

LAX
PROJECT ID: 5991-05-19
WITH: N/A
COUNTY: LA CROSSE

FEB 2018
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 (Includes Erosion Control Plan)
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 = 54

Section No. 2 sheet 17 and 23 are replaced with sheets 17A and 23A.
Section No. 5 sheets 25 and 27 are replaced with sheets 25A and 27A.



DESIGN DESIGNATION

A.A.D.T.	2018	=	2800
A.A.D.T.	2038	=	3100
D.H.V.	2038	=	293
D.D.	2018	=	59-41
T.		=	3.3
DESIGN SPEED		=	30 MPH
ESALS		=	230,000

Subcontractor List

Guide Lines Pavement Marking, LLC
Hard Rock Sawing & Drilling Specialist Co.
Mathy Construction Company
Mattison Contractors, Inc.
Safemark, LLC.
Sampson Concrete
SJK Engineering LLC.
St. Joseph Construction Co, Inc.
WK Construction Co., Inc.

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	
OVERHEAD UTILITY	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

ROCK	
LABEL	
95.36	
E	
OH	
FO	
G	
SAN	
SS	
T	
W	
Q	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF LA CROSSE, MARKET STREET

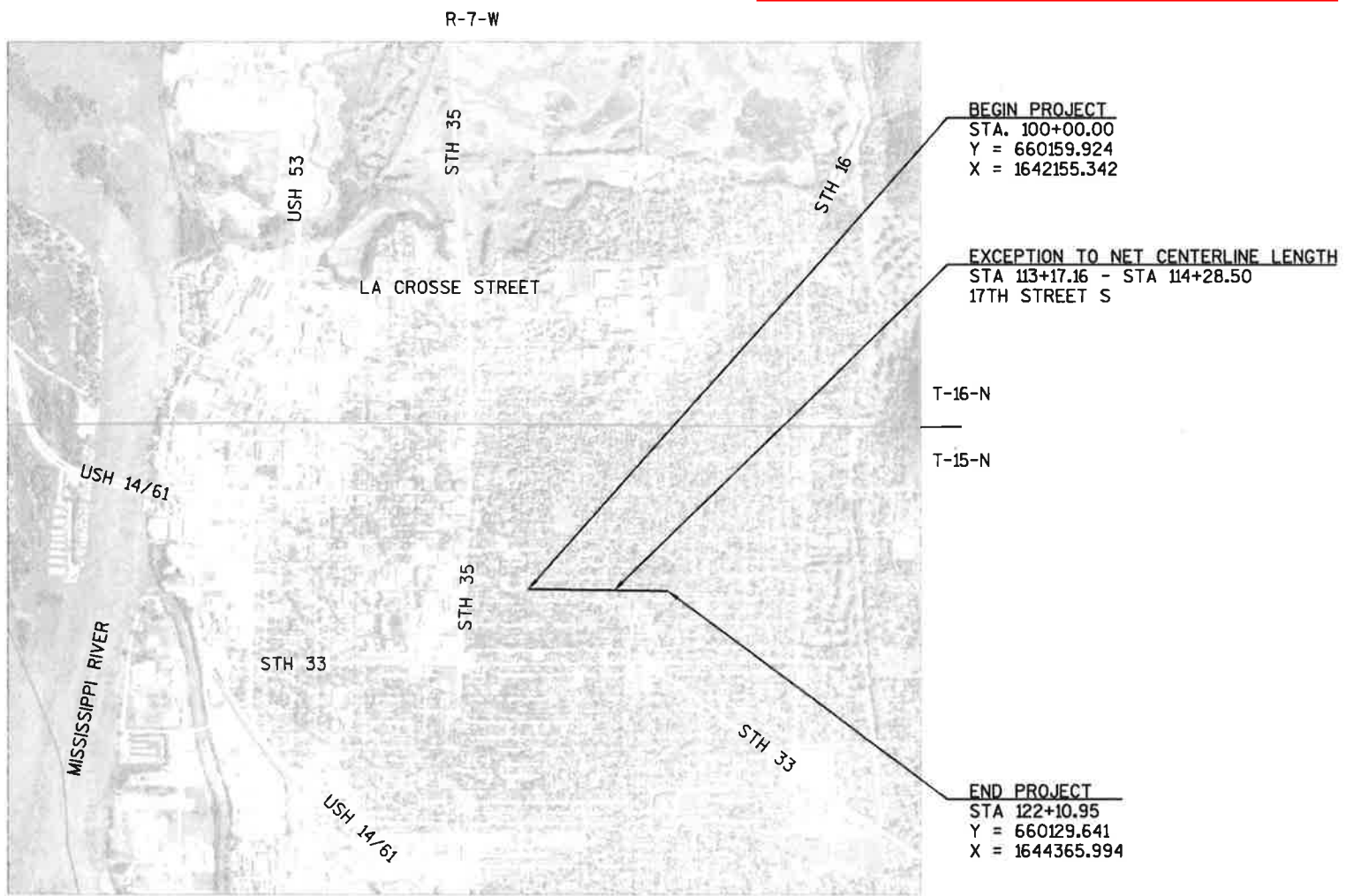
(14TH STREET TO 19TH STREET)

LOCAL STREET
LA CROSSE COUNTY

STATE PROJECT NUMBER
5991-05-19

AS-BUILT PLAN

SUPERVISOR: IAN WINGER
PROJECT MANAGER: CRAIG FISHER
PROJECT LEADER: RYAN FRANZINI
CONTRACTOR: MATHY CONSTRUCTION
WORK STARTED: 6/13/18
WORK COMPLETED: 9/17/18



LAYOUT
SCALE 0 0.5 MILE
TOTAL NET LENGTH OF CENTERLINE = 0.398 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM SOUTH ZONE. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5991-05-19	WISC 2018085	1

ACCEPTED FOR

CITY of LA CROSSE
7-13-17
Date:
CITY ENGINEER

ORIGINAL PLANS PREPARED BY:



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: CITY OF LA CROSSE
Designer: I+S GROUP, INC.
Management Consultant: KL ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT
DATE: 7/31/17

(Management Consultant Signature)

ORDER OF TYPICAL SECTION & DETAIL SHEETS

- 1. GENERAL NOTES
- 2. PROJECT OVERVIEW
- 3. TYPICAL SECTIONS
- 4. CONSTRUCTION DETAILS
- 5. PERMANENT SIGNING AND PAVEMENT MARKINGS
- 6. TRAFFIC CONTROL
- 7. DETOUR PLAN

STANDARD ABBREVIATIONS

AC	ACRE	INL	INLET
AGG	AGGREGATE	INV	INVERT
AH	AHEAD	JCT	JUNCTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	LT	LEFT
ASPH	ASPHALTIC	L	LENGTH OF CURVE
AVG	AVERAGE	LIN FT or LF	LINEAR FOOT
BK	BACK	LS	LUMP SUM
BAD	BASE AGGREGATE DENSE	NC	NORMAL CROWN
BM	BENCH MARK	N	NORTH
BR	BRIDGE	NB	NORTHBOUND
CL or C/L	CENTER LINE	NO	NUMBER
CE	COMMERCIAL ENTRANCE	PT	POINT
CONC	CONCRETE	PC	POINT OF CURVATURE
CO	COUNTY	PI	POINT OF INTERSECTION
CTH	COUNTY TRUNK HIGHWAY	PT	POINT OF TANGENCY
CR	CREEK	PCC	PORTLAND CEMENT CONCRETE
CABC	CRUSHED AGGREGATE BASE COURSE	LB	POUND
CY or CUYD	CUBIC YARD	PE	PRIVATE ENTRANCE
CULV	CULVERT	R	RADIUS
CP	CULVERT PIPE	RL or R/L	REFERENCE LINE
C & G	CURB AND GUTTER	RT	RIGHT
D	DEGREE OF CURVE	R/W	RIGHT-OF-WAY
DIA	DIAMETER	RD	ROAD
DISCH	DISCHARGE	SHLDR	SHOULDER
E	EAST	SB	SOUTHBOUND
EB	EASTBOUND	SF or SQ FT	SQUARE FEET
EL or ELEV	ELEVATION	SY or SQ YD	SQUARE YARD
EW	ENDWALL	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STH	STATE TRUNK HIGHWAYS
EXC	EXCAVATION	SE	SUPERELEVATION
EX	EXISTING	T	TANGENT
FERT	FERTILIZER	TEMP	TEMPORARY
FE	FIELD ENTRANCE	USH	UNITED STATES HIGHWAY
FL or F/L	FLOW LINE	V	VELOCITY OR DESIGN SPEED
FT	FOOT	VC	VERTICAL CURVE
HMA	HOT MIX ASPHALT	WB	WESTBOUND
CWT	HUNDREDWEIGHT	YD	YARD

GENERAL NOTES

- ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.
- ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION. ANY CONFLICTING SIGNS SHALL BE REMOVED.
- TYPICAL SECTIONS SHOW THE GENERAL FEATURES THROUGHOUT THE PROJECT. PAVEMENT SLOPES, TERRACE SLOPES, ETC., MAY VARY WITHIN THE LIMITS OF THE SECTION.
- DISTURBED AREAS BEHIND CURB AND GUTTER ARE TO BE GRADED, SHAPED, AND FINISHED AS DESCRIBED IN THE PLAN SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER.
- WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.
- CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.
- 4.00" HMA PAVEMENT TO BE PLACED IN 2 LAYERS FOR MAINLINE AND SIDE ROADS. THE LEVELING LAYER WILL BE 2.25" 3 LT 58-28 S. THE SURFACE LAYER WILL BE A 1.75" 4 LT 58-28 S.
- HMA WEIGHT CALCULATION IS BASED ON 112 LB/SY/IN.
- TACK COAT APPLICATION RATE IS 0.07 GAL/SY.
- NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.
- THE EXACT LOCATION OF PRIVATE AND FIELD ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PLAN ELEVATIONS = USGS DATUM 83.
- BEARINGS SHOWN ON THE PLAN ARE GRID BEARINGS TO THE NEAREST SECOND.
- 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 TAKE CARE NOT TO DAMAGE MANHOLE COVERS, WATER VALVES AND OTHER UTILITIES IN THE EXISTING PAVEMENT DURING PAVEMENT REMOVAL. NECESSARY WORK TO PROTECT UTILITIES DURING PAVEMENT REMOVAL IS INCIDENTAL TO PAVEMENT REMOVAL ITEMS.
- THE CONTRACTOR SHALL NOTIFY RESIDENT(S) 48 HOURS IN ADVANCE OF CLOSING A PRIVATE DRIVEWAY.

AREA CONTACTS

DESIGN CONTACT

ISG

ATTN: MR. WILL KRATT

201 MAIN ST, SUITE 1020

LA CROSSE, WI 54601

PHONE: 608-789-2034

WILL.KRATT@IS-GRP.COM

WISDNR: LA CROSSE COUNTY

DNR SERVICE CENTER

ATTN: MS. KAREN KALVELAGE

3550 MORMON COULEE RD

LA CROSSE, WI 54601

PHONE: 608-785-9115

KAREN.KALVELAGE@WISCONSIN.GOV

CITY OF LA CROSSE

ATTN: MR. MATT GALLAGER

400 LA CROSSE STREET

4TH FLOOR

LA CROSSE, WI 54601

PHONE: 608-789-7505

GALLAGERM@CITYOFLACROSSE.ORG

UTILITY CONTACTS

CITY OF LA CROSSE - WATER

ATTN: MR. MARK GRAFF

400 LA CROSSE ST

LA CROSSE, WI 54601

608-789-7384

GRAFFM@CITYOFLACROSSE.ORG

CITY OF LA CROSSE - SEWER

ATTN: MR. STEVE ASP

400 LA CROSSE ST

LA CROSSE, WI 54601

608-789-7324

ASPS@CITYOFLACROSSE.ORG

XCEL ENERGY, INC. - GAS AND ELECTRIC

ATTN: MR. JAYMIE HOLTE

3215 COMMERCE ST

LA CROSSE, WI 54603

608-789-3698

JAYMIE.L.HOLTE@XCELENERGY.COM

WINDSTREAM - COMMUNICATION LINE

ATTN: MR. KEVIN PARRIS

1858 WRIGHT ST

MADISON, WI 53704

608-819-5016

KEVIN.J.PARRIS@WINDSTREAM.COM

CENTURYLINK - COMMUNICATION LINE

ATTN: MR. TOM MURRAY

333 N FRONT ST

LA CROSSE, WI 54601

608-796-7869

TOM.L.MURRAY@CENTURYLINK.COM

CHARTER COMMUNICATIONS - COMMUNICATION LINE

ATTN: MR. PERRY MCCLELLAN

1228 12TH AVE S

ONALASKA, WI 54650

608-317-6213

PERRY.MCCLELLAN@CHARTER.COM

VERIZON BUISNESS / MCI - COMMUNICATION LINE

ATTN: MR. MELVIN CONN

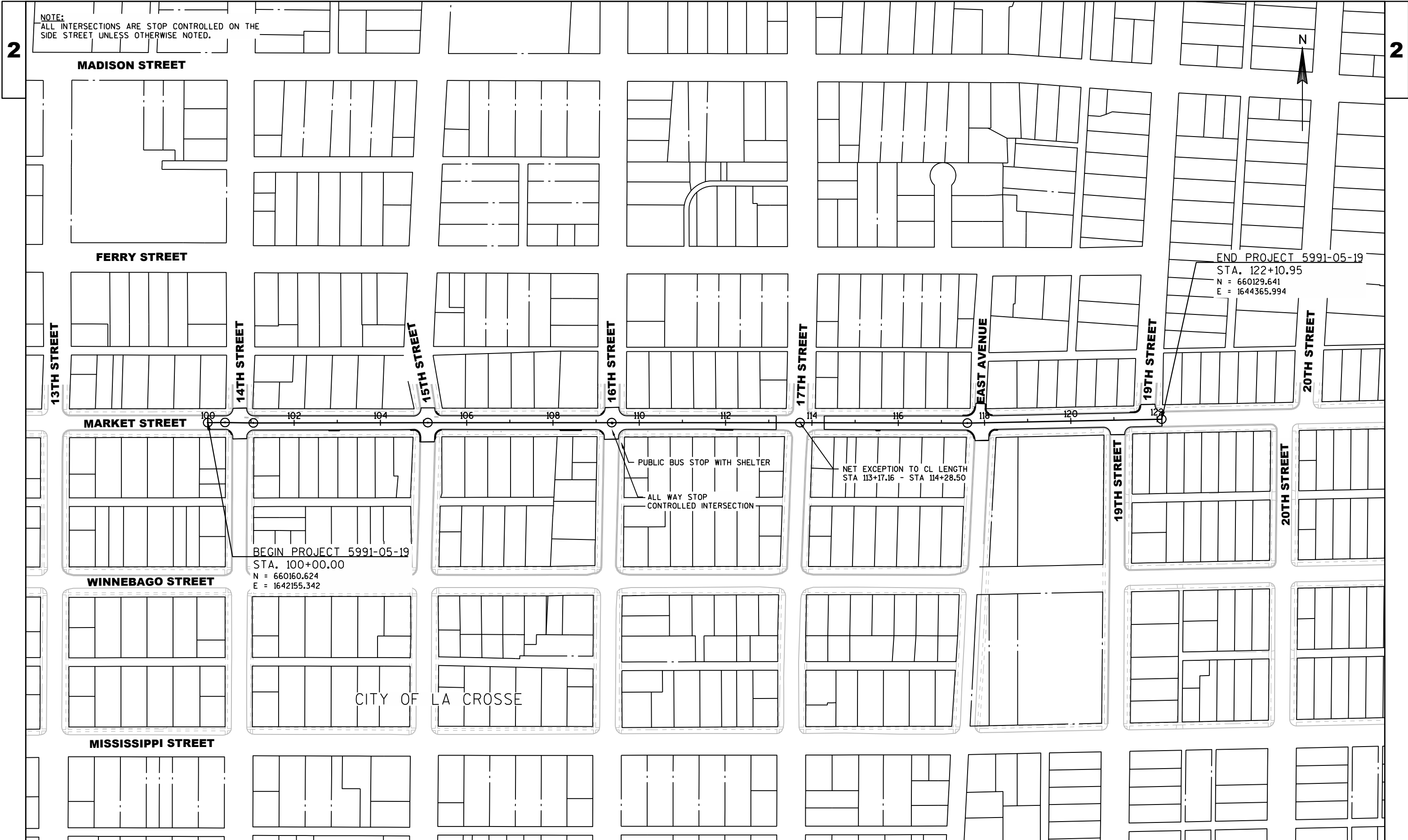
630-371-9960

MELVIN.CONN@VERIZON.COM

INVESTIGATIONS@VERIZON.COM

**DENOTES UTILITES THAT ARE NOT DIGGERS HOTLINE MEMBERS





NOTE:
ALL INTERSECTIONS ARE STOP CONTROLLED ON THE
SIDE STREET UNLESS OTHERWISE NOTED.

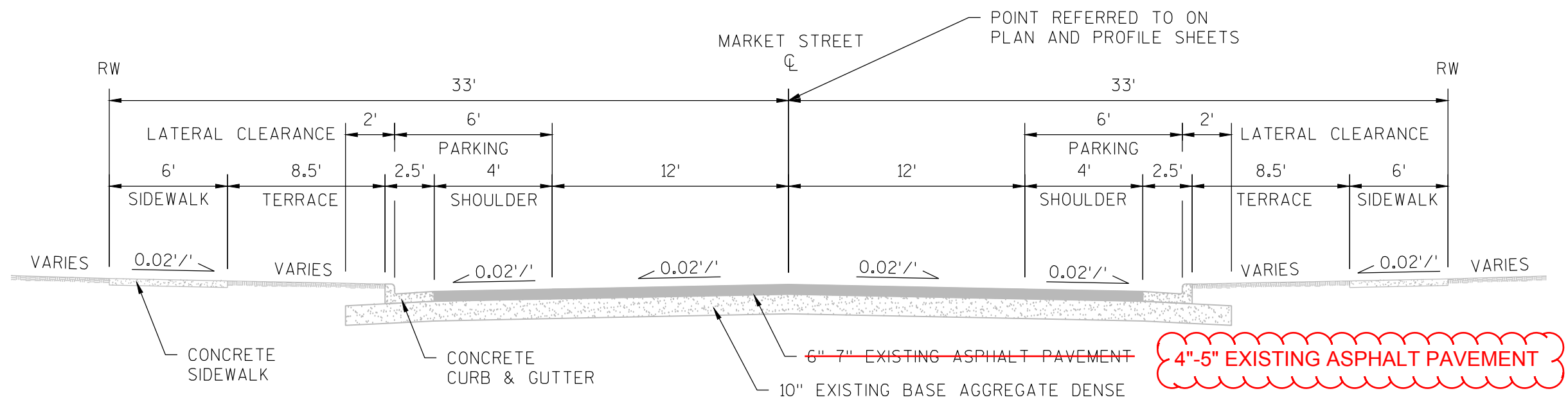
END PROJECT 5991-05-19
STA. 122+10.95
N = 660129.641
E = 1644365.994

BEGIN PROJECT 5991-05-19
STA. 100+00.00
N = 660160.624
E = 1642155.342

PUBLIC BUS STOP WITH SHELTER
ALL WAY STOP
CONTROLLED INTERSECTION

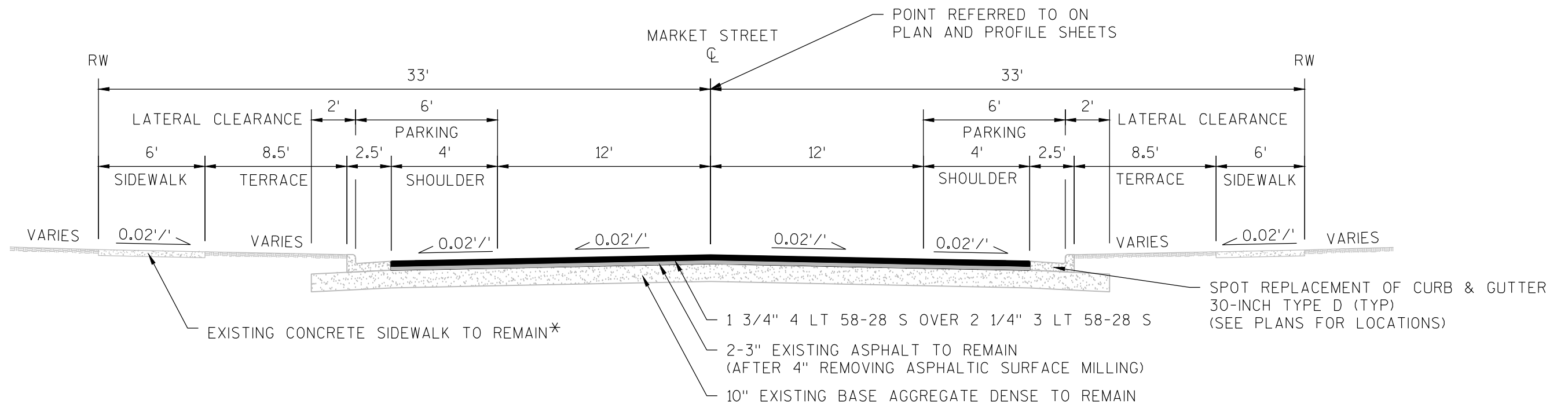
NET EXCEPTION TO CL LENGTH
STA 113+17.16 - STA 114+28.50

CITY OF LA CROSSE



EXISTING TYPICAL SECTION

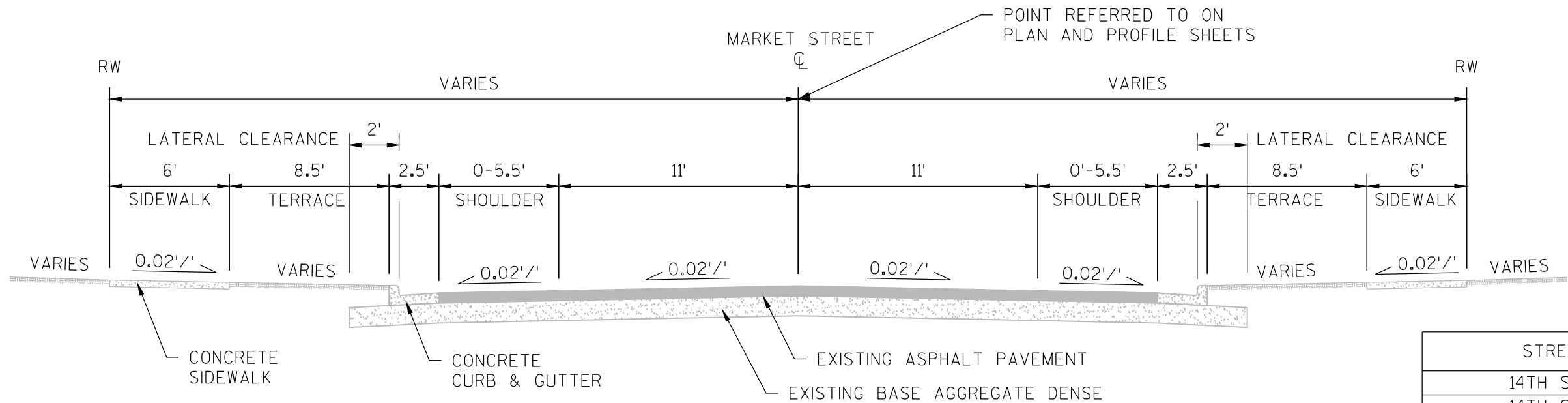
MARKET STREET
100+00.00 - 122+10.95



PROPOSED TYPICAL SECTION

MARKET STREET
100+00.00 - 113+17.16
114+28.50 - 122+10.95

*THE CITY OF LA CROSSE HAS AN ANNUAL SIDEWALK REPLACEMENT INSPECTION AND REPLACEMENT PLAN THAT SYSTEMATICALLY ASSURES CONFORMANCE WITH ADA. IMPROVEMENTS TO BE MADE BY OTHERS.

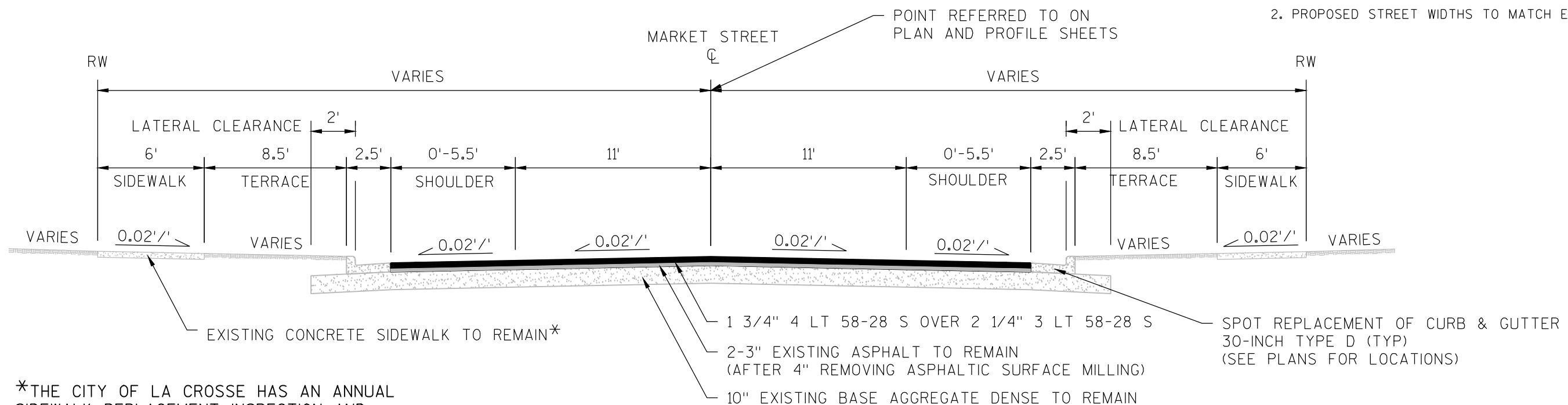


EXISTING TYPICAL SECTION SIDE STREETS

STREET NAME	
14TH STREET (N)	35'
14TH STREET (S)	36'
15TH STREET	36'
16TH STREET	36'
17TH STREET (N)	35'
17TH STREET (S)	36'
EAST AVENUE (N)	26'
EAST AVENUE (S)	35'
19TH STREET (N)	37'
19TH STREET (S)	36'

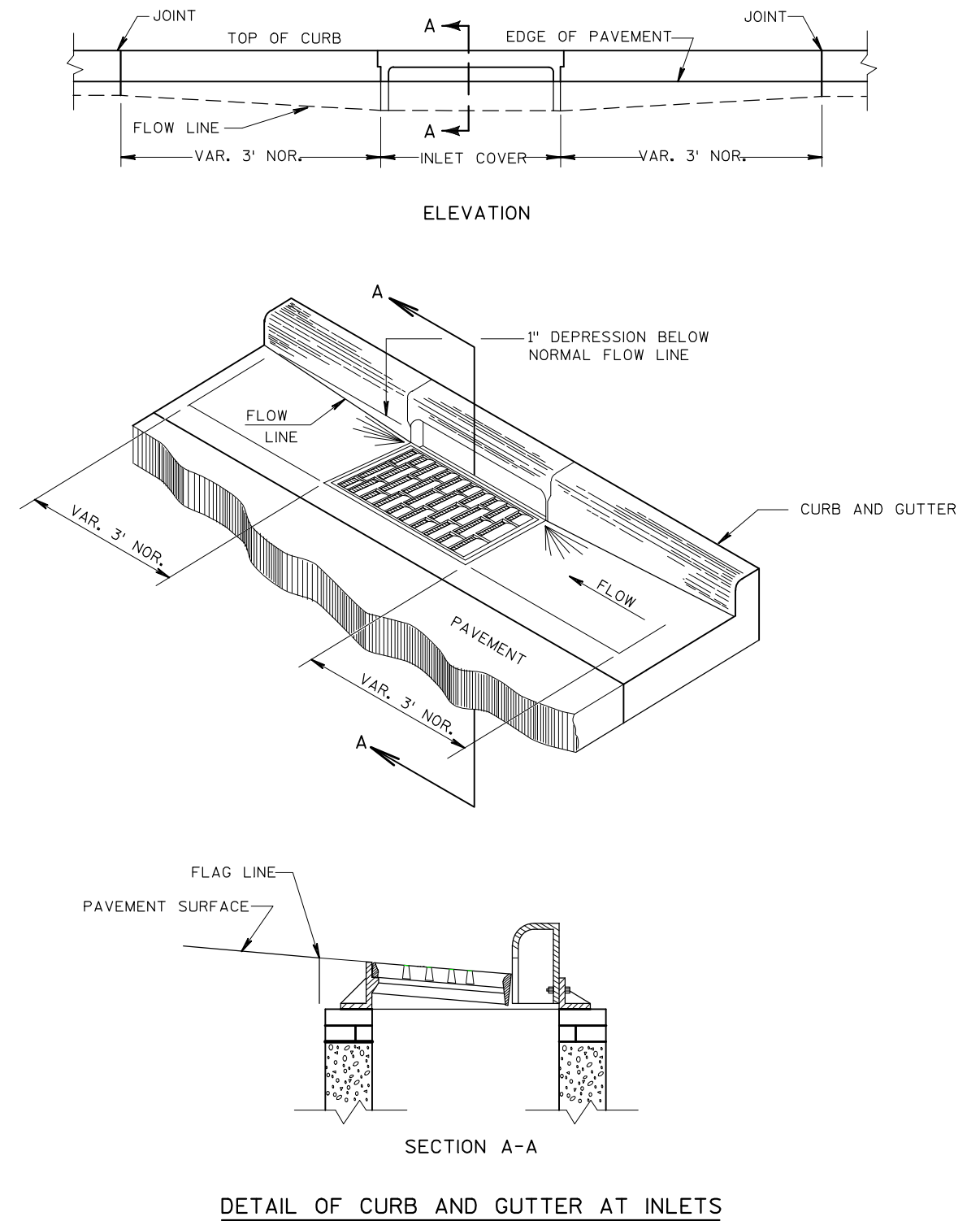
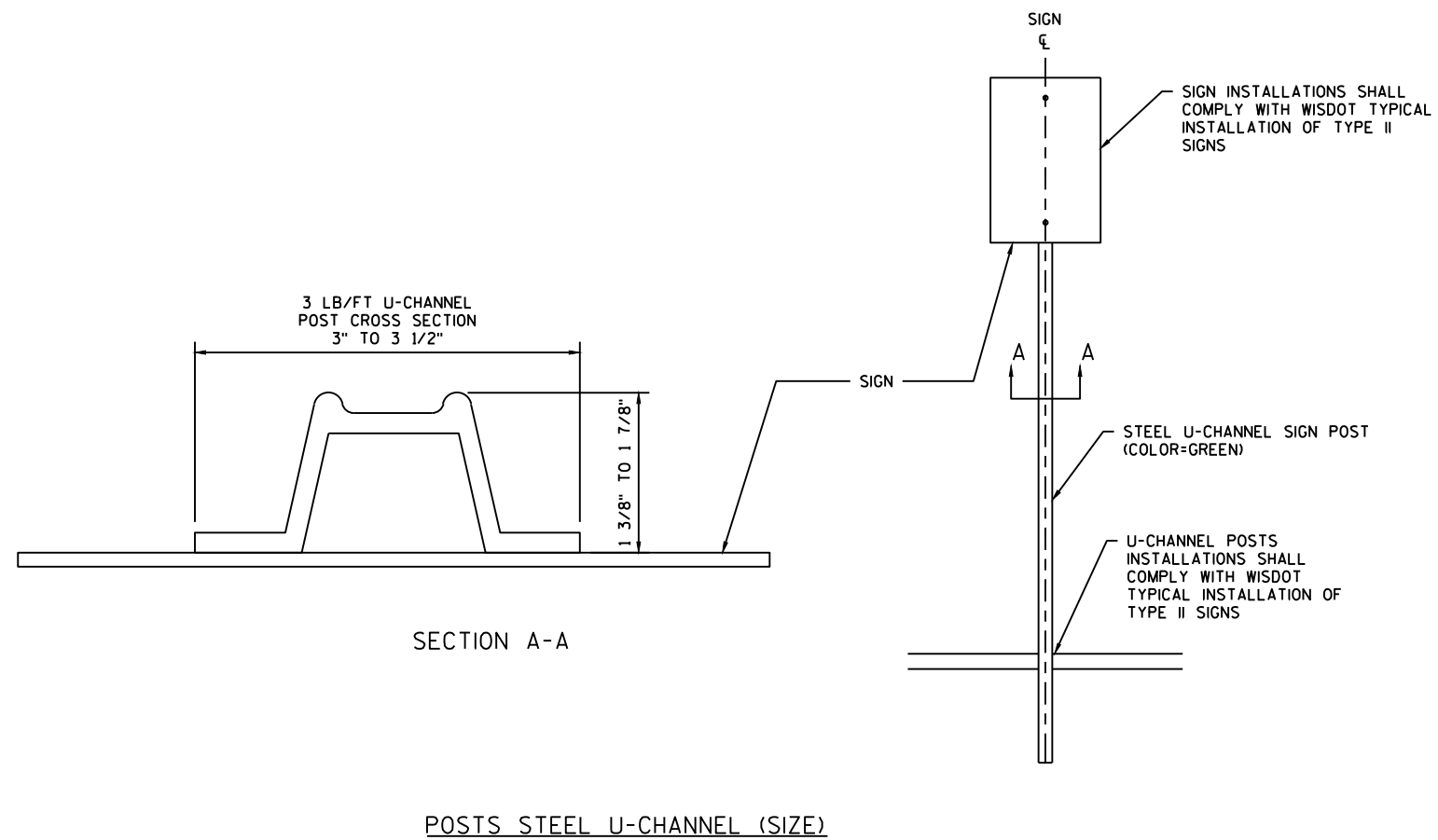
NOTES:

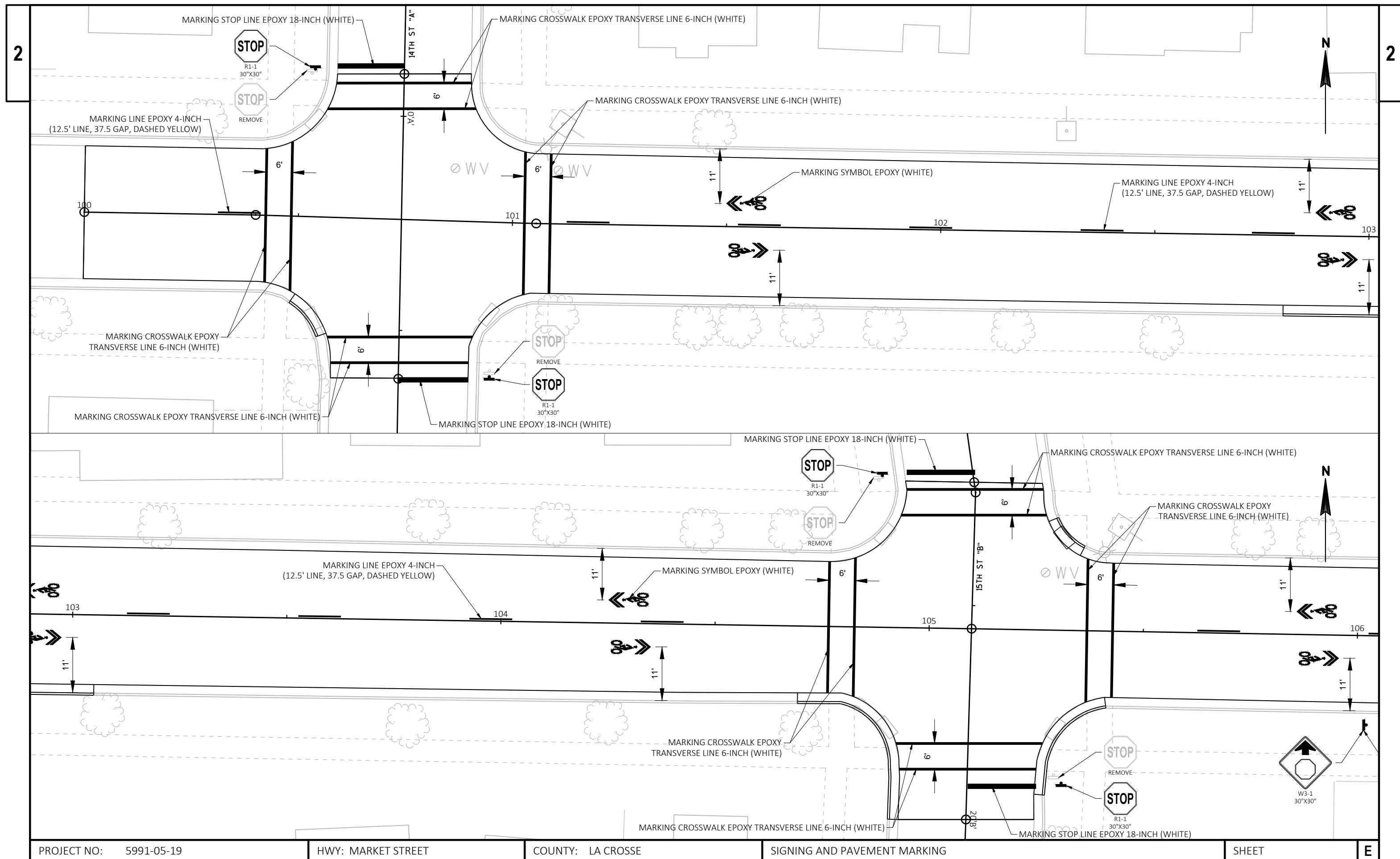
1. WIDTHS MEASURED FROM FACE OF CURB TO FACE OF CURB
2. PROPOSED STREET WIDTHS TO MATCH EXISTING

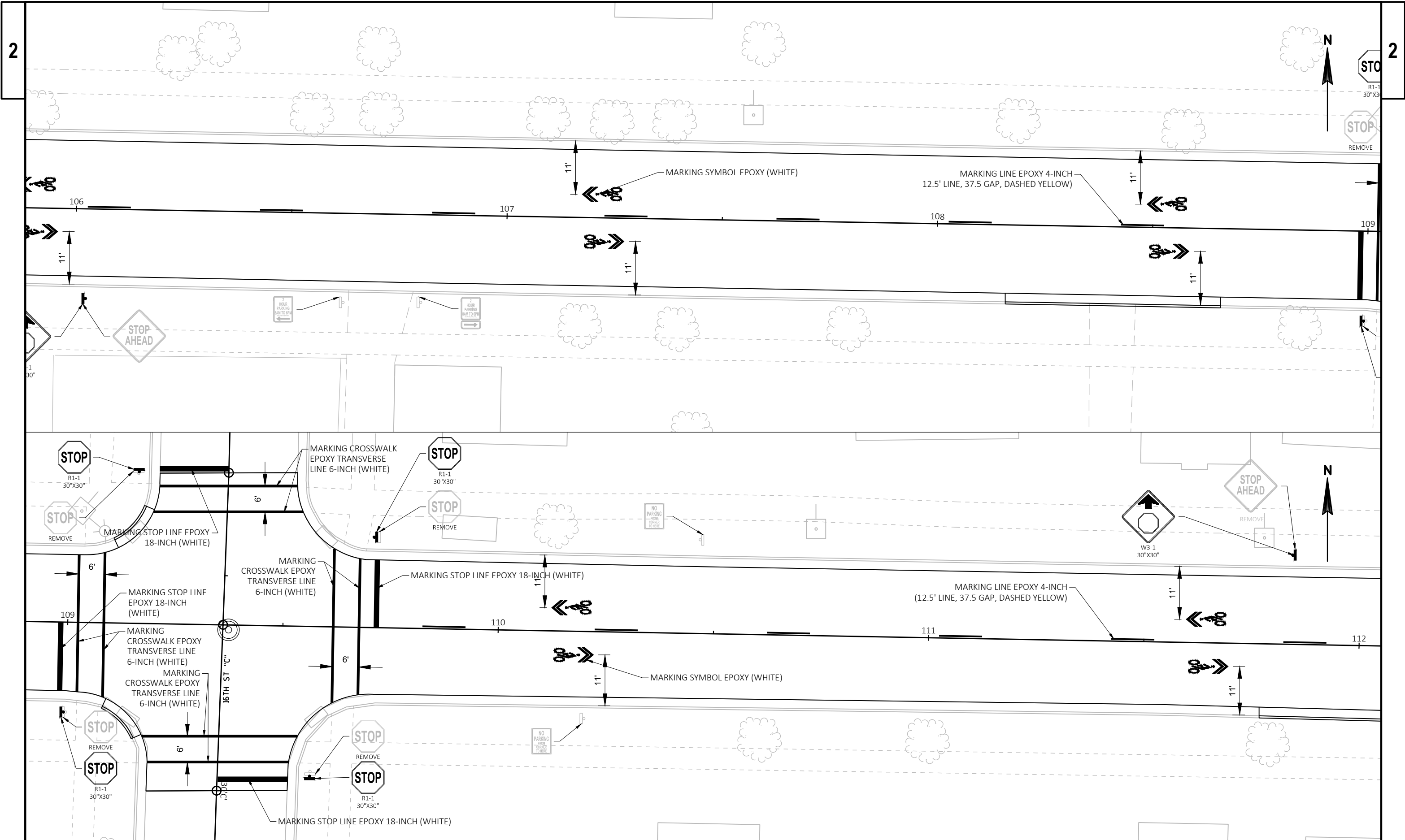


PROPOSED TYPICAL SECTION SIDE STREETS

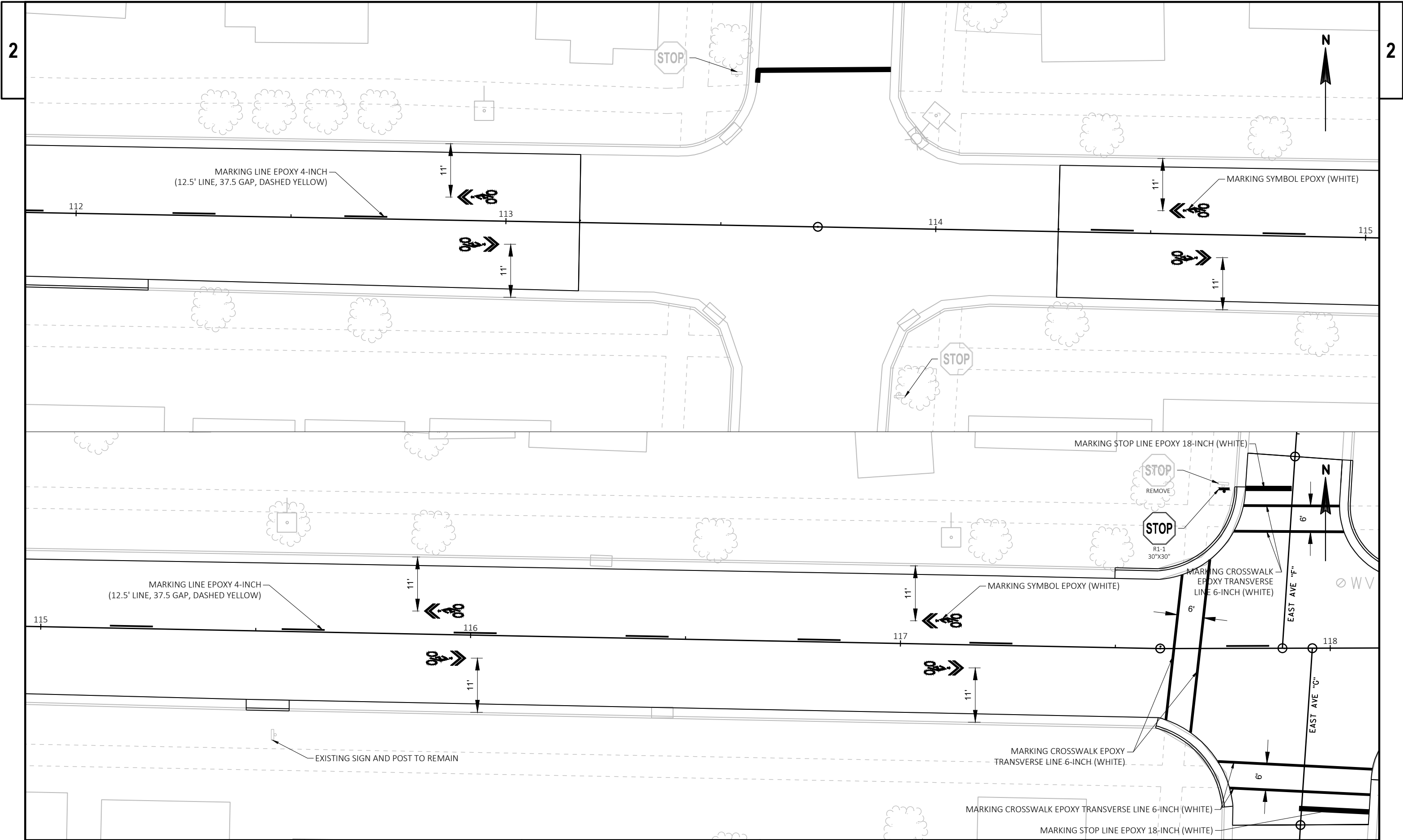
*THE CITY OF LA CROSSE HAS AN ANNUAL SIDEWALK REPLACEMENT INSPECTION AND REPLACEMENT PLAN THAT SYSTEMATICALLY ASSURES CONFORMANCE WITH ADA. IMPROVEMENTS TO BE MADE BY OTHERS.



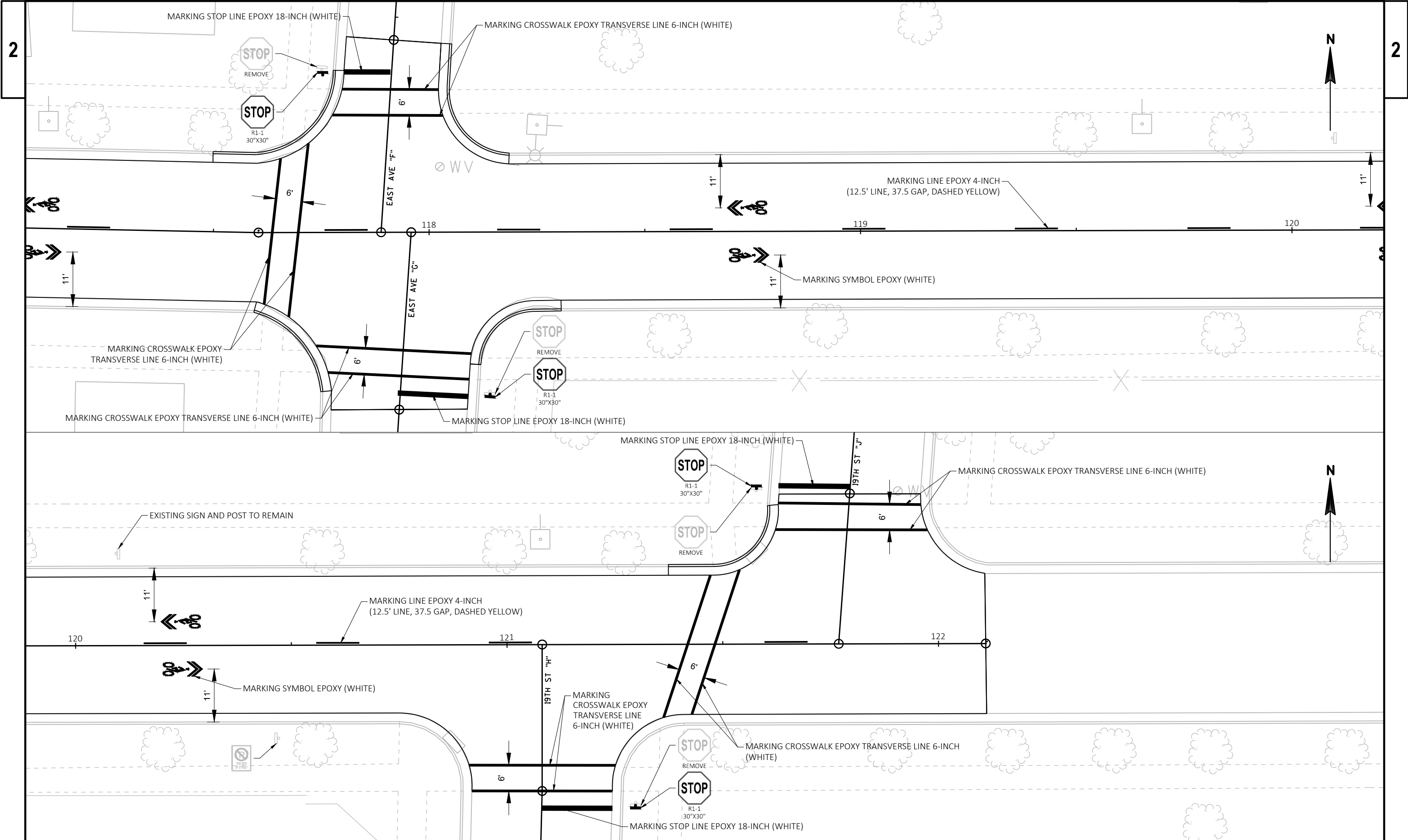




PROJECT NO: 5991-05-19	HWY: MARKET STREET	COUNTY: LA CROSSE	SIGNING AND PAVEMENT MARKING	SHEET	E
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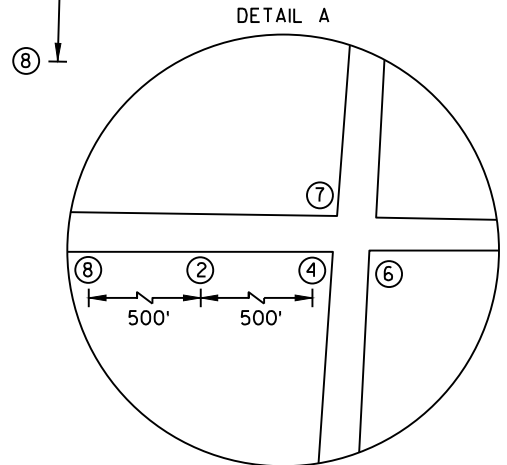
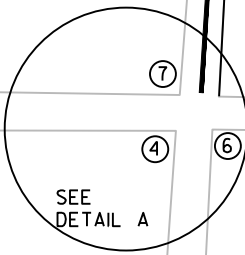
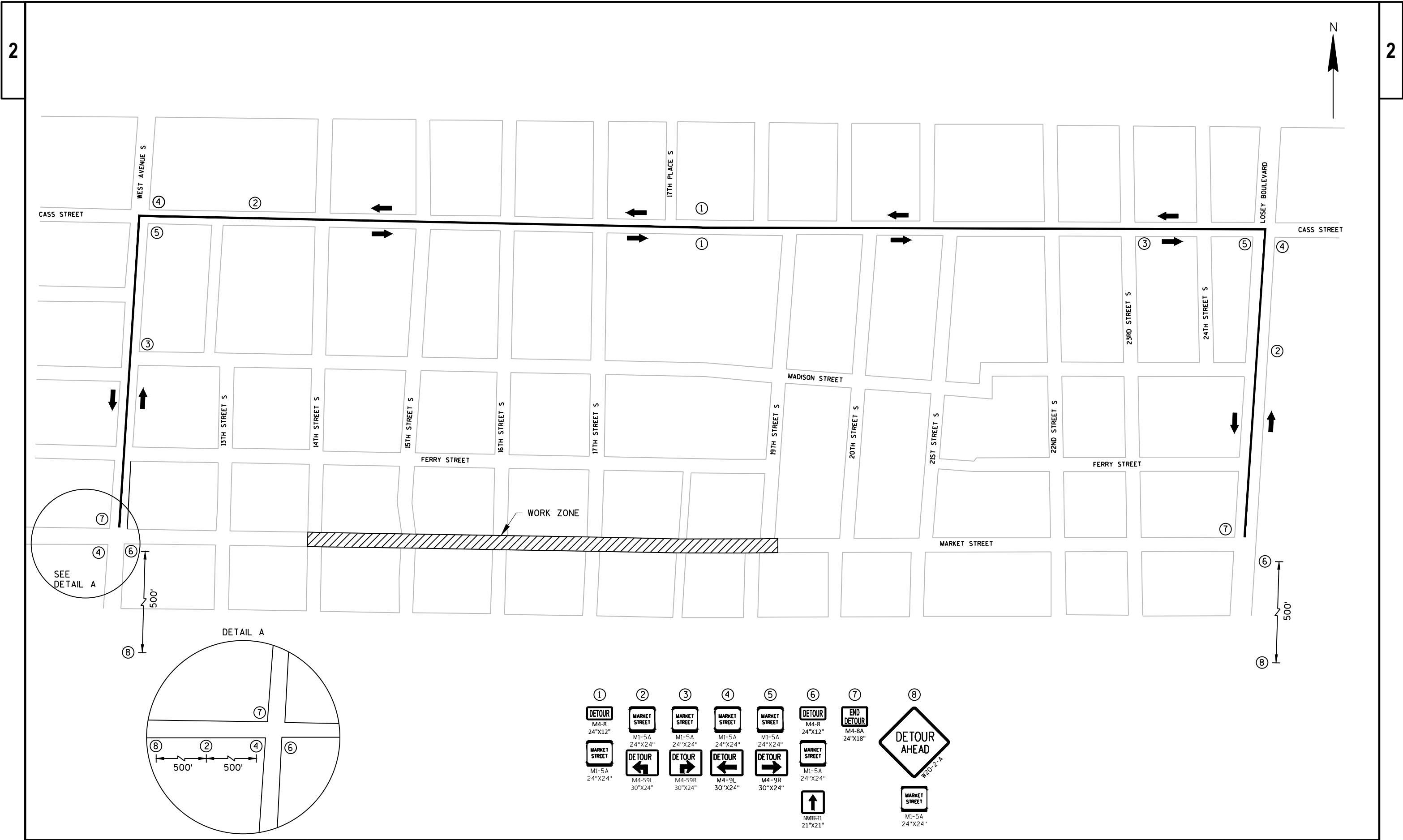


PROJECT NO: 5991-05-19	HWY: MARKET STREET	COUNTY: LA CROSSE	SIGNING AND PAVEMENT MARKING	SHEET	E
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- ① 3-TYPE III BARRICADES
4-TYPE A LIGHTS
1-ROAD CLOSED MOUNTED ON A TYPE III BARRICADE.
SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 1 WHEN
CROSS TRAFFIC IS NOT ALLOWED.
- ② 1-ROAD CLOSED AHEAD SIGN ON TEMPORARY SUPPORT
1-ROAD CLOSED 500' SIGN ON TEMPORARY SUPPORT
SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" DETAIL 1 WHEN
CROSS TRAFFIC IS NOT ALLOWED.
- ③ 1-ROAD CLOSED AHEAD" SIGN ON TEMPORARY SUPPORT
1-ROAD CLOSED 1000' SIGN ON TEMPORARY SUPPORT
1-ROAD CLOSED 500' SIGN ON TEMPORARY SUPPORT
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
- ④ 3-TYPE III BARRICADES
4-TYPE A LIGHTS
1-ROAD CLOSED MOUNTED ON A TYPE III BARRICADE.
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B.
- ⑤ 1-ROAD WORK AHEAD SIGN ON TEMPORARY SUPPORT



①
DETOUR
M4-8
24"x12"
MARKET STREET
M1-5A
24"x24"

②
MARKET STREET
M1-5A
24"x24"
DETOUR
M4-59L
30"x24"

③
MARKET STREET
M1-5A
24"x24"
DETOUR
M4-59R
30"x24"

④
MARKET STREET
M1-5A
24"x24"
DETOUR
M4-9L
30"x24"

⑤
MARKET STREET
M1-5A
24"x24"
DETOUR
M4-9R
30"x24"

⑥
DETOUR
M4-8
24"x12"
MARKET STREET
M1-5A
24"x24"

⑦
END
DETOUR
M4-8A
24"x18"

⑧
DETOUR AHEAD
W20-2-A
MARKET STREET
M1-5A
24"x24"

↑
M4-611
21"x21"

Estimate Of Quantities

5991-05-19

Line	Item	Item Description	Unit	Total	Qty
0002	204.0120	Removing Asphaltic Surface Milling	SY	8,272.000	8,272.000
0004	204.0150	Removing Curb & Gutter	LF	393.000	393.000
0006	204.0210	Removing Manholes	EACH	1.000	1.000
0008	204.0220	Removing Inlets	EACH	1.000	1.000
0010	213.0100	Finishing Roadway (project) 01. 5991-05-19	EACH	1.000	1.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	300.000	300.000
0014	455.0605	Tack Coat	GAL	584.000	584.000
0016	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,048.000	1,048.000
0018	460.5224	HMA Pavement 4 LT 58-28 S	TON	815.000	815.000
0020	465.0105	Asphaltic Surface	TON	90.000	90.000
0022	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	393.000	393.000
0024	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0026	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0028	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0030	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0032	611.8120.S	Cover Plates Temporary	EACH	21.000	21.000
0034	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5991-05-19	EACH	1.000	1.000
0036	619.1000	Mobilization	EACH	1.000	1.000
0038	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0040	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0042	628.7015	Inlet Protection Type C	EACH	17.000	17.000
0044	637.2210	Signs Type II Reflective H	SF	62.160	62.160
0046	637.2230	Signs Type II Reflective F	SF	12.500	12.500
0048	638.2602	Removing Signs Type II	EACH	14.000	14.000
0050	638.3000	Removing Small Sign Supports	EACH	14.000	14.000
0052	642.5001	Field Office Type B	EACH	1.000	1.000
0054	643.0420	Traffic Control Barricades Type III	DAY	2,100.000	2,100.000
0056	643.0715	Traffic Control Warning Lights Type C	DAY	2,800.000	2,800.000
0058	643.0900	Traffic Control Signs	DAY	4,000.000	4,000.000
0060	643.5000	Traffic Control	EACH	1.000	1.000
0062	646.1020	Marking Line Epoxy 4-Inch	LF	538.000	538.000
0064	646.5220	Marking Symbol Epoxy	EACH	28.000	28.000
0066	646.6120	Marking Stop Line Epoxy 18-Inch	LF	187.000	187.000
0068	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,190.000	1,190.000
0070	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	393.000	393.000
0072	650.8000	Construction Staking Resurfacing Reference	LF	2,337.000	2,337.000
0074	650.9910	Construction Staking Supplemental Control (project) 01. 5991-05-19	LS	1.000	1.000
0076	690.0150	Sawing Asphalt	LF	439.000	439.000

Estimate Of Quantities

5991-05-19

Line	Item	Item Description	Unit	Total	Qty
0078	690.0250	Sawing Concrete	LF	55.000	55.000
0080	SPV.0060	Special 01. Adjusting Water Valves	EACH	4.000	4.000
0082	SPV.0060	Special 02. Manhole Covers Special	EACH	10.000	10.000
0084	SPV.0060	Special 03. Inlet Covers Special	EACH	1.000	1.000
0086	SPV.0060	Special 04. Posts Steel U-Channel 14-FT	EACH	14.000	14.000
0088	SPV.0090	Special 01. Grading, Shaping, and Finishing for Curb and Gutter Replacement	LF	393.000	393.000
0090	SPV.0180	Special 01. Removing Material for HMA Repair	SY	90.000	90.000

3

REMOVING ASPHALTIC SURFACE MILLING

204.0120						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	100+00	-	113+17	LT/RT	4600	MAINLINE
0010	114+29	-	122+11	LT/RT	2767	MAINLINE
0010	9+90 A	-	10+08 A	LT/RT	78	14TH ST
0010	10+40 A	-	10+61 A	LT/RT	90	14th ST
0010	19+21 B	-	19+40 B	LT/RT	81	15TH ST
0010	19+71 B	-	20+00 B	LT/RT	117	15TH ST
0010	29+26 C	-	29+46 C	LT/RT	85	16TH ST
0010	29+77 C	-	30+00 C	LT/RT	98	16TH ST
0010	49+55 F	-	50+00 F	LT/RT	89	EAST AVE
0010	60+16 G	-	60+41 G	LT/RT	107	EAST AVE
0010	70+16 H	-	70+34 H	LT/RT	79	19TH ST
0010	79+65 J	-	79+84 J	LT/RT	81	19TH ST
PROJECT TOTALS =					8272	

FINISHING ROADWAY (PROJECT) 01. 5991-05-19

213.0100			
CATEGORY	LOCATION	EACH	REMARKS
0010	PROJECT 5991-05-19	1	MAINLINE
PROJECT TOTALS =		1	

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120			
CATEGORY	LCOATION	TON	REMARKS
0010	UNDISTRIBUTED	50	FOR STORM STRUCTURE
0010	UNDISTRIBUTED	200	FOR HMA REPAIR
TOTAL 0010		250	
0020	UNDISTRIBUTED	50	FOR SANITARY STRUCTURE
TOTAL 0020		50	
PROJECT TOTALS =		300	

CURB & GUTTER SUMMARY

					REMOVING CURB & GUTTER 204.0150	CONCRETE CURB & GUTTER 30-INCH TYPE D 601.0411	CONSTRUCTION STAKING CURB & GUTTER 650.5500	GRADING, SHAPING, FINISHING FOR CURB AND GUTTER SPV.0090.01		
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	REMARKS	
0010	10+42 A	-	10+52 A	LT	10	10	10	10	14TH ST	
0010	102+80	-	103+05	RT	25	25	25	25	MAINLINE	
0010	19+72 B	-	20+00 B	RT	43	43	43	43	15TH ST	
0010	19+29 B	-	19+36 B	LT	10	10	10	10	15TH ST	
0010	19+71 B	-	19+94 B	LT	28	28	28	28	15TH ST	
0010	107+76	-	108+26	RT	50	50	50	50	MAINLINE	
0010	29+35C	-	29+45C	RT	10	10	10	10	16TH ST	
0010	29+79C	-	29+89C	RT	10	10	10	10	16TH ST	
0010	111+77	-	112+17	RT	40	40	40	40	MAINLINE	
0010	115+48	-	115+58	RT	10	10	10	10	MAINLINE	
0010	49+63 F	-	49+86 F	RT	39	39	39	39	EAST AVE	
0010	49+55 F	-	49+82 F	LT	34	34	34	34	EAST AVE	
0010	60+18 G	-	60+38 G	RT	26	26	26	26	EAST AVE	
0010	60+13 G	-	60+29 G	LT	26	26	26	26	EAST AVE	
0010	79+42 J	-	79+60 J	RT	32	32	32	32	19TH ST	
PROJECT TOTALS =					393	393	393	393		

ASPHALTIC PAVING ITEMS

					TACK COAT 455.0605	HMA PAVEMENT 3 LT 58-28 S 460.5223	HMA PAVEMENT 4 LT 58-28 S 460.5224		
CATEGORY	STATION	TO	STATION	LOCATION	GAL	TON	TON	REMARKS	
0010	100+00	-	113+17	LT/RT	322	580	451	MAINLINE	
0010	114+29	-	122+11	LT/RT	194	349	272	MAINLINE	
0010	9+90 A	-	10+08 A	LT/RT	6	10	8	14TH ST	
0010	10+40 A	-	10+61 A	LT/RT	7	12	9	14th ST	
0010	19+21 B	-	19+40 B	LT/RT	6	11	8	15TH ST	
0010	19+71 B	-	20+00 B	LT/RT	9	15	12	15TH ST	
0010	29+26 C	-	29+46 C	LT/RT	6	11	9	16TH ST	
0010	29+77 C	-	30+00 C	LT/RT	7	13	10	16TH ST	
0010	49+55 F	-	50+00 F	LT/RT	7	12	9	EAST AVE	
0010	60+16 G	-	60+41 G	LT/RT	8	14	11	EAST AVE	
0010	70+16 H	-	70+34 H	LT/RT	6	10	8	19TH ST	
0010	79+65 J	-	79+84 J	LT/RT	6	11	8	19TH ST	
PROJECT TOTALS =					584	1048	815		

3

3

3

ASPHALTIC SURFACE

		465.0105	
CATEGORY	LOCATION	TON	REMARKS
0010	UNDISTRIBUTED	20	FOR LEVELING REQ'D DUE TO STORM STRUCTURE REPLACEMENT FOR HMA REPAIR
0010	UNDISTRIBUTED	50	
TOTAL 0010		70	
0020	UNDISTRIBUTED	20	FOR LEVELING REQ'D DUE TO SANITARY STRUCTURE REPLACEMENT
TOTAL 0020		20	
PROJECT TOTALS =		90	

MANHOLE SUMMARY

		REMOVING MANHOLES 204.0210	MANHOLES 4- FT DIAMETER 611.2004	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0020	109+40	CL	1	REPLACE SANITARY STRUCTURE AND CASTING
PROJECT TOTALS =			1	

Sheet replaced with 17A

INLET SUMMARY

		REMOVING INLETS 204.0220	INLETS 4-FT DIAMETER 611.3004	
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	105+10	LT 22'	1	REPLACE STRUCTURE AND CASTING (NE 15TH ST)
PROJECT TOTALS =			1	

ADJUSTING MANHOLE COVERS

		611.8110	
CATEGORY	STATION	EACH	REMARKS
0010	108+97	1	WATER
0010	109+69	1	WATER
0010	117+63	1	WATER
0010	121+43	1	STORM
PROJECT TOTAL		4	

ADJUSTING INLET COVERS

		611.8115	
CATEGORY	STATION	LOCATION	REMARKS
0010	100+54	24' RT	REPLACE ADJUSTING RINGS (SW 14TH ST)
0010	104+91	25' RT	SW 15TH ST
0010	105+29	22' RT	SE 15TH ST
0010	109+15	21' LT	REPLACE ADJUSTING RINGS (NW 16TH ST)
0010	109+15	21' RT	REPLACE ADJUSTING RINGS (SW 16TH ST)
0010	121+59	20' LT	NW 19TH ST
PROJECT TOTALS =		6	

ASPHALTIC SURFACE			
CATEGORY	LOCATION	465.0105 TON	REMARKS
0010	UNDISTRIBUTED	20	FOR LEVELING REQ'D DUE TO STORM STRUCTURE REPLACEMENT
0010	UNDISTRIBUTED	50	FOR HMA REPAIR
	TOTAL 0010	50	
0020	UNDISTRIBUTED	20	FOR LEVELING REQ'D DUE TO SANITARY STRUCTURE REPLACEMENT
	TOTAL 0020	20	
	PROJECT TOTALS =	50	

MANHOLE SUMMARY				
CATEGORY	STATION	LOCATION	REMOVING MANHOLES 204.0210 EACH	MANHOLES 4- FT DIAMETER 611.2004 EACH
0020	109+40	CL	1	1
		PROJECT TOTALS =	1	1

INLET SUMMARY				
CATEGORY	STATION	LOCATION	REMOVING INLETS 204.0220 EACH	INLETS 4-FT DIAMETER 611.3004 EACH
0010	105+10	LT 22'	1	1
		PROJECT TOTALS =	1	1

Addendum No. 01
ID 5991-05-19
Revised Sheet 17
February 1, 2018

ADJUSTING MANHOLE COVERS			
CATEGORY	STATION	611.8110 EACH	REMARKS
0010	108+97	1	WATER
0010	109+69	1	WATER
0010	117+63	1	WATER
0010	121+43	1	STORM
	PROJECT TOTAL	4	

ADJUSTING INLET COVERS				
CATEGORY	STATION	LOCATION	611.8115 EACH	REMARKS
0010	100+54	24' RT	1	REPLACE ADJUSTING RINGS (SW 14TH ST)
0010	104+91	25' RT	1	SW 15TH ST
0010	105+29	22' RT	1	SE 15TH ST
0010	109+15	21' LT	1	REPLACE ADJUSTING RINGS (NW 16TH ST)
0010	109+15	21' RT	1	REPLACE ADJUSTING RINGS (SW 16TH ST)
0010	121+59	20' LT	1	NW 19TH ST
	PROJECT TOTALS =		6	

3

COVER PLATES TEMPORARY				
611.8120.S				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	100+54	24' RT	1	STORM INLET
0010	100+67	6' RT	1	STORM MANHOLE
0010	104+70	6' RT	1	STORM MANHOLE
0010	104+91	25' RT	1	STORM INLET
0010	105+18	6' RT	1	STORM MANHOLE
0010	105+29	22' RT	1	STORM INLET
0010	105+30	22' LT	1	STORM INLET
0010	108+97	1' LT	1	WATER MANHOLE
0010	109+15	21' RT	1	STORM INLET
0010	109+15	21' LT	1	STORM INLET
0010	109+69	13' LT	1	WATER MANHOLE
0010	109+31	6' RT	1	STORM MANHOLE
0010	117+63	9' LT	1	WATER MANHOLE
0010	121+43	7' RT	1	STORM MANHOLE
0010	121+59	21' LT	1	STORM INLET
TOTAL 0010 =			15	
0020	100+75	0.5' LT	1	SANITARY MANHOLE
0020	105+10	CL	1	SANITARY MANHOLE
0020	109+38	CL	1	SANITARY MANHOLE
0020	117+90	CL	1	SANITARY MANHOLE
0020	121+10	1' RT	1	SANITARY MANHOLE
0020	121+80	CL	1	SANITARY MANHOLE
TOTAL 0020 =			6	
PROJECT TOTALS =			21	

INLET PROTECTION TYPE C				
628.7015				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	100+54	22' LT	1	
0010	100+55	23' RT	1	
0010	100+95	21' RT	1	
0010	104+90	21' LT	1	
0010	104+91	22' RT	1	
0010	105+29	22' LT	1	
0010	105+30	21' RT	1	
0010	109+15	21' RT	1	
0010	109+16	20' LT	1	
0010	109+57	20' RT	1	
0010	109+59	20' LT	1	
0010	113+50	20' RT	1	
0010	113+53	20' LT	1	
0010	113+93	20' RT	1	
0010	113+95	21' LT	1	
0010	120+89	22' RT	1	
0010	121+59	20' LT	1	
PROJECT TOTALS=			17	

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 5991-05-19			
618.0100			
CATEGORY	LOCATION	EACH	REMARKS
0020	PROJECT 5991-05-19	1	
PROJECT TOTALS =		1	

EROSION CONTROL MOBILIZATIONS SUMMARY			
628.1905			
CATEGORY	LOCATION	EACH	REMARKS
0010	PROJECT 5991-05-19	1	
PROJECT TOTALS =		1	

TRAFFIC CONTROL SUMMARY							
		TRAFFIC CONTROL BARRICADES TYPE III 643.0420	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715	TRAFFIC CONTROL SIGNS 643.0900			
CATEGORY	LOCATION	EACH	DAY	EACH	DAY	EACH	DAY
0010	MARKET ST WEST OF PROJECT	3	150	4	200	4	200
0010	14TH ST NORTH OF PROJECT	3	150	4	200	3	150
0010	14TH ST SOUTH OF PROJECT	3	150	4	200	3	150
0010	15TH ST NORTH OF PROJECT	3	150	4	200	3	150
0010	15TH ST SOUTH OF PROJECT	3	150	4	200	3	150
0010	16TH ST NORTH OF PROJECT	3	150	4	200	3	150
0010	16TH ST SOUTH OF PROJECT	3	150	4	200	3	150
0010	17TH ST NORTH OF PROJECT	-	-	-	-	1	50
0010	17TH ST AND MARKET INTERSECTION	6	300	8	400	2	100
0010	17TH ST SOUTH OF PROJECT	-	-	-	-	1	50
0010	EAST AVE NORTH OF PROJECT	3	150	4	200	3	150
0010	EAST AVE SOUTH OF PROJECT	3	150	4	200	3	150
0010	19TH ST NORTH OF PROJECT	3	150	4	200	3	150
0010	19TH ST SOUTH OF PROJECT	3	150	4	200	3	150
0010	MARKET ST EAST OF PROJECT	3	150	4	200	4	200
0010	WEST AVE AND MARKET ST INTERSECTION	-	-	-	-	12	600
0010	WEST AVE AND CASS ST INTERSECTION	-	-	-	-	8	400
0010	CASS ST AND 17TH PL INTERSECTION	-	-	-	-	4	200
0010	CASS ST AND LOSEY BLVD INTERSECTION	-	-	-	-	8	400
0010	LOSEY BLVD AND MARKET ST INTERSECTION	-	-	-	-	6	300
PROJECT TOTALS =			2100		2800		4000

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EXISTING SIGNING SUMMARY						
CATEGORY	SIGN NUMBER	STATION	LOCATION	SIGN CODE	REMOVING SIGNS TYPE II 638.2602	REMOVING SMALL SIGN SUPPORTS 638.3000
					EACH	EACH
0010	101	9+89 A	RT 21'	R1-1	1	1
0010	102	10+61 A	LT 22'	R1-1	1	1
0010	103	19+16 B	RT 21'	R1-1	1	1
0010	104	19+92 B	LT 22'	R1-1	1	1
0010	105	106+02	RT 21'	W3-1A	1	1
0010	106			SPECIAL		2 HOUR PARKING 8 AM TO 6 PM EXCEPT SAT. SUN. & HOL. (WITH LEFT ARROW)
0010	107			SPECIAL		2 HOUR PARKING 8 AM TO 6 PM EXCEPT SAT. SUN. & HOL.
0010	108			SPECIAL		RIGHT ARROW PLAQUE
0010	109	108+98	RT 21'	R1-1	1	1
0010	110	29+26 C	RT 21'	R1-1	1	1
0010	111	29+97 C	LT 22'	R1-1	1	1
0010	112	109+72	LT 21'	R1-1	1	1
0010	113			SPECIAL		NO PARKING FROM CORNER TO HERE
0010	113			SPECIAL		NO PARKING FROM CORNER TO HERE
0010	114	111+84	LT 21'	W3-1A	1	1
0010	115			SPECIAL		SCHOOL DISTRICT ADMINISTRATION (WITH RIGHT ARROW)
0010	116	49+64 F	RT 17'	R1-1	1	1
0010	117	60+37 G	LT 21'	R1-1	1	1
0010	118			SPECIAL		SCHOOL DISTRICT ADMINISTRATION (WITH RIGHT ARROW)
0010	119			SPECIAL		NO PARKING (SYMBOL) THIS SIDE OF STREET
0010	120	70+37 H	LT 22'	R1-1	1	1
0010	121	79+65 J	RT 22'	R1-1	1	1
					14	14

PERMANENT SIGNING SUMMARY

CATEGORY	SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE CODE	SIGN SIZE IN INCHES	SIGNS TYPE II REFLECTIVE H	SIGNS TYPE II REFLECTIVE F	POSTS STEEL U-CHANNEL 14-FT SPV.0060.04	REMARKS
							637.2210 SF	637.2230 SF	SF	
0010	1-1	9+89 A	RT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	1-2	10+61 A	LT 22'	R1-1	1	30X30	5.18	-	1	STOP
0010	2-1	19+16 B	RT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	2-2	19+92 B	LT 22'	R1-1	1	30X30	5.18	-	1	STOP
0010	2-3	106+02	RT 21'	W3-1	1	30X30	-	6.25	1	STOP AHEAD
0010	4-1	108+98	RT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	4-2	29+26 C	RT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	4-3	29+97 C	LT 22'	R1-1	1	30X30	5.18	-	1	STOP
0010	4-4	109+72	LT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	4-5	111+84	LT 21'	W3-1	1	30X30	-	6.25	1	STOP AHEAD
0010	7-1	49+64 F	RT 17'	R1-1	1	30X30	5.18	-	1	STOP
0010	7-2	60+37 G	LT 21'	R1-1	1	30X30	5.18	-	1	STOP
0010	8-1	70+37 H	LT 22'	R1-1	1	30X30	5.18	-	1	STOP
0010	8-2	79+65 J	RT 22'	R1-1	1	30X30	5.18	-	1	STOP
PROJECT TOTALS =							62.16	12.50	14	

PAVEMENT MARKING SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	MARKING LINE	MARKING STOP	MARKING CROSSWALK	REMARKS
					EPOXY 4-INCH	LINE EPOXY	EPOXY TRANSVERSE	
					646.1020	18-INCH	LINE 6-INCH	
					LF	LF	LF	
0010	100+00	-	100+82	CL	25	-	-	
0010	101+49	-	105+17	CL	100	-	-	
0010	105+83	-	109+42	CL	100	-	-	
0010	110+08	-	113+57	CL	100	-	-	
0010	114+69	-	118+03	CL	88	-	-	
0010	118+10	-	121+82	CL	100	-	-	
0010	121+88	-	122+51	CL	25	-	-	
0010	100+82	-	100+88	LT & RT	-	-	66	
0010	9+92 A	-	9+98 A	LT & RT	-	-	66	14TH STREET
0010	10+51 A	-	10+57 A	LT & RT	-	-	66	14TH STREET
0010	101+43	-	101+49	LT & RT	-	-	66	
0010	105+17	-	105+23	LT & RT	-	-	63	
0010	19+21 B	-	19+27 B	LT & RT	-	-	66	15TH STREET
0010	19+82 B	-	19+86 B	LT & RT	-	-	66	15TH STREET
0010	105+77	-	105+83	LT & RT	-	-	65	
0010	109+42	-	109+48	LT & RT	-	-	66	
0010	29+29 C	-	29+35 C	LT & RT	-	-	67	16TH STREET
0010	29+87 C	-	29+93 C	LT & RT	-	-	69	16TH STREET
0010	110+02	-	110+06	LT & RT	-	-	67	
0010	118+03	-	118+09	LT & RT	-	-	75	
0010	49+67 F	-	49+73 F	LT & RT	-	-	48	EAST AVE
0010	60+27 G	-	60+33 G	LT & RT	-	-	69	EAST AVE
0010	70+28 H	-	70+34 H	LT & RT	-	-	67	19TH STREET
0010	121+82	-	121+87	LT & RT	-	-	70	
0010	79+67 J	-	79+73 J	LT & RT	-	-	68	19TH STREET
0010	9+88 A			RT	-	16	-	14TH STREET
0010	10+61 A			LT	-	16	-	14TH STREET
0010	19+17 B			RT	-	16	-	15TH STREET
0010	19+90 B			LT	-	16	-	15TH STREET
0010	109+38			RT	-	16	-	
0010	29+25C			RT	-	16	-	16TH STREET
0010	29+97C			LT	-	16	-	16TH STREET
0010	110+12			LT	-	16	-	
0010	49+63 G			RT	-	11	-	EAST AVE
0010	60+37 F			LT	-	16	-	EAST AVE
0010	70+38 H			LT	-	16	-	19TH STREET
0010	79+63 J			RT	-	16	-	19TH STREET
PROJECT TOTALS =					538	187	1190	

MARKING SYMBOL EPOXY

CATEGORY	STATION	LOCATION	646.5220	REMARKS
			EACH	
0010	101+55	LT 5.4'	1	SHARED LANE MARKING
0010	101+55	RT 5.4'	1	SHARED LANE MARKING
0010	102+93	LT 5.4'	1	SHARED LANE MARKING
0010	102+93	RT 5.4'	1	SHARED LANE MARKING
0010	104+30	LT 5.4'	1	SHARED LANE MARKING
0010	104+30	RT 5.4'	1	SHARED LANE MARKING
0010	105+91	LT 5.4'	1	SHARED LANE MARKING
0010	105+91	RT 5.4'	1	SHARED LANE MARKING
0010	107+23	LT 5.4'	1	SHARED LANE MARKING
0010	107+23	RT 5.4'	1	SHARED LANE MARKING
0010	108+54	LT 5.4'	1	SHARED LANE MARKING
0010	108+54	RT 5.4'	1	SHARED LANE MARKING
0010	110+18	LT 5.4'	1	SHARED LANE MARKING
0010	110+18	RT 5.4'	1	SHARED LANE MARKING
0010	111+65	LT 5.4'	1	SHARED LANE MARKING
0010	111+65	RT 5.4'	1	SHARED LANE MARKING
0010	112+94	LT 5.4'	1	SHARED LANE MARKING
0010	112+94	RT 5.4'	1	SHARED LANE MARKING
0010	114+60	LT 5.4'	1	SHARED LANE MARKING
0010	114+60	RT 5.4'	1	SHARED LANE MARKING
0010	115+94	LT 5.4'	1	SHARED LANE MARKING
0010	115+94	RT 5.4'	1	SHARED LANE MARKING
0010	117+10	LT 5.4'	1	SHARED LANE MARKING
0010	117+10	RT 5.4'	1	SHARED LANE MARKING
0010	118+74	LT 5.4'	1	SHARED LANE MARKING
0010	118+74	RT 5.4'	1	SHARED LANE MARKING
0010	120+25	LT 5.4'	1	SHARED LANE MARKING
0010	120+25	RT 5.4'	1	SHARED LANE MARKING
PROJECT TOTALS =			28	

CONSTRUCTION STAKING RESURFACING REFERENCE

650.8000						
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	100+00	-	113+17	LT/RT	1317	MAINLINE
0010	114+28	-	122+11	LT/RT	783	MAINLINE
0010	9+90 A	-	10+08 A	LT/RT	18	14TH ST
0010	10+40 A	-	10+61 A	LT/RT	21	14th ST
0010	19+21 B	-	19+40 B	LT/RT	19	15TH ST
0010	19+71 B	-	20+00 B	LT/RT	29	15TH ST
0010	29+26 C	-	29+46 C	LT/RT	20	16TH ST
0010	29+77 C	-	30+00 C	LT/RT	23	16TH ST
0010	49+55 F	-	50+00 F	LT/RT	45	EAST AVE
0010	60+16 G	-	60+41 G	LT/RT	25	EAST AVE
0010	70+16 H	-	70+34 H	LT/RT	18	19TH ST
0010	79+65 J	-	79+84 J	LT/RT	19	19TH ST
PROJECT TOTALS =					2337	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5991-05-19

650.9910		
LOCATION	LF	REMARKS
PROJECT 5991-05-19	1	
PROJECT TOTALS =	1	

SAWING ASPHALT

690.0150				
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	100+00	LT/RT	31	MAINLINE
0010	9+90 A	LT/RT	31	14TH ST
0010	10+61 A	LT/RT	32	14TH ST
0010	19+27 B	LT/RT	32	15TH ST
0010	20+00 B	LT/RT	32	15TH ST
0010	29+26 C	LT/RT	32	16TH ST
0010	30+00 C	LT/RT	33	16TH ST
0010	113+17	LT/RT	32	MAINLINE
0010	114+28	LT/RT	31	MAINLINE
0010	49+62 F	LT/RT	22	EAST AVE
0010	60+41 G	LT/RT	32	EAST AVE
0010	70+34 H	LT/RT	33	19TH ST
0010	79+65 J	LT/RT	33	19th ST
0010	122+11	LT/RT	33	MAINLINE
PROJECT TOTALS =			439	

SAWING CONCRETE

690.0250				
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	102+80	RT	2.5	MAINLINE
0010	103+05	RT	2.5	MAINLINE
0010	104+69	RT	2.5	MAINLINE
0010	20+00 B	RT	2.5	15TH ST
0010	19+94 B	LT	2.5	15TH ST
0010	105+41	RT	2.5	MAINLINE
0010	108+16	RT	2.5	MAINLINE
0010	108+66	RT	2.5	MAINLINE
0010	111+77	RT	2.5	MAINLINE
0010	112+17	RT	2.5	MAINLINE
0010	115+48	RT	2.5	MAINLINE
0010	115+58	RT	2.5	MAINLINE
0010	117+50	LT	2.5	MAINLINE
0010	117+60	RT	2.5	MAINLINE
0010	49+63 F	RT	2.5	EAST AVE
0010	49+55 F	LT	2.5	EAST AVE
0010	60+38 G	RT	2.5	EAST AVE
0010	60+29 G	LT	2.5	EAST AVE
0010	118+19	LT	2.5	MAINLINE
0010	118+31	RT	2.5	MAINLINE
0010	121+37	LT	2.5	MAINLINE
0010	79+69 J	RT	2.5	19TH ST
PROJECT TOTALS =			55	

ADJUSTING WATER VALVES

SPV.0060.01				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0020	100+85	LT	1	
0020	101+10	LT	1	
0020	105+25	LT	1	
0020	118+00	LT	1	
PROJECT TOTALS =			4	

MANHOLE COVERS SPECIAL

SPV.0060.02				
CATEGORY	STATION	EACH	REMARKS	
0010	100+67	1	REPLACE STORM CASTING	
0010	104+70	1	REPLACE STORM CASTING	
0010	105+18	1	REPLACE STORM CASTING AND TOP 1' OF STRUCTURE	
0010	109+31	1	REPLACE STORM CASTING AND TOP 1' OF STRUCTURE	
TOTAL 0010 =		4		
0020	100+75	1	REPLACE SANITARY CASTING	
0020	105+10	1	REPLACE SANITARY CASTING	
0020	109+38	1	REPLACE SANITARY STRUCTURE AND CASTING	
0020	117+90	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
0020	121+10	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
0020	121+80	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
TOTAL 0020 =		6		
PROJECT TOTALS =		10		

Sheet replaced with 23A

INLET COVERS SPECIAL

SPV.0060.03				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	105+30	LT 22'	1	REPLACE STRUCTURE AND CASTING (NE 15TH ST)
PROJECT TOTALS =			1	

REMOVING MATERIAL FOR HMA REPAIR

SPV.0180.01			
CATEGORY	LOCATION	SY	REMARKS
0010	UNDISTRIBUTED	90	
PROJECT TOTALS =		90	

ADJUSTING WATER VALVES

SPV.0060.01				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0020	100+85	LT	1	
0020	101+10	LT	1	
0020	105+25	LT	1	
0020	118+00	LT	1	
PROJECT TOTALS =			4	

MANHOLE COVERS SPECIAL

SPV.0050.02				
CATEGORY	STATION	EACH	REMARKS	
0010	100+67	1	REPLACE STORM CASTING	
0010	104+70	1	REPLACE STORM CASTING	
0010	105+18	1	REPLACE STORM CASTING AND TOP 1' OF STRUCTURE	
0010	109+31	1	REPLACE STORM CASTING AND TOP 1' OF STRUCTURE	
TOTAL 0010 =		4		
0020	100+75	1	REPLACE SANITARY CASTING	
0020	105+10	1	REPLACE SANITARY CASTING	
0020	109+38	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
0020	117+90	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
0020	121+10	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
0020	121+80	1	REPLACE SANITARY CASTING AND 2FT OF ADJUSTING RINGS	
TOTAL 0020 =		6		
PROJECT TOTALS =		10		

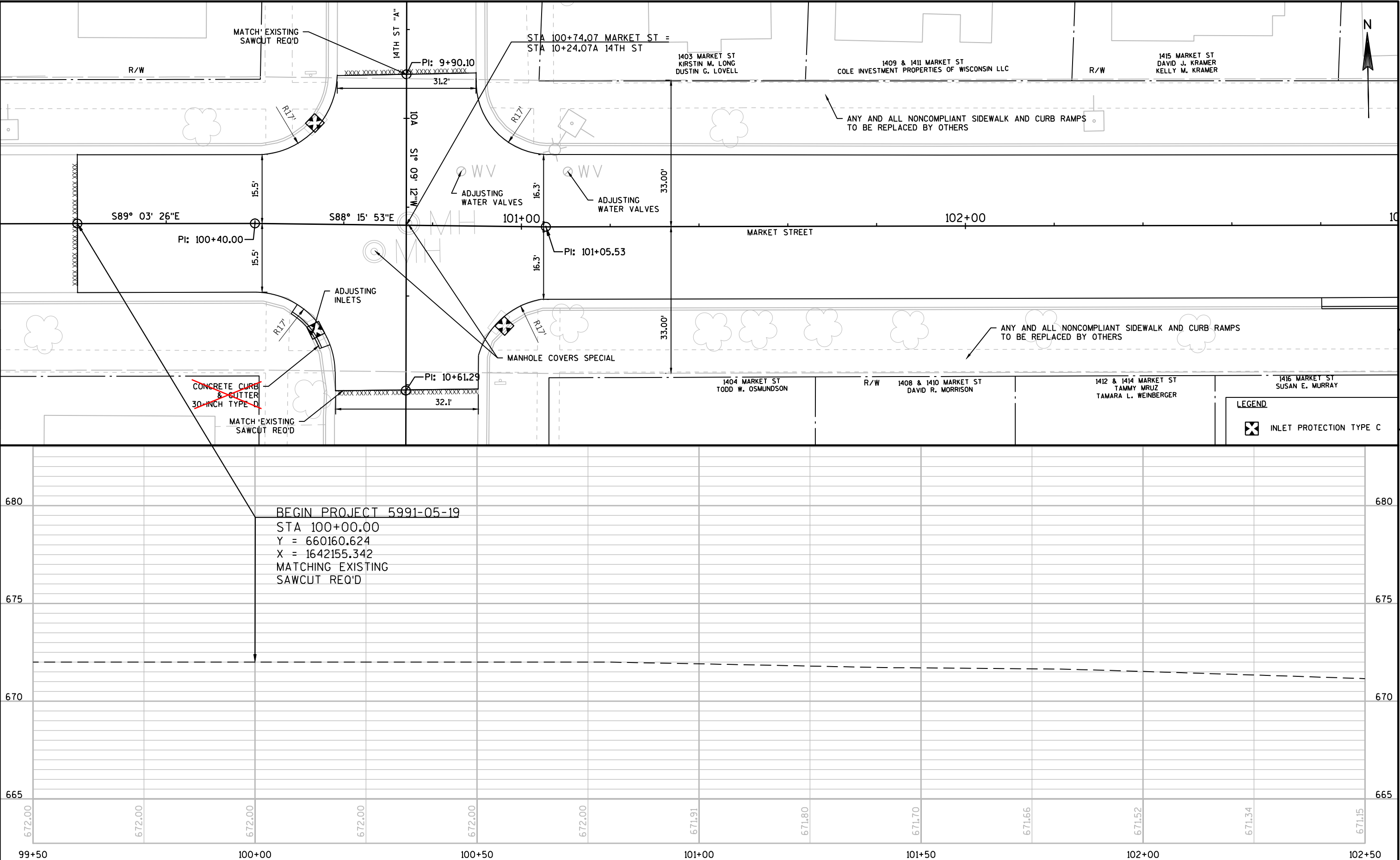
Addendum No. 01
ID 5991-05-19
Revised Sheet 23
February 1, 2018

INLET COVERS SPECIAL

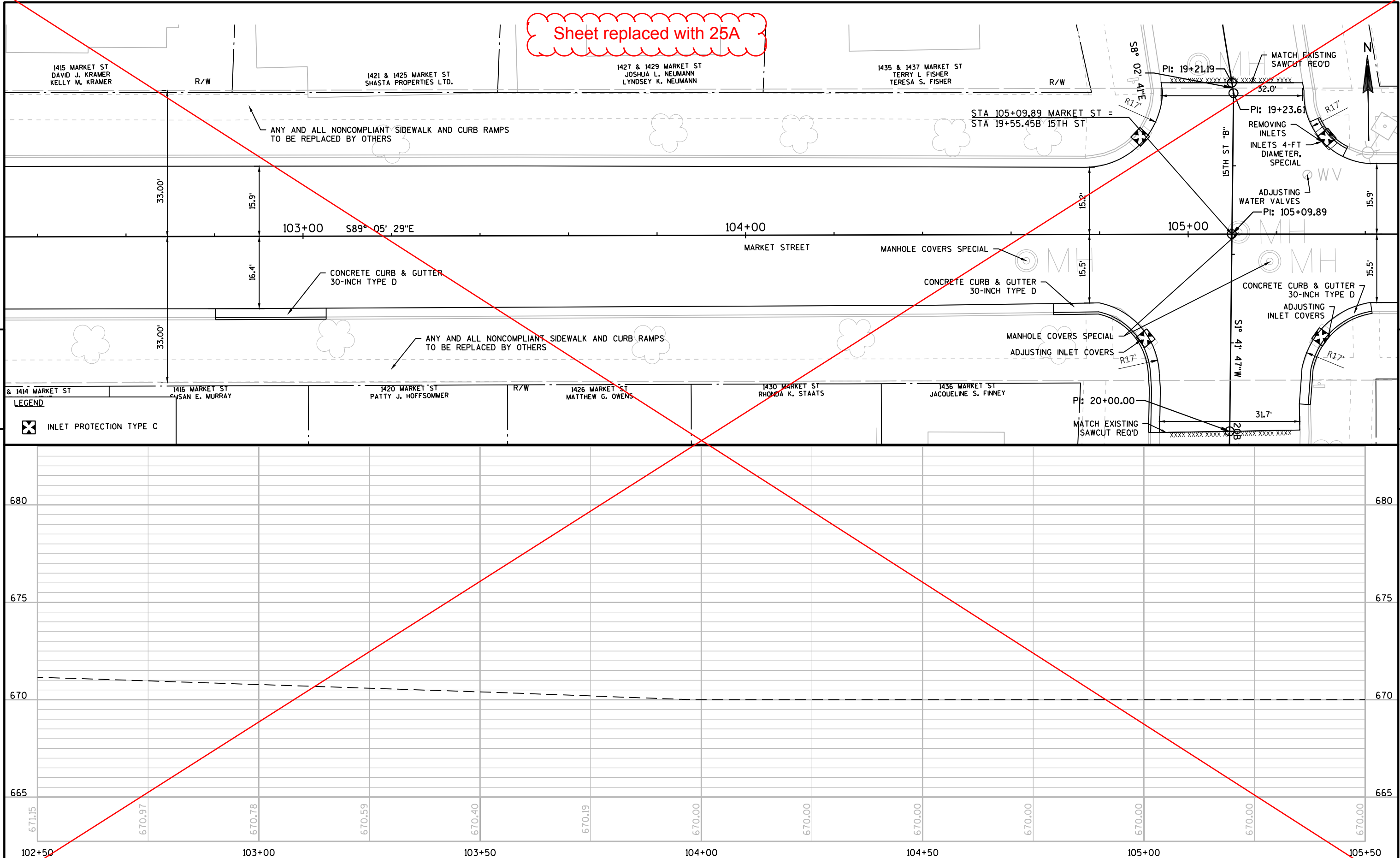
SPV.0060.03				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	105+30	LT 22'	1	REPLACE STRUCTURE AND CASTING (NE 15TH ST)
PROJECT TOTALS =			1	

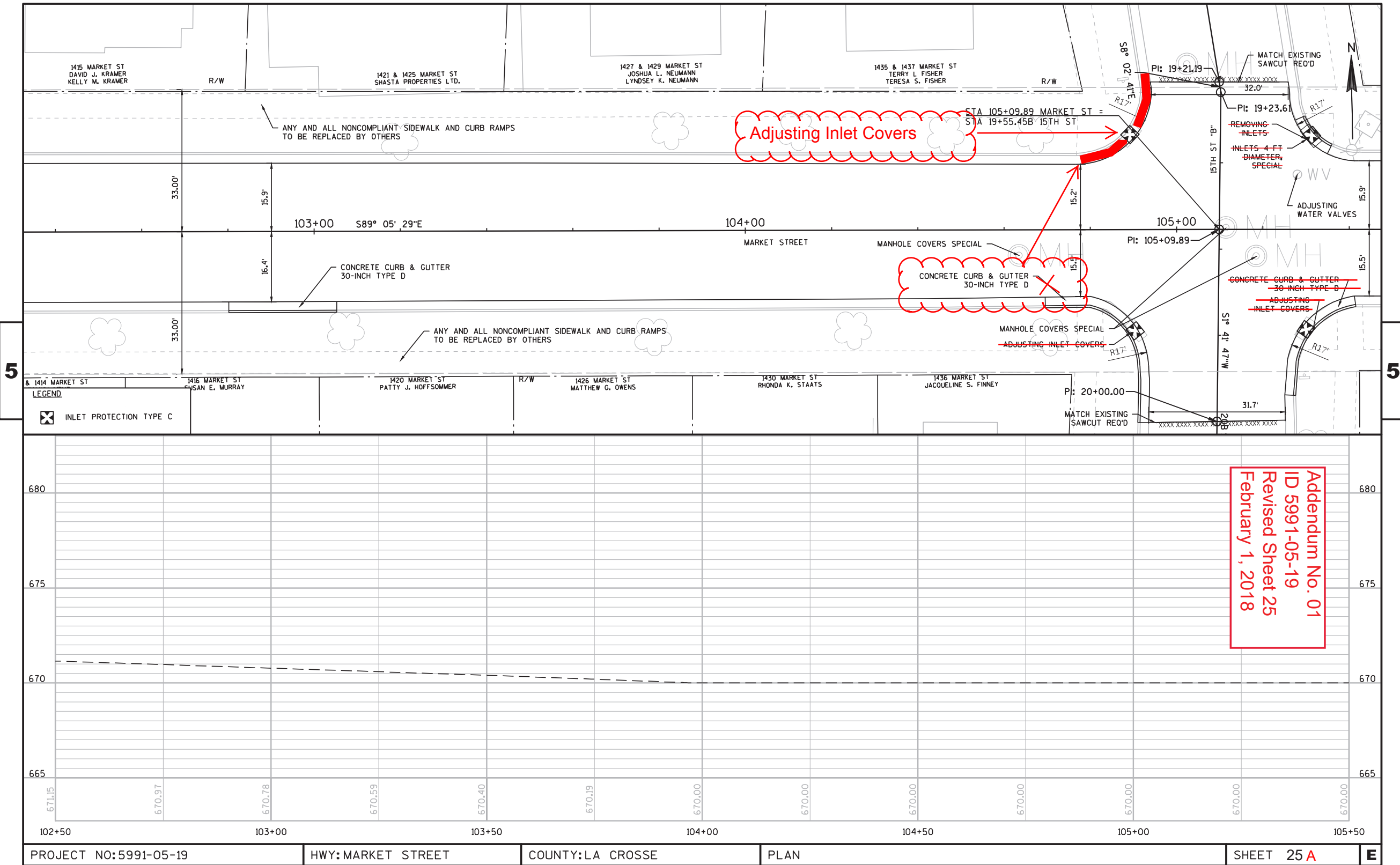
REMOVING MATERIAL FOR HMA REPAIR

SPV.0180.01			
CATEGORY	LOCATION	SY	REMARKS
0010	UNDISTRIBUTED	90	
PROJECT TOTALS =		90	



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LAYOUT NAME - 02-PP

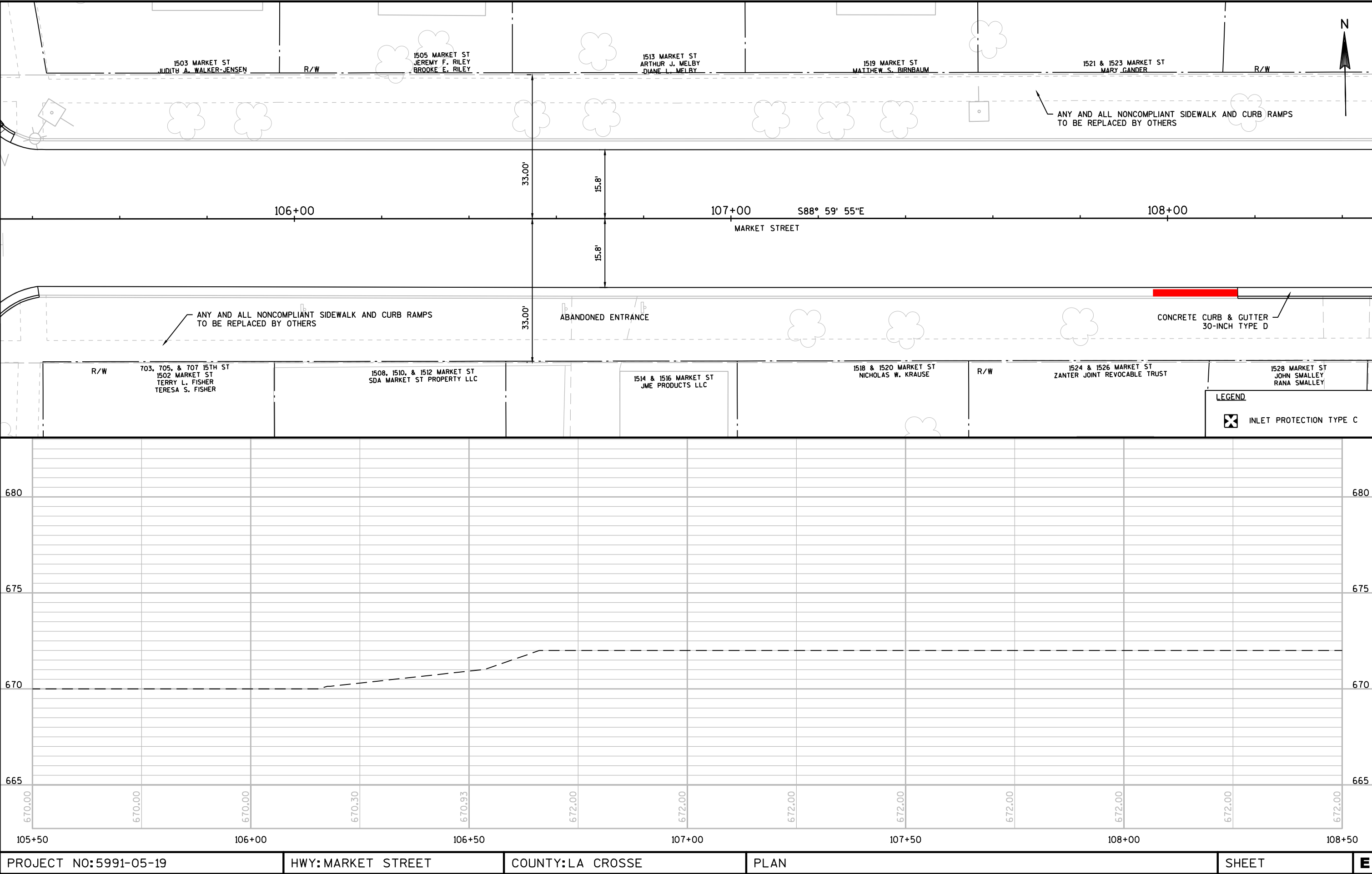
PLOT DATE : 1/29/2018 12:00 PM

PLOT BY : CORONA WOYCHIK

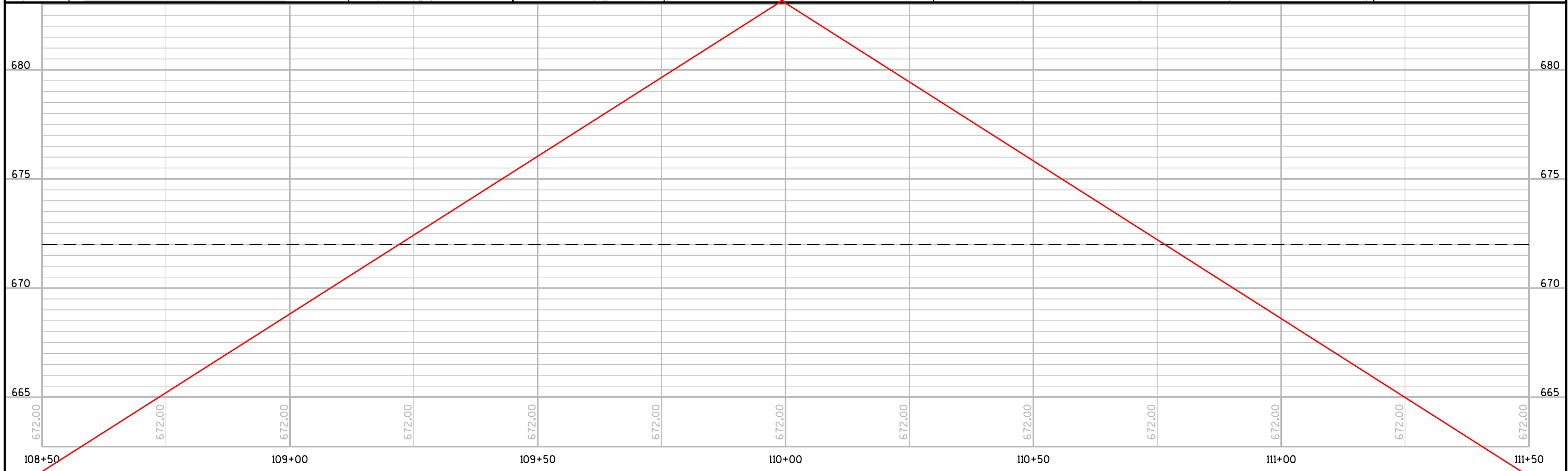
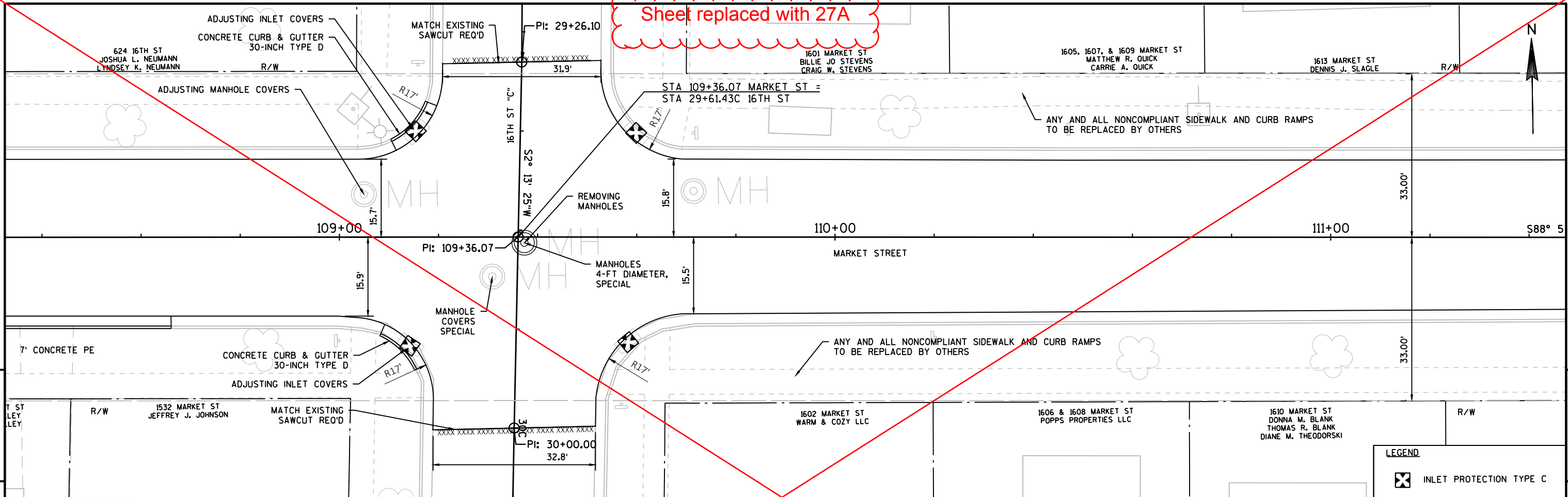
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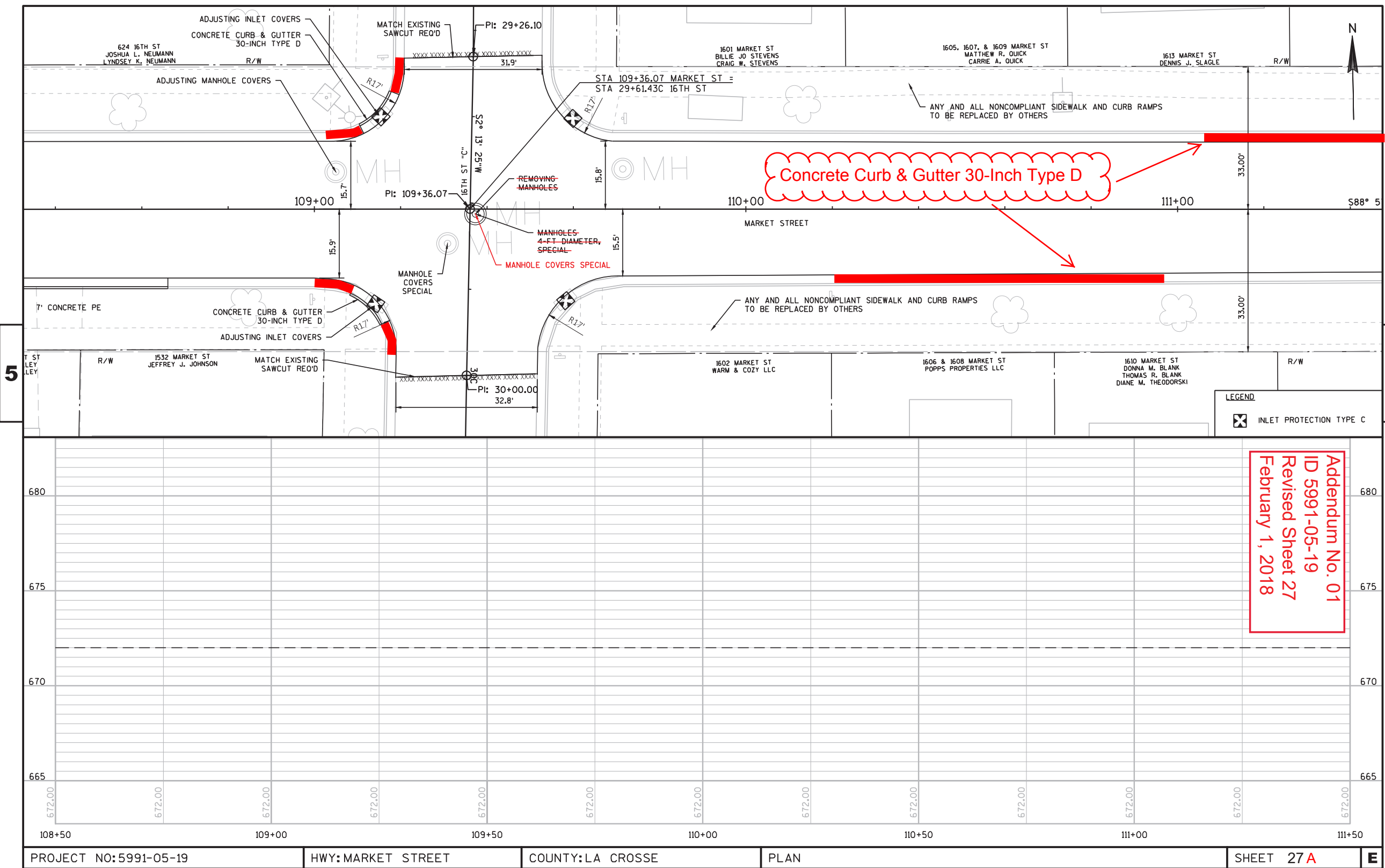
PLOT SCALE : 1 IN:20 FT

WISDOT/CADDs SHEET 44

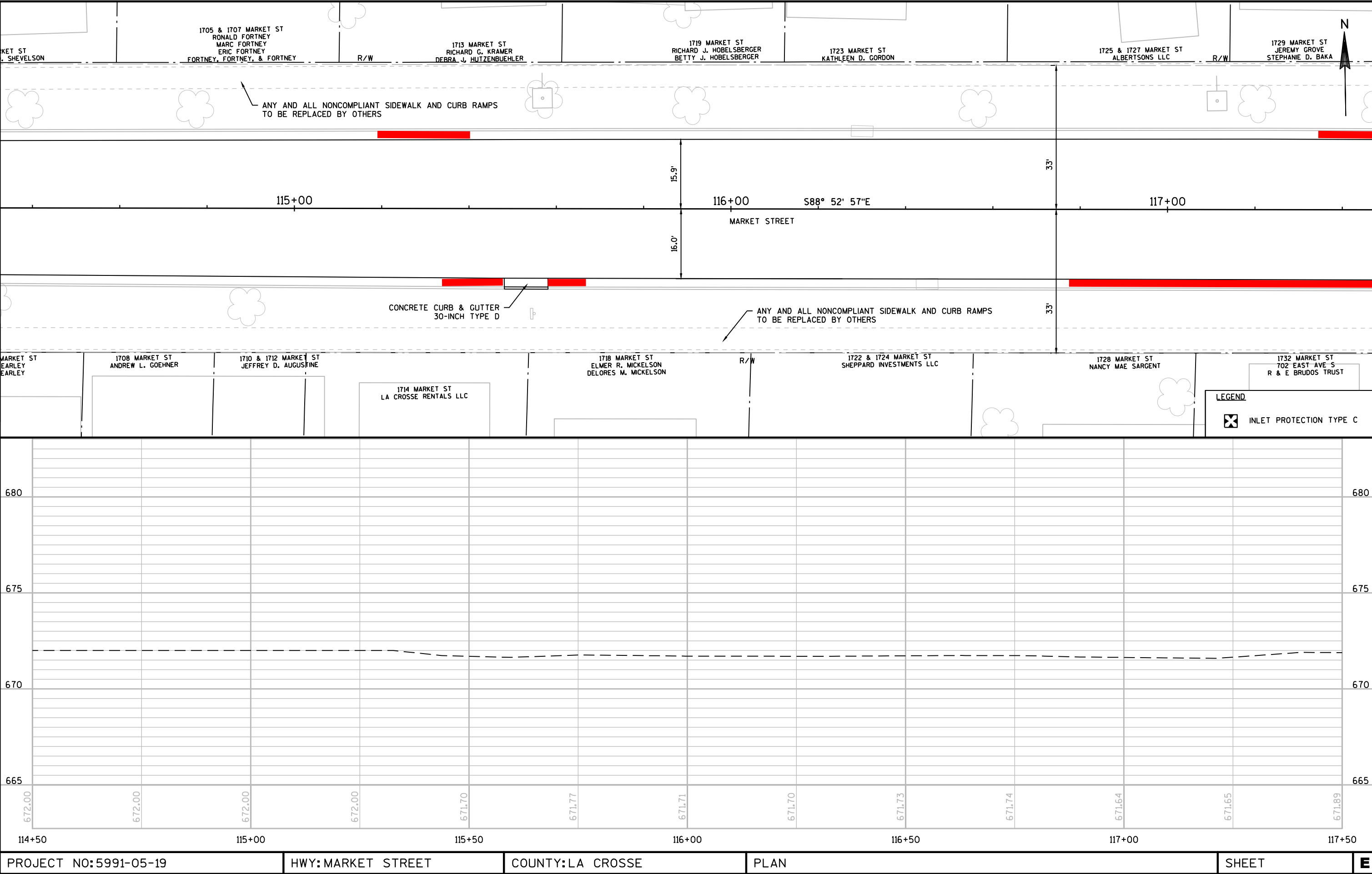


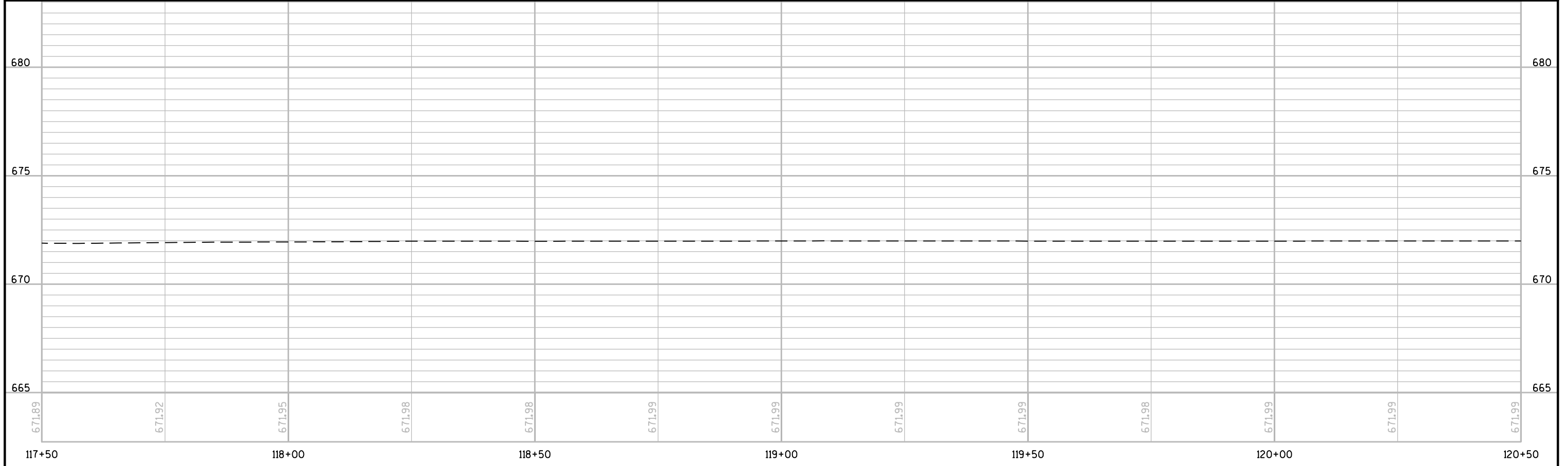
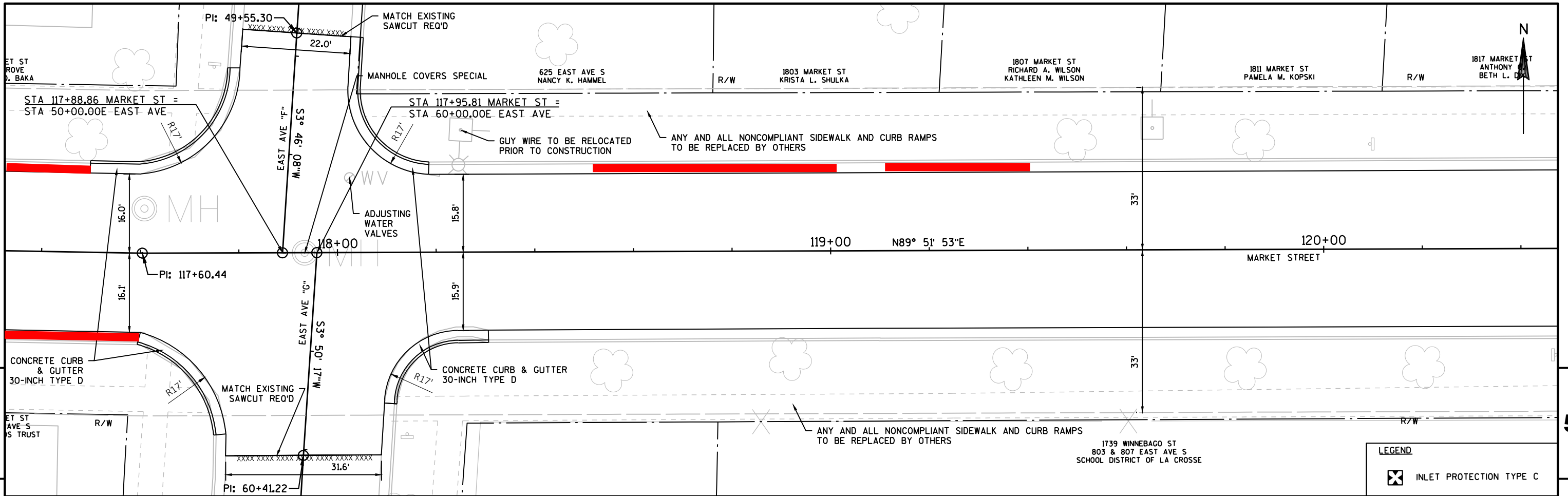
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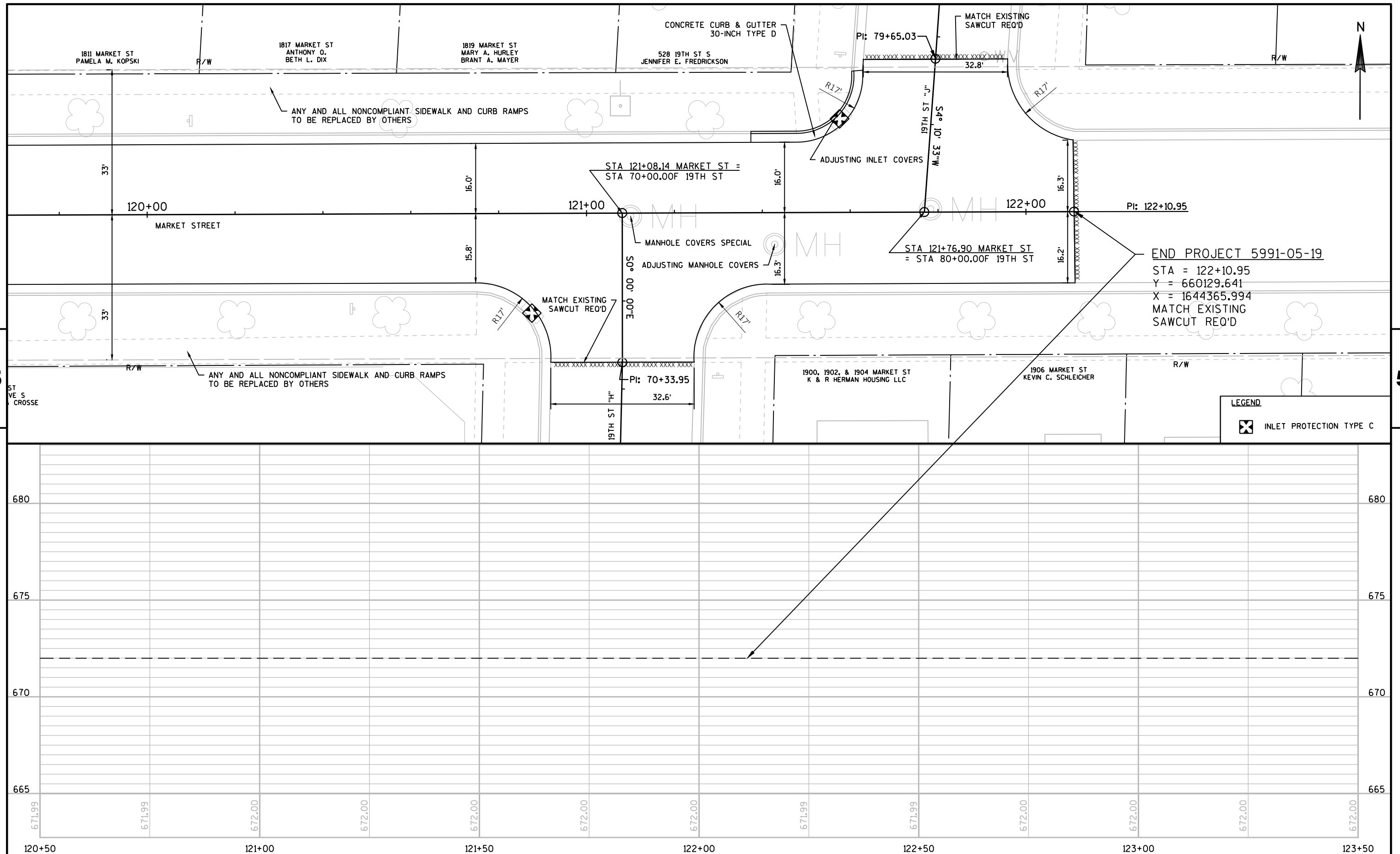




Addendum No. 01
ID 5991-05-19
Revised Sheet 27
February 1, 2018

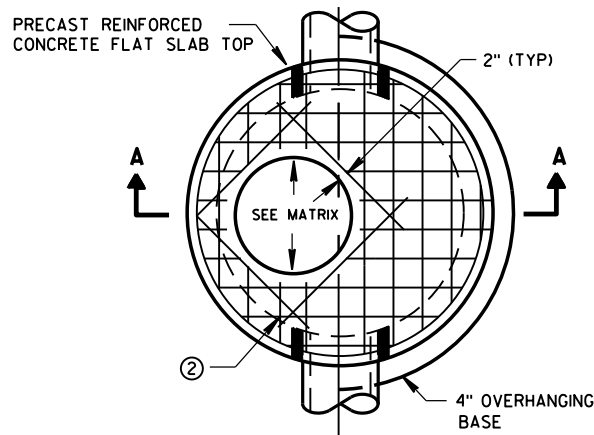




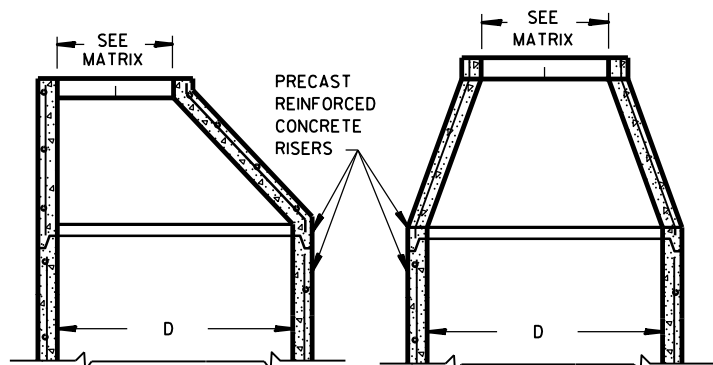


Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D19-01	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C29-05B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

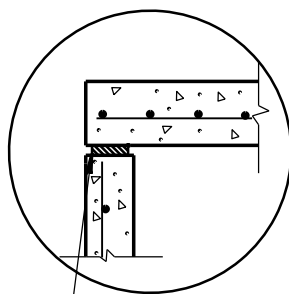


PLAN VIEW CIRCULAR OPENING

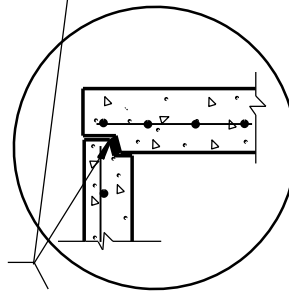


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

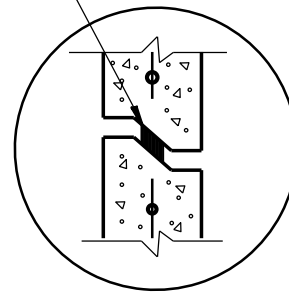
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

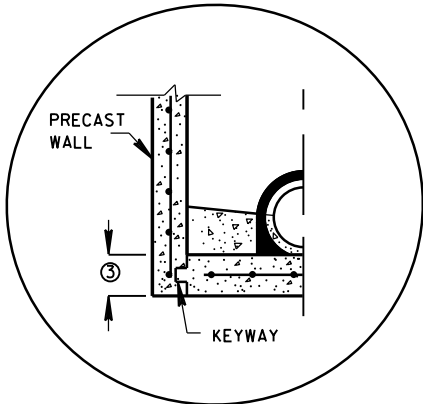


TOP WITH TONGUE AND GROOVE JOINT

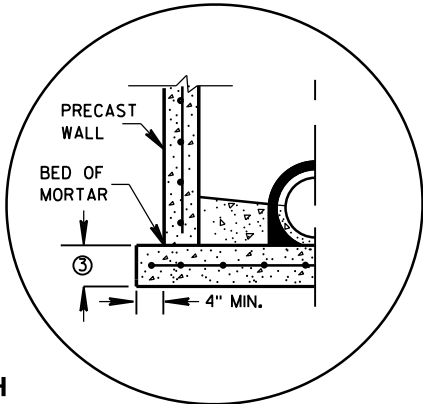


DETAIL "B"

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

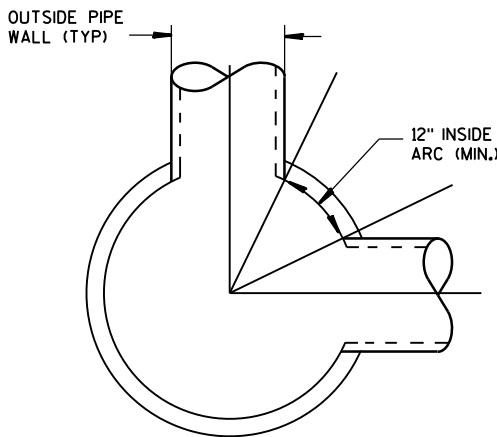


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

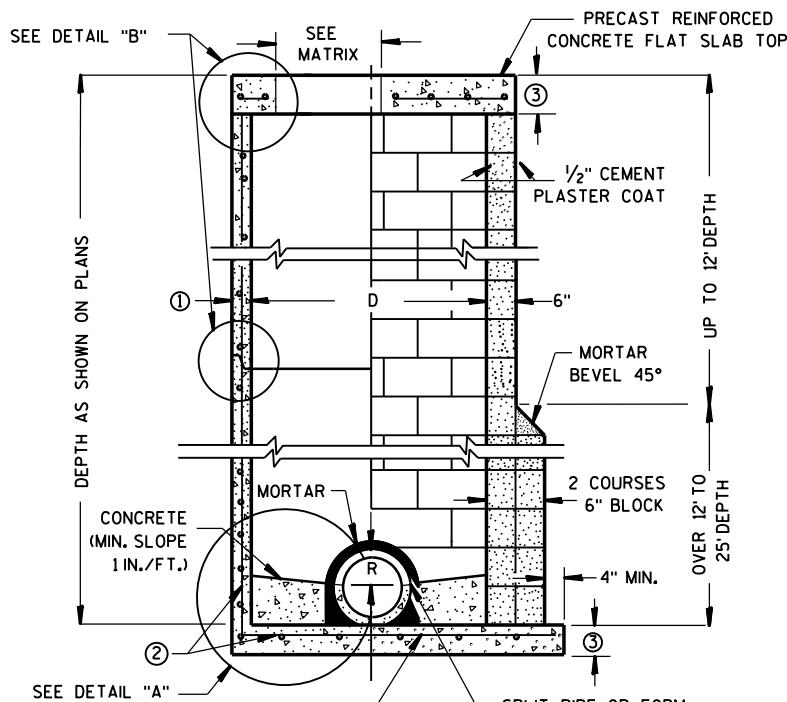


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

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

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2016

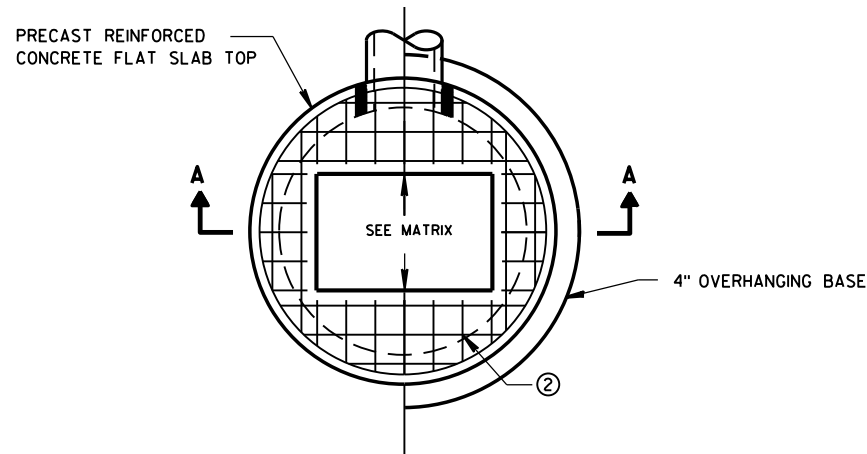
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FHWA

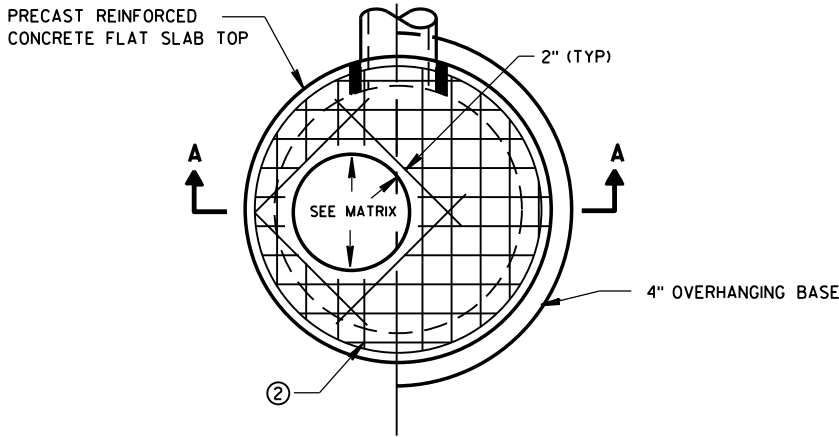
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

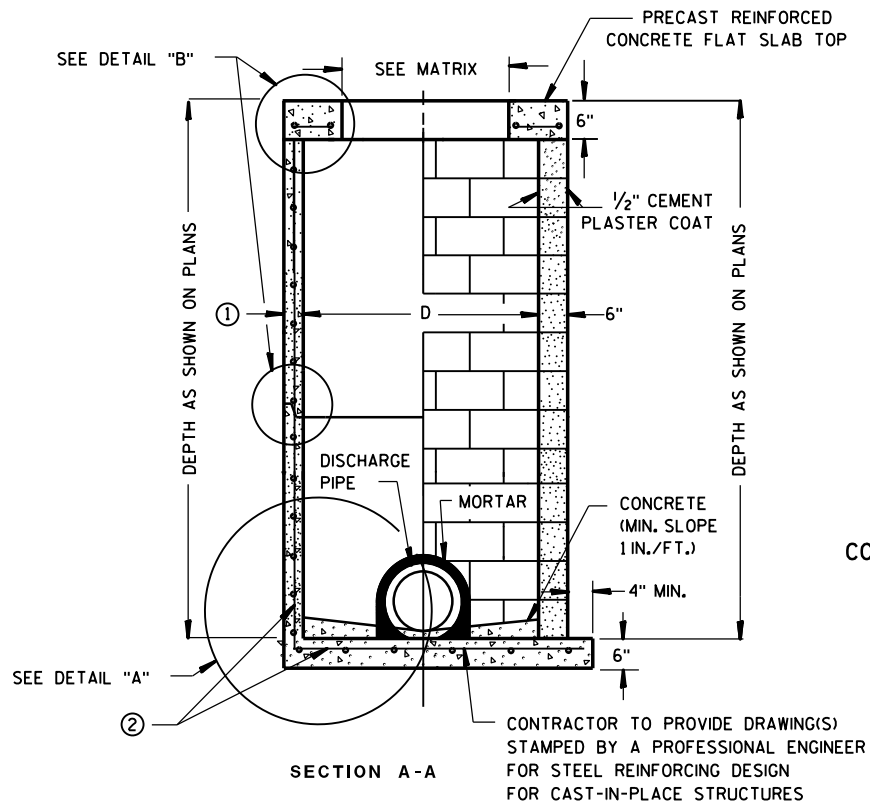
UNIT SUPERVISOR



PLAN VIEW RECTANGULAR OPENING

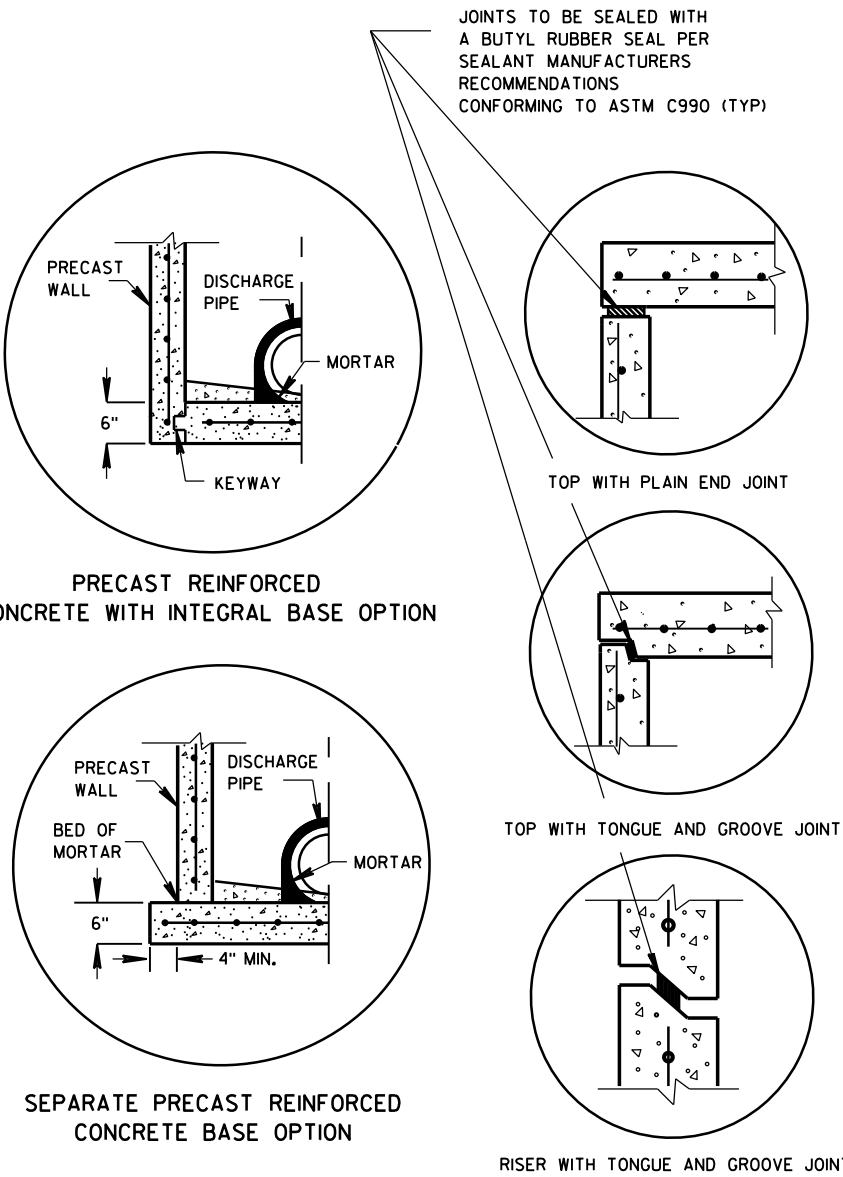


PLAN VIEW CIRCULAR OPENING



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

CIRCULAR INLETS W/ FLAT TOP



DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

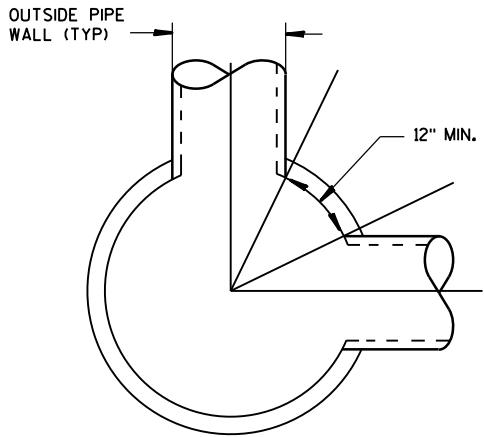
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

INLET COVER OPENING MATRIX

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



DETAIL "C"

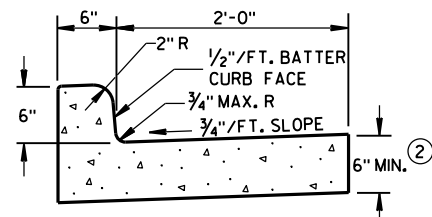
PIPE MATRIX

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

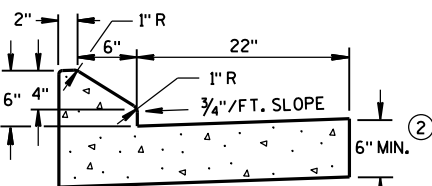
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

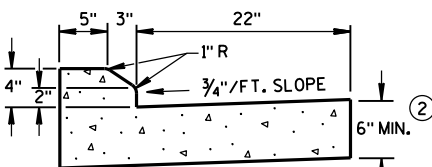
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



TYPES A & D ①

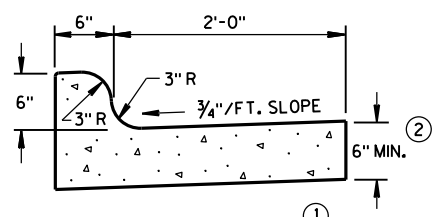


6" SLOPED CURB TYPES G & J ①



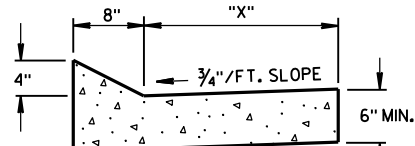
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



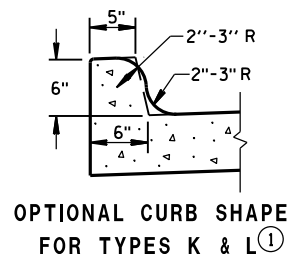
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

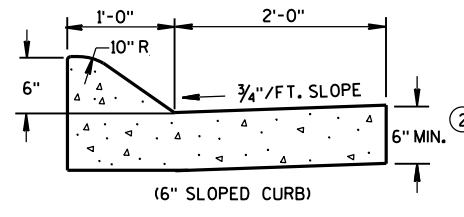


TYPES TBT & TBTT ①
CONCRETE CURB & GUTTER

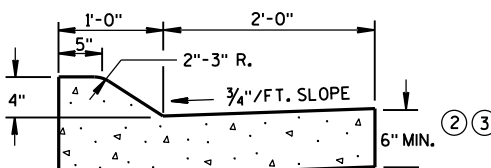
TBT & TBTT	"X"
30"	22"
36"	28"



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

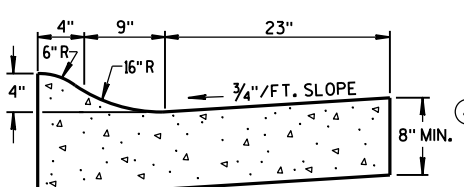


(6" SLOPED CURB)



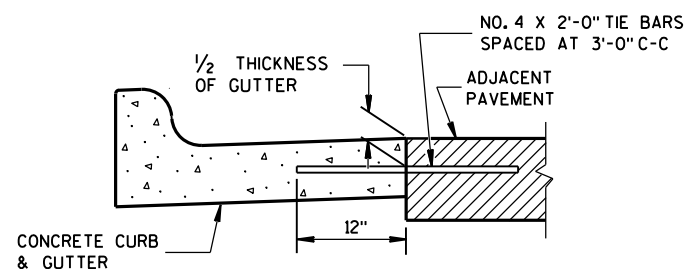
(4" SLOPED CURB)

TYPES A & D ①

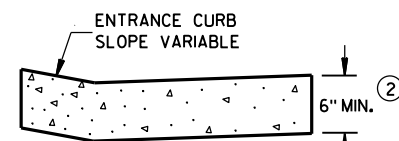


4" SLOPED CURB TYPES R & T ① ⑤

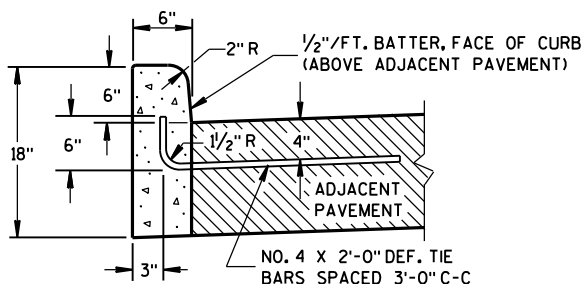
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

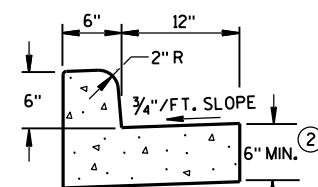


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

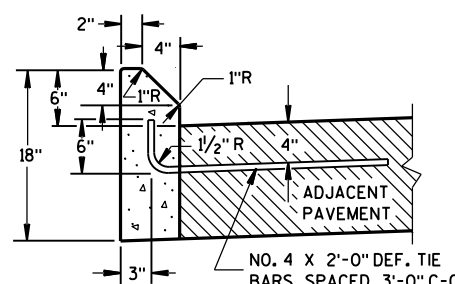


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

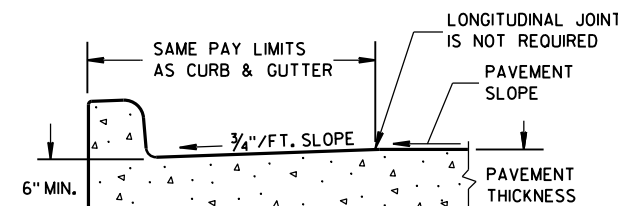
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

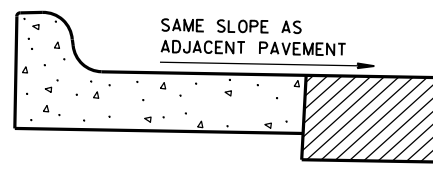
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

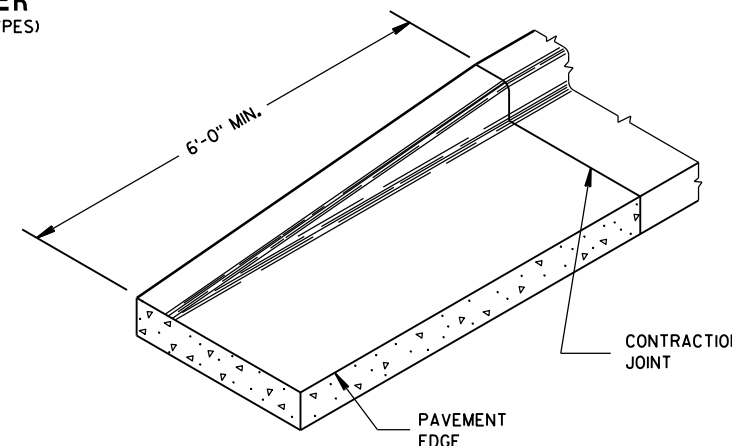
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- 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.
- THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



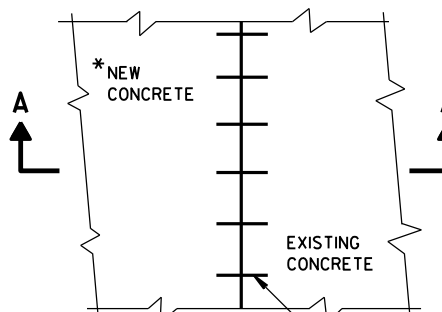
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



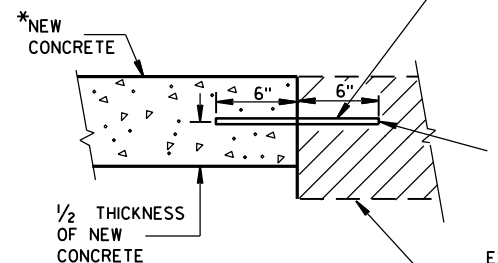
END SECTION CURB & GUTTER



PLAN VIEW

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

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



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

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

EXISTING CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2016

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

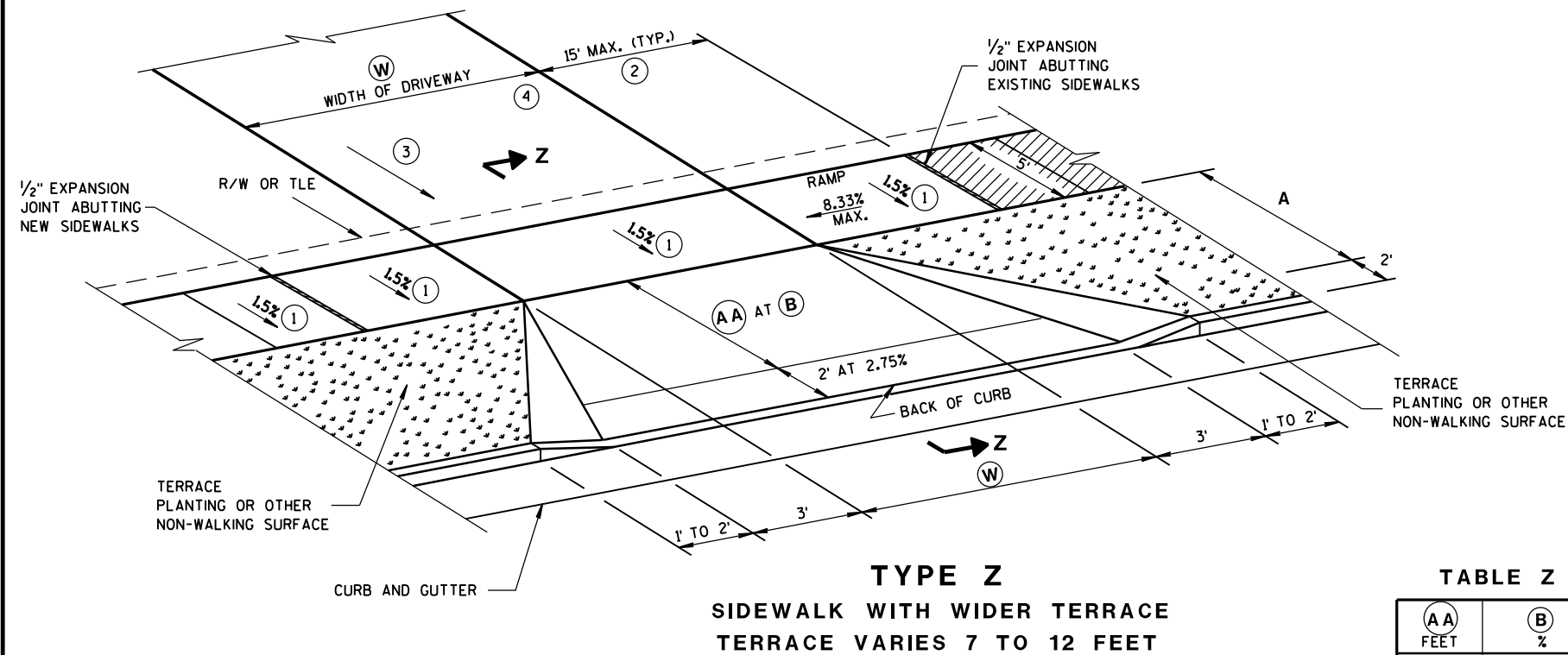
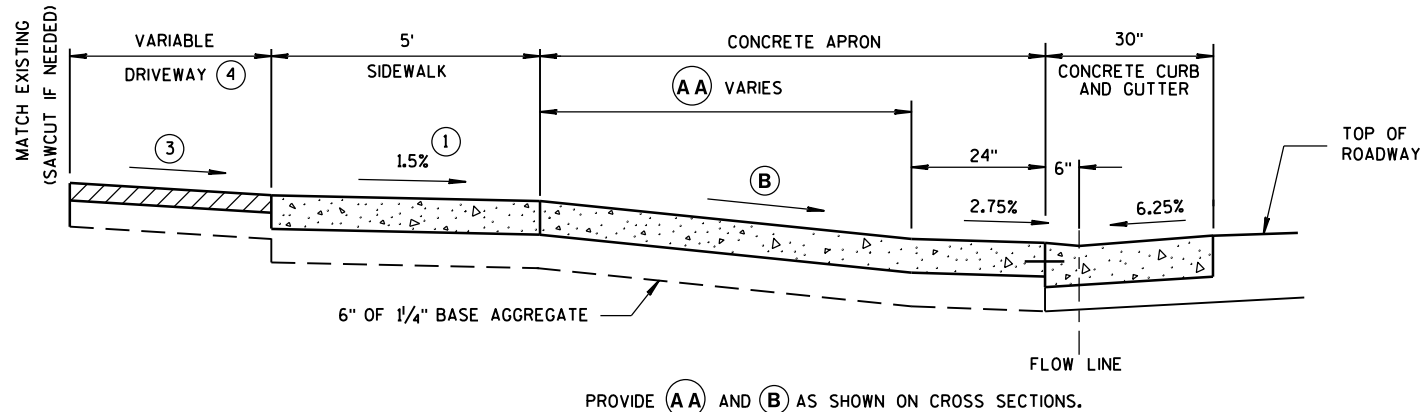


TABLE Z

(A) FEET	(B) %
4.5'	11.5%
5.5'	9-11.5%
6.5'	8-11.5%
7.5'	7-11.5%
8.5'	6-11.5%
9.5'	5-11.5%



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

PROVIDE (A) AND (B) AS SHOWN ON CROSS SECTIONS.

CONCRETE APRON MEASURED AND PAID FOR AS CONCRETE DRIVEWAY, 6-INCH

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

GENERAL NOTES

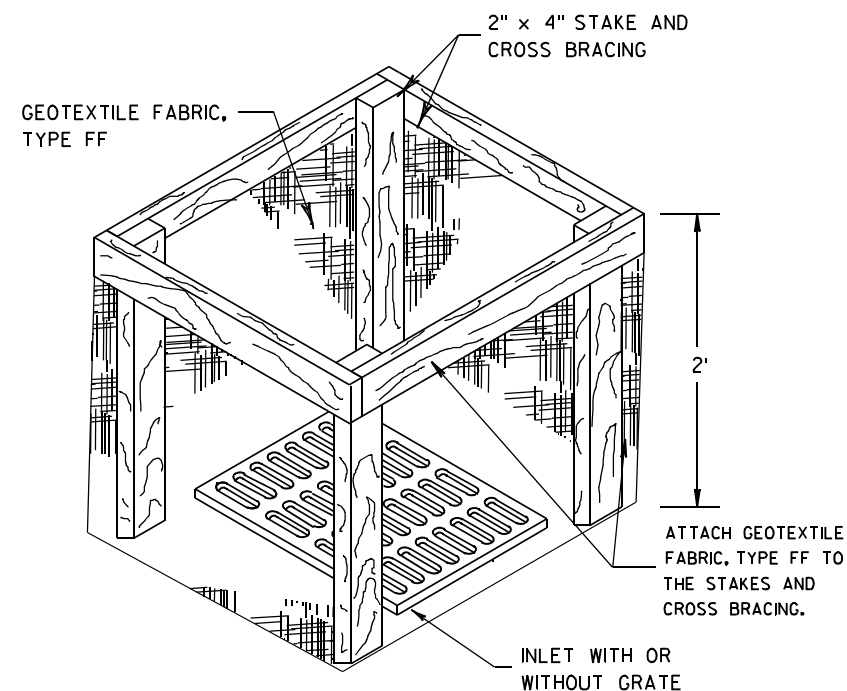
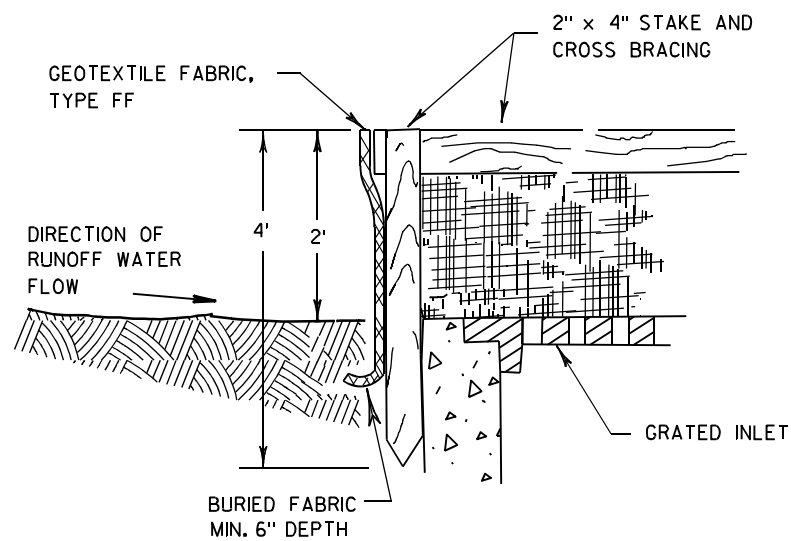
- CONSTRUCTION TOLERANCE OF $0.5\% \pm$ FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% .
- THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
- 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
- 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)
- 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.

NOT TO SCALE

DRIVEWAY AND SIDEWALK
RAMPS
TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

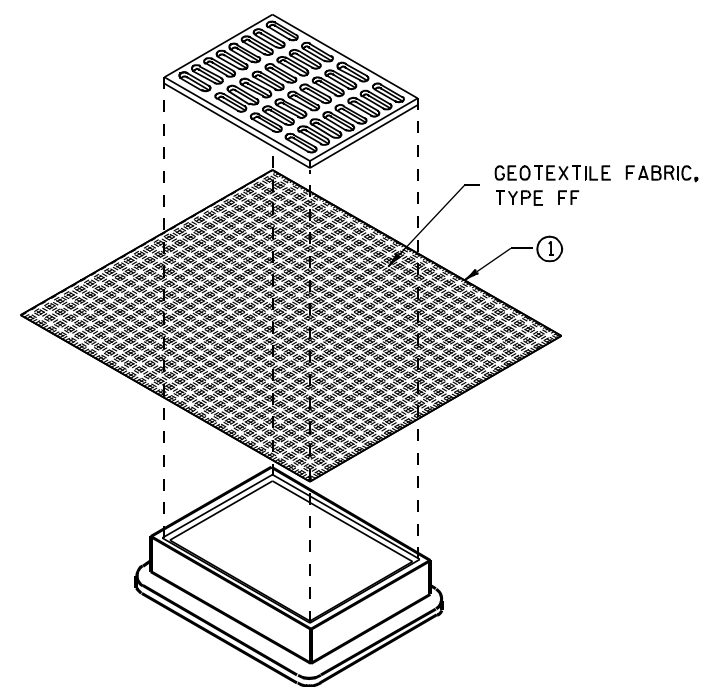
GENERAL NOTES

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

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

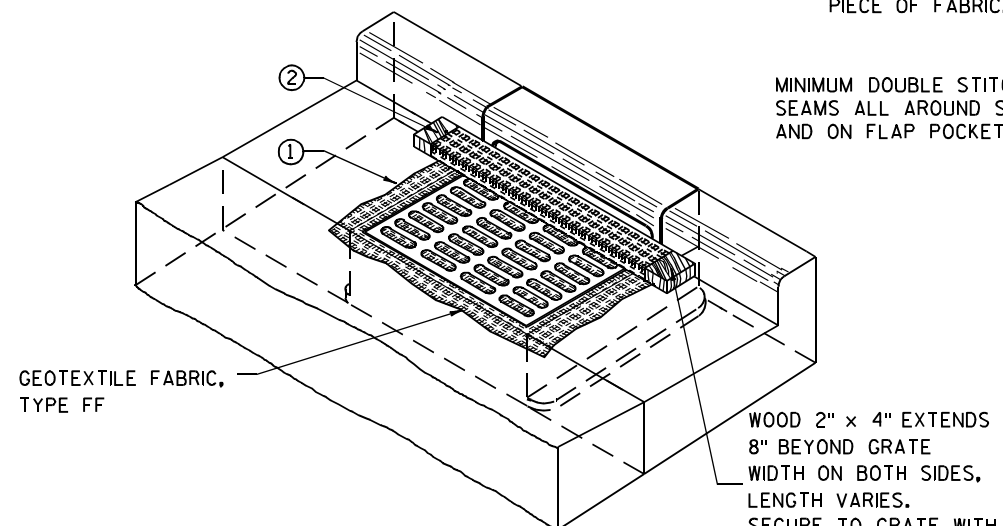
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

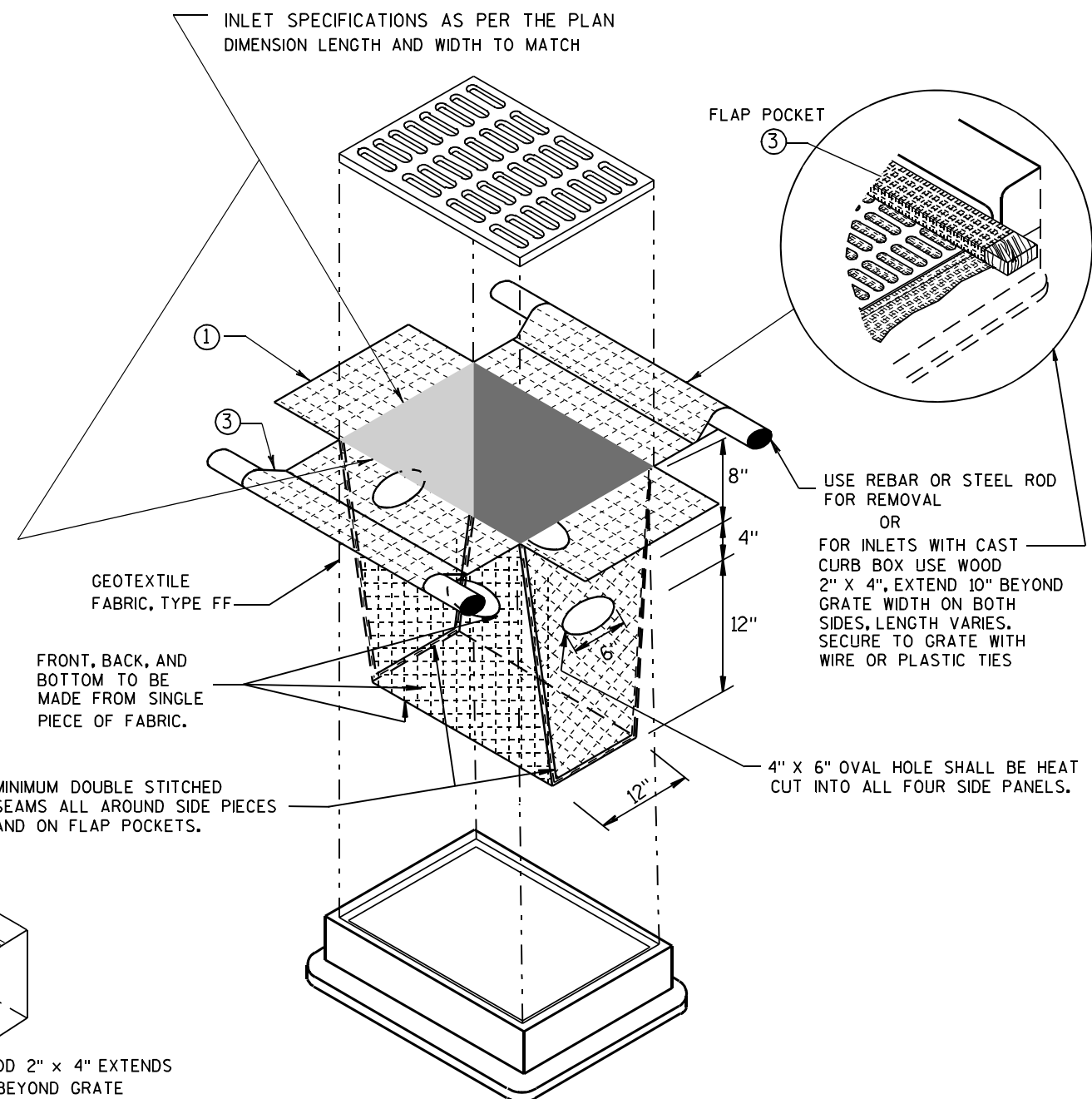
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



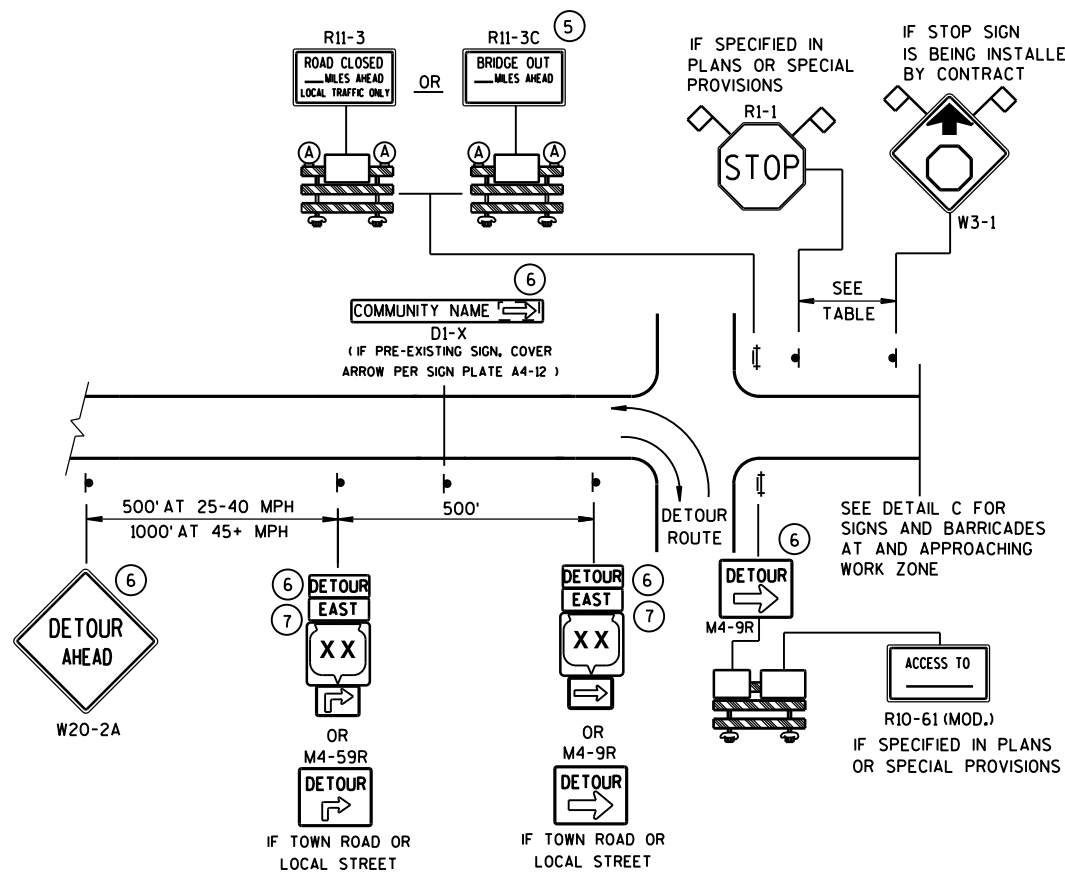
INLET PROTECTION, TYPE D

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

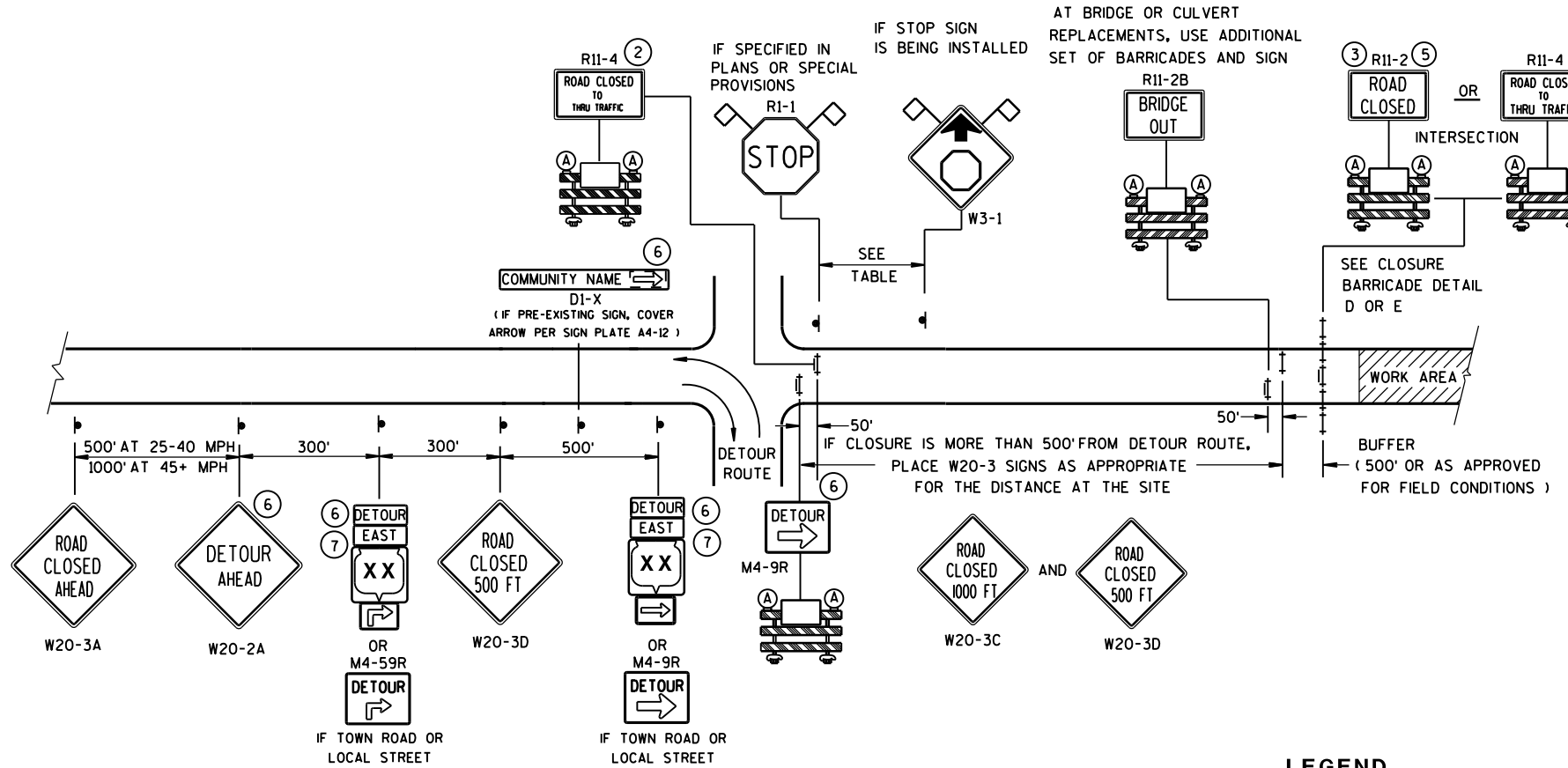
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

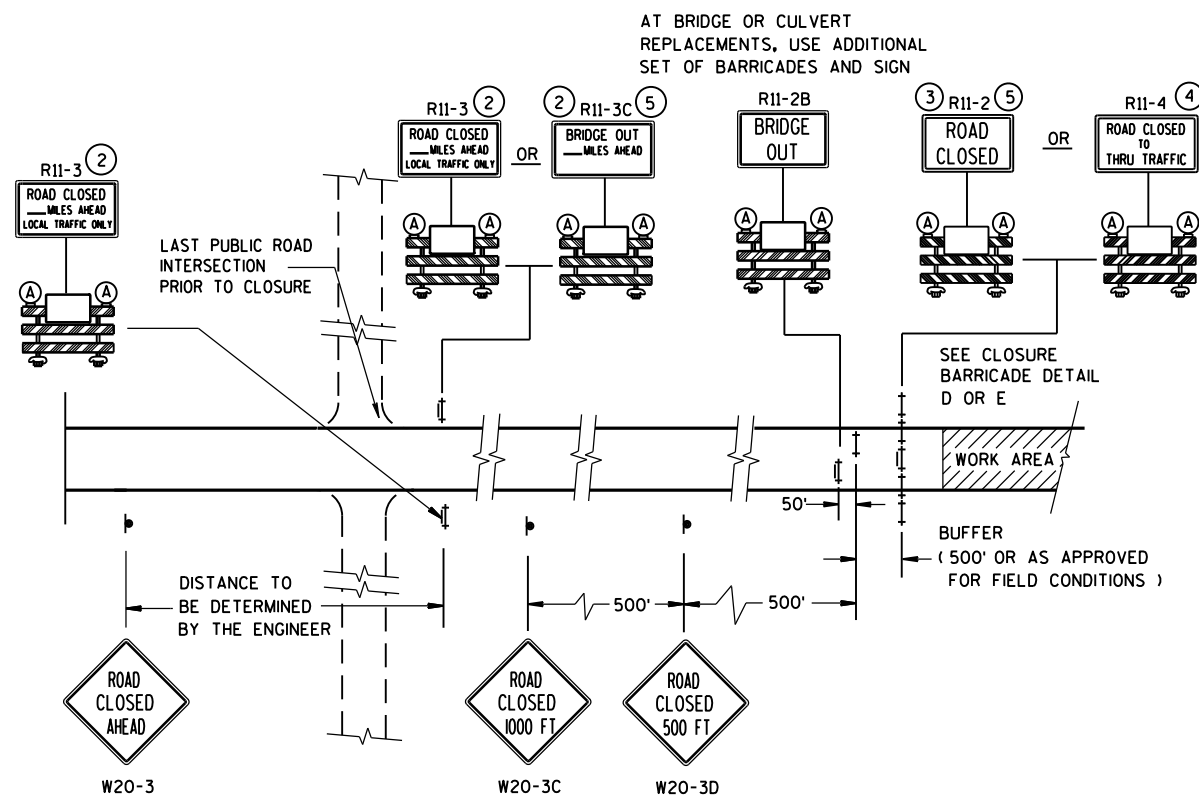
APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



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



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

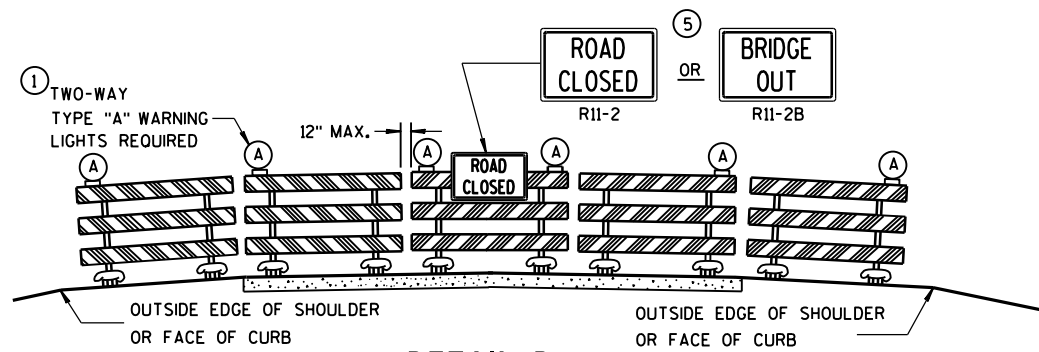


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

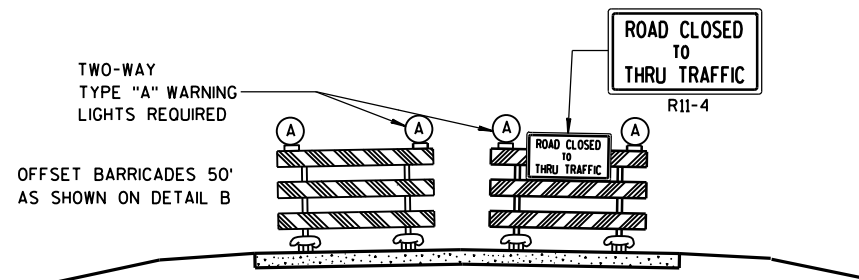
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

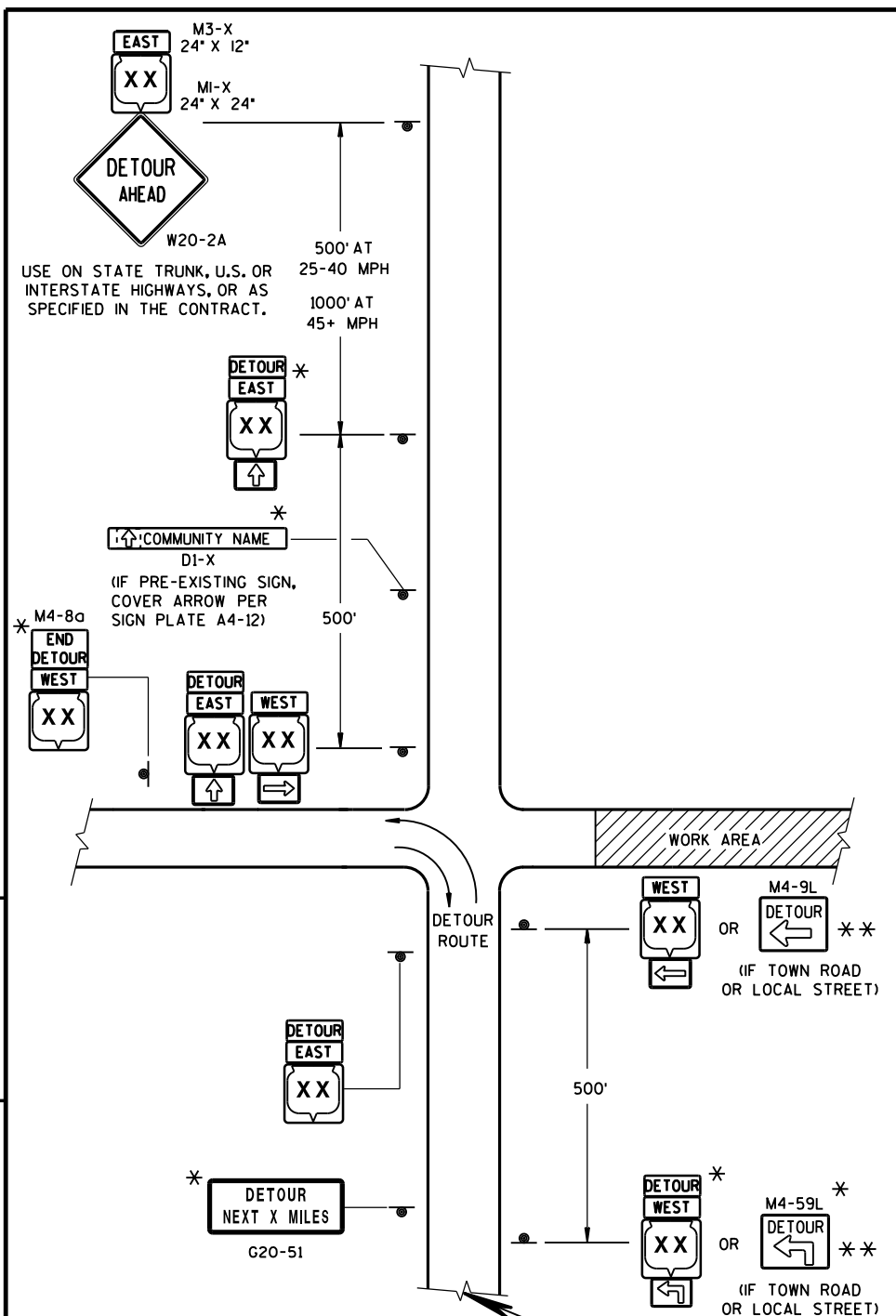
R1-1 SHALL BE 36" X 36".

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

MATCH POINT

DETAIL F
DETOUR SIGNING

GENERAL NOTES

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

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

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

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

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

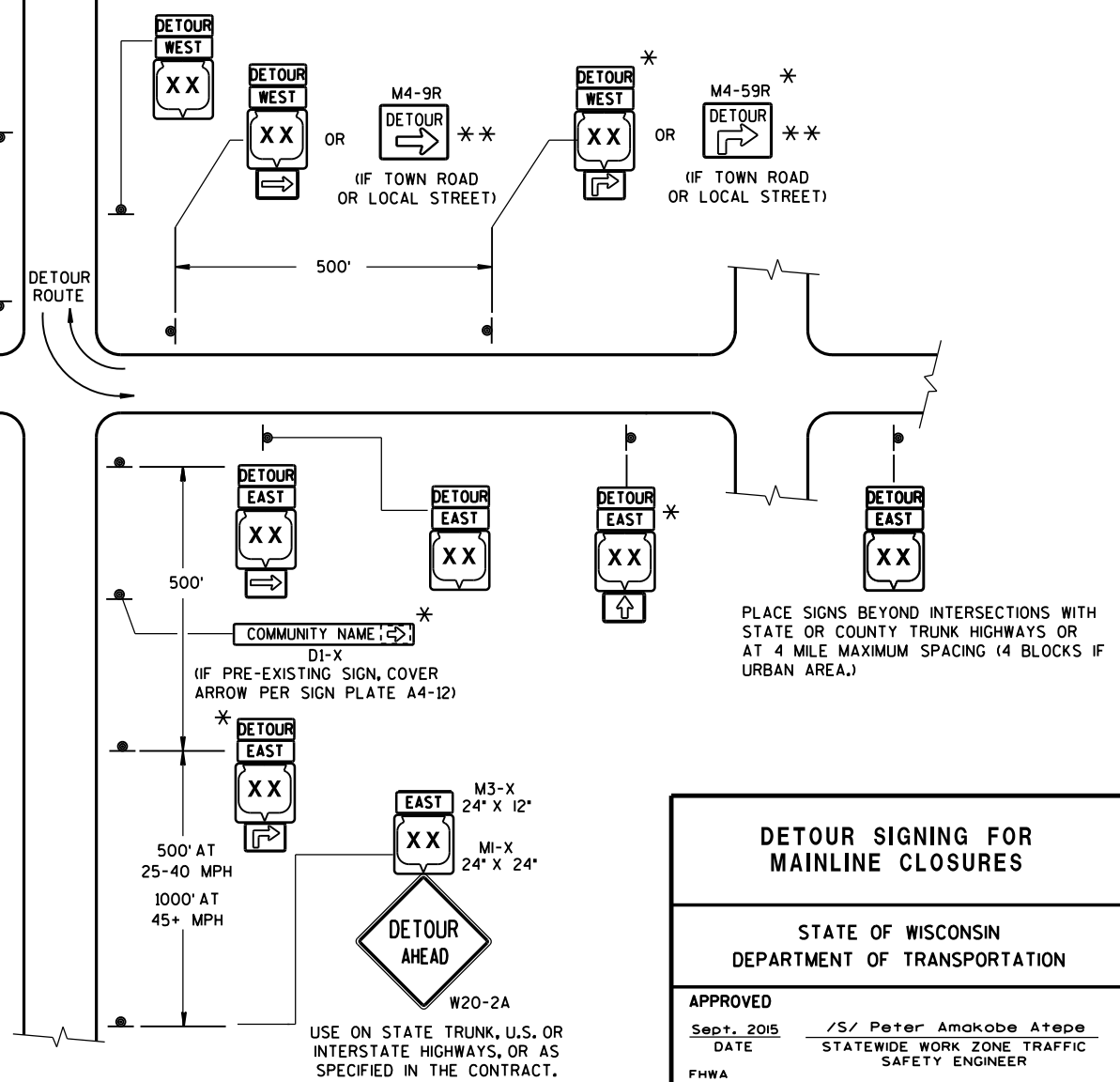
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

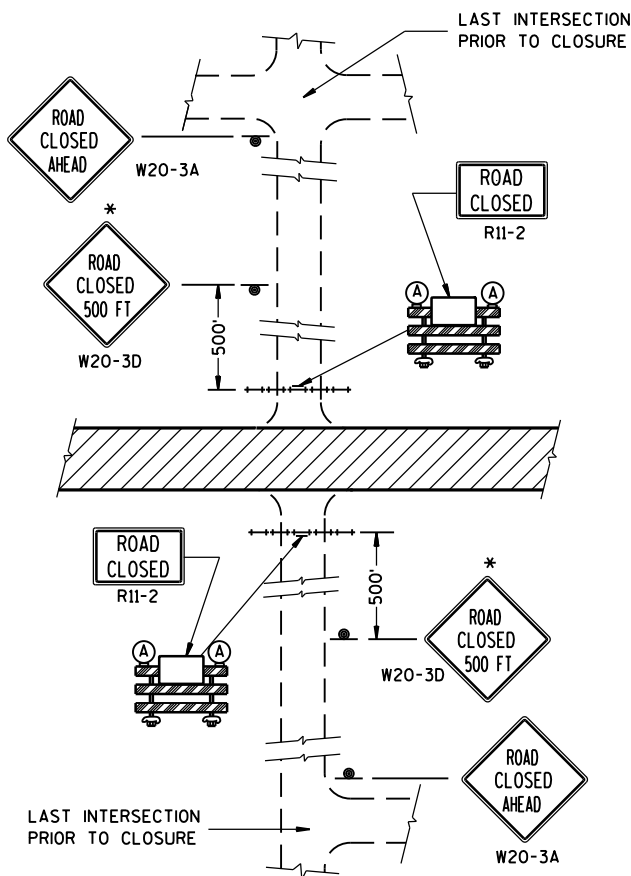
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

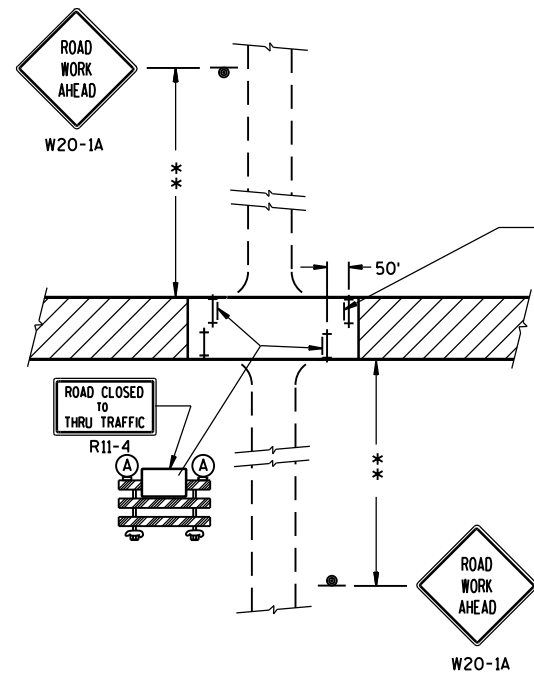
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



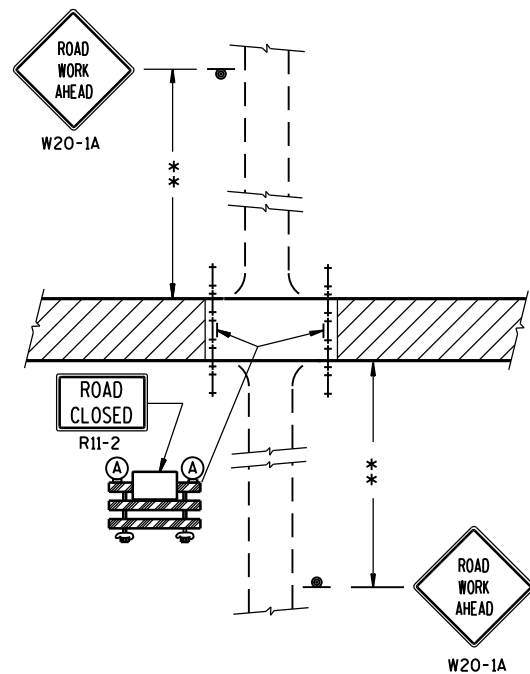
DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	/S/ Peter Amakobe Atepe
Sept. 2015 DATE	STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



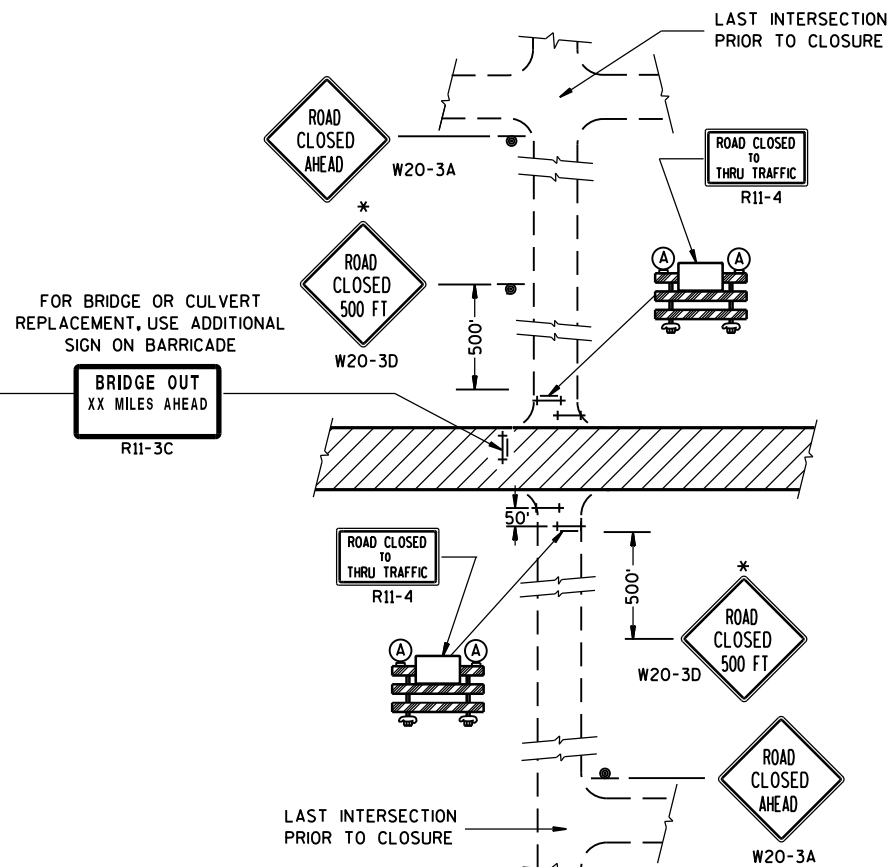
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

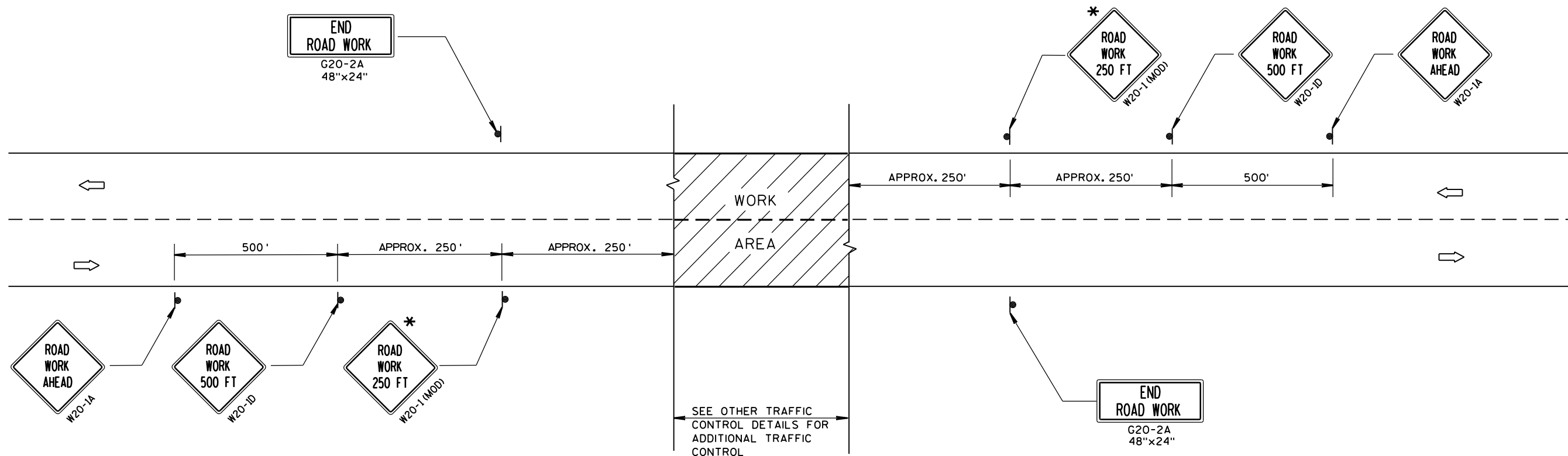
APPROVED

Sept. 2015

DATE

FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

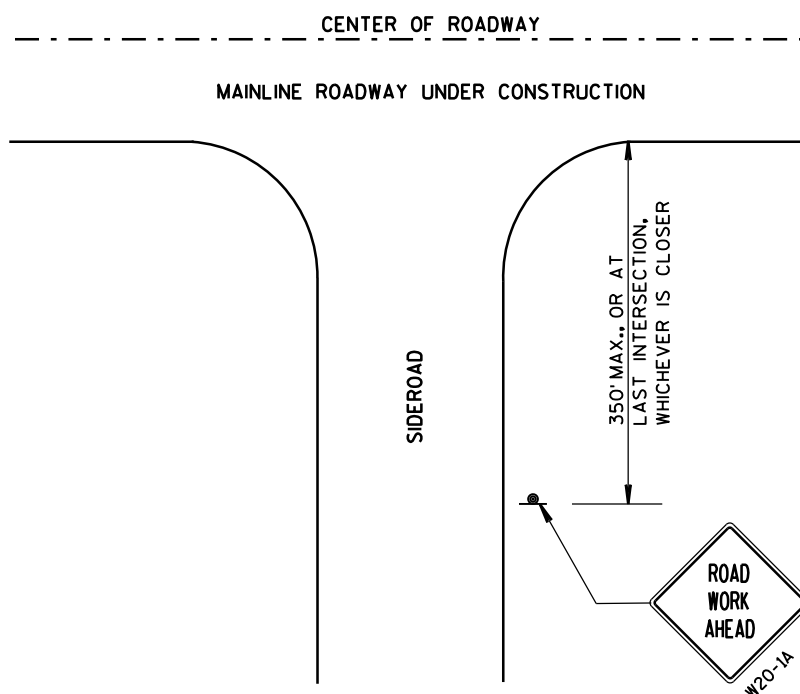
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



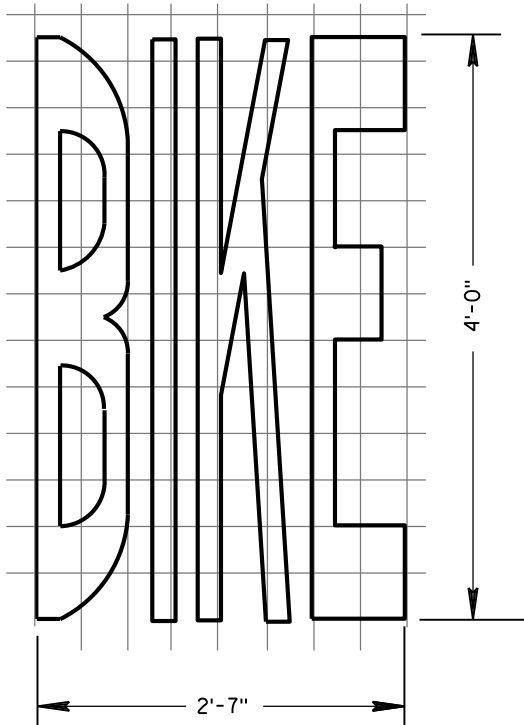
LEGEND

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

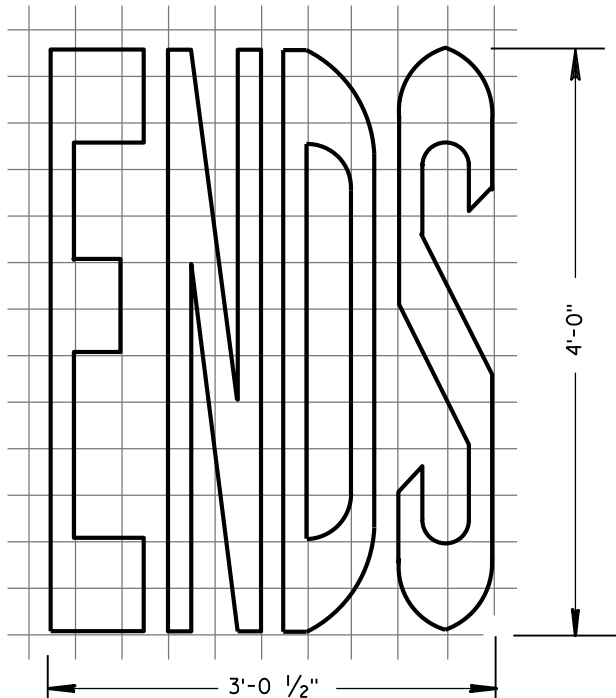
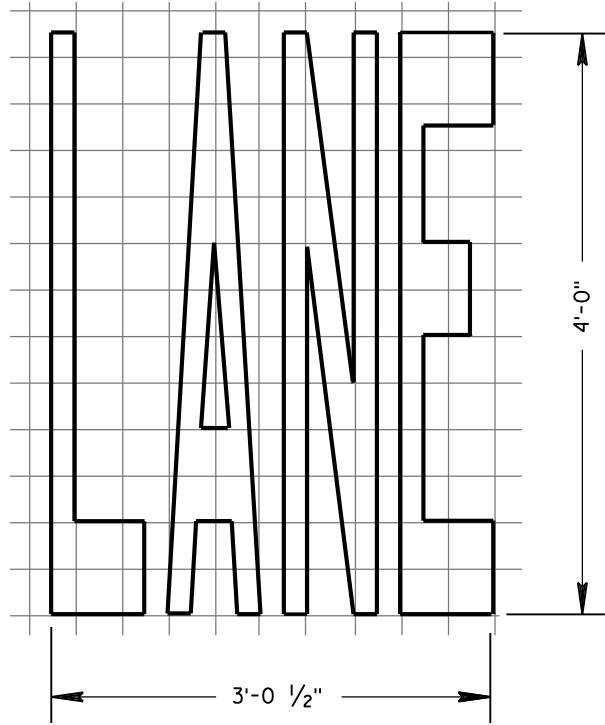
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

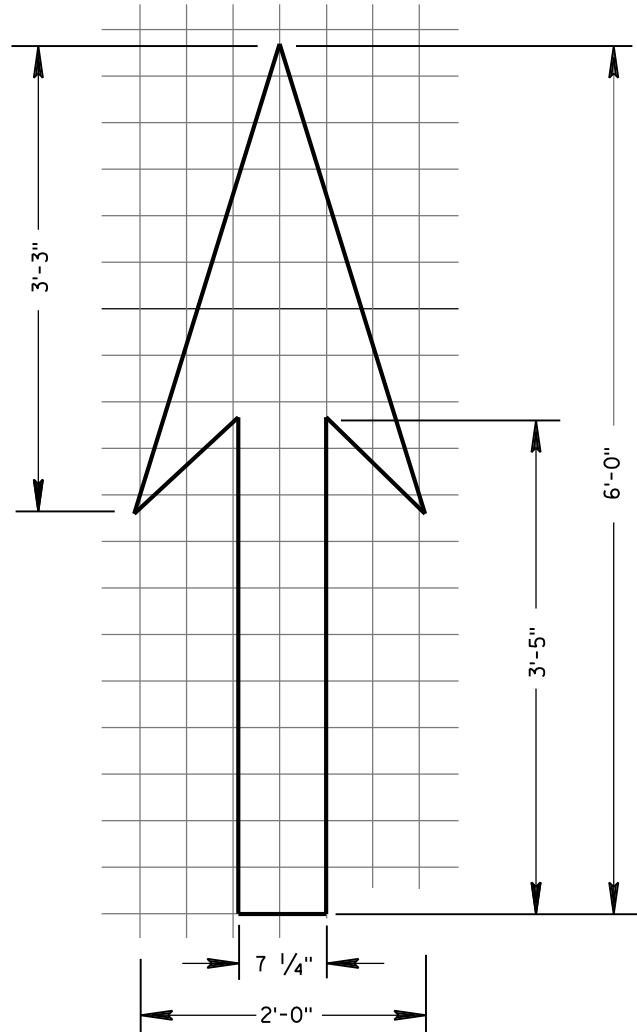
APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



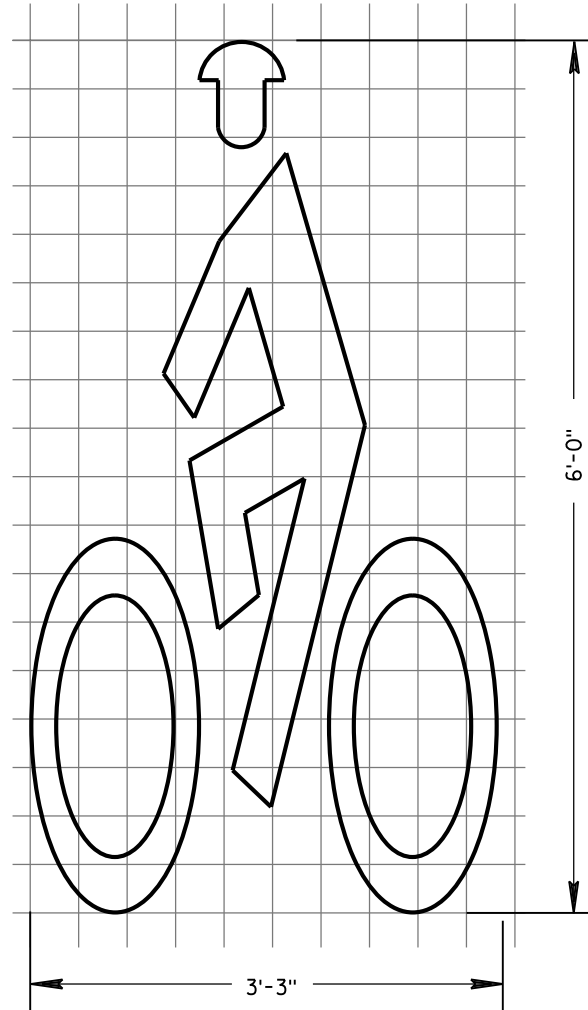
BIKE LANE WORDS



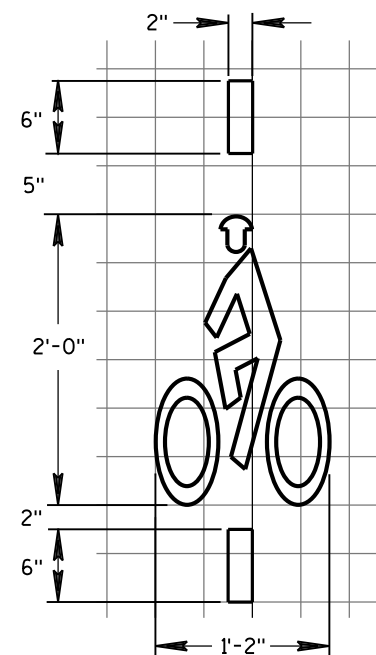
BIKE LANE WORDS



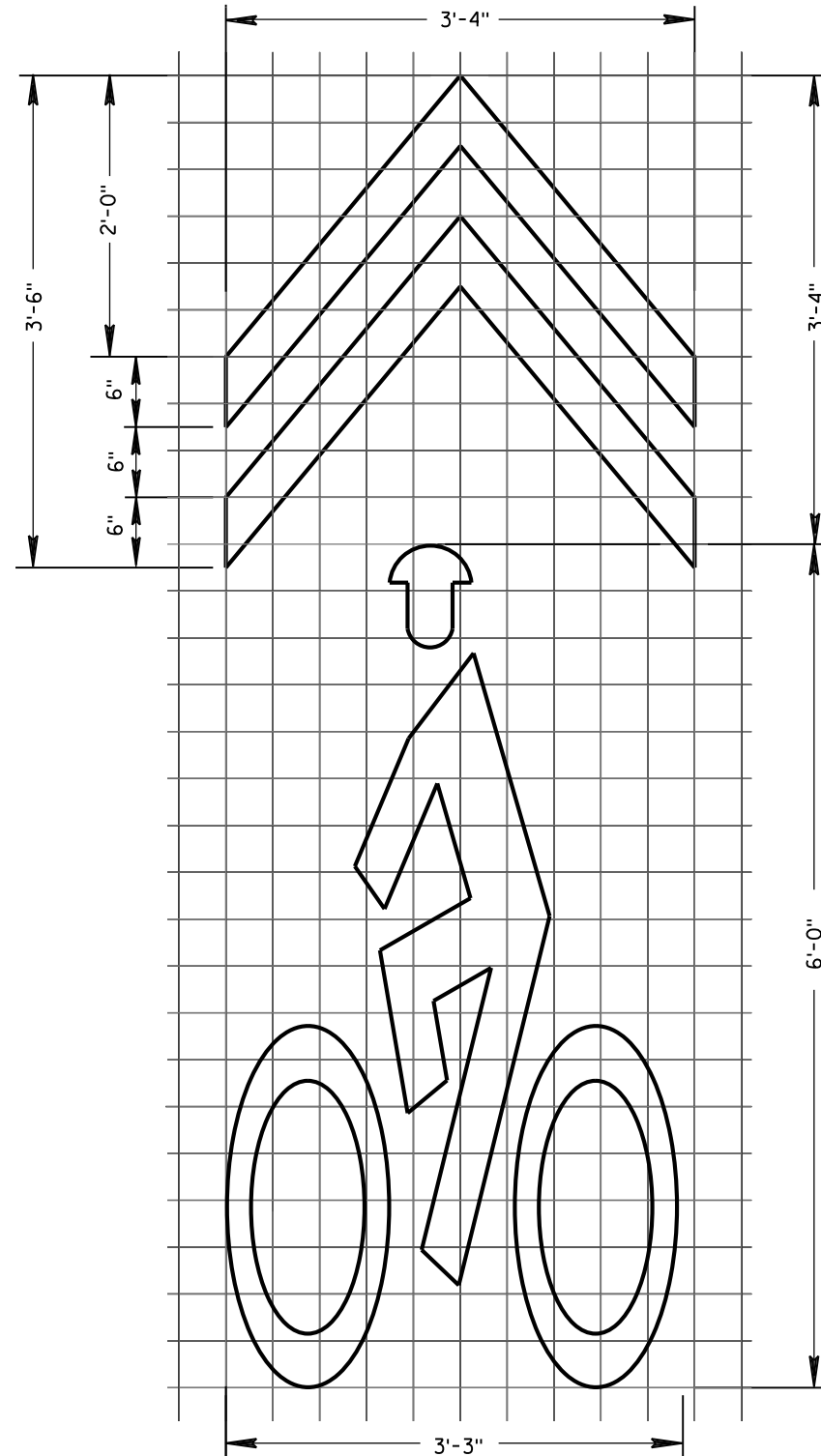
BIKE LANE ARROW



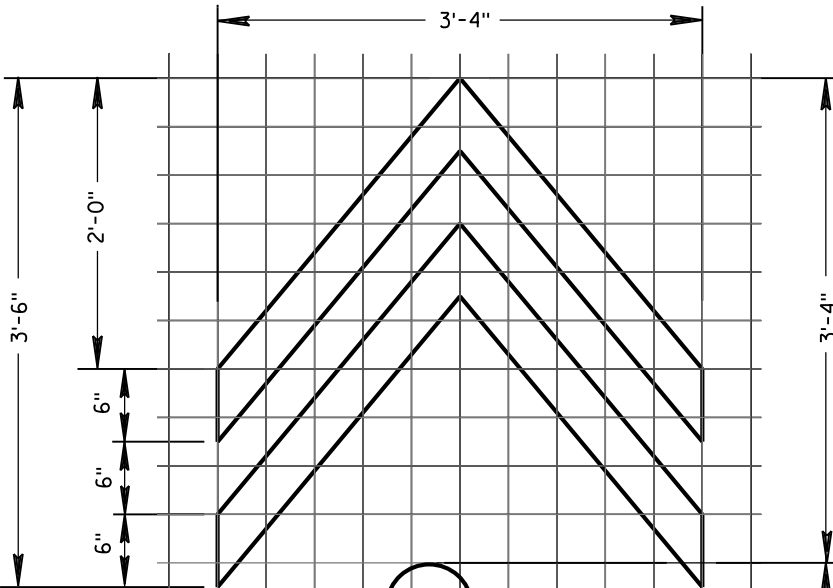
BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING



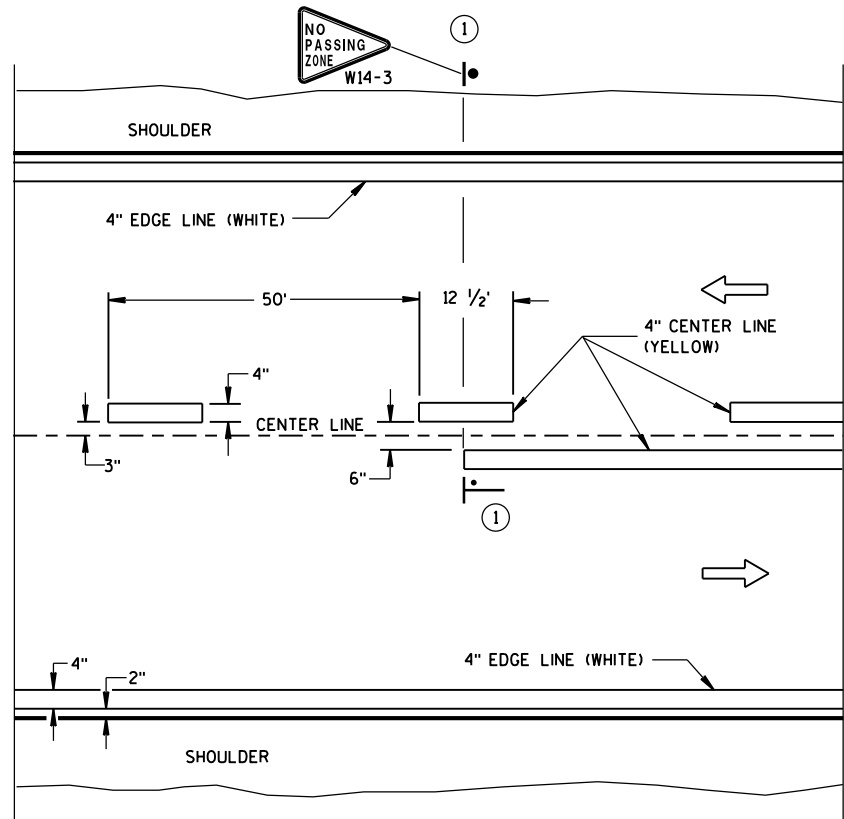
BIKE SYMBOL FOR SHARED LANE



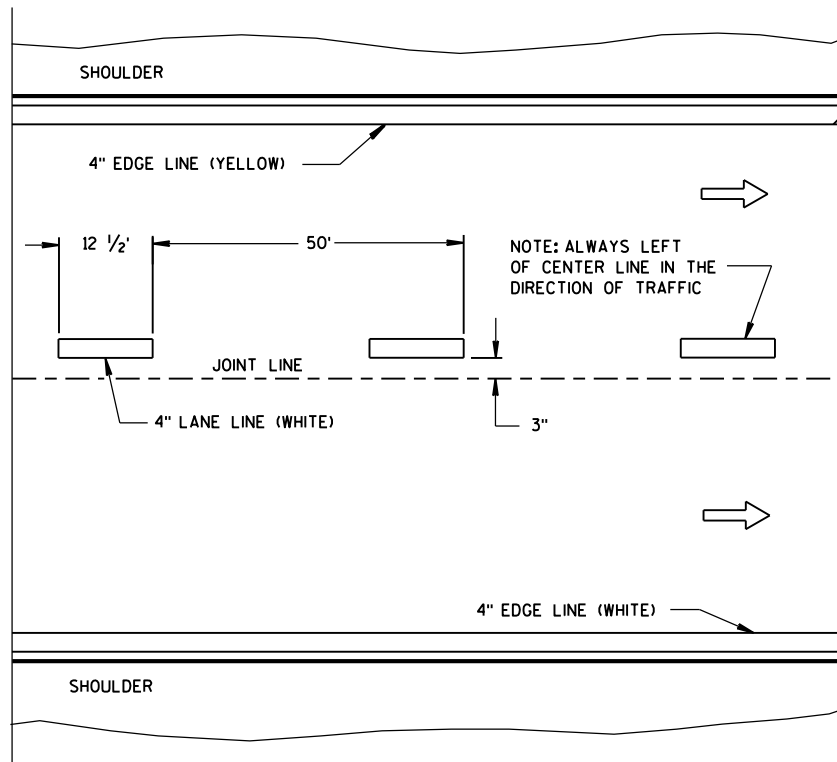
GENERAL NOTES

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 FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-18-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

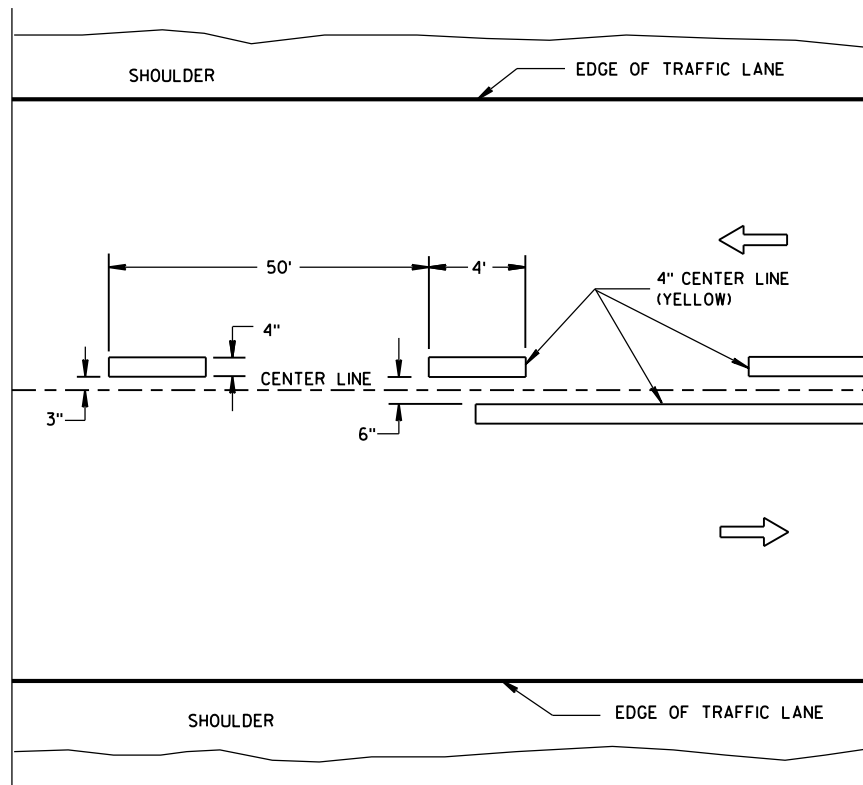


TWO WAY TRAFFIC

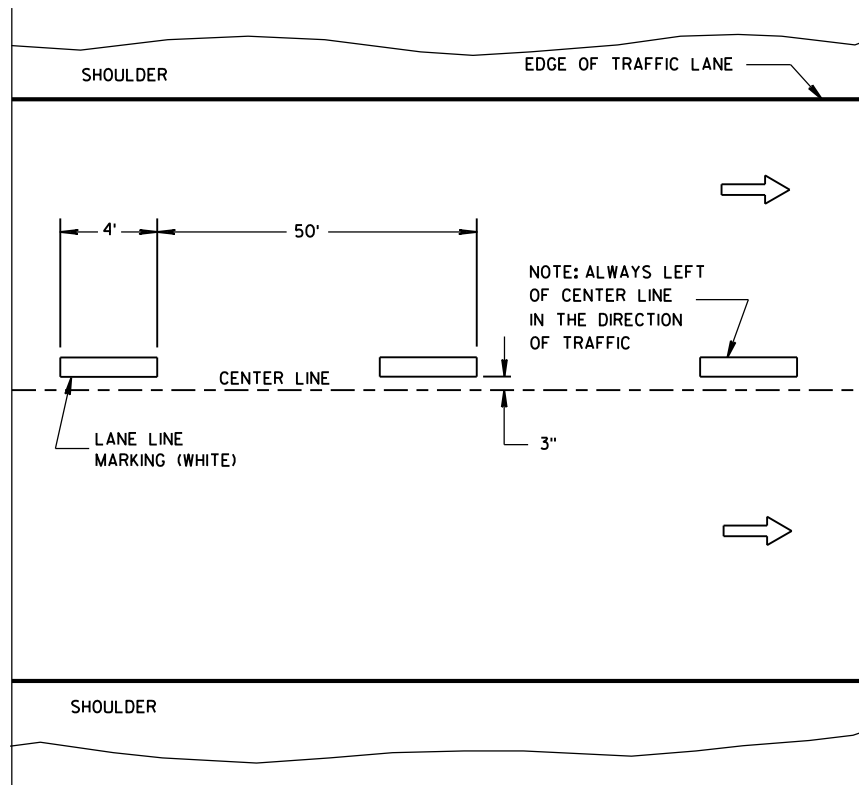


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

—●— "T" MARKING

● POST MOUNTED SIGN

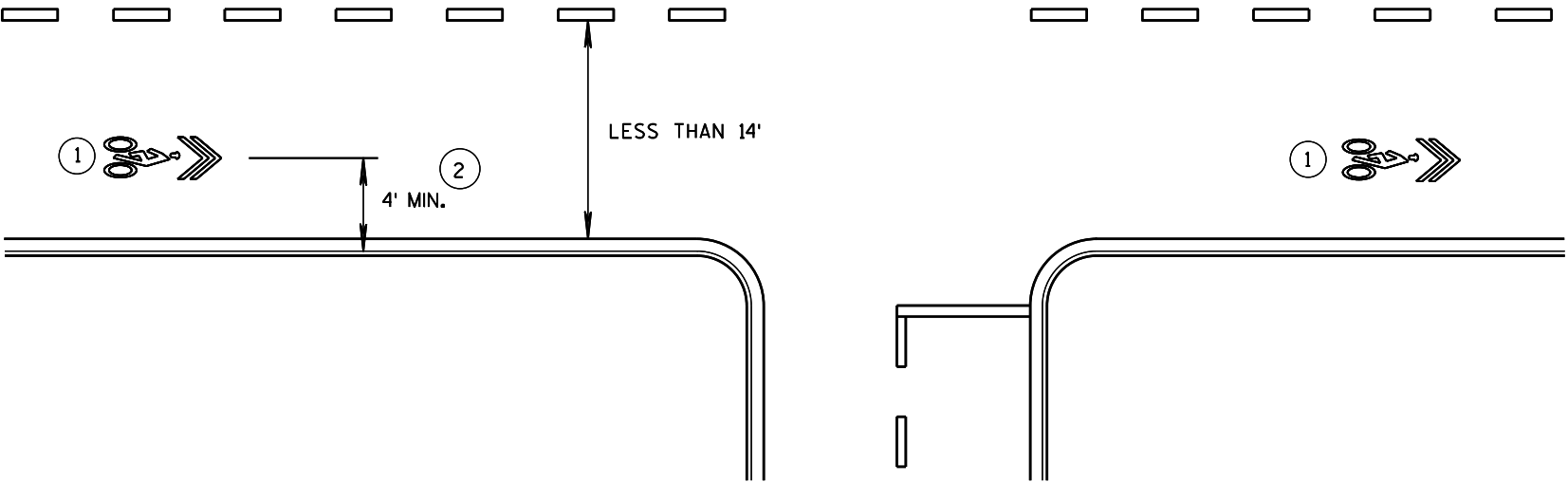
LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

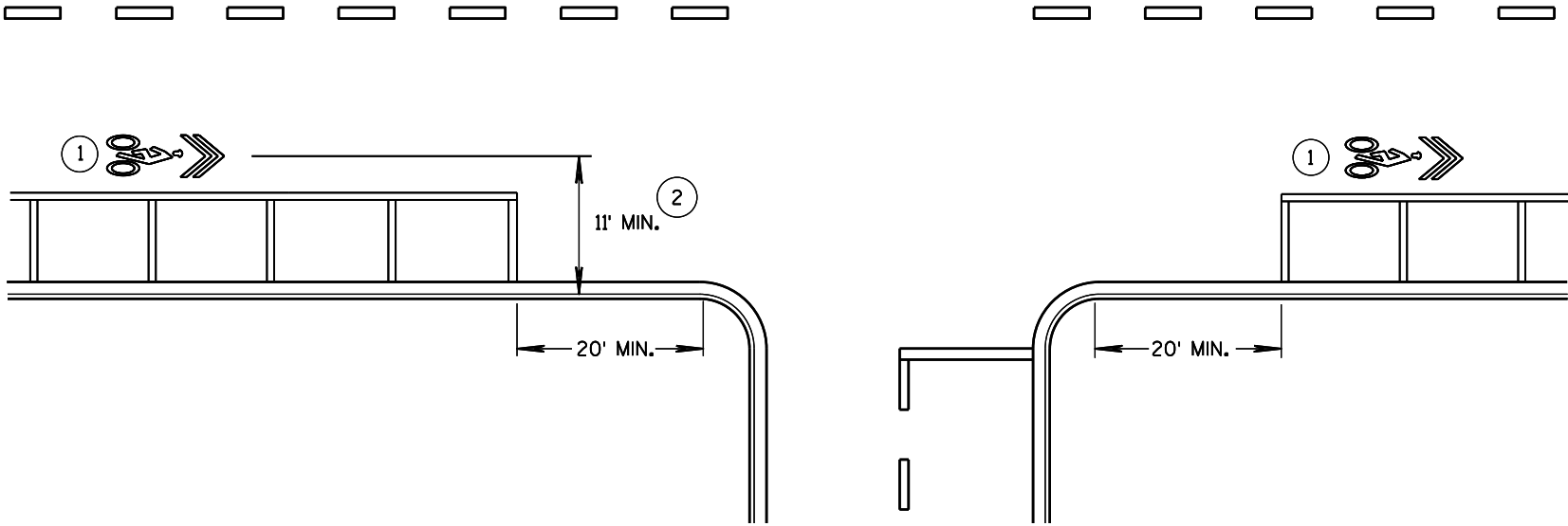
APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

GENERAL NOTES

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

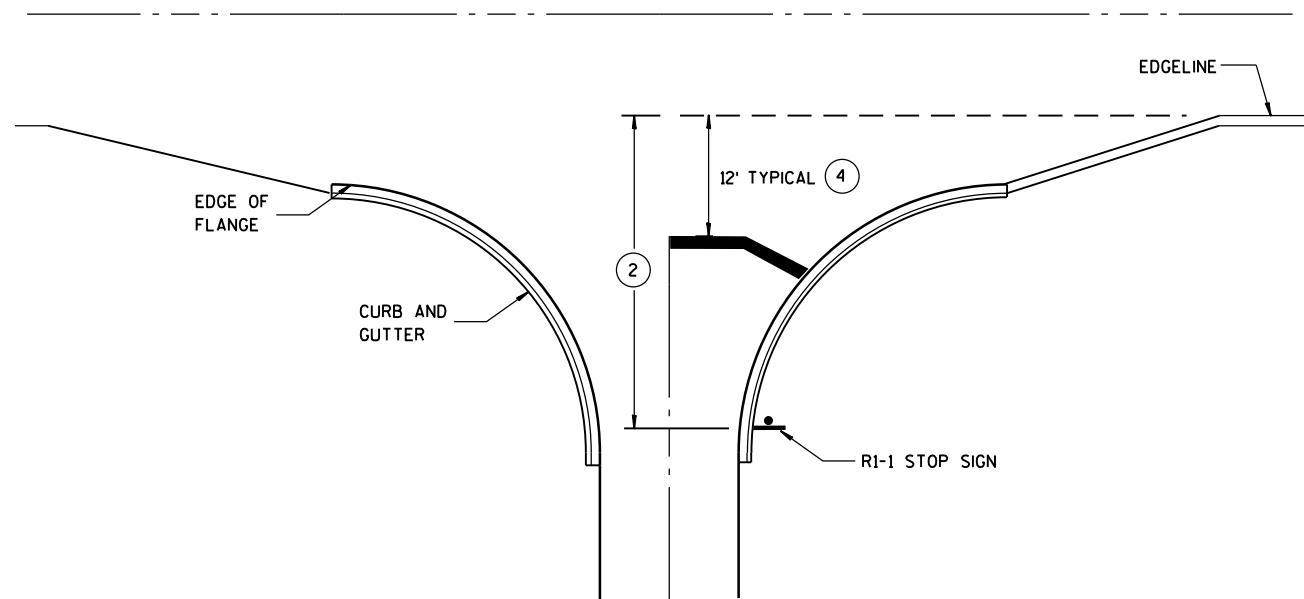


WITHOUT PARKING

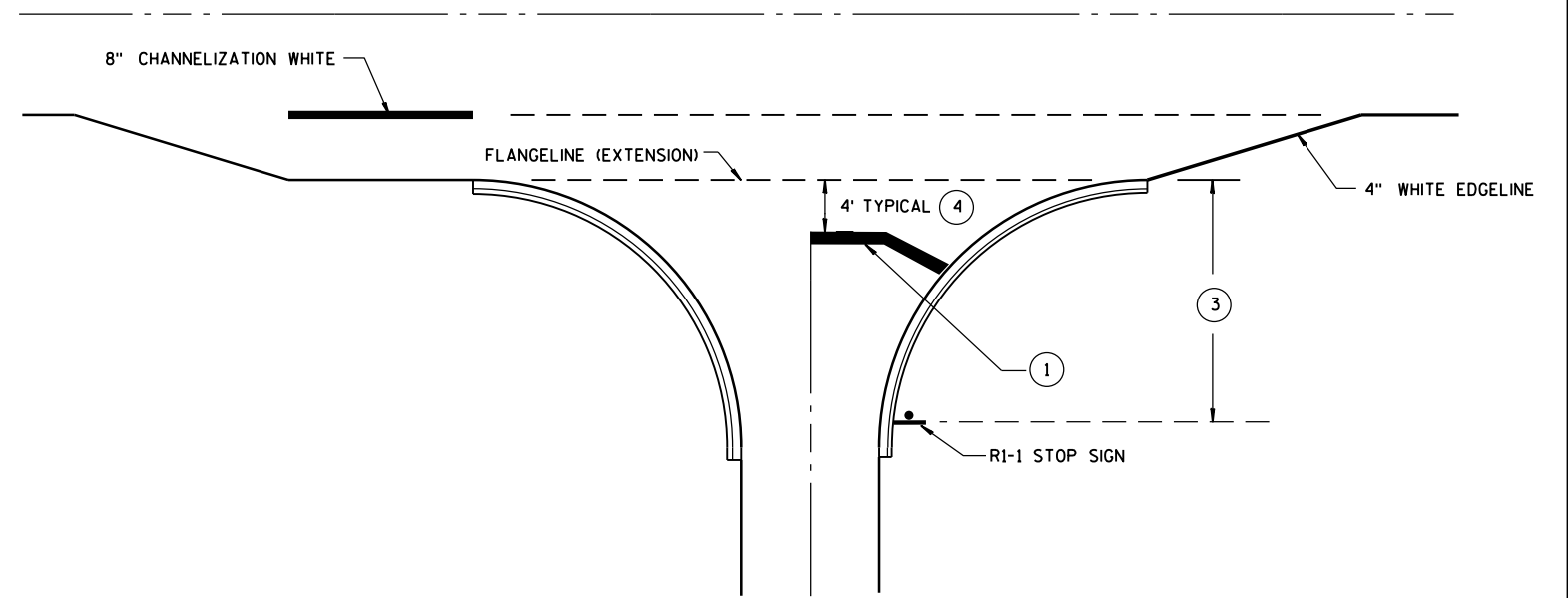


WITH PARKING

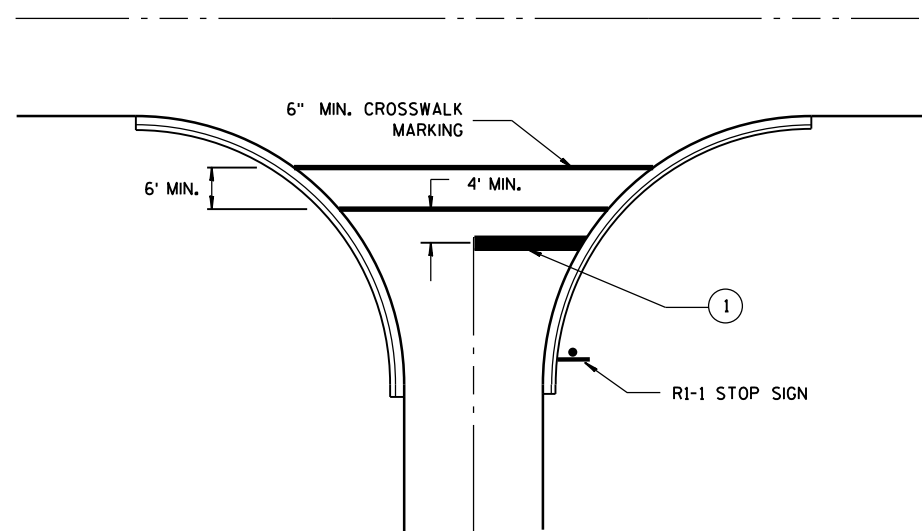
PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



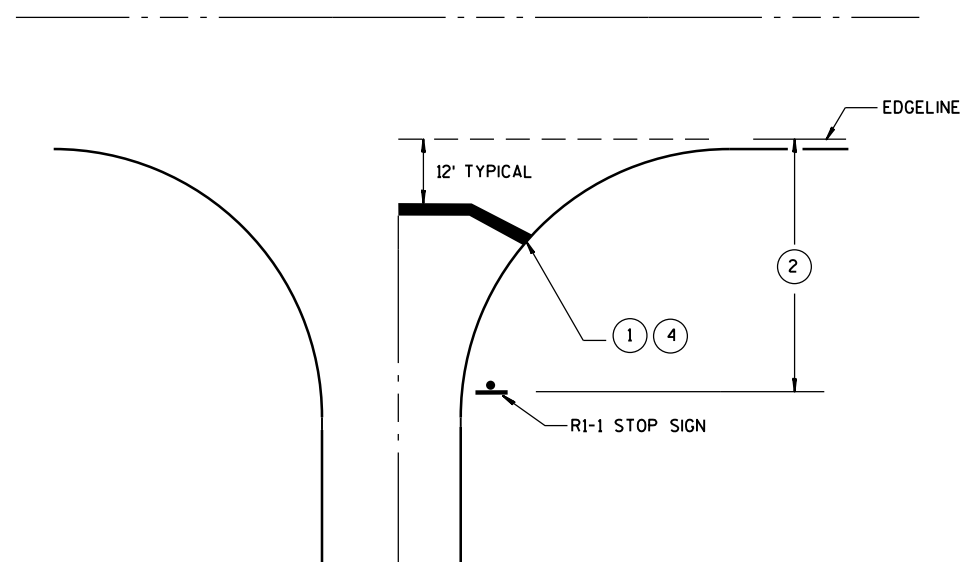
**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING**



**TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER**

GENERAL NOTES

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

**STOP LINE AND CROSSWALK
PAVEMENT MARKING**

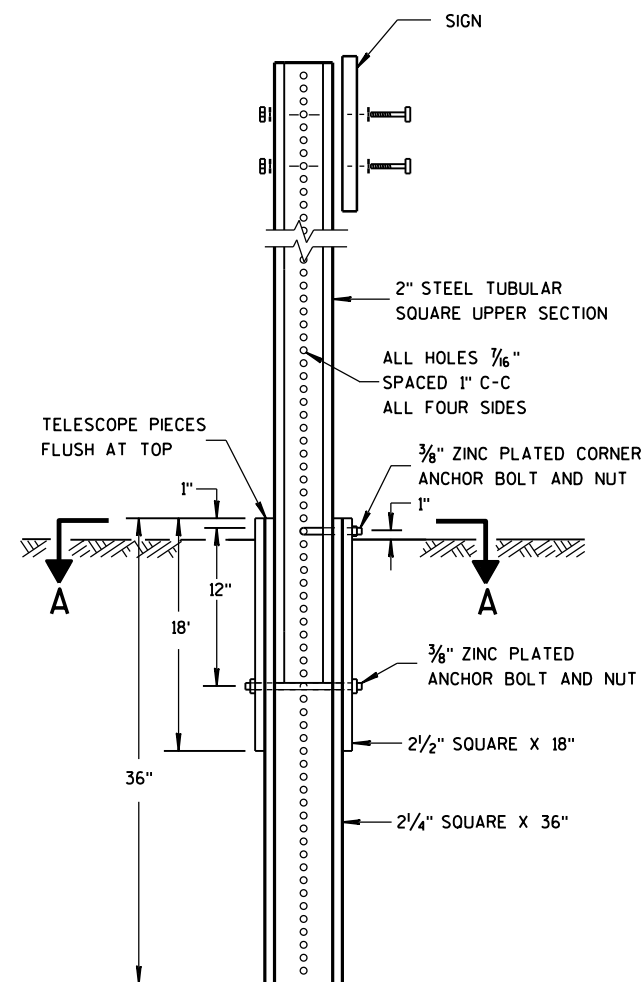
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

FHWA

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

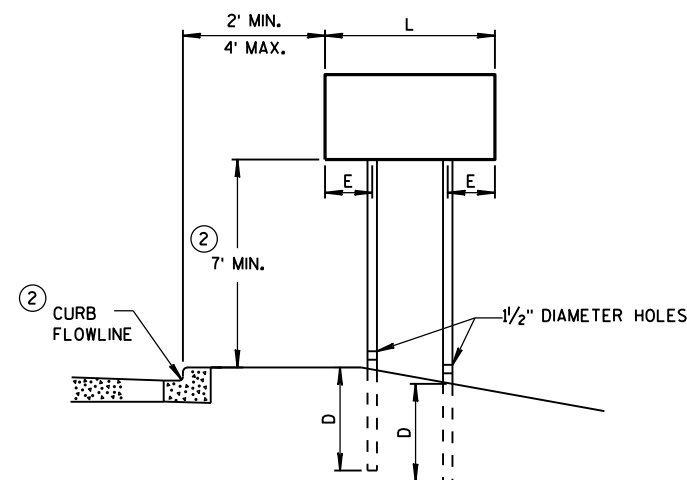
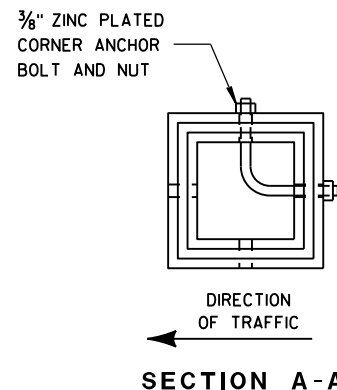


DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

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

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

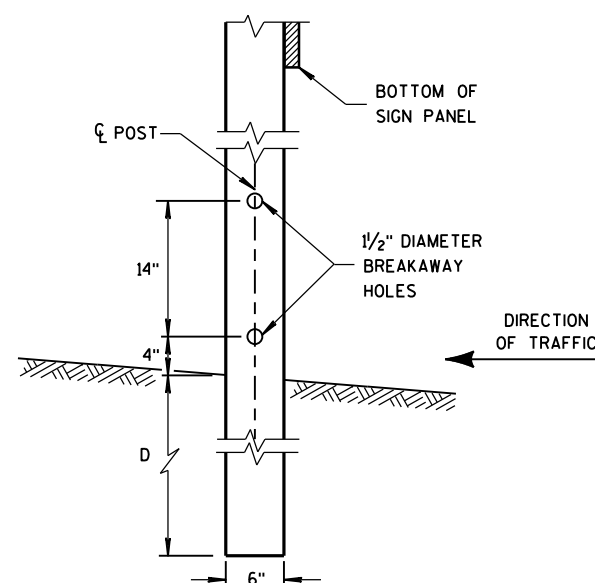


URBAN AREA

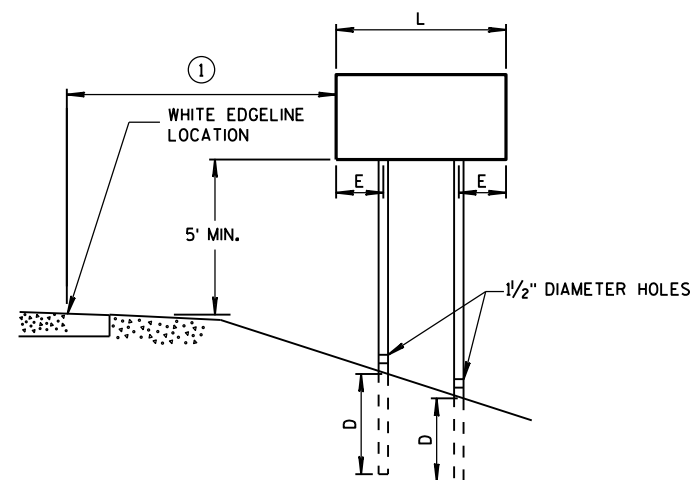
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH

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



4"x6" WOOD POST MODIFICATION



RURAL AREA

4" X 6" WOOD POST

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

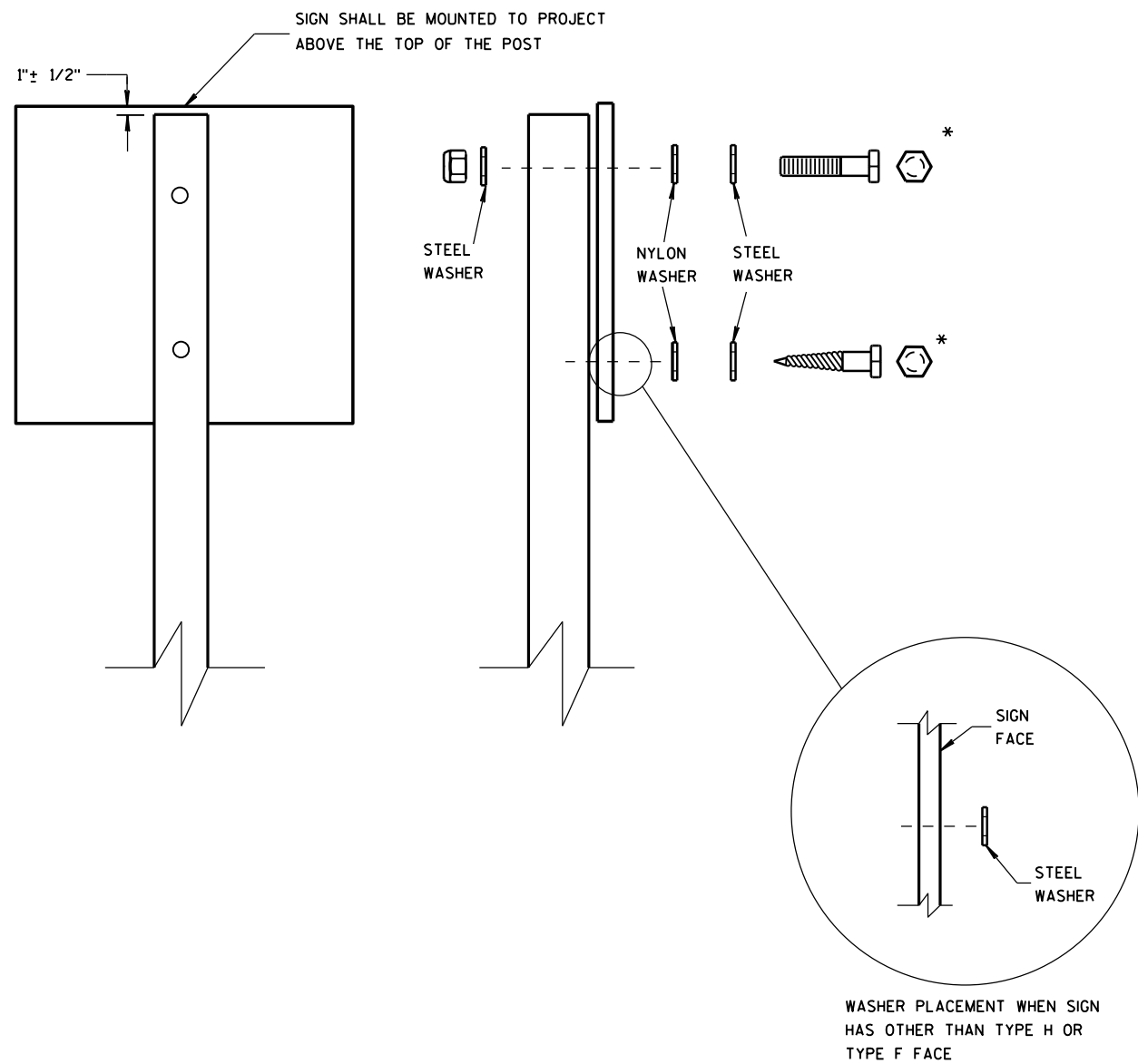
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
FIXED MESSAGE SIGNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

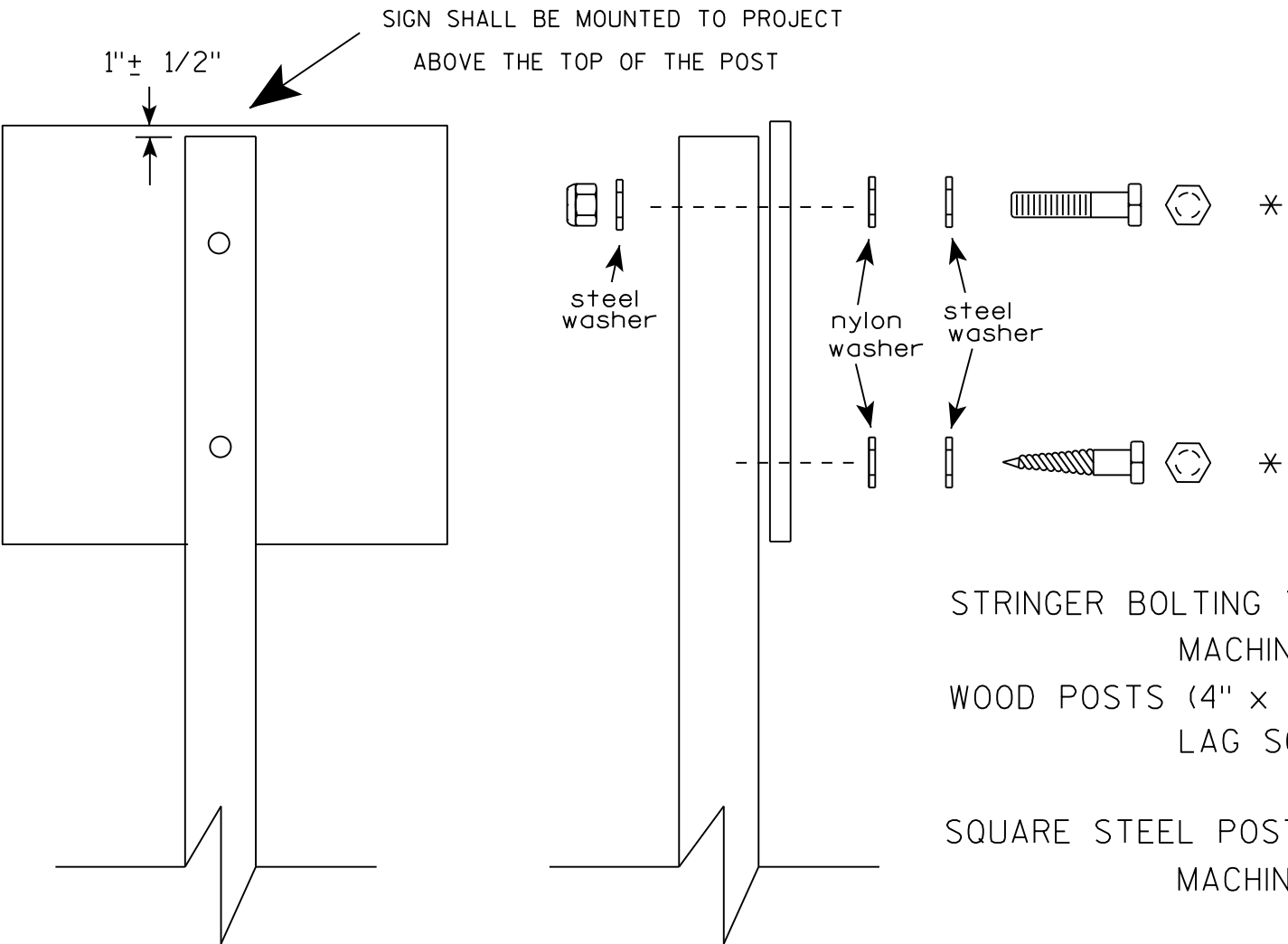
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

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

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED Feb. 2015	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER OF DESIGN	
FHWA		



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

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

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

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

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

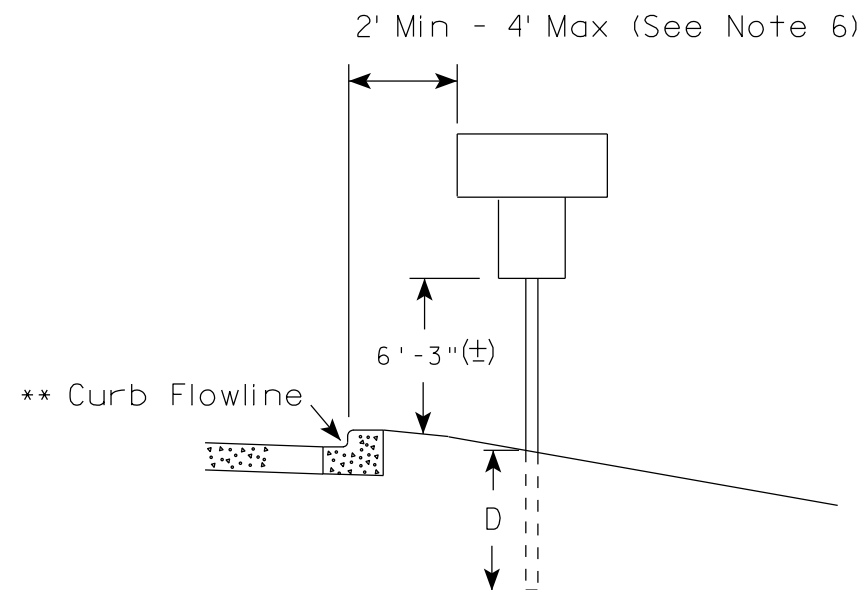
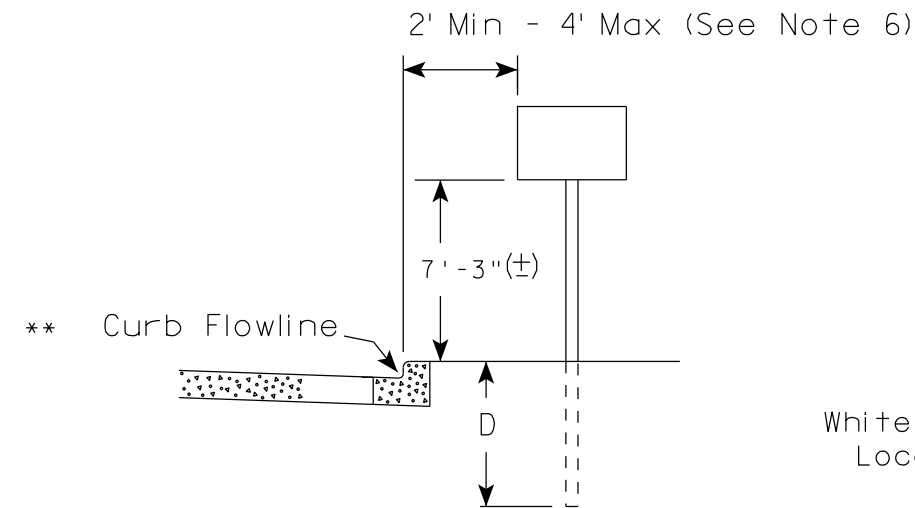
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

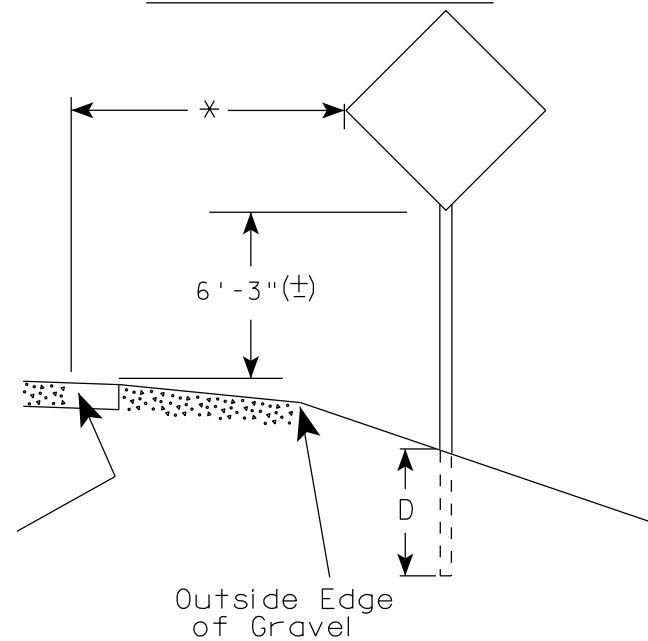
DATE 8/11/16 PLATE NO. A4-8.8

URBAN AREA



White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location

Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

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

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

GENERAL NOTES

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

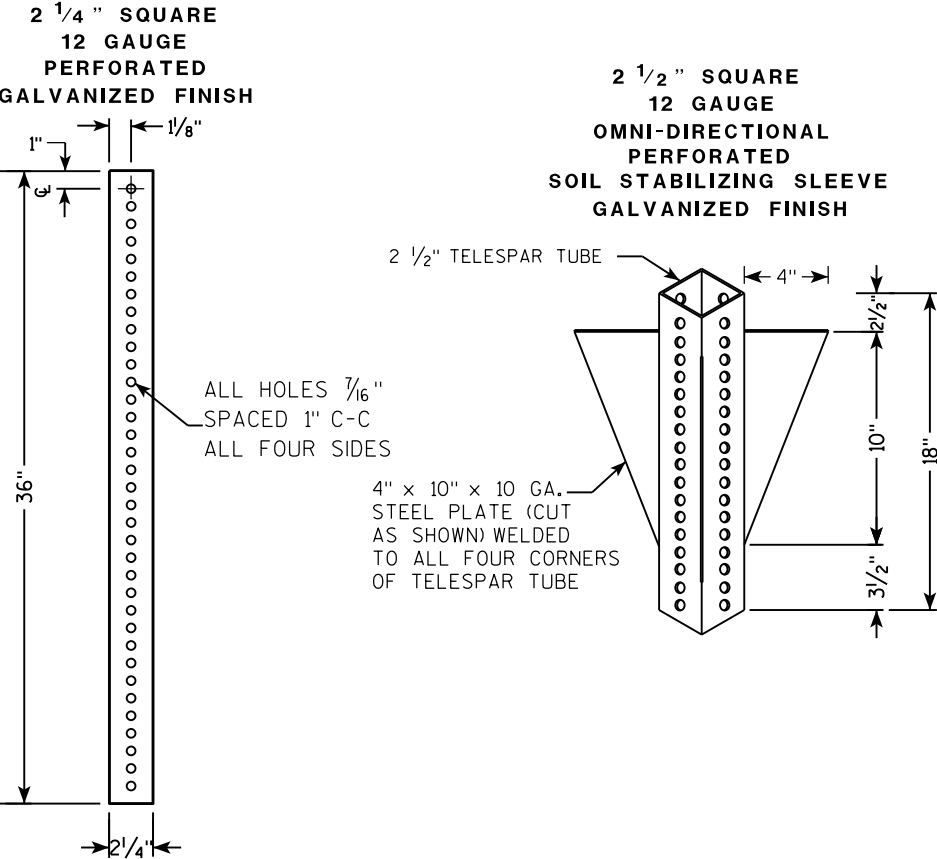
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

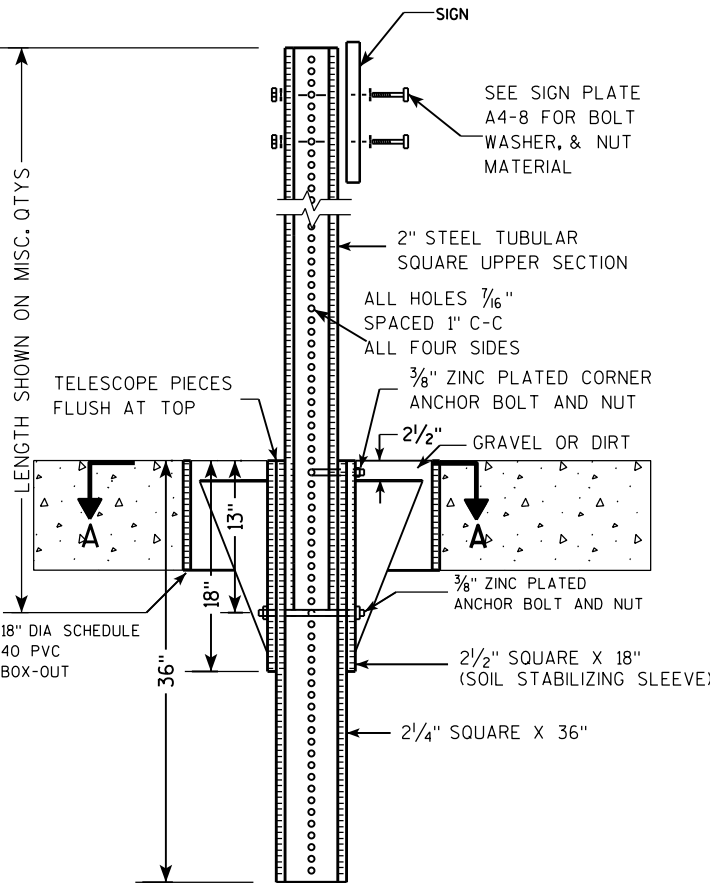
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

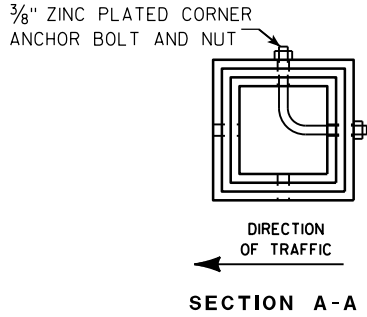
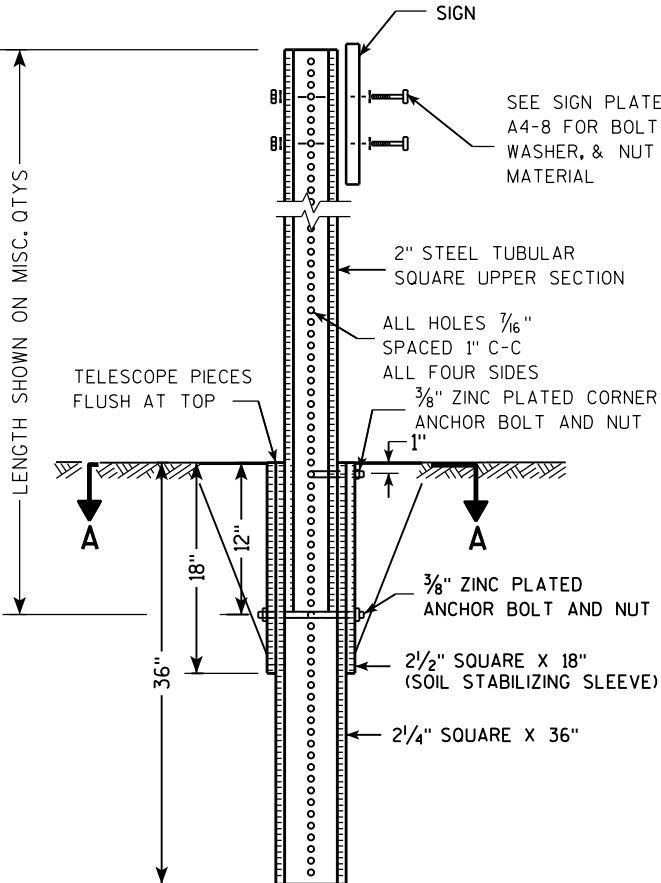
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

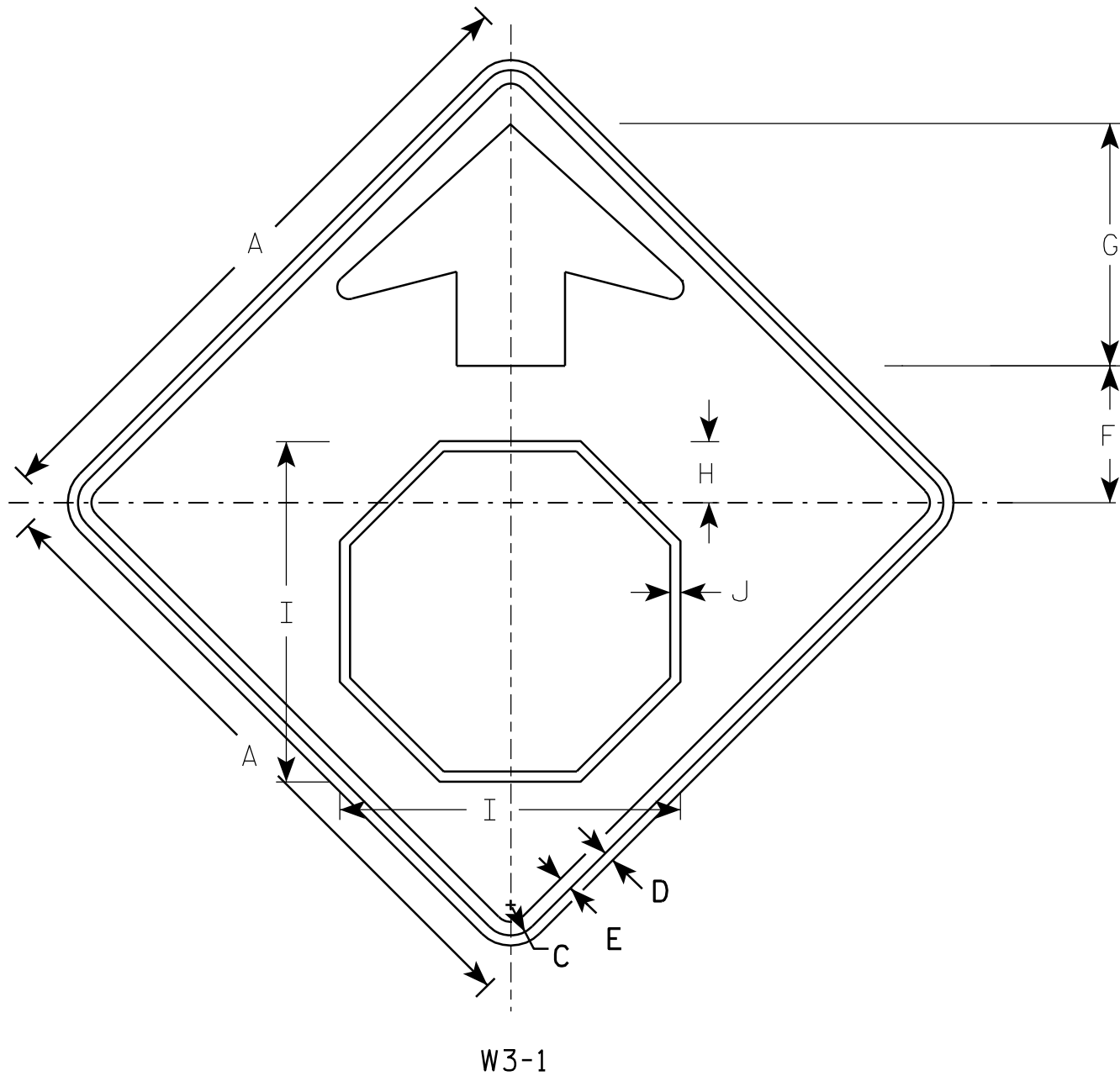
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

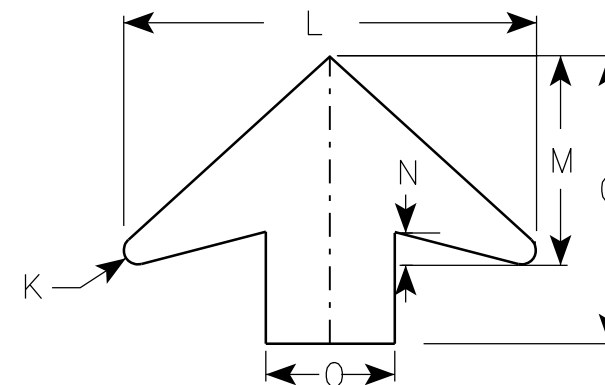
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

PROJECT NO:

STANDARD SIGN
W3-1

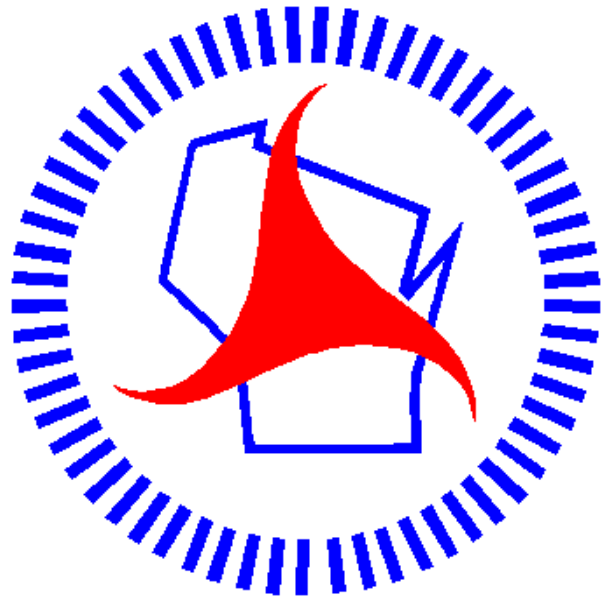
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO:

E

Notes



Wisconsin Department of Transportation

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