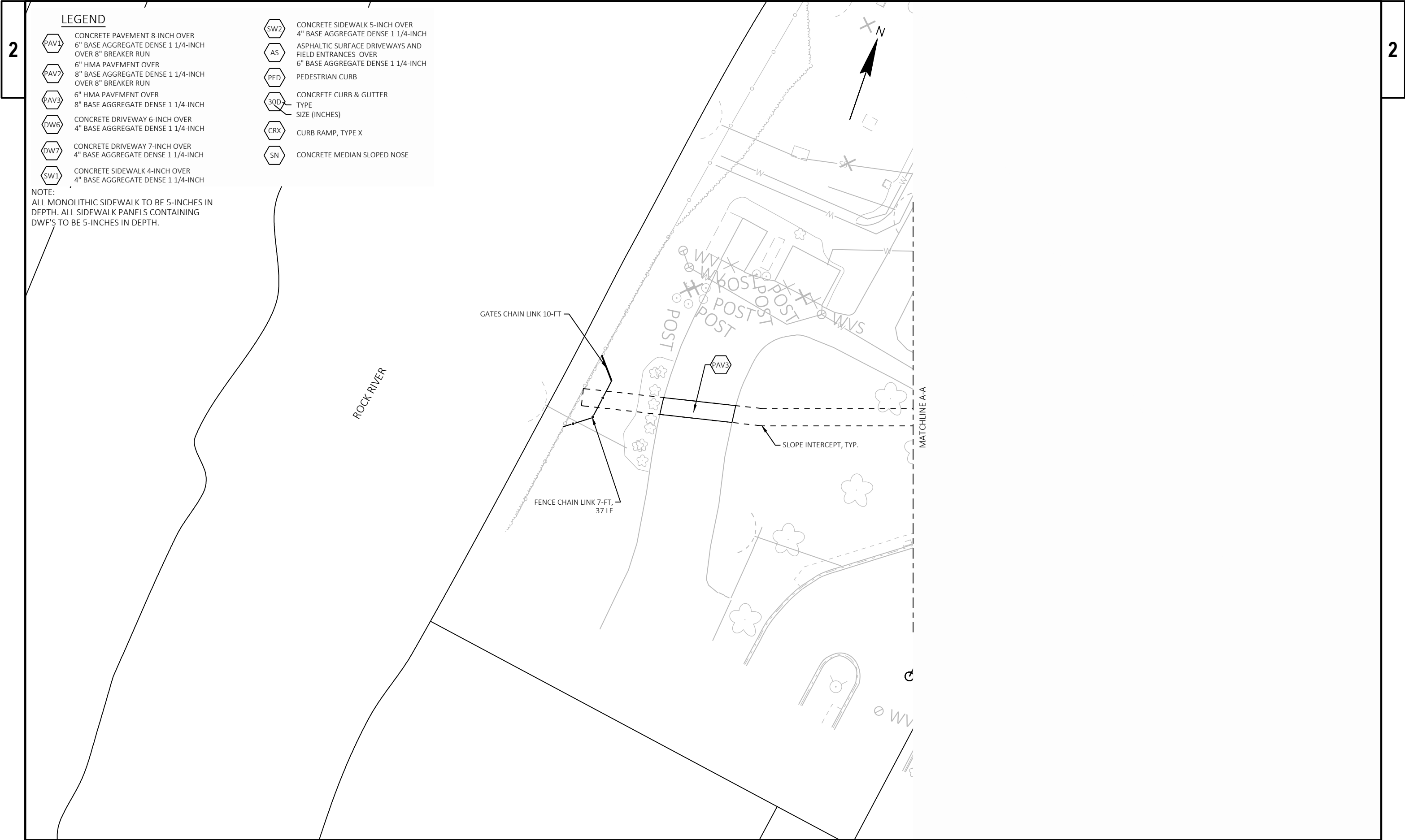
- | | | | |
|------|--|-----|---|
| PAV1 | CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH OVER 8" BREAKER RUN | SW2 | CONCRETE SIDEWALK 5-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH |
| PAV2 | 6" HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH OVER 8" BREAKER RUN | AS | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH |
| PAV3 | 6" HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH | PED | PEDESTRIAN CURB |
| DW6 | CONCRETE DRIVEWAY 6-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH | 30D | CONCRETE CURB & GUTTER TYPE SIZE (INCHES) |
| DW7 | CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH | CRX | CURB RAMP, TYPE X |
| SW1 | CONCRETE SIDEWALK 4-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH | SN | CONCRETE MEDIAN SLOPED NOSE |

NOTE:
ALL MONOLITHIC SIDEWALK TO BE 5-INCHES IN DEPTH. ALL SIDEWALK PANELS CONTAINING DWF'S TO BE 5-INCHES IN DEPTH.

SHEET 2			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
200	101+61.11	54.00' LT	SIDEWALK PI
201	101+61.11	57.00' LT	SAWCUT, MATCH EXISTING
202	101+64.11	57.00' LT	SAWCUT, MATCH EXISTING
203	101+64.11	54.00' LT	SIDEWALK PI
204	102+69.04	64.00' LT	SAWCUT, MATCH EXISTING
205	103+22.04	64.00' LT	SAWCUT, MATCH EXISTING
206	103+85.05	54.00' LT	SIDEWALK PI
207	103+85.05	55.24' LT	SAWCUT, MATCH EXISTING
208	103+87.05	55.24' LT	SAWCUT, MATCH EXISTING
209	103+87.06	54.00' LT	SIDEWALK PI
210	104+29.76	54.00' LT	SIDEWALK PI
211	104+29.76	55.25' LT	SAWCUT, MATCH EXISTING
212	104+32.76	55.25' LT	SAWCUT, MATCH EXISTING
213	104+32.76	54.00' LT	SIDEWALK PI
214	104+55.08	54.00' LT	SIDEWALK PI
215	104+55.08	55.00' LT	SAWCUT, MATCH EXISTING
216	104+60.58	55.00' LT	SAWCUT, MATCH EXISTING
217	104+60.58	54.00' LT	SIDEWALK PI
218	105+29.00	74.50' LT	SAWCUT, MATCH EXISTING, END C&G
219	105+38.00	74.50' LT	SAWCUT, MATCH EXISTING
220	105+68.00	74.50' LT	SAWCUT, MATCH EXISTING, BEGIN C&G
221	105+77.00	74.50' LT	SAWCUT, MATCH EXISTING
222	106+11.00	49.00' LT	SAWCUT, MATCH EXISTING
223	106+11.00	37.00' LT	SAWCUT, MATCH EXISTING, END C&G
224	105+73.00	37.00' LT	BEGIN 5' RADIUS
225	105+73.00	42.00' LT	5' RADIUS
226	105+68.00	42.00' LT	END 5' RADIUS
227	105+38.00	56.00' LT	BEGIN 25' RADIUS
228	105+13.00	56.00' LT	25' RADIUS
229	105+13.00	31.00' LT	END 25' RADIUS
230	105+03.00	31.00' LT	BEGIN TAPER
231	104+93.00	37.00' LT	END TAPER
232	103+44.06	37.00' LT	BEGIN TAPER
233	103+34.06	31.00' LT	END TAPER
234	103+24.06	31.00' LT	BEGIN 15' RADIUS
235	103+24.06	46.00' LT	15' RADIUS
236	103+09.06	45.98' LT	END 15' RADIUS
237	103+09.04	61.00' LT	TRANSITION FROM PAV1 TO PAV2
238	103+09.04	64.00' LT	SAWCUT, MATCH EXISTING, END C&G
239	103+08.97	65.90' LT	SAWCUT, MATCH EXISTING
240	102+77.04	66.00' LT	SAWCUT, MATCH EXISTING
241	102+77.04	64.00' LT	SAWCUT, MATCH EXISTING, BEGIN C&G

SHEET 2			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
242	102+77.04	61.00' LT	TRANSITION FROM PAV2 TO PAV1
243	102+77.06	46.02' LT	BEGIN 15' RADIUS
244	102+62.06	46.00' LT	15' RADIUS
245	102+62.06	31.00' LT	END 15' RADIUS
246	102+52.06	31.00' LT	BEGIN TAPER
247	102+42.06	37.00' LT	END TAPER
248	101+70.95	37.00' LT	BEGIN TAPER
249	102+33.15	14.00' LT	BEGIN 60' RADIUS
250	102+33.15	46.00' RT	60' RADIUS
251	102+49.13	11.83' LT	END 60' RADIUS, BEGIN 5' RADIUS
252	102+47.80	7.01' LT	5' RADIUS
253	102+49.14	2.20' LT	END 5' RADIUS, BEGIN 60' RADIUS
254	102+33.05	60.00' LT	60' RADIUS
255	102+33.05	0.00'	END 60' RADIUS
256	102+42.64	23.00' RT	BEGIN TAPER
257	102+52.64	17.00' RT	END TAPER
258	102+62.64	17.00' RT	BEGIN 15' RADIUS
259	102+62.64	32.00' RT	15' RADIUS
260	102+77.64	31.98' RT	END 15' RADIUS
261	102+77.66	47.00' RT	TRANSITION FROM PAV1 TO PAV2
262	102+77.66	50.00' RT	SAWCUT, MATCH EXISTING, END C&G
263	102+69.16	50.00' RT	SAWCUT, MATCH EXISTING
264	102+77.66	52.00' RT	SAWCUT, MATCH EXISTING
265	103+05.66	52.00' RT	SAWCUT, MATCH EXISTING
266	103+05.66	50.00' RT	SAWCUT, MATCH EXISTING, BEGIN C&G
267	103+05.66	47.00' RT	TRANSITION FROM PAV2 TO PAV1
268	103+17.16	50.00' RT	SAWCUT, MATCH EXISTING
269	103+05.64	32.02' RT	BEGIN 15' RADIUS
270	103+20.64	32.00' RT	15' RADIUS
271	103+20.64	17.00' RT	END 15' RADIUS
272	103+30.64	17.00' RT	BEGIN TAPER
273	103+40.64	23.00' RT	END TAPER
274	103+96.50	23.00' RT	BEGIN TAPER
275	104+04.50	27.00' RT	END TAPER
276	105+10.00	27.00' RT	BEGIN 25' RADIUS
277	105+10.00	52.00' RT	25' RADIUS
278	105+35.00	52.00' RT	END 25' RADIUS
279	105+35.00	58.00' RT	TRANSITION FROM PAV1 TO PAV2
280	105+35.00	61.00' RT	SAWCUT, MATCH EXISTING, END C&G
281	105+24.00	61.00' RT	SAWCUT, MATCH EXISTING
282	105+35.00	63.00' RT	SAWCUT, MATCH EXISTING
283	105+71.00	63.00' RT	SAWCUT, MATCH EXISTING

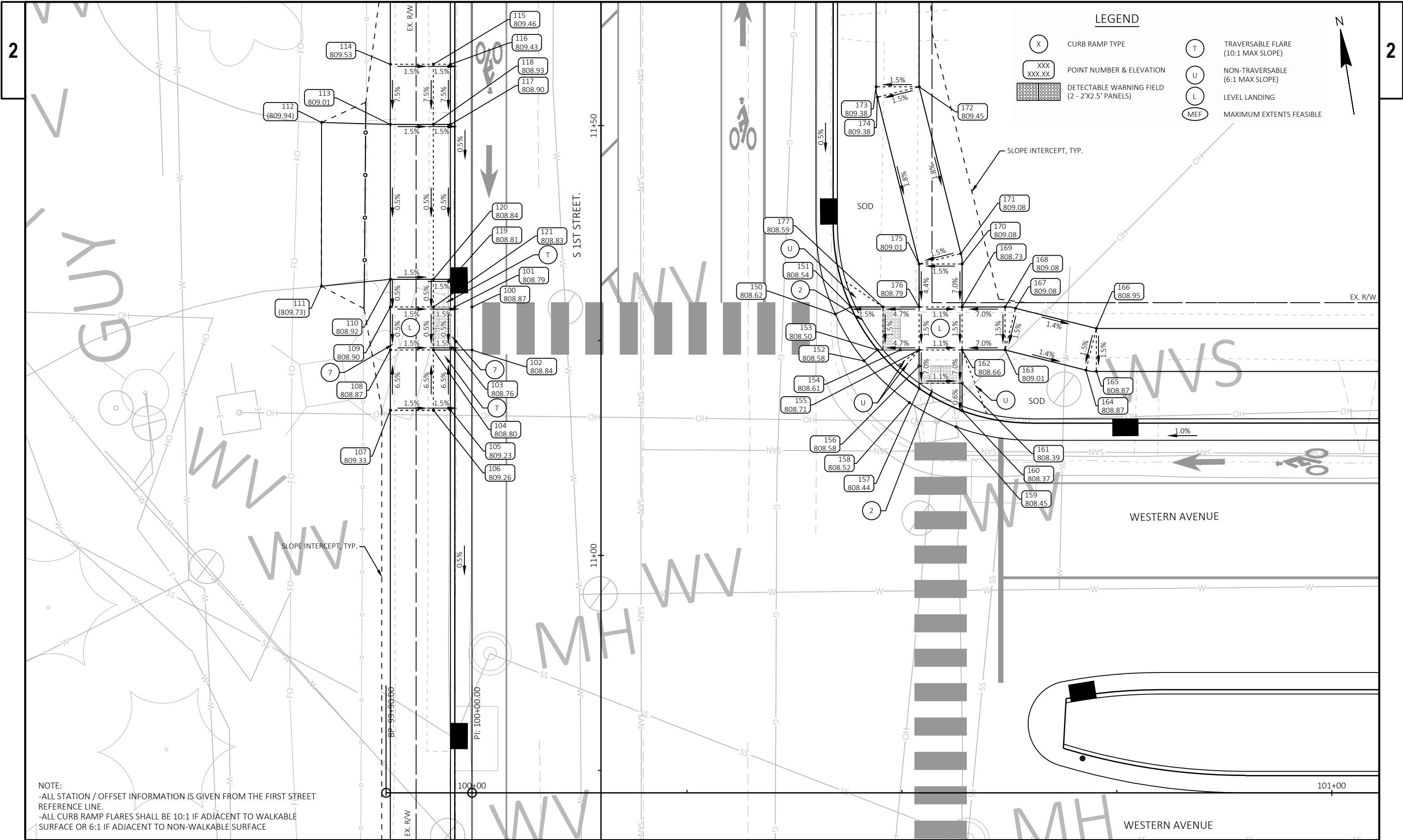
SHEET 2			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
284	105+71.00	61.00' RT	SAWCUT, MATCH EXISTING, BEGIN C&G
285	105+71.00	58.00' RT	TRANSITION FROM PAV2 TO PAV1
286	105+82.00	61.00' RT	SAWCUT, MATCH EXISTING
287	105+71.00	53.00' RT	BEGIN 30' RADIUS
288	106+01.00	53.00' RT	30' RADIUS
289	106+01.00	23.00' RT	END 30' RADIUS
290	106+11.00	23.00' RT	SAWCUT, MATCH EXISTING, END C&G
291	106+11.00	35.00' RT	SAWCUT, MATCH EXISTING
292	104+83.00	40.00' RT	SIDEWALK PI
293	104+83.00	42.00' RT	SAWCUT, MATCH EXISTING
294	104+80.03	42.00' RT	SAWCUT, MATCH EXISTING
295	104+80.00	40.00' RT	SIDEWALK PI
296	104+30.14	40.00' RT	SIDEWALK PI
297	104+30.14	42.00' RT	SAWCUT, MATCH EXISTING
298	104+26.14	42.00' RT	SAWCUT, MATCH EXISTING
299	104+26.14	40.00' RT	SIDEWALK PI
300	104+14.53	40.00' RT	SIDEWALK PI
301	104+14.53	41.00' RT	SAWCUT, MATCH EXISTING
302	104+12.53	41.00' RT	SAWCUT, MATCH EXISTING
303	104+12.53	40.00' RT	SIDEWALK PI
304	104+07.83	40.00' RT	SIDEWALK PI
305	104+07.83	41.00' RT	SAWCUT, MATCH EXISTING
306	104+02.73	41.00' RT	SAWCUT, MATCH EXISTING
307	104+02.73	40.00' RT	SIDEWALK PI
308	103+69.95	40.00' RT	SIDEWALK PI
309	103+69.95	42.00' RT	SAWCUT, MATCH EXISTING
310	103+65.45	42.00' RT	SAWCUT, MATCH EXISTING
311	103+65.45	40.00' RT	SIDEWALK PI
312	103+53.05	0.00'	BEGIN 60' RADIUS
313	103+53.05	60.00' LT	60' RADIUS
314	103+37.07	2.17' LT	END 60' RADIUS, BEGIN 5' RADIUS
315	103+38.40	6.99' LT	5' RADIUS
316	103+37.06	11.80' LT	END 5' RADIUS, BEGIN 60' RADIUS
317	103+53.15	46.00' RT	60' RADIUS
318	103+53.15	14.00' LT	END 60' RADIUS
319	104+87.00	14.00' LT	BEGIN 60' RADIUS
320	104+87.00	46.00' RT	60' RADIUS
321	105+05.94	10.93' LT	END 60' RADIUS, BEGIN 5' RADIUS
322	105+04.36	6.19' LT	5' RADIUS
323	105+05.40	1.29' LT	END 5' RADIUS, BEGIN 60' RADIUS
324	104+93.00	60.00' LT	60' RADIUS
325	104+93.00	0.00'	END 60' RADIUS



LEGEND

PAV1	CONCRETE PAVEMENT 8-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH OVER 8" BREAKER RUN	SW2	CONCRETE SIDEWALK 5-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH
PAV2	6" HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH OVER 8" BREAKER RUN	AS	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH
PAV3	6" HMA PAVEMENT OVER 8" BASE AGGREGATE DENSE 1 1/4-INCH	PED	PEDESTRIAN CURB
DW6	CONCRETE DRIVEWAY 6-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	30D	CONCRETE CURB & GUTTER TYPE SIZE (INCHES)
DW7	CONCRETE DRIVEWAY 7-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	CRX	CURB RAMP, TYPE X
SW1	CONCRETE SIDEWALK 4-INCH OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH	SN	CONCRETE MEDIAN SLOPED NOSE

NOTE:
ALL MONOLITHIC SIDEWALK TO BE 5-INCHES IN DEPTH. ALL SIDEWALK PANELS CONTAINING DWF'S TO BE 5-INCHES IN DEPTH.



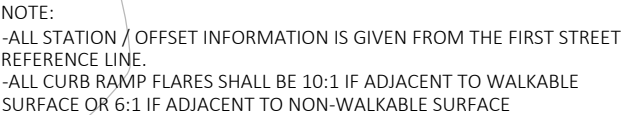
First NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	11+28.89	15.00' LT	808.87	625734.32	877249.92
101	11+28.89	17.00' LT	808.79	625734.64	877247.94
102	11+23.89	15.00' LT	808.84	625729.39	877249.12
103	11+23.89	17.00' LT	808.76	625729.70	877247.15
104	11+23.89	19.50' LT	808.80	625730.10	877244.68
105	11+16.89	17.50' LT	809.23	625722.87	877245.54
106	11+16.89	19.50' LT	809.26	625723.19	877243.57
107	11+16.89	24.50' LT	809.33	625723.98	877238.63
108	11+23.89	24.50' LT	808.87	625730.90	877239.74
109	11+28.89	24.50' LT	808.90	625735.83	877240.54
110	11+32.12	24.50' LT	808.92	625739.02	877241.05

First NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
111	11+31.32	32.52' LT	809.73	625739.50	877233.01
112	11+50.36	32.50' LT	809.94	625758.29	877236.05
113	11+50.12	24.50' LT	809.01	625756.79	877243.91
114	11+57.12	24.50' LT	809.53	625763.70	877245.02
115	11+57.12	19.50' LT	809.46	625762.91	877249.96
116	11+57.12	17.50' LT	809.43	625762.59	877251.93
117	11+50.12	17.50' LT	808.90	625755.68	877250.82
118	11+50.12	19.50' LT	808.93	625756.00	877248.85
119	11+32.12	17.50' LT	808.81	625737.91	877247.96
120	11+32.12	19.50' LT	808.84	625738.23	877245.99
121	11+28.89	19.50' LT	808.83	625735.04	877245.47

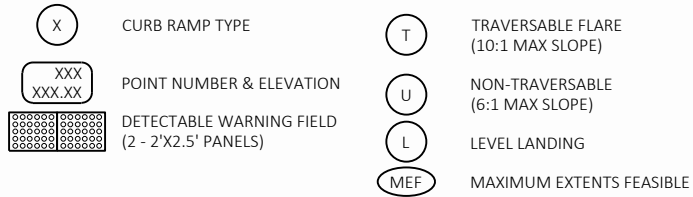
First NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
150	11+28.07	27.23' RT	808.62	625726.80	877291.48
151	11+28.89	29.05' RT	808.54	625727.33	877293.41
152	11+22.63	30.59' RT	808.58	625720.90	877293.94
153	11+23.89	32.15' RT	808.50	625721.90	877295.67
154	11+23.89	34.80' RT	808.61	625721.48	877298.29
155	11+23.89	37.00' RT	808.71	625721.13	877300.46
156	11+22.03	37.00' RT	808.58	625719.29	877300.17
157	11+19.42	37.00' RT	808.44	625716.71	877299.75
158	11+17.77	35.87' RT	808.52	625715.26	877298.38
159	11+14.95	41.30' RT	808.45	625711.62	877303.29
160	11+16.83	42.00' RT	808.37	625713.36	877304.28
161	11+20.03	42.00' RT	808.39	625716.52	877304.79
162	11+23.89	42.00' RT	808.66	625720.33	877305.40
163	11+23.89	47.00' RT	809.01	625719.54	877310.34

First NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
164	11+21.54	56.40' RT	808.87	625715.73	877319.25
165	11+21.39	57.62' RT	808.87	625715.39	877320.42
166	11+26.39	57.62' RT	808.95	625720.32	877321.21
167	11+28.74	48.21' RT	809.08	625724.14	877312.30
168	11+28.89	47.00' RT	809.08	625724.48	877311.13
169	11+28.89	42.00' RT	808.73	625725.27	877306.19
170	11+33.89	42.00' RT	809.08	625730.21	877306.99
171	11+35.11	41.85' RT	809.08	625731.43	877307.03
172	11+54.51	37.00' RT	809.45	625751.36	877305.33
173	11+54.51	32.00' RT	809.38	625752.15	877300.39
174	11+53.30	32.15' RT	809.38	625750.93	877300.34
175	11+33.89	37.00' RT	809.01	625731.00	877302.05
176	11+28.89	37.00' RT	808.79	625726.06	877301.26
177	11+28.89	32.79' RT	808.59	625726.73	877297.11

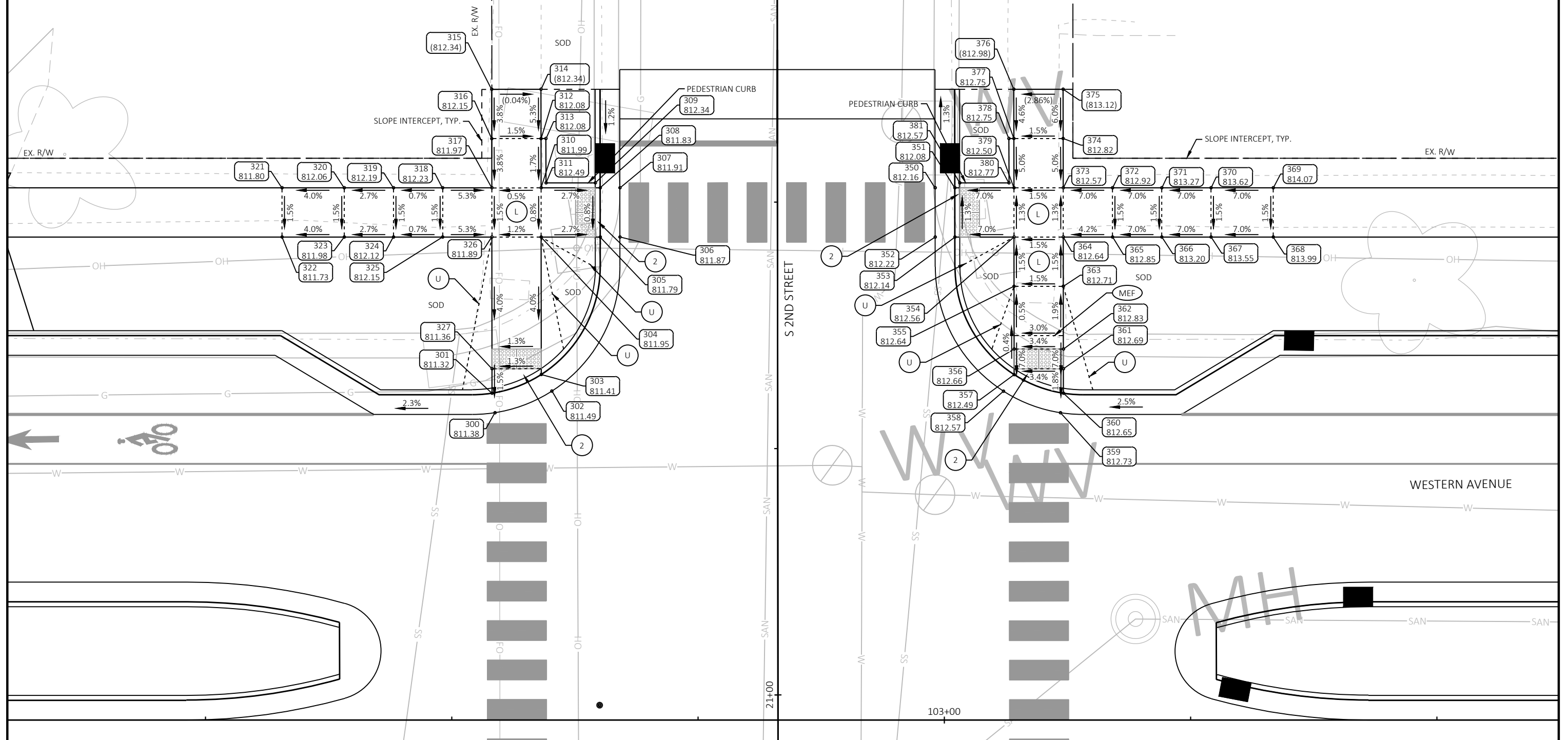
NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE FIRST STREET
REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE
SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE



First SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
263	10+37.39	30.40' RT	808.24	625636.78	877280.21
264	100+47.40	35.00' RT	808.36	625636.46	877282.18
265	10+37.39	37.00' RT	808.62	625635.73	877286.73
266	10+37.39	42.00' RT	808.69	625634.93	877291.66
267	10+36.47	46.91' RT	808.94	625633.24	877296.37
268	10+32.56	67.84' RT	809.04	625626.06	877316.41
269	10+32.39	68.74' RT	809.04	625625.75	877317.27
270	10+37.39	68.74' RT	808.96	625630.69	877318.06
271	10+41.30	47.82' RT	808.87	625637.87	877298.03
272	10+42.22	42.90' RT	808.62	625639.56	877293.32
273	10+42.39	42.00' RT	808.62	625639.87	877292.46
274	10+47.15	42.00' RT	808.44	625644.56	877293.21
275	10+49.14	42.00' RT	808.34	625646.53	877293.53



NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE WESTERN AVENUE REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE



Second NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	102+54.38	31.18' LT	811.38	625668.92	877497.05
301	102+54.07	33.16' LT	811.32	625670.92	877497.06
302	102+60.15	33.37' LT	811.49	625670.17	877503.09
303	102+59.07	35.05' LT	811.41	625672.00	877502.30
304	102+59.06	49.00' LT	811.95	625685.77	877504.50
305	102+65.06	49.00' LT	811.79	625684.82	877510.42
306	102+67.06	49.01' LT	811.87	625684.52	877512.40
307	102+67.05	54.00' LT	811.91	625689.44	877513.18
308	102+65.05	54.00' LT	811.83	625689.76	877511.21
309	102+64.55	54.50' LT	812.34	625690.33	877510.80
310	102+59.05	54.00' LT	811.99	625690.71	877505.29
311	102+59.55	54.50' LT	812.49	625691.13	877505.86
312	102+59.05	58.99' LT	812.08	625695.64	877506.07
313	102+59.55	59.00' LT	812.08	625695.57	877506.57

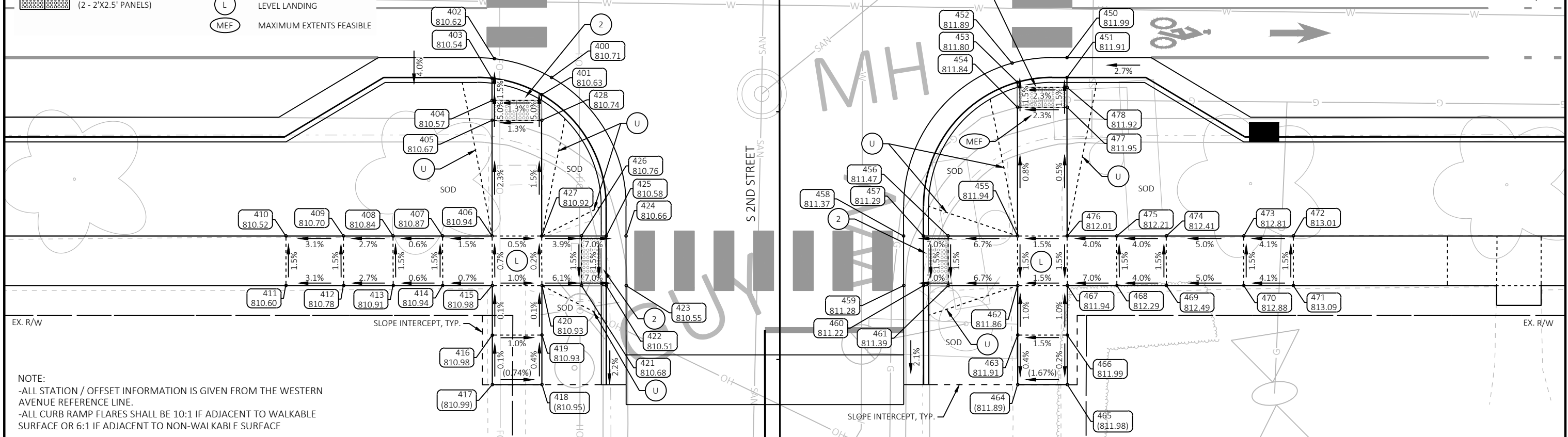
Second NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
314	102+59.04	64.00' LT	812.34	625700.59	877506.86
315	102+54.04	63.99' LT	812.34	625701.38	877501.93
316	102+54.05	58.99' LT	812.15	625696.43	877501.14
317	102+54.05	54.00' LT	811.97	625691.51	877500.35
318	102+49.05	54.00' LT	812.23	625692.30	877495.41
319	102+44.07	54.00' LT	812.19	625693.09	877490.50
320	102+39.07	54.00' LT	812.06	625693.89	877485.56
321	102+32.75	54.00' LT	811.80	625694.89	877479.32
322	102+32.75	49.00' LT	811.73	625689.95	877478.53
323	102+39.07	49.00' LT	811.98	625688.95	877484.77
324	102+44.07	49.00' LT	812.12	625688.15	877489.70
325	102+49.05	49.00' LT	812.15	625687.36	877494.62
326	102+54.06	49.01' LT	811.89	625686.57	877499.56
327	102+54.07	35.65' LT	811.36	625673.38	877497.45

Second NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
350	102+99.05	54.00' LT	812.16	625684.36	877544.78
351	103+01.05	54.00' LT	812.08	625684.04	877546.75
352	102+99.06	49.00' LT	812.22	625679.42	877543.99
353	103+01.06	49.00' LT	812.14	625679.10	877545.96
354	103+07.06	49.00' LT	812.56	625678.15	877551.89
355	103+07.06	44.01' LT	812.64	625673.22	877551.10
356	103+07.07	37.64' LT	812.66	625666.93	877550.09
357	103+07.07	35.04' LT	812.49	625664.36	877549.68
358	103+06.00	33.35' LT	812.57	625662.87	877548.35
359	103+11.77	31.18' LT	812.73	625659.81	877553.71
360	103+12.07	33.15' LT	812.65	625661.71	877554.32
361	103+12.07	35.64' LT	812.69	625664.17	877554.72
362	103+12.07	37.64' LT	812.83	625666.14	877555.03
363	103+12.06	44.01' LT	812.71	625672.43	877556.04
364	103+12.06	49.01' LT	812.64	625677.37	877556.83
365	103+17.06	49.00' LT	812.85	625676.56	877561.76

Second NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
366	103+22.06	49.00' LT	813.20	625675.77	877566.70
367	103+27.06	49.00' LT	813.55	625674.97	877571.63
368	103+33.37	49.00' LT	813.99	625673.97	877577.86
369	103+33.37	54.00' LT	814.07	625678.91	877578.66
370	103+27.05	54.00' LT	813.62	625679.91	877572.42
371	103+22.05	54.00' LT	813.27	625680.71	877567.49
372	103+17.05	54.00' LT	812.92	625681.50	877562.55
373	103+12.05	54.00' LT	812.57	625682.29	877557.61
374	103+12.05	59.00' LT	812.82	625687.23	877558.40
375	103+12.04	64.00' LT	813.12	625692.17	877559.19
376	103+07.04	64.00' LT	812.98	625692.96	877554.26
377	103+07.05	58.99' LT	812.75	625688.02	877553.47
378	103+06.55	59.00' LT	812.75	625688.10	877552.97
379	103+07.05	54.00' LT	812.50	625683.09	877552.68
380	103+06.55	54.50' LT	812.77	625683.66	877552.26
381	103+01.55	54.50' LT	812.57	625684.46	877547.33

NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE WESTERN AVENUE REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE

	CURB RAMP TYPE		TRAVERSABLE FLARE (10:1 MAX SLOPE)
	POINT NUMBER & ELEVATION		NON-TRAVERSABLE (6:1 MAX SLOPE)
	DETECTABLE WARNING FIELD (2 - 2'X2.5' PANELS)		LEVEL LANDING
			MAXIMUM EXTENTS FEASIBLE



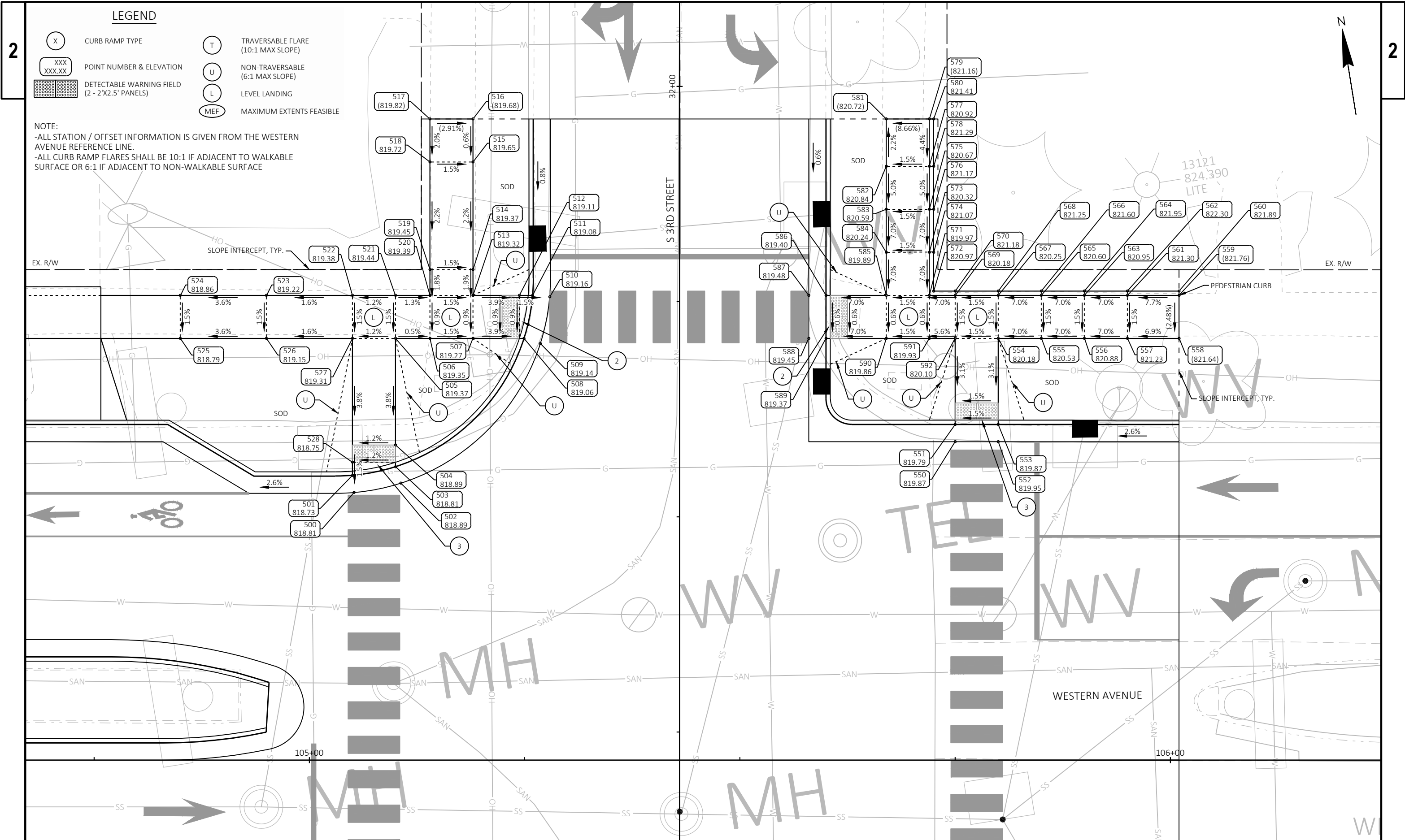
NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE WESTERN AVENUE REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE

Second SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
400	102+60.13	19.00' RT	810.71	625618.47	877494.75
401	102+59.13	20.74' RT	810.63	625616.91	877493.49
402	102+54.36	17.10' RT	810.62	625621.26	877489.36
403	102+54.13	19.09' RT	810.54	625619.34	877488.81
404	102+54.13	21.32' RT	810.57	625617.13	877488.46
405	102+54.13	23.32' RT	810.67	625615.15	877488.15
406	102+54.14	35.00' RT	810.94	625603.62	877486.30
407	102+49.14	35.00' RT	810.87	625604.42	877481.37
408	102+44.14	35.00' RT	810.84	625605.21	877476.43
409	102+39.14	35.00' RT	810.70	625606.00	877471.49
410	102+33.33	35.00' RT	810.52	625606.93	877465.76
411	102+33.33	40.00' RT	810.60	625601.99	877464.96
412	102+39.15	40.00' RT	810.78	625601.07	877470.70
413	102+44.15	40.00' RT	810.91	625600.27	877475.64
414	102+49.14	40.00' RT	810.94	625599.48	877480.57

Second SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
415	102+54.15	40.00' RT	810.98	625598.68	877485.51
416	102+54.15	45.01' RT	810.98	625593.74	877484.72
417	102+54.16	50.00' RT	810.99	625588.81	877483.93
418	102+59.16	50.00' RT	810.95	625588.02	877488.87
419	102+59.15	45.00' RT	810.93	625592.95	877489.66
420	102+59.15	40.00' RT	810.93	625597.89	877490.45
421	102+63.15	40.00' RT	810.68	625597.25	877494.40
422	102+65.65	40.00' RT	810.51	625596.86	877496.87
423	102+67.65	40.00' RT	810.55	625596.54	877498.84
424	102+67.64	35.00' RT	810.66	625601.48	877499.63
425	102+65.64	35.00' RT	810.58	625601.80	877497.66
426	102+63.14	35.00' RT	810.76	625602.19	877495.19
427	102+59.14	35.00' RT	810.92	625602.83	877491.24
428	102+59.13	23.32' RT	810.74	625614.36	877493.08

Second SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
450	103+12.13	17.00' RT	811.99	625612.18	877546.41
451	103+12.13	19.00' RT	811.91	625610.21	877546.09
452	103+06.59	17.56' RT	811.89	625612.51	877540.85
453	103+07.13	19.48' RT	811.80	625610.53	877541.08
454	103+07.13	22.00' RT	811.84	625608.04	877540.68
455	103+07.14	35.00' RT	811.94	625595.20	877538.63
456	103+00.14	35.00' RT	811.47	625596.32	877531.72
457	102+97.64	35.00' RT	811.29	625596.71	877529.25
458	102+95.64	35.00' RT	811.37	625597.03	877527.28
459	102+95.65	40.00' RT	811.28	625592.09	877526.49
460	102+97.65	40.00' RT	811.22	625591.78	877528.46
461	103+00.14	40.00' RT	811.39	625591.38	877530.92
462	103+07.15	40.00' RT	811.86	625590.27	877537.84
463	103+07.15	45.00' RT	811.91	625585.33	877537.05
464	103+07.16	50.00' RT	811.89	625580.39	877536.26

Second SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
465	103+12.16	50.00' RT	811.98	625579.60	877541.20
466	103+12.15	45.00' RT	811.99	625584.54	877541.99
467	103+12.15	40.00' RT	811.94	625589.47	877542.78
468	103+17.15	40.00' RT	812.29	625588.68	877547.71
469	103+22.15	40.00' RT	812.49	625587.88	877552.65
470	103+29.95	40.00' RT	812.88	625586.65	877560.35
471	103+34.95	40.00' RT	813.09	625585.85	877565.29
472	103+34.95	35.00' RT	813.01	625590.79	877566.08
473	103+29.95	35.00' RT	812.81	625591.58	877561.14
474	103+22.14	35.00' RT	812.41	625592.82	877553.44
475	103+17.14	35.00' RT	812.21	625593.62	877548.50
476	103+12.14	35.00' RT	812.01	625594.41	877543.57
477	103+12.13	22.00' RT	811.95	625607.25	877545.62
478	103+12.13	20.00' RT	811.92	625609.22	877545.93





Third NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
500	105+05.17	31.09' LT	818.81	625629.01	877744.64
501	105+05.00	33.09' LT	818.73	625631.00	877744.79
502	105+10.61	32.19' LT	818.89	625629.22	877750.18
503	105+10.00	34.09' LT	818.81	625631.20	877749.89
504	105+10.00	36.62' LT	818.89	625633.69	877750.28
505	105+10.00	49.00' LT	819.37	625645.92	877752.25
506	105+14.00	49.00' LT	819.35	625645.28	877756.20
507	105+19.00	49.00' LT	819.27	625644.49	877761.14
508	105+24.91	49.00' LT	819.06	625643.55	877766.97
509	105+26.81	48.39' LT	819.14	625642.65	877768.76

Third NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
510	105+27.91	53.83' LT	819.16	625647.84	877770.70
511	105+25.91	54.00' LT	819.08	625648.33	877768.76
512	105+24.38	54.00' LT	819.11	625648.57	877767.25
513	105+19.00	54.00' LT	819.32	625649.43	877761.93
514	105+19.00	57.00' LT	819.37	625652.39	877762.41
515	105+19.00	69.50' LT	819.65	625664.73	877764.40
516	105+19.00	74.50' LT	819.68	625669.67	877765.19
517	105+14.00	74.50' LT	819.82	625670.46	877760.25
518	105+14.00	69.50' LT	819.72	625665.52	877759.46
519	105+14.00	57.00' LT	819.45	625653.18	877757.47

Third NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
520	105+14.00	54.00' LT	819.39	625650.22	877757.00
521	105+10.00	54.00' LT	819.44	625650.86	877753.05
522	105+05.00	54.00' LT	819.38	625651.65	877748.11
523	104+95.00	54.00' LT	819.22	625653.24	877738.24
524	104+85.00	54.00' LT	818.86	625654.83	877728.36
525	104+85.00	49.00' LT	818.79	625649.89	877727.57
526	104+95.00	49.00' LT	819.15	625648.30	877737.44
527	105+05.00	49.00' LT	819.31	625646.71	877747.32
528	105+05.00	34.61' LT	818.75	625632.51	877745.03

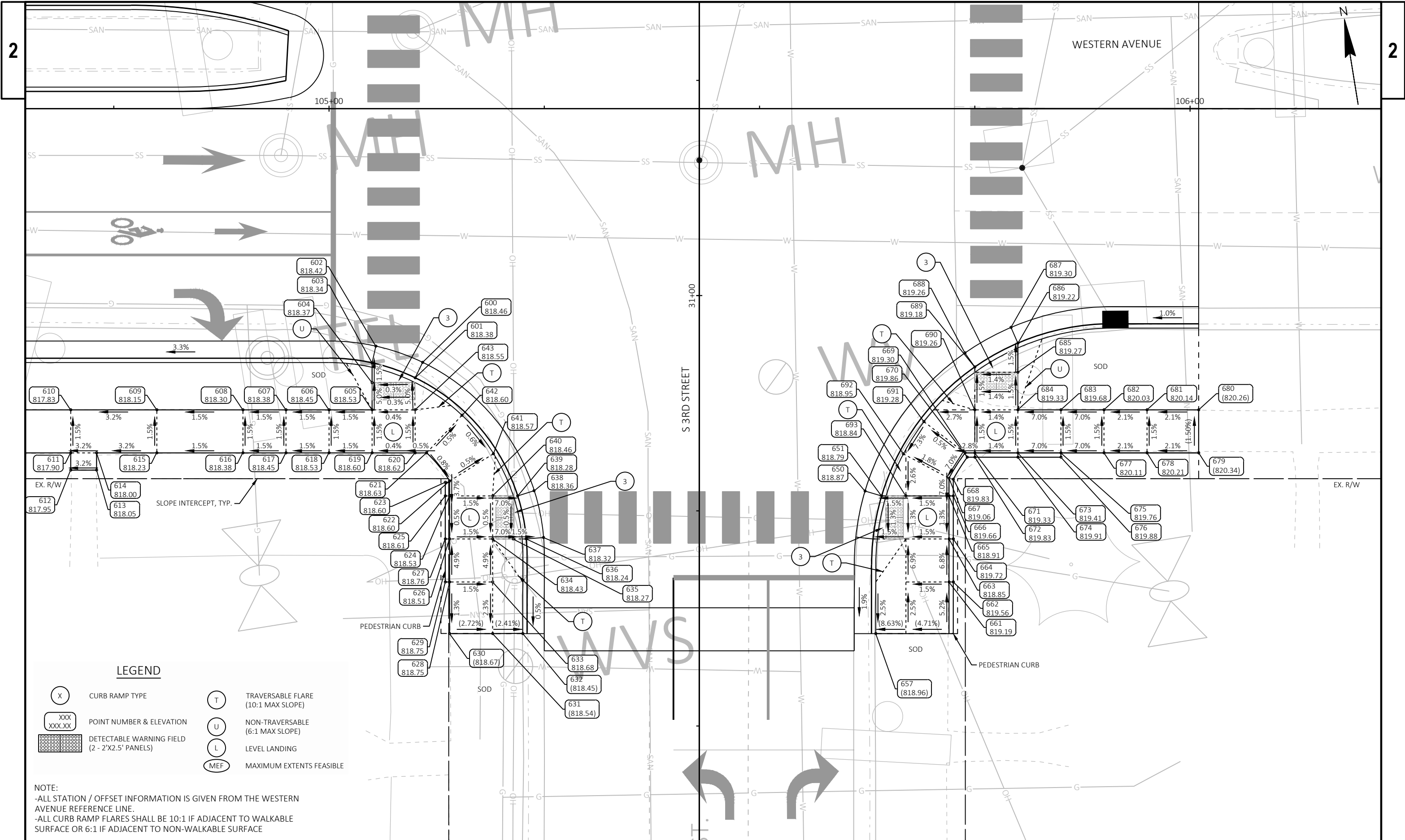
Third NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
550	105+75.00	37.00' LT	819.87	625623.75	877814.52
551	105+75.00	39.00' LT	819.79	625625.72	877814.84
552	105+80.00	37.00' LT	819.95	625622.95	877819.46
553	105+80.00	39.00' LT	819.87	625624.93	877819.78
554	105+80.00	49.00' LT	820.18	625634.80	877821.36
555	105+85.00	49.00' LT	820.53	625634.01	877826.30
556	105+90.00	49.00' LT	820.88	625633.21	877831.24
557	105+95.00	49.00' LT	821.23	625632.42	877836.17
558	106+01.00	49.00' LT	821.64	625631.47	877842.10
559	106+01.00	54.00' LT	821.76	625636.40	877842.89
560	106+01.00	54.50' LT	821.89	625636.90	877842.97

Third NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
561	105+95.00	54.00' LT	821.30	625637.36	877836.97
562	105+95.00	54.50' LT	822.30	625637.85	877837.05
563	105+90.00	54.00' LT	820.95	625638.15	877832.03
564	105+90.00	54.50' LT	821.95	625638.64	877832.11
565	105+85.00	54.00' LT	820.60	625638.94	877827.10
566	105+85.00	54.50' LT	821.60	625639.44	877827.17
567	105+80.00	54.00' LT	820.25	625639.74	877822.16
568	105+80.00	54.50' LT	821.25	625640.23	877822.24
569	105+75.00	54.00' LT	820.18	625640.53	877817.22
570	105+75.00	54.50' LT	821.18	625641.03	877817.30
571	105+72.00	54.00' LT	819.97	625641.01	877814.26

Third NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
572	105+72.50	54.50' LT	820.97	625641.42	877814.83
573	105+72.00	59.00' LT	820.32	625645.95	877815.05
574	105+72.50	59.00' LT	821.07	625645.87	877815.55
575	105+72.00	64.00' LT	820.67	625650.88	877815.85
576	105+72.50	64.00' LT	821.17	625650.80	877816.34
577	105+72.00	69.00' LT	820.92	625655.82	877816.64
578	105+72.50	69.00' LT	821.29	625655.74	877817.14
579	105+72.00	74.50' LT	821.16	625661.25	877817.52
580	105+72.50	74.50' LT	821.41	625661.17	877818.01
581	105+67.00	74.50' LT	820.72	625662.04	877812.58
582	105+67.00	69.00' LT	820.84	625656.61	877811.71

Third NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
583	105+67.00	64.00' LT	820.59	625651.68	877810.91
584	105+67.00	59.00' LT	820.24	625646.74	877810.12
585	105+67.00	54.00' LT	819.89	625641.80	877809.32
586	105+60.00	54.00' LT	819.40	625642.91	877802.41
587	105+58.00	54.00' LT	819.48	625643.23	877800.44
588	105+58.00	49.00' LT	819.45	625638.30	877799.64
589	105+60.00	49.00' LT	819.37	625637.98	877801.62
590	105+67.00	49.00' LT	819.86	625636.87	877808.53
591	105+72.00	49.00' LT	819.93	625636.07	877813.47
592	105+75.00	49.00' LT	820.10	625635.60	877816.43

NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE WESTERN AVENUE REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE



Third SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
600	105+10.87	29.49' RT	818.46	625568.29	877740.65
601	105+10.00	31.29' RT	818.38	625566.65	877739.50
602	105+05.43	27.60' RT	818.42	625571.02	877735.58
603	105+05.00	29.55' RT	818.34	625569.16	877734.84
604	105+05.00	31.84' RT	818.37	625566.90	877734.48
605	105+05.00	35.00' RT	818.53	625563.78	877733.98
606	105+00.00	35.00' RT	818.45	625564.57	877729.04
607	104+95.00	35.00' RT	818.38	625565.37	877724.10
608	104+90.00	35.00' RT	818.30	625566.16	877719.17
609	104+80.00	35.00' RT	818.15	625567.75	877709.29
610	104+70.00	35.00' RT	817.83	625569.34	877699.42

Third SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
611	104+70.00	40.00' RT	817.90	625564.40	877698.63
612	104+70.00	42.00' RT	817.95	625562.43	877698.31
613	104+73.00	42.00' RT	818.05	625561.95	877701.27
614	104+73.00	40.00' RT	818.00	625563.93	877701.59
615	104+80.00	40.00' RT	818.23	625562.81	877708.50
616	104+90.00	40.00' RT	818.38	625561.23	877718.37
617	104+95.00	40.00' RT	818.45	625560.43	877723.31
618	105+00.00	40.00' RT	818.53	625559.64	877728.25
619	105+05.00	40.00' RT	818.60	625558.84	877733.18
620	105+10.00	40.00' RT	818.62	625558.05	877738.12
621	105+11.32	40.00' RT	818.63	625557.84	877739.43

Third SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
622	105+14.00	43.27' RT	818.60	625554.19	877741.55
623	105+13.50	43.41' RT	818.60	625554.12	877741.03
624	105+14.00	45.00' RT	818.53	625552.48	877741.27
625	105+13.50	45.00' RT	818.61	625552.56	877740.78
626	105+14.00	50.00' RT	818.51	625547.54	877740.48
627	105+13.50	50.00' RT	818.76	625547.62	877739.99
628	105+14.00	55.00' RT	818.75	625542.60	877739.69
629	105+13.50	55.00' RT	818.75	625542.68	877739.19
630	105+14.00	61.00' RT	818.67	625536.68	877738.73
631	105+19.00	61.00' RT	818.54	625535.89	877743.67
632	105+22.50	61.00' RT	818.45	625535.33	877747.12

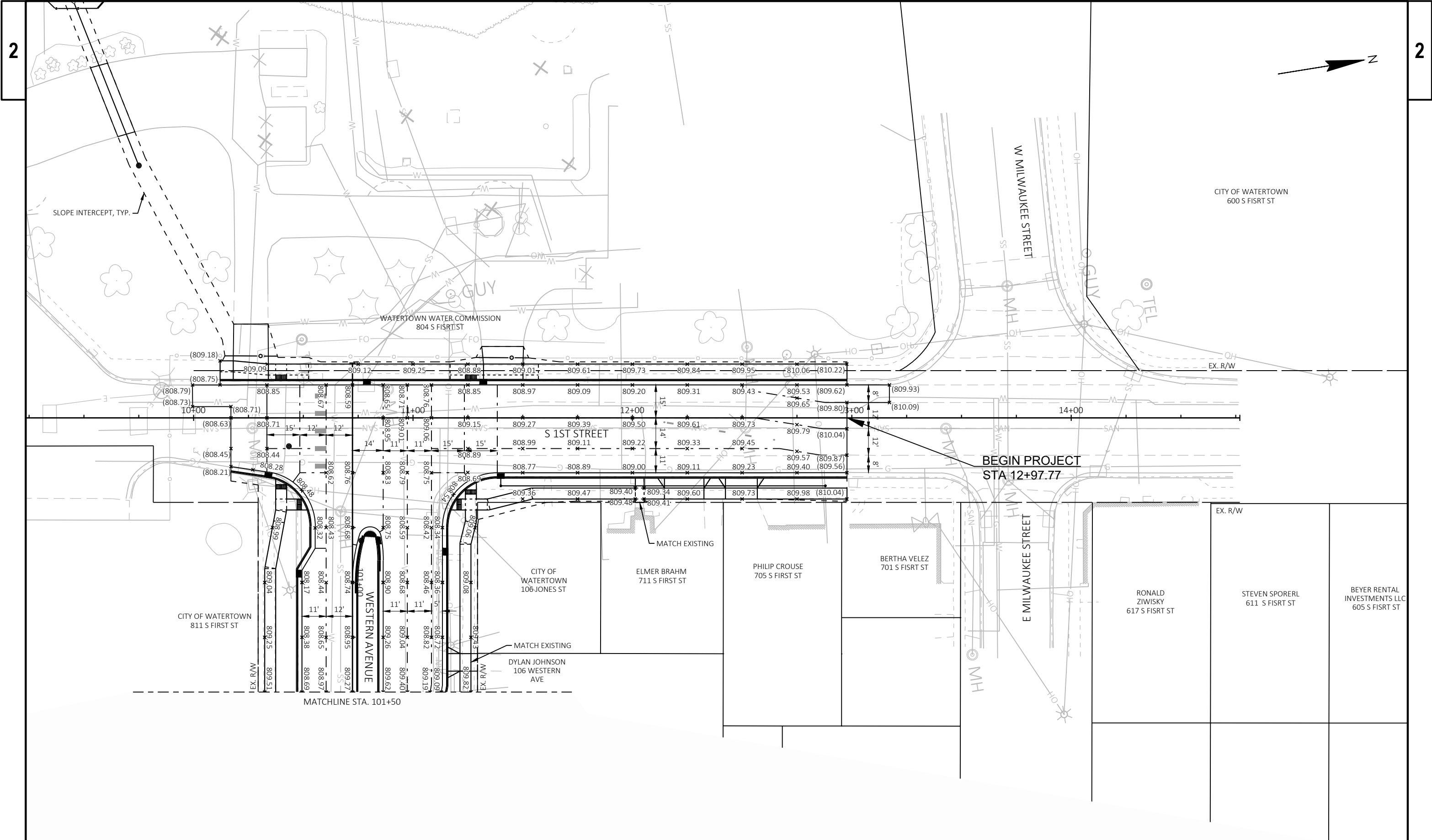
Third SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
633	105+19.00	55.00' RT	818.68	625541.81	877744.62
634	105+19.00	50.00' RT	818.43	625546.75	877745.42
635	105+21.38	50.00' RT	818.27	625546.37	877747.77
636	105+22.91	50.00' RT	818.24	625546.13	877749.28
637	105+24.91	49.83' RT	818.32	625545.98	877751.27
638	105+23.81	44.39' RT	818.36	625551.52	877751.06
639	105+21.91	45.00' RT	818.28	625551.22	877749.08
640	105+19.00	45.00' RT	818.46	625551.68	877746.21
641	105+19.09	40.09' RT	818.57	625556.51	877747.08
642	105+15.44	35.64' RT	818.60	625561.49	877744.18
643	105+10.00	35.00' RT	818.55	625562.99	877738.91

Third SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
650	105+62.25	44.43' RT	818.87	625545.38	877789.00
651	105+64.17	45.00' RT	818.79	625544.51	877790.80
657	105+63.50	61.00' RT	818.96	625528.82	877787.61
661	105+72.00	55.00' RT	819.19	625533.39	877796.95
662	105+72.50	55.00' RT	819.56	625533.31	877797.44
663	105+72.00	50.00' RT	818.85	625538.33	877797.74
664	105+72.50	50.00' RT	819.72	625538.25	877798.24
665	105+72.00	45.00' RT	818.91	625543.27	877798.54
666	105+72.50	45.00' RT	819.66	625543.19	877799.03
667	105+72.00	42.94' RT	819.06	625545.30	877798.86
668	105+72.50	43.06' RT	819.83	625545.10	877799.34
669	105+73.88	40.00' RT	819.30	625547.90	877801.18

Third SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
670	105+74.13	40.50' RT	819.86	625547.37	877801.35
671	105+75.00	40.00' RT	819.33	625547.73	877802.29
672	105+75.00	40.50' RT	819.83	625547.23	877802.21
673	105+80.00	40.00' RT	819.41	625546.93	877807.23
674	105+80.00	40.50' RT	819.91	625546.44	877807.15
675	105+85.00	40.00' RT	819.76	625546.14	877812.17
676	105+85.00	40.50' RT	819.88	625545.64	877812.09
677	105+90.00	40.00' RT	820.11	625545.34	877817.10
678	105+95.00	40.00' RT	820.21	625544.55	877822.04
679	106+01.00	40.00' RT	820.34	625543.60	877827.96
680	106+01.00	35.00' RT	820.26	625548.53	877828.76
681	105+95.00	35.00' RT	820.14	625549.49	877822.83

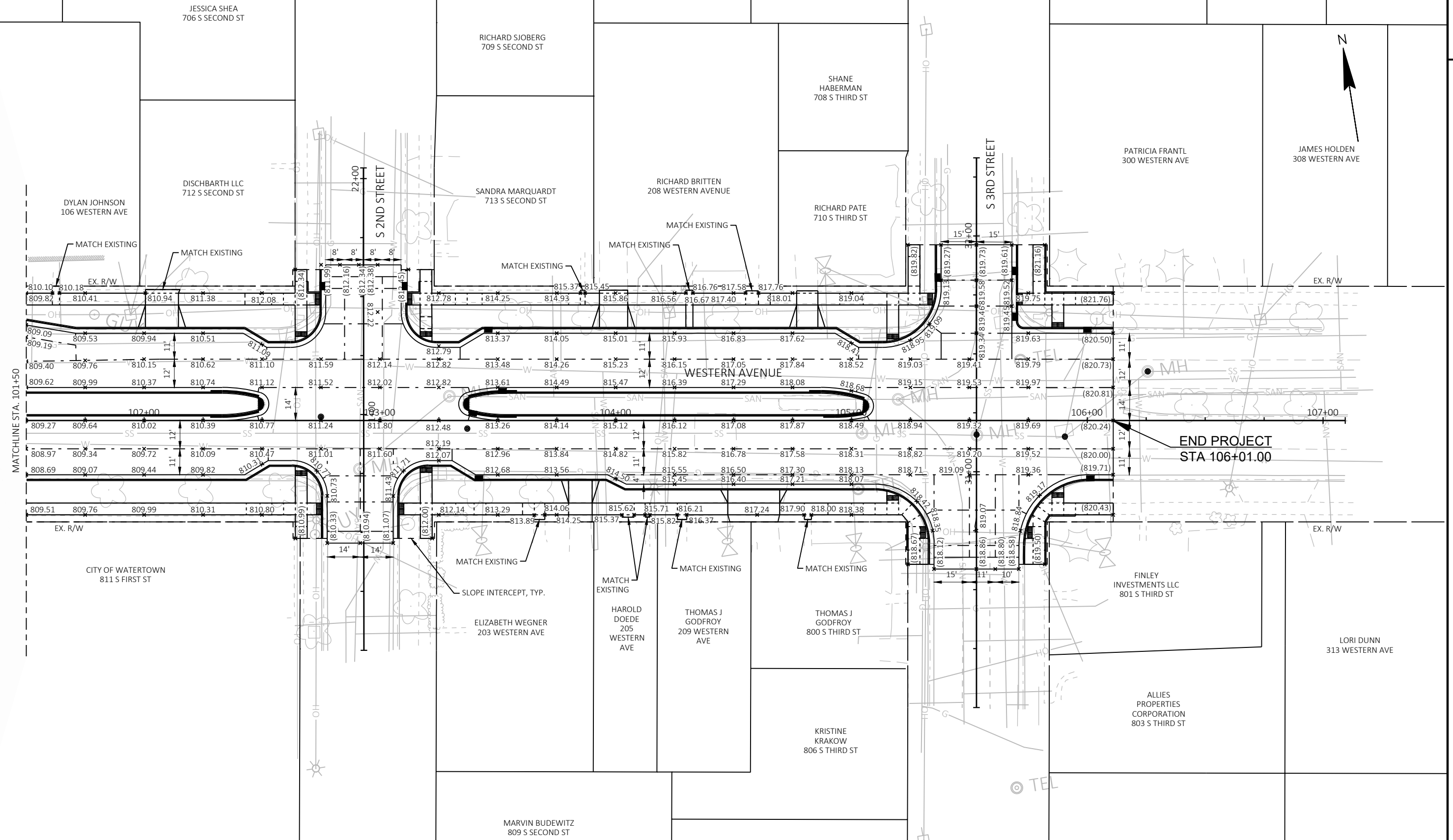
Third SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
682	105+90.00	35.00' RT	820.03	625550.28	877817.90
683	105+85.00	35.00' RT	819.68	625551.07	877812.96
684	105+80.00	35.00' RT	819.33	625551.87	877808.02
685	105+80.00	30.63' RT	819.27	625556.18	877808.72
686	105+80.00	27.25' RT	819.22	625559.52	877809.25
687	105+79.21	25.41' RT	819.30	625561.46	877808.77
688	105+73.86	28.38' RT	819.26	625559.38	877803.01
689	105+75.00	30.02' RT	819.18	625557.58	877803.88
690	105+75.00	35.00' RT	819.26	625552.66	877803.09
691	105+69.10	36.37' RT	819.28	625552.24	877797.04
692	105+66.71	40.11' RT	818.95	625548.93	877794.09
693	105+67.00	45.00' RT	818.84	625544.06	877793.60

NOTE:
-ALL STATION / OFFSET INFORMATION IS GIVEN FROM THE WESTERN AVENUE REFERENCE LINE.
-ALL CURB RAMP FLARES SHALL BE 10:1 IF ADJACENT TO WALKABLE SURFACE OR 6:1 IF ADJACENT TO NON-WALKABLE SURFACE



NOTE: ADDITIONAL STATION / OFFSET AND ELEVATION INFORMATION SHOWN ON CURB RAMP DETAIL SHEETS

PROJECT NO: 3997-00-13	HWY: LOCAL STREET	COUNTY: JEFFERSON	PAVING GRADES	SHEET 31	E
------------------------	-------------------	-------------------	---------------	----------	---



NOTE: ADDITIONAL STATION / OFFSET AND ELEVATION INFORMATION SHOWN ON CURB RAMP DETAIL SHEETS

PROJECT NO: 3997-00-13

HWY: LOCAL STREET

COUNTY: JEFFERSON

PAVING GRADES

SHEET

32

E

LEGEND



TOPSOIL, FERTILIZER TYPE B, AND SOD
LAWN



RIP RAP



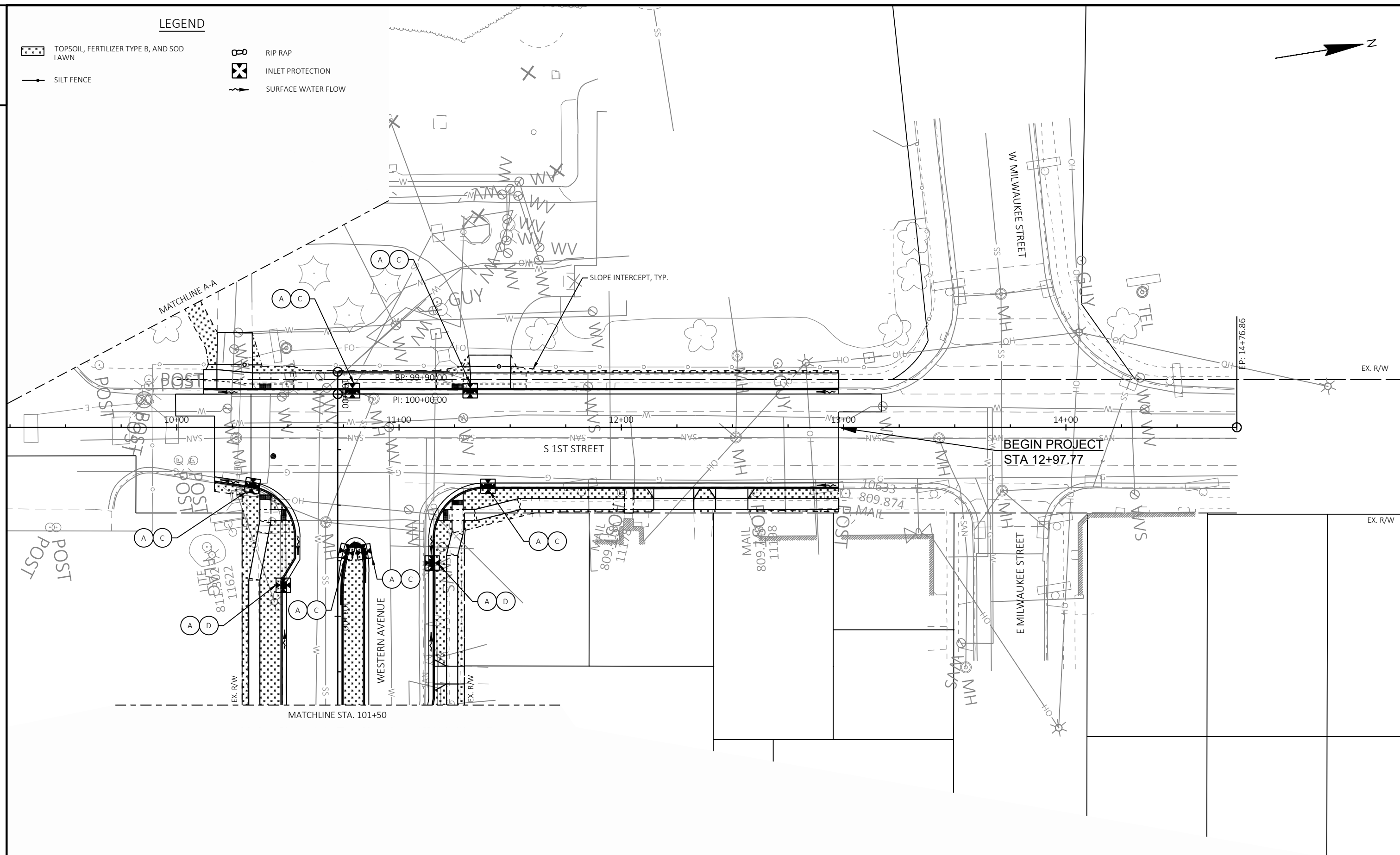
INLET PROTECTION



SURFACE WATER FLOW



SILT FENCE



PROJECT NO:	3997-00-13
-------------	------------

HWY: LOCAL STREET

COUNTY: JEFFERSON

EROSION CONTROL

SHEET

33

E

FILE NAME : X:\ML\2023\20230411\DESIGN\TRANSPORTATION\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-ec

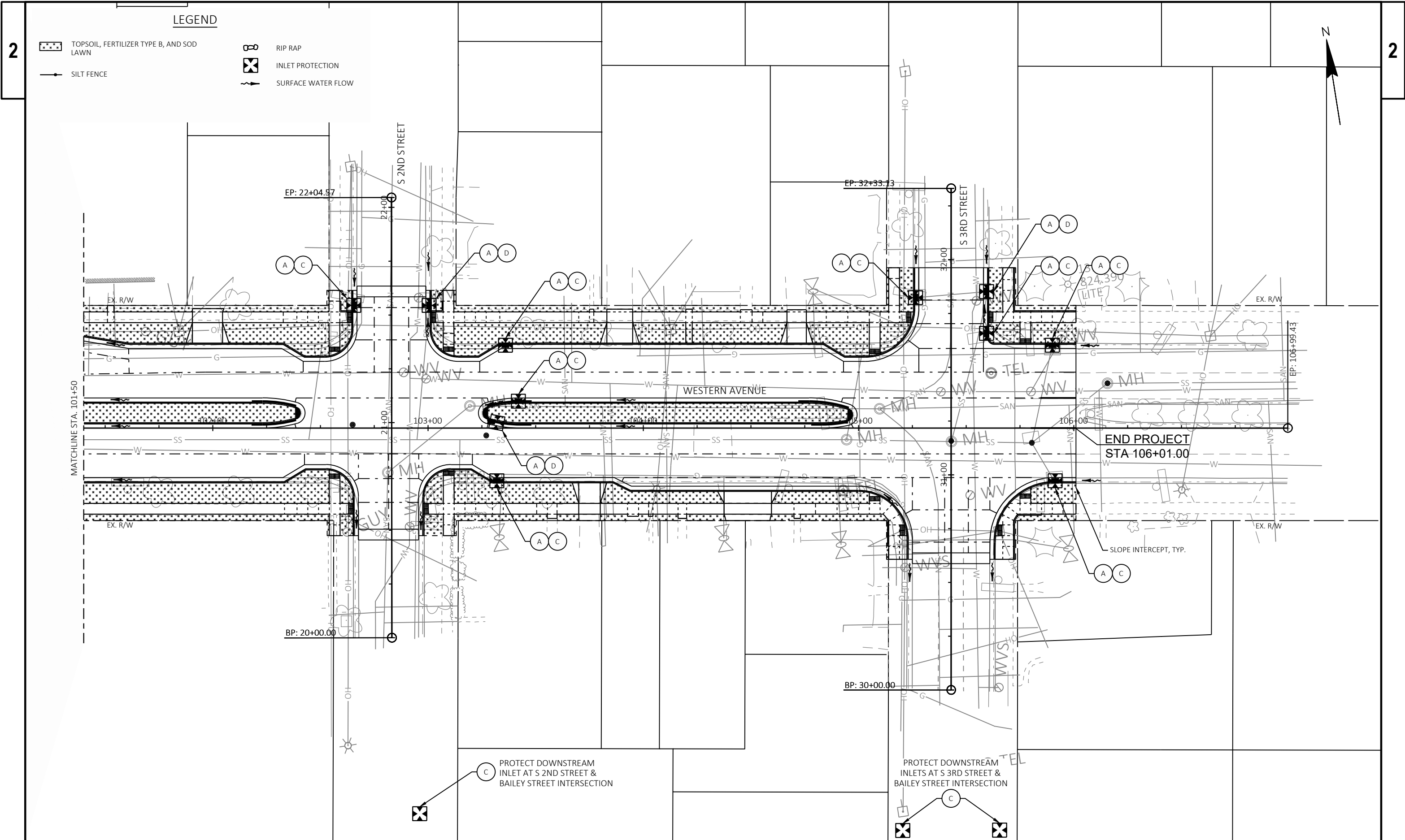
PLOT DATE : 9/20/2024 3:04 PM

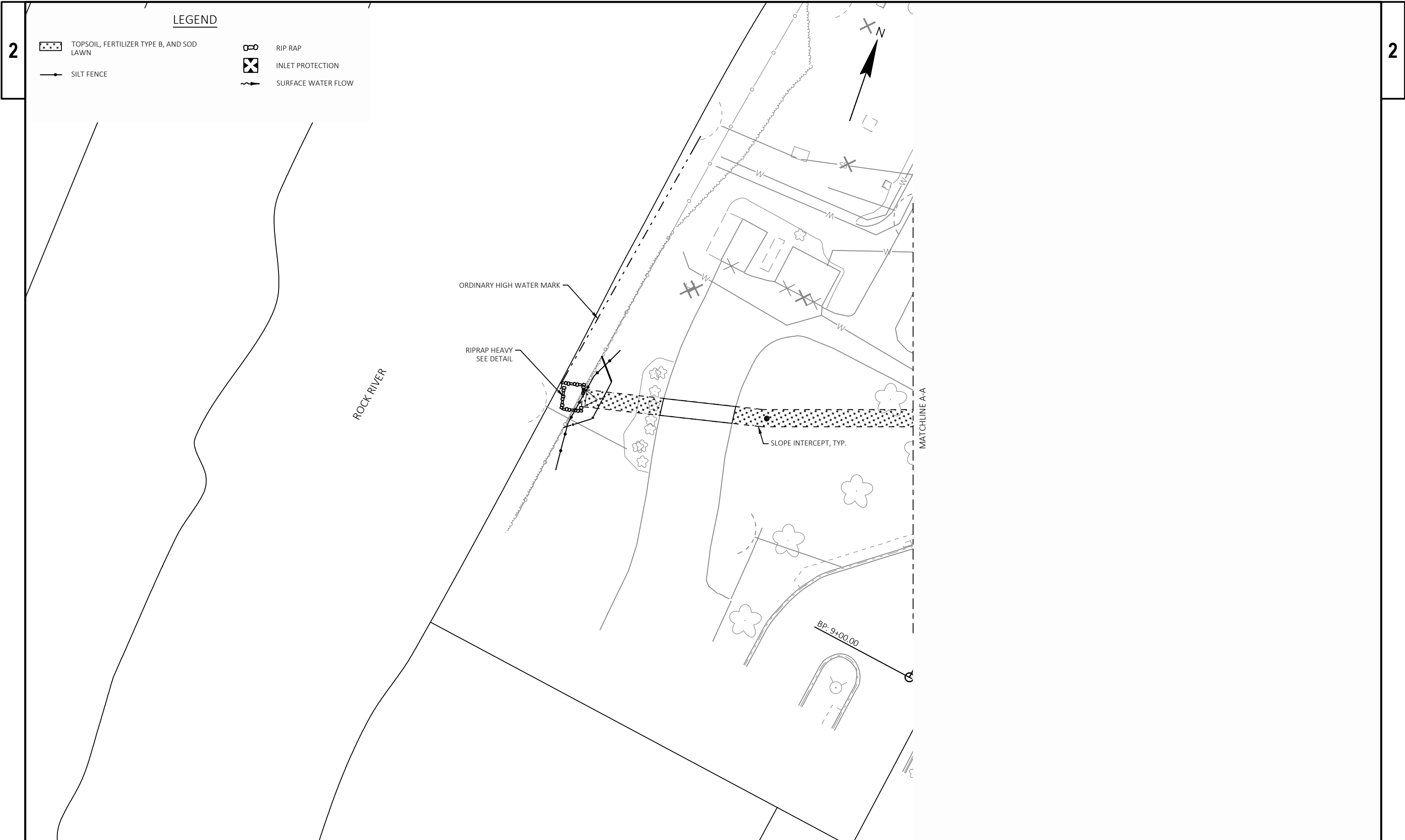
PLOT BY : NIQUETTE, MATT

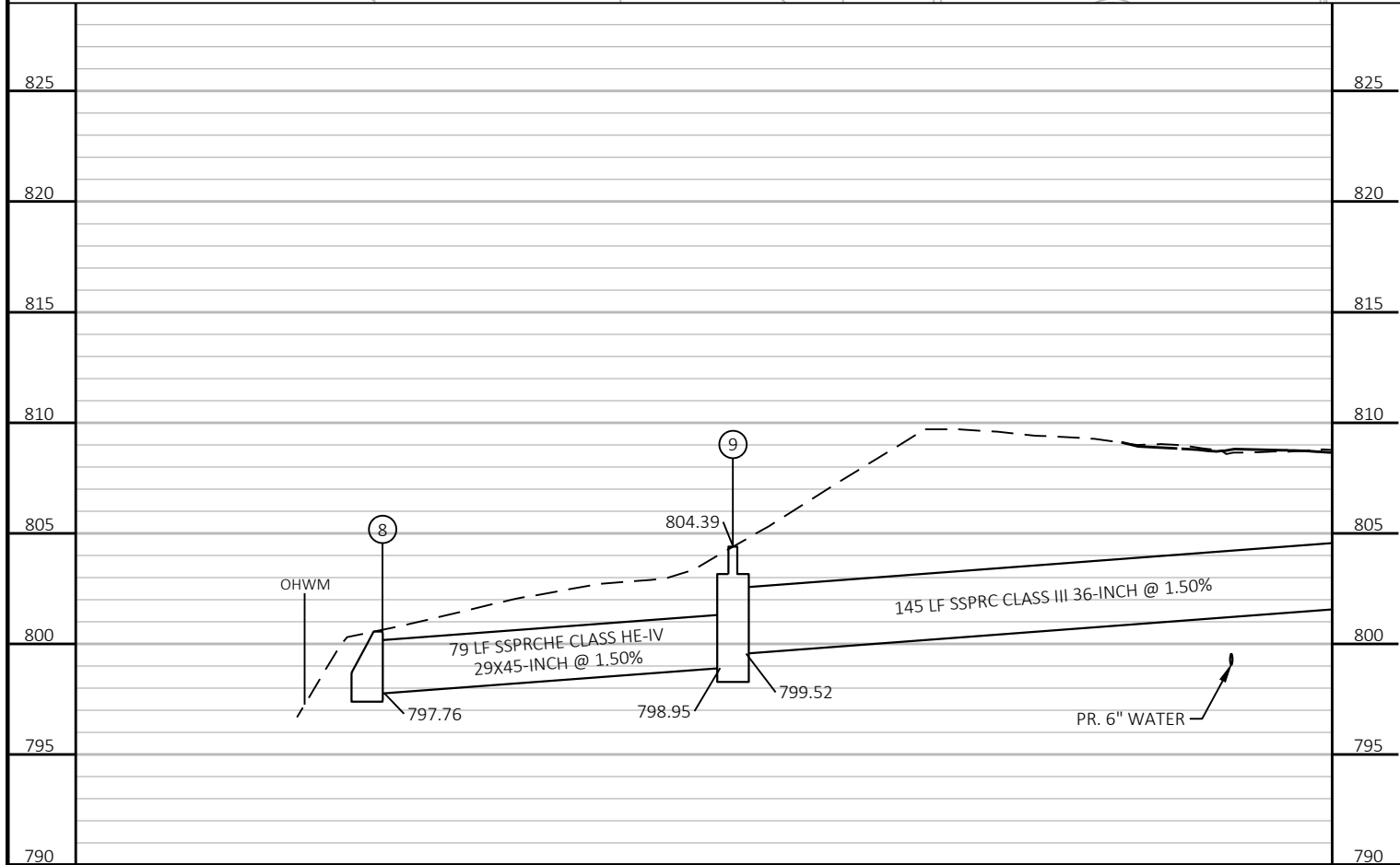
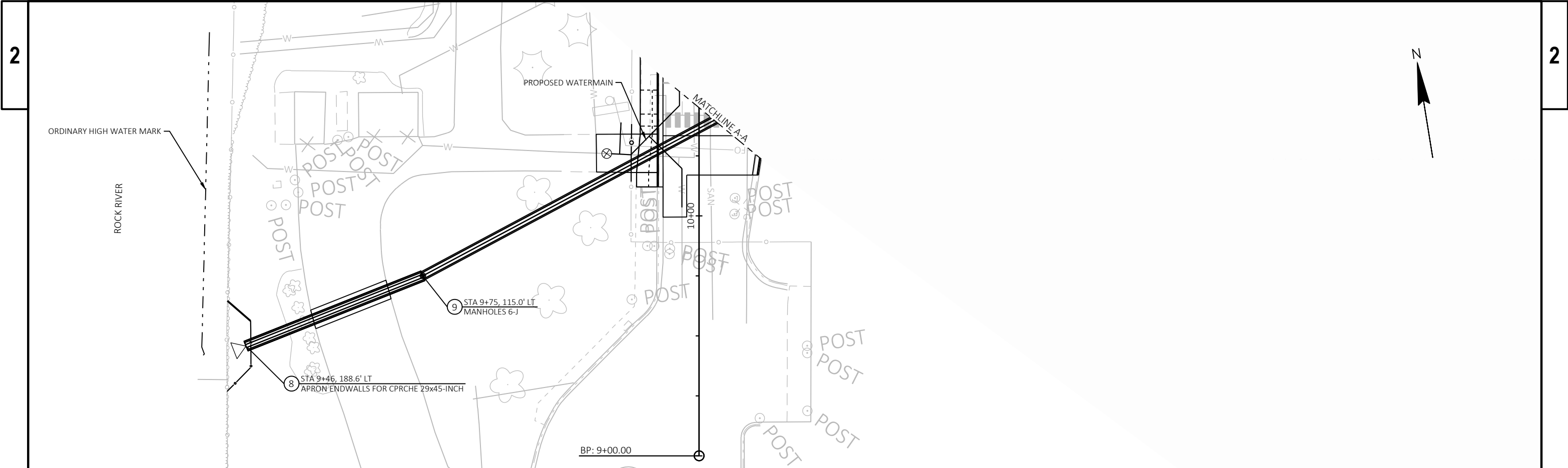
PLOT NAME :

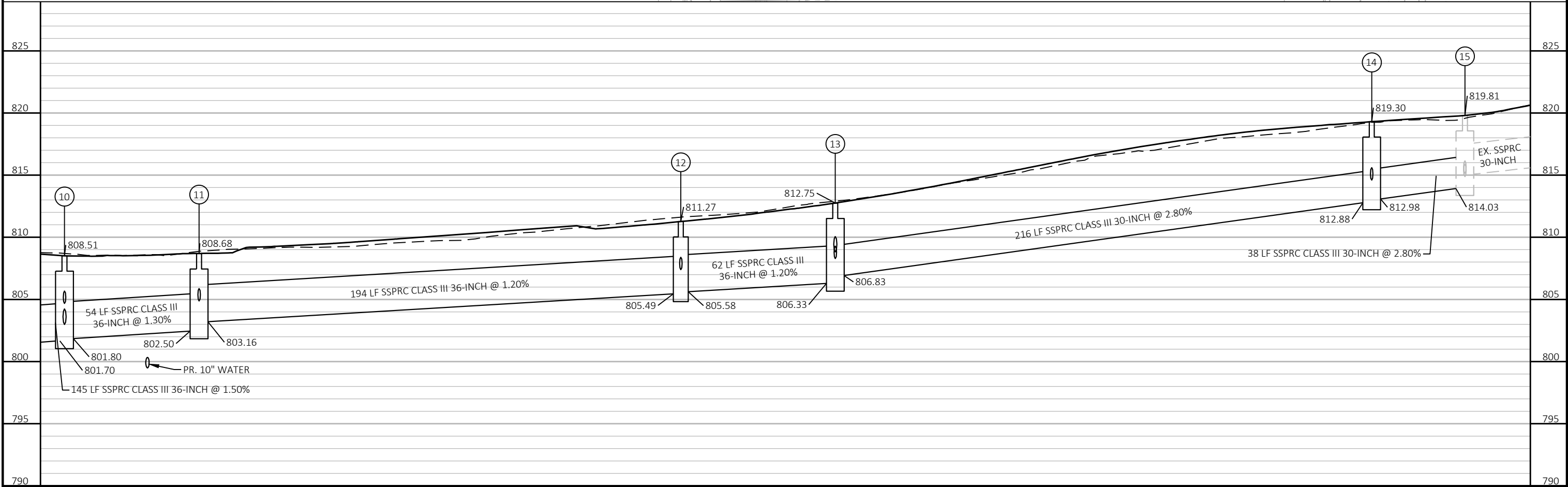
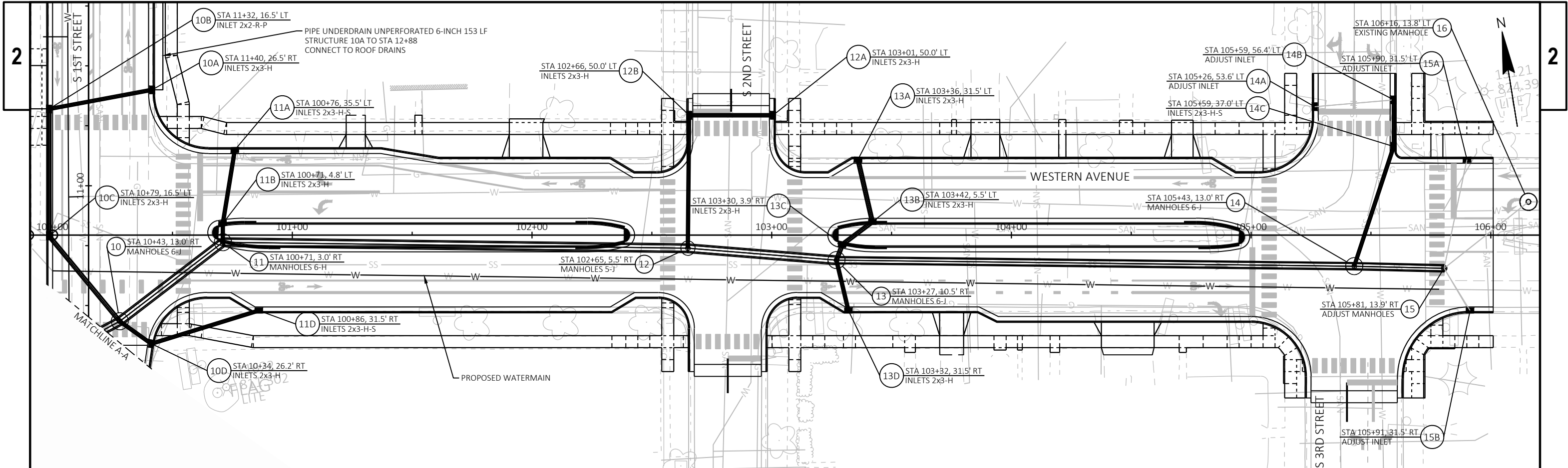
PLOT SCALE : 1 IN:40 FT

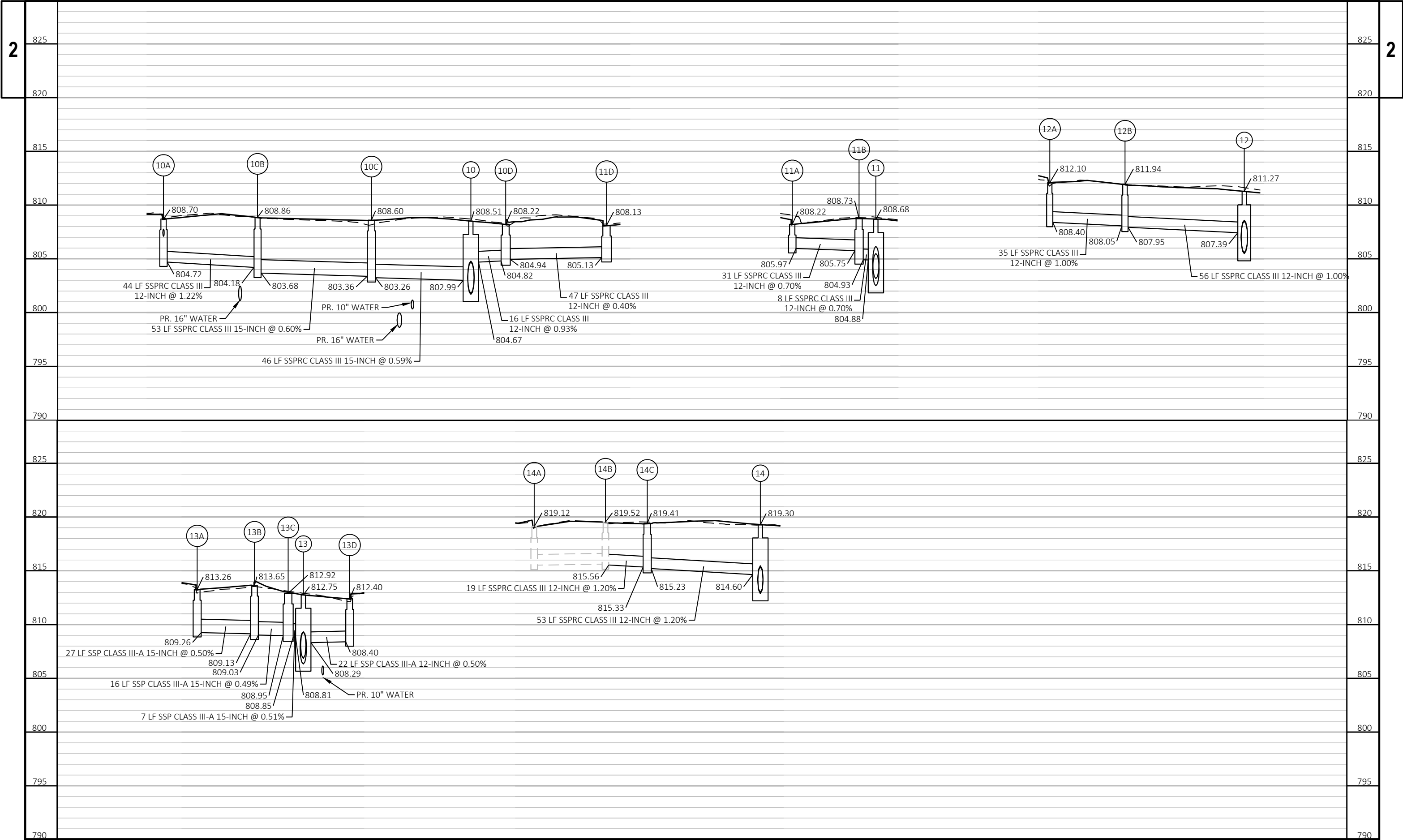
WISDOT/CADDS SHEET 42

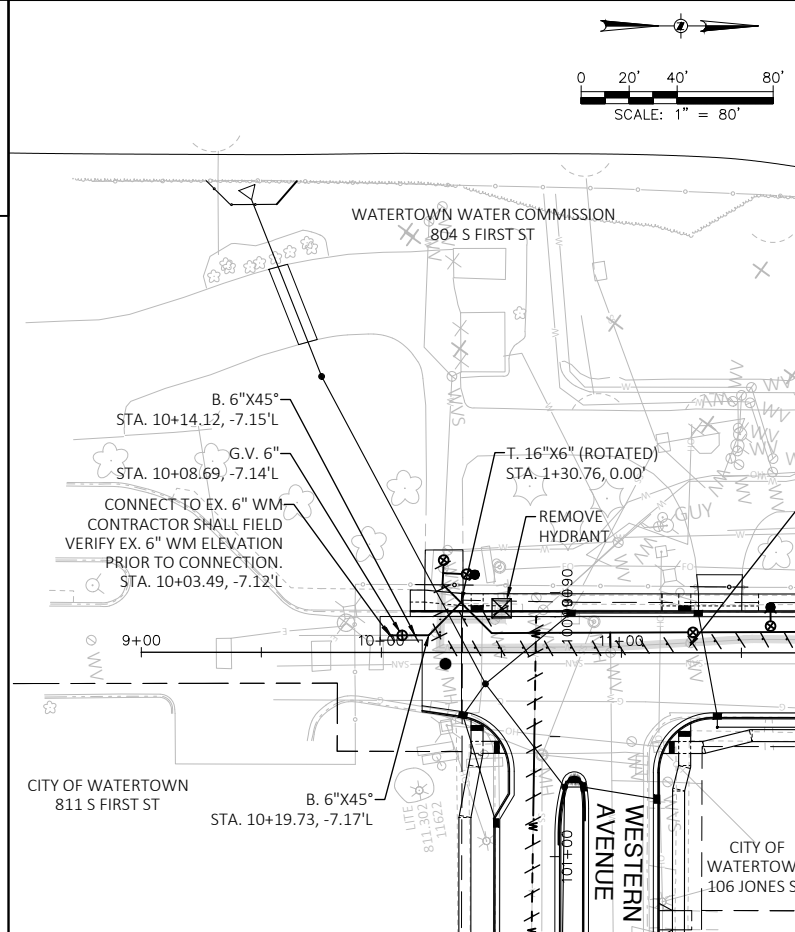








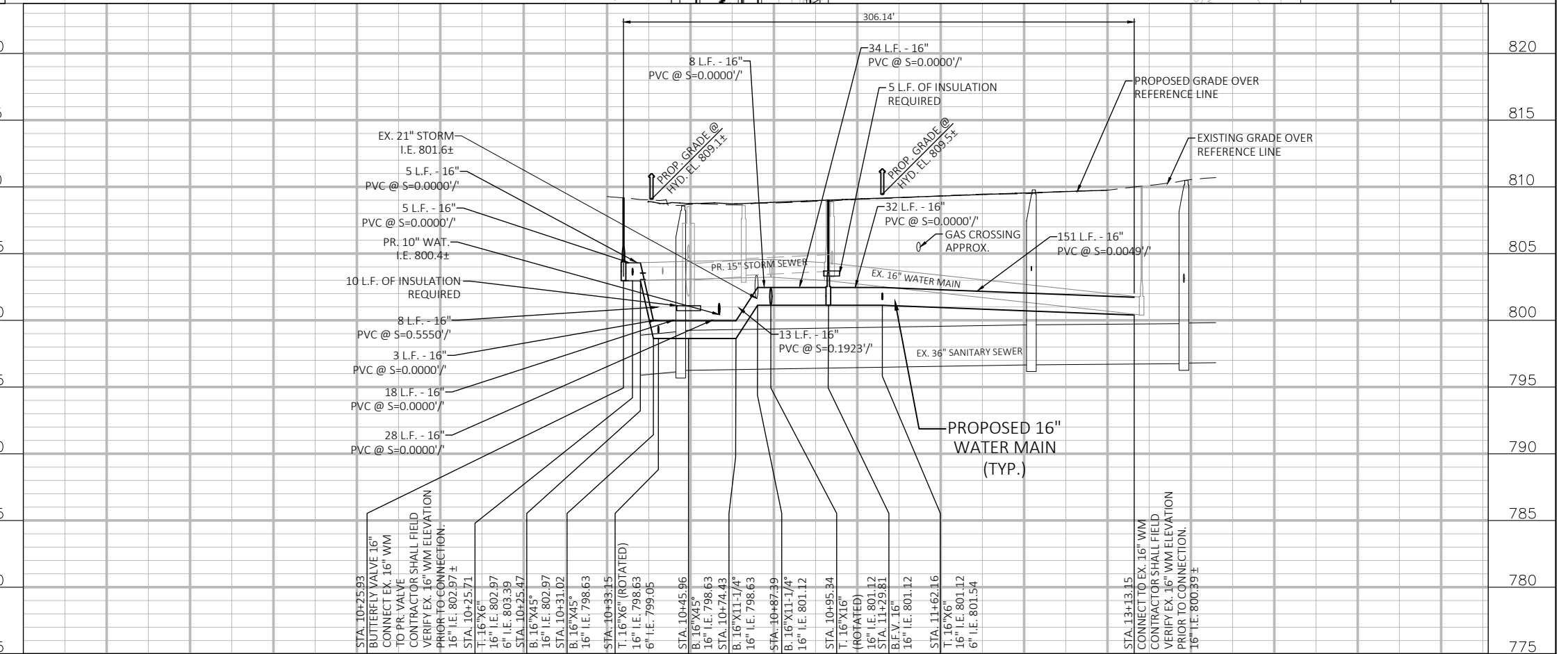
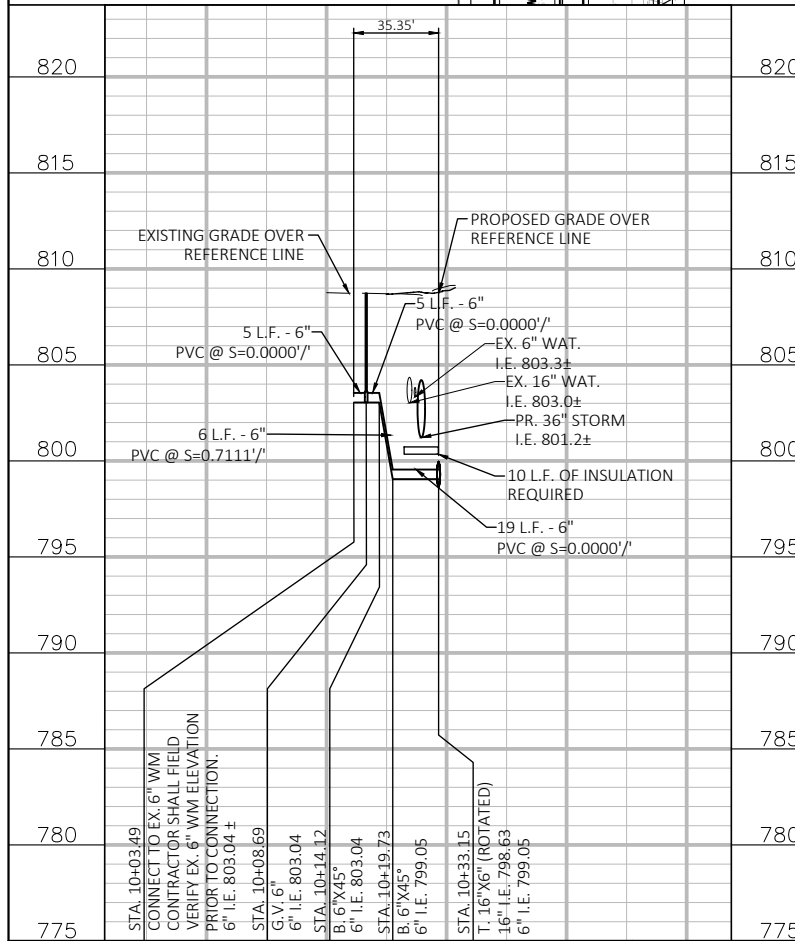
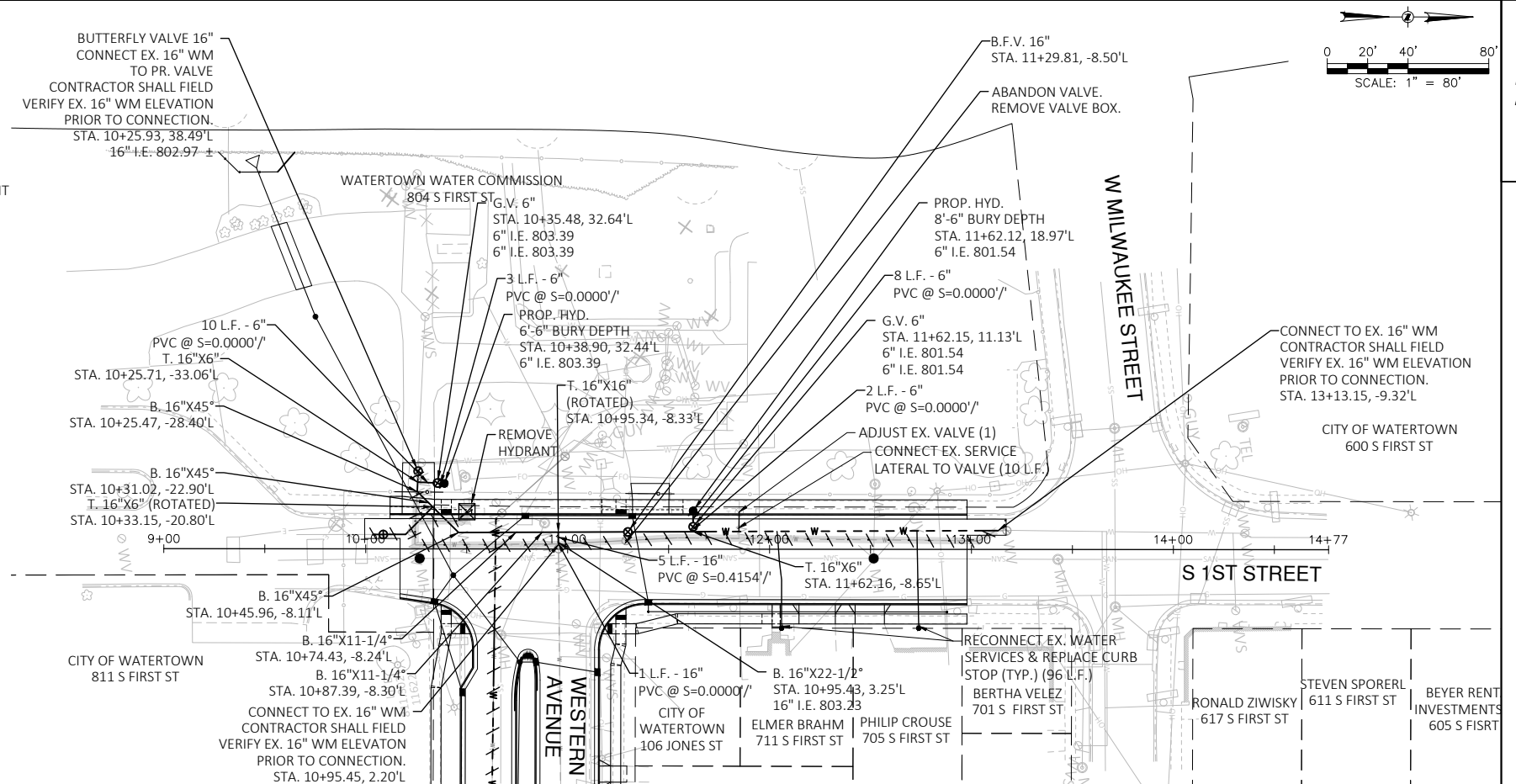


**LEGEND**

- REMOVE EXISTING UTILITY
- ABANDON EXISTING UTILITY
- REMOVE HYDRANT
- PROPOSED WATER MAIN
- PROPOSED VALVE
- PROPOSED HYDRANT
- SANITARY MANHOLE ADJUSTMENT

NOTES

- SEE WATER MAIN DETAIL SHEET FOR ALL WATER MAIN PLAN AND PROFILE NOTES
- ALL SANITARY SEWER MANHOLE ADJUSTMENTS ARE CALLED OUT ON WESTERN WATER MAIN PLAN AND PROFILE SHEET.



PROJECT NO: 3997-00-14

HWY: LOCAL STREET

COUNTY: JEFFERSON

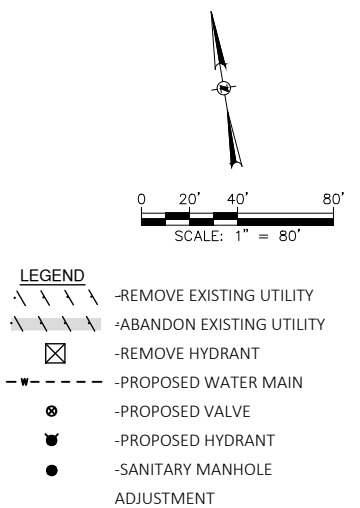
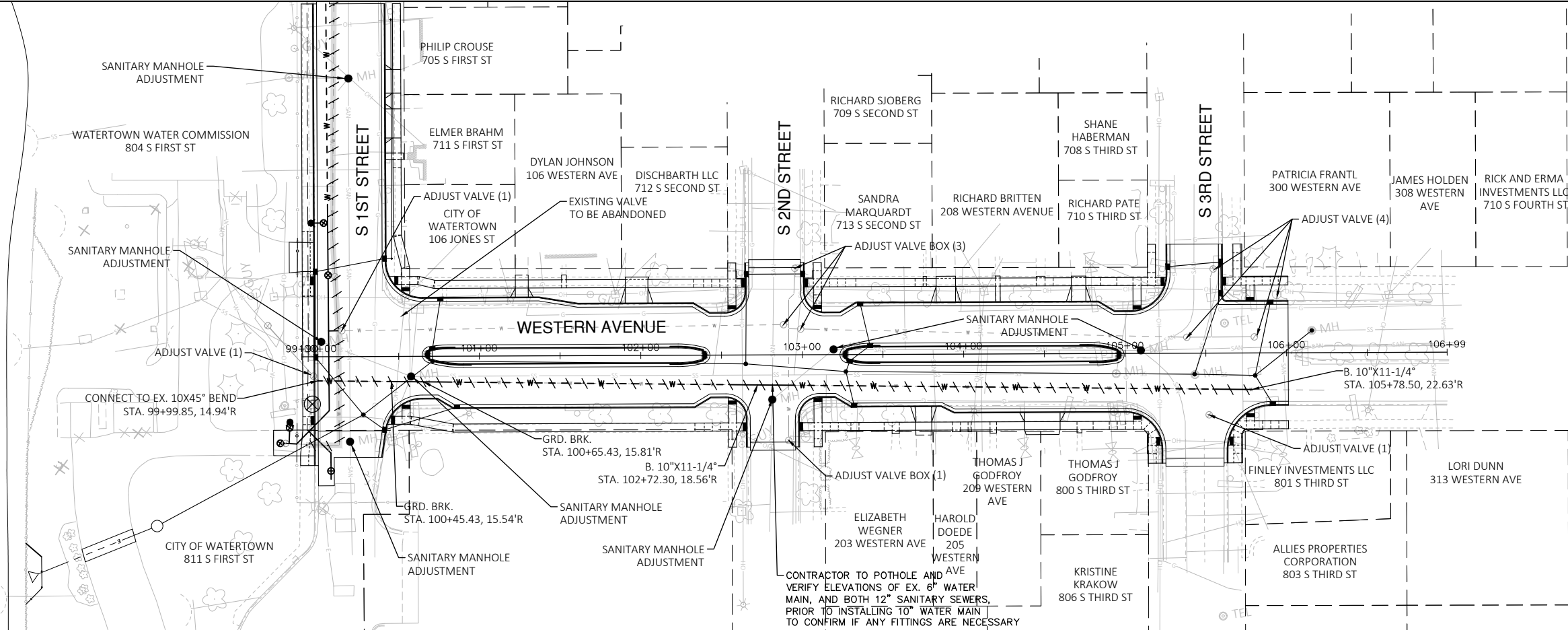
WATER MAIN PLAN & PROFILE 1ST STREET

SHEET

39

E

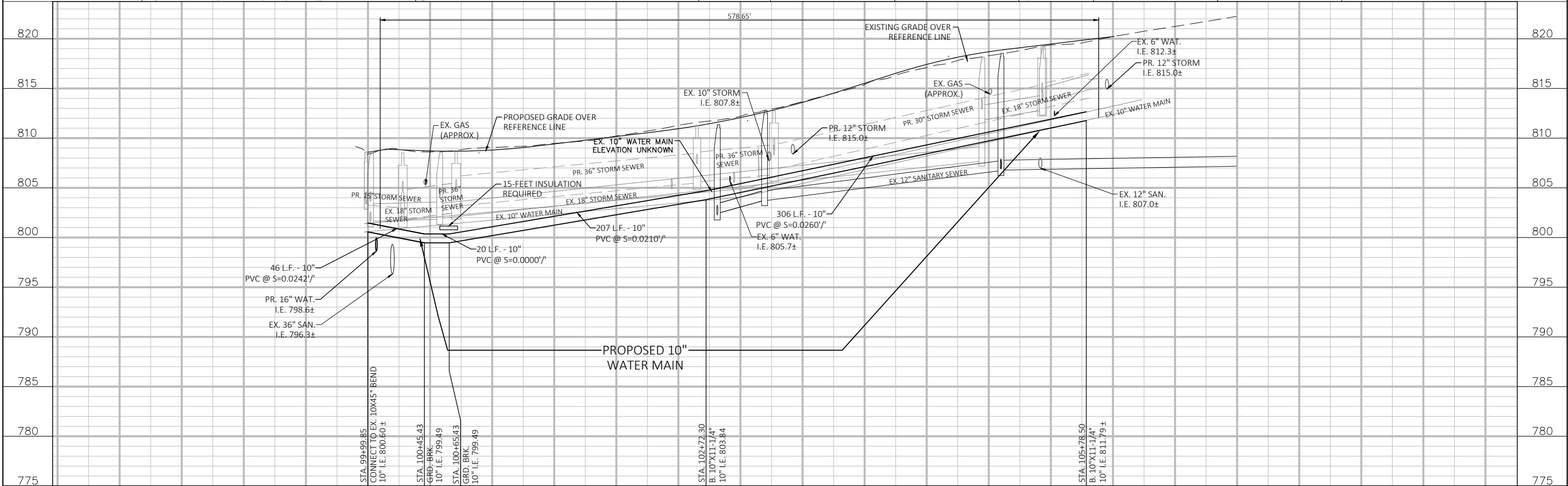
2



NOTES

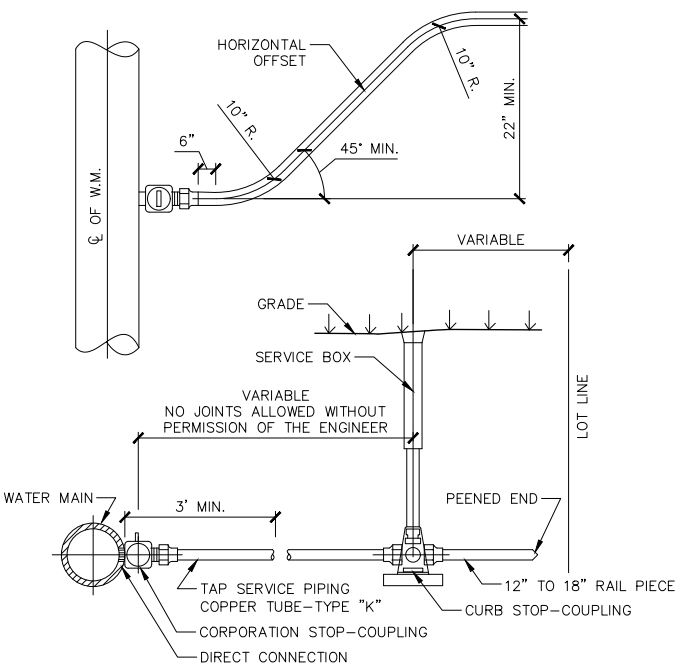
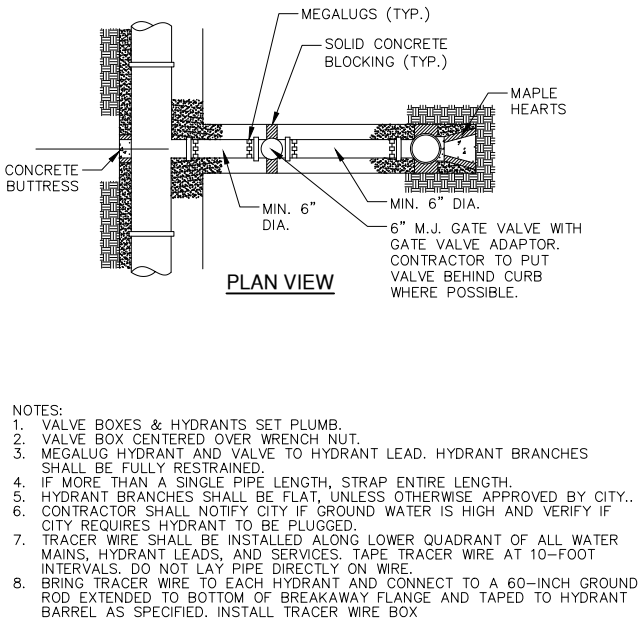
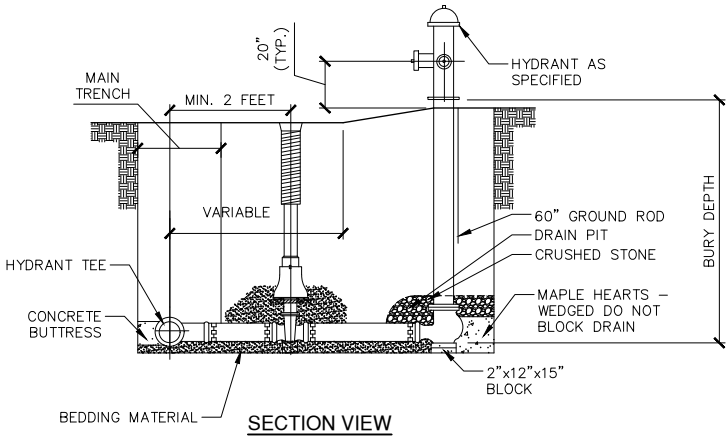
-SEE WATER MAIN DETAIL SHEET FOR ALL
WATER MAIN PLAN AND PROFILE NOTES

-ALL SANITARY SEWER MANHOLE
ADJUSTMENTS ARE CALLED OUT ON WESTERN
WATER MAIN PLAN AND PROFILE SHEET.



WATER MAIN NOTES

- 1. CONTRACTOR TO POTHOLE AND VERIFY ALL EXISTING UTILITIES AND CONNECTION POINTS PRIOR COMMENCING WORK. REPORT ANY DISCREPANCIES TO THE ENGINEER.
- 2. CONTRACTOR SHALL COORDINATE WITH CITY AND ENGINEER ON ANY FIELD ADJUSTMENTS DUE TO EXISTING UTILITY LOCATIONS IN FIELD.
- 3. WATER AND SEWER LATERALS SHALL BE VERIFIED IN FIELD. CONTRACTOR TO VERIFY PROPOSED WATER MAIN WILL NOT IMPACT EXISTING WATER SERVICES. ANY WATER AND SEWER LATERALS DAMAGED AS PART OF THE WATER MAIN INSTALLATION, SHALL BE REPLACED IN KIND.
- 4. PROPOSED 10-INCH RAW WATER LINE IS INTENDED TO BE IN THE SAME ALIGNMENT AND ELEVATION AS EXISTING, UNLESS OTHERWISE SHOWN TO AVOID PROPOSED AND EXISTING UTILITY CONFLICTS AND PROVIDING VERTICAL CLEARANCE MEETING WDNR STANDARDS BETWEEN STORM AND SANITARY SEWERS.
- 5. BUILDING LATERALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LOCAL AND STATE PLUMBING CODES.
- 6. CONTRACTOR SHALL CENTER ONE FULL LENGTH OF WATER PIPE ON SEWER AT WATER MAIN CROSSINGS, THAT BOTH JOINTS WILL BE AS FAR FROM SEWER AS POSSIBLE.
- 7. GENERAL CONTRACTOR SHALL COORDINATE WITH LOCAL GAS, TELEPHONE, AND ELECTRICAL UTILITIES FOR EXACT LOCATION, SIZE AND DEPTH OF NEW SERVICE.
- 8. PIPE LENGTHS AND INVERTS ARE TO CENTER OF STRUCTURES.
- 9. PUBLIC WATER MAIN SYSTEM SHALL BE CONSTRUCTED AND TESTED PER CITY OF WATERTOWN STANDARDS.
- 10. PROPOSED WATER MAIN SHALL REMAIN ISOLATED FROM EXISTING WATER MAIN UNTIL PROPOSED WATER MAIN HAS PASSED ALL REQUIRED TESTS.
- 11. CONTRACTOR SHALL SET ALL WATER COVERS AND SEWER COVER RIM ELEVATIONS 3/8" TO 1/2" BELOW FINAL PAVEMENT ELEVATION.
- 12. CONTRACTOR SHALL RESTRAIN ALL VALVES, FITTINGS, BENDS, REDUCERS, AND DEAD ENDS AT PIPE CONNECTION
- 13. CONTRACTOR SHALL COORDINATE WITH CITY OF WATERTOWN FOR ALL REQUIRED EXISTING WATER MAIN SHUTDOWNS. CONTRACTOR SHALL NOTIFY ANY RESIDENTS OR BUSINESS OWNERS PRIOR TO WATER MAIN SHUTDOWNS.
- 14. CONTRACTOR SHALL TEST WATER MAIN MAINLINE AND LATERAL TRACE WIRE TRACABILITY OF THE ENTIRE WATER MAIN SYSTEM INSTALLED WITH THE PRESENCE OF THE CITY OF WATERTOWN ON SITE.
- 15. ALL WATER MAIN WITHIN 8' OF STORM STRUCTURES SHALL BE INSULATED.
- 16. ABANDON EXISTING WATER MAIN BY CUTTING AND PLUGGING WITH GROUT AT LOCATIONS SHOWN ON PLANS. ABANDON EXISTING WATER MAIN IN PLACE.
- 17. CONTRACTOR SHALL HAVE ALL NECESSARY MATERIALS TO REPAIR ANY EXISTING WATER MAIN BREAKS DURING THE CONSTRUCTION OF THE PROPOSED WATER MAIN.



SERVICE PIPE	CORP. STOP	CURB STOP	SERVICE BOX
1"	1"	1"	2 1/2"
1 1/4"	1 1/4"	1 1/4"	3"
1 1/2"	1 1/4"x1 1/2"	1 1/2"	3"
* 2"	1 1/2"x2"	2"	3"

* FOR A 2" SERVICE PIPE, CORP. STOP FOR A 6" WATER MAIN REQUIRES A TAP WITH A CLAMP.

01 HYDRANT SETTING

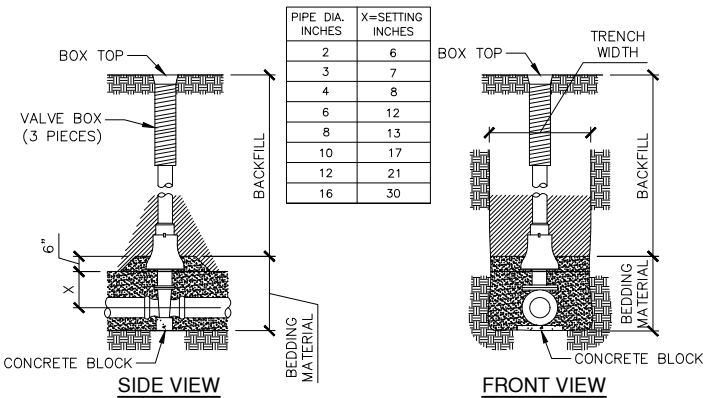
SCALE

N.T.S.

02 SERVICE LATERAL

SCALE

N.T.S.

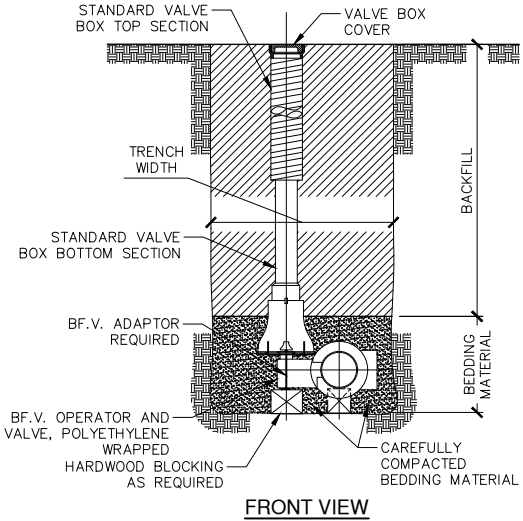


NOTE: PROVIDE VALVE EXTENSION AS NECESSARY

03 STANDARD GATE VALVE BOX SETTING DETAIL

SCALE

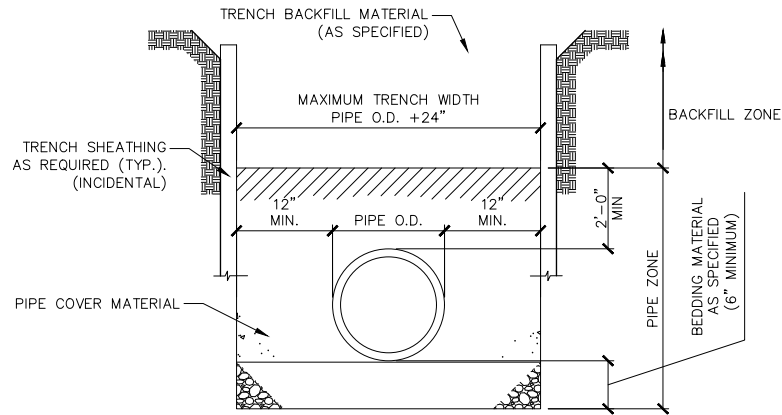
N.T.S.



04 STANDARD BUTTERFLY VALVE BOX SETTING

SCALE

N.T.S.

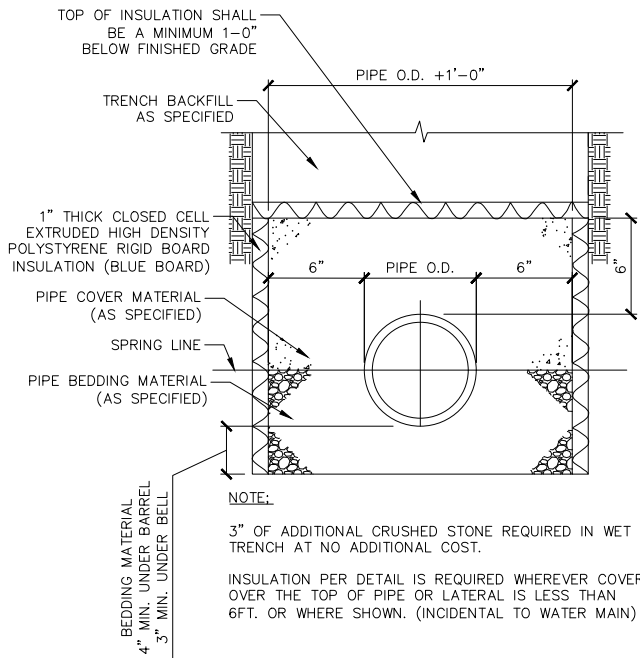


TYPICAL SECTION - GRANULAR BACKFILL
WATER MAIN (PVC PIPE)
(INCLUDING LATERALS)

01

SCALE

N.T.S.



02

INSULATION

SCALE

N.T.S.

Retaining Gland Restraint - Minimum Distances

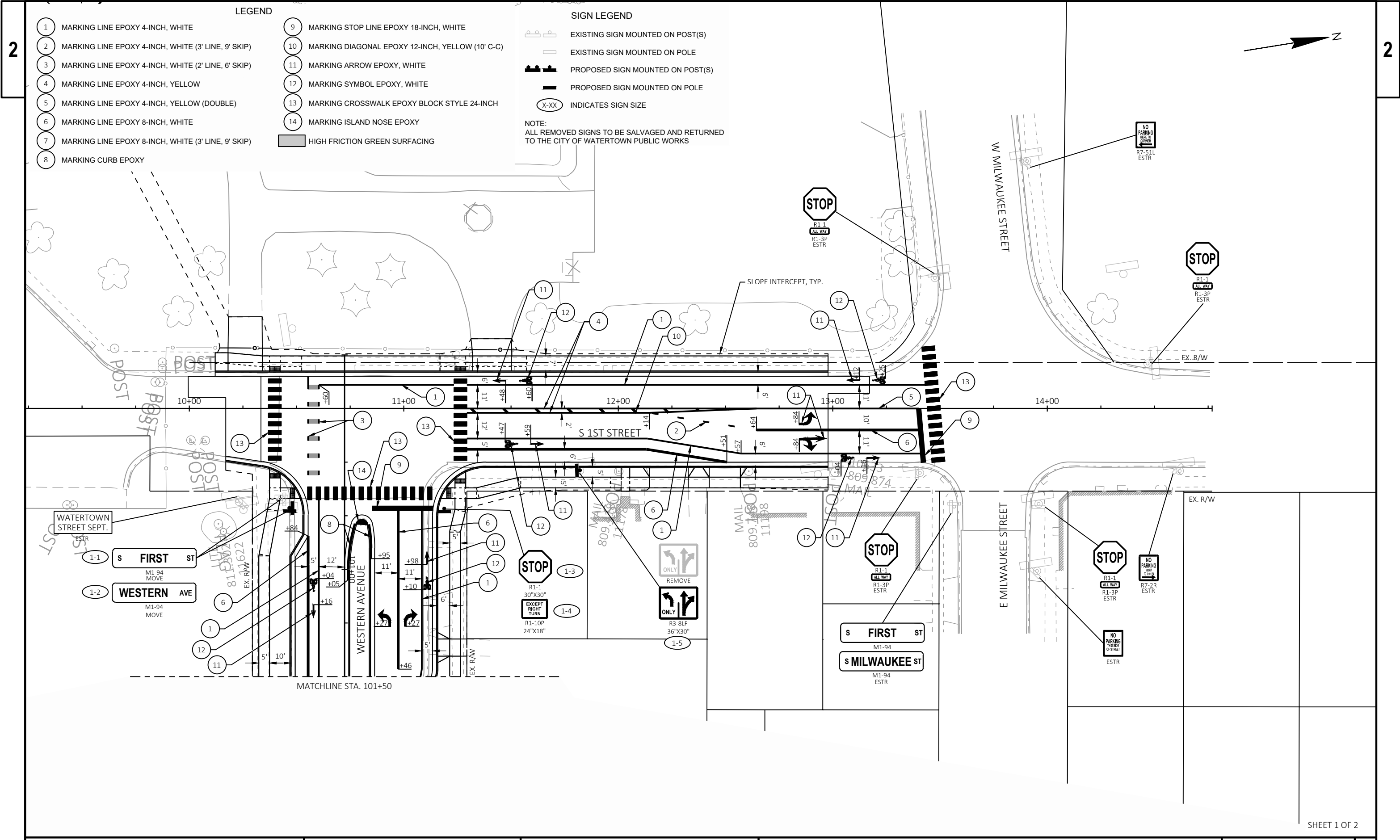
Refer to File No. 47A Standard Specifications for Sewer & Water Construction in Wisconsin

Horizontal Bends		Joint Restraint Length (L) in feet				NOTES	
Material	Size	Angle (degrees)	Length (for each side)				
PVC	16"	45	20				
PVC	6"	45	10				

Tees & Crosses		Joint Restraint Length (L) in Feet				NOTES	
Material	Size	Main (Lr)	Branch (b)				
PVC	16" x 16"	20	10				
PVC	16" x 6"	10	10				

Vertical Offset		Joint Restraint Length (L) in Feet			NOTES	
Material	Size	Bend	Length (Upper)	Length (Lower)		
PVC	16"	45	40	15		
PVC	16"	22.5	20	10		
PVC	16"	11.25	10	5		
PVC	6"	45	20	10		

CONTACT ENGINEER FOR JOINT RESTRAINT LENGTH FOR CONDITIONS NOT LISTED IN TABLE.



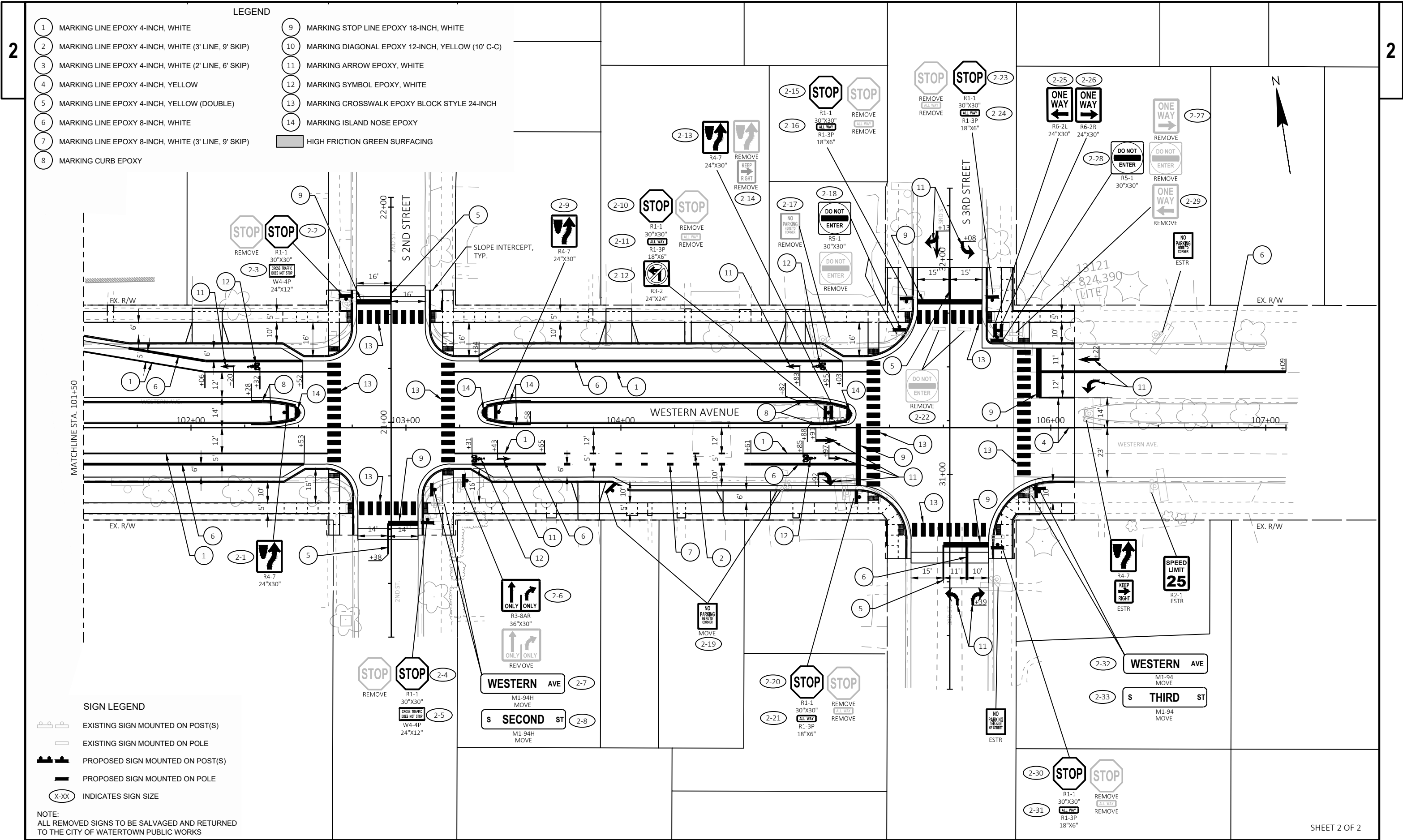
- LEGEND**

 - 1 MARKING LINE EPOXY 4-INCH, WHITE
 - 2 MARKING LINE EPOXY 4-INCH, WHITE (3' LINE, 9' SKIP)
 - 3 MARKING LINE EPOXY 4-INCH, WHITE (2' LINE, 6' SKIP)
 - 4 MARKING LINE EPOXY 4-INCH, YELLOW
 - 5 MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)
 - 6 MARKING LINE EPOXY 8-INCH, WHITE
 - 7 MARKING LINE EPOXY 8-INCH, WHITE (3' LINE, 9' SKIP)
 - 8 MARKING CURB EPOXY
 - 9 MARKING STOP LINE EPOXY 18-INCH, WHITE
 - 10 MARKING DIAGONAL EPOXY 12-INCH, YELLOW (10' C-C)
 - 11 MARKING ARROW EPOXY, WHITE
 - 12 MARKING SYMBOL EPOXY, WHITE
 - 13 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH
 - 14 MARKING ISLAND NOSE EPOXY
 - HIGH FRICTION GREEN SURFACING

- SIGN LEGEND**

 - EXISTING SIGN MOUNTED ON POST(S)
 - EXISTING SIGN MOUNTED ON POLE
 - PROPOSED SIGN MOUNTED ON POST(S)
 - PROPOSED SIGN MOUNTED ON POLE
 - INDICATES SIGN SIZE

NOTE:
ALL REMOVED SIGNS TO BE SALVAGED AND RETURNED
TO THE CITY OF WATERTOWN PUBLIC WORKS



- LEGEND**
- | | |
|---|---|
| 1 MARKING LINE EPOXY 4-INCH, WHITE | 9 MARKING STOP LINE EPOXY 18-INCH, WHITE |
| 2 MARKING LINE EPOXY 4-INCH, WHITE (3' LINE, 9' SKIP) | 10 MARKING DIAGONAL EPOXY 12-INCH, YELLOW (10' C-C) |
| 3 MARKING LINE EPOXY 4-INCH, WHITE (2' LINE, 6' SKIP) | 11 MARKING ARROW EPOXY, WHITE |
| 4 MARKING LINE EPOXY 4-INCH, YELLOW | 12 MARKING SYMBOL EPOXY, WHITE |
| 5 MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE) | 13 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH |
| 6 MARKING LINE EPOXY 8-INCH, WHITE | 14 MARKING ISLAND NOSE EPOXY |
| 7 MARKING LINE EPOXY 8-INCH, WHITE (3' LINE, 9' SKIP) | HIGH FRICTION GREEN SURFACING |
| 8 MARKING CURB EPOXY | |

- SIGN LEGEND**
- | | |
|--|----------------------------------|
| | EXISTING SIGN MOUNTED ON POST(S) |
| | EXISTING SIGN MOUNTED ON POLE |
| | PROPOSED SIGN MOUNTED ON POST(S) |
| | PROPOSED SIGN MOUNTED ON POLE |
| | INDICATES SIGN SIZE |

NOTE:
ALL REMOVED SIGNS TO BE SALVAGED AND RETURNED
TO THE CITY OF WATERTOWN PUBLIC WORKS



1 TRAFFIC CONTROL PCMS MESSAGE MB	
PLACE 7 DAYS PRIOR TO CONSTRUCTION	
FRAME	MESSAGE
1	1ST STREET TO CLOSE
2	(DAY) (TIME)

LEGEND

↑

↑

TYPE III BARRICADE

↑

↑

TYPE III BARRICADE WITH ATTACHED SIGN

●

▨

↑

→

MB

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ALL SIGN SPACING AND LOCATION

*INSTALL FLAGS 16"x16" MINIMUM ORANGE ON ALL TEMPORARY STOP SIGNS



1

2

3

4

5

DETOUR AHEAD
W20-2A

DETOUR AHEAD
M4-59A
30"x18"

DETOUR
M4-59L
30"x30"

DETOUR
M4-9L
30"x24"

DETOUR
M4-59R
30"x30"

6

7

8

9

DETOUR
M4-9R
30"x24"

DETOUR
M4-9RA
30"x24"

END DETOUR
M4-8A
24"x18"

ROAD WORK AHEAD
W20-1A

NOTES:
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.

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 APPROVED BY THE ENGINEER. PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

REFER TO SDD 'DETOUR SIGNING FOR MAINLINE CLOSURES' FOR SIGN SPACING AND LOCATIONS

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



PROJECT NO: 3997-00-13

HWY: LOCAL STREET

COUNTY: JEFFERSON

DETOUR PLAN - STAGE 1 - SOUTHBOUND TRAFFIC

SHEET

48

E



1



DETOUR
AHEAD
W20-2A

2



DETOUR
AHEAD
M4-59A
30"x18"

3



DETOUR
M4-59L
30"x30"

4



DETOUR
M4-9L
30"x24"

5



DETOUR
M4-59R
30"x30"

6



DETOUR
M4-9R
30"x24"

7



DETOUR
M4-9RA
30"x24"

8



END
DETOUR
M4-8A
24"x18"

9



ROAD
WORK
AHEAD
W20-1A

NOTES:

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.

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 APPROVED BY THE ENGINEER. PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

REFER TO SDD 'DETOUR SIGNING FOR MAINLINE CLOSURES' FOR SIGN SPACING AND LOCATIONS

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

PROJECT NO: 3997-00-13

HWY: LOCAL STREET

COUNTY: JEFFERSON

DETOUR PLAN - STAGE 2

SHEET

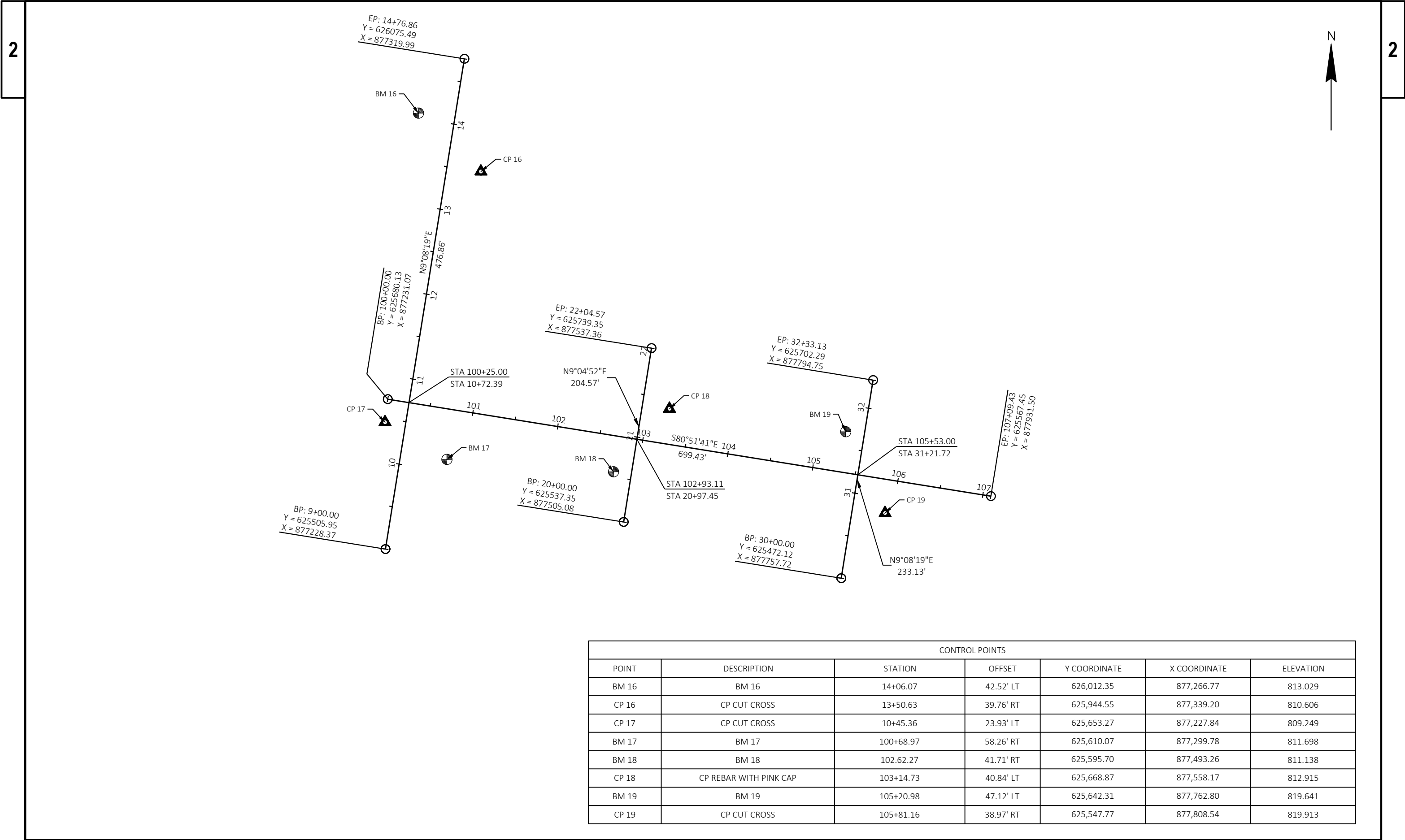
49

E









CONTROL POINTS						
POINT	DESCRIPTION	STATION	OFFSET	Y COORDINATE	X COORDINATE	ELEVATION
BM 16	BM 16	14+06.07	42.52' LT	626,012.35	877,266.77	813.029
CP 16	CP CUT CROSS	13+50.63	39.76' RT	625,944.55	877,339.20	810.606
CP 17	CP CUT CROSS	10+45.36	23.93' LT	625,653.27	877,227.84	809.249
BM 17	BM 17	100+68.97	58.26' RT	625,610.07	877,299.78	811.698
BM 18	BM 18	102.62.27	41.71' RT	625,595.70	877,493.26	811.138
CP 18	CP REBAR WITH PINK CAP	103+14.73	40.84' LT	625,668.87	877,558.17	812.915
BM 19	BM 19	105+20.98	47.12' LT	625,642.31	877,762.80	819.641
CP 19	CP CUT CROSS	105+81.16	38.97' RT	625,547.77	877,808.54	819.913

Estimate Of Quantities

		3997-00-13		3997-00-14	
Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	20.000	20.000
0004	201.0220	Grubbing	ID	20.000	20.000
0006	204.0100	Removing Concrete Pavement	SY	1,909.000	1,909.000
0008	204.0150	Removing Curb & Gutter	LF	1,097.000	1,097.000
0010	204.0155	Removing Concrete Sidewalk	SY	855.000	855.000
0012	204.0170	Removing Fence	LF	86.000	86.000
0014	204.0210	Removing Manholes	EACH	4.000	4.000
0016	204.0220	Removing Inlets	EACH	7.000	7.000
0018	204.0245	Removing Storm Sewer (size) 01. 10-Inch	LF	65.000	65.000
0020	204.0245	Removing Storm Sewer (size) 02. 12-Inch	LF	213.000	213.000
0022	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	524.000	524.000
0024	204.0245	Removing Storm Sewer (size) 04. 21-Inch	LF	60.000	60.000
0026	204.0280	Sealing Pipes	EACH	1.000	1.000
0028	205.0100	Excavation Common	CY	3,822.000	3,822.000
0030	213.0100	Finishing Roadway (project) 01. ID 3997-00-13	EACH	1.000	1.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,380.000	2,380.000
0034	310.0110	Base Aggregate Open-Graded	TON	1.000	1.000
0036	311.0110	Breaker Run	TON	2,497.000	2,497.000
0038	415.0080	Concrete Pavement 8-Inch	SY	4,905.000	4,905.000
0040	416.0610	Drilled Tie Bars	EACH	30.000	30.000
0042	416.0620	Drilled Dowel Bars	EACH	48.000	48.000
0044	455.0605	Tack Coat	GAL	24.000	24.000
0046	460.2000	Incentive Density HMA Pavement	DOL	40.000	40.000
0048	460.5223	HMA Pavement 3 LT 58-28 S	TON	39.000	39.000
0050	460.5225	HMA Pavement 5 LT 58-28 S	TON	20.000	20.000
0052	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	10.000
0054	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	1.000	1.000
0056	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,325.000	2,325.000
0058	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	38.000	38.000
0060	601.0600	Concrete Curb Pedestrian	LF	113.000	113.000
0062	602.0405	Concrete Sidewalk 4-Inch	SF	5,119.000	5,119.000
0064	602.0410	Concrete Sidewalk 5-Inch	SF	3,167.000	3,167.000
0066	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	210.000	210.000
0068	602.0810	Concrete Driveway 6-Inch	SY	166.000	166.000
0070	602.0815	Concrete Driveway 7-Inch	SY	28.000	28.000
0072	606.0300	Riprap Heavy	CY	16.000	16.000
0074	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	309.000	309.000
0076	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	99.000	99.000
0078	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	254.000	254.000
0080	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	455.000	455.000
0082	608.2429	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	79.000	79.000
0084	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	22.000	22.000
0086	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	50.000	50.000
0088	611.0530	Manhole Covers Type J	EACH	5.000	5.000
0090	611.0624	Inlet Covers Type H	EACH	11.000	11.000
0092	611.0639	Inlet Covers Type H-S	EACH	3.000	3.000
0094	611.0648	Inlet Covers Type R	EACH	1.000	1.000
0096	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0098	611.2006	Manholes 6-FT Diameter	EACH	5.000	5.000

Estimate Of Quantities

					3997-00-13	3997-00-14
Line	Item	Item Description	Unit	Total	Qty	Qty
0100	611.3220	Inlets 2x2-FT	EACH	1.000	1.000	
0102	611.3230	Inlets 2x3-FT	EACH	13.000	13.000	
0104	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000	
0106	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000	
0108	611.8120.S	Cover Plates Temporary	EACH	4.000	4.000	
0110	612.0106	Pipe Underdrain 6-Inch	LF	260.000	260.000	
0112	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	153.000	153.000	
0114	616.0207	Fence Chain Link 7-FT	LF	37.000	37.000	
0116	616.0329	Gates Chain Link (width) 01. 10-FT.	EACH	1.000	1.000	
0118	616.0329	Gates Chain Link (width) 02. 24-FT	EACH	2.000	2.000	
0120	618.0100	Maintenance and Repair of Haul Roads (project) 01. Maintenance and Repair of Haul Roads (ID 3997-00-14)	EACH	1.000		1.000
0122	619.1000	Mobilization	EACH	1.000	1.000	
0124	620.0300	Concrete Median Sloped Nose	SF	127.000	127.000	
0126	624.0100	Water	MGAL	24.000	24.000	
0128	625.0100	Topsoil	SY	2,189.000	2,189.000	
0130	627.0200	Mulching	SY	1,751.000	1,751.000	
0132	628.1104	Erosion Bales	EACH	200.000	200.000	
0134	628.1504	Silt Fence	LF	81.000	81.000	
0136	628.1520	Silt Fence Maintenance	LF	81.000	81.000	
0138	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000	
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000	
0142	628.7005	Inlet Protection Type A	EACH	18.000	18.000	
0144	628.7015	Inlet Protection Type C	EACH	18.000	18.000	
0146	628.7020	Inlet Protection Type D	EACH	5.000	5.000	
0148	628.7560	Tracking Pads	EACH	1.000	1.000	
0150	629.0210	Fertilizer Type B	CWT	1.400	1.400	
0152	630.0200	Seeding Temporary	LB	48.000	48.000	
0154	631.0300	Sod Water	MGAL	25.000	25.000	
0156	631.1000	Sod Lawn	SY	2,188.000	2,188.000	
0158	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	15.000	15.000	
0160	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	1.000	1.000	
0162	637.2210	Signs Type II Reflective H	SF	106.000	106.000	
0164	637.2230	Signs Type II Reflective F	SF	4.000	4.000	
0166	638.2102	Moving Signs Type II	EACH	7.000	7.000	
0168	638.2602	Removing Signs Type II	EACH	23.000	23.000	
0170	638.3000	Removing Small Sign Supports	EACH	10.000	10.000	
0172	638.4000	Moving Small Sign Supports	EACH	4.000	4.000	
0174	642.5001	Field Office Type B	EACH	1.000	1.000	
0176	643.0300	Traffic Control Drums	DAY	2,354.000	2,354.000	
0178	643.0420	Traffic Control Barricades Type III	DAY	914.000	914.000	
0180	643.0705	Traffic Control Warning Lights Type A	DAY	1,828.000	1,828.000	
0182	643.0900	Traffic Control Signs	DAY	8,674.000	8,674.000	
0184	643.0920	Traffic Control Covering Signs Type II	EACH	8.000	8.000	
0186	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000	
0188	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	217.000	217.000	
0190	643.5000	Traffic Control	EACH	1.000	1.000	
0192	644.1410	Temporary Pedestrian Surface Asphalt	SF	150.000	150.000	
0194	644.1430	Temporary Pedestrian Surface Plate	SF	150.000	150.000	

Estimate Of Quantities

		3997-00-13		3997-00-14	
Line	Item	Item Description	Unit	Total	Qty
0196	644.1601	Temporary Pedestrian Curb Ramp	DAY	272.000	272.000
0198	644.1605	Temporary Pedestrian Detectable Warning Field	SF	60.000	60.000
0200	644.1810	Temporary Pedestrian Barricade	LF	150.000	150.000
0202	645.0111	Geotextile Type DF Schedule A	SY	111.000	111.000
0204	645.0120	Geotextile Type HR	SY	464.000	464.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	1,759.000	1,759.000
0208	646.3020	Marking Line Epoxy 8-Inch	LF	949.000	949.000
0210	646.5020	Marking Arrow Epoxy	EACH	22.000	22.000
0212	646.5220	Marking Symbol Epoxy	EACH	10.000	10.000
0214	646.6120	Marking Stop Line Epoxy 18-Inch	LF	187.000	187.000
0216	646.7120	Marking Diagonal Epoxy 12-Inch	LF	22.000	22.000
0218	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	817.000	817.000
0220	646.8120	Marking Curb Epoxy	LF	167.000	167.000
0222	646.8220	Marking Island Nose Epoxy	EACH	4.000	4.000
0224	646.9000	Marking Removal Line 4-Inch	LF	86.000	86.000
0226	646.9100	Marking Removal Line 8-Inch	LF	44.000	44.000
0228	646.9300	Marking Removal Special Marking	EACH	8.000	8.000
0230	650.4000	Construction Staking Storm Sewer	EACH	21.000	21.000
0232	650.4500	Construction Staking Subgrade	LF	824.000	824.000
0234	650.7000	Construction Staking Concrete Pavement	LF	824.000	824.000
0236	650.9000	Construction Staking Curb Ramps	EACH	12.000	12.000
0238	650.9500	Construction Staking Sidewalk (project) 01. ID 3997-00-13	EACH	1.000	1.000
0240	650.9911	Construction Staking Supplemental Control (project) 01. ID 3997-00-13	EACH	1.000	1.000
0242	650.9920	Construction Staking Slope Stakes	LF	824.000	824.000
0244	690.0150	Sawing Asphalt	LF	304.000	304.000
0246	690.0250	Sawing Concrete	LF	398.000	398.000
0248	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	1,472.000	1,472.000
0250	740.0440	Incentive IRI Ride	DOL	685.000	685.000
0252	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0254	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0256	SPV.0060	Special 01. Utility Line Opening (ULO)	EACH	4.000	4.000
0258	SPV.0060	Special 02. Adjust Water Valve Boxes	EACH	12.000	12.000
0260	SPV.0060	Special 03. Permanent Connection to Existing Water Main	EACH	6.000	6.000
0262	SPV.0060	Special 04. Hydrant Assembly	EACH	2.000	2.000
0264	SPV.0060	Special 05. Copper Water Service 1-Inch	EACH	3.000	3.000
0266	SPV.0060	Special 06. 16-Inch Butterfly Valve	EACH	1.000	1.000
0268	SPV.0060	Special 07. Resilient Wedge Gate Valve 6-Inch	EACH	1.000	1.000
0270	SPV.0060	Special 08. Removing Hydrant	EACH	1.000	1.000
0272	SPV.0060	Special 09. Adjusting Sanitary Sewer Manholes	EACH	4.000	4.000
0274	SPV.0090	Special 01. 10-Inch PVC Water Main with Granular Backfill	LF	580.000	580.000
0276	SPV.0090	Special 02. 6-Inch PVC Water Main with Granular Backfill	LF	35.000	35.000
0278	SPV.0090	Special 03. 16-Inch PVC Water Main with Granular Backfill	LF	314.000	314.000
0280	SPV.0120	Special 01. Management of Contaminated Groundwater	MGAL	100.000	100.000
0282	SPV.0165	Special 01. High Friction Green Surfacing	SF	60.000	60.000
0284	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Contaminated Soil	TON	3,439.000	3,439.000

3

CLEARING & GRUBBING		
	201.0120 CLEARING	201.0220 GRUBBING
STATION TO STATION	ID	ID
WESTERN AVENUE		
100+50 - 106+01	-	-
FIRST STREET		
10+13 - 12+98	20	20
TOTALS	20	20

REMOVING CONCRETE PAVEMENT	
	204.0100 REMOVING CONCRETE PAVEMENT
STATION TO STATION	SY
WESTERN AVENUE	
100+50 - 106+01	423
FIRST STREET	
10+13 - 12+98	1,486
TOTALS	1,909

REMOVING CURB & GUTTER	
	204.0150 REMOVING CURB & GUTTER
STATION TO STATION	LF
WESTERN AVENUE	
100+50 - 106+01	1,032
FIRST STREET	
10+13 - 12+98	65
TOTALS	1,097

3

REMOVING CONCRETE SIDEWALK	
	204.0155 REMOVING CONCRETE SIDEWALK
STATION TO STATION	SY
WESTERN AVENUE	
100+50 - 106+01	642
FIRST STREET	
10+13 - 12+98	213
TOTALS	855

REMOVING FENCE	
	204.0170 REMOVING FENCE
STATION TO STATION	LF
WESTERN AVENUE	
100+50 - 106+01	-
FIRST STREET	
10+13 - 12+98	86
TOTALS	86

REMOVING STORM SEWER STRUCTURES					
				204.0210 REMOVING MANHOLES	204.0220 REMOVING INLETS
STRUCTURE	STATION	OFFSET	LOCATION	EACH	EACH
100	99+98.01	0.67' RT	WESTERN AVENUE CL	-	1
101	100+02.08	9.19' LT	WESTERN AVENUE CL	1	-
102	100+40.62	55.56' RT	WESTERN AVENUE CL	-	1
103	100+57.66	12.43' RT	WESTERN AVENUE CL	1	-
104	100+61.88	31.73' LT	WESTERN AVENUE CL	-	1
105	102+50.78	32.14' LT	WESTERN AVENUE CL	-	1
106	103+00.76	52.05' LT	WESTERN AVENUE CL	-	1
107	103+14.61	32.12' RT	WESTERN AVENUE CL	-	1
108	104+94.42	12.43' RT	WESTERN AVENUE CL	1	-
109	105+02.37	31.85' LT	WESTERN AVENUE CL	-	1
110	105+43.19	13.26' RT	WESTERN AVENUE CL	1	-
TOTALS				4	7

REMOVING STORM SEWER				
	204.0245.01 10-INCH	204.0245.02 12-INCH	204.0245.03 18-INCH	204.0245.04 21-INCH
STATION TO STATION	LF	LF	LF	LF
WESTERN AVENUE				
100+50 - 106+01	65	110	524	-
FIRST STREET				
10+13 - 12+98	-	103	-	60
TOTALS	65	213	524	60

SEALING PIPES	
	204.0280 SEALING PIPES
STATION TO STATION	EACH
WESTERN AVENUE	
100+50 - 106+01	-
FIRST STREET	
10+13 - 12+98	1
TOTALS	1

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010
UNLESS OTHERWISE NOTED

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)	EBS EXCAVATION (3)				FACTOR 1.11		
DIVISION 1	10+17.197/12+96.85	S. FIRST STREET	635	385	272	363	0	0	363	363
DIVISION 1 SUBTOTAL			635	385	272	363	0	0	363	363
DIVISION 2										
	100+40/106+00	WESTERN AVENUE	1,800	1,002	722	1,078	79	88	990	990
DIVISION 2 SUBTOTAL			1,800	1,002	722	1,078	79	88	990	990
GRAND TOTAL			2,435	1,387	994	1,441	79	88	1,353	1,353
TOTAL COMMON EXC			3,822							

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(3) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(13) EXPANDED FILL FACTOR = 1.11
OR
EXPANDED FILL = (UNEXPANDED FILL) * FILL FACTOR
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010
UNLESS OTHERWISE NOTED

3

FINISHING ROADWAY

213.0100.01
FINISHING ROADWAY
EACH

PROJECT	
3997-00-13	1
TOTALS	1

PIPE UNDERDRAIN 6-INCH						
STRUCTURE	STATION	OFFSET*	LOCATION	310.0110	612.0106	645.0111
				BASE AGGREGATE OPEN GRADED	PIPE UNDERDRAIN 6-INCH	GEOTEXTILE TYPE DF SCHEDULE A
TON	LF	SY				
10A	11+40.00	26.50' RT	FIRST STREET RL	0.04	10	4
10B	11+32.00	16.50' LT	FIRST STREET RL	0.04	10	4
10C	10+79.00	16.50' LT	FIRST STREET RL	0.04	10	4
10D	10+34.00	26.21' RT	FIRST STREET RL	0.04	10	4
11	100+71.00	3.00' RT	WESTERN AVENUE CL	0.08	20	9
11A	100+76.00	35.50' LT	WESTERN AVENUE CL	0.08	20	9
11B	100+71.00	4.80' LT	WESTERN AVENUE CL	0.08	20	9
11D	100+86.00	31.50' RT	WESTERN AVENUE CL	0.08	20	9
12A	103+00.55	50.00' LT	WESTERN AVENUE CL	0.08	20	9
12B	102+65.55	50.00' LT	WESTERN AVENUE CL	0.04	10	4
13A	103+36.00	31.50' LT	WESTERN AVENUE CL	0.04	10	4
13B	103+42.00	5.49' LT	WESTERN AVENUE CL	0.04	10	4
13C	103+29.50	3.91' RT	WESTERN AVENUE CL	0.08	20	9
13D	103+32.00	31.50' RT	WESTERN AVENUE CL	0.04	10	4
14A	105+26.50	53.59' LT	WESTERN AVENUE CL	0.04	10	4
14B	105+59.50	56.44' LT	WESTERN AVENUE CL	0.08	20	9
14C	105+59.50	37.00' LT	WESTERN AVENUE CL	0.04	10	4
15A	105+90.09	31.50' LT	WESTERN AVENUE CL	0.04	10	4
15B	105+91.34	31.50' RT	WESTERN AVENUE CL	0.04	10	4
TOTALS				1	260	111

REMARKS:
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

3

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120
BASE AGGREGATE
DENSE 1 1/4-INCH

STATION TO STATION	TON
WESTERN AVENUE	
100+50 - 106+01	1,678
FIRST STREET	
10+13 - 12+98	702
TOTALS	2,380

BREAKER RUN

311.0110
BREAKER RUN

STATION TO STATION	TON
WESTERN AVENUE	
100+50 - 106+01	1,802
FIRST STREET	
10+13 - 12+98	695
TOTALS	2,497

CONCRETE PAVEMENT

415.0080
8-INCH

STATION TO STATION	SY
WESTERN AVENUE	
100+50 - 106+01	3,523
FIRST STREET	
10+13 - 12+98	1,382
TOTALS	4,905

DRILLED TIE BARS

416.0610
DRILLED TIE BARS
EACH

STATION TO STATION	EACH
WESTERN AVENUE	
100+50 - 106+01	30
FIRST STREET	
10+13 - 12+98	20
TOTALS	30

DRILLED DOWEL BARS

416.0620
DRILLED DOWEL
EACH

STATION TO STATION	EACH
WESTERN AVENUE	
100+50 - 106+01	20
FIRST STREET	
10+13 - 12+98	28
TOTALS	48

HMA PAVEMENT

460.5223
3 LT 58-28 S

460.5225
5 LT 58-28 S

465.0120
DRIVEWAYS AND
FIELD ENTRANCES

455.0605
TACK COAT

STATION TO STATION	TON	TON	TON	GAL
WESTERN AVENUE				
100+50 - 106+01	12	6	2	7
FIRST STREET				
10+13 - 12+98	27	14	8	17
TOTALS	39	20	10	24

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010
UNLESS OTHERWISE NOTED

3

CONCRETE CURB & GUTTER		
	601.0409 30-INCH TYPE A	601.0411 30-INCH TYPE D
STATION TO STATION	LF	LF
WESTERN AVENUE		
100+50 - 106+01	1,831	-
FIRST STREET		
10+13 - 12+98	494	38
TOTALS	2,325	38

CONCRETE CURB	
	601.0600 PEDESTRIAN
STATION TO STATION	LF
WESTERN AVENUE	
100+50 - 106+01	113
FIRST STREET	
10+13 - 12+98	-
TOTALS	113

CURB RAMP DETECTABLE WARNING FIELD YELLOW	
	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW
STATION TO STATION	SF
WESTERN AVENUE	
100+50 - 106+01	150
FIRST STREET	
10+13 - 12+98	60
TOTALS	210

3

CONCRETE DRIVEWAY		
	602.0810 6-INCH	602.0815 7-INCH
STATION TO STATION	SY	SY
WESTERN AVENUE		
100+50 - 106+01	129	-
FIRST STREET		
10+13 - 12+98	37	28
TOTALS	166	28

CONCRETE SIDEWALK		
	602.0405 4-INCH	602.0410 5-INCH
STATION TO STATION	SF	SF
WESTERN AVENUE		
100+50 - 106+01	4,329	1,209
FIRST STREET		
10+13 - 12+98	790	1,958
TOTALS	5,119	3,167

RIPRAP		
	606.0300 RIPRAP HEAVY	645.0120 * GEOTEXTILE TYPE HR
STATION TO STATION	CY	SY
WESTERN AVENUE		
100+50 - 106+01	-	-
FIRST STREET		
10+13 - 12+98	16	24
TOTALS	16	24
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE		

STORM SEWER PIPES														
		608.0312	608.0315	608.0330	608.0336	608.2429	608.3012	608.3015	612.0206					
		STORM SEWER PIPE REINFORCED	STORM SEWER PIPE REINFORCED	STORM SEWER PIPE REINFORCED	STORM SEWER PIPE REINFORCED	STORM SEWER PIPE REINFORCED CONCRETE	STORM SEWER PIPE	STORM SEWER PIPE	PIPE UNDERDRAIN					
		CONCRETE CLASS III 12-INCH	CONCRETE CLASS III 15-INCH	CONCRETE CLASS III 30-INCH	CONCRETE CLASS III 36-INCH	HORIZONTAL ELLIPTICAL C LASS HE-IV 29X45-INCH	CLASS III-A 12-INCH	CLASS III-A 15-INCH	UNPERFORATED 6-INCH	INLET	DISCHARGE	SLOPE		
FROM	- TO	LOCATION	LF	LF	LF	LF	LF	LF	LF	ELEVATION	ELEVATION	FT/FT		
9	- 8	WESTERN AVENUE CL	-	-	-	-	79	-	-	798.95	797.76	0.0150		
10	- 9	WESTERN AVENUE CL	-	-	-	145	-	-	-	801.70	799.52	0.0150		
10A	- 10B	WESTERN AVENUE CL	44	-	-	-	-	-	-	804.72	804.18	0.0122		
10A-1	- 10A	WESTERN AVENUE CL	-	-	-	-	-	-	5	807.14	807.10	0.0089		
10A-2	- 10A-1	WESTERN AVENUE CL	-	-	-	-	-	-	148	807.98	807.14	0.0057		
10B	- 10C	WESTERN AVENUE CL	-	53	-	-	-	-	-	803.68	803.36	0.0060		
10C	- 10	WESTERN AVENUE CL	-	46	-	-	-	-	-	803.26	802.99	0.0059		
10D	- 10	WESTERN AVENUE CL	16	-	-	-	-	-	-	804.82	804.67	0.0093		
11	- 10	WESTERN AVENUE CL	-	-	-	54	-	-	-	802.50	801.80	0.0130		
11A	- 11B	WESTERN AVENUE CL	31	-	-	-	-	-	-	805.97	805.75	0.0070		
11B	- 11	WESTERN AVENUE CL	8	-	-	-	-	-	-	804.93	804.88	0.0070		
11D	- 10D	WESTERN AVENUE CL	47	-	-	-	-	-	-	805.13	804.94	0.0040		
12	- 11	WESTERN AVENUE CL	-	-	-	194	-	-	-	805.49	803.16	0.0120		
12A	- 12B	WESTERN AVENUE CL	35	-	-	-	-	-	-	808.40	808.05	0.0100		
12B	- 12	WESTERN AVENUE CL	56	-	-	-	-	-	-	807.95	807.39	0.0100		
13	- 12	WESTERN AVENUE CL	-	-	-	62	-	-	-	806.33	805.58	0.0120		
13A	- 13B	WESTERN AVENUE CL	-	-	-	-	-	-	27	809.26	809.13	0.0050		
13B	- 13C	WESTERN AVENUE CL	-	-	-	-	-	-	16	809.03	808.95	0.0049		
13C	- 13	WESTERN AVENUE CL	-	-	-	-	-	-	7	808.85	808.81	0.0051		
13D	- 13	WESTERN AVENUE CL	-	-	-	-	-	22	-	808.40	808.29	0.0050		
14	- 13	WESTERN AVENUE CL	-	-	216	-	-	-	-	812.88	806.83	0.0280		
14B	- 14C	WESTERN AVENUE CL	19	-	-	-	-	-	-	815.56	815.33	0.0120		
14C	- 14	WESTERN AVENUE CL	53	-	-	-	-	-	-	815.23	814.60	0.0120		
15	- 14	WESTERN AVENUE CL	-	-	38	-	-	-	-	814.03	812.98	0.0280		
TOTALS			309	99	254	455	79	22	50	153				
*NON-BID ITEM: FOR INFORMATION ONLY														
ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010 UNLESS OTHERWISE NOTED														

3

<u>WATER</u>	
	624.0100
	WATER
STATION TO STATION	MGAL
WESTERN AVENUE	
100+50 - 106+01	17
FIRST STREET	
10+13 - 12+98	7
TOTALS	24

<u>TOPSOIL</u>	
	625.0100
	TOPSOIL
STATION TO STATION	SY
WESTERN AVENUE	
100+50 - 106+01	1,435
FIRST STREET	
10+13 - 12+98	316
UNDISTRIBUTED	
	438
TOTALS	2,189

3

<u>MULCHING & SEEDING</u>		
	627.0200	630.0200
	MULCHING	SEEDING TEMPORARY
STATION TO STATION	SY	LB
WESTERB AVENUE		
100+00 - 100+64.67	1,435	39
100+64.67 - 106+99.43	316	9
TOTALS	1,751	48

<u>TEMPORARY SETTLING BASINS</u>		
	628.1104	645.0120 *
	EROSION BALES	GEOTEXTILE TYPE HR
STATION TO STATION	EACH	SY
UNDISTRIBUTED		
	200	440
TOTALS	200	440
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE		

<u>SILT FENCE</u>		
	628.1504	628.1520
	SILT FENCE	SILT FENCE MAINTENANCE
STATION TO STATION	LF	LF
WESTERN AVENUE		
100+50 - 106+01	-	-
FIRST STREET		
10+13 - 12+98	65	65
UNDISTRIBUTED		
	16	16
TOTALS	81	81

<u>EROSION CONTROL MOBILIZATIONS</u>		
	628.1905	628.1910
	MOBILIZATIONS	MOBILIZATIONS
	EROSION CONTROL	EMERGENCY EROSION CONTROL
PROJECT	EACH	EACH
3997-00-13	1	4
TOTALS	1	4

<u>INLET PROTECTION</u>			
	628.7005	628.7015	628.7020
	INLET PROTECTION	INLET PROTECTION	INLET PROTECTION
	TYPE A	TYPE C	TYPE D
STATION TO STATION	EACH	EACH	EACH
WESTERN AVENUE			
100+50 - 106+01	14	14	5
FIRST STREET			
10+13 - 12+98	4	4	-
TOTALS	18	18	5

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010
UNLESS OTHERWISE NOTED

3

TRACKING PADS	
628.7560 TRACKING PADS	
STATION TO STATION	EACH
UNDISTRIBUTED	
	1
TOTALS	1

SOD			
629.0210 FERTILIZER TYPE B		631.0300 SOD WATER	631.1000 SOD LAWN
STATION TO STATION	CWT	MGAL	SY
WESTERN AVENUE			
100+50 - 106+01	0.9	16	1,435
FIRST STREET			
10+13 - 12+98	0.2	4	315
UNDISTRIBUTED			
	0.3	5	438
TOTALS	1.4	25	2,188

TRAFFIC CONTROL			
643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II			
STAGE	EACH	CYCLES	SIGNS
3997-00-13			
UNDISTRIBUTED	4	2	8
TOTALS			8

3

TEMPORARY MARKING LINE	
643.3150 REMOVABLE TAPE 4-INCH	
STAGE	LF
3997-00-13	
STAGE 2	217
TOTALS	217

TRAFFIC CONTROL											
		643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS	
STAGE	DURATION DAYS	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY
3997-13-13											
STAGE 1	78	22	1,716	8	624	16	1,248	10	780	2	14
STAGE 2	29	22	638	10	290	20	580	12	348	2	14
DETOUR - STAGE 1	78	-	-	-	-	-	-	33	2,574	-	-
DETOUR - STAGE 2	29	-	-	-	-	-	-	24	696	-	-
PEDESTRIAN DETOUR - STAGE 1	78	-	-	-	-	-	-	34	2,652	-	-
PEDESTRIAN DETOUR - STAGE 2	29	-	-	-	-	-	-	56	1,624	-	-
TOTALS		44	2,354	18	914	36	1,828	169	8,674	4	28

TEMPORARY PEDESTRIAN FACILITIES					
NOTE: QUANTITIES ARE UNDISTRIBUTED					
		644.1410 SURFACE ASPHALT	644.1430 SURFACE PLATE	644.1601 CURB RAMP	644.1605 DETECTABLE WARNING FIELD
		644.1810 BARRICADE			
STAGE	SF	SF	DAY	SF	LF
3997-00-13					
PEDESTRIAN DETOUR - STAGE 1	50	50	156	20	50
PEDESTRIAN DETOUR - STAGE 2	100	100	116	40	100
TOTALS	150	150	272	60	150
ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010 UNLESS OTHERWISE NOTED					

3

FIELD FACILITIES OFFICE SPACE

642.5001
FIELD OFFICE TYPE B

PROJECT	EACH
3997-00-13	1
TOTALS	1

TRAFFIC CONTROL

643.5000
TRAFFIC CONTROL

EACH	
PROJECT	
3997-00-13	1
TOTALS	1

MARKING LINE

STATION TO STATION	646.1020 EPOXY 4-INCH (WHITE)	646.1020 EPOXY 4-INCH (YELLOW)	646.3020 EPOXY 8-INCH (WHITE)
	LF	LF	LF
WESTERN AVENUE			
100+50 - 106+01	699	114	723
FIRST STREET			
10+13 - 12+98	525	421	226
TOTALS	1,224	535	949

3

MARKING OTHER <table><tr><th rowspan="2">STATION TO STATION</th><th>646.5020 ARROW EPOXY</th><th>646.5220 SYMBOL EPOXY</th><th>646.6120 STOP LINE EPOXY 18-INCH</th><th>646.7120 DIAGONAL EPOXY 12-INCH</th><th>646.7520 CROSSWALK EPOXY BLOCK STYLE 24- INCH</th><th>646.8120 CURB EPOXY</th><th>646.8220 ISLAND NOSE EPOXY</th><th>SPV.0165.01 HIGH FRICTION GREEN SURFACING</th></tr><tr><th>EACH</th><th>EACH</th><th>LF</th><th>LF</th><th>LF</th><th>LF</th><th>EACH</th><th>SF</th></tr><tr><td>WESTERN AVENUE</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>100+50 - 106+01</td><td>16</td><td>6</td><td>133</td><td>-</td><td>523</td><td>167</td><td>4</td><td>-</td></tr><tr><td>FIRST STREET</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10+13 - 12+98</td><td>6</td><td>4</td><td>54</td><td>22</td><td>294</td><td>-</td><td>-</td><td>60</td></tr><tr><td>TOTALS</td><td>22</td><td>10</td><td>187</td><td>22</td><td>817</td><td>167</td><td>4</td><td>60</td></tr></table>									STATION TO STATION	646.5020 ARROW EPOXY	646.5220 SYMBOL EPOXY	646.6120 STOP LINE EPOXY 18-INCH	646.7120 DIAGONAL EPOXY 12-INCH	646.7520 CROSSWALK EPOXY BLOCK STYLE 24- INCH	646.8120 CURB EPOXY	646.8220 ISLAND NOSE EPOXY	SPV.0165.01 HIGH FRICTION GREEN SURFACING	EACH	EACH	LF	LF	LF	LF	EACH	SF	WESTERN AVENUE									100+50 - 106+01	16	6	133	-	523	167	4	-	FIRST STREET									10+13 - 12+98	6	4	54	22	294	-	-	60	TOTALS	22	10	187	22	817	167	4	60
STATION TO STATION	646.5020 ARROW EPOXY	646.5220 SYMBOL EPOXY	646.6120 STOP LINE EPOXY 18-INCH	646.7120 DIAGONAL EPOXY 12-INCH	646.7520 CROSSWALK EPOXY BLOCK STYLE 24- INCH	646.8120 CURB EPOXY	646.8220 ISLAND NOSE EPOXY	SPV.0165.01 HIGH FRICTION GREEN SURFACING																																																														
	EACH	EACH	LF	LF	LF	LF	EACH	SF																																																														
WESTERN AVENUE																																																																						
100+50 - 106+01	16	6	133	-	523	167	4	-																																																														
FIRST STREET																																																																						
10+13 - 12+98	6	4	54	22	294	-	-	60																																																														
TOTALS	22	10	187	22	817	167	4	60																																																														

MARKING REMOVAL

646.9000

LINE 4-INCH

646.9100

LINE 8-INCH

646.9300

SPECIAL MARKING

STATION TO STATION	LF	LF	EACH
WESTERN AVENUE			
100+50 - 106+01	-	-	6
FIRST STREET			
10+13 - 12+98	86	44	2
TOTALS	86	44	8

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010

UNLESS OTHERWISE NOTED

TYPE II PERMANENT SIGNING

SIGN NO.	SIGN CODE & SIZE		SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			634.0814	634.0816	637.2210	637.2230	638.2602	638.3000	638.2102	638.4000	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
					W	x	H	POSTS TUBULAR STEEL 2X2-INCH X 14-FT.	POSTS TUBULAR STEEL 2X2-INCH X 16-FT.	SIGNS TYPE II REFLC H	SIGNS TYPE II REFLC F	REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS	MOVING SIGNS TYPE II	MOVING SMALL SIGN SUPPORTS		
					[IN.]	x	[IN.]	[EA]	[EA]	[SF]	[SF]	[EA]	[EA]	[EA]	[EA]		
1-1	M1-94	--	--	--	--	x	--	--	--	--	--	--	--	1	1	--	--
1-2	M1-94	--	--	--	--	x	--	--	--	--	--	--	--	1	--	1-1	--
1-3	R1-1	--	II	--	30	x	30	--	1	5.18	--	--	--	--	--	--	--
1-4	R1-10P	--	II	--	24	x	18	--	--	3.00	--	--	--	--	--	1-3	--
1-5	R8-3LF	--	II	--	36	x	30	1	--	7.50	--	1	1	--	--	--	--
2-1	R4-7	--	II	--	24	x	30	1	--	5.00	--	--	--	--	--	--	--
2-2	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	1	--	--	--	--
2-3	W4-4P	--	II	--	24	x	12	--	--	--	2.00	--	--	--	--	2-2	--
2-4	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	1	--	--	--	--
2-5	W4-4P	--	II	--	24	x	12	--	--	--	2.00	--	--	--	--	2-4	--
2-6	R3-8AR	--	II	--	36	x	30	1	--	7.50	--	1	1	--	--	--	--
2-7	M1-94	--	--	--	--	x	--	--	--	--	--	--	--	1	1	--	--
2-8	M1-94	--	--	--	--	x	--	--	--	--	--	--	--	1	--	2-7	--
2-9	R4-7	--	II	--	24	x	30	1	--	5.00	--	--	--	--	--	--	--
2-10	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	1	--	--	--	--
2-11	R1-3P	--	II	--	18	x	6	--	--	0.75	--	1	--	--	--	2-10	--
2-12	R3-2	--	II	--	24	x	24	--	--	4.00	--	--	--	--	--	2-10	--
2-13	R4-7	--	II	--	24	x	30	1	--	5.00	--	1	1	--	--	--	--
2-14	--	--	--	--	--	x	--	--	--	--	--	1	--	--	--	--	--
2-15	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	1	--	--	--	--
2-16	R1-3P	--	II	--	18	x	6	--	--	0.75	--	1	--	--	--	2-15	--
2-17	--	--	--	--	--	x	--	--	--	--	--	1	1	--	--	--	--
2-18	R5-1	--	II	--	30	x	30	1	--	6.25	--	1	--	--	--	--	--
2-19	--	--	--	--	--	x	--	--	--	--	--	--	--	1	1	--	--

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010
UNLESS OTHERWISE NOTED

3

TYPE II PERMANENT SIGNING CONTINUED																	
SIGN NO.	SIGN CODE & SIZE		SIGN TYPE	SIGN MESSAGE	TYPE II SIGN SIZE			634.0814	634.0816	637.2210	637.2230	638.2602	638.3000	638.2102	638.4000	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
					W	x	H	POSTS TUBULAR STEEL 2X2-INCH X 14-FT.	POSTS TUBULAR STEEL 2X2-INCH X 16-FT.	SIGNS TYPE II REFLC H	SIGNS TYPE II REFLC F	REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS	MOVING SIGNS TYPE II	MOVING SMALL SIGN SUPPORTS		
					[IN.]	x	[IN.]	[EA]	[EA]	[SF]	[SF]	[EA]	[EA]	[EA]	[EA]		
2-20	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	1	--	--	--	ON BACK OF SIGN 2-25
2-21	R1-3P	--	II	--	18	x	6	--	--	0.75	--	1	--	--	--	2-20	
2-22	--	--	--	--	--	x	--	--	--	--	--	2	--	--	--	--	
2-23	R1-1	--	II	--	30	x	30	1	--	6.25	--	1	1	--	--	--	
2-24	R1-3P	--	II	--	18	x	6	--	--	0.75	--	1	--	--	--	2-23	
2-25	R6-2L	--	II	--	24	x	30	1	--	5.00	--	--	--	--	--	--	
2-26	R6-2R	--	II	--	24	x	30	--	--	5.00	--	--	--	--	--	2-25	
2-27	--	--	--	--	--	x	--	--	--	--	--	1	--	--	--	--	
2-28	R5-1	--	II	--	30	x	30	1	--	6.25	--	1	--	--	--	--	
2-29	--	--	--	--	--	x	--	--	--	--	--	1	--	--	--	--	
2-30	R1-1	--	II	--	30	x	30	1	--	5.18	--	1	--	--	--	--	
2-31	R1-3P	--	II	--	18	x	6	--	--	0.75	--	1	--	--	--	2-30	
2-32	--	--	--	--	--	x	--	--	--	--	--	--	--	1	1	--	
2-33	--	--	--	--	--	x	--	--	--	--	--	--	--	1	--	2-32	
TOTALS								15	1	106	4	23	10	7	4		

3

SAWING STATION TO STATION WESTERN AVENUE 100+50 - 106+01 FIRST STREET 10+13 - 12+98 TOTALS			690.0150 ASPHALT LF 146 158 304			690.0250 CONCRETE LF 240 158 398		
CONSTRUCTION STAKING ITEM QUANTITY UNIT DESCRIPTION			650.4000 21 EACH CONSTRUCTION STAKING STORM SEWER			650.4500 824 LF CONSTRUCTION STAKING SUBGRADE		
650.7000 824 LF CONSTRUCTION STAKING CONCRETE PAVEMENT			650.9000 12 EACH CONSTRUCTION STAKING CURB RAMPS			650.9500.01 1 EACH CONSTRUCTION STAKING SIDEWALK (ID 3997-00-13)		
650.9911.01 1 EACH CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (ID 3997-00-13)			650.9920 824 LF CONSTRUCTION STAKING SLOPE STAKES			UTILITY LINE OPENING (ULO) SPV.0060.01 UTILITY LINE OPENING (ULO) EACH 3997-00-13 UNDISTRIBUTED 4 TOTALS 4		
MANAGEMENT OF CONTAMINATED GROUNDWATER SPV.0120.01 MANAGEMENT OF CONTAMINATED GROUNDWATER MGAL 3997-00-13 UNDISTRIBUTED 100 TOTALS 100			EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL SPV.0195.01 EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL TON 3997-00-13 UNDISTRIBUTED 3,439 TOTALS 3,439			ADJUSTING SANITARY SEWER I.D. 3997-00-14 & CATEGORY 0020 SPV.0060.09 ADJUSTING SANITARY SEWER MANHOLES STATION OFFSET LOCATION EACH 105+19.78 8.91' LT WESTERN AVENUE EB RL 1		
						103+29.40 10.25' LT WESTERN AVENUE EB RL 1		
						102+91.33 20.66' RT WESTERN AVENUE EB RL 1		
						100+29.53 179.16' LT WESTERN AVENUE EB RL 1		
						TOTALS 4		
						ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010 UNLESS OTHERWISE NOTED		

ALL ITEMS ARE I.D. 3997-00-13 & CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ADJUSTING WATER VALVE BOXES

SPV.0060.02
ADJUSTING WATER
VALVE BOXES

PROJECT	EACH
3997-00-14	
	12
TOTALS	12

PERMANENT CONNECTION TO EXISTING WATER MAIN

SPV.0060.03
PERMANENT CONNECTION TO
EXISTING WATER MAIN

PROJECT	EACH
3997-00-14	
	6
TOTALS	6

HYDRANT ASSEMBLY

SPV.0060.04
HYDRANT ASSEMBLY

PROJECT	EACH
3997-00-14	
	2
TOTALS	2

3

COPPER WATER SERVICE 1-INCH

SPV.0060.05
COPPER WATER
SERVICE 1-INCH

PROJECT	EACH
3997-00-14	
	3
TOTALS	3

16-INCH BUTTERFLY VALVE

SPV.0060.06
16-INCH BUTTERFLY
VALVE

PROJECT	EACH
3997-00-14	
	1
TOTALS	1

RESILIENT WEDGE GATE VALVE 6-INCH

SPV.0060.07
RESILIENT WEDGE
GATE VALVE 6-INCH

PROJECT	EACH
3997-00-14	
	1
TOTALS	1

REMOVING HYDRANT

SPV.0060.08
REMOVING HYDRANT

PROJECT	EACH
3997-00-14	
	1
TOTALS	1

PVC WATER MAIN

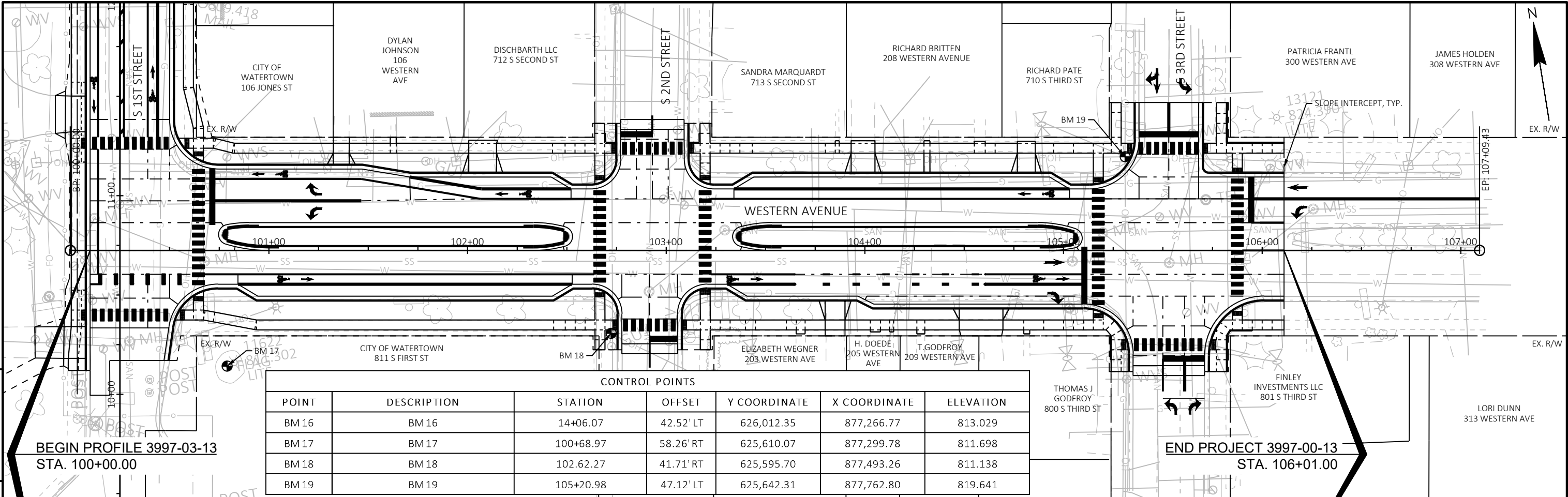
SPV.0090.01
10-INCH PVC WATER MAIN
WITH GRANULAR
BACKFILL

SPV.0090.02
6-INCH PVC WATER MAIN
WITH GRANULAR BACKFILL

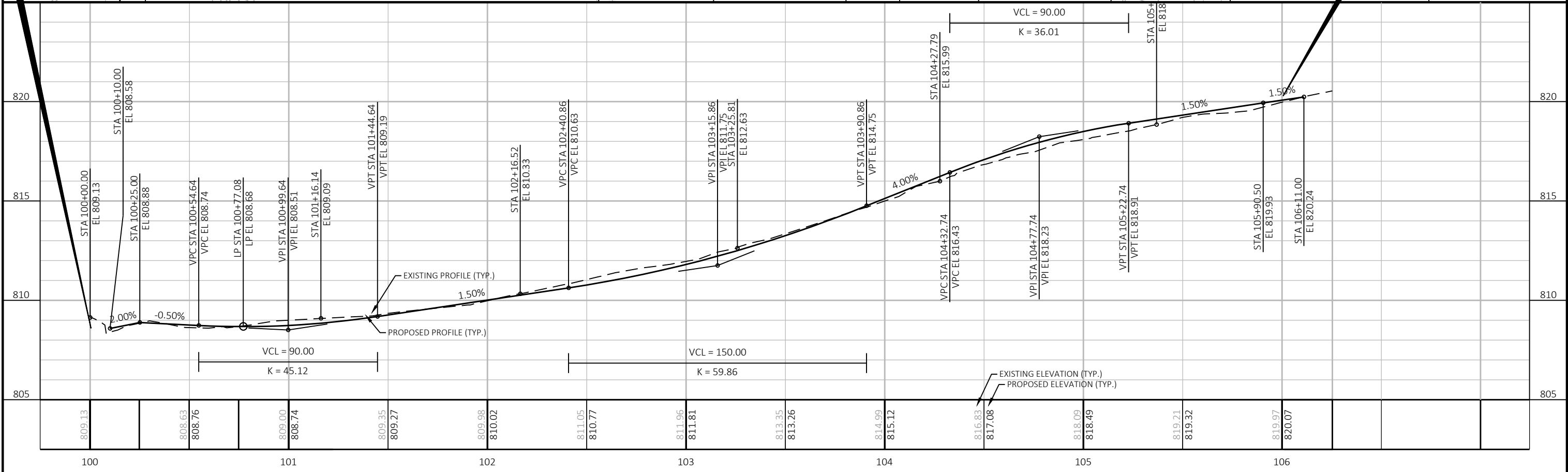
SPV.0090.03
16-INCH PVC WATER MAIN
WITH GRANULAR BACKFILL

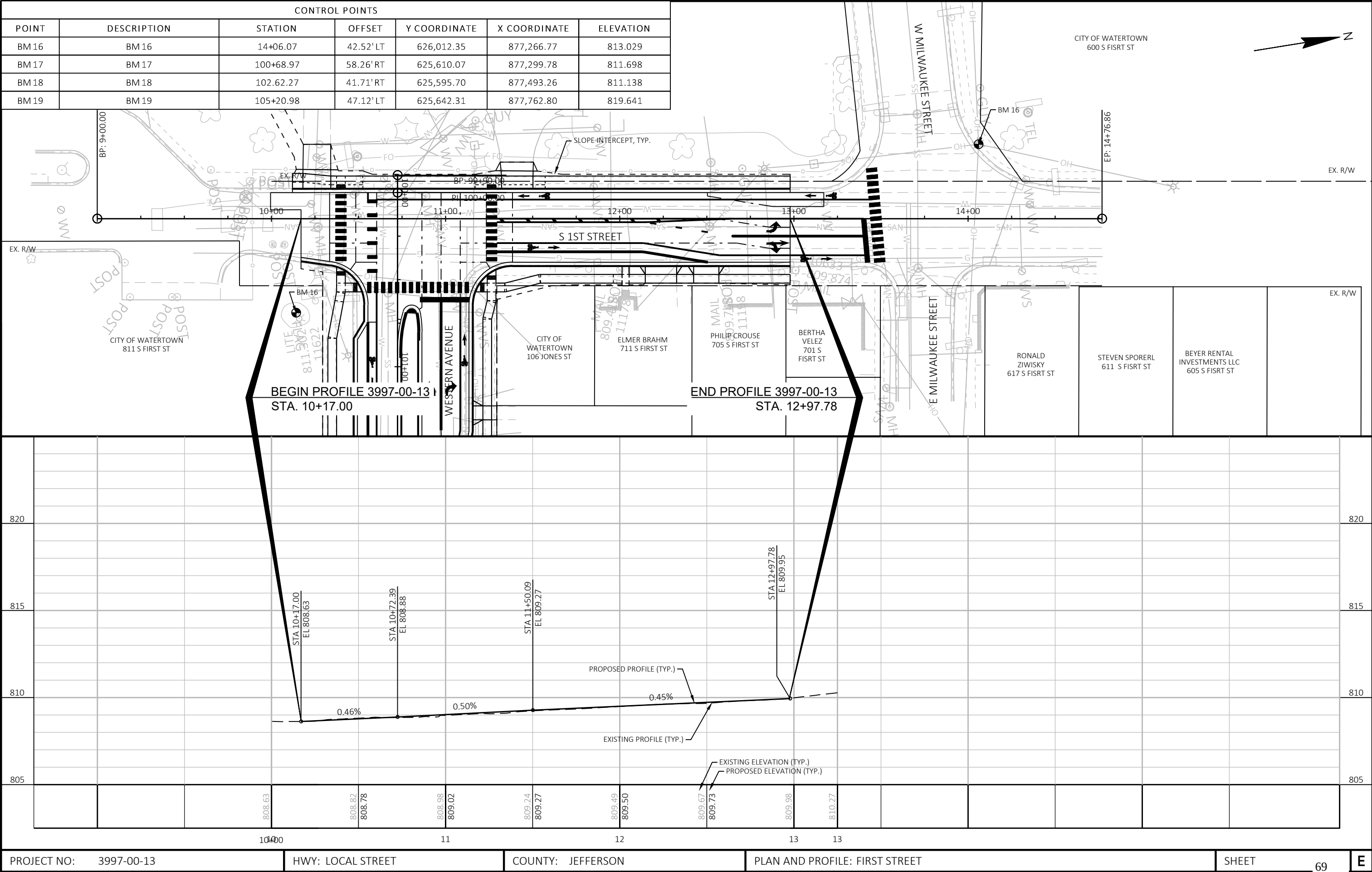
PROJECT	LF	LF	LF
3997-00-14			
	580	35	314
TOTALS	580	35	314

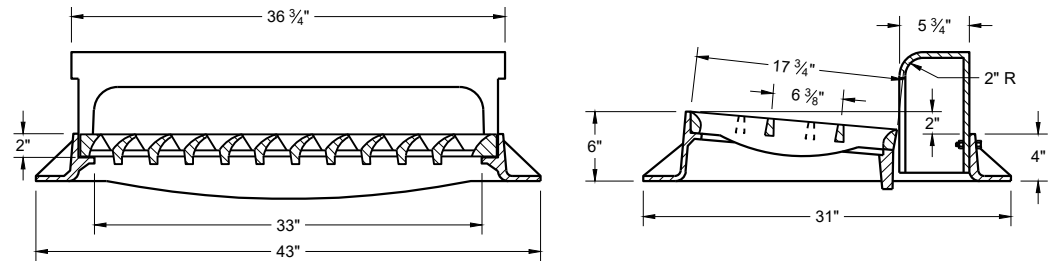
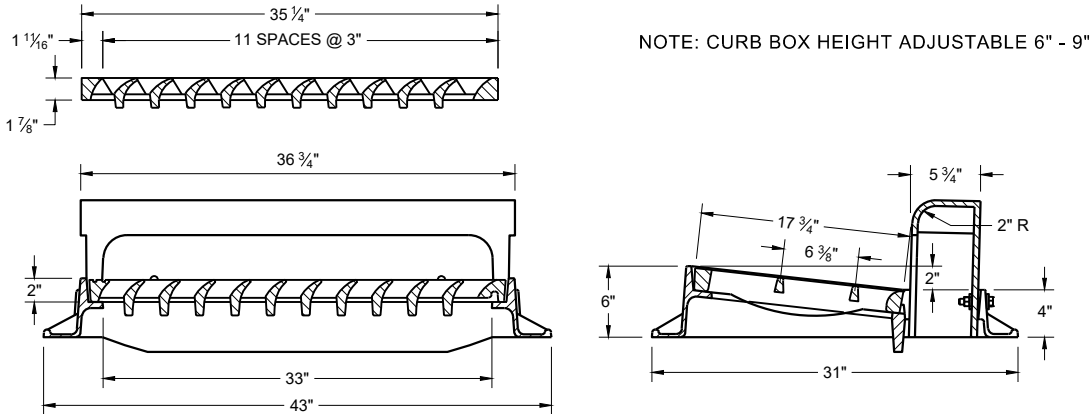
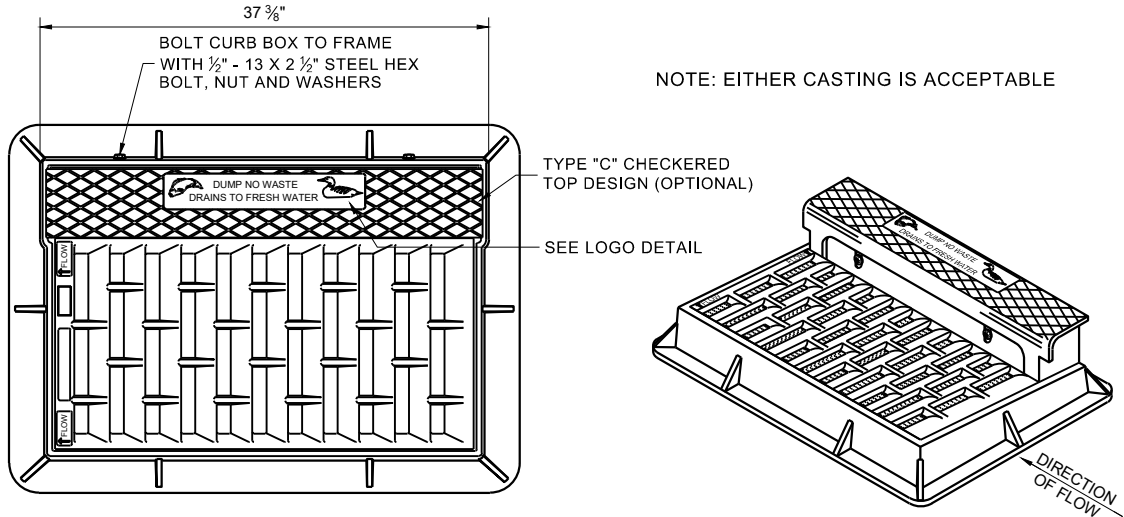
I.D. 3997-00-14 - CATEGORY 0010
UNLESS OTHERWISE NOTED



CONTROL POINTS						
POINT	DESCRIPTION	STATION	OFFSET	Y COORDINATE	X COORDINATE	ELEVATION
BM 16	BM 16	14+06.07	42.52' LT	626,012.35	877,266.77	813.029
BM 17	BM 17	100+68.97	58.26' RT	625,610.07	877,299.78	811.698
BM 18	BM 18	102+62.27	41.71' RT	625,595.70	877,493.26	811.138
BM 19	BM 19	105+20.98	47.12' LT	625,642.31	877,762.80	819.641

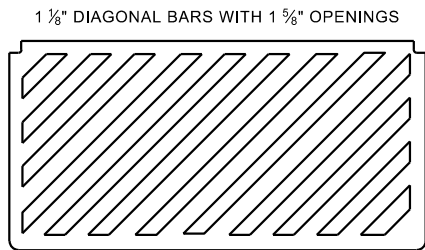






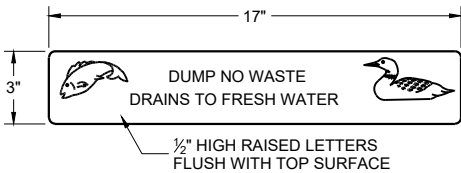
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

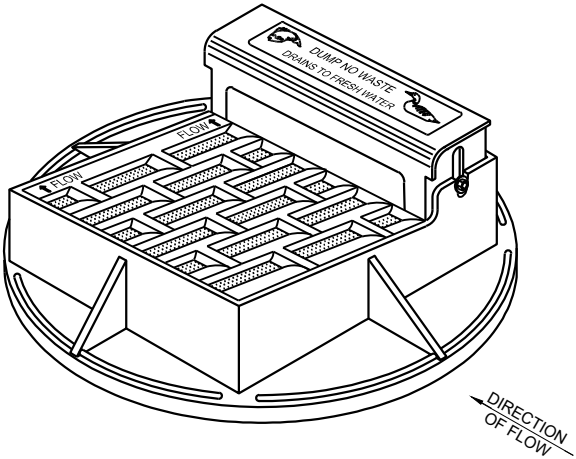


SPECIAL GRATE FOR TYPE "H" COVER

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

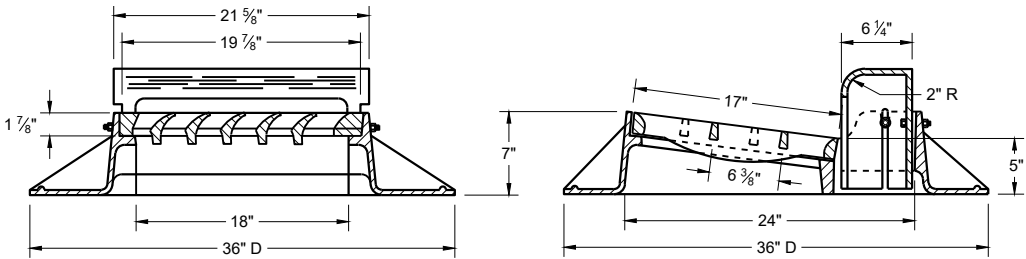


LOGO DETAIL

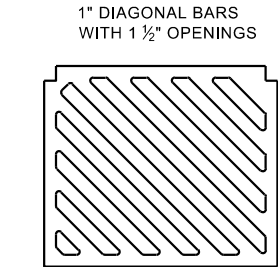
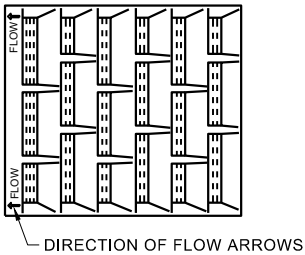


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE

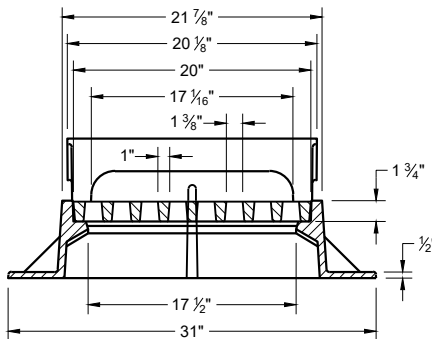
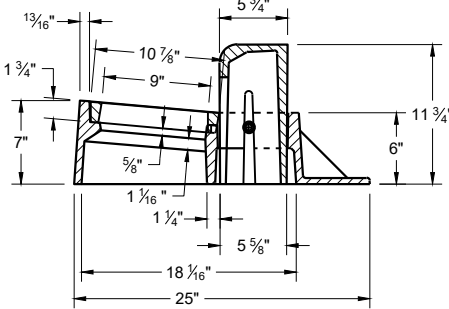


TYPE "A"

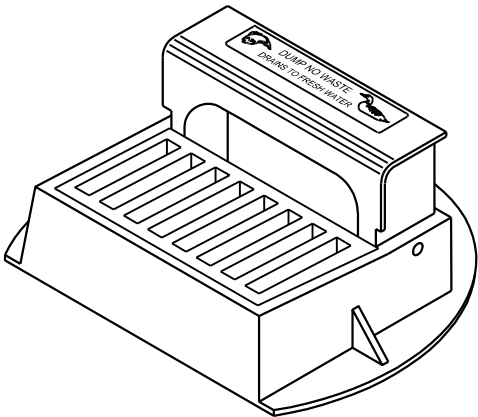


SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"



**INLET COVERS
TYPES A, H, A-S, H-S AND Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

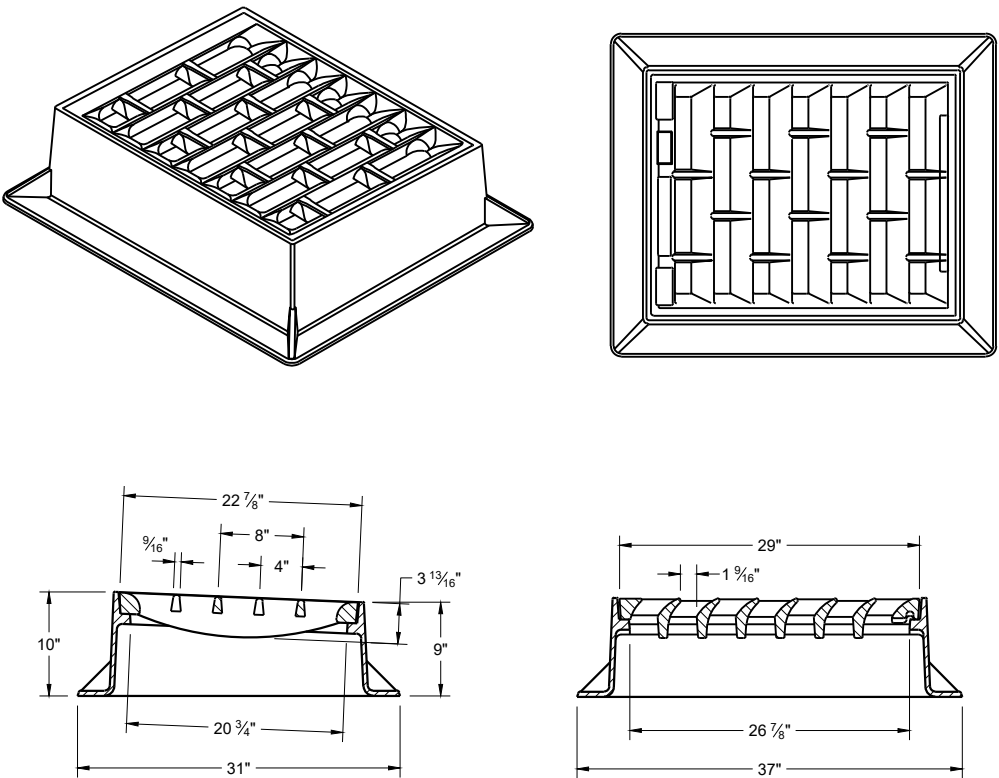
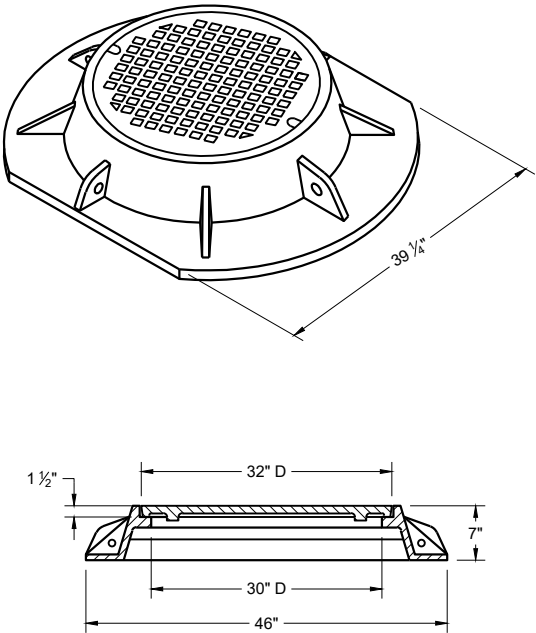
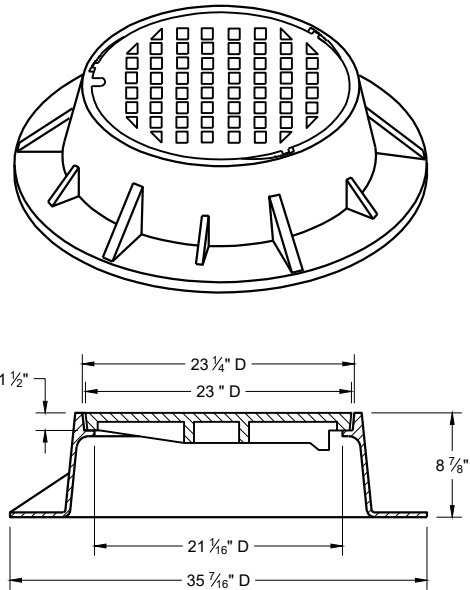
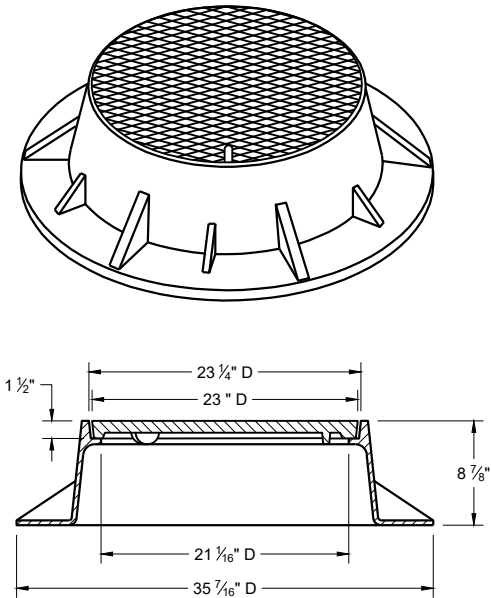
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

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.

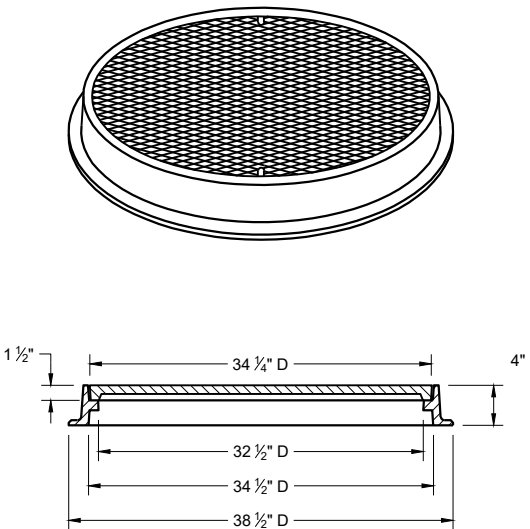
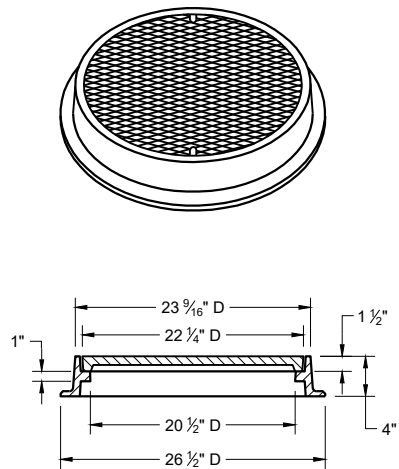
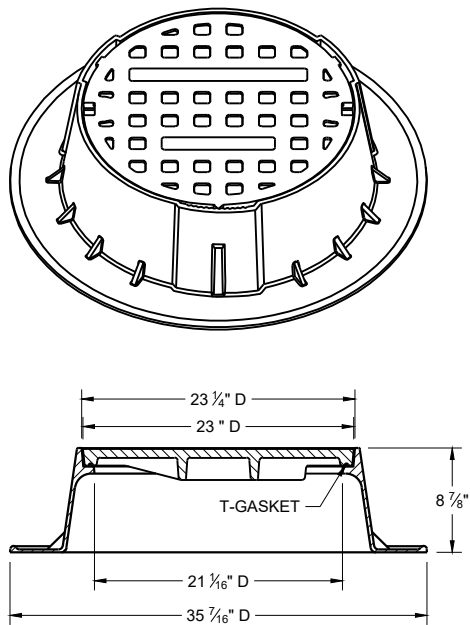
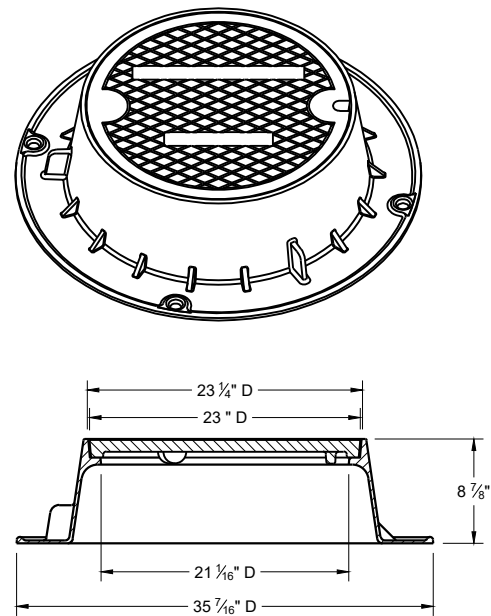
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



TYPE "K"

INLET COVER TYPE "BW"



TYPE "J"

TYPE "J" SPECIAL

TYPE "L"

TYPE "M"

NOTE: EITHER CASTING IS ACCEPTABLE

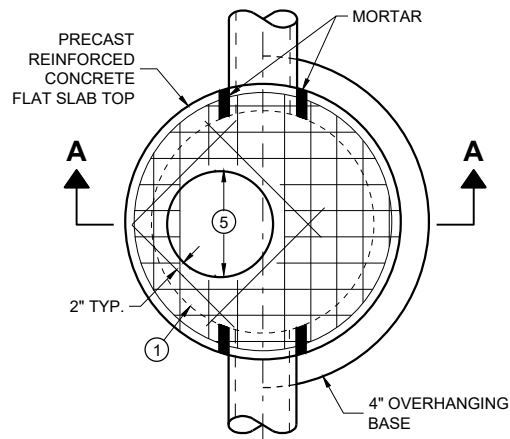
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

NOTE: EITHER CASTING IS ACCEPTABLE

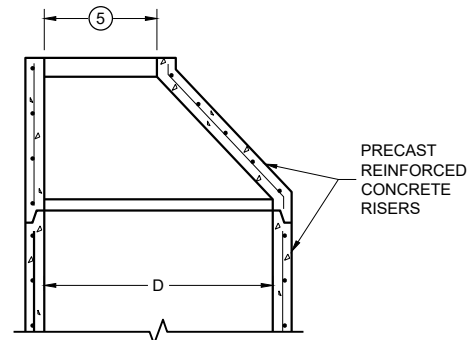
INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

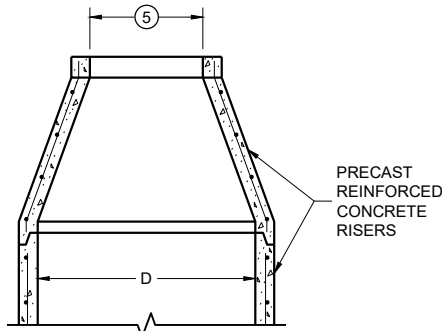
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP



OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP

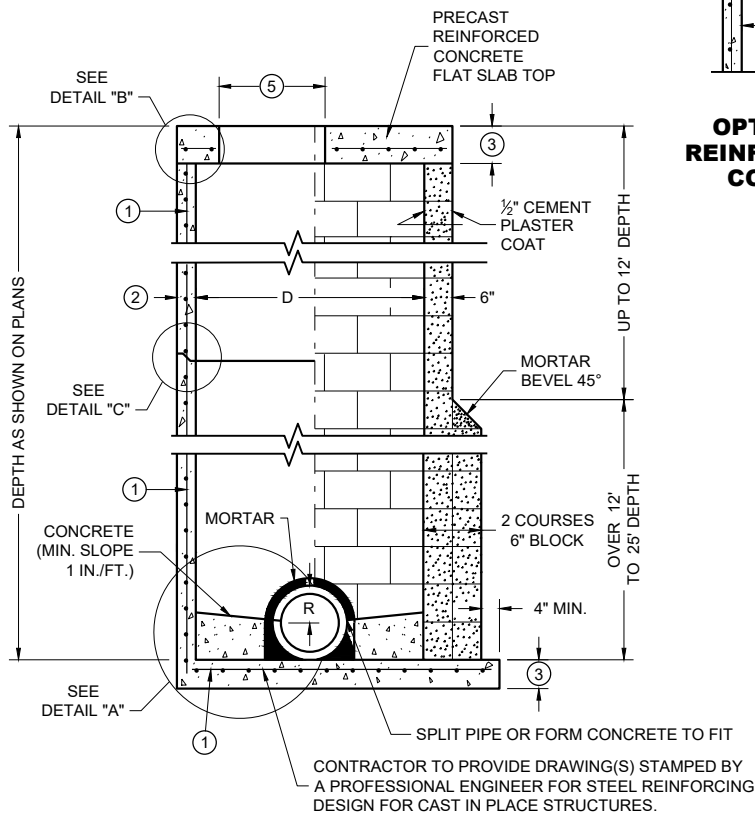
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	5	C	ALL JS	K	L	M
2 DIA.		X	X		X	
3 DIA.				X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

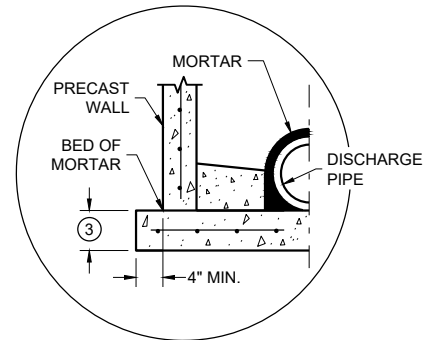
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



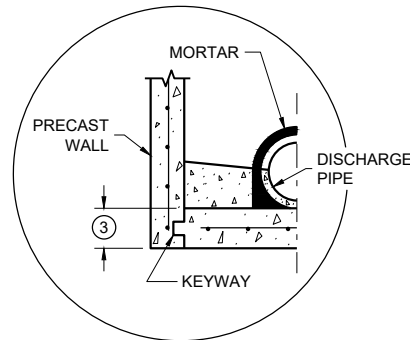
SECTION A - A

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

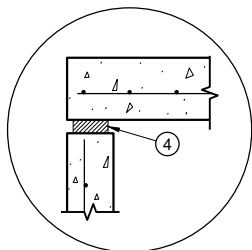


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

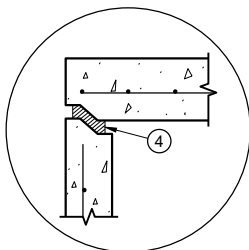


PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION

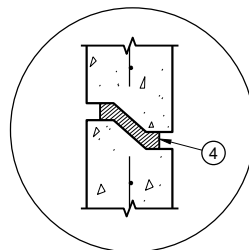
DETAIL "A"



TOP WITH PLAIN
END JOINT



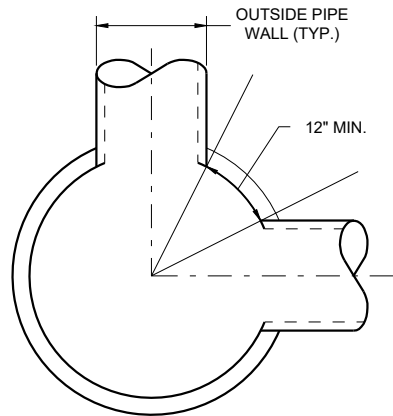
TOP WITH TONGUE
AND GROOVE JOINT



RISER WITH TONGUE
AND GROOVE JOINT

DETAIL "B"

DETAIL "C"



MINIMUM HORIZONTAL
PIPE SEPARATION

DETAIL "D"

GENERAL NOTES

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

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

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. 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 IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH 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.

ALL PRECAST MANHOLE 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.

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

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.

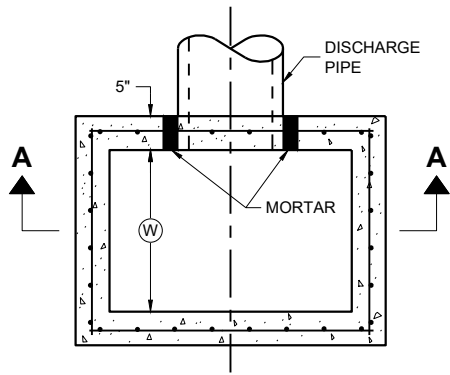
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 1 FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- 2 SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- 3 SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- 4 JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- 5 SEE MANHOLE COVER OPENING MATRIX.

MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

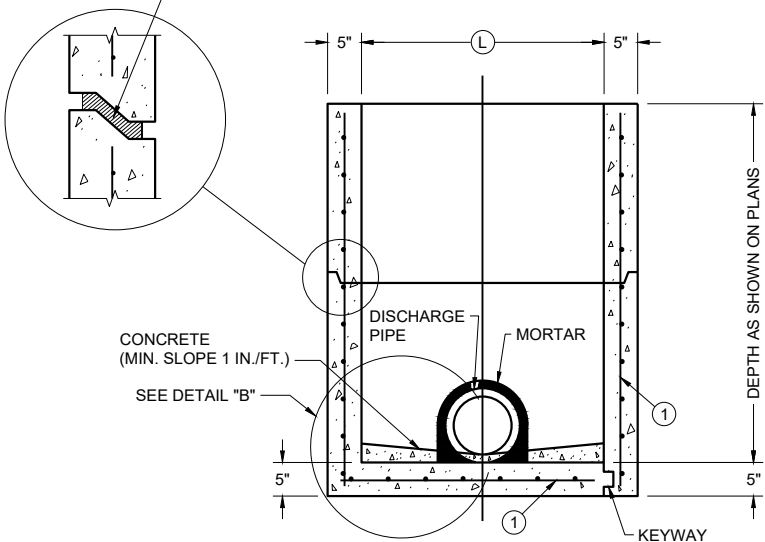
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW

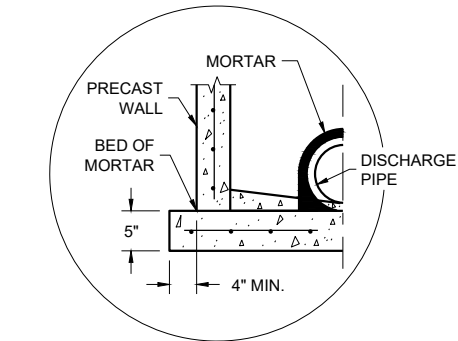
RISER JOINT TO BE SEALED WITH
A BUTYL RUBBER SEAL PER SEALANT
MANUFACTURERS RECOMMENDATIONS
CONFORMING TO ASTM C 990 (TYP.)



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

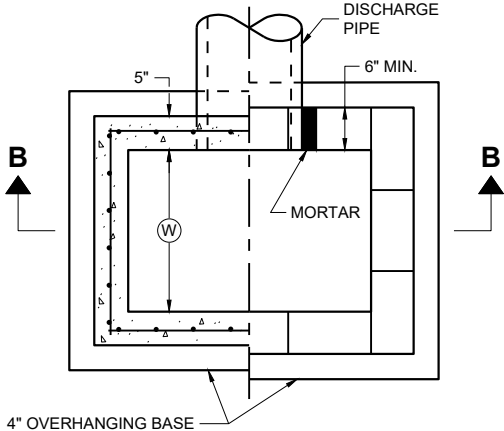
PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

SECTION A - A

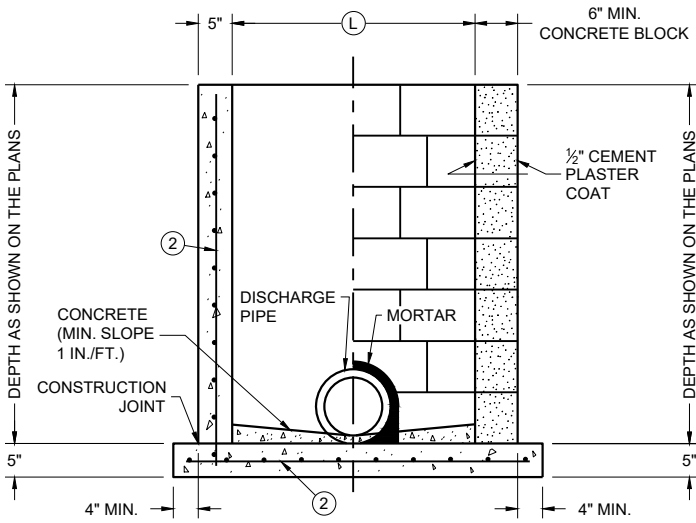


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "B"



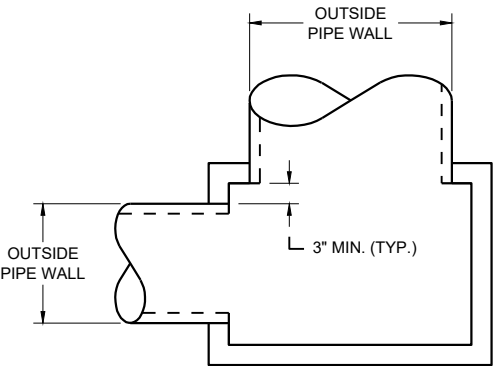
PLAN VIEW



CAST IN PLACE
REINFORCED
CONCRETE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

SECTION B - B



DETAIL "A"

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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES 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.

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND 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.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

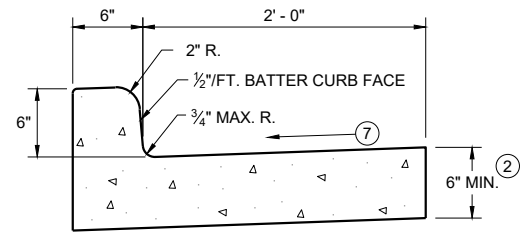
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

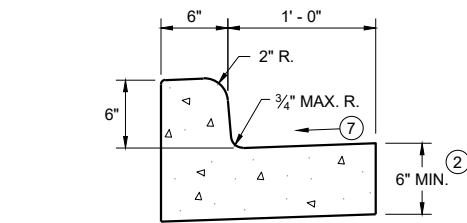
INLETS 2 X 2-FT, 2 X 2.5-FT,
2 X 3-FT, 2.5 X 3-FT
AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

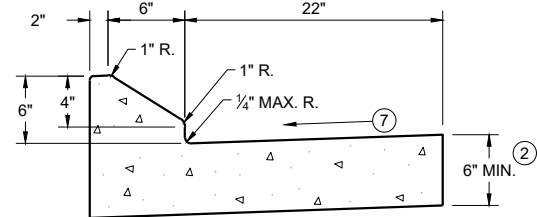


TYPES A^① & D

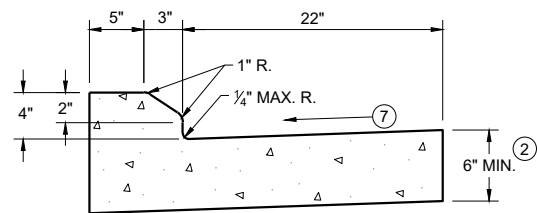


TYPES A^① & D

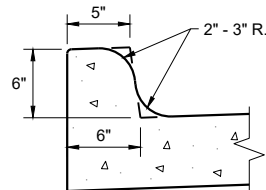
CONCRETE CURB AND GUTTER 18"



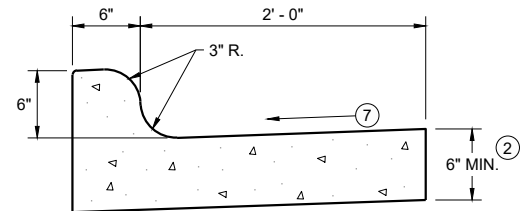
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

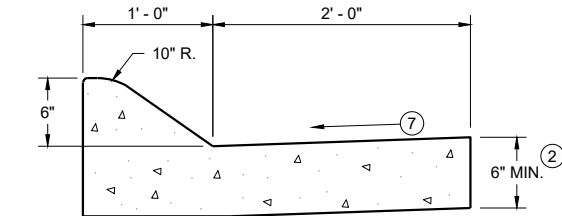


TYPES K^① & L
(OPTIONAL CURB SHAPE)

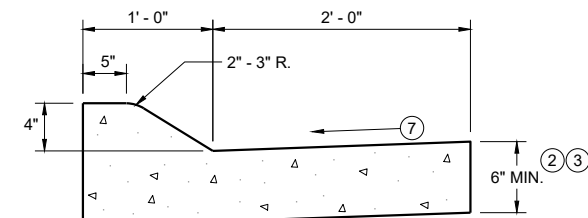


TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

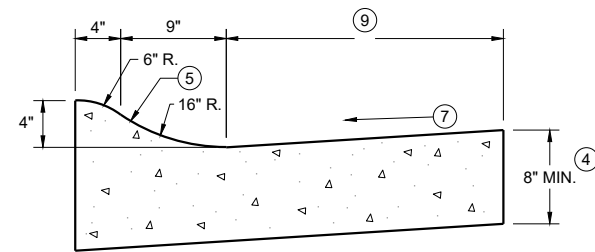


6" SLOPED CURB TYPES A^① & D



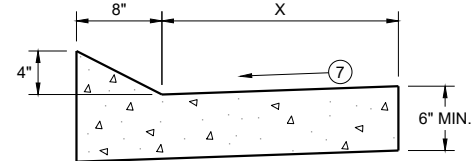
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

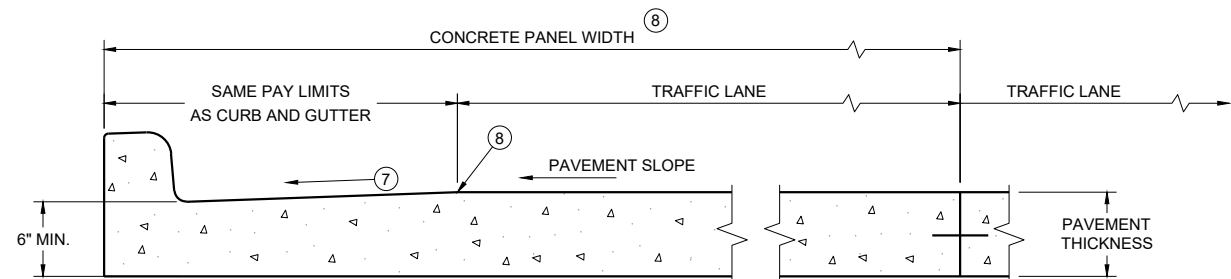


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

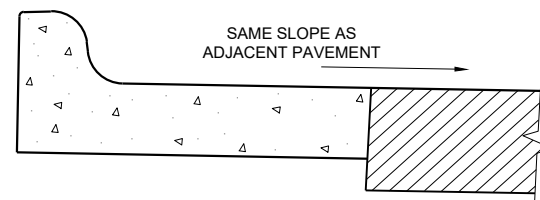
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

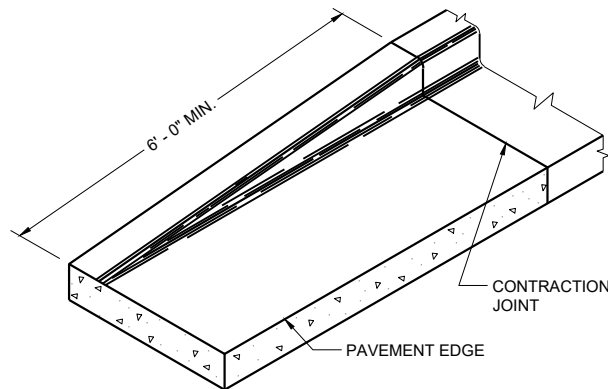
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

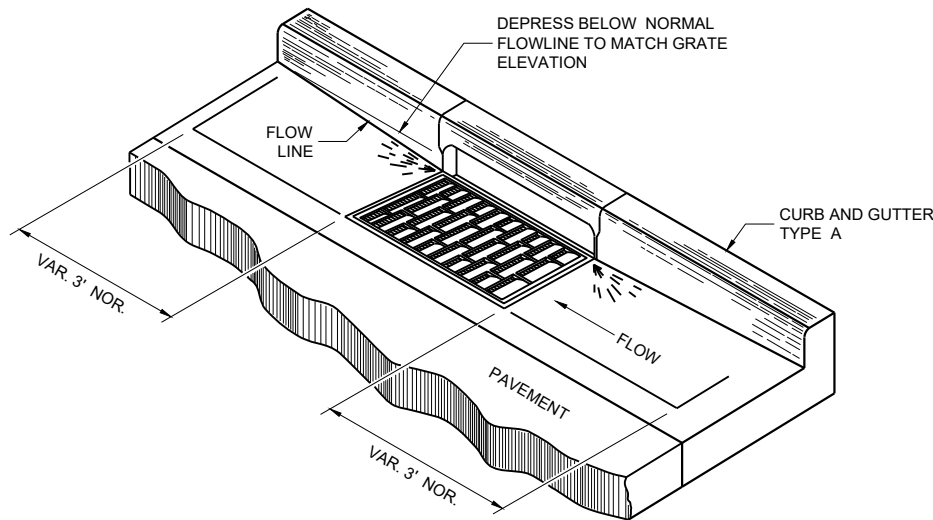
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

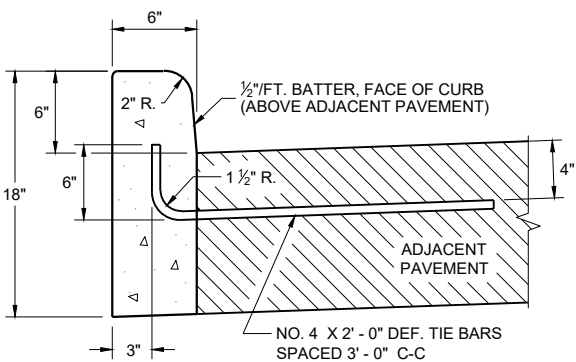


END SECTION CURB AND GUTTER

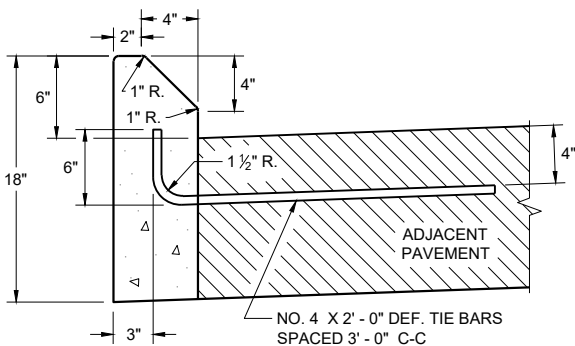


DETAIL OF CURB AND GUTTER AT INLETS

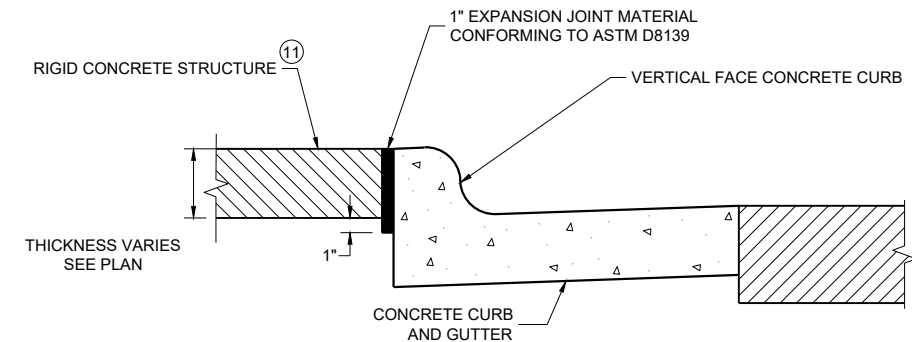
(TYPICAL H INLET COVER SHOWN)



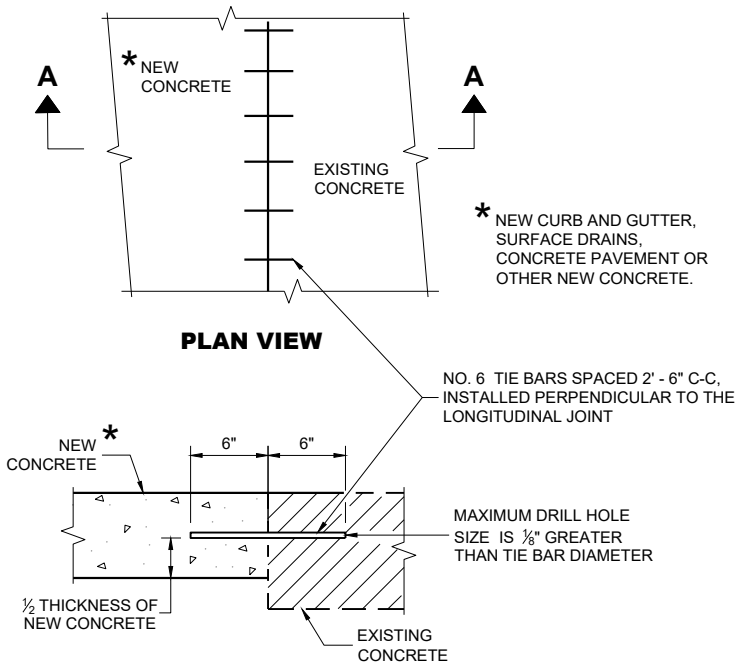
TYPES A^① & D



TYPES G^① & J
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

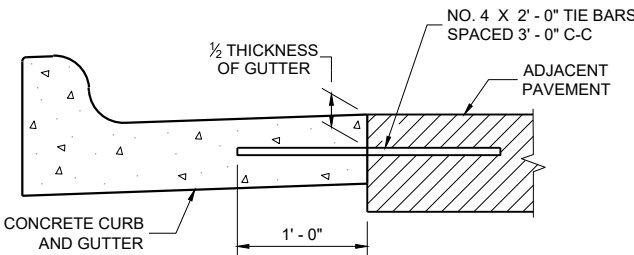
GENERAL NOTES

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

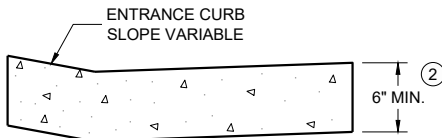
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION^①



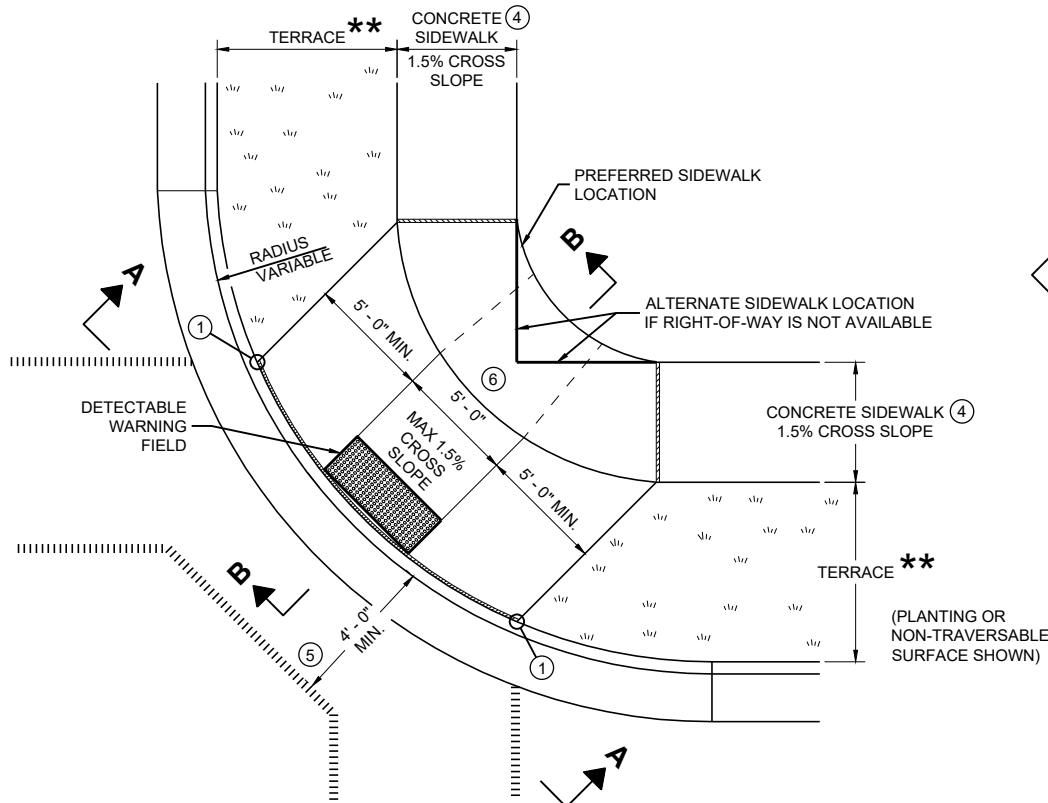
DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

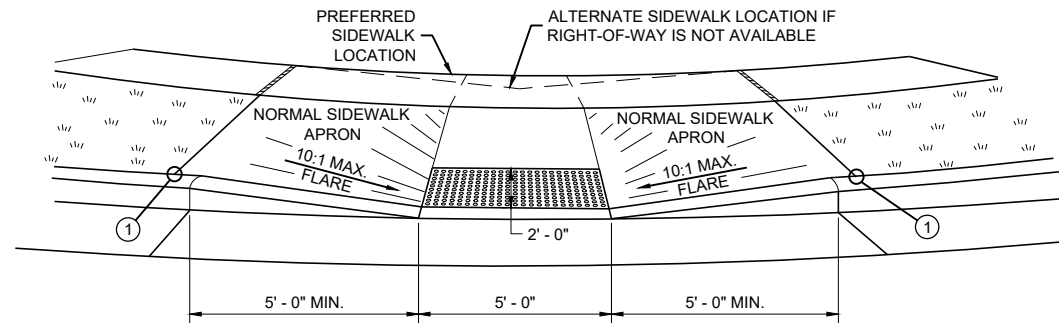
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

FHWA

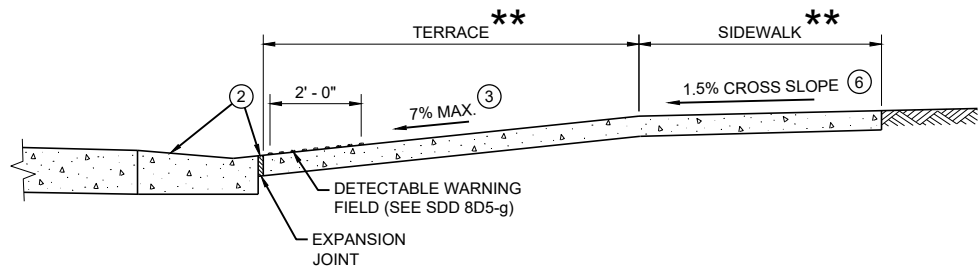


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

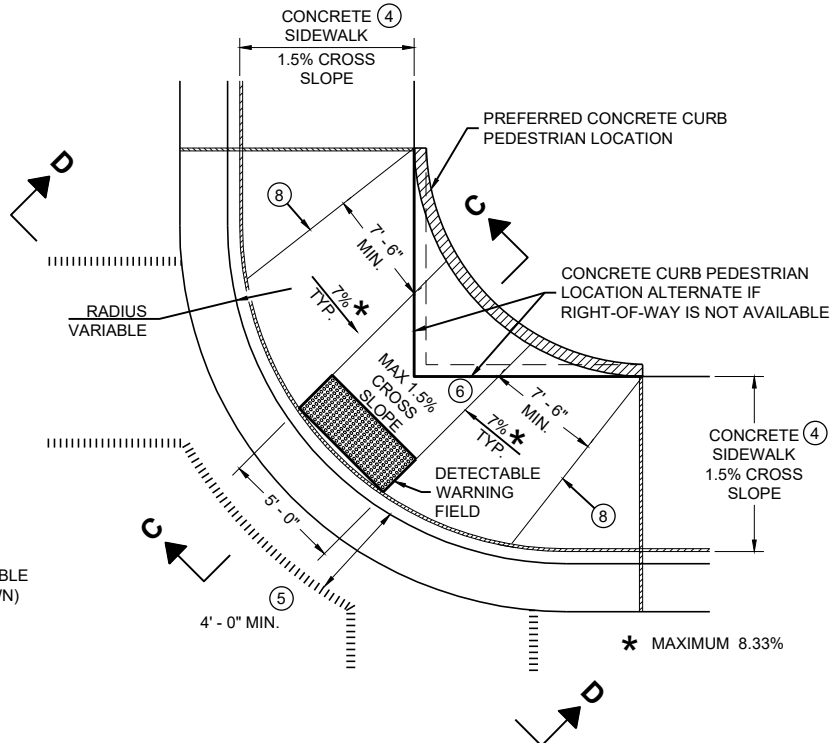


VIEW A - A FOR TYPE 1

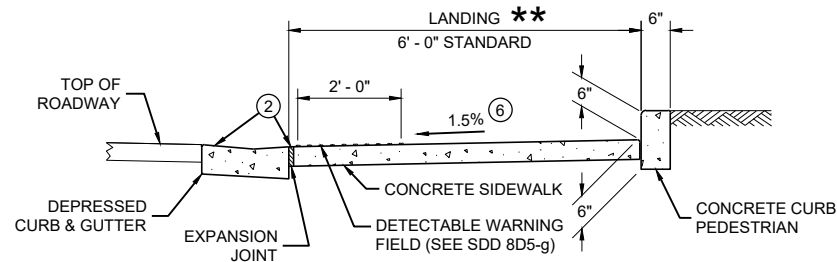
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



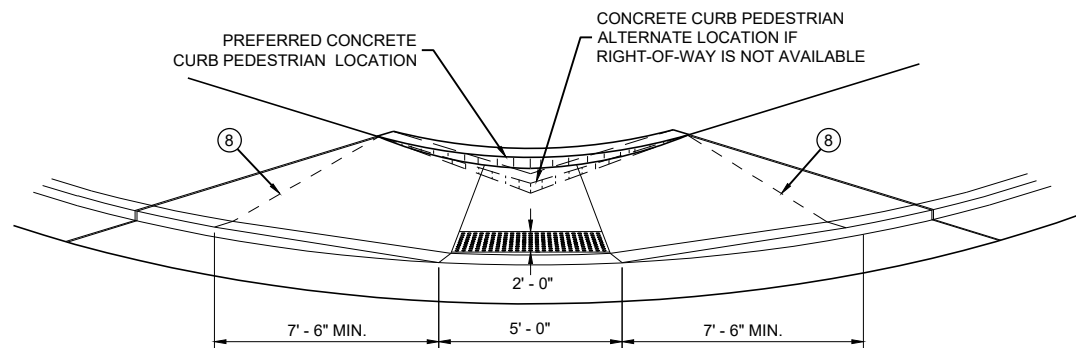
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

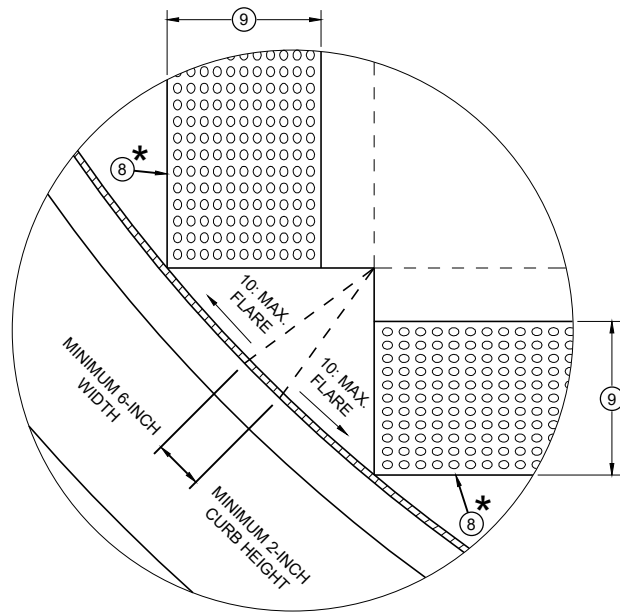
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
 - GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

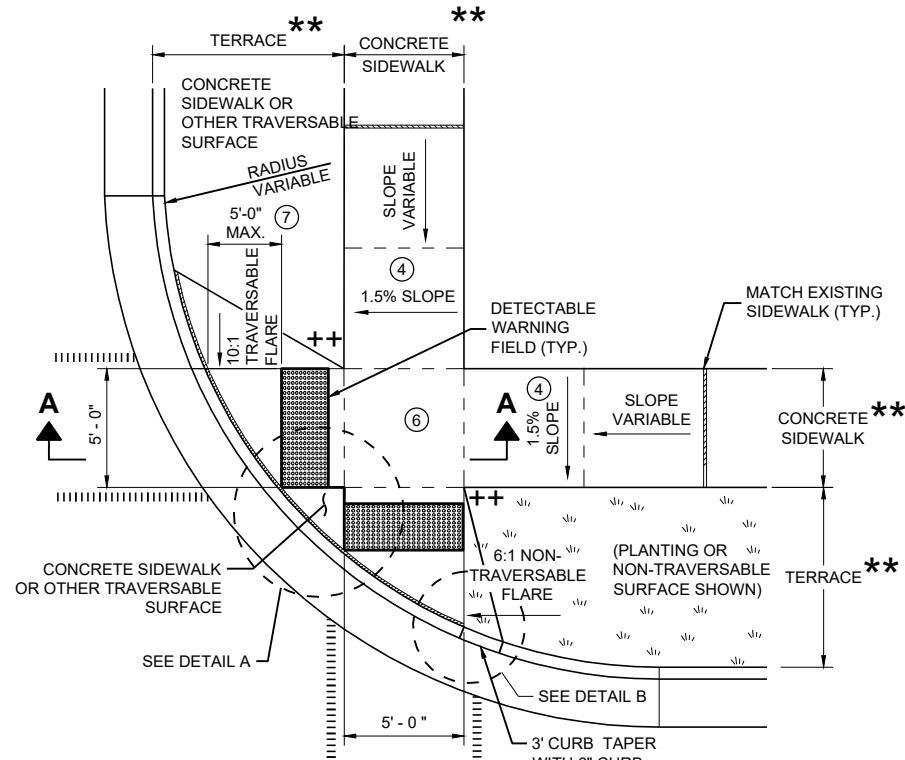
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

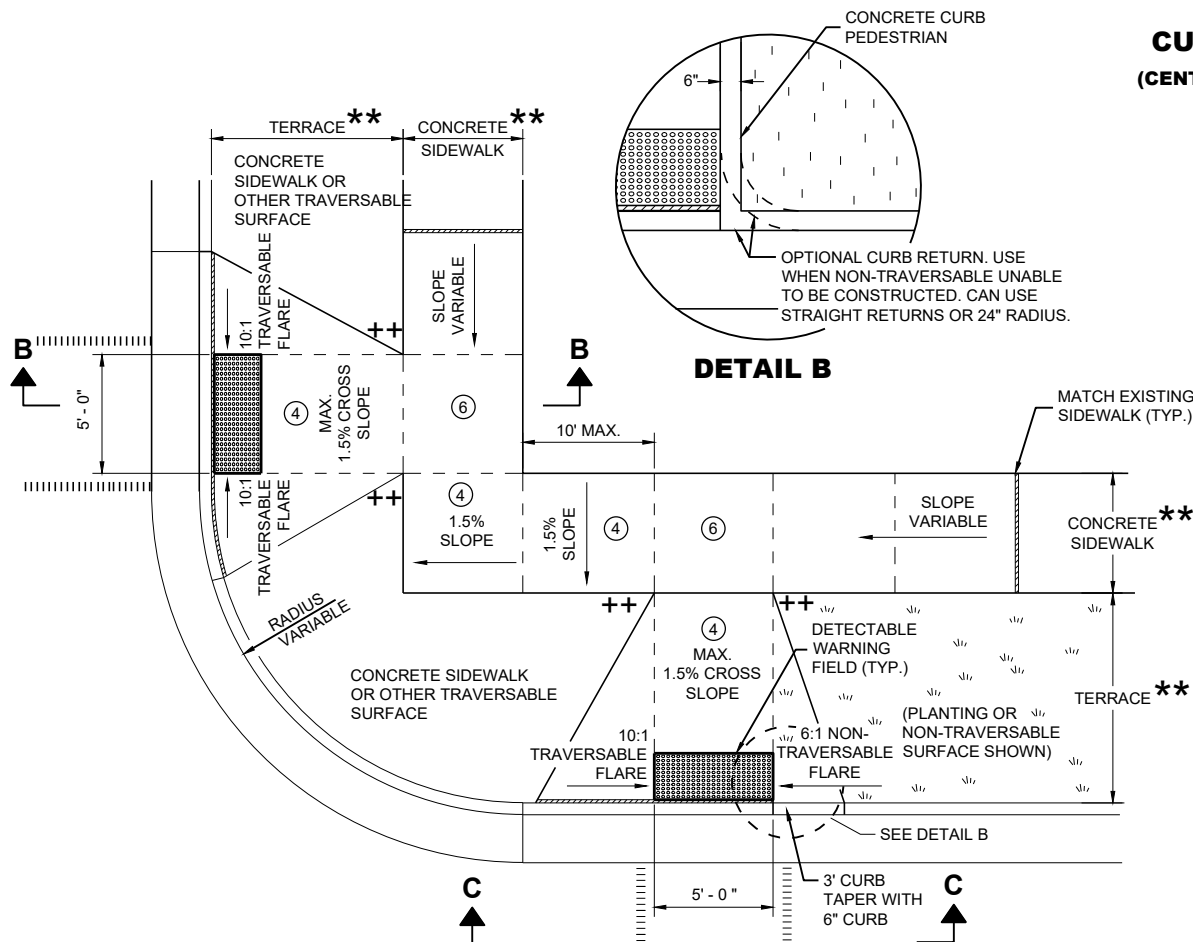
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



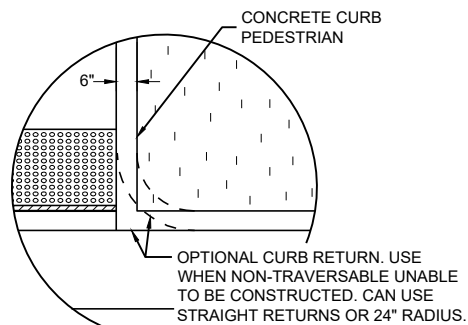
DETAIL A



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



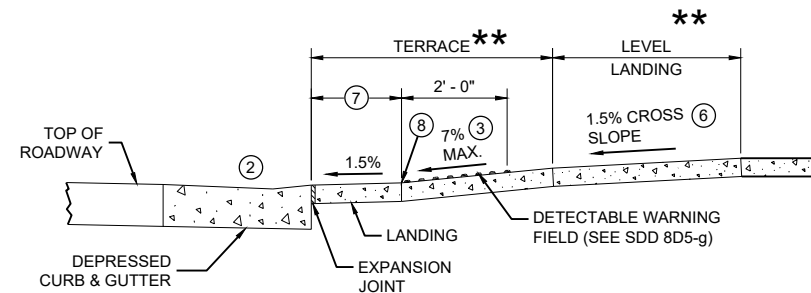
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



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.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
 - WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - 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.

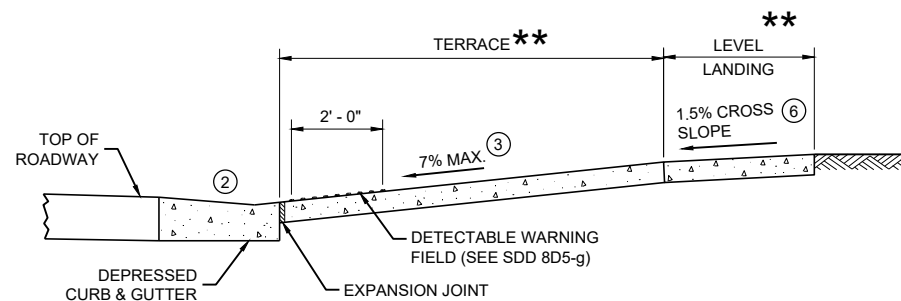


SECTION A - A FOR TYPE 2

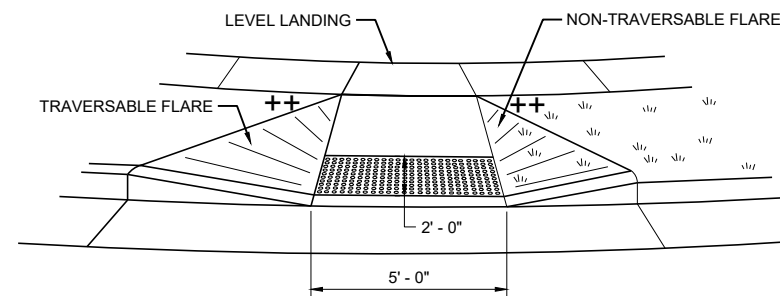
- * MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

LEGEND

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



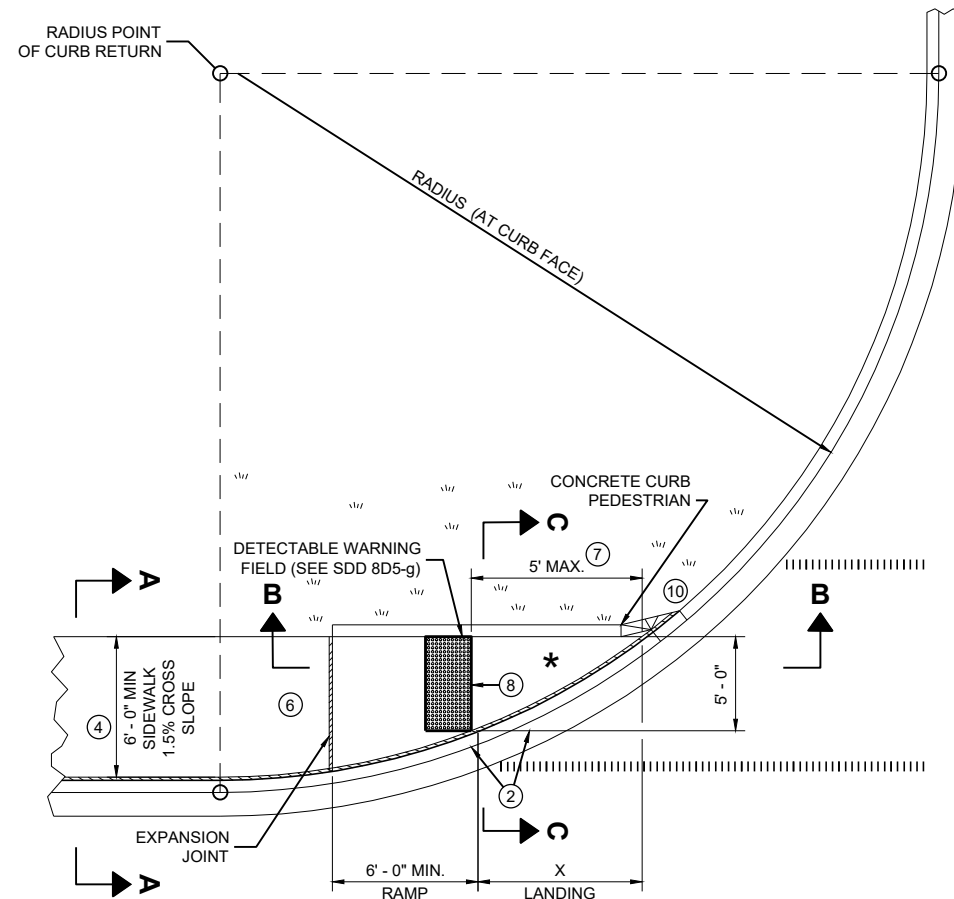
SECTION B - B FOR TYPE 3



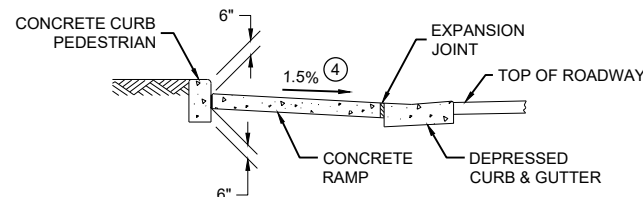
VIEW C - C FOR TYPE 3

CURB RAMPS
TYPE 2 AND 3

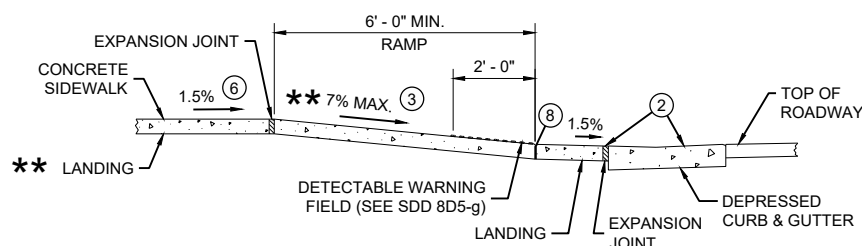
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW
CURB RAMP TYPE 4A**



SECTION C - C FOR TYPE 4A



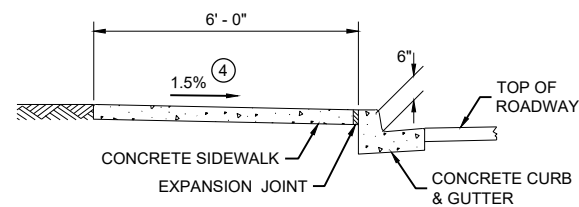
**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

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

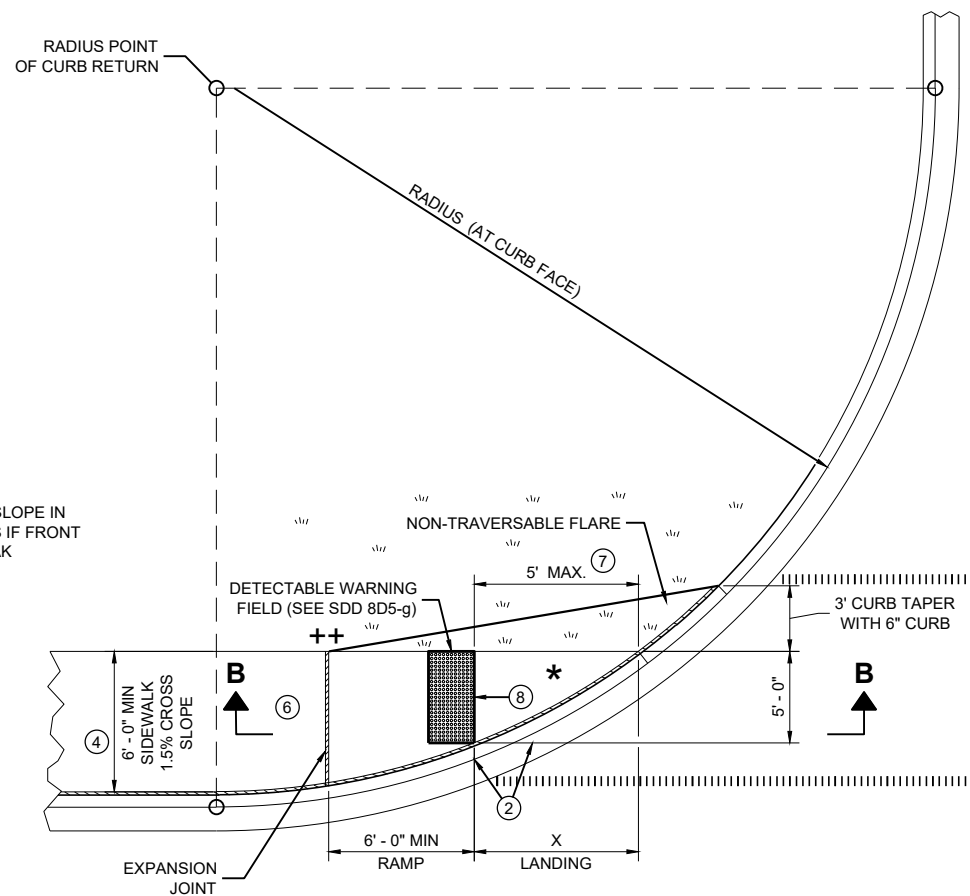
*** MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



**PLAN VIEW
CURB RAMP TYPE 4A1**

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

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

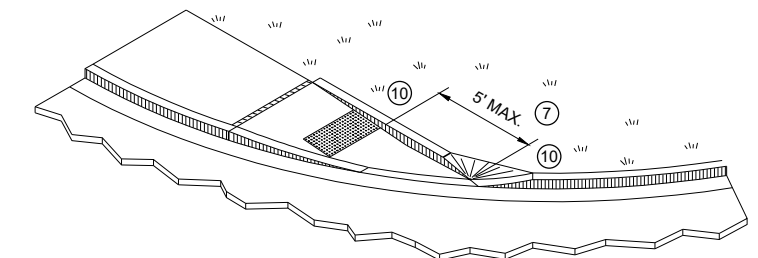
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

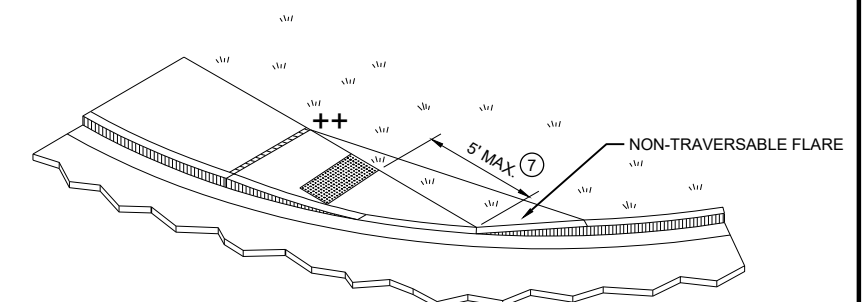
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

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



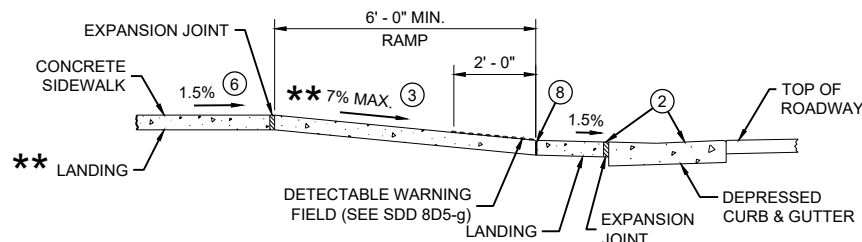
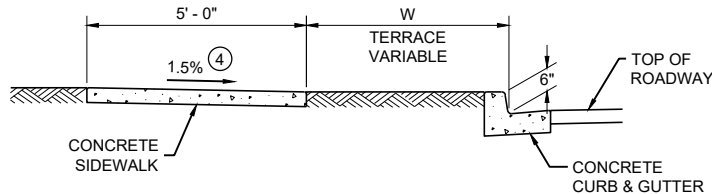
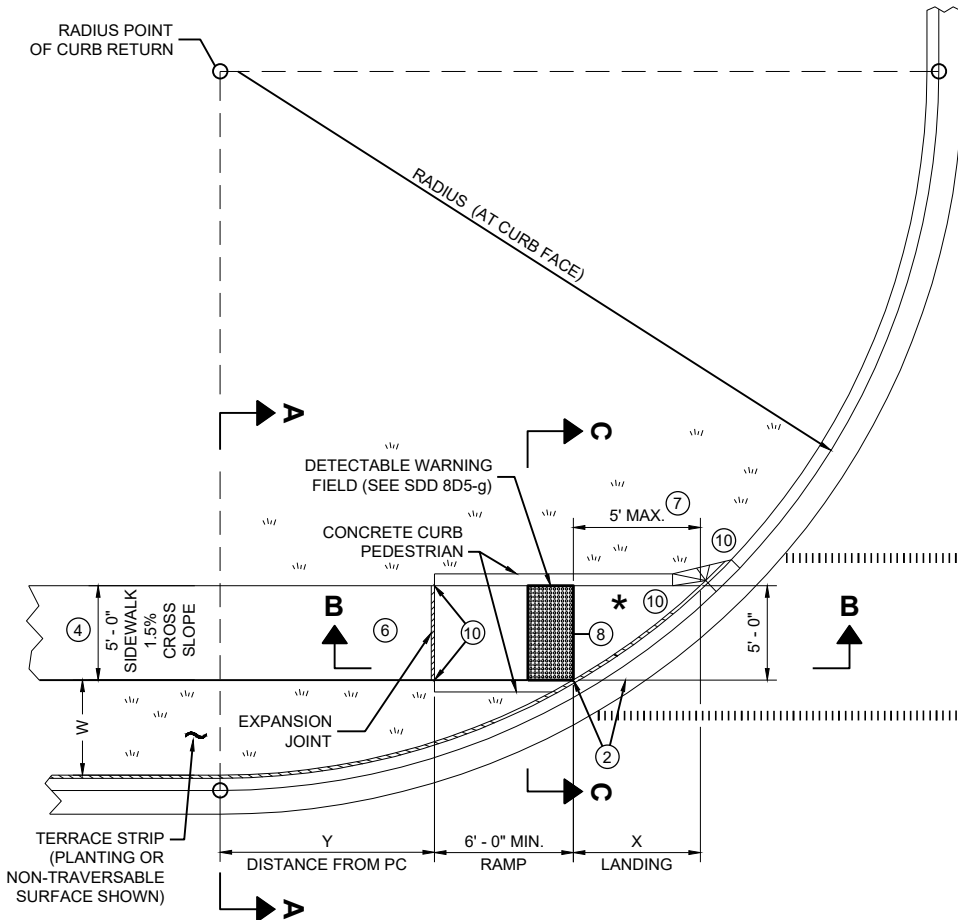
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

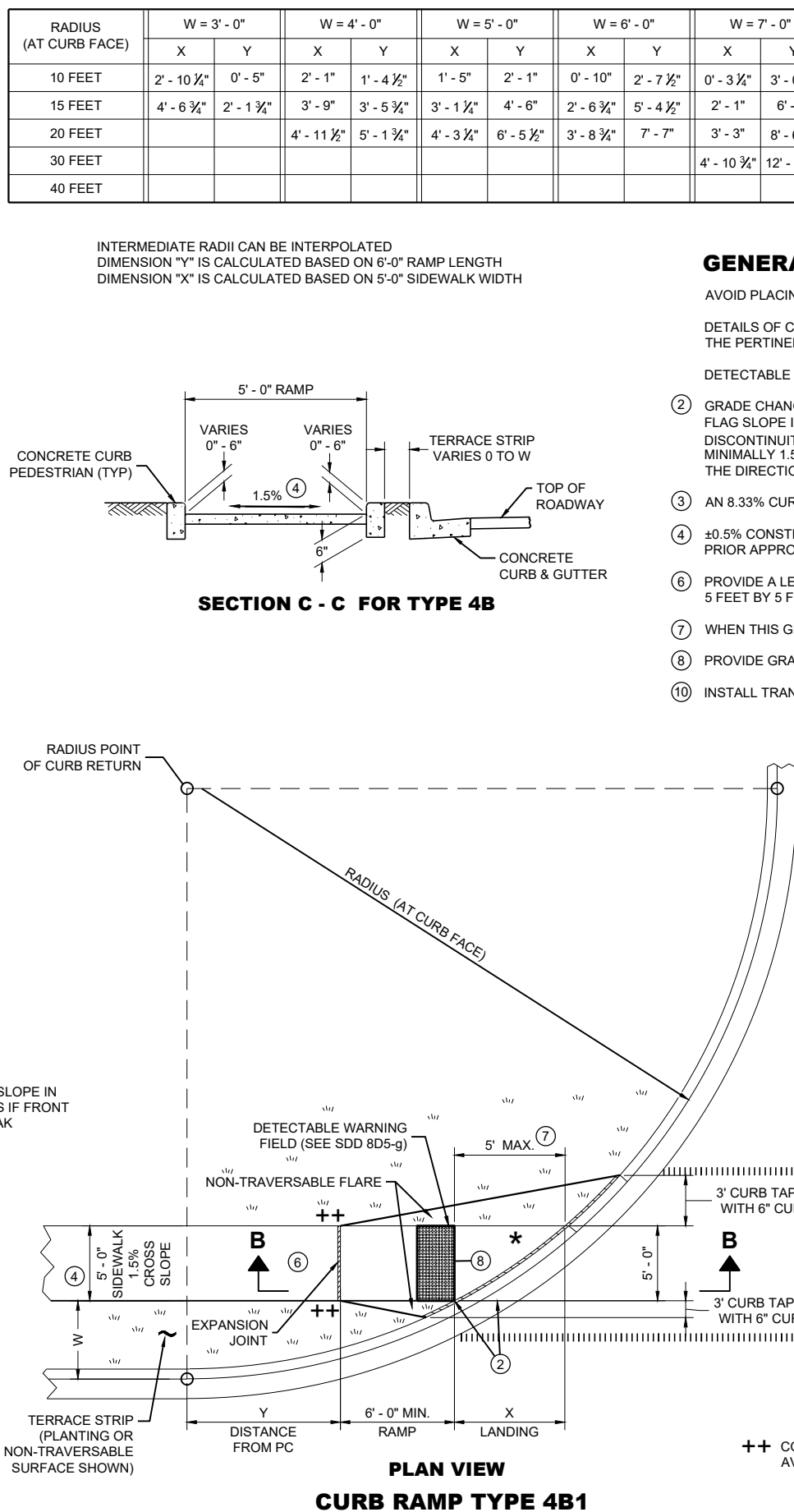
CURB RAMPS TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

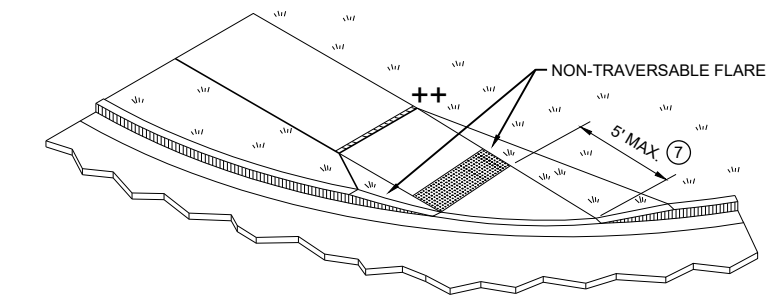
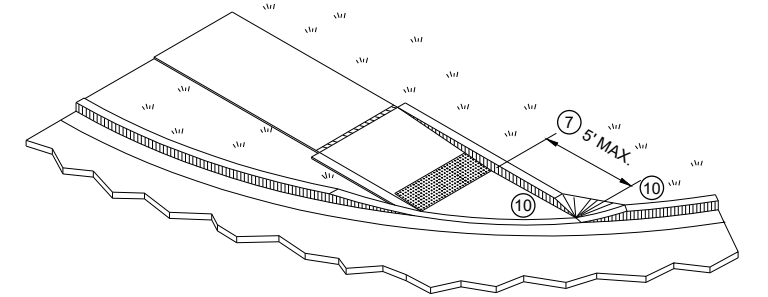
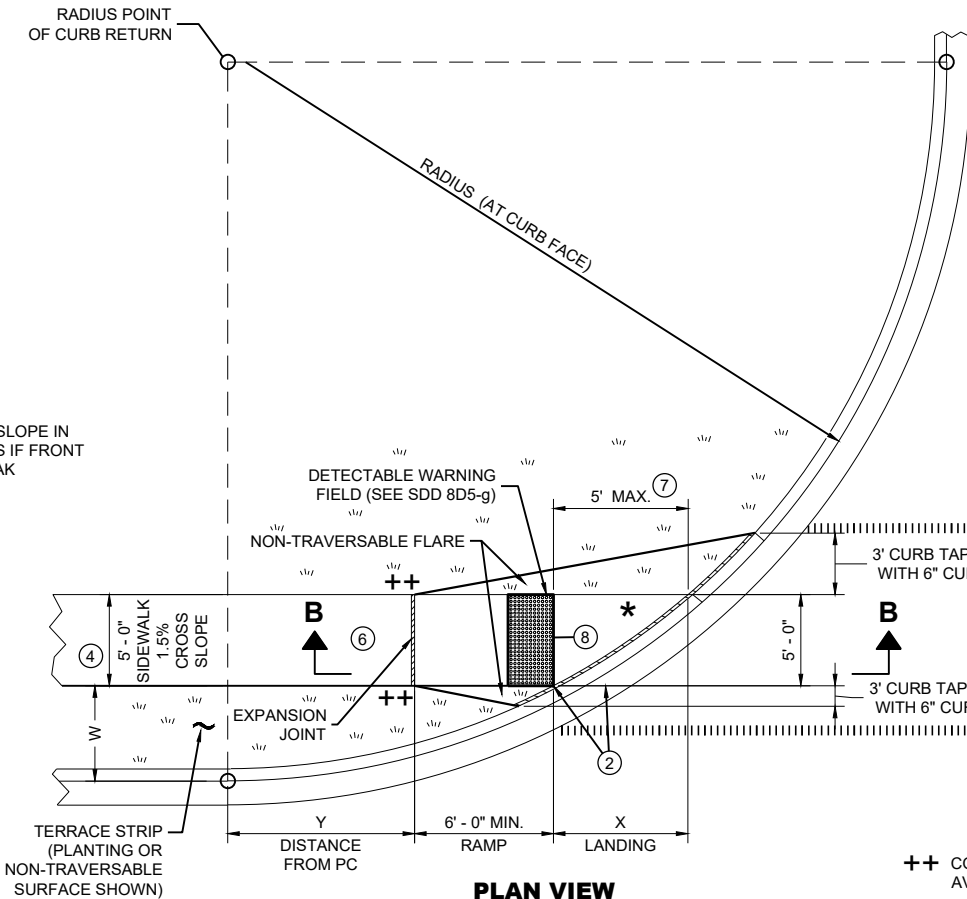
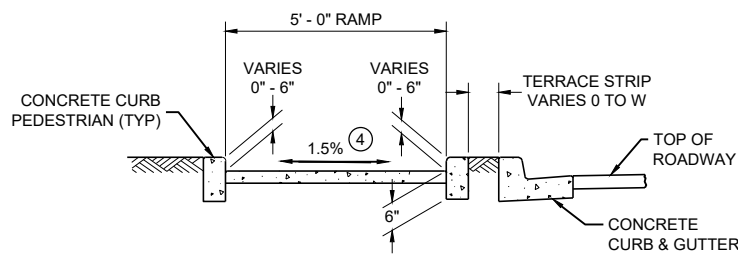


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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



++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



- 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 1/4" 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.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



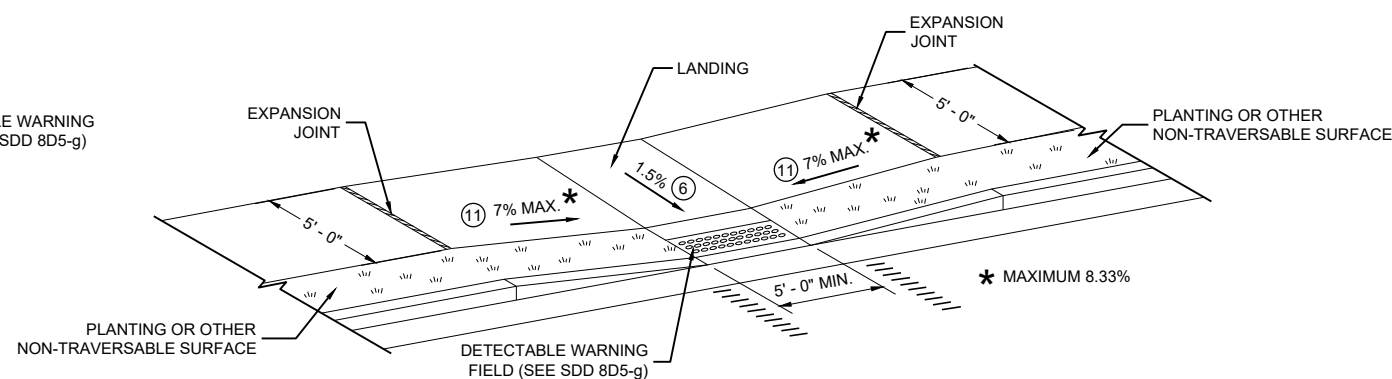
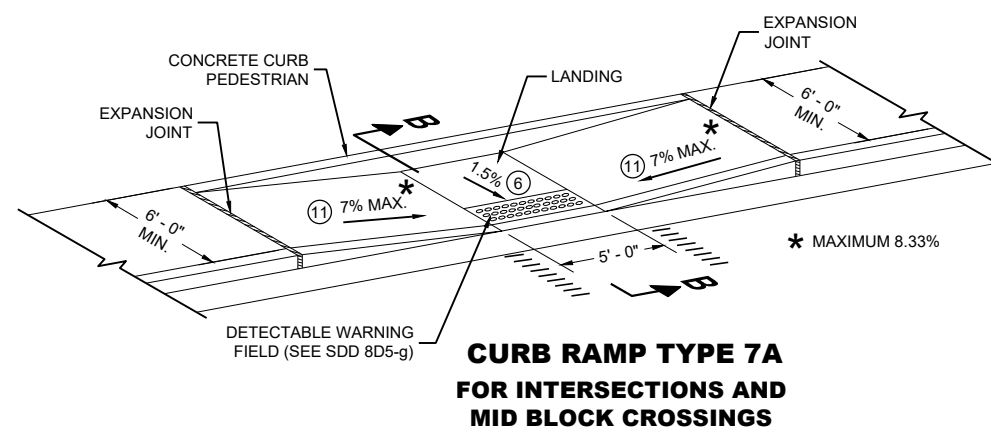
SECTION A - A FOR TYPE 5

The diagram illustrates the cross-section of a median island and the detectable warning field. The median island is shown with a width of 5' - 0" MIN. The detectable warning field is shown with a width of 5' - 0" MIN. The diagram also indicates a variable width for the median island and a variable width for the detectable warning field. The diagram includes a label for the median island and a label for the detectable warning field. The diagram also includes a label for the width of the median island and a label for the width of the detectable warning field. The diagram includes a label for the variable width of the median island and a label for the variable width of the detectable warning field. The diagram includes a label for the 2'-0" MIN width of the detectable warning field and a label for the 2'-0" TYP width of the detectable warning field. The diagram includes a label for the 1% MINIMUM (PROVIDE DRAINAGE) requirement. The diagram includes a label for the 5' - 0" MIN. width of the detectable warning field. The diagram includes a label for the 10' width of the detectable warning field. The diagram includes a label for the 13' width of the detectable warning field. The diagram includes a label for the 2'-0" MIN width of the detectable warning field. The diagram includes a label for the 2'-0" TYP width of the detectable warning field. The diagram includes a label for the 1% MINIMUM (PROVIDE DRAINAGE) requirement. The diagram includes a label for the 5' - 0" MIN. width of the detectable warning field. The diagram includes a label for the 10' width of the detectable warning field. The diagram includes a label for the 13' width of the detectable warning field.

CURB RAMP TYPE 5

MEDIAN ISLAND

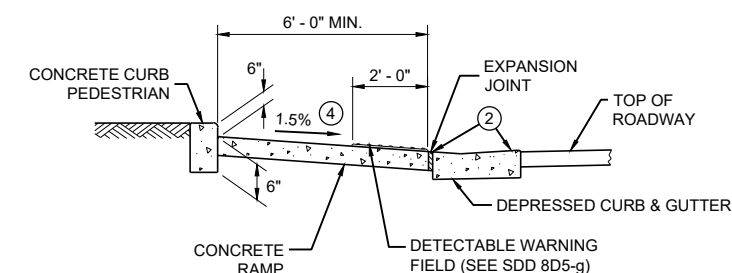
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7B FOR INTERSECTIONS AND MID BLOCK CROSSINGS

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE 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/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL 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.

	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

6



SDD 08D05-21f



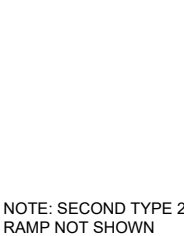
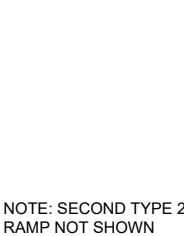
SDD 08D05-21f



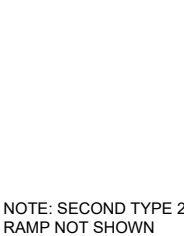
SDD 08D05-21f



SDD 08D05-21f



NOTE: SECOND TYPE 2
RAMP NOT SHOWN



NOTE: SECOND TYPE 2
RAMP NOT SHOWN

THE BRE

THE BRE

THE BRE

THE BRE

THE BRE

THE BRE

THE BRE

THE BRE

- ## THE BRE

THE BRE



THE BRE



THE BRE



THE BRE

THE BRE

THE BRE

THE BRE

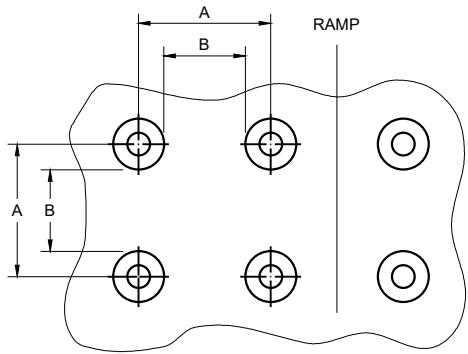
THE BRE

THE BRE

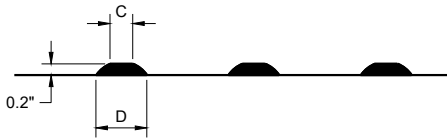
THE BRE

	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.

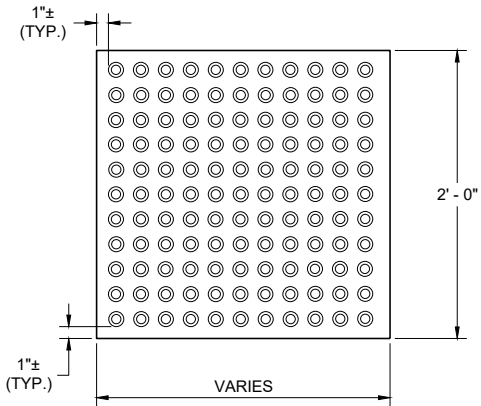


PLAN VIEW

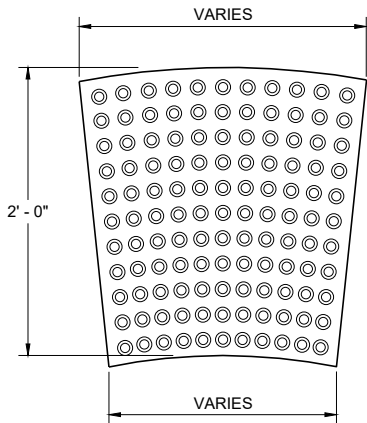


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

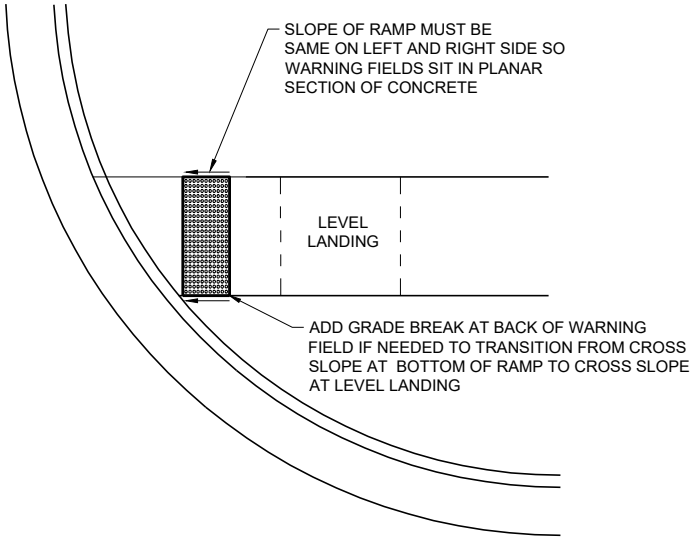


RECTANGULAR
PLATES

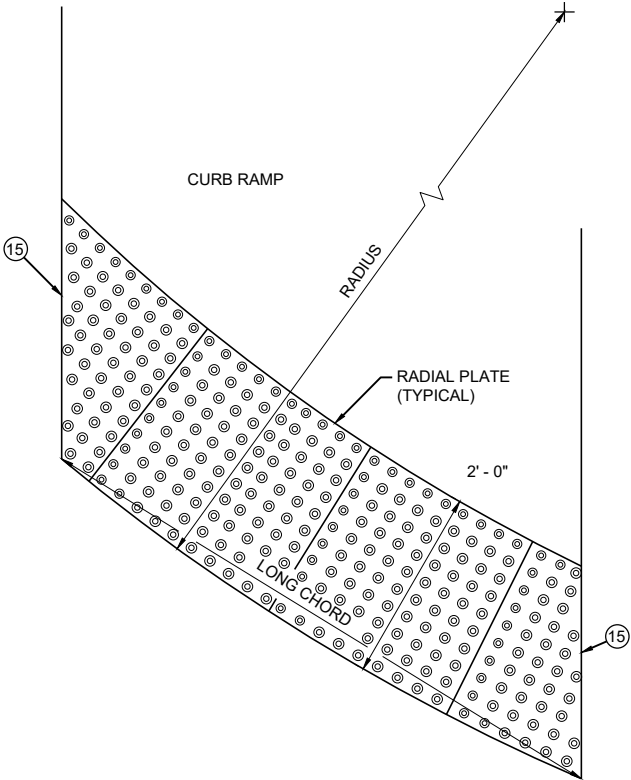


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

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 FILED ARE PROHIBITED.

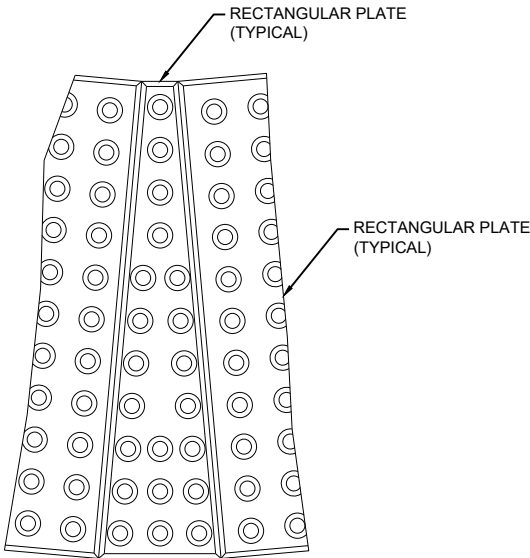
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

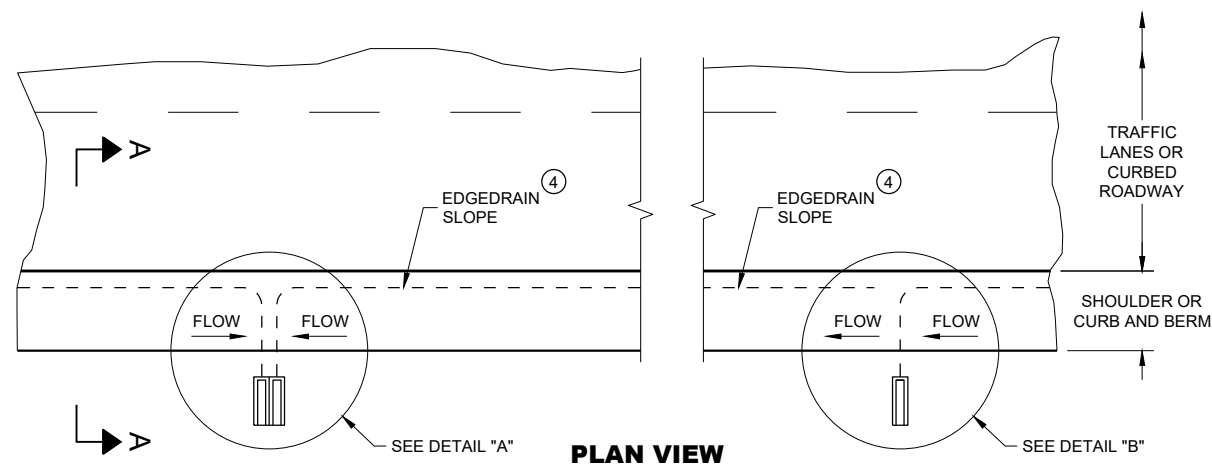


PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

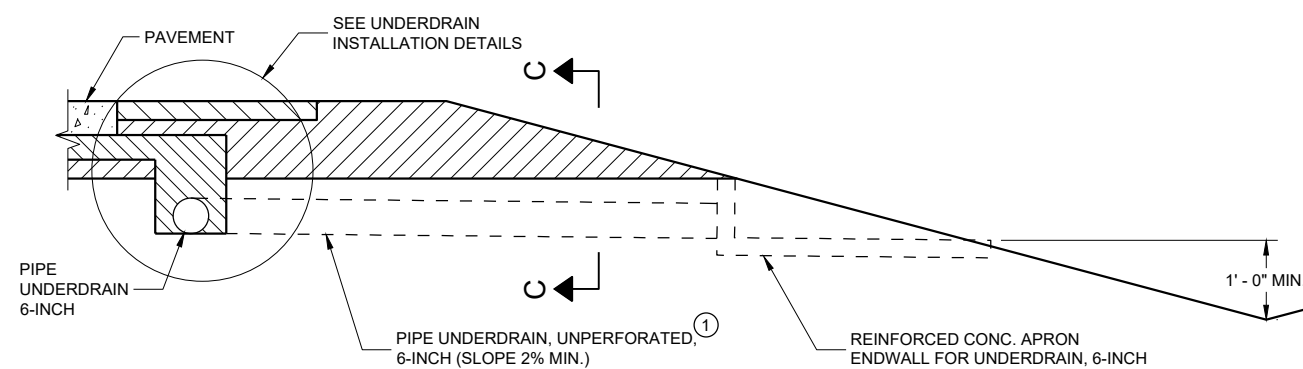
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

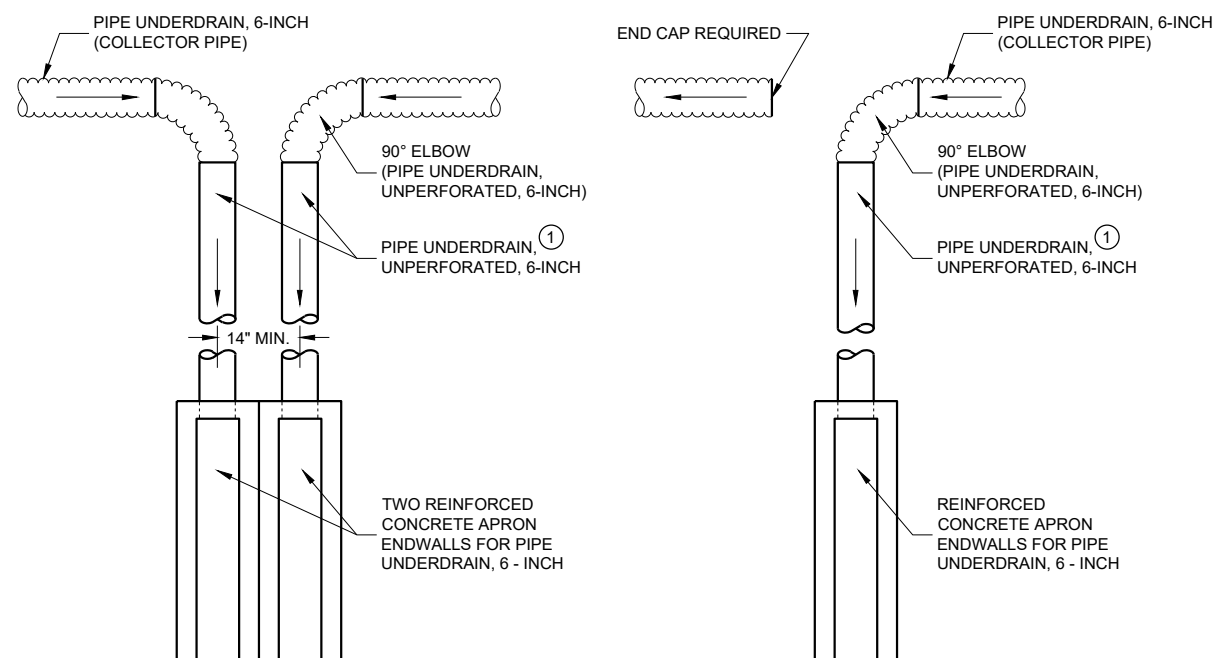
APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



ROADWAY WITH SHOULDERS OR CURBS (EDGEDRAIN CONNECTS TO ROADSIDE) ⁽²⁾



SECTION A - A
RURAL CROSS SECTION



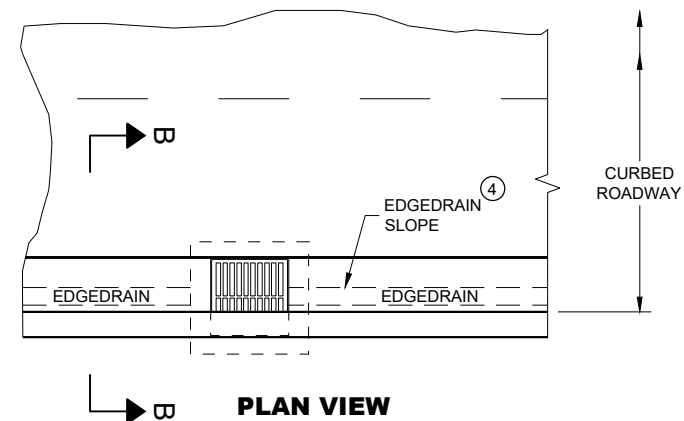
DETAIL "A"

TO BE USED AT LOW POINT LOCATIONS

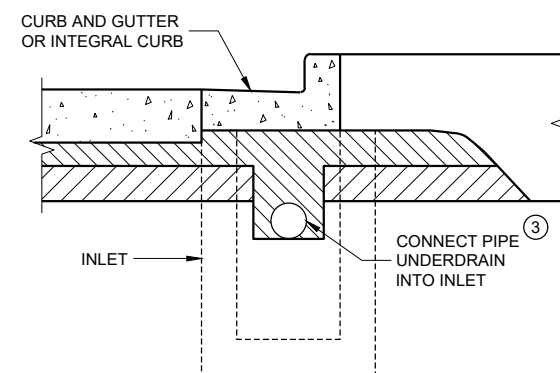
DETAIL "B"

TO BE USED AT INTERMEDIATE LOCATIONS

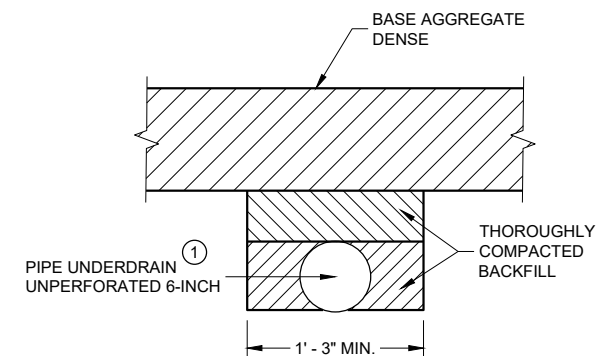
TYPICAL DRAIN OUT DETAILS



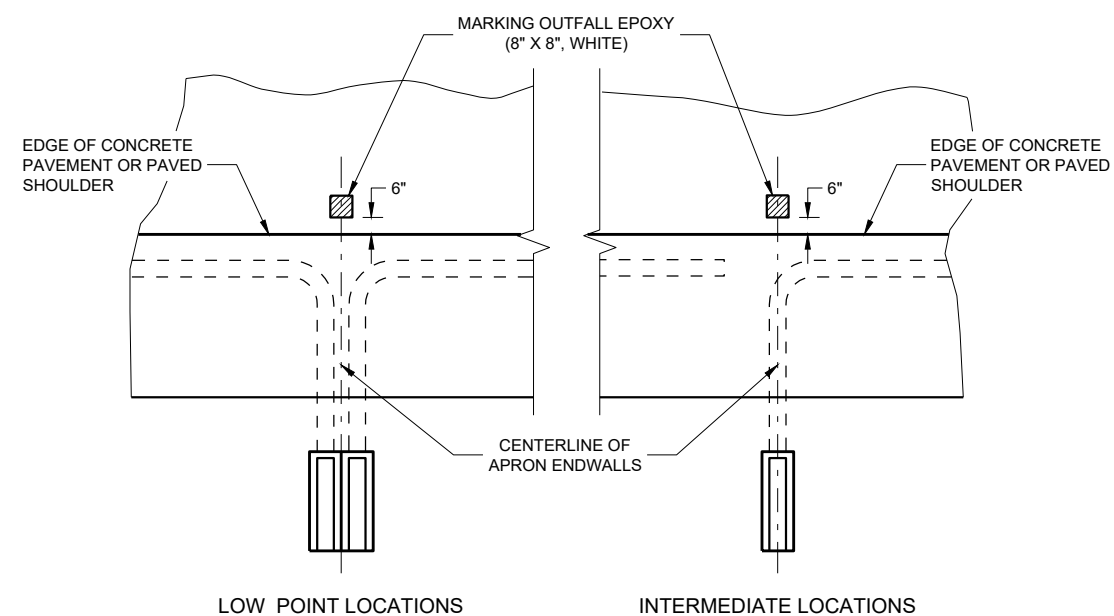
ROADWAY WITH CURBS (EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



SECTION B - B
URBAN CROSS SECTION



SECTION C - C
TRENCH FOR OUTFALL PIPE



PAVEMENT MARKINGS FOR OUTFALL MARKERS

GENERAL NOTES

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

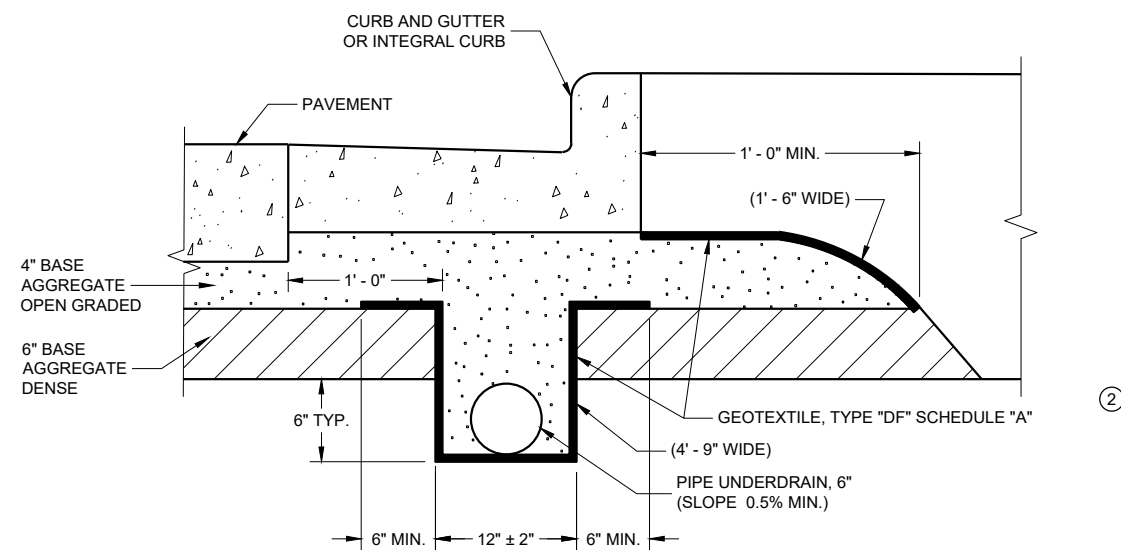
- ① UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

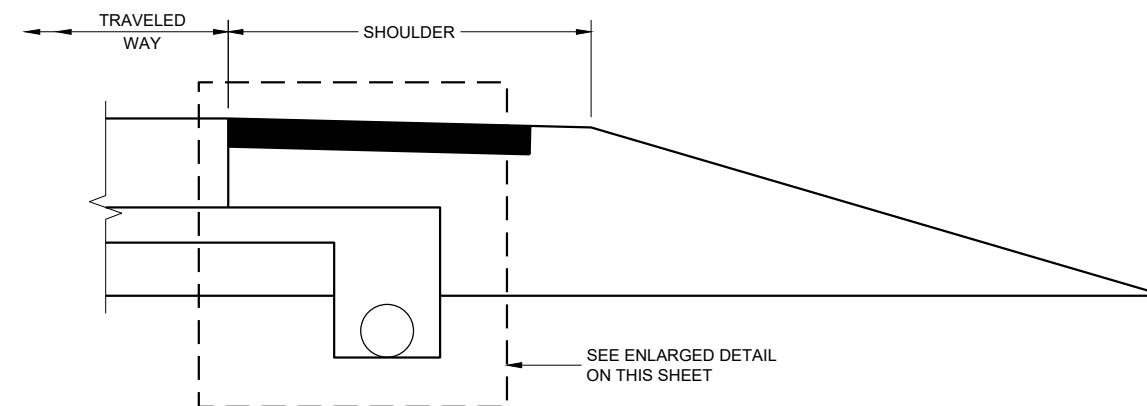
TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.
- ② MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.
- ③ EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.
- ④ EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.

EDGEDRAIN OUTLET AND OUTFALL MARKERS

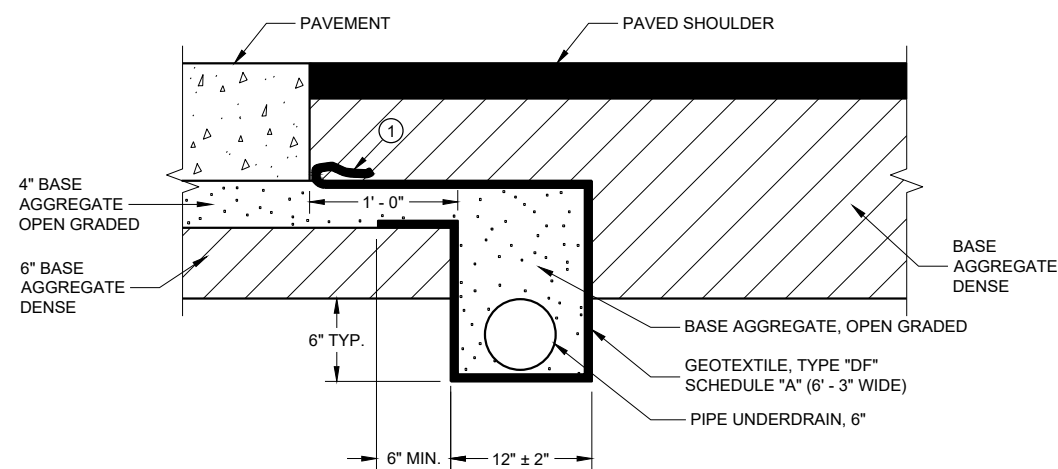
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 83



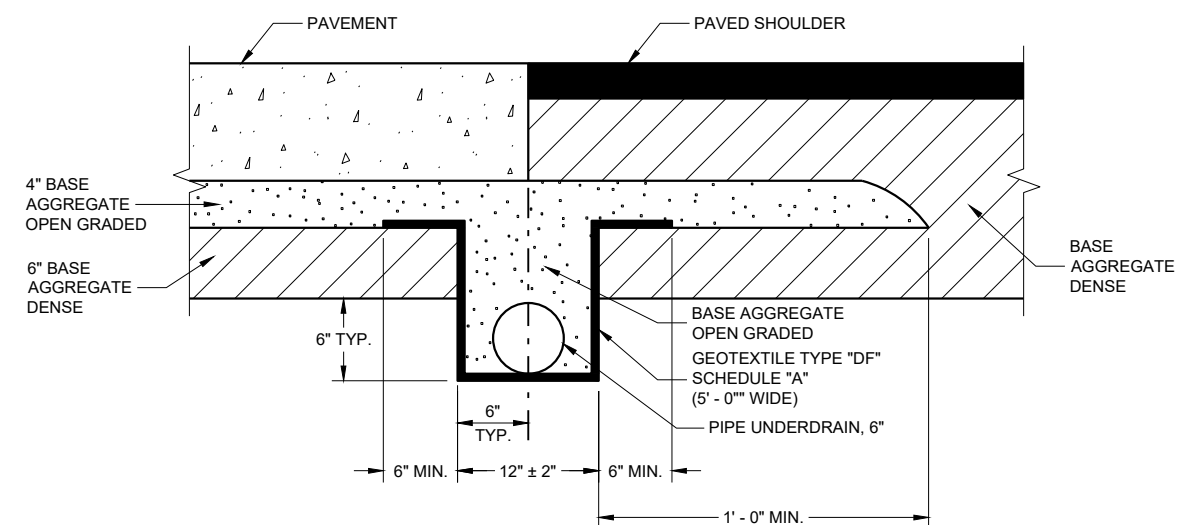
EDGEDRAIN IN URBAN ROADWAY



RURAL CROSS SECTION



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



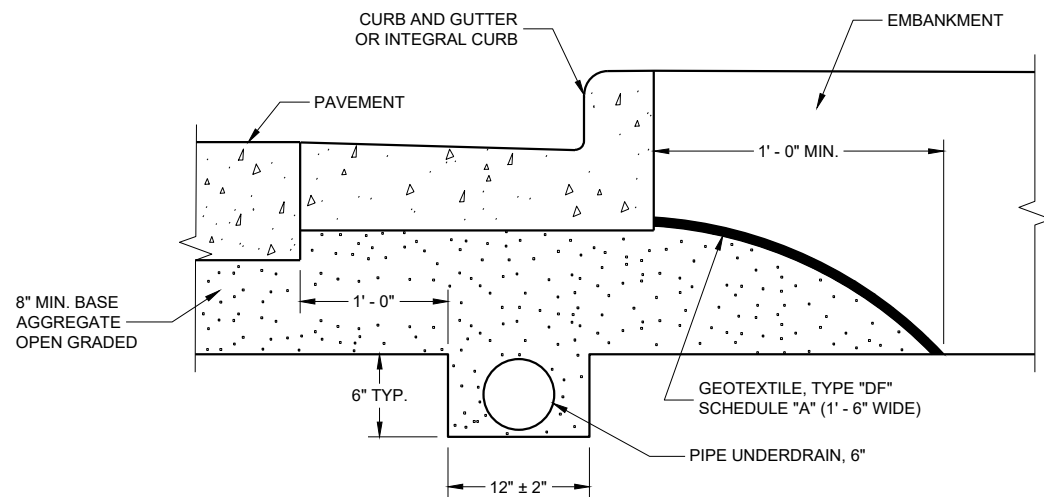
PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

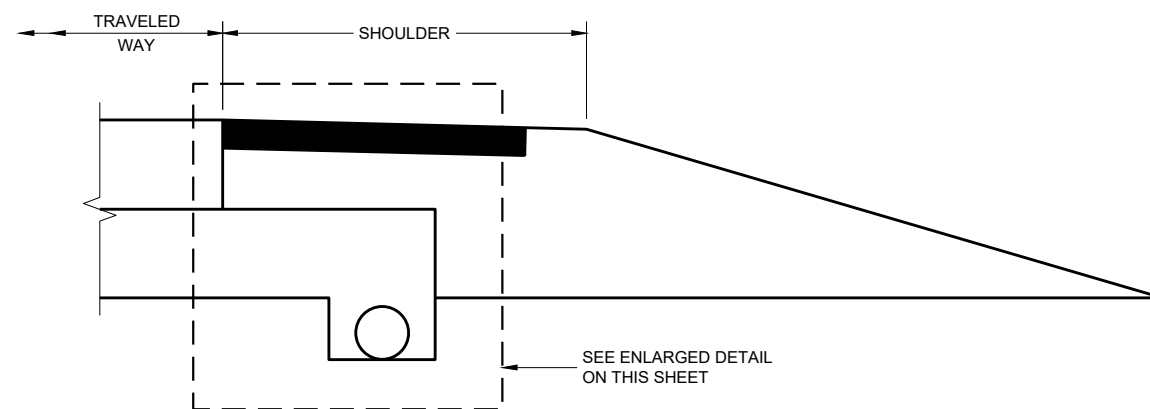
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE
EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

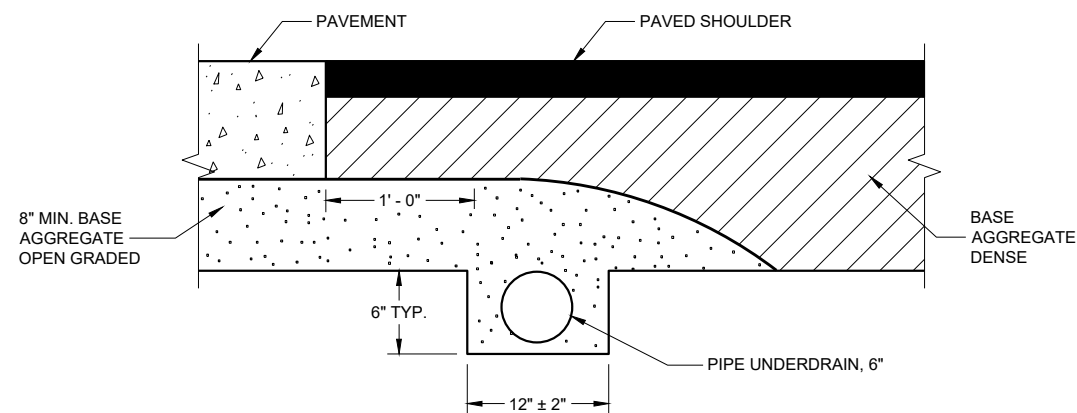
- ① FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.
- ② TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.



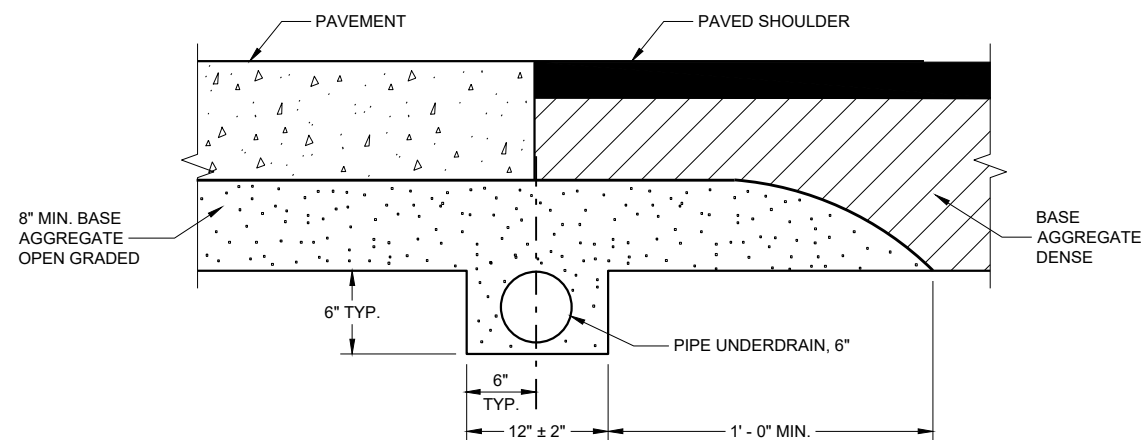
EDGEDRAIN IN URBAN ROADWAY



RURAL CROSS SECTION



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

GENERAL NOTES

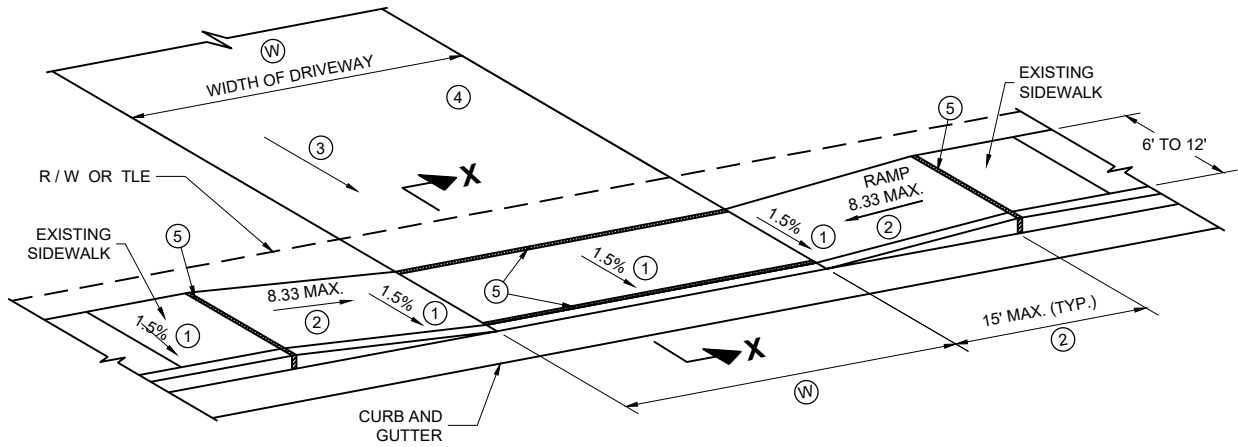
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

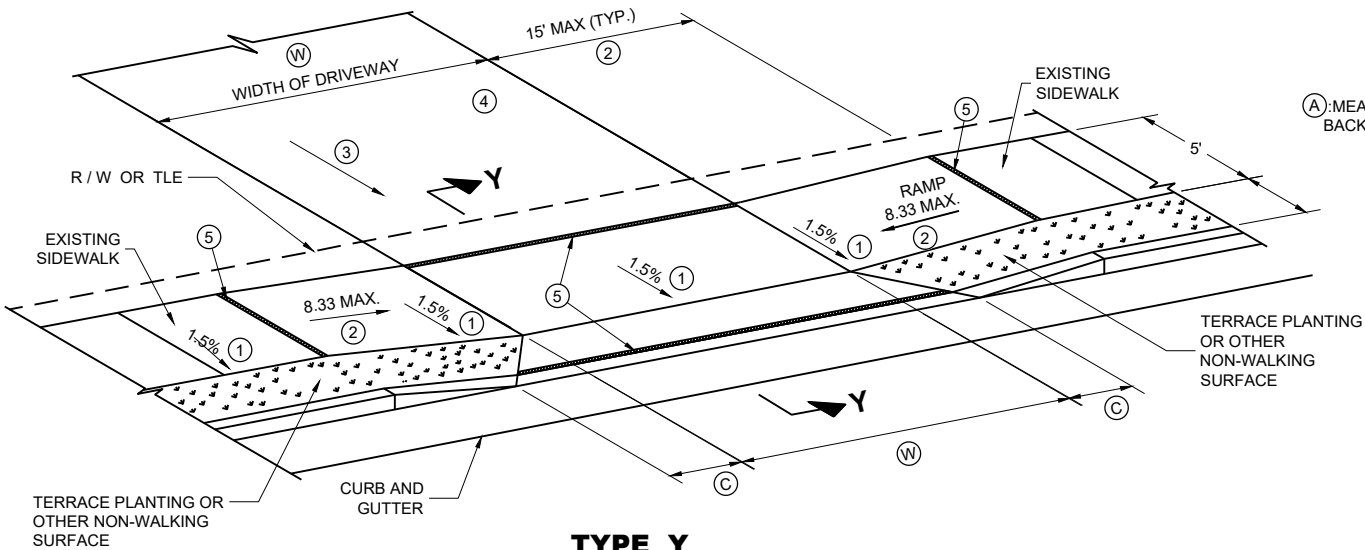
**EDGEDRAIN AND BASE
AGGREGATE OPEN GRADED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2015 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR 85
FHWA



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



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

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.

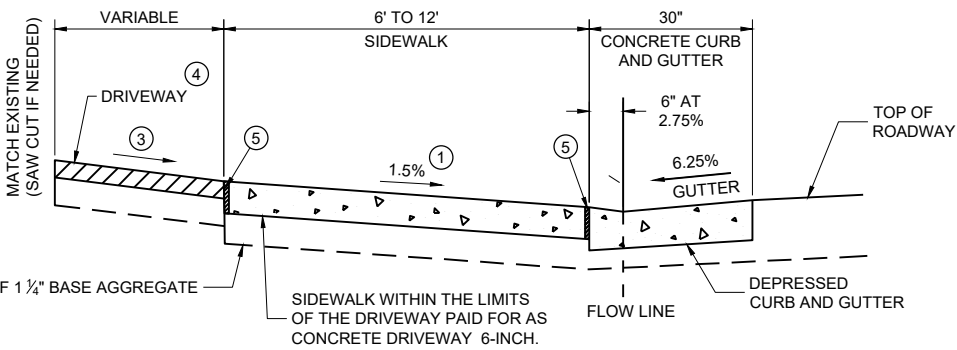
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- 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.

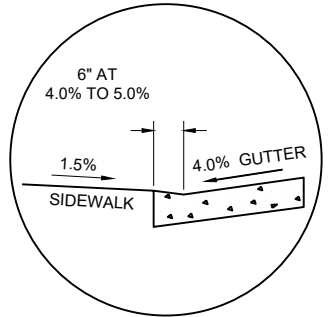
③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

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.)

⑤ ½" EXPANSION JOINT FILLER



SECTION X - X



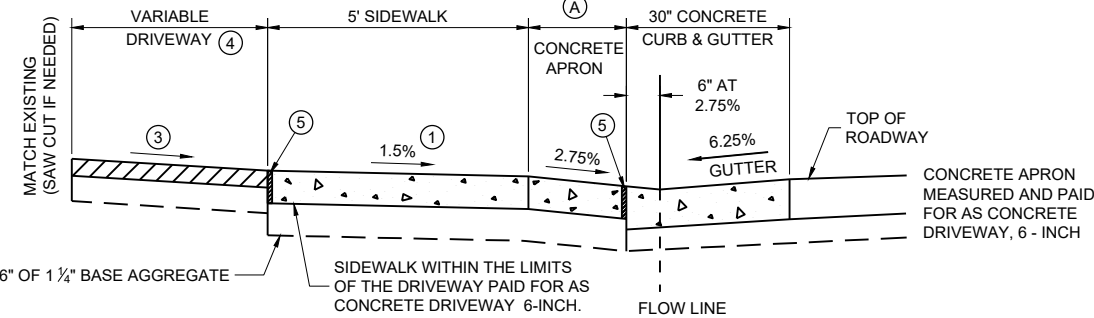
SECTION X - X
4% GUTTER SLOPE

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

TABLE Y

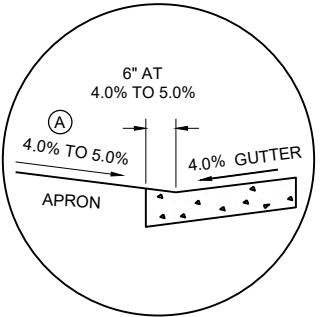
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

(A): MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

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

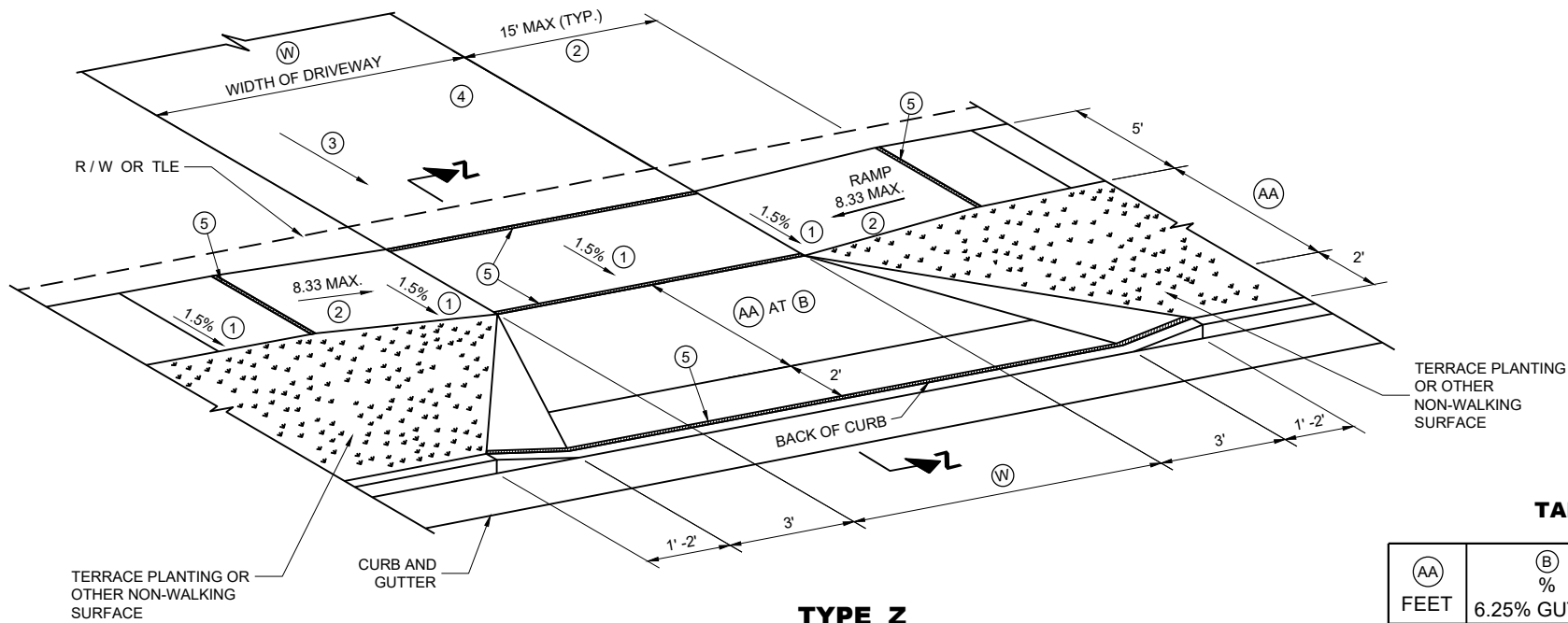


SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



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

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.

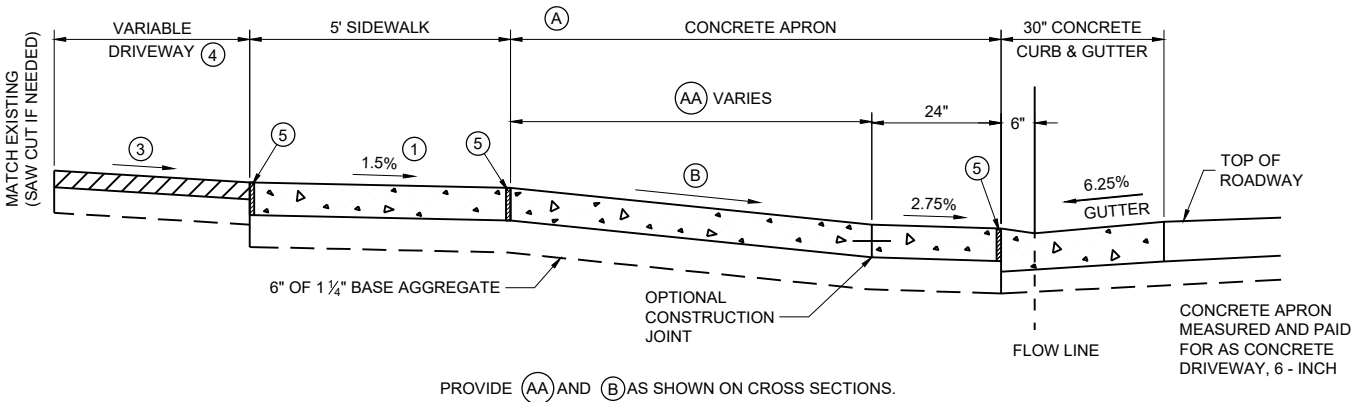
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- 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.)
- ⑤ ½" EXPANSION JOINT FILLER.

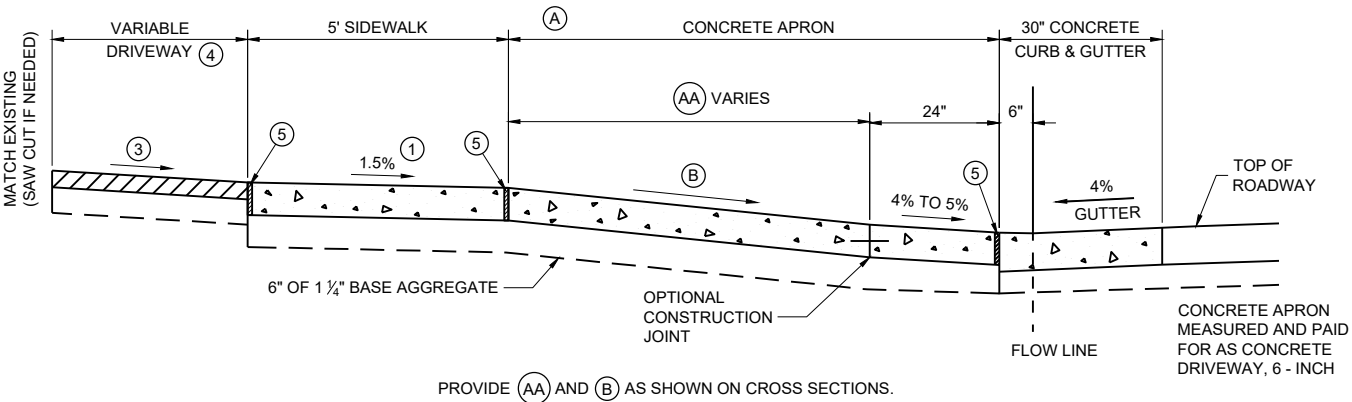
TABLE Z

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

(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 MY 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.

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

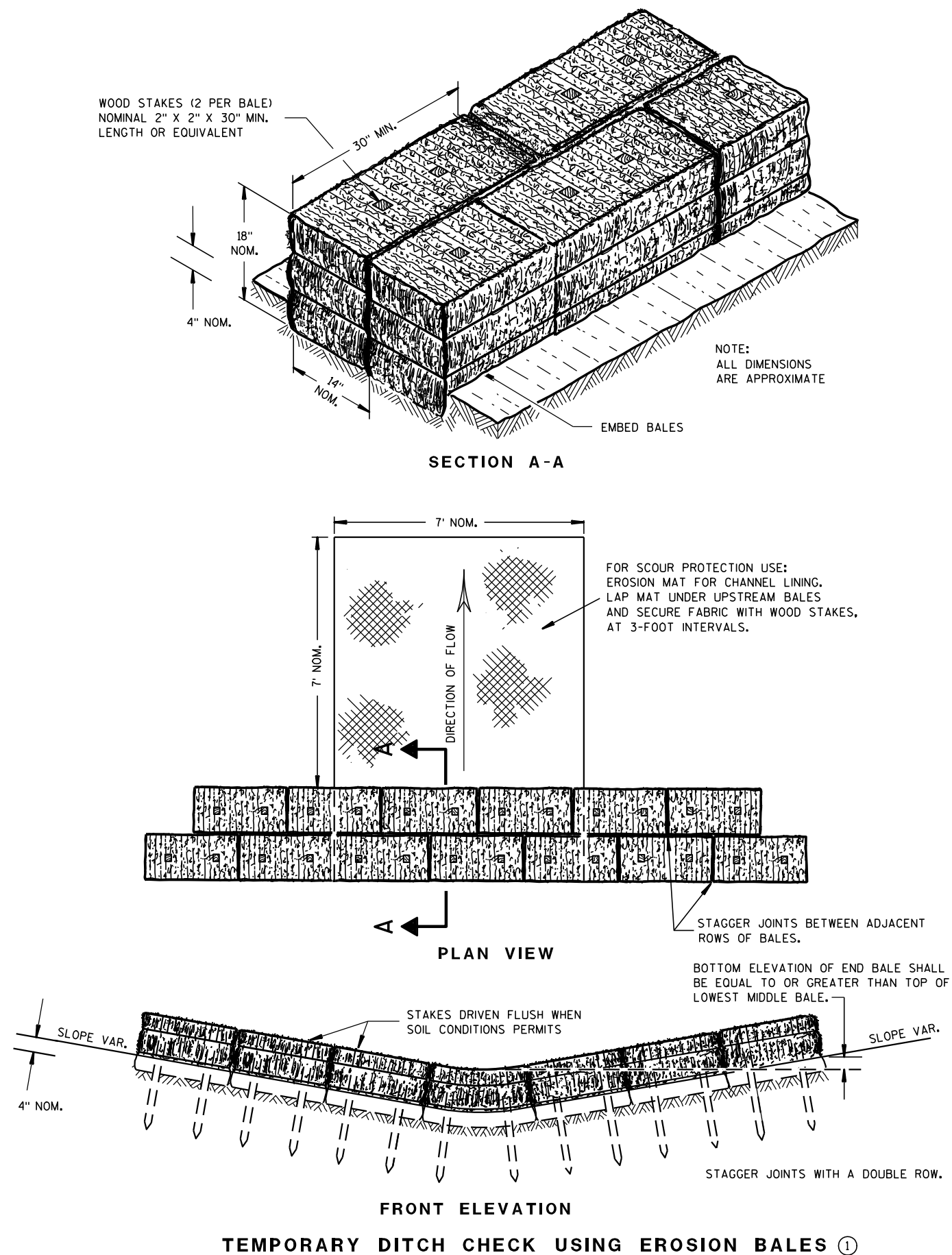
**DRIVEWAY AND
SIDEWALK RAMPS
TYPE Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

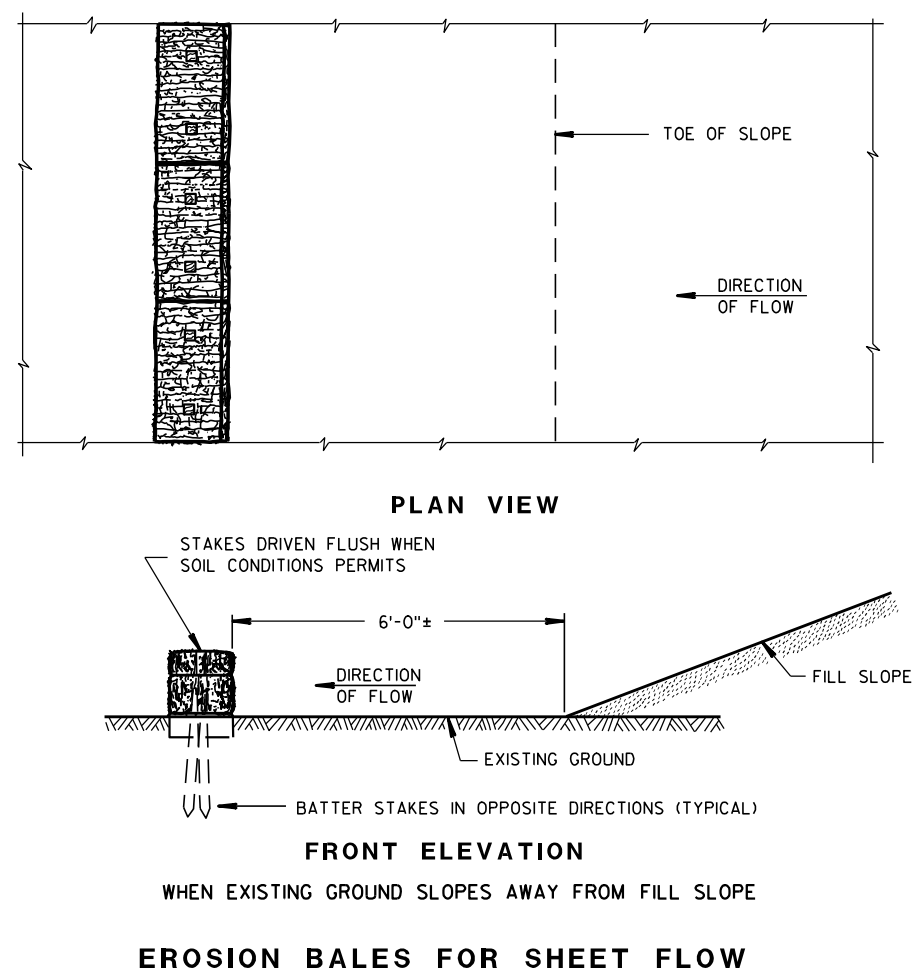
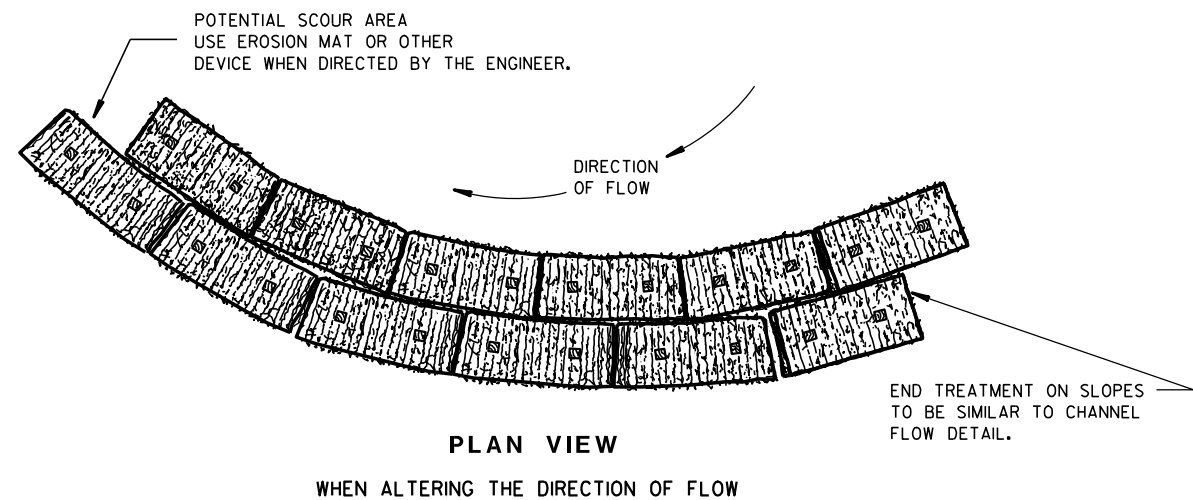
FHWA



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Connolly
CHIEF ROADWAY DEVELOPER

ENGINEER

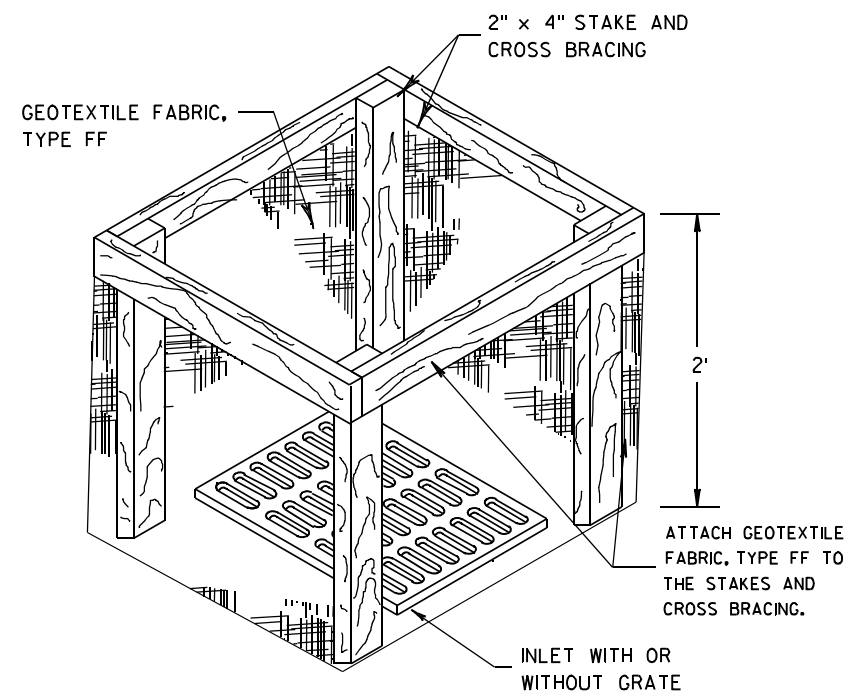
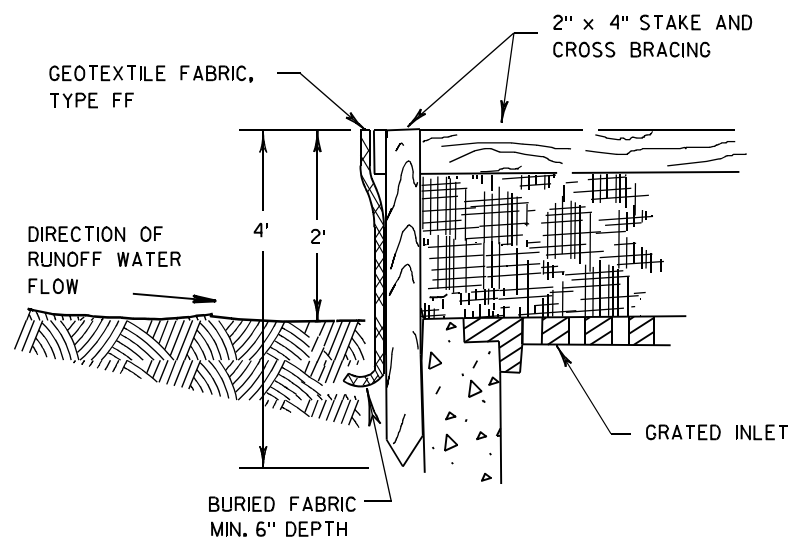
FHWA



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



SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED <u>4-29-05</u> DATE <u>/S/ Beth Cannata</u> CHIEF ROADWAY DEVELOP <u>90</u> ENGINEER



INLET PROTECTION, TYPE A

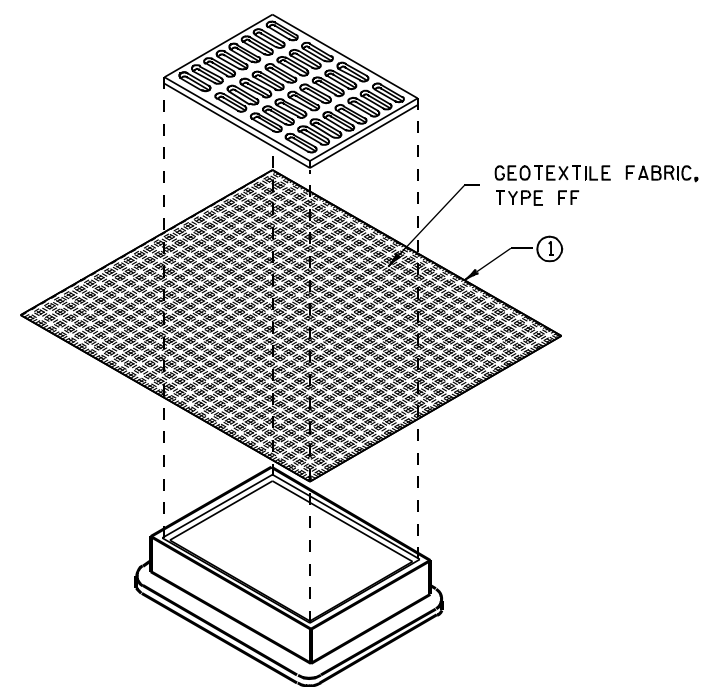
GENERAL NOTES

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

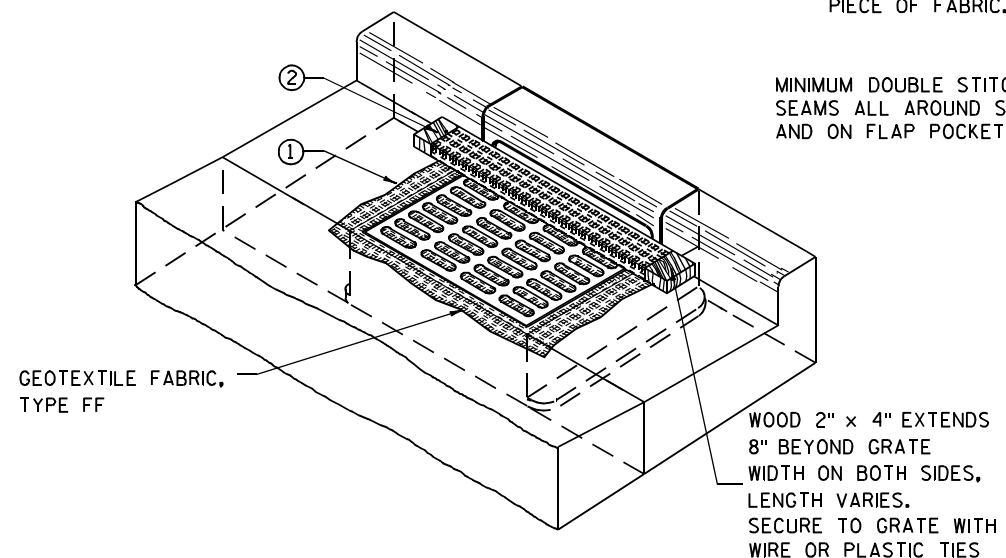
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

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



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

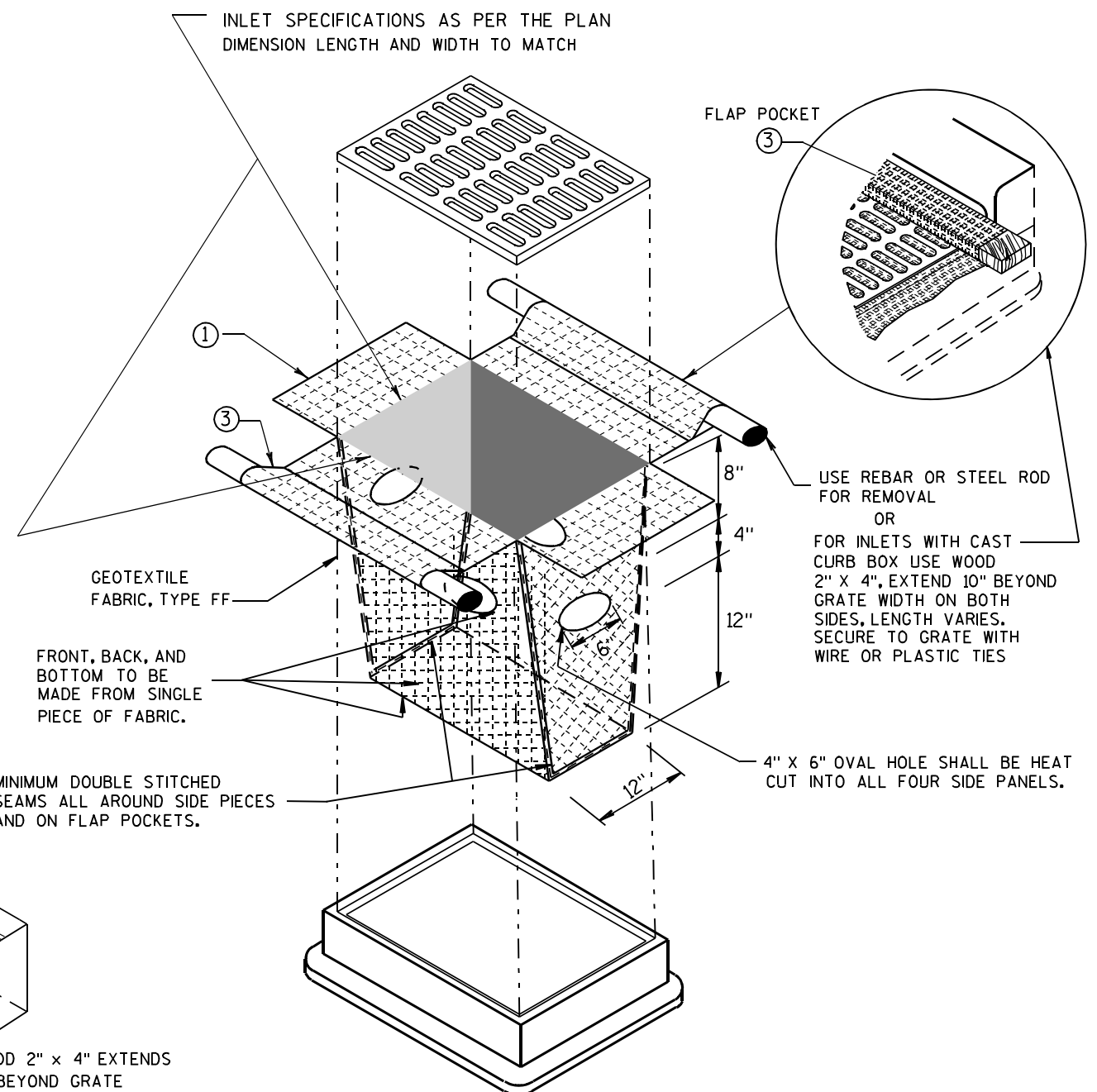
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



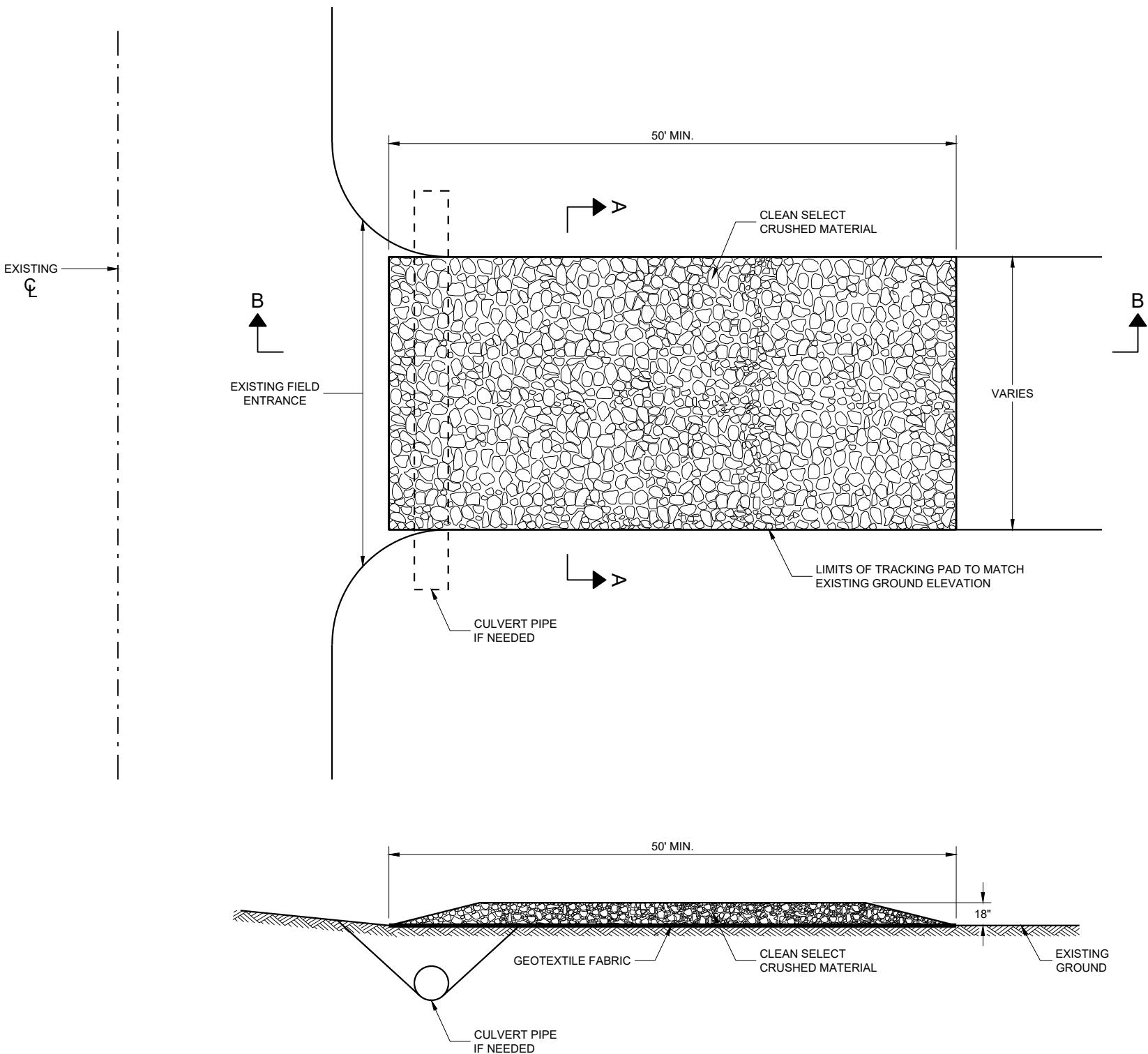
INLET PROTECTION, TYPE D

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 91
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



GENERAL NOTES

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

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

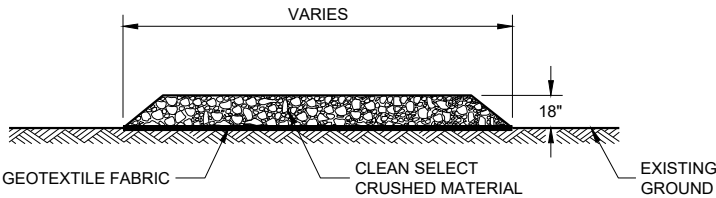
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

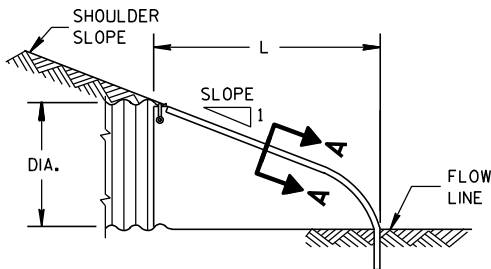
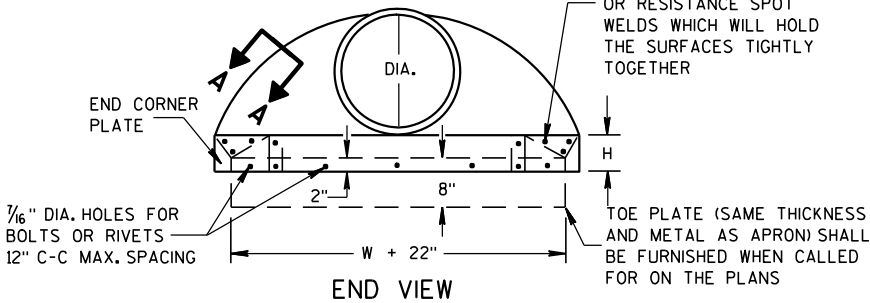
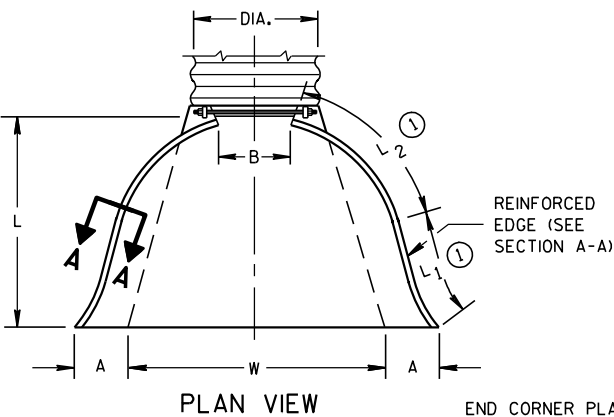
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT ENGINEER

92

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2	Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2	Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3	Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3	Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3	Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3	Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3	Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3	Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3	Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3	Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3	Pc.

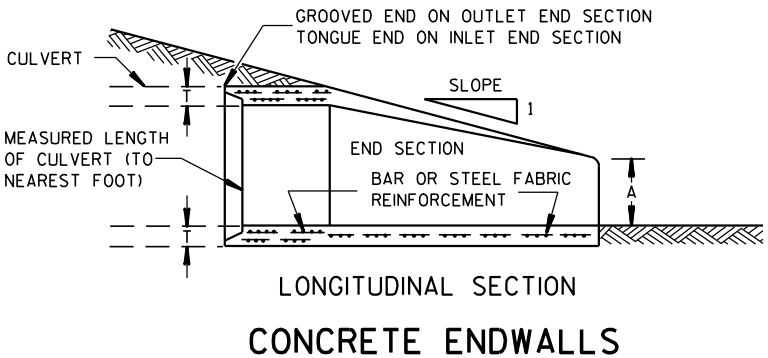
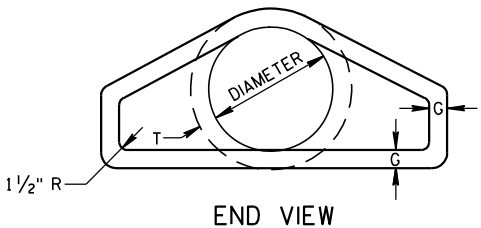
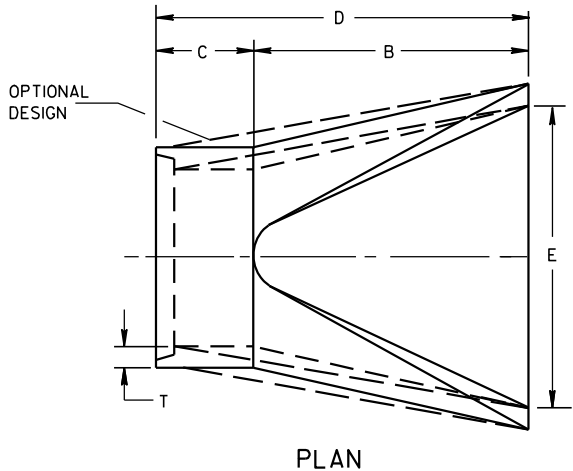
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



SIDE ELEVATION
METAL ENDWALLS

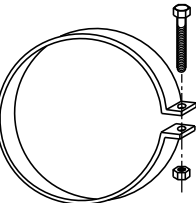
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9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

* MINIMUM
** MAXIMUM

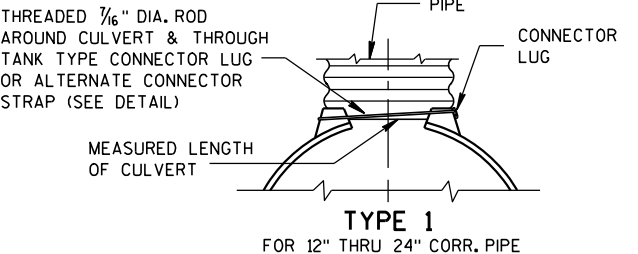


LONGITUDINAL SECTION
CONCRETE ENDWALLS

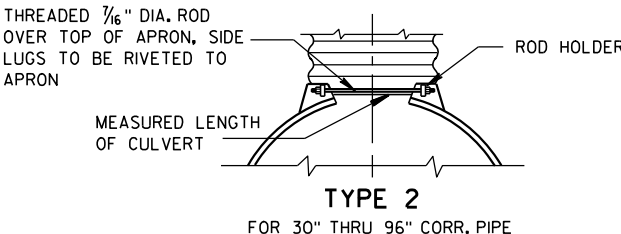
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



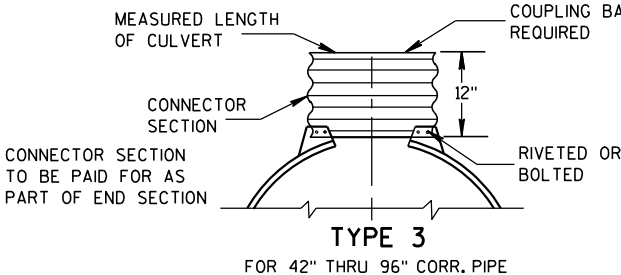
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



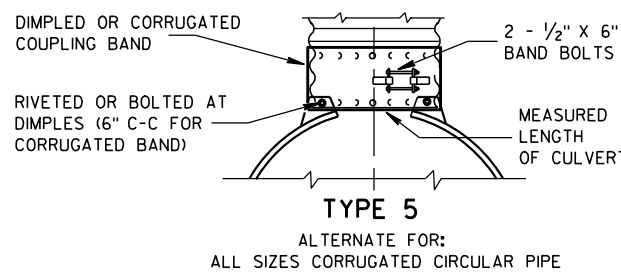
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

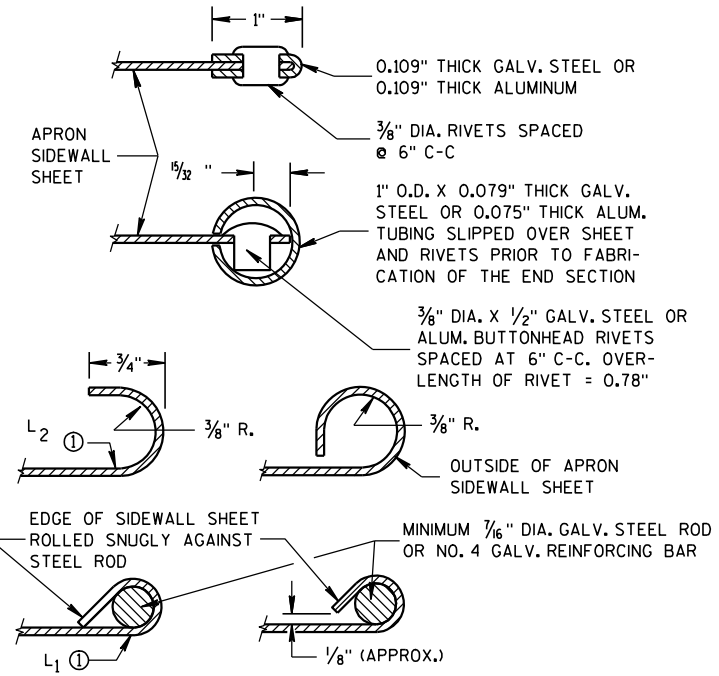
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

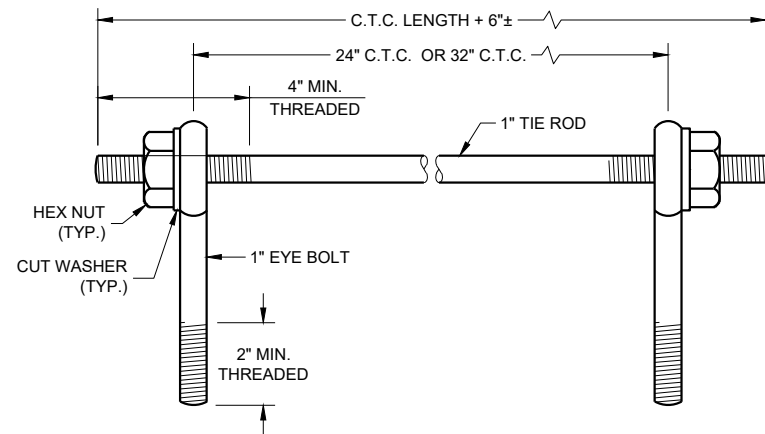
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

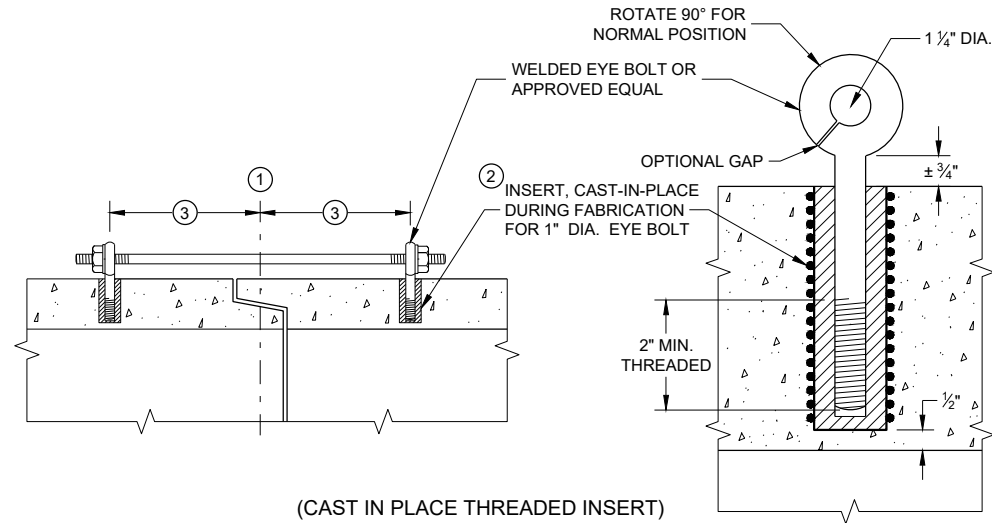
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOPER	93	NEER
FHWA			



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

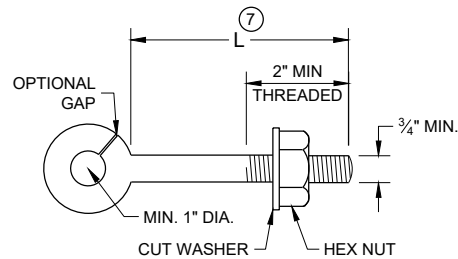
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

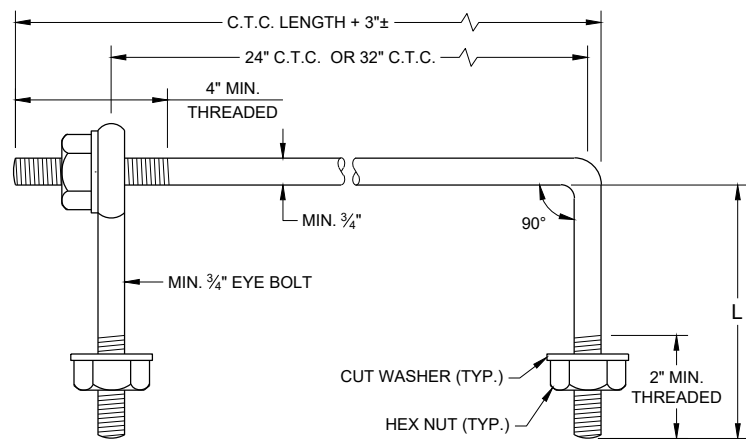
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 1 CENTER LINE 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 PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- 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 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- 7 EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

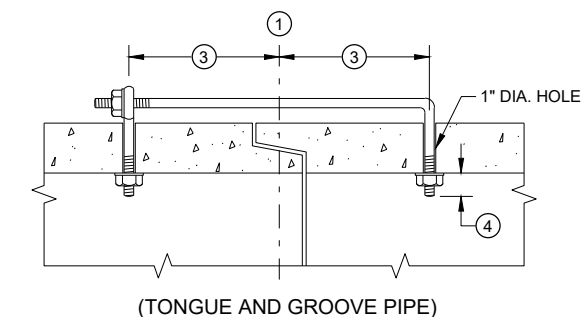


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



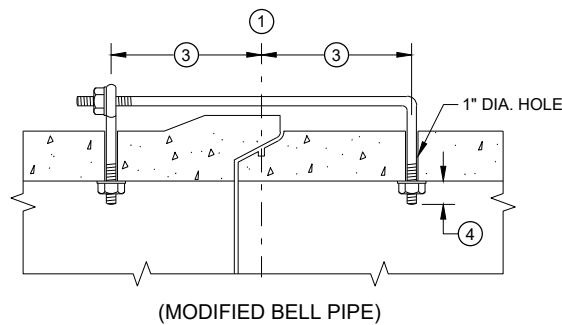
EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

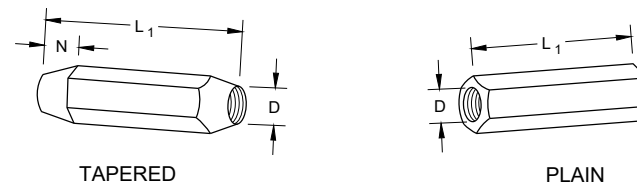


(MODIFIED BELL PIPE)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 1/16

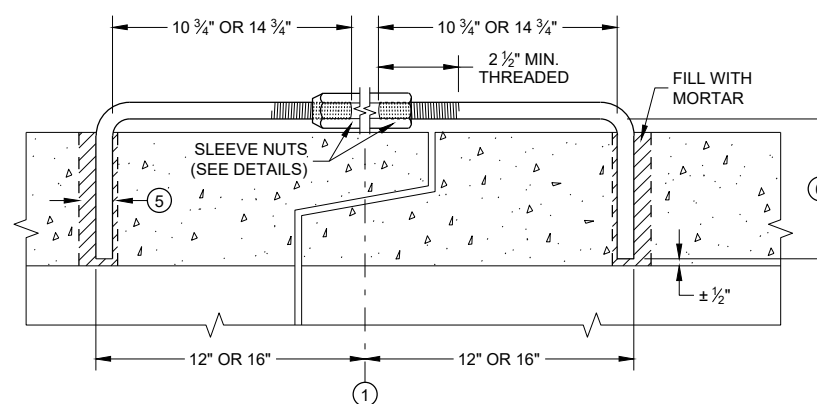
DIMENSIONS SHOWN ARE IN INCHES



TAPERED

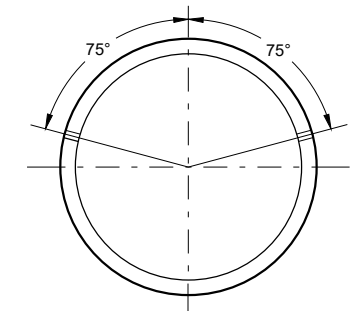
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



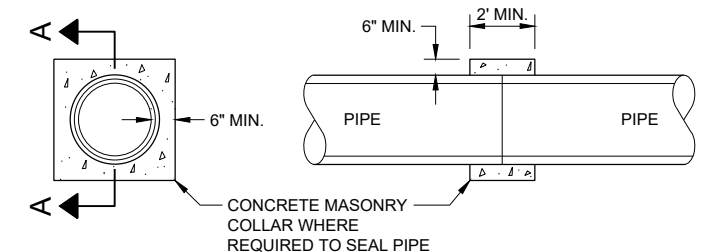
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION

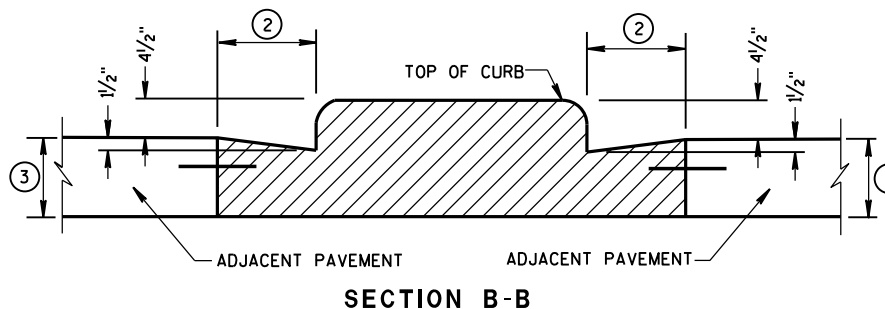
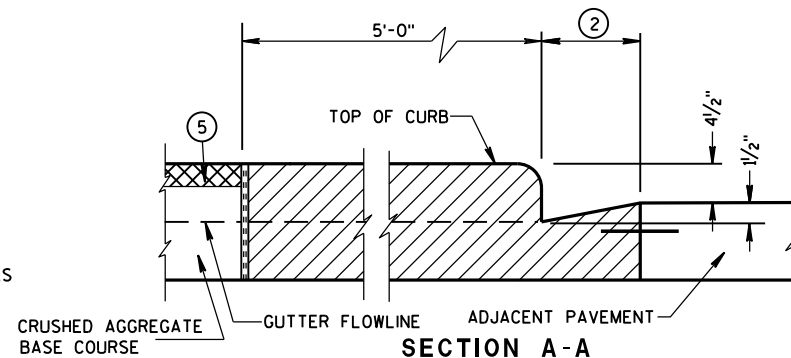
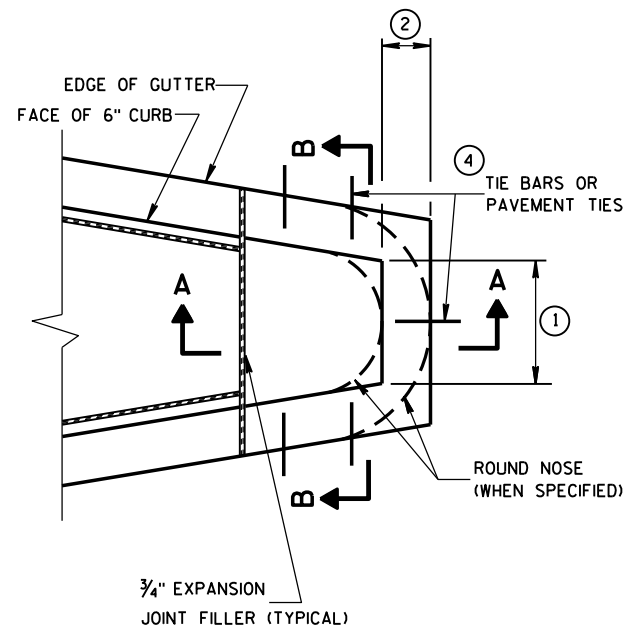
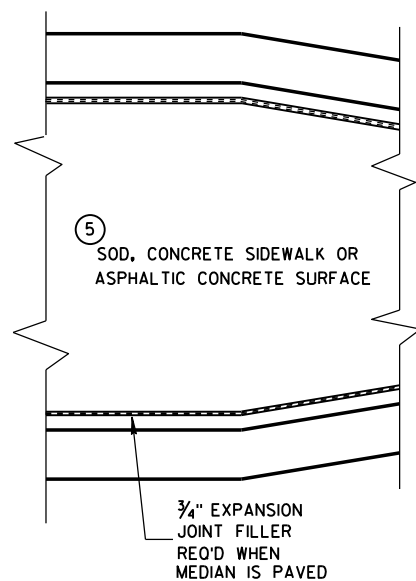


SECTION A - A
CONCRETE COLLAR DETAIL

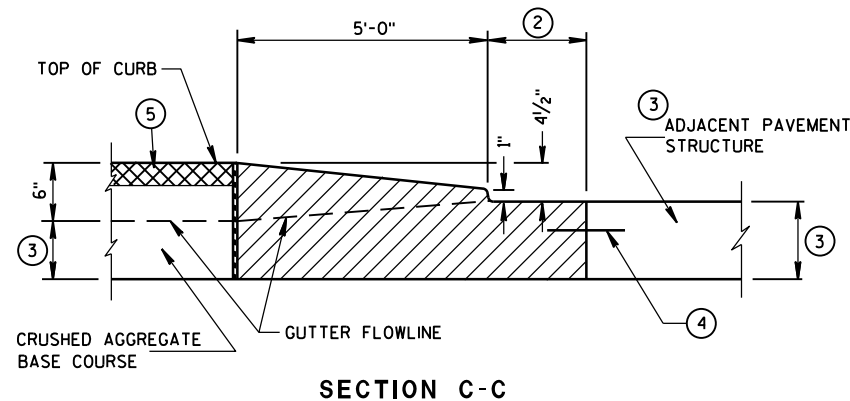
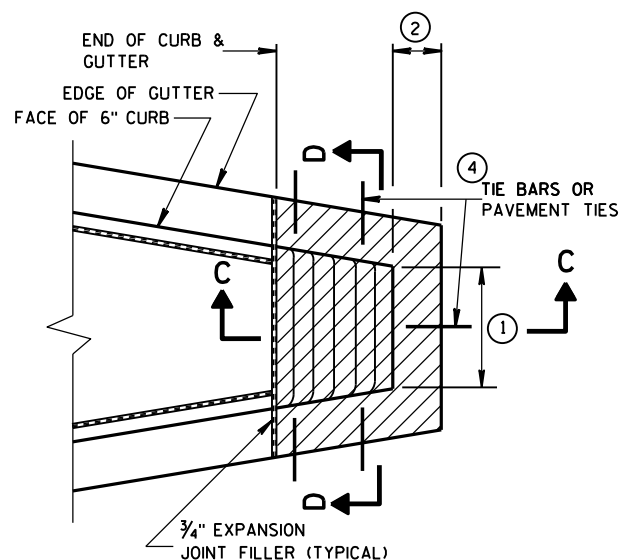
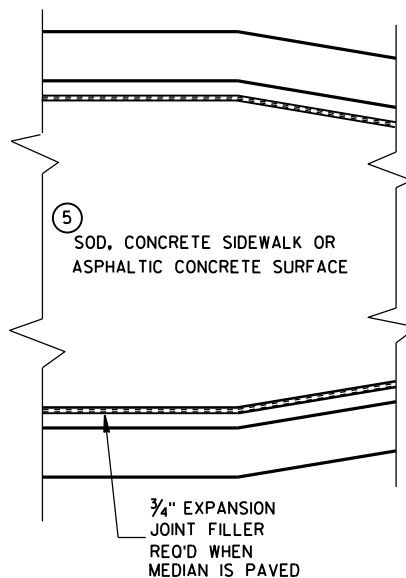
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

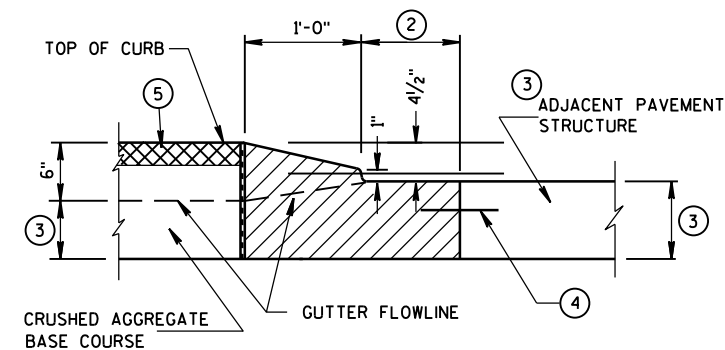
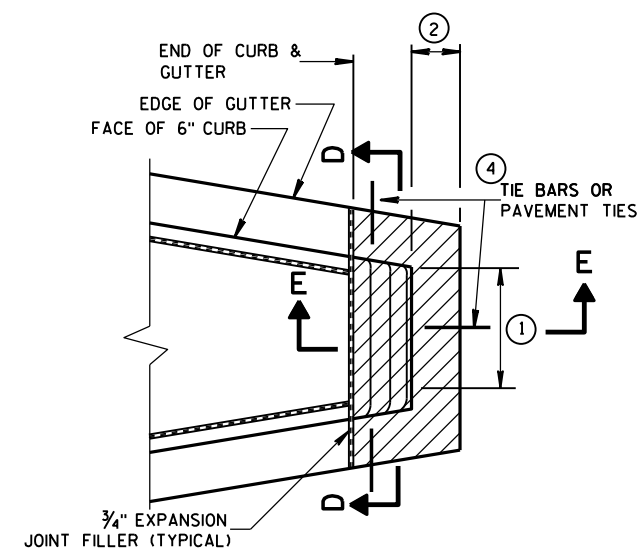
APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



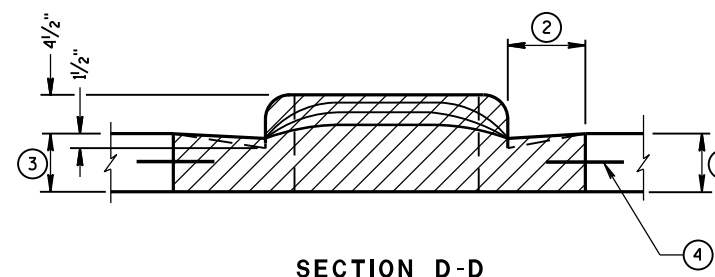
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

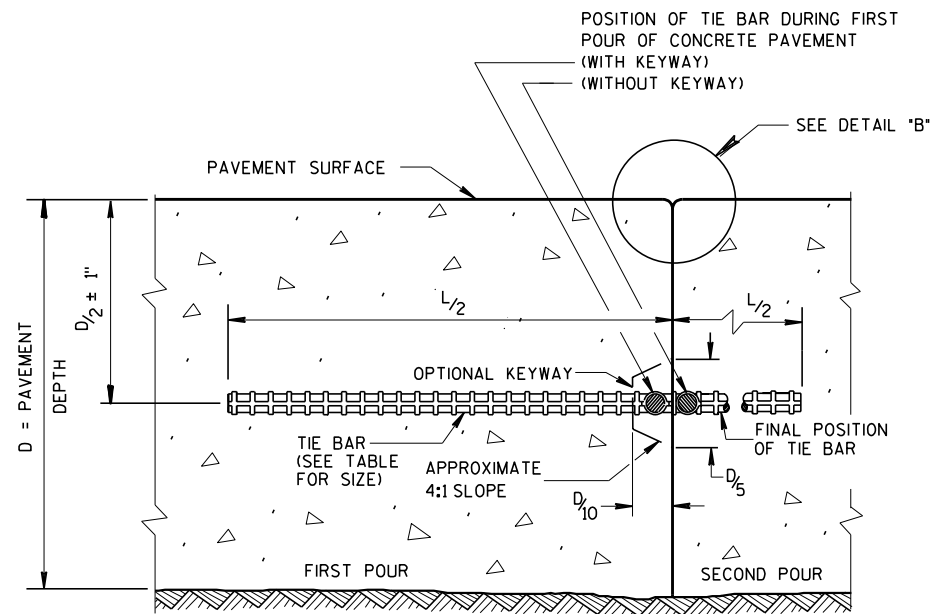
6/8/2006

DATE

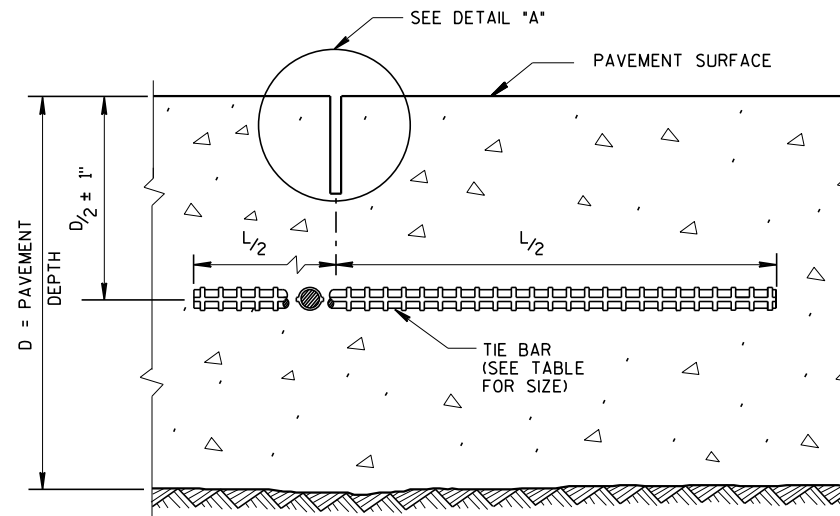
FHWA

/S/ Jerry H. Zoag
ROADWAY STANDARDS ENGINEER

4T



CONSTRUCTION JOINT



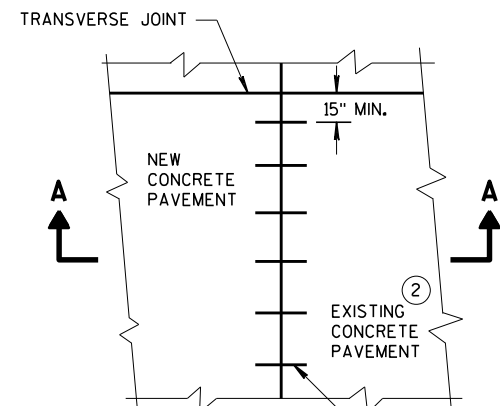
SAWED JOINT

GENERAL NOTES

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

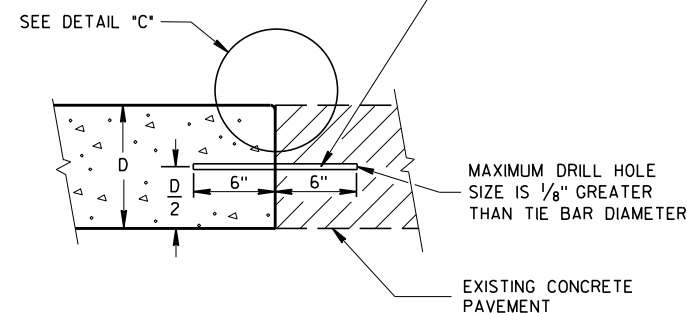
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

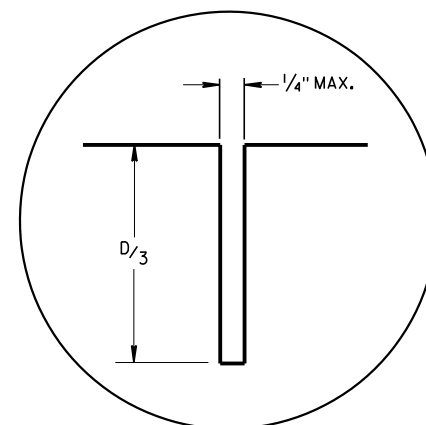


PLAN VIEW

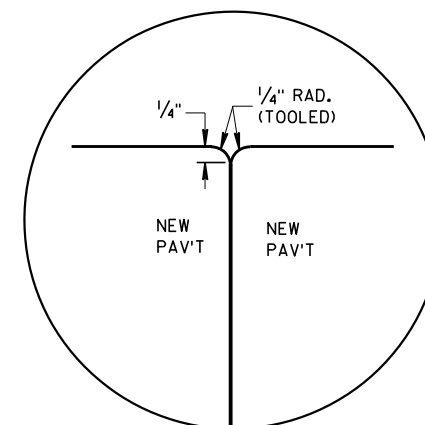
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



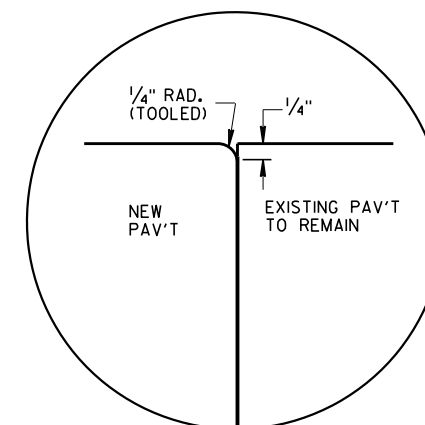
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



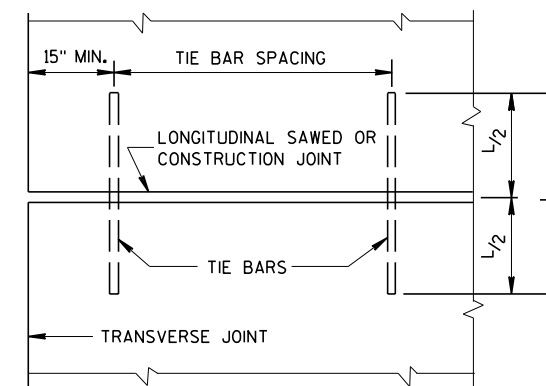
DETAIL "C"

TIE BAR TABLE

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

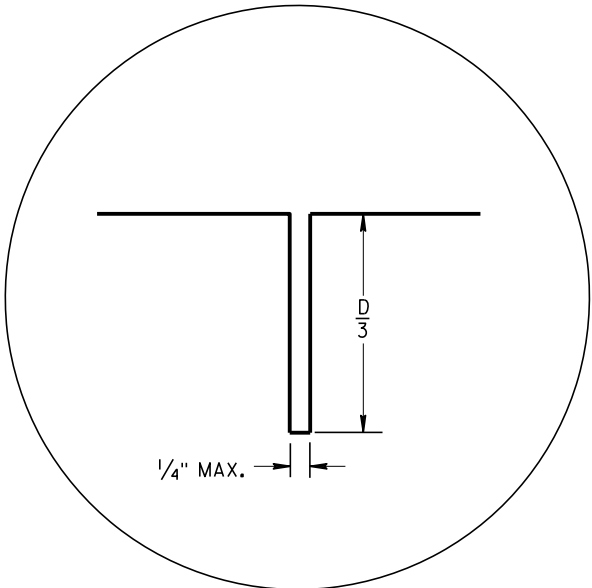
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

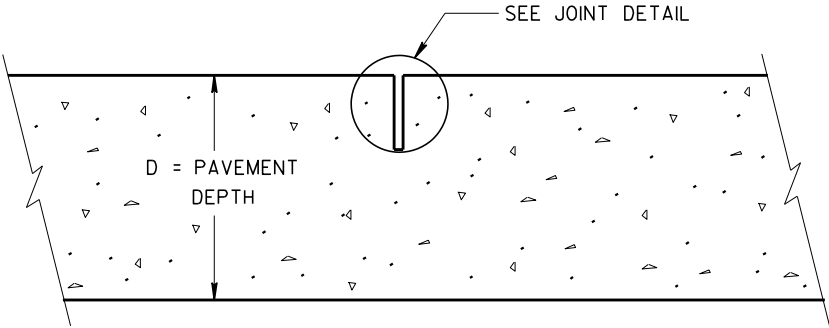
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Peter Kern PAVEMENT SUPE 96
FHWA	



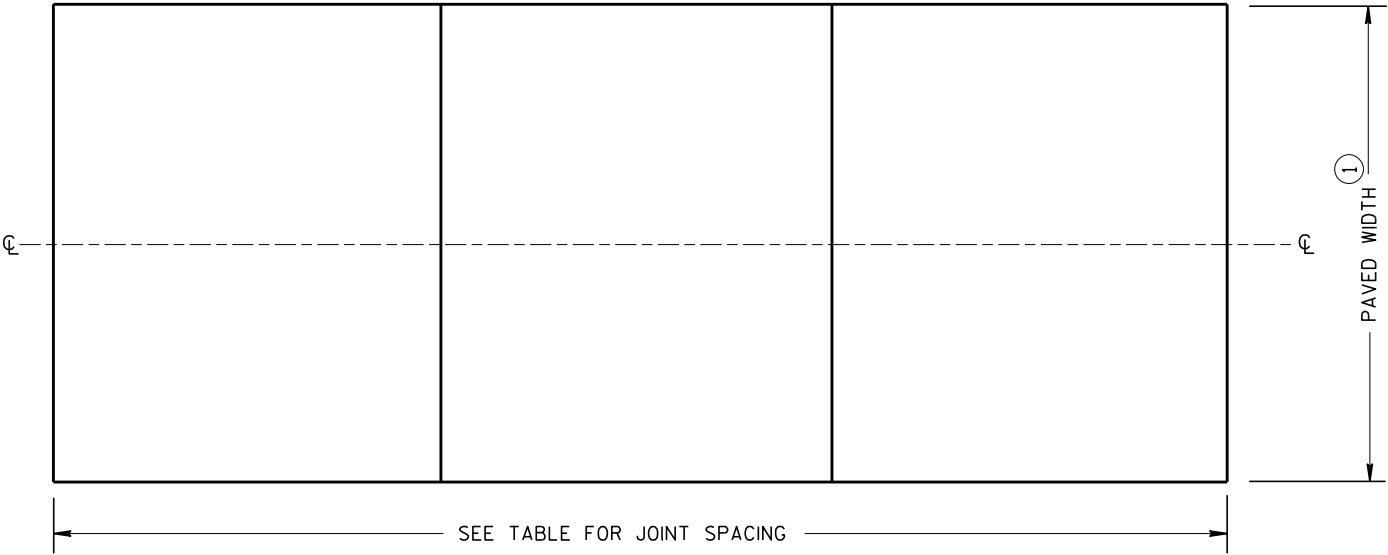
JOINT DETAIL

PAVEMENT DEPTH AND JOINT SPACING TABLE

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



CONTRACTION JOINT

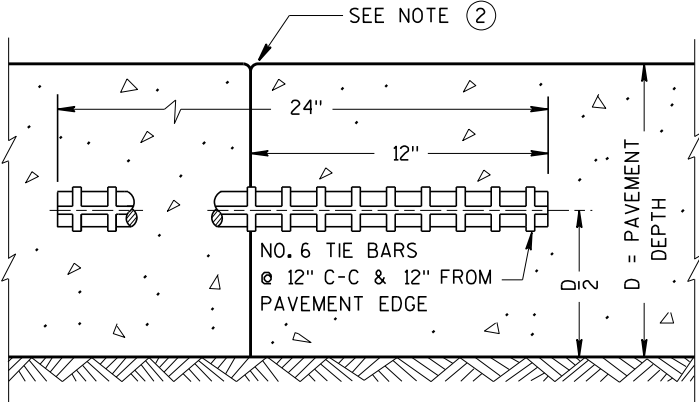


CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS
CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.
LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

- CONSTRUCTION JOINTS
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.
FORM OR SAW CONSTRUCTION JOINTS.
THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.
- 1 REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.
 - 2 PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

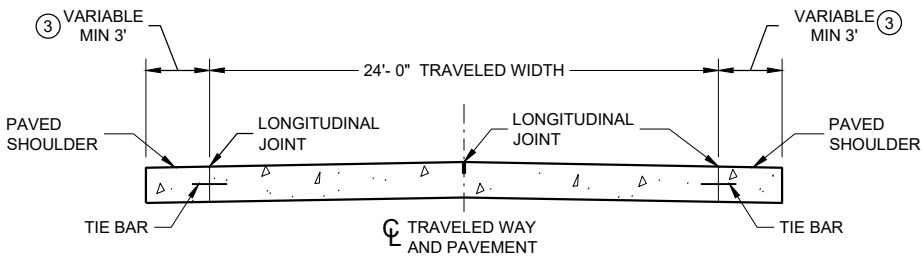


TIED TRANSVERSE CONSTRUCTION JOINT

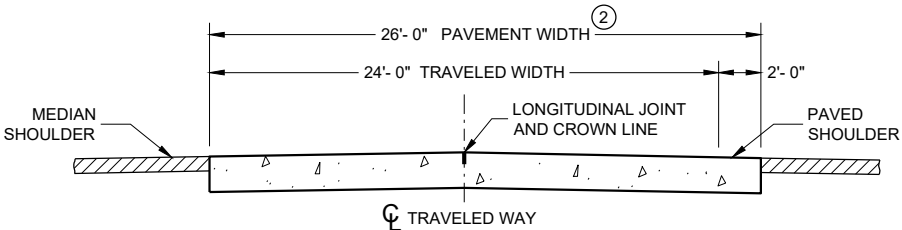
URBAN
NON-DOWELED CONCRETE
PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

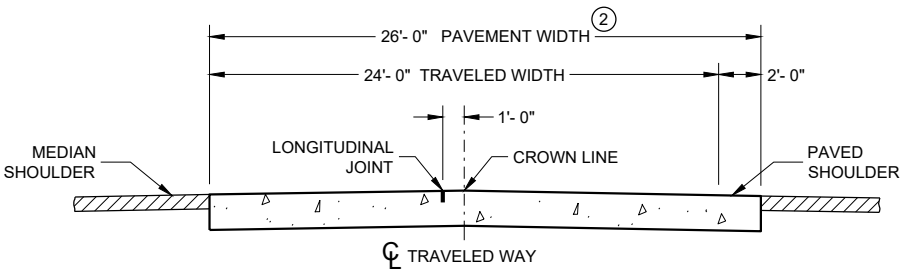
APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPERVISOR
FHWA



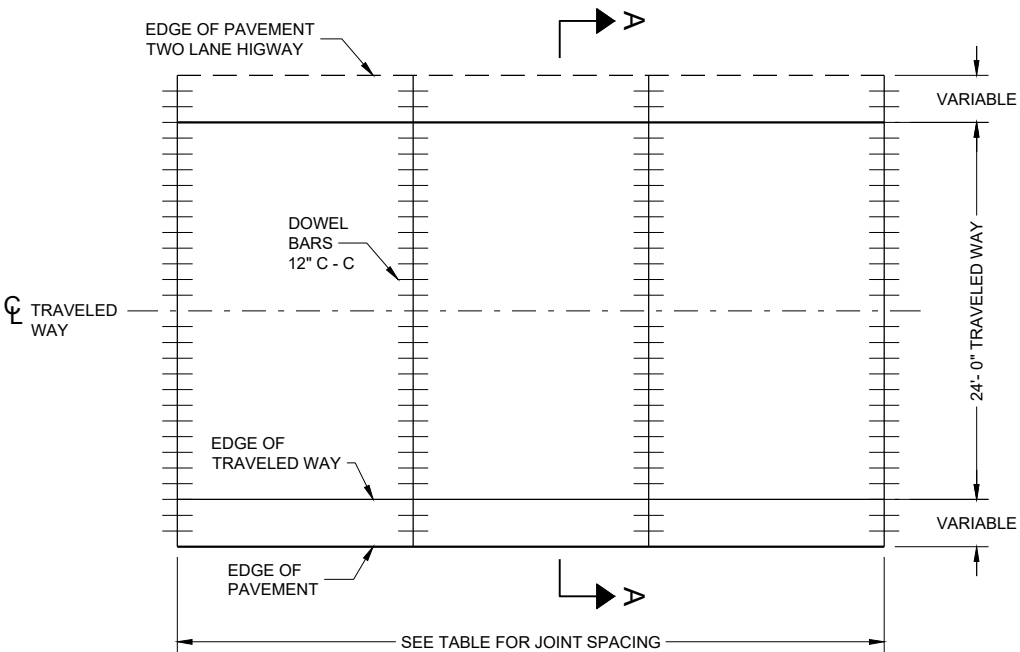
SECTION A - A
TWO-LANE TWO-WAY HIGHWAY ①



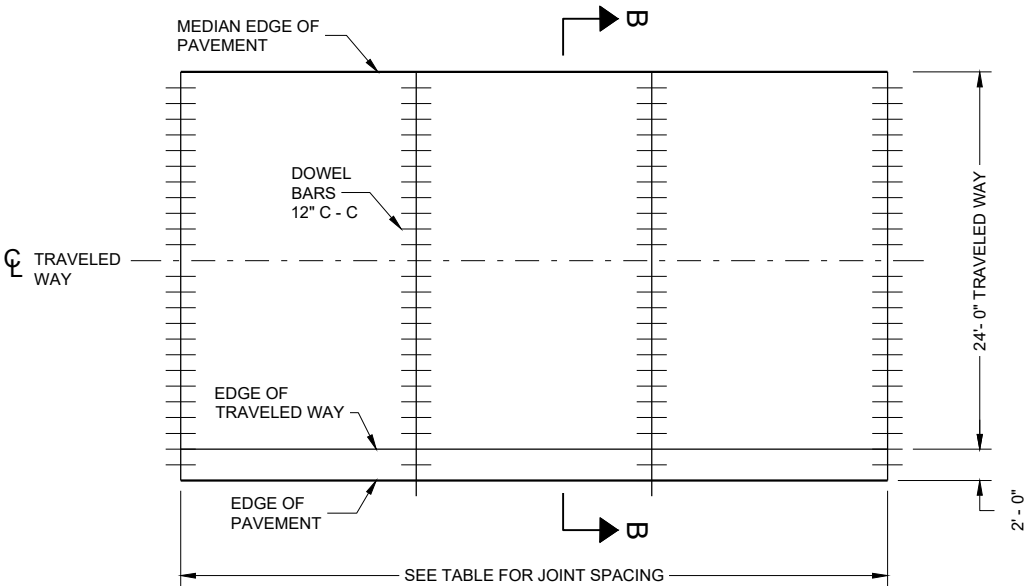
SECTION B - B



ALTERNATIVE SECTION B - B
DIVIDED HIGHWAY ①



CONTRACTION JOINT LAYOUT FOR
TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT FOR
DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

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

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

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

CONSTRUCTION JOINTS

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

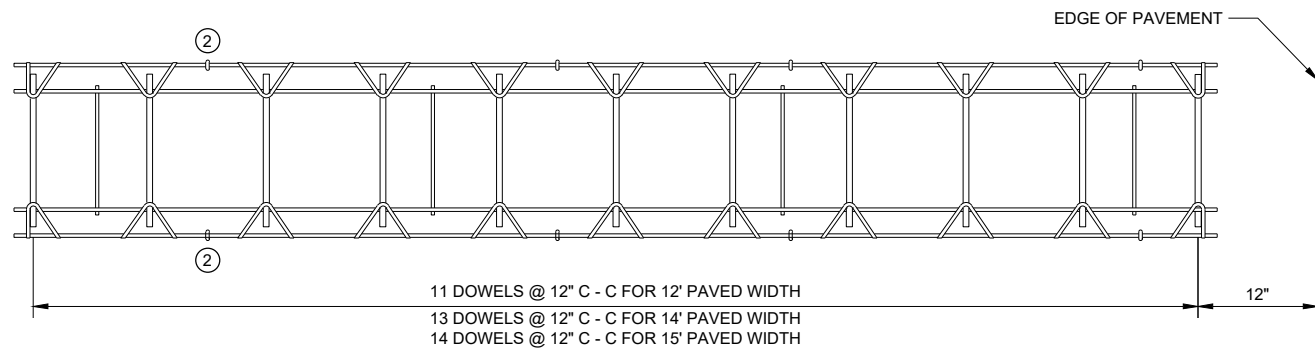
- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.
- ③ SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

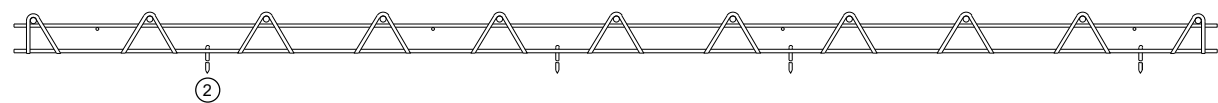
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'

RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

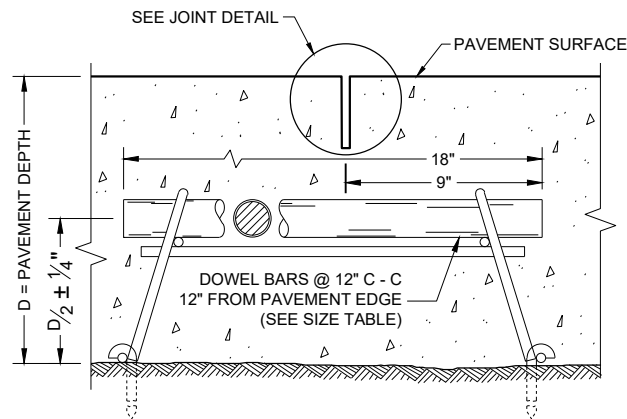


PLAN VIEW

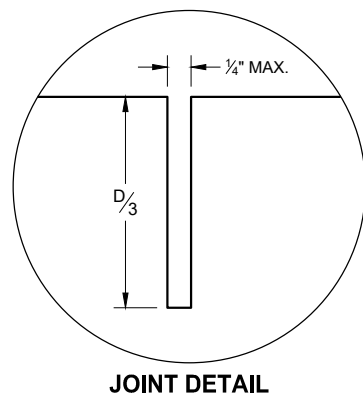


SIDE VIEW
(NORMAL TO CENTERLINE)

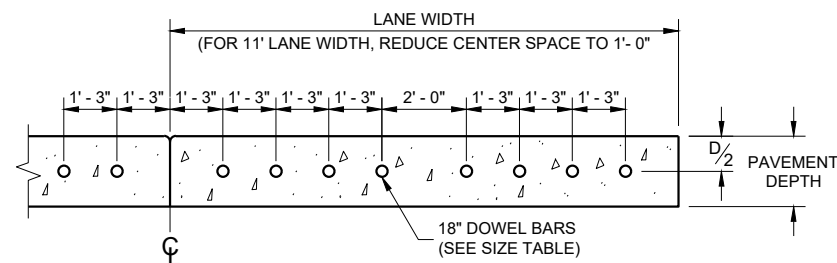
CONTRACTION JOINT DOWEL ASSEMBLY ①



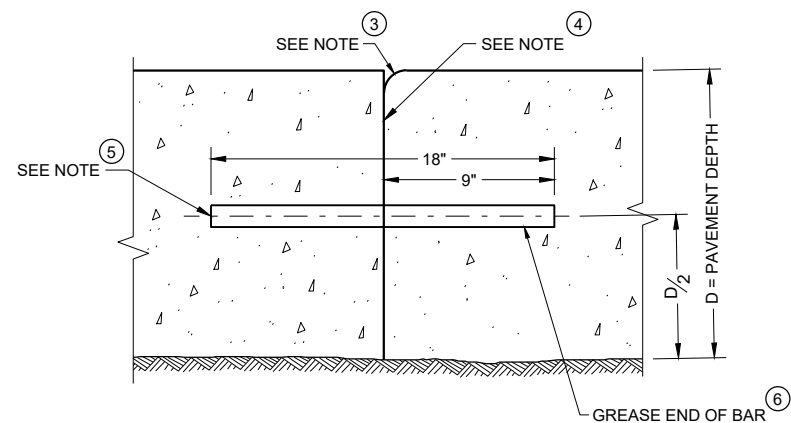
DOWELED CONTRACTION JOINT



JOINT DETAIL



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



TRANSVERSE CONSTRUCTION JOINT

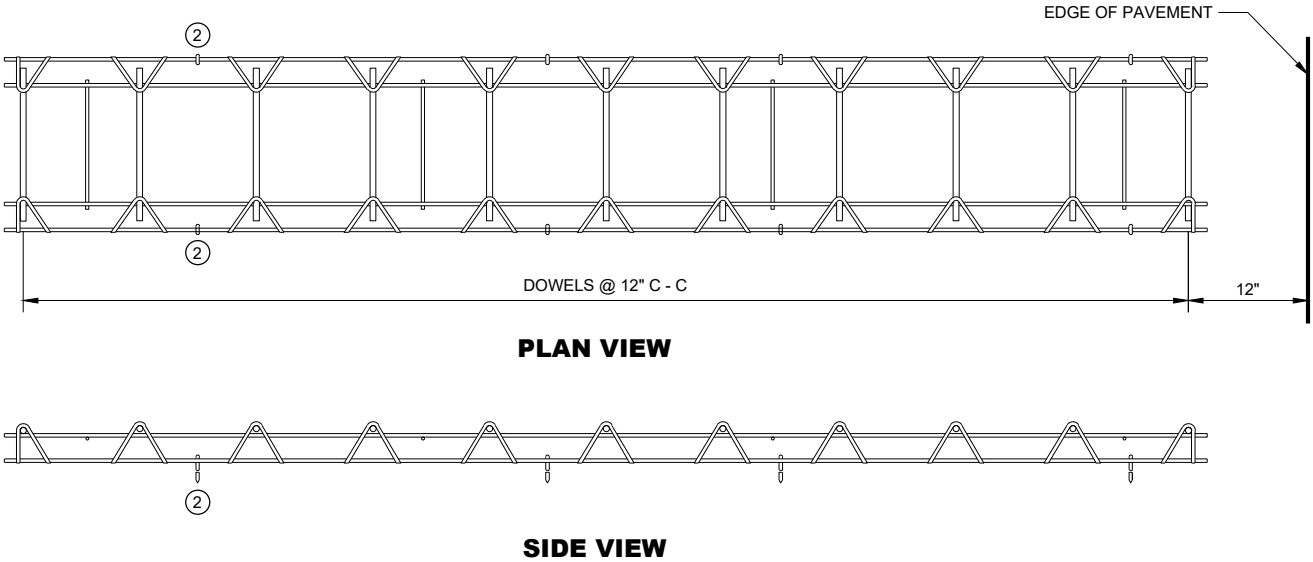
GENERAL NOTES

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

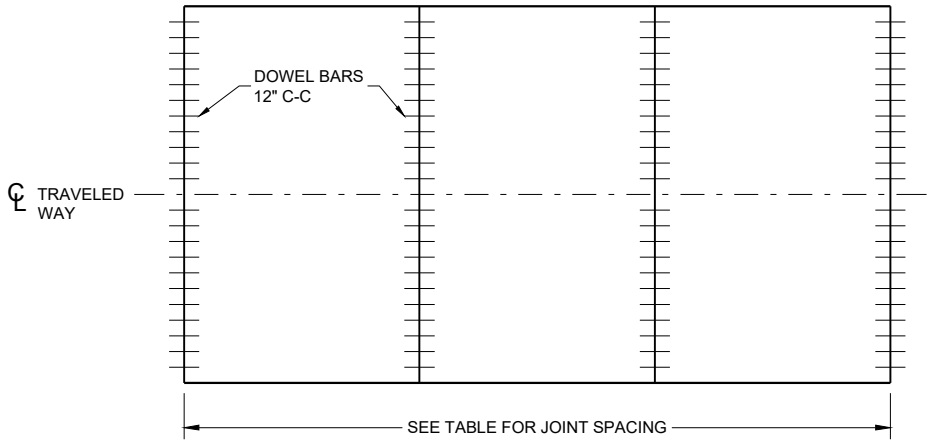
RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

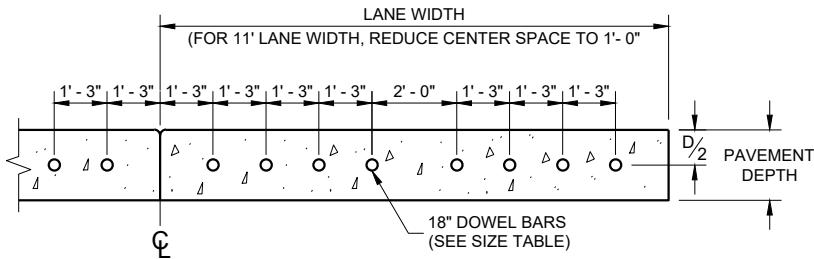
APPROVED
November 2022 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 99
FHWA



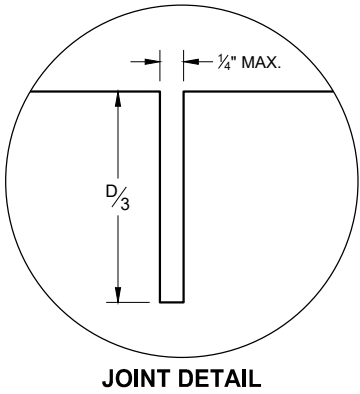
CONTRACTION JOINT DOWEL ASSEMBLY ①



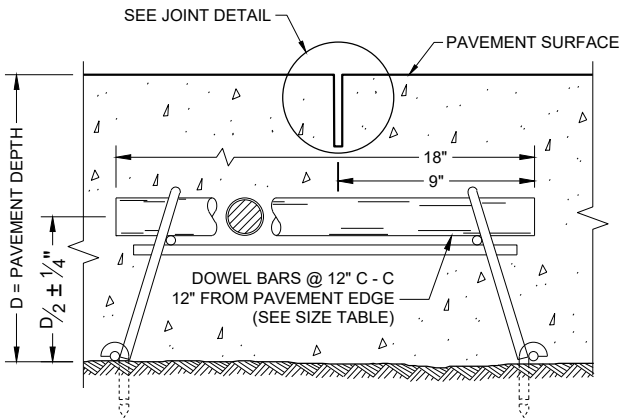
CONTRACTION JOINT LOCATIONS



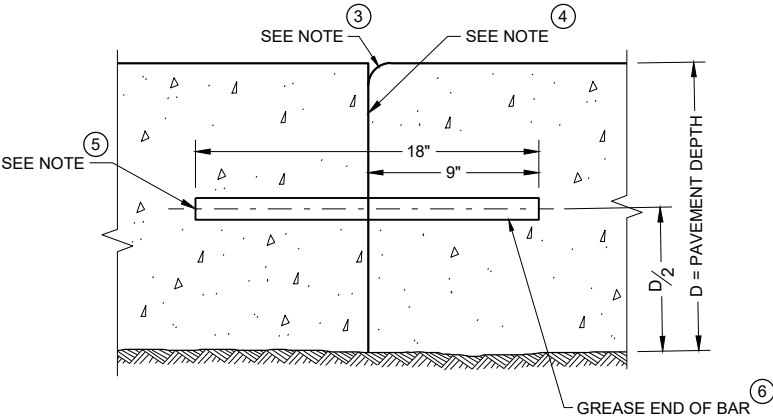
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

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

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

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

CONSTRUCTION JOINTS

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

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

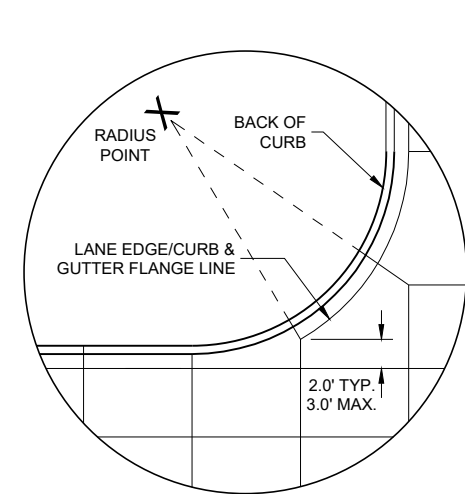
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

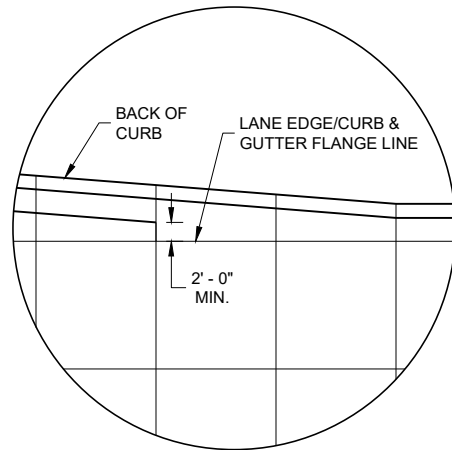
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

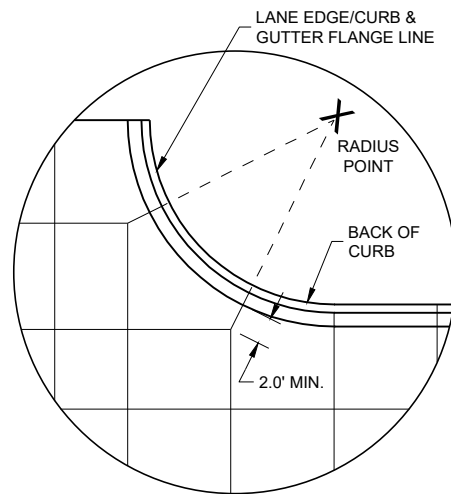
APPROVED
November 2022 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 100
FHWA



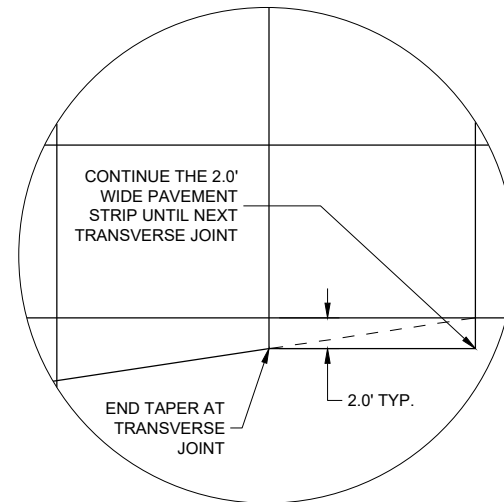
DETAIL "A"



DETAIL "B"



DETAIL "C"



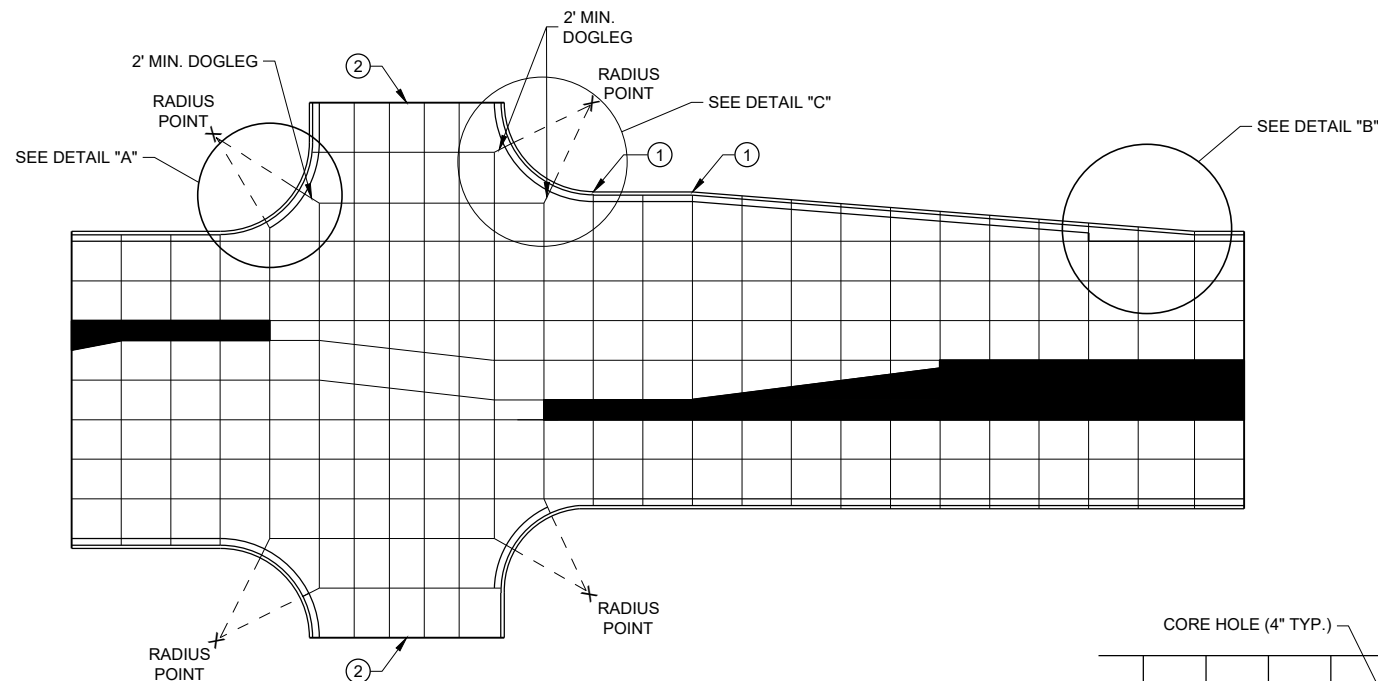
DETAIL "D"

GENERAL NOTES

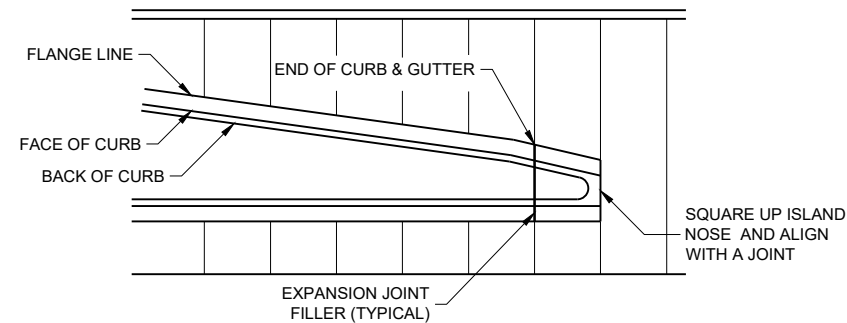
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER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

PAVEMENT DEPTH AND JOINT SPACING TABLE

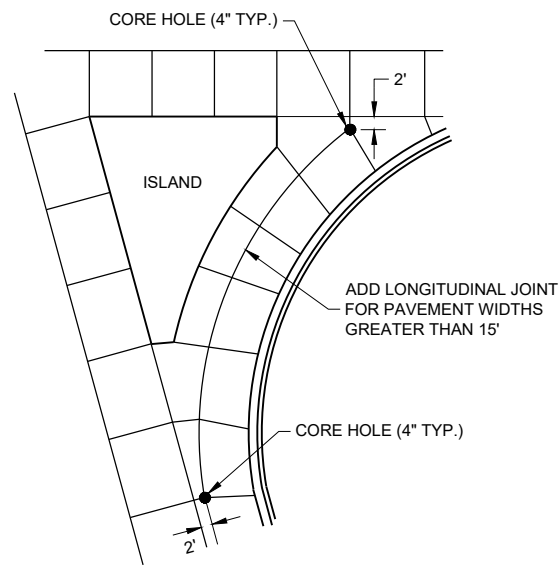
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



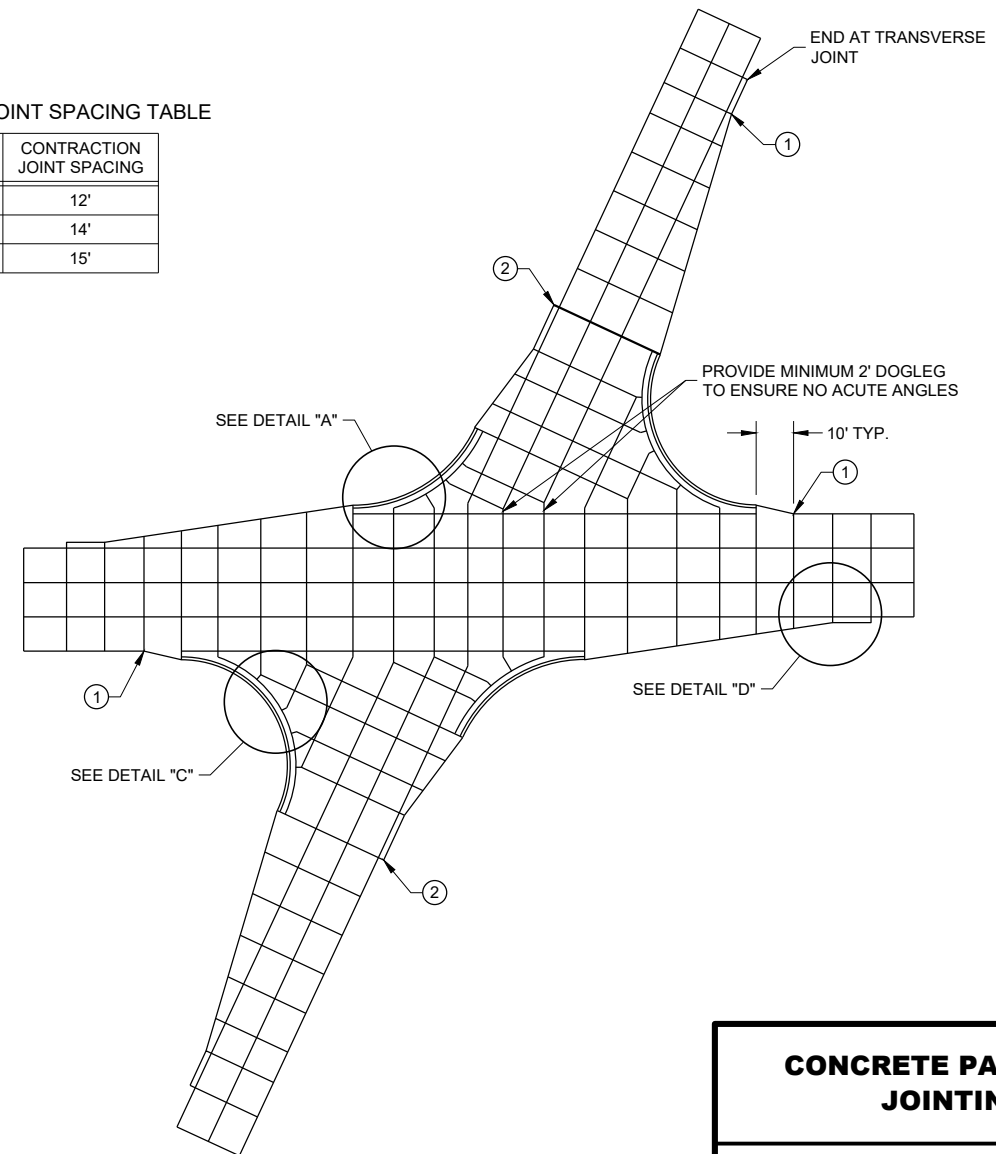
STANDARD INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN



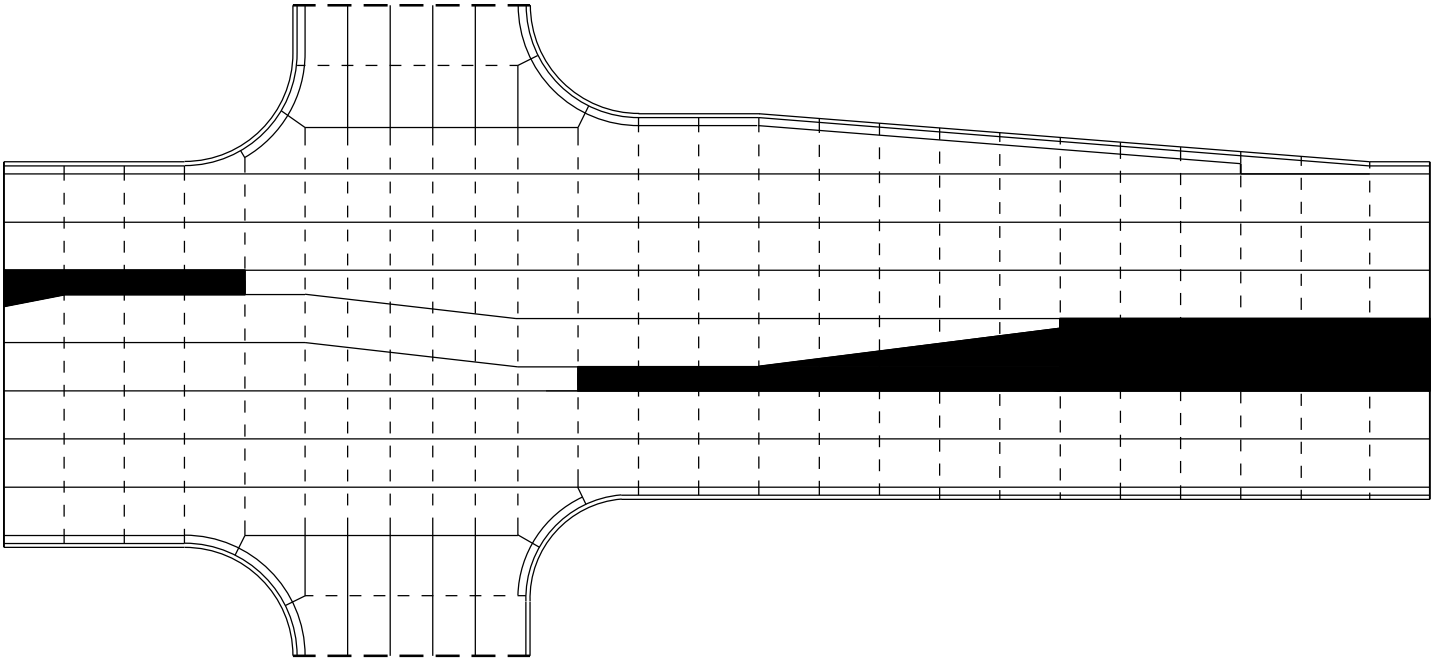
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

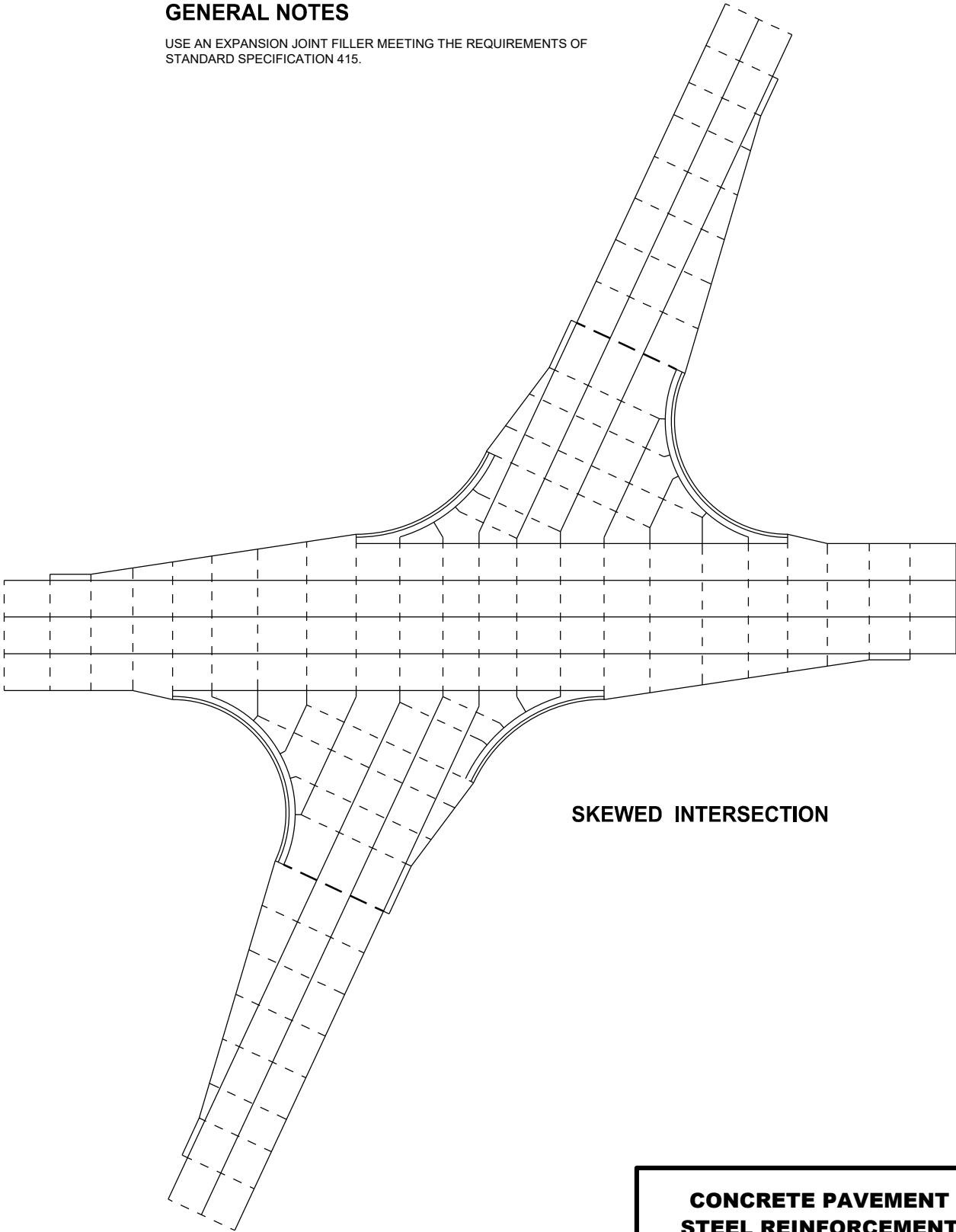
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

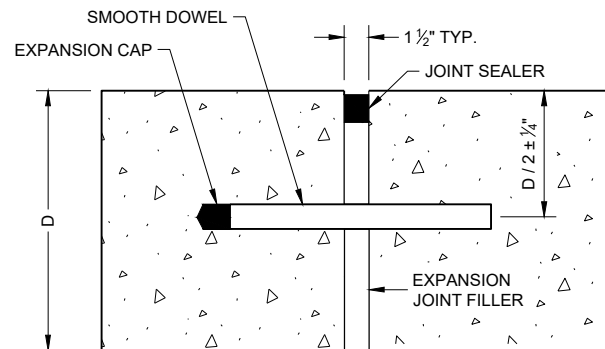
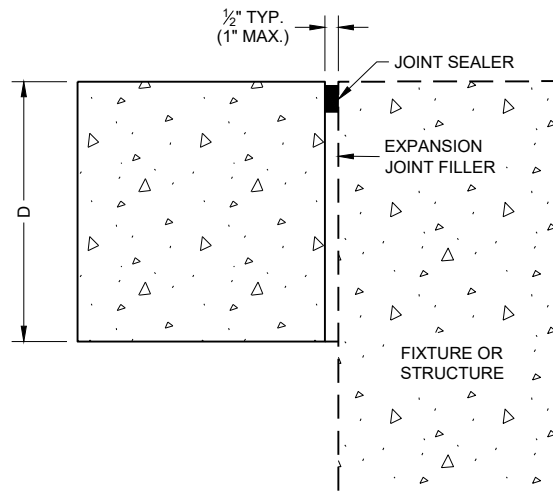
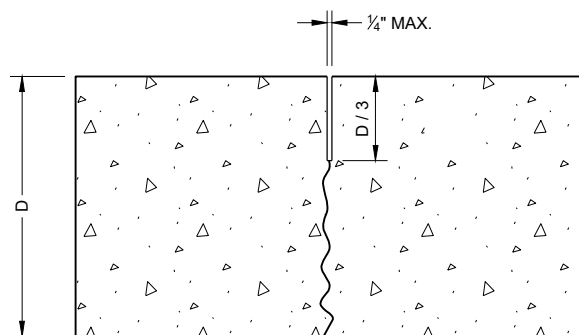
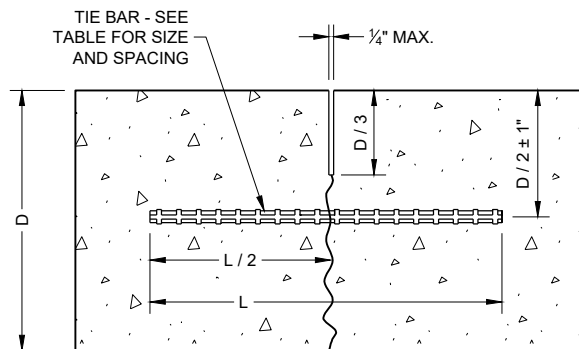
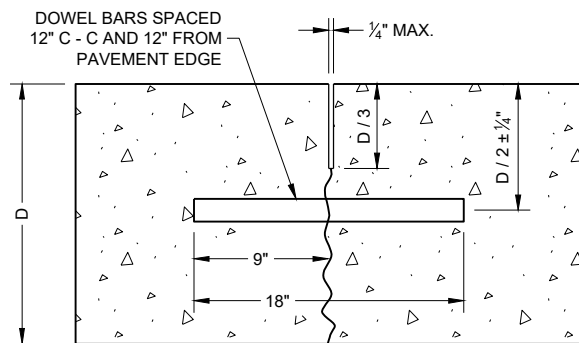
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

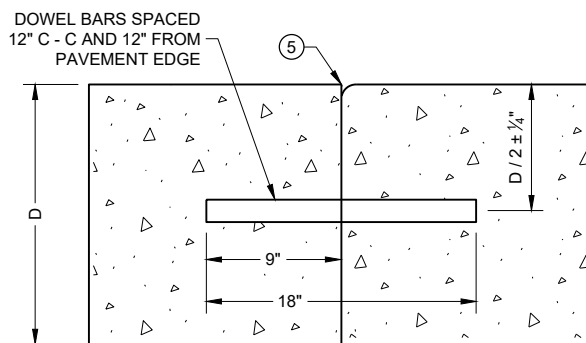
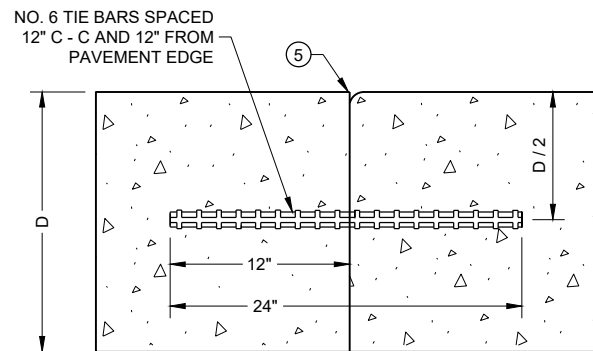
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 102

**DOWELED TRANSVERSE** ①**UNTIED - LONGITUDINAL****EXPANSION JOINTS****UNDOWELED TRANSVERSE****TIED LONGITUDINAL****DOWELED TRANSVERSE****CONTRACTION JOINTS** ②**TIE BAR TABLE**

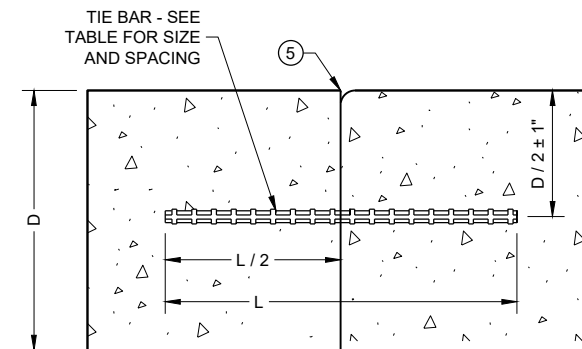
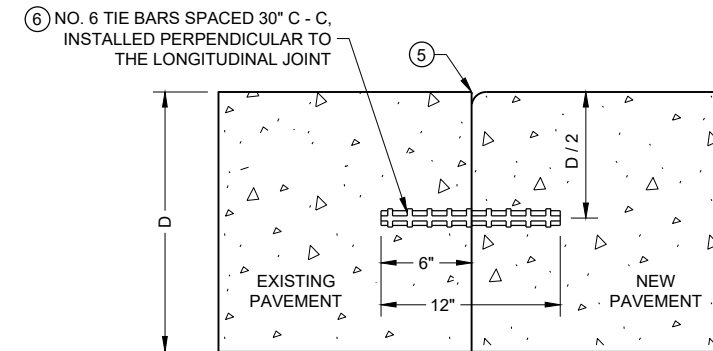
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

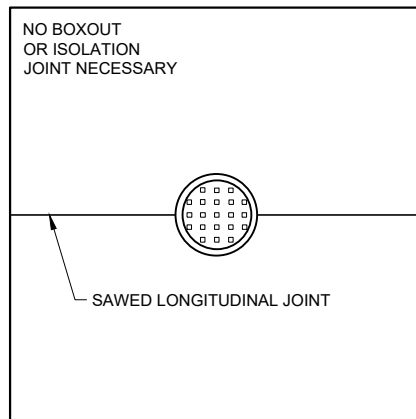
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

**DOWELED TRANSVERSE** ③**TIED TRANSVERSE** ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)**CONSTRUCTION JOINTS** ④**GENERAL NOTES**

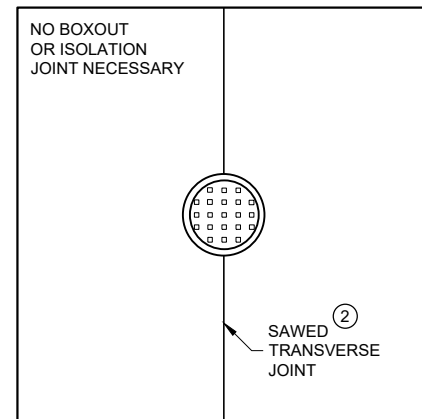
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM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

**TIED LONGITUDINAL****TIED LONGITUDINAL TO EXISTING****CONCRETE PAVEMENT
JOINT TYPES**

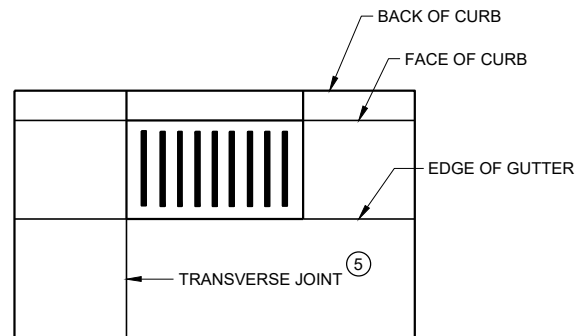
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 103



MANHOLE WITH
LONGITUDINAL JOINT



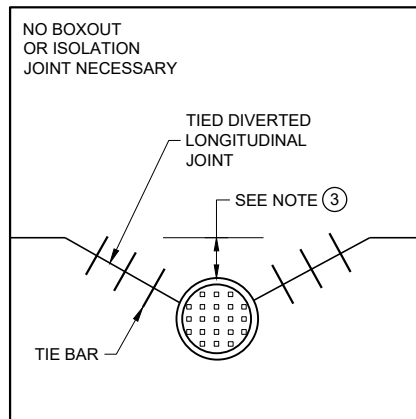
MANHOLE WITH
TRANSVERSE JOINT



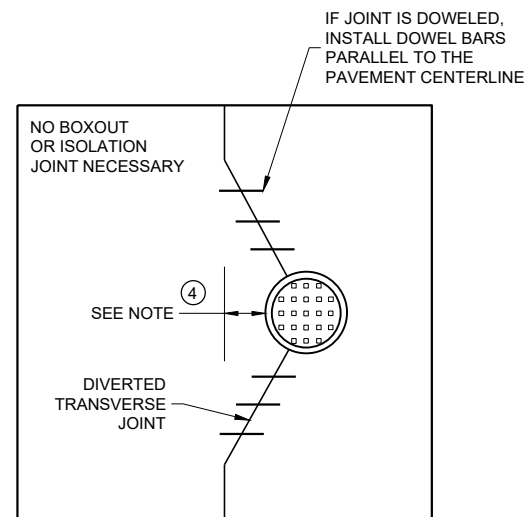
INLET WITH
TRANSVERSE JOINT

GENERAL NOTES

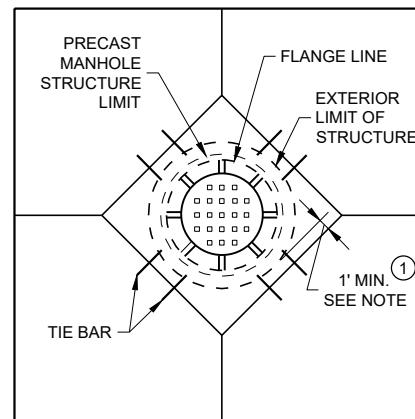
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE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



MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT

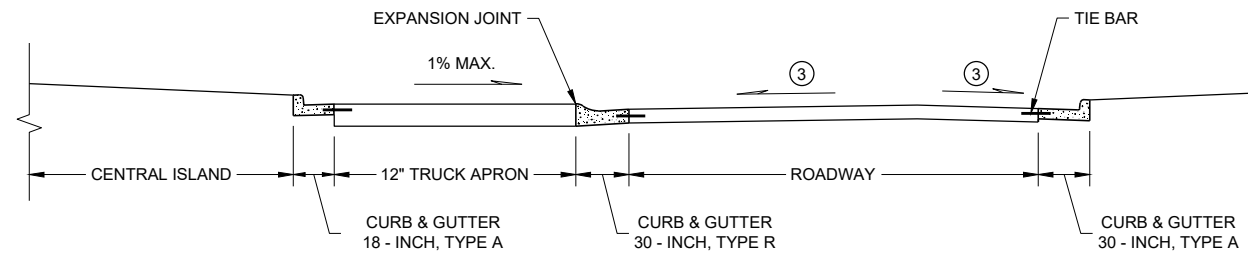


DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS

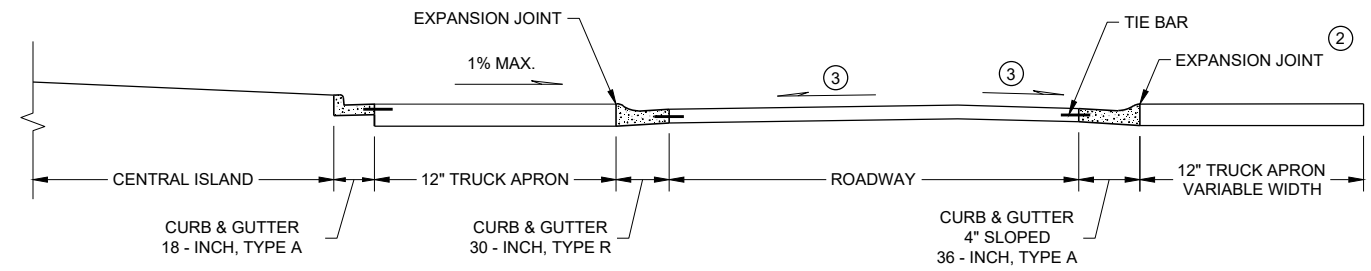
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

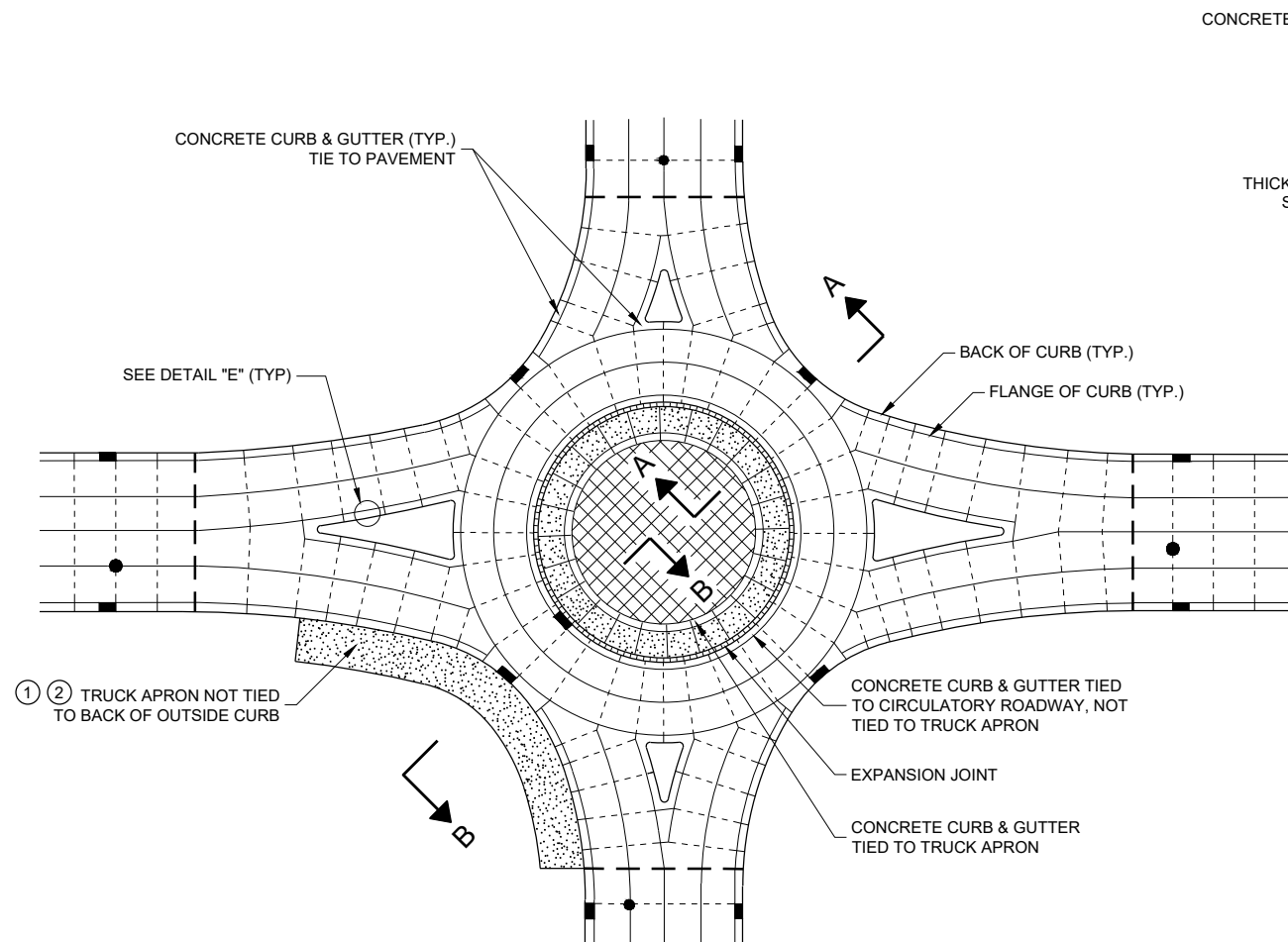
APPROVED
May 2023 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 104
FHWA



SECTION A - A



SECTION B - B

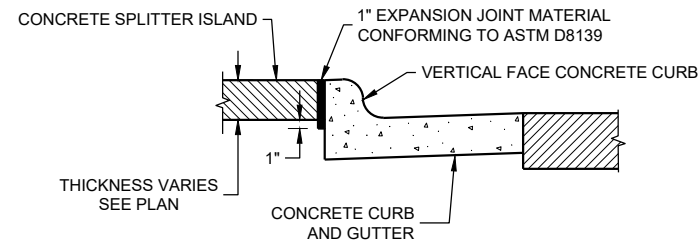


ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS

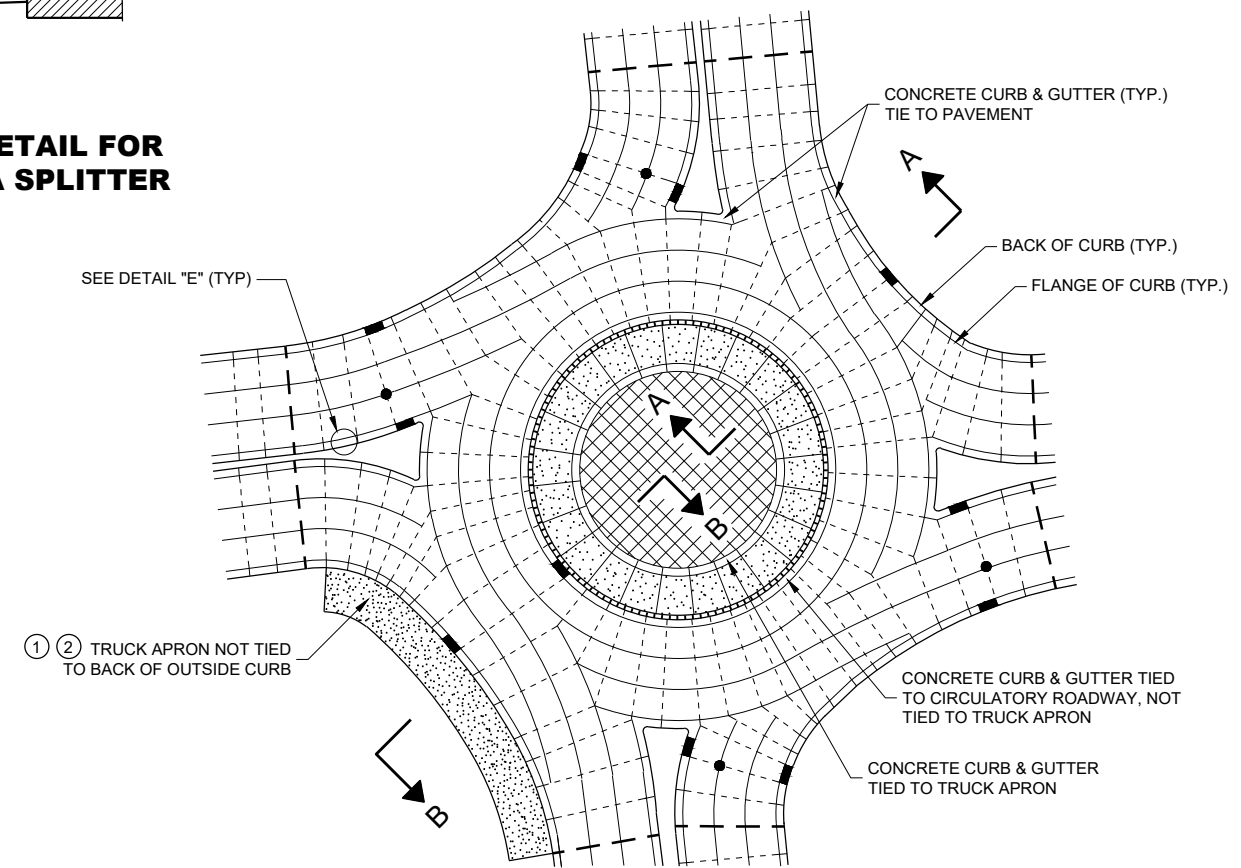
GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"
 USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.
 DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

- ① DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.
- ② TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.
- ③ CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.



**DETAIL 'E'
EXPANSION JOINT DETAIL FOR
VERTICAL CURB AT A SPLITTER
ISLAND**



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

LEGEND

- DOWELED JOINT
- TIED JOINT
- ===== EXPANSION JOINT
- — — — — POTENTIAL DOWELED EXPANSION JOINT
- [Pattern] TRUCK APRON
- [Pattern] CENTRAL ISLAND
- ● UTILITY STRUCTURES

**CONCRETE PAVEMENT JOINTING
AND STEEL REINFORCEMENT
IN ROUNDABOUTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 105
FHWA

-----	DOWELED JOINT
————	TIED JOINT
	EXPANSION JOINT
— — —	POTENTIAL DOWELED EXPANSION JOINT
←	DIRECTION OF TRAFFIC

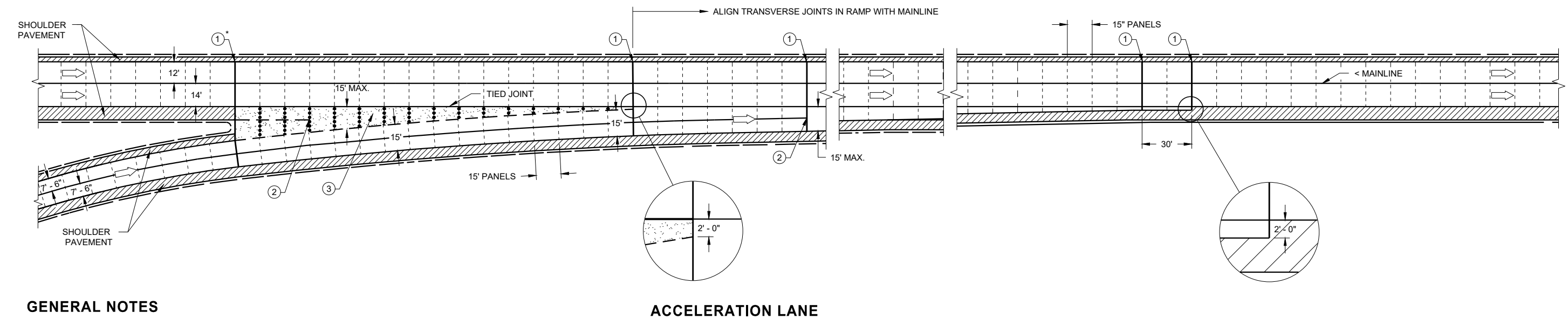
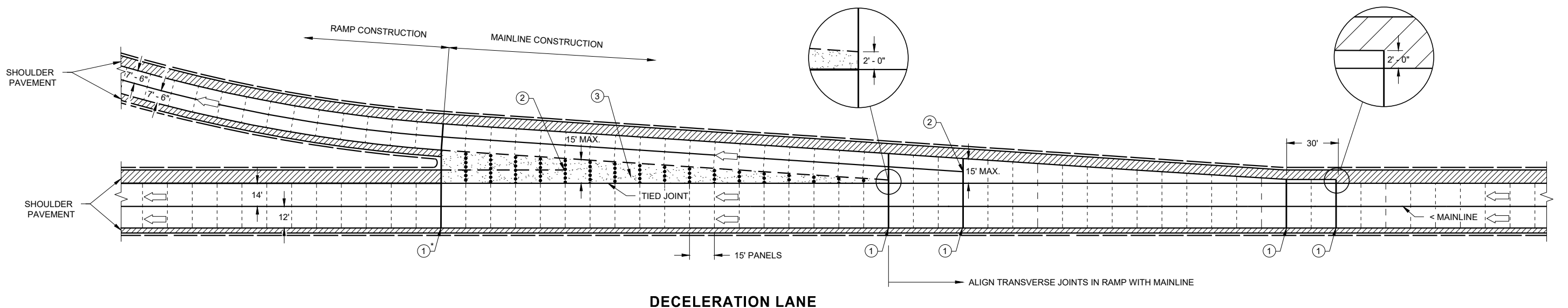
- ① CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.



APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

106



GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

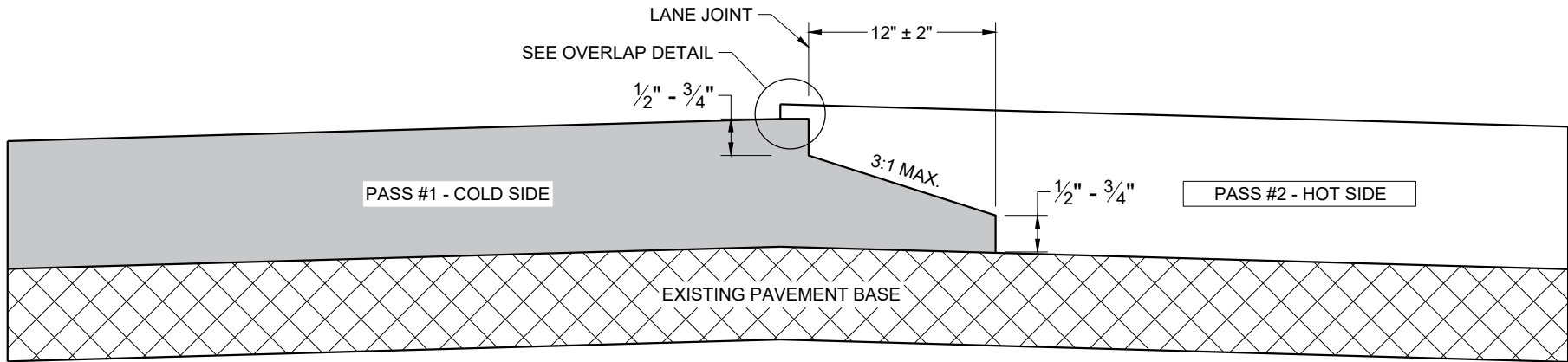
LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

- ① CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES.
(①* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).
- ② STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.
- ③ DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

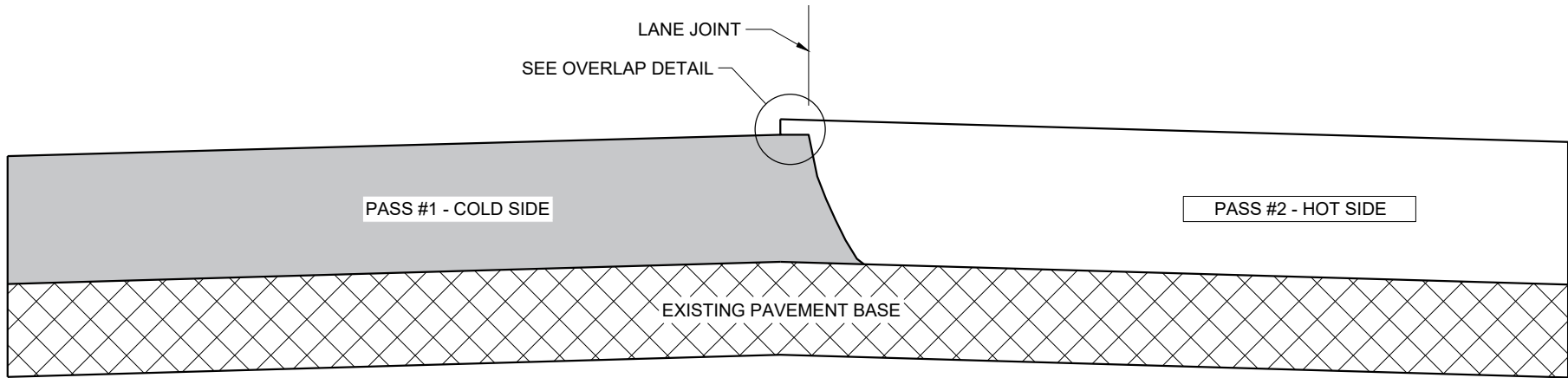
LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- - - - UNTIED JOINT
- [Pattern] GORE
- ➡ DIRECTION OF TRAVEL

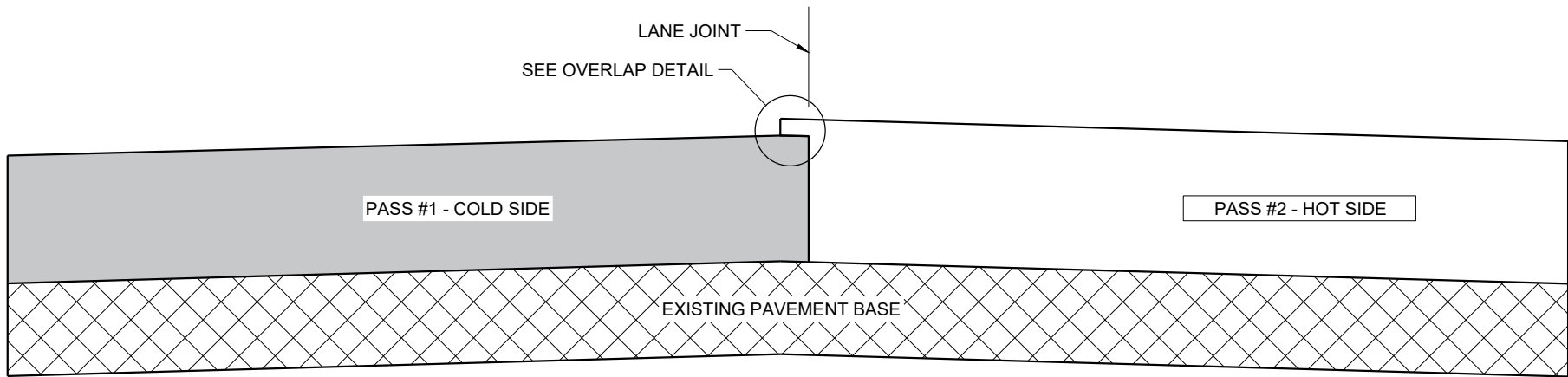
CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR 107
FHWA	



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

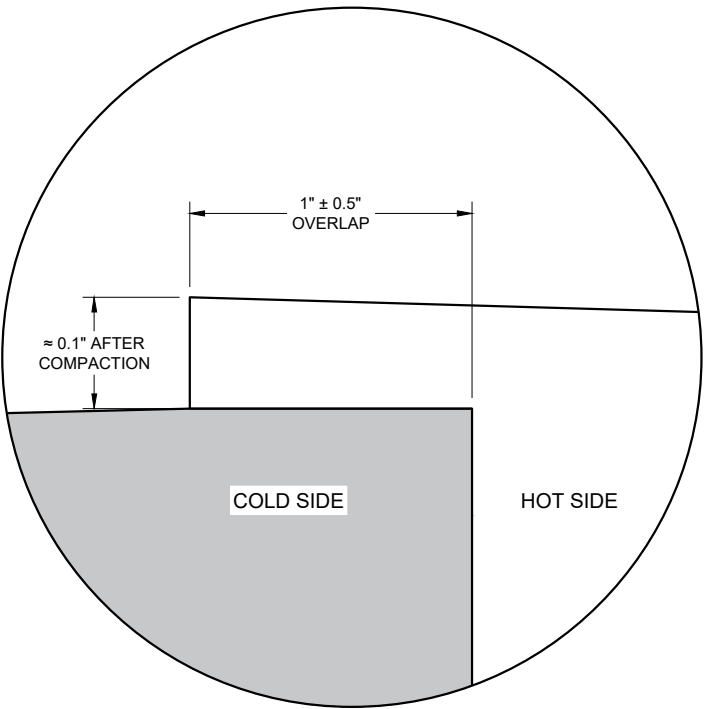
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

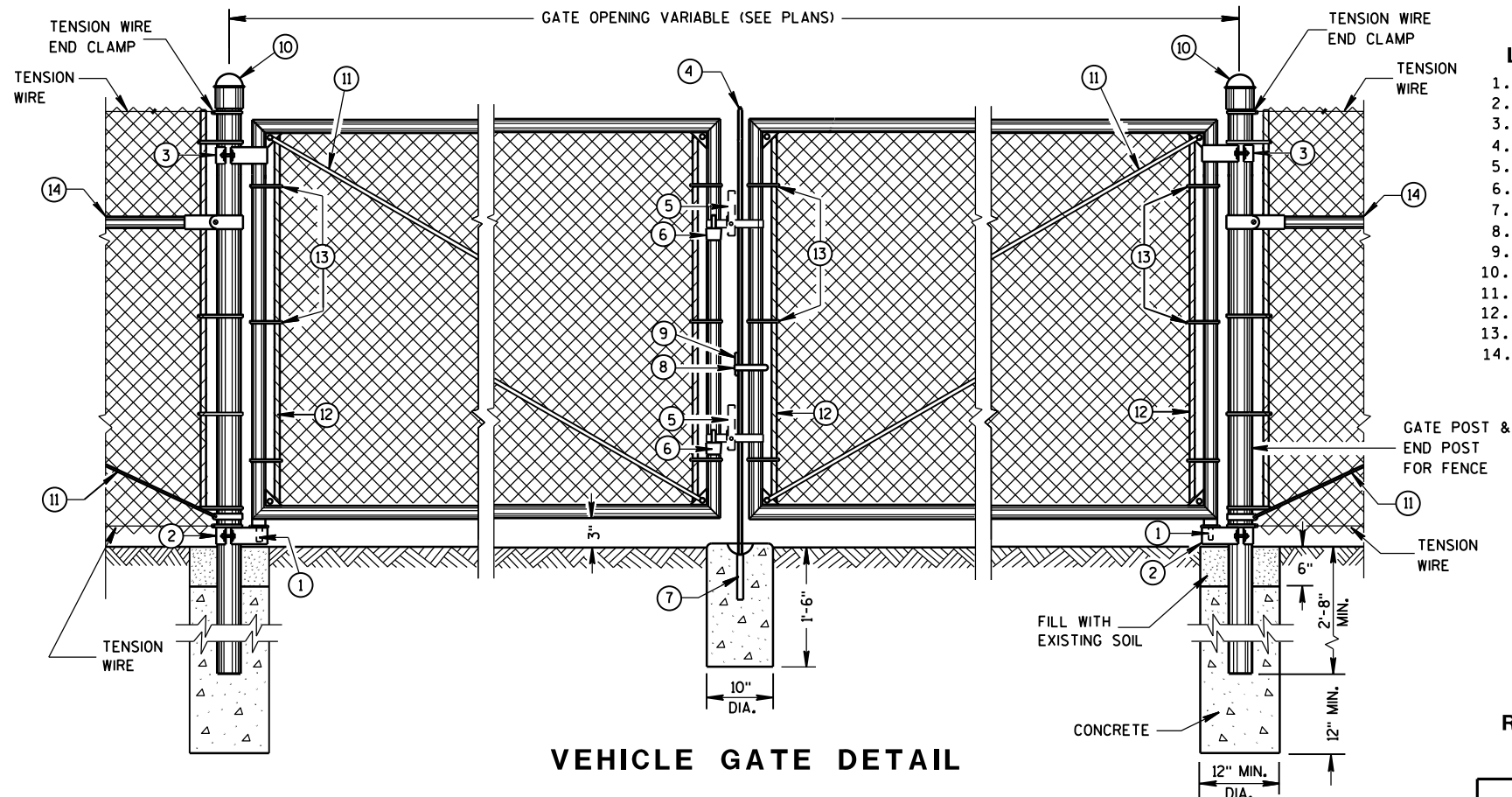


OVERLAP DETAIL (TYPICAL)

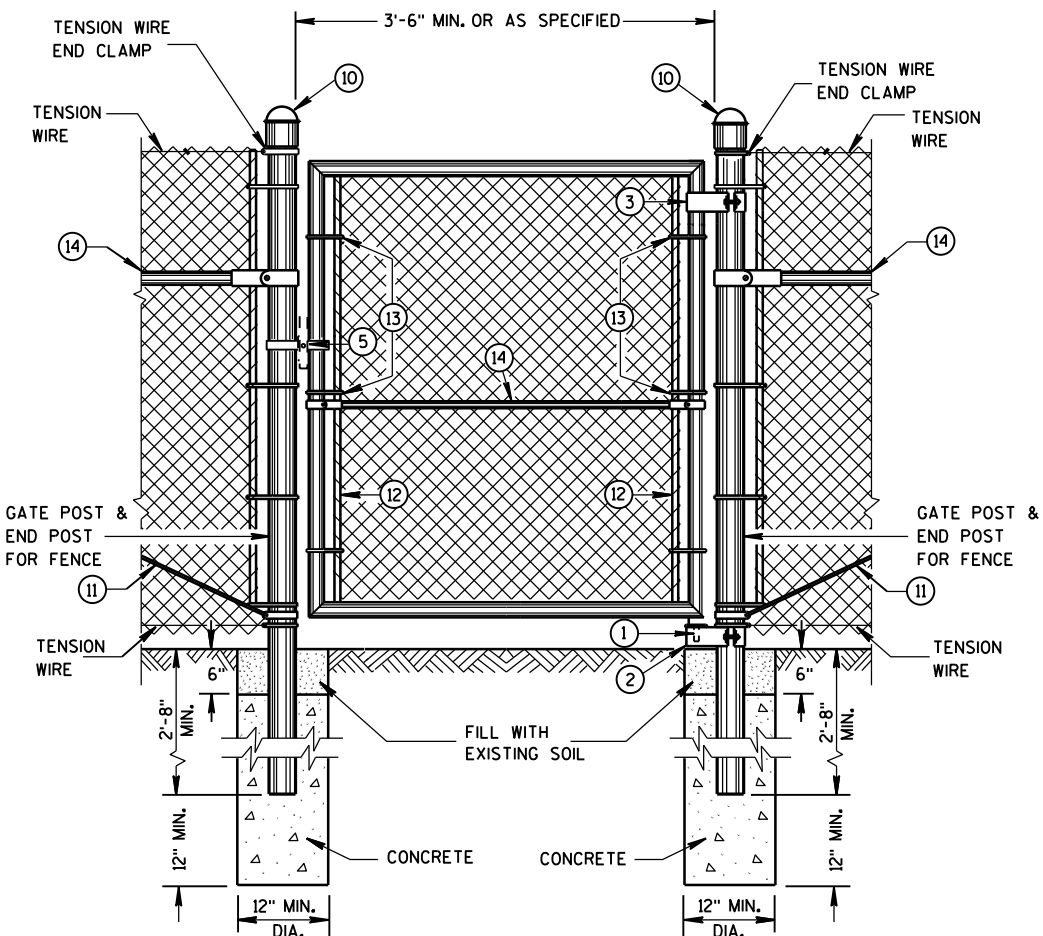
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 108
FHWA



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2+
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

LEGEND

1. STRAIGHT PLUG
 2. BOTTOM HINGE
 3. TOP HINGE
 4. PLUNGER ROD
 5. FULCRUM LATCH
 6. FORK CATCH *
 7. PLUNGER ROD CATCH
 8. LOCK KEEPER GUIDE
 9. LOCK KEEPER
 10. DOME TOPS
 11. TRUSS RODS
 12. TENSION BAR
 13. TENSION BANDS
 14. BRACE RAIL
- *NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

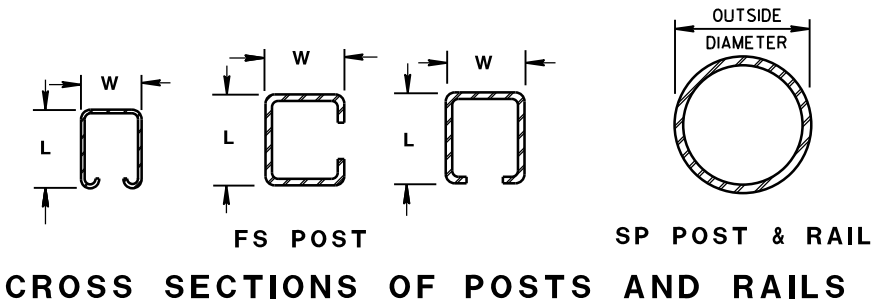
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



ROLLED-FORMED STEEL FENCE POST
(2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2+	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

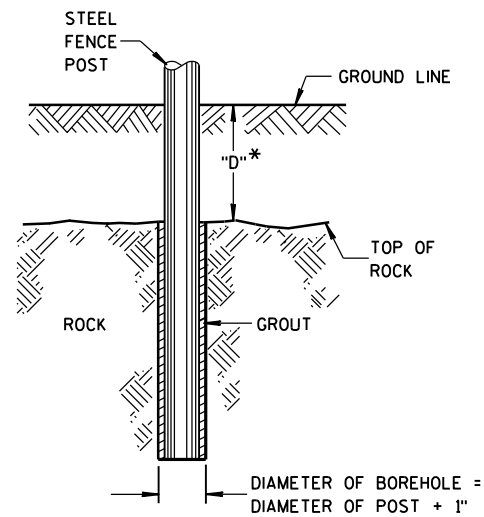
USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST
(1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

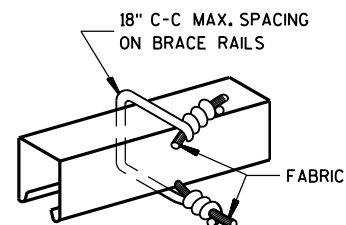
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



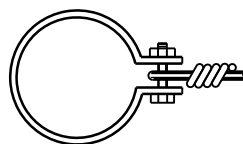
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

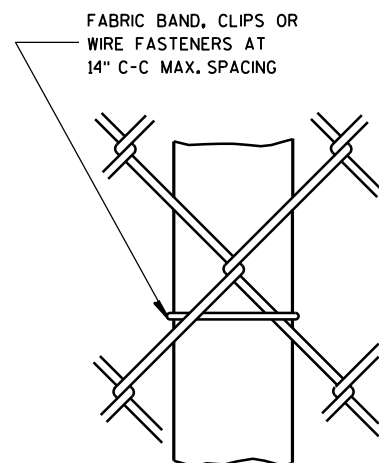


BRACE RAIL FABRIC FASTENER

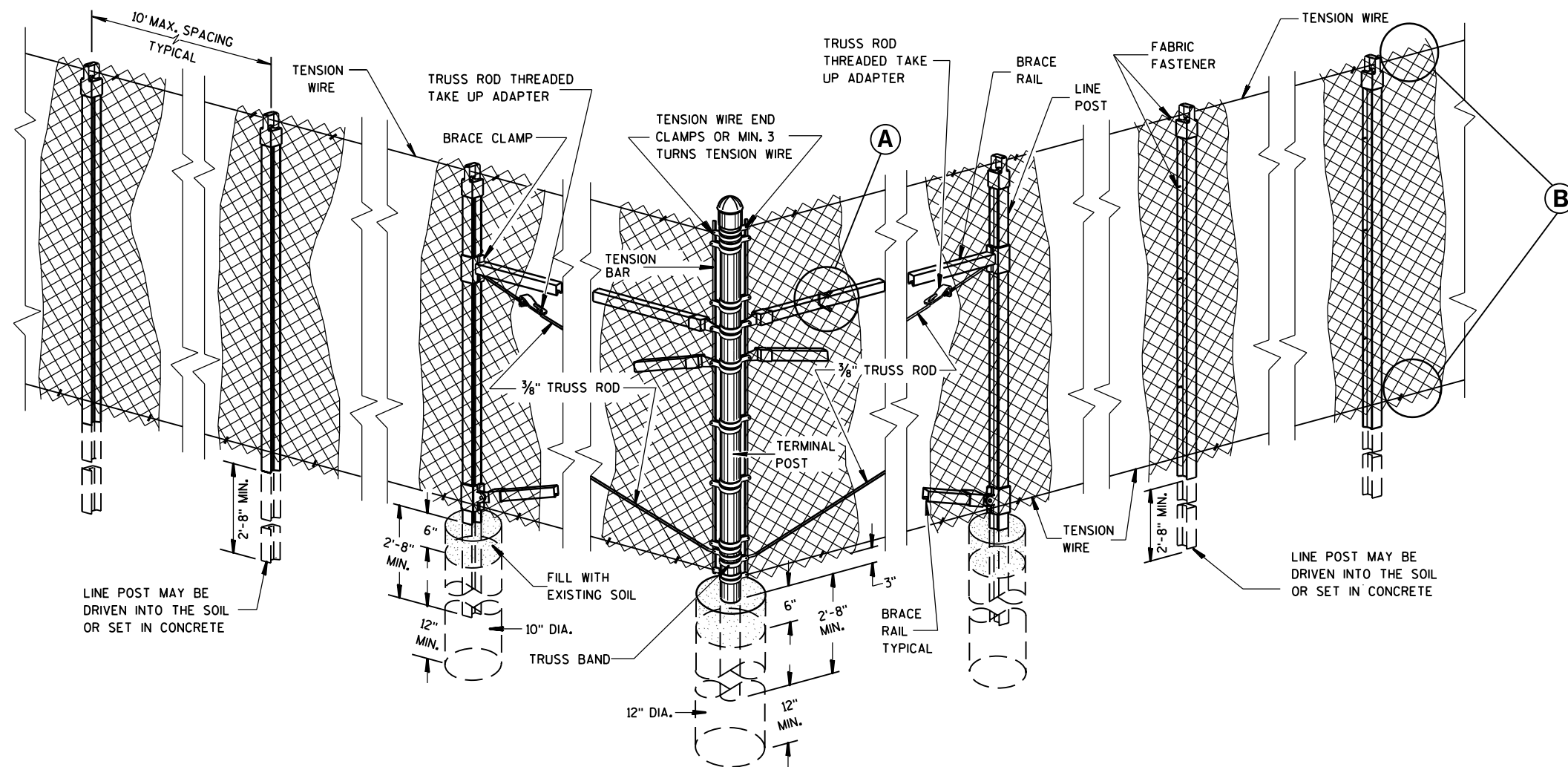
(A)



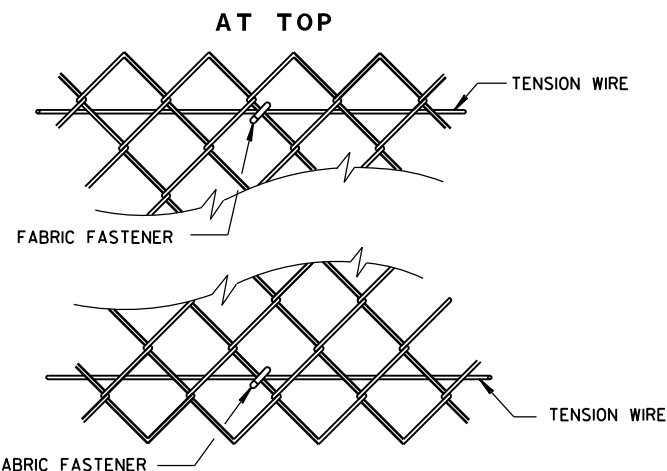
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



(B)

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

FEB. 2015

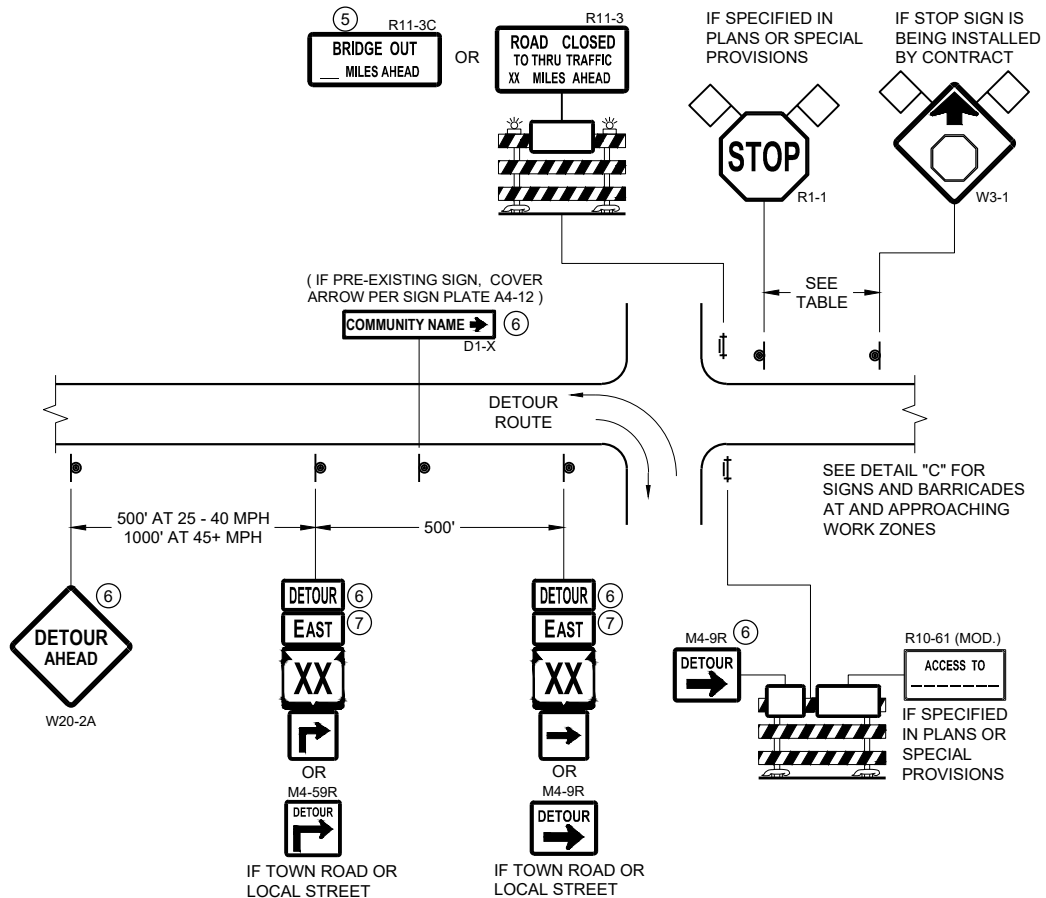
DATE

FHWA

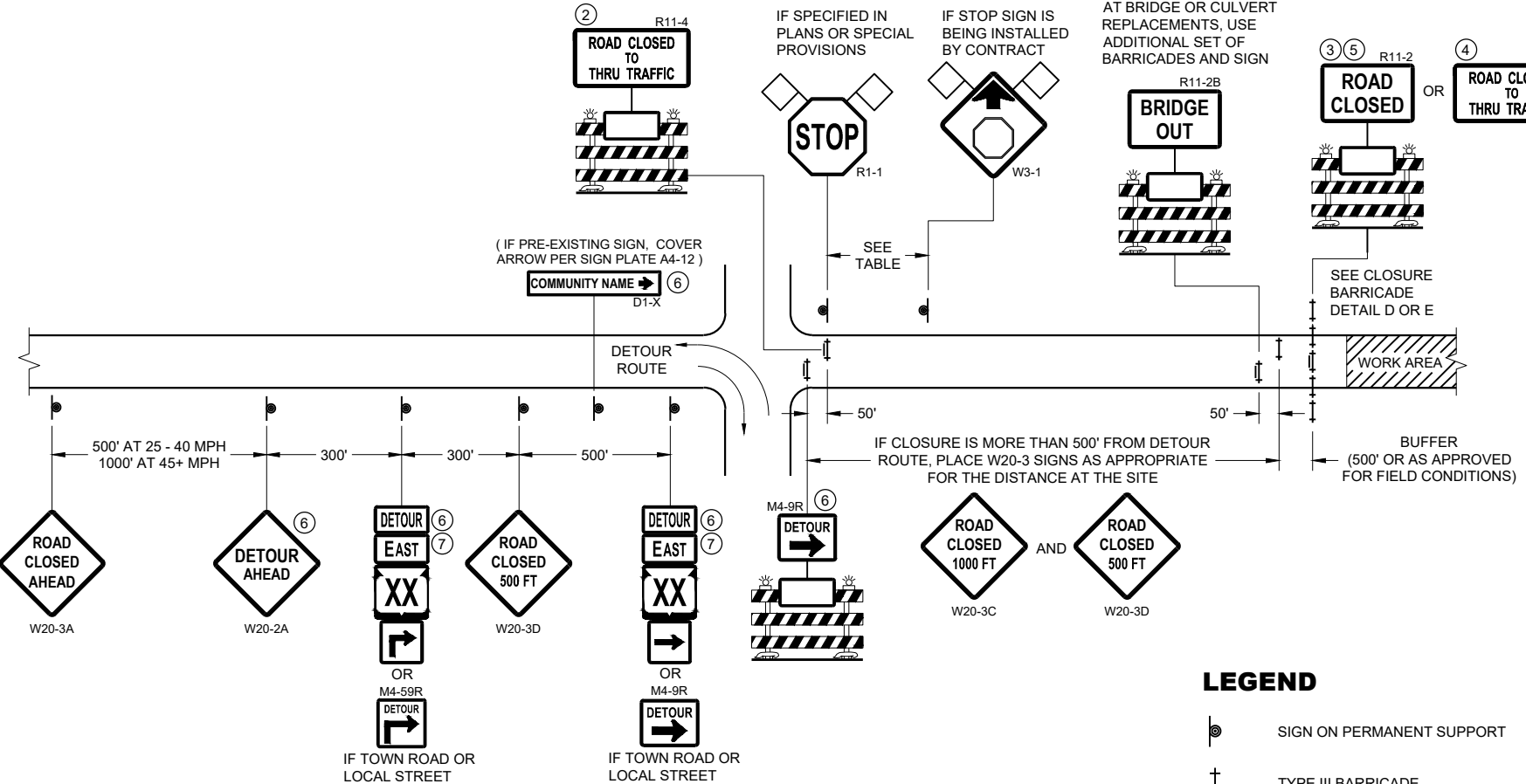
/S/ Jerry H. Zogg

ROADWAY STANDARDS 110

ENGINEER



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



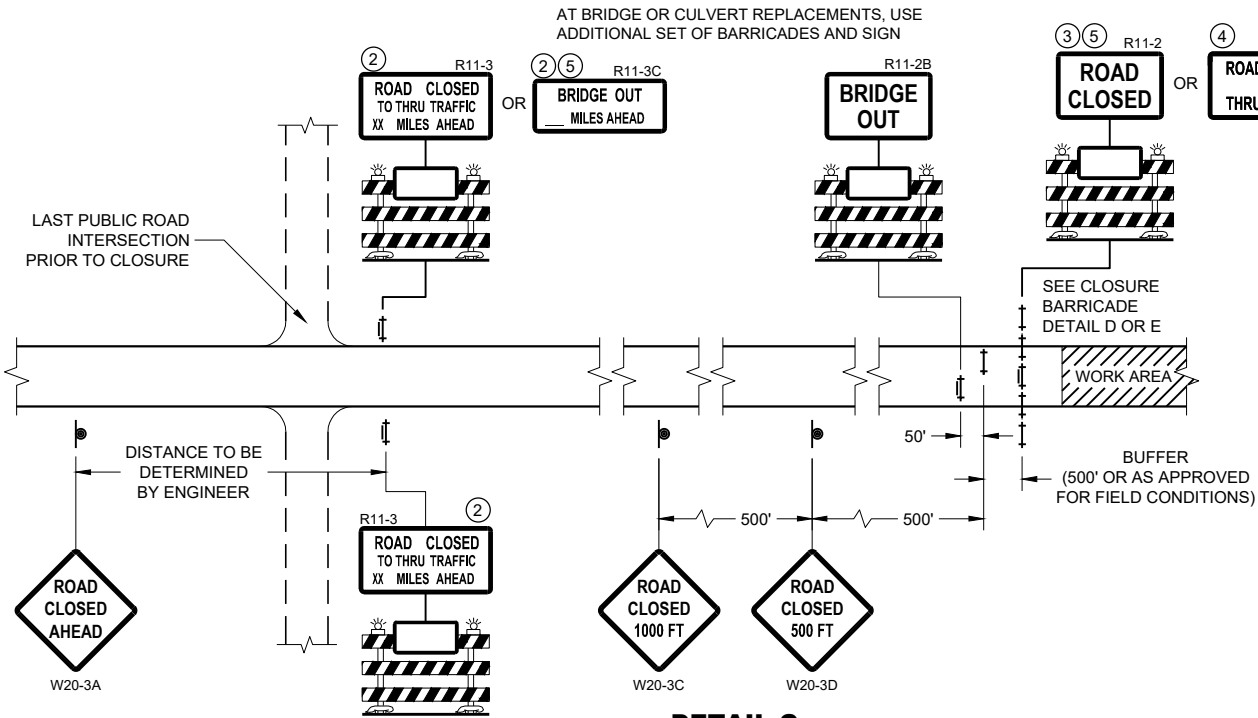
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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)

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR 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

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 111

FHWA



SEE SDD 15C2 - SHEET "a" FOR LEGEND

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.

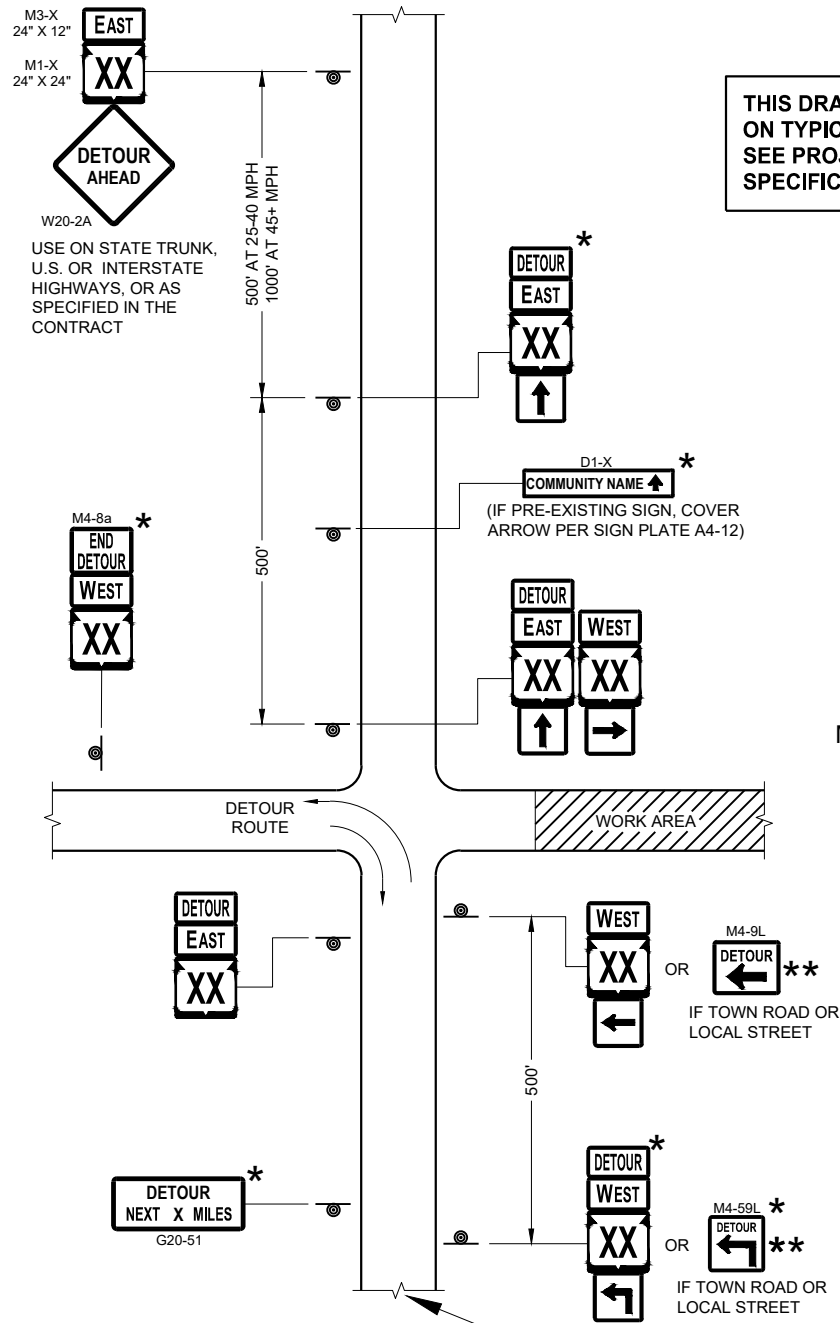
THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"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"

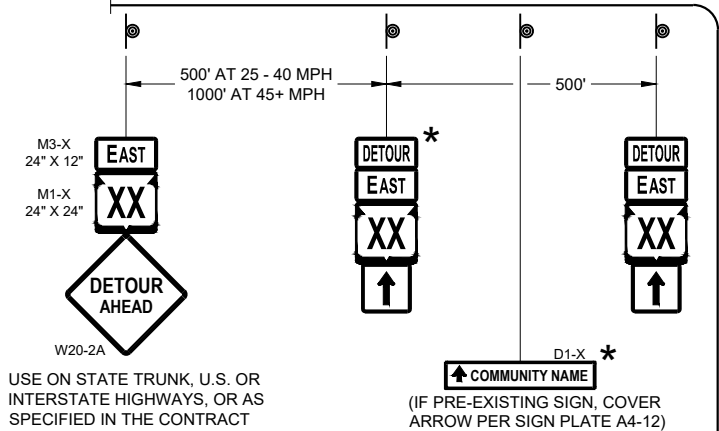
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS 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.



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

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

MATCH POINT



DETAIL F
DETOUR SIGNING

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.

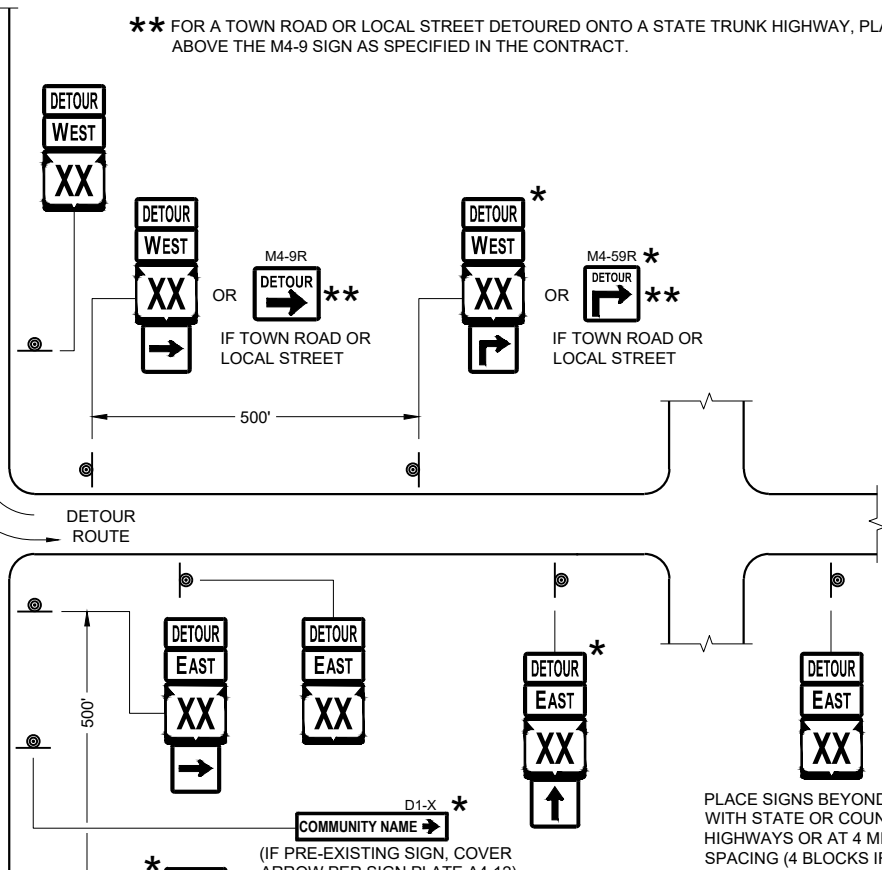
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

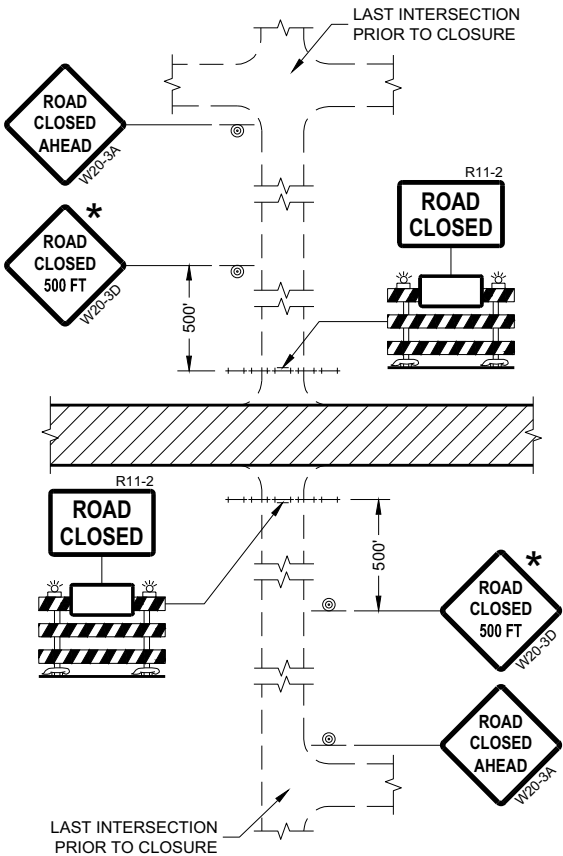
SIGN SIZES SHALL BE AS FOLLOWS:

- 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.

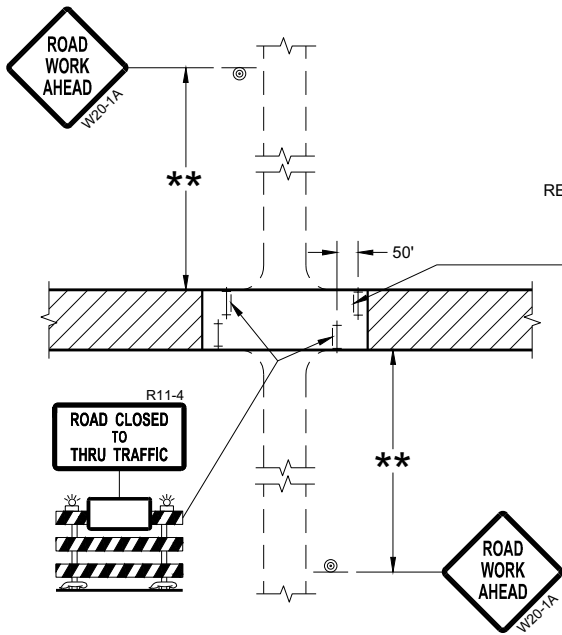
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



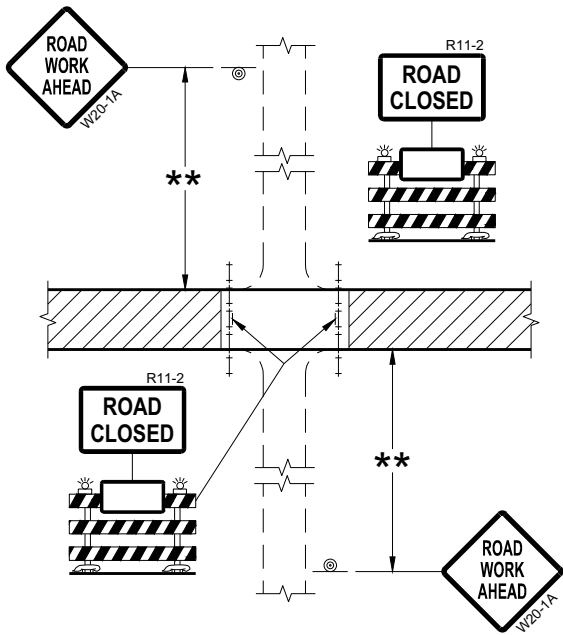
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 113
FHWA	



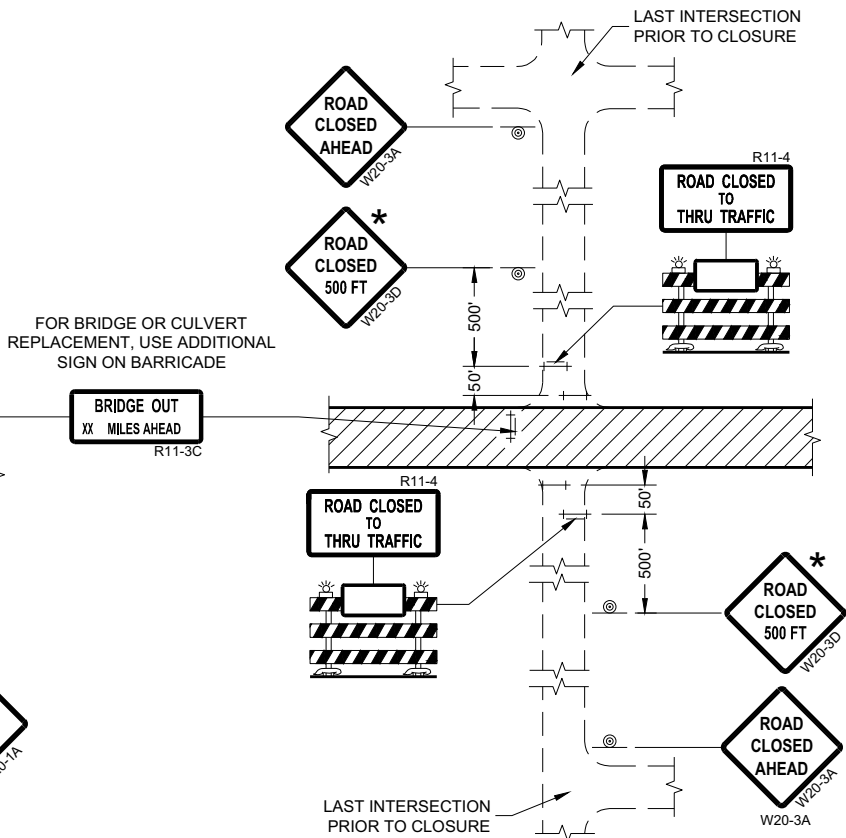
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (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 114
FHWA

GENERAL NOTES

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

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

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

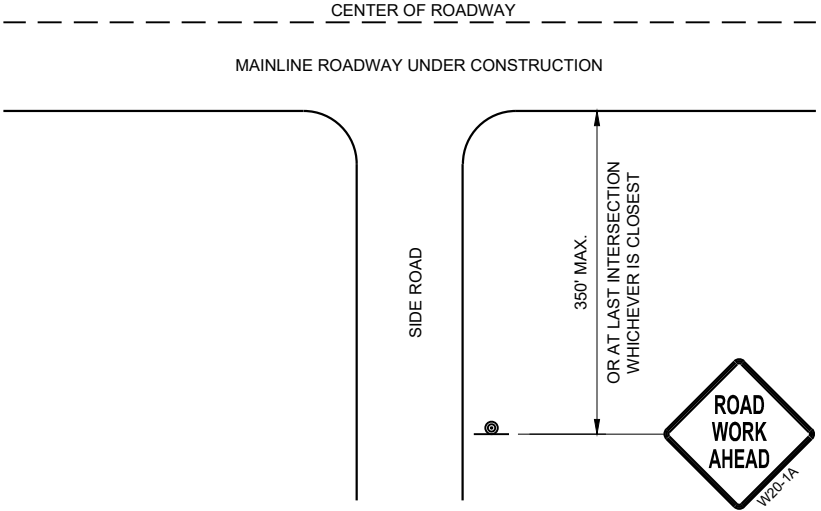
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

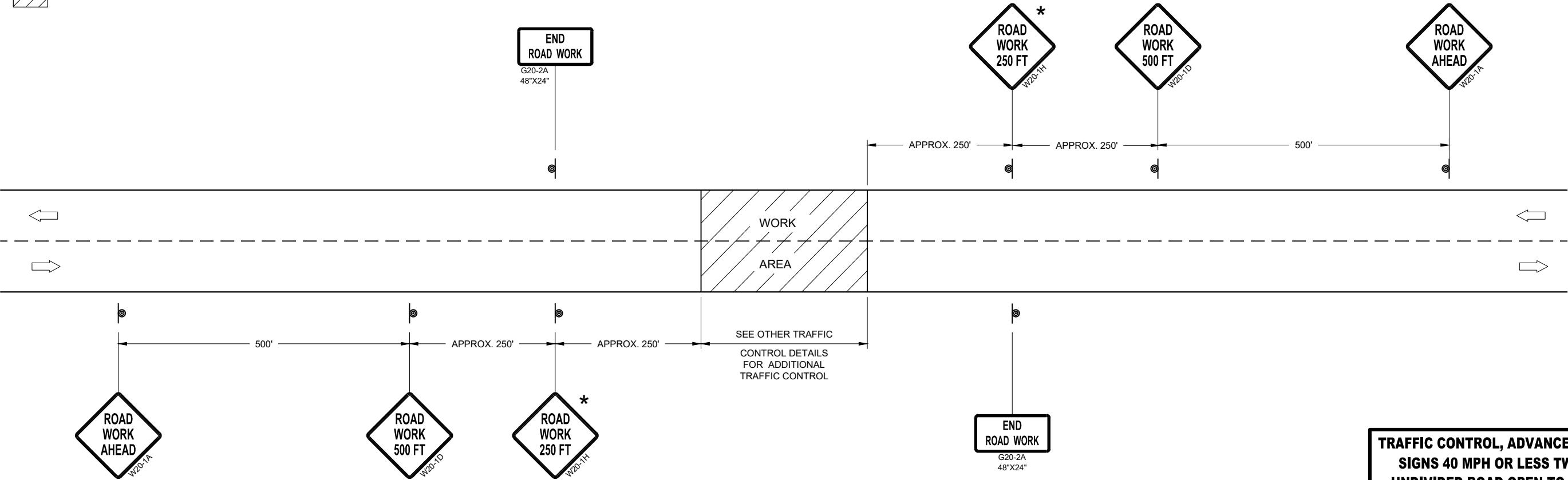
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

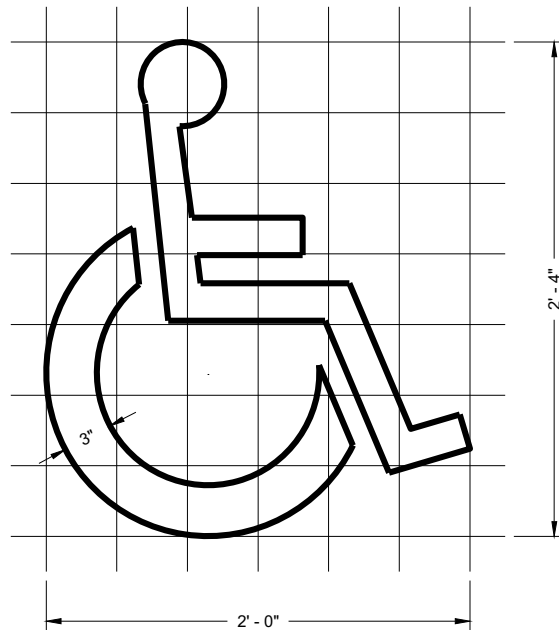


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

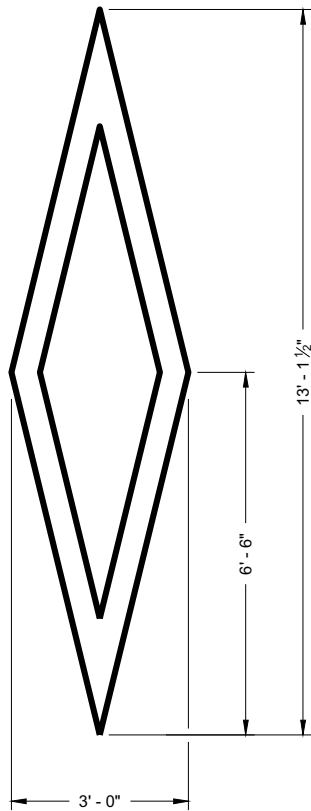
TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 115
FHWA



HANDICAP SYMBOL



PREFERENTIAL
LANE SYMBOL

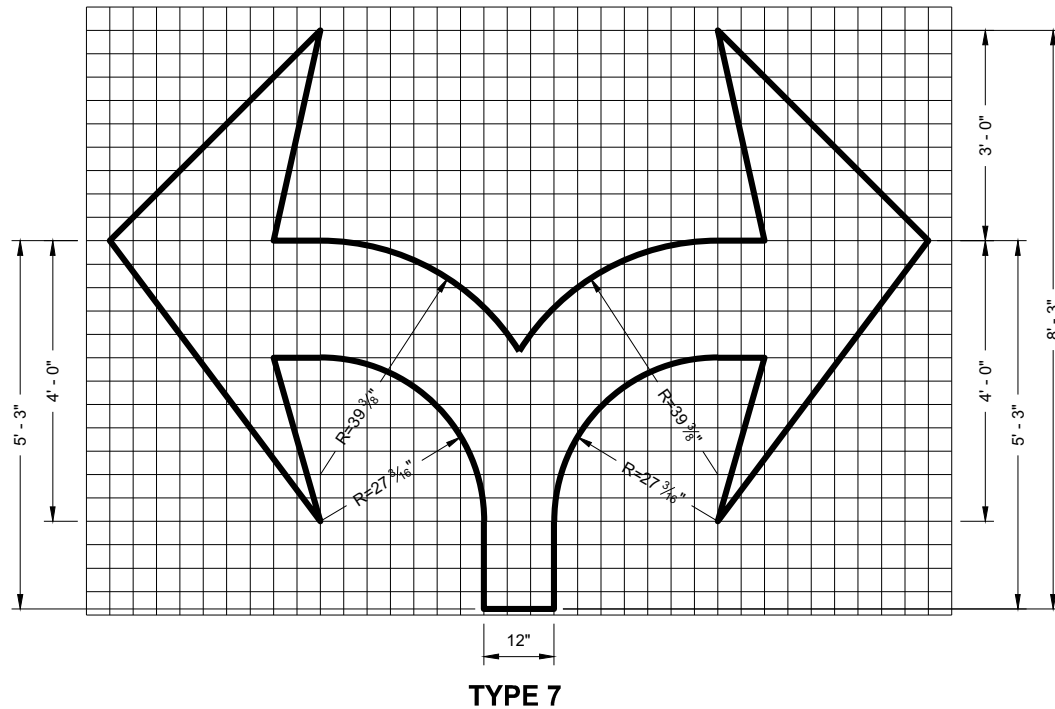
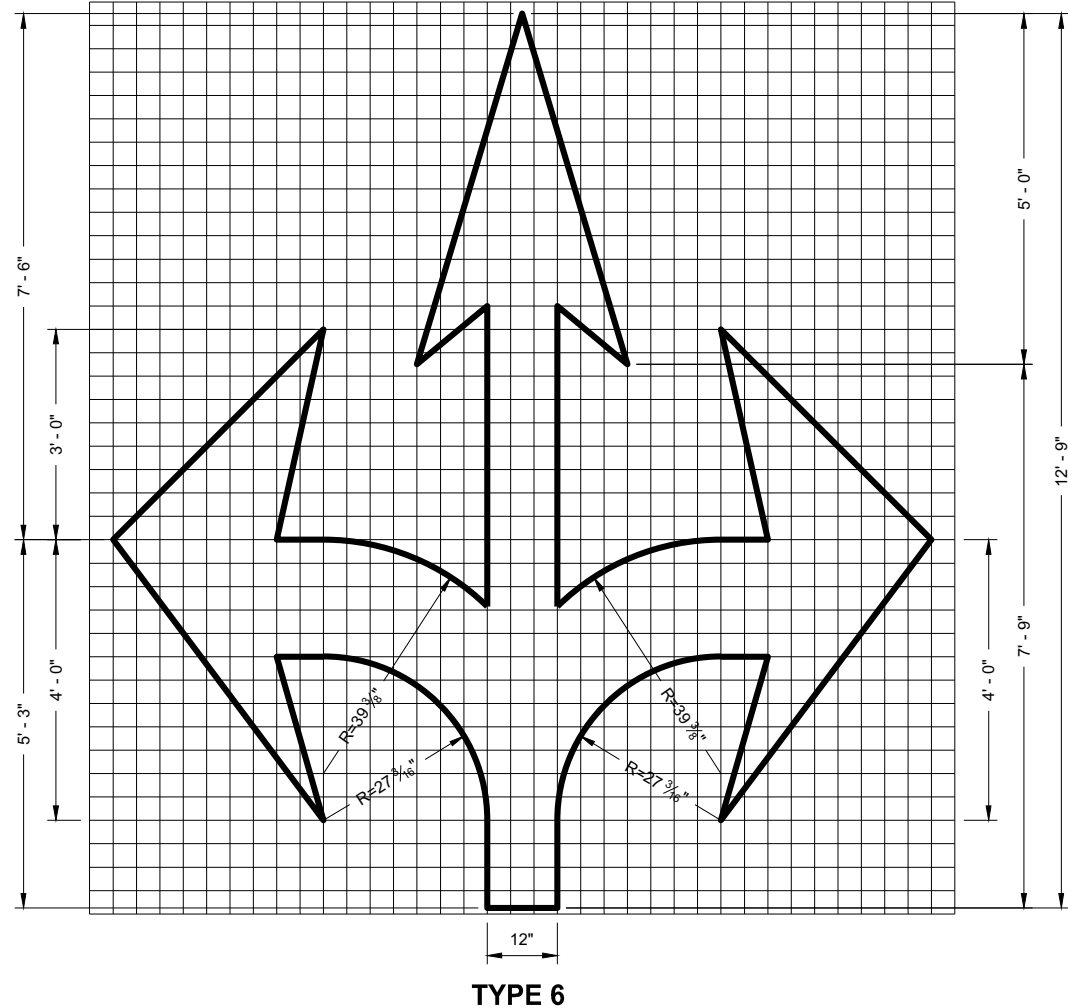
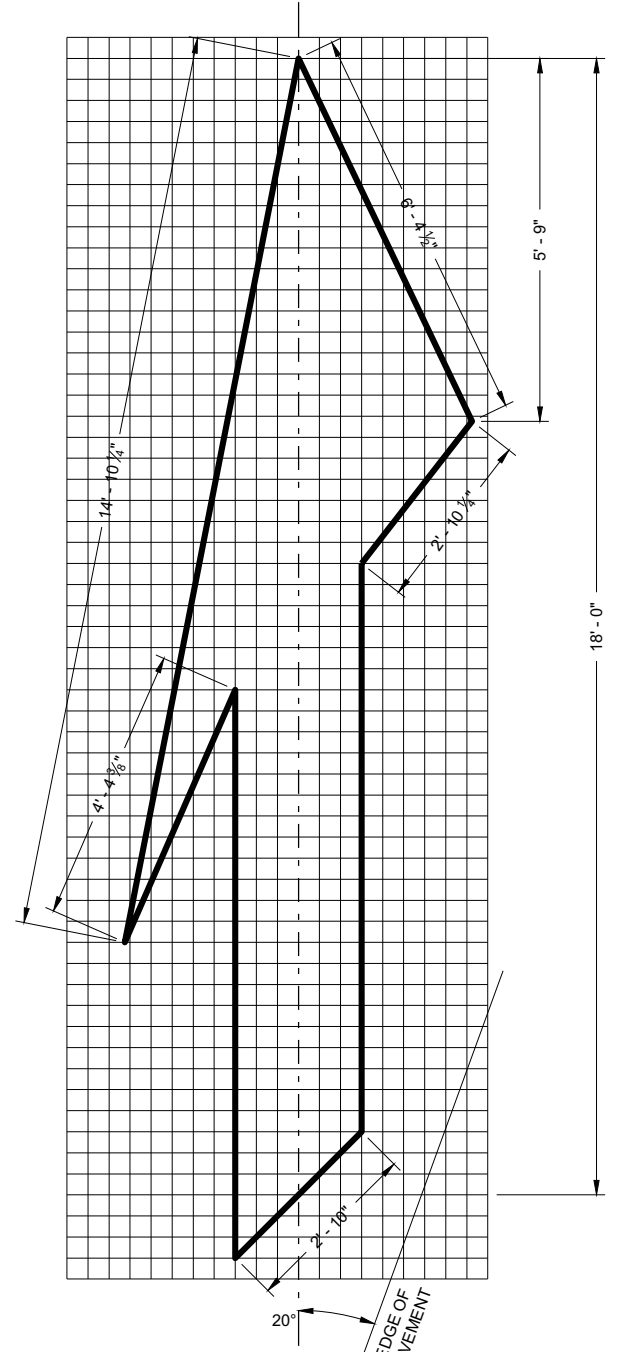
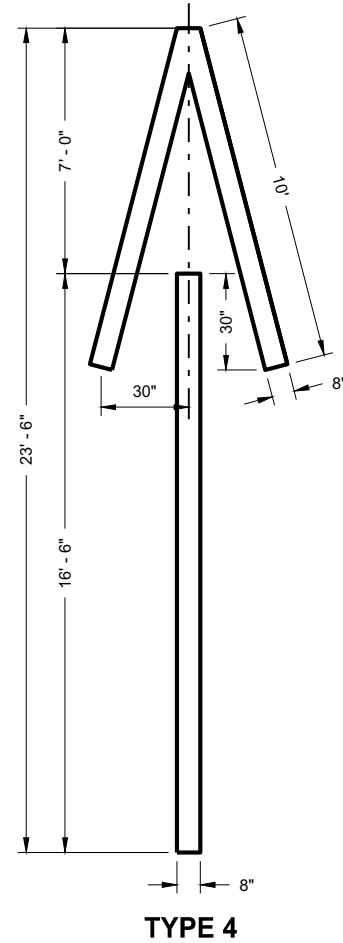
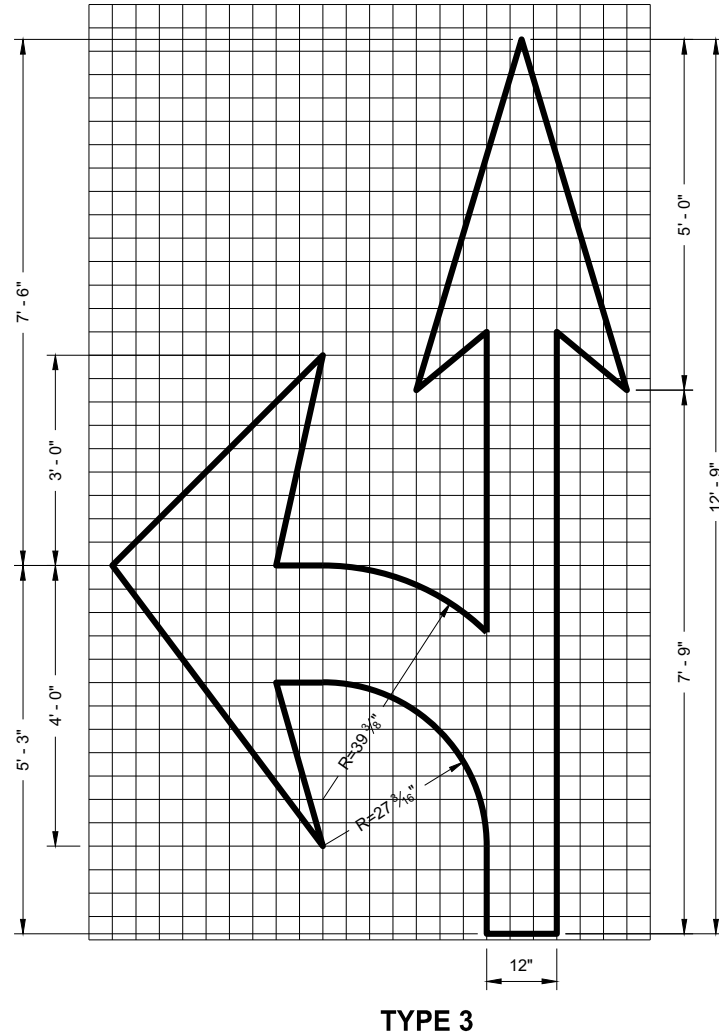
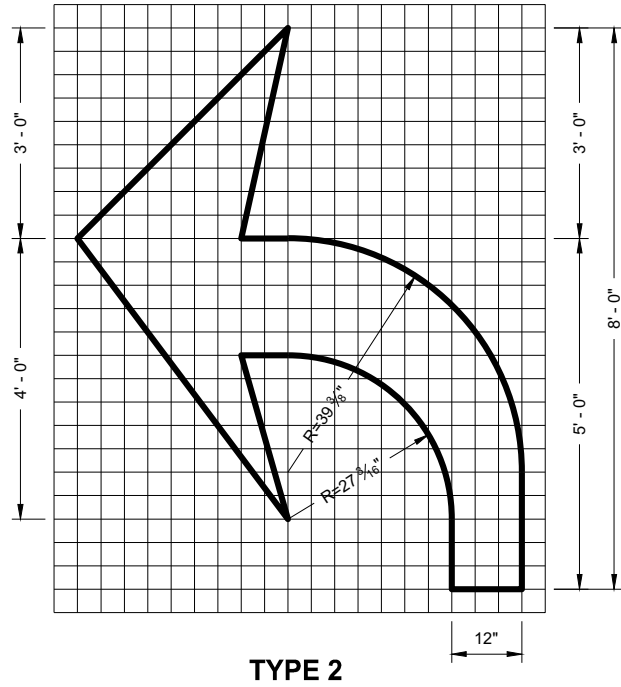
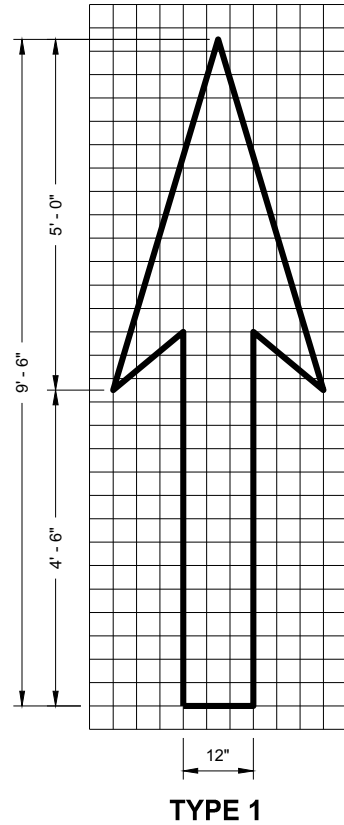
GENERAL NOTES

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 116
FHWA



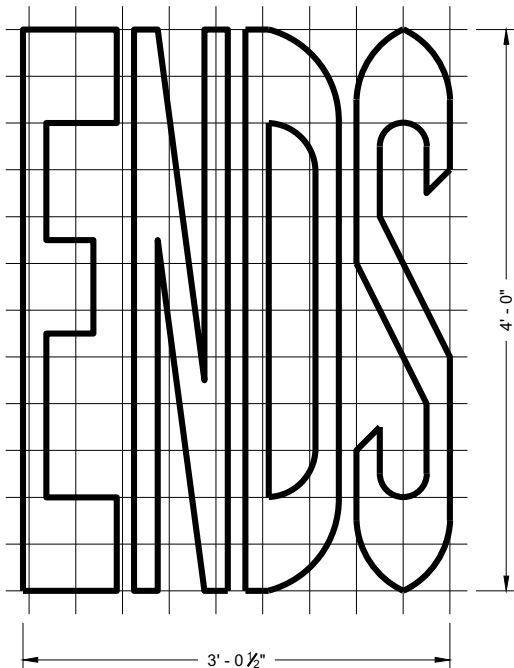
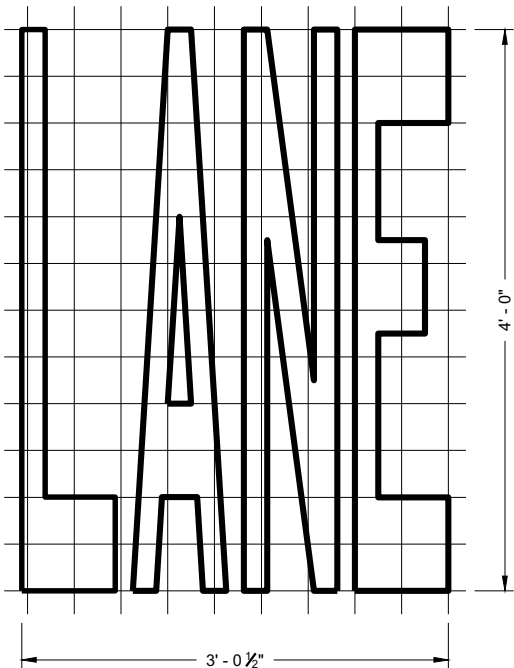
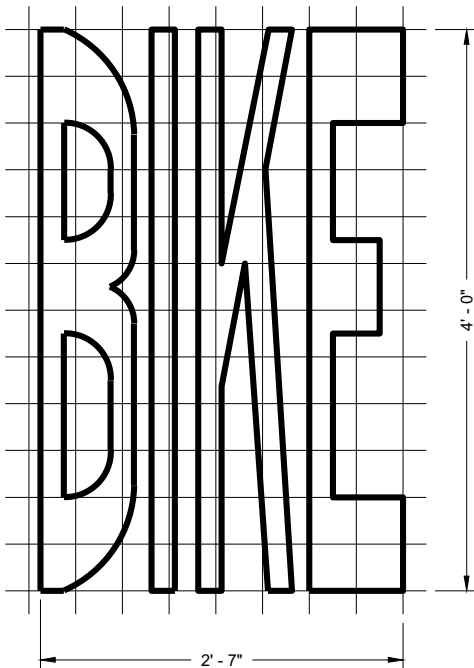
GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

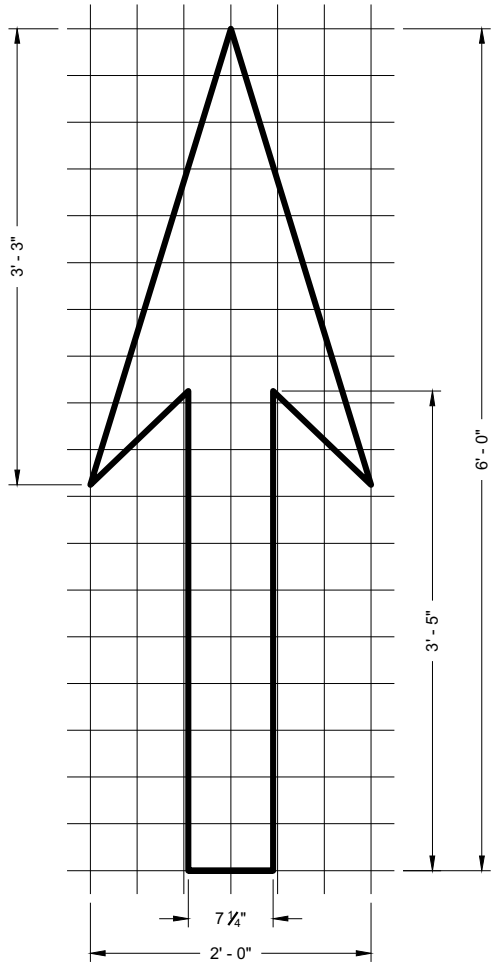
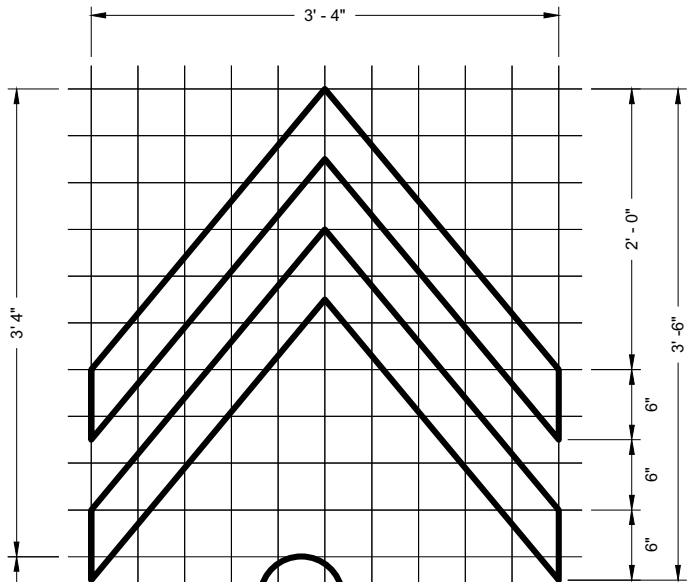
APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAF
ENGINEER 117
FHWA



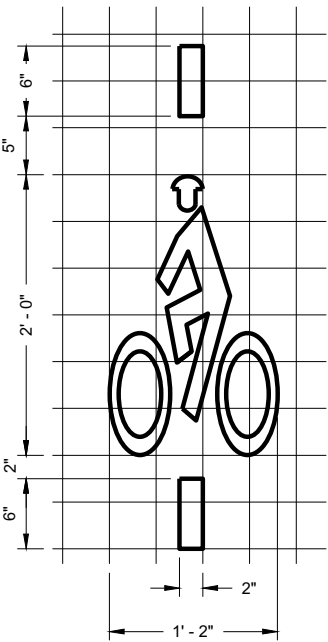
BIKE LANE WORDS

GENERAL NOTES

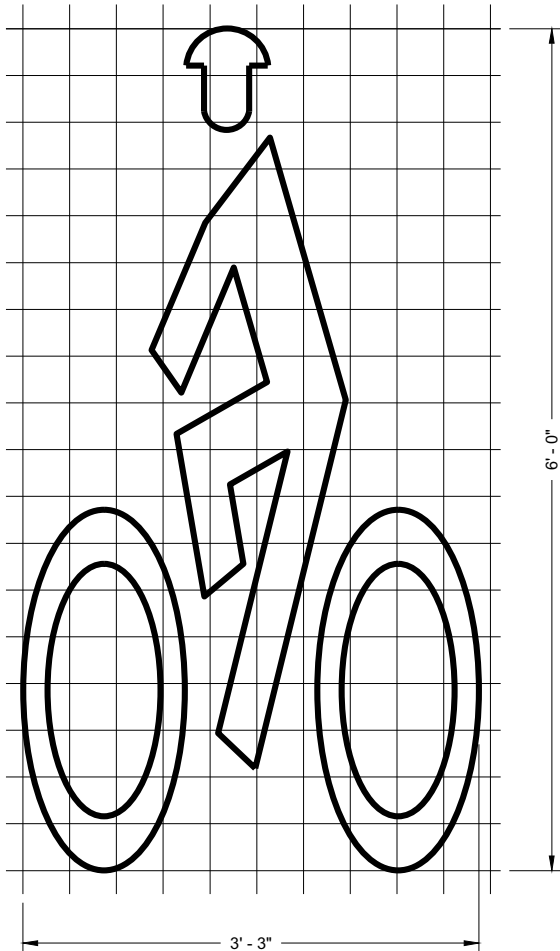
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



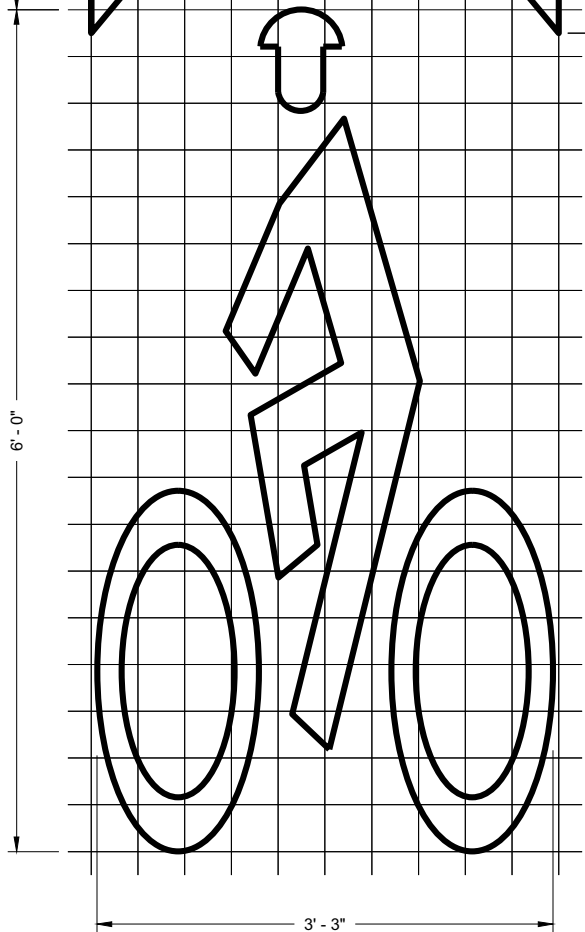
BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL



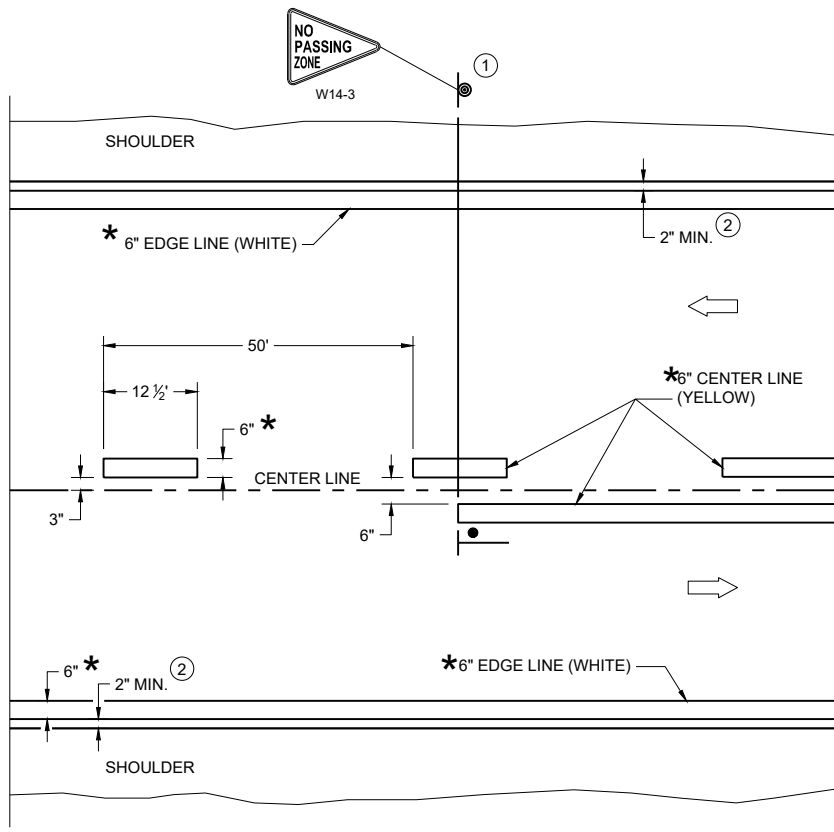
BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

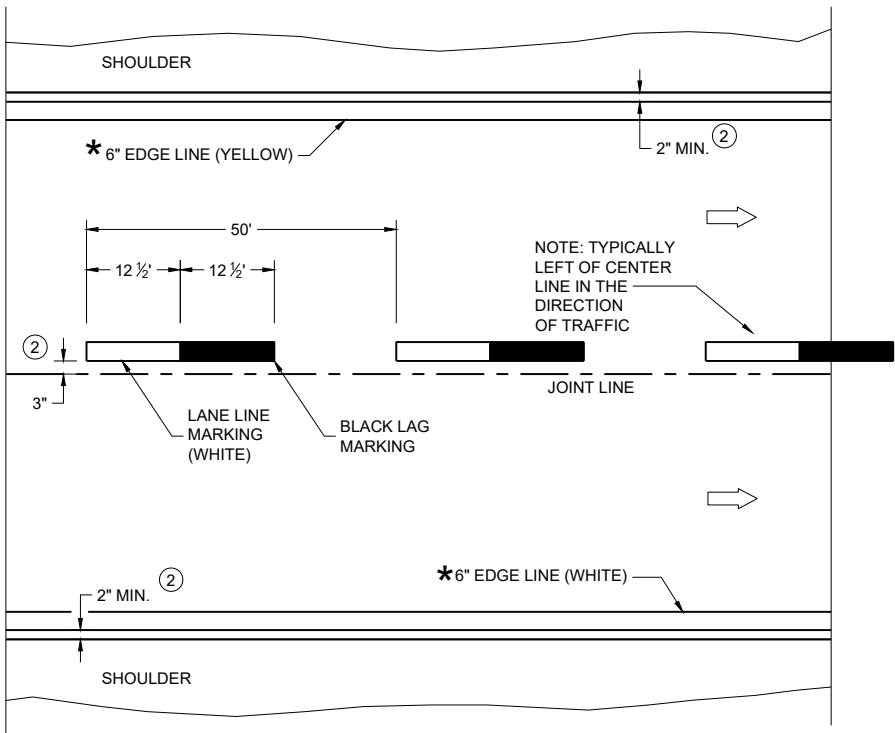
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 118

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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.

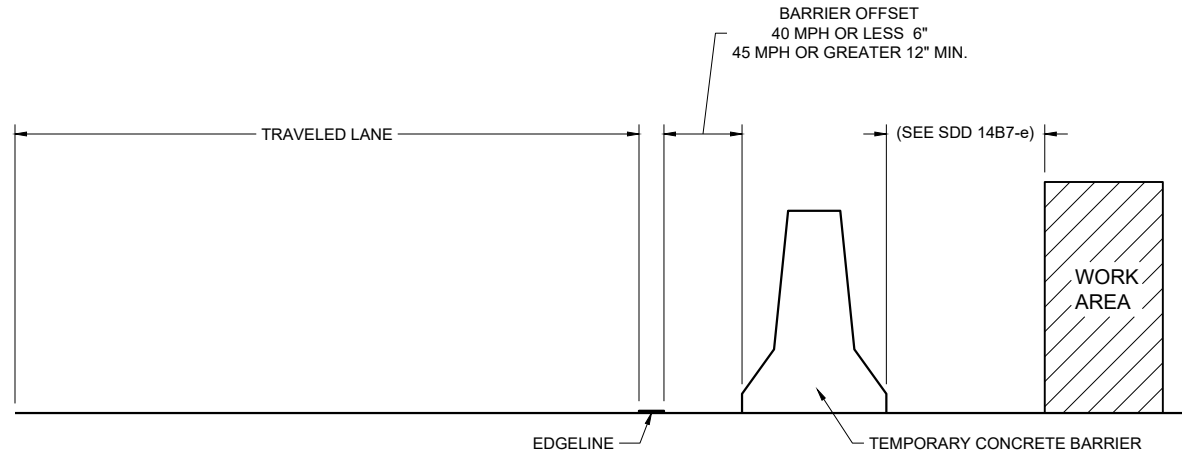
LEGEND

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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer



TEMPORARY BARRIER OFFSET FROM EDGE LINE

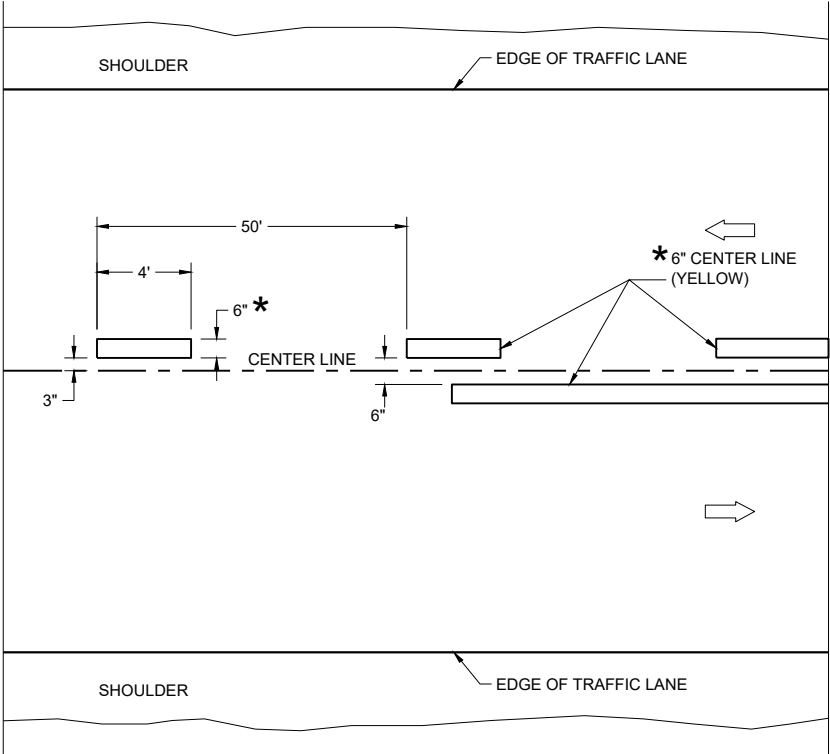
GENERAL NOTES

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

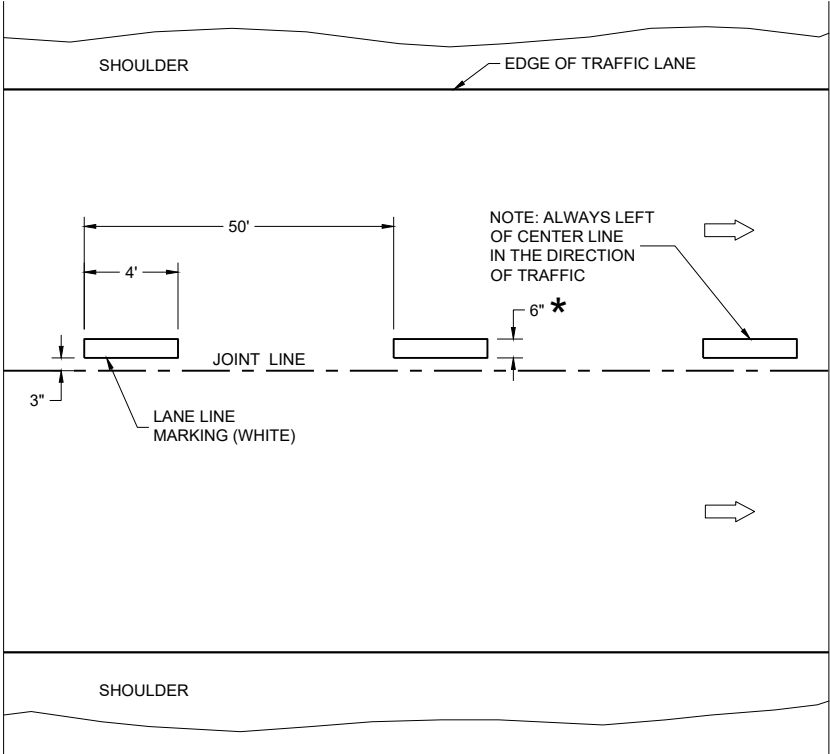
LEGEND

➡ DIRECTION OF TRAFFIC

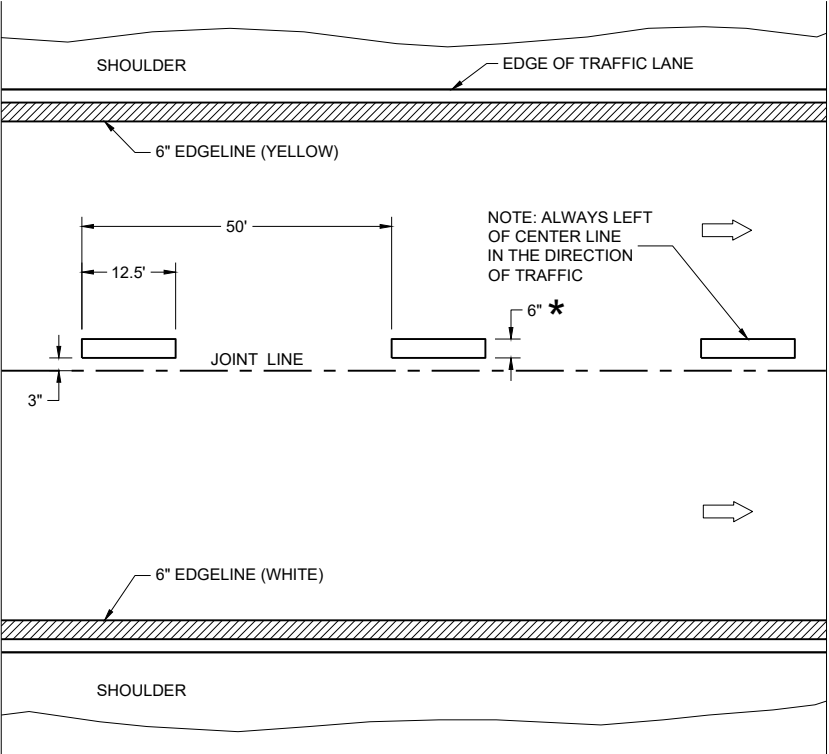
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

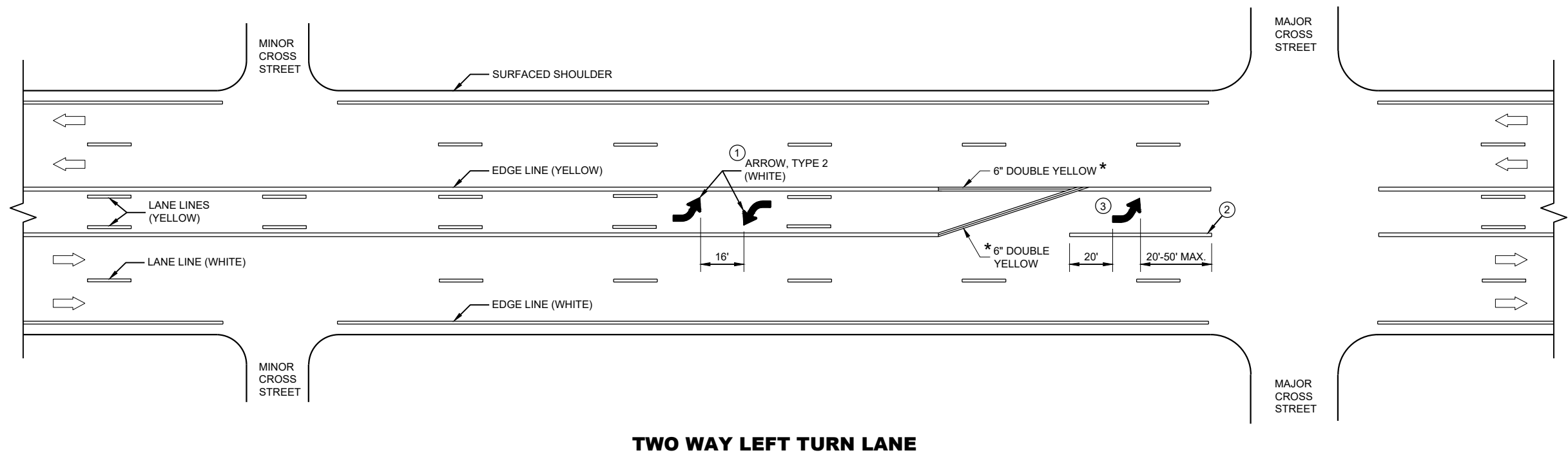


FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer

FHWA



GENERAL NOTES

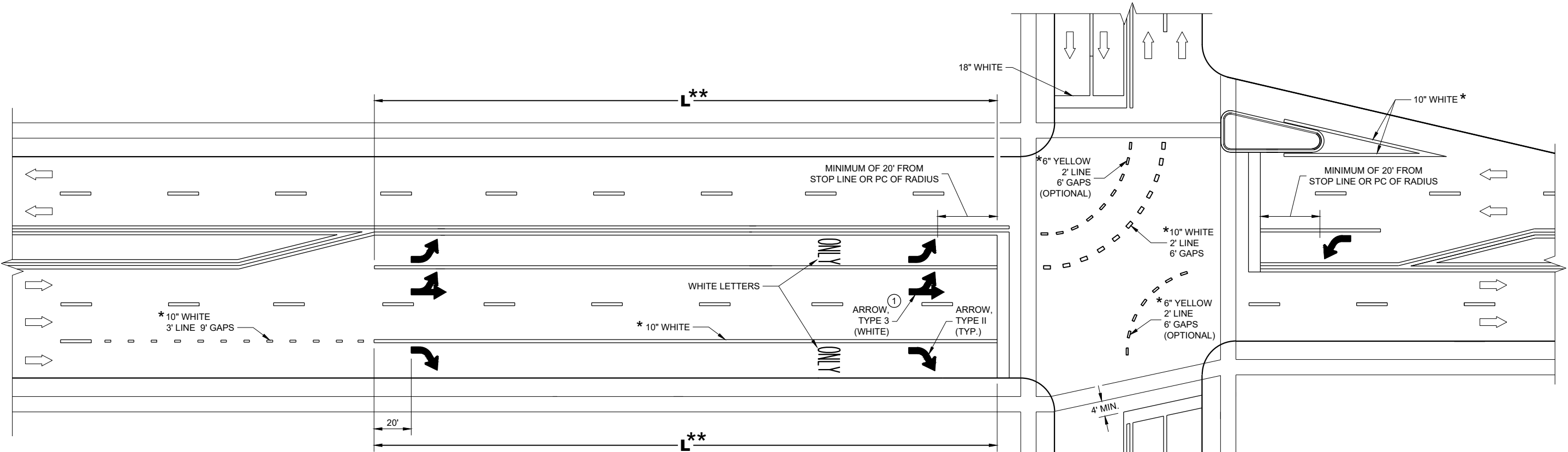
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING
(TURN LANES)**

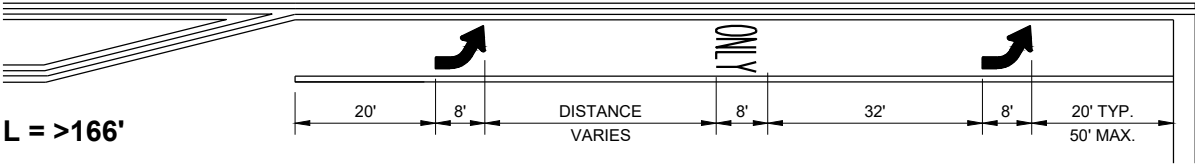
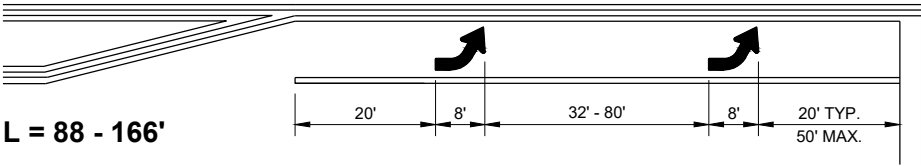
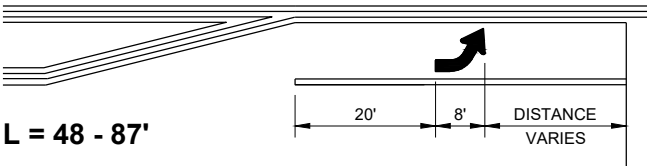
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 121



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

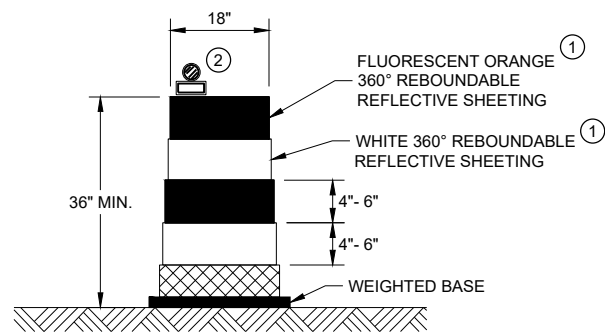
→ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

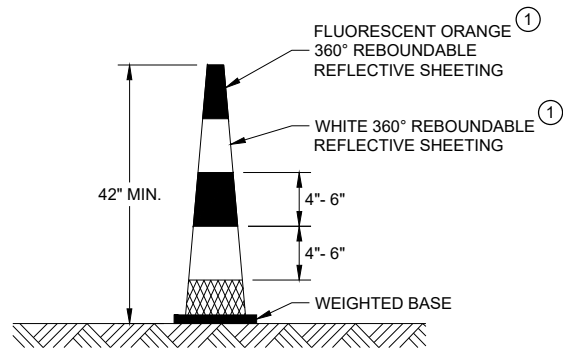
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 122



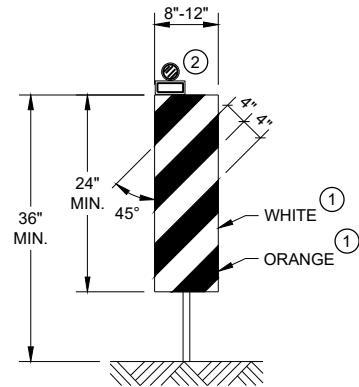
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



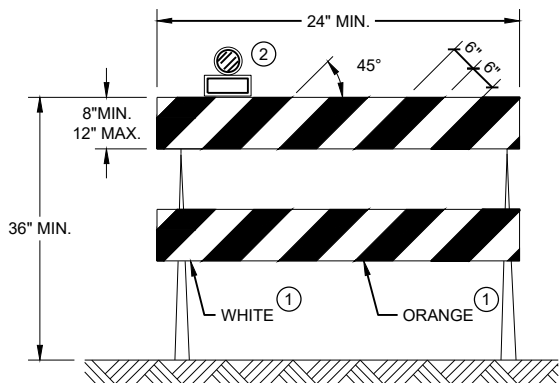
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



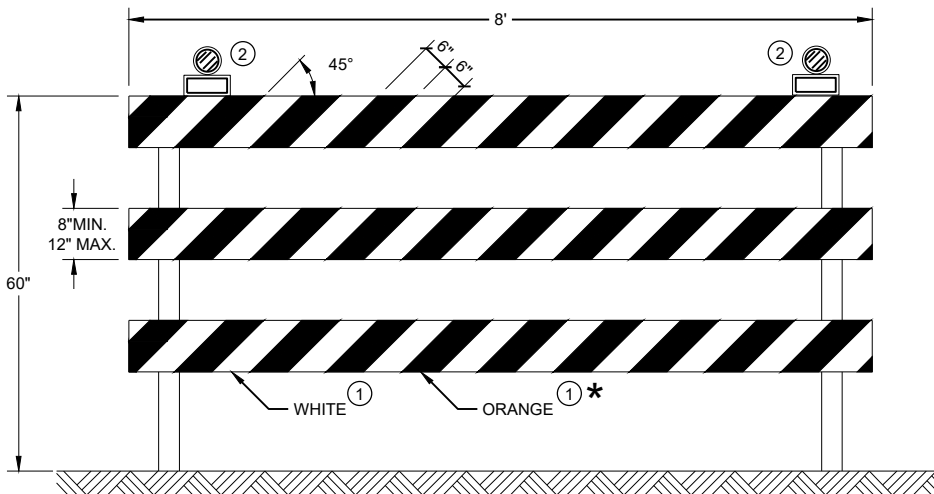
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

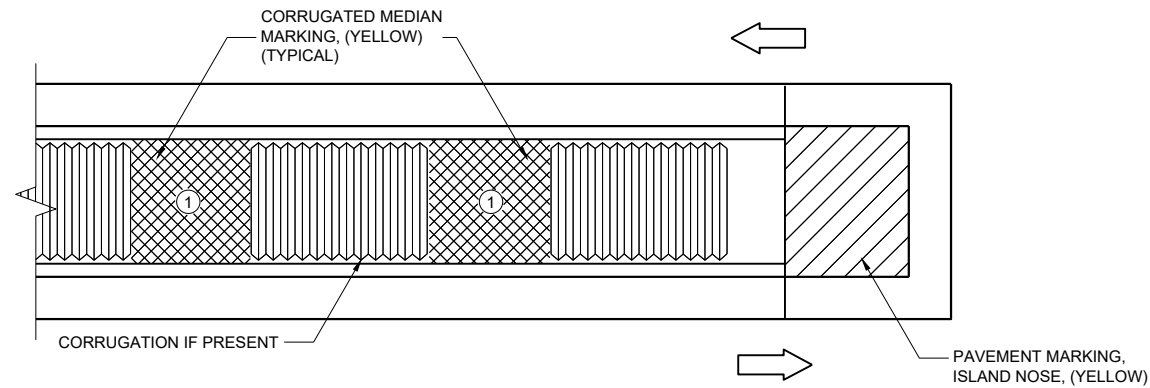
GENERAL NOTES

- 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.

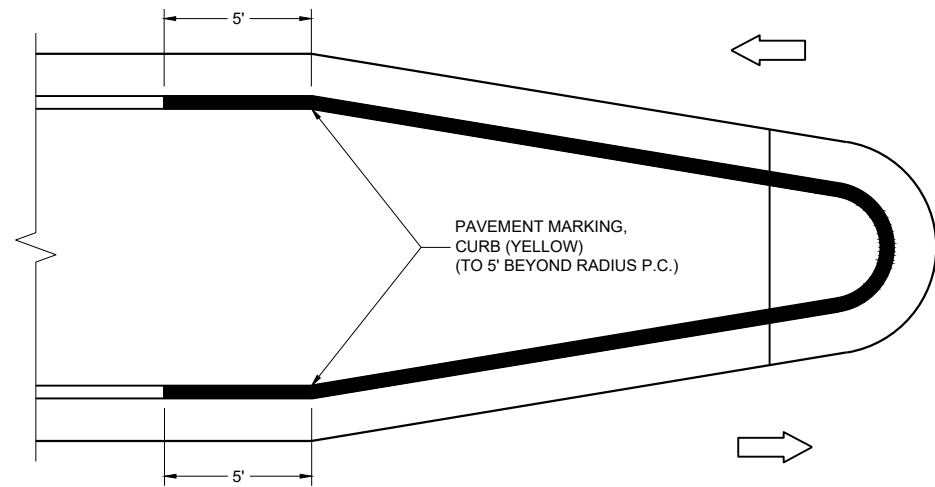
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

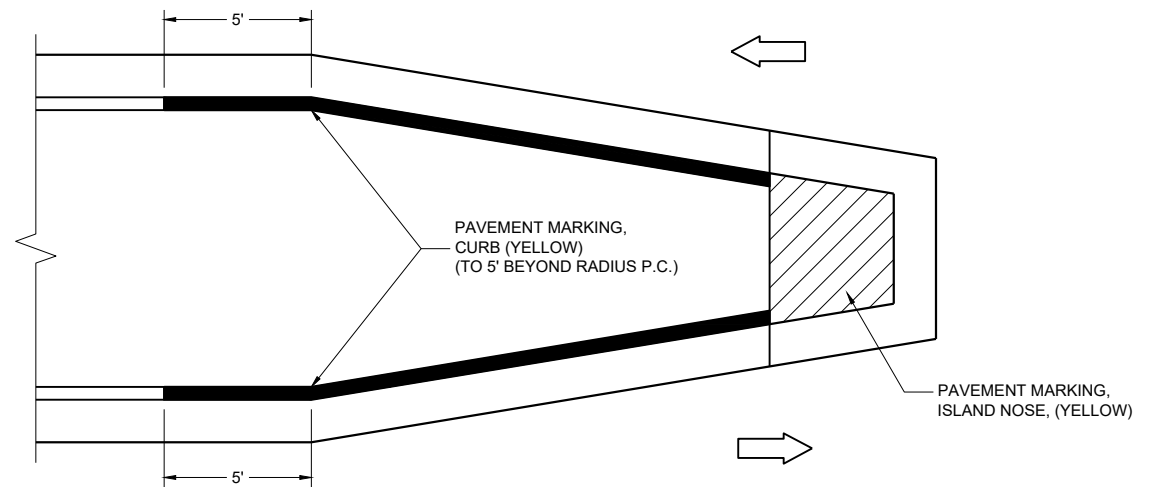
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 123
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

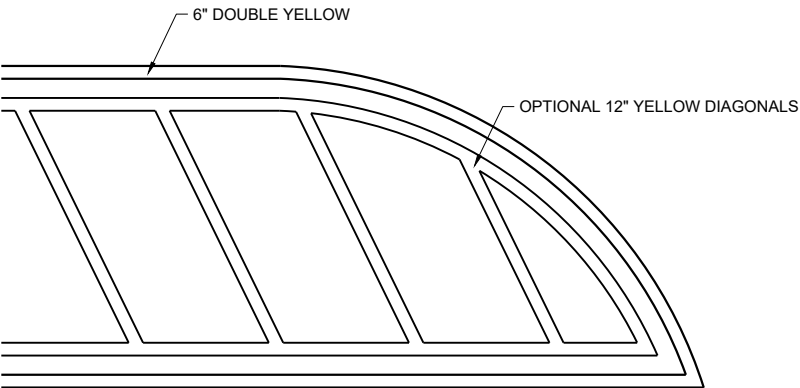
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	124

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED

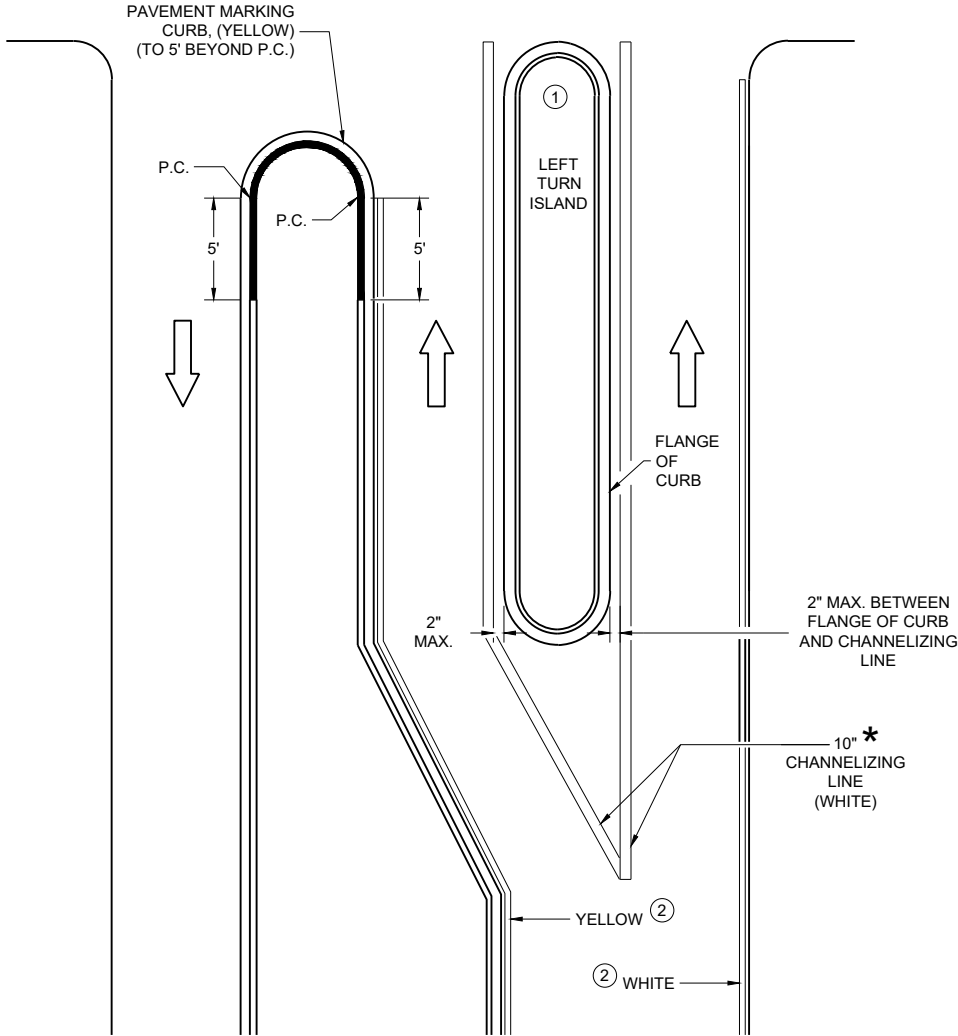
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

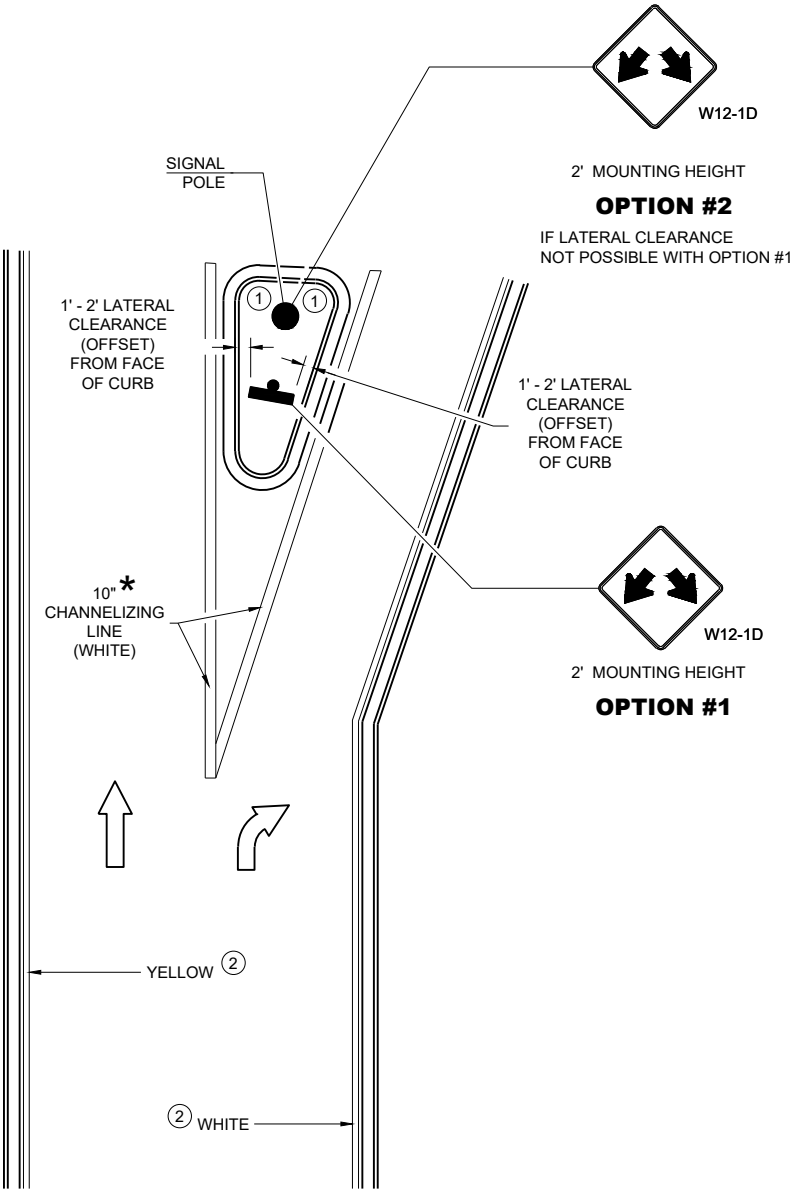
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.
- ③ CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

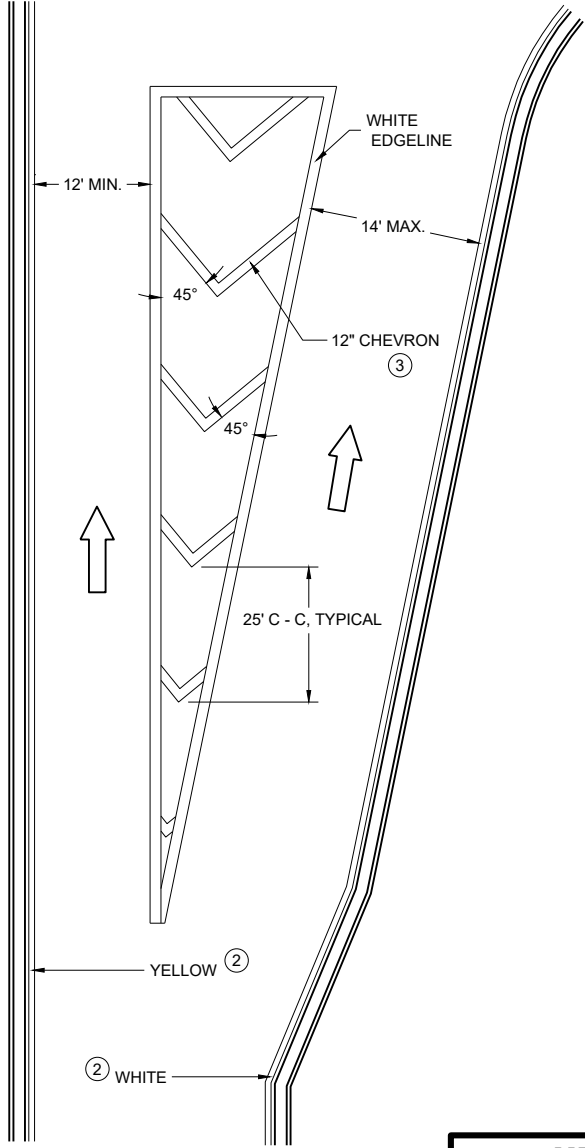
 DIRECTION OF TRAVEL



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



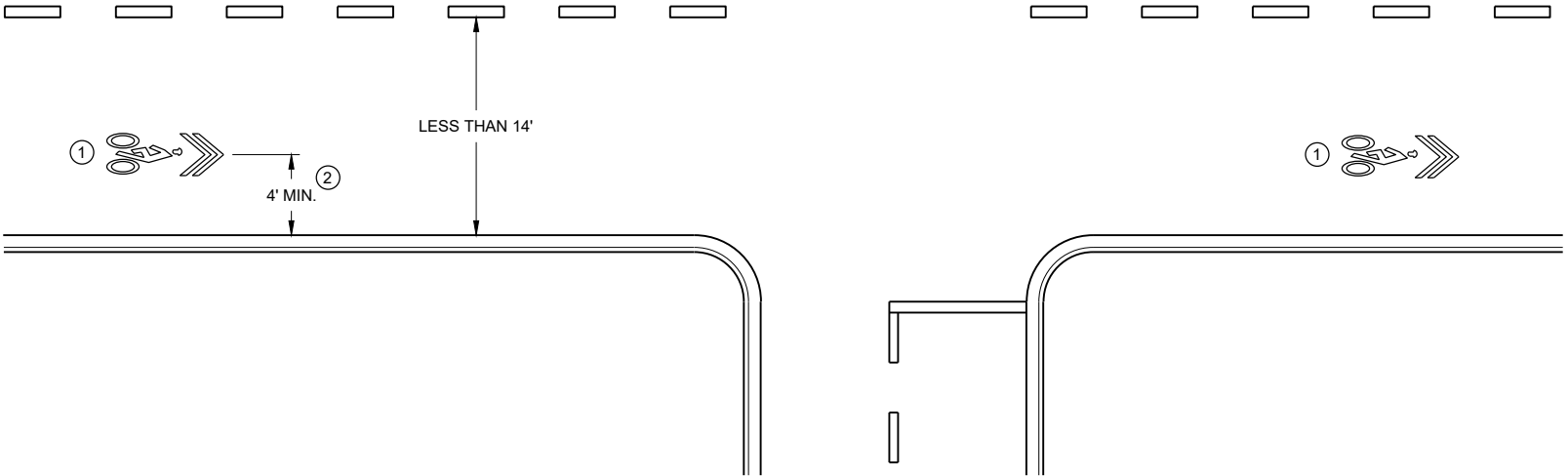
TURN LANE DETAIL

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

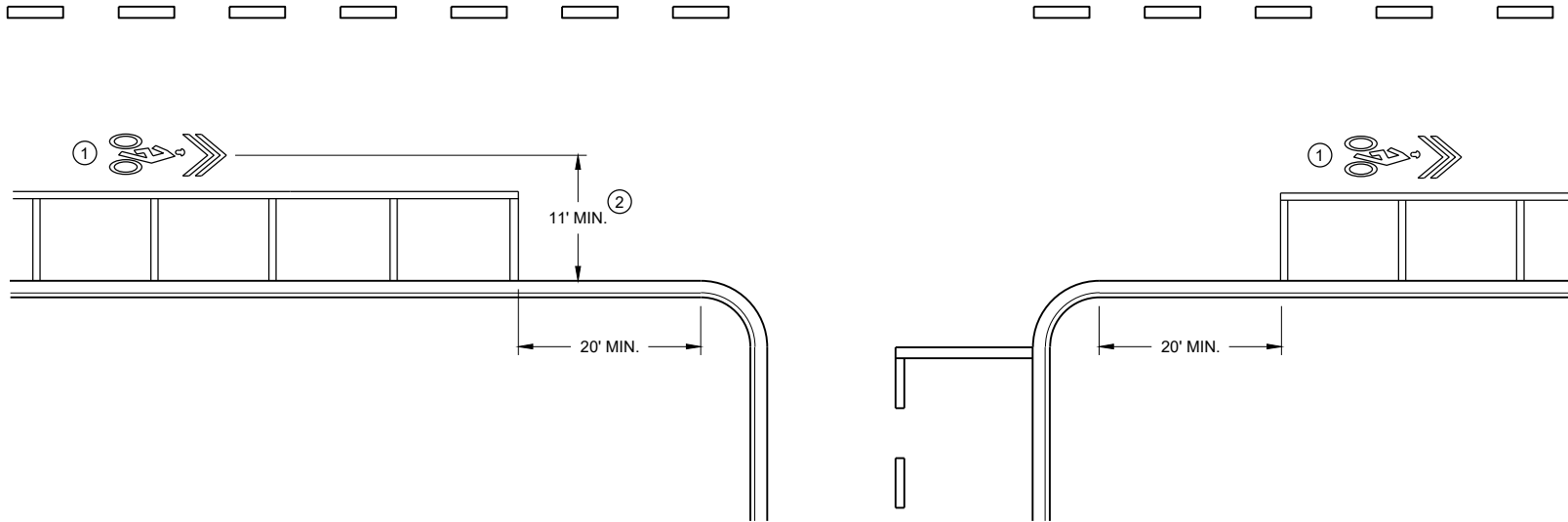
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA



WITHOUT PARKING

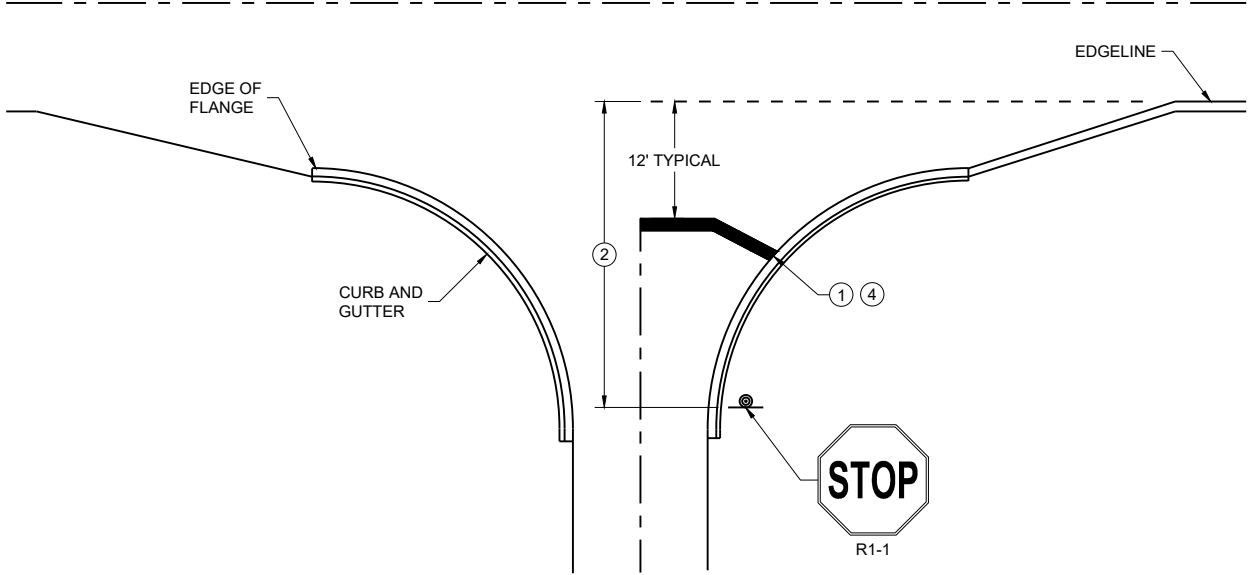


WITH PARKING

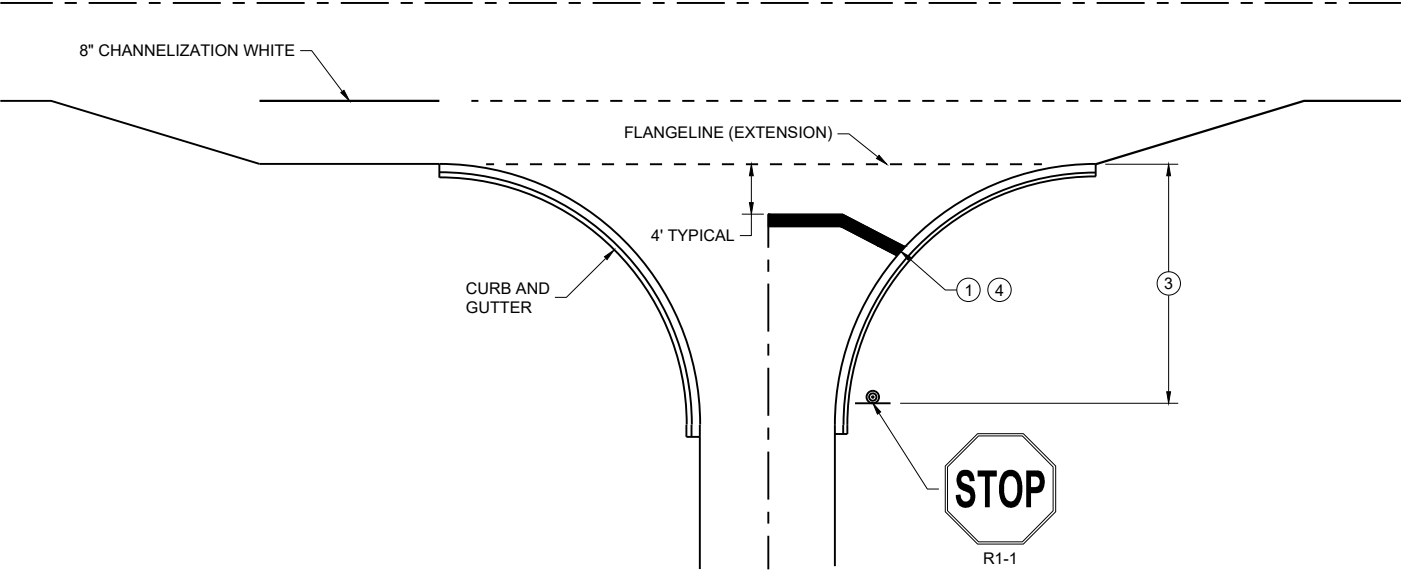
GENERAL NOTES

- ① MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.
- ② OR TO EDGE OF PAVEMENT WITHOUT CURB.

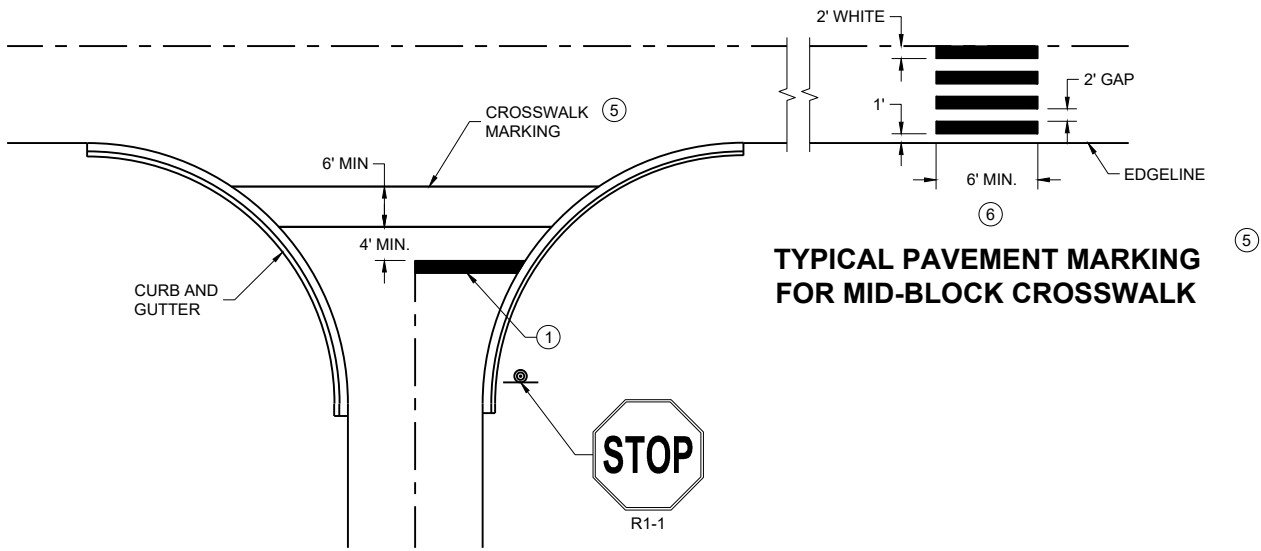
PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Matthew Rauch STATE SIGNING AND MAP ENGINEER 126
FHWA	



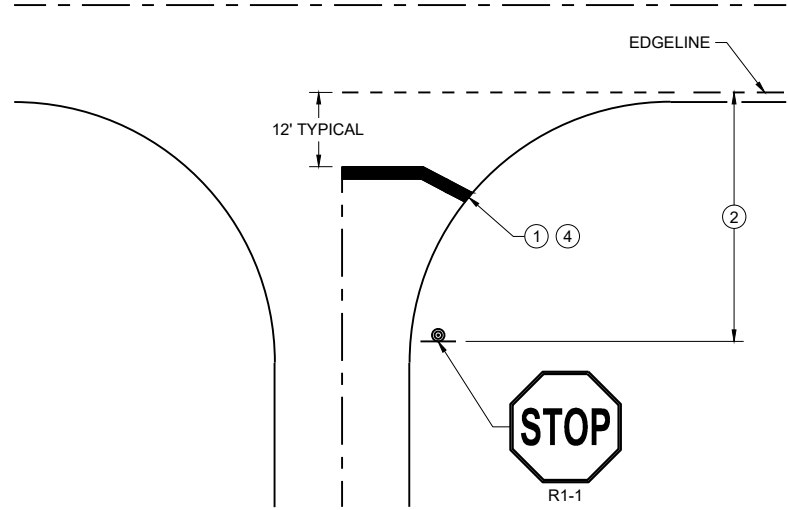
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

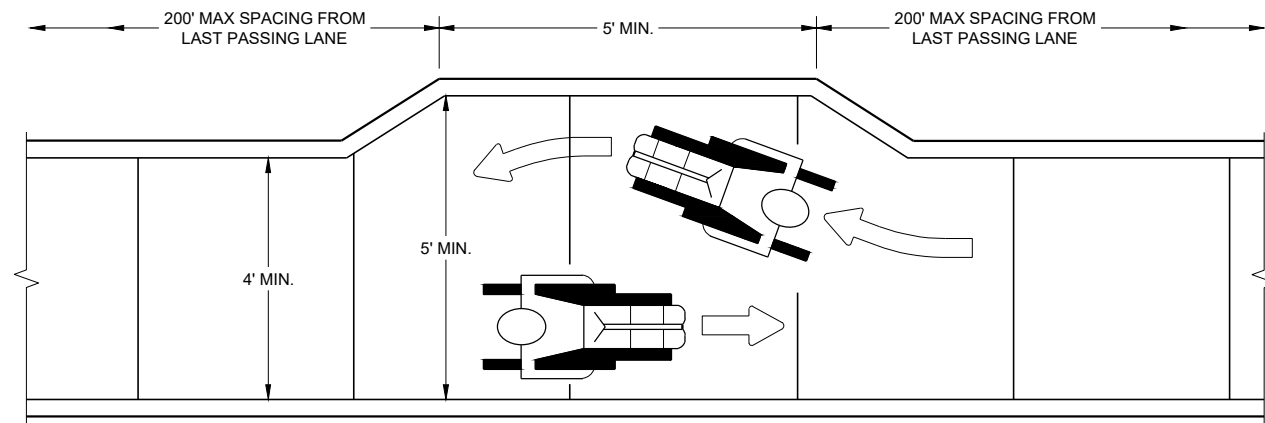
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- 3 NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- 4 MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- 5 LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- 6 POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

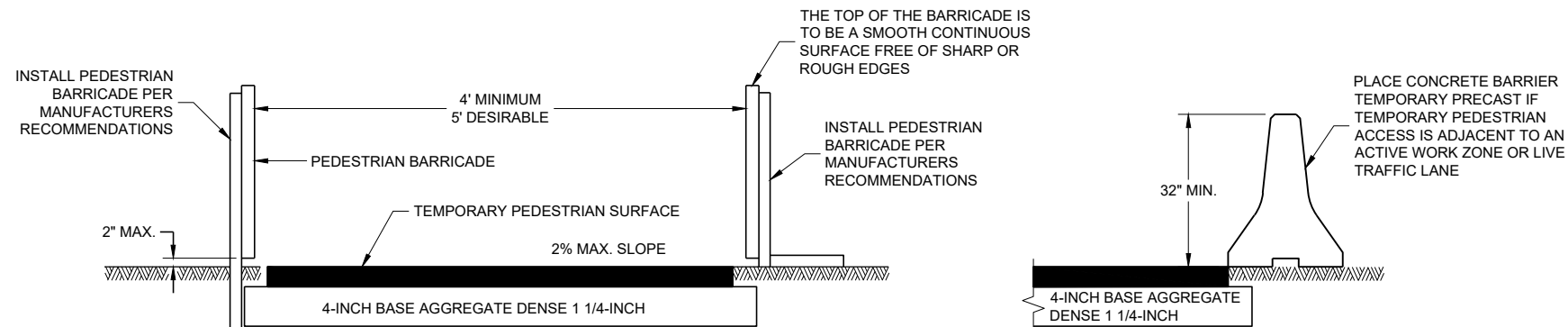
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER
FHWA



NARROW SIDEWALK PASSING DETAIL



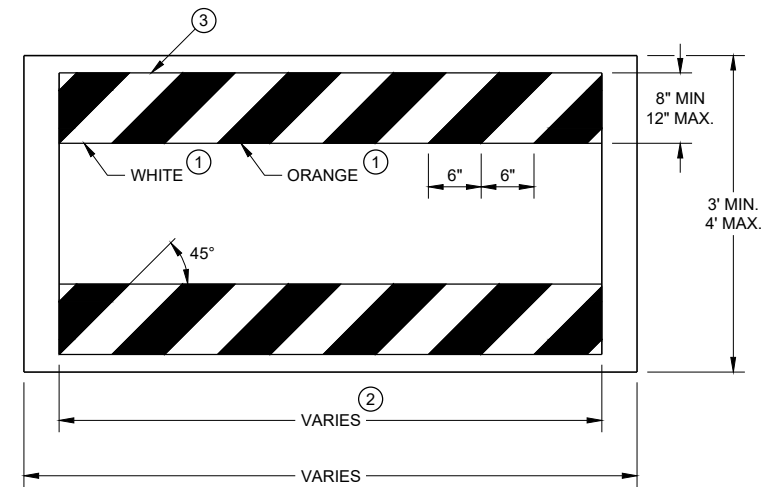
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

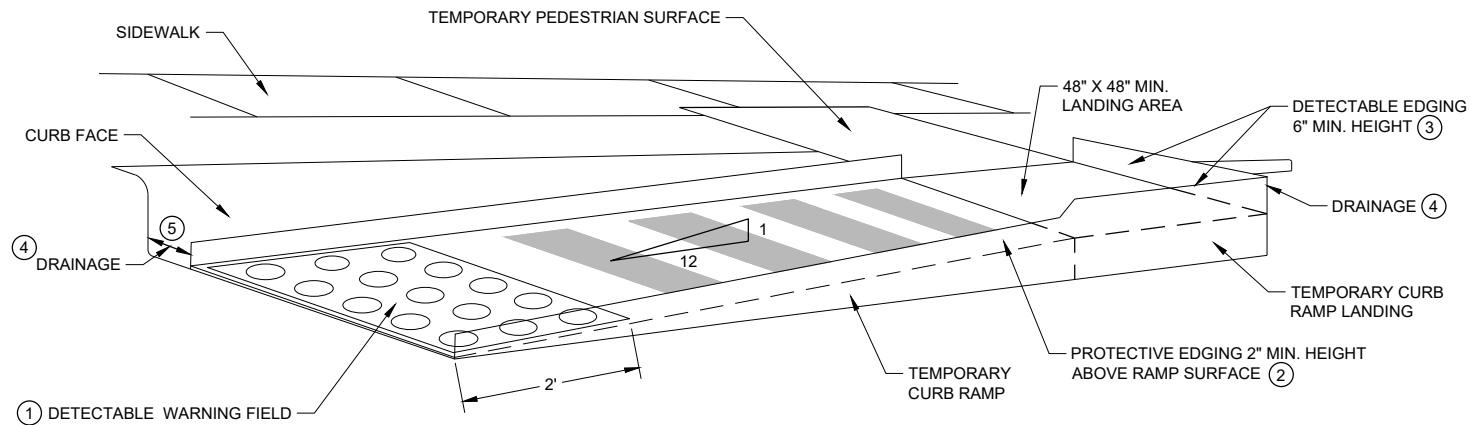
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

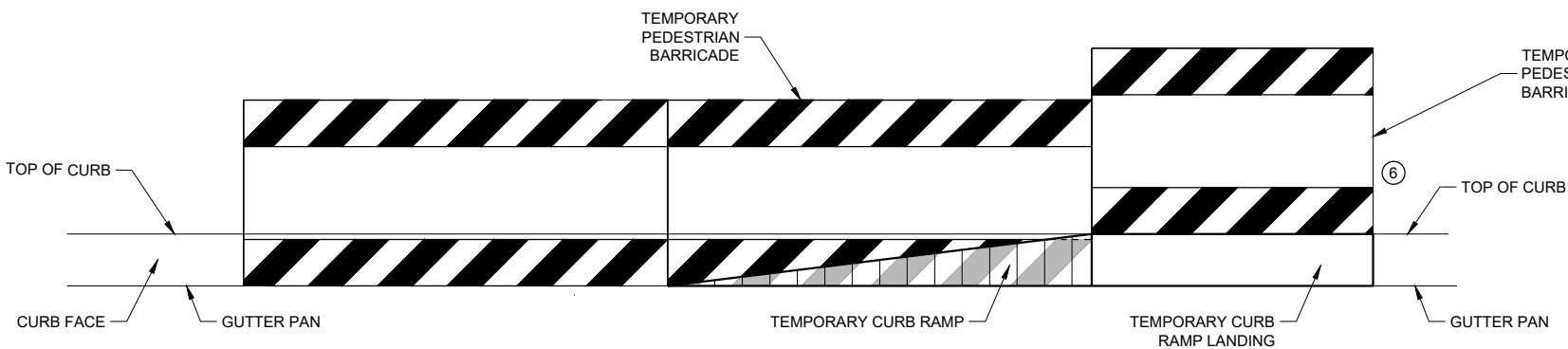
★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



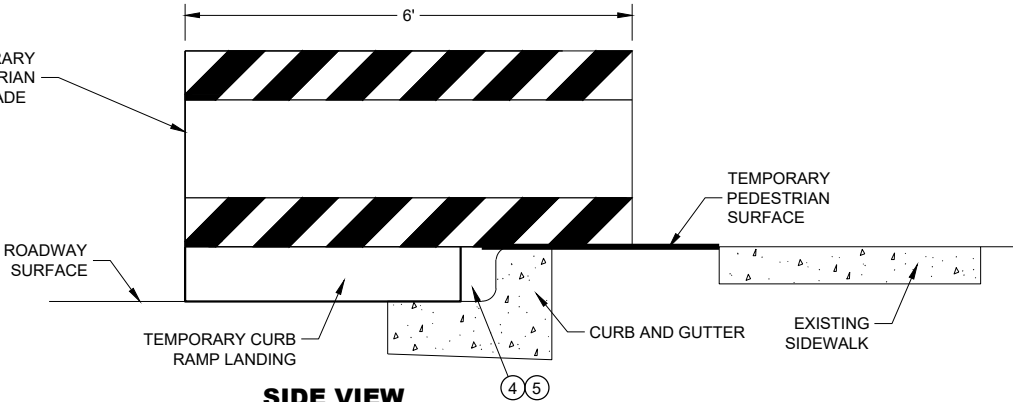
TEMPORARY PEDESTRIAN BARRICADE*



PERSPECTIVE VIEW



FRONT VIEW

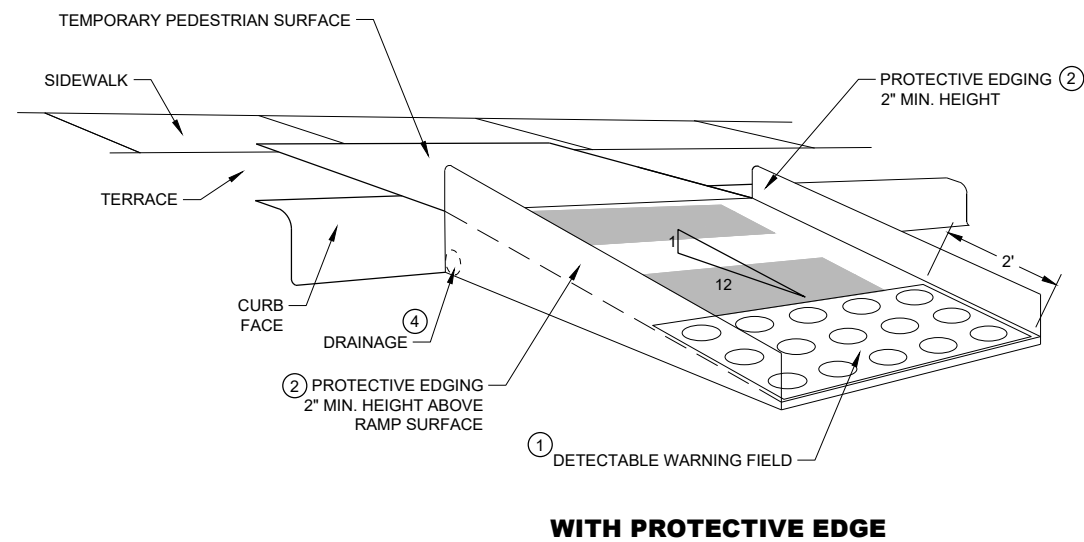
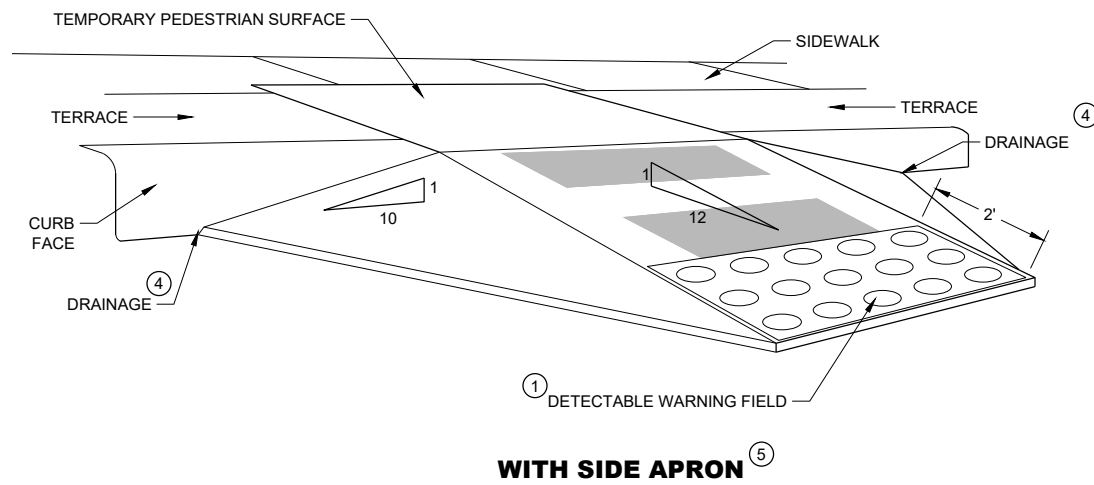


SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

- CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- 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 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

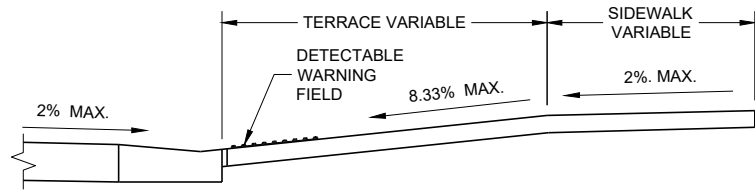
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

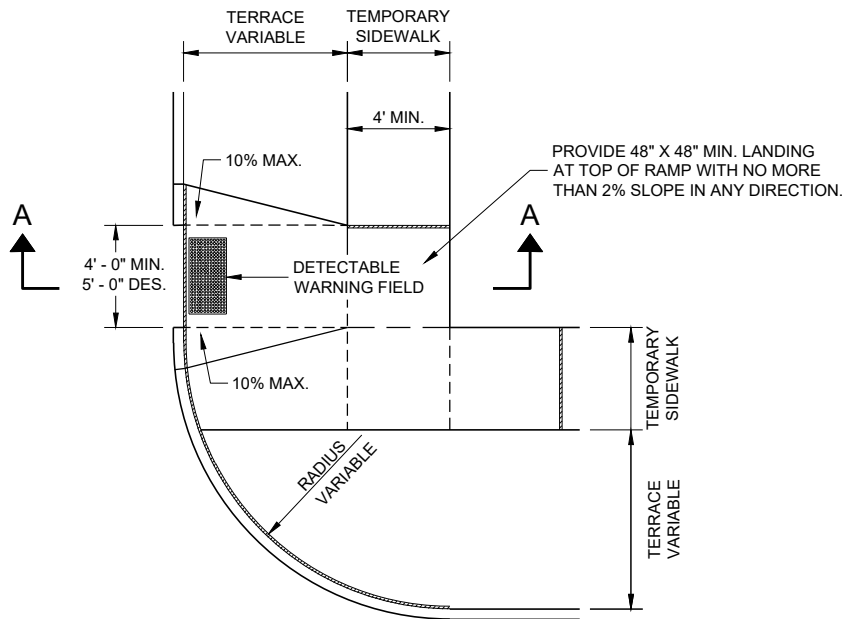
- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE 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 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 130



SECTION A - A



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

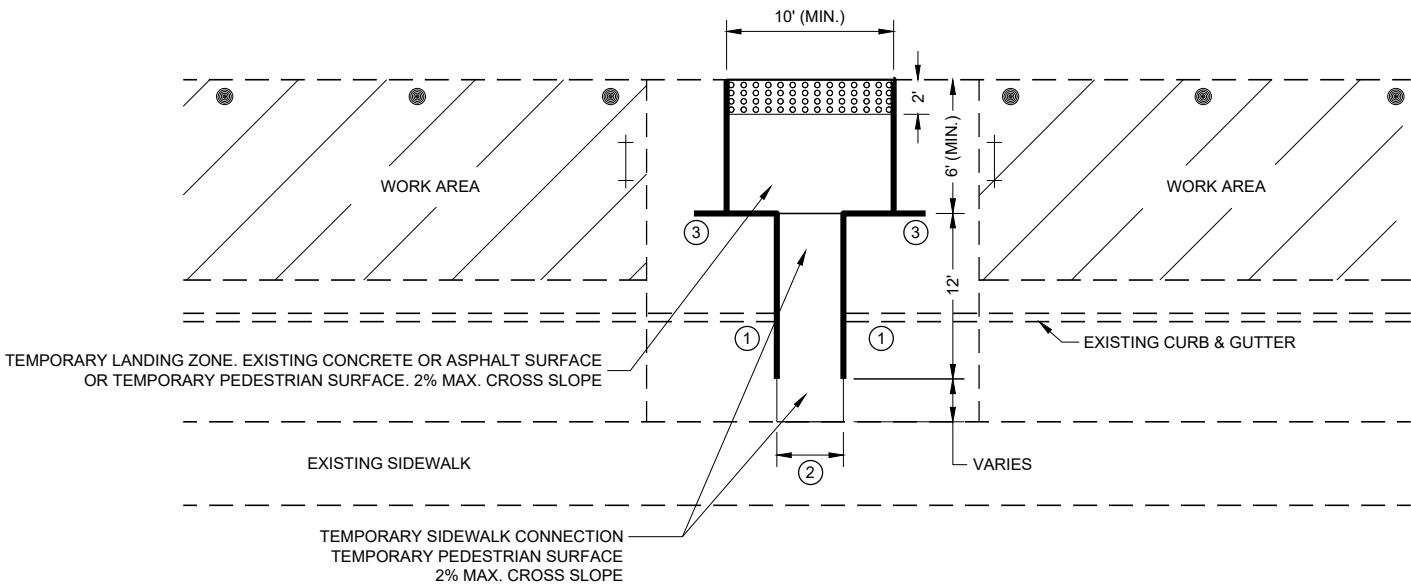
GENERAL NOTES

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

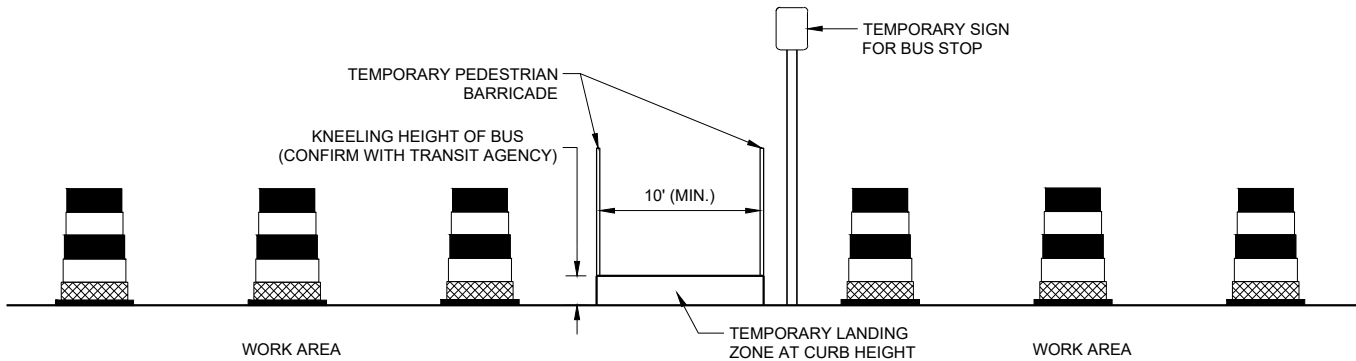
TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 131
FHWA



PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- 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 RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ⊞ TEMPORARY DETECTABLE WARNING FIELD
- ▨ WORK AREA

LEGEND

- | | |
|---|--------------------------------|
|  | SIGN ON PERMANENT SUPPORT |
|  | SIGN ON TEMPORARY SUPPORT |
|  | UNDER PEDESTRIAN TRAFFIC |
|  | WORK AREA |
|  | TEMPORARY PEDESTRIAN BARRICADE |
|  | DIRECTION OF TRAFFIC |

GENERAL NOTES

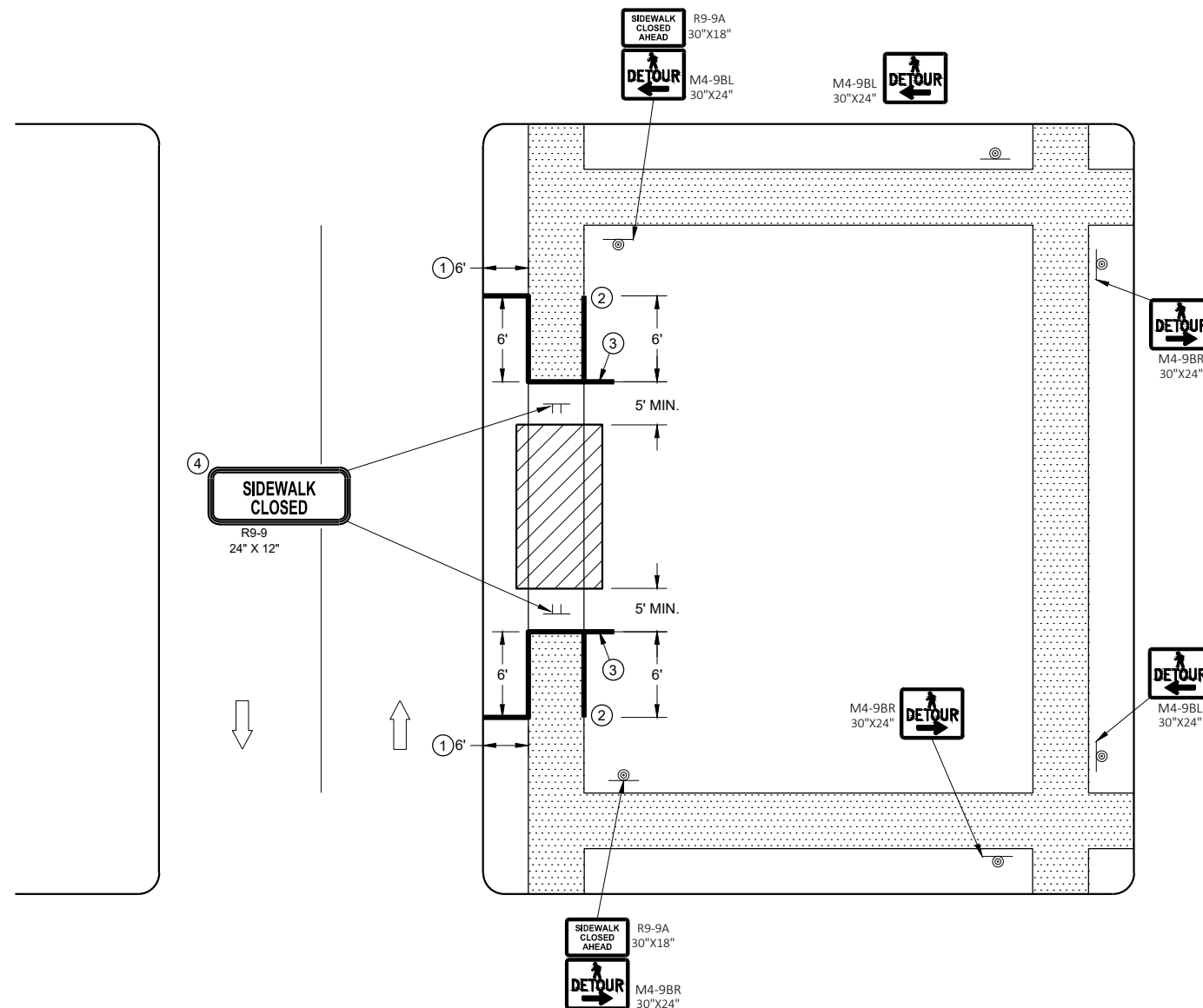
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 133

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

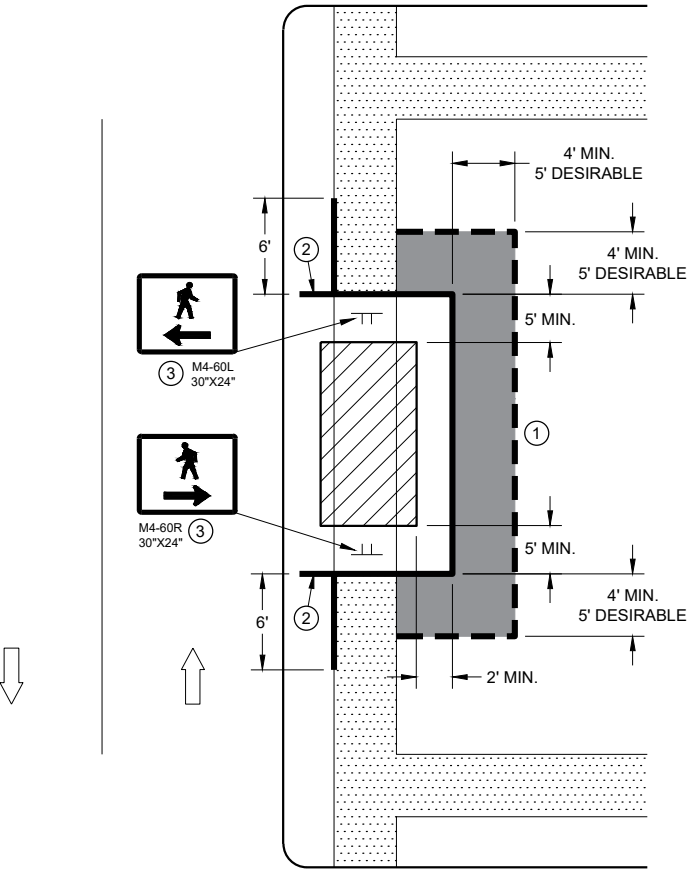
GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ①

USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ②

IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③

MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



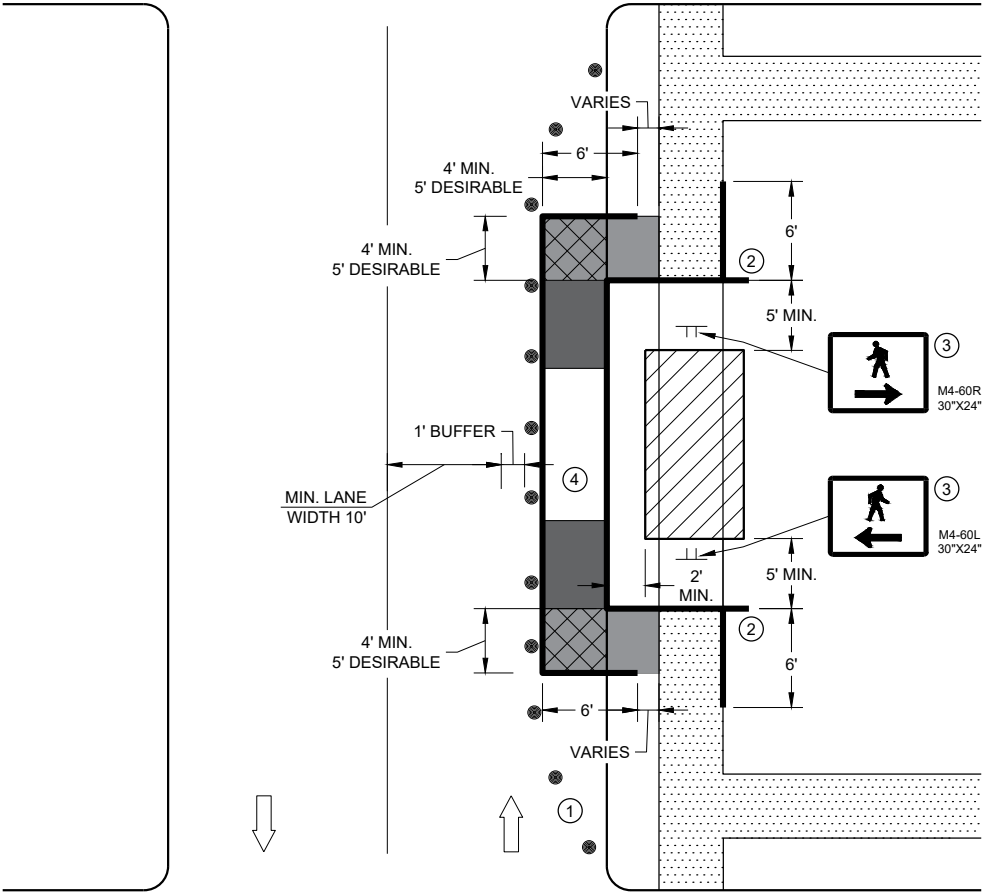
SIDEWALK DIVERSION
SINGLE SIDE

LEGEND

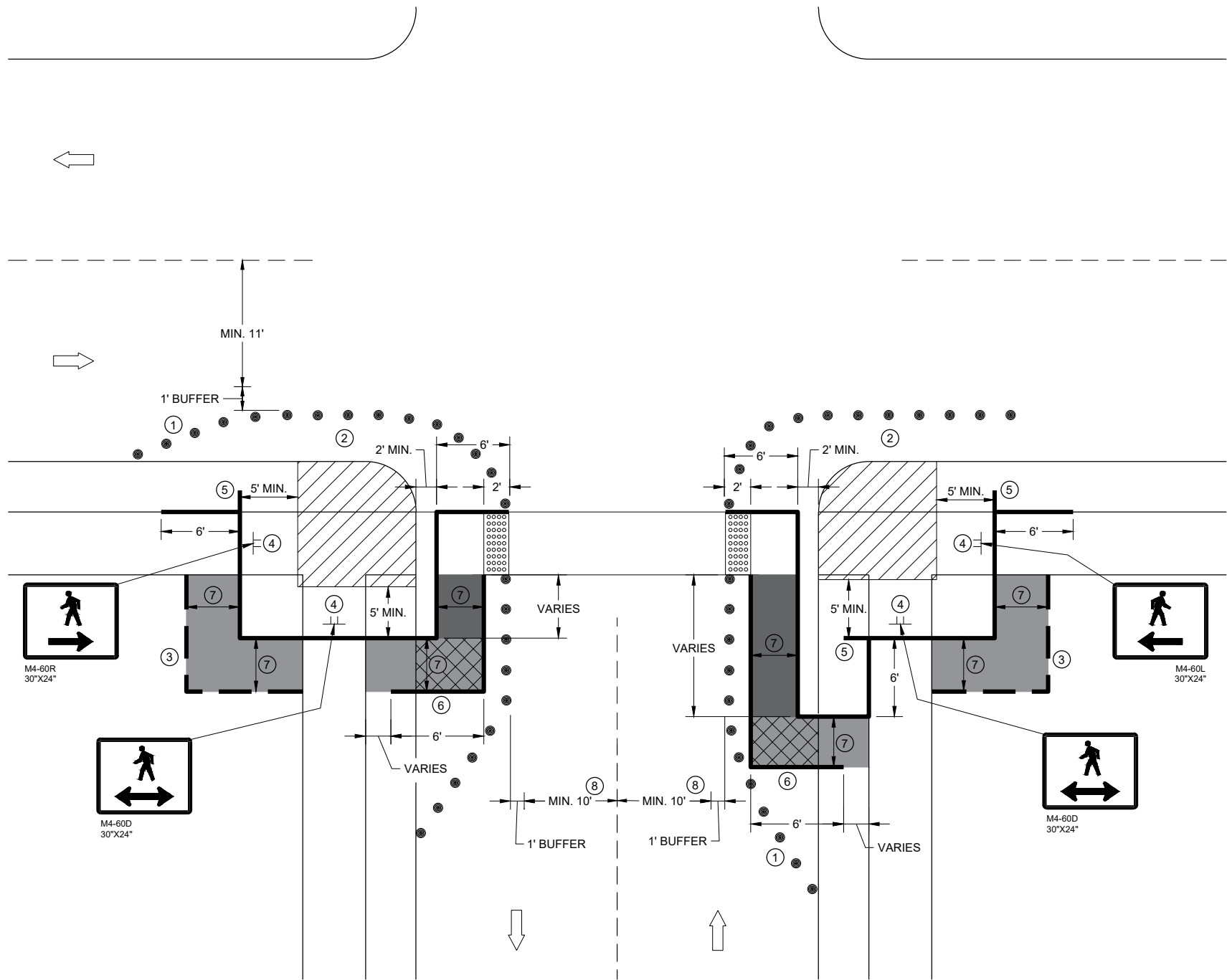
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
 - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
 - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
 - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE**

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

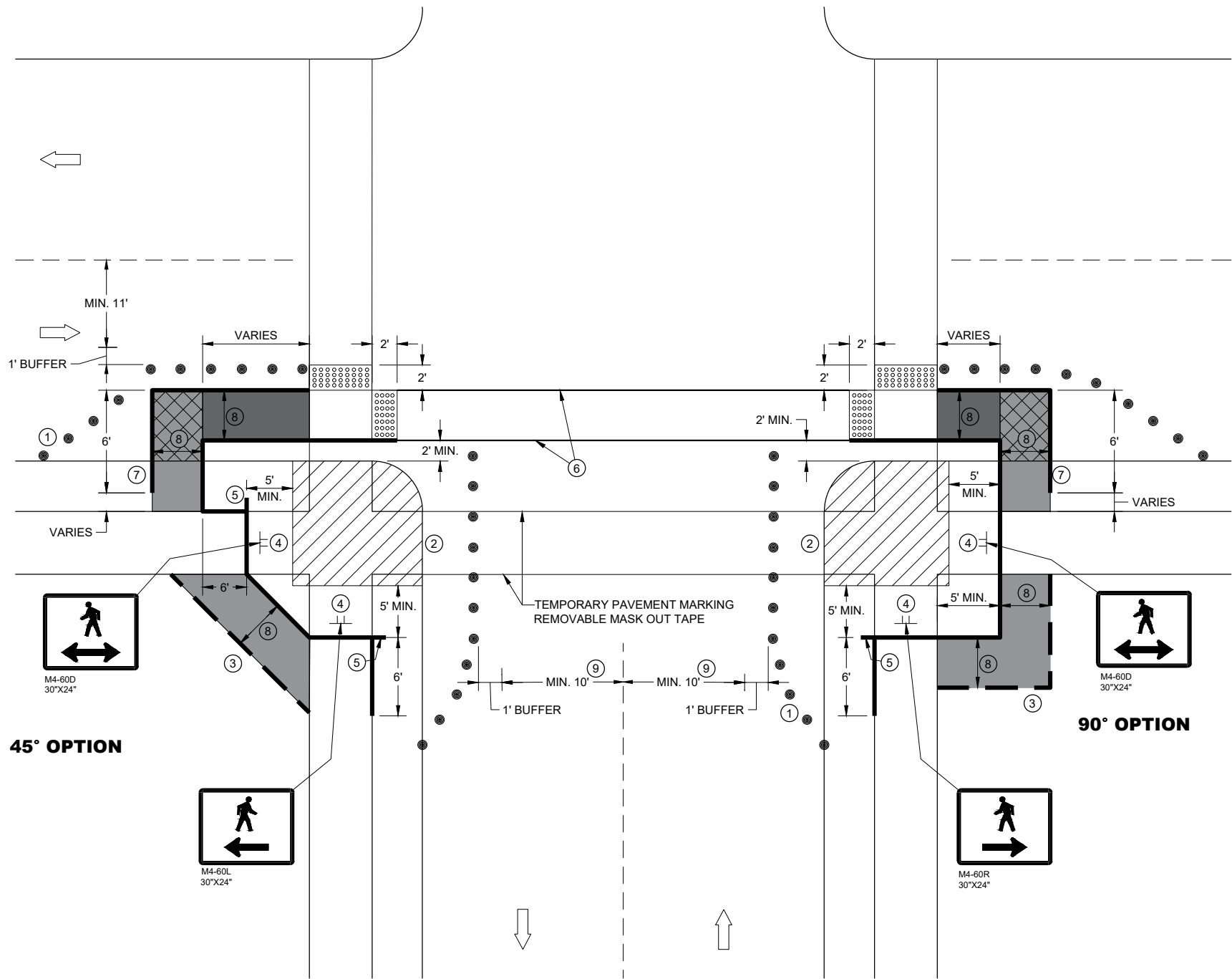
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

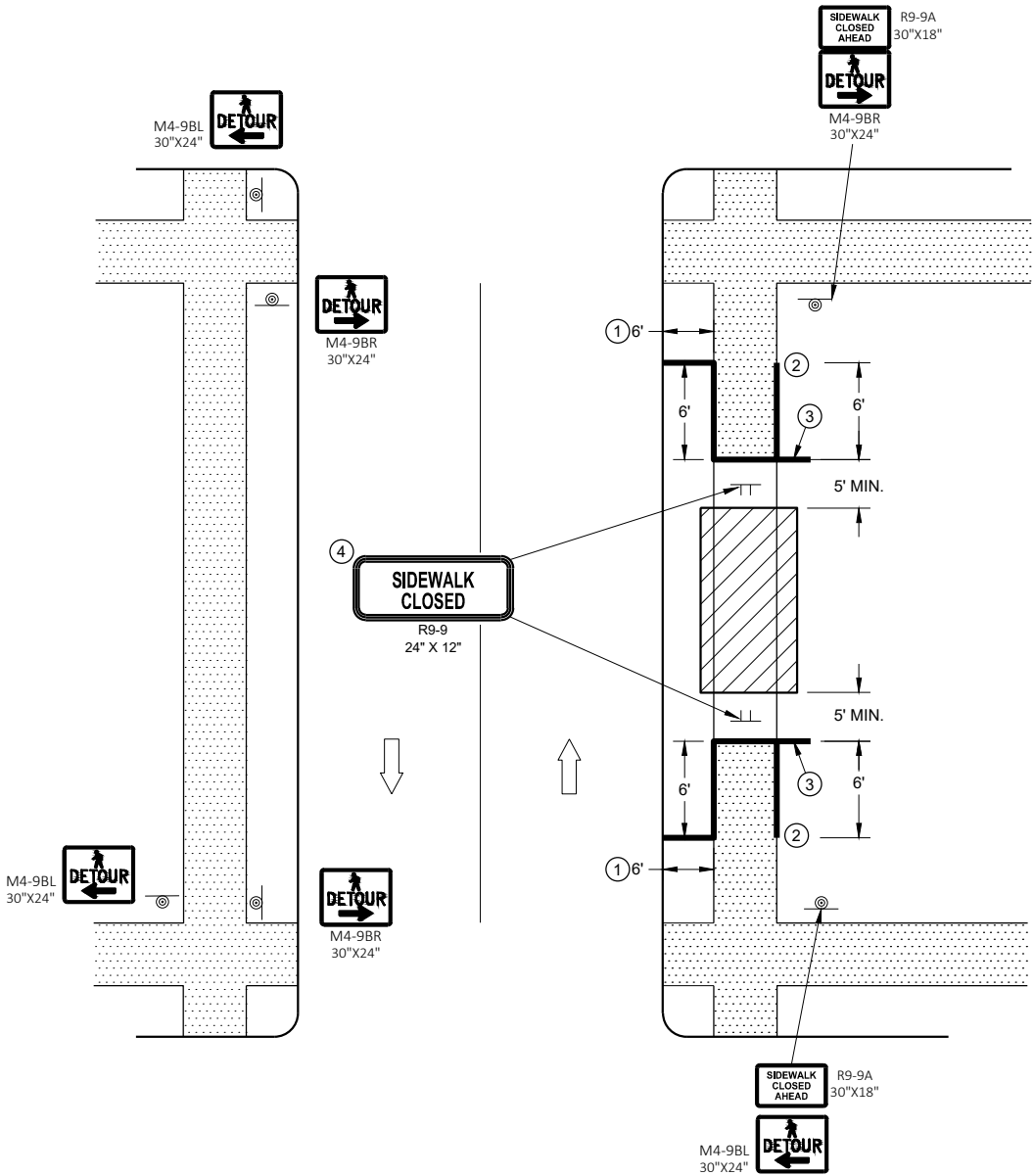
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

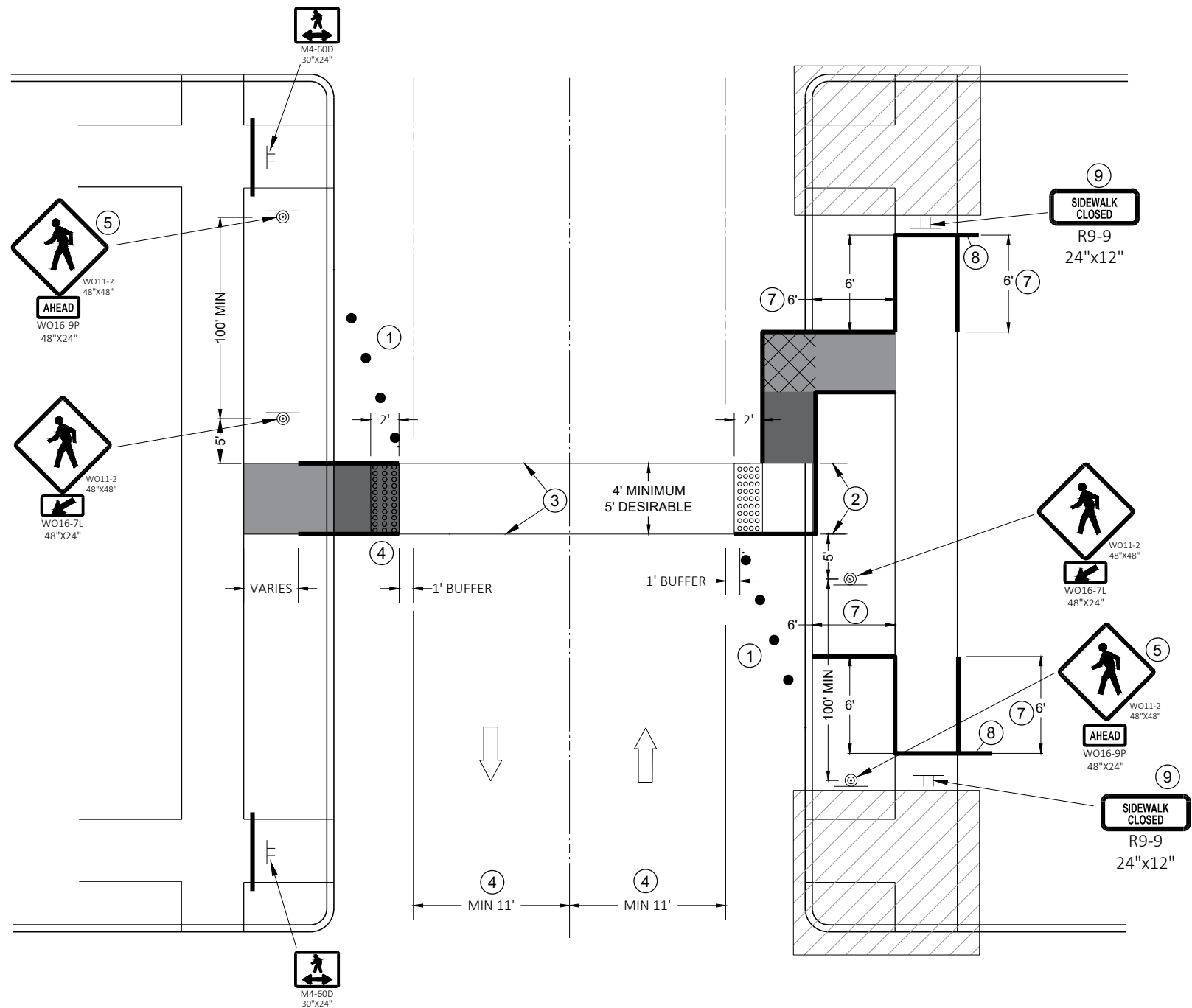
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

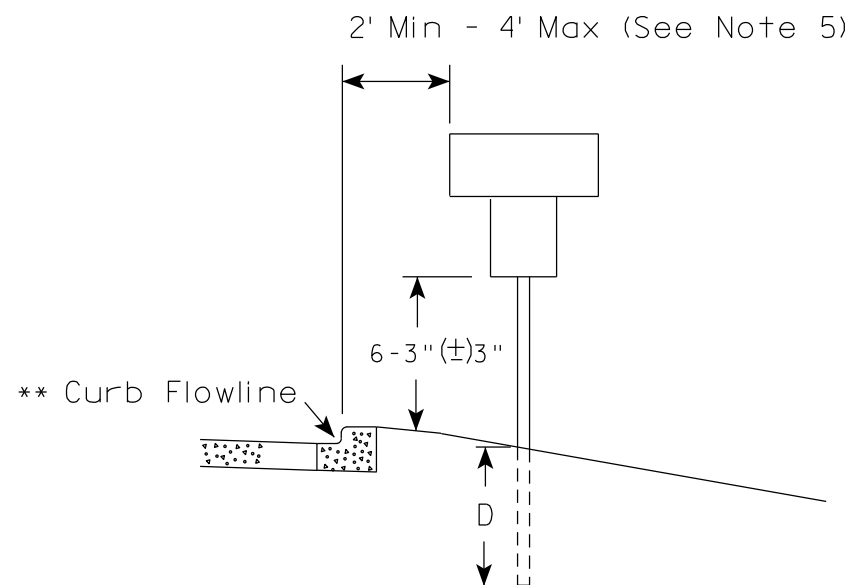
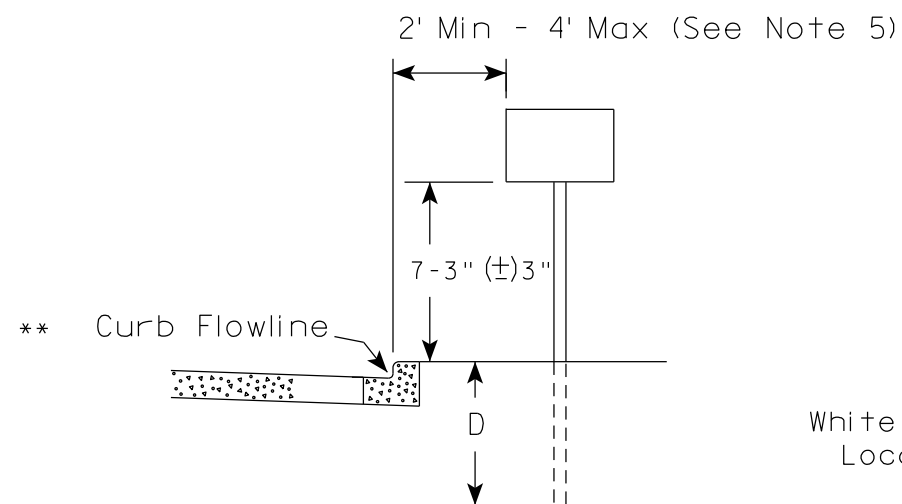
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

- 1 SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 4 FEET MINIMUM, 5 FEET DESIRABLE.
- 3 WHITE 6" TEMPORARY PAVEMENT MARKING.
- 4 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
- 5 IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- 6 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 7 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 8 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 9 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

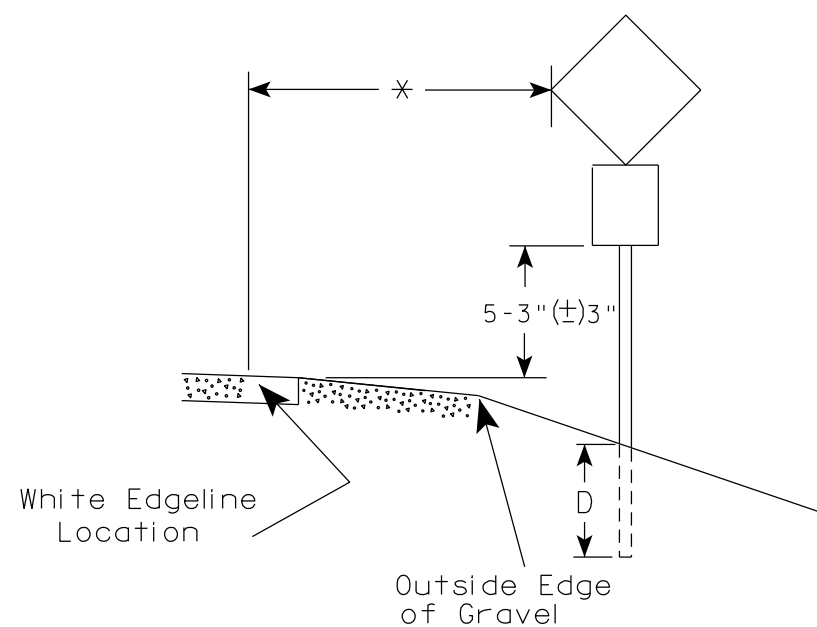
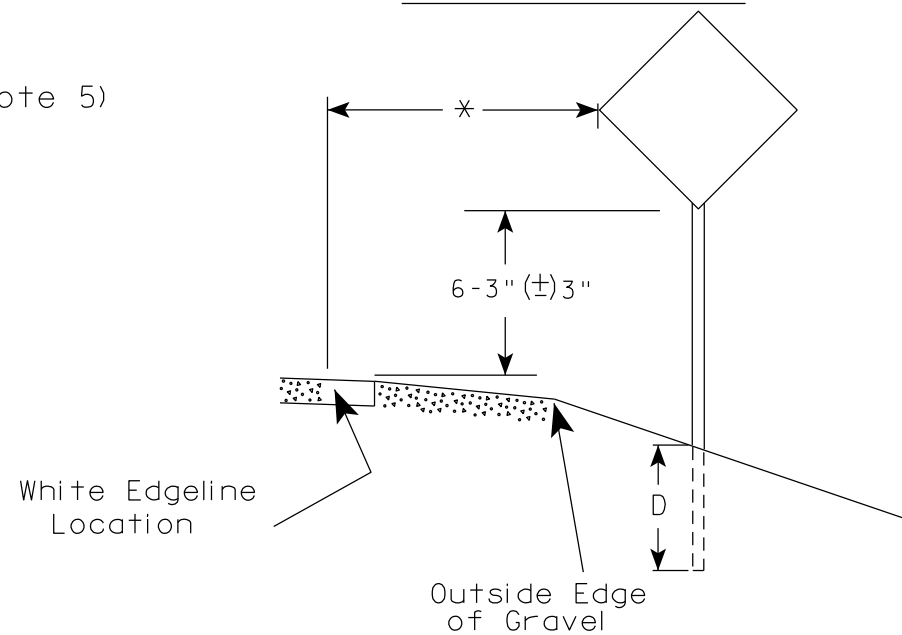
- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- ▨ WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- ➡ DIRECTION OF TRAFFIC

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

PROJECT NO:

HWY:

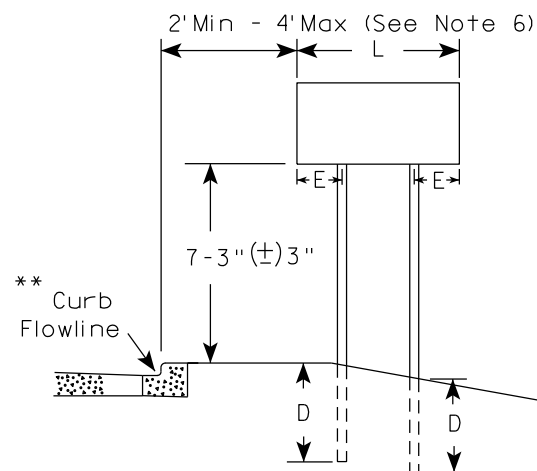
COUNTY:

SHEET NO:

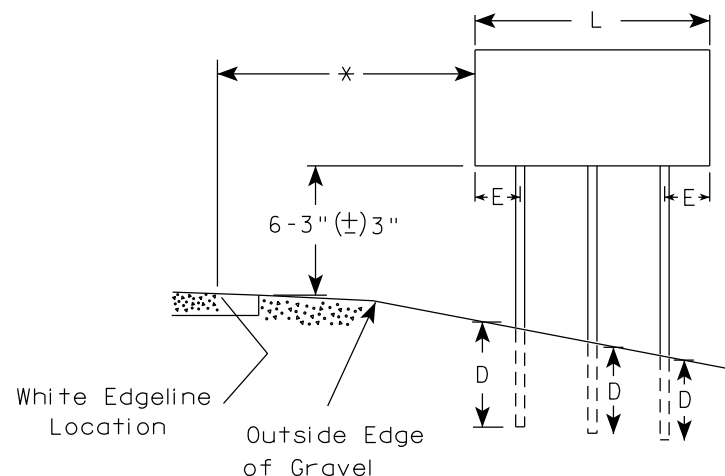
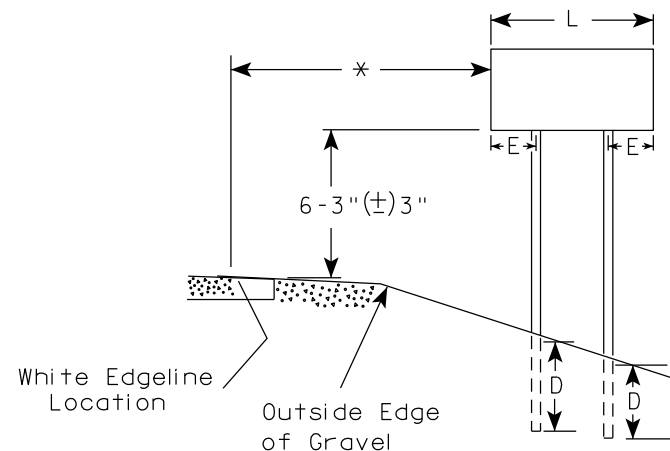
140

E

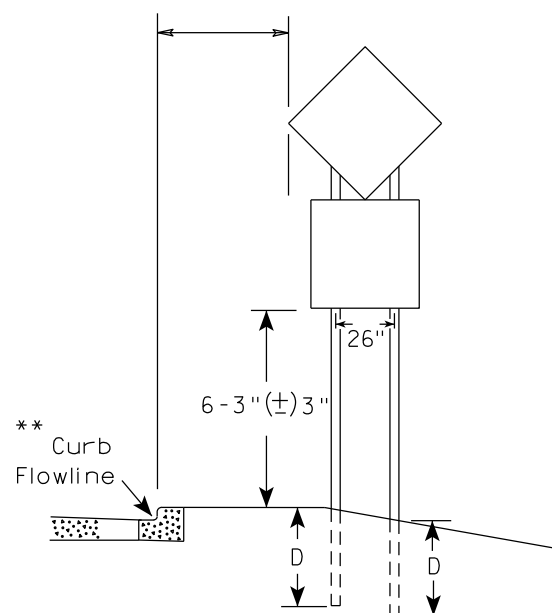
URBAN AREA



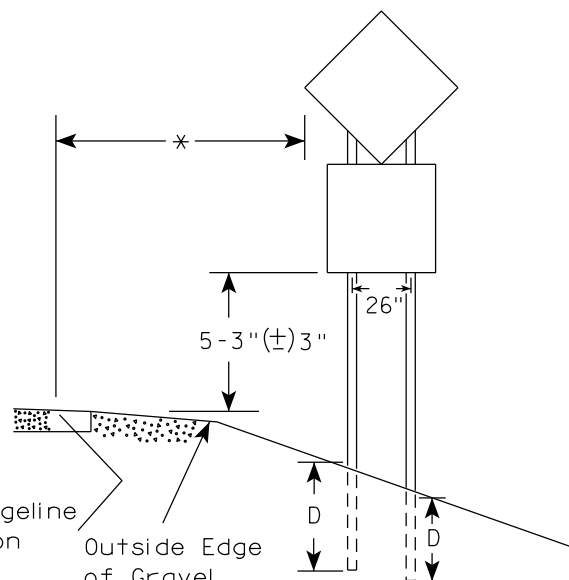
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 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 12/6/23 PLATE NO. A4-4.16

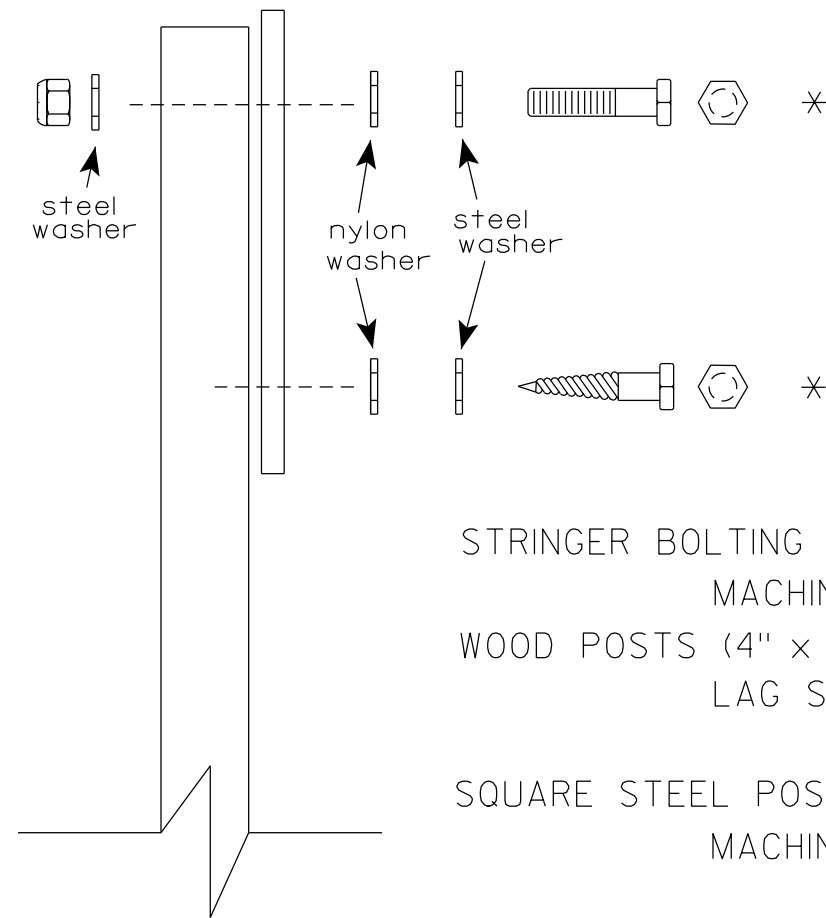
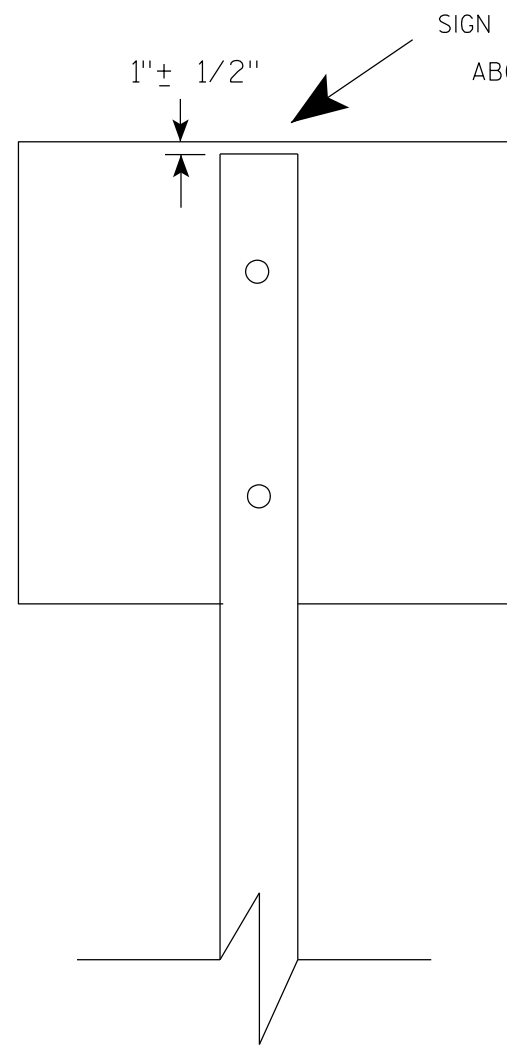
GENERAL NOTES

- For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- J-Assemblies are considered to be one sign for mounting height.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 3".

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

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

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



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

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

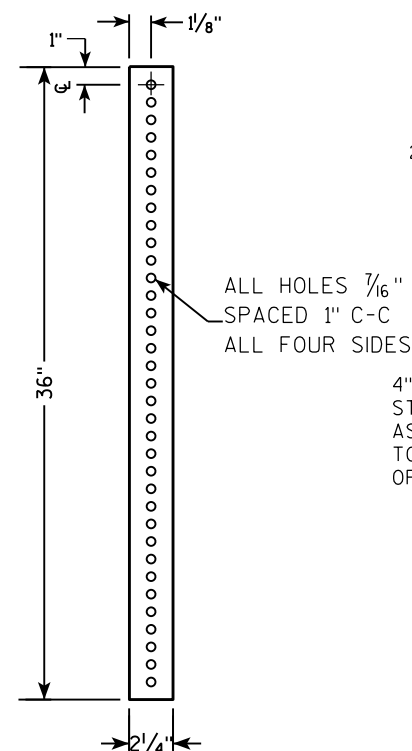
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

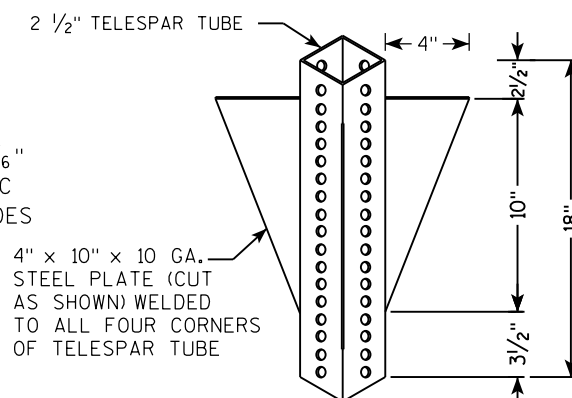
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

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



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



The diagram illustrates the construction of a sign post. The main vertical component is a 2" steel tubular square upper section. At the top, it features a sign plate (A4-8) secured with bolt washers and nuts. The tubing has holes spaced at 1" center-to-center on all four sides. A 3/8" zinc-plated corner anchor bolt and nut are used to secure the assembly. The base of the post is embedded in a concrete foundation, which is stabilized by a 2 1/2" square x 18" soil stabilizing sleeve. The foundation is composed of gravel or dirt, with a 3/6" zinc-plated anchor bolt and nut securing the base. The overall height of the post is 36".

- SIGN
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- 2" STEEL TUBULAR SQUARE UPPER SECTION
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
- $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
- 2 1/2" GRAVEL OR DIRT
- TELESCOPE PIECES FLUSH AT TOP
- 18" DIA SCHEDULE 40 PVC BOX-OUT
- 36"
- 18"
- 13"
- $\frac{3}{6}$ " ZINC PLATED ANCHOR BOLT AND NUT
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- 2 1/4" SQUARE X 36"

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View Dimensions:

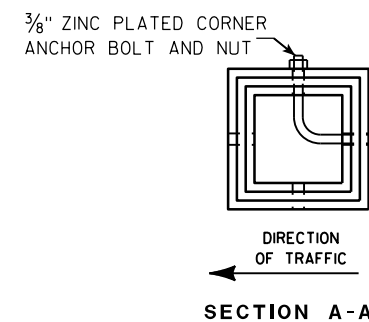
- Overall height: 36"
- Section A: 18"
- Section B: 12"

End View Dimensions:

- Overall width: 2 1/4" SQUARE X 36"
- Section A: 1 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Section B: 3/8" ZINC PLATED ANCHOR BOLT AND NUT

Material and Assembly Specifications:

- 2" STEEL TUBULAR SQUARE UPPER SECTION
- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
- TELESCOPE PIECES FLUSH AT TOP
- SIGN



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 PLATI 143 14-9.9

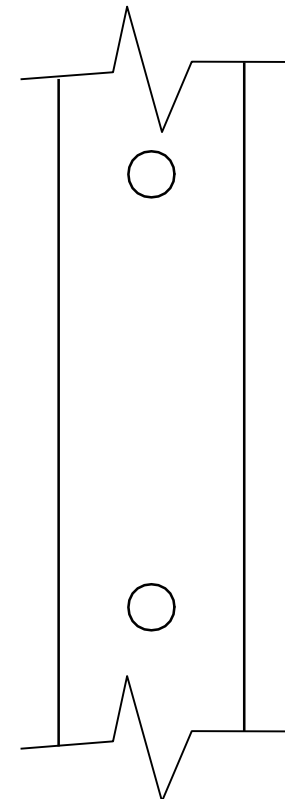
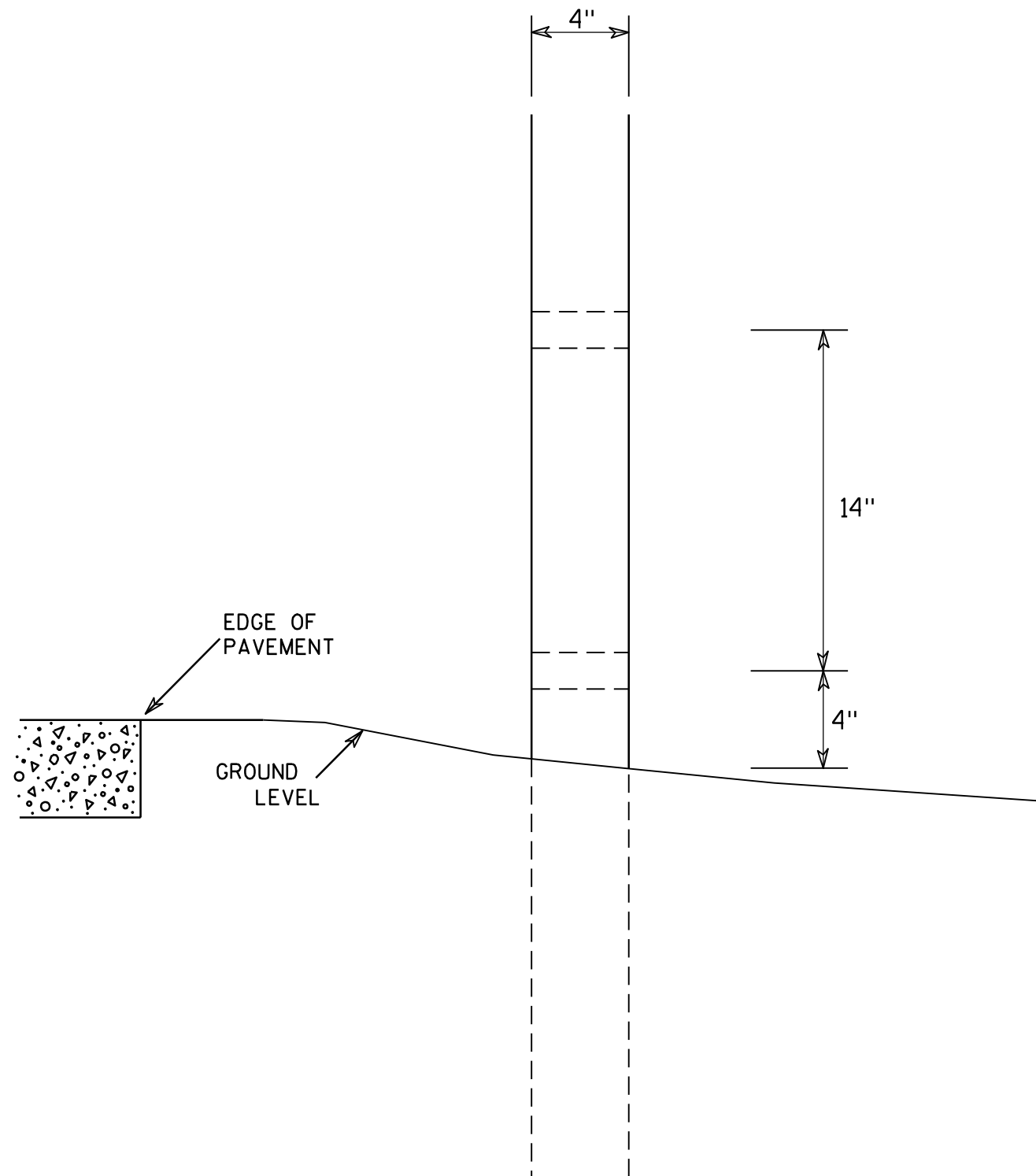
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

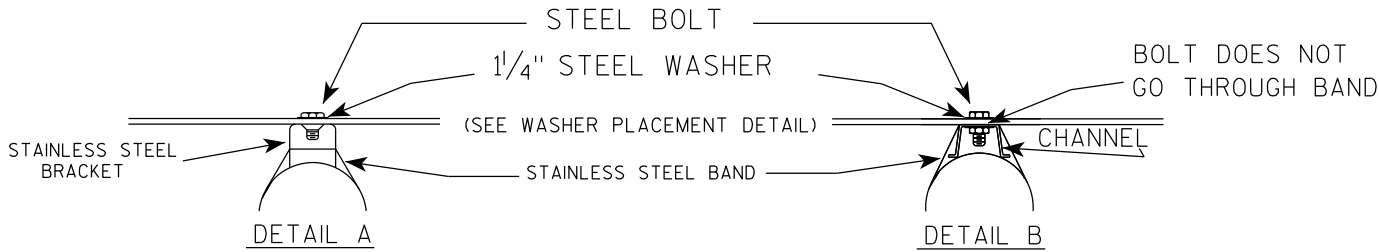
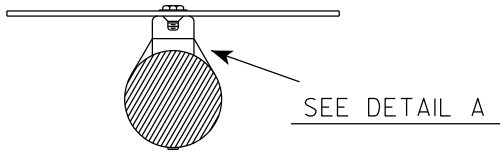
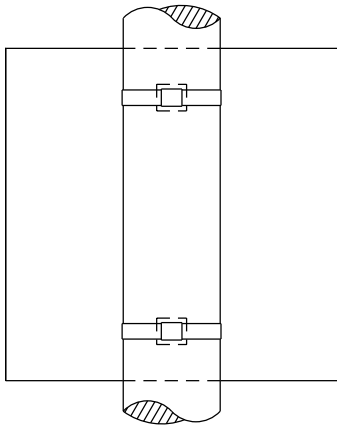
COUNTY:

SHEET NO: 144

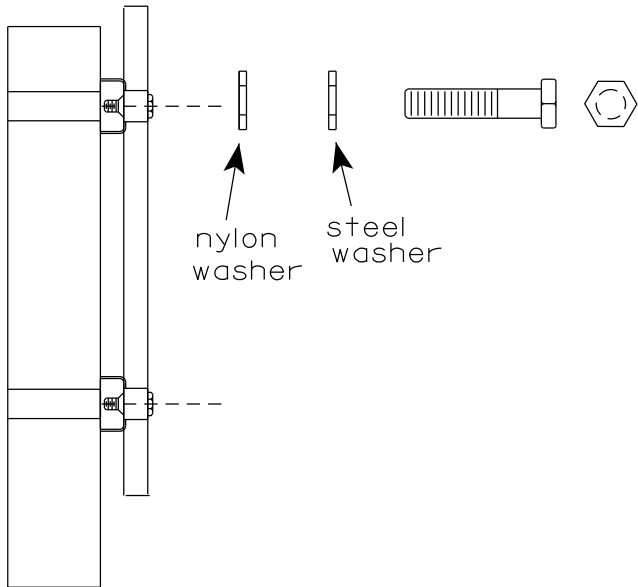
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

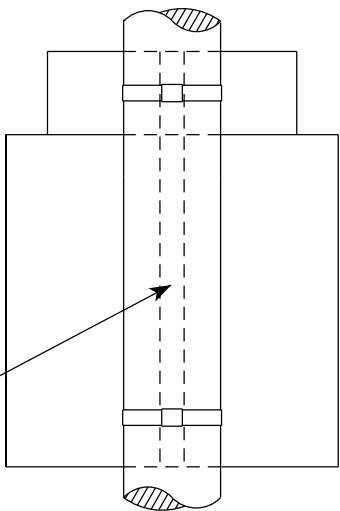


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

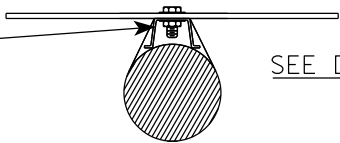
GENERAL NOTES

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

"J" ASSEMBLY



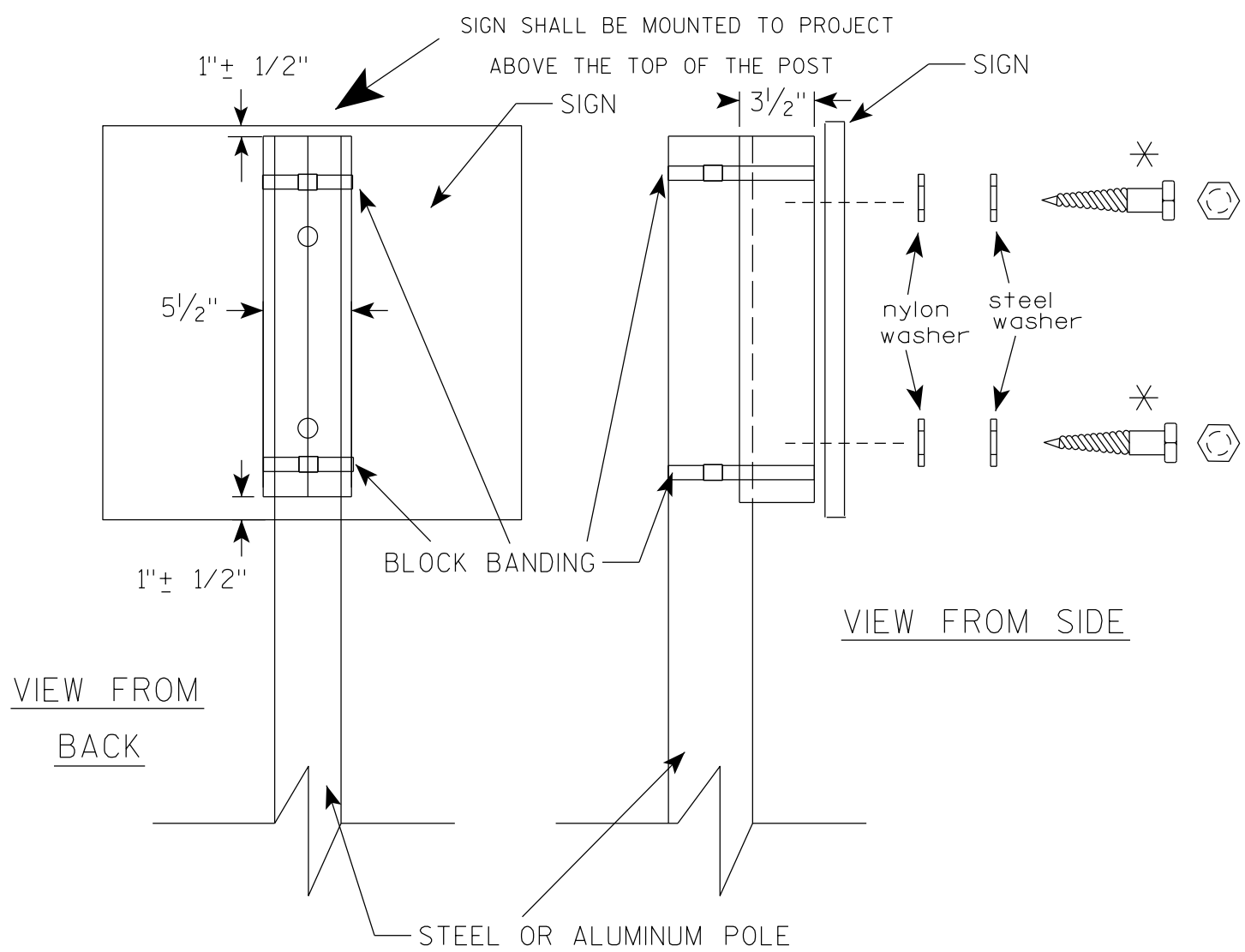
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

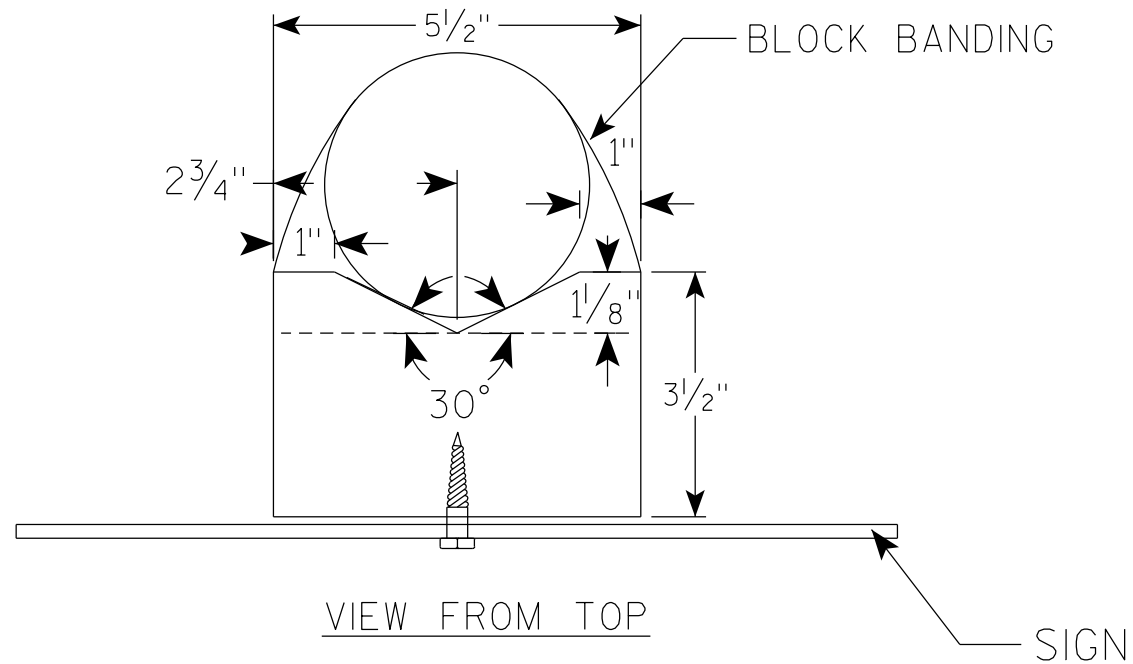
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

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

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 146

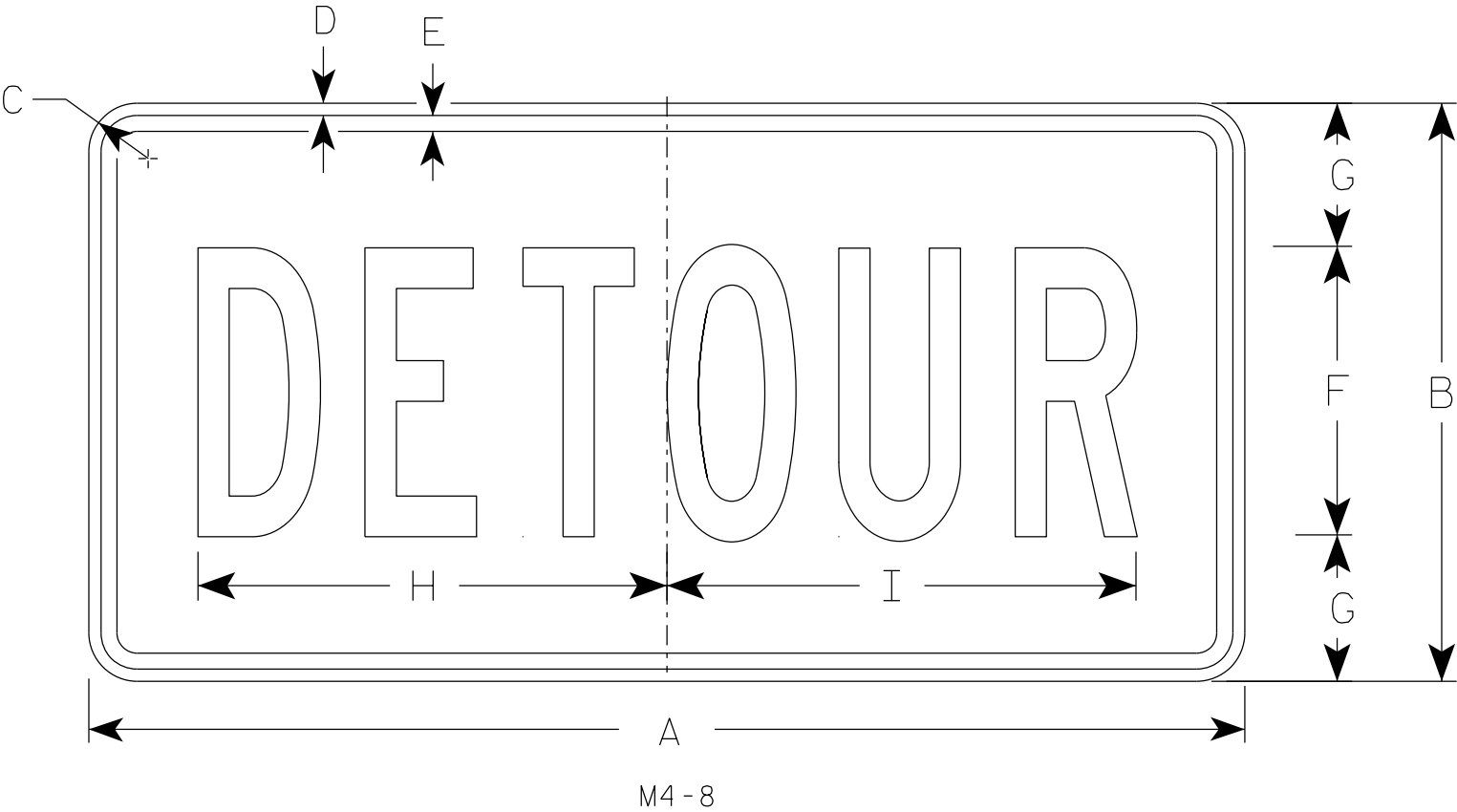
E

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 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.



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 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

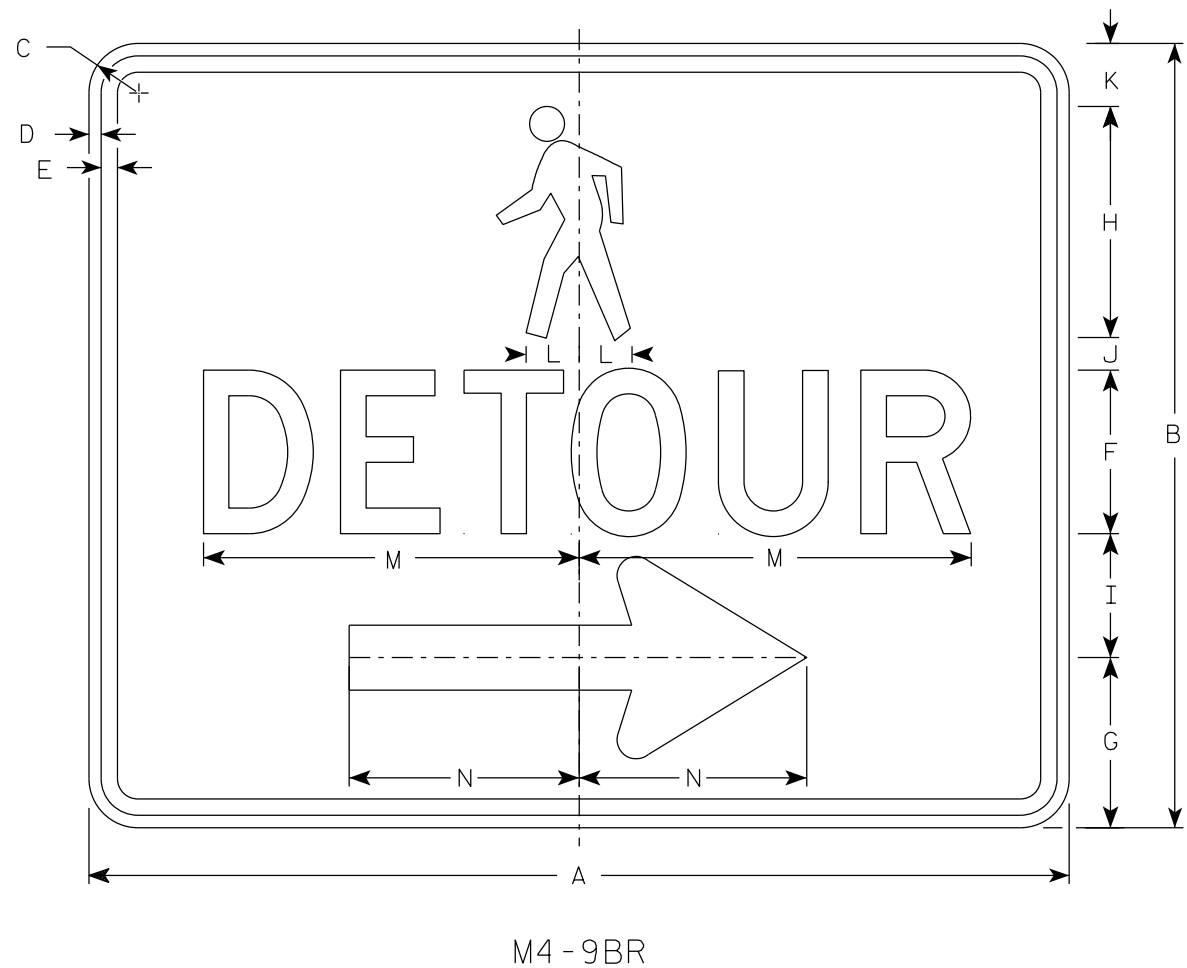
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

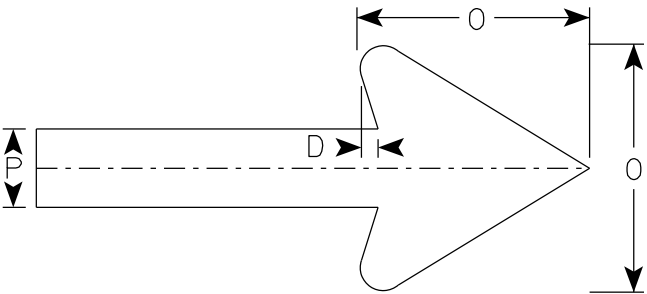
DATE 2/9/2023 PLATE NO. M4-8.4

7



NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

7

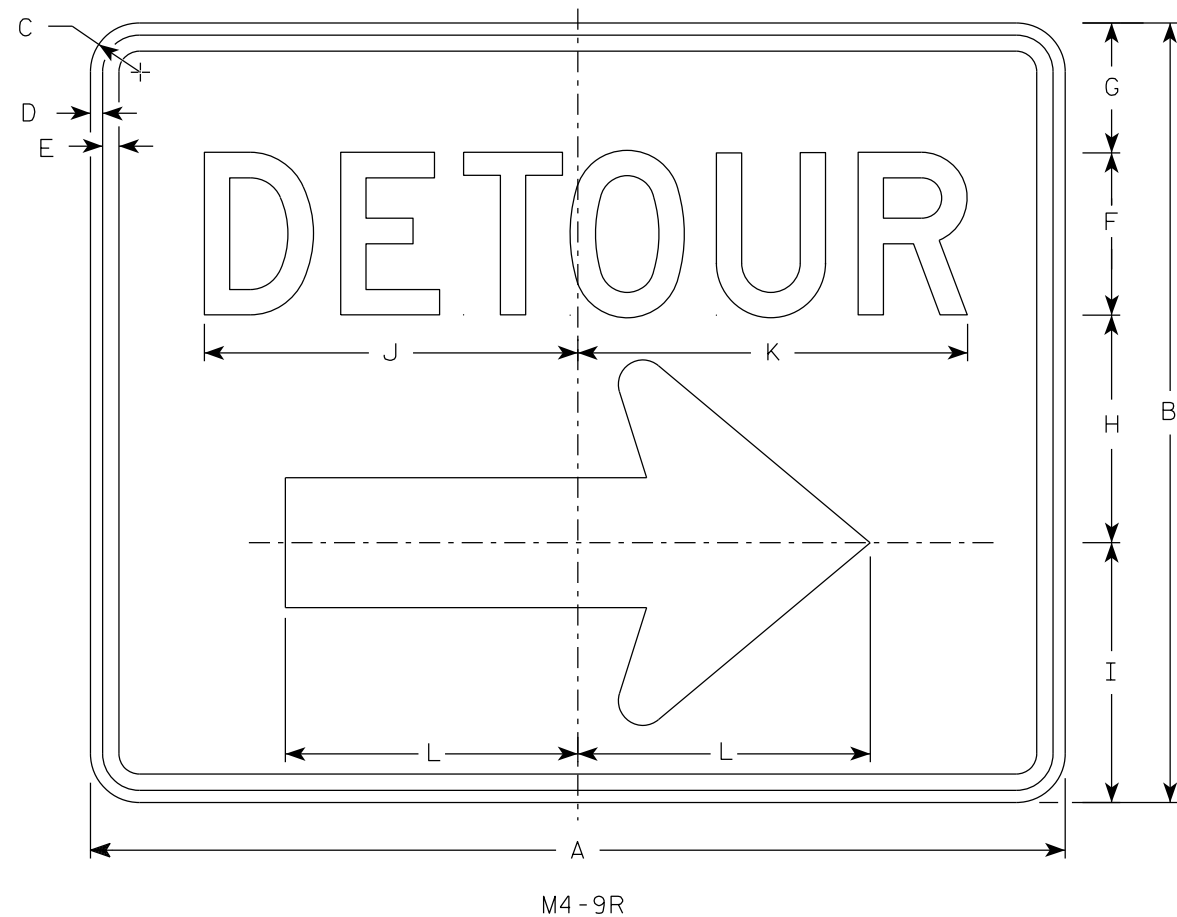
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

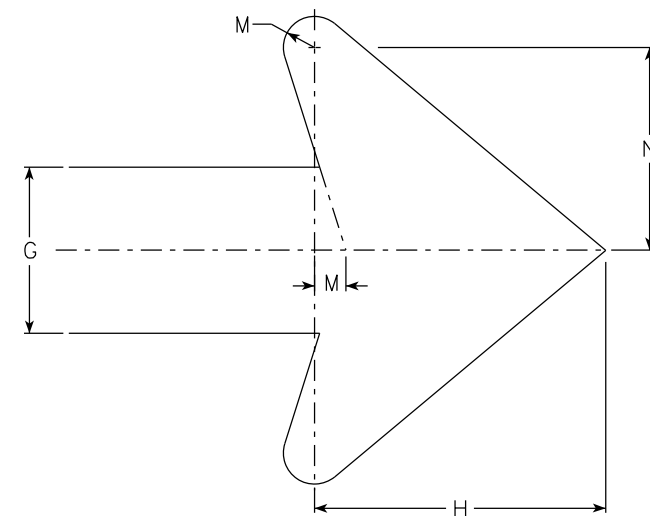
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

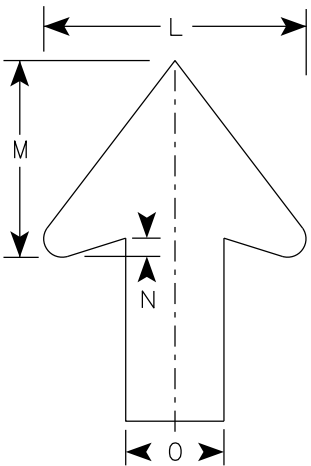
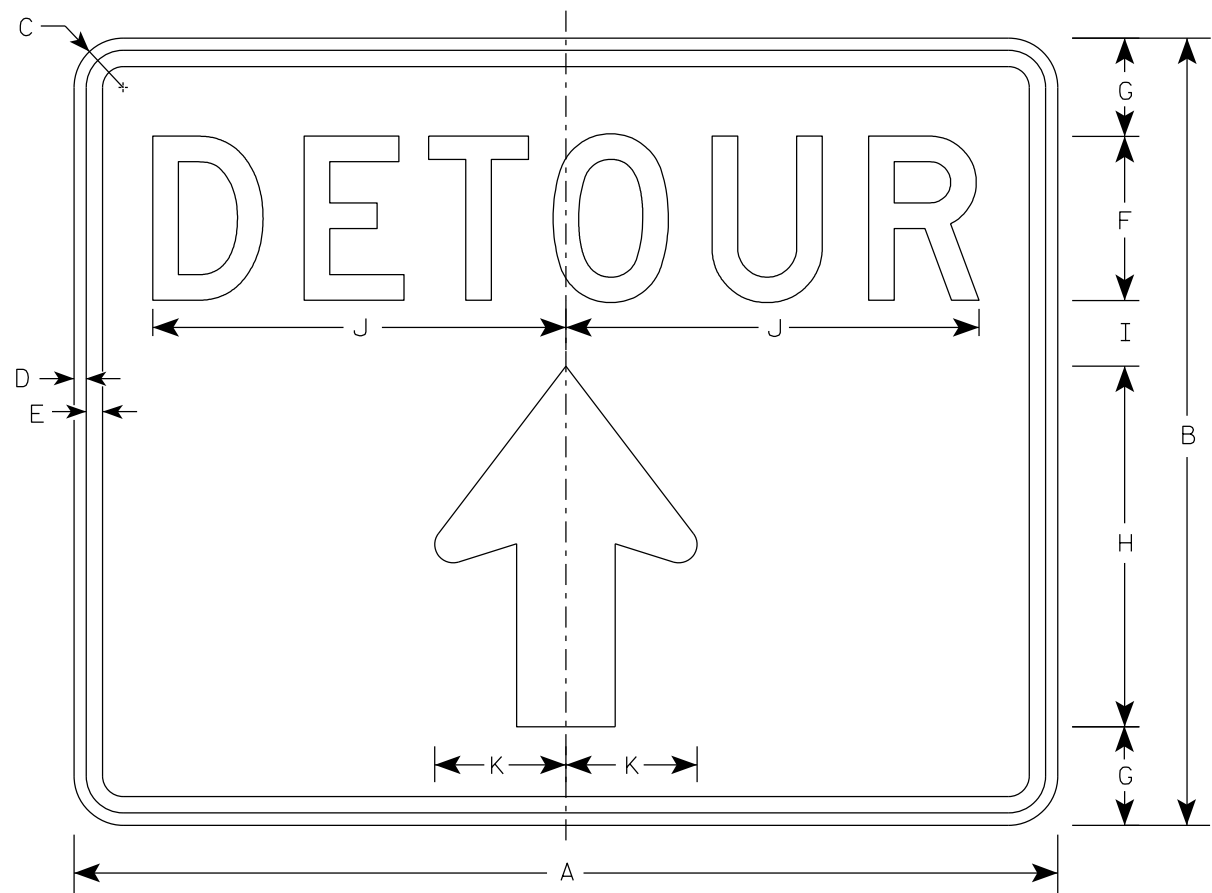
PROJECT NO: HWY: COUNTY: SHEET NO: 149 E

7

7

NOTES

- 1. Sign is Type II-Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D



Arrow Detail

M4 - 9RA

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	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
2M	30	24	1 1/2	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
3																											
4																											
5																											

STANDARD SIGN

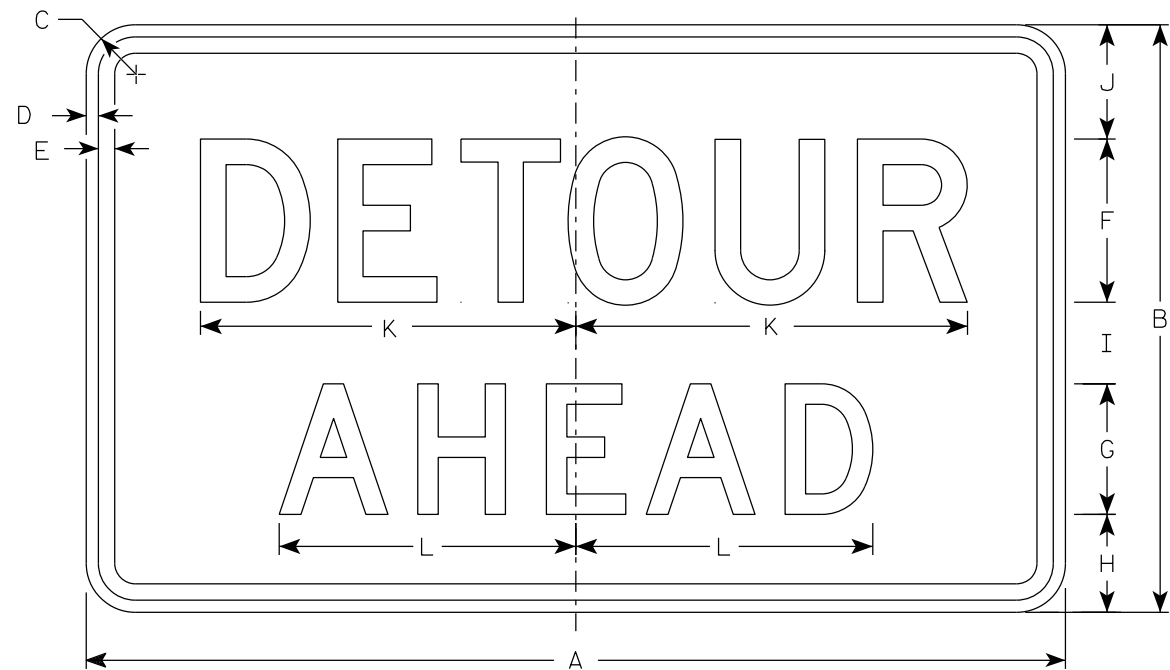
M4-9RA

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9RA.3

7



M4-59A

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	30	18	1 1/2	3/8	1/2	5	4	3	2 1/2	3 1/2	11 3/4	9 1/8														3.75	
2M	30	18	1 1/2	3/8	1/2	5	4	3	2 1/2	3 1/2	11 3/4	9 1/8														3.75	
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 151

E

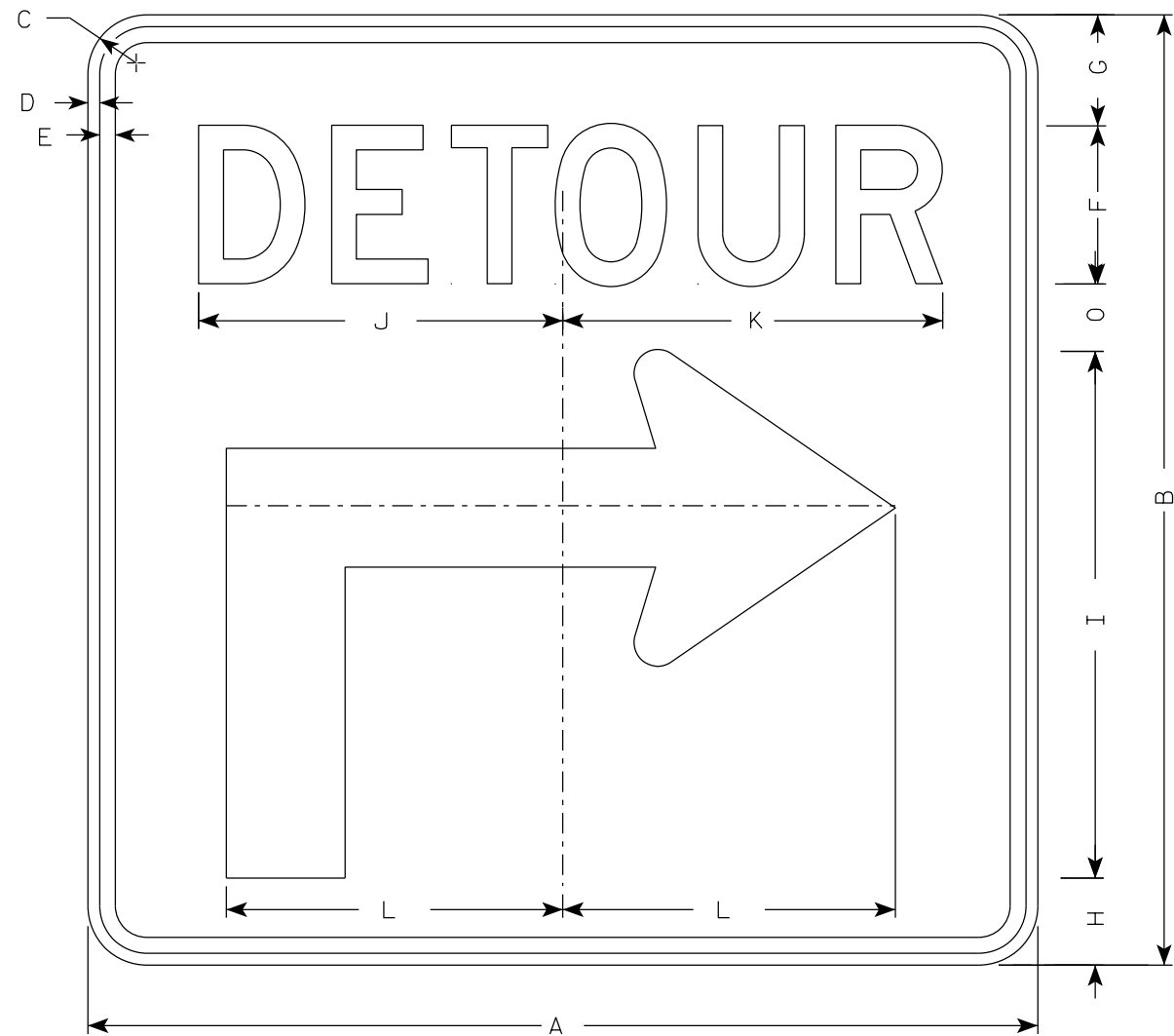
STANDARD SIGN
M4-59A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M4-59A.2

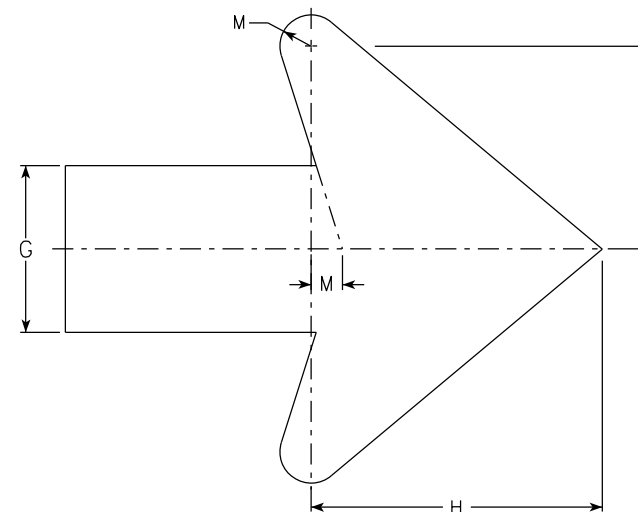
7



M4-59R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

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	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
2M	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 7/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	2 1/4	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

PROJECT NO:

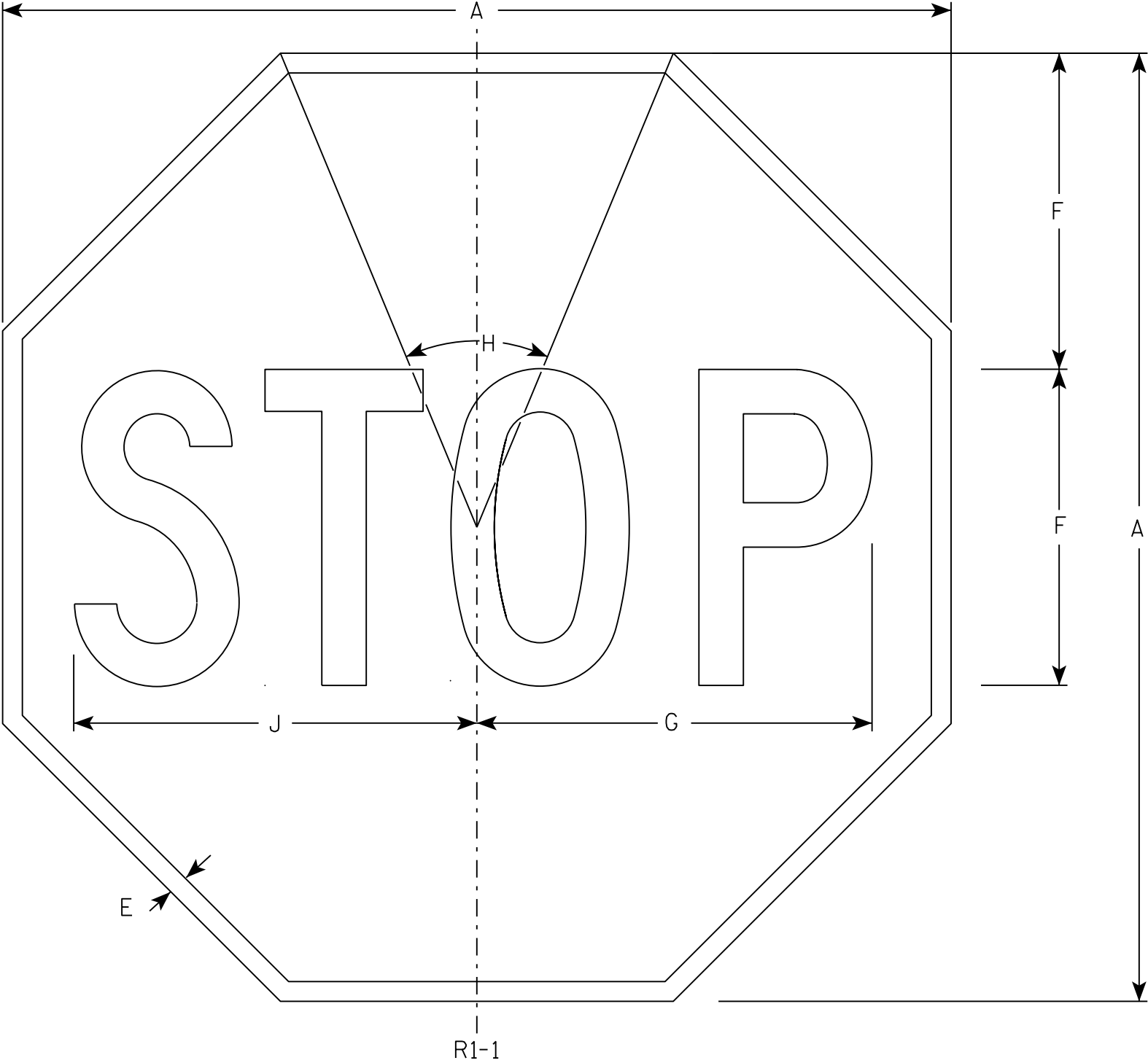
HWY:

COUNTY:

SHEET NO: 152

E

7



NOTES

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

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	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

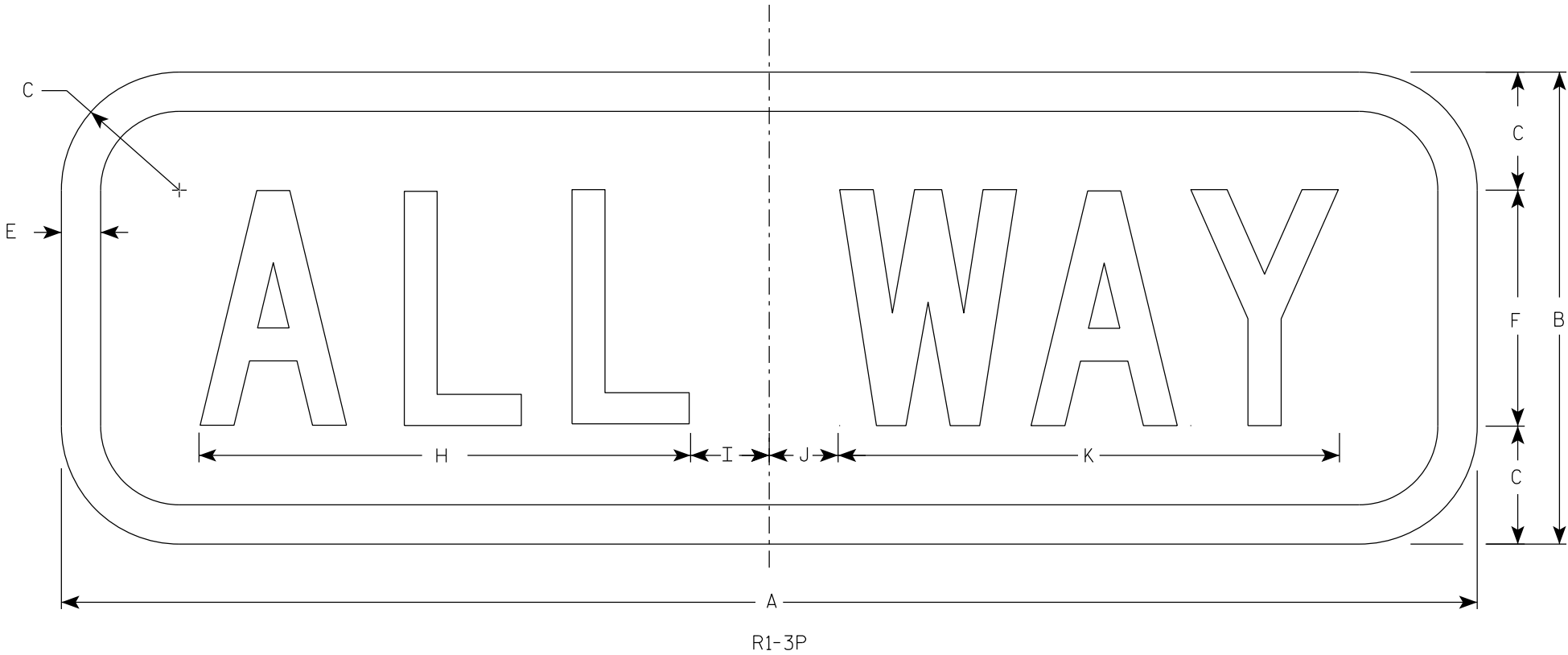
DATE 11/12/15 PLATE NO. R1-1.13

7

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C
- 4. For 30"x30" R1-1 use 18"x6" R1-3P sign
For 36"x36" R1-1 use 24"x9" R1-3P sign
For 48"x48" R1-1 use 30"x12" R1-3P sign



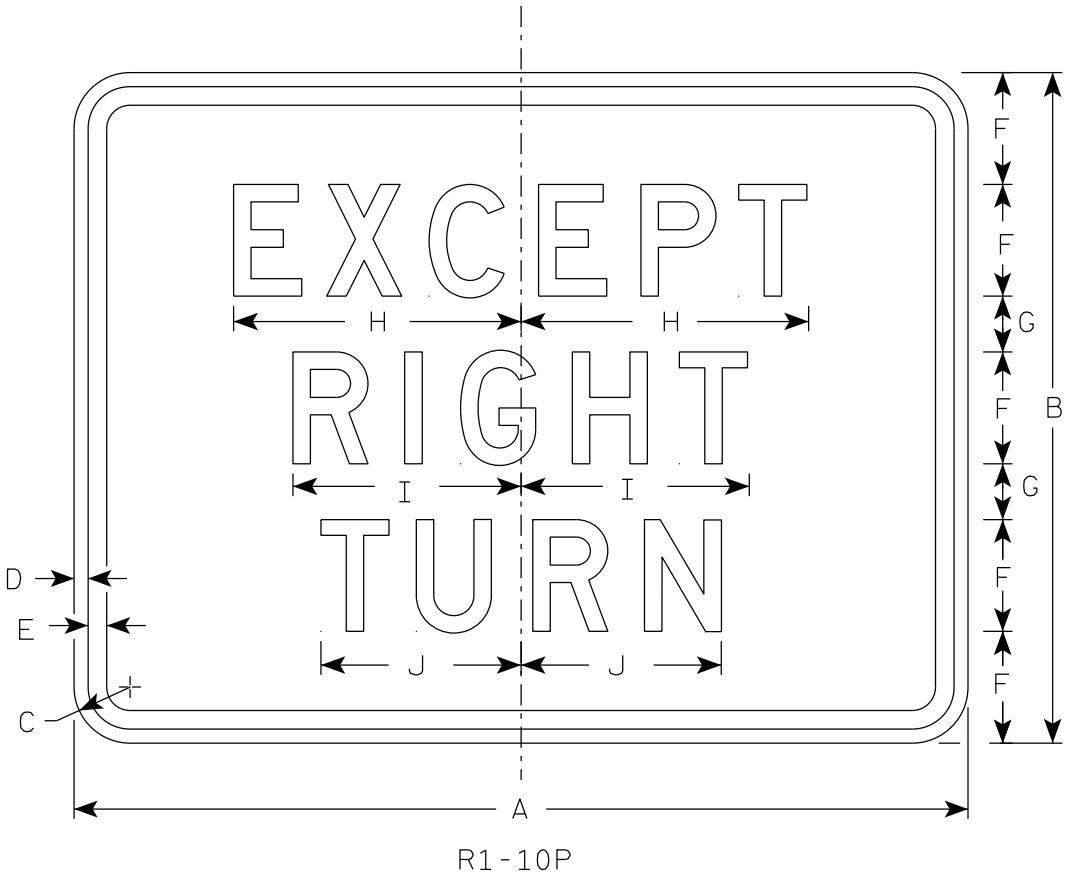
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	1 1/2		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	1 1/2		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

7

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/2	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
2M	24	18	1 1/2	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 155

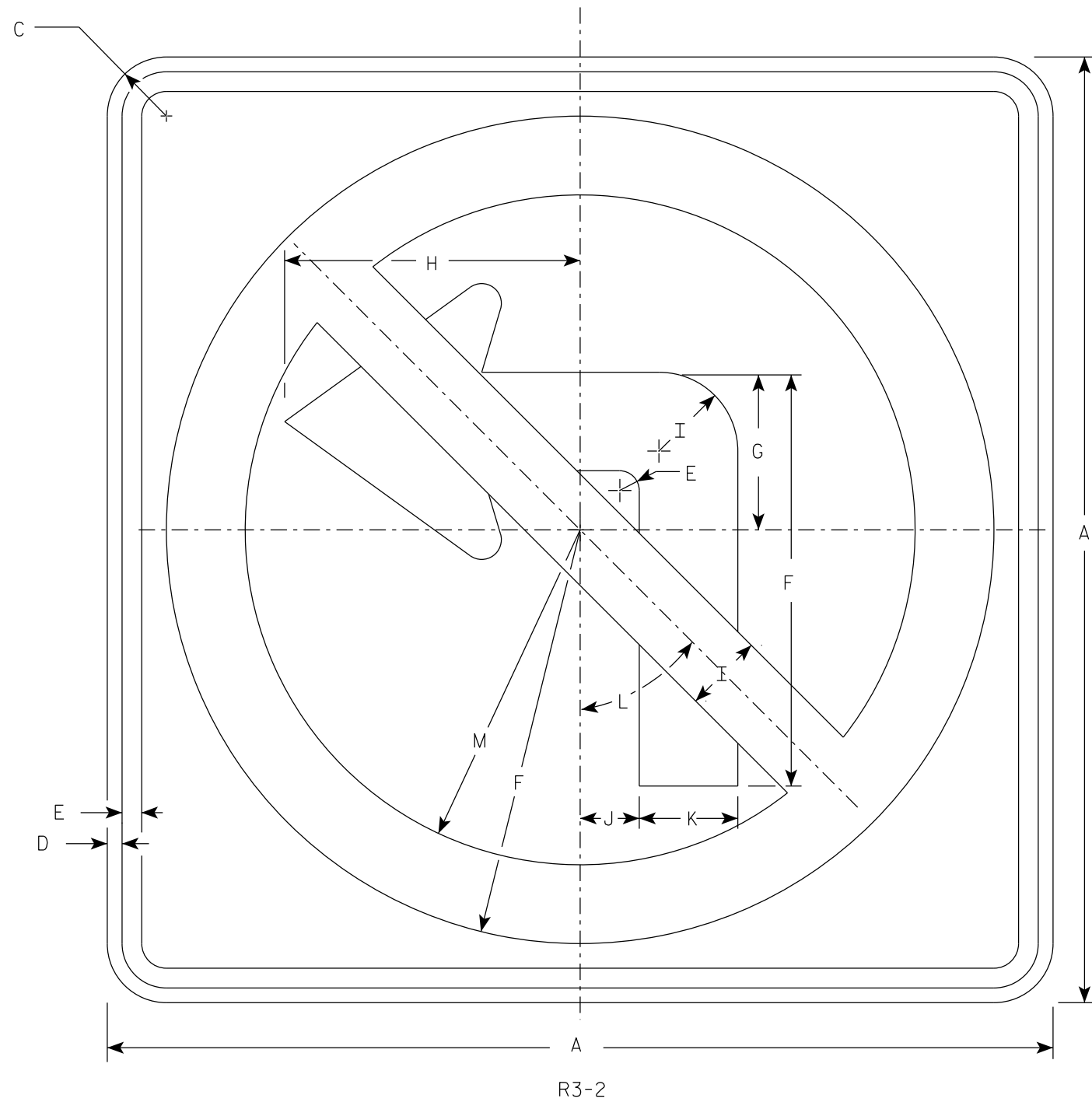
E

STANDARD SIGN
R1-10P

WISCONSIN DEPT OF TRANSPORTATION

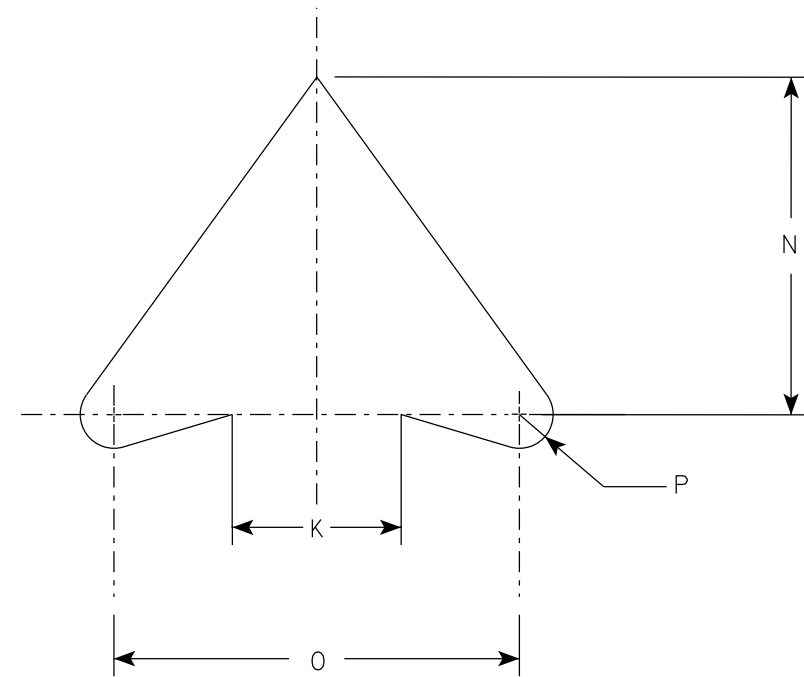
APPROVED
Matthew R. Rauch
State Traffic Engineer

DATE 1/31/23 PLATE NO. R1-10P.2



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - See note 3
3. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/2	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		2 1/4	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

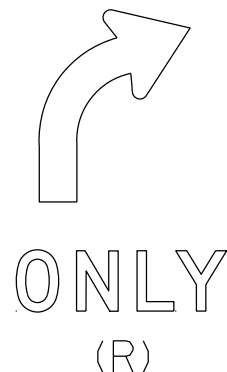
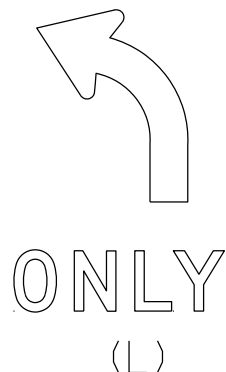
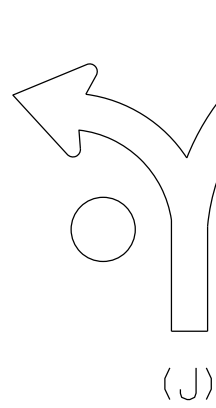
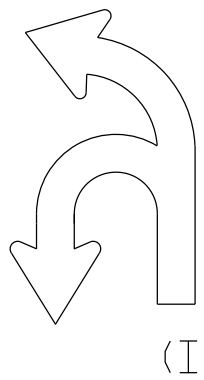
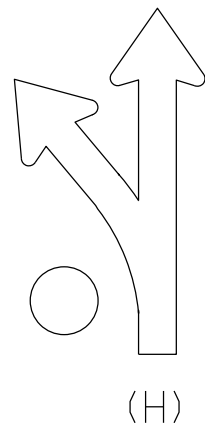
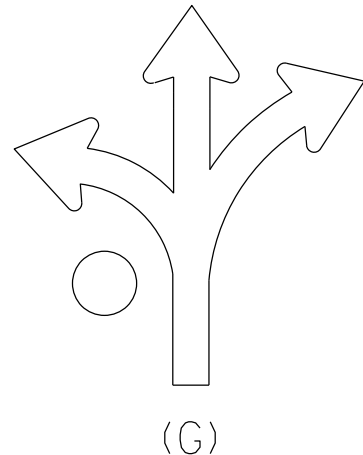
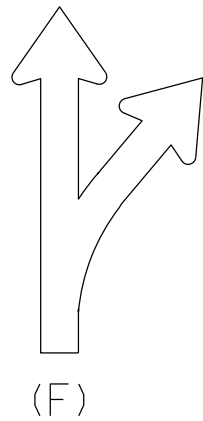
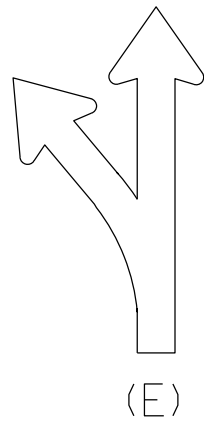
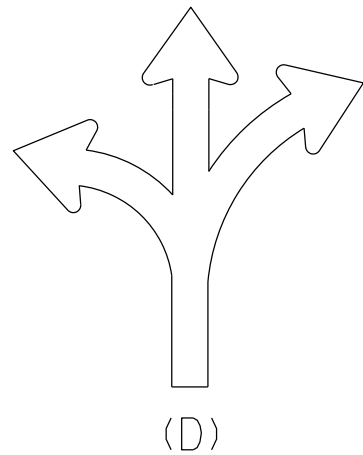
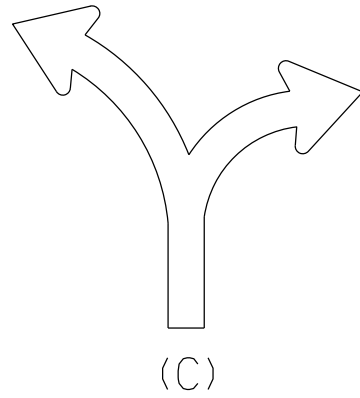
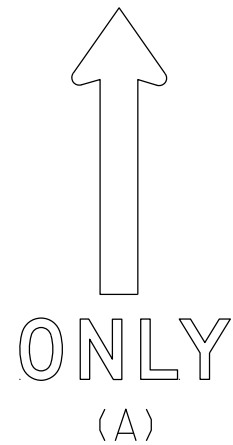
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 156

E



NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter = 3.75 sq ft for Size 2

6.0 sq ft for Size 3

10.0 sq ft for Size 4 or 5

2 Letters = 7.5 sq ft for Size 2

12.0 sq ft for Size 3

20.0 sq ft for Size 4 or 5

3 Letters = 11.25 sq ft for Size 2

18.0 sq ft for Size 3

30.0 sq ft for Size 4 or 5

4 Letters = 15.0 sq ft for Size 2

24.0 sq ft for Size 3

40.0 sq ft for Size 4 or 5

5 Letters = 18.75 sq ft for Size 2

30.0 sq ft for Size 3

50.0 sq ft for Size 4 or 5

6 Letters = 22.5 sq ft for Size 2

36.0 sq ft for Size 3

60.0 sq ft for Size 4 or 5

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq. Ft. changes.

Add the amounts when these letters are used:

1.25 sq ft for Size 2

1.5 sq ft for Size 3

2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

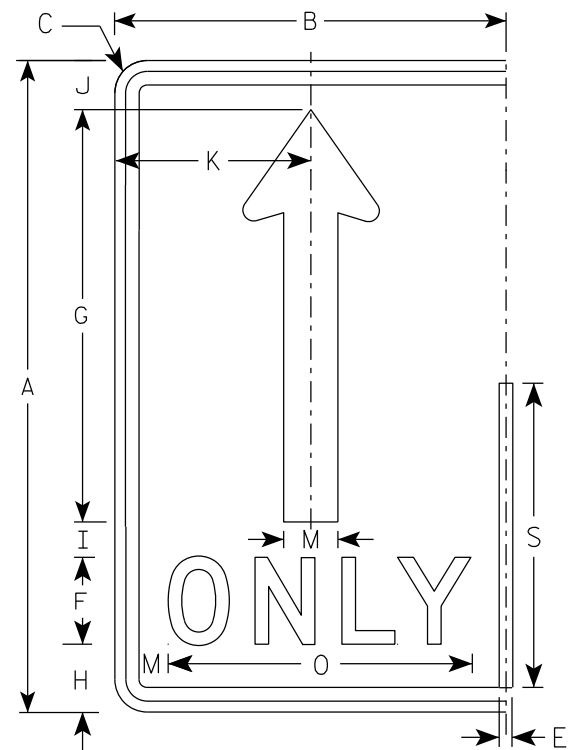
PROJECT NO:

SHEET NO: 157

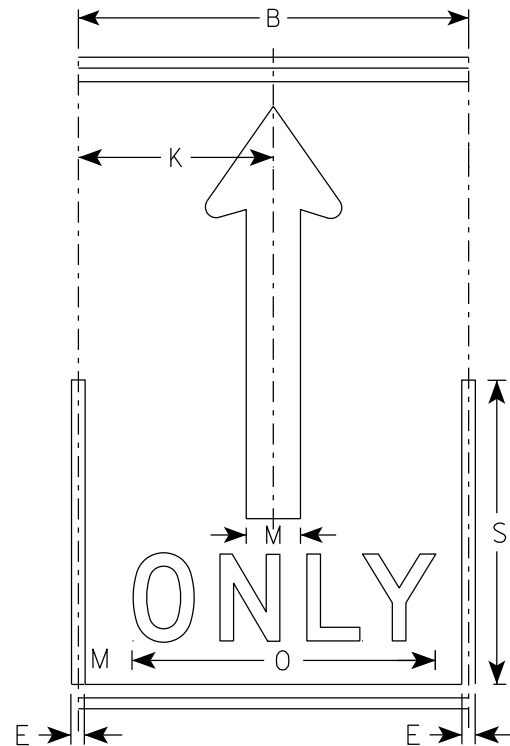
E

NOTES

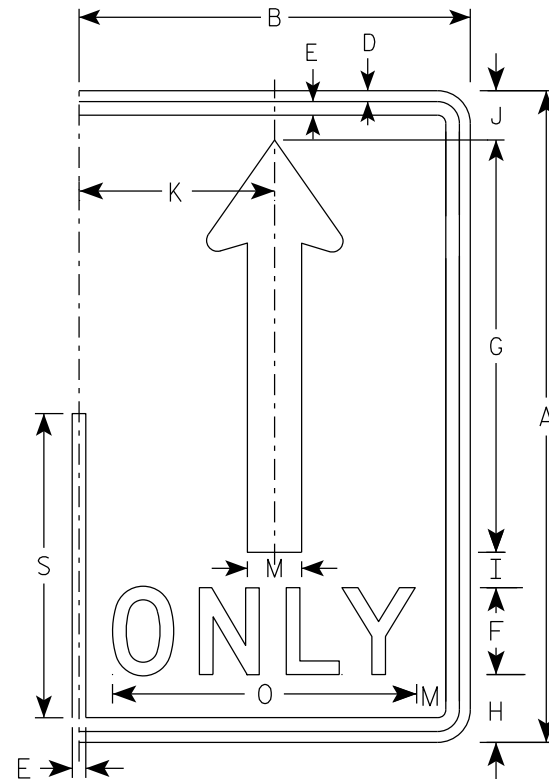
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



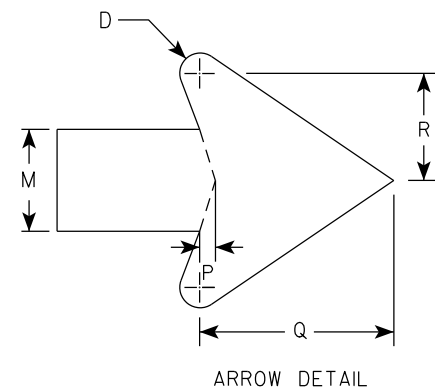
(A)



(A)



(A)



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	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

7

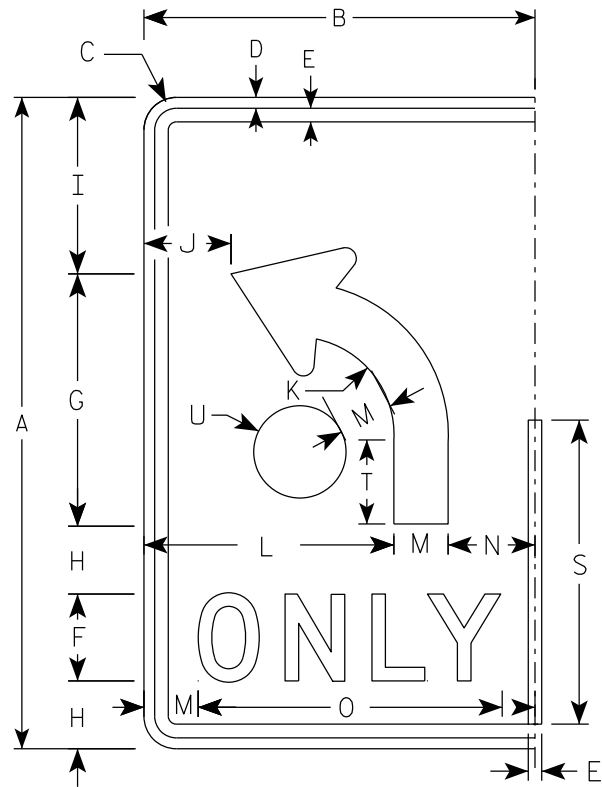
NOTES

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

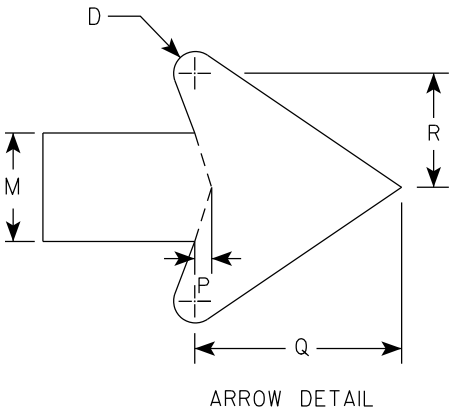
Background - White

Message - Black

Message Series - D



(B)



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	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

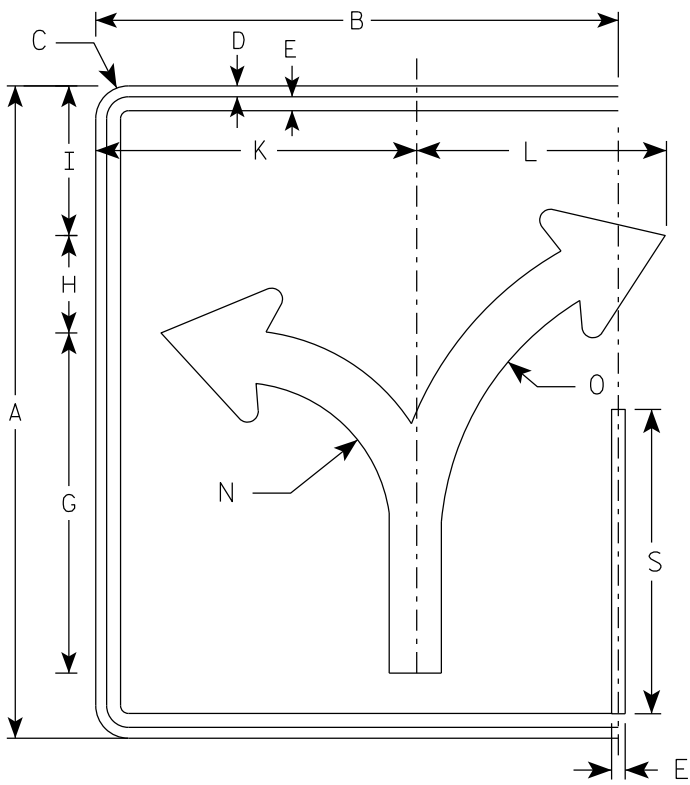
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

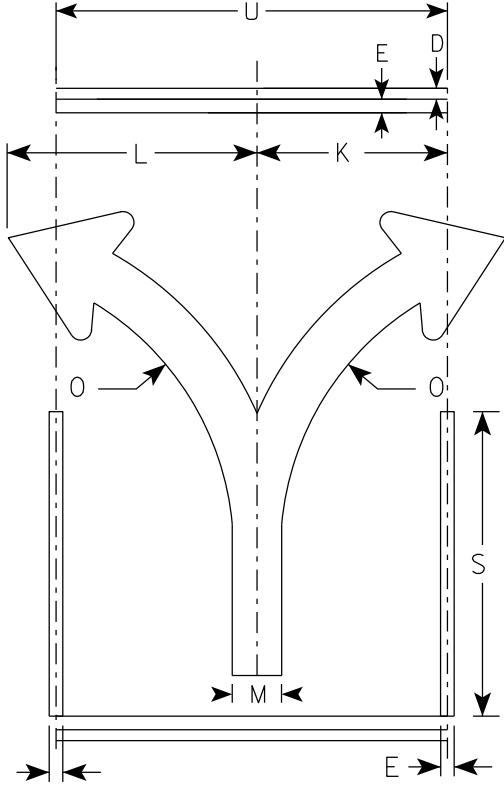
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

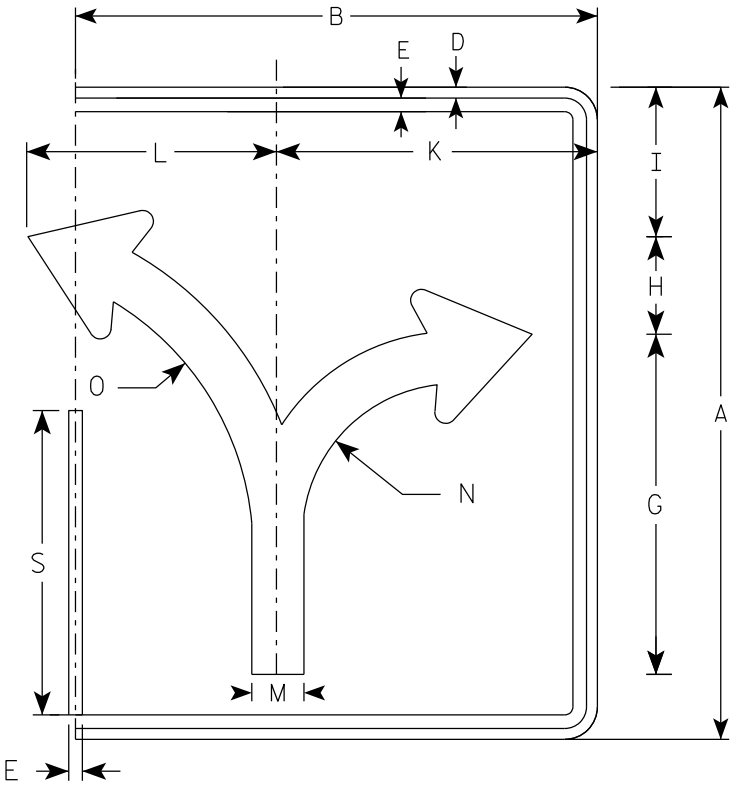
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



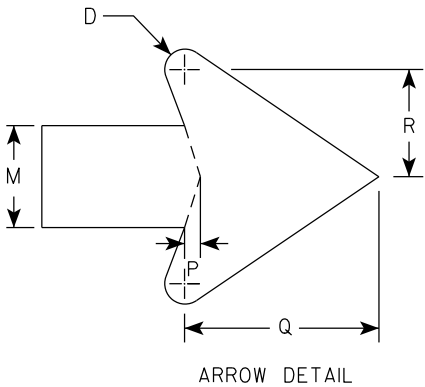
(C)



(C)



(C)



																											ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 160

E

STANDARD SIGN

R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

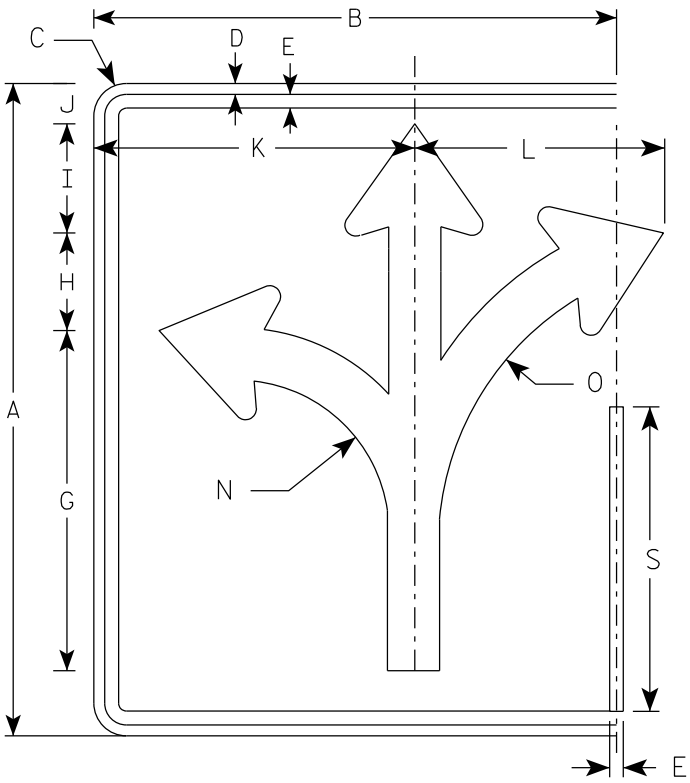
for State Traffic Engineer

DATE 2/14/23

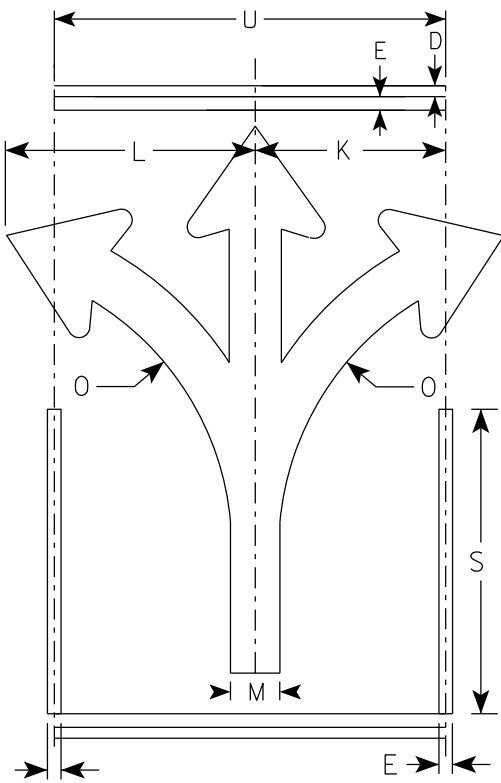
PLATE NO. R3-8.2

NOTES

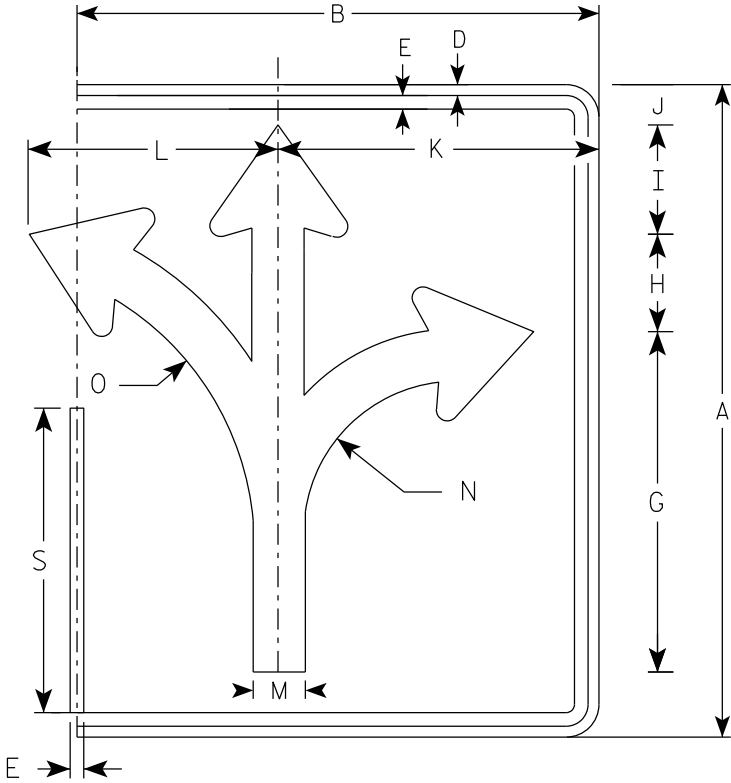
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



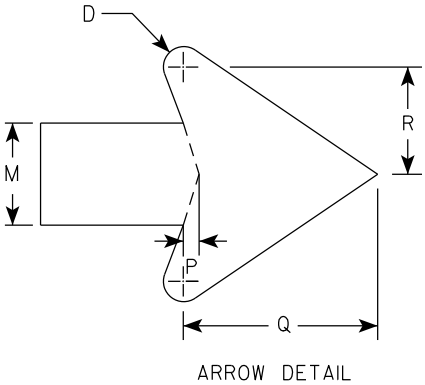
(D)



(D)



(D)



ARROW DETAIL

																												ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.	
1																													
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	

PROJECT NO:

HWY:

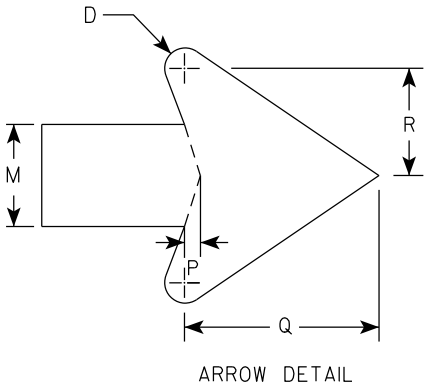
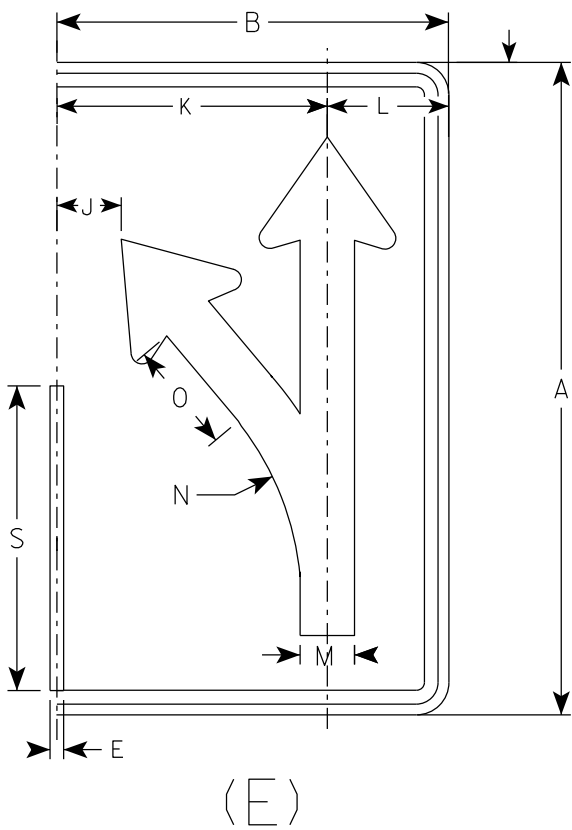
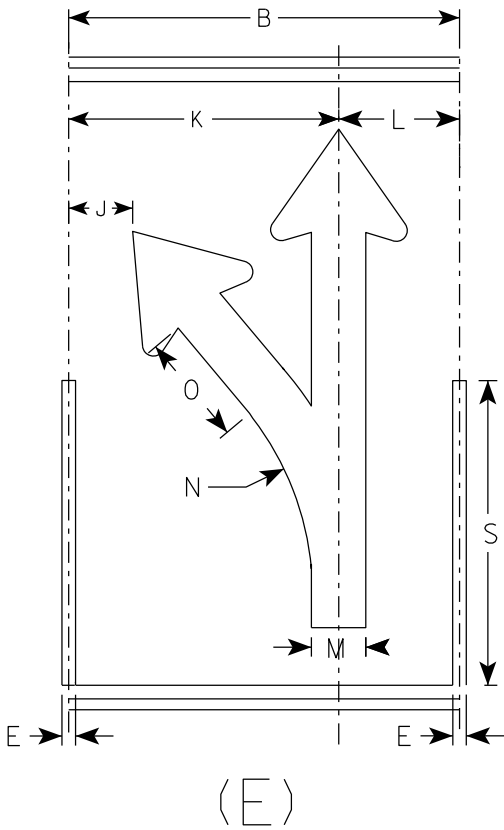
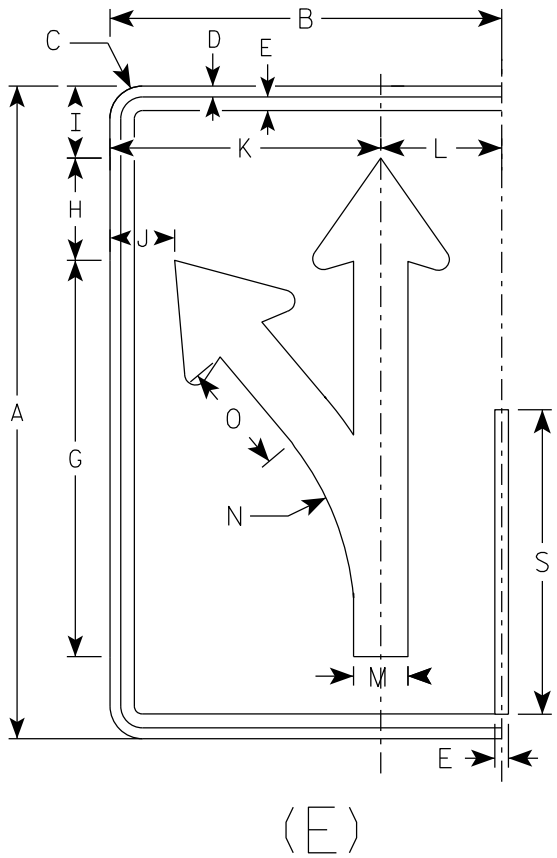
COUNTY:

SHEET NO: 161

E

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



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	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 162

E

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

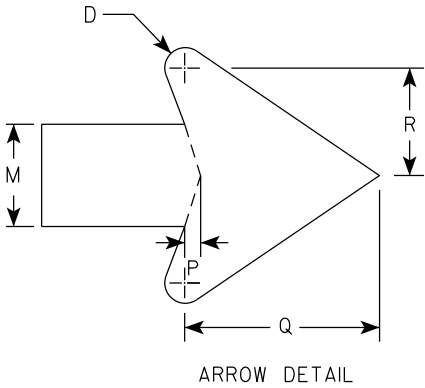
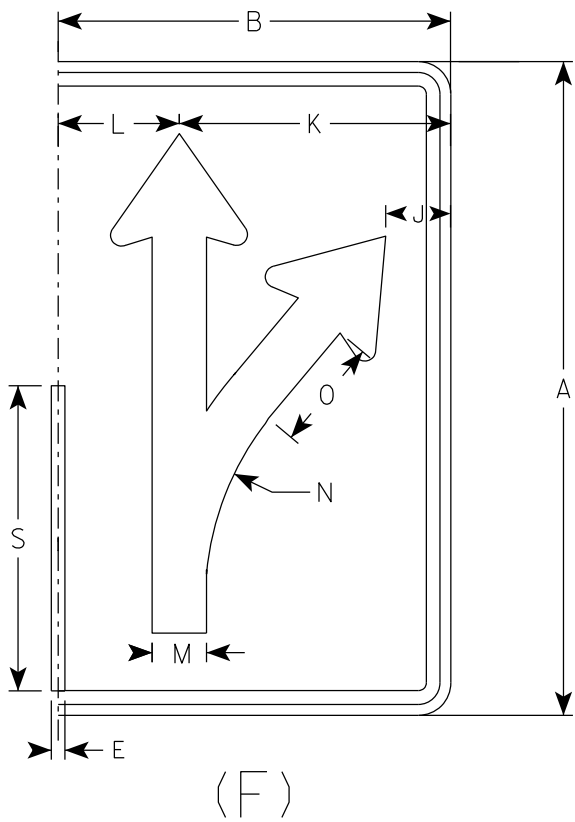
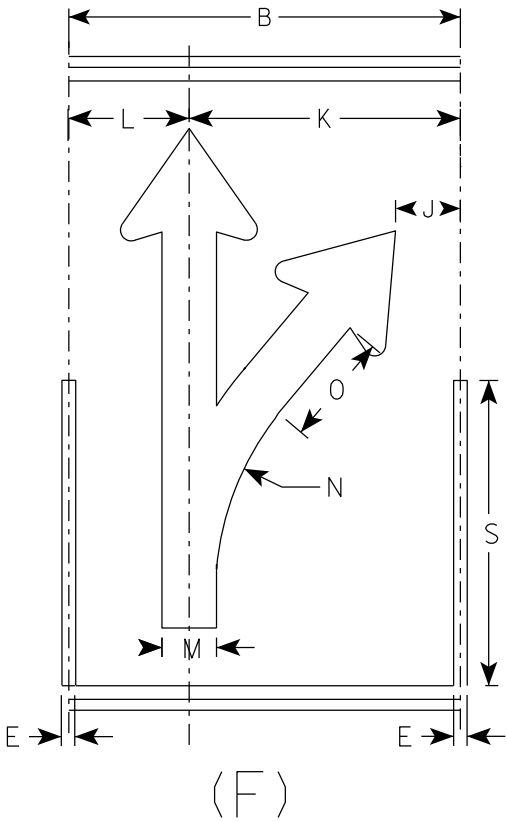
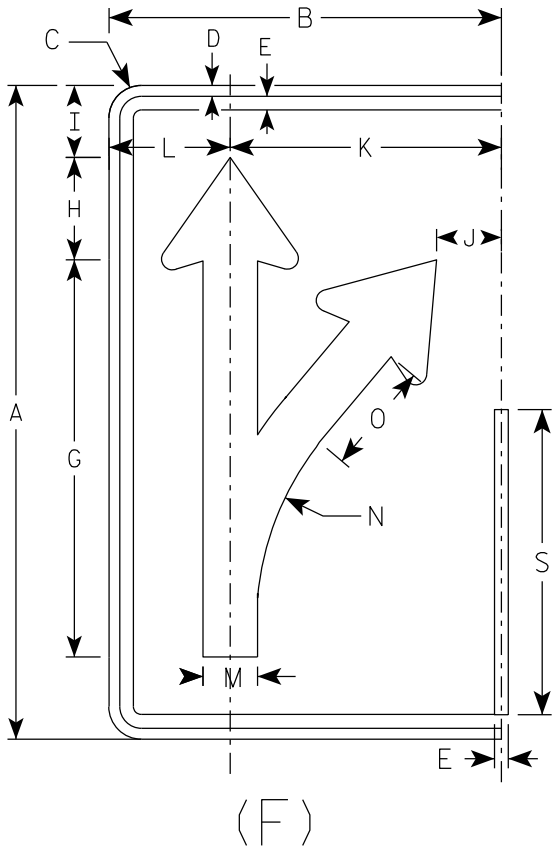
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

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

Background - White

Message - Black
3. Message Series - None



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	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 163

E

STANDARD SIGN

R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

PLATE NO. R3-8.2

7

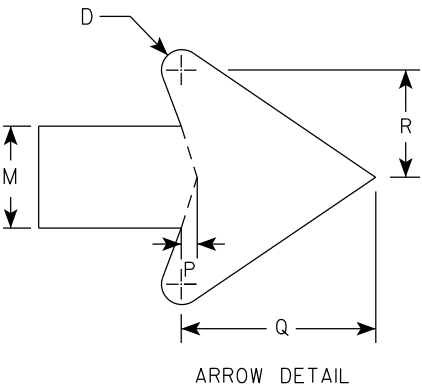
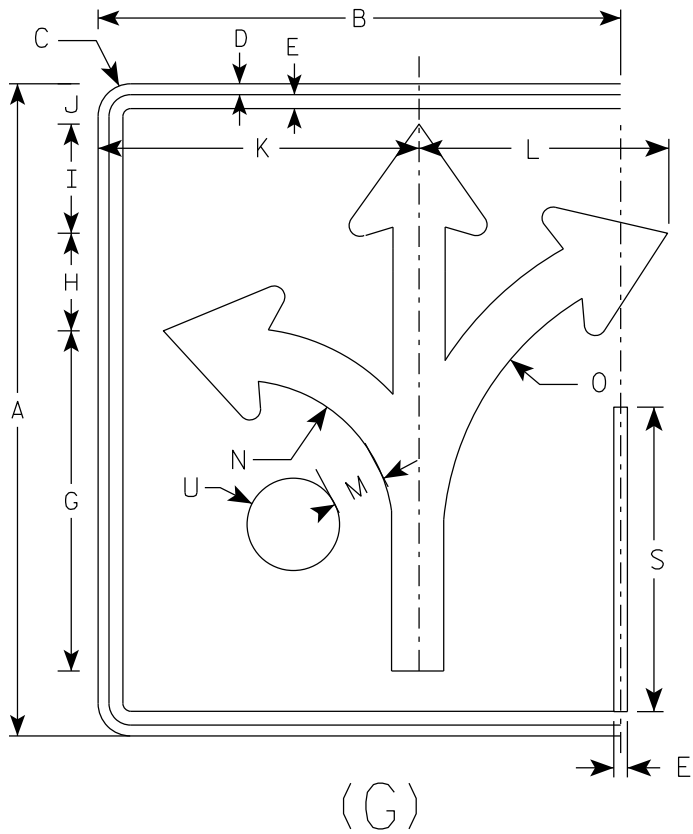
7

NOTES

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

Background - White

Message - Black
3. Message Series - None



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	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 164

E

STANDARD SIGN

R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

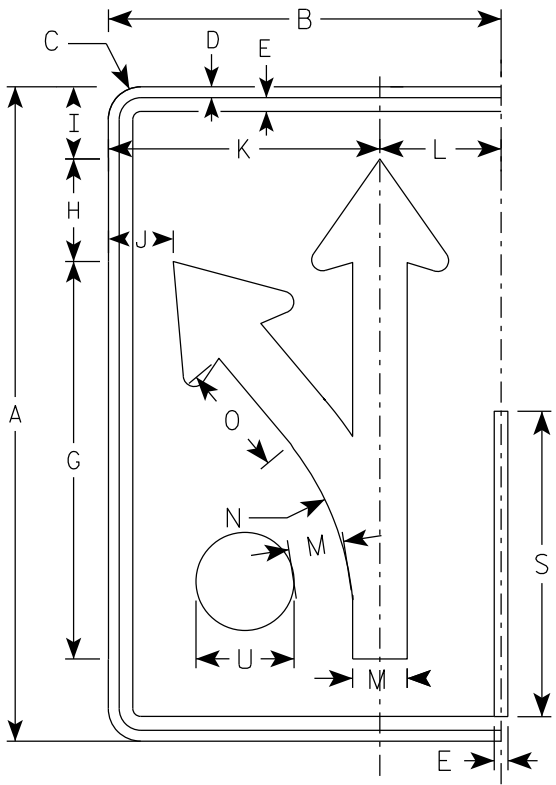
7

NOTES

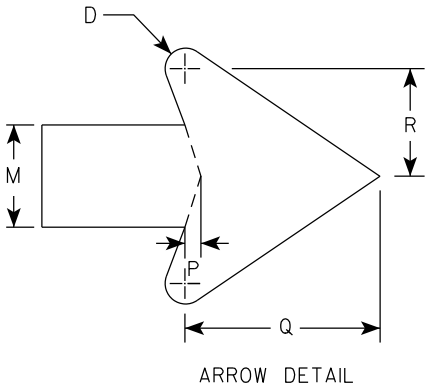
1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



(H)



ARROW DETAIL

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	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 165

E

STANDARD SIGN

R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

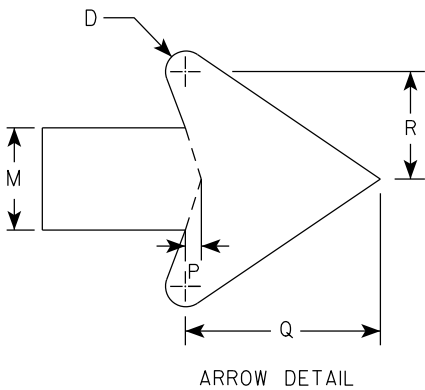
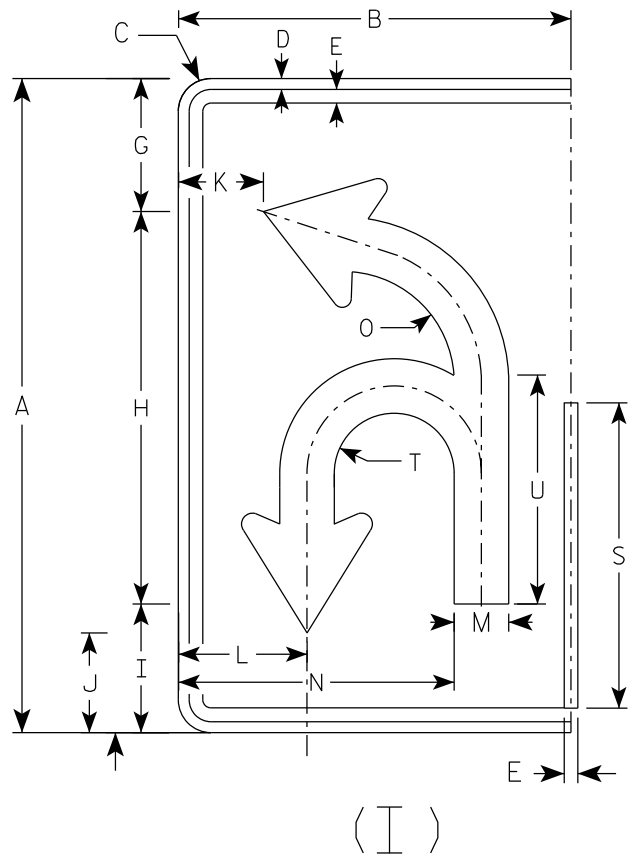
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

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

Background - White

Message - Black
3. Message Series - None



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	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 166

E

STANDARD SIGN

R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

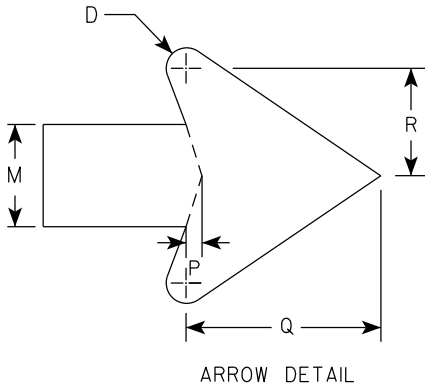
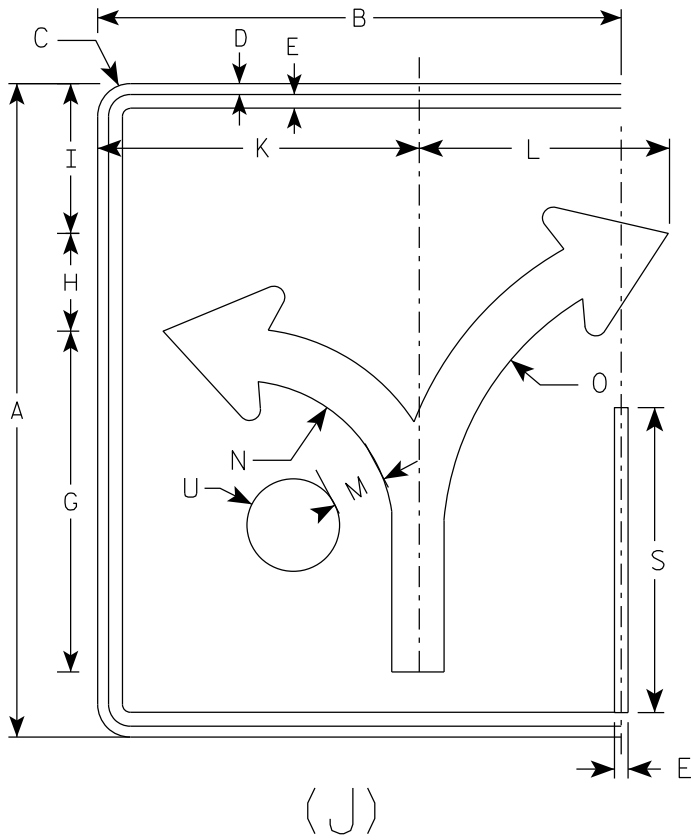
PLATE NO. R3-8.2

NOTES

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

Background - White

Message - Black
3. Message Series - None



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	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN

R3-8 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

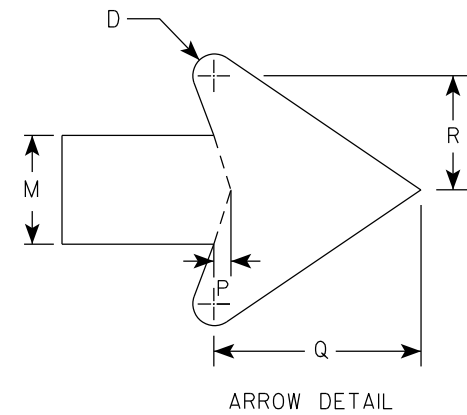
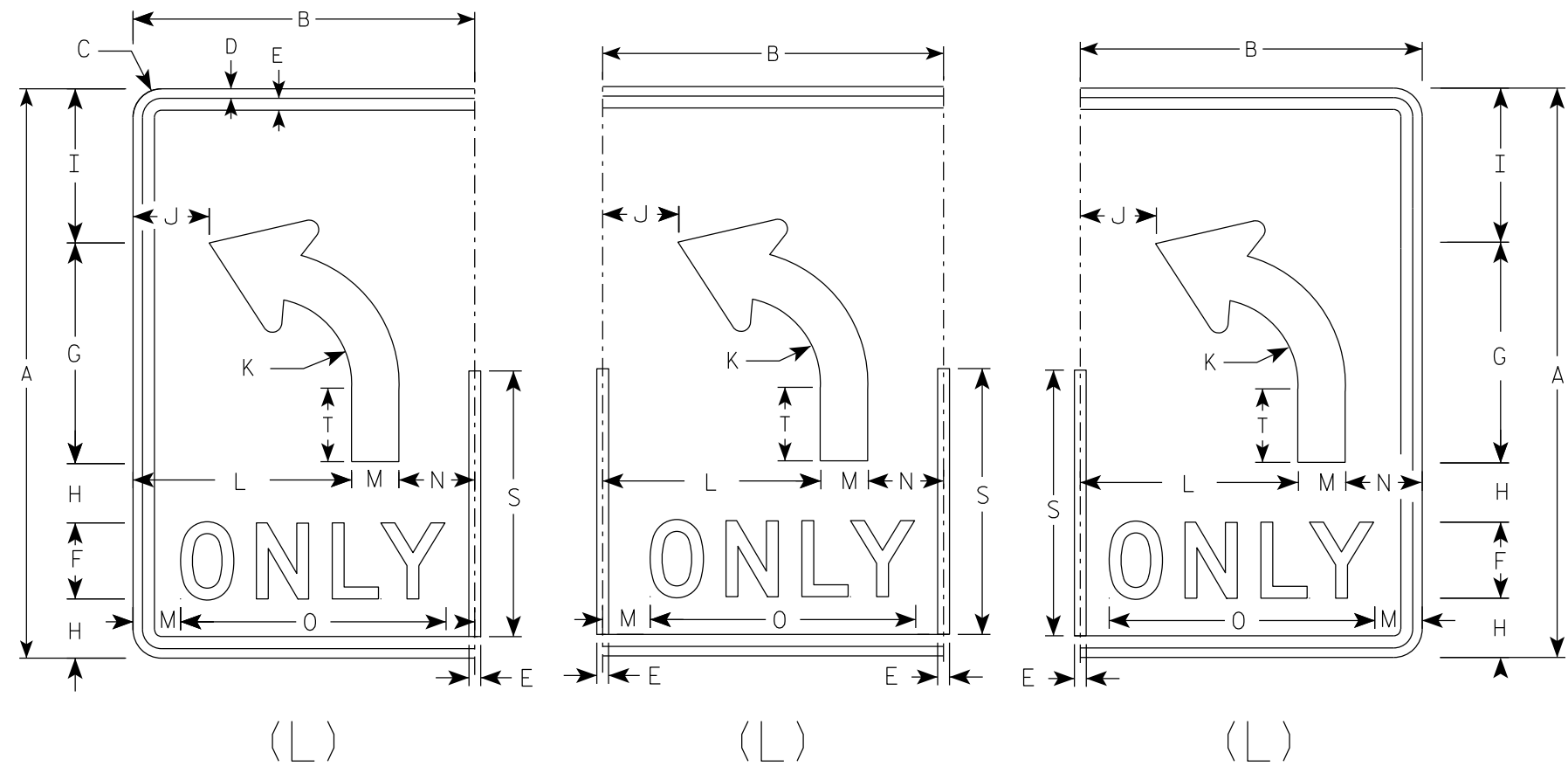
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



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	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

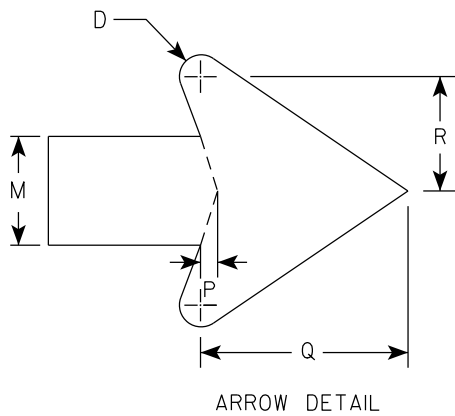
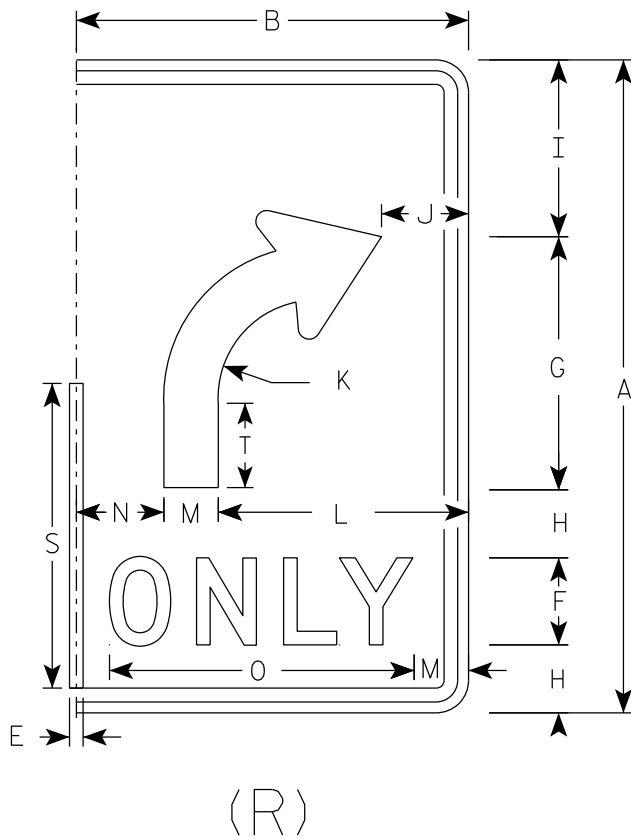
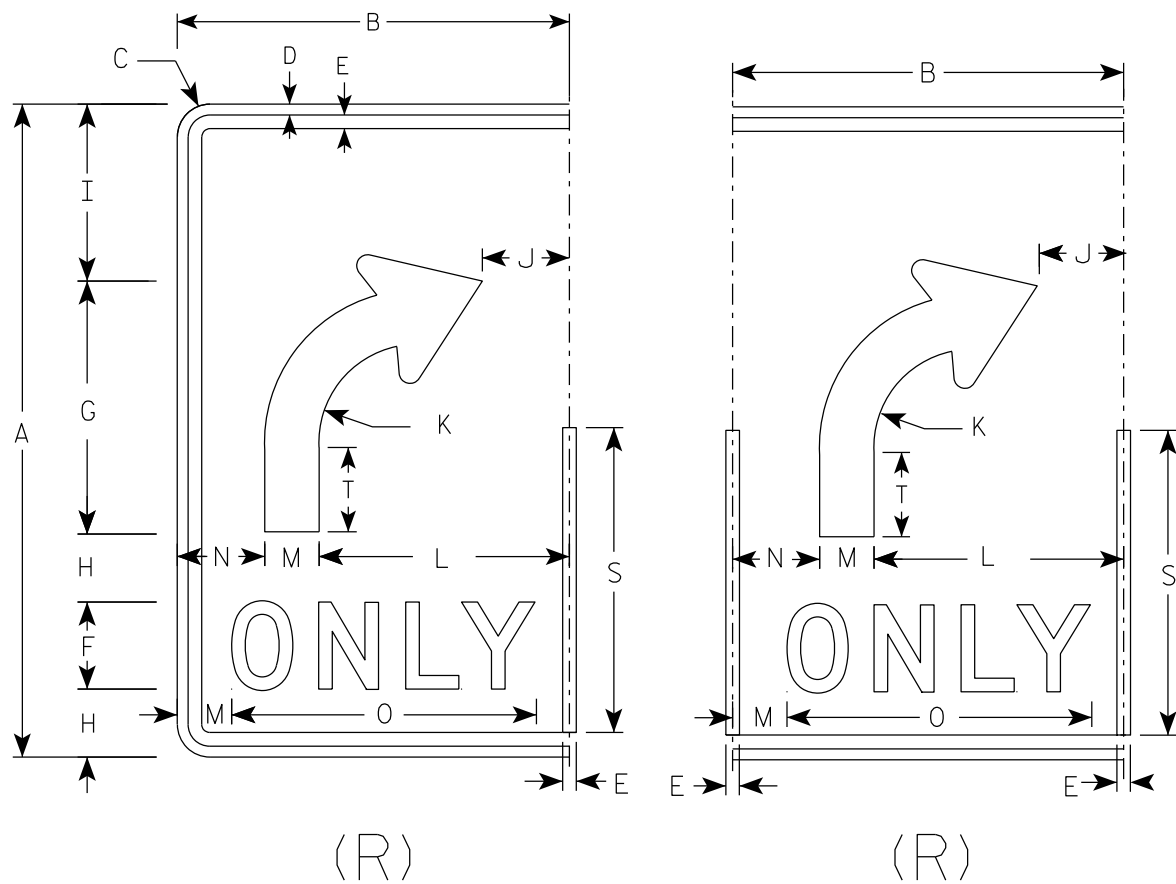
APPROVED *Matthae R Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



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	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

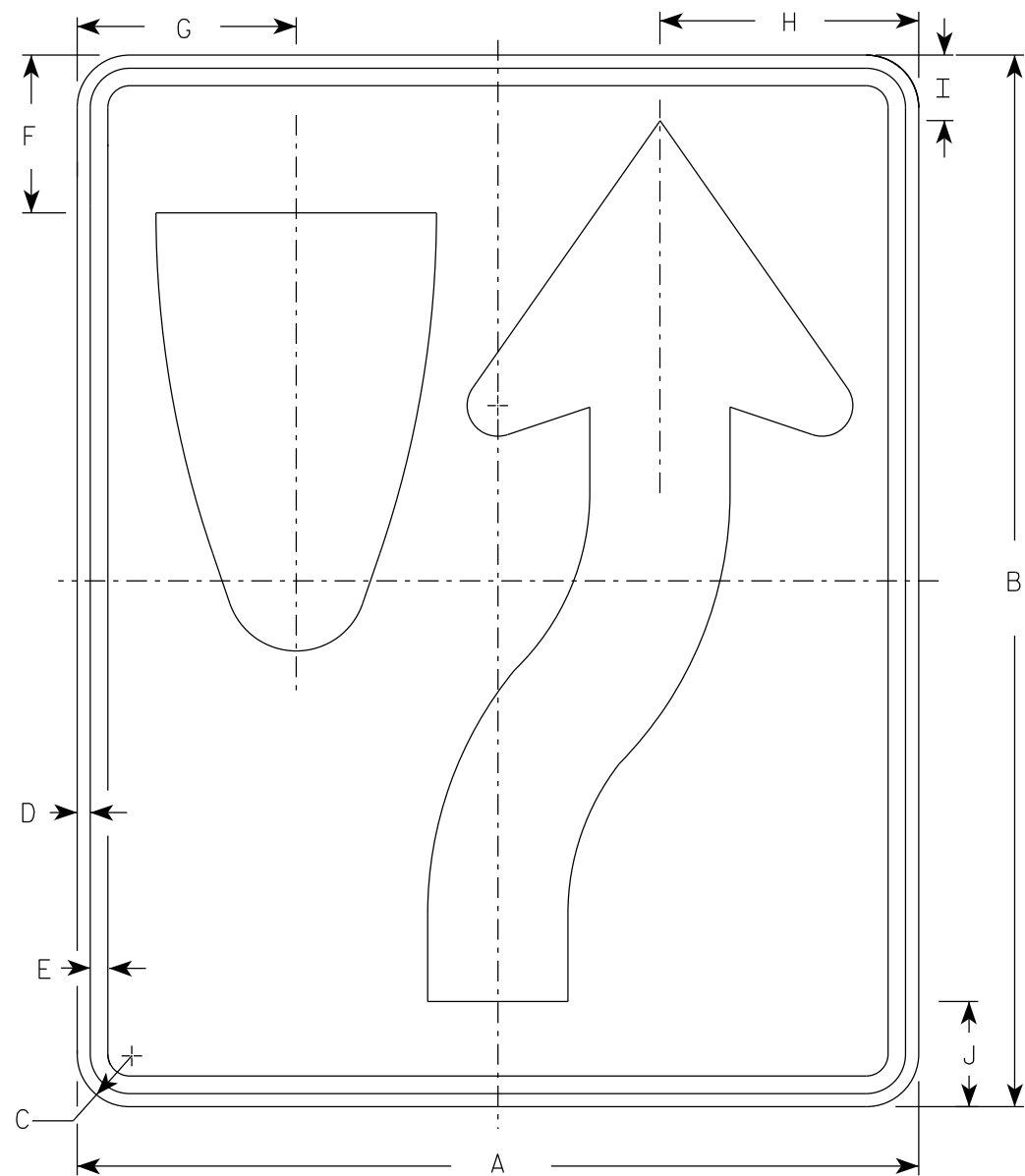
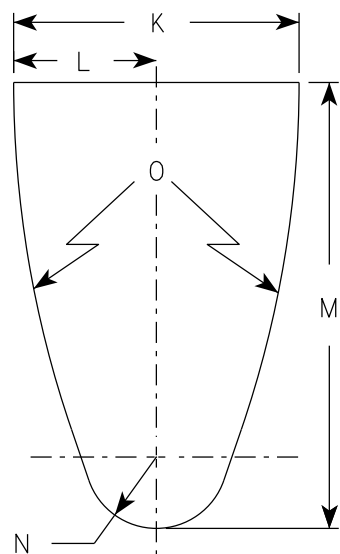
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

PLATE NO. R3-8.2

DIVIDER DETAIL

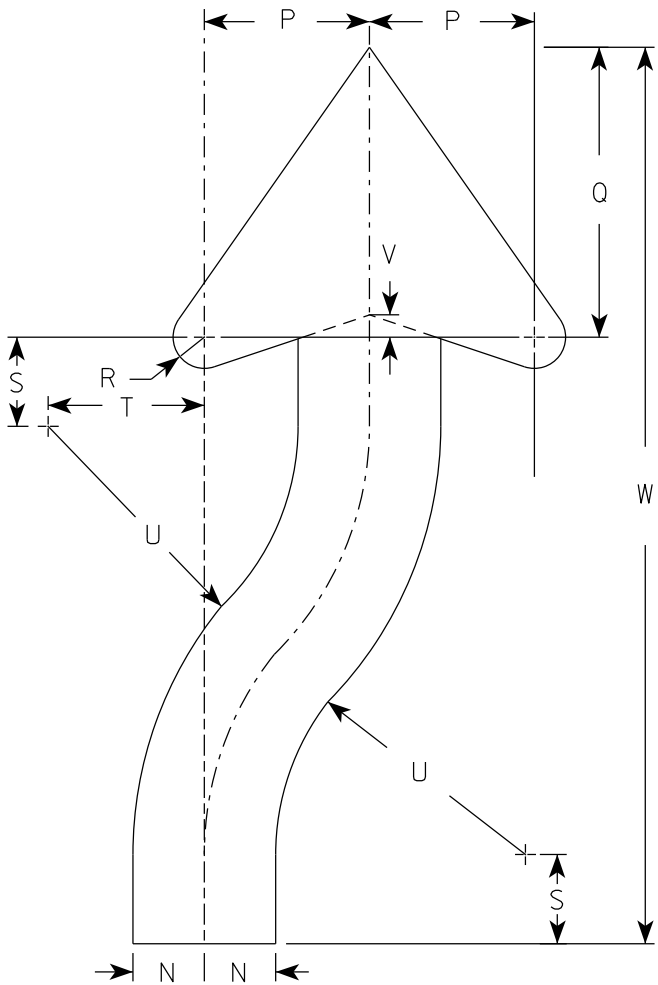


R4-7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. R4-8 is the same as R4-7 except Legend is reversed.

ARROW DETAIL



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 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

PROJECT NO:

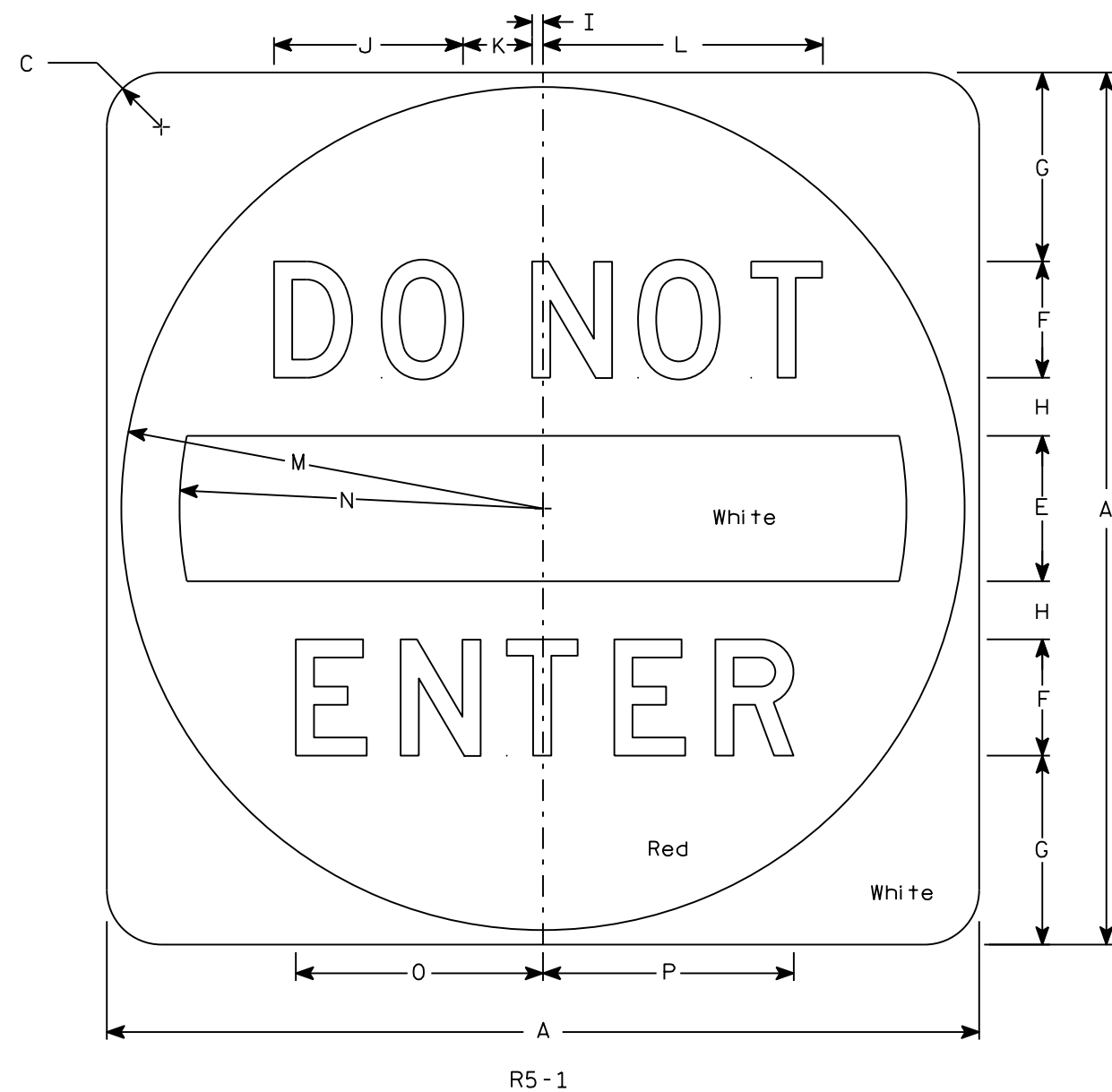
HWY:

COUNTY:

SHEET NO: 170

E

7



NOTES

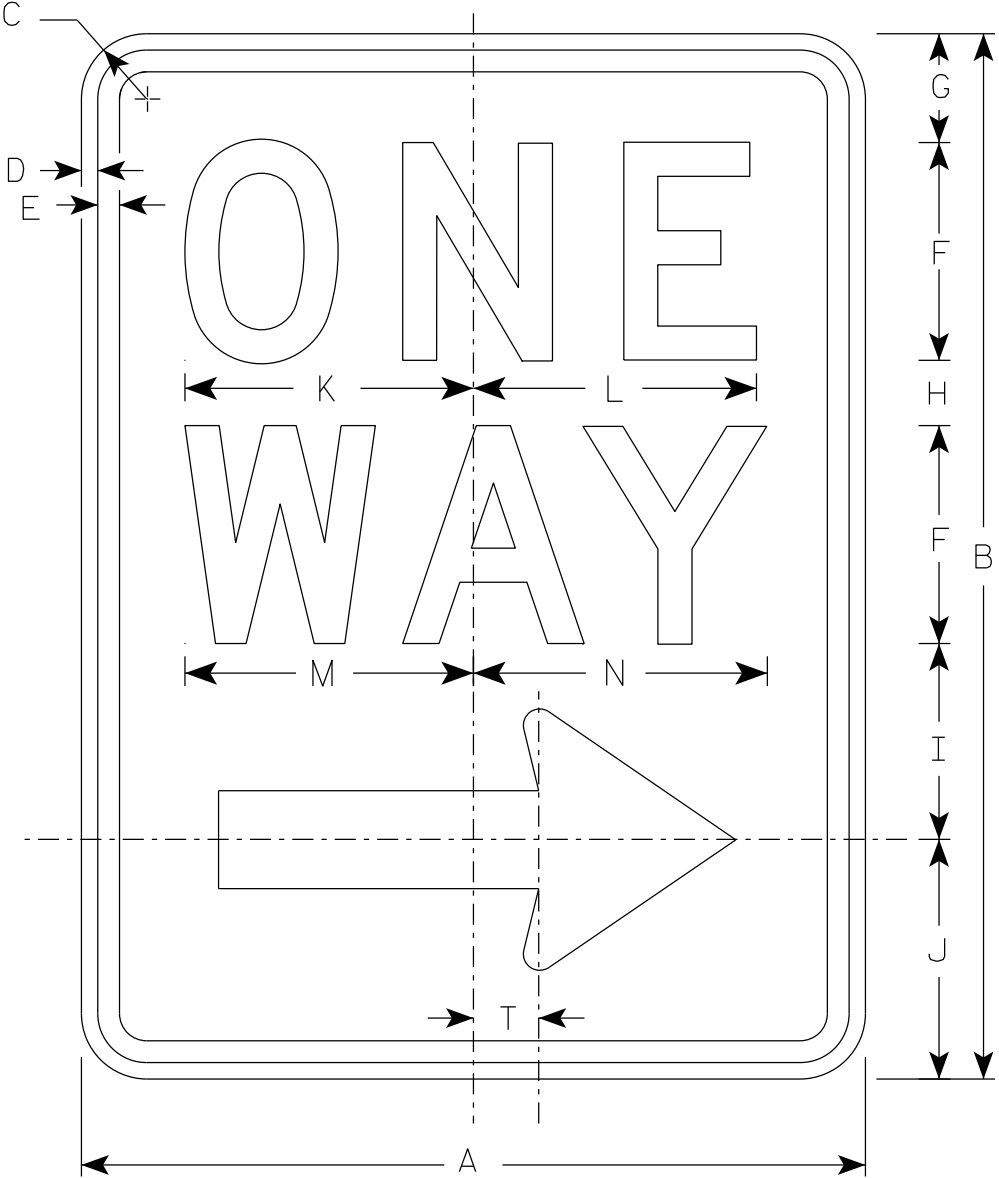
1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

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	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.25
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN R5-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16

7

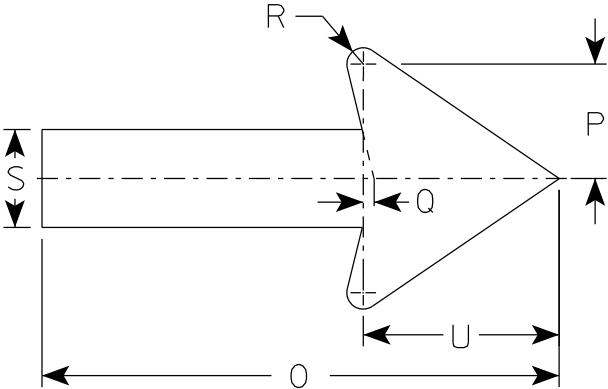


R6 - 2R

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D
- 4. R6-2L same as R6-2R except arrow points to the left.

Arrow Detail



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
1	18	24	1 1/2	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	36	1 1/2	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 7/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

PROJECT NO:

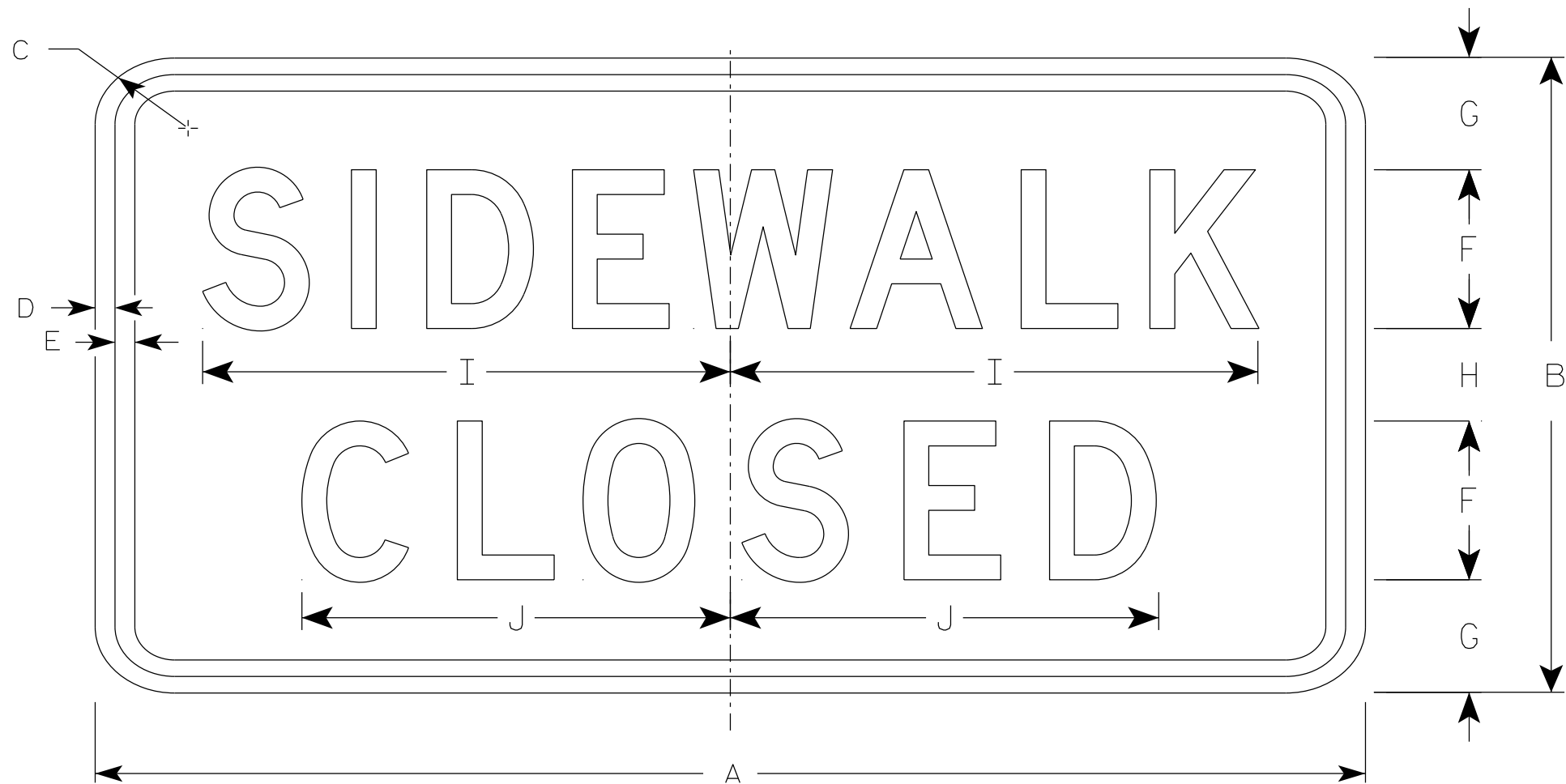
HWY:

COUNTY:

SHEET NO: 172

E

7



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 173

E

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

For State Traffic Engineer

DATE 1/24/24

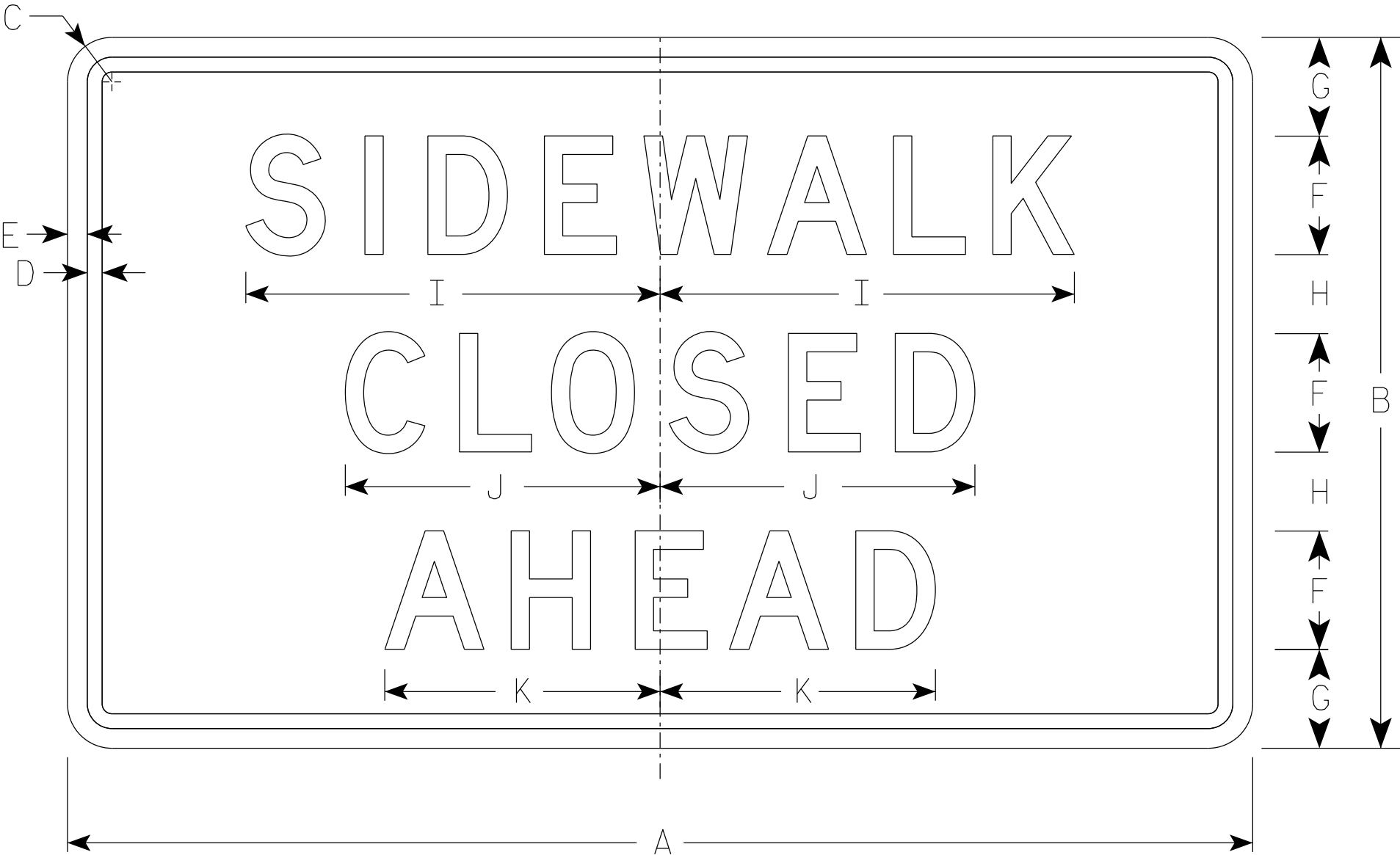
PLATE NO. R9-9.7

NOTES

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

Background - White

Message - Black
3. Message Series - D



R9-9A

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	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

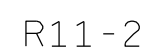
PROJECT NO:

HWY:

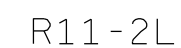
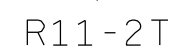
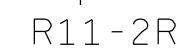
COUNTY:

SHEET NO: 174

E



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

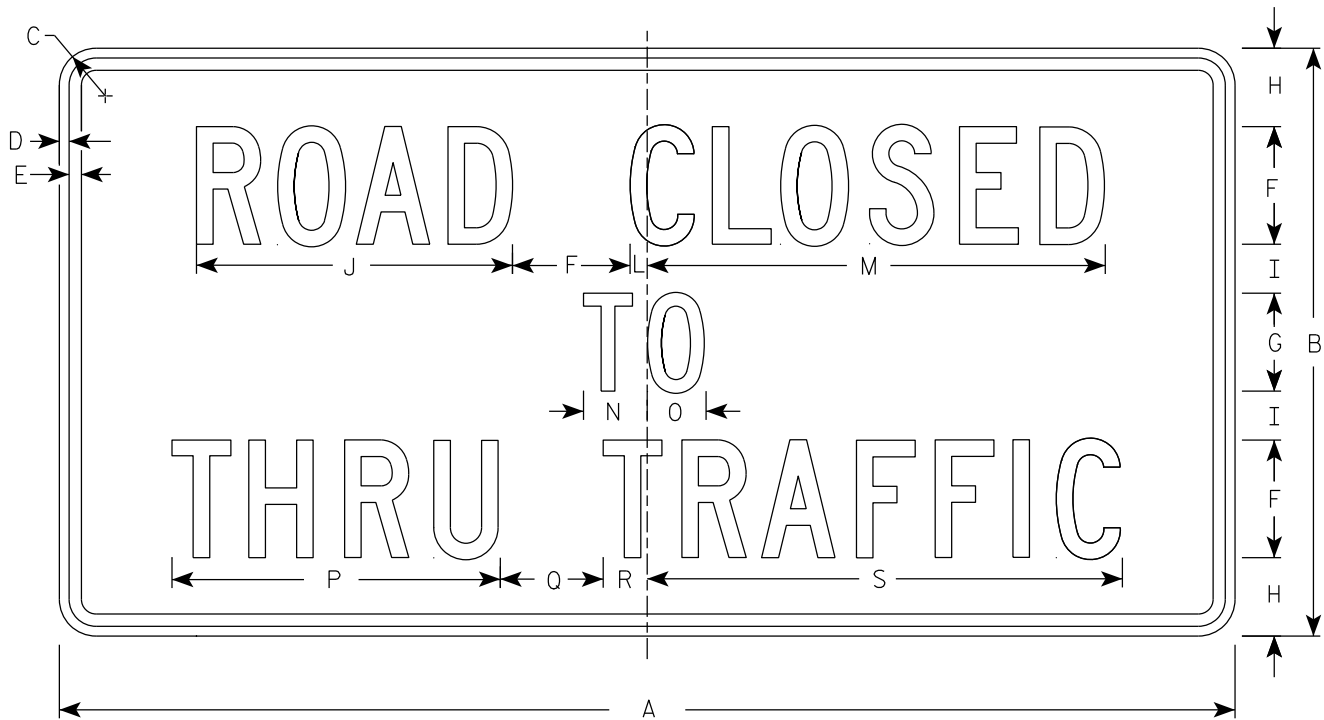


STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew P Rauch</u> for State Traffic Engineer
DATE <u>2/5/24</u>	PLATE NO. <u>R11-212</u>

PLOT SCALE : \$\$.....plotscale.....\$\$ WGPLOT (CARBON SHEET 12

NOTES

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



R11-4

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 7⁄8	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 7⁄8	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																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 176

E

STANDARD SIGN

R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 2/5/24

PLATE NO. R11-4.4

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - B



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/2	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/2	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/2	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

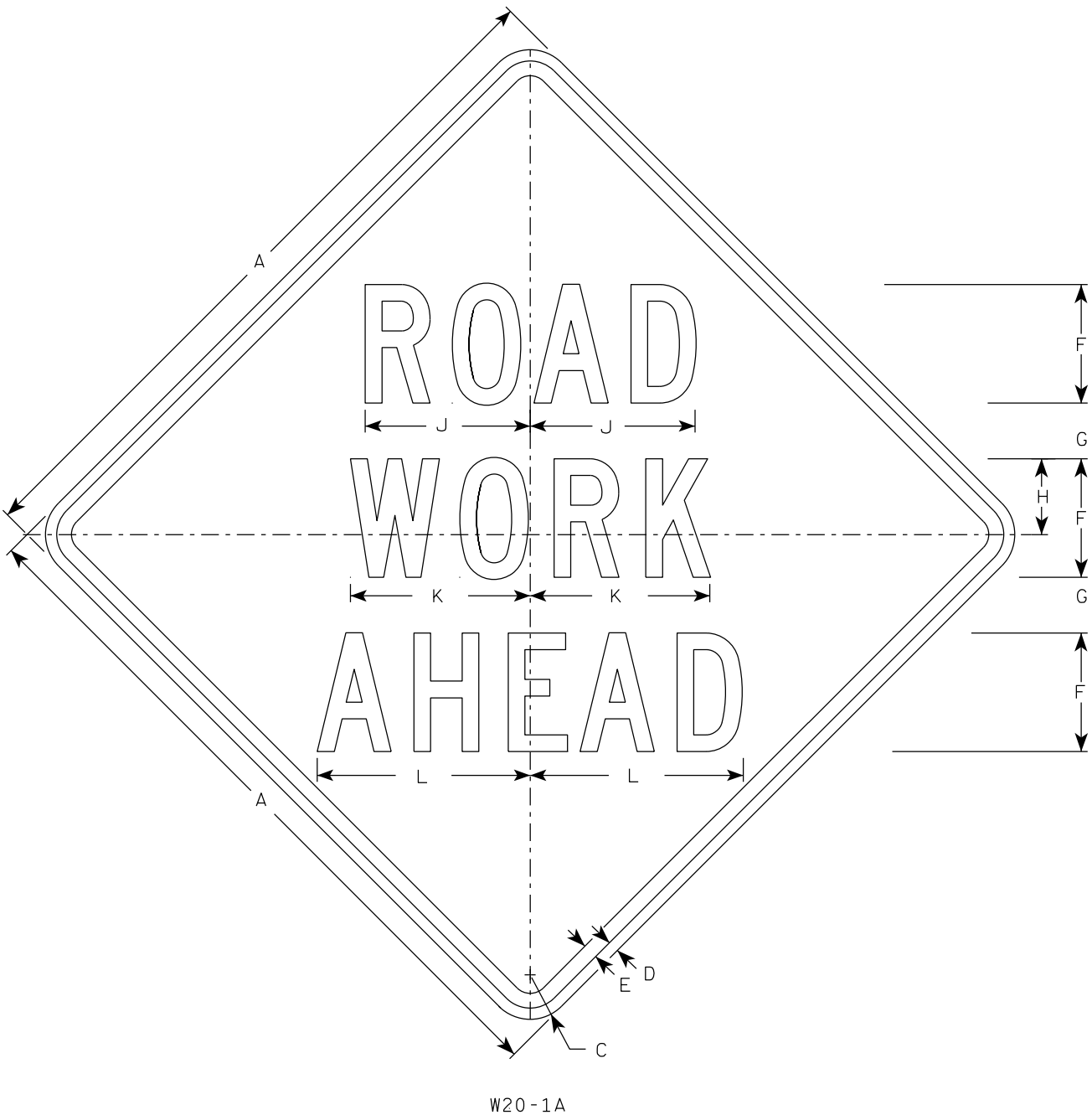
PROJECT NO:

HWY:

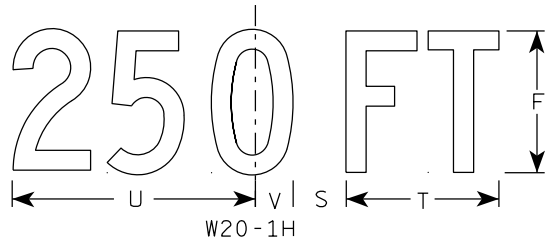
COUNTY:

SHEET NO: 177

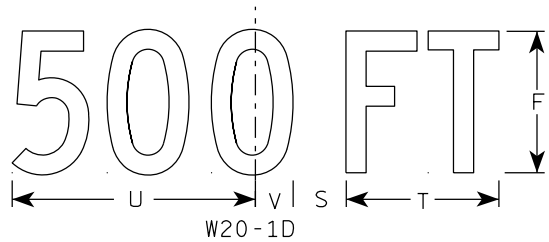
E



W20-1A



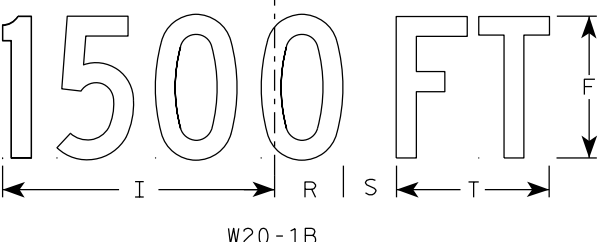
W20-1H



W20-1D

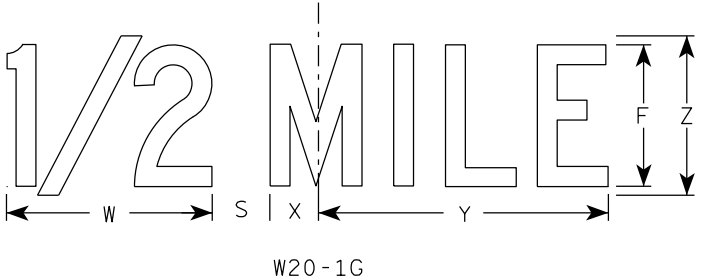


W20-1C

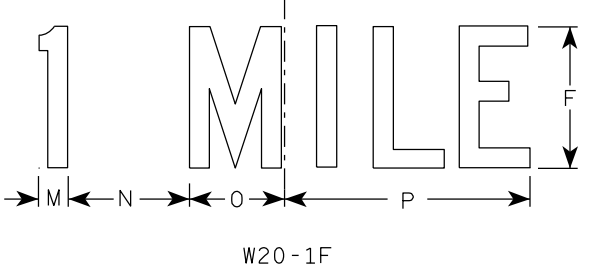


W20-1B

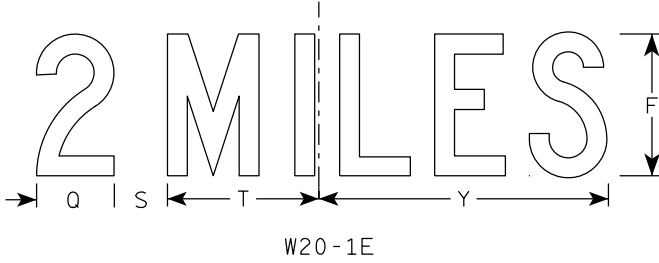
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G

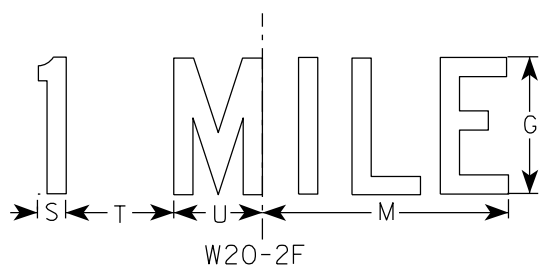
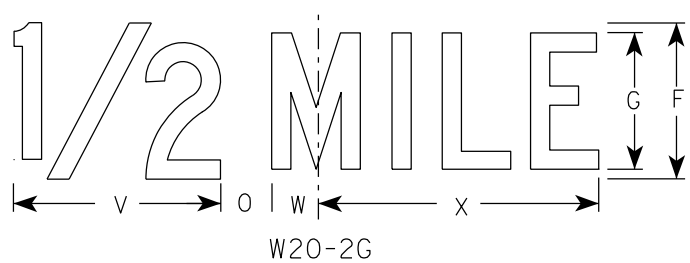
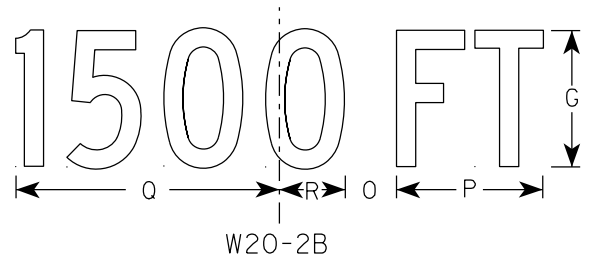
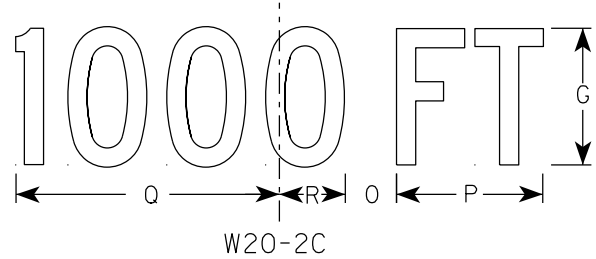
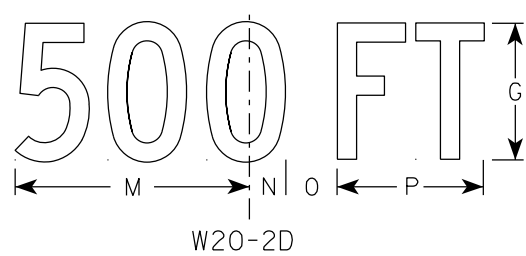
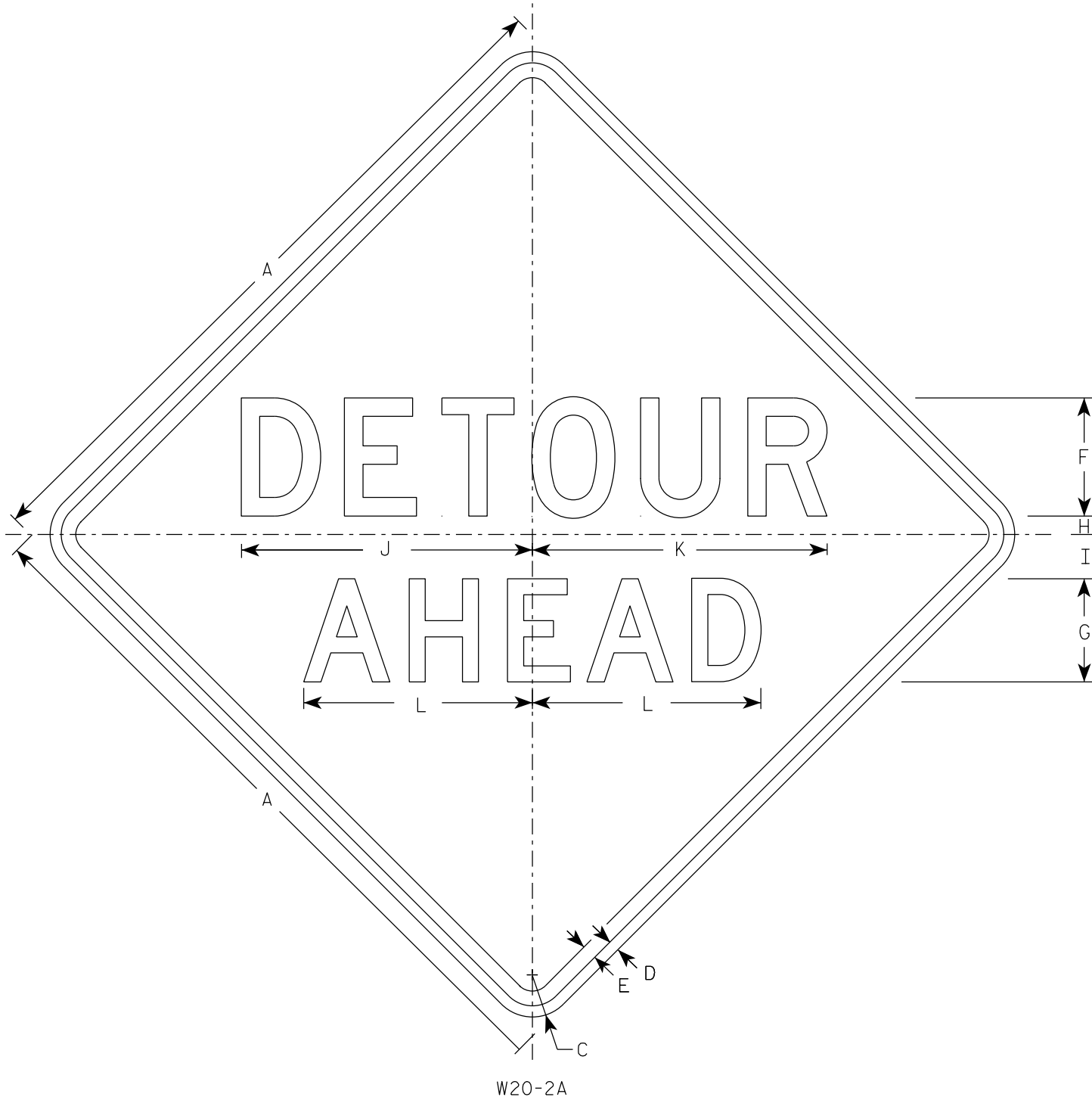


W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0



NOTES

1. Sign is Type II - Type F Reflective
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.

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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

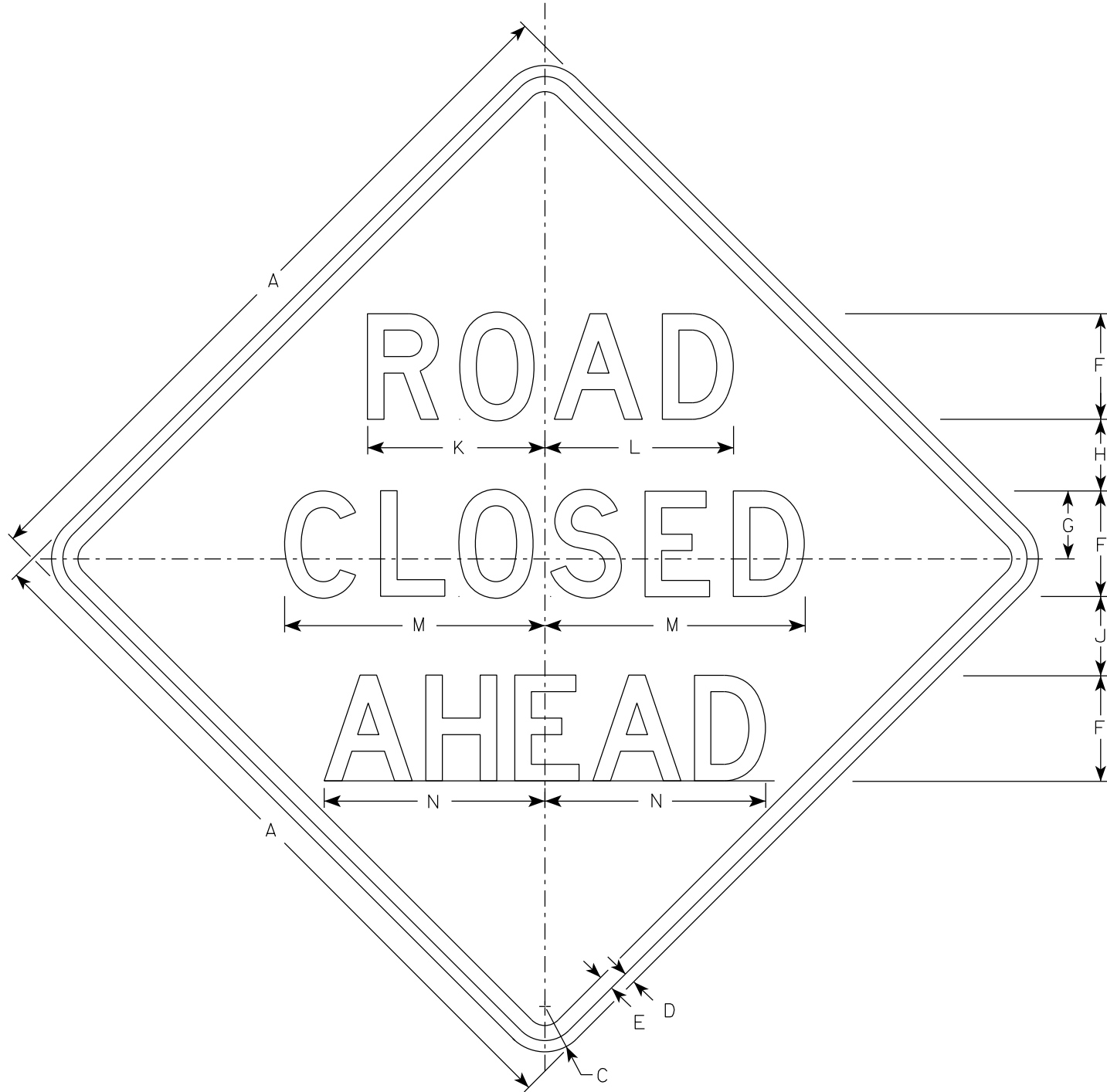
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

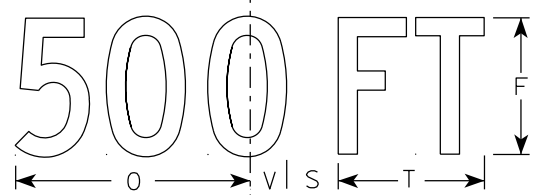
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

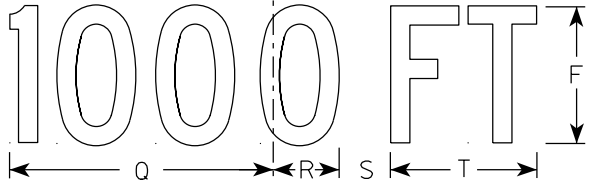
7



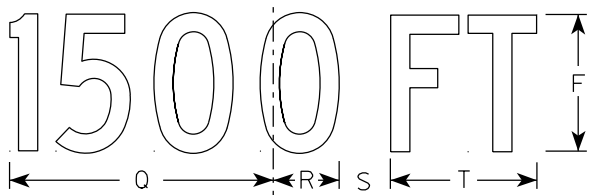
W20-3A



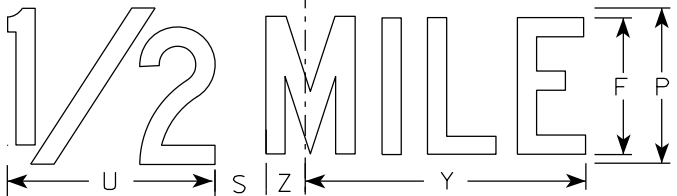
W20-3D



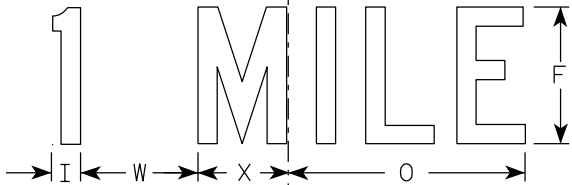
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective
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

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		2 1/4	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		3	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		3	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		3	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		3	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		3	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 1/10/2024 PLATE NO. W20-3.8

DIVISION 1 - FIRST STREET

STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	EXPANDED FILL	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	1.11	NOTE 8
10+17.197	1017.20	0.00	63.73	25.00	0.02	34.00	0	0	0	0	0	0	0
10+25	1025.00	7.80	62.23	23.00	0.06	34.00	18	7	0	10	18	0	11
10+50	1050.00	25.00	53.63	23.00	0.01	34.00	54	21	0	31	72	0	44
11+00	1100.00	50.00	49.91	23.00	0.30	34.00	96	43	0	63	168	0	97
11+50	1150.00	50.00	73.18	32.00	0.00	42.00	114	51	0	70	282	0	160
12+00	1200.00	50.00	64.40	32.00	0.15	42.00	127	59	0	78	409	0	228
12+23.774	1223.77	23.77	64.43	25.00	0.20	42.00	57	25	0	37	466	0	260
12+50	1250.00	26.23	62.18	25.00	0.25	34.00	61	24	0	37	527	0	297
12+96.85	1296.85	46.85	62.74	23.00	0.25	34.00	108	42	0	59	635	0	363

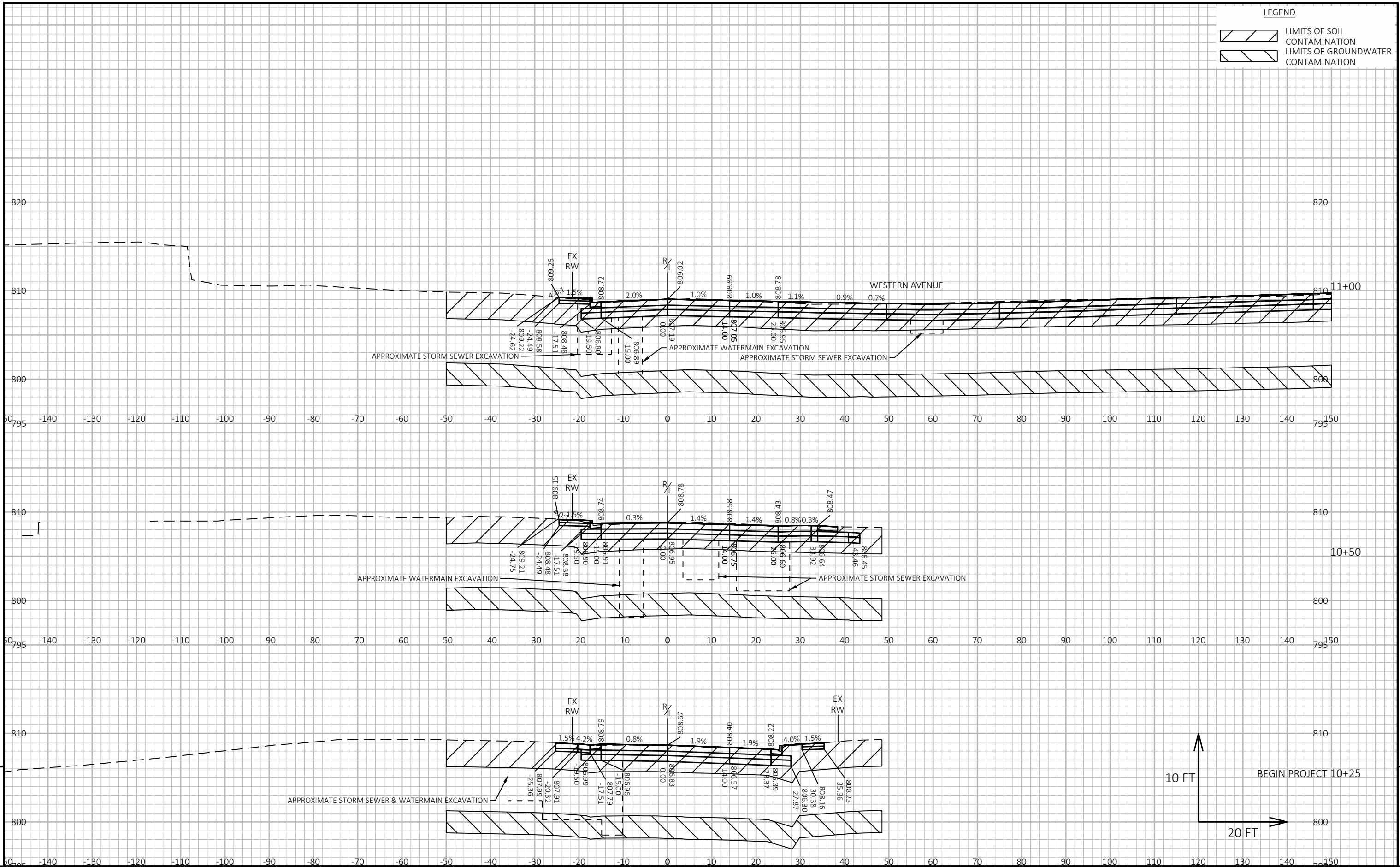
DIVISION 2 - WESTERN AVENUE

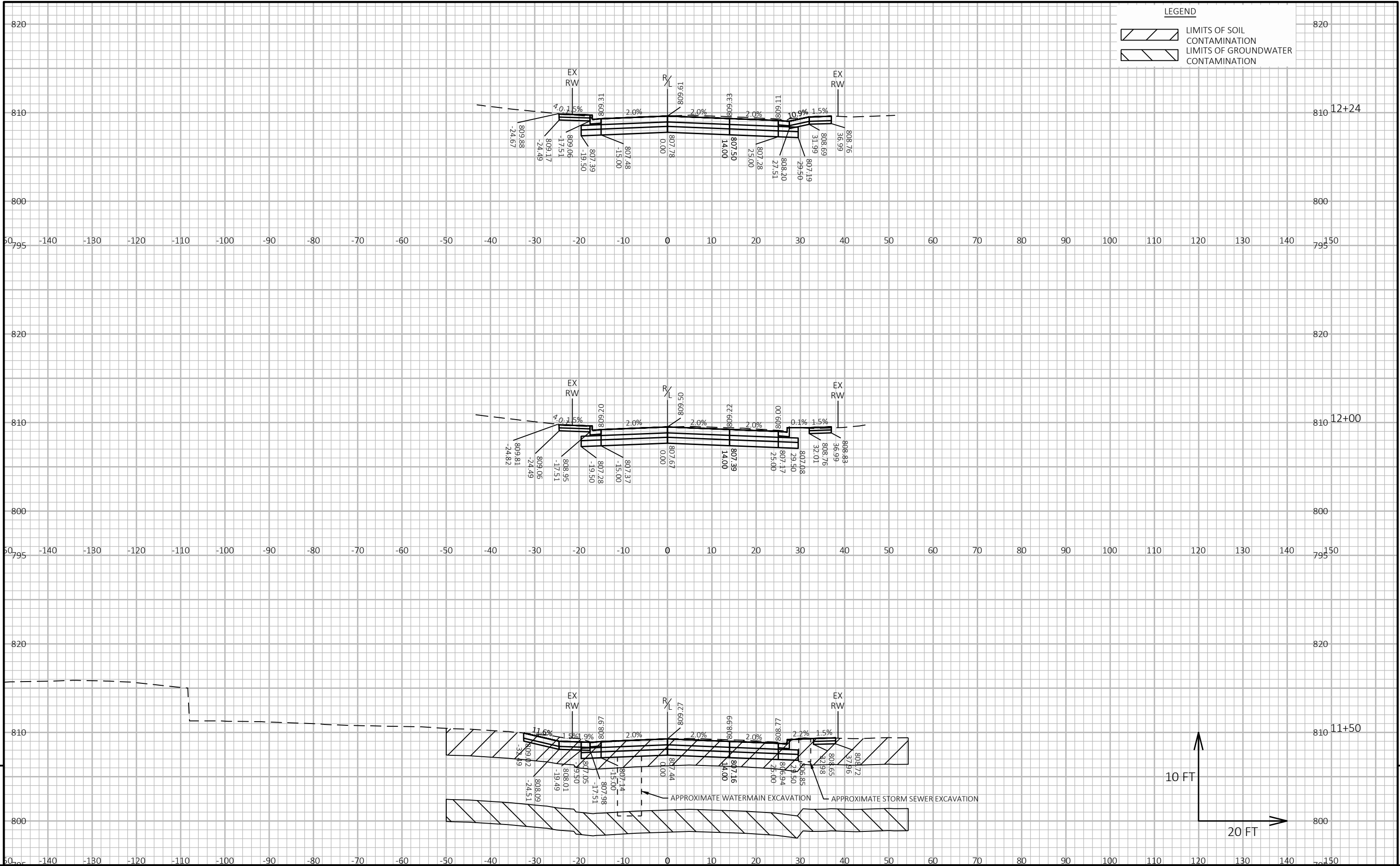
STATION	REAL STATION	DISTANCE	AREA (SF)				INCREMENTAL VOL (CY) (UNADJUSTED)				CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	EBS	CUT	EXPANDED FILL	MASS ORDINATE
							NOTE 1	NOTE 2	NOTE 3		NOTE 1	1.11	NOTE 8
100+40	10040.00	0.00	62.66	20.00	0.00	52.00	0	0	0	0	0	0	0
100+50	10050.00	10.00	91.72	35.00	0.11	52.00	29	10	0	19	29	0	19
101+00	10100.00	50.00	102.09	45.00	2.29	42.00	179	74	2	87	208	2	122
101+26.403	10126.40	26.40	89.08	35.00	4.63	42.00	93	39	3	41	301	6	172
101+50	10150.00	23.60	76.44	25.00	4.88	40.00	72	26	4	36	373	10	214
102+00	10200.00	50.00	69.61	25.00	3.95	40.00	135	46	8	74	508	19	294
102+50	10250.00	50.00	82.76	35.00	7.29	37.00	141	56	10	71	649	30	368
102+83	10283.00	33.00	140.46	65.00	0.00	52.00	136	61	4	54	785	34	439
103+00	10300.00	17.00	96.39	35.00	0.96	52.00	75	31	0	33	860	34	483
103+50	10350.00	50.00	74.59	25.00	4.47	37.00	158	56	5	82	1,018	40	579
103+74.809	10374.81	24.81	73.95	30.00	5.05	37.00	68	25	4	34	1,086	44	618
103+89.111	10389.11	14.30	69.55	25.00	6.15	37.00	38	15	3	20	1,124	48	637
104+00	10400.00	10.89	70.42	25.00	6.31	44.00	28	10	3	16	1,152	51	652
104+50	10450.00	50.00	57.86	20.00	8.45	44.00	119	42	14	81	1,271	67	713
104+71.296	10471.30	21.30	59.00	20.00	6.28	44.00	46	16	6	35	1,317	73	737
105+00	10500.00	28.70	47.38	20.00	6.91	44.00	57	21	7	47	1,374	81	765
105+50	10550.00	50.00	158.92	75.00	0.00	100.00	191	88	6	133	1,565	88	861
106+00	10600.00	50.00	94.73	40.00	0.01	50.00	235	106	0	139	1,800	88	990

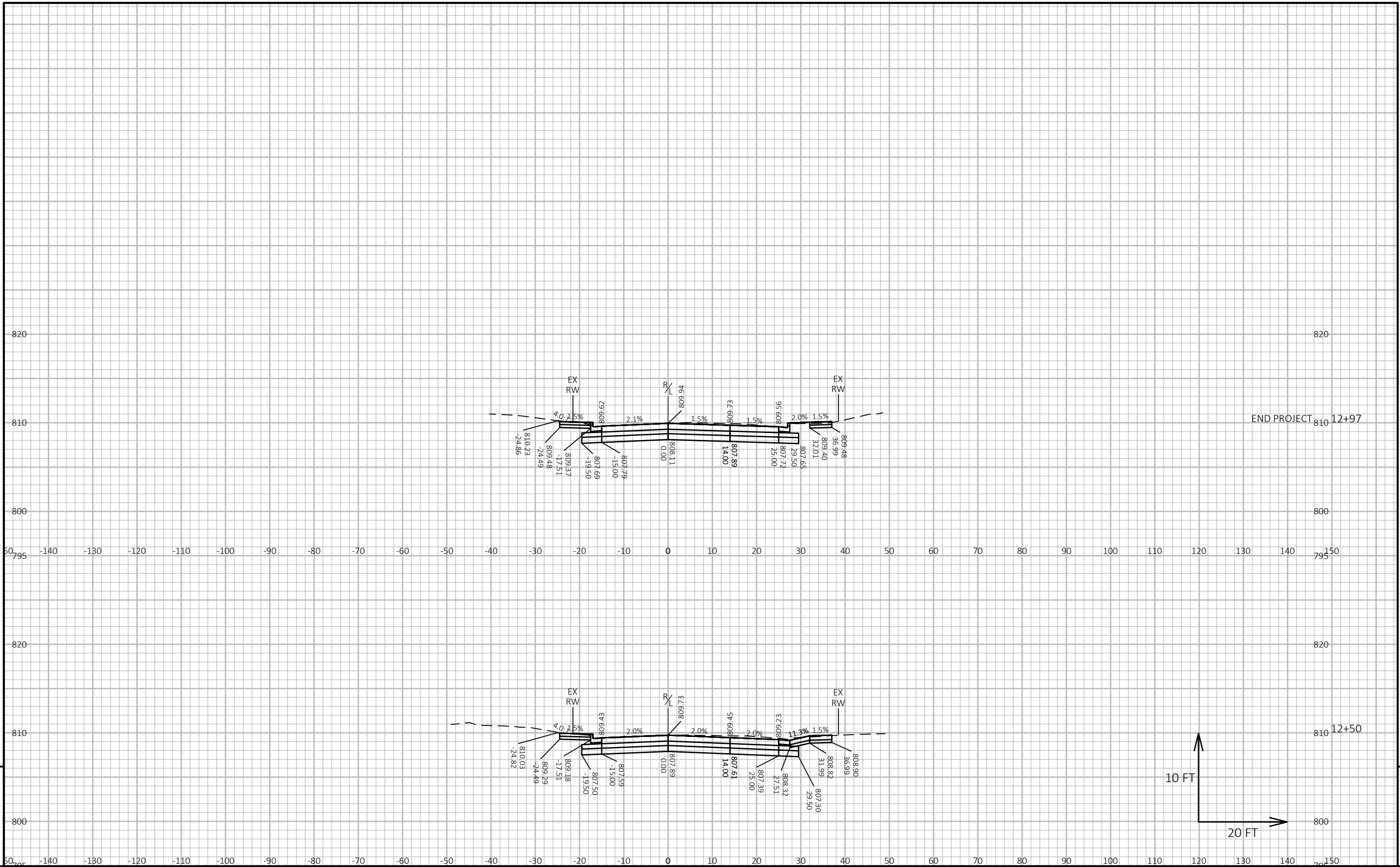
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	(CUT - SALVAGED PAVT) - (FILL) * FILL FACTOR)

LEGEND

- LIMITS OF SOIL CONTAMINATION
- LIMITS OF GROUNDWATER CONTAMINATION







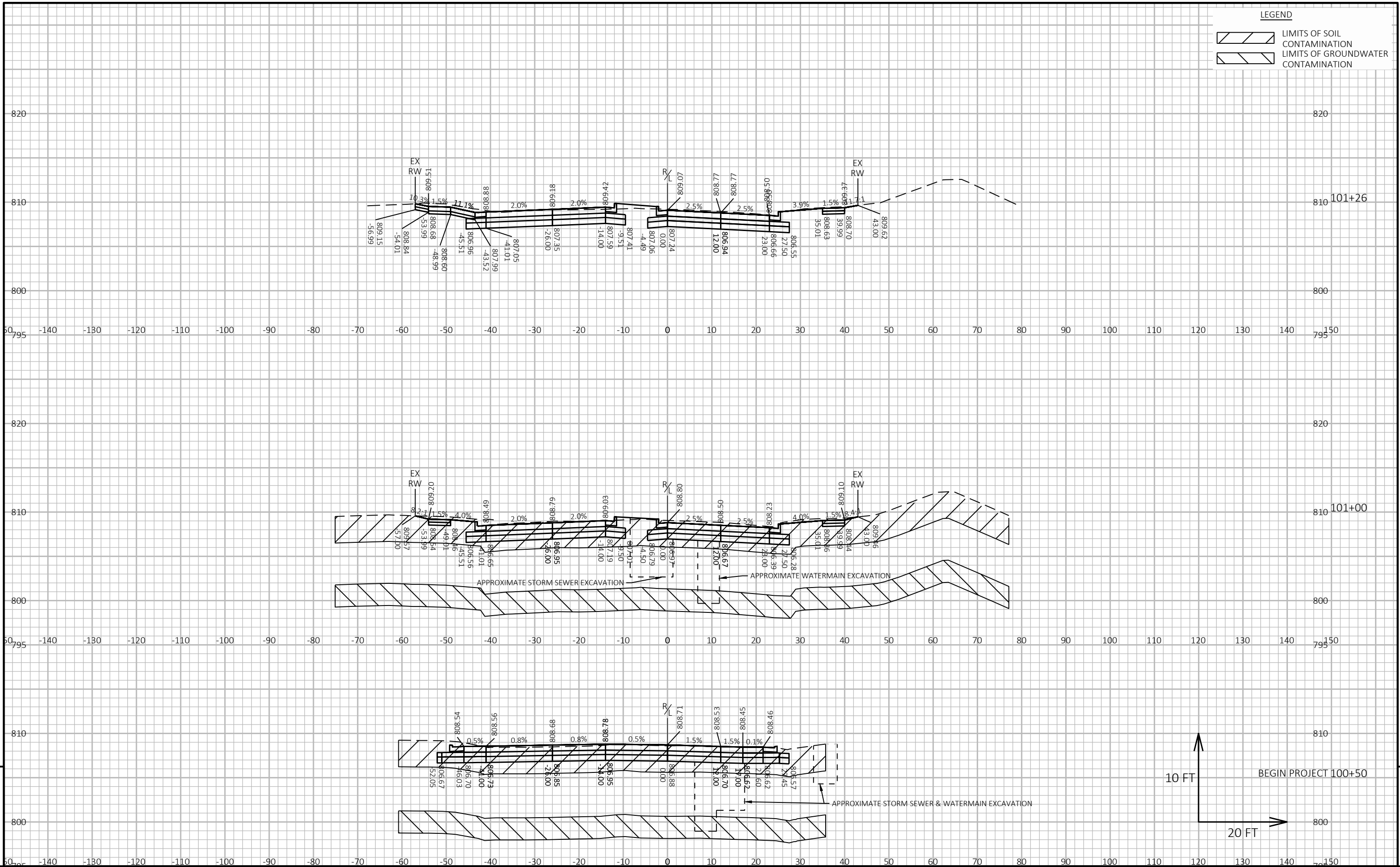
9

9

LEGEND

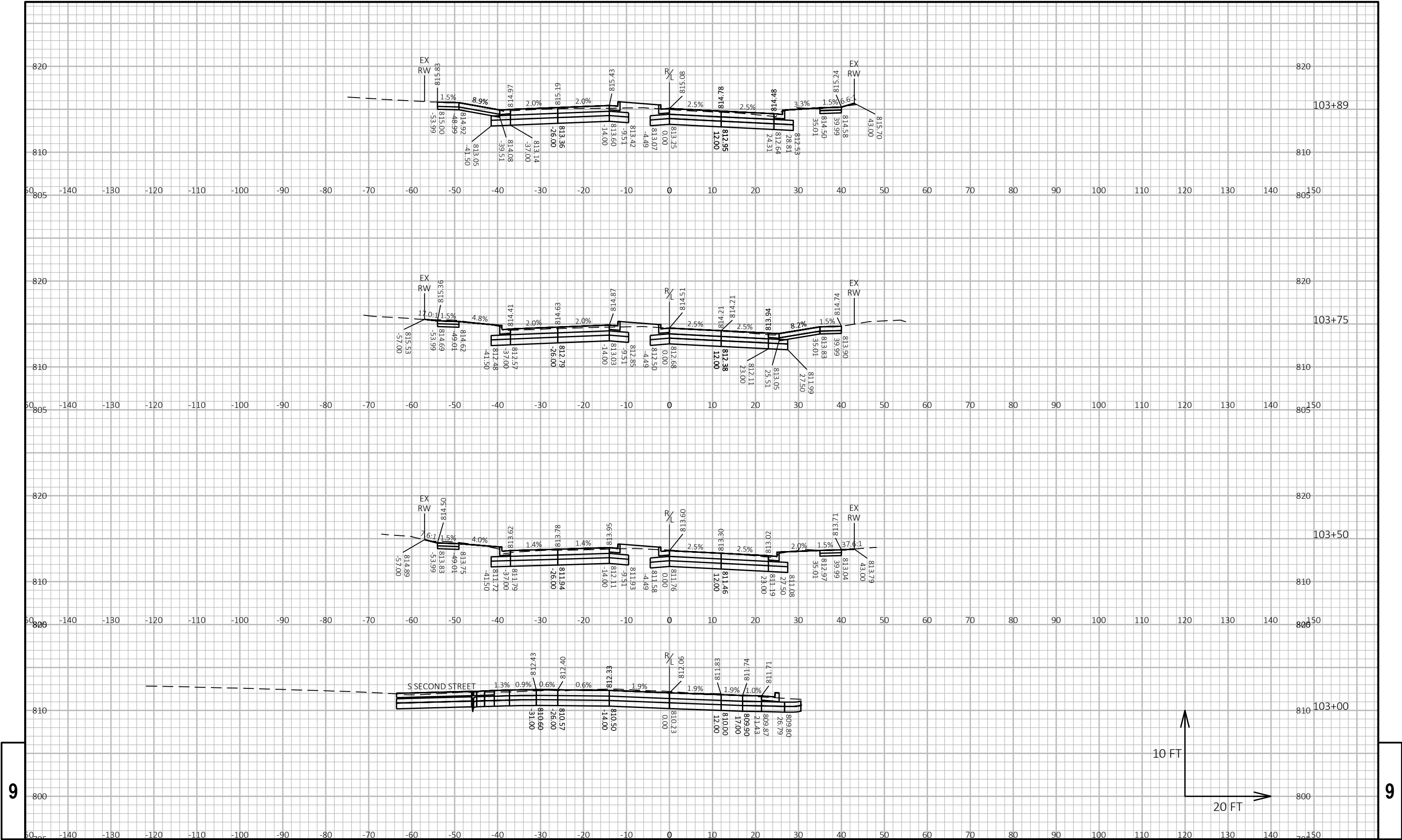
LIMITS OF SOIL
CONTAMINATION

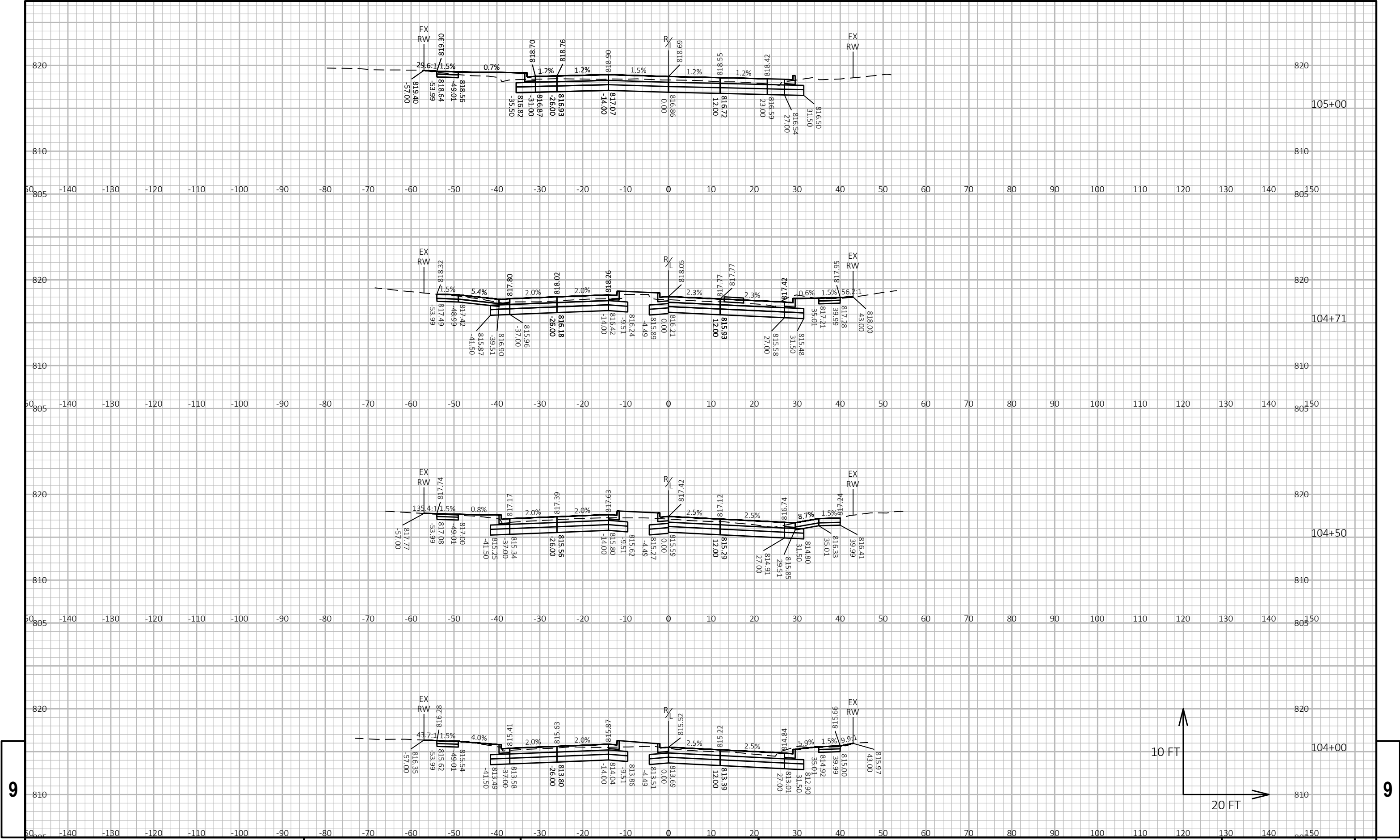
LIMITS OF GROUNDWATER
CONTAMINATION



9

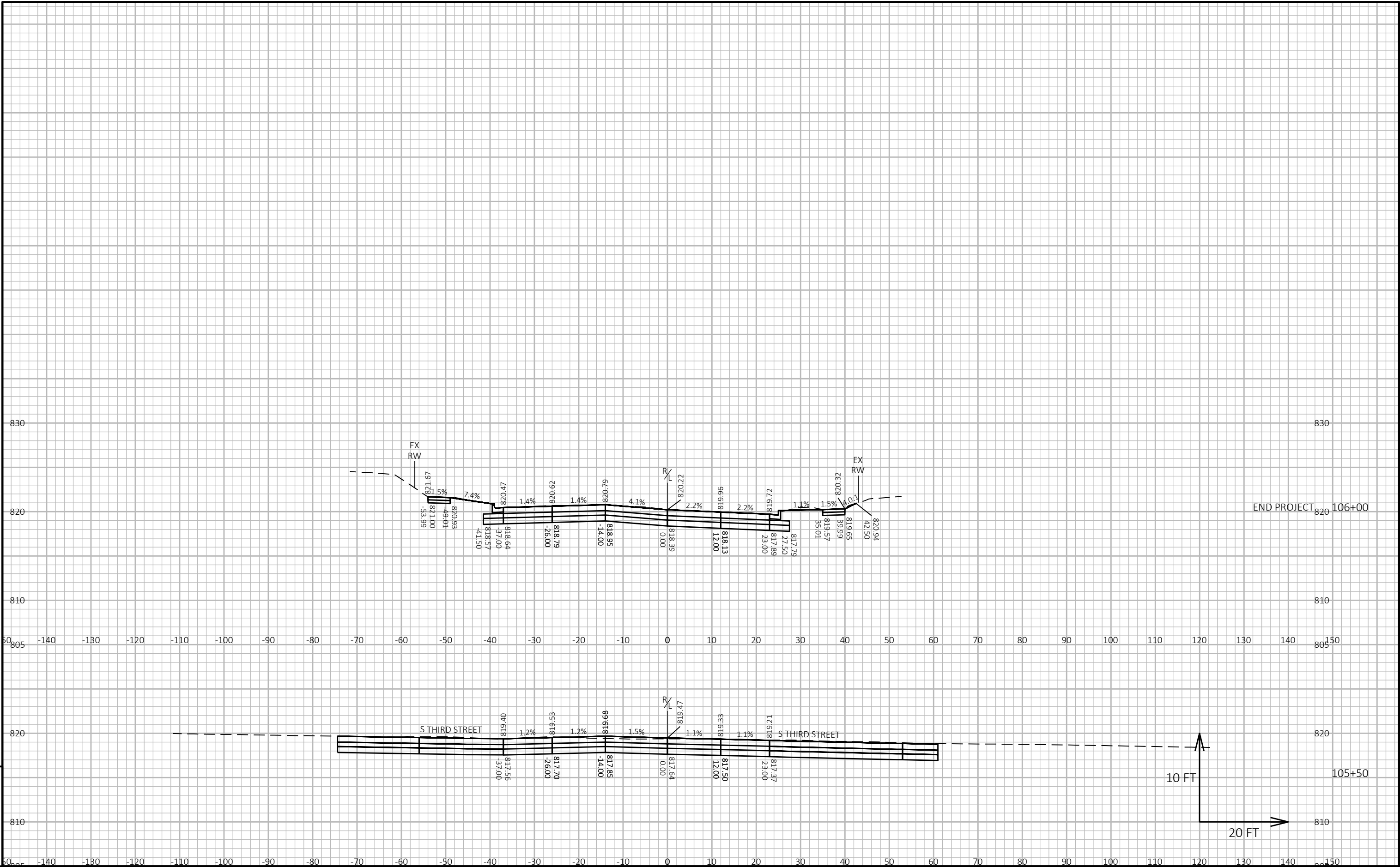
9

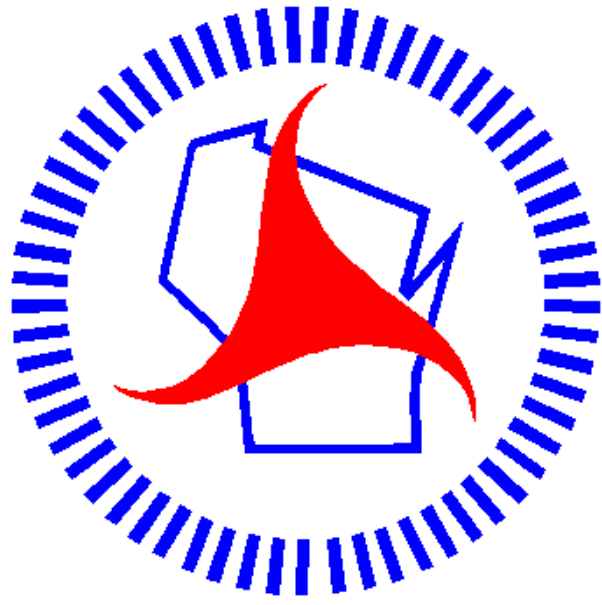




9

9





Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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