

ORDER OF SHEETS

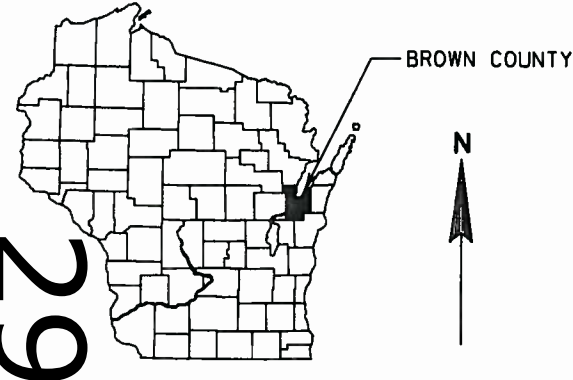
- Section No. 1 Title
- Section No. 2 Typical Sections and Details
- Section No. 3 Estimate of Quantities
- Section No. 3 Miscellaneous Quantities
- Section No. 4 Right of Way Plot
- Section No. 5 Plan and Profile
- Section No. 6 Standard Detail Drawings
- Section No. 7 Sign Plates
- Section No. 8 Structure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

TOTAL SHEETS = 50

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

C DE PERE, CHARLES ST ROUNDABOUT
STH 32/57 ROUNDABOUT
STH 32
BROWN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4085-50-71		



STATE PROJECT NUMBER
4085-50-71

DESIGN DESIGNATION

- A.A.D.T. 2013 = 28,100
- A.A.D.T. 2033 = 35,300
- D.H.V. 2033 = 2120
- D.D. = 60/40
- T. = 7.9%
- DESIGN SPEED = 35 MPH
- ESALS = 9,738,000

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

ROCK

LABEL

95.36

E

FO

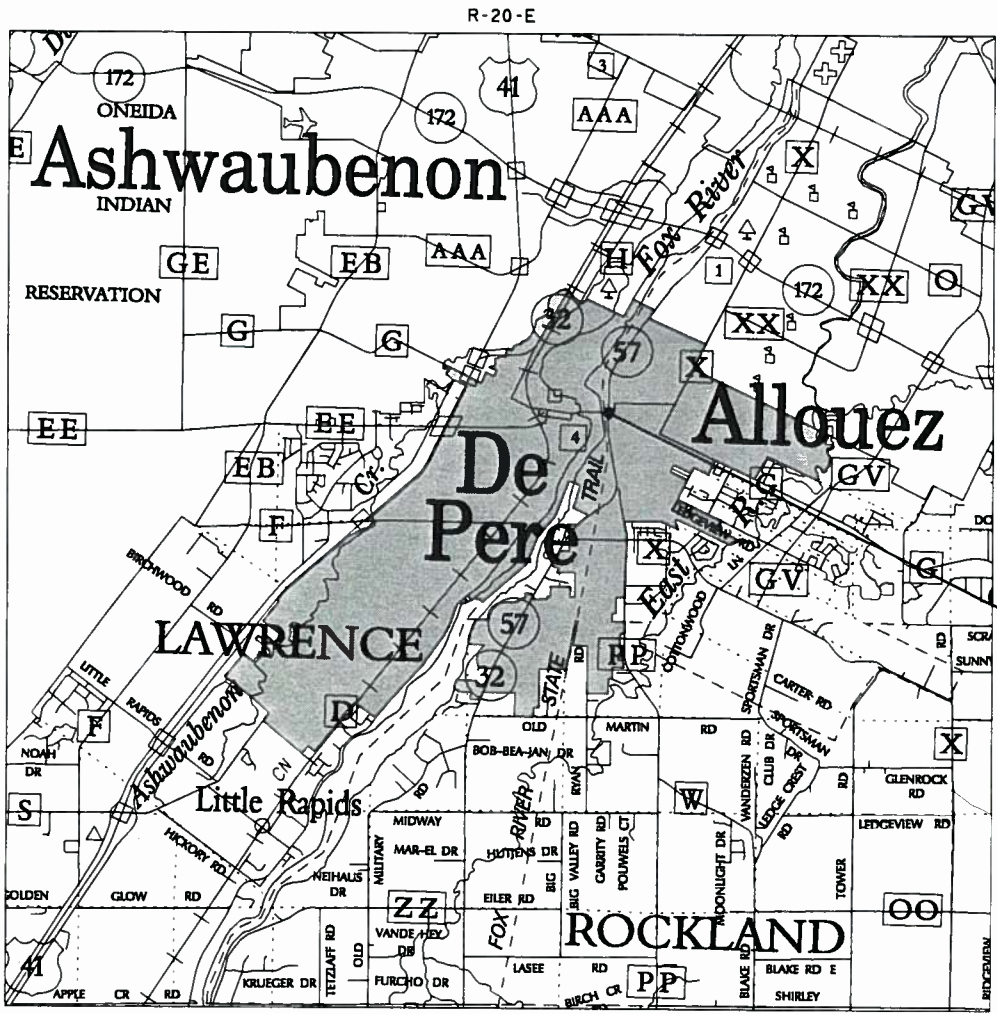
G

SAN

SS

T

W



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

PROJECT 4085-50-71
LOCATION

ORIGINAL PLANS PREPARED BY

OMNI ASSOCIATES

WISCONSIN

MARGARET A. HAWLEY
E 26879
APPLETON WI

PROFESSIONAL ENGINEER

1-6-14

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	OMNI ASSOCIATES, INC.
Designer	OMNI ASSOCIATES, INC.
Project Manager	ANDREW FULCER
Regional Examiner	
Regional Supervisor	DAN SEGERSTROM
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/7/2014

Andrew D. Fulcer
(Signature)

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM 2012A (WCCS 2012 HORIZONTAL ADJUSTMENT), BROWN COUNTY. ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988)

2

GENERAL NOTES

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

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTORS EXPENSE.

WHEN THE QUANTITY OF ITEMS OF BASE OR SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.

CULVERT PIPE FLOWLINE ELEVATIONS SHOWN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE COST OF CONNECTING EXISTING STORM SEWERS OR DRAINAGE STRUCTURES TO THE NEW STORM SEWER SHALL BE INCIDENTAL TO THE COST OF THE STORM SEWER.

PROPOSED PIPE UNDERDRAIN CONNECTIONS TO PROPOSED INLETS, EXISTING INLETS, AND EXISTING STORM SEWER WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROPOSED PIPE UNDERDRAIN.

CURB AND GUTTER RADII ARE SHOWN TO THE FACE OF CURB.

EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN THE CURB AND GUTTER.

ADDITIONAL DOWEL BARS AND CONTRACTION JOINT DOWEL ASSEMBLIES REQUIRED TO MATCH MANHOLES, INLETS, AND SIDE ROAD INTERSECTIONS SHALL BE INCIDENTAL TO THE CONCRETE PAVEMENT BID ITEM.

CONTRACTOR SHALL CORE CONCRETE FOR SIGN PLACEMENT. THE COST OF CORING SHALL BE CONSIDERED INCIDENTAL TO ASSOCIATED SIGNING AND CONCRETE ITEMS. LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.

ALL CONCRETE MEDIAN NOSES SHALL BE SLOPED AND CONSTRUCTED AS SHOWN IN THE STANDARD DETAIL DRAWING.

IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

UTILITIES

WATER

CITY OF DE PERE
925 S. 6TH ST
DE PERE, WI 54115
ATTN: DAN CARPENTER
TELEPHONE: 920-339-4063

ELECTRIC

WISCONSIN PUBLIC SERVICE CORPORATION
700 NORTH ADAMS STREET
PO BOX 19001
GREEN BAY, WI 54307-9001
ATTN: RANDY STEIER
TELEPHONE: 920-617-5167

DIGGERSHOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

PROJECT NO: 4085-50-71

HWY: STH 32

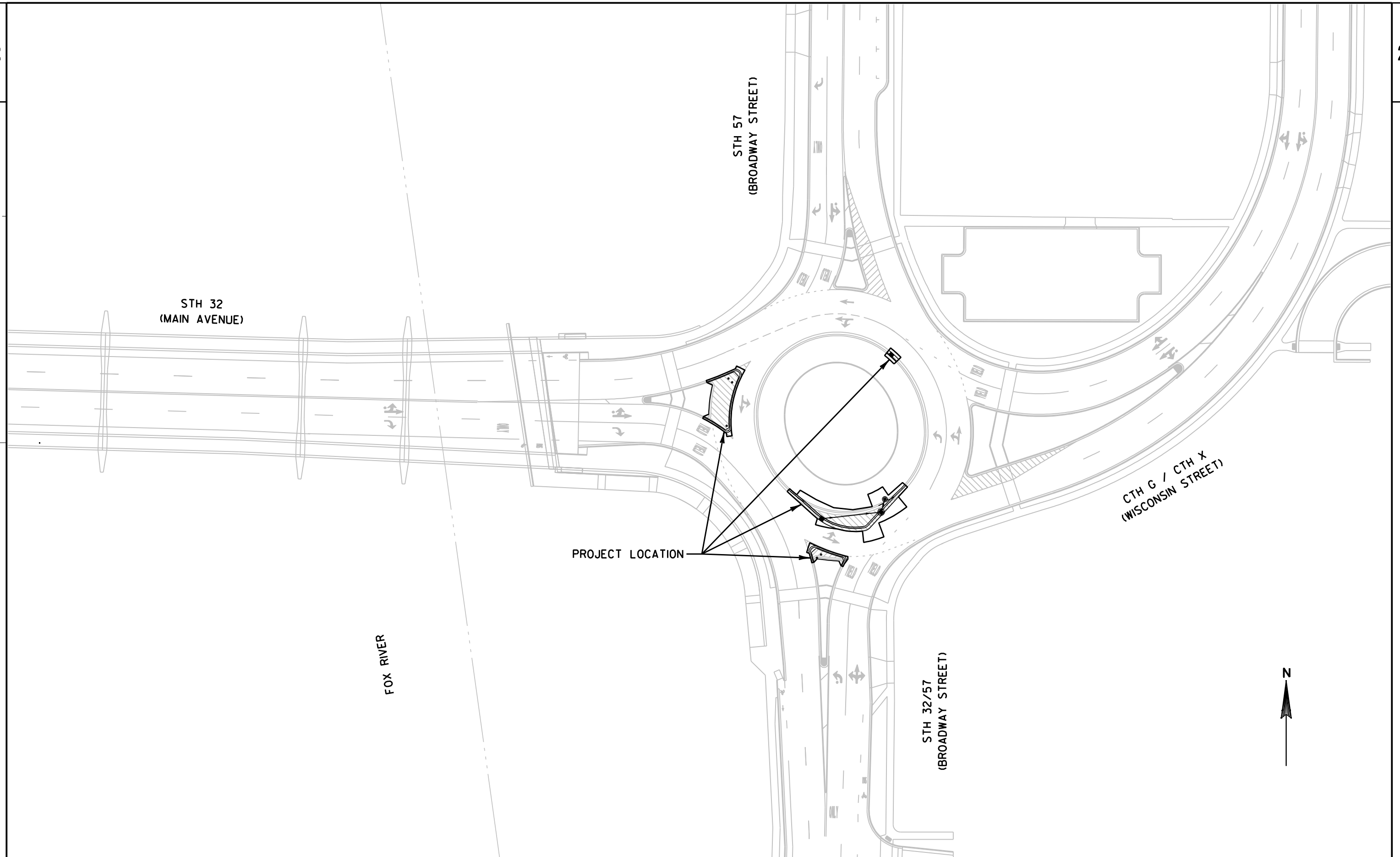
COUNTY: BROWN

GENERAL NOTES

SHEET:

E

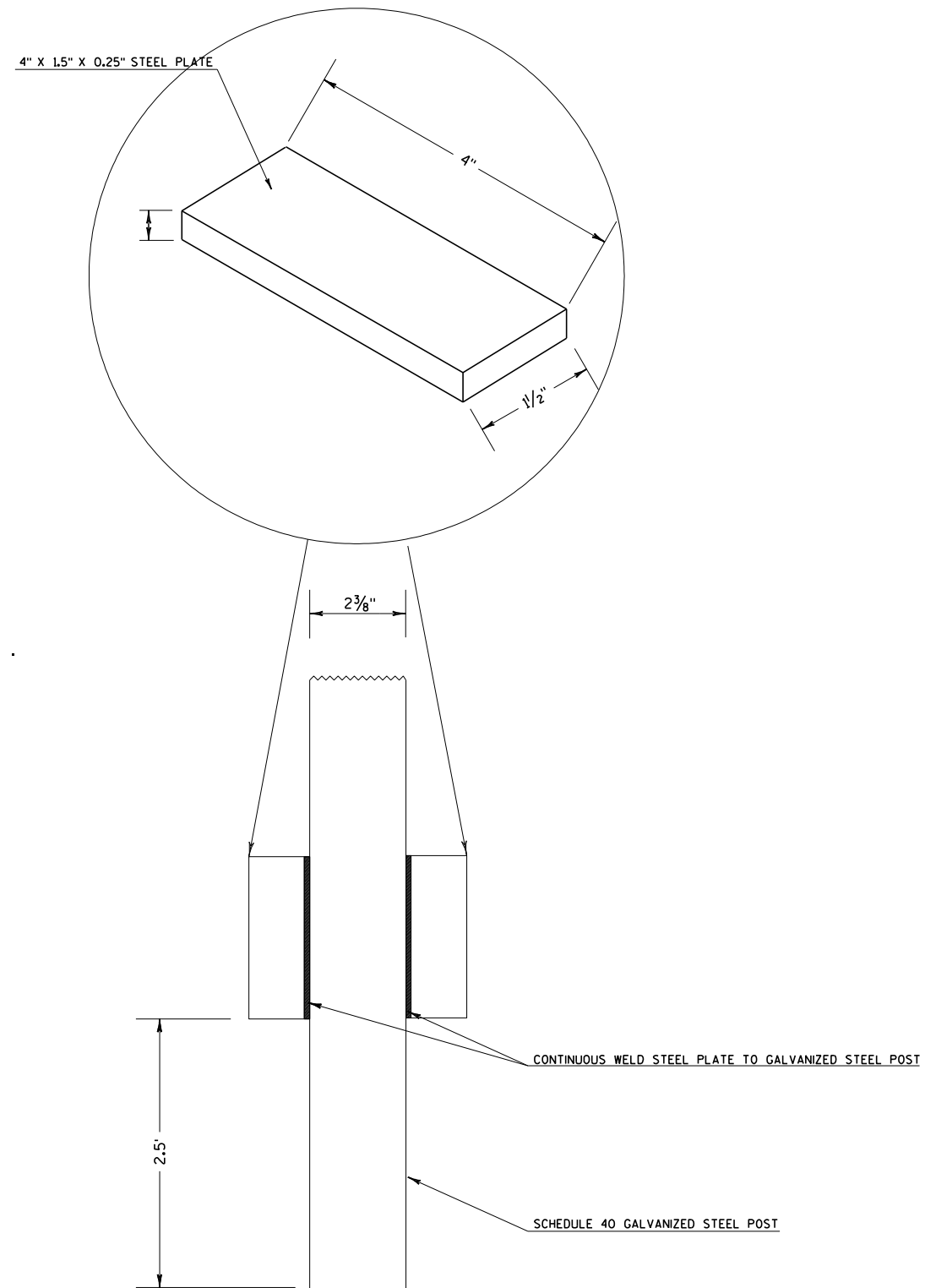
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2

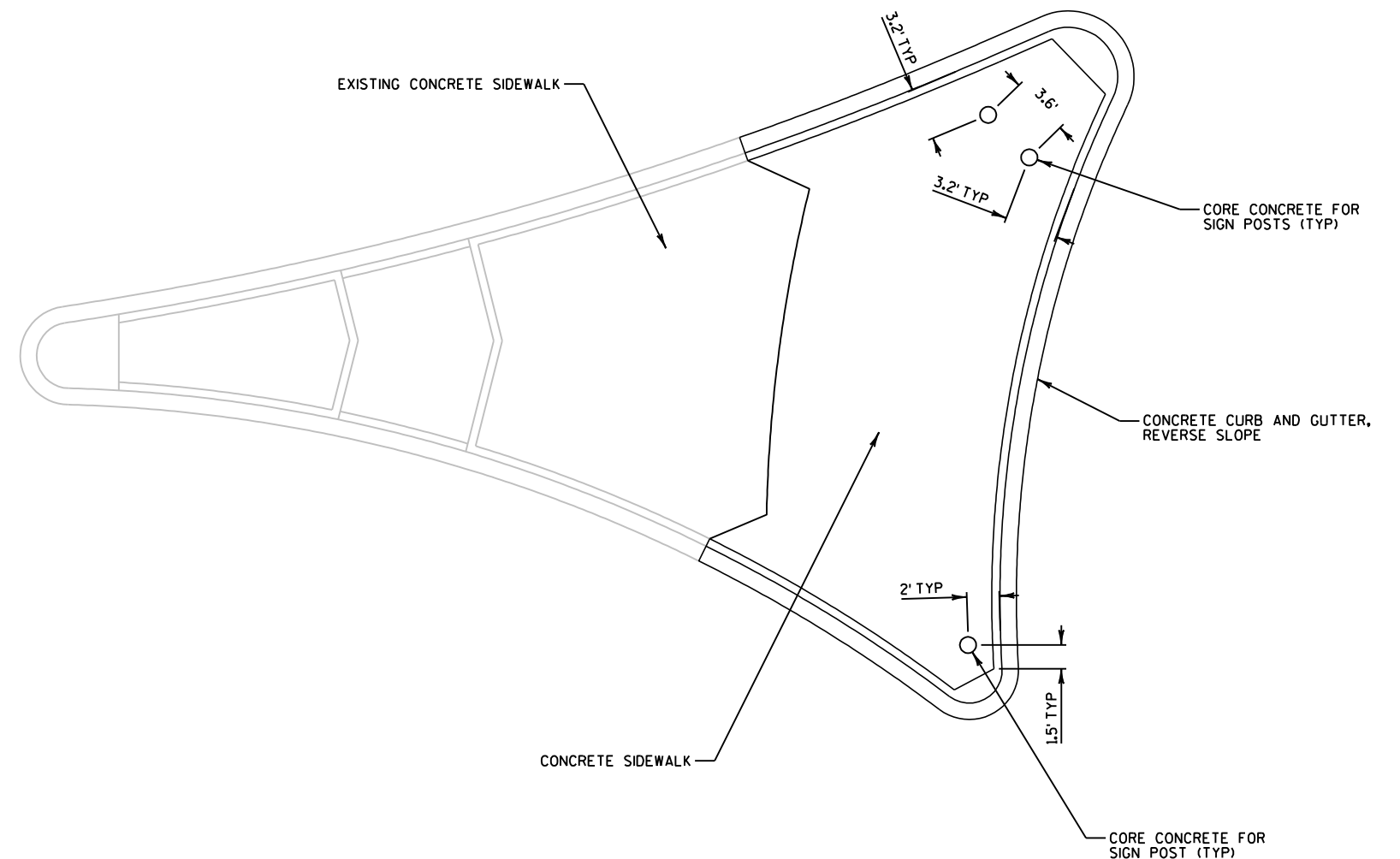


2

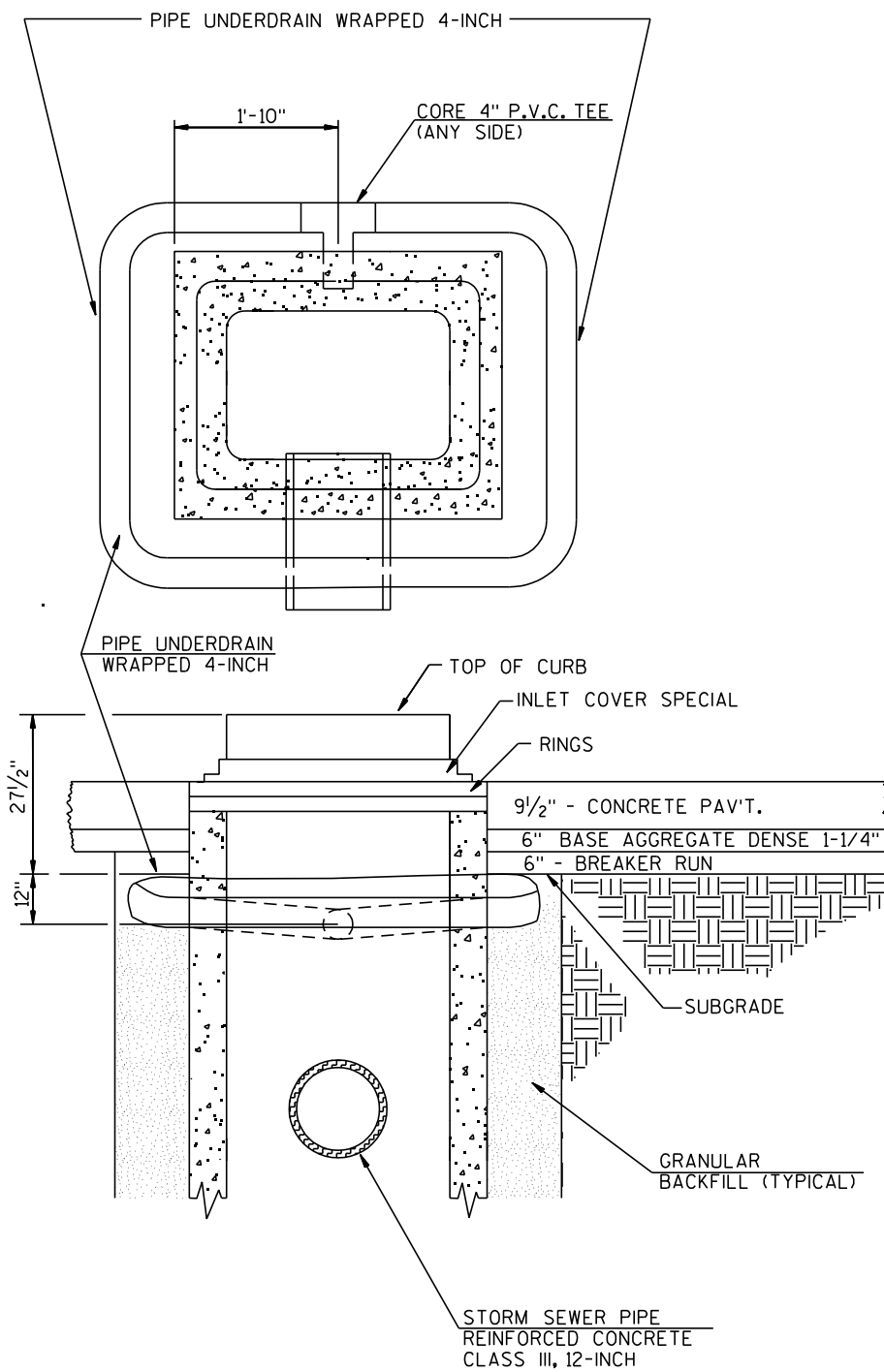


SIGN POST KEEPER BAR

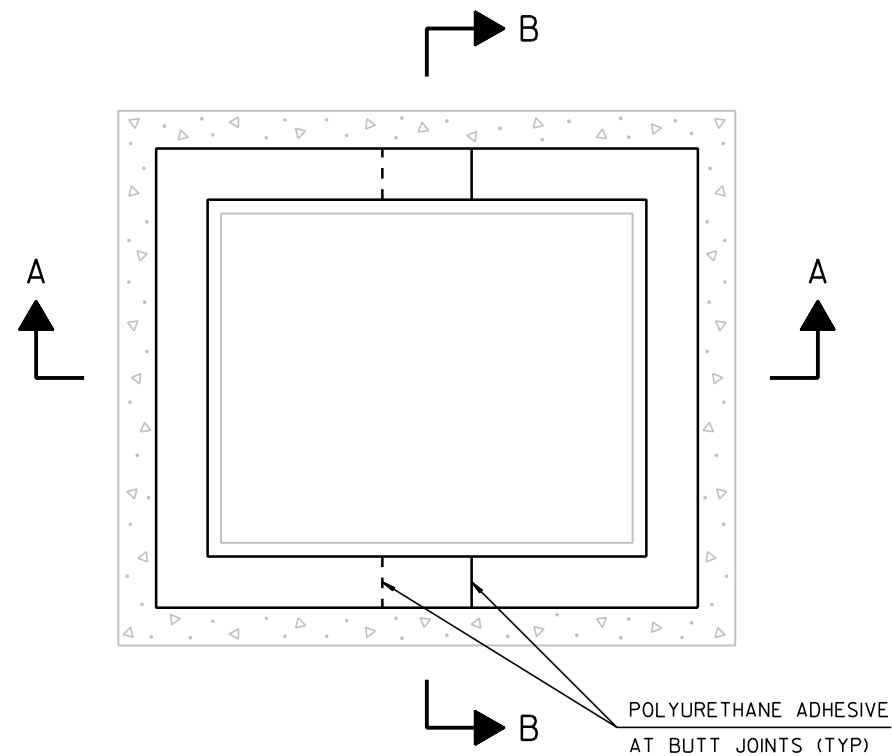
2 |



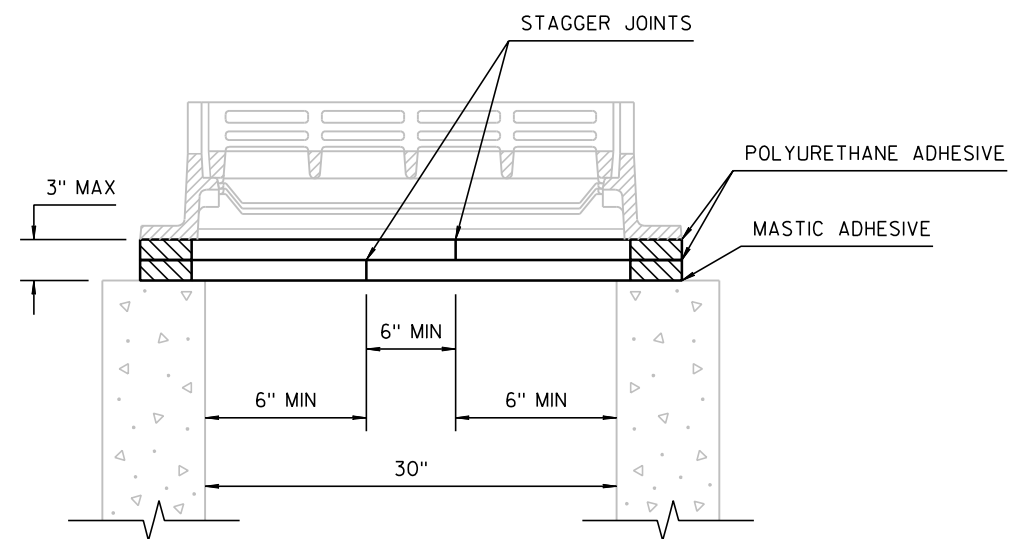
ISLAND SIGN LOCATION DETAIL



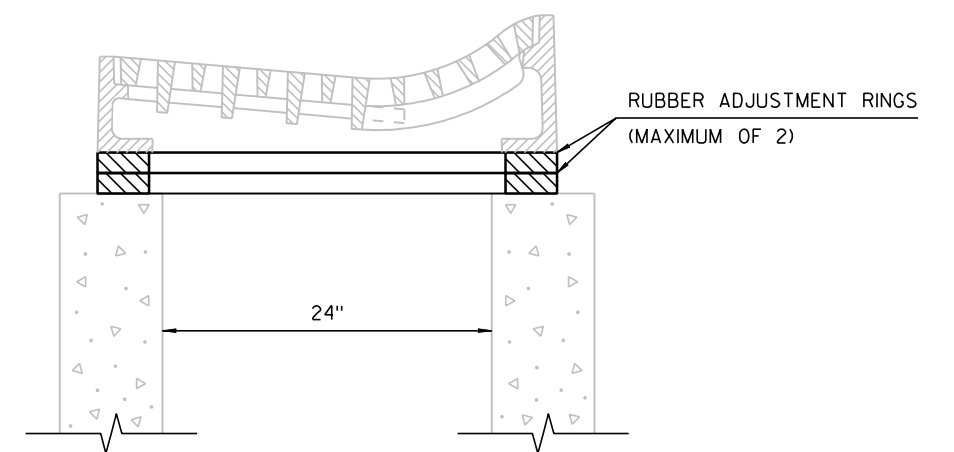
UNDER DRAIN DETAIL AT INLETS



PLAN VIEW



SECTION A-A



SECTION B-B

NOTE: ALL CUTS MADE TO RUBBER ADJUSTMENT RINGS WILL BE PERPENDICULAR AND PROVIDE A TIGHT JOINT.

RUBBER RING CUTTING DETAIL

[illegible]

WISDOT/CADDS SHEET 42

STH 32 (MAIN AVENUE)



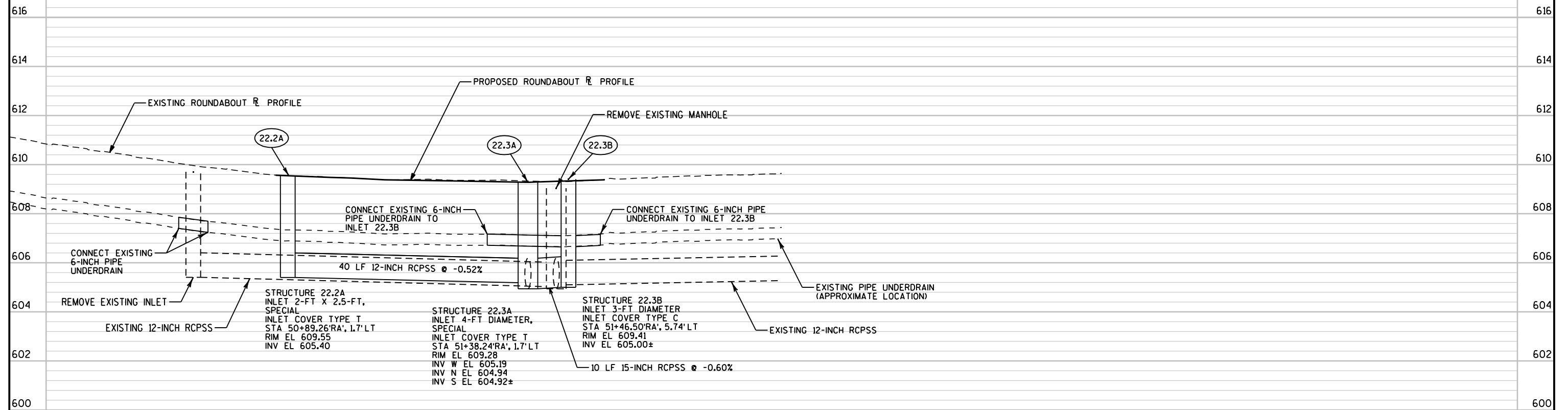
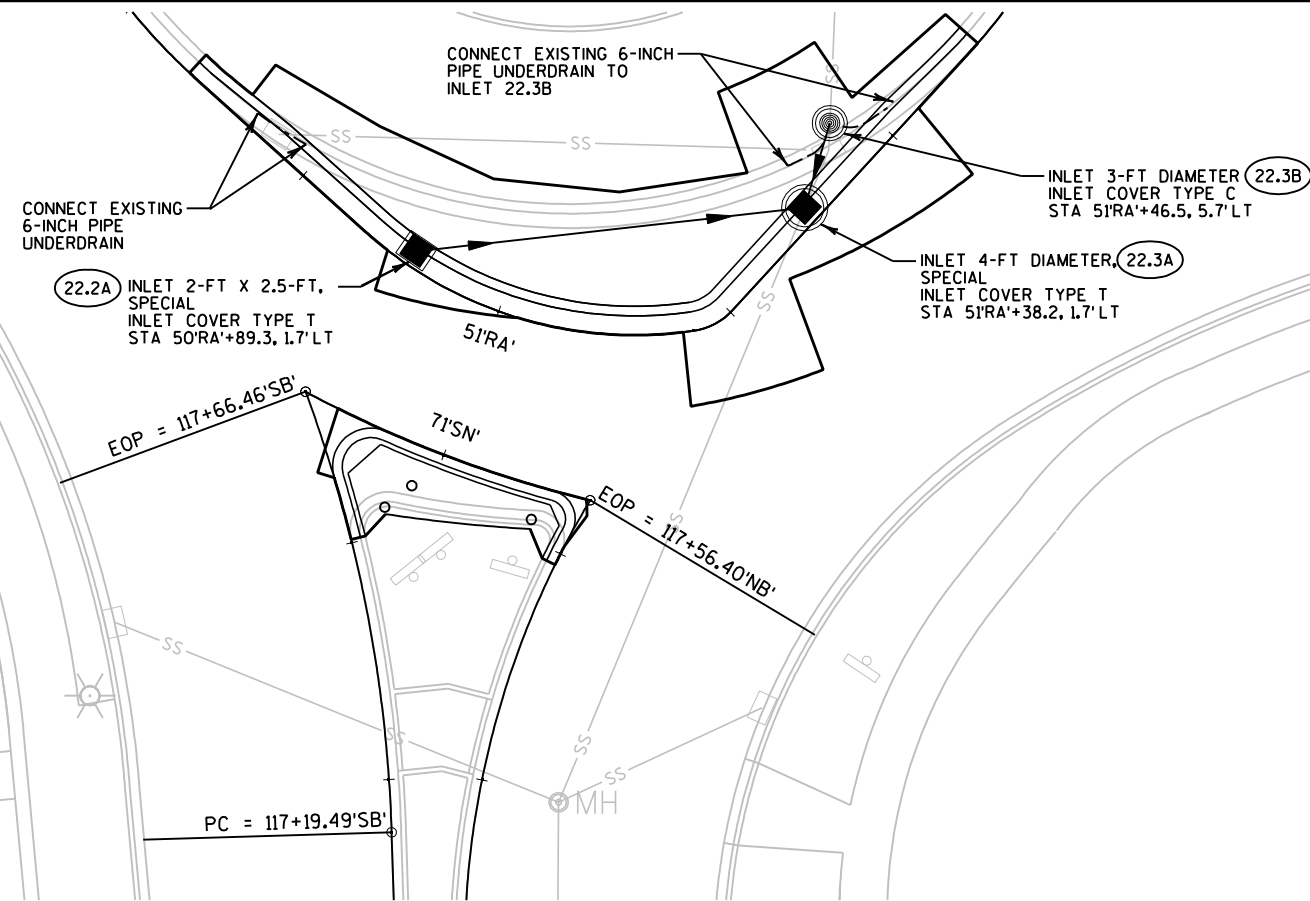
INLET PROTECTION TYPE B



INLET PROTECTION TYPE C

INLET PROTECTION TYPE B

STH 32/57
(BROADWAY STREET)



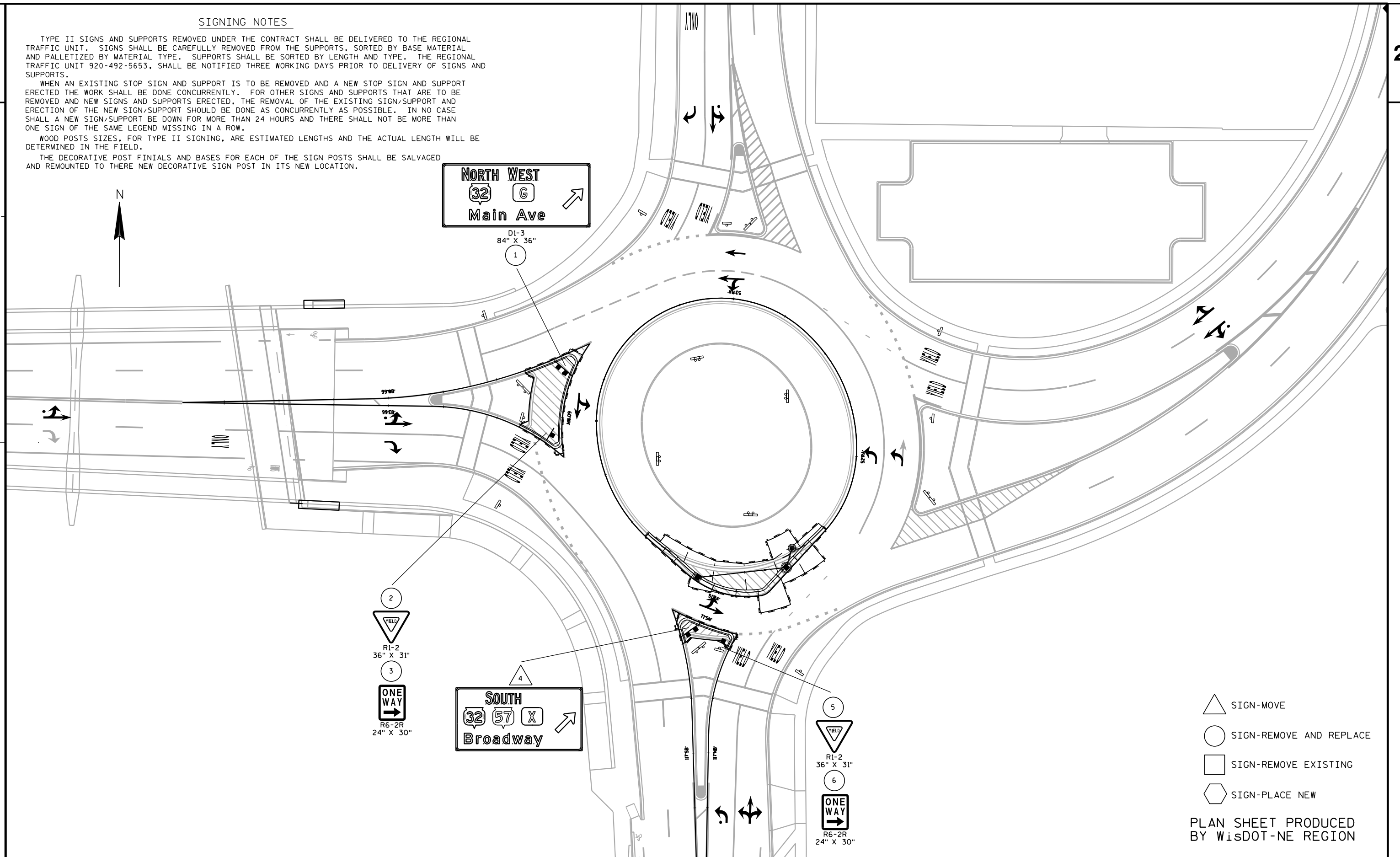
SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

THE DECORATIVE POST FINIALS AND BASES FOR EACH OF THE SIGN POSTS SHALL BE SALVAGED AND REMOUNTED TO THERE NEW DECORATIVE SIGN POST IN ITS NEW LOCATION.



PROJECT NO: 4085-50-71

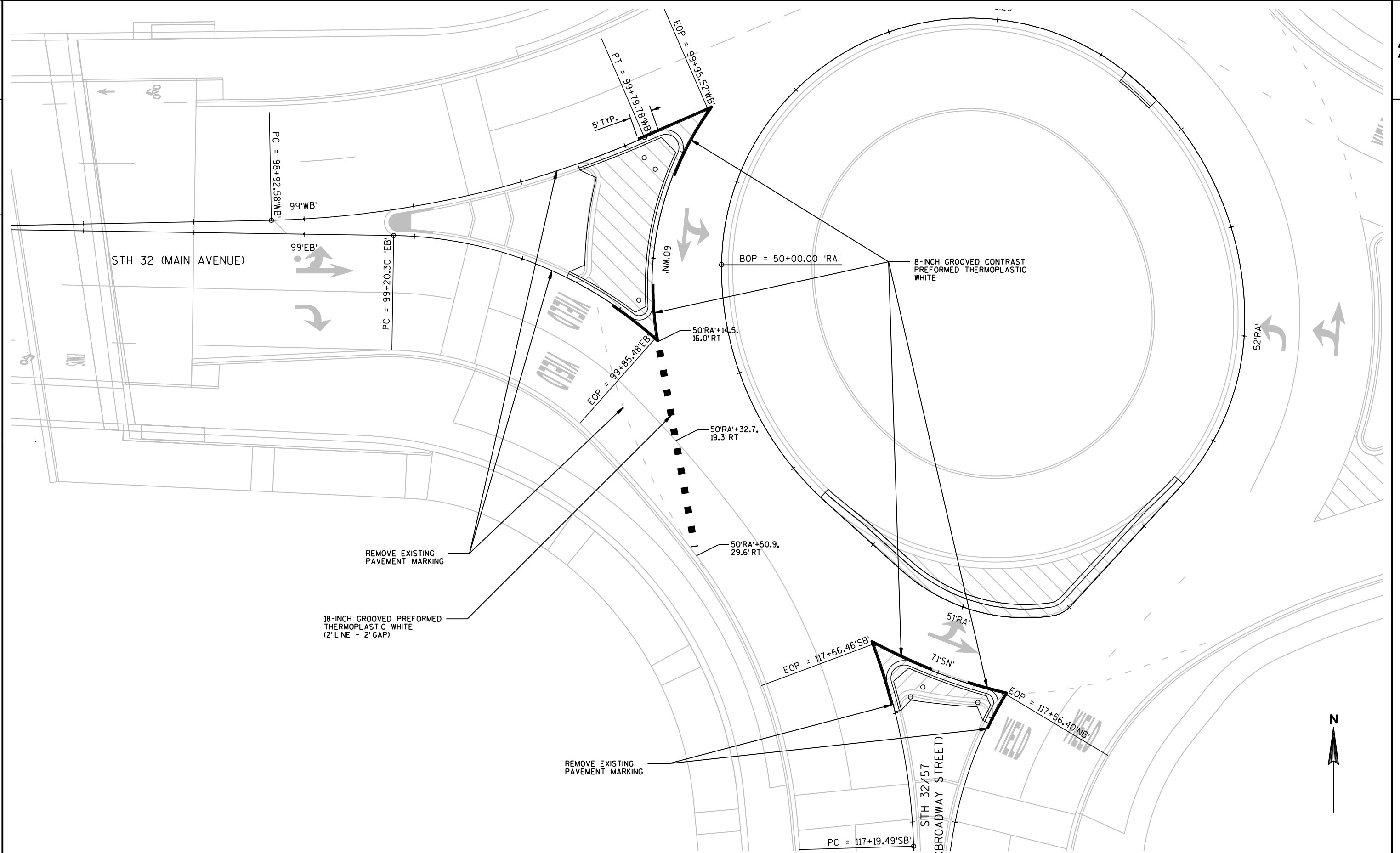
HWY: STH 32

COUNTY: BROWN

PERMANENT SIGNING-TYPE II

SHEET

E



GENERAL NOTES

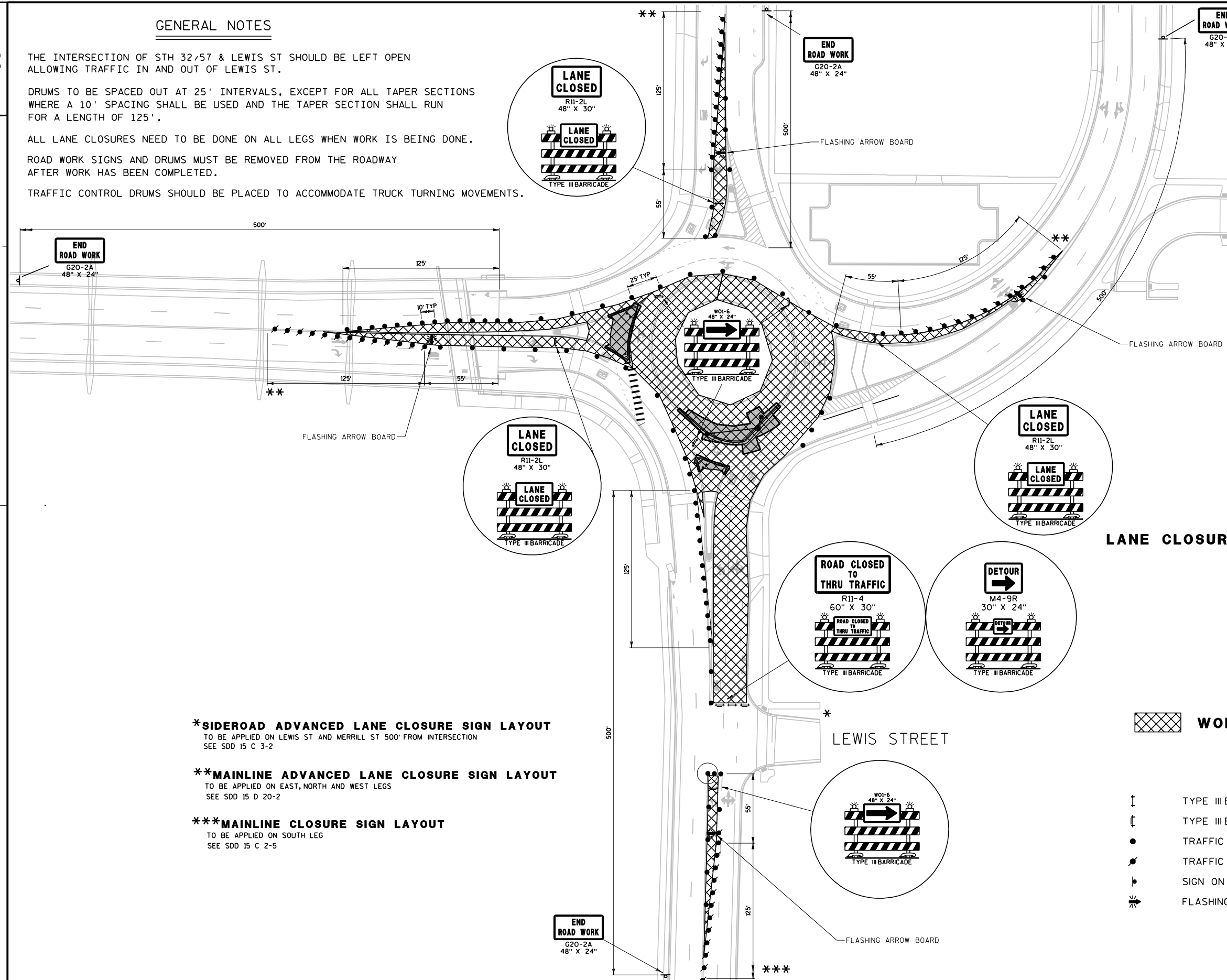
THE INTERSECTION OF STH 32/57 & LEWIS ST SHOULD BE LEFT OPEN ALLOWING TRAFFIC IN AND OUT OF LEWIS ST.

DRUMS TO BE SPACED OUT AT 25' INTERVALS, EXCEPT FOR ALL TAPER SECTIONS WHERE A 10' SPACING SHALL BE USED AND THE TAPER SECTION SHALL RUN FOR A LENGTH OF 125'.

ALL LANE CLOSURES NEED TO BE DONE ON ALL LEGS WHEN WORK IS BEING DONE.

ROAD WORK SIGNS AND DRUMS MUST BE REMOVED FROM THE ROADWAY AFTER WORK HAS BEEN COMPLETED.

TRAFFIC CONTROL DRUMS SHOULD BE PLACED TO ACCOMMODATE TRUCK TURNING MOVEMENTS.



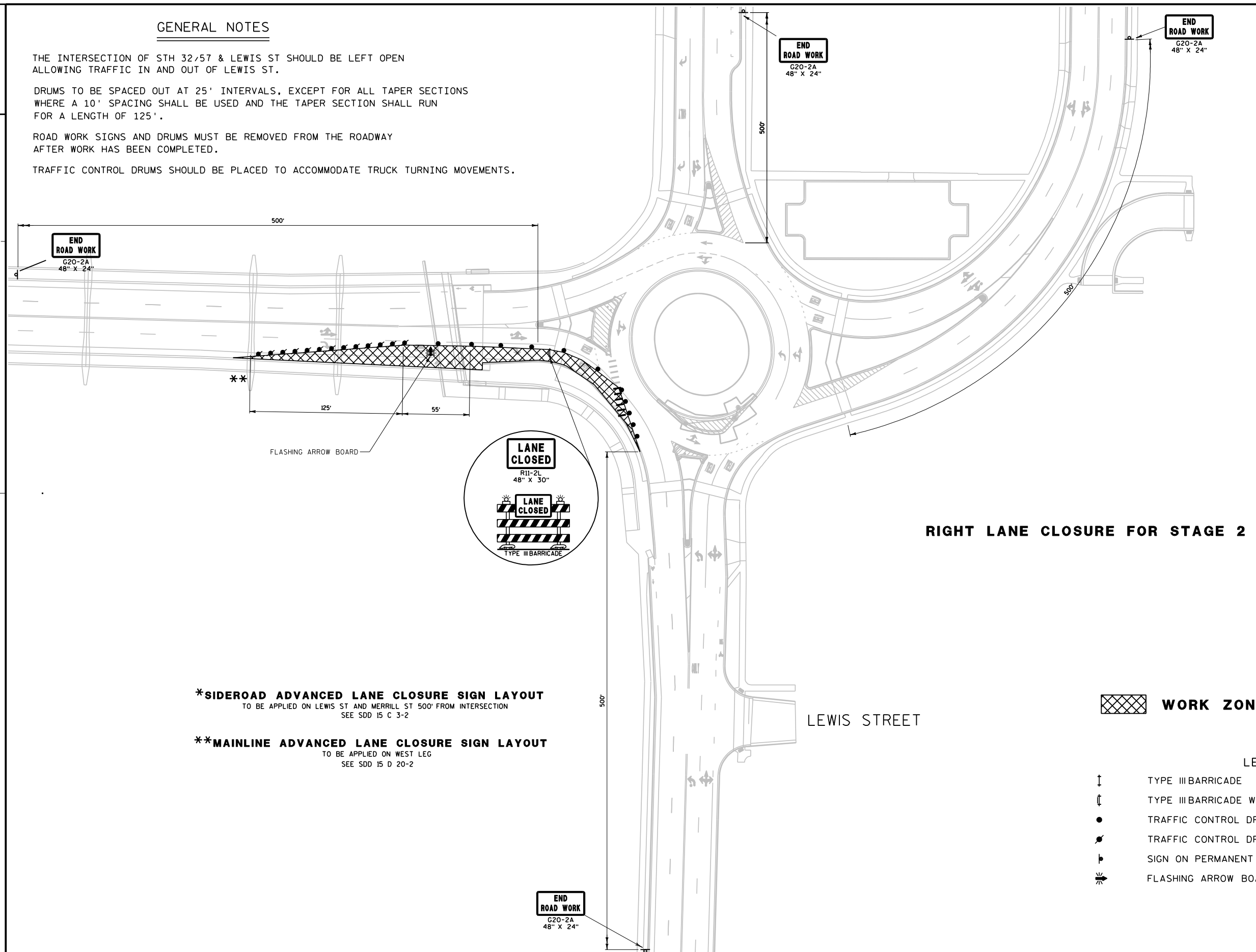
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
***SIDEROAD ADVANCED LANE CLOSURE SIGN LAYOUT**
TO BE APPLIED ON LEWIS ST AND MERRILL ST 500' FROM INTERSECTION
SEE SDD 15 C 3-2

****MAINLINE ADVANCED LANE CLOSURE SIGN LAYOUT**
TO BE APPLIED ON WEST LEG
SEE SDD 15 D 20-2

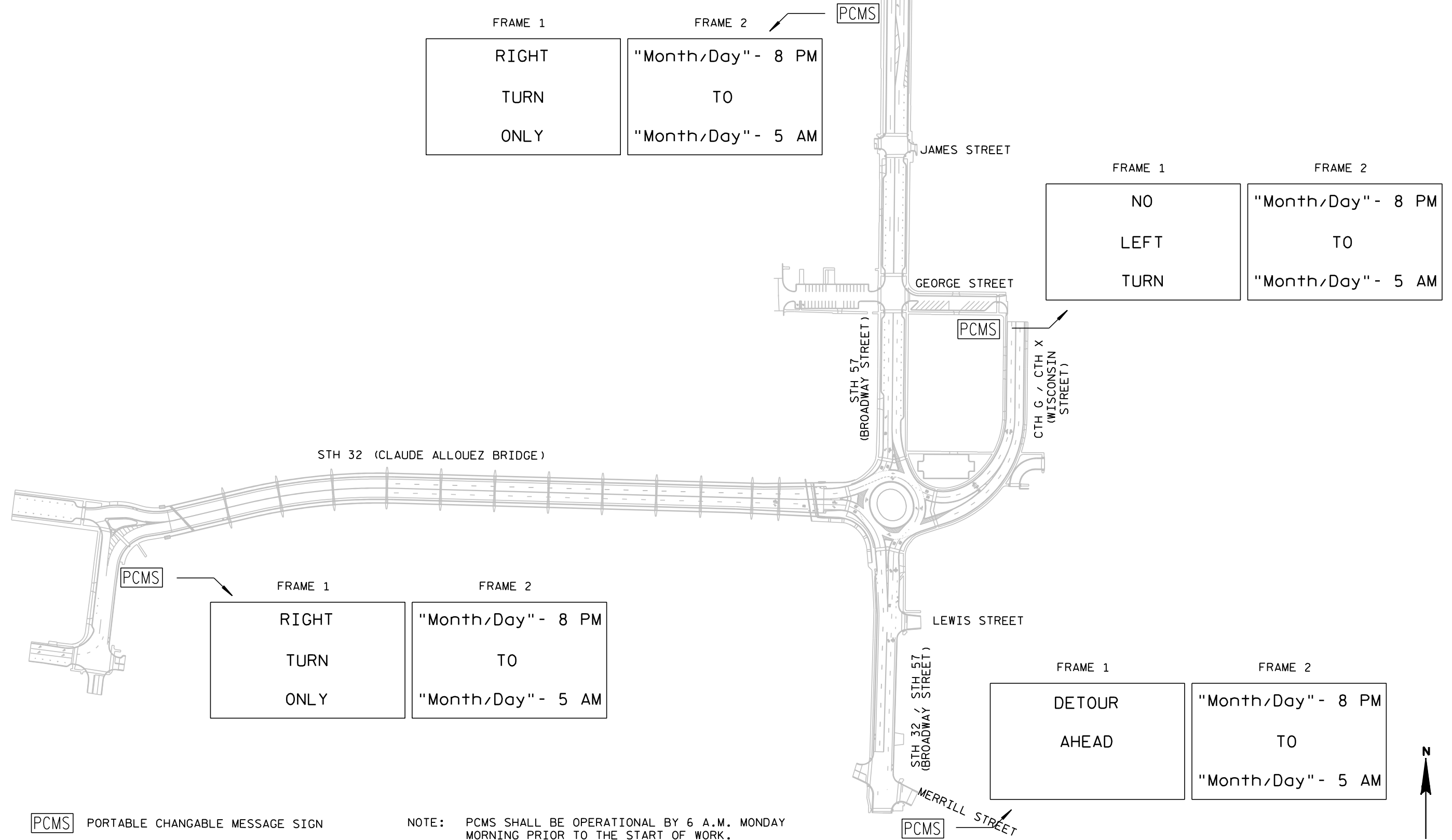
RIGHT LANE CLOSURE FOR STAGE 2

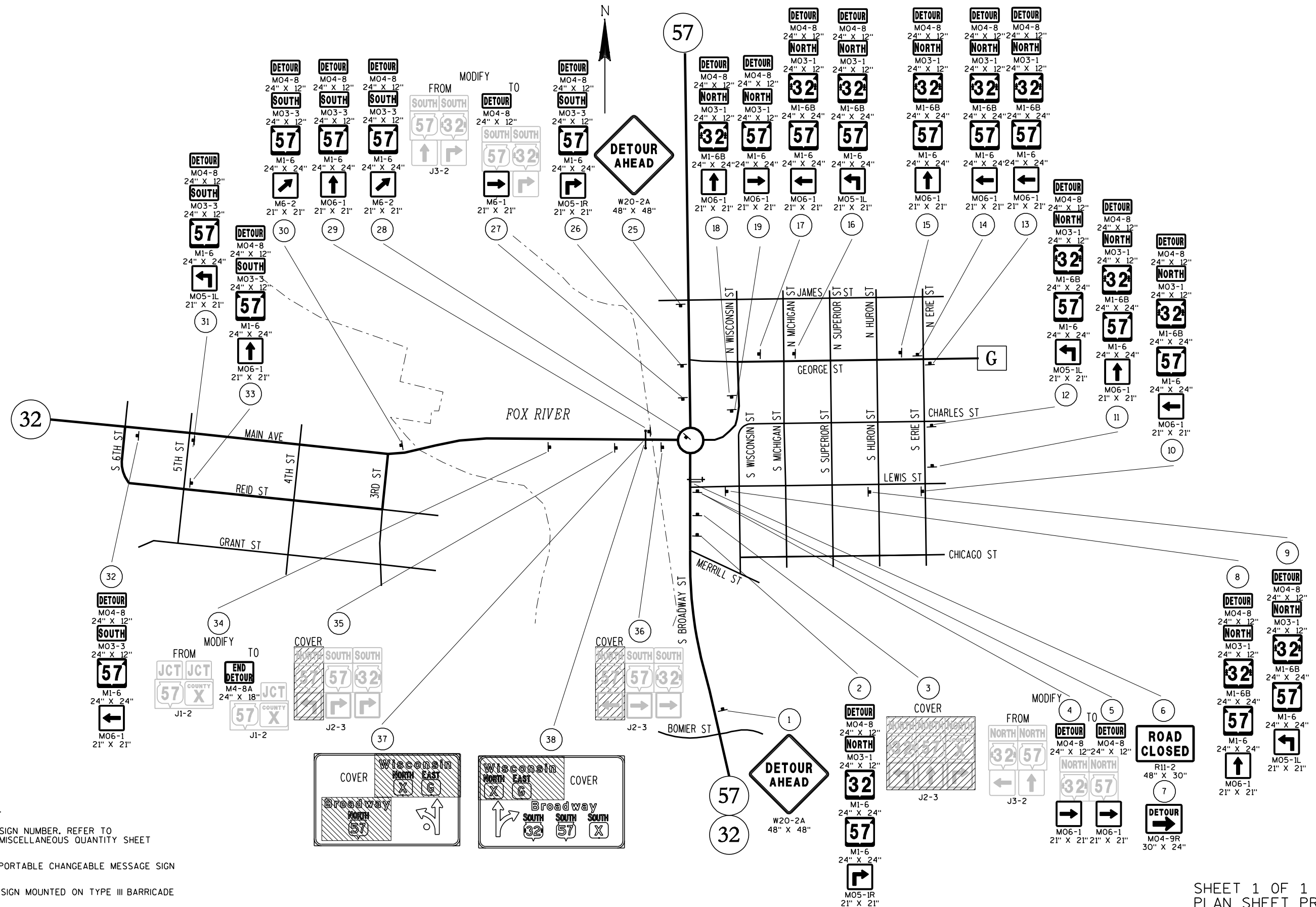
 **WORK ZONE**

LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  SIGN ON PERMANENT SUPPORT
-  FLASHING ARROW BOARD







STH 32/57
WEST
ISLAND NOSE
'WN'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	59+63.72	542782.134	87814.451							
C-12	RADIUS	N/A	542741.824	87871.679	S35°09'38"W		44°30'29"	81°51'04"	28.644	54.377	70.000
	PI	59+92.37	542758.717	87797.956							
	PT/EOP	60+18.10	542730.454	87802.608							

STH 32
WEST
WESTBOUND
'WB'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	98+92.58	542757.069	87715.421							
C-11	RADIUS	N/A	542983.989	87709.421	N88°29'07"E		22°00'33"	25°14'26"	44.143	87.198	227.000
	PI	99+36.73	542758.235	87759.549							
	PT	99+79.78	542775.854	87800.023	N66°28'35"E	15.735					
	PI/EOP	99+95.52	542782.134	87814.451							

BOP = 98+06.00'WB'

STH 32 (MAIN AVENUE)

STH 32
WEST
EASTBOUND
'EB'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	99+20.30	542753.629	87743.145							
C-10	RADIUS	N/A	542661.643	87741.542	S89°00'07"E		40°35'22"	62°16'41"	34.022	65.175	92.000
	PT	99+54.33	542753.037	87777.162							
	PI/EOP	99+85.48	542730.454	87802.608							

ROUNDABOUT
'RA'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC/BOP	50+00.00	542747.010	87817.490	S00°35'19"W	32.273					
C-4	RADIUS	N/A	542746.276	87888.986			48°35'11"	80°08'02"	32.273	60.632	71.500
	PI	50+32.27	542714.739	87817.158							
	PT	50+60.63	542693.143	87841.141	S47°59'53"E	23.081					
	PC	50+83.71	542677.698	87858.293							
C-5	RADIUS	N/A	542708.909	87886.398			50°16'35"	136°25'07"	19.708	36.854	42.000
	PI	51+03.42	542664.510	87872.939							
	PC/PT	51+20.57	542667.346	87892.442	N81°43'33"E	22.197					
C-6	RADIUS	N/A	542674.273	87891.435			39°09'02"	818°30'40"	2.489	4.783	7.000
	PI	51+23.06	542667.704	87894.905							
	PT	51+25.35	542669.537	87896.589	N42°34'31"E	36.400					
	PC	51+61.75	542696.342	87921.216							
C-7	RADIUS	N/A	542734.567	87879.610			41°59'11"	101°24'30"	21.681	41.403	56.500
	PI	51+83.43	542712.307	87935.884							
	PC/PT	52+03.15	542733.987	87936.107	N00°35'19"E	56.477					
C-8	RADIUS	N/A	542734.721	87864.611			51°54'02"	80°08'02"	34.796	64.767	71.500
	PI	52+37.95	542768.781	87936.464							
	PC/PT	52+67.92	542790.531	87909.304	N51°18'42"W	116.098					
C-9	RADIUS	N/A	542746.430	87873.987			128°05'58"	101°24'30"	116.098	126.320	56.500
	PI	53+84.02	542863.102	87818.683							
	PT/EOP	53+94.24	542747.010	87817.490							

STH 32/57
SOUTH
NORTHBOUND
'NB'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	117+08.76	542604.438	87868.655	N01°15'02"E						
C-1	RADIUS	N/A	542602.430	87960.633			29°40'09"	62°16'41"	24.367	47.640	92.000
	PI	117+33.12	542628.799	87869.186							
	PT/EOP	117+56.40	542649.703	87881.707							

STH 32/57
SOUTH
SOUTHBOUND
'SB'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	117+19.49	542615.113	87861.028							
C-2	RADIUS	N/A	542610.575	87715.849	N01°47'25"W		18°31'37"	39°26'46"	23.691	46.968	145.250
	PI	117+43.18	542638.792	87860.288							
	PT/EOP	117+66.46	542661.009	87852.062							

STH 32/57
SOUTH
ISLAND NOSE
'SN'

ITEM	POINT	STATION	NORTHING	EASTING	DIRECTION	DISTANCE	DELTA ANGLE	° CURVE - ARC	TANGENT	ARC LENGTH	RADIUS
	PC	70+84.15	542661.009	87852.062							
C-3	RADIUS	N/A	542771.206	87911.066	S61°50'01"E		14°34'56"	45°50'12"	15.993	31.813	125.000
	PI	71+00.14	542653.460	87866.161							
	PT/EOP	71+15.96	542649.703	87881.707							

PROJECT NO: 4085-50-71

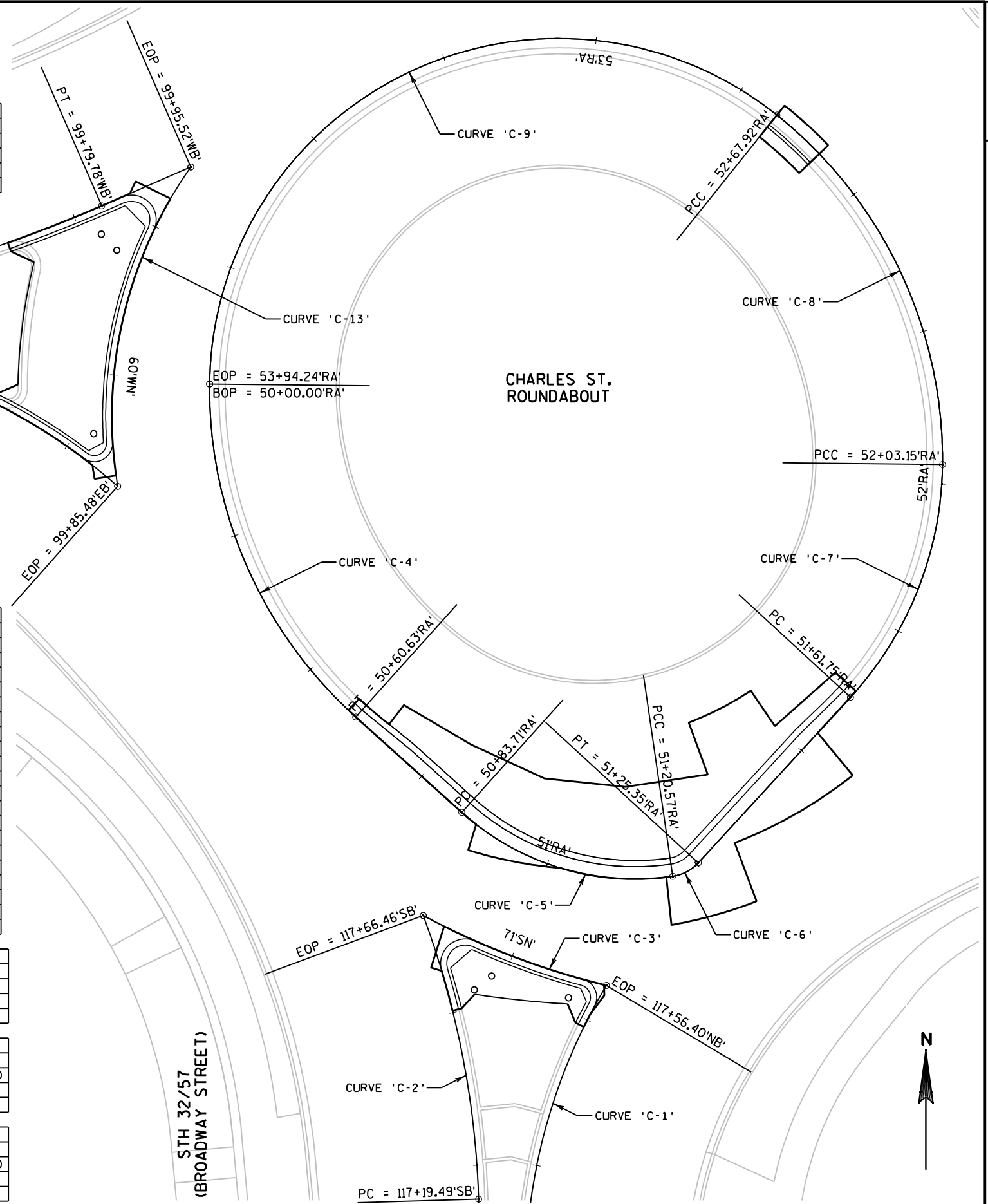
HWY: STH 32

COUNTY: BROWN

ALIGNMENT DETAIL

SHEET

E



DATE 18MAR14		E S T I M A T E O F Q U A N T I T I E S			
LINE					4085-50-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204. 0100	REMOVING PAVEMENT	SY	245. 000	245. 000
0020	204. 0220	REMOVING INLETS	EACH	2. 000	2. 000
0030	204. 0245	REMOVING STORM SEWER (SIZE) 01. 15-INCH	LF	10. 000	10. 000
0040	213. 0100	FINISHING ROADWAY (PROJECT) 01. 4085-05-71	EACH	1. 000	1. 000
0050	305. 0110	BASE AGGREGATE DENSE 3/4-INCH	TON	30. 000	30. 000
0060	305. 0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	20. 000	20. 000
0070	405. 0100	COLORING CONCRETE RED	CY	30. 000	30. 000
0080	416. 0610	DRILLED TIE BARS	EACH	144. 000	144. 000
0090	416. 0620	DRILLED DOWEL BARS	EACH	37. 000	37. 000
0100	608. 0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	40. 000	40. 000
0110	608. 0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	10. 000	10. 000
0120	611. 0612	INLET COVERS TYPE C	EACH	1. 000	1. 000
0130	611. 0652	INLET COVERS TYPE T	EACH	2. 000	2. 000
0140	611. 3003	INLETS 3-FT DIAMETER	EACH	1. 000	1. 000
0150	612. 0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	26. 000	26. 000
0160	619. 1000	MOBILIZATION	EACH	1. 000	1. 000
0170	628. 1905	MOBILIZATIONS EROSION CONTROL	EACH	1. 000	1. 000
0180	628. 1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1. 000	1. 000
0190	628. 7010	INLET PROTECTION TYPE B	EACH	1. 000	1. 000
0200	628. 7015	INLET PROTECTION TYPE C	EACH	9. 000	9. 000
0210	637. 2210	SIGNS TYPE II REFLECTIVE H	SF	38. 760	38. 760
0220	638. 2102	MOVING SIGNS TYPE II	EACH	1. 000	1. 000
0230	638. 2602	REMOVING SIGNS TYPE II	EACH	5. 000	5. 000
0240	638. 3000	REMOVING SMALL SIGN SUPPORTS	EACH	6. 000	6. 000
0250	643. 0100	TRAFFIC CONTROL (PROJECT) 01. 4085-05-71	EACH	1. 000	1. 000
0260	643. 0300	TRAFFIC CONTROL DRUMS	DAY	620. 000	620. 000
0270	643. 0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	55. 000	55. 000
0280	643. 0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	110. 000	110. 000
0290	643. 0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	260. 000	260. 000
0300	643. 0800	TRAFFIC CONTROL ARROW BOARDS	DAY	20. 000	20. 000
0310	643. 0900	TRAFFIC CONTROL SIGNS	DAY	90. 000	90. 000
0320	643. 0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	2. 000	2. 000
0330	643. 0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	3. 000	3. 000
0340	643. 1050	TRAFFIC CONTROL SIGNS PCMS	DAY	28. 000	28. 000
0350	643. 3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	455. 000	455. 000
0360	646. 0600	REMOVING PAVEMENT MARKINGS	LF	483. 000	483. 000
0370	650. 4000	CONSTRUCTION STAKING STORM SEWER	EACH	3. 000	3. 000
0380	650. 5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	450. 000	450. 000
0390	690. 0250	SAWING CONCRETE	LF	447. 000	447. 000
0400	715. 0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500. 000	500. 000
0410	SPV. 0060	SPECIAL 01. INLET UNDERDRAINS	EACH	3. 000	3. 000
0420	SPV. 0060	SPECIAL 02. METAL SIGN POSTS 16-FT	EACH	6. 000	6. 000
0430	SPV. 0060	SPECIAL 03. SALVAGED SIGN POST BASE	EACH	6. 000	6. 000
0440	SPV. 0060	SPECIAL 04. SALVAGED SIGN POST FINIALS	EACH	6. 000	6. 000
0450	SPV. 0060	SPECIAL 05. INLET 4-FT DIAMETER SPECIAL	EACH	1. 000	1. 000
0460	SPV. 0060	SPECIAL 06. INLET 2X2. 5-FT, SPECIAL	EACH	1. 000	1. 000
0470	SPV. 0060	SPECIAL 07. ADJUSTING INLET COVERS WITH RUBBER RINGS	EACH	1. 000	1. 000
0480	SPV. 0090	SPECIAL 01. CONCRETE CURB AND GUTTER 18-INCH TYPE A SHES	LF	125. 000	125. 000

DATE 18MAR14		E S T I M A T E O F Q U A N T I T I E S			
LINE					4085-50-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0490	SPV. 0090	SPECIAL 02. CONCRETE CURB AND GUTTER	LF	102.000	102.000
		4-INCH SLOPED, 36-INCH, TYPE R, SHES			
0500	SPV. 0090	SPECIAL 03. PAVEMENT MARKING GROOVED	LF	24.000	24.000
		PREFORMED THERMOPLASTIC 18-INCH			
0510	SPV. 0090	SPECIAL 04. PAVEMENT MARKING CONTRAST	LF	111.000	111.000
		GROOVED PREFORMED THERMOPLASTIC 8-INCH			
0520	SPV. 0090	SPECIAL 05. CONCRETE CURB AND GUTTER	LF	9.000	9.000
		4-INCH MOUNTABLE 30-INCH SHES			
0530	SPV. 0165	SPECIAL 01. STAMPED CONCRETE SIDEWALK	SF	619.000	619.000
		4-INCH SHE			
0540	SPV. 0165	SPECIAL 02. CONCRETE MEDIAN SLOPED NOSE	SF	24.000	24.000
		SHES			
0550	SPV. 0165	SPECIAL 03. PAINTING SIGN BACKS	SF	38.760	38.760
0560	SPV. 0180	SPECIAL 01. CONCRETE PAVEMENT 9	SY	39.000	39.000
		1/2-INCH SHES			
0570	SPV. 0180	SPECIAL 02. STAMPED CONCRETE ROUNDABOUT	SY	80.000	80.000
		TRUCK APRON 9 1/2-INCH SHES			
0580	SPV. 0180	SPECIAL 03. CONCRETE JOINT SEALING	SY	119.000	119.000

REMOVING CONCRETE PAVEMENT

		204.0100 REMOVING CONCRETE PAVEMENT SY
LOCATION		
CATEGORY 0010		
WEST LEG	STH 32/STH 57	74
SOUTH LEG	STH 32/STH 57	22
CENTRAL ISLAND - NORTH	STH 32/STH 57	7
CENTRAL ISLAND - SOUTH	STH 32/STH 57	142
TOTAL		245

REMOVING INLETS

		204.0220 REMOVING INLETS EACH
LOCATION		
CATEGORY 0010		
WEST LEG	STH 32/STH 57	---
SOUTH LEG	STH 32/STH 57	---
CENTRAL ISLAND - NORTH	STH 32/STH 57	---
CENTRAL ISLAND - SOUTH	STH 32/STH 57	2
TOTAL		2

REMOVING STORM SEWER

	204.0245 REMOVING STORM SEWER 15-INCH LF
LOCATION	
CATEGORY 0010	
WEST LEG	---
SOUTH LEG	---
CENTRAL ISLAND - NORTH	---
CENTRAL ISLAND - SOUTH	10
TOTAL	10

DRILLED BARS & DOWELS

	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
LOCATION		
CATEGORY 0010		
WEST LEG	37	7
SOUTH LEG	18	6
CENTRAL ISLAND - NORTH	11	0
CENTRAL ISLAND - SOUTH	78	24
TOTAL		144 37

BASE COURSE

		SIDEWALK 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	PVT & APRON 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
LOCATION			
CATEGORY 0010			
WEST LEG	STH 32/STH 57	26	2
SOUTH LEG	STH 32/STH 57	6	1
CENTRAL ISLAND - NORTH	STH 32/STH 57	---	---
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---	17
SUBTOTAL		32	20
TOTAL		30	20

CONCRETE CURB AND GUTTER

		SPV.0090.01 CONC C & G 18-INCH TYPE A SHES LF	SPV.0090.02 CONC C & G 4-INCH SLOPED 36-INCH TYPE R SHES LF	SPV.0090.05 CONC C & G 4-INCH MOUNTABLE 30-INCH SHES LF
LOCATION				
CATEGORY 0010				
WEST LEG	STH 32/STH 57	85	---	---
SOUTH LEG	STH 32/STH 57	40	---	---
CENTRAL ISLAND - NORTH	STH 32/STH 57	---	---	9
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---	102	---
TOTAL		125	102	9

CONCRETE SIDEWALK

		SPV.0165.01 STAMPED CONCRETE SIDEWALK 4-INCH SHES SF
LOCATION		
CATEGORY 0010		
WEST LEG	STH 32/STH 57	508
SOUTH LEG	STH 32/STH 57	111
CENTRAL ISLAND - NORTH	STH 32/STH 57	---
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---
TOTAL		619

CONCRETE MEDIAN

		SPV.0165.02 CONCRETE MEDIAN SLOPED NOSE SHES SF
LOCATION		
CATEGORY 0010		
WEST LEG	STH 32/STH 57	13
SOUTH LEG	STH 32/STH 57	11
CENTRAL ISLAND - NORTH	STH 32/STH 57	---
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---
TOTAL		24

CONCRETE PAVEMENT ITEMS

		SPV.0180.01 CONCRETE PAVEMENT 9 1/2-INCH SHES SY	SPV.0180.02 STAMPED CONCRETE ROUNDBOUT TRUCK APRON 9 1/2-INCH SHES SY	SPV.0180.03 CONCRETE JOINT SEALING SY
LOCATION				
CATEGORY 0010				
WEST LEG	STH 32/STH 57	3	---	3
SOUTH LEG	STH 32/STH 57	2	---	2
CENTRAL ISLAND - NORTH	STH 32/STH 57	2	2	4
CENTRAL ISLAND - SOUTH	STH 32/STH 57	32	78	109
TOTAL		39	80	119

3

3

STRUCT NUM		611.0612	611.0652	611.3003	SPV.0060.05	SPV.0060.06	SPV.0060.07					
	LOCATION	INLET COVERS TYPE C EACH	INLET COVERS TYPE T EACH	INLETS 3-FT DIA EACH	INLETS 4-FT DIA SPECIAL EACH	INLETS 2 X 2.5-FT SPECIAL EACH	ADJUSTING INLET COVERS WITH RUBBER RINGS EACH	RIM ELEVATION	TOP OF STRUCT ELEV	INV ELEV	STRUCT DEPTH FT	REMARKS
CATEGORY 0010												
	CENTRAL ISLAND - NORTH	---	---	---	---	---	1					
22.2A	CENTRAL ISLAND - SOUTH	---	1	---	---	1	---	609.55	608.72	605.40	3.32	SEE NOTES
22.3A	CENTRAL ISLAND - SOUTH	---	1	---	1	---	---	609.28	608.45	604.94	3.51	SEE NOTES
22.3B	CENTRAL ISLAND - SOUTH	1	---	1	---	---	---	609.41	608.67	605.00	3.67	SEE NOTES
TOTAL		1	2	1	1	1	1					

ALLOWANCES FOR ADJUSTMENT RINGS AND FRAMES ARE AS FOLLOWS:

INLET WITH TYPE C COVER = 0.74'
INLETS WITH TYPE T COVER = 0.83'

INVERTS OF EXISTING PIPE AND STRUCTURES SHOULD BE VERIFIED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ORDERING STRUCTURE

STRUCTURE		608.0312 REIN. CONC. CLASS III 12-INCH LF	608.0315 REIN. CONC. CLASS III 15-INCH LF
FROM	TO		
CATEGORY 0010			
INL 22.2A	INL 22.3A	40	---
INL 22.2B	INL 22.3A	---	10
TOTAL		40	10

	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	SPV.0060.01 INLET UNDERDRAINS EACH
LOCATION		
CATEGORY 0010		
WEST LEG	---	---
SOUTH LEG	---	---
CENTRAL ISLAND - NORTH	---	---
CENTRAL ISLAND - SOUTH	26	3
TOTAL	26	3

LOCATION	628.1905 MOB. EROSION CONTROL EA	628.1910 MOB. EROSION CONTROL EMERGENCY EA	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
CATEGORY 0010				
WEST LEG	---	---	---	2
SOUTH LEG	---	---	---	2
CENTRAL ISLAND - NORTH	---	---	---	1
CENTRAL ISLAND - SOUTH	---	---	1	4
ROUNDAABOUT	1	1		
TOTAL	1	1	1	9

		405.0100 COLORING CONCRETE (DE PERE BRICK RED)
	LOCATION	CY
CATEGORY 0010		
WEST LEG	STH 32/STH 57	6
SOUTH LEG	STH 32/STH 57	1
CENTRAL ISLAND - NORTH	STH 32/STH 57	2
CENTRAL ISLAND - SOUTH	STH 32/STH 57	21
TOTAL		30

TRAFFIC CONTROL

LOCATION	EST. SERVICE PERIOD	643.0300 DRUMS		643.0420* BARRICADES TYPE III		643.0705* WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0800 ARROW BOARDS		643.0900 SIGNS		643.1050 SIGNS PCMS		REMARKS
	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	
CATEGORY 0010																
CTH X/CTH G - EAST LEG APPROACH	5	17	85	1	5	2	10	13	65	1	5	3	15	1	7	SEE TRAFFIC CONTROL SHEETS FOR SIGNS NEEDED FOR EACH STAGE AND APPROACH
CTH X/CTH G - EAST LEG EXIT	5		0		0		0		0		0	1	5		0	"END ROAD WORK" (G20-2A)
STH 57 - NORTH LEG APPROACH	5	19	95	1	5	2	10	13	65	1	5	3	15	1	7	SEE TRAFFIC CONTROL SHEETS FOR SIGNS NEEDED FOR EACH STAGE AND APPROACH
STH 57 - NORTH LEG EXIT	5		0		0		0		0		0	1	5		0	"END ROAD WORK" (G20-2A)
STH 32 - WEST LEG APPROACH	5	20	100	1	5	2	10	13	65	1	5	3	15	1	7	SEE TRAFFIC CONTROL SHEETS FOR SIGNS NEEDED FOR EACH STAGE AND APPROACH
STH 32 - WEST LEG EXIT	5	18	90		0		0		0		0	1	5		0	"END ROAD WORK" (G20-2A)
STH 32/STH 57 - SOUTH LEG APPROACH	5	16	80	4	20	8	40	13	65	1	5	3	15	1	7	SEE TRAFFIC CONTROL SHEETS FOR SIGNS NEEDED FOR EACH STAGE AND APPROACH
STH 32/STH 57 - SOUTH LEG EXIT	5	22	110		0		0		0		0	1	5		0	"END ROAD WORK" (G20-2A)
CENTRAL ISLAND LANES	5	12	60	3	15	6	30		0		0		0		0	
LEWIS STREET	5		0		0		0		0		0	1	5		0	"ROAD WORK AHEAD" (W20-1A)
MERRILL STREET	5		0		0		0		0		0	1	5		0	"ROAD WORK AHEAD" (W20-1A)
TOTAL		620		50		100		260		20		90		28		

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PAVEMENT MARKINGS

	LOCATION	LENGTH	646.0600 REMOVING PAVEMENT MARKINGS LF	NOTES
CATEGORY 0010				
WEST LEG	STH 32/STH 57	99	198	EXISTING WIDTH = 8"
WEST LEG	STH 32/STH 57	29	145	EXISTING WIDTH = 18"
SOUTH LEG	STH 32/STH 57	70	140	EXISTING WIDTH = 8"
CENTRAL ISLAND - NORTH	STH 32/STH 57	---	---	
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---	---	
TOTAL			483	

CONSTRUCTION STAKING

LOCATION	650.4000	650.5500 *	650.5500 **
	STORM SEWER EACH	CURB & GUTTER LF	CURB & GUTTER LF
WEST LEG	---	85	85
SOUTH LEG	---	40	40
CENTRAL ISLAND - NORTH	---	---	---
CENTRAL ISLAND - SOUTH	3	100	100
SUB-TOTAL	3	225	225
TOTAL	3		450

SAWING

LOCATION	690.0250 SAWING CONCRETE LF
CATEGORY 0010	
WEST LEG	112
SOUTH LEG	60
CENTRAL ISLAND - NORTH	31
CENTRAL ISLAND - SOUTH	244
TOTAL	447

PAVEMENT MARKING

	LOCATION	SPV.0090.03 PVT MARKING GROOVED PRE-FORMED THERMOPLASTIC 18-INCH LF	SPV.0090.04 PVT MARKING CONTRAST GROOVED PRE-FORMED THERMOPLASTIC 8-INCH LF
CATEGORY 0010			
WEST LEG	STH 32/STH 57	24	62
SOUTH LEG	STH 32/STH 57	---	49
CENTRAL ISLAND - NORTH	STH 32/STH 57	---	---
CENTRAL ISLAND - SOUTH	STH 32/STH 57	---	---
TOTAL		24	111

NOTE:
* STAKE CURB AND GUTTER FOR SAWCUT LINE
** STAKE CURB AND GUTTER FOR CURB AND GUTTER

ERECTION AND REMOVAL OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637. 2210 SIGNS TYPE II REFLECTIVE H S. F.	638. 2102 MOVI NG TYPE II SIGNS EACH	638. 2602 REMOVI NG TYPE II SIGNS EACH	638. 3000 REMOVI NG SMALL SI GN SUPPORTS EACH	SPV. 0060. 02 METAL SIGN POSTS 16-FT EACH	SPV. 0060. 03 SALVAGED SI GN POSTS BASE EACH	SPV. 0060. 04 SALVAGED SI GN POSTS FINI ALS EACH	SPV. 0165. 03 PAI NTING SI GN BACKS S. F.	REMARKS
1	EXIT SPLITTER TO NORTH STH 32/CTH G	D1-3	84" X 36"	21.00		1	2	2	2	2	21.00	SEE SIGN DETAIL SHEET
2	SOUTH STH 32/CTH G, APPROACH TO RAB	R1-2	36" X 31"	3.88		1	1	1	1	1	3.88	
3	"	R6-2R	24" X 30"	5.00		1					5.00	MOUNT BELOW SIGN #2
4	EXIT SPLITTER TO NORTH STH 32/CTH G	---	---		1		2	2	2	2		REMOUNT EXISTING D1-3 SIGN TO NEW SIGN POST LOCATION
5	SOUTH STH 32/57/CTH X, APPROACH TO RAB	R1-2	36" X 31"	3.88		1	1	1	1	1	3.88	
6	"	R6-2R	24" X 30"	5.00		1					5.00	MOUNT BELOW SIGN #5
PROJECT TOTALS				38.76	1	5	6	6	6	6	38.76	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 5 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0920 TYPE II EACH	REMARKS
	NB HWY 32/57 DETOUR										
1	500' N OF BOMIER ST INTERSECTION ON STH 32/57 (NB)	WO 20-2-A	48"x48"	1	5	5					
2	200' N OF MERRILL ST INTERSECTION ON STH 32/57 (NB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 5-1-R	21"x21"	1	5	5					
3	J2-2-3 (N-32-AH LT; N-57-AH; N-X-AH RT)									1	N-32-AH LT; N-57-AHEAD; N-X-AH RT
4	MODIFY J3-2 (N-32-LT; N-57-AH)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	EXISTING								
	"	MO 1-4	EXISTING								32
	"	MO 6-1	21"x21"	1	5	5					LEFT
5	MODIFY J3-2 (N-32-LT; N-57-AH)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	EXISTING								
	"	MO 1-4	EXISTING								57
	"	MO 6-1	21"x21"	1	5	5					LEFT
6	NW QUAD OF LEWIS ST & S BROADWAY ST INTERSECTION	R 11-2	48"x30"	1	5	5	5	10			
7	BELOW SIGN # 6	MO 4-9-R	30"x24"	1	5	5					
8	100' E OF BROADWAY ST INTERSECTION ON LEWIS ST (NB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					AHEAD
9	150' W OF HURON ST INTERSECTION ON LEWIS ST (NB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 5-1-L	21"x21"	1	5	5					
10	RT OF R1-1 (STOP SIGN) @ LEWIS AND ERIE ST's	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					LEFT
11	100' N OF LEWIS ST INTERSECTION ON ERIE ST (WB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					AHEAD
12	75' S OF CHARLES ST INTERSECTION ON ERIE ST (WB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 5-1-L	21"x21"	1	5	5					
13	200' S OF GEORGE ST INTERSECTION ON ERIE ST (WB) NEAR RT)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					LEFT

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SHEET 1 OF 3
PLAN SHEET PRODUCED
BY WisDOT – NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY CONTINUED

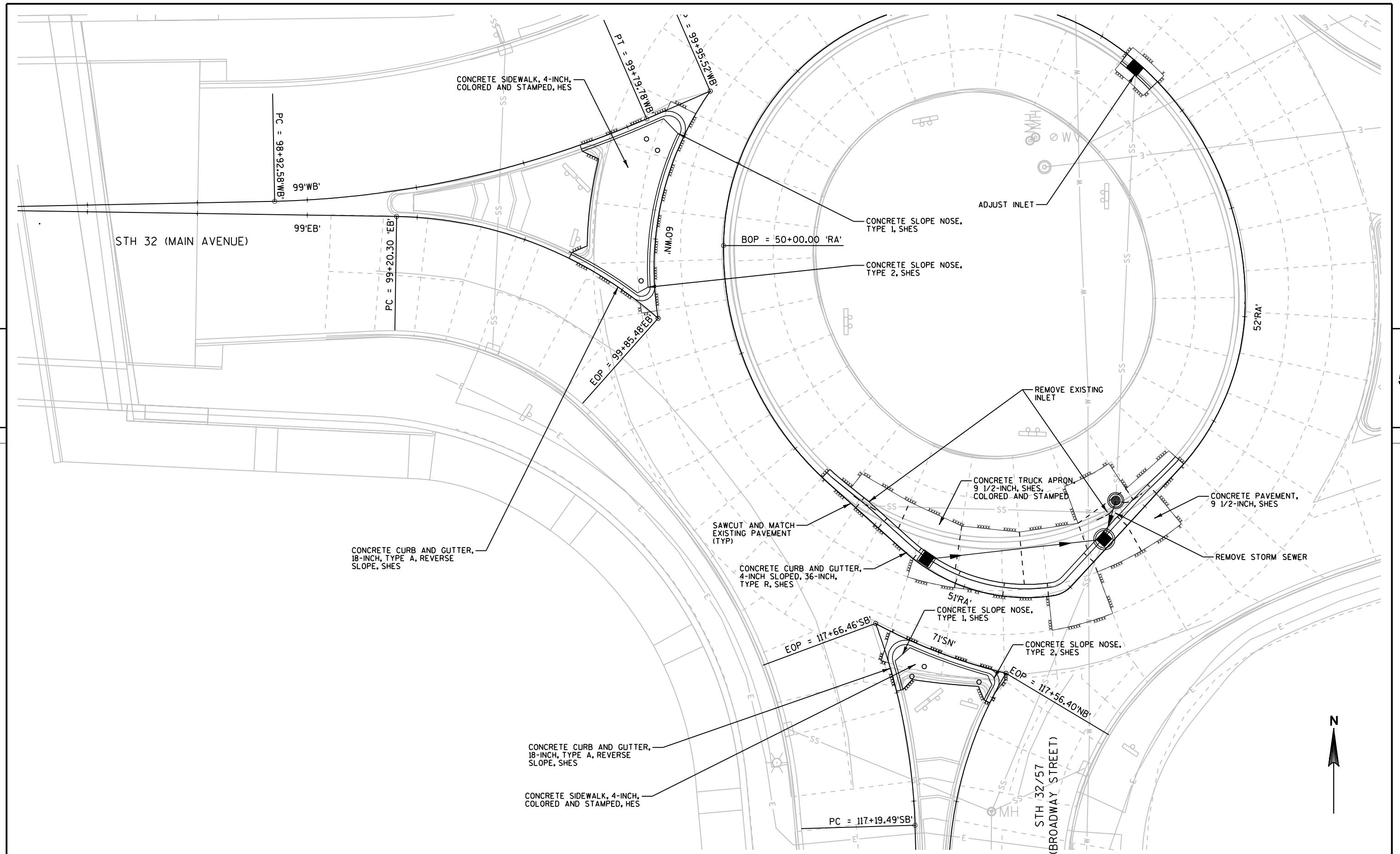
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD	643.3000 DETOUR SIGNS	643.0420* BARRICADES TYPE III	643.0705* WARNING LIGHTS TYPE A	COVERING SIGNS		REMARKS
					5 DAYS	DAYS	DAYS	DAYS	TYPE I EACH	TYPE II EACH	
14	LT OF TRAFFIC SIGNAL ON GEORGE ST AND ERIE ST INTERSECTION (FAR LT)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					LEFT
15	75' W OF ERIE ST INTERSECTION ON GEORGE ST	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					AHEAD
16	250' E OF MICHIGAN ST INTERSECTION ON GEORGE ST	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 5-1-L	21"x21"	1	5	5					
17	100' W OF MICHIGAN ST INTERSECTION ON GEORGE ST	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	JV	24"x48"	1	5	5					32/57
	"	MO 6-1	21"x21"	1	5	5					LEFT
18	100' E OF GEORGE ST INTERSECTION ON WISCONSIN ST	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x24"	1	5	5					32
	"	MO 6-1	21"x21"	1	5	5					AHEAD
19	150' E OF GEORGE ST INTERSECTION ON WISCONSIN ST	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-1	21"x21"	1	5	5					RIGHT
	DIRECTION SUBTOTAL			59		295	5	10	0	1	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL DETOUR SIGN SUMMARY CONTINUED

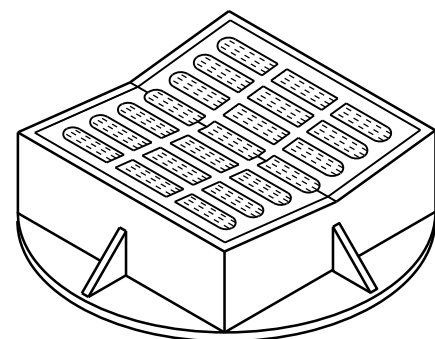
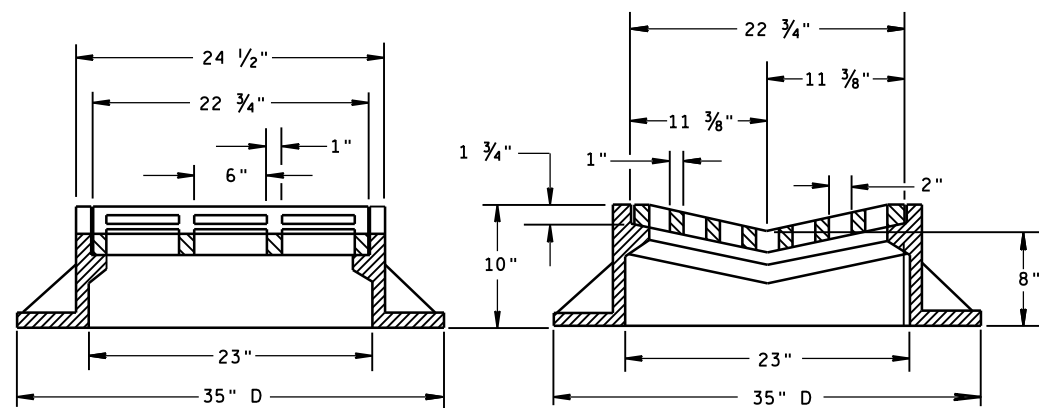
SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 5 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420* BARRICADES TYPE III DAYS	643.0705* WARNING LIGHTS TYPE A DAYS	643.0910 COVERING SIGNS TYPE I EACH	643.0920 TYPE II EACH	REMARKS
	SOUTH STH 57										
	GAP IN SIGN NUMBERS (20-24)										
25	100' S OF JAMES ST INTERSECTION ON S BROADWAY ST	WO 20-2-A	48"x48"	1	5	5					
26	100' N OF J2-2 (S-32-AH; N-32-RT)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-3	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO -5-1-R	21"x21"	1	5	5					
27	MODIFY J3-2 (S-57-AH; 32-AH-RT)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	EXISTING								
	"	M 1-4	EXISTING								57
	"	MO 6-1	21"x21"	1	5	5					RIGHT
28	ABOVE D1-1 (S-32-TILT RT) IN WEST SPLITTER ISLAND	MO 4-8	24"x12"	1	5	5					
	"	MO 3-3	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-2	21"x21"	1	5	5					RIGHT
29	250' S OF HWY 57 INTERSECTION ON HWY 32 (NB)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-1	21"x21"	1	5	5					AHEAD
30	200' S OF J3-2 (N-32-TILT RT; TO-41-TILT RT)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-2	21"x21"	1	5	5					RIGHT
31	100' N OF 5TH ST INTERSECTION ON MAIN ST (LT SIDE)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO -5-1-L	21"x21"	1	5	5					
32	100' N OF 6TH ST INTERSECTION ON MAIN ST (LT SIDE)	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-1	21"x21"	1	5	5					LEFT
33	NW QUAD (BULB OUT) OF 5TH ST & REID ST INTERSECTION	MO 4-8	24"x12"	1	5	5					
	"	MO 3-1	24"x12"	1	5	5					
	"	M 1-4	24"x48"	1	5	5					57
	"	MO 6-1	21"x21"	1	5	5					AHEAD
34	MODIFY J1-2 (JCT 57; JCT X)	MO 4-8-A	24"x18"	1	5	5					
	"	M 1-4	EXISTING								
35	J2-3 (N-57-AH-LT; S-57-AH RT; S-32-AH RT)									1	NORTH 57 AHEAD LEFT
36	J3-3 (N-57-LT; S-57-RT; S-32-RT)									1	NORTH 57 LEFT
37	TYPE 1 (BROADWAY-NORTH 57; WISCONSIN-NORTH X, EAST G)								1		BROADWAY-NORTH 57; WISCONSIN-NORTH X, EAST G
38	TYPE 1 (WISCONSIN-NORTH X, EAST G; BROADWAY-SOUTH 32, SOUTH 57, EAST G)								1		WISCONSIN-NORTH X, EAST G
	DIRECTION SUBTOAL			32		160	0	0	2	2	
	PROJECT TOTAL			91		455	5	10	2	3	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

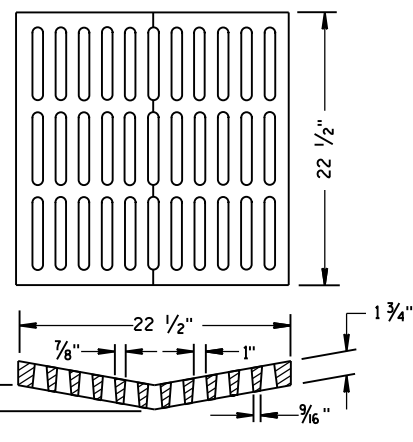


Standard Detail Drawing List

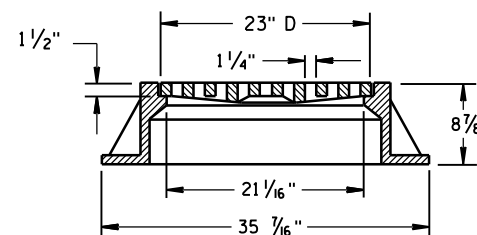
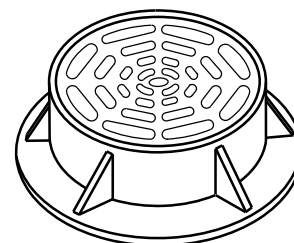
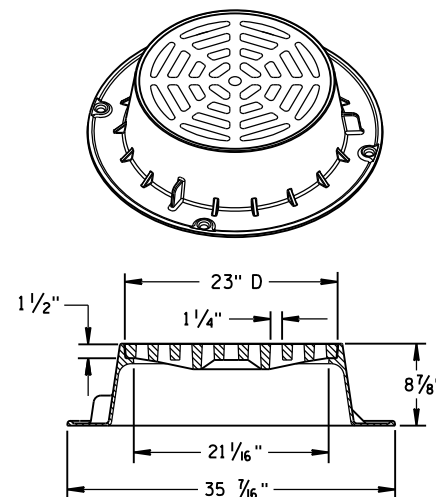
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
11B02-02	CONCRETE MEDIAN NOSE
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
 NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

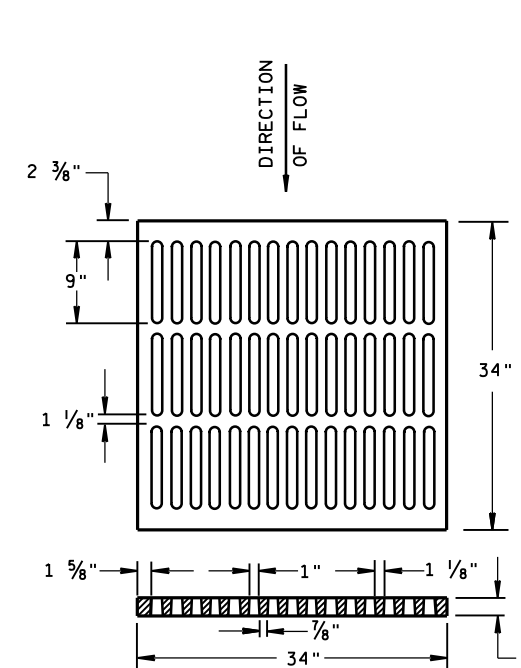
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

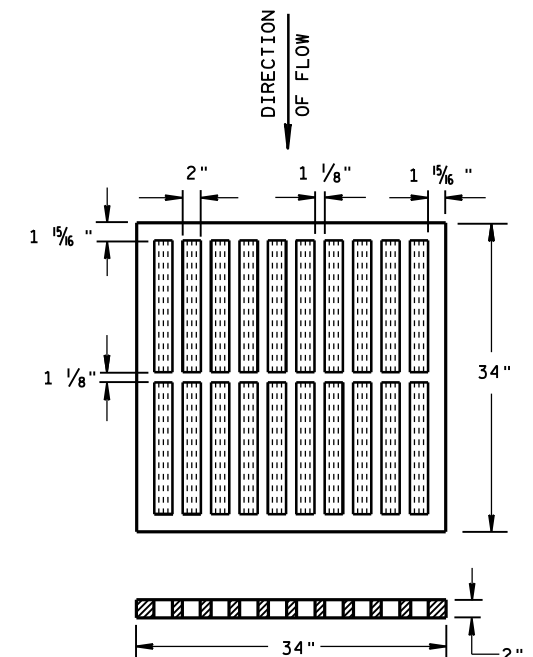
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



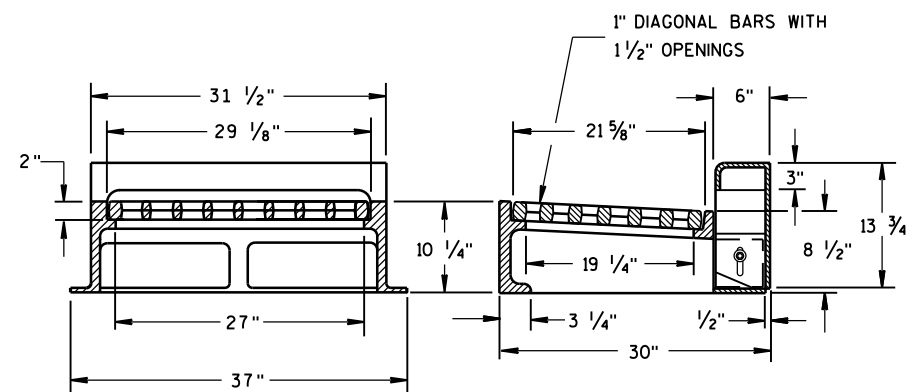
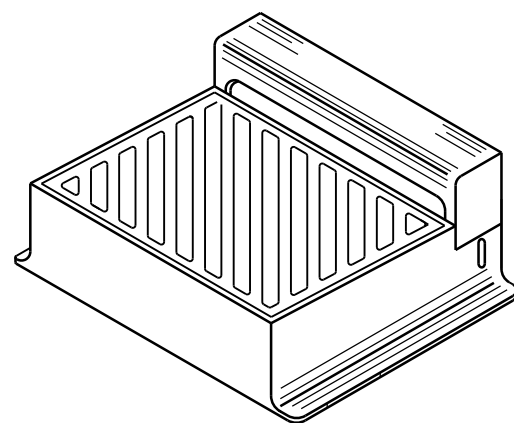
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
 NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
 NOTED AS TYPE MS ON DRAINAGE TABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIAGONAL SLOTS, SHALL BE ORIENTED
 TO THE DIRECTION OF FLOW AS ILLUSTRATED.
 GRATES ARE MANUFACTURED TO BE REVERSIBLE.

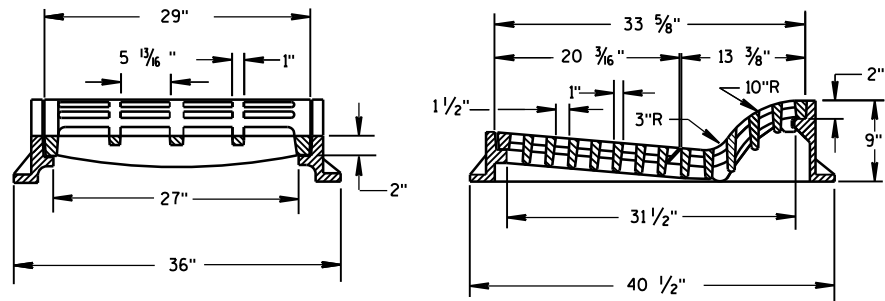
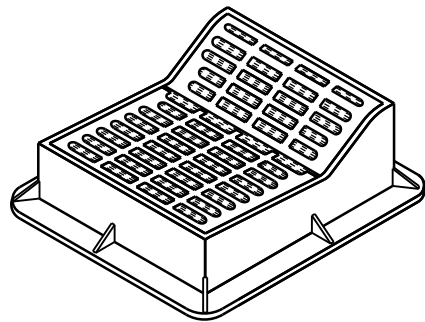
DIRECTION
OF FLOW

INLET COVERS
 TYPE B, B-A, C,
 MS, MS-A, & WM

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

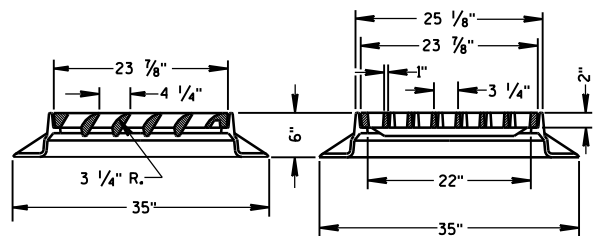
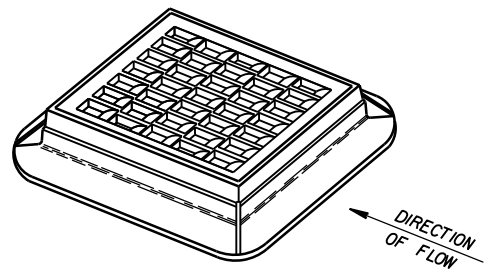
APPROVED
 11/27/2013
 DATE
 FHWA

/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER

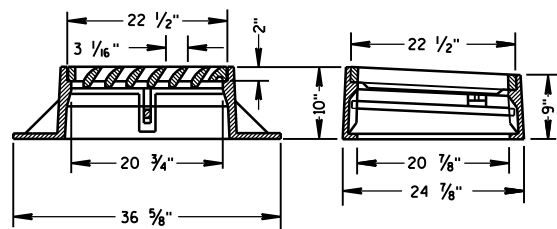
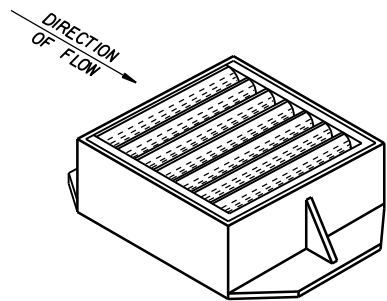


TYPE "F"

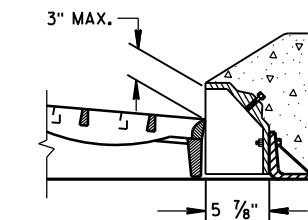
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



TYPE "S"



TYPE "V"



ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER

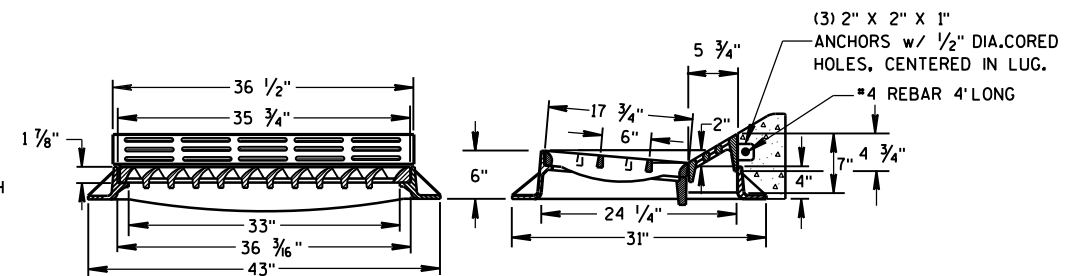
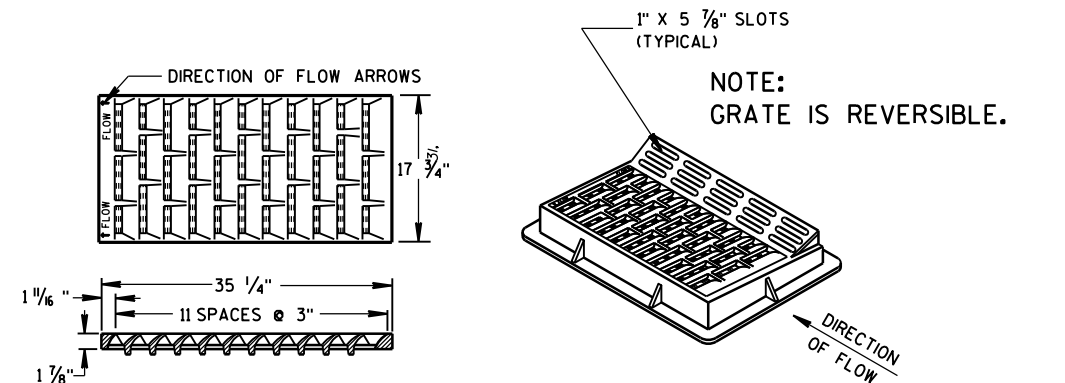
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

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

GENERAL NOTES

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

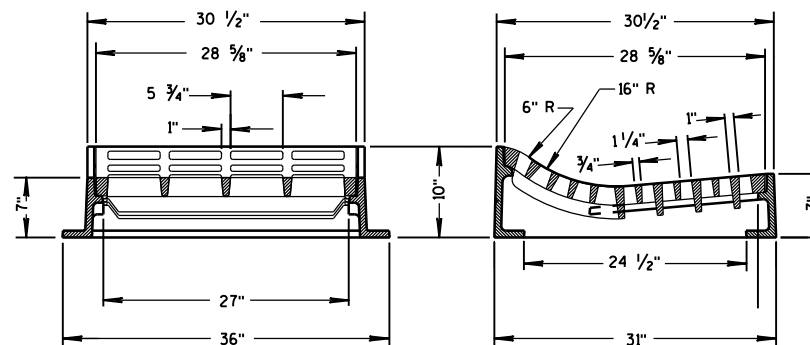
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



TYPE "HM"

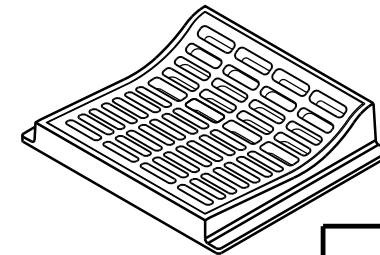
USE WITH TYPES A & D CONCRETE
CURB & GUTTER, 36 INCH.

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



TYPE "T"

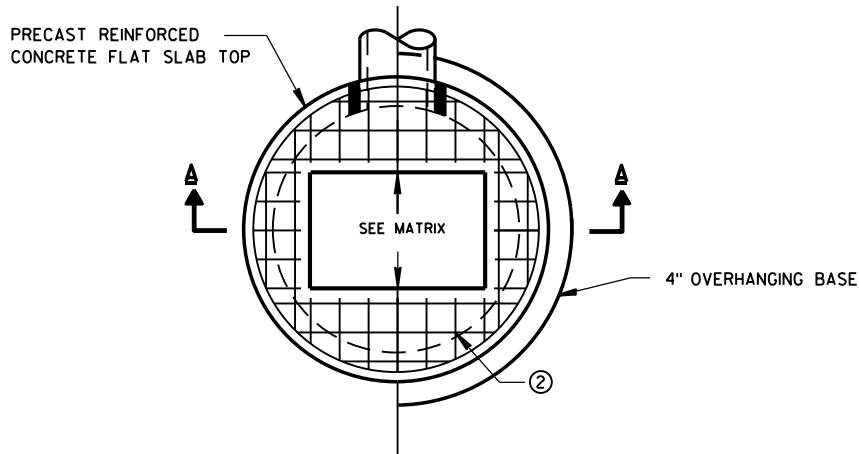
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



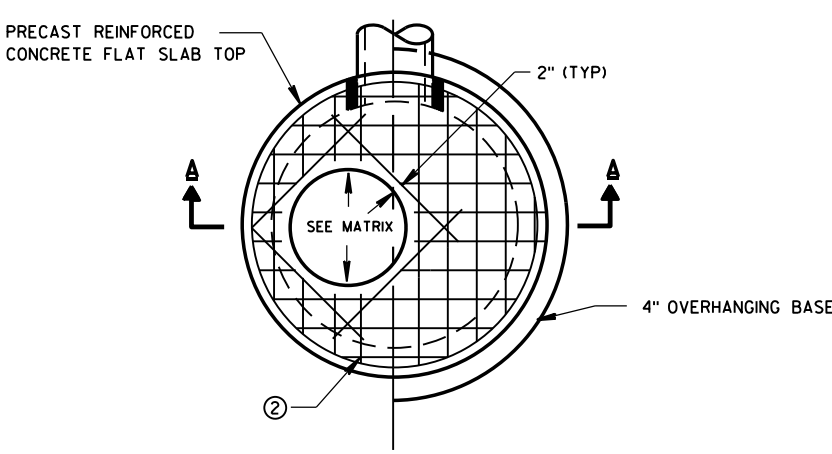
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

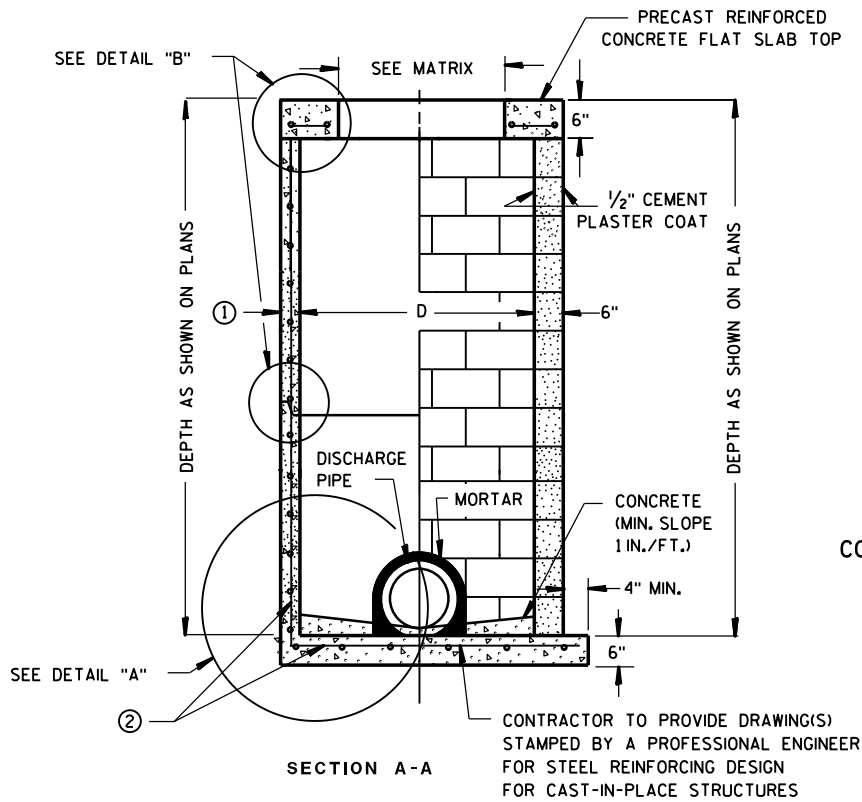


PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

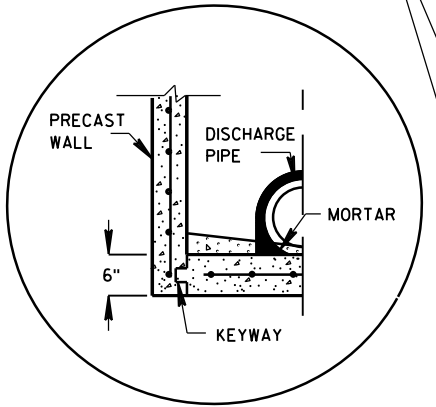
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)



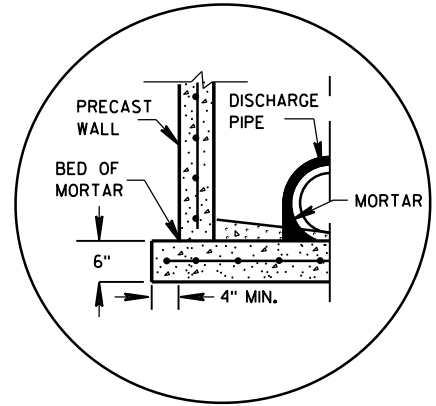
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

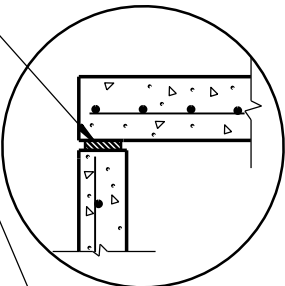


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

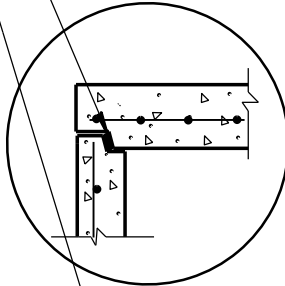


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

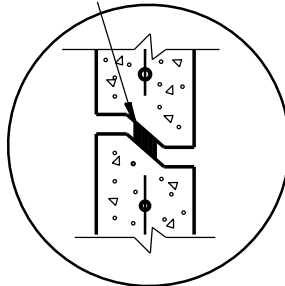
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

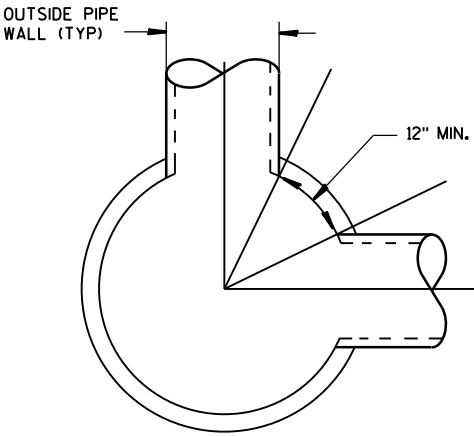
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

INLET COVER OPENING MATRIX

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



DETAIL "C"

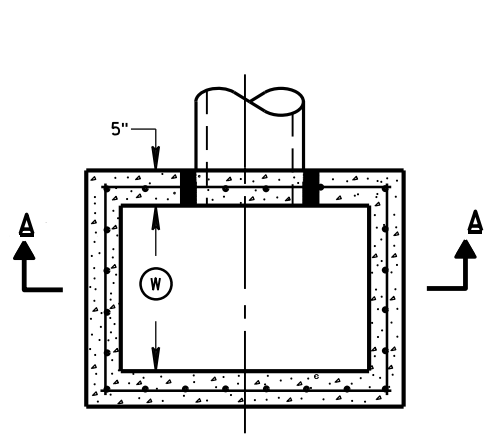
PIPE MATRIX

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

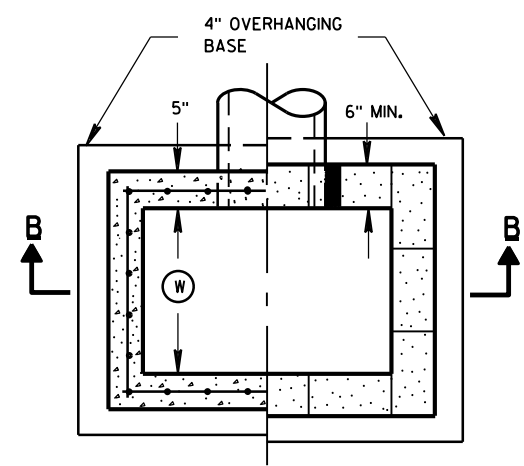
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

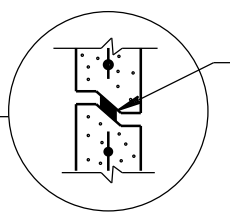
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



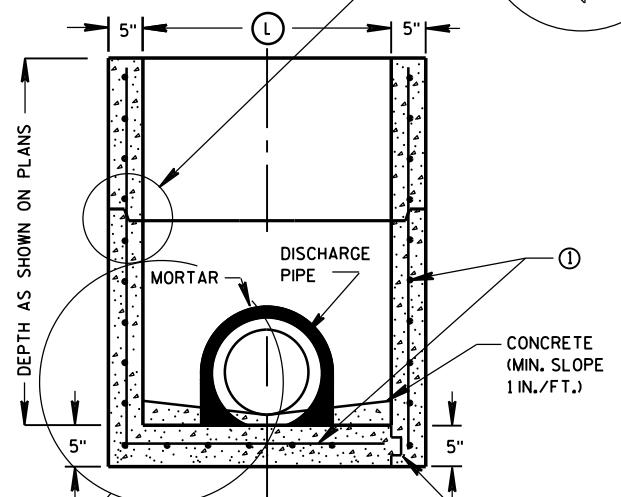
PLAN VIEW



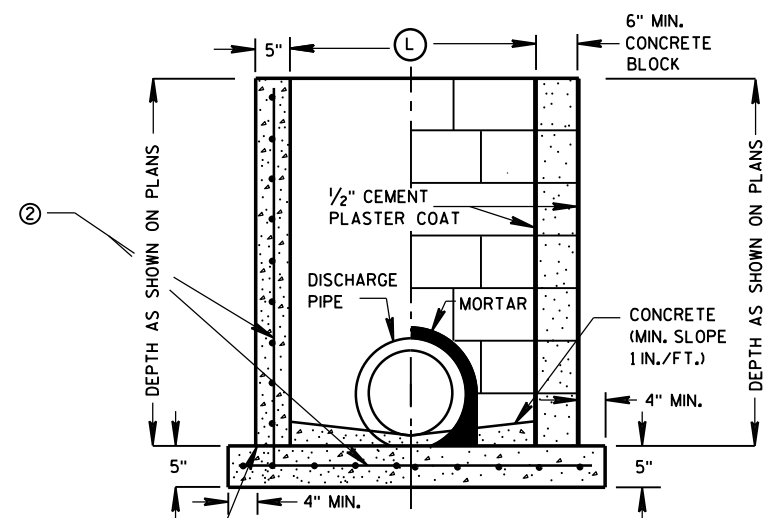
PLAN VIEW



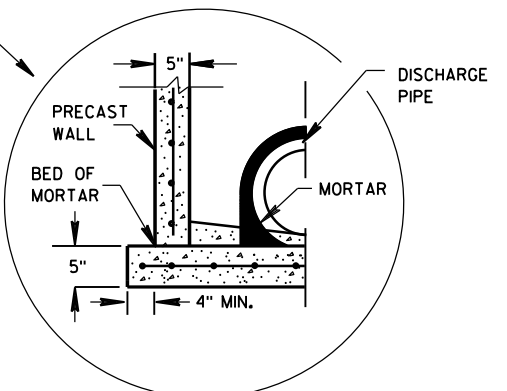
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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 GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

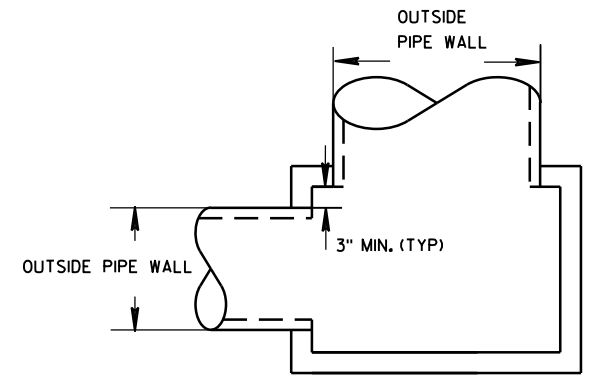
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH ① (FT)	LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

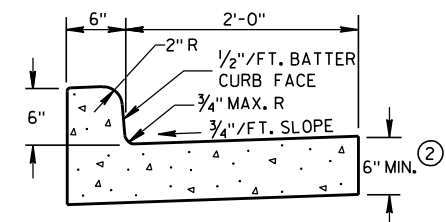


DETAIL "A"

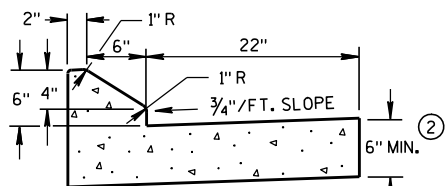
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

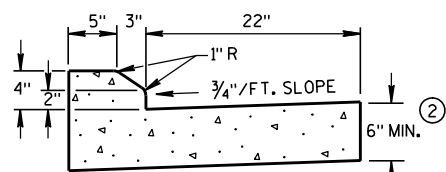
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



TYPES A & D ①



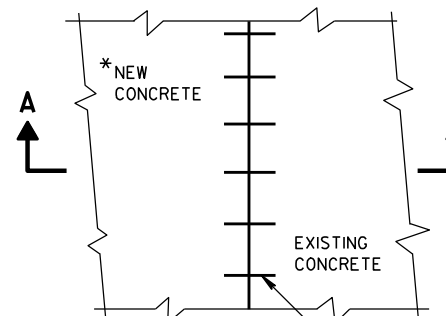
6" SLOPED CURB TYPES G & J ①



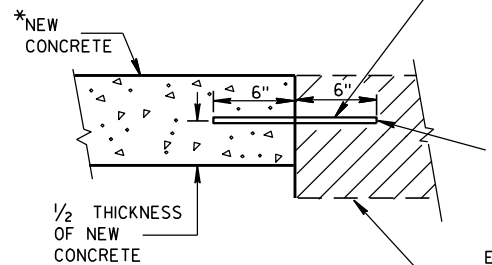
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



PLAN VIEW

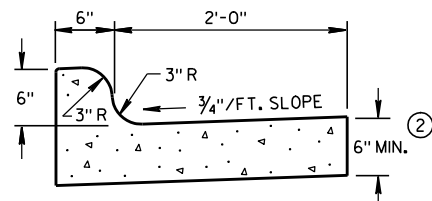


SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

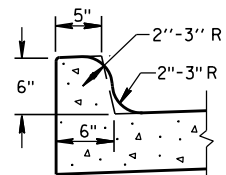
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

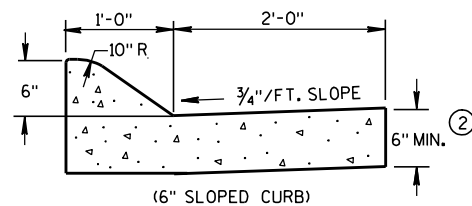
EXISTING
CONCRETE



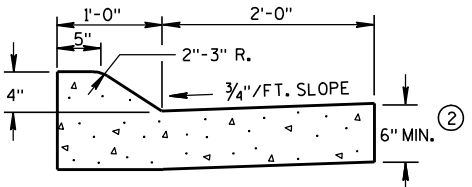
TYPES K & L ①



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

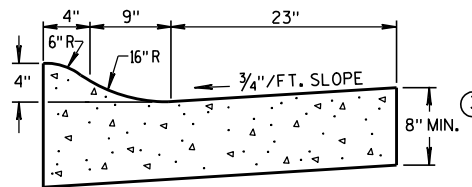


(6" SLOPED CURB)



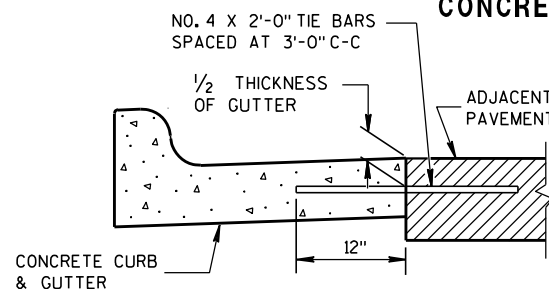
(4" SLOPED CURB)

TYPES A & D ①

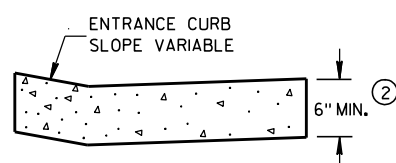


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

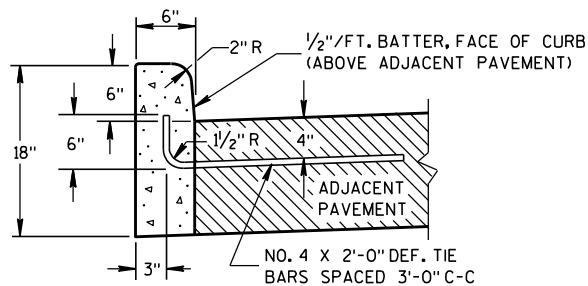


TYPICAL TIE BAR LOCATION ①



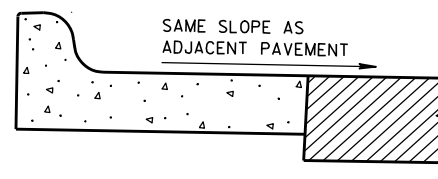
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

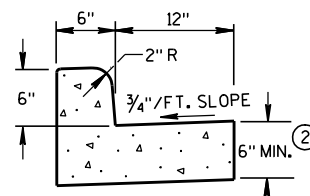


TYPES A & D ①

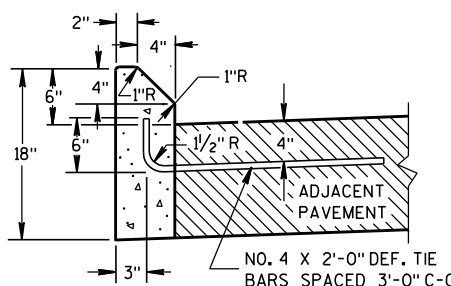
CONCRETE CURB



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



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.

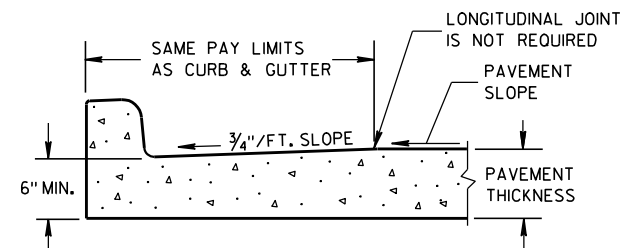
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

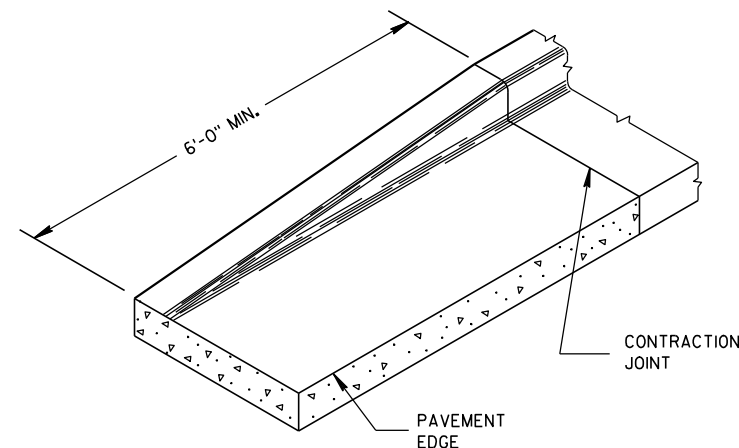
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

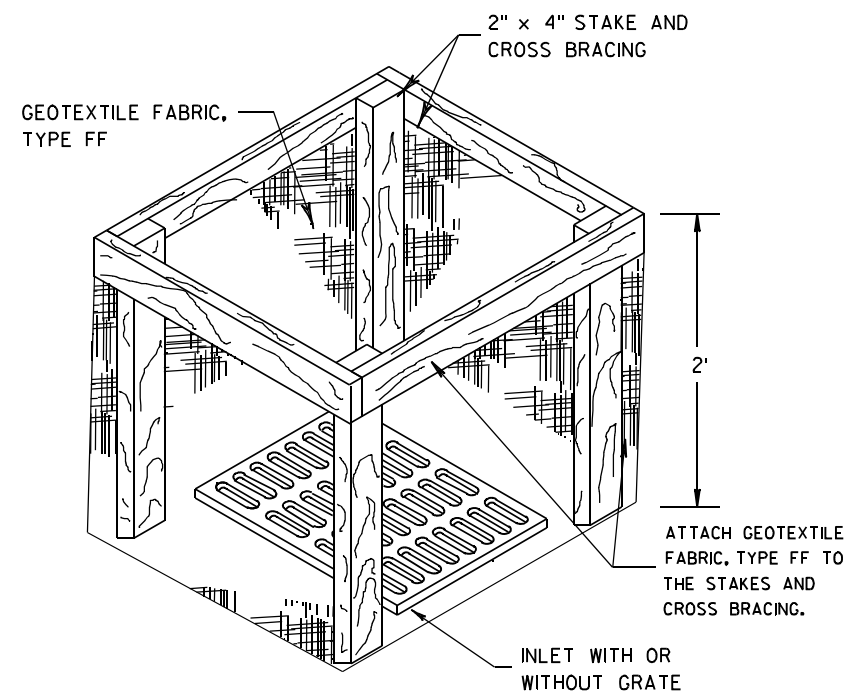
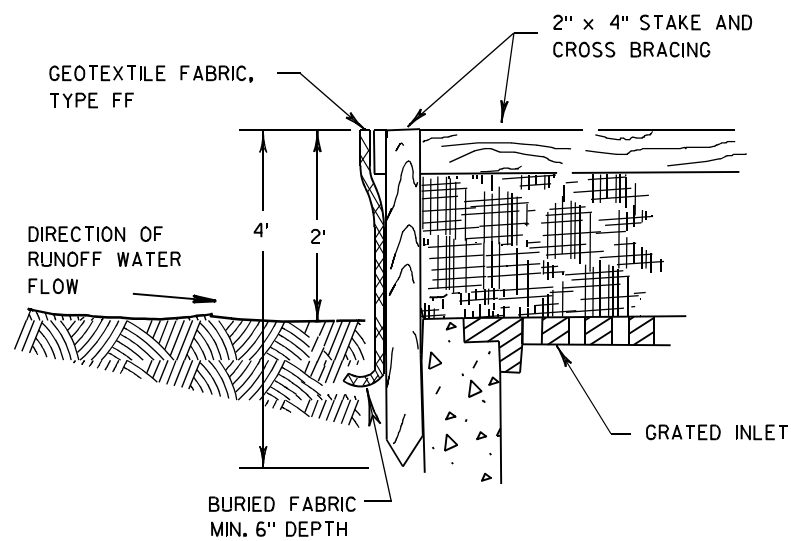
APPROVED

9/4/08

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



INLET PROTECTION, TYPE A

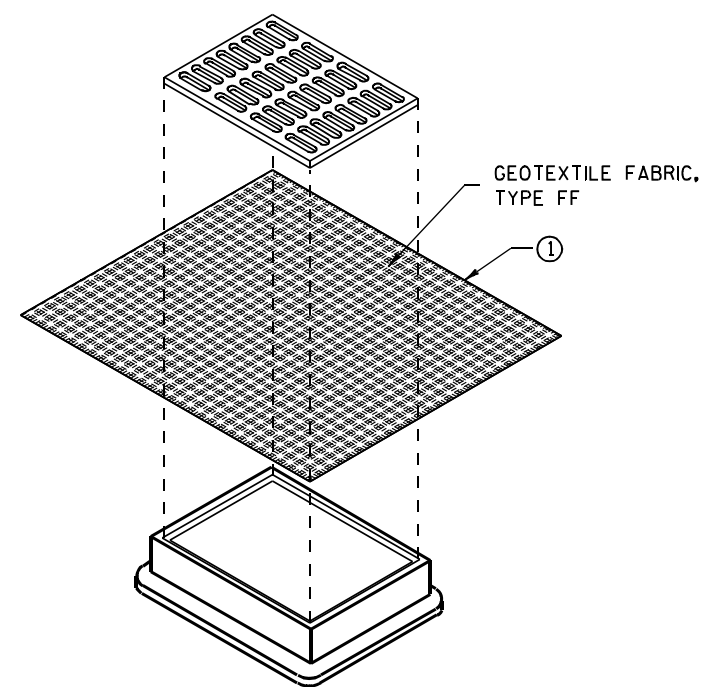
GENERAL NOTES

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

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

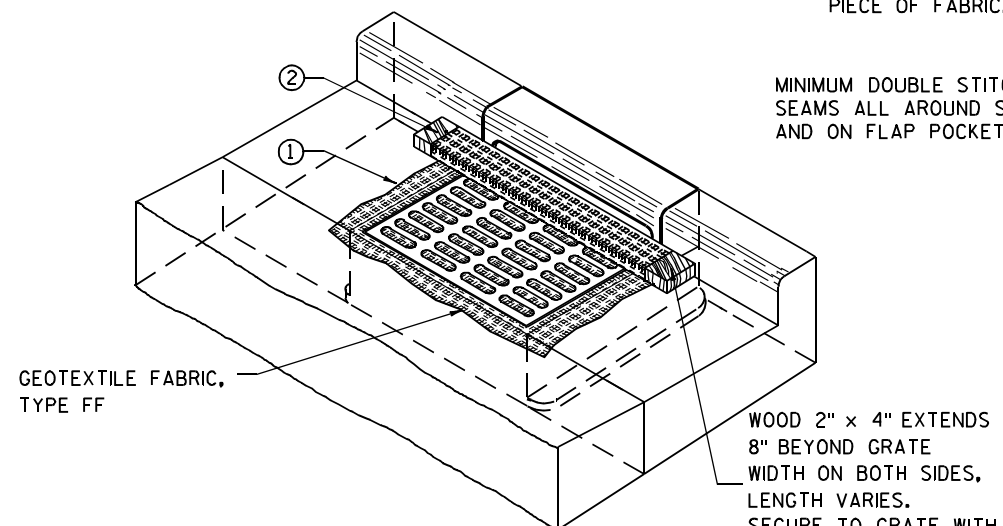
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

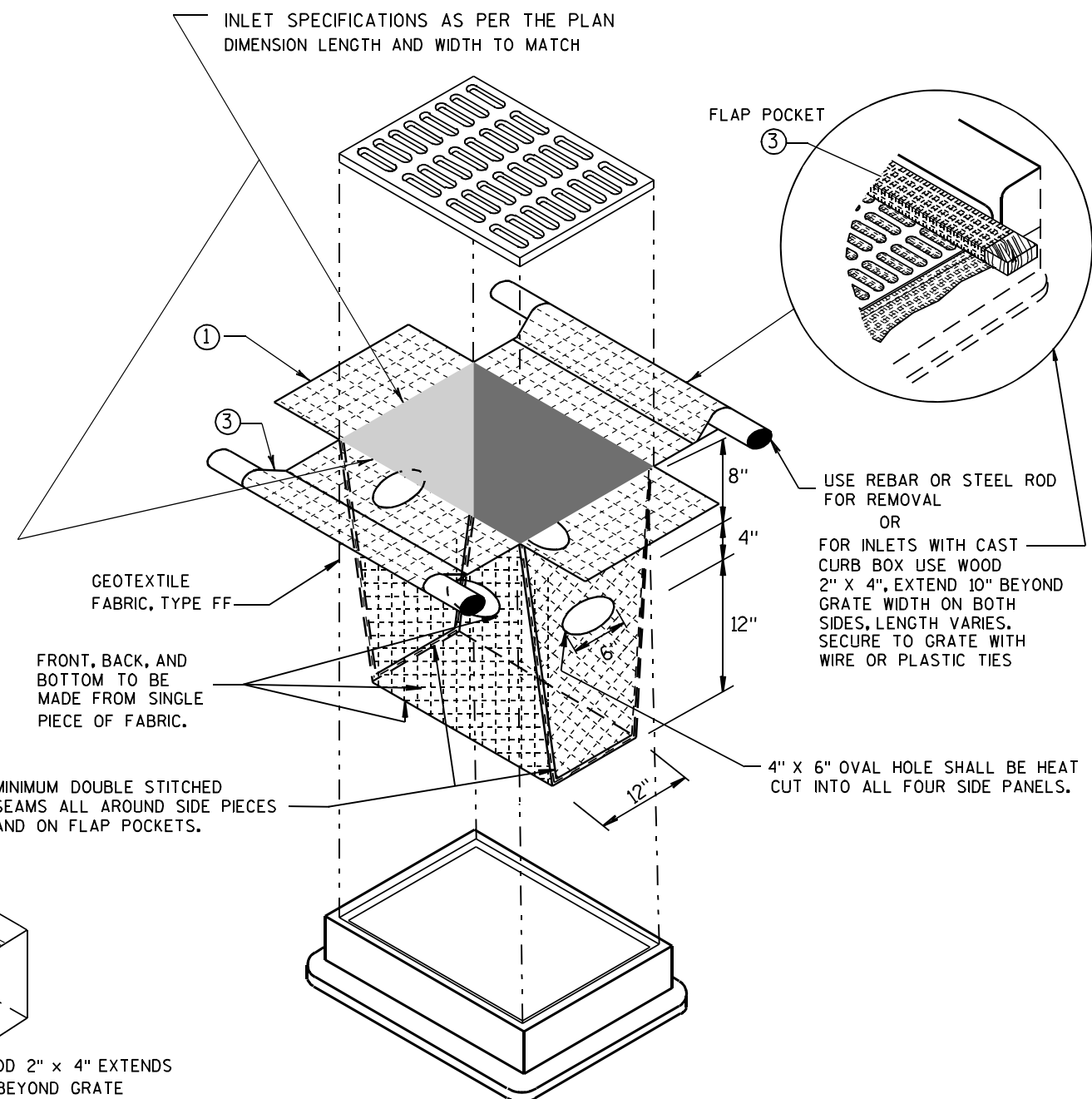
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



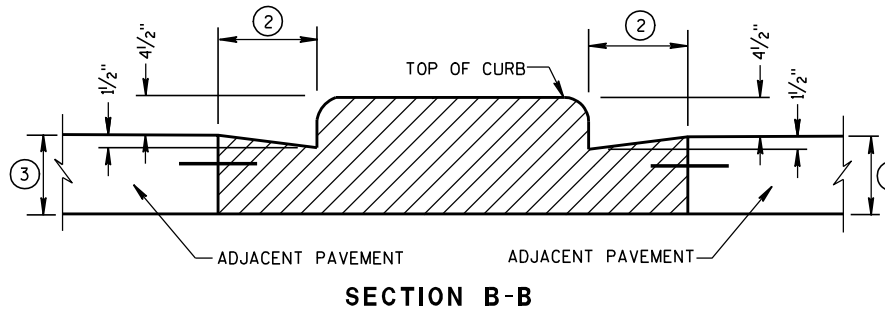
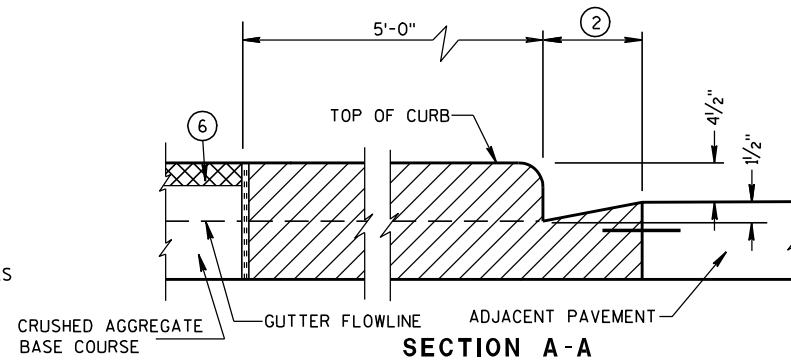
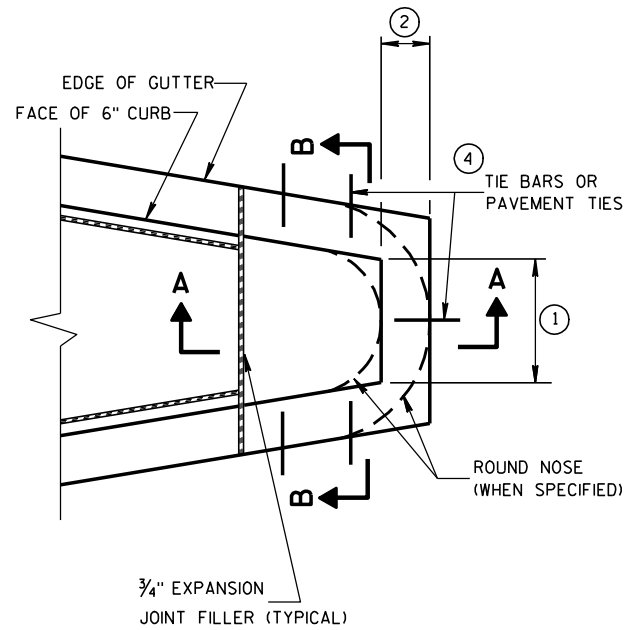
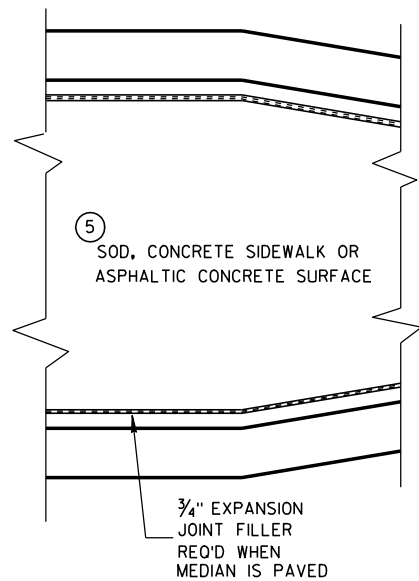
INLET PROTECTION, TYPE D

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

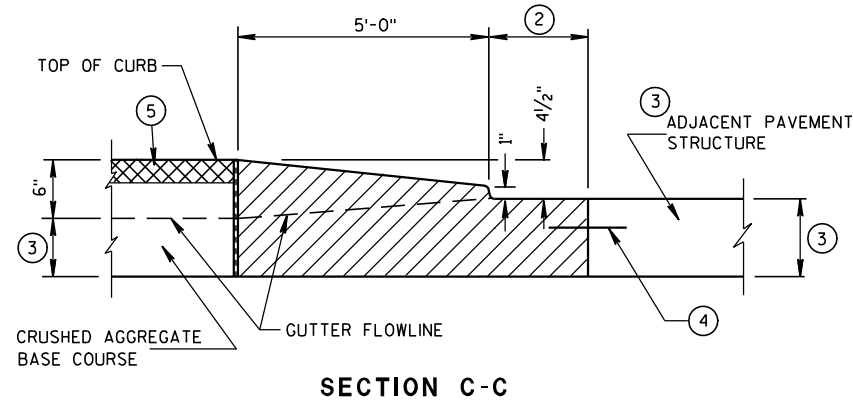
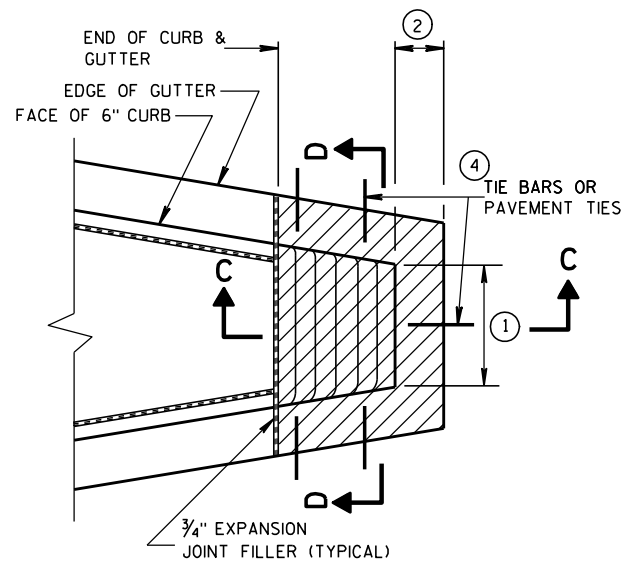
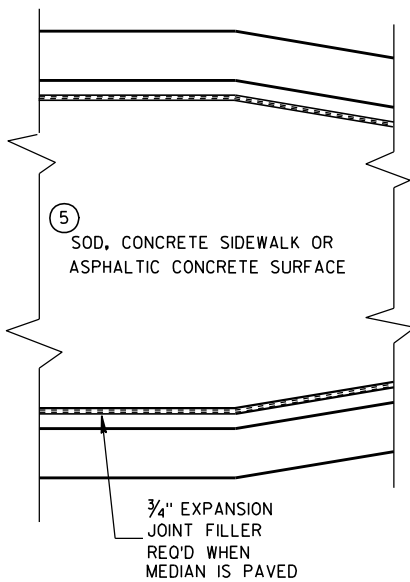
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

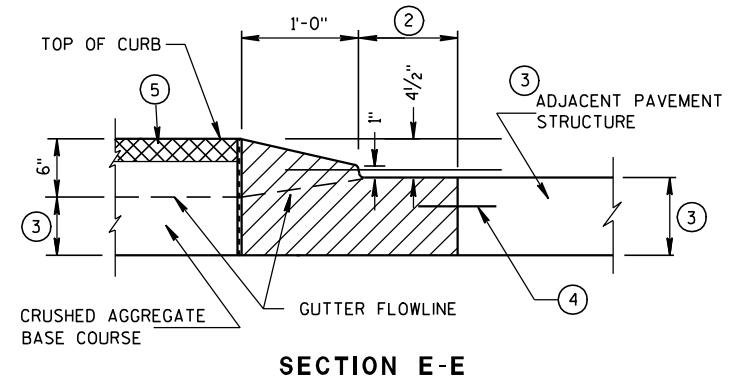
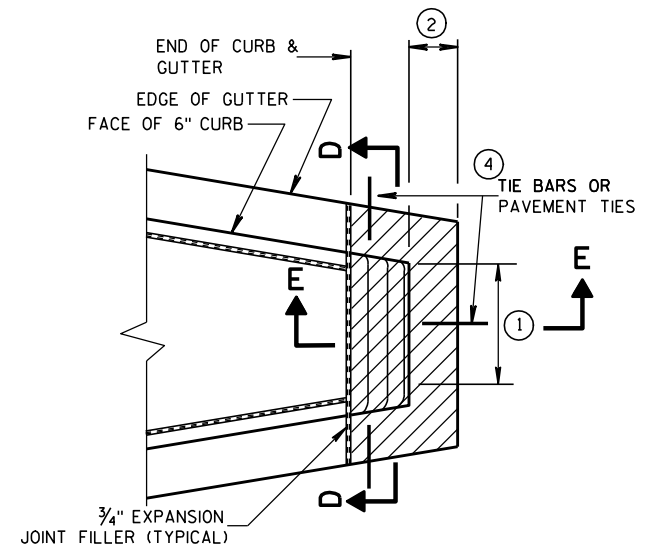
APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



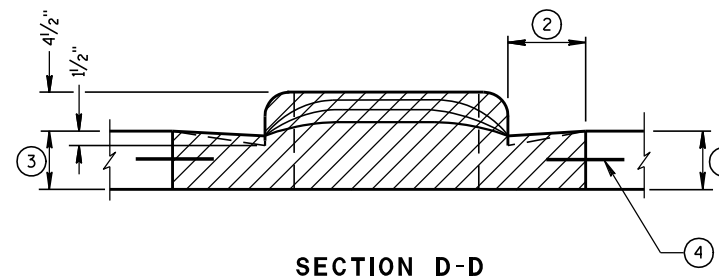
CONCRETE MEDIAN BLUNT NOSE DETAIL



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

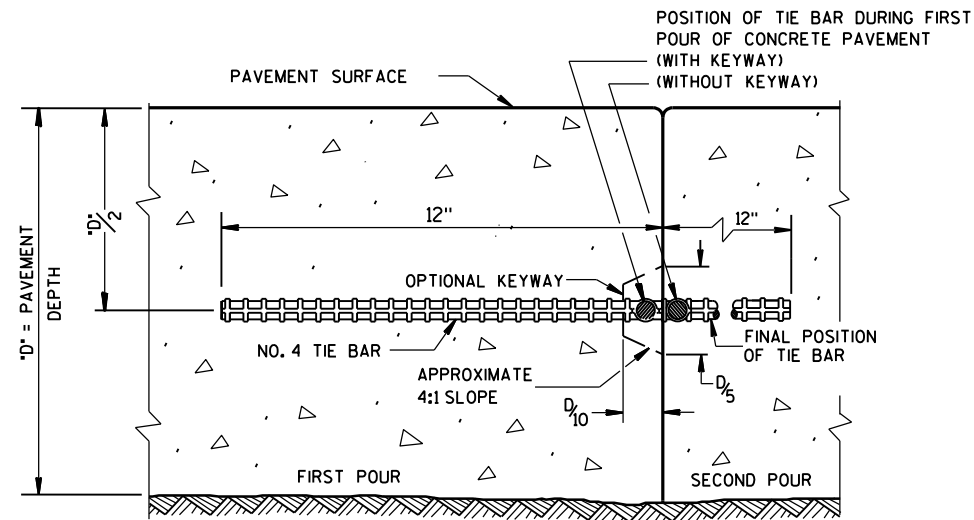
APPROVED

6/8/2006

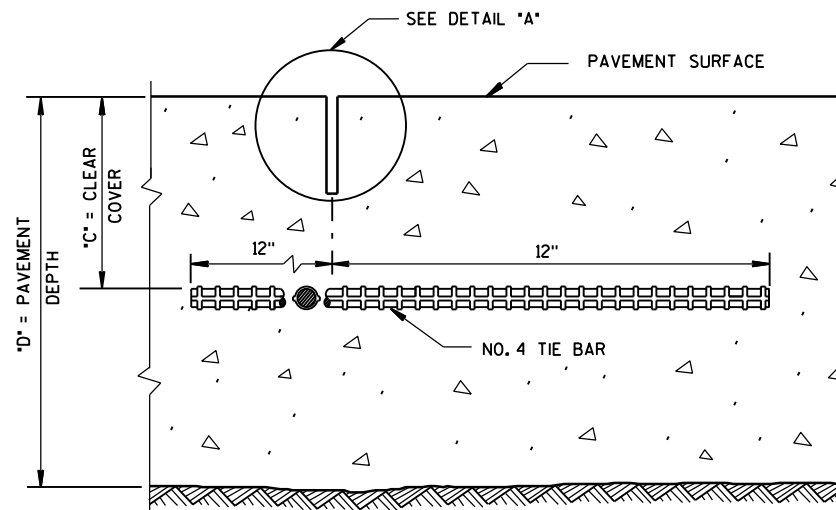
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



CONSTRUCTION JOINT



SAWED JOINT

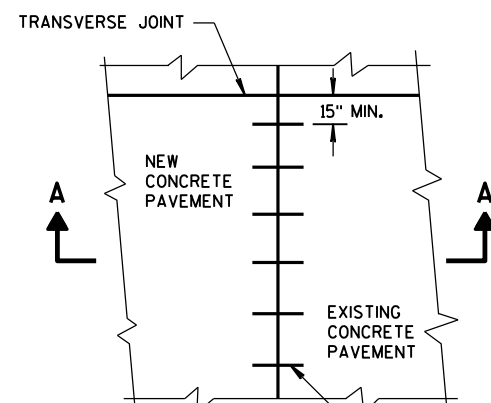
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

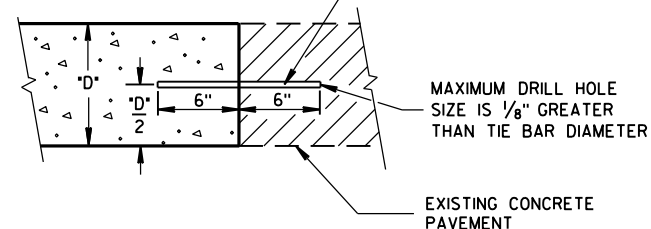
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

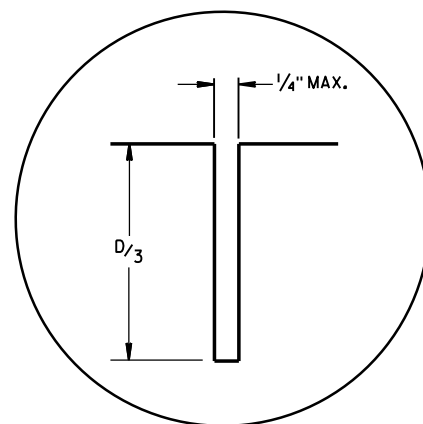


PLAN VIEW

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



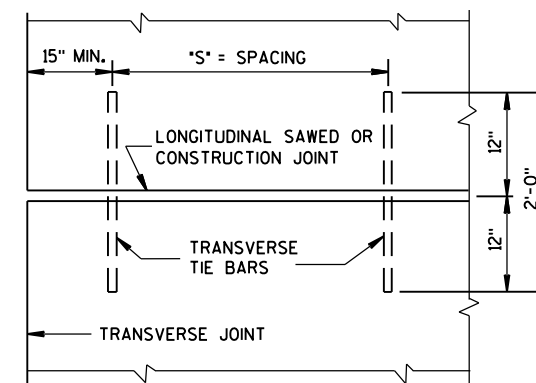
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

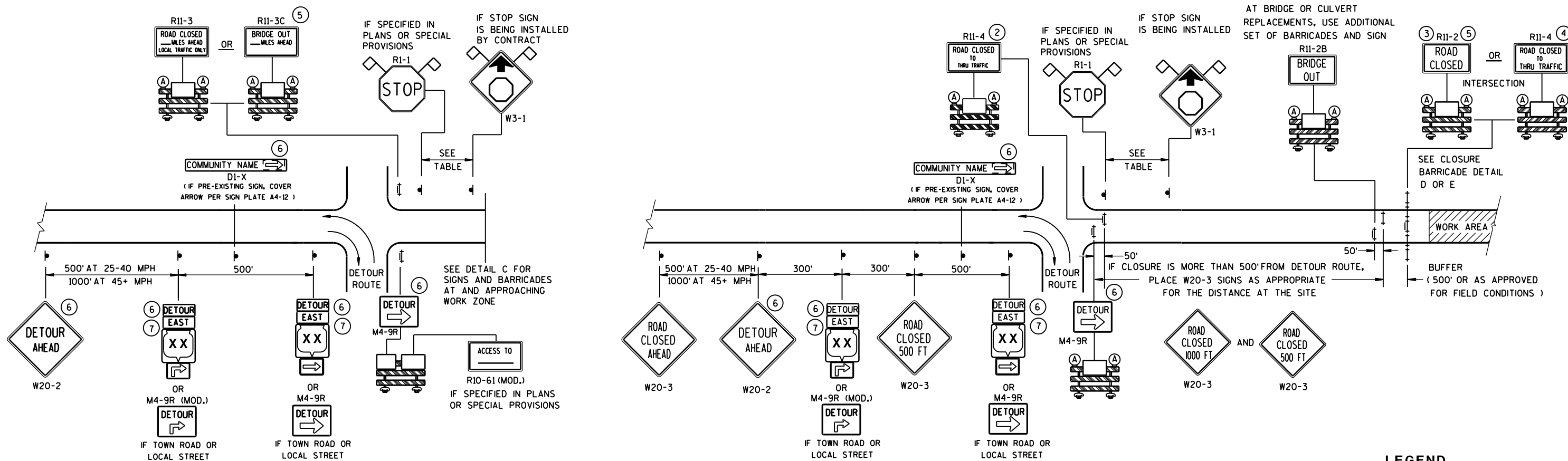
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER

FHWA



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)

LEGEND

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

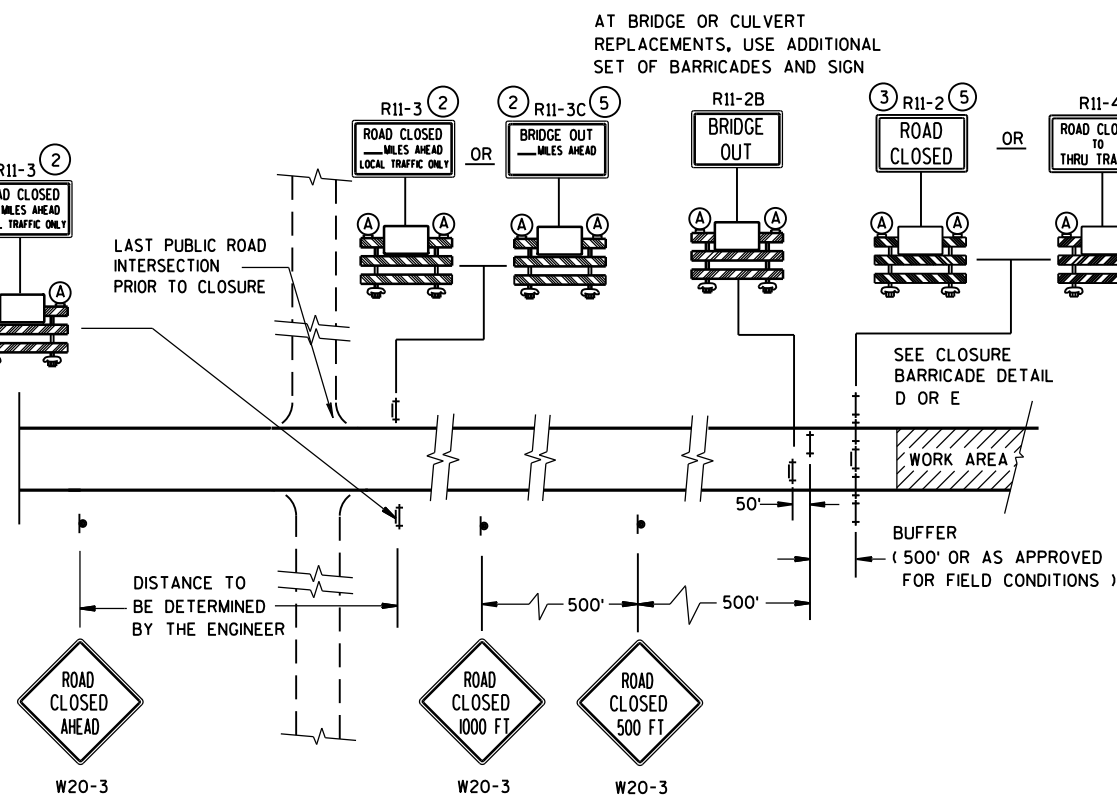
WORK AREA

DETOUR EAST
M4-8
M3-X
M1-4 OR M1-5A OR M1-6

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

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



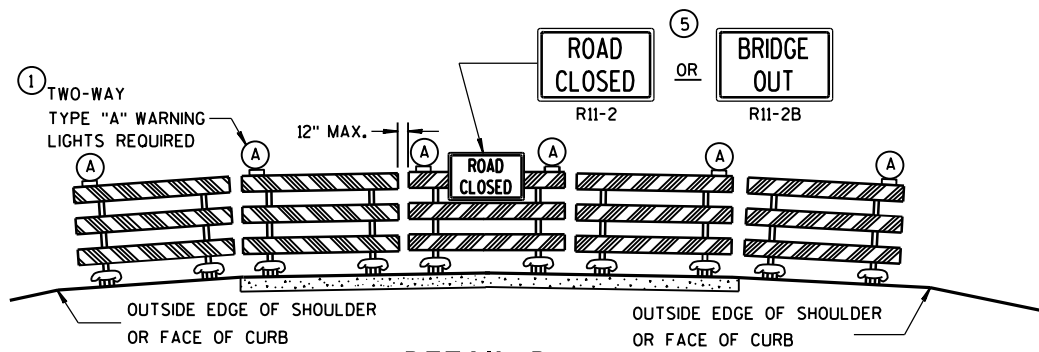
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

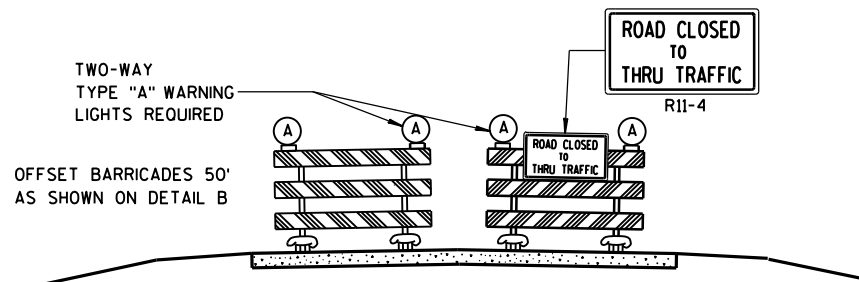
**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
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:

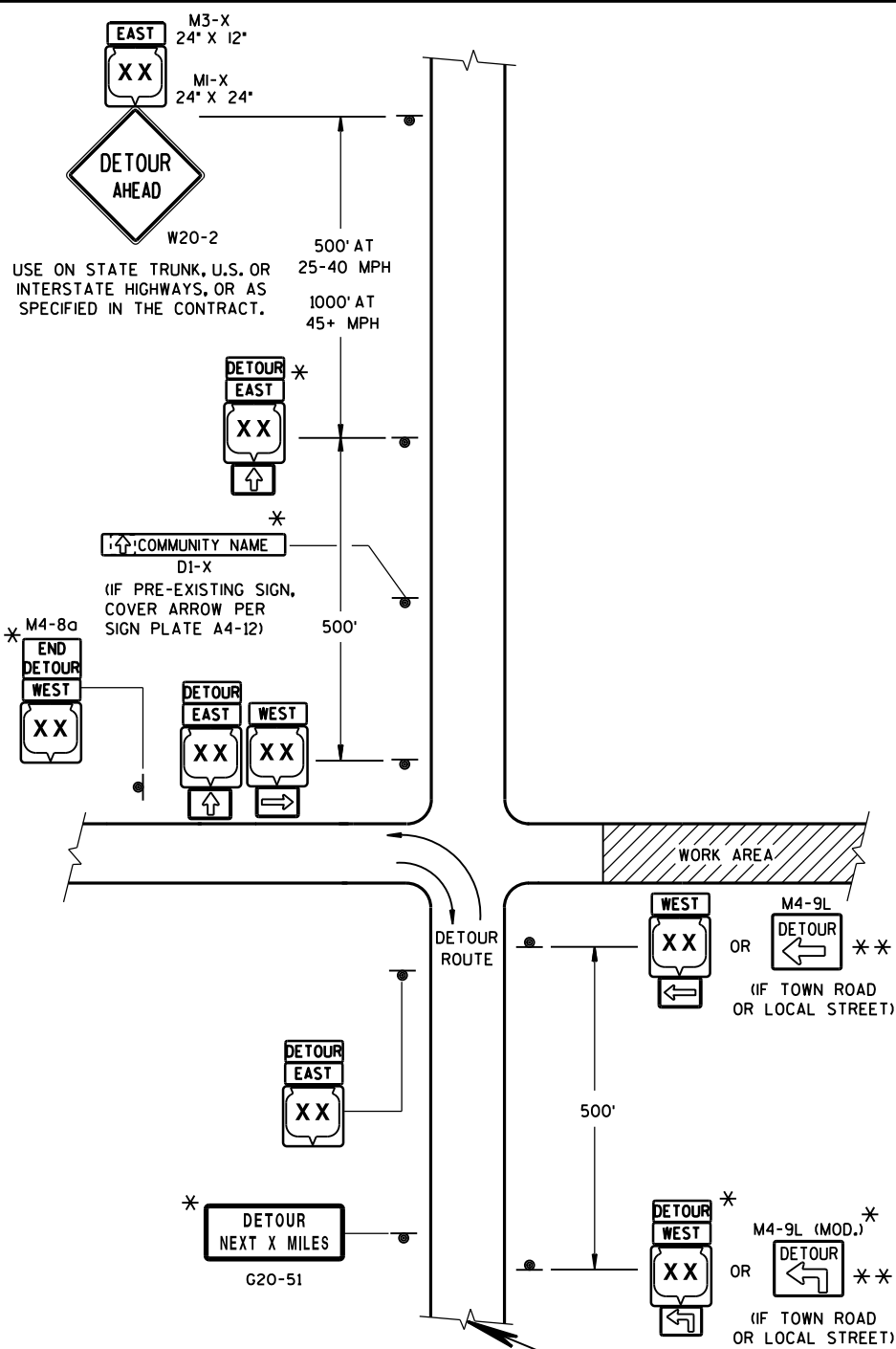
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" 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

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



LEGEND

SIGN ON PERMANENT SUPPORT

WORK AREA

M4-8
M3-X

MI-4 MI-5A MI-6

M05-1 M06-1 M06-1

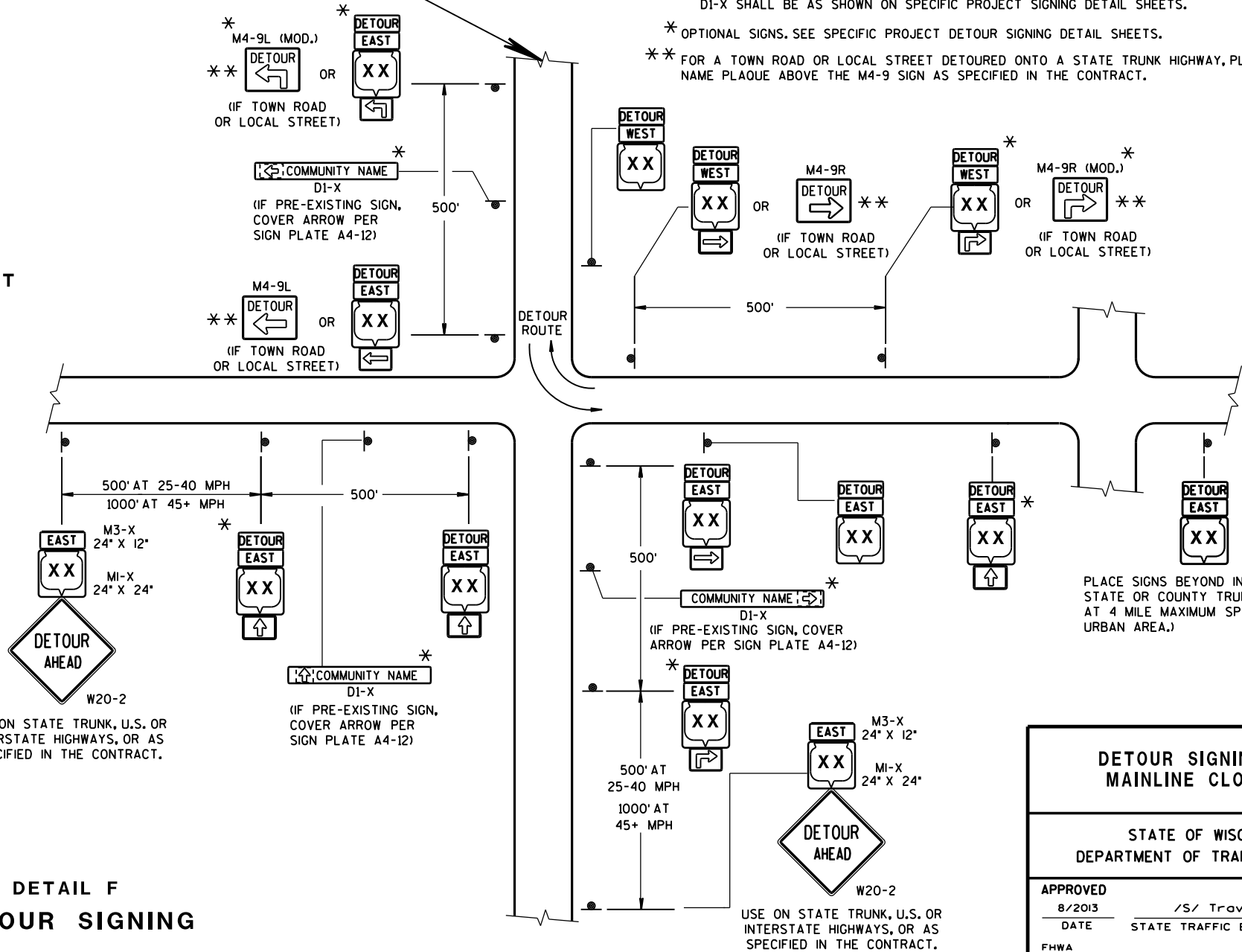
SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD 15C2-SHEET "a"

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**

USE ON STATE TRUNK, U.S. OR
INTERSTATE HIGHWAYS, OR AS
SPECIFIED IN THE CONTRACT.



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.

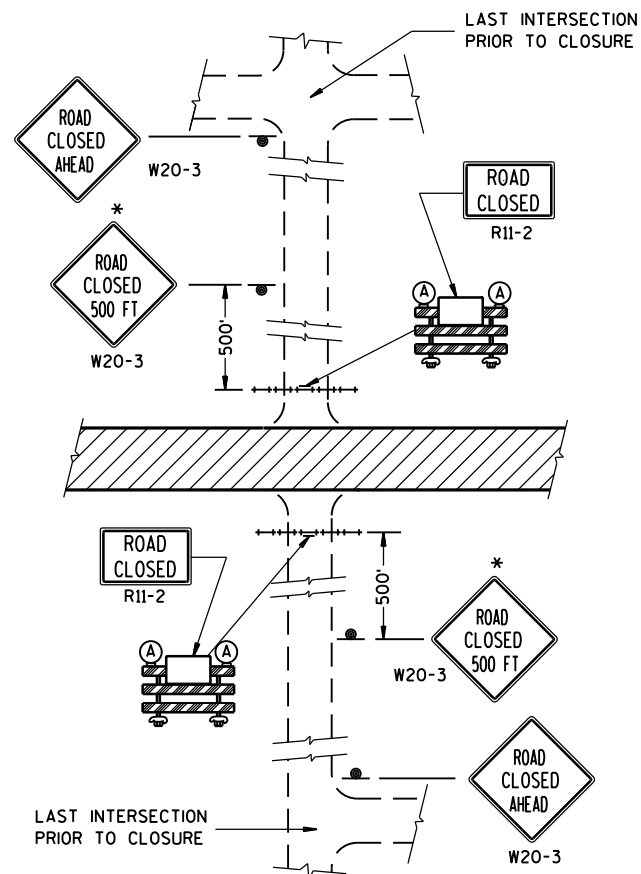
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

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

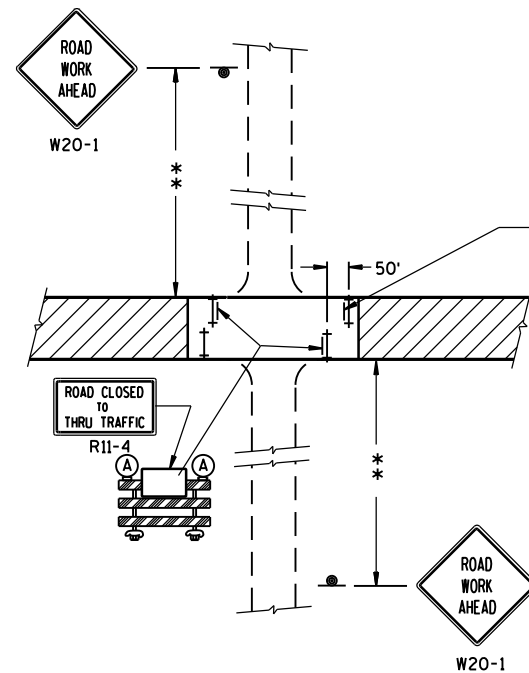
**DETOUR SIGNING FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

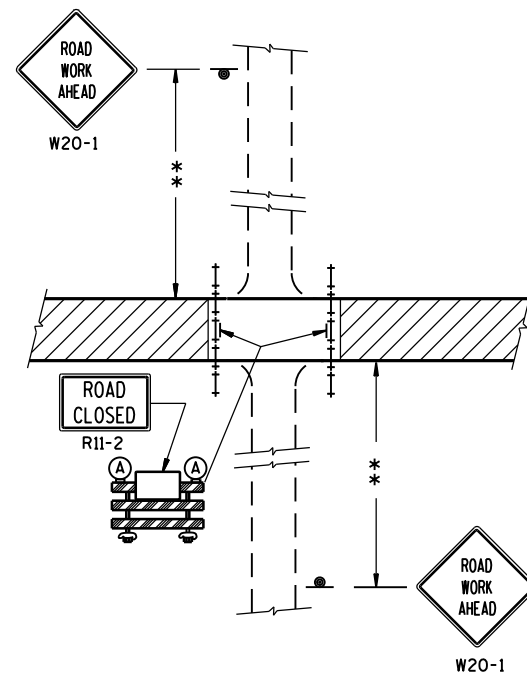
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



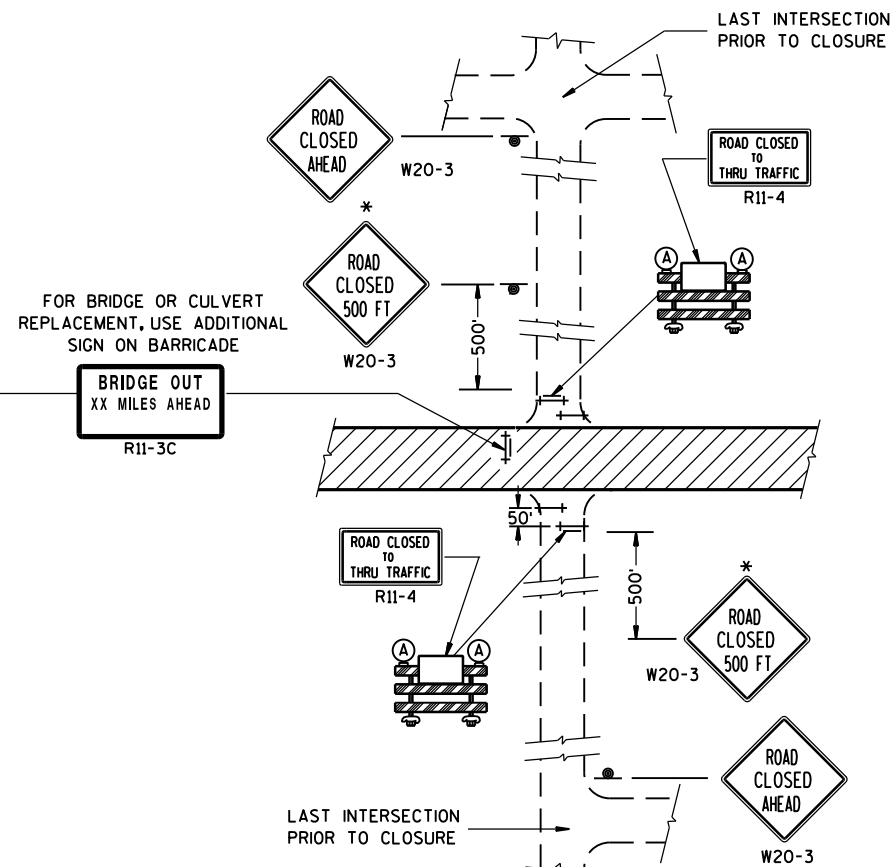
DETAIL 1
(NO ACCESS TO PROJECT)



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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

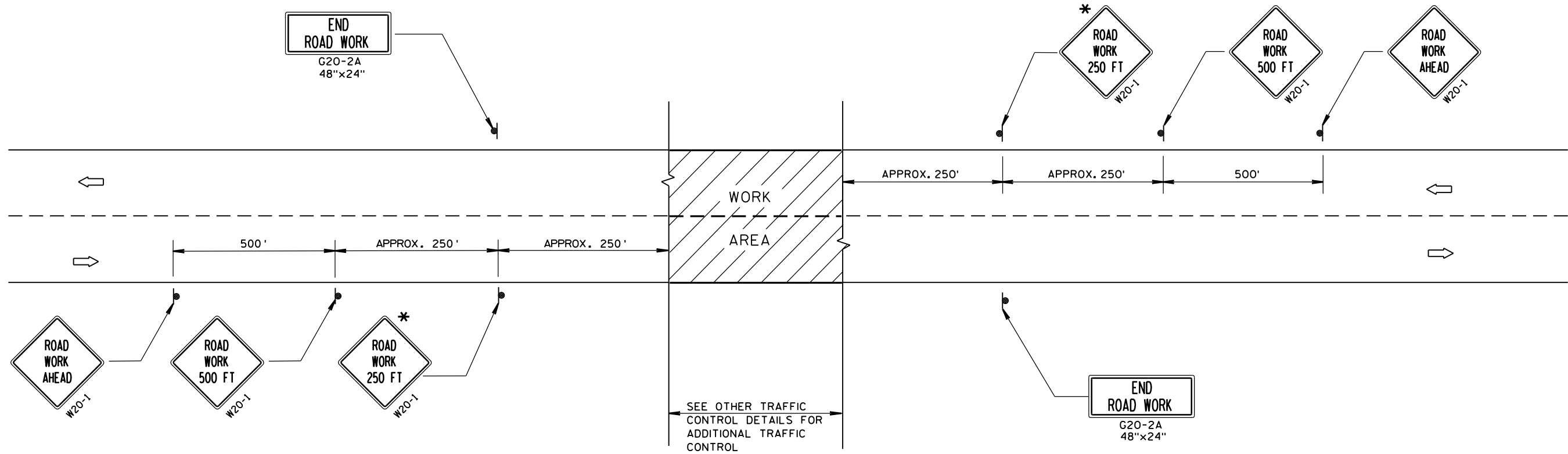
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 /S/ Travis Feltes

DATE STATE TRAFFIC ENGINEER OF DESIGN

FHWA



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.

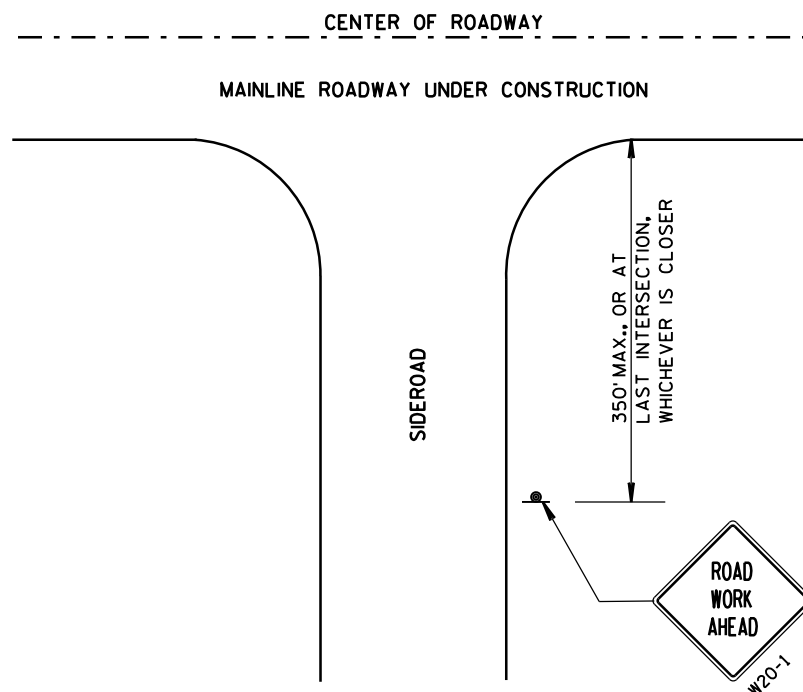
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

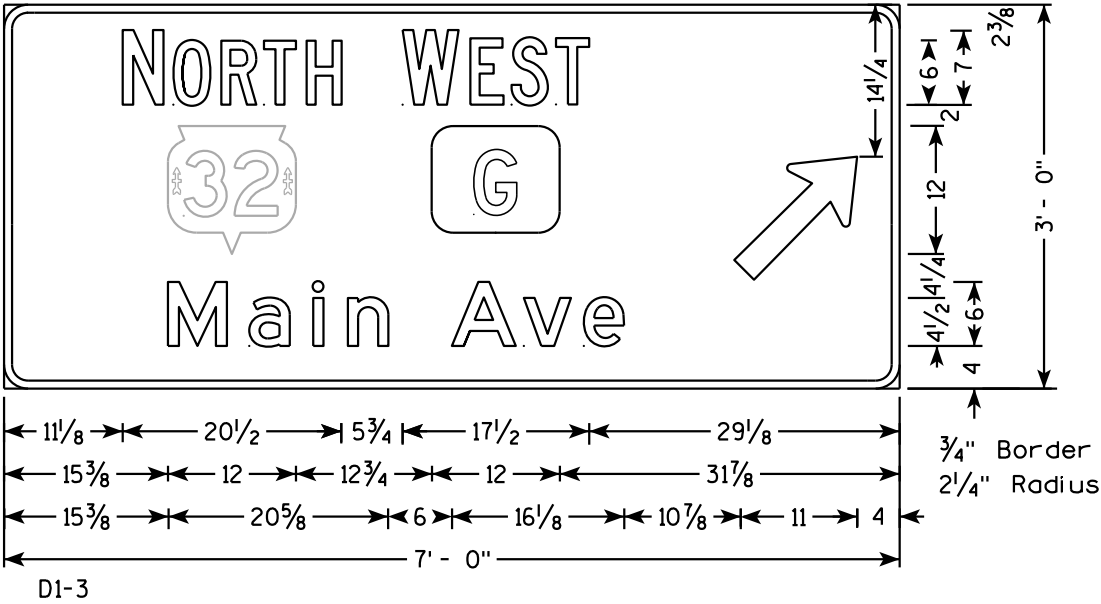
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

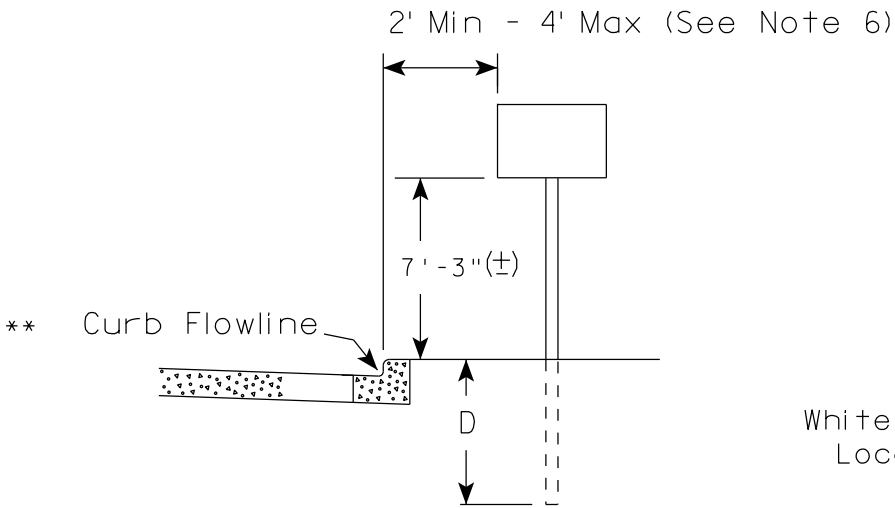
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

NOTES

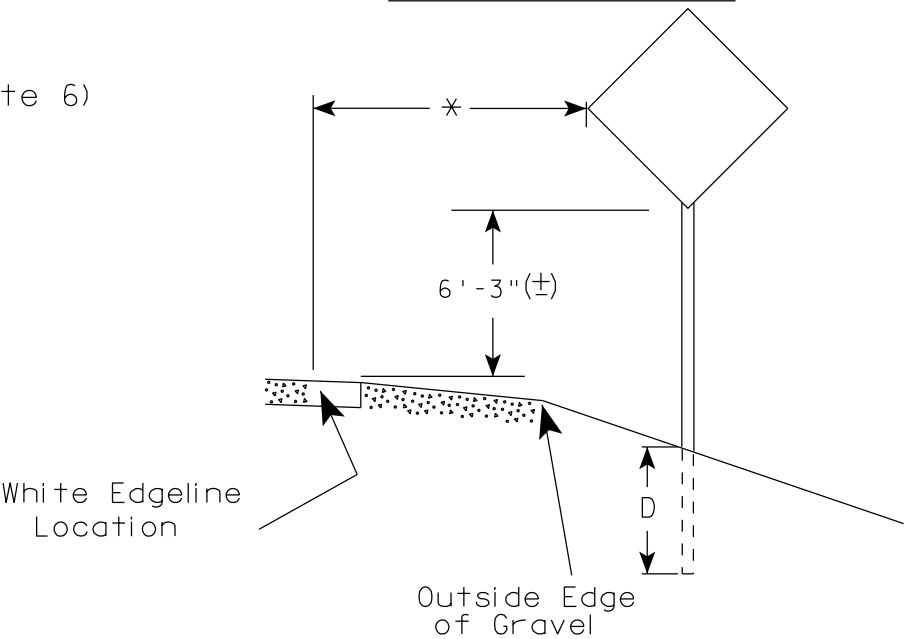
- 1. All Signs Type II Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Green
 - Message - White
- 3. Message Series - E except as noted



URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

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.

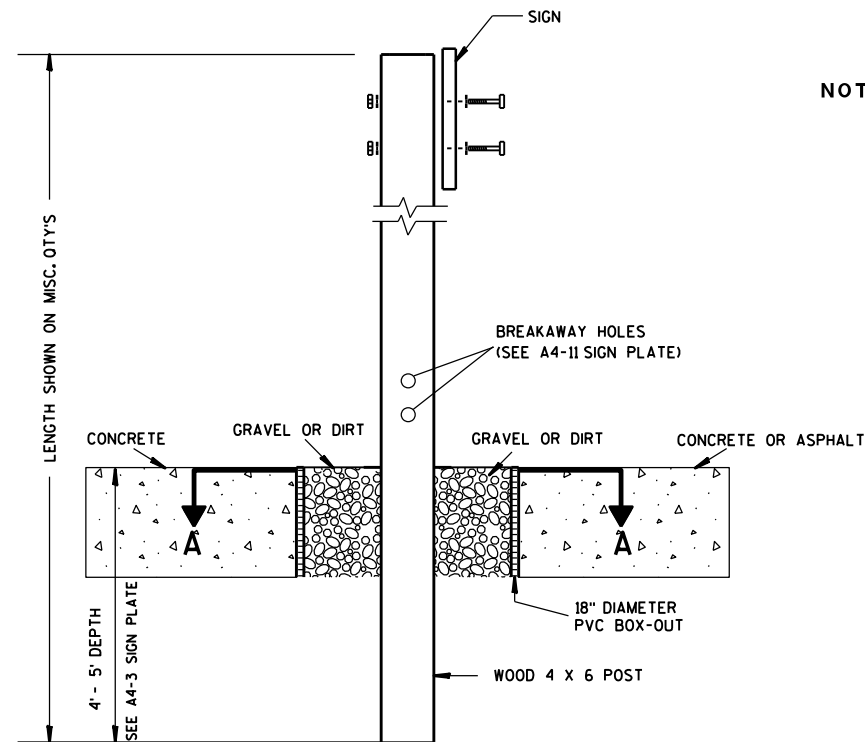
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

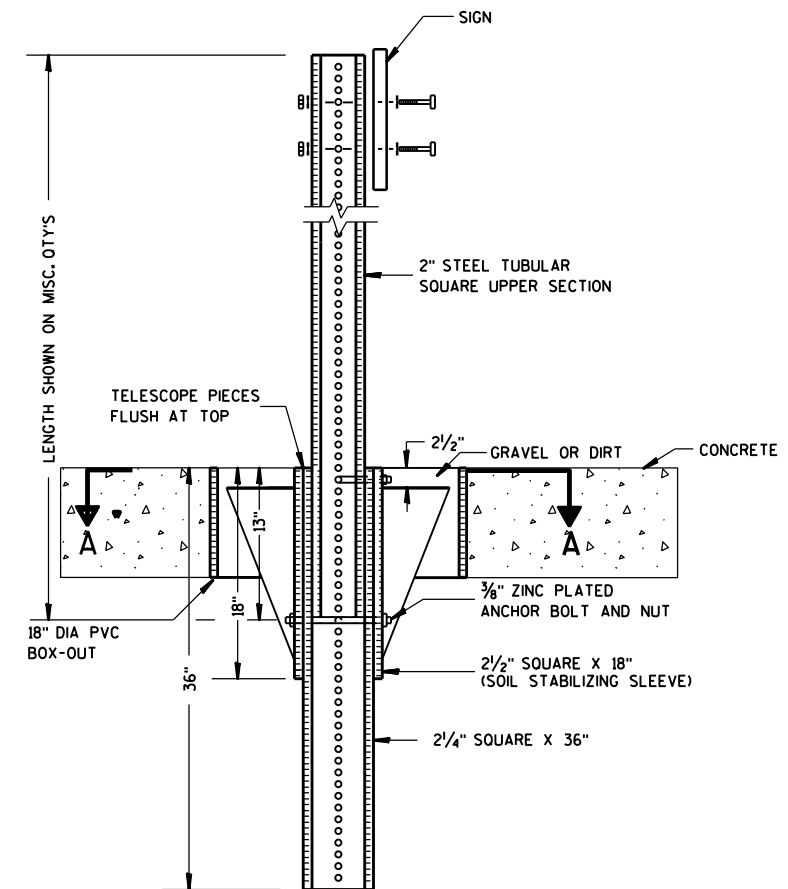
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

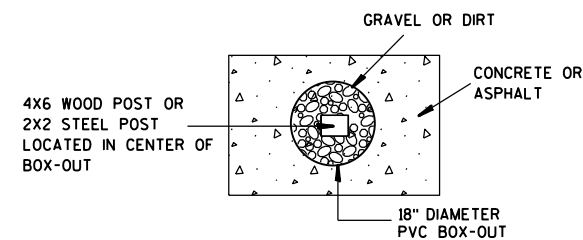
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

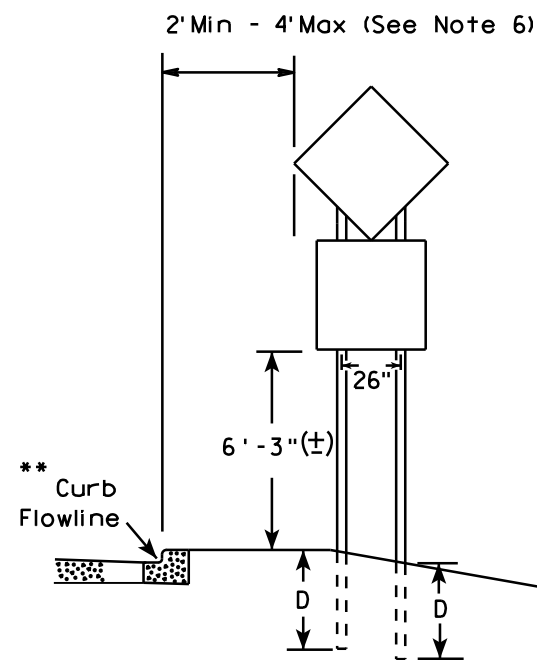
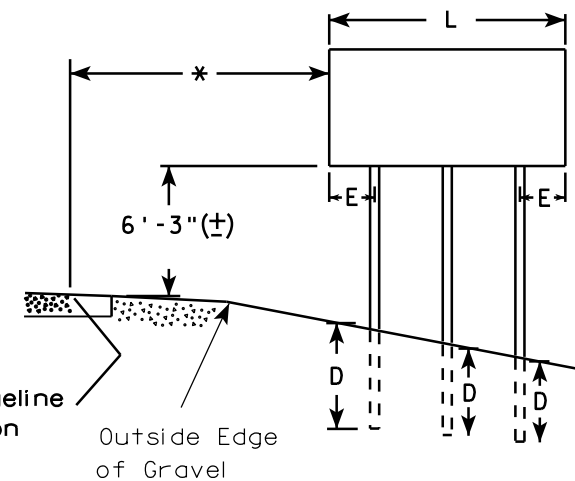
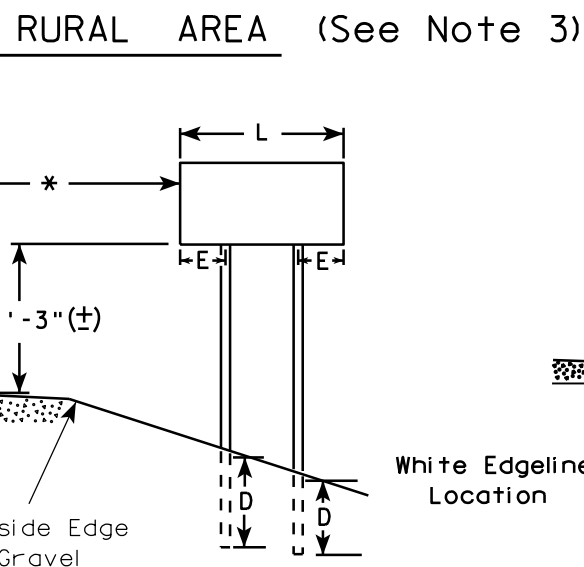
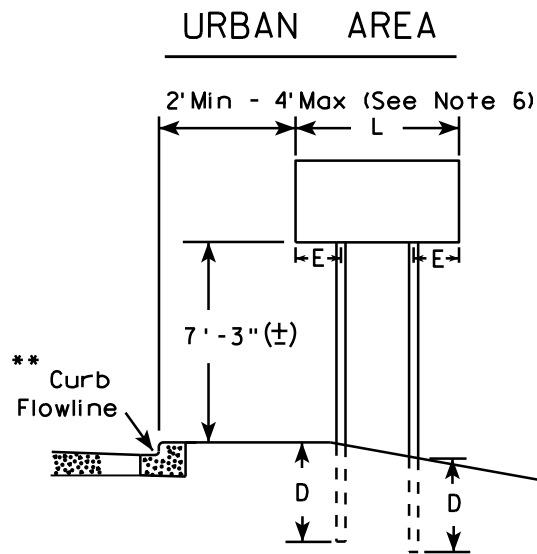
PROJECT NO:

HWY:

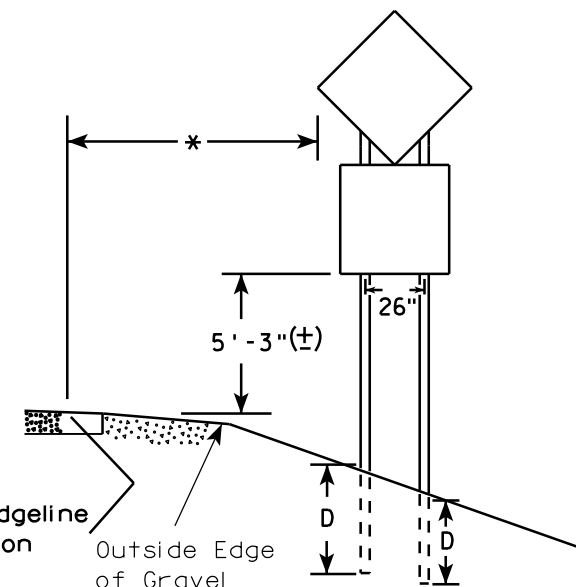
COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

- 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" (±) or 6'-3" (±) depending upon existence of sub-sign.
 - The (±) tolerance for mounting height is 3 inches.
 - Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 - Offset distance shall be consistent with existing signs or consistent throughout length of project.
 - Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 - The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-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 or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	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

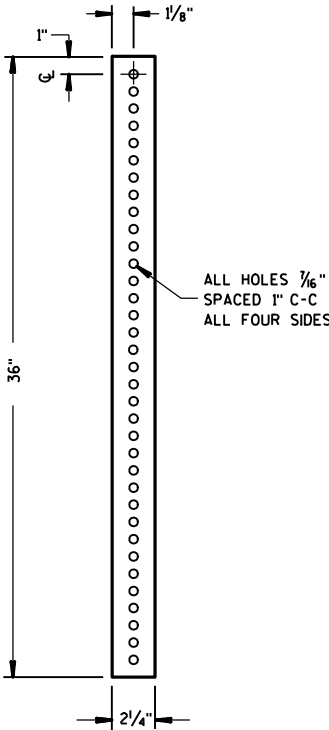
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

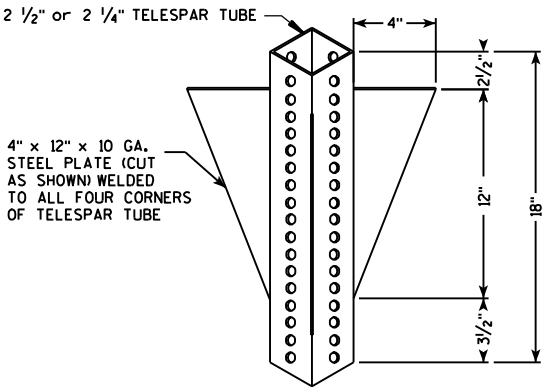
DATE 9/30/13 PLATE NO. A4-4.12

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

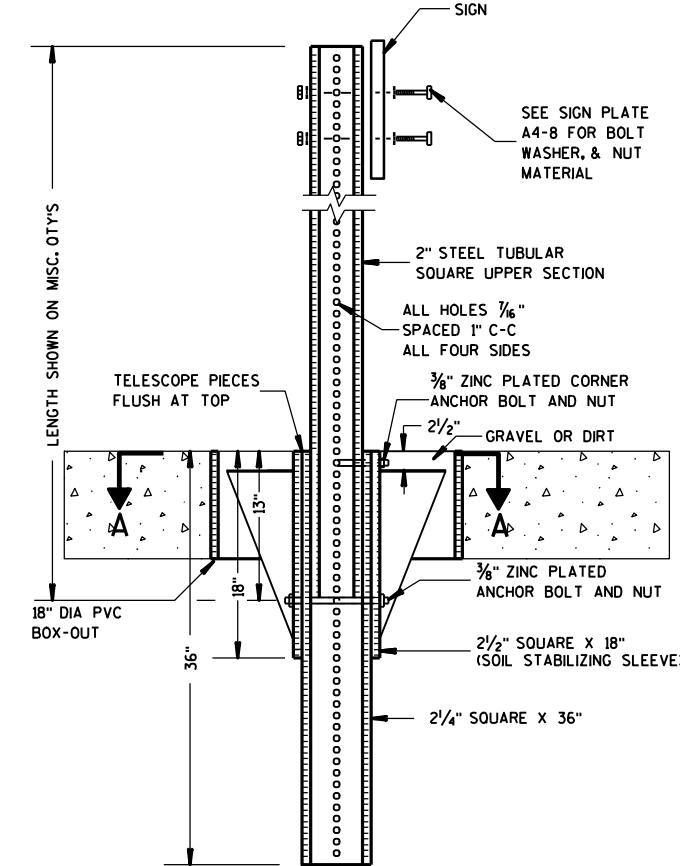
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



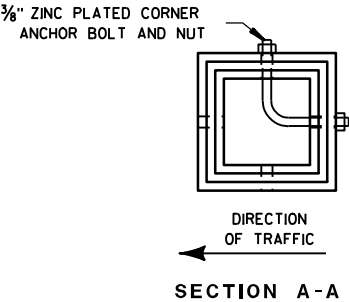
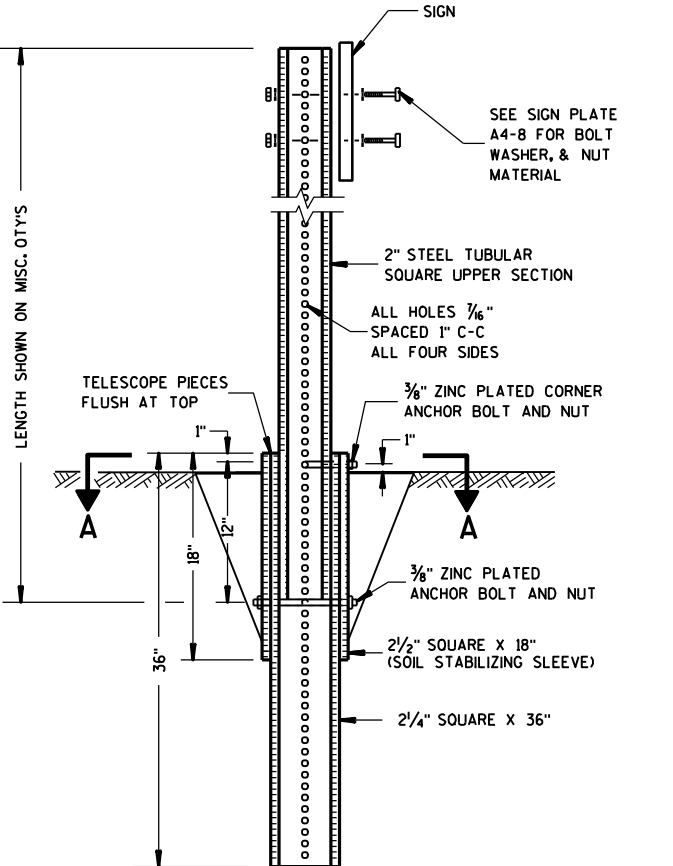
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

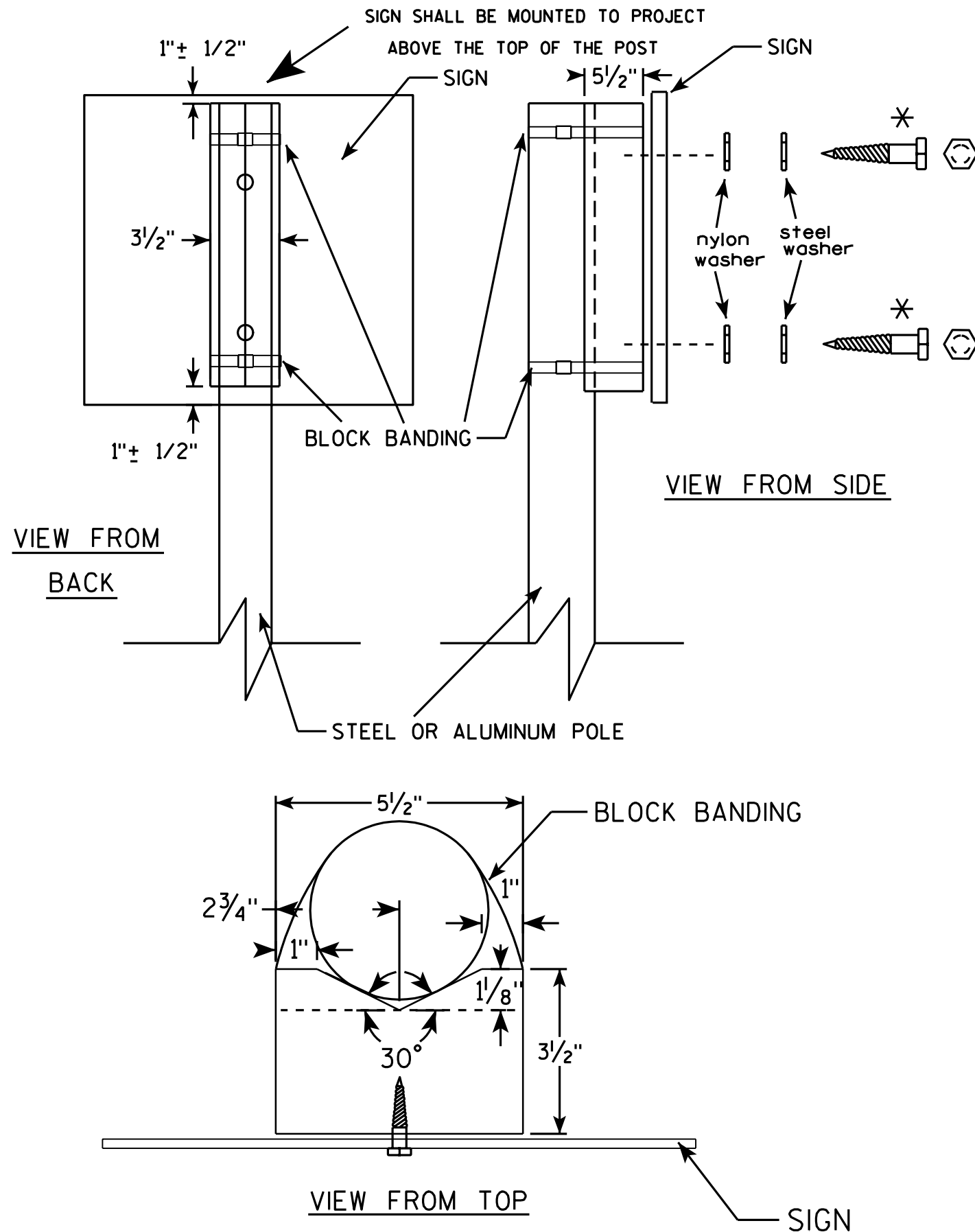
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

* LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

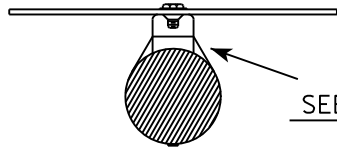
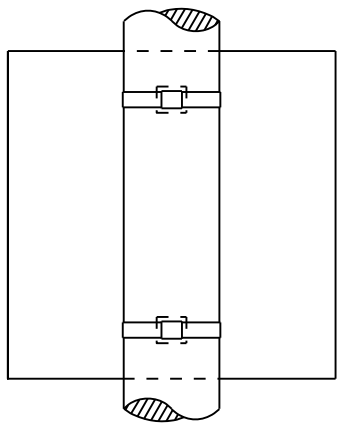
PROJECT NO:

SHEET NO:

E

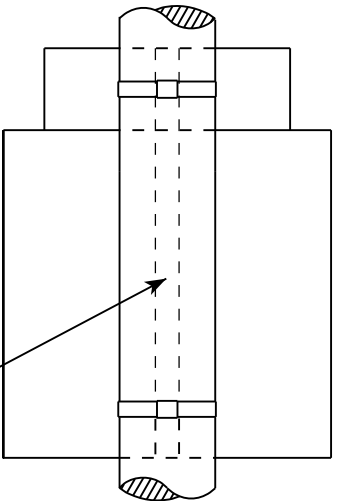
BANDING

SINGLE SIGN

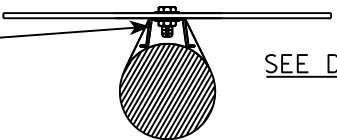


SEE DETAIL A

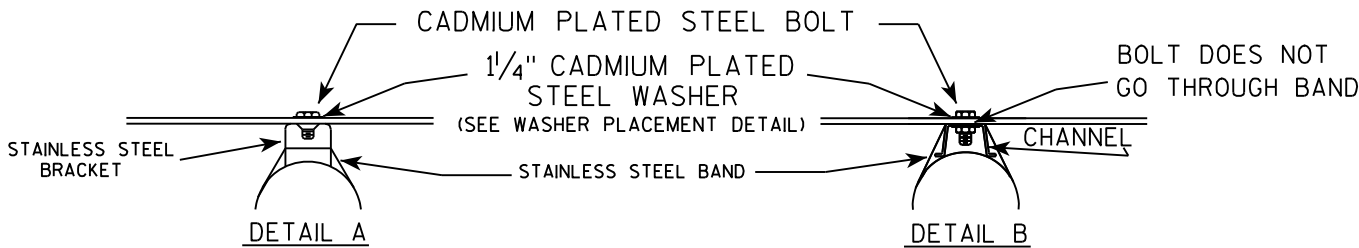
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



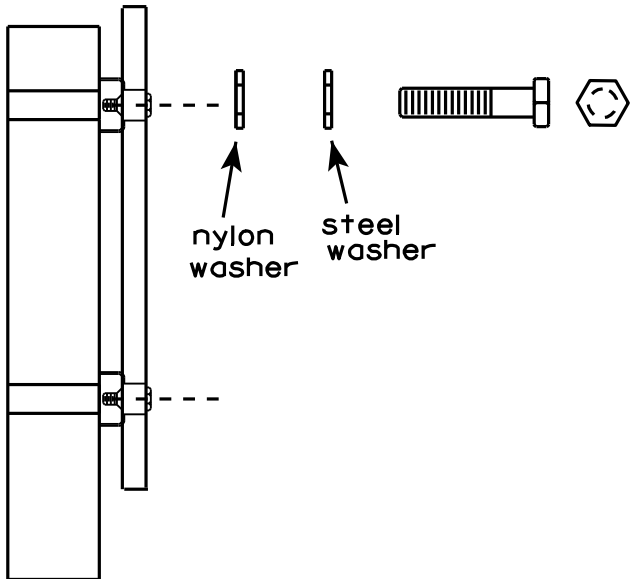
SEE DETAIL B



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 $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



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
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

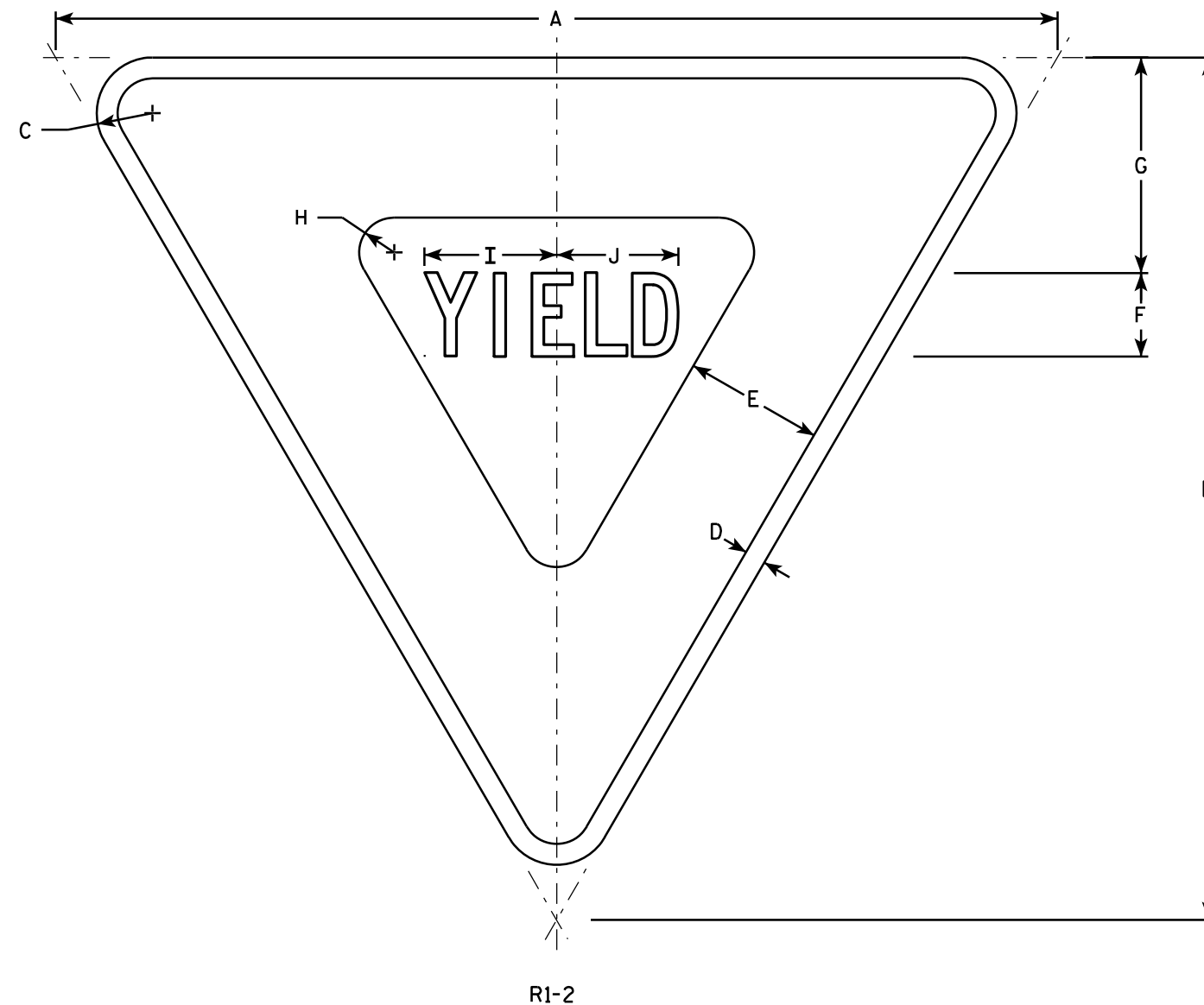
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

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	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

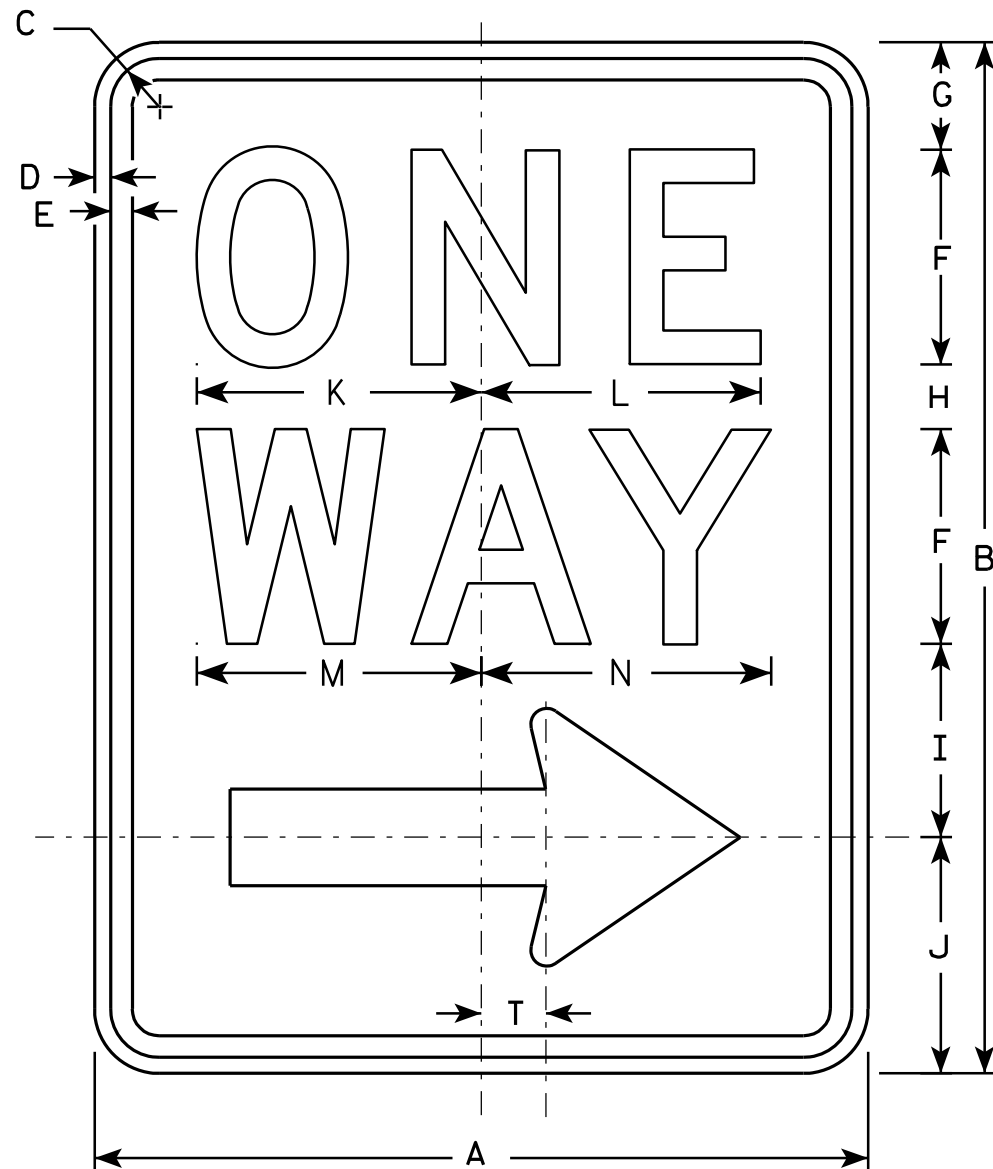
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

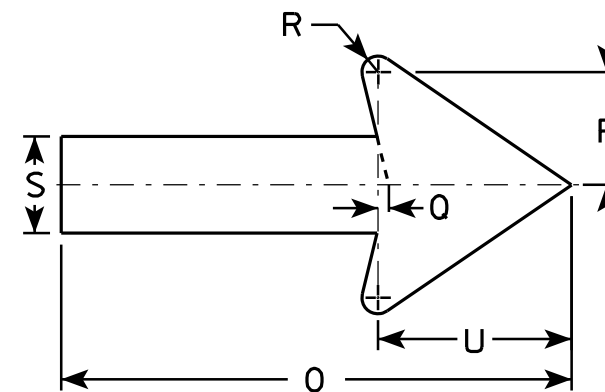
E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	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	30	1 1/8	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 3/8	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																										

STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



Wisconsin Department of Transportation

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